Xerox® AltaLink® C8170F Service Manual

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Prepared for:

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NOTICE

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Introduction

About This Manual

This manual is part of a multinational service documentation system that is structured in the standard Xerox service manual format.

Organization

The service manual is the document used as the primary information source for repairing and maintaining this family of products and is available as EDOC on a CDROM, or in PDF format on a CDROM. The information within the manual is divided into an introduction and 8 other sections.

Section 1 Service Call Procedures

This section is used to start and complete a service call. The procedures in this section will either direct you to a Repair Analysis Procedure (RAP), or identify a faulty component or subassembly.

Section 2 Status Indicator Repair Analysis Procedures

This section contains the Repair Analysis Procedures (RAPs) and checkouts necessary to diagnose, isolate and repair faults other than image quality faults.

Section 3 Image Quality

This section contains the Image Quality Repair Analysis Procedures (IQ RAPs), checkouts and setup procedures necessary to diagnose, isolate and repair image quality faults.

Section 4 Repairs and Adjustments

This section contains the instructions for removal, replacement, and adjustment of parts within the machine.

Section 5 Parts List

This section contains the detailed and illustrated spare parts list. Any part that is spared or that must be removed to access a spared part is illustrated.

Section 6 General Procedures and Information

This section contains all other procedures, product specifications and general information. It also contains Tag/MOD information. The abbreviations used in this Manual are in Glossary of Terms, Acronyms and Abbreviations Glossary of Terms, Acronyms and Abbreviations.

Section 7 Wiring Data

This section contains the PJ locations, wiring diagrams and block schematic diagrams (BSDs).

Section 8 Product Technical Overview

This section contains technical details of the machine.

Publication Comments Sheet

A Publication Comment Sheet is provided at the rear of the PDF version of the manual.

How To Use This Manual

Always start with the Service Call Procedures, Section 1. Perform Initial Actions and verify the problem, then follow the directions given.

How to Differentiate Between Machine Variants

When a procedure, parts list description or other reference is unique across different machine variants, the appropriate variant name will be quoted. For example, C81XX. Any artwork will also be variant-specific.

C81XX includes the following model variants:

- Xerox® AltaLink® C8130 Color Multifunction Printer - 30 ppm
- Xerox® AltaLink® C8135 Color Multifunction Printer - 35 ppm
- Xerox® AltaLink® C8145 Color Multifunction Printer - 45 ppm
- Xerox® AltaLink® C8155 Color Multifunction Printer - 55 ppm
- Xerox® AltaLink® C8170 Color Multifunction Printer - 70 ppm

Note: This manual services all configurations of the machine except for the finishers and HCF. Ignore references to options not installed on the machine. For servicing the finishers or HCF, refer to the separate EDOC.

Warnings, Cautions And Notes

WARNING: A warning is used whenever an operating or maintenance procedure, practice, condition or statement, if not strictly observed, could result in personal injury.

A translated version of all warnings is in Translation of Warnings.

CAUTION: A caution is used whenever an operation or maintenance procedure, practice, condition or statement, if not strictly observed, could result in damage to the equipment.

Note: A note is used where it is essential to highlight a procedure, practice, condition or statement.

Use of the Block Schematic Diagrams

Block schematic diagrams (BSDs) are included in Section 7 (Wiring Data). The BSDs show the functional relationship of the electrical circuitry to any mechanical, or non-mechanical, inputs or outputs throughout the machine. Inputs and outputs such as motor drive, mechanical linkages, operator actions, and air flow are shown. The BSDs will provide an overall view of how the entire subsystem works.

It should be noted that the BSDs do not contain an input power block referring to Chain 1. It will be necessary to refer to the Wiring Diagramsin order to trace a wire back to its source.

Change History

This is the launch version of the service manual.

Mod/Tag Identification

Figure 1 shows the Mod/Tag identification symbols.

F-1-0628-A

Voltages Resistances and Tolerances

For AC power specifications, refer to GP 15 Electrical Power Requirements.

DC Voltage Levels and Tolerances

DC voltages should be measured between an available test point and a machine ground. Table 1 shows the range of the common voltages.

Table 1 DC Voltage Levels

Nominal Voltage	Voltage Tolerance Range
0V	0.00 to 0.10V
+3.3V standby	+3.23V to +3.43V
+3.3V	+3.23V to +3.43V
+5V and +5V standby	+4.75V to +5.25V
+12V	+11.4V to +12.6V
+24V	+23.28V to +25.73V

Non-standard voltage levels will be quoted on the relevant wiring diagram or BSD. All other voltage levels are plus or minus 10 %.

Resistance Tolerances

All resistance measurement tolerances are plus or minus 10 %, unless otherwise stated in the procedure.

DC Signal Nomenclature

Figure 1 shows the signal nomenclature used in the BSDs.

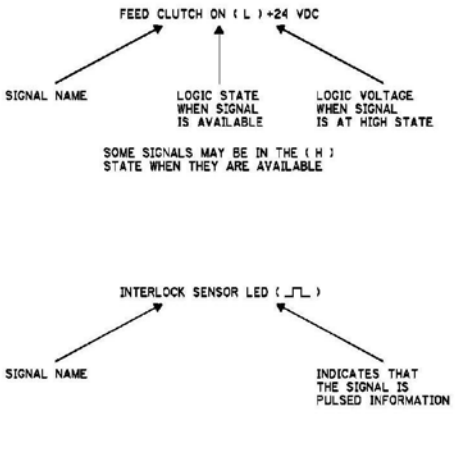

Figure 1 Signal Nomenclature

Table 2 shows the signal tolerances.

Table 2 Signal tolerances

Signal Voltage	(H) Logic Level	(L) Logic Level
+5V	+3.85V or greater	At or near 0.8V
+3.3V	+2V or greater	At or near 0.8V

Non standard signal tolerances will be quoted on the relevant circuit diagram.

Note: The logic level shown with the signal name will be the actual signal as measured with a service meter. This will not necessarily be the same as the logic state shown on the diagnostic screen.

Safety Information

The WARNING that follows is for general guidance when live working.

WARNING: Do not work in a confined space. 1m (39 inches) space is needed for safe working.

Safety Icons

The safety icons that follow are displayed on the machine:

ESD Caution Symbol

CAUTION: Certain components in this product are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.

Location Arrow Symbol

The location arrow symbol points to the location to install, to gain access to, or to release an object.

Hot Surface Symbol

This symbol indicates hot surfaces. Take care when servicing the machine.

Lethal Voltage Symbol

This symbol indicates potentially lethal voltages. Take care when servicing the machine when the power cord is connected.

Toner Cartridge

The product contains a toner cartridge that is recyclable. Under various state and local laws, it may be illegal to dispose of the cartridge into the municipal waste. Check with the local waste officials for details on recycling options or the proper disposal procedures.

Fuses

WARNING: Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

Part Replacement

Only use genuine Xerox approved spare parts or components to maintain compliance with legislation and safety certification. Also refer to GP 15 Restriction of Hazardous Substances (RoHS).

Disassembly Precautions

Do not leave the machine with any covers removed at a customer location.

Reassembly Precautions

Use extreme care during assembly. Check all harnesses to ensure they do not contact moving parts and do not get trapped between components.

General Procedures

Observe all warnings displayed on the machine and written in the service procedures. Do not attempt to perform any task that is not specified in the service procedures.

Health and Safety Incident reporting

I. Summary

This section defines requirements for notification of health and safety incidents involving Xerox products (equipment and materials) at customer locations.

II. Scope

Xerox Corporation and subsidiaries worldwide.

III. Objective

To enable prompt resolution of health and safety incidents involving Xerox products and to ensure Xerox regulatory compliance.

IV. Definitions

Incident:

An event or condition occurring in a customer account that has resulted in injury, illness or property damage. Examples of incidents include machine fires, smoke generation, physical injury to an operator or service representative. Alleged events and product conditions are included in this definition.

V. Requirements

Initial Report:

1. Xerox organizations shall establish a process for individuals to report product incidents to Xerox Environment Health and Safety within 24 hours of becoming aware of the event.
2. The information to be provided at the time of reporting is contained in Appendix A (Health and Safety Incident Report involving a Xerox product).
3. The initial notification may be made by the method that follows:
   - Email Xerox EH&S at: usa.product.incident@xerox.com.
   - Fax Xerox EH&S at: 1-585-422-8217 (intelnet 8*222-8217).

     Note: If sending a fax, please also send the original via internal mail.

Responsibilities for resolution:

1. Business Groups/Product Design Teams responsible for the product involved in the incident shall:
   a. Manage field bulletins, customer correspondence, product recalls, safety retrofits.
   b. Fund all field retrofits.
2. Field Service Operations shall:
   a. Preserve the Xerox product involved and the scene of the incident inclusive of any associated equipment located in the vicinity of the incident.
   b. Return any affected equipment/part(s) to the location designated by Xerox EH&S and/or the Business Division.
   c. Implement all safety retrofits.
3. Xerox EH&S shall:
   a. Manage and report all incident investigation activities.
   b. Review and approve proposed product corrective actions and retrofits, if necessary.
   c. Manage all communications and correspondence with government agencies.
   d. Define actions to correct confirmed incidents.

VI. Appendices

The Health and Safety Incident Report involving a Xerox Product (Form # EH&S-700) is available in the locations that follow:

- On electronic documentation (EDOC), located in the Library.
- In the hardcopy, located at the end of the manual.

Translation of Warnings

WARNING: A warning is used whenever an operating or maintenance procedure, practice, condition or statement, if not strictly observed, could result in personal injury.

DANGER: Une note Danger est utilisée chaque fois qu'une procédure d'utilisation ou de maintenance peut être cause de blessure si elle n'est pas strictement respectée.

AVVERTENZA: Un segnale di avvertenza è utilizzato ogni volta che una procedura operativa o di manutenzione, una pratica, una condizione o un'istruzione, se non strettamente osservata, potrebbe causare lesioni personali.

VORSICHT: Weist darauf hin, dass ein Abweichen von den angeführten Arbeits- und Wartungsanweisungen gesundheitliche Schäden, möglicherweise sogar schwere Verletzungen zur Folge haben kann.

AVISO:Un aviso se utiliza siempre que un procedimiento de operación o mantenimiento, práctica o condición puede causar daños personales si no se respetan estrictamente.

WARNING: Do not work in a confined space. 1 m (39 inches) space is needed for safe working.

DANGER : Ne pas travailler dans un espace restreint. 1 mètre d'espace est nécessaire pour un dépannage en toute sécurité.

AVVERTENZA: Non lavorare in uno spazio limitato; è necessario uno spazio di almeno un metro attorno alla macchina per la sicurezza dell'operatore.

VORSICHT: Nur mit ausreichendem Bewegungsspielraum (1 m) arbeiten.

AVISO: No trabaje en un espacio reducido. Se necesita 1 metro de espacio para trabajar con seguridad.

WARNING: Do not install a fuse of a different type or rating. Installing the wrong type or rating of fuse can cause overheating and a risk of fire.

DANGER : Ne pas installer de fusible de type ou de calibre différent. Il existe un risque de surchauffe voire d'incendie.

AVVERTENZA: per evitare rischi di surriscaldamento o d'incendio, non installare un fusibile di tipo o carica diversi da quelli esistenti.

VORSICHT: Keine Sicherungen anderer Art oder anderer Leistung auf dem IOT-PWB installieren - Überhitzungs- und Brandgefahr.

AVISO: No instale un fusible de potencia o tipo distinto. Un fusible de potencia o tipo distinto puede producir sobrecalentamiento y el riesgo de incendio.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP XX. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

DANGER : Assurez-vous que la machine est hors tension lorsque vous effectuez des tâches ne nécessitant pas d'alimentation électrique. Reportez-vous à GP XX. Débranchez le câble d'alimentation pour prévenir tout risque d'électrocution. Les chocs électriques peuvent présenter un danger de mort ou entraîner des blessures graves. De plus, certaines pièces, lorsqu'elles sont en mouvement, peuvent être source de blessures graves.

AVVERTENZA: Accertarsi di isolare la macchina dall'alimentazione elettrica quando si eseguono attività che non richiedono elettricità. Vedere GP XX. Scollegare il cavo di alimentazione. L'elettricità può causare morte o lesioni personali. Le parti in movimento possono causare lesioni personali.

VORSICHT: Sicherstellen, dass die Stromversorgung des Geräts bei Arbeiten, die keinen Strom erfordern, ausgeschaltet ist. Siehe auch GP XX. Den Netzstecker ziehen. Andernfalls besteht Stromschlaggefahr und Verletzungsgefahr durch bewegliche Teile.

AVISO: Asegúrese de mantener la máquina aislada de la energía eléctrica mientras realiza tareas que no necesitan electricidad. Consulte GP XX. Desconecte el cable de alimentación. La energía eléctrica puede producir lesiones o incluso la muerte. Las piezas sueltas pueden producir lesiones.

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

DANGER : Mettez la machine hors tension. Reportez-vous à GP 4 . Déconnectez le cordon d'alimentation de l'alimentation du client lorsque vous réalisez des tâches qui ne nécessitent pas d'électricité. L'électricité peut être à l'origine de blessures, voire d'un accident mortel. Les pièces amovibles peuvent être à l'origine de blessures.

AVVERTENZA: Spegnere la macchina. Vedere GP 4 . Scollegare il cavo di alimentazione dall'alimentatore quando si eseguono attività che non richiedono elettricità. L'elettricità può causare morte o lesioni personali. Le parti in movimento possono causare lesioni personali.

VORSICHT: Schalten Sie die Stromversorgung der Maschine ab. Siehe auch GP 4 . Ziehen Sie das Stromkabel ab, wenn Sie Aufgaben ausführen, für die keine Stromversorgung benötigt wird. Stromschläge können Todesfällen oder Verletzungen verursachen. Bewegliche Teile können zu Verletzungen führen.

AVISO: Apague la electricidad de la máquina. Consulte el GP 4 . Desconecte el cable de alimentación eléctrica de la toma de pared mientras esté realizando tareas que no necesiten corriente. La electricidad puede causar daños o la muerte. Las partes móviles pueden causar daños.

WARNING: Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

DANGER : Prendre des précautions lors du relevé de la tension de la prise de courant alternatif. L'électricité peut entraîner des blessures graves voire mortelles.

AVVERTENZA: Procedere con cautela durante la misurazione della tensione CA della rete. L'elettricità può causare infortuni o morte.

VORSICHT: Bei der Netzspannungsprüfung stets vorsichtig vorgehen

AVISO: Tenga cuidado al medir la tensión de la línea de alimentación de corriente alterna. La electricidad puede causar lesiones e incluso la muerte.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

DANGER : Assurez-vous que la machine est hors tension lorsque vous effectuez des tâches ne nécessitant pas d'alimentation électrique. Reportez-vous à GP 4 . Débranchez le câble d'alimentation pour prévenir tout risque d'électrocution. Les chocs électriques peuvent présenter un danger de mort ou entraîner des blessures graves. De plus, certaines pièces, lorsqu'elles sont en mouvement, peuvent être source de blessures graves.

AVVERTENZA: Accertarsi di isolare la macchina dall'alimentazione elettrica quando si eseguono attività che non richiedono elettricità. Vedere GP 4 . Scollegare il cavo di alimentazione. L'elettricità può causare morte o lesioni personali. Le parti in movimento possono causare lesioni personali.

VORSICHT: Sicherstellen, dass die Stromversorgung des Geräts bei Arbeiten, die keinen Strom erfordern, ausgeschaltet ist. Siehe auch GP 4 . Den Netzstecker ziehen. Andernfalls besteht Stromschlaggefahr und Verletzungsgefahr durch bewegliche Teile.

AVISO: Asegúrese de mantener la máquina aislada de la energía eléctrica mientras realiza tareas que no necesitan electricidad. Consulte GP XX. Desconecte el cable de alimentación. La energía eléctrica puede producir lesiones o incluso la muerte. Las piezas sueltas pueden producir lesiones.

WARNING: Do not touch the fuser while it is hot.

DANGER : Ne pas toucher au four pendant qu'il est encore chaud.

AVVERTENZA: Non toccare il fonditore quando è caldo.

VORSICHT: Fixierbereich erst berühren, wenn dieser abgekühlt ist.

AVISO: No toque el fusor mientras está caliente.

WARNING: Take care during this procedure. Sharp edges may be present that can cause injury.

DANGER : Exécuter cette procédure avec précaution. La présence de bords tranchants peut entraîner des blessures.

AVVERTENZA: procedere con cautela durante questa procedura. Possono essere presenti oggetti con bordi taglienti pericolosi.

VORSICHT: Bei diesem Vorgang vorsichtig vorgehen, damit keine Verletzungen durch die scharfen Kanten entstehen.

AVISO: Tenga cuidado al efectuar este procedimiento. Puede haber bordes afilados que podrían producir lesiones.

WARNING: Do not use the power button as a safety disconnect device. The power button is not a disconnect device. Disconnect the power cord from the supply to isolate the equipment.

DANGER : Ne vous servez pas de l'interrupteur comme d'un dispositif de déconnexion. L'interrupteur n'est pas un dispositif de déconnexion. Débranchez le câble d'alimentation de la prise électrique pour isoler l'appareil.

AVVERTENZA: L'interruttore di alimentazione non è un dispositivo di disconnessione di sicurezza e pertanto non va utilizzato come tale. Per isolare la macchina, scollegare il cavo di alimentazione dalla presa elettrica.

VORSICHT: Zur Unterbrechung der Gerätestromzufuhr nicht den Betriebsschalter verwenden, sondern das Netzkabel aus der Steckdose ziehen, an die das Gerät angeschlossen ist. Nur dann ist der Drucker vollständig vom Stromnetz getrennt.

AVISO: No utilice el botón de encendido/apagado como dispositivo de desconexión de seguridad. El botón de encendido/apagado no es un dispositivo de desconexión. Desconecte el cable de alimentación de la fuente de energía para aislar el equipo.

1 Service Call Procedures

SCP 1 Initial Actions

Service Call Procedures are used at the beginning of a service call. Use Initial Actions to collect information about the machine performance.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Do not work in a confined space. 1m (39 inches) space is needed for safe working.

1. Take note of problems, error messages or error codes. If necessary, refer to dC122 Fault Codes and History Files.
2. Switch off, then switch on the machine, GP 4.
3. Ask the operator to describe or demonstrate the problem.
4. If the problem is the result of an incorrect action by the operator, refer the operator to the user documentation.
5. Check the steps that follow:
   a. The power lead is connected to the wall outlet and to the machine.
   b. The paper is loaded correctly.
   c. All paper trays are closed.
   d. All doors are closed.
6. Check the machine service log book for previous actions that are related to this call.
7. Go to SCP 2 Call Actions.

SCP 2 Call Actions

Use Call Actions to perform any general actions before starting to diagnose the fault.

Procedure

1. If this is the first service call to this machine, if possible, perform the actions that follow:
   a. Check the machine configuration with the customer. Check that all the required hardware and software is installed. Check that all the required hardware and software is enabled.
   b. Check that all the machine settings are entered correctly.
   c. Mark off the hardware options, software options or Tags installed on the Tag matrix cards.
   d. Enter the machine information and the customer information in the service log book.
2. Review the print samples.
3. Ensure the user access settings are correct. If necessary refer to the user documentation.
4. If necessary, perform GP 13 Cloning Network Configurations.

   Note: The clone file must be taken whenever the customer changes the network controller setting or after the system software is changed.
5. Before switching off the machine or clearing the memory, check for a customer job in the memory.
6. Check and record the total impressions usage counter.
7. Go to SCP 3 Fault Analysis.

SCP 3 Fault Analysis

Use Fault Analysis to identify the appropriate RAP to perform based on the machine fault or symptoms.

- For network printing issues, go to (OF8) Network Printing Problems Entry RAP.
- For iBeacon (Bluetooth) printing issues, go to OF26.

Procedure

CAUTION: Do not expose the drum cartridges, PL 90.15 to light for more than 30 minutes. If necessary, remove the drum cartridges, then place in a black bag.

Fault Codes

If a fault code is displayed, go to the relevant RAP. .

Note: This service manual does not cover faults in the finishers or HCF, for faults in the finishers or HCF, refer to the separate service manual.

Image Quality Defects

If the image quality is defective, go to the IQ1 IOT Image Quality Entry RAP.

Other Problems

- For suspected power distribution faults, refer to the following:
  - OF3
  - OF4
  - OF5
  - OF1
- For unresolved faults that occur during start up of the device, perform the OF6 POST Error RAP.
- If the customer requires a billing plan or region change, go to GP 28 Billing Impression Mode Verification.

Additional Information

If necessary, refer to the general procedures and information that follow:

- Service Diagnostic Mode Diagnostics Entry
- dC122 Fault Codes and History Files
- GP 9 Machine Software.
- OF2 UI Touch Screen Failure RAP
- OF7 USB External Option RAP
- OF8 Network Printing Problems Entry RAP
- OF9 TCP/IP Checkout RAP
- OF10 Problem Printing Job RAP
- OF11 Job Prints Incorrectly RAP
- OF12 FAX Entry RAP
- OF13 Secure Access RAP
- OF14 Reflective Sensor RAP
- OF15 Transmissive Sensor RAP
- OF16 switch RAP
- OF17 Generic Solenoid/Clutch RAP
- OF18 Two Wire Motor Open RAP
- OF19 Two Wire Motor On RAP
- OF20 Set Gate Solenoid Open RAP
- OF21 Multiple Wire Motor RAP
- OF22 Toner CRUM Mismatch RAP
- OF23 Persistent Machine Status Messages RAP
- OF24 USB Port Disabled RAP
- OF25 Xerographic Messages RAP
- GP 1 FAX PWB Internal Selftest
- GP2 Accessing Tools
- GP 3 Controller Boot Sequence
- GP 4 Power the System Off/On
- GP 5 Image Quality Calibration
- GP 6 Printing Configuration Reports
- GP 7 Network Printing Simulation
- GP 9 Installing System Software
- GP 10 PWS Communication with the SBC
- GP 11 Resetting the System Administrator Password
- GP 12 Back Up and Restore Settings
- GP 13 Cloning Network Configurations
- GP 14 External Fax Line Test
- GP 15 Electrical Power Requirements.
- GP 16 Service Plan Conversion
- GP 17 How to Re-Enter Optional Feature Installation Keys
- GP 18 Restoring the Device Address Book
- GP 19 Environmental Data
- GP 20 Reporting Billing Meter Resets
- GP 21 First Print Out Time and Power On Time
- GP 22 Foreign Device Interface Setup
- GP 23 Intermittent or Noise Problem RAP
- GP 24 How to turn off the Power Saver Functions
- GP 25 Remote Control Panel
- GP 28 Billing Impression Mode Verification
- GP 29 Restoring Customer Mode
- GP 30 Reloading NVM from the Tray 1 List
- GP 31 Print Orientation Definitions
- GP 32 How to Open and Close the Video Contact Chassis Unit
- GP 33 Installation Space Requirements
- Glossary of Terms, Acronyms and Abbreviations Glossary of Terms, Acronyms and Abbreviations

SCP 4 Subsystem Maintenance

Use Subsystem Maintenance to identify potentially worn components that should be replaced to prevent further faults, and to perform routine cleaning and lubrication of the machine.

Procedure

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Go to the correct procedure:

- Service Checks
- HFSI
- How to Clean the Machine
- Drum Cartridge Handling

Service Checks

Perform the actions in Table 1 at the indicated service interval.

Table 1 Service actions

Servicing Items	Service Details	Service Interval
IQ check	Check the overall print quality using a test chart. Check for uneven density, blank areas, drum scratches, heat roll scratches, etc. in A3 halftone.	Every visit
Clean the machine interior	Check and clean the paper transport roller (including the bypass tray). Clean any toner residue in the paper transport path. Clean any contamination and paper dust from the jam sensors.	300K feeds
	Clean the operating parts around the toner cartridges, PL90.05 and drum cartridges, PL 90.20	Every visit
	Use the cleaning tool, stored in the front door, to clean the print head assemblies, PL60.05.	
Safety Check	Ensure that the power cords are not cracked and no wires are exposed. Ensure that an extension cord with insufficient length or power cord outside the specification, such as an off-the-shelf power strip, is being used. Ensure that a single socket does not have multiple power plugs plugged into it.	Every visit

HFSI

For High Frequency Service Items (HFSI), refer to dC135 HFSI Counters.

Table 2 HFSI

Part	Life	PL Ref.
Second Bias Transfer Roll	200K prints	PL 80.65
Fuser	500K prints	PL10.05
Transfer Belt Cleaner	160K prints	PL90.30
Tray 1 feed, nudger and retard rolls	300K feeds	PL 80.10
Tray 2 feed, nudger and retard rolls	300K feeds	PL 80.15
Tray 3 feed, nudger and retard rolls	300K feeds	PL 80.35
Tray 4 feed, nudger and retard rolls	300K feeds	PL 80.35
HCF Feed Roll	300K feeds	Refer to HCF Service manual
MSI Feed Roll	100K feeds	PL 80.120
Developer Housing (CKMY)	1500K pages	PL90.05
Developer (CKMY)	1500K pages	C PL90.05 K PL90.05 M PL90.05 Y PL90.05
IBT Belt Assembly	480K pages	PL90.30
Suction Filter (C8170 only)	500K pages	PL 40.15
Document Feeder Feed Roll kit	200K feeds	250 PL 5.14 130 PL 5.54 and PL 5.56

How to Clean the Machine

Use a dry lint free cloth or a lint free cloth moistened with water for all cleaning unless directed otherwise. Wipe with a dry lint free cloth if a moistened cloth is used.

1. **Feed Components (Rolls and Pads)**
   Use a dry lint free cloth or a lint free cloth moistened with water. Wipe with a dry lint free cloth if a moistened cloth is used.
2. **Toner Dispense Units**
   Vacuum the toner dispense units.
3. **Jam Sensors**
   Clean the sensors with a dry cotton swab.

Drum Cartridge Handling

- The drum cartridges must be protected from light shock and mechanical damage.
- Do not expose the photoreceptor drum to bright lights for extended periods.
- Whenever the drum cartridge is removed, place the drum cartridge in the black plastic bag supplied with the machine. Store the drum cartridge in a safe place on a clean flat surface, to avoid damage to the photoreceptor drum surface.
- Place the drum cartridge in the black bag if the left door is opened for long periods.

SCP 5 Final Actions

Use Final Actions to verify the correct operation of the machine and to complete the service call.

Procedure

Perform the steps that follow. If a fault is identified, go to SCP 3 Fault Analysis:

1. If necessary, re-connect the machine to the customer's network.
2. If necessary, perform GP 13 Cloning Network Configurations.

   Note: The clone file will need to be taken whenever the system software is changed.
3. Perform the relevant maintenance procedures. Refer to SCP 4 Subsystem Maintenance.
4. Ensure that the machine has the latest available software loaded.
5. Operate the machine in all modes. Make the copies and prints from all trays.
6. Make prints from all trays. Check the registration quality. To reset the registration, perform dC126 System Registration Adjustment.
7. Make a proof print of a customer document.
8. If some of the customer's selections were changed, return the selections to the customer settings.
9. Mark off the hardware options, software options or Tags installed on the Tag matrix cards.
10. If some changes were made to the configuration or options were added, print the configuration report. Store the configuration report with the machine log book. Discard the previous version of the configuration report.
11. Log the usage counters.
12. If necessary, provide the customer with training.
13. Remove and destroy all copies of test patterns.
14. Ensure the machine and service area are clean.

SCP 6 No longer required

2 Status Indicator RAPs

302-302 Flash Rewrite Failure

Flash Rewrite Failure

Note: 302–302 is an internal machine fault code, and is never displayed or logged in the fault history.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power Off and On

Procedure

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-306 Flash Erase Failure

Flash Erase Failure

Note: 302–306 is an internal machine fault code, and is never displayed or logged in the fault history.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power Off and On

Procedure

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-308 Flash Download Failure

Flash Download Failure

Note: 302–308 is an internal machine fault code, and is never displayed or logged in the fault history.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power Off and On

Procedure

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-312 Application SW Checksum Failure

Application SW Checksum Failure

Note: 302–312 is an internal machine fault code, and is never displayed or logged in the fault history.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power Off and On

Procedure

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-315 Service Registry Bad Data

Service Registry Bad data / Corrupted

Procedure

Note: 302–315 is an internal machine fault code, and is never displayed or logged in the fault history.

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-316 Service Registry Not Responding

SRS returns to UI “invalid fields, invalid data, or missing data”

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-317 Service Registry Not Responding

UI gets no response from SRS

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform the following in order:

1. Reload SW using GP 9
2. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
3. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-320 UI Data Time Out Error

A software error has occurred. User intervention is required to Power Off/Power On the machine. Printing may be disabled.

Note: 302–320 is an internal machine fault code, and is never displayed or logged in the fault history.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform the following in order:

1. Power Off and On
2. Reload SW using GP 9
3. Go to the 303-347 UI Communication Fault

302-321 XEIP Browser Dead

XEIP Browser Dead

Note: Set by the XUI when the XEIP browser does not respond or is known to be dead.

Procedure

Perform the following in order:

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Power Off and On
2. Reload SW using GP 9
3. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
4. Replace the Controller PWB. Refer to REP 3.1(PL 3.05)

302-380 UI Communication Fault

BSD 3.2 PWB Communication (Controller PWB to UI Interface PWB)

Communication via H-H USB netpath connection between SBC and UI panel is not working

Procedure

Perform the following in order:

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Power Off and On
2. Reload SW using GP 9.
3. Replace the USB Cable (PL 3.10).
4. Replace the Hard Drive. Refer to REP 3.5(PL 3.05).
5. Replace the Controller PWB. Refer to REP 3.1(PL 3.05).

302-381 UI Communication Fault

Communication via USB connection between CC and UI panel is not working.

Procedure

Go to 302-380 UI Communication Fault RAP

302-390 Power Up Fault

During power up all configurable services have not achieved a stable state after 5 minutes from power up.

Note: 302–390 is an internal machine fault code, and is never displayed or logged in the fault history.

Procedure

Go to OF1.

303-306 Downgrade Not Permitted

Downgrade not permitted. A Customer upgrade was attempted, which would result in a downgrade, which is not allowed.

Procedure

If a downgrade is required by the customer perform the downgrade using GP 9 . If not, switch off and then switch on the machine.

303-307 Upgrade Synchronization Failure

SW Upgrade Synchronization Failure. Customer or CSE tried to perform upgrade resulting in a SW Upgrade Synchronization problem.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power off and power on the machine.

Procedure

Perform the following in order:

1. Check connections and cables and perform Software Upgrade again using Altboot in GP 9.
2. If the upgrade fails again, use Altboot to reload the SW version that existed on the machine prior to attempting the upgrade.
3. If the previous version loads correctly, download the upgrade SW again, verify that the files are correct for the machine, and attempt the upgrade using different media.
4. Replace the Hard Drive. Refer to REP 3.5 (PL 3.05)
5. Replace the Controller PWB. Refer to REP 3.1(PL 3.05). If this fails to resolve the problem, reinstall the original Controller PWB and call service support.

303-315 DC Platform Internal Interface Fault RAP

303-315 The DC platform software interface has timed out.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the fault history file for other 303-XXX fault codes.

303-XXX fault codes occur randomly.

Y N

Switch off, then switch on the machine, GP 4 .

The fault persists.

Y N

Perform SCP 5 Final Actions.

Perform thePWS altboot or forced PWS altboot. Refer to GP 9 Software Loading Procedures:

Note: From the PWS altboot menu, select the forced install option from the actions menu, Forced Install ESS software, then follow the remaining steps to complete the procedure.

The cause may be due to electrical noise, perform the GP 23 Intermittent Failure RAP.

303-316 CCM Cannot Communicate with IOT

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

Controller cannot communicate with IOT.

Scanning and FAX are available, printing and copying are disabled.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. If the problem continues, perform a Forced Altboot using GP 9.

Check the following PWBs and components for electrical or mechanical problems that could cause poor connection. Clean, reseat, or replace as required:

- Controller PWB to the Back Plane PWB
- Motor drive PWB to Back Plane PWB
- MCU-PF PWB to Motor drive PWB

If this does not resolve the problem replace the following in order:

1. Replace the MCU PWB. Refer to (REP 3.6 (PL 3.15)
2. Replace the Motor drive PWB. Refer to REP 1.4 (PL 3.10)
3. Replace the Back Plane PWB. Refer to REP 3.3 (PL 3.15)
4. Replace the Controller PWB. Refer to REP 3.1 (PL 3.05)

303-317 IOT NVM Save Failure

IOT NVM Save Failure

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

Fault Code 303-317 is still declared.

Y N

If intermittent performance is suspected, inspect the Motor Drive PWB and Controller PWB for loose connections or any obvious electrical/mechanical cause for malfunction.

This fault can be caused by IOT software corruption or a software version mismatch between the IOT module and the rest of the software:

- If the fault occurred after replacing the Motor drive PWB, it is probably a software mismatch; perform a Software Upgrade GP 9
- If the fault is unrelated to Motor drive PWB replacement it may be corrupt software; perform a Forced Upgrade.

  If this does not resolve the problem replace the following in order,

  1. Replace the Motor drive PWB. Refer to REP 1.4 PL 1.10.
  2. Replace the HDD. Refer to REP 3.5 PL 3.05.
  3. Replace the Controller PWB. Refer to REP 3.1 PL 3.05.

303-318 IOT NVM Init Failure

IOT NVM Init Failure

Initial Actions

- Disconnect any Foreign Interface devices.
- Obtain all of the following information:
  - Saved Machine Settings, if possible.
  - NVM value factory setting report (typically it is located in the Tray 1 pocket)
  - Any customer setting Auditron account from the system administrator
  - Any setting changes (specifically NVM settings) shown on the machine's service log.
  - Any customer settings in the Tools mode.
- If possible, save Critical NVM (dC361).

Procedure

Perform dC301 NVM Initialization for the IOT.

After the initialization is complete, use the data accumulated in **Initial Actions** to restore the machine to its previous configuration.

303-319 IOT NVM Restore Failure

IOT NVM Restore Failure

Procedure

Perform dC361 NVM Restore for the IOT Critical NVM.

If this does not resolve the problem replace the following in order,

1. Replace the Motor drive PWB (PL 1.10).
2. Replace the HDD (PL 3.05).
3. Replace the Controller PWB (PL 3.05).

303-320 Incompatible Product Type

Incompatible Product Type. SW Upgrade Aborted due to incompatible product type - software set does not match hardware.

Procedure

Perform GP 9 Software Upgrade with the correct Software module or select the correct.dlm file using the Web UI to upgrade the machine.

303-324 Software Upgrade File Transfer Failure

SW Upgrade File Transfer failure

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power off and power on the machine.

Procedure

Perform the following in order:

1. Check connections and cables and perform SW Upgrade again using Altboot in GP 9.
2. Download the upgrade SW again, verify that the files are correct for the machine, and attempt the upgrade using different media.
3. Replace the HDD (PL 3.05).
4. Replace the Controller PWB (PL 3.05). If this fails to resolve the problem, reinstall the original Controller PWB and call service support.

303-325 Wall Clock Time-out During Power Up

System detects that the Wall Clock has not incremented within 1.5 seconds during Power On.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power OFF and then ON.

If the problem continues, call service support for assistance.

303-326 Upgrade is not Required

Upgrade not required, since the SW Upgrade version is the same as the SW version on the machine.

Procedure

If a software reinstallation is required, perform GP 9 Forced Altboot.

303-327 Upgrade Failure

Upgrade Failed. this problem could be caused by an internal timing issue (Front side BUS speed set incorrectly), hardware error, user error and others.

Initial Actions

Check connections and reseat Controller PWB, Motor drive PWB, and MCU-PF PWB and attempt another upgrade using GP 9 Forced Altboot for the system or platform that failed.

Procedure

The problem is still present:

Y **N**

| Return to Service Call Procedures.

Call service support for assistance.

303-329 Upgrade Request During Diagnostics

Upgrade request received during active diagnostics.

Procedure

Exit Diagnostics and perform GP 9 Software Upgrade.

303-330 Upgrade Request During Active Security Feature

Upgrade request received during active Security function.

Procedure

Wait until Security function (Image Overwrite) is completed and perform GP 9 Software Upgrade.

303-331 Communication Fault With NC

Main controller board cannot communicate with Network Controller and unable to reestablish communications for 12 minutes. This problem could be caused by loose connections or improperly seated PWBs.

Procedure

The printer is currently busy. Normal operations should resume momentarily. The controller will continue to try to re-establish communication for 12 minutes.

If the fault persists, go to 303-332.

303-332 NC Communications Timeout

CCS unable to reestablish communication with the Network Controller for 12 minutes. This problem could be caused by loose connections or improperly seated PWBs.

Procedure

Reseat all connections to the Controller PWB.

The problem continues.

Y N

| Return to Service call procedures.

Go to the OF1 Machine Not Ready RAP.

303-333 Invalid Value Detected for NVM 616-004 RAP

Invalid value has been detected for NVM 616–004 System configuration.

Initial Actions

Power off and power on the machine.

Procedure

Enter diagnostics and check the 616–004 NVM value

- Default = 1
- Min = 0
- Max = 8
- 0 = Unknown (not set)
- 1 = ST (Networked)
- 8 = Network Suppressed

If the value is not correct perform the following-

1. NVM Initialization dc 301
2. NVM save and restoredc 361

303-338 Main Controller Has Been Reset

CCS has been reset; either the watch dog timer timed out or the application SW wrote to an illegal address.

Initial Actions

Check that the customer does not have another device configured with the same IP address.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

Perform dC361 to restore NVM.

If the problem continues, perform GP 9 SW upgrade.

303-346 Communication fault with UI

The Controller PWB is unable to reestablish communication with the UI after 30 seconds.

Procedure

Go to the 303-347.

303-347 UI Communication Fault

BSD 3.2 PWB Communications (Controller to UI PWB

The Controller PWB cannot communicate with UI PWB.

If communication is not reestablished within 30 seconds, fault code 303-346 will be declared.

Note: The UI will not display this fault because of the communication problem with the SBC PWB. This fault can be viewed only with the PWS.

Procedure

Note: This fault can occur if the UI software version is not compatible with the Controller software version.

Perform GP 9 . If the problem persists, go to the OF1.

303-355 CCM POST Failure During NVM Integrity Test

Power On Self-Test failure detected during the NVM Integrity Test.

The controller NVM stored on the HDD and the backup copy stored on the Controller PWB are both un-initialized or corrupt. Controller NVMs have been automatically reset to default (including billing counters). This can be caused by replacing both the HDD and Controller PWB with new spares at the same time.

An error message will be displayed on the LUI for the power on cycle when the fault is raised.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

Power OFF and then ON.

Procedure

Report the Billing Meter reset (GP 20).

303-380 Distribution PWB Missing or Disconnected

BSD 3.5 PWB Communication (5 of 7)

PWBA is missing or disconnected.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Check the connectors between the Controller PWB and the Back Plane PWB.

Power OFF and then ON.

Refer to OF6 Power On Self Test RAP

If the problem continues, call service support for assistance.

303-390 Upgrade Automation Failed

Upgrade Automation failed

Procedure

Call service support for assistance.

303-397 System Configuration is lost

This fault occurs when the System Configuration is lost and an attempted recovery made.

Procedure

Refer to GP 8 Speed Kit Enablement

303-401 Basic FAX Not Detected or Confirmed

Basic FAX not detected/confirmed

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. If the problem continues, go to the OF12 .

303-403 Extended FAX Not Detected or Confirmed

Extended FAX not detected/confirmed

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. If the problem continues, go to the OF12 .

303-405 Failed to Recover Machine Class

Machine Class not set (unknown). Failed to recover machine class

Procedure

Set machine class - dC131- [616-328].

- Value of 1 = chassis speeds 30/35
- Value of 2 = chassis speed 45/55
- Value of 3 =chassis speed 70.

303-417 Incompatible FAX SW Detected at Power Up

Incompatible FAX software detected at power on

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. If the problem continues, reload FAX software (GP 9).

303-450 Unexpected IOT reset RAP

Unexpected IOT reset has occurred.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. If the problem continues, reload System software (GP 9).

303-777 Power Loss Detected

Input Power loss detected or software corruption.

Power on Self test has detected that the previous shutdown was abnormal. Possible causes include the following:

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

- The main power switch was used to power off the machine instead of the software switch
- Power outage / unplugging power cord / poor voltage quality
- SBC software lockup or reset
- SBC HW lockup or reset

Procedure

- Verify customer power outlet voltage is correct.
- Perform customer training on proper power down process

Note: Inform the customer that improper power off has the potential to cause file system corruption

303-778 Power Down Error PAP

Abnormal Power Down - Digital Copier

Digital Copier crashes while power down is under way and allows the power down to proceed versus resetting due to crash

Procedure

- Refer to 303-777 Power Loss Detected RAP.

303-788 Failed to Exit Power Save Mode

CCS Runtime could not enter power saver mode S3.

Note: The CC USB could not re-enumerate the UI panel coming out of sleep, which keeps parts of the system in power saver mode S3 and parts awake. This prevents system entry into power saver mode S3 at the next attempt to do so.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on to allow system to enter power save.

303-790 Time Zone File Cannot be Set

Timezone file cannot be set. At power up, the time zone setting is not valid due to NVM corruption, or OS file system problem. Time Zone overridden to GMT: DST Disabled.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

Perform dC361 to restore NVM.

If the problem continues, perform GP 9 SW upgrade.

305-121 DADF Feed Out Sensor On Jam

BSD 5.4 DADF 250 Document Feeding

BSD 5.16 DADF 130 Document Feeding (1 of 2)

The DADF feed out sensor does not turn ON within the specified time after pre feed operation has started. Or, the DADF feed out sensor turns ON before DADF feed in sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substances in the document path.
- The surface of the DADF feed roll, DADF nudger roll, and DADF retard roll for foreign substances or wear.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54.
- The DADF feed motor for operation failure, dC330 code 005-047, PL 5.58.
- The nudger roll for nip operation failure.
- The drive gear for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- The nudger housing for operational failure.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substances in the document path.
- The surface of the DADF feed roll, DADF nudger roll, and DADF retard roll for foreign substances or wear.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- The DADF feed motor for operation failure, dC330 code 005-004, PL 5.5.
- The nudger roll for nip operation failure.
- The drive gear for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-122 DADF Pre Registration Sensor On Jam

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.4 DADF 250 Document Feeding

BSD 5.18 DADF 130 Pre Registration

BSD 5.16 DADF 130 Document Feeding (1 of 2)

The DADF pre registration sensor does not turn ON within the specified time after the pre feed operation has started. Or, the DADF pre registration sensor turns ON before DADF feed out sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF feed roll, DADF nudger roll, and takeaway roll for foreign substances or wear.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF feed motor for operation failure, dC330 code 005-047, PL 5.58.
- The DADF pre registration motor for operation failure, dC330 code 005-070, PL 5.58.
- The DADF takeaway clutch for operation failure, dC330 code 005-098, PL 5.58.
- The DADF pre registration clutch for operational failure dC330 code 005–099, PL 5.58.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF feed roll, DADF nudger roll, and takeaway roll for foreign substances or wear.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF feed motor for operation failure, dC330 code 005-004, PL 5.5.
- The DADF pre registration motor for operation failure, dC330 code 005-013, PL 5.10.
- The DADF takeaway clutch for operation failure, dC330 code 005-087, PL 5.10.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.

- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-123 DADF Registration Sensor On Jam

BSD 5.8 DADF 250 Document Registration

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.19 DADF 130 Registration

BSD 5.18 DADF 130 Pre Registration

The DADF registration sensor does not turn ON within the specified time after the pre registration operation has started. Or, the DADF registration sensor turns ON before DADF pre registration sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF pre registration roll and DADF registration roll for foreign substances or wear.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.54.
- The DADF pre registration motor for operation failure, dC330 code 005-070, PL 5.58.
- The DADF takeaway clutch for operation failure, dC330 code 005-098, PL 5.58.
- The DADF registration motor for operational failure dC330 code 005-038, PL 5.58.
- The DADF pre registration clutch for operational failure dC330 code 005-099, PL 5.58.
- The drive gears for wear and damage.
- The amount of grease at the pulley and the gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF takeaway roll and DADF pre registration roll for foreign substances or wear.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.9.
- The DADF pre registration motor for operation failure, dC330 code 005-013, PL 5.10.
- The DADF takeaway clutch for operation failure, dC330 code 005-087, PL 5.10.
- The DADF pre registration sensor for operation failure dC330 code 005-206, PL 5.9.
- The drive gears for wear and damage.
- The amount of grease at the pulley and the gear.

- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-124 DADF Lead Registration Sensor On Jam

BSD 5.8 DADF 250 Document Registration

The DADF lead registration sensor does not turn ON within the specified time after the read operation has started. Or, the DADF lead registration sensor turns ON before DADF registration sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the registration roll and pre registration roll for foreign substances or wear.
- The DADF lead registration sensor for operation failure, dC330 code 005-207, PL 5.9.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.9.
- The DADF registration motor for operation failure, dC330 code 005-021, PL 5.10.
- The drive gears for wear and damage.
- The amount of grease at the pulley and the gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-125 DADF Registration Sensor Off Jam

BSD 5.8 DADF 250 Document Registration

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.12 DADF 250 Document Exit

BSD 5.19 DADF 130 Registration

BSD 5.18 DADF 130 Pre Registration

The DADF registration sensor does not turn OFF within the specified time after the read operation has started. Or, the DADF registration sensor turns OFF before DADF pre registration sensor turns OFF on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF registration roll, out roll, CIS roll, and exit roll for foreign substances or wear.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.54.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF pre registration motor for operation failure, dC330 code 005-070, PL 5.58.
- The DADF pre registration clutch for operation failure, dC330 code 005-099, PL 5.58.
- The DADF registration motor for operation failure, dC330 code 005-038, PL 5.58.
- The drive gears for wear and damage.
- The amount of grease at the pulley and the gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF registration roll, platen roll, out roll, and exit roll for foreign substances or wear.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.9.
- The DADF registration motor for operation failure, dC330 code 005-021, PL 5.10.
- The DADF platen motor for operation failure, dC330 code 005-031, PL 5.10.
- The DADF exit motor for operation failure, dC330 code 005-043, PL 5.10.
- The drive gears for wear and damage.
- The amount of grease at the pulley and the gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-126 DADF Out Sensor On Jam

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.8 DADF 250 Document Registration

BSD 5.22 DADF 130 Document Exit

BSD 5.19 DADF 130 Registration

BSD 5.18 DADF 130 Pre Registration

The DADF out sensor does not turn ON within the specified time after the read operation has started. Or, the DADF out sensor turns ON before DADF registration sensor or DADF lead registration sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the registration roll and pre registration roll for foreign substances or wear.
- The DADF out sensor for operation failure dC330 code 005-208, PL 5.54.
- The DADF registration sensor for operation failure dC330 code 005-110, PL 5.54.
- The DADF registration motor for for operation failure dC330 code 005-038, PL 5.58.
- The DADF takeaway clutch for for operation failure dC330 code 005-038, PL 5.58.
- The DADF pre registration clutch for for operation failure dC330 code 005-038, PL 5.58.
- The DADF pre registration motor for operation failure dC330 code 005-070, PL 5.58
- The registration chute for mylar deformation.
- Proper installation of DADF assembly on the machine.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the registration roll and platen roll for foreign substances or wear.
- The DADF out sensor for operation failure, dC330 code 005-208, PL 5.9.
- The DADF platen motor for operation failure, dC330 code 005-031, PL 5.10
- The DADF registration motor dC330 code 005-021, PL 5.10.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-127 DADF Out Sensor Off Jam

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.12 DADF 250 Document Exit

BSD 5.22 DADF 130 Document Exit

BSD 5.19 DADF 130 Registration

The DADF out sensor does not turn OFF within the specified time after the DADF registration sensor turned OFF. Or, the DADF out sensor turns OFF before DADF registration sensor or DADF lead registration sensor turns OFF on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the DADF CIS roll and exit roll for foreign substances or wear.
- The DADF out sensor for operation failure dC330 code 005-208, PL 5.54.
- The DADF registration sensor for operation failure dC330 code 005-110, PL 5.54.
- The DADF registration motor for for operation failure dC330 code 005-038, PL 5.58.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the DADF platen roll, out roll, and exit roll for foreign substances or wear.
- The DADF out sensor for operation failure, dC330 code 005-208, PL 5.9.
- The DADF platen motor for operation failure, dC330 code 005-031, PL 5.10.
- The DADF exit motor for operation failure, dC330 code 005-043, PL 5.10.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-128 DADF Exit Sensor On Jam

BSD 5.12 DADF 250 Document Exit

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.22 DADF 130 Document Exit

BSD 5.19 DADF 130 Registration

The DADF exit sensor does not turn ON within the specified time after DADF out sensor has turned ON. Or, the DADF exit sensor turns ON before DADF out sensor turns ON on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the DADF out roll and CIS roll for foreign substances or wear.
- The DADF exit sensor for operation failure dC330 code 005-209, PL 5.54.
- The DADF out sensor for operation failure dC330 code 005-208, PL 5.54.
- The DADF registration motor for for operation failure dC330 code 005-038, PL 5.58.
- The drive gears for wear and damage.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the DADF platen roll and out roll for foreign substances or wear.
- The DADF exit sensor for operation failure, dC330 code 005-209, PL 5.9.
- The DADF platen motor for operation failure, dC330 code 005-031, PL 5.10
- The drive gears for wear and damage.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-129 DADF Exit Sensor Off Jam

BSD 5.12 DADF 250 Document Exit

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.22 DADF 130 Document Exit

BSD 5.19 DADF 130 Registration

The DADF exit sensor does not turn OFF within the specified time after the DADF out sensor has turned OFF. Or, the DADF exit sensor turns OFF before DADF out sensor turns OFF on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the CIS roll, exit roll, and out roll for foreign substances or wear.
- The DADF exit sensor for operation failure dC330 code 005-209, PL 5.54.
- The DADF out sensor for operation failure dC330 code 005-208, PL 5.54.
- The DADF registration motor for for operation failure dC330 code 005-038, PL 5.58.
- The drive gears for wear and damage.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance on the document path.
- The surface of the DADF out roll and exit roll for foreign substances or wear.
- The DADF exit sensor for operation failure, dC330 code 005-209, PL 5.9.
- The DADF platen motor for operation failure, dC330 code 005-031, PL 5.10.
- The DADF exit 2 motor for operation failure, dC330 code 005-043, PL 5.10.
- The drive gears for wear and damage.
- The amount of grease at the pulley and gear.
- The timing belt for skipped teeth and improper belt tension.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-141 DADF Feed Out Sensor Off Jam

BSD 5.4 DADF 250 Document Feeding

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.18 DADF 130 Pre Registration

The DADF pre registration sensor turned OFF before the feed out sensor has turned OFF.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substances in the document path.
- The surface of the DADF feed roll, DADF nudger roll, DADF retard roll, and takeaway roll for foreign substances or wear.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54.
- The DADF feed motor for operation failure, dC330 code 005-047, PL 5.58.
- The DADF pre registration motor for operation failure, dC330 code 005-070, PL 5.58.
- The DADF takeaway clutch for operation failure, dC330 code 005-098, PL 5.58.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF pre registration clutch for operational failure dC330 code 005–099, PL 5.58.
- The nudger roll for nip operation failure.
- The drive gear for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substances in the document path.
- The surface of the DADF feed roll, DADF nudger roll, DADF retard roll, and takeaway roll for foreign substances or wear.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- The DADF feed motor for operation failure, dC330 code 005-004, PL 5.5.
- The DADF pre registration motor for operation failure, dC330 code 005-013, PL 5.10.
- The DADF takeaway clutch for operation failure, dC330 code 005-087, PL 5.10.
- The nudger roll for nip operation failure.

- The drive gear for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-144 DADF Pre Registration Sensor On Jam (DADF Skew Detect Jam)

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

The DADF pre registration sensor turned ON before DADF skew detect sensor has turned ON (due to document skew).

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The document guides are properly set.
- The nudger roll for uniform contact with document loaded tray.
- The feed roll and retard roll for unifrom contact with the document.
- Check for improperly loaded or damaged documents.
- Check for out of specification combination of sizes (mixed sizes).
- If the fault persists, replace the DADF PWB, PL 5.3.

305-146 DADF Pre Registration Sensor Off Jam

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.8 DADF 250 Document Registration

BSD 5.4 DADF 250 Document Feeding

BSD 5.18 DADF 130 Pre Registration

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.19 DADF 130 Registration

The DADF pre registration sensor does not turn OFF within the specified time after feed out sensor has turned OFF. Or, the DADF pre registration sensor turns OFF before DADF feed out sensor turns OFF on the same document.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF feed roll, DADF nudger roll, retard roll, takeaway roll, pre registration roll, and registration roll, and out roll for foreign substances or wear.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF pre registration motor for operation failure, dC330 code 005-070, PL 5.58.
- The DADF takeaway clutch for operation failure, dC330 code 005-098, PL 5.58.
- The DADF registration motor for operation failure, dC330 code 005-038, PL 5.58.
- The DADF feed motor for operation failure, dC330 code 005-047, PL 5.58.
- The DADF feed out sensor for operational failure dC330 code 005–205, PL 5.54.
- The DADF pre registration clutch for operational failure dC330 code 005–099, PL 5.58.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Transportation failure due to foreign substance in the document path.
- The surface of the DADF takeaway roll, DADF pre registration roll, and registration roll for foreign substances or wear.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF pre registration motor for operation failure, dC330 code 005-013, PL 5.10.
- The DADF takeaway clutch for operation failure, dC330 code 005-087, PL 5.10.
- The DADF registration motor for operation failure, dC330 code 005-021, PL 5.10.
- The drive gears for wear and damage.
- The timing belt for skipped teeth and improper belt tension.
- The amount of grease at the pulley and the gear.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-153 DADF Lead Registration Sensor Off Jam

BSD 5.8 DADF 250 Document Registration

The DADF lead registration sensor does not turn OFF within the specified time after the DADF registration sensor turns OFF in hole punched mode.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The hole (not the center but the farthest periphery from the document trail edge) at the document trail edge is within 19mm from the document trail edge. If the document has no problem, check the DADF lead registration sensor for operation failure, dC330 code 005-207, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-160 DADF Tray Lift Up Fail on Running (Document Set)

BSD 5.2 DADF Document Stacking

The DADF level sensor does not turn ON within the specified time after the document loaded tray has began rising. Or, it was detected that the DADF bottom sensor does not turn OFF (when detected during run, stop, or purge).

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF level sensor for operation failure dC330 code 005-203, PL 5.8.
- The DADF bottom sensor for operation failure dC330 code 005-202, PL 5.6.
- The DADF tray motor for operation failure dC330 code 005-051, PL 5.5.
- The drive gear of the DADF tray motor for wear and damage.
- The torque limiter for damage.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-194 Size Mismatch Jam on Slow Scan Mix Size

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.15 DADF 130 Document Size Sensing

In slow scan (SS) mixed mode, it was detected that a document with a different size in fast scan (FS) direction was transported from the DADF.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-3 for operation failure dC330 code 005-215/216/217, PL 5.57.
- Replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-4 for operation failure dC330 code 005-215/216/217/302, PL 5.6.
- Replace the DADF PWB, PL 5.3.

305-196 Size Mismatch Jam On No Mix-Size

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.17 DADF 130 Document Feeding (2 of 2)

BSD 5.15 DADF 130 Document Size Sensing

In no mixed mode, it was detected that the second sheet or later of the set was of a different size compared to the first sheet.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-3 for operation failure, dC330 code 005-215/216/217, PL 5.57.
- The DADF APS sensors 1 for operation failure, dC330 code 005-218, PL 5.54.
- The DADF tray size sensor 1/2 for operation failure, dC330 code 005-221/222, PL 5.57.
- Replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-4 for operation failure, dC330 code 005-215/216/217/302, PL 5.6.
- The DADF APS sensors 1 for operation failure, dC330 code 005-215, PL 5.9.
- Replace the DADF PWB, PL 5.3.

305-197 Prohibit Combine Size Jam

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.15 DADF 130 Document Size Sensing

A prohibited document size combination was detected.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI.

C8170 (DADF 250)

Follow the instructions on the UI.

305-198 Too Short Size Jam

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.4 DADF 250 Document Feeding

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.18 DADF 130 Pre Registration

The DADF detected that the document length in slow scan direction was out of the specifications.

- C8170 (DADF 250): Shorter than 135mm
- C8130/35/45/55 (DADF 130): Shorter than 85mm

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the size of the document that was fed by the user. If the document size is within permitted length for DADF transport, check the following:

- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the size of the document that was fed by the user. If the document size is within permitted length for DADF transport, check the following:

- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-199 Too Long Size Jam

BSD 5.4 DADF 250 Document Feeding

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.18 DADF 130 Pre Registration

The DADF detected that the document length in slow scan direction was out of the specifications.

- C8170 (DADF 250): Longer than 670mm
- C8130/35/45/55 (DADF 130): Longer than 1275mm

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the size of the document that was fed by the user. If the document size is within permitted length for DADF transport, check the following:

- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the size of the document that was fed by the user. If the document size is within permitted length for DADF transport, check the following:

- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-210 DADF Download Fail

BSD 3.6

It was detected that the DADF was in download mode when IIT-software started (power ON/sleep recovery).

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Perform the DADF software download.

C8170 (DADF 250)

Perform the DADF software download.

305–212 Bottom Sensor Logic Fail

BSD 5.2 DADF Document Stacking

The DADF bottom sensor does not turn ON when document loaded tray begin to lower, instead was turned ON during DADF operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF bottom sensor for operation failure dC330 code 005-202, PL 5.6.
- The DADF tray motor for operation failure dC330 code 005-051, PL 5.5.
- The sensor actuator for damage.
- The drive gear of the DADF tray motor for wear and damage.
- The torque limiter for damage.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-275 DADF RAM Fail

BSD 3.6

It was detected that the RAM on DADF PWB failed during read/write operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

If the fault persists after powering the machine OFF then ON, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

If the fault persists after powering the machine OFF then ON, replace the DADF PWB, PL 5.3.

305-280 DADF EEPROM Fail

BSD 3.6

A write error to DADF EEPROM or communication failure with EEPROM was detected.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

If the fault persists after powering the machine OFF then ON, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

If the fault persists after powering the machine OFF then ON, replace the DADF PWB, PL 5.3.

305-281 DADF Tray Lift Down Fail

BSD 5.2 DADF Document Stacking

The DADF bottom sensor does not turn ON within the specified time after the document loaded tray has began to lower.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF bottom sensor for operation failure dC330 code 005-202, PL 5.6.
- The DADF tray motor for operation failure dC330 code 005-051, PL 5.5.
- The sensor actuator for damage.
- The drive gear of the DADF tray motor for wear and damage.
- The torque limiter for damage.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-282 DADF Tray Lift Up Fail (No Document)

BSD 5.2 DADF Document Stacking

The DADF bottom sensor does not turn OFF within the specified time when the empty document tray was undergoing its initialization operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF bottom sensor for operation failure dC330 code 005-202, PL 5.6.
- The DADF tray motor for operation failure dC330 code 005-051, PL 5.5.
- The sensor actuator for damage.
- The drive gear of the DADF tray motor for wear and damage.
- The torque limiter for damage.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-283 DADF Level Sensor Logic Fail

BSD 5.2 DADF Document Stacking

The DADF level sensor failure or DADF nudger solenoid failure was logically detected in relation to the document sensor output.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF level sensor for operation failure, dC330 code 005-203, PL 5.8.
- The DADF nudger solenoid for operation failure, dC330 code 005-086, PL 5.8.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-284 DADF APS Sensor Logic Fail

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

It was detected that the combination of DADF APS sensor 1-3 outputs was logically incorrect.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF APS sensors 1/2/3 for operational failure, dC330 code 005-218/219/220, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-305 DADF Feeder Cover Interlock Open

BSD 5.1 DADF 250 Interlock and Document Set

BSD 5.14 DADF 130 Interlock And Document Setting

It was detected that the feeder cover interlock was open during DADF operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- Improperly installed DADF feeder cover.
- The DADF feeder cover interlock switch for operation failure, dC330 code 005-212, PL 5.58.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- Improperly installed DADF feeder cover.
- The DADF feeder cover interlock switch for operation failure, dC330 code 005-212, PL 5.7.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-309 DADF L/H Cover Interlock Open

BSD 5.1 DADF 250 Interlock and Document Set

It was detected that the DADF L/H cover interlock was open during DADF operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- Improperly installed DADF L/H cover.
- The DADF L/H cover interlock sensor for operational failure, dC330 code 005-223, PL 5.7.
- The sensor actuator for disengagement, damage, and bending.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-905 DADF Feed Out Sensor Static Jam

BSD 5.4 DADF 250 Document Feeding

BSD 5.16 DADF 130 Document Feeding (1 of 2)

The DADF feed out sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF feed out sensor for remaining paper or foreign objects on the sensor.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54.
- If the fault persists, install new components as required:
  - DADF feed out sensor PL 5.54.
  - The cable connecting DADF feed out sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF feed out sensor for remaining paper or foreign objects on the sensor.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- If the fault persists, install new components as required:
  - DADF feed out sensor, PL 5.9.
  - The cable connecting DADF feed out sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-906 DADF Feed In Sensor Static Jam

BSD 5.4 DADF 250 Document Feeding

BSD 5.16 DADF 130 Document Feeding (1 of 2)

The DADF feed in sensor (C8130/35/45/55, DADF 130) detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

The DADF feed in sensor 1/2 (C8170, DADF 250) detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF feed in sensor for remaining paper or foreign objects on the sensor.
- The DADF feed in sensor for operation failure, dC330 code 005-204, PL 5.54.
- If the fault persists, install new components as required:
  - DADF feed in sensor, PL 5.54.
  - The cable connecting DADF feed in sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF feed in sensor for remaining paper or foreign objects on the sensor.
- The DADF feed in sensor for operation failure, dC330 code 005-204, PL 5.9.
- If the fault persists, install new components as required:
  - DADF feed in sensor, PL 5.9.
  - The cable connecting DADF feed in sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-907 DADF Pre Registration Sensor Static Jam

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.18 DADF 130 Pre Registration

The DADF pre registration sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF pre registration sensor for remaining paper or foreign objects on the sensor.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.54.
- If the fault persists, install new components as required:
  - DADF pre registration sensor, PL 5.54.
  - The cable connecting DADF pre registration sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF pre registration sensor for remaining paper or foreign objects on the sensor.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- If the fault persists, install new components as required:
  - DADF pre registration sensor, PL 5.9.
  - The cable connecting DADF pre registration sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-908 DADF Registration Sensor Static Jam

BSD 5.8 DADF 250 Document Registration

BSD 5.19 DADF 130 Registration

The DADF registration sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF registration sensor for remaining paper or foreign objects on the sensor.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.54.
- If the fault persists, install new components as required:
  - DADF registration sensor, PL 5.54.
  - The cable connecting DADF registration sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF registration sensor for remaining paper or foreign objects on the sensor.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.9.
- If the fault persists, install new components as required:
  - DADF registration sensor, PL 5.9.
  - The cable connecting DADF registration sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-909 DADF Lead Registration Sensor Static Jam

BSD 5.8 DADF 250 Document Registration

The DADF lead registration sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF lead registration sensor for remaining paper or foreign objects on the sensor.
- The DADF lead registration sensor for operation failure, dC330 code 005-207, PL 5.9.
- If the fault persists, install new components as required:
  - DADF lead registration sensor PL 5.9.
  - The cable connecting DADF lead registration sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-910 DADF Out Sensor Static Jam

BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.22 DADF 130 Document Exit

The DADF out sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF out sensor for remaining paper or foreign objects on the sensor.
- The DADF out sensor for operation failure, dC330 code 005-208, PL 5.54.
- If the fault persists, install new components as required:
  - DADF out sensor, PL 5.54.
  - The cable connecting DADF out sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF out sensor for remaining paper or foreign objects on the sensor.
- The DADF out sensor for operation failure, dC330 code 005-208, PL 5.9.
- If the fault persists, install new components as required:
  - DADF out sensor, PL 5.9.
  - The cable connecting DADF out sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-911 DADF Exit Sensor Static Jam

BSD 5.12 DADF 250 Document Exit

BSD 5.22 DADF 130 Document Exit

The DADF exit sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF exit sensor for remaining paper or foreign objects on the sensor.
- The DADF exit sensor for operation failure, dC330 code 005-209, PL 5.54.
- If the fault persists, install new components as required:
  - DADF exit sensor, PL 5.54.
  - The cable connecting DADF exit sensor to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF exit sensor for remaining paper or foreign objects on the sensor.
- The DADF exit sensor for operation failure, dC330 code 005-209, PL 5.9.
- If the fault persists, install new components as required:
  - DADF exit sensor, PL 5.9.
  - The cable connecting DADF exit sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-915, 916, 917 DADF APS Sensor 1/2/3 Static Jam

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.17 DADF 130 Document Feeding (2 of 2)

The DADF APS sensor 1/2/3 detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Check the following:

- The DADF APS sensor 1/2/3 for remaining paper or foreign objects on the sensor.
- The DADF APS sensor 1/2/3 for operation failure, dC330 code 005-218/219/220, PL 5.54.
- If the fault persists, install new components as required:
  - DADF APS sensor 1/2/3, PL 5.54.
  - The cable connecting DADF APS sensor 1/2/3 to DADF PWB.
  - DADF PWB, PL 5.53.

C8170 (DADF 250)

Check the following:

- The DADF APS sensor 1/2/3 for remaining paper or foreign objects on the sensor.
- The DADF APS sensor 1/2/3 for operation failure, dC330 code 005-218/219/220, PL 5.9.
- If the fault persists, install new components as required:
  - DADF APS sensor 1/2/3, PL 5.9.
  - The cable connecting DADF APS sensor 1/2/3 to DADF PWB.
  - DADF PWB, PL 5.3.

305-919 DADF Tray Lift Up Fail (Document Set)

BSD 5.2 DADF Document Stacking

The DADF level sensor does not turn ON within the specified time after the document loaded tray has began rising. Or, it was detected that the DADF bottom sensor does not turn OFF (detected at a time other than run, stop, or purge).

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF level sensor for operation failure dC330 code 005-203, PL 5.8.
- The DADF bottom sensor for operation failure dC330 code 005-202, PL 5.6.
- The DADF tray motor for operation failure dC330 code 005-051, PL 5.5.
- The drive gear of the DADF tray motor for wear and damage.
- The torque limiter for damage.
- If the fault persists, replace the DADF PWB, PL 5.3.

305–920 DADF Skew Detect Sensor Static Jam

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

The DADF skew detect sensor detected paper when the power was turned on, or feeder cover interlock was closed, or platen cover interlock was closed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Check the following:

- The DADF skew detect sensor for remaining paper or foreign objects on the sensor.
- The DADF skew detect sensor for operation failure, dC330 code 005-192, PL 5.9.
- If the fault persists, install new components as required:
  - DADF skew detect sensor, PL 5.9.
  - The cable connecting DADF skew detect sensor to DADF PWB.
  - DADF PWB, PL 5.3.

305-921 Letter SEF Detect Error

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.15 DADF 130 Document Size Sensing

The DADF document guide width detected a letter SEF width.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen.

C8170 (DADF 250)

Follow the instructions on the UI screen.

305-940 DADF No Original Fault

BSD 5.1 DADF 250 Interlock and Document Set

BSD 5.14 DADF 130 Interlock And Document Setting

It was detected that the document was pulled out during document feed operation. Or, the DADF feed in sensor turns OFF before DADF document set sensor turns OFF during pre feed operation.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen.

C8170 (DADF 250)

Follow the instructions on the UI screen.

305-941 DADF Not Enough Document

BSD 5.1 DADF 250 Interlock and Document Set

BSD 5.14 DADF 130 Interlock And Document Setting

It was detected that one or more originals were missing after loaded originals returned to the tray.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen.

C8170 (DADF 250)

Follow the instructions on the UI screen.

305-942 DADF Tray Stack Over Fail

BSD 5.2 DADF Document Stacking

It was detected that the DADF level sensor or DADF bottom sensor was ON when document loaded tray has began rising.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8170 (DADF 250)

Reduce the number of sheets and reload originals onto the document tray.

305-945 FS-Size Mismatch Jam on No Mix-Size or SS Mix-Size (Cont)

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.15 DADF 130 Document Size Sensing

BSD 5.17 DADF 130 Document Feeding (2 of 2)

In no mix or slow scan (SS) mixed mode, it was detected that a document with a different size in fast scan (FS) direction was transported from the DADF. (If paper was not fed, code 305-945 is displayed. If paper was fed, code 305-947 is displayed.)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-3 for operation failure dC330 code 005-215/216/217, PL 5.57.
- The DADF APS sensors 1-3 for operation failure, dC330 code 005-218/219/220, PL 5.54.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-4 for operation failure dC330 code 005-215/216/217/302, PL 5.6.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-946 SS-Size Mismatch Jam On No Mix-Size (Cont)

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.4 DADF 250 Document Feeding

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.15 DADF 130 Document Size Sensing

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.18 DADF 130 Pre Registration

BSD 5.19 DADF 130 Registration

In no mix mode, it was detected that a document with a different size in slow scan (SS) direction was transported from the DADF (If paper was not fed, code 305-946 is displayed. If paper was fed, code 305–948 is displayed.)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The DADF tray size sensor 1/2 for operation failure, dC330 code 005-221/222, PL 5.57.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.54.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54 .
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The DADF APS sensors 1-3 for operation failure, dC330 code 005-218/219/220, PL 5.9.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-947 FS-Size Mismatch Jam On No Mix-Size or SS Mix-Size

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.15 DADF 130 Document Size Sensing

BSD 5.17 DADF 130 Document Feeding (2 of 2)

In no mix or slow scan (SS) mixed mode, it was detected that a document with a different size in fast scan (FS) direction was transported from the DADF. (If paper was not fed, code 305–945 is displayed. If paper was fed, code 305-947 is displayed.)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-3 for operation failure dC330 code 005-215/216/217, PL 5.57.
- The DADF APS sensors 1-3 for operation failure, dC330 code 005-218/219/220, PL 5.54.
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The document tray set guide for operation failure.
- The document tray APS sensors 1-4 for operation failure dC330 code 005-215/216/217/302, PL 5.6.
- If the fault persists, replace the DADF PWB, PL 5.3.

305-948 SS-Size Mismatch Jam On No Mix-Size

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.4 DADF 250 Document Feeding

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.15 DADF 130 Document Size Sensing

BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.18 DADF 130 Pre Registration

BSD 5.19 DADF 130 Registration

In no mix mode, it was detected that a document with a different size in slow scan (SS) direction was transported from the DADF. (If paper was not fed, code 305–946 is displayed. If paper was fed, code 305-948 is displayed.)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

C8130/35/45/55 (DADF 130)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The DADF tray size sensor 1/2 for operation failure, dC330 code 005-221/222, PL 5.57.
- The DADF registration sensor for operation failure, dC330 code 005-110, PL 5.54.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.54 .
- If the fault persists, replace the DADF PWB, PL 5.53.

C8170 (DADF 250)

Follow the instructions on the UI screen. If the error does not clear, check the following:

- The DADF APS sensors 1-3 for operation failure, dC330 code 005-218/219/220, PL 5.9.
- The DADF pre registration sensor for operation failure, dC330 code 005-206, PL 5.9.
- The DADF feed out sensor for operation failure, dC330 code 005-205, PL 5.9.
- If the fault persists, replace the DADF PWB, PL 5.3.

310-327 Fusing On Time Fail RAP

BSD 10.3 Fusing Heat (1 of 2)

310-327 The fuser heater coil has been on continuously for longer than the setting time.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Power off, then power on the machine, (GP 4).
2. Ensure that the fuser and fuser heater coil are installed correctly.
3. Ensure that the power supply voltage is within specification, refer to (GP 15) Electrical Power Requirements.
4. Check the wiring and connectors between the fuser heater coil P/J634 and the fuser heater power supply J60 , J61 for an open circuit, short circuit or poor contact. Also check the wiring and connectors between P/J530 on the fuser heater power supply andP/J441 on the motor drive for an open circuit, short circuit or poor contact.
5. If the fault persists, install new components as necessary:
   - Fuser Heater Coil, (PL 10.05).
   - Motor Drive PWB, (PL 1.10).
   - Controller PWB assembly, (PL 3.05).

310-330 Fuser Motor Fault

BSD 10.1 Fuser Drive Control (1 of 2)

BSD 90.17 First BTR Contact/Retract Control

The Fuser Unit Drive Motor revolution failure was detected.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Remove the Fusing Unit from the machine. Manually rotate the Drive Gear of the Fusing Unit and check for any abnormal loading (gear not able to rotate, etc.).

The gear be rotated without heavy loading.

Y N

Replace the Fusing Unit PL10.05

Reinstall the Fusing Unit. Power the machine OFF and ON, and check if the Exit Roll 1 rotates as the power turns ON.

The Fuser Exit Roll 1 rotates.

Y N

Check the following:

- The Fusing Unit Drive Motor (dC330 [010-002]) for operation failure.
- The Drive Gear for wear and damage.

If no problem is found, replace the Motor Drive PWB PL 1.10

Check the following:

- The 1st BTR Contact/Retract Clutch (dC330 [094-008/009] (Retract/Contact)) for operation failure PL 40.05.

  Note: During the 1st BTR Contact/Retract operation, check whether the Fusing Unit Drive Motor is also rotating. If it is not rotating, check the 1st BTR Contact/Retract Gear for blockage and damage.

If no problems are found, replace the following in sequence: However, each time a part is replaced, check whether the fault is still occurring.

- Fuser (PL 10.05).
- Fuser Drive Assembly PL 40.05
- Motor Drive PWB (PL 1.10).

310-341 Fusing Unit Illegal Fail RAP

BSD 10.6 Fuser Detection

310-341 A incorrect type of fuser was installed.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer toGP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

1. Power off the machine by pressing the UI Power Button and responding to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4). If the fault still exists, switch off the machine.
2. Install a new fuser, (PL 10.05). Switch on the machine, (GP 4).

310-360 IH Driver Input High Voltage Fault

BSD 10.3 Fusing Heat Control (1 of 2)

BSD 1.1 Main Power On

The input voltage of the IH Driver is high voltage (155VAC +/- 5VAC or higher).

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Turn the power OFF. Open the PWB Chassis Unit.

Turn the main power ON (turn ON the Main Power Switch only).

The voltage between the AC Power Supply P/J6 -1 and P/J6 -2 is 100VAC or within 110/208 to 240VAC.

Y **N**

Go to OF3 RAP.

Turn the Main Power Switch OFF and check the following connections for open circuits and poor contacts:

- Between AC Power Supply P/J6 -1 and IH Driver PWB P/J30 -1
- Between AC Power Supply P/J6 -2 and IH Driver PWB P/J30 -3

If no problem is found, replace the following parts in sequence.

- Noise Filter (PL 1.15) (C8170)
- MCU PWB (PL 3.15)

310-361 IH Driver Input Low Voltage Fault

The input voltage of the IH Driver is low voltage (80VAC or lower).

Procedure

Refer to 310-360 IH Driver Input High Voltage Fault RAP to troubleshoot the problem .

310-362 IH Driver Surge Fault

BSD 10.4 Fusing Heat Control (2 of 3)

The IH Driver detected surge. (Status code 0x3 is received)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Turn the power OFF and ON.
2. Check the voltage and voltage noise at customer's outlet.

   If the problem was not resolved by turning the power OFF then ON and no problems were found after checking the voltage and voltage noise at the outlet, replace the IH Driver (PL 1.15).

310-363 IGBT Temperature High Fault

BSD 10.4 Fusing Heat Control (2 of 3)

The IGBT Temperature Sensor detected high temperature. (Status code 0x4 is received)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Power OFF the machine, and remove the Rear Upper Cover. Open the video chassis unit assembly

Power the machine ON and enter the Diagnostic mode. Turn ON dC330 [042-016] (IH Intake Fan).

The IH Intake Fan is rotating.

Y N

| Proceed to the 343-356 RAP.

(C8145/55, C8170) Press the Stop button. Turn ON dC330 [042-017] (IH Exhaust Fan).

The IH Exhaust Fan is rotating.

Y N

| Proceed to the 310-398 RAP.

Press the Stop button.

Turn the power OFF and check the following connections:

- Between the IH Driver P/J530 and the Motor Drive PWB (PL 1.10) for open circuit, short circuit, and poor contact. (**(C8170 only)** Perform the check after removing the Sub LVPS.)
- Check the connector (J1) between the MCU-PF PWB and the Motor Drive PWB for poor contact, damage, and foreign substances.

If no problems are found, replace the following parts in sequence:

- Motor Drive PWB (REP 1.4)
- Motor Control Unit PWB (PL 3.15)

310-364 IGBT Temperature Sensor Fault

BSD 10.4 Fusing Heat Control (2 of 3)

An open circuit, short circuit, or abnormal change in Sensor value was detected at the IGBT Temperature Sensor. (Status code 0x5 is received)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Power the machine OFF and ON (GP 4).
2. Turn the power OFF and check the connection between the IH Driver P/J530 and the Motor Drive PWB (PL 1.10) for open circuit, short circuit, and poor contact. (**(C8170 only)** Perform the check after removing the Sub LVPS.)
3. Check the connector (J1) between the Motor Control Unit PWB (PL 3.15) and the Motor Drive PWB (PL 1.10) for poor contact, damage, and foreign substances.

   If no problems are found, replace the following parts in sequence:

   - IH Driver (PL 1.15)
   - Motor Drive PWB (PL 1.10)
   - Motor Control Unit PWB (PL 3.15)

310-367 Input Low Current Fault

BSD 10.3 Fusing Heat Control (2 of 2)

The input current was below the lower limit continuously for the specified time. (Status code 0x8 is received)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

Turn the power OFF and remove the Fuser Assembly. Check the Connector between the Fuser Assembly (PL 10.05) and the Main Unit (DJ600/J600) for broken/bent pins, foreign substances, burns, and etc.

Procedure

Check the following: (**(C8170 only)** Perform the check after removing the Sub LVPS.)

- The connection between the IH Driver PWB J60 -1 and the IH Heating Coil P/J634 -1 for short circuit and poor contact
- The connection between the IH Driver PWB J61 -1 and the IH Heating Coil P/J634 -2 for short circuit and poor contact

If no problems are found, replace the following parts in sequence:

- IH Driver PWB (PL 1.15)
- IH Heating Coil (PL10.05)
- Fuser (PL 10.05)
- Motor Drive PWB (PL 1.10)

310-368 Encoder Pulse Fault

BSD 10.1 Fuser Drive Control (1 of 2)

The level change of the Belt Speed Sensor was in less than 1 second. (Status code 0x9 is received)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Power the machine OFF and remove the Fuser. Check the connectors between the Fuser and the Main Unit (DJ600) for broken/bent pins, foreign substances, burns, and etc.
- Check whether the Motor Drive PWB connector (PL 1.10) is connected properly.

Procedure

Check the following connections for short circuits and poor contacts.

- Between Motor Drive PWB (PL 1.10). -7 and Fuser Assembly DJ600 -B3
- Between Motor Drive PWB -8 and Fuser Assembly DJ600 -B2
- Between Motor Drive PWB -9 and Fuser Assembly DJ600 -B1

If no problems are found, replace the following parts in sequence:

- Fuser (PL 10.05)
- Motor Drive PWB (PL 1.10)

310-369 IH Driver Communication Fault

BSD 10.4 Fusing Heat Control (2 of 3)

Communication error between the IH Driver and the Motor Drive PWB has occurred. (Status code 0xC is received. Or, communication error between the DD and the IH was detected)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Power the machine OFF and ON.
2. If the problem persists, refer to 310-364 and follow the troubleshooting process described in that RAP.

310-370 IH Driver Freeze Fault

BSD 10.4 Fusing Heat Control (2 of 3)

The IH Driver Freeze port became Active (Low). (The CPU of the IH Driver has hung.)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Power the machine OFF and ON.
2. If the problem persists, refer to 310-364 and follow the troubleshooting process described in that RAP.

310-371 Heat Belt STS Center Disconnection Fault

BSD 10.3 Fusing Heat Control (1 of 3)

The open circuit AD value of the Center Thermistor was detected 3 times in a row.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Power OFF the machine and remove the Fuser (PL 10.05). Inspect the connector between the Fuser and the Main Unit (J600) for broken/bent pins, foreign substances, burns, and etc.
- Ensure that the Motor Drive PWB connector is connected properly.

Procedure

Check the IH Center Thermistor for an open circuit — measure the resistance between P600–4 and P600–3.

The resistance is infinite.

Y **N**

Measure the resistance between the FuserDP600 -4 andDJ600 -3.

The resistance is infinite.

Y **N**

Check the following connections for open circuits, short circuits, and poor contacts.

- BetweenJ600 -4 and Motor Drive PWB (PL 1.10) -13
- BetweenJ600 -3 and Motor Drive PWB (PL 1.10) -14

If no problems are found, replace the Motor Drive PWB (PL 1.10).

Replace the Fuser (REP 10.2).

Replace the Fuser (REP 10.2).

310-372 Heat Roll STS Center Over Temperature Fault

BSD 10.3 Fusing Heat Control (1 of 3)

The AD value of the Center Thermistor was detected to be higher than the defined value 4 times in a row.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Note:

To clear this Fail, first remove the cause, next clear the value of NVM [744-001] (Error Detection History) to '0', and then turn the power OFF and ON.The relationship between the displayed value and the parts that detected the error are as follows:

- 0: Normal
- 1: High temperature error (Center Thermistor - Run in progress)
- 2: High temperature error (Rear Thermistor - Run in progress)
- 3: High temperature error (Center Thermistor - other than Run in progress)
- 4: High temperature error (Rear Thermistor - other than Run in progress)
- 5: Coil loading error
- 6: Center Thermistor is heating up abnormally
- 7: Rear Thermistor is heating up abnormally
- 8: High temperature error detection due to out of control thermosensitivity monitor
- 9: IH Center Thermistor Warmup Time (No Temperature Rise) Fail
- 10: IH Rear Thermistor Warmup Time (No Temperature Rise) Fail
- 11: IH Power Supply Parts Failure

Initial Actions

- The IH Center Thermistor for dropped parts, and the Sensor for contamination and clogging due to foreign objects.
- Turn the power OFF and remove the Fuser Assembly. Check for foreign substances or paper wound around the Heat Roll.
- The Connector between the Fuser Assembly and the Main Unit (DJ600) for broken/bent pins, foreign substances, burns, and etc.
- The Heat Belt for damage.
- Check whether the Motor Drive PWB connector P/J431 is connected properly.

Perform the following steps:

1. Check the Center Thermistor (dC140 [010-200]) for operation failure.
   Monitor AD Value: 100 or lower (Temperature Monitor Value: 250 degree C or higher) is a Fail
2. If no problems are found, replace the following parts in sequence:
   - Fuser (PL 10.05)
   - Motor Drive PWB (PL 1.10)

310-373 Heat Belt STS Rear Disconnection Fail

BSD 10.3 Fusing Heat Control (1 of 2)

The open circuit AD value of the Rear Thermistor was detected 3 times in a row.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

1. Power the machine OFF and ON.
2. Switch OFF the power and check the Rear Thermistor for open circuit.
3. Check the connection between the Motor Drive PWB J420 and the Drawer Connector J600 for open circuit, short circuit, and poor contact.
4. If no problem is found, replace the following parts in sequence: However, each time a parts is replaced, check whether the Fault is still occurring and return the part if it has no problems.
   - Fuser (PL 10.05)
   - Motor Drive PWB (PL 1.10)

310-374 Heat Belt Thermistor Rear Over Temperature Fail

BSD 10.3 Fusing Heat Control (1 of 2)

The AD value of the Rear Thermistor was detected to be higher than the defined value 4 times in a row.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Note: To clear this Fail, first remove the cause, next clear the value of NVM [744-001] (Error Detection History) to '0', and then turn the power OFF and ON. The relationship between the displayed value and the parts that detected the error is as follows:

- 0: Normal
- 1: High temperature error (Center Thermistor - Run in progress)
- 2: High temperature error (Rear Thermistor - Run in progress)
- 3: High temperature error (Center Thermistor - other than Run in progress)
- 4: High temperature error (Rear Thermistor - other than Run in progress)
- 5: Coil loading error
- 6: Center Thermistor is heating up abnormally
- 7: Rear Thermistor is heating up abnormally
- 8: High temperature error detection due to out of control thermosensitivity monitor
- 9: IH Center Thermistor Warmup Time (No Temperature Rise) Fail
- 10: IH Rear Thermistor Warmup Time (No Temperature Rise) Fail
- 11: IH Power Supply Parts Failure

Initial Actions

- The Rear Thermistor for dropped parts, and the Sensor for contamination and clogging due to foreign objects.
- Switch the power OFF and remove the Fuser Assembly. Check for foreign substances or paper wound around the Heat Roll.
- The Connector between the Fuser Assembly and the Main Unit (DJ600) for broken/bent pins, foreign substances, burns, and so on.
- The Heat Belt for damage.
- Check whether the Motor Drive PWB connector P/J431 is connected properly.

Perform the following steps:

1. Check the Rear Thermistor (dC140 [010-201]) for operation failure.
   Monitor AD Value: 100 or lower (Temperature Monitor Value: 250 degree C or higher) is a Fail
2. If no problems are found, replace the following parts in sequence:
   - Fuser (PL 10.05)
   - Motor Drive PWB (PL 1.10)

310-375 Heat Belt Center Thermistor Warm Up Time Fault

BSD 10.3 Fusing Heat Control (1 of 2)

When transitioning from the Wait state, the specified Temperature is not reached within the specified time.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Note: This Fault may occur when the temperature in the installation environment is low (10 degree C or lower) or when the voltage is low (-10 % of rated voltage or lower).

Procedure

Enter dC122 Fault History. Check whether IH Driver Input Low Voltage Fault has occurred.

Fault 310-361 occurred

Y N

| Go to RAP 310-360 to troubleshoot the problem

Turn the power OFF and check the following:

- Remove the Fuser (PL 10.05) . Check the Connector between the Fuser and the Main Unit (DJ600) for broken/bent pins, foreign substances, burns, and etc.
- Check the following connections for short circuits and poor contacts.
  - check the Drawer Connector (DP/DJ600, P/J600) between the Main Unit and the Fusing Unit for broken/bent pins, burn damage, foreign objects, etc.
  - Check the connection between the Motor Drive PWB J420 and the Drawer Connector J600 for open circuit, short circuit, and poor contact.

If no problems are found, replace the following parts in sequence:

- Fuser Heater Power Supply (PL 1.05)
- Fuser Heater Coil Assembly (PL10.05)
- Fuser (PL 10.05)
- Motor Drive PWB (PL 1.10)

310-376 Heat Belt Rear Thermistor Warm Up Time Fault

BSD 10.3 Fusing Heat Control (1 of 2)

When transitioning from the Wait state, the specified Temperature is not reached within the specified time.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Note: This Fault may occur when the temperature in the installation environment is low (10 degree C or lower) or when the voltage is low (-10 % of rated voltage or lower).

Procedure

Enter dC122 Fault History. Check whether IH Driver Input Low Voltage Fault has occurred.

Fault 310-361 occurred

Y N

| Go to RAP 310-360 to troubleshoot the problem

Power OFF the machine and check the following:

- Remove the Fuser (PL 10.05). Check the Connector between the Fuser and the Main Unit (DJ600) for broken/bent pins, foreign substances, burns, and etc.
- Check the following connections for short circuits and poor contacts.
  - check the Drawer Connector (DP/DJ600, P/J600) between the Main Unit and the Fusing Unit for broken/bent pins, burn damage, foreign objects, etc.
  - Check the connection between the Motor Drive PWB J420 and the Drawer Connector J600 for open circuit, short circuit, and poor contact.

If no problems are found, replace the following parts in sequence:

- Fuser Heater Power Supply (PL 1.05)
- Fuser Heater Coil Assembly (PL10.05)
- Fuser (PL 10.05)
- Motor Drive PWB (PL 1.10)

310-378 Heat Belt Rotation Fault

Fusing Unit Drive

After the Fuser Unit Drive Motor turns On, the Fusing Belt Speed Sensor output does not change within 500 ms or longer.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Power the machine OFF then ON (GP 4).

The problem continues.

Y N

Note the problem in the machine log and return to this procedure.

Check the Fuser Unit Drive Motor (PL 40.05) operation in dC330.

- High model: dC330 [010-001]
- Mid model: dC330 [010-004]
- Low model: dC330 [010-006]

The Fuser Unit Drive Motor operates correctly.

Y N

Power the machine OFF and check the following:

- The connections between the Fusing Unit Drive Motor and the Motor Drive PWB (PL 1.01) for open circuit, short circuit, and poor contact.
- The connections between the Belt Speed Sensor and the Motor Drive PWB (PL 1.01) for open circuit, short circuit, and poor contact.
- If no problems are found replace the following in order:
  - Fuser Unit Drive Motor (PL 40.05)
  - Motor Drive PWB (PL 1.01)

An open circuit in the Fusing Unit Belt Speed Sensor may have occurred. Remove the Fuser.

Check for open circuit, short circuit, and poor contact between the following:

- Connector between the Fuser and the Main Unit (DP/DJ600, P/J600
- Check the connection between the Motor Drive PWB J420 and the Drawer Connector J600 for open circuit, short circuit, and poor contact.

If no problems are found, replace the Fuser (PL 10.05)

310-379 Fuser Hot Not Ready Return Time Fail

BSD 10.3 Fusing Heat Control (1 of 2)

The time taken to recover from the Fuser High Temperature Not Ready state has exceeded the specified time.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Go to 310-327and use the procedure to troubleshoot the problem.

310-380 Pressure Roll Latch Motor Fault

BSD 10.2 Pressure Roll Latch/Unlatch

When in the P/Roll Contact/Retract operation, the Latch Position Sensor detected a Latch position error of the P/Roll.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Power off the machine (GP 4). and check whether the Fuser (PL 10.05) is installed properly.
- Remove the Fuser and check the Connector between the Fuser and the Main Unit (DP600) for broken/bent pins, foreign substances, burns, open circuit, short circuit, and poor contact.
- Check whether the Motor Drive PWB (PL 1.10) connector is connected properly.

Procedure

Check the following:

- The P/R Latch Motor (dC330 [010-009/010] (Latch On/Off) for operation failure.
- The connection between the Motor Drive PWB J420 and the Drawer Connector J600 for open circuit, short circuit, and poor contact.
- The Drawer Connector (DP/DJ600, P/J600) between the Main Unit and the Fusing Unit for broken/ bent pins, burn damage, foreign objects, etc.
- The Drive Gear for wear and damage.

If no problem is found, replace the following parts in sequence: However, each time a parts is replaced, check whether the Fail is still occurring and return the part if it has no problems.

- Fusing Unit (PL 10.05)
- Motor Drive PWB (PL 1.10)

310-382 Fuser Thermostat Fault

The Fuser Thermostat is broken or a software fix is required.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Check/perform the following:

- Switch the machine power off, then on. Check if the problem persists.
- Switch the machine power off. Check the Fuser Thermostat for an open circuit. If open, replace the Fuser (PL 10.05)
- Check the connection between the Motor Drive PWB J437 and the Drawer Connector DJ600 for open circuit, short circuit, and poor contact.
- If no problem is found, replace the Fuser PL 10.05.

310-398 Fuser Exhaust Fan Fault

BSD 10.5 Fusing

The Fuser Exhaust Fan error was detected.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

Rotate the Fuser Exhaust Fan (PL 40.15) manually to check for loading.

Procedure

Enter the Diagnostic Mode, turn ON dC330 [042-059] (Fuser Exhaust Fan — medium speed).

The Fuser Exhaust Fan rotates

Y N

Power the machine OFF and check the connection between the Fuser Exhaust Fan P/J262 -4/3/1 and the Motor Drive PWB P/J408 -10/11/13 for open circuit, short circuit, and poor contact.

Check the Fuser Exhaust Fan iBeacon® Bluetooth® for foreign substances.

If no problems are found, replace the following parts in sequence:

- Fuser Exhaust Fan (PL 40.15)

Press the Stop button then turn the power OFF.

Check the connection between the Fuser Fan P/J262 -2 and the Motor Drive PWB P/J408 -12 for open circuit, short circuit, and poor contact.

If no problems are found, replace the Motor Drive PWB (PL 1.10).

310-420 Fuser Near Life [Over] Warning

BSD 10.3 Fusing Heat (1 of 2)

BSD 10.5 Fusing

The Fuser is near the end of its life span.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (such as loading paper, closing a cover, replacing a CRU, and so on.). Entry to this RAP is usually from the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Perform the following steps in order:

1. Replace the Fuser (PL 10.05) with a new one and clear dC135 [954-850].
2. Power the machine OFF and ON (GP 4).
3. If the fault recurs, power the machine OFF and check the following:
   - Check the Fuser for improper installation
   - Check the connectors between the Fuser and the Main Unit for broken/bent pins, foreign substances, burns, and etc.
   - Check the connection between the Fuser and the LVPS (PL 1.15) for open circuit, short circuit, and poor contact
   - Check the connection between the Fuser and the Motor Drive PWB for open circuit, short circuit, and poor contact

   If no problems are found, replace the following parts in sequence:
   - Fuser (PL 10.05)
   - Motor Drive PWB (PL 1.10)

310-421 Fuser Life Over Warning

BSD 10.3 Fusing Heat (1 of 2)

BSD 10.5 Fusing

The Fuser Assembly is at the end of its life span.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc.). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Perform the following steps in order:

1. Replace the Fuser (PL 10.05) with a new one and clear dC135 [954-850].
2. Power the machine OFF and ON (GP 4).
3. If the fault recurs, power the machine OFF and check the following:
   - Check the Fuser for improper installation
   - Check the connectors between the Fuser and the Main Unit for broken/bent pins, foreign substances, burns, and etc.
   - Check the connection between the Fuser and the LVPS (PL 1.15) for open circuit, short circuit, and poor contact
   - Check the connection between the Fuser and the Motor Drive PWB for open circuit, short circuit, and poor contact

   If no problems are found, replace the following parts in sequence:
   - Fuser (PL 10.05)
   - Motor Drive PWB (PL 1.10)

310-613 Fuser Drive Motor Current Warning RAP

BSD 10.5 Fusing

310-613 The current value that is applied to the Fuser Drive Motor has continuously exceeded the Threshold for more than the specified time.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Enter dC330, code 945-850 to verify the HFSI counter value is less than 450,000.
2. Enter dC330, code 010-203 to activate the fuser unit belt speed sensor, part of the fuser, PL10.05.
3. Enter dC330, code 010-002 to run the fuser drive motor, PL 40.05.
4. Check the helical gear (PL 40.05), for excessive wear and damage. Install a new helical gear as necessary.
5. If the fault persists, install new components as needed:
   a. Fuser (PL 10.05).
   b. Motor Drive PWB, (PL 1.10).

310-616 Fusing Unit Thermosensitivity Runaway Hot Not Ready Warning RAP

BSD 10.3 Fusing Heat (1 of 2)

BSD 10.4 Fusing Heat (2 of 2)

310-616 High temperature error detection due to out of control thermosensitivity monitor was detected for specified times (from half of the setting times to the setting times - 1).

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Power OFF, then power ON the machine (GP 4).
2. If the fault persists, install new components as needed:
   - Fuser Heater Coil (PL 10.05)
   - Fuser (PL 10.05)

Note: After installation of a new part, check the value of NVM [744-001] (Error Detection History). When the value is set to [5] (Coil loading error), clear it to [0]. Switch off, then switch on the machine, GP 4.

310-617 Fusing Paper Quality Operation Mistake Warning RAP

310-617 The paper type is different than expected by the UI settings.

Procedure

Check the tray setting and change it to a correct paper setting or verify the correct paper type is in the tray for the job.

310-618 Fusing Unit E2PROM Write Limit Info RAP

BSD 10.6 Fuser Detection

310-618 The upper limit of write guarantee to the Fusing Unit E2PROM has been exceeded.

Procedure

No action required.

310-619 Fusing Unit E2PROM I2C Master Communication Info RAP

BSD 10.6 Fuser Detection

310-619 The I2C Master has a communication error, or the communication control ASIC has a fault.

Procedure

1. Power OFF then power ON the machine, (GP 4).

   Note: If this resolves the problem, it is highly probable that the operation failure had occurred due to external electrical noise or abnormal electrical noise caused by electrical discharge in the machine. Check for any electrical noise source around the machine and check for any abnormal electrical discharge, etc.

2. Check to ensure that the Fuser is fully engaged into the drawer connector. Switch off the machine, then perform the steps that follow:
   - Check the Controller PWB Assembly (PL 3.05) and Back Plane PWB (PL 3.15) for position and full connector engagement.
   - Check the motor drive ribbon cable between the Halftone PWB (PL 3.15) and the Motor Drive PWB (PL 1.10) for open circuit and poor contact.
   - Check the connection between the Motor Drive PWB (PL 1.10) and the drawer connector DP600 for open circuit, short circuit, and poor contact.
   - Check the connection between the drawer connector DJ600 and the fuser DP600 for open circuit, short circuit, and poor contact.
3. If the fault persists, install new components as necessary in the following order. Check for fault cleared after installing each part before installing the next part:
   a. Fuser (PL 10.05).
   b. Motor Drive PWB (PL 1.10).

310-620 Fuser EEPROM Data Mismatch Info RAP

BSD 10.6 Fuser Detection

310-620 Incorrect authentication area data was detected in the Fuser.

Procedure

1. Remove and reinstall the Fuser (PL 10.05) to verify correct installation.
2. If the fault persists, replace the current Fuser with a new Fuser (REP 10.2).

310-621 Fuser EEPROM Not In Position Info RAP

BSD 10.6 Fuser Detection

The Fuser is not installed correctly or a communication error has occurred.

Procedure

1. Remove and reinstall the current Fuser (PL 10.05) to verify correct installation.
2. If the fault persists, install a new Fuser (REP 10.2).

310-622 Fuser EEPROM Data Broken Info RAP

BSD 10.6 Fuser Detection

310-622 The system detected that the data written to the Fuser EEPROM and the data read from it do not match.

Procedure

Perform Fuser EEPROM Data Mismatch Info RAP (310–620 RAP).

310-623 Fusing Heavy Paper Quality Operation Mistake Warning RAP

310-623 The paper type (plain or lightweight) is different from the UI settings (heavyweight).

Procedure

Check the tray settings in the UI and change as needed to the correct paper setting for the job.

316-000-00 to 316-016-99 Network Faults 1 RAP

316-000-00 Format services non shutdown ESS faults.

316-000-01 ENS service non shutdown ESS faults.

316-000-09 Cannot create RPC connection with ENS.

316-000-14 Cannot create RPC connection with ENS.

316-000-19 Cannot create RPC connection with ENS.

316-000-26 Cannot create RPC connection with ENS.

316-001-09 Unable to do startup synchronization.

316-001-14 Unable to do startup synchronization.

316-001-19 Unable to do startup synchronization.

316-001-26 Unable to startup and synchronize with SC.

316-001-47 Unable to do startup synchronization.

316-001-90 Unable to do startup synchronization.

316-002-09 Unable to register as an RPC server.

316-002-14 Unable to register as an RPC server.

316-002-19 Unable to register as an RPC server.

316-002-26 Unable to register as an RPC server.

316-002-46 Unable to register as an RPC server.

316-003-09 Too many IPC handles.

316-003-14 Too many IPC handles.

316-003-19 Too many IPC handlers.

316-003-90 Utility insert handler failure.

316-004-14 RPC call failure to ESS registration service.

316-004-19 RPC connect failure to ESS registration service.

316-004-26 RPC connect failure to ESS registration service.

316-004-46 RPC connect failure to ESS registration service (to register with).

316-005-14 RPC call failure to ESS registration service.

316-005-19 RPC call failure to ESS registration service.

316-005-26 RPC call failure to ESS registration service.

316-005-46 RPC call failure to ESS registration service (to register with).

316-005-68 RPC call failure to ESS registration service (to register with).

316-005-90 RPC call failure to ESS registration failed.

316-005-92 RPC call failure to ESS registration service (to register with).

316-006-09 Cannot register for events.

316-006-19 Cannot register for events.

316-007-92 Invalid RPC data received.

316-009-09 Invalid IPC data received.

316-010-14 Unable to send IPC.

316-010-99 IPC open, create, signal queue failed.

316-013-14 Digital copier ENS synchronization error.

316-014-14 Digital copier ENS synchronization error.

316-015-14 SESS data store environmental variable not set.

316-015-19 SESS data store environmental variable not set.

316-016-14 Data store initialization failed.

316-016-19 Data store initialization failed.

316-016-99 Data Store init. failed.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-017-19 to 316-153-19 Network Faults 2 RAP

316-017-19 Send event failure. Unable to send event to ESS ENS.

316-021-19 ESS PM registration connect error.

316-021-26 Service could not get host name.

316-021-46 Unable to get host name.

316-023-09 RPC call failure to ENS.

316-023-26 RPC call failure to ENS.

316-026-09 Memory allocation failure.

316-026-14 Memory allocation error.

316-026-46 Memory allocation failure.

316-026-90 Memory allocation error.

316-026-92 Memory allocation failure.

316-027-90 Unable to obtain well known queue ID.

316-028-09 Unable to complete RPC call.

316-028-90 Invalid range string.

316-030-19 Unable to obtain client RPC handle to EJS.

316-031-09 Invalid event notification received.

316-032-19 NVM connection failure.

316-039-00 Pthread create error.

316-040-92 Semaphore fault.

316-048-09 Unable to set binding.

316-048-14 Cannot set ESS client binding.

316-048-90 Cannot set ESS client binding.

316-048-99 Unable to set client binding.

316-150-09 Cannot send registration event.

316-150-14 Unable to obtain RPC transport.

316-150-19 Unable to sync peer (within ESS) infrastructure services.

316-150-26 Fault service failed to write log.

316-150-90 Invalid IPC request destination.

316-150-92 Consumer interface fault.

316-151-09 Invalid IPC command.

316-151-14 SNMP event registration failed.

316-151-19 Invalid IPC command.

316-151-26 Fault service failed to get a log handle.

316-151-90 Put environment variable failure.

316-152-09 Internal IPC failure.

316-152-14 Empty internal event received by ENS.

316-152-19 Unable to send request to SESS.

316-152-26 Fault service could not open fault log.

316-153-09 Unable to obtain IPC queue.

316-153-14 Can not initialize internal event list.

316-153-19 NVM save failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-154-09 to 316-602-105 Network Faults 3 RAP

316-154-09 NC registration service configuration error.

316-154-14 Cannot create internal event.

316-154-19 NVM read failure.

316-155-19 NC failed to boot from alternate disk partition.

316-156-19 Service run loop failed.

316-160-09 NC registration service process death.

316-161-09 Cannot send registration event.

316-162-09 NC platform manager services process death.

316-163-09 NC DM agent services process death.

316-164-09 List access failure (create, add, find, delete).

316-429-00 Unable to write to data store.

316-431-00 Unable to get system time.

316-432-00 Unknown scheduler received.

316-433-00 RPC call failed.

316-434-00 Unable to change scheduler received.

316-501-00 Ethernet cable not connected.

316-502-00 USB WiFi adapter not installed.

316-503-00 Ethernet 802.1X connection failure.

316-504-00 WiFi connection failure. Cannot connect to the WiFi network.

316-505-00 WiFi connection lost.

316-506-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-507-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-508-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-509-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-510-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-511-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failure.

316-512-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP server not found.

316-513-00 WiFi DHCP/BOOTP Error: DHCP/BOOTP server not found.

316-514-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-517-00 WiFi DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-518-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-519-00 WiFi DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-520-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-521-00 WiFi DHCP/BOOTP Error: DHCP/BOOTP failed to obtain an address.

316-522-00 Ethernet DHCP/BOOTP Error: DHCP/BOOTP server not found.

316-523-00 WiFi DHCP/BOOTP Error: DHCP/BOOTP server not found.

316-524-00 Ethernet: Duplicate IPv4 address detected.

316-525-00 WiFi Duplicate IPv4 address detected.

316-526-00 Ethernet: No IPv4 router configured.

316-527-00 WiFi: No IPv4 router configured.

316-528-00 Ethernet: No IPv6 router advertisement. No routable IPv6 address configured.

316-529-00 WiFi: No IPv6 router advertisement. No routable IPv6 address configured.

316-531-00 Ethernet: Duplicate IPv6 address detected.

316-533-00 WiFi: Duplicate IPv6 address detected.

316-535-00 Ethernet DHCPv6 Error: DHCPv6 failed to obtain an address.

316-536-00 WiFi DHCPv6 Error: DHCPv6 failed to obtain an address.

316-540-00 Ethernet DHCPv6 Error: DHCPv6 failed to obtain an address.

316-544-00 WiFi DHCPv6 Error: DHCPv6 failed to obtain an address.

316-546-00 Ethernet DHCPv6 Error: DHCPv6 failed to obtain an address. DHCPv6 NAK.

316-547-00 WiFi DHCPv6 Error: DHCPv6 failed to obtain an address. DHCPv6 NAK.

316-548-00 Ethernet DHCPv6 Error: DHCPv6 server not found.

316-550-00 WiFi DHCPv6 Error: DHCPv6 server not found.

316-551-00 Ethernet: Failed to verify the host name and/or domain name in DNS.

316-552-00 WiFi: Failed to verify the host name and/or domain name in DNS.

316-553-00 Ethernet: Verified host and/or domain name(s) do not match with the requested host/domain name(s).

316-554-00 WiFi: Verified host and/or domain name(s) do not match with the requested host/domain name(s).

316-600-07 Cannot create RPC connection to ENS.

316-600-35 Cannot create RPC connection to ENS.

316-600-46 Cannot create RPC connection to ENS.

316-600-66 Unable to create RPC connection to ENS.

316-600-67 Unable to create RPC connection to ENS.

316-601-26 Fault service failed IPC queue setup.

316-601-35 System control initialization failed.

316-601-46 Invalid UI information (RPC data) returned.

316-601-47 Diagnostics service failed IPC queue setup.

316-601-66 Unable to do startup synchronization.

316-601-67 Unable to do startup synchronization.

316-601-68 Unable to startup and synchronize with SC.

316-601-105 Unable to do startup synchronization.

316-602-07 RPC service registration failure.

316-602-09 Unable to unregistered as RPC service during shutdown.

316-602-11 RPC server register failed.

316-602-28 RPC server registration failed.

316-602-35 RPC server registration failed.

316-602-38 RPC server registration failed.

316-602-66 Unable to register as an RPC server.

316-602-67 Unable to register as an RPC server.

316-602-68 Unable to register as an RPC server.

316-602-105 Unable to register as an RPC server.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-603-11 to 316-608-105 Network Faults 4 RAP

316-603-11 Replace handler call failed.

316-603-28 Replace handler call failed.

316-603-46 Too many IPC handlers.

316-603-66 Too many IPC handlers.

316-603-67 Too many IPC handlers.

316-603-68 Replace handler call failed.

316-603-105 RPC call failure to network controller registration service.

316-604-14 Unable to unregister as RPC service during shutdown. Registration failed.

316-604-38 Could not register with registration service.

316-604-99 Could not register with registration service.

316-604-105 SESS data store environmental variable not set.

316-605-07 Unable to register with registration service.

316-605-14 RPC call failure to ESS registration service.

316-605-26 Fault service timed out registering with registration service.

316-605-35 RPC call failure to NC registration service.

316-605-47 RPC call failure to NC registration service (to register with).

316-605-66 RPC call failure to NC registration service.

316-605-67 RPC call failure to NC registration service.

316-605-105 Unable to unregister as RPC service during shutdown.

316-606-07 Cannot register for events.

316-606-35 Cannot register for events.

316-606-46 Cannot register for events.

316-606-99 Cannot register for events.

316-606-105 OS problem.

316-607-19 Invalid RPC data received.

316-607-46 Invalid RPC data received.

316-607-47 Invalid RPC disk diagnostic data received.

316-607-92 Invalid RPC data received.

316-607-105 Service run loop failed.

316-608-09 Unable to free IPC resources.

316-608-11 IPC unregister failed.

316-608-14 Unable to free IPC resources.

316-608-26 Fault service failed to unbind with SC.

316-608-28 IPC unregister fail.

316-608-35 Unable to free IPC resources.

316-608-38 Unable to unregister as IPC server.

316-608-46 Unable to free IPC resources.

316-608-66 Unable to free IPC resources.

316-608-67 Unable to free IPC resources.

16-608-68 Unable to Free IPC Resources.

316-608-105 Unable build UI SVC, obtain client failed.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-609-07 to 316-612-68 Network Faults 5 RAP

316-609-07 Unknown message received from DM agent.

316-609-19 Invalid RPC data received.

316-609-26 Fault service encountered error trying to get IPC message.

316-609-46 Invalid IPC data received.

316-609-47 Invalid IPC data received. Get SC diagnostics handle failed.

316-609-92 Invalid IPC data received.

316-609-105 Too many IPC handlers.

316-610-00 IPC send failure to ESS AAA service for queue command authorization.

316-610-07 IPC send failure to DM agent.

316-610-09 Cannot send IPC message to ESS platform manage.

316-610-11 IPC communication failed.

316-610-19 Unable to send IPC message.

316-610-26 Unable to send IPC message.

316-610-28 IPC communication failed.

316-610-35 Unable to send IPC message.

316-610-46 Unable to send IPC message.

316-610-90 IPC send response error.

316-610-92 Failure to send queue status.

316-610-99 Unable to send IPC message.

316-611-07 Client removal failure.

316-611-09 Unable to remove RPC connection.

316-611-14 Unable to remove RPC connection.

316-611-19 Unable to remove RPC connection.

316-611-26 Unable to remove RPC connection.

316-611-38 Client removal failure.

316-611-46 Unable to remove RPC connection.

316-611-47 Unable to remove RPC connection.

316-611-66 Unable to remove RPC connection.

316-611-67 Unable to remove RPC connection.

316-611-99 Unable to remove RPC connection.

316-612-09 Unable to do shutdown synchronization.

316-612-14 Unable to do shutdown synchronization.

316-612-35 Unable to do shutdown synchronization.

316-612-46 Unable to do shutdown synchronization.

316-612-47 Downgrade not permitted.

316-612-68 Unable to do shutdown synchronization.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-613-09 to 316-620-90 Network Faults 6 RAP

316-613-09 DC registration synchronization error.

316-613-14 DC ENS synchronization error.

316-613-19 DC sys mgr sync error.

316-614-09 DC registration communications error.

316-614-14 Digital copier ENS registration error.

316-614-19 DC sys mgr communications error.

316-614-47 Invalid SW upgrade file.

316-615-35 SESS data store environmental variable not set.

316-615-46 SESS data store environmental variable not set.

316-615-47 Multiple SW upgrade files in directory.

316-615-66 SESS data store environmental variable not set.

316-615-67 SESS data store environmental variable not set.

316-615-90 Corrupt environment variable, configuration script error.

316-616-35 SESS faults 206 or 207. Data store not created. Corrupt environment.

316-616-38 Shared memory fault when initializing with the data store.

316-616-46 SESS faults 206 or 207, data store not created, corrupt environment variable.

316-616-47 IPC message failure.

316-616-67 Submission of e-mail or internet fax job failed.

316-617-19 Invalid event information or data. ENS failure, system RPC information corrupt.

316-617-47 TAR extraction failure.

316-618-47 DLM SPI extraction failure.

316-619-14 Registration service failed to respond in time.

316-619-19 Registration service failed to respond in time.

316-619-26 Could not register with registration service. Communication failure, software error.

316-619-46 Unable to unregister with network controller registration service. Registration Service was too slow to respond.

316-619-47 DMPR failure at web.

316-619-68 Unable to unregister with network controller registration service. Registration service was too slow to respond.

316-619-93 Unable to unregister with network controller registration service. Registration service was too slow to respond.

316-620-07 Registration service failed.

316-620-14 Registration service failed.

316-620-19 Registration service failed.

316-620-35 Registration service failed.

316-620-38 Registration service failed.

316-620-39 Registration service failed.

316-620-46 Registration service failed.

316-620-47 Upgrade request rejected.

316-620-90 Registration service failed.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-620-92 to 316-625-90 Network Faults 7 RAP

316-620-92 Unable to unregister with network controller registration service due to registration service failure.

316-620-93 Unable to unregister with network controller registration service due to registration service failure.

316-620-99 Registration service failed.

316-621-00 Unable to get host name. Configuration error.

316-621-07 Unable to get host name. Configuration error.

316-621-11 Unable to get host name. Configuration error.

316-621-28 Unable to get host name. Configuration error.

316-621-35 Failed to get host name using GetHostName call.

316-621-38 Failed to get host name using GetHostName call.

316-621-47 Failed to get host name using GetHostName call.

316-621-66 Unable to get host name.

316-621-67 Unable to get host name.

316-621-93 Failed to get host name using GetHostName call.

316-621-99 Failed to get host name using GetHostName call.

316-622-07 Corrupt O/S RPC table.

316-622-09 Corrupt O/S table.

316-622-11 Corrupt O/S table.

316-622-14 Corrupt O/S table.

316-622-19 Corrupt O/S table.

316-622-26 Corrupt O/S table.

316-622-28 Corrupt O/S table.

316-622-35 Corrupt O/S table.

316-622-38 Corrupt O/S table.

316-622-46 Corrupt O/S table.

316-622-47 Software upgrade file failure.

316-622-66 Unable to unregister as RPC service during shutdown.

316-622-67 Unable to register as RPC service during shutdown.

316-622-68 Unable to register as RPC service during shutdown.

316-623-35 ENS Service failed to respond in time.

316-623-47 ENS service failed to respond in time.

316-624-46 RPC corrupted o/s failure.

316-625-35 Unknown message received. Software version mismatch.

316-625-46 Software version mismatch.

316-625-66 Invalid IPC message type.

316-625-67 Invalid IPC message type.

316-625-90 Known service sends message that does not make sense.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-626-00 to 316-635-99 Network Faults 8 RAP

316-626-00 Memory leak, software bug memory corrupt. Virtual memory exhausted. Process size exceeding system limits.

316-626-11 Memory leak, software bug memory corrupt. Virtual memory exhausted. Process size exceeding system limits.

316-626-38 Memory leak, software bug memory corrupt. Virtual memory exhausted. Process size exceeding system limits.

316-626-47 Memory leak, software bug memory corrupt. Virtual memory exhausted. Process size exceeding system limits.

316-626-66 Memory allocation failed.

316-626-67 Memory allocation failed.

316-628-07 Range environment variable not set. Set to invalid numeric string.

316-628-09 Unable to complete RPC call.

316-628-35 Range environment variable not set. Set to invalid numeric string.

316-628-46 Range environment variable not set. Set to invalid numeric string.

316-628-66 Range environment variable not set. Set to invalid numeric string.

316-628-67 Range environment variable not set. Set to invalid numeric string.

316-629-11 Fault service call to PSW callback failed.

316-629-26 Fault service call to PSW callback failed.

316-629-46 No acknowledgment for RPC message.

316-629-66 No acknowledgement for RPC message.

316-629-67 No acknowledgment for RPC message.

316-629-68 No acknowledgment for RPC message.

316-629-92 No acknowledgment for RPC message. RPC timeout calling program received void response due to corrupt RPC.

316-629-93 No acknowledgment for RPC message. RPC timeout calling program received void response due to corrupt RPC.

316-630-09 Corrupt O/S RPC table.

316-630-26 Corrupt system configuration.

316-630-35 Unable to get RPC client handle. Corrupt system configuration.

316-630-38 Null pointer returned when obtain client attempted.

316-630-46 Corrupt system configuration.

316-630-47 Corrupt system configuration.

316-630-66 Unable to get RPC client handle.

316-630-67 Unable to get RPC client handle.

316-630-68 Unable to get RPC client handle.

316-630-99 Corrupt system configuration.

316-631-19 Software error in the ENS service or in the service generating the fault.

316-631-46 Software error in the ENS or in the service generating the fault.

316-633-19 Invalid system configuration. NVM corrupted.

316-634-46 Unable to specify shutdown routine during initialization.

316-635-07 Cannot free XDR data.

316-635-35 Cannot free XDR data.

316-635-46 Unable to free XDR data.

316-635-99 Unable to convert serialized data to internal data structure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-636-35 to 316-647-26 Network Faults 9 RAP

316-636-35 Unable to convert serialized data to internal data structure. Unable to free XDR data.

316-636-99 Unable to convert serialized data to internal structure. Unable to free XDR data.

316-637-11 Failed to open system jobs file.

316-637-26 Failed to open system jobs file.

316-637-38 Disk write error.

316-637-47 Failed to open a file. Bad disk.

316-637-66 File I/O error.

316-637-67 File I/O error.

316-637-93 File I/O error.

316-637-95 File I/O error.

316-638-66 Unable to initialize with queue library.

316-638-67 Unable to initialize with queue library.

316-639-38 O/S failure memory.

316-639-46 O/S failure memory.

316-640-28 Calling program received void.

316-640-35 RPC send corrupt.

316-640-46 O/S failure.

316-641-00 Cannot log fault to network controller fault log. Either registration or network controller fault service is not available.

316-641-26 Unable to log a fault on the network controller.

316-641-46 Cannot log fault to network controller fault service.

316-642-46 Software error.

316-642-47 Software error.

316-643-19 Disk write error.

316-643-26 Failed to close system jobs file.

316-643-47 Failed to close a file.

316-644-11 Common logging utility failed to get log size.

316-644-26 Common logging utility failed to get log size.

316-644-47 Failed while trying to get data for next process to be verified.

316-644-66 File I/O error.

316-644-67 File I/O error.

316-645-11 Failed write to system jobs file.

316-645-26 Failed write to system jobs file.

316-645-46 Failed to write to a file.

316-645-47 Failed to write to a file.

316-645-66 File I/O error.

316-645-67 File I/O error.

316-646-26 Failed to delete system jobs file.

316-647-19 Lynx OS not responding.

316-647-26 Diagnostic failure, O/S failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-649-35 to 316-668-95 Network Faults 10 RAP

316-649-35 Software error.

316-650-35 Service making invalid attribute request.

316-650-99 Service making invalid attribute request.

316-651-19 IPC, OS, SESS or SC operation.

316-651-35 IPC and OS failure. SESS not responding.

316-651-99 IPC and OS failure. SESS not responding.

316-652-38 SPI enroll failed. Unable to enroll SPI callbacks.

316-652-98 SPI enroll failed. Unable to enroll SPI callbacks.

316-652-99 SPI enroll failed. Unable to enroll SPI callbacks.

316-653-38 When DM passes completed job logged an invalid job.

316-654-14 Log_Init/Log_Close Fault.

316-654-38 DM returned from SPI register function because of error.

316-654-99 DM returned from log function because of error.

316-655-38 DM returned to SPI register function because of error.

316-656-38 RPC processing fault.

316-658-07 Unable to get host name. Configuration error.

316-659-11 Parser utility open failure.

316-659-28 Parser utility open failure.

316-659-93 Parser utility open failure.

316-659-95 Parser utility open failure.

316-660-95 Cannot read local directory entries.

316-660-99 Service initialization failed.

316-661-95 Cannot create spool directory.

316-662-11 Parser utility template failed to parse.

316-662-28 Parser utility template failed to parse.

316-662-93 Parser utility template failed to parse.

316-662-95 Parser utility template failed to parse.

316-663-11 Parser utility template failed to parse.

316-663-28 Parser utility template failed to parse.

316-663-93 Parser utility template failed to parse.

316-663-95 Parser utility template failed to parse.

316-664-11 Parser utility parser closing failed.

316-664-28 Parser utility parser closing failed.

316-664-93 Parser utility parser closing failed.

316-664-95 Parser utility parser closing failed.

316-665-95 Unable to detach from child thread.

316-666-11 Parser utility invocation failed.

316-666-28 Parser utility invocation failed.

316-666-93 Parser utility invocation failed.

316-666-95 Parser utility invocation failed.

316-667-11 Parser utility set status failed.

316-667-28 Parser utility set status failed.

316-667-95 Parser utility set status failed.

316-668-47 Failed to write NVM.

316-668-93 Unable to determine local file statistics.

316-668-95 Unable to determine local file statistics.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-669-28 to 316-730-66 Network Faults 11 RAP

316-669-28 Unable to write job template to network controller disk.

316-669-93 Unable to write job template to network controller disk.

316-669-95 Unable to write job template to network controller disk.

316-670-00 Unable to lock/unlock data store.

316-670-11 Unable to decode template file.

316-670-28 Unable to decode template file.

316-670-47 Failed to save NVM.

316-670-93 Unable to decode template file.

316-671-00 Sort jobs failed.

316-671-47 Failed to initialize NVM.

316-671-93 Unable to encode template file.

316-671-95 Unable to encode template file.

316-672-09 Software error. File system corruption.

316-672-95 Software error. File system corruption.

316-673-95 Software error. File system corruption.

316-674-00 RPC server not responding.

316-674-09 RPC server not responding.

316-675-00 Database server not responding.

316-700-00 In a list job request, an unknown attribute was requested.

316-700-35 Unknown attribute requested passes into a function.

316-701-00 LOA failure. Unable to communicate with XSA database.

316-701-68 Printing prohibited. Unable to communicate with postgres database.

316-701-99 LOA failure. Unable to communicate with XSA database.

316-701-110 Unable to communicate with XSA Database.

316-702-00 LOA failure. Unable to communicate with XSA database.

316-702-95 LOA failure. Unable to communicate with XSA database.

316-707-00 Unknown queue request received.

316-709-00 Unknown modify request received.

316-710-00 Service being communicated to is dead. System resource corrupted.

316-710-35 Service trying to communicate to is dead. System resources corrupted.

316-716-00 Data store not created. Corrupt environment variable.

316-728-00 Range environment variable set to invalid numeric string.

316-730-00 Unable to create client handle.

316-730-28 Unable to create client handle.

316-730-35 Unable to create client handle.

316-730-66 Unable to create client handle.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-718-00 to 316-740-19 Hard Disk Faults RAP

16-718-00 Data store threshold exceeded.

16-720-00 Disk partition root threshold exceeded.

16-722-00 Disk partition /VAR threshold exceeded.

16-724-00 Disk partition /TMP threshold exceeded.

16-726-00 RPC connections exhausted.

16-740-19 NC hard disk IIO failure

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, reload the machine software GP 9.

316-742-19 Hard Disk ODIO Failure RAP

316-742-19 Hard disk ODIO failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Print a configuration report.
2. If the configuration report shows Image Overwrite as installed/disabled, perform the following:
   a. Enter Customer Administration Tools, GP2.
   b. Select the **Tools** tab.
   c. Select **Security Settings**.
   d. Select **Image Overwrite Security**.
   e. Enable the required feature.
3. Perform the 316E Network Fault Checkout RAP.

316-750-07 to 316-750-95 Network Faults 12 RAP

316-750-07 Message received from DM not processed correctly.

316-750-09 Service tried to register and service is already registered.

316-750-11 Template cache file is missing.

316-742-19 Hard disk ODIO failure.

316-750-14 Too many messages sent to SESS system control.

316-750-19 Invalid request data from calling service.

316-750-26 Invalid number of faults requested.

316-750-35 Data store failure.

316-750-38 Initialization of SPI and job tracking table failed in SVC initialize service.

316-750-46 Client requested an unknown object or invalid object type.

316-750-47 Bad parameter returned.

316-750-66 Failure to set service state.

316-750-67 Failure to set service state.

316-750-90 Unexpected service sends this message.

316-750-92 Unable to open bit map captured to disk. Bad or full disk.

316-750-93 IFS error when requesting memory.

316-750-95 Local spool area does not exist.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-751-00 to 316-753-95 Network Faults 13 RAP

316-751-00 Database error known by service registry or registry not available.

316-751-07 Message received from network controller AAA not processed correctly.

316-751-09 Registration receives unrequested ENS notification.

316-751-11 Initialization procedure fails.

316-751-14 SC not responding.

316-751-19 Invalid permission to change date.

316-751-26 Unrecognized code. Service raises code that the fault service doesn't know how to handle.

316-751-28 Templates attributes are invalid, or syntax error.

316-751-35 Invalid queue ID.

316-751-38 Unknown attribute returned for completed job list.

316-751-46 Client requested an unknown object or invalid object type.

316-751-47 Failed to replace the current directory with directory from alt. partition.

316-751-66 Unable to send event to network controller ENS.

316-751-67 Unable to send event to network controller ENS.

316-751-92 Cannot set job to complete.

316-751-93 Invalid template attribute.

316-751-112 Database Error or Service Registry not available.

316-752-00 File cabinet application registration error.

316-752-07 Data store error.

316-752-09 Configuration control problem.

316-752-14 SC not responding. SC IPC queue does not exist.

316-752-19 RPC failure.

316-752-26 Unrecognized SESS error code.

316-752-28 Template cache file is missing.

316-752-35 Invalid queue ID.

316-752-46 Invalid row of table object.

316-752-47 Invalid test pattern source.

316-752-66 Scan to fax services registration error.

316-752-67 Scan to fax services registration error.

316-752-92 Configuration problem.

316-752-93 Error accessing jobs in job list.

316-752-95 File transfer failure.

316-753-00 File cabinet application un-registration error.

316-753-09 Software bug.

316-753-14 Calling service used an invalid event number.

316-753-19 Invalid event information or data. ENS failure. System RPC information corrupt.

316-753-26 PSW failure. O/S failure. CCM failure.

316-753-28 Cannot communicate with UI for template list request.

316-753-35 Unable to change EJS status to offline.

316-753-46 Invalid table row.

316-753-47 Failed to close a directory during verification check. Corrupt disk.

316-753-66 Data store read failure.

316-753-67 Data store read failure.

316-753-90 Software error.

316-753-92 Configuration problem.

316-753-93 Error adding jobs in job list.

316-753-95 Requested transfer protocol not supported.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-754-09 to 316-756-93 Network Faults 14 RAP

316-754-09 Still registered services after timeout.

316-754-14 Receipt is not there. Failure on ENS side.

316-754-19 Shutdown request reason unknown.

316-754-26 Fault service encountered error reading fault log. File system corrupted.

316-754-28 Initialization procedure fails.

316-754-35 OS corrupt.

316-754-46 Attempted to write a read only object. Software configuration error.

316-754-47 Failed to replace a file that was missing with file from alt. partition.

316-754-66 OS problem.

316-754-67 OS problem.

316-754-68 Initialize procedure fails.

316-754-90 Software bug.

316-754-92 Data store failure.

316-754-93 Error deleting jobs from job list.

316-754-95 Unable to remove advisory lock on network server.

316-755-00 Service registry cannot initialize database.

316-755-09 Cannot register new service due to too many entries in SRV table.

316-755-14 Message buffer full. Full queue.

316-755-19 SESS system control broken or too many IPC messages.

316-755-26 Disk write error. Software error.

316-755-28 Cancel request failed.

316-755-35 OS corrupt. Software corrupt. Data store corrupt.

316-755-46 Mismatched data type during object write. Software configuration error or request mishandled configuration index data.

316-755-47 Failed to repair the permission of the current file being checked.

316-755-67 Cancel request failed.

316-755-90 Software limit reached.

316-755-92 Invalid IPC data received.

316-755-93 Unable to initialize with IFS.

316-755-99 Unable to abort job fault.

316-755-112 Unable to initialize the service registry table.

316-756-09 Service not registered.

316-756-14 Client provided wrong binding information. Client not required as RPC server.

316-756-26 Software error.

316-756-28 Range String Error.

316-756-35 OS corrupt. Software error. NVM error.

316-756-46 Poll select failed.

316-756-47 Executable missing or corrupt. Invalid test parameters.

316-756-66 Unable to read NVM value.

316-756-67 Unable to read NVM value.

316-756-92 Invalid IPC Data Received.

316-756-93 IPA operation failed.

Procedure

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1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-757-09 to 316-760-99 Network Faults 15 RAP

316-757-09 System RPC corrupt.

316-757-14 Programming bug. Attempted to shorten timeout.

316-757-19 System manager died or communications link failed.

316-757-26 Software error. Bad disk.

316-757-28 Unknown Message Received.

316-757-35 OS corrupt. Software error. NVM corrupt.

316-757-46 O/S failure.

316-757-47 Failed while trying to replace the file with a file from alt. partition. Configuration error.

316-757-66 Unable to write NVM.

316-757-67 Unable to write NVM.

316-757-92 Invalid IPC Data Received.

316-757-93 Unable to set ICS document state.

316-758-09 Invalid service failure reported.

316-758-14 RPC communications error to client.

316-758-19 Unable to unregister registration service.

316-758-26 Fault service encountered error trying to access its own queue ID.

316-758-28 State Error.

316-758-35 Unable to change EJS state to offline.

316-758-46 Failed setting up monitor routine with registration service.

316-758-47 Error searching for job ID during print job submission. Print submission tool failed.

316-758-66 Service run loop failed.

316-758-67 Service loop failed.

316-758-93 Unable to obtain data store object handle.

316-759-09 Software error.

316-759-14 Request for wildcard from non-NC

316-759-19 Network controller failed cold reset 3 times in a row.

316-759-26 Service requesting information of fault service. Software error.

316-759-28 SC Init Fault.

316-759-46 Process no in correct state, O/S failure.

316-759-47 Failed to abort the requested process.

316-759-66 OA event register failed.

316-759-67 OA event register failed.

316-759-93 Unable to create.dat file.

316-760-09 Software error. Check fault log for more specific reasons.

316-760-14 Software error. Calling service not registered.

316-760-19 Any network controller startup.

316-760-26 Software failure.

316-760-28 Unable to Ack SC.

316-760-46 Software failure.

316-760-47 Found incorrect checksum partition 1 during software verify check. Bad disk and bad software.

316-760-67 Create list failed.

316-760-68 SRS returns to login service. Invalid fields, invalid data or missing data.

316-760-93 Job report failure from CCM.

316-760-99 RPC failure. CCM not responding.

Procedure

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1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-761-09 to 316-765-93 Network Faults 16 RAP

316-761-09 Software error. Check fault log for more specific reasons.

316-761-14 Invalid RPC data.

316-761-19 Any network controller shut down.

316-761-26 Unable to become client of UI.

316-761-28 Unable to submit a job.

316-761-46 Hardware failure.

316-761-47 Failed to initialize. Files needed for software verify.

316-761-67 Failed to retrieve public list.

316-761-68 Login gets no response from SRS.

316-761-93 Image conversion to TIFF failed.

316-761-95 Unable to read template pool configuration information.

316-762-09 Netware process failed. Software error. Check fault log for more specific reasons.

316-762-14 Invalid internal table type.

316-762-19 DC platform mgr communication error.

316-762-26 Unable to become client of SCS diagnostic service.

316-762-46 Hardware failure.

316-762-47 Missing file found during software verify check. Disk access problem. Configuration problem.

316-762-67 Invalid index for recipient list.

316-762-68 Service registry bad data corrupted.

316-762-93 IFS Image done call failed.

316-762-95 Unable to read document repository configuration information.

316-763-09 Software error. Check fault log for more specific reasons.

316-763-14 Reached internal limit for events.

316-763-19 System manager died, its platform crashed or RPC comm corrupt.

316-763-26 No acknowledgment to RPC message. RPC timeout.

316-763-46 Hardware failure.

316-763-47 Invalid permission found during software verify check.

316-763-67 Failed to retrieve LDAP list.

316-763-93 Document image count not found.

316-763-95 Internal destination error.

316-764-09 Apple talk process failure. Software error. Check fault log for more specific reasons.

316-764-14 Internal logic error.

316-764-19 System call to signal failed.

316-764-26 Fault Service Encountered Error Trying to get IPC Message.

316-764-46 Hardware failure.

316-764-47 Found incorrect checksum during software verify check. Bad disk and bad software.

316-764-67 Create list failed.

316-765-09 Software error. Check fault log for more specific reasons.

316-765-19 Set status failed.

316-765-26 Fault Service Call to PSW Callback failed.

316-765-46 Software failure.

316-765-47 Novell daemon not running.

316-765-67 Failed to retrieve recipient list.

316-765-93 Unable to access data store.

Procedure

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1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-766-09 to 316-772-95 Network Faults 17 RAP

316-766-09 Adobe process failure. Check faults log for more specific reasons.

316-766-19 DM admin error.

316-766-26 Fault Service Call to UI Callback failed.

316-766-46 Software failure.

316-766-47 No servers responded.

316-766-67 Failed to bind to LDAP server.

316-766-93 TIFF handle has become null.

316-766-95 Cannot create image file name.

316-767-09 Software error. Check fault log for more specific reasons.

316-767-19 Request to cancel spooling job error. Job map library unable to cancel job.

316-767-26 Fault Service Call to RDT Callback failed.

316-767-46 Software failure.

316-767-47 Server name in configuration list is not up.

316-767-67 Error performing LDAP search.

316-767-93 Get document image count failed.

316-767-95 Cannot determine filing policy for transfer.

316-768-09 Software error. Check fault log for more specific reasons.

316-768-19 Job map library unable to hold or release jobs.

316-768-46 Software failure.

316-768-47 Network controller not attached to server.

316-768-67 Error performing public search.

316-768-93 Increment image count failed.

316-768-95 Cannot get network advisory lock file name.

316-769-09 Software error. Check fault log for more specific reasons.

316-769-19 Novell network failed to respond to request.

316-769-46 Software failure.

316-769-47 Network controller not attached to the print queue.

316-769-67 Failed to cancel search request.

316-769-93 IFS de-register call failed.

316-769-95 Cannot determine appropriate lock name and address.

316-770-09 Software error. Check fault log for more specific reasons.

316-770-19 SESS/DM job command not processed.

316-770-46 Software failure.

316-770-47 Network controller attached to both queue and server.

316-770-67 Required attribute missing.

316-771-09 Software error. Check fault log for more specific reasons.

316-771-19 UI/PSW/RDT/ RPC corrupt.

316-771-46 Software failure.

316-771-47 Failed to configure novell network.

316-772-09 Software error. Check fault log for more specific reasons.

316-772-19 Software error.

316-772-46 TCPIP address already being used.

316-772-47 Failed doing registration or RPC call.

316-772-95 Invalid transfer request.

Procedure

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1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-770-09 to 316-779-95 Network Faults 18 RAP

316-773-09 Software error. Check fault log for more specific reasons.

316-773-19 Software error.

316-773-46 Failed requesting platform reset.

316-774-09 Check fault log for more specific reasons.

316-774-19 Client provided wrong binding info. Client not registered as RPC server. System RPC info is corrupt.

316-774-46 BOOTP status file error.

316-775-19 Data store not configured. Software error.

316-775-46 TCPIP missing configuration data.

316-775-95 Cannot create temporary file name.

316-776-09 Software error. Check fault log for more specific reasons.

316-776-19 Software error.

316-776-46 TCPIP invalid interface.

316-776-95 Cannot clean up after job completion.

316-777-09 Software error. Check fault log for more specific reasons.

316-777-19 Software error. Data store corrupt, missing configuration.

316-777-46 TCPIP invalid addressing.

316-777-95 Cannot log requested network server.

316-778-09 Software error. Check fault log for more specific reasons.

316-778-19 Software error.

316-778-46 TCPIP socket failure.

316-778-95 Cannot generate confirmation sheet.

316-779-00 System manager power saver complete callback failed. System manager failed or communications link failed.

316-779-09 Software error. Check fault log for more specific reasons.

316-779-19 System manager callback SM power save completed failed.

316-779-46 TCPIP interface attach.

316-779-47 SESS diagnostic failure.

316-779-95 Cannot create the template/job log name.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-780-00 to 316-789-47 Network Faults 19 RAP

316-780-00 Power save request timeout.

316-780-09 Software error. Check fault log for more specific reasons.

316-780-19 Power saver request timeout.

316-780-46 TCPIP enable interface.

316-780-47 SESS diagnostic failure.

316-780-95 Cannot determine the remote directory.

316-781-09 Software error. Check fault log for more specific reasons.

316-781-19 Customer software upgrade file is corrupted on transfer.

316-781-46 TCPIP NVRAM failure.

316-781-47 SESS diagnostic failure.

316-782-09 Network controller configuration synchronization process failure. Software error. check fault log for more specific reasons.

316-782-19 Software upgrade manifest file does not match software upgrade files.

316-782-46 TCPIP gateway failure.

316-782-47 SESS diagnostic failure.

316-783-09 Software error. IPC failure. SC not processing IPC.

316-783-19 Network controller does not enter upgrade mode. Network controller does not respond to upgrade prep command.

316-783-46 TCPIP host file failure.

316-783-47 SESS diagnostic failure.

316-784-09 Software error. Registration service out of date.

316-784-19 Software upgrade aborted, IOT failed to enter upgrade mode. IOT does not respond to upgrade prep command.

316-784-46 TCPIP resolve file failure.

316-784-47 SESS diagnostic failure.

316-785-09 Network controller agent process failure. Software error. Check fault log for more specific reasons.

316-785-19 UI does not respond to upgrade prep command.

316-785-46 TCPIP resolve file failure.

316-785-47 SESS diagnostic failure.

316-786-09 Software error. Check alt log for more specific reasons.

316-786-19 Network controller ntar of upgrade file fails.

316-786-46 TCPIP ELT file failure.

316-786-47 SESS diagnostic failure.

316-787-09 Software error. Check fault log more specific reasons.

316-787-19 Network controller times out. Cannot communicate with IOT.

316-787-46 TCPIP IPC failure.

316-787-47 SESS diagnostic failure.

316-788-09 Software error. Check fault log for more specific reasons.

316-788-19 Option load failure software.

316-788-46 Failed performing dynamic DNS update.

316-788-47 SESS diagnostic failure.

316-789-09 Software error. Check fault log for more specific reasons.

316-789-19 Option load failure software.

316-789-46 Failed performing autonet IP process.

316-789-47 SESS diagnostic failure.

Procedure

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1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-790-09 to 316-799-47 Network Faults 20 RAP

316-790-09 Software error. Check fault log for more specific reasons.

316-790-19 Option load failure software.

316-790-46 IPv6 address error.

316-790-47 SESS diagnostic failure.

316-791-09 Software error. Check fault log for more specific reasons.

316-791-19 Scan to file DLM is not defined.

316-791-46 DHCP V6 failure

316-791-47 SESS diagnostic failure.

316-792-09 Software error. Check fault log for more specific reasons.

316-792-19 LAN fax DLM is not defined.

316-792-47 SESS diagnostic failure.

316-793-09 Software error. Check fault log for more specific reasons.

316-793-19 Job based accounting DLM is not defined.

316-793-47 SESS diagnostic failure.

316-794-09 Cross platform synchronization error.

316-794-19 Install password mismatch.

316-794-47 SESS diagnostic failure.

316-795-09 Software error. Check fault log for more specific reasons.

316-795-19 Option load failure software.

316-795-47 SESS diagnostic failure.

316-796-09 Software error. Check fault log for more specific reasons.

316-796-19 Option load failure software.

316-796-47 SESS diagnostic failure.

316-797-09 Software error. Check fault log for more specific reasons.

316-797-19 Option load failure software.

316-797-47 SESS diagnostic failure.

316-798-09 Software error. Check fault log for more specific reasons.

316-798-19 Option already enabled.

316-798-47 SESS diagnostic failure.

316-799-09 Software error. Check fault log for more specific reasons.

316-799-19 Option already enabled.

316-799-47 SESS diagnostic failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-800-09 to 316-809-47 Network Faults 21 RAP

316-800-09 List access failure (create, add, find, delete.)

316-800-19 Option not supported.

316-800-46 Unable to connect to device when setting up IP over Ethernet.

316-800-47 SESS diagnostic failure.

316-801-09 Invalid SESS event/IPC error.

316-801-19 Serial mismatch.

316-801-46 Unable to connect to device when setting up IP over token ring.

316-801-47 SESS diagnostic failure.

316-802-09 Web service edge client process death.

316-802-19 Counters do not match.

316-802-46 Error occurred when attempting to get the IP data from the DHCP server.

316-802-47 SESS diagnostic failure.

316-803-09 Web service edge client process death.

316-803-46 Unable to get the IP address from the RARP server.

316-803-47 SESS diagnostic failure.

316-804-09 Web service edge client process death.

316-804-47 SESS diagnostic failure.

316-805-09 Web service edge client process death.

316-805-19 Accounting install failed.

316-805-47 SESS diagnostic failure.

316-806-00 CPI death error.

316-806-09 CPI service unavailable.

316-806-19 Counters did not increment.

316-806-47 SESS diagnostic failure.

316-807-00 Job log service death error.

316-807-09 Job log service unavailable.

316-807-19 State change failed.

316-807-47 SESS diagnostic failure.

316-808-00 Job tracker death error.

316-808-09 Job tracker service unavailable.

316-808-47 SESS diagnostic failure.

316-809-00 Kerberos death error.

316-809-09 Kerberos service unavailable.

316-809-47 SESS diagnostic failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-810-00 to 316-839-47 Network Faults 22 RAP

316-810-00 Scan to distribution death error.

316-810-09 Scan service available.

316-810-19 Failed to remove accounting.

316-810-47 SESS diagnostic failure.

316-811-00 SMB death error.

316-811-09 SMB service unavailable.

316-811-19 Failed to initiate operation.

316-811-47 SESS diagnostic failure.

316-812-00 TCP/IP death error.

316-812-09 TCPIP service unavailable.

316-812-19 Failed to change the enable upgrade flag.

316-812-47 SESS diagnostic failure.

316-813-00 WS scan temp death error.

316-813-09 Scan service unavailable

316-813-19 NC may be unavailable

316-813-47 SESS diagnostic failure.

316-814-00 Scan compressor death error.

316-814-09 Scan compressor service unavailable.

316-814-19 DEF is enabled on the NC

316-814-47 SESS diagnostic failure.

316-815-09 Service registry process death.

316-815-47 SESS diagnostic failure.

316-816-09 XEIP service not responding.

316-816-47 SESS diagnostic failure.

316-817-47 SESS diagnostic failure.

316-818-47 SESS diagnostic failure.

316-819-47 SESS diagnostic failure.

316-820-47 SESS diagnostics failure.

316-821-47 SESS diagnostics failure.

316-822-47 SESS diagnostics failure.

316-823-47 SESS diagnostics failure.

316-824-47 SESS diagnostics failure.

316-825-47 SESS diagnostics failure.

316-826-47 SESS diagnostics failure.

316-827-47 SESS diagnostics failure.

316-828-47 SESS diagnostics failure.

316-829-47 SESS diagnostics failure.

316-830-47 Unable to get the default router for the device.

316-831-47 Unable to get the subnet mask for the device.

316-832-47 Failure while getting local IP devices on the network.

316-833-47 Failure while perfuming ARP command.

316-834-47 Failed to get a default file server from the config. utility.

316-835-47 Failed to the novell frame type from the config. utility.

316-836-47 Failed SESS call to initialize netware.

316-837-47 Diagnostic name returned from SESS not found in list.

316-838-47 Failed to setup catching alarm signals for repair timeouts.

316-839-47 Failure to repair a file of file length 0. Corrupt disk.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-840-47 to 316-879-47 Network Faults 23 RAP

316-840-47 Corrupt OS, software error.

316-841-47 Corrupt file system.

316-842-47 Machine out of configuration. Software error.

316-843-47 Corrupt OS machine in bad running state. Software error.

316-844-47 Corrupt OS machine in bad running state. Software error.

316-845-47 Corrupt OS machine in bad running state. Software error.

316-846-47 Corrupt OS machine in bad running state. Software error.

316-847-47 Corrupt OS machine in bad running state. Software error.

316-848-47 Error reading the fault file from fault service.

316-849-47 Error creating command array from stream editor.

316-850-47 Failed adding stream to stream editor array.

316-851-47 Failed on call to stream editor.

316-852-47 Unable to read a fault for the error report.

316-853-47 Failed getting the last reset time for the error report.

316-854-47 Failed calling fault service for the error report.

316-855-47 Failed sending event for diagnostic test.

316-856-47 Failed doing a unix c system call.

316-857-47 Abort request, unable to find process.

316-858-47 Failed to dump the fault logs.

316-859-47 Software verify test returned error.

316-860-47 No machines responded to an ICMP echo request.

316-861-47 Failed setting up monitor routine with registration service.

316-862-47 Command not valid to cancel.

316-863-47 Illegal buffer length.

316-864-47 Illegal local session number.

316-865-47 SESS NETBIOS test session closed.

316-866-47 SESS NETBIOS test command cancelled.

316-867-47 SESS NETBIOS test name de-registered. Name de-registered, session active.

316-868-47 SESS NETBIOS test local session table full. Local session table full.

316-869-47 SESS NETBIOS test no listen in remote computer.

316-870-47 SESS NETBIOS test illegal name number.

316-871-47 SESS NETBIOS test cannot find name or no answer.

316-872-47 SESS NETBIOS test name in use.

316-873-47 SESS NETBIOS test name deleted.

316-874-47 SESS NETBIOS test session abnormal end.

316-875-47 SESS NETBIOS test name conflict. Name conflict on network.

316-876-47 Software verify setup SIGTERM failed.

316-877-47 SESS PCI test unknown error.

316-878-47 SESS PCI test failed to open driver.

316-879-47 SESS PCI test failed flushing stream buffer.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-880-47 to 316-929-19 Network Faults 24 RAP

316-880-47 SESS PCI test failed on put message call.

316-881-47 SESS PCI test invalid argument.

316-882-47 SESS PCI test failed on put message call.

316-883-47 SESS PCI test failed on ioctl call.

316-884-47 SESS PCI test control flag area too small.

316-885-47 SESS PCI test driver not initialized.

316-886-47 SESS PCI test info request failed.

316-887-47 SESS PCI test driver failed to register.

316-888-47 SESS PCI test driver failed to unregister.

316-889-47 Software verify get data failed.

316-890-47 Software verify get next proc failed.

316-891-00 Edge server auto registration failed

316-891-19 SMart eSolutions failed to register

316-891-47 Invalid RPC submit job Data Received.

316-892-00 Edge server communication failed

316-892-19 SMart eSolutions cannot contact Edge Host

316-892-47 Invalid RPC Data Received; Unknown diagnostic action.

316-893-47 Invalid RPC Data Received; Invalid job type.

316-894-47 Invalid RPC disk diagnostics Data Received.

316-895-47 SESS Apple test zip failure - network unreachable.

316-900-19 Failed to open SMC driver.

316-901-19 Failed to make ioctl call using SMC driver.

316-902-19 Address specified is invalid.

316-903-19 Result from ioctl does not match FD.

316-904-19 Invalid ioctl request.

316-905-19 Unknown ioctl failure.

316-906-19 Memory allocation failed for net upgrade.

316-907-19 Attempt to get pinned memory failed

316-908-19 Error opening file.

316-909-19 Error transfer data to CCM.

316-910-19 Failed untar file.

316-911-19 Error changing directory.

316-912-19 Install script did not execute.

316-913-19 Write failure to file.

316-914-19 Shared memory was corrupted.

316-915-19 Open failed.

316-916-19 CRC failed.

316-917-19 Failed to close on checksum.

316-918-19 CRC comparison failed.

316-919-19 Restart request failed.

316-920-19 ELT daemon start failed.

316-922-19 NVM store failed.

316-923-19 Failed saving persistent data.

316-924-19 Failed in restoring persistent data.

316-925-19 Failed saving web config data.

316-926-19 Failed to save data store values.

316-927-19 Failed to restore web config data.

316-928-19 Failed to install files.

316-929-19 Failed to restore data store values.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-930-19 to 316-971-19 Network Faults 25 RAP

316-930-19 Failed to remove jobs.

316-931-19 Failed to close on SMC driver.

316-932-19 NVM write failure.

316-933-19 Failed to remove file.

316-934-19 Job based accounting not enough DC memory.

316-935-19 Auto-upgrade failed. Cannot read/write attributes to machine.

316-936-19 Auto-upgrade failed. Cannot connect to remote server.

316-937-19 Auto-upgrade failed. Cannot access directory on remote server.

316-938-19 Auto-upgrade failed. Cannot access directory remote server.

316-939-19 Auto-upgrade failed. Multiple upgrade files found on remote server.

316-940-19 Auto-upgrade failed. Machine in diagnostics mode.

316-941-19 Auto-upgrade failed. Network controller cannot communicate with main controller.

316-942-19 Auto-upgrade failed upgrade is invalid. Incompatible with main controller.

316-943-19 Auto-upgrade failed. Upgrade file invalid. Installed software is more recent.

316-944-19 Auto-upgrade failed. Upgrade file is invalid. File corruption detected.

316-945-19 Auto-upgrade failed. Upgrade file is invalid. File not appropriate for current machine software.

316-946-19 Failed install scan to e-mail.

316-947-19 Failed to install internet fax.

316-948-19 Remove of scan to e-mail option failed.

316-949-19 Remove of internet fax option failed.

316-950-19 Scan to e-mail image processing hardware not available.

316-951-19 Internet fax image processing hardware not available.

316-952-19 Scan to e-mail memory size error.

316-953-19 Internet fax memory size error.

316-954-19 Set by internet fax service when it gets no response from service registry when trying to register.

316-955-19 Internet Fax application un-registration error.

316-956-19 E-mail application registration error.

316-957-19 E-mail application un-registration error.

316-958-19 Failed to install kerberos.

316-959-19 Failed to install SMB.

316-960-19 Failed to install SMTP.

316-961-19 Failed to remove kerberos.

316-962-19 Failed to remove SMB.

316-963-19 Failed to remove SMTP.

316-964-19 Failed to cancel operation.

316-965-19 Failed to send platform unavailable.

316-966-19 Failed to install job tracker.

316-967-19 Failed to remove job tracker.

316-968-19 Failed to install POP3.

316-969-19 Failed to remove POP3.

316-970-19 Over allocation of contiguous memory.

316-971-19 Auto-Upgrade not attempted due to machine being offline.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-975-19 to 316-989-35 Network Faults 26 RAP

316-975-19 Failed to install immediate image overwrite.

316-976-19 Failed to install immediate image overwrite.

316-977-00 Queue list jobs failure. Request to SESS's document manager failed for list jobs. Corrupt data sent to DM. Communication problem. DM failed.

316-977-19 Network controller PM failed to remove disk overwrite. Option load failure, software.

316-977-35 Queue list jobs failure. Request to SESS's document manager failed for list jobs. Corrupt data sent to DM. Communication problem. DM failed.

316-978-00 Unable to get copy jobs. Invalid data communication problem.

316-978-19 Network controller PM failed to remove job overwrite. Option load failure software.

316-978-35 Unable to get copy jobs. Invalid data communication problem.

316-979-00 Unknown attribute returned. Invalid data returned data store corrupt.

316-979-19 Network controller PM failed to remove embedded fax. Option load failure, software.

316-979-35 Unknown attribute returned. Invalid data returned. Data store corrupt.

316-980-00 DM request handle NULL. Null data received from DM.

316-980-19 Network controller PM failed to install G4. Option load failure, software.

316-980-35 DM request handle NULL. Null data received from DM.

316-981-00 Object handler corrupted. Null handle returned. Data store corrupt.

316-981-35 Unable to obtain job handle which is used to fetch data store attributes.

316-982-00 Unknown finishing value returned. Unable to map attribute or invalid data.

316-982-19 Failed to remove embedded fax.

316-982-35 Unknown finishing value returned. Unable to map attribute or invalid data.

316-983-00 Unknown offset value returned. Unable to map attribute or invalid data.

316-983-19 Failed to remove G4.

316-983-35 Unknown offset value returned. Unable to map attribute or invalid data.

316-984-00 Unknown job state reason value returned. Unable to map attribute or invalid data.

316-984-19 CPSR Memory Size Error.

316-984-35 Unknown job state reason value returned. Unable to map attribute or invalid data.

316-985-00 Unknown medium type value returned. Unable to map attribute or invalid data.

316-985-19 Network scanning application registration error.

316-985-35 Unknown medium type value returned. Unable to map attribute or invalid data.

316-986-00 Unknown collection value returned. Unable to map attribute or invalid data.

316-986-19 Network scanning application un-registration error.

316-986-35 Unknown collection value returned. Unable to map attribute or invalid data.

316-987-00 Unknown tray value returned. Unable to map attribute or invalid data.

316-987-19 Server fax application registration error.

316-987-35 Unknown tray value returned. Unable to map attribute or invalid data.

316-988-00 Unknown signature value returned. Unable to map attribute or invalid data.

316-988-19 Server fax application un-registration error.

316-988-35 Unknown signature value returned. Unable to map attribute or invalid data.

316-989-00 Unknown plex value returned. Unable to map attribute. Invalid information received 2.

316-989-19 Disk encryption operation failed.

316-989-35 Unknown plex value returned. Unable to map attribute. Invalid information received 3.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316-990-00 to 316-999-35 Network Faults 27 RAP

316-990-00 Promote response from DM received with errors. Software error.

316-990-35 Promote response from DM received with errors. Software error.

316-991-00 Request to DM to promote job failed. Failure status returned on call to request library to promote job. Data store problem.

316-991-35 Request to DM to promote job failed. Failure status returned on call to request library to promote job. Data store problem.

316-992-00 Unable to build SESS job identifier for promote routing that converts the job ID returned. Null memory allocation error.

316-992-35 Unable to build SESS job identifier for promote routine that converts the job ID returned. Null memory allocation error.

316-993-00 Unable to get admin name from data store for promote. Request library call failed.

316-993-35 Unable to get admin name from data store for promote. Request library call failed.

316-994-00 Cancel response from DM received with errors. Software error.

316-994-35 Cancel response with errors. A job could not be cancelled.

316-995-00 Request to DM to cancel job failed.

316-995-35 Request to DM to cancel job failed.

316-996-00 Routine that converts the job ID returned. Null memory allocation error.

316-996-35 Routine that converts the job ID returned. Null memory allocation error.

316-997-00 Request library call failed.

316-997-35 Request library call failed.

316-998-00 Job not found in held table.

316-998-35 Job not set to released state. Job not found in held table.

316-999-00 Could not obtain job PIN for authorization.

316-999-35 Could not obtain job PIN for authorization.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. If a single occurrence, take no action.
2. For multiple occurrences, go to the 316E Network Fault Checkout RAP.

316A Workflow Scanning Error Entry RAP

Use this RAP when the customer reports network failures. e.g. Cannot connect to the scan server when using the FTP or SMB protocols, or when a folder on the scan server cannot be opened.

Note: The fault message will be printed on the confirmation report. The report may take several minutes to print after scanning the document.

Initial Actions

Consult your manager before troubleshooting the customer's network, as the policy varies according to region.

Procedure

Note: If it is possible to log in to the web UI by entering the IP address of the machine, then the network controller on the single board controller PWB is good.

Perform the steps that follow:

1. Check that the machine's date and time are correctly set. Refer to GP2.
2. Print a configuration report.
3. Check with the customer that the printing of the confirmation report is enabled. If necessary, ask the customer to enable printing of the confirmation report.
4. Ensure that the machine is configured for scan to file. Check the back of the configuration report under the heading Workflow Scanning (Default Repository Protocol). If an IP address or name is not listed, ask the customer to configure the machine before continuing.
5. Perform the relevant procedure:
   - 316B FTP or SMB Unable to Connect to Remote Server RAP.
   - 316C Remote Directory Lock Failed RAP.

316B FTP or SMB Unable to Connect to Remote Server RAP

Either the machine cannot connect, find or log in to the scan server.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: The FTP/SMB protocol will be followed by a colon and port number, :21 is for FTP and :139 is for SMB.

Scan the document using the default template and 1 other template.

The fault is present on both templates.

Y N

The template that failed is incorrectly configured. Ask the customer or System Administrator to verify the settings of the web template that failed, including the login password.

Ask the customer to open the machine's web UI.

The machine's web UI can be opened.

Y N

Look at the front of the configuration report. Ensure that HTTP is enabled and set to port 80.

The settings are correct.

Y N

Enable HTTP, GP 34 and set the port to 80 on the UI. Restart this RAP from the beginning. If this path has been followed previously, escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Disconnect the network cable from the machine. Ensure the PWS network adaptor settings are set to Auto. Connect the PWS to the machine, GP 7.

Either of the 2 LEDs on the SBC PWB or the PWS are lit, indicating a connection.

Y N

Perform the steps that follow:

1. Change the network speed setting of the machine, GP 35.
2. If either of the 2 LEDs on the SBC PWB or the PWS are not lit, repeat the steps in GP 35.
3. If the LEDs light, use the new network speed setting. Inform the customer that the network speed has been changed. Then follow the Yes path from this step.
4. If the LEDs do not light, perform the OF1.

Ensure the firewall of the PWS is disabled, GP 36. Ping the machine from the PWS, GP 37.

Note: Re-enable the PWS firewall after completion of this procedure.

The machine responds to the ping request.

Y N

Perform an AltBoot, GP 9.

The machine software is up to date.

Y N

Upgrade the software, GP 9.

B

A

A

B

The fault persists.

Y N

Perform SCP 5 Final Actions.

Perform the Customers Settings Check.

Changes were made to the customer's settings.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job.

The job was successful.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform SCP 5 Final Actions.

Perform the Customers Settings Check.

Changes were made to the customer's settings.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job.

The job was successful.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform SCP 5 Final Actions.

Ask the customer to ping the scan server's IP address or name.

Note: The scan server is the computer that the job is being sent to. The scan server's IP address or name is displayed on the confirmation report.

The customer can ping the scan server.

Y N

Check the configuration report for default gateway IP address listed under TCP/IPv4 Settings.

A default gateway IP address is listed.

Y N

Perform the Customers Settings Check.

Changes were made to the customer's settings.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job.

B

A

A

B

The job was successful.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform SCP 5 Final Actions.

The customer can ping the default gateway IP address.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform the Customers Settings Check.

Changes were made to the customer's settings.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job.

The job was successful.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform SCP 5 Final Actions.

Perform the Customers Settings Check .

Changes were made to the customer's settings.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Retry the job.

The job was successful.

Y N

Escalate the fault to the System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

Perform SCP 5 Final Actions.

Customers Settings Check

Note: Both the configuration and confirmation reports are required to check the customer's settings. Corrections must be made through the machine's EWS page.

Check the items that follow with the customer. Ask the customer to correct any errors:

1. That the scan server is switched on and online.

   Note: The scan server is the computer that the job is being sent to.

2. That the scan server's IP address or name is correct.
3. That the path and user name are correct.
4. **(SMB protocol only)** That the Share name is correct; referred too as the Volume on the configuration report.
5. Check with System Administrator that the correct password has been entered on the machine's EWS page.

   Note: The password is not printed on the configuration or confirmation reports.

316C Remote Directory Lock Failed RAP

Use this RAP when the customer reports that the machine has logged in to the scan server, but cannot create a folder inside of the scan directory. The creation of the scan folder is necessary for the machine to successfully complete the can to file job.

Note: The scan server is the computer that the job is being sent to.

Procedure

The machine's login name that it is using to log in to the scan server, for this file repository, does not have sufficient rights. Ask the customer to verify the rights for this user at the scan server, or escalate the problem to their System Administrator. If the customer does not have a System Administrator, they should contact the Customer Support Centre or request a Xerox analyst troubleshoot their network which will be subject to a charge.

316D Not Used

Not Used

316E Network Fault Checkout RAP

Initial Actions

Switch off, then switch on the machine, GP 4.

Procedure

Refer to the Active Messages and Fault History to determine under what situation the fault is occurring.

The fault is related to a specific job, client or Page Description Language (PDL).

Y N

Reload the software, GP 9.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install new components as necessary:

- Hard disk drive, PL 3.05.
- Power/Data harness, PL 3.05.

If the fault persists, perform the OF1.

The fault occurs on one particular job from one particular client.

Y N

The fault occurs on all jobs sent from one client.

Y N

The fault occurs with one job from any client.

Y N

Install new components as necessary:

- Hard disk drive, PL 3.05.
- Power/Data harness, PL 3.05.

If the fault persists, perform the OF1.

Another AltaLink® B8045/55/65/75/90 machine is available.

Y N

Escalate the service call.

The fault is repeatable on both machines.

Y N

Reload the software, GP 9, on the faulty machine. If the fault persists, escalate the service call.

Inform field engineering that a Software Problem Action Report (SPAR) needs to be generated.

Ask the System Administrator to:

- Check the network configuration on the client (compare to a working client).
- Ensure that the client has the required resources.
- Reload the print driver on the client.

If the fault persists, have the customer contact the customer support centre.

Ask the customer to reload the print driver on the affected workstation.

317-751-00 Ethernet or USB WIFI Connection Fault RAP

317-751-00 (Ethernet) The ethernet cable is not connected when the ethernet interface is active.

317-751-00 (WiFi) The USB WiFi adapter is not correctly connected.

Remote Service Actions

Ask the customer to check the items that follow:

- Ensure the ethernet cable or USB WiFi adapter is properly connected.
- Ensure the ethernet port is active.
- Ensure the ethernet cable is in good condition.

Ask the customer to switch off, then switch on the machine, GP 4. If the fault continues, a site visit will be necessary.

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-752-00 Ethernet or USB WIFI Fault RAP

317-752-00 (Ethernet) 802.1X connection failure, cannot connect to the ethernet network.

317-752-00 (WiFi) Generic WiFi connection failure, cannot connect to the WiFi network. (WiFi interface is active).

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-753-00 WIFI Fault RAP

317-753-00 WiFi connection lost. The WiFi connection was good, but is no longer connected.

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-754-00 to 317-761-00, 317-766-00 to 317-769-00 Ethernet or USB WIFI Address Fault RAP

317-754-00 DHCP/BOOTP configuration error and no zero configuration IPv4 address.

317-755-00 DHCP/BOOTP lease failure (parsing error) and no zero configuration IPv4 address.

317-756-00 DHCP/BOOTP NAK and no zero configuration IPv4 address.

317-757-00 No response from DHCP/BOOTP server and no zero configuration IPv4 address.

317-758-00 DHCP/BOOTP configuration error and zero configuration IPv4 address configured.

317-759-00 DHCP/BOOTP lease failure (parsing error) and zero configuration IPv4 address configured.

317-760-00 DHCP/BOOTP NAK and zero configuration IPv4 address configured.

317-761-00 No response from DHCP/BOOTP server and zero configuration IPv4 address configured.

317-766-00 DHCPv6 configuration error.

317-767-00 DHCPv6 lease failure (parsing error).

317-768-00 WiFi DHCPv6 Error: DHCPv6 failed to obtain an address. DHCPv6 NAK.

317-769-00 DHCPv6 Error: DHCPv6 server not found. No routable IPv6 address configured.

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-762-00, 317-765-00 Ethernet or USB WIFI Duplicate Address Fault RAP

317-762-00 Duplicate IPv4 address detected.

317-765-00 Duplicate IPv6 address detected.

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-763-00, 317-764-00 Ethernet or USB WIFI Router Fault RAP

317-763-00 No IPv4 router configured.

317-764-00 No IPv6 router advertisement.

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317-770-00, 317-771-00 Ethernet or USB WIFI DNS Fault RAP

317-770-00 Failed to verify the host name and/or domain name in DNS (after 20 minutes).

317-771-00 Verified host and/or domain name(s) do not match with the requested host/domain name(s).

Procedure

Go to the appropriate RAP:

- OF8
- OF19

317A Wireless Connectivity RAP

Use this RAP when the customer reports wireless network failures when using the Xerox wireless print kit.

Note: The customer must use the Xerox wireless print kit. Other wireless network adapters are not supported.

Initial Actions

Consult your manager before troubleshooting the customer's network, as the policy varies according to region.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Perform the following:

1. Check that the USB wireless network adapter is plugged into a USB port on the machine.
2. If the USB wireless network adapter is connected using the USB extension cable, check that the extension cable is also plugged into a USB port on the machine.
3. Print a configuration report.
   a. Check with the customer that printing of configuration reports is enabled. If necessary, ask the customer to enable printing of the configuration report.
4. Ensure that the USB ports are enabled.
   a. Check the configuration report under the heading Connectivity Physical Connections.
   b. If Software Tools is not listed next to USB Connection Mode, ask the customer to enable USB.
      i. Refer to the System Administrator Guide > USB Port Security Setting Check.
      ii. Refer to the System Administrator Guide > Configuring USB Settings and set USB Connection Mode.
5. Confirm the USB port is functional.
   a. Check that the LED on the wireless network adapter flashes when the machine is in standby.
   b. Connect the wireless network adapter to a different USB port if available.
   c. Perform dC361 NVM Save and Restore. If the NVM can be saved to a USB flash drive, the USB port is functional.

      Note: It is not necessary to perform the NVM restore procedure.
6. Ensure that the machine is configured for wireless printing.
   a. Check the configuration report under the heading Connectivity Physical Connections.
   b. If wireless is disabled, ask the customer to enable wireless printing. Or enter Customer Administration Tools:
      i. Select **Network Settings**.
      ii. Select **Network Connectivity**.
      iii. Select **Wireless**.
      iv. Select OK.
   c. Check the network name listed next to SSID on the configuration report.

d. If the network name does not match the customer's wireless network, ask the customer to configure the wireless network setup before continuing.

e. Check the network name under the heading Connectivity Protocols.

f. If an IP address is not listed under TCP/IPv4 or TCP/IPv6, ask the customer to configure the wireless network setup before continuing.

7. Confirm that the customer's wireless network can be detected at the machine's location.

a. Ask the customer to confirm that the wireless network is switched on and can be received at the machine's location. Or use your PWS or a smartphone to detect the customer's wireless network.

b. To use a PWS with Windows 7 to confirm the customer's wireless network can be detected, perform relevant procedure below.

Windows 7

i. Click on the Wireless Networking icon in the notification area of the taskbar. If necessary, click on the Show hidden icons button to show the wireless networking icon.

ii. Confirm that the customer's network name (SSID) is displayed in the list that pops up.

Windows XP

i. Right click on the Network Connection icon in the notification area of the taskbar.

ii. Click on View Available Wireless Networks.

iii. Confirm that the customer's network name (SSID) is displayed in the list that pops up.

Note: Do not attempt to connect the PWS or smartphone to the customer's wireless network.

8. If the wireless network signal strength is weak, ensure that the wireless network adapter is connected via the USB extension lead. If possible change the mounting position of the adapter to improve the reception. To view the signal strength, enter System Administration Tools and preform the following:

a. Select **Network Settings.**

b. Select **Network Connectivity**.

c. Select **Wireless**.

d. The signal strength is displayed in the text frame.

e. Move the wireless network adapter and extension lead until the strongest signal strength is found.

9. If necessary, install a new wireless network adapter.

319-300 Unable to Read or Write to Image Disk

Unable to read or write data from the Image Disk

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on again.

The problem continues.

Y N

Go to Service Call Procedures (SCP 5) Final Actions and log the problem in the machine service log.

Perform the following:

- Check the connections of the power/data harness between the hard disk drive and the controller PWB assembly (PL 3.05). Check for damage. Repair as required.
- If no problems are found install a new hard disk drive (PL 3.05). Perform GP 9 Software Upgrade. If the problem continues install a new controller PWB assembly (PL 3.05).

319-301 Unable to Write to Image Disk

Unable to write data to the Image Disk

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on again.

The problem continues.

Y N

Go to Service Call Procedures (SCP 5) Final Actions and log the problem in the machine service log.

Perform the following:

- Check the connections of the power/data harness between the hard disk drive and the controller PWB assembly (PL 3.05). Check for damage. Repair as required.
- If no problems are found, install a new hard disk drive (PL 3.05). Perform GP 9 Software Upgrade. If the problem continues, replace the SBC PWB (PL 3.05).

319-302 Bad Data Received from Image Disk

Bad Data received from the Disk The disk returns data other than a read or write operation in response to a read or write request.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on again.

The problem continues.

Y N

Go to Service Call Procedures (SCP 5) Final Actions and log the problem in the machine service log.

Perform the following:

- Check the connections of the power/data harness between the hard disk drive and the controller PWB assembly (PL 3.05). Check for damage. Repair as required.
- If no problems are found, install a new hard disk drive (PL 3.05). Perform GP 9 Software Upgrade. If the problem continues install a new controller PWB assembly (PL 3.05).

319-303 Unable to Format Image Disk

Unable to format the image disk.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on again.

The problem continues.

Y N

Go to Service Call Procedures (SCP 5) Final Actions and log the problem in the machine service log.

Perform the following:

- Check the connections of the power/data harness between the hard disk drive and the controller PWB assembly (PL 3.05). Check for damage. Repair as required.
- If no problems are found install a new hard disk drive (PL 3.05). Perform GP 9 Software Upgrade. If the problem continues install a new controller PWB assembly (PL 3.05).

319-310 System Disk No Capacity Information at Power Up

System disk does not return capacity information during power up.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on again.

The problem continues.

Y N

Go to Service Call Procedures (SCP 5) Final Actions and log the problem in the machine service log.

Perform the following:

- Check the connections of the power/data harness between the hard disk drive and the controller PWB assembly (PL 3.05). Check for damage. Repair as required.
- If no problems are found install a new hard disk drive (PL 3.05). Perform GP 9 Software Upgrade. If the problem continues install a new controller PWB assembly (PL 3.05).

319-340 SIC Crash RAP

SIC crash is reported.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch the power off then on again.
2. Go to Service Call Procedures (SCP 5) Final Actions. For one-off occurrences, no action is required. If the fault persists, check the fault history dC122 for other faults that occur before this fault. Go to the appropriate RAP to troubleshoot..

319-401 Out of Memory Caused By Stress Document

Out of memory caused by a stress document

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

No action is required. If 319-401 remains for more than 5 minutes, switch power off then on. If the problem continues, reload software using GP 9.

319-402 Out of Memory Caused by Stress Job

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Out of memory caused by a stress job

Procedure

No action is required. If the fault remains for more than 5 minutes, switch power off then on. If the problem continues, go to GP 9 and perform the Regular AltBoot procedure.

319-403 Out of Memory With More Than 1 Job in EPC

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Out of memory with greater than one job in EPC.

Procedure

No action is required. If the fault remains for more than 5 minutes, switch power off then on. If the problem continues, go to GP 9 and perform the Regular AltBoot procedure.

319-409–00 Job Integrity Cannot be Guaranteed RAP

Video determines that it cannot guarantee the integrity of the job being processed.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-409-01 Video Integrity Overflow Fault RAP

Video Integrity not Guaranteed due to an Overflow Condition.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-409-02 Video Integrity Underflow Fault RAP

Video Integrity not guaranteed due to an Underflow Condition.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-409-03 Video Integrity No Block List Fault RAP

Video Integrity not guaranteed due to a No Block List error.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-409-04 Video Integrity End of Block List Fault RAP

Video Integrity not guaranteed due to End of Block List Error.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-00 Mark Output Timeout

Mark Output Timeout. Incomplete image data transfer within the prescribed period. Machine will attempt to recover (may take more then 30 sec.).

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-01 Mark Output Timeout

Mark Output Timeout. Incomplete image data transfer within the prescribed period. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-02 Compress Image Timeout

Compress Image timeout. Incomplete image data transfer within the prescribed period. Job has been deleted.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform the following in order:

1. If Smears, Streaks, Lines, or Color Misregistrations occur when using DADF only, and/or DADF jobs appear to make the engine pause longer than normal before starting, reseat or replace the EPC Memory on the SBC PWB (PL 3.05).
2. Switch the power off/on and rerun the job.
3. Go to GP 9 and perform the Regular AltBoot procedure.
4. Replace the SBC PWB (PL 3.05)

319-410-03 Decompress Image Timeout

Decompress Image timeout. Incomplete image data transfer within the prescribed period. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-04 Merge Image Timeout

Merge Image timeout. Incomplete image data transfer within the prescribed period. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-05 Rotate Image Timeout

Rotate Image timeout. Incomplete image data transfer within the prescribed period. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-06 Network Input Failure

Network Input Failure. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-07 E-Fax Send/Receive Failure

E-Fax Send/Receive Failure. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-08 Scan Input Failure

Scan Input Failure. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-09 Byte Count Error

Byte Count Error. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-10 Setup Too Late

Set Up Too Late. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-11 DMA Master Abort

DMA Master Abort. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-12 Huffman Error

Huffman Error. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-13 EOR Error

EOR Error. Incomplete image data transfer. Job has been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-14 Scan Output Timeout Fault RAP

Intel IAP did not return from function call for Set Scan Path

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-410-15 Image Path Response Error from CIPS RAP

Image Path Response Error from CIPS

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-01 Scan Image Capture DMA Setup Too Late RAP

Scan Image Capture DMA is not setup in time and does not capture all of the data.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-02 Scan Image Capture IIT Setup Too Early RAP

The image input terminal has started transferring a scan image before the previous image has completed transferring.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-03 Scan Image Capture DMA Overflow RAP

The Scan Image Capture DMA was not able to pull data fast enough from its buffers which results in the buffers overflowing.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-04 Scan Image Capture DMA Incomplete RAP

The Scan Image Capture DMA failed to receive all the data expected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-05 Scan Image Capture DMA Timeout RAP

The Scan Image Capture DMA didn't complete in the prescribed period.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-06 Scan Image Capture Planar Data Missing RAP

The Scan Image Capture software error. Data captured but lost in software.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-411-07 Scan Image Capture DMA Failure due to Master Abort

The Scan Image Capture DMA failed to receive all the data expected, due to Master Abort triggered on channels.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-412-01 Scan Image Capture IIT Line Sync Integrity Error RAP

Unexpected IIT Page Sync that typically indicates noise on the line.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-420 Image Processing Error at Power UP RAP

Unable to communicate with image processing service at power up.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-422 Image Processing Error at Standby RAP

Communication with image processing service is lost.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-424 Image Processing Error with Job RAP

Communication with image processing service is lost during a job. Current copy/scan jobs may have been deleted.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-426 Image Processing Error during Print RAP

Communication with image processing service is lost during a print/fax job.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-750 EPC Memory Size Changed Configuration at Power Up

The System detects that the EPC Memory Size configuration has changed during the Power On sequence.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-752 Image Rotation Detected RAP

The system detected that the image rotation configuration had changed during the Power On sequence.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-754 Image Disk Configuration Changed at Power Up

The System detects that the Image Disk Configuration (present vs. not present) has changed during the Power On sequence

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

319-760 Test Patterns Missing From EPC

Unable to communicate with image processing service at power up.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off then on. Rerun uncompleted jobs.

320-302 Fax Unexpected Reset

BSD 34.1 FAX

Fax Card Hardware or Software error.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-303 Fax Basic Card Unrecoverable Fault

BSD 34.1 FAX

Fax Card Hardware or Software error.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-305 Fax System Low Memory Unrecoverable Fault

BSD 34.1 FAX

Fax Card Hardware or Software error.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-320 Fax Not Cleared By Reset

BSD 34.1 FAX

5 instances of an unrecoverable fax fault and has not been cleared by a card reset.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-322 Fax NV Device Not Present

BSD 34.1 FAX

NV device not fitted to basic fax card

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-323 Fax System Low Memory Recoverable Fault

BSD 34.1 FAX

Fax system memory is low. (<6MB)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-324 Fax Out Of File Memory

BSD 34.1 FAX

Not enough memory to use Fax Service

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-327 Fax Extended Card Fault

BSD 34.1 FAX

Registers cannot be accessed on the Extended card

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-331 Fax Network Line 1 Fault

BSD 34.1 FAX

No communications via PSTN1 port

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-332 Fax Network Line 2 Fault

BSD 34.1 FAX

No communications via PSTN2 port

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-338 Fax Communication Fault at POST

BSD 34.1 FAX

Fax communication error at power up or re-boot; power on self test (POST) failure.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Power the machine off and on. If the problem continues, go to OF12

320-339 Internal Fax Card Fault

BSD 34.1 FAX

Internal FAX card fault

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-340 Fax Port 2 Modem Failure

BSD 34.1 FAX

Fax Port 2 Modem Failure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-341 Fax Basic Card Failed Fault

BSD 34.1 FAX

Miscellaneous Basic Card problems

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-342 Fax File Integrity Fault

BSD 34.1 FAX

Error accessing file on a NV device

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-345 Fax Port 1 Modem Failure

BSD 34.1 FAX

Fax Port 1 Modem Failure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install a Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-701 Fax Phone book Download Fault

BSD 34.1 FAX

Phone book download failed

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Config Sheet indicates the Fax PWB is installed.

Y N

| Install Fax PWB.

Check the following:

- Ensure the FAX is enabled
- Check that the FAX is securely connected to SBC.
- Check that the FAX phone wire is securely connected
- Go to the OF12 and check that the FAX settings are correct
- If the above checks are OK, replace the FAX PWB (PL 3.05).

320-710 Fax Immediate Image Overwrite (IIO) Error

BSD 34.1 FAX

IIO Error has occurred on the fax card when overwriting the job

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

Check that the Fax PWB is fully seated in the connector J2 on the Riser PWB.

Check that the customer phone lines are properly connected to the Fax PWB and are not damaged.

Procedure

Print a Configuration Sheet.

The Configuration Sheet indicates the Fax PWB is installed.

Y N

Perform the following in order:

1. Check that the Fax IF Flex Cable from the Riser PWB J1 to the SBC PWB J45 is not damaged, that it is properly connected and that the connectors are not damaged
2. Go to the OF12 and check that the Fax settings are correct
3. Reload SW using GP 9.
4. Replace the Fax IF Flex Cable (PL 3.05).
5. Replace the Fax PWB (PL 3.05).
6. Replace the Hard Drive (PL 3.05)
7. Replace the SBC PWB (PL 3.05)

Check the following:

- Ensure the FAX is enabled
- Check that the Fax IF Flex Cable from the Riser PWB J45 to the SBC PWB J45 is not damaged, that it is properly connected and that the connectors are not damaged
- Go to the OF12 RAP and check that the Fax settings are correct
- Reload SW using GP 9.
- Replace the Fax IF Flex Cable (PL 3.05).
- Replace the Fax PWB (PL 3.05).
- Replace the Hard Drive (PL 3.05)
- Replace the SBC PWB (PL 3.05)

320-711 Fax On Demand Image Overwrite (ODIO) Error

BSD 34.1 FAX

ODIO Error has occurred on the fax card when overwriting the compact flash memory

Initial Actions

Check that the Fax PWB is fully seated in the connector on the Riser PWB.

Check that the customer phone lines are properly connected to the Fax PWB and are not damaged.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Print a Configuration Sheet.

The Configuration Sheet indicates the Fax PWB is installed.

Y N

Perform the following in order:

1. Check that the Fax IF Flex Cable from the Riser PWB J1 to the SBC PWB J45 is not damaged, that it is properly connected and that the connectors are not damaged
2. Go to the OF12 and check that the Fax settings are correct
3. Reload SW using GP 9.
4. Replace the Fax IF Flex Cable (PL 3.05).
5. Replace the Fax PWB (PL 3.05).
6. Replace the Hard Drive (PL 3.05)
7. Replace the SBC PWB (PL 3.05)

Check the following:

- Ensure the FAX is enabled
- Check that the Fax IF Flex Cable from the Riser PWB J1 to the SBC PWB J45 is not damaged, that it is properly connected and that the connectors are not damaged
- Go to the OF12 RAP and check that the Fax settings are correct
- Reload SW using GP 9.
- Replace the Fax IF Flex Cable (PL 3.05).
- Replace the Fax PWB (PL 3.05).
- Replace the Hard Drive (PL 3.05)
- Replace the SBC PWB (PL 3.05)

320-713 Fax Job Data Removal Error

322-300-05 Image Complete Fault

BSD 3.1 PWB Communication (1 of 9)

322-300-05 Image Complete not received from video.

Initial Actions

Rerun job after the machine recovers

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Switch the power off then on. Rerun job.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Check all connectors and cables between the IIT Trans PWB and the Controller PWB.
2. Reload SW using GP 9.
3. Replace the IIT Trans PWB (PL 60.25)
4. Replace the IIT Harness (PL 1.15)
5. Replace the IIT Control Harness (PL 1.15)
6. Replace the Hard Disk Drive (PL 3.05)
7. Replace the Controller PWB (PL 3.05)

322-300-10 DVMA Transfer Fault

Failed to transfer image do to decoding error. (EORERROR, HUFFMANERROR, BYTECOUNTERROR)

Initial Actions

Rerun job after the machine recovers

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Check all connectors and cables between the IIT PWB and the SBC PWB.
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25)
4. Replace the IIT Harness (PL 1.15)
5. Replace the IIT Control Harness (PL 1.15)
6. Replace the Hard Disk Drive (PL 3.05)
7. Replace the SBC PWB (PL 3.05)

322-300-16 Clock Overflow Fault

When machine determines that it needs to do a reset in order to avoid an impending real time clock overflow

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Initiaize NVM using dC301
3. Replace the Hard Disk Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-301-05 Scan Resource Fault

Scan resources not available

Initial Actions

Rerun job after the machine recovers

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Check all connectors and cables between the IIT PWB and the SBC PWB.
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25)
4. Replace the IIT Harness (PL 1.15)
5. Replace the IIT Control Harness (PL 1.15)
6. Replace the Hard Disk Drive (PL 3.05)
7. Replace the SBC PWB (PL 3.05)

322-309-04 No Accepts Received Fault

Consecutive no accepts received from a module exceeds threshold value (currently 20).

Five consecutive 22-309-04 will cause 22-319-04.

Initial Actions

Allow five minutes for fault recovery.

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Go to the 322-319-04 IOT Integrity Problem While Printing a Job RAP

322-310-04 Extended Job Service Fault

Pages received from Extended Job Service out of Sequence

Procedure

Check that originals are not jammed in DADF. Verify DADF operation with media used by customer. Re-sort and reload ALL originals in the document feeder.

322-311-04 Sequencer Response Fault

Sequencer did not respond with proposal within the required time

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Check all cables connected to the SBC PWB and the Motor Drive PWB
3. Motor Drive PWB (PL 1.10)
4. Replace the Hard Disk Drive (PL 3.05)
5. Replace the SBC PWB (PL 3.05)

322-314-04 Module Registration Error

Module Registration Error.

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-315-04 Module Completion Fault

One or more modules did not respond with completion message

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-316-04 Job Paper Tray Fault

No Paper Tray is configured with the required paper size

Job Requires Paper Tray that does not exist

Initial Actions

Verify that the customer is configuring the job correctly

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History and dC120 Fault Counter for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

The Job is a copy job.

Y N

Perform the following in order:

1. Rerun the job from a different computer.
2. Reload SW using GP 9.
3. Replace the Hard Disk Drive (PL 3.05).
4. Replace the SBC PWB (PL 3.05).

Perform the following in order:

1. Check all connectors and cables between the Tray Module PWB and the trays.
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25).
4. Motor Drive PWB (PL 1.10).
5. Replace the Hard Disk Drive (PL 3.05).
6. Replace the SBC PWB (PL 3.05).

322-317-04 Job Finishing Fault

Job requires finishing capability that does not exist

Initial Actions

Verify that the customer is configuring the job correctly

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History and dC120 Fault Counter for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

The Job is a copy job.

Y N

Perform the following in order:

1. Rerun the job from a different computer
2. Reload SW using GP 9.
3. Replace the Finisher PWB. Refer to the Finisher Service Documentation for more information.
4. Replace the Hard Disk Drive (PL 3.05).
5. Replace the SBC PWB (PL 3.05).

Perform the following in order:

1. Check all connectors and cables between the Motor Drive PWB and the Finisher PWB and between the SBC PWB and the IIT PWB
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25).
4. Replace the Finisher PWB. Refer to the Finisher Service Documentation for more information.
5. Motor Drive PWB (PL 1.10).
6. Replace the Hard Disk Drive (PL 3.05).
7. Replace the SBC PWB (PL 3.05).

322-318-04 Job IOT Fault

Job Requires an IOT capability that does not exist

Initial Actions

Verify that the customer is configuring the job correctly

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History and dC120 Fault Counter for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

The Job is a copy job.

Y N

Perform the following in order:

1. Rerun the job from a different computer
2. Reload SW using GP 9.
3. Replace the Hard Disk Drive (PL 3.05).
4. Replace the SBC PWB (PL 3.05).

Perform the following in order:

1. Check all connectors and cables connected to the Motor Drive PWB.
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25).
4. Motor Drive PWB (PL 1.10).
5. Replace the Hard Disk Drive (PL 3.05).
6. Replace the SBC PWB (PL 3.05).

322-319-04 IOT Integrity Problem While Printing a Job

IOT Integrity problem while printing a job.

This fault can result in two ways:

1. IOT Cycles down and back up 10 times without printing a page within the same job causing a 322-319-04.
2. Five consecutive 322-309-04 will also cause a 322-319-04.

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Check all cables connected to the SBC PWB and the Motor Drive PWB.
3. Motor Drive PWB (PL 1.10).
4. Replace the Hard Disk Drive (PL 3.05).
5. Replace the SBC PWB (PL 3.05).

322-320 Scan to File Install Fault

SM Failed to install scan to file

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-321-00 Scan to File Remove Fault

SM Failed to remove Scan to file

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-321-04 RS422 Configuration Mismatch

Proposal Response Time Out Error - RS422 Configuration mismatch

Sequencer did not respond with proposal within the required time

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-322 LAN FAX Install Fault

SM Failed to install Lan FAX

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-323 LAN FAX Remove Fault

SM Failed to remove LAN FAX

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-324 Scan to E-Mail Install Fault

SM Failed to install Scan to E-mail

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-325 Scan to E-Mail Remove Fault

SM Failed to remove Scan to E-mail.

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-326 IFAX install Fault

SM Failed to install IFAX

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-327 IFAX Remove Fault

SM Failed to install IFAX

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-328 Incomplete System Information

Incomplete System Information. Accounting Service Data is corrupt

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-00 PagePack PIN Entry Locked

PagePack PIN (Supplies Plan Activation Code) entry locked due to repeated incorrect PIN entry attempts.

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-01 List Jobs Request Timed Out Between UI CCS

List Jobs Request Timed out between UI and CCS

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-02 Queue to NC Print Timeout

List Jobs Request Timed out between CCS and SBC Print Service

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-03 Queue to Scan to File Timeout

List Jobs Request Timed out between CCS and Scan to File Service

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-04 Queue to FaxSend Timeout

List Jobs Request Timed out between CCS and Scan To Fax Service

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-05 Queue to DC Job Service Timeout

List Jobs Request Timed out between Queue Utility and DC Job Services

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-330-06 Queue to Scan to Distribution Timeout

SBC Scan to Distribution Service not responding to List Jobs RPC call

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-332 Plan Conversion Entry Locked

Plan Conversion entry locked due to repeated incorrect entry attempts.

Initial Actions

Ensure that this Fault Code did not occur during an attempt to perform Plan Conversion (refer to GP 16).

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-335 JBA install Fault

SM Failed to install Job Based Accounting

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-336 JBA Remove Fault

SM Failed to remove Job Based Accounting

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-337 ODIO install Fault

SM Failed to install disk overwrite

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-338 ODIO Remove Fault

SM Failed to remove Disk Overwrite

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-339 IIO install Fault

SM Failed to install Job Overwrite

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-340 IIO Remove Fault

SM Failed to remove Job Overwrite

Initial Actions

Check the Service Log for the frequency of occurrence of this fault.

Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-352-00 Serial Number Missing From Memory

Serial Number Update Required.

Serial number lost/missing. A Password routine may be required to write serial number to machine.

Initial Actions

Confirm that the machine serial number displayed on the UI (select **Machine Status**, **Machine Information Screen**). or the Configuration Sheet, if the UI is unavailable, and the serial number on the label on machine frame match. If they do not match notify the FE/NTS.

Check the PWBs and PJ connectors on the following PWBs.

1. Motor Drive PWB (PL 1.10)
2. Controller PWB (PL 3.05)
3. MCU PWB (PL 3.15)
4. UI (PL 2.05, PL 2.10)
5. IIT trans PWB (PL 60.20 C8170; PL 60.45 C8130/35/45/55)
6. HDD or SSD, (PL 3.05)

Check dC122 for communications faults. These can prevent serial number synchronization and must be addressed before proceeding.

Enter diagnostics and select **Clear Counters,** Exit and Reboot at Service exit and exit diagnostics.

Have a new Motor Drive PWB and IIT trans PWB available before troubleshooting problem.

CAUTION: Do not swap PWBs between Machines.

CAUTION: Do not remove the batteries from any PWBs while making voltage checks in this RAP.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

If the fault persists, wait 5 minutes before powering off / powering on the machine.

Procedure

Check the serial numbers on the UI (select **Machine Status**, **Machine Information Screen**). against the label on the machine frame and the Configuration Report.

The serial numbers match.

Y N

Power off the machine and disconnect the power cord. Contact the field engineer (RSE)/NTS immediately.

More than one of the following have been replaced at the same time: Controller PWB, IIT Trans PWB, HDD/SSD or MCU PWB.

Y N

Install the original PWB with the original EEPROM, back into the machine, then reboot the machine.

The 322-352 Fault Code is still present.

Y N

If any other fault codes exist, go to the specific RAP for that fault code. Otherwise, go to SCP 2.

Perform the following steps in the order indicated:

- Reseat the wire harness between the IIT Trans PWB (PL 60.20 C8170; PL 60.45 C8130/35/45/55) and Controller PWB (PL 3.05).
- Reseat each board and connector on the Controller PWB (PL 3.05), Motor Drive PWB (PL 1.10), IIT Trans PWB (PL 60.20 C8170; PL 60.45 C8130/35/45/55).

The original boards are still available.

Y N

Use dC132 to restore serial number integrity.

Note: It may take up to 24 hours to receive a password from ACAST

Install the original PWBs back into the machine and perform the following steps in the order indicated:

- Reseat the wire harness between the IIT trans PWB (PL 60.20 C8170; PL 60.45 C8130/35/45/55) and Controller PWB (PL 3.05).
- Reseat each board and connectors on the MCU PWB (PL 3.15), Motor Drive PWB (PL 1.10), Controller PWB (PL 3.05).

The fault code 322-352 is still present.

Y N

If other fault codes are present, go to the specific fault code RAP. If no other fault codes exist, go to SCP 2.

The red light on the Motor Drive PWB is flashing (PL 1.10).

Y N

Perform each activity until the fault is cleared.

- Replace the Controller PWB (PL 3.05). Power on the machine and load the latest software (GP 9).
- Replace the Motor Drive PWB (PL 3.15). Power on the machine and load the latest software (GP 9).
- Replace the IIT trans PWB (PL 60.25). Power on the machine and load the latest software (GP 9).
- Enter Diagnostics and refresh the screen at dC120, and dC122.

Other fault codes are present.

Y N

Go to SCP 2.

Go to the particular fault code RAP. If, after completing any remaining fault code RAPs, the 322-352 fault code is still present, repeat the 322-352 RAP one time. If the fault code still remains, contact the CTS, FE(RSE) or NTS for assistance.

Replace the Motor Drive PWB (PL 3.15) and load the latest software (GP 9). If the fault code remains, contact the CTS, FE (RSE) or NTS for assistance.

322-352-01 Serial Update Required

Serial Update Required

Note: Password routine will be required to write serial number to the IOT and SBC

Procedure

Contact service support to perform a dC132.

322-370 Unable to Communicate With XSA Database

XSA communication lost

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch machine power off then on. Check network connections to XSA server and have System Administrator check configuration for XSA refer to System Administrator Guide.

322-371 Fax Application Registration Error

Set by Fax Service when it gets no response from Service Registry when trying to Register.

Initial Actions

- If the Fax Card is installed, go to OF12 .
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Fax PWB (PL 20.10)
3. Replace the Hard Disk Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-372 Fax Application Un-Registration Error

Fax Service can not un-register.

Initial Actions

- If the Fax Card is installed, go to OF12 .
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Fax PWB (PL 20.10)
3. Replace the Hard Disk Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-407 Embedded Fax Install Fault

SM Failed To Install Embedded Fax

Initial Actions

- If the Fax Card is installed, go to OF12 .
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Fax PWB (PL 20.10)
3. Replace the Hard Disk Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-417 Embedded Fax Removal Fault

SM Failed To Removal Embedded Fax

Initial Actions

- If the Fax Card is installed, go to OF12 .
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Fax PWB (PL 20.10)
3. Replace the Hard Disk Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-419 Enable Embedded Fax Fault

SM Failed To Enable Embedded Fax

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Switch machine power off then on.
2. Check Configuration Report, under Installed Options ensure Embedded Fax is installed (machine recognizes Fax Card). If the Embedded Fax does not show as installed on Configuration Report, switch off machine power and reseat the Fax Card (PL 3.05).
3. Check that Network Server Fax is disabled. Server Fax and Embedded Fax cannot be enabled at the same time.
4. Enter **Tools** mode (GP2) and login as **Administrator**.
5. Select the **Device** button.
6. Select **Service Settings > Fax Service...>Fax Setup>Country**
7. Select the **Next** button.
8. Touch the **Line 1 Number** box and enter either the phone number of the line assigned to the machine. If no line is assigned, enter 00 and select the OK button.
9. Select the **Next** button.
10. Select the **Complete Setup and Restart Device** button.
11. If the problem still exists after the machine reboots, perform the following in order:
    a. Reload SW using GP 9.
    b. Replace Fax Card (PL 3.05).
    c. Replace the Hard Disk Drive (PL 3.05)
    d. Replace the SBC PWB (PL 3.05)
12. If still not enabled contact Service Support for assistance.

322-421 Disable Embedded Fax Fault

SM Failed To Disable Embedded Fax.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Switch machine power off then on.
2. Check Configuration Report, under Services to see if Embedded Fax is disabled.
3. If not, enter Tools mode GP2 (Admin). Select **Service Settings > Fax Setup**.
4. Select Disabled. Switch machine power off and then on.
5. Print a Configuration Report. Check report, Embedded Fax should now be disabled.
6. If disabled, return to Service Call Procedures.
7. If still enabled switch off machine power and remove Fax Card from machine if it is still present.
8. Switch power off and on, then check new Configuration Report to ensure Embedded Fax is disabled.
9. If problem still exists perform the following in order:
    a. Reload SW using GP 9.
    b. Replace Fax Card (PL 3.05).
    c. Replace the Hard Disk Drive (PL 3.05)
    d. Replace the SBC PWB (PL 3.05)
10. If still enabled contact Service Support for assistance.

322-701-04 Module Completion Fault

Module completion message received after IOT returned to standby

Initial Actions

- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Disk Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-720 Service Registry Bad Data / Corrupted.

Service registry bad data/corrupted.

Initial Actions

- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Fax PWB (PL 20.10)
3. Replace the Hard Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-721 Triple A Gets No Response From SRS

Triple A gets no response from SRS.

Initial Actions

- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-750-04 Output Device Configuration Mismatch

Output Device Configuration Mismatch

Initial Actions

- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-750-17 Accessory Card Configuration Mismatch

Accessory Card Configuration Mismatch

Initial Actions

- Check output device connections.
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

322-751-04 Paper Tray Configuration Mismatch

BSD 70.1 Tray 1 Paper Size Sensing

BSD 70.2 Tray 2 Paper Size Sensing

BSD 70.3 Tray 3 Paper Size Sensing (TTM)

BSD 70.4 Tray 3 Paper Size Sensing (2TM) (C8130/35)

BSD 70.5 Tray 4 Paper Size Sensing (TTM)

BSD 70.6 Tray 4 Paper Size Sensing (2TM) (C8130/35)

BSD 70.7 MSI (Tray 5) Paper Size Sensing

Paper Tray Configuration Mismatch

This fault occurs after the 2nd user confirmation of a configuration mismatch if the System has detected that the Paper Tray Configuration has changed during the Power On Sequence.

Initial Actions

- Verify that the customer is configuring the job correctly
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on. Rerun job.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

The Job is a copy job.

Y N

Perform the following in order:

1. Rerun the job from a different computer.
2. Reload SW using GP 9.
3. Replace the Hard Disk Drive (PL 3.05).
4. Replace the SBC PWB (PL 3.05).

Perform the following in order:

1. Check all connectors and cables between the Tray Module PWB and the trays.
2. Reload SW using GP 9.
3. Replace the IIT PWB (PL 60.25).
4. Motor Drive PWB (PL 1.10).
5. Replace the Hard Disk Drive (PL 3.05).
6. Replace the SBC PWB (PL 3.05).

322-754-17 UI Configuration Change Fault

BSD 3.4 PWB Communication (4 of 9)

When the System detects the UI Configuration has changed during the Power On Sequence

Initial Actions

- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y N

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Control Panel (PL 3.10)
3. Replace the Hard Drive (PL 3.05)
4. Replace the SBC PWB (PL 3.05)

322-755-17 RDT Configuration Mismatch

After the 2nd user confirmation of a configuration mismatch if the System detects that the RDT Configuration has changed during the Power On Sequence.

Initial Actions

- Check output device connections.
- Check the Service Log for the frequency of occurrence of this fault.
- Check dC122 Fault History for the frequency of occurrence of this fault

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Switch the power off then on.

The fault code reappears.

Y **N**

Return to Service Call Procedures.

Note: Record the fault in the Service Log. If fault recurs frequently, perform the actions listed in the Y branch of this RAP.

Perform the following in order:

1. Reload SW using GP 9.
2. Replace the Hard Drive (PL 3.05)
3. Replace the SBC PWB (PL 3.05)

324-919 Face Up Tray Close RAP

324-919 When output was sent to the face up tray, the face up tray was detected as closed.

Procedure

This procedure is for information only, no service action is necessary.

324-923,924, 925Y, M, C Toner Cartridge Empty

BSD 90.3 Drum Life Control (Y,M)

091–480 The yellow toner cartridge is empty.

091–481 The magenta toner cartridge is empty.

091–482 The cyan toner cartridge is empty.

Y Toner Cartridge Empty

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace toner cartridge (PL 90.10). If the machine declares Toner Empty state even when remaining toner is not low, perform dC991 Tone Up/Down first to see if Toner Empty state is canceled or not.

If not cancelled, check Dispense Motor drive PL 5.1 or toner supply path.

341-310 IM Logic Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

341-310 IM software control error detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, install new components as necessary:
   - Motor drive PWB, PL 1.10.

341-316 IH Driver IF Fail RAP

BSD 10.3 Fusing Heat (1 of 2)

341-316 Interface error between the motor drive PWB and the fuser heater power supply was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, then check the connection between the fuser heater power supply P/J530 and the motor drive PWB P/J441 for open circuit, short circuit, and poor contact.
3. If the fault persists, install new components as necessary:
   - Fuser heater power supply, PL 1.05.

341-317 MCU IH IF Fail RAP

BSD 10.3 Fusing Heat (1 of 2)

341-317 Interface error between the motor drive PWB and the fuser heater power supply was detected (at the MCU).

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, then check the connection between the fuser heater power supply P/J530 and the motor drive PWB P/J441 for open circuit, short circuit, and poor contact.
3. If the fault persists, install new components as necessary:
   - Motor drive PWB, PL 1.10.

341-340, 341 Motor Drive PWB NVM (EEPROM) Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

341-340 NVM (EEPROM) data abnormality.

341-341 NVM (EEPROM) access error.

Initial Actions

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Fault code 341-340 Only . Enter dC131 . Check that the NVM values that follow are set to 0:

- 740-016 Range Over Chain No
- 740-017 Range Over Link No
- 740-018 Range Over Chain Link
- 740-019 Range Over Value
- 740-020 Write in Progress Range Over Chain No
- 740-021 Write in Progress Range Over Link No

Procedure

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. dC301 NVM Initialization.
4. If the fault persists, install new components as necessary:
   - Halftone PWB, PL 3.15.
   - Controller PWB assembly, PL 3.05.

341-344 Motor Drive PWB F1 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 10.5 Fusing

BSD 90.7 Toner Cartridge Cooling

341-344 F1 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -1 and the motor drive PWB P/J401 -1 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the motor drive PWB and measure the resistance between each connector terminal and the GND.

- P/J262 -1 fusing unit exhaust fan
- P/J267P/J267-1 toner cartridge cooling fan
- P/J272 -1 toner cartridge exhaust fan

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- The target components for internal short circuits.

Install a new motor drive PWB, PL 1.10.

341-345 Motor Drive PWB F2 Fuse Fail RAP

BSD 1.13 Fuse Check

BSD 90.17 1st BTR Contact/retract

BSD 60.3 Color Registration

BSD 90.21 Marking Air Flow

341-345 F2 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the Rear Lower Cover. Measure the resistance of the Motor Drive PWB BSD 1.9 F2.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -2 and the Motor Drive PWB P/J401 -2 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the Motor Drive PWB and measure the resistance between each connector terminal and the GND.

- P/J240 -B13 1st BTR contact/retract clutch
- P/J610 -6 ADC shutter solenoid
- P/J265 -1 marking fan

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- The target components for internal short circuits.

Install a new motor drive PWB, PL 1.10.

341-346 Motor Drive PWB F3 Fuse Fail RAP

BSD 1.13 Fuse Check

BSD 1.6 DC Power Generation +24V (1 of 2)

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 90.21 Marking Air Flow

BSD 1.10 LVPS Cooling

BSD 10.8 Duplex Paper Transport

BSD 10.4 Fusing Heat (2 of 2)

BSD 10.7 Exit 1 Paper Transport

341-346 F3 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB BSD 1.9 F3.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -2 and the motor drive PWB P/J401 -1 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the motor drive PWB and measure the resistance between each connector terminal and the GND.

- P/J408 -7 front left marking fan
- P/J408 -10 rear add fan
- P/J444 -1 LVPS fan
- P/J408 -4 IHPS intake fan
- P/J423 -1 front right marking fan
- P/J434 -A7 exit 1 gate solenoid

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- The target components for internal short circuits.

Install a new motor drive PWB, PL 1.10.

341-350 Motor Drive PWB F7 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 10.7 Exit 1 Paper Transport

BSD 10.9 Exit 2 Paper Transport (1 of 2)

BSD 80.7 Registration

341-350 F7 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB BSD 1.9 F7.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -5 and the motor drive PWB P/J401 -3 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the motor drive PWB and measure the resistance between each connector terminal and the GND.

- P/J422 -7/8 exit 1 OCT motor
- P/J434 -A3/A4 exit 2 OCT motor
- P/J431 -A9 registration heater

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- The target components for internal short circuits.

Install a new motor drive PWB, PL 1.10.

341-352 Motor Drive PWB F5 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 10.8 Duplex Paper Transport

341-352 F5 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB BSD 1.9 F5.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -2 and the motor drive PWB P/J401 -2 for open circuit, short circuit, and poor contact.

Disconnect the connector P/J422 from the motor drive PWB and measure the resistance between P/J422 -1/2/3/4 and the GND.

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connection between the motor drive PWB P/J422 -1/2/3/4 and the P/Roll latch motor P/J225 -6/5/2/1 for short circuit.
- The P/Roll latch motor for internal short circuit.

Install a new motor drive PWB, PL 1.10.

341-353 Motor Drive PWB F8 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 10.8 Duplex Paper Transport

BSD 80.5 2TM Paper Transport

BSD 80.6 TTM Paper Transport

BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

BSD 70.11 Tray 4 Paper Stacking (2TM)

BSD 70.12 Tray 4 Paper Stacking (TTM)

341-353 F8 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB BSD 1.13 F8.

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -2 and the motor drive PWB P/J401 -2 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the motor drive PWB and measure the resistance between each connector terminal and the GND.

- P452 -14 2TM/TTM take away motor
- PJ201 (2TM) and PJ201 (TTM) -1/2/3/4 2TM/TTM tray 3 feed/lift motor
- PJ202 (2TM) and PJ202 (TTM) -5/6/7/8 2TM/TTM tray 4 feed/lift motor

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- The connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- The target components for internal short circuits.

Install a new Motor Drive PWB, PL 1.10.

341-354 Motor Drive PWB F9 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 3.3 PWB Communications (Controller to Finisher)

BSD 10.8 Duplex Paper Transport

341-354 F9 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB F9 .

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -1 and the motor drive PWB P/J401 -1 for open circuit, short circuit, and poor contact.

Disconnect the connector P490 from the motor drive PWB and measure the resistance between P490 -11 and the GND.

Is the resistance 5 Ohm or higher.

Y N

Perform the steps that follow:

- Check the wiring between the motor drive PWB P490 -11 and the finisher. If necessary, refer to the appropriate finisher service manual.

Install a new motor drive PWB, PL 1.10.

341-355 Motor Drive PWB F10 Fuse Fail RAP

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 1.13 Fuse Check

BSD 10.8 Duplex Paper Transport

BSD 3.4 PWB Communications (Controller to HCF)

341-355 F10 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB F10 .

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -1 and the motor drive PWB P/J401 -1 for open circuit, short circuit, and poor contact.

Disconnect the connector P492 from the motor drive PWB and measure the resistance between P492 -1 and the GND.

Is the resistance 5 Ohm or higher.

Y N

Perform the steps that follow:

- The connection between the motor drive PWB P492 1 and the HCF PWB P/JF04 -1 for short circuit.

Install a new motor drive PWB, PL 1.10.

341-356 Motor Drive PWB F11 Fuse Fail RAP

BSD 1.13 Fuse Check

BSD 1.5 DC Power Generation +5V

BSD 60.3 Color Registration

341-356 F11 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB F11 .

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J509 -2 and the motor drive PWB P/J400 -1 for open circuit, short circuit, and poor contact.

Disconnect the following connectors from the motor drive PWB and measure the resistance between each connector terminal and the GND.

- P/J416 -12 ADC sensor
- P/J433 -6 rear MOB sensor
- P/J433 -12 front MOB sensor

Is the resistance 5 Ohm or higher for all.

Y N

Perform the steps that follow:

- Check the connections that are in earth fault (at 5 Ohm or lower) for short circuits.
- Check the target components for internal short circuits.

Install a new motor drive PWB, PL 1.10.

341-358 Motor Drive PWB F13 Fuse Fail RAP

BSD 1.13 Fuse Check

BSD 1.7 DC Power Generation +24V (2 of 2)

BSD 10.4 Fusing Heat (2 of 2)

341-358 F13 fuse on the motor drive PWB has blown.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch off the machine, then remove the rear lower cover. Measure the resistance of the motor drive PWB F13 .

Is the resistance 5 Ohm or higher.

Y N

Check the connection between the LVPS_CP1U P/J510 -1 and the motor drive PWB P/J401 -1 for open circuit, short circuit, and poor contact.

Disconnect the connector P/J437 from the motor drive PWB and measure the resistance between P/J437 -4 and the GND.

Is the resistance 5 Ohm or higher.

Y N

Perform the steps that follow:

- The connection between the motor drive PWB P/J437 -4 and the thermostat P/J196 -1 for short circuit.

Install a new motor drive PWB, PL 1.10.

341-368 MCU-SW Firmware Mismatch Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

341-368 IM software control error detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, install a new controller PWB assembly, PL 3.05.

341-369 MD Type Mismatch

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

341-369 The IOT software configuration and the motor drive PWB configuration do not match.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. If the problem persists, install a new motor drive PWB, PL 1.10.

341-371 Speed Update Required Fault

Procedure

Go to GP 8.

341-388 Logic Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

341-388 When fatal abnormality was detected in marking control.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. If the fault persists, install new components as necessary:
   - Motor drive PWB, PL 1.10.
   - Controller PWB assembly, PL 3.05.

341-391 Finisher Module Logic Fail RAP

BSD 3.3 PWB Communications (Controller to Finisher)

341-391 A fatal error was detected in the finisher module.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Perform the steps that follow:
   - Check the wiring between the motor drive PWB, P490 and the finisher PWB for an open circuit, short circuit, or poor contact.
   - Check the wiring between the motor drive PWB at P/J405 , and the halftone PWB, P550/481 for an open circuit, short circuit, or poor contact.
   - Check the connections between the controller PWB and the back plane PWB P335 , and between the back plane PWB and the halftone PWB P/J451 , for poor contact, damage, and foreign substances.
   - Measure the input voltage on the finisher PWB. Verify voltage is within the electrical specifications found in GP 15 Electrical Power Requirements. Refer to the appropriate finisher service manual for more information.
3. If the fault persists, install new components in order as necessary:
   - Motor drive PWB, PL 1.10.
   - Controller PWB assembly, PL 3.05.
   - Halftone PWB, PL 3.15.

342-324 IBT Drive Motor Fail

K Drum/Developer and IBT Drive Control

Failure was detected in the motor that drives the intermediate transfer belt. The IBT drive motor is monitored and failure is declared when the designated number of failure signals have been detected.

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Turn the power OFF. Remove the IBT belt assembly (PL90.30) and cheat the L/H Cover Interlock Switch (PL 80.65).

Turn the power ON and enter the Diagnostic mode. Turn ON dC330 [094-010] (IBT Drive Motor).

The IBT Drive Motor rotates.

Y N

Turn the power OFF and remove the Rear Upper Cover. Turn the power ON.

The voltage between the Motor Drive PWB PL 1.10 -5 (+) and the GND (-) is +24VDC.

Y N

Go to OF5 +24VDC Power Fault RAP.

The voltage between the Motor Drive PWB PL 1.10 -B8 (+) and the GND (-) is +5VDC.

Y N

Go to OF4 +5VDC Power Fault RAP.

Turn the power OFF and check the connections between the Motor Drive PWB PL 1.10 and the IBT Drive Motor PL 40.05 for open circuits, short circuits, and poor contacts.

If the fault persists install new parts in the following sequence:

- IBT Drive Motor (PL 40.05)
- Motor Drive PWB (PL 1.10)

Press the Stop button and turn the power OFF. Install the IBT Unit and close the L/H Cover.

Turn the power ON and enter the Diagnostic mode. Turn ON dC330 [094-010] (IBT Drive Motor).

The IBT Drive Motor rotates PL 40.05.

Y N

Check the IBT Drive for loading. Also, check the IBT for loading due to blockage in the IBT Waste Toner Collection Auger.

Press the Stop button and turn the power OFF. Check the connection between the IBT Drive Motor PL 40.05 -8 and the Motor Drive PWB PL 1.10 -B1 for open circuit, short circuit, and poor contact.

If the fault persists instal a new Motor Drive PWB (PL 1.10).

342-342 Suction Fan Fail RAP (C8170 only)

BSD 90.22 Marking Air Flow

The suction fan error was detected. (C8170 only)

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Turn the power OFF and remove the Rear Upper Cover. Rotate the suction fan (PL 40.15) manually to check for resistance to movement.

The fan resists.

Y N

Install a new suction fan duct assembly.

Remove and clean the suction fan filter, PL 40.15.

The fault persists.

Y N

Clean the suction fan filter.

Open the front cover and cheat the front cover interlock switch.

Turn the power ON and enter the Diagnostic mode. Turn ON dC330 [042-020] (Suction Fan).

The suction fan rotates.

Y N

When the Diagnostic is turned ON, is the voltage between the Motor Drive PWB PL 1.10 -B11 (+) and the GND (-) +24VDC?

Y N

Turn the power OFF and replace the Motor Drive PWB (PL 1.10).

Turn the power OFF and check the connection between the Suction Fan PL 40.15 and the Motor Drive PWB PL 1.10 for open circuit, short circuit, and poor contact.

If the fault persists install new parts in the following sequence:

- Suction Fan (PL 40.15)
- Motor drive PWB (PL 1.10)

Press the Stop button and turn the power OFF. Check the connection between the Suction Fan PL 40.15-3 and the Motor Drive PWB PL 1.10-B12 for open circuit, short circuit, or poor contact.

If no problems are found, replace the following parts in sequence:

- Suction Fan (PL 40.15)
- Motor drive PWB (PL 1.10)

342-344 (C8145/55/70) C Exhaust Fan Fail

BSD 90.7 Toner Cartridge Cooling (Mid/High)

BSD 90.21 Marking Air Flow

BSD 90.22 Marking Air Flow

342–344 The C Exhaust Fan error was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Turn the power OFF and remove the rear upper cover. Rotate the toner cartridge exhaust fan (PL 40.15) manually to check for loading. Open the front cover and cheat the front cover interlock switch, PL 28.05.

Turn the power ON and enter the Diagnostic mode. Turn ON dC330 [042-056] (C exhaust fan/toner cartridge exhaust fan).

The toner cartridge exhaust fan is rotating.

Y N

With the diagnostic 042–056 turned ON, check the voltage between the Motor Drive PWB P/J442-9 (+) and the GND (-) +24VDC?

Y N

Turn the power OFF then replace the following part:

- Motor Drive PWB (PL 1.10)

Turn the power OFF then check the connection between the C Exhaust P/J272 and the Motor Drive PWB P/J444 for open circuit, short circuit, and poor contact.

If no problems are found, replace the following parts in sequence:

- C Exhaust Fan (PL 40.15)
- Motor Drive PWB (PL 1.10)

Press the Stop button then turn the power OFF. Check the connection between the C Exhaust Fan P/J272-3 and the Motor Drive PWB P/J442-B14 for open circuit, short circuit, and poor contact.

If no problems are found, replace the following parts in sequence:

- C Exhaust Fan (PL 40.15)
- Motor Drive PWB (PL 1.10)

342-385 K IBT Motor On Fail RAP

342-385 The drum/developer (K)/ IBT motor failed to rotate.

BSD 40.1 K Drum/Developer and IBT Drive Control

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the wiring between the motor drive PWB, PL 1.10, and the drum/developer (K)/ IBT motor, PL 40.05, for open circuit, short circuit, or poor contact.

The wiring is good.

Y N

| Repair or install new wiring.

Check the drum/developer (K)/ IBT motor, PL 40.05, refer to OF21 Multiple Wire Motor RAP (rap).

The drum/developer (K)/ IBT motor is good.

Y N

| Install a new drum/developer (K)/ IBT motor.

Install a new motor drive PWB, PL 1.10.

342-603 Suction Filter Fail RAP (8170 only)

324–603 Speed (rpm) of the suction is over the specified value. (C8170 only)

Perform the steps in 342-342Suction Fan Fail RAP.

342-641 NOHAD Temp/Humidity Sensor Fail RAP

BSD 10.5 Fusing

342-641 Temperature/Humidity Sensor indicates abnormal value.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

NOHAD temp humidity sensor, PL 90.30, for foreign material, blockage or damage.

The sensor is good.

Y N

| Install a new NOHAD temp humidity sensor.

Check the wiring between the NOHAD temp humidity sensor, PL 90.30, and the motor drive PWB, PL 1.10, for open circuit, short circuit, or poor contact.

The wiring is good.

Y N

| Repair or install new wiring.

Install a new motor drive PWB, PL 1.10.

342-642 UFP Filter Life Over RAP

342-642 The UFP filter has been detected as over the life limit.

Install a new UFP filter, PL 40.15.

343-322 LVPS Fan Fail

343–322 An abnormality was detected in the LVPS Front Fan.

Procedure

Switch the power off and then on, GP 4.

The fault persists.

Y **N**

| Go to Service Call Procedures, SCP 5.

Perform the steps in RAP 343-349.

343-338, 355 LH Fan Fail

BSD 10.8 Duplex Paper Transport

343–338 The LH Fan 1 error was detected.

343–355 The LH Fan 2 error was detected

Procedure

Turn the power OFF. Open the L/H Cover and cheat the L/H Cover Interlock Switch. Rotate the LH Fans 1-2 manually to check for loading.

Disconnect and reconnect the following connectors:

- P/J436 Motor Drive PWB (PL 1.10)
- P/J626
- P/J268 LH Fan 1 (PL 80.85)
- P/J269 LH Fan 2 (PL 80.85)

Turn the power ON then enter the Diagnostic mode. Turn ON dC330 [042-067] (LH Fan).

Both L/H Fans rotate.

Y N

Check the operation of the Fans. Refer to OF18 and Figure 1.

Press the Stop button. Turn the power OFF then check the connections between the Motor Drive PWB P/J436and the fans P/J268 and P/J269 for open circuit, short circuit, or contact.

If the fault persists, replace the following parts in sequence:

- LH Fan 1 (PL 80.85)
- LH Fan 2 (PL 80.85)
- Motor Drive PWB (PL 1.10)

343-345, 346 YMC Motor Fail RAP

BSD 40.2 YMC Drum and Developer Drive Control

343-345 A drum/developer YMC motor failure was detected.

343-346 A drum/developer YMC motor failure at startup was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Remove the drum cartridge (YMC) and the developer housing assembly (YMC). Close the front cover interlock switch and the front cover open interlock switch to make the machine operable.

Switch on the machine. Enter dC330 code 042-008 to run the drum/developer YMC motor.

Does the drum/developer YMC motor rotate.

Y N

Switch off the machine. Check the following connections for open circuits, short circuits, and poor contacts.

- The motor drive PWB P/J427 and the drum/developer (C, M, Y) motor P/J213 .
- The motor drive PWB P/J426 and the drum/developer (C, M, Y) motor P/J203 .

If the fault persists, install new components as necessary:

- Main drive assembly, PL 40.05.
- Motor drive PWB, PL 1.10.

Switch off the machine. Install the drum cartridge (Y,M,C) and the developer housing assembly (Y, M,C).

Switch on the machine. Enter dC330 code 042-008 to run the drum/developer YMC motor.

Does the drum/developer YMC motor rotate.

Y N

Check the drum cartridge (Y,M,C) and the developer housing assembly (Y,M,C) for loading.

Switch off the machine. Check the wiring between the motor drive PWB P/J426 and the drum/developer (C, M, Y) motor P/J203 for open circuit, short circuit, and poor contact.

If the fault persists, install a new motor drive PWB, PL 1.10.

343-347 Drum YMC Motor On Fail RAP

343-347 YMC drum motor rotation failure at start.

Refer to OF21 Multiple Wire Motor RAP.

343-348 YMC Deve Motor ON Fail

343-348 YMC developer motor rotation failure at start.

Refer to OF21 Multiple Wire Motor RAP.

343-349 IOT Fan Fail RAP

BSD 1.14 LVPS Cooling

BSD 10.4 Fusing Heat (2 of 2)

BSD 10.5 Fusing

BSD 90.5 Toner Cartridge Cooling (C8130/35/45/55/70)

BSD 90.19 Marking Air Flow

Abnormality was detected in the IOT fan.

343-322 LVPS fan fail.

343-349 Marking fan fault.

343-351 Front/right marking fan fail.

343-352 Toner cartridge cooling fan fail.

343-354 Front/left marking fan fail.

343-356 IHPs intake fan fail.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follows as necessary:

- OF18, OF19, or OF21 How to Check a Motor.

Enter dC330 and the following code to run the fan causing the fault:

- 042-060 fusing unit exhaust fan
- 042-056 toner cartridge exhaust fan
- 042-053 LVPS fan
- 042-051 marking fan
- 042-054 front right marking fan
- 042-055 toner cartridge cooling fan
- 042-062 front left marking fan
- 042-070 IHPS intake fan

The fan runs.

Y **N**

Check the +24V power supply to the failed fan.

The power supply is good.

Y **N**

Check the power supply circuit to the failed fan.

Check the items that follow:

- The connection between the failed fan below and the Motor Drive PWB :
  - fusing unit exhaust fan, PL 40.15 (P/J192 to P/J420).

A

- LVPS fan, PL 40.15 (P/J264 to P/J444).
- toner cartridge exhaust fan, PL 40.15 (P/J272 to P/J442).
- marking fan, PL 40.10 (P/J270 to P/J442).
- front/right marking fan, PL 40.10 (P/J261 to P/J442).
- front/left marking fan, PL 40.10 (P/J265 to P/J442).
- toner cartridge cooling fan, PL 40.10 (P/J267 to P/J408).
- IHPS intake fan, PL 40.15 (P/J263 to P/J408).

for open circuit, short circuit or poor contact.

- Check for excessive load and resistance to rotation of the failed fan.

Install new components as necessary:

- Fuser unit exhaust fan assembly, PL 40.15.
- Toner cartridge exhaust fan, PL 40.15.
- LVPS fan, PL 40.15.
- Marking fan, PL 40.10.
- Front right marking fan, PL 40.10.
- Toner cartridge cooling fan assembly, PL 40.10.
- Front left marking fan assembly, PL 40.10.
- IHPS intake fan, PL 40.15.
- Motor drive PWB, PL 1.10.

Install new components as necessary:

- Motor drive PWB, PL 1.10.
- Controller PWB assembly, PL 3.05.

343-351 Front/right marking fan fail (P1 Fan Fail) RAP

Abnormality was detected in the front right marking fan (P1).

343-351 Front/right marking fan fail.

Procedure

Switch the power off and then on, GP 4.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 5.

Perform the steps in RAP 343-349.

343-352 Toner cartridge cooling fan fail (C Fan Fail) RAP

343-352 Toner cartridge cooling fan fail.

Abnormality was detected in the toner cartridge cooling fan (C fan).

Procedure

Switch the power off and then on, GP 4.

The fault persists.

Y N

| Perform the steps in RAP 343-349.

Go to Service Call Procedures, SCP 5.

343-354 Front/left marking fan fail (P2 Fan Fail) RAP

343-354 Front/left marking fan fail.

Abnormality was detected in the front/left marking fan (P2 fan).

Procedure

Switch the power off and then on, GP 4.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 5.

Perform the steps in RAP 343-349.

343-356 IHPS intake fan fail RAP

343-356 Abnormality was detected in the IHPS intake fan.

Procedure

Switch the power off and then on, GP 4.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 5.

Perform the steps in RAP 343-349.

343-359 EEPROM Config Mismatch RAP

344-312, 313, 314, 389 Timeout Error RAP

344-312 IM software control error was detected (MK).

344-313 M software control error was detected (PH).

344-314 Pitch skip that has been repeated for the specified time or more was detected.

344-389 Detected abnormal output of the device during power up, cycle up, or switching to marking standby.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.

344-329 Shut Down Fail RAP

344-329 Shut down fail detected

Procedure

Switch off, then switch on the machine, GP 4.

345-310 Image Ready NG

BSD 3.5 PWB Communication (5 of 9)

The Controller image preparation failure was detected.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Turn the power OFF then ON.
2. Turn OFF the power and check the connectors (J335 , J451 , and J1) between the SBC PWB, BP PWB, Motor Drive PWB, and MCU-PF PWB for poor contacts.
3. If the problem persists, replace the following parts in sequence:
   - MCU-PF PWB (PL 3.15)
   - SBC PWB (PL 3.05)
   - Motor Drive PWB (PL 3.15)
   - BP PWB (PL 1.10)

345-311 Controller Communication Fault

BSD 3.5 PWB Communication (5 of 9)

Communication error between SBC PWB and MCU-PF PWB was detected.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

1. Turn the power OFF and ON.
2. Turn OFF the power and check the connectors (JP335 , J451 , and J1) between the SBC PWB, BP PWB, Motor Drive PWB, and MCU-PF PWB for poor contacts.
3. If the problem persists, replace the following parts in sequence:
   - MCU-PF PWB (PL 3.15)
   - SBC PWB (PL 3.05)
   - Motor Drive PWB (PL 1.10)
   - BP PWB (PL 3.15)

345-359 EEPROM Config Mismatch

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

The wrong EEPROM is installed

- The EEPROM for C8145/55 model or C8170 model is installed in the C8130/35 model.
- The EEPROM for C8130/35 model or C8170 model is installed in the C8145/55 model.
- The EEPROM for C8130/35 model or C8145/55 model is installed in the C8170 model.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Turn the power OFF then ON.
2. Replace with the correct EEPROM.
3. Initialize the IOT NVM (includes writing back the adjustment NVM).
4. If the problem persists, replace the Motor Drive PWB (PL 1.10).

345-368 SBM Initialize Fail

BSD 3.6 PWB Communication (6 of 9)

Communication cannot be established via the serial bus between the MSOC and the HASIC.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Turn the power OFF and ON.
2. Check the connector (J1). between the MCU-PF PWB and Motor Drive PWB for poor contact, damage, and foreign substances.
3. If no problem is found, replace the following parts in sequence:
   - MCU-PF PWB (PL 3.15).
   - Motor Drive PWB (PL 1.10).

345-369 SBM Master Communication Fail

BSD 3.6 PWB Communication (6 of 9)

A communication error has occurred at the MSOC side via the serial bus between the MSOC and the HASIC.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Turn the power OFF and ON.
2. Check the connector (J1). between the MCU-PF PWB and Motor Drive PWB for poor contact, damage, and foreign substances.
3. If no problem is found, replace the following parts in sequence:
   - MCU-PF PWB (PL 3.15).
   - Motor Drive PWB (PL 1.10).

345-370, 345–371 LPH Download Data Fault Multi

BSD 60.9 LPH Control (Y & M)

BSD 60.10 LPH Control (C & K)

DELSOL register error during the LPH batch download complete verification or connector error. (Fail has occurred in multiple LPHs.)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Check the following:

- Check the voltage between the Half Tone PWB J481-A12(+) and the GND. (+5 VDC).
- Check the voltage between the Half Tone PWB J481-B12(+) and the GND. (+24 VDC).
- The Flat Cable between the Half Tone PWB P554, P555, P556, P557and the LPH Unit of the color for which Fail occurs for open circuit, short circuit, and poor contact.
- Check the connectors, P335and P/J451among the Controller PWB, BP PWB, and Half Tone PWB for poor contact, damage, and foreign objects.

If no problem is found, replace the following parts in sequence and check each time a part is replaced to determine if the fault is still occuring and ret6urn the part if it has no problems.

- The LPH Unit PL60.05 of the applicable color
- Half Tone PWB PL 3.15
- Controller PWB PL 3.05

If the problem persists, refer to 361-354.

345-377 SBM Slave Communication Fail

BSD 3.6 PWB Communication (6 of 9)

A communication error has occurred at the HASIC side via the serial bus between the MSOC and the HASIC.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Turn the power OFF then ON.
2. Check the connector (J1). between the MCU-PF PWB and Motor Drive PWB for poor contact, damage, and foreign substances.
3. If no problem is found, replace the following parts in sequence:
   - Motor Drive PWB (PL 3.15).
   - MCU-PF PWB (PL 1.10).

345-382, 398 Drive PWB NVM (EEPROM) Verify Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

345-382 NVM (EEPROM) write verify error.

341-398 NVM (EEPROM) read verify error.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Reload the software, GP 9.
3. Install new components as necessary:
   - Motor drive PWB, PL 1.10.
   - Controller PWB assembly, PL 3.05.

347-211 Exit 1 OCT Home Fail

BSD 10.7 Exit 1 Paper Transport

347-211 The exit 1 OCT home position sensor did not turn ON within the specified time after the exit 1 OCT motor turned on.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch on the machine. Enter dC330 code 077-109 to activate the exit 1 OCT home position sensor.

Does the exit 1 OCT home position sensor activate.

Y N

- Switch off the machine, then check the wiring of the exit 1 OCT home position sensor for open circuit, contamination, and improper installation.
- Install a new, exit 1 sensor guide assembly, PL10.10.

Switch on the machine. Enter dC330 code 077-042 (front) 077-043 (rear). Run the exit 1 OCT motor to verify operation.

Does the exit 1 OCT motor rotate.

Y N

Switch off the machine, then check the exit 1 OCT motor for gear blockage or damaged gear.

Install a new motor drive PWB, PL 1.10.

Install a new motor drive PWB, PL 1.10.

347-212 Exit 2 OCT Home Fail

BSD 10.9 Exit 2 Paper Transport (1 of 2)

The Exit 2 OCT Home Position Sensor did not turn ON within the specified time after the Exit 2 OCT Motor On.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch on the machine. Enter dC330 code 077-110 to activate the exit 2 OCT home position sensor.

Does the exit 2 OCT home position sensor activate.

Y N

- Switch off the machine, then check the wiring of the exit 2 transport assembly for open circuit, contamination, and improper installation.
- Install a new, exit 2 transport assembly, PL 10.15.

Switch on the machine. Enter dC330 code 077-047 (front) 077-048 (rear). Run the exit 2 OCT motor to verify operation.

Does the exit 2 OCT motor rotate.

Y N

Switch off the machine, then check the exit 2 transport assembly for gear blockage or damaged gear.

Install a new motor drive PWB, PL 1.10.

Install a new motor drive PWB, PL 1.10.

347-213, 216 Finisher Communication RAP

BSD 3.3 PWB Communications (Controller to Finisher)

347-213 The connected finisher is of an incorrect type.

347-216 Reply from the finisher was determined as a communication error.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine. Refer to GP 4.
2. Check the connection between, the motor drive PWB P490 , and the finisher PWB for open circuit, short circuit or poor contact.
3. Install new components as necessary:
   - Finisher PWB. Refer to the appropriate finisher service manual for more information.
   - Motor Drive PWB, PL 1.10.

347-320 All Destination Tray Broken RAP

347-320 All trays connected to the IOT have become unusable.

Procedure

Check the fault history, BSD 60.3 for any tray faults. Perform the relevant procedures.

358-322, 323 Heat Belt STS Abnormal Temperature Rise Fail RAP

BSD 10.4 Fusing Heat (2 of 2)

358-322 The temperature of the IH Center Thermistor rises faster than the specified speed.

358-323 The temperature of the IH Rear Thermistor rises faster than the specified speed.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Power OFF, then power ON the machine (GP 4).
2. If the fault persists, install a new Fuser (PL 10.05).

Note: After replacement of the fuser, check the value of NVM [744-001] (Error Detection History). When the value is set to [6] (Heating error (IH Center Thermistor), clear it to [0].

358-324 Fusing Unit Non-Wearing Fail RAP

BSD 10.6 Fuser Detection

358-324 The Fuser is not installed in the machine at time of interlock close.

Procedure

Install the Fuser into the machine (PL 10.05).

358-325 Fusing Unit Wind Around Belt Fail RAP

BSD 10.5 Fusing

358-325 Wound up, stuck paper was detected at the fuser belt.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Power OFF the machine (GP 4) and allow it to cool to the touch.
2. Remove the paper.
3. Power ON the machine (GP 4).
4. If the fault persists, install a new Fuser (PL 10.05) (REP 10.2).

358-326 Fusing Unit Thermosensitivity Runaway Hot Not Ready Fail RAP

BSD 10.3 Fusing Heat (1 of 2)

BSD 10.4 Fusing Heat (2 of 2)

358-326 Thermosensitivity Monitor detects that the Fuser is too hot and out of control and set in NVM 44-001.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Power OFF, then power ON the machine (GP 4).
2. If the fault persists, install new components in the order listed:
   - Fuser Heater Coil (PL 10.05)
   - Fuser (PL 10.05)

Note: After installation of a new part, check the value of NVM [744-001] (Error Detection History). When the value is set to [5] (Coil loading error), clear it to [0]. Switch off, then switch on the machine, GP 4.

358-327 Plug Drawn Fail RAP

358-327 Power cord disconnected was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Ensure that the power cord is securely connected from the machine, to the outlet.

358-328 Fusing Unit EEPROM I2C Master Communication Fail RAP

BSD 10.6 Fuser Detection

358-328 The communication control ASIC with the fuser EEPROM had a fault.

Procedure

Refer to Fusing Unit E2PROM I2C Master Communication Info RAP (310–619 RAP).

358-329 Fusing Unit E2PROM Data Mismatch RAP

BSD 10.6 Fuser Detection

358-329 Incorrect authentication area data was detected in Fuser EEPROM.

Procedure

Refer to Fusing Unit EEPROM Data Mismatch Info RAP (310–620 RAP).

358-330 Fusing Unit E2PROM Not In Position RAP

BSD 10.6 Fuser Detection

358-330 The fuser EEPROM is not installed at the predefined position (EEPROM disconnected), or a communication error with the EEPROM has occurred.

Procedure

Refer to Fusing Unit E2PROM Not In Position Info RAP (310–621).

358-331 Fusing Unit E2PROM Data Broken RAP

BSD 10.6 Fuser Detection

358-331 The system detected that the data written to the Fuser EEPROM and the data read from the fuser EEPROM do not match.

Procedure

Refer to Fusing Unit E2PROM Data Mismatch Info RAP (310–620).

358-332 Fuser Heater Power Supply Load Abnormality Detection Fail RAP

BSD 10.3 Fusing Heat (1 of 2)

058-332 Power output from Fuser Heater Power Supply to the Fuser exceeded 1.5KVA during a certain period (status code:0x0).

Procedure

Refer to IH Driver Load Abnormality Detection Warning RAP.

358-333 Fuser IH Center Thermistor Warm Up Time Fail (No Temperature Rise) RAP

BSD 10.4 Fusing Heat (2 of 2)

358-333 The temperature of the IH Center Thermistor is not increasing during warm up.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Power OFF, then power ON the machine (GP 4).
2. If the fault persists, install a new Fuser (PL 10.05).

Note: After replacement of the fuser, check the value of NVM [744-001] (Error Detection History). When the value is set to [6] (Heating error (IH Center Thermistor), clear it to [0].

358-334 Fuser IH Rear Thermistor No Temperature Rise RAP

BSD 10.4 Fusing Heat (2 of 2)

358-334 The temperature of the IH rear thermistor is not increasing during warm up.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Power OFF, then power ON the machine (GP 4).
2. If the fault persists, install a new Fuser (PL 10.05).

Note: After replacement of the fuser, check the value of NVM [744-001] (Error Detection History). When the value is set to [6] (Heating error (IH Center Thermistor), clear it to [0].

358-335 Fusing Paper Quality Operation Mistake Fail RAP

358-335 Paper whose paper type (plain or lightweight) is different from the setting (Heavyweight) has passed.

Procedure

Check the UI and set to the correct paper tray or add the correct paper for the paper size required for the print job.

358-337 Fusing Paper Quality Operation Mistake Fail RAP

358-337 Paper whose paper type is different from the setting has passed.

Procedure

Check the UI and set to the correct paper tray or add the correct paper for the paper size required for the print job.

360-341 to 360-356 LPH data fail RAP

BSD 60.9 LPH Y and M

BSD 60.10 LPH C and K

360-341 Large pixel count error between the video output and yellow LPH. Image abnormality may occur.

360-342 Large pixel count error between the video output and magenta LPH. Image abnormality may occur.

360-343 Large pixel count error between the video output and cyan LPH. Image abnormality may occur.

360-344 Large pixel count error between the video output and black LPH. Image abnormality may occur.

360-345 Communication error between ESS and yellow LPH. Possibly caused by an external noise.

360-346 Communication error between ESS and magenta LPH. Possibly caused by an external noise.

360-347 Communication error between ESS and cyan LPH. Possibly caused by an external noise.

360-348 Communication error between ESS and black LPH. Possibly caused by an external noise.

360-349 Yellow LPH reset due to a noise was detected. Possibly caused by an external noise.

360-350 Magenta LPH reset due to a noise was detected. Possibly caused by an external noise.

360-351 Cyan LPH reset due to a noise was detected. Possibly caused by an external noise.

360-352 Black LPH reset due to a noise was detected. Possibly caused by an external noise.

360-353 Large pixel count error between the video output and yellow LPH. Image abnormality may occur.

360-354 Large pixel count error between the video output and magenta LPH. Image abnormality may occur.

360-355 Large pixel count error between the video output and cyan LPH. Image abnormality may occur.

360-356 Large pixel count error between the video output and black LPH. Image abnormality may occur.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off, then switch on the machine, GP 4.
2. Check the FFC ribbon cable connectors on each LPH and on the halftone PWB for an open circuit, short circuit, or loose connection.
3. Check the connection of the controller PWB at the back plane PWB J335 and the halftone PWB at the back plane PWB J451 for an open circuit, short circuit, or loose connection.
4. If the fault persists, install new components as necessary:
   - The failed LPH, PL60.05.
   - FFC cable assembly kit, PL60.05.
   - Halftone PWB, PL 3.15.
   - Controller PWB assembly, PL 3.05.

360-357, 358, 359, 360 CONTIF Error Fail RAP

BSD 60.9 LPH Y and M

BSD 60.10 LPH C and K

360-357 CONTIF Error Fail #1.

360-358 CONTIF Error Fail #2.

360-359 CONTIF Error Fail #3.

360-360 CONTIF Error Fail #4.

- Irregular output of Video Data from the Controller was detected.
- The output timing of the Valid signal from the Controller is abnormal.

Procedure

Enter dC131 NVM/Read/Write to verify the correct NVM value for the following:

- NVM [757-003] (CONTIF ERROR FLAG #1)
- NVM [757-004] (CONTIF ERROR FLAG #2)
- NVM [757-005] (CONTIF ERROR FLAG #3)
- NVM [757-006] (CONTIF ERROR FLAG #4)

Is the value 4 or higher.

Y **N**

Switch off the machine, GP 4. Check the connector on each side of the back plane PWB where the controller PWB assembly J335 and halftone PWB J451 connect for poor contact, damage, and foreign substances.If no problem is found, switch off, then switch on the machine, GP 4 several times to attempt resetting the fault.

Does the fault persist.

Y **N**

Install a new, controller PWB assembly, PL 3.05.

The fault persists, install new components as necessary:

- Controller PWB assembly, PL 3.05.
- Halftone PWB, PL 3.15.
- Back plane PWB, PL 3.15.

Update the software GP 9.

360-361 SPI Error

BSD 60.9 LPH Y and M

BSD 60.10 LPH C and K

060-361 A connection failure, external electrical noise, or failed controller PWB assembly.

- Broken access in units of bytes was detected during CS negate.
- As a result of a Read/Write command, the data area not in units of 16 bits was detected.

Procedure

Switch off the machine, GP 4. Check the connector on each side of the back plane PWB where the controller PWB assembly J335 and halftone PWB J451 connect for poor contact, damage, and foreign substances.If no problem is found, switch off, then switch on the machine, GP 4 several times to attempt resetting the fault.

Does the 361-310 (Video ASIC Fail) occur.

Y **N**

Check for any noise source around the machine or any abnormal electrical discharge in the machine.

The fault persists, install new components as necessary:

- Controller PWB assembly, PL 3.05.
- Halftone PWB, PL 3.15.
- Back plane PWB, PL 3.15.

Update the software GP 9.

361-310 Video ASIC Fail

BSD 60.9 LPH Y & M

BSD 60.10 LPH C & K

361-310 Unable to Read/Write to the Video ASIC.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, GP 4. Check the connector on each side of the back plane PWB where the controller PWB assembly J335 and halftone PWBJ451 connect for poor contact, damage, and foreign substances.
3. If the fault persists, install a new halftone PWB, PL 3.15.

361-354 to 361-357 LPH Download Data Fail RAP

BSD 60.9 LPH Y & M

BSD 60.10 LPH C & K

361-354 LPH Download Data Fail Y. ASCI register data error during the LPH (Y) batch download complete verification, download error, or connector error.

361-355 LPH Download Data Fail M. ASCI register data error during the LPH (M) batch download complete verification, download error, or connector error.

361-356 LPH Download Data Fail C. ASCI register data error during the LPH (C) batch download complete verification, download error, or connector error.

361-357 LPH Download Data Fail K. ASCI register data error during the LPH (K) batch download complete verification, download error, or connector error.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1.

Check the following:

- The Flat Cable between the Halftone PWB and the affected LPH for open circuit, short circuit, and poor contact.

  Refer to the specific PJ location on the halftone PWB for the affected LPH.:

  – P/J554 P554 LPH (Y)
  – P/J555 P555 LPH (M)
  – P/J556 P556 LPH (C)
  – P/J557 P557 LPH (K)

  Refer to the specific LPH for PJ location on the LPH:

  – P/J480Y
  – P/J480M
  – P/J480C
  – P/J480K
- The affected LPH Unit (PL60.05) for improper installation
- The EEPROM data of the affected LPH Unit for corruption, dC304 LPH EEPROM Self Test.
- The MCU PWB connection to the Relay PWB for poor contact, damage, and foreign substances.
- The Relay PWB connection to the Back Pane PWB for poor contact, damage, and foreign substances.
- The Back Plane PWB connection to the SBC PWB for poor contact, damage, and foreign substances.
- The Back Plane PWB connection to the Halftone PWB for poor contact, damage, and foreign substances.
- Use Software Versions (dC108) to verify the most current software is installed.

2. If a software upgrade is necessary go to GP 9.

3.

If the fault persists install new components in the following sequence:

a. LPH Unit (PL60.05)
b. FFC Cable Assembly (PL60.05)
c. Relay PWB (PL 3.15)
d. MCU-PF PWB (PL 3.15)
e. Backplane PWB (PL 3.15)
f. Halftone PWB (PL 3.15)

361-358, 359, 360, 361 LPH Configuration RAP

BSD 60.9 LPH Y & M

BSD 60.10 LPH C & K

361-358 The model number of the installed yellow LPH does not match. It may also be a memory error in the LPH.

361-359 The model number of the installed magenta LPH does not match. It may also be a memory error in the LPH.

361-360 The model number of the installed cyan LPH does not match. It may also be a memory error in the LPH.

361-361 The model number of the installed black LPH does not match. It may also be a memory error in the LPH.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off, then switch on the machine, GP 4.
2. Verify the correct LPH for the machine is installed and is installed correctly. Install the correct LPH or correctly install the LPH in the machine.
3. The Flat Cable between the Halftone PWB and the affected LPH for open circuit, short circuit, and poor contact.

   Refer to the specific PJ location on the halftone PWB for the affected LPH:

   - P/J554 P554 LPH (Y)
   - P/J555 P555 LPH (M)
   - P/J556 P556 LPH (C)
   - P/J557 P557 LPH (K)

   Refer to the specific LPH for PJ location on the LPH:

   - P/J480Y
   - P/J480M
   - P/J480C
   - P/J480K
4. Check each FFC cable at the halftone PWB for poor connection, damage, or excessive ware.
5. If the fault persists, install new components as necessary:
   - LPH assembly (K), PL60.05.
   - LPH assembly (C), PL60.05.
   - LPH assembly (M), PL60.05.
   - LPH assembly (Y), PL60.05.

361-362 to 361–365, 361-366 to 361–369, 361-370 to 361–373 LPH Communications Fault RAP

BSD 60.9 LPH Y & M

BSD 60.10 LPH C & K

361-362 Communication error between MCU PWB and LPH Unit (Y) (data read error from LPH)

361-363 Communication error between MCU PWB and LPH Unit (M) (data read error from LPH)

361-364 Communication error between MCU PWB and LPH Unit (C) (data read error from LPH)

361-365 Communication error between MCU PWB and LPH Unit (K) (data read error from LPH)

361-366 Communication error between MCU PWB and LPH Unit (Y) (data read error from LPH)

361-367 Communication error between MCU PWB and LPH Unit (M) (data read error from LPH)

361-368 Communication error between MCU PWB and LPH Unit (C) (data read error from LPH)

361-369 Communication error between MCU PWB and LPH Unit (K) (data read error from LPH)

361-370 Communication error between MCU PWB and LPH Unit (Y) (error in the communication IC or cable)

361-371 Communication error between MCU PWB and LPH Unit (C) (error in the communication IC or cable)

361-372 Communication error between MCU PWB and LPH Unit (M) (error in the communication IC or cable)

361-373 Communication error between MCU PWB and LPH Unit (K) (error in the communication IC or cable)

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following:

1.

- The flat cable between the halftone PWB and the affected LPH for open circuit, short circuit, and poor contact.

  Refer to the specific PJ location on the halftone PWB for the affected LPH.:

  – P/J554 P554 LPH (Y)
  – P/J555 P555 LPH (M)
  – P/J556 P556 LPH (C)
  – P/J557 P557 LPH (K)

  Refer to the specific LPH for PJ location on the LPH:

  – P/J480Y
  – P/J480M
  – P/J480C
  – P/J480K
- The affected LPH Unit for improper installation, PL60.05.

- The Drum Unit (Y, M, C, K) for improper installation, PL 90.15.
- The MCU PWB connection to the relay PWB for poor contact, damage, and foreign substances, PL 3.15
- The Relay PWB connection to the back plane PWB for poor contact, damage, and foreign substances, PL 3.15
- The Back Plane PWB (PL 3.15) connection to the controller PWB (PL 3.05) for poor contact, damage, and foreign substances.
- The Back Plane PWB connection to the halftone PWB for poor contact, damage, and foreign substances, PL 3.15.

2. If the fault persists install new components in the following sequence:
   a. LPH Unit (PL60.05).
   b. FFC Cable Assembly (PL60.05).

361-390 to 361–393 LPH FFC Connect Posi Fail RAP

BSD 60.9 LPH Y&M

BSD 60.10 LPH C&K

361–390 LPH FFC Connect Posi Fail Y.

361–391 LPH FFC Connect Posi Fail M.

361–392 LPH FFC Connect Posi Fail C.

361–393 LPH FFC Connect Posi Fail K.

Procedure

Switch the power off then on.

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the following PWBs and components for electrical or mechanical problems that could cause poor connection. Clean, reseat, or replace as required:

- MCU PWB PL 3.15 to the LPH assembly PL 60.05

If this does not resolve the problem replace the following in order:

1. The MCU PWB. Refer to (REP 3.6 (PL 3.15)
2. The LPH assembly. Refer to REP 60.1(PL 60.05)

362-277 IISS-DADF communication Fail RAP

Communication failure between IPS PWB and DADF PWB is detected.

Procedure

Perform 362B IPS DADF Communication Fault RAP

362-310 IIT/Scanner - Controller/CCS Communication Fail

362–310 Communication failure between IIT SW and CCS is detected.

Note: This is a software communication problem between SW modules located on the SBC PWB.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the following steps in order. If the fault persists after each is performed, perform the next step:

1. Reload the SW using Forced AltBoot (GP 9).
2. Validate the POST code sequence during power on using the OF6 Power On Self test RAP.
3. If the fault persists install a new controller PWB (PL 3.05).

   Note: When SW is reloaded after the SBC replacement, use the Forced AltBoot process (GP 9).
4. If the above actions do not resolve the fault call service support.

362-311 IISS Logic Fail RAP

IISS software error is detected.

Procedure

Perform 362B IPS DADF Communication Fault RAP.

362-312 IIT Internal Error Crash RAP

IIT crashed due to internal errors.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Power off then power on the machine
2. Go to Service Call Procedures SCP 5 Final Actions and log the problem in the machine service log.

362-313 Unexpected error RAP

Invalid combination of parameters which cannot be executed for the Scan Command.

BSD 60.5 Image Input (C8130/35/45/55)

BSD 60.6 Image Input (C8170)

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

1. Power off then power on the machine.
2. Go to Service Call Procedures SCP 5, Final Actions and log the problem in the machine service

362–345 IISS EEPROM Fail RAP

Error in writing on EEPROM or communication failure with EEPROM (to retry)

Procedure

Perform 362B IPS DADF Communication Fault RAP

362-357 CCD Fan Fail RAP

362–357–00 Error signal of CCD FAN is detected. (C8170 only)

BSD 60.8 Image Input (High - C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Switch off then switch on the machine.

The fault persists.

Y N

| Go to SCP 5.

Check the operation of the CCD fan assembly PL 60.20.

The fan operates.

Y N

| Install a new CCD fan assembly, PL 60.20

Check the wiring between the CCD fan assembly and the IIT trans PWB, PL 60.20 for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to SCP 5.

Check the wiring between the IIT trans PBW (PL 60.20) and the controller PWB assembly (PL 3.05) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to SCP 5.

Install new components in the following order as necessary.

- IIT trans PWB, PL 60.20.
- Controller PWB assembly, PL 3.05.

362-360 CRG Position Fail RAP

Error of CRG Position control count value is detected by IIT. The machine detects that registration sensor data is not input at CRG initialization.

BSD 60.5 Image Input (C8130/35/45/55)

BSD 60.6 Image Input (C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Verify that the lamp carriage can operate without interference.

The lamp carriage operates freely PL 60.20 (C8170), PL 60.50 (C8130/35/45/55).

Y N

| Repair or install new lamp carriage components as required.

Check the IIT registration sensor PL 60.25 (C8170), PL 60.50 (C8130/35/45/55)

The sensor is good.

Y N

| Install a new sensor, PL 60.25 (C8170), PL 60.50 (C8130/35/45/55)

Check the wiring between the IIT registration sensor and the IIT trans PWB for an open circuit, short circuit or poor contact.

- C8170 — IIT registration sensor (PL 60.25), IIT trans PWB (PL 60.20).
- C8130/35/45/55 — IIT registration sensor (PL 60.50), IIT trans PWB (PL 60.45).

The cable is good.

Y N

| Repair or install a new cable.

Install new components as necessary:

- IIT trans PWB, PL 60.20 (C8170), PL 60.45(C8130/35/45/55)
- Controller PWB, PL 3.05

362-362 X Hard Fail RAP

362–362–00 Hard modification of recognition device is detected (Detected at any time/at Power ON)

BSD 60.7 Image Input (Low/Mid—C8130/35/45/55)

BSD 60.8 Image Input (High - C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

C8130/35/45/55

Check the wiring between the IIT trans PWB (PL 60.45) and the CCD lens kit(PL 60.45) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5.

Check the wiring between the controller PWB (PL 3.05) and the IIT trans PWB (PL 60.45) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the wiring between the controller PWB (PL 3.05) and the CCD lens kit (PL 60.45) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Install new components as necessary:

- IIT trans PL 60.45
- CCD lens kit PL 60.45
- Controller PWB PL 3.05

C8170

Check the wiring between the IIT trans PWB (PL 60.20) and the CCD lens kit (PL 60.20) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5.

Check the wiring between the controller PWB (PL 3.05) and the IIT trans PWB (PL 60.20) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the wiring between the controller PWB (PL 3.05) and the CCD lens kit (PL 60.20) for an open circuit, short circuit or poor contact.

The wiring is good.

Y N

| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Install new components as necessary:

- IIT trans PL 60.20

- CCD lens kit PL 60.20
- Controller PWB PL 3.05

362-371 Lamp Illumination Fail RAP

362-371–00 Insufficient lamp illumination for CCD is detected (in white fluctuation correction before scanning start/in AGC)

Procedure

Perform the 362D Lamp Illumination Fault RAP

362-380 AGC Fail RAP

362-380–00 Insufficient lamp illumination is detected while AGC is applied (to retry)

Procedure

Perform the 362D Lamp Illumination Fault RAP

362-386 AOC Fail RAP

362-386 CCD output error is detected while AOC is applied (to retry).

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps in RAP 362-362.

362-389 CRG Over Run Fail RAP

362-389 CRG Overrun is detected.

BSD 60.5 Image Input (C8130/35/45/55)

BSD 60.6 Image Input (C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

C8130/35/45/55
Check the wiring between the controller PWB (PL 3.05) and the IIT trans PWB (PL 60.45) for an open circuit, short circuit or poor contact.

The wiring is good.
Y N
| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the wiring between the carriage motor (PL 60.50) and the IIT trans PWB (PL 60.45) for an open circuit, short circuit or poor contact.

The wiring is good.
Y N
| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the carriage motor (PL 60.50) refer to OF21 Multiple Wire Motor RAP.

The motor is good.
Y N
| Install a new carriage motor PL 60.50.

Install new components as necessary:

- IIT trans PL 60.45
- Controller PWB PL 3.05

C8170
Check the wiring between the controller PWB (PL 3.05) and the IIT trans PWB (PL 60.20) for an open circuit, short circuit or poor contact.

The wiring is good.
Y N
| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the wiring between the carriage motor (PL 60.25) and the IIT trans PWB (PL 60.20) for an open circuit, short circuit or poor contact.

The wiring is good.
Y N
| Repair the wiring as necessary. Go to Service Call Procedures SCP 5

Check the carriage motor (PL 60.25) refer to OF21 Multiple Wire Motor RAP.

The motor is good.
Y N
| Install a new carriage motor PL 60.25.

Install new components as necessary:

- IIT trans PL 60.20
- Controller PWB PL 3.05

362-393 IPS/CCD PWBA Fail RAP

The machine has detected that Write in Shading Memory is not possible (to retry). Write in Gap Memory is not possible (to retry) Averaging processing of ASIC cannot be performed (to retry).

Perform the steps in RAP 362-362.

362-395 Trans Power Cable Connection Fail RAP

362-395 Power supply failure to the IIT trans PBW detected.

Wiring Diagram 30 IIT +24VDC (Low/Mid)

Wiring Diagram 31 IIT +24VDC (High)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Check the cable between the LVPS (PL 1.15) and the IIT trans PWB (C8170 PL 60.20, C8130/35/45/55 PL 60.45) for an open circuit, short circuit or poor contact.

The cable is good.

Y N

| Repair the cable as necessary. Go to Service Call Procedures SCP 5

Check the LVPS is supplying power to the IIT trans PWB. Check PL 720 on the IIT trans PWB for 24VDC (C8170 PL 60.20, C8130/35/45/55 PL 60.45).

The LVPS is supplying 24VDC to the IIT trans PWB.

Y N

| Install a new LVPS (PL 1.15).

Install a new IIT trans PWB (C8170 PL 60.20, C8130/35/45/55 PL 60.45).

362-397 IIT-Cont Video Cable Connection Fault RAP

A connection error has been detected on the video cable between the controler PWB and the IIT trans PWB.

BSD 60.7 Image Input (C8130/35/45/55)

BSD 60.8 Image Input (C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

C8130/35/45/55

Turn the power OFF then ON.

The fault persists.

Y N

| Go to Service Call Procedures SCP 5.

Check the wiring between the IIT trans PWB (PL 60.45) and the CCD (PL 60.45) for open circuit, short circuit, and poor contact

The wiring is good.

Y N

| Repair or install new wiring as required.

Check the wiring between the CCD (PL 60.45) and the controller PWB (PL 3.05), PL 60.45, for open circuit, short circuit, and poor contact.

The wiring is good.

Y N

| Repair or install new wiring as required.

If the fault persists install new components as required.

- IIT trans PWB PL 60.45 and PL 60.20
- CCD PL 60.45
- Controller PWBPL 3.05

C8170

Turn the power OFF then ON.

The fault persists.

Y N

| Go to Service Call Procedures SCP 5.

Check the wiring between the IIT trans PWB (PL 60.20) and the CCD (PL 60.20) for open circuit, short circuit, and poor contact

The wiring is good.

Y N

| Repair or install new wiring as required.

Check the wiring between the CCD (PL 60.20) and the controller PWB (PL 3.05), PL 60.20, for open circuit, short circuit, and poor contact.

The wiring is good.

Y N

| Repair or install new wiring as required.

If the fault persists install new components as required.

- IIT trans PWB PL 60.20
- CCD PL 60.20

- Controller PWB PL 3.05

362-398 IIT-Cont I/O Cable Connection Fault

362-398 A connection failure was detected on the I/O cable to the controler PWB.

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Turn the power OFF and ON.

The fault persists.

Y N

| Go to Service Call Procedures SCP 5

Check the IIT cont I/O ribbon cable (C8170, PL 60.20; C8130/35/45/55, PL 60.45) between the IIT trans PWB (C8170, PL 60.20; C8130/35/45/55, PL 60.45) and the controller PWB (PL 3.05) for an open circuit, short circuit or poor contact.

The IIT cont I/O ribbon cable is good.

Y N

| Install a new IIT cont I/O ribbon cable (C8170, PL 60.20; C8130/35/45/55, PL 60.45).

Install new components in the following order as necessary.

- IIT trans PWB (C8170, PL 60.20; C8130/35/45/55, PL 60.45)
- Controller PWB, PL 3.05

362-399 DADF Cable Fail

DADF Cable Fail

Perform 362B IPS DADF Communication Fault RAP.

362-450 Calibration Dark Range Not Clear

Calibration Dark Range Not Clear

Procedure

Perform 362A IIT Calibration RAP

362-451 Calibration Dark Range Not Done

Calibration Dark Range Not Done

Procedure

Perform 362A IIT Calibration RAP

362-452 Calibration Pixel Offset Not Clear

Calibration Pixel Offset Not Clear

Procedure

Perform 362A IIT Calibration RAP

362-453 Calibration Pixel Offset Not Done

Calibration Pixel Offset Not Done

Procedure

Perform 362A IIT Calibration RAP

362-454 Calibration Gain Range Not Clear

362-454 Calibration Gain Range Not Clear

Procedure

Perform 362A IIT Calibration RAP

362-455 Calibration Gain Range Not Done

362-455 Calibration Gain Range Not Done

Procedure

Perform 362D Lamp Illumination Fault RAP

362-457 Calibration Pixel Gain Not Done

362-457 Calibration Pixel Gain Not Done

Procedure

Perform the 362D Lamp Illumination Fault RAP

362-458 Calibration Dark Range Errors

362-458 Calibration Dark Range Errors

Procedure

Perform 362A IIT Calibration RAP

362-459 Calibration Pixel Offset Hi Errors

362-459 Calibration Pixel Offset Hi Errors

Procedure

Perform 362A IIT Calibration RAP

362-460 Calibration Pixel Offset Lo Errors

362-460 Calibration Pixel Offset Lo Errors

Procedure

Perform 362A IIT Calibration RAP

362-461 Calibration Gain Range Errors

362-461 Calibration Gain Range Errors

Procedure

Perform 362D Lamp Illumination Fault RAP

362-462 Calibration Pixel Gain Hi Errors

362-462 Calibration Pixel Gain Hi Errors

Procedure

Perform 362D Lamp Illumination Fault RAP

362-463 Calibration Pixel Gain Lo Errors

362-463 Calibration Pixel Gain Lo Errors

Procedure

Perform 362D Lamp Illumination Fault RAP

362-466 Dark Range Rail Error

362-466 Dark Range Rail Error

Procedure

Perform 362A IIT Calibration RAP

362-467 Gain Range Rail Error

362-467 Gain Range Rail Error

Procedure

Perform 362D Lamp Illumination Fault RAP

362-468 Color State Errors

Pixel clock error from the full width array

Procedure

Perform 362A IIT Calibration RAP

362-476 Stepper Home Error

362-476 IIT Registration Sensor not cleared or not made in time

BSD 60.5 Carriage Control (C8130/35/45/55)

BSD 60.6 Carriage Control (C8170)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Switch the power off, then on.

Enter dC122 and check the Fault History for additional faults.

Fault codes 362-310 and 362-481 are BOTH also present.

Y **N**

Fault Code 362-481 is also present.

Y **N**

Go to the following RAPs:

- 362D Lamp Illumination Fault
- 362-362 X Hard Fail RAP

Go to the 362-481 DADF Communication Time-out RAP to troubleshoot.

Go to the following RAPs:

- 362-310 IIT/Scanner - Controller/CCS Communication Fail
- 362C IIT PWB Power Cable Connection Fault RAP
- 362-398 IIT-Cont I/O Cable Connection Fault RAP

362-481 DADF Communication Time-out

Communication cannot be established between the controller PWB and the DADF PWB.

Procedure

Perform 362B IPS DADF Communication Fault RAP.

362-486 Supply 24 Volt Error RAP

362-486 Supply 24 Volt Error

Procedure

Perform 362C Supply 24 Volt Error RAP

362-490, 362–491 Data Steerer Errors - Taurus 1

Failed to transfer video.

1. Switch the power off and on, GP 4.
2. If the fault persists perform 362B IPS DADF Communication Fault RAP.

362-779 FPGA not loaded

FPGA has corrupted image or hasn't been loaded

Procedure

Refer to GP 9 to perform a Forced AltBoot.

362-780 FPGA CRC Error

FPGA has corrupted image or hasn't been loaded

Procedure

1. Switch the power off and on again, GP 4.
2. If the fault persists perform an Altboot, refer to GP 9.

362-781 IIT Remote NVM Out of Range

IIT Remote NVM Out of Range

Procedure

1. Power Off then Power On, GP 4.
2. Reload the software, perform an Altboot, refer to GP 9.

362-782 IIT Remote NVM Read Time-out

IIT Remote NVM Read Time-out

Procedure

1. Power Off then Power On, GP 4.
2. Reload the software, perform an Altboot, refer to GP 9.

362-783 SPDH side 1 hotline error

SPDH side 1 hotline error.

Procedure

Perform 362B IPS DADF Communication Fault RAP.

362-784 IIT Platen hotline error

IIT Platen hotline error

Procedure

1. Power Off then Power On, GP 4.
2. If the fault persists perform 362B IPS DADF Communication Fault RAP.

362-785, 362-786 Taurus 2 capability faults RAP

362-785 Taurus 2 capability retry

362-786 Taurus 2 capability timeout

Remote Service Actions

Switch off then switch on the machoine, refer to GP 4.

Procedure

If the fault persists perform 362-310 IISS / Scanner - Controller / CCS communication Fail RAP.

362-790, 361-791, 362-792 Side 1 doorbell faults

362–790 Side 1 doorbell reject

362–791 Side 1 doorbell timeout

362–792 Side 1 doorbell failure

Procedure

Perform 362A IIT Calibration RAP

362A IIT Calibration RAP

BSD 60.3 Document Illumination (Low/Mid—C8130/35/45/55)

BSD 60.4 Document Illumination (high)

BSD 60.7 Image Input (Low/Mid—C8130/35/45/55)

BSD 60.8 Image Input (High - C8170)

Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off, then on. Refer to GP 4.

The fault persists.

Y N

Go to Service Call Procedures SCP 5.

Check the IIT lead edge registration. ADJ 60.2.

The IIT lead edge registration is good.

Y N

Adjust the IIT lead edge registration ADJ 60.2.

Check the following voltages on the IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

C8130/35/45/55 and C8170

- TP5 to GND: +3.3VDC
- TP50 to GND: +3.3VDC
- TP56 to GND: +10VDC

All the voltages tested are good.

Y N

Install a new IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

Check for +24VDC on PJ720 on the IIT trans PWB from pin 2 to pin 1, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

+24VDC is found at PJ720 on the IIT trans PWB from pin 2 to pin 1.

Y N

Go to OF5 24VDC Power RAP, .

Check the CCD cont video ribon cable for an open circuit, short circuit, poor contact, C8130/35/45/55, PL 60.45, C8170 PL 60.20.

CCD cont video ribon cable is good.

Y N

Repair or install a new CCD cont video ribon cable as required.

Check the IIT cont I/O ribbon cable for an open circuit, short circuit, poor contact, C8130/35/45/55, PL 60.45, C8170 PL 60.20.

The IIT cont I/O ribbon cable is good.

Y N

Repair or install a new IIT cont I/O ribbon cable as required.

Check the wiring to the CCD lens kit for an open circuit, short circuit, poor contact or misalignment, C8130/35/45/55, PL 60.45, C8170 PL 60.20.

The CCD lens kit has good wiring and is correctly aligned.

Y N

| Repair the wiring or correct the misalignment.

Check the wiring to the IIT trans PWB for an open circuit, short circuit or poor contact, IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

The wiring is good.

Y N

| Repair the wiring as required.

Check the wiring between the IIT trans PWB PJ710 and the CCD lens kit PJ700 for an open circuit, short circuit or poor contact, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170)..

- IIT trans PWB, C8130/35/45/55, PL 60.45.
- IIT trans PWB C8170, PL 60.20.
- CCD lens kit C8130/35/45/55, PL 60.45.
- CCD lens kit C8170, PL 60.20.

The wiring is good.

Y N

| Repair the wiring between the IIT trans PWB PJ710 and the CCD PWB PJ700.

Clean the optics:

- Switch off the power and allow the exposure lamp to cool.
- Using the optical cleaning cloth, clean the front and rear of the document glass, document cover, white reference strip, reflector, and mirror.
- Clean the exposure lamp with Lens and Mirror Cleaner and lint free cloth.
- Clean the lens with lens and mirror cleaner and a lint free cloth.
- Reassemble and switch on the power.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 5.

Perform the following in order:

1. Reload the software using the forced altboot process (GP 9).
2. Install a new LED Lamp, C8130/35/45/55 PL 60.55, C8170 PL 60.30.
3. Install a new IIT Control Cable C8130/35/45/55 PL 60.45, C8170 PL 60.20.
4. Install a new IIT trans PWB, C8130/35/45/55 PL 60.45, C8170 PL 60.20.
5. Install a new CCD lens kit C8130/35/45/55 PL 60.45, C8170 PL 60.20.
6. Install a new hard disk drive (HDD), PL 3.05.
7. Install a new controller PWB, PL 3.05.

362B IPS-DADF Communication Fault

Communication cannot be established between the controler PWB and the DADF.

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

C8170

Turn the power OFF and ON.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 3.

Check the IIT DADF cable that connects the IIT trans PWB (PL 60.20) to the DADF PWB (PL 5.3) for an open circuit, short circuit, or poor contact, PL 5.3/3.

The IIT DADF cable is good.

Y N

| Repair or install a new IIT DADF cable.

Check the DADF controller cable that connects DCDC PWB (PL 5.4) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 5.4/4.

The DADF controller cable is good.

Y N

| Repair or install a new DADF controller cable.

Check the flat cable that connects the DCDC PWB (PL 5.4) to the CIS (PL 5.4) for an open circuit, short circuit, or poor contact, PL 5.4/5.

The flat cable is good.

Y N

| Repair or install a new flat cable.

Check the wire harness that connects DCDC PWB (PL 5.4) to the CIS (PL 5.4) for an open circuit, short circuit, or poor contact, PL 5.4/10.

The wire harness is good.

Y N

| Repair or install a new wire harness.

Check the CCD cont video ribbon that connects the CCD lens kit (PL 60.20) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.20/10

The CCD cont video ribbon cable is good.

Y N

| Repair or install a new CCD cont video ribbon cable.

Check the IIT cont I/O ribbon cable that connects the IIT trans PWB (PL 60.20) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.20/16

The IIT cont I/O ribbon cable is good.

Y N

| Repair or install a new IIT cont I/O ribbon cable.

If the fault persists install new components in the following sequence:

- DADF PWB, PL 5.3.
- Controler PWB, PL 3.05.
- IIT trans PWB, PL 60.20.
- DCDC PWB, PL 5.4.
- CIS, PL 5.4.

C8130/35/45/55

Turn the power OFF and ON.

The fault persists.

Y N

| Go to Service Call Procedures, SCP 3.

Check the DADF signal cable that connects the IIT trans PWB (PL 60.45) to the DADF PWB (PL 5.53) for an open circuit, short circuit, or poor contact, PL 5.53/5.

The DADF signal cable is good.

Y N

| Repair or install a new DADF signal cable.

Check the DADF controller cable that connects DCDC PWB (PL 5.53) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 5.53/10.

The DADF controller cable is good.

Y N

| Repair or install a new DADF controller cable.

Check the flat cable (DCDC to CIS) that connects the DCDC PWB (PL 5.53) to the CIS (PL 5.54) for an open circuit, short circuit, or poor contact, PL PL 5.53/12.

The cable flat cable (DCDC to CIS) is good.

Y N

| Repair or install a new flat cable (DCDC to CIS).

Check the CCD cont video ribbon cable that connects the CCD lens kit (PL 60.45) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.45/4

The CCD cont video ribbon cable is good.

Y N

| Repair or install a new CCD cont video ribbon cable.

Check the IIT cont I/O ribbon cable that connects the IIT trans PWB (PL 60.45) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.45/20

The IIT cont I/O ribbon cable is good.

Y N

| Repair or install a new IIT cont I/O ribbon cable.

If the fault persists install new components in the following sequence:

- DADF PWB PL 5.53.
- Controler PWB, PL 3.05.
- IIT trans PWB, PL 60.45.
- DCDC PWB PL 5.53.
- CIS PL 5.54.

362C IIT PWB Power Cable Connection Fault

BSD 1.7 DC Power Generation +24V (1 of 2)

BSD 1.8 DC Power Generation +24V (2 of 2)

BSD 1.10 DC Power Generation +24V (1 of 2)

BSD 1.11 DC Power Generation +24V (2 of 2)

IIT trans PWB power source error was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Switch the power off, then on. Refer to GP 4.

The fault persists.

Y N

| Go to Service Call Procedures SCP 5.

Check the cable between the LVPS (PL 1.15) and the IIT trans PWB (C8170 PL 60.20, C8130/35/45/55 PL 60.45) for an open circuit, short circuit or poor contact.

The cable is good.

Y N

| Repair the cable as necessary. Go to Service Call Procedures SCP 5

Check for +24VDC on PJ720 on the IIT trans PWB from pin 2 to pin 1, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

+24VDC is present.

Y N

| Go to OF5 24VDC Power RAP, .

Install a new IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

362D Lamp Illumination Fault

BSD 60.3 Document illumination C8130/35/45/55

BSD 60.4 Document illumination C8170

BSD 60.7 Image input C8130/35/45/55

BSD 60.8 Image input C8170

Insufficient light from Lamp detected in CCD (during white gradation correction/AGC before Scan starts)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

CAUTION: When checking at the vicinity of the CCD and the IIT PWB with the power remaining ON and the CCD Lens Cover removed, do not allow the Carriage to move all the way to the right. If the Carriage is moved all the way to the right, the LED Lamp PWB will contact the Earth Plate, which then shorts the LED Lamp PWB and damages it.

Initial Actions

Check whether there is something blocking the light and check the Lamp, Lens, Mirror, and White Color Correction Plate for deterioration or contamination.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the LED lamp illuminates on the full rate carriage, PL 60.30 (C8170), PL 60.55 (C8130/35/45/55). Refer to dC330 [062-002] (PL 3.10).

The LED lamp illuminates.

Y N

| Install a full rate carriage.

Check the following voltages on the IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

- TP5 to GND: +3.3VDC
- TP50 to GND: +3.3VDC
- TP56 to GND: +10VDC

All the voltages tested are good.

Y N

| Install a new IIT trans PWB, PL 60.45 (C8130/35/45/55), PL 60.20 (C8170).

Check the flat cable (DCDC to CIS) that connects the DCDC PWB (PL 5.53 C8130/35/45/55, PL 5.4C8170) to the CIS (PL 5.54 C8130/35/45/55, PL 5.4C8170), for an open circuit, short circuit, or poor contact, PL 5.53 (C8130/35/45/55), PL 5.4(C8130/35/45/55).

The cable flat cable (DCDC to CIS) is good.

Y N

| Repair or install a new flat cable (DCDC to CIS).

Check the CCD cont video ribbon cable that connects the CCD lens kit (PL 60.45C8130/35/45/55, PL 60.20 C8170) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.45/4, (C8130/35/45/55), PL 60.20 (C8170).

The CCD cont video ribbon cable is good.

Y N

| Repair or install a new CCD cont video ribbon cable.

Check the IIT cont I/O ribbon cable that connects the IIT trans PWB (PL 60.45 C8130/35/45/55, PL 60.20 C8170) to the controller PWB (PL 3.05) for an open circuit, short circuit, or poor contact, PL 60.45 (C8130/35/45/55) PL 60.20 (C8170)

The IIT cont I/O ribbon cable is good.

Y N

| Repair or install a new IIT cont I/O ribbon cable.

If the fault pesists go to ADJ 60.5 to troubleshoot the problem.

365-221 CIS AGC Fail RAP

CIS AGC fail

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Power Off then Power On. If this fails to resolve the problem, call service support for assistance.

365-223 CIS Connection Fail RAP

CIS connection fail

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Power Off then Power On. If this fails to resolve the problem, call service support for assistance.

365-224 CIS Device Fail

CIS device fail RAP

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Power Off then Power On. If this fails to resolve the problem, call service support for assistance.

365-225 CIS Fail

CIS device fail

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Power Off then Power On. If this fails to resolve the problem, call service support for assistance.

366-397 CIS Pixel Clock missing RAP

Connection failure with CIS

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-450 Calibration Dark Range Not Clear

Dark range status bit is not clear prior to calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-451 Calibration Dark Range Not Done RAP

Dark range status bit is not set after calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-452 Calibration Pixel Offset Not Clear RAP

Pixel offest status bit is not clear prior to calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-453 Calibration Pixel Offset Not Done RAP

Pixel offset status bit is not set after calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-454 Calibration Gain Range Not Clear RAP

Gain range status bit is not clear prior to calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-455 Calibration Gain Range Not Done RAP

Gain range status bit is not set after calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-457 Calibration Pixel Gain Not Done RAP

Pixel gain status bit is not set after calibration

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-458 Calibration Dark Range Errors RAP

Highest Intensity image pixel value exceeds maximum tolerance.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-459 Calibration Pixel Offset Hi Errors RAP

Pixel error exceeds maximum adjustment allowed during dark calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-460 Calibration Pixel Offset Lo Errors RAP

Pixel error exceeds maximum adjustment allowed during dark calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-461 Calibration Gain Range Errors RAP

Highest intensity image pixel value is lower than the minimum tolerance

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-462 Calibration Pixel Gain Hi Errors RAP

Pixel error exceeds maximum adjustment allowed during white calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-463 Calibration Pixel Gain Lo Errors RAP

Pixel error exceeds maximum adjustment allowed during white calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-466 Dark Range Rail Error RAP

Pixels out range during black calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-467 Gain Range Rail Error RAP

Pixels out range during white calibration.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-468 Color State Errors

Pixel clock error from the full width array.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-490, 366–491 Data Steerer Errors - Taurus 2

Data steerer error to/from Taurus 2 - Second side error.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-779 FPGA Not Loaded (Side 2)

FPGA has corrupted image or has not been loaded - Second side error.

1. Reload the software by performing a Forced AtBoot, GP 9.
2. If the fault persists perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-780 FPGA CRC Error (Side 2)

FPGA has corrupted image or has not been loaded - Second side error.

1. Reload the software by performing a Forced AtBoot, GP 9.
2. If the fault persists perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-783 SPDH side 2 hotline error.

SPDH side 2 hotline error.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-790 Side 2 Doorbell Reject RAP

Software Problem

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-791 Side 2 doorbell timeout RAP

Side 2 doorbell timeout.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366-792 Side 2 Doorbell Failure RAP

Side 2 doorbell failure.

Perform the steps in 366A IIT Side 2 Calibration Error RAP.

366A IIT Side 2 Calibration Error RAP

C8170

BSD 5.10 DADF 250 Document Scan (Side 2) (1 Of 2)

BSD 5.11 DADF 250 Document Scan (Side 2) (2 Of 2)

C8130/35/45/55

BSD 5.20 DADF 130 Document Scan (1 of 2)

BSD 5.21 DADF 130 Document Scan (2 of 2)

An error has occurred during calibration of the second side.

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Procedure

1. Switch the power off, then on. If the problem remains, check the following:
2. Turn OFF the power then check the following:

   C8130/35/45/55

   - The ribbon cable between the CIS (PL 5.54) and the DC/DC PWB (PL 5.53) for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.
   - The DADF controler cable (PL 5.53) between the DC/DC PWB (PL 5.53) and the control unit (ESS PWB) (PL 3.05) for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.
   - The DADF signal cable assembly (PL 5.53) between the DADF PWB (PL 5.53) and the IIT trans PWB (PL 60.45), for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.

   C8170

   - The ribbon cable (PL 5.4) between the CIS (PL 5.4) and the DCDC PWB (PL 5.4) for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.
   - The DADF controler cable (PL 5.4) between the DCDC PWB (PL 5.4) and the control unit (ESS PWB) (PL 3.05) for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.
   - The IIT DADF cable (PL 5.3) between the DADF PWB (PL 5.3) and the IIT trans PWB (PL 60.20), for open circuits, short circuits, and poor contacts. Repair or replace the cable as required.
3. Turn the power ON
4. If the fault persists install new components as necessary:

   C8130/35/45/55

   - IIT trans PWB (PL 60.45)
   - DADF PWB (PL 5.53)
   - CIS (PL 5.54)
   - DCDC PWB (PL 5.53)
   - Control unit (ESS PWB) (PL 3.05)

   C8170

   - IIT trans PWB (PL 60.20)
   - DADF PWB (PL 5.3)
   - CIS (PL 5.4)
   - DCDC PWB (PL 5.4)
   - Control unit (ESS PWB) (PL 3.05)

371-100 Jam In Tray 1 RAP

BSD 70.8 Tray 1 Paper Stacking

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

371-100 Paper does not actuate the tray 1 feed out sensor within the specified time after tray 1 feed start.

Initial Actions

- Check the condition of the paper in tray 1.
- Check that the tray 1 paper guides are set correctly.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 1 feed roll, nudger roll and retard roll, PL 80.10 for foreign substances or wear. Clean or install new components as necessary.
3. Check the registration roll and takeaway roll 2, PL 80.90 for foreign substances or wear. Clean or install new components as necessary.
4. Enter dC330 , code [071-105]. Check the tray 1 pre-feed sensor, PL 80.10.
5. Enter dC330 , code [071-002]. Check the tray 1 feed/lift up motor, PL 80.10.
6. Check the drive gears, PL 80.10 for wear or damage. Install new components as necessary.
7. If the fault persists, install a new Motor Drive PWB, PL 1.10.

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371-105 Jam In The Device RAP

BSD 70.8 Tray 1 Paper Stacking

BSD 80.7 Registration

371-105 The registration sensor did not actuate within the specified time after the registration clutch initialized during paper feed from tray 1.

Initial Actions

Check the condition of the paper in tray 1.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Enter dC330 , code [077-103]. Check the registration sensor, PL 80.80.
3. Enter dC330 , code [077-050]. Check the takeaway motor, PL 80.10.
4. Enter dC330 , code [071-002]. Check the tray 1 feed/lift up motor, PL 40.10.
5. Check the tray 1 feed roll, nudger roll and retard roll, PL 80.10 for foreign substances or wear. Clean or install new components as necessary.
6. Check the helical gear, PL 40.05 for wear or damage.
7. Check the tray1 feed out chute, PL 80.05 and feedhead chute assembly, PL 80.05 for proper installation.
8. Check the drive assembly, PL 40.10 for wear or damage.
9. If the fault persists, install new components as necessary:
   - Motor Drive PWB, PL 1.10.
   - Controller PWB assembly, PL 3.05.

371-210 Tray 1 Lift Up Fail RAP

BSD 70.8 Tray 1 Paper Stacking

371-210 Tray 1 lift NG has occurred three consecutive times.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 1 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 , code [071-102]. Check the tray 1 level sensor, PL 80.10.
2. Enter dC330 , code [071-002]. Check the tray 1 feed/lift up motor, PL 80.10.
3. Check the drive gears, PL 80.10 for wear or damage.
4. If the fault persists, install a new Motor Drive PWB, PL 1.10.

371-212 Tray 1 Paper Size Sensor Fault RAP

BSD 70.1 Tray 1 Paper Size Sensing

371-212 Abnormal output AD value from tray 1 paper size sensor was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Load the correct paper in tray 1.
2. Ensure that the customer is programming the job correctly.
3. Remove tray 1. Check underneath the tray for damage to the link mechanism. Also check the actuator at the rear of tray 1. If necessary, install a new tray assembly, PL 70.10.
4. Enter dC140 Analog Monitor Analog Monitor, code [071-200]. Check the tray 1 size sensor, PL 70.05.
5. Check the wiring between the tray 1 size sensor and P/J417 on the motor drive PWB.
6. Reload the software, GP 9.
7. If the fault persists, install new components as necessary:
   - Tray 1 size sensor, PL 70.05.
   - Motor drive PWB, PL 1.10.

372-100 LE Late to Pre Feed Sensor from Tray 2 RAP

BSD 80.1 Tray 1 and 2 Paper Pre-feeding

372-100 The tray 2 pre-feed sensor did not turn on within the specified time after the paper feed from tray 2 has started.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 2 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 code [072-105] to check the tray 2 pre-feed sensor, PL 80.15 for operation failure.
2. Enter dC330 code [072-002] (Feed) tray 2 feed/lift motor, PL 80.15 for operation failure.
3. Check the tray 2 feed roll, nudger roll and retard roll, PL 80.15 for foreign substances or wear. Clean or install new components as necessary.
4. Check the drive gears PL 80.15 for wear and damage. Clean or install new components as necessary.
5. Check the pad, PL 70.15 for an proper installation and correct if necessary.
6. If the fault persists, install a new motor drive PWB, PL 1.10.

372-105 LE Late to Registration Sensor from Tray 2 RAP

BSD 80.7 Registration

372-105 The registration sensor did not actuate within the specified time after the registration clutch initialized during paper feed from tray 2.

Initial Actions

Check the condition of the paper in tray 2.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 2 feed roll, nudger roll and retard roll, PL 80.15 for foreign substances or wear. Clean or install new components as necessary.
3. Enter dC330 , code [077-103]. Actuate the registration sensor, PL 80.80.
4. Enter dC330 , code [077-050]. Run takeaway motor 1, PL 80.95.
5. Enter dC330 , code [077-050]. Run the takeaway motor 2, PL 80.95.
6. Enter dC330 , code [072-002]. Run the tray 2 feed/lift motor, PL 80.15.
7. Check the gear, PL 80.10 for wear or damage. Install a new gear as necessary.
8. Check the drive assembly, PL 40.10 for wear or damage.
9. Check the Registration Transport Assembly, PL 80.90 for improper installation.
10. If the fault persists, install a new Motor Drive PWB, PL 1.10.

372-107 Lead Edge Late to MSI (Bypass) Feed Out Sensor from Tray 2 RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

372-107 The MSI Feed Out Sensor does not turn ON within the specified time after start of Tray 2 feed.

Initial Actions

Check the condition of the paper in tray 2.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the following:

1. Check the left hand door is fully closed and latched.
2. Check for obstructions in the paper path.
3. Check the following components for foreign substances or wear. Clean or install new components as necessary.
   - Tray 2 takeaway roll assembly, PL 80.90.
   - Bypass tray roll, PL 80.120.
   - Tray 2 feed roll, nudger roll and retard roll, PL 80.15.
4. Enter dC330 , code [077-104]. Actuate the MSI feed out sensor, PL 80.115.
5. Enter dC330 , code [077-051]. Run the takeaway motor 2, PL 80.95.
6. Check the Registration Transport assembly, PL 80.90 for improper installation.
7. If the fault persists, install a new Motor Drive PWB, PL 1.10.

372-210 Tray2 Lift UP Fail RAP

BSD 70.9 Tray 2 Paper Stacking

371-210 Tray 2 lift NG has occurred three consecutive times.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 2 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 , code [072-102]. Check the tray 2 no paper sensor/tray 2 level sensor, PL 80.15.
2. Enter dC330 , code [072-002]. Check the tray 2 feed/lift motor, PL 80.15.
3. Check the gear, PL 80.15 for wear or damage. Install a new gear as necessary.
4. If the fault persists, install a new Motor Drive PWB, PL 1.10.

372-212 Tray 2 Paper Size Sensor Fault RAP

BSD 70.2 Tray 2 Paper Size Sensing

372-212 Abnormal output AD value from tray 2 paper size sensor was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Load the correct paper in tray 2.
2. Ensure that the customer is programming the job correctly.
3. Remove tray 2. Check underneath the tray for damage to the link mechanism. Also check the actuator at the rear of tray 2. If necessary, install a new tray assembly, PL 70.05.
4. Enter dC140 Analog Monitor Analog Monitor, code [072-200]. Check the tray 2 paper size sensor:
5. Check the wiring between the tray 2 paper size sensor P/J175 and the motor drive PWB P/J417 for open circuit, short circuit, or poor contact.
6. Reload the software, GP 9.
7. If the fault persists, install a new Motor Drive PWB, PL 1.10.

373-100 LE Late to Tray 3 Pre Feed Sensor from Tray 3 RAP (2TM/TTM)

BSD 80.2 Tray 3 and 4 Paper Pre-feeding

373-100 The tray 3 pre-feed sensor did not turn on within the specified time after the paper feed from tray 3 has started.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 3 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 code [073-103] to actuate the tray 3 pre-feed sensor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
2. Enter dC330 code [073-001] (Feed). Run the tray 3 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
3. Check the tray 3 feed roll, nudger roll and retard roll for foreign substances or wear. Clean or install new components as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
4. Check the gear for wear and damage. Clean or install new components as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
5. Check the pads for an proper installation and correct if necessary:
   - 2TM PL 70.25.
   - TTM PL 70.40.
6. If the fault persists, install a new motor drive PWB, PL 1.10.

373-101, 900 Tray 3 Feed Out Sensor Jam RAP

BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

BSD 70.14 IOT and 2TM Paper Path and Drive Transmission

BSD 70.15 IOT and TTM Paper Path and Drive Transmission

BSD 80.5 2TM Paper Transport

BSD 80.6 TTM Paper Transport

Refer to any feeder accessory manuals for BSDs for external feeding devices

373-101 Paper does not actuate the tray 3 feed out sensor within the specified time after tray 3 feed start.

373-900 The tray 3 feed out sensor detected remaining paper.

Initial Actions

Check the condition of the paper in tray 3.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 3 feed roll, nudger roll and retard roll, PL 80.25 for foreign substances or wear. Clean or install new components as necessary.
   - 2TM PL 80.30.
   - TTM PL 80.50.
3. Check the takeaway roll assembly for foreign substances or wear. Clean or install new components as necessary.
   - 2TM PL 80.25.
   - TTM PL80.40.
4. Enter dC330 , code [073-103]. Actuate the tray 3 feed out sensor, PL 80.25.
5. Enter dC330 , code [073-001]. Run the tray 3 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
6. Enter dC330 , code [077-035]. Run the takeaway motor:
   - 2TM PL 80.30.
   - TTM PL 80.45.
7. Check the gear for wear or damage. Install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.

8. If the fault persists, install a new motor drive PWB, PL 1.10.

373-105 LE Late to Registration Sensor From Tray 3 RAP

BSD 80.7 Registration

373-105 The registration sensor did not actuate within the specified time after the registration clutch initialized during paper feed from tray 3.

Initial Actions

Check the condition of the paper in tray 3.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 3 feed roll, nudger roll and retard roll, PL 80.35 for foreign substances or wear. Clean or install new components as necessary.
3. Enter dC330 , code [077-104]. Actuate the registration sensor, PL 80.80.
4. Enter dC330 , code [077-050]. Run the takeaway motor 1, PL 80.95.
5. Enter dC330 , code [077-051]. Run the takeaway motor 2, PL 80.95.
6. Enter dC330 , code [072-001]. Run the tray 3 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
7. Check the tray 3 gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
8. Check the drive assembly, PL 40.10 for wear or damage.
9. Check the registration transport assembly, PL 80.90 for improper installation.
10. If the fault persists, install a new motor drive PWB, PL 1.10.

373-108 LE Late to MSI Feed Out Sensor from Tray 3 RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

373-108 Paper does not actuate the bypass feed out sensor within the specified time after tray 3 feed start.

Initial Actions

Check the condition of the paper in tray 3.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check the left hand door is fully closed and latched.
2. Check for obstructions in the paper path.
3. Check the following components for foreign substances or wear. Clean or install new components as necessary.
   - 2TM takeaway roll assembly, PL 80.25.
   - TTM takeaway roll assembly, PL80.40.
   - 2TM feed roll, nudger roll and retard roll, PL 80.35.
   - TTM feed roll, nudger roll and retard roll, PL 80.50.
   - Bypass tray roll, PL 80.120.
4. Enter dC330 , code [077-104]. Actuate the bypass tray feed out sensor, PL 80.115.
5. Enter dC330 , code [077-050]. Run takeaway motor 1, PL 80.95.
6. Enter dC330 , code [077-051]. Run the takeaway motor 2, PL 80.95.
7. Enter dC330 , code [077-035]. Run the takeaway motor:
   - 2TM PL 80.30.
   - TTM PL 80.45.
8. Enter dC330 , code [072-001]. Run the tray 3 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
9. Check the tray 3 gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
10. Check the Registration Transport Assembly, PL 80.90 for improper installation.
11. If the fault persists, install a new Motor Drive PWB, PL 1.10.

373-210 Tray 3 Lift Up Fail RAP

BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

373-210 Tray 3 lift NG has occurred three consecutive times.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 , code [073-102]. Actuate the tray 3 no paper sensor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
2. Enter dC330 , code [073-002]. Run the tray 3 feed/lift up motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
3. Enter dC330 , code [042-003]. Run the main drive assembly PL 40.05.
4. Check the gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
5. **(2TM Only)** Check the drive system between the bottom plate and the tray 3 feed/lift motor for operation failure. Install new components as necessary, PL 70.25.
6. **(TTM Only)** Check the drive system between the bottom plate and the tray 3 feed/lift motor for operation failure. Also check the bottom plate lift mechanism. Install new components as necessary, PL 70.40.
7. If the fault persists, install a new Motor Drive PWB, PL 1.10.

373-212 Tray 3 Sensor Broken Fail RAP

BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

373-212 Abnormal output AD value from tray 3 paper size sensor was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Ask the customer to verify the correct paper is in tray 3.
2. Ensure that the customer is programming the job correctly.
3. Remove tray 3. Check underneath the tray for damage to the link mechanism. Also check the actuator at the rear of tray 3. If necessary, install a new tray assembly:
   - 2TM PL 70.20.
   - TTM PL 70.35.
4. Enter dC330 Analog Monitor, code [073-200]. Check the tray 3 paper size sensor:
   - 2TM PL 70.20.
   - TTM PL 70.35.
5. Check the wiring between the tray 3 paper size sensor, P/J102 2TM or P/J102 TTM and P/J453 2TM or P/J453 TTM on the Motor Drive PWB.
6. Reload the software, GP 9.
7. If the fault persists, install new components as necessary:
   - Tray 3 paper size sensor:
     - 2TM PL 70.20.
     - TTM PL 70.35.
   - Motor Drive PWB, PL 1.10.

374-100 Jam In Tray 4 (2TM/TTM)

BSD 80.2 Tray 3 and 4 Paper Pre-feeding

374-100 The tray 4 pre-feed sensor did not turn on within the specified time after the paper feed from tray 4 has started.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 4 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19 How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 code [074-103]. Actuate the tray 4 pre-feed sensor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
2. Enter dC330 code [074-001] (Feed). Run the tray 4 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
3. Check the tray 4 feed roll, nudger roll and retard roll for foreign substances or wear. Clean or install new components as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
4. Check the gear for wear and damage. Clean or install new components as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
5. Check the pads for an proper installation and correct if necessary:
   - 2TM PL 70.25.
   - TTM PL 70.40.
6. If the fault persists, install a new motor drive PWB, PL 1.10.

374-101, 374–103, 374–900 Jam In The Device RAP

BSD 70.11 Tray 4 Paper Stacking (2TM)

BSD 70.12 Tray 4 Paper Stacking (TTM)

BSD 80.5 2TM Paper Transport

BSD 80.6 TTM Paper Transport

374-101 Paper does not actuate the tray 4 feed out sensor within the specified time after tray 2 feed start.

374-103 The tray 4 feed out sensor detected remaining paper.

374-900 The tray 4 feed out sensor detected remaining paper.

Initial Actions

Check the condition of the paper in tray 4.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 4 feed roll, nudger roll and retard roll, clean or install new components as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
3. Check the tray 4 takeaway roll for foreign substances or wear, clean or install new components as necessary:
   - 2TM PL 80.25.
   - TTM PL 80.30.
4. Enter dC330 , code [074-103]. Actuate the tray 4 feed out sensor:
   - 2TM PL 80.25.
   - TTM PL 80.60.
5. Enter dC330 , code [074-002]. Run the tray 4 feed/lift motor, PL 80.50.
   - 2TM PL 80.35.
   - TTM PL 80.55.
6. Enter dC330 , code [077-050]. Run the takeaway motor, PL 80.45.
   - 2TM PL 80.30.
   - TTM PL 80.45.
7. Check the tray 4 gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.

- TTM PL 80.55.

8. If the fault persists, install a new motor drive PWB, PL 1.10.

374-105 Jam In The Device RAP

BSD 80.7 Registration

374-105 The registration sensor did not actuate within the specified time after the registration clutch initialized during paper feed from tray 4.

Initial Actions

Check the condition of the paper in tray 3.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the tray 4 feed roll, nudger roll and retard roll, PL 80.35 for foreign substances or wear. Clean or install new components as necessary.
3. Enter dC330, code [077-103]. Actuate the registration sensor, PL 80.80.
4. Enter dC330, code [077-050]. Run takeaway motor 1, PL 80.95.
5. Enter dC330, code [077-051]. Run the takeaway motor 2, PL 80.95.
6. Enter dC330, code [074-002]. Run the tray 4 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.55.
7. Check the tray 4 gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.55.
8. Check the main drive assembly, PL 40.05 for wear or damage.
9. Check the registration transport assembly, PL 80.90 for improper installation.
10. If the fault persists, install a new motor drive PWB, PL 1.10.

374-107 MSI Feed Out Sensor On Jam RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

374-107 Paper does not actuate the bypass feed out sensor within the specified time after tray 4 feed start.

Initial Actions

Check the condition of the paper in tray 4. Refer to Media Supply.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check the left hand door is fully closed and latched.
2. Check for obstructions in the paper path.
3. Check the following components for foreign substances or wear. Clean or install new components as necessary.
   - 2TM takeaway roll assembly, PL 80.25.
   - TTM takeaway roll assembly, PL80.40.
   - 2TM feed roll, nudger roll and retard roll, PL 80.35.
   - TTM feed roll, nudger roll and retard roll, PL 80.50.
   - Bypass tray roll, PL 80.120.
4. Enter dC330, code {077-104]. Actuate the bypass tray feed out sensor, PL 80.115.
5. Enter dC330, code {077-050]. Run takeaway motor 1, PL 80.95.
6. Enter dC330, code {077-051]. Run the takeaway motor 2, PL 80.95.
7. Enter dC330, code {077-035]. Run the takeaway motor:
   - 2TM PL 80.30.
   - TTM PL 80.45.
8. Enter dC330 code [074-002] (Feed). Run the tray 4 feed/lift motor:
   - 2TM PL 80.35.
   - TTM PL 80.55.
9. Check the tray 4 gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.55.
10. Check the registration transport assembly, PL 80.90 for improper installation.
11. If the fault persists, install a new motor drive PWB, PL 1.10.

374-210 Tray 4 Lift Up Fail RAP

BSD 70.11 Tray 4 Paper Stacking (2TM)

BSD 70.12 Tray 4 Paper Stacking (TTM)

374-210 Tray 4 lift NG has occurred three consecutive times.

Initial Actions

- Check for obstructions behind the tray.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.
- Check the drive system between the bottom plate and the tray 4 feed/lift motor for operation failure.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19 How to Check a Motor.
- OF14OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 , code [074-102]. Actuate the tray 4 level sensor:
   - 2TM PL 80.35.
   - TTM PL 80.55.
2. Enter dC330 , code [074-002]. Run the tray 4 feed/lift up motor:
   - 2TM PL 80.35.
   - TTM PL 80.50.
3. Enter dC330 , code [042-003]. Run the main drive assembly PL 40.05.
4. Check the gear for wear or damage, install a new gear as necessary:
   - 2TM PL 80.35.
   - TTM PL 80.50.
5. **(2TM Only)** Check the drive system between the bottom plate and the tray 4 feed/lift motor for operation failure. Install new components as necessary, PL 70.25.
6. **(TTM Only)** Check the drive system between the bottom plate and the tray 4 feed/lift motor for operation failure. Also check the bottom plate lift mechanism. Install new components as necessary, PL 70.40.
7. If the fault persists, install a new motor drive PWB, PL 1.10.

374-212 Tray 4 Sensor Broken Fail RAP

BSD 70.5 Tray 4 Paper Size Sensing (2TM)

BSD 70.6 Tray 4 Paper Size Sensing (TTM)

374-212 Abnormal output AD value from tray 4 paper size sensor was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Load the correct paper in tray 4.
2. Ensure that the customer is programming the job correctly.
3. Remove tray 4. Check underneath the tray for damage to the link mechanism. Also check the actuator at the rear of tray 4. If necessary, install a new tray assembly:
   - 2TM PL 70.20.
   - TTM PL 70.35.
4. Enter dC140 Analog Monitor Analog Monitor, code [074-200]. Actuate the tray 4 paper size sensor:
   - 2TM PL 70.20.
   - TTM PL 70.35.
5. Enter dC330 code [074-104]. Actuate the tray 4 paper size sensor (**2TM only**).
6. Check the wiring between the tray 4 paper size sensor, , , and , , on the motor drive PWB.
7. Reload the software, GP 9.
8. If the fault persists, install new components as necessary:
   - Tray 4 paper size sensor:
     - 2TM PL 70.20.
     - TTM PL 70.35.
   - Motor drive PWB, PL 1.10.

375-100 LE Late to MSI Pre Feed Sensor from MSI RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

375-100 The bypass tray (MSI) feed out sensor does not turn on within the specified time after the paper feed from bypass tray has started.

Initial Actions

Check the condition of the paper in the bypass tray.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19 How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Check the bypass tray feed roll, nudger roll and retard roll, PL 80.120 . Clean or install new components as necessary
3. Check the tray 4 takeaway roll for foreign substances or wear, clean or install new components as necessary:
   - 2TM PL 80.25.
   - TTM PL 80.30.
4. Enter dC330 , code [077-104]. Actuate the bypass tray feed out sensor, PL 80.115.
5. Enter dC330 , code [075-003] (Feed). Run the bypass tray feed/lift motor, PL 80.120.
6. Check the bypass tray feedhead assembly gears for wear or damage, install a new bypass tray feedhead assembly, PL 80.120.
7. If the fault persists, install a new motor drive PWB, PL 1.10.

375-135 LE Late to Registration Sensor from MSI (Bypass Tray) RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

BSD 80.7 Registration

375-135 The registration sensor does not turn on within the specified time after the registration motor turns on once the paper feed from the bypass tray has started.

Initial Actions

- Check the condition of the paper in the bypass tray.
- Check that the paper guides are set correctly.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19 How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check the left door is fully closed and latched.
2. Check for obstructions in the paper path.
3. Check the bypass tray feed roll, nudger roll and retard roll, PL 80.120 . Clean or install new components as necessary
4. Check the registration roll and takeaway roll 1, PL 80.55 for foreign substances or wear. Clean or install new components as necessary.
5. Enter dC330 , code [077-104]. Actuate the bypass tray feed out sensor, PL 80.115.
6. Enter dC330 , code [075-003] (Feed). Run the bypass tray feed/lift motor, PL 80.120.
7. Check the bypass tray feedhead assembly gears for wear or damage, install a new bypass tray feedhead assembly, PL 80.120.
8. Check the registration transport assembly, PL 80.90 for improper installation.
9. If the fault persists, install a new motor drive PWB, PL 1.10.

375-212 MSI (Bypass) Tray Nudger Up Down Fail

BSD 70.13 Bypass Tray Paper Sensing and Stacking

375-212 After the bypass tray nudger up or down operation has started, the bypass tray nudger position sensor output does not change within the specified time.

Procedure

Perform the steps that follow:

1. Enter dC330 , code [075-102] to actuate the bypass tray nudger position sensor, PL 80.120.
2. Enter dC330 , code [075-004] (Up/Down) to run the bypass tray feed/lift motor, PL 80.120.
3. Check the bypass tray nudger roll, PL 80.120 up/down mechanism for mechanical loading, the springs for deformation, snags, and etc. Install a new bypass tray roll kit if necessary, PL 80.120.
4. If the fault persists, install a new motor drive PWB, PL 1.10.

376-300 Transport Path Interlock Open RAP

BSD 80.6 TTM Paper Transport

376-300 A transport path drawer open was detected at the TTM.

Initial Actions

Check that the TTM transport path drawer, tray 3 and tray 4 are fully closed.

Procedure

Enter dC330 code [077-307]. Actuate the transport path interlock by opening tray 3, tray 4 and the transport path drawer.

The display changes.

Y N

Check the wiring between the Motor Drive PWB P/J451 , relay connector P/J624 , and the drawer connector DJ618B for broken/bent pins and poor contact. repair as necessary.

The wiring and connectors are good.

Y N

Repair the wiring and connectors.

Check the transport path drawer connector of the TTM for damage, wear, or misalignment of the drawer rails.

The alignment of the drawer connector is good.

Y N

Repair or install new components.

Install a new motor drive PWB, PL 1.10.

Perform SCP 5 Final actions.

377-103, 377–104, 377–106, 377–109 Jam In The Device RAP

BSD 10.1 Fusing Unit Drive

BSD 10.5 Fusing

BSD 10.7 Exit 1 Paper Transport

BSD 10.9 Exit 2 Paper Transport (1 of 2)

377-103 The fusing unit exit sensor did not actuate within the specified time after the fusing unit exit sensor turned on.

377-104 The trail edge of the paper turned off the fuser exit sensor earlier than the specified time.

377-106 The fusing unit exit sensor did not actuate within the specified time after the fusing unit exit sensor turned off.

377-109 The fuser exit sensor did not actuate within the specified time after the registration clutch energized.

Initial Actions

- Check for obstructions in the paper path.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.

Note: If fault code 377-109 occurs multiple times when feeding the media that follows:

- Xerox bold coated satin or gloss digital printing paper 210 gsm / 80 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 280 gsm / 100 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 300 gsm / 110 lb cover.

When a high area coverage image job is printed in duplex mode on moisture content paper in A-zone environment. Change the output destination to exit 1 (center tray lower).

Procedure

Refer to the procedures that follow as necessary:

- OF18, OF19 — How to Check a Motor.
- OF14 , OF15 — How to Check a Sensor.
- OF17 — How to Check a Solenoid or Clutch.

Perform the steps that follow:

1. Check for paper jammed in the fuser.
2. Check the margin at the lead edge. If the margin is narrow, perform the following:
   - Enter dC126, System Registration Adjustment to adjust the lead edge margin.
   - Check for multi-sheet feeding from the paper tray.
   - Reload the paper in the tray.
3. Check the toner density. If the toner density is dark perform dC330, Toner Density Adjustment.
4. Enter dC330, code 077-101 to actuate exit sensor 1, part of the fuser, PL10.05 for proper operation.
5. Enter dC330, code 010-004 to run the fuser unit drive motor, BSD 10.1 for proper operation.
6. Enter dC330, code 077-060/061 (CW/CCW) to run the exit 2 drive motor, BSD 10.9 for proper operation.
7. Enter dC330, code 077-003 to energize the exit 1 gate solenoid, BSD 10.7 for proper operation.
8. Check the fuser drive assembly, BSD 10.1 for wear and damage, if damaged install a new fuser drive assembly, BSD 10.1.
9. If the fault persists, install a new motor drive PWB, PL 1.10.

377-105 Exit Sensor 2 Off Jam RAP

BSD 10.9 Exit 2 Paper Transport (1 of 2)

BSD 10.10 Exit 2 Paper Transport (2 of 2)

377-105 The trail of the paper was late from the exit 2 tray sensor.

Initial Actions

Ensure the correct paper is loaded in the tray. Refer to Media Supply.

Note: If feeding any of the media that follows:

- Xerox vitality coated printing paper - gloss, 210 gsm / 80 lb cover.
- Xerox vitality coated printing paper - gloss, 280 gsm / 100 lb cover.
- Xerox bold super gloss cover, 210 gsm / 10 pt.
- Xerox bold super gloss cover, 250 gsm / 12 pt.
- Xerox colotech+ gloss coated, 170 to 280gsm.
- Xerox colotech+ supergloss, 135 to 250gsm.

Jams may occur when a high area coverage image job is printed on coated media with output destination of exit 2. If jam occurs, change the output destination to exit 1 (center tray lower).

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Do not touch the fuser while it is hot.

Refer to the procedures that follow as necessary:

- OF21 How to Check a Motor.
- OF14, OF15 — How to Check a Sensor.

Perform the steps that follow:

1. Check for obstructions in the paper path.
2. Enter dC330 , code 077-113 to actuate the exit 2 tray sensor, PL10.25.
3. Enter dC330 , code 077-110 to actuate the exit 2 OCT home position sensor, PL10.25.
4. Enter dC330 , code 077-045/046(CW/CCW) to run the exit 2 OCT motor, PL10.25.
5. Enter dC330 , code 077-060/061(CW/CCW) to run the exit 2 drive motor, PL10.25.
6. Check the exit 2 gears for wear or damage:
   - Exit 2 drive bracket assembly, PL10.25.
   - Gear, PL10.25.
   - Offset gear, PL10.25.
7. If the fault persists, install a new motor drive PWB, PL 1.10.

377-110 POB Sensor On Jam

BSD 90.19 Image Transfer to Paper

BSD 80.7 Registration

377-110 The POB Jam Sensor does not turn on within the specified time after the registration motor turns on.

Initial Actions

- Check for obstructions in the paper path.
- Ensure the correct paper is loaded in the tray.
- Ensure the tray is pushed fully home.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Enter dC330 , code 077-102 to actuate the POB jam sensor, PL 80.80.
2. Enter dC330 , code 077-055 to run the registration motor, PL 80.95.
3. Check the 2nd BTR roll assembly, PL 80.65 for paper jam, contamination, wear, and revolution failure.
4. Check the IBT belt assembly, PL90.30 for paper jam.
5. Check the pinch roller PL 80.80 , for contamination, wear, and transportation failure due to deterioration.
6. Check all registration driver assembly gears, PL 80.95 for wear and damage. Install new components as necessary.
7. Check the registration transport assembly, PL 80.90 for proper installation. Correct as necessary.
8. If the fault persists, install a new motor drive PWB, PL 1.10.

377-130 Jam In The Device RAP

BSD 80.7 Registration

BSD 10.8 Duplex Paper Transport

377-130 The registration sensor did not turn on within the specified time after the registration motor turned on during paper feed from the duplex path.

Initial Actions

Check the condition of the paper in all trays.

Check for obstructions in the paper path.

Note: If jams occur when feeding any of the media that follows:

- Xerox bold digital printing paper, 270 gsm / 100 lb cover
- Xerox bold super gloss cover, 250 gsm / 12 pt.
- Xerox bold coated satin or gloss digital printing paper,300 gsm / 110 lb cover.
- Xerox colotech+ gloss coated, 170 to 280gsm.

If necessary advise the customer to use a lighter media.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19, How to Check a Motor.
- OF14, OF15, How to Check a Sensor.
- OF17, How to Check a Solenoid or Clutch.

Perform the steps that follow:

1. Enter dC330 Component Control, code 077–071. Check the duplex motor and associated drives. PL 80.75 Left Cover Transport Assembly
2. Check the mid and lower duplex roll assemblies, PL 80.75 , and pinch roller, PL 80.80 for foreign substances or wear.
3. Enter dC330 , code 077-103. Check the registration sensor, PL 80.80.
4. Enter dC330 , code 077-055. Check the registration motorPL 80.95.
5. Check the registration drive gear, PL 80.90 wear or damage.
6. Check the main drive assembly, PL 40.05 for wear or damage.
7. If the fault persists, install a new motor drive PWB, PL 1.10.

377-188 Face Up Exit Sensor On Jam RAP

BSD 10.10 Exit 2 Paper Transport

377-188 The face up exit sensor did not actuate within the specified time after the registration clutch energized.

Initial Actions

- Check for obstructions in the paper path.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.

Note: If fault code 377-188 occurs multiple times when feeding the media that follows:

- Xerox bold coated satin or gloss digital printing paper 210 gsm / 80 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 280 gsm / 100 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 300 gsm / 110 lb cover.

When a high area coverage image job is printed in duplex mode on moisture content paper in A-zone environment. Change the output destination to exit 1 (center tray lower).

Procedure

Perform the steps that follow:

1. Check for paper jammed in the fuser.
2. Check the margin at the lead edge. If the margin is narrow, perform the following:
   - Enter dC126, System Registration Adjustment to adjust the lead edge margin.
   - Check for multi-sheet feeding from the paper tray.
   - Reload the paper in the tray.
3. Check the toner density. If the toner density is dark perform ADJ 90.14, Tone up/ Tone Down dC0991 Adjustment.
4. Enter dC330, code [077-112] to actuate face up exit sensor, part of the fuser, PL 10.30 for proper operation.
5. Enter dC330 , code [010-004] to run the fuser unit drive motor, PL10.05for proper operation.
6. EnterdC330 , code [077-060/061] (CW/CCW) to run the exit 2 drive motor, PL10.25 for proper operation.
7. EnterdC330 , code [077-004] to energize the face up gate solenoid, PL 10.30 for proper operation.
8. Check the fuser motor assembly, PL10.05 for wear and damage, if damaged install a new fuser drive assembly, PL10.05.
9. If the fault persists, install a new motor drive PWB, PL 1.10.

377-189 Face Up Exit Sensor Off Jam RAP

BSD 10.10 Exit 2 Paper Transport

377-189 The trail edge of the paper turned off the face up exit sensor earlier than the specified time.

Initial Actions

- Check for obstructions in the paper path.
- Ensure that the tray is loaded correctly.
- Ensure the tray is pushed fully home.

Note: If fault code 377-189 occurs multiple times when feeding the media that follows:

- Xerox bold coated satin or gloss digital printing paper 210 gsm / 80 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 280 gsm / 100 lb cover.
- Xerox bold coated satin or gloss digital printing paper heavyweight 300 gsm / 110 lb cover.

When a high area coverage image job is printed in duplex mode on moisture content paper in A-zone environment. Change the output destination to exit 1 (center tray lower).

Procedure

Refer to the procedures that follow as necessary:

- OF21 — How to Check a Motor.
- OF15 — How to Check a Sensor.
- OF17 — How to Check a Solenoid or Clutch.

Perform the steps that follow:

1. Check for paper jammed in the fuser.
2. Check the margin at the lead edge. If the margin is narrow, perform the following:
   - Enter dC126, System Registration Adjustment to adjust the lead edge margin.
   - Check for multi-sheet feeding from the paper tray.
   - Reload the paper in the tray.
3. Check the toner density. If the toner density is dark perform ADJ 90.14, Tone up/ Tone Down dC0991 Adjustment.
4. Enter dC330, code [077-112] to actuate face up exit sensor, part of the fuser, PL 10.30 for proper operation.
5. Enter dC330, code [010-004] to run the fuser unit drive motor, PL10.05 for proper operation.
6. Enter dC330, code [077-060/061] (CW/CCW) to run the exit 2 drive motor, PL10.25 for proper operation.
7. Enter dC330, code [077-004] to energize the face up gate solenoid, PL 10.30 for proper operation.
8. Check the fuser motor assembly, PL10.05 for wear and damage, if damaged install a new fuser drive assembly, PL10.05.
9. If the fault persists, install a new motor drive PWB, PL 1.10.

377-211 Tray Module Mismatch RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

377-211 A tray module mismatch has occurred.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Check the correct tray module (2TM/TTM) is installed. Install the correct tray module desired.
2. Check the connections between the tray module and the machine.
3. Switch off, then switch on the machine, GP 4.
4. If the fault persists, enter dC131 to ensure the tray module type is correctly set in NVM value 742-205:
   - 2TM = 4
   - TTM = 5

377–314 Tray Module Reset Fault

BSD 1.8 DC Power Generation +24V (2 of 2) (Low/Mid)

BSD 1.10 DC Power Generation +24V (1 of 2) (High)

Procedure

1. Turn the power OFF, then ON.
2. Turn OFF the power and check the following:
   - The connectors (P335, P/J451) between the Controller PWB, BP PWB, and Half Tone PWBfor poor contact, damage, and foreign objects.
   - The connection and Flat Cable between the Half Tone PWB J481, P/J551 and the Motor DrivePWB P/J405, P/J410for open circuit, short circuit, and poor contact.
3. If the fault persists, replace the following parts in sequence. Note: Replace only one PWB, then check if the fault persists. Reinstall the PWB if it does not resolve the problem. Then replace the next PWB.
   - Motor Drive PWB (PL 1.10)
   - Controller PWB (PL 3.05)
   - Half Tone PWB (PL 3.15)

377-300 The Device Front Door Is Open RAP

BSD 1.8 Interlock Switching

377-300 Front cover was opened during run.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedure that follows as necessary:

- OF16 Switch, How to Check a Switch

Perform the steps that follow:

1. Check the actuator on the front cover for damage. If necessary, install a new front cover assembly, PL 28.05.
2. Enter dC330 code 077-303. Check the front cover interlock switch, PL 28.05.
3. If the fault persists, install a new motor drive PWB, PL 1.10.

377-301 The Device Left-Side Door A is Open RAP

BSD 1.8 Interlock Switching

377-301 Left cover assembly was opened during run.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to OF16 Switch, How to Check a Switch, as necessary.

Perform the steps that follow:

1. Check the actuator on the L/H cover for damage. If necessary, install a new left cover, PL 80.65.
2. Enter dC330 code 077-300. Check the left cover interlock switch assembly, PL 80.65.
3. If the fault persists, install a new motor drive PWB, PL 1.10.

377-305 The Device Left-Side Door B is Open RAP

BSD 1.8 Interlock Switching

377-305 Tray module left cover was opened during run.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to OF16 Switch, How to Check a Switch, as necessary.

Perform the steps that follow:

1. Check the actuator on the tray module left cover for damage. If necessary, install a new tray module left cover assembly:
   - (2TM), PL 80.20.
   - (TTM), PL 70.35.
2. Enter dC330, code [077-306]. As necessary, perform the steps that follow:
   - Check the 2TM interlock switch, PL 80.20.
   - Check the TTM interlock switch assembly, PL80.40.
3. If the fault persists, install a new motor drive PWB, PL 1.10.

377-314 Paper Handling Module Logic Fail RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

377-314 A tray module fatal error was detected.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, then check the following items:
   - The connection at P335 between the controller PWB and the back plane PWB J335 , and P/J451 between the back plane PWB and the halftone PWB for poor contact, damage, and foreign substances
   - The motor drive ribbon cable, PL 3.10, between the halftone PWB P551/J480 and the motor drive PWB P/J410 for open circuit, short circuit, and poor contact.
3. If the fault persists, install new components in the following order as necessary:

   Note: After each individual component installation, switch on the machine to verify the fault is cleared before installing the next component.

   a. Motor drive PWB, PL 1.10.
   b. Controller PWB assembly, PL 3.05.
   c. Halftone PWB, PL 3.15.
   d. Back plane PWB, PL 3.15.

377-320 All Feed Tray Broken

BSD 3.1 PWB Communication

All the Feed Trays that are connected to the IOT were detected to have malfunctioned.

Procedure

Enter dC122 Fail History. Go to the RAP of the affected Paper Tray.

377-900, 377–902 IOT Static Jam RAP

BSD 80.7 Registration

377-900 The registration sensor detected remaining paper.

377-902 The exit 2 sensor detected remaining paper.

377-912 The bypass tray feed out sensor detected remaining paper.

Initial Actions

- Remove all jammed paper in the paper path.
- Check the condition of the paper in all trays.
- Ensure that all the trays are loaded correctly.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to the procedures that follow as necessary:

- OF19 How to Check a Motor.
- OF14, OF15, How to Check a Sensor.

Perform the steps that follow:

1. Check the takeaway roll and takeaway roll 2, PL 80.90 for foreign substances or wear. Clean or install new components as necessary.
2. Enter dC330 , code [077-103] to actuate the registration sensor, PL 80.80.
3. Check the main drive assembly, PL 40.05 for wear or damage.
4. Check the registration transport assembly, PL 80.55 for wear or damage.
5. If the fault persists, install a new motor drive PWB, PL 1.10.

377-901 IOT Static Jam RAP

BSD 10.1 Fusing Unit Drive

BSD 10.5 Fusing

BSD 10.7 Exit 1 Paper Transport

BSD 10.9 Exit 2 Paper Transport (1 of 2)

377-901 The fuser exit sensor detected remaining paper in the paper path.

Initial Actions

- Check for obstructions in the paper path.
- Ensure that the tray is loaded correctly. Refer to, Media Supply.
- Ensure the tray is pushed fully home.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Do not touch the fuser while it is hot.

Refer to the procedures that follow as necessary:

- OF18, OF19, or OF21 How to Check a Motor.
- OF14 or OF15 How to Check a Sensor.

Perform the steps that follow:

1. Remove the fuser. Remove any foreign material or paper wound around the heat roll.
2. Enter dC330, code 077-101 to actuate exit sensor 1, part of the fuser, PL10.05 for proper operation.
3. Enter dC330, code 010-004 to run the fuser unit drive motor, PL 40.05.
4. Enter dC330, code 077-060/061(CW/CCW) to run the exit 2 drive motor, PL10.25.
5. Enter dC330, code 077-003 to energize the exit 1 gate solenoid, PL10.25 for proper operation.
6. Check the fuser drive assembly, PL 40.05 for wear and damage, if damaged install a new fuser drive assembly, PL 40.05.
7. If the fault persists, install a new motor drive PWB, PL 1.10.

377-908 IOT Static Jam at Face Up Exit Sensor RAP

Procedure

1. Check the Face Up Exit Sensor for remaining paper, foreign objects, actuator return failure, and contamination on the sensor.
2. Check the Face Up Exit Sensor for operation failure dC330[077–112] (PL 10.20).
3. If the problem persists, replace the Motor Drive PWB PL 1.10.

377-912 Unexpected Jam at MSI Feed Out Sensor RAP

Procedure

1. Check the Face Up Exit Sensor for remaining paper, foreign objects, actuator return failure, and contamination on the sensor.
2. Check the Face Up Exit Sensor for operation failure dC330 [077–104] (PL 80.115).
3. If the problem persists, replace the Motor Drive PWB PL 1.10.

Chain 389 Entry RAP

When multiple Chain 389 fault codes are indicated in the active fault list (dC122) fixing higher priority faults can result in automatically fixing other, lower priority faults. Fix faults in the order indicated in Table 1Table 1.

Procedure

Table 1 Chain 389 Fault Priority Table

Priority	Fault Code	Fault
1 (High)	389-674, 389-675,389-676	MOB LED Fail RAP
2	389-677	Threshold Fail RAP
3	389-623, 389-629	Vout Stability Fail
4	389-616	RCDataOverflowFail
5	389-604	RCSampleBlockFail-B
6	389-601	SampleBlockFail-A1
7	389-600	RCSampleLateralFail-A1
8	389-617	RCDataOverRangeFail
9 (Low)	389-616	RCDataOverRangeFail

389-313, 389–314, 389–316, 389–317 IReCT Error Fail RAP

BSD 60.9 LPH Y and M

BSD 60.10 LPH C and K

389-313 IReCT Error Fail #1

389-314 IReCT Error Fail #2

389-316 IReCT Error Fail #3

389-317 IReCT Error Fail #4

- Detected insufficient input data (UnderRun) on the controller regarding the output data to LPH.
- IReCT settings error has occurred.

Procedure

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, then check the connection of the back plane PWB between the controller PWB assembly P335 and the halftone PWB J451 for loose connection, poor contact, or an obstruction.
3. Perform dC675 , Registration Control Setup Cycle.
4. If the fault persists, contact your Xerox Support Center.

389-600 RC Sample Lateral Fail-A1 RAP

BSD 60.11 Color Registration

389-600 An error with the Cyan fast scan position that is used as a reference during A1 (fine adjustment pattern) and C patch detection.

Initial Actions

Enter dC122, if multiple chain 89 faults are indicated, refer toChain 389 Entry RAP to determine the highest priority fault.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the installation and condition of the IBT belt assembly, PL90.30.

The IBT belt assembly is good.

Y N

Install the IBT belt assembly correctly.

Perform the steps that follow:

1. Install a new IBT belt assembly, PL90.30
2. Enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Perform the steps that follow:

1. If the fault persists install a new motor drive PWB, PL 1.10.
2. Enter dC675 , perform the Registration Control Setup Cycle.

389-601, 389-603 RC Sample Block Fail-A1 RAP

BSD 60.11 Color Registration

389-601 During the A1 (fine adjustment pattern) and C patch detection, the patch at the MOB ADC sensor In did not satisfy the defined number of valid sample blocks.

389-603 During the A1 (fine adjustment pattern) and C patch detection, the patch at the MOB ADC sensor Out did not satisfy the defined number of valid sample blocks.

Initial Actions

Enter dC122, if multiple chain 89 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Refer to OF14 or OF14 How to Check a sensor, as necessary:

Check the applicable MOB ADC sensor for contamination, open circuits, short circuits or damage, if necessary install a new MOB ADC sensor assembly, PL90.30.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Perform the steps that follow:

1. Install a new MOB ADC sensor assembly, PL90.30.
2. Enter dC675 , perform the Registration Control Setup Cycle.

389-604, 606, 607, 609, 610, 612, 613, 615 RC Sample Block Fail-B RAP

In (Rear) or Out (Front) Side MOB Sensor Patch did not meet the specified enabled Sample Block count during B (Rough Tone Pattern) Patch detection of each color. (This is a hidden failure. The Color Regi Spec cannot be guaranteed and Data is only recorded in history.)

BSD 60.11 Color Registration

- 389–604: RC Sample Block Fail-B-#1-In
- 389-607: RC Sample Block Fail-B-#2-In
- 389-610: RC Sample Block Fail-B-#3-In
- 389-613: RC Sample Block Fail-B-#4-In
- 389-606: RC Sample Block Fail-B-#1-Out
- 389-609: RC Sample Block Fail-B-#2-Out
- 389-612: RC Sample Block Fail-B-#3-Out
- 389-615: RC Sample Block Fail-B-#4-Out

Note: When multiple failures of Chain No. 389 (RegiCon) occur, refer to the Chain 389 Entry RAP and take action starting with the Fault that is highest in priority order.

Procedure

Check the density of the applicable color.

The density of the applicable color is normal.

Y N

Adjust to correct the density of the applicable color. After the adjustment, change the NVM [759- 468] (MOB Gain Setup Flag) to '1'.

Refer to BSD, and check the connection between the Motor Drive PWB J443 and the applicable MOB Sensor for disconnection, open circuit, short circuit or poor contact.

The connection is OK.

Y N

Correctly perform connection from the Motor Drive PWB J443 to the applicable Sensor. After connection, change the NVM [759-468] (MOB Gain Setup Flag) to '1'.

Check the Magnet Roll at the MOB Sensor position of the applicable color for contamination, damage, and distortion.

The magnet is normal.

Y N

Repair the Magnet Roll of the applicable color. After the repair, change the NVM [759-468] (MOB Gain Setup Flag) to '1'.

Check the IBT Belt at the applicable MOB Sensor position for damage and distortion.

The IBT Belt is normal.

Y N

Replace the IBT Belt (PL 90.35). After replacement, go to the Diag mode and perform DC675 Registration Control Setup Cycle (ADJ 90.10) then DC937 Procon ON Print (ADJ 90.3) in sequence.

Check the Drum Cartridge of the applicable color for damage and deformation. .

The Drum Cartridge is normal.

Y N

Replace the Drum Cartridge (PL 90.15) of the applicable color. After replacement, go to the Diag mode and perform DC675 Registration Control Setup Cycle (ADJ 90.10) then DC937 Procon ON Print (ADJ 90.3) in sequence.

Replace the MOB/ADC Sensor Assembly (PL90.30). After replacement, go to the Diag mode and perform DC675 Registration Control Setup Cycle (ADJ 90.10) then DC937 Procon ON Print (ADJ 90.3) in sequence. If the problem persists, replace the Controller PWB (PL 3.05). After the replacement, perform DC675 Registration Control Setup Cycle. (ADJ 90.10)

389-616 RC Data Overflow Fail RAP

BSD 60.11 Color Registration

389-616 The correction setting value of the calculation result has exceeded the allowed range.

Initial Actions

Enter dC122, if multiple chain 89 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Enter dC675 , perform the Registration Control Setup Cycle and compare the correction amount with the value in Table 1.

Table 1 Registration control adjustment ranges

Correction item	Adjustment Range	
	Minimum	Maximum
Fast Scan Margin	-4720	+4720
Slow Scan Margin	-4720	+4720
Skew	-1650	+1650

Fast Scan Margin or Slow Scan Margin have reached the minimum or maximum adjustment value.

Y N

Check the position of the drum cartridge of each color.

The drum cartridge positions are good.

Y N

Correctly position all drum cartridges.

Install a new drum cartridge as necessary:

- PL 90.15 (K).
- PL 90.15 (C).
- PL 90.15 (M).
- PL 90.15 (Y).

If the fault persists, install a new LPH assembly as necessary:

- PL60.05 (K).
- PL60.05 (C).
- PL60.05 (M).
- PL60.05 (Y).

Check if **Fast Scan Margin** or **Slow Scan Margin** have reached the minimum or maximum adjustment value.

Slow Scan Margin has reached the minimum or maximum adjustment value.

Y N

Raise/lower each LPH (Y, M, C, K) 2 to 3 times to check the LPH lift up/down mechanism.

If no problem is found, install a new LPH assembly as necessary:

- PL60.05 (K).
- PL60.05 (C).
- PL60.05 (M).
- PL60.05 (Y).

Install a new motor drive PWB, PL 1.10 . Enter dC675 , perform the Registration Control Setup Cycle.

389-617 RC Data Over Range RAP

BSD 60.11 Color Registration

389-617 The result from adding the offset value to the correction value has exceeded the offset range.

Initial Actions

EnterdC122 , if multiple chain 389 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

Enter dC131 , check the following NVM values:

- 759-319 (Lead Registration Offset).
- 759-321 (Side 1 Registration Offset).
- 759-322 (Side 2 Registration Offset).

389-623, 673, 629 Vsout Stability Fail RAP

BSD 60.11 Color Registration

389-623 The amount of reflected light was not stabilized during front MOB sensor, PL90.30 LED brightness correction.

389-673 The amount of reflected light was not stabilized during ADC sensor, PL90.30 LED brightness correction.

389-629 The amount of reflected light was not stabilized during rear MOB sensor, PL90.30 LED brightness correction.

Initial Actions

Enter dC122 , if multiple chain 389 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the wiring between:

- The motor drive PWB P/J443 and the applicable MOB sensor P/J609 (front and rear).
- The motor drive PWB P/J416 and ADC sensor P/J608 .

for open circuits, short circuits or damage.

The connection is good.

Y N

Reconnect or repair the wiring between the motor drive PWB and the MOB ADC sensor assembly.

Check the IBT belt, PL 90.35 , at the applicable MOB ADC sensor position for damage and distortion.

The IBT belt is good.

Y N

Install a new IBT belt assembly, PL90.30 . Enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

Check the detection area of the applicable MOB ADC sensor for obstruction or contamination.

The MOB ADC sensor is good.

Y N

Clean the detection area of the MOB ADC sensor.

Install a new MOB ADC sensor assembly, PL90.30.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install a new IBT belt assembly, PL90.30 . After installing a new IBT belt assembly, enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

The fault persists.

Y N

Perform SCP 5 Final Actions.

If the fault persists, install a new motor drive PWB PL 1.10 . Enter dC675 , perform the Registration Control Setup Cycle.

389-674, 389-675, 389-676 MOB LED Fail RAP

BSD 60.11 Color Registration

389-674 The LED light amount setting value does not converge in gain correction of the front MOB sensor, PL90.30 LED Brightness Correction.

389-675 An error occurs in the output voltage value of the IBT belt sensor during ADC sensor, PL90.30 LED Brightness Correction.

389-676 The LED light amount setting value does not converge in gain correction of the rear MOB sensor, PL90.30 LED Brightness Correction.

Initial Actions

Enter dC122, if multiple chain 389 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the wiring between the motor drive PWB and the applicable MOB ADC sensor for open circuits, short circuits or damage.

The connection is good.

Y N

Reconnect or repair the wiring between the motor drive PWB and the MOB ADC sensor.

Check the IBT belt, PL 90.35 , at the applicable MOB ADC sensor position for damage and distortion.

The IBT belt is good.

Y N

Install a new IBT belt assembly, PL90.30 . Enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

Check the detection area of the applicable MOB ADC sensor for obstruction or contamination.

The MOB ADC sensor is good.

Y N

Clean the detection area of the MOB ADC sensor.

Install a new MOB ADC sensor assembly, PL90.30.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install a new IBT belt assembly, PL90.30. After installing a new IBT belt assembly, enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

The fault persists.

Y N

Perform SCP 5 Final Actions.

If the fault persists, install a new Motor Drive PWB PL 1.10 . Enter dC675 , perform the Registration Control Setup Cycle.

389-677, 389-678, 389-679 MOB Threshold Fail RAP

BSD 60.11 Color Registration

389-677 An error occurs in the output voltage value of the IBT belt sensor during front MOB sensor, PL90.30 LED Brightness Correction.

389-678 An error occurs in the output voltage value of the IBT belt sensor during ADC sensor, PL90.30 LED Brightness Correction.

389-679 An error occurs in the output voltage value of the IBT belt sensor during rear MOB sensor, PL90.30 LED Brightness Correction.

Initial Actions

Enter dC122, if multiple chain 389 faults are indicated, refer to Chain 389 Entry RAP to determine the highest priority fault.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Check the wiring between the motor drive PWB and the applicable MOB ADC sensor for open circuits, short circuits or damage.

The connection is good.

Y N

Reconnect or repair the wiring between the motor drive PWB and the MOB ADC sensor.

Check the IBT belt, PL 90.35 , at the applicable MOB ADC sensor position for damage and distortion.

The IBT belt is good.

Y N

Install a new IBT belt assembly, PL90.30 . Enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

Check the detection area of the applicable MOB ADC sensor for obstruction or contamination.

The MOB ADC sensor is good.

Y N

Clean the detection area of the MOB ADC sensor.

Install a new MOB ADC sensor assembly, PL90.30.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install a new IBT belt assembly, PL90.30 . After installing a new IBT belt assembly, enter dC330 code 954-820 to reset the HFSI value for the BTR unit.

The fault persists.

Y N

Perform SCP 5 Final Actions.

If the fault persists, install a new motor drive PWB PL 1.10 . Enter dC675 , perform the Registration Control Setup Cycle.

391-328, 391-329, 391-330, 391-331 Drum CRUM Communication Error RAP

BSD 90.3 Drum Life Control (Y, M)

BSD 90.4 Drum Life Control (C, K)

391-328 Black Drum cartridge CRUM authentication IC communication error.

391-329 Yellow Drum cartridge CRUM authentication IC communication error.

391-330 Magenta Drum cartridge CRUM authentication IC communication error.

391-331 Cyan Drum cartridge CRUM authentication IC communication error.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Perform the steps that follow:

1. Remove the drum cartridge causing the fault.
2. Check the drum cartridge CRUM and connector for damage and contamination.
3. Install the drum cartridge back into the machine.
4. Switch off, then switch on the machine, GP 4.
5. Remove the drum cartridge causing the fault, then install a new drum cartridge. If the fault persists, check the wiring of the drum causing the fault between:
   - Drum cartridge CRUM (K), and the motor drive PWB, PL 1.10.
   - Drum cartridge CRUM (C), and the motor drive PWB, PL 1.10.
   - Drum cartridge CRUM (M), and the motor drive PWB, PL 1.10.
   - Drum cartridge CRUM (Y), and the motor drive PWB, PL 1.10.
6. If the fault persists, install new components as necessary:
   - Drum cartridge, PL 90.15 (K).
   - Drum cartridge, PL 90.15 (C).
   - Drum cartridge, PL 90.15 (M).
   - Drum cartridge, PL 90.15 (Y).
   - Motor drive PWB, PL 1.10.
   - Controller PWB assembly, PL 3.05.

391-400, 405, 910, 911 Waste Toner Cartridge RAP

BSD 90.20 Waste Toner Disposal

391-400 Waste cartridge is nearly full.

391-405 Waste cartridge is pre nearly full.

391-910 Waste cartridge is not positioned.

391-911 Waste cartridge is full.

Procedure

Check the waste cartridge, PL 90.15.

The waste cartridge is full or nearly full.

Y N

Enter dC330 code 091-201, waste toner cartridge full sensor, PL 90.20 . Actuate the sensor.

The display changes.

Y N

Check the waste toner cartridge full sensor, refer to:

- OF14 or OF14, How to check a sensor.
- BSD 90.20 Waste Toner Disposal .

If necessary, install new parts:

- Waste toner cartridge full sensor, PL 90.20.
- Motor Drive PWB, PL 1.10.

Enter dC330 code 091-200, waste toner cartridge position sensor, PL 90.20 . Actuate the sensor.

The display changes.

Y N

Check the waste toner cartridge full sensor, refer to:

- OF14 or OF14 How to check a sensor.
- BSD 90.20 Waste Toner Disposal .

If necessary, install new parts:

- Waste toner cartridge position sensor, PL 90.20.
- Motor Drive PWB, PL 1.10.

Check that the waste cartridge seats correctly in the machine and is not distorted or damaged, If necessary install a new waste cartridge, PL 90.15.

Correctly dispose of the used waste cartridge, then install a new waste cartridge, PL 90.15.

391-401 Drum Cartridge K Near Life

BSD 9.4 Drum Life Control (C,K)

It was detected that the replacement timing for Drum (K) is closer than Pre Near.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

The Drum (K) needs to be replaced soon. Replace the Drum (K) (PL 90.15) as required.

391-402, 424, 480, 481, 482, 913 Drum Cartridge Life Over RAP

391-402 Drum cartridge K life over.

391-424 Drum cartridge K life end.

391-480 Drum cartridge Y life over.

391-481 Drum cartridge M life over.

391-482 Drum cartridge C life over.

391-913 Drum cartridge K near life end.

Procedure

Install new components as necessary:

- Drum cartridge, PL 90.15 (K).
- Drum cartridge, PL 90.15 (C).
- Drum cartridge, PL 90.15 (M).
- Drum cartridge, PL 90.15 (Y).

391-411 Drum Cartridge Y Near Life

BSD 9.3 Drum Life Control (Y,M)

It was detected that the replacement timing for Drum (Y) is closer than Pre Near.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

The Drum (Y) needs to be replaced soon. Replace the Drum (Y) (PL 90.15) as required.

391-421 Drum Cartridge M Near Life

BSD 9.3 Drum Life Control (Y,M)

It was detected that the replacement timing for Drum (M) is closer than Pre Near.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

The Drum (M) needs to be replaced soon. Replace the Drum (M) (PL 90.15) as required.

391-431 Drum Cartridge C Near Life

BSD 9.4 Drum Life Control (C,K)

It was detected that the replacement timing for Drum (C) is closer than Pre Near.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

The Drum (C) needs to be replaced soon. Replace the Drum (C) (PL 90.15) as required.

391-913 Drum Cartridge K Life End

BSD 9.4 Drum Life Control (C,K)

Drum (K) has reached the end of its life span.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace the Drum (K) (PL 90.15).

391-916 Drum CRUM K Data Mismatch

BSD 9.4 Drum Life Control (C,K)

Incorrect authentication area data was detected in Drum (K) CRUM.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Remove and reinstall the Drum (K) and check for improper installation. If no problems are found, replace it with the correct Drum (K) (PL 90.15).

391-921, 391-927, 391-928, 391-929 Drum CRUM Not in Positioned RAP

392-312, 313, 314, 315 ATC System Fail RAP

BSD 90.13 Development Y

BSD 90.14 Development M

BSD 90.15 Development C

BSD 90.16 Development K

392-312 The ATC sensor output that detects the Toner density in the (Y) Developer Housing Assembly is continuously abnormal. This occurs when the number of continuous occurrence of ATC Average Fail or ATC Amplitude Fail of the (Y) color has reached or exceeded the threshold value.

392-313 The ATC sensor output that detects the Toner density in the (M) Developer Housing Assembly is continuously abnormal. This occurs when the number of continuous occurrence of ATC Average Fail or ATC Amplitude Fail of the (M) color has reached or exceeded the threshold value.

392-314 The ATC sensor output that detects the Toner density in the (C) Developer Housing Assembly is continuously abnormal. This occurs when the number of continuous occurrence of ATC Average Fail or ATC Amplitude Fail of the (C) color has reached or exceeded the threshold value.

392-315 The ATC sensor output that detects the Toner density in the (K) Developer Housing Assembly is continuously abnormal. This occurs when the number of continuous occurrence of ATC Average Fail or ATC Amplitude Fail of the (K) color has reached or exceeded the threshold value.

Initial Actions

- Switch off, then switch on the machine, GP 4.
- The fail is normally cleared by GP 4 allowing resuming of print jobs; however, when the fail occurrence count has reached the specified value, it can no longer be cleared by GP 4. To release, clear the following NVM value of the applicable color to '0'. Furthermore, if the machine is not returned to normal status, this fail will occur again during the operation.

  Enter dC131, NVM Read/Write, then enter the following codes to view the NVM values and change value to (0) for the applicable color:

  – ATC System Fail
    - (Y) 745-131
    - (M) 745-132
    - (C) 745-133
    - (K) 745-134
  – ATC System Fail Continuous Count
    - (Y) 745-147
    - (M) 745-148
    - (C) 745-149
    - (K) 745-150

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: When this fault occurs, toner density control, by the ATC sensor, is not performed and ICDC (pixels) based toner supply control is performed instead. If the fault remains for a long time, an image density error (too dark or too light) may occur.

Enter BSD 90.16. Check for the below faults and perform the applicable procedures as necessary:

- 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail RAP
- 392-665, 392-666, 392-667, 392-668 ATC Average Fail RAP

Note: After the repair, clear the NVM value listed under [Effect] to '0'.

392-649, 392-650, 392-651 ADC Shutter/Sensor Fail RAP

BSD 60.3 Color Registration

392-649 ADC Shutter Open Fail.

392-651 ADC Shutter Close Fail.

392-651 ADC sensor Fail.

Initial Actions

An ADC sensor malfunction, abnormality in electrical system, or abnormality in transfer belt reflection output has occurred.

1. Enter Diagnostics Service Diagnostic Mode , then BSD 90.16 Active Faults, to view the fault history.
2. Check for the following faults and perform the RAP associated:
   - 341-345 Motor Drive PWB F2 Fuse Fail RAP
   - 341-356 Motor Drive PWB F11 Fuse Fail RAP

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: To prevent light-induced fatigue, cover the Drum with a black sheet when removing the Drum Cartridge. In addition, do not touch the Drum surface.

Refer to the procedure that follows as necessary:

- OF14 or OF14, How to Check a Sensor.

Perform dC937 , Procon On/Off Print.

All results are OK.

Y **N**

Enter dC131 NVM Read / Write to check the following NVM values.

- 752-062 ADC_Vdark
- 752-063 ADC_Vclose
- 752-064 ADC_Diffusion Vcln
- 752-065 ADC_Mirror Vcln

All the values are 10 or higher.

Y **N**

Check the wiring between the motor drive PWB P/J416 and the ADC sensor (MOB/ADC sensor Assembly) P/J153 for open circuit, short circuit, and poor contact. If the fault persists, install new components as necessary:

- MOB/ADC sensor assembly, PL90.30.

  Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

- Motor drive PWB, PL 1.10.

A

A

Enter dC330 , code 092-003 (Shutter Open) and dC330 , code 092-004 (Shutter Close) alternately.

During shutter open/close, operation noise of the shutter can be heard.

Y N

Measure the voltage between the motor drive PWB P/J416 pin6 (+24VDC) and ground.

The voltage is +24VDC.

Y N

Perform 341-345 Motor Drive PWB F2 Fuse Fail RAP.

Measure voltage of the following:

- Enter dC330 , code 092-003 (Shutter On), between the motor drive PWB P/J416 pin7 (+24VDC) and GND(-) P/J416 pin8.
- Enter dC330 , code 092-004 (Shutter Close), between the motor drive PWB P/J416 pin5 (+24VDC) and GND(-) P/J416 pin8.

The voltages are +24VDC for all.

Y N

Switch off the machine, GP 4 . Disconnect the motor drive PWB P/J416 and measure the resistances between P/J416 pin5 and pin6 and between P/J416 pin6 and pin7.

The resistance between pin-5 and pin-6 is approximately 24 Ohm and the resistance between pin-6 and pin-7 approximately 8 Ohm.

Y N

Switch off the machine, GP 4 . Check the wiring between the motor drive PWB P/J416 and the shutter solenoid, PL90.30, P/J152 , for open circuit, short circuit, and poor contact. If no problem is found, install a new MOB/ADC sensor assembly, PL90.30.

Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

Switch off the machine, GP 4 . Check the wiring between the motor drive PWB P/J416 and the ADC sensor (MOB/ADC sensor assembly) P/J153 for open circuit, short circuit, and poor contact. If the fault persists, install new components as necessary:

- MOB/ADC sensor Assembly, PL90.30.

  Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

- Motor drive PWB, PL 1.10.

Install a new motor drive PWB, PL 1.10

Enter dC131 NVM Read / Write to check the following NVM values.

- 752-062 ADC_Vdark
- 752-063 ADC_Vclose

Both NVM values are within range of 0 to 50.

A

A

Y N

Switch off the machine, GP 4 . Check the wiring between the motor drive PWB P/J416 and the ADC sensor (MOB/ADC sensor assembly) P/J153 for open circuit, short circuit, and poor contact.

If the fault persists, install new components as necessary:

- MOB/ADC sensor assembly, PL90.30.

  Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

- Motor drive PWB, PL 1.10.

Pull out the IBT belt unit.

The IBT belt is free of contamination, foreign substances, or damage.

Y N

Install a new IBT belt, PL 90.35.

Note: After replacement of the IBT belt, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print, in sequence.

Remove the MOB ADC assembly and check the detection surface of the ADC sensor for contamination. If it is contaminated, clean it.

If the problem persists, install a new MOB/ADC sensor assembly, PL90.30.

Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

Run dC937 Procon On/Off Print continuously, several number of times.

The fault persists.

Y N

No action necessary.

Install a new parts in sequence as necessary:

1. MOB/ADC sensor assembly, PL90.30.
2. Motor drive PWB, PL 1.10.
3. IBT belt, PL 90.35.
4. LVPS, PL 1.15.

Note: After replacement of the MOB/ADC sensor assembly, enter Diagnostics, then perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.

392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail RAP

BSD 90.13 Development Y

BSD 90.14 Development M

BSD 90.15 Development C

BSD 90.16 Development K

392-657 Toner density in the developer unit as detected by the yellow ATC sensor abnormal. This fault occurs when the difference between the maximum and minimum values in the ATC sensor measurement set is lower than the threshold value.

392-658 Toner density in the developer unit as detected by the magenta ATC sensor abnormal. This fault occurs when the difference between the maximum and minimum values in the ATC sensor measurement set is lower than the threshold value.

392-659 Toner density in the developer unit as detected by the cyan ATC sensor abnormal. This fault occurs when the difference between the maximum and minimum values in the ATC sensor measurement set is lower than the threshold value.

392-660 Toner density in the developer unit as detected by the black ATC sensor abnormal. This fault occurs when the difference between the maximum and minimum values in the ATC sensor measurement set is lower than the threshold value.

Initial Actions

- Perform RAP IQ1 to check for a blank page image quality defect.
- Enter Diagnostics, Service Diagnostic Mode, BSD 90.16 Active Faults. Check for the below faults and perform the applicable procedures as necessary:
  - 343-345, 346 YMC Motor Fail RAP
  - 342-324 K_IBT Drive Motor Fail RAP

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: To prevent light-induced fatigue, cover the Drum with a black sheet when removing the Drum Cartridge. In addition, do not touch the Drum surface.

Refer to the procedure that follows as necessary:

- OF18, OF19, or OF21 How to Check a Motor.
- OF14 or OF15 How to Check a Sensor.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print, check the result of ATC Amplitude Fail.

All the results are good.

Y **N**

Check the Measured ATC Amplitude value of the applicable color.

The value is 20 or higher.

A

A

Y **N**

The ATC sensor may be malfunctioning. Switch off the machine, GP 4 .Check the wiring of the applicable color for open circuits, short circuits, and poor contacts.

- Between the ATC sensor (Y) P/J127 and the motor drive PWB P/J418
- Between the ATC sensor (M) P/J126 and the motor drive PWB P/J424
- Between the ATC sensor (C) P/J125 and the motor drive PWB P/J424
- Between the ATC sensor (K) P/J124 and the motor drive PWB P/J424

If the fault persists, install new components as necessary:

- Developer housing kit, PL90.05.

  Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.
- Motor drive PWB PL 1.10.

Check the density of the image that was output by Procon ON Print.

Note: If any of the symptoms indicated in Initial Actions has appeared or the same symptom reappeared, perform the procedures in Initial Actions required before continuing.

Is the density normal.

Y **N**

Switch off the machine, GP 4 . Remove the developer housing assembly, PL90.05.

Rotate the drive gear in the developer housing assembly manually and check whether the auger is rotating.

The auger in the developer housing assembly rotates.

Y **N**

Install a new developer housing kit, PL90.05.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

Reinstall the developer housing assembly and run the developer motor of the applicable color.

- dC330 , code 042-008 (Deve YMC Motor)
- dC330 , code 042-003 (Drum_K/Deve_K/IBT Motor)

The developer motor rotates.

Y **N**

Perform the RAP that applies:

- 343-345, 346 YMC Motor Fail RAP
- 342-324 K_IBT Drive Motor Fail RAP

The ATC sensor may be malfunctioning. Switch off the machine, GP 4 . Check the following wiring for open circuits, short circuits, and poor contacts.

- Between the ATC sensor (Y) P/J127 and the motor drive PWB P/J418
- Between the ATC sensor (M) P/J126 and the motor drive PWB P/J424
- Between the ATC sensor (C) P/J125 and the motor drive PWB P/J424

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- Between the ATC sensor (K) P/J124 and the motor drive PWB P/J424

If the fault persists, install new components as necessary:

- Developer housing kit, PL90.05.

  Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

- Motor drive PWB PL 1.10.

Install a new developer housing kit, PL90.05.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

If the problem persists, install a new motor drive PWB, PL 1.10.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print continuously several numbers of times.

Fail occurs.

Y **N**

No further action is required as this could have been due to a temporary change in Toner density.

Install new components as necessary:

- Developer housing kit, PL90.05.
- Motor drive PWB, PL 1.10.

Note: If the Developer Housing Assembly was replaced, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

392-665, 392-666, 392-667, 392-668 ATC Average Fail RAP

BSD 90.13 Development Y

BSD 90.14 Development M

BSD 90.15 Development C

BSD 90.16 Development K

392-665 Toner density in the developer unit as detected by the yellow ATC sensor abnormal. This fault occurs when the average value of the ATC sensor measurement values is not between the upper and lower limit values.

392-666 Toner density in the developer unit as detected by the magenta ATC sensor abnormal. This fault occurs when the average value of the ATC sensor measurement values is not between the upper and lower limit values.

392-667 Toner density in the developer unit as detected by the cyan ATC sensor abnormal. This fault occurs when the average value of the ATC sensor measurement values is not between the upper and lower limit values.

392-668 Toner density in the developer unit as detected by the black ATC sensor abnormal. This fault occurs when the average value of the ATC sensor measurement values is not between the upper and lower limit values.

Initial Actions

- Perform RAP IQ1 to check for a blank page image quality defect.
- Enter BSD 90.16 . Check for the below faults and perform the applicable procedures as necessary:
  - 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail Y/M/C/K RAP
  - 324-923 Toner Cartridge Y/M/C Empty RAP
  - 393-912 Toner Cartridge K Empty RAP
  - 343-345, 346 YMC Motor Fail RAP
  - 342-324 K_IBT Drive Motor Fail RAP

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: To prevent light-induced fatigue, cover the Drum with a black sheet when removing the Drum. In addition, do not touch the Drum surface.

Refer to the procedure that follows as necessary:

- OF18, OF19, or OF21 How to Check a Motor.
- OF14 or OF15 How to Check a Sensor.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print, check the result of ATC Amplitude Fail.

All the results are good.

Y **N**

Check the Measured ATC Amplitude value of the applicable color.

The value is 20 or higher.

A

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Y N

The ATC sensor may be malfunctioning. Switch off the machine, GP 4 .Check the wiring of the applicable color for open circuits, short circuits, and poor contacts.

- Between the ATC sensor (Y) P/J127 and the Motor Drive PWB P/J418
- Between the ATC sensor (M) P/J126 and the Motor Drive PWB P/J424
- Between the ATC sensor (C) P/J125 and the Motor Drive PWB P/J424
- Between the ATC sensor (K) P/J124 and the Motor Drive PWB P/J424

The wiring is good.

Y N

Repair the wiring.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install new components as necessary:

- Developer housing kit, PL90.05.

  Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

- Motor drive PWB PL 1.10.

Check the density of the image that was output by Procon ON Print.

Note: If any of the symptoms indicated in Initial Actions has appeared or the same symptoms recur, perform the procedures required before continuing.

The density is normal.

Y N

The toner density may be abnormal.

The value of measured ATC average on the procon on print display screen is 1000 or higher (toner density is light).

Y N

Install a new developer housing kit, PL90.05.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

The toner density was detected to be abnormally light. Perform the following:

1. Check the faulty toner cartridge for toner, if there is no toner in the cartridge, install a new toner cartridge, PL 90.10.
2. Enter dC330 , code 093-009/010/011/012 (Y/M/C/K) to run the toner dispense motor of the applicable color. If the problem persists, install a new toner dispense motor assembly, PL 90.10.
3. Check the toner dispense path between the toner cartridge and the developer housing assembly for occurrence of toner blockage.

After removing the cause for the density error, perform dC330 Tone Up/Down to recover the toner density. Adjust the ATC Average Value within [+/-15] of the ATC Target Value.

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The fail has stopped occurring.

Y N

The ATC sensor may be malfunctioning. Switch off the machine, GP 4 , then check the wiring of the applicable color for open circuits, short circuits, and poor contacts.

- Between the ATC sensor (Y) P/J127 and the Motor Drive PWB P/J418
- Between the ATC sensor (M) P/J126 and the Motor Drive PWB P/J424
- Between the ATC sensor (C) P/J125 and the Motor Drive PWB P/J424
- Between the ATC sensor (K) P/J125 and the Motor Drive PWB P/J424

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install new components as necessary:

- Developer housing kit, PL90.05.

  Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

- Motor drive PWB, PL 1.10.

Perform SCP 5 Final Actions.

Install a new developer housing kit, PL90.05.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

The fault persists.

Y N

Perform SCP 5 Final Actions.

Install a new motor drive PWB, PL 1.10.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print continuously several numbers of times.

A fail occurs.

Y N

Perform SCP 5 Final Actions.

Install new components as necessary in sequence. Perform dC937 Procon On/Off Print continuously several numbers of times after each part installation to verify the fault recurs or not. End component installation when the fault ends:

1. Toner cartridge, PL 90.10.
2. Developer housing kit, PL90.05.
3. Dispenser assembly, PL 90.10.
4. Motor drive PWB, PL 1.10.
5. Developer bias HVPS PWB, PL 1.15.
6. BCR HVPS PWB, PL 1.20.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

392-670, 392-671, 392-672, 392-673 ADC Patch Fail RAP

BSD 60.3 Color Registration

392-670 The density of the yellow (Y) ADC patch is out of specification range or the ADC sensor is malfunctioning.

392-671 The density of the magenta (M) ADC patch is out of specification range or the ADC sensor is malfunctioning.

392-672 The density of the cyan (C) ADC patch is out of specification range or the ADC sensor is malfunctioning.

392-673 The density of the black (K) ADC patch is out of specification range or the ADC sensor is malfunctioning.

Initial Actions

- Perform RAP IQ1 to check for out of specification density color image quality defect.
- Enter BSD 60.3 , Shutdown History. Check for the below faults and perform the applicable procedures as necessary:
  - 391-402, 424, 480, 481, 482, 913 Drum Cartridge Life End RAP
  - 343-345, 346 YMC Motor Fail RAP
  - 342-324 K_IBT Motor Fail RAP
  - 360-341 LPH System Fail RAP
  - 360-357, 358, 359, 360 CONTIF Error Fail RAP
  - Chain 389 Entry RAP
  - 392-657, 392-658, 392-659, 392-660 ATC System Fail Y/M/C/K RAP
  - 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail Y/M/C/K RAP
  - 392-665, 392-666, 392-667, 392-668 ATC Average Fail Y/M/C/K RAP
  - 393-400 Toner Cartridge Y/M/C/K Near Empty RAP
  - 394-318 1st BTR Position Fail RAP
  - 394-422 IBT / 2nd BTR Roll End RAP

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: To prevent light-induced fatigue, cover the drum with a black sheet when removing the drum cartridge. In addition, do not touch the drum surface.

Refer to the procedure that follows as necessary:

- OF18, OF19, or OF21 How to Check a Motor.
- OF14 or OF15 How to Check a Sensor.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print, check the result of ATC Amplitude and ATC Average Fail.

All the results are OK.

Y N

Go to the appropriate procedure:

- 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail Y/M/C/K RAP.
- 392-665, 392-666, 392-667, 392-668 ATC Average Fail Y/M/C/K RAP.

Check the result of ADC Patch Fail.

All the results are OK.

Y N

Check the following output images:

1. Has the overall image density of the image output by ProCon ON/OF Print become lighter?
2. Use Test Pattern to output the Full Halftone Image (Pattern No. 9) for the applicable color. Does the output image contain blank areas or has become extremely light at the FS direction center section (ADC patch position)?

The image density is normal?

Y N

Perform the following:

1. Perform all Initial Actions procedures required in BSD 60.3 , Shutdown History.
2. Check the toner cartridge has toner. If the toner cartridge is empty, install a new toner cartridge, PL 90.10.
3. Check the drum assembly for contamination, foreign matter, or damage. If contaminated or damaged, install a new drum assembly, PL 90.15.
4. Check the amount of toner in the developer housing. Rotate the gear in clockwise. If the tone is low at feed entrance, center section on the developer housing assembly mag roll, or the toner remains low after rotating the gear. Install a new developer housing kit, PL90.05.
5. Enter dC330 , code 093-009/010/011/012 (Y/M/C/K). Run the toner dispense motor for each color. If excessive or abnormal noise, damage, or forced rotation exists. Install a new toner dispense motor assembly, PL 90.10.
6. Check the LPH assembly for contamination. If it is contaminated, clean the LPH assembly. If the LPH assembly is damaged, install a new LPH assembly, PL60.05.
7. Check the wiring between:
   - The BCR HVPS PWB and the drum cartridge.
   - The developer bias HVPS PWB and the magnet roll of the drum cartridge.
   - The BTR HVPS PWB and the 1st and 2nd BTR roll.

   for open circuits, short circuits, and poor contacts.

   If the fault persists, install new components as necessary:
   - BCR HVPS PWB, PL 1.20.
   - developer bias HVPS PWB, PL 1.15.
   - BTR HVPS PWB, PL 1.05.

If the ADC Patch is light, check the IBT belt and the 1st BTR center section, the ADC patch position, for contamination, foreign substances, damage, and etc.

The IBT belt and 1st BTR are good.

Y N

Install a new:

B

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- IBT belt assembly, PL90.30.

  Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

- IBT belt cleaner assembly, PL90.30.

Check the ADC sensor for any abnormality. Switch off the machine, GP 4 . Perform the steps that follow:

1. Check the MOB/ADC sensor assembly, PL90.30 , for improper installation, contamination, foreign substances at the detection section, and snagged shutter.
2. Check the wiring between the below components below for open circuit, short circuit, and poor contact.
   - The motor drive PWB and the MOB/ADC sensor assembly P/J609 .
   - The motor drive PWB and the MOB/ADC sensor assembly P/J608 .
   - The motor drive PWB and the MOB/ADC sensor assembly P/J610 .
3. If the fault persists, install new components as necessary:
   - MOB/ADC sensor assembly, PL90.30.

     Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

   - Motor drive PWB, PL 1.10.

Run dC937 Procon On/Off Print continuously several number of times.

Does the Fail occur.

Y **N**

Perform SCP 5 Final Actions.

Install new components as necessary, in sequence. Perform dC937 Procon On/Off Print continuously several numbers of times after each part installation to verify the fault recurs or not. End component installation when the fault ends:

1. MOB/ADC sensor assembly, PL90.30.
2. IBT belt assembly, PL90.30.
3. IBT belt cleaner assembly, PL90.30.
4. Toner cartridge, PL 90.10.
5. Drum assembly, PL 90.15.
6. LPH assembly, PL60.05.
7. Developer housing kit, PL90.05.
8. BCR HVPS PWB, PL 1.20.
9. Developer bias HVPS PWB, PL 1.15.
10. BTR HVPS PWB, PL 1.05.
11. Dispenser assembly, PL 90.10.
12. FFC cable assembly kit, PL60.05.
13. Motor drive PWB, PL 1.10.

Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

392-675, 392-676, 392-677, 392-678 ADC MiniSetup Fail RAP

BSD 60.3 Color Registration

392-675 The yellow ADC tone patch is abnormally light or a fault in the ADC sensor was detected.

392-676 The magenta ADC tone patch is abnormally light or a fault in the ADC sensor was detected.

392-677 The cyan ADC tone patch is abnormally light or a fault in the ADC sensor was detected.

392-678 The black ADC tone patch is abnormally light or a fault in the ADC sensor was detected.

Initial Action

- Perform RAP IQ1 to check for a low density color or white vertical streaks image quality defect.
- Enter BSD 60.3, Shutdown History. Check for the faults listed below and perform the applicable procedures as necessary:
  - 391-402, 424, 480, 481, 482, 913 Drum Cartridge Life End RAP
  - 343-345, 346 YMC Motor Fail RAP
  - 342-324 K_IBT Motor Fail RAP
  - 360-341 LPH System Fail RAP
  - 360-357, 358, 359, 360 CONTIF Error Fail RAP
  - Chain 389 Entry RAP
  - 392-657, 392-658, 392-659, 392-660 ATC System Fail Y/M/C/K RAP
  - 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail Y/M/C/K RAP
  - 392-665, 392-666, 392-667, 392-668 ATC Average Fail Y/M/C/K RAP
  - 393-400 Toner Cartridge Y/M/C/K Near Empty RAP
  - 394-318 1st BTR Position Fail RAP
  - 394-422 IBT / 2nd BTR Roll End RAP

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4. Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

Note: To prevent light-induced fatigue, cover the drum with a black sheet when removing the drum cartridge. In addition, do not touch the drum surface.

Refer to the procedure that follows as necessary:

- OF18, OF19, or OF21 How to Check a Motor.
- OF14 or OF15 How to Check a Sensor.

Enter Diagnostics, Service Diagnostic Mode . Perform dC937 Procon On/Off Print, check the result of ATC Average Fail, ATC Amplitude Fail, Temperature Fail, and Humidity Fail.

All the results are OK.

Y **N**

Go to the appropriate FIP

- 392-657, 392-658, 392-659, 392-660 ATC Amplitude Fail Y/M/C/K RAP
- 392-665, 392-666, 392-667, 392-668 ATC Average Fail Y/M/C/K RAP

Check the value of ADC Measurement Min2 of the applicable color.

Is the value lower than '50'.

Y N

The density of the print is normal.

Y N

Perform the following:

1. Perform all Initial Action procedures required in BSD 60.3 , Shutdown History.
2. Check the toner cartridge has toner. If the toner cartridge is empty, install a new toner cartridge, PL 90.10.
3. Check the drum assembly for contamination, foreign matter, or damage. If contaminated or damaged, install a new drum assembly, PL 90.15.
4. Check the amount of toner in the developer housing. Rotate the gear in clockwise. If the tone is low at feed entrance, center section on the developer housing assembly mag roll, or the toner remains low after rotating the gear. Install a new developer housing kit, PL90.05.
5. Enter dC330 , code 093-009/010/011/012 (Y/M/C/K). Run the toner dispense motor for each color. If excessive or abnormal noise, damage, or forced rotation exists. Install a new toner dispense motor assembly, PL 90.10.
6. Check the LPH assembly for contamination. If it is contaminated, clean the LPH assembly. If the LPH assembly is damaged, install a new LPH assembly, PL60.05.
7. Check the wiring between the components below for open circuits, short circuits, and poor contacts.
   - The BCR HVPS PWB and the drum cartridge of the relevant color.
   - The developer bias HVPS PWB and the magnet roll of the relevant color.
   - The BTR HVPS PWB and the 1st BTR roll of the relevant color.

   for open circuits, short circuits, and poor contacts.

   If the fault persists, install new components as necessary:
   - BCR HVPS PWB, PL 1.20.
   - Developer bias HVPS PWB, PL 1.15.
   - BTR HVPS PWB, PL 1.05.

Enter dC330 , then print out Pattern No. 9 of the relevant color.

Uneven density has occurred in the in process direction.

Y N

1. Check the MOB/ADC sensor assembly, PL90.30, for improper installation, contamination, foreign substances at the detection section, and snagged shutter.
2. Check the wiring between the below components below for open circuit, short circuit, and poor contact.
   - The motor drive PWB and the MOB/ADC sensor assembly P/J609 .
   - The motor drive PWB and the MOB/ADC sensor assembly P/J608 .
   - The motor drive PWB and the MOB/ADC sensor assembly P/J610 .
3. If the fault persists, install new components as necessary:
   - MOB/ADC sensor assembly, PL90.30.

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Note: After replacing the Developer Housing Assembly, perform dC950 ATC Sensor Setup, then dC330 Default Developer ATC Setup for the applicable color.

- Motor drive PWB, PL 1.10.

Uneven density is the cause. Perform IQ1, Image Quality Entry RAP, followed by IQ3 White Streaks, Spots or Uneven Density (38mm/1.5 inches) in the Cross Process Direction RAP:

1. Check the IBT belt for contamination, foreign substances, or damage. If the any issues exist, install a new IBT belt assembly, PL90.30.

   Note: After replacement of the IBT Belt, go to the Diag mode and perform dC675 Registration Control Setup Cycle, then dC937 Procon On/Off Print in sequence.
2. Check the drum cartridge of the relevant color for contamination, foreign matter, scratches on the drum. If any issues exist, install a new drum cartridge, PL 90.15.
3. Check the wiring for between the components below for open circuit, short circuit, or and poor contact:
   - The BCR HVPS PWB and the drum cartridge of the relevant color.
   - The developer bias HVPS PWB and the magnet roll of the relevant color.
   - The BTR HVPS PWB and the 1st BTR roll of the relevant color.

   If the fault persists, install new components as necessary:
   - BCR HVPS PWB, PL 1.20.
   - Developer bias HVPS PWB, PL 1.15.
   - BTR HVPS PWB, PL 1.05.
4. Check the LPH assembly, PL60.05, of the relevant color for contamination. If it is contaminated, first clean the LPH assembly. If the fault persists, install a new LPH assembly, PL60.05.

Perform SCP 5 Final Actions.

393-324 Developer Y, M, C Motor Fail

BSD 40.2 YMC Drum and Developer Drive Control

The Developer Drive Motor (Y, M, C) revolution failure was detected.

Initial Actions

Refer to the BSD and check the related connectors of the target electrical parts for partial connections.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Remove the Drum Unit (Y, M, C) and the Developer (Y, M, C), and then cheat the Front Cover Interlock Switch.

Turn ON the power then turn ON dC330 [093-025] (Developer Drive Motor (Y, M, C)).

Does the Developer Drive Motor (Y, M, C) rotate?

Y N

Check the following:

- The power supplies (+5VDC, +24VDC) of the Developer Drive Motor (Y, M, C).
- The connection between the Motor Drive PWB P/J427 and the Developer Drive Motor (Y, M, C) P/J213 for open circuit, short circuit, and poor contact.

If no problem is found, replace the following parts in sequence:

- Developer Drive Motor (Y, M, C) (PL 40.05).
- Motor Drive PWB (PL 1.10).

Turn OFF the power and reinstall the Drum Unit (Y, M, C) and the Developer (Y, M, C).

Turn ON the power then turn ON dC330 [093-025] (Developer Drive Motor (Y, M, C)).

Does the Developer Drive Motor (Y, M, C) rotate?

Y N

Check the Developer (Y, M, C) for loading/binding.

Turn OFF the power then check the connection between the Developer Drive Motor (Y, M, C) P/J203-8 and the Motor Drive PWB P/J427-A9 for open circuit, short circuit, and poor contact.

If no problem is found, replace Motor Drive PWB (PL 1.10).

393-335, 393-336, 393-337, 393-338 Toner CRUM Authentication IC Is Not Available RAP

393-400, 393-423, 393-424, 393-425 Toner Cartridge Near Empty RAP

393-400 Toner Cartridge K Near Empty.

393-423 Toner Cartridge Y Near Empty.

393-424 Toner Cartridge M Near Empty.

393-425 Toner Cartridge C Near Empty.

Procedure

Information only, no service action necessary, advise the customer relevant the toner cartridge is almost empty.

393-912 Toner Cartridge (K) Empty RAP

393-912 The black toner cartridge is empty.

Procedure

Install a new (K) toner cartridge, PL 90.10.

393-918 XC 3rd Party CRUM Defect Fail RAP

393-926, 937, 938, 939 Toner CRUM Data Mismatch Fault

393–926 Toner CRUM Data Mismatch Fail K

393–937 Toner CRUM Data Mismatch Fail Y

393–938 Toner CRUM Data Mismatch Fail M

393–939 Toner CRUM Data Mismatch Fail C

BSD 90.5 Toner Cartridge Life Control (Y,M)

BSD 90.6 Toner Cartridge Life Control (C,K)

Incorrect authentication area data was detected with one of the Toner CRUMs. This fault is displayed if the wrong type of Toner cartridge is installed.

Note: The AltaLink C8170F machine is shipped with "Worldwide Neutral" Toner Cartridges. When the cartridges shipped with the machine are installed, the machine is set to Worldwide Neutral configuration.When the first toner cartridge of any color is replaced in the machine, the Geographic Differentiation Code and Toner Cartridge Type in NVM are automatically changed to the same settings as the replacement cartridge. Once these NVM are set, the toner configuration can be changed only with a CRUM conversion.

One or more Toner Cartridges are of the wrong type (that is, a "Sold" cartridge installed in a "metered" configured machine.

Initial Actions

Remove and reinstall the affected Toner Cartridge.

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

An Error Message appears on the UI - **Reinsert an improperly seated consumable or replace any consumables with Error. Press Machine Status button and select Supplies tab for details.** Remove and reinstall the Toner Cartridge and check for improper installation.

The problem continues

Y N

| End

Check the NVM locations in Table 1.

Table 1 CRUM Data NVM

NVM Location	Name	Values (read-only)
740-053	Geographic Setting	3 = North America/Europe 12 = DMO 15 = Worldwide
740-055	Contract Type	2 = Sold 3 = Metered 31 = Neutral

The NVM values match the expected customer configuration.

Y N

| Go to GP 16

1. Clean the connection terminals between the Toner Cartridge CRUM PWB and the Toner CRUM Coupler Assembly CRUM with dry cloth.
2. Check the following:
   - The connection between the Motor Drive PWB P/J412 and the Toner CRUM Coupler Assembly P/J123 for open circuit, short circuit, and poor contact as follows:
     - P/J116
     - P/J117
     - P/J118
     - P/J119
   - The connection terminals between the Toner Cartridge CRUM PWB and the Toner CRUM Coupler Assembly CRUM for damage and foreign substances
   - The Toner Cartridge for improper installation

   If no problems are found, replace the following parts in sequence:
   - Toner Cartridge (PL 90.10).
   - Toner CRUM Conector Assembly (PL 90.10).
   - Replace the Motor Drive PWB (PL 1.10).

393-970, 393-971, 393-972, 393-973 Toner CRUM Not Positioned RAP

394-318 1st BTR Position Fail

BSD 90.17 1st BTR Contact/retract

394-318 Contact or retract operation does not finish after specified time has passed from the start of 1st BTR contact/retract operation.

Procedure

Perform the steps that follow:

1. Check the BTR contact/retract sensor, PL 40.05 for improper installation.
2. Enter dC330 , code 094-200 to activate the BTR contact/retract sensor to verify proper operation.
3. Enter dC330 , code 094-008/009 (retract/contact). Activate the sensor in both modes to verify proper operation.

   Note: During BTR contact/retract operation, check the fusing unit drive motor for rotation. If it is not rotating, check the BTR contact/retract clutch assembly and helical gear for blockage and damage.
4. Check the IBT belt assembly for mechanical loading or damage.

If the fault persists, install new components as necessary:

- BTR contact/retract sensor, PL 40.05.
- Motor drive PWB, PL 1.10.

394-417, 394-419 IBT / 2nd BTR Near End of Life RAP

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

394-417 IBT is near end of life.

394-419 2nd BTR unit is near end of life.

Procedure

Information only, no service action necessary, advise the customer that the IBT belt assembly or 2nd BTR unit is almost at end of life.

394-418 IBT CLN Unit Near End Warning

BSD 10.6 Fusing

The IBT Cleaner needs to be replaced soon.

Note: The chain/link fault code for this RAP is an internal machine code and is never displayed or logged in Fault Code History. Use this RAP to troubleshoot persistent machine status conditions that cannot be cleared by performing the indicated process (e.g., loading paper, closing a cover, replacing a CRU, etc). Entry to this RAP is usually via the Persistent RAP located in the Other Faults section, or a chain/link listing on a BSD.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace the IBT Cleaner and clear dC135 [954-822] (Transfer Belt Cleaner).

394-420 IBT Unit End Warning

BSD 10.6 Fusing

The IBT Assembly must be replaced.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace the IBT Assembly and clear dC135 [954-820] (IBT Belt Assembly).

394-421 IBT CLN Unit End Warning

BSD 10.6 Fusing

The IBT Cleaner must be replaced.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace the IBT Cleaner and clear dC135 [954-822] (Transfer Belt Cleaner).

394-422 2nd BTR Unit End Warning

BSD 10.6 Fusing

The 2nd BTR must be replaced.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Replace the 2nd BTR and clear dC135 [954-821] (Second Bias Transfer Roll).

395-001 Failed to upgrade DC Software Upgrade Code RAP

395–001–00 The DC software failed to upgrade.

Procedure

Perform the Controller Procedure steps in 395ASoftware Upgrade Failure - Solution RAP.

395-002 Failed to upgrade DC Application Software RAP

395–002–00 The DC application software failed to upgrade.

Procedure

Perform the Controller Procedure steps in 395ASoftware Upgrade Failure - Solution RAP.

395-007 Failed to upgrade CH Finisher Application Software RAP

395–007–00 The CH Finisher application software failed to upgrade.

Procedure

Perform the Finisher Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-008 Failed to upgrade DC Operating System Software RAP

395–008–00 The DC operating system software failed to upgrade.

Procedure

Perform the Controller Procedure steps in 395ASoftware Upgrade Failure - Solution RAP.

395-009 Failed to upgrade DC CIPS Software RAP

397–009–00 The DC CIPS sioftware failed to upgrade.

Procedure

Perform the Controller Procedure steps in 395ASoftware Upgrade Failure - Solution RAP.

395-011 Failed to upgrade XUI Application

395–011–00 The XUI application failed to upgrade.

Procedure

Perform the User Interface Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-019 Failed to upgrade UI Panel Firmware RAP

395–019–00 The User Interface panel firmware failed to upgrade.

Procedure

Perform the User Interface Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-038 Failed to upgrade embedded fax LCF Application Software RAP

395-038 The embedded fax LCF application software failed to upgrade.

Procedure

Perform the FAX Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-042 Failed to upgrade IOT Application Software RAP

395–042–00 The IOT application software failed to upgrade.

Procedure

Perform the IOT Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-140 Failed to Upgrade DC NC Applications Software RAP

395–140–00 The DC NC application software failed to upgrade.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-150 Failed to Upgrade IIT Application Software RAP

395-150 The IIT application software failed to upgrade.

Procedure

Perform the IIT Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-152 Failed to Upgrade SIC Software RAP

395-152–00 The SIC software failed to upgrade.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-153 Failed to upgrade IIT Kernel Software RAP

395-153 The IIT kernal software failed to upgrade.

Procedure

Perform the IIT Procedure in 395ASoftware Upgrade Failure - Solution RAP.

395-168 Failed to Upgrade DADH Single Pass Software RAP

395–168–00 The DADH single pass software failed to upgrade.

Procedure

Perform the DADF Procedure in 395A Software Upgrade Failure - Solution RAP.

395-180 Failed to Upgrade HCF Firmware Module Software RAP

395–180–00 The HCF firmware module software failed to upgrade.

Procedure

Perform the HCF Procedure in 395A Software Upgrade Failure - Solution RAP.

395-203 Failed to Upgrade A Finisher Application Software RAP

395–203–00 The A finisher application software failed to upgrade.

Procedure

Perform the Finisher Procedure in 395A Software Upgrade Failure - Solution RAP.

395-204 Failed to Upgrade SB Finisher Application Software RAP

395–204–00 The SB finisher application software failed to upgrade.

Procedure

Perform the Finisher Procedure in 395A Software Upgrade Failure - Solution RAP.

395-216 Failed to Upgrade DC Glue Software RAP

395–216–00 The DC glue software failed to upgrade.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-226 Failed to Upgrade SOK Code Software RAP

395–226–00 The SOK code software failed to upgrade.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-255 Software Upgrade Failure: DC SCD RAP

395–255–00 The DC SCD software failed to upgrade.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-300 Software Upgrade Failure : Incompatible Product RAP

395–300–00 Incompatible product led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-301 Software Upgrade Failure: Incompatible Hardware RAP

395–301–00 Incompatible hardware led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-302 Software Upgrade Failure: Incompatible Firmware RAP

395–302–00 Incompatible firmware led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-303 Software Upgrade Failure: DLM Downgrade RAP

395–303–00DLM downgrade led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-304 Software Upgrade Failure: DLM Sidegrade RAP

395–304–00DML sidegrade led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-305 Software Upgrade Failure: Platform Synchronisation Error RAP

395–305–00 Platform synchronisation error led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-306 Software Upgrade Failure: CCS Platform Synchronisation Error RAP

395–306–00CSS platform synchronisation error led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-307 Software Upgrade Failure: NC Platform Synchronisation Error

395–307–00NC platform synchronisation error led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-308 Software Upgrade Failure: UI Platform Synchronisation Error

395–308–00UI platform synchronisation error led to software upgrade failure.

Procedure

Perform the User Interface Procedure in 395A Software Upgrade Failure - Solution RAP.

395-309 Software Upgrade Failure: IIT Platform Synchronisation Error

395–309–00IIT platform synchronisation error led to software upgrade failure.

Procedure

Perform the IIT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-310 Software Upgrade Failure: IOT Platform Synchronisation Error RAP

395–310–00IOT platform synchronization error led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-311 Software Upgrade Failure: Finisher Platform Synchronisation Error RAP

395–311–00 Finisher platform synchronisation error led to software upgrade failure.

Procedure

Perform the Finisher Procedure in 395A Software Upgrade Failure - Solution RAP.

395-312 Software Upgrade Failure: Feeder Platform Synchronisation Error RAP

395–312–00 Feeder platform synchronisation error led to software upgrade failure.

Procedure

Perform the HCF Procedure in 395A Software Upgrade Failure - Solution RAP.

395-313-00 Differential DLM Installation Failure: Launch DLM Missing RAP

395–313–00 Launch DLM missing led to DLM installation failure.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-313-01 Differential DLM Installation Failure: Launch DLM Corrupt RAP

395–313–01 Launch DLM corrupt led to DLM installation failure.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-313-02 Differential DLM Installation Failure: Launch DLM MISMATCH RAP

395–313–02 Launch DLM mismatch led to DLM installation failure.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-313-03 Launch DLM Installation Failure RAP

395–313–03 Launch DLM installation failure.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-314 Software Upgrade Failure: SDCARD Full RAP

395–314–00SD card full led to software upgrade failure.

Procedure

Perform the SD Card Procedure in 395A Software Upgrade Failure - Solution RAP.

395-315 Failed to upgrade Bios RAP

395–315–00 Failed to upgrade bios led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-316 Failed to upgrade FPGA RAP

395–316–00 Failed to upgrade FPGA led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-317 Failed to upgrade the CPLD RAP

395–317–00 Failed to upgrade the CPLD led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-318 Failed to upgrade - USB drive not detected RAP

395–318–00 USB drive not detected led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-319 Failed to Upgrade - USB Drive Not Detected Second Time RAP

395–319–00USB drive not detected second time led to software upgrade failure.

Procedure

Perform the IOT Procedure in 395A Software Upgrade Failure - Solution RAP.

395-321 Failure to Revert Flash During Upgrade RAP

395–321–00 Failure to revert flash contents led to software upgrade failure.

Procedure

Perform the Controller Procedure in 395A Software Upgrade Failure - Solution RAP.

395-322 USB drive filesystem unsupported RAP

395–322–00 Unsupported USB drive filesystem led to software upgrade failure.

Procedure

The USB drive used should be formatted using the FAT 32 file system.

395-323 Multiple USB Drives Detected on Bootup RAP

395–323–00 Multiple USB drives detected led to software upgrade failure.

Procedure

1. Remove all USB drives from the device.
2. Insert only the USB drive required for the upgrade procedure.
3. Repeat the upgrade procedure.

395A Software Upgrade Failure RAP

Go to the subsystem procedure that matches the software upgrade failure.

Controller Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check the connections on the controller PWB assembly, PL 3.05, refer to:
   - BSD 3.8
2. Perform a forced altboot software installation. Refer to GP 9.
3. If the fault persists install a new controller PWB assembly. Refer to PL 3.05

IOT Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check the connections to the motor drive PWB, PL 1.10:
   - BSD 3.1
2. Perform a forced altboot software installation. Refer to GP 9.
3. If the fault persists install a new motor drive PWB. Refer to PL 1.10.

User Interface Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check the connection between wiring between controller PWB, PL 3.05, and the user interface, PL 2.05 and PL 2.10. If necessary install a new harness between the controller PWB assembly and the user interface. Refer to PL 2.05.
2. Reload the software using the Forced AltBoot procedure, GP 9.
3. If the fault persists install a new user interface assembly:
   - PL 2.05 (C8130/C8135/C8145/C8155).
   - PL 2.10 (C8170).

IIT Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check the connections to the IIT trans PWB:
   - BSD 3.9
2. Perform a Forced AltBoot software installation. Refer to GP 9.
3. If the fault persists install a new IIT trans PWB.
   - C8130/C8135/C8145/C8155PL 60.45
   - C8170 PL 60.20

DADF Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Check the connection between the IIT Trans PWB and the DADF. Refer to BSD 3.6.

1. Perform a forced altboot software installation. Refer to GP 9.
2. If the fault persists install the following:
   - DADF PWB:
     - C8170 PL 5.3
     - C8130/C8135/C8145/C8155 PL 5.53
   - IIT Trans PWB
     - C8170 PL 60.20
     - C8130/C8135/C8145/C8155 PL 60.45

FAX Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check the connections to the FAX unit PWB. Refer to the following:
   - PL 3.05
   - BSD 34.1
2. Perform a forced altboot software installation. Refer to GP 9.
3. If the fault persists install a new FAX unit, PL 3.05.

Finisher Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check system connections to the finisher. Refer to BSD 3.3.
2. Refer to the finisher service documentation.
3. Perform a forced altboot software installation Refer to GP 9.
4. If the fault persists install a new finisher PWB, refer to the finisher service documentation for more information.

HCF Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Check system connections to the HCF BSD 3.4.
2. Refer to the HCF service documentation.
3. Perform a forced altboot software installation. Refer to GP 9.
4. If the fault persists install a new HCF PWB. For more information, refer to the HCF service documentation for more information.

399-364 Fuser Temperature Fault RAP

BSD 10.4 Fusing Heat (2 of 2)

399-364 The recovery time from low temperature not ready state has become longer than the setting time.

Procedure

Perform the following procedures as necessary:

1. Switch off, then switch on the machine, GP 4.
2. Switch off the machine, GP 4.
3. Check the wiring between the Motor Drive PWB, P/J437 P/J437 and fuser heater coil, P/J196 for open circuit, short circuit, or damage.
4. Check the fuser drawer connector, DP600/P600, and the chassis drawer connector, DJ600/J600 for damage or obstruction.
5. Install new components as necessary:
   - Fuser heater coil, PL10.05.
   - Fuser, PL10.05.

399-373 Wind Around P/Roll Fail

BSD 10.5 Fusing

399-373 Wound up, stuck paper was detected at the fuser pressure roll.

Procedure

1. Clear the paper from the fuser roll.
2. Switch off, then switch on the machine, GP 4.
3. If the fault persists, install a new fuser, PL10.05.

399-395 Fusing Motor Current Fail

BSD 10.1 Fusing Unit Drive

399-395 The current value that is applied to the fuser motor has continuously exceeded the threshold for more than the specified time.

Procedure

Refer to BSD 10.1 Fusing Motor Current Warning RAP

OF1 Machine Not Ready RAP

BSD 1.1 Main Power On

BSD 1.2 Machine Power Control

BSD 1.2 Machine Power Control

"Machine not ready" is defined as any condition where the machine is not capable of performing its basic tasks (Copy or Print). "Not ready" ranges from a machine that is totally inert, without any indication of power, to a machine that appears ready but does not respond to either Control Panel commands or network input.

Boot failures can be caused by hardware failures in the SBC PWB, or communication failures between the SBC PWB and the rest of the machine. The SBC PWB has several debug LEDs mounted onboard to indicate board activity. Also mounted to the SBC PWB is a 7-segment display that changes state as the boot-up progresses. See OF6 for details.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Reseat the SBC PWB to the Backplane.
- If the boot failure occurs after new components are installed, make sure the new components are compatible with the machine and all PJ's are seated. Check that no pins are damaged.
- Check that all the PJ's are seated correctly on the SBC PWB.

Procedure

The first step is to categorize the problem. Decide which of the following condition best describes the problem:

- Dead Machine
- Boots up; does not respond to Control Panel
- Boots up; does not print (or other Network problem)

Dead Machine
If the machine shows no sign of power (fans or motors running, backlight on UI display, LEDs on Control Panel), check for AC line voltage at the Finisher Outlet.

1. If AC is not present, go to the OF3 RAP.
2. If AC is present check CR4, CR5 and CR6 using the wiring information shown in BSD 1.1 Main Power On and BSD 1.2 Machine Power Control .

Boots up; does not respond to Control Panel
Check the following:

1. Refer to OF2 and check the connections of the wiring and PWBs within the Control Panel Assembly and the cable from the Control Panel to the SBC.
2. If the check is good, replace the following parts in sequence:
   - Control Panel Assembly (PL 3.10).
   - SBC PWB (PL 3.05).
   - Motor Drive PWB (PL 1.10).

Boots up; does not print (or other Network problem)
Go to the OF11.

OF2 UI Touch Screen Failure RAP

BSD 3.2 PWB Communications (Controller to UI)

Use this RAP to solve user interface touch screen problems when the machine has power but either the display is Black, blank, too dark, responds incorrectly or does not refresh.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Power the machine OFF then ON.

Procedure

Refer to the BSD 3.2 and check the following:

- The connectors and the cable between the UI Interface PWB (PL 3.10) and the UI for poor connection or damage.
- The cable between the UI PWB and the BP PWB for poor connection or damage.
- If no problems are found, replace the following in order:
  - The UI (PL 3.10).
  - The UI PWB (PL 3.10).
  - The cable from the UI PWB to the BP PWB.
  - The SBC PWB (PL 3.05).

OF3 AC Power RAP

BSD 1.1 Main Power On (100 VAC)

BSD 1.2 Main Power On (220-240 VAC)

Use this procedure to identify AC power input and output failures.

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

Switch off the main power switch, GP 4 . Check the voltage between P/J10 pin 1 and P/J11 pin 1 on the GFI breaker.

The voltage measured is within electrical power requirements, GP 15.

Y N

Disconnect the power cord from the outlet. Check the AC mains (line) voltage at the customers power outlet.

The voltage measured is within electrical power requirements, GP 15.

Y N

The voltage is incorrect, or the wiring of the main supply is found to be defective, inform your technical manager and the customer. Do not attempt to repair or adjust the customer supply.

Check the power cord for open circuit and poor contact.

The main power cord is good.

Y N

Install a new power cord.

Install a new GFI breaker, PL 1.10.

Switch on the main power switch, P/J4. Check the voltage on P/J4 between pin 1 and pin 3 on the AC drive PWB.

The AC power supply is within specification, GP 15.

Y N

Switch off the power, then unplug the power cord from the outlet. Check the wiring:

- Between the GFI breaker P/J10GP 4 pin 1and the main power switch P/J12 pin 1.
- Between the GFI breaker P/J11 pin 1) and the main power switch P/J14 pin 1.
- Between the main power switch P/J13 pin 1 and the AC drive PWB P/J4 pin 3.
- Between the main power switch P/J15 pin 1 and the AC drive PWB P/J4 pin 1.

Install new components as necessary:

- Main power switch, PL 1.20.
- AC drive PWB, PL 1.15.

Check the AC circuit to each component. Refer to Wiring Diagrams .

OF4 +5VDC Power Fault RAP

BSD 1.6 DC Power Generation +5V (Low/Mid)

BSD 1.9 DC Power Generation +5V (High)

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

Check the voltage between the LVPS P/J501 pin 1 and ground.

+5VDC is measured.

Y N

Check the voltage between P/J1 pin 1 and pin 4 on the LVPS.

The AC power supply is within specification, GP 15.

Y N

Perform the OF3 AC Power RAP.

Switch off the machine, GP 4. Disconnect P/J501 from the LVPS. Wait 15 seconds, then switch on the machine, GP 4. Check the voltage between the LVPS P/J501 pin 1 and ground.

+5VDC is measured.

Y N

Install a new LVPS, PL 1.15.

Check the +5VDC circuit for a short circuit to frame. Refer to Chapter 7 Wiring Data.

Check the wiring of the suspect component for an open circuit or poor contact. Refer to Chapter 7 Wiring Data.

OF5 +24VDC Power Fault RAP

BSD 1.1 Main Power On (100 VAC)

BSD 1.2 Main Power On (220-240 VAC)

BSD 1.6 DC Power Generation +24V (1 of 2)

Procedure

WARNING: Ensure that the electricity to the machine is switched off while performing tasks that do not need electricity. Refer to GP 4 . Disconnect the power cord. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Take care when measuring AC mains (line) voltage. Electricity can cause death or injury.

Check the voltage between the LVPS P/J501 pin 1 and ground.

+24VDC is measured.

Y N

Check the voltage between P/J1 pin 1 and pin 4 on the LVPS.

The AC power supply is within specification, GP 15.

Y N

Perform the OF3 AC Power RAP.

Switch off the machine, GP 4 . Disconnect P/J501 from the LVPS. Wait 15 seconds, then switch on the machine, GP 4 . Check the voltage between the LVPS P/J501 pin 1 and ground.

+24VDC is measured.

Y N

Install a new LVPS, PL 1.15.

Check the +24VDC circuit for a short circuit to frame. Refer to Chapter 7 Wiring Data.

Check the wiring of the suspect component for an open circuit or poor contact. Refer to Chapter 7 Wiring Data.

OF6 Power On Self Test RAP

Power on Self Test (POST) runs each time the machine is powered On. POST tests the function of key subsystems on the SBC PWB before starting the operating system. As POST executes, progress codes appear on the SBC PWB 7-segment display.

This procedure uses POST to help diagnose SBC PWB faults preventing the machine from powering up correctly. On power up, the 7-segment displays progress codes for short periods of time dependent on how long each test takes. Following POST testing, normal operation is indicated by a flashing decimal point. If any other code remains after testing, this may point to a problem component. Refer to the Table 1 for POST codes and corresponding service procedure.

Note: When reading the codes shown on the seven segment display, be sure to read them looking straight at them while sitting, kneeling or squatting next to the machine. Do not attempt to read them “upside down” while bending over.

Note: If a fault occurs during POST, it may be helpful to refer to the OF1 for additional trouble shooting aides. The OF1 lists possible service actions that can be performed based on the state of various LEDs on the SBC PWB.

The Power On Self Test consists of three segments:

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Hardware POST: The seven segment display cycles through the following sequence of numbers and letters: 8->1->2->3->4->0->5->7->9->u->6(only if HDD not available). A problem is indicated if any additional codes are displayed or if the cycle stops on one of the codes.
2. OS Loading: u - Displayed while the operating system is initializing.
3. Subsystem Synchronization: The seven segment display cycles through the following letters in sequence: blank->A->b->C->d->E->F->L->r->t->H->J. Each of these codes represents one of the CCS software “platforms”. The display cycles through all CCS software platforms and clears them as they become available. Any code left remaining is a platform that did not complete its initialization and synchronization.

CAUTION: If you replace the SD Card, SBC PWB, or System Hard Drive, perform an AltBoot (GP 9) at the first power-up.

Procedure

Note: If boot failure occurs after new components are installed, make sure the new components are compatible with the machine and all connectors are secure.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

1. Locate the SBC PWB 7-segment display, Figure 1 , then cycle system power.
2. Observe activity on the 7-segment display and compare it with the expected display sequence. A failure is indicated by additional codes being displayed during the test, or by stopping on one or more codes. Pay careful attention to the codes as they display, since failure codes may not persist and may clear if the test is able to proceed. Follow the indicated service action.

7 Segment display

Refer to Table 1 for an overview of the tests performed and possible resolutions for POST failures.

Table 1 Power On Self-Tests

POST Code Name	Code Description	SBC LED Code	Decimal Point	Suggested Part Replacement	Comments
7-segment display test	BIOS starts. No stop on segment failure.	8	Off	SBC PWB	
System Memory Initialization check	Initialize DDR3 Memory and stop on failure.	1	Off	SBC PWB	If there is any memory failure the System will stop.
BIOS flash memory Initialization check	Testing BIOS private NVM area in BIOS flash chip	3	Off	SBC PWB	Checks the BIOS flash accessed through the SPI bus on the SOC. If the NVRAM check fails the code remains displayed.
Initialize Real-time Clock	Initialize RTC and stop on failure	4	Off	CMOS battery	If there is any CMOS failure check the battery.
Initialize the Video	Initialize Video (IGD processor h/w) and stop on failure	0	Off	SBC PWB/ cabling	If the Video initialization check fails the code remains displayed and the EFI shell is entered to allow diagnostic tests to be run.
NVRAM corruption in EFI DXE drivers area	NVRAM corruption detected: reload BIOS	7	Off	BIOS image reload	This code will be shown if NVRAM corruption happens in the EFI DXE drivers area (it calls DXE MAIN).
Boot to OS	Boot to OS	9	Off	BIOS image reload	Boot to OS
Trusted Boot Failed	Secure Boot or the OS Boot Manager failed verification for Chain of Trust.	U	Off	SBC PWB	On failure, the device will stop and display a Post Code if possible. If the system halts with POST code of 'U', the process to fix this would be: 1. Power down and reboot. 2. If it still fails, ALT boot from the USB. 3. If it still fails, ALT Boot from the PWS. 4. If it still fails, replace the controller.
Kernel starting user space	Kernel starting user space	u	heart beat @ 1 pulse/ sec	Kernel/run-time software	Boot to OS
TPM key read	Read encryption key(s) from the TPM and stop on failure	e	heart beat @ 1 pulse/ sec	SBC PWB	During boot if the system halts with POST code of 'e' the process to fix this would be: 1. Power down and reboot. 2. If it still fails, alt-boot SW. 3. If it still fails, replace the controller.
HD boot	Boot from Hard Drive and stop on failure	6	heart beat @ 1 pulse/ sec	Hard Disk	Cannot boot from hard drive. The system will enter the EFI shell to allow diagnostic tests to be run.

POST Code Name	Code Description	SBC LED Code	Decimal Point	Suggested Part Replacement	Comments
FPGA check	Initialize FPGA and stop on failure.	2	heart beat @ 1 pulse/ sec	SBC PWB	If the FPGA check fails the code remains displayed and the boot process is halted. Before replacing the SBC attempt an Altboot upgrade to recover.
Ready mode	None, no faults detected	blank	heart beat @ 1 pulse/ sec	None, no fault detected	If 7-segment display is left blank then machine is in Ready mode no faults detected by these tests.

After Application start the 7-segment display cycles around displaying this set of codes suppressing the codes of platforms that are fully synchronized with the system. Any code left displayed after power on indicates this event has not been detected in the software and is a probable software issue. Refer to Table 2.

Table 2 Machine Level Self-Test Codes

POST Code Name	Code Description	SBC LED code	Decimal point	Suggested Resolution	Comments
UI platform availability	UI platform not available	A	heart beat @ 1 pulse/ sec		CCS apps on start-up clears U and marks comms interfaces as unavailable until they sync: PlatformUnavailable(userInterface)
IIT comms established	IIT comms not established	b	heart beat @ 1 pulse/ sec		CCS apps on start-up clears U and marks comms interfaces as unavailable until they sync: PlatformUnavailable(imageInputTerminal)
NC platform availability	NC platform not available	C	heart beat @ 1 pulse/ sec		CCS apps on start-up clears U and marks comms interfaces as unavailable until they sync: PlatformUnavailable(SBC)
Dc platform availability	Dc platform not available	d	heart beat @ 1 pulse/ sec		CCS apps on start-up clears U and marks comms interfaces as unavailable until they sync: PlatformUnavailable(digitalCopier)
IOT comms established	IOT comms not established	E	heart beat @ 1 pulse/ sec		CCS apps on start-up clears U and marks comms interfaces as unavailable until they sync: PlatformUnavailable(imageOutputTerminal)
Fax comms established	Fax comms not established	F	heart beat @ 1 pulse/ sec		'F' is only displayed if a Fax card is installed and detected by the machine. 'F' is then removed when the CCS s/w gets a 'platform available' response from the fax s/w.
Entry to Deep Sleep	OS suspending drivers, entering Deep Sleep	L	heart beat → Off	None, for field diagnostic information only	On system sleep entry the OS puts up an 'L' briefly while it suspends drivers, then it puts an 'r' when in deep sleep (suspend to memory/S3 mode).
Deep Sleep (a.k.a 'suspend to memory' or 'S3'	Resting in Deep Sleep	r	Off	None, for diagnostic information only	On system sleep entry the OS puts up an 'L' briefly while it suspends drivers, before displaying 'r' in deep sleep (suspend to memory/ S3 mode).
Semi-conscious	Running in semi-conscious mode	t	heart beat @ 1 pulse/ sec	None, for diagnostic information only	When leaving deep sleep (suspend to memory/S3 mode), the OS POST display will transition from 'H' to 't'. From semi-conscious the machine will either wake up fully and the OS will blank the POST display, or the machine will go back to deep sleep (the OS POST display shall transition from 'L' to 'r')
	Waking up: OS Resuming drivers	H	Off → heart beat	None, for diagnostic information only	When leaving deep sleep, the OS POST display will transition from 'H' to 't'. From semi-conscious the machine either wake up fully and the OS will blank the POST display, or the machine go back to deep sleep (the OS POST display will transition from 'L' to 'r')

POST Code Name	Code Description	SBC LED code	Decimal point	Suggested Resolution	Comments
System Entropy Health check	Checks the processor DRNG hardware	j	Off	SBC PWB	During boot if the system halts with POST code of 'J' the process to fix this would be: 1. Power down and reboot. 2. If it still fails, altboot SW. 3. If it still fails, replace the controller.
Rolling Reset	A rolling reset condition has occurred System start-up has been halted to prevent additional reboots.	n	Off	SBC PWB	During boot if the system halts with POST code of 'n' the process to fix this would be: 1. Power down and reboot. 2. If it still fails, altboot SW. 3. If it still fails, replace the controller.

OF7 USB External Option RAP

Use this RAP if a USB connected optional external device such as a keyboard or an RFID device fails to communicate with the machine.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Initial Actions

- Print a configuration report (GP 6).
- Check that the external optional device is plugged into a USB port on the machine.

Overview

External Optional Keyboard
The optional USB keyboard feature enables the customer to connect a standard USB keyboard to the machine.

External keyboard support provides ease of access and greater flexibility to help with quick data entry and setup for address books or standard scan to destinations. This feature requires the customer to provide their own USB wired keyboard, or there is a bracket and mini keyboard that is available via CAS only.

Note: The external keyboard is not functional with Xerox or partner solutions, including scanning solutions such as Scan to PC Desktop and ConnectKey Apps.

RFID
The RFID option connects to one of the USB ports on the machine.

Procedure

Perform the following steps in order:

1. Check the System Software version. Upgrade Software if necessary (GP 9).
2. Ensure that the USB ports are enabled.
   a. Check the configuration report under the heading **Connectivity Physical Connections**.
   b. If **Software Tools** is not listed next to **USB Connection Mode** , ask the customer to enable USB, or use GP2 Accessing Tools to enable the USB ports.
3. Confirm that the USB ports are functional.
   a. Disconnect the keyboard or other USB option and connect a USB Flash Drive to the same USB connector.
   b. Perform dC361 NVM Save. If NVM can be saved to a USB flash drive, the USB port is functional.

      Note: It is not necessary to perform the NVM restore procedure.
   c. Connect the USB Flash Drive to the other two USB connectors (two are on the SBC PWB Connector Panel and one is located on the UI) and repeat step b.
   d. If the ports on the SBC PWB are functional but the UI Port is not functional, use 302-380 UI Communication Fault RAP to troubleshoot the problem.
   e. If one of the ports on the SBC PWB is not functional replace the SBC PWB (PL 3.05).

   Note: If the optional external device is a USB Keyboard, perform steps 4 and 5. If the optional external device is an RFID device, refer to the service documentation for that device.
4. Confirm the USB keyboard is functional.

a. Connect the USB keyboard to the PWS.
b. Ask the customer to connect the USB keyboard to a computer.
c. If the USB keyboard checks fail, ask the customer to install a different USB keyboard.

5. If the USB keyboard checks indicate that the keyboard is functional and it still does not work when connected to the machine, perform the following steps in order.
   a. If it has not already been done, reload SW using GP 9.
   b. Replace the Hard Disk Drive (PL 3.05)
   c. Replace the SBC PWB (PL 3.05).

OF8 Network Printing Problems Entry RAP

This Procedure is provided to help identify and diagnose network printing problems.

Initial Actions

- Ensure the machine is online.
- Ensure that no IOT faults exist that prevent the IOT from functioning. That is, copies can be made, or prints can be printed from the UI.

Determine the following:

- Are any jobs printing on the printer?
- Is the problem related to one workstation?
- Is the problem related to one job?
- Have any changes been made to the network prior to a printing problem?
- Was a backup log of network configuration data created? If so, was it last created by a CSE or the customer/SA?

If there are multiple protocols enabled on the printer, and the problems are ONLY occurring with one network protocol, go to the procedure appropriate for that protocol:

- TCP/IP: OF9, TCP/IP Checkout RAP

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

No printing occurs (jobs won't print, can't see printer, or can't connect to printer)

Y N

If, instead of job printing normally, there is a literal printing of the PDL (many pages of code, or the job prints, but looks wrong fonts, missing fonts, other image quality problems), go to the OF11.

The problem occurs in all print jobs from all clients.

Y N

The problem occurs in a specific job from all clients.

Y N

The problem occurs in all jobs from a specific client or group of clients,

Y N

If the problem is with a specific job from a specific client, the problem is likely with the client; either not connected to the network, wrong or old driver, bad application files or a hardware failure in the client.

If no printing can be done from a specific client or group, while other clients or group function normally, the likely cause is a problem in the customer's network.

If the problem is specific to a single application or group of applications, ensure that current drivers are loaded.

If the problem occurs in only one job, go to the OF10.

Check that the printer is physically connected to the network cable and that the cable/connections are OK. Disconnect and reseat the cable at both ends. Check to see if the problem is corrected.

The problem continues.

Y N

Return to Service Call Procedures.

Go to GP 7 (Network Printing Simulation) and send a print job.

An acceptable print is produced.

Y N

- verify machine settings
- reload system software (GP 9)
- If the problem continues, reseat the SBC PWB System Memory and System Disk Cable.
- If the problem continues, replace the following (PL 3.05) in order until the problem is resolved:
  - System Disk Cable
  - SBC PWB System Memory
  - SBC PWB
  - System Disk

Print out a Configuration Report (GP 6). Review the, TCP/IP, and Microsoft Networking (NETBIOS) settings.

At least one networking protocol is enabled.

Y N

The printer is not installed properly. Inform the customer/system administrator that the printer needs to be installed and setup for the appropriate networking protocol.

Go to dC312 and check for a selectable protocol (not grayed out).

There is at least one selectable protocol.

Y N

Cycle system power. When machine is ready, select dC312 again. Check for a selectable protocol (not grayed out).

There is at least one selectable protocol.

Y N

When machine is ready, select dC312 again. Check for a selectable protocol (not grayed out).

Check for a selectable protocol. (Not grayed out)

There is at least one selectable protocol.

Y N

Go to GP 9 and perform the Regular AltBoot procedure.

Verify that the problem is corrected. If the problem continues, return to the start of this procedure.

Verify that the problem is corrected. If the problem continues, return to the start of this procedure.

Select **Start**. Observe the test results.

The test passed.

Y N

Cycle system power. When machine is ready, select dC312 again. Select the desired protocol and select **Start**.

The test passed.

Y N

Perform the following:

- There may be a problem with the network port. Ask the system administrator to test the port.
- If the problem continues, reseat the SBC PWB System Memory and System Disk Cable.

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- Go to GP 9 and perform the Regular AltBoot procedure.
- If the problem continues, replace the following (PL 3.05) in order until the problem is resolved:
  - System Disk Cable
  - SBC PWB System Memory
  - SBC PWB
  - System Disk
- If the problem continues, have the customer/System administrator replace the network drop cable.

Go to the appropriate RAP for the network protocol type that failed the Echo test.

- TCP/IP: OF9, TCP/IP Checkout RAP

Verify that the problem is corrected. If the problem continues, go to GP 9 and perform the Regular AltBoot procedure.

CAUTION: The AltBoot procedure (GP 9) will delete all stored data on the System Disk Drive, including E-mail addresses, Xerox Standard Accounting data, and network configuration information. **ALWAYS** backup the machine (GP 12), if possible, before performing AltBoot. If the machine failure is such that cloning is not possible, ensure that the customer is aware of the data loss.

Reload software via AltBoot (GP 9).

The problem continues.

Y N

Return to Service Call Procedures.

Select the most appropriate from the following:

- Jobs Won't Print, Can't See Printer, Can't Connect to Printer
  - TCP/IP: OF9, TCP/IP Checkout RAP
- A particular Job Won't Print - go to the OF10
- Instead of job printing normally, there is a literal printing of the PDL (many pages of cryptic code) - Go to the OF11
- Job prints, but looks wrong. Wrong fonts, missing fonts, other image quality problems - Go to the OF11

OF9 TCP/IP Checkout RAP

Use this RAP if the printer is enabled for TCP/IP protocol, but there are problems printing to it.

Initial Actions

- Perform OF8, Network Entry RAP before using this RAP.
- It is assumed that before entering here that the IOT is known to be OK.
- Ensure that the printer is properly configured for the TCP/IP Network. Verify with the system administrator that the following printer settings are correct:
  - Printer IP address
  - Subnet mask
  - Broadcast Address
  - Default Gateway
- For Solaris 2.5 and above, the key operator or system administrator must have root privilege to install the printer.
- For SunOs, have the system administrator ensure that the /etc/printcap file is properly configured.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Determine if problem is occurring on multiple workstations.

Only one workstation is unable to print (answer no if unsure)

Y N

Print out a configuration report. (GP 6). Review the TCP/IP settings.

TCP/IP is enabled.

Y N

The printer is not installed for TCP/IP. Inform the customer/system administrator that the printer needs to be installed and setup for TCP/IP.

Select dC312 . Check if TCP/IP is selectable.

TCP/IP is selectable (not grayed out).

Y N

Switch off/on the machine power to reboot the SBC PWB. When machine is ready, select (dC312) again. Check if TCP/IP is selectable.

TCP/IP is selectable (not grayed out).

Y N

Go to GP 9 and perform the Regular AltBoot procedure.

Verify that the problem is corrected. If the problem continues, return to the start of this procedure.

Select dC312 , select **TCP/IP** and select **Start** . Observe the test results.

The test passed.

Y N

In Echo Test (dC312), select **Internal TCP/IP** and select **Start**.

Observe the test results.

The test passed.

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Y N

Perform the following:

- There may be a problem with the network port. Ask the system administrator to test the port.
- If the problem continues, have the customer/System administrator replace the network drop cable.
- If the problem continues, reseat the SBC PWB System Memory and System Disk Cable.
- Go to GP 9 and perform the Regular AltBoot procedure.
- If the problem continues, replace the following ((PL 3.05) in order until the problem is resolved:
  - System Disk Cable
  - SBC PWB System Memory
  - SBC PWB
  - System Disk

Perform the following:

- There may be a problem with the network port. Ask the system administrator to test the port.
- If the problem continues, have the customer/System administrator replace the network drop cable.
- If the problem continues, reseat the SBC PWB Memory and System Disk Cable.
- If the problem continues, replace the following in order until the problem is resolved:
  - System Disk Cable
  - SBC PWB Memory
  - SBC PWB
  - System Disk

The printer needs to be reinstalled on the network. Have the system administrator reinstall the printer.

- Ensure that all configurations and IP addresses are valid.

The problem occurs only on one job

Y N

Have the customer/system administrator Ping from the affected workstation to the IP address of the printer.

Observe results.

The workstation can ping the printer successfully.

Y N

Have the customer/system administrator ping to another known good IP address, other than the broadcast address, on the network.

The workstation can successfully ping another IP address on the network.

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Y **N**

Inform the customer/system administrator there is a problem with the workstation.

Ensure the Subnet Mask, IP address, broadcast address and Default Gateway are set properly at the printer.

Have the system administrator check the workstation configuration. Ensure that the workstation is set-up properly to print to the printer according to the System Administrator Guide.

The same job prints ok from another workstation.

Y **N**

Have the customer/system administrator reload the print driver on the affected workstation. If the problem continues, escalate the call to the Customer Service Center (CSC).

There is an application problem. Have the customer contact the Customer Service Center.

OF10 Problem Printing Job RAP

Use this RAP when a particular job won't print. Other jobs print OK.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Check the output to see if a PDL error sheet was printed.

An error sheet was printed.

Y **N**

On the machine UI, select Job Status, Other Queues, All Completed Jobs, Save.

Check the queue for the job in question.

The job is in the log.

Y **N**

Select Other Queues, All Incomplete Jobs, Save.

The job is stuck in the queue.

Y **N**

Check for a fault listed against the job in question.

There is a fault(s) listed with the job.

Y **N**

Go to GP 9 and perform the Regular AltBoot procedure.

Go to the appropriate RAP for the fault(s) listed with the job.

Switch the machine power off/on to reboot the SBC PWB.

The job printed OK.

Y **N**

Inform the customer the job must be deleted. Delete the job. Instruct the customer to recreate and re-send the job.

The job printed OK.

Y **N**

Go to GP 9 and perform the Regular AltBoot procedure.

If the problem continues, there may be a problem with the job. See if other jobs print OK. If not, instruct the customer/System administrator to reload the print driver on the affected workstation.

If the problem continues have the customer call the Customer Service Center.

Done. Return to Service Call Procedures.

Done. Return to Service Call Procedures.

The job must have been printed. Check for the possibility that the job was removed from the printer by another user.

Go to GP 9 and perform the Regular AltBoot procedure.

If the problem continues, there may be a problem with the job. See if other jobs print OK. If not, instruct the customer/System administrator to reload the print driver on the affected workstation.

If the problem continues have the customer call the Customer Service Center.

OF11 Job Prints Incorrectly RAP

The job prints, but incorrectly.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Discuss the problem with the customer and/or inspect the incorrect output.

There is a font problem.

Y N

The problem is occurring on all jobs from all clients.

Y N

The problem is occurring on jobs from one particular client.

Y N

The problem is related to a particular job. Have the customer call the Customer Support Center.

There may be a problem with the client workstation. Check/perform the following:

- See if problem is related to a particular job. If so, go to the OF10.
- Ensure that the client meets minimum specifications for the Embedded Web Server software drivers.
- Ensure the latest printer drivers are loaded.
- Have the customer/System administrator reload the printer driver.

Have the customer/system administrator replace the print drivers. Ensure that the latest drivers available are loaded.

The problem still continues.

Y N

Return to Service Call Procedures.

Go to GP 9 and perform the Regular AltBoot procedure.

Have the customer view the job in Print Preview of the application.

The problem appears in Print Preview.

Y N

There may be a font substitution that is not acceptable to the customer. In the Printer Setup for the print driver, if Always Send to Printer is selected, the actual fonts will be sent to the printer from the workstation. This will slow down the printer performance, but will usually solve the font problem.

There may be a problem with the client workstation. Check/perform the following:

- See if problem is related to a particular job. If so, go to the OF10.
- Ensure the client meets minimum specifications for the Embedded Web Server drivers.
- Ensure the latest printer drivers are loaded.
- Have the customer/System administrator reload the printer driver.

OF12 FAX Entry RAP

There is a problem with Embedded FAX. The primary causes of Fax problems, **in order of likelihood**, are:

- Phone line problems
- Customer operation problems
- PBX setup problems
- Machine configuration problems
- Fax hardware problems

Initial Actions

- If the problem is FAX not printing the Date and Time stamp, enter dC131 and change the setting in NVM location 200-143 from a 0 to a 1.
- Verify the presence of the FAX PWB.
- Check the Configuration Sheet to confirm that the FAX PWB is detected.
- Perform GP 1 Fax PWB Internal Selftest.
- Check the phone line connection (GP 14).
- If the FAX icon is not present, check cable (PL 3.05)

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Note: Embedded Fax is designed to work over analog lines only. PBX and DSL lines attempt to emulate a PSTN analog line, and must be configured appropriately. Incorrect PBX settings are a major cause of service calls.

The following line types are supported on a best efforts only basis:

- xDSL lines with appropriate filtering.
- PBX extensions using digital signalling, with an analog speech path.
- ISDN lines are not supported.
- In a VoIP environment, Embedded Fax devices need separate analog lines or a T.38 Protocol Adapter

The Fax cannot send or receive.

Y N

The Fax can send but not receive.

Y N

If the Fax receives but does not send, check the FAX set-up menus:

- Enter **Tools** (GP2). Select **Service Settings**.
- Select **Fax Service Settings**.
- Select **Line __ Setup**
  - Check that the Fax is set for **Send and Receive**.

If the Fax transmits but cannot receive,

- Check the phone number. To receive a FAX the sender must know the phone number assigned to the phone line connected to the FAX.

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- Check the FAX set-up menus.
  - Enter **Tools** (GP2). Select **Service Settings**.
  - Select **Fax Service Settings**.
  - Select **Line __ Setup**.
    - Check that the Fax is set for **Send and Receive**.

Print a Configuration Report (GP 6).

The Fax is listed as installed.

Y **N**

Switch Off the power.

Disconnect then reconnect the Fax PWB, Riser PWB, and SBC SD Card. Switch on the power. If the problem remains, perform the following:

Replace the Fax PWB (PL 20.10).

Reload SW (GP 9).

Replace SBC SD Card (PL 3.05).

Replace the SBC PWB (PL 3.05).

Check the FAX set-up menus.

- Enter **Tools** (GP2). Select **Service Settings**.
- Select **Fax Service Settings**.
- Select **Fax Setup**.
  - Check that the Fax is enabled.
  - If the **Enable** and **Disable** buttons are not present, then the initial setup at install was not completed correctly. Press **Setup** and complete the setup.
- Line Configuration - be sure pulse or tone selection is correct.
- FAX Transmission Defaults (check closely for FAX transmission problems)
  - Automatic Redial Setups
  - Automatic Resend
  - Audio Line Monitor
  - Transmission Header Text
  - Batch Send
- Receive Defaults (check closely for FAX receive problems)
  - Receive Printing Mode
  - Default Output Options
  - Secure Receive
  - Auto Answer Delay
- FAX Country Setting
- File Management

Note: Though typically the FAX feature is setup for analog transmission, if FoIP is being used, the following may be helpful if there is a problem.

If the machine fails to receive or transmit fax jobs and the transmit speed drops immediately to 9600 bps or 7200 bps, then do the following:

The transmitting or receiving baud rate can be reduced from 33.6K bps to either 14.k bps, 9600 bps, or 7200 bps by changing the proper NVM locations.

The NVM values are:

3 = 33.6K 11= 14.4K 13 = 9600 14 = 7200

The NVMs are:

Sending NVM 200-087 “T30MaxSpeedL1Tx” (single line)

Sending NVM 200-088 “T30MaxSpeedL2Tx” (for 2 line fax)

Receive NVM 200-089 “T30MaxSpeedL1Rx” (single line)

Receive NVM 200-090 “T30MaxSpeedL2Rx” (for 2 line fax)

Otherwise, replace the FAX PWB (PL 20.10).

OF13 Secure Access RAP

Overview

Xerox Secure Access uses an external device, such as a card reader or biometric device, to authorize access to the machine. This reader then passes the information to the controller, which handles the authentication process including, which GUI screens are displayed, accepting GUI responses, that defines their content and order. The controller can pass user identities and passwords directly to the machine after gathering the data from an external server. All communication is via a secure network link, Figure 1 Network Diagnostic.

Xerox Secure Access shall be controlled via the Embedded Web Server GUI. The active status is displayed in tools within Access Control. If communication cannot be established with the Xerox Secure Access Server the service may be temporarily disabled by touching the now enabled Off button within the Xerox Secure Access tools window. Once communication is reestablished the stored Xerox Secure Access setting shall be restored.

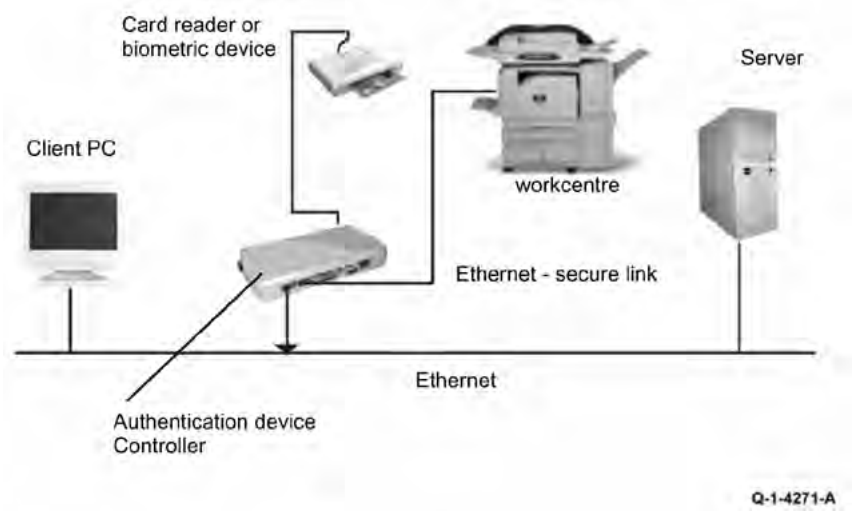

Figure 1 Network Diagnostic

Initial Action

Before working on the Xerox Secure Access, check out the machine in the service mode to insure no faults are displayed and that the machine is functioning properly. If it is not, repair any problems before proceeding with diagnosing the Secure Access Accessory. Diagnostics can be entered to test copier functionality when Secure Access is installed.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform the following steps

- Check the connection between the Card Reader and the Secure Access Authentication Device.
- Check for the LEDs are on or blinking on the Secure Access Authentication Device. If the LEDs on the Secure Access Authentication Device are not operating, go to Secure Access Authentication Device Failure.
- Check for the LEDs are on or blinking on the Card Reader. If the LEDs on the Card Reader are not operating, go to Card Reader Failure.
- If customers have problems of install / setting up, or any other problems related to their Secure Access Administrator, they should refer to the Secure Access System Administrator's Guide or contact Xerox Technical Support.

Secure Access Authentication Device Failure

The primary failure modes are power problems or failed hardware components. The symptom of these failures can be detected by observing the LEDs on the Secure Access Authentication Device, Figure 2.

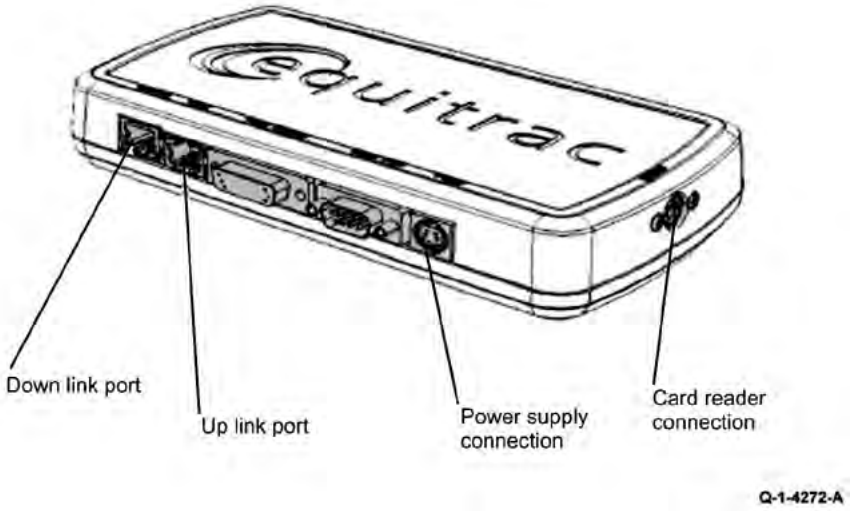

Figure 2 Authentication Device

Check the power to the Secure Access Authentication Device.

- Check the power supply at the wall socket. If there is no power at the wall socket, have the customer restore power and continue when confirmed.
- Disconnect the power cord from the wall socket and the power supply. Check the power cord for continuity and damage. If necessary install a new power cord. Disconnect the power cord from the power supply and plug the power cord into the wall outlet. Using a multi meter, check for line voltage at the end of the power cord disconnected from the power supply. If there is power at the wall but not at the end of the power cord. Install a new power cord.
- Disconnect the small power cord from the Secure Access Authentication Device. Check there is +5V at the connector that plugs into the Secure Access Authentication Device. If there is no +5V, install a new power supply.
- There is a 'Keyed' switch on the end of the Secure Access Authentication Device. Obtain the key from the customer. Insert the key into the 'keyed' switch and cycle the switch 1 quarter turn clockwise and then back to its start position. Observe the LEDs and listen for an audible tone.
- If the LEDs on the Secure Access Authentication Device "Uplink" and "Downlink" Ethernet ports do not cycle on and off as the controller goes through its boot-up process, or if the audible tone is not heard. Install a new Secure Access Authentication Device.

  Note: A new device will require the Secure Access Administrator to reconfigure the server with the new MAC address for the new part. Be sure to inform the Secure Access Administrator of the MAC address of the device being removed and the MAC address of the new device.

Card Reader Failure
The primary failure modes are power problems or failed hardware components. The symptom of these failures can be detected by observing the LED on the Card Reader. Refer to Figure 2.

- The Green LED on the Card Reader is On
- The Green LED on the Card Reader Flashes Rapidly
- The Red LED on the Card Reader is On
- The Red LED on Card Reader Flashes Slowly
- The Red LED on Card Reader Flashes Rapidly
- The Card Reader LEDs are not On or Blinking

Table 1 Fault Indications

When the LED on the card Reader is	Description
Red	The authentication device is in idle mode; there is no active session.
Green	The authentication device is in ready mode; a session is active.
Slow Flashing Red	The authentication device has no connection to the server.
Slow Flashing Green	The authentication device is communicating to the server.
Fast flashing red	Invalid card / password; access denied.

The Green LED on the Card Reader is On

- This indicates an active Secure Access Session and the Card Read correctly corresponds to a valid Secure Access Account.
- If the UI on the machine is locked, check with the customer for a second PIN number for additional security. This PIN number will need to be entered via the soft keys on the UI.
- Ensure that the card corresponds to a valid Secure Access Account.

The Green LED on the Card Reader Flashes Rapidly

- This indicates a valid card swipe and in the process of authentication on the server.
- If the UI on the machine is locked, check with the customer for a second PIN number for additional security. This PIN number will need to be entered via the soft keys on the UI.
- If the UI on the machine is locked and no secondary PIN is required. Check that the Xerox Secure Access is installed correctly, and ask customer to check the configuration at the server.

The Red LED on the Card Reader is On

- This indicates the Card Reader is in an idle state. If the red LED remains on, and the UI remains locked after a card is swiped, re-orient the card and re-swipe.
- Try a known good card in the reader. If the other card is working on the problem Card Reader. Ask customer to make sure the card corresponds to a valid Secure Access Account.
- Try the card in a known good reader. If the card is working on a known good Card Reader, it may be a problem with the Secure Access Authentication Device. Check to see is the LEDs on the Secure Access Authentication Device are on.

The Red LED on Card Reader Flashes Slowly

- This indicates the reader is connected to the controller but the controller is not connected to the server. Check the Ethernet green LED on the Authentication Device.
- If the Ethernet green LED on the Authentication Device is off, make sure the connectors of the LAN connections are working properly. If the connections are working, this indicates the network may not work properly. Ask customer to check with Network Administrator.
- If the Ethernet green LED on the Authentication Device is either on or flashing, contact the Secure Access Administrator

The Red LED on Card Reader Flashes Rapidly

- This indicates a valid card but does not correspond to a valid Secure Access Account at the server, test with a known valid user's card.
- If all cards react the same way, this indicates the Server Configuration may not be correct. Ask customer to check the Server Configuration.
- If all the card react this way, this indicates the cards are not valid. Ask customer to check the Server Configuration

The Card Reader LEDs are not On or Blinking

- Check to see is the Secure Access is correctly installed.
- If there is still no LED on the Card Reader, install a new the Card Reader.

> **Note:** If there is another working card reader available, the readers can be switched to confirm failure. If the Card Reader is not functioning, the web page of the machine has a setting that will enable UI keypad access. If the users know their card access number, they can use the machine by manually entering their number. The process is as follows:

1. Go to the machine web page under properties and then security and check the box that says "Allow local user interface initiation".
2. Enable the keypad and test with valid credentials. This will validate the rest of the secure access function.
3. Leave it in this mode until the new card reader can be installed.

OF14 Reflective Sensor RAP

Sensors consist of a light-emitting diode and a photo transistor. When energized, the light from the LED causes the photo transistor to conduct, drawing current through a pull-up resistor. The voltage drop across the resistor causes the input signal to the control logic to change from a high to a low.

Reflective sensors operate by light from the LED being reflected off the paper to the photo transistor, causing the output of the sensor to go to the low (L) state.

Initial Actions

Ensure that the sensor is not actuated.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Enter the component control code indicated in the Procedure and/or Circuit Diagnostic of the RAP that sent you here. Actuate the sensor using a sheet of paper.

The display changes with each actuation.

Y N

Clean the sensor and then block and unblock it.

The display changes with each actuation.

Y N

Access to some sensors in this machine is difficult. Follow the **Y** leg if you can access the sensor connector. Follow the **N** leg if access is not possible.

The sensor connector is accessible.

Y N

Check the voltage at the output of the PWB or power supply (refer to the Circuit Diagnostic). In the example for this generic procedure, voltage is provided from J533 on the I/F (MDD) PWB. Check for pull-up voltage for the output signal. This voltage will be either +5 VDC or +3.3 VDC depending on the circuit (refer to the Circuit Diagnostic for the correct voltage).

The voltage corresponds with the voltage shown in the Circuit Diagnostic.

Y N

Check for short circuit(s) that may be loading down the line. Check the power input to the PWB(s). If this does not resolve the problem, replace the PWB.

Refer to the Circuit Diagnostic. Check the wires from the PWB to the sensor for opens, shorts, or loose contacts. If the wires are OK, replace the sensor. If this does not resolve the problem, replace the PWB

The display indicates a constant L.

Y N

Check for +5VDC to the sensor (typically pins 1 and 3 on a 3 pin connector). +5 VDC is present.

Y N

Use the circuit diagram and/or the wirenets in Section 7 to trace the problem.

Disconnect the sensor. Use a jumper wire to connect the output wire from the sensor (typically pin 2 on a 3 pin connector) to DC COM or GND.

C

B

A

A

B

C

The display changes from H to L.

Y N

There is either an open circuit or a failed PWB. Use the Circuit Diagnostic to trace the output wire to the PWB. If the wire is OK, replace the PWB.

Replace the sensor.

Disconnect the sensor.

The display indicates H.

Y N

When sensors are unplugged, the input at the PWB should always be high if there is no harness short or PWB failure. Check the output wire from the sensor (typically pin 2 on a 3 pin connector) to the PWB for a short circuit. If the wire is good, replace the PWB.Figure 1 represents a typical sensor for this machine.

The sensor is shorted. Replace the sensor.

Look for unusual sources of contamination.

The sensor and the circuit appear to operate normally. Check the adjustment of the sensor. Clean the sensor. Check for intermittent connections, shorted, or open wires. If the problem continues, replace the sensor.

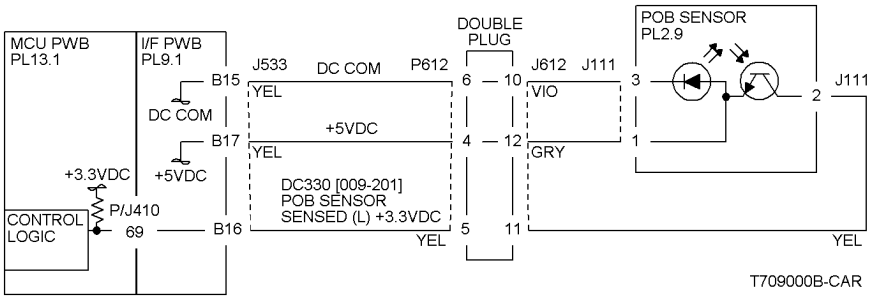

Figure 1 Typical Reflective Sensor Circuit Diagnostic

OF15 Transmissive Sensor RAP

Sensors consist of a light-emitting diode and a photo transistor. When energized, the light from the LED causes the photo transistor to conduct, drawing current through a pull-up resistor. The voltage drop across the resistor causes the input signal to the control logic to change from a high to a low.

Transmissive sensors have a flag or actuator that is pushed into the space between the LED and transistor, blocking the light beam and causing the output of the sensor to go to the high (H) state. This actuation may be caused by a sheet of paper striking a pivoting flag, or a rotating actuator on a shaft or roll.

Some sensors have built-in inverters and the outputs will go to the low (L) state when the sensors are blocked. In other situations, the processing of the signal in control logic may cause the logic level displayed on the UI or the PWS to be the opposite of the actual voltage output by the sensor. The specific RAP and/or Circuit Diagnostic will indicate if this is the case. Figure 1 is an example of a typical sensor circuit for this machine

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Enter the component control code indicated in the specific RAP and/or Circuit Diagnostic. Block and unblock the sensor.

The display changes with each actuation.

Y **N**

Clean the sensor and then block and unblock it.

The display changes with each actuation.

Y **N**

Access to some sensors in this machine is difficult. Follow the **Y** leg if you can access the sensor connector. Follow the **N** leg if access is not possible.

The sensor connector is accessible.

Y **N**

Check for +5VDC at the output of the PWB or power supply. Refer to the Circuit Diagnostic. In the example for this generic procedure, voltage is provided from J533 on the I/F (MDD) PWB. Check for pull-up voltage for the output signal. This voltage will be either +5 VDC or +3.3 VDC, depending on the circuit. Refer to the circuit diagram for the correct voltage.

Y **N**

Check for short circuit(s) that may be loading down the line. Check the power input to the PWB(s). If this does not resolve the problem, replace the PWB.

Refer to the Circuit Diagnostic. Check the wires from the PWB to the sensor for opens, shorts, or loose contacts. If the wires are OK, replace the sensor. If this does not resolve the problem, replace the PWB

The display indicates a constant L

Y **N**

Check for +5VDC to the sensor (typically pins 1 and 3 on a 3 pin connector). +5 VDC is present.

C

B

A

A

B

C

Y **N**

Use the circuit diagram and /or the wirenets in Section 7 to trace the problem.

Disconnect the sensor. Use a jumper wire to connect the output wire from the sensor (typically pin 2 on a 3 pin connector) to DC COM or GND.

The display changes from H to L.

Y **N**

There is either an open circuit or a failed PWB. Use the Circuit Diagnostic to trace the output wire to the PWB. If the wire is OK, replace the PWB.

Replace the sensor.

Disconnect the sensor.

The display indicates H.

Y **N**

When sensors are unplugged, the input at the PWB should always be high if there is no harness short or PWB failure. Check the output wire from the sensor (typically pin 2 on a 3 pin connector) to the PWB for a short circuit. If the wire is good, replace the PWB. Figure 1 represents a typical sensor for this machine

The sensor is shorted. Replace the sensor.

Look for unusual sources of contamination.

The sensor and the circuit appear to operate normally. Check the adjustment of the sensor. Clean the sensor. Check the sensor actuator/flag for proper operation. Check for intermittent connections, shorted, or open wires. If the problem continues, replace the sensor.

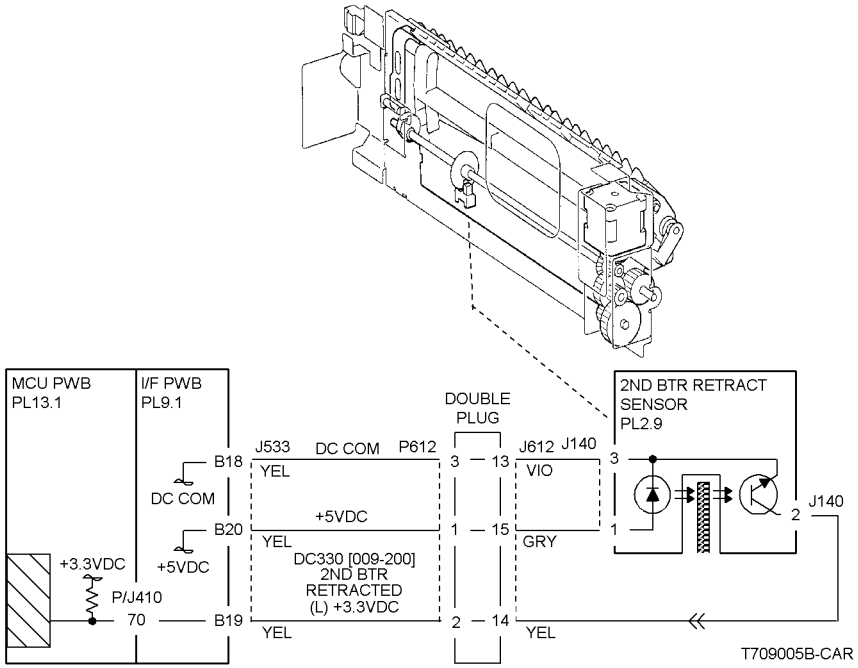

Figure 1 Typical Transmissive Sensor Circuit Diagnostic

OF16 Switch RAP

Procedure

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Enter dC330 [XXX-XXX]. Actuate the switch.

The display changed.

Y N

There is +3.5 / 5VDC measured between Pin 2(+) of the Switch and GND(-).

Y N

Check the wire between the switch Pin 2 and the PWB Pin 3 for an open circuit and poor contact. If the check is OK, replace the PWB.

There is +3.5 / 5VDC measured between Pin 1(+) of the Switch and GND(-), Figure 1.

Y N

Replace the switch.

Check the wire between the PWB Pin 4 and the switch Pin 1 for an open circuit and poor contact. If the check is OK, replace the PWB.

De-actuate the switch.

The display changed.

Y N

Disconnect the connector on the switch.

The display changed.

Y N

Check for a short between the switch Pin 2 and the PWB Pin 3. If the check is OK, replace the PWB.

Replace the switch.

Replace the switch.

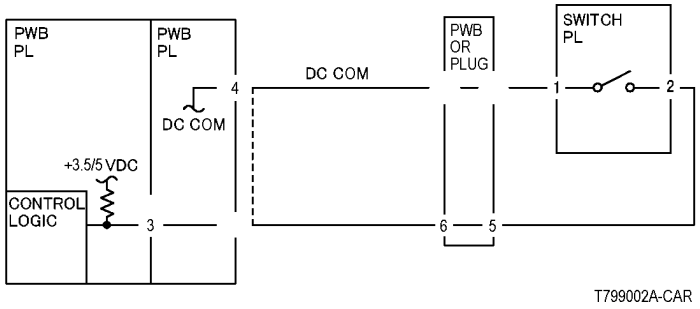

Figure 1 2003

OF17 Generic Solenoid/Clutch RAP

Solenoids and electric clutches are essentially electromagnets. Typically, a positive voltage is applied to one end of a coil, and a current driver is connected to the other end. Control Logic switches this driver to GND potential, actuating the magnet. Bidirectional solenoids have a bipolar driver connected to each end. One leg is switched to 24 VDC and the other to GND.

Figure 1 is a circuit diagram of a typical solenoid.

Initial Actions

Ensure that there is no damage or binding in the solenoid or in any mechanical linkage. If there is an Adjustment for the clutch or solenoid, make sure that the procedure was performed correctly

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

The clutch/solenoid is always energized.

Y N

Enter the component control code (dC330) given in the RAP or the Circuit Diagnostic. Press the **Start** button

The Clutch or solenoid energizes.

Y N

Press the **Stop** button

There is +24 VDC between the switched leg (J407 pin A6 in the example, Figure 1) of the control PWB and GND.

Y N

There is +24 VDC between the powered leg (J407 pin A7 in the example, Figure 1) of the control PWB and GND.

Y N

Disconnect the connector (J407 in the example, Figure 1).

There is +24 VDC between the powered leg of the control PWB and GND.

Y N

Refer to the 24 VDC wirenets. check the input power to the control PWB.

+24 VDC is present.

Y N

Use the 24 VDC wirenets to troubleshoot the problem.

Replace the control PWB.

Check the wire in the powered leg of the circuit, (J407 pin A7 in the example, Figure 1) for a short circuit to GND. If the wire is OK, replace the clutch or solenoid.

Disconnect the connector (J407 in the example, Figure 1). Check continuity through the two wires and the clutch or solenoid.

There is less than 100 ohms between the two legs of the circuit.

C

B

A

A

B

C

Y **N**

Disconnect the clutch or solenoid. Check continuity through the two wires and the clutch or solenoid.

There is less than 100 ohms across the clutch or solenoid.

Y **N**

Replace the clutch or solenoid.

One of the two wires between the control PWB and the clutch or solenoid is open. Repair or replace the wiring as required.

Replace the control PWB.

Press the **Start** button.

There is less than 1 VDC between the switched leg of the control PWB and GND.

Y **N**

Replace the PWB.

Replace the clutch or solenoid.

The clutch or solenoid appears to be functioning correctly. Refer to the Circuit Diagnostic for the RAP that sent you here. Check the wires for loose connections or damage that may cause intermittent operation. Perform any required adjustments.

There is a short circuit on the switched leg (J407 pin A6 in the example) from the solenoid or clutch. Check the wire for a short circuit to GND. If the wire is OK, replace the solenoid. If the problem persists, replace the controlling PWB.

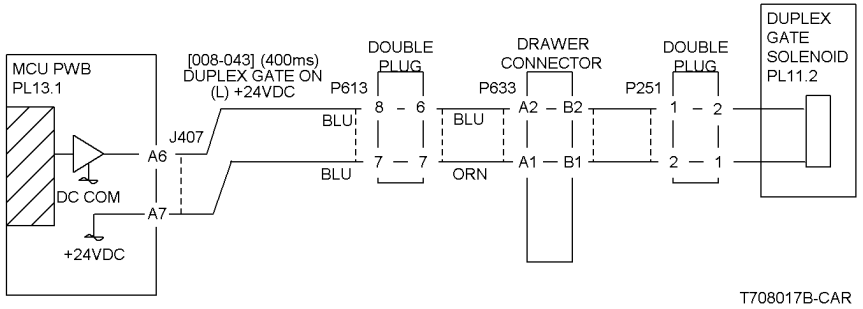

Figure 1 Typical Solenoid/Clutch Circuit Diagnostic

OF18 2 Wire Motor Open RAP

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Note: Before performing this RAP, ensure that the motor is free to rotate.

Enter the dC330 [XXX-XXX].

There is +24VDC measured between Pin 3(+) of the PWB and GND(-).

Y **N**

There is +24VDC measured between the Motor Pin 2(+) of the Motor and GND(-).

Y **N**

There is +24VDC measured between the Motor Pin 1(+) of the Motor and GND(-).

Y **N**

There is +24VDC measured between the PWB Pin 4(+) of the PWB and GND(-).

Y **N**

Replace the PWB.

Check the wire between the PWB Pin 4 and the Motor Pin 1 for an open circuit or poor contact.

Replace the motor.

Check the wire between the PWB Pin 3 and the Motor Pin 2 for an open circuit or poor contact.

Replace the PWB.

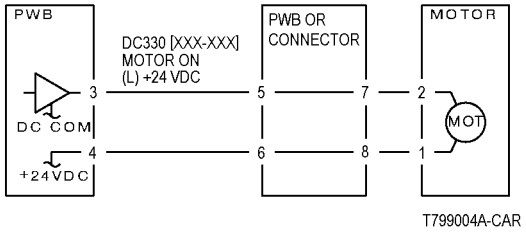

Figure 1 Motor CD

OF19 2 Wire Motor On RAP

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Turn off the power. Remove the PWB connector.

There is 10 Ohm's or less measured between the connector Pin 3 and the frame.

Y N

Replace the PWB.

Check the wire between the connector Pin 3 and the motor Pin 2 for a short circuit.

If the check is OK, replace the motor.

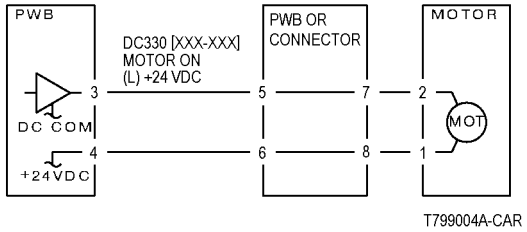

Figure 1 Motor CD

OF20 Set Gate Solenoid Open RAP

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

There is +24VDC measured between the Nip/Release Solenoid Pin 1 (+) and GND (-).

Y N

There is +24VDC measured between the PWB Pin 5 (+) and GND(-).

Y N

Check +24VDC inputs on the PWB. If the check is OK, replace the PWB.

Check the wire between the PWB Pin 5 and the Nip/Release Solenoid Pin 1 for an open circuit or poor contact.

Enter dC330 [XXX-XXX].

There is +24VDC measured between the PWB Pin 4 (+) and GND(-).

Y N

There is +24VDC measured between the Nip/Release Solenoid Pin 3 (+) and GND (-).

Y N

Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 4 and the Nip/Release Solenoid Pin 3 for an open circuit and poor contact.

Follow the following when the release caused a problem.

Go to the dC330 [XXX-XXX].

There is +24VDC measured between the PWB Pin 6 (+) and GND(-).

Y N

There is +24VDC measured between the Nip/Release Solenoid Pin 2 (+) and GND (-)

Y N

Replace the Nip/Release Solenoid.

Check the wire between the PWB Pin 6 and the Nip/Release Solenoid Pin 2 for an open circuit or poor contact.

Replace the PWB.

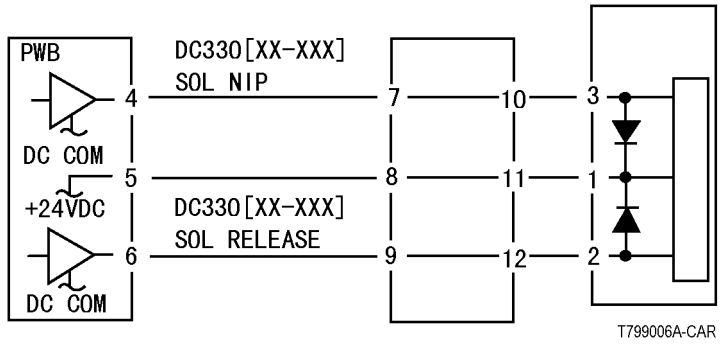

Figure 1 Nip Solenoid CD

OF21 Multiple Wire Motor RAP

For use on DC motors that:

- have 1 or 2 DC power inputs
- are controlled by 2 or more drivers
- have no DC COM connections for return power
- have no specific feedback circuits

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Procedure

Connect black meter lead to ground. Measure voltage at each pin of J2 (example only, refer to the actual Circuit Diagnostic for the correct voltage and connector designation).

+24 VDC is measured at each pin.

Y N

Disconnect J2. Measure voltage at P2-1 and P2-6.

+24 VDC is measured.

Y N

Switch machine off then on. Measure voltage at P2-1 and P2-6.

+24 VDC is measured.

Y N

If an interlock circuit is present, check the interlock circuit. Repair as required. If the interlock circuit is good, replace the PWB.

Check the motor wires for a short circuit. If the wires are good, replace the Motor.

Check the motor wires for obvious damage. If the wires are good, replace the Motor.

Replace the PWB.

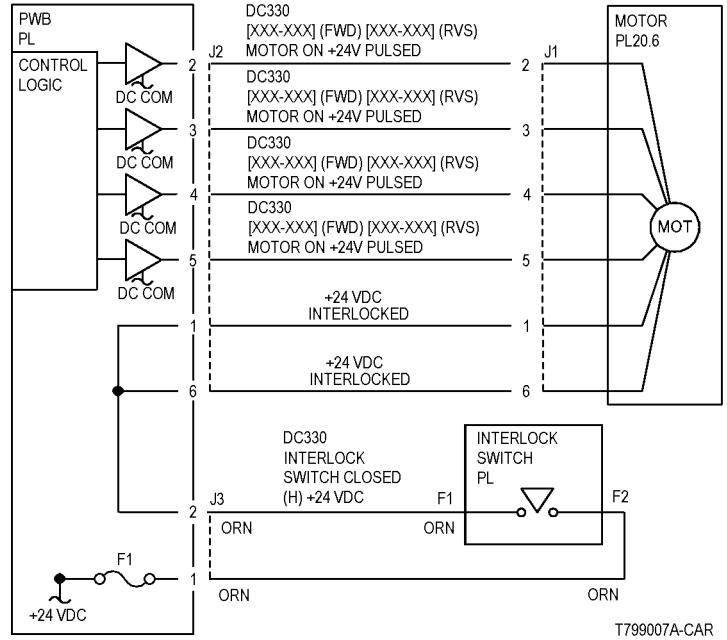

Figure 1 Motor CD

OF22 Toner CRUM Mismatch RAP

Note: The machine is shipped with "Worldwide Neutral" Toner Cartridges. When the cartridges shipped with the machine are installed, the machine is set to Worldwide Neutral configuration.

When the first Toner Cartridge (any color) is replaced, the geographic differentiation code and Toner Cartridge type in NVM are automatically changed to the same settings as the replacement cartridge. Once these NVM are set, the machine toner configuration can only be changed with a CRUM conversion.

One or more Toner Cartridges are of the wrong type (for example, a "Sold" cartridge installed in a "metered" configured machine).

Procedure

1. Press the **Machine Status** button on the Control Panel.
2. Select **Supplies**.
3. The UI displays **Cartridge Error** for the mismatched cartridge.
4. Go to the Fault Code for the color that displays an error:
   - 393-926 Toner K CRUM Data Mismatch Fail RAP
   - 393-937 Toner Y CRUM Data Mismatch Fail RAP
   - 393-938 Toner M CRUM Data Mismatch Fail RAP
   - 393-939 Toner C CRUM Data Mismatch Fail RAP

OF23 Persistent Machine Status Messages RAP

In many cases when a problem causes a machine status message, no chain-link fault code is entered into either dC120 Fault Counter or dC122 Fault History. Typically these messages involve things like covers, interlock switch circuits and paper tray status.

This RAP can be used to find RAPs that can be used to troubleshoot and repair faults that cause unresettable machine status messages.

Procedure

Note: When a machine status message occurs frequently or is unresettable and performing the action that would normally resolve the problem fails to resolve it, it is likely that the problem is caused by a repairable hardware fault such as a bent or broken cover, faulty wiring, a failed component, or by a SW fault.

The Fault Codes for the RAPs referenced in this procedure do not appear in dC120 Fault Counter or dC122 Fault History.

Do not use the Unresettable Machine Status Messages RAP if an appropriate fault code appears in either dC120 or dC122.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Perform he following steps in order;

1. Look in the Table 1 listing for the subsystem that appears to be faulty. Find the displayed UI Message and/or Machine Reaction.
2. Check the items listed in the Clearing Action Column.
3. If performing the Clearing Actions fails to resolve the problem, go to the RAP indicated to troubleshoot the problem.

   Note: If no action is listed go directly to the indicated RAP to troubleshoot the problem.

   Note: HCF and Finisher status messages are not included in the table. Refer to the accessory service documentation to troubleshoot status messages related to feeding and finishing accessories.

Table 1 Machine Status to RAP Cross Reference

Subsystem	UI Message	Machine Reaction	RAP	Fault Cause	Clearing Action
UI	Rewrite Failure	Blink all LED indicators	302-302	Flash rewrite failure	
UI	Erase Failure	Blink all LED indicators	302-306	Flash erase failure	
UI	Download Invalid	Blink all UI LED indicators	302-308	Download invalid	
UI	Application Checksum Failure	Blink Job Stat & Features LED indicators	302-312	Application SW Checksum Failure	
UI	UI Data Time Out Error	A software error has occurred. User intervention is required to Power Off/Power On the machine. Printing may be disabled	302-320	UI does not receive requested data from the CCM within the specified time out window	One of the printer features requires service, however the printer can still function in a degraded mode.
UI	Config Services not Stable	Printing is disabled and the powering up process has stalled.	302-390	During power up all configurable services have not achieved a stable state after 5 minutes from power up	User Intervention, The printer needs to be rebooted in order to eliminate the current fault.
IIT/Scan	DADF No Original Fail		305-940	Machine detects that original has been removed	Follow UI Display
IIT/Scan	DADF Not Enough Document		305-940	Machine detects that original has been removed	Follow UI Display
Fuser	Fuser Assembly Near Life		310-420	“Need replacement” for Fuser Assy (consumables) detected.	No action required. However, recommend replacement to new Fuser Assy if Fuser Assy life is estimated to be over at the next call.
Fuser	Fuser Assembly Life Over		310-421	“Need replacement” for Fuser Assy (consumables) detected.	Replace Fuser Assy to new one.
Paper Handling	Tray 1 size switch NG	Display status message	371-212	Tray 1 size switch not working	Adjust tray
Paper Handling	Tray 2 size switch NG	Display status message	372-212	Tray 2 size switch not working	Adjust tray
Paper Handling	Tray 3 size switch NG	Display status message	373-212	Tray 3 size switch not working	Adjust tray
Paper Handling	Tray 4 size switch NG	Display status message	374-212	Tray 4 size switch not working	Adjust tray
Paper Handling	Front Cover Interlock Open	None	377-300	Interlock Switch operation failure or Latch failure	Verify that closing the cover does not resolve the problem
Paper Handling	Left Hand Cover Interlock Open	None	377-301	Interlock Switch operation failure or Latch failure	Verify that closing the cover does not resolve the problem
Paper Handling	Tray Module Left Hand Cover Open	Printing Inhibited	377-305	Interlock Switch operation failure or Latch failure	Verify that closing the cover does not resolve the problem
Paper Handling	Duplex Door Open		377-305	Interlock Switch operation failure or Latch failure	Verify that closing the cover does not resolve the problem

Subsystem	UI Message	Machine Reaction	RAP	Fault Cause	Clearing Action
Paper Handling	Upper Left Door Open		377-301	Interlock Switch operation failure or Latch failure	Verify that closing the door does not resolve the problem
Paper Handling	IBT Front Cover	Printing inhibited	377-300	IBT (IOT) Left front door open	Close cover
Xerographics/ Cleaning	Waste Cartridge Near Full		391-400, 405, 910, 911	Waste Bottle Near Full has been detected by Toner Near Full Sensor	Check that the Toner Waste Cartridge does not need replacing
Xerographics/ Cleaning	Drum Cartridge K Near Life		391-400, 405, 910, 911	The number of K Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge K replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge K Life Over		391-913	Drum Cartridge Life over. Life is being extended.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge Y Near Life		391-411	The number of Y Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge Y replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge M Near Life		391-421	The number of M Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge M replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge C Near Life		391-431	The number of C Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge C replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge Y Life Over		391-402, 424, 480, 481, 482, 913	Drum Cartridge Life over. Life is being extended.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge M Life Over		391-402, 424, 480, 481, 482, 913	Drum Cartridge Life over. Life is being extended.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge C Life Over		391-402, 424, 480, 481, 482, 913	Drum Cartridge Life over. Life is being extended.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Waste Cartridge Not in Position	Print operation inhibited	391-400, 405, 910, 911	The Toner Waste Container (R5) is not installed correctly has been detected by the Waste Bottle Sensor	Check that the Toner Waste Cartridge is in position.
Xerographics/ Cleaning	Waste Cartridge Full	Print operation inhibited	391-400, 405, 910, 911	The Toner Waste Container (R5) is full. has been detected by elapse of the specified drive time (NVM) of YMCK	Check that the Toner Waste Cartridge does not need replacing

Subsystem	UI Message	Machine Reaction	RAP	Fault Cause	Clearing Action
				Dispense Motor after Waste Bottle Near Full occurrence.	
Xerographics/ Cleaning	Drum Cartridge K Life End	Print operation inhibited	391-913	The number of K Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge K replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge Y Life End	Print operation inhibited	391-402, 424, 480, 481, 482, 913	The number of Y Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge Y replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge M Life End	Print operation inhibited	391-402, 424, 480, 481, 482, 913	The number of M Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge M replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
Xerographics/ Cleaning	Drum Cartridge C Life End	Print operation inhibited	391-402, 424, 480, 481, 482, 913	The number of C Drum Cycles (CRUM) is compared with the threshold value (CRUM) and “Drum Cartridge C replacement timing” is detected.	Check the HFSI value and determine if it is within the value for Drum Replacement timing. If it is, replace the drum.
ProCon	Y Toner Cartridge is Empty		324-923	The CRU Manager has generated the message Yellow toner cartridge is empty.	Replace toner cartridge.If the Toner Empty message occurs even when remaining toner is not low, perform Toner Recovery operation first to see if Toner Empty state is canceled or not.
ProCon	M Toner Cartridge is Empty		324-923	The CRU Manager has generated the message Magenta toner cartridge is empty.	Replace toner cartridge.If the Toner Empty message occurs even when remaining toner is not low, perform Toner Recovery operation first to see if Toner Empty state is canceled or not.
ProCon	C Toner Cartridge is Empty		324-923	The CRU Manager has generated the message Cyan toner cartridge is empty.	Replace toner cartridge.If the Toner Empty message occurs even when remaining toner is not low, perform Toner Recovery operation first to see if Toner Empty state is canceled or not.
ProCon	Yellow Toner Cartridge is near empty state (replace soon)		393-400	The CRU manager has generated the message “Yellow Toner Cartridge is near empty state (replace soon)”	Fault code is cleared when toner recovery operation is successfully completed after front interlock is opened/closed (or when toner recovery is successfully completed at power off/on)
ProCon	Magenta Toner Cartridge is near empty state (replace soon)		393-400	The CRU manager has generated the message “Magenta Toner Cartridge is near empty state (replace soon)”	Fault code is cleared when toner recovery operation is successfully completed after front interlock is opened/closed (or when toner recovery is successfully completed at power off/on)
ProCon	Cyan Toner Cartridge is near empty state (replace soon)		393-400	The CRU manager has generated the message “Cyan Toner Cartridge is near empty state (replace soon)”	Fault code is cleared when toner recovery operation is successfully completed after front interlock is opened/closed (or when

Subsystem	UI Message	Machine Reaction	RAP	Fault Cause	Clearing Action
					toner recovery is successfully completed at power off/on)
ProCon	Black Toner Cartridge is near empty state (replace soon)		393-400	The CRU manager has generated the message “Black Toner Cartridge is near empty state (replace soon)”	Fault code is cleared when toner recovery operation is successfully completed after front interlock is opened/closed (or when toner recovery is successfully completed at power off/on)
ProCon	Black Toner Cartridge is empty		324-923	The CRU Manager has generated the message Black toner cartridge is empty.	Replace toner cartridge.If the Toner Empty message occurs even when re-maining toner is not low, perform Toner Recovery operation first to see if Toner Empty state is canceled or not.
Transfer	IBT Unit Near End Warning		394-417	This fault code is issued when the follow-ing condition is met. (IBT unit present count (NVM)) > (IBT unit life (NVM)) - (Page count before end of life warning (NVM))	Fault Code is cleared after replacing the IBT Unit.
Transfer	IBT CLN Unit Near End Warning		394-418	This fault code is issued when the follow-ing condition is met. (IBT cleaner unit present count (NVM)) > (IBT cleaner unit life (NVM)) - (Page count before end of life warning (NVM))	End of life of IBT cleaner unit is approaching. Replace IBT cleaner unit if necessary and clear HFSI Counter.
Transfer	2nd BTR Unit Near End Warning		394-417	This fault code is issued when the follow-ing condition is met. (2nd BTR unit present count (NVM)) > (2nd BTR unit life (NVM)) - (Page count before end of life warning (NVM))	Fault Code is cleared after replacing the 2nd BTR Unit.

OF24 USB Port Disabled RAP

USB Ports can be Enabled/Disabled in Embedded Web Server (EWS) by the System Administrator

Procedure

Log onto the machine or EWS as System Administrator and verify the status of the USB Ports.

OF25 Xerographic Messages RAP

Machine fails to detect Toner dispensing (Replace Toner message) or Drum Cartridge (Drum Cartridge Error message); message cannot be cleared, no status codes displayed.

Initial Actions

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Turn the power off, then on.

Drum Cartridge Error message is displayed on the UI:

Turn the power off.

Inspect the Drum cartridges for damage and ensure that cartridges are firmly inserted into position.

Remove the Drum Cartridge(s) and inspect the Drum CRUM Coupler Assembly at the rear of the machine for proper mounting and possible damage:

- Drum CRUM Coupler (Y) - P/J120.
- Drum CRUM Coupler (M) - P/J121.
- Drum CRUM Coupler (C) - P/J122.
- Drum CRUM Coupler (K) - P/J123.

If no problem is found, check the wiring from the Motor Drive PWB P/J412 to the Drum CRUM Coupler Assemblies for an open or short circuit, or physical damage:

- BSD 90.5
- BSD 90.6

If the wiring is OK, replace the following parts in sequence:

- Motor Drive PWB (PL 1.10)
- Drum CRUM Coupler (PL 90.15).

Replace Toner message is displayed on the UI:

Turn the power off.

Ensure that the Toner Cartridges contain toner, are not damaged or obstructed, and are firmly seated in place.

Check the wiring from the Motor Drive PWB P/J413 to the Toner Dispense Motor(s) for an open or short circuit, or physical damage:

- P/J220, P/J221 - BSD 90.8
- P/J222, P/J223 - BSD 90.8

If the wiring is OK, replace the following parts in sequence:

- Motor Drive PWB (PL 1.10)
- Toner Dispense Motor (PL 90.10)

OF26 iBeacon®/Bluetooth® Printing Issues RAP

Parts List on

This procedure is provided to help identify and diagnose iBeacon® / Bluetooth® connectivity issues.

Note: The customer must use the Xerox-supplied iBeacon® / Bluetooth® installation kit. Other configurations/adaptors are not supported.

Initial Actions

Consult your manager before troubleshooting the customer's network, as the policy varies according to region.

Procedure

Perform the following:

1. Ensure that the Bluetooth® adaptor is plugged into the correct USB port on the right rear side of the printer (Figure 1).

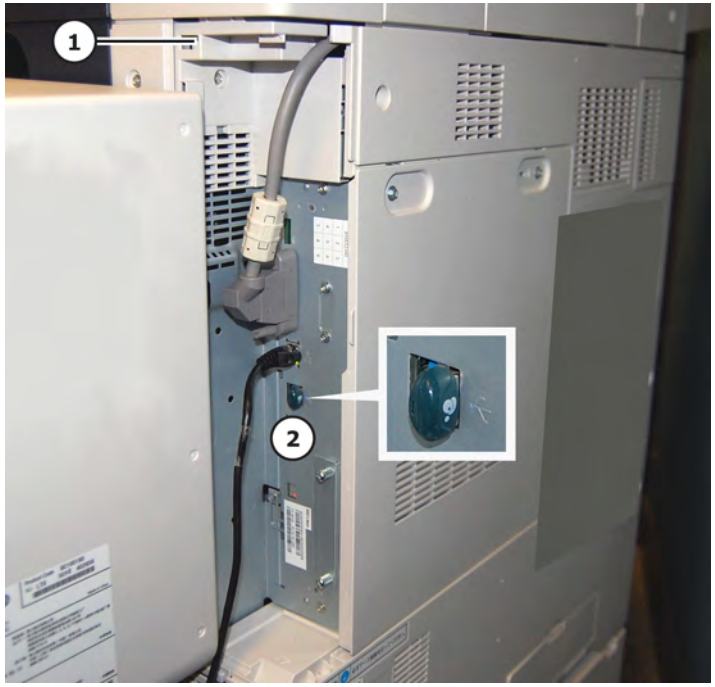

Figure 1 Position of the Bluetooth® Micro-Adaptor in Correct USB Port

Table 1 Micro-Adaptor Inserted in Correct USB Port

#	Description
1	Press tab to release the corner cover. Remove that cover.
2	Micro-adaptor correct location.

2. Ensure that the iBeacon® Bluetooth® feature is enabled on the MFP
   a. Log in as Administrator.
   b. Select Connectivity > Setup > AirPrint > iBeacon® > **Enabled**.
3. Refer to the Xerox AltaLink® Series Multifunctional Printer System Administrator Guide for the following information/tasks:
   a. AirPrint Description
   b. Configuring AirPrint
   c. Enabling iBeacon® Bluetooth® for AirPrint discovery.
4. Print a configuration report on the AltaLink® MFP. If the Micro-Adaptor has been installed at the correct location, and the MFP enabled for iBeacon®, the following items should be present on the configuration report (Figure 2).

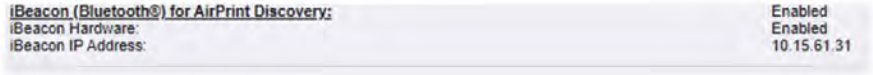

Figure 2 Successful Installation

5. The following issues can occur if the hardware or feature is not correctly installed/enabled:
   - iBeacon® Hardware Installed and iBeacon® feature disabled.
   - iBeacon® Hardware Not Installed and iBeacon® feature Enabled.
   - iBeacon® Hardware Installed at the wrong location.
   - AirPrint Not Enabled on MFP.
   - Mobile Apple Client Device (cell phone, etc.) does not have Bluetooth® enabled.
   - Mobile Apple Client Device (cell phone, etc.) is not connected to network.
   - MFP's iBeacon® IP Address is not reachable by the Mobile Apple Client Device.

3 Image Quality

IQ1 IOT Image Quality Entry RAP

This RAP will identify the causes of Image Quality defects. All Image Quality RAPs must be accessed through this RAP.

Note: Copy and Print Mode Definitions:

- Print Mode document images are submitted electronically from a Fax, USB, or network source. They do not use any of the IIT components (DADF or Scanner) and there is no hard copy original.
- Copy Mode document images are made from a hard copy original. They use the various IIT components (DADF and/or Scanner) to introduce the image into the machine.
- For Copy Mode images made using the DADF, side 1 is defined as the visible side of the document as it sits in the DADF document tray. Side 2 is the side that faces the document tray and is not visible without removing the document from the tray and turning it over. It may be useful to label the two sides on the originals used for testing.
- For Copy Mode images made using the Platen Glass, some different parts of the IIT are used to make the image.

Initial Actions

During initial actions, you will produce a set of copies and prints. These, along with any copies or prints from the customer, will enable you to analyze and correct image quality problems.

1. Ensure that fresh dry paper that meets Xerox specifications is loaded in all paper trays. If necessary, you can refer to the User Guide to find the approved list of papers and part numbers. Both 11x17/A3 and 8 1/2x11/A4 should be loaded. It is strongly recommended that you use one of the papers listed in Table 1.

Table 1 Recommended Papers

Paper	Size / Weight
Bold Digital Printing	8 1/2 x11 or 11x17 / 24lb
ColoTech Plus Gold	A4 or A3 / 90gsm.
Xerox Vitality	8 1/2x11 or 11x17 / 20lb.
Xerox Premier	A4 or A3 / 80gsm.

2. Set the machine to the Customer Mode Settings listed in Table 2 to ensure that the machine is set to a standard state.

Table 2 Basic Copier Mode Settings

Item Name	Sub-Item	Sub-Item	Setting
Output Color	-	-	Auto Detect
Reduce/Enlarge	-	-	Auto
Original Type	More	Content Type	Photo and Text
Original Type	More	How Original was Produced	Printed Original
Lighten/Darken	-	-	Normal
Sharpness	-	-	Normal

Item Name	Sub-Item	Sub-Item	Setting
Saturation	-	-	Normal
Automatic Background Suppression	-	-	Off (unchecked)
Contrast	Contrast: Manual Contrast	-	Normal
Color Presets	-	-	Off
Color Balance	-	-	Normal
Image Shift	-	-	Off

3. Make copies of hard copy originals to check for copy mode problems. If the customer does not have an original to use, make the copies from the Color Test Pattern 82E13120

   a. Make 2-sided copies using the DADF. Use the following process to ensure that both the scanner (for side 1) and the CIS (for side 2) are tested.Set the Copy mode for 2-sided to 2-sided copying.

      Set the number of copies to 5.

      i. If possible, use a 2-sided original. If the customer original is not 2 sided, use the Color Test Pattern and feed it through the DADF twice. When using the Color Test Pattern use the following process. Be sure to keep track of whether the copies are side one or side two.

         1) Place the Test Pattern in the DADF document tray face up with the top on the left. This will produce a set of side 1 copies.

         2) Place the Test Pattern in the DAD document tray face down with the top on the left. This will produce a set of side 2 copies.

      ii. Make 5 copies using the platen. Be sure to register the original correctly on the platen with the top on the left. Use either the customer original, or the Color Test Pattern.

4. Ask the customer to make five 2-sided prints of the file that is showing the defect. If possible, ask that the file be printed from several different computers. If that is not possible, obtain a copy of the file and print it from the PWS. If the customer file is only on a USB drive, make a set of prints using the PWS and also make a set using the USB port on the machine.
5. If the particular file is not available, ask that prints be made from other files that are similar to the file showing the defect. Again, they should be made from multiple computers, and/or from the PWS if possible.

Procedure

After completing the steps of the initial actions section, check the set of copies and prints for the presence of the defect in Copy Mode and in Print Mode.

If the problem only occurs in Copy Mode, go to the IQ2 RAP.

1. If the defect consists of any of the following problems, ask the Customer SA to perform the complete calibration procedure. The procedure is listed in the User Guide under the heading **Optimizing Printer Performance**. The steps of the procedure are repeated here for reference. On the UI **Home** screen, touch **Device > Tools > Troubleshooting > Calibration**, then complete the steps as listed on the UI to calibrate Print, Copy and Color Matching.
   - Incorrect colors
   - Poor gray balance
   - Colors have shifted over time
   - Color densities too high or low

   CAUTION

   Performing these calibration procedures to reset the machine to factory defaults, or even just using them to calibrate the machine, may make the apparent problem worse. If this occurs, continue with the rest of this RAP to resolve the IQ issues.

   Note: The color calibration affects copies made from the DADF or the platen (Copy Mode), as well as prints made in Print Mode.
2. After completing step 1, check with the customer. If they are still dissatisfied with machine image quality, or if the problem was not one of the things listed in step 1, continue with this procedure. Otherwise, return to Call Flow.
3. Check machine customer selectable image quality settings on the UI and the Print Driver. Determine if adjustments to these settings should be made to tune image output to meet customer IQ requirements.
4. Refer the customer to user documentation to review settings that affect copy and print image quality. In particular, ask that they review the following settings for Copy image quality:
   - Output Color
   - Original Type
   - Lighten / Darken
   - Sharpness
   - Saturation
   - Automatic Background Suppression
   - Color Presets
   - Color Balance
5. Make a set of prints using dC612 to aid in further defect analysis. Make a 4-color grid pattern print and half tone prints of 30% density for each color. Use Test Pattern 9 to make the half-tone prints. Use test pattern 1 to make the grid chart, Figure 1.

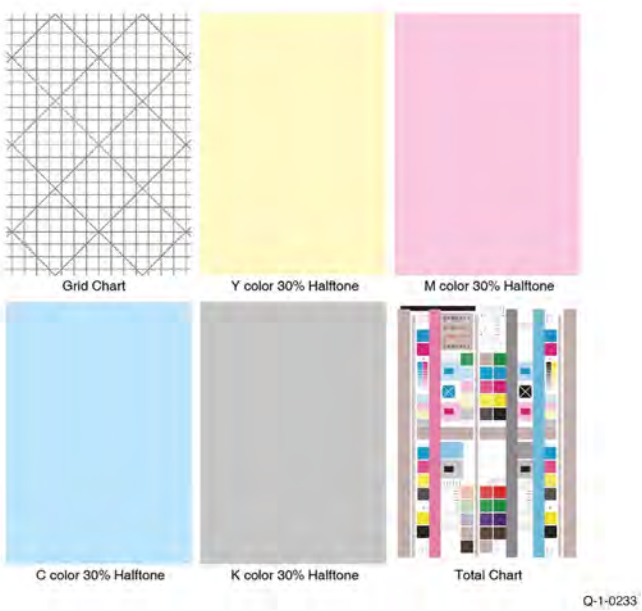

Figure 1 Test Prints for Image Quality Evaluation

6. Examine the complete set of copies and prints to determine which of the categories listed in Table 3 the defect falls into, then go to the appropriate defect description table to find the procedure that will correct the problem. If necessary, refer to the Image Quality Specification sections for detailed information about color and geometric specifications.

   Note: Table 3 Category Definitions.

   - Process Direction defects are lines or bands that run along the print from Lead Edge (LE) to Trail Edge (also known as Tail Edge) (TE).
   - Cross Process defects are lines or bands that run across the print from side to side.
   - General or Random defects affect areas of the print, the entire print, or appear in a random fashion in different places on the print.

Table 3 Defect Categories

Defect Category	
Process (Slow Scan) Direction Streaks and Lines	Table 4
Cross Process (Fast Scan) and Diagonal Streaks and Lines	Table 5
General, or Random Image Defects	Table 6

Table 4 Image Quality Defects: Process (Slow Scan) Direction Streaks and Lines

Defect	SubSystem	Description	Corrective Action
White Lines		White lines appear in the process direction for all densities.	Go to the RAP IQ5
LPH Periodical Line	LPH	A line appears periodically as a result of the decrease in light quantity of the light emitter (chip) or from unevenness continuously occurring in multiple chips.	IQ-1
SLED Transfer Failure	LPH	Black lines and blank areas (lines) appear repeatedly in units of 2.7mm. They appear by half chip units.	Go to the RAP IQ13
Poor resolution	LPH	Images appear out of focus	Remove, clean and reseat the LED printhead assemblies (4).
White Stripes due to Trimmer Jam	Developer	When foreign substances such as dirt, dust, toner aggregate (including the case of heated one) exist in the Toner Cartridge, on the Toner Supply Path, or in the Developer Housing Assy and they reach the section between the Developer Roll and the Trimmer, it could obstruct the formation of developer layer.	Go to the RAP IQ44
Color streaks	Transfer	Presence of paper dust in between the intermediate transfer belt and the cleaner blade causes poor cleaning.	Perform the IQ26 Color Streaks RAP.
The streaks when Scan Grayscale is performed	IPS	Streaks can occur continuously when solid fill originals without dot matrix structures, such as photographs, are scanned (grayscale) on the DAF.	CQ16

Defect	SubSystem	Description	Corrective Action
Process Direction Bands, Streaks, and Smears		Streaks: Usually medium-width streaks of (or shifts in) color most noticeable in low density 20-30%) halftone areas of the copy. A deletion in the form of a single streak that runs from the lead edge to the trail edge of the copy.	Go to the RAP IQ35
CVT Streaks	IIT/DADF	Dirt such as paper dust is generated at the DADF scan position. The streaks in the process direction are created when that contamination is scanned.	Go to the RAP IQ56

Table 5 Cross Process (Fast Scan) and Diagonal Streaks and Lines

Defect	SubSystem	Description	Corrective Action
High Frequency Bands		Repeating interval bands that are most noticeable in low density (20-30%) halftone areas of the copy. These bands run perpendicular to process direction.	Go to the RAP IQ37
2.5mm (0.1 inch) diagonal streaks	Xerographics	Diagonal streaks may occur due to BCR (bias charge roll) flow coating unevenness.	Install a new relevant drum cartridge, PL 90.20.
3mm pitch line	Transfer	Lines occur at the rib pitch interval of holder DTS.	Perform the IQ18 In Process 3mm Pitch Line RAP.
BCR pitch 38mm (1.5 inches) density unevenness	Xerographics	Charging failure occurs in weak contact parts which lowers the surface potential and the density of the half-tone image darkens with a BCR pitch (38mm/1.5 inches).	Perform the IQ50 White Streaks, Spots or Unevenness in BCR Pitch Axial Direction RAP.
Charging Roll Pitch White Lines - 1		If the BCR is deformed at the BCR and Photoreceptor NIP sections, the trace may appear as thin white lines in the Inboard-to Outboard direction on the highlight portion at the Charging Roll Pitch.	Go to the RAP IQ15
Charging Roll Pitch White Lines - 2		If the substances contained in the CLN-Roll get stuck to the BCR at the BCR and CLN-Roll NIP sections, the resistance on the BCR gets reduced and may cause the appearance of white lines in the Inboard-to Outboard direction.	Go to the RAP IQ16
Color Streak of Photoreceptor Pitch (94.5mm)	Xerographics/ Cleaning	Vibrations during the Drum CRU transportation may cause scrapes and friction in the BCR and the Photoreceptor, resulting in leftover electrostatic memory on the Photoreceptor, which generates thin white streaks in the Fast Scan direction on the highlight portion at the Photoreceptor Pitch.	IQ5
Line or spots appear at regular intervals on prints	Other	Fault or dirt on one of the IBT belt, fusing, or exit components.	Perform the IQ32 Repeated Defects RAP.

Defect	SubSystem	Description	Corrective Action
Dark lines	Xerographics	Fine lines in the cross process direction due to abnormal electric discharge between BCR and the photo receptor.	Perform the IQ5 Dark Lines RAP.
Reverse dark lines	Transfer	Phenomenon of part of the solid patch of K-color having partial dark lines (multiple) at the FS direction. Toner charge amount before secondary transfer is insufficient causing transfer failure.	Perform the IQ17 Reverse Dark Lines RAP.

Table 6 Non-repeating Image Defects

Defect	SubSystem	Description	Corrective Action
Background	Xerographics	The whole page or part of the page is contaminated by toner. The contamination appears as very light grayish color.	Perform the IQ23 Background RAP.
Unevenness Correction Within Image Area	IOT Image Quality	Uneven density in the axis direction, due to the area around the Drum.	IQ36
Caterpillar mark	Transfer	Removal of electricity with diselectrification material is performed in the charged state after the paper dis charges the secondary transfer part. If the adhesion of the toner to the paper is weak and the amount of electricity removal is big, the toner image scatters and a round shaped pattern appears continuously in the vertical direction.	Perform the IQ43 Caterpillar Mark (Transfer) RAP.
Circular stamping marks	Transfer	When paper is peeled off by the secondary transfer, the toner which is not fused on	Perform the IQ16 Circular Stamping Marks RAP.
		the sheet is scattered in a semicircular arc.	
DC charging ghosting	Xerographics	As DC charging has weak charging capability compared to AC charging, ghosting may worsen with the environment or paper. Also see residual image (ghosting).	Perform the IQ22 DC Charging Ghosting RAP.
Deletions	Xerographics	Part of the image is missing.	Perform the IQ24 Deletions RAP.
Deletions (outboard, all colors)		There is a light (faded or deleted) area along the outboard side of all prints, due to buildup on the outboard side of all the first BTRs, which is best viewed on halftone test patterns (all colors).	Go to the RAP IQ47
Heat haze/mock heat haze	Transfer	A scattering of toner around solid patches.	Perform the IQ45 Heat Haze/ Mock Heat Haze RAP.
Kiss marks	Transfer	As system resistance of the primary transfer is high, the charge voltage of the primary transfer to the toner on the Photoreceptor is increased, causing kiss-shaped discharge marks.	Perform the IQ15 Kiss Marks RAP.
Spots		Generally circular in shape, these defects can be caused by an absence of toner in a desired area, or a deposit of toner in an undesired area	Go to the RAP IQ38
MWS (Micro White Spots) - Side 2		When the resistance in the Secondary Transfer section is high, such as early mornings (low humidity environment), the transfer latitude between multicolor and monocolor is narrow	Go to the RAP IQ48

Defect	SubSystem	Description	Corrective Action
		and the voltage setting favors multicolor. That is, the voltage is a little high for monocolor, and this causes the Transfer nip discharge phenomenon that creates the white spots.	
Multi color transfer failure	Transfer	Paper that has had its side 1 fused has a reduced percentage of moisture content, which increases its elec- tric resistance. As the resistance in the secondary transfer increases by lower humidity or over time, the required electrical field may not be attained, especially in the early mornings (low humidity environment). This setting controls the micro white spots within the limit.	Perform the IQ41 Multi Color Transfer Failure RAP.
Missing Colors	Other	One or more of the primary colors are missing from the image.	Go to the RAP IQ39
Print damage	Other	The prints have nicks, tears, creases, folds, curled edges or wrinkles.	Perform the IQ26 Print Damage RAP
Transfer Wrinkle	PH, Transfer	Wrinkles occurs on paper between the REGI and the Transfer and transfer omission occurs.	IQ25
Moist Paper Wrinkles	Fusing Unit	When moisture gets into vertical grained paper, paper waves occurs at the tip of short edge side. If the paper enters the Fusing Unit Nip in this condition, the Fusing Unit Nip cannot feed the paper	IQ28

Defect	SubSystem	Description	Corrective Action
		properly, resulting in wrinkles.	
Skew	Xerographics	Printed images are not parallel to the edges of the paper.	Perform the IQ34 IOT Skew RAP.
Color Misregistration		Multi-colored images that should be superimposed are offset. This offset may be in the process direction or perpendicular to process direction.	Go to the RAP IQ33
Rough black	Transfer	On paper that is not flat or has poor hue, the toner may not have been transferred properly due to the irregular paper surface, creating a rough transferred image.	Perform the IQ22 Rough Black RAP.
Scalelike defect	Transfer	Removal of electricity with diselectrification material is performed in the charged state after the paper discharges the secondary transfer part. If the adhesion of the toner to the paper is weak and the amount of electricity removal is big, the toner image scatters and semicircle shaped pattern appears.	Perform the IQ19 Scalelike Defect (Transfer) RAP.
Smear	Transfer	When the lead edge of paper reaches the secondary transfer, it immediately increases the secondary transfer section load and causes the IBT drive roll speed to change (decrease in speed). This change in speed changes the difference in relative speed between the photoreceptor and the IBT belt surface	Perform the IQ21 Smear RAP.

Defect	SubSystem	Description	Corrective Action
		in the K-color primary transfer section, hence creating a smear (distorted image).	
Lines on Gloss Paper	EXIT	When HW Gloss paper is output to Exit 1 using Duplex mode in high temperature/ high humidity environment, its Side 1 gets rubbed against the Exit Gate, resulting in lines.	IQ31
Side 2 Rib Streak	Fusing Unit	When Heavyweight or Gloss paper, or Plain paper in a high temperature/high humidity environment is output to Exit 1 using Duplex mode, its Side 2 gets rubbed against the Exit Chute, resulting in rib streaks.	IQ32
Lead Edge Toner Smear (fused)		Smears of fused toner on the lead edge of prints	Go to the RAP IQ35
Lead Edge Toner Smear (unfused)		Smears of unfused toner on the lead edge of prints	Go to the RAP IQ36
Scan mode: JPEG Mosquito Noise	IPS	Color texts are blurred and mosquito noise is generated around the text due to JPEG compression.	Go to the RAP IQ58
Jaggy	Screen	Depending on the structure of the line, the jaggies may stand out by the position of the screen.	IQ34
Solid color in prints	Other	Paper is printed solidly on one of the colors	Perform the IQ30 Solid Color in Prints RAP.
Toner Contamination at Lead/Trail Edge	Transfer	Lead Edge: Paper lead edge contacts the Belt when it is transported from REGI to Transfer. Trail Edge: The trail edge of Paper that loops between the Transfer-Fusing sections, at the release of the Secondary Transfer NIP, moves opposite to the feed direction and contacts the BTR surface, or bounds up and contacts the Belt.	Go to the RAP IQ24
Trail Edge Transfer Failure	Transfer	The paper trail edge, after the Secondary Transfer NIP has been released, bounded up due to the fusing stroke effect and re-transfers to the Transfer Belt.	Go to the RAP IQ25
Toner Droplet Contamination	Developer	A contamination consisting of random spatters of toner in sizes of a few millimeters.	Go to the RAP IQ20
Contamination Lines		There are blank areas. Their size is proportional to the size of contaminants.	Go to the RAP IQ11
Unfused image	Fusing	Printed images are not correctly fused onto the paper. When rubbed, the image comes off easily.	Perform the IQ36 Unfused Print/ Toner Offset RAP.
Image Shift in Process Direction		The image is shifted in the process direction.	Go to the RAP IQ4
Image Shift in Inboard-to Outboard Direction		The image lands on the blank area and gets dragged in the Inboard-to Outboard direction.	Go to the RAP IQ9
IN/OUT Density Difference	LPH	The densities between the IN and OUT sides are different.	Go to the RAP IQ7
Uneven Inboard/Outboard Density within the Image Area (ADJ 9.6)		Uneven density inboard to outboard arising from various	Go to the RAP IQ66

Defect	SubSystem	Description	Corrective Action
		causes in the vicinity of the Photoreceptor.	
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Balance Adjustment)	IPS	Narrows the density difference between Side 1 and Side 2 during scan.	CQ-22
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Background Suppression Adjustment)	IPS	Adjustment method for Suppression Levels	CQ-24
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Sharpness Adjustment)	IPS	During 2 Sided Simultaneous Scan, the text and halftone dot reproduction qualities of copy or scan images are different between Side 1 and Side 2.	CQ-21
Side 1/Side 2 Image Quality Difference (Side 1/Side 2 Color Adjustment)	IPS	Narrows the color difference between Side 1 and Side 2 during scan.	CQ-25
Color Balance Adjustment	IPS	The color of the copy image quality is different from that of the original.	CQ-11
Video Data/Crosstalk		An image with different color overlaps another.	Go to the RAP IQ8
Edge-less Image		An image is printed on the edges.	Go to the RAP IQ10
Tapes Not Peeled		The highlight portions are too obvious. The whole paper seems to be filled with lines.	Go to the RAP IQ14
Color Lines		Presence of paper dust in between the Transfer Belt and the CLN Blade causes poor cleaning.	Go to the RAP IQ26
Toner Color Line	DEVE	It's a vertical long thin line and the length may differ from couple mm to	IQ-11
		10cm or longer. This occurs in solid or HT and does not generally occur in the background part.	
Toner Empty Detection Color Lines		At Pre Near or Near Empty state, if a customer had removed the Cartridge and knocked on it to collect the toner towards the exit in attempt to use the very last bit of toner, it may cause color stripe deterioration.	Go to the RAP IQ19
Moist Paper Transfer Failure	Transfer	The resistance is lowered because the paper is moist. The K color contains carbon that causes it to have larger dielec- tric loss, and hence it requires a different electrical field from the other colors. There is no latitude because the differ- ence in required electrical field between multi color and K color is larger than the difference between paper resistance and toner resistance.	Go to the RAP IQ23
Nip Marks		When using transparencies, slight lines may appear at the Fuser Heat Roll Pitch.	Go to the RAP IQ28
Wetting	Fusing Unit	Distorted image may appear at one side or both sides of the paper trail edge when printing halftone fill.	Go to the RAP IQ29
Fuser Offset		Areas of poorly-fused toner are lifted from one area of a print and deposited on a different area, or onto a subsequent print.	Go to the RAP IQ36

Defect	SubSystem	Description	Corrective Action
Low Image Density		A condition that results when too little toner of a single color or combination of colors is developed on the copy or print. This results in lighter copies or prints for the single-color toner or the color that results from the combination of color toners.	Go to the RAP IQ30
Lines on Coated Paper		Lines are generated on Side 1 in 2 Sided mode.	Go to the RAP IQ42
Poor Reproducibility of Fine Lines	IOT Image Quality	Poor reproducibility of 600dpi/1200dpi fine lines. Because of the dispersion due to the difference in the machines, thin lines, especially slanted ones, tend to break up.	IQ35
Rough Thin Lines	IPS	When a document containing extremely thin lines is copied in the Photo & Text Mode, the density of the lines on the copy may become uneven and rough.	CQ-12
Highlight Density Reproduction (NVM Darken +3)		This is used to reproduce the highlights (light colors) in darker shades.	Go to the RAP IQ53
Highlight Density Reproduction (NVM Lighten +3)		This is used to reproduce the highlights (light colors) in lighter shades.	Go to the RAP IQ54
Density Adjustment, Light Ink Support	IPS	This is used to copy an image to be lighter than the current BW Copy settings; e.g. when using light ink.	CQ-2
Density Adjustment: Darkening the Highlight	IPS	The highlight (light colors) is intended to be reproduced in darker shade.	CQ-3-1
Density Adjustment: Lightening	IPS	The density is intended to be reproduced in lighter shade.	CQ-3-2
Dual Color Copy Reproduction Adjustment (NVM Adjustment for Yellow Color Reproduction)	IPS	When using Dual Color (Red/Black Copy) in Copy Service, the Yellow marker pen is reproduced differently from the previous model Able1401 alpha.	CQ-5-1
Dual Color Copy Reproduction Adjustment (Adjustment of Color Reproduction Difference in Comparison with a Dual Color Machine from Another Company)	IPS	The color reproduction for Dual Color is different compared to a machine from another company.	CQ-5-2
Dual Color Copy Reproduction Adjustment (Adjustment of Color Extraction Range)	IPS	When yellow highlight is applied on fine red line, the highlighted portion does not appear as red and is reproduced in black instead.	CQ-5-4
Copy Mode: Gradation Jump in Text & Photo	IPS	In the B/W and Text & Photo Copy mode, gradation jump occurs on 100-line photo documents.	Go to the RAP IQ57
Gradation Jump in 100-lines Photo Document	IPS	In the BW and Text & Photo Copy Mode, gradation jump occurs on 100-line photo documents.	CQ-6
Fax: File Size, Transmission Time	IPS	When a document with tint on the whole paper or a background image is scanned using Fax Text Mode in High Quality (Fine), the file size or the Fax transmission time may increase drastically.	CQ-8

Defect	SubSystem	Description	Corrective Action
Moire	Screen	Depending on the document drawing pattern structure, Moire may stand out by interfering with the screen.	IQ33
Moire Patterns in the image areas of the print that have the appearance of a screen or grid overlaying the image. The pattern may be uniform or nonuniform in area or shape.			• Switch between photo modes and, if necessary, original types, to determine which mode minimizes the defect. • Decrease the Sharpness level. • Reduce or enlarge the copy slightly. • Rotate the original on the platen by 90 degrees.
Moire due to Interference Between Document and IIT	IPS	There are cases where moire is generated due to interference between the document and the IIT (Copy, BW Scan).	CQ-13
Newton Rings Repetitive, irregular-shaped marks that occur when making copies of glossy photographs. These marks are most noticeable in large low-density or highlight areas.	IIT/DADF		Clean the Platen Glass. Place a transparency between the document and the glass.
Copy: Bleed on 2-Sided Document	IPS	Bleed occurs in the Copy BW and Text mode.	Go to the RAP IQ60
Bleed on Tracing Paper	IPS	When copying or scanning Tracing Paper document, bleed or background occur around the texts.	CQ-4
Heavyweight Paper Image Bleeding	Transfer	The Tail Edge of the paper gets flipped-up and moves closer to the center transfer belt after going through the Registration Chute, and part of the axial direction	IQ22
		(around 25mm from the Tail Edge of the heavyweight paper) may get blurred from the electrical discharge that occurs in the secondary transfer pre nip part.	
Uneven Peel-off	Fusing Unit	When paper cannot be peeled off properly from the H/Roll after it has passed through the Fusing Unit Nip, uneven peel-off occurs at the image section.	IQ30
IIT/DADF-related	IIT/DADF	Refer to IQ-00.	CQ-00
Poor Reproduction of Inkjet Document	IPS	When making a copy of a document that was printed by an inkjet printer, it is reproduced poorly on the output copy.	CQ-14

IQ2 IIT Image Quality Entry RAP

This RAP is for troubleshooting IIT (Scanner/DADF) problems only. Before proceeding, verify that the defect is present in Copy mode only. If the defect is present in Print mode, go to the IQ1 RAP.

Initial Actions

1. Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth.
2. Clean the CIS PL 5.4 for 250 DCDF, PL 5.54 for 130 DADF).
3. Recheck for the problem by repeating the copy mode print generation process from IQ1. If the problem remains, continue with this procedure. Otherwise, return to Call Flow.

Procedure

Examine the copies made during Initial Actions of IQ1. Compare the defective copies with the descriptions listed in Table 1. Perform the corrective action listed for that defect.

Table 1 IIT Image Quality Problems

Defect	Corrective Action
Background	Clean the Platen Glass Clean the Platen Cushion Calibrate the IIT (dC945).
Blurred or Streaked Copy	Ensure that the Platen Glass is installed correctly. Check/adjust the carriage alignment (ADJ 60.1).
Side 1 Deletions	Clean the Lens, the top and bottom surface of the Platen Glass, and all Mirrors with Lens and Mirror Cleaner and a soft, lint-free cloth. If the problem persists, replace the CCD/Lens Assembly (PL 60.20 for 250 DCDF, PL 60.45 for 130 DADF).
Side 2 Deletions	Re-clean the CIS Replace the CIS (PL 5.4 for 250 DCDF, PL 5.54 for 130 DADF)
Misregistration/Skew	Go to the IQ34 RAP.
Moire Patterns in the image areas of the print that have the appearance of a screen or grid overlaying the image. The pattern may be uniform or nonuniform in area or shape.	• Switch between photo modes and, if necessary, original types, to determine which mode minimizes the defect. • Decrease the **Sharpness** level. • Reduce or enlarge the copy slightly. • Rotate the original on the platen by 90 degrees.
Newton Rings Repetitive, irregular-shaped marks that occur when making copies of glossy photographs. These marks are most noticeable in large low-density or highlight areas.	Clean the Document Glass. Place a transparency between the document and the glass.

IQ3 1mm Lines RAP

This RAP troubleshoots parts failure or contamination on the LPH surface.

At Cin50% and Cin30%, the lines in the process direction have reversed black and white colors. Width is approximately 1mm.

Figure 1 1mm Lines Defect Sample

Initial Actions

1. Check customer print to verify 1mm lines, or print Cin50% and Cin30% halftones using print test pattern -12'(dC612), and check for a 1mm line as in Figure 1.
2. Check fault history for any LPH (chain 061) fault(s); resolve any faults.
3. Replace the paper in use with fresh, dry paper of the correct specification.
4. Use the LPH Cleaner to clean the LPH surface (PL 60.05).

Procedure

Note: This problem must be distinguished from Developer trimmer jam. Do not replace the LPH without giving this consideration.

Perform IQ35 Process Direction Bands, Streaks, and Smears RAP. If this does not resolve the problem, replace the LPH Assembly for the affected color (REP 9.10).

IQ4 Image Shift in Process Direction RAP

This RAP troubleshoots for corrupt LPH EEPROM data that results in an image shift in the process direction.

Procedure

Access UI Diagnostics (UI Diagnostic Mode).

Select the Diagnostics button, then select dC304 LPH EEPROM Self Test... . The results column in the table shows all colors OK.

Y N

Replace the LPH Assembly for the affected color (REP 9.10).

Go to IQ39 Missing Colors RAP.

IQ5 White Lines RAP

This RAP is used to eliminate white lines that appear in the process direction for all densities.

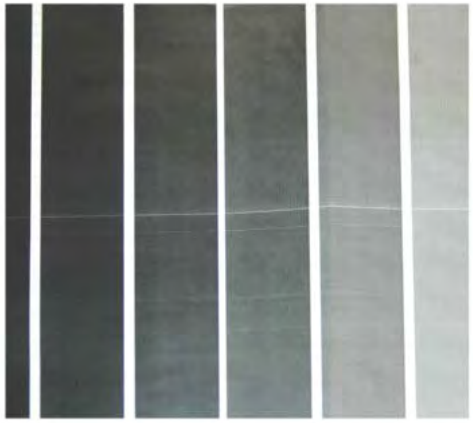

Figure 1 White Lines Defect Sample

Initial Actions

1. Check customer print to verify white lines appear in the process direction for all densities as in Figure 1.
2. Use the LED Print Head (LPH) Cleaner to clean the LPH surface (PL60.05).

   Note: This problem must be distinguished from Developer trimmer jam. Do not replace the LPH without giving this consideration.

3. Perform IQ35 Process Direction Bands, Streaks, and Smears RAP. If this does not resolve the problem, continue with this RAP.

Procedure

White lines still appear after cleaning the LPH surface.

Y N

Go to Final Actions.

Clean and inspect the LPH Cleaner (PL60.05).

The LPH Cleaner is damaged or broken.

Y N

Replace the LPH Assembly (REP 9.10).

Note: This problem must be distinguished from Developer trimmer jam. Do not replace the LPH without giving this consideration.

Replace the LPH Cleaner (PL60.05).

IQ6 SLED Transfer Cycle Lines RAP

This RAP is used to eliminate cyclical matte lines or black lines that appear in the process direction.

The pitch changes depending on the process speed. Refer to Table 1.

Table 1 Pitch

Process Speed	Pitch
175mm	9.5mm
121mm	6.1mm
79mm	4.2mm

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Figure 1 Defect Sample

Initial Actions

1. Check customer print to verify cyclical matte lines or black lines that appear in the process direction as in Figure 1.
2. Use the LED Print Head (LPH) Cleaner to clean the LPH surface (PL60.05).

   Note: This problem must be distinguished from Developer trimmer jam. Do not replace the LPH without giving this consideration.

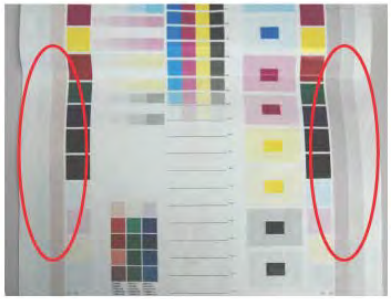
3. Perform IQ35 Process Direction Bands, Streaks, and Smears RAP. If this does not resolve the problem, continue with this RAP.
4. Print test pattern -12 (dC612).

Procedure

If the problem occurs in the dC612-12 test pattern print, go to IQ39, Missing Colors RAP.

IQ7 IN-OUT Density Difference RAP

The densities vary from the inboard to outboard edges.



j0wa31004

Figure 1 IN-OUT Density Difference Defect Sample

Primary Causes

- The LPH Z direction positioning pin is not in contact with the Photoreceptor.
- Failure in the retract mechanism.
- The positioning plate cannot fit in.
- The LPH positioning pin is bent.
- The tip of the pin is contaminated.
- The LPH positioning pin is not in contact with the Drum bearing surface.
- The gap between the Photoreceptor and the Developer Housing is different at In and Out.

Note: The retract mechanism for the LPH also acts as the Retract Mechanism for the Developer; it may also cause Developer positioning failure.

Initial Actions

1. Check customer print to verify the densities vary from the inboard to outboard edges as in Figure 1.
2. Use the LPH Cleaner to clean the LPH surface (PL60.05).
3. Check the EEPROM data (dC304).
4. Check whether the section that contacts the Drum bearing surface of the Developer Housing Assembly is abnormal.
5. Check for dirt or debris between the LPH and the Xero CRU.
6. Check for foreign substances on the tip of the LPH positioning pin (In/Out). (REP 9.15)

Procedure

Perform the following based on the outcome of the above checks:

1. Perform LPH Exposure (Smile) Adjustment (ADJ 9.6).
2. Replace Developer Housing Assembly (REP 9.14).
3. Replace DRUM. (see CRUs and Consumables)
4. Replace 1st BTR. (REP 9.2)

IQ8 Video Data/Crosstalk RAP

A different color image overlaps another.

Poor connection of Flat Cable between the MDM and the LPH

Figure 1 Video Data/Crosstalk Defect Sample

Initial Actions

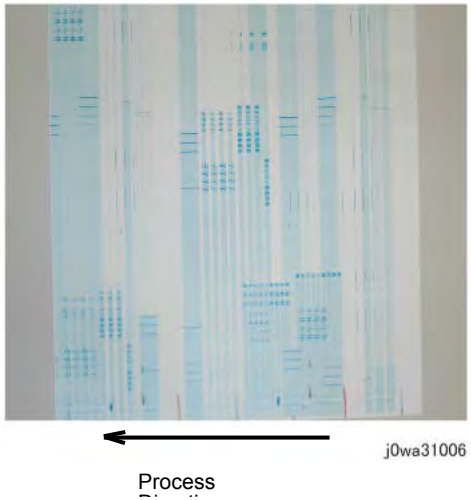
1. Check customer print to verify a different color image overlaps another as in Figure 1.
2. Use the LPH Cleaner to clean the LPH surface (PL60.05).

Procedure

Go to IQ39, Missing Colors RAP.

IQ9 Image Shift in Inboard-to Outboard Direction RAP

This RAP is used when an image defect appears as an image landing on the blank area and getting dragged in the Inboard-to Outboard direction as in Figure 1.



Initial Actions

1. Print test pattern -13 (dC612).

Procedure

If the defect is present in dC612 (Test Pattern Print)-13, go to IQ39, Missing Colors RAP.

IQ10 Edge-less Image RAP

An image is printed on the margins as in Figure 1.

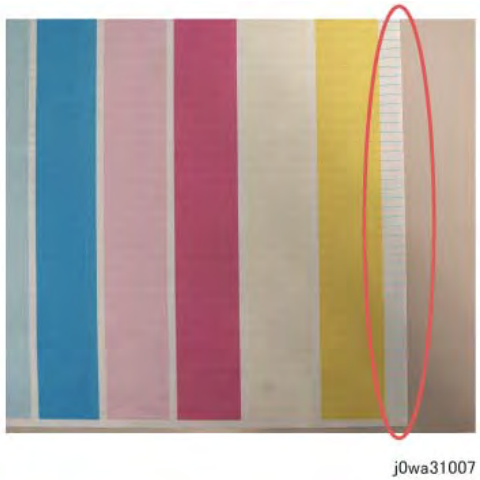


Figure 1 Edge-less Image Defect Sample

Initial Actions

Check the IIT Side Registration (ADJ 6.4); adjust as required.

Procedure

If the IIT Side Registration is in specification, go to IQ39, Missing Colors RAP.

IQ11 Contamination Lines RAP

There are blank areas. Their size is proportional to the size of the contaminants as in Figure 1.

Note: Be careful, because this phenomenon is very similar to that of the process direction bands, streaks, and smears.

Figure 1 Contamination Lines Defect Sample

Initial Actions

Use the LPH Cleaner to clean the LPH surface (PL60.05).

Procedure

Contamination Lines are still present after cleaning the LPH surface.

Y **N**

Go to Final Actions.

Check for process direction bands, streaks, and smears. Go to IQ35.

The defect is still visible.

Y **N**

Go to Final Actions.

Go to IQ39, Missing Colors RAP.

IQ12 Chip/Half Chip Blanks RAP

Blank areas with widths of 2.7mm (half-chip) or 5.4mm (chip).

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Figure 1 Chip/Half Chip Blanks Defect Sample

Initial Actions

1. Check fault history, dC122, for 361-362 faults. If found, go to the appropriate RAP.
2. Check customer print or make prints using printer test patterns to compare and verify 2.7mm scale (dC612-13) or 5.4mm scale (dC612–12) of blank areas as in Figure 1.

Procedure

Go to IQ39, Missing Colors RAP.

IQ13 SLED Transfer Failure RAP

Black lines and blank areas (lines) appear repeatedly in half-chip units of 2.7mm in width.

j0wa31010

Figure 1 SLED Transfer Failure Defect Sample

Procedure

Access UI Diagnostics (UI Diagnostic Mode).

Select the Diagnostics button, then select dC304 LPH EEPROM Self Test... . The results column in the table shows all colors OK.

Y N

| Replace the LPH Assembly for the affected color (REP 9.10).

Go to IQ39 Missing Colors RAP.

IQ14 Tapes Not Peeled RAP

The highlight portions are too obvious. The whole paper seems to be filled with lines.

Figure 1 Tapes Not Peeled Defect Sample

Initial Actions

1. Check customer print to compare problem to Figure 1.
2. Check if any protective tape remains on the LPH. Remove the LPH Assembly. (REP 9.10)

Procedure

Ensure no protective tape remains on the LPH. Peel off the protective tape.

Note: Do not forget to check for and peel off any tape when replacing the LPH (spare part).

IQ15 Charging Roll Pitch White Lines (type 1)

This image quality defect occurs in the BCR and Photoreceptor NIP sections. The defect may appear as thin white lines in the Inboard-to Outboard direction on the highlight portion at the Charging Roll Pitch as in Figure 1.

This problem may occur with New Drum CRU that has been stored for a long time. It also occurs when the MC has rested in a high temperature environment for a long time. (Halftone image)

Figure 1 Charging Roll Pitch White Lines (type 1) Defect Sample

Procedure

Print test pattern -11 (dC612).

Lines with 38mm pitch appear in the Inboard-to-Outboard direction.

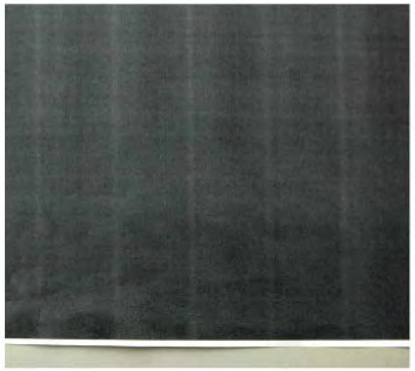
Y N

| Have the customer re-evaluate affected jobs and re-send.

1. Make approximately 10 to 30 printouts.
2. Verify that no lines appear.

IQ16 Charging Roll Pitch White Lines (type 2)

If contamination from the Cleaner roll gets stuck to the BCR, the resistance on the BCR gets reduced and may cause the appearance of white stripes in the FS direction. This may occur when the machine has been resting for a long time or in the early mornings as in Figure 1.



j0wa31014

Figure 1 Charging Roll Pitch White Lines (type 2) Defect Sample

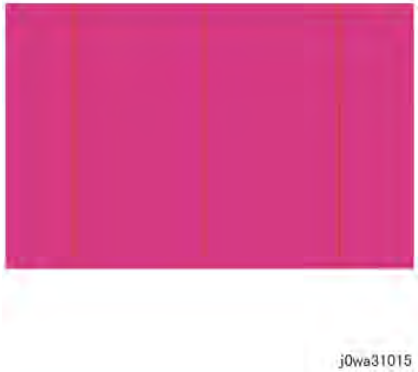
Procedure

Note: If the machine has been resting (Wait state) or the machine is being utilized in the early morning, this image quality defect will occur because the BCR and Photoreceptor NIP sections are not properly warmed up to operating temperature. Printing 10 to 30 prints will be sufficient to allow the BCR and Photoreceptor to warm up to operating temperature.

1. Check customer print or Print test pattern -9 (dC612) Make approximately. 10 to 30 printouts.
2. Verify that no lines appear. If the problem persists after you make approximately 10 to 30 printouts, this may be a case of IQ-15 White Stripes. Perform the solution in IQ-15. > This disappears over time
3. Check dC120 and/or dC122 for Chain 094-xxx Faults.
4. Perform 2nd Transfer Voltage Offset Adjustment (see dC909).
5. Replace:
   - HVPS (Developer/BCR) TBD low (REP 1.9)
   - HVPS (BCR) TBD mid (REP 1.9)
6. Replace the 2nd BTR (CRUs and Consumables).
7. Replace the BTR/Detack HVPS (REP 1.1) (PL 6.2).

IQ17 Photoreceptor Pitch Color Lines

Vibrations during the Drum CRU transportation may cause scrapes and friction in the BCR and the Photoreceptor, resulting in leftover electrostatic memory on the Photoreceptor that generates thin white streaks in the Inboard-to Outboard direction on the highlight portion at the Photoreceptor Pitch. This problem may occur right after the replacement of Drum CRU (occurs at Halftone image quality).



j0wa31015

Figure 1 Photoreceptor Pitch Color Lines Defect Sample

Initial Actions

Check customer print or Print test pattern -9 (dC612), check that lines with 94mm pitch appear in the Inboard-to Outboard direction as in Figure 1.

Procedure

Make approximately 10 to 30 printouts:

- If the fault lies with the Y, M, or C Drum, print full-color images.
- If it is with the K Drum, print either full-color or B/W images.

IQ18 Background on Gloss RAP

Use this RAP when the background level on Gloss paper is worse than the background level of Plain paper.

Initial Actions

Verify that the background level is worse than that on Plain Paper.

Note: Increasing the value of the NVM from the default will sacrifice the reproducibility of fine lines and highlight sections.

Procedure

1. Changing these NVM values should be performed only for the color exhibiting the problem.
   - 753-054: Reference CF [Y]
   - 753-055: Reference CF [M]
   - 753-056: Reference CF [C]
   - 753-057: Reference CF [K]
2. Change the NVM for the target color from **110** (default value) to **120** if high background was observed when printing onto coated paper.
3. After changing NVM, power Off/On the machine. Enter the Diagnostics mode and execute ProCon On Print (ADJ 9.7).
4. Check the image quality on the test print (coated paper).
5. If the image quality is good, then the procedure is completed.
6. If the image quality is still not good, then change the NVM value to **130** . Power Off/On the machine. Enter the Diagnostics mode and execute ProCon On Print (ADJ 9.3).
7. Check the image quality on the test print (coated paper).
8. If the image quality is good, then the procedure is completed.
9. If high background becomes worse after changing the NVM, return the NVM back to it's original (Default) value.

IQ19 Toner Empty Detection Color Lines RAP

At Pre Near or Near Empty state, if a customer had removed the Cartridge and knocked on it to collect the toner towards the exit in attempt to use the very last bit of toner, it may cause color stripe deterioration.

Figure 1 Toner Empty Detection Color Lines Defect Sample

Initial Actions

Check customer print to verify color stripe deterioration as in Figure 1.

Procedure

Use a new Cartridge.

IQ20 Toner Droplet Contamination RAP

This RAP troubleshoots for contamination consisting of random spatters of toner in sizes of a few millimeters.

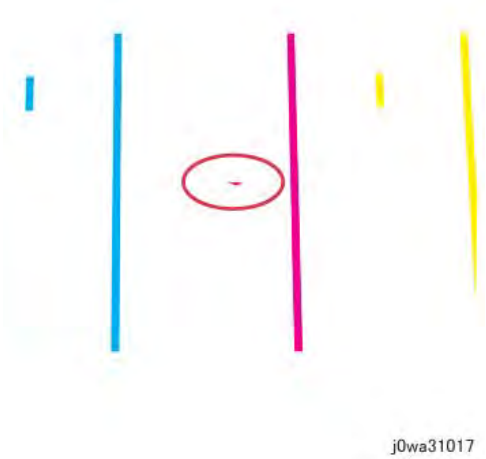


Figure 1 Toner Droplet Contamination Defect Sample

Initial Actions

Check customer print to verify contamination consisting of random spatters of toner in sizes of a few millimeters as in Figure 1.

Procedure

Clean the upper cover and trimmer cover of the Developer Housing Assembly (REP 9.14).

IQ21 Smear on Heavyweight RAP

When the lead edge of paper reaches the Secondary Transfer, it immediately increases the Secondary Transfer section load and causes the IBT Drive Roll speed to decrease. This change in speed changes the difference in relative speed between the Photoreceptor and the Transfer Belt surface in the K-color Primary Transfer section, hence creating a smear (distorted image).

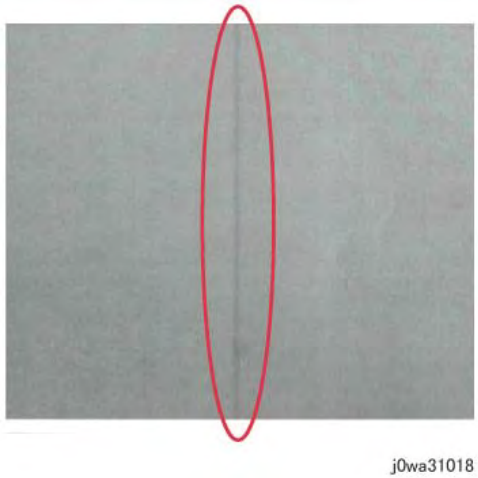


Figure 1 Smear on Heavyweight Defect Sample

Initial Actions

Check customer print to verify smear or print test pattern -10 (dC612), and check for a 1mm-line (smear) as in Figure 1 , 130 mm from the lead edge of the paper.

Procedure

Note: Changing the following NVM Read/Write (dC131) locations (SmearSwitch) from **1** to **0** causes the IOT to operate in the FC mode, regardless of the color mode setting (Color Priority, B/W Priority, ACS) in the Controller, when performing monochrome printing for Cardstock and Glossy Cardstock in 35-sheet models and Cardstock, Glossy Cardstock, and Transparencies in 25-sheet models.

Change the following values in dC131 NVM Read/Write, only for the color exhibiting the problem:

- Change 740-134: SmearSwitch_NORMAL_D from **0** to **1**.
- Change 740-135: SmearSwitch_NORMAL_G from **0** to **1**.
- Change 740-136: SmearSwitch_THICK1_S from **0** to **1**.
- Change 740-137: SmearSwitch_THICK2_S from **0** to **1**.
- Change 740-140: ProductivityChangeSW_forSmear from **0** to **1** . (Heavyweight Smear Countermeasure) * This is valid only for 25-sheet and 35-sheet models.

IQ22 Rough Black RAP

On paper that is not flat, has a rough surface, or has poor hue, the toner is not transferred onto paper well.

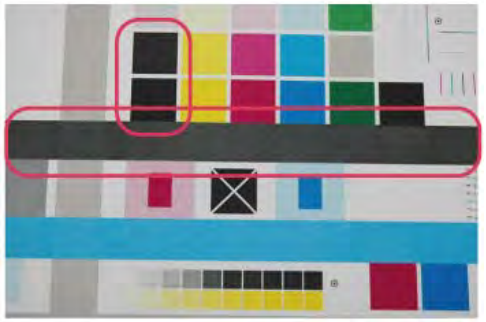


Figure 1 Rough Black Defect Sample

Initial Actions

Check customer print to verify that the same problem does not occur for the same job printed on paper that is flatter, smoother, or has a better hue as in Figure 1.

Procedure

Go to dC909, Calibrate for Paper, to adjust 2nd Transfer Voltage for desired result.

IQ23 Moist Paper Transfer Failure RAP

The resistance is lowered because the paper is moist. The K color contains carbon that causes it to have larger dielectric loss, and hence it requires a different electrical field from the other colors. There is no latitude because the difference in required electrical field between multi color and K color is larger than the difference between paper resistance and toner resistance.

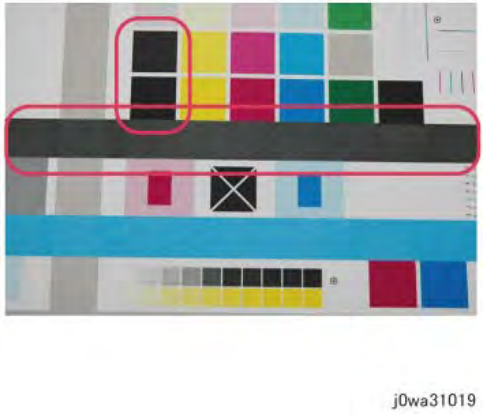


Figure 1 Defect Sample

Initial Actions

Print using freshly unpacked paper of the same type as the defective paper, then compare the roughness and blank areas for K color and single color as in Figure 1.

Procedure

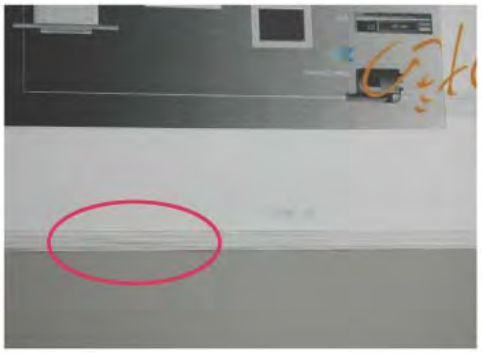
Be sure to use freshly unpacked paper.

IQ24 Toner Contamination at Lead/Trail Edge RAP

Toner contamination suddenly appears on the 2nd BTR or Belt (background) while in color mode.

Lead Edge: Paper lead edge contacts the Belt when it is transported from Registration to Transfer.

Trail Edge: The trail edge of Paper that loops between the Transfer-Fusing sections, at the release of the Secondary Transfer NIP, moves opposite to the feed direction and contacts the BTR surface, or bounds up and contacts the Belt



j0wa31020

Figure 1 Toner Contamination at Lead/Trail Edge Defect Sample

Initial Actions

Run 1-Sided print to check on which side (transfer side or side 2) the contamination exists as in Figure 1.

Procedure

Note: Since increasing the charge voltage for background area causes the repeatability of fine lines to deteriorate, take the balance into consideration.

1. Access UI Diagnostics. (UI Diagnostic Mode).
2. Change the value of dC131 NVM Read/Write location [753-054 to 753-057] from **110** (default value) to **120** for the target color.
   - 753-054: Reference CF [Y]
   - 753-055: Reference CF [M]
   - 753-056: Reference CF [C]
   - 753-057: Reference CF [K]
3. After changing NVM, power off/on the machine.
4. Execute ProCon On Print (ADJ 9.3) on coated paper. If the image quality is good, go to Final Actions.
5. If the image quality is still not good, change the value of NVM locations 753-054 to 753-057 from **120** to **130** for the target color.

   Note: By changing NVM, fine line reproduction and highlight reproduction may get worse. (worse when the value is changed to **130**)
   - 753-054: Reference CF [Y]
   - 753-055: Reference CF [M]
   - 753-056: Reference CF [C]
   - 753-057: Reference CF [K]
6. If high background becomes worse after changing NVM, put NVM back to original.

IQ25 Trail Edge Transfer Failure RAP

This RAP troubleshoots for an image defect that looks like a rough image or blank area (in Lead Edge-to Trail Edge direction) that occurs for images within 10mm (including margins) from the paper trail edge.

The paper trail edge, after the Secondary Transfer NIP has been released, bounded up due to the fusing stroke effect and re-transfers to the Transfer Belt.

Figure 1 Trail Edge Transfer Failure Defect Sample

Initial Actions

Check customer print to verify an image defect that looks like a rough image or blank area (in Lead Edge-to Trail Edge direction) that occurs for images within 10mm (including margins) from the paper trail edge as in Figure 1.

Procedure

There is no corrective action.

IQ26 Color Lines RAP

If customer uses paper which causes a lot of paper debris and also run long run-length jobs, paper debris will adhere to the IBT cleaner, which may result in poor cleaning of residual toner on the Transfer Belt. Transfer Belt reverse rotation is needed to remove such residual toner from the Transfer Belt.

Figure 1 Color Lines Defect Sample

Primary Causes

Presence of paper dust in between the Transfer Belt and the Transfer Belt Cleaner Assembly blade causes poor cleaning.

Initial Actions

1. Check customer print to verify presence of paper dust in between the Intermediate Belt Transfer and the Transfer Belt Cleaner Assembly blade as in Figure 1.
2. Remove the Transfer Belt Cleaner Assembly to check if foreign substances exist at the tip of the cleaner blade. (REP 9.1)

   If check is true, clean the tip of the Transfer Belt Cleaner Assembly blade.
3. If the side that is opposite to the Intermediate Belt Transfer has toner scrapes or if the color lines disappear after the tip of the blade is cleaned, follow the procedure below.

Procedure

Note: By default, NVM 746-020 is **0** Transfer Belt reverse rotation is only performed at end of job (e.g. if a job is for 1000 pages, Transfer Belt reverse rotation is performed after printing 1000 pages).

When NVM 746-020 is **1** , Transfer Belt reverse rotation is performed after a number of pages, determined by the value in location 746-125 (default is 7000 = 70 pages). NVM location 746-021 controls the length of time that the transfer belt is reversed. The machine always cycles down after printing 70 pages and performs Transfer Belt reverse rotation to remove residual toner on the Transfer Belt.

1. Change the dC131 NVM Read/Write location [746-020] to **1** to change the Transfer Belt reverse rotation:

- 0; Reverse at Job End
- 1: Reverse during Job
- 2: Do not Reverse

2. Change the dC131 NVM Read/Write location [746-021] to change the Transfer Belt reverse rotation; increasing the value increases reverse rotation time.
3. If Transfer Belt reverse rotation needs to be performed more often, then the value in NVM 746-125 should be a smaller value.

IQ27 Transfer Blank Areas (Partially Moist Paper) RAP

Ripples in partially moist paper become wrinkled in the Transfer section, causing blank areas to appear.

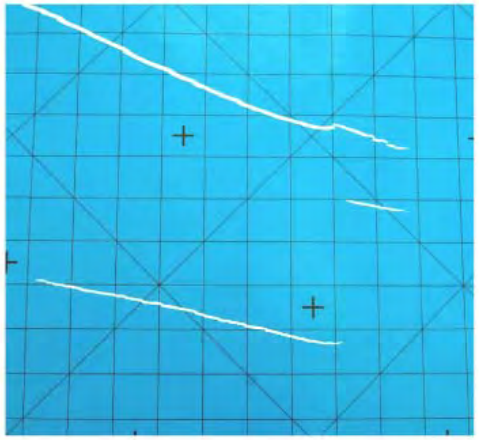


Figure 1 Transfer Blank Areas (Partially Moist Paper) Defect Sample

Initial Actions

Check customer print to verify defect in paper that has uneven moisture content as in Figure 1.

Procedure

Replace the paper in use with fresh, dry paper of the correct specification. Ensure that the loaded media matches the UI or print driver settings.

Advise customer to try LEF paper feed or use horizontal-grained paper. In damp conditions, optional tray heater may be required.

IQ28 Nip Marks RAP

When using transparencies, slight lines may appear at the Fuser Heat Roll Pitch as in Figure 1.

j0wa31026

Figure 1 Nip Marks Defect Sample

Procedure

No action required. This occurs when a transparency is the first thing printed after starting up a machine that has been left idle for a few days without heating up.

IQ29 Moisture RAP

Distorted image may appear at one side or both sides of the paper trail edge when printing half-tone fill as in Figure 1.

j0wa31027

Figure 1 Moisture Defect Sample

Procedure

1. No special actions required.
2. Try not to print in the early mornings.
3. Ask the customer to use fresh paper whenever possible.

IQ30 Low Image Density RAP

This RAP troubleshoots the causes of output images showing image density lower than specification.

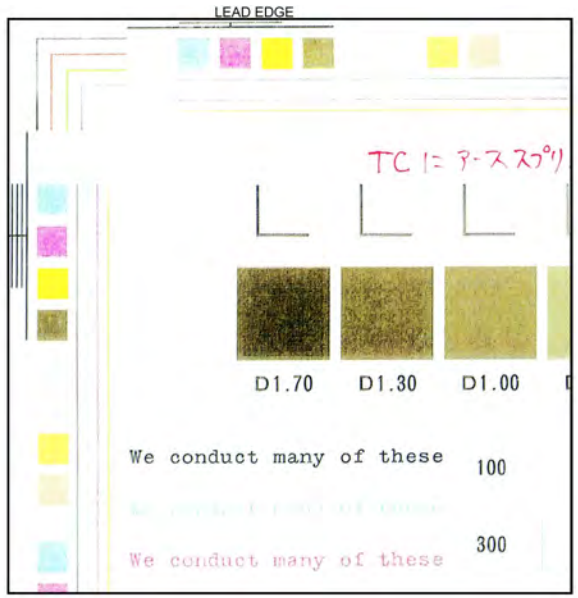


Figure 1 Low Density Defect Sample

Initial Actions

1. Check customer print to verify images showing image density lower than specification as in Figure 1.
2. Use the LPH Cleaner to clean the LPH (PL60.05).
3. Replace the paper in use with fresh, dry paper of the correct specification.
4. Determine if the Drum Cartridge or any of the Toner Cartridges are approaching end-of-life. Replace if necessary.
5. Perform Max Setup (ADJ 9.16). If this does not resolve the problem, continue with this RAP.

Procedure

Print Test pattern -7 (dC612).

The defect involves a single color.

Y N

Print Test pattern -7 (dC612). Open the Front Door in the middle of the print job (approximately 7 seconds after selecting **Start**). Extend the IBT.

There is a good toner image on the Transfer Belt.

Y N

Clean the LPH and check for misalignment.

Check the 2nd BTR for damage or incorrect installation. Check the Backup Roll bias. If the problem continues, replace 2nd BTR Assembly. If this does not resolve the problem, replace the Transfer Belt (PL 90.35).

Swap the affected Drum Cartridge with an adjacent unit. Print Test Pattern -7 (dC612).

The defect moved to the new color.

Y N

Replace the Developer for the affected color (PL 5.2). If this does not resolve the problem, replace the ATC Sensor for the affected color (PL 5.2).

Replace the Drum Cartridge (see CRUs and Consumables in Section 6).

If the problem continues, replace the LPH Assembly for the affected color CMYK (REP 9.10).

IQ31 Wrinkled Image RAP

Areas of 11x17 in./A3 prints have distinctive worm track patterns in the image, and/or wrinkles in the paper itself.

Note: The following factors will increase the likelihood of this problem:

- Lighter weight papers.
- Larger papers.
- Short-grain 11x17 in / A3 papers.
- Old (not freshly opened) paper.
- 2 sided printing
- Fuser with 1100 or more hours of operating life.

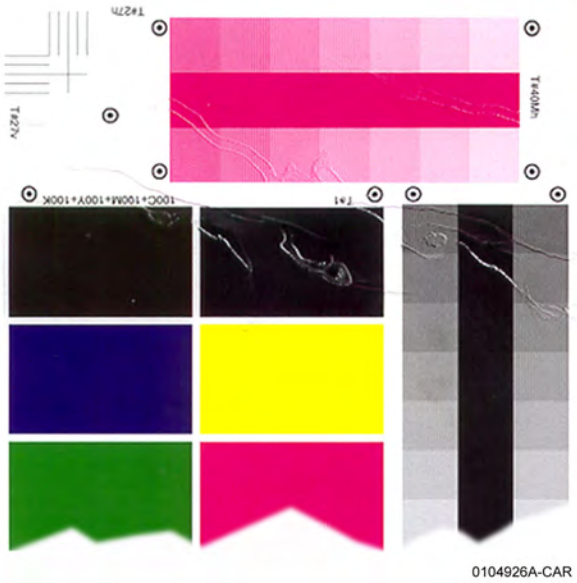


Figure 1 Wrinkled Image Defect Sample

Initial Actions

1. Check customer print to verify distinctive worm track patterns in the images in Figure 1.
2. Make the following modifications to the copy/print jobs if possible:
   - Ensure that the paper is dry and fresh.
   - Use heavier weight paper
   - Use long-grain paper.

Procedure

If the problem persists after performing the Initial Actions, replace the Fuser (PL10.05).

IQ32 IOT Background RAP

Defect may be due to incorrect Electrostatics, high TC, faulty ADC Sensor.

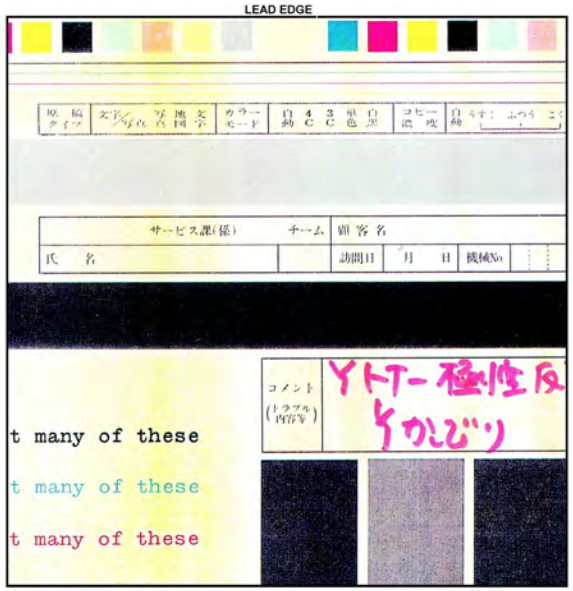


Figure 1 Background Defect Sample

Initial Actions

1. Check customer print to verify image defect as in Figure 1.

   Note: Some background is unavoidable on certain media, such as cardstock and transparencies. Ensure that the customer selects the correct settings on the UI and print driver.

2. Perform Max Setup (ADJ 9.16). If this does not resolve the problem, continue with this RAP.

Procedure

WARNING: Use extreme care when working near electrically energized components and high voltage cables that are exposed during troubleshooting or repair. Contact with electrical components or high voltage cables represents a shock potential that could result in serious personal injury.

DANGER: Faire très attention en travaillant près des éléments sous tension et des câbles HT qui sont exposés pendant le dépannage. Tout contact avec les éléments électriques ou les câbles haute tension représente un risque de choc et de graves blessures.

AVVERTENZA: Fare estrema attenzione quando si lavora vicino a componenti sotto tensione e cavi elettrici esposti durante l'intervento. Il contatto con componenti sotto tensione o cavi elettrici comportano un serio pericolo di scossa elettrica e gravi ferite.

VORSICHT: Während dem Reparieren oder der Fehlerbehebung muss man beim Umgang mit elektonisch aufgeladenen Bauteilen und Hochspannunsgleitungen äußerste Vorsicht walten. Beim Umgang mit elektrischen Bauteilen und Hochspannungsleitungen erhöht sich das Unfallrisiko. Äußerste Vorsicht ist geboten.

AVISO: Use extrema precaución altrabajar cerca de componentes cargados eléctricamente y cables de alto voltaje que estén expuestos mientras soluciona problemas o realiza reparaciones. Todo contacto con componentes eléctricos o cables de alto voltaje representa un peligro que puede ocasionar daños personales graves.

The problem occurs only when scanning or copying with the DADF or directly from the platen.

Y

The problem is Single Color Background.

Y

Examine the face of the ADC Sensor.

The ADC Sensor is clean.

Y

Go to the 392-649, 392-650, 392-651 ADC Sensor Fail RAP to troubleshoot the ADC Sensor Solenoid.

N

Examine the Transfer Belt for excessive dirt, damage, or uncleaned toner.

The Belt is clean.

Y

Check the Transfer Belt Cleaner for damage or wear. Clean or replace as required.

N

Check the Developer bias circuit for -600VDC (nominal Default).

Developer Bias is present.

Y

Go to the following BSDs and check the wiring from the MD Main PWB to the Eve HVPS:

- BSD 90.15
- BSD 90.16
- BSD 90.8
- BSD 90.8
- BSD 90.7
- BSD 40.1

C

N

B

A

A

B

C

- BSD 90.18
- BSD 90.17

If the wiring is OK, replace the Eve HVPS power supply (PL 18.5).

If the problem still exists, replace the MDM PWB (PL 18.2).

If Developer Bias is OK, replace the Transfer Belt (PL 6.3). If this does not solve the problem, replace the 2nd BTR (PL 14.1)

Check the following:

- Check the end-of-life counter for the Toner Cartridge and Drum Cartridge for the affected color. Replace if at or near end-of-life (see CRUs and Consumables in Section 6).
- If the problem continues, examine the Developer Housing for the affected color. Check for toner bridging, uneven brush, or loose High Voltage terminals. Clean, repair, or replace as required (PL 5.2).

This is not an IOT problem. Go to the IQ51 Background (IPS) RAP and trouble shoot the problem.

IQ33 Color-to-Color Misregistration RAP

Failure of the IBT walking from rear to front or front to rear.

Defect may be due to mechanical problem in the IBT Assembly.

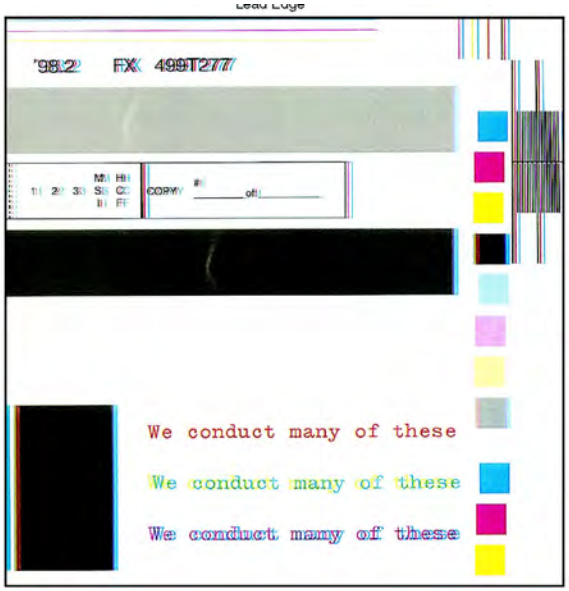


Figure 1 Color Misregistration Defect Sample

Initial Actions

1. Check customer print to verify color to color misregistration as in Figure 1.
2. Adjust the color registration (ADJ 9.6). If the problem remains, continue with this procedure.

Procedure

If the problem involves a single color, go to Registration Control Setup Cycle (ADJ 9.10).

IQ34 Skew/Misregistration/Magnification RAP

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

BSD 80.4 Tray 2 Paper Transport

BSD 80.5 2TM Paper Transport

BSD 80.6 TTM Paper Transport

This RAP is used when Skew, System Registration, or Magnification are out of specification. For Color-to-Color-Misregistration, go to the IQ33 RAP.

Initial Actions

Load some new, dry 24 lb. 11X17/A3 Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) into each paper tray (use 8.5X11/A4 in Tray 1). Make 3 full color copies from each paper tray. Mark the appropriate paper tray on these copies.

Procedure

The defect is still present when using the proper paper.

Y N

Explain to the customer that new, dry, 24 lb. Xerox COLOR Xpressions (NASG), or 90 GSM Colortech + (ESG) paper is the specified paper to use.

The problem occurs only in the printer mode.

Y N

The defect is a magnification error (image size error) that occurs with some papers.

Y N

The defect occurs when the document is manually registered on the platen glass.

Y N

There is a problem with the DADF either in the paper path or in the adjustments. Perform the following in order:

1. Ensure that the Document Transport Belt is clean and that there are no obstructions in the paper path.
2. Check the DADF drive rolls and pinch rolls for wear or glossing.
3. Adjust DADF Skew (ADJ 5.1)
4. Adjust DADF Registration Automatic Adjustment (dC608) (ADJ 5.5).

There is a problem in the paper path, IOT Registration, or IIT (Scanner) Registration.

The defect is Skew.

Y N

Check and adjust (if necessary) IOT Lead Edge/Side Edge Registration (ADJ 90.1). Make 10 copies from each tray from the platen glass using test pattern 82E8220.

There is variation in registration.

Y N

The defect is still present.

Y N

Return to Call Flow.

D

C

B

A

A

B

C

D

Adjust Document Glass Registration Automatic Adjustment (dC609) (ADJ 6.7).

The defect occurs on copies from all five paper trays.

Y N

Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder (PL 80.05)
- Tray 2/3/4 Feeder (3TM) (PL 80.15)
- Tray 2 Feeder (TTM) (PL 80.05)
- Tray 3 Feeder (TTM) (PL80.40)
- Tray 4 Feeder (TTM) (PL80.40)
- Tray 5 Feed Assembly (PL 60.10)

Perform the following in order:

1. Check the Registration Transport Assembly (PL 80.90) (C8130/35/C45/55), (PL 80.90) (C8170) paper path for obstructions.
2. Check the components in the Registration Transport Assembly (PL 80.90) (C8130/35/C8145/55), (PL 80.90) (C8170) for wear, slipping, damage, or contamination. Clean/replace as required.
3. Check the paper path from the Registration Transport Assembly to the Exit Rolls for obstructions. Refer to the appropriate Paper Path BSD.
4. Check the components in the paper path from the Registration Transport Assembly to the Exit Rolls for wear, slipping, damage, or contamination. Refer to the appropriate Paper Path BSD. Clean/replace as required.

The defect occurs on copies from all five paper trays.

Y N

Check the feeder for the affected tray for wear, slipping, damage, or contamination.

- Tray 1 Feeder (PL 80.05)
- Tray 2/3/4 Feeder (3TM) (PL 80.15)
- Tray 2 Feeder (TTM) (PL 80.05)
- Tray 3 Feeder (TTM) (PL80.40)
- Tray 4 Feeder (TTM) (PL80.40)
- Tray 5 Feed Assembly (PL 60.10)

Perform the following in order:

1. Check the Registration Transport Assembly (PL 80.90) (C8130/35/C8145/55), (PL 80.90) (C8170) paper path for obstructions.
2. Check the components in the Registration Transport Assembly (PL 80.90) (C8130/35/C8145/55), (PL 80.90) (C8170) for wear, slipping, damage, or contamination. Clean/replace as required.

B

A

A

B

3. Check the paper path from the Registration Transport Assembly to the Exit Rolls for obstructions. Refer to the appropriate Paper Path BSD.
4. Check the components in the paper path from the Registration Transport Assembly to the Exit Rolls for wear, slipping, damage, or contamination. Refer to the appropriate Paper Path BSD. Clean/replace as required.

Go to Image Size Adjustment (dC603) (ADJ 9.18) and adjust IOT magnification.

The problem occurs on all jobs.

Y N

Have the customer re-evaluate affected jobs and re-send.

Refer to the DFE Service Guide.

IQ35 Process Direction Bands, Streaks, and Smears RAP

Contamination of LPH, damage to or contact with Transfer Belt or Drum Cartridge.

Clog in Developer Housing, malfunction of Belt Cleaner, contaminated LPH.

Figure 1 Streak Deletion Defect Sample

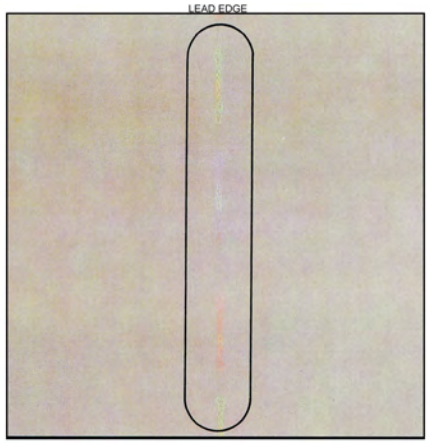


Figure 2 Streak Defect Sample

Initial Actions

- Check customer print to verify Process Direction Bands, Streaks, and Smears as in the following:
  - Figure 1
  - Figure 2
- Clean the Transfer Belt Cleaner. Check for wear or damage
- Clean the Fuser. Check the metal stripper baffle in the Fuser for contamination.
- Check the 2nd BTR and the Detack Sawtooth (DTS) for Toner contamination.
- Use the LPH Cleaner to clean the LPH.

Procedure

Note: The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every third sheet, or may only occur every 14 sheets.

The defect occurs in approximately the same position on multiple prints.

Y N

If the defect occurs intermittently, examine the Developer Housings for evidence of toner clumping. If clumping is found, replace the Developer (REP 9.15).

The defect is full-width (LE - TE) Figure 1.

Y N

Remove the Fuser Assembly. Examine the Heat Roll for damage or contamination. Clean or replace as required (PL 7.1).

Check the Transfer Belt Cleaner (PL 6.1). Ensure that the blade and the Mylar backing are free from damage. Check that the auger turns freely. Clean, repair, or replace as required.

Check the Developer Housing (PL 5.2). Repair or replace as required (REP 9.14).

If the problem is related to a single color, replace the Drum Cartridge (see CRUs and Consumables in Section 6).

Enter dC612 (Test Pattern Print). Select Test Pattern 9. Print a 40% coverage pattern for each single color.

The defect is present for all colors.

Y N

- Check Drum Cartridge for affected color. Check for damage or contamination to the BCR.
- Replace the Developer (REP 9.15) for the affected color. Check the housing for damage or toner clumping.

Remove the Transfer Belt Cleaner (PL90.30). Inspect the cleaning blade and Mylar seal for damage. Clean or replace as required.

If the Transfer Belt Cleaner is OK, check the Transfer Belt (PL90.30) for damage or contamination. Ensure that there is no debris or loose wiring, etc. in contact with the belt. Clean or replace as required.

IQ36 Unfused Copy/Toner Offset RAP

Initial Actions

- Replace the paper in use with fresh, dry paper of the correct specification.
- Check the post-Fuser transport areas for dirt.
- Ensure that the media being used matches the settings on the UI screen or print driver. Using the next heavier setting may resolve the problem.
- If the Key Operator/Administrator has configured certain trays for a specific type of media, ensure that the specified media is actually loaded in those trays.

Procedure

Check the following:

- Check the Sensor Assembly (PL 6.2) for contamination or incorrect mounting. Clean, repair, or replace as required.
- Check the Fuser (PL 7.1) for damage, toner offsetting, paper wrap, or incorrect installation. Clean or replace as required.

After resolving the problem, make 10 blank copies (letter size, Black mode) to clean residual toner from the Fuser Heat Roll and Fuser Belt. If the problem persists, or if Lead Edge contamination is present, remove the Fuser Exit Chute (PL 7.1) and clean any toner or paper residue from the Exit Chute and the metal stripper baffle.

IQ37 Repeating Bands, Streaks, Spots, and Smears RAP

Damage, density variation, or deletions caused by rotating component. Spacing equal to effective circumference of part.

Faulty Photoreceptor/Developer Housing gear or bearing problem.

Figure 1 Repeating Defects Sample Image

Figure 2 High Frequency Bands Defect Sample

Initial Actions

Check customer print to verify Repeating Bands, Streaks, Spots, and Smears as in the following:

- Figure 1
- Figure 2

Procedure

Measure the distance between the repeating defects. Locate the distance on the table below. Perform the indicated repair actions.

Table 1 Repeating Defects

Repetition spacing	Component(s)	Repair Actions
<4 MM.	High Frequency Banding	
95 MM.	Photoreceptor	Single Color - Replace the Drum Cartridge (see CRUs and Consumables in Section 6).
38 MM.	BCR	
56 MM.	Developer Mag Roll	Check Developer roll bias for floating or shorting out. Replace Developer Housing (PL 5.2) if required.
84 MM.	Fuser Heat Roll	Ensure correct paper type is set for the actual paper in the paper tray. Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1).
94 MM.	Fuser Pressure Belt	All Colors - Remove the Fuser Assembly. Check the Heat Roll for damage (nicks, wear, or cuts) or contamination. Clean or replace as required (PL 7.1).
25mm	BTR 1 Roll	
55 MM.	BTR 2 Backup Roll BTR 2 Roll	Check the 2nd BTR Assembly for damage or contamination. Clean, repair or replace as required. Replace the Transfer Belt (PL 6.3).
81 MM.	IBT Drive Roller	

IQ38 Spots RAP

Initial Actions

Ensure that the paper in use is fresh, dry, and within specification for weight and quality.

Check print driver and copier control panel settings to ensure the media is being run in the proper mode.

Procedure

The defect occurs in Copy mode only.

Y

N

The spots occur at a fixed interval on each print.

Y

N

The spots occur in the same location on every letter size print.

Y

N

Note: The repetition rate for Transfer Belt defects varies considerably, depending on paper size and mode of operation. The defect may appear as frequently as every third sheet, or may only occur every 14 sheets.

The defect occurs in approximately the same position on multiple prints.

Y

N

The problem is Fuser offset and/or lead edge smears or spots.

Y

N

CAUTION: Do not use a vacuum cleaner or any solvents in the following step. Damage to the Transfer Belt Cleaner will result.

Remove the Transfer Belt Cleaner (REP 9.1). Carefully clean the cleaning blade and the Mylar shield with a soft brush or a lint free cloth. Brush away any accumulation of toner on the foam seal and the outside surfaces. Wipe the surface of the Transfer Belt with a lint free cloth.

If the problem continues, replace the Transfer Belt Cleaner (PL 6.1).

Go to the RAP IQ28 RAP.

Check the Transfer Belt (PL 6.3) for dirt or damage. Clean or replace as required.

Check the Drum Cartridge for dirt or damage. Clean or replace as required (see CRUs and Consumables in Section 6).

Go to the IQ37 RAP.

Ensure that the original is free from the defect.

Clean the Platen Glass and Lens.

IQ39 Missing Colors RAP

One or more of the primary (YMCK) colors is missing from the image.

Initial Actions

Use the LPH Cleaner to clean the LPH.

Procedure

Check wire harness between the LVPS and Motor Drive PWB for damage. Repair or replace the LPH Cable Assembly (PL60.05).

Check for damaged wiring from Motor Drive PWB to the LPH for the affected color YMCK:

- BSD 60.9
- BSD 60.10

If the wiring is good, replace the LPH Assembly for the affected color YMCK (PL60.05).

If the problem still exists, replace the Motor Drive PWB (PL 1.10).

IQ40 Background on Coated Paper

Compared to Plain Paper, background is a lot more visible on Coated Paper.

Paper types with better surface flatness (better transfer ability) and better toner absorption ability have more stress.

Initial Actions

Verify that the background level is worse than that on Plain Paper.

Procedure

1. Increase the background voltage by 10 to 20V to reduce background on the Drum. However, this will sacrifice the reproducibility of fine lines and highlight sections.

   Adjust the background voltage. The default voltage is 600V. The Adjustment NVM Read/Write (dC131) locations are:

   - NVM 753-006 (Y) Developer Bias DC Output Value for Y (0~700:0~700V)
   - NVM 753-007 (M) Developer Bias DC Output Value for M (0~700:0~700V)
   - NVM 753-008 (C) Developer Bias DC Output Value for C (0~700:0~700V)
   - NVM 753-009 (K) Developer Bias DC Output Value for K (0~700:0~700V)

2. Change the NVM locations listed below to increase the cleaning field voltage by approximately. 10 to 20V to reduce the background on the Drum. Note that this will sacrifice the reproducibility of fine lines and highlight areas.

   Color (YMC):

   Add +10 to +20 to each of the following values:

   - NVM location 753-237 CF Upper Limit Ref. Value - default = 110
   - NVM location 753-239 CF Lower Limit Ref. Value - default = 100
   - NVM location 753-241 CF Upper Limit: Lower Limit - default = 110
   - NVM location 753-243 CF Upper Limit: Upper Limit - default = 110
   - NVM location 753-245 CF Lower Limit: Lower Limit - default = 100
   - NVM location 753-247 CF Lower Limit: Upper Limit - default = 100

   Black and White (K) or Color (K):

   Add +10 to +20 to each of the following values:

   - NVM location 753-238 CF Upper Limit Ref. Value - default = 110
   - NVM location 753-240 CF Lower Limit Ref. Value - default = 100
   - NVM location 753-242 CF Upper Limit: Lower Limit - default = 110
   - NVM location 753-244 CF Upper Limit: Upper Limit - default = 110
   - NVM location 753-246 CF Lower Limit: Lower Limit - default = 100
   - NVM location 753-248 CF Lower Limit: Upper Limit - default = 100

IQ41 Multi Color Transfer Failure

Paper that has had its Side 1 fused has a reduced percentage of moisture content, which increases its electric resistance. Since the resistance in the Secondary Transfer section also increases by lower humidity or over time, the required electrical field may not be attained, especially in the early mornings (low humidity environment).

Due to the characteristics of the EA-ECO Toner, high Rsys (in the early morning low temperature and low humidity environment) requires a transfer voltage for the areas where multiple transfers and MWS cannot be used at the same time. Because the machine is adjusted for Multiple Transfer Priority by default, MWS may be visible from Side 1.

j0wa31021

Figure 1 Multi Color Transfer Failure Defect Sample

Initial Actions

1. Verify that the density on Side 2 becomes lighter when printing a high density image in a low temperature and low humidity environment as in Figure 1.
2. Change the Secondary Transfer voltage setting up or down, then compare the density to the paper with the defective image.

Note: Although the user offset is helpful, it deteriorates multiple transfers because they cannot be used at the same time. Also, because this problem recovers when the Rsys gets lowered as the machine internal temperature rises, the user offset adjustment cannot be recommended.

Procedure

1. Increase the Secondary Transfer voltage by decreasing the single color density or by changing the permissible range for MWS.
2. Apply the Secondary Transfer voltage user offset specifications.

   Reference : UI Operation Instructions for User Offset.

   a. Enter UI Diagnostic Mode.
   b. Select the **Adjustments** button.
   c. Select **NVM Read/Write** dC131.
   d. While the nominal value is **6** , perform variable output (between 1 and 16, low to high voltage) for secondary voltage, and register the optimal value.
   e. Nominal 200V/1 step and NVM Read/Write (dC131) location 747-019/020: Change the step width.

IQ42 Lines on Coated Paper (EXIT)

Lines are generated on Side 1 in 2 Sided mode.

When HW Gloss paper is output to Exit 1 using the 2 Sided mode in high temperature/high humidity environment, its Side 1 gets rubbed against the Exit Gate, resulting in lines as in Figure 1.

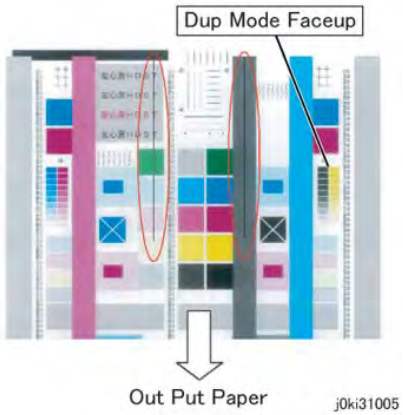


Figure 1 Lines on Coated Paper Defect Sample

Initial Actions

1. Check whether both sides are output to Exit 1.
2. During Side 2 output, check whether the Side 1 output direction is at the Trail Edge.

   If the above two conditions are met, this defect is likely to occur.

Procedure

Change the output tray to the Exit 2 Tray or the Side Tray.

- When paper is output to Exit 1 in 2 Sided mode, the convex part of the paper that bowed due to the corrugation of the Exit section makes contact with the Exit Gate, which generates brushed lines from the middle to the Trail Edge on the upper side (Side 1) of the exiting paper.

  This happens when the paper area that bowed due to corrugation makes contact with the Exit Gate.

IQ43 Caterpillar Mark (Transfer)

This is caused by low electric charge in toner.

A bit of changed electricity remains at Side 1 Trail Edge of lightweight paper in the C-Zone.

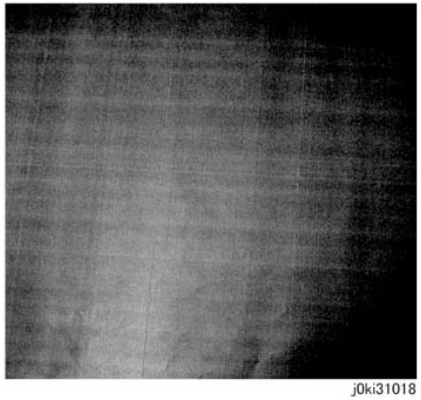


Figure 1 Caterpillar Mark Defect Sample

Initial Actions

1. Compare with the image sample. (Figure 1)

Procedure

1. Lower the TC and increase the primary transfer current value (same as the heat haze/mock heat haze countermeasure) (IQ46).
2. Because this may get worse during condensation, go through a few dozens of full image 2 sided sheets to handle it.

IQ44 White Stripes Due to Trimmer Jam (DEV)

When foreign substances such as dirt, dust, toner aggregate (including melted) exist in the Toner Cartridge, on the Toner Supply Path, or in the Developer Housing Assy and they reach the section between the Developer Roll and the Trimmer, it could obstruct the formation of the developer layer.

Initial Actions

1. Clean the LPH.
2. If the white stripes did not disappear, perform the following:

Procedure

1. Scoop and remove the foreign substances by inserting a sheet of paper into the gap between the Developer Roll and the Trimmer.
2. In most cases, the above procedure will not be able to remove the foreign substances. The reliable method is to replace the Developer Housing Assy.

IQ45 Heat Haze/Mock Heat Haze

Procedure

The heat haze/mock heat haze is generated in various places and in different ways.

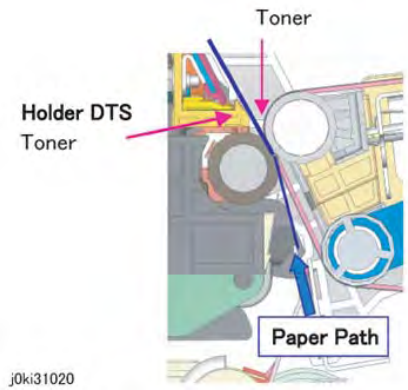


Figure 1 Heat Haze/Mock-Heat Haze

- Heat Haze:

  The heat haze occurs at the place where paper is peeled off from the IBT Belt as shown in Figure 1 and Figure 2 . The toner scatters in small clouds around the Solid Patch.

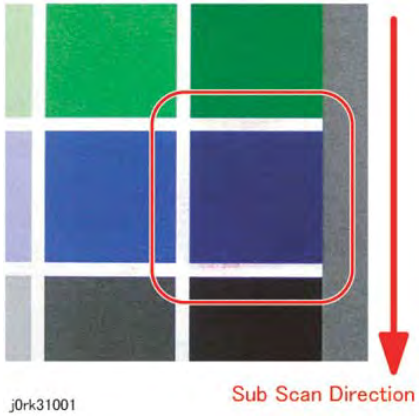


Figure 2 Heat Haze

- Mock Heat Haze:

  The mock heat haze occurs when the transported paper rubs against the Holder DTS (Chute at the Transfer EXIT) as shown in the Figure 1 and Figure 3 , which charges it electrically and causes the toner to scatter at the Lead and Trail edges of the Solid section. This might form streaks in some parts.

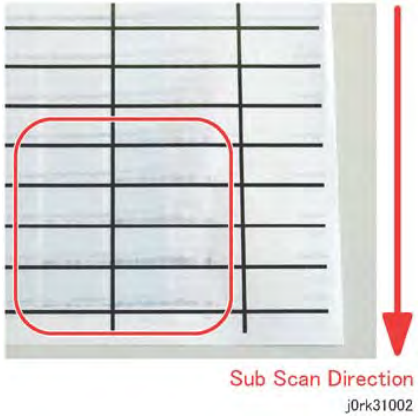


Figure 3 Mock-Heat Haze

Initial Action

1. Perform dC909 Calibrate for Paper, generate the test pattern and check whether the defect occurs for single K color or multiple colors, and whether the defect changes as a result of the procedure (secondary transfer voltage).
2. Perform dC991,Toner Density Setup; if the TC reads higher than the target according to the Check, lower the TC to meet the target.

Procedure

1. When heat haze or mock heat haze occurs, print 25 sheets of the dC909 test pattern on A3/11x17.

   Note: The following step is mainly effective for heat haze.

2. Adjust the secondary transfer voltage based on the results of step 1.
3. Adjust the primary transfer current value for toner scattering (mock heat haze) around K/ color texts:

   Note: The value in NVM 746-015 indicates the machine internal environment (temperature and humidity) and it is stored as an integer value between 1 and 10. The higher the temperature and humidity are, the smaller the value becomes and vice versa.

   a. Enter dC131, NVM 746-015 and make a note of the value.

   b. Change the primary transfer current value approximately to a value corresponding to the conditions in which the problem occurs (Table 2).

   - Refer to the following table for the NVM address to be changed (Table 1).

     (Model (ppm) & Output Color (FC/BW) & the value in NVM 746-015 noted above).

   - Because the machine internal temperature and humidity changes slightly during the day, also change the values before and after the value that was noted in NVM 746-015 above (if the value is **5** , change the NVMs for **4** and **6** too).

Example : If this problem occurs for 25ppm Full Color print and 746-015 is **9** , change the value of 745-405, 406, and 407 from 103 to 150.

Table 1 NVM Locations

Model	Color	746-015 (Environment No. for Temperature and Humidity 1-10)									
		1	2	3	4	5	6	7	8	9	10
25ppm	FC	745-398	745-399	745-400	745-401	745-402	745-403	745-404	745-405	745-406	745-407
	BW	745-408	745-409	745-410	745-411	745-412	745-413	745-414	745-415	745-416	745-417
35ppm	FC	745-448	745-449	745-450	745-451	745-452	745-453	745-454	745-455	745-456	745-457
	BW	745-458	745-459	745-460	745-461	745-462	745-463	745-464	745-465	745-466	745-467
45ppm	FC	745-498	745-499	745-500	745-501	745-502	745-503	745-504	745-505	745-506	745-507
	BW	745-508	745-509	745-510	745-511	745-512	745-513	745-514	745-515	745-516	745-517
55ppm	FC	745-548	745-549	745-550	745-551	745-552	745-553	745-554	745-555	745-556	745-557
	BW	745-568	745-569	745-570	745-571	745-572	745-573	745-574	745-575	745-576	745-577

Table 2 Adjusted Primary Transfer Voltage

Model	25ppm FC/BW	35ppm FC/BW	45ppm FC/BW	55ppm FC	55ppm BW
Initial Value	103	148	169	193	216
After Change	150	200	220	250	255

Note: NVM 746-005 stores the current value that was output last. In the case of 25/25ppm, 103 (10.3 MicroAmp) is stored before the adjustment and 150 (15.0 MicroAmp) is stored after the adjustment.

c. After performing steps a and b, make a test print and refer to NVM 746-005 (1st BTR Transfer Bias Last Output Value K) to check that the primary transfer output has changed to the new value.

Note: This procedure may result in worse ghosting (residual image due to electrostatic charge on the photoreceptor).

Print and check a test pattern. If the level of ghosting is bad, manually decrease the ATC target value in the following step.

This is effective for heat haze/mock heat haze.

4. Decrease the TC by 1 percent. **ATC Target Manual Correction Amount**

   Decrease K color by 1 percent. 752-845: 0 to 35

   Decrease Y color by 1 percent. 752-842: 0 to 35

   Decrease M color by 1 percent. 752-843: 0 to 35

   Decrease C color by 1 percent. 752-844: 0 to 35

   When the value is changed, the target value for MAX Setup/Adjust Toner Density also shifts by 0 to 35.

Note: Occurrence of both heat haze and mock heat haze are easily influenced by the paper orientation. As final step, copy an image which has solid portions located at various positions to check for them. Especially for the secondary voltage offset chart (dC909), only one patch in the area is useful because the secondary transfer voltage changes between Lead and Trail edges.

IQ46 Poor Reproducibility of Fine Lines (IOT Image Quality)

The Thin Line Correction Mode is the mode for correcting the poor reproducibility of 600dpi/1200dpi thin lines (Figure 1).

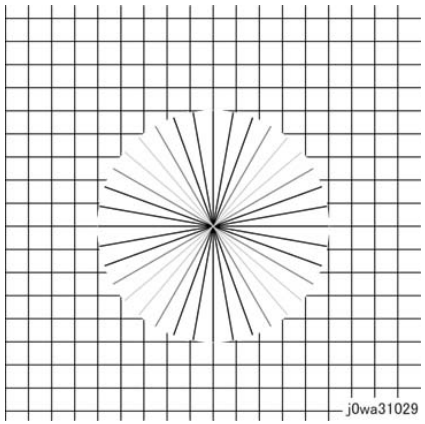


Figure 1 Poor Reproducibility of Fine Lines

Procedure

Because of the dispersion due to the difference in the machines, thin lines, especially slanted ones, tend to break up.

When this happens, use the Thin Line Correction Mode to correct it.

Note: When in use, the Thin Line Correction Mode might cause defects to appear in the images.

The Thin Line Correction only emphasizes line images and it cannot be used to increase the text density, and may cause:

1. Interference in the form of banding in ladder images
2. LPH streaks appearing in high temperature environment

Because of these reasons, keep the adjustment amount as low as possible.

Perform the Thin Line Correction by adjusting the following NVM values:

1. NVM Read/Write (dC131) location 749-247: 1200 Only Fine Line Correction -
   0: OFF (also performs correction for 600dpi)
   15: ON (only performs correction for 1200dpi)
   If the Thin Line Correction is also to be performed for 600dpi, use **0** . The default value is 15.
2. NVM Read/Write (dC131) location 749-246: Thin Line Correction Switch -
   0: Thin Line Correction OFF
   1: Thin Line Correction ON
   The default value is 0.
3. Thin Line Correction Amount Adjustment (Table 1):

Table 1 Thin Line Adjustment

NVM Address	Contents	Initial Value	Adjustment Range
749-251	Thin Line Correction Amount Y Color	0	0~255
749-252	Thin Line Correction Amount M Color	0	0~255
749-253	Thin Line Correction Amount C Color	0	0~255
749-254	Thin Line Correction Amount K Color	0	0~255

The larger the value, the more emphasis the thin line gets (amount of exposure is increased).

The amount of exposure increases +10 % at 120, +20 % at 220. The smaller value has fewer defects so 120 is recommended.

4. NVM Read/Write (dC131) location 752-006 Thin Line Correction_ADC_Switch - 0: OFF, 1: ON.
   Although this is normally set as 0 (OFF) during use, if the highlight reproduction is overdone, set this to 1 (ON).
   Default value is 0.

IQ47 Outboard Deletion in All Colors

These are light areas, faded or deleted, caused by toner buildup on the outboard side of the 1st BTRs.

Figure 1 Outboard Deletion (All Colors)

Initial Actions

1. Compare with the image sample (Figure 1).

Procedure

1. Remove the IBT Assembly (REP 9.2) and Transfer Belt Assembly (PL90.30 , item 5).
2. Clean the 1st BTR rolls (PL90.30 , item 1) in order to correct the problem.
3. Run test prints in order to verify that the problem is corrected.

IQ48 MWS (Side 2) (Micro White Spots)

When the resistance in the Secondary Transfer section is high, e.g. in the early mornings (low humidity environment), the transfer latitude between multicolor and monocolor is narrow and the setting voltage favors multicolor. In other words, the voltage is a little high for monocolor, and this causes the Transfer nip discharge phenomenon that creates the white spots on Side 2 in a low-humidity environment.

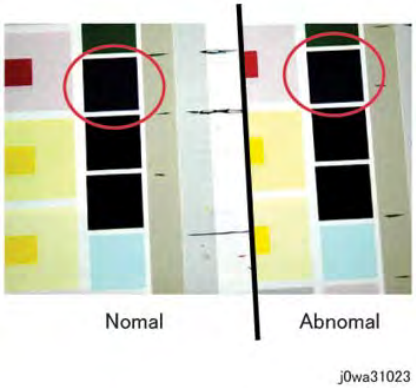


Figure 1 j0wa31023

Initial Actions

Verify that the micro white spots (MWS) appear on Side 2 when printing in a low humidity environment.

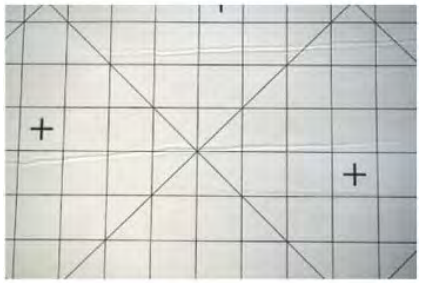
Procedure

Reduce the 2nd-transfer voltage for the paper type in use by decreasing the single-color density or by changing the permissible range for MWS (Micro White Spots) (dC909).

Note: As much as user offset can serve as a solution, both multi-color transfer and MWS cannot be simultaneously satisfied.Whichever is given priority will lead to deterioration of the other. Adjust based on the customer's expectation and requirement.

IQ49 Moist Paper Wrinkles (Fusing Unit)

When moisture gets into vertical grained paper, paper waves occurs at the tip of short edge side. If the paper enters the Fusing Nip in this condition, the Fusing Nip cannot feed the paper properly, resulting in wrinkles.



j0ki31017

Figure 1 Moist Paper Wrinkles

Initial Actions

Check the paper in the Tray for moistness and waviness at the lead edge in the Paper Feed direction.

Procedure

- Use fresh paper.
- Change the Paper Feed direction (LEF).
- Use horizontal grained paper.

IQ50 White Streaks in Process Direction/Dropping Density (XERO/CLN)

j0ki31016

Figure 1 j0ki31016

Initial Actions

TBS

Procedure

1. TBS

IQ51 Background (IPS)

A phenomenon like background (e.g. background color or document bleed) may occur depending on the document.

The default background suppression function is unable to fully remove the background.

Figure 1 Background (IPS)

Initial Actions

Set Background Suppression to **Enabled** and check whether background still occurs on the customer's document.

Procedure

1. Use dC131 to check, and if necessary, set the value of NVM location [715-518] to the correct value for the paper being used (Table 1).

   Table 1 NVM Values for Paper

Paper being used	Weight/ Size	Order Number	CSE Part No.	Value for NVM 715-518
Bold Digital Printing Paper	24lb/11x17	3R11543	128E01460	5
Colotech Plus Gold	90gsm/A3	3R98839	N/A	6

2. Use GP 5 to calibrate Image Quality for both Copy and Print.

   Check with the customer. If the background problem is resolved, do not continue. Return to Call Flow. Otherwise, continue with step 3.

3. Make the following adjustments using dC945:

   CAUTION: Make ONLY these adjustments. In particular, do NOT perform the Optical Axis Calibration.

   a. White Reference Platen

   b. White Reference DADH

   Check with the customer. If the background problem is resolved, do not continue. Return to Call Flow. Otherwise, continue with step 4.

4. Set and adjust Auto Background Suppression.

   a. Enable Auto Background Suppression to be on by default. Enter System Administrator Mode (GP 2) and select the Tools tab. Use the following process to enable Auto Background Suppression:

   Select **Service Settings** > **Copy Service** > **Feature Defaults** > **Image Quality** > **Image Enhancement** > **Background Suppression** > **Auto Suppression**.

   Select the **OK** button, then select the **Check Mark** button in the upper right corner of the screen to save the settings and logout of System Administrator Mode.

   Check with the customer. If the background problem is resolved, do not continue. Return to Call Flow.

   b. If setting the Auto Background Suppression on fails to reduce enough background or removes too much Highlight, adjust the appropriate NVM values for the amount of ABS. Use the dC131 to adjust Copy, Scan and FAX settings. Refer to Table 2 for the NVM locations.

   Note: The default value for the locations listed in Table 2 is 2. Values less than 2 do less background suppression, while values more than 2 do more suppression. The range is 0 to 4.

   Table 2 Background Suppression Level Adjustment by Mode

NVM Location Description	NVM Location
Copy ABS Level - Platen	610-003
Copy ABS Level - DADH	610-004
Scan ABS Level - Platen	610-019
Scan ABS Level - DADH	610-020
Fax ABS Level - Platen	610-033
Fax ABS Level - DADH	610-034

   Check with the customer. If the background problem is resolved, do not continue. Return to Call Flow. Otherwise, continue with step 5.

5. Use dC919 to reduce or boost highlights. Adjust all of the colors equally so that hue doesn't shift.

   Check with the customer. If the background problem is resolved, do not continue. Return to Call Flow. Otherwise, continue with step 6.

   CAUTION: When replacing the IIT PWB, use the new EEPROM that will be on the replacement part and follow the appropriate steps in the IIT PWB replacement procedure.

6. If the steps listed previously fail to resolve the customer's problem, replace the IIT PWB (PL 60.25).

7. If there is still unacceptable background on the customer's copy, call Service Support for assistance.

IQ53 Highlight Density Reproduction (NVM Darken +3) (IPS)

This is used to reproduce the highlight (light colors) in darker shade.To prevent background, the highlight reproducibility is adjusted.

Procedure

1. Set the density adjustment to **Darken +1** ~ **Darken +3**.

   * When the highlight is not reproduced after performing the density adjustment in (1), it can be adjusted by the following method:

2. Set the background suppression to **Disabled**.

   * Although may cause background to appear, it improves the highlight reproducibility.

3. In the case of Copy Service, adjust the density by using **DC919: Color Balance Adjustment**.

   In the case of Scan Service, increase the **Scan Resolution**.

   * The highlight reproducibility is improved more with 600dpi than 200dpi.

4. The following describes the adjustment method that is only valid for Output Color **BW** and Original Type **Text**.

   Density Adjustment: Darkening the Highlight
   Table 1 Density Adjustment: Darkening the Highlight

NVM Chain-Link	Service	Mode	How to Use
715-720 N/A	Copy	Output Color **BW** Original Type **Text** Density **Normal**	The highlight is reproduced darker when a value larger than the default value (128) is set. The recommended value is 120.
715-721 N/A	Copy	Output Color **BW** Original Type **Text** Density **Darken +3**	The highlight is reproduced darker when a value larger than the default value (128) is set. The recommended value is 120. The density of Darken +3 and Normal may be reversed depending on the setting value.
715-722	Fax Scan	Color Scanning **BW** Original Type **Text** Density **Normal**	The highlight is reproduced darker when a value larger than the default value (128) is set. The recommended value is 125.
715-723	Fax Scan	Color Scanning **BW** Original Type **Text** **Density Darken +3**	The highlight is reproduced darker when a value larger than the default value (128) is set. The recommended value is 125. The density of Darken +3 and Normal may be reversed depending on the setting value.

* The NVM value adjustment is done by visually checking the copy or scan output while performing the adjustment.

IQ54 Highlight Density Reproduction (NVM Lighten +3) (IPS)

This is used to reproduce the density in lighter shade.

Procedure

1. Set the density adjustment to **Lighten +1** ~ **Lighten +3**.

   * When desired image quality cannot be obtained after performing the density adjustment in (1), the following adjustment method is also available:

   Countermeasure (2): In the case of Copy Service, adjust the density by using **Color Balance Adjustment**.

   The following describes the adjustment method that is only valid for Output Color **BW** and Original Type **Text**.

   Density Adjustment: Lightening
   Table 1 Density Adjustment: Lightening

NVM Chain-Link	Service	Mode	How to Use
715-720 N/A	Copy	Output Color **BW** Original Type **Text** Density **Normal**	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 136.
715-721 N/A	Copy	Output Color **BW** Original Type **Text** Density **Darken +3**	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 136. The density of **Darken +3** and **Normal** may be reversed depending on the setting value.
715-722 N/A	Fax Scan	Color Scanning **BW** Original Type **Text** Density **Normal**	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 132.
715-723 N/A	Fax Scan	Color Scanning **BW** Original Type **Text** Density **Darken +3**	The highlight is reproduced lighter when a value larger than the default value (128) is set. The recommended value is 132. The density of **Darken +3** and **Normal** may be reversed depending on the setting value.

* The NVM value adjustment is done by visually checking the copy or scan output while performing the adjustment.

IQ56 CVT Streaks (IPS)

Dirt such as paper dust is generated at the DADF scan position. The streaks in the SS direction are created when that contamination is scanned

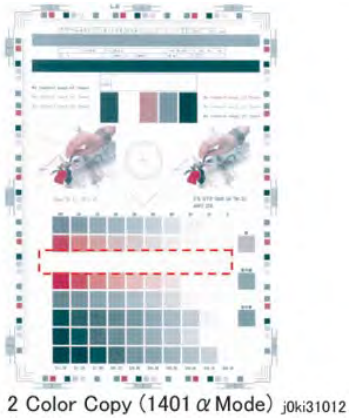


Figure 1 j0ki31012

Initial Action

1. Check whether dirt such as paper dust exists at the DADF scan position.

Procedure

1. Clean the DADF scan position.

IQ57 Copy: Gradation Jump in Text & Photo (IPS)

In the BW and Text & Photo Copy mode, gradation jump occurs on 100-line photo documents.

As Text & Photo mode gives priority to 175 lpi halftone dots and text quality, Sharpen Edge is performed for lower lpi.

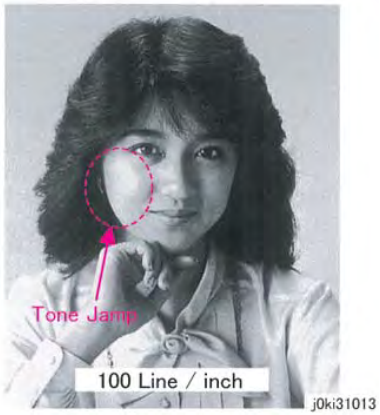


Figure 1 j0ki31013

Procedure

Take the following countermeasures for 100-line documents:

Table 1 100-line Document: Countermeasures

Countermeasures	Secondary Defect
Set the Original Type to **Photo**.	The text becomes blurred.
Select **[Tools] > [Common Service Settings] > [Image Quality Adjustment] > [Image Quality]** and adjust **[Photo & Text Recognition]**	Image quality of photographs deteriorate in [More Text] and [Text] settings. Text becomes blurred in [More Photo] and [Photo] settings.

IQ58 Scan: Smeared Text, JPEG Mosquito Noise (IPS)

Color texts are blurred and mosquito noise is generated around the texts due to JPEG compression.

Note: As the JPEG compression technique is for images, not texts, noise is easy to crop up when it is used to compress texts.

Figure 1 j0ki31014

Procedure

1. From the Services screen select **Workflow Scanning >Advanced Settings >Resolution** . Select 400 or 600 dpi button.

IQ59 Moire In Text Mode (Fine) BW Scan/Fax For 133 lpi Originals (IPS)

When a document with tint on the whole paper or a background image is scanned using Fax Text mode in High Quality (Fine), the file size or the Fax transmission time may increase drastically.

As the Text mode is designed to highlight texts, it generates halftone dot moire.

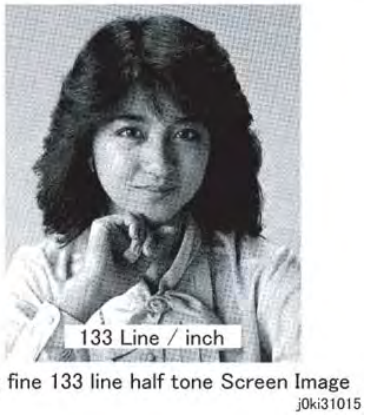


Figure 1 j0ki31015

Procedure

1. Scan the customer's document (photo image) in Binary Scan mode and check whether moire is generated and the file size became bigger.
2. Take the following countermeasures for 133-line documents:
   Table 1 133-line document: Countermeasures

Countermeasures	Secondary Defect
Set the Original Type to **Photo >Lighten/Darken**	As the amount of data increases in Text & Photo mode, the machine takes a longer time for transmission.
Set the density adjustment to **Lighten**.	The text quality is degraded.

IQ60 Copy: Bleed on 2 Sided Document (IPS)

Bleed occurs in the Copy BW and Text mode.

Note: Because the gradation feature is designed to improve the reproducibility of Low Contrast, when bleed density of the document is high, the background suppression function might not be able to remove it completely.

Procedure

Take the following countermeasures for Bleed on document:

Table 1 Bleed on Document Countermeasures

Countermeasures	Secondary Defect
Switch the AE suppression level settings. (Switch the NVM per IQ51)	Reproducibility of highlights is degraded.
Set the density adjustment to **Lighten +1**.	The density on the whole area becomes lighter and the reproducibility of highlights is degraded.

IQ61 Copy: Platen Background (IPS)

When A4 stark white paper such as J Paper/Premier 80 is scanned into A3 when in Copy BW Text mode and AE is ON, the platen back density is reproduced outside of the copy range.

Note: Because some paper has a low background detection level, the density of the Platen background might not be fully removed, depending on the S/N level status of the IIT.

Procedure

Take the following Platen background countermeasures:

Table 1 Platen Background Countermeasures

Countermeasures	Secondary Defect
Switch the AE suppression level settings. (Switch the NVM per IQ51)	Reproducibility of highlights is degraded.
Set the density adjustment to **Lighten +1**.	The density on the whole area becomes lighter and the reproducibility of highlights is degraded.
Set the sharpness adjustment to **Soften +1**.	The text becomes blurred.

IQ66 Unevenness Correction Within Image Area (IOT Image Quality)

The LPH Exposure Amount Fine Adjustment is the process of adjusting the LPH exposure amount to correct the uneven density in the Axis Direction that arose due to various causes in the vicinity of the Drum for each YMCK color individually.

The LPH Exposure Amount Adjustment can be performed as negative correction within the range of 0 to -20 (%).

Correction Area

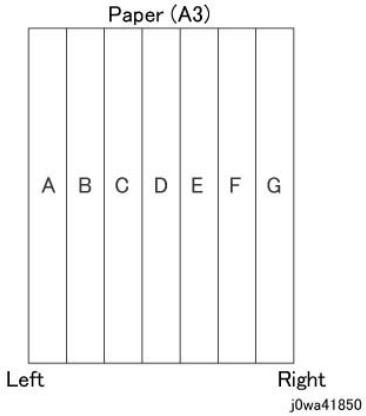


Figure 1 j0wa41850

Table 1 Correction Area Positions

	A	B	C	D	E	F	G
Distance from the left of image (mm)	0	52	103	154	206	257	308.9

As shown in the figure, the LPH zone is divided into 7 areas by setting the 6 points - from A (left-most edge) to G (right-most edge).

Adjustment is performed at each area to lower the LPH exposure amount until the density is even.

*There are cases where point A or G will lie beyond the image zone. Furthermore, the 154mm mark is the center of the image.

Note: As an overly large adjustment might cause jumps in gradation, make the adjustments as small as possible.

The adjustment amount (%) is not = amount of change in density.

The actual exposure level includes a process that converts the brightness of ADC Sensor Position to 100%.

[Purpose]

The LPH Exposure Amount Fine Adjustment is the process of adjusting the LPH exposure amount to correct the uneven density in the Axis Direction that arose due to various causes in the vicinity of the Drum for each YMCK color individually.

The LPH Exposure Amount Adjustment can be performed as negative correction within the range of 0 to -20 (%).

[Procedure]

1. LPH Exposure Amount Fine Adjustment ON/OFF Switch Selector

   To enable the LPH Exposure Amount Fine Adjustment function, set the following NVM as ON.

   Table 2 Smile Correction NVM

NVM Names	NVM Address	Contents	Initial Value	Adjustment Range
Smile Correction Switch	749-005	0: OFF 1: ON	0	0 or 1

2. Selection of Correction Method:

   The LPH Exposure Amount Fine Adjustment can be done by:

   a. Correcting the density skew in the IN-OUT direction

   b. Selecting a pre-prepared pattern to perform the correction

   c. Using custom correction to manually correct the adjustment amount for each area

   A combination of the various correction methods can be used. However, the correction cannot go beyond the 0 to -20 (%) range.

   a. IN/OUT Density Correction

      Corrects the IN-OUT density skew in the axis direction of the photoreceptor.

      When there is density skew from the left to the right of the image, the adjustment amount to correct that has to be set for each color.

      Setting Range is -20 to 20 (%)

      Table 3 In/Out NVM

NVM Names	NVM Address		Initial Value	Adjust-ment Range
In Out Tendency (IN/OUT correction)	749-191	Y	0	-20~20
	749-192	M	0	-20~20
	749-193	C	0	-20~20
	749-194	K	0	-20~20

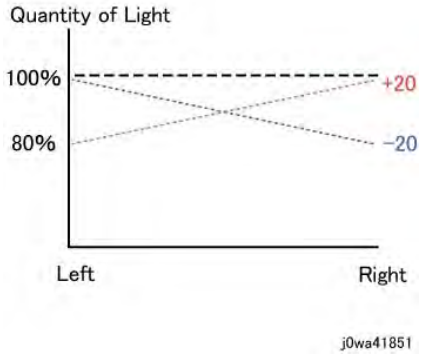


Figure 2 j0wa41851

*Although there is also an adjustment range at the positive side, it only involves reducing the brightness at the IN side or the OUT side and therefore will not have any correction that goes above 100 %.

b. Pattern Selection Correction:

If you have elected to perform correction based on Pattern Selection, select the Pattern 1~6 and Level 1~6 that is most suitable for the density correction from the following figure.

The selected Pattern and Level are reflected as LPH Brightness Correction by changing the following NVMs.

As there are separate NVMs for each color, they can each be corrected independently.

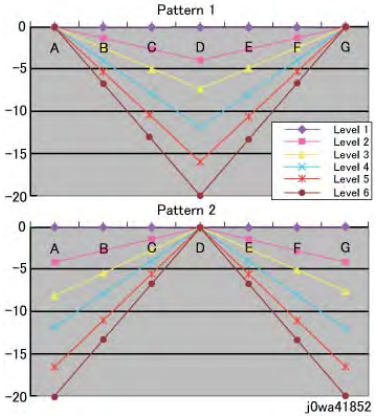


Figure 3 j0wa41852

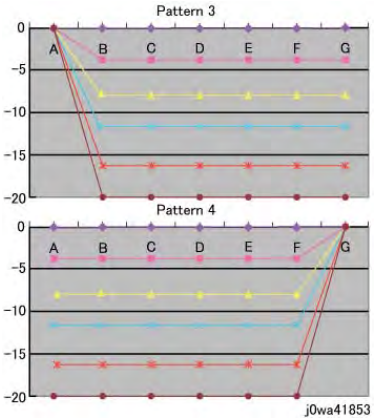


Figure 4 j0wa41853

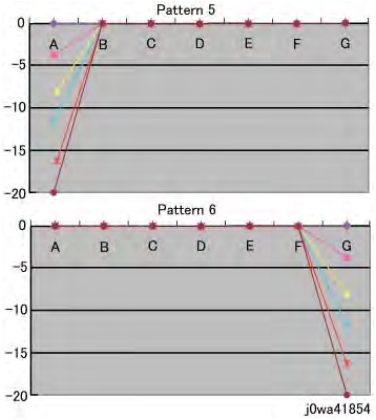


Figure 5 j0wa41854

Table 4 Correction Pattern NVM

NVM Names	NVM Address		Initial Value	Adjustment Range
Correction Pattern (Pattern Selection)	749-195	Y	1	1~6
	749-196	M	1	1~6
	749-197	C	1	1~6
	749-198	K	1	1~6

Table 5 Correction Level NVM

NVM Names	NVM Address		Initial Value	Adjustment Range
Correction Level	749-199	Y	1	1~6
	749-200	M	1	1~6

NVM Names	NVM Address		Initial Value	Adjustment Range
	749-201	C	1	1~6
	749-202	K	1	1~6

Note: Take note that **0** and **5** for Pattern means **Disabled** and **1** for Level means **No correction**.

c. Custom Correction

If you have elected to perform density correction by custom correction, you must input the required adjustment amount for the correction of every area into the NVM for each YMCK color.

Be careful as only negative correction can be performed for density correction.

Table 6 Custom Correction NVM

NVM Names	NVM Address	Contents		Initial Value							Adjustment Range
				A	B	C	D	E	F	G	
Custom Correction Value	749-203~209	R/E (%) within Pulse Width Variable Range	Y	0	0	0	0	0	0	0	-20~20
	749-210~216		M	0	0	0	0	0	0	0	-20~20
	749-217~223		C	0	0	0	0	0	0	0	-20~20
	749-224~230		K	0	0	0	0	0	0	0	-20~20

*The NVM Addresses correspond in ascending order to ABCDEFG.

*Although there is also an adjustment range at the positive side, the brightness will saturate at 100%. The positive correction of up to the 100% range will only be applied when the exposure amount has been corrected towards the negative side at IN-OUT Density Correction or Pattern Selection Correction.

- The above 3 types of correction can be used in combination. However, the total amount of exposure adjustment for these Smile Corrections are restricted to be within 0 to -20%.
- [Sum of Correction 0~20%] = [IN-OUT Adjustment Amount%] + [Pattern Selection Adjustment Amount%] + [Custom Adjustment Amount%] If the total from the 3 corrections add up to less than -20%, it will be uniformly limited to -20%
- If it is larger than 0%, then it will be uniformly limited to 0%.
- The above are the restrictions that apply to the exposure amount correction and correction by Smile Correction function. However, within the actual machine, after the exposure amount correction by Smile Correction, it will enter another process to calibrate the exposure at the ADC Sensor Position to be 100%. As a correction is applied to the exposure amount after a Smile Correction, the exposure amount in the vicinity of 114 to 144mm from the left of the image becomes 100%, while it is relatively higher or lower for the rest of the positions.
- Reference sample

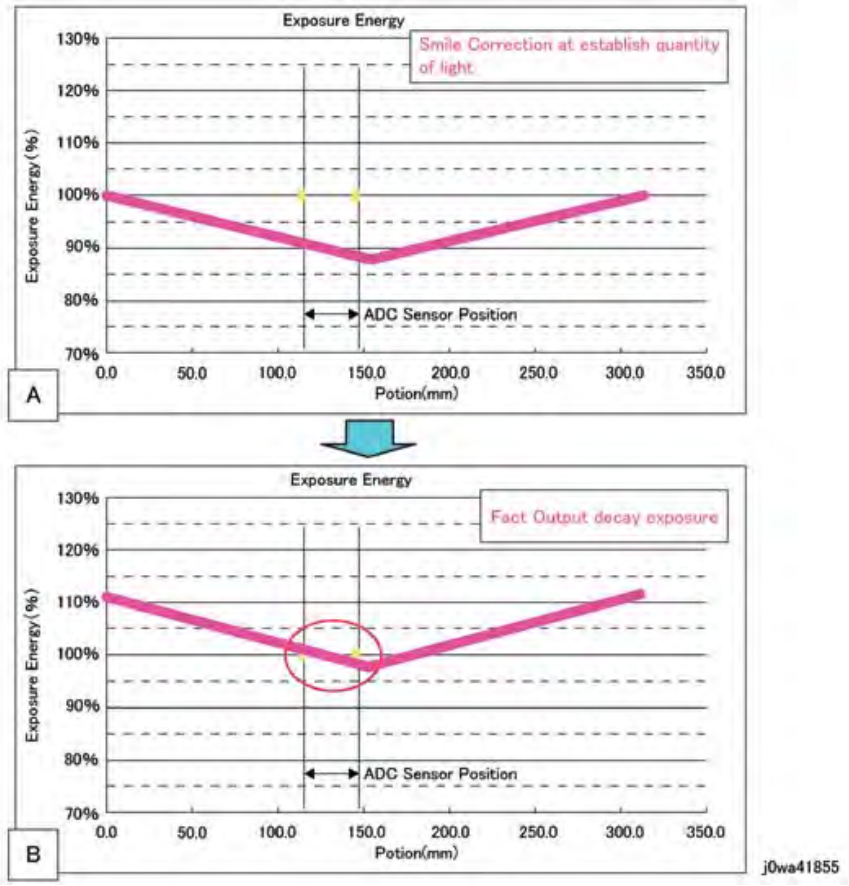


Figure 6 j0wa41855

As shown in figure B, the control is such that the final exposure at the ADC Sensor Position becomes 100%. By this, the exposure amount that was corrected by Smile Correction (figure A) is corrected again until it is at the actual output level (figure B). (The figures are the exposure models when Pattern 1, Level 4 correction have been performed)

IQ67 Ghost Image

The ghost image quality defect appears when a high contrast image is printed, and a residual image remains on the photoreceptor drum. It is most noticeable when the high contrast area of the print is followed by an area of relatively even density. The ghost image can be either positive or negative. The ghost image appears at the drum pitch of approximately 94.5mm. Figure 1 shows examples of both positive and negative ghost images.

Positive ghost images repeat low and high density areas of the high contrast area with the same image density differences, Figure 2.

Negative ghost images repeat low and high density areas of the high contrast area with the opposite image density differences, Figure 2

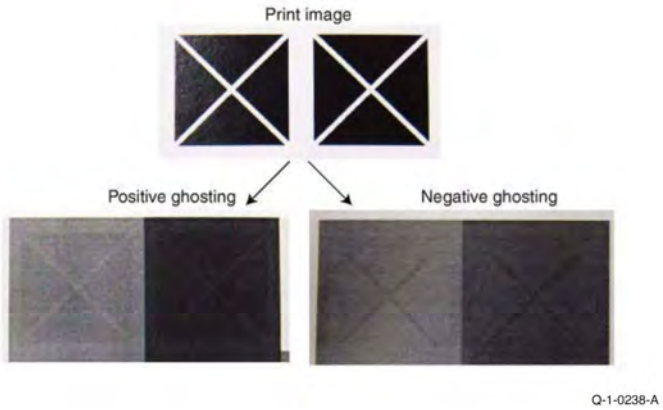


Figure 1 Positive and Negative Ghost

Figure 2 Positive Ghost

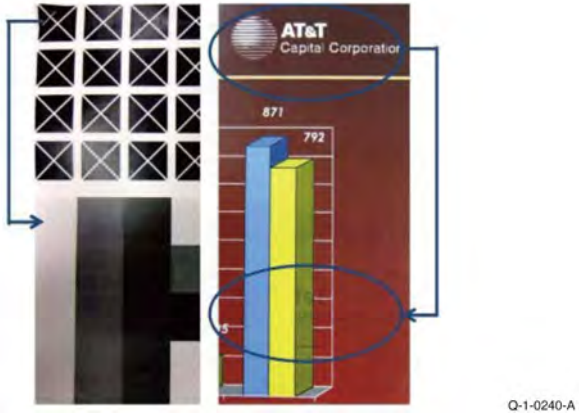


Figure 3 Negative Ghost

Procedure

Check to see if the pattern that appears at approximately 94.5mm in the process direction is a negative ghost or positive ghost.

1. To resolve Positive Ghost
   a. Use dC131 to change NVM 998-758 from the default value of 0 to 1. This will enable the ghost correction process.
   b. Adjust the following NVM values depending on the ghost occurrence status. Use dC131 to change NVM: 998-759. The default value is 5. The settable range is 1 to 10

      Note: When the value is set to 1, the correction sequence is executed for every print. When it is set to 5, the sequence is executed every 5 prints. Since the smaller value causes the sequence to be executed more frequently, a trade-off occurs with the productivity (70 % to 95 %).
2. To resolve Negative Ghost, Figure 3
   - There are no control measures provided because this seldom occurs. The positive ghost correction sequence will tend to cause negative ghost defects to be worse. If this occurs, adjust the values in step 1 for the best outcome of Positive and Negative ghost defect occurrence.

IQ68 Toner Color Streaks

The toner color streaks defect is a long thin line in the process direction. The length may range from 2mm to 10cm or longer. This defect occurs in solid or halftone areas of the image and does not generally occur in the background. The defect is not periodic and occurs randomly, Figure 1.

Figure 1 Toner Color Streaks

Initial Actions

If either of the following has occurred, the defect is caused by some other problem and this RAP is not applicable. Return to IQ1 and find an appropriate RAP.

1. Check to see if it has occurred in the background.
2. Check to see that there is process direction periodicity with a uniform surface half-tone image.

Procedure

Toner color streaks are caused when a lump of toner does not get loosened inside the developer and gets transported on to the magnet roll. It then gets developed. When the Toner being supplied is formed into soft clump, the loosening ability of the developer will not be able to keep up with demand.

The following factors increase the chance of this defect occurring:

- When toner demand is high because of high image density.
- When the toner density of the developer is high and the amount of developer needed to deliver toner is large.

The defect tends to occur on the upstream side of developer flow (print rear side) but the problem may occur anywhere on the print.

1. This will be usually be resolved after a few copies.
2. If white paper image is printed in advance or printed between high density image, the mixing in the developer will increase which makes it easier to control the occurrence.

IQ69 Heavyweight Paper Image Blurring

This defect occurs on Heavy weight paper. The trail edge of the paper flips up and moves closer to the transfer belt after going through the registration chute. An area in the cross process direction approximately 30mm from the trail edge of the paper will get blurred from the electrical discharge that occurs in the secondary transfer area. Refer to Figure 1.

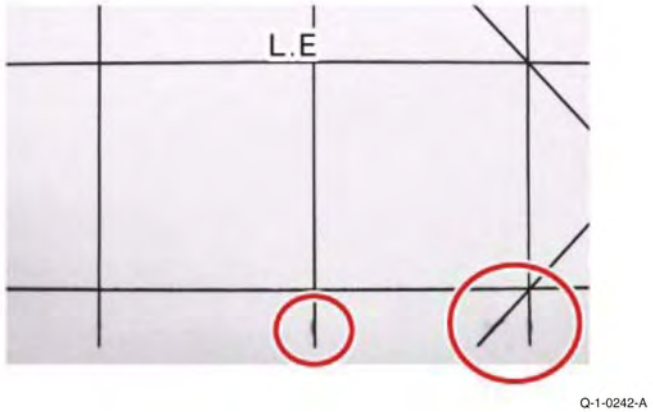


Figure 1 Heavy Weight Paper Image Blurring

Procedure

Check to see if image blurring at the trail edge of the paper is occurring. The blurring appears as a smear or toner scattering and occurs around 25mm to 30mm from the trail edge of the paper. Check using a half tone test pattern such as dC612, test pattern 9. You may need to try different percentage densities. Print the test pattern in black.

Conditions that cause this defect are as follows:

- Paper weight is heavy.
- The paper stiffness is high.
- The paper is being fed so that the grain is parallel to the feed direction (process direction).
- This problem is worst when printing mono color black.
- This tends to occur when the paper trail edge is curled up.

1. Ensure that the curl of the paper in the tray is down.
2. Curl the trail edge of the paper down.
3. Change the feed direction so that the paper is feeding with the grain in the cross process direction.

IQ70 Scale-Like and Circular Stamping Marks Defect

When paper exits the secondary transfer zone, toner can scatter in a semicircular pattern if the toner charge is low. This defect may also occur when the discharge from the paper is not sufficient, Figure 1 and Figure 2.

Figure 1 Circular Stamping Marks Defect

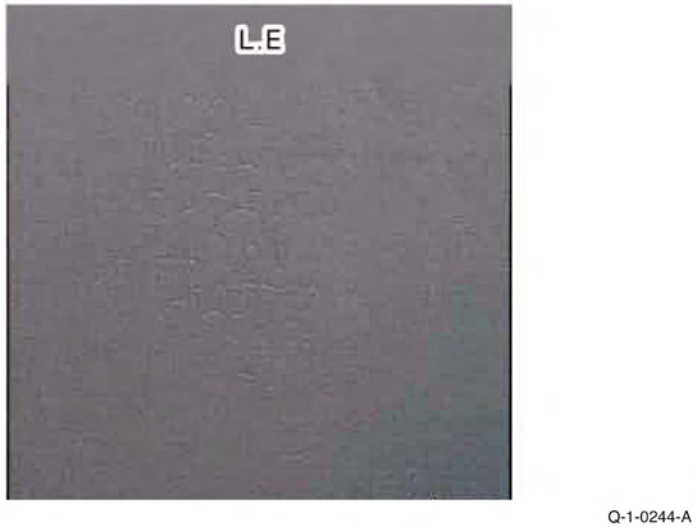


Figure 2 Scale-Like Defect

Procedure

1. Generate a test print using dC612.

   Note: Refer to IQS 1 then select a test patterns or several test patterns to find one that best shows the defect. It may be necessary to make the test print at different densities and with multiple colors or single color to see the defect clearly.

2. Use the procedure from IQ46 to adjust the second transfer process to minimize the defect.

Note:

- *1: When the primary transfer current value is increased, it will be easier to generate ghosts.
- *2: When the Fusing Unit Heat Roll speed is changed, paper wrinkles, wetting, caterpillar marks, and other similar defects may occur.

IQ71 3mm Pitch Streak

When the paper loop between the Secondary Transfer area and the Fusing Unit is large, the paper rubs hard against the Detack Sawtooth (DTS) ribs. The friction creates a charge on the paper. The toner is attracted to the charged area. The defect appears as streaks that look like dashed lines at 3mm intervals in the cross process direction. When the rib is worm, the contact surface will increase, which also increases the friction charge amount.

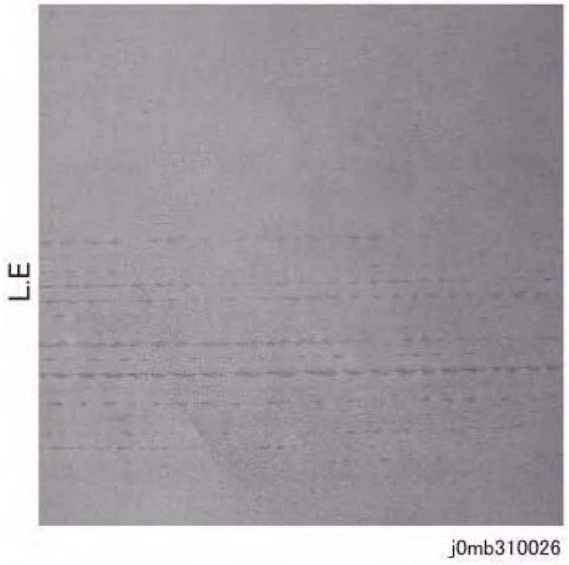


Figure 1 3mm Pitch Cross Process Streaks

Procedure

1. Use dC612, Test Pattern 9 and print a half-tone image of magenta with 50 % density and compare it to the defect shown in Figure 1.
2. Visually check if the Detack Sawtooth (DTS) ribs are worn.
3. Replace the 2nd BTR Roll Assembly, PL 80.65.
4. If replacing the 2nd BTR Assembly does not resolve the problem, contact service support for assistance.

IQ72 Paper Wrinkle Due to Misaligned Fuser Transport Rolls

The rolls of the fusing paper transport system are misaligned. This causes the paper to deform and results in wrinkles being generated in the Fusing Unit.

Note: The problem only occurs on 11x17/A3 or larger paper.

Initial Actions

1. Check the paper in the Tray for moistness and presence of waves at the Lead Edge in the Paper Feed direction. If necessary, replace the paper with dry, flat paper.
2. Position the paper guides in the tray so that there is no gap between the paper guide and the paper.
3. Compare wrinkle shapes with the image sample.
4. When the following conditions are met, paper wrinkle due to misalignment may have occurred. Figure 1 shows an example of wrinkle caused by Fuser section roll misalignment.
   - The wrinkle occurs at one side (either Front or Rear).
   - It does not occur at the Lead Edge of paper.
   - The wrinkle does not occur after the position of approximately 70 to 80 mm from the trail edge. Or, paper wrinkle changes after the position of approximately 70 to 80 mm from the trail edge.
   - The wrinkle occurs in a convex shape on the image area side.

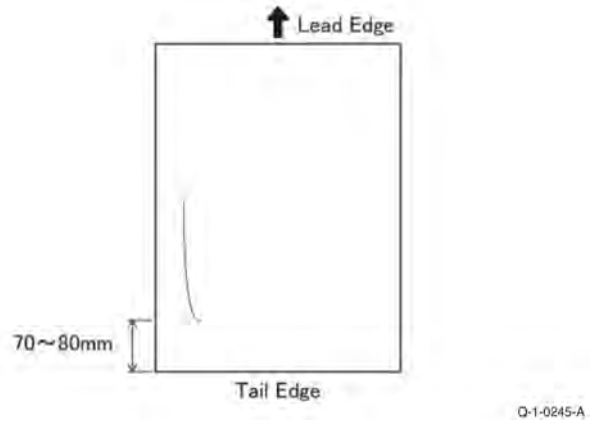


Figure 1 Wrinkle Due to Fuser Rolls Misalignment

Procedure

Alignment Adjustment Overview

Adjust the fusing and REGI alignment according to the flow chart, Figure 2. When the flow chart or the process calls for a new sample, use the following process to create the sample:

1. Load Paper: 11/17/A3 or larger SEF
2. Refer to dC612, then select Test Pattern 9. Set the test pattern printing options as follows:
   a. Set Coverage to 30
   b. Set Color Mode to Black
   c. Set Copies to 5 (always Print 5 sheets for each sample)

d. Select the appropriate Tray

Note: Perform both fusing alignment adjustment and REGI alignment adjustment 1 stage at a time.

Note: If Paper Registration has already been adjusted, adjust the fusing alignment as well as REGI alignment such that both 2 stages are set to Max. If the problem persists, contact the service support for assistance.

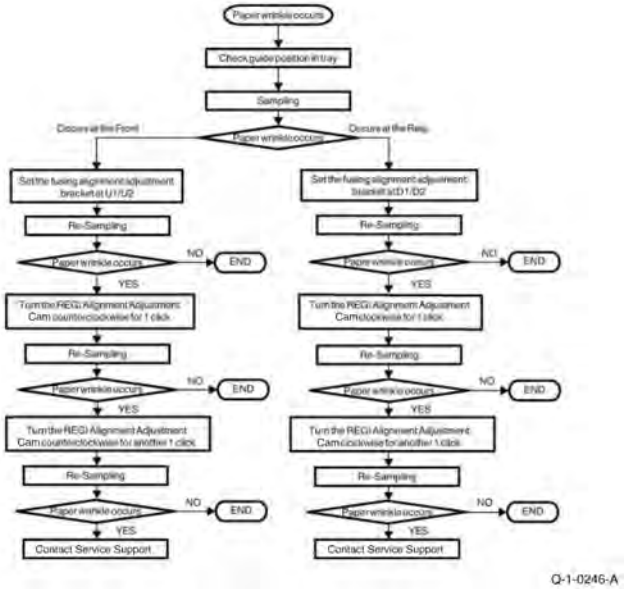


Figure 2 Adjustment Process Flow

Fusing Section Roll Alignment

1. Remove the Adjustment Bracket
   a. Remove the Fuser, PL10.05.
   b. Prepare the adjustment bracket on the Front Side, Figure 3.
      i. Remove the bottom screw (a).
      ii. Loosen the top screw (b).

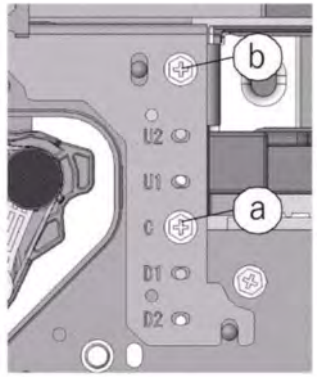


Figure 3 Fuser Rolls Adjustment Bracket Screws

Refer to Table 1 for Adjustment screw position and alignment amount

Table 1 Adjustments

Screw Position	Adjustment Amount
U2:	0.5 [mm] up
U1:	0.25 [mm] up
C:	Nominal position
D1:	0.25 [mm] down
D2:	0.5 [mm] down

2. Adjust the Bracket for Front or Rear Wrinkle
   a. Adjust for Front Wrinkle (skip to step 2b) for rear wrinkle).
      i. Move the adjustment bracket so that the lower screw hole aligns with the hole in the bracket labeled UI. If this is the second pass though the bracket adjustment, align the screw hole with the hole in the bracket labeled U2.
      ii. Make sure that the guide slot next to the upper screw is not on top of the guide positioning boss in the frame.
      iii. Tighten the upper and lower screws.
      iv. Reinstall the Fuser
      v. Turn on the machine and print a sample set.
      vi. If wrinkles are still occurring, repeat from step 2a-i. If this is the second pass through the bracket adjustment process. Go to the Registration Roll Alignment process.
   b. Adjust for Rear Wrinkle
      i. Move the adjustment bracket so that the lower screw hole aligns with the hole in the bracket labeled DI. If this is the second pass though the bracket adjustment, align the screw hole with the hole in the bracket labeled D2.
      ii. Make sure that the guide slot next to the upper screw is not on top of the guide positioning boss in the frame.

iii. Tighten the upper and lower screws.

iv. Reinstall the Fuser

v. Turn on the machine and print a sample set.

vi. If wrinkles are still occurring, repeat from step 2b-i. If this is the second pass through the bracket adjustment process. Go to the Registration Roll Alignment process.

Registration Roll Alignment

1. Adjust the alignment for Front Wrinkle. If the Wrinkle is occurring on the rear side, skip to step 7.
2. Unlock the Registration Transport, PL 80.90.
   a. Open the Lower Left Cover (PL 28.15) then loosen the screws (x2) that secure the Registration Transport, Figure 4

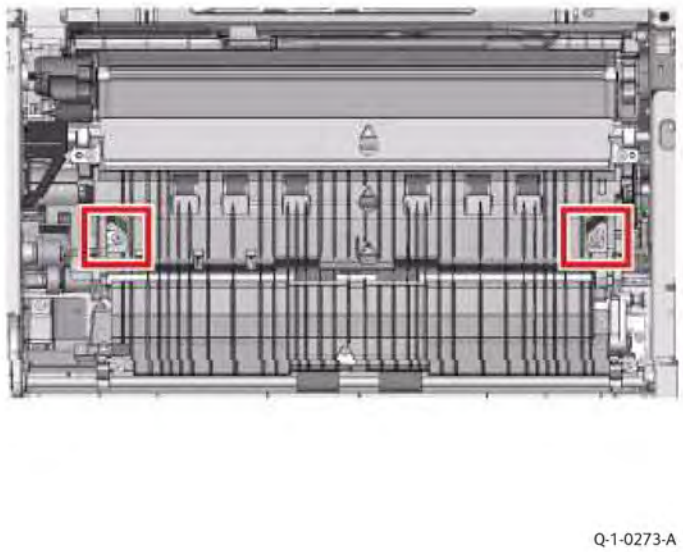


Figure 4 Registration Transport Screws (2)

   b. At the front of the machine, remove the Waste Toner Transport Assembly (PL 90.15) and loosen the screws (x2) that secure the Alignment Bracket, Figure 5.

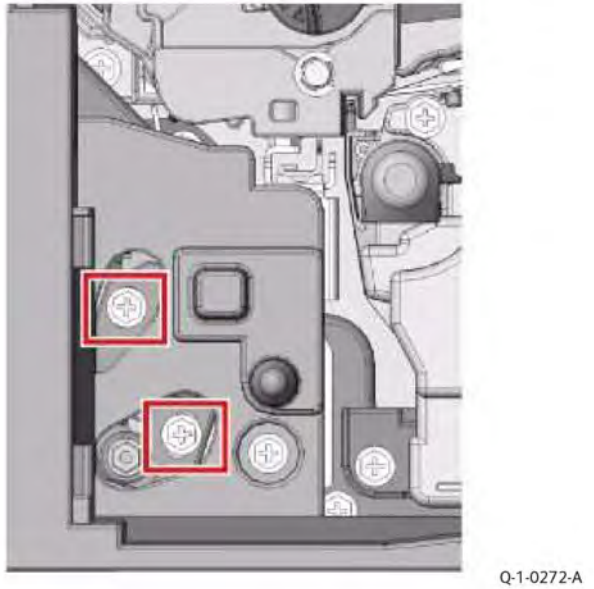


Figure 5 Loosen the Screws (2) (Front Cover open, Waste Tone Transport removed)

3. Turn the Adjustment Cam counterclockwise one click while watching the Registration Transport (PL 80.90). from the left side, and make sure that the Front side of the Registration Transport is lowering, Figure 6.

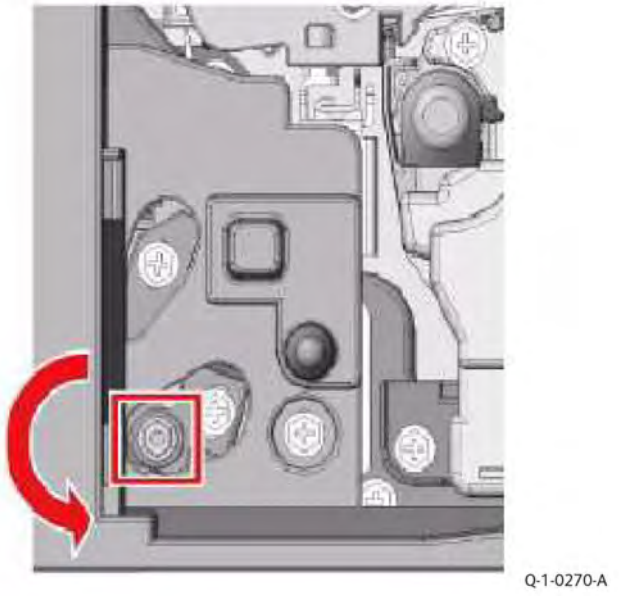
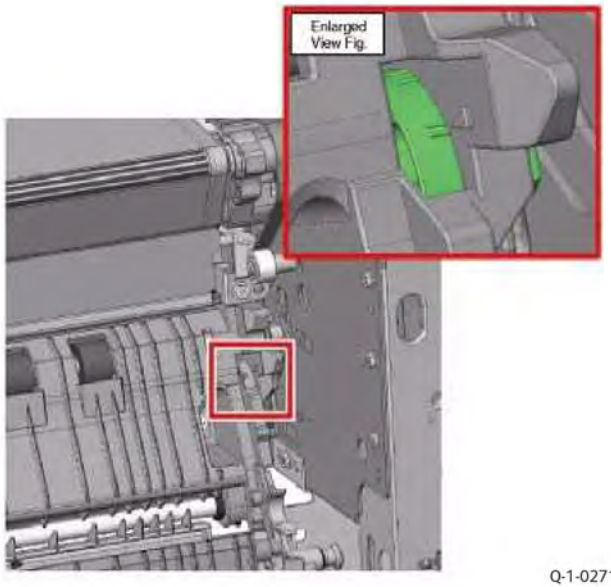


Figure 6 View from Front (Front Cover open, Waste Tone Transport removed)

4. Check the scale of the Cam while looking from the left side. Ensure that the cam is set so that 2 lines on the green indicator are aligned with the arrow on the housing, Figure 7. If this is the second pass through the Registration Roll Alignment procedure, ensure that the cam is set so that three lines are showing, Figure 8.



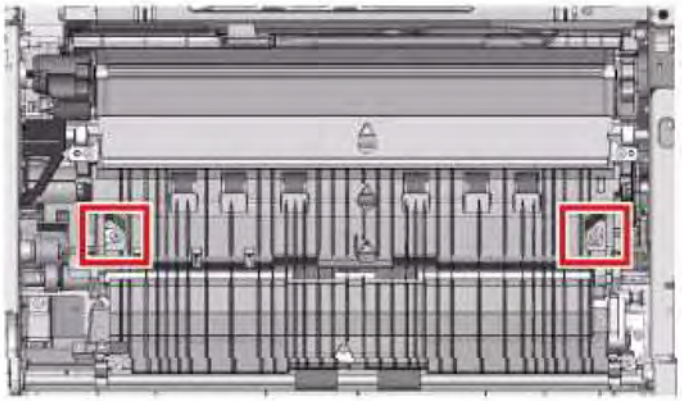
Q-1-0271-A

Figure 7 View from the left

Q-1-0257-A

Figure 8 Indication for second pass of Registration Roll Alignment

5. Securely tighten the screws (x2) that secure the Registration Transport, Figure 9.



Q-1-0273-A

Figure 9 Registration Transport Screws (2)

6. Close all covers, turn on the machine and print a sample set. If the wrinkle is still occurring, return to step 1 of the Registration Roll Adjustment procedure and repeat the process up to this point. If, after repeating the process a second time, wrinkle is still occurring, call service support for assistance.
7. Adjust the alignment For Rear Wrinkle.

   Note: If the Wrinkle is occurring on the Front side, return to step 1
8. Unlock the Registration Transport (PL 80.90).
   a. Open the Lower Left Cover (PL 28.15) and loosen the screws (x2) that secure the Registration Transport, Figure 10

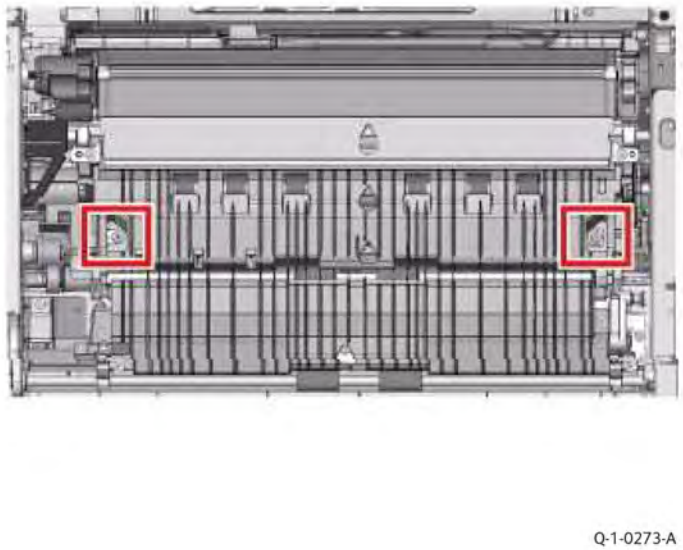


Figure 10 Registration Transport Screws (2)

b. At the front of the machine, remove the Waste Toner Transport Assembly (PL 90.15) and loosen the screws (x2) that secure the Alignment Bracket, Figure 11

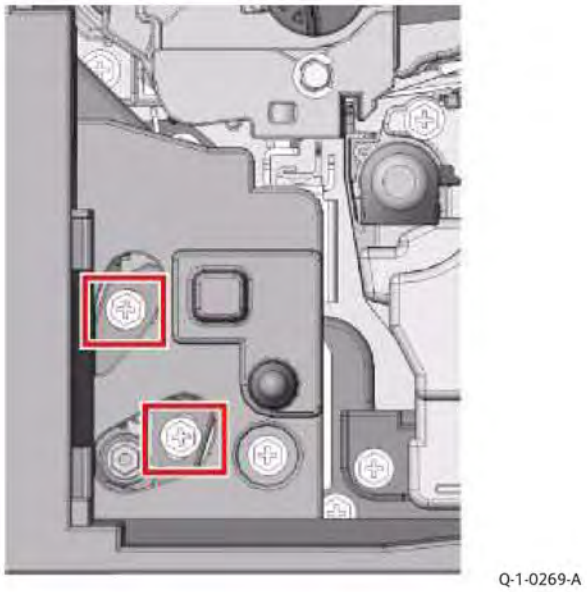


Figure 11 Loosen the Screws (2) (Front Cover open, Waste Tone Transport removed)

9. Turn the Adjustment Cam clockwise one click while watching the Registration Transport (PL 80.90). from the left side, and make sure that the Front side of the Registration Transport is raising, Figure 12.

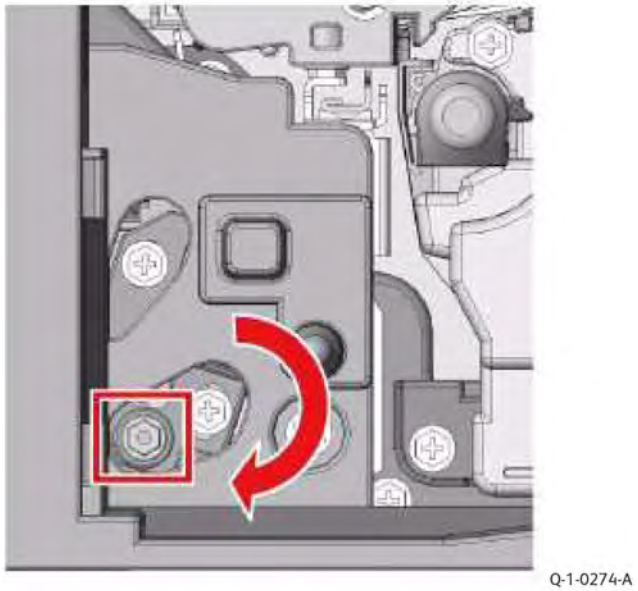


Figure 12 View from Front (Front Cover open, Waste Tone Transport removed)

10. Check the scale of the Cam while looking from the left side. Ensure that the cam is set so that 2 lines on the green indicator are aligned with the arrow on the housing, Figure 13.

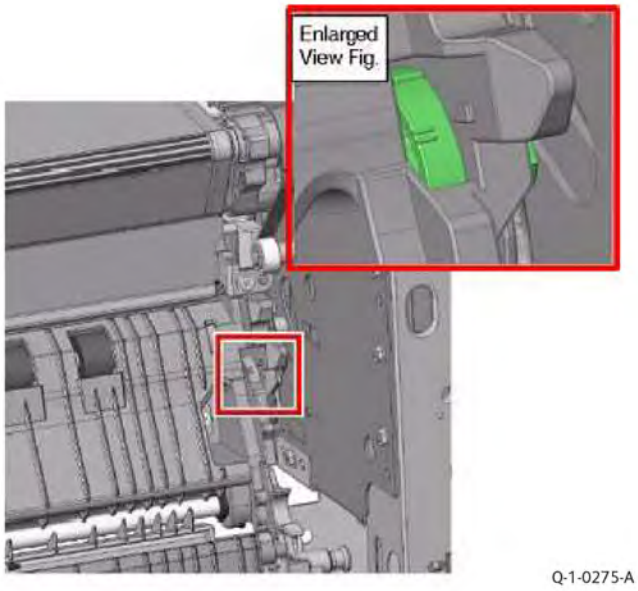


Figure 13 View from the left

If this is the second pass through the Registration Roll Alignment procedure, ensure that the cam is set so that three lines are showing, Figure 14.

Figure 14 Indication for second pass of Registration Roll Alignment

11. Securely tighten the screws (x2) that secure the Registration Transport, Figure 9.
12. Close all covers, turn on the machine and print a sample set. If the wrinkle is still occurring, return to step 7 of the Registration Roll Adjustment procedure and repeat the process up to this point. If, after repeating the process a second time, wrinkle is still occurring, call service support for assistance.

IQS 1 Test Pattern Usage (dC612)

Refer to dC612 :for detailed information about test pattern display and printing options.

No	dc612 Display Name	Description	Required Media	Source
1	Grid 45deg	Check reproduction of diagonal line.	11x17, A3	IOT
2	Grid 90deg 20mm density 4	To measure alignment	11x17, A3	IOT
3	Grid(90deg) Side 1 and 2	To measure side 1/2 registration	11x17, A3	IOT
4	ProCon PG	Procon/Halftone level/Defect detection.	All	IOT
5	16 Tone PG	Halftone level, Defect detection. Default setting 3C. User must select 3C,Y, M,C,K, R, G, B, 3C, BW (no 4C)	All	IOT
6	ADC check	To adjust ADC sensor	All	IOT
7	TP-Life	Evaluation of consumables life, and for running for stabilized developing process	All	IOT
8	TED Starvation check	TED/Starvation check	All	IOT
9	Full Halftone	Visual inspection of image defects	All	IOT
10	IN-OUT adjust (Primary)	IN-OUT adjustment (Primary color altogether)	11x17, A3	IOT
11	IN-OUT adjust (Secondary)	IN-OUT adjustment RGB (Secondary, third color altogether)	11x17, A3	IOT
12	IN-OUT adjustment	IN-OUT adjustment (for each color)	A4, Letter	IOT
13	Adjustment in SS direction(YC)	Density adjustment in SS direction (YC)	All	LPH
14	Adjustment in SS direction(MK)	Density adjustment in SS direction (MK)	All	IOT
15	Drum-space Halftone	Check for IQ defects on output prints / For shipping inspection	All	IOT
16	LPH streak adj chart (IOT mounted)	LPH streak detection	All	IOT
17	LPH streak adj chart (LPH mounted)	LPH streak detection and for identifying causes of video data failure.	All	LPH
18	LPH streak adj chart 2 (LPH implement…	For determining a problem area causing video data failure	All	LPH
19	X talk Test Chart (Failure Analysis)	For detection of LPH power related defects.	All	IOT
20	Banding	Banding check	All	IOT
21	Ladder Halftone pattern	For determining a source causing banding defect.	All	IOT
22	Calibrate for Paper Setup	To adjust 2nd transfer output / Calibrate for Paper	11x17, A3	IOT
23	Custom Paper Type Adjust	to adjust 2nd transfer output and alignment	11x17, A3	IOT
24	Transfer RGB Chart	Adjustment of 2nd transfer output value	All	IOT
25	TMA Measurement Chart (A4LEF)	Measurement of TMA	All	IOT

No	dc612 Display Name	Description	Required Media	Source
26	Grid (fold position adjustment)	DC128 Fold position adjustment	All	IOT
27	DrumPitch HT/ Full HT/Procon PG	Drum-pitch HT (4C) / Entire-sheet HT (4C, CMGK) / Procon PG (4C) / Outputting a total of 21-page imagesArea prepared for collective output for TS (Technical Support)	11x17, A3	IOT
28	DrumPitch HT/ Full HT CMYK	Drum-pitch HT (4C) / Entire-sheet HT (60 % / CMYK) / Outputting a total of ten-page imagesArea prepared for collective output for TS (Technical Support)	All	IOT
29	DrumPitch HT/ Full HT M	Drum-pitch HT (4C) / Entire-sheet HT (60 % / M) / Outputting a total of three-page imagesArea prepared for collective output for production lines	All	IOT
30	Controller Test Pattern	Same test patterns used for Print and Copy Calibration. Purpose is to assist in diagnose the pattern send directly from the SBC Controller pwba.	Letter, A4	SBC Controller

IQS 2 IIT Image Quality Specifications

The following steps are used to set up the machine for the purpose of making test pattern copies to judge output image color density, balance, and registration.

Note: The specifications in this section refer to copies made from the platen. Before making copes to verify that the machine is within specification, perform all IOT and IIT registration and alignment procedures.

Use the following Customer Mode Settings as a baseline to evaluate Image Quality:

Table 1 Basic Copier Mode Settings

Item Name	Sub-Item	Sub-Item	Setting
Output Color	-	-	Auto Detect
Reduce/Enlarge	-	-	Auto
Original Type	More	Content Type	Photo and Text
Original Type	More	How Original was Produced	Printed Original
Lighten/Darken	-	-	Normal
Sharpness	-	-	Normal
Saturation	-	-	Normal
Automatic Background Suppression	-	-	Off (unchecked)
Contrast	Contrast: Manual Contrast	-	Normal
Color Presets	-	-	Off
Color Balance	-	-	Normal
Image Shift	-	-	Off

Color, Text Reproduction and Resolution Specifications

1. Place the Color Test Pattern (82E13120) on the platen.
2. Load 11” X 17 or A3 paper into Tray 1. Use one of the papers specified in Table 2

Table 2 Recommended Papers

Paper	Size / Weight
Bold Digital Printing	8 1/2 x11 or 11x17 / 24lb
ColoTech Plus Gold	A4 or A3 / 90gsm.

Paper	Size / Weight
Xerox Vitality	8 1/2x11 or 11x17 / 20lb.
Xerox Premier	A4 or A3 / 80gsm.

3. Make a copy of the test pattern.
4. Compare the copy to the test pattern. Refer to Figure 2 and Table 3 for this evaluation.

Table 3 Color Specifications Check Locations

AREA	Check for the Following Results
A	Text Reproduction. Each of the seven sentences in this area are fully reproduced with no missing letters or portions of letters. The sentences are reproduced in Black, Cyan, Magenta, Yellow, Red, Green and Blue.
B	Color Registration. The patterns in location B should be properly registered to provide Black, Red, Green and Blue lines.
C	Front to Rear Density. The density of both the low density and high density bands should be uniform from front to rear. This can be tested by folding the copy in the center and comparing the front side of the copy to the rear side of the copy at location C. Both the high density and low density locations should exhibit even front to rear density.
D	Color Gradation. This area should exhibit a decreasing density of each of the colors from 100% density to 5% density. In a properly adjusted machine, the 10% patches should be visible, and the 5% patches should be barely visible or not visible on the test pattern copy (except for the bottom row).
E	Routine Color. Location E represents three general tests for the machine to reproduce colors common to customer originals. Location A is a general skin tone test. Location B represents the color of grass or other common foliage. Location C represents the color of the sky.
F	Photo Gradation. Location F is not used for any copy quality evaluation on this product.
G	IIT Calibration Patches. These patches are scanned for IIT Calibration during the dC945 IIT Calibration portion of Max Setup.
H	100 Lines/Inch Image. A Moire defect will show on this image. Moire on a 100 Line/Inch image is within specification.
I	175 Lines/Inch Image. This image is used to test for Moire. Depending on the degree of the defect, moiré seen on this image should be considered out of specification.
A	Text Reproduction. Each of the seven sentences in this area are fully reproduced with no missing letters or portions of letters. The sentences are reproduced in Black, Cyan, Magenta, Yellow, Red, Green and Blue.
B	Color Registration. The patterns in location B should be properly registered to provide Black, Red, Green and Blue lines.
C	Front to Rear Density. The density of both the low density and high density bands should be uniform from front to rear. This can be tested by folding the copy in the center and comparing the front side of the copy to the rear side of the copy at location C. Both the high density and low density locations should exhibit even front to rear density.
D	Color Gradation. This area should exhibit a decreasing density of each of the colors from 100% density to 5% density. In a properly adjusted machine, the 10% patches should be visible, and the 5% patches should be barely visible or not visible on the test pattern copy (except for the bottom row).
E	Routine Color. Location E represents three general tests for the machine to reproduce colors common to customer originals. Location A is a general skin tone test. Location B represents the color of grass or other common foliage. Location C represents the color of the sky.
F	Photo Gradation. Location F is not used for any copy quality evaluation on this product.
G	IIT Calibration Patches. These patches are scanned for IIT Calibration during the dC945 IIT Calibration portion of Max Setup.

AREA	Check for the Following Results
H	100 Lines/Inch Image. A Moire defect will show on this image. Moire on a 100 Line/ Inch image is within specification.
I	175 Lines/Inch Image. This image is used to test for Moire. Depending on the degree of the defect, moiré seen on this image should be considered out of specification.

Registration, Skew and Geometric Specifications

Registration and border deletions are checked using the Step Scales on the Geometric Test Pattern 82E8220, an example of which is shown in Figure 1. All of the scales are 20mm in height and are made up of four 5mm steps. Step 1 will be described as at the top of the Step Scale, and Step 4 will be described as at the bottom.

Each Step Scale is positioned for a particular paper size and orientation. Table 4 indicates the appropriate Step Scales to use for the various paper sizes, orientations and measurement locations.

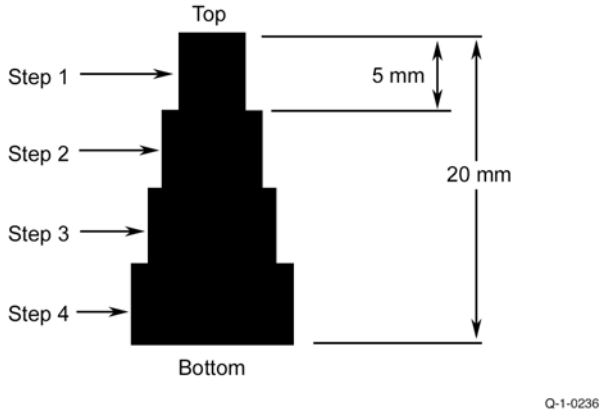


Figure 1 Step Scales

Table 4 Geometric Checkout - Step Scale Data

Paper Size	Orientation	To check:	Step Scales to use (refer to Figure 1)
11x17	SEF	Lead Edge Side Edge Trail Edge	LE1 through LE3 SE1 through SE4 (top); SE5 and SE8 (bottom) TE3
A3	SEF	Lead Edge Side Edge Trail Edge	LE 1 through LE3
			SE1 through SE4 (top); SE6 and SE7 (bottom) TE4
8.5x11	SEF	Lead Edge Side Edge Trail Edge	LE 1 and LE2 SE1 through SE3 (top); SE9 (bottom) TE5
A4	LSEF	Lead Edge Side Edge Trail Edge	LE 1 and LE2 SE1 through SE3 (top); SE10 (bottom) TE6
8.5x11	LEF	Lead Edge Side Edge Trail Edge	LE1 through SE3 SE1 and 2 (bottom) SE6 and SE7 (top) TE 2
A4	LEF	Lead Edge Side Edge Trail Edge	LE1 through SE3 SE5 (top); SE1 and SE2 (bottom) TE1

1. Set the Customer Mode Settings to the Basic Copier Mode Settings (Table 1)
2. Place Test Pattern 82E8220 on the platen.
3. Load 11" X 17 or A3 paper into Tray 1. Use one of the papers specified in Table 2.
4. Make a copy of the test pattern.

Follow the directions in Table 5 to determine if the machine registration is within specification.

Table 5 Test Pattern Image Data Locations for Geometric Specifications

Geometric Area	Check Performed
Magnification	Locate the 300mm line running from near LE1 to the trail edge of the 1.8 lp ladder. Locate the 200mm line running from near LE1 to near LE3. Make a copy. The measurements should be:. • Left to Right.: 300mm ±1.8mm • Front to Rear: 200mm ±1.2mm
Resolution	Observing the targets on the test pattern copy at locations R1 through R8, the line pairs

Geometric Area	Check Performed
	specified below are clearly visible for the magnification value indicated: • 70 %: 3.0 lp/mm • 100 % through 400 %: 4.3 lp/mm
Lead Edge Registration	Measure from the lead edge of the paper to the top of Step 3 on the LE2 Step Scale. The measurement should be: • Trays 1 through 4: 10mm ±1.5mm (±1.9mm for 2nd side of duplex job) • Tray 5: 10mm ±2.2mm
Side Edge Registration	Measure from the side edge of the paper to the top of Step 3 on the SE2 and SE3 Step Scales. The distance should be within the following tolerance: • Trays 1 through 4: 10mm ±2.0mm (±2.4mm for 2nd side of duplex job) • Tray 5: 10mm ±2.4mm
Lead Edge Skew	For skew from front to rear, the distance from the lead edge of the paper to the targets at LE1 and LE3 are measured. The measurements must match each other to within the tolerance below. • Trays 1 through 4: within ±1.5mm (±2.0mm for 2nd side of duplex job) • Tray 5: within ±2.0mm
Side Edge Skew	For skew from left to right, the distance from the side edge of the paper to the targets at SE1 and SE4 are measured. They must match each other to within the tolerance below: • Trays 1 through 4: within ±3.0mm (±4.0mm for 2nd side of duplex job) • Tray 5: within ±4.0mm
Line Density	This parameter is measured on the two 0.7G Text Blocks on the test pattern copy. The machine should reproduce all of the characters shown in the block on the output copy.
Solid Repro- duction	This specifies the desired standard for reproduction of solid gray images at 1.0 K. The 1.0 K blocks on the output copy should reproduce with minimal mottle or graininess.
Low Contrast Reproduction	This specifies the desired standard for reproduction of low density images. The machine should reproduce all of the text in the 0.2 G Text Blocks on the output copy.

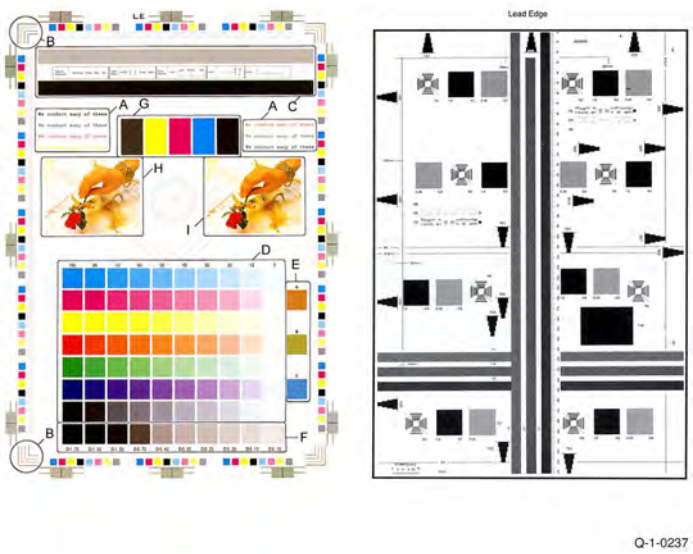


Figure 2 Color and Geometric Test Patterns

IQS 3 Things to Note for Image Quality Restrictions

Table 1 IQ Restrictions

No.	Image Quality Restrictions	Details
1	Roll Marks	Depending on the paper, there may be rubber roll traces or toner wax component stuck in the paper feed direction when performing 2 Sided print or changing the output destination after continuous printing. This is more likely to occur with gloss paper and transparencies.
2	Transparency Blocking	When printing transparencies continuously and then leaving them on the Exit Tray for a long time, they may adhere to each other and result in uneven gloss or image peel-off. Specifically, it is more likely to occur when printing 20 or more sheets continuously.
3	Condensation Copy	Sometimes patches of water droplets may be found on paper that is printed right after machine start up.
4	Side 2 Blank Areas (caused by water droplets)	These blank areas may appear on Side 2 of A3 paper of 157gsm or more. It is especially visible on gloss paper.
5	Scratched Transparency	When printing on Transparencies, minor scratches may appear in the fast scan direction.
6	Corrugation Lines	Depending on the paper, there may be Pinch Roll traces or minor scratches in the paper feed direction. This is more likely to occur with special paper such as Gloss.
7	Gloss Uneven Side 2	When performing 2 Sided print on Gloss, uneven image may appear on Side 2.
8	Background on Gloss	Background level on Gloss is higher than that on Plain.
9	Smear on Heavyweight	When using Heavyweight, smear may appear at the position 130mm away from the paper lead edge.
10	Rough Black	Depending on the paper type, rough images may occur to some extent.
11	Moist Paper Transfer Failure	This will occur when the paper moisture content increases.
12	Toner Contamination at Lead/ Trail Edge	Slight contamination due to toner has occurred at Lead/ Trail Edge.
13	Uneven Streaks in Paper Feed Direction	Uneven streaks may appear in the paper feed direction when performing high volume printing in a low humidity environment.
14	Side 2 Transfer Failure	The hue on Side 2 may become lighter when printing a high density image in a low temperature and low humidity environment.
15	Trail Edge Transfer Failure	Rough image or blank areas may occur for images within 10mm (including margins) from the paper trail edge.
16	MWS (Side2) (Micro White Spots)	Micro white spots may appear on Side 2 in a low humidity environment.
17	Moire	When copying, the Moire may appear due to interference with the halftone document. The appearance of Moire depends on the number of lines and angle of the document, as well as the magnification ratio.
18	Density Fluctuation Right After Power ON/Change in Environment	In machines set to B/W Priority, the very first color print after power ON may, to some extent, have incorrect color density.
19	Fingerprints	When loading paper, handle it with care and try not to touch the print side. Contamination to the print side will affect the print result. If you wish to obtain the best print results, wear finger cots or gloves so as not to leave any marks on the print side.

No.	Image Quality Restrictions	Details
20	Color Lines	Color Lines may appear on paper that has lots of paper dust.
21	Vapor	White vapor may leak nearby the top of the LH Cover when printing in a low temperature and low humidity environment using Heavyweight Paper.

IQS 4 Fusing

Procedure

Make 5 prints of an internal test pattern that has solid areas. Check the fusing by folding one of the prints through the centre of a solid area. Use a finger to apply medium pressure along the fold to crease the paper. Unfold the copy. Use a finger to lightly rub the area of the fold and adjacent areas.

Specification

Any break should measure less than 1mm (1/32 inch) across the line of a fold. Any area rubbed with a cloth should not smudge or the image lift off the surface of the paper. When checking the fusing on heavyweight paper (200gsm), rub the image with a finger. Images fused on the smooth side of the paper have a greater resistance to rubbing than images fused on the rough side of the paper. Do not attempt to fold heavyweight paper, as this breaks the fibres.

Corrective Action

If the fusing specification is not met, perform the IQ36 Un fused Print/Toner Offset RAP.

4 Repairs- Adjustments

REP 1.1 BTR HVPS PWB

Parts List on PL 1.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Open the video contact chassis assembly, PL 3.10 Refer to GP 32 How to Open and Close the Video Contact Chassis Unit
2. Remove the HVPS, Figure 2 :
   a. Remove six screws (1).
   b. Disconnect the connector (2).
   c. Remove the HVPS (3).

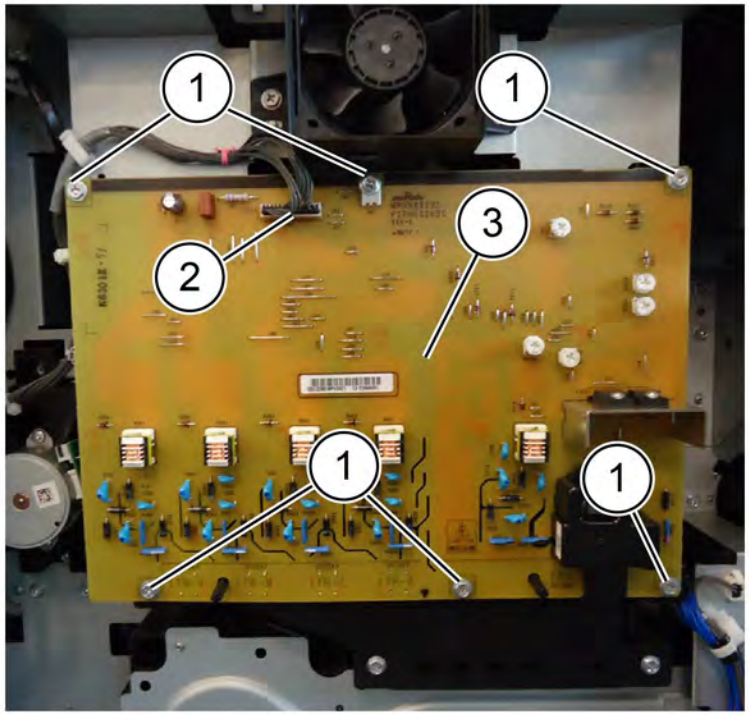


Figure 2 HVPS removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.2 Fuser Heater Power Supply

Parts List on PL 1.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the BTR HVPS PWB, Refer to REP 1.1 BTR HVPS PWB
2. Remove the bracket: Figure 2.
   a. Disconnect the connector (1).
   b. Remove the cable tie (2).
   c. Open two clamps (3), then move the harness out of the way.
   d. Remove four screws (4).
   e. Remove the bracket (5).

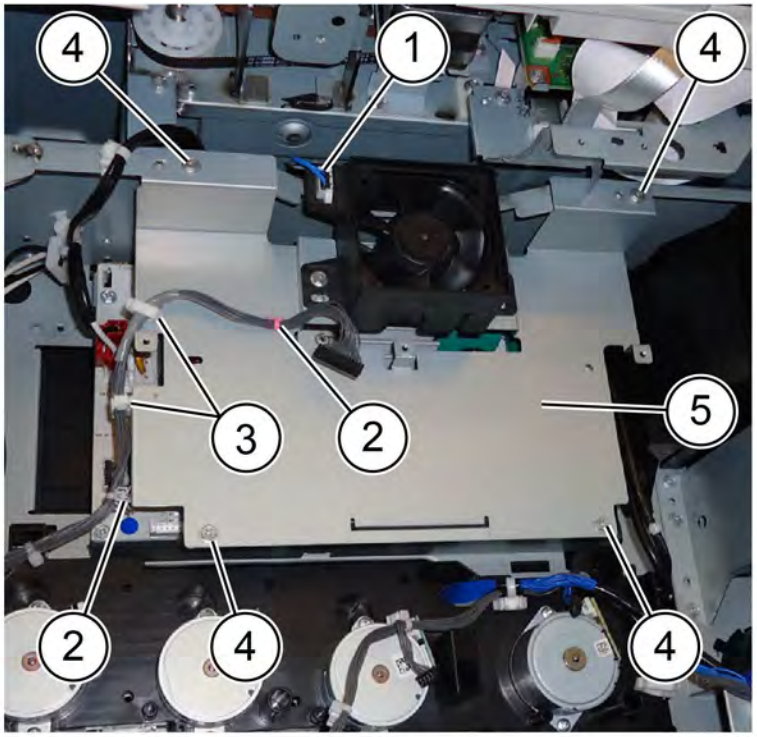


Figure 2 Bracket removal

3. Remove the fuser heater power supply: Figure 3.
   a. Disconnect four connectors (1).
   b. Remove five screws (2).
   c. Remove the fuser heater power supply (3).

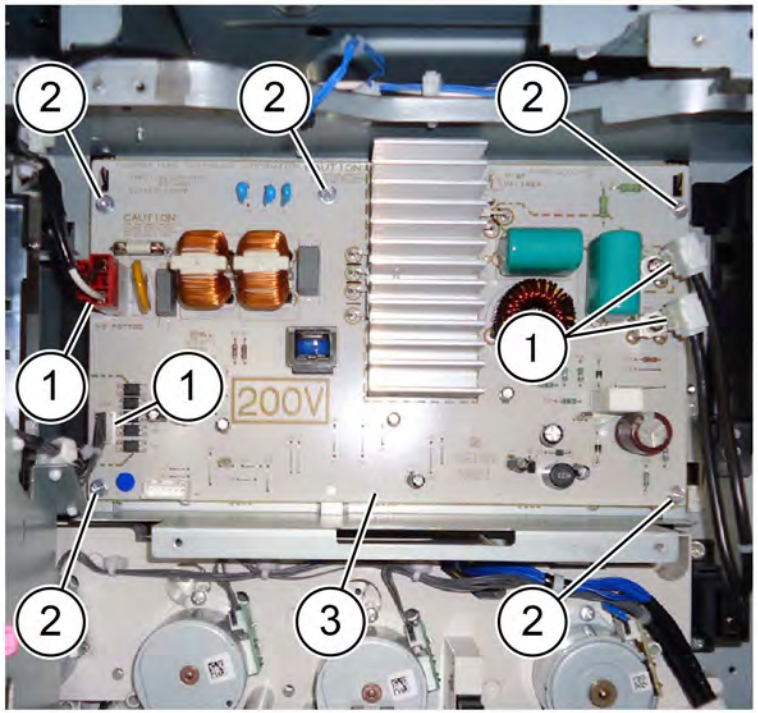


Figure 3 Power supply removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.3 GFI Chassis Assembly

Parts List on PL 1.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the controller cover assembly. PL 3.10
2. Remove the upper rear cover. PL 28.10
3. Remove the lower right rear cover. PL 28.10
4. Remove the items that follow, Figure 2 :
   a. Remove three screws (1).
   b. Disconnect four connectors (2).
   c. Lift the GFI chassis assembly (3) off the frame hook then remove.

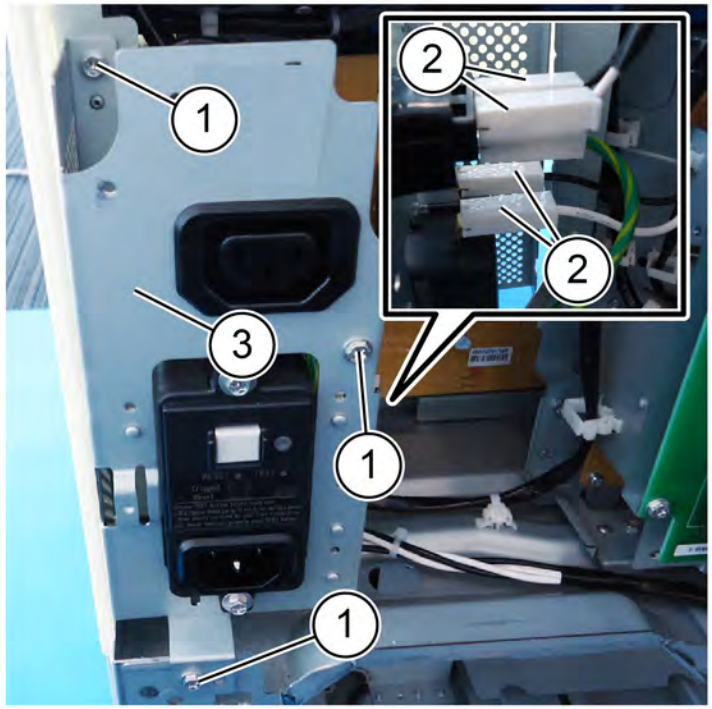


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Figure 2 GFI chassis assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.4 Motor Drive PWB

Parts List on PL 1.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: When installing a new drive PWB and a new controller PWB at the same time, first install the newESS PWB, then switch on the machine, GP 4 . If the new controller PWB installation is successful, switch off the machine, then install the new drive PWB.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Remove the controller cover assembly. PL 3.10
2. Remove the upper rear cover. PL 28.10
3. Remove the lower right rear cover. PL 28.10
4. Remove the motor drive PWB, Figure 2
   a. Disconnect all connectors (1).
   b. Remove eight screws (2).
   c. Remove the motor drive PWB (3).

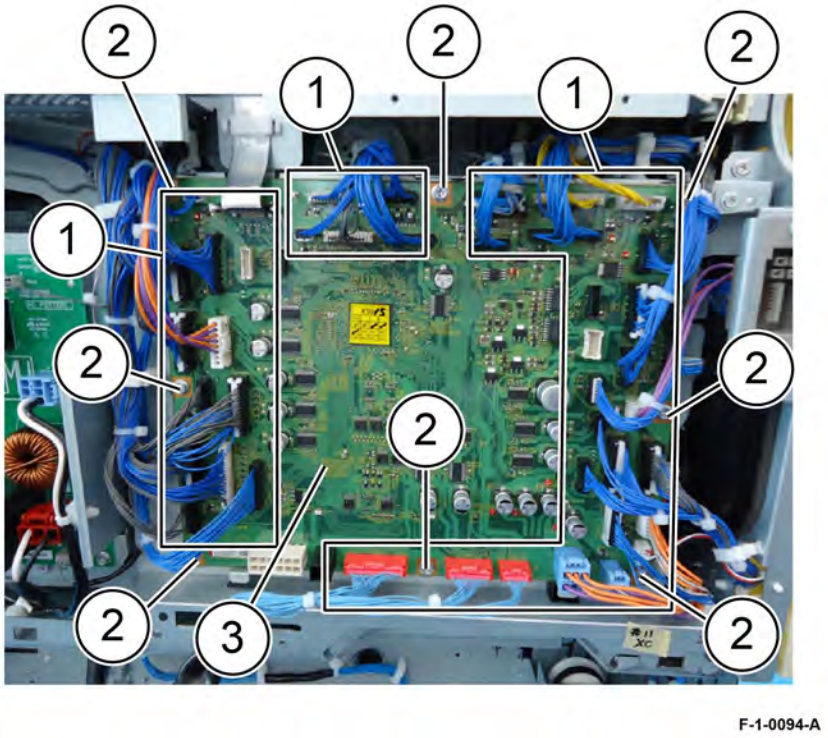

Figure 2 Drive PWB removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.5 AC Drive PWB

Parts List on PL 1.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the controller cover assembly. PL 3.10
2. Remove the upper rear cover. PL 28.10
3. Remove the lower right rear cover. PL 28.10
4. Remove the AC drive PWB: Figure 2.
   a. Disconnect seven connectors (1).
   b. Remove four screws (2).
   c. Remove the AC drive PWB (3).

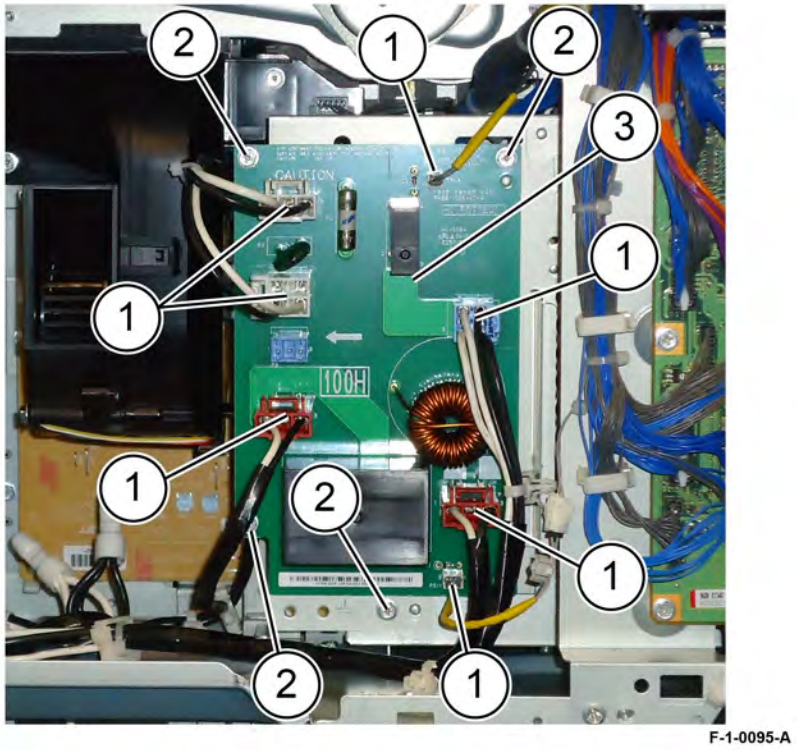

Figure 2 AC drive PWB removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.6 LVPS

Parts List on PL 1.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the controller cover assembly. PL 3.10
2. Remove the upper rear cover. PL 28.10
3. Remove the lower right rear cover. PL 28.10
4. Remove the HCF connector bracket, Figure 2 and remove 2 screws (1)

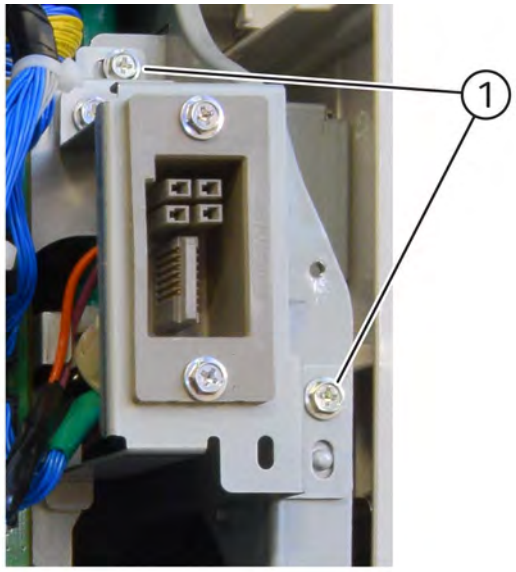

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Figure 2 HCF connector bracket.

5. Remove the motor drive chassis assembly, Figure 3
   a. Remove five screws (1).
   b. Disconnect all connectors (2).
   c. Remove the motor drive chassis assembly (3).

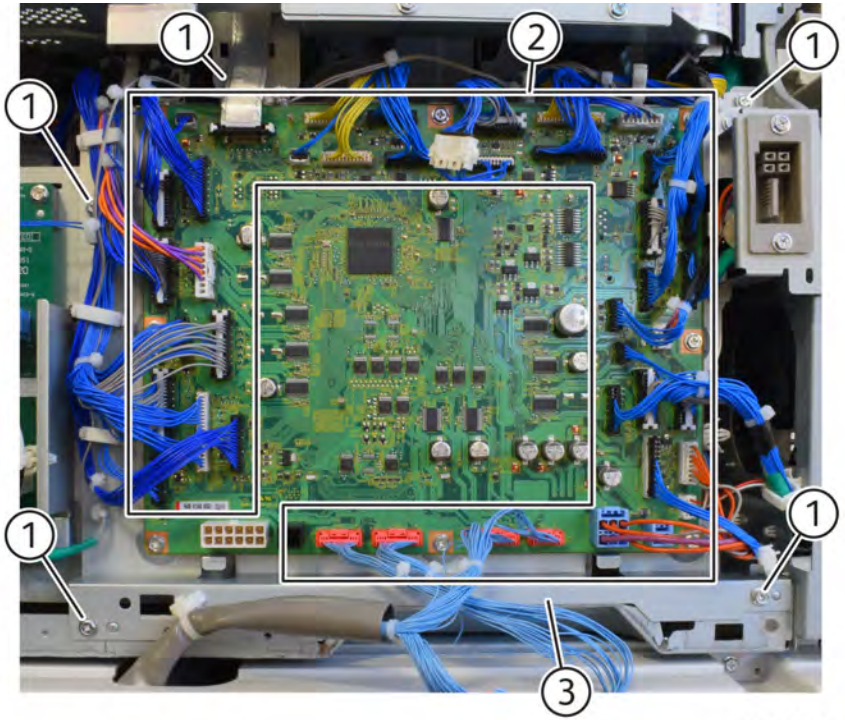

Figure 3 Motor drive chassis assembly removal

6. Remove the AC Bracket, Figure 4
   a. Remove two screws (1).
   b. Remove connectors from AC Drive PWB.
   c. Remove the AC bracket.

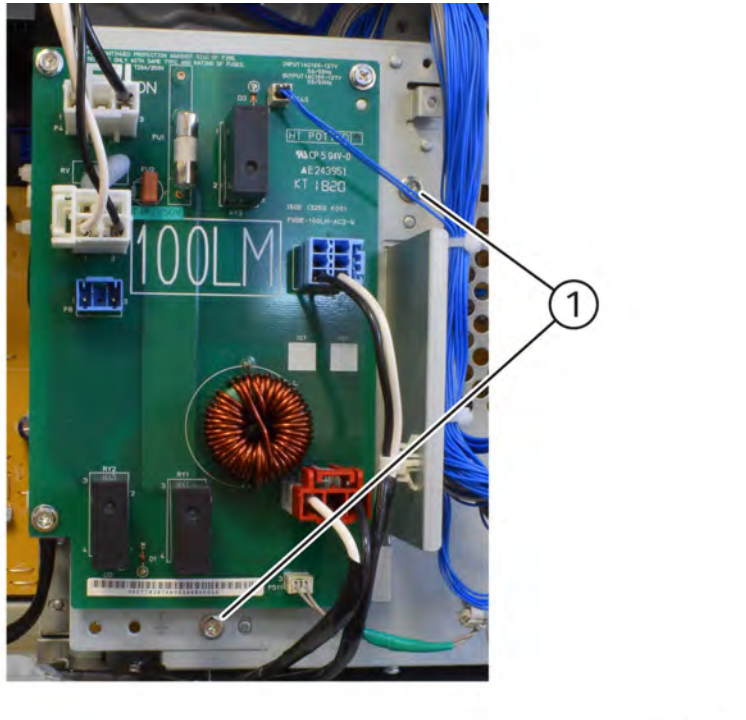

Figure 4 AC bracket removal

7. Remove connectors from right hand side of the LVPS (1), Figure 5

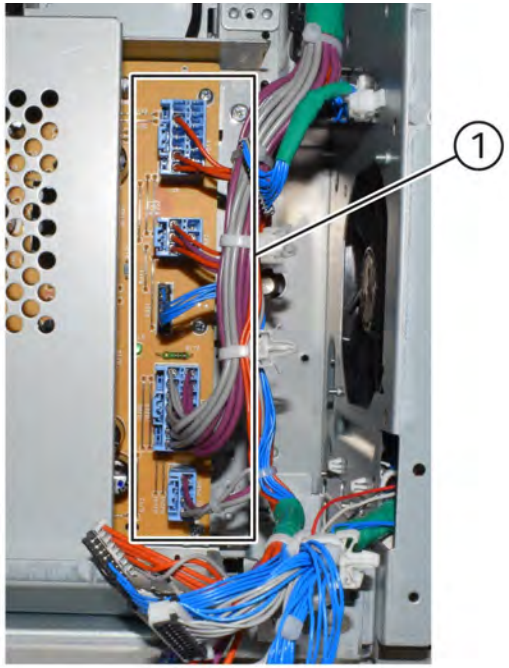

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Figure 5 Disconnect the harness

8. Release the harness from two clamps, then move the harness away from the LVPS (1), Figure 6

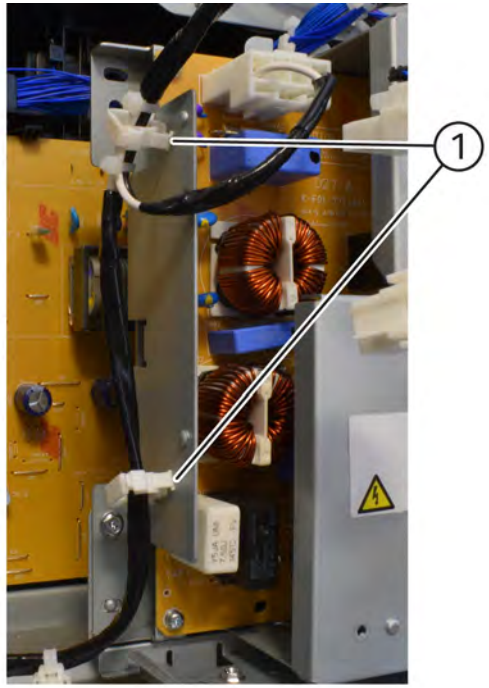

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Figure 6 Clamps

9. Remove the LVPS, Figure 7
   a. Remove four screws (4).
   b. Disconnect the connector (5).
   c. Remove the LVPS (6).

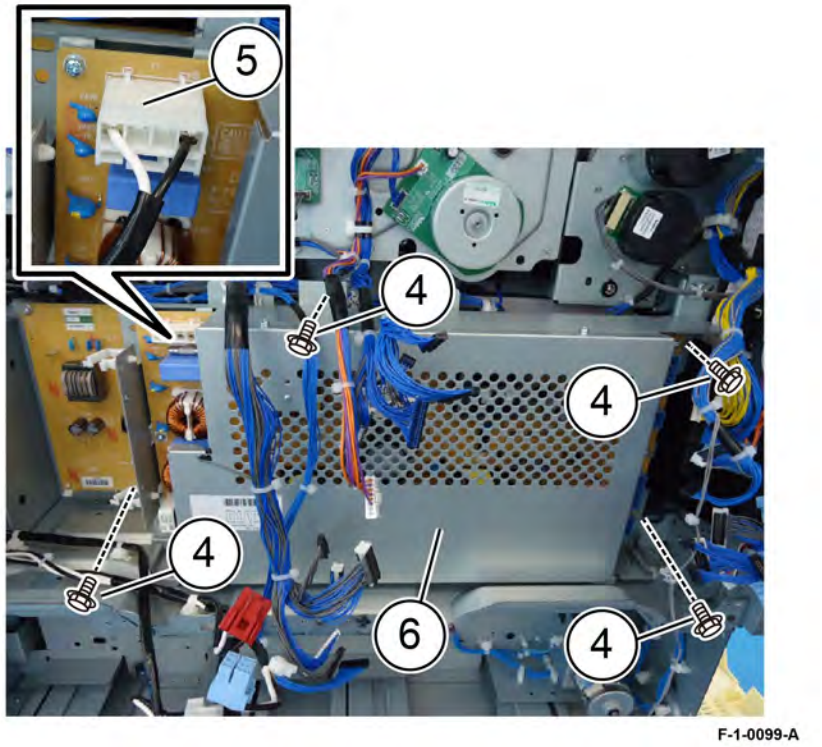

Figure 7 LVPS removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.7 Developer Bias HVPS PWB

Parts List on PL 1.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the LVPS. REP 1.6REP 1.6
2. Remove developer bias HVPS PWB. Figure 2
   a. Disconnect two connectors (1).
   b. Remove four screws (2).
   c. Release two hooks at the top, lean the developer bias HVPS forward to clear the hooks (3).
   d. Lift then remove the developer bias HVPS PWB (4).

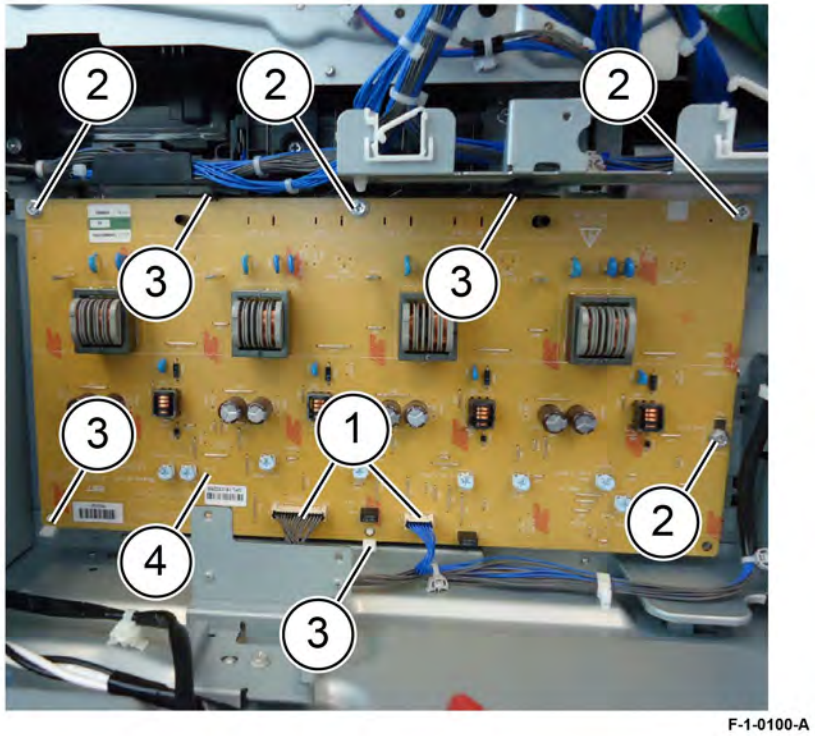

Figure 2 HVPS developer bias removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.8 Main Power Switch

Parts List on PL 1.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the components that follow:
   a. Waste cartridge, PL 90.15
   b. Front cover assembly, PL 28.05
   c. Waste toner transport assembly, PL 90.15
   d. Inner cover assembly, PL 28.05
   e. Inner right cap cover, PL 28.05
   f. Inner right cover, PL 28.05
2. Remove the main power switch, Figure 2
   a. Remove the screw (1).
   b. Disconnect the main power switch from the connector (2).
   c. Remove the main power switch (3).

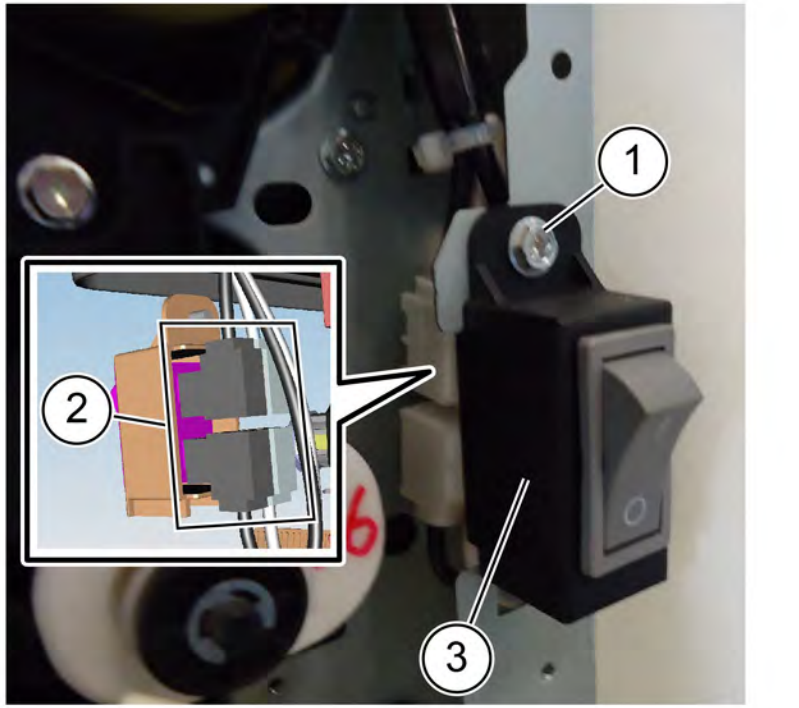

Figure 2 Main power switch removal

Replacement

The replacement is the reverse of the removal procedure.

REP 1.9 BCR HVPS PWB

Parts List on PL 1.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the upper right front cover. PL 28.10
2. Remove the BCR HVPS cover, PL 1.20
3. Remove the BCR HVPS, Figure 2 :
   a. Remove the connector (1).
   b. Remove four screws (2).
   c. Remove the BCR HVPS (3).

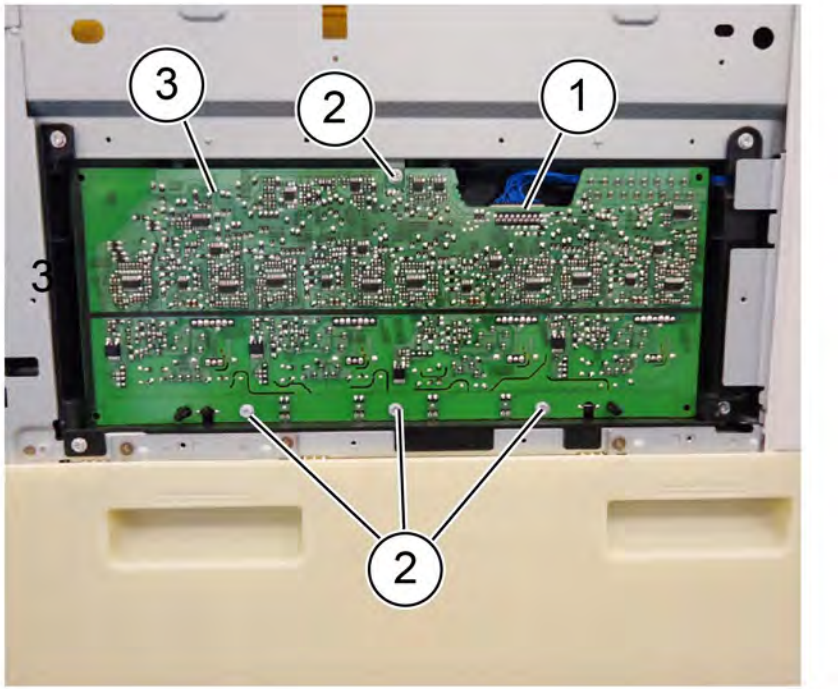

Figure 2 BCR HVPS removal

Replacement

The replacement is the reverse of the removal procedure.

REP 2.1 UI Assembly

Parts List on PL 2.05 User Interface (C8130/C8135/C8145/C8155)

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the UI top cover. PL 2.05
2. Remove the Cable Cover PL 2.05 from rear of UI Assembly.

CAUTION: The speaker connection is fragile. Take care when removing or refitting.

3. Disconnect the UI and speaker connectors from rear of UI assembly.
4. Remove four screws, then lift the User Interface Assembly away from the device.

Replacement

Reinstallation is the reverse of the removal procedure.

REP 3.1 Controller PWB Assembly

Parts List on PL 3.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: When installing a new controller PWB and new halftone PWB or a new back plane PWB in the same procedure, first install the new controller PWB, then switch on the machine, GP 4. If the new controller PWB installation is successful, switch off the machine, then install the new halftone or back plane PWB.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Disconnect all external connectors from the controller PWB assembly, PL 3.05.
2. Remove the controller cover assembly kit, PL 3.10.
3. Remove five screws (1), Figure 2.

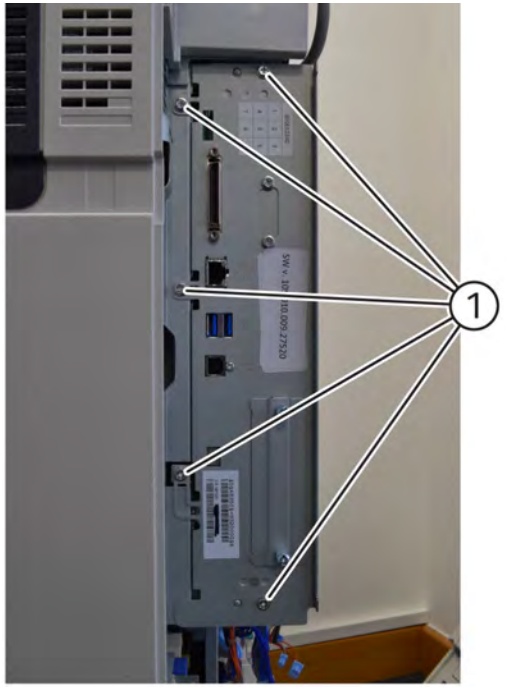

Figure 2 Screw removal

4. Disconnect six connectors, Figure 3.
   a.

      CAUTION

      Take care not to damage the ribbon cables. The ribbon cables are easily damaged.

      Disconnect two ribbon cables (1).
   b. Disconnect two type A USB connectors (2).
   c. Disconnect one type B USB connector (3).
   d. Disconnect one connector behind the cable cluster (4).

      Note: The connector (5) is not used.

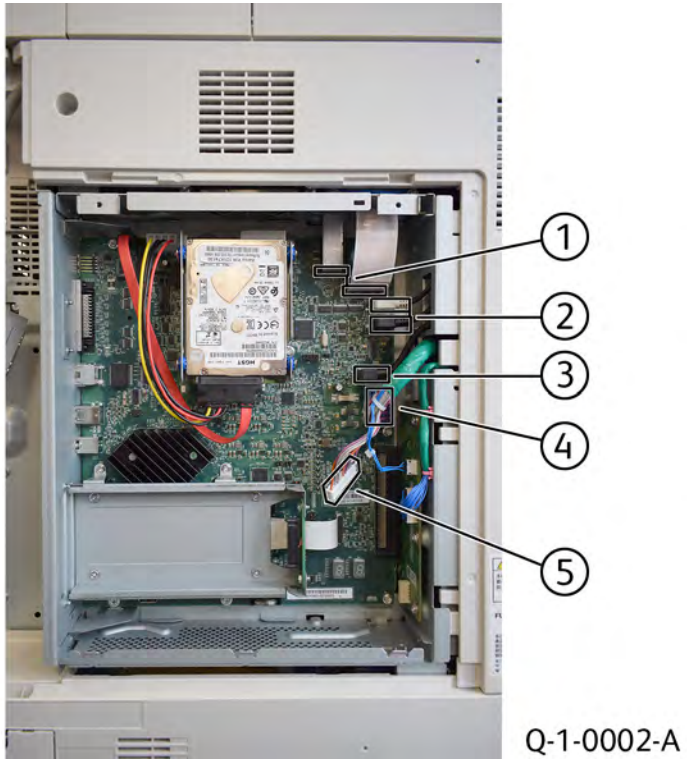

Figure 3 Controller PWB connections

5. Slide the controller PWB assembly in the direction of the arrow (1) to disconnect the connector (2).

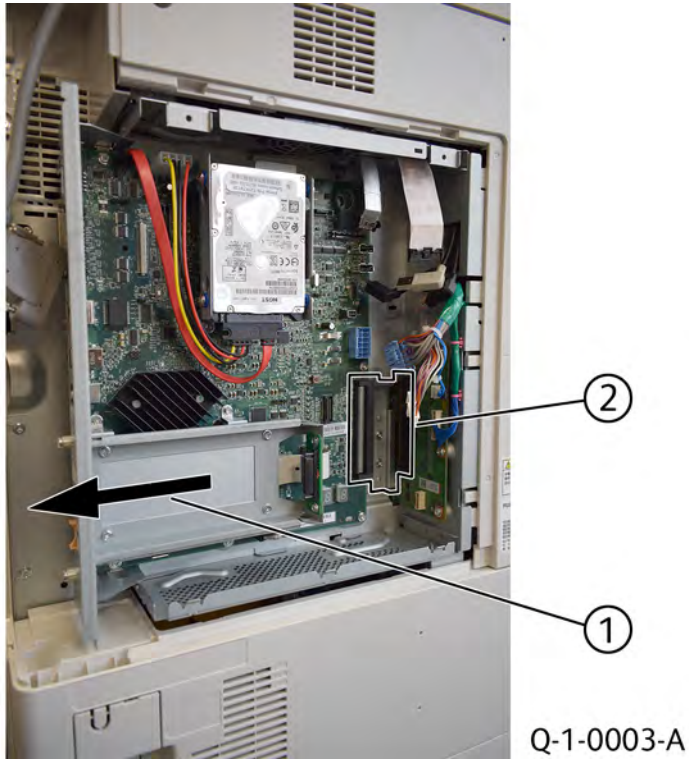

Figure 4 Remove the controller PWB assembly

Replacement

1. The replacement is the reverse of the removal procedure.
2. Reload software. Go to GP 9 and follow the Boot from USB process
3. Run dc 945 IIT callibration White reference DADH Duplex routine

REP 3.2 Relay PWB

Parts List on PL 3.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Open the video contact chassis assembly. Refer to GP 32
2. Remove the MCU PWB cover. PL 3.15
3. Remove the MCU PWB. Refer to REP 3.2 Relay PWBPL 3.15
4. Remove the relay PWB. PL 3.15

Replacement

1. The replacement is the reverse of the removal procedure.

REP 3.3 Back Plane PWB

Parts List on PL 3.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: When installing a new back plane PWB and new controller PWB in the same procedure, first install the new controller PWB, then switch on the machine, GP 4 . If the new controller PWB installation is successful, switch off the machine, then install the new back plane PWB.

1. Remove the controller PWB assembly. Refer to REP 3.1
2. Remove the relay PWB. Refer to REP 3.2
3. Remove the back plane PWB. Refer to Figure 2
   a. Disconnect two connectors (1).
   b. Remove five screws (2).
   c. Remove the back plane PWB.

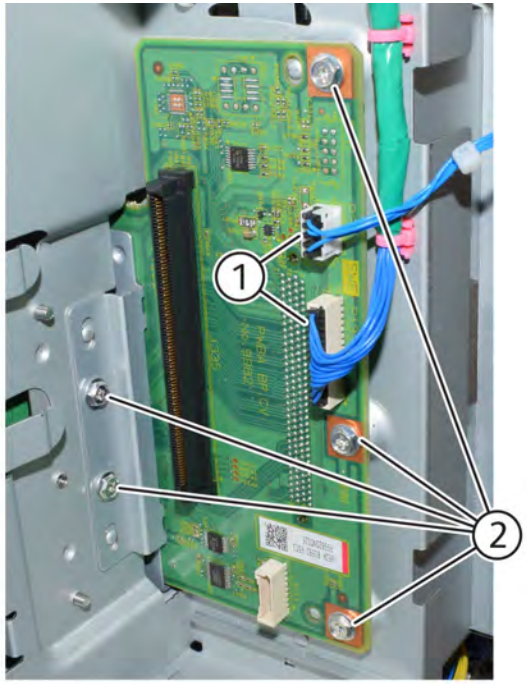

Figure 2 Back plane PWB removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 3.4 Halftone PWB

Parts List on PL 3.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: When installing a new halftone PWB and new controller PWB at the same time, first install the new controller PWB, then switch on the machine, GP 4. If the new controller PWB installation is successful, switch off the machine, then install the new halftone PWB.

CAUTION: Perform dC361, Backup NVM Values before replacing the halftone PWB.

1. Remove the controller cover assembly, PL 3.10
2. Remove the upper rear cover PL 28.10
3. Remove the DFE cover, PL 3.10
4. Remove the halftone PWB, Figure 2
   a. Disconnect six connectors (1).
   b. Remove five screws (2).
   c. Disconnect the back plane PWB (3).
   d. Remove the halftone PWB, PL 3.15 (4).

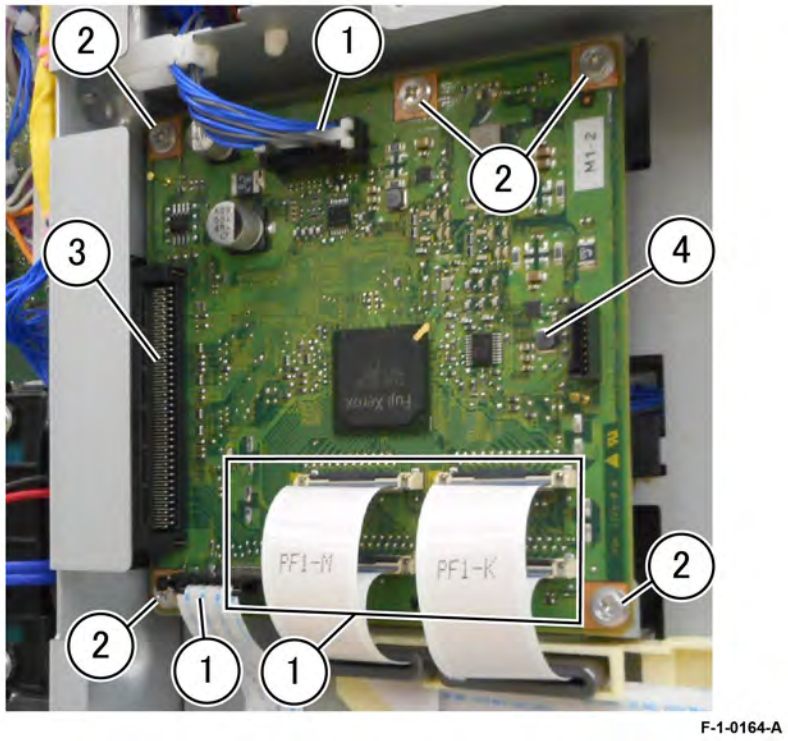

Figure 2 Halftone PWB removal

Replacement

1. The replacement is the reverse of the removal procedure.

Note: After installing a new halftone PWB, perform dC361 Restore NVM Values to restore NVM values backed up at the beginning of the procedure.

REP 3.5 HDD

Parts List on PL 3.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Remove the controller cover assembly kit PL 3.10
2. Remove connector from HDD (1). Refer to Figure 2
3. Remove three screws (2) then lift the HDD and carrier away from the device.

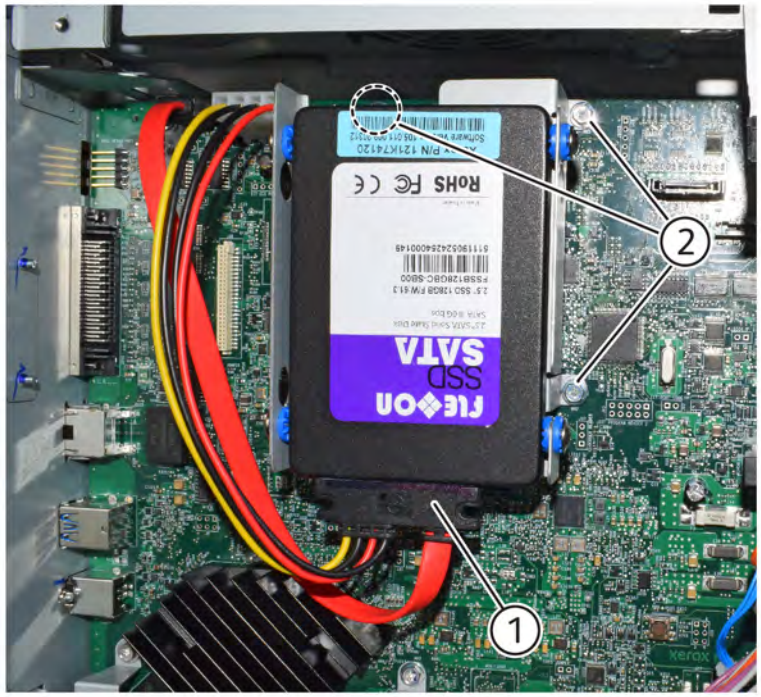

Figure 2 HDD removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Reload software. Go to GP 9 and follow the Boot from USB process.

REP 3.6 MCU PWB

Parts List on PL 3.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Open the video contact chassis assembly. Refer to GP 32
2. Remove the MCU PWB cover. PL 3.15 Item 10
3. Remove the MCU PWB. PL 3.15 Item 14

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.1 DADF 250

Parts List on PL 5.1

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: When removing the DADF, make sure you have 2 persons to perform the procedure as the DADF (about 15.5 kg) is heavy.

1. Remove the ESS rear cover, PL 28.10.
2. Remove the DADF IF cover, PL 60.15.
3. Disconnect the IIT-DADF cable connector, Figure 1.
   a. Disconnect the IIT-DADF cable connector (1).
   b. Remove the clamp (2) securing the cable.

Figure 1 IIT-DADF Cable

4. Disconnect the DADF controller cable connector, Figure 2.
   a. Release the controller cable from the guides (1).
   b. Disconnect the controller cable connector (2).

Figure 2 DADF controller cable

5. Remove the left rear cover, PL 28.10.
6. Remove the UFP filter assembly, PL 40.15.
7. Remove the controller cover, Figure 3.
   a. Remove two thumb screws (1).
   b. Remove the controller cover (2).

Figure 3 Controller cover removal

8. Remove the upper rear cover, Figure 4.
   a. Remove three screws (1).
   b. Remove the upper rear cover (2).

Figure 4 Upper rear cover removal

9. Remove the IIT rear cover, Figure 5.
   a. Remove four screws (1).
   b. Remove the counter balance brackets (2).
   c. Open the DADF.
   d. Remove five screws (3).
   e. Remove the IIT rear cover (4).

   Note: Three screws (3) securing the IIT rear cover (4) in the front are visible after opening the DADF.

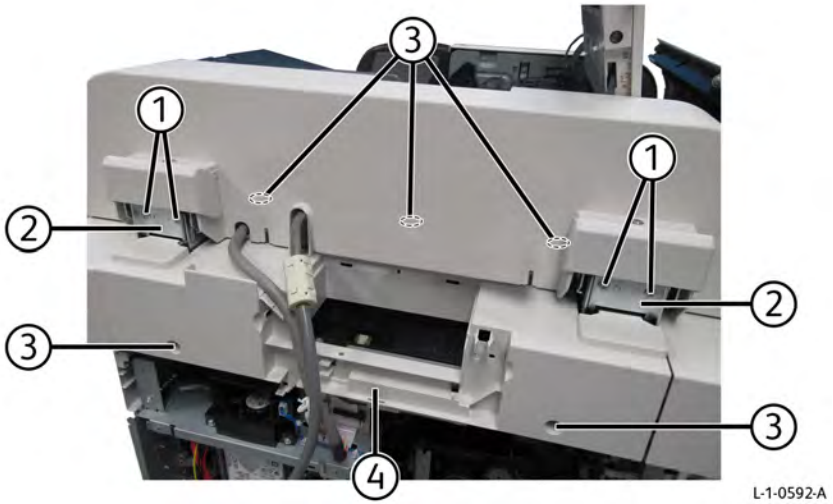

Figure 5 IIT rear cover removal

10. Remove the DADF supports, Figure 6.
    a. Remove four screws (1).
    b. Remove the DADF supports (2).

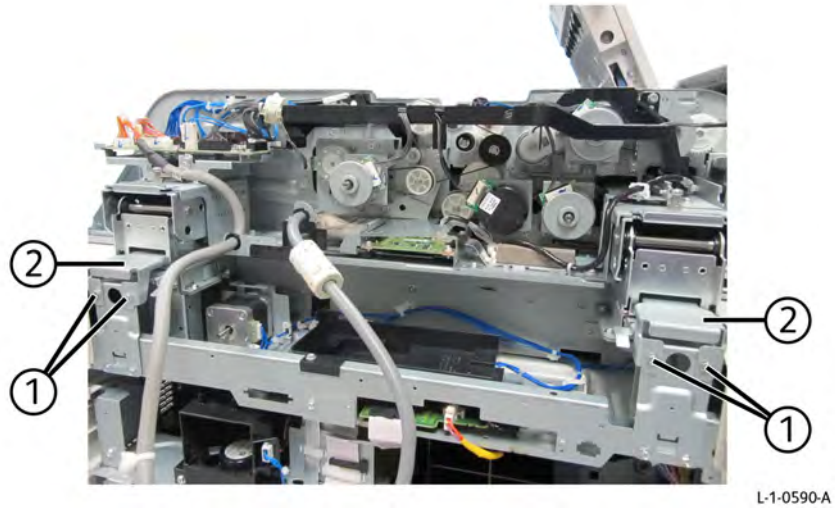

Figure 6 DADF support removal

11. Remove the DADF, Figure 7.
    a. Remove two knobs (1).
    b. Remove the DADF (2) in the direction of arrow.

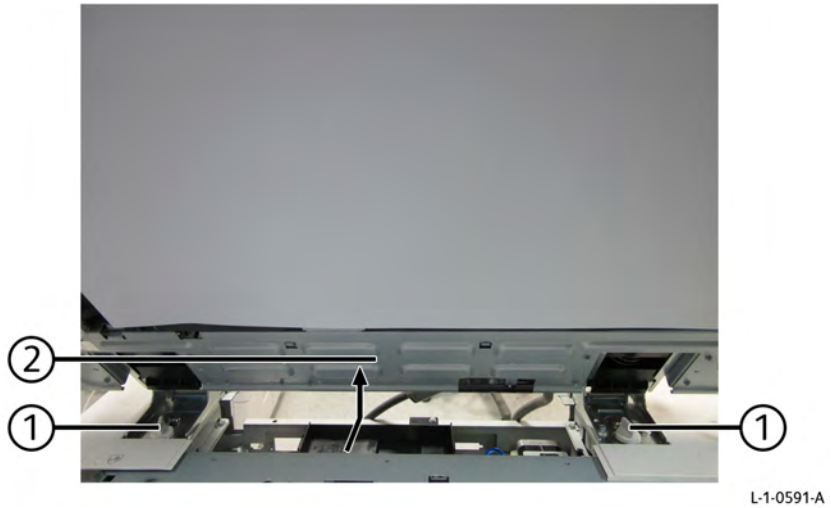

Figure 7 DADF removal

Replacement

The replacement is the reverse of the removal procedure.

Note: After a replacement, enter the Diagnostic Mode, select dC135, and reset the HFSI counter.

REP 5.2 DADF 250 Left Lower Cover

Parts List on PL 5.2

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF rear cover, REP 5.5.
2. Remove one screw (1), Figure 1.

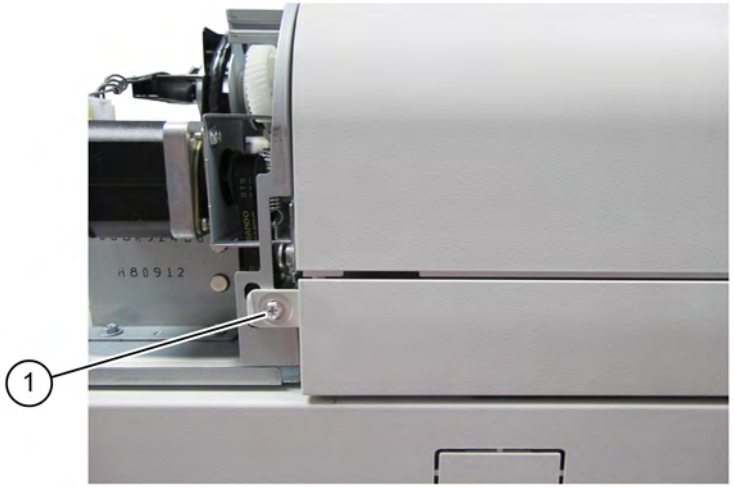

Figure 1 Left lower cover screw removal

3. Open the DADF.
4. Remove the DADF left lower cover, Figure 2.
   a. Remove two screws (1).
   b. Remove the DADF left lower cover (2).

Figure 2 Left lower cover removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.3 DADF 250 Front Cover

Parts List on PL 5.2

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF feeder cover assembly.
2. Open the DADF.
3. Remove the DADF front cover, Figure 1.
   a. Remove four screws (1).
   b. Remove the DADF front cover (2).

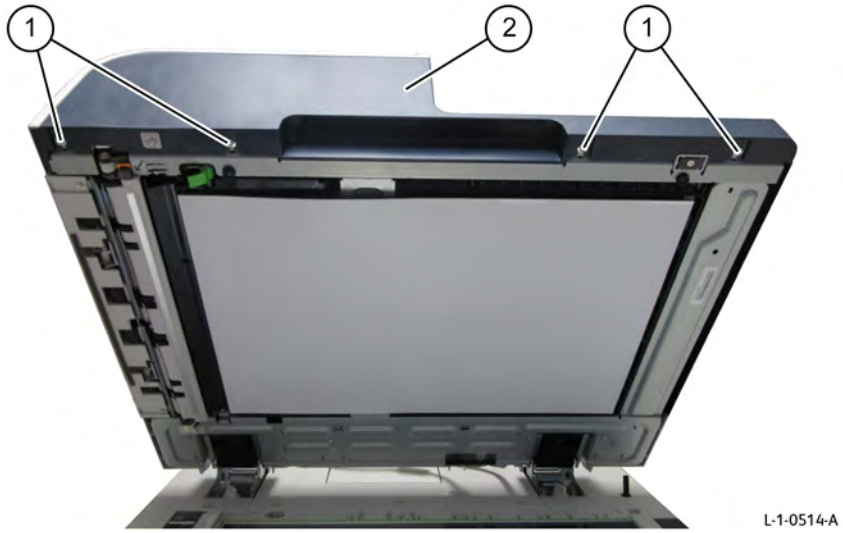

Figure 1 Front cover removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.4 NOT USED

Parts List on

Removal

Replacement

REP 5.5 DADF 250 Rear Cover

Parts List on PL 5.2

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF feeder cover assembly.
2. Remove the DADF rear cover, Figure 1.
   a. Remove two screws (1).
   b. Remove the DADF rear cover (2) in the direction of arrow.

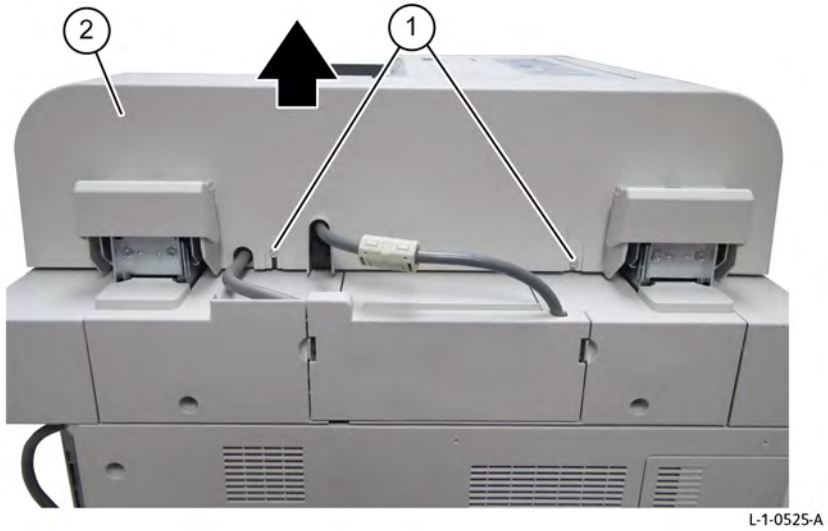

Figure 1 DADF rear cover removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.6 NOT USED

Parts List on

Removal

Replacement

REP 5.7 DADF 250 IIT-DADF Cable

Parts List on PL 5.3

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF IF cover, PL 60.10.
2. Disconnect the IIT-DADF cabel connector, Figure 2.
   a. Disconnect the IIT-DADF cabel connector (1).
   b. Remove the clamp (2) securing the cable.

Figure 2 Disconnect IIT-DADF cable connector

3. Remove the DADF rear cover, REP 5.5.
4. Remove the IIT-DADF cable, Figure 3.
   a. Disconnect two IIT-DADF cable connectors (1).
   b. Remove one screw (2).
   c. Remove the P-clamp (3).
   d. Remove the IIT-DADF cable (4) with bushing (5) from the bracket.

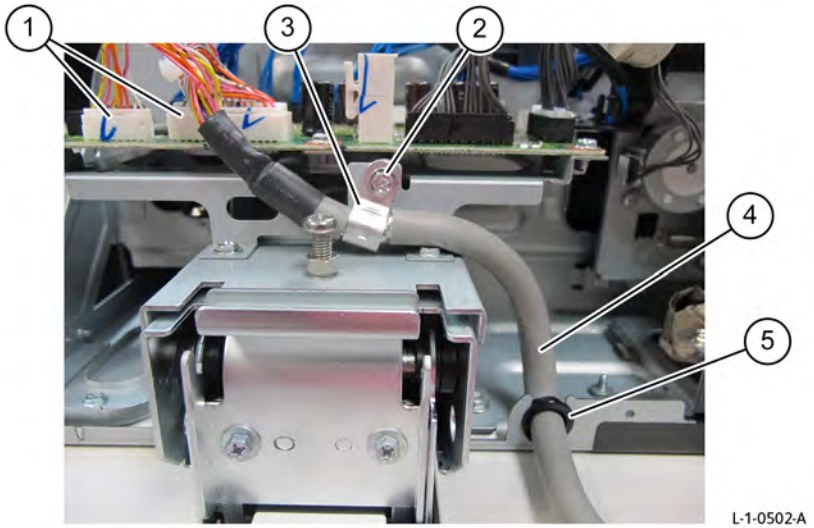

Figure 3 IIT-DADF cable removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.8 DADF 250 PWB

Parts List on PL 5.3

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

Note: Backup the NVM data before replacing the circuit board. (Refer to, Initialize NVM in Section 6 General Procedures, Information, Diagnostics).

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF PWB, Figure 2.
   a. Disconnect eleven connectors (1).
   b. Remove six screws (2).
   c. Remove the DADF PWB (3).

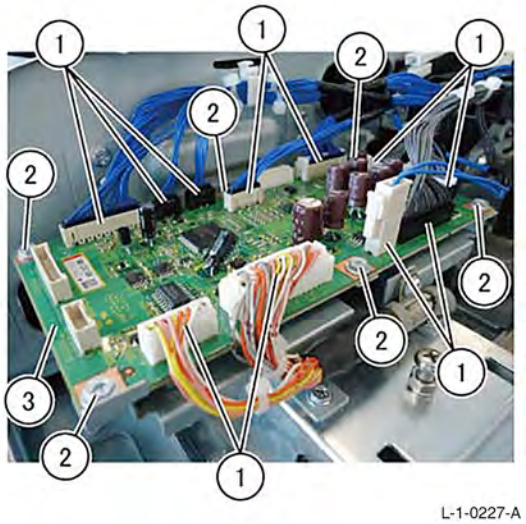

Figure 2 DADF PWB removal

Replacement

The replacement is the reverse of the removal procedure.

Note: After mounting the board, restore the NVM data that has been backed up previously. (Refer to, Initialize NVM in Section 6 General Procedures, Information, Diagnostics).

REP 5.9 DADF 250 Left Counter Balance

Parts List on PL 5.3

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF registration motor, REP 5.41.
3. Remove the DADF exit motor, REP 5.39.
4. Remove the DADF platen motor, REP 5.40.
5. Remove the DADF pre registration motor, REP 5.37.
6. Perform steps 1 through 9 as described in DADF removal procedure, REP 5.1.
7. Remove two screws (1), then remove the left DADF support (2), Figure 1.

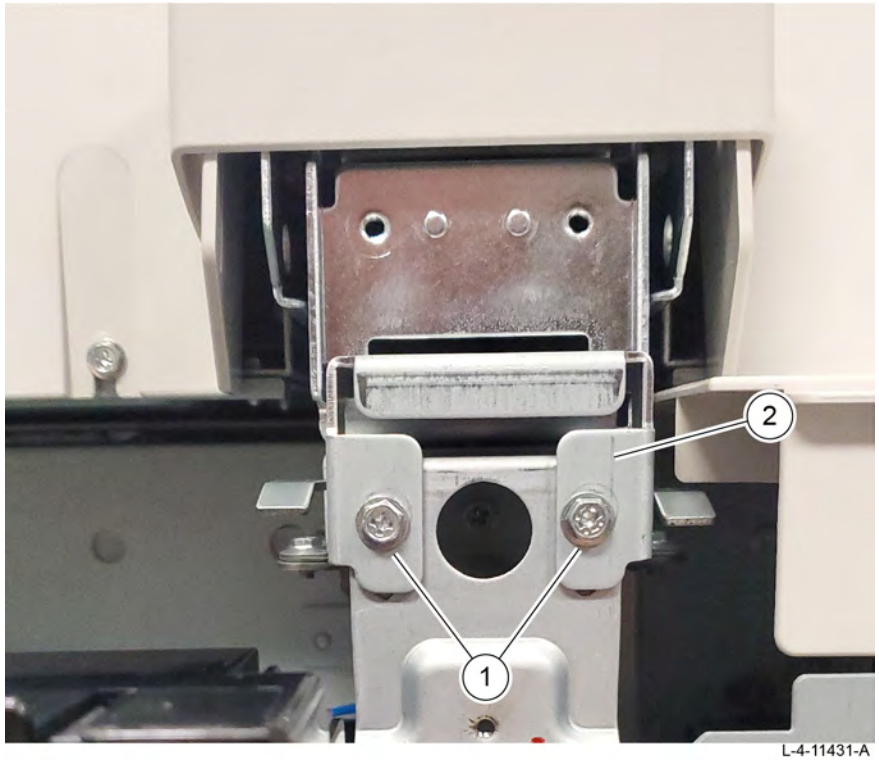

Figure 1 DADF support removal

8. Slide a screwdriver (1), or similar, into the opening in the rear of the counter balance (2) to keep the counter balance closed throughout the remaining procedure, Figure 2.

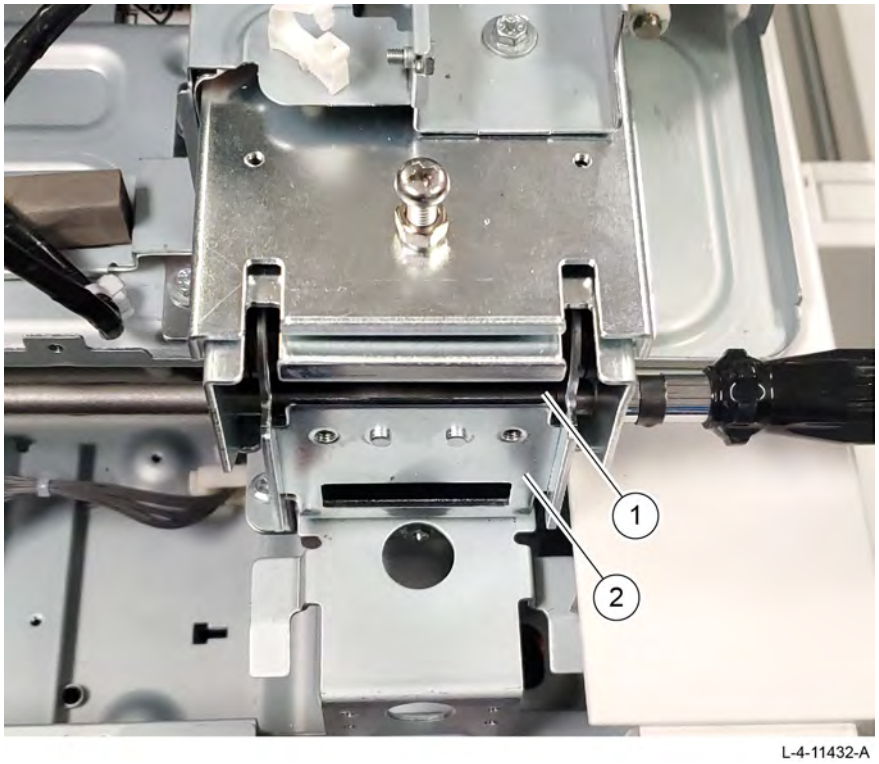

Figure 2 Counterbalance closure

9. Remove the left counter balance, Figure 3.
   a. Remove six screws (1).
   b. Remove the left counterbalance by sliding the counterbalance readward and lifting it clear from the machine.

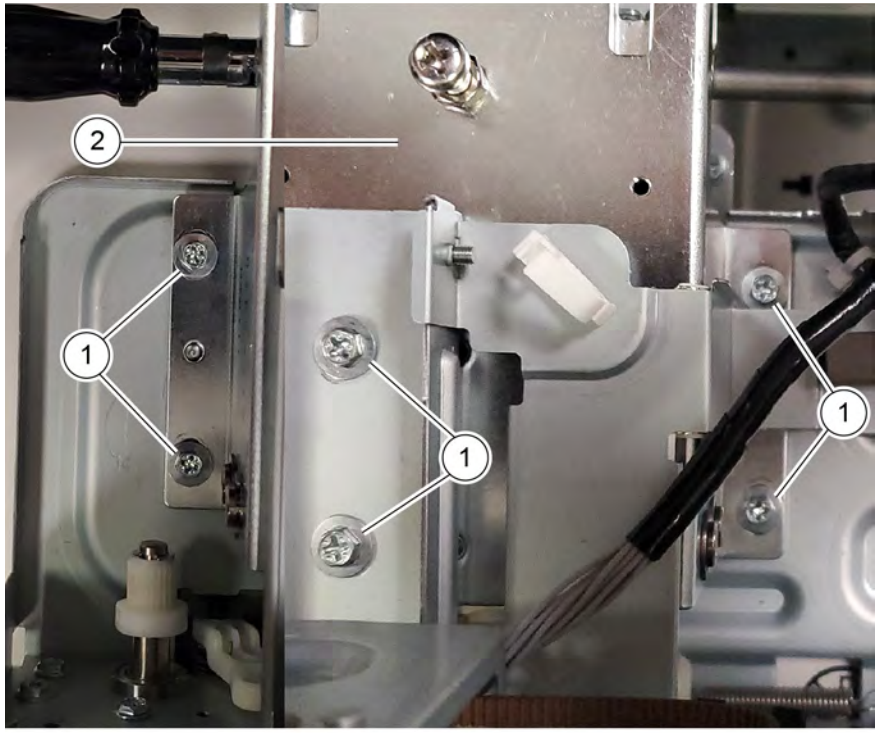

Figure 3 Left counterbalance removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.10 DADF 250 Right Counter Balance

Parts List on PL 5.3

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Perform steps 1 through 9 as described in DADF removal procedure, REP 5.1.
3. Remove the bracket PWB and the DADF PWB as an assembly, Figure 2.
   a. Remove the screw securing the P-clamp (1).
   b. Disconnect two connectors, then remove the IIT/DADF harness (2).
   c. Remove five screws (3).
   d. Lay the bracket PWB and DADF PWB off to the side leaving the remaining harnesses connected.

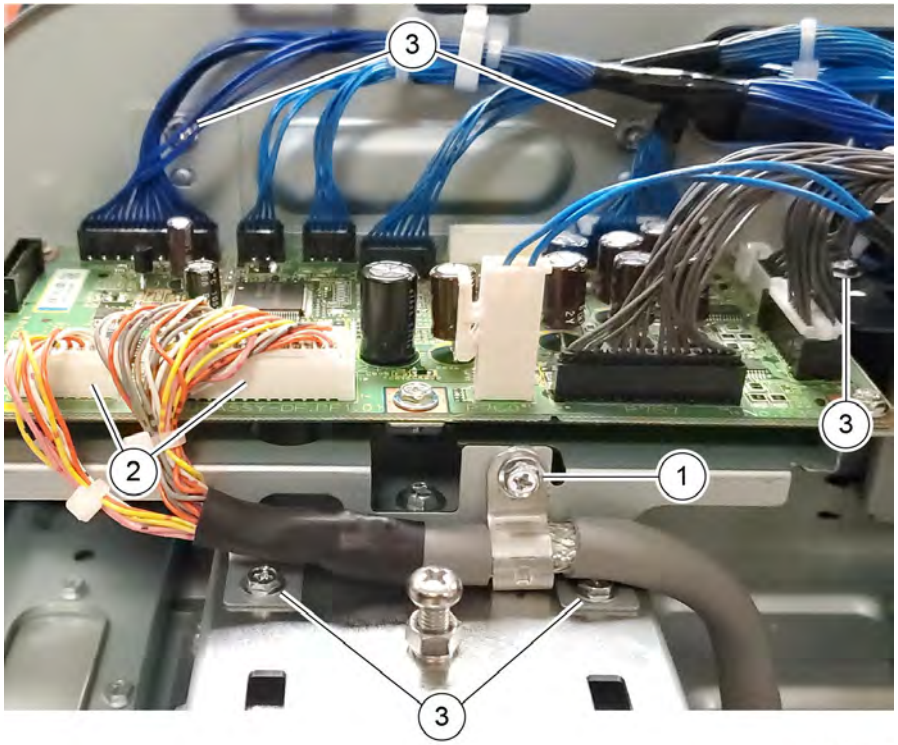

Figure 2 Bracket PWB and DADF PWB removal

4. Remove two screws (1), then remove the right DADF support (2), Figure 3.

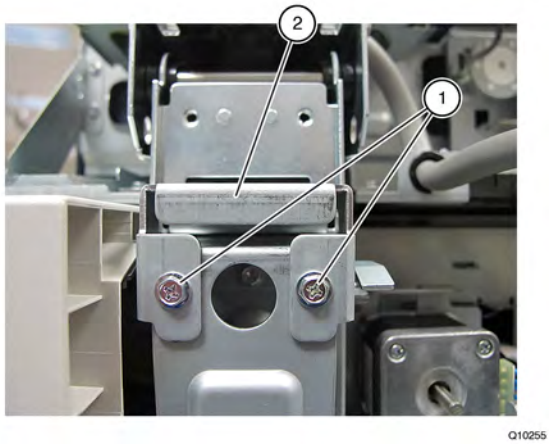

Figure 3 DADF support removal

5. Slide a screwdriver (1), or similar, into the opening in the rear of the counterbalance to keep the counterbalance closed throughout the remaining procedure, Figure 4.

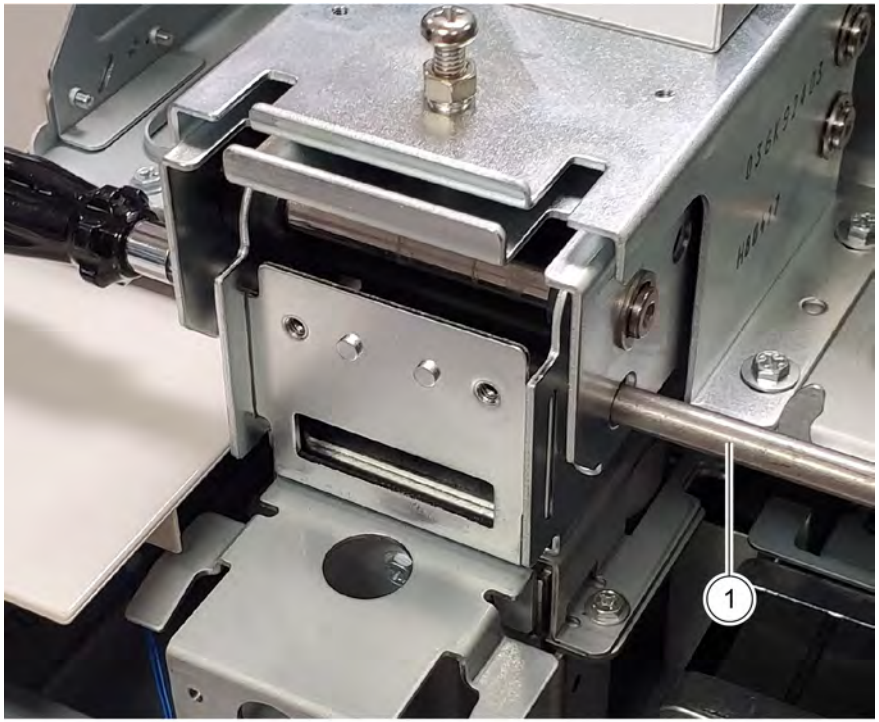

Figure 4 Counterbalance closure

6. Remove the right counterbalance, Figure 5.
   a. Remove eight screws (1).
   b. Remove the right counterbalance by sliding the counterbalance readward and lifting it clear from the machine.

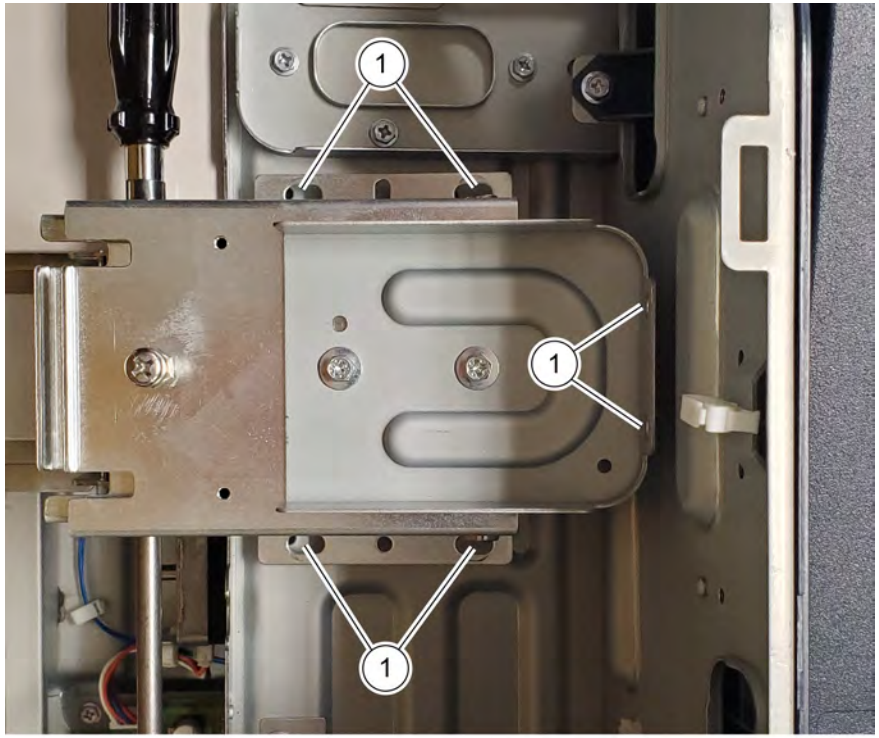

Figure 5 Right counterbalance removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.11 DADF 250 DCDC PWB

Parts List on PL 5.4

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

Note: Backup the NVM data before replacing the circuit board. (Refer to, Initialize NVM in Section 6 General Procedures, Information, Diagnostics).

1. Remove the DADF rear cover, REP 5.5.
2. Remove the bracket PWB, Figure 2.
   a. Disconnect two connectors (1).
   b. Remove two screws (2).
   c. Remove the bracket PWB (3).

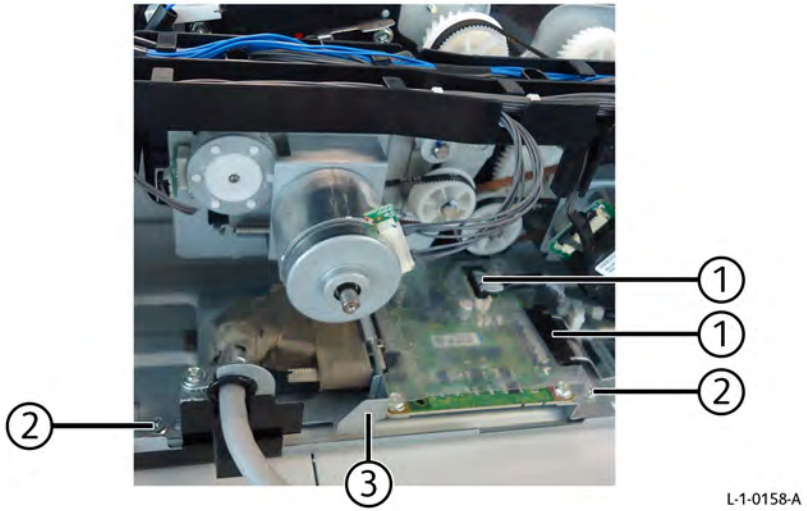

Figure 2 Bracket PWB removal

3. Remove the DCDC PWB, Figure 3.

a. Disconnect the connector (1).
b. Remove four screws (2).
c. Remove the DCDC PWB (3).

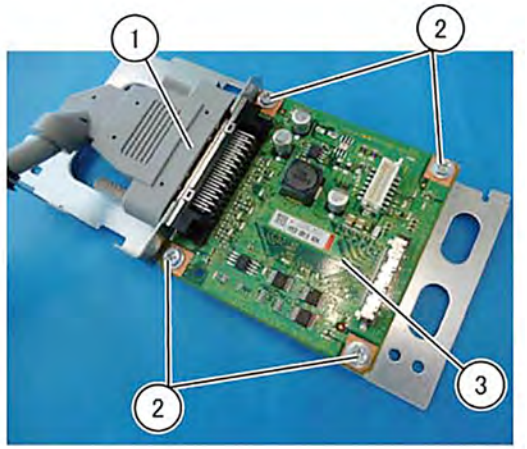

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Figure 3 DCDC PWB removal

Replacement

The replacement is the reverse of the removal procedure.

Note: After mounting the board, restore the NVM data that has been backed up previously. (Refer to, Initialize NVM in Section 6 General Procedures, Information, Diagnostics).

REP 5.12 DADF 250 CIS

Parts List on PL 5.4

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the lower chute assembly, REP 80.25.
2. Remove the APS sensor bracket, Figure 2.
   a. Remove one screw (1).
   b. Disconnect four connectors (2).
   c. Remove the APS sensor bracket (3).

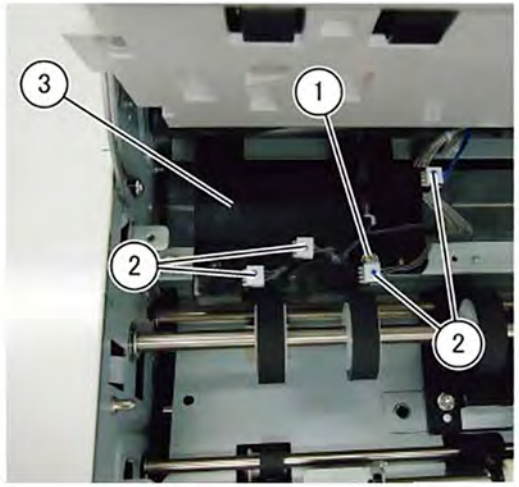

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Figure 2 APS sensor bracket removal

3. Lift the film (1), then disconnect the DCDC-CIS flat cable and wire harness connectors (2), Figure 3.

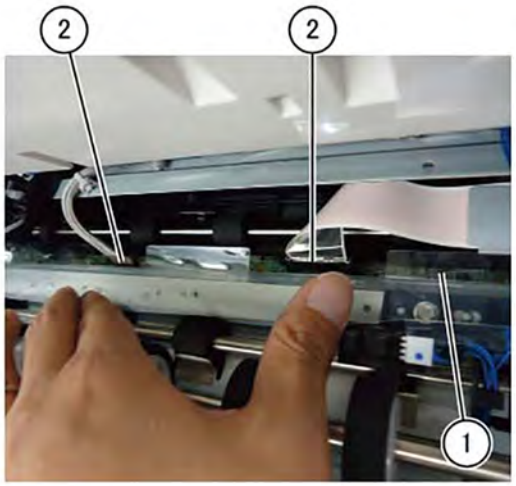

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Figure 3 DCD-CIS flat cable and wire harness

4. Remove the exit 1 belt, Figure 4.
   a. Remove one E-clip (1).
   b. Remove the pulley (2).
   c. Remove the exit 1 belt (3).

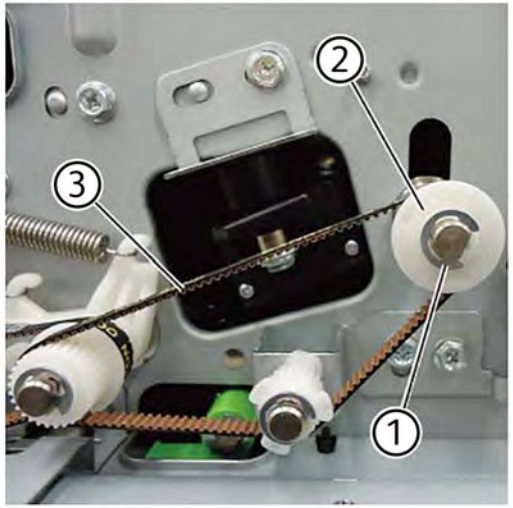

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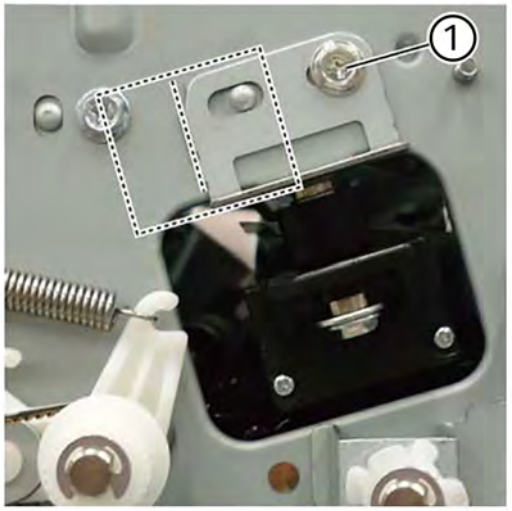
Figure 4 Exit 1 belt removal

5. Remove one screw (1) from the CIS bracket assembly, Figure 5.

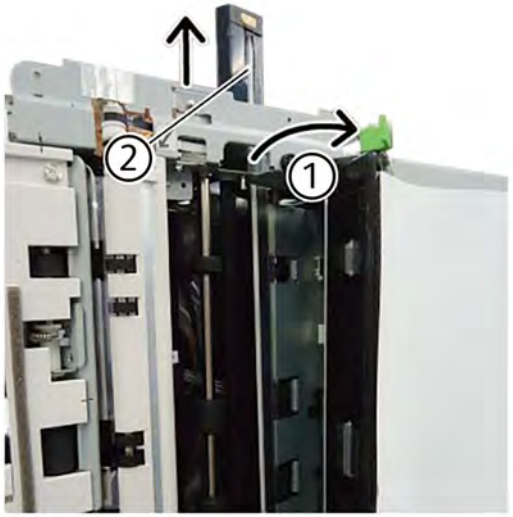


L-1-0252-A

Figure 5 CIS bracket removal

Note: Note the installation position (marking on the frame side) of the CIS bracket assembly, Figure 5.

6. Remove the CIS, Figure 6.
   a. Open the DADF.
   b. Open the exit lower chute assembly (1).
   c. Pull out the CIS (2) in the direction of the arrow.



L-1-0253-A

Figure 6 CIS removal

Replacement

The replacement is the reverse of the removal procedure.

Use caution when installing the CIS:

1. The installation position of the CIS bracket assembly (marking on the frame side) should be the same as at the time of removal, Figure 7.

Figure 7 CIS bracket alignment

2. Verify the front end of the CIS clears the bushing at the rear, Figure 8.

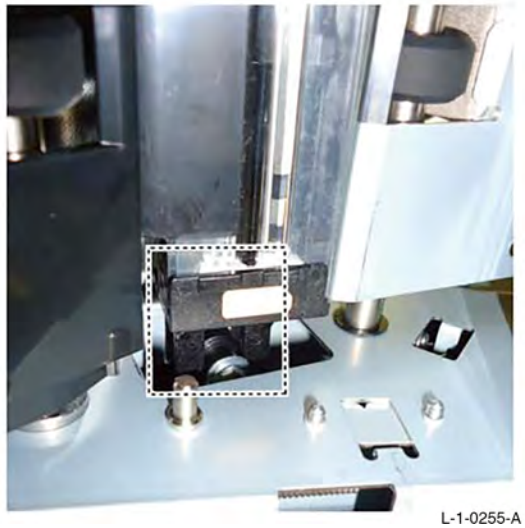


Figure 8 Bushing clearance check

Note: After installing the CIS, verify the CIS moves freely up and down.

3. Perform ADJ 60.5 IIT calibration.

4. Verify the APS sensor bracket is installed accurately, Figure 9.

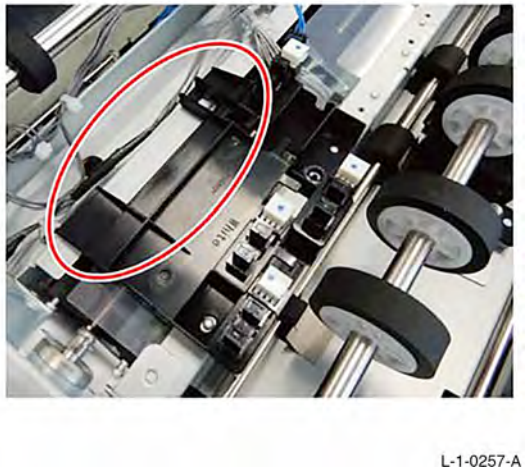


Figure 9 APS sensor bracket installation

REP 5.13 NOT USED

Parts List on

Removal

Replacement

REP 5.14 DADF 250 Feed Motor and Belts

Parts List on PL 5.5

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF feed motor and belt, Figure 2.
   a. Disconnect one connector (1).
   b. Remove two springs (2).
   c. Remove three screws (3).
   d. Remove the DADF feed motor (4) and belt.

   Note: Be careful not to lose the springs.

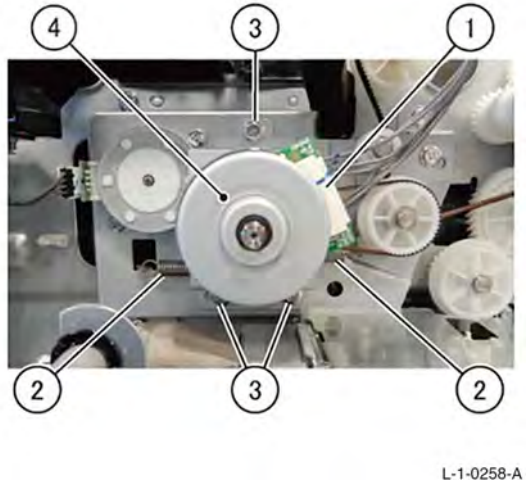


Figure 2 DADF feed motor and belt removal

3. Remove the gear and belt, Figure 3.

a. Remove the E-clip (1).
b. Remove the gear (2).
c. Remove the belt (3).

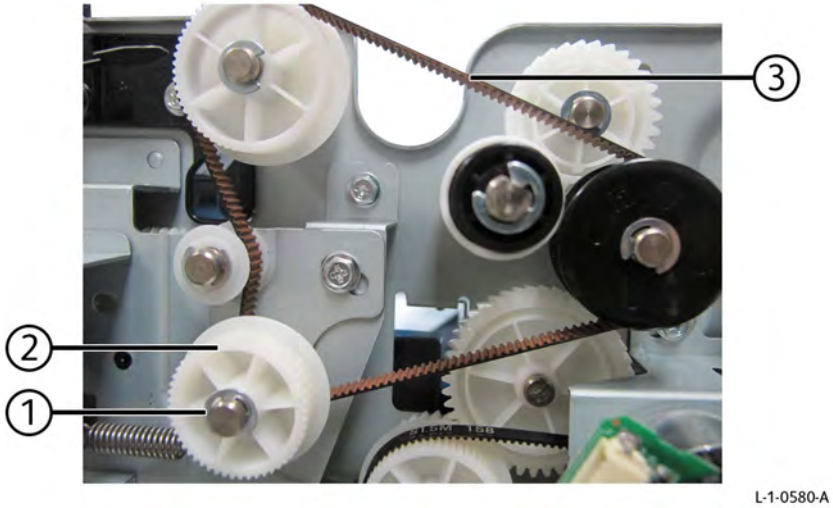


Figure 3 Gear and belt removal

Replacement

The replacement is the reverse of the removal procedure.

Note: Re-attach the belt to the feed motor before replacement.

REP 5.15 NOT USED

Parts List on

Removal

Replacement

REP 5.16 DADF 250 Tray Motor Assembly

Parts List on PL 5.5

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Remove the bracket PWB, Figure 2.
   a. Disconnect two connectors (1).
   b. Remove two screws (2).
   c. Remove the bracket PWB (3).

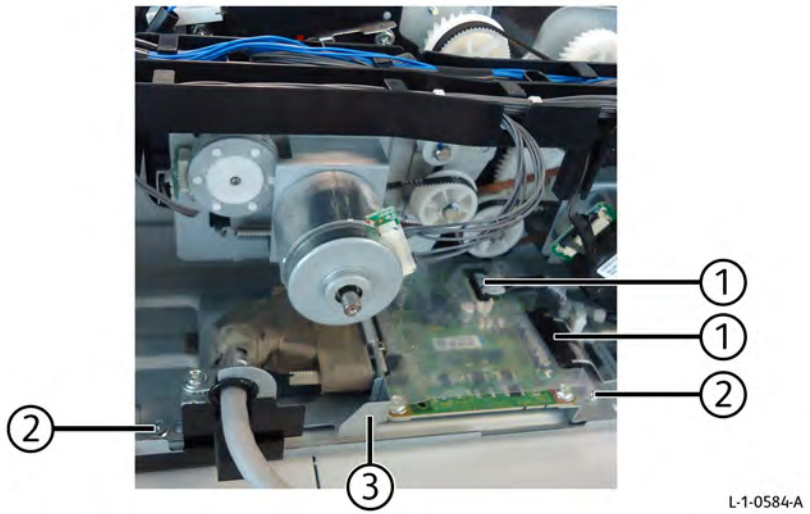


Figure 2 Bracket PWB removal

3. Remove the DADF feed motor and drive belts, REP 5.14.
4. Disconnect one connector (1), Figure 3.

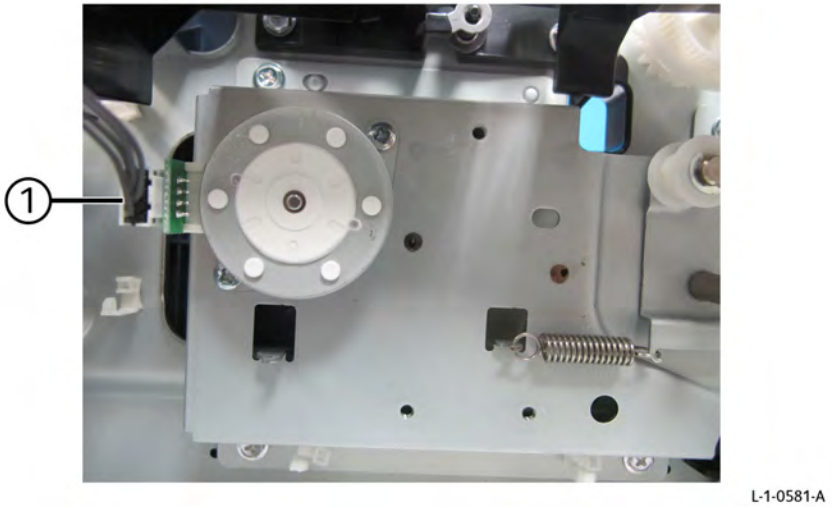


Figure 3 Harness connector

5. Remove the DADF tray motor assembly, Figure 4.
   a. Remove four screws (1).
   b. Remove the DADF tray motor assembly (2).

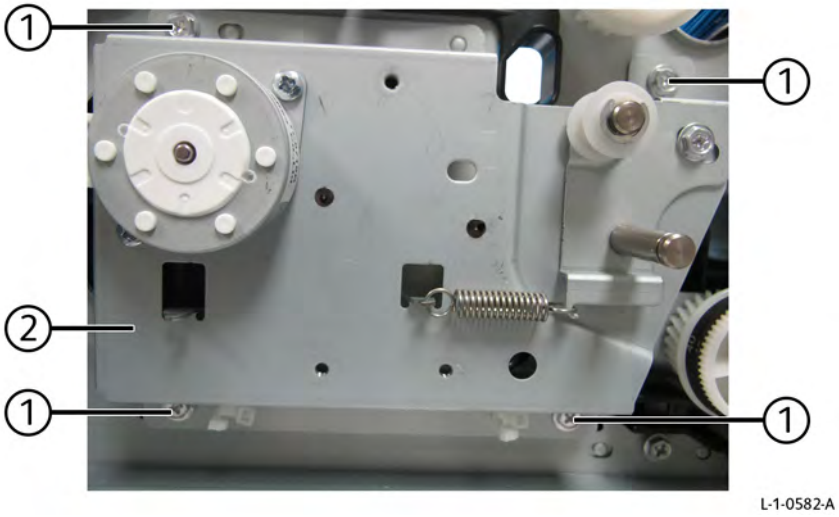


Figure 4 DADF tray motor assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.17 DADF 250 Oil Damper and Document Set LED

Parts List on PL 5.5

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.5.
2. Remove the DADF oil damper, Figure 1.
   a. Remove two screws (1).
   b. Remove the DADF oil damper (2).

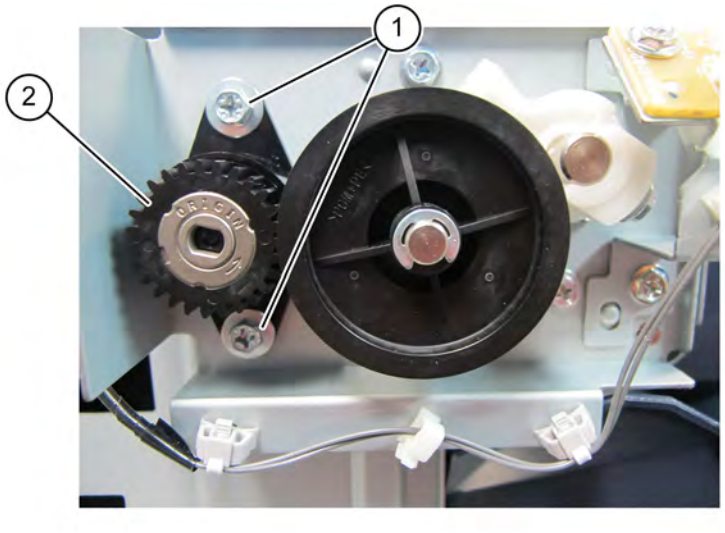


Figure 1 DADF oil damper removal

3. Remove the document set LED, Figure 2.
   a. Disconnect the document set LED connector (1).
   b. Remove one screw (2).
   c. Remove the document set LED (3).

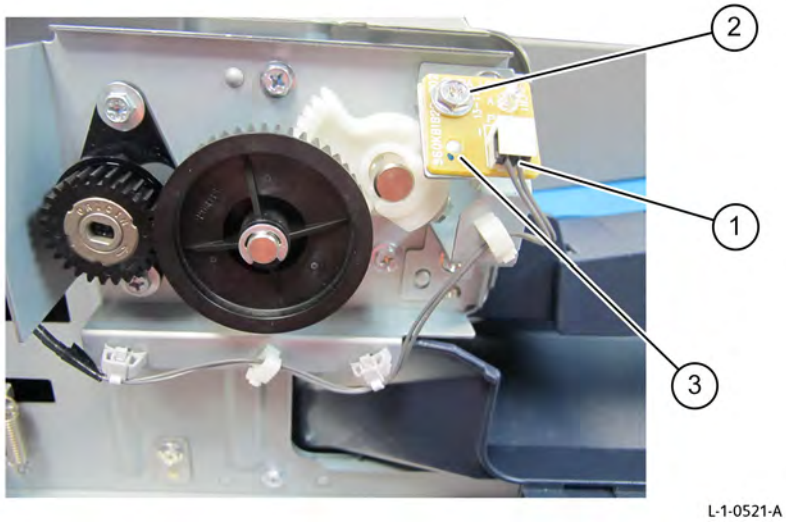


Figure 2 Document set LED removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.18 NOT USED

Parts List on

Removal

Replacement

REP 5.19 DADF 250 Tray APS Sensor 1/Tray APS Sensor 2/Tray APS Sensor 3/Tray APS Sensor 4/Bottom Sensor

Parts List on PL 5.6

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: The replacement procedure for DADF tray APS sensor 1 to DADF tray APS sensor 4 are the same as DADF tray APS sensor 2, so only DADF tray APS sensor 2 is described here.

1. Remove the DADF document tray, REP 5.55.
2. Remove two tray blocks (1) on both ends of the bottom tray assembly, Figure 1.

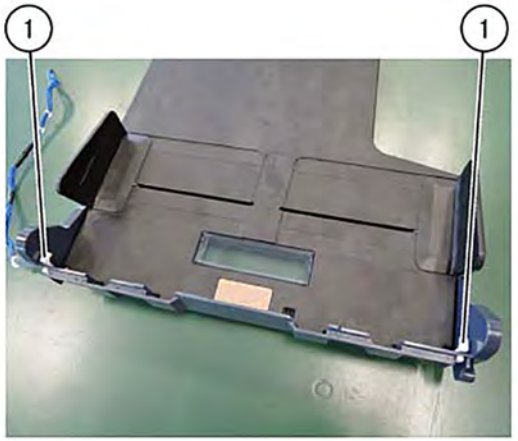


Figure 1 Tray block removal

Note: Remove the tray block by pressing it with a flat-blade screwdriver or similar tool, Figure 2.

Figure 2 Tray block removal technique

3. Remove the DADF tray APS sensor 2, Figure 3.
   a. Turn the document tray assembly over, then remove six screws (1).
   b. Remove the inner cover (2).
   c. Disconnect one connector (3).
   d. Remove the DADF tray APS sensor(s) as required (4).

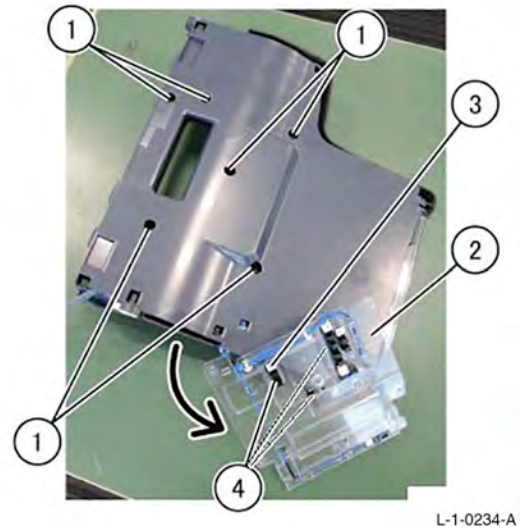


Figure 3 DADF tray APS sensor 2 removal

Note: Remove the inner cover (2) by opening the bottom tray assembly, Figure 4.

Figure 4 Inner cover removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.20 DADF 250 Document Set Sensor

Parts List on PL 5.6

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove two tray blocks (1) by prying at the bottom using a flat blade screw driver, Figure 1.

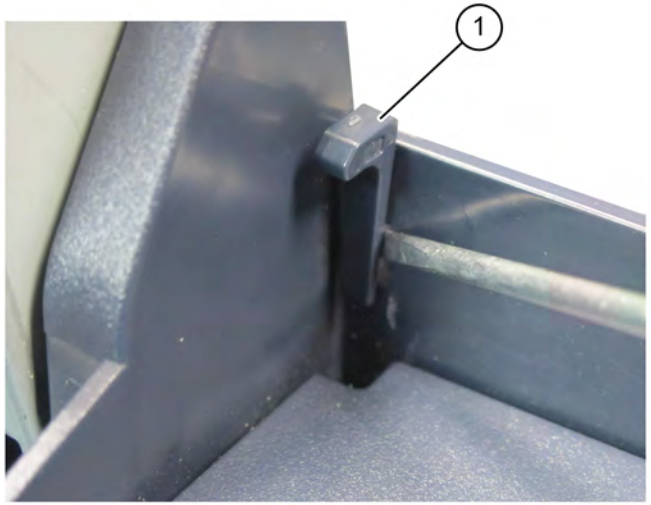


Figure 1 Tray blocks removal

2. Open the upper tray assembly, PL 5.6.
3. Remove the tray wire harness from guides (1), then slightly pull the harness inside the tray to allow required slack, Figure 2.

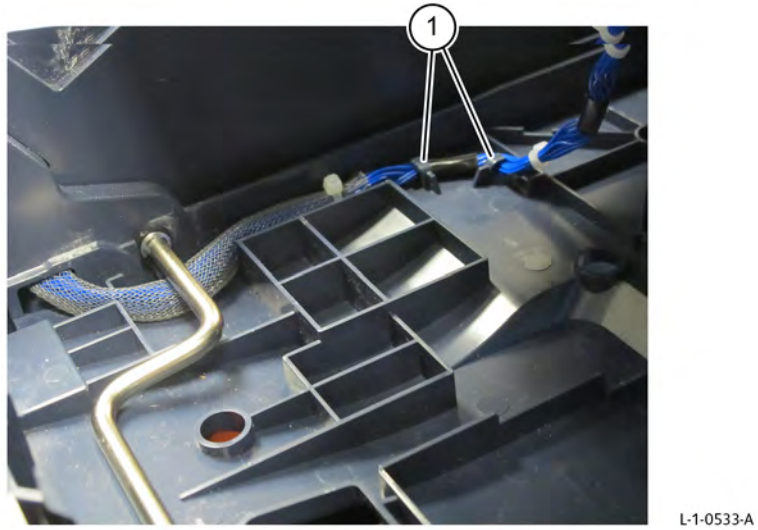


Figure 2 Harness removal from guides

4. Remove the upper tray assembly (1) from the hinges, then place the assembly upside down, Figure 3.

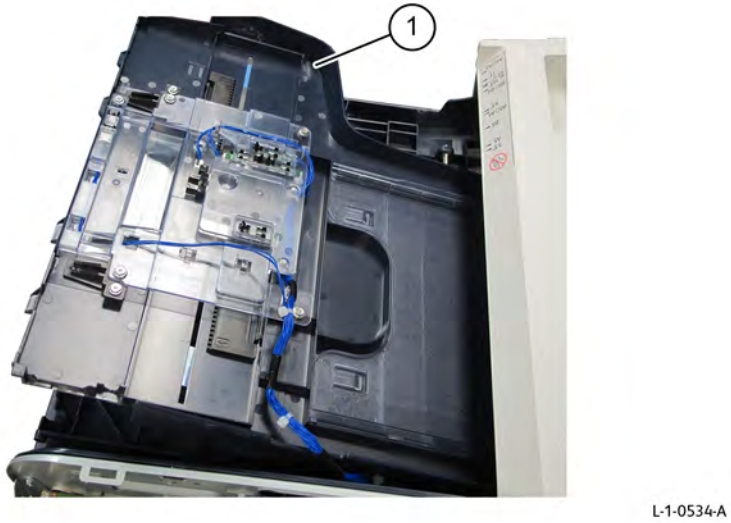


Figure 3 Upper tray assembly removal

5. Remove the inner cover, Figure 4.
   a. Remove six screws(1).
   b. Remove the inner cover (2).

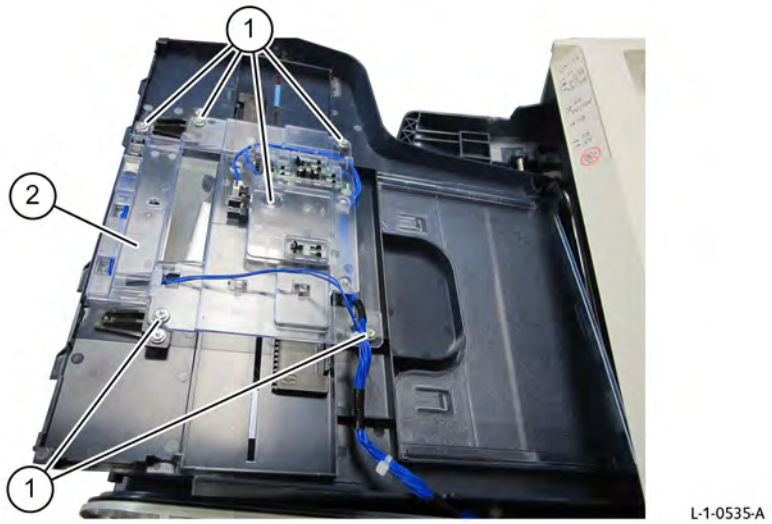


Figure 4 Inner cover removal

6. Remove the document set sensor, Figure 5.
   a. Disconnect the connector (1).
   b. Remove the document set sensor.

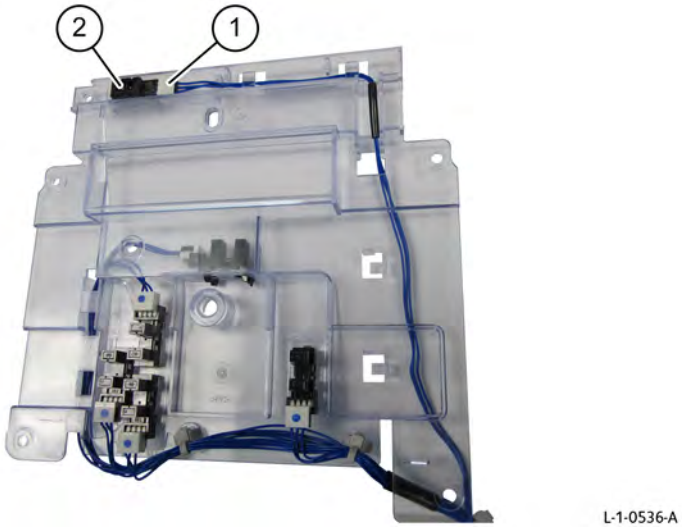


Figure 5 Document set sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.21 DADF 250 Feeder Cover Assembly

Parts List on PL 5.7

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Open the DADF feeder cover assembly.
4. Remove the wire harness from harness guide, Figure 2.
   a. Disconnect the two wire harness connectors (1) from the DADF PWB.
   b. Release the clamp (2), then remove the wire harness (3) from the clamp.
   c. Remove the wire harness (3) from harness guide (4).

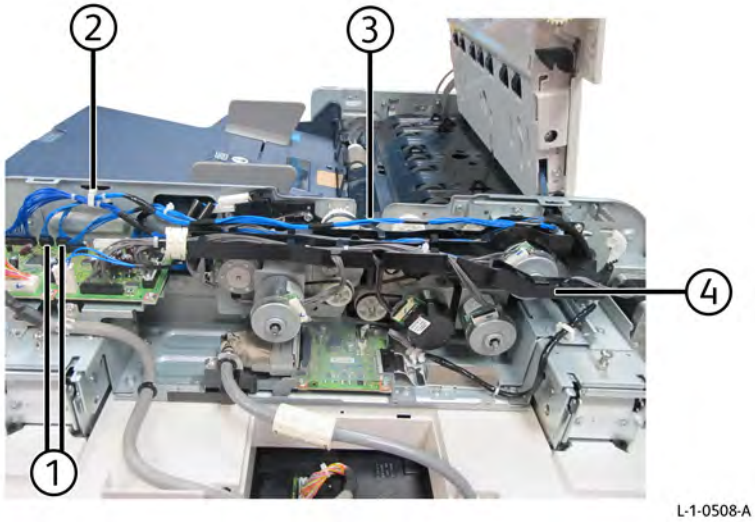


Figure 2 Wire harness removal

5. Remove the front hinge, Figure 3.

a. Remove two screws (1).
b. Remove the front hinge (2).

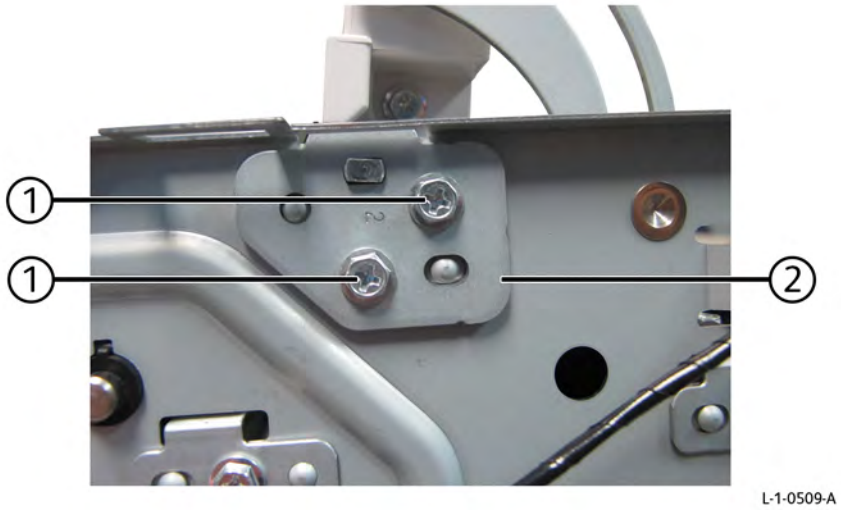


Figure 3 Front hinge removal

6. Remove the rear hinge, Figure 4.

a. Remove one screw (1).
b. Remove the rear hinge (2).
c. Pull out and remove the wire harness (3) from the frame hole.

Figure 4 Rear hinge removal

7. Remove the feeder cover assembly linkage from the stud, Figure 5.

a. Remove the E-clip (1).
b. Remove the bushing (2).
c. Remove the feeder cover assembly linkage from the stud.

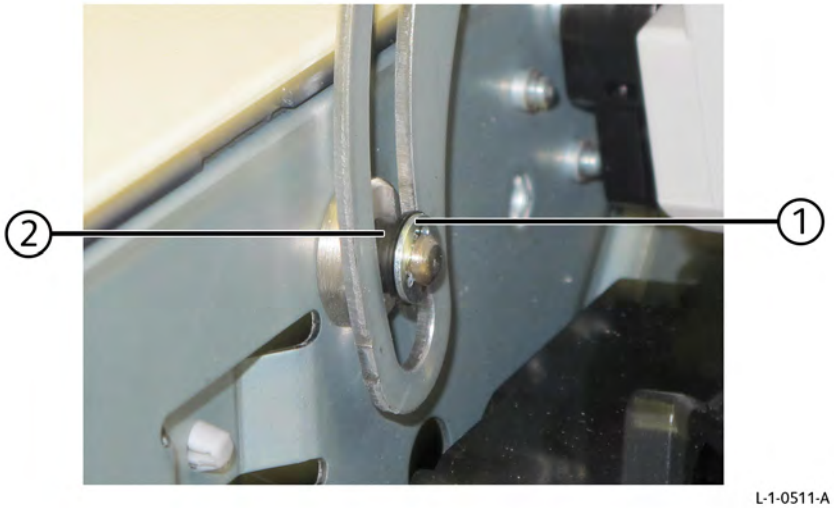


Figure 5 Feeder cover assembly linkage removal

8. Remove the DADF feeder cover assembly.

Replacement

The replacement is the reverse of the removal procedure.

REP 5.22 DADF 250 Feeder Cover Interlock Switch

Parts List on PL 5.7

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF PWB wire harness and harness guide, REP 5.56.
3. Remove the DADF feeder cover interlock switch, Figure 1.
   a. Disconnect two connectors (1).
   b. Pull the harness through the hole (2).
   c. Remove two screws (3).
   d. Remove the DADF feeder cover interlock switch (4).

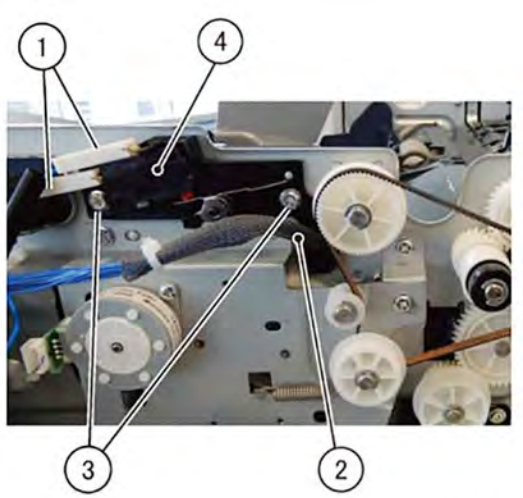


Figure 1 DADF feeder cover interlock switch removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.23 DADF 250 Left Cover Assembly

Parts List on PL 5.7

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Remove the DADF registration motor and belt, REP 5.41.
4. Remove two screws (1), Figure 1.

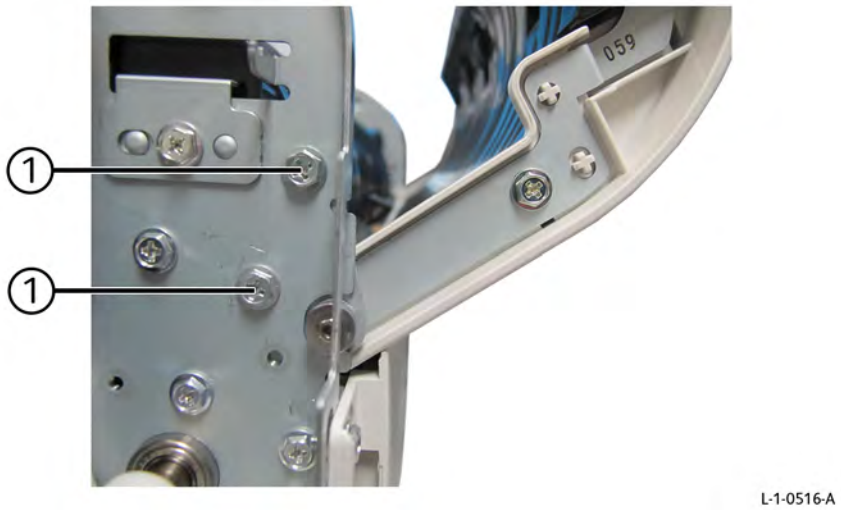


Figure 1 Left cover assembly screws removal

5. Remove the left cover assembly, Figure 2.
   a. Remove one screw (1).
   b. Remove the front bracket assembly (2) using a flat blade screw driver.
   c. Remove the left cover assembly (3).

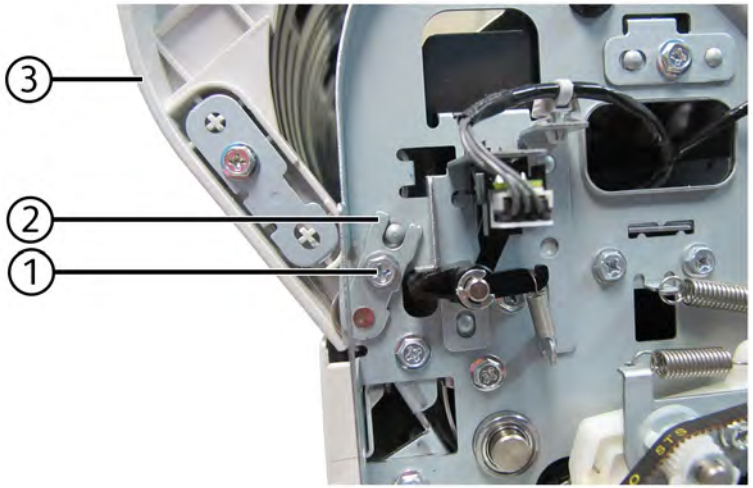


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Figure 2 Letf cover assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.24 DADF 250 L/H Cover Interlock Sensor and Actuator

Parts List on PL 5.7

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF L/H cover interlock sensor with actuator, Figure 1.
   a. Disconnect the connector (1), then diconnect the cable clamp (2).
   b. Remove the screw (3), then remove the DADF L/H cover interlock sensor with the actuator as an assembly.

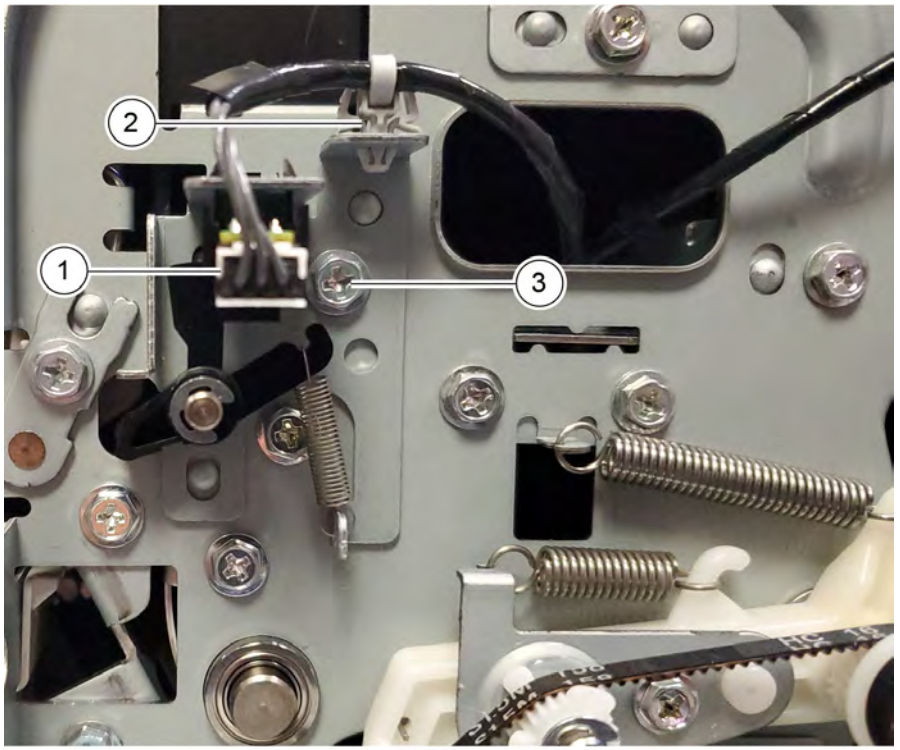

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Figure 1 DADF L/H cover interlock sensor removal

Replacement

The replacement is the reverse of the removal procedure.

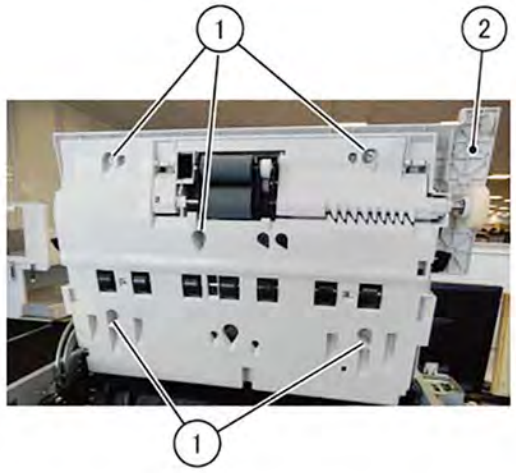
REP 5.25 DADF 250 Feed In Sensor 1/DADF Feed In Sensor 2

Parts List on PL 5.8

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

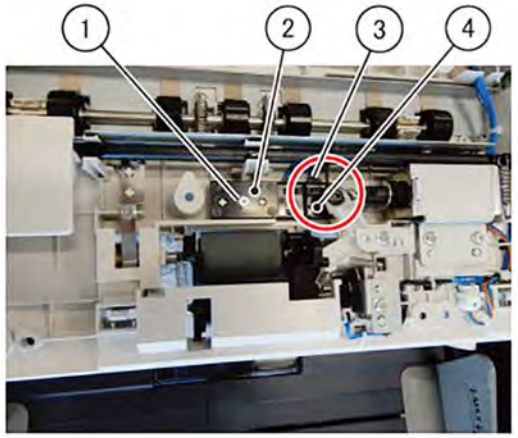
1. Remove the upper feeder cover, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove five screws (1).
   c. Remove the upper feeder cover (2).



L-1-0265-A

Figure 1 Upper feeder cover removal

2. Remove DADF feed in sensor 1 and 2, Figure 2.
   a. Remove one screw (1).
   b. Remove the feed sensor bracket (2).
   c. Disconnect one connector (3).
   d. Remove DADF feed in sensor 1 and 2 (4).



L-1-0266-A

Figure 2 DADF feed in sensor 1 and 2 removal

Replacement

The replacement is the reverse of the removal procedure.

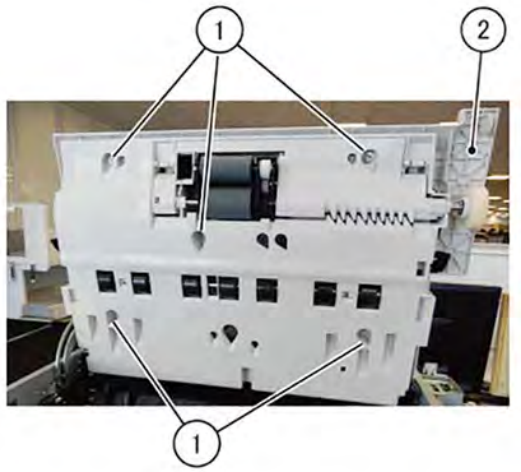
REP 5.26 DADF 250 Level Sensor

Parts List on PL 5.8

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

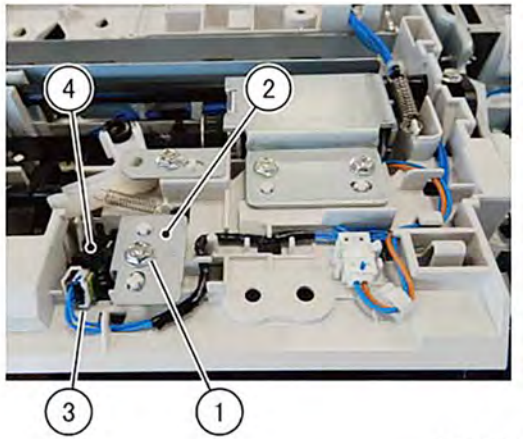
1. Remove the upper feeder cover, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove five screws (1).
   c. Remove the upper feeder cover (2).



L-1-0265-A

Figure 1 Upper feeder cover removal

2. Remove the DADF level sensor, Figure 2.
   a. Remove one screw (1).
   b. Remove the DADF level sensor bracket (2).
   c. Disconnect one connector (3).
   d. Remove the DADF level sensor (4).



L-1-0267-A

Figure 2 DADF level sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.27 DADF 250 Rear Latch Assembly

Parts List on PL 5.8

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF feeder cover assembly.
2. Remove the upper feeder cover, Figure 1.
   a. Remove five screws (1).
   b. Remove the upper feeder cover (2).

Figure 1 Upper feeder cover removal

3. Remove the latch shaft hardware, Figure 2.
   a. Remove two lever springs (1).
   b. Remove one screw (2).

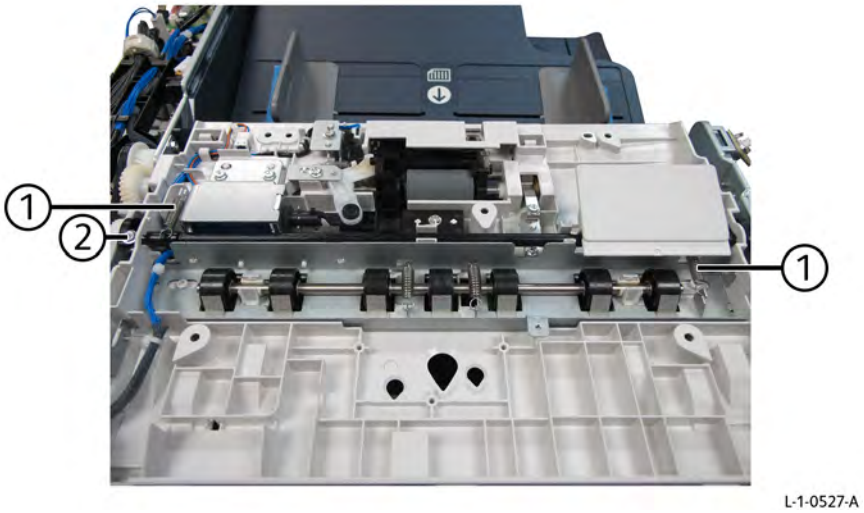


Figure 2 Latch shaft harware removal

4. Remove the latch lever, Figure 3.
   a. Remove two screws (1).
   b. Remove the latch lever (2).

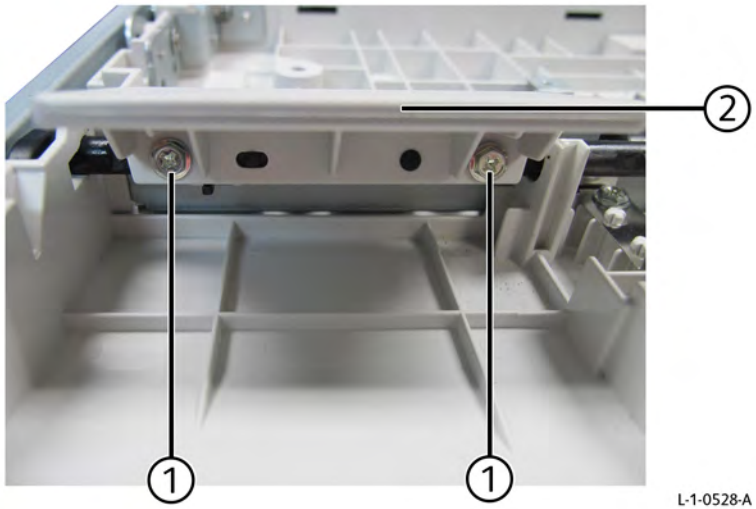


Figure 3 Latch lever removal

5. Remove the rear latch and latch shaft, Figure 4.
   a. Remove the rear latch (1) in the direction of arrow.
   b. Remove the latch shaft (2) in the opposite direction.

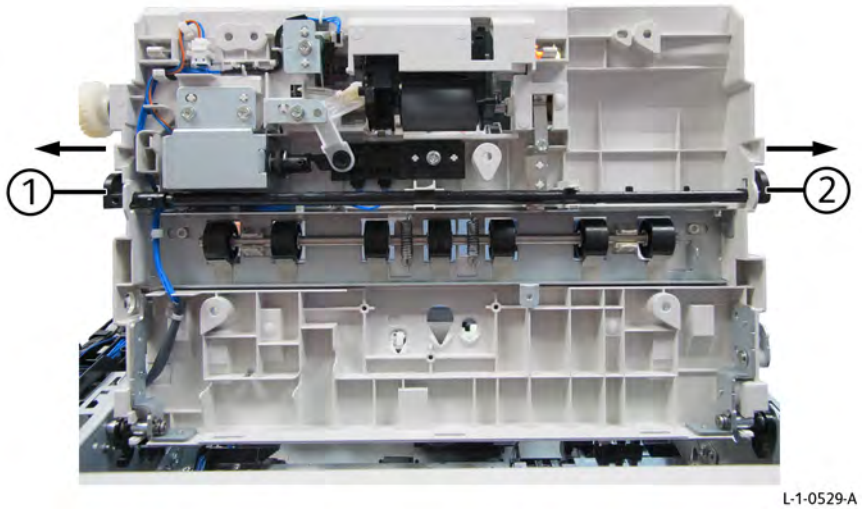


Figure 4 Rear latch and latch shaft removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.28 DADF 250 Nudger Housing Assembly

Parts List on PL 5.8

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF nudger housing assembly, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove two hooks (1).
   c. Remove the DADF nudger housing assembly (2).

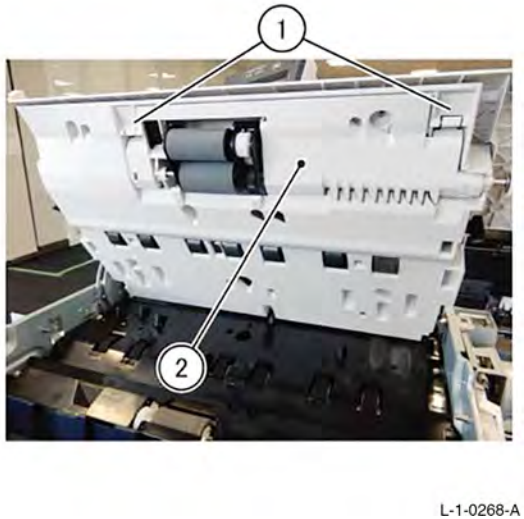
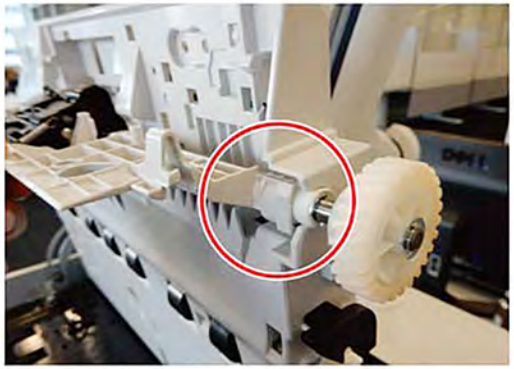


Figure 1 DADF nudger housing assembly removal

Replacement

Take note of the following when performing the installation.

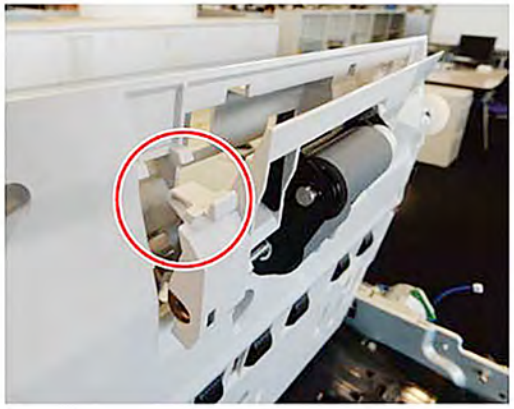
1. Align and attach the linear part of the bearing to the installation hole of the DADF feeder cover assembly, Figure 2.



L-1-0269-A

Figure 2 Bearing alignment

2. Push in to securely snap the cover closed, Figure 3.



L-1-0270-A

Figure 3 Snap lock on the cover

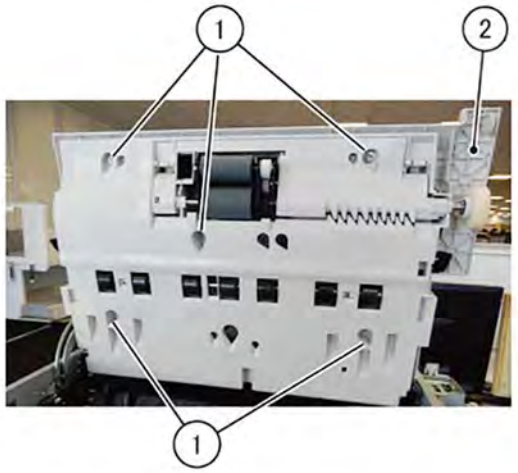
REP 5.29 DADF 250 Nudger Solenoid Assembly

Parts List on PL 5.8

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the upper feeder cover, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove five screws (1).
   c. Remove the upper feeder cover (2).



L-1-0265-A

Figure 1 Upper feeder cover removal

2. Remove the DADF nudger solenoid assembly, Figure 2.
   a. Disconnect one connector (1).
   b. Open the clamp (2), then remove the harness.
   c. Remove two screws (3).
   d. Remove the DADF nudger solenoid assembly (4).

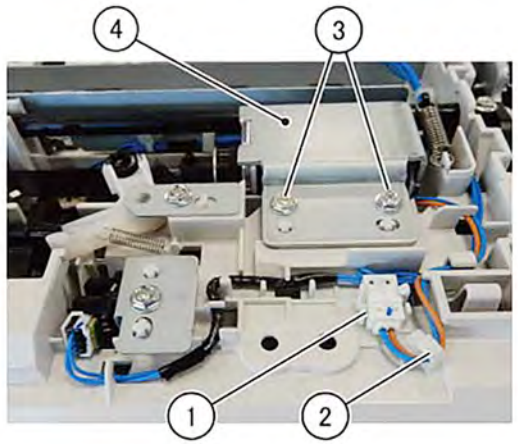


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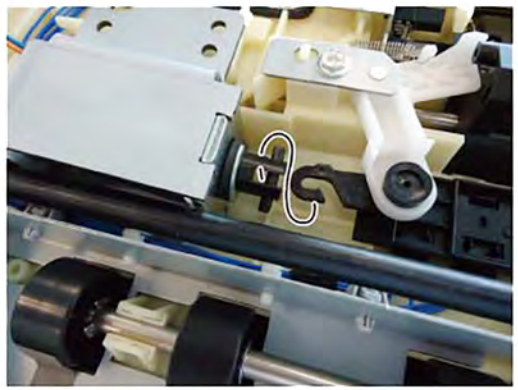
Figure 2 DADF nudger solenoid assembly removal

Replacement

The replacement is the reverse of the removal procedure.

Note: When installing the DADF nudger solenoid assembly, attach the hook of the guide to the leading edge of the DADF nudger solenoid assembly, Figure 3.



L-1-0235-A

Figure 3 Guide hook installation

REP 5.30 NOT USED

Parts List on

Removal

Replacement

REP 5.31 DADF 250 Out Sensor

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the pre registration in chute assembly, REP 5.47.
2. Remove the out sensor bracket, Figure 1
   a. Remove one screw (1).
   b. Remove the out sensor bracket (2).

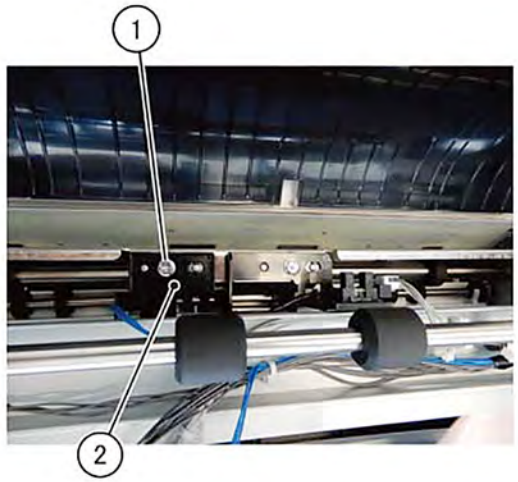


Figure 1 DADF out sensor bracket removal

3. Remove the DADF out sensor, Figure 2.
   a. Disconnect one connector (1).
   b. Remove the DADF out sensor (2).

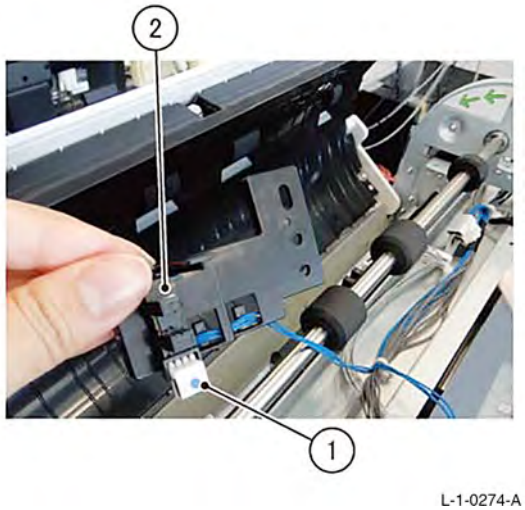


Figure 2 DADF out sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.32 DADF 250 Registration Sensor

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the pre registration in chute assembly, REP 5.47.
2. Remove the DADF registration sensor, Figure 1.
   a. Remove one screw (1).
   b. Remove the lead registration sensor bracket (2).
   c. Disconnect the connector (3).
   d. Remove the DADF registration sensor (4).

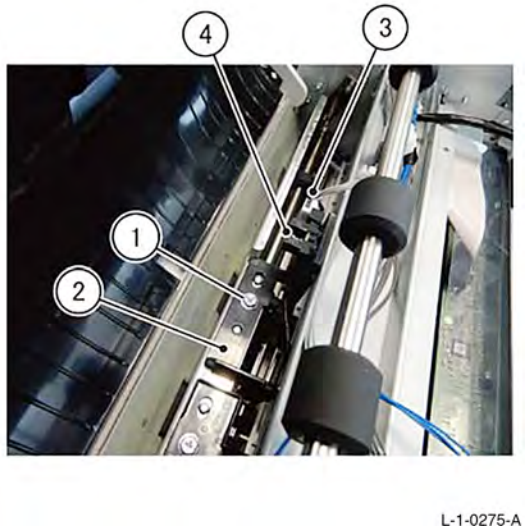


Figure 1 DADF registration sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.33 DADF 250 Pre Registration Sensor/APS Sensor 1/APS Sensor 2/APS Sensor 3

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower chute assembly, REP 80.25.
2. Remove the DADF pre registration sensor, Figure 1.
   a. Remove one screw (1).
   b. Remove the APS sensor bracket (2).
   c. Disconnect one connector (3).
   d. Remove the DADF pre registration sensor (4).
   e. Remove the DADF APS sensor as required (5).

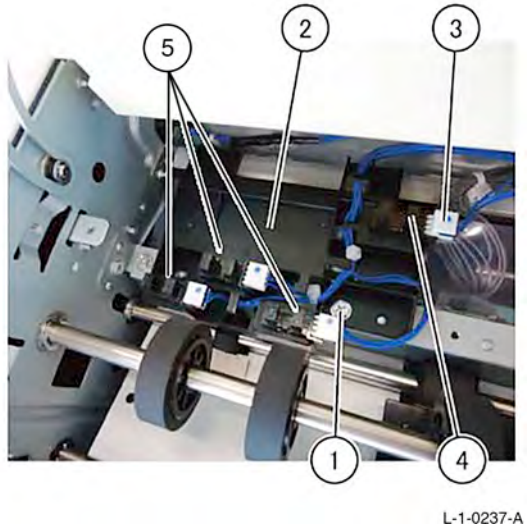


Figure 1 DADF pre registration sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.34 DADF 250 Feed Out Sensor/Exit Sensor

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower chute assembly, REP 80.25.
2. Remove the DADF feed out sensor, Figure 1.
   a. Remove two screws (1).
   b. Remove the exit sensor assembly (2).
   c. Disconnect one connector (3).
   d. Remove the DADF feed out sensor (4).
   e. Turn the exit sensor assembly (2) over, then remove the exit sensor.

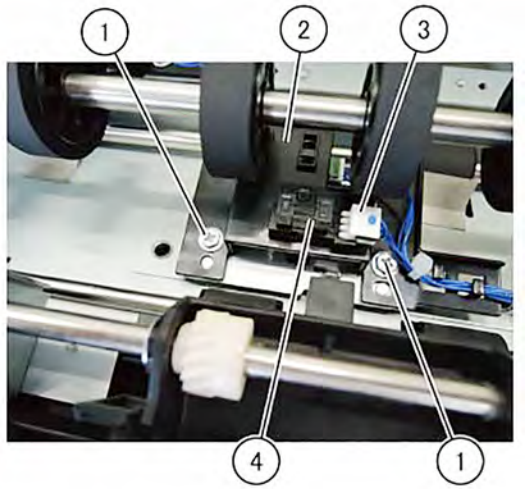


Figure 1 DADF feed out sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.35 DADF 250 Skew Detect Sensor

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower chute assembly, REP 80.25.
2. Remove the skew detect sensor, Figure 1.
   a. Remove one screw (1).
   b. Remove the skew sensor bracket (2).
   c. Disconnect one connector (3).
   d. Remove the skew detect sensor (4).

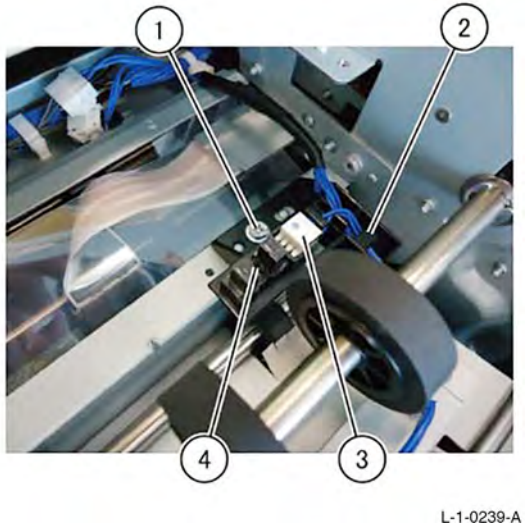


Figure 1 Skew detect sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.36 DADF 250 Lead Registration Sensor

Parts List on PL 5.9

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF pre registration in chute assembly, REP 5.47.
2. Remove the lead registration sensor bracket, Figure 1.
   a. Remove one screw (1).
   b. Remove the lead registration sensor bracket (2).

Figure 1 Lead registration sensor bracket removal

3. Remove the lead registration sensor, Figure 2.
   a. Disconnect the lead registration sensor conector (1).
   b. Remove the lead registration sensor (2).

Figure 2 Lead registration sensor removal‘

Replacement

The replacement is the reverse of the removal procedure.

REP 5.37 DADF 250 Pre Registration Motor

Parts List on PL 5.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF PWB wire harness and harness guide, REP 5.56.
3. Remove the DADF pre registration motor, Figure 1.
   a. Remove one spring (1).
   b. Remove three screws (2).
   c. Remove the DADF pre registration motor (3).

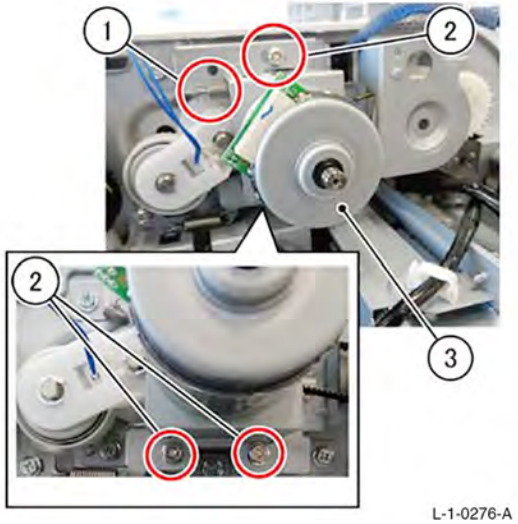


Figure 1 DADF pre registration motor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.38 DADF 250 Takeaway Clutch Assembly

Parts List on PL 5.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF PWB wire harness and harness guide, REP 5.56.
3. Remove the DADF pre registration motor, REP 5.37.
4. Remove one spring (1), Figure 1.

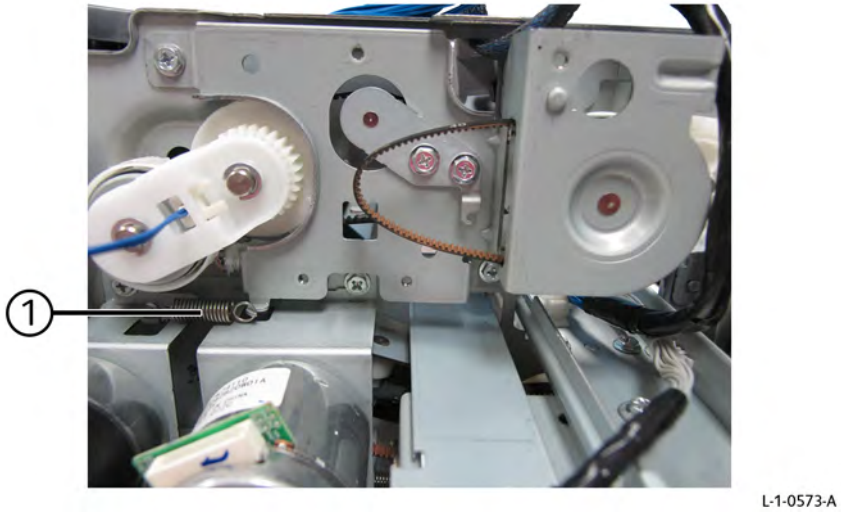


Figure 1 Spring removal

5. Remove the drive bracket assembly, Figure 2.
   a. Remove four screws (1).
   b. Remove the drive bracket assembly (2).

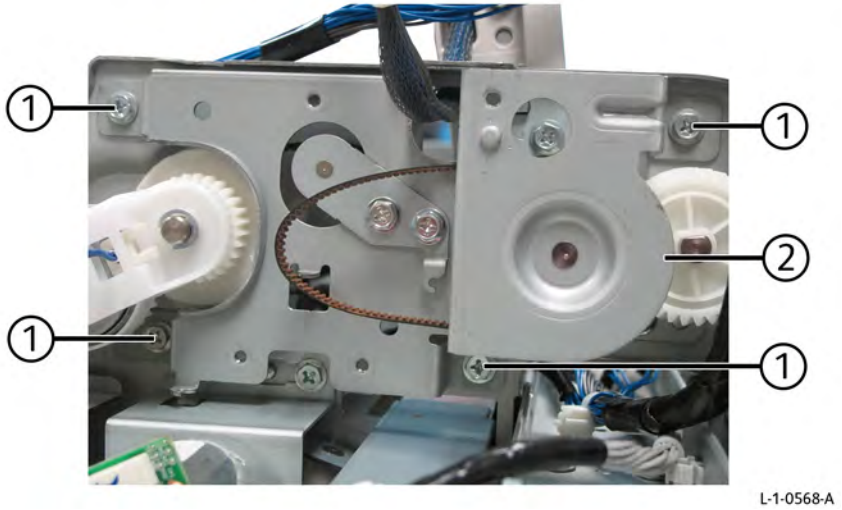


Figure 2 Drive bracket assembly removal

6. Remove DADF take away clutch stopper, Figure 3.
   a. Remove two E-clips(1).
   b. Remove the DADF take away clutch stopper (2).

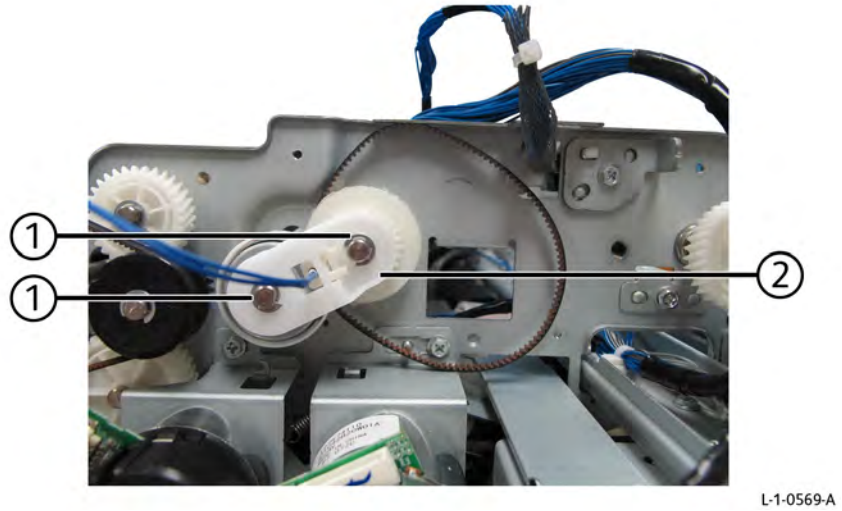


Figure 3 Take away clutch stopper removal

7. Remove the DADF take away clutch assembly (1), Figure 4.

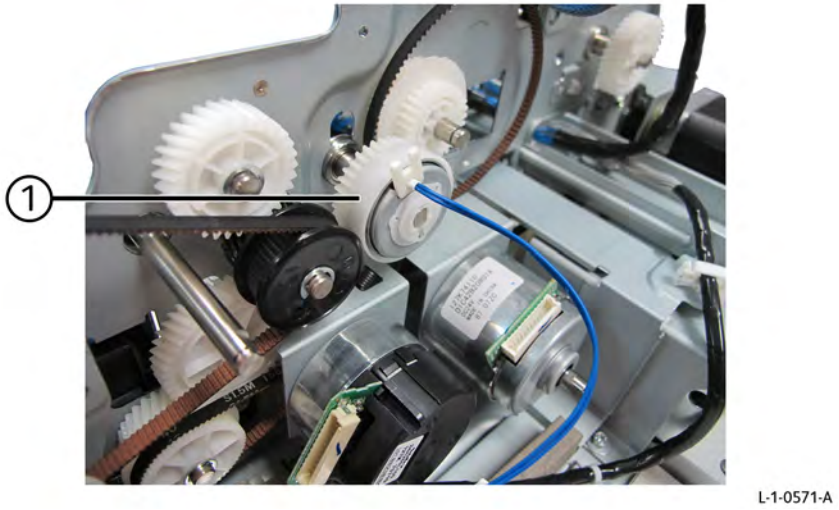


Figure 4 Take away clutch assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.39 DADF 250 Exit Motor and Belt

Parts List on PL 5.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF exit motor, Figure 2.
   a. Disconnect one connector (1).
   b. Remove one spring (2).
   c. Remove three screws (3).
   d. Remove the DADF exit motor (4) with the belt.

      Note: Be careful not to lose the spring.

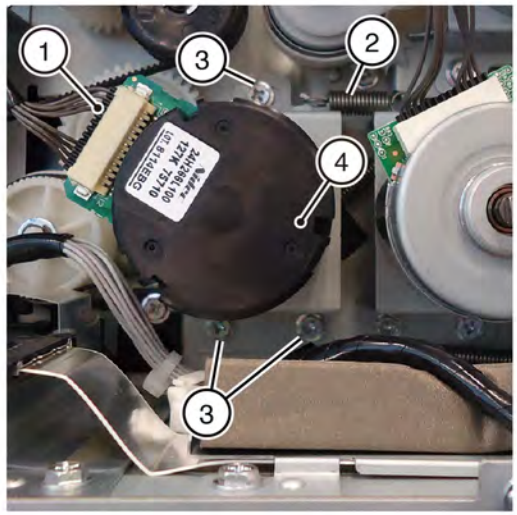


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Figure 2 DADF exit motor removal

Replacement

The replacement is the reverse of the removal procedure.

Note: Re-attach the belt to the exit motor before replacement.

REP 5.40 DADF 250 Platen Motor and Belt

Parts List on PL 5.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF exit motor, REP 5.39.
3. Remove the DADF platen motor, Figure 2.
   a. Disconnect one connector (1).
   b. Remove one spring (2).
   c. Remove three screws (3).
   d. Remove the DADF platen motor (4) with belt.

Note: Be careful not to lose the spring.

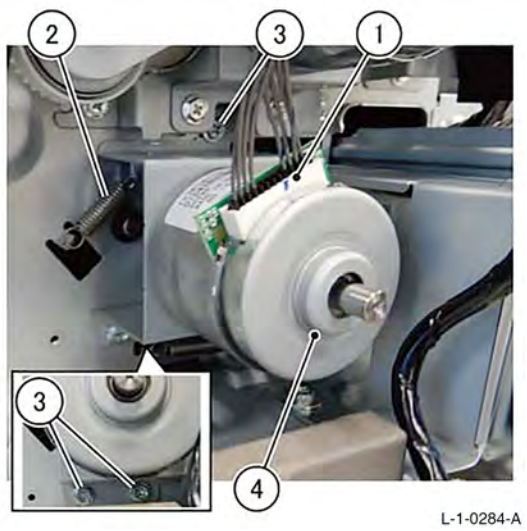

Figure 2 DADF platen motor removal

Replacement

The replacement is the reverse of the removal procedure.

Note: Reattach the belt to the platen motor before replacement.

REP 5.41 DADF 250 Registration Motor and Belt

Parts List on PL 5.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Remove the DADF registration motor, Figure 2.
   a. Disconnect one connector (1).
   b. Remove one spring (2).
   c. Remove three screws (3).
   d. Remove the DADF registration motor (4) with belt.

Note: Be careful not to lose the spring.

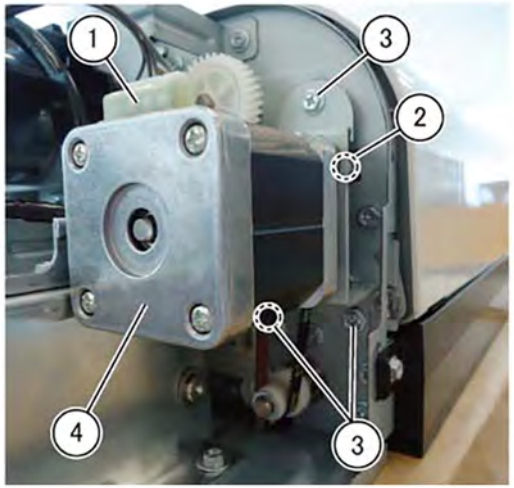

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Figure 2 DADF registration motor removal

Replacement

The replacement is the reverse of the removal procedure.

Note: Reattach the belt to the registration motor before replacement.

REP 5.42 DADF 250 Lower Chute Assembly

Parts List on PL 5.11

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the retard chute cover, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove the retard chute cover (1).

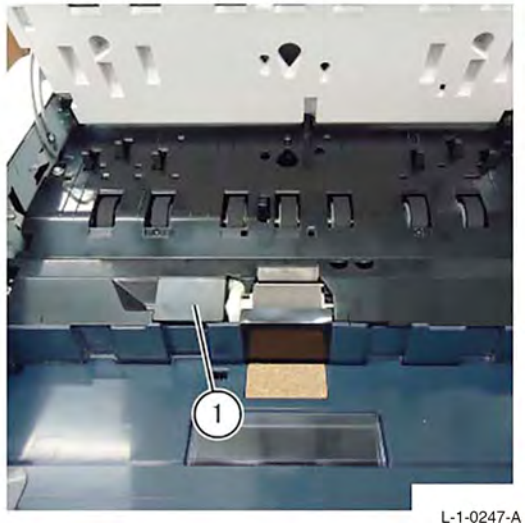


Figure 1 Retard chute cover removal

2. Remove the retard roll, Figure 2.
   a. Lift the retard shaft in the direction of the arrow (1).
   b. Remove the retard roll in the direction of the arrow (2).

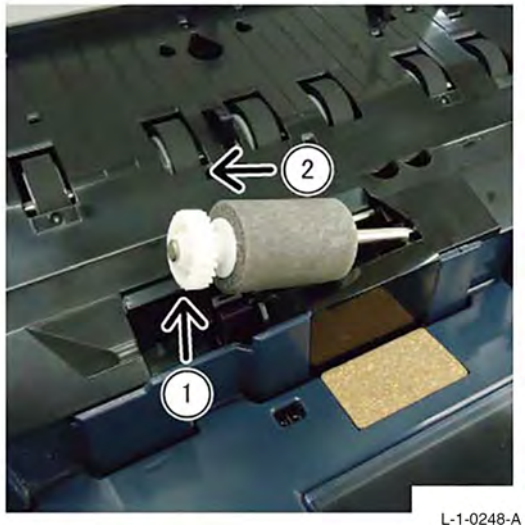


Figure 2 Retard roll removal

3. Remove the lower chute assembly, Figure 3.
   a. Remove four screws (1).
   b. Remove the lower chute assembly (2).

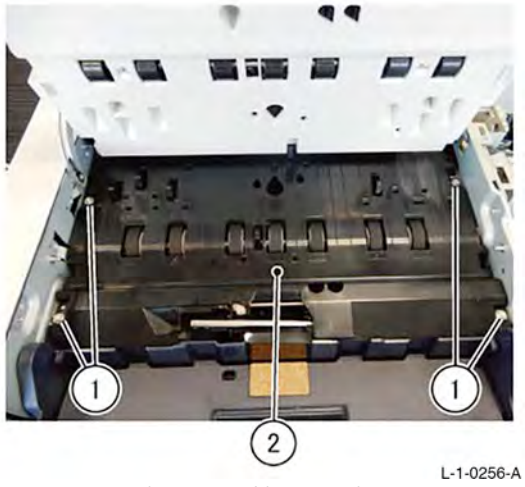


Figure 3 Lower chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.43 DADF 250 Friction Clutch

Parts List on PL 5.11

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the rear cover, REP 5.5.
2. Remove the friction clutch, Figure 1.
   a. Remove the E-clip (1).
   b. Remove the clutch stopper (2).
   c. Remove the friction clutch (3).

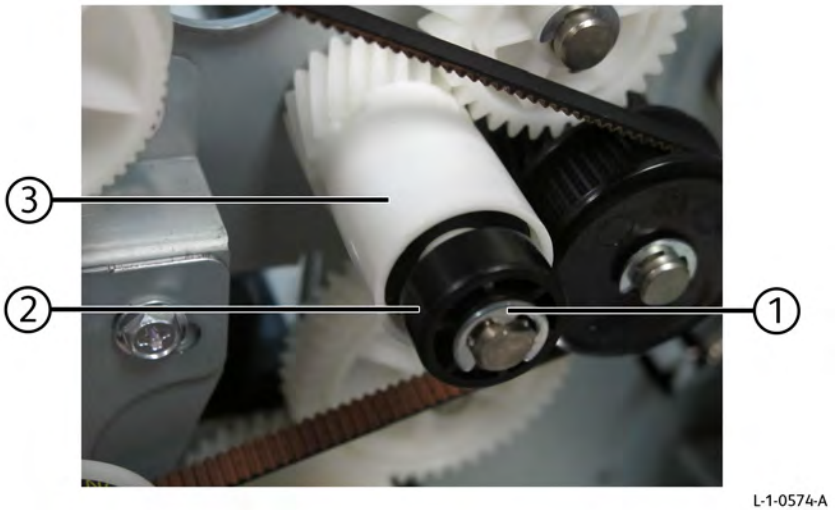


Figure 1 Friction clutch removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.44 DADF 250 Retard Roll and Spring

Parts List on PL 5.11

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the retard chute cover, Figure 1.
   a. Open the DADF feeder cover assembly.
   b. Remove the retard chute cover (1).

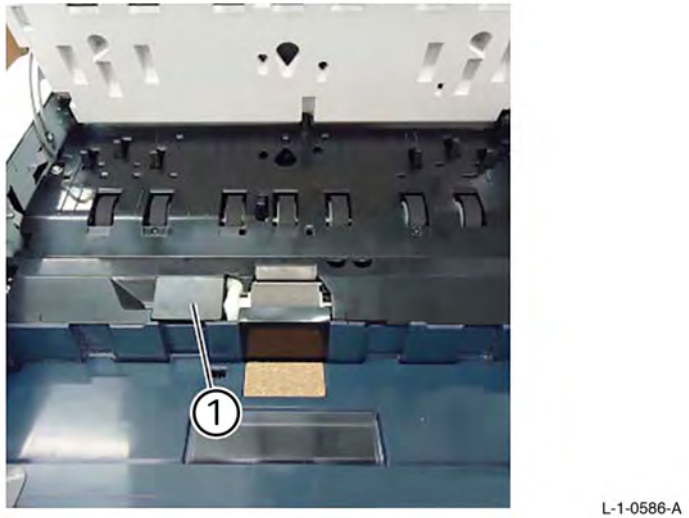
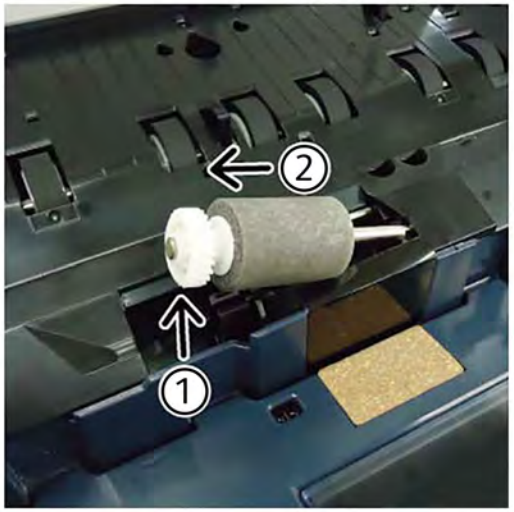


Figure 1 Retard chute cover removal

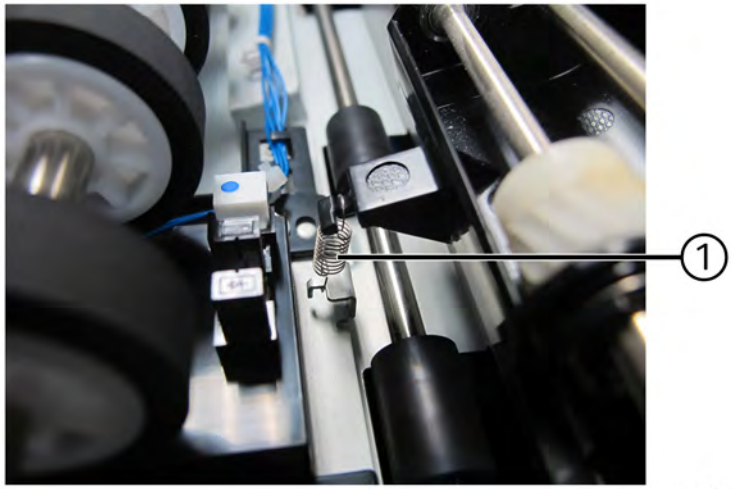
2. Remove the retard roll, Figure 2.
   a. Lift the retard shaft in the direction of the arrow (1).
   b. Remove the retard roll in the direction of the arrow (2).



L-1-0587-A

Figure 2 Retard roll removal

3. Remove the lower chute assembly, REP 80.25.
4. Remove the spring (1), Figure 3.



L-1-0541-A

Figure 3 Spring removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 to clear the HFSI counter. Chain Link: 955-806.

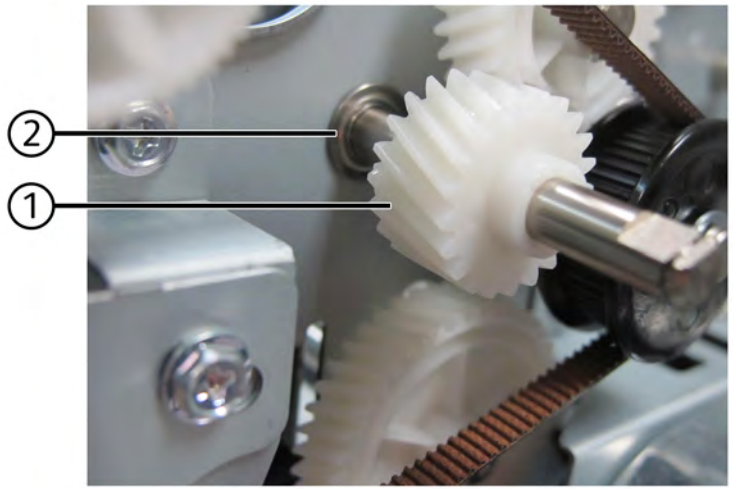
REP 5.45 DADF 250 Exit Eliminator

Parts List on PL 5.11

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Remove the DADF lower chute assembly, REP 80.25.
4. Remove the DADF document tray, REP 5.55.
5. Remove the friction clutch, REP 5.43.
6. Remove the gear (21T) (1) and ball bearing (2), Figure 1.



L-1-0542-A

Figure 1 Gear (21T) and ball bearing removal

7. Remove the pivot shaft and retard holder assembly, Figure 2.
   a. Remove the spring (1).
   b. Remove the screw (2) securing the pivot shaft mounting bracket (3) to the frame.
   c. Remove the pivot shaft (3) and retard holder (4) as assembly from the frame.

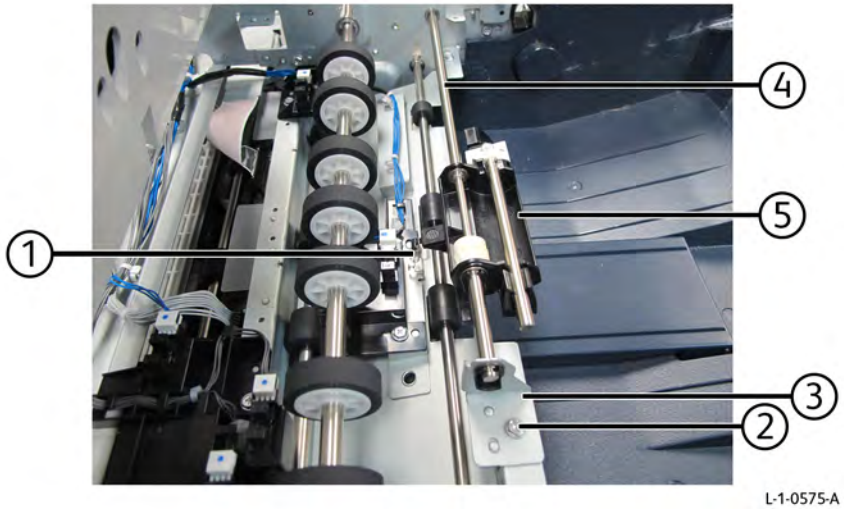


Figure 2 Pivot shaft and retard holder assembly removal

8. Remove the exit guide, Figure 3.
   a. Remove two screws (1).
   b. Remove the exit guide (2).

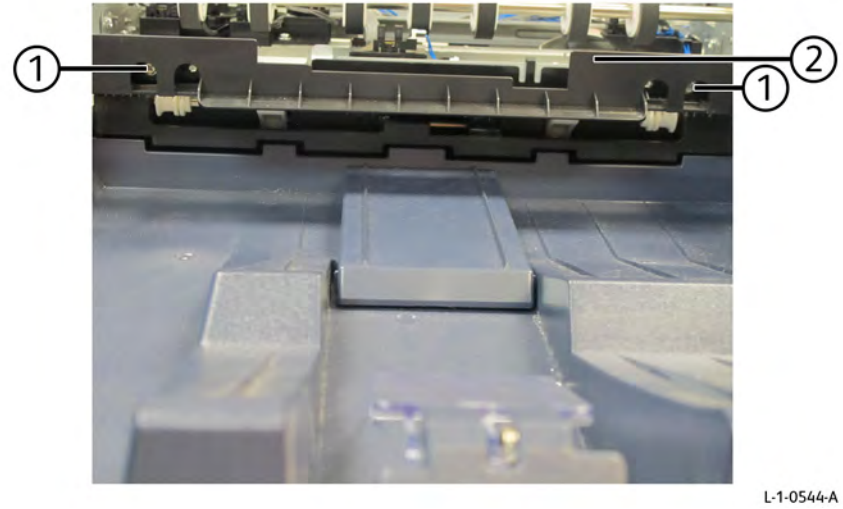


Figure 3 Exit guide removal

9. Remove the exit eliminator (1), Figure 4.

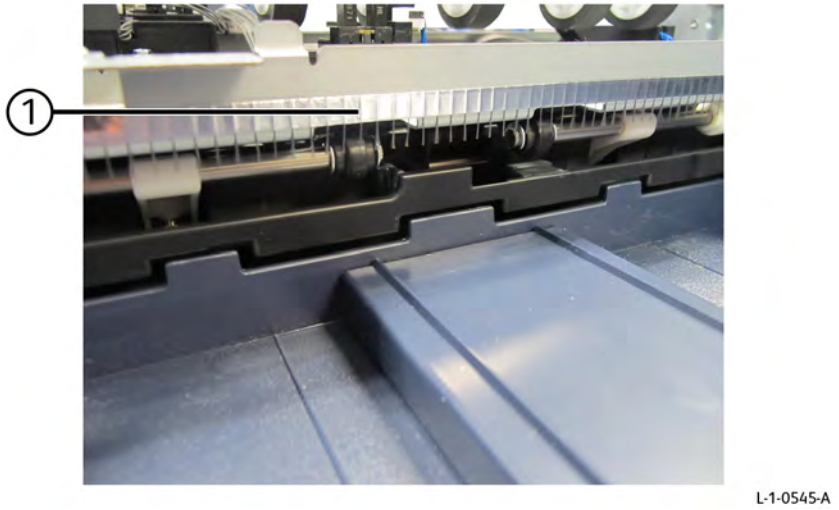


Figure 4 Exit eliminator removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.46 NOT USED

Parts List on

Removal

Replacement

REP 5.47 DADF 250 Pre Registration In Chute Assembly

Parts List on PL 5.12

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF feeder cover assembly.
2. Open the DADF left cover assembly.

1. Remove the pre registration in chute assembly, Figure 1.
   a. Remove four screws (1).
   b. Remove the pre registration in chute assembly (2).

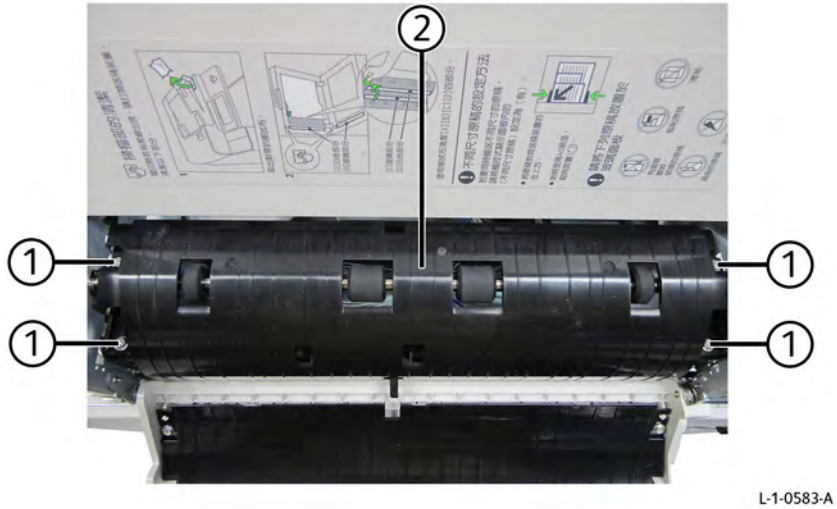


Figure 1 Pre registration in chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.48 DADF 250 Registration Out Chute Assembly

Parts List on PL 5.12

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Remove the DADF left lower cover, REP 5.2.
4. Remove the two front screws (1) securing the registration out chute assembly (2), Figure 1.

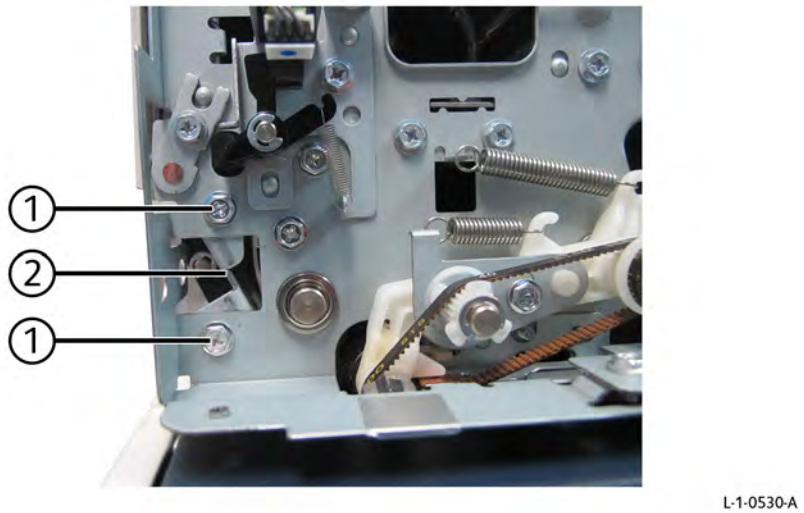


Figure 1 Front screw removal

5. Remove the two rear screw (1), then remove the registration out chute assembly, Figure 2.

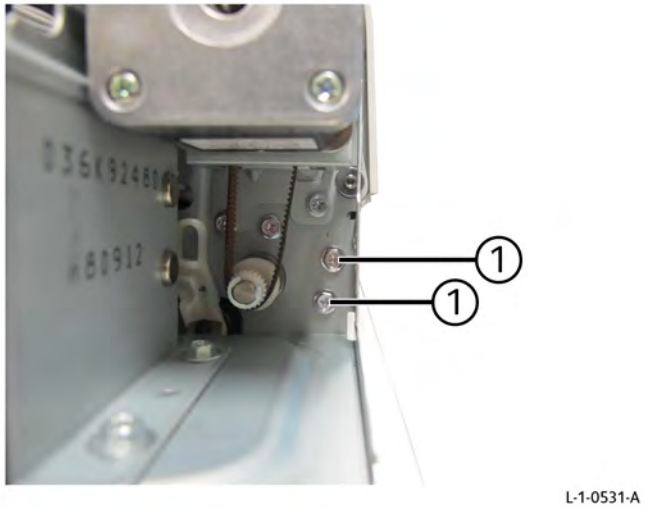


Figure 2 Registration out chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

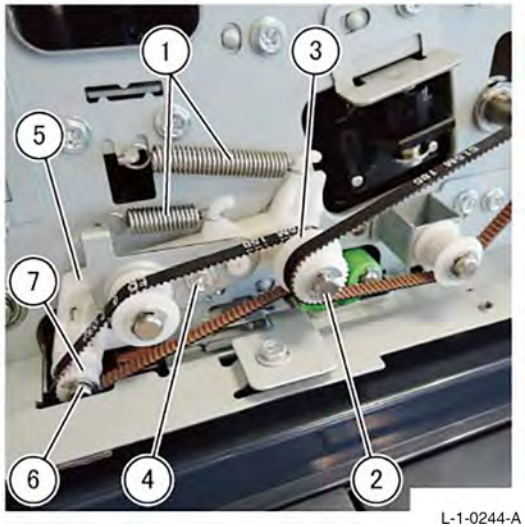
REP 5.49 DADF 250 Platen High Roll Assembly

Parts List on PL 5.12

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

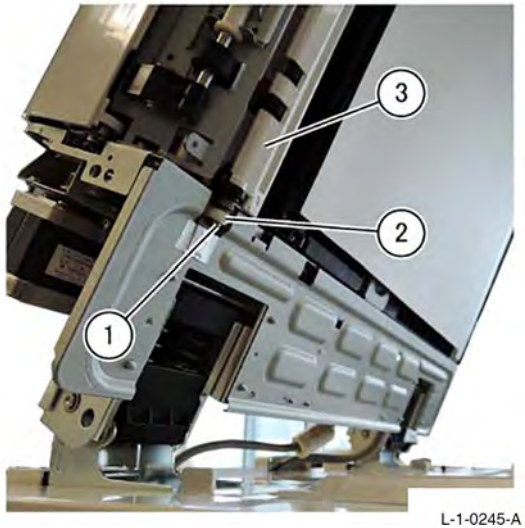
1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Open the DADF.
4. Remove the DADF left lower cover, REP 5.2.
5. Remove the pulley (20T), Figure 1.
   a. Remove two springs (1).
   b. Remove the E-clip (2).
   c. Remove the pulley (3).
   d. Loosen the screw (4).
   e. Remove the guide (5).
   f. Remove the E-clip (6).
   g. Remove the pulley (20T) (7).



L-1-0244-A

Figure 1 Pulley (20T) removal

6. Remove the platen high roll assembly, Figure 2.
   a. Remove the E-clip (1).
   b. Remove the pulley (20T) (2).
   c. Remove the platen high roll assembly (3).



L-1-0245-A

Figure 2 Platen high roll assembly removal

Replacement

The replacement is the reverse of the removal procedure.

Note: When installing the platen high roll assembly, remember to install the spring into the hole of the platen high roll assembly, Figure 3.

L-1-0246-A

Figure 3 Spring installation location

REP 5.50 DADF 250 Exit 1 and Platen Belts

Parts List on PL 5.12

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the exit 1 belt, Figure 1.
   a. Remove the E-clip (1).
   b. Remove the gear (2).
   c. Remove the exit 1 belt (3).

Figure 1 Exit 1 belt removal

3. Remove the spring (1), Figure 2.

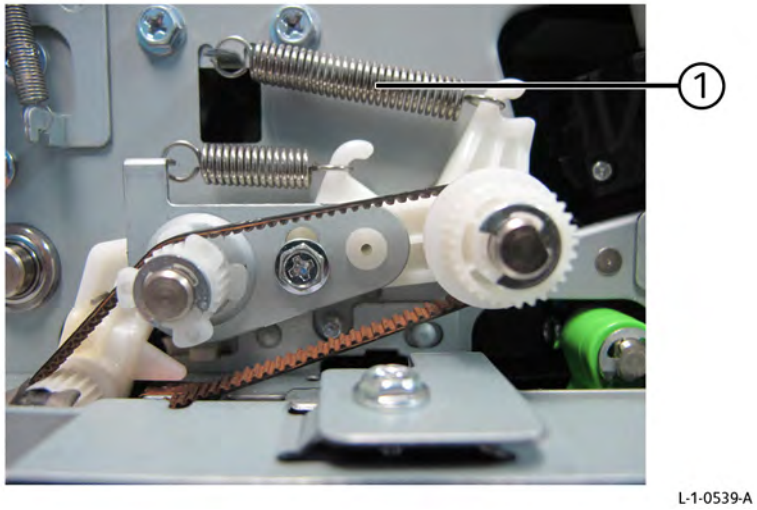


Figure 2 Spring removal

4. Slightly lift the gear (1), then remove the platen belt (2), Figure 3.

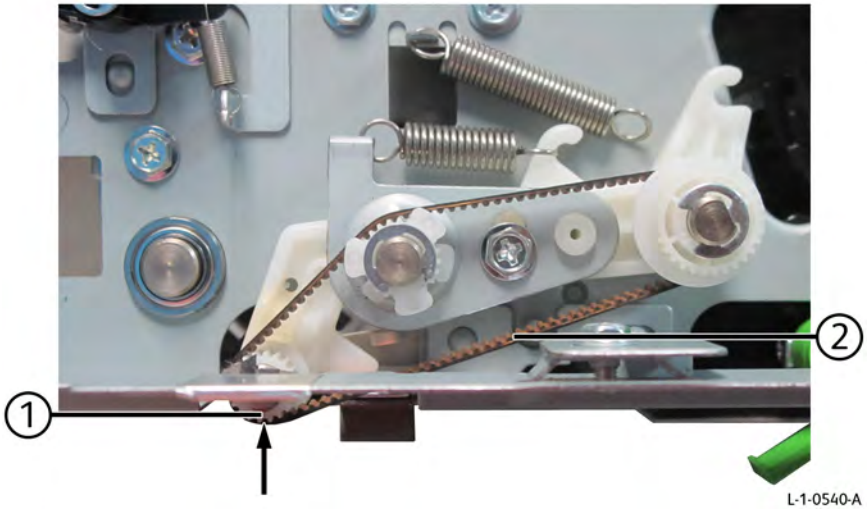


Figure 3 Platen belt removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.51 DADF 250 Exit Lower Chute Assembly

Parts List on PL 5.13

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Remove the bracket PWB, Figure 1.
   a. Disconnect two connectors (1).
   b. Remove two screws (2).
   c. Remove the bracket PWB (3).

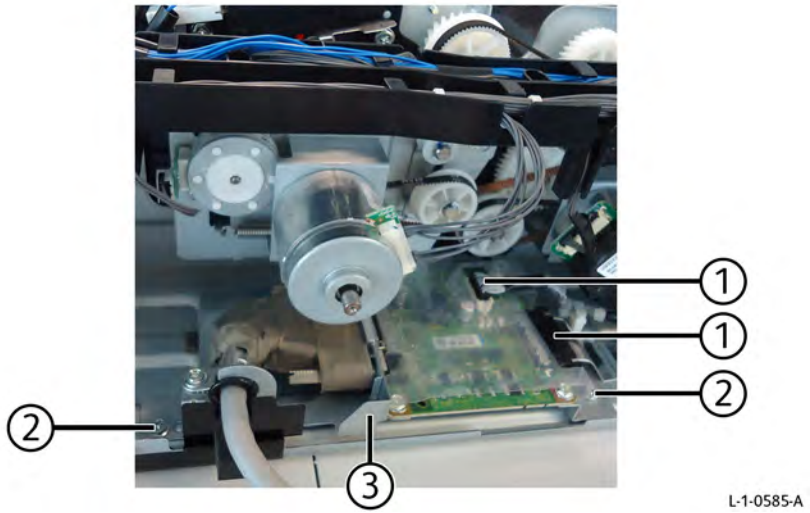


Figure 1 Bracket PWB removal

4. Remove the DADF exit motor and belt, REP 5.39.
5. Remove the exit rear hinge, Figure 2.
   a. Remove the E-clip (1).
   b. Remove the gear (2).
   c. Remove the screw (3).
   d. Remove the exit rear hinge (4).

Figure 2 Exit rear hinge removal

6. Remove the screw (1) securing the front hinge, Figure 3.

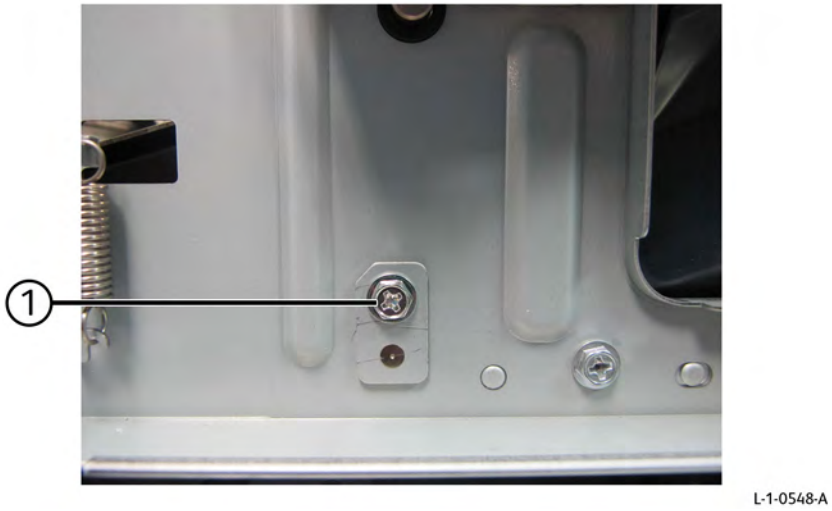


Figure 3 Front hinge screw removal

7. Open the DADF.
8. Open the exit lower chute assembly.
9. Remove the exit lower chute assembly, Figure 4.
   a. Detach the DADF platen cushion (1) from the exit lower chute assembly.
   b. Remove the front hinge (2) using a flat blade screw driver.
   c. Remove the exit lower chute assembly (3).

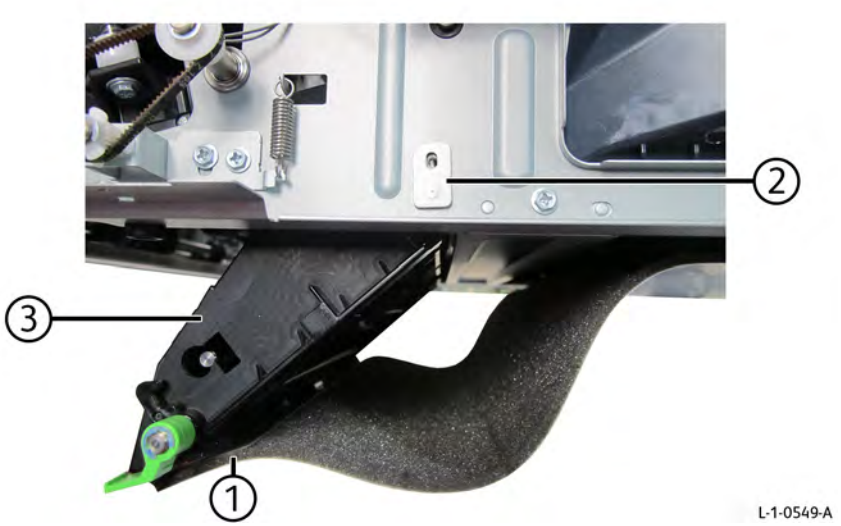


Figure 4 Exit lower chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.52 NOT USED

Parts List on

Removal

Replacement

REP 5.53 DADF 250 Out Chute Assembly

Parts List on PL 5.13

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF.
2. Open the exit lower chute assembly (1), Figure 1.

Figure 1 Exit lower chute assembly

3. Remove the out chute assembly, Figure 2.
   a. Remove two screws (1).
   b. Remove the out chute assembly (2).

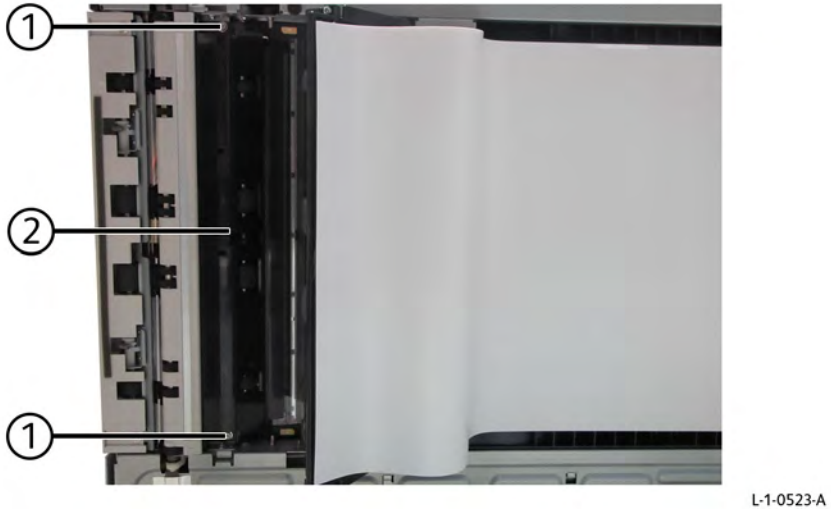


Figure 2 Out chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.54 DADF 250 Feed Roll

Parts List on PL 5.14

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the DADF feeder cover assembly.
2. Remove the DADF nudger housing assembly, Figure 1.
   a. Release two latches (1).
   b. Remove the DADF nudger housing assembly (2).

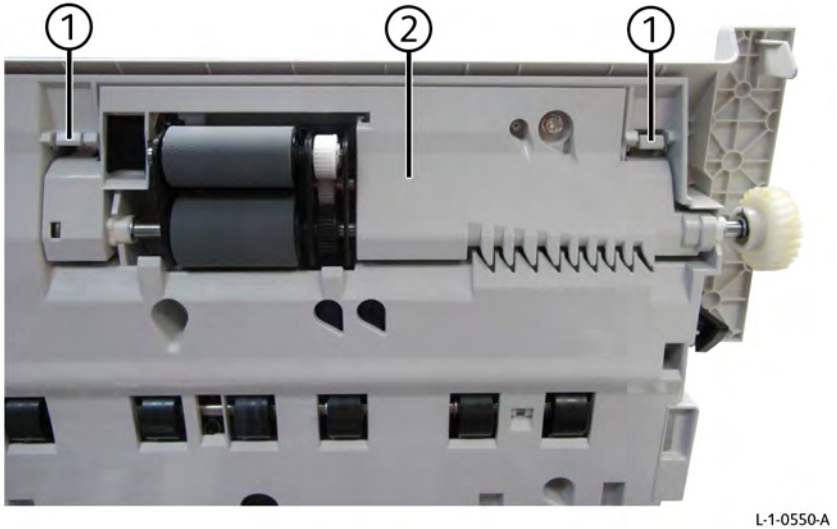


Figure 1 DADF Nudger housing assembly removal

3. Remove the bearing (PF101), Figure 2.
   a. Remove the E-clip (1).
   b. Remove the gear assembly (26T) (2).
   c. Remove two E-clips (3).
   d. Remove the bearing (4).

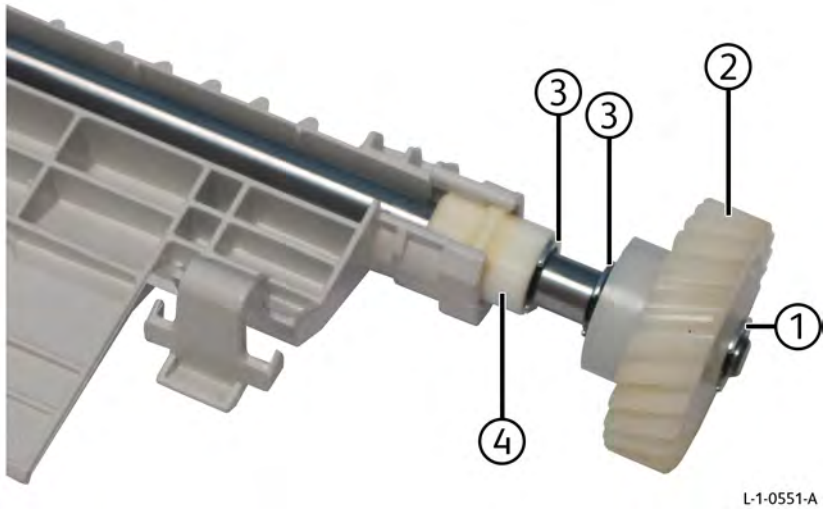


Figure 2 Bearing (PF101) removal

4. Remove two nudger springs, Figure 3.
   a. Remove the front nudger spring (1).
   b. Remove the rear nudger spring (2).

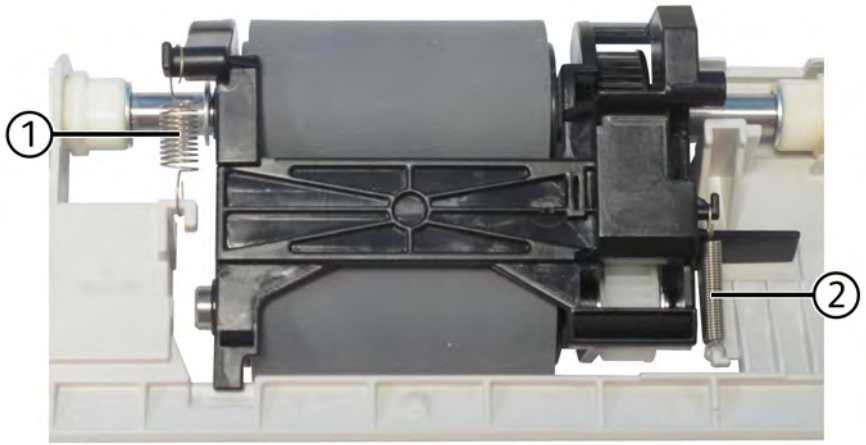


Figure 3 Nudger springs removal

5. Remove the bearing (PF101), Figure 4.
   a. Remove the E-clip (1).
   b. Lift the open end of the feed shaft in the direction of arrow, then remove the bearing (2).

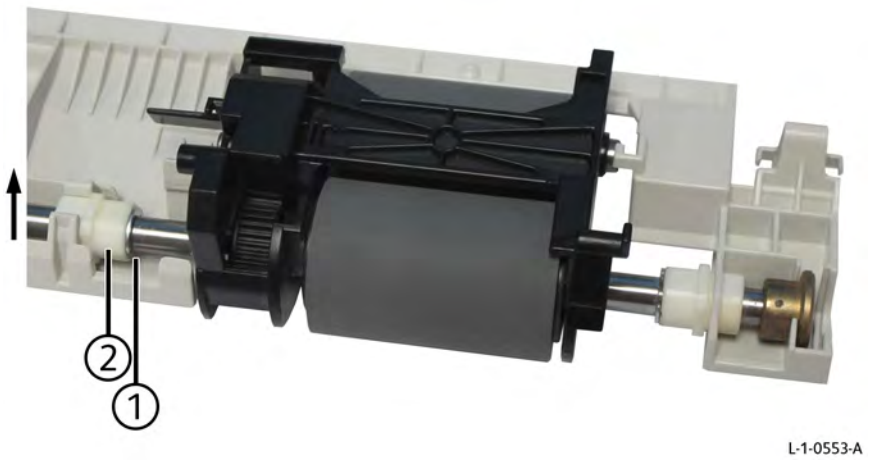


Figure 4 Bearing (PF101) removal

6. Remove the feed shaft from feeder chute cover, Figure 5.
   a. Remove two E-clips (1).
   b. Remove the feed shaft (2) in the direction of arrow from the feeder chute cover (3).

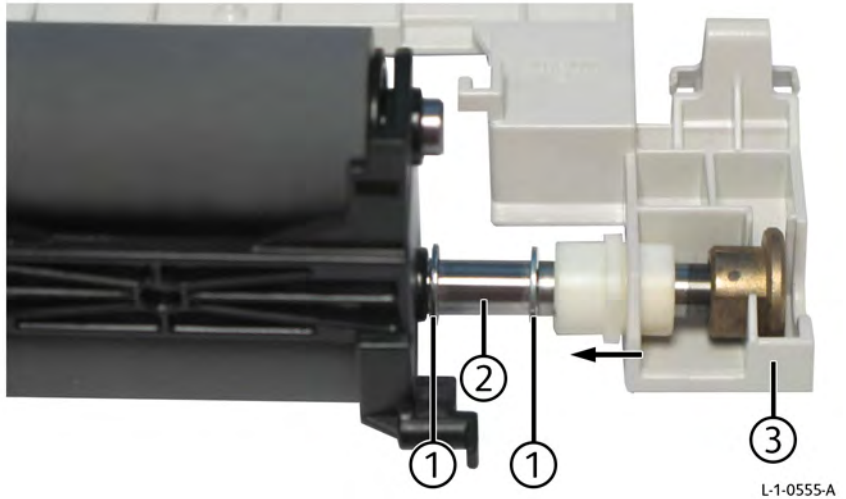


Figure 5 Feed shaft removal

7. Remove the feed roll, Figure 6.
   a. Remove the feed shaft (1) from the nudger housing (2).
   b. Remove the feed roll (3) from nudger housing (2).

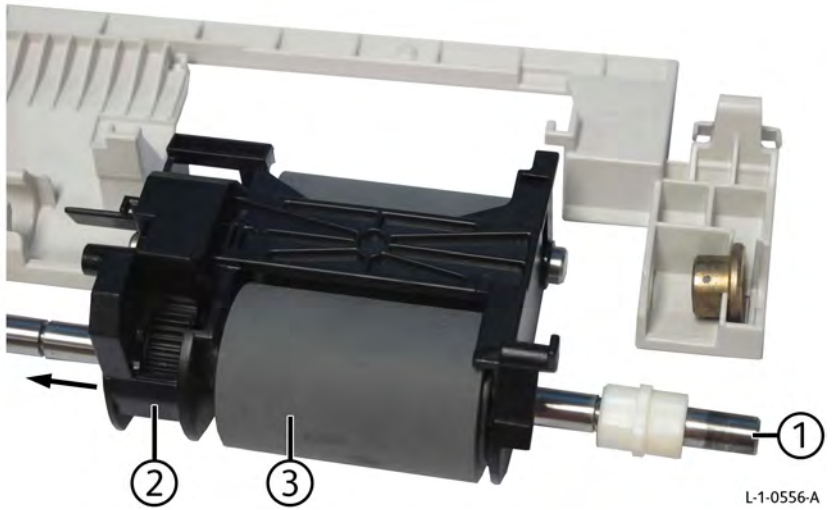


Figure 6 Feed roll removal

Replacement

The replacement is the reverse of the removal procedure. Make note of the following while performing the replacement.

Note: Ensure that the pin (1) on the feed shaft align with groove on the nudger housing (2) during installation, Figure 7.

Figure 7 Feed shaft installation

Note: Align and attach the linear part of the bearing to the installation hole of the DADF feeder cover assembly, Figure 8.

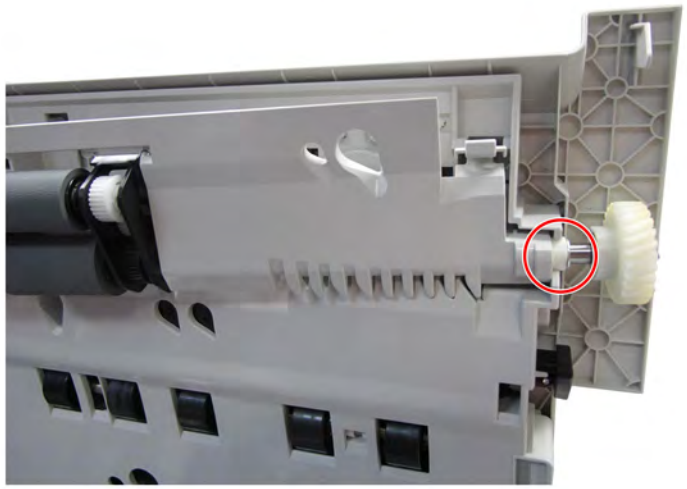


Figure 8 Bearing alignment

REP 5.55 DADF 250 Document Tray

Parts List on PL 5.5

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF front cover, REP 5.3.
2. Remove the DADF rear cover, REP 5.5.
3. Remove the tray wire harness from harness guide, Figure 2.
   a. Disconnect one connector (1).
   b. Open the clamp (2), then remove the tray wire harness (3) from harness guide.

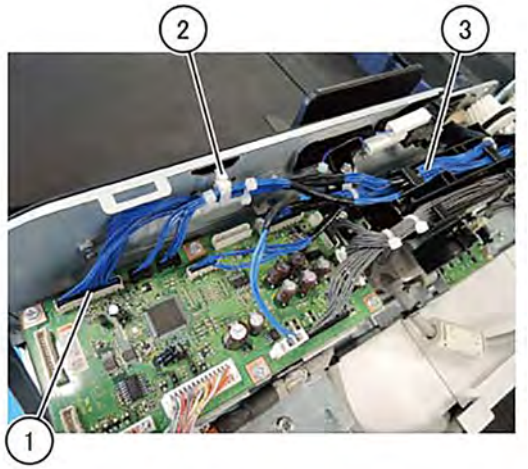
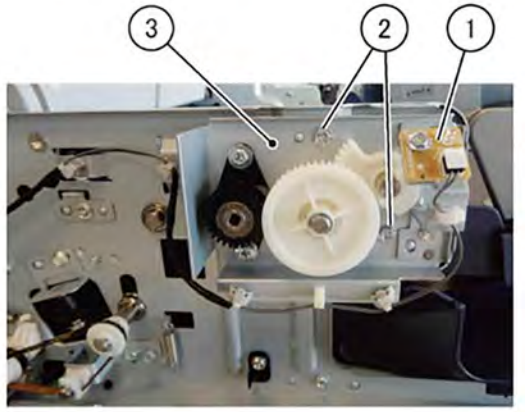


Figure 2 Harness release

4. Remove the tray damper bracket assembly, Figure 3.
   a. Disconnect one connector (1).
   b. Remove two screws (2).

c. Remove the tray damper bracket assembly (3).



L-1-0259-A

Figure 3 Tray damper bracket assembly removal

5. Remove the DADF document tray, Figure 4.

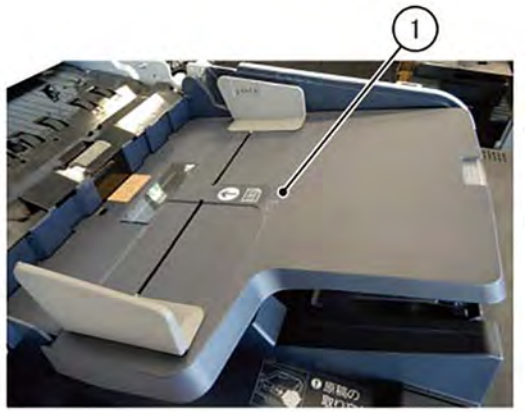


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Figure 4 DADF document tray removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.56 DADF 250 PWB Wire Harness and Harness Guide

Parts List on PL 5.3

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Observe ESD procedures during this procedure.

Figure 1 ESD symbol

1. Remove the DADF rear cover, REP 5.5.
2. Disconnect eleven connectors from DADF PWB, Figure 2.

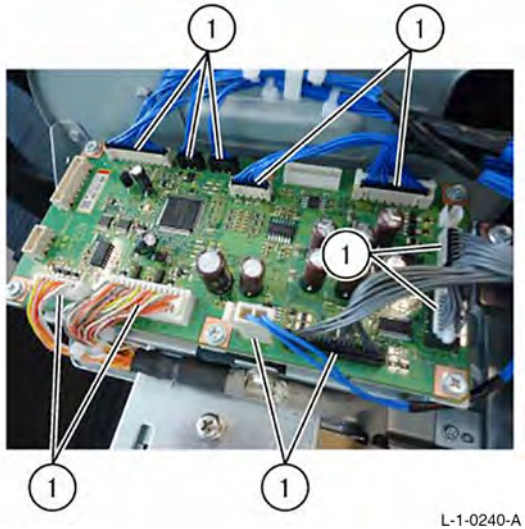

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Figure 2 DADF PWB connectors

3. Remove the DADF PWB wire harness and harness guide, Figure 3.
   a. Disconnect six connectors (1).
   b. Remove the harnesses from harness guide (2).
   c. Remove two screws (3) securing the harness guide (2).
   d. Remove the harness guide (2).

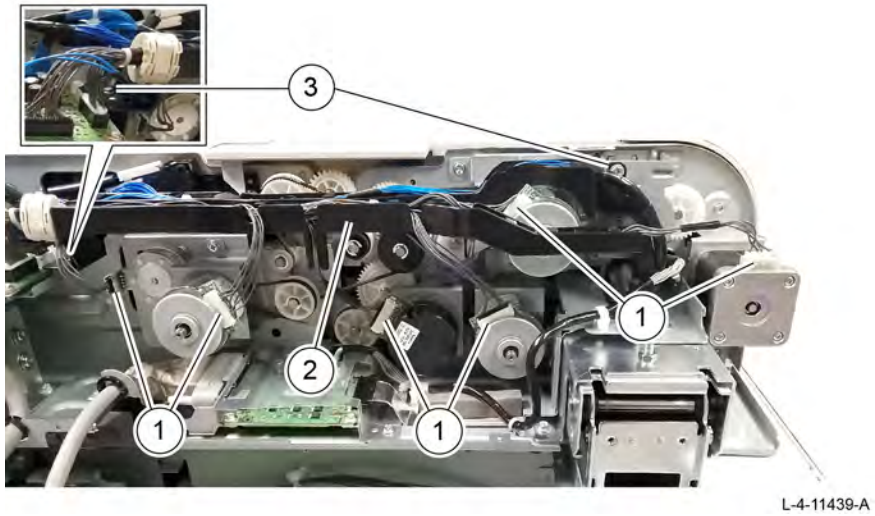

Figure 3 DADF PWB wire harness and harness guide removal

Replacement

The replacement is the reverse of the removal procedure.

REP 5.60 DADF 130

Removal

Parts List on PL 5.50

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF IF cover, PL 60.10.
2. Remove the ESS rear cover, PL 28.10.
3. Disconnect the controller cable connector, Figure 1.
   a. Disconnect the controller cable connector (1) and remove the cable from the guides below the DADF.

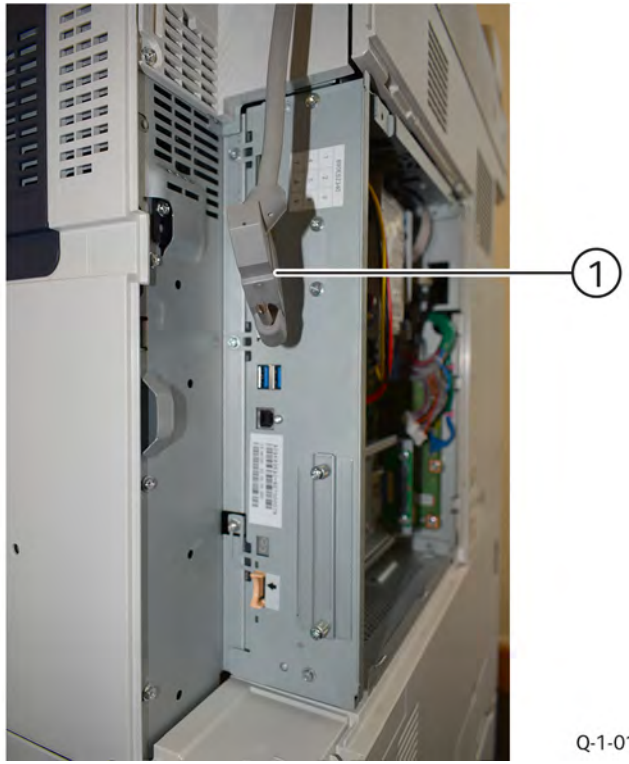

Figure 1 Disconnect controller cable connector

4. Disconnect the DADF-IIT cable connector, Figure 2.
   a. Disconnect the DADF-IIT cable connector (1) from the rear of the scanner.

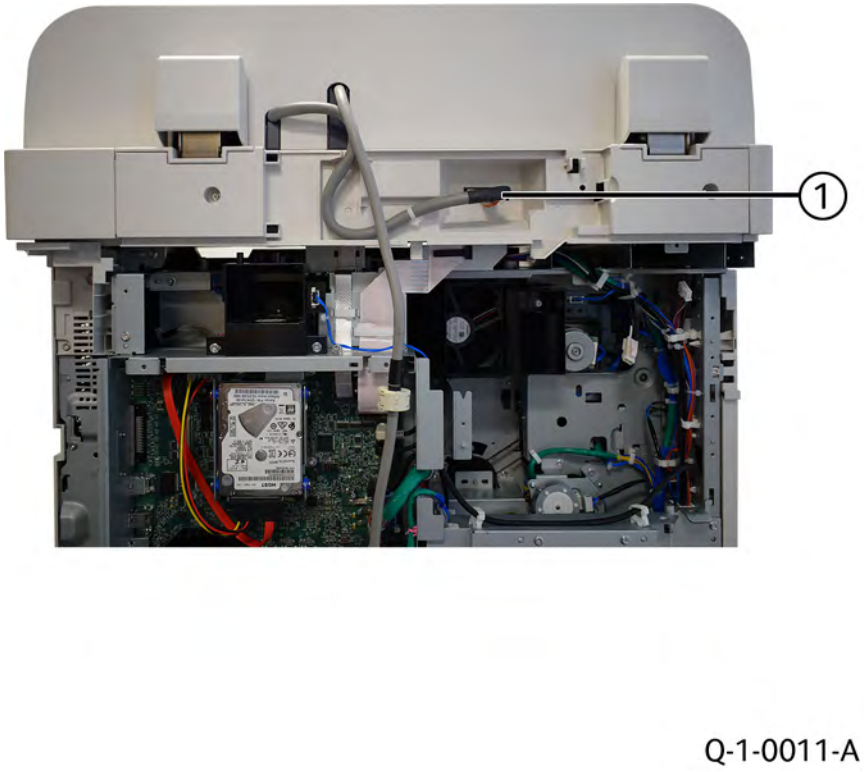

Figure 2 Disconnect IIT cable connector

5. Open the DADF.
6. Remove the DADF, Figure 3.
   a. Remove two knob screws (1) that secure the DADF to the printer.
   b. Remove the DADF from the printer by sliding the DADF rearward in the keyholes and lifting it clear from the machine.

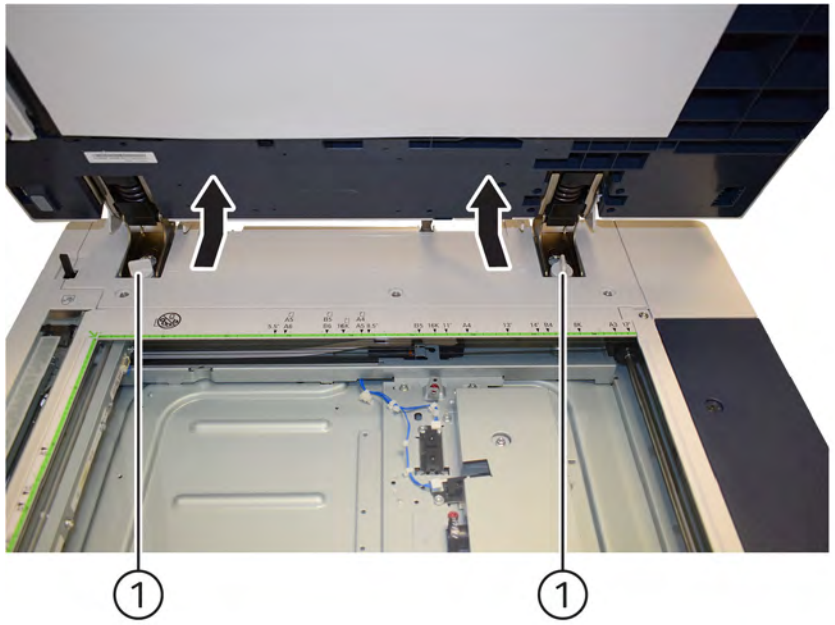

Figure 3 DADF removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Perform the DADF Registration Automatic Adjustment ADJ 5.5 DADF Registration Automatic Adjustment (dC608).

REP 5.61 DADF 130 Platen Cushion

Removal

Parts List on PL 5.50

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: The DADF platen cushion is fastened to the DADF with double-sided adhesive tape.

1. Open the DADF.
2. Remove (peel off) the DADF platen cushion, Figure 1.
   a. Remove the DADF platen cushion (1).

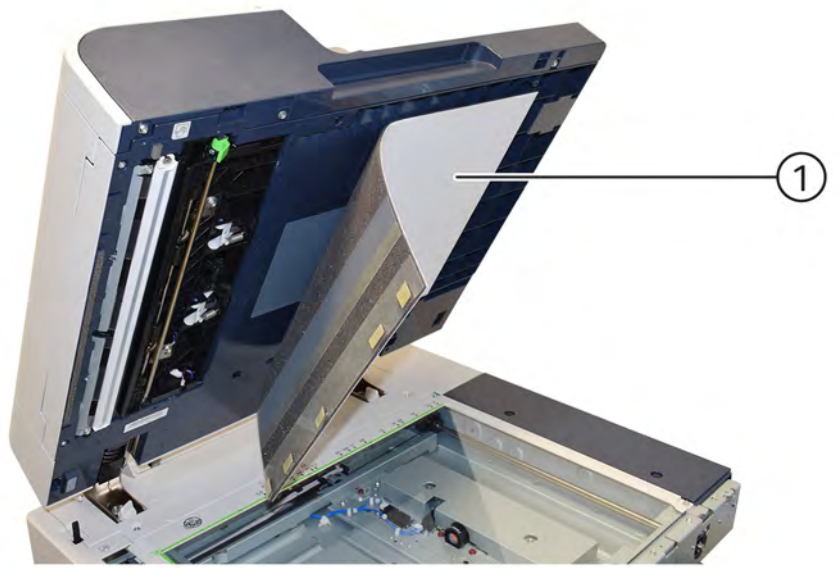

Figure 1 Platen cushion removal

Replacement

1. Install the DADF platen cushion, Figure 2.
   a. Place the DADF platen cushion (1) on the platen glass, tape side up.
   b. Set the gap between the registration guide and the platen guide.
   c. Slowly lower the DADF (2) and press it against the DADF platen cushion.

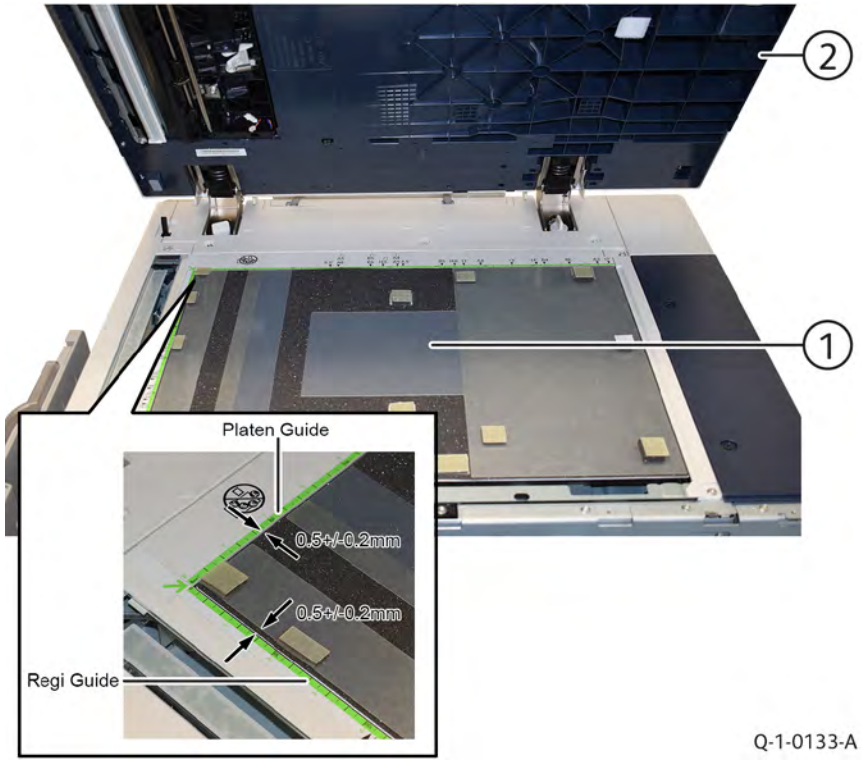

Figure 2 Platen cushion installation

REP 5.62 DADF 130 Front Cover

Removal

Parts List on PL 5.51

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the DADF.
2. Remove three screws that secure the DADF front cover, Figure 1.
   a. Remove three tapping screws (1).

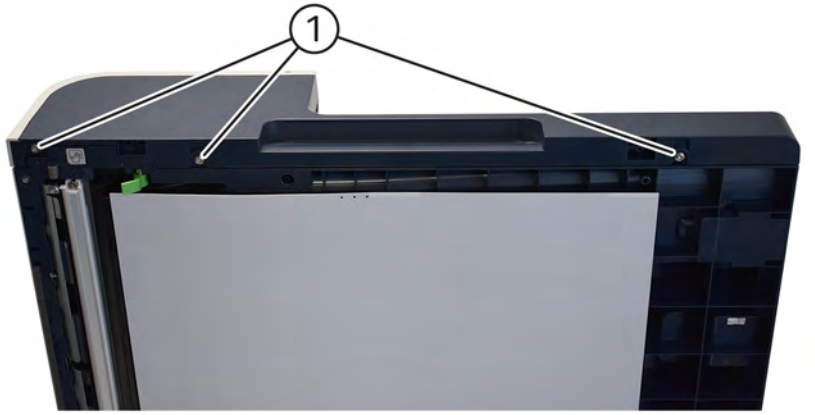

Figure 1 Screws removal

3. Remove the DADF front cover, Figure 2.
   a. Open the top cover.
   b. Remove the tapping screw (1).
   c. Remove the DADF front cover (2).

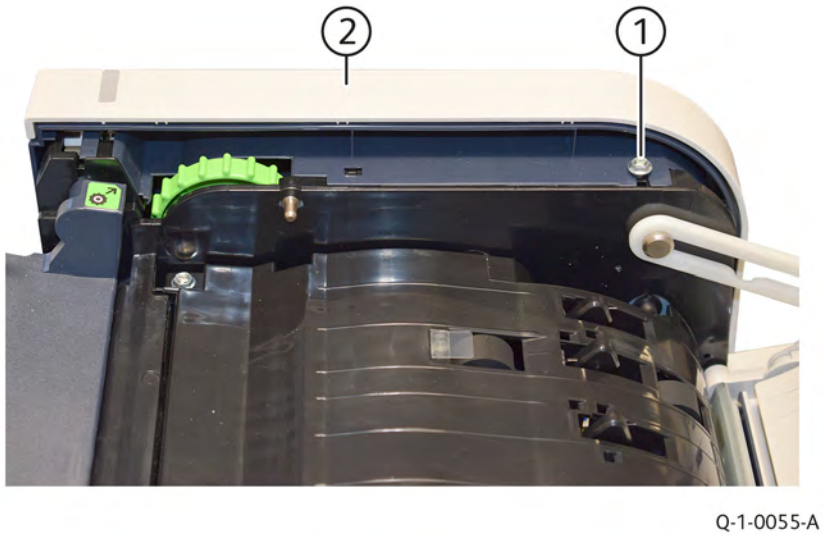

Figure 2 Front cover removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.63 DADF 130 Rear Cover

Removal

Parts List on PL 5.51

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Turn the DADF document tray upside down, Figure 1.
   a. Open the top cover (1).
   b. Lift the DADF document tray (2) to access the screws.

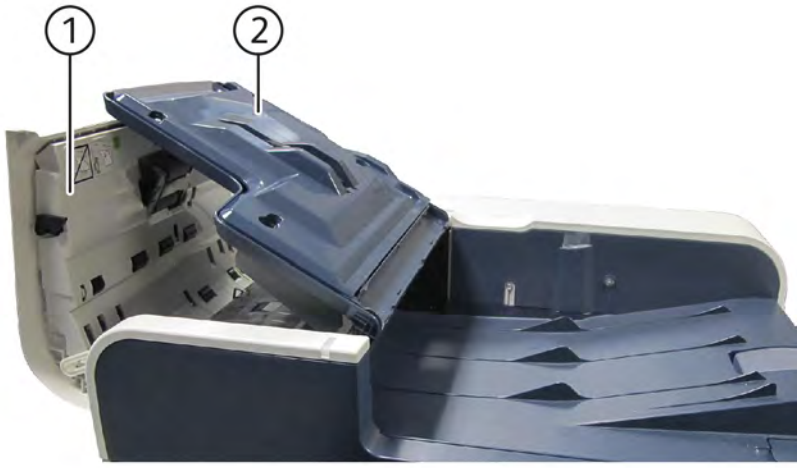

Figure 1 Turn DADF document tray

2. Remove the screws that secure the DADF rear cover, Figure 2.
   a. Remove two screws (1).

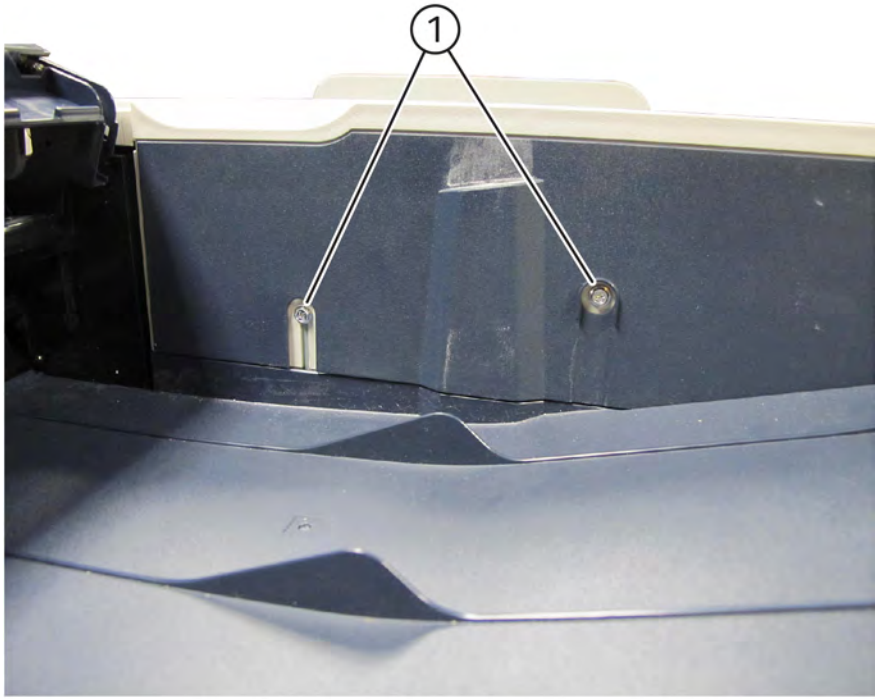

Figure 2 Rear cover screws removal

3. Remove the DADF rear cover, Figure 3.
   a. Open the DADF.
   b. Release two DADF rear cover latches (1) and remove the DADF rear cover.

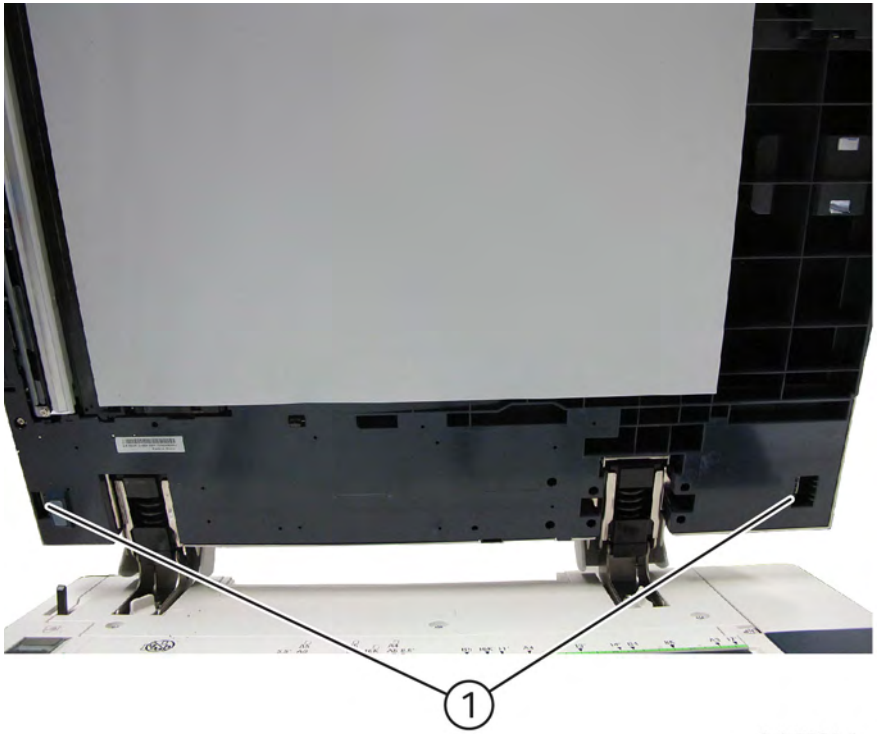

Figure 3 Rear cover removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.64 DADF 130 Feeder Assembly

Removal

Parts List on PL 5.51

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF front cover, REP 5.62.
2. Remove the DADF rear cover, REP 5.63
3. Remove the DADF top cover, REP 5.70.
4. Remove the DADF document tray, REP 5.69.
5. Remove the harness guide and the wire harness, REP 5.71.
6. Remove the DADF, REP 5.60.
7. Remove the platen cushion, REP 5.61.
8. Remove the bracket and fasteners securing the feeder assembly in the front, Figure 1.
   a. Remove two self tapping screws (1).
   b. Remove the bracket (2).

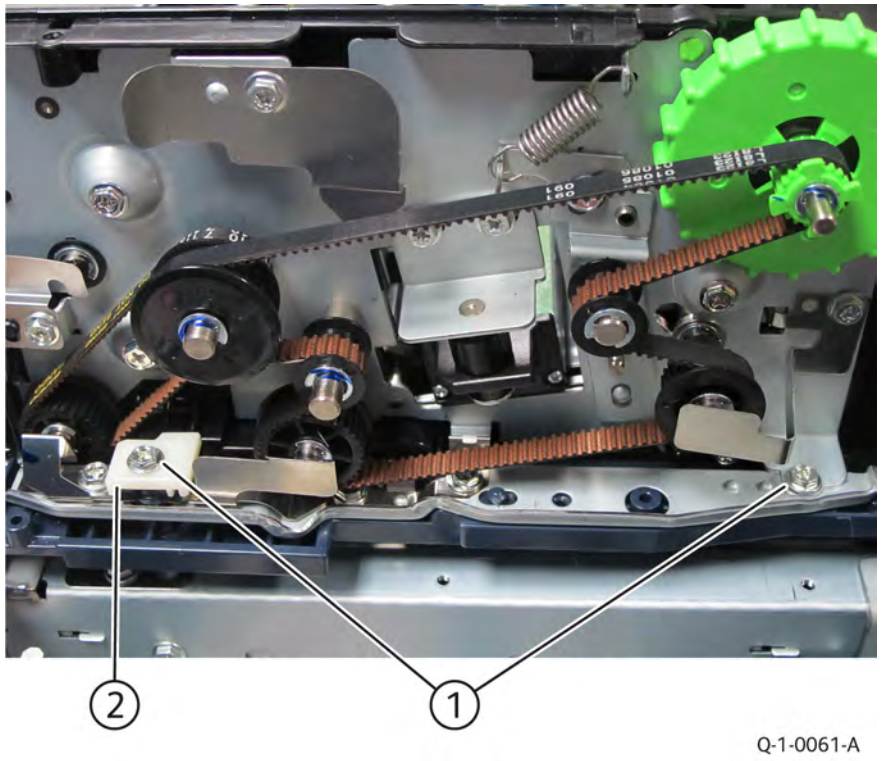

Figure 1 Feeder assembly bracket and fasteners removal

9. Remove the feeder assembly, Figure 2.
   a. Lift the DADF feeder assembly (1) and remove from the rear positioning pin (2).

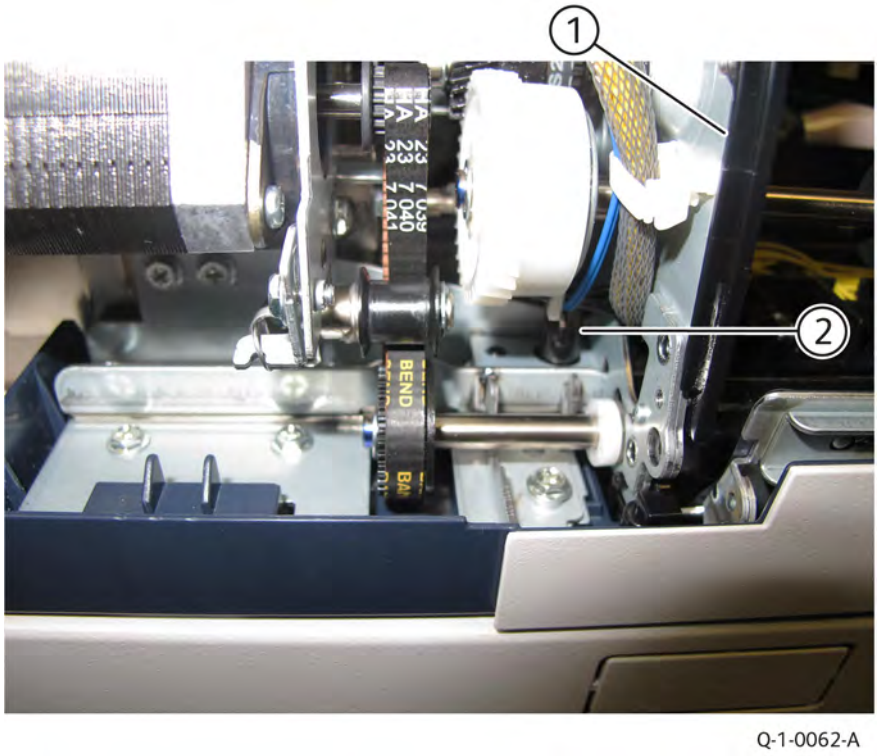

Figure 2 Feeder assembly removal

10. Place the removed DADF feeder assembly (1) with its left side facing up, Figure 3.

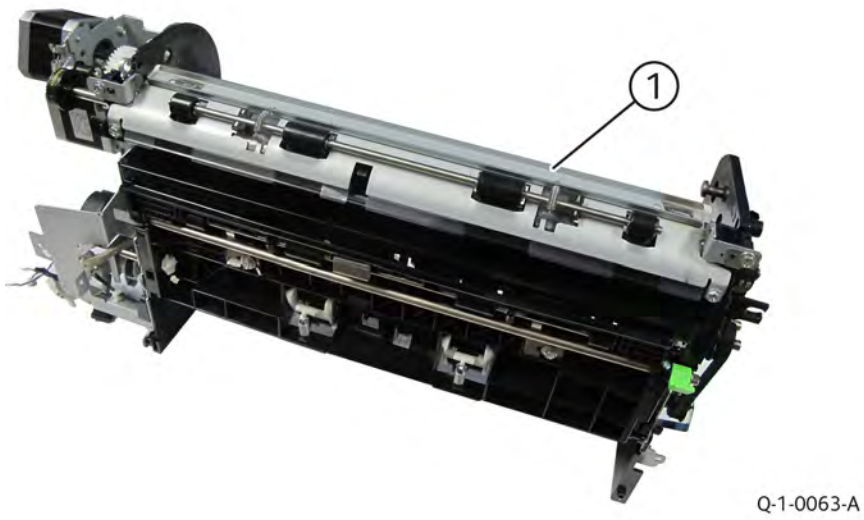

Figure 3 Feeder assembly placement

Replacement

1. The replacement is the reverse of the removal procedure.
2. After a replacement, enter the Diagnostic Mode, select dC135, and reset the HFSI counter.

REP 5.65 DADF 130 PWB

Removal

Parts List on PL 5.53

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

1. Remove the DADF rear cover, REP 5.63.
2. Remove the DADF PWB, Figure 1.
   a. Disconnect ten PWB connectors (1).
   b. Remove four screws (2).
   c. Remove the DADF PWB (3).

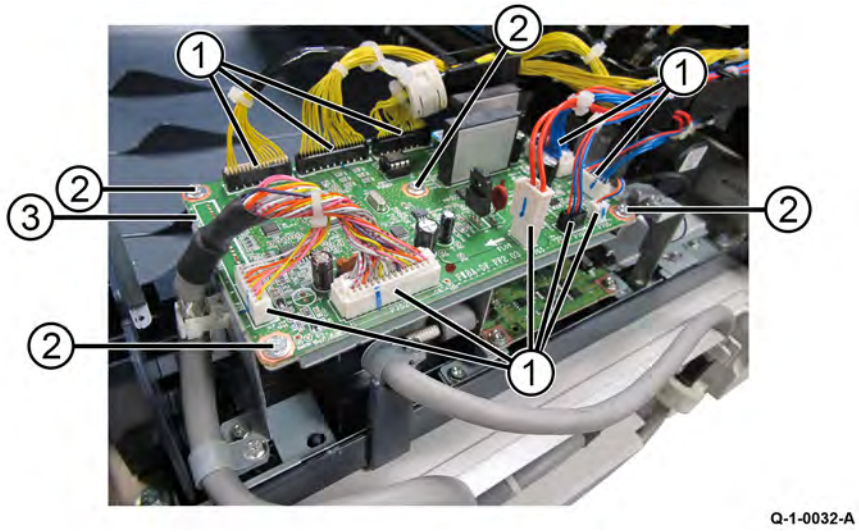

Figure 1 DADF PWB removal

3. Remove the ROM (EEPROM) (1) from the old PWB and set it aside, Figure 2.

Note: The alignment values for the DADF are stored in the EEPROM.

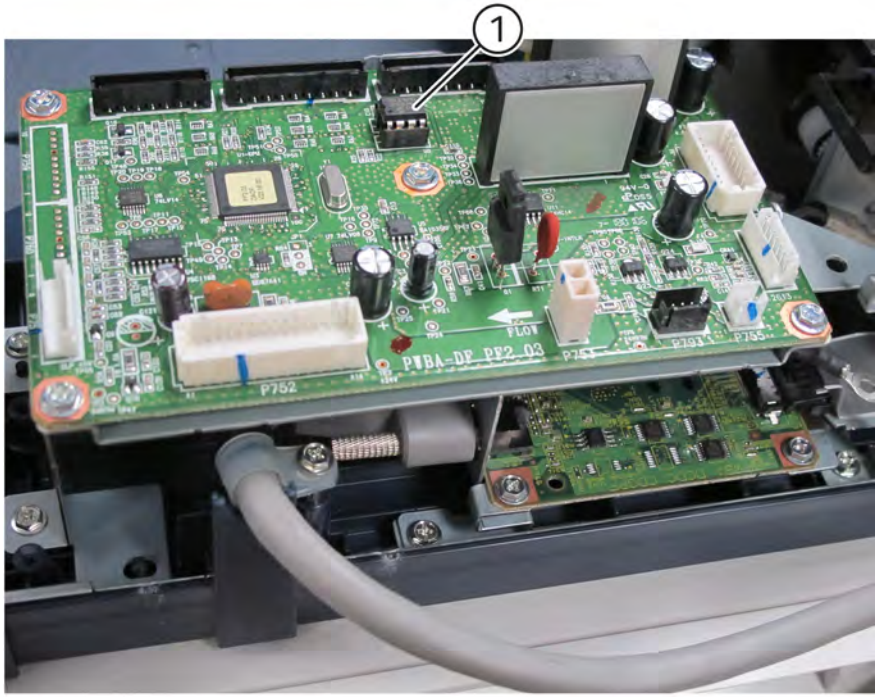

Figure 2 ROM removal

4. Remove the ROM (EEPROM) from the new PWB and set it aside. You can use this EEPROM if the one from the old PWB is damaged.

Replacement

CAUTION: Take care when installing the EEPROM to not bend or damage the pins. Ensure that it is installed in the same orientation as it was on the old DADF PWB.

1. Install the ROM (EEPROM) from the old PWB on the new PWB. If the EEPROM from the old PWB cannot be used, install the EEPROM from the new PWB.
2. The replacement is the reverse of the removal procedure.
3. Check the SW version and update to the latest version if required.
4. If the EEPROM from the new PWB was installed, perform to realign the DADF.

REP 5.66 DADF 130 DC/DC PWB

Removal

Parts List on PL 5.53

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

1. Remove the DADF rear cover, REP 5.63.
2. Disconnect DADF PWB connectors, Figure 1.
   a. Disconnect ten DADF PWB connectors (1).

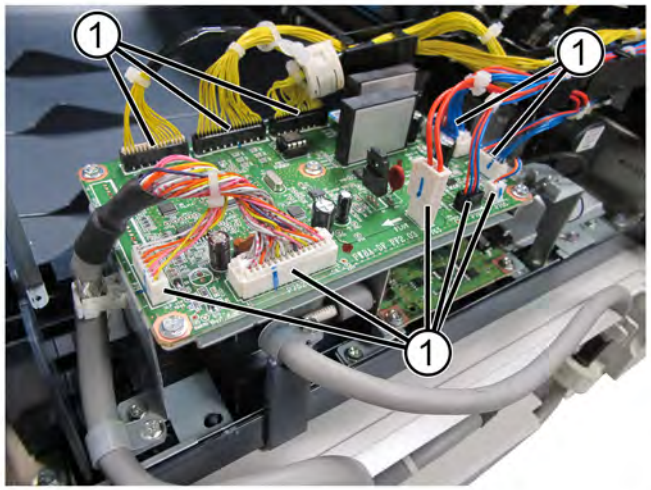

Figure 1 Disconnect PWB connectors

3. Release the DADF-IIT cable from PWB bracket, Figure 2.
   a. Remove the clamp (1) securing DADF-IIT cable to the PWB bracket.
   b. Remove the screw (2) securing the P-clamp (3).
   c. Release the DADF IIT cable (4) from the clamp (1).

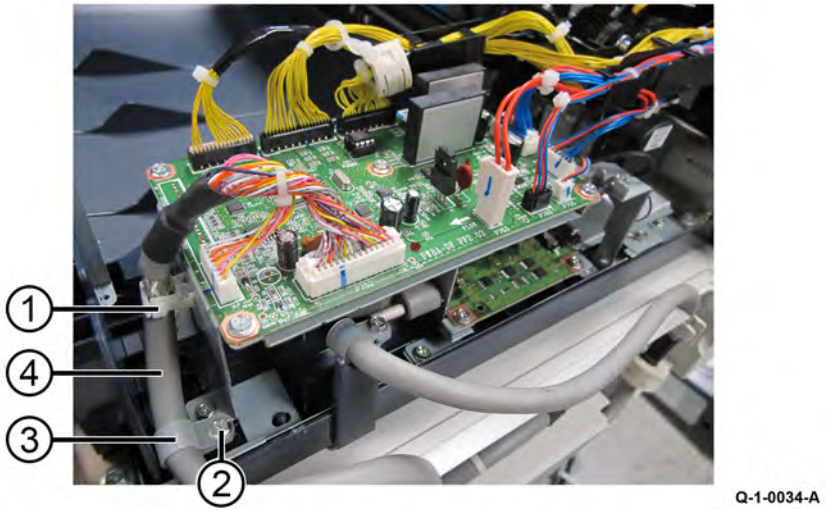

Figure 2 DADF-IIT cable removal

4. Remove clamps securing the cable to the bracket, Figure 3.
   a. Remove two clamps (1) securing the cable to the bracket (2).

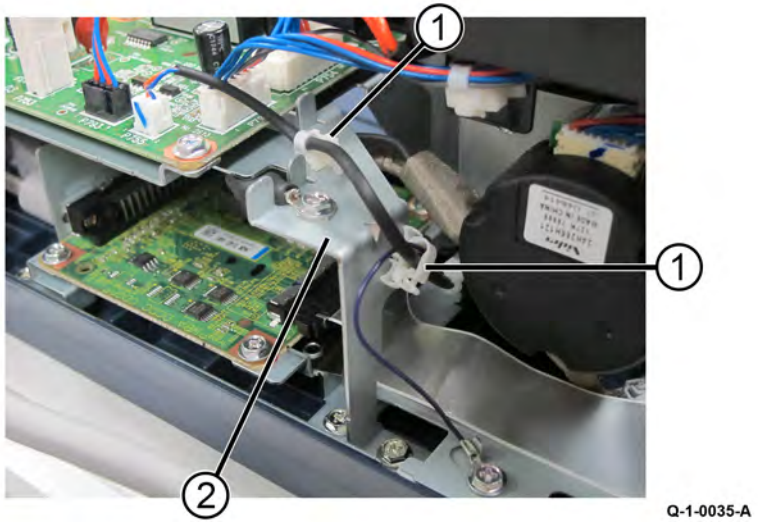

Figure 3 Clamps removal from bracket

5. Remove the screw securing ground wire to the PWB bracket, Figure 4.
   a. Remove the screw (1) securing ground wire (2) to the PWB bracket (3).

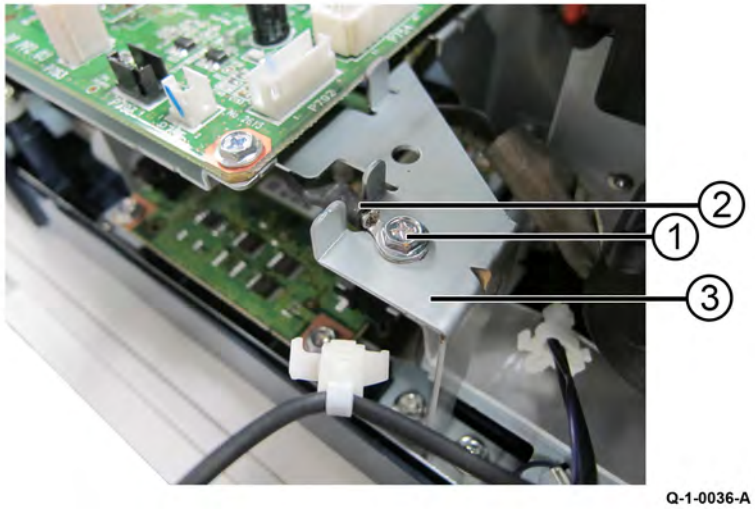

Figure 4 Release ground wire

6. Remove the PWB bracket, Figure 5.
   a. Remove four screws (1) securing the PWB bracket.
   b. Remove the PWB bracket (2).

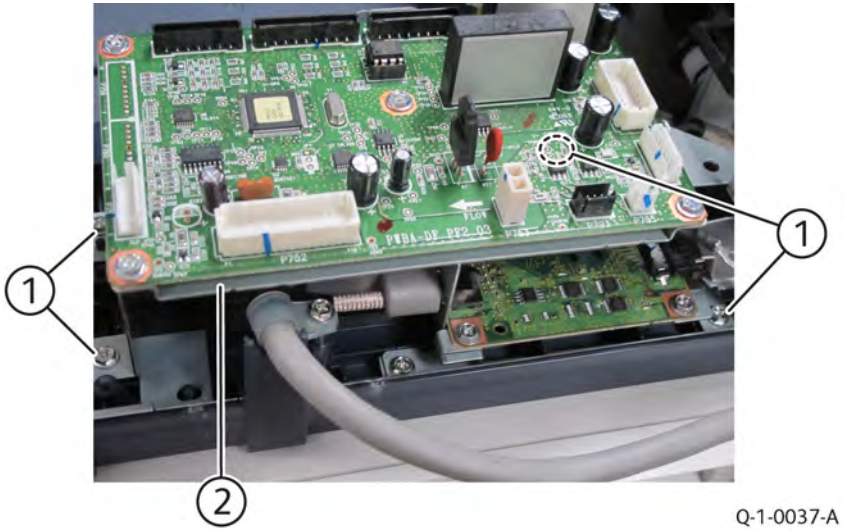

Figure 5 DADF PWB

7. Disconnect the DC/DC PWB connectors, Figure 6.
   a. Remove the screw (1) securing the P-clamp (2).
   b. Loosen two screws and disconnect the connector (3).

c. Disconnect the connector (4).

d. Disconnect the ribbon cable connector (5).

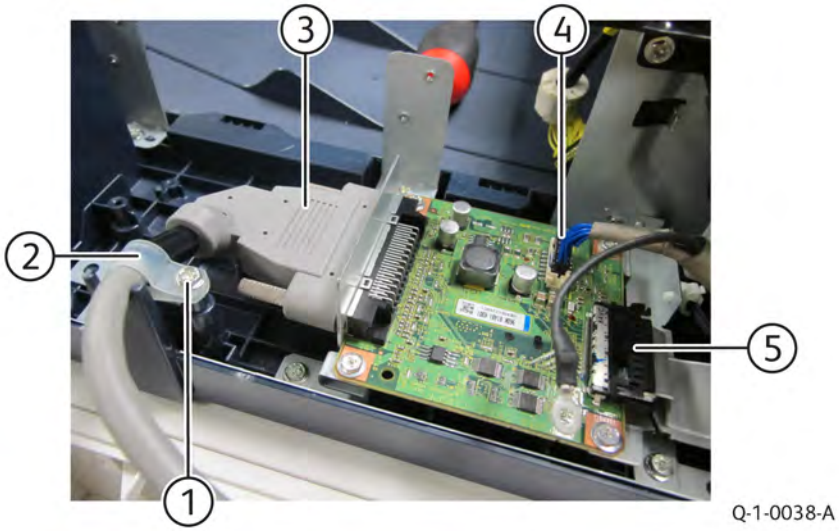

Figure 6 Disconnect DC/DC PWB connectors

8. Remove the DC/DC PWB bracket, Figure 7.

a. Remove four screws (1) securing the DC/DC PWB bracket.

b. Remove the DC/DC PWB bracket (2).

Figure 7 DC/DC PWB bracket removal

9. Remove the DC/DC PWB, Figure 8.

a. Remove two nuts (1).

b. Remove four screws (2).

c. Remove the DC/DC PWB (3).

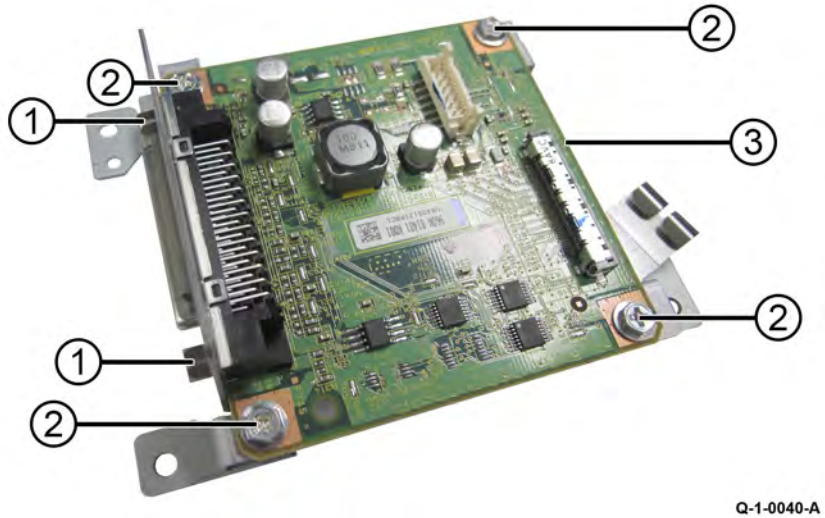

Figure 8 DC/DC PWB removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure the ground plate (1) is installed under the bracket (2) during PWB installation, Figure 9.

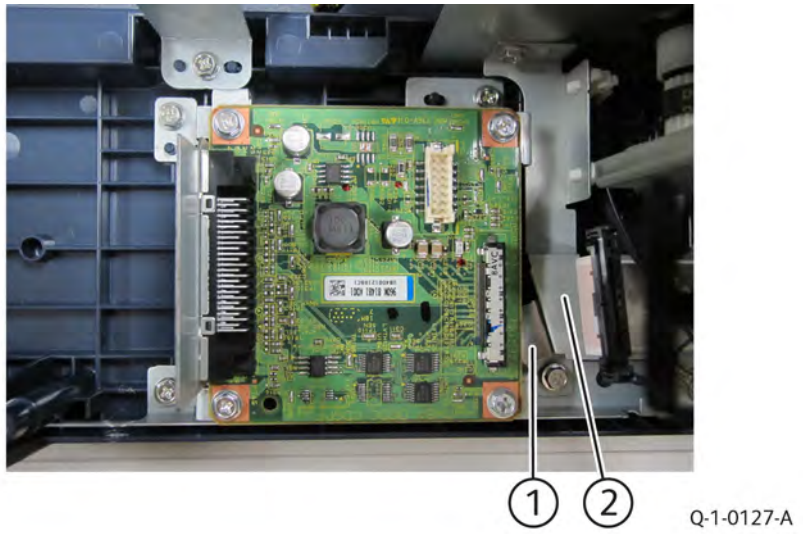

Figure 9 DC/DC PWB installation

3. Check the SW version and update to the latest version if required.

REP 5.67 DADF 130 Left Counter Balance

Removal

Parts List on PL 5.53

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

CAUTION: Left/Right counter balance is identified by its spring pressure:

- Left counter balance: strong spring pressure
- Right counter balance: weak spring pressure

1. Remove the DADF rear cover, REP 5.63.
2. Remove the DADF, REP 5.60.
3. Remove the wire harness and the harness guide, REP 5.71.
4. Remove the DADF feeder assembly, REP 5.64.
5. Remove screws securing the tie plate in the front, Figure 1.
   a. Remove two screws (1) securing the tie plate in the front.

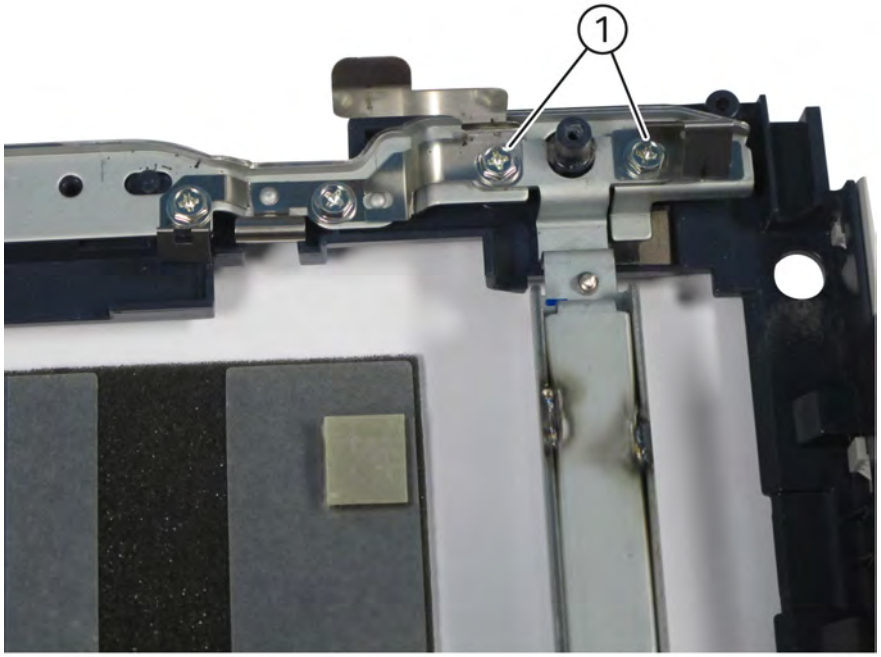

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Figure 1 Tie plate screws removal

6. Remove the screws securing the tie plate in the rear, Figure 2.

a. Remove four tapping screws (1).
b. Remove two screws (2).
c. Remove two screws (3).

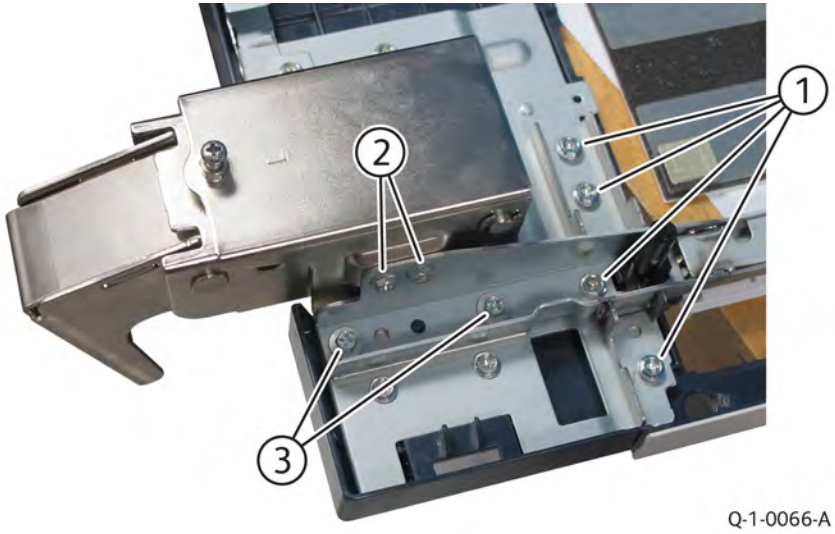

Figure 2 Tie plate screws removal

7. Remove the tie plate and the CVT chute, Figure 3.
   a. Remove the tie plate (1) and the CVT chute.

      Note: The CVT chute is located under the tie plate (1).

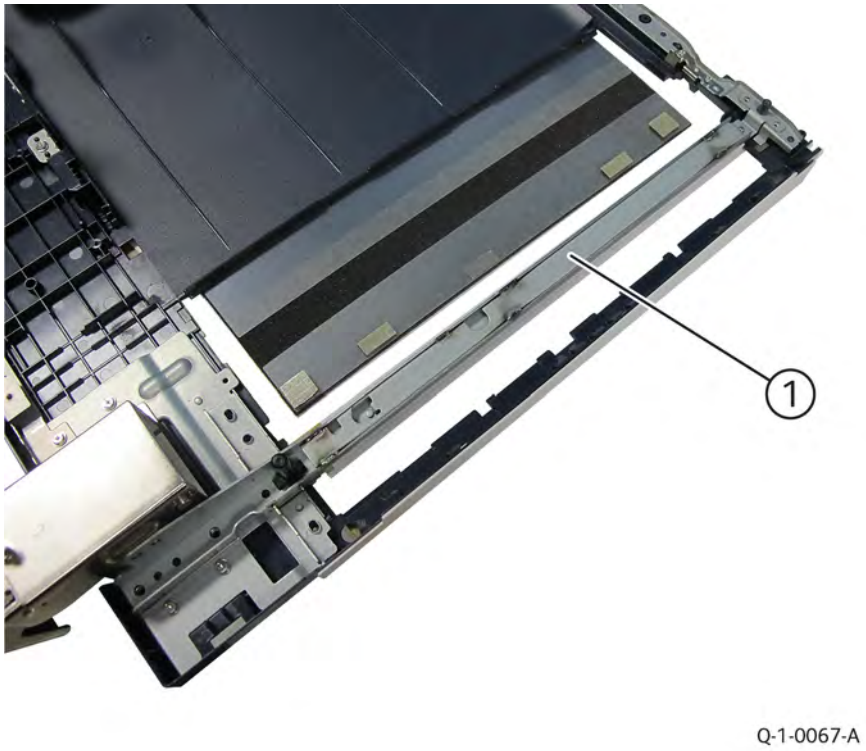

Figure 3 Tie plate and CVT chute removal

8. Remove the left counter balance, Figure 4.
   a. Remove two screws (1) securing the left counter balance to the base frame.
   b. Remove the left counter balance (2).

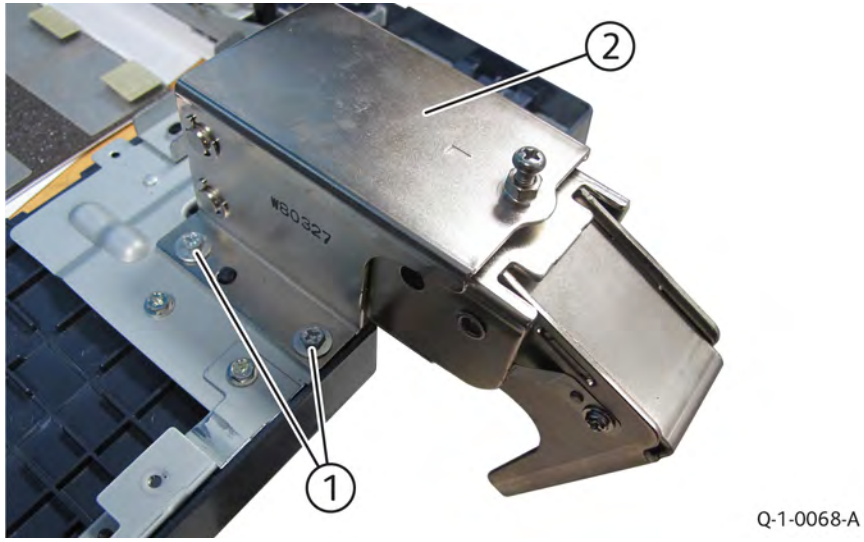

Figure 4 Left counter balance removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install CVT chute “hook” (on the underside of the tie plate) to the base frame, Figure 5.

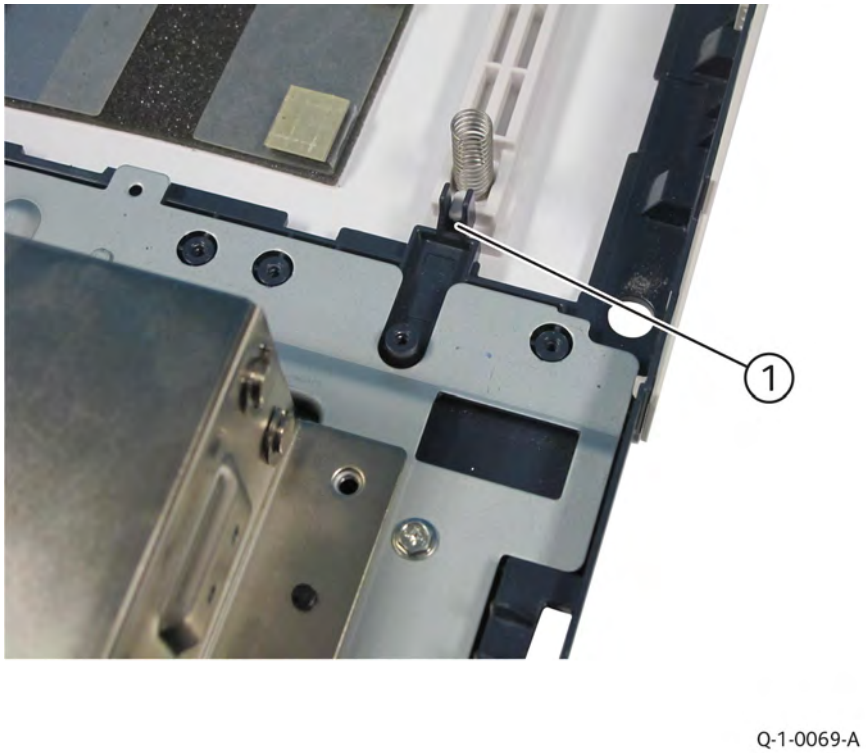

Figure 5 CVT chute installation

3. Install the CVT chute springs to the front and rear bosses on the tie plate, Figure 6 and Figure 7.

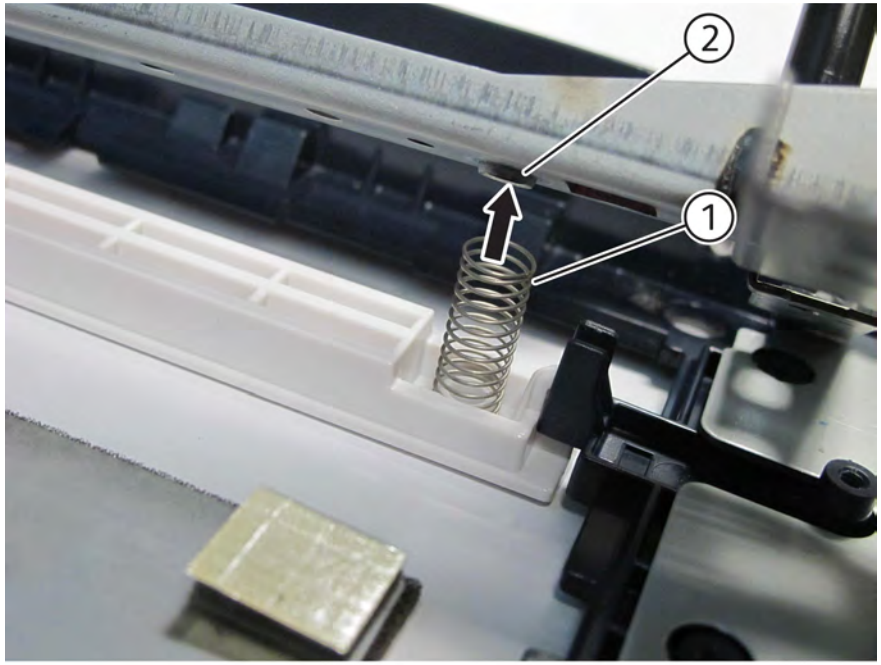

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Figure 6 CVT chute rear spring installation

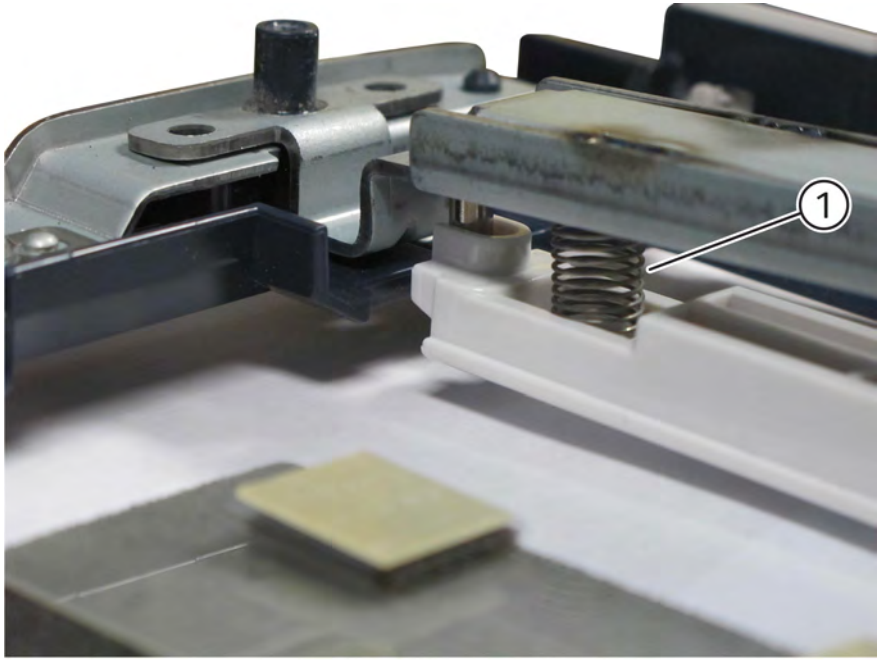

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Figure 7 CVT chute front spring installation

REP 5.68 DADF 130 Right Counter Balance

Removal

Parts List on PL 5.53

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

CAUTION: Left/Right counter balance is identified by its spring pressure.

- Left counter balance: strong spring pressure
- Right counter balance: weak spring pressure

1. Remove the DADF rear cover, REP 5.63.
2. Remove the DADF, REP 5.60.
3. Note the graduations on the scale on the right counter balance (2), Figure 1.

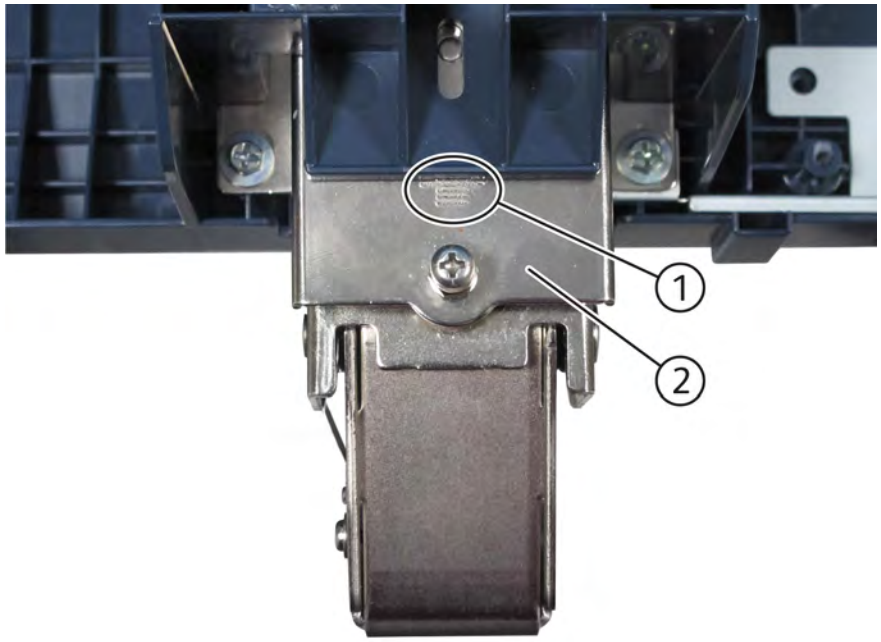

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Figure 1 Graduations on right counter balance

4. Remove the right counter balance, Figure 2.
   a. Remove four large tapping screws (1).
   b. Remove the right counter balance (2).

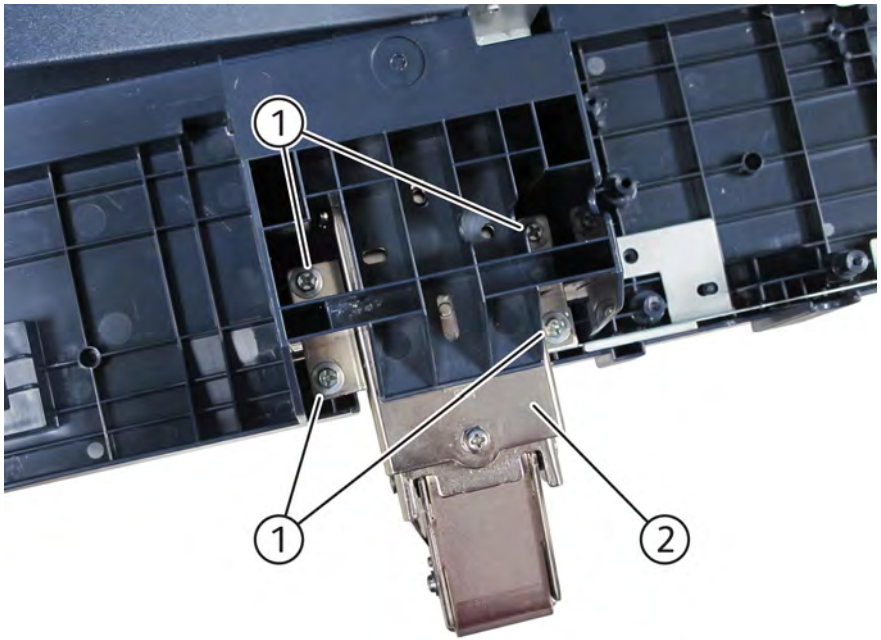

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Figure 2 Right counter balance removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. If the right counter balance was replaced, perform ADJ 5.1.

REP 5.69 DADF 130 Document Tray

Removal

Parts List on PL 5.52

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF front cover, REP 5.62.
2. Remove the DADF rear cover, REP 5.63.
3. Disconnect the DADF document set LED connector, Figure 1.
   a. Remove the tapping screw (1).
   b. Remove the LED bracket (2).
   c. Disconnect the connector (3).

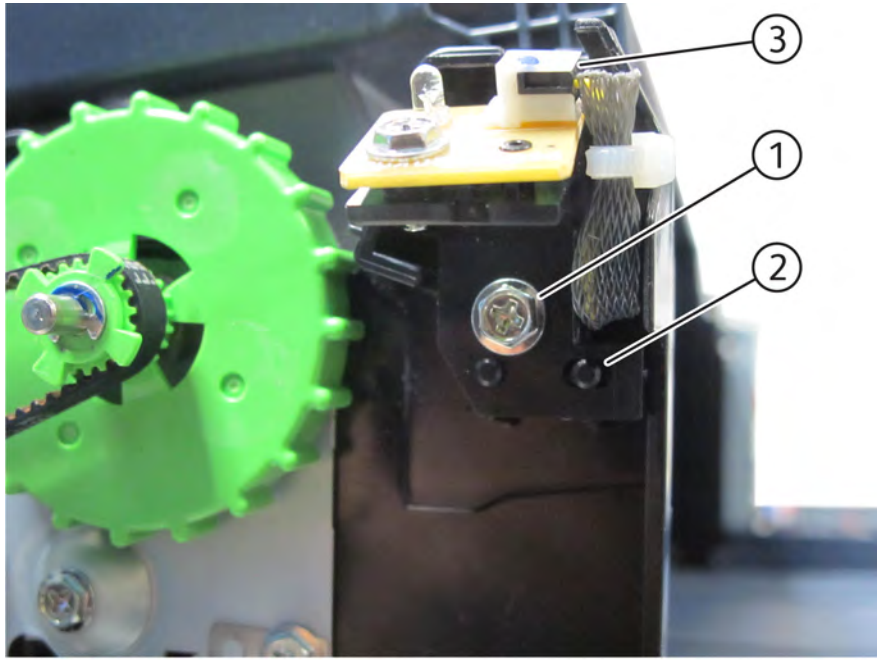

Figure 1 Disconnect LED connector

4. Remove the document tray wire harness from the harness guide, Figure 2.
   a. Disconnect the connector (1).
   b. Remove the clamp (2).
   c. Remove the document tray wire harness from the harness guide.

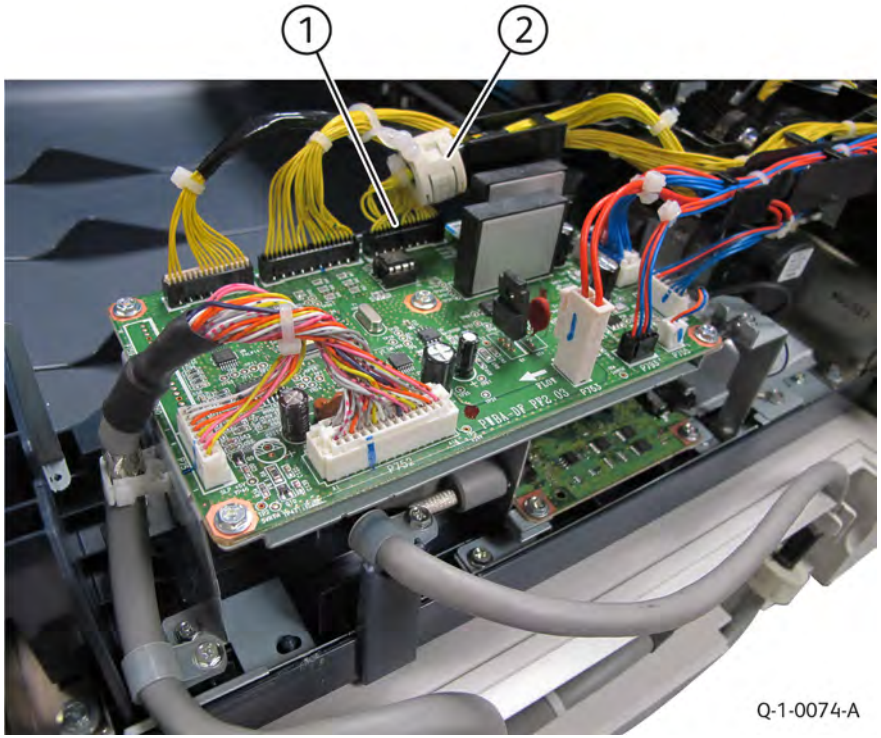

Figure 2 Document tray wire harness removal

5. Remove the boss of the DADF document tray from installation hole on the frame, Figure 3.
   a. Position the DADF document tray (1) vertically.
   b. Press the boss (2) and remove the document tray in the direction of the arrow from the installation hole.
   c. Remove the wire harness of the DADF document set LED from the groove (3) of the frame.

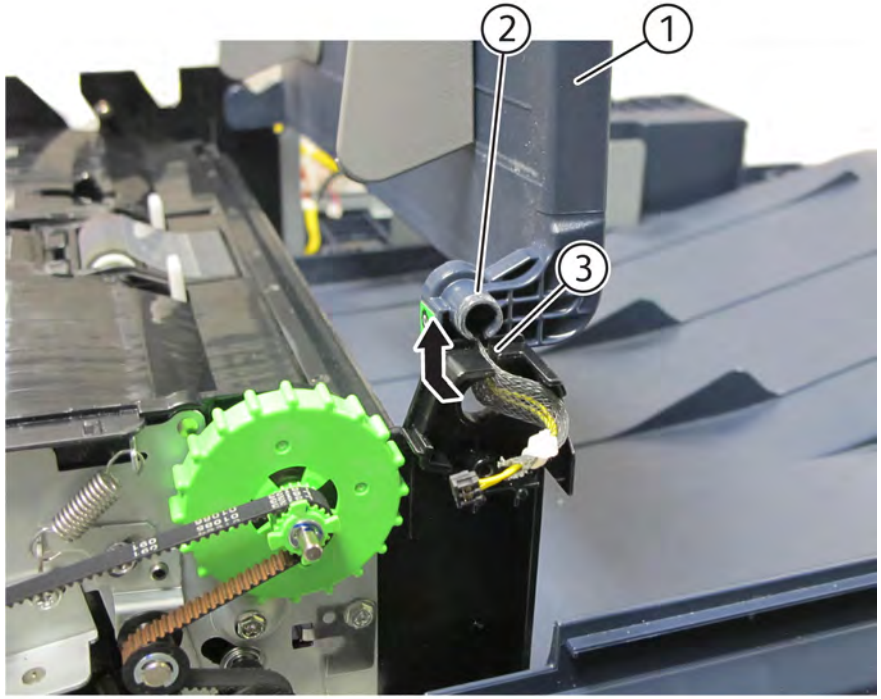

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Figure 3 Document tray boss removal

6. Remove the DADF document tray, Figure 4.
   a. Remove the boss (1) of the document tray from installation hole (2) on the frame.
   b. Pull out and remove document tray wire harness (3) from the hole.
   c. Remove the DADF document tray (4).

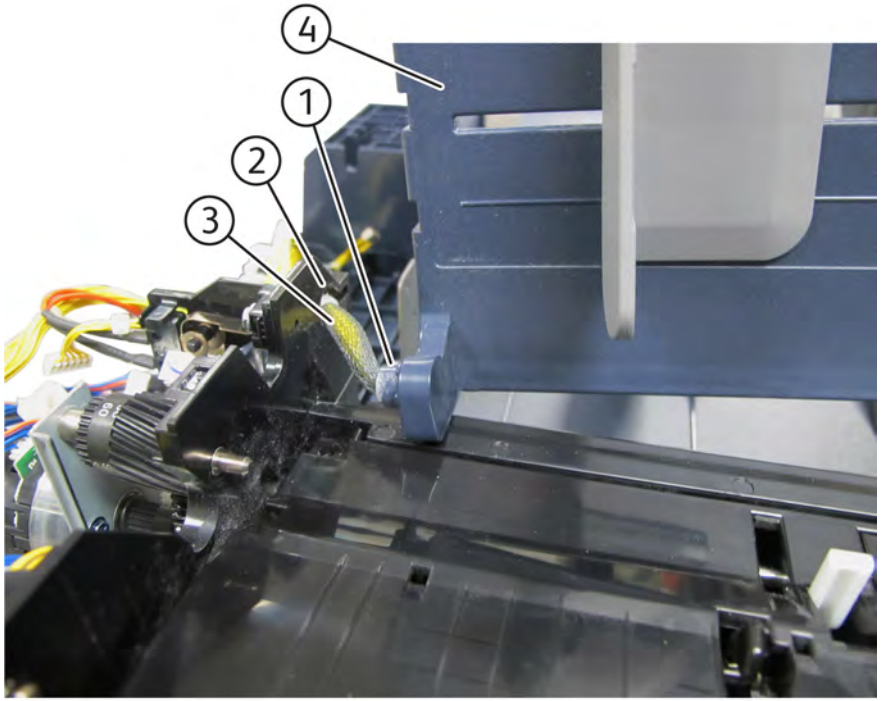

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Figure 4 Document tray removal

Replacement

1. The replacement is the reverse of the removal procedure.

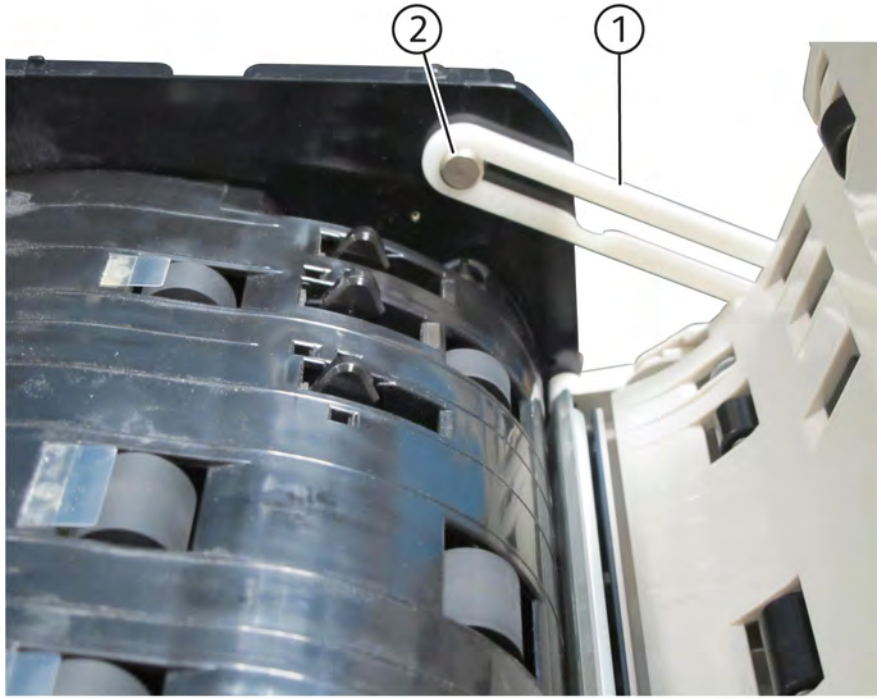
REP 5.70 DADF 130 Top Cover

Removal

Parts List on PL 5.52

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

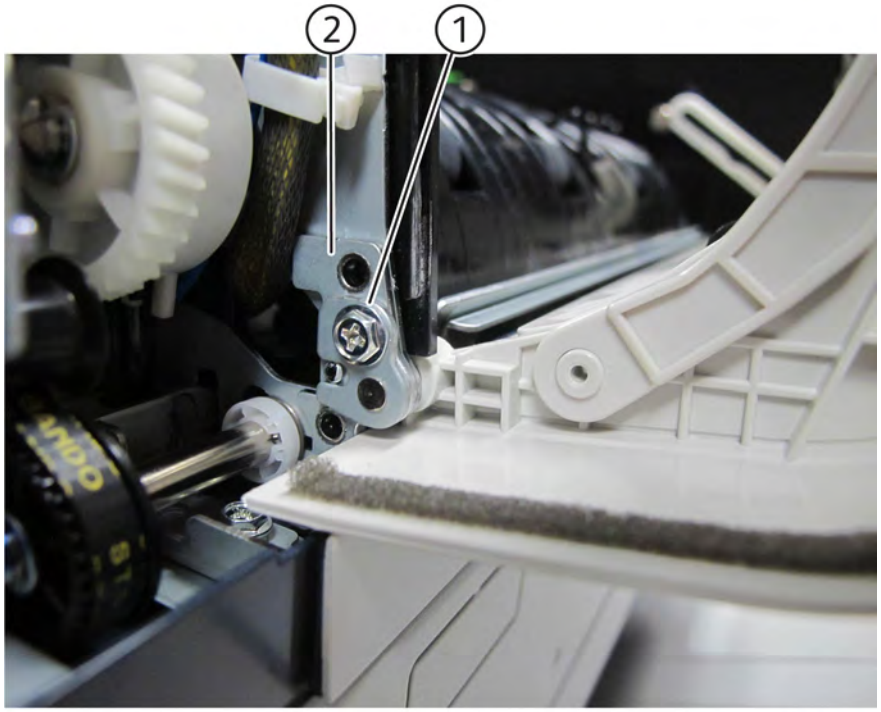
1. Remove the DADF front cover, REP 5.62.
2. Remove the DADF rear cover, REP 5.63.
3. Remove the link of the top cover from the stud, Figure 1.
   a. Remove the link (1) from the stud (2).



Q-1-0078-A

Figure 1 Top cover link removal

4. Remove the stud bracket at the rear, Figure 2.
   a. Remove the screw (1) securing the rear stud bracket.
   b. Remove the rear stud bracket (2).



Q-1-0079-A

Figure 2 Rear stud removal

5. Remove the top cover, Figure 3.
   a. Remove the tapping screw (1) securing the front stud bracket.
   b. Remove the front stud bracket (2).
   c. Remove the top cover (3).

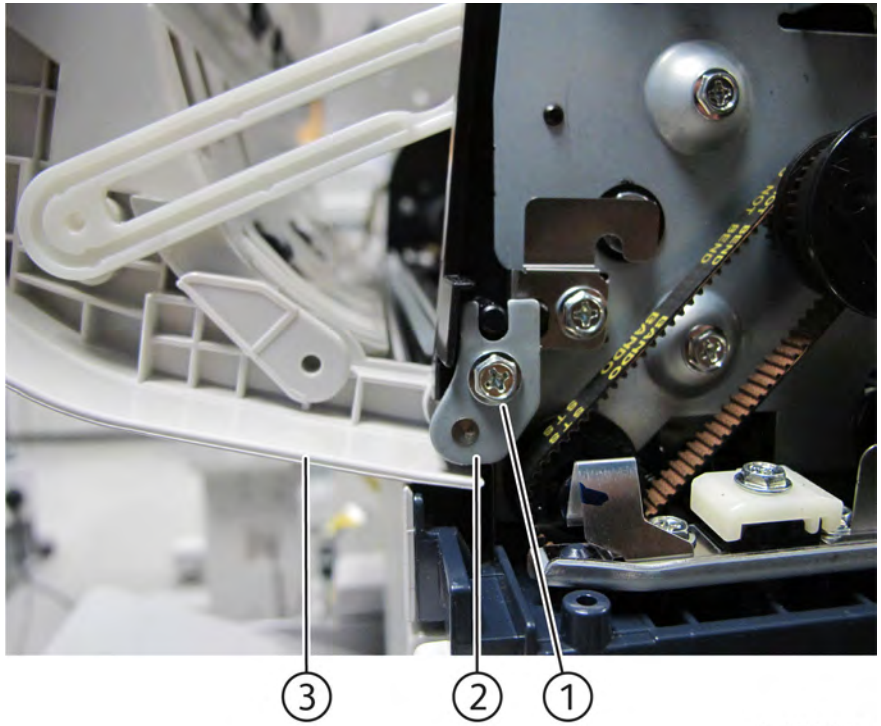


Figure 3 Top cover removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.71 DADF 130 Wire Harness and Harness Guide

Removal

Parts List on PL 5.58

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

1. Remove the DADF rear cover, REP 5.63.
2. Disconnect DADF PWB connectors, Figure 1.
   a. Disconnect ten PWB connectors (1).

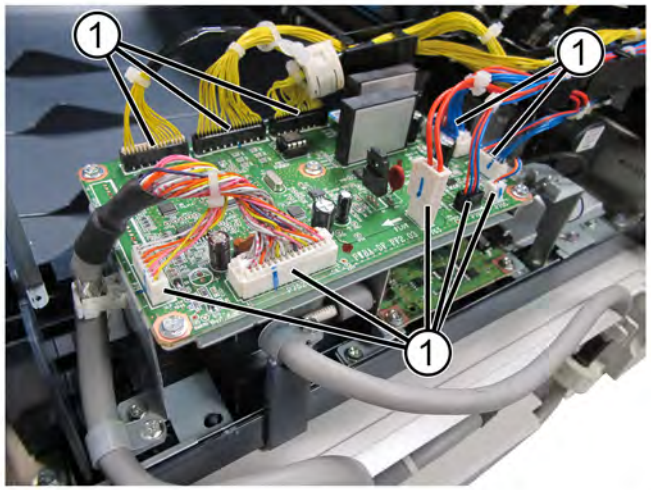


Figure 1 Disconnect PWB connectors

3. Disconnect the wire harness connectors, Figure 2.
   a. Disconnect the sensor connector (1).
   b. Disconnect four wire harness connectors (2).

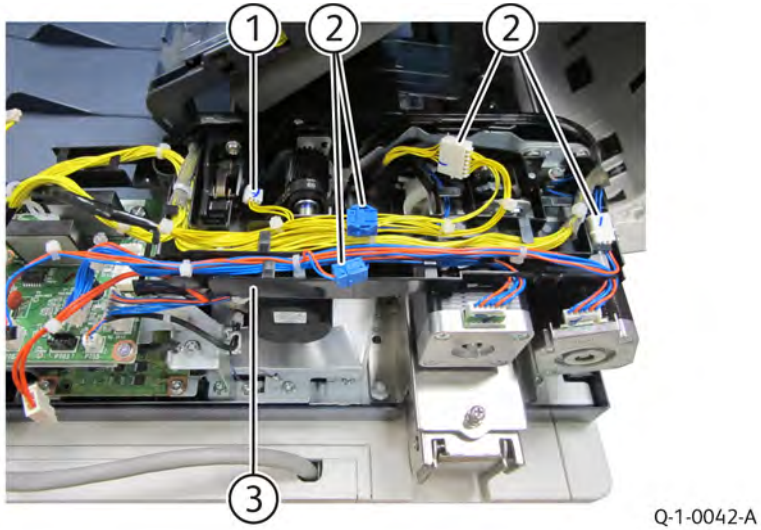


Figure 2 Disconnect wire harness connectors

4. Remove the clamp (1) securing wire harness to the harness guide (2), Figure 3.

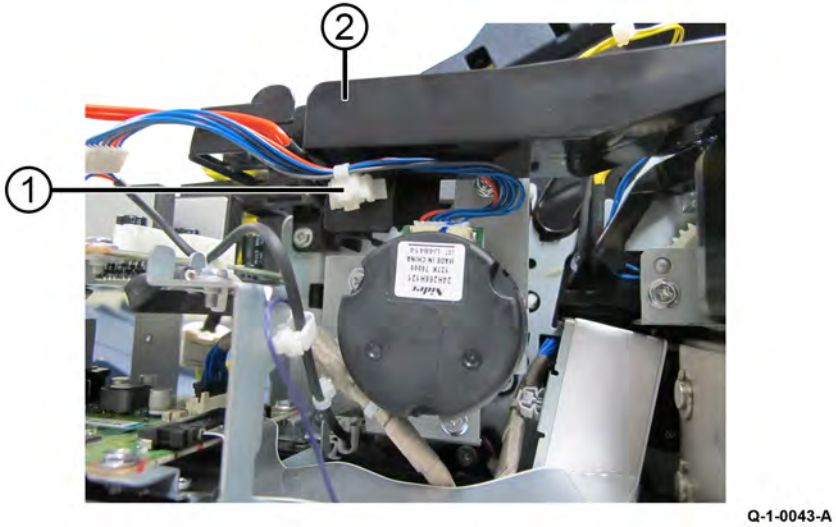


Figure 3 Release cable

5. Disconnect two motors' connectors, Figure 4.
   a. Release the motors' wire harness from the harness guide.
   b. Disconnect two connectors (1).

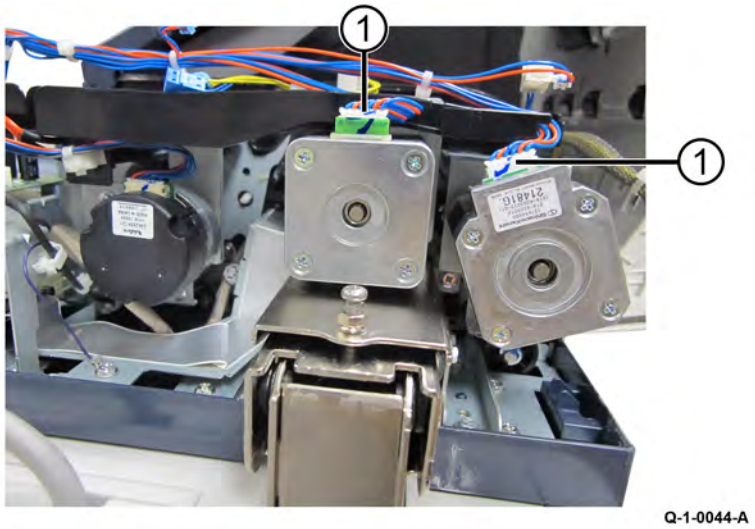


Figure 4 Disconnect motor connectors

6. Remove all the wire harnesses from the harness guide.
7. Remove the harness guide, Figure 5.
   a. Remove two screws (1) securing the harness guide to the frame.
   b. Remove the harness guide (2).

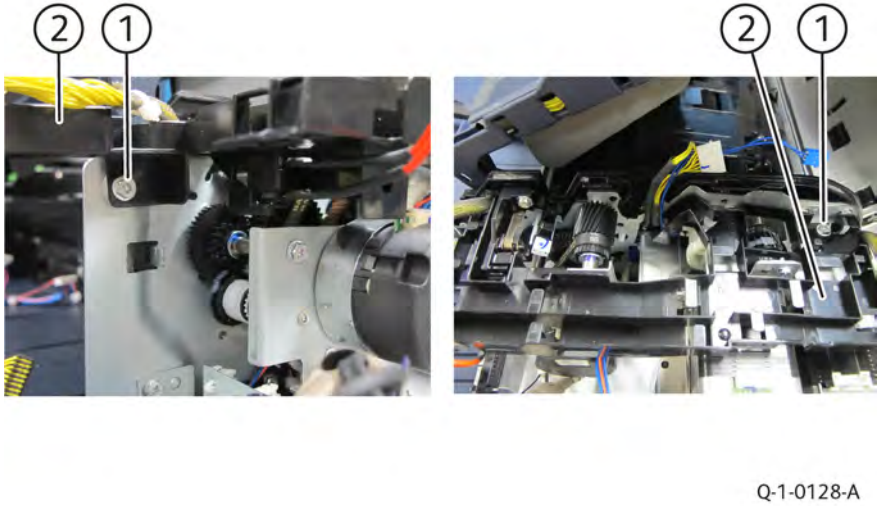


Figure 5 Harness guide removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.72 DADF 130 Registration Motor

Removal

Parts List on PL 5.58

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF rear cover, REP 5.63.
2. Remove the wire harness and the harness guide, REP 5.71.
3. Remove the spring of the belt tension bracket, Figure 1.
   a. Loosen the screw (1).
   b. Remove the spring (2).

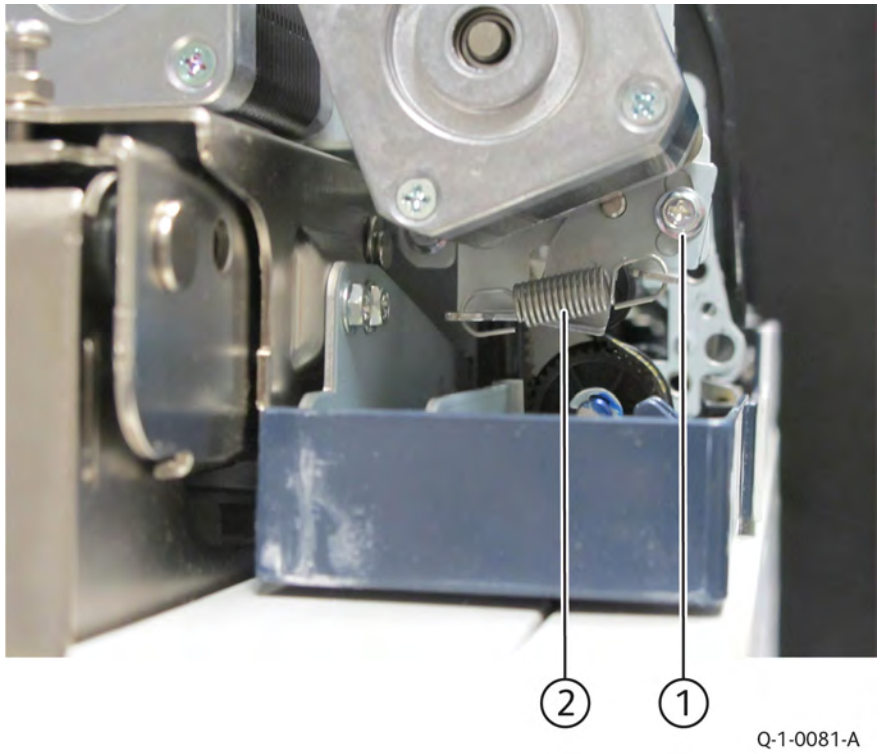


Figure 1 Spring removal

4. Remove the DADF registration motor, Figure 2.
   a. Remove three screws (1).
   b. Remove the DADF registration motor (2).

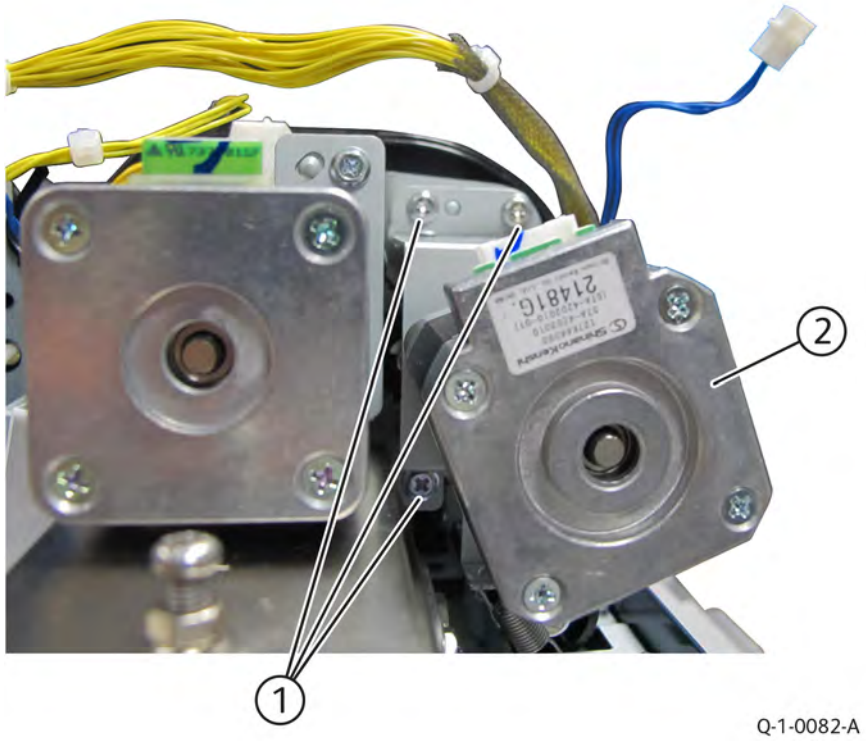
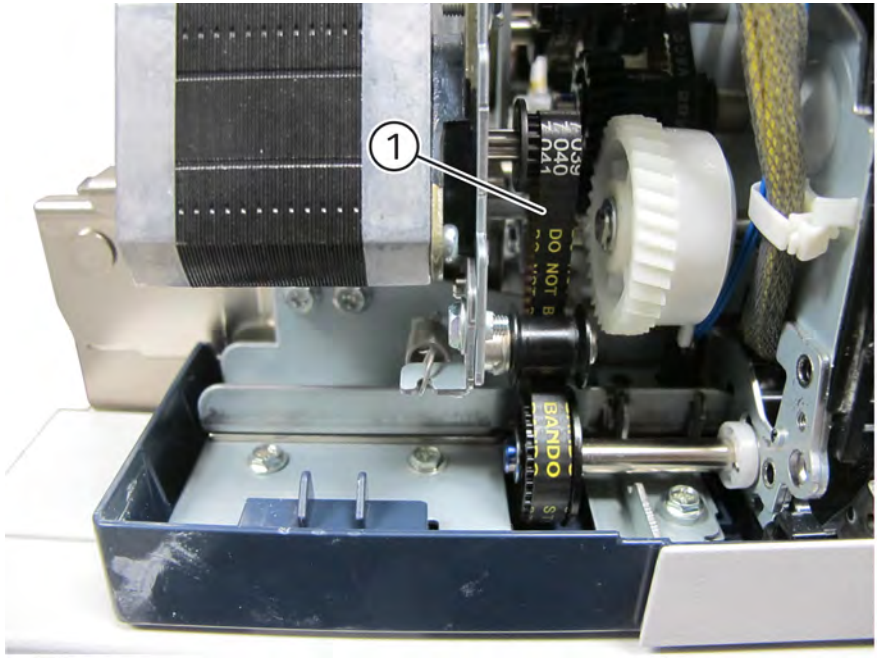


Figure 2 Registration motor removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install the belt (1) to the pulley of the DADF registration motor, Figure 3.



Q-1-0083-A

Figure 3 Belt installation

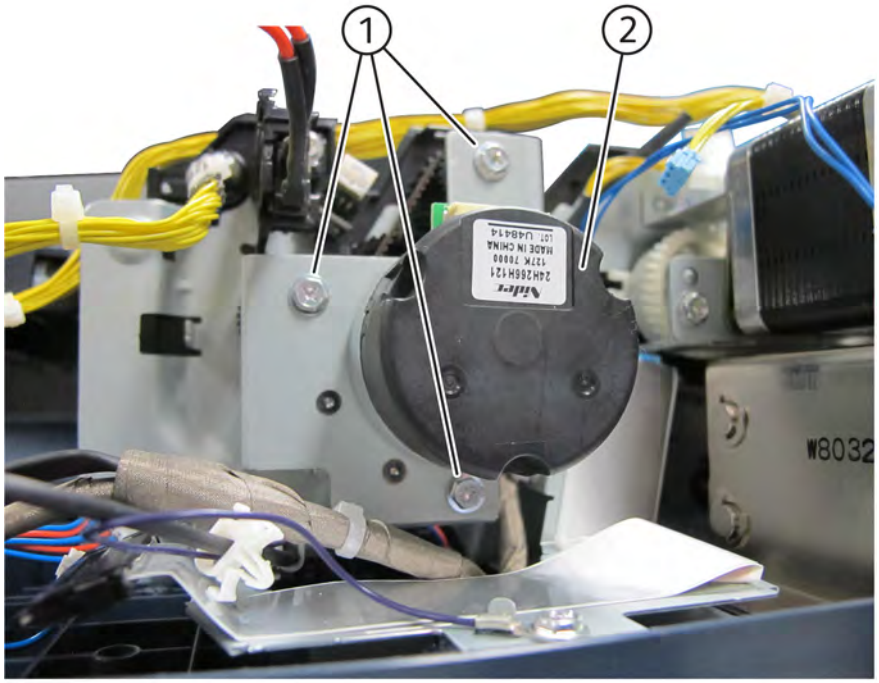
REP 5.73 DADF 130 Feed Motor

Removal

Parts List on PL 5.58

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF rear cover, REP 5.63.
2. Remove the wire harness and the harness guide, REP 5.71.
3. Remove the DADF feed motor, Figure 1.
   a. Remove three screws (1).
   b. Remove the DADF feed motor (2).



Q-1-0084-A

Figure 1 Feed motor removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install the belt (1) to the pulley of the DADF feed motor, Figure 2.

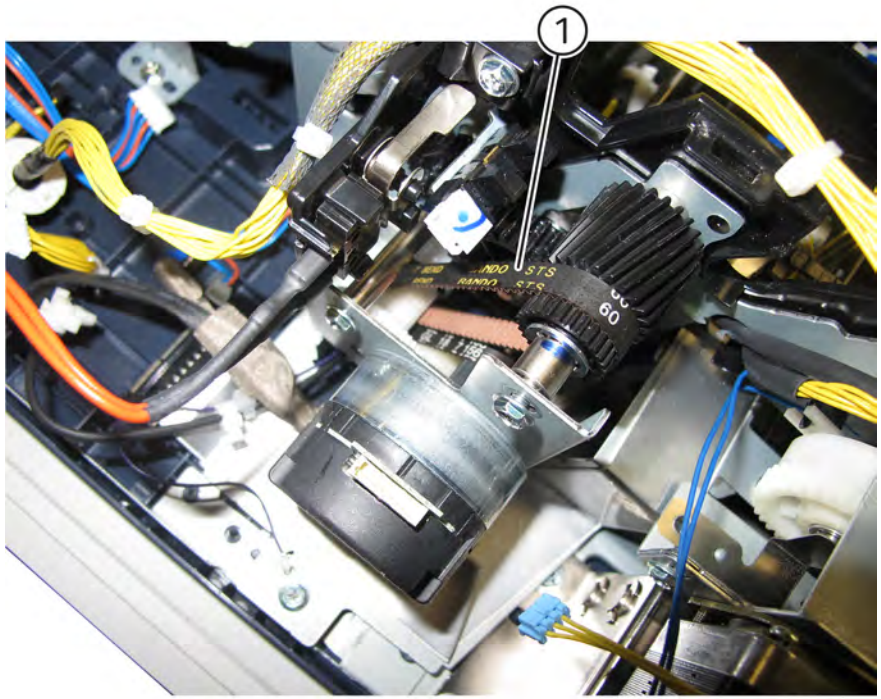


Figure 2 Belt installation

REP 5.74 DADF 130 Pre Registration Motor

Removal

Parts List on PL 5.58

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF rear cover, REP 5.63.
2. Remove the wire harness and the harness guide, REP 5.71.
3. Remove the DADF pre registration motor, Figure 1.
   a. Remove two screws (1).
   b. Remove the DADF pre registration motor (2).

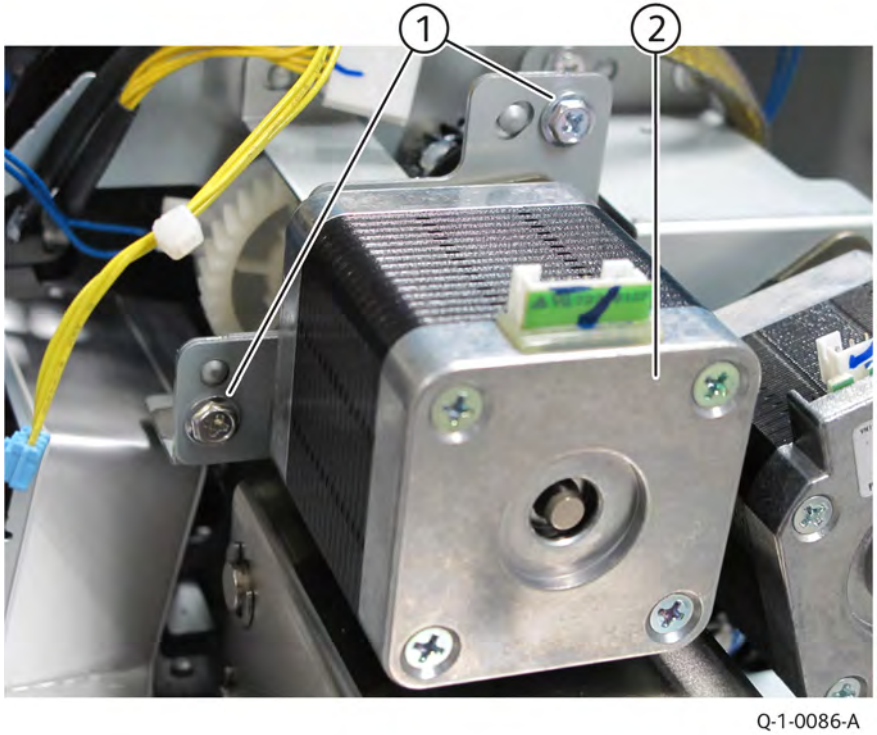


Figure 1 Pre registration motor removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install the belt (1) to the pulley of the DADF pre registration motor, Figure 2.

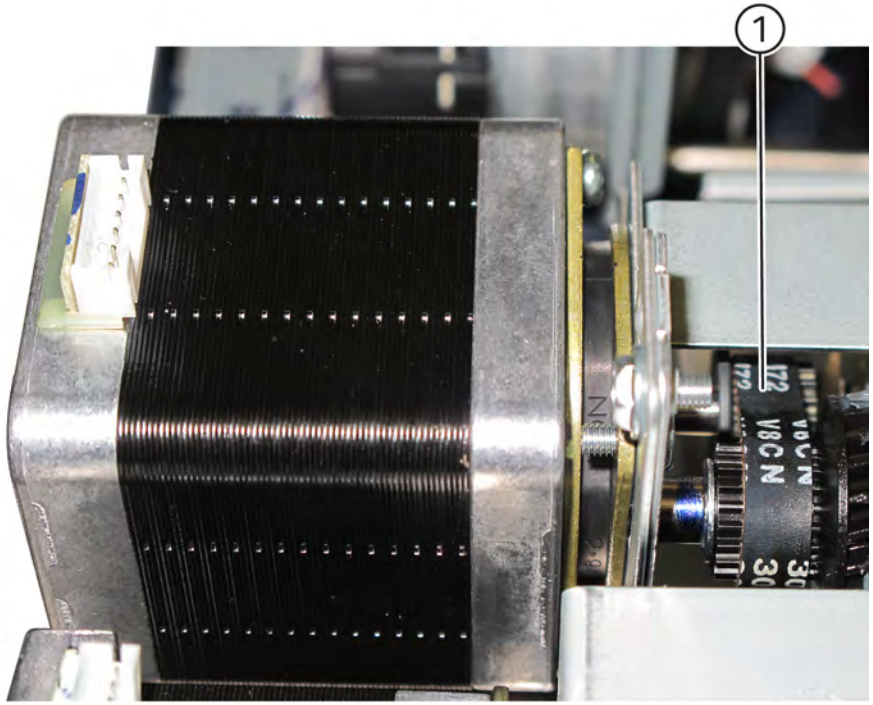


Figure 2 Belt installation

REP 5.75 DADF 130 Registration Chute

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF rear cover, REP 5.63.
2. Remove the DADF, REP 5.60.
3. Remove the wire harness and the harness guide, REP 5.71.
4. Remove the DADF feeder assembly, REP 5.64.
5. Turn the DADF feeder assembly left-side up.
6. Remove the registration chute, Figure 1.
   a. Remove four tapping screws (1).
   b. Remove the registration chute (2).

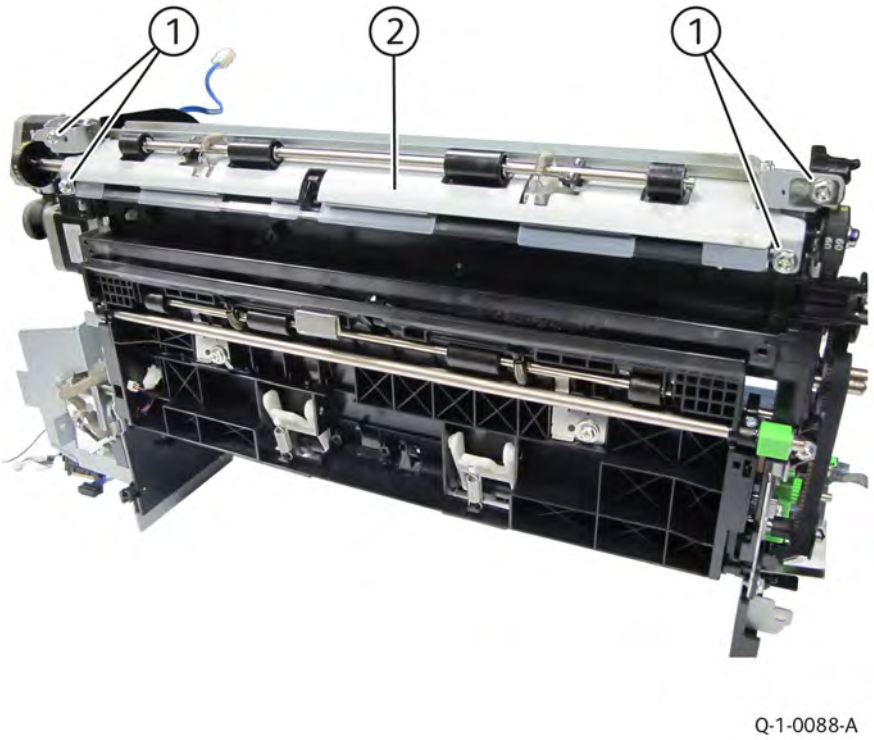


Figure 1 Registration chute removal

Replacement

1. The replacement is the reverse of the removal procedure.

2. Install the ground plate (2) below the registration chute (1), Figure 2.

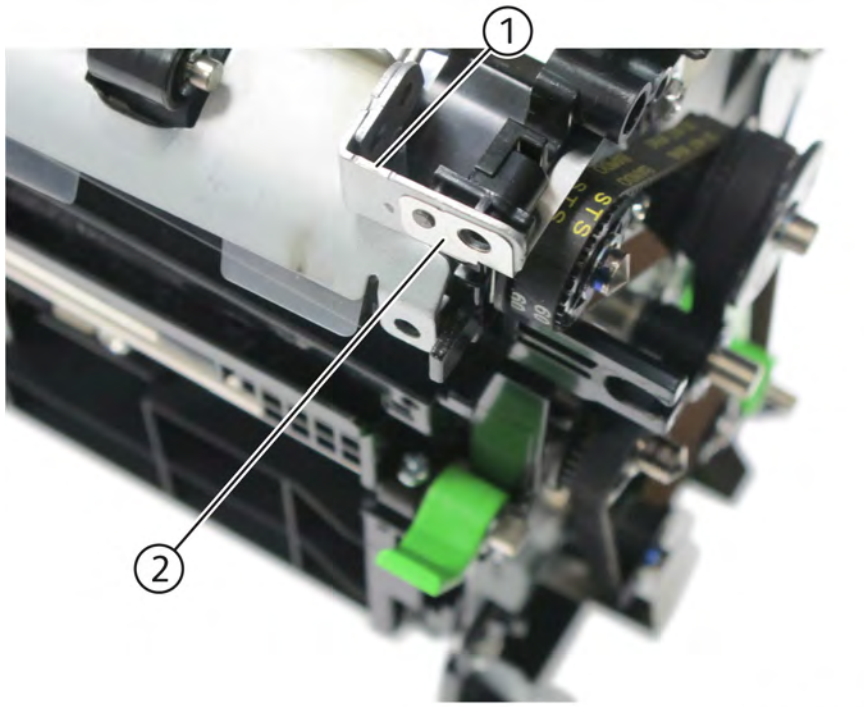


Figure 2 Registration chute installation

REP 5.76 DADF 130 Retard Chute

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the top cover.
2. Remove the retard chute, Figure 1.
   a. Remove four screws (1).
   b. Remove the retard chute (2).

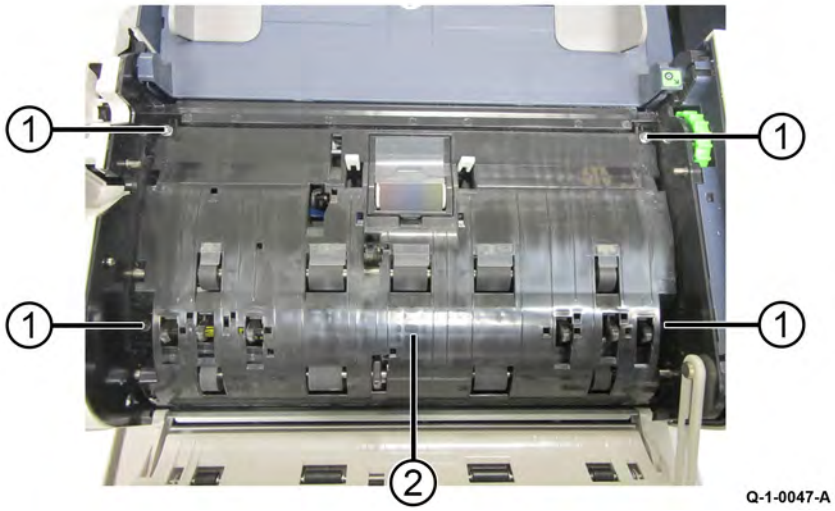


Figure 1 Retard chute removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.77 DADF 130 Out Chute

Removal

Parts List on PL.5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Remove the DADF feeder assembly, REP 5.64.
2. Remove the harness from the guide, Figure 1.
   a. Disconnect the connector (1).
   b. Remove the harness from the guide (2).

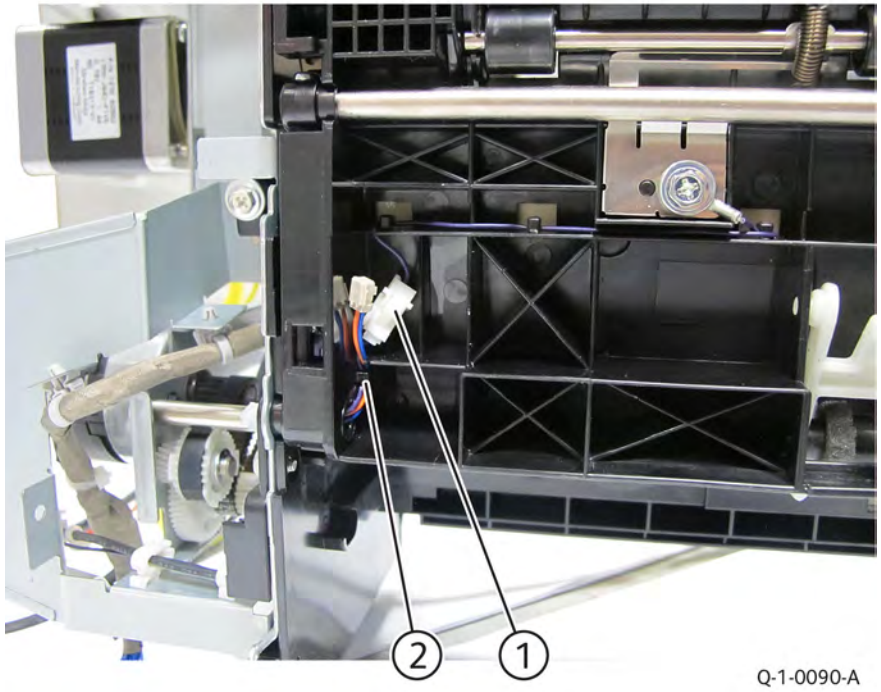


Figure 1 Harness removal

3. Remove the front hinge, Figure 2.
   a. Remove the screw (1).
   b. Remove the front hinge (2).

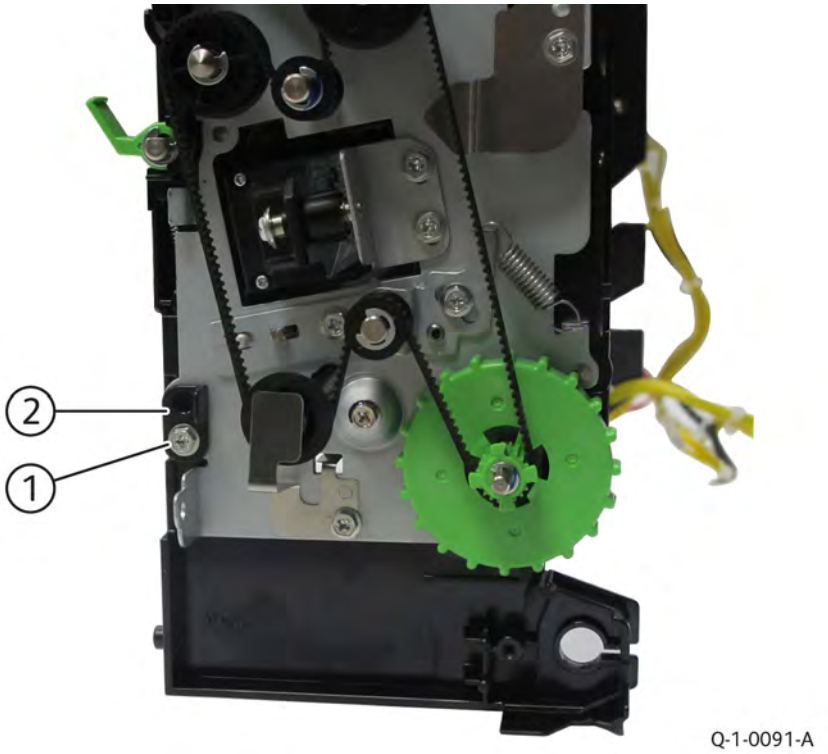


Figure 2 Front hinge removal

4. Open the out chute assembly, Figure 3.
   a. Grasp and support the out chute as you unlatch it in step b.
   b. Move the lever (1) in the direction indicated to unlatch the out chute.

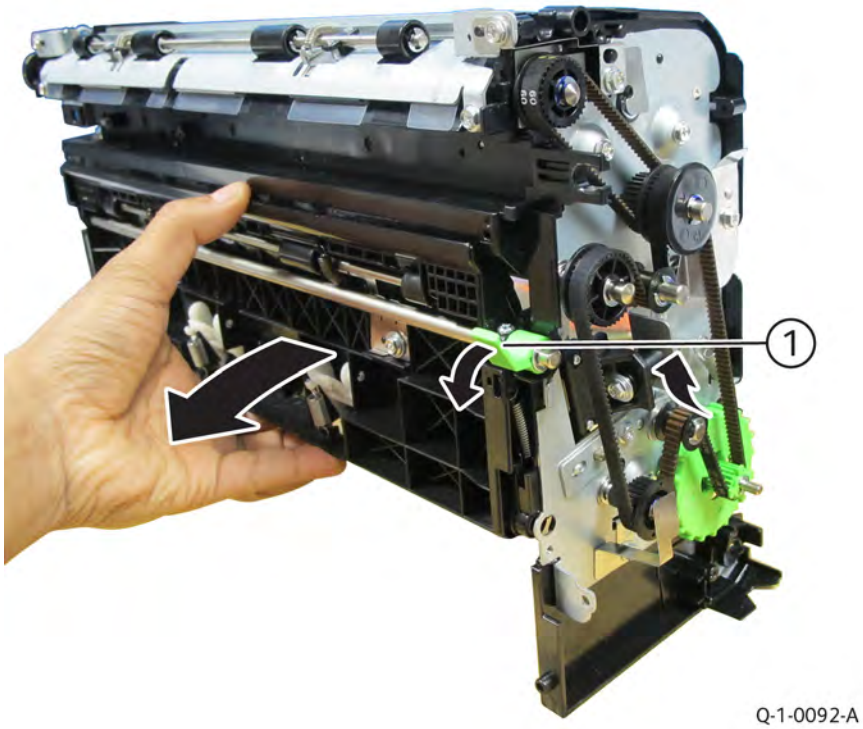


Figure 3 Open out chute assembly

5. Remove the out chute assembly, Figure 4.
   a. Slide the out chute assembly (2) in the direction of arrow to remove from the rear hinge (1).

CAUTION

Remove the Out Chute carefully so that the connector and harness do not become damaged as the Out Chute slides off the rear hinge.

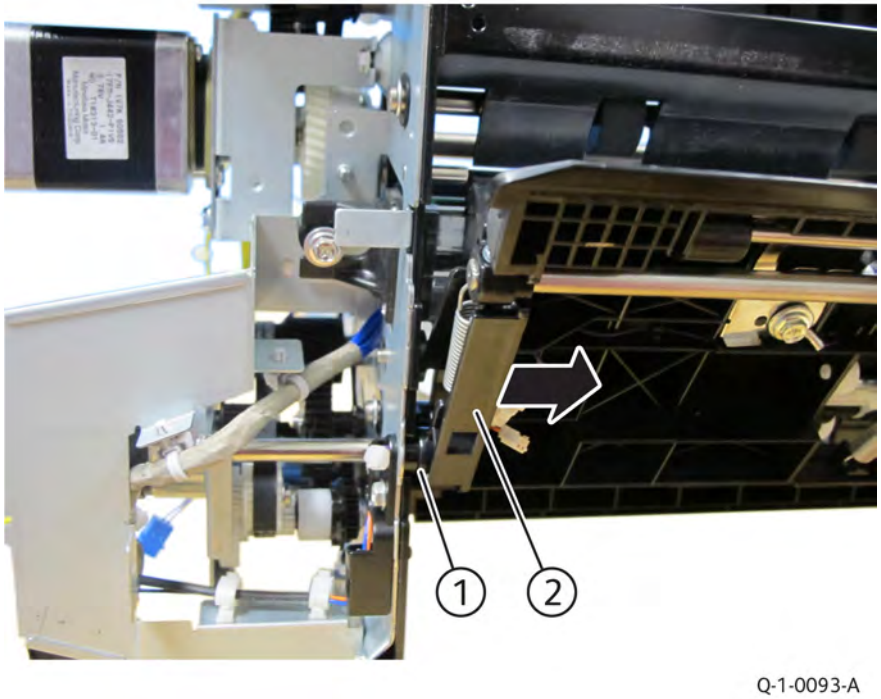


Figure 4 Out chute assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.78 DADF 130 CIS

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

1. Remove the DADF front cover, REP 5.62.
2. Remove the retard chute, REP 5.76.
3. Move the sensor bracket, Figure 1.
   a. Remove two tapping screws (1).
   b. Move the sensor bracket (2).

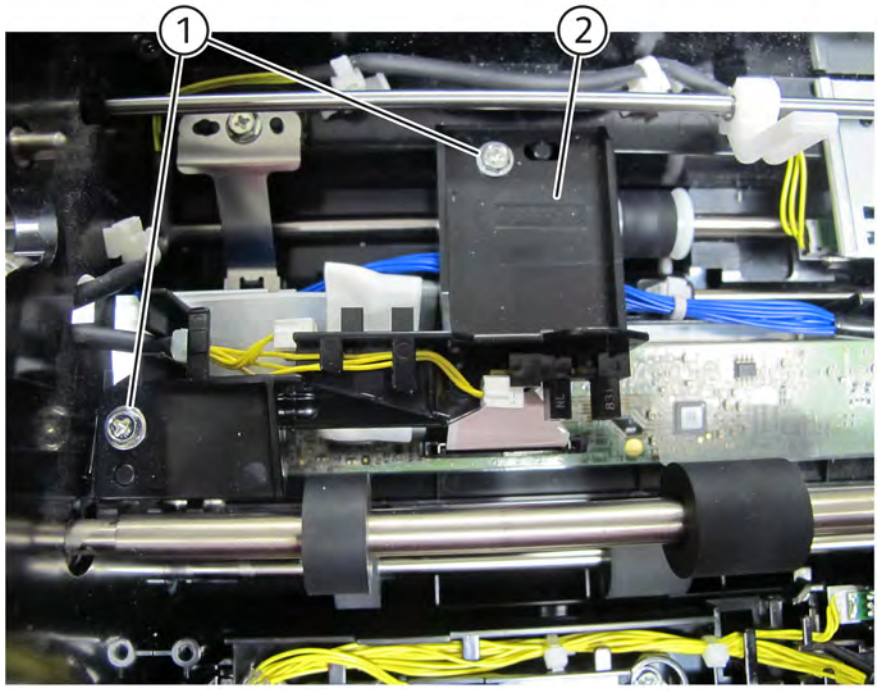


Figure 1 Sensor bracket

4. Disconnect the connectors, Figure 2.
   a. Disconnect connectors (1) and (2).

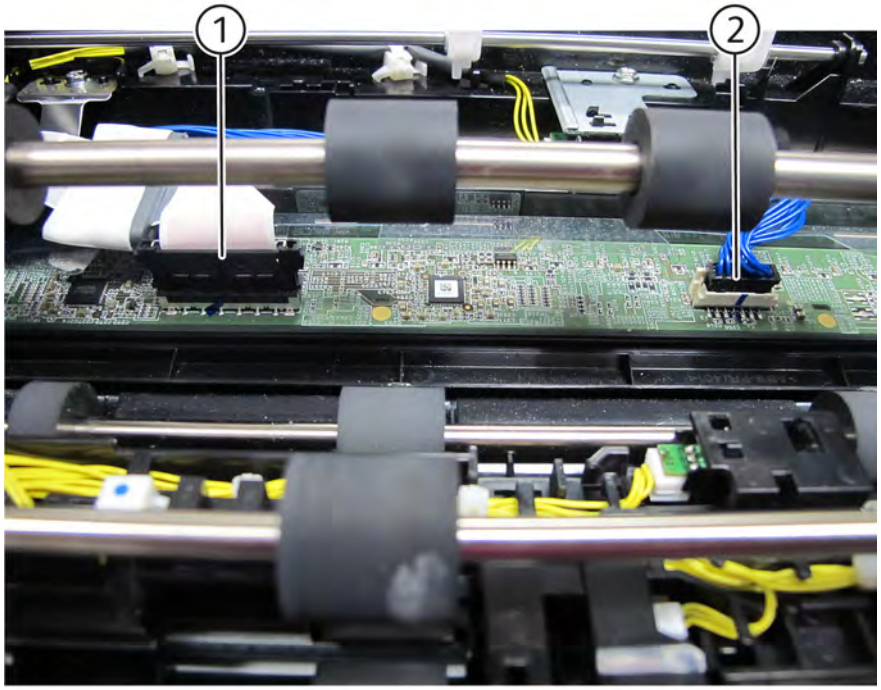
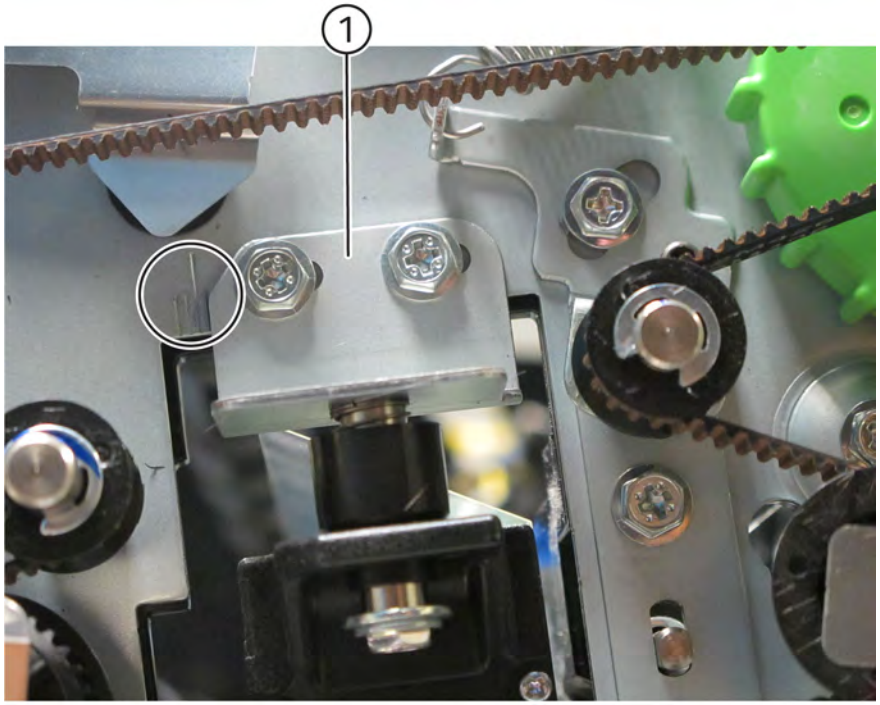


Figure 2 Disconnect connectors

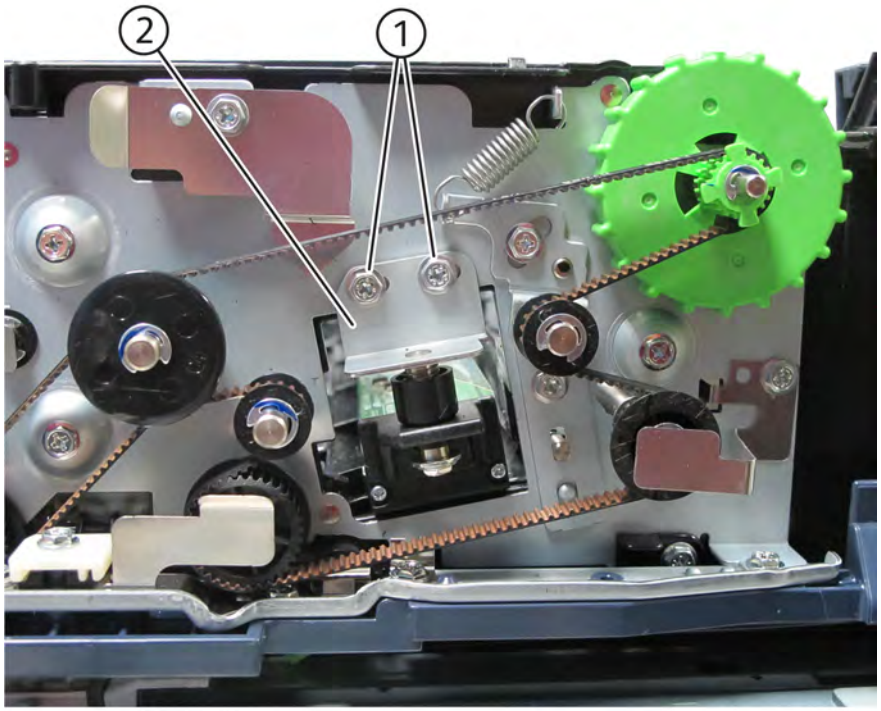
5. Make a note of the scale graduation that the CIS front mounting bracket (1) aligns to, Figure 3.



Q-1-0096-A

Figure 3 Scale graduations

6. Remove screws securing the CIS, Figure 4.
    a. Remove two screws (1) securing the CIS mounting bracket (2).



Q-1-0097-A

Figure 4 CIS hardware removal

7. Remove the CIS, Figure 5.
    a. Raise and remove the rear side of the CIS (1) in the direction of the arrow.

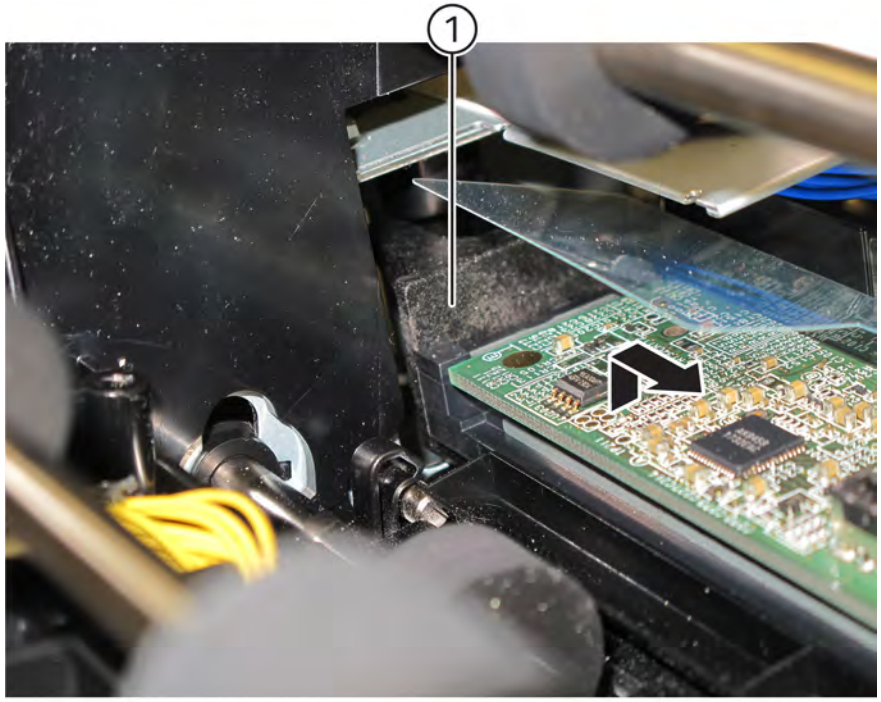


Figure 5 CIS removal

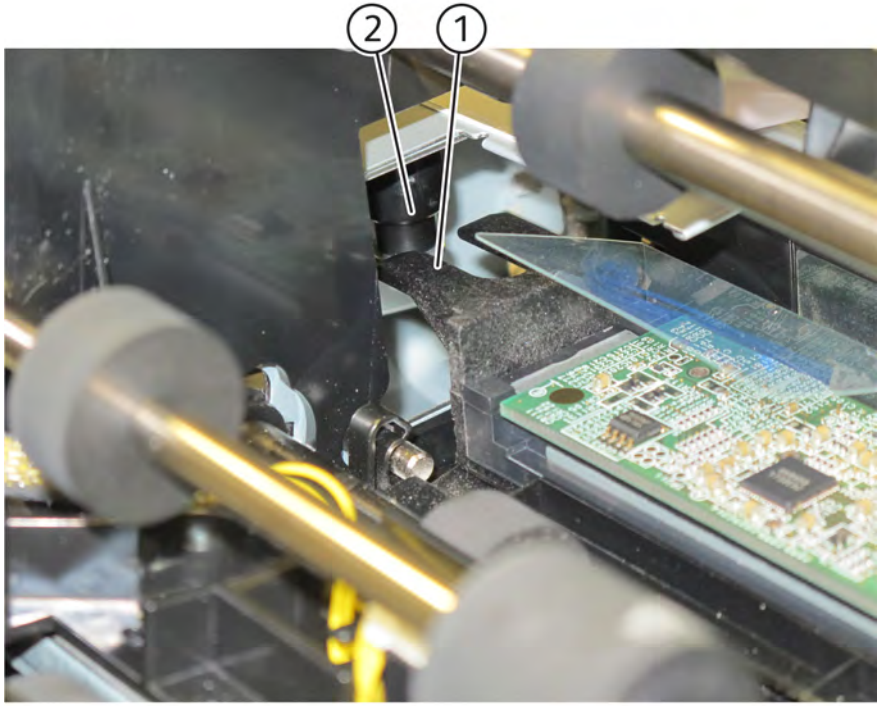


Figure 6 CIS installation

Replacement

1. The replacement is the reverse of the removal procedure.
2. Lower the rear of the CIS (1) and slide it on the stud (2), Figure 6.

REP 5.79 DADF 130 Sensor Bracket

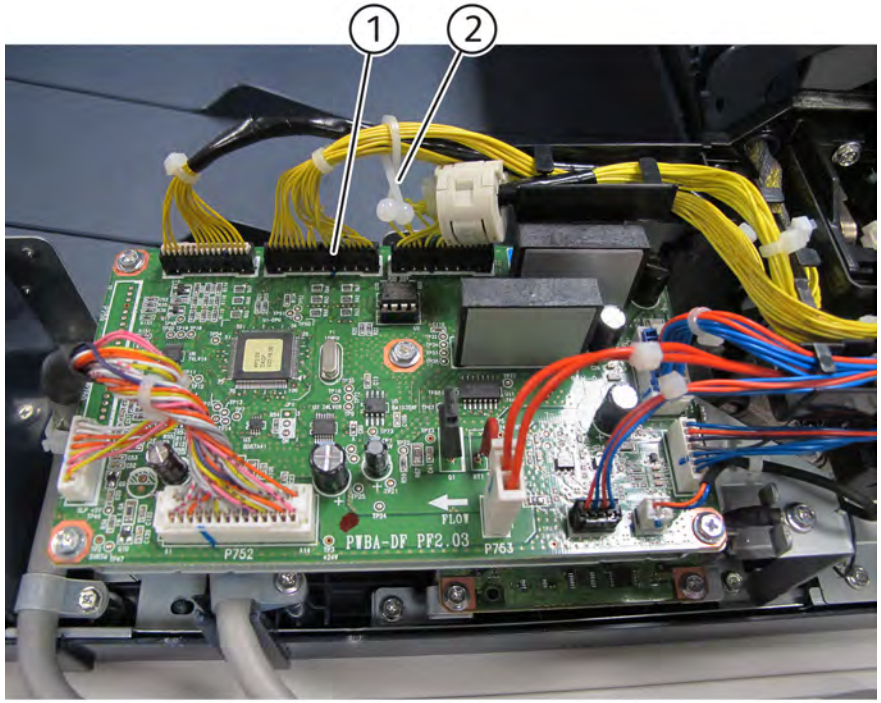
Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

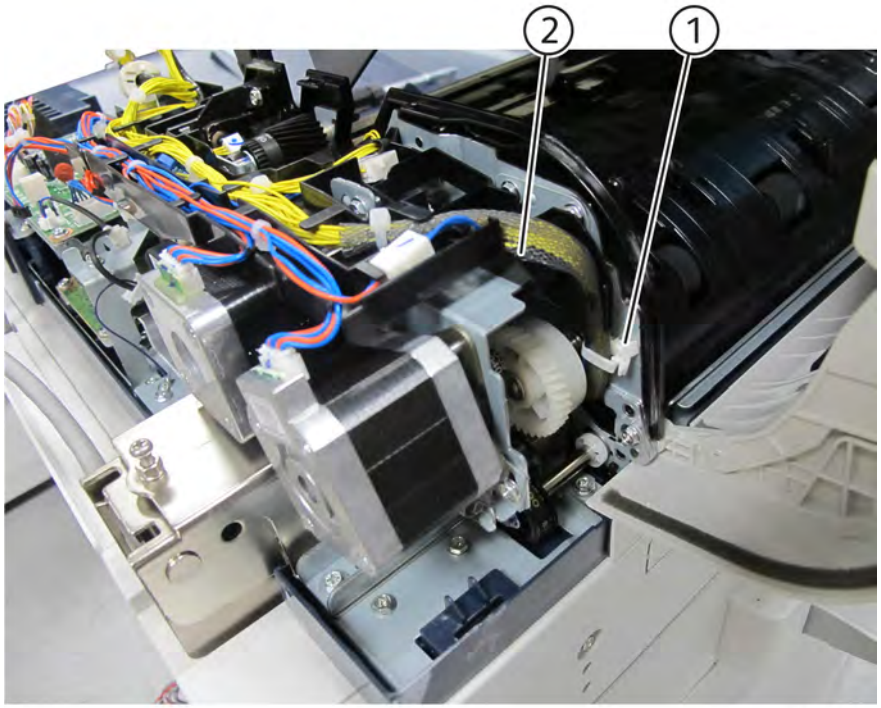
1. Remove the DADF rear cover, REP 5.63.
2. Remove the retard chute, REP 5.76.
3. Remove the wire harness from the harness guide, Figure 1.
   a. Disconnect the connector (1).
   b. Release the wire harness from the clamp (2) and remove from the harness guide.



Q-1-0100-A

Figure 1 Wire harness removal

4. Release the wire harness from the clamp, Figure 2.
   a. Remove the clamp (1) securing wire harness to the frame.
   b. Release the wire harness (2) from the clamp.



Q-1-0101-A

Figure 2 Wire harness release

5. Remove the sensor bracket, Figure 3.
   a. Remove the clamp (1) securing wire harness to the sensor bracket.
   b. Remove four screws (2).
   c. Disconnect all sensor connectors.
   d. Remove the sensor bracket (3).

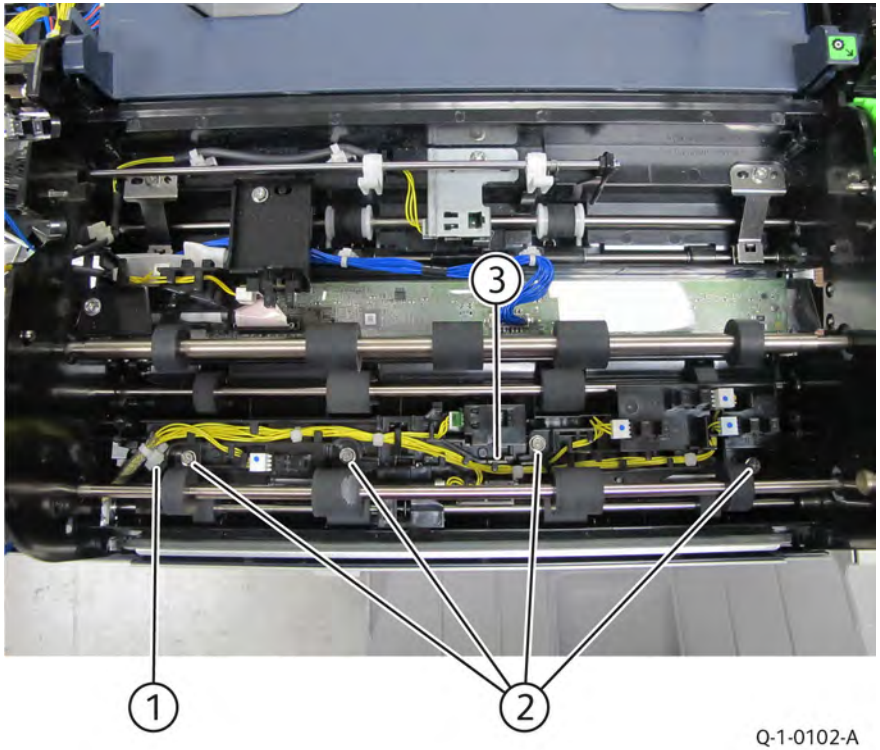


Figure 3 Sensor bracket removal

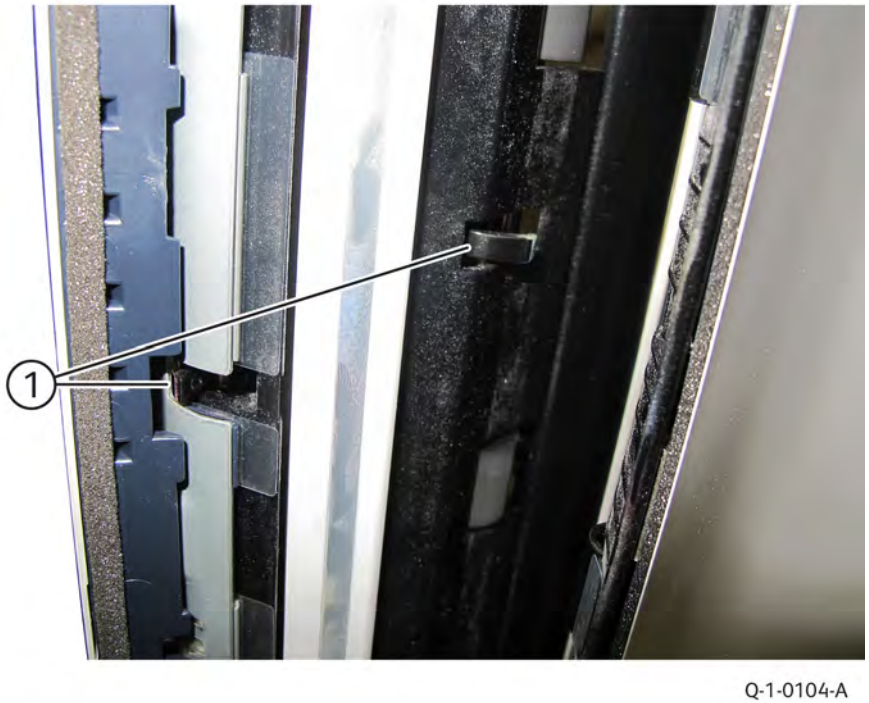


Figure 4 Sensor bracket installation

Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure that the actuators (1) are visible in the chute when installing the sensor bracket, Figure 4.

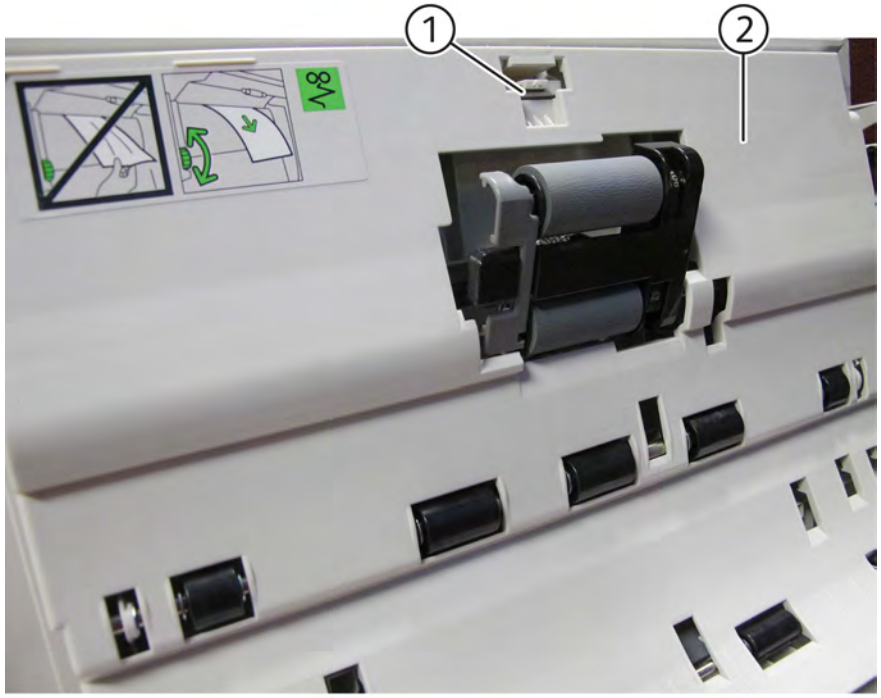
REP 5.80 DADF 130 Nudger Roll and Feed Roll

Removal

Parts List on PL 5.56

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

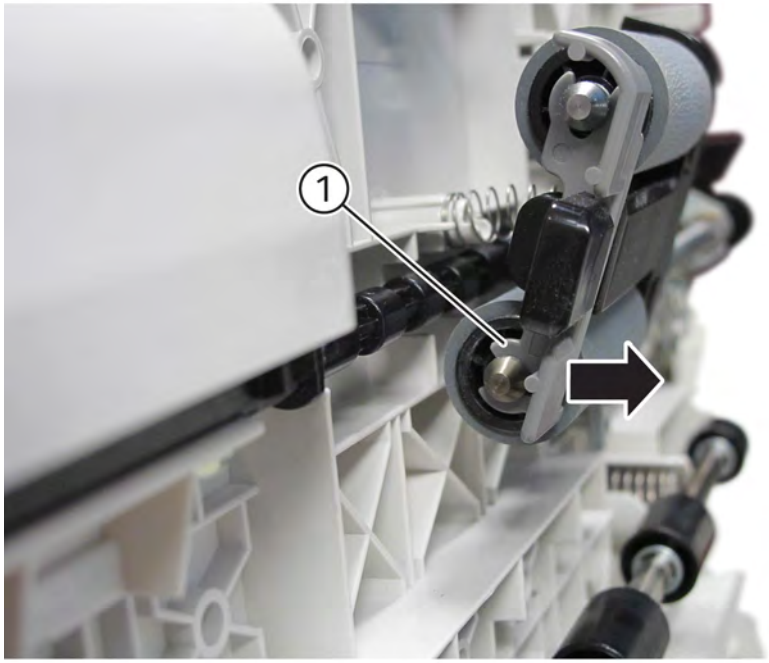
1. Open the top cover.
2. Open the feed upper chute, Figure 1.
   a. Release the latch (1) and open the feed upper chute (2).



Q-1-0105-A

Figure 1 Feed upper chute

3. Shift the housing, Figure 2.
   a. Release the catch (1) and shift the housing in the direction of the arrow.



Q-1-0106-A

Figure 2 Shift housing

4. Remove the housing, Figure 3.
   a. Remove the housing (1) in the direction of the arrow.

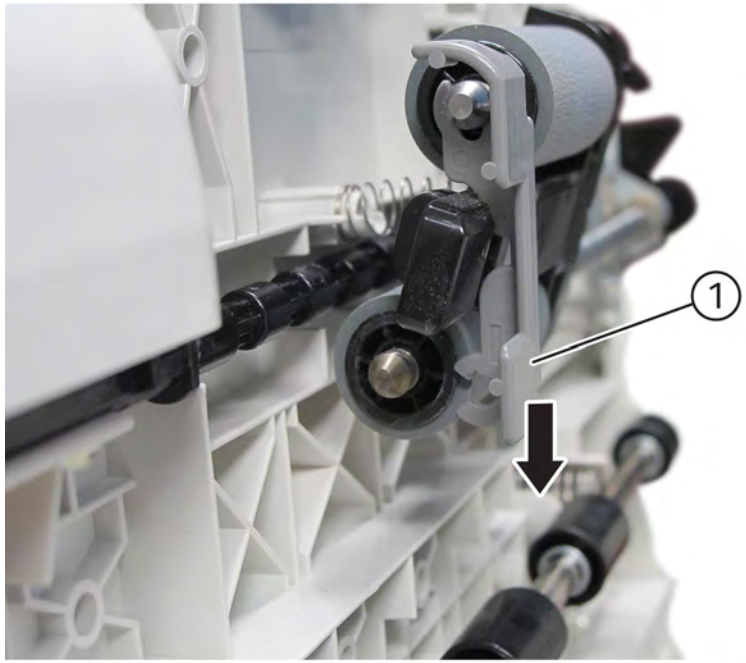


Figure 3 Roll housing removal

5. Remove the nudger roll and the feed roll, Figure 4.
   a. Remove the nudger roll (1) in the direction of arrow.
   b. Remove the feed roll (2) in the direction of arrow.

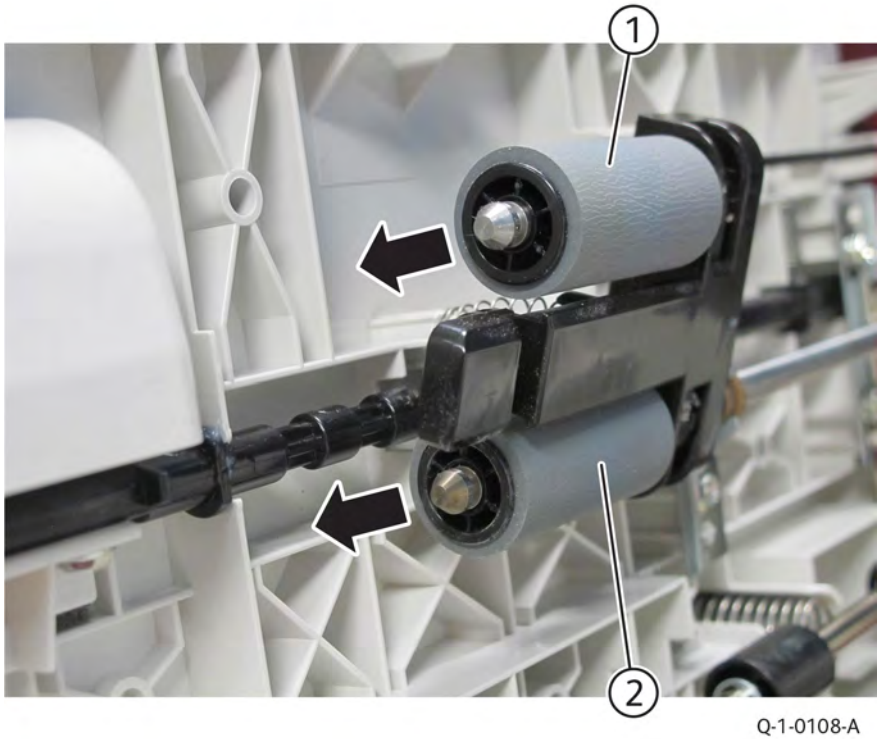


Figure 4 Nudger/Feed roll removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install the nudger/feed roll while aligning them as shown in the figure, Figure 5.

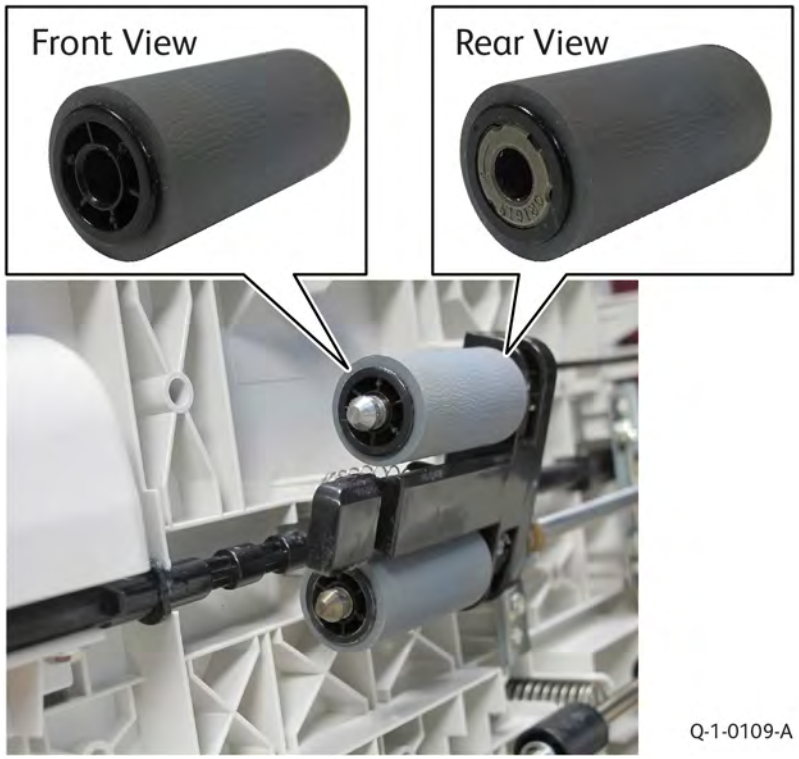


Figure 5 Nudger/Feed roll installation

3. After a replacement, enter the Diagnostic Mode, select dC135, and reset the HFSI counter.

REP 5.81 DADF 130 Retard Roll

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the top cover.
2. Remove the retard shaft from the housing, Figure 1.
   a. Open the retard roll cover (1).
   b. Remove the retard shaft (2) from the housing.

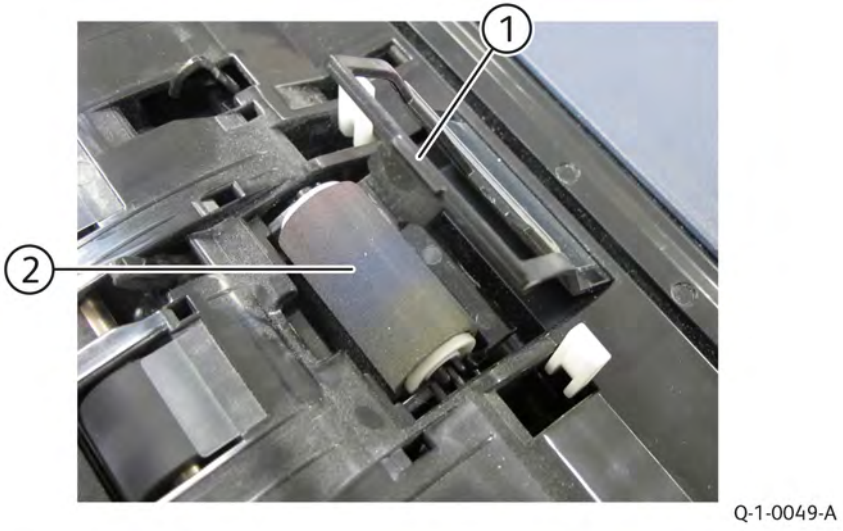
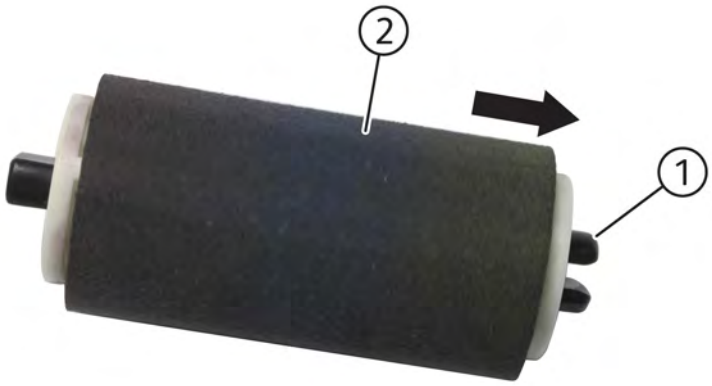


Figure 1 Retard roll shaft removal

3. Remove the retard roll, Figure 2.
   a. Squeeze the end of the retard shaft (1) and remove retard roll (2) in the direction of the arrow.



Q-1-0110-A

Figure 2 Retard roll removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. After a replacement, enter the Diagnostic Mode, select dC135, and reset the HFSI counter.

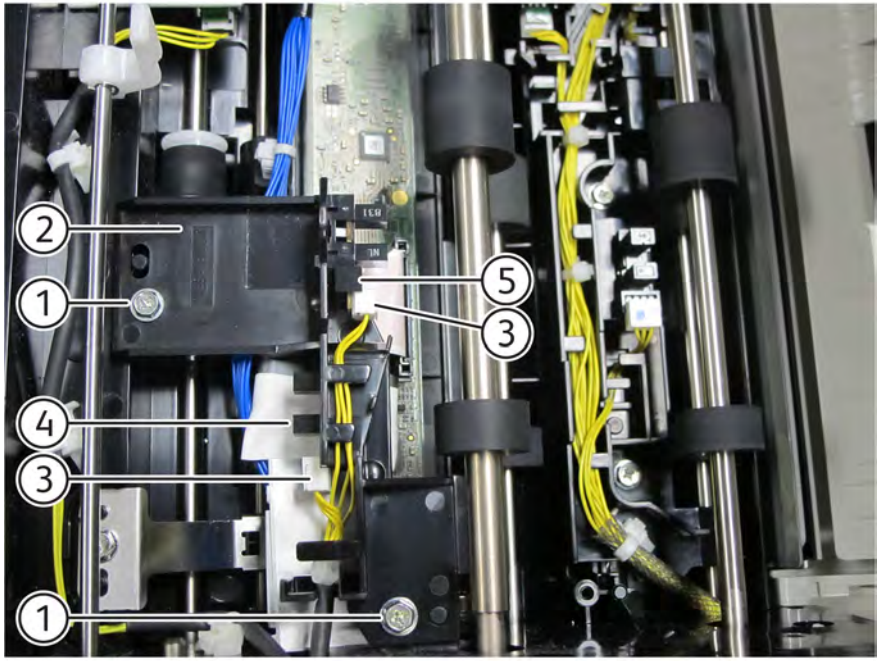
REP 5.82 DADF 130 Feed In/Feed Out Sensor

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the DADF top cover.
2. Remove the retard chute, REP 5.76.
3. Remove the DADF feed in/feed out sensor, Figure 1.
   a. Remove two screws (1).
   b. Remove the LED bracket (2).
   c. Disconnect the required sensor connector (3).
   d. Remove the DADF feed in sensor (4)/feed out sensor (5).



Q-1-0111-A

Figure 1 DADF feed in/feed out sensor removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.83 DADF 130 Exit Sensor

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the DADF top cover.
2. Remove the retard chute, REP 5.76.
3. Remove the DADF exit sensor, Figure 1.
   a. Remove one screw (1).
   b. Remove the bracket (2).
   c. Disconnect the exit sensor connector (3).
   d. Remove the DADF exit sensor (4).

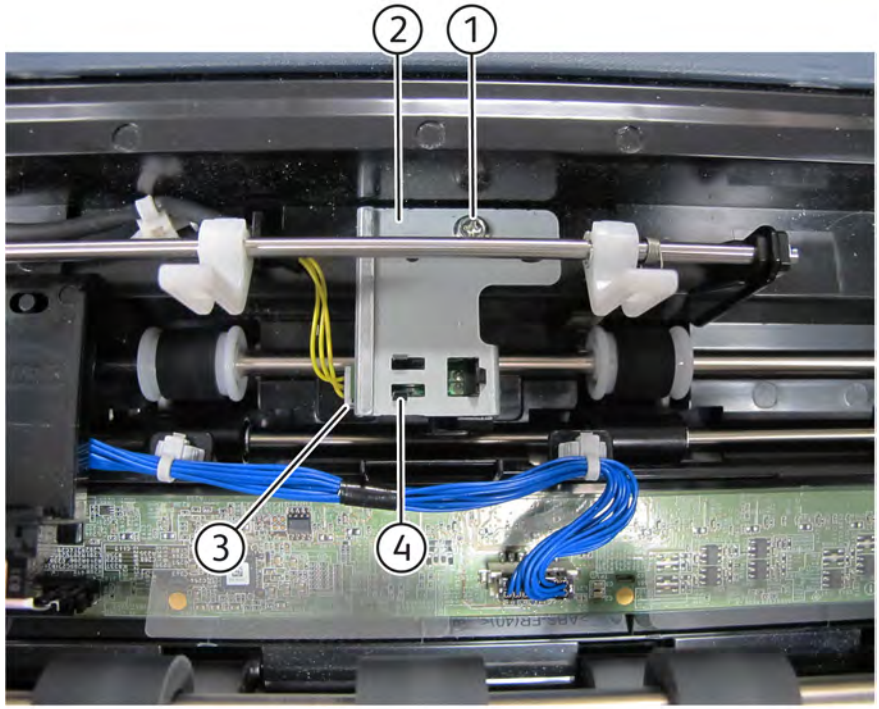


Figure 1 DADF Exit sensor removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.84 DADF 130 APS Sensor 1/APS Sensor 2/APS Sensor 3

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the DADF top cover.
2. Remove the retard chute, REP 5.76.
3. Remove the DADF APS sensor 1 / APS sensor 2 / APS sensor 3, Figure 1.
   a. Remove two screws (1).
   b. Remove the APS sensor guide (2).
   c. Disconnect the required APS sensor connector (3).
   d. Remove the DADF APS sensor 1 (5)/APS sensor 2 (6)/APS sensor 3 (4).

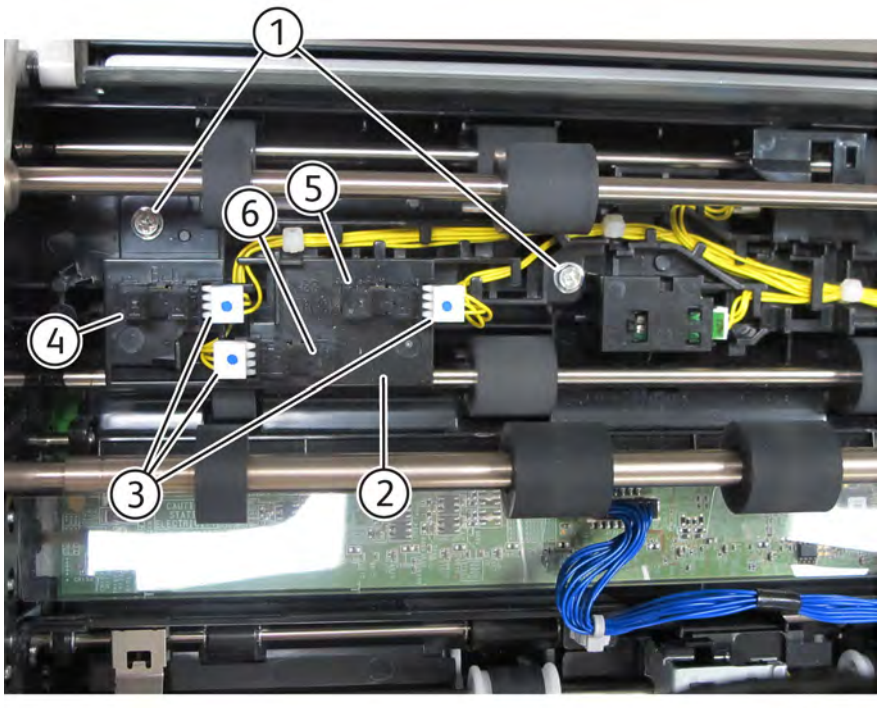


Figure 1 DADF APS sensor 1/APS sensor 2/APS sensor 3 removal

Replacement

1. The replacement is the reverse of the removal procedure.

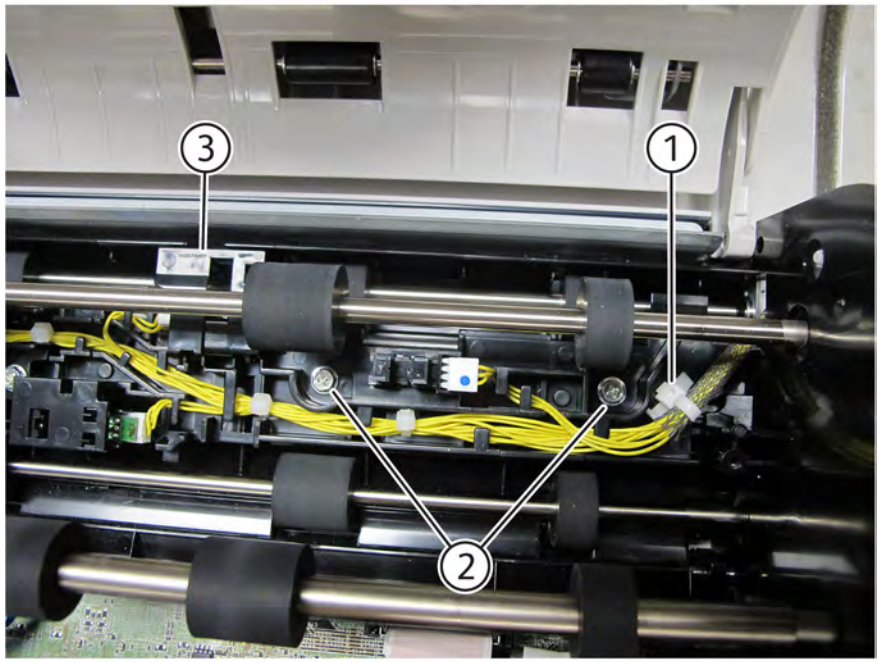
REP 5.85 DADF 130 Registration Sensor/Out Sensor/Pre-Registration Sensor

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

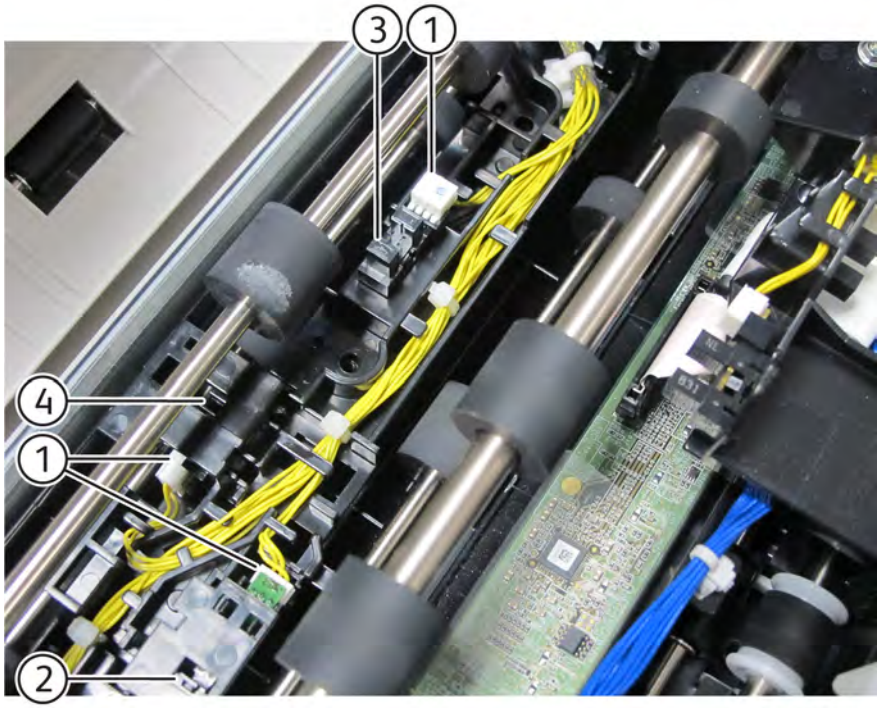
1. Open the DADF top cover.
2. Remove the retard chute, REP 5.76.
3. Remove the DADF sensor guide, Figure 1.
   a. Remove the clamp (1) securing wire harness to the sensor guide.
   b. Remove two screws (2).
   c. Remove the DADF sensor guide (3).



Q-1-0114-A

Figure 1 DADF sensor guide removal

4. Remove the DADF registration sensor/out sensor/pre-registration sensor, Figure 2.
   a. Disconnect the required sensor connector (1).
   b. Remove the DADF pre registration sensor (3)/out sensor (2)/registration sensor (4).



Q-1-0115-A

Figure 2 DADF pre registration sensor/out sensor/registration sensor removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Ensure that the actuators (1) are visible in the chute when installing the DADF sensor guide, Figure 3.

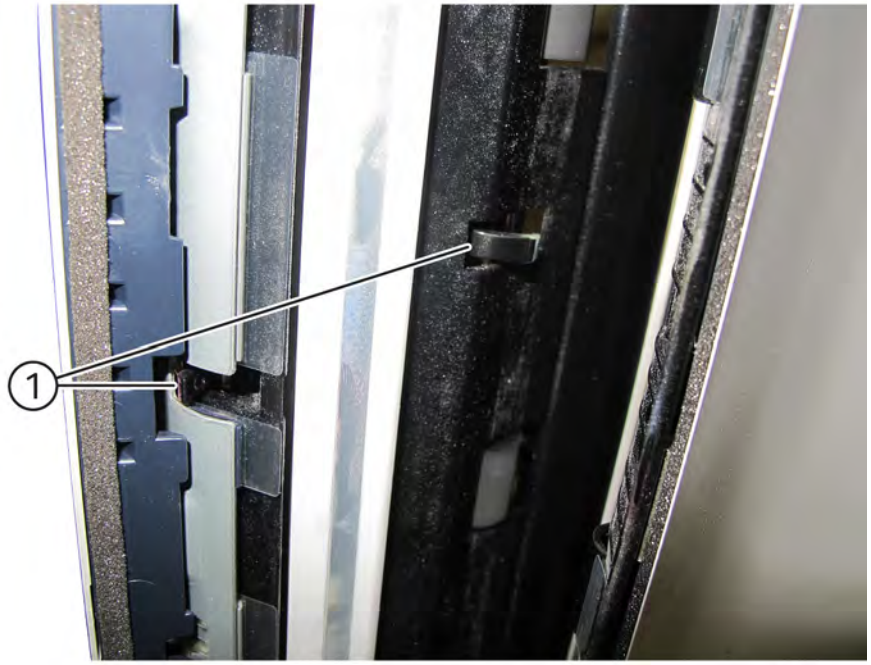


Figure 3 Sensor guide installation

REP 5.86 DADF 130 Document Set Sensor

Removal

Parts List on PL 5.54

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Open the DADF rear cover, REP 5.63.
2. Remove DADF document set sensor, Figure 1.
   a. Disconnect the document set sensor connector (1).
   b. Remove the screw (2) securing the interlock bracket to frame.
   c. Remove the interlock bracket (3).
   d. Remove the DADF document set sensor (4).

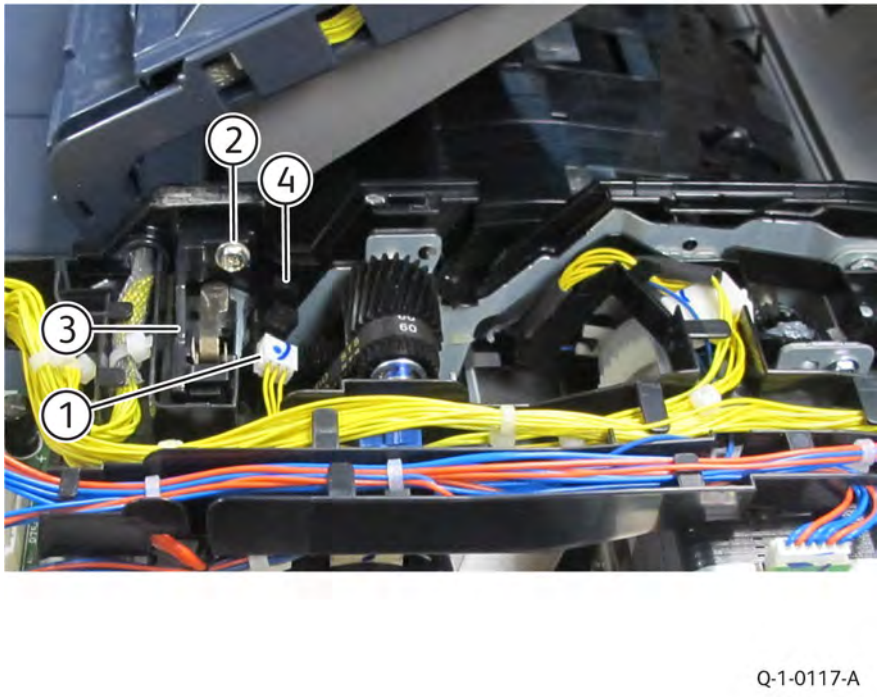


Figure 1 DADF document set sensor removal

Replacement

1. The replacement is the reverse of the removal procedure.

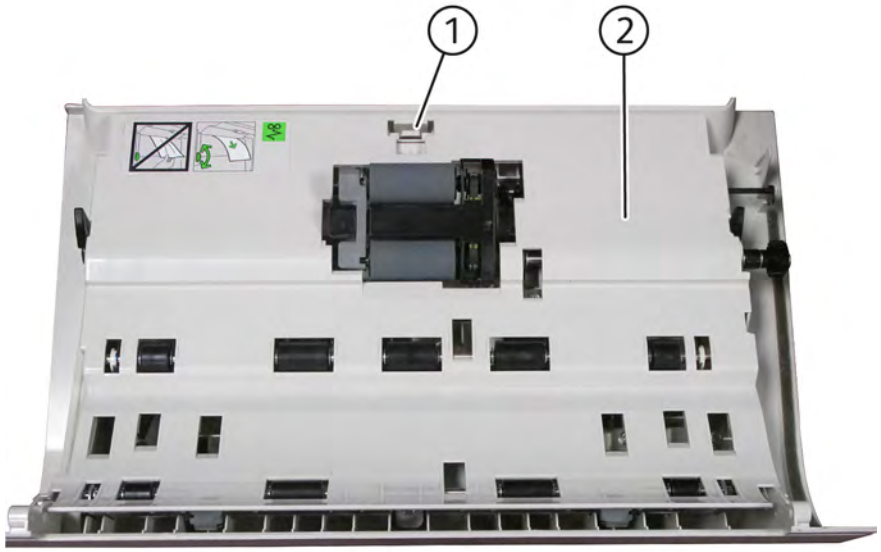
REP 5.87 DADF 130 Document Set Actuator

Removal

Parts List on PL 5.55

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

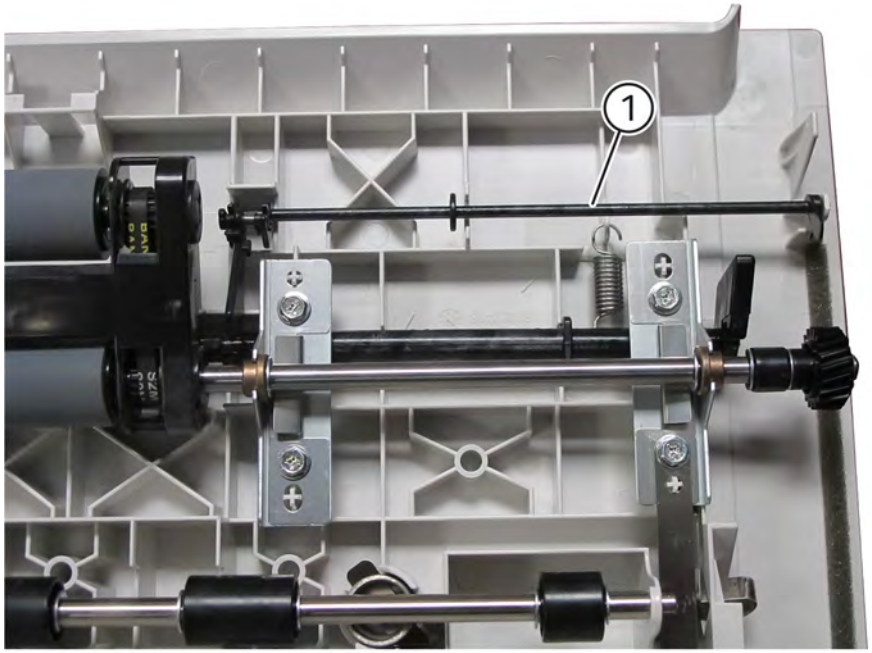
1. Remove the DADF top cover, REP 5.70.
2. Open the feed upper chute, Figure 1.
   a. Release the latch (1).
   b. Open the feed upper chute (2).



Q-1-0119-A

Figure 1 Feed upper chute

3. Remove DADF document set actuator (1), Figure 2.



Q-1-0120-A

Figure 2 Document set actuator removal

Replacement

1. The replacement is the reverse of the removal procedure.

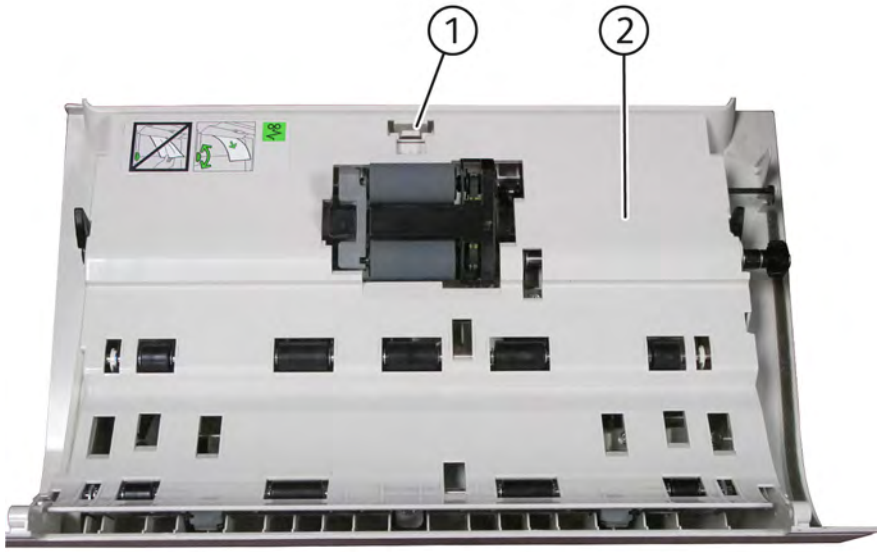
REP 5.88 DADF 130 Feed/Nudger Roll Assembly

Removal

Parts List on PL 5.55

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

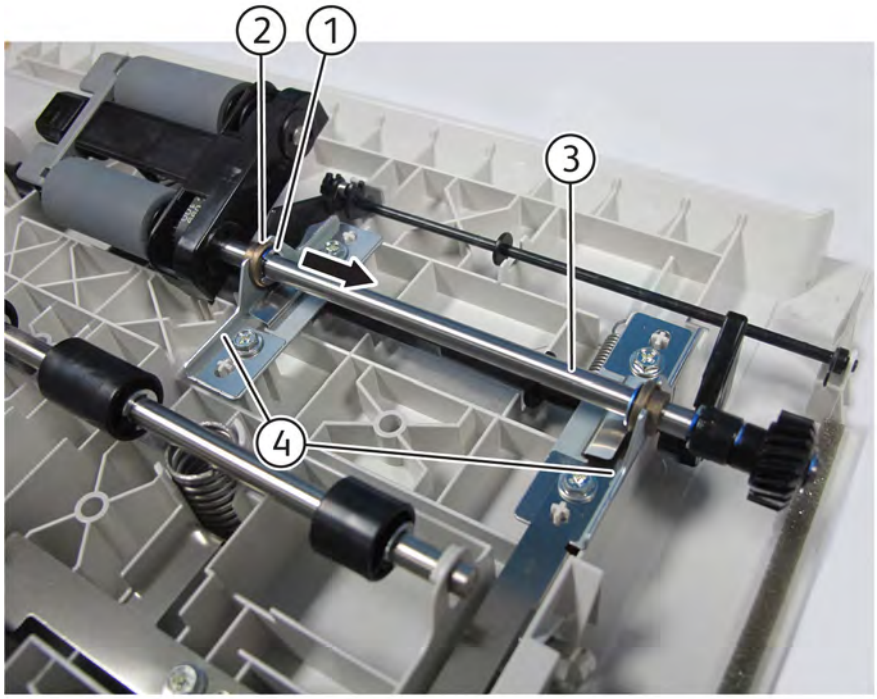
1. Remove the DADF top cover, REP 5.70.
2. Open the feed upper chute, Figure 1.
   a. Release the latch (1).
   b. Open the feed upper chute (2).



Q-1-0118-A

Figure 1 Feed upper chute

3. Remove the feed/nudger roll assembly, Figure 2.
   a. Remove the E-clip (1).
   b. Move the bearing (2) in the direction of arrow.
   c. Remove the feed/nudger roll assembly (3) from the brackets (4).



Q-1-0121-A

Figure 2 Feed/Nudger roll assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.89 DADF 130 Tray APS Sensor 1/APS Sensor 2/APS Sensor 3

Removal

Parts List on PL 5.57

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Turn the document tray upside down, Figure 1.
   a. Open the top cover (1).
   b. Turn the document tray (2) upside down.

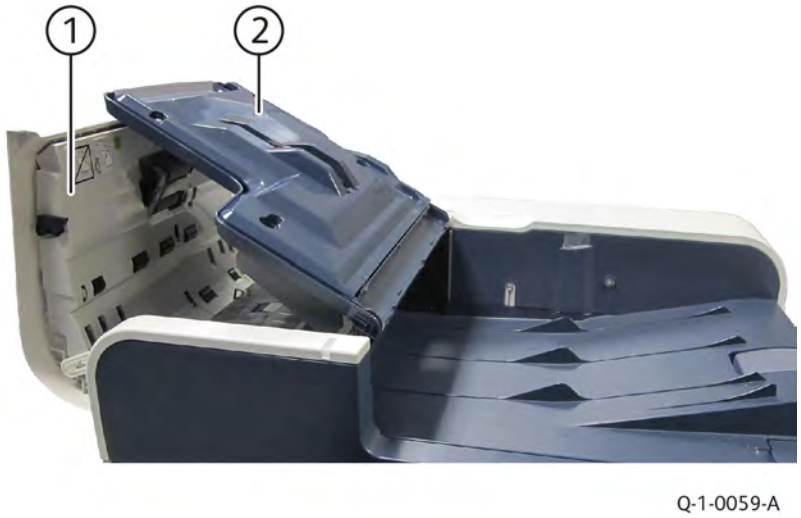


Figure 1 Turn document tray

2. Remove the tray cover, Figure 2.
   a. Remove five screws (1).
   b. Remove the tray cover (2).

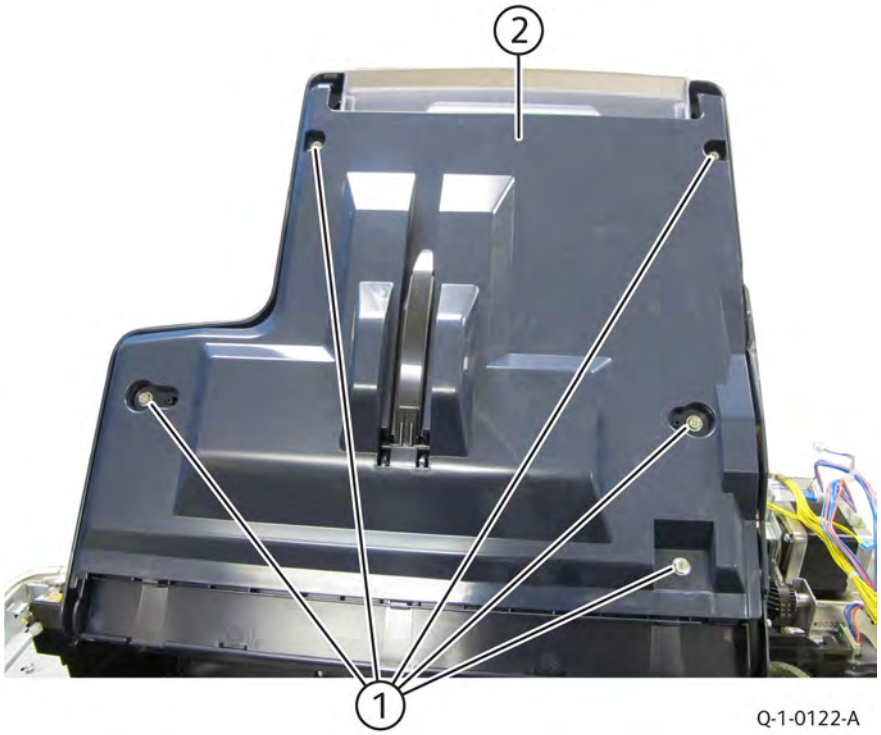


Figure 2 Tray cover removal

3. Remove the DADF tray APS sensor 1/APS sensor 2/APS sensor 3, Figure 3.
   a. Remove three screws (1).
   b. Remove the DADF tray APS sensor bracket (2).
   c. Disconnect the required tray APS sensor connector (3).
   d. Remove the DADF tray APS sensor 1 (4)/APS sensor 2 (5)/APS sensor 3 (6).

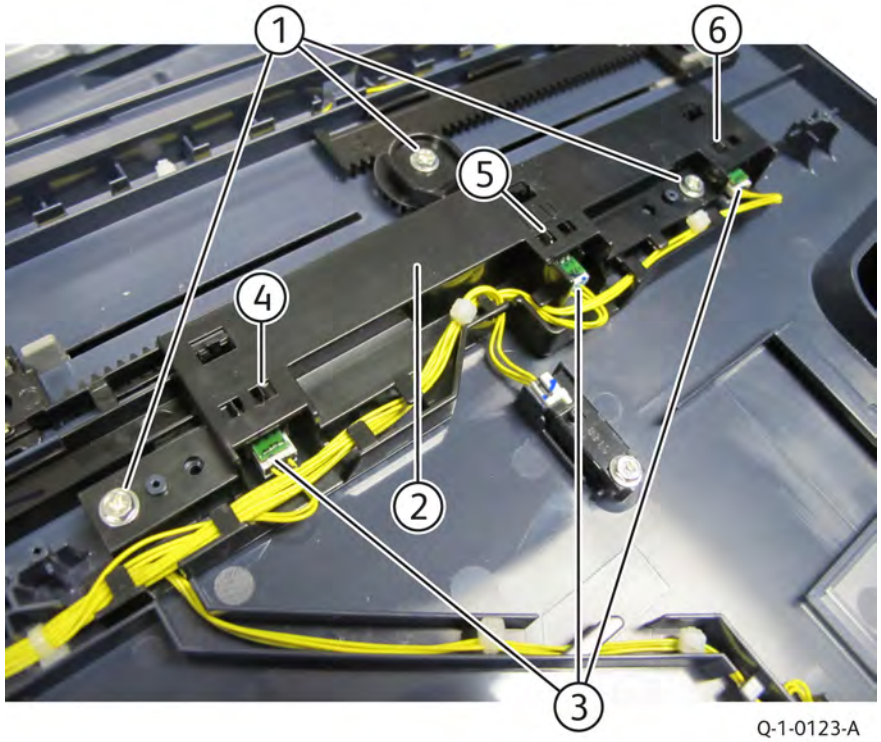


Figure 3 DADF tray APS sensor 1/APS sensor 2/APS sensor 3 removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 5.90 DADF 130 Document Tray Size Sensor 1 and 2

Removal

Parts List on PL 5.57

WARNING: Switch off the electricity to the machine, GP 4 . Disconnect the power lead from the customer supply while performing tasks that do not need electricity. Electricity can cause the death or injury. Moving components can cause the injury.

1. Turn the document tray upside down, Figure 1.
   a. Open the top cover (1).
   b. Turn the document tray (2) upside down.

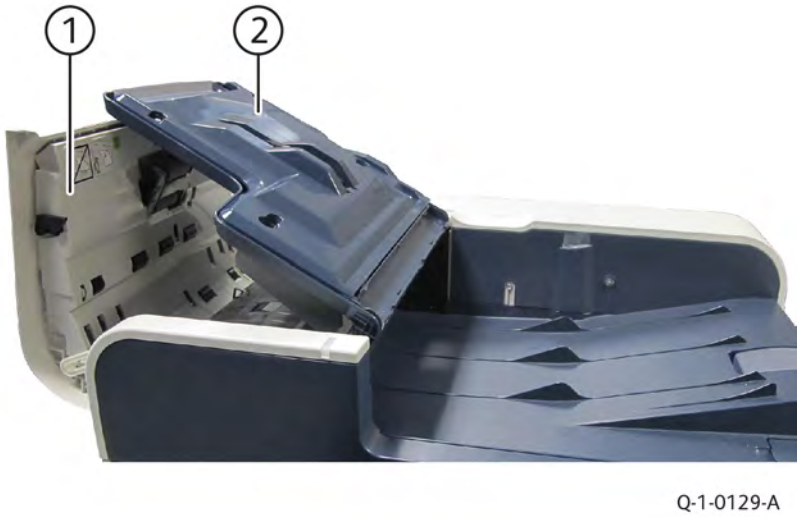


Figure 1 Turn document tray

2. Remove the tray cover, Figure 2.
   a. Remove five screws (1).
   b. Remove the tray cover (2).

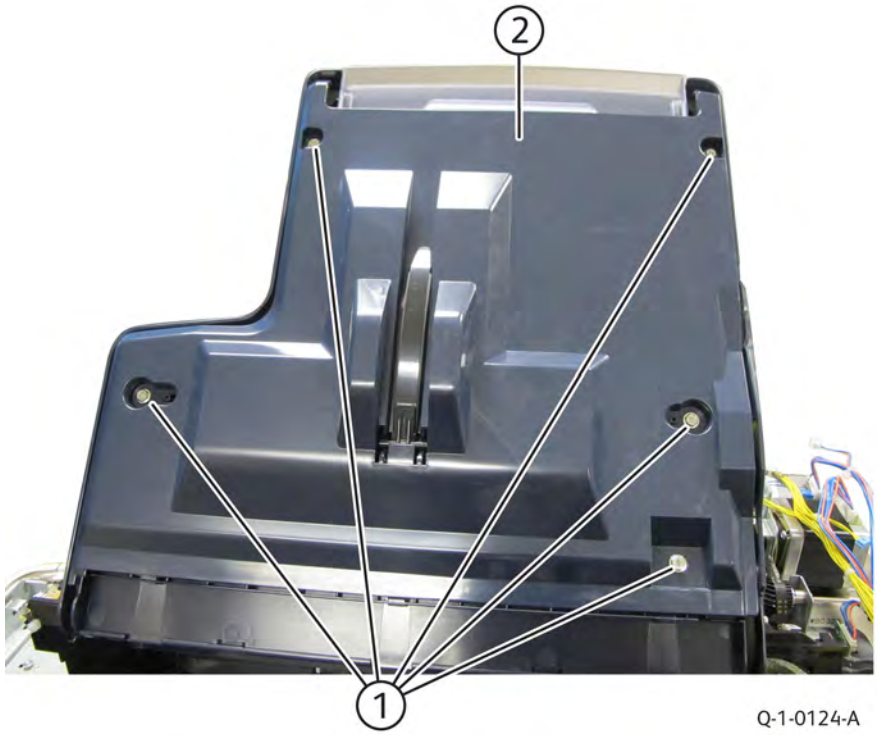


Figure 2 Tray cover removal

3. Remove the end tray (1), Figure 3.

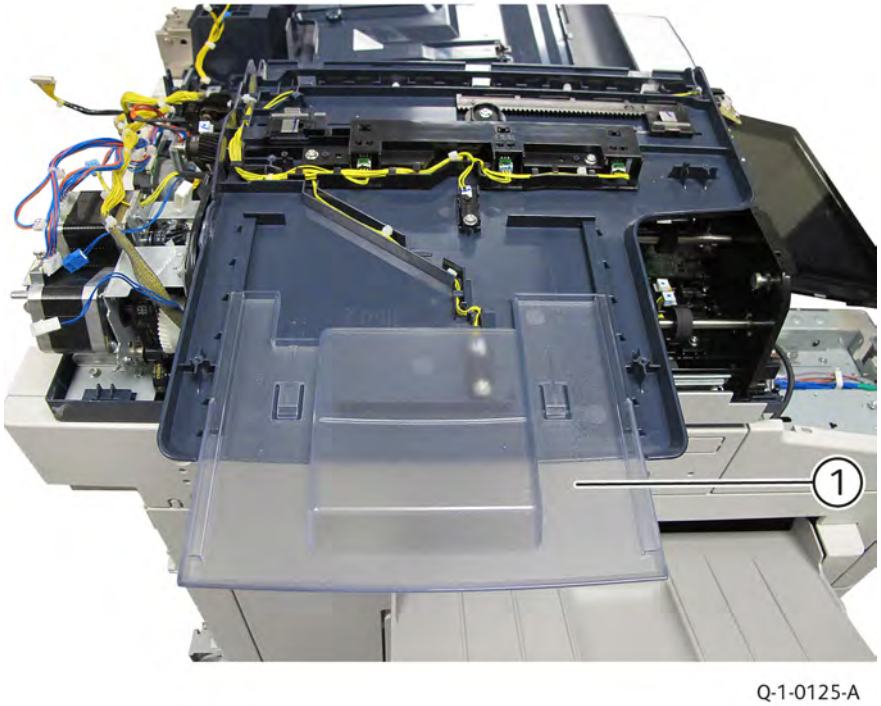
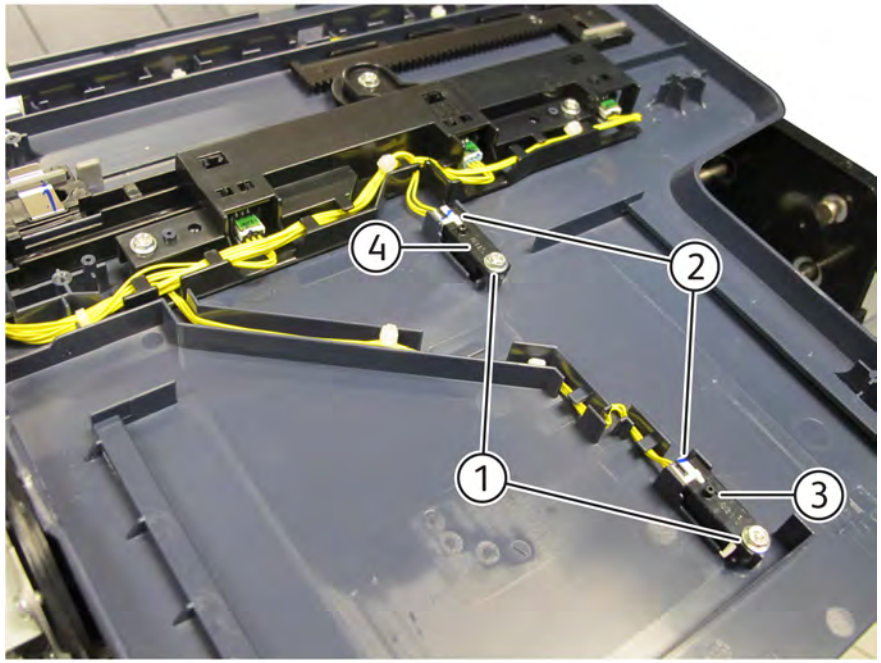


Figure 3 End tray removal

4. Remove the document tray size sensor 1/document tray size sensor 2, Figure 4.
   a. Remove the required screw (1).
   b. Disconnect the required sensor connector (2).
   c. Remove the document tray size sensor 1 (3)/document tray sizesensor 2 (4).



Q-1-0126-A

Figure 4 Document tray size sensor1/sensor 2 removal

Replacement

1. The replacement is the reverse of the removal procedure.

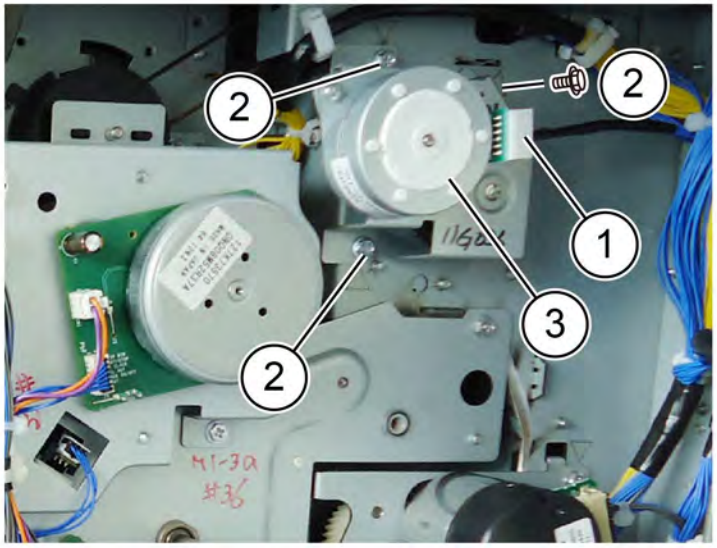
REP 10.1 Retract Motor Assembly

Parts List on PL10.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the video contact chassis, GP 32.
2. Remove the retract motor assembly, PL10.05 Figure 1 :
   a. Disconnect the connector (1).
   b. Remove three screws (2).
   c. Remove the retract motor assembly (3).



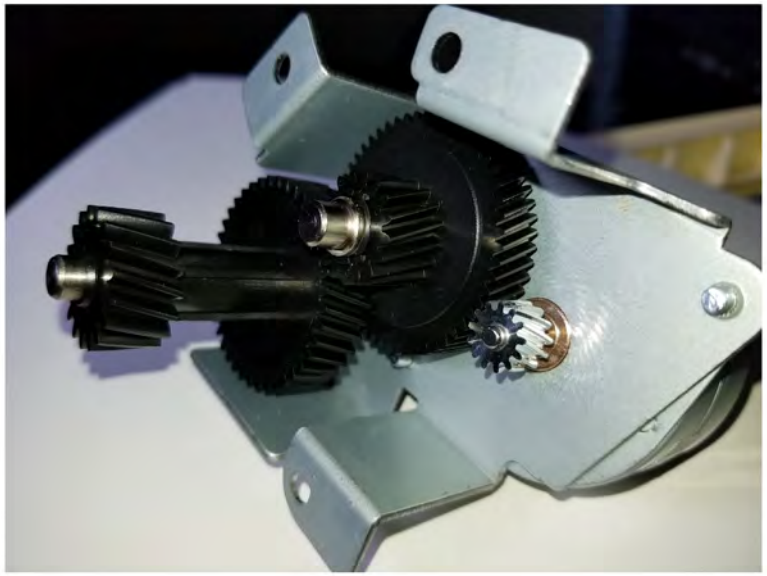
F-1-0165-A

Figure 1 Retract motor assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

CAUTION: When replacing the retract motor assembly verify the gears are replaced on the shaft in the correct manner, Figure 2.



F-1-0409-A

Figure 2 Proper gear alignment

REP 10.2 Fuser

Parts List on PL10.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Open the left cover assembly. PL 80.70
2. Remove the fuser, PL10.05, Figure 1 :
   a. Lift the lock (1) at the rear of the fuser up and slide left to unlock the fuser.
   b. Push two locks (2) to the inside to release the fuser.
   c. Remove the fuser (3).

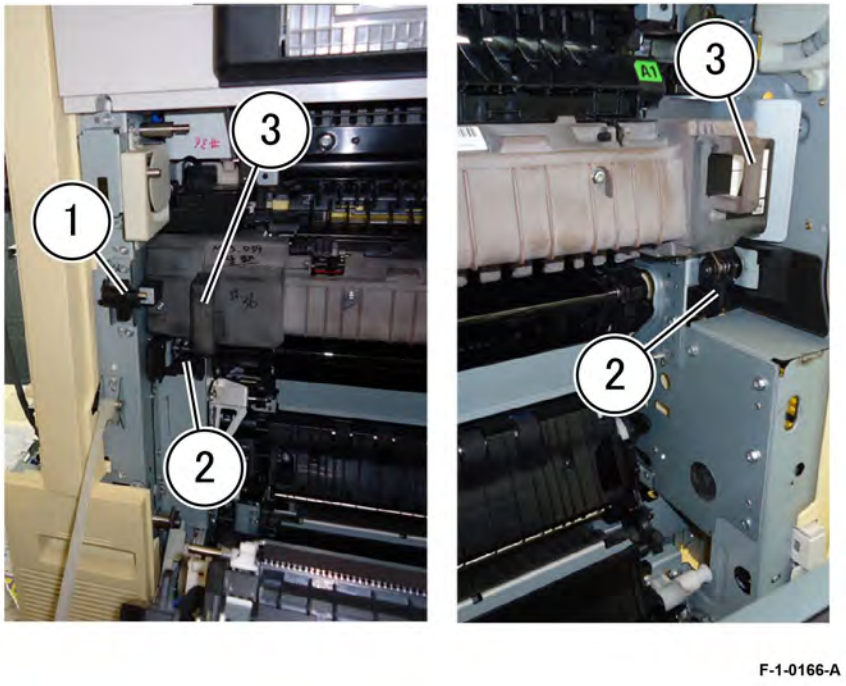


Figure 1 Fuser removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 10.3 Fuser Heater Coil

Parts List on PL10.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Remove the fuser. Refer to REP 10.2
2. Remove the motion sensor cover. PL 28.15
3. Remove the front exit cover. PL 28.15
4. Remove the upper right front cover. PL 28.10
5. Remove top cover. PL 28.15
6. Remove Exit 2 tray. PL 28.15
7. Remove top rear cover, PL 28.15 item 10.
8. Disconnect the fuser heater coil wiring, Figure 1 :
   a. Disconnect the connector (1).
   b. Remove the screw on the ground wire (2).
   c. Remove the harness from the guide (3).

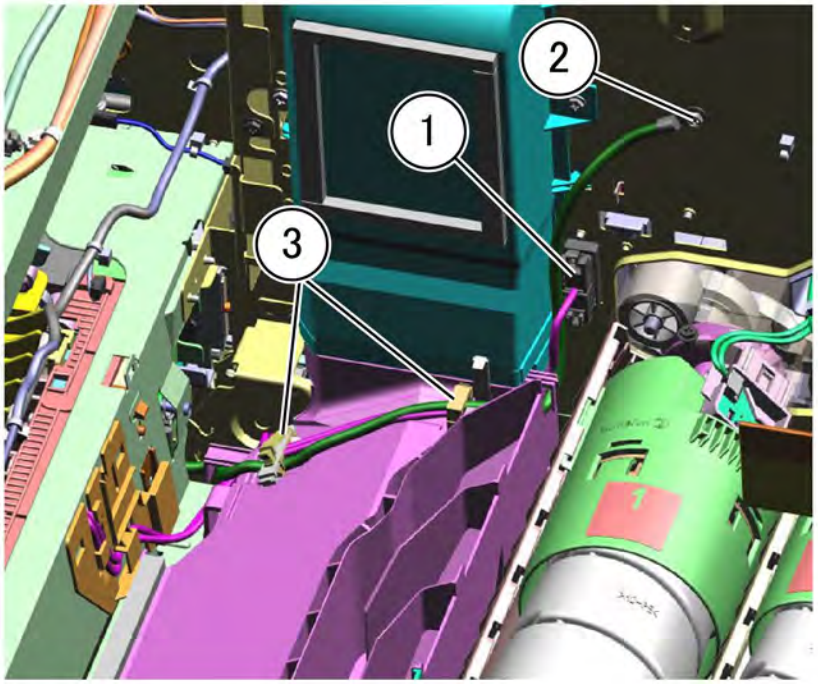


Figure 1 Disconnect wiring

9. Remove the fuser heater coil, PL10.05 Refer to Figure 2

   a. Remove two screws (1).

   b. Release four hooks (2).

   c. Remove the fuser heater coil (3).

      Note: While removing the fuser heater coil, carefully thread the fuser heater coil harness through the frame to not damage the harness insulation.

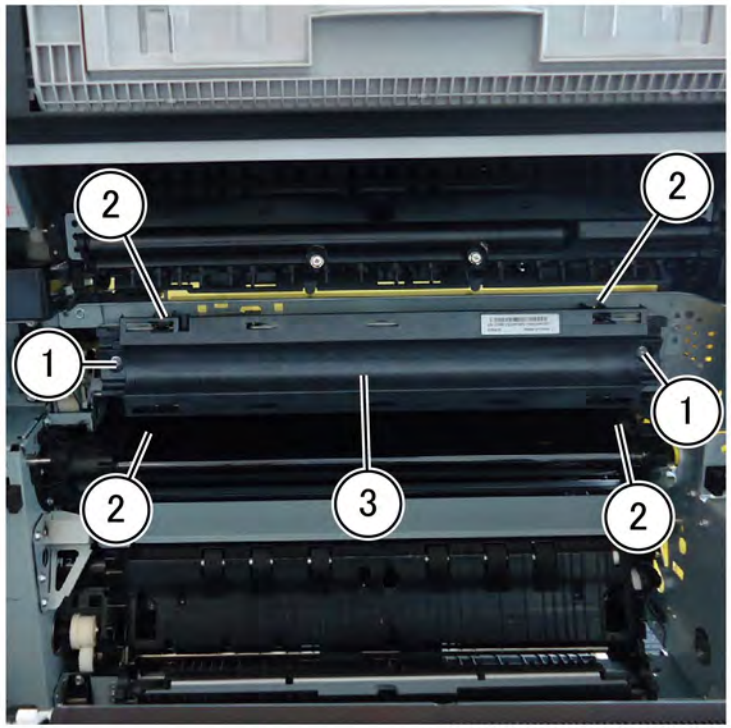


Figure 2 Coil assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

REP 10.4 Exit 1 Transport Assembly

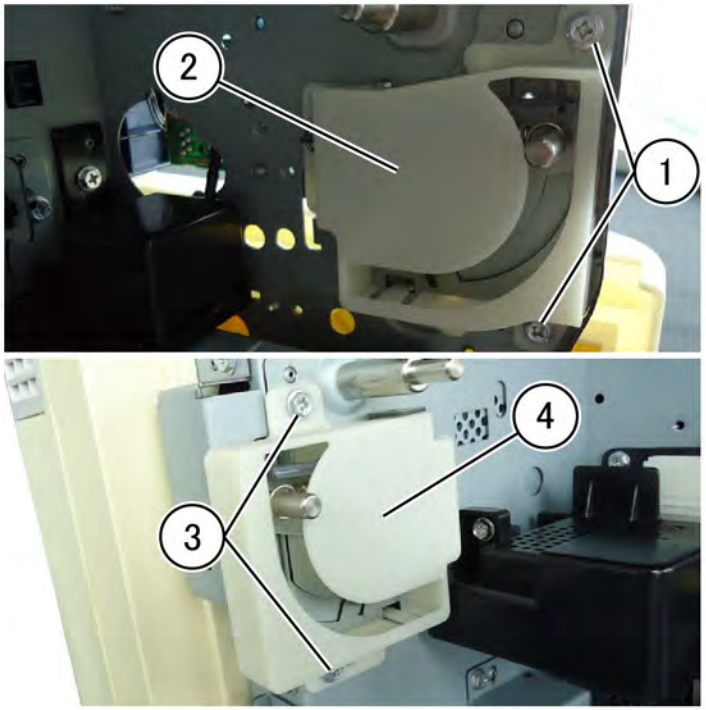
Parts List on PL10.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the fuser while it is hot.

1. Remove the controller cover assembly, PL 3.10
2. Remove the upper rearcover, PL 28.10
3. Remove the exit 2 transport assembly, REP 10.8
4. Remove the front lever assembly and rear lever assembly. Refer to Figure 1.
   a. Remove two screws (1).
   b. Remove the front lever assembly (2), PL 80.65
   c. Remove two screws (3).
   d. Remove the rear lever assembly (4), PL 80.65



F-1-0170-A

Figure 1 Rear toggle lever assembly removal

5. Remove the motor cover and remove the harness. Refer to Figure 2.
   a. Remove the screw (1).
   b. Remove the motor cover (2).
   c. Disconnect two connectors (3).
   d. Remove the harness from exit 1 transport. assembly (4).

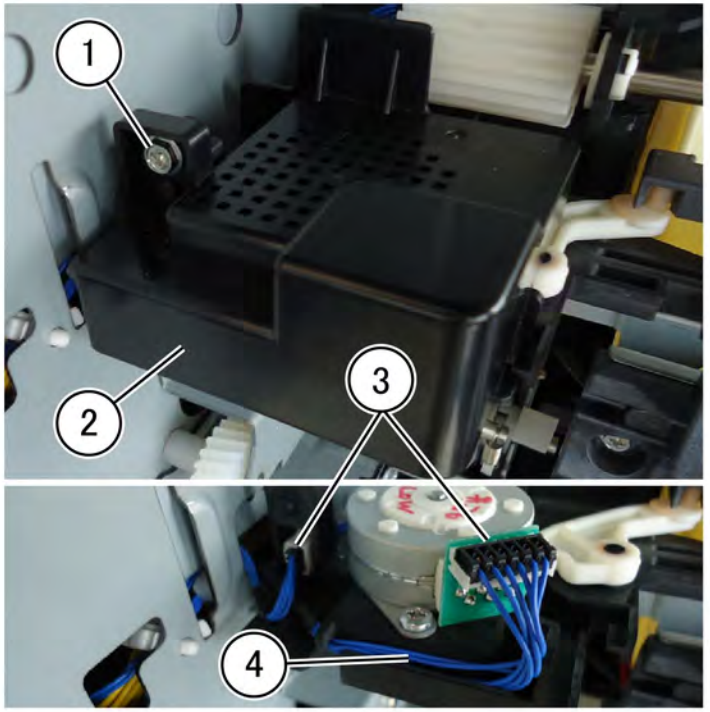


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Figure 2 Harness removal

6. Remove the bracket and front guide. Refer to Figure 3.
   a. Remove the sensor cover (1).
   b. Disconnect the connector (2).
   c. Remove two screws (3).
   d. Remove the bracket (4).
   e. Remove the front guide (5).

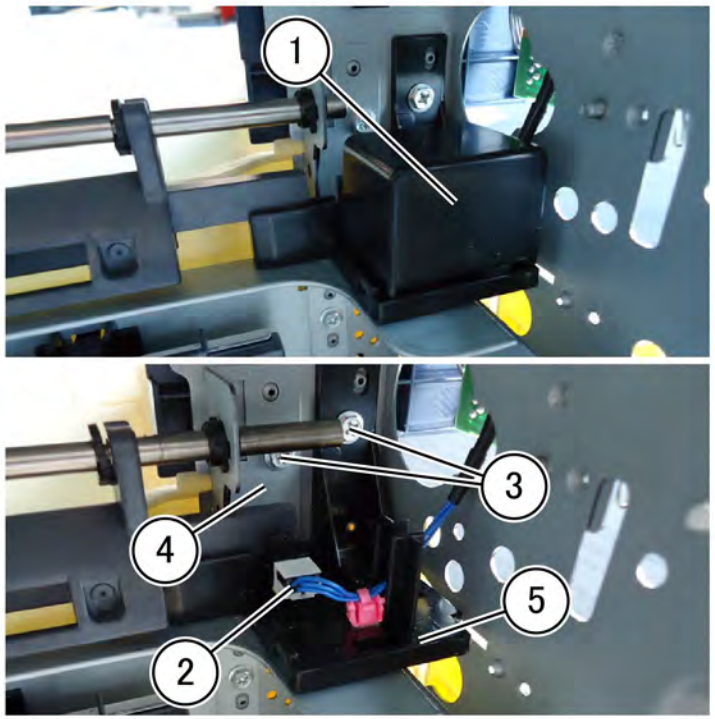


Figure 3 Front guide removal

7. Remove the exit 1 transport assembly. Refer to Figure 4.
   a. Remove the belt (1).
   b. Remove two screws (2).
   c. Remove the exit 1 transport assembly (3).

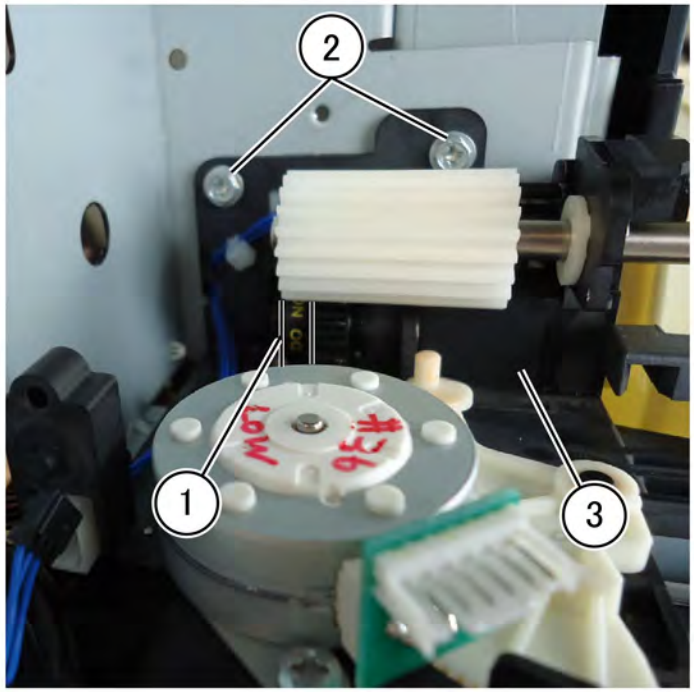


Figure 4 Exit 1 transport assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

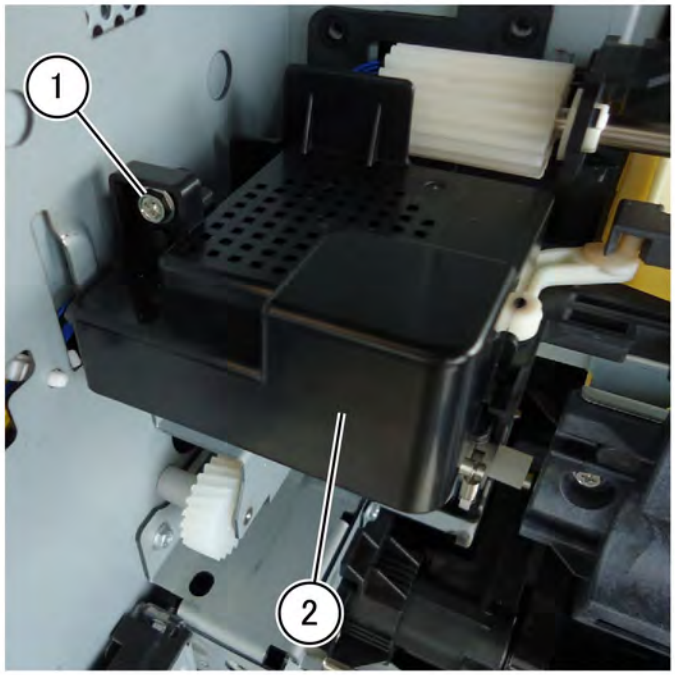
REP 10.5 Exit 1 OCT Motor

Parts List on PL10.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

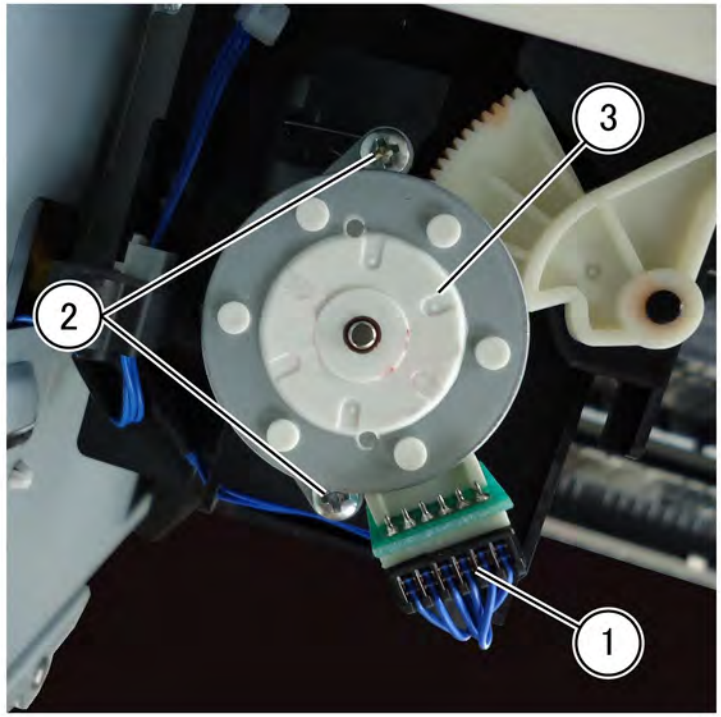
1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the motor cover. PL10.10 Refer to Figure 1
   a. Remove the screw (1).
   b. Remove the motor cover (2).



F-1-0175-A

Figure 1 Motor cover removal

3. Remove the exit 1 oct motor. PL10.10 Refer to Figure 2
   a. Disconnect the connector (1).
   b. Remove two screws (2).
   c. Remove the exit 1 OCT motor (3).



F-1-0176-A

Figure 2 Exit 1 OTC removal

Replacement

1. The replacement is the reverse of the removal procedure.

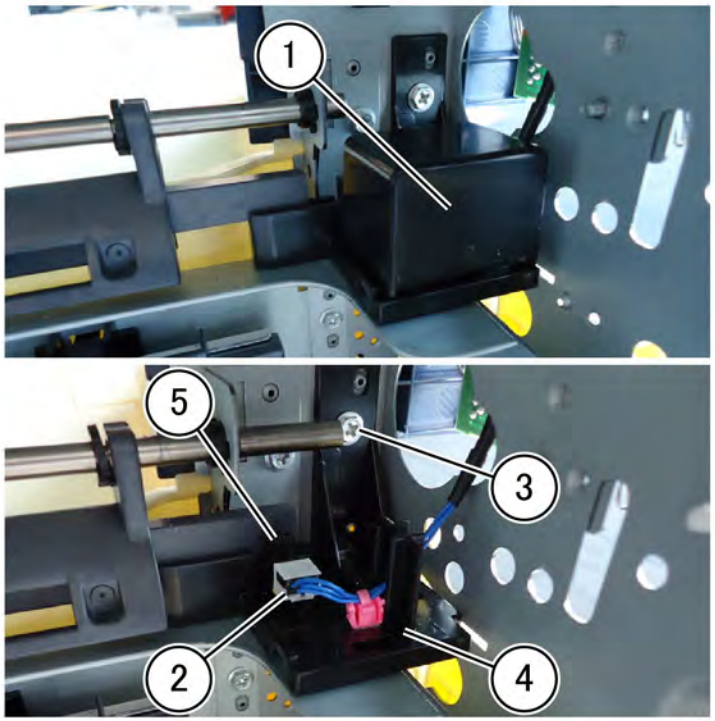
REP 10.6 Exit 1 OCT Home Position Sensor

Parts List on PL10.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the exit 1 OCT home position sensor, Figure 1 :
   a. Remove the sensor cover (1).
   b. Disconnect the connector (2).
   c. Remove the screw (3).
   d. Remove the front guide (4).
   e. Remove the exit 1 OCT home position sensor (5).



F-1-0178-A

Figure 1 Exit 1 OCT home position sensor removal

Replacement

1. The replacement is the reverse of the removal procedure.

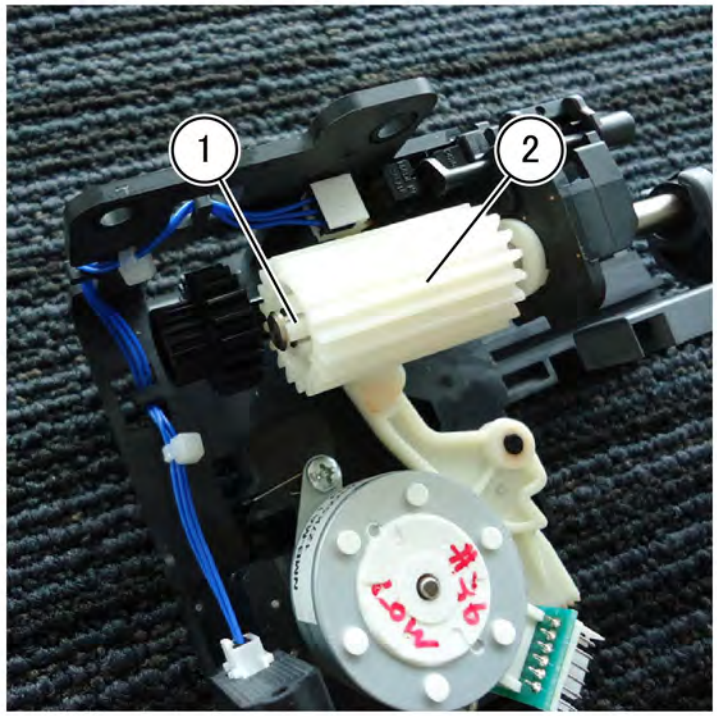
REP 10.7 Exit 1 Drive Gear

Parts List on PL10.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the exit 1 transport assembly. Refer to REP 10.4
3. Remove the exit 1 drive gear, PL10.10 Refer to Figure 1
   a. Release the latch (1).
   b. Remove exit 1 drive gear, PL10.10



F-1-0179-A

Figure 1 Exit 1 drive gear removal

Replacement

1. The replacement is the reverse of the removal procedure.

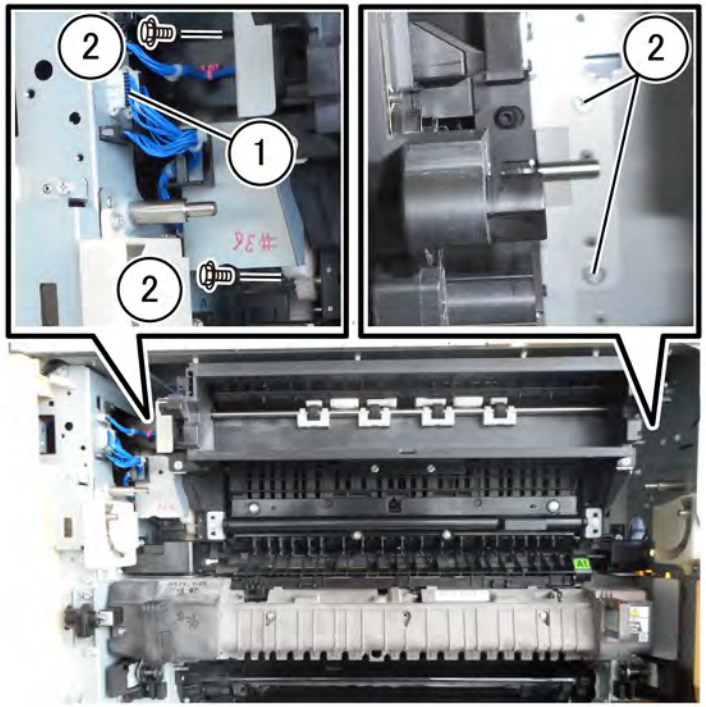
REP 10.8 Exit 2 Transport Assembly

Parts List on PL 10.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the left cover assembly, PL 80.70.
2. Remove the two screws and remove the left top cover, PL 10.15.
3. Remove the exit 2 transport assembly, PL 10.15, Figure 1 :
   a. Disconnect four connectors (1).
   b. Remove four screws (2).
   c. Remove the exit 2 transport assembly.



F-1-0180-A

Figure 1 Exit 2 transport assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.

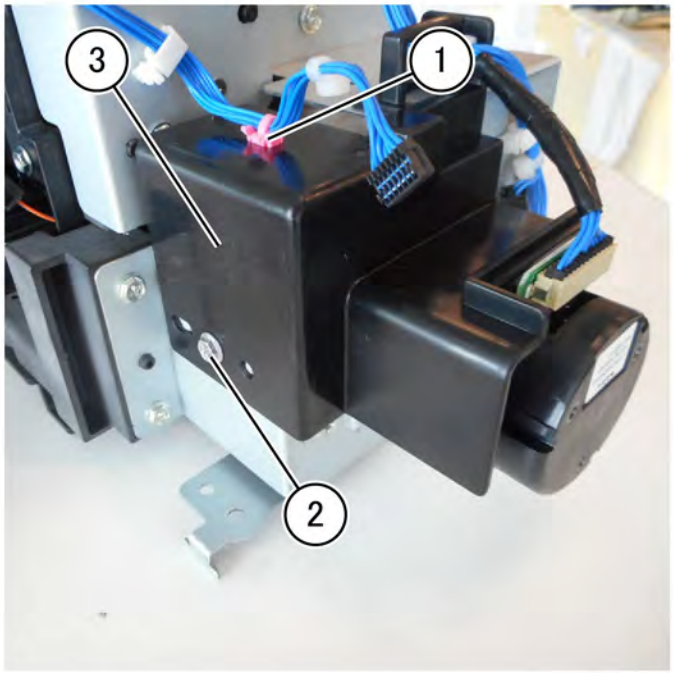
REP 10.9 Exit 2 Drive Assembly

Parts List on PL10.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the harness guide PL10.25
   a. Remove the clamp (1).
   b. Remove the screw (2).
   c. Remove the harness guide (3).



F-1-0220-A

Figure 1 Harness guide removal

3. Remove the exit 2 drive assembly: Figure 2.
   a. Remove two clamps (1).
   b. Disconnect the connector (2) and release the harness clamps from the case.
   c. Remove four screws (3).
   d. Remove the exit 2 drive assembly, PL10.25 (4).

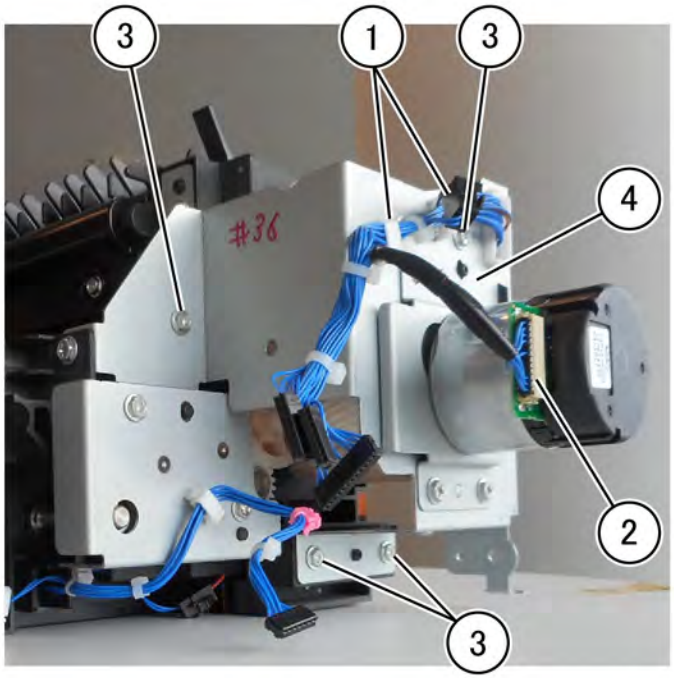


Figure 2 Exit 2 drive assembly

Replacement

1. The replacement is the reverse of the removal procedure.

REP 10.10 Exit 1 Gate Solenoid

Parts List on PL10.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the exit 2 guide assembly. PL10.25 Refer to Figure 1.
   a. Remove five screws (1).
   b. Remove the guard exit and the exit guide assembly (2).

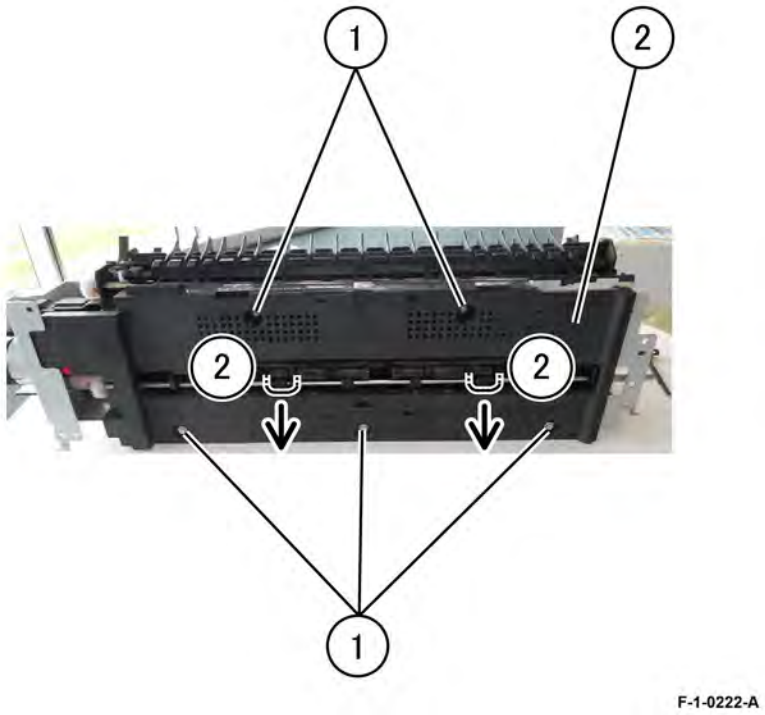
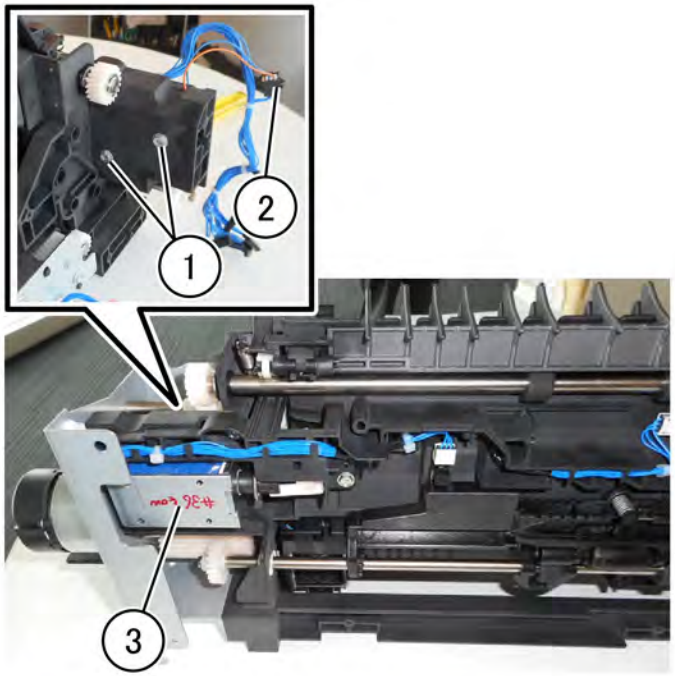


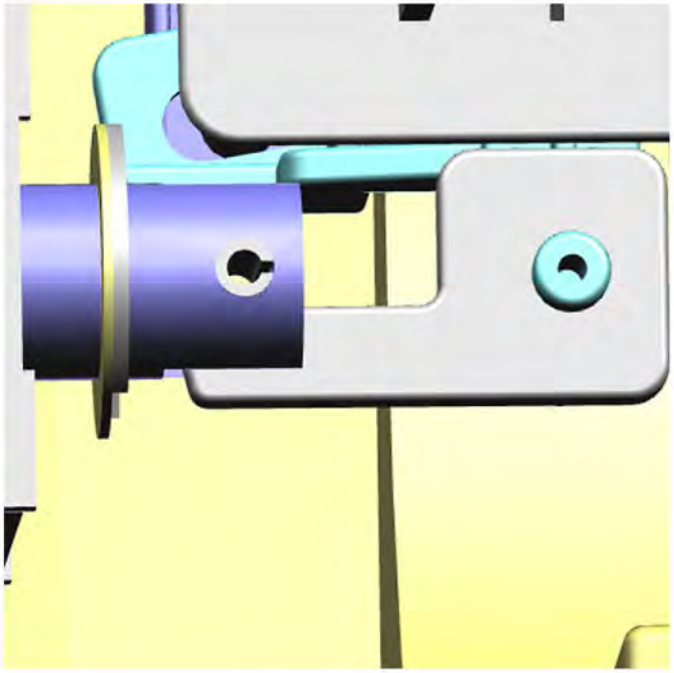
Figure 1 Exit 2 guide assembly

3. Remove the exit 2 drive assembly. PL10.25 Refer to REP 10.9
4. Remove the exit 1 gate solenoid. PL10.25 Refer to Figure 2.
   a. Remove two screws (1).
   b. Disconnect the connector (2).
   c. Remove the exit 1 gate solenoid, PL10.25 (3).



F-1-0223-A

Figure 2 Exit 2 gate solenoid



F-1-0224-A

Figure 3 Leading edge in groove

Replacement

1. The replacement is the reverse of the removal procedure.
2. Install with the leading edge in the groove. Refer to Figure 3.
3. Install the exit 2 guide assembly aligned with the bracket, Figure 4
4. Install the guard exit in the direction shown, Figure 4

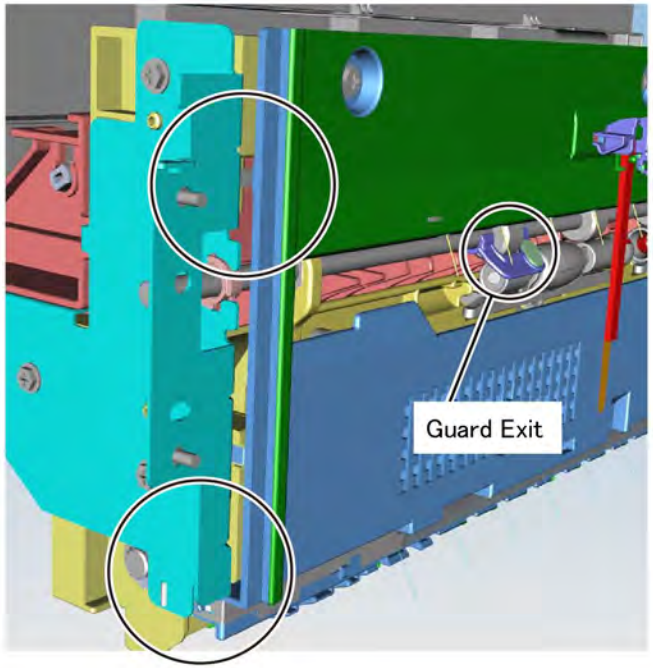


Figure 4 Exit 2 guide and guard exit reassembly

REP 10.11 Exit 2 OCT Home Position Sensor

Parts List on PL10.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the exit 2 guide assembly, PL10.25 Refer to Figure 1
   a. Remove five screws (1).
   b. Remove the guard exit and the exit guide assembly (2).

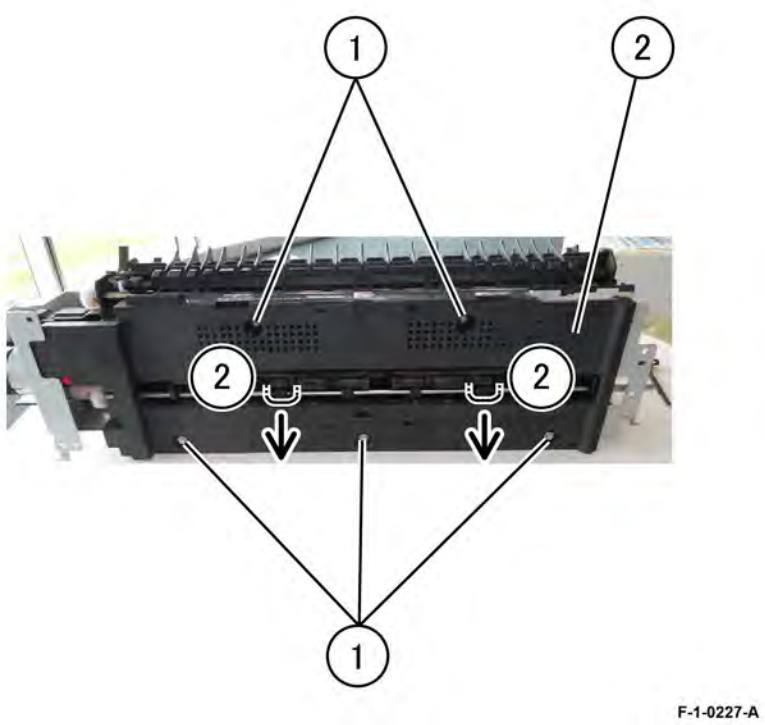
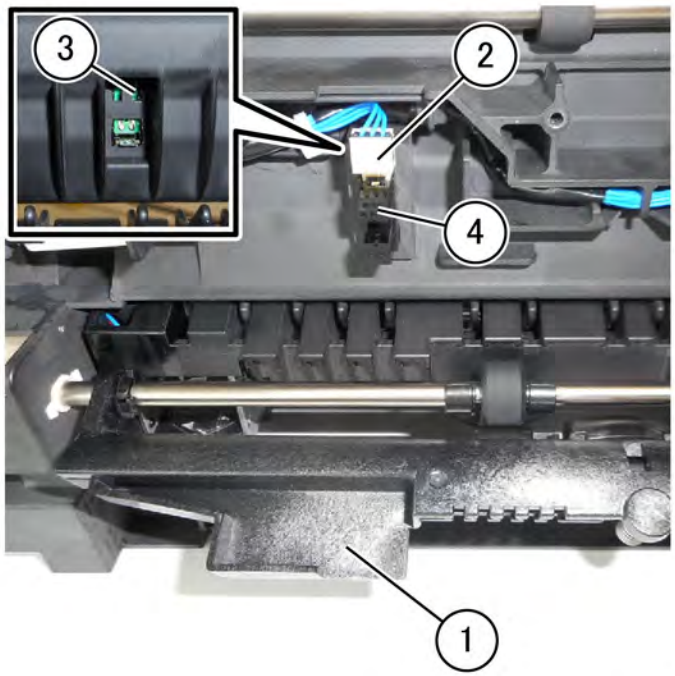


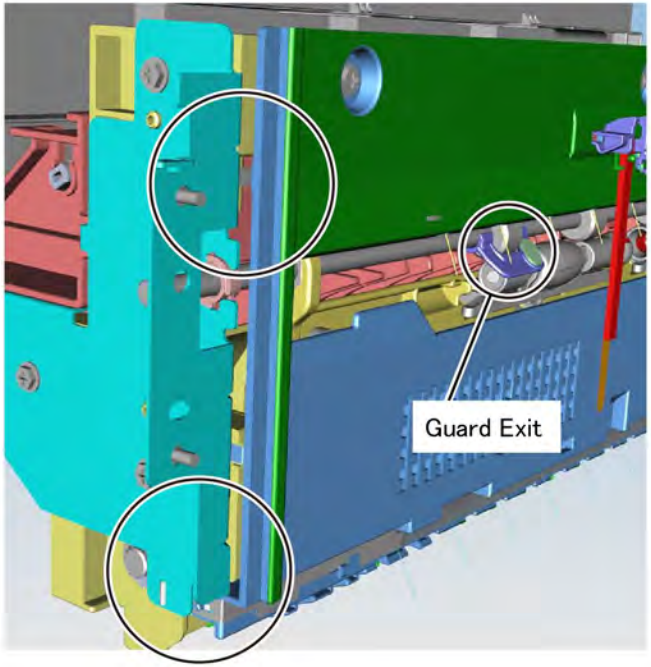
Figure 1 Exit guide assembly removal

3. Remove the exit 2 OCT home position sensor, PL10.25 Refer to Figure 2:
   a. Position the exit 2 chute assembly face down. (1).
   b. Disconnect the harness (2).
   c. Release the sensor from the hook. (3).
   d. Remove the 2 OCT home position sensor (4).



F-1-0226-A

Figure 2 Exit 2 OCT home position sensor removal



F-1-0228-A

Figure 3 Exit 2 guide reassembly

Replacement

1. Install the exit 2 guide assembly aligned with the bracket. Refer to Figure 3
2. Install the guard exit in the direction shown, Figure 3
3. The remainder of the replacement is the reverse of the removal procedure.

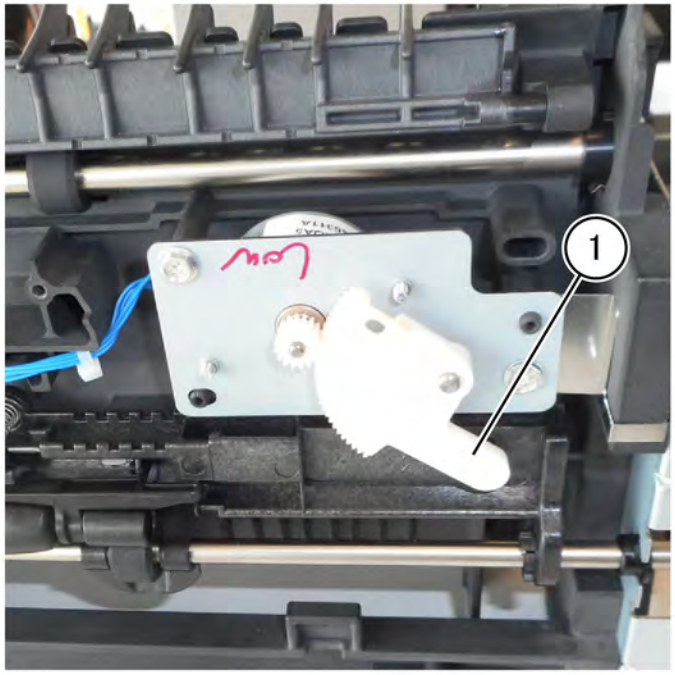
REP 10.12 Offset Gear

Parts List on PL10.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the exit 2 transport assembly. Refer to REP 10.8
2. Remove the exit 2 guide assembly, PL10.25
3. Remove the offset gear, PL10.25. Refer to Figure 1.

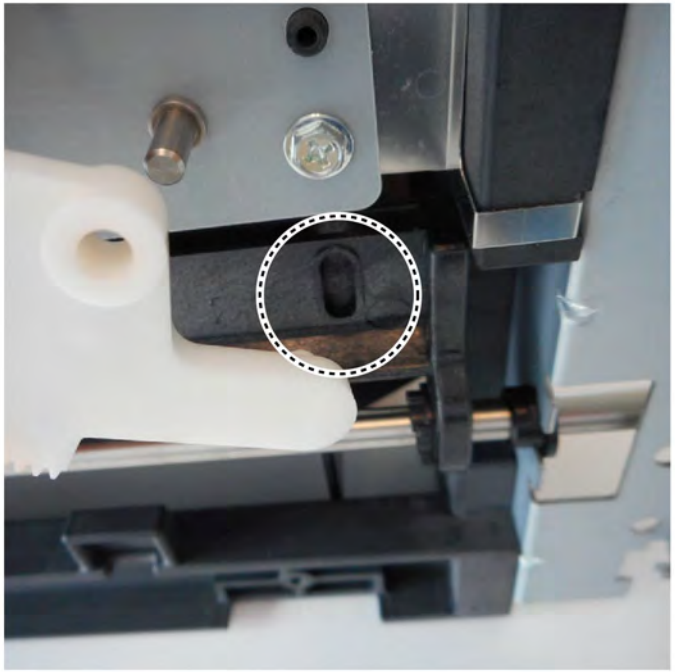


F-1-0229-A

Figure 1 Offset gear removal

Replacement

1. Install the offset gear with the peg in the recess of the gear arm, Figure 2.



F-1-0231-A

Figure 2 offset gear leading edge in groove

2. Observe the procedure for the replacement of the exit 2 guide assembly in REP 10.11.
3. The remainder of the replacement is the reverse of the removal procedure.

REP 28.1 Front Left Cover

Parts List on PL 28.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Lower the front cover assembly, PL 28.05, item 8.
2. Remove 2 screws from bottom of front left cover, PL 28.25, item 1.

   CAUTION

   Be careful not to damage wiring to the human motion sensor during this procedure.
3. Remove the front left cover

Replacement

Replacement is the reverse of the removal procedure.

REP 28.2 SWEA Cover 2

Parts List on PL 28.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the front left cover. Refer to REP 28.1
2. Lift latch on right hand side of SWEA cover 2. Refer to Figure 1

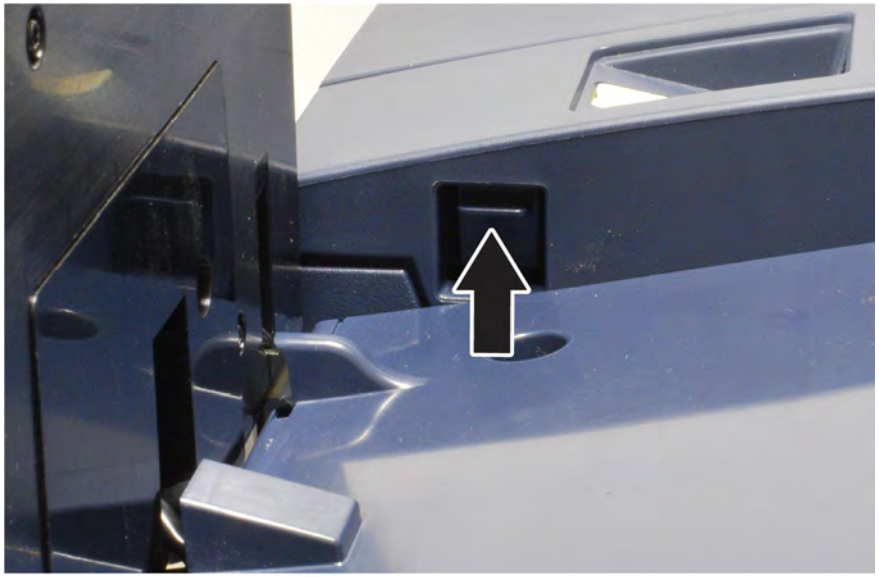


Figure 1 Cover latch

3. Lift cover away from frame of the device.

Replacement

Replacement is the reverse of the removal procedure.

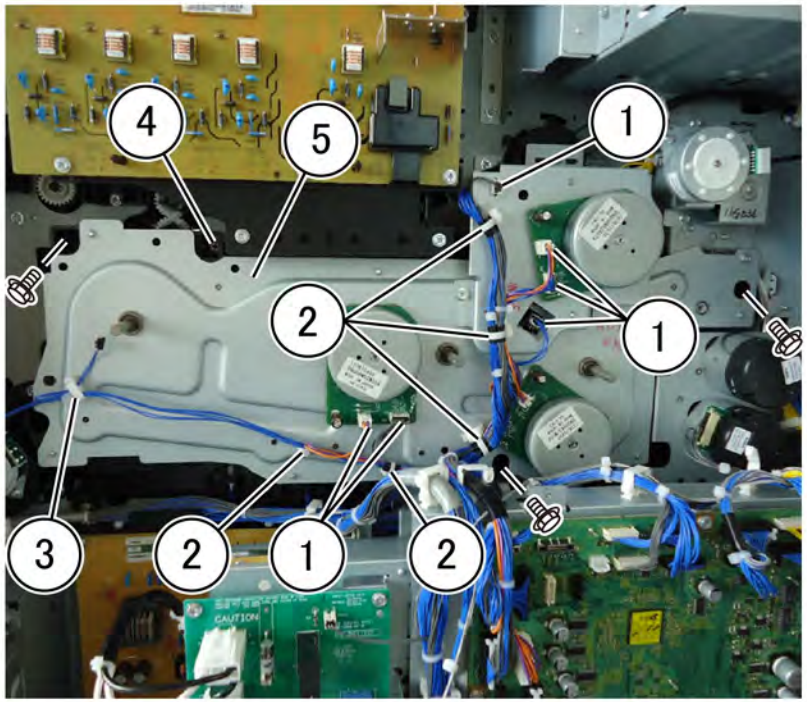
REP 40.1 Main Drive Assembly

Parts List on PL 40.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the video contact chassis assembly. Refer to GP 32.
2. Remove the main drive assembly, PL 40.05. Refer to Figure 1.
   a. Disconnect six connectors (1).
   b. Remove five clips (2).
   c. Open the clamp to release the harness (3).
   d. Remove four screws (4).
   e. Remove the main drive assembly (5).

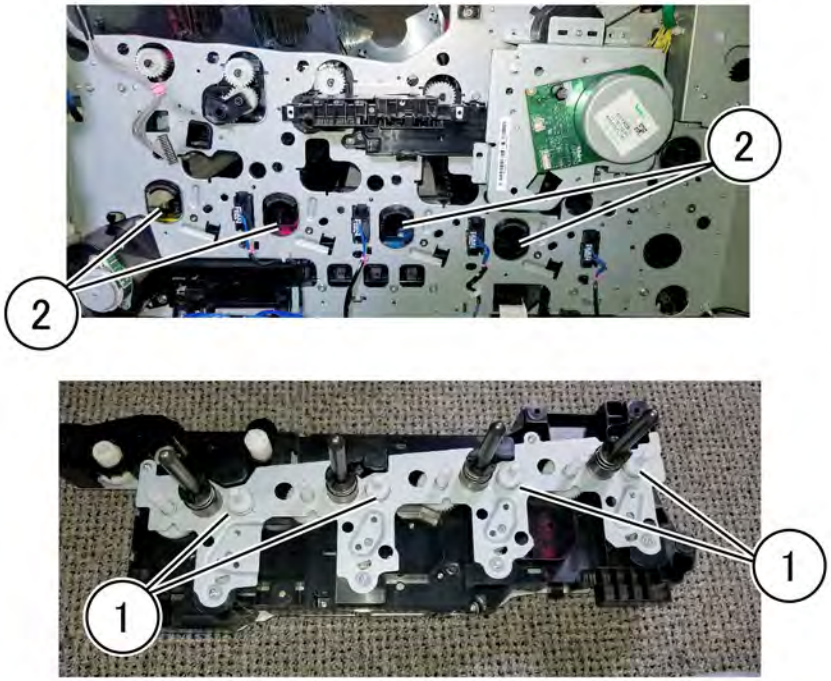


F-1-0251-A

Figure 1 Main drive assembly removal

Replacement

1. When installing the drive assembly, align each of the four bosses on the assembly (1) with the receptacles in the chassis (2), Figure 2.



F-1-0252-A

Figure 2 Drive assembly alignment

2. The remainder of the replacement is the reverse of the removal procedure.

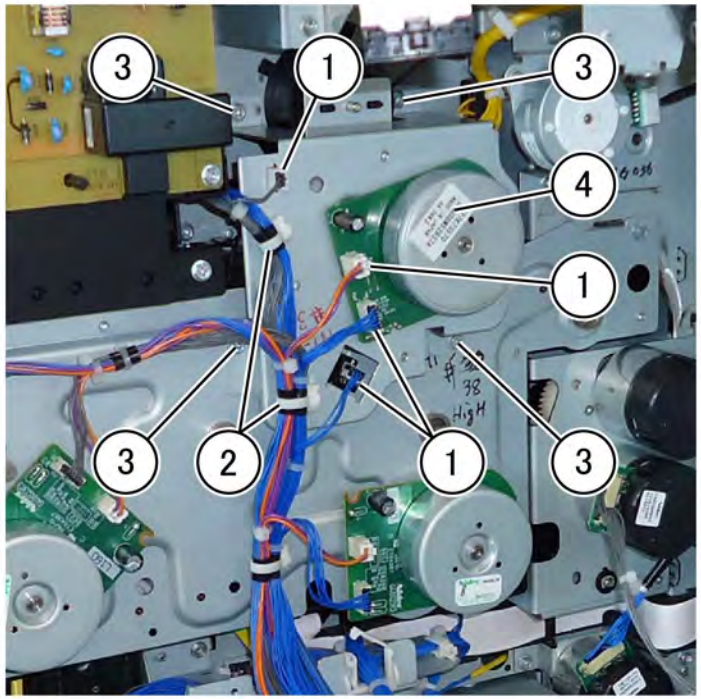
REP 40.2 Fuser Drive Assembly

Parts List on PL 40.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the video contact chassis assembly. Refer to GP 32.
2. Remove the fuser drive assembly, PL 40.05. Refer to Figure 1.
   a. Disconnect four connectors (1).
   b. Remove two clips (2).
   c. Remove four screws (3).
   d. Remove the fusing drive assembly (4).



F-1-0253-A

Figure 1 Fusing drive assembly removal

Replacement

Replacement is the reverse of the removal procedure.

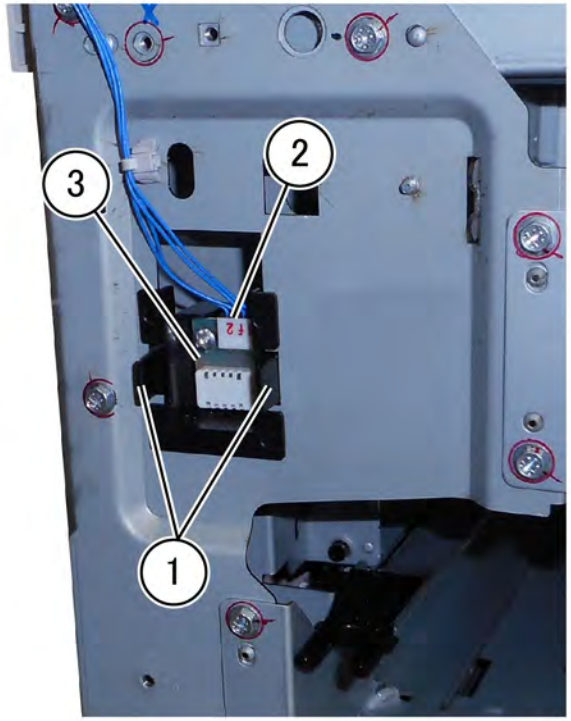
REP 40.3 Temp/Humidity Sensor (No 1 external)

Parts List on PL 40.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove tray 1 and tray 2.
2. Open Tray 3.
3. Remove the left hand fixing screw of the top cover, PL 70.20.
4. Remove the tray inner cover, PL 28.15.
5. Remove the temp/humidity sensor, PL 40.10. Refer to Figure 1.
   a. Release the hook (1).
   b. Disconnect the connector (2).
   c. Remove the temp/humidity sensor (3).



F-1-0254-A

Figure 1 Temp/humidity sensor removal

Replacement

Replacement is the reverse of the removal procedure.

REP 40.4 Duct Assembly (Front Right Marking Fan)

Parts List on PL 40.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove waste toner cartridge, PL 90.15.
2. Remove the front cover assembly, PL 28.05.
3. Remove the waste toner transport assembly, PL 90.15.
4. Remove the inner hinge cover assembly, PL 28.05.
5. Remove the inner lower cover, PL 28.05.
6. Remove the M drum assembly. Refer to REP 90.11.
7. Remove the duct assembly, PL 40.10. Refer to Figure 1.
   a. Disconnect three connectors (1).
   b. Remove the screw (2).
   c. Remove the duct assembly (3).

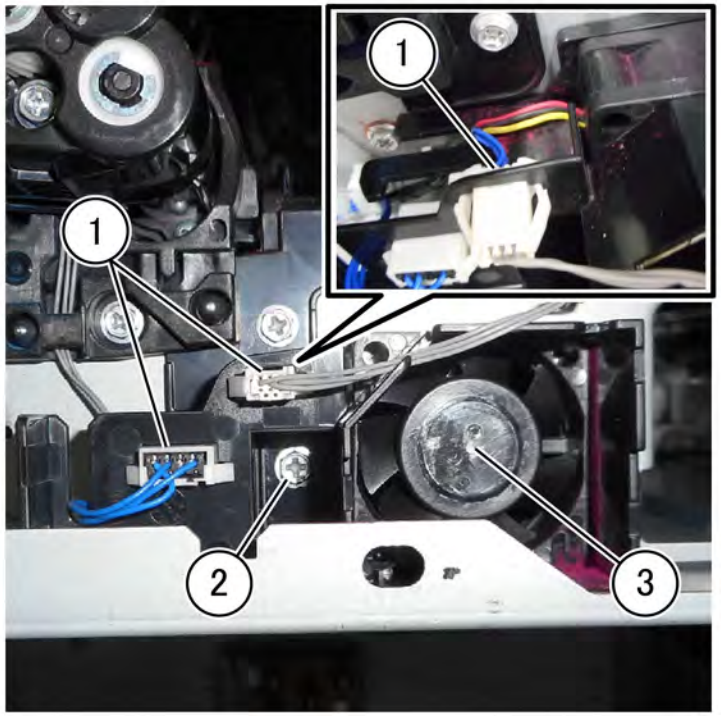


Figure 1 Duct assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 40.5 Toner Cartridge Cooling Fan Assembly

Parts List on PL 40.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the waste cartridge, PL 90.15.
2. Remove the front cover assembly, PL 28.05.
3. Remove the waste toner transport assembly, PL 90.15.
4. Remove the inner cover assembly, PL 28.05.
5. Remove the upper right front cover, PL 28.10.
6. Remove the front left cover, PL 28.15.
7. Remove the top cover, PL 28.15.
8. Remove the toner cartridge cooling fan assembly, PL 40.10. Refer to Figure 1.
   a. Remove the connector (1).
   b. Remove the screw (2).
   c. Remove the toner cartridge cooling fan assembly (3).

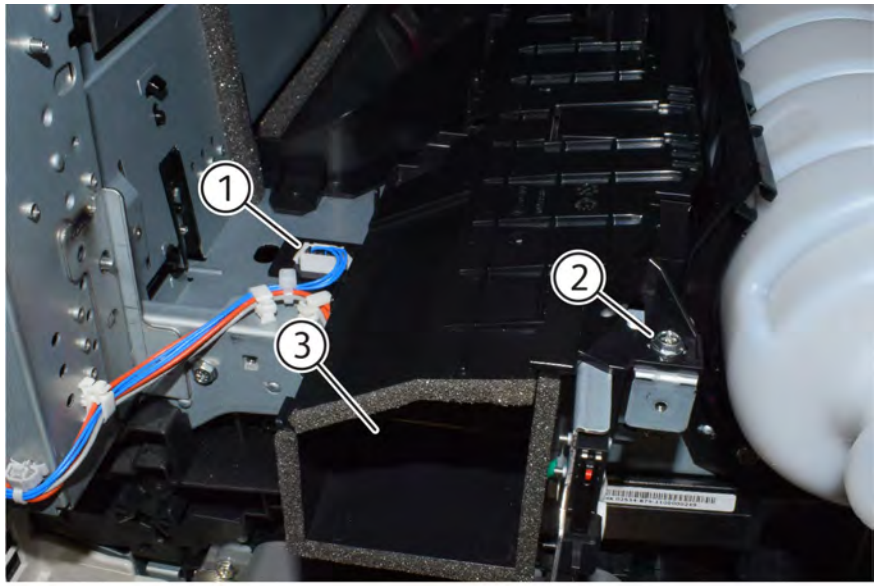


Figure 1 Toner cartridge cooling fan assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 40.6 Front/Left Marking Fan Assembly

Parts List on PL 40.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the waste toner cartridge, PL 90.15.
2. Remove the front cover assembly, PL 28.05.
3. Remove the waste toner transport assembly, PL 90.15.
4. Remove the inner left cover assembly, PL 28.05.
5. Remove the inner lower cover, PL 28.05.
6. Remove the duct, PL 40.10.
7. Remove the front handle. Refer to Figure 1.
   a. Move the handle in the direction of the arrow (1).
   b. move the handle so that it is released from the stop and remove the handle from the machine (2).

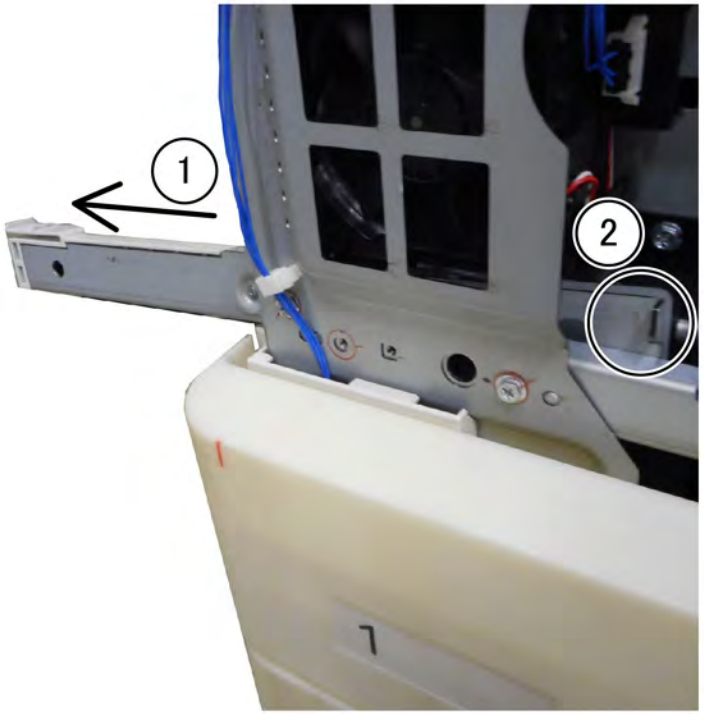


Figure 1 Front handle removal

8. Remove the front left marking fan assembly, PL 40.10. Refer to Figure 2.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Release the hook (3).
   d. Remove the front left marking fan assembly (4).

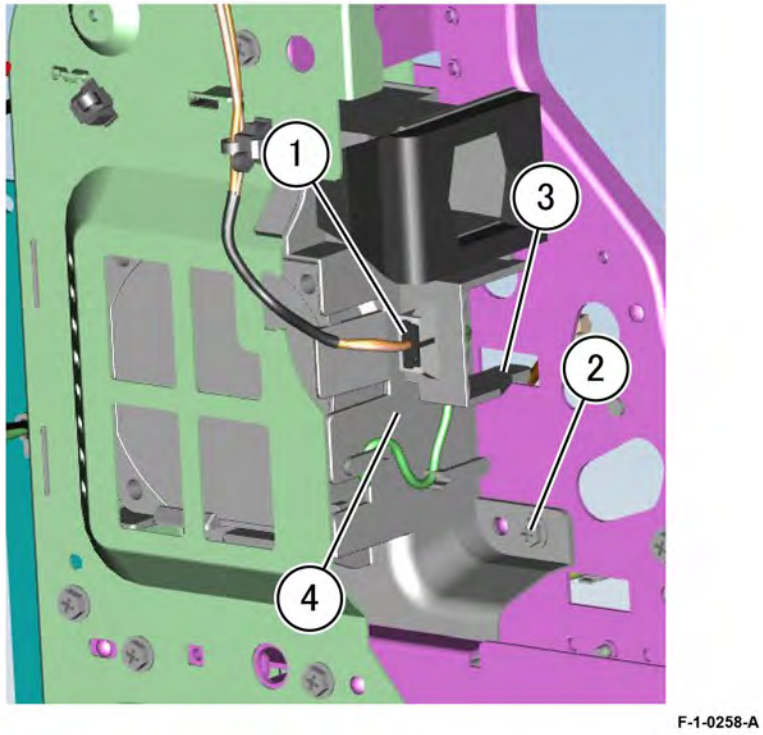


Figure 2 Front/Left marking fan assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 40.7 Rear Fuser Duct Assembly

Parts List on PL 40.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the controller cover assembly kit, PL 3.10.
2. Remove the upper rear cover, PL 28.10.
3. Remove the rear fuser duct assembly, PL 40.15. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove two screws (2).
   c. Remove the rear duct (3).

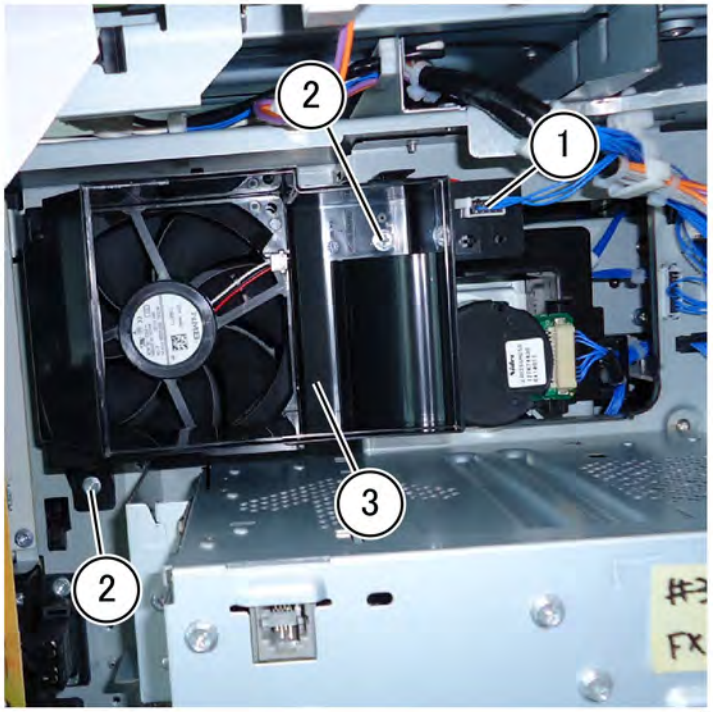


Figure 1 Rear duct removal

Replacement

Replacement is the reverse of the removal procedure.

REP 40.8 LVPS Fan Assembly

Parts List on PL 40.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower right rear cover, PL 28.10.
2. Remove the lower left cover, PL 28.15.
3. Remove the LVPS fan assembly, PL 40.15. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Release the clamp (2).
   c. Remove two screws (3).
   d. Remove the LVPS Fan (4).

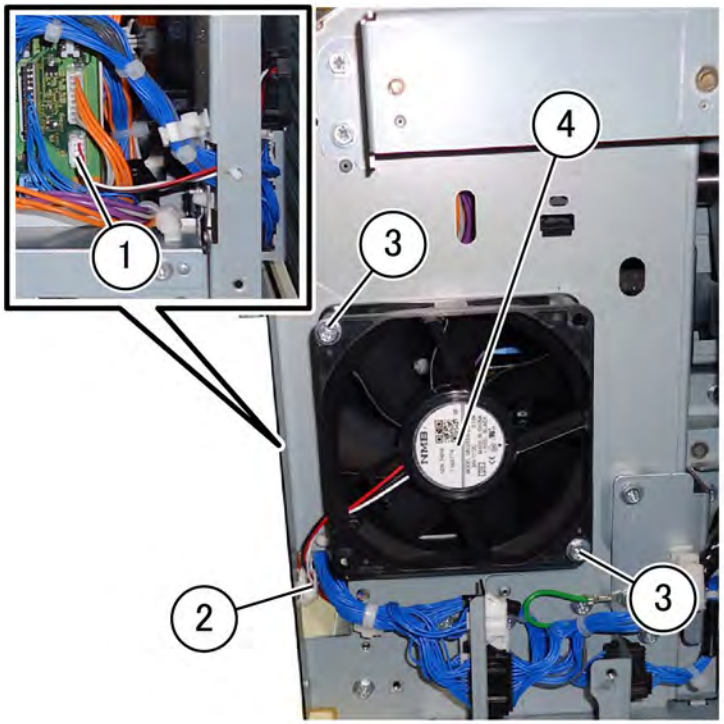


Figure 1 LVPS fan removal

Replacement

The replacement is the reverse of the removal procedure.

REP 40.9 IHPS Intake Duct Assembly

Parts List on PL 40.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the video contact chassis assembly. Refer to GP 32.
2. Remove the IHPS, intake duct assembly, PL 40.15. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Remove the IHPS intake duct assembly (3).

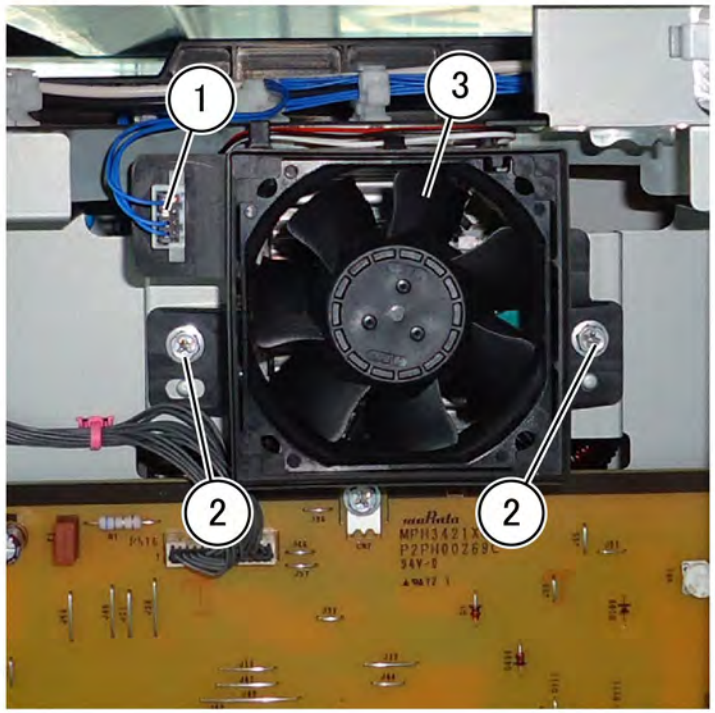


Figure 1 IHPS intake duct assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 40.10 Toner Cartridge Exhaust Fan Assembly

Parts List on PL 40.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the video contact chassis assembly. Refer to GP 32.
2. Remove the toner cartridge exhaust fan assembly, PL 40.15. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove two screws (2).
   c. Remove the toner cartridge exhaust fan assembly (3).

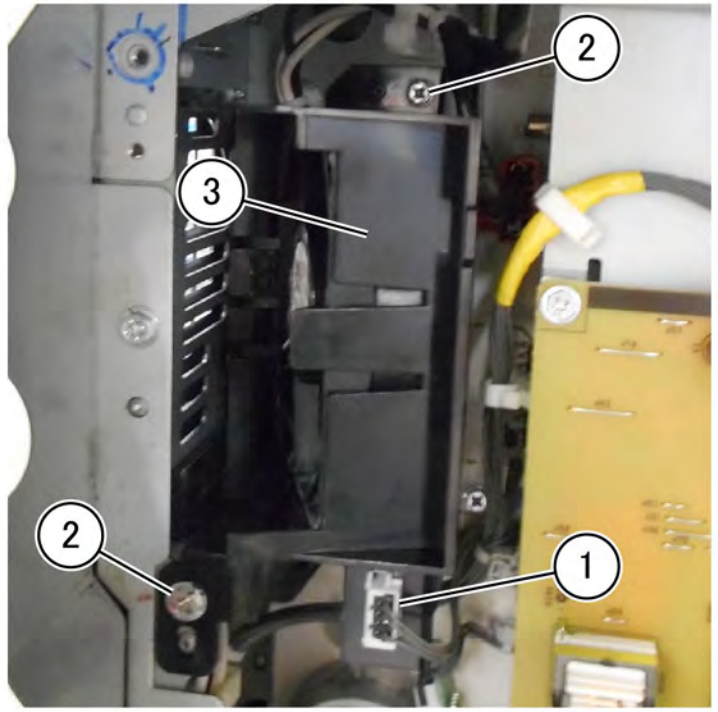


Figure 1 Toner cartridge exhaust fan assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 60.1 LPH Assembly (Y,M,C,K)

Parts List on PL60.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cordfrom the customer supply while performing tasks that do not need electricity. Electricitycan cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

CAUTION: To prevent light fatigue, store the removed drum cartridges in a black bag.

CAUTION: Do not touch the surface of the drum cartridge.

The removal procedure for all LPH assemblies is the same. The following steps are for the LPH assembly (K) procedure only.

1. Remove the following components:
   a. Waste toner cartridge
   b. Front cover assembly
   c. Waste toner transport assembly
   d. Inner cover assembly. PL 28.05
   e. Inner lower cover. PL 28.05
   f. Inner hinge cover assembly. PL 28.05
   g. Inner right cover. PL 28.05
   h. Drum assembly. Refer to REP 90.11
   i. Developer assembly. Refer to REP 90.3
   j. IBT belt cleaner assembly. PL90.30
2. Open the left cover assembly
3. Remove the IBT belt assembly. PL90.30 Refer to REP 90.8
4. Remove the screw (1) securing the LPH then move the LPH fully to the front, Figure 2.

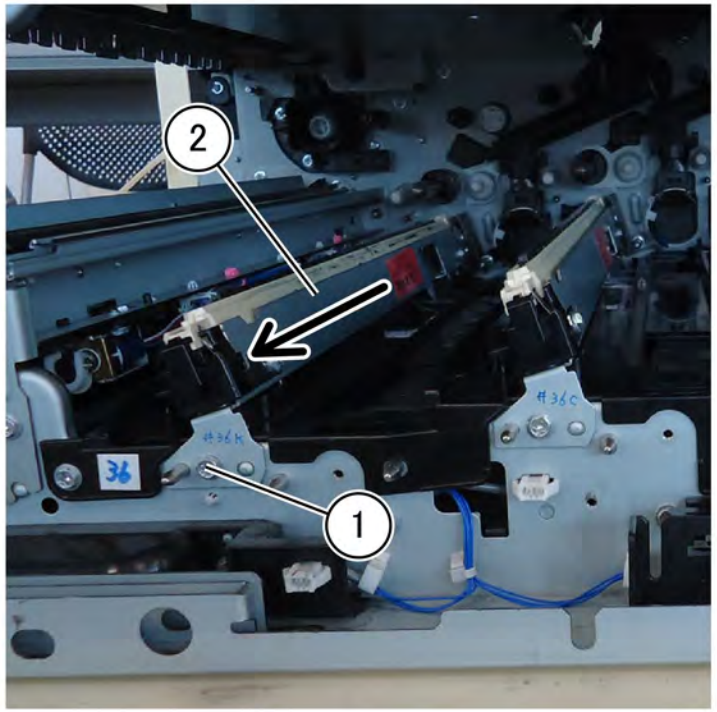


Figure 2 Remove the screw

5. Roll the LPH (3) in the direction of the arrow to expose the FFC cable (4), Figure 3.

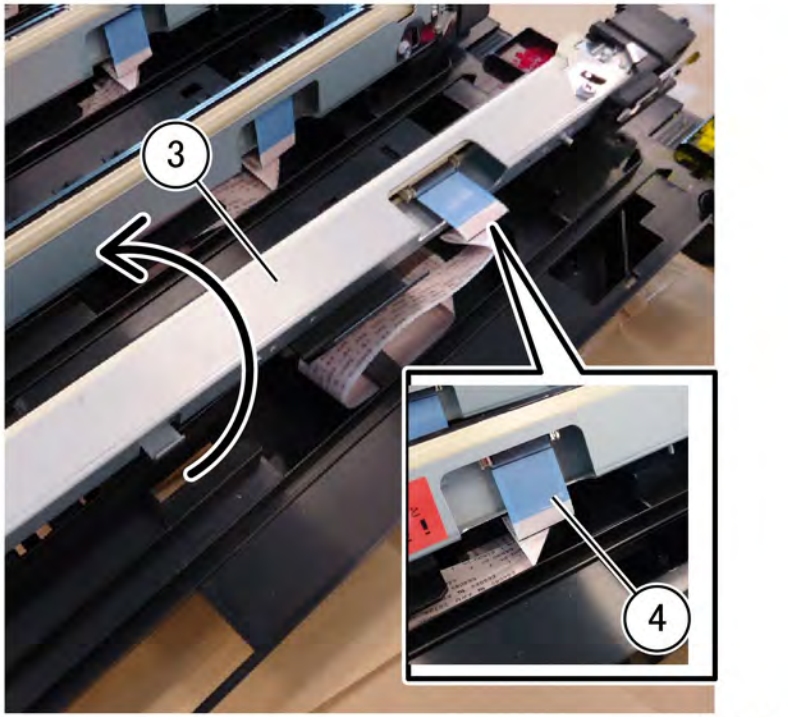


Figure 3 FFC cable

6. Press the release latch on the connector (5), remove the FFC cable from the LPH in the direction of the arrow, then remove the LPH (6), Figure 4.

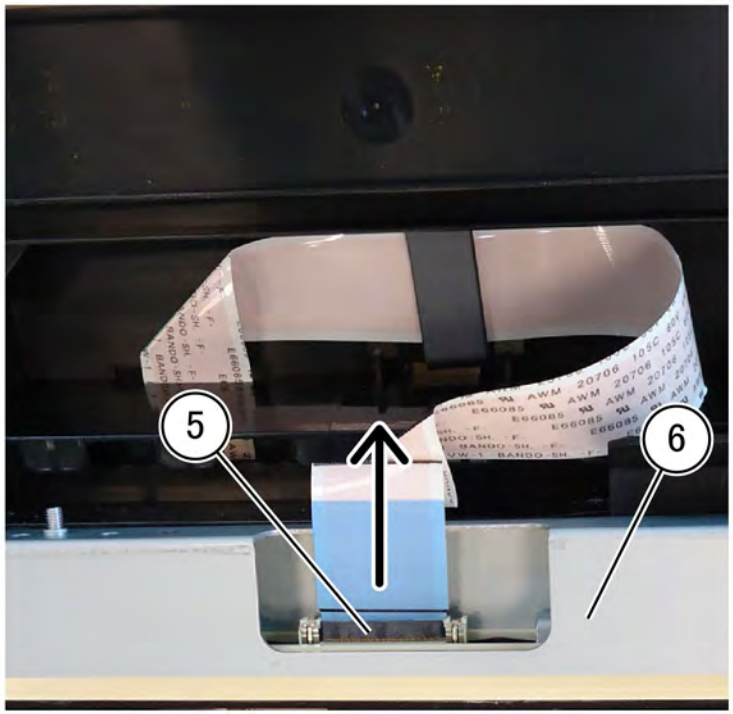


Figure 4 LPH removal

Replacement

Replacement is the reverse of the removal procedure.

REP 60.2 FFC Cable Assembly

Parts List on PL60.05

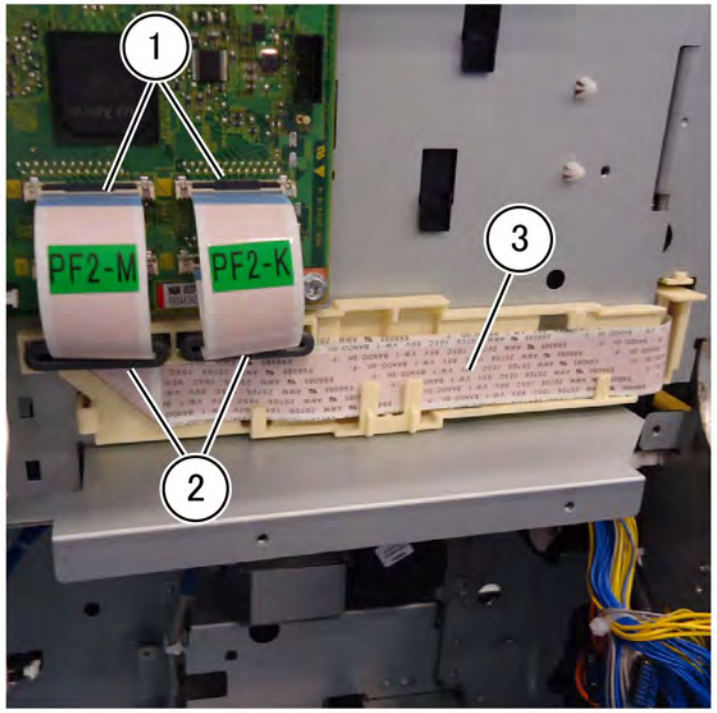
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cordfrom the customer supply while performing tasks that do not need electricity. Electricitycan cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

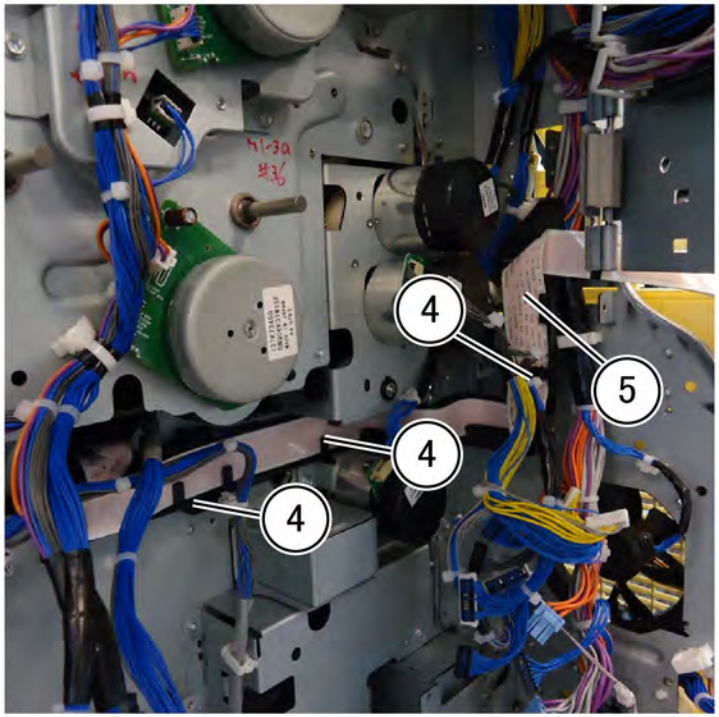
1. Remove the LPH assembly (Y, M, C, K). Refer to REP 60.1
2. Remove the motor drive PWB. Refer to REP 1.4
3. Remove the AC drive PWB. Refer to REP 1.5
4. Remove the HVPS developer bias. Refer to REP 1.7
5. Remove the DFE cover. PL 3.10
6. Remove the main drive assembly. Refer to REP 40.1
7. Remove the fuser drive assembly. Refer to REP 40.2
8. Remove the registration drive assembly. Refer to REP 80.33
9. Release the FFC cable from the half tone PWB: Figure 2 Refer to REP 3.4
   a. Disconnect four FFC cables on the half tone PWB (1).
   b. Remove four ferrites (2).
   c. Release the FFC cable assembly from the harness guide (3).



F-1-0244-A

Figure 2 Disconnect the FFC cables

10. Release the FFC cables from the harness guide, (4) and (5): Figure 3



F-1-0245-A

Figure 3 Unharness the FFC cables

11. Remove 10 screws (1) then remove the BCR HVPS cover assembly and BCR HVPS. Refer to REP 1.9 , and cover, (2), Figure 4

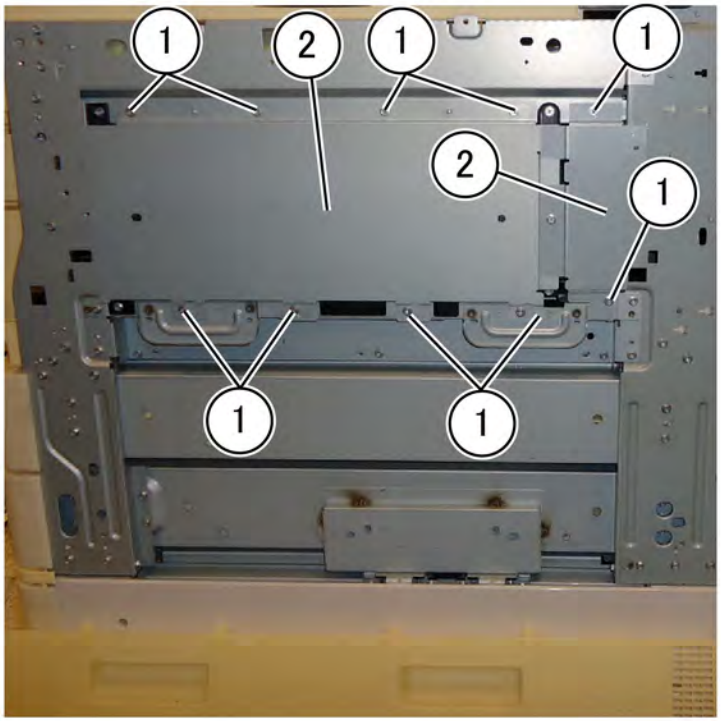


Figure 4 Cover assembly and cover

12. Remove the BCR housing. Refer to Figure 5 then remove four screws (1)

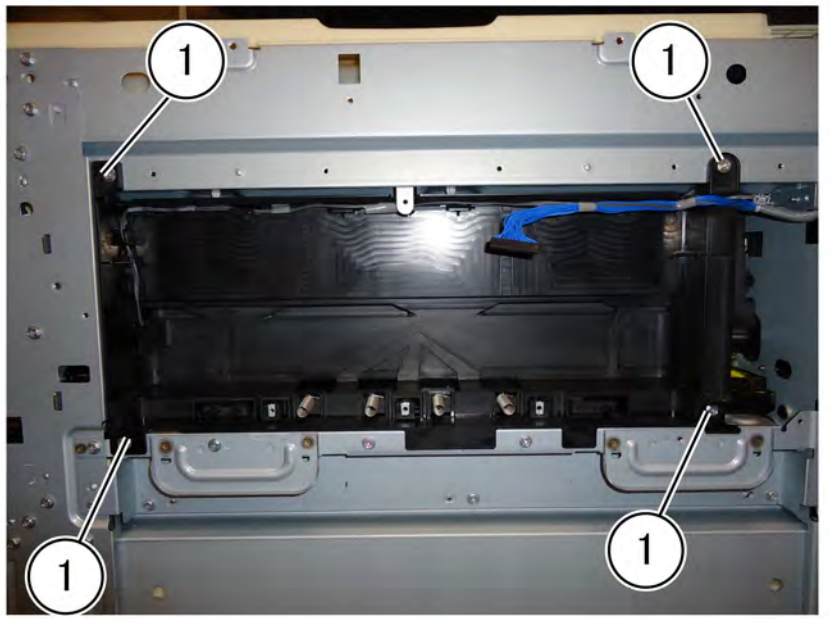


Figure 5 Remove four screws

13. Move the conductor assembly. PL 1.20 , to the rear, disconnect the connector (2), then remove the conductor assembly (3), Figure 6.

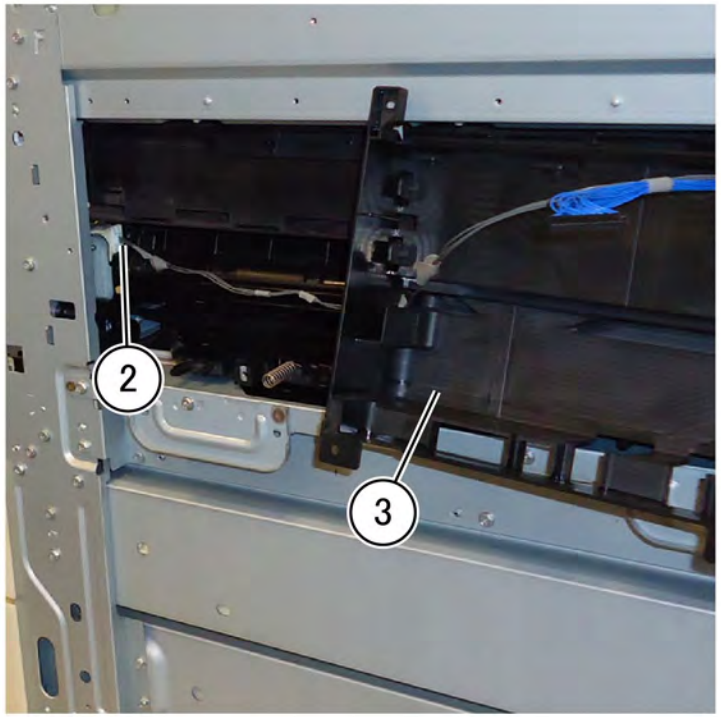


Figure 6 BCR housing removal

14. Remove two screws (1) then remove the marking guide. (2)PL 90.25Figure 7

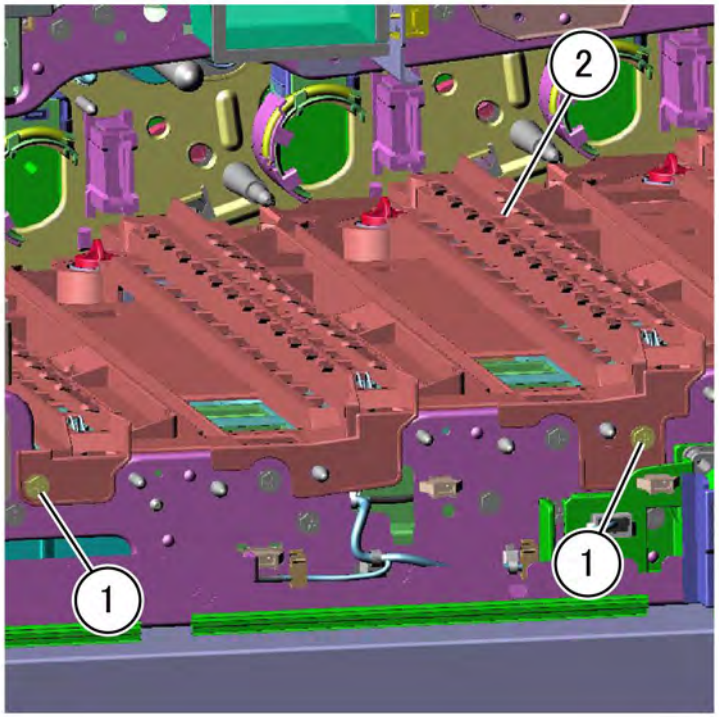


Figure 7 Marking guide removal

15. Remove the FFC cable assembly. PL60.05, from the marking guide (3), Figure 8

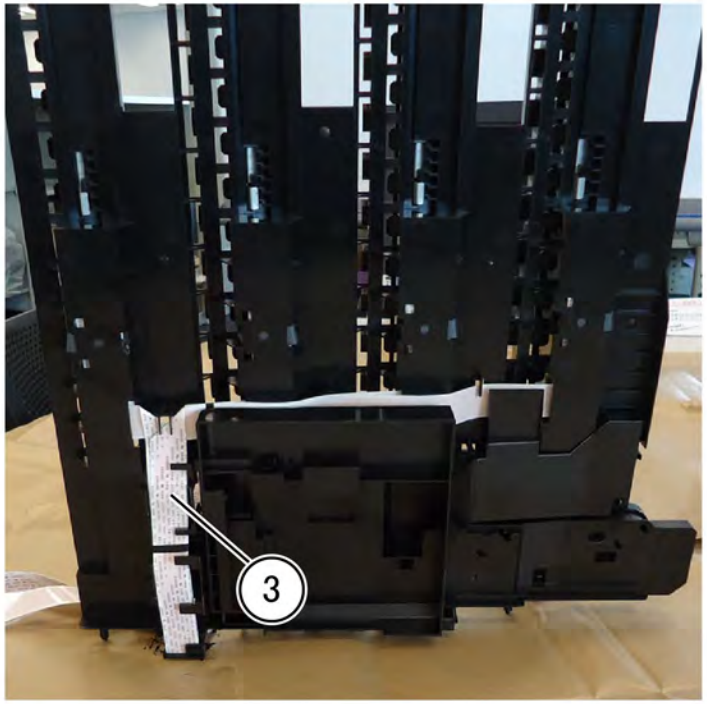


Figure 8 FFC cable assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 60.3 Scanner Module, CVT/Document Glass (High)

Parts List on PL 60.xx

Removal

Placeholder

Replacement

Replacement is the reverse of the removal procedure.

REP 60.4 Scanner Electrical Components (C8170)

Parts List on PL 60.xx

Removal

Placeholder

Replacement

Replacement is the reverse of the removal procedure.

REP 60.5 Scan Carriage Assembly (C8170)

Parts List on PL 60.xx

Removal

Placeholder

Replacement

Replacement is the reverse of the removal procedure.

REP 60.6 Side 2 Scan Assembly (C8170)

Parts List on PL 60.xx

Removal

Placeholder

Replacement

Replacement is the reverse of the removal procedure.

REP 60.7 Scanner Module, CVT/Document Glass (C8170)

Parts List on PL x.xx

Removal

Placeholder

Replacement

Placeholder

REP 60.10 Not Used

Parts List on

Removal

Replacement

REP 60.11 CCD Lens Cover (C8170)

Parts List on PL 60.45

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the Right Plate. PL 60.15
3. Remove the Platen Glass by lifting it up from the right side. PL 60.15
4. Remove the four Lens Cover screws (1).Refer to Figure 1
5.

Figure 1 Lens Cover Screw location

6. Carefully lift the cover up and out to remove.

Replacement

1. Carefully lower the Lens Cover in place.
2.
   a. Install the four screws (1) indicated in Figure 1
3. Reinstall the Platen Glass. Pl 60.15
4. Reinstall the Right Plate. Pl 60.15

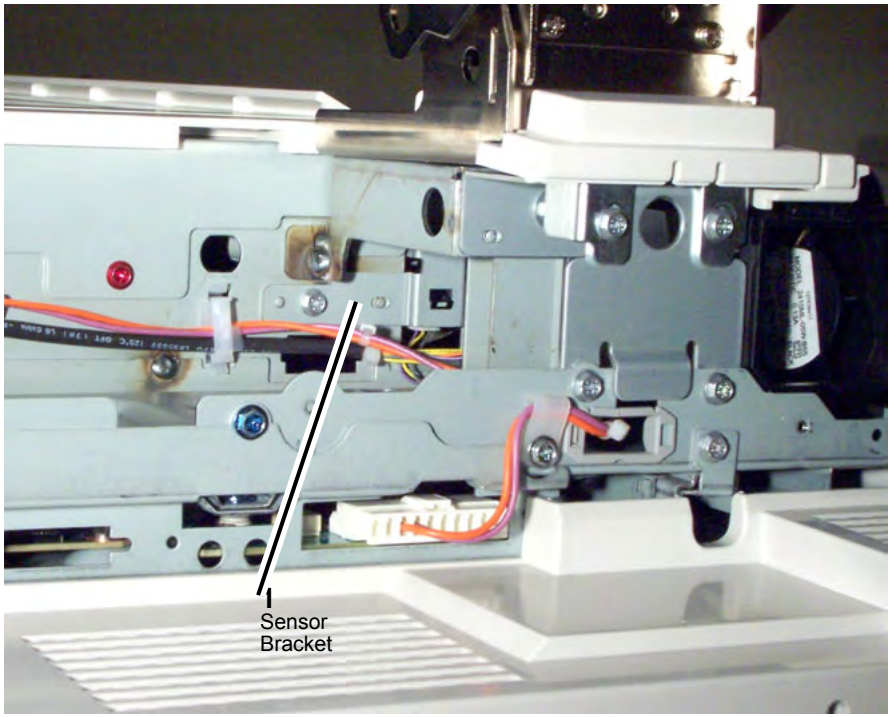
REP 60.12 IIT Registration Sensor (C8170)

Parts List on PL 60.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Raise the DADF to the fully open position.
3. Remove the IIT Rear Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Rear Cover.
4. Remove the IIT Registration Sensor Bracket. Figure 1
   a. Remove the securing screw (1).
   b. Remove the Sensor Bracket.



5. Detach the IIT Registration Sensor from the Sensor Bracket. Figure 2
   a. Disconnect the connector and detach the sensor from the bracket.

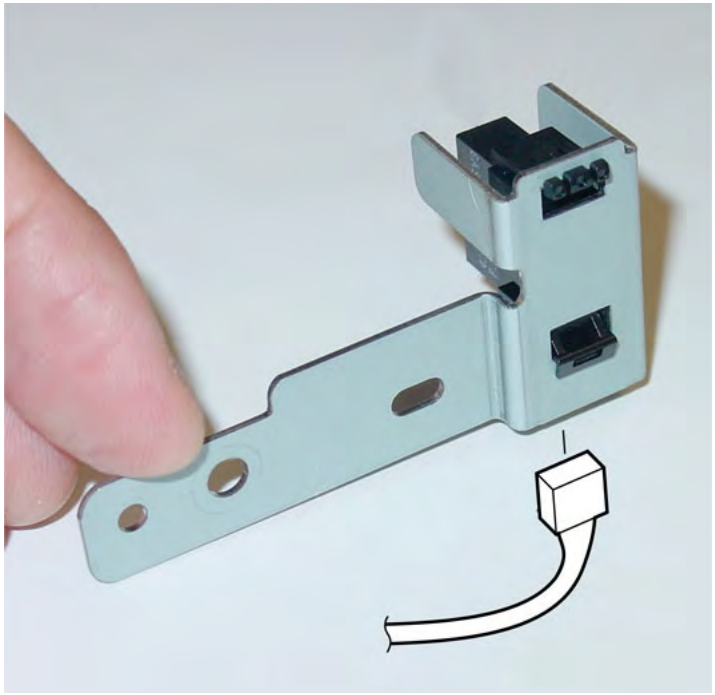


Figure 1 IIT Registration Sensor

Replacement

1. To install, perform the removal steps in reverse order.

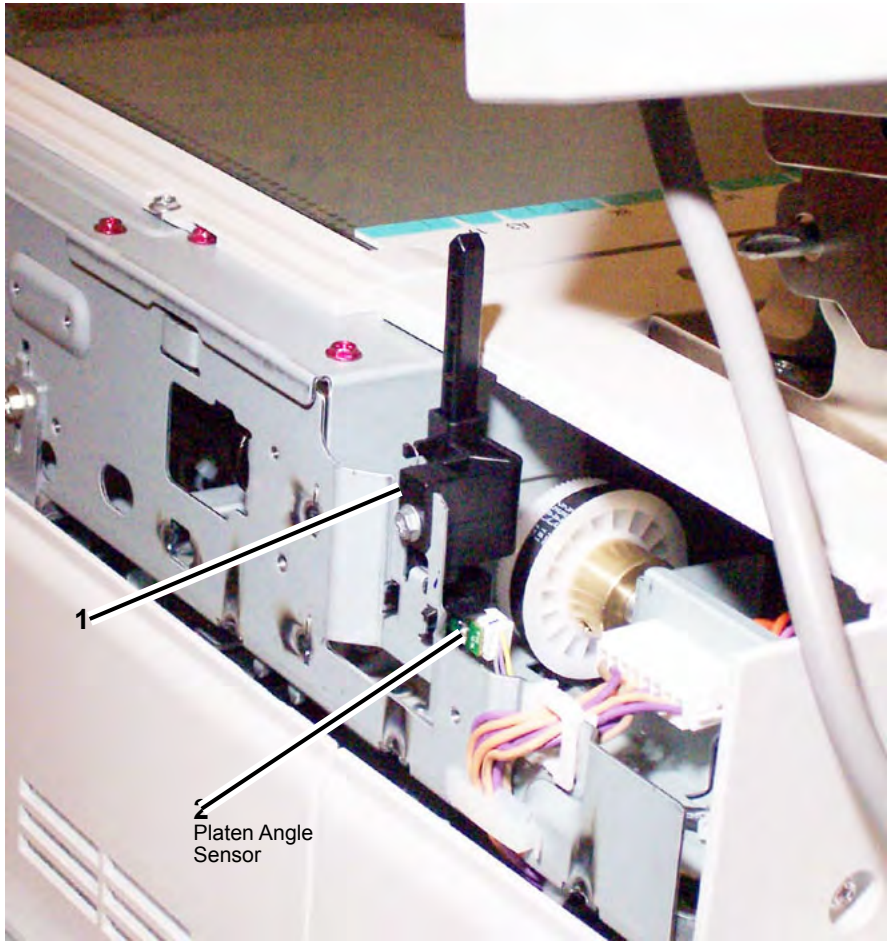
REP 60.13 Platen Angle Sensor (C8170)

Parts List on PL 60.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Raise the DADF to the fully open position.
3. Undock the finisher, if present.
   a. Open the finisher front door.
   b. Release the securing latch.
   c. Disconnect the connector to the copier/printer.
   d. Roll the finisher away from the right side of the copier/printer.
4. Remove the IIT Right Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Right Cover.
5. Disconnect the Actuator. Figure 1
   a. Remove the securing screw.
   b. Disconnect the Actuator.
6. Remove the Platen Angle Sensor. Figure 1
   a. Disconnect the Connector.
   b. Remove the Platen Angle Sensor.



Replacement

1. To install, perform the removal steps in reverse order.

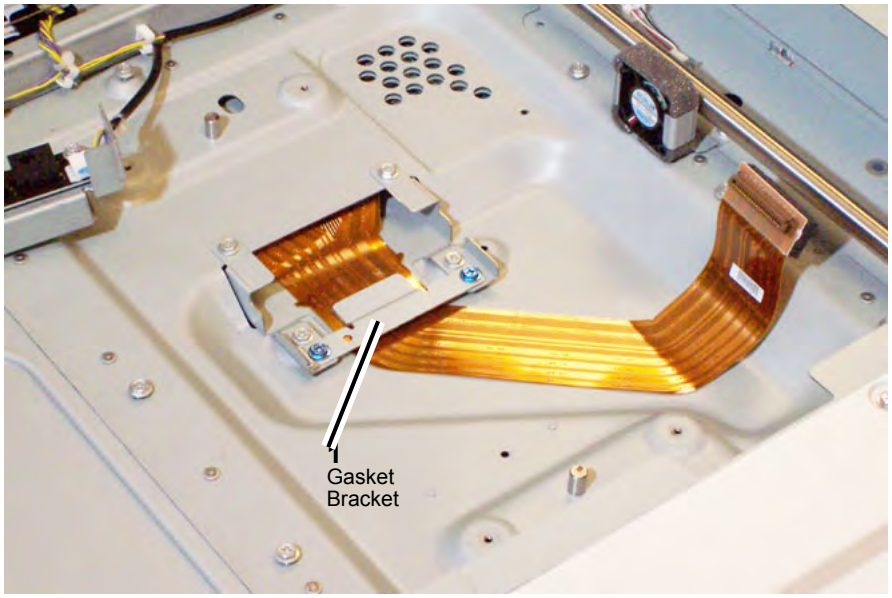
REP 60.14 CCD Flexible Print Cable (C8170)

Parts List on PL 60.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the Lens Cover. PL 60.20
3. Remove the Lens Assembly. REP 60.15
4. Remove the Gasket Bracket. Figure 1
   a. Remove the (2) securing Screws (Blue).
   b. Remove the Gasket Bracket.
5. Remove the CCD Flexible Print Cable. Figure 1
   a. Remove the securing screws (4).
   b. Peel off the double-sided tape.
   c. Pull the bracket toward you and disconnect the connector.



Replacement

1. To install, perform the removal steps in reverse order.

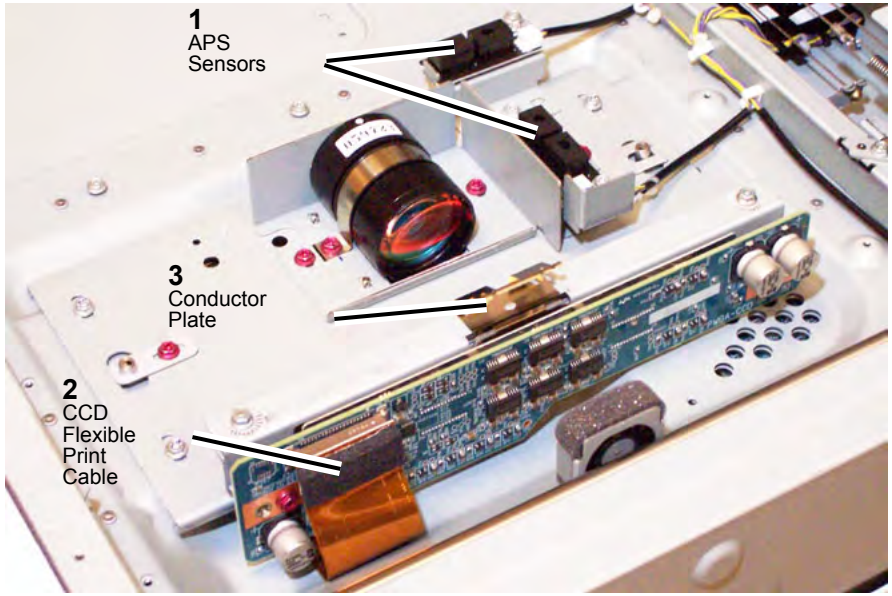
REP 60.15 IIT Lens Assembly (C8170)

Parts List on PL 60.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the Lens Cover. PL 60.20
3. Move the APS Sensors 1 and 2 out of the way by removing (2) screws. (Leave the connectors connected.) PL 60.20
4. Remove the Lens Assembly. Figure 1
   a. When replacing: Remove the Conductor Plate. PL 60.20
   b. Disconnect the CCD Flexible Print Cable from the Lens Assembly.
   c. Remove the screws (4).
   d. Remove the Lens Assembly.



Replacement

1. To install, perform the removal steps in reverse order.
2. Check the Optical Axis Calibration (ADJ 60.4)

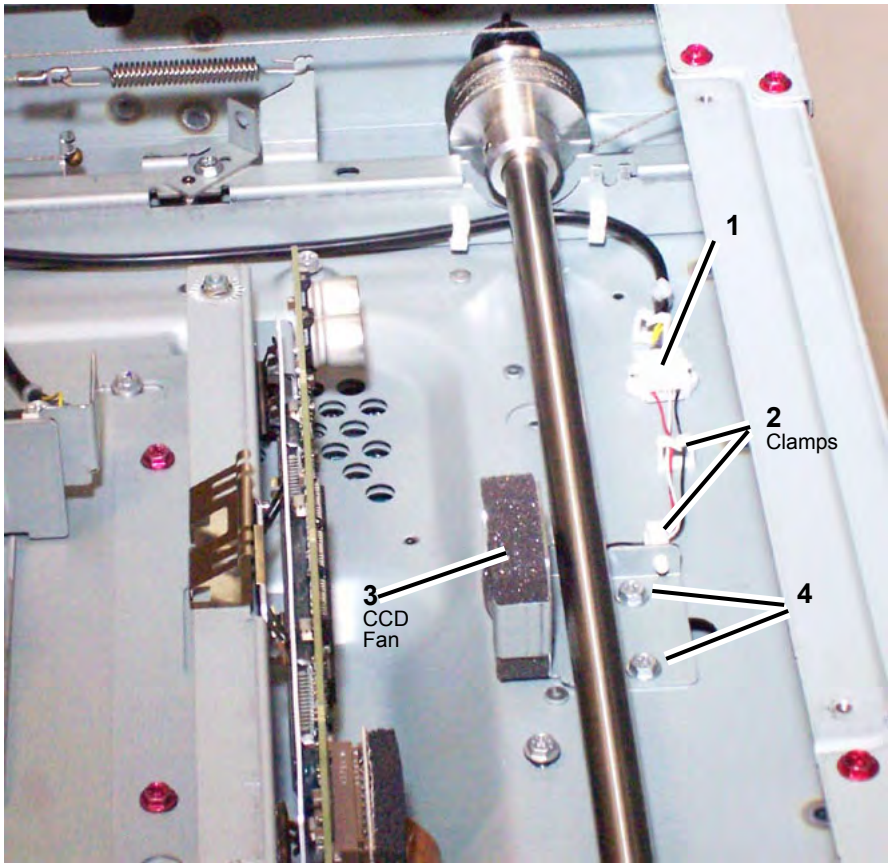
REP 60.16 CCD Fan (C8170)

Parts List on PL 60.20

Removal

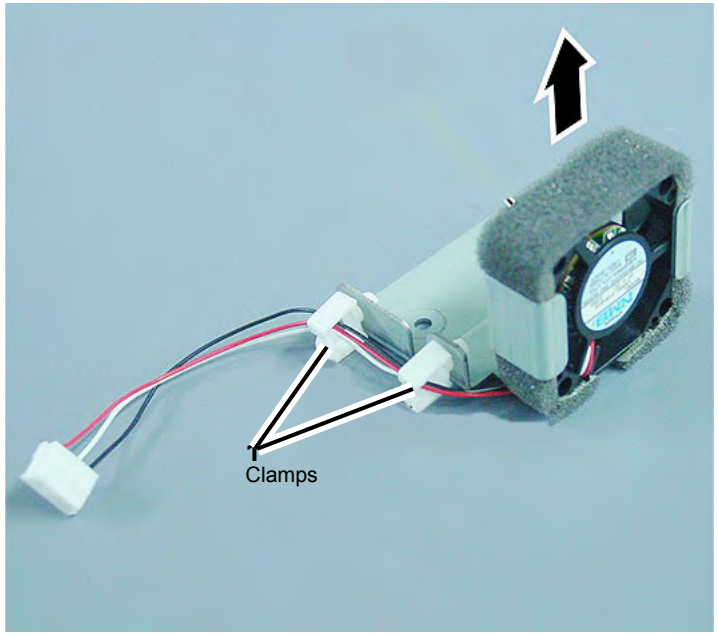
WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the Lens Cover. PL 60.20
3. Remove the CCD Fan. Figure 1
   a. Disconnect the Connector.
   b. Release the clamps to remove the wire harness.
   c. Remove the screws (2).
   d. Remove the CCD Fan.



4. Detach the CCD Fan from the Fan Bracket. Figure 2

a. Release the clamps (2) to remove the wire harness.
b. Detach the CCD Fan from the Fan Bracket.



Replacement

1. To install, carry out the removal steps in reverse order.

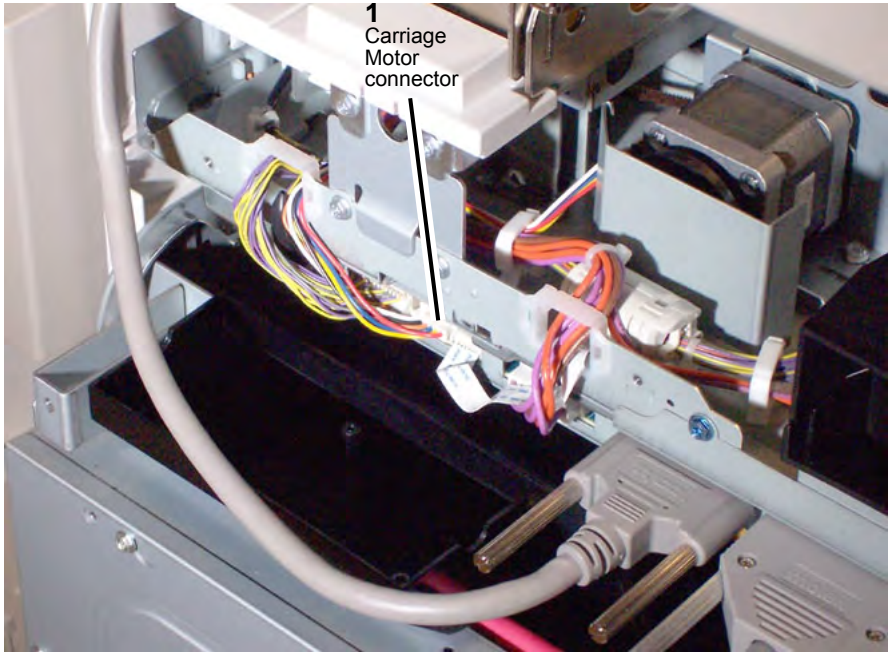
REP 60.17 Carriage Motor (C8170)

Parts List on PL 60.25

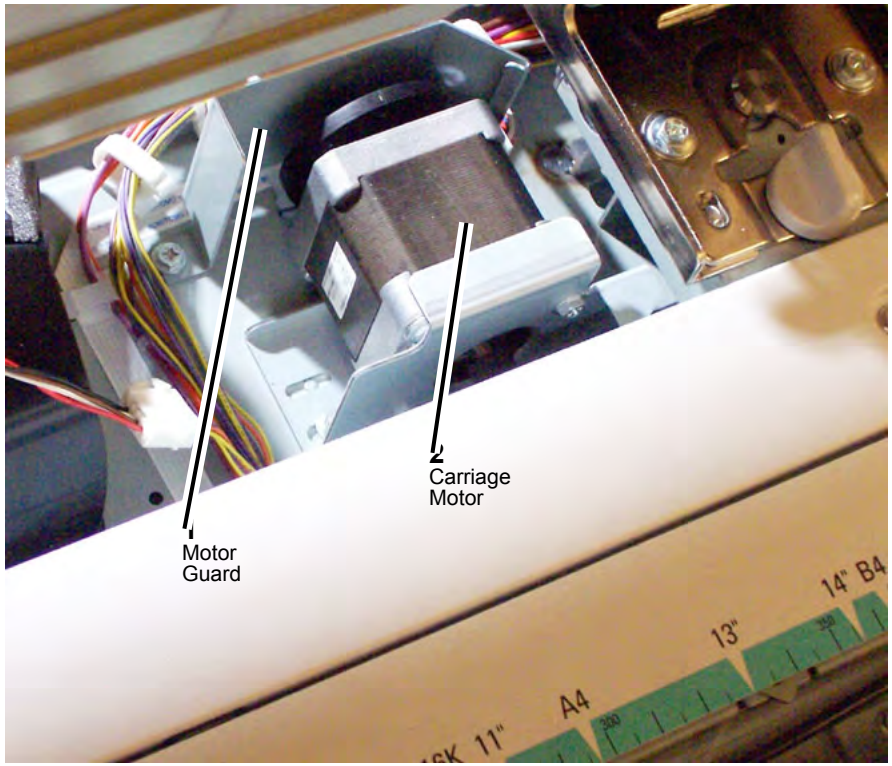
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the IIT Rear Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Rear Cover.
3. Remove the Rear Upper Cover. PL 28.10
4. Disconnect the Carriage Motor connector at the rear of the IPS. Figure 1
   a. Disconnect the connector.
   b. Release the (3) clamps to disengage the wire harness.



5. Remove the Motor Guard. Figure 2
   a. Remove (2) securing screws.
   b. Remove the Motor Guard.



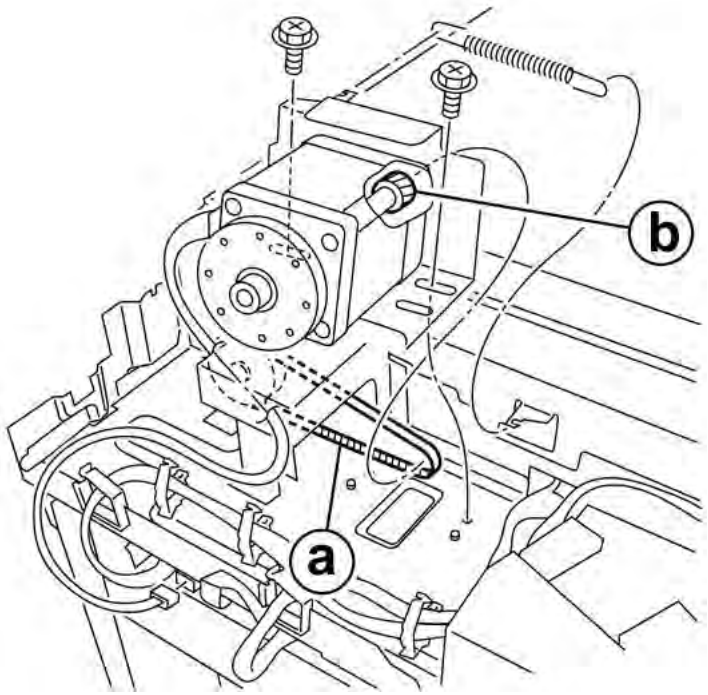


Figure 1 Carriage Motor Belt and Pulley

6. Remove the (2) screws securing the Carriage Motor from the front.
7. Remove the Carriage Motor from the rear.
   a. Remove the Tension Spring.
   b. Unhook the Belt from the Pulley.
   c. Remove the Carriage Motor and its attached wire harness.

Replacement

1. To install, carry out the removal steps in reverse order.
2. Route the Pulley on the Belt when installing the Carriage Motor. Figure 3
   a. Belt
   b. Pulley

REP 60.18 Full Rate Carriage (C8170)

Parts List on PL 60.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the IIT Right Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Right Cover.
3. Remove the Right Plate. PL 60.15
4. Remove the Platen Glass by lifting it up from the right side. PL 60.15
5. Remove the screws used to secure the Carriage Cable at the notch in the IIT frame. Figure 1
   a. Move the Full Rate Carriage to the notch in the IIT Frame.
   b. Remove the screws (Blue 2).

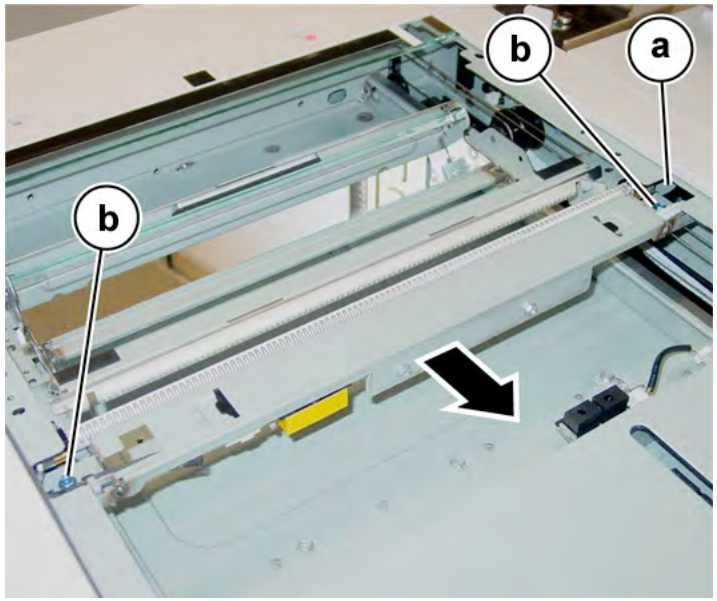


Figure 1 Full Rate Carriage securing screws

6. Remove the Full Rate Carriage. Figure 2
   a. Rotate the Full Rate Carriage in the direction of the arrows.
   b. Remove the Full Rate Carriage.

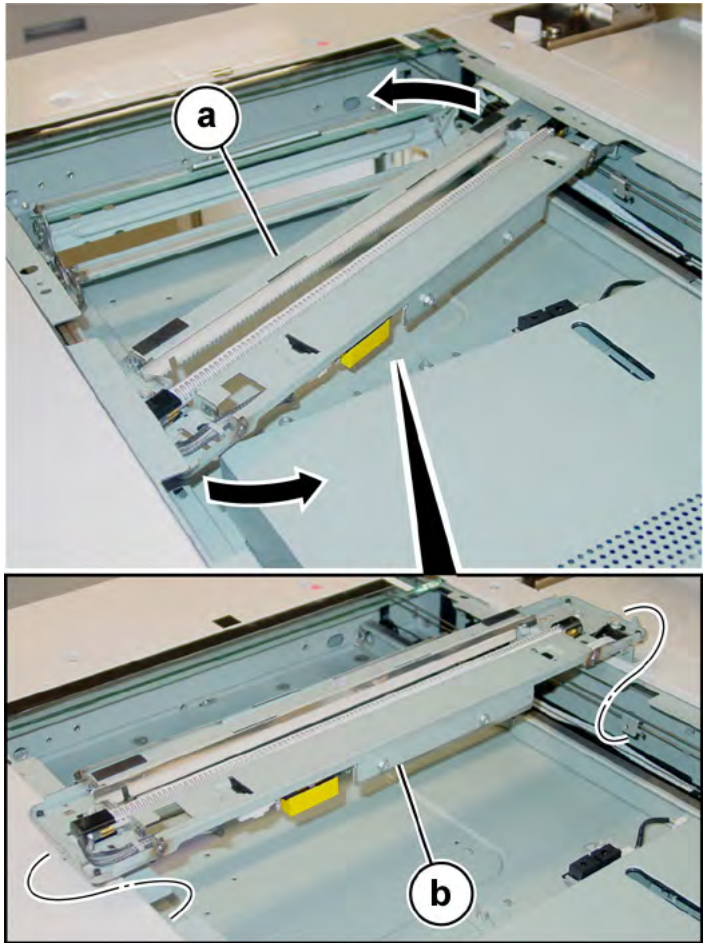


Figure 2 Full Rate Carriage removal

Replacement

1. To install, carry out the removal steps in reverse order.
2. Adjust the position of the Full Rate/Half Rate Carriages. ADJ 60.1
3. After replacement, perform IIT Calibration (ADJ 60.5).

REP 60.19 Rear Carriage Cable (C8170)

Parts List on PL 60.25

Removal

Note: The coatings of the Carriage Cable at the front and rear are different.

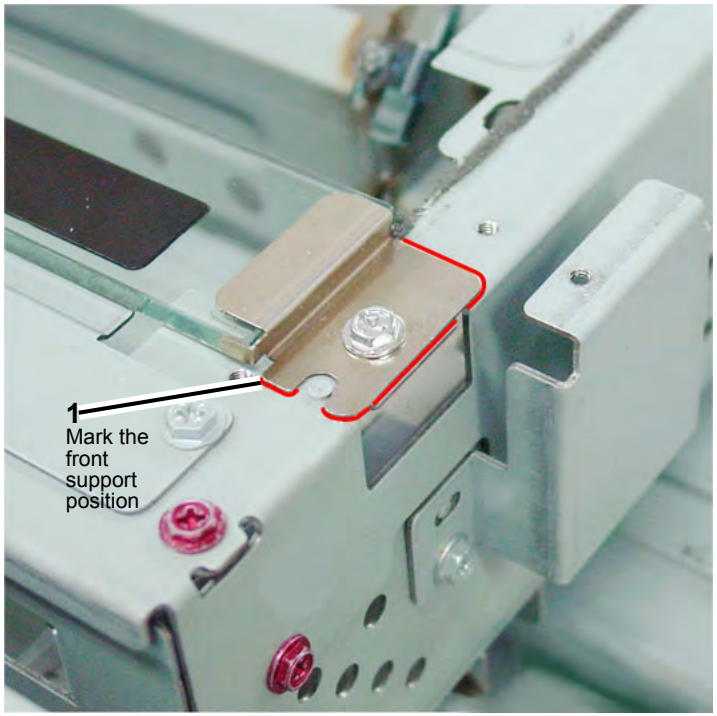
- Front: Black
- Rear: Silver

Note: This procedure describes the installation and removal procedures for the Rear Carriage Cable only.

Note: The Front and Rear Carriage Cables must be installed separately.

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the IIT Right Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Right Cover.
3. Remove the Right Plate. PL 60.15
4. Remove the Platen Glass by lifting it up from the right side. PL 60.15
5. Remove the IIT Left Cover. PL 60.10
   a. Remove (4) securing screws.
   b. Remove the IIT Left Cover.
6. Remove the IIT Front Cover. PL 60.10
   a. Remove (4) securing screws.
      - Top (2) screws.
      - Front (2) screws, located behind the Inner cover assembly. PL 28.05
   b. Remove the IIT Front Cover.
7. Mark the installation position of the Front Support. PL 60.15Figure 1



8. Remove the CVT Platen Glass. PL 60.15Figure 2
   a. Remove the screw.
   b. Remove the Support.
   c. Remove the CVT Platen Glass.

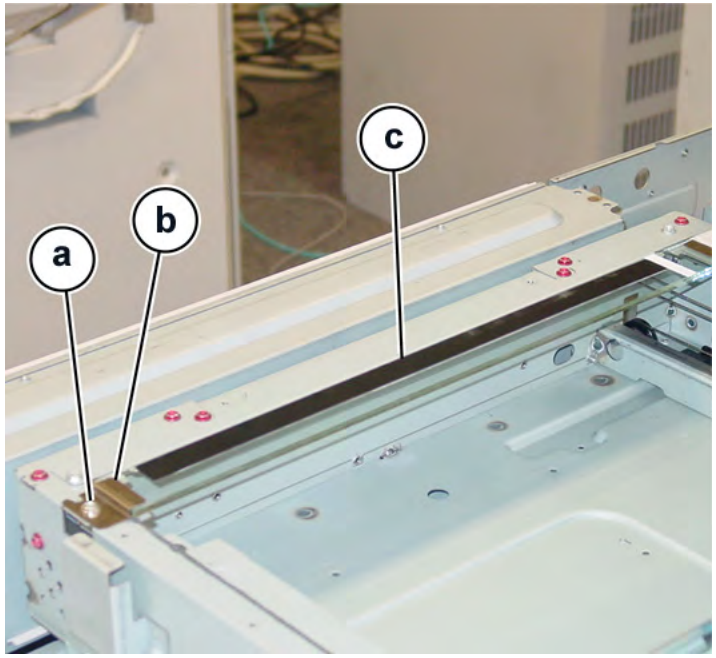


Figure 1 Removing the CVT Platen Glass

9. Take out the Full Rate Carriage from the IIT Frame. PL 60.20

   Note: The Slide Cable Connector can stay connected.

10. Move the Half Rate Carriage until the Carriage Cable ball of the capstan pulley is positioned according to the Conditions (a) and (b) described below. Figure 3

    a. Turns of the Carriage Cable.
       - Front: 3 Turns
       - Rear: 2 Turns

    b. The ball is on top.

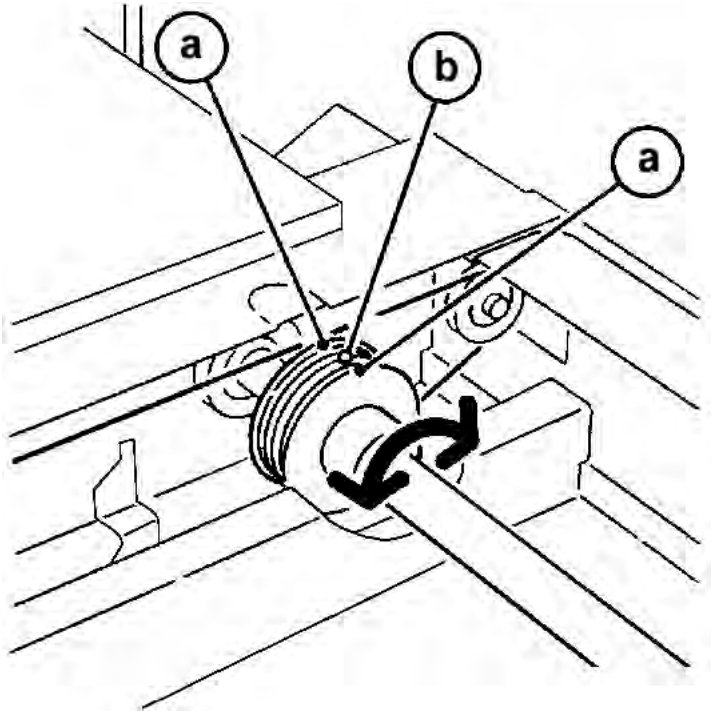


Figure 2 Position the Half Rate Carriage

11. Remove the Carriage Cable. Figure 4

    a. Remove the Tension Spring.
    b. Detach the Carriage Cable from the Tension Spring.
    c. Remove the ball from the groove.
    d. Remove the Carriage Cable.

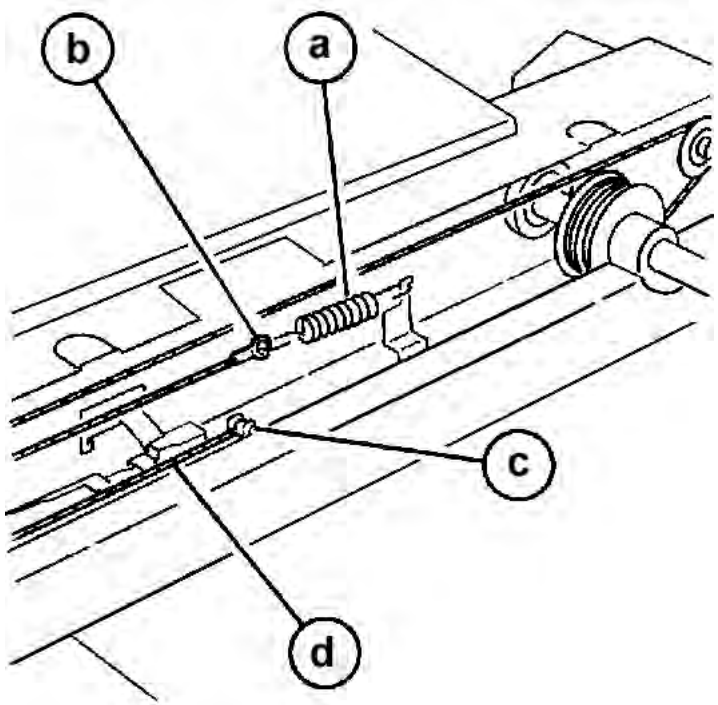
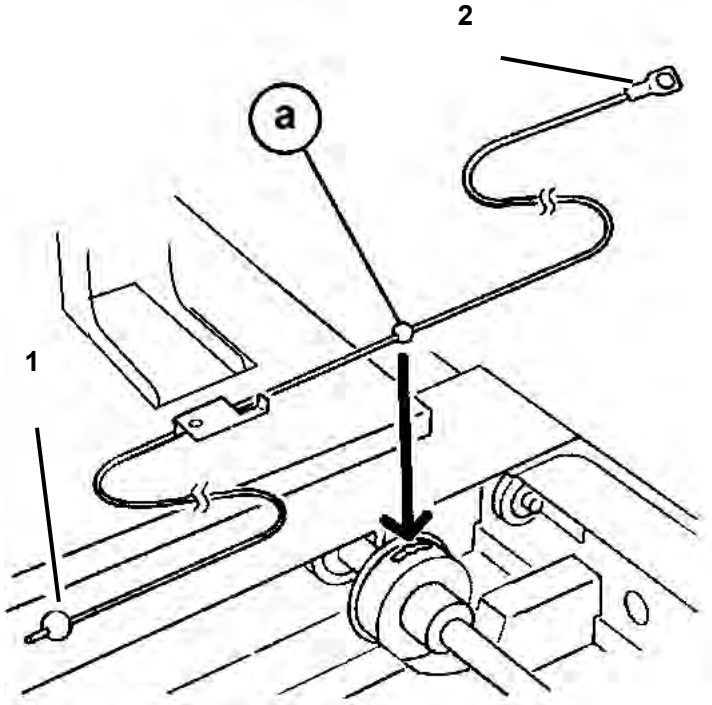


Figure 3 Removing the Carriage Cable

Replacement

1. Insert the Carriage Cable into the Capstan Pulley. Figure 5
   a. Insert the ball into the Capstan Pulley.



2. Wind the Clip end of the Carriage Cable for 3.5 turns. Figure 6
   a. Wind the Clip end of the Carriage Cable on the Capstan Pulley for 3.5 turns.
   b. Secure the Carriage Cable at the Clip end with tape.

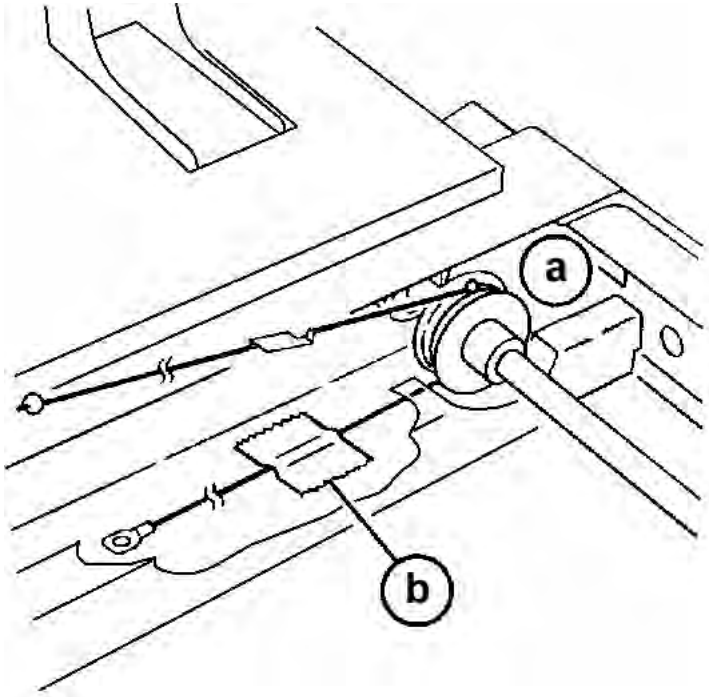


Figure 4 Winding Clip end of Carriage Cable on Capstan Pulley

3. Wind the Ball end of the Carriage Cable on the Capstan Pulley for 2.5 turns. Figure 7
   a. Wind the Ball end of the Carriage Cable on the Capstan Pulley for 2.5 turns.
   b. Tape the cable, wound on the Capstan Pulley, to prevent it from loosening.

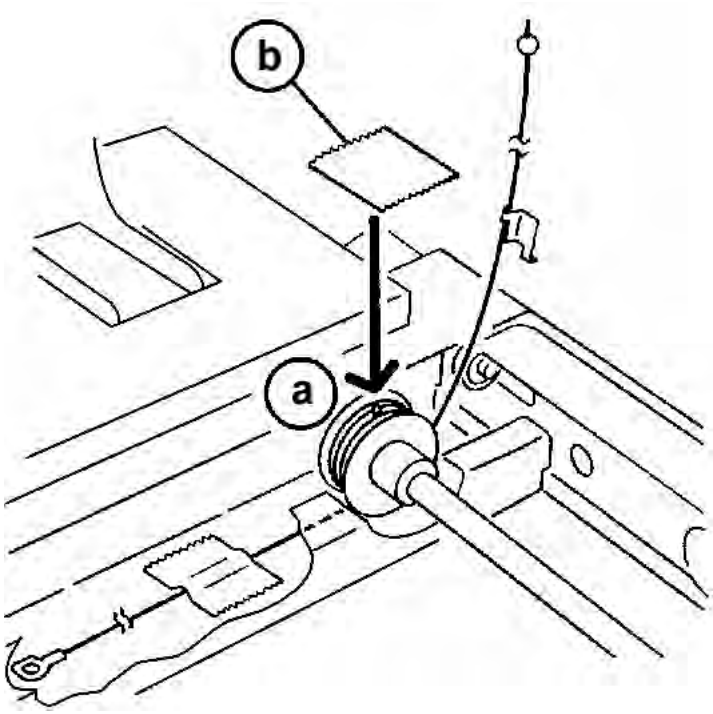


Figure 5 Winding Ball end of Carriage Cable on Capstan Pulley

Note: The following figure shows the respective number of turns of the Carriage Cable at the front and rear. (Figure 8)

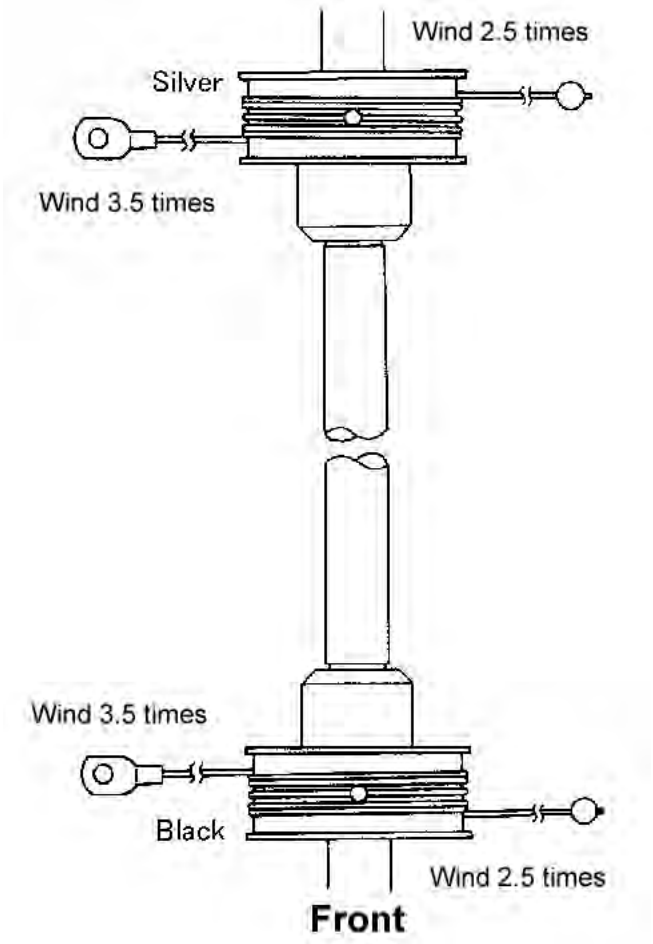


Figure 6 Carriage Cable Turns front and rear

4. Install the Ball end of the Carriage Cable. (Figure 9)
   a. Hang the Carriage Cable on the pulley. (From bottom to top.)
   b. Hang it on the larger pulley on the Half Rate Carriage. (From bottom to top.)
   c. Insert the ball into the groove on the IIT Frame.

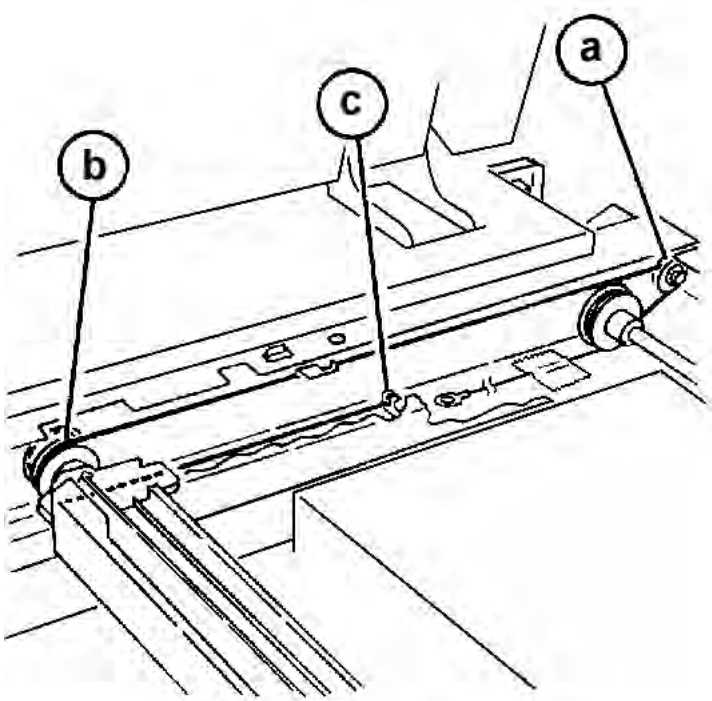


Figure 7 Installing Ball end of Carriage Cable

5. Install the Clip end of the Carriage Cable. (Figure 10)
   a. Hang the Carriage Cable on the pulley. (From bottom to top.)
   b. Hang it on the smaller pulley on the Half Rate Carriage. (From bottom to top.)
   c. Hang the Carriage Cable on the stud. (From bottom to top.)
   d. Attach the Tension Spring to the Clip of the Carriage Cable.
   e. Hook the Tension Spring to the IIT Frame.

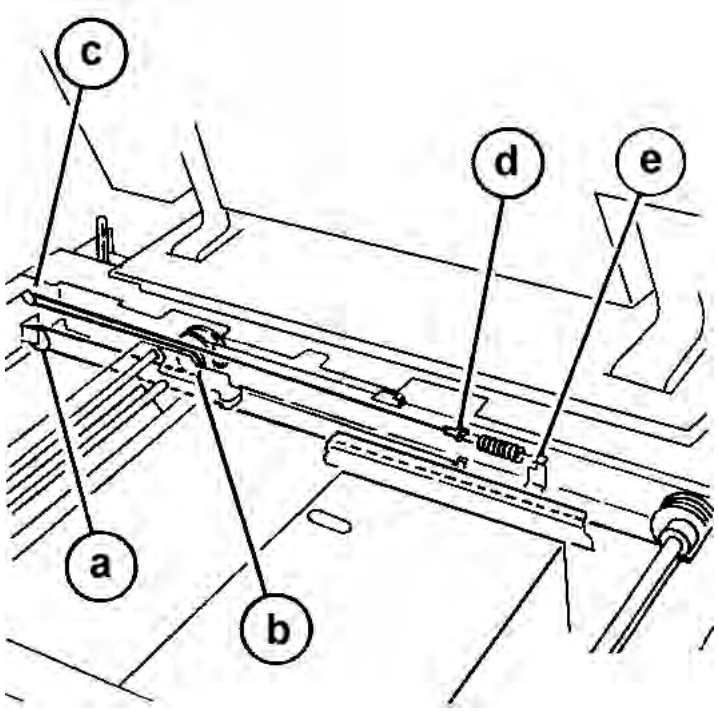


Figure 8 Installing Clip end of Carriage Cable

f. Remove the tape used to secure the cable from loosening.

g. Reinstall the Full Rate Carriage into the IIT Frame.

h. Adjust the position of the Full Rate/Half Rate Carriage. ADJ 60.1

i. Manually move the Full Rate Carriage to ensure that it moves smoothly.

6. Continue the installation by performing the removal steps from Step 8 in reverse order.

REP 60.20 IIT Trans PWB (C8170)

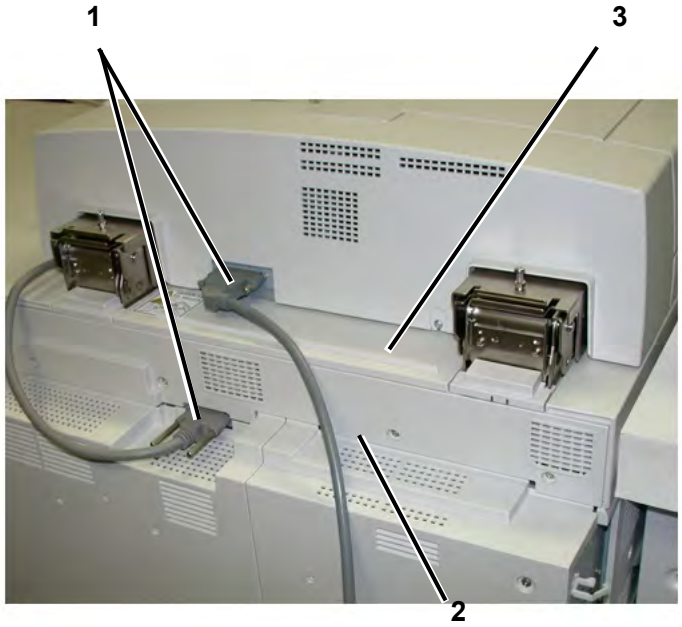
Parts List on PL 60.20

Removal

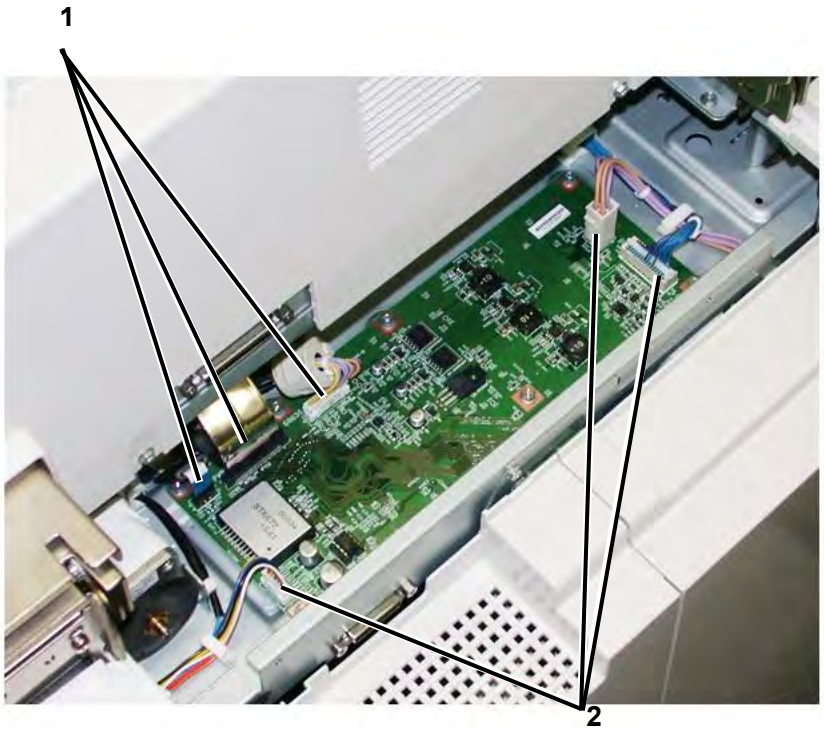
WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

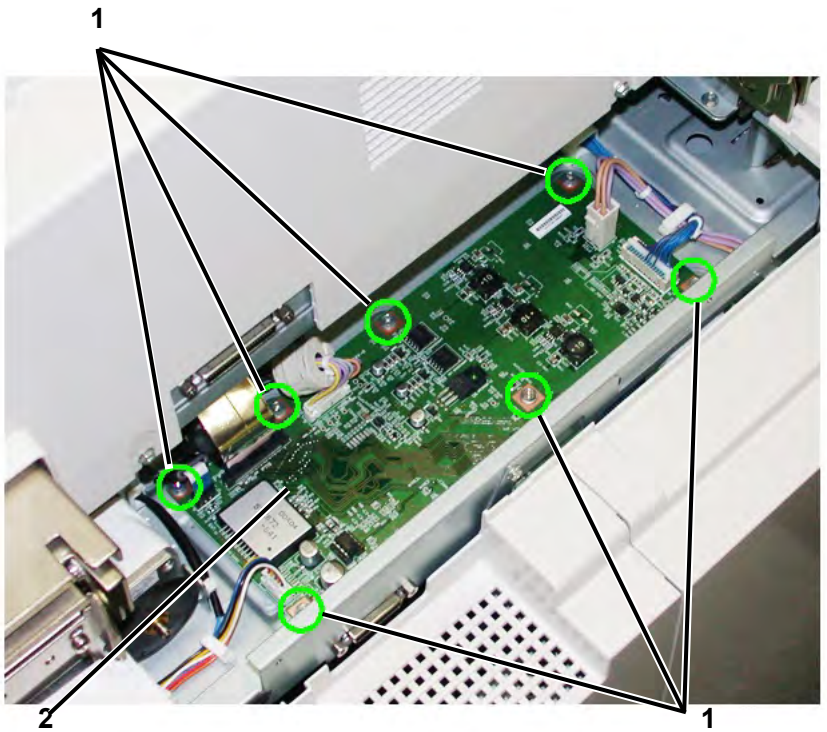
1. Access the IIT PWB.
   - 1. Disconnect two connectors on the rear of the machine. (Figure 1)
     2. Remove the IIT Rear Cover (PL 60.10).



2. Disconnect six (6) connectors. (Figure 2)



3. Remove the IIT PWB. (Figure 3)
   - 1. Remove seven (7) screws.
   - 2. Remove the IIT PWB.



Replacement

1. To install, perform the removal steps in reverse order.
2. Print a Systems settings list and compare with the list printed at the beginning of the procedure. If the IIT s/w versions do not match, you must reload IIT software.

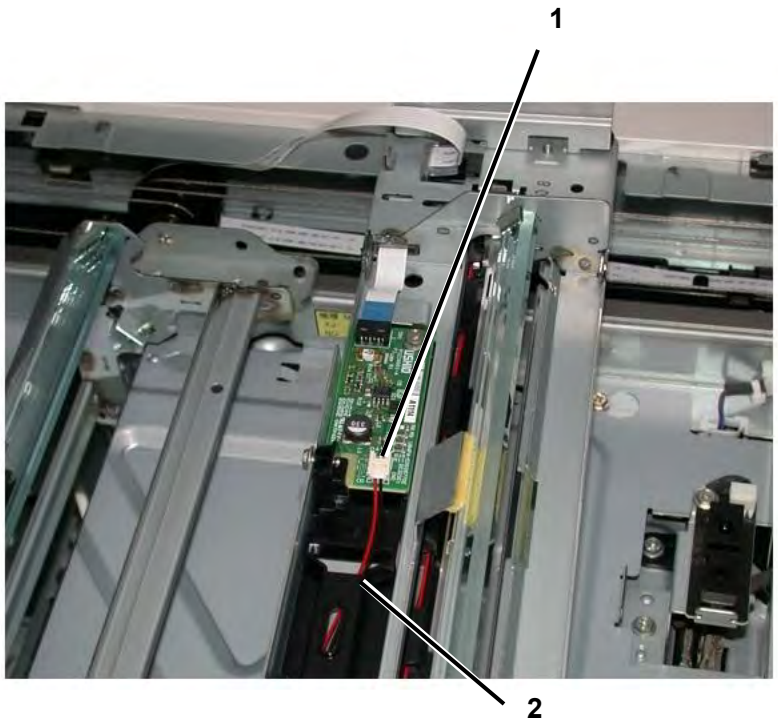
REP 60.21 Exposure Lamp (C8170)

Parts List on PL 60.30

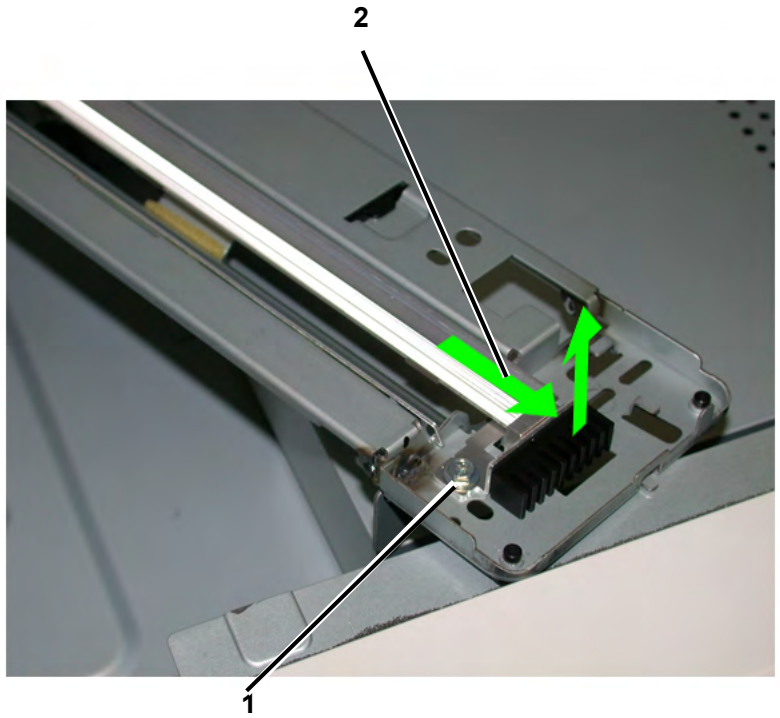
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the Full Rate Carriage. Refer to REP REP 60.18 (PL 60.20) and place the carriage upside-down.
2. Disconnect the connector (Figure 1).
   - 1. Disconnect the 2-pin connector, CN2.
   - 2. Feed the connector and cables through the channel.



3. Flip the Full Rate Carriage so that it is right-side up and remove the Exposure Lamp. (Figure 2)
   - 1. Remove the mounting screw.
     2. Slide the lamp outboard and lift up to remove.



Replacement

1. Replace in reverse order.
2. After replacement, perform IIT Calibration (ADJ 60.5).
3. When replacing, enter into Diagnostic mode dC135 .
   - Chain Link: 956-803
   - Chain Link: 956-804

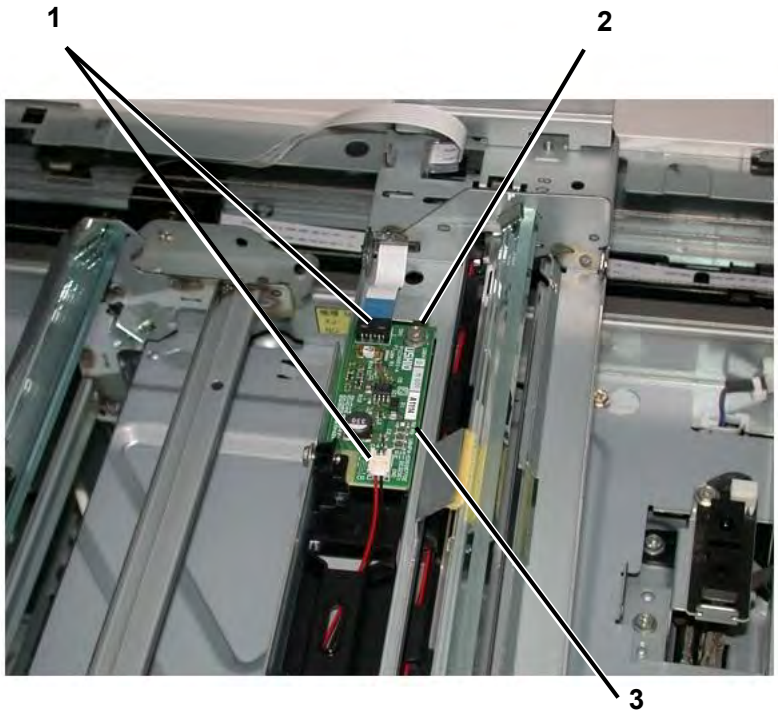
REP 60.22 Lamp PWB (C8170)

Parts List on PL 60.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the Full Rate Carriage. Refer to REP 60.18 (PL 60.30) and place the carriage upside-down.
2. Remove the Lamp PWB (Figure 1).
   - 1. Disconnect the Ribbon cable (CN1) and the two-pin connector (CN2).
     2. Remove the mounting screw.
     3. Remove the Lamp PWB.



Replacement

1. Replace in reverse order.

REP 60.23 Slide Chord (C8170)

Parts List on PL 60.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Switch off the power and disconnect the power cord.
2. Remove the Full Rate Carriage. REP 60.18PL 60.30
3. Remove the Harness Guide from the Full Rate Carriage. (Figure 1)
   a. Remove the securing screw.
   b. Remove the Harness Guide.

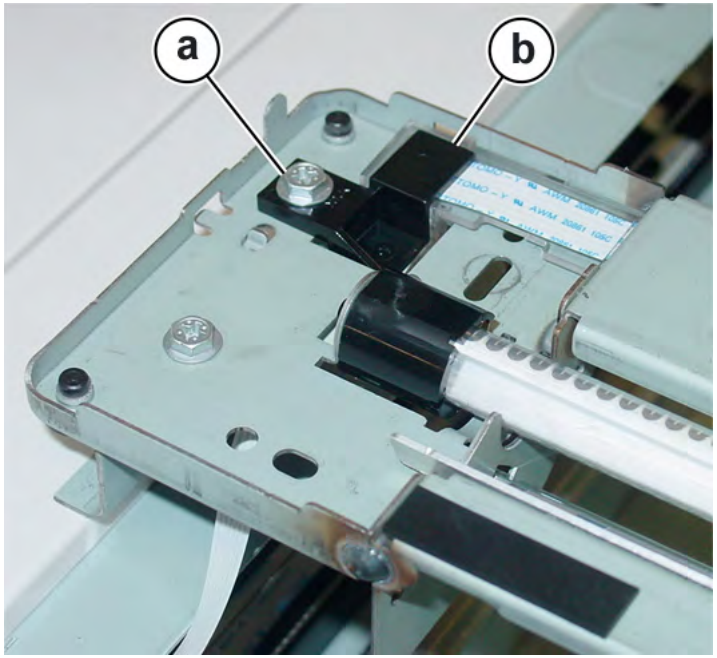


Figure 1 Removing the Full Rate Carriage Harness Guide

4. Turn the Full Rate Carriage upside down.
5. Remove the Slide Cord from the Full Rate Carriage. (Figure 2)
   a. Pull out the Slide Cord and disconnect the connector.
   b. Remove the Slide Cord.

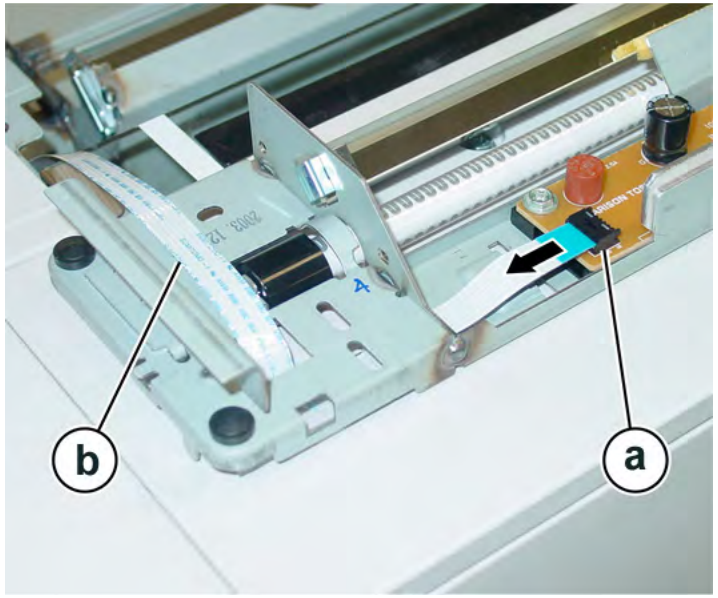
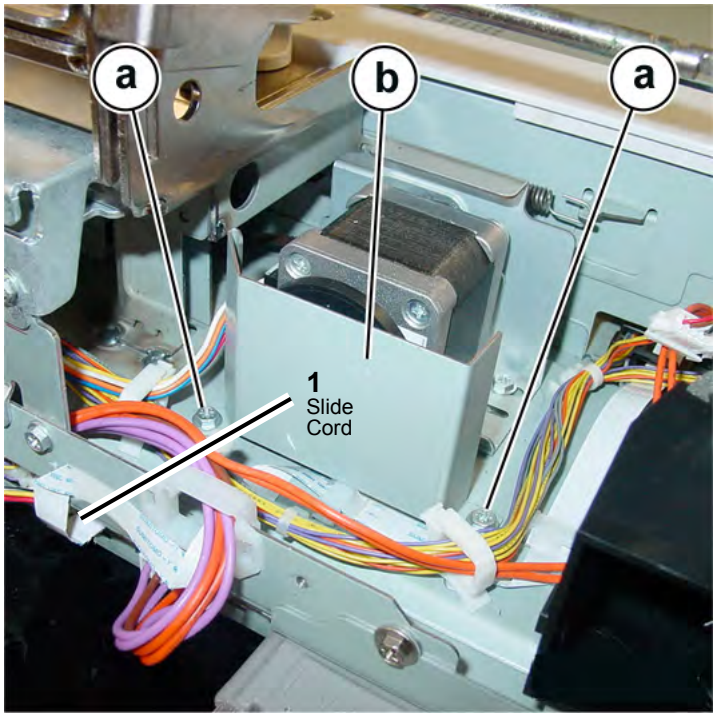


Figure 2 Removing Slide Cord from Full Rate Carriage

6. Remove the Carriage Motor Guard PL 60.25 (Figure 3)
   a. Remove (2) screws securing the Motor Guard.
   b. Remove the Motor Guard.



7. Disconnect the Slide Cord at the rear of the IPS by pulling the cord out of its connector.
8. Release the (4) cable clamps and remove the Slide Cord.
9. Remove the Slide Cord from the pulley of the Half Rate Carriage. (Figure 4)
   a. Remove the Slide Cord from the pulley.
   b. Remove the Slide Cord from the hooks (2).

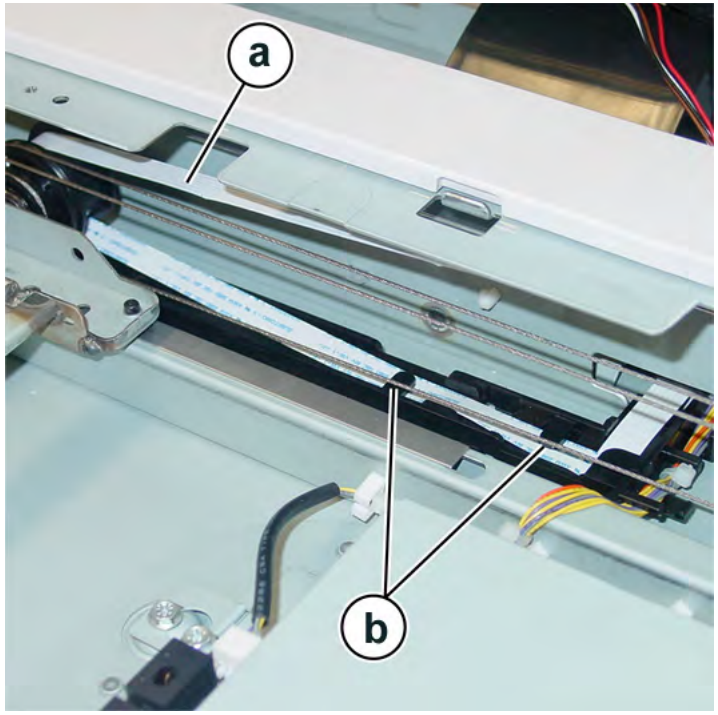


Figure 3 Removing the Slide Cord from Half Rate Carriage

Replacement

1. To install, carry out the removal steps in reverse order.
2. Adjust the position of Full Rate/Half Rate Carriages (ADJ 60.1).

REP 60.25 Document Glass

Parts List on PL 60.40

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Raise the DADF.
2. Remove the right plate, PL 60.40.
3. Remove the document glass, PL 60.40.

Replacement

1. The replacement is the reverse of the removal procedure.
2. Before tightening the two screws, align the document glass in the direction of arrow 1and the right plate in the direction of arrow 2, Figure 1 .

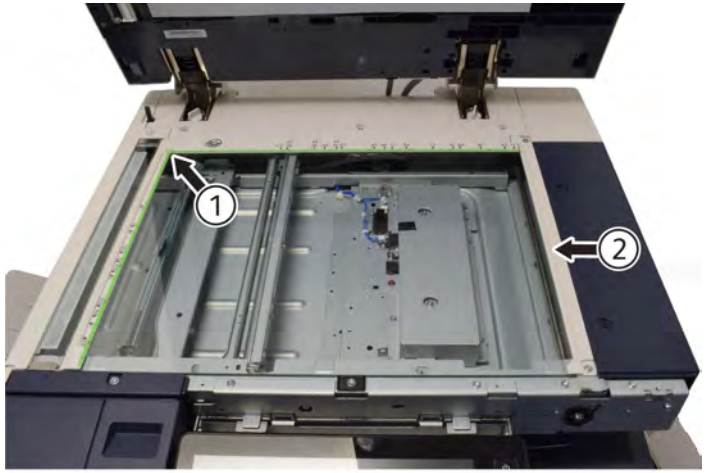


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Figure 1 Alignment

3. If the platen glass has been replaced Enter DC 945 IIT Calibration, then perform the IIT calibration routines

REP 60.29 CCD Lens Assembly

Parts List on PL 60.45

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the document glass. Refer to REP 60.25
2. Remove screws x 6 (1), then remove the lens cover assembly. PL 60.45 Refer to Figure 1

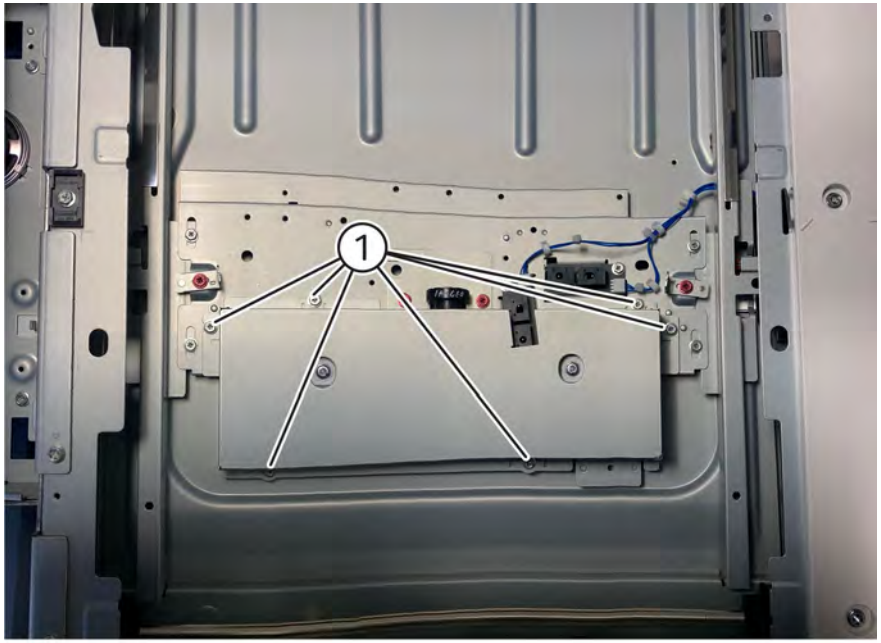

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Figure 1 Lens cover screws

3. Move the APS sensors, Fig 2Figure 2
   a. Remove two screws (1).
   b. Release the wiring harness from the CCD lens assy,(2).
   c. Move the APS sensors (3).

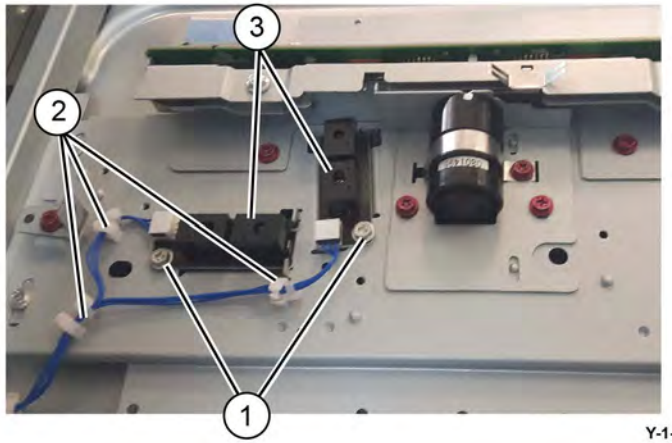

Figure 2 APS sensors

4. Disconnect the two wiring harnesses from the CCD PWB. Refer to Figure 2 .

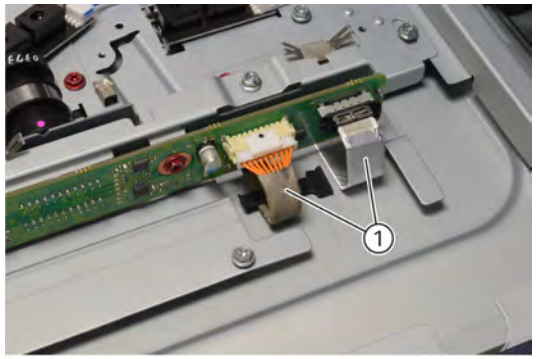

Figure 3 FFC CCD ribbon cable

5. Remove the CCD lens assembly,PL 60.45 Figure 3 :
   a. Remove four screws (1).
   b. Remove the CCD lens assembly (2).

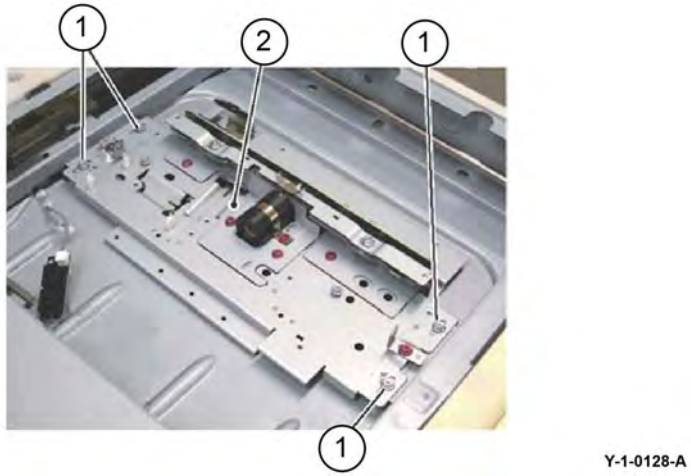

Figure 4 CCD lens assembly removal

Replacement

1. Reconnect the two ribbon cables.
2. Reinstall the APS sensor and lens cover assembly.
3. Reinstall the document glass.
4. Perform ADJ 60.4 Optical Axis Calibration

REP 60.30 Front/Rear Carriage Cables

Parts List on PL 60.50

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

WARNING: Take care during this procedure. Sharp edges may be present can cause injury.

CAUTION: The edge of the IIT frame has a burr. Be careful when disconnecting the carriage cable.

Note: The colour of the front and rear carriage cables are different. The front cable is silver, the rear cable is black.

Note: The installation of a new rear carriage cable is described in this procedure. The replacement procedure for the front carriage cable is the same.

CAUTION: Carriage cables must be replaced one at a time. Do not remove both front and rear cables at the same time.

1. Raise the DADF.
2. Remove the document glass. REP 60.25
3. Remove the UI assembly, REP 2.1.
4. Remove the IIT left cover, PL 60.35.
5. Remove Pillar cover PL 28.15
6. Remove IIT Front cover PL 28.15
7. Mark the installation position of the front CVT glass support (1). Figure 1 .

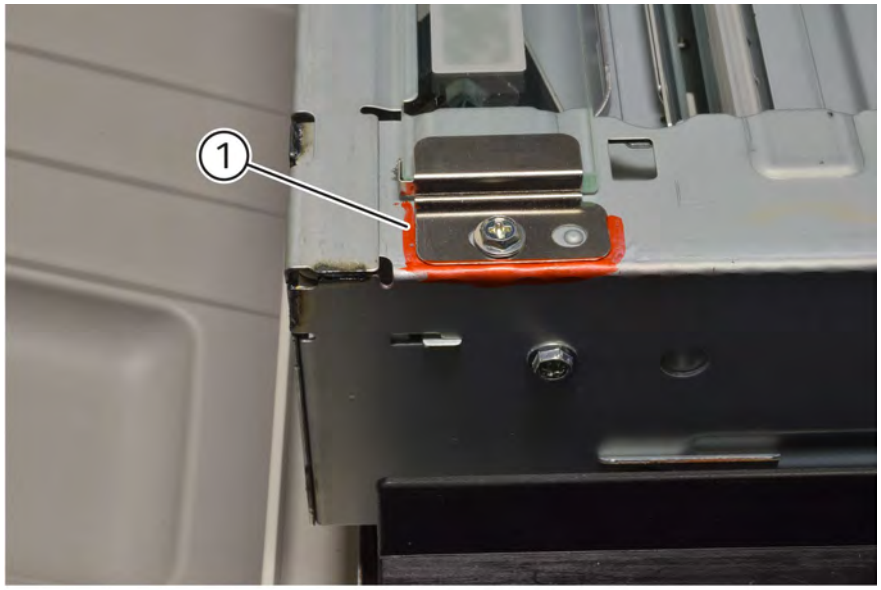

Figure 1 Front glass support

8. Remove the CVT glass.PL 60.40 Figure 2 :

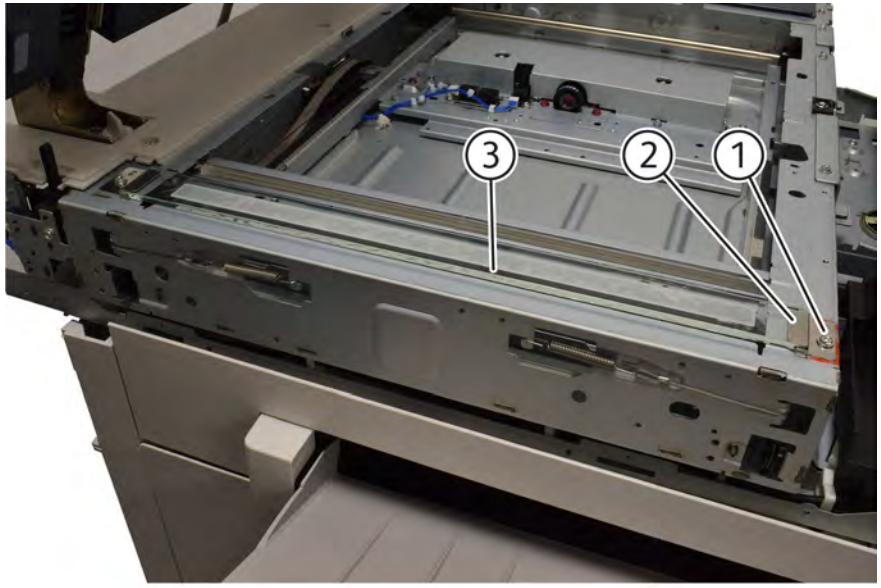

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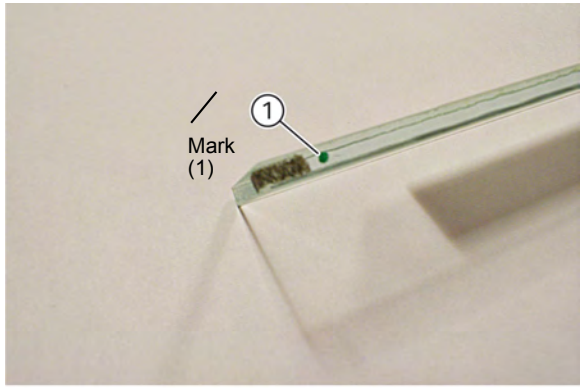
Figure 2 CVT glass removal.

a. Remove the screw (1).
b. Remove the front CVT glass supportPL 60.40 (2).
c. Remove the CVT glass (3).

Note: The CVT glass must be refitted with the mark toward the rear of the machine. Refer to Figure 3 .



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9. Detach the carriage cable from the full rate carriage. Figure 4 :
   a. Move the full rate carriage (1) to the cutout in the frame.
   b. Remove the screw (2).

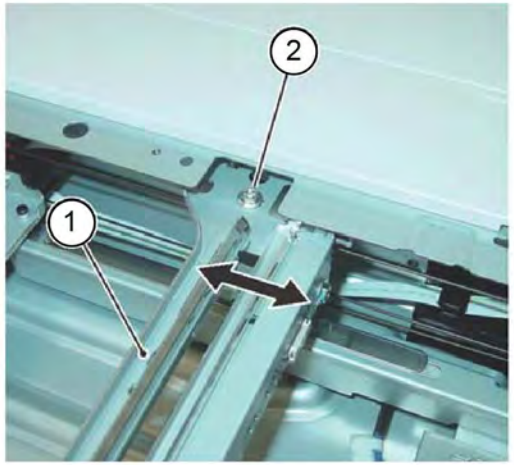

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Figure 3 Cable detachment

10. Prepare to remove the carriage cable. Figure 5
    a. Unhook the extension spring (1) from the frame.
    b. Detach the cable (2) from the extension spring.

Figure 4 Preparation

11. Remove the anchor ball (1) from the notch in the frame, then remove the carriage cable. Figure 6

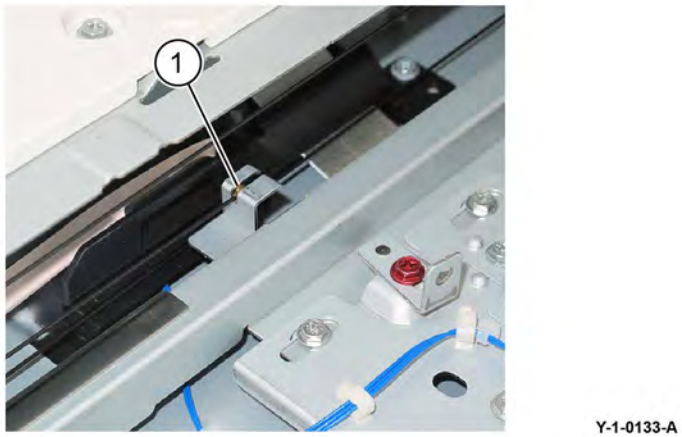


Figure 5 Cable removal

Replacement

1. Insert the anchor ball of the carriage cable into the groove in the capstan. Figure 7

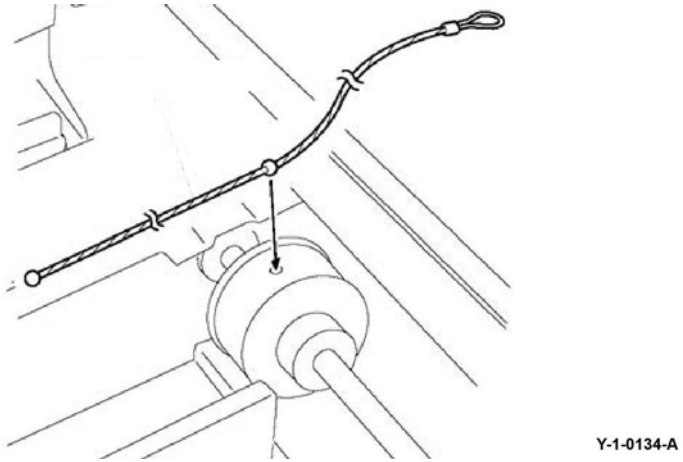


Figure 6 Anchor ball

2. Wind the extension spring loop end of the carriage cable around the capstan. Figure 8
   a. Wind the cable (1) 2.5 turns.
   b. Use adhesive tape (2) to affix the extension spring loop end of the cable to the frame.

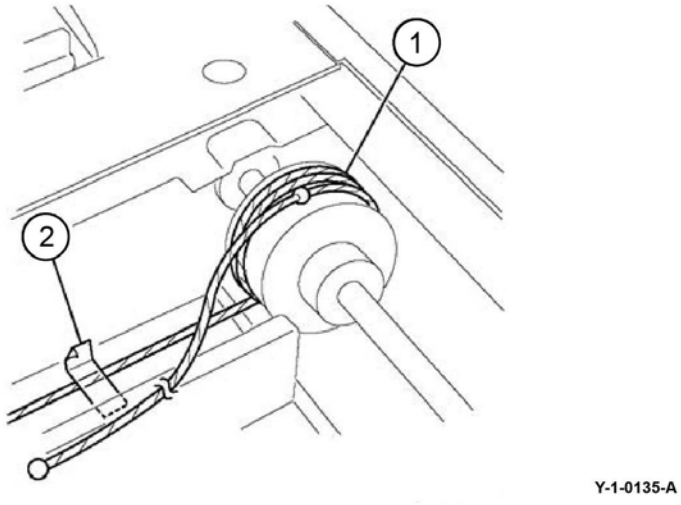


Figure 7 Capstan winding (1)

3. Wind the end-ball end of the carriage cable around the capstan. Figure 9
   a. Wind the cable (1) 3 turns.
   b. Use adhesive tape (2) to affix the cable to the capstan.

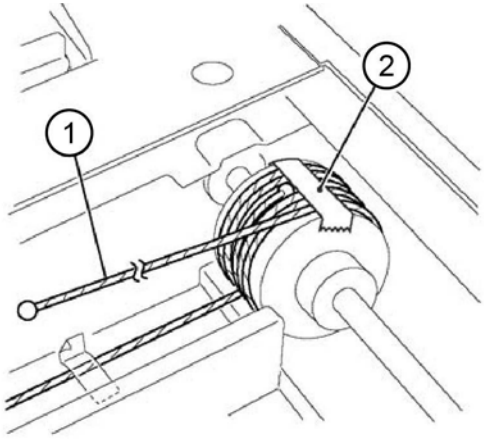
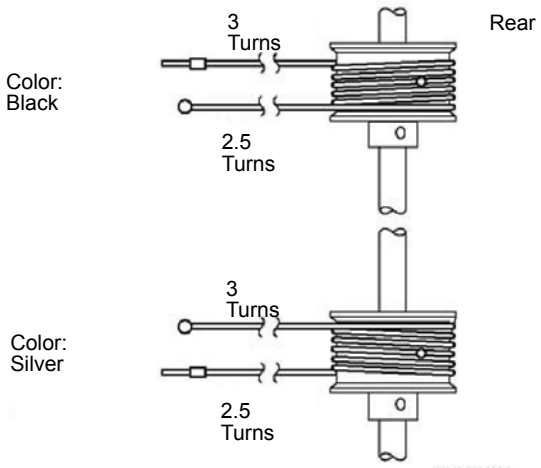


Figure 8 Capstan winding (2)

4. Figure 10 shows the correct arrangement of the cables, front and rear.



5. Install the end-ball end of the carriage cable. Figure 11
   a. Wrap the cable on the pulley at the front of the half rate carriage (1).
   b. Put the end-ball in the notch in the frame (2).

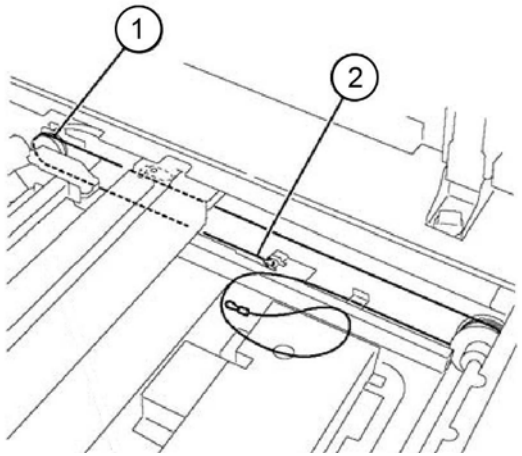


Figure 9 End-ball end installation

6. Attach the extension spring hanger end of the carriage cable. Figure 12
   a. Remove the tape (1) that secures the cable.
   b. Wrap the cable on the pulley (2).
   c. Wrap the cable on the pulley at the rear of the half rate carriage (3).
   d. Attach the extension spring on the cable and hook it to the Frame (4).

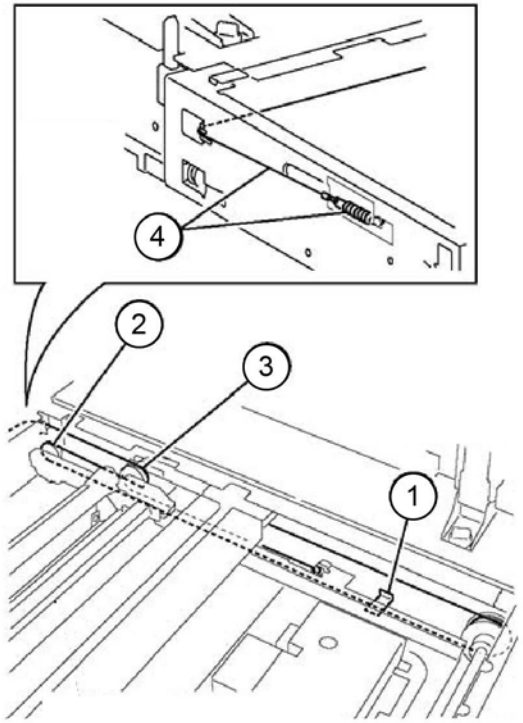


Figure 10 Spring attachment

7. Loosely attach the cable to the full rate carriage. Figure 13
   a. Remove the tape (1).
   b. Move the full rate carriage (2) to the cutout (4) in the frame.
   c. Loosely attach the cable to the full rate carriage (3).

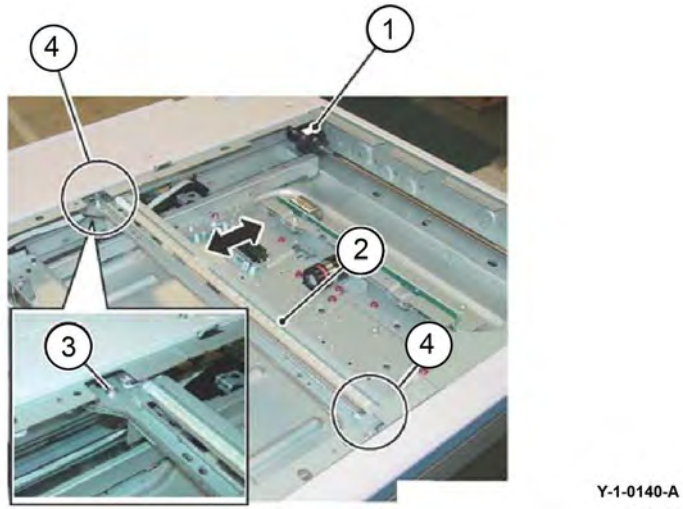


Figure 11 Full rate carriage attachment

8. Perform ADJ 60.1 Full/Half Rate Carriage Position Adjustment.
9. Reinstall all removed components.

REP 60.31 Lamp Assembly

Parts List on PL 60.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the chip on the lamp assembly.

1. Open the DADF.
2. Remove the document glass, REP 60.25
3. Move the full rate carriage to the cutouts in the frame.
4. Disconnect the FFC LED cable assembly, Figure 1 :
   a. Move the connector housing catch (2) in the direction of the arrows.
   b. Disconnect the FFC LED cable assembly.

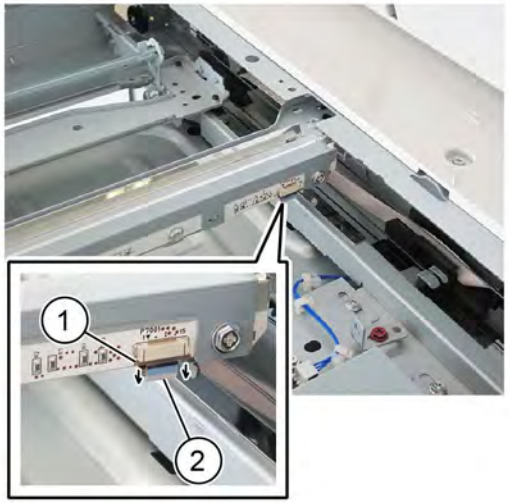


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Figure 1 FFC LED cable assembly

5. Remove the LED bracket, Figure 2 :
   a. Remove three screws (1).
   b. Remove the LED bracket (2).

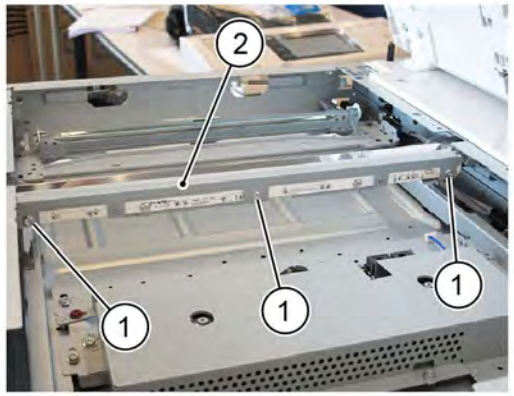

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Figure 2 LED bracket removal

6. Remove the lamp assembly, Figure 3 :
   a. Remove two screws (1).
   b. Remove the lamp assembly (2).

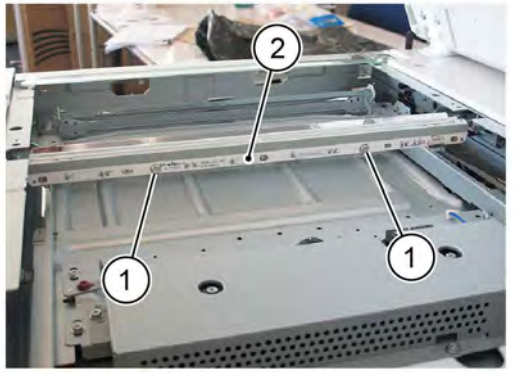

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Figure 3 Lamp assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. When installing the lamp assembly, first tighten screw (1), then screw (2), Figure 4 .
3. When installing the LED bracket, first tighten screw (3), then screw (4), then screw (5), Figure 4 .

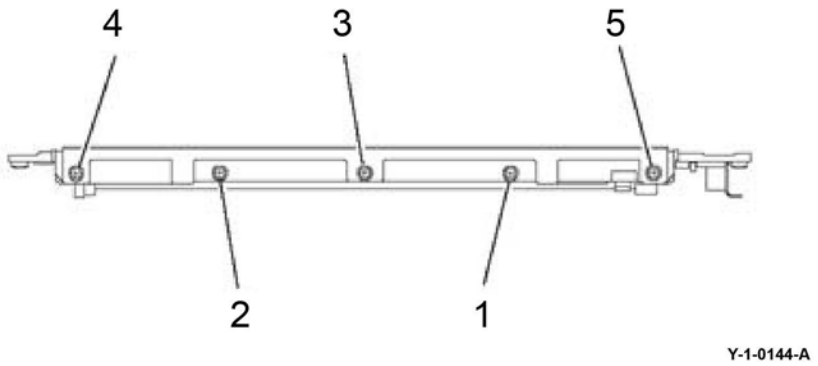

Figure 4 Screws

4. Enter ADJ 60.5 IIT Calibration, then perform the following routines:
   - White Reference Adjustment-Side 1.
   - CCD Calibration-Side 1.

REP 60.32 LED Ribbon Cable

Parts List on PL 60.55

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the chip on the lamp assembly.

1. Remove the DADF, Refer to REP 5.60
2. Remove the upper rear cover.
3. Disconnect the LED ribbon cable. PL 60.55 Refer to Figure 1
   a. Move the connector housing catch (2) in the direction of the arrows.
   b. Disconnect the LED cable assembly (1) From the IIT Trans PWB. PL 60.45

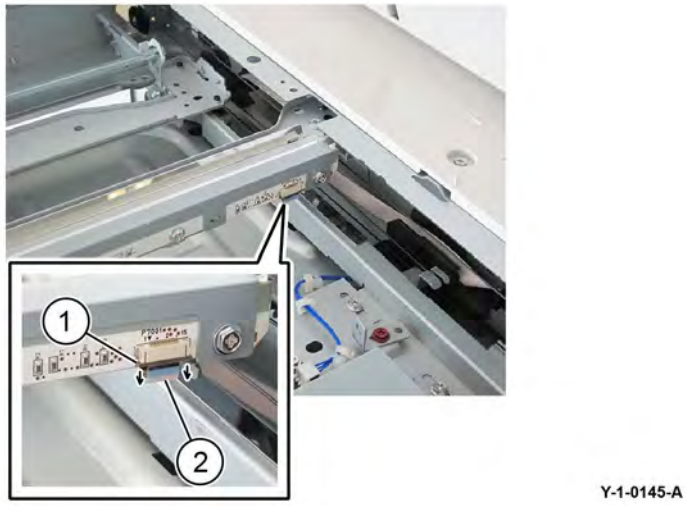

Figure 1 LED ribbon cable

CAUTION: Be careful when lifting out the full rate carriage. It is still connected to the FFC cable and cannot be fully removed from the scanner assembly.

4. Lift out the full rate carriage from the scanner assembly, Figure 2 :
   a. Move the full rate carriage (1) to the cutouts in the frame.
   b. Remove two screws (2).
   c. Carefully lift out the full rate carriage.

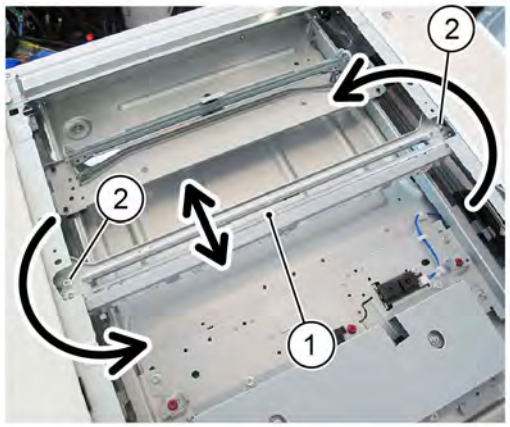

Figure 2 Full rate carriage removal

5. Turn the full rate carriage upside down.
6. Disconnect the FFC LED cable assembly from the full rate carriage, Figure 3 :
   a. Remove the screw, then remove the plate (1).
   b. Disconnect the FFC LED cable assembly (2).

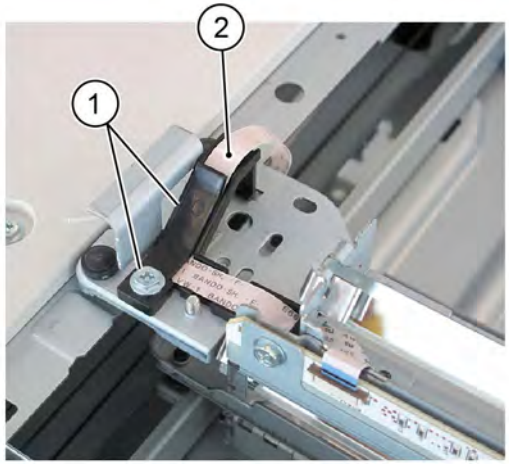

Figure 3 Cable assembly disconnection (1)

7. Disconnect the FFC LED cable assembly (1) from the half rate carriage harness guide (2), Figure 4 .

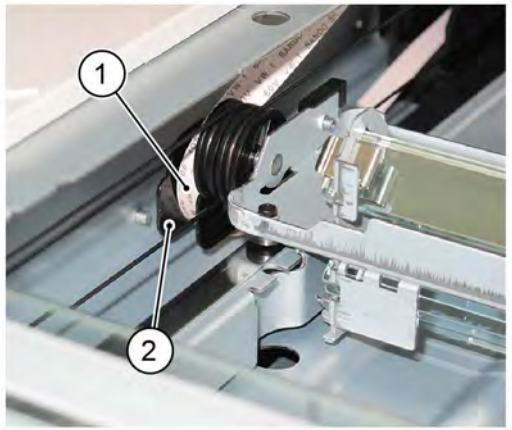

Figure 4 Harness guide

8. Disconnect the FFC LED cable assembly from the guide, Figure 5 .

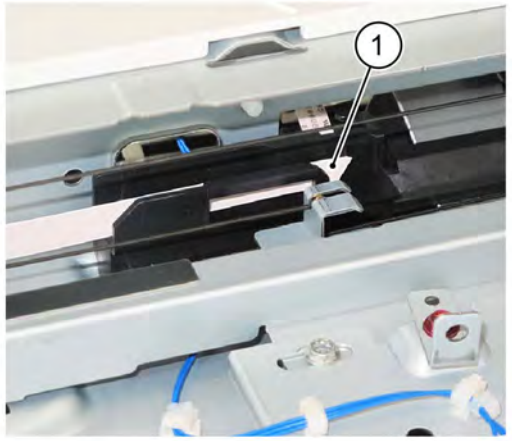

Figure 5 Cable assembly disconnection (2)

9.
   a. Disconnect the FFC LED cable assembly from the IIT Trans PWB (1)PL 60.45Refer to Figure 6

Figure 6 Cable assembly disconnection (3)

Replacement

1. The replacement is the reverse of the removal procedure.

REP 60.33 Light Guide

Parts List on PL 60.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the light guide with bare hands.

1. Remove the DADF. REP 5.60
2. Remove the document glass. REP 60.25
3. Move the full rate carriage to the cutouts in the frame.
4. Remove the LED bracket, Figure 1 :
   a. Remove three screws (1).
   b. Remove the LED bracket (2).

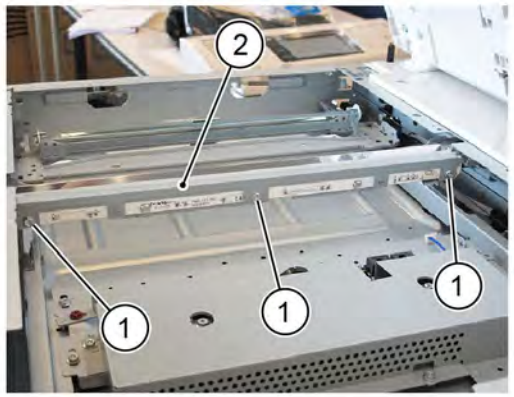

Figure 1 LED bracket removal

5. Remove the light guide, Figure 2 :
   a. Remove the screw (1).
   b. Remove the spring guide (2).
   c. Remove the screw (3).
   d. Remove the spring guide (4).
   e. Remove the light guide (5).

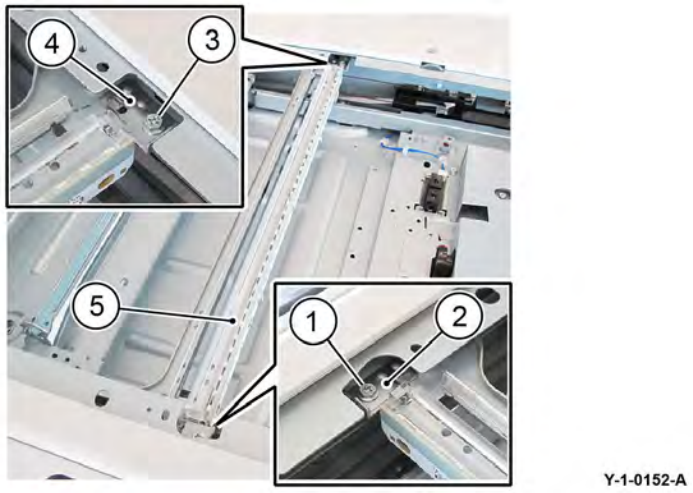

Figure 2 Light guide removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. When installing the light guide, insert the boss into the locating hole in the full rate carriage.

REP 60.34 IIT Carriage Motor

Parts List on PL 60.50

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the DADF. REP 5.60
2. Remove the IIT rear cover.PL 60.35
3. Remove the IIT top cover,PL 60.35
4. Remove the IIT scan motor assembly, Figure 1
   a. Disconnect the connector (1).
   b. Remove the tension spring (2).
   c. Remove three screws (3).
   d. Remove the IIT scan motor assembly (4).

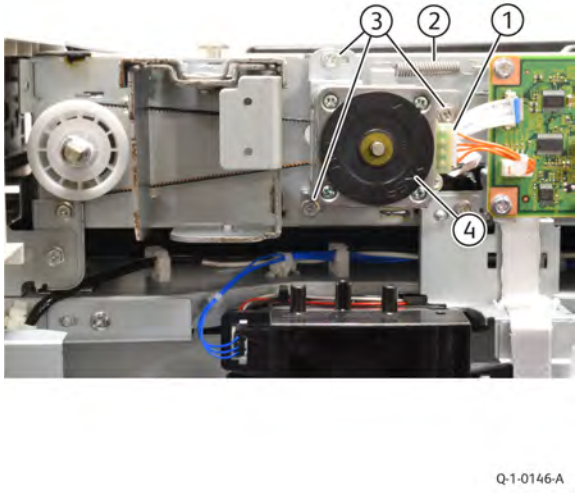

Figure 1 Carriage motor assembly removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. Attach the timing belt (1) to the Carriage Motor pulley, Figure 2

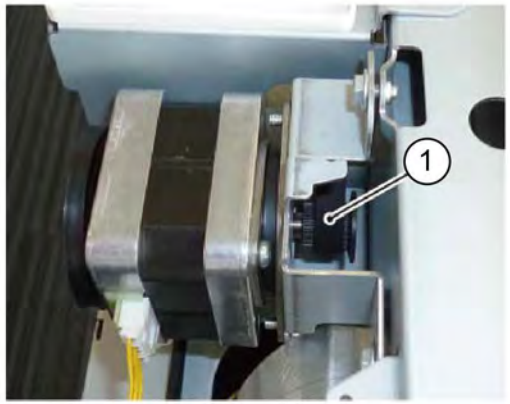

Figure 2 Timing belt

3. Be aware of the steps that follow when reinstalling the Carriage Motor assembly:
   a. Attach the extension spring.
   b. Loosely install the Carriage Motor assembly and timing belt.
   c. Ensure that the timing belt is correctly attached to the carriage.
   d. Fully tighten the screws that secure the IIT Carriage Motor assembly.
4. After installing the Carriage Motor assembly, check that the full rate carriage moves smoothly.

REP 60.35 CCD Cont Video Ribbon Cable

Parts List on PL 60.45

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4 . Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the CCD lens assembly. Refer to REP 60.29
2. Unstick ribbon cable from base of scanner (1). Refer to Fig 1

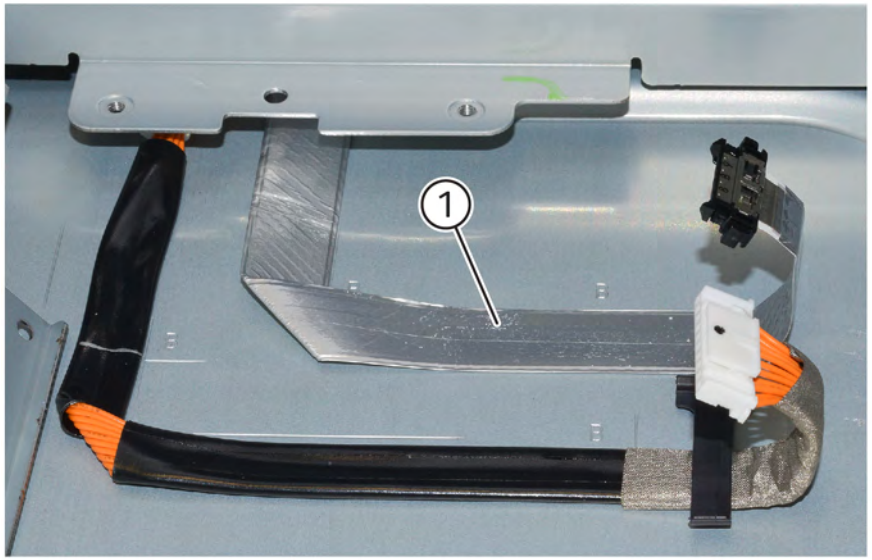

Figure 1 CCD cont video ribbon cable

Replacement

CAUTION: When refitting the ribbon cable use the marks on the scanner base as a guide.

Replacement is the reverse of the removal procedure.

REP 60.36 IIT Trans PWB (C8130/35/45/55)

Parts List on PL 60.45

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: If any of the serial number storage PWBs are to be replaced (Controller PWB, IIT trans PWB, motor drive PWB, HDD/SSD or MCU PWB) replace them one at a time and then run the machine to allow the serial number to update the new PWB. If multiple PWBs are replaced at the same time this will cause unrecoverable NVM corruption. (Refer to dC132.)

1. Remove IIT rear cover PL 60.35
2. Remove connectors from IIT Trans PWB
3. Remove screws
4. Remove IIT PWB

Replacement

The replacement is the reverse of the removal procedure.

REP 70.1 Tray 1 and Tray 2 Paper Size Sensor

Parts List on PL 70.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove tray 1 and tray 2 to gain access to the inside-rear of the machine.
2. Remove the failed paper size sensor, PL 70.05. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Remove the failed paper size sensor (3).

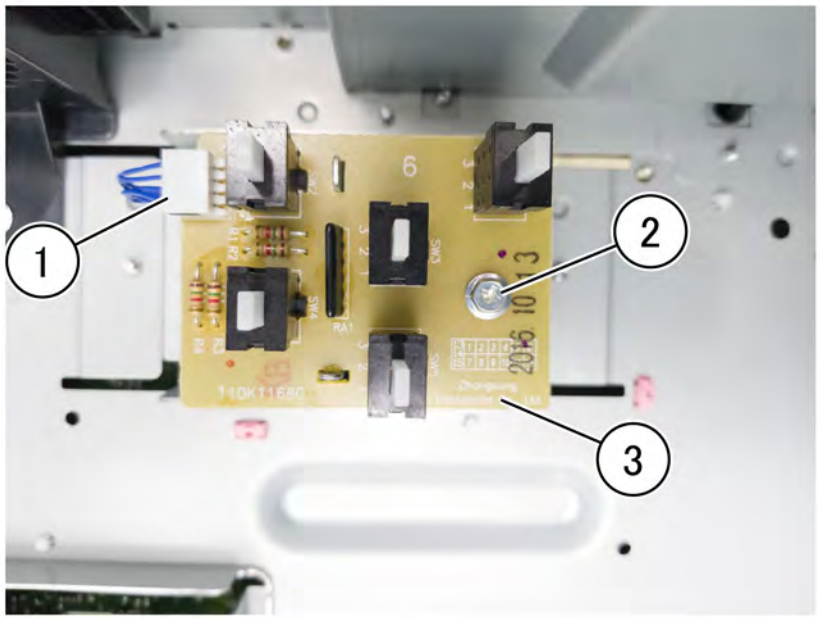

Figure 1 Tray 1/2 paper size sensor

Replacement

The replacement is the reverse of the removal procedure.

REP 70.2 Pivot

Parts List on PL 70.50

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Separate the bypass tray from the lower frame assembly, Figure 1.
   a. Remove two screws (1).
   b. Release the tray link cover from the lower frame assembly (2).

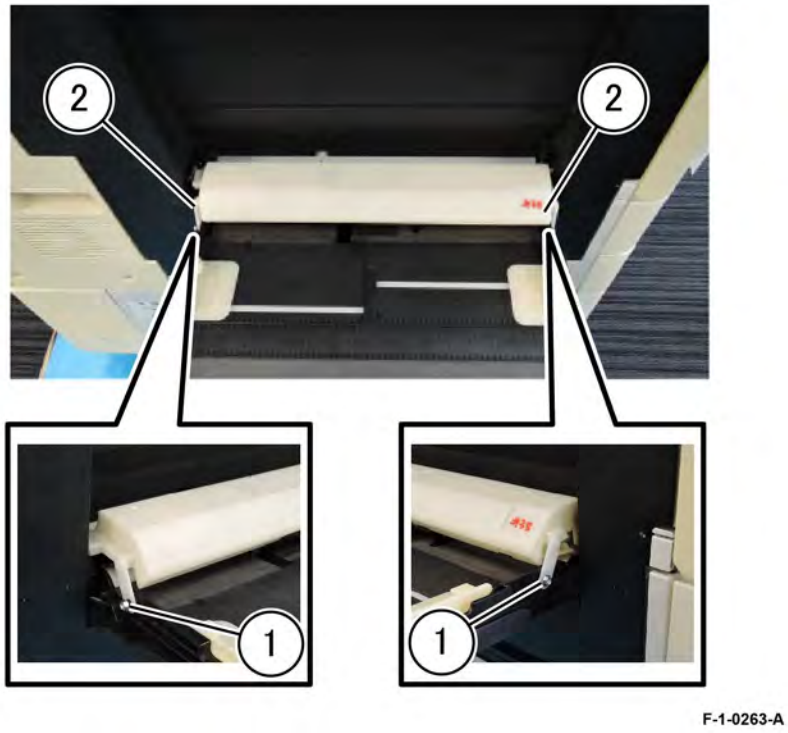

Figure 1 Tray link cover

2. Remove the top chute assembly, Figure 2.
   a. Release four latches (1) then (2).
   b. Remove the top chute assembly (3).

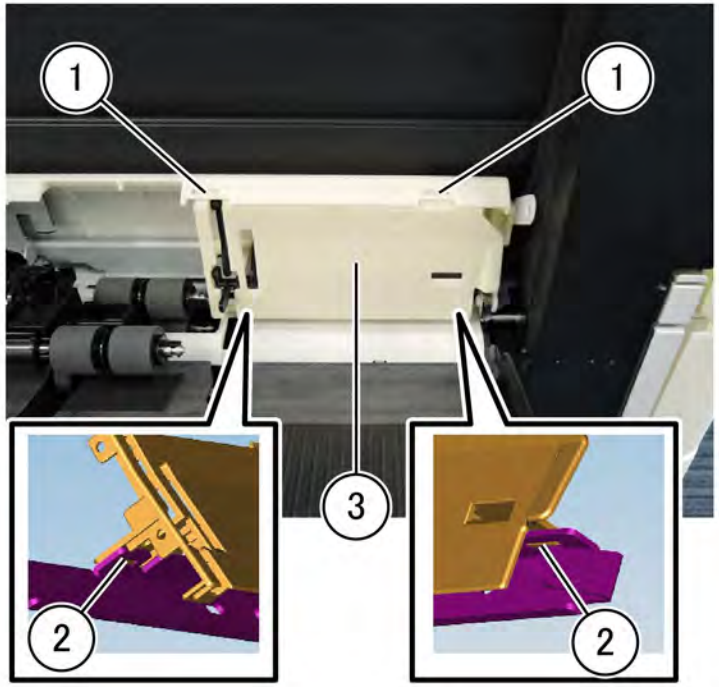

Figure 2 Top chute assembly

3. Remove the chute front, Figure 3.
   a. Release five hooks (1) then (2).
   b. Remove the chute front (3).

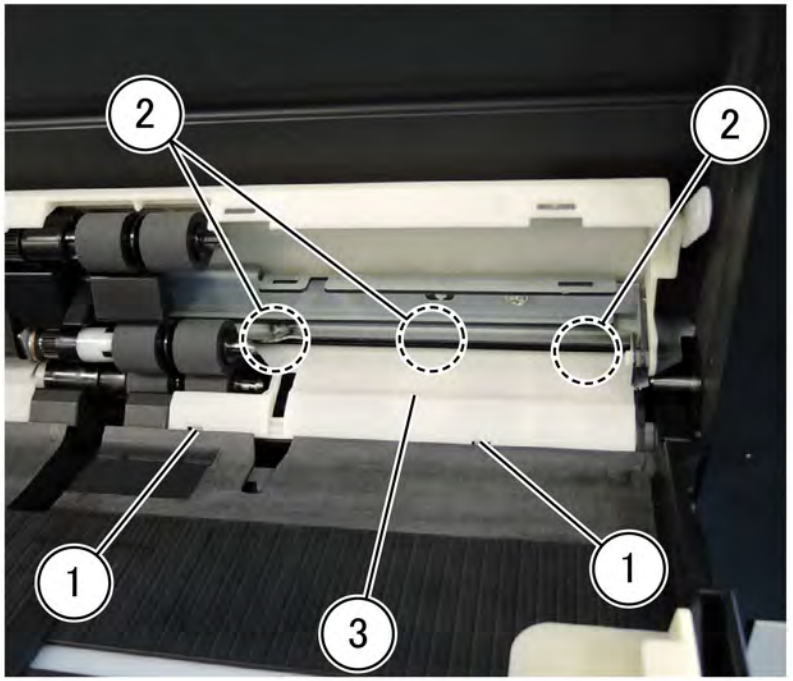

Figure 3 Chute front removal

4. Remove the pivot, PL 70.50. Refer to Figure 4.
   a. Rotate the pivot in the direction of the arrow (1).
   b. Slide the pivot in the direction of the arrow (2).
   c. Remove the pivot (3).

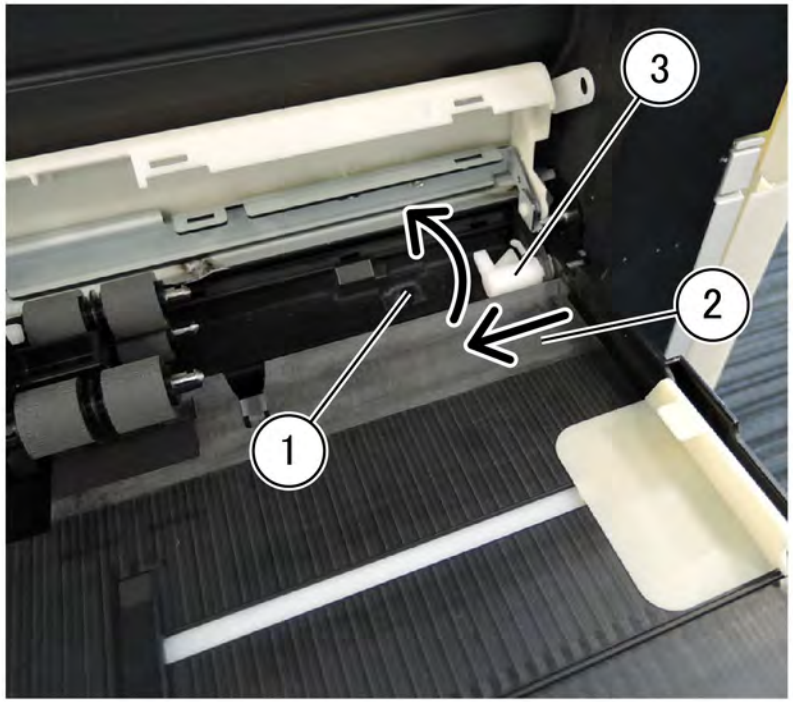

Figure 4 Pivot removal

Replacement

Replacement is the reverse of the removal procedure.

REP 70.3 Bypass Tray

Parts List on PL 70.50

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the pivot, REP 70.2.
2. Unlock the bypass tray from the left cover, lift the extension tray up to expose the back of the bypass tray, then insert a screw in the hole (1) to keep the extension tray lifted, Figure 1.

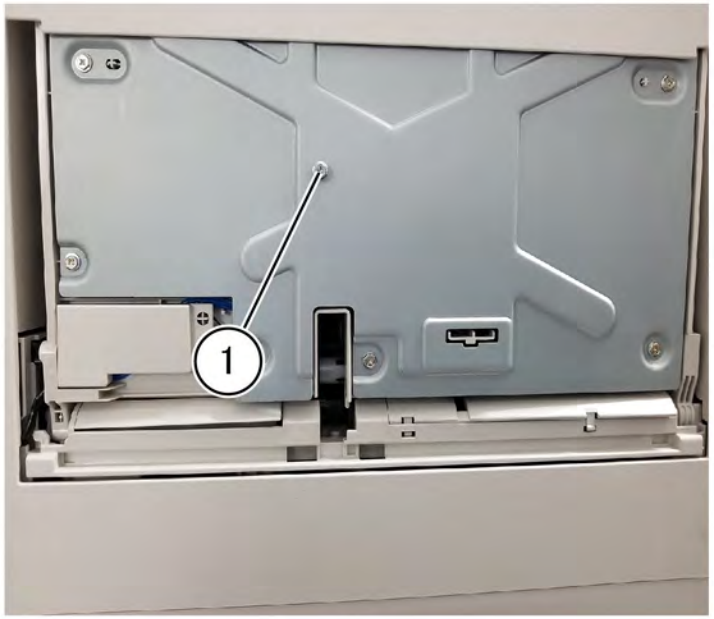

Figure 1 Extension tray lifted

3. Remove the screw (1) then remove the connector cover, Figure 2.

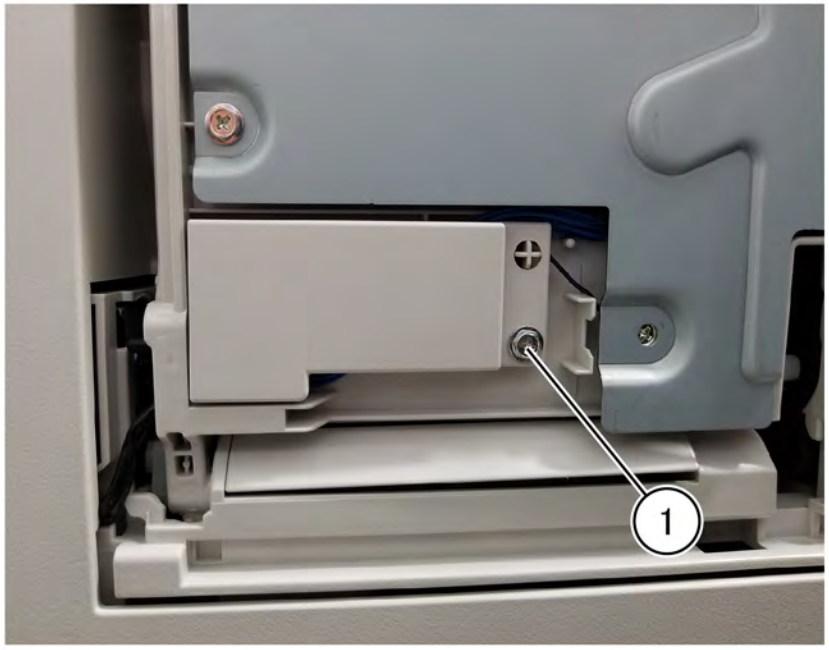

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Figure 2 Connector cover removal

4. Disconnect the no paper harness connector, Figure 3.

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Figure 3 No paper harness connector

5. Lower the extension tray (1) and feed the no paper harness through the hole of the bypass tray (2), Figure 4.

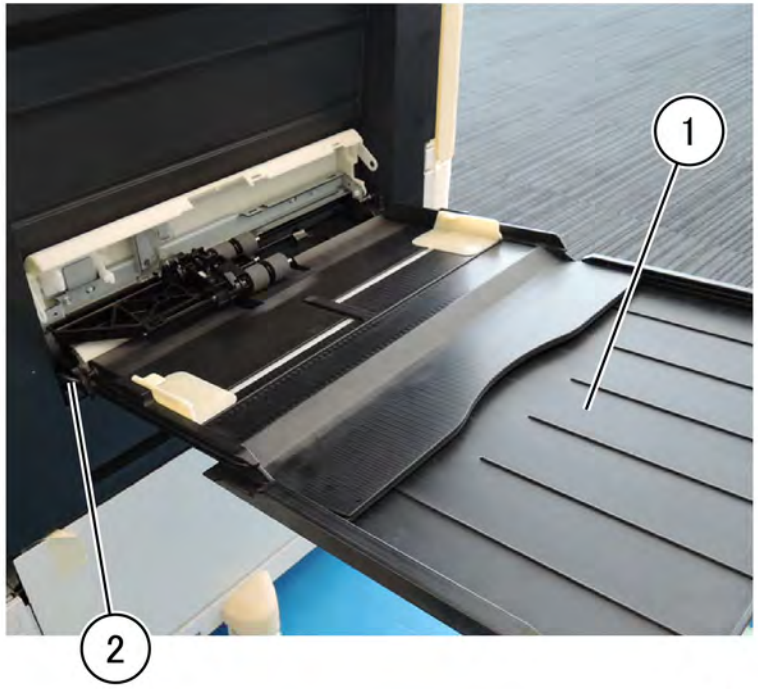

Figure 4 Release the harness

6. Lift the extension tray (2) to 75 degrees, remove the link part (3) of the bypass tray from the main unit, then remove the bypass tray (4), Figure 5.

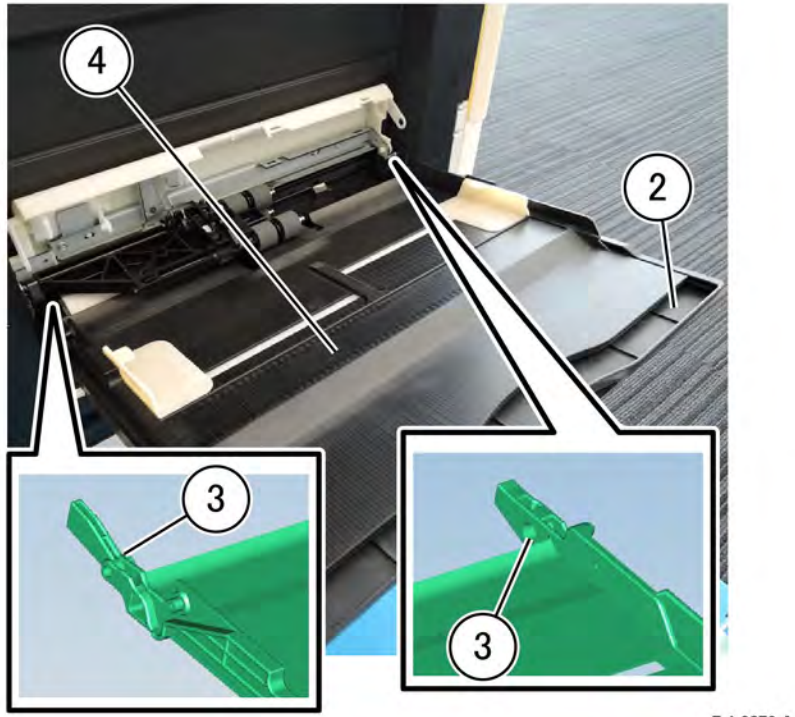

Figure 5 Bypass tray removal

Replacement

The replacement is the reverse of the removal procedure.

REP 70.4 Bypass Tray Paper Size Sensor Assembly

Parts List on PL70.55

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Fully extend the extension tray.
2. Using firm pressure, pull the extension tray (2) from the bypass tray (1) to remove, Figure 1.

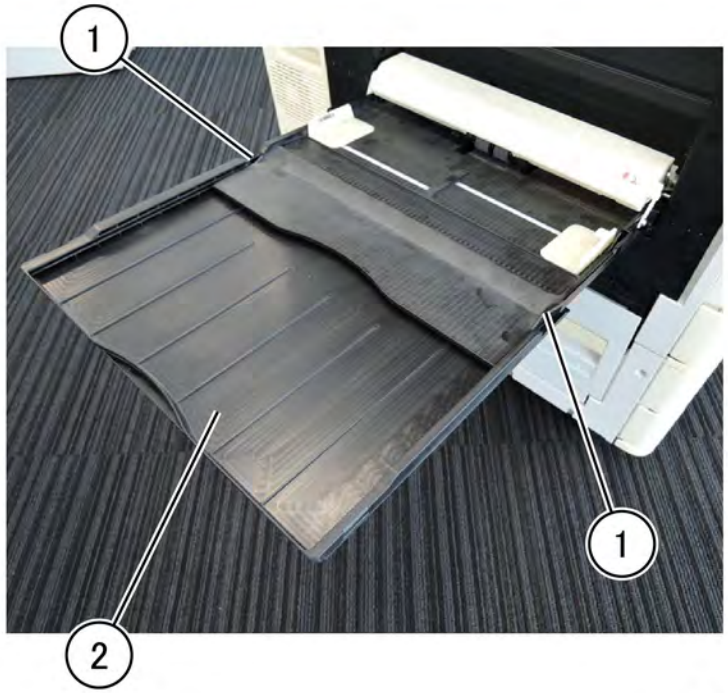

Figure 1 Extension tray removal

3. Lift the bypass tray, remove six screws (1), then remove the tray plate (2), Figure 2.

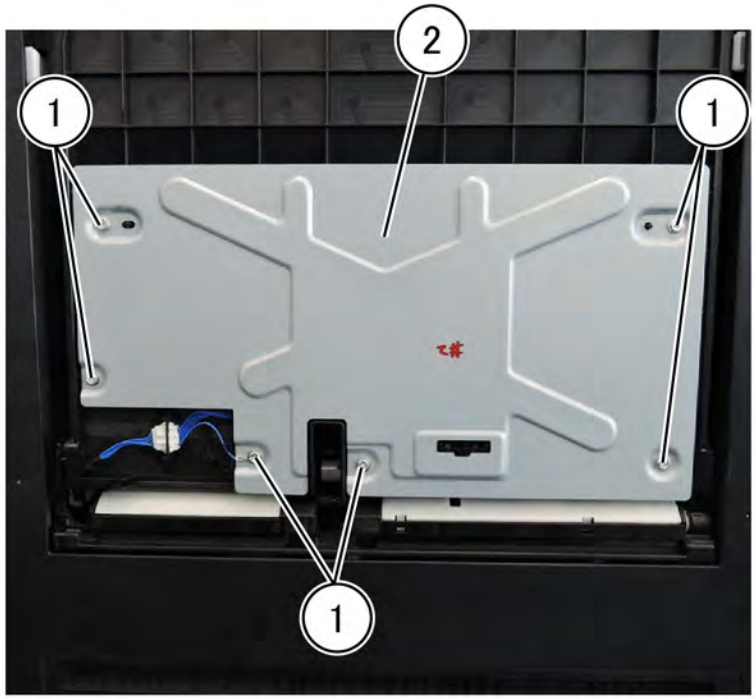

Figure 2 Tray plate removal

4. Remove the MSI paper size sensor assembly, PL70.55. Refer to Figure 3.
   a. Remove three screws (1).
   b. Disconnect the connector (2).
   c. Release the harness (3).
   d. Release the bypass tray paper size sensor assembly (4).
   e. Disconnect the paper size sensor.
   f. Remove the bypass tray paper size sensor assembly.

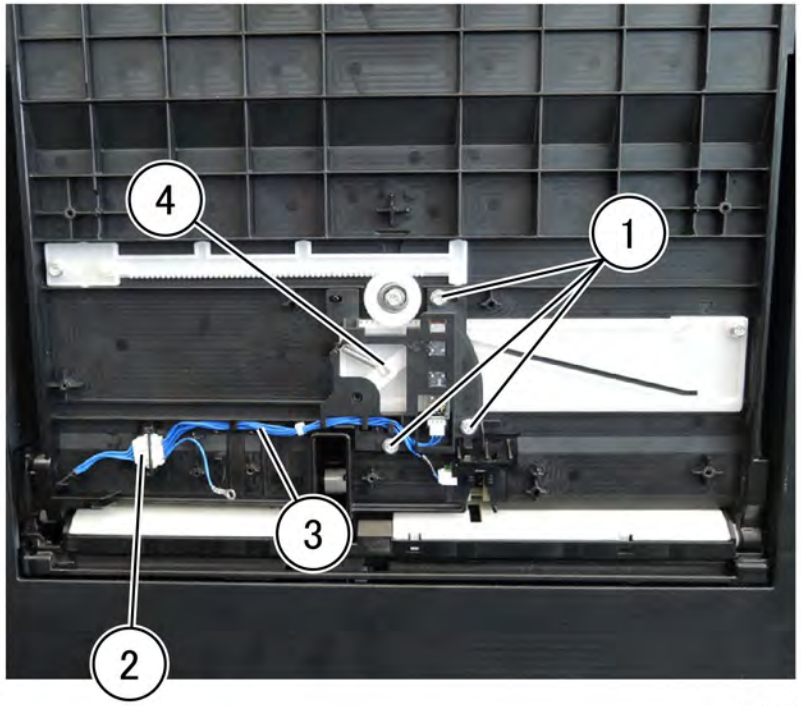

Figure 3 Assembly removal

Replacement

1. When installing the bypass tray paper size sensor assembly, put the pin into the long hole of the link, Figure 4.

Figure 4 Pin and link location

2. When installing the gear, align the marks on the front/rear rack to the marks on the bypass tray, Figure 5.

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Figure 5 Gear alignment

3. The remainder of the replacement is the reverse of the removal procedure.

REP 70.5 2TM Tray 3/4 Paper Size Sensor Assembly

Parts List on PL 70.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove 2TM tray 3 and tray 4, PL 70.20.
2. Remove the malfunctioning paper size sensor, PL 70.20. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Remove the paper size sensor (3).

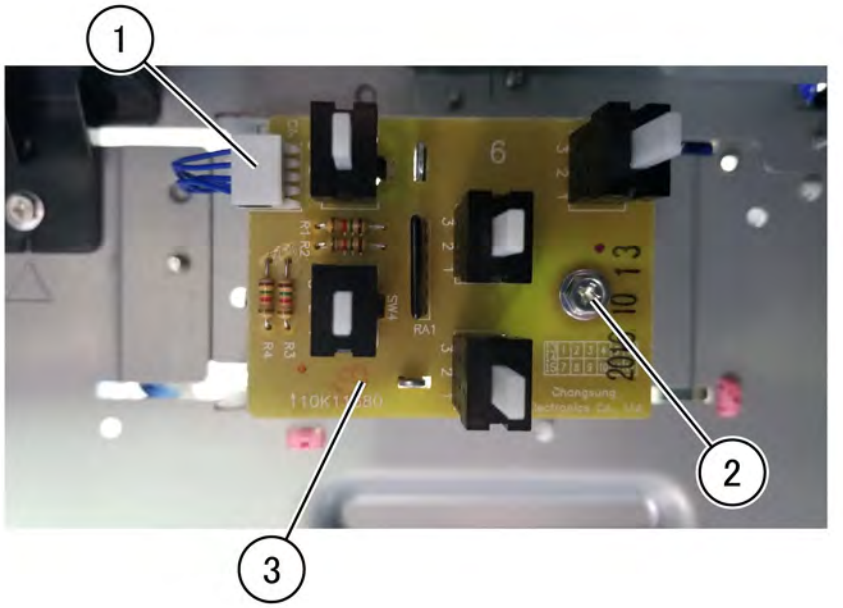

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Figure 1 2TM paper size sensor removal

Replacement

Replacement is the reverse of the removal procedure.

REP 70.6 TTM Tray 3/4 Paper Size Sensor Assembly

Parts List on PL 70.35

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the transport stopper, PL 70.35 or PL 70.35.
2. Remove TTM tray 3 or tray 4, PL 70.35 or PL 70.35.
3. Remove the malfunctioning paper size sensor, PL 70.35. Refer to Figure 1.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Remove the paper size sensor (3).

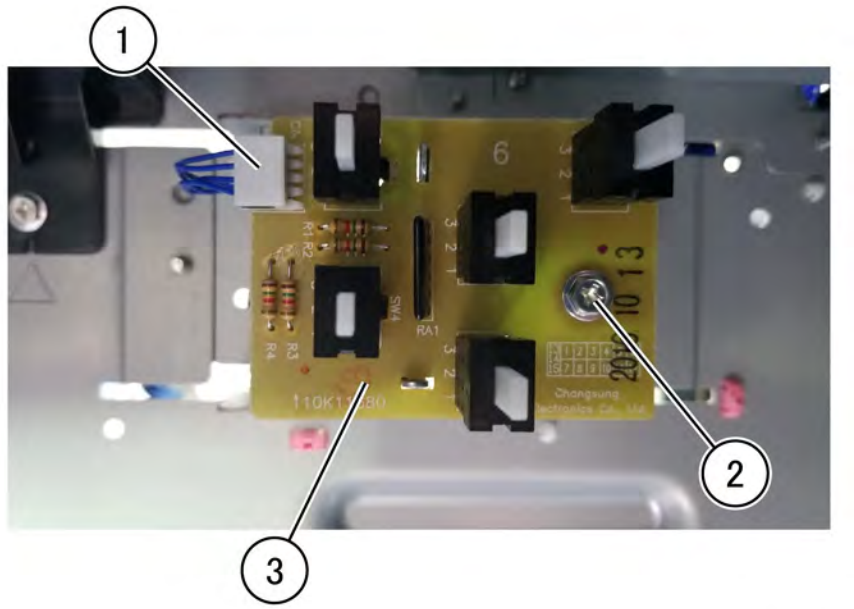

Figure 1 TTM Paper size sensor removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.1 Tray 1 Feedhead Assembly

Parts List on PL 80.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove tray 1 and tray 2, PL 70.05 and PL 70.05.
2. Remove the left cover assembly, REP 80.21.
3. Remove the chute, PL 70.50.
4. Remove the tray 1 feedhead assembly, PL 80.05, Figure 1.
   a. Disconnect the connector (1).
   b. Remove two screws (2).
   c. Remove the tray 1 feedhead assembly (3).

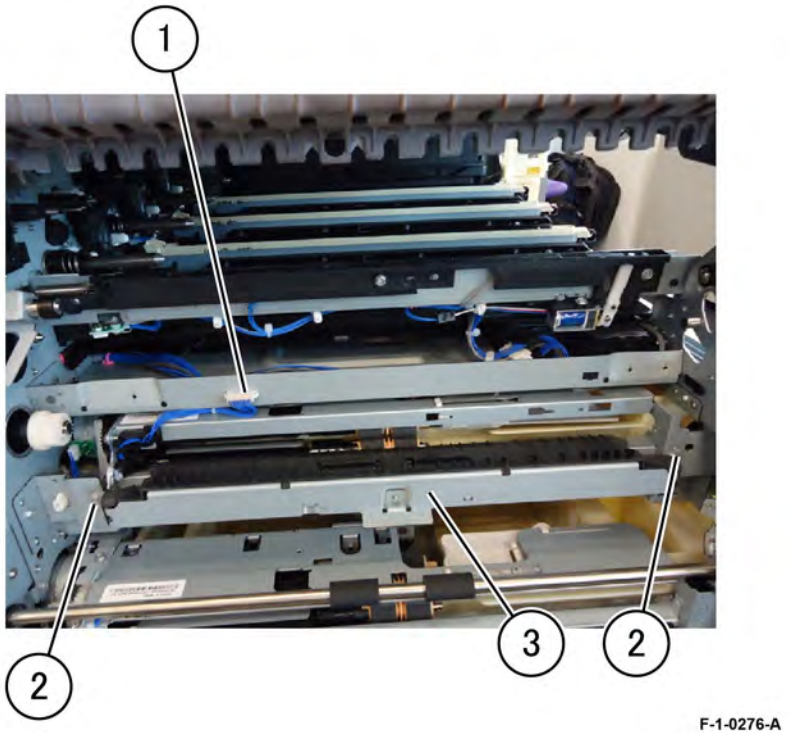

Figure 1 Tray 1 feedhead assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.2 Tray 2 Feedhead Assembly

Parts List on PL 80.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove tray 1 and tray 2, PL 70.05 and PL 70.05.
2. Remove the left cover assembly, REP 80.21.
3. Remove the chute, PL 70.50.
4. Remove the tray 2 feedhead assembly, PL 80.05, Figure 1.
   a. Disconnect two connectors (1).
   b. Remove the harness tie (2).
   c. Remove two screws (3).
   d. Remove the tray 2 feedhead assembly (4).

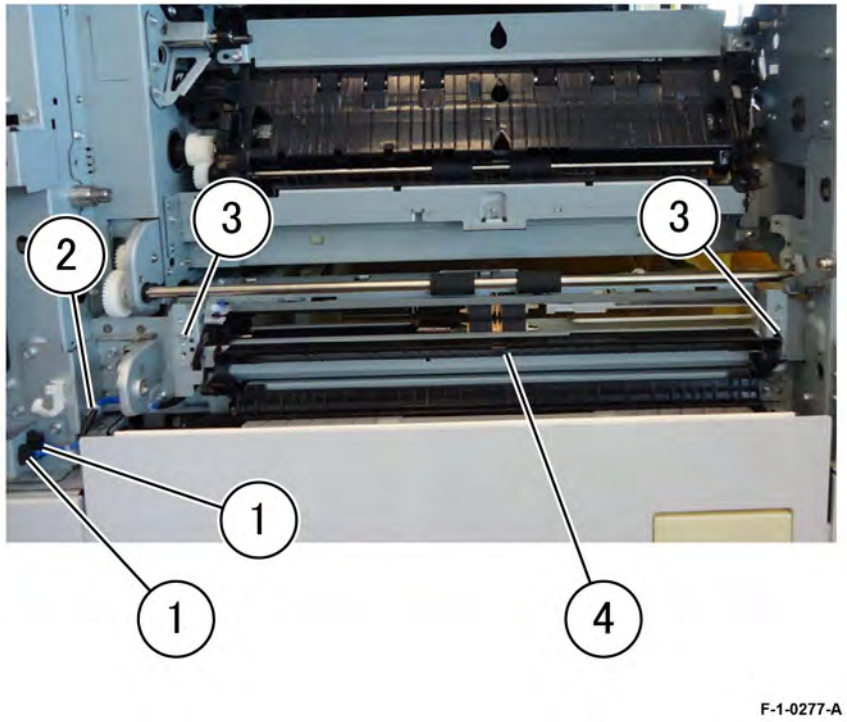

Figure 1 Tray 2 feedhead assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.

2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.3 Tray 1/2 Feed Roll Kit

Parts List on PL 80.10 and PL 80.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: The feed roll kit replacement procedure is the same for tray 1 and tray 2. The feed rolls are replaced as a set, PL 80.10, PL 80.15.

1. Remove tray 1 and tray 2, PL 70.05 and PL 70.05.
2. Remove the feed, nudger, and retard roll, PL 80.10 and PL 80.15, Figure 1.
   a. Move the chute to the front (1).
   b. Remove the feed, nudger, and retard roll (2).

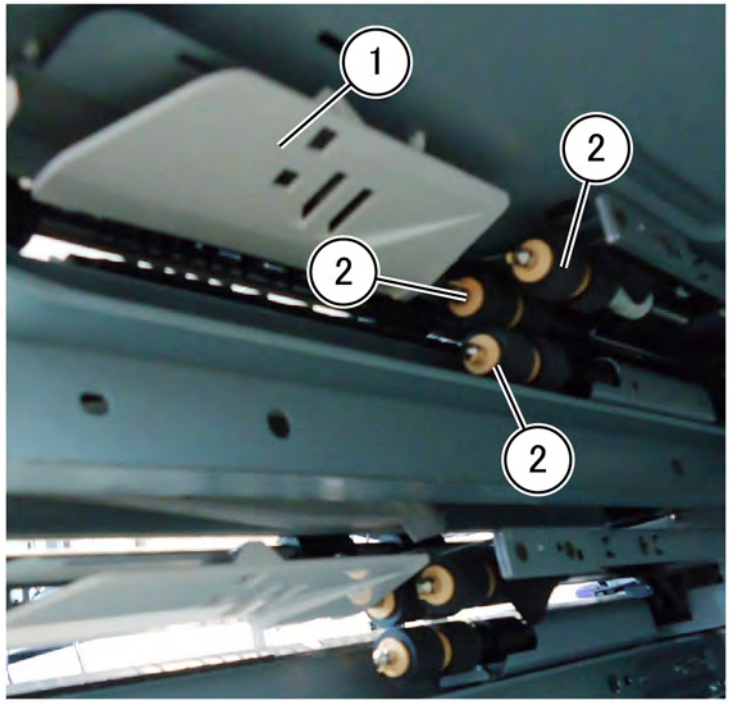

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Figure 1 Tray 1/2 feed roll kit removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.4 2TM Feedhead 1 Assembly

Parts List on PL 80.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the 2TM tray 3 and tray 4 assemblies, PL 70.20.
2. Open the 2TM left cover assembly, PL 80.20.

   Note: The feedhead 1 assembly and the feedhead 2 assembly, PL 80.20 are identified by (1) and (2). Refer to the upper position for assemblies that are in both positions.
3. Remove the feed out chute, PL 80.20, upper position.
4. Remove the connector cover PL 80.20, Figure 1.
   a. Release the hook (1).
   b. Remove the connector cover (2), PL 80.20 upper position.

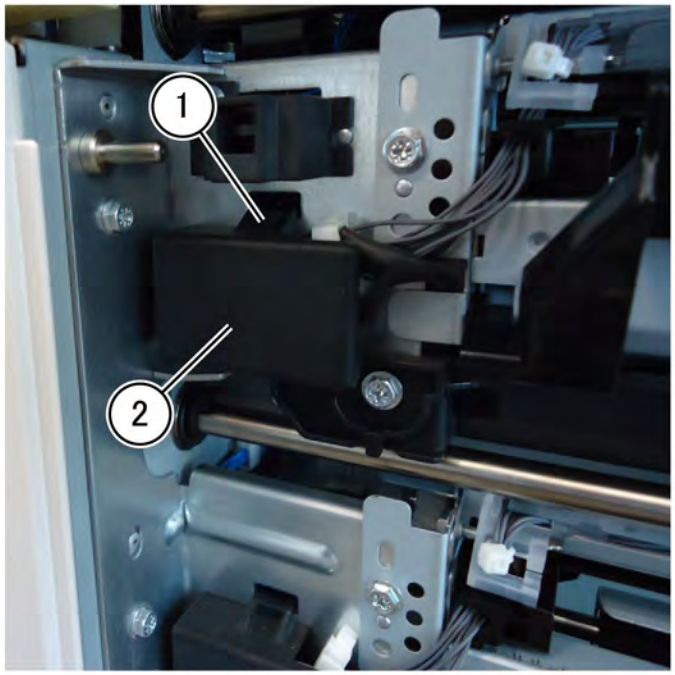

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Figure 1 Connector cover removal

5. Disconnect the 2TM feedhead 1 assembly: Figure 2.
   a. Disconnect two connectors (1).
   b. Open the clamp (2), then move the harness out of the way.
   c. Remove the screw at the rear (3).

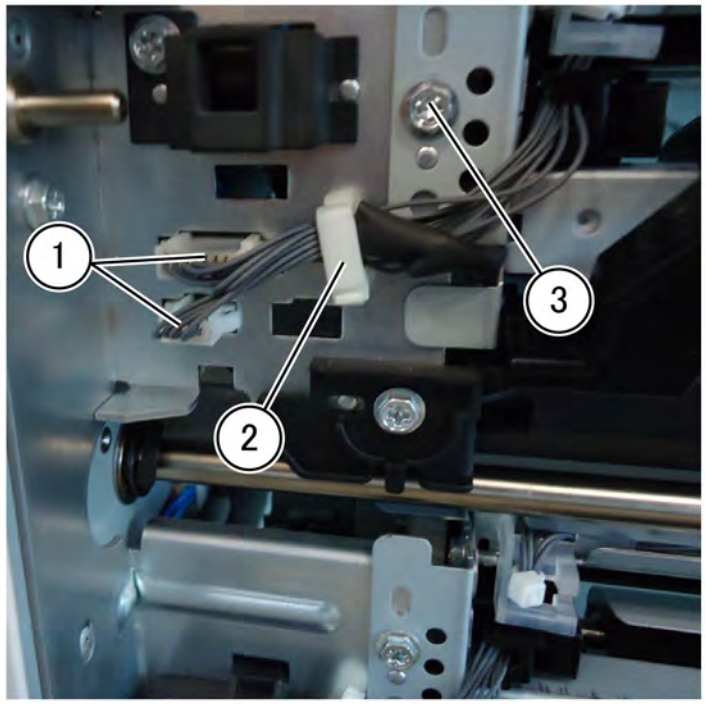

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Figure 2 Rear screw removal

6. Remove the screw at the front (4), Figure 3.

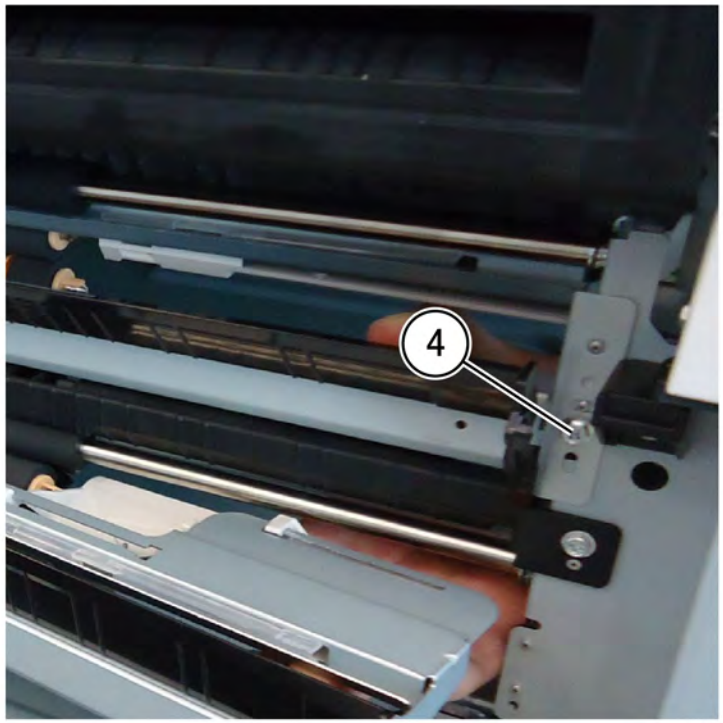


Figure 3 Front screw removal

7. Remove the takeaway roll assembly, PL 80.25, upper position.
8. Remove the 2TM feedhead 1 assembly (5) in the direction of the arrow, PL 80.20 upper position, Figure 4.

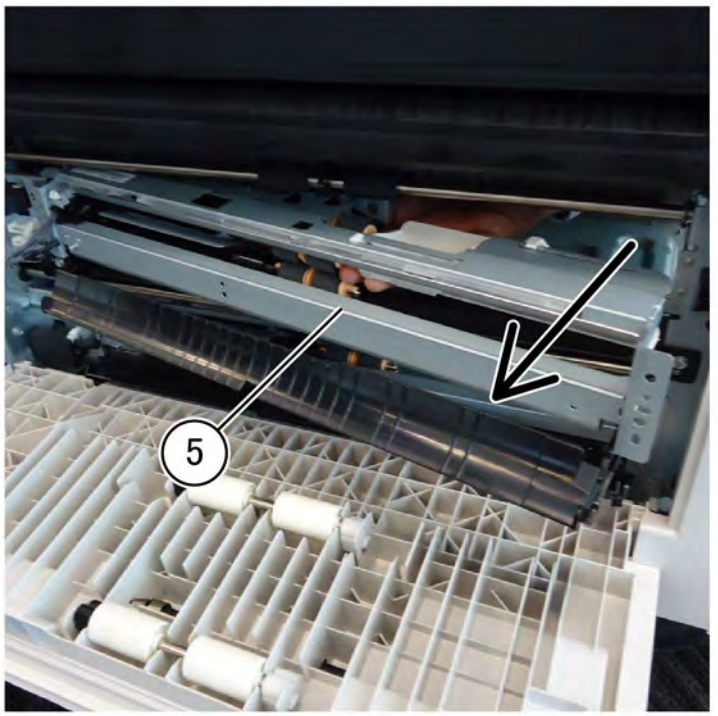


Figure 4 2TM feedhead 1 assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.5 2TM Feedhead 2 Assembly

Parts List on PL 80.20

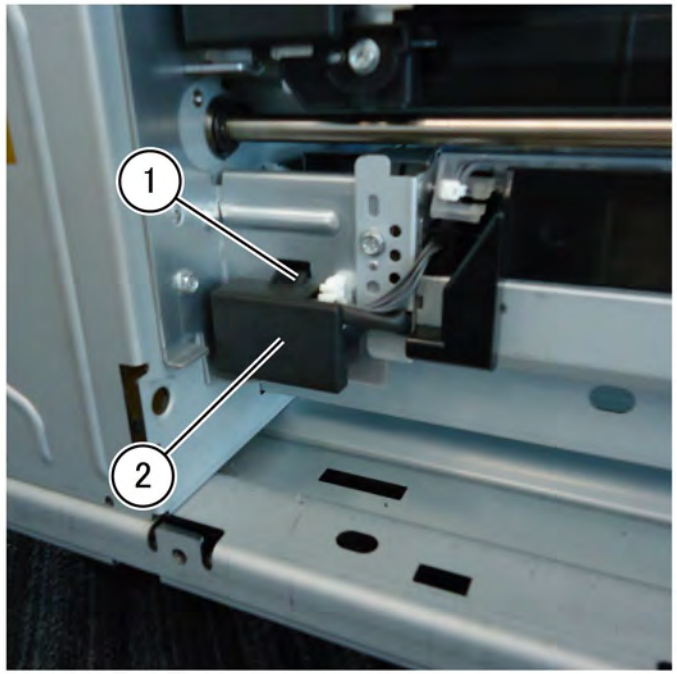
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the 2TM tray 3 and tray 4 assemblies, PL 70.20.
2. Remove the foot cover, PL 80.20.
3. Remove the 2TM left cover, PL 80.20.
4. Open the 2TM left cover assembly, PL 80.20.

   Note: The feedhead 1 assembly and the feedhead 2 assembly, PL 80.20 are identified by (1) and (2). Refer to the lower position for assemblies that are in both positions.

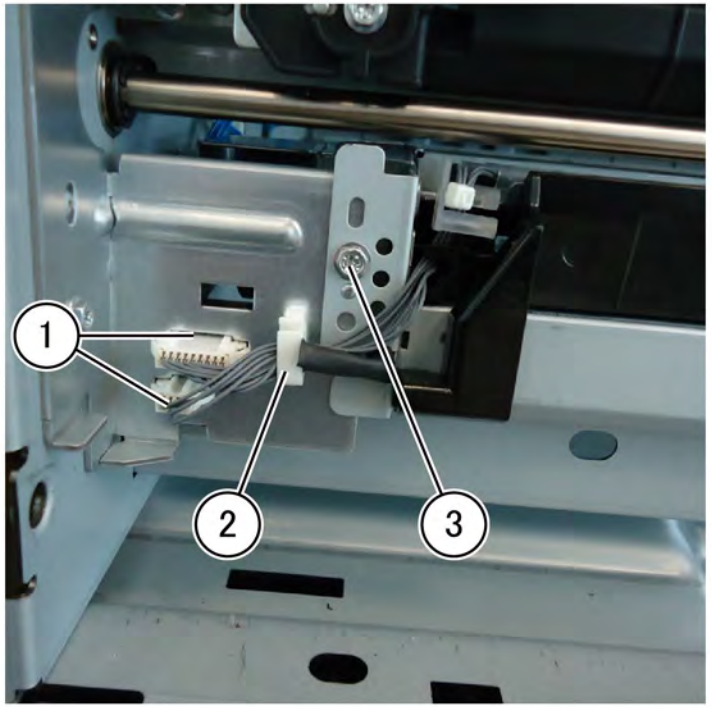
5. Remove the feed out chute, PL 80.20 , lower position.
6. Remove the connector cover: Figure 1.
   a. Release the hook (1).
   b. Remove the connector cover (2).



F-1-0283-A

Figure 1 Connector cover removal

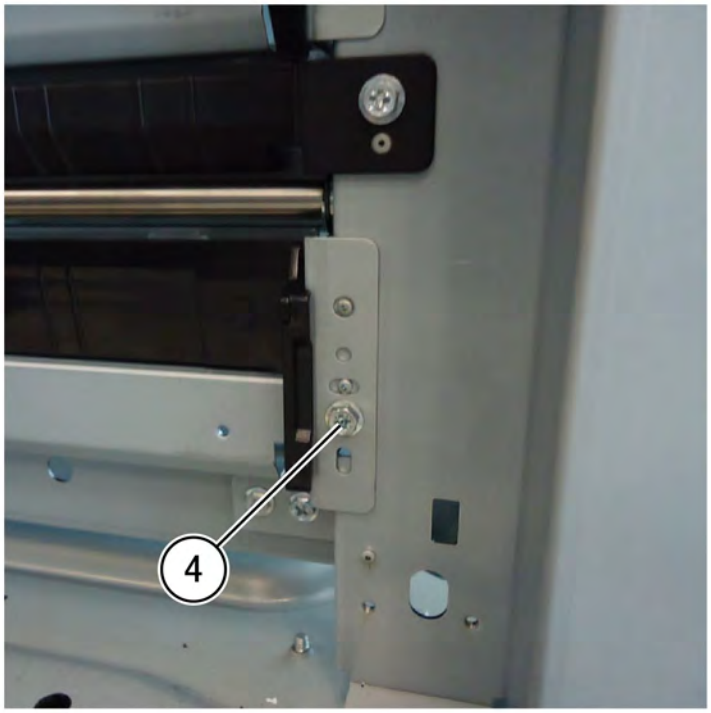
7. Disconnect the 2TM feedhead 2 assembly: Figure 2.
   a. Disconnect two connectors (1).
   b. Open the clamp (2), then move the harness out of the way.
   c. Remove the screw at the rear (3).



F-1-0284-A

Figure 2 Rear screw removal

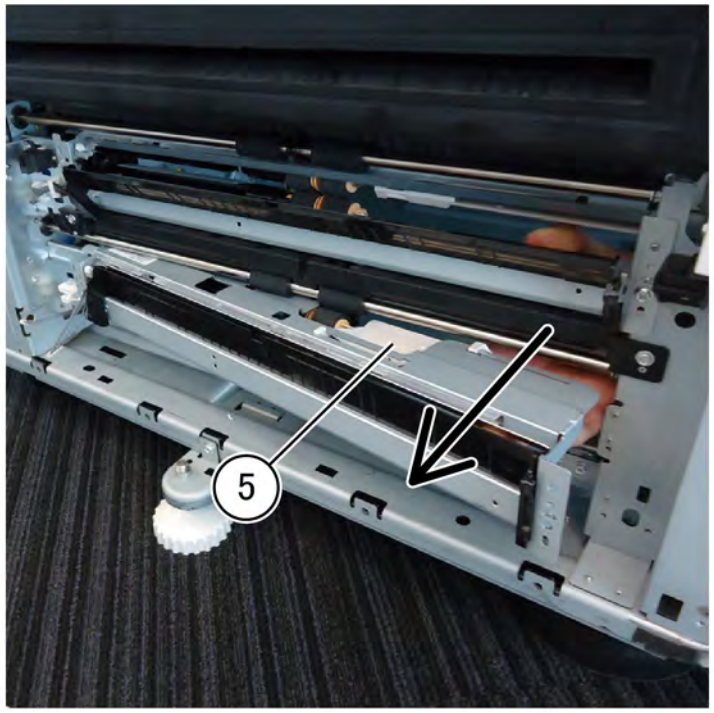
8. Remove the screw at the front (4), Figure 3.



F-1-0285-A

Figure 3 Front screw removal

9. Remove the takeaway roll assembly, PL 80.25 , lower position.
10. Remove the 2TM feedhead 2 assembly (5) in the direction of the arrow, PL 80.20 lower position, Figure 4.



F-1-0286-A

Figure 4 2TH feeder 2 assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After replacement, enter dC135 HFSI Counters to clear the HFSI counter.

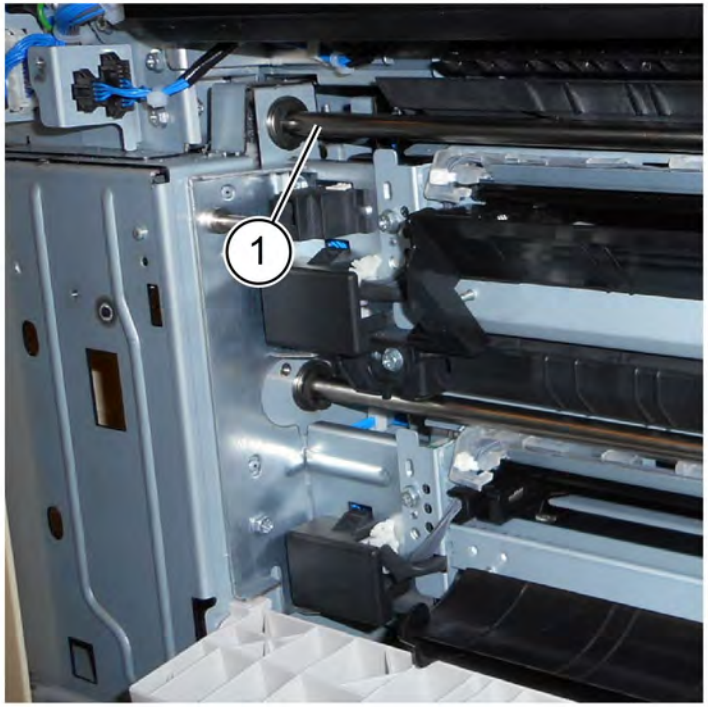
REP 80.6 2TM Takeaway Roll Assembly (Upper)

Parts List on PL 80.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

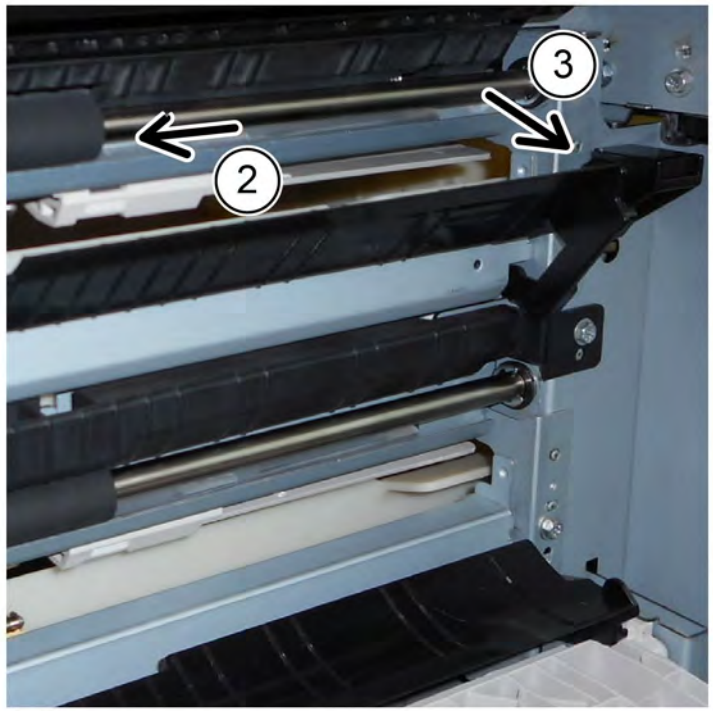
1. Open the 2TM left cover assembly, PL 80.20.
2. Remove the k-clip (1), Figure 1.



F-1-0287-A

Figure 1 K-clip removal

3. Remove the takeaway roll assembly, PL 80.25, Figure 2.
   a. Slide the takeaway roll assembly to the rear (2).
   b. Lift the actuator and lay the shaft out of the way.
   c. Slide forward, then pull out from the front to remove (3).



F-1-0288-A

Figure 2 Takeaway roll assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.7 2TM Tray Chute Assembly

Parts List on PL 80.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: This procedure describes the removal of 2TM tray 3 chute assembly, PL 80.25 , tray 4 chute assembly is similar, PL 80.25.

1. Remove the 2TM feedhead 1 assembly, REP 80.4.
2. Remove the upper takeaway roll assembly, REP 80.6.
3. Remove the tray 3 chute assembly, PL 80.25, Figure 1.
   a. Remove two screws (1).
   b. Release the boss, above left and slide to the rear to remove the tray chute assembly (2),
   c. Release two hooks, then remove the switch from the actuator.

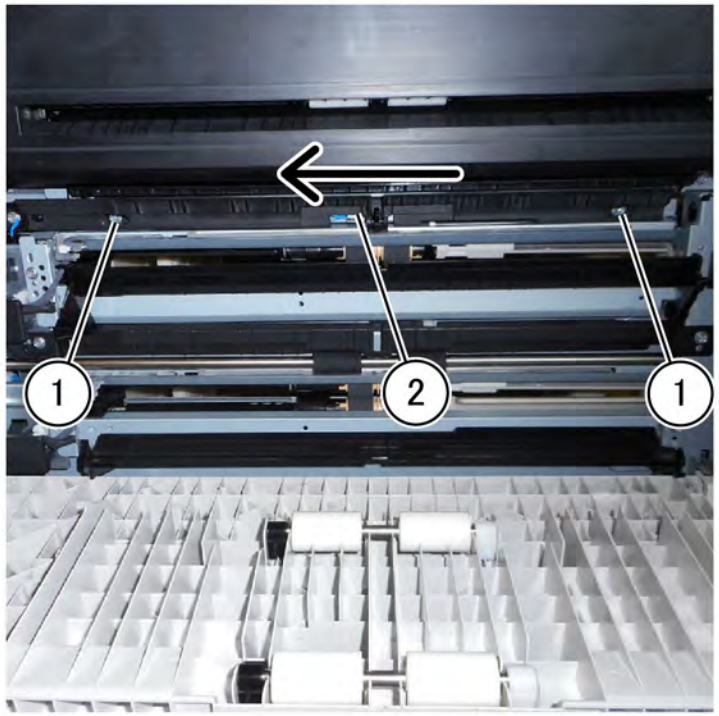


Figure 1 Tray 3 chute assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 80.8 2TM Takeaway Roll Assembly (Lower)

Parts List on PL 80.25

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the 2TM left cover assembly, PL 80.20.
2. Remove the 2TM takeaway roll assembly, Figure 1.
   a. Remove the k-clip (1).
   b. Slide the 2TM takeaway roll assembly to the rear and remove (2).

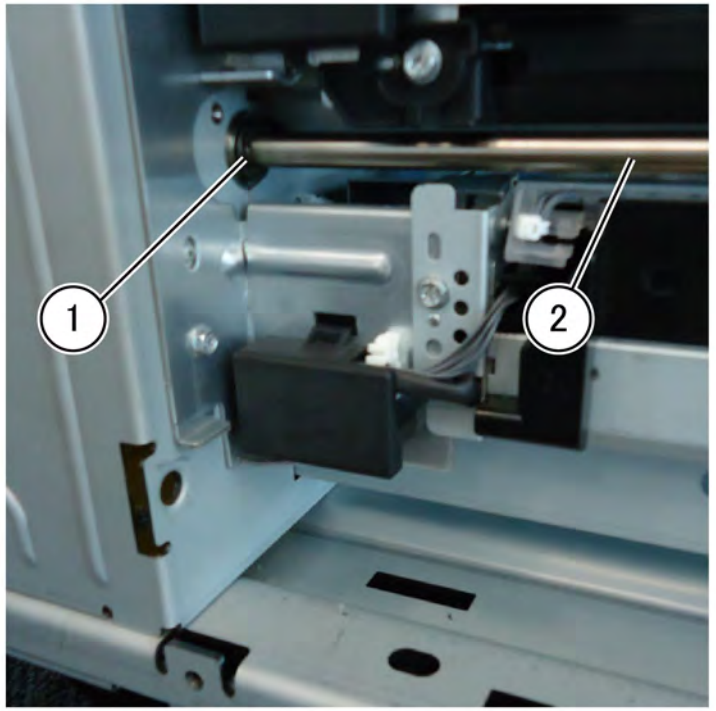


Figure 1 2TM takeaway roll assembly

Replacement

Replacement is the reverse of the removal procedure.

REP 80.9 2TM Takeaway Motor Assembly

Parts List on PL 80.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the rear cover, PL 70.20.
2. Remove the 2TM takeaway motor assembly, PL 80.30, Figure 1.
   a. Remove four screws (1).
   b. Disconnect the connector (2),
   c. Remove the c-clip (3).
   d. Release the harness from the clamp (4).
   e. Remove the 2TM takeaway motor assembly (5).

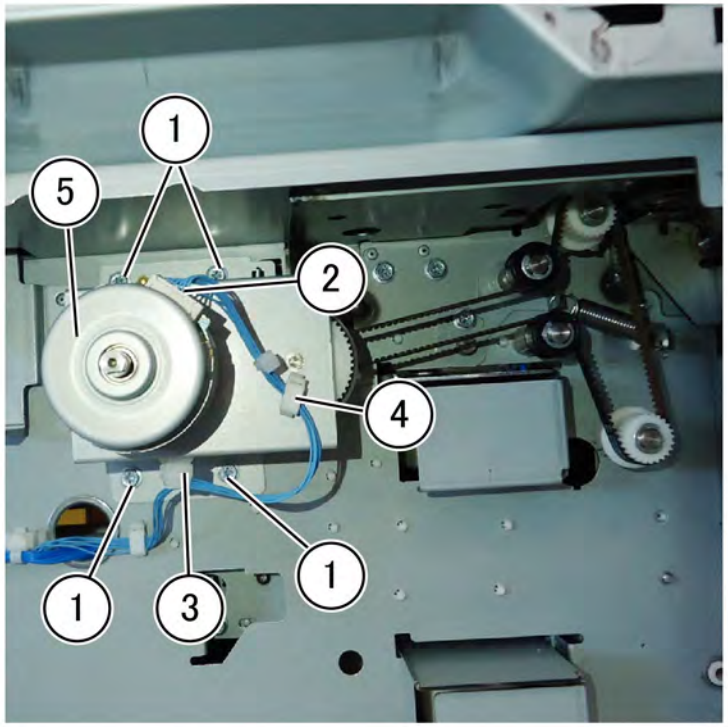


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Figure 1 Takeaway motor assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.10 2TM Belt

Parts List on PL 80.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the 2TM takeaway motor assembly, REP 80.9.
2. Remove the 2TM belt, PL 80.30, Figure 1.
   a. Loosen the tensioning screw (1).
   b. Remove the 2TM belt (2).

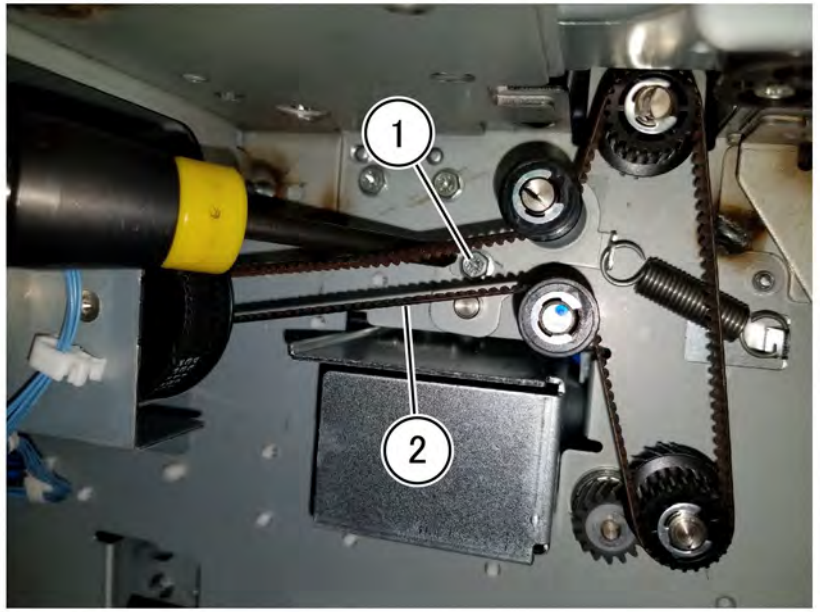

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Figure 1 2TM belt

Replacement

Replacement is the reverse of the removal procedure.

REP 80.12 2TM Feed Roll Kit

Parts List on PL 80.35

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: The feed roll kit replacement procedure is the same for tray 3 and tray 4. The feed rolls are replaced as a set, PL 80.35.

1. Remove the tray 3 & 4 assembly, PL 70.20.
2. Remove the feed, nudger, and retard roll, PL 80.35, Figure 1.
   a. Move the chute to the front (1).
   b. Remove the feed, nudger, and retard roll (2).

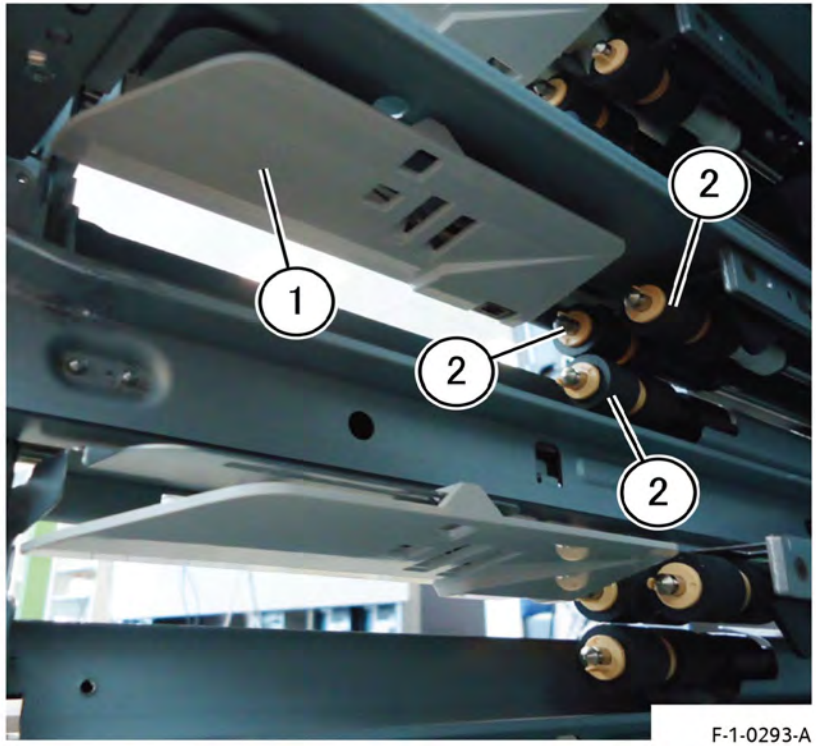

Figure 1 2TM feed roll kit removal

Replacement

1. The replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.14 TTM Tray 3 Feedhead Assembly

Parts List on PL80.40

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the TTM left cover assembly, PL 70.35.
2. Remove the connector cover (1), Figure 1.

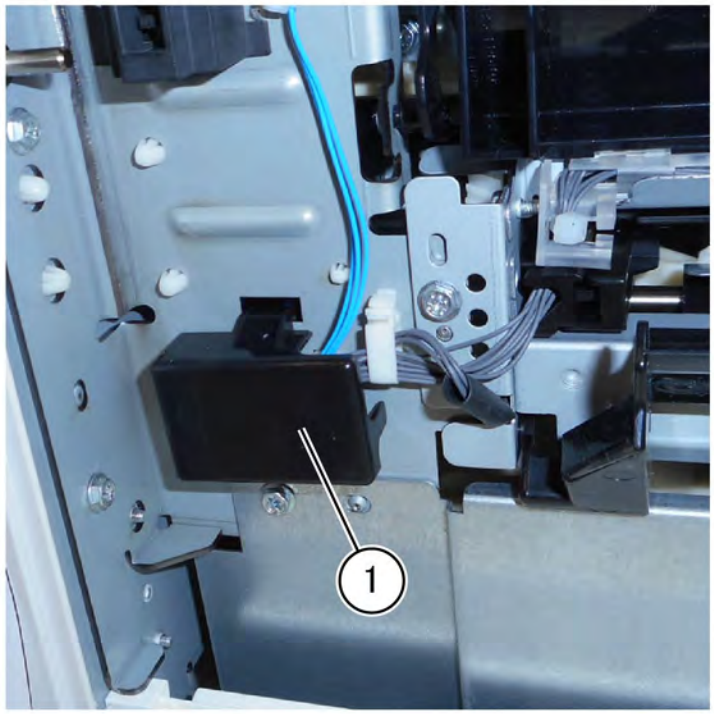

Figure 1 Connector cover removal

3. Disconnect two connectors (2), open the clamp (3), then remove the screw (4), Figure 2.

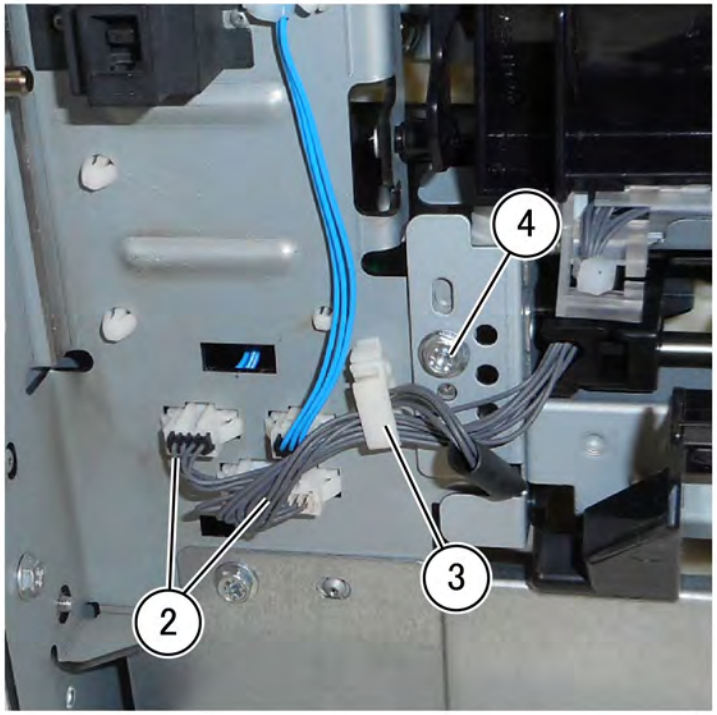

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Figure 2 Rear side removal

4. Remove the screw (5), then remove the TTM tray 3 feedhead assembly (6) PL80.40, Figure 3.

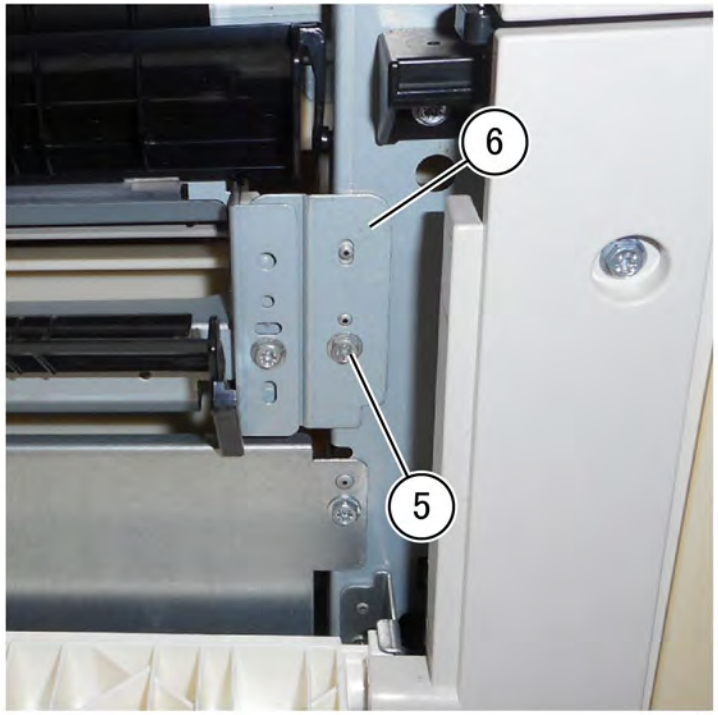

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Figure 3 Front side removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.15 TTM Tray 4 Feedhead Assembly

Parts List on PL 80.55

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the TTM Tray 3 Assembly, PL 70.35.
2. Remove the TTM Tray 4 Assembly, PL 70.35.
3. Remove the TTM Transport Assembly, PL80.40.
4. Remove the TTM tray 4 feedhead assembly, PL80.40, Figure 1.
   a. Remove two screws (1).
   b. Remove the TTM tray 4 feedhead assembly (2)

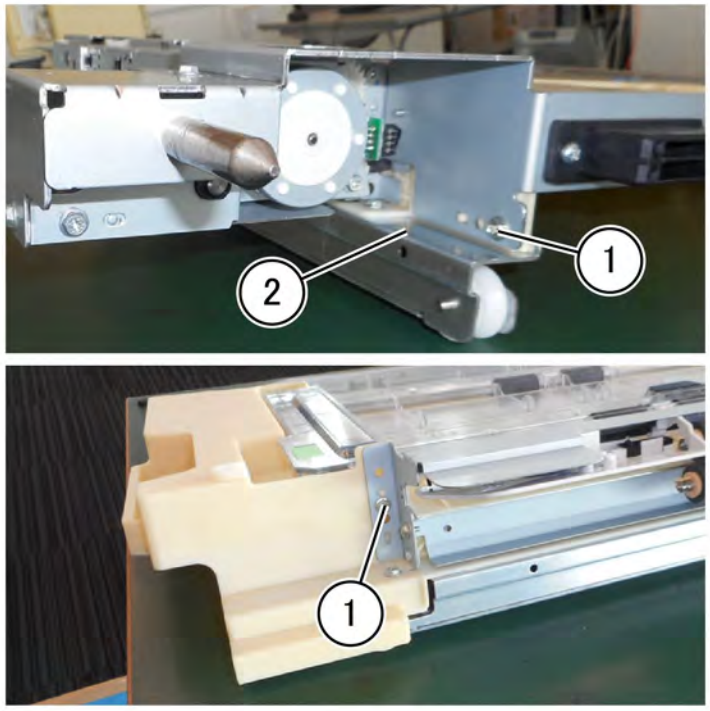

Figure 1 TTM tray 4 feedhead assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.16 TTM Feed Roll Kit

Parts List on PL 80.55

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: The feed roll kit replacement procedure is the same for tray 3 and tray 4. The feed rolls are replaced as a set, PL 80.50, PL 80.55.

1. Remove TTM tray 3 assembly, PL 70.35.
2. Remove TTM tray 4 assembly, PL 70.35.
3. If replacing the rolls for tray 4 remove the tray 4 feedhead assembly, REP 80.15.
4. Remove the feed, nudger, and retard roll, PL 80.50 and PL 80.55, Figure 1.
   a. Move the chute to the front (1).
   b. Remove the feed, nudger, and retard roll (2).

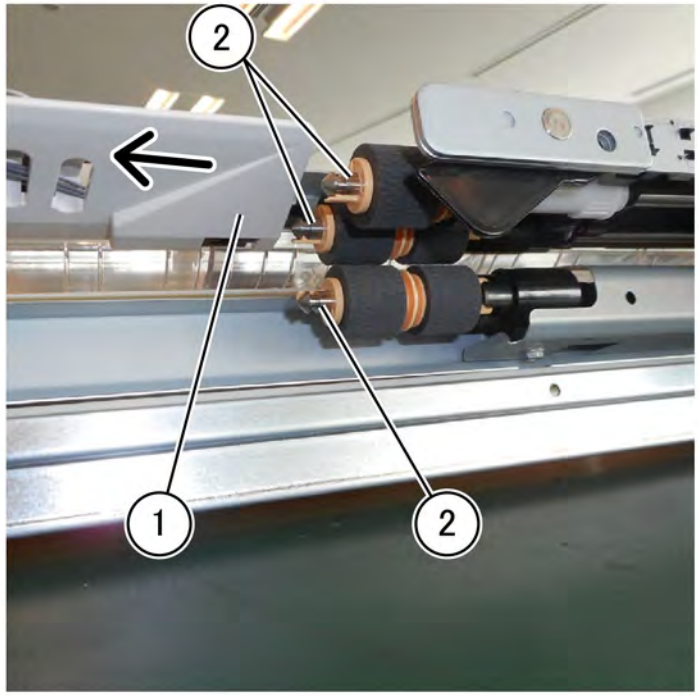

Figure 1 TTM feed roll kit removal

Replacement

1. Replacement is the reverse of the removal procedure.

2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.17 TTM Transport Roll Assembly

Parts List on PL 80.60

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove TTM tray 3 assembly, PL 70.35.
2. Remove TTM tray 4 assembly, PL 70.35.
3. Remove the TTM tray 4 feedhead assembly, REP 80.15.
4. Remove the transport roll assembly, PL 80.60, Figure 1.

CAUTION: Take care not to lose the two washers, PL 80.60 and two bearings, PL 80.60 behind the two pulleys, PL 80.60.

a. Move two e-rings (1).
b. Remove two pulleys and the belt (2).
c. Remove the transport roll assembly (3).

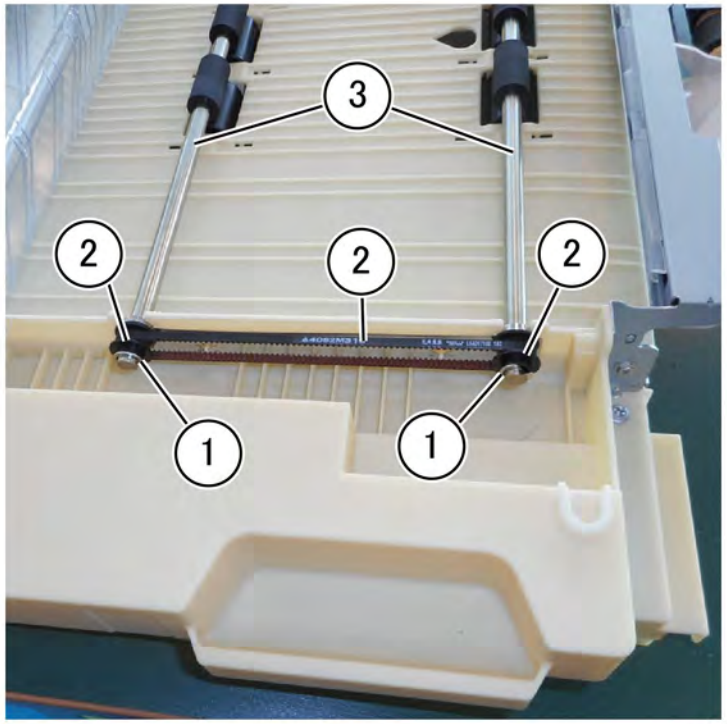

Figure 1 Transport roll assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.19 Bypass Feedhead Assembly

Parts List on PL 80.120

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the left cover assembly, REP 80.21.
2. Remove the bypass tray, REP 70.3.
3. Remove the bypass feedhead assembly.
   a. Remove the screw (1), then remove the harness guide (2), Figure 1.

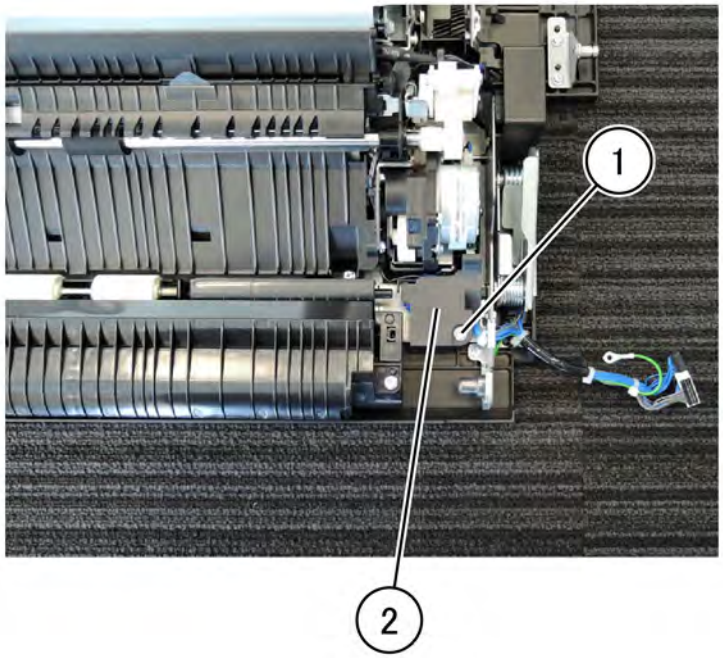

Figure 1 Transport roll assembly removal

   b. Disconnect the connector (3), Figure 2.

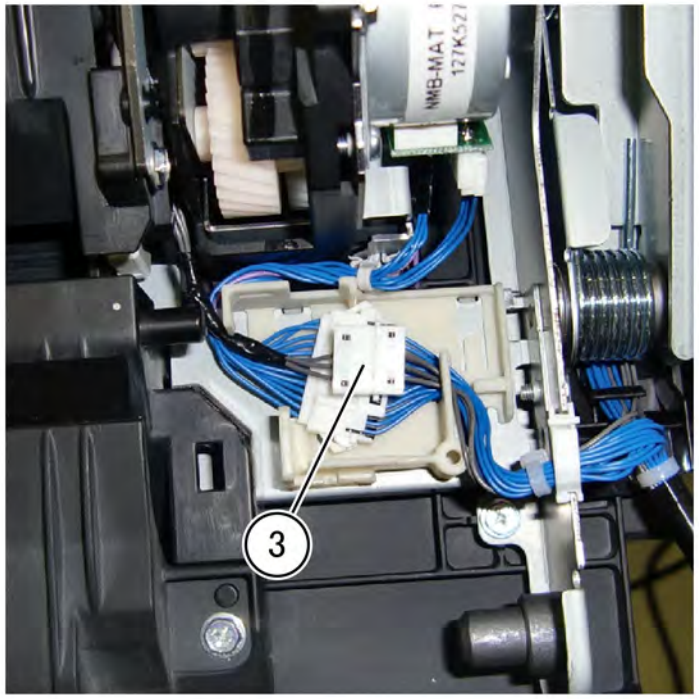

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Figure 2 Connector

c. Lift the bypass takeaway assembly (4) in the direction of the arrow, Remove two claws (5), than remove the knob (6), Figure 3.

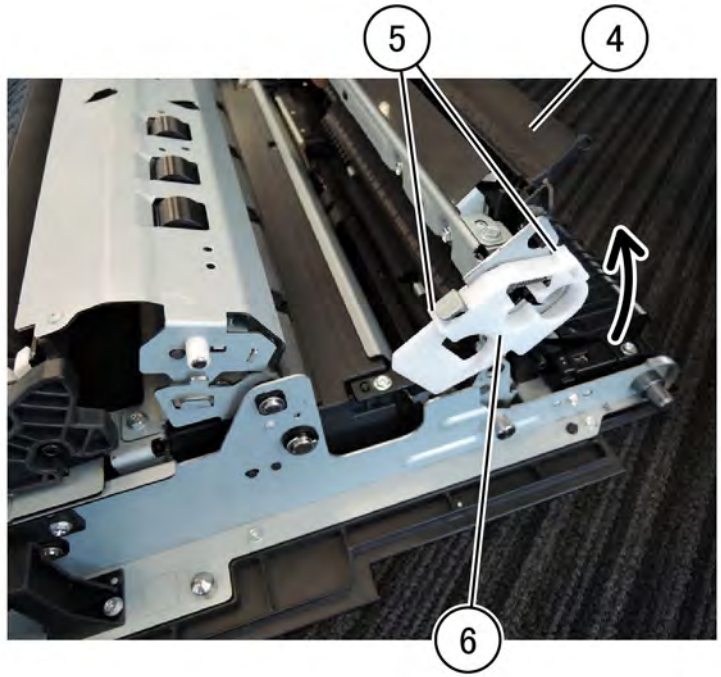

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Figure 3 Knob removal

d. Push in and move left to release two springs (7) and remove from the bypass takeaway assembly, them remove the bypass takeaway assembly (8) PL 70.50, Figure 4.

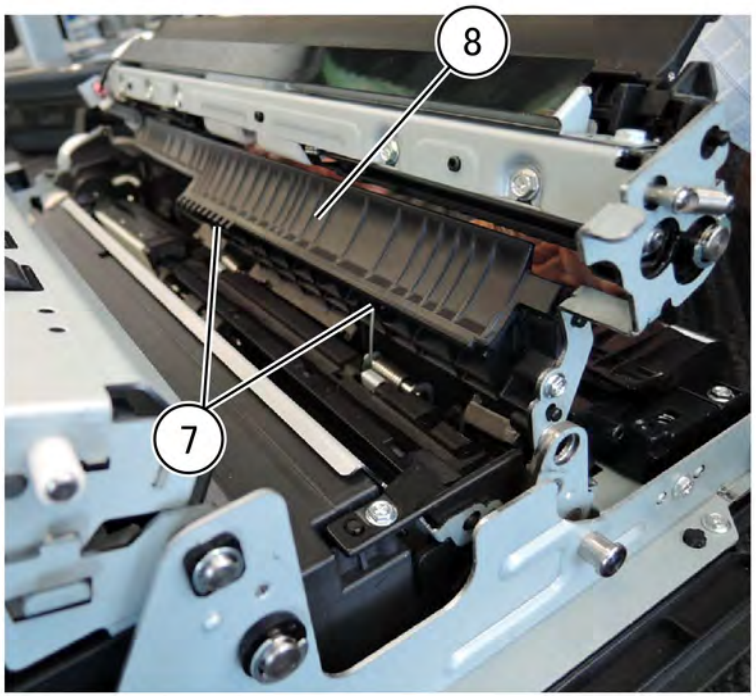

Figure 4 Bypass takeaway assembly removal

e. Press the left lower chute assembly tabs in the direction of the arrows to release the tab pins (9), then lift the left chute assembly, Figure 5.

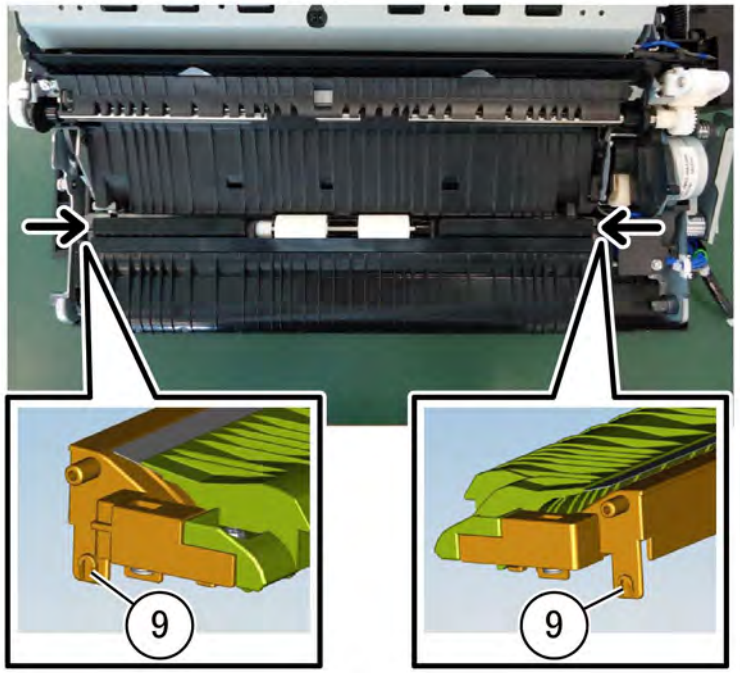

Figure 5 Left lower chute pins

f. Remove two screws (10) holding the miller plate, then remove the left lower chute assembly, Figure 6.

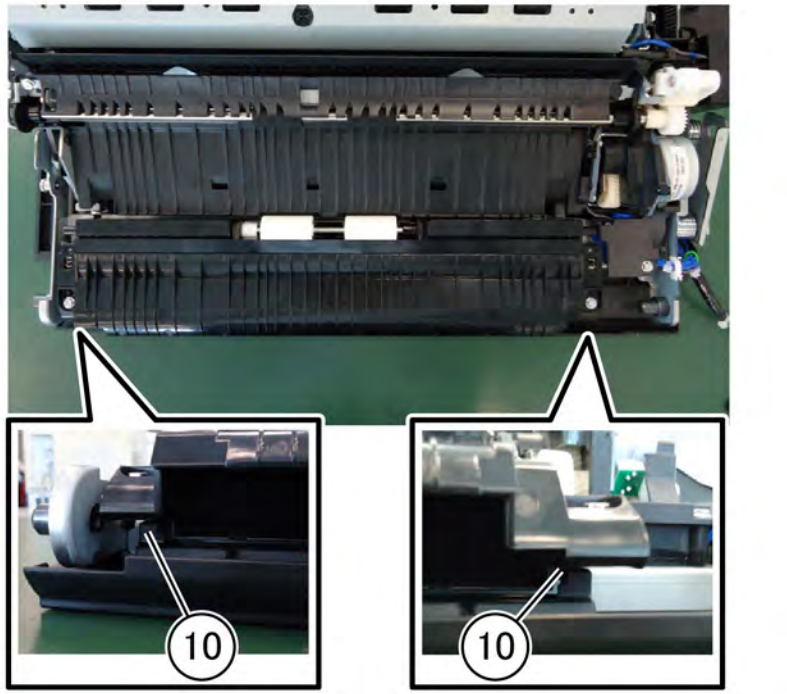

Figure 6 Left lower chute assembly removal

g. Remove five screws (11), disconnect the connector (12), then remove the bypass feeder kit (13), PL 70.50, Figure 7.

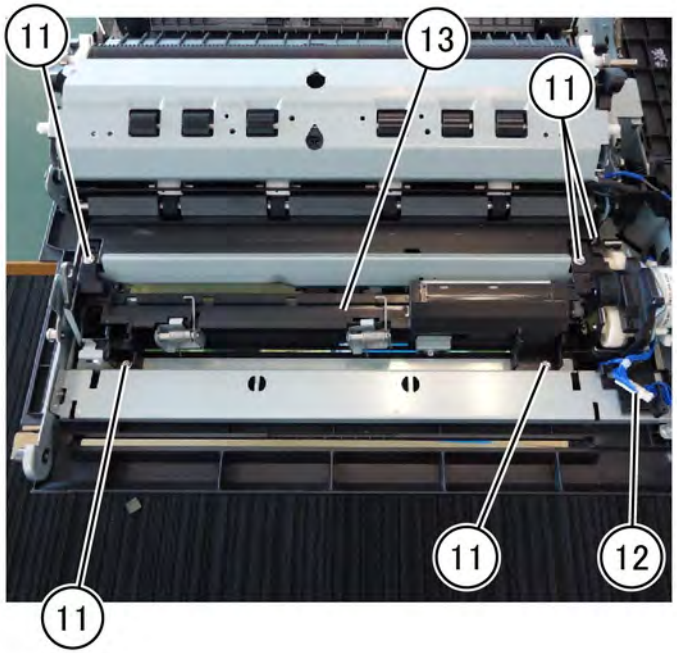

Figure 7 Bypass feeder kit removal

Replacement

Replacement is the reverse of the removal procedure.

REP 80.20 Bypass Tray Roll Kit

Parts List on PL 80.120

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the bypass feedhead assembly, REP 80.19.
2. Remove the bypass tray roll kit.
   a. Lift the top cover of the upper frame assembly in the direction of the arrow (1), Figure 1.

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Figure 1 Lift the cover

   b. Release the hooks of the feed, nudge, and retard rolls, PL 80.20 , then slide and remove in the direction of the arrow (2), Figure 2.

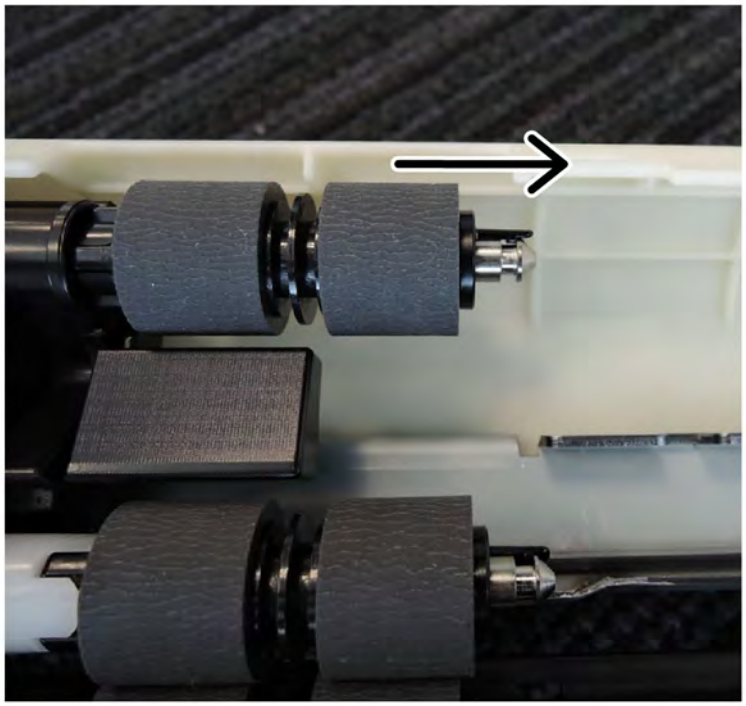

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Figure 2 Roll removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After a replacement, enter dC135 HFSI Counters to clear the HFSI counter.

REP 80.21 Left Cover Assembly

Parts List on PL 80.65

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower left cover, PL 28.10.
2. Disconnect the left cover assembly harness: Figure 1.
   a. Release the clamp (1).
   b. Disconnect two connectors (2).
   c. Remove the screw securing the ground wire (3).

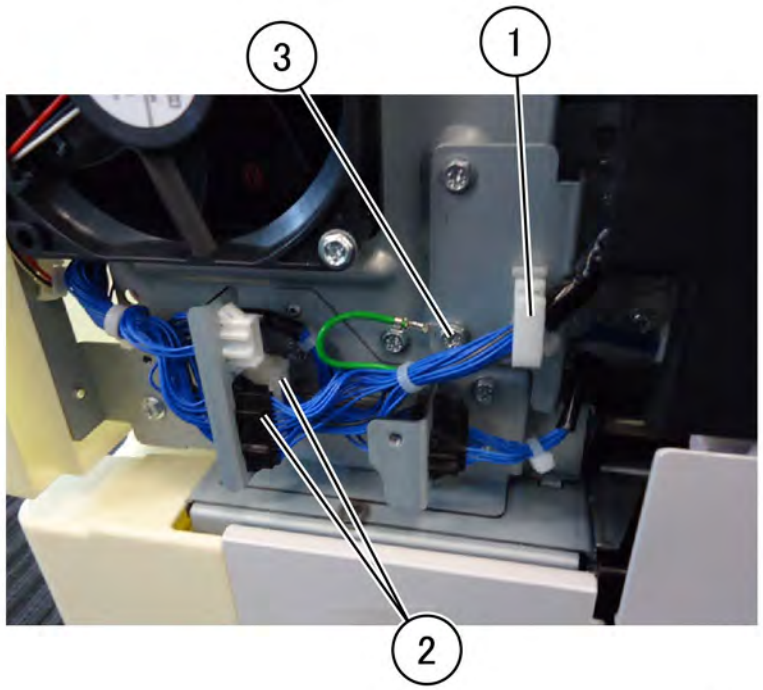

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Figure 1 Disconnect the harness

3. Remove the left cover assembly.
   a. Open the left cover (1), then remove the KL-clip (2) securing the rear left support bracket, PL 80.65, Figure 2.

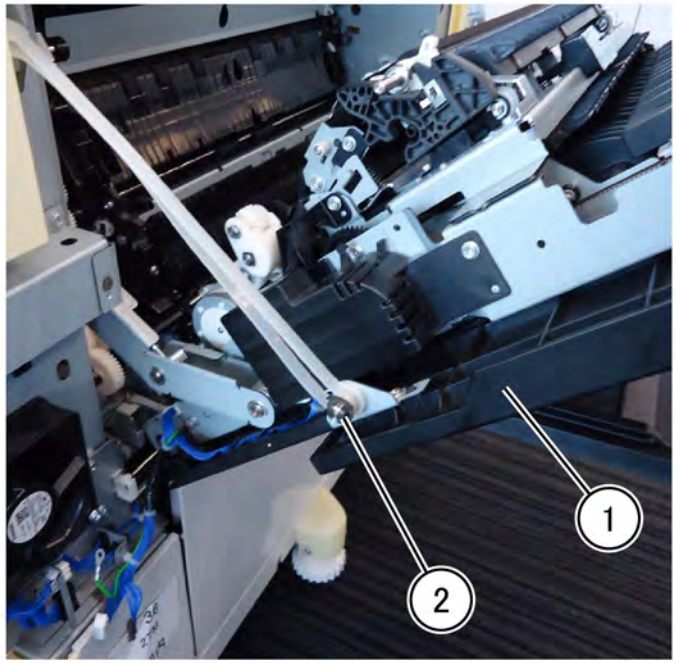

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Figure 2 KL-clip removal

   b. Remove the EL-clip (3), then release the front support from the pin, Figure 3.

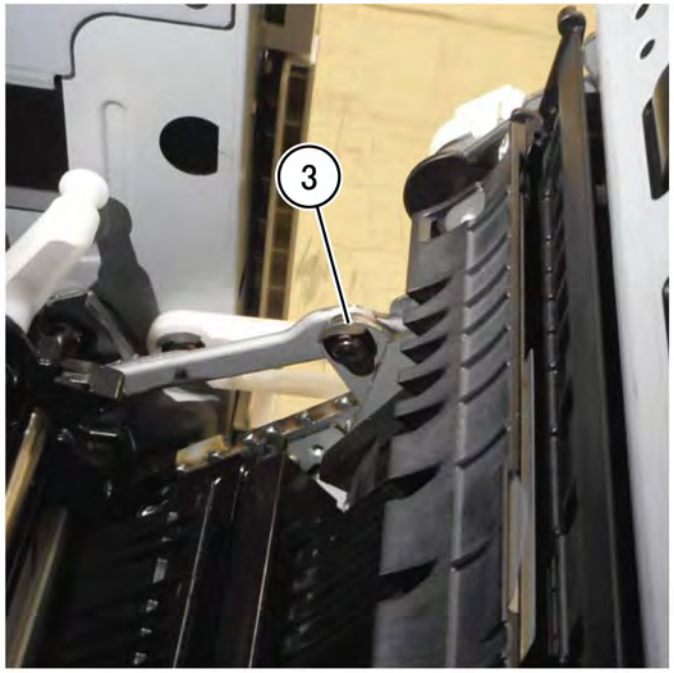

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Figure 3 E-clip removal

c. Remove the KL-clip (4) securing the link assembly, then release the link assembly from the pin, Figure 4.

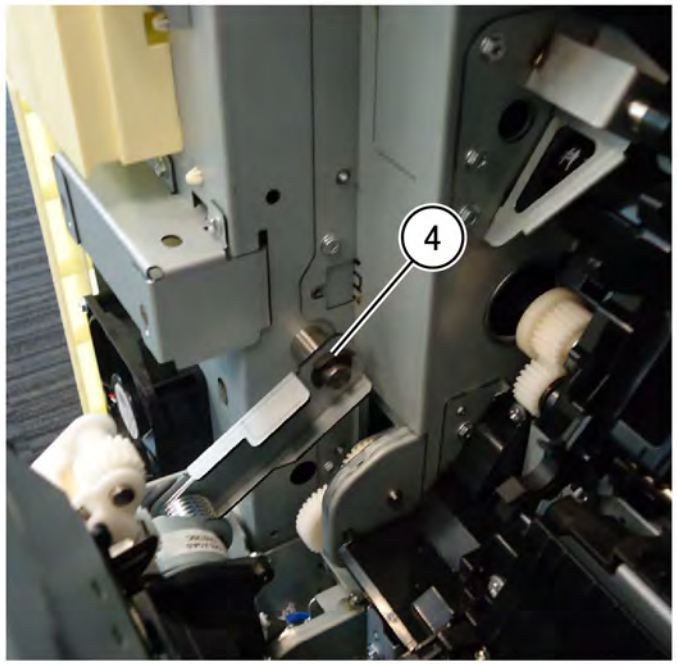

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Figure 4 Release the link assembly

d. Remove the KL-clip (5), then securing the front support to the IOT frame, Figure 5.

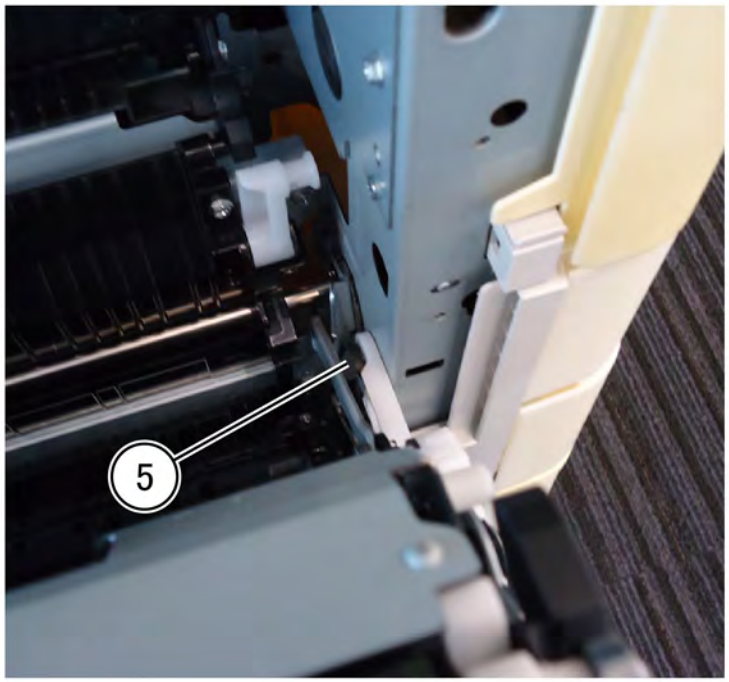

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Figure 5 KL-clip removal

e. Open the left cover assembly 15 degrees from horizontal. Slide the left cover assembly to the rear of the machine to clear the front hinge (6) and pull out, then slide the left cover assembly forward to release the pin in the rear (7) and remove the left cover assembly, Figure 6.

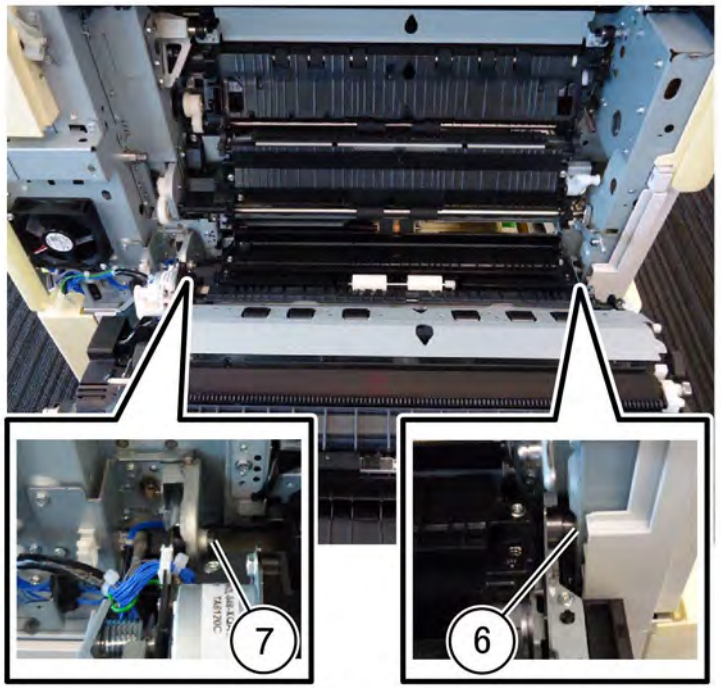

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Figure 6 Left cover assembly removal

Replacement

The replacement is the reverse of the removal procedure.

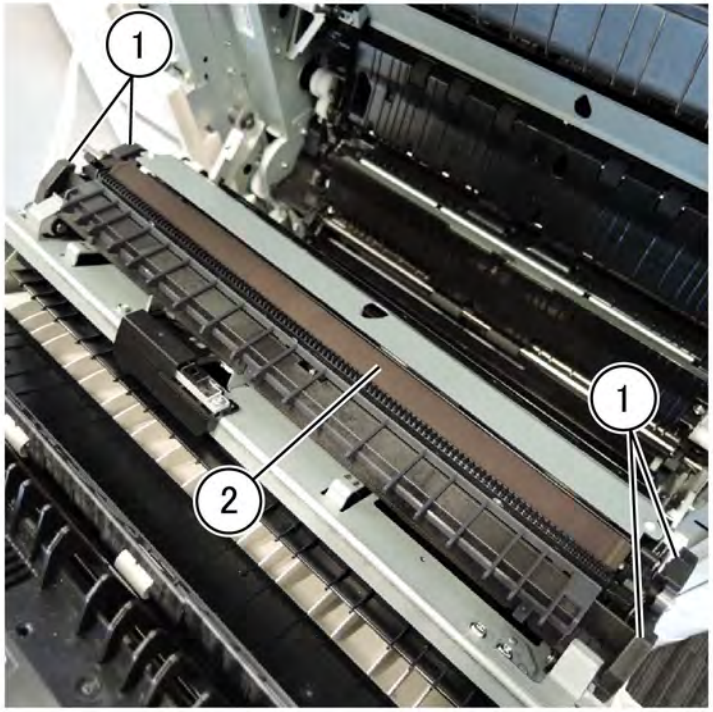
REP 80.22 2nd BTR Roll Assembly

Parts List on PL 80.65

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the left cover assembly, PL 80.65.
2. Remove the 2nd BTR roll assembly, PL 80.65.
   a. Release four hooks (1), then remove the 2nd BTR roll (2), Figure 1.
   Figure 2



F-1-0316-A

Figure 1 2nd BTR roll removal

F-1-0317-A

Figure 2 2nd BTR roll removed

Replacement

1. Replacement is the reverse of the removal procedure.
2. Enter dC135 HFSI Counters to reset the HFSI Counter for the 2nd BTR assembly.

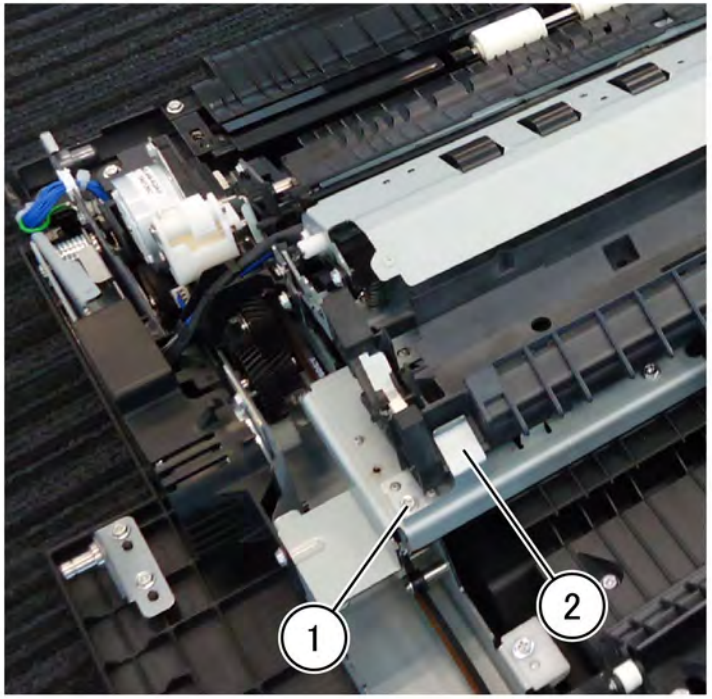
REP 80.23 2nd BTR Housing Assembly

Parts List on PL 80.70

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

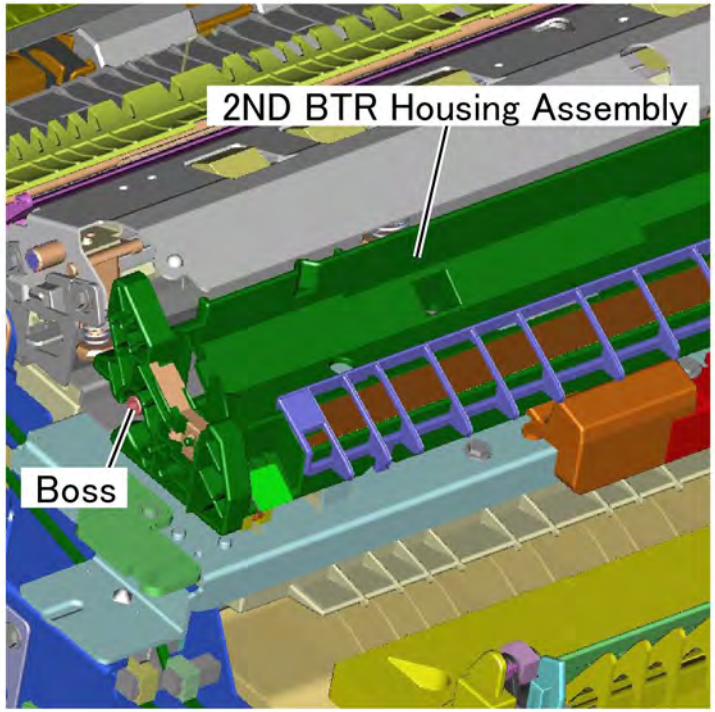
1. Open the left cover assembly, PL 80.65.
2. Remove the fusing link: Figure 1.
   a. Remove the screw (1).
   b. Remove the bracket (2).



F-1-0318-A

Figure 1 Bracket removal

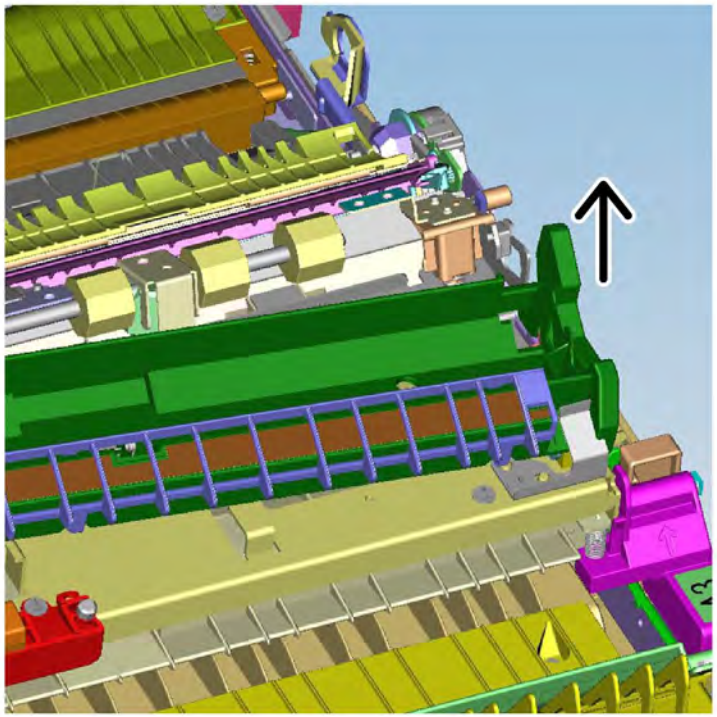
3. Release the boss securing the 2nd BTR housing assembly, PL 80.70, Figure 2.



F-1-0319-A

Figure 2 Boss location

4. Slide the 2nd BTR housing assembly in the direction of the arrow to remove, Figure 3.



F-1-0320-A

Figure 3 2nd BTR housing assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. After replacement, enter dC135 HFSI Counterstо reset the HFSI counter for the 2nd BTR unit.

REP 80.24 Duplex Inner Chute Assembly

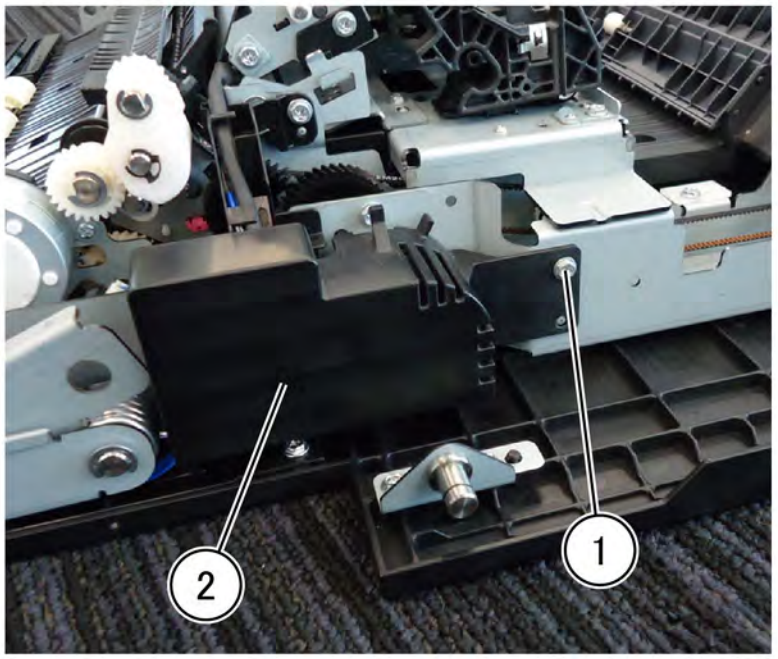
Parts List on PL 80.70

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Do not touch the 2nd BTR roll surface with your hands.

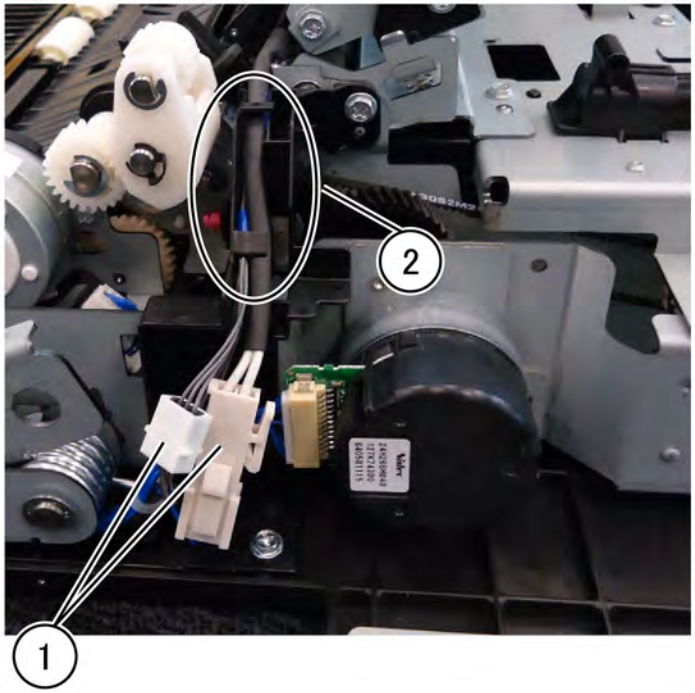
1. Remove the 2nd BTR housing assembly, REP 80.23.
2. Remove the screw (1), then remove the duplex motor cover (2), Figure 1.



F-1-0321-A

Figure 1 Duplex motor cover removal

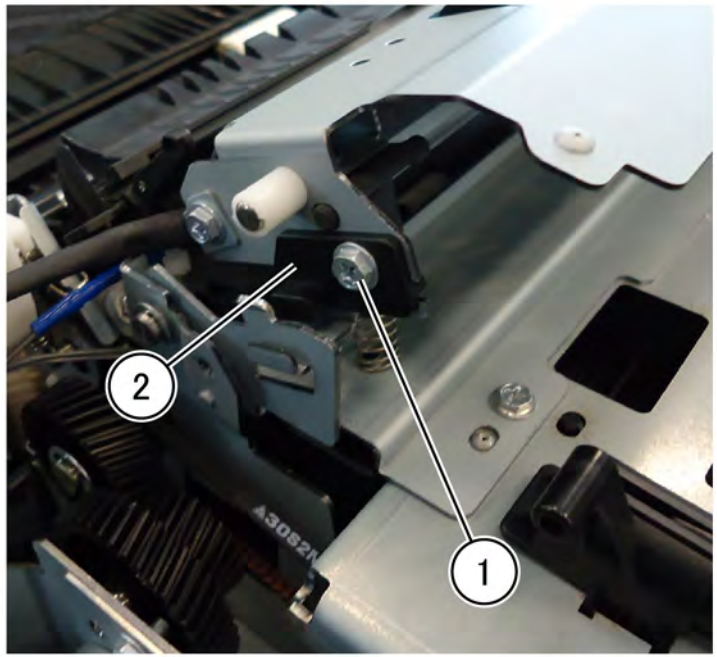
3. Disconnect two connectors (1), then release the harness from the harness guide (2), Figure 2.



F-1-0322-A

Figure 2 Release the harness

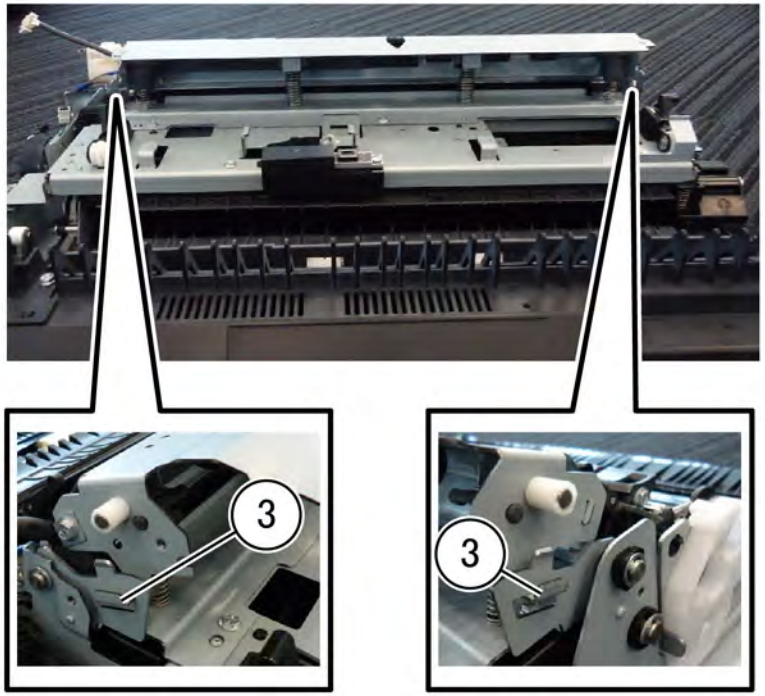
4. Remove the duplex inner chute assembly, PL 80.80, Figure 3.
   a. Remove the screw (1).
   b. Remove the plate (2).



F-1-0323-A

Figure 3 Plate removal

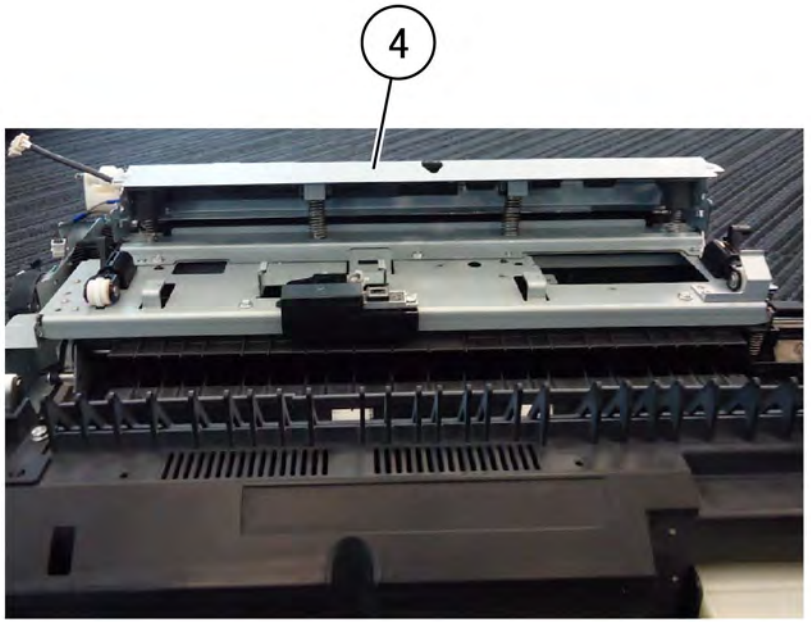
5. Release the two registration chute pins (3), Figure 4.



F-1-0324-A

Figure 4 Pin release

6. Lift then remove the registration chute (4), Figure 5.



F-1-0325-A

Figure 5 Registration chute removal

7. Remove the e-clip (5), then remove the handle (6), Figure 6.

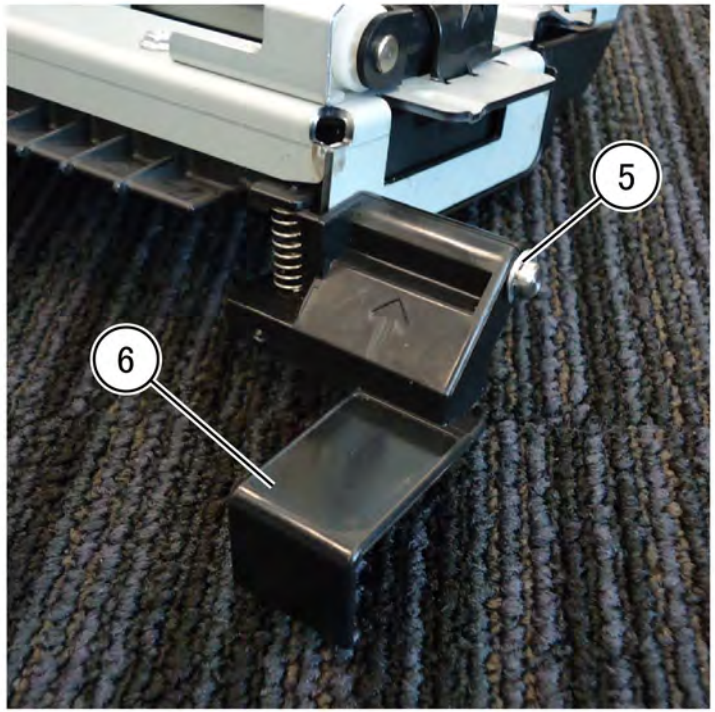


Figure 6 Handle removal

8. Remove the POB jam sensor, REP 80.28.
9. Remove four screws (8), then remove the registration tie plate (9), Figure 7.

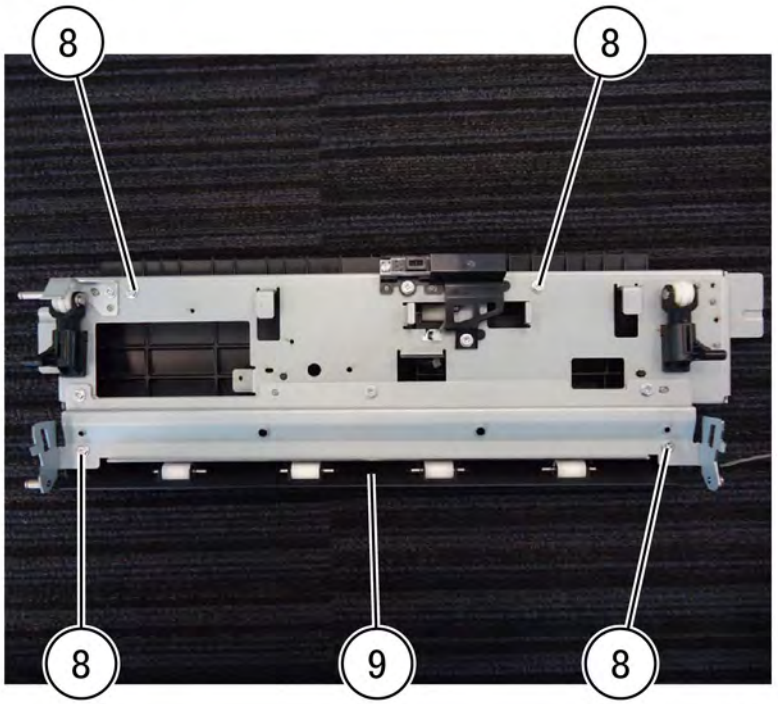


Figure 7 Tie plate removal

10. Turn the duplex inner chute assembly over, then remove the wire harness (10), Figure 8.

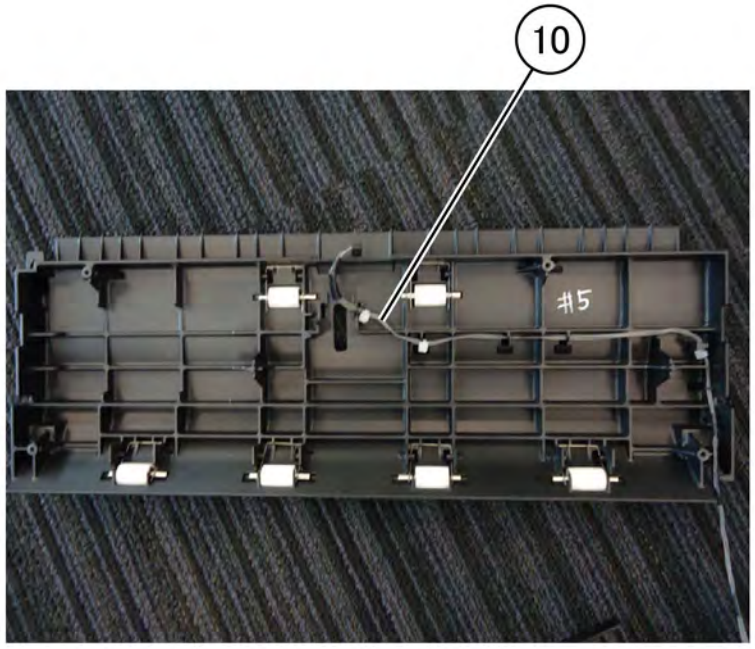


Figure 8 Wire harness removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.25 Lower Chute Assembly

Parts List on PL 80.75

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the left cover assembly, PL 80.65 . If it is necessary to remove the left cover assembly refer to REP 80.21.
2. Press in on the lower chute assembly (1) in the direction of the arrows, then lift the lower chute assembly, Figure 1.

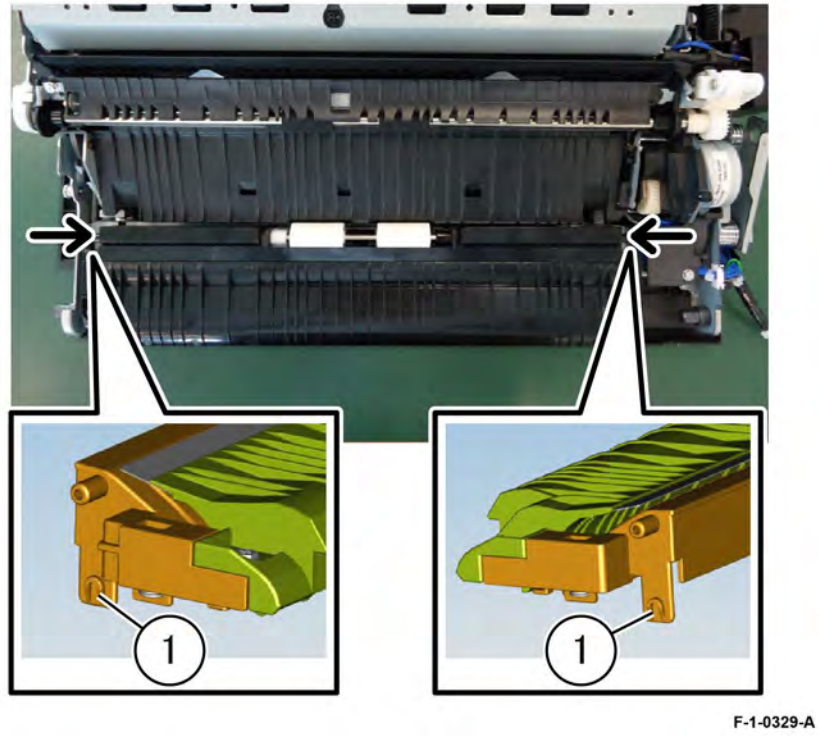


Figure 1 Duplex motor cover removal

3. Release two tabs (2) attaching the left transport chassis to the lower chute assembly, then remove the lower chute assembly, Figure 2.

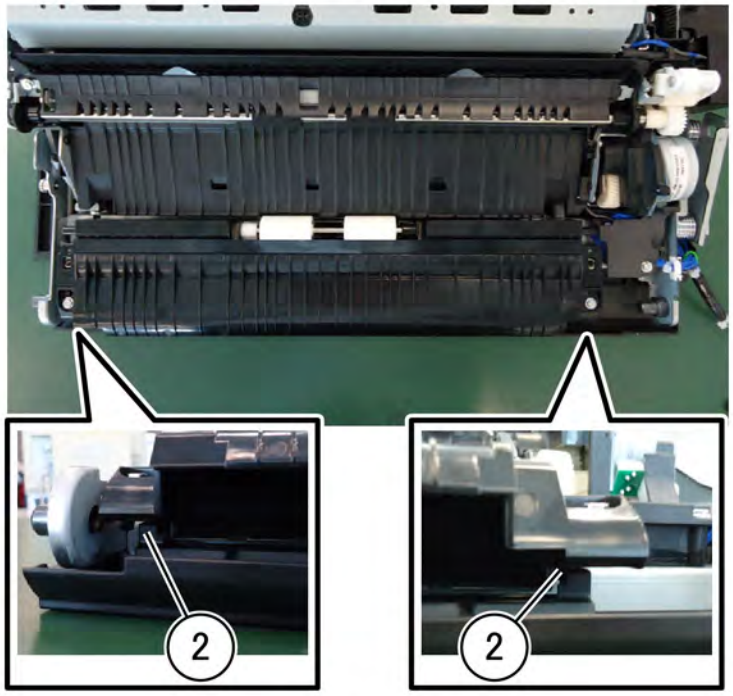


Figure 2 Lower chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

REP 80.26 Registration Sensor

Parts List on PL 80.80

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the 2nd BTR housing assembly, REP 80.23.
2. Remove the screw (1), then remove the duplex motor cover (2), Figure 1.

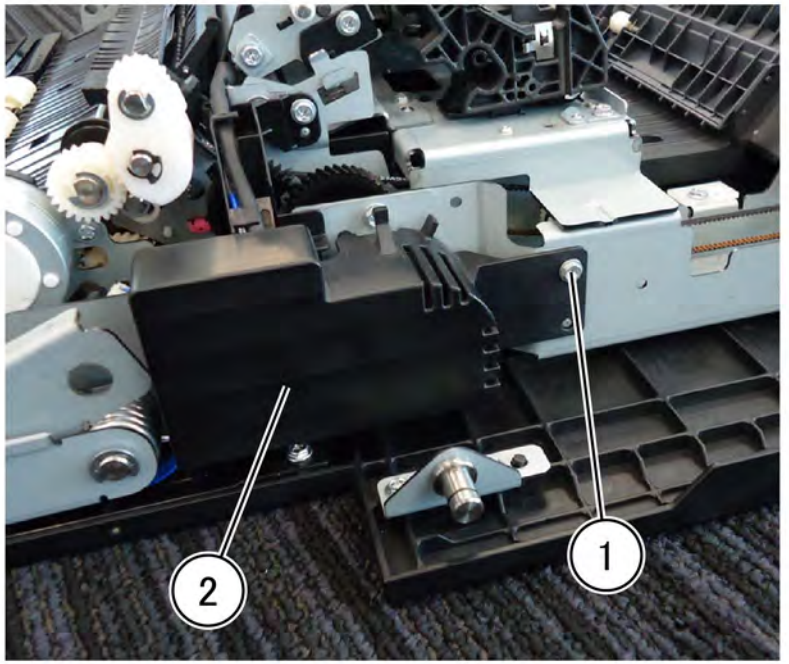


Figure 1 Registration sensor removal

3. Disconnect two connectors (1), the release the harness from the harness guide (2), Figure 2.

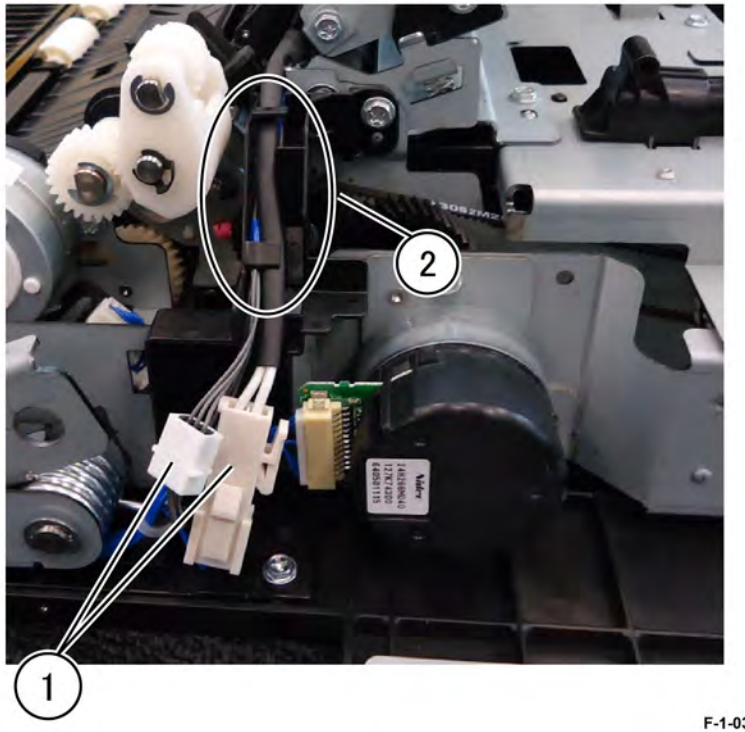


Figure 2 Release the harness

4. Remove the duplex inner chute assembly, REP 80.24.
5. Remove the registration sensor (1), Figure 3.

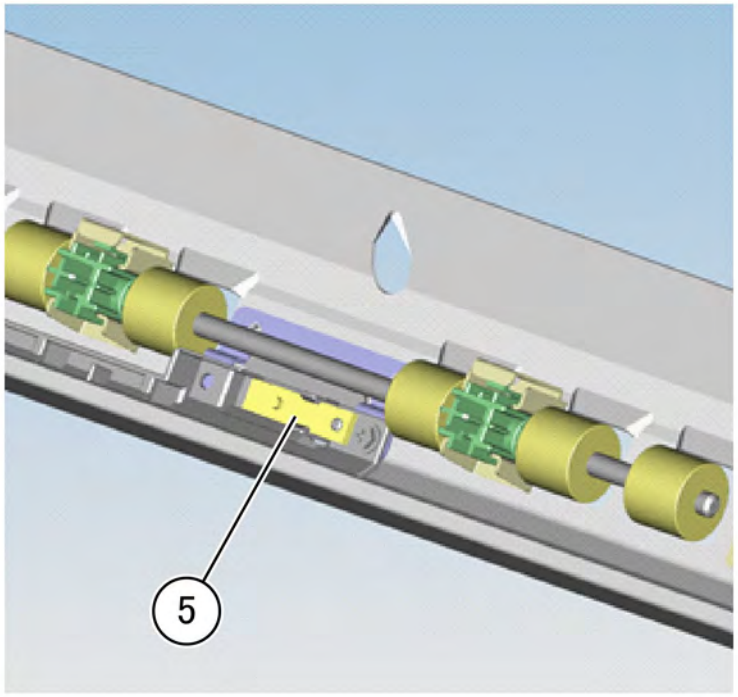


Figure 3 Registration sensor removal

Replacement

Replacement is the reverse of the removal procedure.

REP 80.27 Handle

Parts List on PL 80.80

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Open the left cover assembly, PL 80.65.
2. Remove the e-clip (1), then remove the handle (2), PL 80.80, Figure 1.

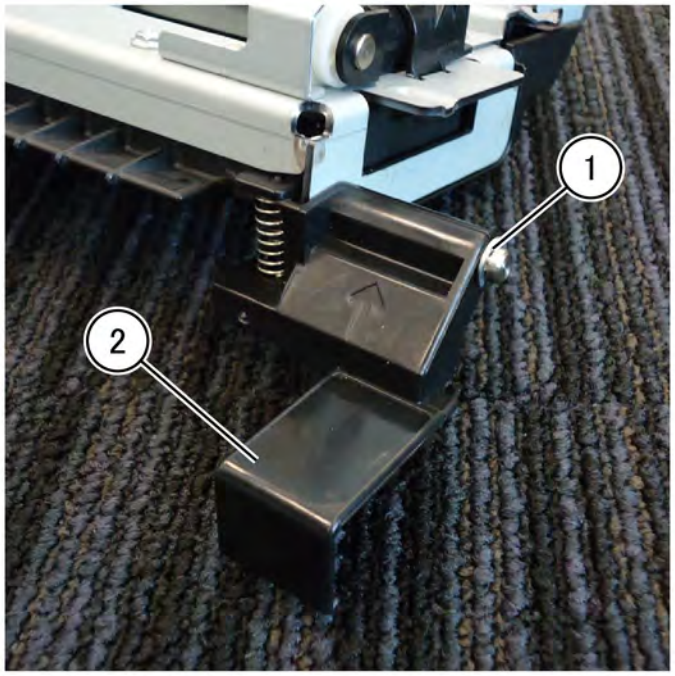


Figure 1 Disconnect the harness

Replacement

Replacement is the reverse of the removal procedure.

REP 80.28 POB Jam Sensor

Parts List on PL 80.80

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the 2ND BTR housing assembly, REP 80.23.
2. Remove the harness cover: Figure 1.
   a. Remove the screw (1).
   b. Remove the harness cover (2).

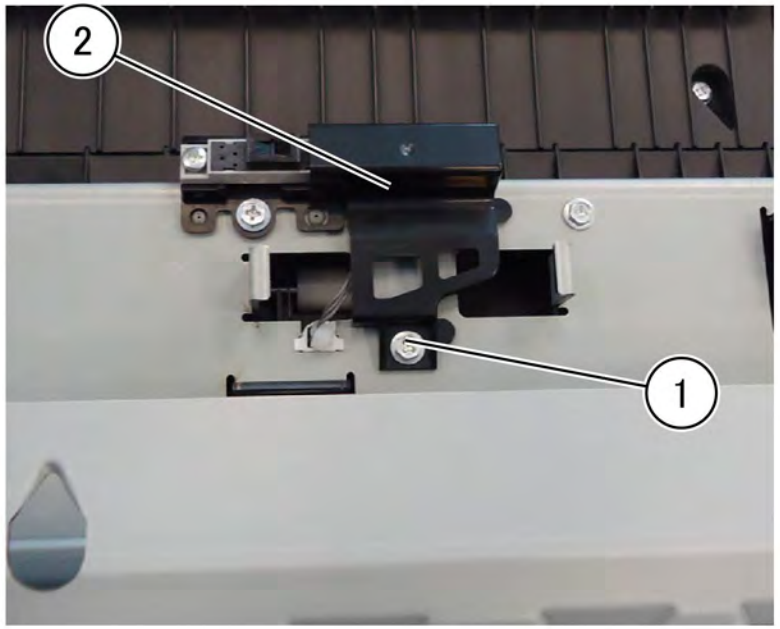
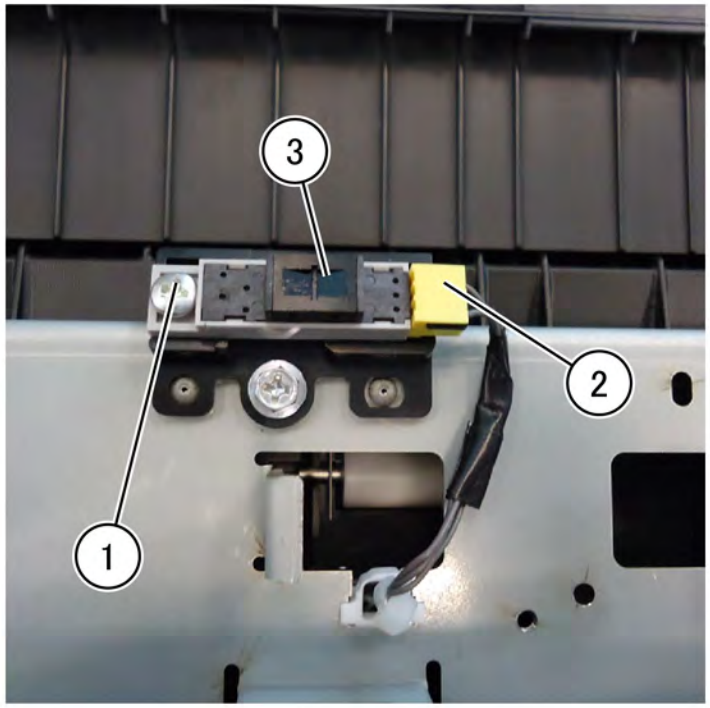


Figure 1 Harness cover removal

3. Remove the POB jam sensor, PL 80.80, Figure 2.
   a. Remove the screw (1).
   b. Disconnect the connector (2).
   c. Remove the POB jam sensor (3).



F-1-0336-A

Figure 2 POB jam sensor removal

Replacement

Replacement is the reverse of the removal procedure.

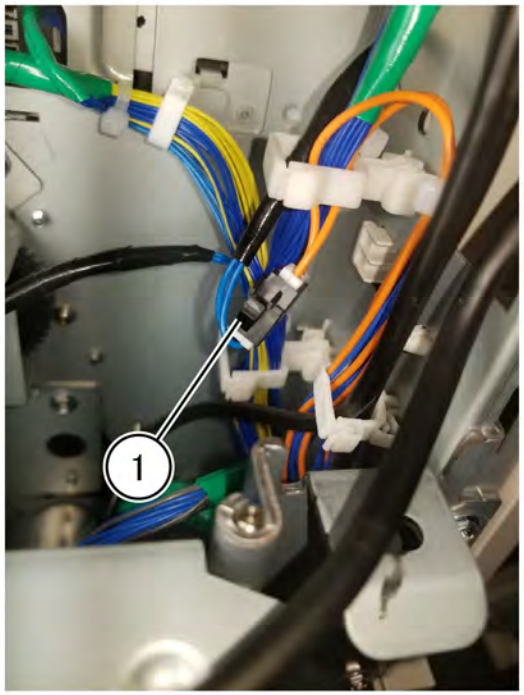
REP 80.29 Left Cover Interlock Switch Assembly

Parts List on PL 80.65

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

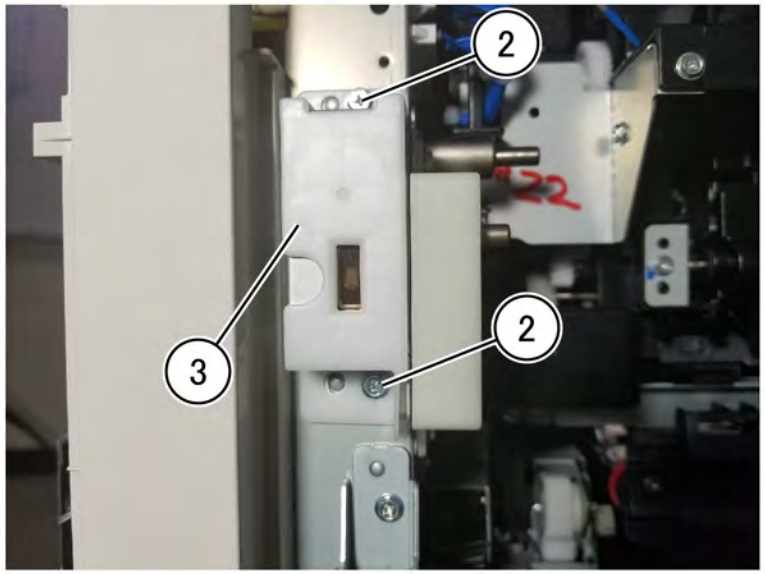
1. Open the video contact chassis assembly, GP 32.
2. Open the left cover assembly, PL 80.65.
3. Disconnect the connector behind the video contact chassis assembly (1), Figure 1.



F-1-0337-A

Figure 1 Connector location

4. Remove two screws (2) then remove the interlock switch assembly (3) PL 80.65, Figure 2.



F-1-0338-A

Figure 2 Interlock switch assembly removal

Replacement

Replacement is the reverse of the removal procedure.

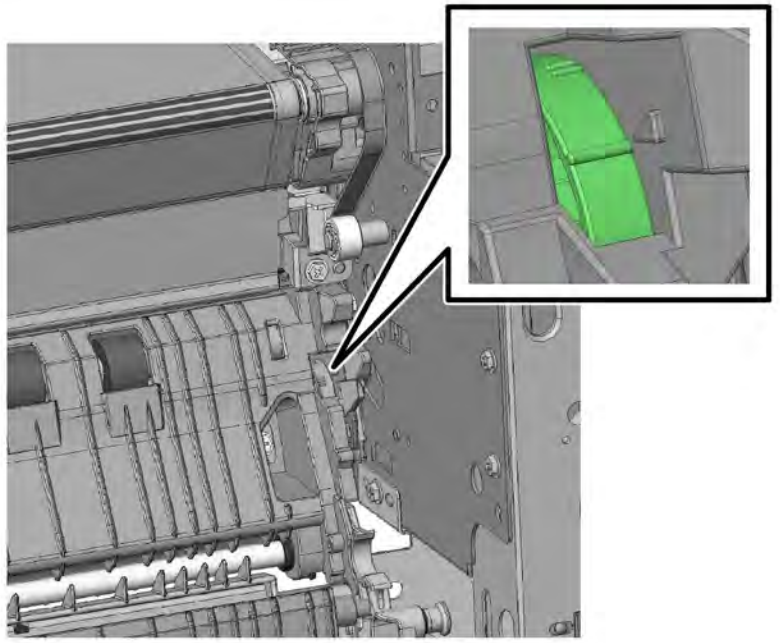
REP 80.30 Registration Transport Assembly

Parts List on PL 80.90

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

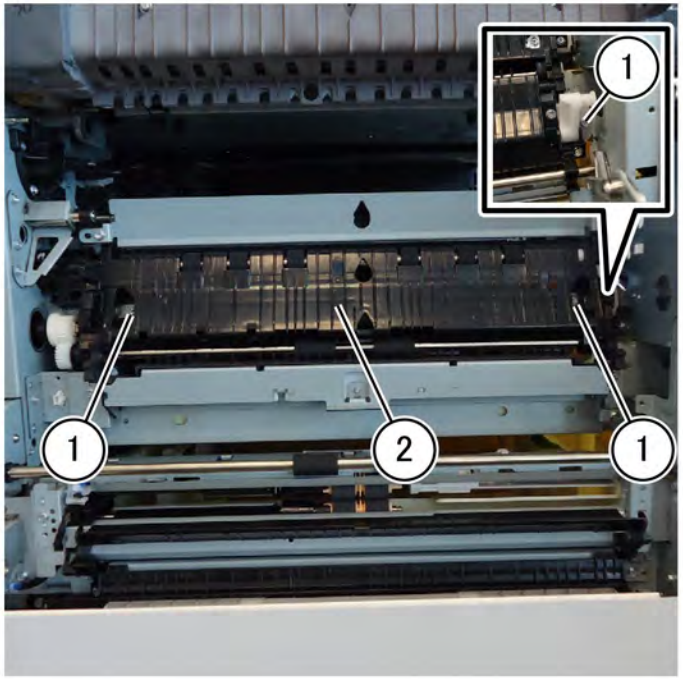
1. Open the left cover assembly, PL 80.65.
2. Mark the position of the adjustment camshaft on the front side of the registration transport assembly, PL 80.90, before beginning removal, Figure 1.



F-1-0339-A

Figure 1 Mark the adjust camshaft location

3. Remove the registration transport assembly, PL 80.90, Figure 2.
   a. Remove three screws (1).
   b. Slide the registration transport assembly (2) left towards the shaft hole.
   c. Lift the right side up then disengage the registration transport assembly from the pin.
   d. Roll the top of the registration transport assembly back to release the registration transport assembly from the pin.
   e. Pull the right-side out to release the shaft from the hole in the chassis and remove the registration transport assembly.



F-1-0340-A

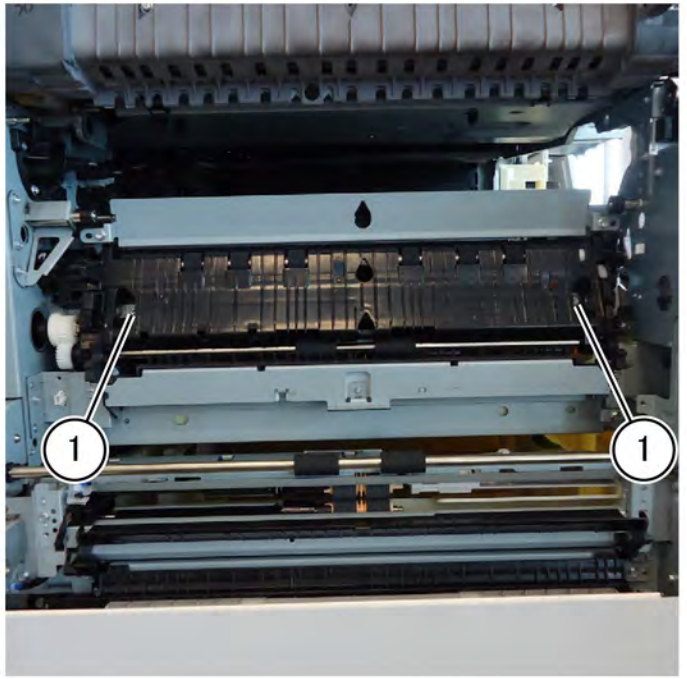
Figure 2 Registration transport assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. Attach the registration transport assembly with the rear screw first.

CAUTION: Tighten the rear screw at the rear side of the registration transport assembly or the duplex motor drive of the motor drive PWB may be damaged.

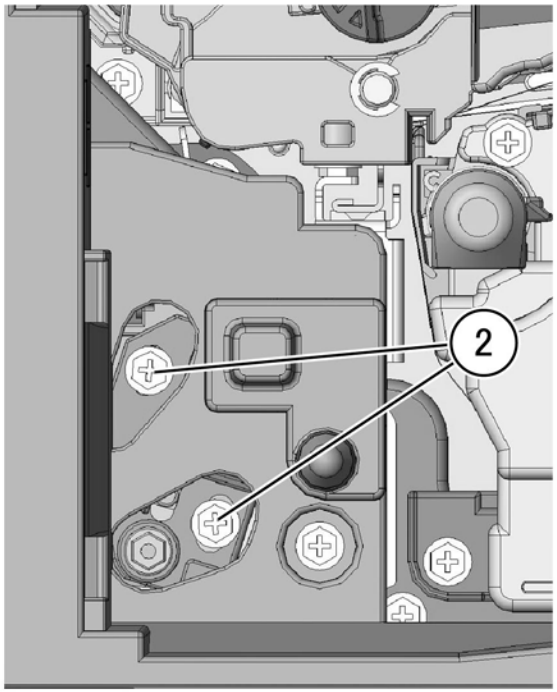
3. Set the position of the adjustment cam on the front side to the mark made before removal, Figure 1.
4. Loosen the two screws (1) of the registration transport assembly, Figure 3.



F-1-0341-A

Figure 3 Registration transport assembly screws

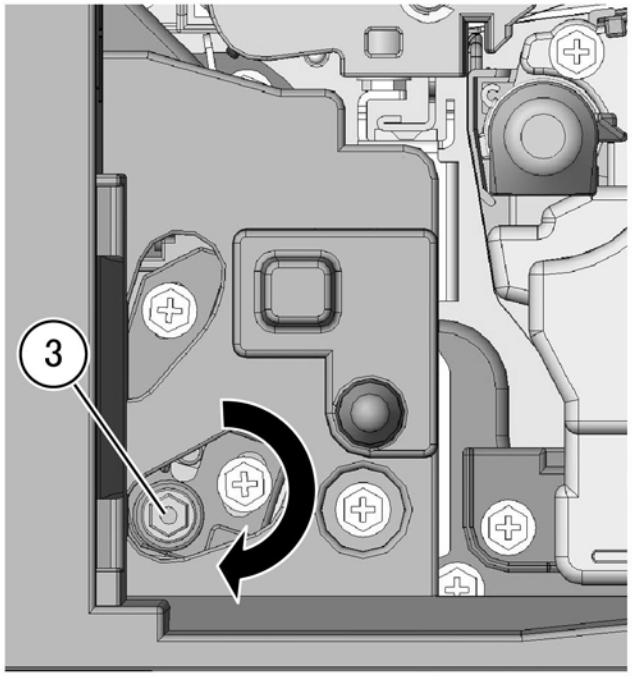
5. Remove the waste cartridge, PL 90.15, then loosen two screws (2) securing the skew adjust block, Figure 4.



F-1-0342-A

Figure 4 Adjust block screws

6. Turn the adjustment camshaft while observing the front of the registration transport assembly to verify the registration transport assembly rises as the adjustment camshaft turns, Figure 5.



F-1-0343-A

Figure 5 Adjust camshaft turn location

7. Tighten the two screws (1) of the registration transport assembly left loose, Figure 3.

   Note: If paper wrinkles are generated, refer to RAP IQ2 IOT defects rap, transfer wrinkle. Check for moisture in the paper, replace with new paper as needed.

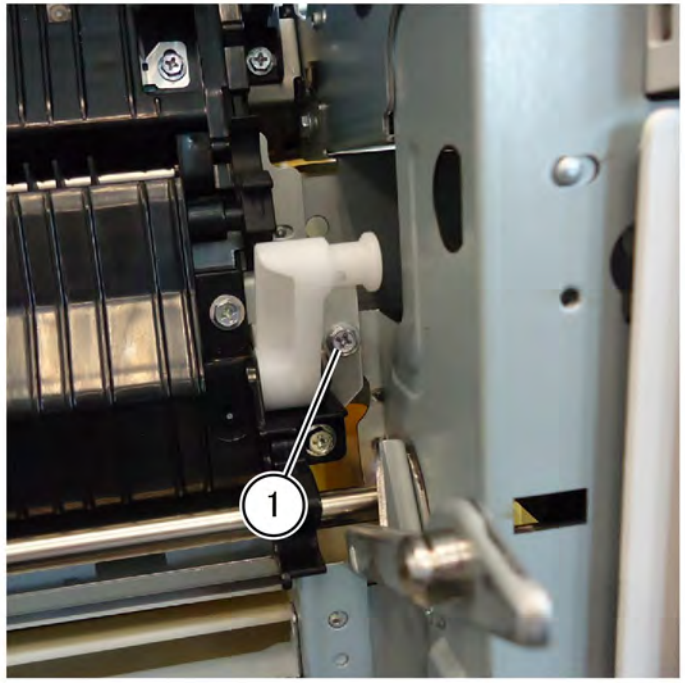
REP 80.31 Chute Assembly

Parts List on PL 80.90

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

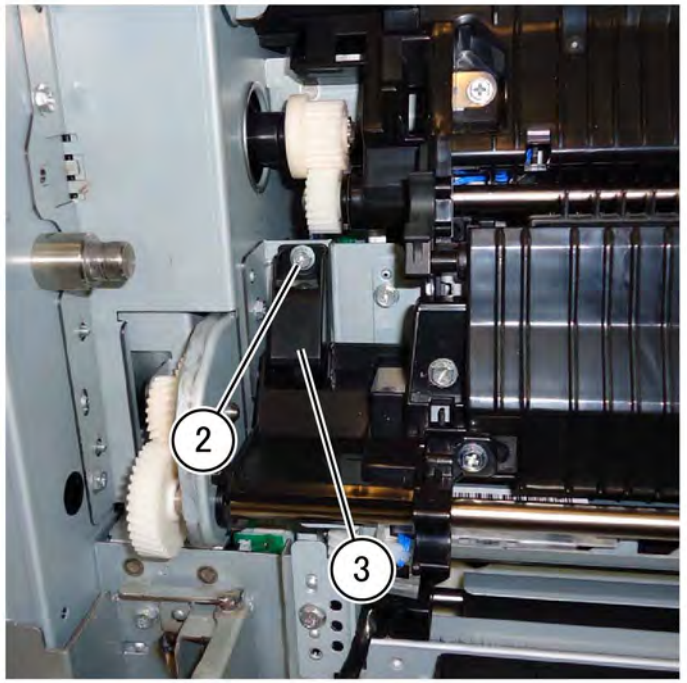
1. Remove the left cover assembly, REP 80.21.
2. Remove the screw (1), Figure 1.



F-1-0344-A

Figure 1 Screw removal

3. Remove the screw (2), then remove connector cover (3), Figure 2.



F-1-0345-A

Figure 2 Connector cover removal

4. Slide the chute assembly (3), PL 80.90 , in the direction of the right-arrow, then remove the chute assembly in the direction of the out-arrow, Figure 3.

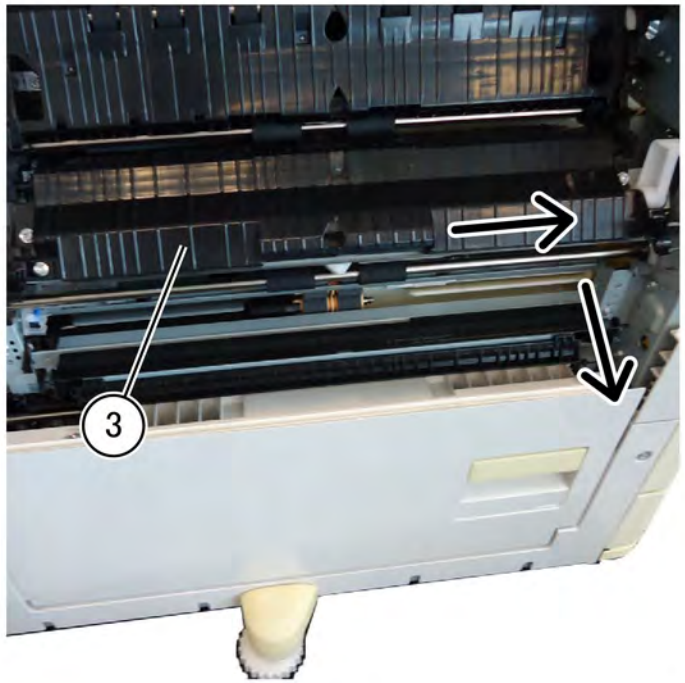


Figure 3 Chute assembly removal

Replacement

The replacement is the reverse of the removal procedure.

Note: To ease assembly the following steps are suggested:

1. Lift the tray 1 feedhead assembly.
2. Insert the locating pins of the chute assembly into the frame.
3. Install the front screw.

REP 80.32 Takeaway Roll Assembly

Parts List on PL 80.90

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the left cover assembly, REP 80.21.
2. Remove the chute assembly REP 80.31.
3. Remove the k-clip (1) holding the gear on the end the shaft towards the rear of the machine, then remove the gear, Figure 1.

Note: For reassembly, note the orientation of the front-side hinge plate.

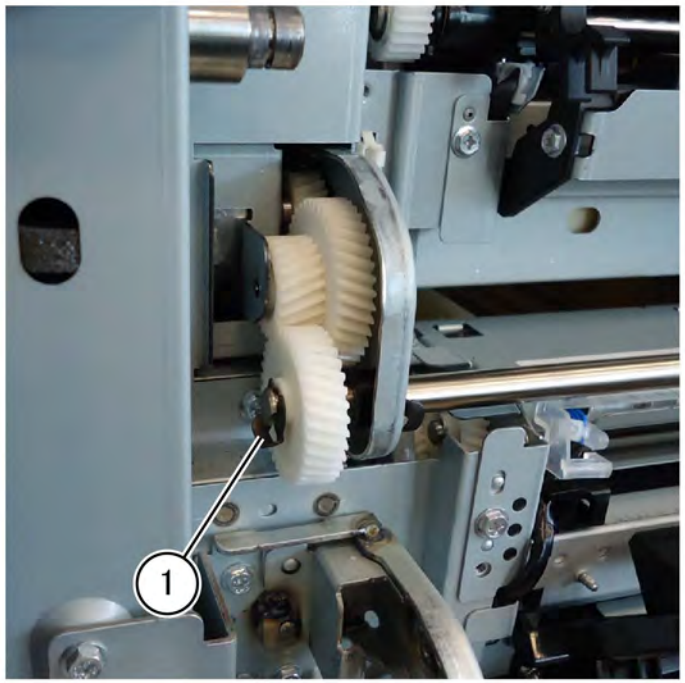


Figure 1 K-clip and gear removal

4. Remove the k-clip on the inside of the bracket (2), Figure 2.

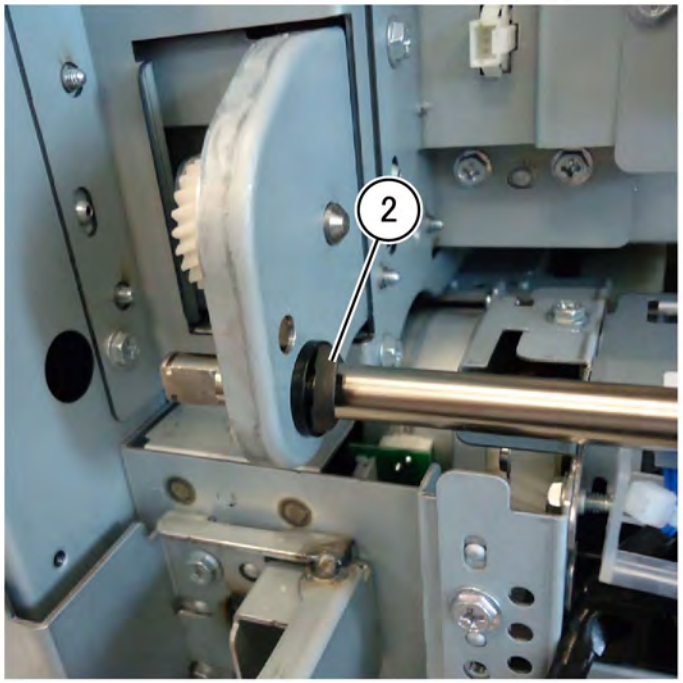


Figure 2 Connector cover removal

5. Slide the takeaway roll assembly (4), PL 80.90 , in the direction of the arrow towards the rear of the machine (3), then remove the takeaway roll assembly, Figure 3.

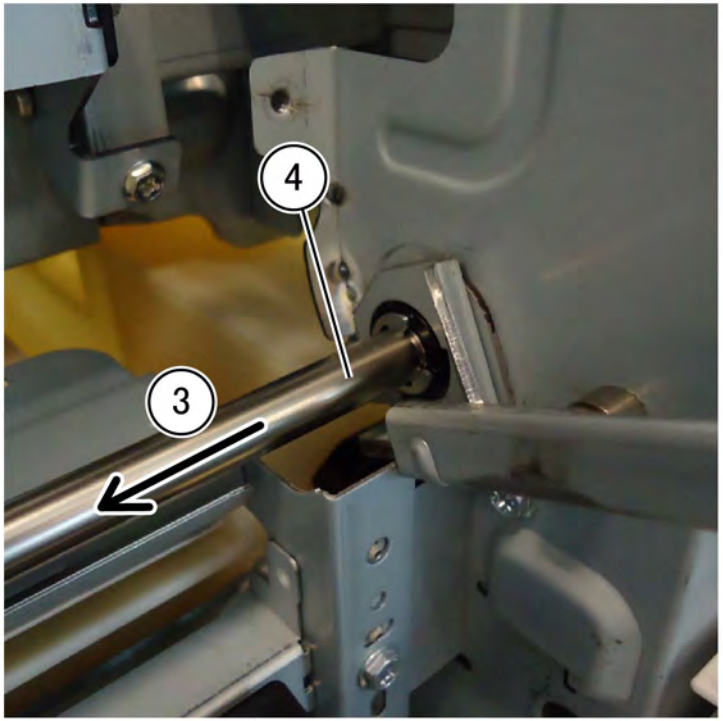


Figure 3 Takeaway roll assembly removal

Replacement

Replacement is the reverse of the removal procedure.

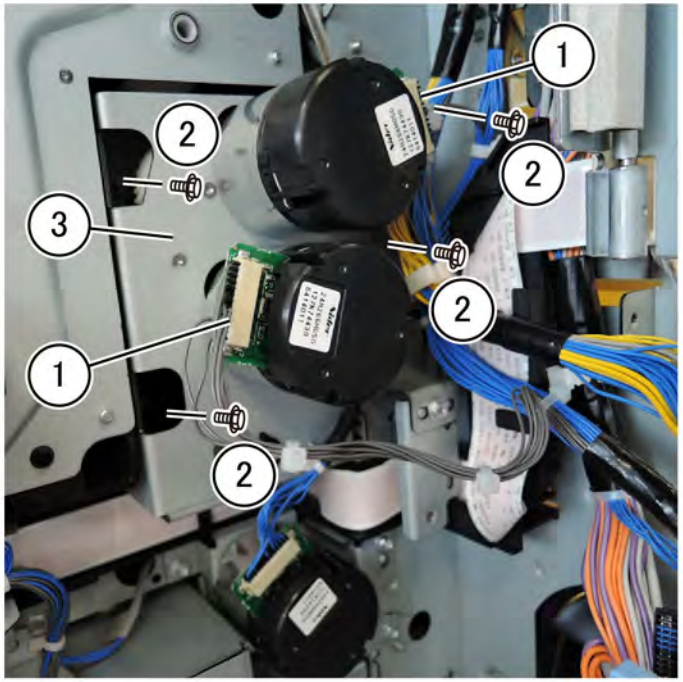
REP 80.33 Registration Drive Assembly

Parts List on PL 80.95

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower rear cover, PL 28.15.
2. Open the video contact chassis assembly, GP 32.
3. Remove the motor drive PWB, REP 1.4.
4. Remove the registration drive assembly, PL 80.95, Figure 1.
   a. Disconnect two connectors (1).
   b. Remove the five screws (2).
   c. Remove the cable tie from the frame.
   d. Remove the registration drive assembly (3).



F-1-0350-A

Figure 1 Registration drive assembly removal

Replacement

Replacement is the reverse of the removal procedure.

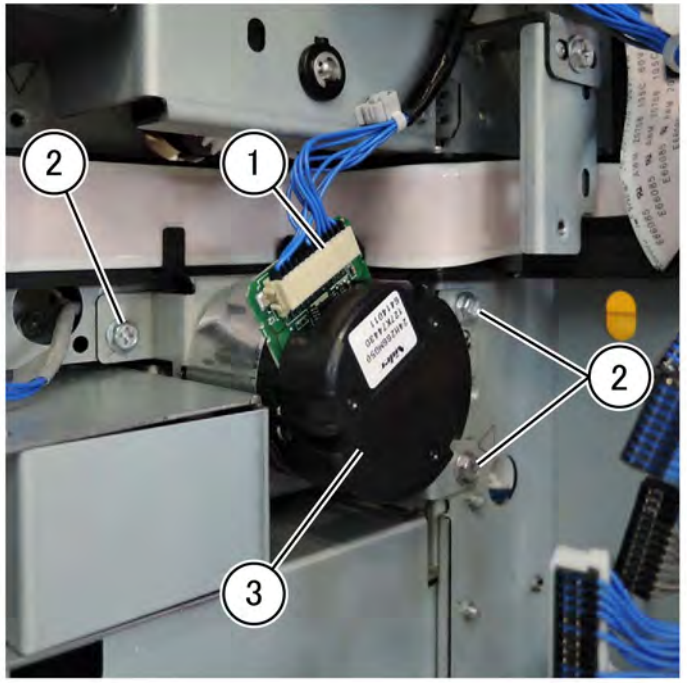
REP 80.34 Drive Assembly (Takeaway Motor 2)

Parts List on PL 80.95

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the motor drive PWB, REP 1.4.
2. Remove the AC drive PWB, REP 1.5.
3. Remove the LVPS, REP 1.6.
4. Remove the takeaway motor 2 drive assembly, PL 80.95, Figure 1.
   a. Disconnect the connector (1).
   b. Remove the three screws (2).
   c. Remove the drive assembly (3).



F-1-0351-A

Figure 1 Takeaway motor 2 drive removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.1 Conductor Housing Assembly

Parts List on PL90.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the lower rear cover, PL 28.15.
2. Remove the motor drive PWB, REP 1.4.
3. Remove the motor drive chassis assembly, PL 1.10.
4. Remove the AC drive PWB, REP 1.5.
5. Remove the AC bracket, PL 1.15.
6. Remove the LVPS, REP 1.6.
7. Remove the fuser drive assembly, REP 40.2.
8. Remove main the drive assembly, REP 40.1.
9. Remove the developer bias HVPS PWB, REP 1.7.
10. Remove the harness bracket: Figure 1.
    a. Release two cable ties (1).
    b. Release the LED head harness from the guide (3).
    c. Remove the screw (2) then remove the harness bracket.

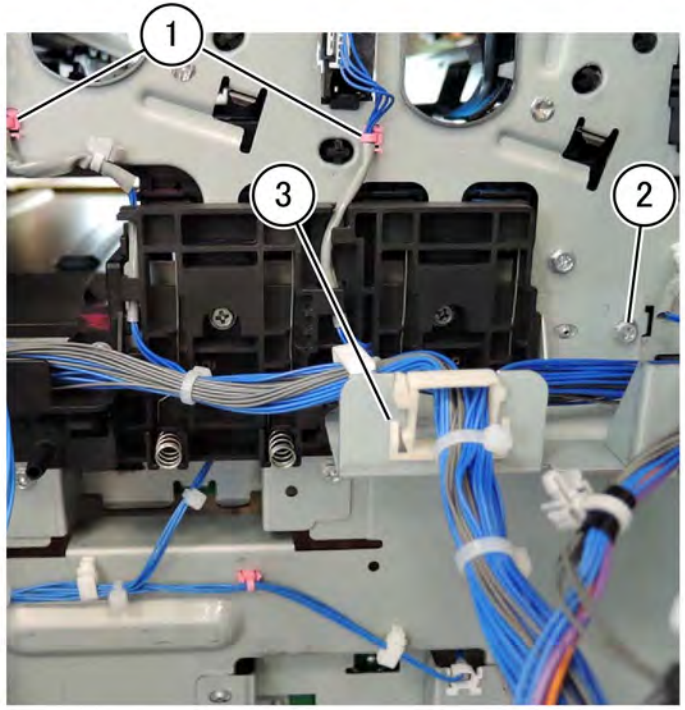


Figure 1 Harness bracket removal

11. Remove the conductor housing assembly, PL90.05, Figure 2.

CAUTION: Take care not to damage the springs or allow the springs to fall out of the conductor housing assembly.

a. Remove two screws (1).

b. Remove the conductor housing assembly (2).

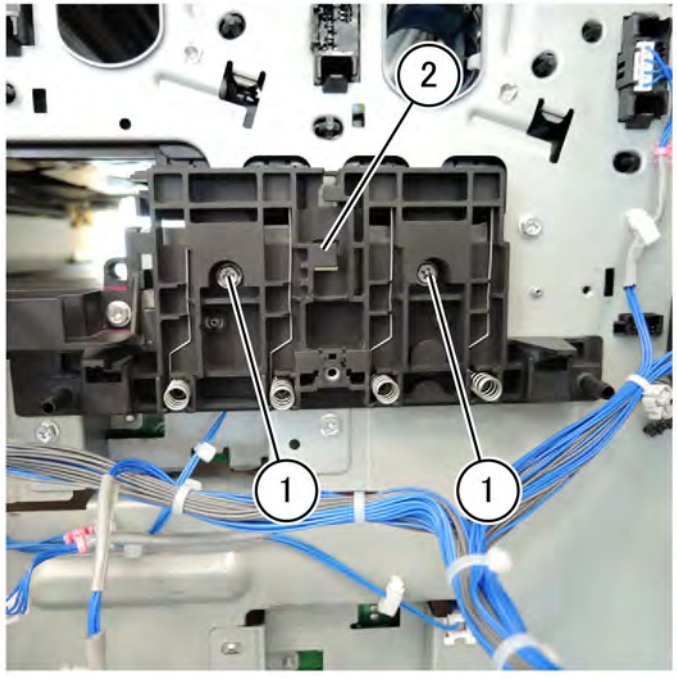
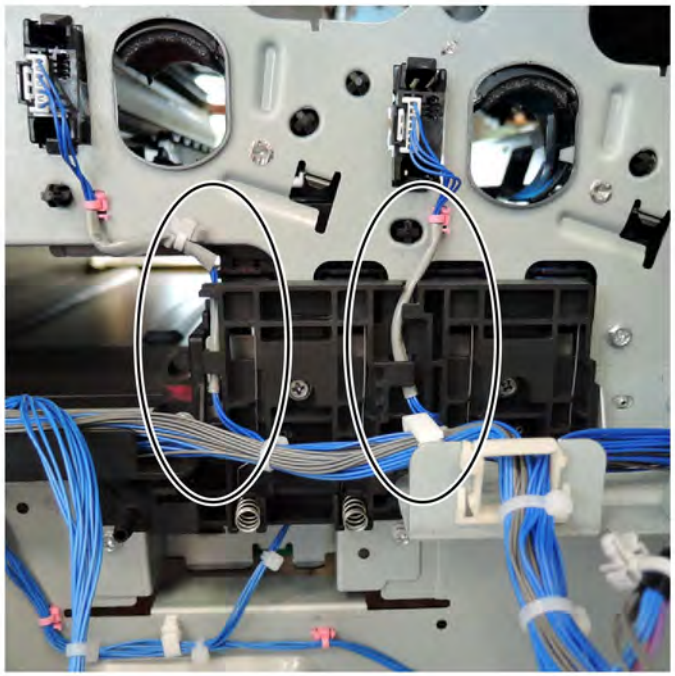


Figure 2 Conductor housing assembly removal

Replacement

1. During replacement properly route the LED head harnesses, Figure 3.



F-1-0362-A

Figure 3 LED head harness routing

2. The remainder of the replacement is the reverse of the removal procedure.

REP 90.2 Plunger

Parts List on PL90.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Perform the procedure to remove the FFC cable assembly PL60.05, REP 60.2.

Note:

Plunger location:

- To access the plunger it is not necessary to remove the FCC cables PL60.05 and PL60.05 from the marking guide, PL 90.25.
- The plunger is mounted on the developer conductor housing assembly, PL90.05 , part of the FCC cable assembly, PL60.05.

2. Remove the plunger, PL90.05, Figure 1.
   a. Press down on the plunger, turn clockwise to align the grove to the pin (1) unlocking the plunger (2).
   b. Remove the plunger (2).

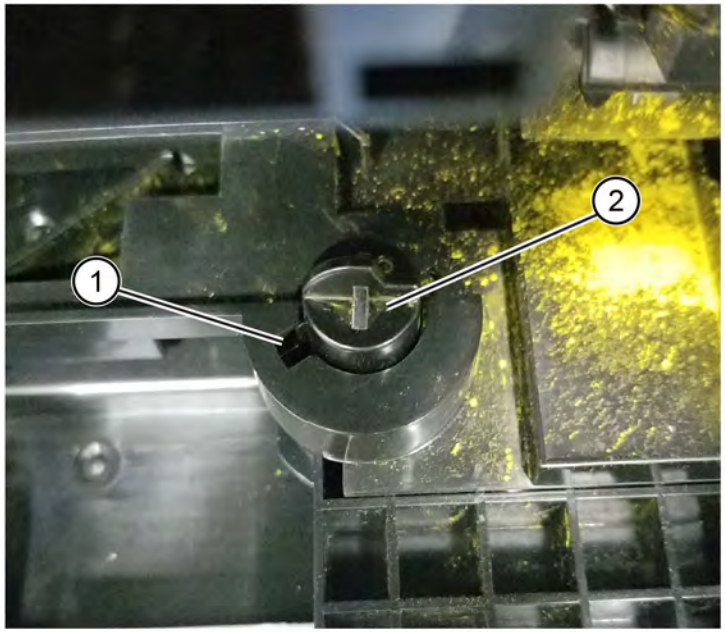


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Figure 1 Plunger removal

Replacement

1. Replacement is the reverse of the removal procedure.

Note: Take caution not to touch the LPH assembly during the plunger removal and replacement. If you touch it, perform LPH cleaning.

Note: Take caution not to spill toner onto the marking guide opening during the tasks. A power supply failure occurs when toner is adhered to the contact of the plunger. Wipe the contact part of the plunger with a dry cloth if toner has adhered to the plunger contact.

REP 90.3 New Developer Assembly (Y,M,C,K)

Parts List on PL90.05

Removal

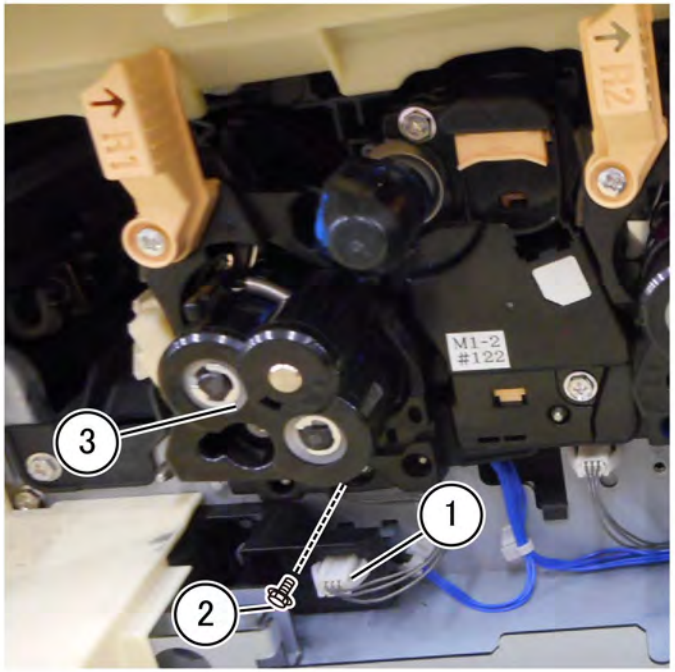
WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: To prevent light fatigue, either wrap the removed drum cartridge in a black sheet of paper or store it in a black bag.

CAUTION: Do not touch the surface of the drum cartridge.

Note: The following describes only the procedure for the developer assembly (K), the procedure is the same for all developer assemblies (Y,M,C,K).

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste toner transport assembly, PL 90.15.
3. Remove the inner lower cover, PL 28.05.
4. Remove the drum assembly, REP 90.11.
5. Remove the developer assembly: Figure 1.
   a. Disconnect the connector (1).
   b. Remove the screw (2).
   c. Remove the developer assembly (3).



F-1-0364-A

Figure 1 Developer assembly removal

Replacement

1. Using a toner vacuum on the output port, clean the inside of the waste toner transport assembly, PL 90.15, Figure 2.

   Note: Rotate the gear in the direction of the arrow (clockwise) to assist ejection of the toner during cleaning.

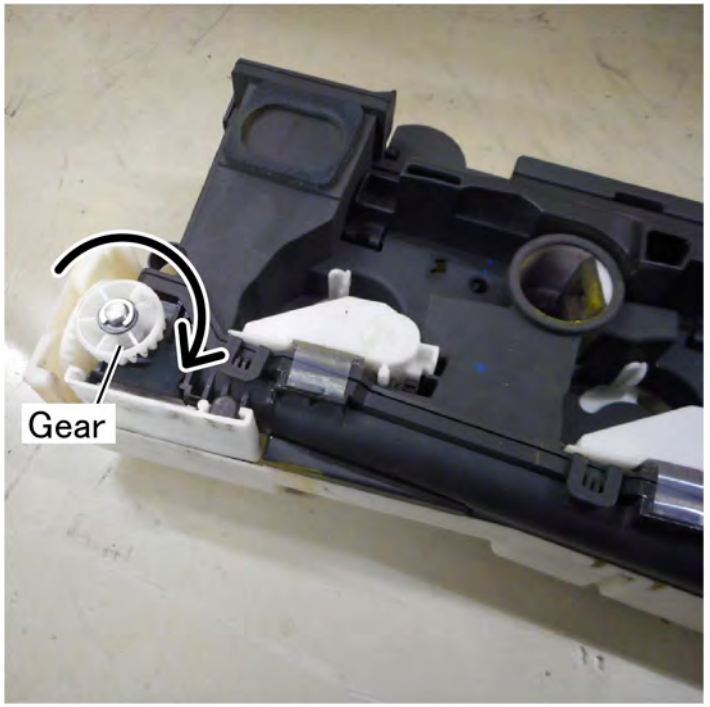


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Figure 2 Rotate the gear

2. Inspect the MOB/ADC assembly, PL90.30 . If toner is visible on the MOB/ADC assembly remove the MOB/ADC assembly for cleaning, REP 90.9.
3. Inspect and clean the frame of all toner before installing the developer assembly, Figure 3.

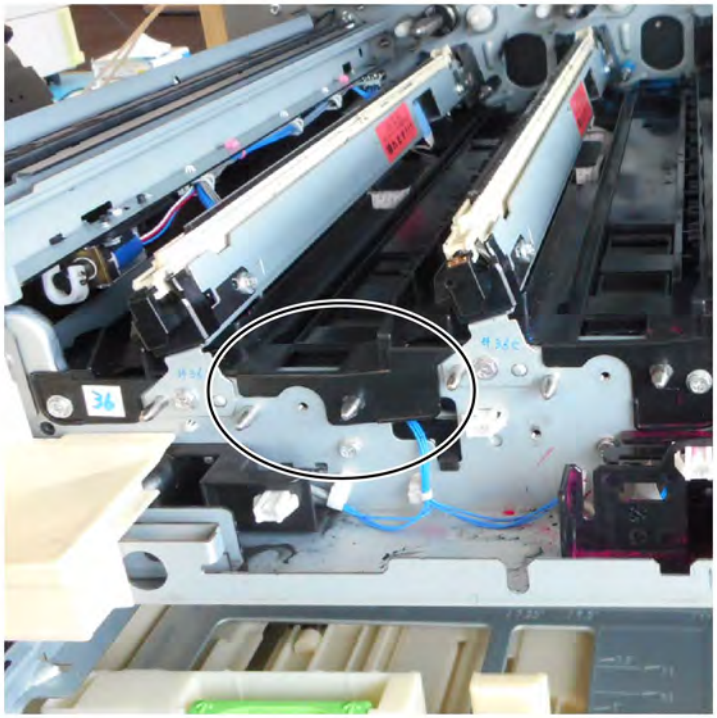

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Figure 3 Frame inspection

4. Inspect and clean all toner from the developer assembly gear before installing or banding and excessive wear of the gear will occur, Figure 4.

F-1-0367-A

Figure 4 Gear inspection

5. Add new developer to the developer housing assembly, see REP 90.7.
6. Remove the gear cover, PL90.05 , and the developer plate assembly, PL90.05 , from the old developer assembly, then install the gear cover and developer plate assembly onto the new developer assembly.
7. Tear off the loose half of the ATC sensor perforated tag. Leave the other half of the ATC sensor label on the developer housing. Retain the torn off tag to be used in step 11.
8. Install the developer.
9. The remainder of the replacement is the reverse of the removal procedure.
10. Enter Diagnostic Mode, then use dC135 to clear the HFSI counter:
11. Run dC950 ATC Sensor Setup. Enter the value from the tag removed from the replacement developer.
12. Run dC330 Default Developer ATC Setup.
13. Run dC301 to initialize NVM for:
    "ATC Setup Coefficient"
    "ATC Setup Offset"
    "ATC_Barcode_No"
    "deltaATC Target Setup Correction"

REP 90.4 Toner Dispense Motor Assembly

Parts List on PL 90.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Pull out the toner cartridge to the extent indicated in Figure 1.

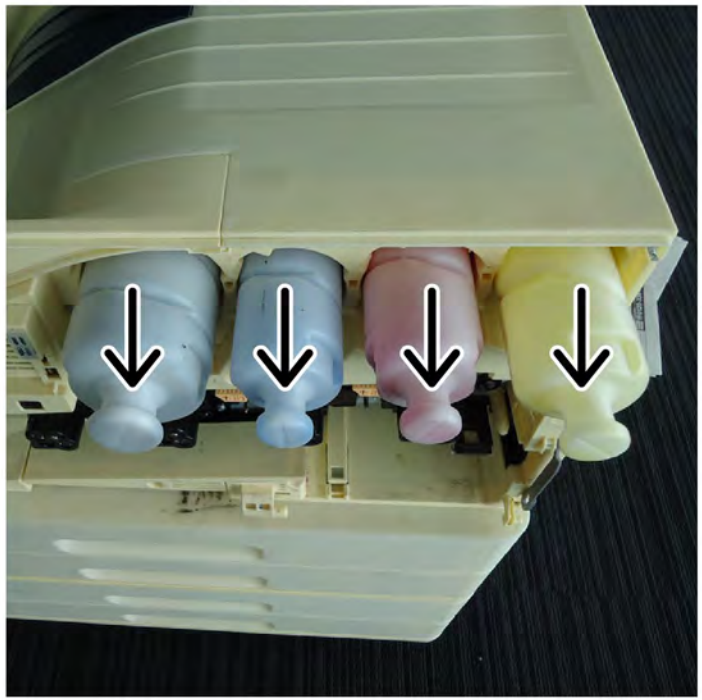

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Figure 1 Toner cartridge

2. Remove the rear lower cover, PL 28.15.
3. Open the video contact chassis assembly, GP 32.
4. Remove the BTR HVPS PWB, REP 1.1.
5. Remove the conductor housing assembly, REP 90.1.
6. Remove the toner dispense motor assembly, PL 90.10, Figure 2.
   a. Disconnect four connectors (1).
   b. Remove five clips (2).
   c. Open the clamp (3), then remove the harness.
   d. Remove six screws (4).
   e. Remove the toner dispense motor assembly (5).

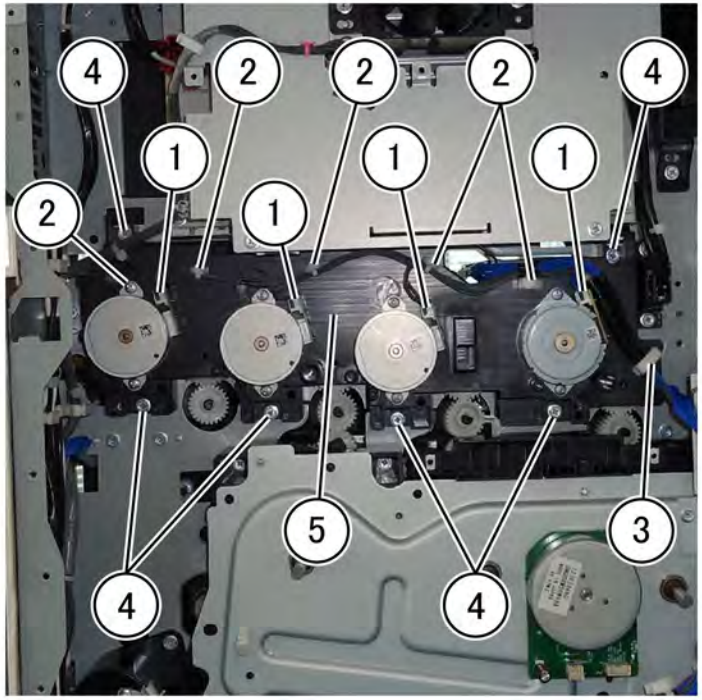

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Figure 2 Toner dispense motor assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.5 Toner CRUM Connector Assembly

Parts List on PL 90.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste cartridge assembly, PL 90.15.
3. Remove the waste toner assembly, PL 90.15.
4. Remove the inner cover assembly, PL 28.05.
5. Remove the inner lower cover, PL 28.05.
6. Remove the inner hinge cover assembly, PL 28.05.
7. Remove the inner right cap cover, PL 28.05.
8. Remove the inner right cover, PL 28.05.
9. Remove the affected toner cartridge (Y,M,C,K), PL 90.10.
10. Remove the toner CRUM connector assembly: Figure 1.
    a. Disconnect the connector (1).
    b. Release the hook (2), and slide in the direction of the arrow.
    c. Remove the toner crum connector assembly (3).

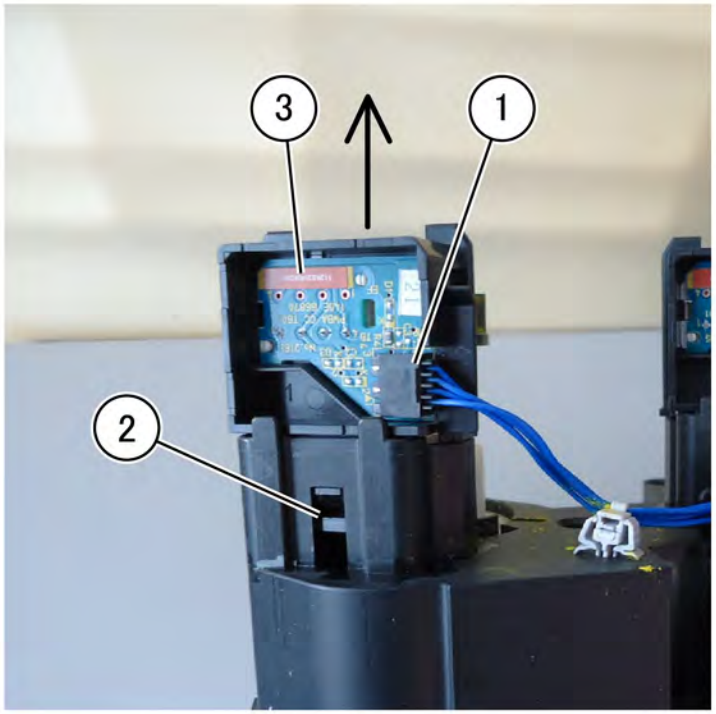

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Figure 1 Toner crum connector assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.

REP 90.6 Dispenser Assembly

Parts List on PL 90.10

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: When removing the Drum, cover it with a black sheet, etc. to prevent light fatigue.

CAUTION: Do not touch the Drum surface with your hands.

Note: The following procedure if for the dispenser assembly (Y) PL 90.10 , the procedure is the same for all dispenser assemblies (Y,M,C,K).

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste toner assembly, PL 90.15.
3. Remove the inner cover assembly, PL 28.05.
4. Remove the inner lower cover, PL 28.05.
5. Remove the inner hinge cover assembly, PL 28.05.
6. Remove the inner right cap cover, PL 28.05.
7. Remove the inner right cover, PL 28.05.
8. Remove the IBT belt assembly, REP 90.8.
9. Remove the drum assembly, REP 90.11.
10. Remove the developer assembly, REP 90.3.
11. Remove the affected toner cartridge (Y,M,C,K), PL 90.10.
12. Remove the dispenser assembly: Figure 1.
    a. Remove four screws (1).
    b. Remove the dispenser assembly (3).

Note: Always remove in the order (Y,M,C,K).

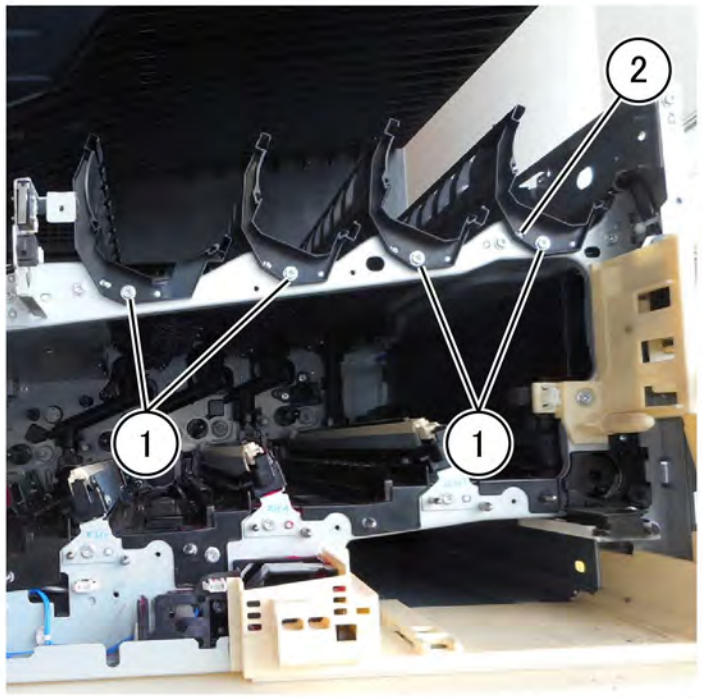

Figure 1 Dispenser assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.

REP 90.7 Developer Replacement

Parts List on PL90.05

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: To prevent light fatigue, either wrap the removed drum cartridge in a black sheet of paper or store it in a black bag.

1. Prepare the black paper or black bag.
2. Remove the front cover assembly, PL 28.05.
3. Remove the waste cartridge, PL 90.15.
4. Remove the inner lower cover, PL 28.05.
5. Remove the drum assembly, REP 90.11.
6. Remove the developer assembly, REP 90.3.
7. Release the snap fit and remove the upper cover (6), Figure 1.

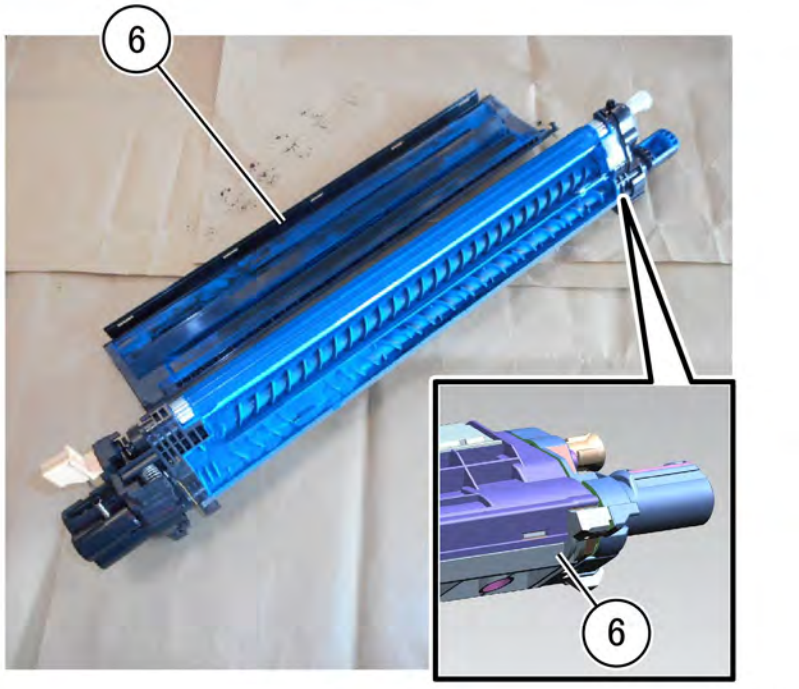

Figure 1 Upper cover removal

8. Remove the triumph plate (7), Figure 2.

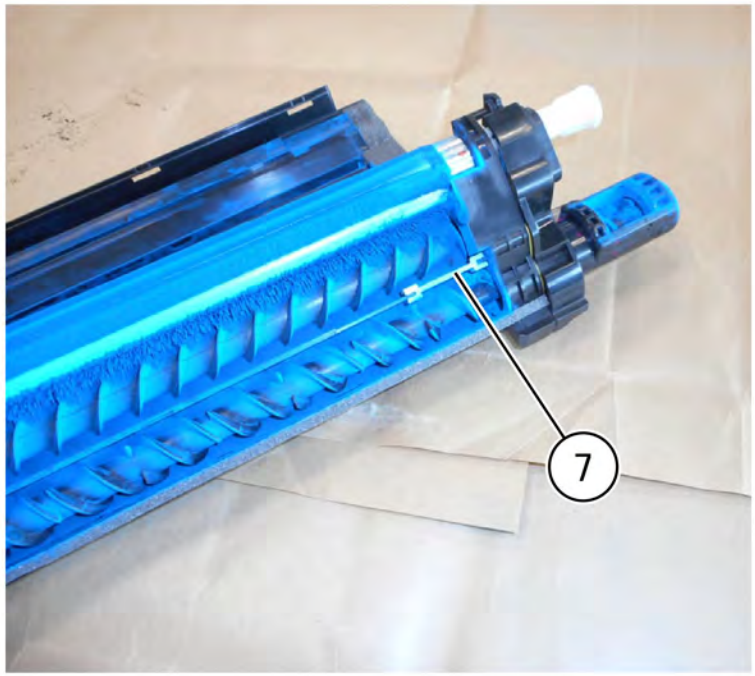

Figure 2 Triumph plate removal

9. Place the developer housing assembly (1) into the plastic bag shipped with the developer, turn the developer housing assembly upside down, then rotate the gear (2) clockwise to eject the developer into the bag, Figure 3.

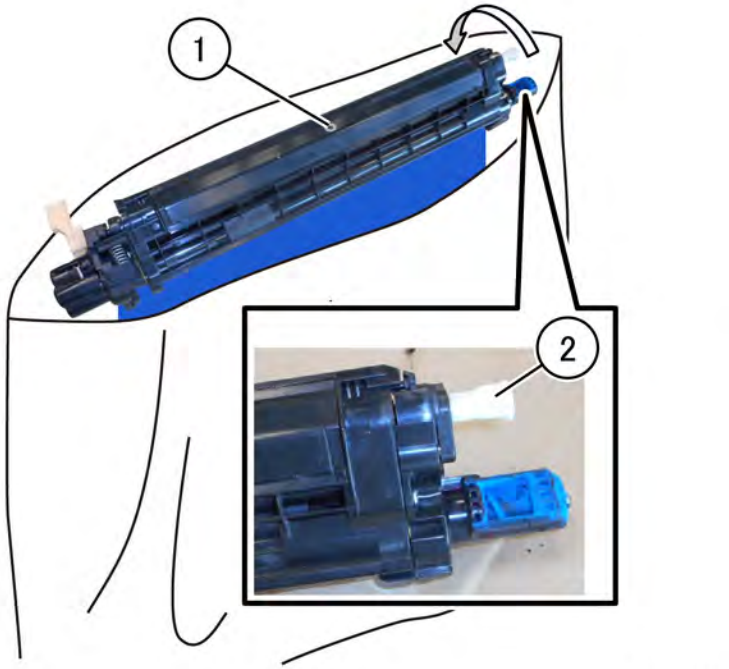

Figure 3 Eject old developer

10. Install the triumph plate back into the developer housing assembly, Figure 2.
11. Open the bag of new developer carefully, then slowly add new developer to the magnetic roller side, Figure 4.

Figure 4 Add new developer

12. Rotate the gear (1) to the right (clockwise) to evenly distribute the developer on the magnetic roller, Figure 5.

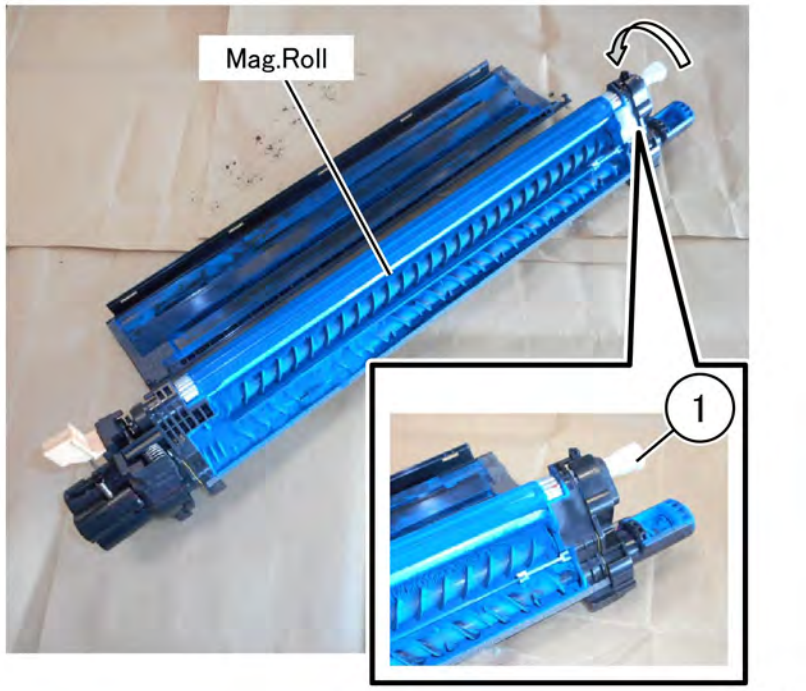

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Figure 5 Rotate the gear

Note: Do not fill developer past the line inside the housing, approximately 3mm, below the upper cover installation slot, Figure 6.

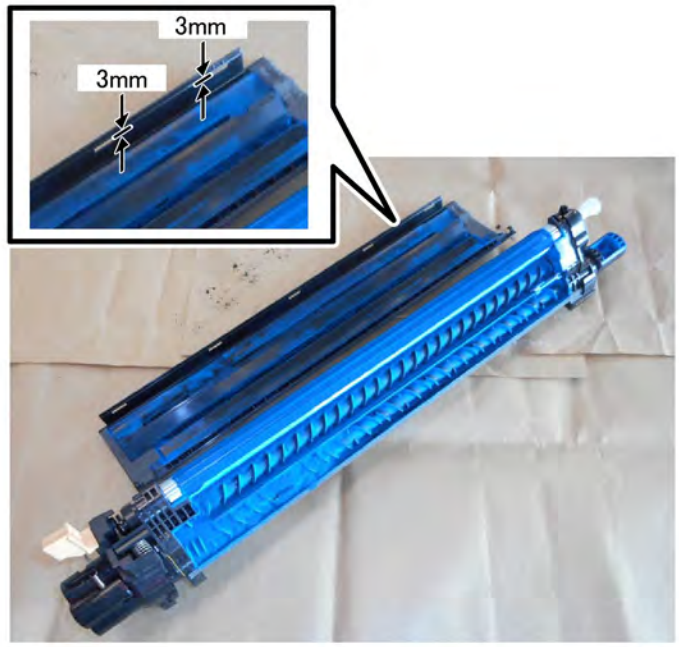

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Figure 6 Fill line

13. Clean any developer or toner from the location indicated by the black dashed area outlined in Figure 7.

F-1-0378-A

Figure 7 Clean housing area

14. Inspect and clean all developer or toner from the seal on the upper cover, Figure 8.

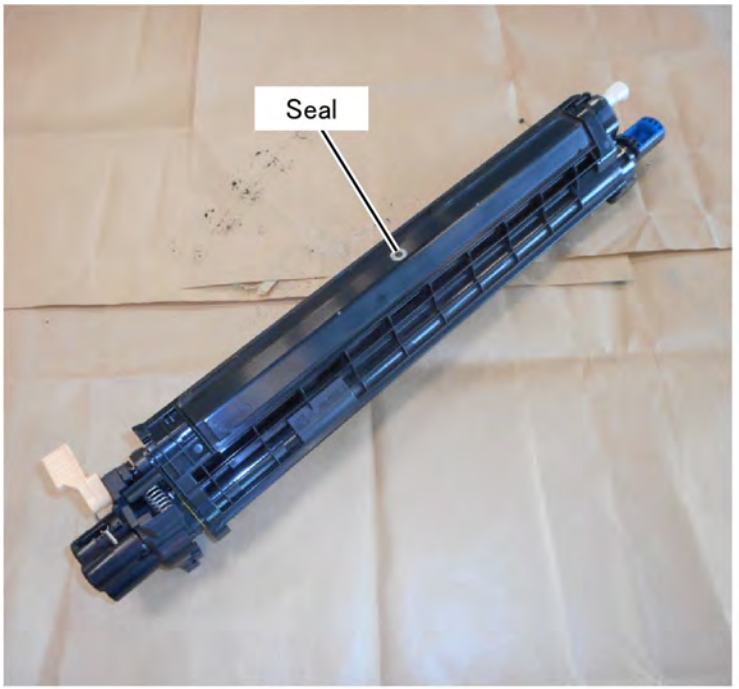

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Figure 8 Clean the seal

15. Install the upper cover removed in Step 6.
16. Turn the developer housing over, inspect and clean all developer or toner from the DRS block located in Figure 9.

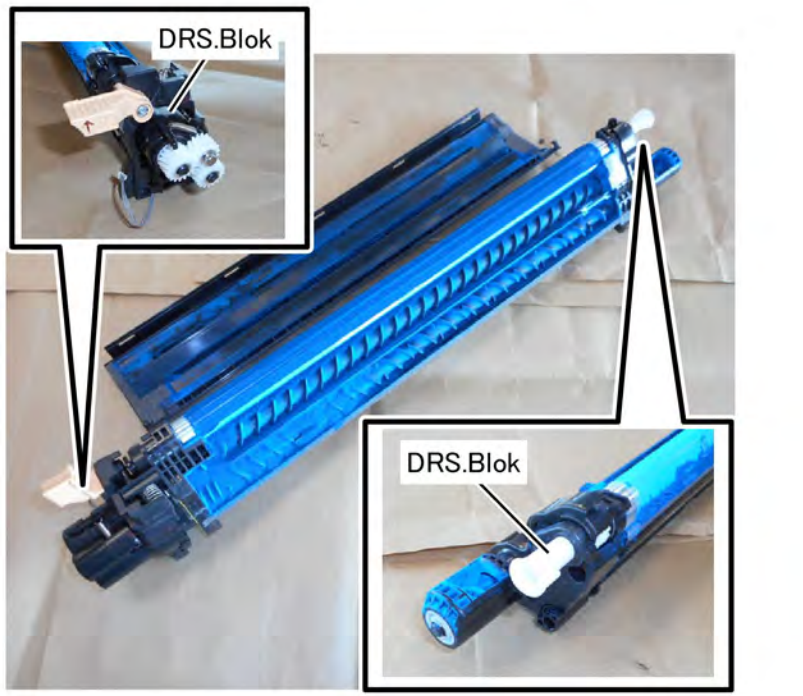

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Figure 9 Clean the DRS block

17. Inspect and clean all developer or toner from the gear by turning the gear clockwise, Figure 10.

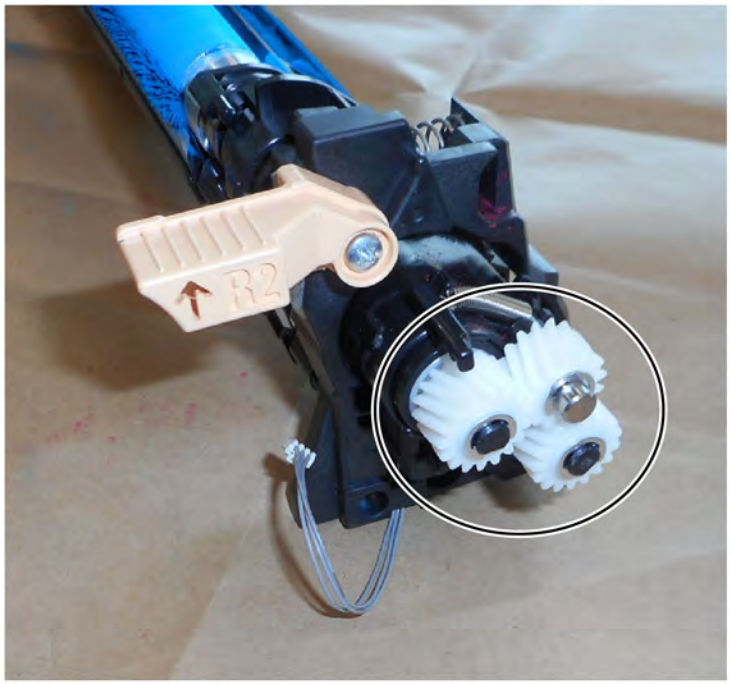

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Figure 10 Clean the gear

Replacement

1. Replacement is the reverse of the removal procedure.
2. Enter Diagnostic Mode Service Diagnostic Mode , then use dC135 to clear the HFSI counter.

REP 90.8 IBT Belt Assembly

Parts List on PL90.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: To prevent light fatigue, either wrap the removed drum cartridge in a black sheet of paper or store it in a black bag.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste cartridge, PL 90.15.
3. Remove the inner lower cover, PL 28.05.
4. Remove the drum assembly, REP 90.11.
5. Remove the IBT belt cleaner assembly, PL90.30.
6. Open the left cover, PL 80.65.
7. Remove the IBT belt assembly, PL90.30.
   a. Remove two screws (1), Figure 1.

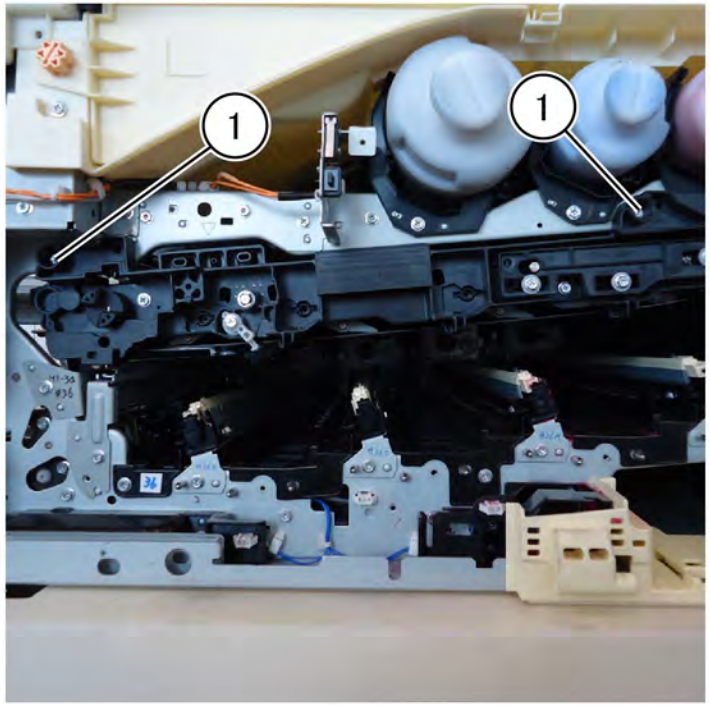

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Figure 1 Remove two screws

   b. Pull the IBT belt assembly (1) out to full stop, grasp the IBT belt assembly handle (2), then remove the IBT belt assembly (1), Figure 2.

Note: A stopper mechanism is in place to prevent the IBT belt assembly from falling out of the machine. The stopper mechanism is configured to release when the handle is lifted.

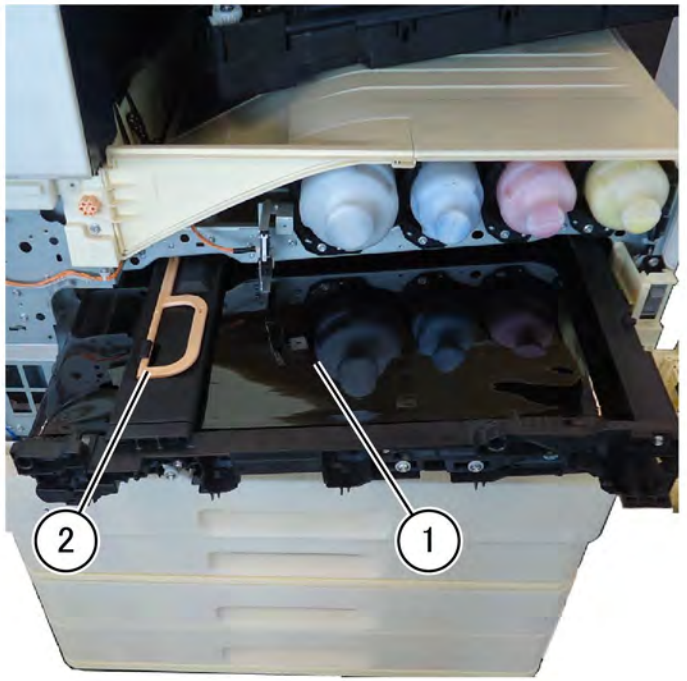

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Figure 2 IBT belt assembly removal

Replacement

1. Replacement is the reverse of the removal procedure.
2. Enter Diagnostic Mode Service Diagnostic Mode , then use dC135 to clear the HFSI counter.

REP 90.9 MOB/ADC Assembly

Parts List on PL90.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: To prevent light fatigue, either wrap the removed drum cartridge in a black sheet of paper or store it in a black bag.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste cartridge, PL 90.15.
3. Remove the inner cover assembly, PL 28.05.
4. Remove the inner lower cover, PL 28.05.
5. Remove the developer assembly, REP 90.3.
6. Remove the drum assembly, REP 90.11.
7. Open the left cover, PL 80.65.
8. Remove the IBT belt cleaner assembly, PL90.30.
9. Remove the registration transport assembly, REP 80.30.
10. Remove the MOB/ADC assembly, PL90.30.
    a. Disconnect three connectors (1), Figure 1.

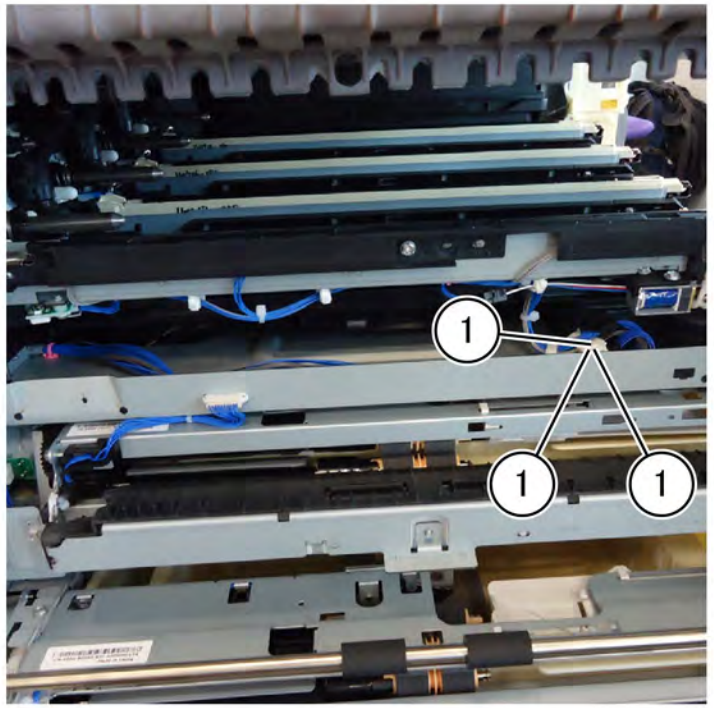

Figure 1 Connectors location

    b. Remove two screws (2), remove the lower guide-IBT (3), the remove the MOB/ADC assembly (4), Figure 2.

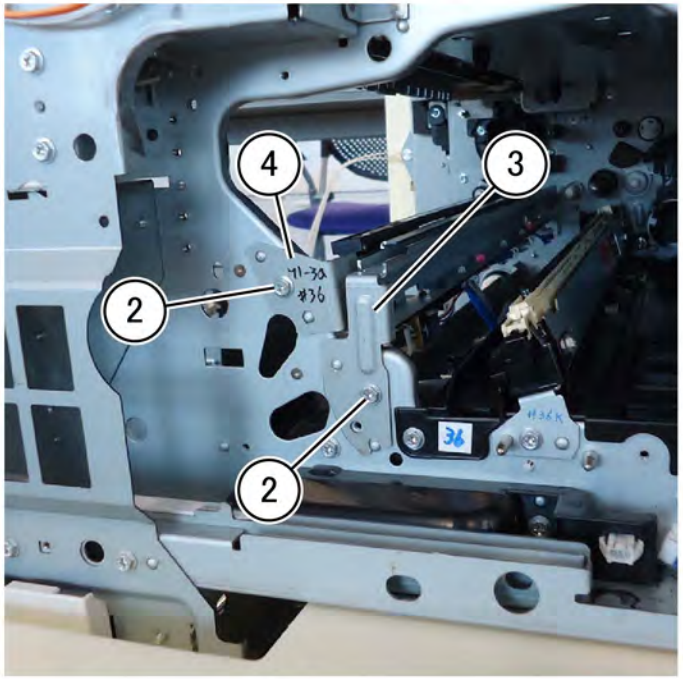

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Figure 2 MOB/ADC assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.10 Upper Conductor Housing Assembly

Parts List on PL90.30

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the BTR HVPS PWB, REP 1.1.
2. Remove the conductor housing assembly: Figure 1.
   a. Remove two screws (1).
   b. Release the hook (2).
   c. remove the upper conductor housing assembly, PL90.30 , (3).

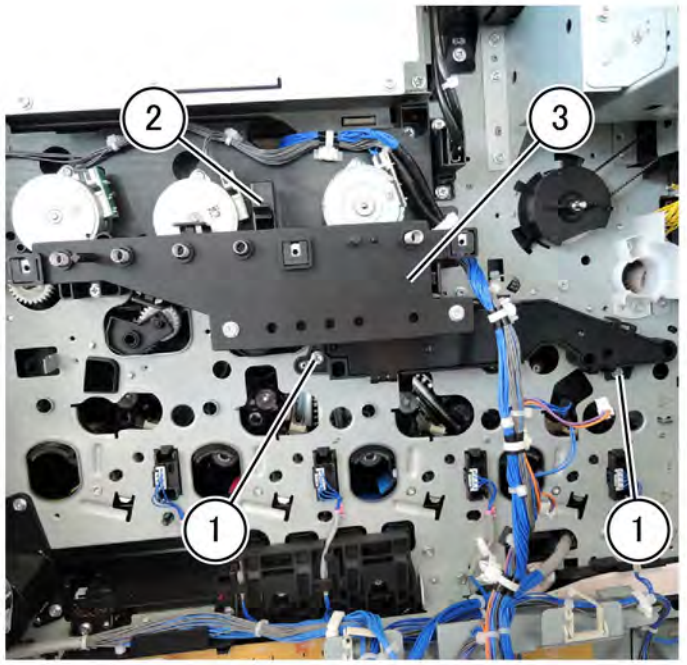

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Figure 1 Conductor housing assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.11 Drum Assembly

Parts List on PL 90.15

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: Cover the drum assembly with a dark material after removal to reduce light fatigue while out of the machine.

Note: Do not touch the drum assembly surface.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste cartridge, PL 90.15.
3. Remove the inner lower cover, PL 28.05.
4. Remove the drum assembly, PL 90.15, Figure 1.
   a. Raise the developer assembly lever (1).
   b. Raise the hook and remove the drum assembly (2).

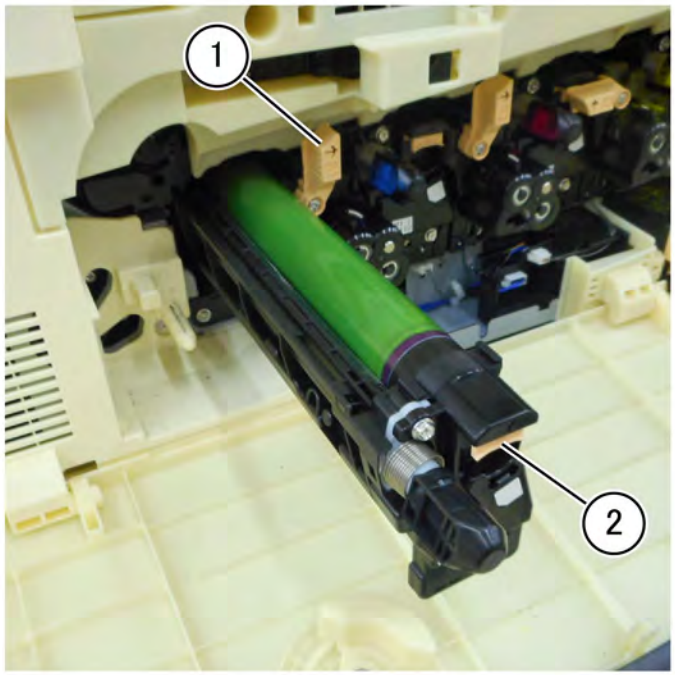

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Figure 1 Drum assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.12 Gear Housing Assembly

Parts List on PL 90.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the four developer assemblies, REP 90.3.
2. Remove the upper right front cover, PL 28.15.
3. Remove the cover assembly and cover: Figure 1.
   a. Remove ten screws (1).
   b. Remove the cover assembly and cover (2).

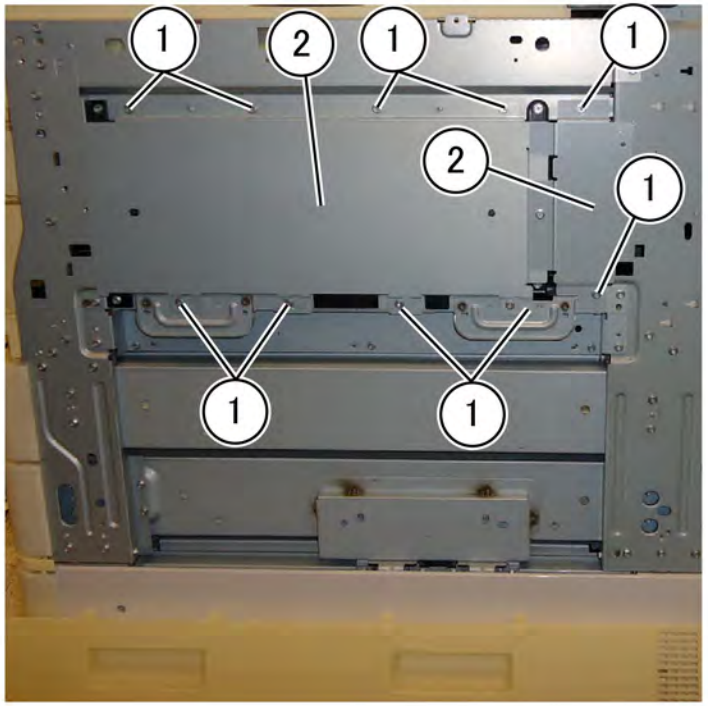

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Figure 1 Drum assembly removal

4. Remove the BCR HVPS, REP 1.9.
5. Remove the conductor assembly: Figure 2.
   a. Remove four screws (1).

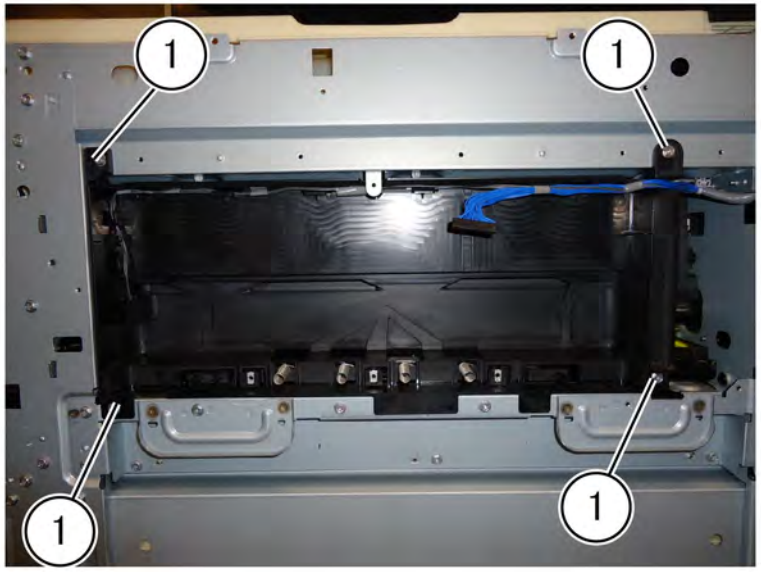

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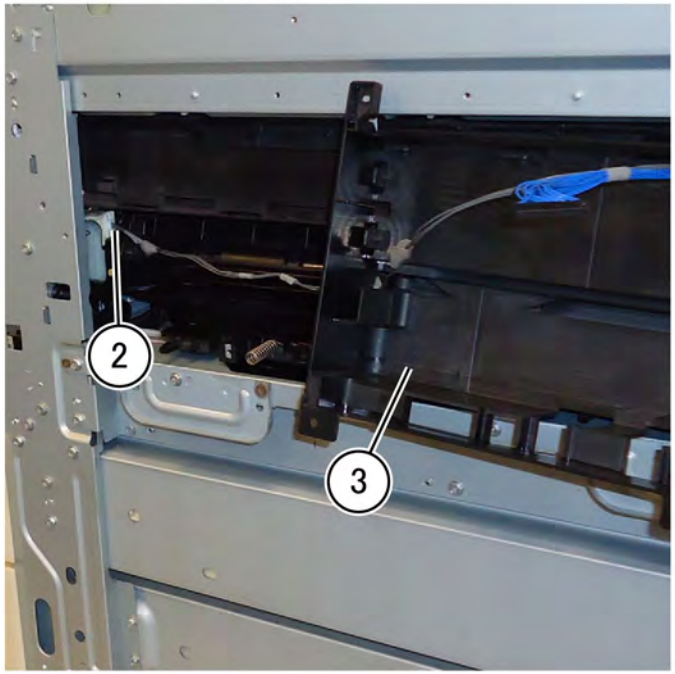
Figure 2 Screw location

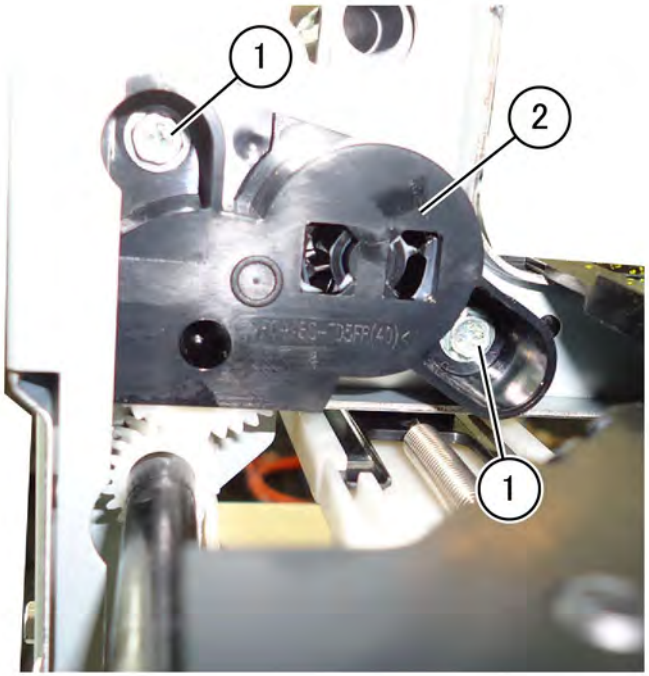
   b. Disconnect the connector (2) and remove the conductor housing assembly (3), Figure 3.



F-1-0390-A

Figure 3 Conductor housing removal

6. Remove two screws (1), then remove the gear housing assembly (2), Figure 4.



F-1-0391-A

Figure 4 Gear housing assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.13 Drive Shaft

Parts List on PL 90.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Note: When removing the Drum, cover it with a black sheet, etc. to prevent light fatigue.

Note: Do not touch the Drum surface with your hands.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste toner transport assembly, PL 90.15.
3. Remove the waste cartridge, PL 90.15.
4. Remove the inner cover assembly, PL 28.05.
5. Remove the inner lower cover, PL 28.05.
6. Remove the inner hinge cover assembly, PL 28.05.
7. Remove the inner right cap cover, PL 28.05.
8. Remove the inner right cover, PL 28.05.
9. Remove the (Y) drum assembly, REP 90.11.
10. Remove the (Y) developer assembly, REP 90.3.
11. Remove the (Y) toner cartridge, PL 90.10.
12. Remove the agitator motor assembly, REP 90.14.
13. Release the latch inside the rear gear (1), then remove the gear and sleeve bearing, Figure 1.

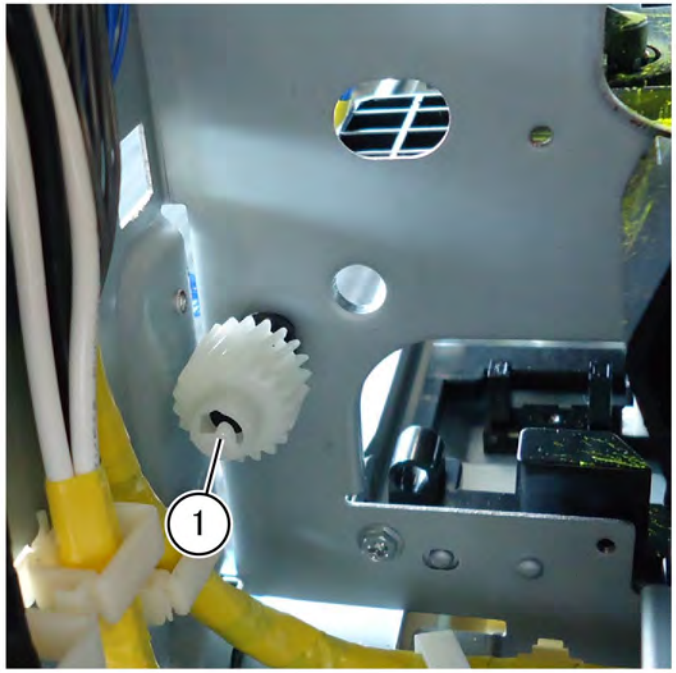
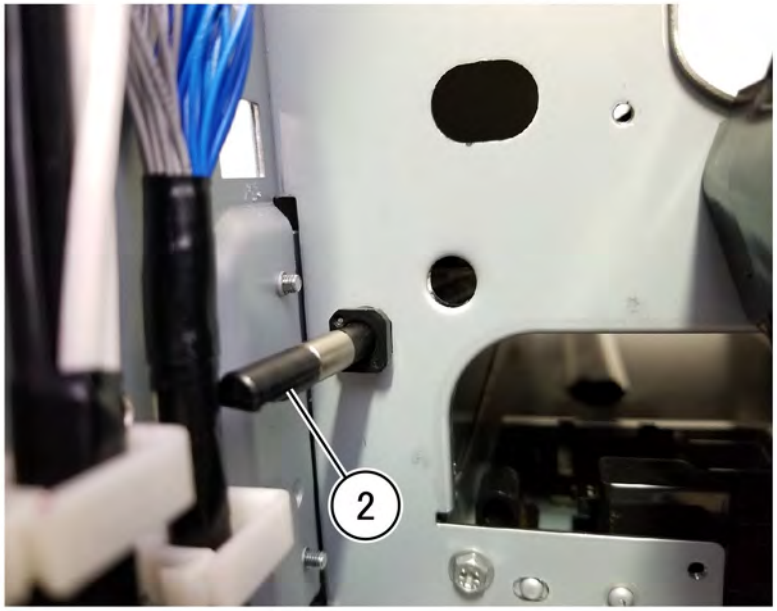


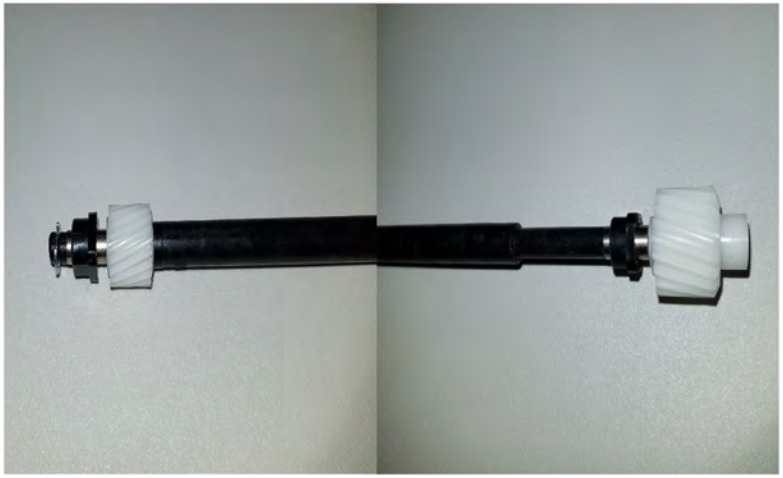
Figure 1 Rear gear removal

14. Grasp the rear-end of the drive shaft (2), PL 90.20 , pulling the front-end of the drive shaft through the frame hole, then remove the drive shaft from the front, Figure 2.



F-1-0393-A

Figure 2 Drive shaft rear-end



F-1-0394-A

Figure 3 Sleeve bearing to gear position

Replacement

Replacement is the reverse of the removal procedure.

Note: The flanged end of the sleeve bearing seats against the gear on both ends, Figure 3 . The shaft of the sleeve bearing seats inside the frame hole, Figure 4.

F-1-0395-A

Figure 4 Sleeve bearing in the frame

REP 90.14 Agitator Motor Assembly

Parts List on PL 90.20

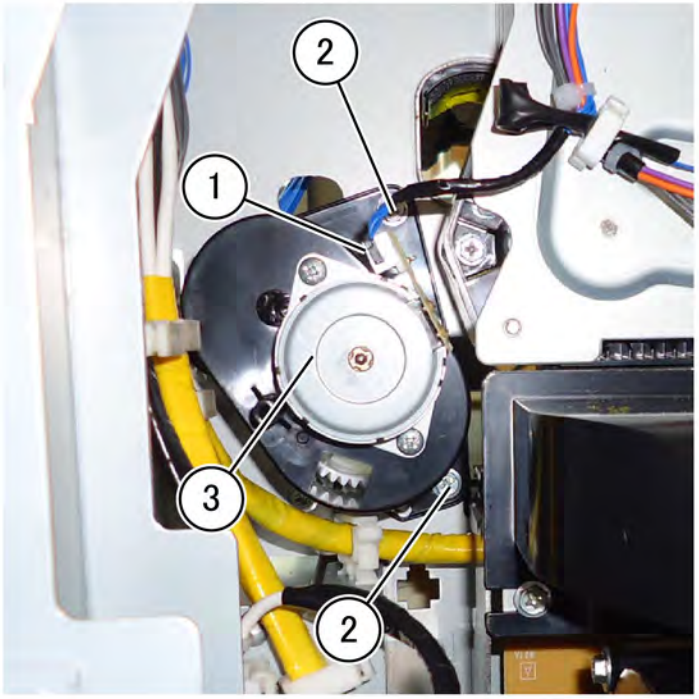
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Cover the drum assembly with a dark material after removal to reduce light fatigue while out of the machine.

CAUTION: Do not touch the drum assembly surface.

1. Remove the lower rear cover, PL 28.15.
2. Open the video contact chassis assembly, GP 32.
3. Remove the agitator motor assembly, PL 90.20, Figure 1.
   a. Disconnect the connector (1).
   b. Remove two screws (2).
   c. Remove the agitator motor assembly (3).



F-1-0396-A

Figure 1 Agitator motor assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.15 Joint Pipe Assembly

Parts List on PL 90.20

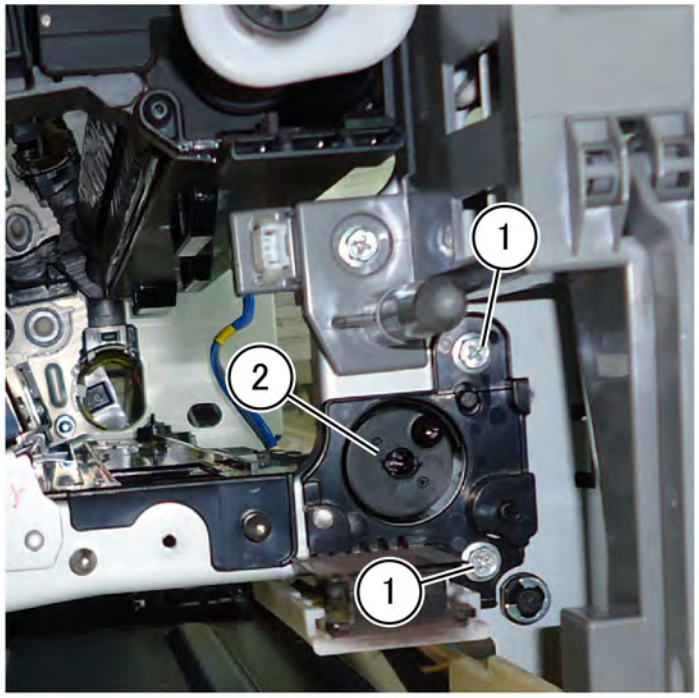
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Cover the drum assembly with a dark material after removal to reduce light fatigue while out of the machine.

CAUTION: Do not touch the drum assembly surface.

1. Remove the front cover assembly, PL 28.05.
2. Remove the waste cartridge, PL 90.15.
3. Remove the waste toner transport assembly, PL 90.15.
4. Remove the inner cover assembly, PL 28.05.
5. Remove the inner lower cover, PL 28.05.
6. Remove the inner hinge cover assembly, PL 28.05.
7. Remove the inner right cap cover, PL 28.05.
8. Remove the inner right cover, PL 28.05.
9. Remove the joint pipe assembly, PL 90.20, Figure 1.
   a. Remove two screws (1).
   b. Remove the joint pipe assembly (2).



F-1-0397-A

Figure 1 Joint pipe assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.16 Housing Assembly

Parts List on PL 90.25

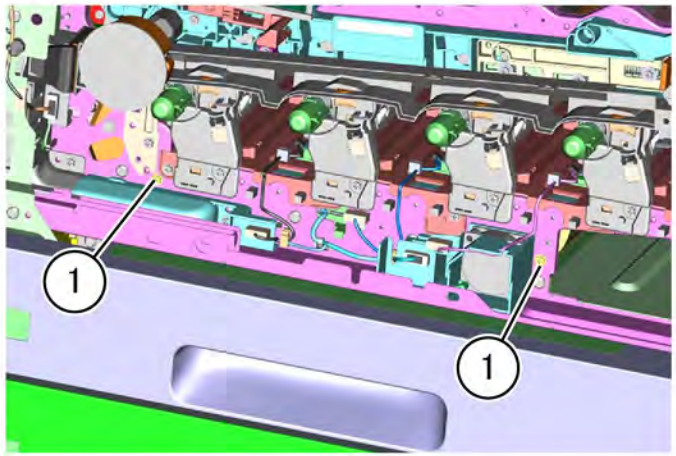
Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

CAUTION: Cover the drum assembly with a dark material after removal to reduce light fatigue while out of the machine.

CAUTION: Do not touch the drum assembly surface.

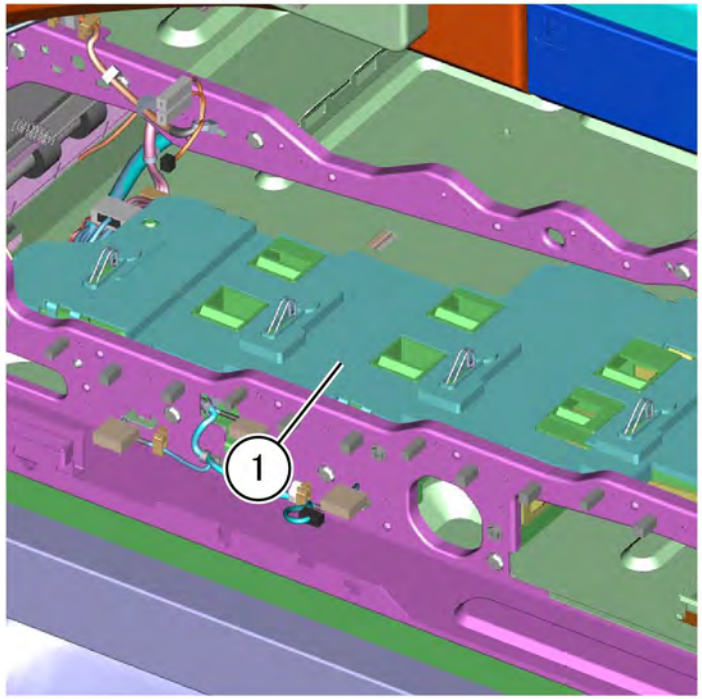
1. Remove the front cover assembly, PL 28.05.
2. Remove the waste toner assembly, PL 90.15.
3. Remove the inner lower cover, PL 28.05.
4. Remove the drum assembly, REP 90.11.
5. Remove the developer assembly, REP 90.3.
6. Remove the FFC cable assembly, REP 60.2.
7. Remove two screws (1), Figure 1.



F-1-0398-A

Figure 1 Screw removal

8. Remove the housing assembly (2), PL 90.25, Figure 2.



F-1-0399-A

Figure 2 Housing assembly removal

Replacement

Replacement is the reverse of the removal procedure.

REP 90.17 Sleeve Bearing

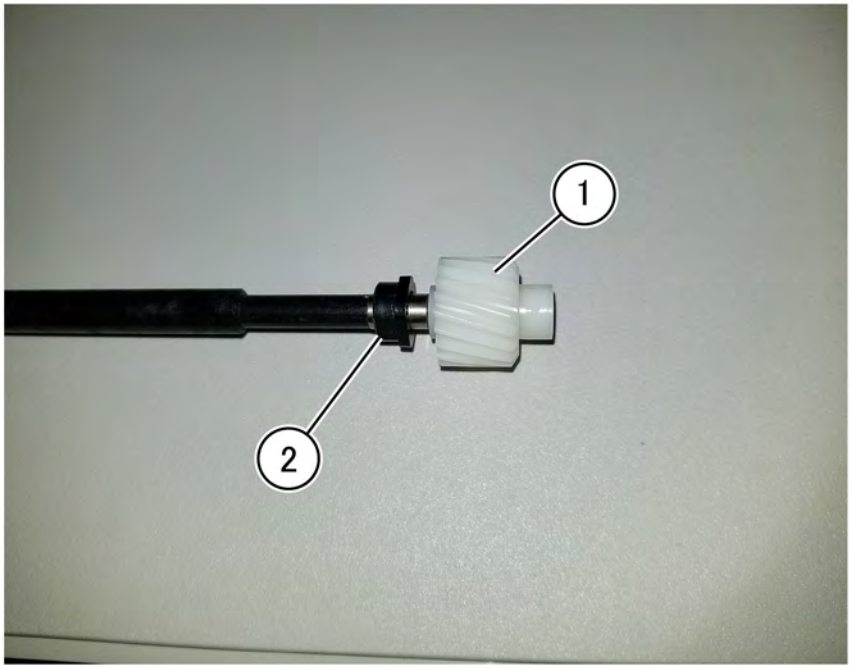
Parts List on PL 90.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

1. Remove the drive shaft, REP 90.13.
2. Remove the rear sleeve bearing, PL 90.20, Figure 1.
   a. Release the gear latch, then remove the helical gear (1) and sleeve bearing (2).

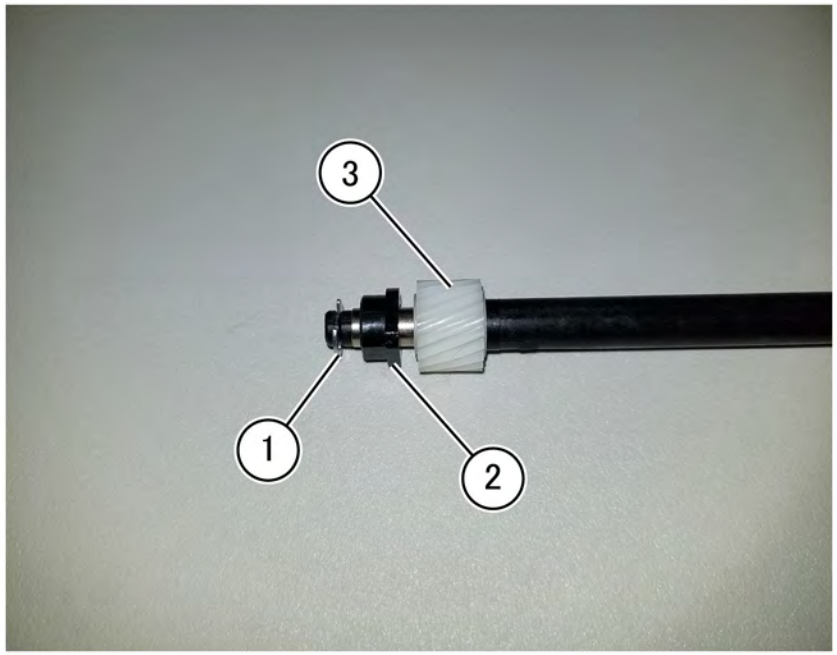
Note: During replacement, the bearing flange seats against the gear.



F-1-0400-A

Figure 1 Rear sleeve bearing removal

3. Remove the front sleeve bearing, PL 90.20, Figure 2.
   a. Remove the e-clip (1).
   b. Remove the sleeve bearing (2) leaving the gear (3) on the drive shaft.



F-1-0401-A

Figure 2 Front sleeve bearing alignment

Replacement

Replacement is the reverse of the removal procedure.

Note: Verify both bearings installed with the flange side against the gear.

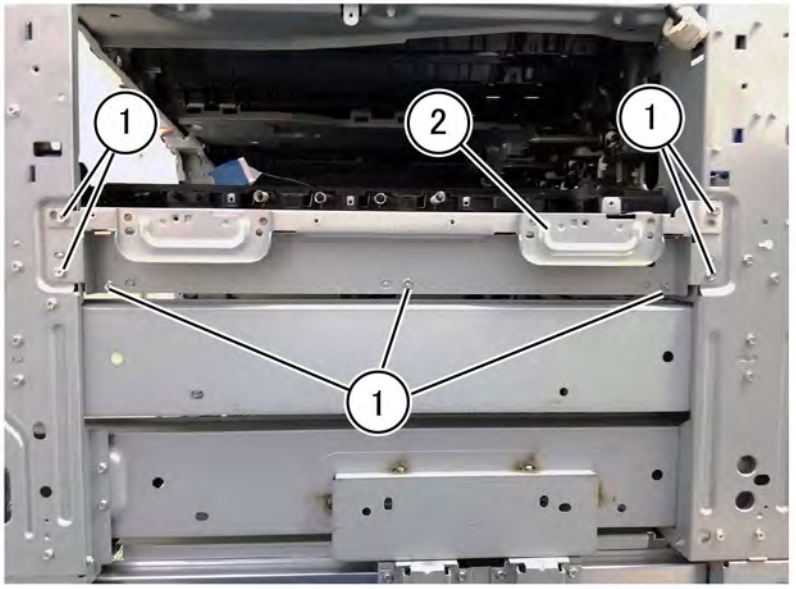
REP 90.18 Waste Toner Cartridge Sensors

Parts List on PL 90.20

Removal

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

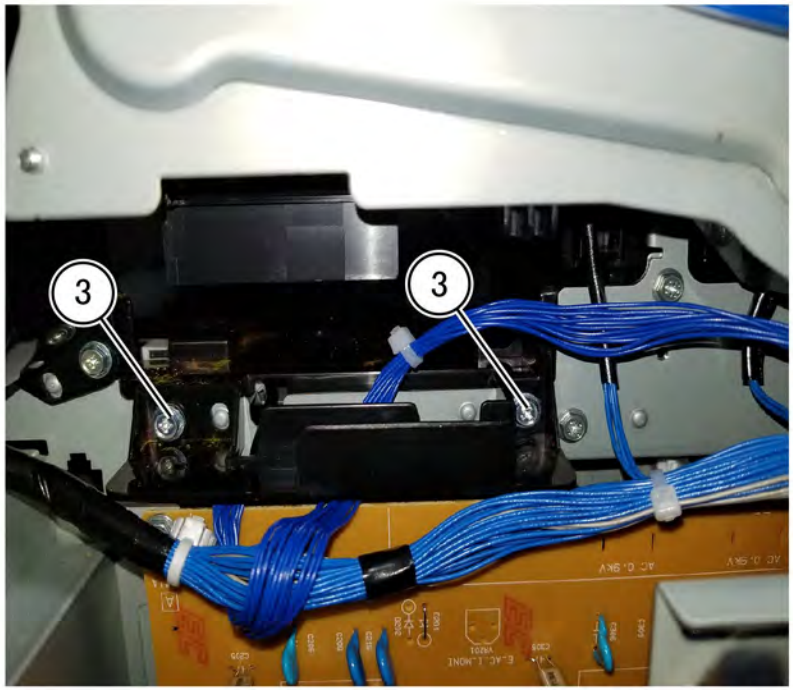
1. Remove the BCR HVPS PWB, REP 1.9.
2. Remove the lower right front cover, PL 28.15.
3. Remove the upper right rear cover, PL 28.15.
4. Remove the conductor assembly, PL 1.20.
5. Remove seven screws (1), then remove the handle assembly (2), Figure 1.



F-1-0402-A

Figure 1 Handle assembly removal

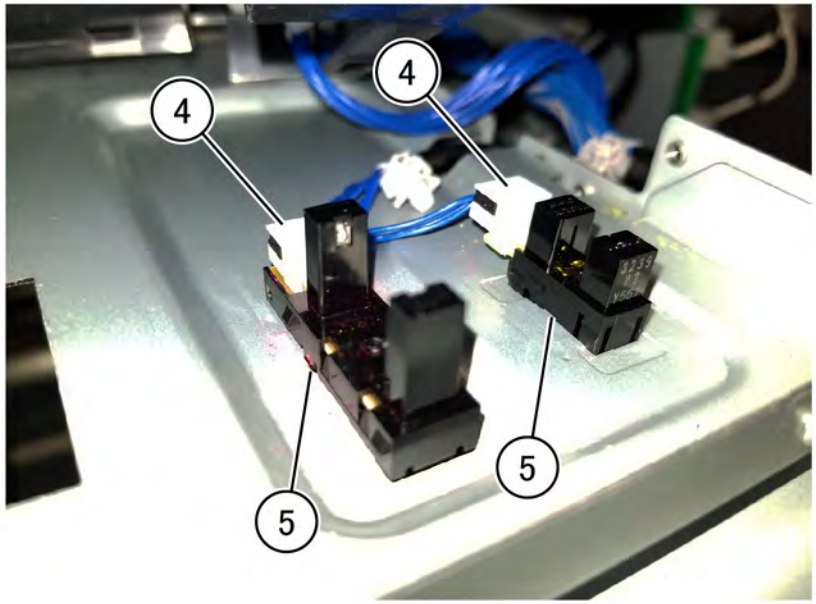
6. Remove the agitator motor assembly, REP 90.14.
7. Remove the drive shaft, REP 90.13.
8. Remove two screws (3) securing the cartridge guide, Figure 2.



F-1-0403-A

Figure 2 Cartridge guide screws

9. Release two tabs and move the cartridge guide out of the way to gain access to the sensors.
10. Disconnect the connector (4) of the failed sensor, release the sensor housing hooks of the failed sensor (5), then remove the sensor, PL 90.20 or PL 90.20, Figure 3.



F-1-0404-A

Figure 3 Sensor removal

Replacement

Replacement is the reverse of the removal procedure.

ADJ 2.1 Panel (UI) Diagnostic Tests

This series of tests are built into the UI software to test the functionality of the UI display, UI pixels and color fidelity, Touch Screen response, and Control Panel buttons and LEDs.

Procedure

To display the Panel Diagnostic Tests, log in to Diagnostics, select **Diagnostics** , then select **dc305 Panel Diagnostics Test** . The menu displays a list of 6 choices. You can select the tests from either the Touch Screen or by using the number key pad on the Control Panel. Each test will have one or more subtests. These tests are selectable from the number keys on the control panel. You can exit any of the top level tests by pressing the 0 button on the Control panel.

1. **LCD Pixel Test...**

   This test displays five choices:

   - Red Pixel Test
   - Green Pixel Test
   - Blue Pixel Test
   - All White Pixel Test
   - All Black Pixel Test

   When Red Pixel Test is pressed, the screen turns red. When Green Pixel Test is pressed, the screen turns green, etc.

2. **Touch Panel Test...**

   This test consists of two routines: Touch Panel Test and Touch Panel Track Test.

   - **Touch Panel Test** - A small square displays where you touch the screen. This demonstrates the function of the touch screen. If your touch does not produce a color or grey square, the touch screen is defective.
   - **Touch Panel Track Test** - When you drag your fingertip across the screen, a black line will display along the path that you traced.

3. **Button Test...**

   This routine test the operation of the **Power** and **Home** buttons on the control panel and displays the results on the UI as a color change on the button display.

4. **Display Vertical Test...**

   This test displays eight different vertical gradient patterns. These patterns are selected by touching the relevant soft button on the UI.

   - Red Grey Scale
   - Green Grey Scale
   - Blue Grey Scale
   - Display 3 Vertical
   - Display 33 Vertical
   - Display 50 Vertical
   - Display 100 Vertical
   - Display 200 Vertical

5. **LED Test...**

   This routine tests the operation of the Power button LED, the NFC LED, and the Amber (Warning/Error) and Blue (Interaction) LEDs at the front of the Panel. Select the feature to test, then the desired button on the touch screen.

   - Pressing **Blink** causes the selected LED to blink after the LED has been switched on.
   - Pressing **High Rate Breathing** causes the intensity of the selected LED to rapidly increase and decrease.
   - Pressing **Low Rate Breathing** causes the intensity of the selected LED to slowly increase and decrease.

6. **Sounds Test...**

   This routine tests the six **Sound Types** the UI produces:

   - **Touch** - Popup, Invalid Touch, Touch Tone2 Mid, Tumbler Down, Cancel / Delete, Touch Tone1 Low, Touch Tone3 High, Tumbler Up
   - **Log In** - NFC Card Swipe
   - **Power** - Power Shutdown, Power Startup
   - **Job Completion** - Job Completed
   - **Faults/Alerts** - Fault, Notification Alert, Notification Banner
   - **Energy Saver** - Power Saver Enter, Power Saver Exit

   Note: To adjust the volume, use either the scroll buttons or touch the volume button and enter the desired setting in the keypad.

ADJ 5.1 DADF Skew Adjustment

Parts List on PL 5.2 (DADF 250)
Parts List on PL 5.51 (DADF 130)

To correct the feeding of the original by adjusting the position of the DADF. (DADF Lead-Skew, Perpendicularity)

1. Place the Test Chart 82E8220 on the Platen Glass.
2. Place 11x17" paper in Tray 1.
3. Make one copy using the following settings.
   a. On the UI, select **Copy**.
   b. Select **Output Color** > **Black & White**.
   c. Scroll to **Paper Supply** and select **11x17"** paper size.
   d. Select **2-Sided Copying** , then **1->1 Sided**.
   e. Select **Reduce/Enlarge** and set it to **100%**.
   f. Select **Show Additional Features**.
   g. Select **Image Shift** and set it to **Off** . Select the OK button if necessary.
   h. Select **Start**.

   Note: The copy made from the Platen Glass will be used as the original in the DADF.
4. Place the copy made from the Platen Glass into the DADF and make 3 copies.
5. Check that the difference in the distance between the side and the Edges at the 100mm mark and the 300mm mark in the 3 copies is within 0.5mm. (Figure 1)

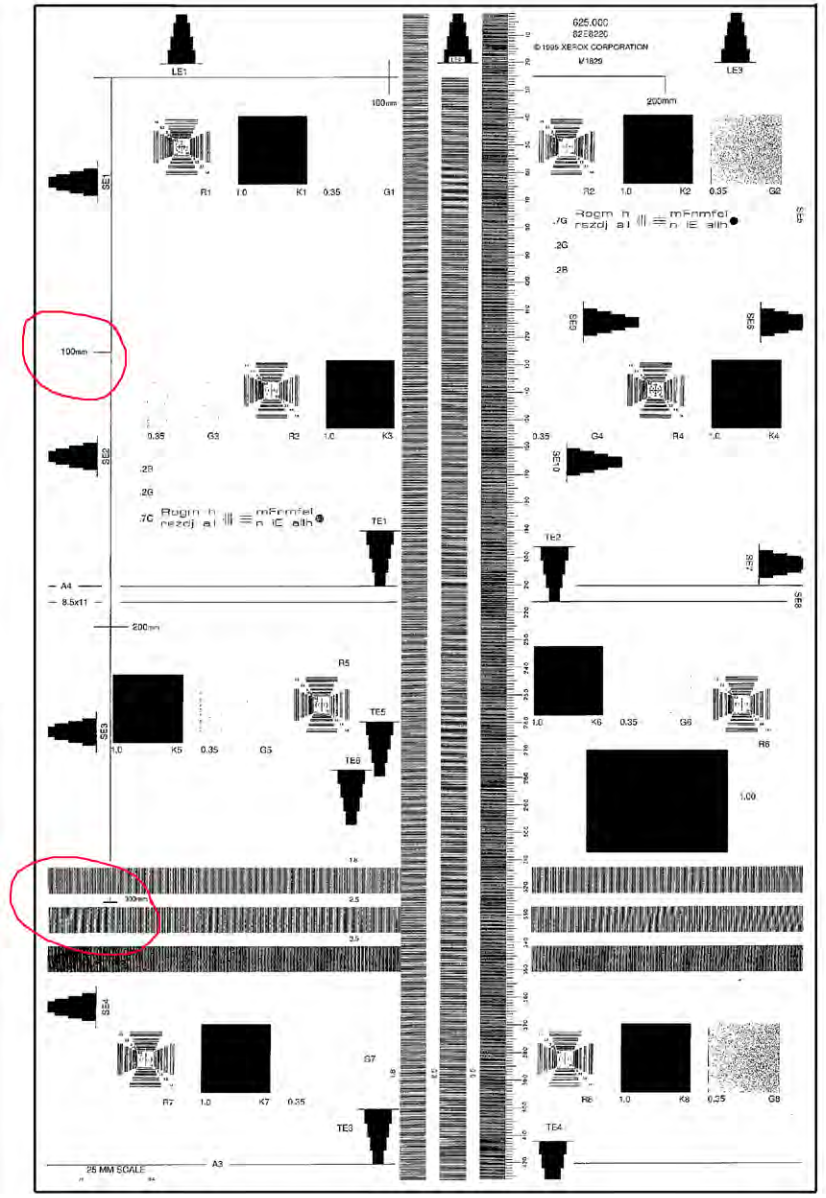


Figure 1 Checking the Skew

6. If the value is not within the specified range, perform the Adjustment:

1. Remove the DADF Rear Cover. (REP 5.5 for DADF 250 — REP 5.63 for DADF 130)

2. Adjust the position of the DADF by moving the DADF in direction A or B. (Figure 2).
   a. Loosen the screws (4).
   b. Move the DADF in direction A (Figure 3) or B (Figure 4).
   c. Tighten the screws (4).

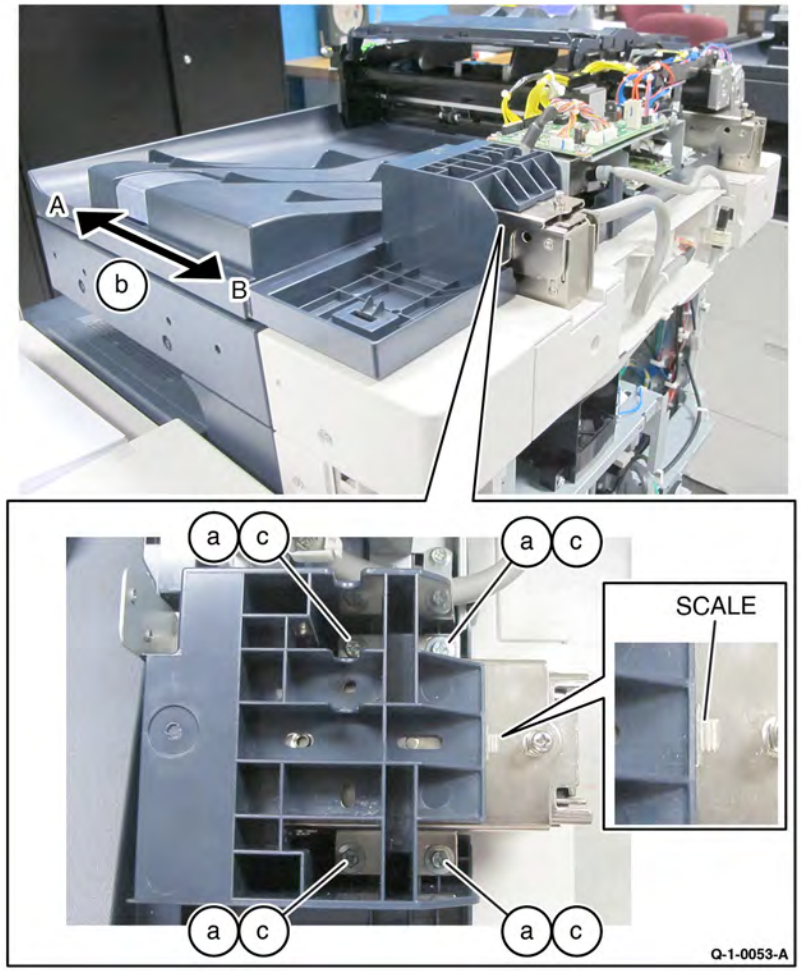


Figure 2 Skew Adjust

- The DADF moved in direction A. (Figure 3)

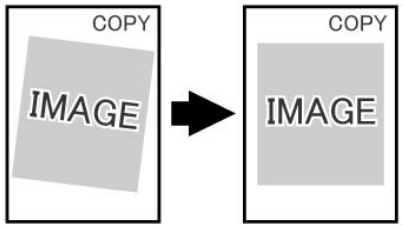


Figure 3 Direction A correction

- The DADF moved in direction B. (Figure 4)

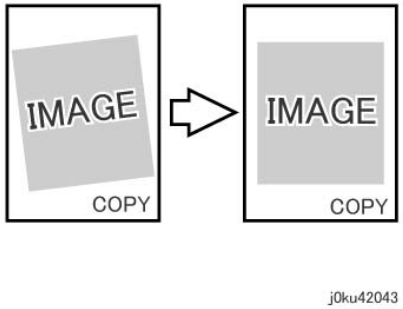


Figure 4 Direction B correction

3. Reinstall the DADF Rear Cover.
4. After the adjustment is complete, perform ADJ 5.5 DADF Registration Automatic Adjustment (dC608).

ADJ 5.2 DADF Side Registration Manual Adjustment

To adjust the original to the correct position in the cross-process (drum shaft) direction on the Platen.

Note: This adjustment should only be performed if the ADJ 5.5 DADF Registration Automatic Adjustment (dC608) procedure has been performed and the results were not satisfactory.

Note: Perform the checks and, if necessary, the adjustments for the following procedures before proceeding with this adjustment.

- ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126)
- ADJ 5.1 DADF Skew Adjustment
- ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

Note: DADF Side Registration is adjusted using the NVM for all paper widths.

Create a test pattern

1. To create a Cross Line Test Pattern, use a plain white sheet of 8.5x11"/A4 paper and fold the sheet precisely in half lengthwise and width-wise. Then with a straight edge draw a straight line in the length-wise crease and a straight line in the width-wise crease.
   Label the top LE for orientation purposes. (Figure 1)

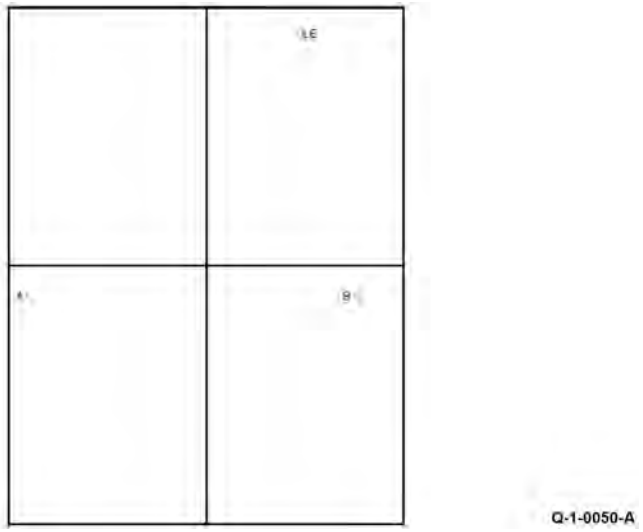


Figure 1 Creating a Test Pattern Original

DADF Side Edge Registration Check - Side 1

1. Load Tray 1 with 8.5x11"/A4 paper SEF.
2. Place the new Cross Line Test Pattern on the DADF with the word **LE** face up and towards the rear of the DADF.
3. Select the following:
   - Tray 1
   - 1-1 Sided
   - 100 %
   - 1 copy
4. Make one copy to the center tray.
5. Remove the copy from the center tray and **flip the copy left to right.**
6. Fold the copy in half, perpendicular to the short edge (fold A to B in Figure 1).
7. Check that the fold line is within 2.0mm from the reference line.
   - If the value is not within the specified range, perform the Adjustment.
   - If the Check is OK, perform the DADF Side Edge Registration Check - Side 2.

DADF Side Edge Registration Check - Side 2

1. Place the Cross Line Test Pattern on the DADF with the **LE** face down and toward the rear of the DADF.
2. Select the following:
   - Tray 1
   - 2-2 Sided.
   - 100 %
   - 1 copy
3. Make one copy to the center tray.
4. Remove the copy from the center tray, but **DO NOT FLIP** the copy this time.
5. Fold the copy in half, perpendicular to the short edge (A to B in Figure 1).
6. Check that the fold line is within 2.0mm from the reference line.

Note: Side 2 Registration should track Side 1 closely. In the event that it does not, perform the adjustment, and attempt to equalize the registration for both sides.

Side 1 Adjustment

1. Use **dC131** NVM Read/Write, to change the value in location 715-510 to perform correction for all sizes.
2. Increase the value to move the image toward "TOP."
3. Repeat Check and Adjustment until the measurement is within the specified range.

Side 2 Adjustment

Note: Side 2 Registration should track Side 1 closely. In the event that it does not, perform the adjustment, and attempt to equalize the registration for both sides.

1. Enter **dC131** NVM Read/Write, to change the value in location 715-511 to perform correction for all sizes.
2. Increase the value to move the image toward "TOP."
3. Repeat the Check and Adjustment until the measurement is within the specified range.

ADJ 5.4 DADF Lead Edge Registration Manual Adjustment

Align image scanned from document with lead edge of paper.

Note: This adjustment should only be performed if the ADJ 5.5 DADF Registration Automatic Adjustment (dC608) procedure has been performed and the results were not satisfactory.

Note: The following adjustments must be made before carrying out checking and adjustment.

- ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126)
- ADJ 5.1 DADF Skew Adjustment
- ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

1. Make two copies from the Platen Glass to be used as DADF originals.
   a. Register Geometric Test Pattern 82E8220 (11 x 17 / A3) on the Platen with the lead edge metrics LE1 through LE3 against the left registration guide.
   b. Select the following on the UI:
      - **Copy**
      - **2-Sided Copying > 1→1 Sided**
      - **Output Color > Black and White**
      - **Paper Supply > A4 or 8 1/2 x 11**

        Note: Verify paper in selected tray is loaded "Long Feed Edge"
      - **Reduce/Enlarge > 100%**
      - **Show Additional Features**
      - **Image Shift > Off**
      - **Copies > 2**
   c. Press **Start**. Write DADF Original 1 on the first copy and DADF Original 2 on the second copy.
2. Verify Lead Edge Registration of the DADF Originals.
   a. On copy 2 (Original 2), measure the distance between the top edge of the copy and the reference line on metric LE2, and write A and the measurement on copy 2.
   b. Check that A is 10.0 ±0.5 mm. If A is 10.0 ±0.5 mm, go to step 3.

      If A is not 10.0 ±0.5 mm, check the following and then return to the beginning of this procedure.
      - ADJ 90.1 IOT Lead Edge/Side Edge Registration Adjustment
      - ADJ 60.2 IIT Lead Edge Registration Manual Adjustment

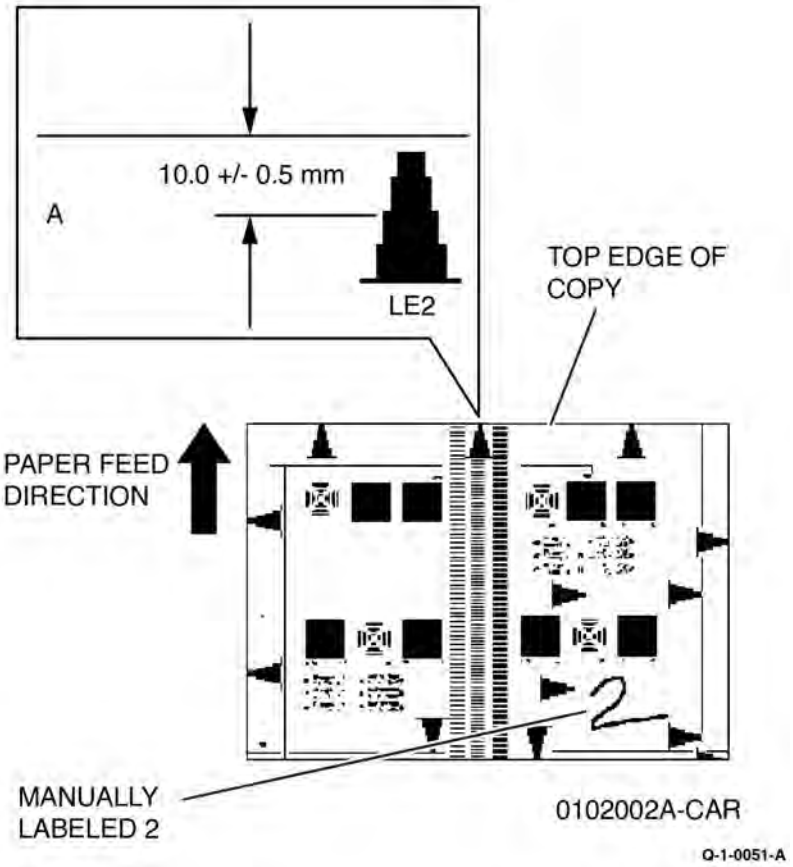


Figure 1 Verifying Top Edge Registration of DADF Originals

3. Check DADF Top Edge Registration for Side 1. (Figure 1)
   a. Load both DADF Originals in the DADF, 1 on top, with lead edge metrics LE1 through LE3 facing toward the left.
   b. Select the following:
      - 2-Sided Copying > 1→1 Sided
      - Paper Supply > A4 or 8 1/2 x 11 Long Edge Feed
      - Reduce/Enlarge > 100 %
      - Copies > 2
   c. Press **Start** and discard the first set.
   d. On Side 1 (labeled DADF Original 1) of the second set of copies, measure the distance between the top edge of the copy and the reference line on metric LE2, and write B and the measurement on copy 1.
   e. Compare B to A. B must be within 0 ±2.2 mm of A.

      If the difference between B and A is greater than 2.2 mm, go to step 1 of the Adjustment.

Otherwise, go to the next step below.

4. Check the DADF Lead Edge Registration for Side 2.
   a. Make a 2 sided test pattern.
      i. Load DADF Originals 1 and 2 face up, 1 on top, with lead edge metrics LE1 through LE3 facing toward the left.
      ii. Select 1 to 2 sided and press **Start** to make the 2 sided test pattern.
   b. Make test copies.
      i. Load the 2 sided test pattern with Side 1 up, and lead edge metrics LE1 through LE3 facing toward the left.
      ii. Select the following:
         - 2-Sided Copying > 1→1 Sided
         - Paper Supply > A4 or 8 1/2 x 11 Long Edge Feed
         - Reduce/Enlarge > 100 %
         - Copies > 2
      iii. Press **Start** and discard the first set.
   c. Check that the lead edge metrics are same distance from the edge of paper for both copies.
      If the difference is greater than 2.2 mm, go to step 2 of the adjustment.
      Otherwise, the DADF Lead Edge Registration is good.

Adjust

1. Adjust Side 1 DADF Lead Edge Registration.
   a. Enter **dC131** NVM Read/Write, to change the value in location [711-140] to perform correction for Side 1 Lead Registration.
   b. If B is more than A, increase the NVM value.
      If B is less than A, decrease the NVM value.
   c. Check results of adjustment and readjust if required.
2. Adjust Side 2 DADF Lead Edge Registration.
   a. Enter **dC131** NVM Read/Write, to change the value in location [715-515] to perform correction for Side 2 Lead Registration.
   b. If Side 2 edge metric is farther away from edge than Side 1, increase the NVM value.
      If Side 2 edge metric is closer to edge than Side 1, decrease the NVM value.
   c. Check results of adjustment and adjust as required.

      Note: 2 to 2-sided or 2 to 1-sided must be selected to view a change in [715-515]. [715-515] produces no change in 1 to 2-sided copying.

Table 1 NVM List

Chain	Link	Name	Default	Min	Max	Remarks
711	140	Side1LeadRegOffsetAdjustmentAll	120	80	230	Side 1
715	515	CVTRegLEpagesyncSide2	275	195	355	CVT-Side 2

ADJ 5.5 DADF Registration Automatic Adjustment (dC608)

This feature checks registration of media fed through the DADF and corrects any misalignments. The process runs automatically and does not require any user intervention other than inserting six blank sheets in the document feeder.

Note: The following adjustments must be made before carrying out checking and adjustment.

- ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC129)
- ADJ 5.1 DADF Skew Adjustment
- ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC608 Document Feeder Registration**....
4. Insert 6 blank A4/8.5 x 11 inch white sheets, SEF orientation, into the document feeder.
5. Ensure the document feeder guides are adjusted so they touch the paper on both sides.

   Note: If the guides are not adjusted tightly, the process will not detect an error, and incorrect values for the DADF side registration will be entered into NVM.
6. Select **Start** on the **dC608 Document Feeder Registration** screen.
   The document feeder feeds the documents.
   The screen displays the **After Registration** values.
7. If "**-** " is shown instead of **After Registration** values, or if there is any other indication of failure, repeat the procedure from step 4..
   If the process fails a second time, perform DADF Side Registration Manual Adjustment (ADJ 5.2) and DADF Lead Edge Registration Manual Adjustment (ADJ 5.4).

ADJ 5.6 Side 1 to Side 2 Color Matching

The purpose of this adjustment is to compensate for minor variations in output color between side 1 and side 2 on single-pass DADFs. This routine is available to users.

1. Select **Device** on the UI.
2. Select **Tools**.
3. Select **Troubleshooting**.
4. Select **Calibration**.
5. Scroll to **Color Matching**.
6. Follow the on-screen instructions.

ADJ 60.1 Full/Half Rate Carriage Position Adjustment

Parts List on PL 60.50
Parts List on PL 60.55

Adjusts the position of the Full/Half Rate Carriage.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait for the Power Button LED to turn off before switching off the Main Power Switch (GP 4).

Note: Adjust the position of Full/Half Rate Carriage at the front and rear separately. Only the procedure for the rear side is described here. The procedure for the front side is the same as for the rear side.

1. Press the **Jobs** icon to verify that no jobs are in process.
2. Power the system off (GP 4).
3. Disconnect the power cord.
4. Open the DADF.
5. Remove the Platen Glass. (REP 60.25)
6. Remove the Lens Cover Assembly. (REP 60.25 PL 60.50 or PL 60.55)
7. Remove the jig pins from the Lens Assembly. (Figure 1)

   Note: When removing the jig pins, never remove the screws (4) that secure the Lens Base.

   a. Remove the screws (2).
   b. Remove the jig pins (2).

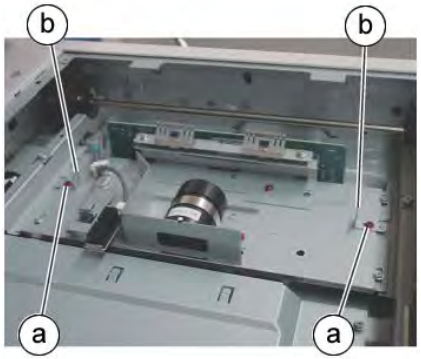


Figure 1 Remove the jig pins

8. Check that the pulley at the front side is secured firmly. If the pulley is loose, tighten the set screws (2). (Figure 2)

Figure 2 Tighten the front pulley

9. Loosen the set screws (2) that secure the pulley at the rear side. (Figure 3)

Figure 3 Loosen the rear pulley

10. Position the Half Rate Carriage. (Figure 4)
    a. Move the Half Rate Carriage to the jig pin insertion position.
    b. Set the jig pins (2).

       Note: Make sure the jig pins are aligned as shown in the figure.

    c. Tighten the screws (2).

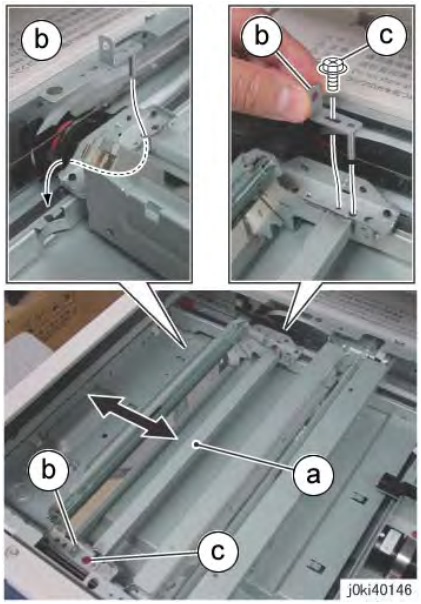


Figure 4 Position the Half Rate Carriage

11. Tighten one of the two set screws (either one) that loosened the rear side pulley. (Figure 5)

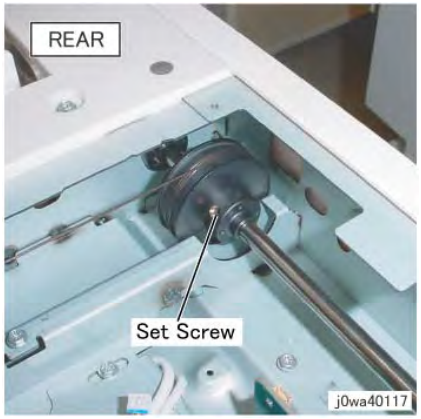


Figure 5 Tighten one of the set screws

12. Secure the cable to the Full Rate Carriage at the rear side. (Figure 6)
    a. Remove the screw.
    b. Set the Tool Pin that was placed at the rear side of the Half Rate Carriage to the front side of the Full Rate Carriage.
    c. Tighten the screw.
    d. Remove the screw.
    e. Set the Tool Pin that was placed at the front side of the Half Rate Carriage to the rear side of the Full Rate Carriage.

f. Tighten the screw.

g. Tighten the affixed screws.

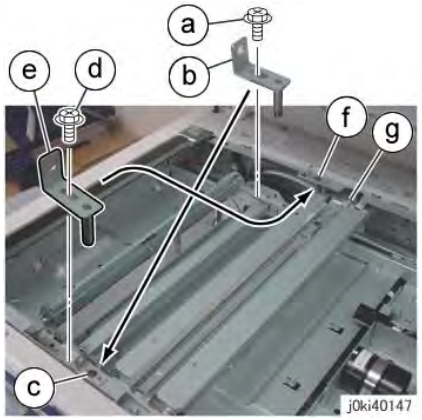


Figure 6 Secure the cable to the Full Rate Carriage

13. Tighten the remaining set screw that kept the pulley at the rear side loose. (Figure 7)

Figure 7 Tighten the set screw

14. Manually move the Full Rate Carriage to ensure that it moves smoothly.

15. Restore the Tool Pins to their original states.

16. Restore the Lens Cover Assembly to its original state.

ADJ 60.2 IIT Lead Edge Registration Manual Adjustment

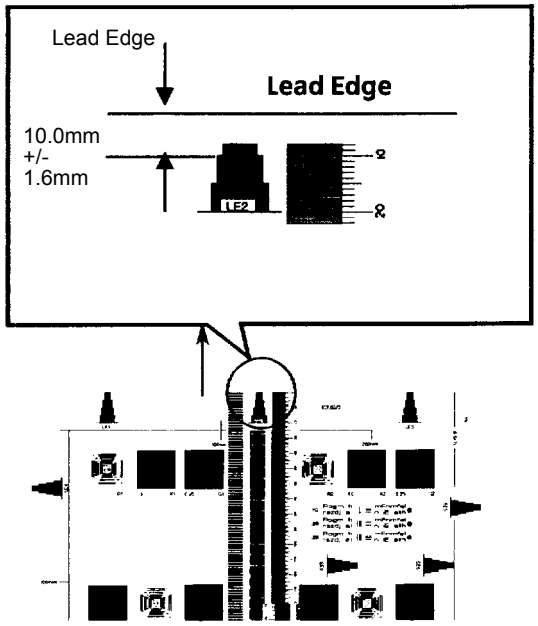
Adjusts the IIT scan timing in the Slow Scan direction and corrects the copy position.

CAUTION: Perform this adjustment only if absolutely required; the IIT Lead Edge Registration affects the precision of the document size detection.

Note: This adjustment should only be performed if the ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609) procedure has been performed and the results were not satisfactory.

Note: Perform ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126) adjustment before performing this adjustment.

1. Place the Geometric Test Pattern (82E8220) on the platen glass with the lead edge on the left.
   Ensure that the test pattern is positioned in the upper left corner of the platen glass and seated against green registration bars.
2. Select the **Copy** icon on the UI. Make the following settings:
   - **Output Color** > **Black & White**.
   - Select a tray loaded with 11x17 (A3) paper. If necessary, load one of the paper trays with 11 x 17 or A3 paper.
   - **Reduce/Enlarge** > **100%**
   - Number of Copies: 2
3. Press **Start** . Retrieve the 2nd copy. Check that the distance from the lead edge to the top of the indicated step on the LE2 scale is 10.0mm +/- 1.6mm (Figure 1).
4. If the value is not within the specified range, perform the Adjustment:



Adjustment

1. Enter Service Diagnostic Mode.
2. Select **Adjustment**.
3. Select **dC131** and read the value in NVM location [715-513].
4. Change the value to move the image in the appropriate direction:
   - adding or subtracting 1 to the NVM value will move the image 0.1mm
   - When the NVM value is incremented by 1 (.1mm is added to it), the image will move toward the lead edge.
   - When the NVM value is decremented by 1 (.1mm is subtracted from it), the image will move toward the trail edge.
5. Repeat the Check and Adjustment until the lead edge measurement is within the specified range. Record the final value.
6. Use **dC131** to read the value in NVM location [715-514].
7. Subtract 68 from the value recorded in step 5 and write that value to [715-514].

Note: Location [715-514] stores the Calibration Strip location. The Calibration Strip location is 68 counts less than the lead edge of the Platen.

ADJ 60.3 IIT Side Registration Manual Adjustment

Adjusts the IIT scan timing in the Fast Scan direction and corrects the copy position.

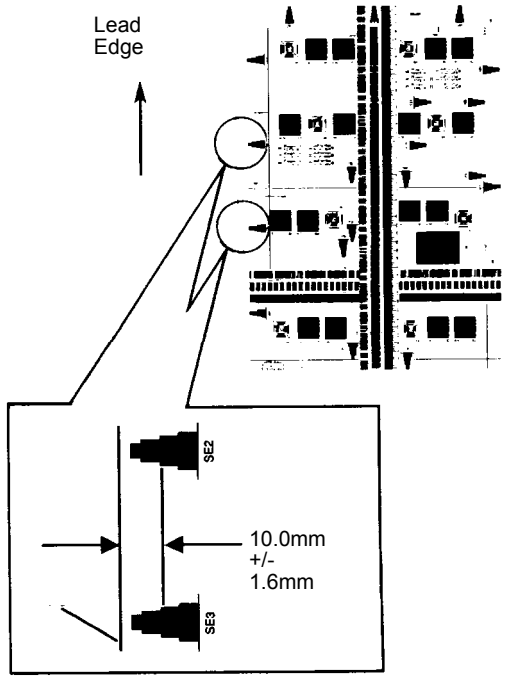
CAUTION: Perform this adjustment only if absolutely required; the IIT Side Edge Registration affects the precision of the document size detection.

Note: This adjustment should only be performed if theADJ 60.7 Document Glass Registration Automatic Adjustment (dC609) procedure has been performed and the results were not satisfactory.

Note: Perform the checks and, if necessary, the adjustments in ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126) before proceeding with this adjustment.

1. Load 11 x 17 inch/A3 paper in Tray 2.
2. Place the Geometric Test Pattern (82E8220) on the platen glass with feature LE1, LE2, LE3 (Leading edge) at the left.

   Ensure that the test pattern is positioned in the upper left corner of the platen glass and seated against green registration bars.
   - **Output Color > Black & White**
   - **Paper Supply > Tray 2**
   - **Reduce/Enlarge > 100%**
   - Number of Copies: 2
3. Retrieve the second copy. Check that the distance from the side edge of the copy to the top of the 3rd step of feature SE2 and SE is 10.0mm +/- 1.6mm (Figure 1).



4. If the value is not within the specified range, perform the Adjustment:

Adjustment

1. Enter Service Diagnostic Mode.
2. Enter **dC131**, location [715-512].
   Change the value.
   - 1 increment = 0.075mm
   - increasing the value = The image moves IN (towards the back of the machine).
   - decreasing the value = The image moves OUT (towards the front of the machine).
3. Repeat the Check and Adjustment until the Side Edge measurement is within the specified range.

ADJ 60.4 Optical Axis Calibration

Parts List on PL 60.30 or PL 60.35

The purpose of this adjustment is to align the CCD with the lens.

CAUTION: This procedure should only be performed if the Lens Kit is replaced or if the documentation specifically directs.

Note: Perform the following in order before beginning this procedure:

1. Perform the Full/Half Rate Carriage Position Adjustment. (ADJ 60.1)
2. Clean the Optics:
   a. Switch off the power.
   b. Allow the Exposure Lamp to cool off.
   c. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
   d. Clean the Exposure Lamp with Lens and Mirror Cleaner and lint free cloth.
   e. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.
3. Open the DADF and position it so the front edge is 150 mm (5.9 in) above the platen glass (Figure 1).

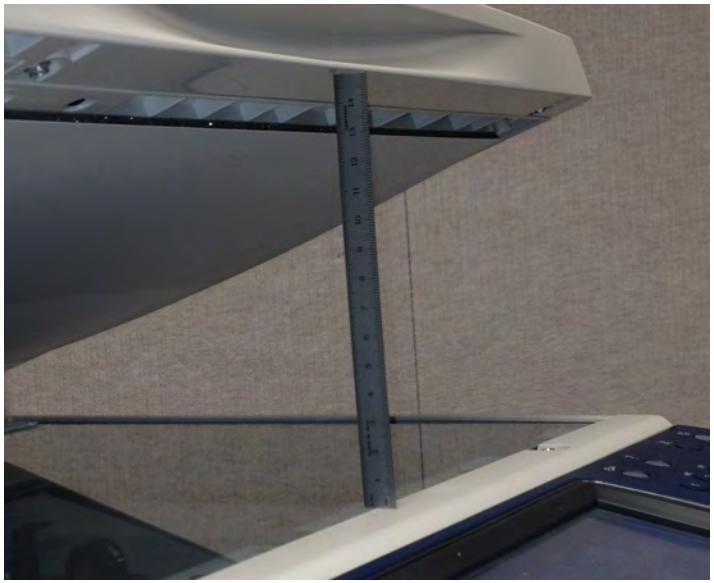


Figure 1 Open the DADF 150mm (5.9 in)

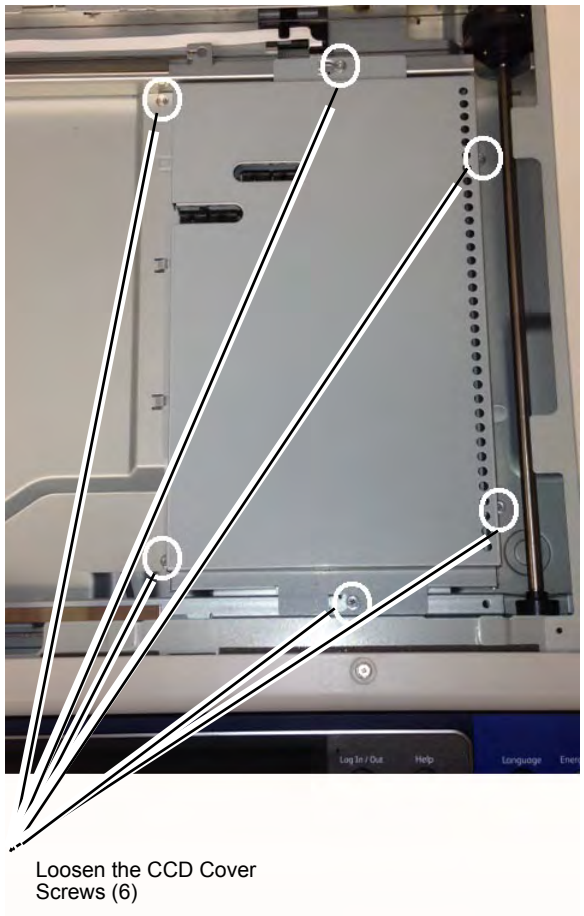
CAUTION: Stray light will adversely affect the check. If there is significant ambient light around the machine (especially fluorescent light), shroud the machine with a drop cloth to keep as much stray light as possible away from the Lens and CCD.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC945 IIT Calibration....**

4. Touch the **Select Calibration Type** button, then select **Optical Axis Calibration** from the menu.
5. Select **Start**.
6. Check the results on the display.
   - If a green check mark is displayed in the **Results** column, the check is good. Perform ADJ 60.5 IIT Calibration (dC945).
   - If a red X is displayed in the **Results** column, perform the Adjustment.

CAUTION: Take care to keep the platen glass and other areas of the optics clean during the adjustment.

1. Remove the Platen Glass.
2. Remove the CCD Cover (Figure 2). It is not necessary to remove the screws, only to loosen them several turns. The cover is slotted so that it will slide off with the screws in place.



3. Place an index mark on the barrel of a 5.5mm nut driver.
4. Figure 3 shows the tool and the adjusting nuts.

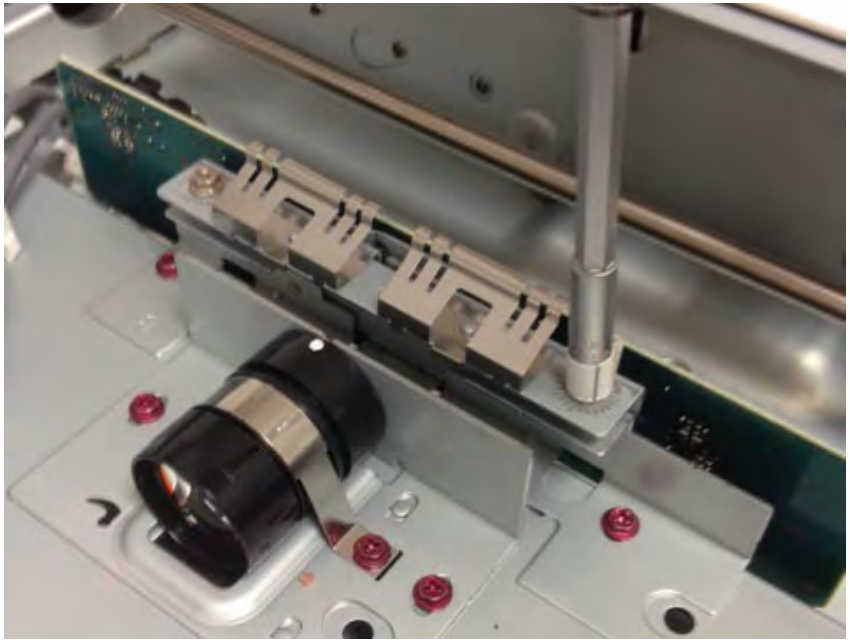


Figure 2 Tool and Adjusting Nut

5. Check the results in the **Front** column and the**Rear** column of the table. The values displayed indicate the amount and direction of the correction required:
   - + means rotate clockwise
   - - means rotate counterclockwise
   - The amount of correction is displayed in degrees. Each division around the nut represents 15 degrees. Divide the displayed value by 15 to find the number of divisions to rotate the nuts. If a value higher than 990 is displayed, this may indicate that insufficient light is entering the CCD. Make sure that the Lens and Platen Glass are clean.
6. Make the indicated correction for both the front and rear nuts.
7. Reinstall the Platen Glass.
8. Select **Start**.
9. Repeat the Check from Step 4. If further adjustment is required, for the second and subsequent adjustment cycles only adjust the nuts 1/2 of the indicated amount.
10. After the green check mark is displayed, perform ADJ 60.5 IIT Calibration (dC945).

ADJ 60.5 IIT Calibration (dC945)

The purpose of this procedure is to calibrate the optics in the IIT for optimal performance.

Note: Do not perform this procedure unless one of the following components has been replaced:

- LED Exposure Lamp
- IIT TRANS PWB
- SSD/HDD
- Platen Glass
- Document Backing Pad on the DADF
- DADF Assembly
- Scanner Initialization was performed (it is not recommended that the Scanner Initialization be performed)

Note: If the Lens Assembly has been replaced, go to ADJ 60.4.

CAUTION: This procedure can **only** be performed prior to performing the Admin Tools **Color Calibration (Print & Copy)** procedure. Performing this procedure after the color calibration has been done may cause major problems with color reproduction.

CAUTION: Optical Axis should only be run if replacing the CCD Assembly

In **dC945 IIT Calibration** Adjustment there are three adjustments, as follows.

- **White Reference Platen**
- **White Reference DADH — Duplex** - Calculates and sets the White Reference Correction Coefficient.
- **LED Type Determination — (Side 1 and Side 2)** - Corrects the IIT sensitivity dispersion.
- **Optical Axis Calibration**

Preparation

Note: Because the IIT is used as a measurement device for Print and Copy calibration, **dC945 IIT Calibration** may affect their results and alter color and tonal reproduction for print, copy, and scan.

1. Clean the Optics:
   a. Switch off the power and allow the Exposure Lamp to cool off.
   b. Using the optical Cleaning Cloth, clean the front and rear of the Document Glass, Document Cover, White Reference Strip, Reflector, and Mirror.
   c. Clean the Exposure Lamp with Lens and Mirror Cleaner and lint free cloth.
   d. Clean the Lens with Lens and Mirror Cleaner and lint free cloth.

Table 1 Paper

Paper Being Used	Kit Number	Size / Weight	Order Number	CSE Part	NVM 715–518 Value
Bold Digital Printing	128E01460	11x17/24 lbs.	3R11543	128E01460	5
ColoTech Plus Gold	655N50066	A3/90 gsm.	3R98839	N/A	6

Adjustment

White Reference Platen Adjustment

1. Make 10 copies of Color Test Pattern 82E13120. Set up the machine using the specifications listed in Table 1 of the Image Quality section, Image Quality Specifications.
2. Select the 10th copy printed and evaluate the color using the specifications listed in (Color Specifications Table 2 XXX) of the Image Quality section, Image Quality Specifications.
3. Enter Service Diagnostic Mode.
4. Select **Adjustments**.
5. Select **dC945 IIT Calibration**.
6. Touch the **Paper Type** and select paper type from the list

CAUTION: Do not perform the Optical Z-Axis Adjustment unless the Lens Assembly was replaced.

7. Touch the **Select Calibration Type** button and select **White Reference Platen** from the menu.
8. Place one sheet of paper on the Platen.
   Follow the instructions on the UI to perform the calibration.
   IIT Calibration in Progress will display in the message area at the top of the screen, followed by **IIT Calibration Completed** when the calibration is done.
   Calibration results display in the **Results** field at the bottom of the screen.

Note:

Ensure that all of the following are complied with during the procedure:

- The paper being used is clean and fresh
- The paper is one of the papers specified in Table 1
- Use only the number of sheets specified in the UI.

White Reference DADH Adjustment

Note: Clean the CIS before running dC945 White Reference DADH

1. Touch the **Select Calibration Type** button and select **White Reference DADH — Duplex**.
2. Place one sheet of paper on the Platen.
   Follow the instructions on the UI to perform the calibration.
   The message **IIT Calibration in Process** will appear on the UI, followed by **IIT Calibration Completed when the calibration is done**.
   Calibration results display in the **Results** field at the bottom of the screen.

Note:

Ensure that all of the following are complied with during the procedure:

- The paper being used is clean and fresh
- The paper is one of the papers specified in Table 1.
- Use only the number of sheets specified in the UI.

LED Calibration - Side 1 Adjustment

1. Touch the **Select Calibration Type** button and select **LED Type Determination - Side 1** .
2. Place the Color Test Pattern 82E13120 on the platen with the Lead Edge (LE) on the left.
3. Press **Start**.

The message **IIT Calibration in Process** will appear on the UI screen, followed by **IIT Calibration Completed** when the calibration is done

4. The obtained data display in the **Results** field.

   a. Ensure that the **Results** field shows a green check mark, indicating that the results are OK.

   b. If the **Results** do not show OK, that is, if a red X is shown, return to step 2 and repeat this procedure.

   c. If, after repeating the procedure, the **Results** still are not OK, go to the 362A RAP and troubleshoot the problem.

LED Calibration - Side 2 Adjustment

1. Touch the **Select Calibration Type** button and select **LED Type Determination - Side 2**.)
2. Place the Test Pattern 82E13120 in the DADH with the color pattern down and Lead Edge on the left (in) side.
3. Press **Start**.

   The message **IIT Calibration in Process** will appear on the UI screen, followed by **IIT Calibration Completed** when the calibration is done.
4. When the calibration is complete, the obtained data display in the **Results** field.

   a. Ensure that the **Results** field shows a green check mark, indicating that the results are OK.

   b. If the **Results** box does not show OK, that is, if a red X is shown, remove the LED (REP 5.12 for DADH 250) (REP 5.78 for DADH 130), clean the optics, and reinstall the LED in the machine.

   c. Return to step 2 and repeat this procedure.

   d. If, after repeating the procedure, the **Results** box still does not show OK, go to RAP 366-900 and troubleshoot the problem.

ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

This adjustment checks the registration of the document glass and corrects any misalignments. The process runs automatically and does not require any user intervention other than keeping the document feeder open during the operation.

Note: High levels of ambient light illuminating the platen during this procedure can affect the accuracy of the result. Lower the DADF to 45 degrees to limit ambient light and block direct light from windows or other sources.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Scroll to and select **dC609 Document Glass Registration...**.

   The screen displays the current registration values. (Figure 1)

Figure 1 dc609 Document Glass Handler screen

4. Open the document feeder and remove any paper from the document glass.

   Note: The document feeder should remain open (at an angle of 45 degrees) until this procedure is complete.
5. Select **Start** on the **dC609 Document Glass Handler** screen to run the routine. (Figure 1)

   Note: If a pop-up window appears indicating that the routine has failed, try changing the position of the DADF, either opening or closing it slightly.
6. After the routine completes, the screen will display the values for before and after registration.
7. If "**-** " is shown instead of **After Registration** values, or if there is any other indication of failure, repeat the procedure from step 2.

   If the process fails a second time, perform IIT Side Registration Manual Adjustment (ADJ 60.3) and IIT Lead Edge Registration Manual Adjustment (ADJ 60.2).

ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126)

Purpose

To adjust the position of the image written by the LPH's. This is done by changing the value of the Lead Edge Registration and Side Edge Registration using **dC126**.

CAUTION: When registration is adjusted, the entire series of adjustments must be performed in the listed sequence. Do not adjust only lead edge or side edge. Always check and adjust all trays as specified. Read the entire procedure before performing the adjustment.

Introduction

This series consists of the following procedures:

- Lead Edge Registration, Trays 1-4 & 6 (HCF), Sides 1 and 2.
- Lead Edge Registration, MSI (Tray 5), Sides 1 and 2.
- Side Edge Registration, All Trays (1 - 6), Sides 1 and 2, each set separately.

Specification

The specifications for Lead Edge and Side Edge are shown in the table below.

Table 1 Registration Specifications

Item	Side 1 Trays 1-4 & 6	Side 2 Trays 1-4 & 6	Side 1 & 2 Tray 5 (MSI)
Lead Edge	10±1.5mm	10±1.9mm	10±2.2mm
Side Edge	8.5±2.0mm	8.5±2.4mm	8.5±3.0mm

Initial Setup

1. Load trays 1, 2 and 5 (MSI), with 11 x 17 / A3 Bond/Plain paper. Load trays 3, 4, and 6 (HCF) with 8 1/2 x 11 / A4 Bond/Plain paper. Verify that the paper guides are set correctly.

   Note: This adjustment uses a minimum of 20 sheets from Tray 1 and Tray 5 (MSI) and 10 from each other tray even if no adjustment is required.

2. On the **Paper Settings - Tray X** window, ensure that the correct **Size** and **Type** is selected for all trays that were opened.

   Note: The dC126 routine automatically selects the appropriate NVM location to set, based on the paper size and type setting of the trays.

3. Enter Service Diagnostic Mode.
4. Select **Adjustments**.
5. Select **dC126 Paper Registration....** (Figure 1)

Figure 1 dC126 Paper Registration screen

Lead Edge Registration

To correctly register the lead edge of the image, printed using dC126, in relation to the lead edge of the paper for all trays.

Note: There are four settings for lead edge registration as follows:

1. Trays 1-4 & Tray 6 (HCF) - Side 1
2. Trays 1-4 & Tray 6 (HCF) - Side 2
3. Tray 5 (MSI) - Side 1
4. Tray 5 (MSI) - Side 2

Side 1 Lead Edge Registration (Trays 1-4 & 6)

1. Make the following selections:
   a. Select **Side 1**.
   b. Set **Paper Supply** to **(1)**.
   c. Set **Print Count** to **5**.
2. Select **Save & Print**.
3. Take the third print from the output tray and label the lead edge.
4. Orient the paper as shown in Figure 2 and measure from the lead edge to point A. Point A is at the intersection of the 7th line from the side edge and the 1st line from the lead edge.
5. If the measured value is not 10±1.5mm, perform the **Adjustment** for **Lead Edge**.
6. If the Check is OK, proceed to **Side 2 Lead Edge Registration (Trays 1-4 & 6)**.

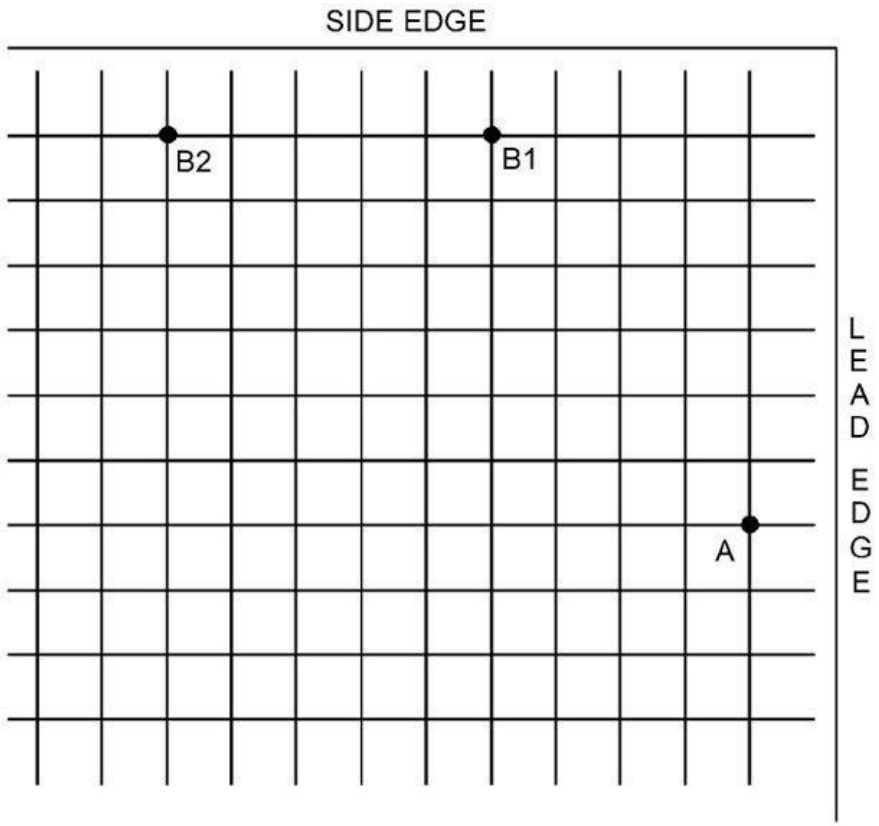


Figure 2 Test Pattern Measurement Points

Side 2 Lead Edge Registration (Trays 1-4 & 6)

Note: The grid pattern for side 1 does not align with the grid pattern for side 2. Do not attempt to set registration by aligning the grids.

1. Select **Side 2** and verify that **Paper Supply (1)** is selected and the **Print Count** is set to **5**.
2. Select **Save & Print**.
3. Take the third print from the output tray and label the lead edge.

   Note: When side 2 is selected, only side 2 is imaged. Side 2 is output face down. The lead edge is at the right side of the tray.
4. Orient the paper as shown in Figure 2 and measure from the lead edge to point A.
5. If the measured value is not 10±1.9mm, perform the **Adjustment** for **Lead Edge**
6. If the Check is OK, proceed to **Side 1 Tray 5 (MSI) Lead Edge Registration**.

Side 1 Tray 5 (MSI) Lead Edge Registration

1. Select **(5) (MSI)** for **Paper Supply** and **Side 1** , and verify that the **Print Count** is set to **5**.
2. Select **Save & Print**.
3. Take the third print from the output tray and label the lead edge.
4. Orient the paper as shown in Figure 2 and measure from the lead edge to point A.
5. If the measured value is not 10±2.2mm, perform the **Adjustment** for **Lead Edge**.
6. If the Check is OK, proceed to **Side 2 Tray 5 (MSI) Lead Edge Registration**.

Side 2 Tray 5 (MSI) Lead Edge Registration

1. Select **Side 2**.
2. Select **Save &Print**.
3. Take the third print from the output tray and label the lead edge.
4. Orient the paper as shown in Figure 2 and measure from the lead edge to point A.

   Note: When side 2 is selected, only side 2 is imaged. Side 2 is output face down. The lead edge is at the right side of the tray.
5. If the measured value is not 10±2.2mm, perform the **Adjustment** for **Lead Edge**.
6. If the Check is OK, proceed to **Side Edge Registration**.

Adjustment Lead Edge

1. Use the **Right** and **Left** arrow buttons to increase or decrease the amount of lead edge spacing. The **Right** arrow decreases the lead edge spacing. The **Left** arrow increases the lead edge spacing. Each increment of the adjustment value changes the distance from the edge of the paper to the grid by 0.100mm.

   Note: When **Save & Print** is selected after entering the appropriate adjustment value, the value is loaded into NVM. The value shown in the window will return to zero. Selecting **Save & Print** is the **ONLY** way to load the adjustment value into NVM.
2. After adjustment, repeat the appropriate Check procedure to see if the measured value of the Lead Edge at point A now falls within the specification of Table 1.
3. Repeat Adjustment steps 1 through 3 until the measured value falls within the specification.
4. After adjusting the lead edge to within specification, proceed with the next Check procedure or continue with **Side Edge Registration** as appropriate.

Side Edge Registration

To correctly register the side edge of the image in relation to the outboard edge of the paper.

Note: Side 1 and Side 2 edge registration must be set independently for each side and each tray. Thus, depending on whether Tray 6 (HCF) is present, there will be a total of either 10 (no HCF) or 12 (HCF present) side edge registration settings.

Side 1 Side Edge Registration (Trays 1-4 & 6)

1. Ensure that sufficient paper of the correct size and type is loaded in all trays (see **Initial Setup**). This adjustment uses a minimum of 10 sheets from each tray.
2. Select **(1)** for **Paper Supply** and **Side 1**.
3. Verify that the **Print Count** is set to **5**.
4. Select **Save & Print**.
5. Take the third print from the output tray and label the lead edge.
6. Orient the paper as shown in Figure 2.

   Note: When the test pattern is oriented correctly per Figure 2 with the lead edge to the right, the side edge to be checked will be at the top.
7. Measure side edge registration as follows:

- For 11 x17 / A3 paper, measure from the intersection between the 1st line from the side edge and the 10th line from the lead edge of the paper (point B2 on Figure 2).
- For letter size (8.5 x 11 / A4), measure from the intersection between the 1st line from the side edge and the 5th line from the lead edge of the paper (point B1 on Figure 2).

8. If the measured value is not 8.5±2.0mm, perform the **Adjustment** for **Side Edge**.
9. If the measurement is within specification, repeat steps 1 through 7 for each tray. After the last tray (either Tray 5 (MSI) or Tray 6 (HCF)) has been checked and adjusted, continue with **Side 2 Side Edge Registration (Trays 1-4 & 6)**

Side 2 Side Edge Registration (Trays 1-4 & 6)

1. Select **Side 2** and **Paper Supply (1)**.
2. Verify that the **Print Count** is set to **5**.
3. Select **Save & Print**.
4. Take the third print from the output tray and label the lead edge.
5. Orient the paper as shown in Figure 2.

   Note: When side 2 is selected, only side 2 is imaged. Side 2 is output face down. The lead edge is at the right side of the tray.

   Note: When the test pattern is oriented correctly per Figure 2 with the lead edge to the right, the side edge to be checked will be at the top.
6. Measure side edge registration as follows:
   - For 11 x17 / A3 paper, measure from the intersection between the 1st line from the side edge and the 10th line from the lead edge of the paper (point B2 on Figure 2).
   - For letter size (8.5 x 11 / A4), measure from the intersection between the 1st line from the side edge and the 5th line from the lead edge of the paper (point B1 on Figure 2).
7. If the measured value is not 8.5±3.0mm, perform the **Adjustment** for **Side Edge**.

Side 1 Tray 5 (MSI) Side Edge Registration

1. Select **Paper Supply (5)** and **Side 1** , and verify that the **Print Count** is set to **5**.
2. Select **Save & Print**.
3. Take the third print from the output tray and label the lead edge.
4. Orient the paper as shown in Figure 2 and measure from the side edge to point B2.
5. If the measured value is not 8.5±3.0mm, perform the **Adjustment** for **Side Edge**.
6. If the Check is OK, proceed to **Side 2 Tray 5 (MSI) Side Edge Registration**.

Side 2 Tray 5 (MSI) Side Edge Registration

1. Select **Side 2**.
2. Select **Save & Print**.
3. Take the third print from the output tray and label the lead edge.
4. Orient the paper as shown in Figure 2 and measure from the lead edge to point B2.
5. If the measured value is not 8.5±3.0mm, perform the **Adjustment** for **Side Edge**.
6. If the Check is OK, this adjustment is done. Close **dC126**.

Adjustment Side Edge

1. Use the **Up** and **Down** arrow buttons to increase or decrease the amount of side edge spacing. The **Down** arrow increases the side edge spacing. The **Up** arrow decreases the side edge spacing. Each increment of the adjustment value changes the distance from the edge of the paper to the grid by 0.106mm.

   Note: When **Save & Print** is selected after entering the appropriate adjustment value, the value is loaded into NVM. The value shown in the window will return to zero. Selecting **Save & Print** is the **ONLY** way to load the adjustment value into NVM.
2. After adjustment, repeat the Check procedure to see if the measured value of the Side Edge now falls within the specifications of Table 1.
3. Repeat Adjustment steps 1 through 3 until the measured value falls within the specification.
4. After adjusting the side edge to within specification, proceed with the next Check procedure until both sides for all trays are checked and adjusted.

ADJ 90.2 Edge Erase Adjustment

To check and adjust edge erase margins for Lead Edge, Trail Edge and both sides.

Prerequisite

Note: The IOT Lead Edge/Side Edge Registration (ADJ 90.1) must be checked and adjusted if required before performing this procedure.

1. From the **Services Home** screen, select **Copy**.
2. Make the following settings while in the **Copy** mode:
   a. Select the **Copy** tab and set **Paper Supply** to a tray that has paper loaded in it.
   b. Set **2-Sided Copying** to **1->1 Sided**.
   c. Select **Show Additional Features** Tab.
   d. Select the **Layout Adjustment** tab.
   e. Select **Image Shift** and set to **Off** , then select **OK**.
   f. Select **Edge Erase** > **All Edges** , set the value to **0.0** and select **OK**
3. Open the DADH.
4. Make a solid black copy.
5. Check that the margins are per Table 1 . If the margins are not within the values specified in Table 1 perform the **Adjustment**.

   Note: If Side Edge margins are not exactly per the specification, they are acceptable if both front and rear are same.

Table 1 Edge Erase Specifications

Edge	Specification
Lead Edge	4mm
Side Edge (Both Front and Rear Side)	2mm
Trail Edge	2mm

1. Enter Service Diagnostic Mode.
2. Select **dC131 NVM Read/Write**.
3. Adjust the NVM (Table 2) so that the measured value of the margins is per Table 1.

   Note: If the setting value is increased, the erase value increases.

Table 2 NVM List

Chain Link	Name	Min.	Default	Max	Step
998–502	Leading Edge Erase Amount	0	40	255	0.1mm increments
998–503	Side Edge Erase Amount	0	20	255	0.1mm increments
998–504	Trailing Edge Erase Amount	0	20	255	0.1mm increments

4. Exit diagnostic mode and repeat the **Check** until the measured values are per Table 1.

Note: it is not necessary to reboot when closing Diagnostic Mode.

ADJ 90.3 ProCon On/Off Print Check (dC937)

This procedure performs a Mini-setup, outputs a printed test pattern for visual analysis, and prints a Job End patch. Selected process control NVM values are displayed, and a check for hidden process-control-related faults is performed.

There are 2 modes in this procedure:

- Procon On mode - the routine is run with ATC/ADC correction per the ProCon lookup table (LUT) and customer mode settings.
- Procon Off mode: - the routine is run with ATC/ADC/LUT bypassed, using the default settings for potential.

1. Ensure that there is 11 x 17”/A3 paper in Tray 1.
2. Enter Service Diagnostic Mode.
3. Select **Adjustments**.
4. Select **dC924 TRC Manual Adjustment.** (Figure 1)
   Set the values at the midpoint.

Figure 1 dc924 TRC Manual Adjustment screen

5. Select **dC937 ProCon On/Off Print** . (Figure 2)

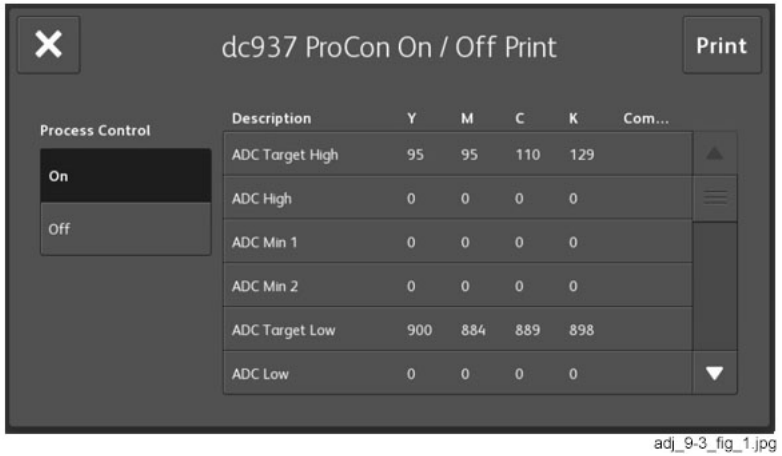
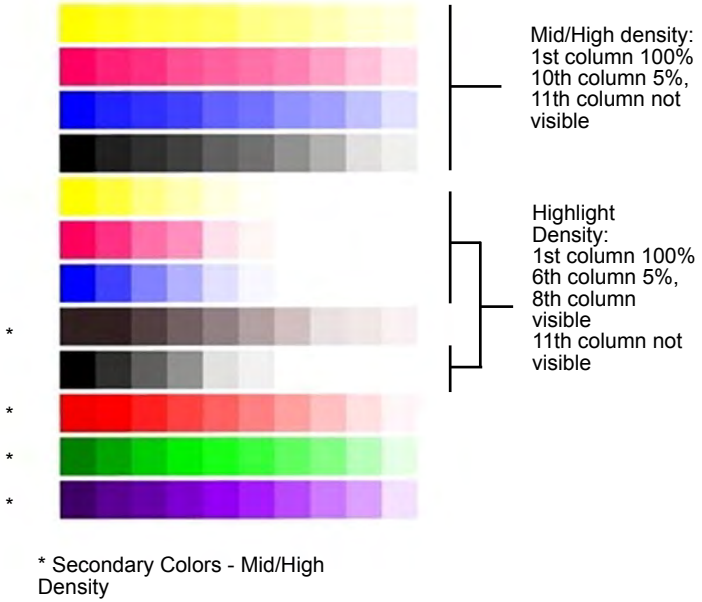


Figure 2 dc937 ProCon On / Off Print screen

Note: Disregard any **not ok** readings that are displayed when you first enter the routine - the data are only valid after **Print** has been selected.

6. Select **Process Control On** , then select **Print** . Mini-setup will be executed in 4 color mode. 1 sheet of the built-in test pattern **Pcon PG 200C** will be printed and the job end patch created.
7. Check the ProCon status screen for any failures. If **Fail** is displayed for any table entry, perform the Adjustment.
8. Examine the printed test pattern. Compare the output to the Color Test Pattern (Figure 3). Check the density and color shift of the medium/high density areas, and the reproduced density and color shift of the highlights. If a problem is detected, perform the Adjustment.



1. If **not ok** is displayed, carry out the following failure correction as appropriate, then repeat the Check.
   - For **ADC Shutter Open**, **ADC Shutter Close**, or **ADC Sensor** failures go to the 392-649, 392-650, 392-651 RAP.
   - For **ADC Patch** failures go to the 392-670, 392-671, 392-672, 392-673 RAP.
   - For **ATC Average** failures go to the 392-665, 392-666, 392-667, 392-668 RAP.
   - For **ATC Amplitude** failures go to the 392-657, 392-658, 392-659, 392-660 RAP.
   - For **Temperature** failures go to the RAP.
   - For **Humidity** failures go to the RAP.
   - For **ADC Mini-setup** failures go to the 392-675, 392-676, 392-677, 392-678RAP.
2. Record the values on the **ProCon On/Off Print** screen. (Figure 2)
3. Select **Process Control > Off** , then select **Print** . Mini-setup will be executed in 4C mode. One sheet of the built-in test pattern, **Pcon PG 200C** , will be printed and the job end patch created.

   ProCon Off switches off the Grid Voltage Control, and ADC Gradation Control:
   - Grid Voltage Control Off: For medium/high density problems, this allows you to differentiate between developing/transfer problems in IOT elements status and Grid Voltage Control problems due to Procon ADC.
   - ADC Gradation Control: When reproduced highlights are poor, this allows you to differentiate between problems with the IOT itself and problems with the ADC Gradation Adjustment.
4. Compare the output of the ProCon On and ProCon Off prints. Evaluate according to one of the following Problem Statements:

   a. Both ProCon On and ProCon Off prints are unacceptable
      - F or poor Highlight reproduction, perform ADJ 90.14 Tone-up/Tone-down (dC991).
      - If the problem involves a single color, it may be the Developer and/or power supplies, Photoreceptor/BCR/Scorotron, and/or power supplies, or LPH. Repair or replace as required.
      - If the problem involves all colors, check the 2nd BTR, its power supply, and the Transfer Belt.

   b. ProCon Off print is OK, but ProCon On print is unacceptable
      - Replace the MOB/ADC Sensor Assembly (REP 90.9).

ADJ 90.5 Thin Line Correction Mode Adjustment

The Thin Line Correction Mode may be used to correct the poor reproducibility of 600dpi/1200dpi thin lines.

Because of the dispersion due to the difference in the machines, thin lines, especially slanted ones, tend to break up.

When this happens, use the Thin Line Correction Mode to correct it.

Note: Defects may appear in the following when the Thin Line Correction Mode is in use:

- banding in ladder images
- LPH streaks in high temperature environment

For these reasons, keep the adjustment amount as low as possible.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC131 NVM Read/Write.**
4. Perform the Thin Line Correction by adjusting the following NVMs:

   a. NVM 749-247, 1200 Only Thin Line Correction - 0: OFF (also perform correction for 600dpi), 15: ON (only perform correction for 1200dpi)

   If the Thin Line Correction is also to be performed for 600dpi, use 0. The default value is 15.

   b. NVM 749-246, Thin Line Correction Switch - 0: Thin Line Correction OFF, 1: Thin Line Correction ON.

   The default value is 0.

   c. Thin Line Correction Amount Adjustment (Table 1):

Table 1 Thin Line Correction Amount Adjustment

NVM Address	Description	Default Value	Adjustment Range
749-251	Thin line correction amount Y color	0	0 to 255
749-252	Thin line correction amount M color	0	0 to 255
749-253	Thin line correction amount C color	0	0 to 255
749-254	Thin line correction amount K color	0	0 to 255

The larger the value, the more emphasis the thin line gets (amount of exposure is increased).

Amount of exposure is increased by: 30 % for 140, 20 % for 160, and 10 % for 180. (Default value - Adjustment value)/2 = amount of increased exposure in %.

The recommended value is 160.

d. 752-006: 0 = OFF, 1 = ON

Although this is normally set as 0 (OFF) during use, if the highlight reproduction is overdone, set this to 1 (ON).

Default value is 0.

ADJ 90.6 LPH Exposure Amount Fine Adjustment

The LPH Exposure Amount Fine Adjustment adjusts the LPH exposure to correct uneven density in the cross process direction that arose due to various causes in the vicinity of the Drum for each YMCK color individually.

The LPH Exposure Amount Adjustment can be performed as negative correction within the range of 0 to -20 (%).

Correction Area

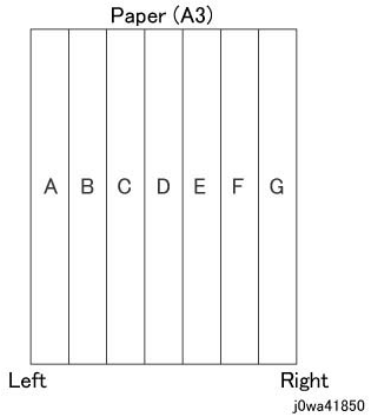


Figure 1 Correction Areas

Table 1 Distance

	A	B	C	D	E	F	G
Distance from the left of image (mm)	0	52	103	154	206	257	308.9

As shown in Figure 1 , the LPH zone is divided into 7 areas by setting the 6 points - from A (left most edge) to G (right most edge).

Adjustment is performed at each area to lower the LPH exposure until the density is even.

Note: There are cases where point A or G will lie beyond the image zone. Furthermore, the 154mm mark is the center of the image.

Note: As an overly large adjustment might cause jumps in gradation, make the adjustments as small as possible.

The adjustment amount (%) is not = amount of change in density.

The actual exposure level includes a process that converts the brightness of ADC Sensor Position to 100 %.

1. LPH Exposure Amount Fine Adjustment ON/OFF Switch

   To enable the LPH Exposure Amount Fine Adjustment function, set the following NVM to ON (Table 2).

Table 2 NVM

NVM Names	NVM Address	Contents	Initial Value	Adjustment Range
Smile Correction Switch	749-255	0: OFF 1: ON	0	0 or 1

2. Selection of Correction Method:

   The LPH Exposure Amount Fine Adjustment can be done by:

   a. Correcting the density skew in the IN-OUT direction

   b. Selecting a pre-prepared pattern to perform the correction (Pattern #12)

   c. Using custom correction to manually correct the adjustment amount for each area

   A combination of the various correction methods can be used. However, the correction cannot go beyond the 0 to -20 (%) range.

   a. IN/OUT Density Correction (Table 3):

      Corrects the IN-OUT density skew in the axis direction of the photoreceptor.

      When there is density skew from the left to the right of the image, the adjustment amount to correct that has to be set for each color.

      Setting Range is -20 to 20 (%).

Table 3 In/Out Density NVM

NVM Names	NVM Address		Initial Value	Adjustment Range
In Out Tendency (IN/OUT correction)	749-276	Y	40	-170 to +170
	749-277	M	40	-170 to +170
	749-278	C	40	-170 to +170
	749-279	K	40	-170 to +170

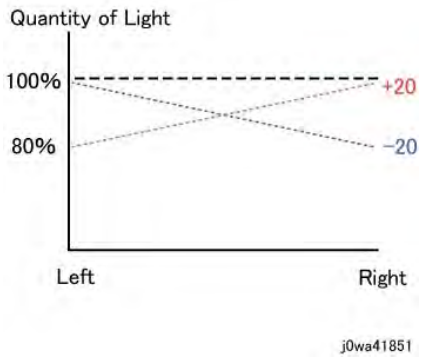


Figure 2 IN/OUT density correction

*Although there is also an adjustment range at the positive side, it only involves reducing the brightness at the IN side or the OUT side and therefore will not have any correction that goes above 100 % .

b. Pattern Selection Correction:

If you have elected to perform correction based on Pattern Selection, select the Pattern 1~6 and Level 1~6 that is most suitable for the density correction from the following figures (Figure 3, Figure 4, Figure 5).

The selected Pattern (Table 4) and Level (Table 5) are reflected as LPH Brightness Correction by changing the following NVM values.

As there are separate NVMs for each color, they can each be corrected independently.

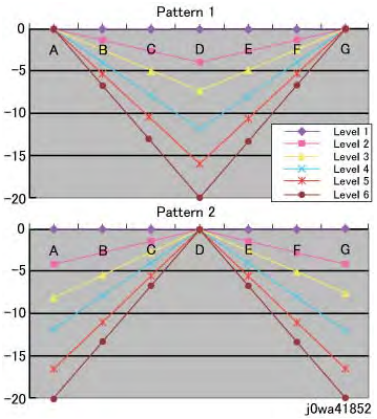


Figure 3 Patterns 1 and 2 selection

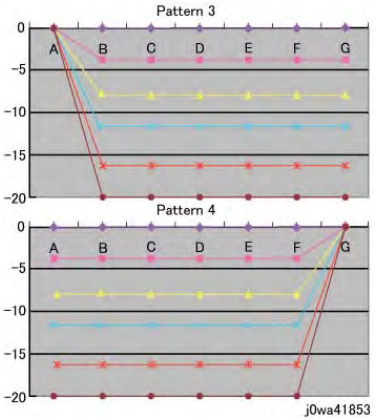


Figure 4 Patterns 3 and 4 selection

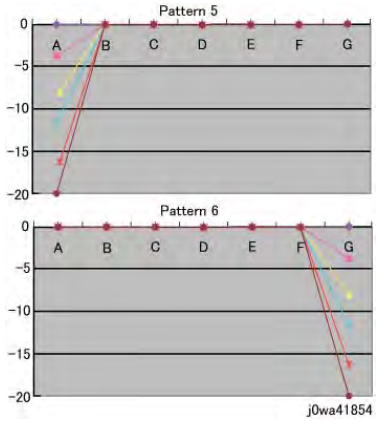


Figure 5 Patterns 5 and 6 selection

Table 4 Correction Pattern NVM

NVM Names	NVM Address		Initial Value	Adjustment Range
Correction Pattern (Pattern Selection)	749-280	Y	1	1 ~ 6
	749-281	M	1	1 ~ 6
	749-282	C	1	1 ~ 6
	749-283	K	1	1 ~ 6

Table 5 Correction Level NVM

NVM Names	NVM Address		Initial Value	Adjustment Range
Correction Level	749-284	Y	1	6
	749-285	M	1	6
	749-286	C	1	6
	749-287	K	1	6

Note: Take note that “0,5” for Pattern means “Disabled” and “1” for Level means “No correction”.

c. Custom Correction:

If you have elected to perform density correction by custom correction, you must input the required adjustment amount for the correction of every area into the NVM for each YMCK color (Table 6).

Be careful as only negative correction can be performed for density correction.

Table 6 Custom Correction NVM

NVM Names	NVM Address	Contents		Initial Value							Adjustment Range
				A	B	C	D	E	F	G	
Custom Correction Value	749-288~-294	R/E (%) within Pulse Width Variable Range	Y	0	0	0	0	0	0	0	-170 to +170
	749-295~-301		M	0	0	0	0	0	0	0	-170 to +170
	749-302~-308		C	0	0	0	0	0	0	0	-170 to +170
	749-309~-315		K	0	0	0	0	0	0	0	-170 to +170

*The NVM Addresses correspond in ascending order to ABCDEFG.

*Although there is also an adjustment range at the positive side, the brightness will saturate at 100 % . The positive correction of up to the 100 % range will only be applied when the exposure amount has been corrected towards the negative side at IN-OUT Density Correction or Pattern Selection Correction.

The above 3 types of correction can be used in combination. However, the total amount of exposure adjustment for these Smile Corrections are restricted to be within 0 to -20 % .

[Sum of Correction 0~20 %] = [IN-OUT Adjustment Amount %] + [Pattern Selection Adjustment Amount %] + [Custom Adjustment Amount %]If the total from the 3 corrections add up to less than -20 % , it will be uniformly limited to -20 % .

If it is larger than 0 % , then it will be uniformly limited to 0 % .

The above are the restrictions that apply to the exposure amount correction and correction by Smile Correction function. However, within the actual machine, after the exposure amount correction by Smile Correction, it will enter another process to calibrate the exposure at the ADC Sensor Position to be 100 % . As a correction is applied to the exposure amount after a Smile Correction, the exposure amount in the vicinity of 114 to 144mm from the left of the image becomes 100 % , while it is relatively higher or lower for the rest of the positions.

Reference sample

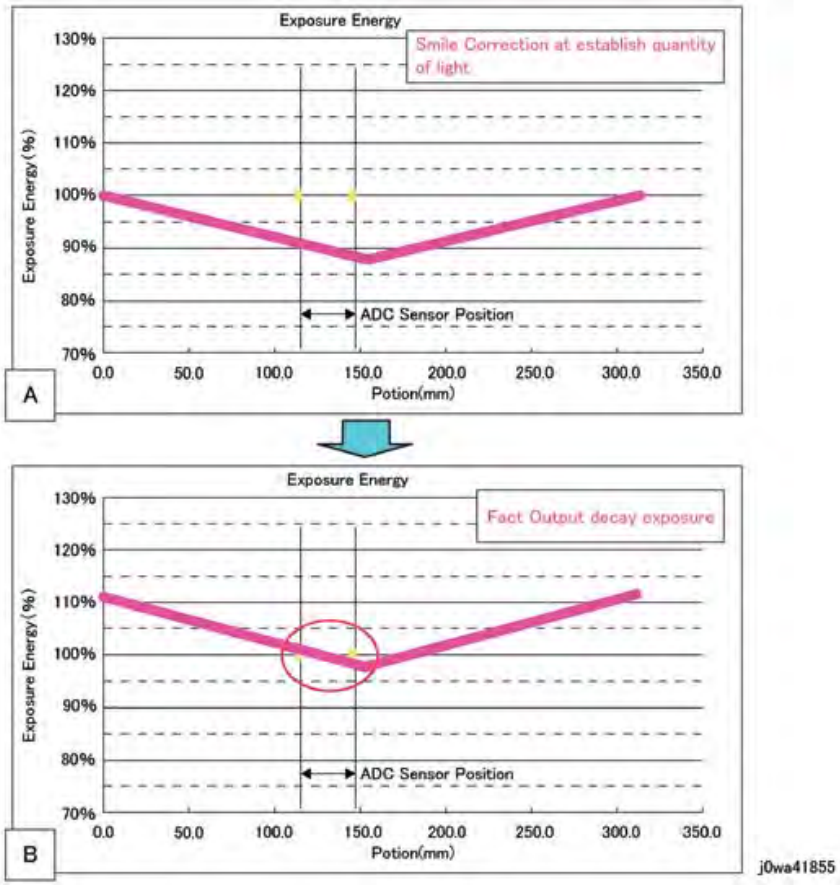


Figure 6 Exposure Energy Measurement

As shown in Figure 6 -B, the control is such that the final exposure at the ADC Sensor Position becomes 100 %. By this, the exposure amount that was corrected by Smile Correction (Figure 6 -A) is corrected again until it is at the actual output level (Figure 6 -B). (The figures are the exposure models when Pattern 1, Level 4 correction has been performed.)

ADJ 90.7 ATC Sensor Setup (dC950)

CAUTION: This procedure should only be performed when the ATC Sensor or Developer Housing is being replaced, **OR** when there is reason to believe that the calibration values in NVM are incorrect.

To set the calibration values **ATC Correction Coefficient**, **ATC Correction Offset** in NVM to calibrate the new ATC Sensor.

1. If an ATC Sensor or Developer Housing was replaced, perform the first procedure listed in **Adjustment**.
2. If there is reason to believe that the calibration values in NVM are incorrect, perform the following:
   a. Enter Service Diagnostic Mode.
   b. Select **Adjustments > dC950 ATC Sensor....**
   c. Select **Measurements** . (Figure 1)

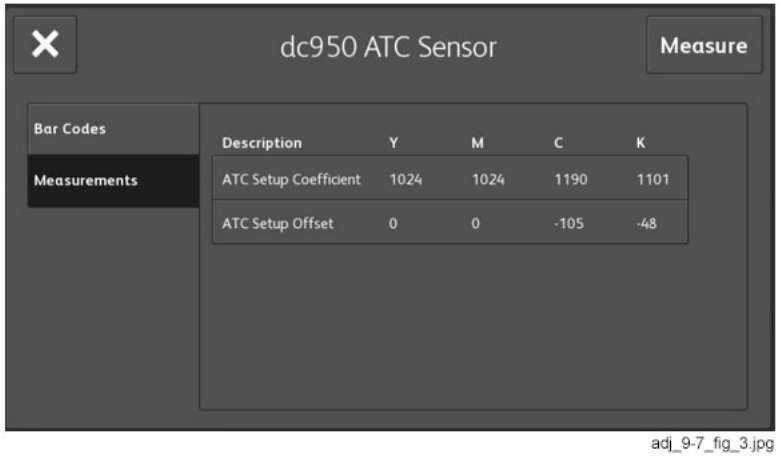


Figure 1 dc950 ATC Sensor screen, Measurements selected

   d. Check the values in the window. The default values for each color are:
      - **ATC Setup Coefficient** - 1024
      - **ATC Setup Offset** - 0
   e. If the screen displays all default values, perform the second procedure listed in **Adjustment**.
   f. If the measurement result is **not ok** , check that the ATC Sensor is connected and undamaged.

Adjustment

Procedure for new ATC Sensors

Perform these steps if you have just replaced an ATC Sensor or a Developer Housing:

1. Locate the calibration code on the ATC Sensor. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
2. Enter Service Diagnostic Mode.
3. Select **Adjustments > dC950 ATC Sensor....**

4. Press **Bar Codes** . (Figure 2)

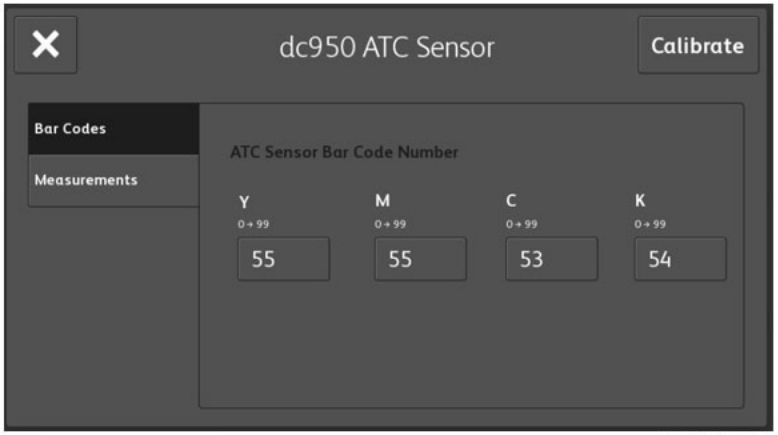


Figure 2 dc950 ATC Sensor screen; Bar Codes selected

5. Enter the last 2 digits of the calibration code in the appropriate field on the display (the data entry button under Y, M, C, or K). Touch the data entry button to launch the numeric keypad. Enter the calibration code using the numeric keypad. (Figure 3)
6. Press **Calibrate** . (Figure 3)

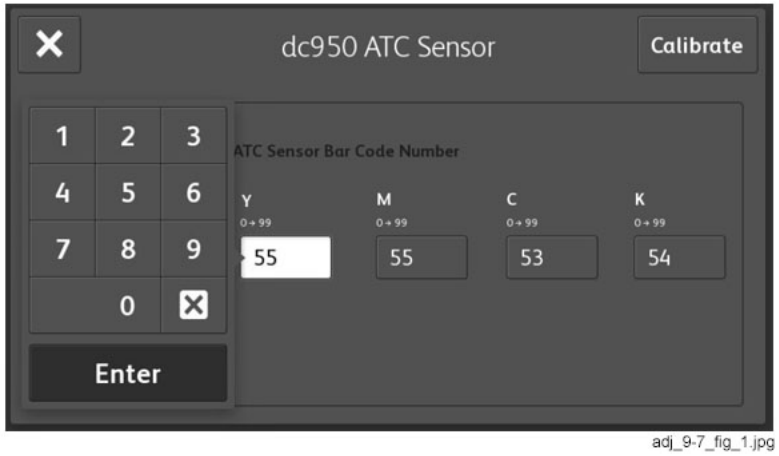


Figure 3 Entering the ATC Sensor calibration code

Procedure to restore ATC Calibration values
Perform steps 1 or 2, as appropriate, if you need to restore ATC Sensor NVM calibration values:

1. If a known good Machine Settings file exists, use it to restore Machine Settings.
2. If a known good file is not available, if one or more ATC Sensors have been replaced, or if you are not sure of the replacement status, perform the following:
   a. Remove the Developer Housings (REP 90.3).
   b. Locate the ATC Sensor calibration code on the ATC Sensor. This is the 3-digit number in the 3rd line of text on the label (it will always start with a zero).
   c. Enter Service Diagnostic Mode.
   d. Select **Adjustments** > **dC950 ATC Sensor**....
   e. Press **Bar Codes** . (Figure 2)
   f. Enter the last 2 digits of the calibration code in the appropriate field on the display (the data entry button under Y, M, C, or K). Touch the data entry button to launch the numeric keypad. Enter the calibration code using the numeric keypad. (Figure 3)
   g. Press **Calibrate** . (Figure 3)

ADJ 90.8 ATC Developer Setup (dC949)

Immediately after the replacement of a Developer Housing with known toner density, this sets the ATC Target Value by having the ATC Sensor measure the toner density of the developer. This can also work as the check function of the ATC Sensor.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select**dC949 ATC Developer Setup...** . (Figure 1)

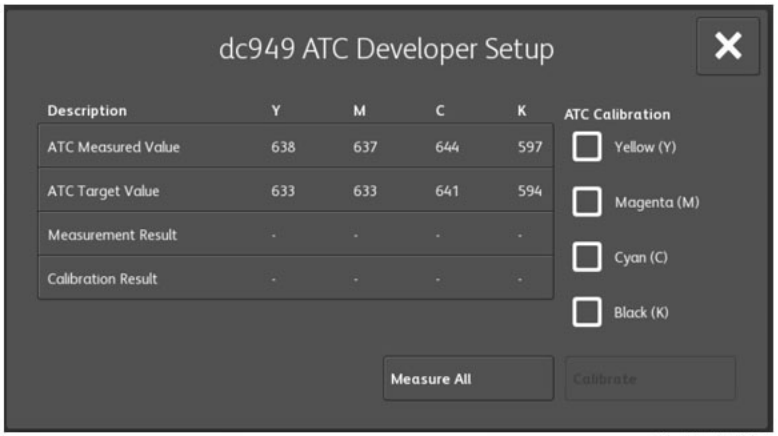


Figure 1 dc949 ATC Developer Setup screen

4. Select the **Measure All** button. When the measurement process completes, check the display. (Figure 2)
   - If any colors are showing a **Measurement Result** that is not **OK** , continue with step 5.
   - If all colors are **OK** , the process is complete.

Figure 2 Measurement Result OK

5. Under the heading **ATC Calibration**, select the color(s) to be set up by touching the checkbox (es) for the color(s). Selected colors will show a check mark in the box. (Figure 3)
6. Select the **Calibrate** button. (Figure 3)

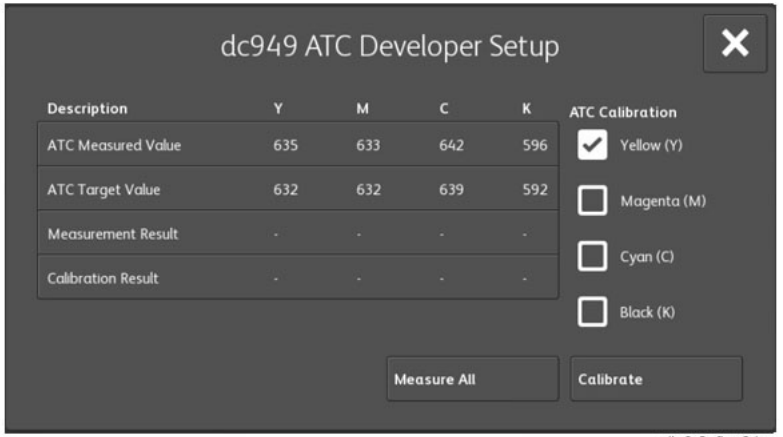


Figure 3 ATC Calibration checkbox selected

7. When the routine completes, the screen will display:
   - **ATC Measured Value**
   - **ATC Target Value**
   - **Measurement Result** - If this is **not ok** , check that the ATC sensor is connected and undamaged.
   - **Calibration Result** - If this is **not ok** , check that the ATC sensor is connected and undamaged.
8. Refer to the RAPs in Chain 392 to troubleshoot ATC problems.

ADJ 90.9 Color Registration Measurement Cycle (dC671)

To measure the color registration and display the status by indicating **ok /not ok**.

This cycle performs the color Registration measurement that includes the detection of AC components to determine the condition of AC control (Drum Drive, Belt Drive, etc.), which is one of the color Registration components.

Note: Correction is not performed.

- Performs Registration measurement to determine the condition of the AC control.
- Checks that the Belt control, etc., are operating normally.
- Measures/displays the amount of color shift relative to Black in the Fast Scan/Slow Scan direction.
- Displays the result of comparison with the target value as **ok /not ok**.

Adjustment

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC671 Measurement Cycle**....
4. Select **Shift Amount**.
5. Press **Start**. **OK** or **not ok** will be displayed in the **Judgement** column. (Figure 1 and Figure 2)

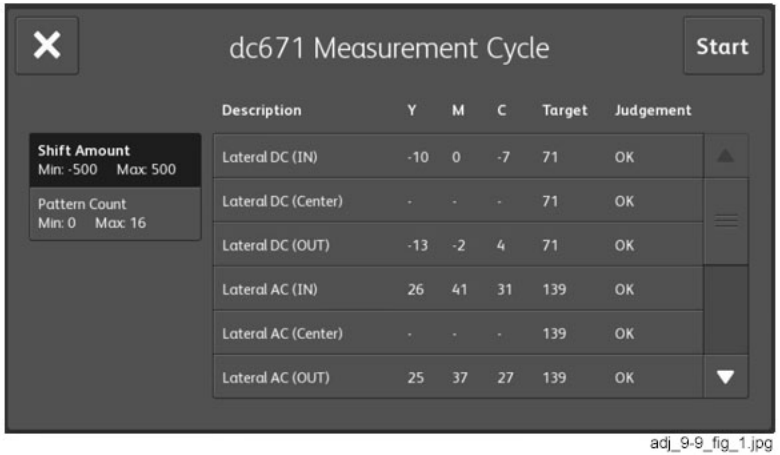


Figure 1 dc671 Measurement Cycle screen (1 of 2) (scrolled up)

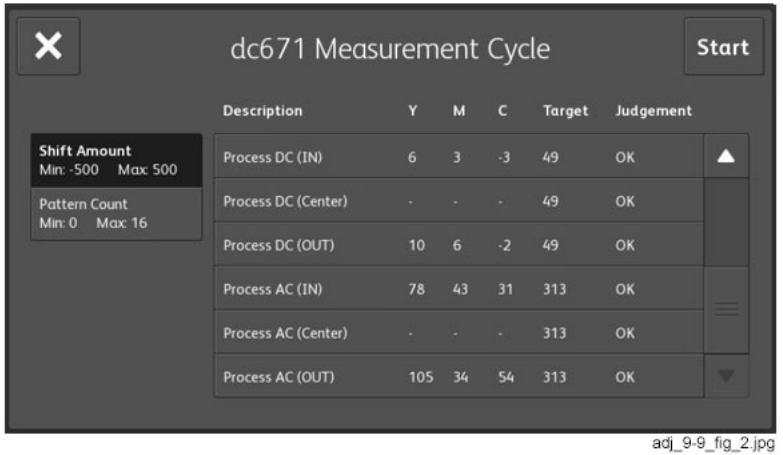


Figure 2 dc671 Measurement Cycle screen (2 of 2) (scrolled down)

If **not ok** is displayed:

1. Select the **Service Information** button and use dC120 **Fault Counters** and dC122 **Fault History** to display fault information.
2. Examine the fault listings to see if there are any Chain 389 fault codes.
3. Troubleshoot these codes and repeat this adjustment.
4. If there are no Chain 389 fault codes, or if troubleshooting the codes clears them but the result is still **not ok**, call service support for assistance.

ADJ 90.10 Color Registration Control Setup Cycle (dC675)

To set the most appropriate Registration Control correction value for skew, etc., at setup or after the replacement of any of the following:

- LPH
- 2nd BTR
- Transfer Belt
- IBT Cleaning Unit
- IBT Module (recommended)
- Developer

The Setup Cycle consists of the following two functions.

Function 1: Performed right after assembling or during field installation, or when replacing a key part. Also, this is a Registration Control Full Cycle that can be performed in the Diagnostic mode right after the NVM is initialized. Executing this function corrects the Color Registration into the predefined range. The corrected shift amount for each color is saved in the NVM and it is displayed at normal completion.

Function 2: On entering a setup cycle, the IOT does not start. The Registration Control shift correction amount is displayed automatically on the UI screen and is used as a tool for determining the cause when a failure occurs.

Adjustment

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC675 Registration Control Setup....**
4. Select **Setup** . (Figure 1)
5. Select **Start** . (Figure 1)

   The shift amount for each color is corrected automatically.

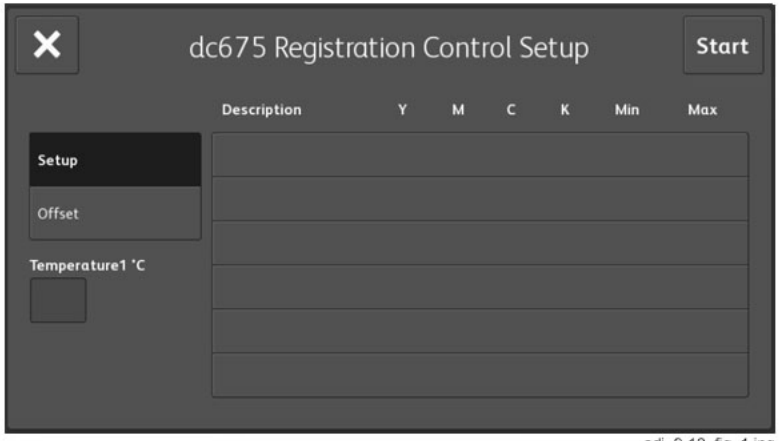


Figure 1 dc975 Registration Control Setup screen

6. Perform ADJ 90.9 Color Registration Measurement Cycle (dC671).

ADJ 90.11 Color Registration Control Sensor Check Cycle (dC673)

This is a self-diagnostic cycle for checking that the misregistration detection system (MOB Sensor) is operating normally. The color shift amount is detected using Cyan patch. Any misregistration detected in the MOB sensor is displayed on the screen.

This detection result is compared again with the target value to determine the pass/fail (**ok /not ok**) status. Correction is not performed.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC673 Registration Control Sensor Check....**
4. Select **Start**.
5. When the test completes, the results will be displayed. (Figure 1 and Figure 2)

   If the measured value for any parameter is out of range, **not ok** displays in the **Judgement** column.

   - If **not ok**, check that Cyan is being printed; if yes, replace the MOB Sensor Assembly.
   - If Cyan is not being printed, there is a problem in Development or 1st Transfer.

Figure 1 dc673 Registration Control Sensor Check results (scrolled up)

Figure 2 dc673 Registration Control Sensor Check results (scrolled down)

ADJ 90.12 Copy Color Balance Manual Adjustment (dC919)

To adjust Copy Mode Color Balance to meet the customer's preference, by increasing or decreasing the center value for each color (YMC), in low density, medium density, and high density ranges.

CAUTION: Perform this adjustment only to correct a strong customer complaint. Altering the setpoints will affect Copy, but will have no effect on Print mode. Also, there is quite a bit of overlap between the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.

Ensure that the customer is aware and agreeable to the fact that performing this adjustment will permanently alter the copy output of the machine, and will not have any effect on printer output.

The only way to change the output characteristics or return them to the default will be on a subsequent service call.

Note: If dC919 values are changed from default, then the user will be unable to save changes to the ADJ 90.13 TRC Manual Adjustment (dC924). The normal setup sequence requires that the coarse adjustment via TRC Manual Adjustment (dC924) be performed first, followed by the fine IIT scanner adjustment via (dC919) If the TRC Manual Adjustment (dC 924) has not been performed, do so now and return to this adjustment

Note: Verification of adjustment should be performed in normal customer mode after diagnostic exit and the machine has been power cycled. The current values for Color Balance displayed on the Local UI for Color Balance Feature will stay at their current values. DC919 is an additional diagnostic that is applied on top of the Color Balance feature.

Note: The adjustments made in this procedure will have no effect on output made using the B/W mode.

Note: For this procedure, use two originals to implement and verify the process.

- Obtain a customer original that clearly shows the area, color, and density that the customer wishes changed.
- Use the density gradient section located in the lower half of the Color Test Pattern 82E13120.

Before beginning the procedure, if possible, mark the customer original to differentiate it from copies.

1. While still in customer mode, change the machine settings to Basic Copier Mode (Table 1).

Table 1 Basic Copier Mode Settings

Item Name	Setting
Output Color	Auto Detect
Reduce/Enlarge...	Auto %
Original Type...	Photo and Text
Original Type...More...How Original was Produced	Printed Original
Lighten/Darken	Normal
Sharpness	Normal
Saturation	Normal
Background Suppression	Off

Item Name	Setting
Contrast: Manual Contrast	Normal
Color Presets...	Off
Color Balance...	Normal
Image Shift...	Off

2. Make 2 copies each of the Color Test Pattern and the customer original (4 copies total) and mark them “Before.”
3. Enter Service Diagnostic Mode.
4. Select **Adjustments**.
5. Select **dc919 Color Balance Adjustment....**
   The dc919 Color Balance Adjustment screen displays. (Figure 1)

Figure 1 dc919 Color Balance Adjustment screen

6. Evaluate the areas of the customer original and the two copies that the customer wishes to change and determine which color or colors to change, and in which density levels, low, medium or high, to make the changes. Use the information in the following note to aid in your determinations.

Note:

- The changes that can be made with this adjustment are fairly small and may be hard to see, especially in the mid to high density areas of the output.
- Deciding what colors to change is usually a somewhat subjective judgement as to color and density, unless the customer has readings from a colorimeter and a densitometer and has specific color and density data available. Use the principles learned in basic color theory as to which combinations of C M Y produce particular R G B colors to make the determination as to which C M Y color or colors to change.
- Color changes will be more pronounced and easier to see in R, G or B areas of the output than in the areas that are closer to pure C, M or Y.
- As you make the changes, be aware of density and color changes that may be occurring in other areas of the customer’s original.
- If a particular color is not present in the customer’s original, changes to that color will not appear in the copy output for that original. Use the copies made from the Color Test Pattern to evaluate changes that may be occurring to colors and densities not present in the customer’s original.
- Changing K will not change any hue, but will affect all colors in terms of density.

7. Select **Read Values** to get the current values.

   Note: Selecting **Reset Values** will return ALL values to 0.

8. For each color, enter in the new values for **Low**, **Medium** , and **High** . The default is 0, and the range is from -3 to +3.
9. Select **Write Values** to save the values entered.
10. Perform a Call Closeout, then switch the machine power off then on.
11. Make 2 copies of each original. Ask the customer if the desired result is achieved. If the desired result has been achieved, record the values for C M Y in the Service Log.
12. If desired image quality has not been achieved, compare and evaluate the density changes that will be seen by comparing the C M Y areas of the copies with the Color Test Pattern, and color and density changes that will be seen by comparing copies with the R G B areas of the Color Test Pattern to aid in determining what further changes to make.
13. Repeat steps 2 through 12 until the customer is satisfied with the image quality.

ADJ 90.13 TRC Manual Adjustment (dC924)

To adjust image quality (TRC) to meet the user's preference, by increasing or decreasing the center value of gradation correction for each (YMCK) color, in low density, medium density, and high density ranges.

CAUTION: Perform this adjustment only to correct a strong customer complaint. Altering the set points will affect both Print and Copy modes. Also, there is quite a bit of overlap between the low, medium, and high densities. For these reasons, it is recommended that this procedure not be used unless absolutely necessary.

Ensure that the customer is aware and agreeable to the fact that performing this adjustment will permanently alter the copy and printer output of the machine.

The only way to change the output characteristics or return them to the default will be on a subsequent service call.

Note: The adjustments made to K in this procedure will have an effect on output made using the B/W mode.

Note: There is interaction between this adjustment and the settings made in dC919 for copy output. If this adjustment is made, it may be necessary to perform dC919 to achieve desired customer image quality results for copying.

Note: Before starting this adjustment procedure perform the following:

- Ensure that the machine has been well maintained (clean the optics, verify that IIT replacements were done completely and correctly, verify that HFSI is up to date)
- Perform ADJ 90.10 Color Registration Control Setup Cycle (dC675)
- Perform ADJ 60.5 IIT Calibration (dC945)
- Perform ADJ 90.8 Default Developer ATC Setup (dC949)
- Perform ADJ 90.7 ATC Sensor Setup (dC950)

1. While still in customer mode, change the machine settings to Basic Copier Mode (Table 1).

Table 1 Basic Copier Mode Settings

Item Name	Setting
Output Color	Auto Detect
Reduce/Enlarge...	Auto %
Original Type...	Photo and Text
Original Type...More...How Original was Produced	Printed Original
Lighten/Darken	Normal
Sharpness	Normal
Saturation	Normal
Background Suppression	Off
Contrast: Manual Contrast	Normal
Color Presets...	Off
Color Balance...	Normal
Image Shift...	Off

2. Print 2 copies of the customer file that they are using as their image quality standard and mark them "Before."
3. Enter Service Diagnostic Mode.
4. Select **Adjustments**.
5. Select **dC919 Color Balance Adjustment...** and perform the following:
   a. Press the **Read Values** button, and read the low, medium and high density values for C M Y and K. If all values are zero, proceed to step 7.
   b. Record any values that are not zero.
   c. Select Reset Values.
6. Close dC919 and select dC924.
7. Select **Adjustment Options > Enabled** . (Figure 1)

Figure 1 dc924 TRC Manual Adjustment screen

8. Select **Read Values** to get the current values of low, medium and high density for each color.

   Note: Selecting **Reset Values** will return ALL values to 0.

9. Evaluate the areas of the customer original and the 2 copies that the customer wishes to change and determine which color or colors to change, and in which density levels, low, medium or high, to make the changes. Use the information in the following note to aid in your determinations.

Note:

- Deciding what colors to change is usually a somewhat subjective judgement as to color and density unless the customer has readings from a colorimeter and a densitometer and has specific color and density data available. Use the principles learned in basic color theory as to which combinations of C M Y produce particular R G B colors to make the determination as to which C M Y color or colors to change.
- Color changes will be more pronounced and easier to see in R G or B areas of the output than in the areas that are closer to pure C M or Y
- As you make the changes, be aware of density and color changes that may be occurring in other areas of the customer's original.
- If a particular color is not present in the customer's original, changes to that color will not appear in the copy output for that original. Use the copies made from the Color Test Pattern to evaluate changes that may be occurring to colors and densities not present in the customer's original.
- Changing K will not change any hue, but will affect all colors in terms of density.

10. For each color, enter in the new values for **Low**, **Medium** , and **High** . The default is 0, and the range is from -128 to +127.
11. Select **Write Values** to save the values entered.
12. Perform a Call Closeout, then switch the machine power off then on.
13. Make 2 prints. Ask the customer if the desired result is achieved.
14. Repeat steps 2 through 12 until the customer is satisfied with the image quality.
15. If any non-zero values were recorded in step 5 , perform the following:.
    a. Enter Service Diagnostic Mode.
    b. Select **Adjustments**.
    c. Select **dC919 Color Balance Adjustment....**
    d. Re-enter the values recorded in step 5 for each color. Be sure to select Write Values before moving on to the next color.
16. Perform a Call Closeout, then switch the machine power off then on.
17. Ask the customer to make a copy using an original that they normally use to check image quality. If the customer is satisfied with image quality, return to the CALL FLOW RAP XXX.
18. If the customer is not satisfied with image quality, perform the procedure ADJ 90.12 Color Balance Manual Adjustment (dC919)

ADJ 90.14 Tone Up/Tone Down (dC991)

This procedure manually increases or decreases toner concentration (TC). It is used when a xerographic problem or out-of-toner condition has prevented process control from maintaining the TC target value.

This procedure does not change any parameters; it performs a one-time change to TC. It is important that the problem that caused the low or high TC condition is resolved before performing this adjustment.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC991 Tone Up / Tone Down....**
4. Compare the values for **ATC Average** with the values for **ATC Target** . (Figure 1)
   If the values differ by more than 30 for Y, M, C, or K, perform the **Adjustment**.

Figure 1 dc991 Tone Up / Tone Down screen

1. Ensure that at least one tray has paper loaded. If no paper is loaded in the machine, the procedure will hang until paper is added to one of the trays.
2. Select the color to be corrected.

   Note: Adjust one color at a time.
3. Use the arrow keys to enter a + or - value for the selected color (the range is -99 to +99).

   Note: The **Start** button will enable when a number other than **0** is entered for the selected color.
4. Press **Start** . The machine will perform a toner density adjustment and then generate a test print.

   Note: Higher negative numbers will produce darker (higher density) test prints; higher positive numbers will produce lighter (lower density) test prints.
5. Repeat these steps as required until the difference between the **ATC Average** and the **ATC Target** is within 30 for each color. If this cannot be accomplished, there is a problem in either the toner delivery system (Dispenser, Low Toner Sensor, etc.), or in the TC detection circuitry.

ADJ 90.16 MAX Setup

This procedure checks, and, if necessary, adjusts, several Image Quality factors so that optimum copy and print quality can be consistently obtained, by stabilizing the development potential and copy density.

1. Reset ADJ 90.13 TRC Manual Adjustment values (dC924) to midpoint (0).
2. Perform the ADJ 90.3 ProCon On/Off Print (dC937). If the check is good, go to step 5.
3. If the prints display any Inboard-to-Outboard density variation, perform the Adjustment.
4. If Print quality is OK but Copy quality is bad, perform the **IIT Procedures** portion of the Adjustment.
5. Perform the following as required by the customer: ADJ 90.13 TRC Manual Adjustment values (dC924). The adjustment is complete. DO NOT perform the Adjustment unless problems are encountered in this Check.

Max Setup consists of several separate procedures that should be performed in the following sequence:

IOT Procedures

1. Verify the ADJ 90.7 ATC Sensor Setup (dC950), then proceed to step 2 . Ensure that the calibration codes have not been reset to the default values.
2. Perform the ADJ 90.3 ProCon On/Off Print check (dC940), then proceed to step 3.
3. If the prints display any Inboard-to-Outboard density variation go to dC612. Print out test pattern **#12** . Evaluate the prints for inboard-to-outboard density variation. If problems are observed, perform ADJ 90.6 Color Registration Control Sensor Check Cycle (dC673), then proceed to 4.
4. If Print quality is OK but Copy quality is bad, go to the **IIT Procedures** ; otherwise proceed to step 5.
5. Perform the following as required by the customer: ADJ 90.13 TRC Manual Adjustment values (dC924).

IIT Procedures

Perform these steps ONLY if sent here from the **IOT Baseline Checks** . IIT Calibration **SHOULD NOT** be performed as a routine part of the Adjustment.

1. If any IIT or IPS repairs were performed, perform the ADJ 60.5 IIT Calibration (dC945), then proceed to step 2.
2. Make a copy of the ProCon On pattern that was printed in 2 of the Baseline Checks. Compare the copy to the original print. Return to 5 of the IOT Procedures.

ADJ 90.17 Paper Calibration (dC1215)

Adjusts the 2nd Image Transfer Power output (ATVC) to compensate for thick or specialty media. Use **dC1215** to correct the following types of defects on simplex and duplex prints:

- Low density
- Foggy background
- Voids
- White spots

Table 1 Relationship Between UI Classification and Paper Type (Factory Settings)

UI Classification	Paper Type
Plain	Plain B
Hole Punched	
Transparency	
Pre-Cut Tabs	
Lightweight Cardstock	
Lightweight Cardstock Reloaded	
Cardstock	
Cardstock Reloaded	
Recycled	
Labels	
Light Glossy Cardstock	
Light Glossy Card Reload	
Glossy Cardstock	
Glossy Card Reloaded	
Letterhead	
Pre-Printed	
Bond	Plain
Heavyweight Labels	
Envelope	
Custom Type 1	User Defined
Custom Type 2	User Defined
Custom Type 3	User Defined
Custom Type 4	User Defined

UI Classification	Paper Type
Custom Type 5	User Defined
Custom Type 6	User Defined
Custom Type 7	User Defined
Other	
Heavy Glossy Cardstock	
Heavy Glossy Card Reload	
Extra Heavy Labels	
Heavyweight Cardstock	
Heavy Cardstock Reloaded	
Postcard	

1. Load 11x17/A3 paper, of the type to be adjusted, into one of the paper trays.
2. Enter Service Diagnostic Mode.
3. Select **Adjustments**.
4. Select **dc1215 Calibrate for Paper....**
   The **dC909 Calibrate for Paper** screen displays.
5. Follow the on screen instructions.
6. Select **Test Print** to output the Test Pattern.

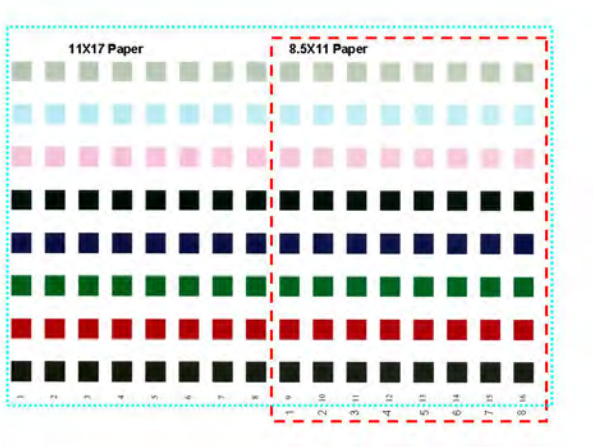


Figure 1 Test Pattern

Note: The Test Pattern is meant to be printed on 11x17/A3 paper; portions of the pattern may be missing when printed on other sizes. LTR/A4 LEF only shows the latter half of the pattern; although the patch number at the paper lead edge is **9** , the transfer output will be printed as **1**.

7. Select what you would consider as the best value from the columns (1-16) on the Test Pattern. The selection criteria are:
   a. Whether there are any white spots in the K color patch (white spots indicate excessive voltage).
   b. Whether the mixed K looks bluish (if it is, it indicates insufficient voltage).
   c. Whether the halftone granularity is good (if it is bad, it indicates excessive voltage).
8. Select the **Type Offset** , using the up or down arrow buttons, to raise or lower 2nd Transfer Voltage.
9. Select **Write NVM**.
10. Select **Test Print** . Check the print quality. If it is not satisfactory, repeat this procedure until the desired outcome is achieved.
11. Select **Close** to end the routine.

ADJ 90.18 Image Size Adjustment (dC603)

The purpose of the dC603 Image Size Adjustment is to compensate for minor variations in machine speed which result in process direction elongation or compression of the image placed on the media. Compensation of image size offset in the process direction is approximately +/- 1.0mm over a 200mm length on the test pattern image.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dc603 Image Size Adjustment**....
4. Load 11x17/A3 paper of the appropriate type into Tray 1.
5. Select **Paper Type** : **Plain** (default), **LW Glossy Card**, **Light Card**, **Glossy Card**, **Cardstock**, or **HW Gloss Card** .
6. Select **Output Color**: **Color** or **Black & White**.
7. Select **Print Sample**.
8. Measure 10 grid squares on the test pattern in process direction. The measurement should be 199.8 mm (Figure 1). If the measurement is within specification, select **Done** (Figure 2). The procedure will automatically close. Otherwise, perform the **Adjustment**.

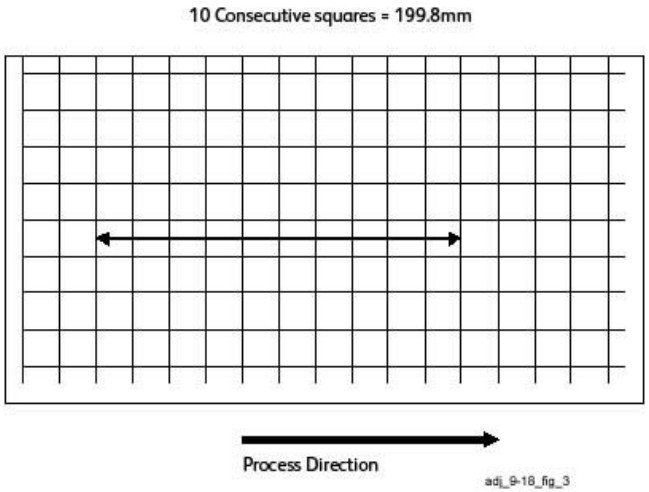


Figure 1 Image Size Adjustment Check

Note:

- Total range of adjustment is -1.0mm to +1.0mm. The actual range of adjustment is limited by the current setting.
- Successful adjustment is indicated with a message in the upper left corner of the UI.

1. If the measurement was not within specification, select **No** (Figure 2).

Figure 2 Image Size OK

2. Select **Next** (Figure 3).

Figure 3 Image Size Incorrect

3. Enter the required amount of adjustment using the arrow buttons, then select the **Print Sample** button (Figure 4).

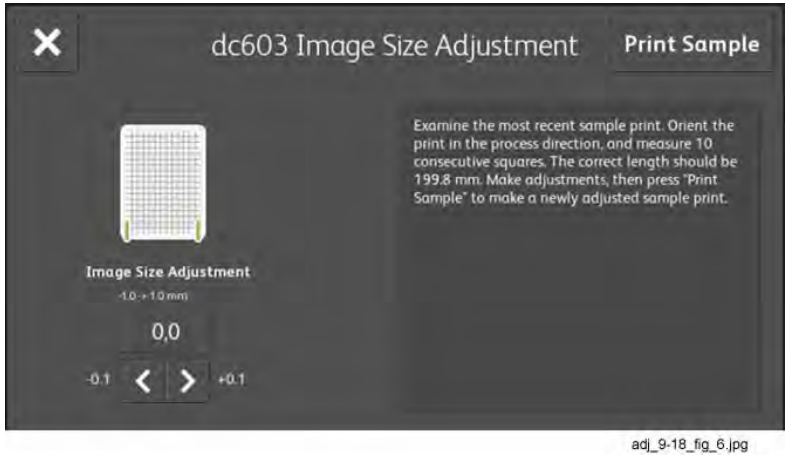


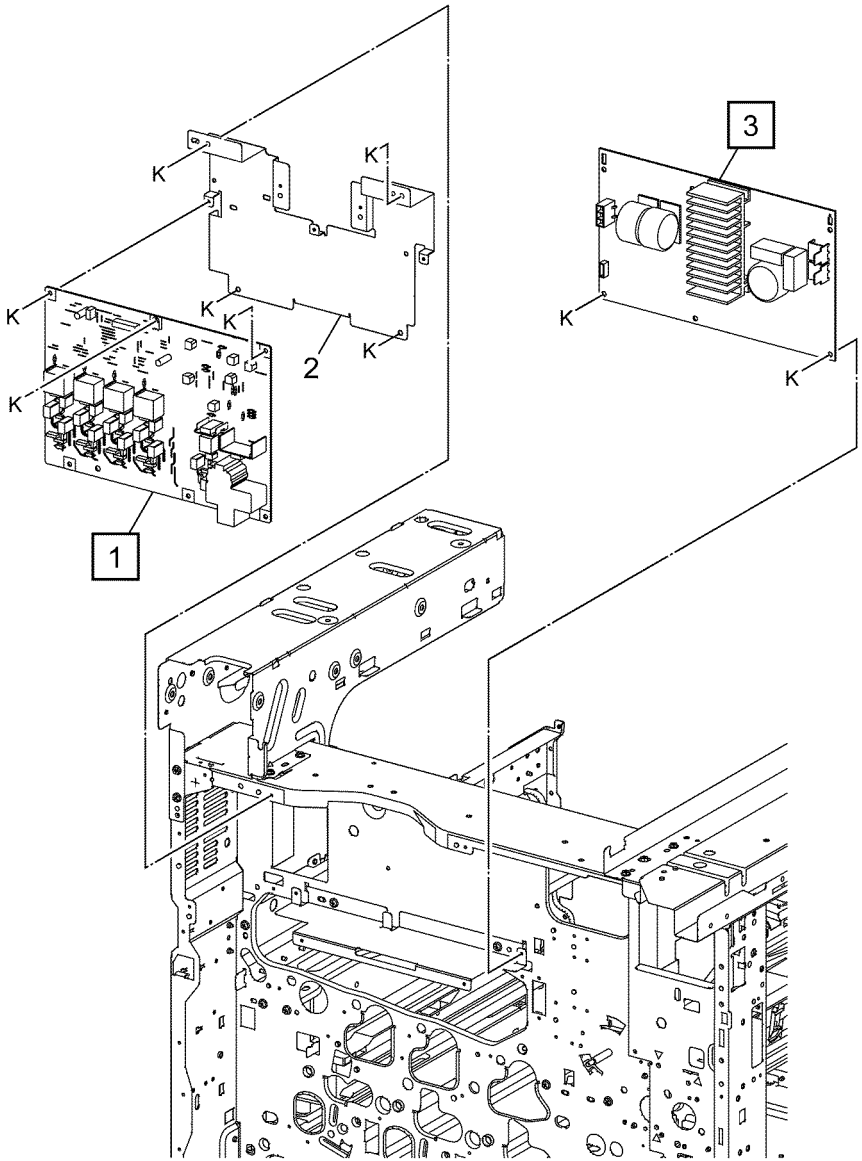
Figure 4 Adjust Image Size

4. Measure 10 grid squares on the test pattern in process direction. The measurement should be 199.8 mm (Figure 1). If the measurement is not in specification, repeat from step 1 of the **Adjustment** . If the measurement is within specification, select **Done** (Figure 2). The procedure will automatically close.

5 Parts List

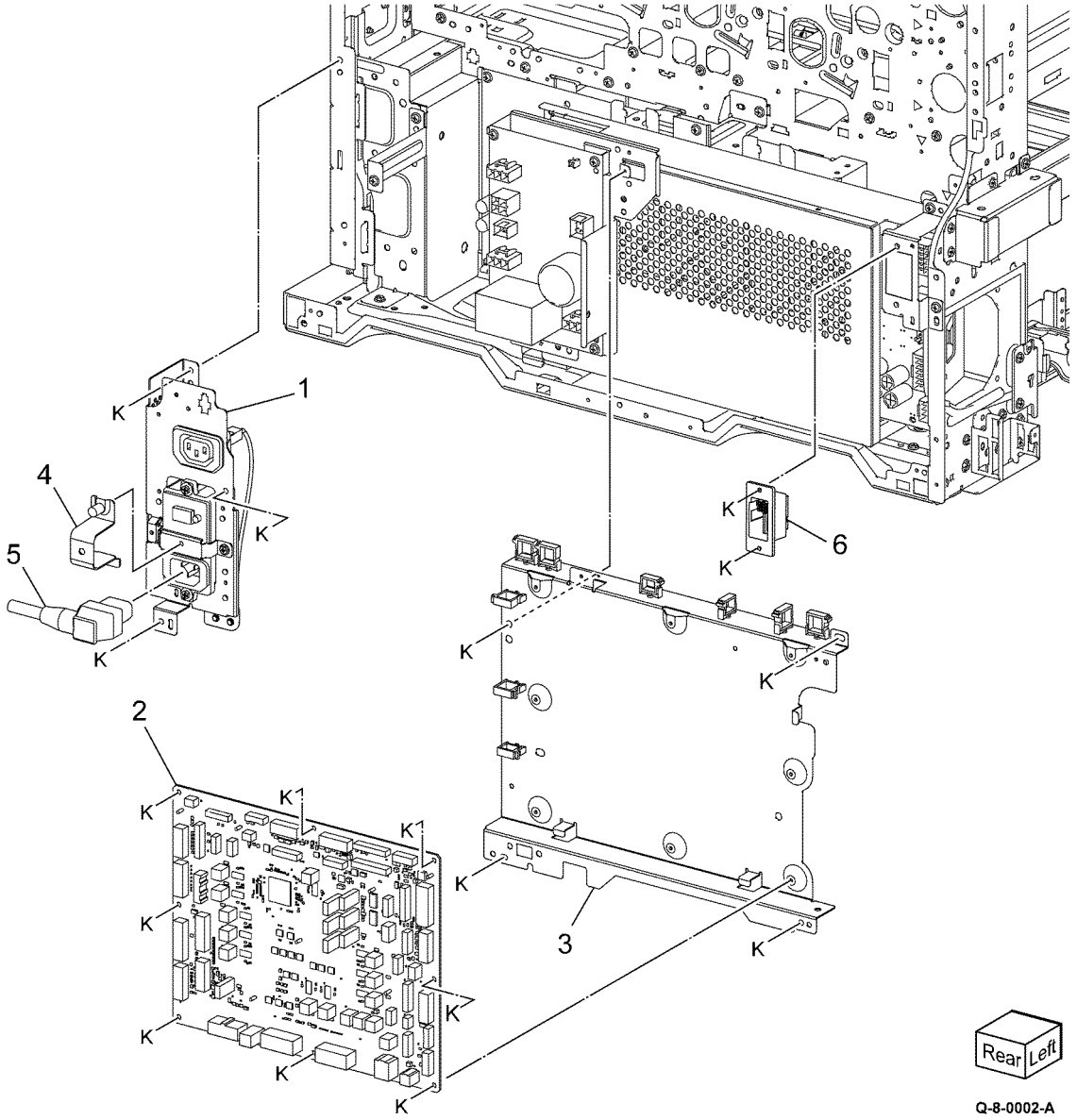
PL 1.05 Electrical - Rear (1 of 3)

Item	Part	Description
1	105E23241	BTR HVPS PWB (C8130/C8135/C8145/C8155) (REP 1.1)
—	105E23261	BTR HVPS PWB (C8170) (REP 1.1)
2	—	Bracket (Not Spared)
3	105E23510	Fuser heater power supply (110V) (C8130/C8135/C8145/C8155) (REP 1.2)
—	105E23530	Fuser heater power supply (110V) (C8170) (REP 1.2)
—	105E23521	Fuser heater power supply (220V) (C8130/C8135/C8145/C8155) (REP 1.2)
—	105E23541	Fuser heater power supply (220V) (C8170) (REP 1.2)



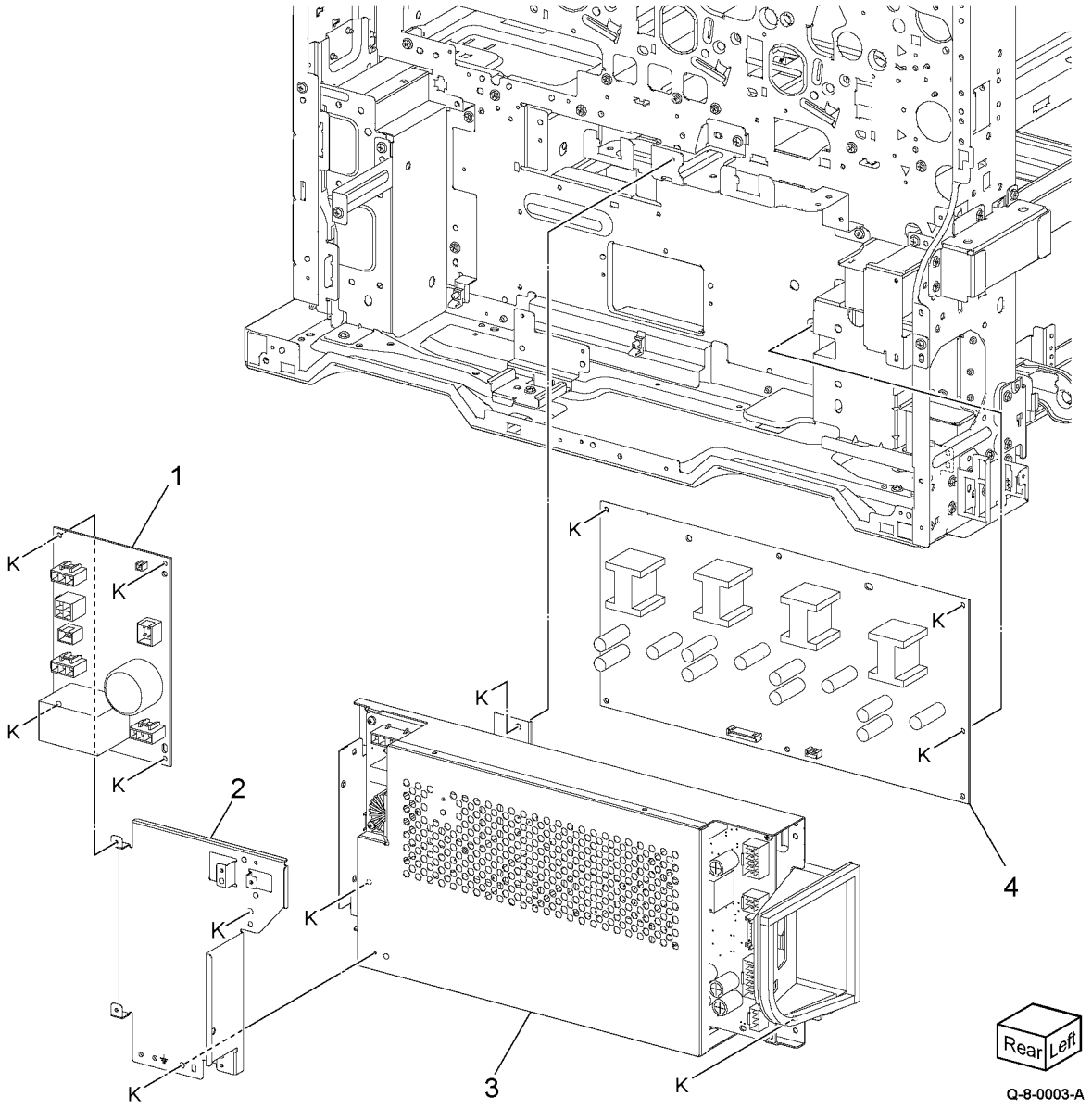
PL 1.10 Electrical - Rear (2 of 3)

Item	Part	Description
1	101K69950	GFI chassis assembly (C8130/C8135/C8145/C8155) (REP 1.3)
—	101K69960	GFI chassis assembly (C8170) (REP 1.3)
2	961K01400	Motor drive PWB (REP 1.4)
3	—	Motor drive chassis assembly (Not Spared)
4	—	Power cord bracket (Not Spared)
5	117E24670	Power cord (125V/20A) (USSG/XCL)
—	917W03005	Power cord (125V/15A) (USSG/XCL)
—	917W03102	Power cord (250V/10A) (XE)
6	—	HCF connector switch



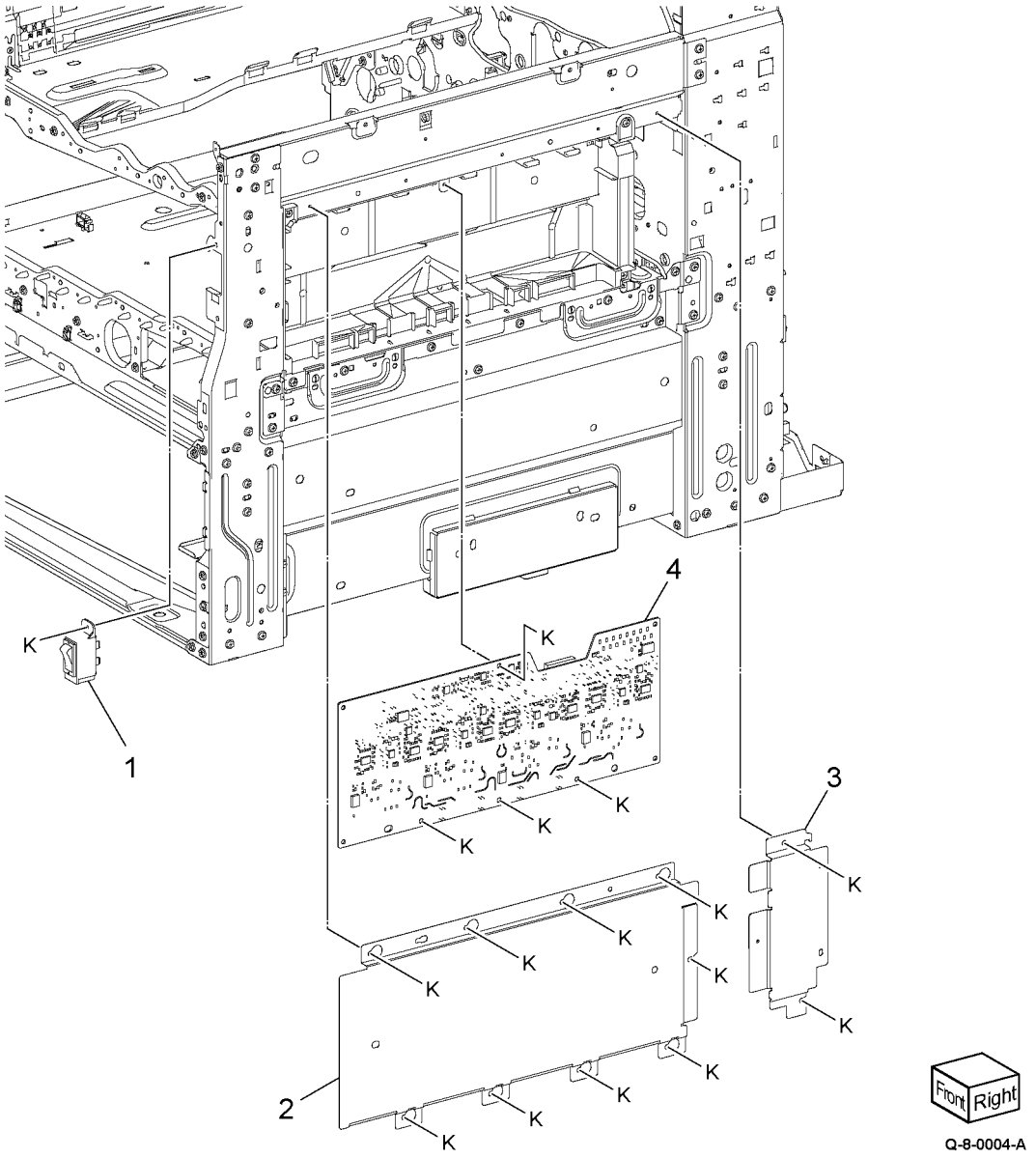
PL 1.15 Electrical - Rear (3 of 3)

Item	Part	Description
1	105K34181	AC Drive PWB (110V) (C8130/ C8135/C8145/C8155) (REP 1.5)
—	105K34200	AC Drive PWB (110V) (C8170) (REP 1.5)
—	105K34191	AC Drive PWB (220V) (REP 1.5)
2	—	AC bracket (Not Spared)
3	112K91400	LVPS (REP 1.6)
4	105E22573	Developer bias HVPS PWB (REP 1.7)



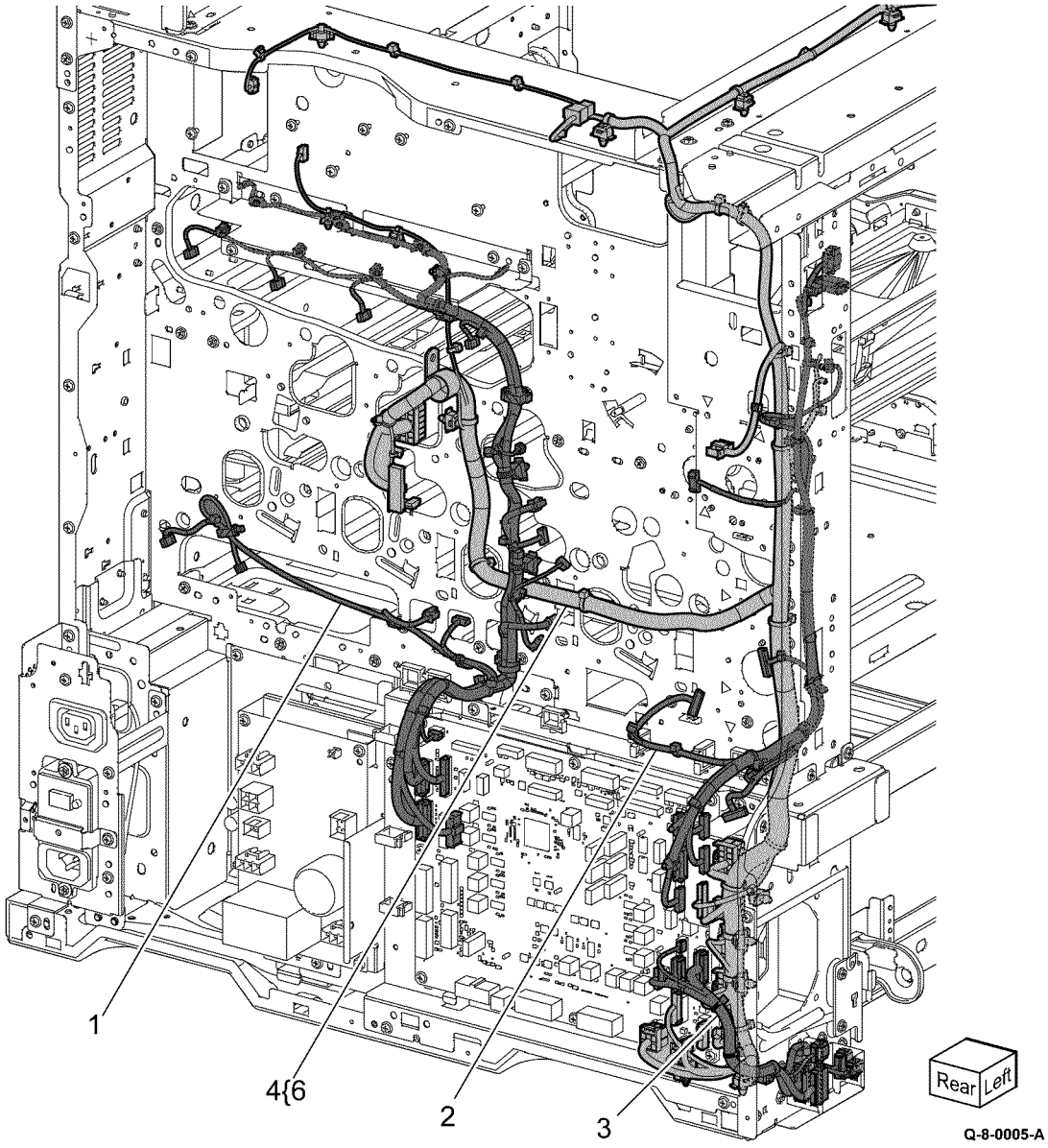
PL 1.20 Electrical - Front/Right

Item	Part	Description
1	049K46300	Main power switch (REP 1.8)
2	—	BCR HVPS cover (Not Spared)
3	—	Cover (Not Spared)
4	105E23230	BCR HVPS PWB (C8130/C8135/ C8145/C8155) (REP 1.9)
—	105E23250	BCR HVPS PWB (C8170) (REP 1.9)



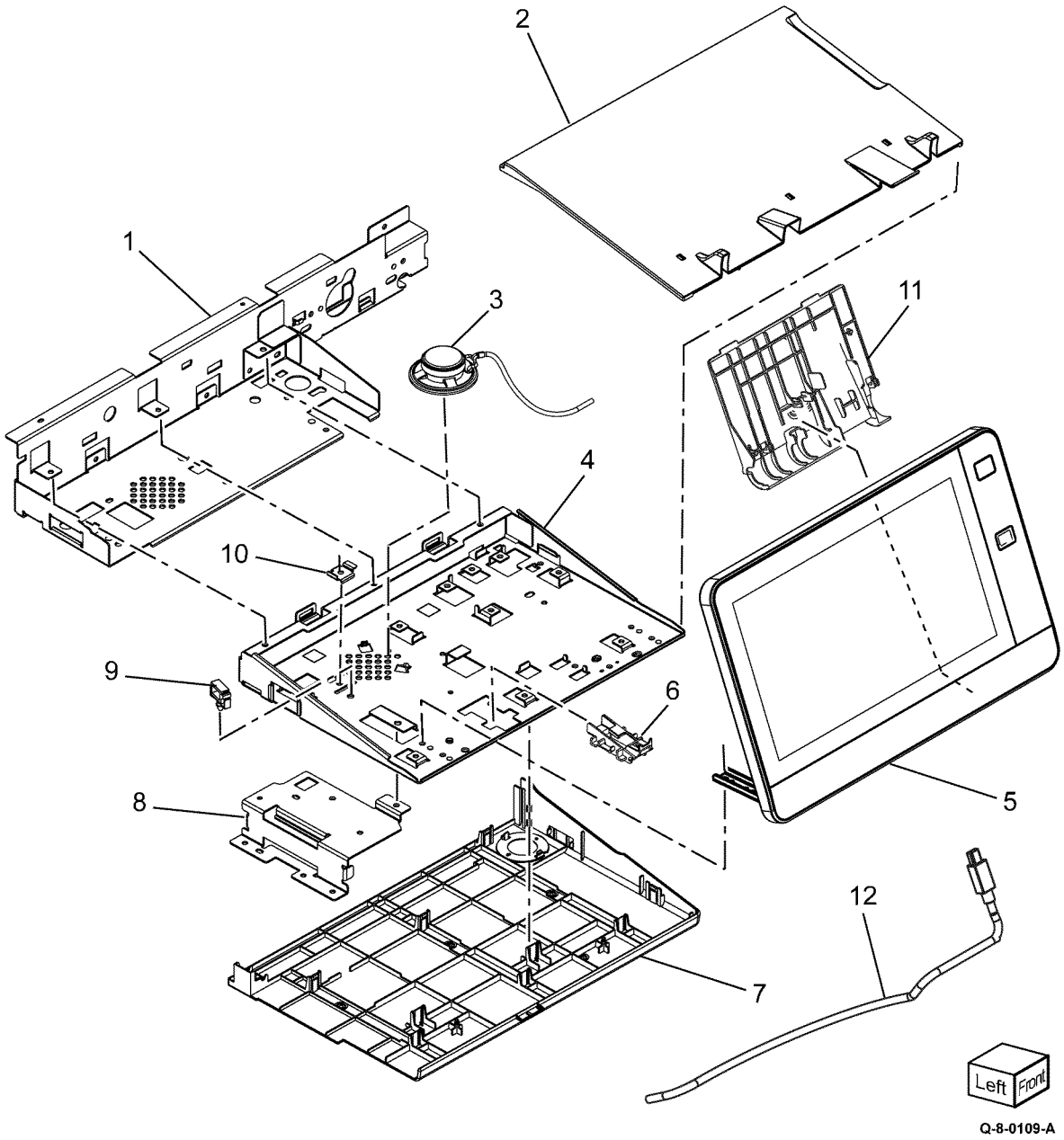
PL 1.25 Wire Harness

Item	Part	Description
1	—	Drive harness (C8130/C8135/ C8145/C8155)
—	—	Drive Harness (C8170)
2	—	PH drive harness (C8130/C8135/ C8145/C8155)
—	—	PH drive harness (C8170)
3	—	LH harness (C8130/C8135)
—	—	LH harness (C8145/C8155)
—	—	LH harness (C8170)
4	—	DC power harness (C8130/C8135)
—	—	DC power harness (C8145/C8155)
—	—	DC power harness (C8170)
5	952K13252	HCF interface harness (Not shown)
6	952K44950	Fuser harness (C8130/C8135/ C8145/C8155) (P/O PL 1.25 Item 4)
—	952K44960	Fuser harness (C8170) (P/O PL 1.25 Item 4)



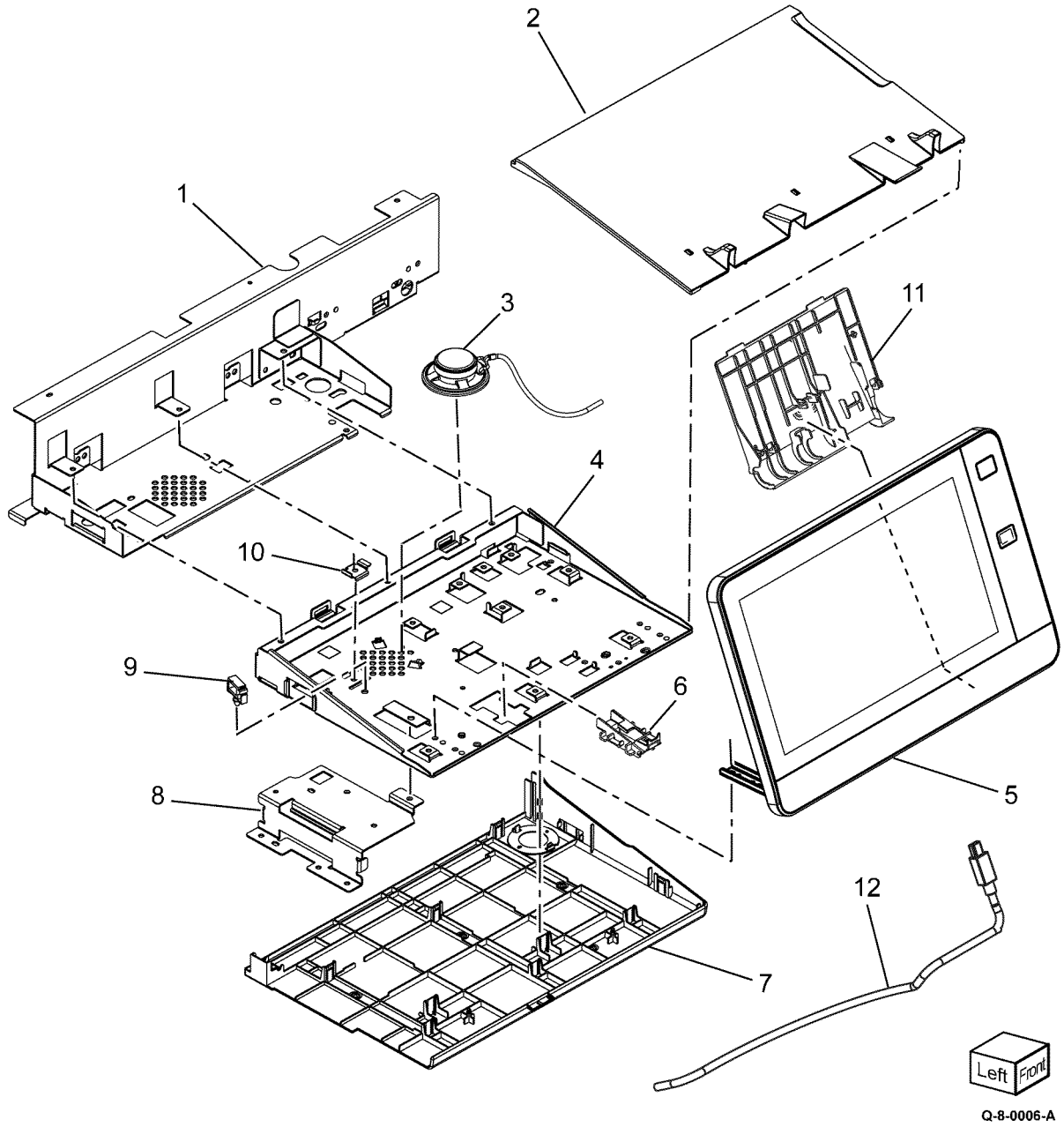
PL 2.05 User Interface (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Mounting bracket
2	—	Top cover
3	930K00420	Speaker
4	—	Base plate
5	084K43260	User interface assembly (REP 2.1)
6	—	Cable bracket
7	—	Base cover
8	—	Bracket
9	—	Cable clamp
10	—	Speaker clamp plate
11	—	Cable cover (P/O PL 2.05 Item 5)
12	952K36970	UI cable



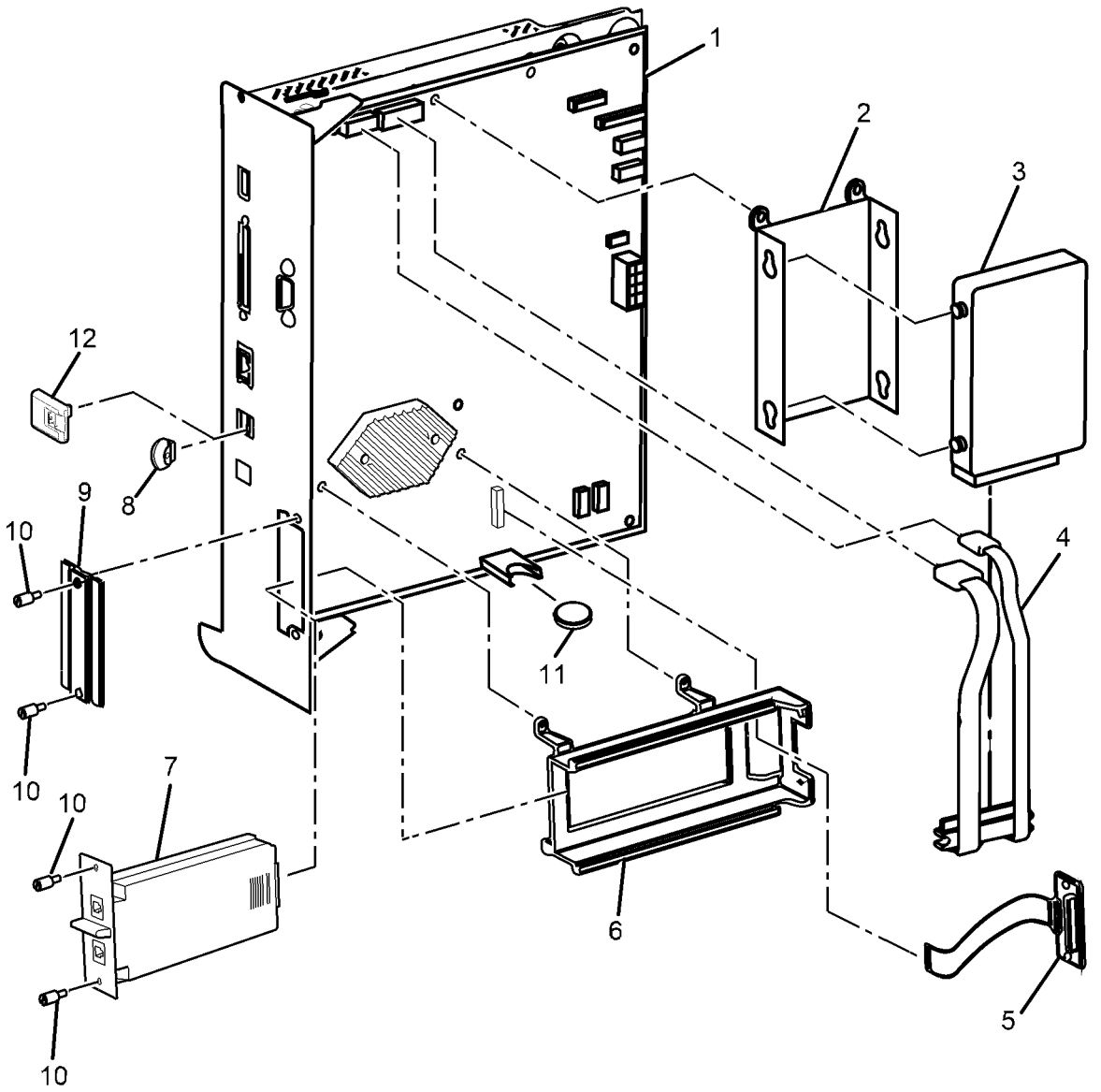
PL 2.10 User Interface (C8170)

Item	Part	Description
1	—	Mounting bracket
2	—	Top cover
3	930K00420	Speaker
4	—	Base plate
5	084K43260	User interface assembly (REP 2.1)
6	—	Cable bracket
7	—	Base cover
8	—	Bracket
9	—	Cable clamp
10	—	Speaker clamp plate
11	—	Cable cover (P/O PL 2.10 Item 5)
12	952K36970	UI cable



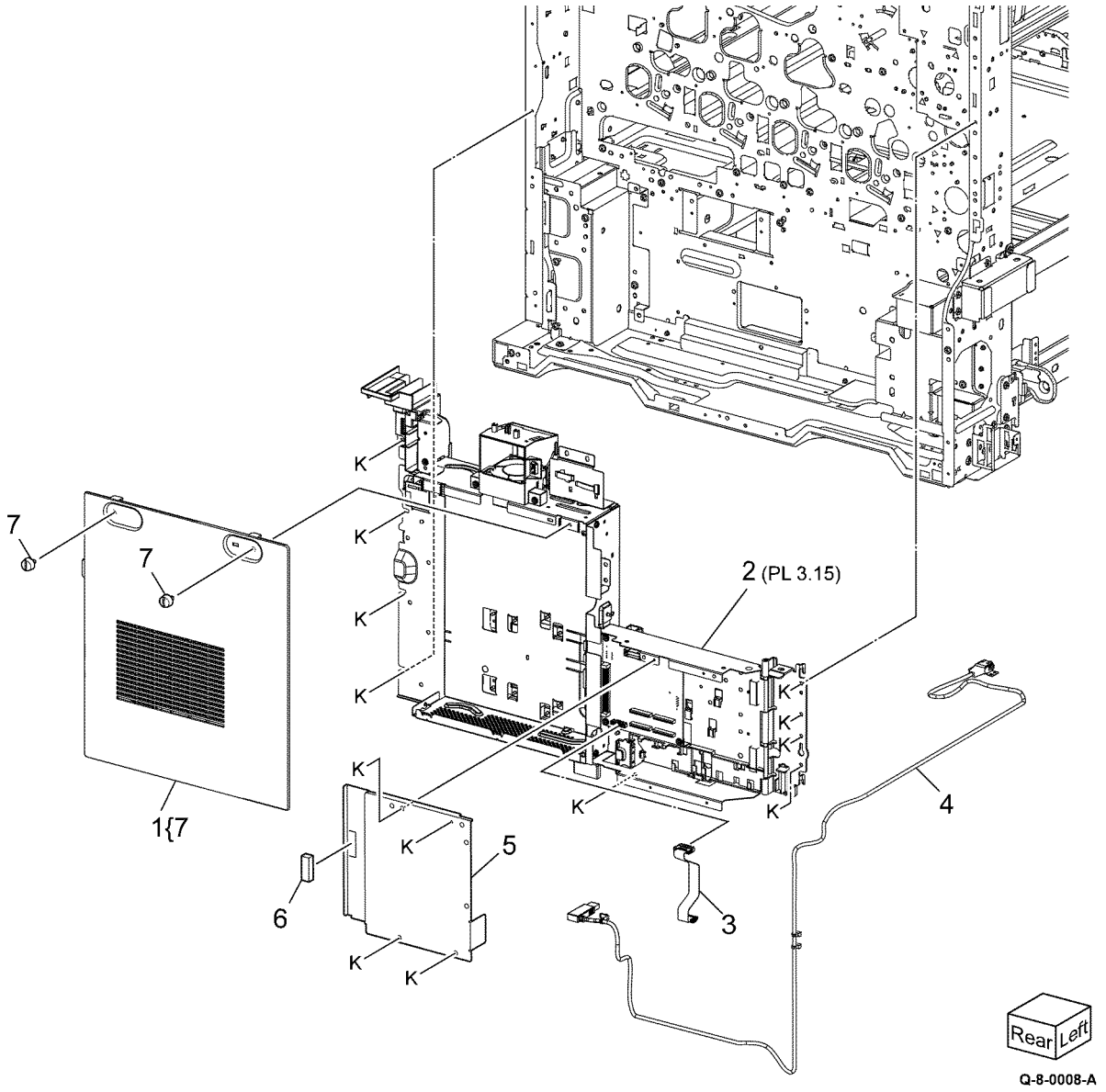
PL 3.05 Control Unit (ESS PWB)

Item	Part	Description
1	607K30340	Controller PWB assembly (C8130/ C8135/C8145/C8155) (REP 3.1)
—	607K30091	Controller PWB assembly (C8170) (REP 3.1)
2	—	HDD bracket
3	121E32860	HDD (500GB) (GSA- option)
—	121E32880	SSD (128GB)
4	962K40460	Power/Data harness
5	112K01140	Riser PWB
6	—	Fax cradle (Not Spared)
7	—	Fax module
8	—	Bluetooth dongle (P/O PL 25.10 Item 4)
9	—	Fax blanking plate
10	—	Thumbscrew
11	207E22240	Battery (CR2032- 3V)
12	—	Wi-fi dongle (P/O PL 25.10 Item 3)



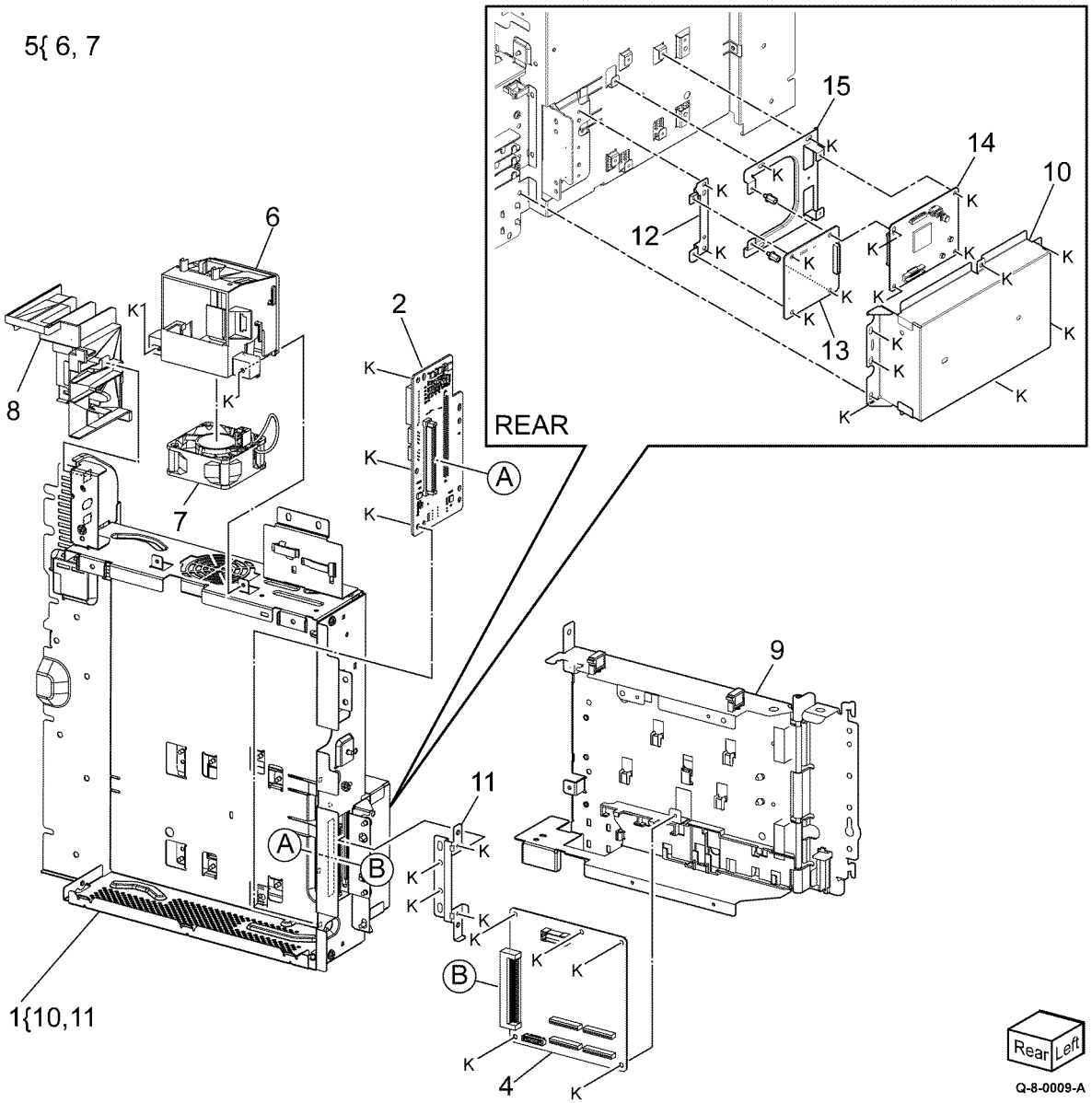
PL 3.10 Video Contact Chassis Unit

Item	Part	Description
1	—	Controller cover assembly kit
2	—	Video contact chassis assembly (Not Spared)
3	117K50450	Motor drive ribbon cable
4	117K50370	USB cable
5	—	DFE cover (Not Spared)
6	—	Shield gasket (Not Spared)
7	—	Thumbscrew (P/O PL 3.10 Item 1)



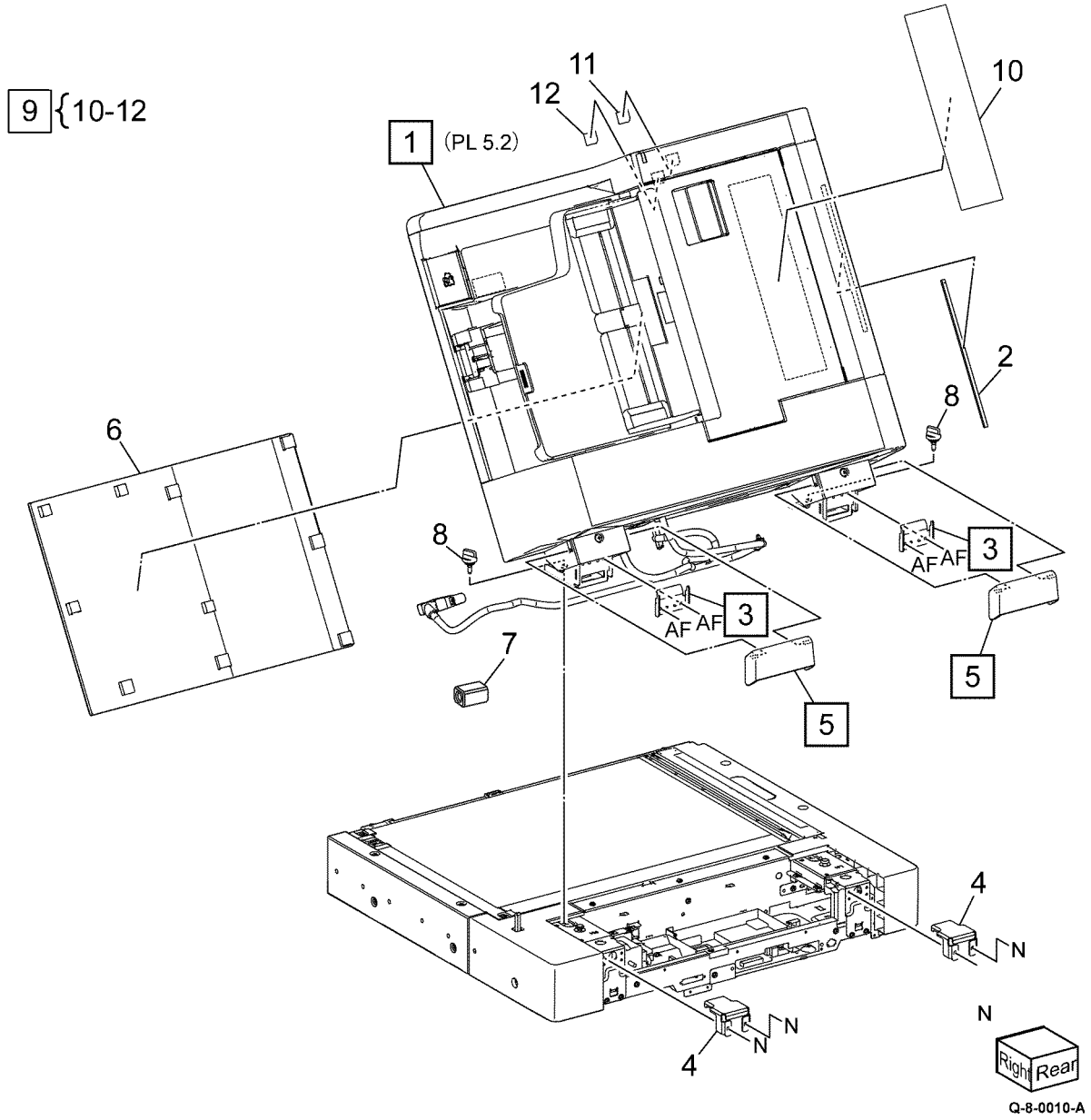
PL 3.15 Video Contact Chassis Assembly

Item	Part	Description
1	—	Controller chassis assembly (Not Spared)
2	960K81580	Back plane PWB (REP 3.3)
3	—	Not used
4	960K81372	Halftone PWB (REP 3.4)
5	054K55232	ESS duct assembly
6	—	ESS duct (P/O PL 3.15 Item 5)
7	—	ESS fan (P/O PL 3.15 Item 5)
8	—	ESS inner cover
9	—	Video chassis assembly (P/O PL 3.15 Item 1)
10	—	MCU PWB cover (P/O PL 3.15 Item 1)
11	—	BP bracket (P/O PL 3.15 Item 1)
12	—	Support bracket
13	960K81590	Relay PWB
14	961K02011	MCU PWB (C8130/C8135)
—	961K02001	MCU PWB (C8145/C8155)
—	961K01991	MCU PWB (C8170)
15	—	MCU PWB support bracket (P/O PL 3.15 Item 1)



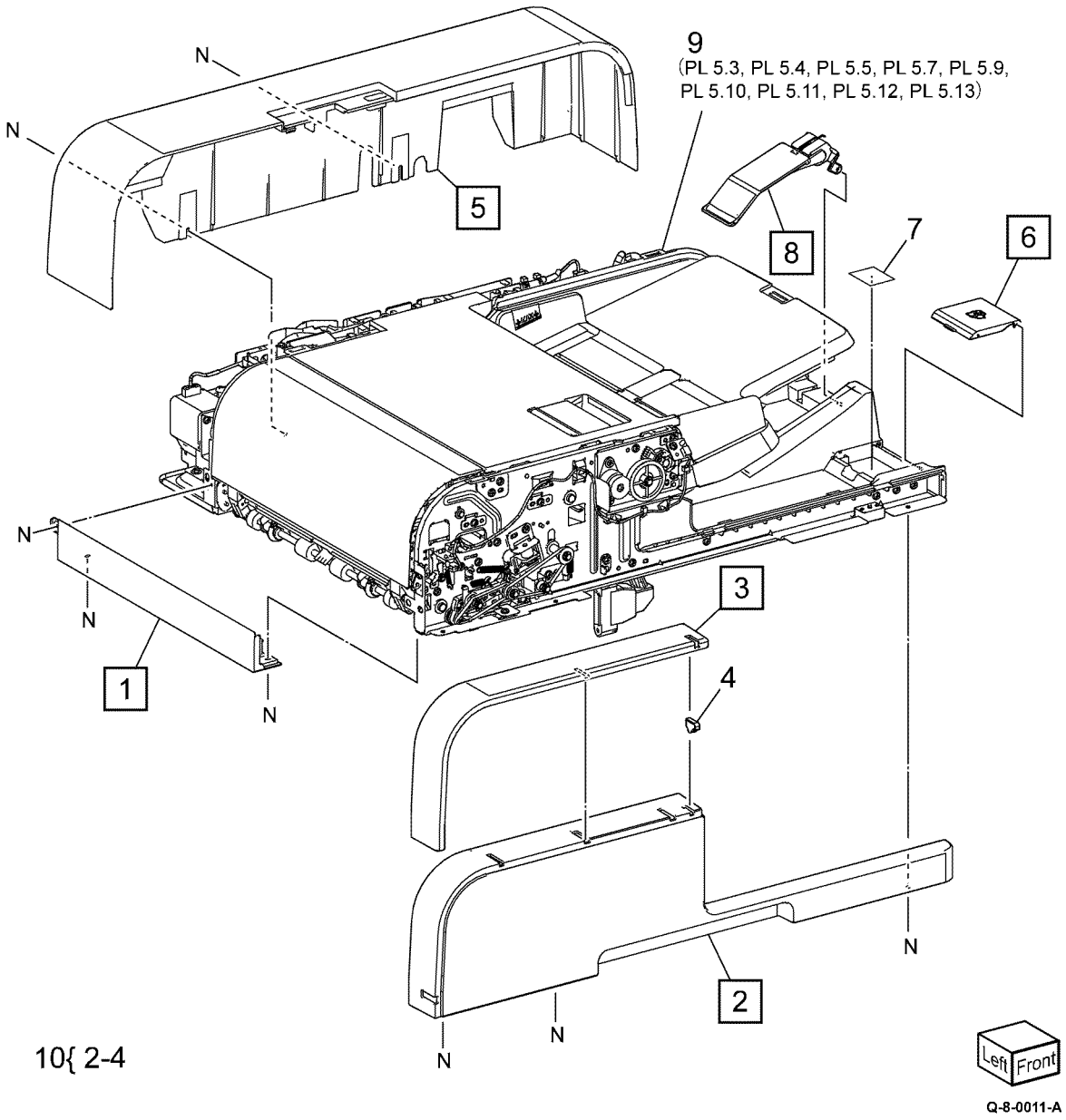
PL 5.1 DADF Component (250) (C8170)

Item	Part	Description
1	859K15665	DADF (DADF-250) (REF: PL 5.2) (REP 5.1)
2	—	Seal (Not Spared)
3	—	Counterbalance Bracket (Not Spared)
4	—	DADF Support (Not Spared)
5	—	Counterbalance Cover (Not Spared)
6	004K03761	DADF Platen Cushion
7	—	Ferrite Core (Not Spared)
8	003K91881	Thumbscrew
9	—	Label Kit (Eng)
10	—	Label (Instruction) (P/O PL 5.1 Item 9)
11	—	Label (Clean) (P/O PL 5.1 Item 9)
12	—	Label (Clean Point) (P/O PL 5.1 Item 9)



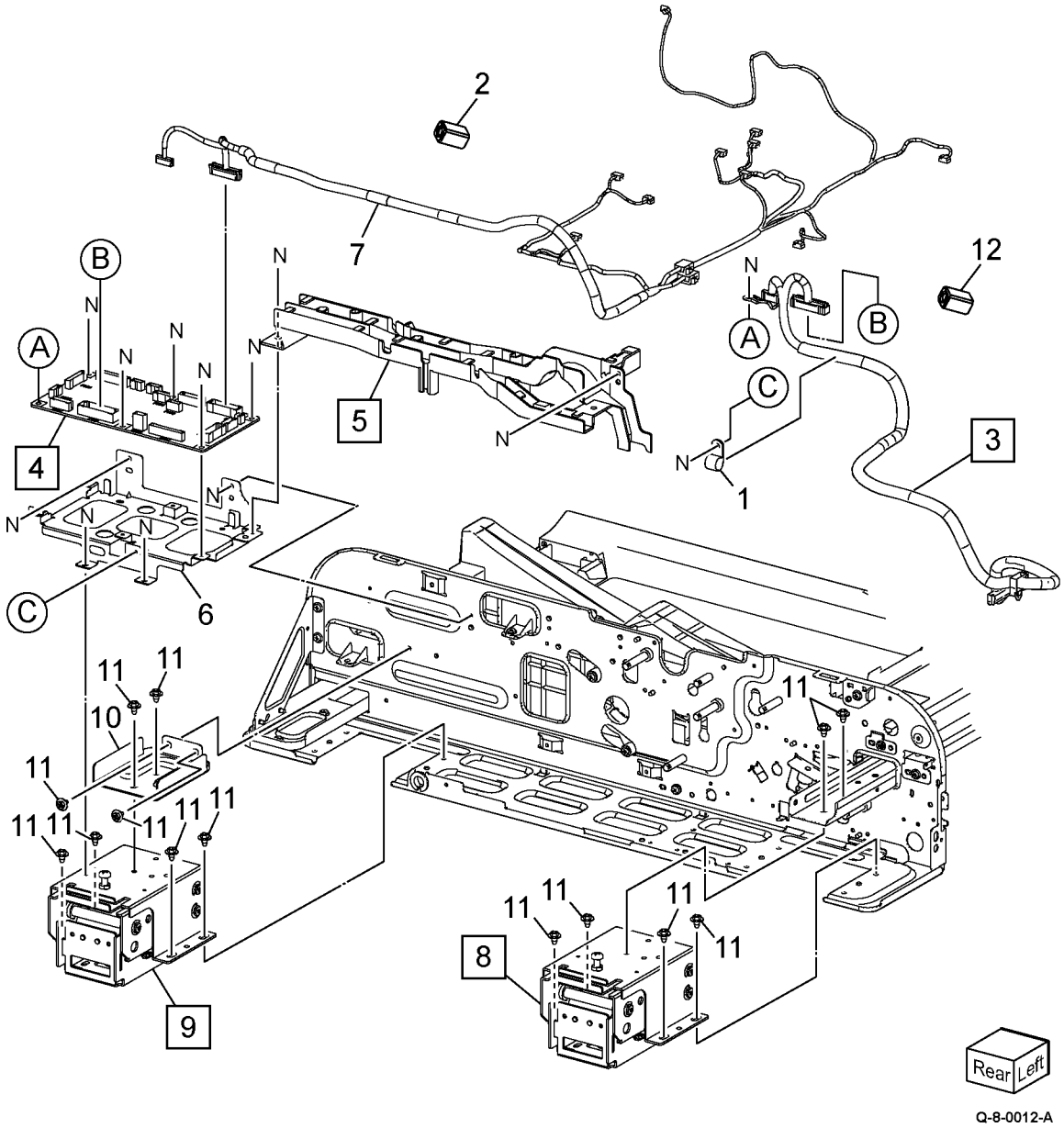
PL 5.2 DADF, DADF Cover (250) (C8170)

Item	Part	Description
1	822E38552	DADF Left Lower Cover (REP 5.2)
2	822E38503	DADF Front Cover (REP 5.3)
3	822E38511	DADF Front Top Cover
4	062E18370	LED Lens
5	822E38523	DADF Rear Cover (REP 5.5)
6	822E38581	Exit Cloth Cover
7	042E92802	Cloth Cleaner
8	003K22351	Stopper
9	—	DADF (REF: PL 5.3, PL 5.4, PL 5.5, PL 5.7, PL 5.9, PL 5.10, PL 5.11, PL 5.12, PL 5.13)
10	948K35130	DADF Front Cover Assembly



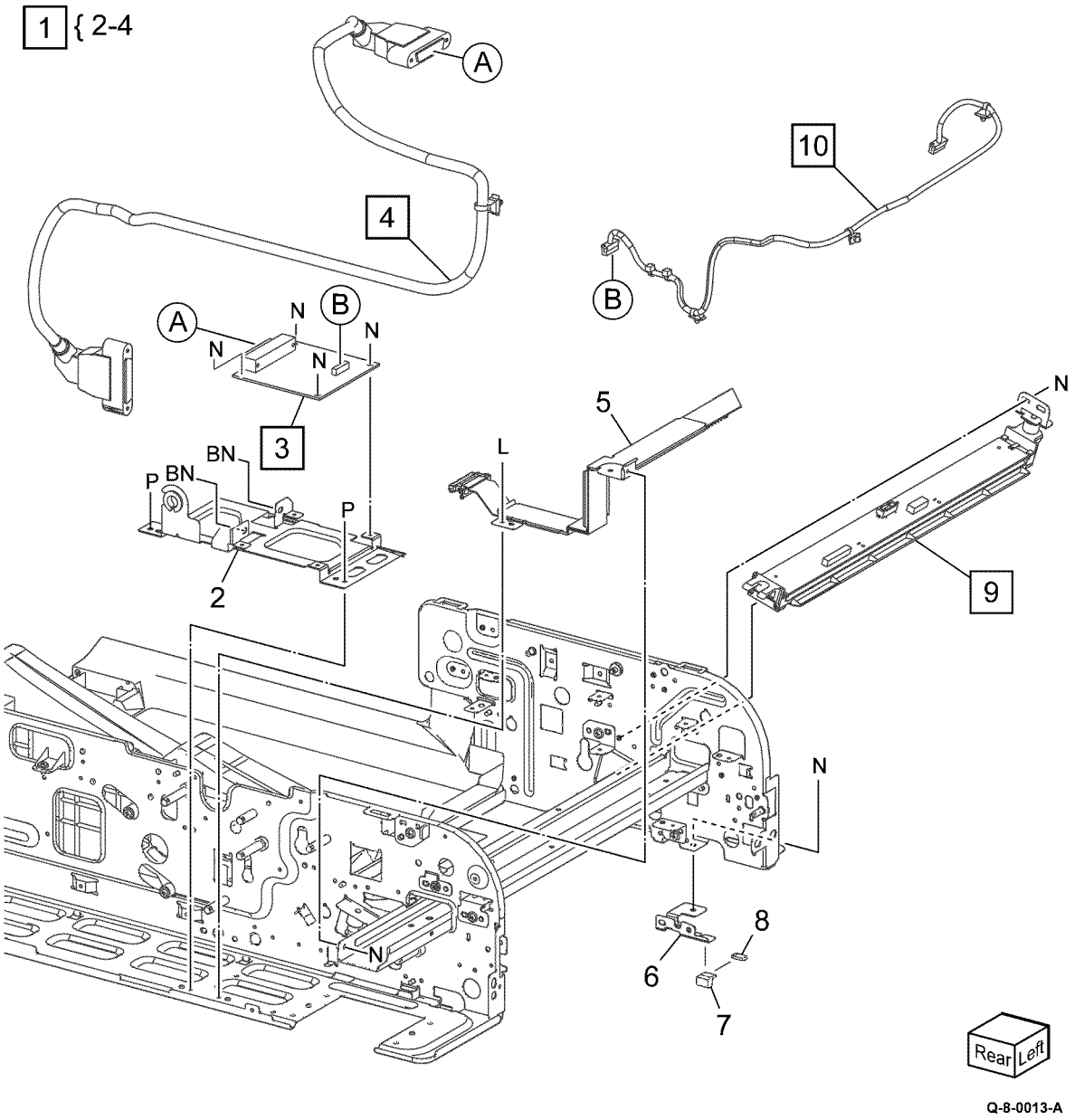
PL 5.3 DADF PWB (250) (C8170)

Item	Part	Description
1	—	P Clamp (Not Spared)
2	121E25180	Core (NFT-10)
3	117K48791	IIT-DADF Cable (REP 5.7)
4	960K98360	DADF PWB (REP 5.8)
5	—	Harness Guide (REP 5.56)
6	—	Bracket PWB (Not Spared)
7	952K37150	Wire Harness (Sig)
8	036K92480	Left Counter Balance (REP 5.9)
9	036K92490	Right Counter Balance (REP 5.10)
10	—	Right Bracket (Not Spared)
11	—	Screw (Not Spared)
12	121E88780	Core (TFT-10201ON)



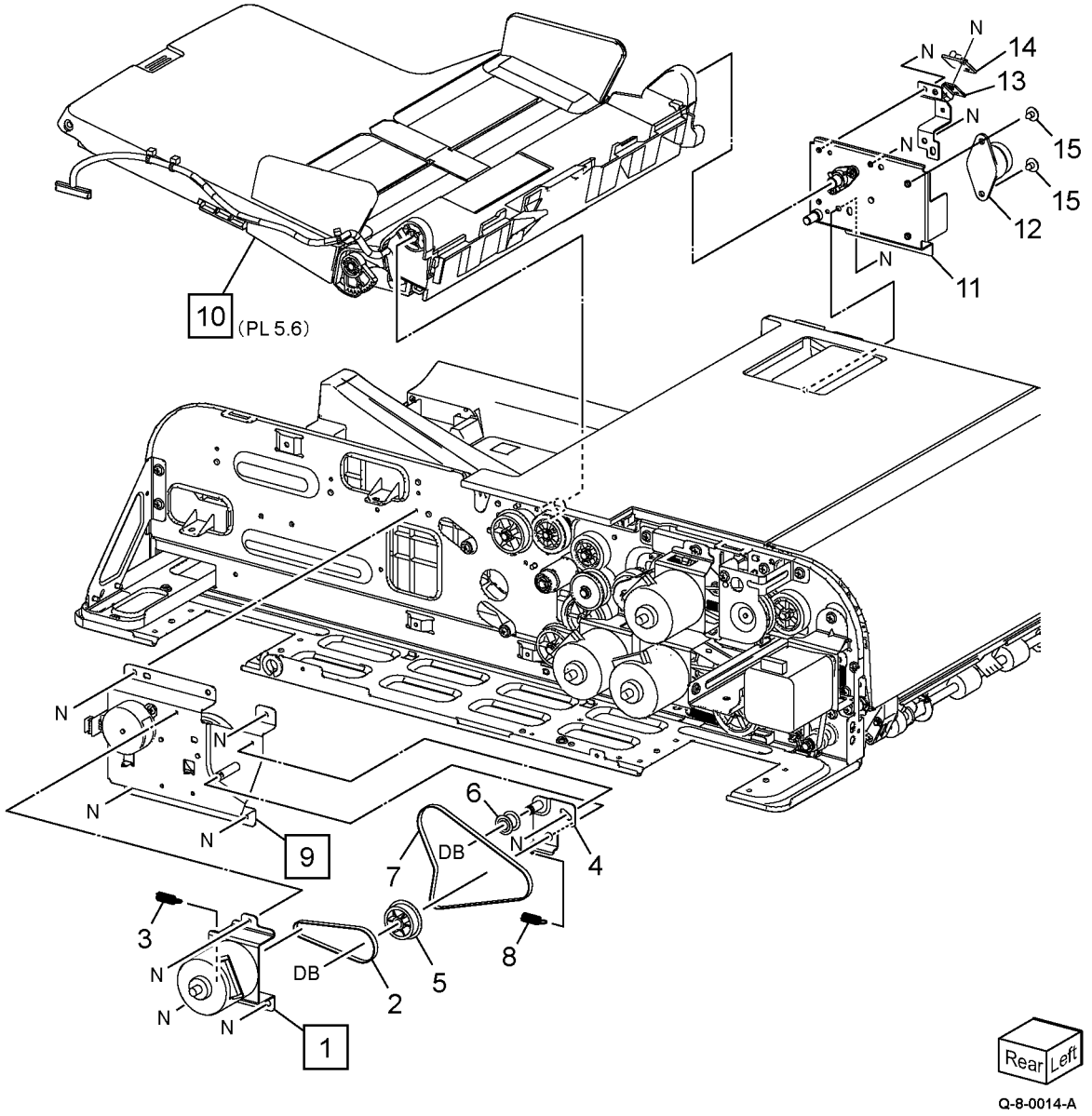
PL 5.4 DCDC PWB (250) (C8170)

Item	Part	Description
1	—	DCDC PWB Assembly
2	—	Bracket PWB (Not Spared)
3	960K96780	DCDC PWB (REP 5.11)
4	117K50391	DADF-Controller Cable
5	049K45911	Flat Cable (DCDC-CIS)
6	—	Stopper Bracket (Not Spared)
7	835E12131	Gasket
8	—	Tape (Not Spared)
9	930K04140	CIS (REP 5.12)
10	952K47100	Wire Harness (DCDC-CIS)



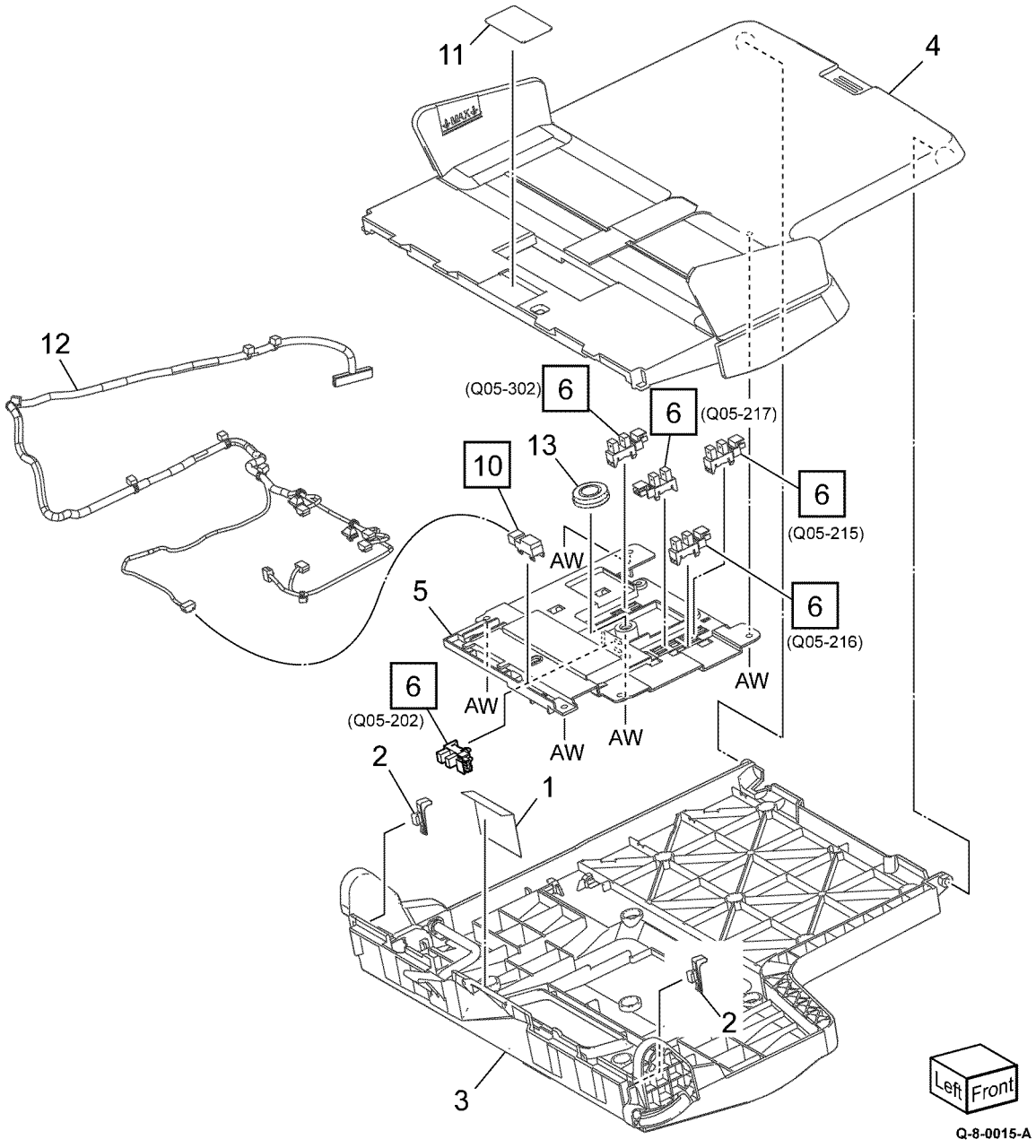
PL 5.5 Document Tray, Tray Feed (250) (C8170)

Item	Part	Description
1	127K74090	DADF Feed Motor (REP 5.14)
2	023E28620	Belt
3	899E14300	Tension Spring
4	—	Feed Idler Bracket Assembly (Not Spared)
5	—	Pulley (52T/23T) (Not Spared)
6	—	Idler Roller
7	023E28661	Belt (REP 5.14)
8	—	Tension Spring (Not Spared)
9	127K74030	DADF Tray Motor Assembly (REP 5.16)
10	050K75074	DADF Document Tray (REF: PL 5.6) (REP 5.55)
11	—	Tray Damper Bracket Assembly (Not Spared)
12	—	Oil Damper (REP 5.17)
13	—	LED Bracket (Not Spared)
14	—	Document Set LED (REP 5.17)
15	—	Screw (Not Spared)



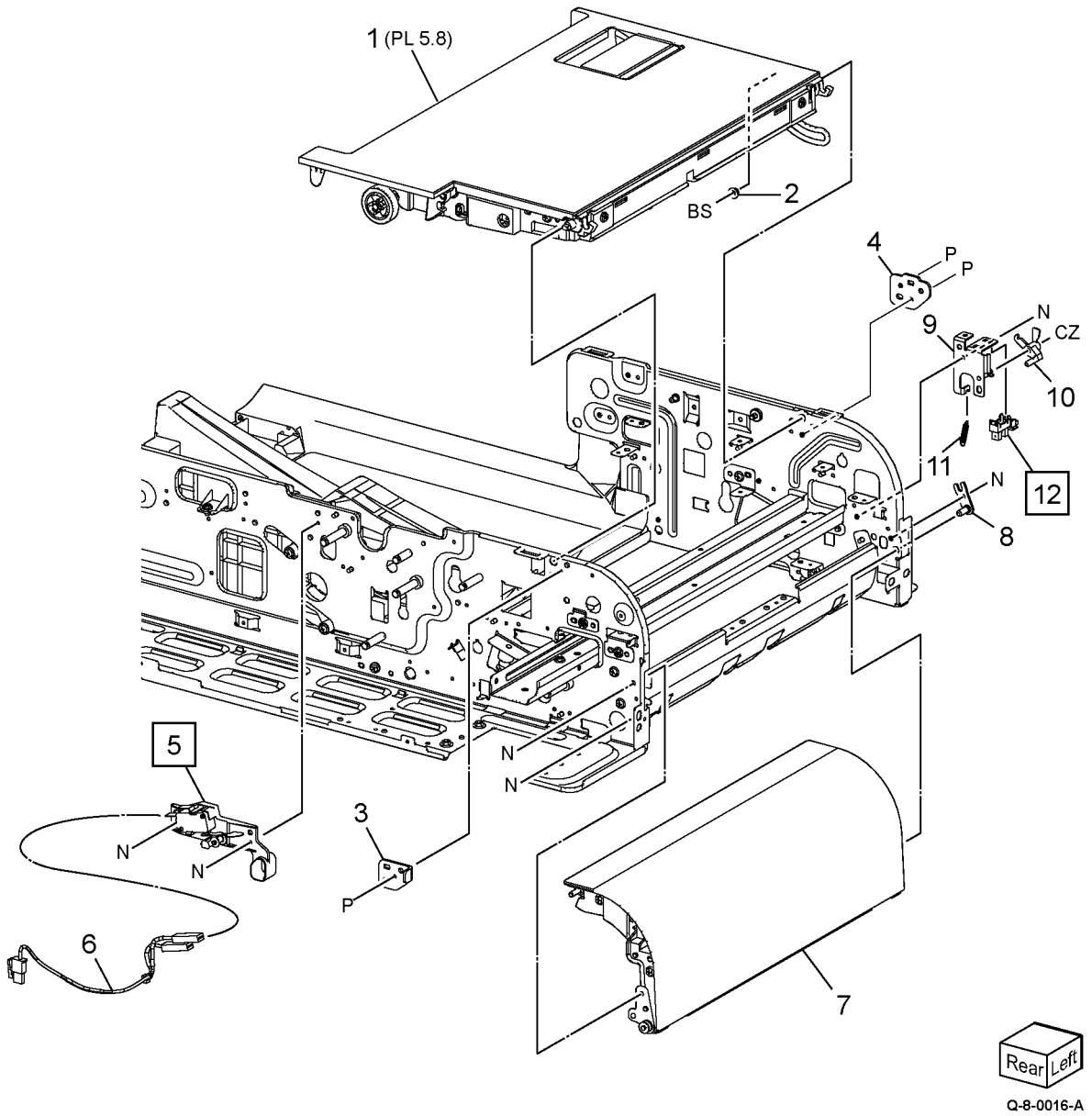
PL 5.6 DADF Document Tray (250) (C8170)

Item	Part	Description
1	063K00762	Film and Tape Assembly
2	—	Tray Block (P/O PL 5.5 Item 10)
3	—	Bottom Tray Assembly (P/O PL 5.5 Item 10)
4	—	Upper Tray Assembly (P/O PL 5.5 Item 10)
5	—	Inner Cover (P/O PL 5.5 Item 10)
6	930W00122	Tray APS Sensor 1 (Q05-215)/Tray APS Sensor 2 (Q05-216)/Tray APS Sensor 3 (Q05-217)/Tray APS Sensor 4 (Q05-302)/Bottom Sensor (Q05-202) (REP 5.19)
7	—	Not Used
8	—	Not Used
9	—	Not Used
10	930W00212	DADF Document Set Sensor (Q05-102) (REP 5.20)
11	019K99061	Retard Pad
12	—	Wire Harness (Tray) (P/O PL 5.5 Item 10)
13	—	Pinion Gear (P/O PL 5.5 Item 10)



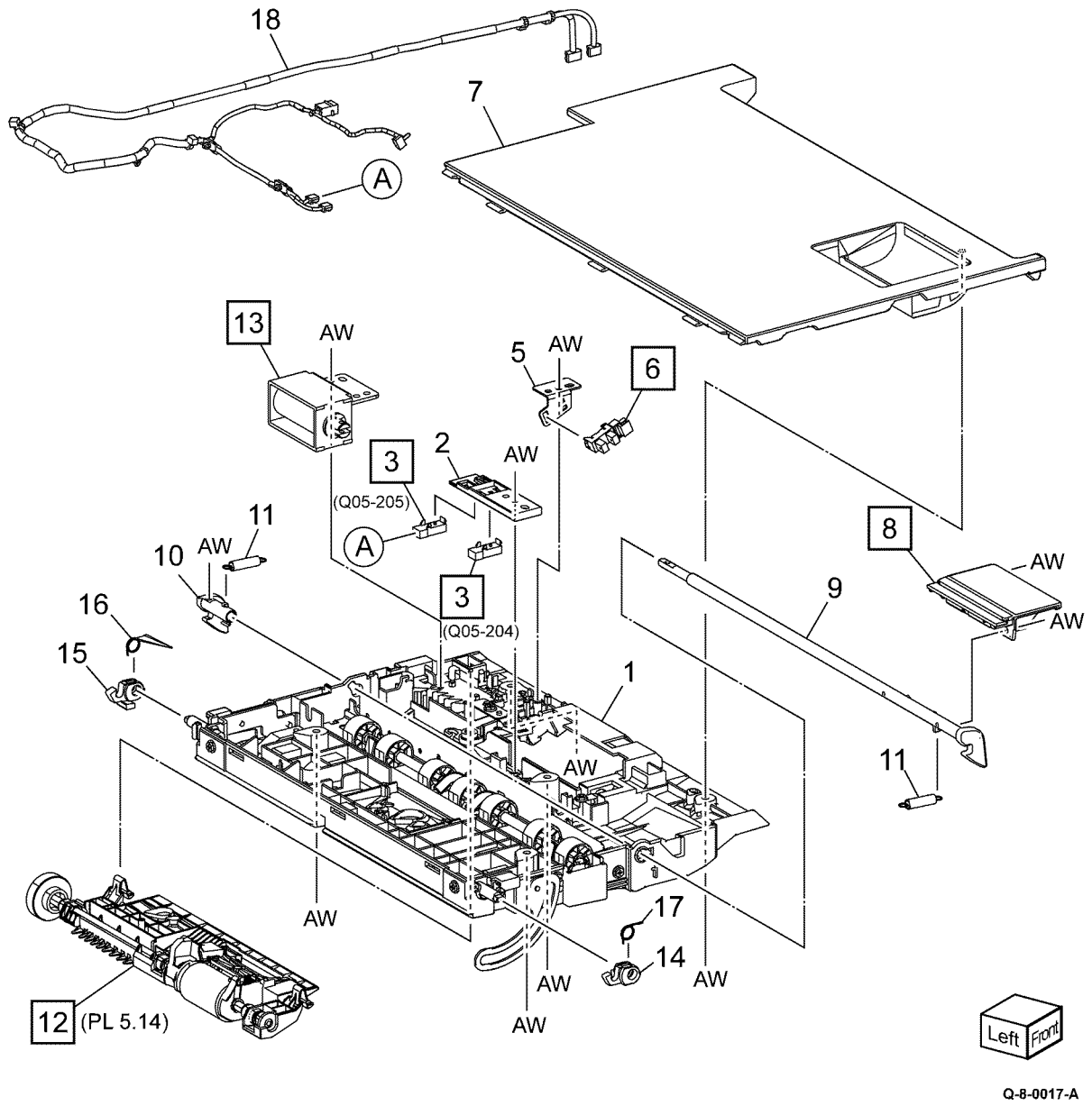
PL 5.7 DADF Feeder Cover Unit (250) (C8170)

Item	Part	Description
1	054K55155	DADF Feeder Cover Assembly (REF: PL 5.8) (REP 5.21)
2	—	Stopper Roll (Not Spared)
3	—	Rear Hinge (Not Spared)
4	—	Front Hinge (Not Spared)
5	110K18130	DADF Feeder Cover Interlock Switch (S05-212) (REP 5.22)
6	—	Wire Harness (Interlock Switch) (Not Spared)
7	948K00991	DADF Left Cover Assembly (REP 5.23)
8	—	Front Bracket Assembly (Not Spared)
9	—	Switch Bracket (Not Spared)
10	120E35980	Actuator (REP 5.24)
11	899E15560	Tension Spring
12	930W00122	DADF L/H Cover Interlock Sensor (Q05-212) (REP 5.24)



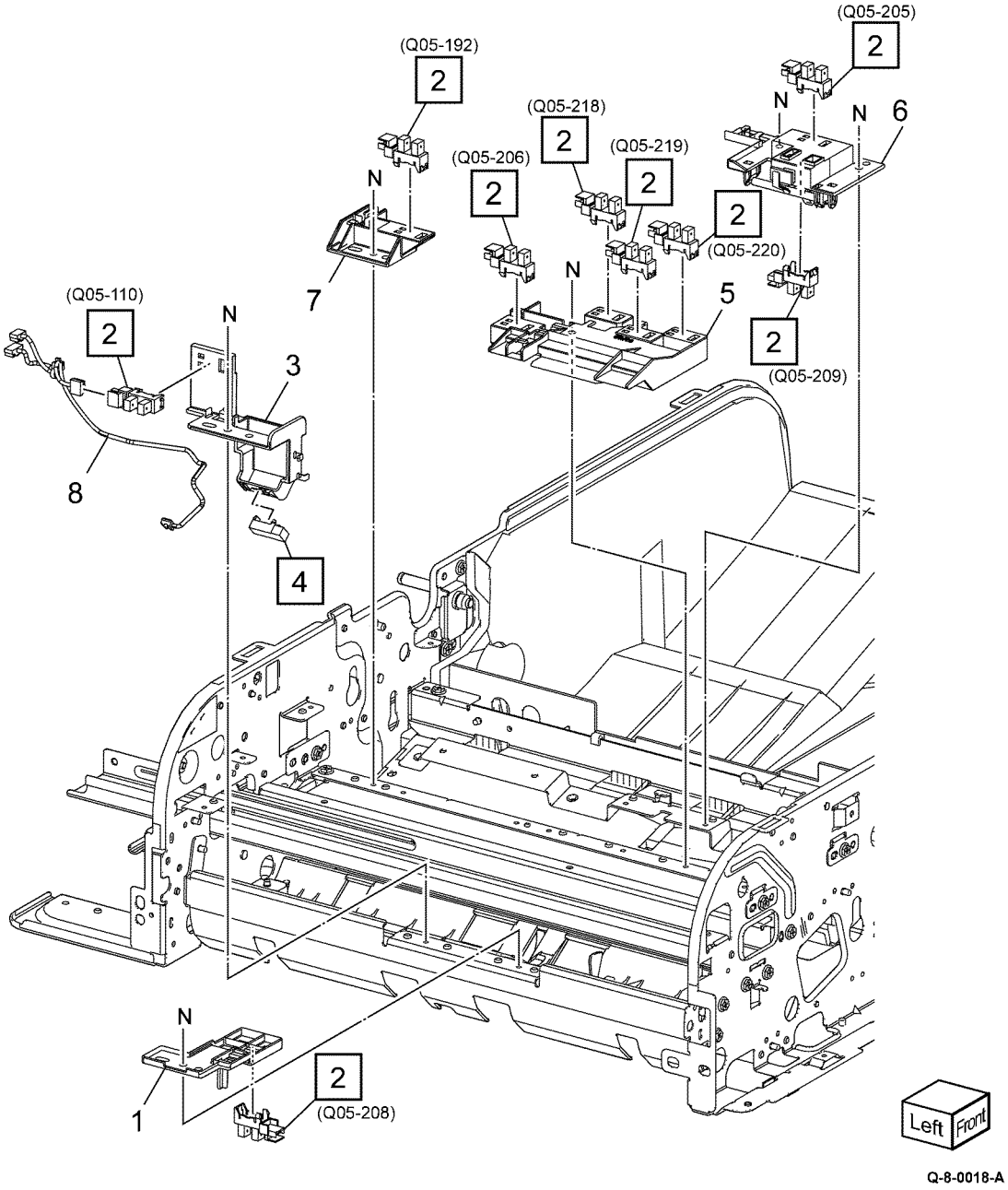
PL 5.8 DADF Feeder Cover Assembly (250) (C8170)

Item	Part	Description
1	—	DADF Feeder Cover (P/O PL 5.7 Item 1)
2	—	Feed Sensor Bracket (P/O PL 5.7 Item 1)
3	930W00222	DADF Feed In Sensor 1 (Q05-204) /DADF Feed In Sensor 2 (Q05-205) (REP 5.25)
4	—	Not Used
5	—	DADF Level Sensor Bracket (P/O PL 5.7 Item 1)
6	930W00122	DADF Level Sensor (Q05-203) (REP 5.26)
7	—	Upper Feeder Cover (P/O PL 5.7 Item 1)
8	011E29160	Latch Lever (REP 5.27)
9	806E47360	Latch Shaft (REP 5.27)
10	803E26090	Rear Latch (REP 5.27)
11	809E99510	Lever Spring (REP 5.27)
12	948K00881	DADF Nudger Housing Assembly (REF: PL 5.14) (REP 5.28)
13	121K57831	DADF Nudger Solenoid Assembly (REP 5.29)
14	803E08630	Left Latch Front Cover
15	803E08640	Left Latch Rear Cover
16	—	Rear Spring (P/O PL 5.7 Item 1)
17	—	Front Spring (P/O PL 5.7 Item 1)
18	—	Wire Harness (Top Sig) (P/O PL 5.7 Item 1)



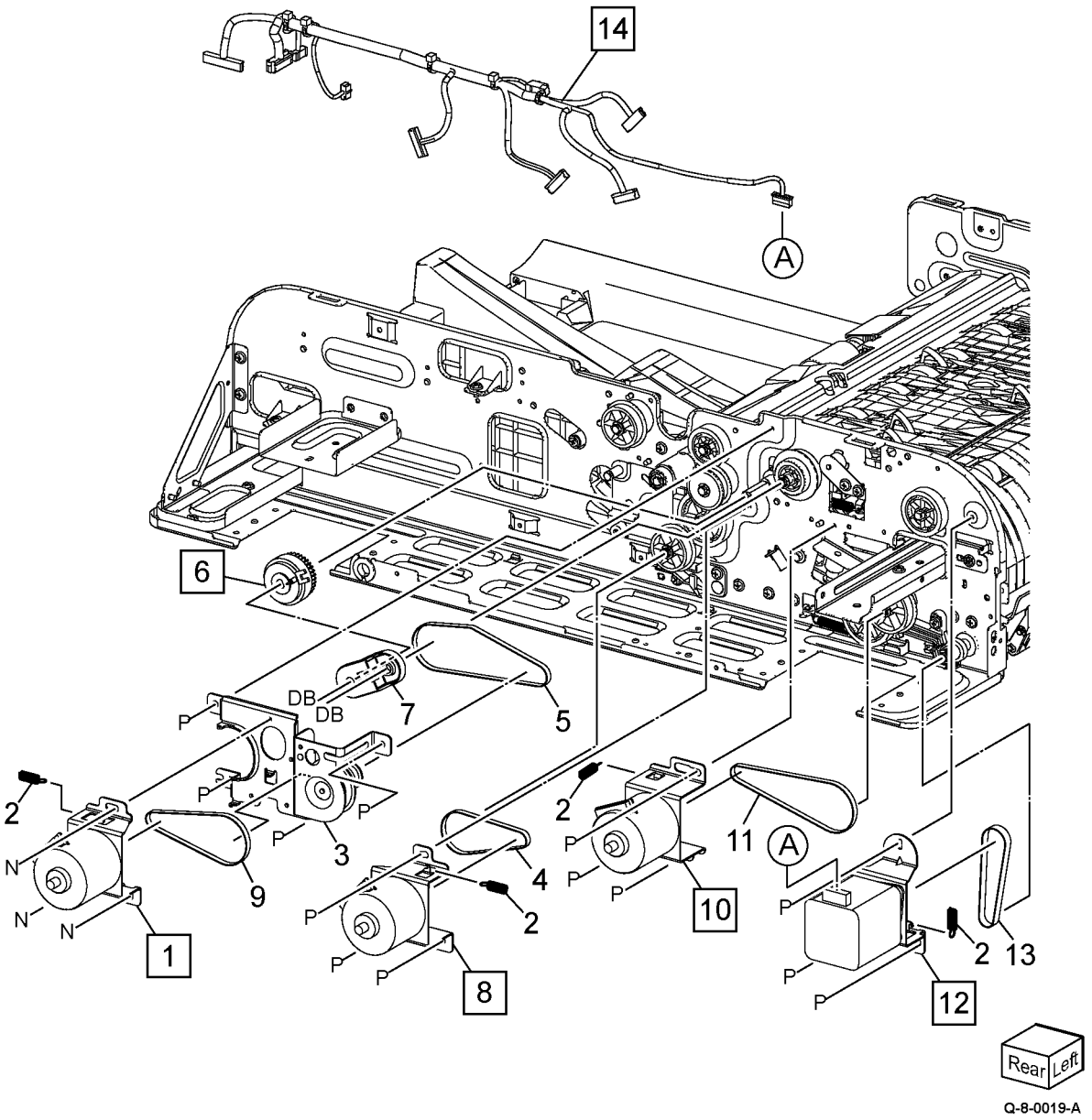
PL 5.9 Sensor Component (250) (C8170)

Item	Part	Description
1	—	Out Sensor Bracket (Not Spared)
2	930W00122	DADF Out Sensor (Q05-208) (REP 5.31)/DADF Registration Sensor (Q05-110) (REP 5.32)/DADF Pre Registration Sensor (Q05-206) (REP 5.33)/DADF APS Sensor 1 (Q05-218),DADF APS Sensor 2 (Q05-219), DADF APS Sensor 3 (Q05-220) (REP 5.33)/DADF Feed Out Sensor (Q05-205) (REP 5.34)/ DADF Exit Sensor (Q05-209) (REP 5.34)/Skew Detect Sensor (Q05-192) (REP 5.35)
3	—	DADF Lead Registration Sensor Bracket (Not Spared)
4	930W00222	DADF Lead Registration Sensor (Q05-207) (REP 5.36)
5	—	APS Sensor Bracket (Not Spared)
6	—	Exit Sensor Assembly (Not Spared)
7	—	Skew Sensor Bracket (Not Spared)
8	—	Wire Harness (DADF Regi. Sensor)



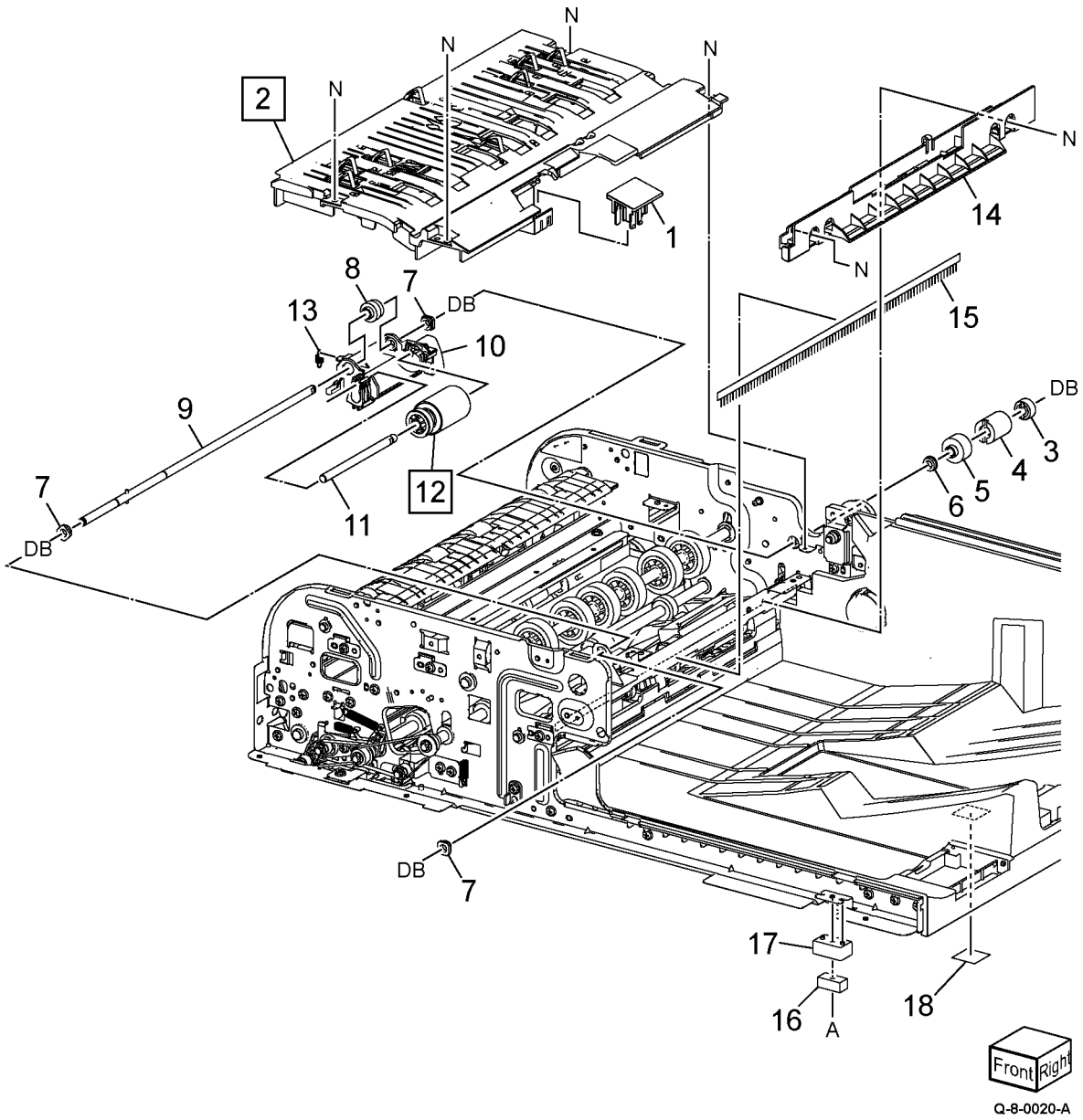
PL 5.10 Drive Component (250) (C8170)

Item	Part	Description
1	127K75920	DADF Pre Registration Motor (MOT05-011) (REP 5.37)
2	899E15560	Tension Spring
3	—	Drive Bracket Assembly (Not Spared)
4	023E28620	Belt (DADF Exit) (REP 5.39)
5	—	Belt (DADF Take Away Clutch) (REP 5.38)
6	121K52310	DADF Take Away Clutch Assembly (CL05-087) (REP 5.38)
7	—	DADF Take Away Clutch Stopper (Not Spared)
8	127K74121	DADF Exit Motor (MOT05-041) (REP 5.39)
9	023E28630	Belt (DADF Pre Regi.) (REP 5.38)
10	127K74101	DADF Platen Motor (MOT05-031) (REP 5.40)
11	023E28640	Belt (DADF Platen) (REP 5.40)
12	127K74000	DADF Regi. Motor (MOT05-021) (REP 5.41)
13	023E28760	Belt (DADF Regi.) (REP 5.41)
14	—	Motor Assembly Harness (Not Spared)



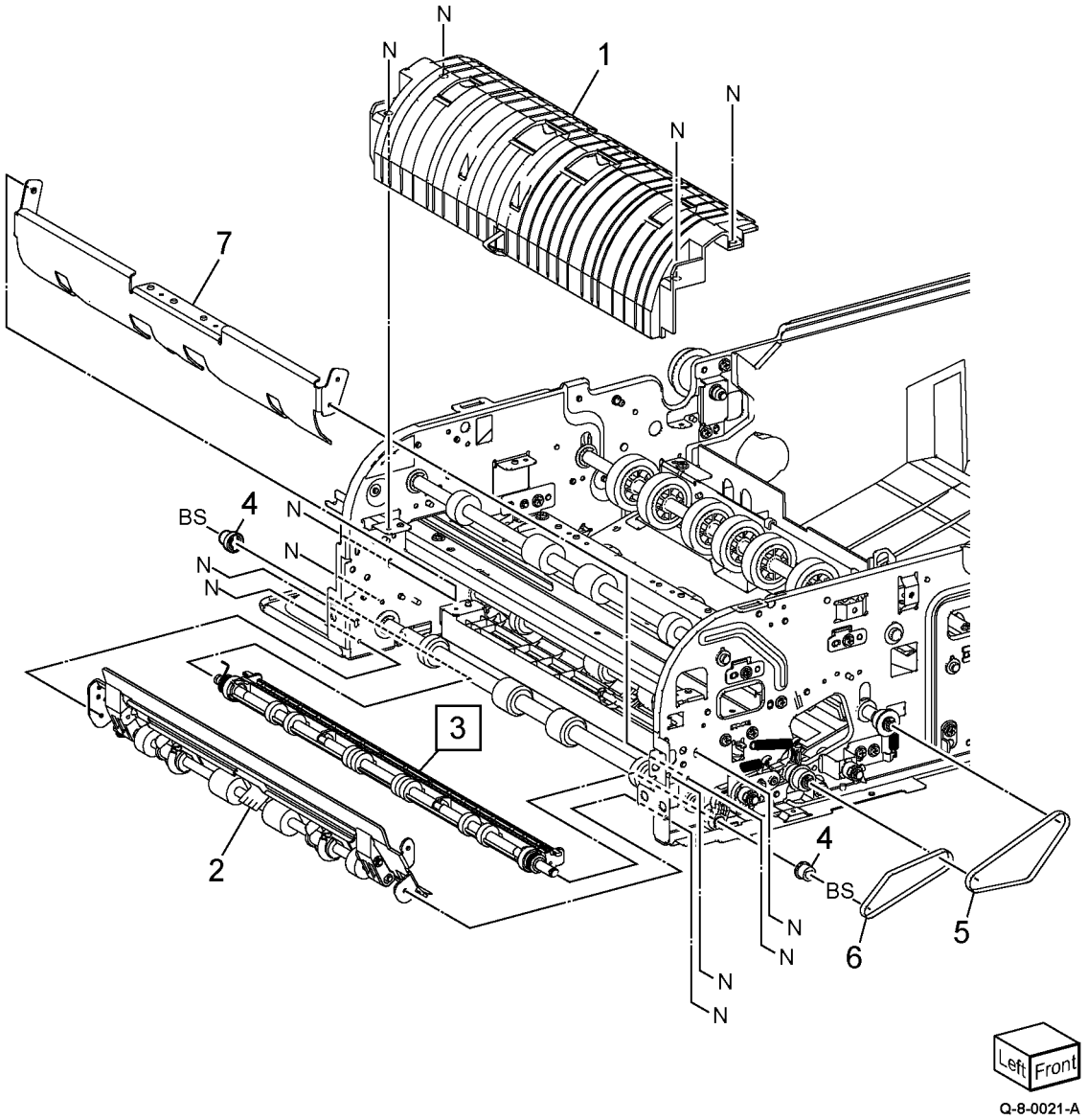
PL 5.11 Lower Chute Assembly, Retard Roll (250) (C8170)

Item	Part	Description
1	054E60531	Retard Chute Cover
2	054K55143	Lower Chute Assembly (REP 5.42)
3	—	Clutch Stopper (Not Spared)
4	005K14230	Friction Clutch (REP 5.43)
5	—	Gear (21T) (Not Spared)
6	—	Ball Bearing (Not Spared)
7	—	Sleeve Bearing (Not Spared)
8	—	Pivot Gear (Not Spared)
9	—	Pivot Shaft (Not Spared)
10	—	Retard Holder (Not Spared)
11	—	Retard Shaft (Not Spared)
12	859K02461	Retard Roll (REP 5.44)
13	899E13651	Retard Spring (REP 5.44)
14	—	Exit Guide (Not Spared)
15	105E22470	Exit Eliminator (REP 5.45)
16	921W20101	Magnet Interlock
17	—	Magnet Cover (Not Spared)
18	063E07290	Cushion Fastener Tape



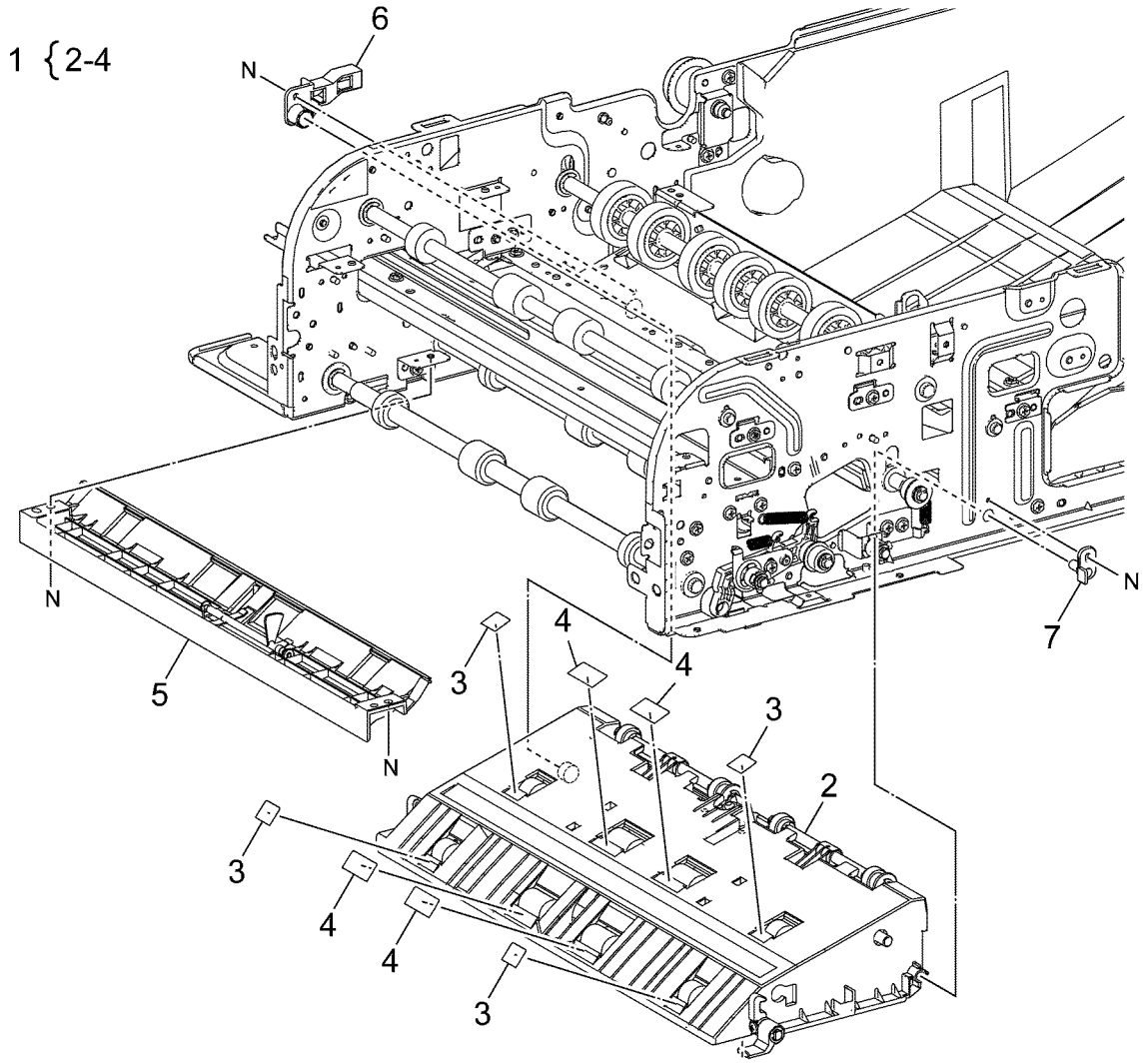
PL 5.12 Pre Regi. In Chute, Platen High Roll (250) (C8170)

Item	Part	Description
1	054K55160	Pre Registration In Chute Assembly (REP 5.47)
2	054K55100	Registration Out Chute Assembly (REP 5.48)
3	859K02620	Platen High Roll Assembly (REP 5.49)
4	—	Pulley (20T) (Not Spared)
5	023E28630	Belt (Exit 1) (REP 5.50)
6	023E28620	Belt (Platen) (REP 5.50)
7	—	Regi. In Chute (Not Spared)



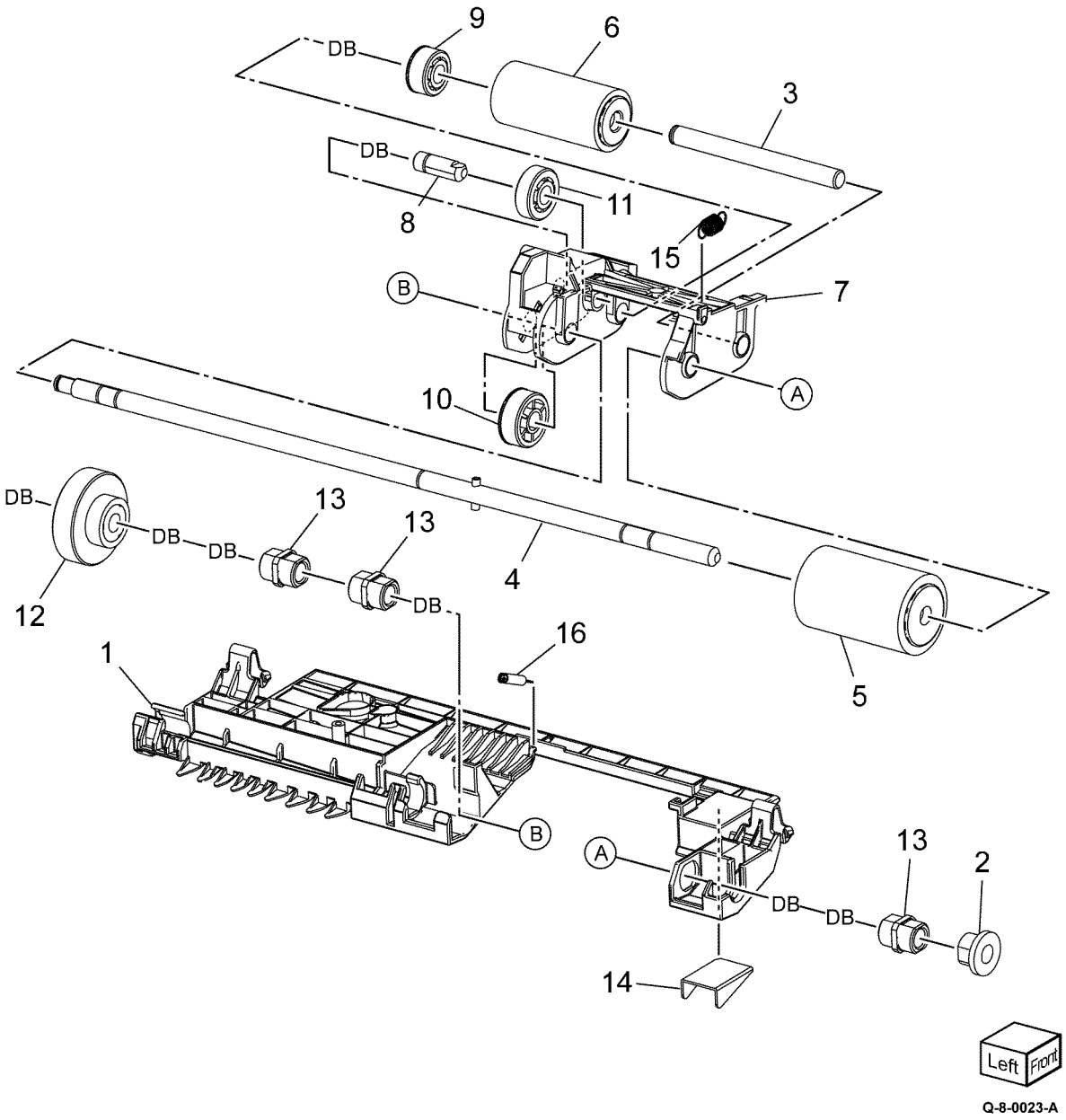
PL 5.13 Exit Lower Chute, Out Chute Assembly (250) (C8170)

Item	Part	Description
1	054K60741	Exit Lower Chute Assembly (REP 5.51)
2	—	Exit Lower Chute (P/O PL 5.13 Item 1)
3	063K00710	Film S (REP 5.52)
4	063K00720	Film W (REP 5.52)
5	054K55130	Out Chute Assembly (REP 5.53)
6	—	Exit Rear Hinge (Not Spared)
7	—	Front Hinge (Not Spared)



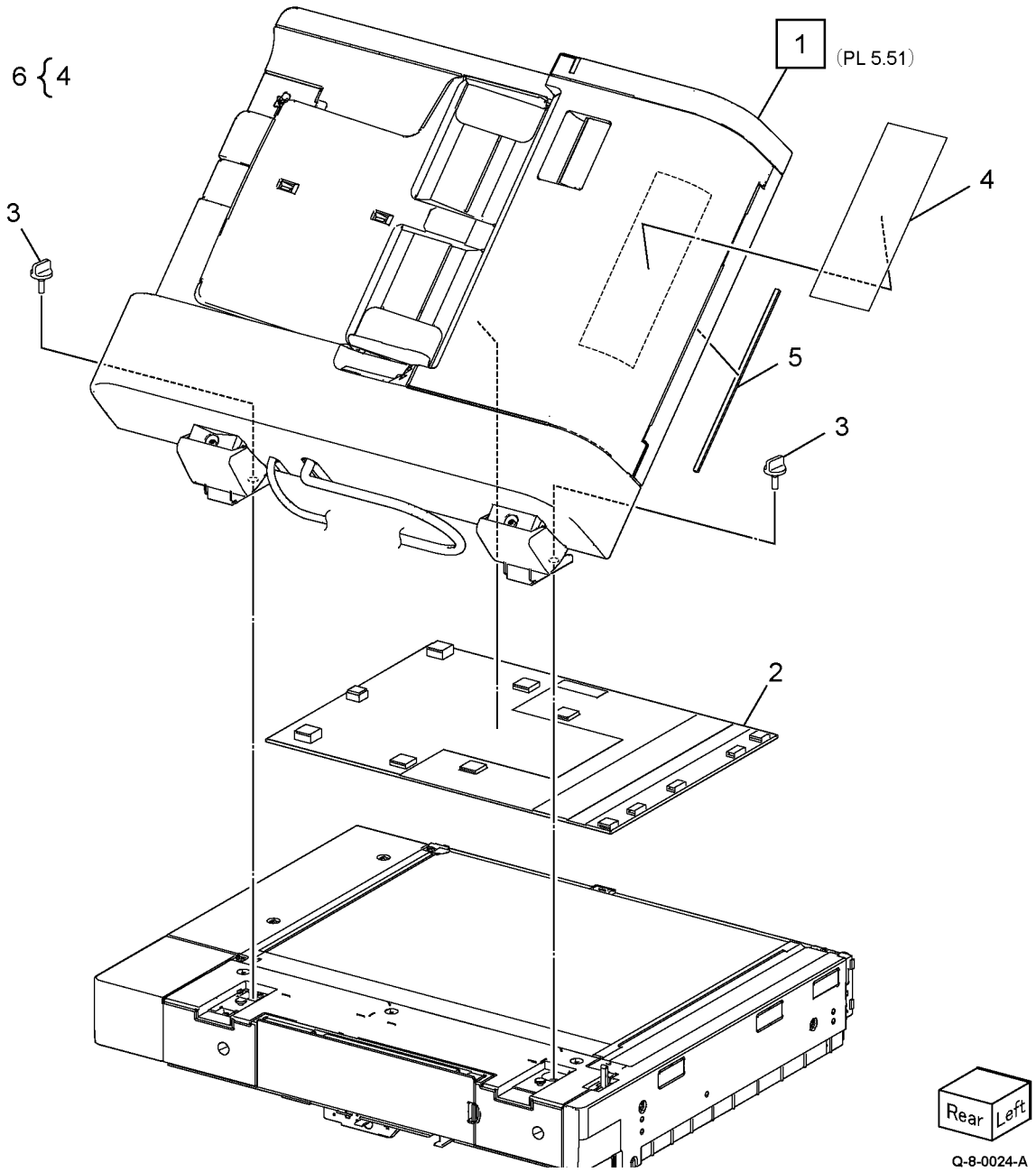
PL 5.14 DADF Nudger Housing Assembly (250) (C8170)

Item	Part	Description
1	—	Feeder Chute Cover (Not Spared)
2	—	Bearing (Not Spared)
3	—	Nudger Shaft (Not Spared)
4	—	Feed Shaft (Not Spared)
5	059K29520	Feed Roll (REP 5.54)
6	059K31270	Nudger Roll
7	—	Nudger Housing (Not Spared)
8	—	Idler Gear Shaft (Not Spared)
9	—	Gear (27T) (Not Spared)
10	—	Gear (33T) (Not Spared)
11	—	Gear (31T) (Not Spared)
12	—	Gear Assembly (26T) (Not Spared)
13	—	Bearing (PF101) (Not Spared)
14	—	Sensor Shield (Not Spared)
15	—	Front Nudger Spring (Not Spared)
16	—	Rear Nudger Spring (Not Spared)



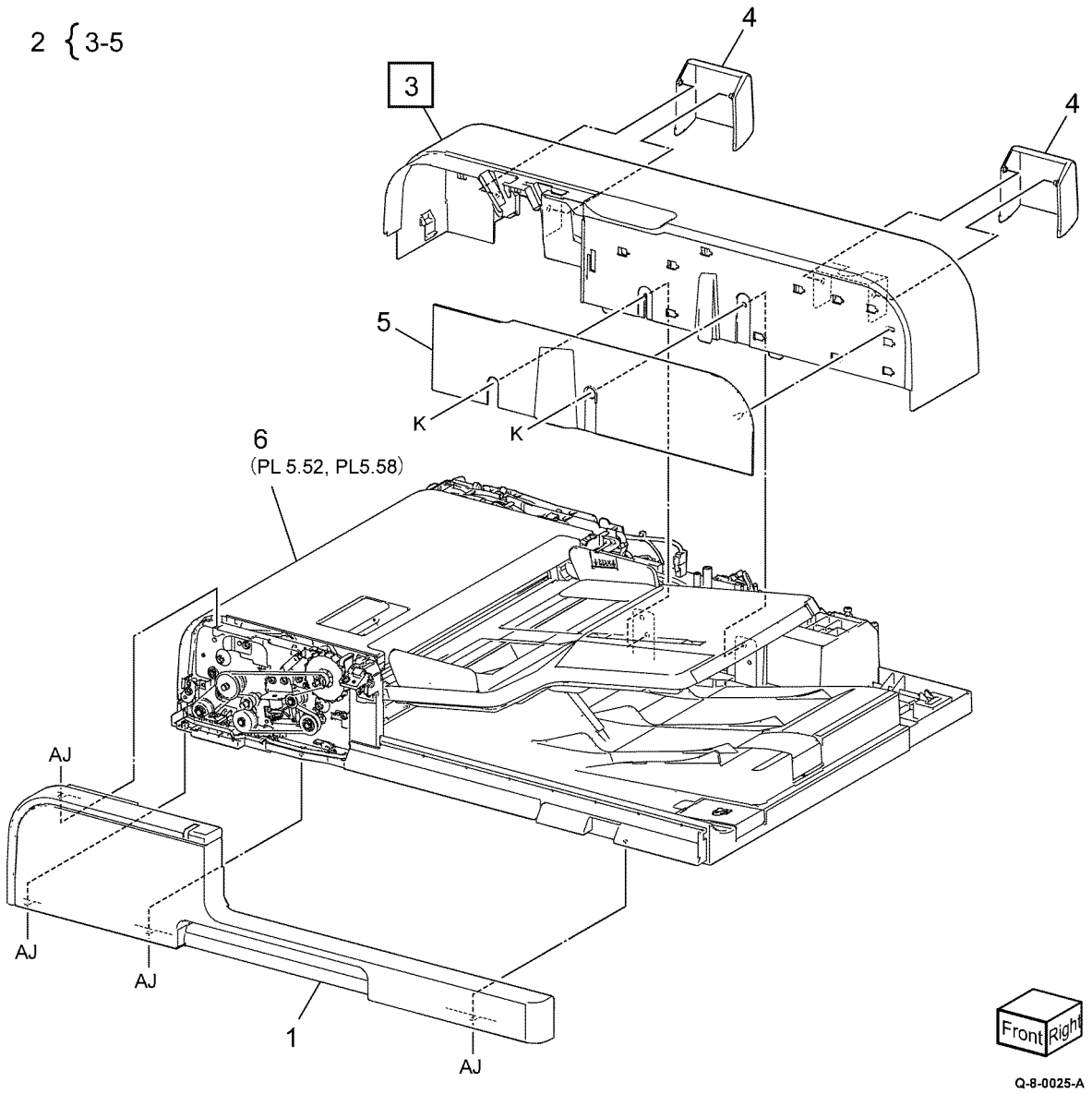
PL 5.50 DADF Component (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	859K16553	DADF (130) (REP 5.60)
2	004K03890	DADF platen cushion (REP 5.61)
3	003K91881	Thumbscrew
4	—	Label (instruction) (P/O PL 5.50 Item 6)
5	—	Seal base frame
6	—	DADF label kit



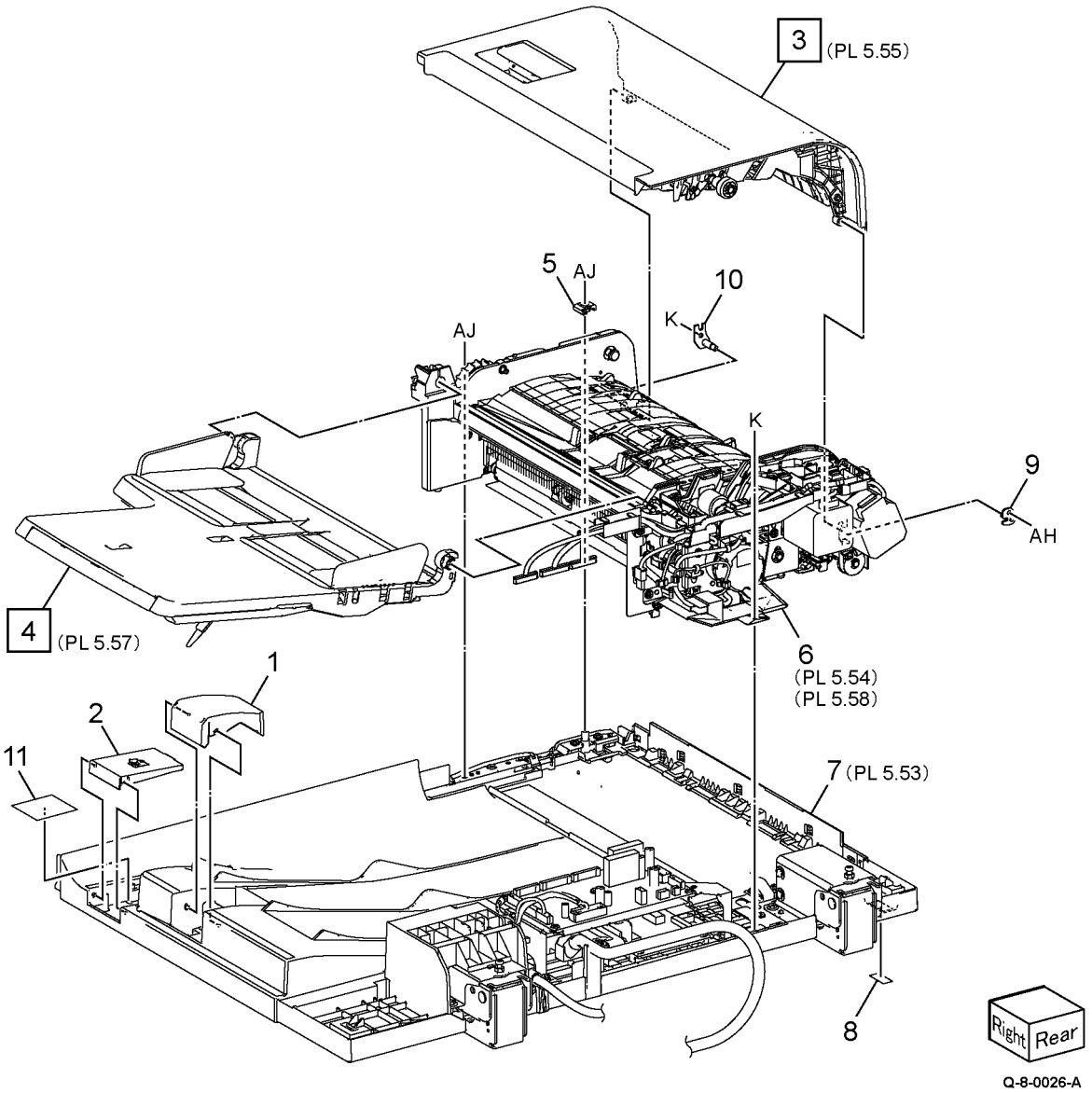
PL 5.51 DADF Cover (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	948K26800	Front cover (REP 5.62)
2	—	Rear cover assembly (REP 5.63)
3	—	Rear cover (P/O PL 5.51 Item 2)
4	—	Counter balance cover (P/O PL 5.51 Item 2)
5	—	Rear cover base (P/O PL 5.51 Item 2)
6	—	Feeder assembly (REP 5.64)



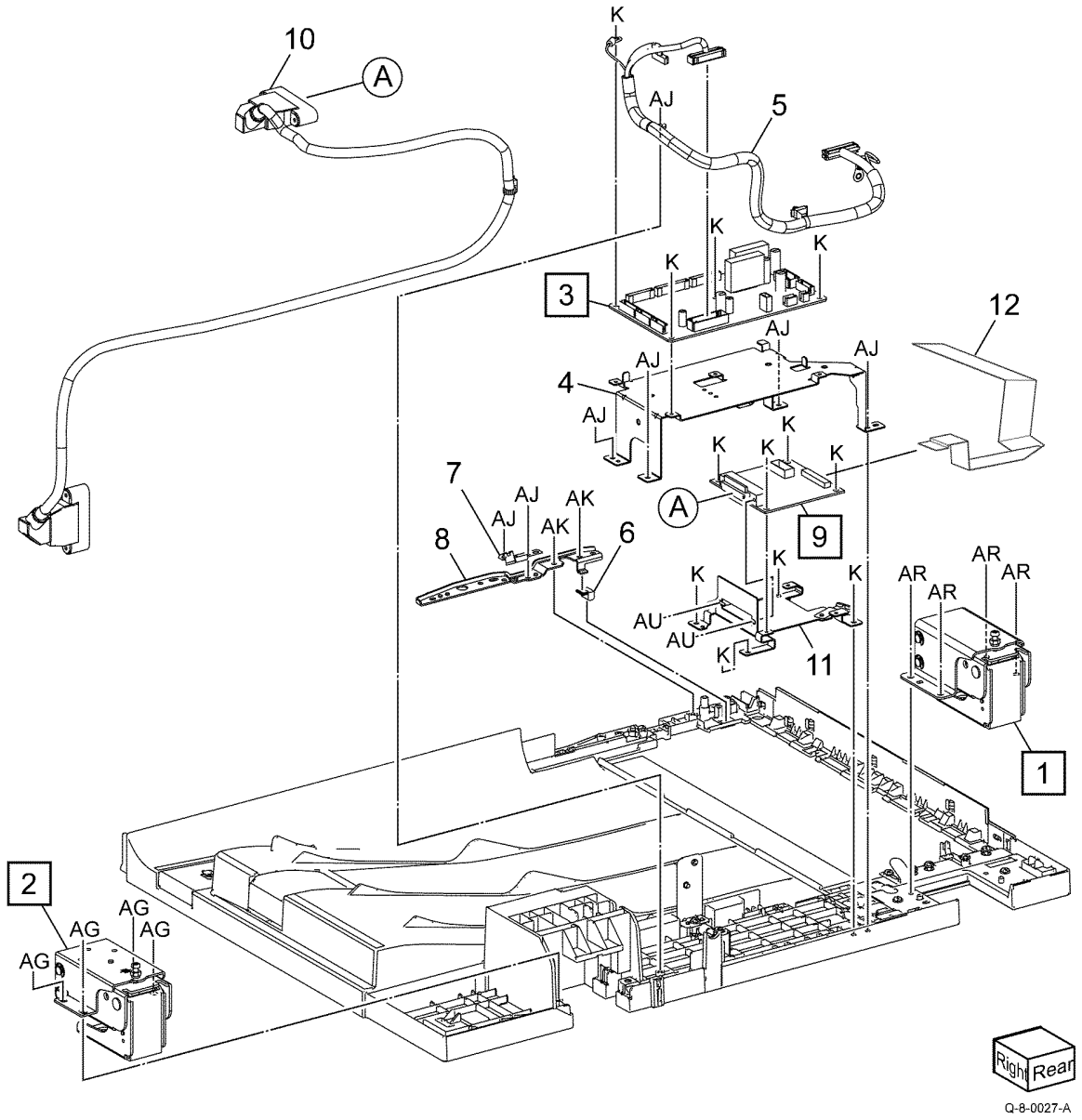
PL 5.52 DADF Top Cover, Document Tray (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	803E30190	Stopper
2	819E01660	Cloth holder
3	859K02254	Top cover (REP 5.70)
4	050K79643	Document tray (REP 5.69)
5	—	Collar
6	—	Regi./Retard chute/Invert unit (REP 5.75)
7	—	Base frame unit
8	—	Label (Clean)
9	—	Stud bracket (rear)
10	—	Stud bracket (front)
11	042E92802	Cloth cleaner



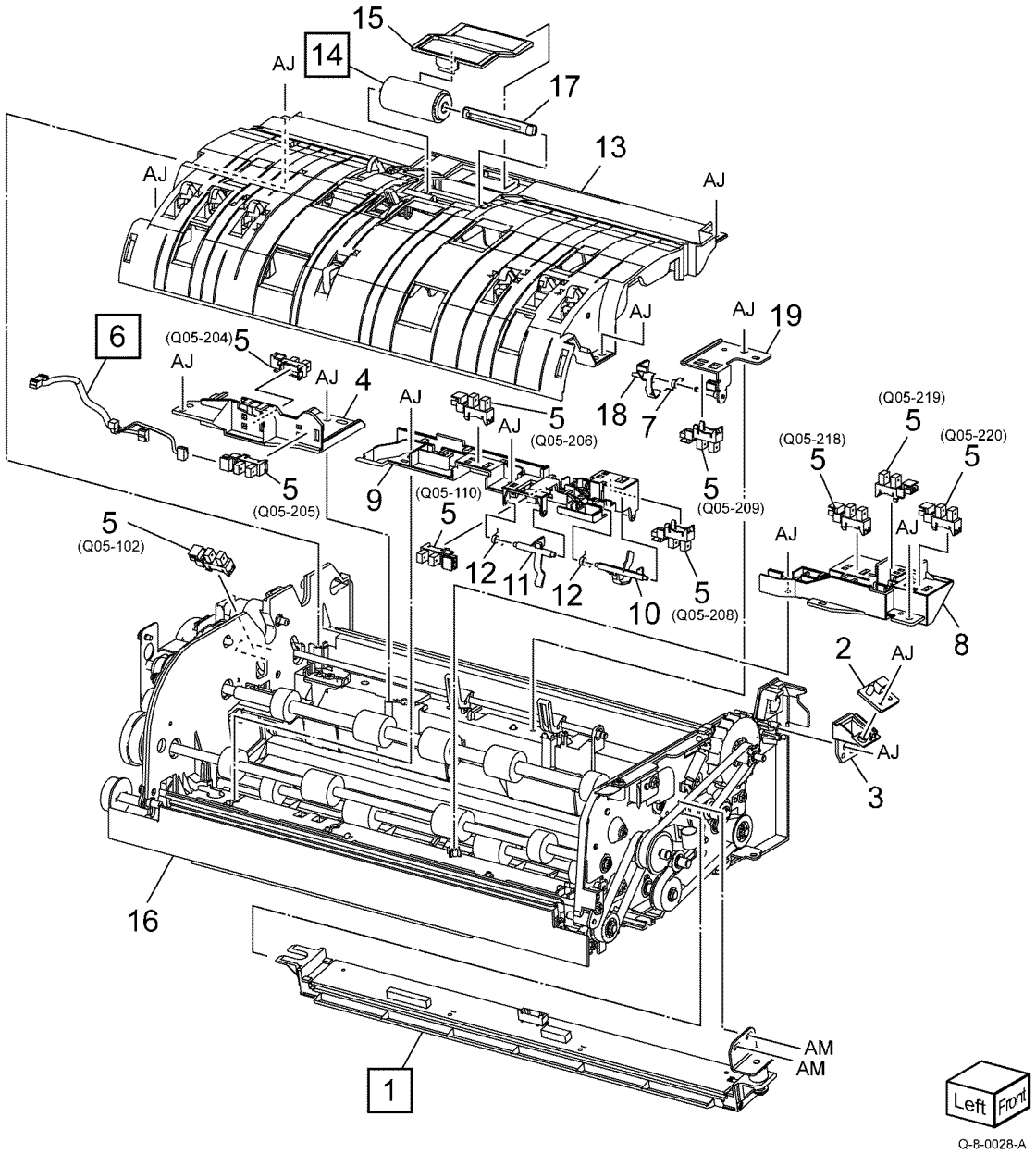
PL 5.53 DADF Base Frame Assembly (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	036K92372	Left counter balance (REP 5.67)
2	036K92382	Right counter balance (REP 5.68)
—	036K92091	Right counter balance (alternative)
3	960K97240	DADF PWB (REP 5.65)
4	—	PWB bracket
5	117K48791	DADF signal cable assembly (DADF-IIT)
6	835E12131	Gasket
7	—	Ground plate
8	—	Front base bracket
9	960K81482	DCDC PWB (REP 5.66)
10	117K50441	DADF controller cable
11	—	PWB bracket
12	—	Flat Cable (DCDC-CIS)



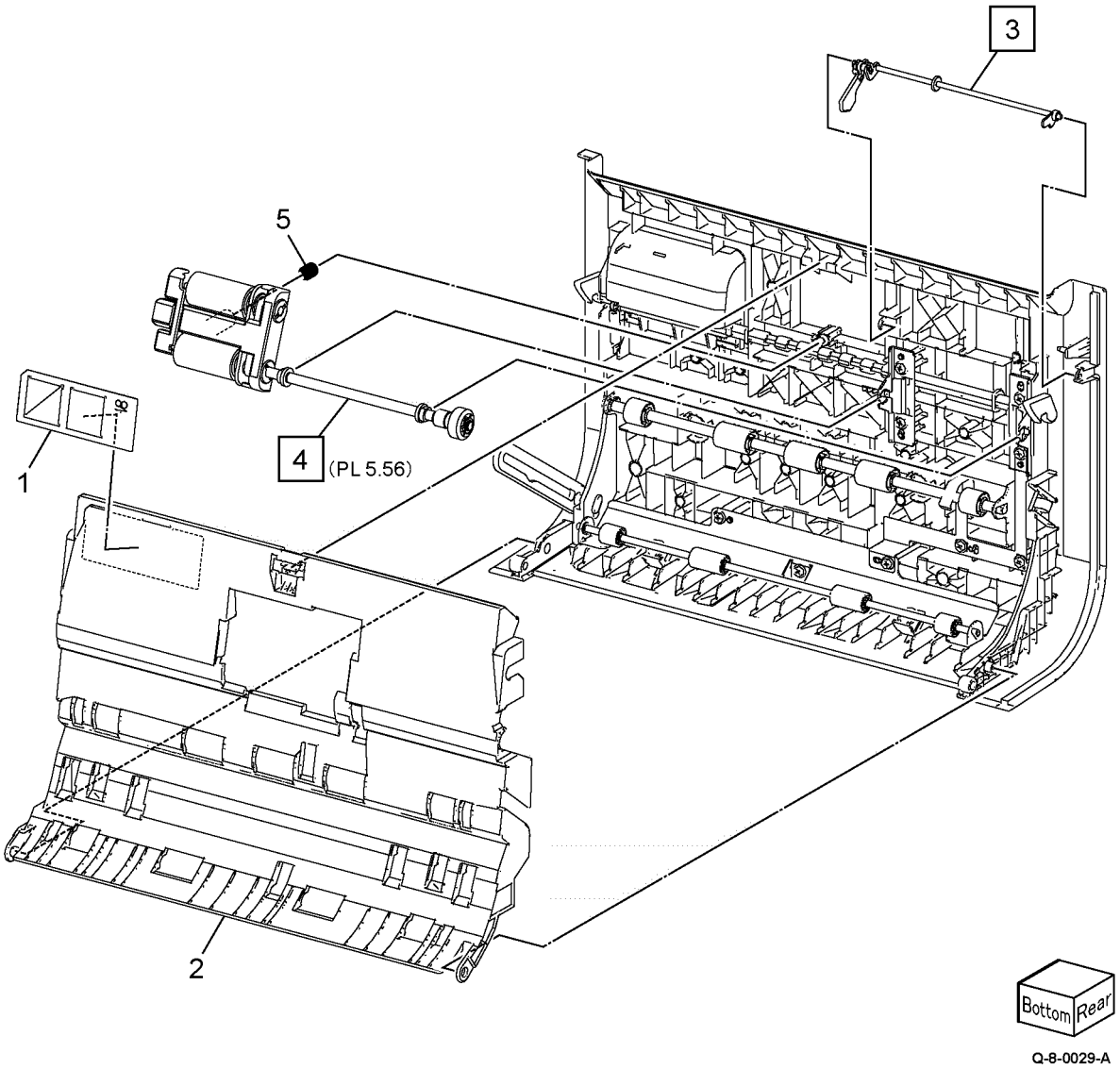
PL 5.54 Regi. / Retard Chute/ Invert Unit (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	930K04170	CIS (REP 5.78)
2	—	Document set LED
3	—	Document set LED PWB
4	869E17370	LED bracket
5	930W00122	DADF feed out sensor (Q05-205) (REP 5.82)/DADF feed in sensor (Q05-204) (REP 5.82)/DADF Exit sensor (Q05-209) (REP 5.83)/ DADF APS sensor 1 (Q05-218) (REP 5.84)/DADF APS sensor 2 (Q05-219) (REP 5.84)/DADF APS sensor 3 (Q05-220) (REP 5.84)/ DADF Regi.sensor (Q05-110) (REP 5.85)/DADF Out sensor (Q05-208) (REP 5.85)/DADF Pre Regi. sensor (Q05-206)/ DADF Document set sensor (Q05-102) (RE
6	—	Wire harness (DADF feed out sensor)
7	—	Spring
8	—	DADF APS sensor guide
9	—	DADF sensor guide
10	—	Actuator (Out)
11	—	Actuator (Regi.)
12	—	Spring
13	—	Retard chute assembly (REP 5.76)
14	059K78301	Retard roll (REP 5.81)
15	848K99190	Retard roll cover
16	—	Frame assembly
17	—	Retard shaft
18	—	Actuator
19	—	Bracket



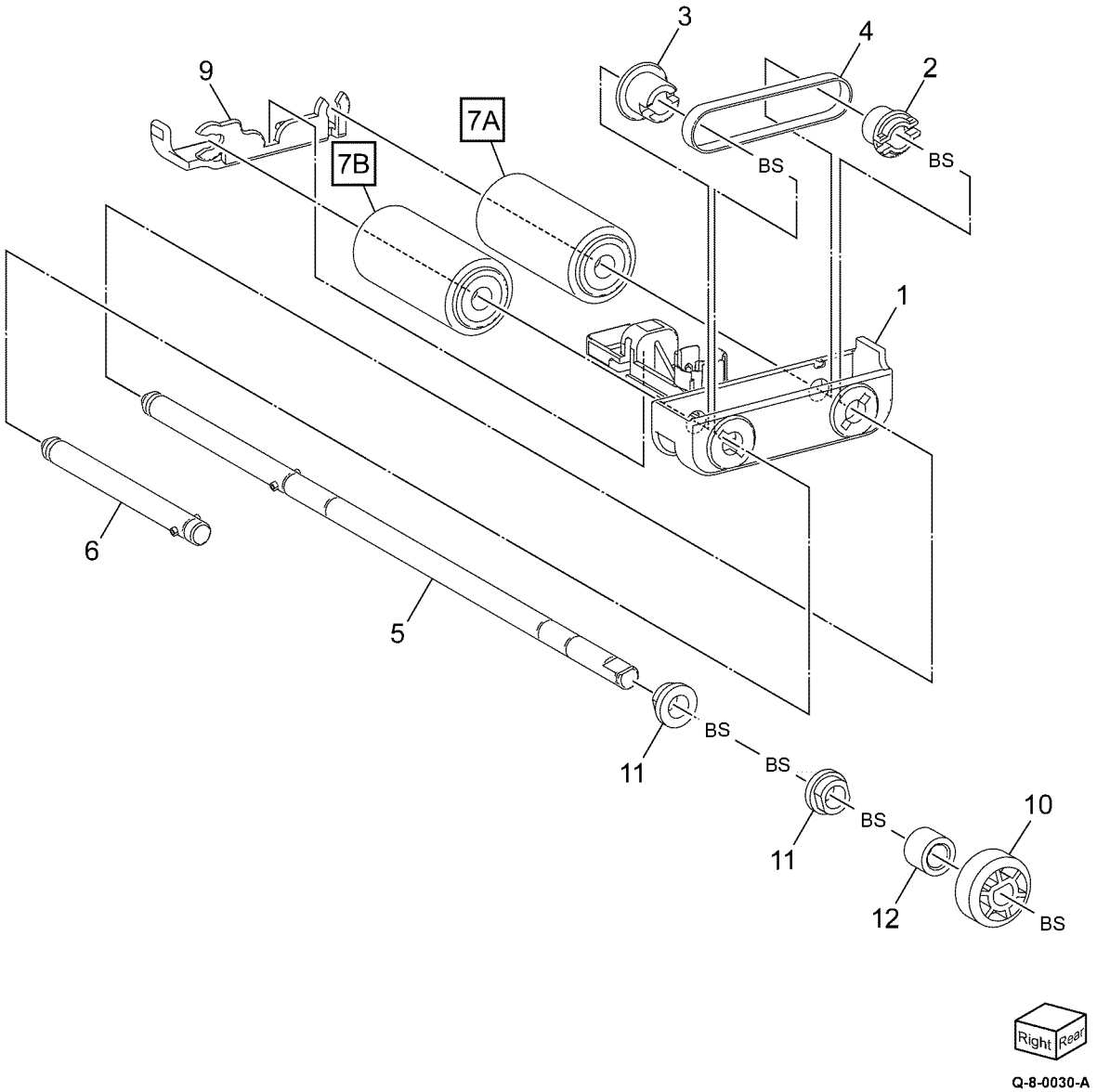
PL 5.55 Top Cover (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Label (Jam clear)
2	—	Feed upper chute
3	120K92810	Document set actuator (REP 5.87)
4	059K73511	Feed/Nudger roll assembly (REP 5.88)
5	—	Spring



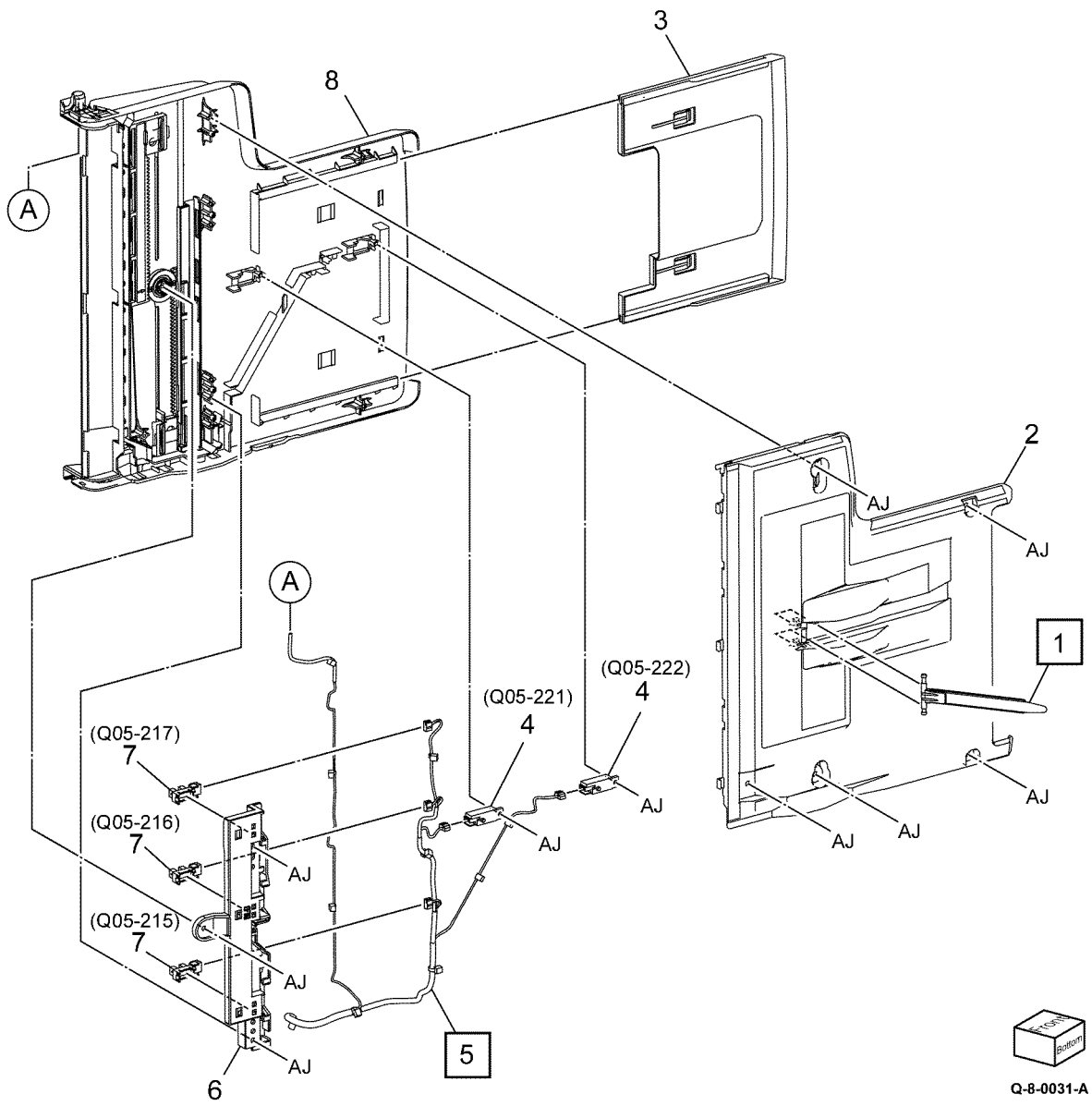
PL 5.56 Feeder / Nudger Roll Assembly (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Housing
2	—	Feed pulley
3	—	Nudger pulley
4	—	Belt
5	—	Feed shaft
6	—	Nudger shaft
7	859K23440	Feed roll (A)/Nudger roll (B) (REP 5.80)
8	—	Not used
9	—	Housing
10	—	Gear
11	—	Bearing
12	—	Collar



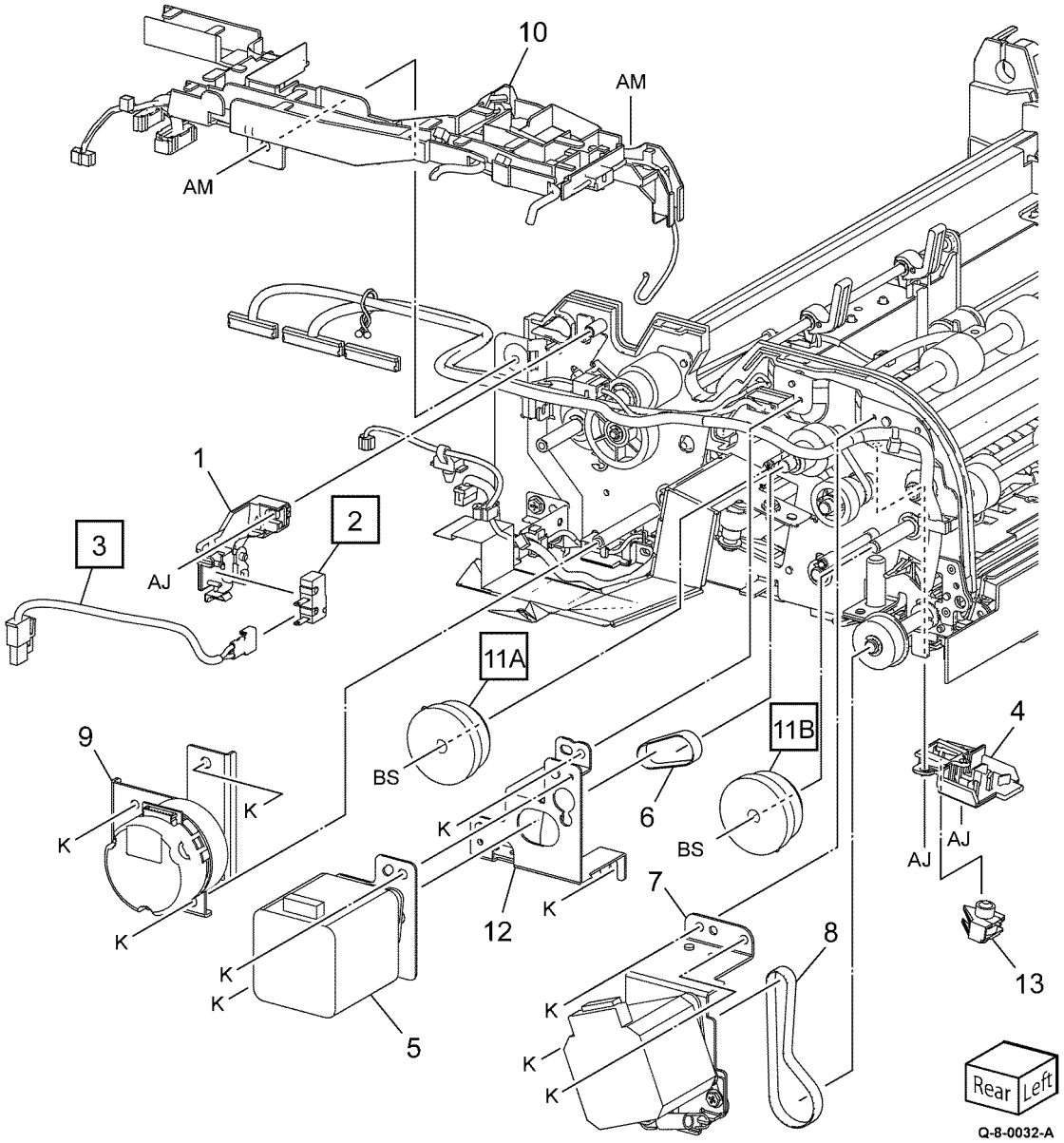
PL 5.57 DADF Document Tray (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Guide
2	—	Tray cover
3	—	End tray
4	930W00241	Document tray size sensor 1 (Q05-221) /Document tray size sensor 2 (Q05-222) (REP 5.90)
5	—	Tray wire harness
6	—	DADF Tray APS sensor bracket
7	930W00121	DADF Tray APS sensor 1 (Q05-215)/DADF Tray APS sensor 2 (Q05-216)/DADF Tray APS sensor 3 (Q05-217) (REP 5.89)
8	—	Upper tray assembly



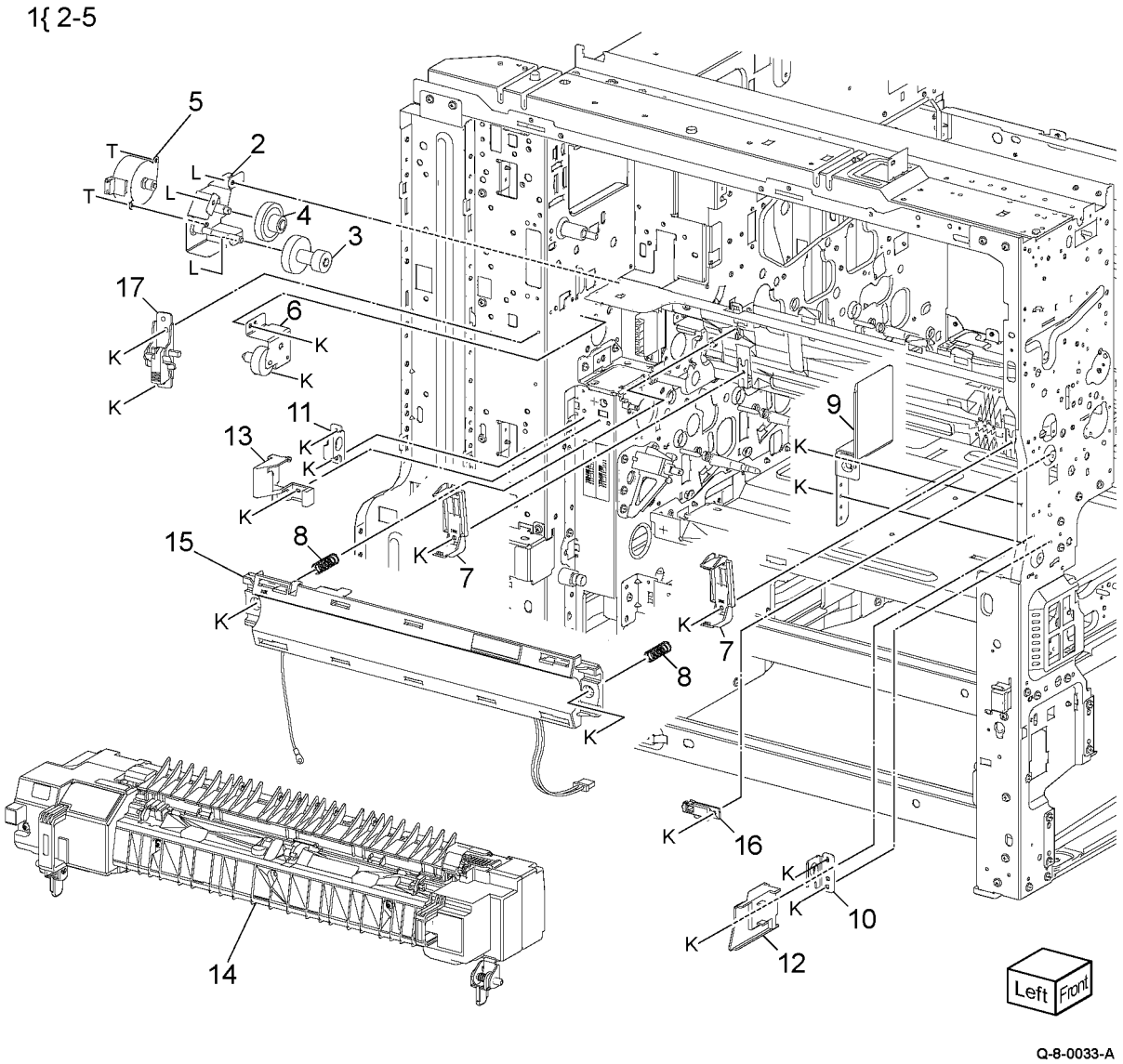
PL 5.58 DADF Drive (130) (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Interlock bracket
2	110K16320	DADF interlock switch
3	952K08300	Harness assembly
4	—	Holder
5	127K79230	DADF Pre Regi. motor (REP 5.74)
6	423W23654	Belt
7	127K73990	DADF Regi. motor (REP 5.72)
8	423W28155	Belt
9	127K75451	DADF feed motor (REP 5.73)
10	—	Harness guide
11	121K53461	DADF take away clutch (A)/DADF Pre Regi. clutch (B)
12	—	Bracket assembly
13	—	Stamp solenoid



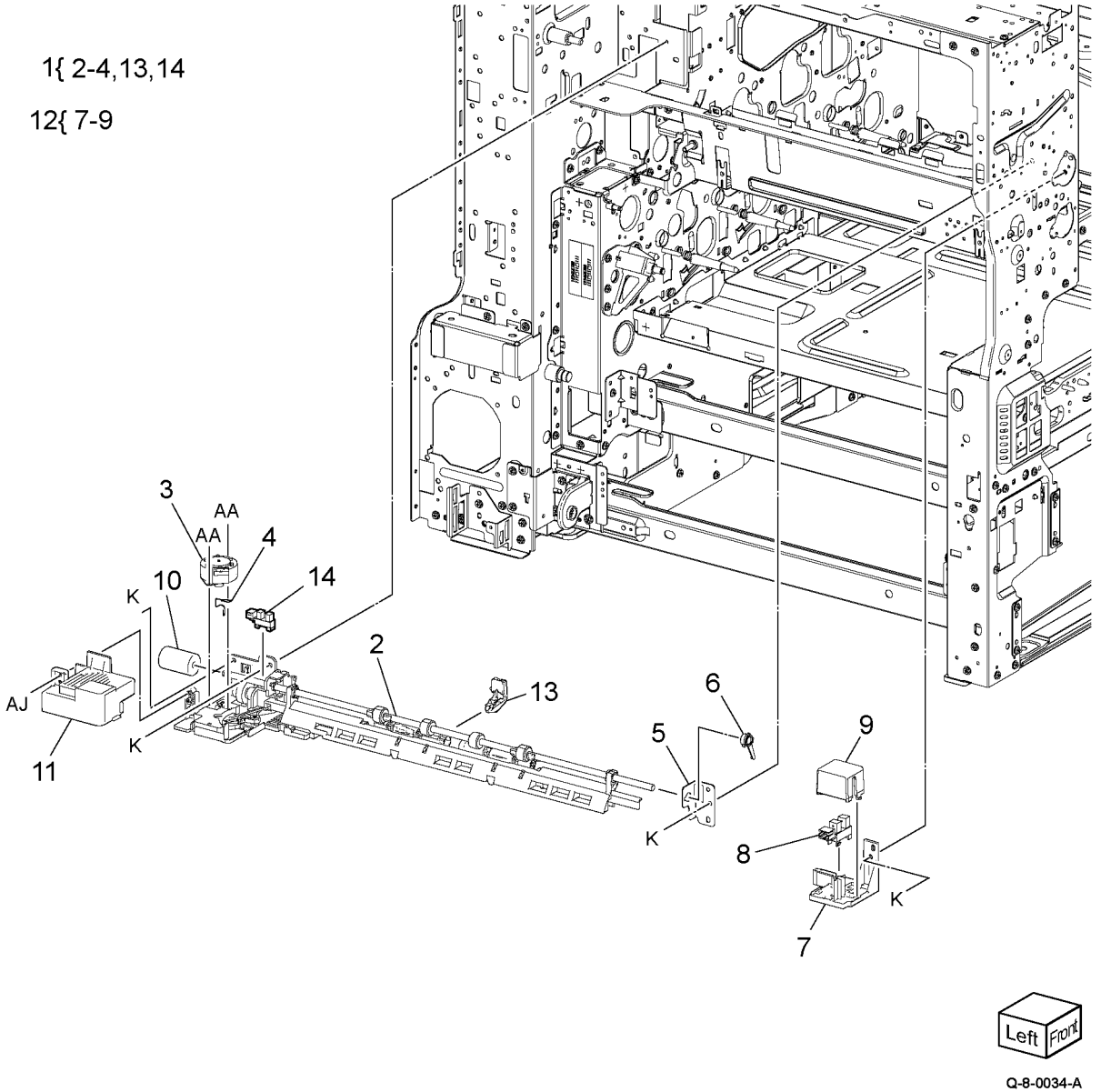
PL 10.05 Fuser

Item	Part	Description
1	007K21640	Retract motor assembly (REP 10.1)
2	—	Motor bracket (P/O PL 10.05 Item 1)
3	—	Gear (17/40T) (P/O PL 10.05 Item 1)
4	—	Gear (17/54T) (P/O PL 10.05 Item 1)
5	—	Roll latch motor (P/O PL 10.05 Item 1)
6	007K21650	Retract gear assembly
7	—	Support (Not Spared)
8	—	Spring (Not Spared)
9	—	Adjust plate (Not Spared)
10	—	Front fuser bracket (Not Spared)
11	—	Rear fuser bracket (Not Spared)
12	—	Front stopper lever (Not Spared)
13	—	Rear stopper lever (Not Spared)
14	607K22310	Fuser (C8130/C8135) (REP 10.2)
—	607K22320	Fuser (C8145/C8155) (REP 10.2)
—	607K22330	Fuser (C8170) (REP 10.2)
15	—	Fuser heater coil - see below for variants
—	104K91480	110V (C8130/C8135/C8145/C8155) (REP 10.3)
—	104K91294	110V (C8170)
—	104K91279	220V (C8130/C8135/C8145/C8155) (REP 10.3)
—	104K91304	220V (C8170)
16	—	Holder (Not Spared)
17	011K05090	Stopper lever assembly



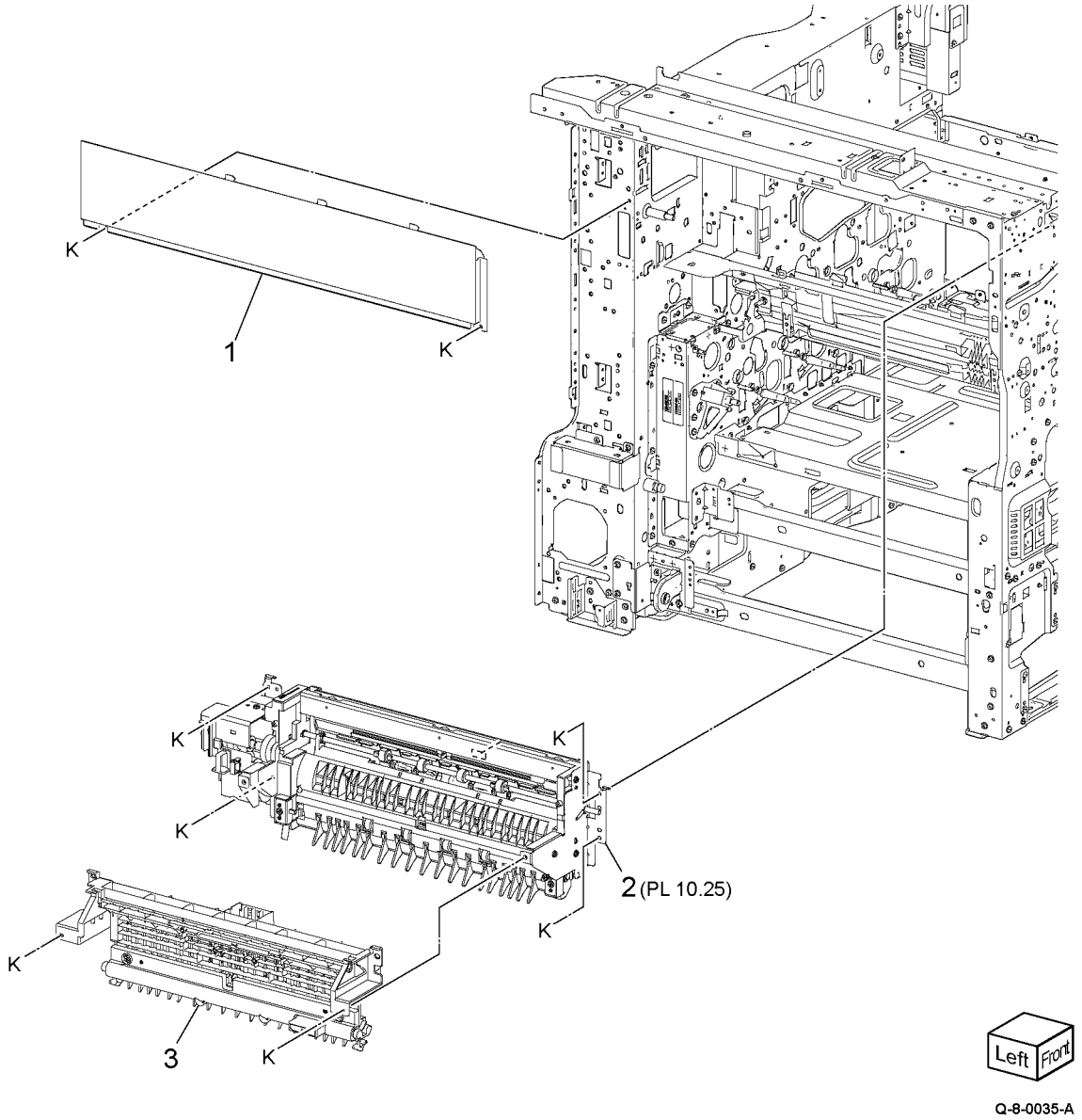
PL 10.10 Exit 1 Transport Components

Item	Part	Description
1	859K03371	Exit 1 transport assembly (C8130/C8135) (REP 10.4)
—	859K03381	Exit 1 transport assembly (C8145/C8155/C8170) (REP 10.4)
2	—	Exit 1 transport (P/O PL 10.10 Item 1)
3	127K52280	Exit 1 OCT motor (C8130/C8135) (MOT77-040) (REP 10.5)
—	127K60880	Exit 1 OCT motor (C8145/C8155/C8170) (REP 10.5)
4	—	Ground spring (P/O PL 10.10 Item 1)
5	—	Bracket (Not Spared)
6	013E46800	Bearing
7	—	Front guide (P/O PL 10.10 Item 12)
8	930W00113	Exit 1 OCT home position sensor (Q77-109) (REP 10.6)
9	—	Exit 1 OCT home position sensor cover (P/O PL 10.10 Item 12)
10	807E20620	Exit 1 drive gear (REP 10.7)
11	948K02070	Motor cover
12	032K10662	Exit 1 sensor guide assembly
13	055E58970	Guard
14	—	Exit 1 OCT full stack sensor (Q77-124) (P/O PL 10.10 Item 1)



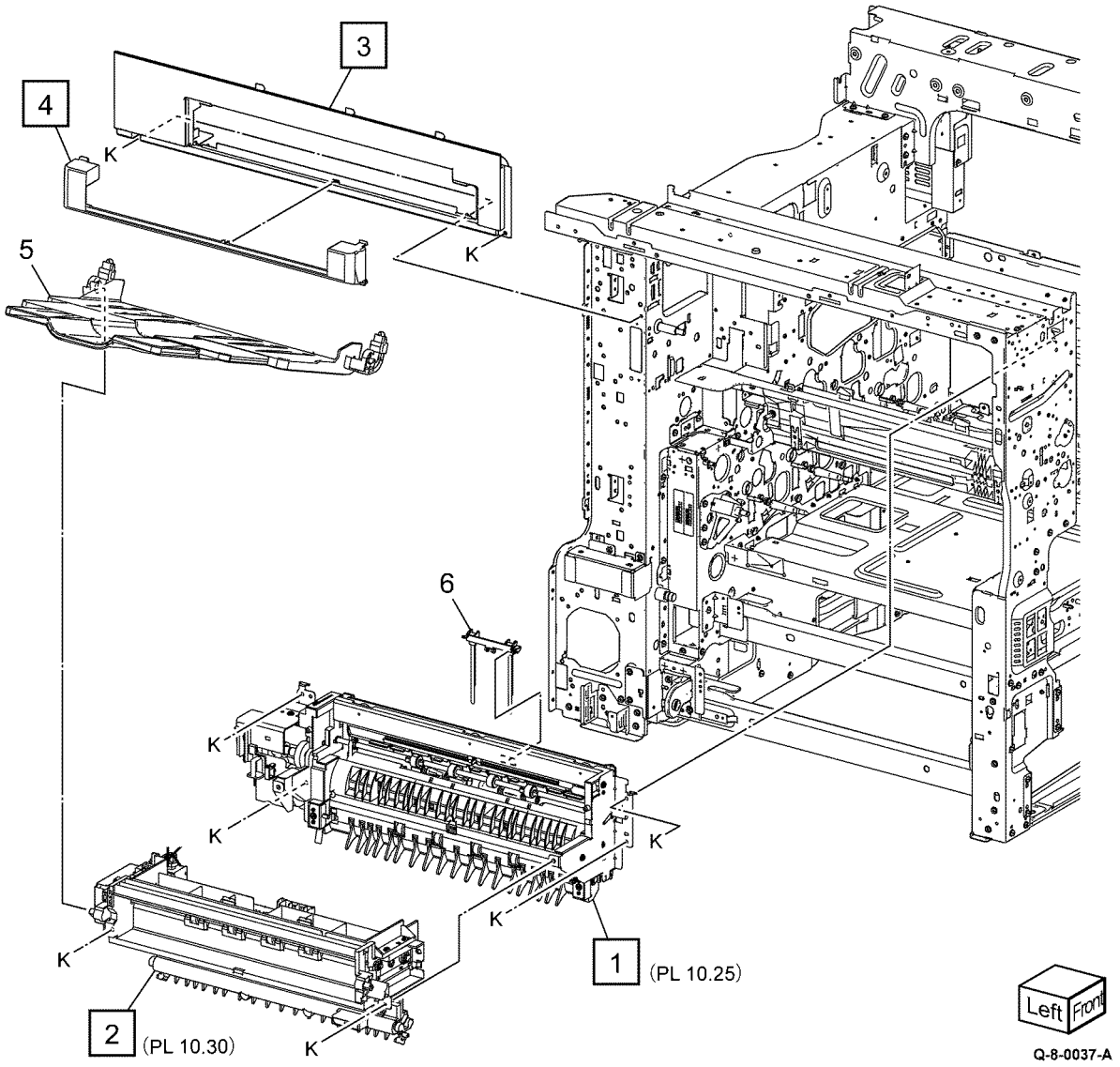
PL 10.15 Exit 2 Transport Components

Item	Part	Description
1	822E33800	Left top cover
2	—	Exit 2 transport assembly (C8130/C8135) (REP 10.8)
—	—	Exit 2 transport assembly (C8145/C8155/C8170) (REP 10.8)
3	—	Top chute assembly (Not Spared)



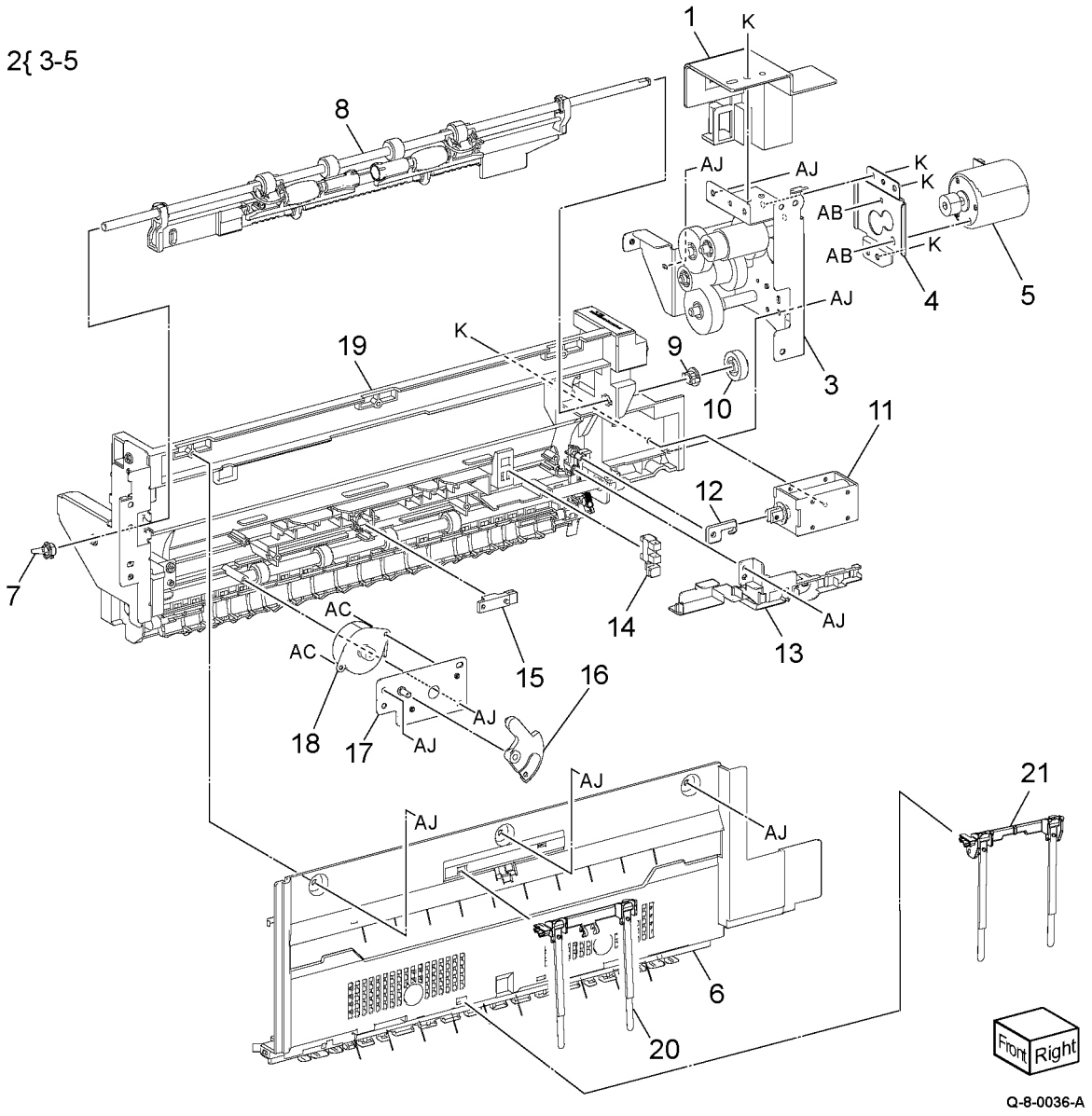
PL 10.20 Face Up Tray Assembly

Item	Part	Description
1	859K03409	Exit 2 transport assembly (C8130/C8135) (REP 10.8)
—	859K03419	Exit 2 transport assembly (C8145/C8155/C8170) (REP 10.8)
2	054K56102	Face up chute assembly
3	—	Left hand top cover
4	822E39130	Face up tray cover
5	050K75161	Face up tray
6	—	Exit 2 paper weight assembly



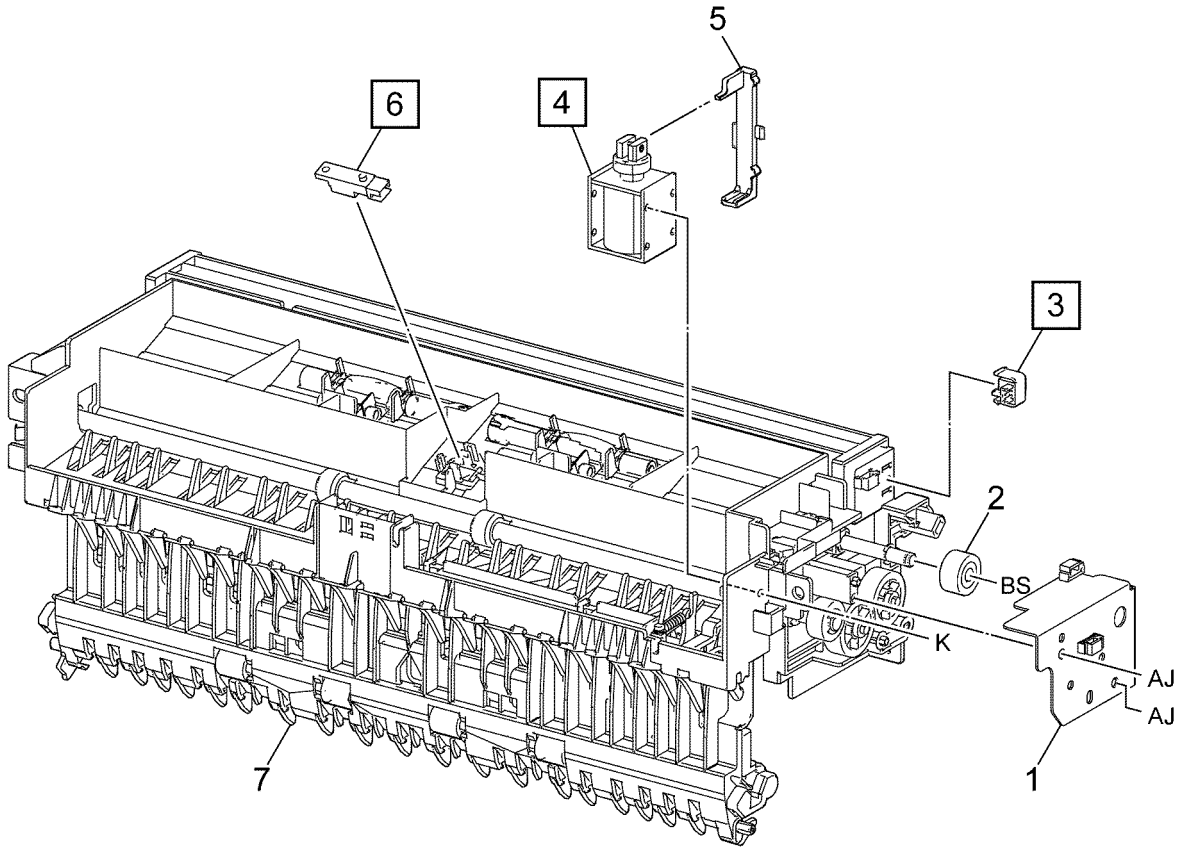
PL 10.25 Exit 2 Transport Assembly

Item	Part	Description
1	—	Harness guide (P/O PL 10.15 Item 2)
2	007K21701	Exit 2 drive assembly (REP 10.9)
3	—	Exit 2 drive bracket assembly (P/O PL 10.25 Item 2)
4	—	Motor bracket (P/O PL 10.25 Item 2)
5	—	Exit 2 drive motor (MOT77-060) (P/O PL 10.25 Item 2)
6	—	Exit 2 guide assembly (P/O PL 10.15 Item 2)
7	—	Bearing (P/O PL 10.15 Item 2)
8	—	Exit 2 chute assembly (P/O PL 10.15 Item 2)
9	—	Bearing (P/O PL 10.15 Item 2)
10	—	Gear (P/O PL 10.15 Item 2)
11	121K58240	Exit 1 gate solenoid (SOL77-003) (REP 10.10)
12	—	Link (P/O PL 10.15 Item 2)
13	—	Harness guide (P/O PL 10.15 Item 2)
14	930W00113	Exit 2 OCT home position sensor (Q77-110) (REP 10.11)
15	930W00211	Exit 2 sensor (Q77-100)
16	—	Offset gear (P/O PL 10.15 Item 2) (REP 10.12)
17	—	Motor bracket (P/O PL 10.15 Item 2)
18	127K52280	Exit 2 OCT motor (C8130/C8135) (MOT77-045)
—	127K60880	Exit 2 OCT motor (C8145/C8155/ C8170) (MOT77-045)
19	—	Exit 2 transport chassis (P/O PL 10.15 Item 2)
20	036K92441	Exit 2 bail arm assembly
21	036K92411	Exit 1 bail arm assembly



PL 10.30 Face Up Chute Assembly

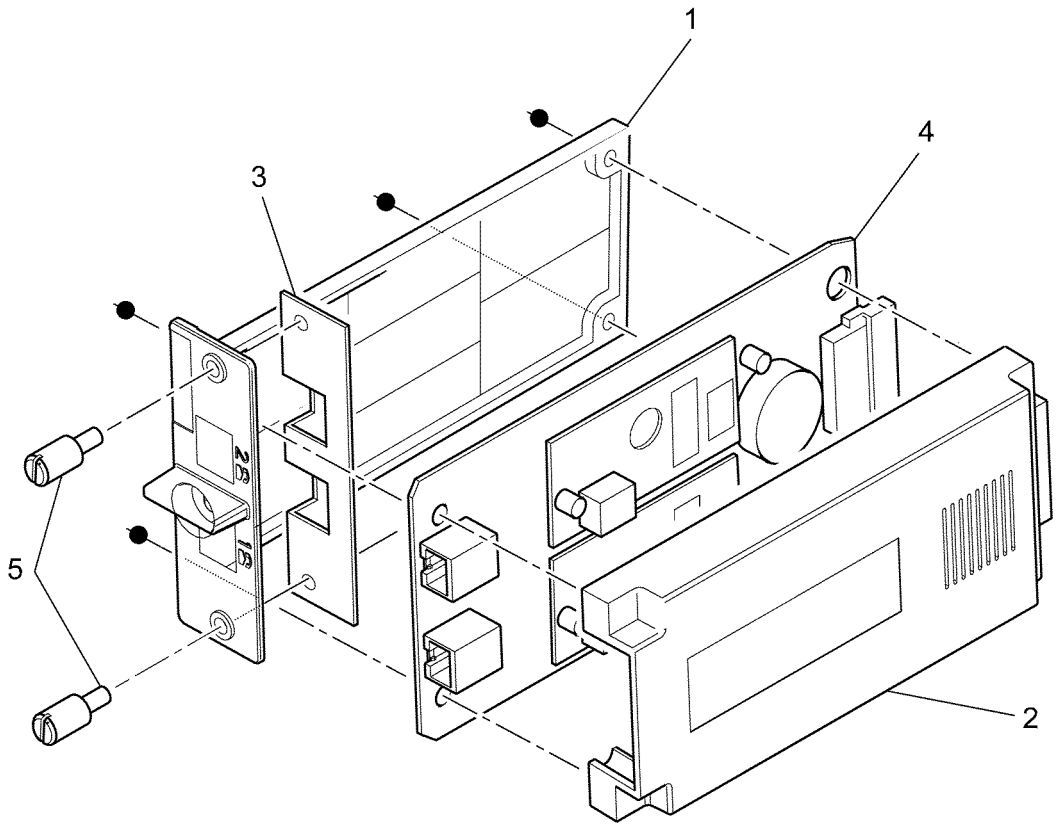
Item	Part	Description
1	—	Gear bracket
2	007K23630	One way gear
3	110E11580	Face up tray switch (S77-201)
4	921W11601	Face up gate solenoid (SOL77-004)
5	—	Solenoid link
6	930W00211	Face up exit sensor (Q77-112)
7	—	Face up chute



PL 20.10 Fax Module

Item	Part	Description
1	—	Front cover (P/O PL 20.10 Item 7)
2	—	Rear Cover (P/O PL 20.10 Item 7)
3	—	Ground Plate (P/O PL 20.10 Item 6)
4	—	Fax PWB (P/O PL 20.10 Item 6)
5	—	Thumbscrew (P/O PL 20.10 Item 6)
6	497K16440	2 Line fax kit (XC)
—	497K16430	1 Line Fax kit (XC)
—	497K16420	2 Line fax kit (XE)
—	497K16410	1 Line fax kit (XE)
—	497K16560	2 Line fax kit (CFax 34)
—	497K16550	1 line fax kit (CFax 34)
—	—	Fax Module
7	—	Fax Covers Assembly

Note: 497K part numbers are for reference only.



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PL 25.10 Accessories

Item	Part	Description
1	498K08260	Convenience stapler (XE)
2	498K08250	Convenience stapler (XC)
3	497K21540	Wireless kit
4	497K21550	Bluetooth kit
5	—	HDD / IJO kit
6	—	RFID Reader
7	—	USB keyboard/ Shelf kit
8	—	Long sheet feed kit
9	—	Foreign device interface kit

Note: 497K/498K part numbers are for reference only.

NO EXPLODED VIEW PROVIDED

Q-8-0113-A

PL 26.10 Consumables and Tools

Item	Part	Description
1	—	Toner cartridge (Y)- see below for variants
—	006R01745	Worldwide (Metered)
—	006R01749	NASG/XE
—	006R01757	DMO (C8130/C8135)
—	006R01761	DMO (C8145/C8155/C8170)
2	—	Toner cartridge (M)- see below for variants
—	006R01744	Worldwide (Metered)
—	006R01748	NASG/XE
—	006R01760	DMO (C8145/C8155/C8170)
3	—	Toner cartridge (C)- see below for variants
—	006R01743	Worldwide (Metered)
—	006R01747	NASG/XE
—	006R01756	DMO (C8130/C8135)
—	006R01755	DMO (C8130/C8135)
—	006R01759	DMO (C8145/C8155/C8170)
4	—	Toner cartridge (K)- see below for variants
—	006R01742	Worldwide (Metered)
—	006R01746	NASG/XE
—	006R01754	DMO (C8130/C8135)
—	006R01758	DMO (C8145/C8155/C8170)

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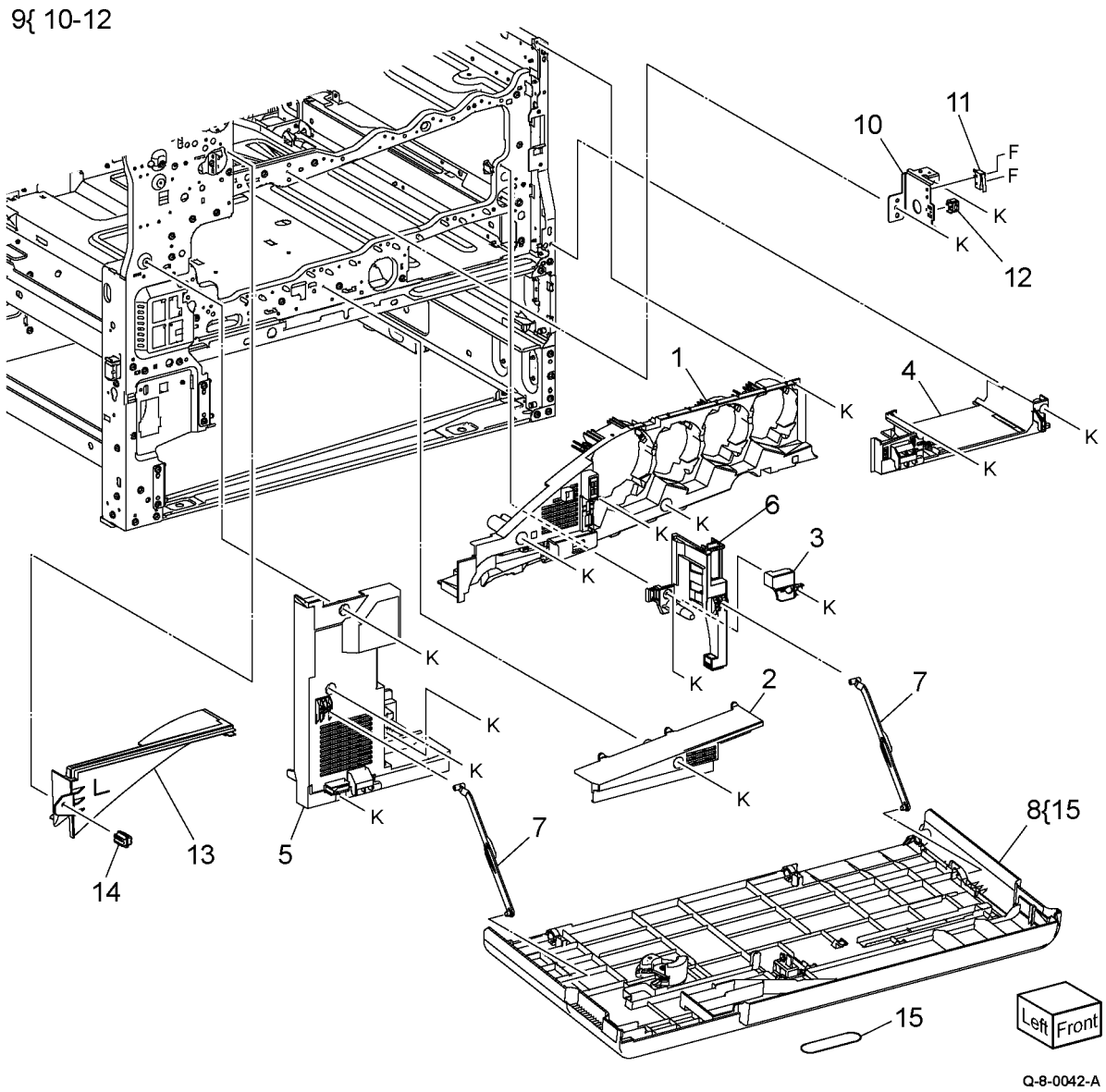
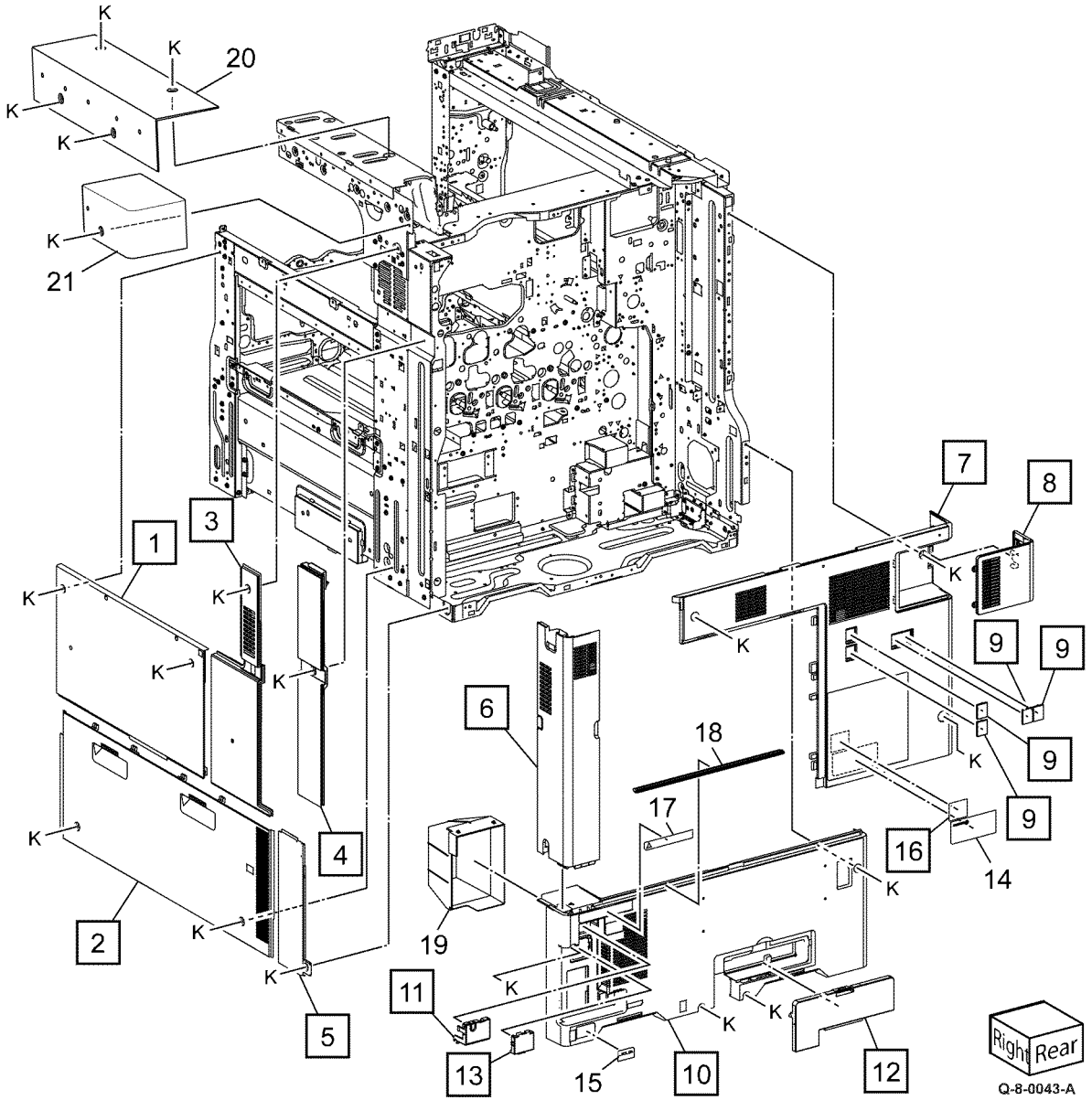
PL 28.05 Covers (Front)

Item	Part	Description
1	948K00255	Inner cover assembly
2	822E35582	Inner lower cover
3	—	Inner right cap cover (Not Spared)
4	—	Inner hinge cover assembly (Not Spared)
5	—	Inner left cover (Not Spared)
6	—	Inner right cover (Not Spared)
7	674K05081	Front cover strap kit
8	948K32930	Front cover assembly
9	110K18350	Front cover interlock switch assembly (S77-303)
10	—	Bracket (P/O PL 28.05 Item 9)
11	—	Front cover interlock switch (P/O PL 28.05 Item 9)
12	—	Front cover open switch (P/O PL 28.05 Item 9)
13	822E25031	Inner upper cover
14	003K23140	Knob
15	971E14990	Logo badge



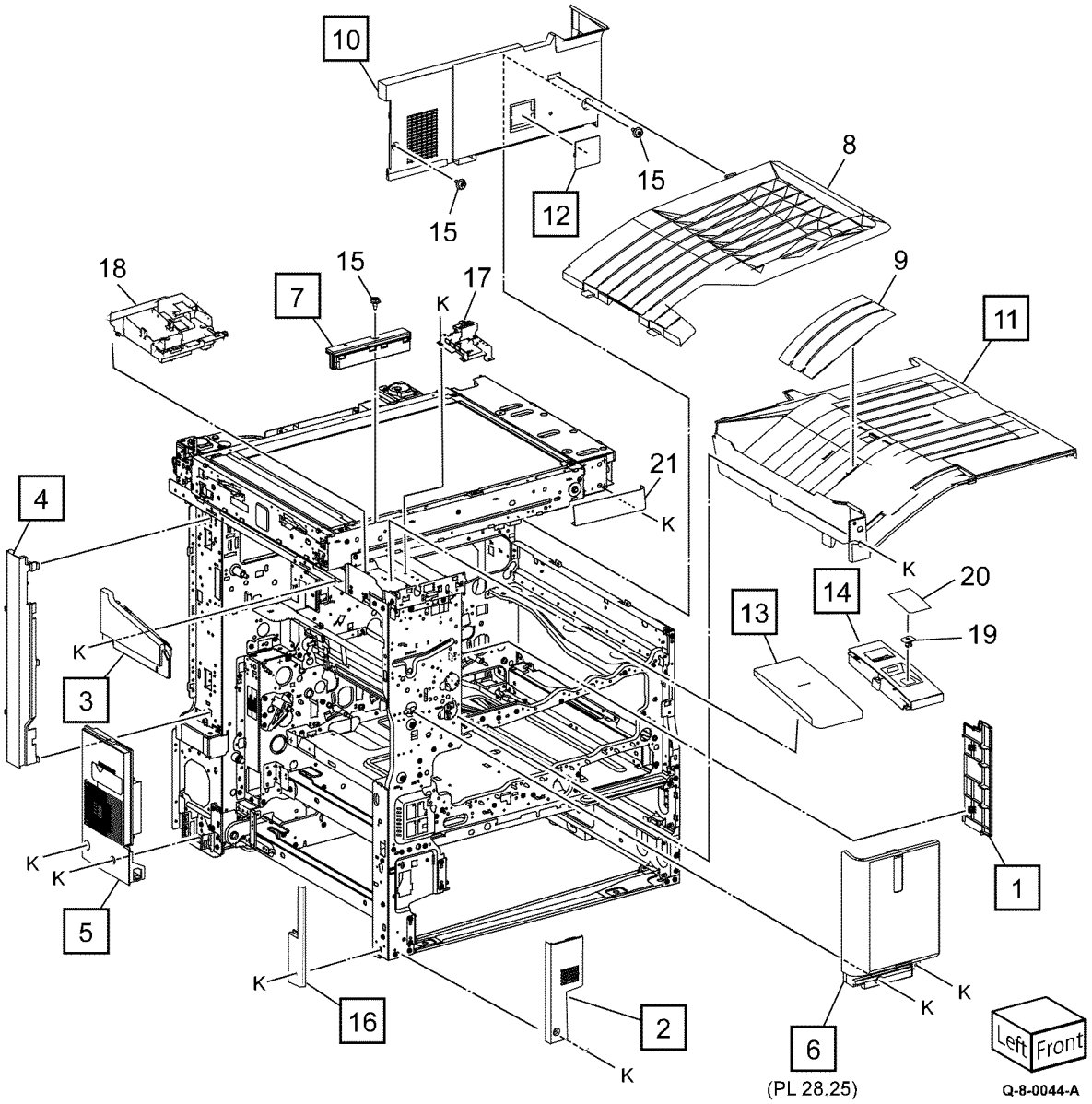
PL 28.10 Covers (Rear)

Item	Part	Description
1	822E25191	Upper right front cover
2	822E25133	Lower right front cover
3	822E33951	Upper right rear cover 1
4	—	Upper right rear cover 2 (C8170)
5	—	Upper rear cover (C8170)
6	822E25311	ESS rear cover
7	—	Upper rear cover
8	822E25420	Left rear cover
9	—	Cap cover (Not Spared)
10	822E25443	Lower right rear cover
11	—	EPSV cover (Not Spared)
12	822E25602	MCU cover
13	—	Outlet cover (Not Spared)
14	—	Label (Date) (Not Spared)
15	—	Label (GFI) (Not Spared)
16	—	Label (Warning) (Not Spared)
17	—	Label (Earth) (Not Spared)
18	—	Gasket (Not Spared)
19	—	Rear suction duct (C8170) (Not Spared)
20	—	Right cover (Blue) (C8130/C8135/C8145/C8155)
21	—	Rear right cover (White) (C8130/C8135/C8145/C8155)



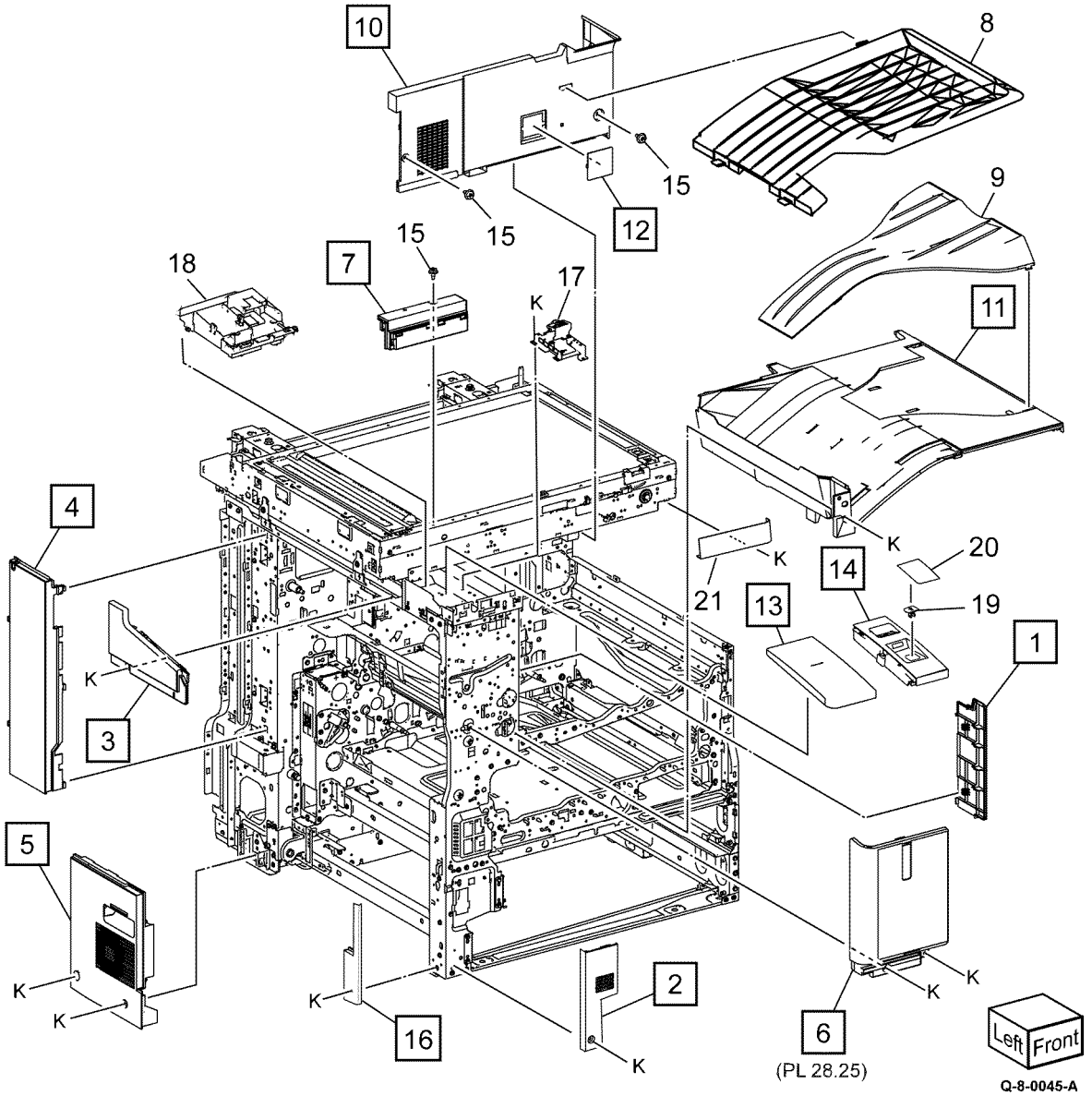
PL 28.15 Covers (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Front exit cover (Not Spared)
2	—	Tray inner cover (Not Spared)
3	—	Pillar cover
4	822E25072	Upper left cover
5	822E25112	Lower left cover
6	—	Front left cover (with Human Motion Sensor) (REF: PL 28.25) (REP 28.1)
7	—	IIT front cover
8	050E32924	Exit 2 tray
9	—	Add tray
10	—	Top rear cover (Not Spared)
11	—	Top cover (C8130/C8135)
—	—	Top cover (C8145/C8155)
12	—	Blind cover
13	—	Card reader cover
14	—	SWEA cover 2 (REP 28.2)
15	—	Screw (Not Spared)
16	—	Inner tray LH cover
17	—	USB bracket assembly
18	—	Inner cover
19	—	Icon USB cover
20	822E35423	USB cover
21	—	IIT Lower front right cover



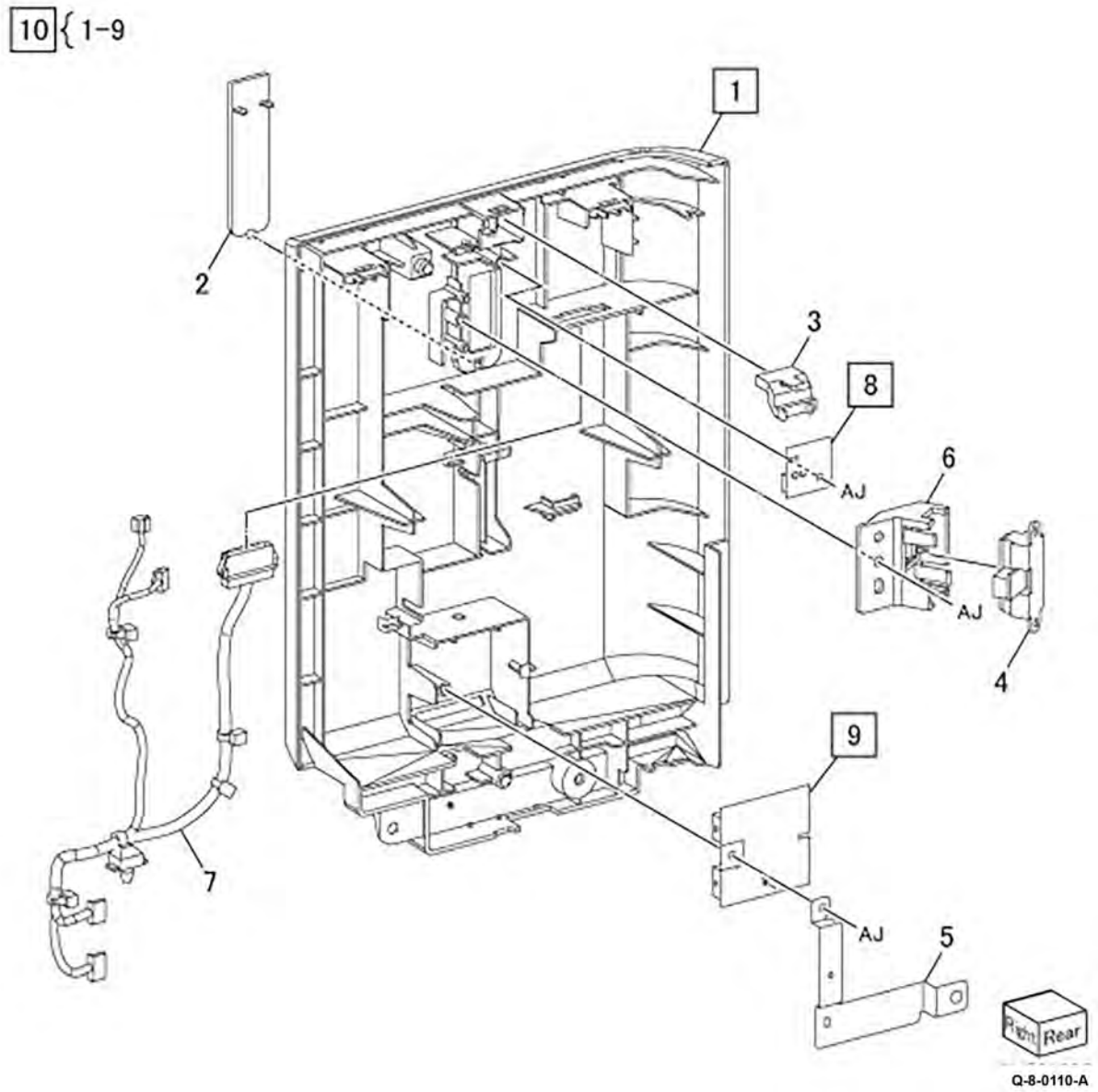
PL 28.20 Covers (C8170)

Item	Part	Description
1	—	Front exit cover
2	—	Tray inner front cover
3	—	Top pillar cover
4	—	L/H upper cover
5	—	L/H lower cover
6	948K23770	Front left cover (with Human Motion Sensor) (REF: PL 28.25) (REP 28.1)
7	—	IIT front cover
8	—	Exit 2 tray
9	—	Add tray
10	—	Top rear cover
11	—	Top cover
12	—	Blind cover
13	—	IC card reader cover
14	—	SWEA cover 2 (REP 28.2)
15	—	Screw (Not Spared)
16	—	Tray inner LH cover
17	—	USB bracket assembly
18	—	Inner cover
19	—	Icon USB cover
20	822E35423	USB cover
21	—	IIT Lower front right cover



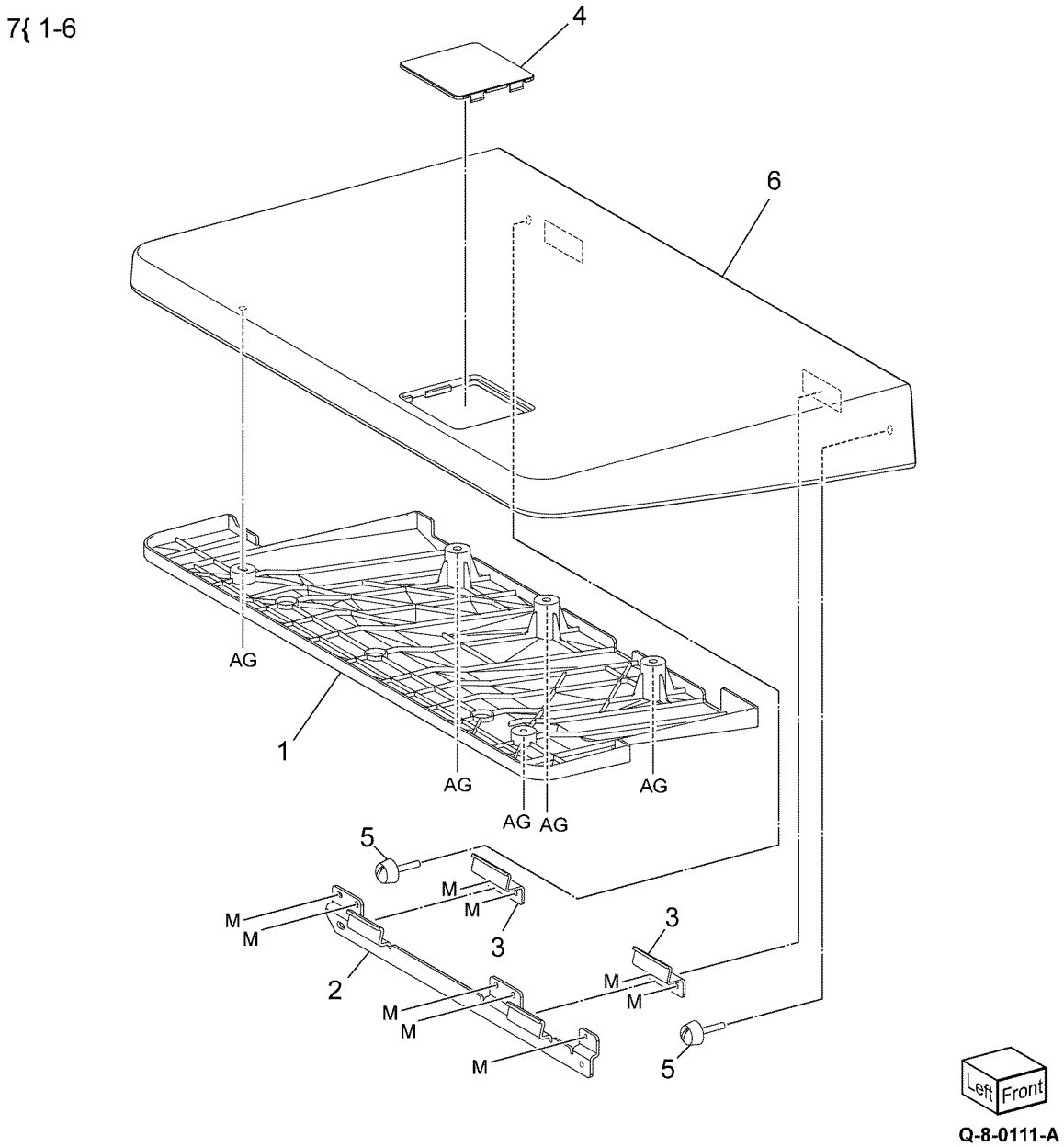
PL 28.25 Front Left Cover Compartment

Item	Part	Description
1	—	Front left cover (P/O PL 28.25 Item 10)
2	—	Lens (P/O PL 28.25 Item 10)
3	—	LED lens (P/O PL 28.25 Item 10)
4	130E20270	Human motion sensor
5	—	Ground plate (P/O PL 28.25 Item 10)
6	—	Human motion sensor bracket (P/O PL 28.25 Item 10)
7	—	Wire harness (P/O PL 28.25 Item 10)
8	960K76290	Human motion LED
9	960K86660	Human motion sensor PWB
10	—	Pillar cover assembly



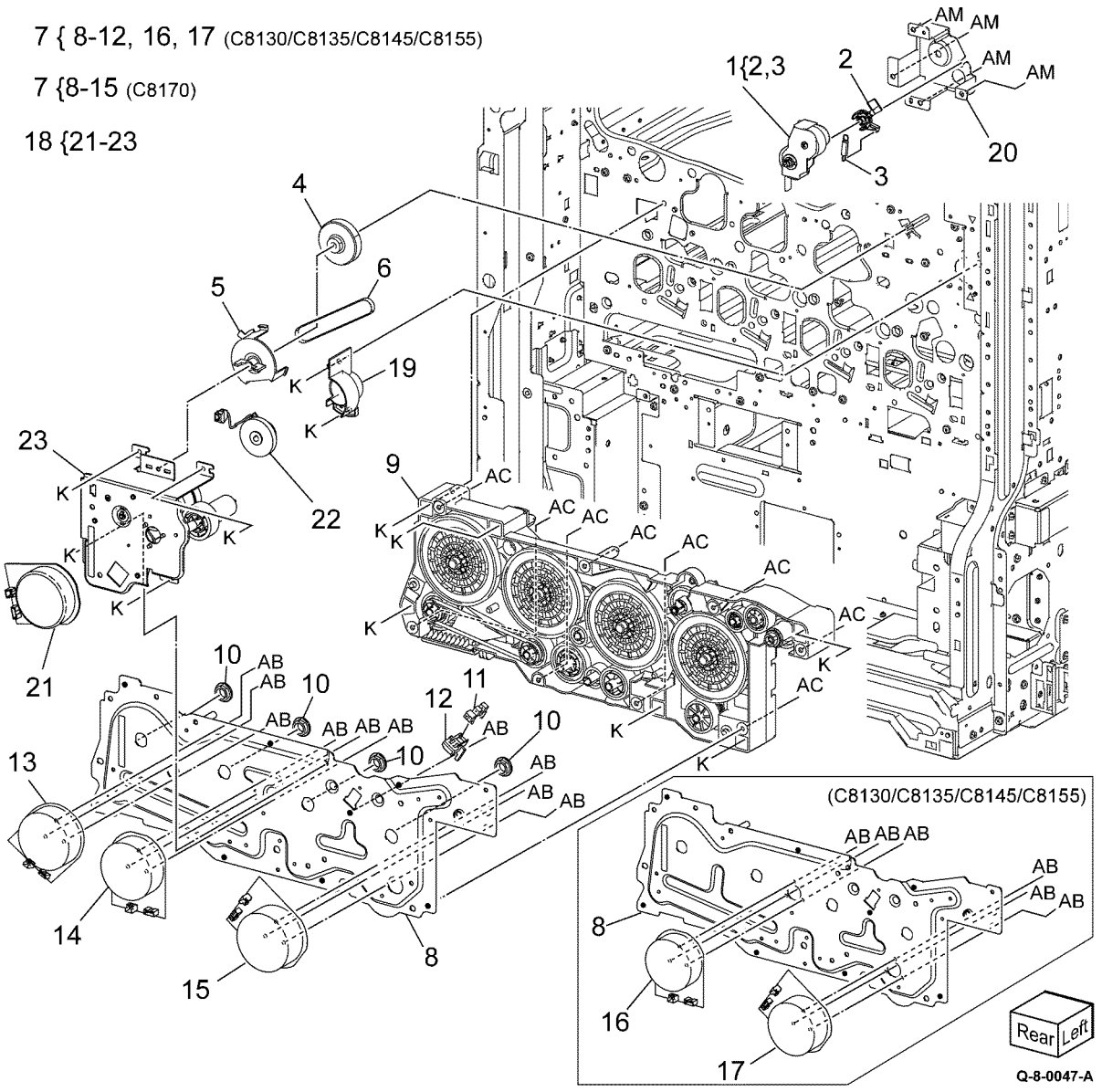
PL 28.30 Workshelf

Item	Part	Description
1	—	Workshelf base cover (P/O PL 28.30 Item 7)
2	—	Bracket (P/O PL 28.30 Item 7)
3	—	Workshelf bracket (P/O PL 28.30 Item 7)
4	—	Blind cover (P/O PL 28.30 Item 7)
5	—	Thumbscrew (P/O PL 28.30 Item 7)
6	—	Workshelf top cover (P/O PL 28.30 Item 7)
7	497K20750	Workshelf kit



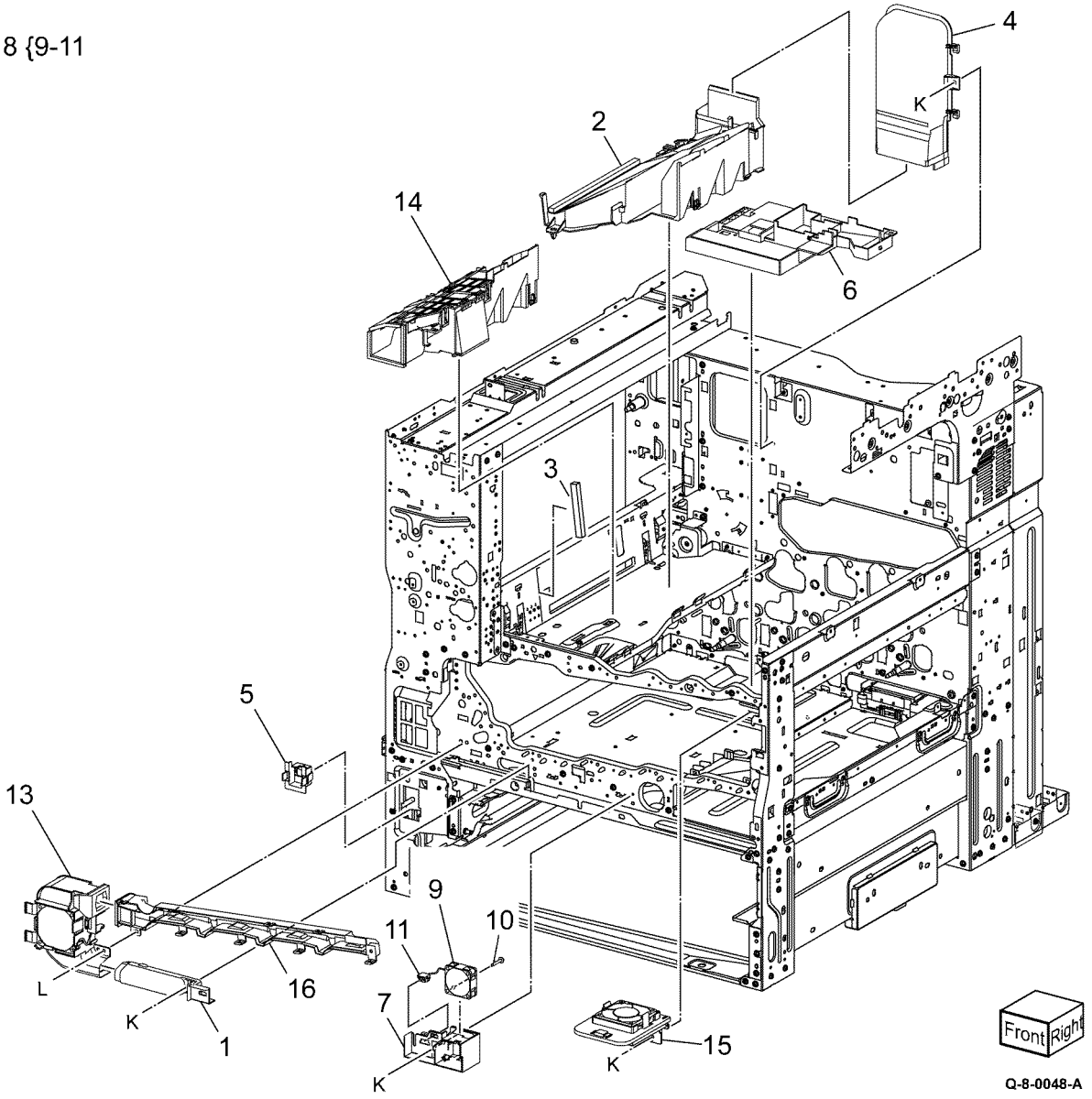
PL 40.05 Main Drive Assembly

Item	Part	Description
1	607K20460	Fuser input bracket assembly (C8130/C8135)
—	607K20470	Fuser input bracket assembly (C8145/C8155)
—	607K20480	Fuser input bracket assembly (C8170)
2	—	Spacer (P/O PL 40.05 Item 1)
3	—	Spring (P/O PL 40.05 Item 1)
4	807E51730	Helical gear
5	005E38390	Flange
6	423W10354	Drive belt
—	423W10355	Drive belt (alternative)
7	007K21545	Main drive assembly (C8130/C8135) (REP 40.1)
—	007K22595	Main drive assembly (C8145/C8155) (MOT42-018) (REP 40.1)
—	007K21554	Main drive assembly (C8170) (REP 40.1)
8	—	Drum drive bracket assembly (P/O PL 40.05 Item 7)
9	—	Drum drive housing assembly (P/O PL 40.05 Item 7)
10	—	Bearing (P/O PL 40.05 Item 7)
11	930W00121	BTR contact/retract sensor (Q94-200)
12	—	Sensor bracket (P/O PL 40.05 Item 7)
13	—	Drum (C, M, Y) motor (C8170) (MOT42-007) (P/O PL 40.05 Item 7)
14	—	Developer motor (C8170) (P/O PL 40.05 Item 7)
15	—	Drum/developer (K)/ IBT motor (C8170) (P/O PL 40.05 Item 7)
16	—	Drum (C, M, Y) motor (C8130/C8135/C8145/C8155) (P/O PL 40.05 Item 7)
17	—	Drum/developer (K)/ IBT motor (C8130/C8135/C8145/C8155) (MOT42-001) (P/O PL 40.05 Item 7)
18	007K21444	Fuser drive assembly (REP 40.2)
19	—	Gear cover (Not Spared)
20	—	Bracket (Not Spared)
21	—	Fuser unit drive motor (P/O PL 40.05 Item 16)
22	—	BTR contact/retract clutch assembly (P/O PL 40.05 Item 16)
23	—	Fuser drive bracket asembly (P/O PL 40.05 Item 18)



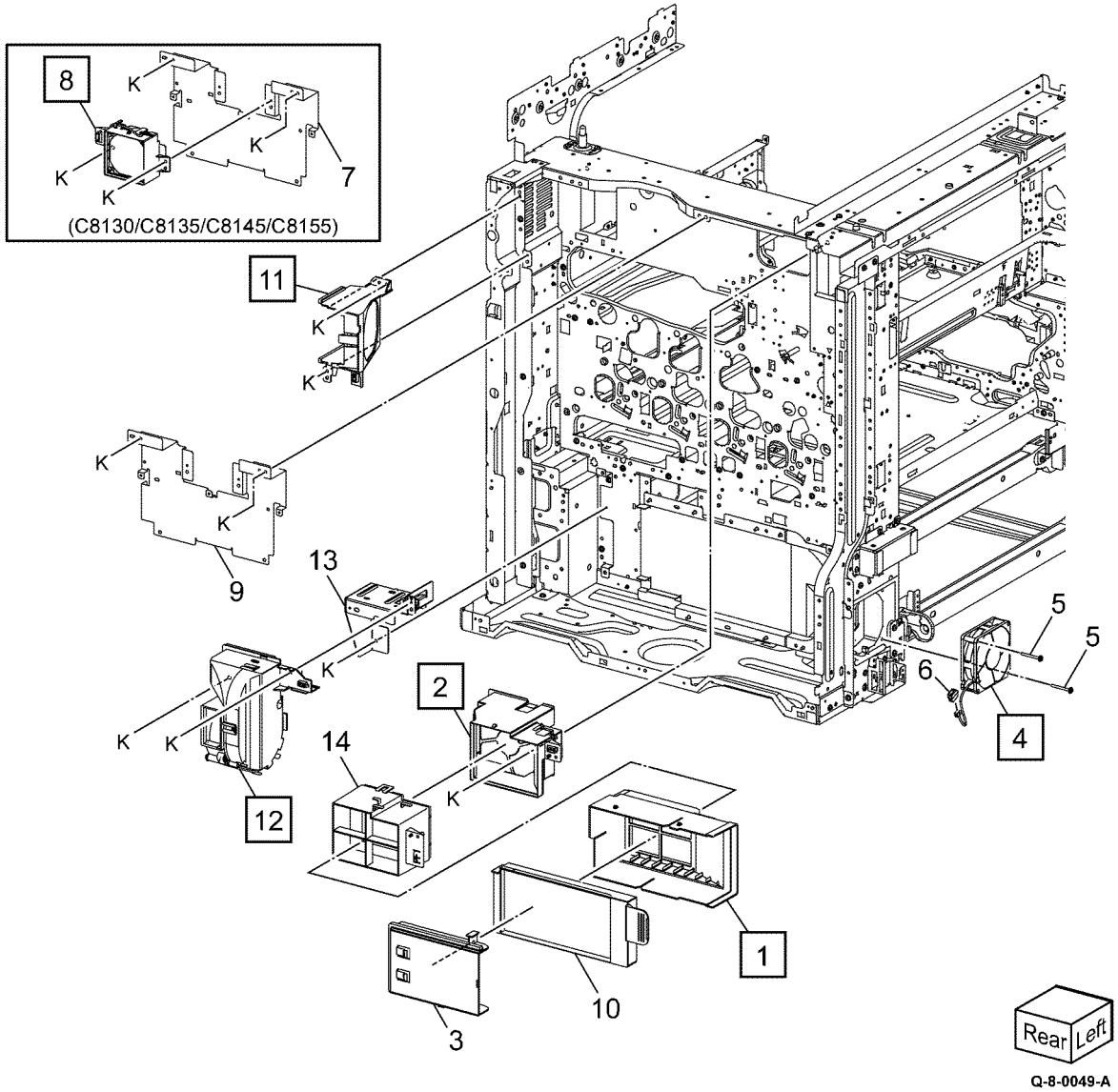
PL 40.10 NOHAD (front)

Item	Part	Description
1	054E59370	Duct
2	—	Fuser duct assembly (Not Spared)
3	—	Fuser seal (Not Spared)
4	—	Fuser duct (Not Spared)
5	930K00500	Temp/Humidity sensor (external) (REP 40.3)
6	—	Rear duct (Not Spared)
7	054E58001	P1 duct
8	054K55040	Duct assembly (C8145/C8155/C8170) (REP 40.4)
9	—	Front/right marking fan (C8145/C8155/C8170) (P/O PL 40.10 Item 8)
10	—	Screw (P/O PL 40.10 Item 8)
11	—	Connector (P/O PL 40.10 Item 8)
12	—	Not used
13	054K55030	Front/left marking fan assembly (C8145/C8155/C8170) (MOT42-067) (REP 40.6)
14	054K54981	Toner cartridge cooling fan assembly (C8145/C8155/C8170) (REP 40.5)
15	054K55060	Marking fan duct assembly (C8145/C8155/C8170) (MOT42-025)
16	—	Front duct (C8145/C8155/C8170) (Not Spared)



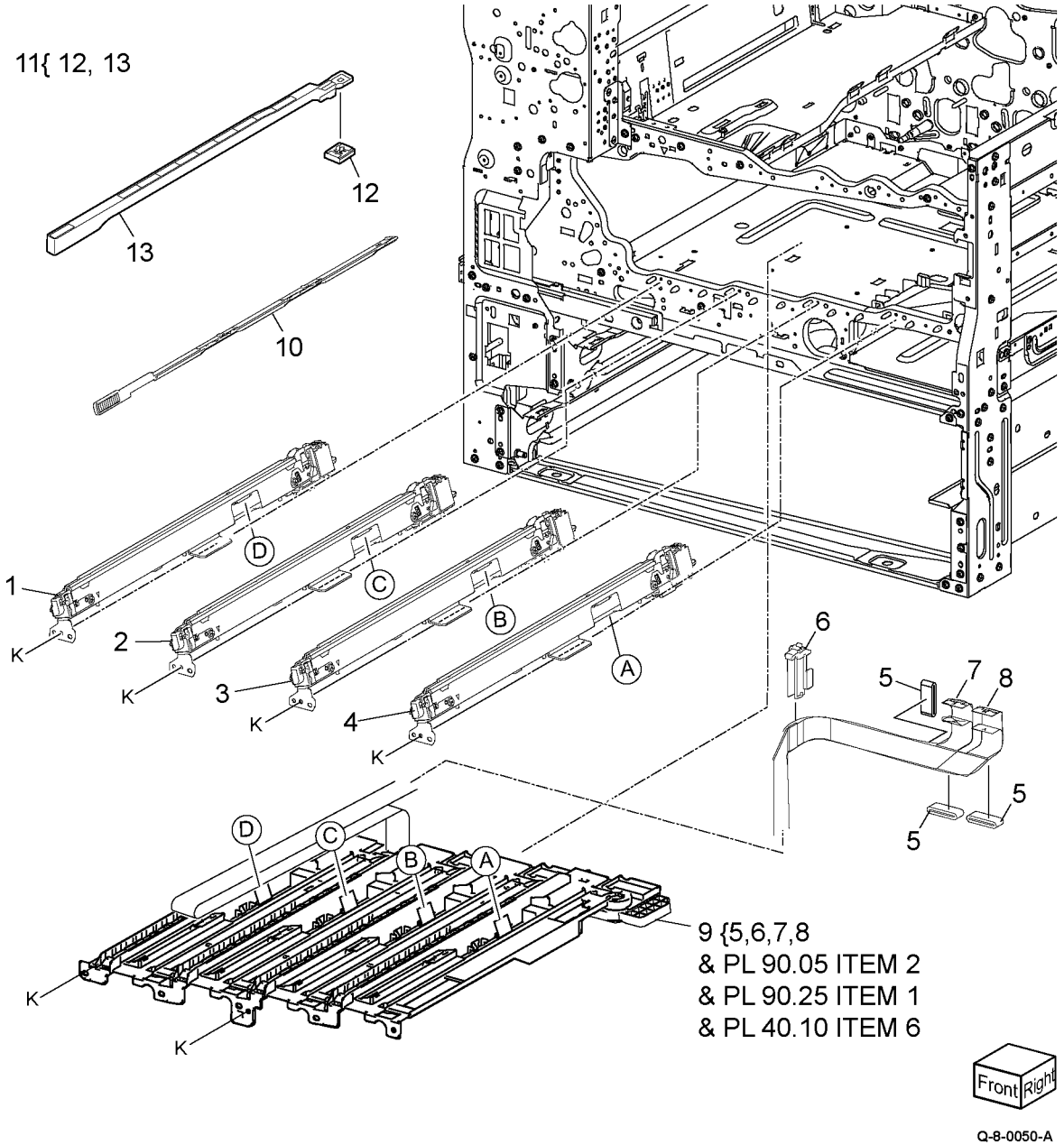
PL 40.15 NOHAD (rear)

Item	Part	Description
1	054K55010	Rear fuser duct assembly (REP 40.7)
2	054K55050	Fuser unit exhaust fan assembly (MOT42-058)
3	815K16761	Side plate
4	127K74210	LVPS fan assembly (MOT42-052) (REP 40.8)
5	—	Screw (P/O PL 40.15 Item 4)
6	—	Connector (P/O PL 40.15 Item 4)
7	—	Bracket (C8130/C8135/C8145/C8155) (P/O PL 40.15 Item 8)
8	054K55210	IHPS intake duct assembly (C8130/C8135/C8145/C8155) (MOT42-069) (REP 40.9)
9	—	Bracket (C8170)
10	008R08104	UFP filter assembly (C8170)
11	054K54990	Toner cartridge exhaust fan assembly (C8145/C8155/C8170) (REP 40.10)
12	054K60390	Suction fan duct assembly (C8170)
13	—	Suction base plate assembly (C8170)
14	054E58220	Fusing unit exhaust duct (C8170)



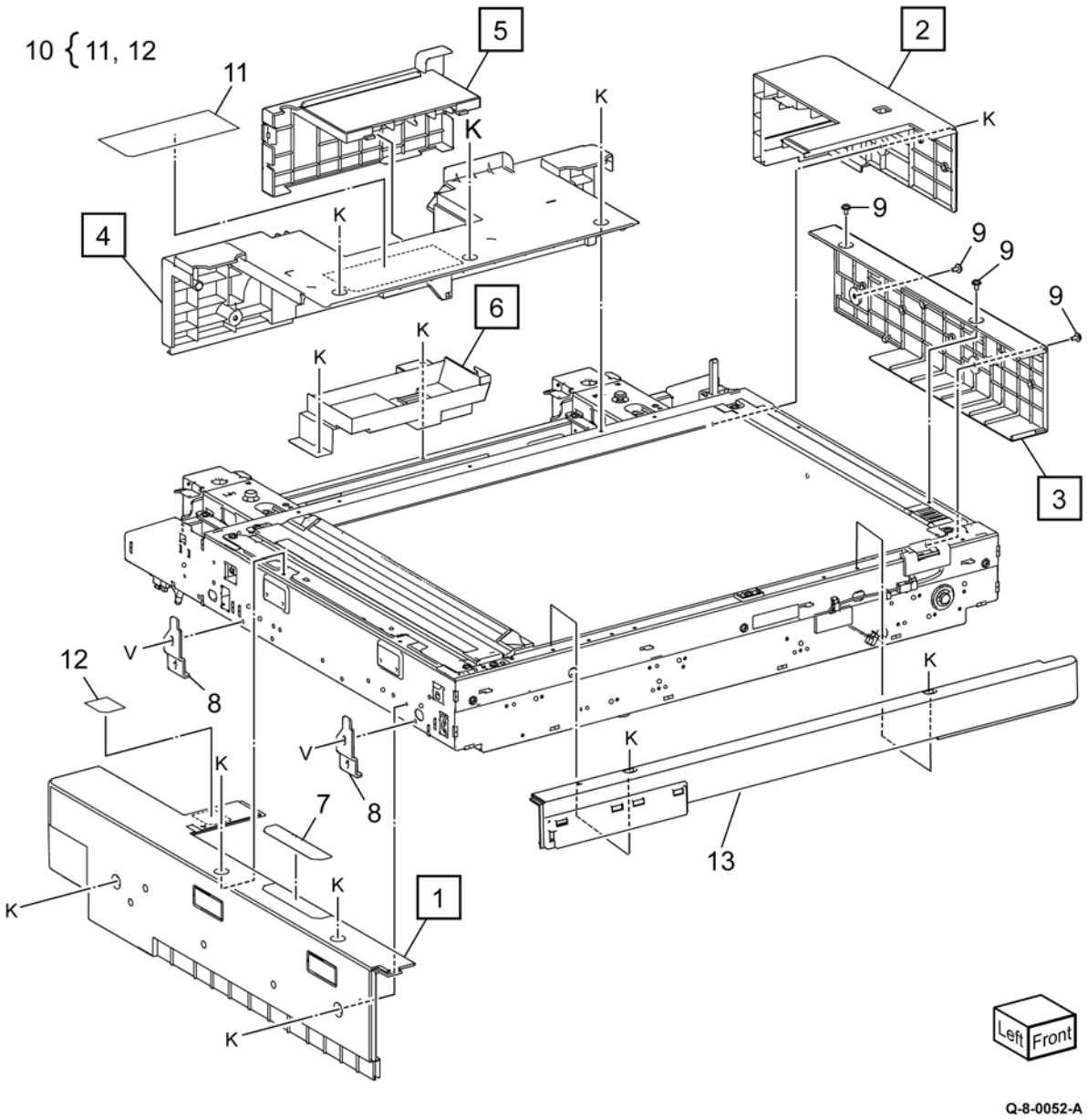
PL 60.05 LPH Module

Item	Part	Description
1	930K00722	LPH assembly (Y, M, C, K) (C8130/C8135/C8145/C8155) (REP 60.1)
—	930K02795	LPH assembly (Y, M, C, K) (C8170) (REP 60.1)
2	—	LPH assembly (C) (REP 60.1)
3	—	LPH assembly (M) (REP 60.1)
4	—	LPH assembly (Y) (REP 60.1)
5	121E24600	Core ferrite
6	—	FFC guide (P/O PL 60.05 Item 9)
7	—	FFC cable (P/O PL 60.05 Item 9)
8	—	FFC cable (P/O PL 60.05 Item 9)
9	607K02720	FFC cable assembly kit (C8130/C8135/C8145/C8155) (REP 60.2)
—	607K02730	FFC cable assembly kit (C8170) (REP 60.2)
10	042K94930	LPH cleaner
11	042K95890	Cleaner assembly kit
12	—	Cleaner base assembly (P/O PL 60.05 Item 11)
13	—	Cleaner rod (P/O PL 60.05 Item 11)



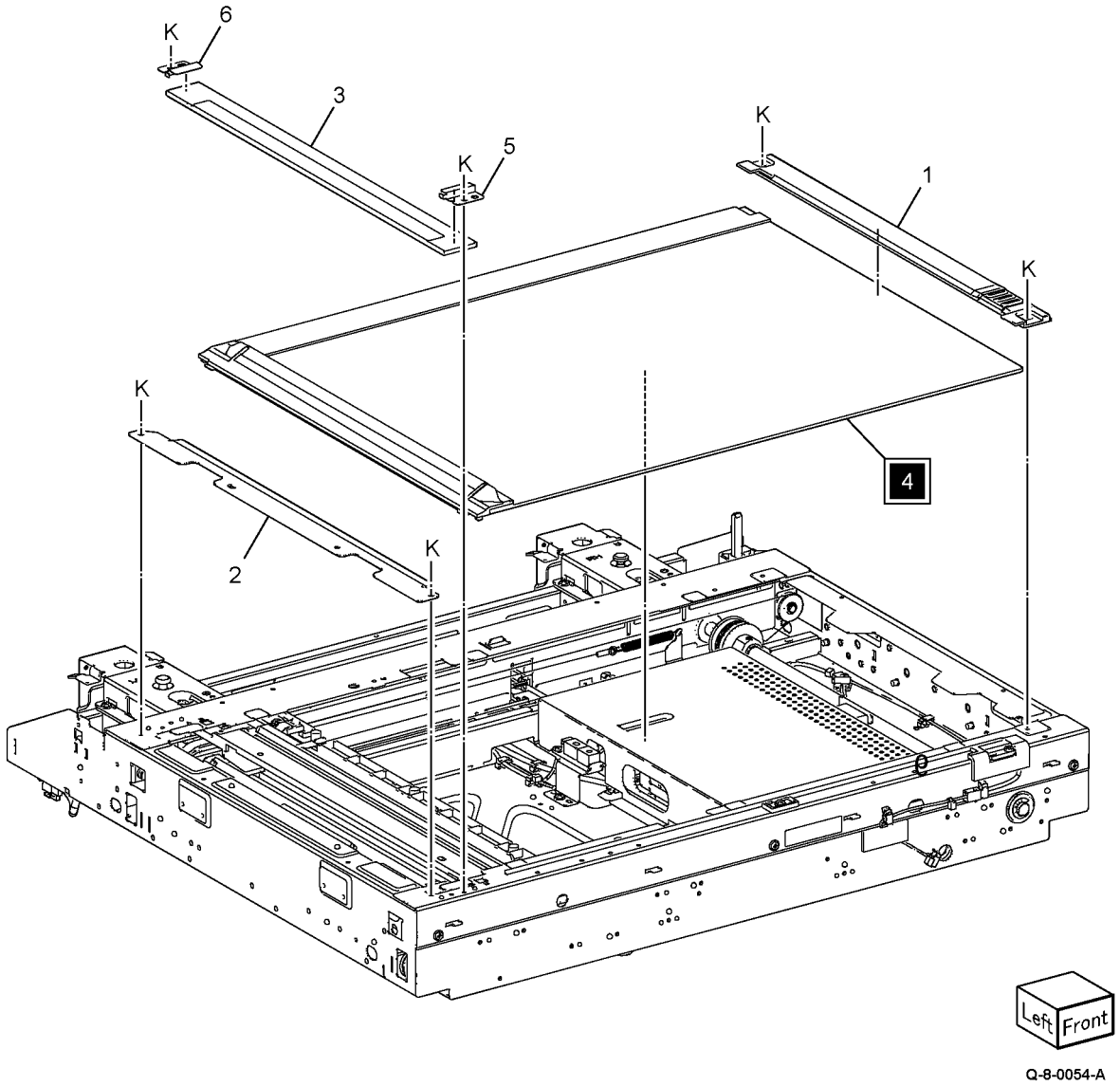
PL 60.10 Platen/IIT Cover (C8170)

Item	Part	Description
1	—	IIT Left cover
2	—	IIT Right cover (W)
3	—	IIT Right cover (B)
4	—	IIT Rear cover
5	822E26471	DADF IF cover
6	—	IIT Trans PWB cover
7	—	Sensor shield
8	—	Left stopper
9	—	Screw (Black)
10	—	Label kit
11	—	Label (Caution) (P/O PL 60.10 Item 10)
12	—	Label (Clean) (P/O PL 60.10 Item 10)
13	—	IIT Front cover



PL 60.15 Platen Glass (C8170)

Item	Part	Description
1	815K10441	Right Plate
2	—	CVT Glass Plate (REP 60.3)
3	090K93660	CVT Platen Glass (REP 60.3)
4	090K93570	Platen Glass
5	—	Front Glass Support
6	—	Rear Glass Support



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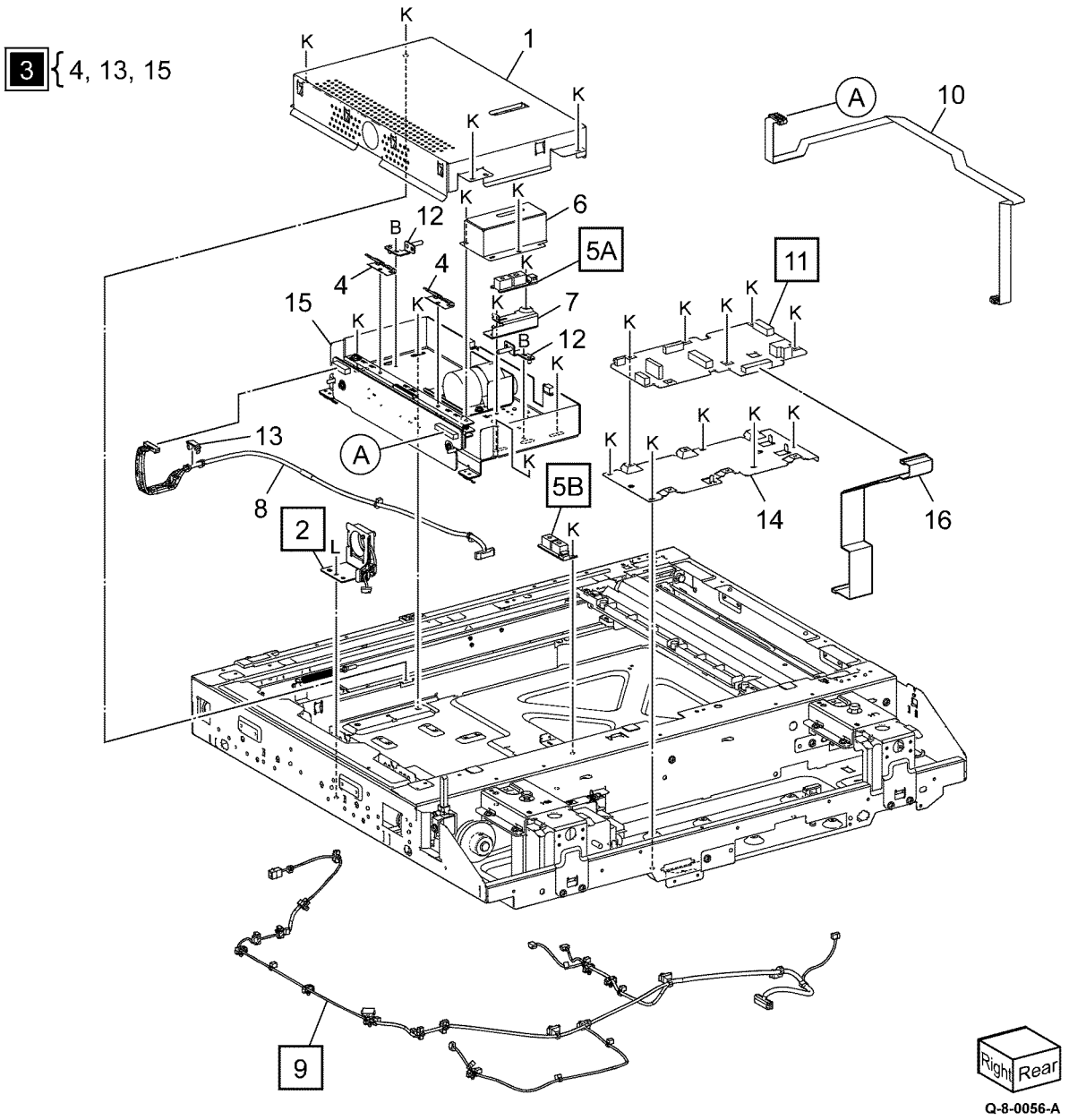
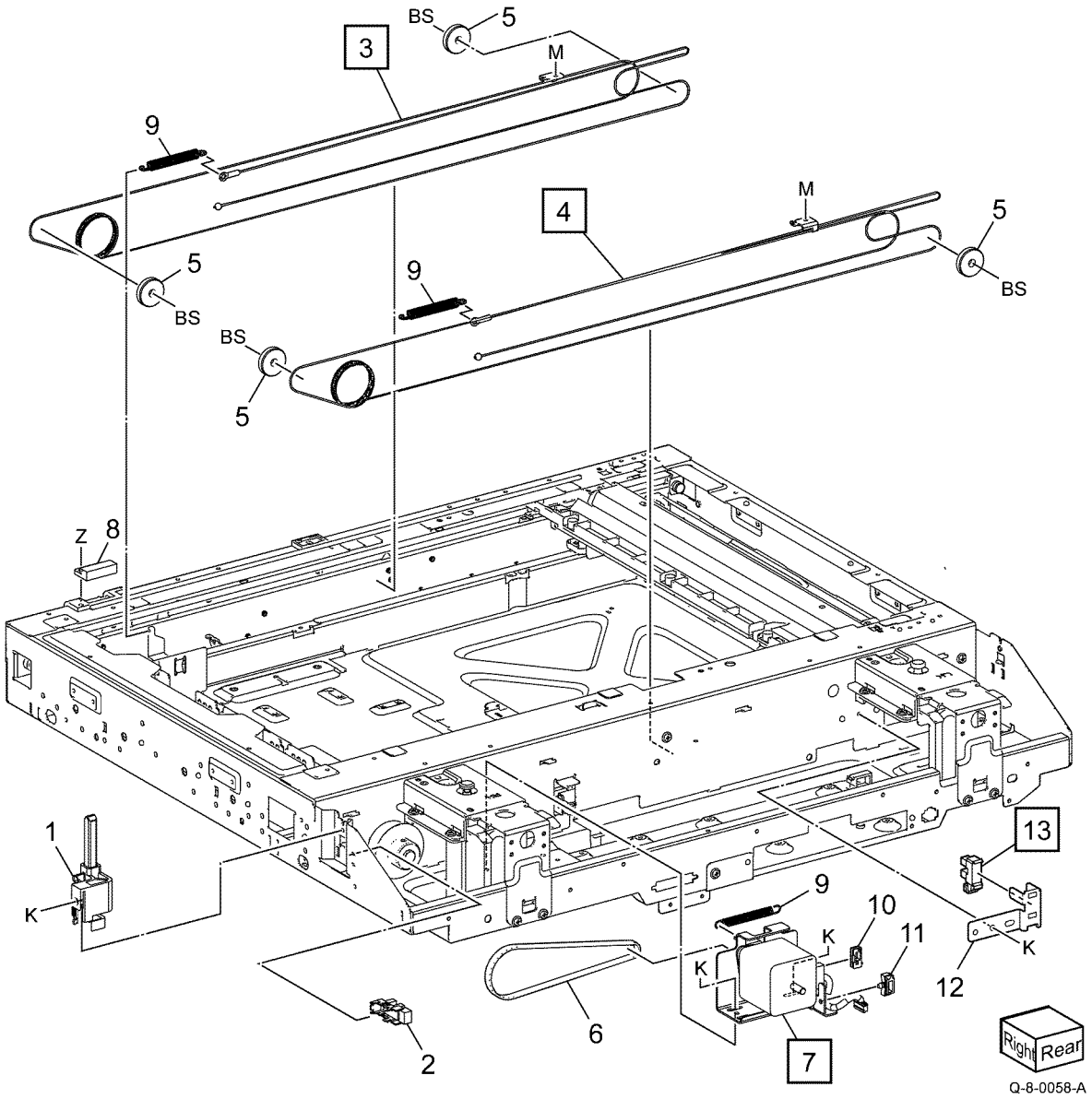
PL 60.20 CCD Lens (C8170)

Item	Part	Description
1	—	CCD Lens cover assembly
2	—	CCD Fan assembly
3	607K02350	CCD Lens kit
4	—	Conductor (P/O PL 60.20 Item 3)
5	130K64150	APS Sensor 1 (A)/ APS Sensor 2 (B)
6	—	APS Sensor cover
7	—	APS Sensor bracket
8	952K35020	CCD Power harness
9	952K45130	Signal harness
10	952K31270	CCD Cont video ribbon cable
11	960K98030	IIT Trans PWB
12	—	Pin assembly (P/O PL 60.20 Item 3)
13	—	Clamp
14	—	PWB bracket
15	—	Lens assembly (P/O PL 60.20 Item 3)
16	117K49220	IIT Cont I/O ribbon cable



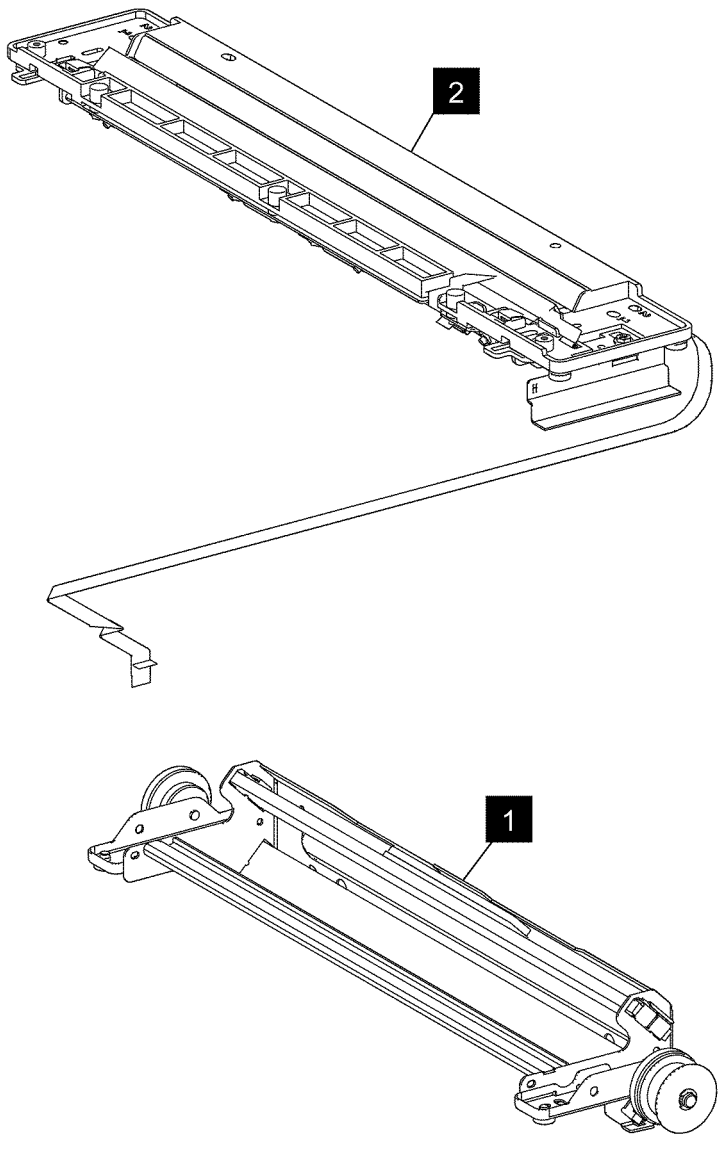
PL 60.25 Carriage Cable/Motor (C8170)

Item	Part	Description
1	—	Actuator assembly
2	130E87280	Platen Angle Sensor
3	—	Front Carriage Cable
4	—	Rear Carriage Cable (REP 60.19)
5	—	Idler Pulley
6	023E26740	Drive Belt
7	127K77850	Carriage Motor (REP 60.17)
8	—	Platen Interlock Switch
9	—	Tension Spring
10	—	Clamp
11	—	Clamp
12	—	IIT Regi. Sensor Bracket
13	930W00112	IIT Regi Sensor



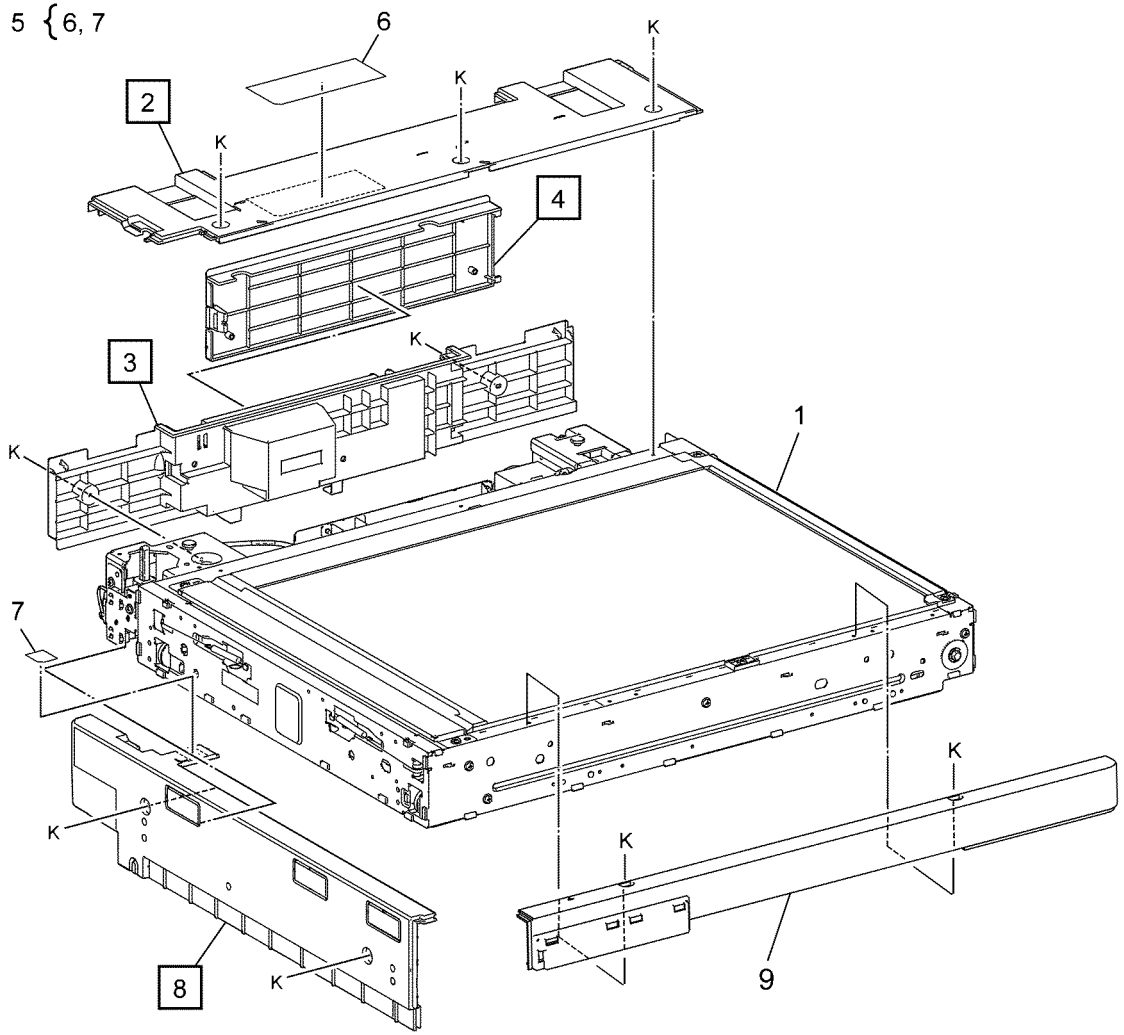
PL 60.30 Full/Half Carriage (C8170)

Item	Part	Description
1	041K95850	Half Rate Carriage Assembly
2	041K96632	Full Rate Carriage Assembly (REP 60.18)



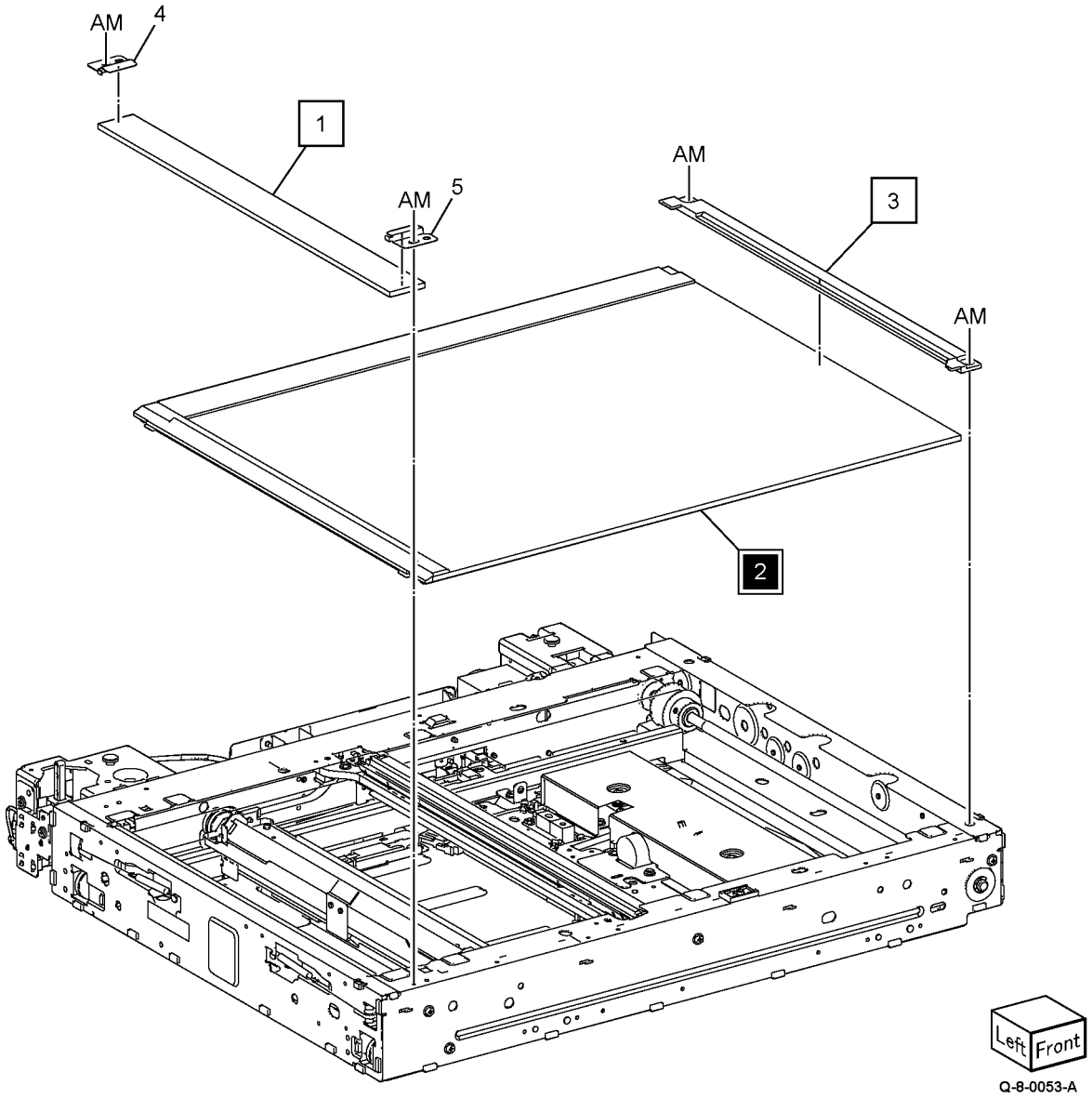
PL 60.35 Platen/IIT Cover (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	IIT assembly
2	—	IIT Top cover
3	—	IIT Rear cover
4	822E26611	DADF IF cover
5	—	Label kit
6	—	Label (Caution) (P/O PL 60.35 Item 5)
7	—	Label (Clean) (P/O PL 60.35 Item 5)
8	—	IIT Left cover
9	—	IIT Front cover



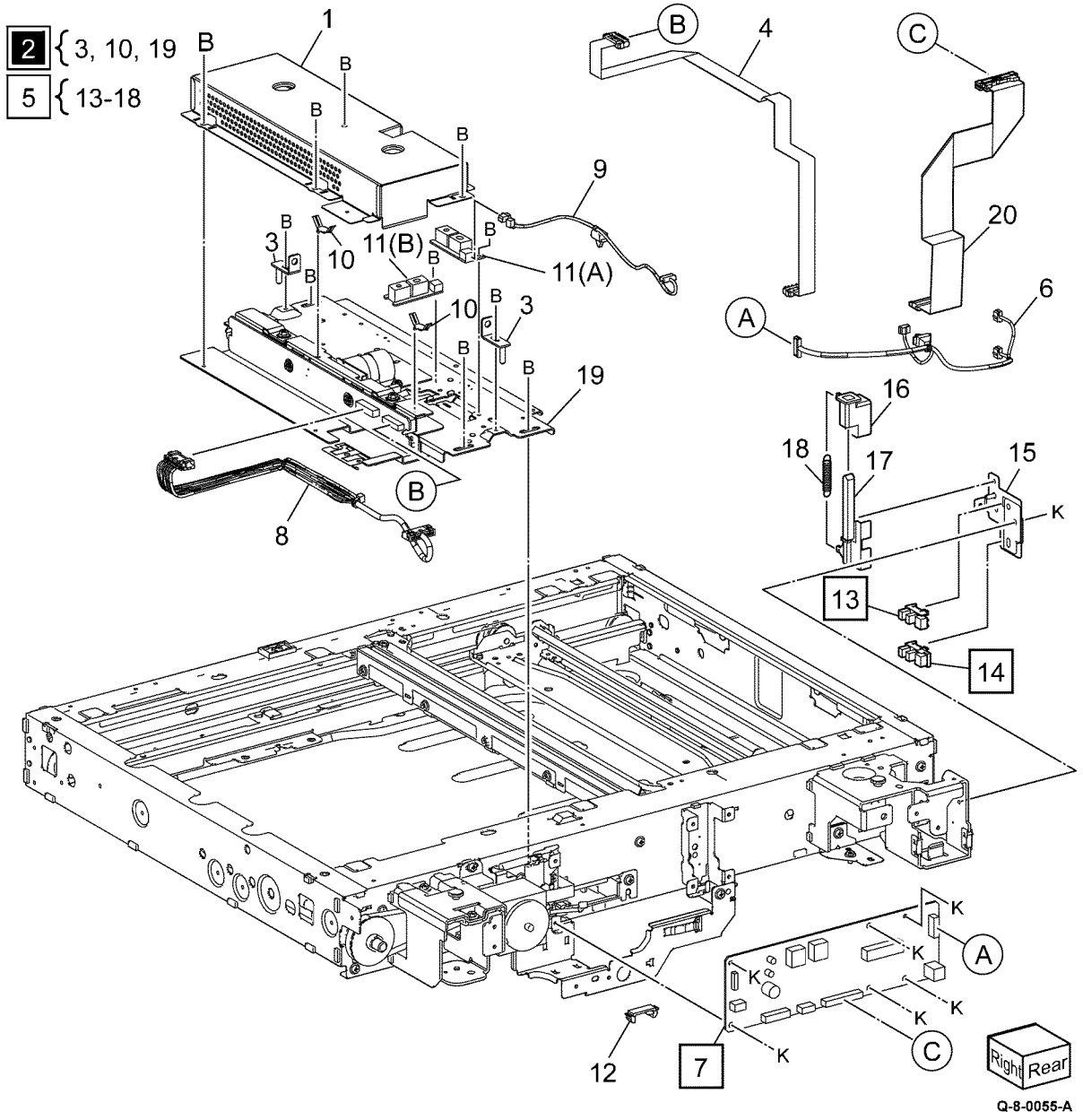
PL 60.40 Platen Glass (C8130/C8135/C8145/C8155)

Item	Part	Description
1	090K93650	CVT platen glass
2	090K93580	Platen glass (REP 60.25)
3	815E58942	Right plate
4	—	Rear glass support
5	—	Front glass support



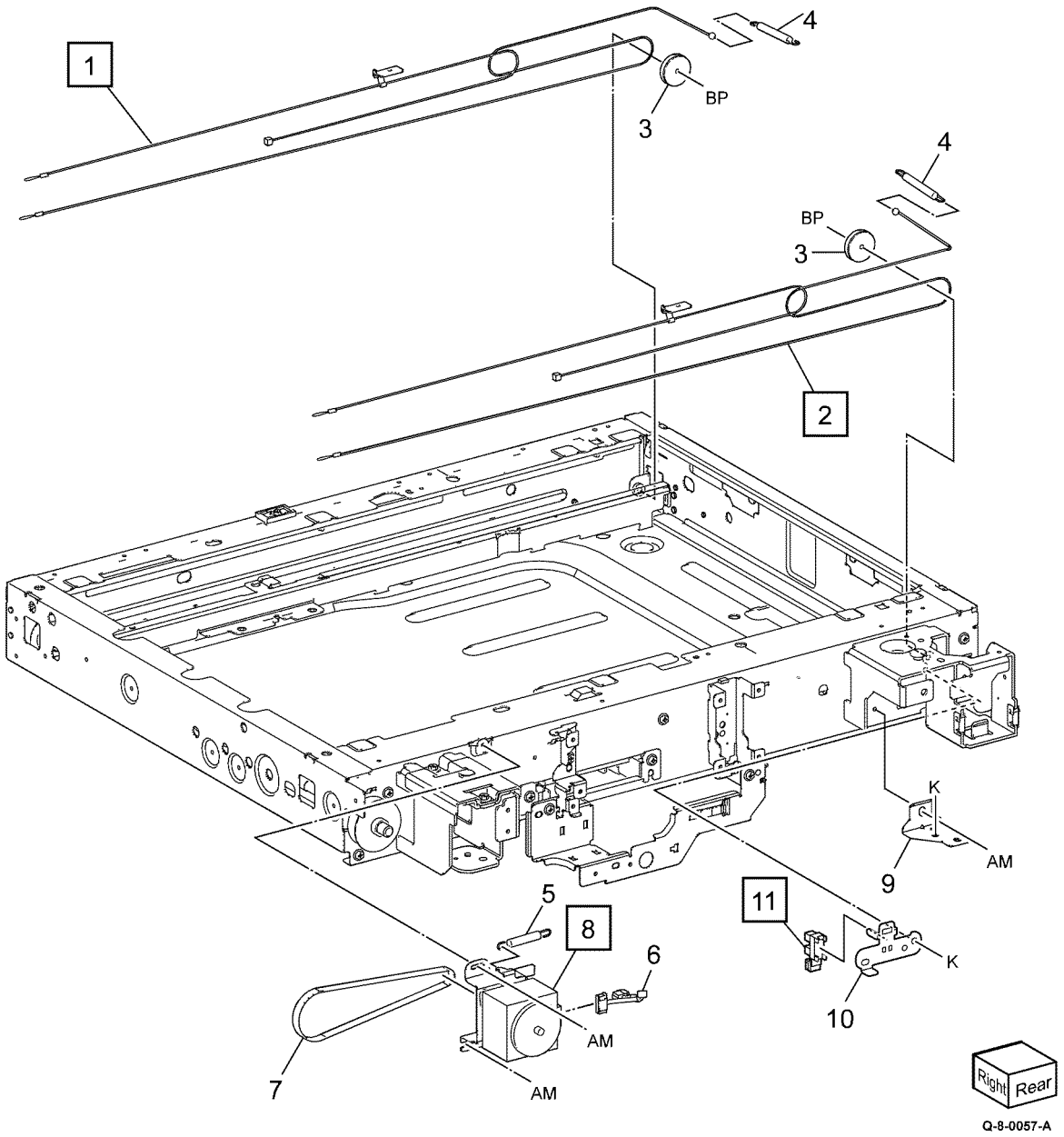
PL 60.45 CCD Lens (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	CCD Lens cover
2	607K13310	CCD Lens kit (REP 60.29)
3	—	Pin assembly (P/O PL 60.45 Item 2)
4	952K31240	CCD Cont video ribbon cable
5	120K93101	Actuator assembly
6	952K31662	Platen angle sensor/Platen sensor harness
7	960K97880	IIT Trans PWB
8	952K31301	CCD Power harness
9	952K36950	APS Sensor harness
10	—	Conductor (P/O PL 60.45 Item 2)
11	130K64150	APS Sensor 1 (A)/ APS Sensor 2 (B)
12	—	Clamp
13	—	Platen angle sensor (P/O PL 60.45 Item 5)
14	—	Platen close sensor (P/O PL 60.45 Item 5)
15	—	Angle sensor bracket (P/O PL 60.45 Item 5)
16	—	Actuator support (P/O PL 60.45 Item 5)
17	—	Actuator (P/O PL 60.45 Item 5)
18	—	Extension spring (P/O PL 60.45 Item 5)
19	—	Lens assembly (P/O PL 60.45 Item 2)
20	117K48921	IIT Cont I/O Ribbon Cable



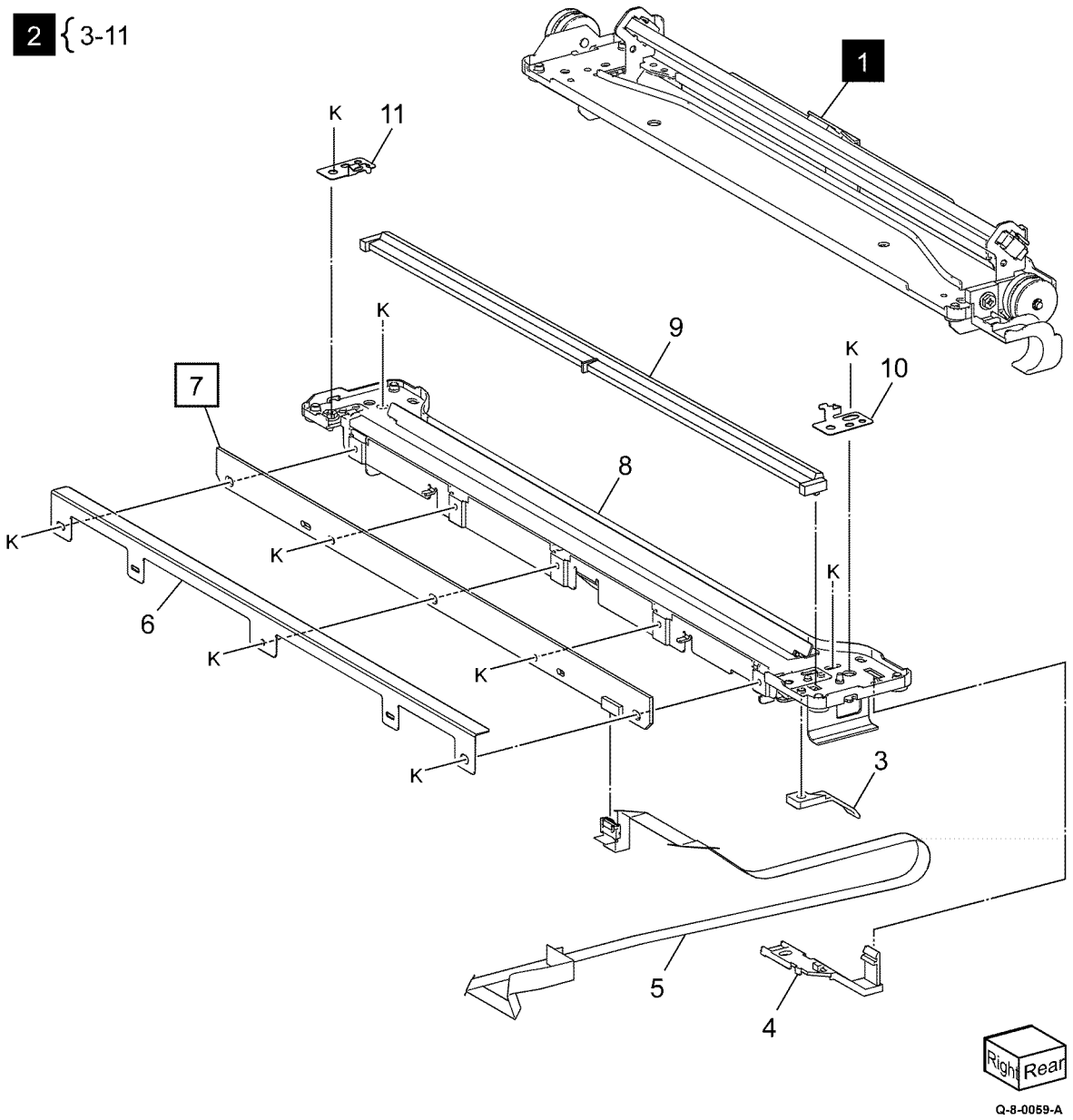
PL 60.50 Carriage Cable/Motor (C8130/C8135/C8145/C8155)

Item	Part	Description
1	—	Front carriage cable (REP 60.30)
2	—	Rear carriage cable (REP 60.30)
3	—	Idler Pulley
4	—	Tension Spring
5	—	Tension Spring
6	952K31250	Carriage Motor Harness
7	023E27590	Timing Belt
8	127K61330	Carriage Motor (REP 60.34)
9	—	Bracket
10	—	IIT Regi. Sensor bracket
11	930W00123	IIT Regi Sensor



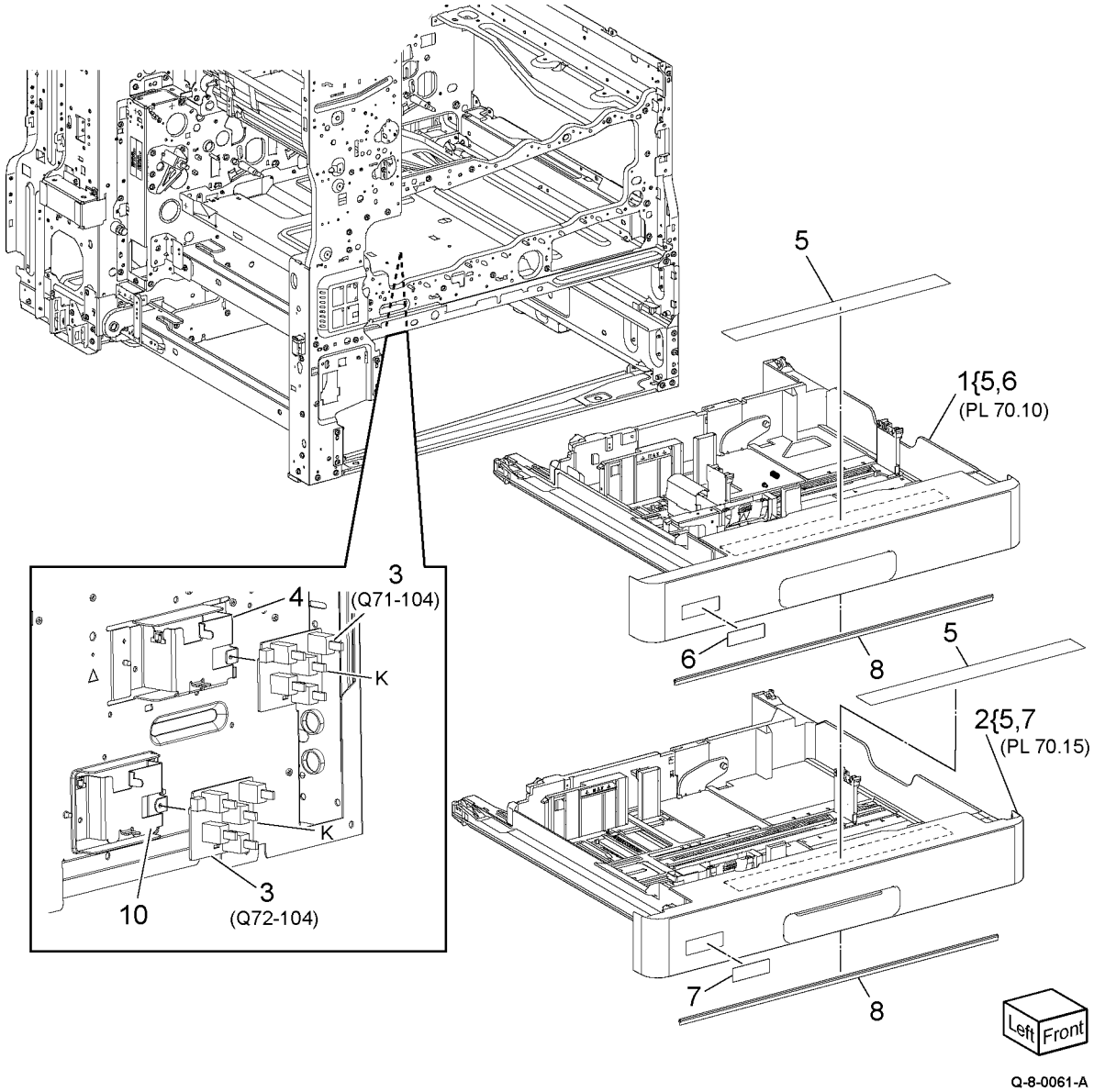
PL 60.55 Full/Half Carriage (C8130/C8135/C8145/C8155)

Item	Part	Description
1	041K96431	Half Rate Carriage Assembly
2	041K96641	Full Rate Carriage Assembly
3	—	Cord Guide (P/O PL 60.55 Item 2)
4	—	Cord Guide (P/O PL 60.55 Item 2)
5	952K31260	LED Ribbon Cable (REP 60.32)
—	952K43480	LED Ribbon cable (Alternative) (REP 60.32)
6	—	LED Bracket (P/O PL 60.55 Item 2)
7	960K81532	LED PWB
8	—	LED Lamp Assembly (P/O PL 60.55 Item 2) (REP 60.31)
9	—	Light guide (P/O PL 60.55 Item 2) (REP 60.33)
10	—	Rear securing plate (P/O PL 60.55 Item 2)
11	—	Front securing plate (P/O PL 60.55 Item 2)



PL 70.05 Tray 1 2 Assembly

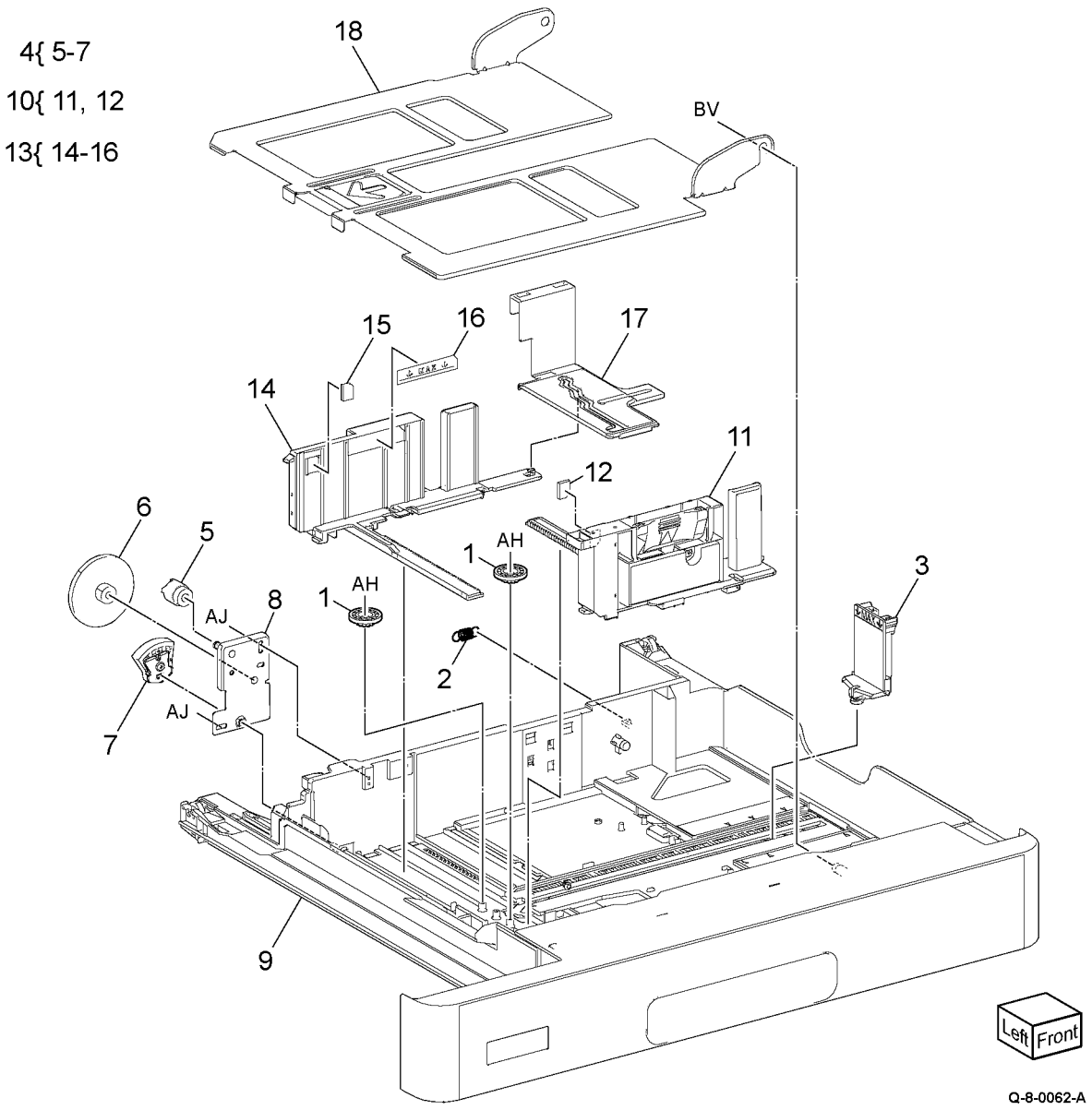
Item	Part	Description
1	607K10600	Tray 1 assembly
2	607K10610	Tray 2 assembly
3	110K11680	Tray 1 paper size sensor (Q71-104) / Tray 2 paper size sensor (Q72-104) (REP 70.1)
4	—	Bracket (Not Spared)
5	—	Label (instruction) (P/O PL 70.05 Item 1 PL 70.05 item 2)
6	—	Label (No. 1) (P/O PL 70.05 Item 1)
7	—	Label (No. 2) (P/O PL 70.05 Item 2)
8	—	Gasket (Not Spared)
9	—	Not used
10	—	Bracket (Not Spared)



PL 70.10 Tray 1 Assembly

Item	Part	Description
1	807E13521	Pinion
2	809E89880	Spring
3	607K02250	End guide kit
4	604K20542	Tray gear kit
5	—	Gear (13) (P/O PL 70.10 Item 4)
6	—	Gear (13/60) (P/O PL 70.10 Item 4)
7	—	Gear assembly (P/O PL 70.10 Item 4)
8	—	Bracket (P/O PL 70.05 Item 1)
9	—	Cassette assembly (P/O PL 70.05 Item 1)
10	607K02261	Front side guide kit
11	—	Front side guide (P/O PL 70.10 Item 10)
12	—	Pad (P/O PL 70.10 Item 10)
13	607K02274	Rear side guide kit
14	—	Rear side guide (P/O PL 70.10 Item 13)
15	—	Pad (P/O PL 70.10 Item 13)
16	—	Label (MAX) (P/O PL 70.10 Item 13)
17	—	Side actuator (P/O PL 70.05 Item 1)
18	—	Lift plate (P/O PL 70.05 Item 1)

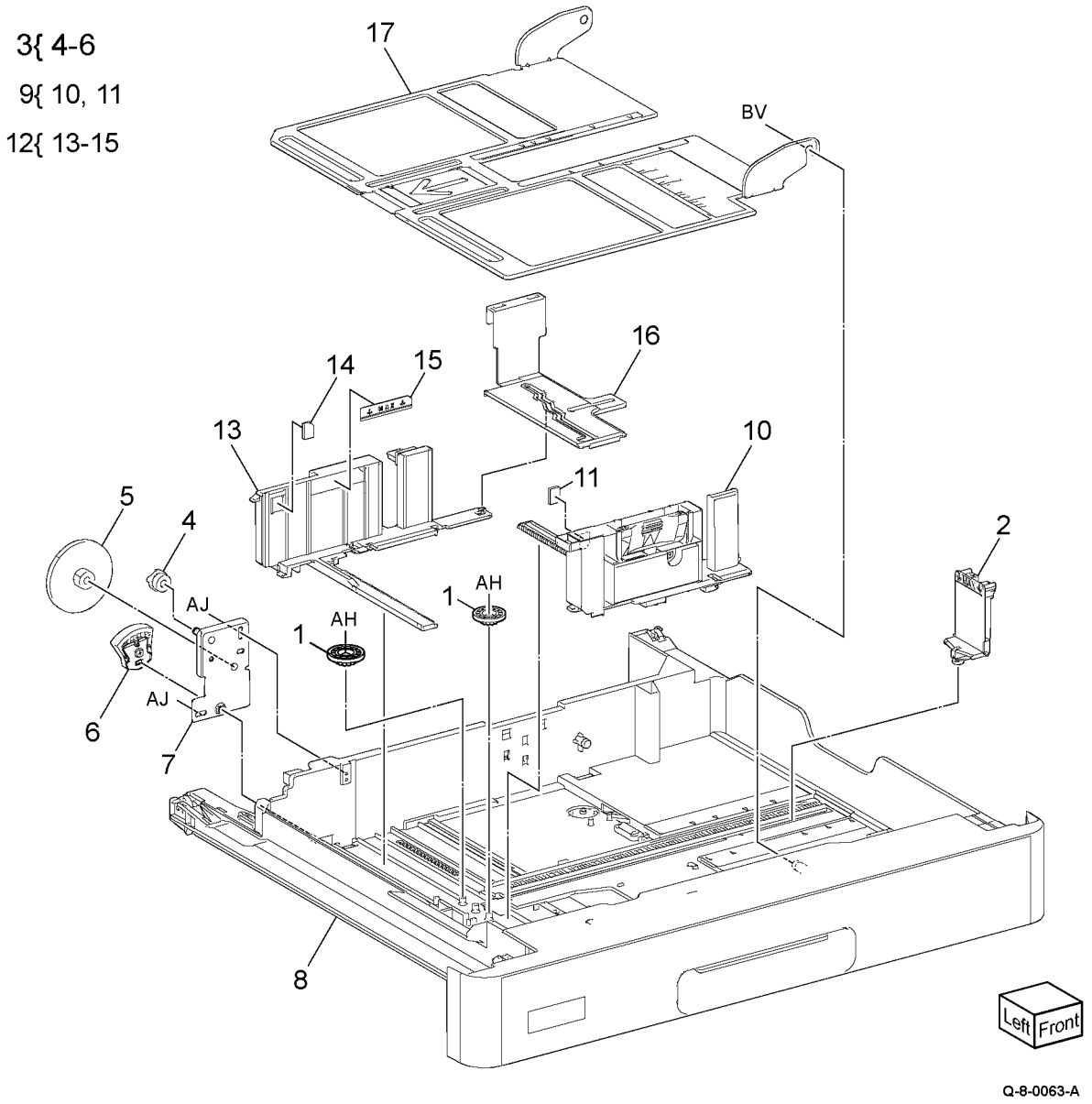
Note: All parts are part of PL 70.05 Item 1.



PL 70.15 Tray 2 Assembly

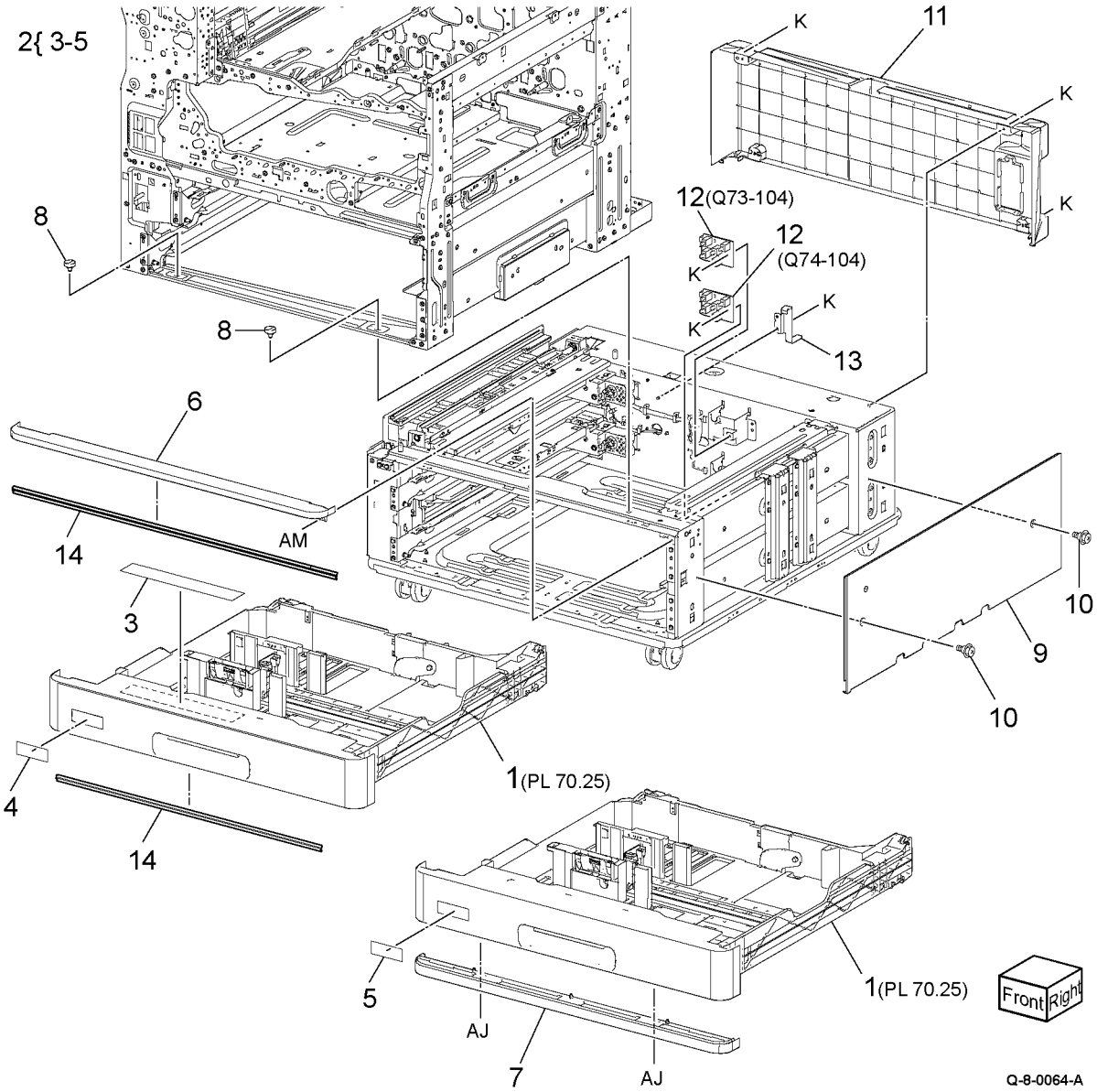
Item	Part	Description
1	807E13521	Pinion
2	607K02250	End guide kit
3	—	Tray gear kit (Not Spared)
4	—	Gear (13) (P/O PL 70.15 Item 3)
5	—	Gear (13/60) (P/O PL 70.15 Item 3)
6	—	Gear assembly (P/O PL 70.15 Item 3)
7	—	Bracket (P/O PL 70.05 Item 2)
8	—	Cassette assembly (P/O PL 70.05 Item 2)
9	607K02261	Front side guide kit
10	—	Front side guide (P/O PL 70.15 Item 9)
11	—	Pad (P/O PL 70.15 Item 9)
12	607K02274	Rear side guide kit
13	—	Rear side guide (P/O PL 70.15 Item 12)
14	—	Pad (P/O PL 70.15 Item 12)
15	—	Label (MAX) (P/O PL 70.15 Item 12)
16	—	Side actuator (P/O PL 70.05 Item 2)
17	—	Lift plate (P/O PL 70.05 Item 2)

Note: All parts are part of PL 70.05 Item 2.



PL 70.20 2TM Components (C8130/C8135)

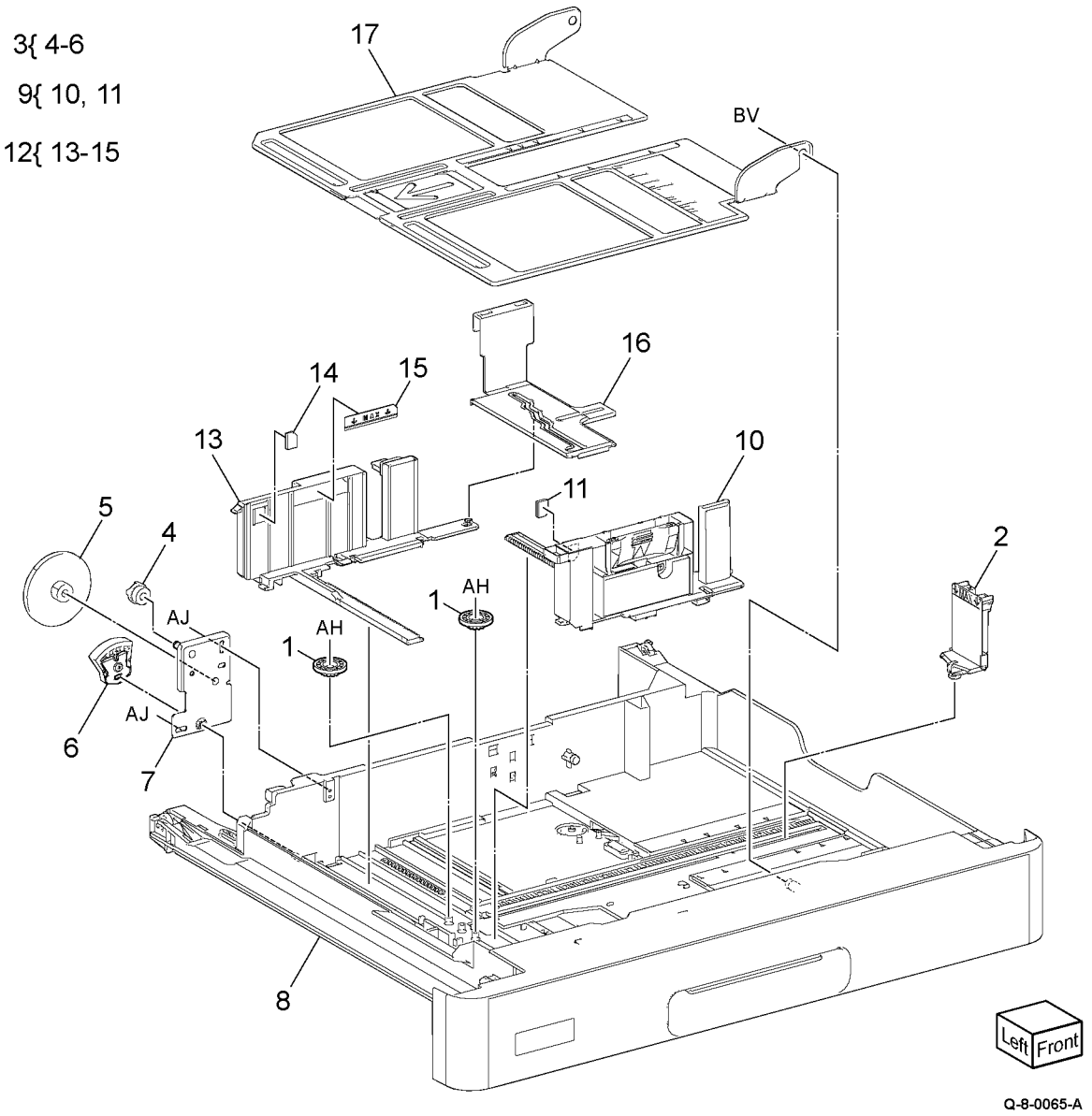
Item	Part	Description
1	607K10610	Tray 3 4 assembly (REF: PL 70.25)
2	—	2TM tray label kit
3	—	Label (instruction) (P/O PL 70.20 Item 2)
4	—	Label (No. 3) (P/O PL 70.20 Item 2)
5	—	Label (No. 4) (P/O PL 70.20 Item 2)
6	—	Top cover (Not Spared)
7	822E41111	Foot cover
8	—	Docking screw (Not Spared)
9	822E41071	Right cover
10	—	Shoulder screw (Not Spared)
11	822E41013	Rear cover
12	110K11680	Tray 3 paper size sensor (Q73-104) / Tray 4 paper size sensor (Q74-104) (REP 70.5)
13	—	Joint bracket (Not Spared)
14	—	Gasket (Not Spared)



PL 70.25 2TM Tray 3/4 Assembly (C8130/C8135)

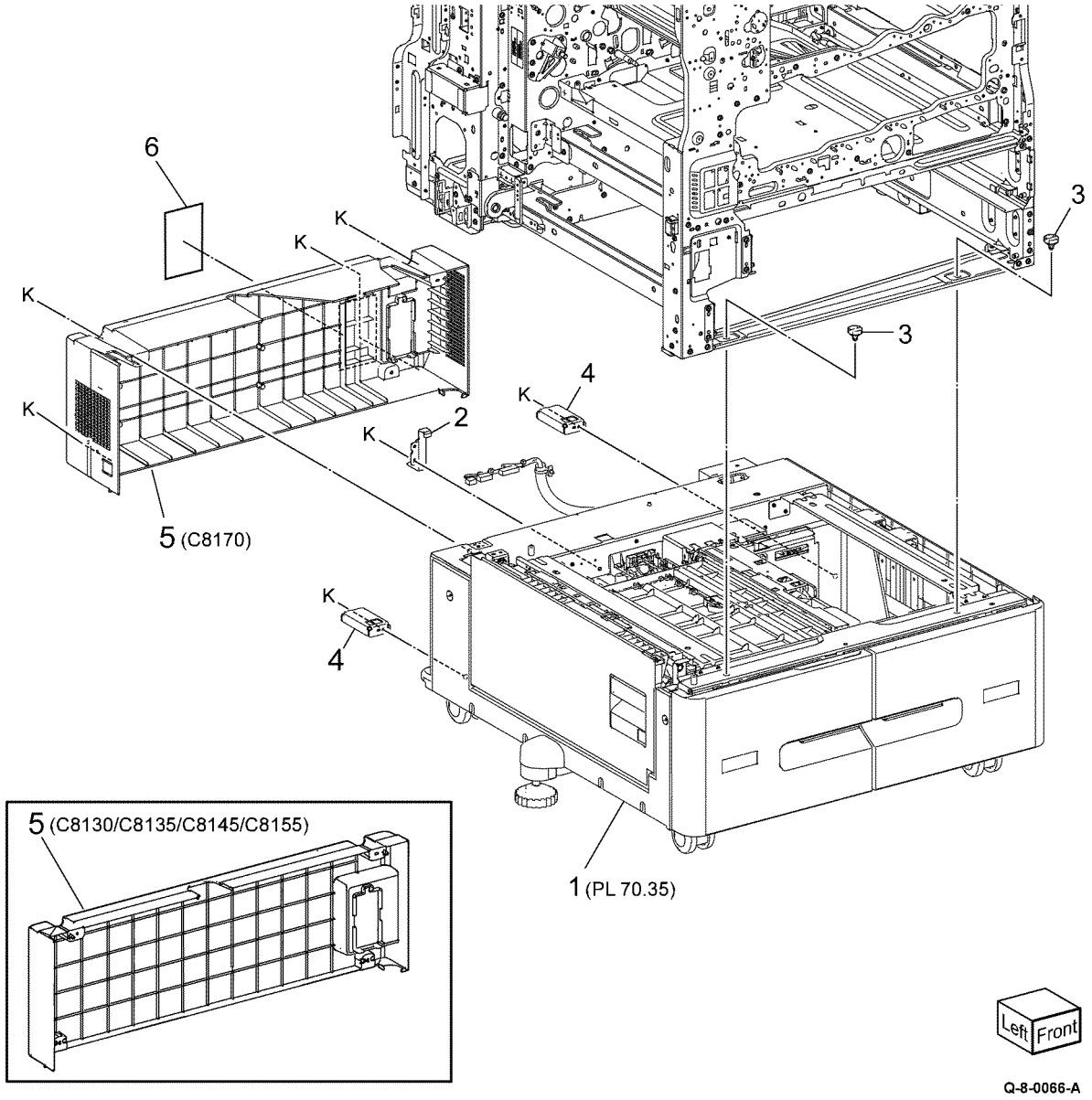
Item	Part	Description
1	807E13521	Pinion
2	607K02250	End guide kit
3	604K20542	Tray gear kit
4	—	Gear (13) (P/O PL 70.25 Item 3)
5	—	Gear (13/60) (P/O PL 70.25 Item 3)
6	—	Gear assembly (P/O PL 70.25 Item 3)
7	—	Bracket (P/O PL 70.20 Item 1)
8	—	Tray assembly (P/O PL 70.20 Item 1)
9	607K02261	Front side guide kit
10	—	Front side guide (P/O PL 70.25 Item 9)
11	—	Pad (P/O PL 70.25 Item 9)
12	607K02274	Rear side guide kit
13	—	Rear side guide (P/O PL 70.25 Item 12)
14	—	Pad (P/O PL 70.25 Item 12)
15	—	Label (MAX) (P/O PL 70.25 Item 12)
16	—	Side actuator (P/O PL 70.20 Item 1)
17	—	Lift plate (P/O PL 70.20 Item 1)

Note: All parts are part of PL 70.20 Item 1.



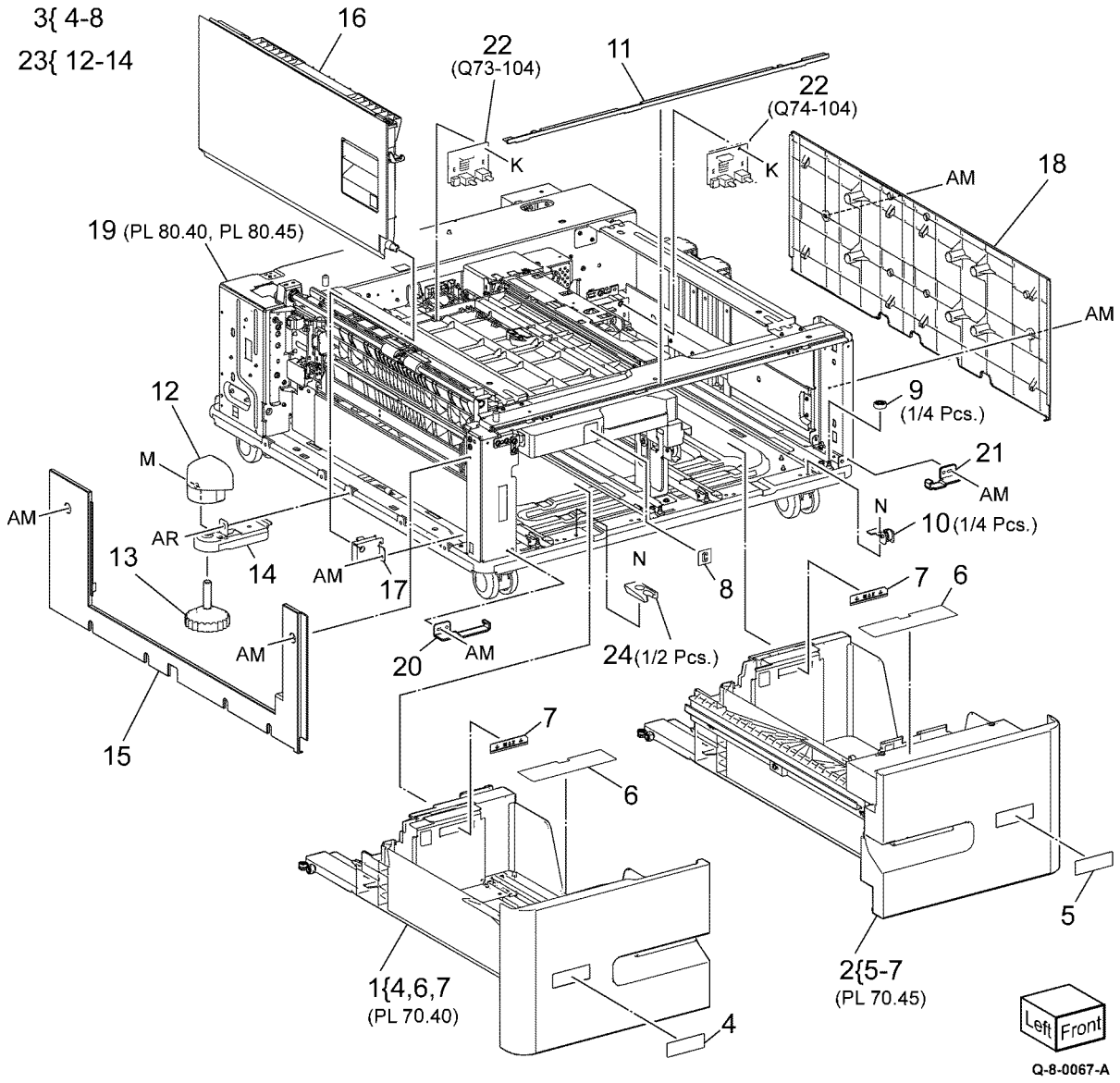
PL 70.30 TTM Components

Item	Part	Description
1	—	TTM module
2	—	Joint bracket (Not Spared)
3	—	Docking screw (Not Spared)
4	—	Cover bracket (Not Spared)
5	822E41013	Rear cover (C8130/C8135/C8145/ C8155)
—	—	Rear cover (C8170)
6	—	Label (Caution) (C8170)



PL 70.35 TTM Covers and Tray 3/4 Assembly

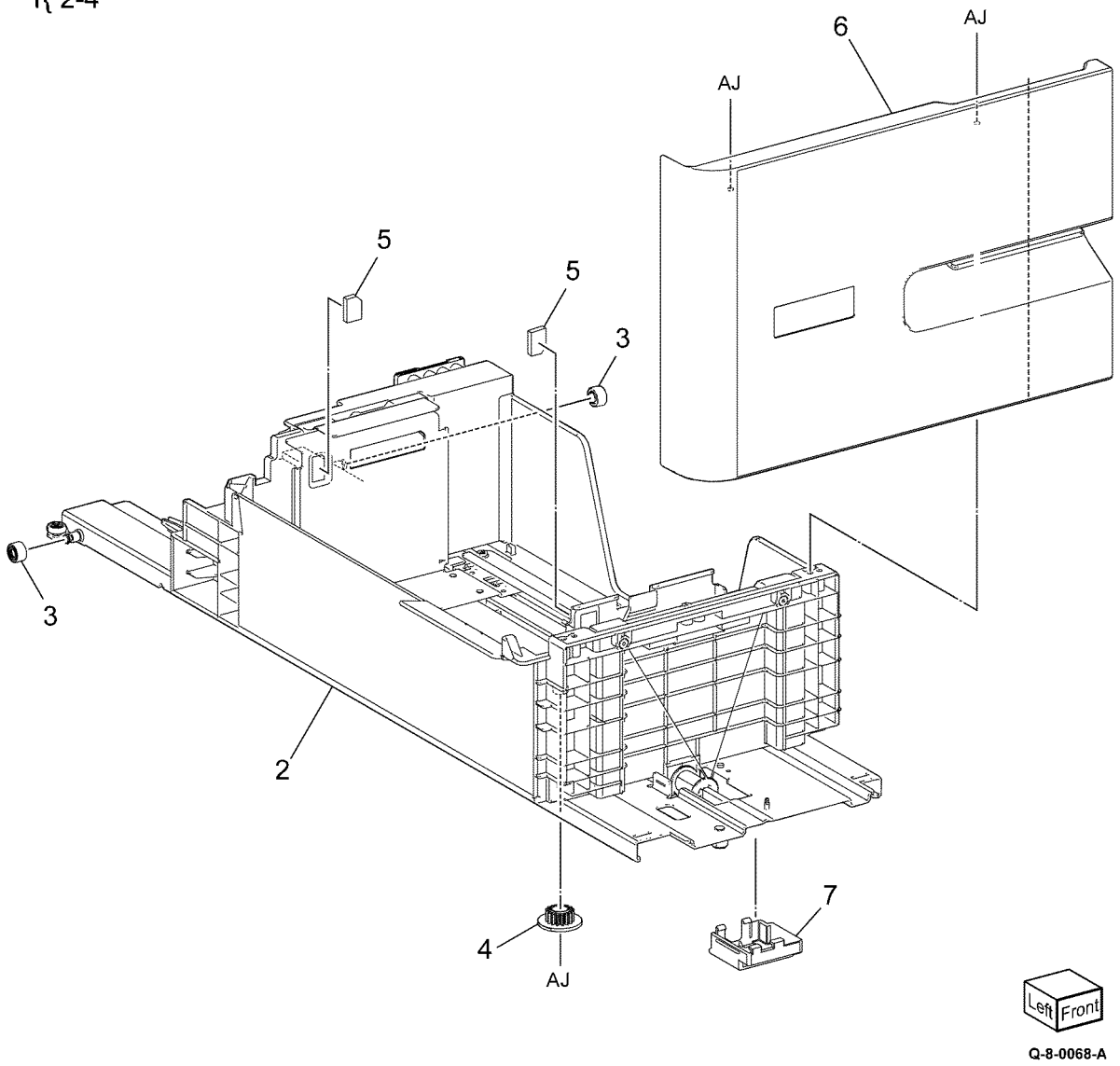
Item	Part	Description
1	607K10500	TTM Tray 3 assembly
2	607K10491	TTM Tray 4 assembly
3	607K02290	TTM label kit
4	—	Label (No. 3) (P/O PL 70.35 Item 1)
5	—	Label (No. 4) (P/O PL 70.35 Item 2)
6	—	Label (instruction) (P/O PL 70.35 Item 1 PL 70.35 Item 2)
7	—	Label (MAX) (P/O PL 70.35 Item 1 PL 70.35 Item 2)
8	—	Label (C) (Not Spared)
9	059E05060	Upper roller
10	—	Roller bracket assembly (Not Spared)
11	—	Top cover (Not Spared)
12	822E41860	Foot cover
13	—	Adjuster foot (P/O PL 70.35 Item 23)
14	869E29540	Foot bracket
15	822E41053	Left cover
16	948K12040	Left door assembly
17	—	Pivot bracket (Not Spared)
18	822E41071	Right cover
19	—	TTM frame assembly (Not Spared)
20	803E25172	Left stopper
21	803E25161	Right stopper
22	110K11820	Tray 3 paper size sensor (Q73-104)/ Tray 4 paper size sensor (Q74-104) (alternative) (REP 70.6)
—	110K17960	Tray 3 paper size sensor (Q73-104)/ Tray 4 paper size sensor (Q74-104) (REP 70.6)
23	—	Adjuster foot assembly
24	803E01200	Tray stopper



PL 70.40 TTM Tray 3 Assembly

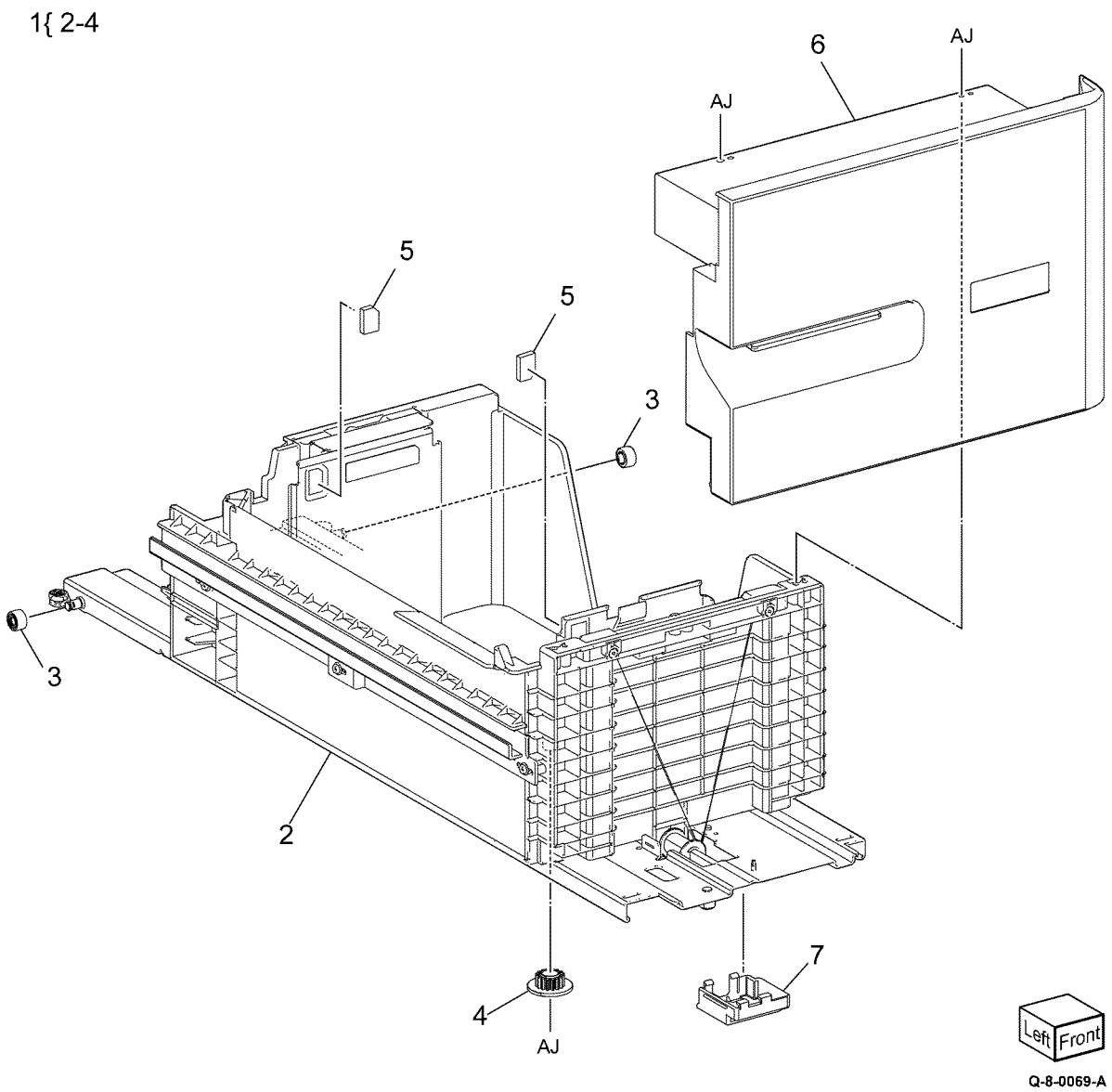
Item	Part	Description
1	—	Tray 3 chassis assembly
2	—	Tray 3 chassis (P/O PL 70.40 Item 1)
3	059E13120	Upper roller
4	807E55441	Pinion
5	019E71680	Pad
6	948K01846	Tray 3 cover assembly
7	822E45010	Plate cover

1{ 2-4



PL 70.45 TTM Tray 4 Assembly

Item	Part	Description
1	—	Tray 4 chassis assembly (P/O PL 70.35 Item 2)
2	—	Tray 4 chassis (P/O PL 70.45 Item 1)
3	059E13120	Upper roller
4	807E55441	Pinion
5	019E71680	Pad
6	948K01835	Tray 4 cover assembly
7	822E45010	Plate cover

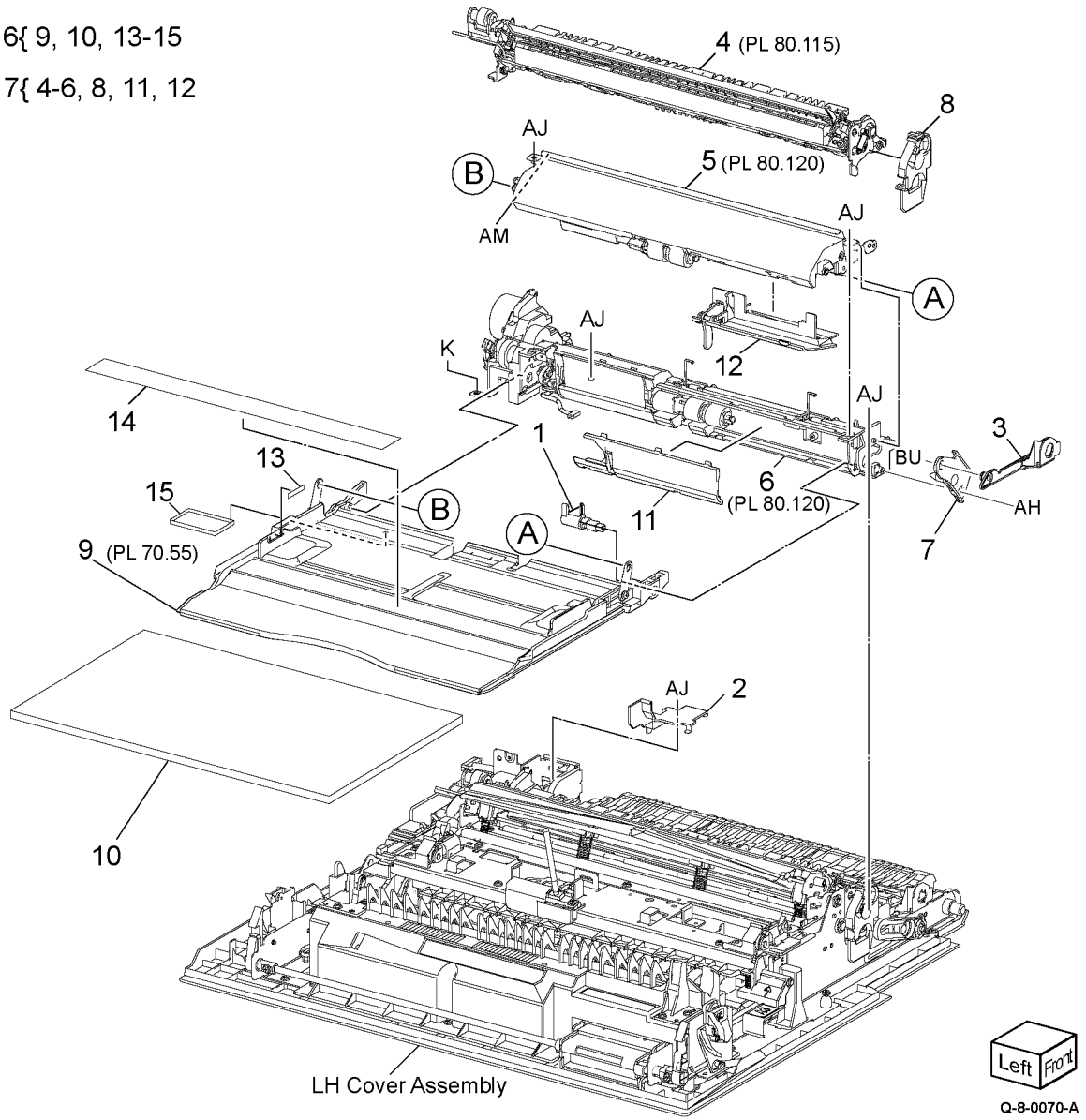


PL 70.50 Bypass Tray Components

Item	Part	Description
1	029E54810	Pivot (REP 70.2)
2	—	Harness guide (Not Spared)
3	—	Stopper link (Not Spared)
4	054K59296	Takeaway assembly
5	—	Upper feedhead assembly (P/O PL 70.50 Item 17)
6	—	Lower feedhead assembly (P/O PL 70.50 Item 17)
7	—	Stopper plate (Not Spared)
8	—	Knob (P/O PL 70.50 Item 17)
9	—	Tray assembly (P/O PL 70.50 Item 16)
10	—	Extension tray (P/O PL 70.50 Item 16)
11	—	Chute front (P/O PL 70.50 Item 17)
12	—	Top chute assembly (P/O PL 70.50 Item 17)
13	—	Label (MAX) (P/O PL 70.50 Item 16)
14	—	Label (instruction) (P/O PL 70.50 Item 16)
15	—	Harness cover (P/O PL 70.50 Item 16)
16	607K10633	Bypass tray kit
17	607K15040	Bypass feeder kit

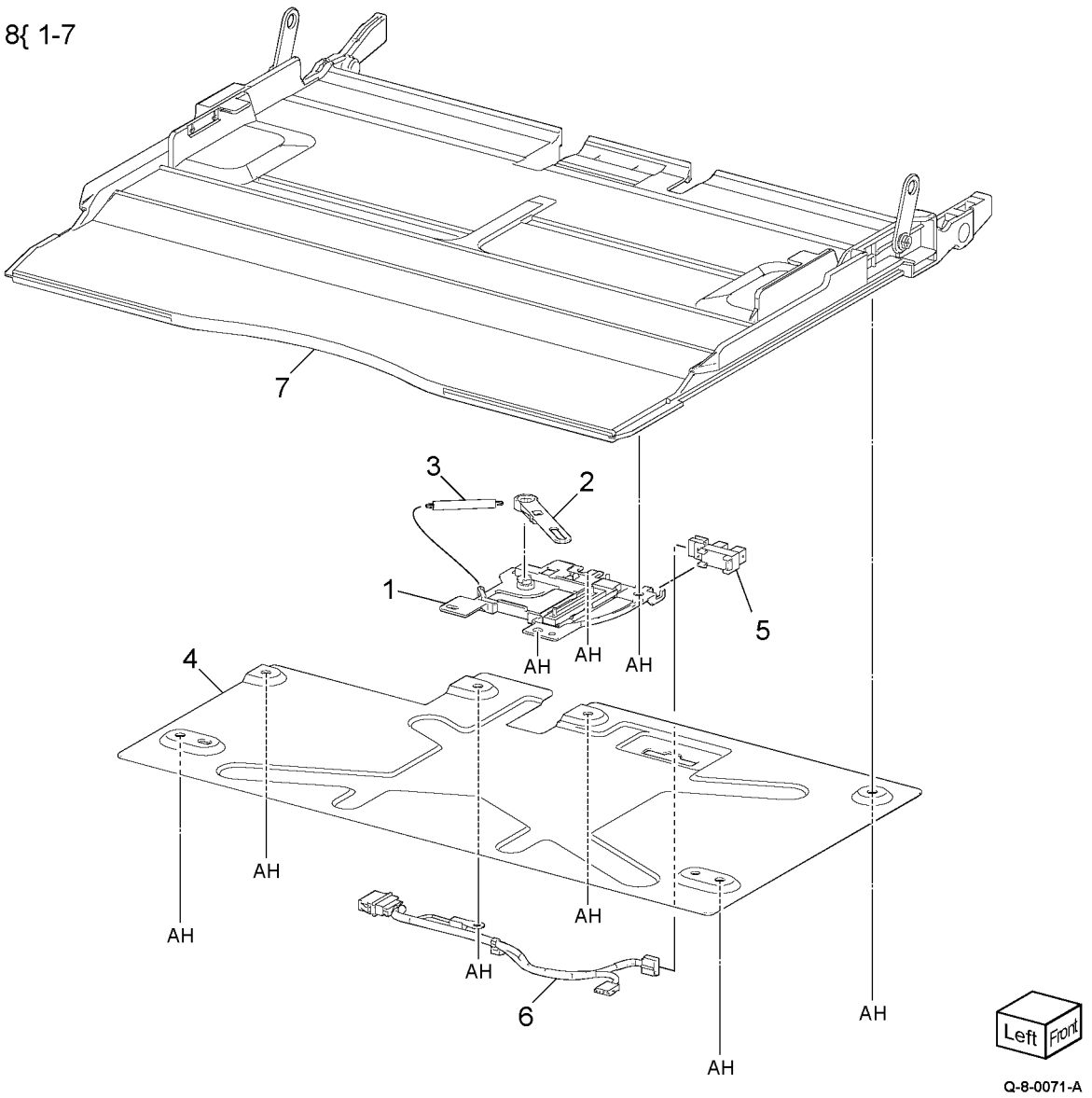
16{ 9, 10, 13-15

17{ 4-6, 8, 11, 12



PL 70.55 Bypass Tray Assembly

Item	Part	Description
1	930K01010	Paper size sensor assembly (REP 70.4)
2	—	Link (P/O PL 70.55 Item 8)
3	—	Spring (P/O PL 70.55 Item 8)
4	—	Tray plate (P/O PL 70.55 Item 8)
5	930W00113	No paper sensor (Q75-101)
6	—	No paper sensor harness (P/O PL 70.55 Item 8)
7	—	Bypass tray (P/O PL 70.55 Item 8)
8	050K78354	Bypass tray assembly (REP 70.3)



PL 70.70 Envelope Tray

Item	Part	Description
1	497K17880	Envelope tray assembly
2	—	Envelope tray (P/O PL 70.70 Item 1)
3	—	End guide (P/O PL 70.70 Item 1)

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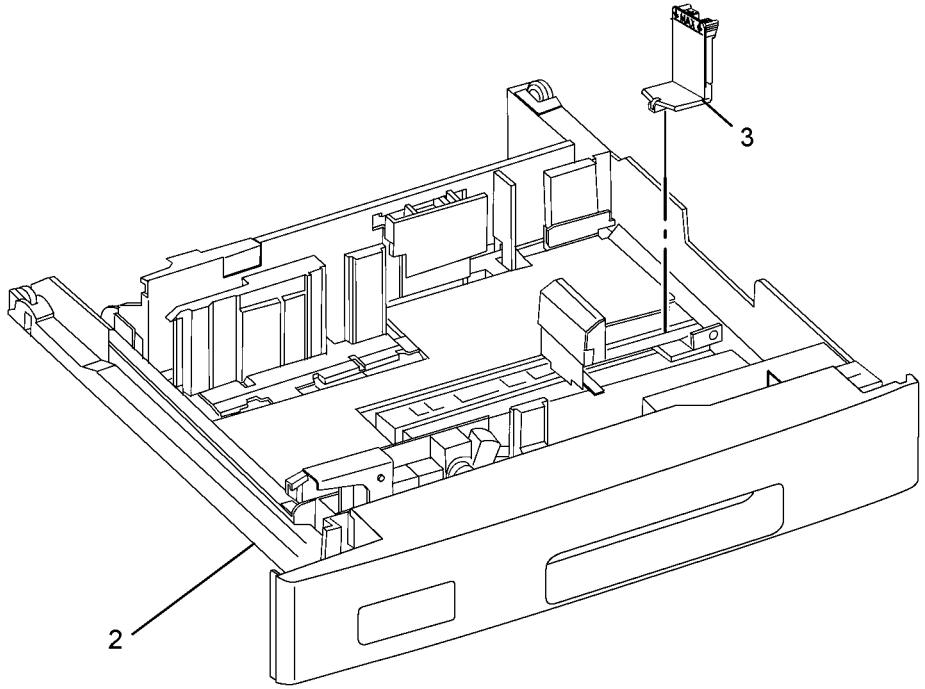

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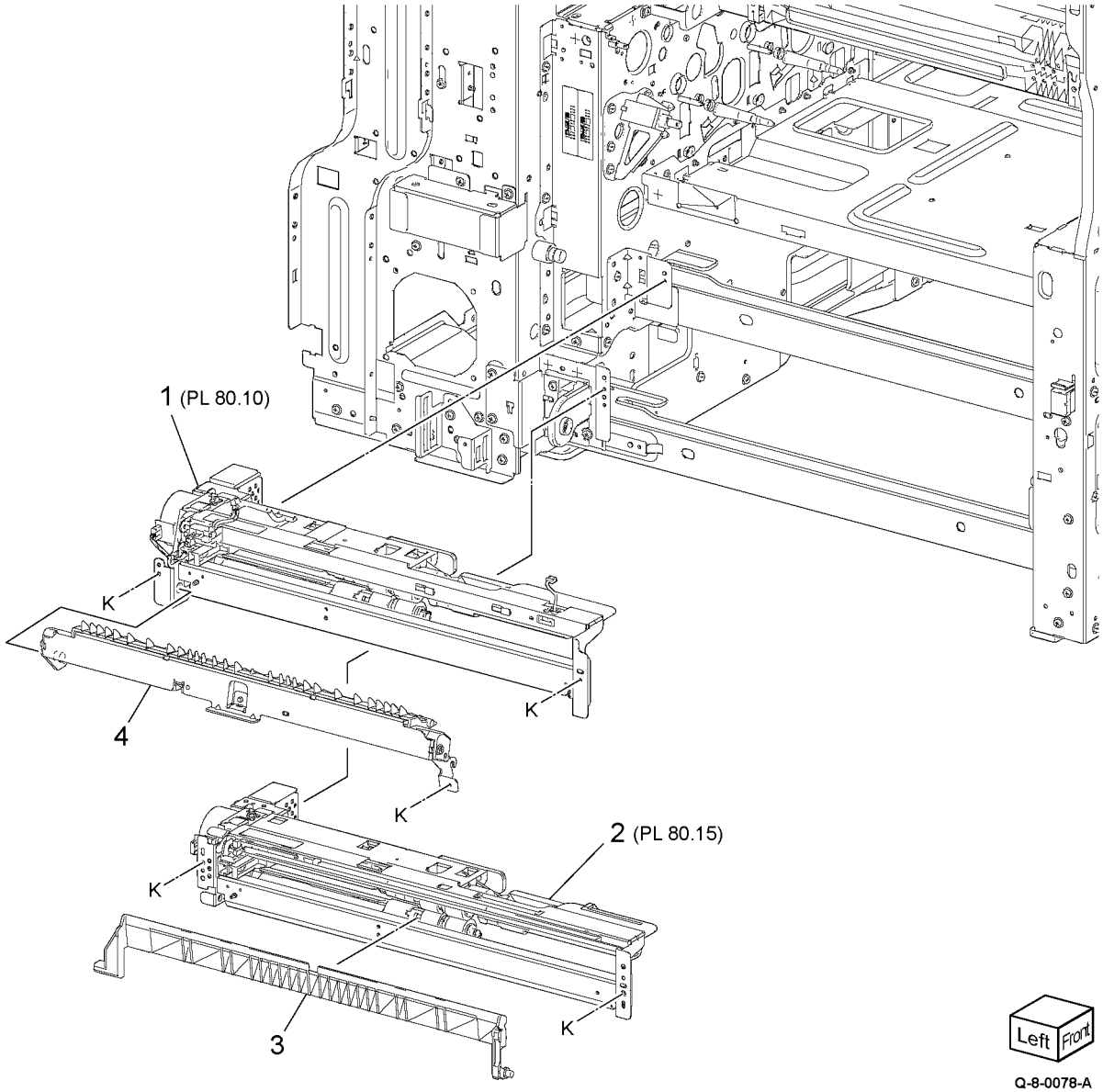
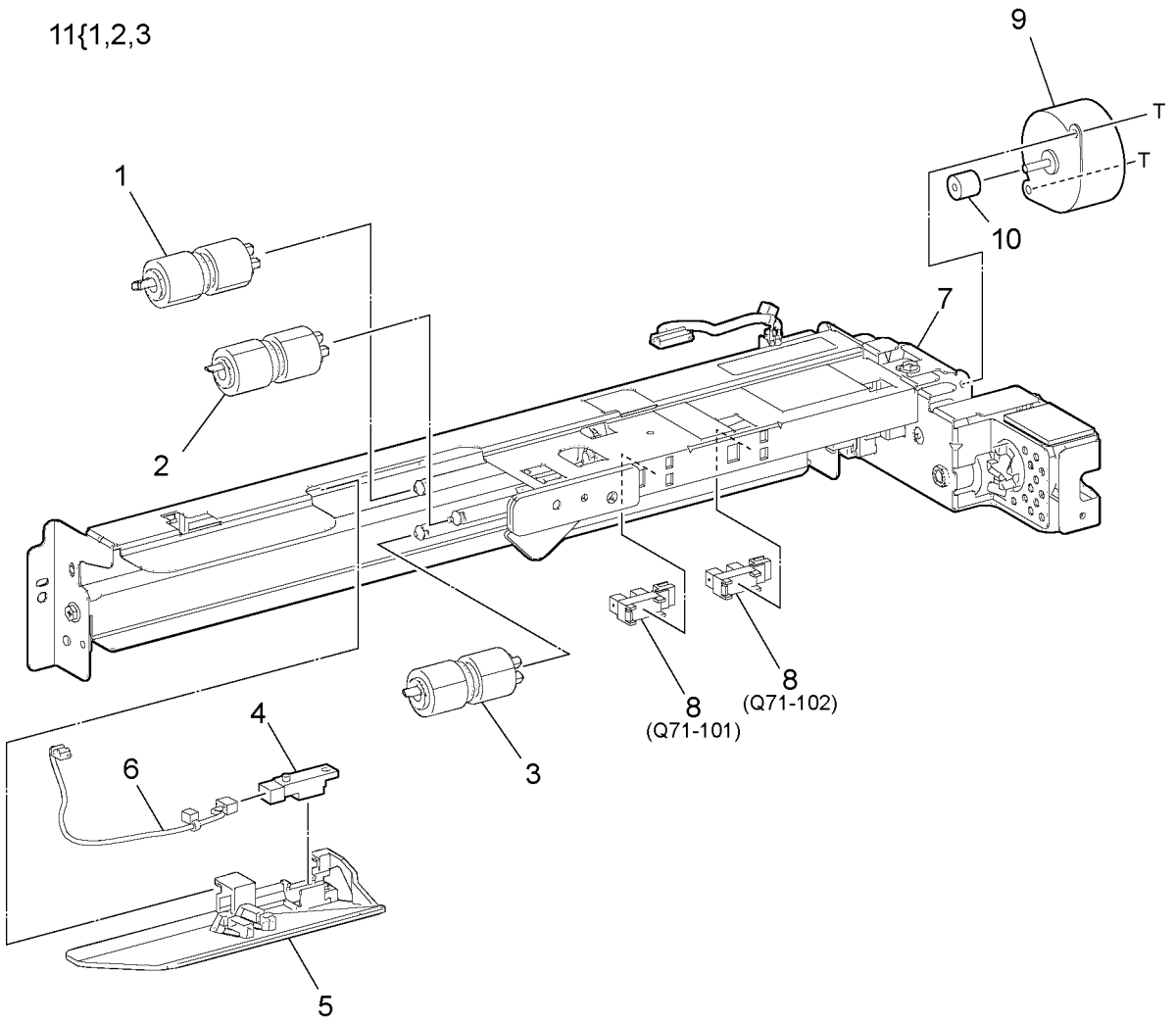
PL 80.05 Tray 1 2 Feedhead Assembly

Item	Part	Description
1	859K14371	Tray 1 feedhead assembly (C8130/C8135) (REP 80.1)
—	859K14321	Tray 1 feedhead assembly (C8145/C8155/C8170) (REP 80.1)
2	859K14390	Tray 2 feedhead assembly (C8130/C8135) (REP 80.2)
—	859K14340	Tray 2 feedhead assembly (C8145/C8155/C8170) (REP 80.2)
3	054E36442	Feed out chute
4	054K55444	Feedhead chute assembly



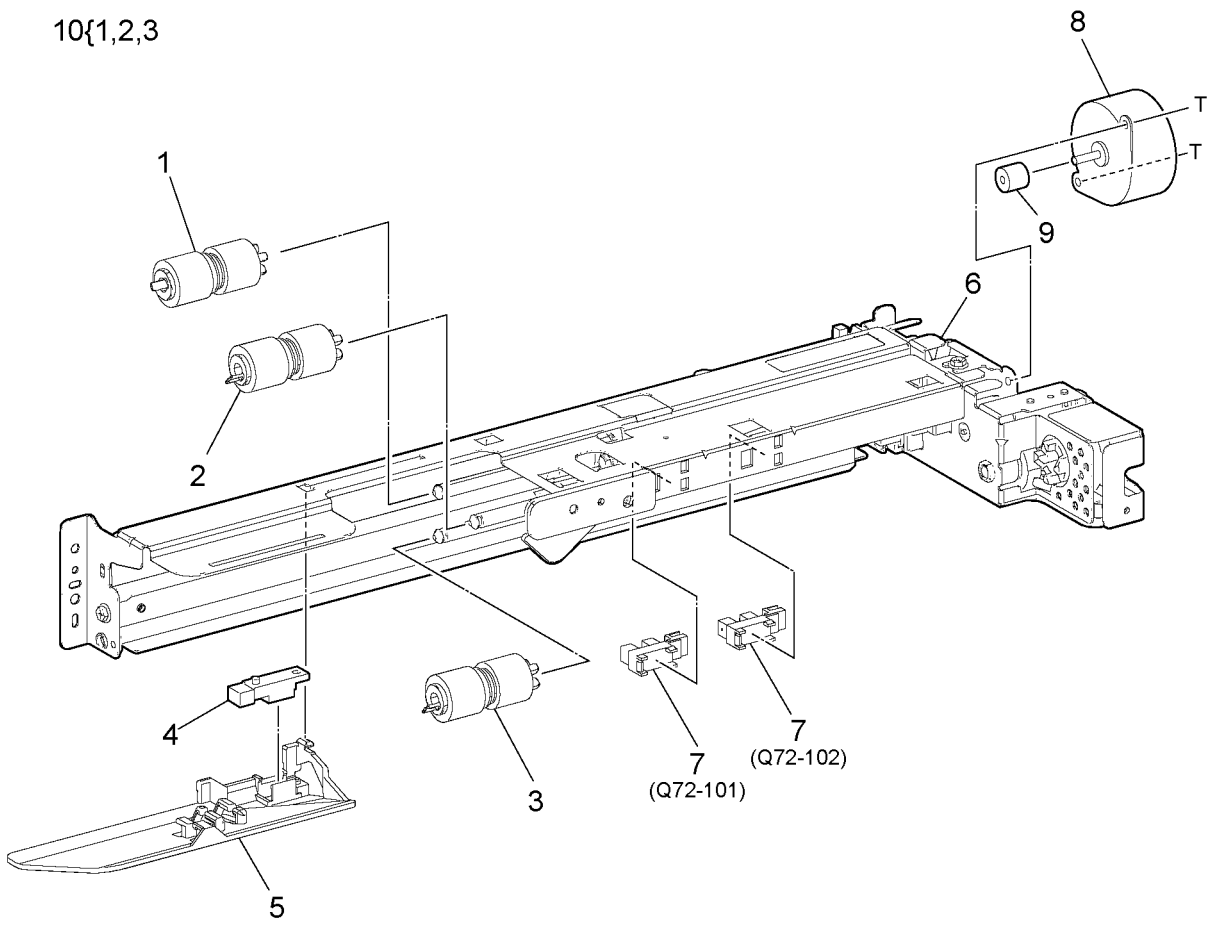
PL 80.10 Tray 1 Feedhead Assembly

Item	Part	Description
1	—	Feed roll (P/O PL 80.10 Item 11) (REP 80.3)
2	—	Nudger roll (P/O PL 80.10 Item 11) (REP 80.3)
3	—	Retard roll (P/O PL 80.10 Item 11) (REP 80.3)
4	930W00211	Tray 1 pre-feed sensor (Q71-105)
5	054E49660	Chute
6	—	Wire harness (P/O PL 80.10 Item 7)
7	—	Feedhead frame assembly (P/O PL 80.05 Item 1)
8	930W00113	Tray 1 no paper sensor (Q71-101)/ Tray 1 level sensor (Q71-102)
9	127K52790	Tray 1 feed /lift motor (MOT71-001)
10	—	Gear (P/O PL 80.10 Item 9)
11	676K12691	Tray 1-4 feed rolls



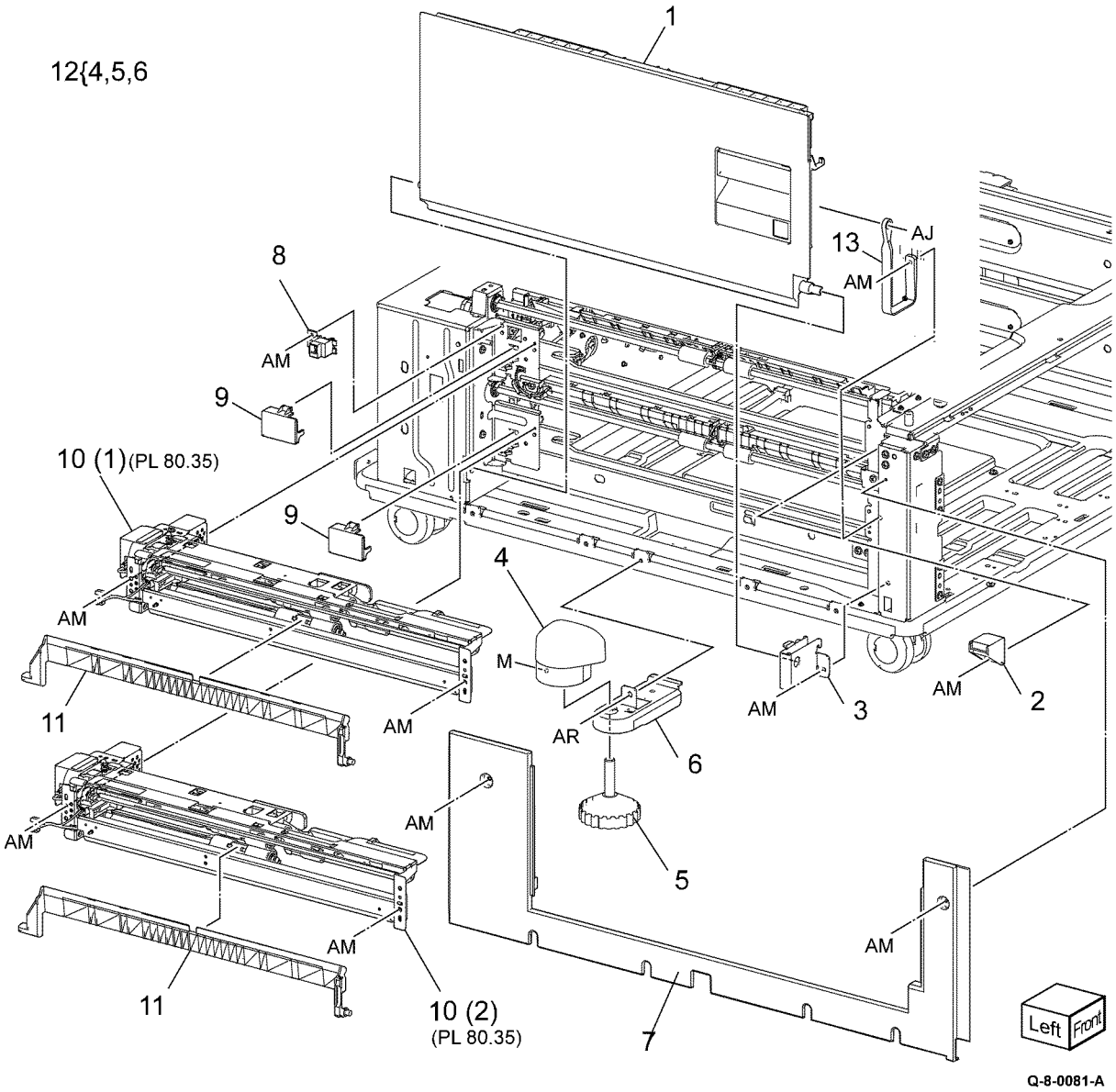
PL 80.15 Tray 2 Feedhead Assembly

Item	Part	Description
1	—	Feed roll (P/O PL 80.15 Item 10) (REP 80.3)
2	—	Nudger roll (P/O PL 80.15 Item 10) (REP 80.3)
3	—	Retard roll (P/O PL 80.15 Item 10) (REP 80.3)
4	930W00211	Tray 2 pre-feed sensor (Q72-105)
5	—	Chute (P/O PL 80.15 Item 6)
6	—	Feedhead frame assembly (P/O PL 80.05 Item 2)
7	930W00113	Tray 2 no paper sensor (Q72-101) / Tray 2 level sensor (Q72-102)
8	127K52790	Tray 2 feed/lift motor (MOT72-001)
9	—	Gear (P/O PL 80.15 Item 8)
10	676K12691	Tray 1-4 feed rolls



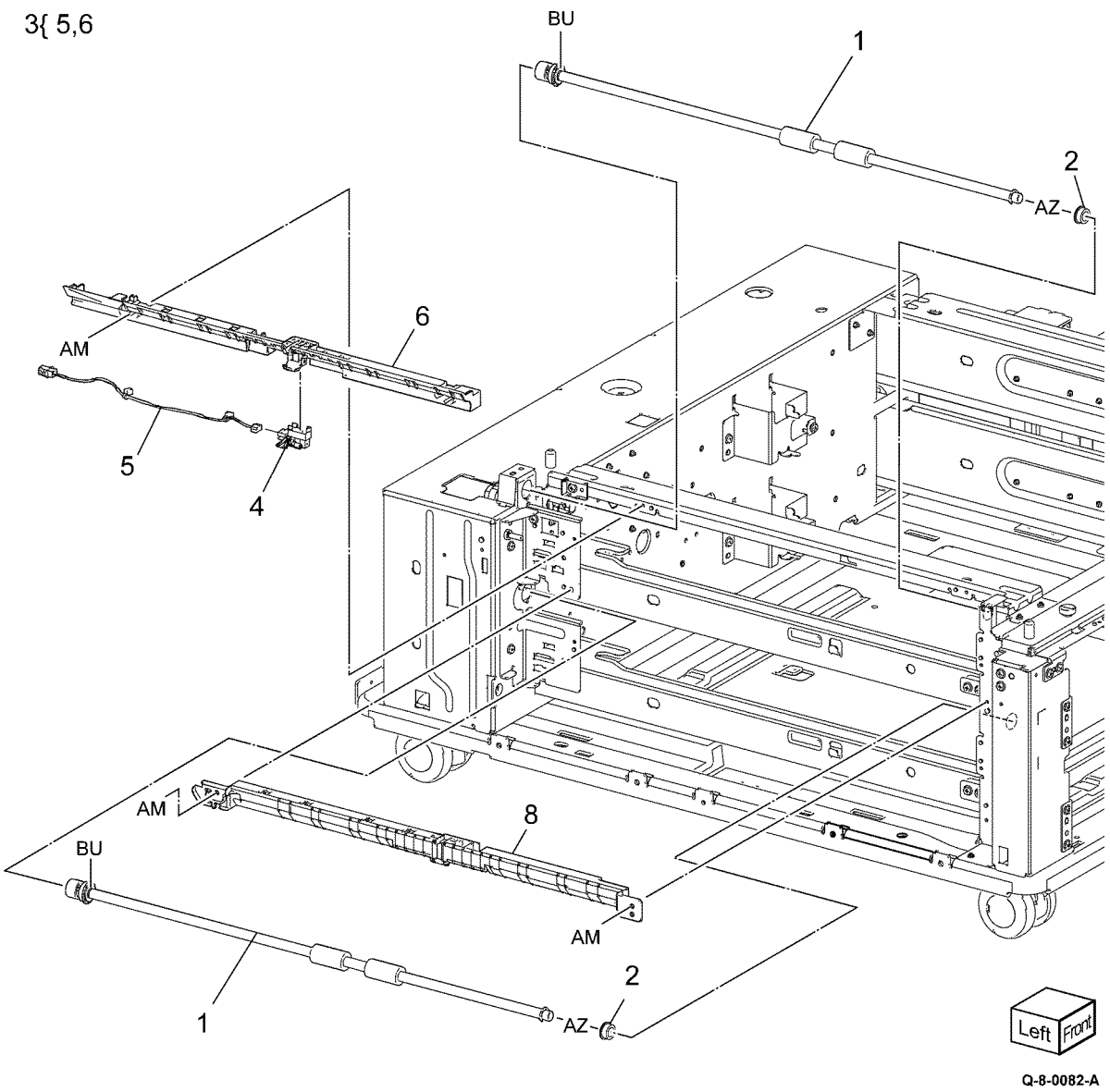
PL 80.20 2TM Left Cover Feedhead Assembly (C8130/C8135)

Item	Part	Description
1	948K12050	Left door assembly
2	—	Latch holder (Not Spared)
3	—	Pivot bracket (Not Spared)
4	822E41860	Foot cover
5	—	Adjuster foot (P/O PL 80.20 Item 12)
6	869E29540	Foot bracket
7	822E41053	Left cover
8	948K01811	2TM left door interlock switch (S77-306)
9	822E27982	Connector cover
10	859K14410	2TM feedhead 1 assembly (REP 80.4)/ 2TM feedhead 2 assembly (REP 80.5) (REF: PL 80.35)
11	054E36442	Feed out chute
12	607K11480	Adjuster foot assembly
13	—	L/H cover support



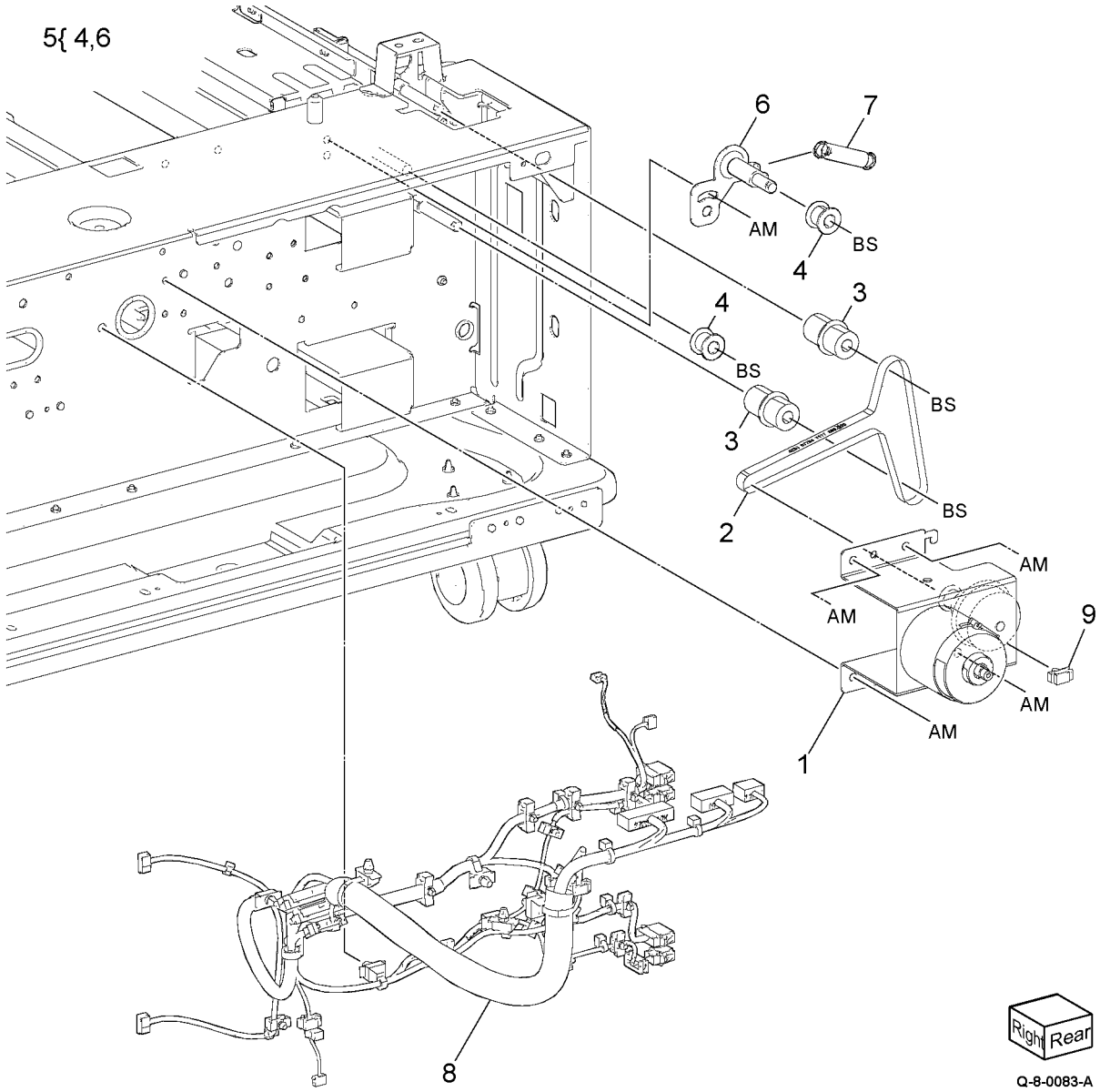
PL 80.25 2TM Takeaway Assembly (C8130/C8135)

Item	Part	Description
1	859K07790	Takeaway roll assembly (upper) (REP 80.6)/ Takeaway roll assembly (lower) (REP 80.8)
2	413W88650	Bearing
3	054K55191	Tray 3 chute assembly (REP 80.7)
4	930W00123	Tray 3 feed out sensor
5	—	Tray 3 feed out sensor harness (P/O PL 80.25 Item 3)
6	—	Tray 3 chute (P/O PL 80.25 Item 3)
7	—	Not used
8	054E59620	Tray 4 chute assembly



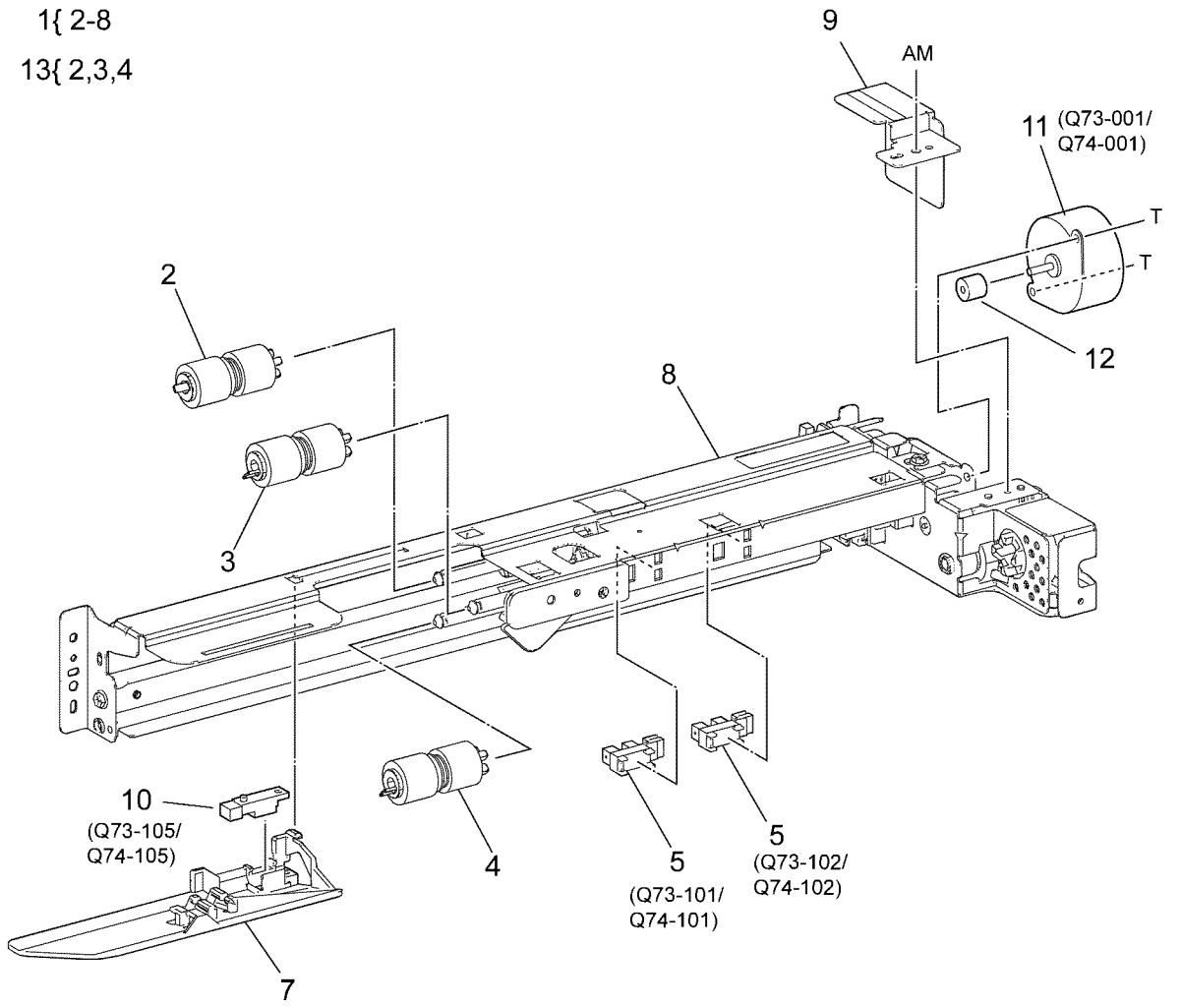
PL 80.30 2TM Drive Assembly (C8130/C8135)

Item	Part	Description
1	049K41791	Takeaway motor assembly (REP 80.9)
2	423W37754	Belt (REP 80.10)
3	020E51630	Pulley (24T)
4	059E03590	Roller
5	049K31890	Tension bracket assembly
6	—	Tension bracket (P/O PL 80.30 Item 5)
7	899E15320	Spring
8	952K45580	Wire harness assembly
9	—	Clamp (Not Spared)



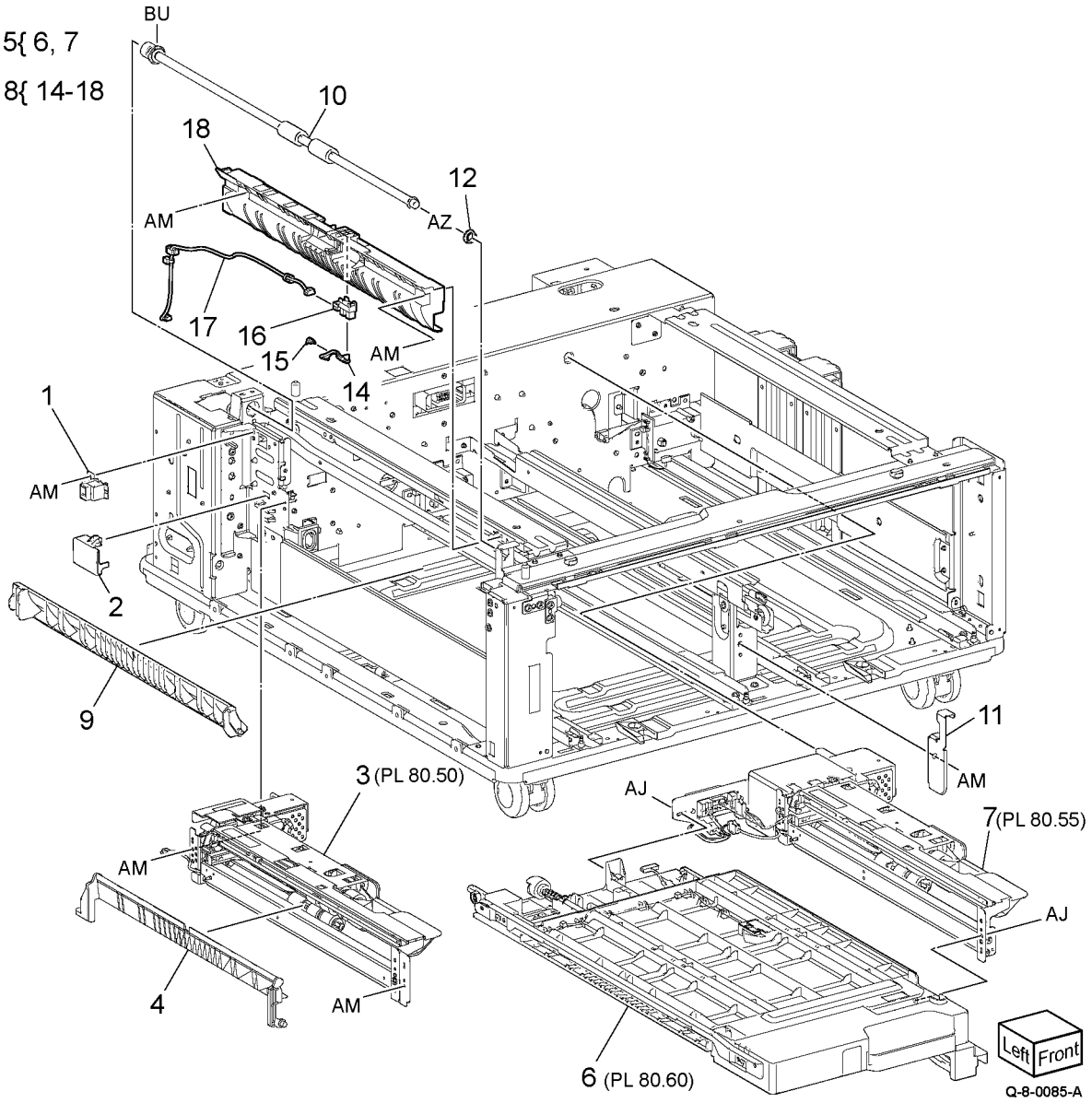
PL 80.35 2TM Tray 3 4 Feedhead Assembly (C8130/C8135)

Item	Part	Description
1	859K14410	Feedhead assembly (REF: PL 80.40 Item 3 PL 80.40 Item 7)
2	—	Feed roll (P/O PL 80.35 Item 13) (REP 80.12)
3	—	Nudger roll (P/O PL 80.35 Item 13) (REP 80.12)
4	—	Retard roll (P/O PL 80.35 Item 13) (REP 80.12)
5	930W00113	Tray 3 no paper sensor (Q73-101)/ Tray 4 no paper sensor (Q74-101)/Tray 3 level sensor (Q73-102)/ Tray 4 level sensor (Q74-102)
6	—	Not used
7	—	Chute
8	—	Feedhead frame (P/O PL 80.35 Item 1)
9	—	Bracket (Not Spared)
10	930W00211	Tray 3 pre-feed sensor (Q73-105)/ Tray 4 pre-feed sensor (Q74-105)
11	127K52790	Tray 3 lift motor (MOT73-001)/ Tray 4 lift motor (MOT74-001)
12	—	Gear (P/O PL 80.35 Item 11)
13	676K12691	Tray 1-4 feed rolls (REP 80.12)



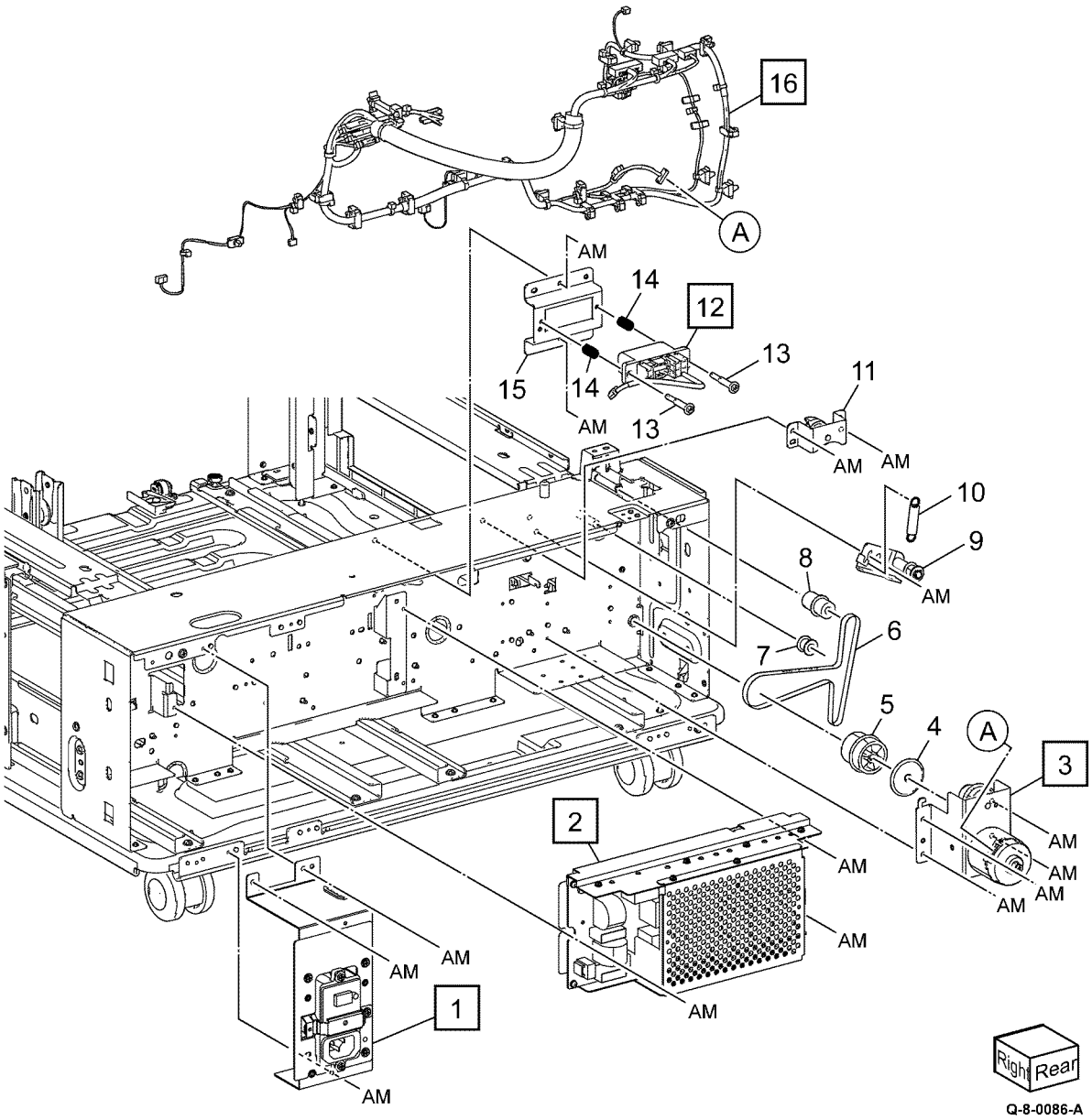
PL 80.40 TTM Transport Assembly / Tray 3 4 Feedhead Assembly

Item	Part	Description
1	948K01811	TTM left door interlock switch (S77-306)
2	—	Connector cover (Not Spared)
3	859K14420	Tray 3 feedhead assembly (REP 80.14)
4	054E33803	Feed out chute
5	859K14440	Transport assembly (REF: PL 80.60)
6	—	TTM transport assembly (P/O PL 80.40 Item 5)
7	859K17810	Tray 4 feedhead assembly (REP 80.15)
8	—	Takeaway chute assembly
9	054E39560	Transport feed chute
10	859K07790	Takeaway roll assembly
11	—	Transport stopper (Not Spared)
12	413W88650	Bearing
13	—	Not used
14	—	Actuator (P/O PL 80.40 Item 8)
15	—	Spring (P/O PL 80.40 Item 8)
16	—	Feed out sensor 3 (Q73-103) (P/O PL 80.40 Item 8)
17	—	Harness assembly (P/O PL 80.40 Item 8)
18	—	Takeaway chute (P/O PL 80.40 Item 8)



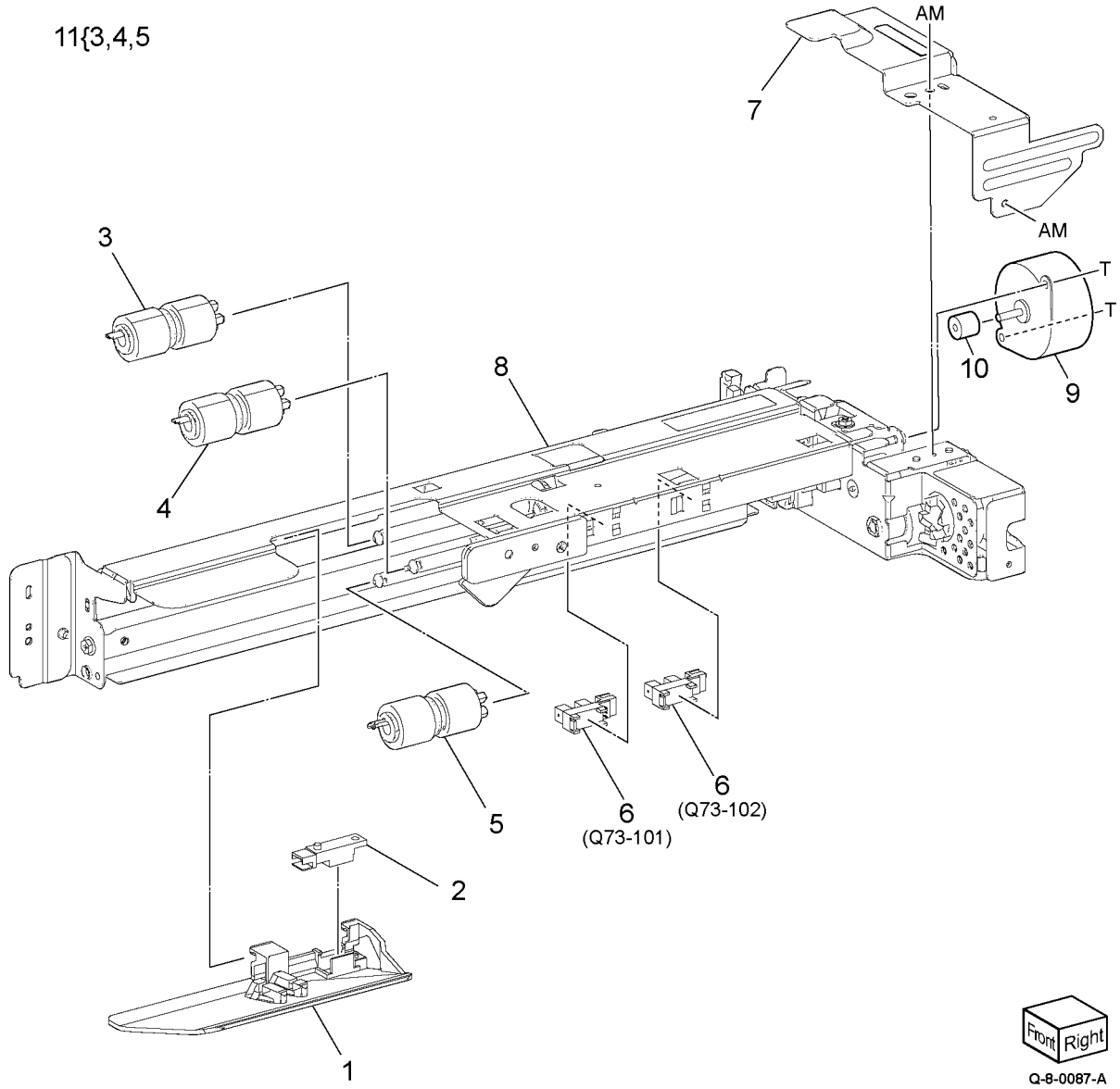
PL 80.45 TTM Drive Assembly

Item	Part	Description
1	101K69981	GFI chassis assembly
2	105E21602	LVPS CC4 (C8170)
3	049K31911	Takeaway motor bracket assembly (MOT77-035)
4	005E37900	Collar
5	020E51640	Pulley (48T)
6	—	Belt
7	059E03590	Roller
8	020E51630	Pulley
9	—	Tension bracket assembly (Not Spared)
10	899E15320	Spring
11	049K35270	Transport bracket assembly
12	952K31631	Drawer harness
13	—	Shoulder screw (Not Spared)
14	—	Spring (Not Spared)
15	—	Connector bracket (Not Spared)
16	952K45380	Wire harness



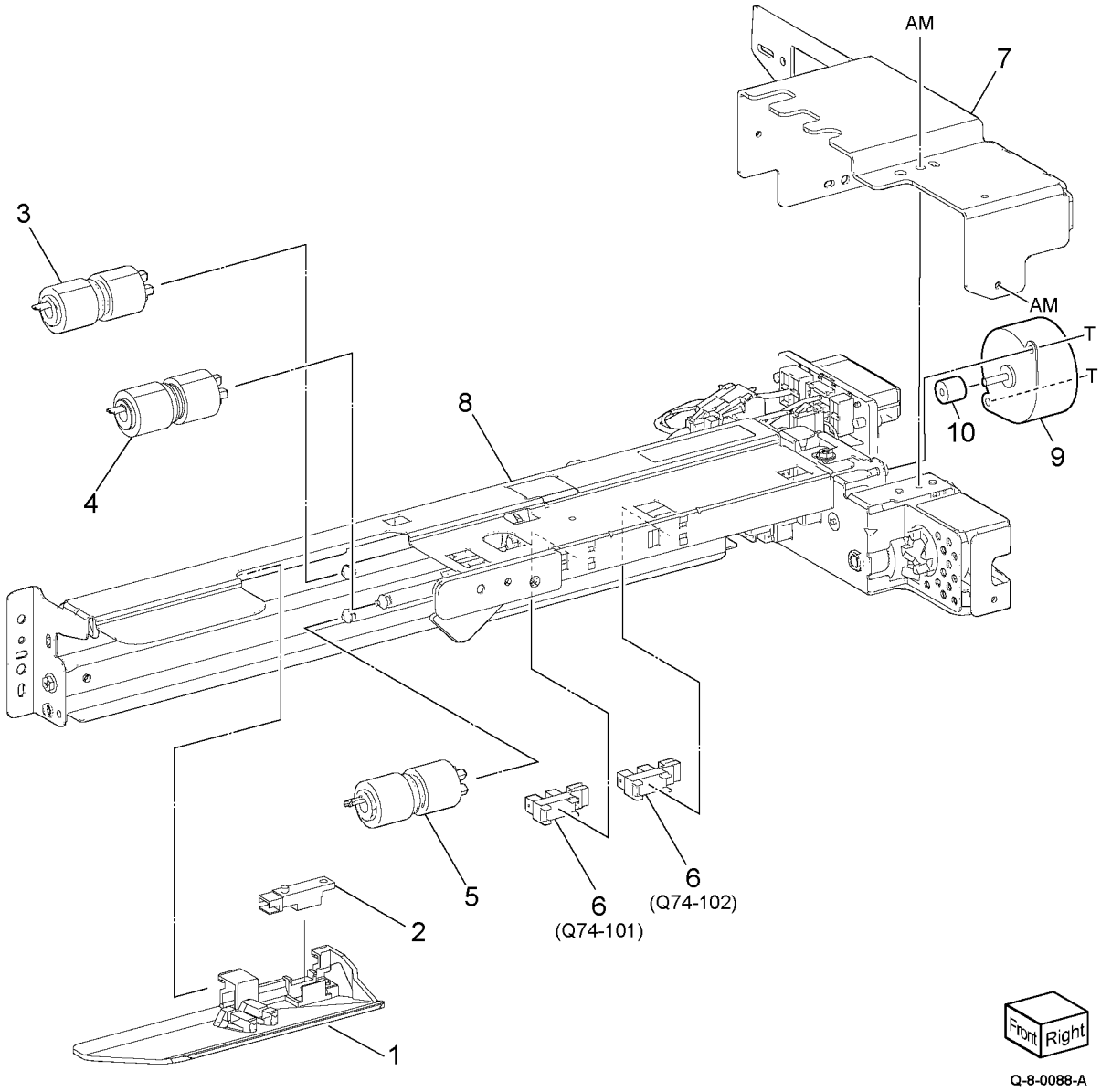
PL 80.50 TTM Tray 3 Feedhead Assembly

Item	Part	Description
1	054E23461	Chute
2	930W00211	Tray 3 pre-feed sensor (Q73-105)
3	—	Feed roll (P/O PL 80.50 Item 11) (REP 80.16)
4	—	Nudger roll (P/O PL 80.50 Item 11) (REP 80.16)
5	—	Retard roll (P/O PL 80.50 Item 11) (REP 80.16)
6	930W00113	Tray 3 no paper sensor (Q73-101)/ Tray 3 level sensor (Q73-102)
7	—	Feedhead cover (P/O PL 80.40 Item 3)
8	—	Feedhead frame (P/O PL 80.40 Item 3)
9	—	Tray 3 feed/lift motor (MOT73-001) (P/O PL 80.40 Item 3)
10	—	Gear (P/O PL 80.50 Item 9)
11	676K12691	Tray 1-4 feed rolls (REP 80.16)



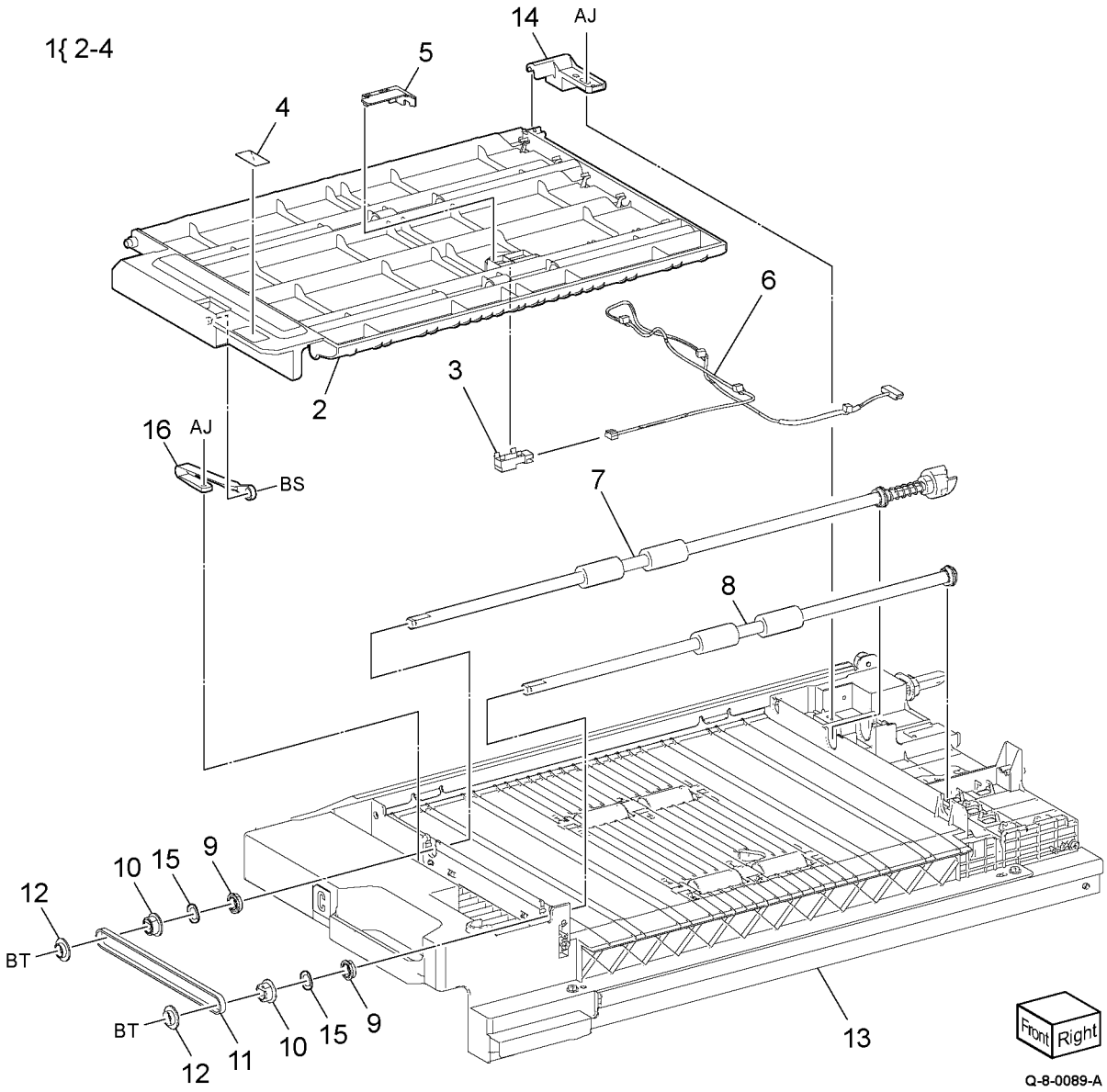
PL 80.55 TTM Tray 4 Feedhead Assembly

Item	Part	Description
1	054E23461	Chute
2	930W00211	Tray 4 pre-feed sensor (Q74-105)
3	—	Feed roll (P/O PL 80.55 Item 11) (REP 80.16)
4	—	Nudger roll (P/O PL 80.55 Item 11) (REP 80.16)
5	—	Retard roll (P/O PL 80.55 Item 11) (REP 80.16)
6	930W00113	Tray 4 no paper sensor (Q74-101)/ Tray 4 level sensor (Q74-102)
7	—	Feedhead cover (P/O PL 80.40 Item 7)
8	—	Feedhead frame (P/O PL 80.40 Item 7)
9	—	Tray 4 feed/lift motor (MOT74-001) (P/O PL 80.40 Item 7)
10	—	Gear (P/O PL 80.55 Item 9)
11	676K12691	Tray 1-4 feed rolls (REP 80.16)



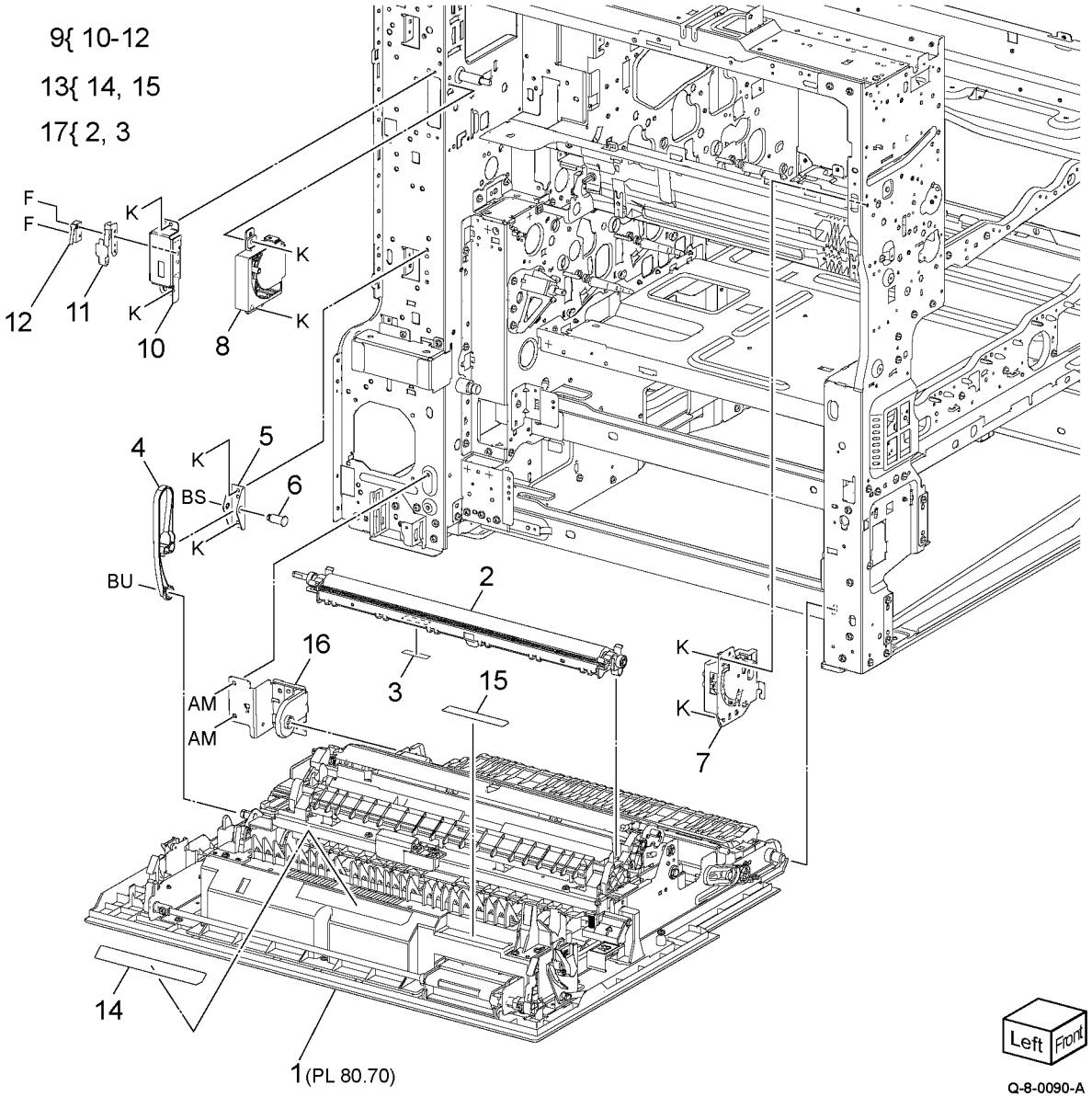
PL 80.60 TTM Transport Assembly

Item	Part	Description
1	607K02280	Upper chute transport kit
2	—	Upper chute transport (P/O PL 80.60 Item 1)
3	930W00212	Feed out sensor 4 (Q74-103) (P/O PL 80.60 Item 1)
4	—	Label (Transport) (P/O PL 80.60 Item 1)
5	—	Feed out sensor cover (Not Spared)
6	—	Feed out sensor harness (Not Spared)
7	859K02971	Transport roll assembly (REP 80.17)
8	859K07801	Transport roll
9	413W88650	Bearing
10	—	Pulley (Not Spared)
11	—	Belt (Not Spared)
12	—	Collar (Not Spared)
13	—	Lower chute transport (Not Spared)
14	—	Rear jam clearance handle (Not Spared)
15	—	Washer (Not Spared)
16	—	Front jam clearance handle (Not Spared)



PL 80.65 Left Cover Components

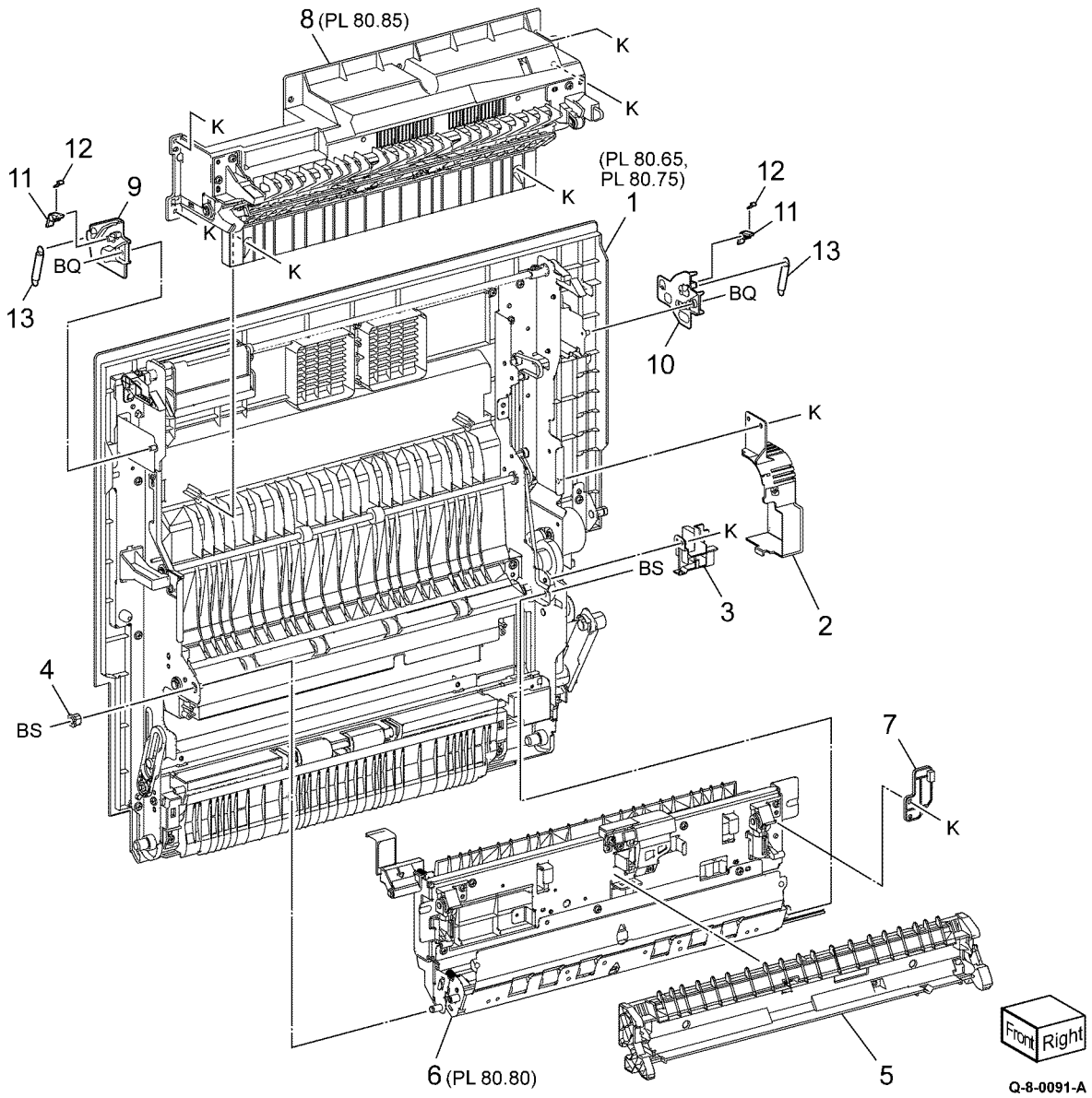
Item	Part	Description
1	859K24470	Left cover assembly (C8170) (REP 80.21)
—	859K24460	Left cover asembly (C8130/ C8135/C8145/C8155) (REP 80.21)
2	008R08103	2nd BTR roll assembly (REP 80.22)
3	—	Label (P/O PL 80.65 Item 17)
4	869E24730	Rear left support
5	—	Support bracket (Not Spared)
6	—	Shaft (Not Spared)
7	011K04800	Front lever assembly
8	011K04810	Rear lever assembly
9	110K18150	Interlock switch assembly (S77-300) (REP 80.29)
10	—	Switch bracket (P/O PL 80.65 Item 9)
11	—	Switch plate (P/O PL 80.65 Item 9)
12	—	Left cover interlock switch (P/O PL 80.65 Item 9)
13	—	Caution label kit (Not Spared)
14	—	Label (Finger caution) (P/O PL 80.65 Item 1)
15	—	Label (Caution) (P/O PL 80.65 Item 1)
16	—	Rear bracket (Not Spared)
17	—	2nd BTR assembly



PL 80.70 Left Cover Transport Components

Item	Part	Description
1	—	Left cover asembly (REF: PL 80.75)
2	—	Duplex motor cover
3	—	Harness guide
4	—	Bearing
5	948K01623	2nd BTR housing assembly (REF: PL 80.65 Item 17) (REP 80.23)
6	—	Duplex inner chute assembly (REF: PL 80.80) (REP 80.24)
7	—	Link (P/O PL 80.70 Item 6)
8	054K56213	Duplex chute assembly (C8130/ C8135/C8145/C8155) (REF: PL 80.85)
—	054K57964	Duplex chute assembly (C8170)
9	—	Front toggle guide
10	—	Rear toggle guide
11	—	Toggle gate
12	—	Spring
13	—	Toggle spring

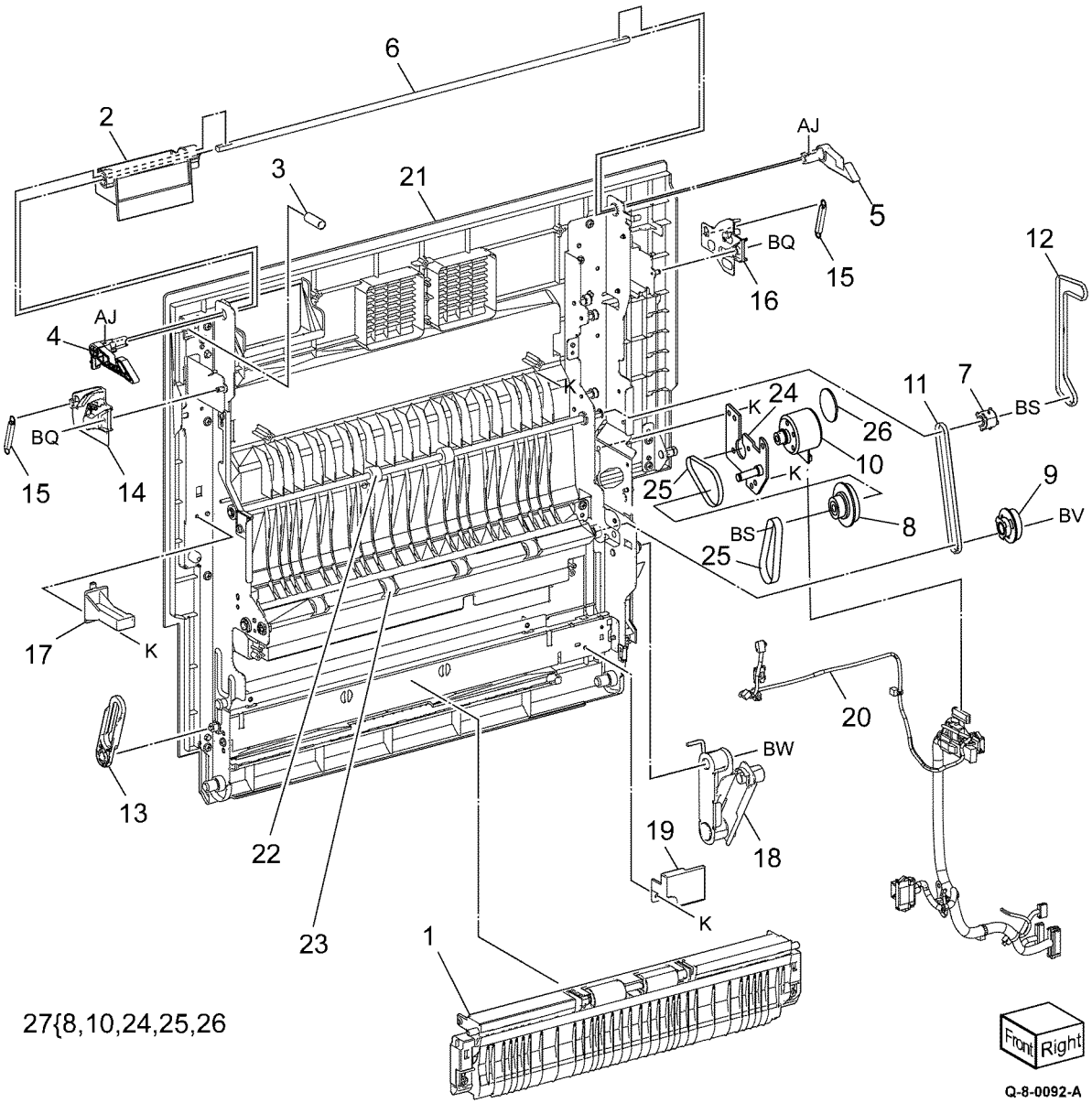
Note: All parts are part of PL 80.65 Item 1.



PL 80.75 Left Cover Transport Assembly

Item	Part	Description
1	054K56131	Lower chute assembly (REP 80.25)
2	011E28973	Handle
3	—	Spring
4	011E28993	Front latch
5	011E29000	Rear latch
6	—	Shaft
7	—	Pulley
8	—	Gear (P/O PL 80.75 Item 27)
9	—	Gear/pulley
10	—	Duplex motor (MOT77-071) (P/O PL 80.75 Item 27)
11	—	Belt
12	—	Belt
13	869E18601	Front support
14	—	Front toggle guide assembly
15	—	Spring
16	—	Rear toggle guide assembly
17	—	Close stopper
18	—	Link assembly
19	—	Connector cover
20	—	Harness assembly
21	—	Left cover assembly
22	—	Mid duplex roll asembly
23	—	Lower duplex roll assembly
24	—	Bracket (P/O PL 80.75 Item 27)
25	—	Belt (P/O PL 80.75 Item 27)
26	—	Pad (P/O PL 80.75 Item 27)
27	049K45260	Duplex drive assembly

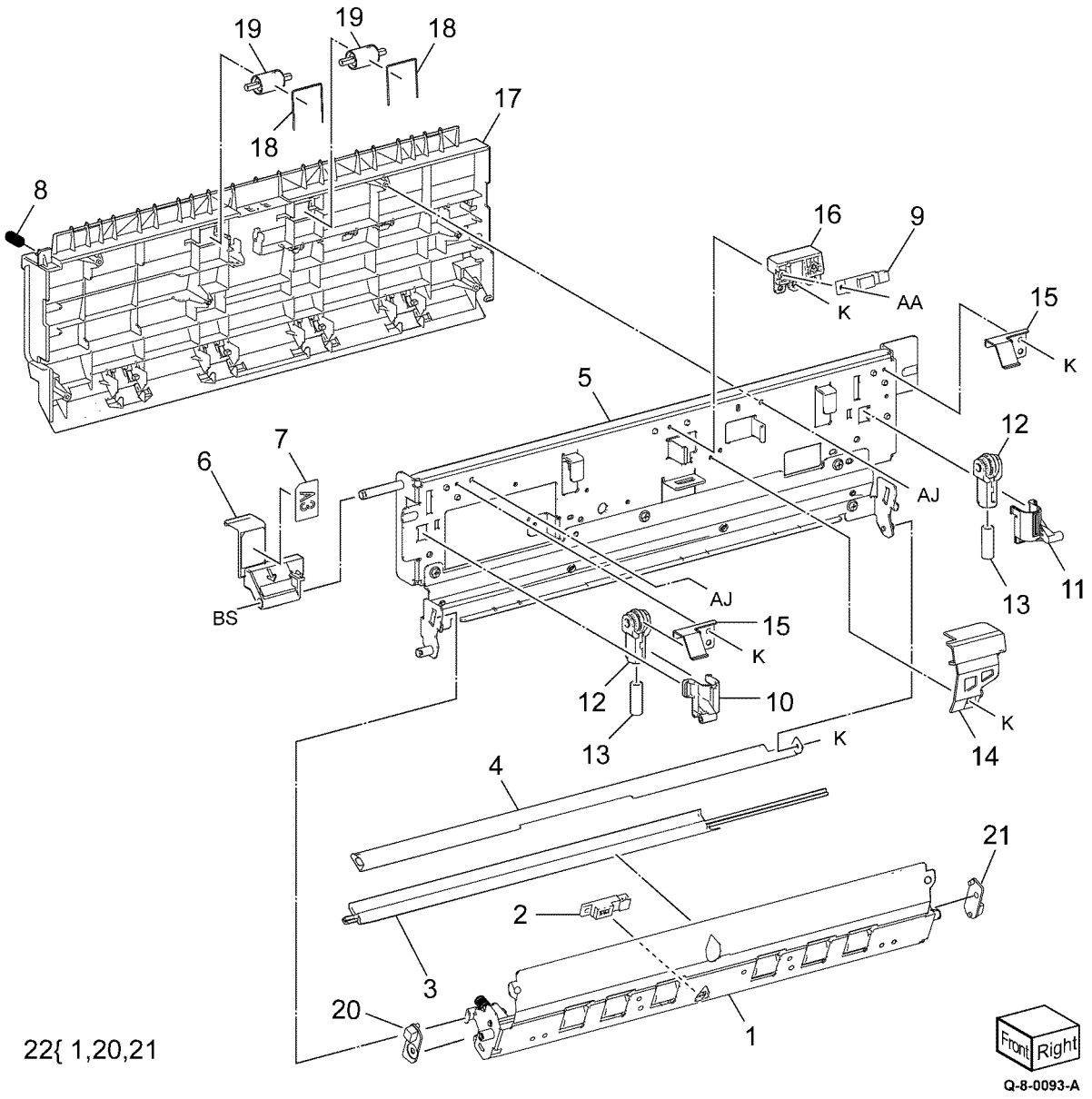
Note: All components are part of PL 80.65 Item 1



PL 80.80 Duplex Inner Chute Assembly

Item	Part	Description
1	—	Registration chute assembly (P/O PL 80.80 Item 22)
2	930W00211	Registration sensor (Q77-103) (REP 80.26)
3	—	Registration heater assembly
4	—	Registration heater bracket
5	—	Registration tie plate
6	—	Handle (REP 80.27)
7	—	Label (A3)
8	—	Spring
9	130E87410	POB jam sensor (Q94-201) (REP 80.28)
10	—	Front spring housing
11	—	Rear spring housing
12	—	2nd roller assembly
13	—	Spring
14	—	Harness cover
15	—	BTR bracket
16	—	POB jam sensor holder
17	—	Duplex inner chute
18	899E15700	Pinch spring
19	607K20560	Pinch roller
20	—	Registration front pinch plate (P/O PL 80.80 Item 22)
21	—	Registration rear pinch plate (P/O PL 80.80 Item 22)
22	607K14930	Registration chute assembly kit

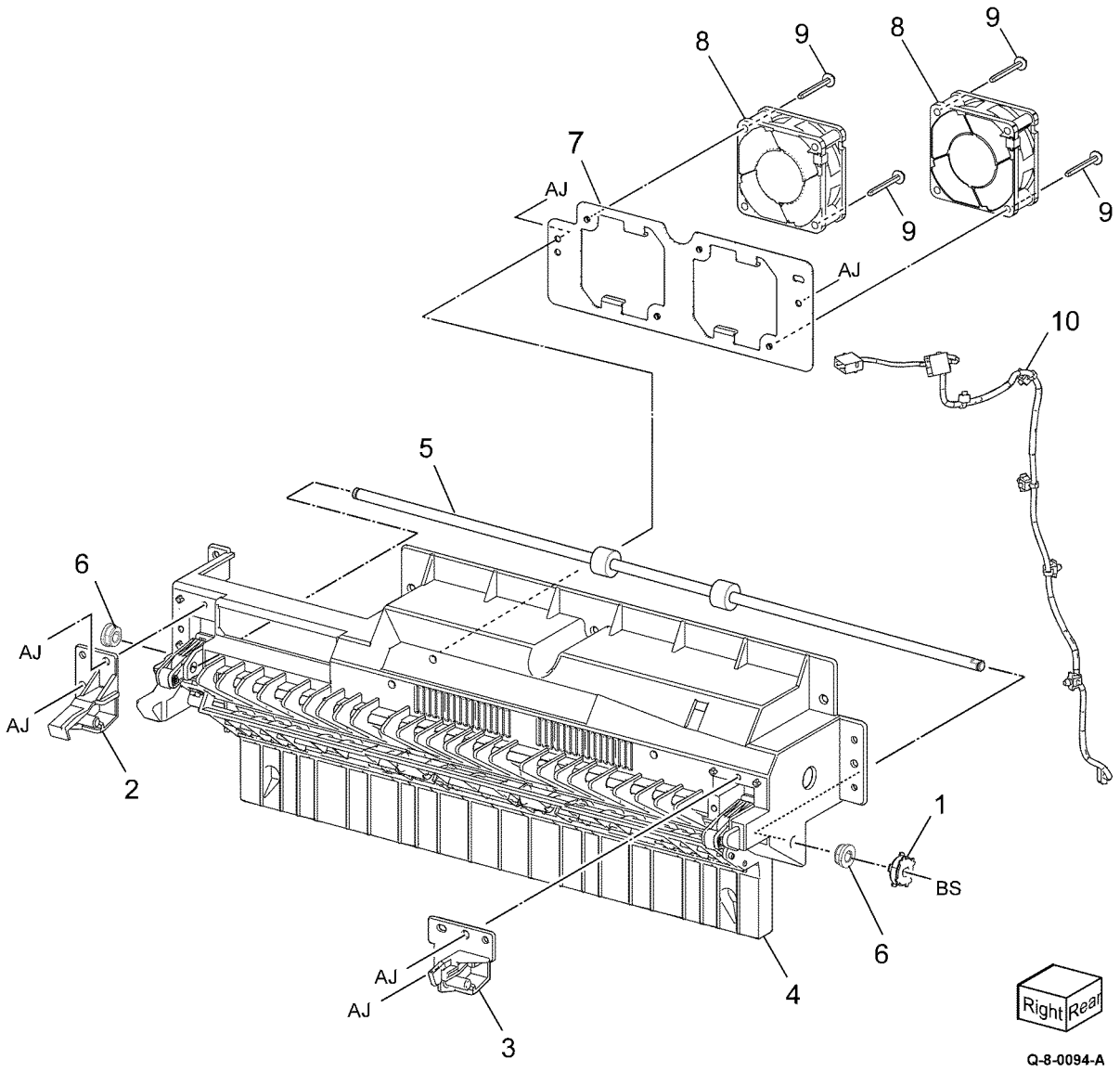
Note: All components are part of PL 80.65 Item 1



PL 80.85 Duplex Chute Assembly

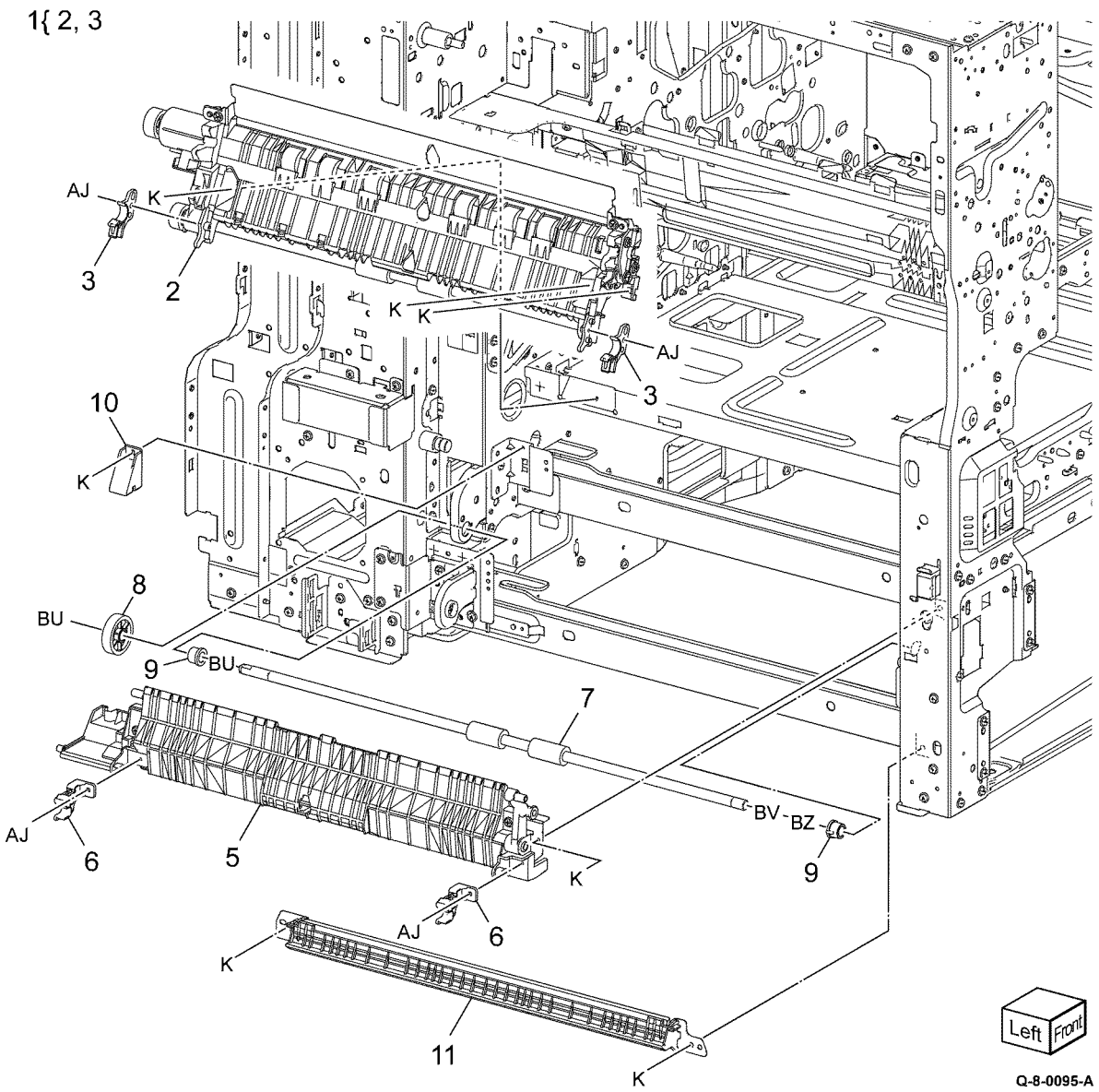
Item	Part	Description
1	—	Pulley
2	—	Front holder assembly
3	—	Rear holder assembly
4	—	Duplex chute housing assembly
5	—	Upper duplex roll assembly
6	—	Bearing
7	—	Fan bracket (C8170)
8	127K74180	L/H Fan (C8170)
9	—	Screw (C8170)
10	—	Wire harness (C8170)

Note: All components are part of PL 80.65 Item 1



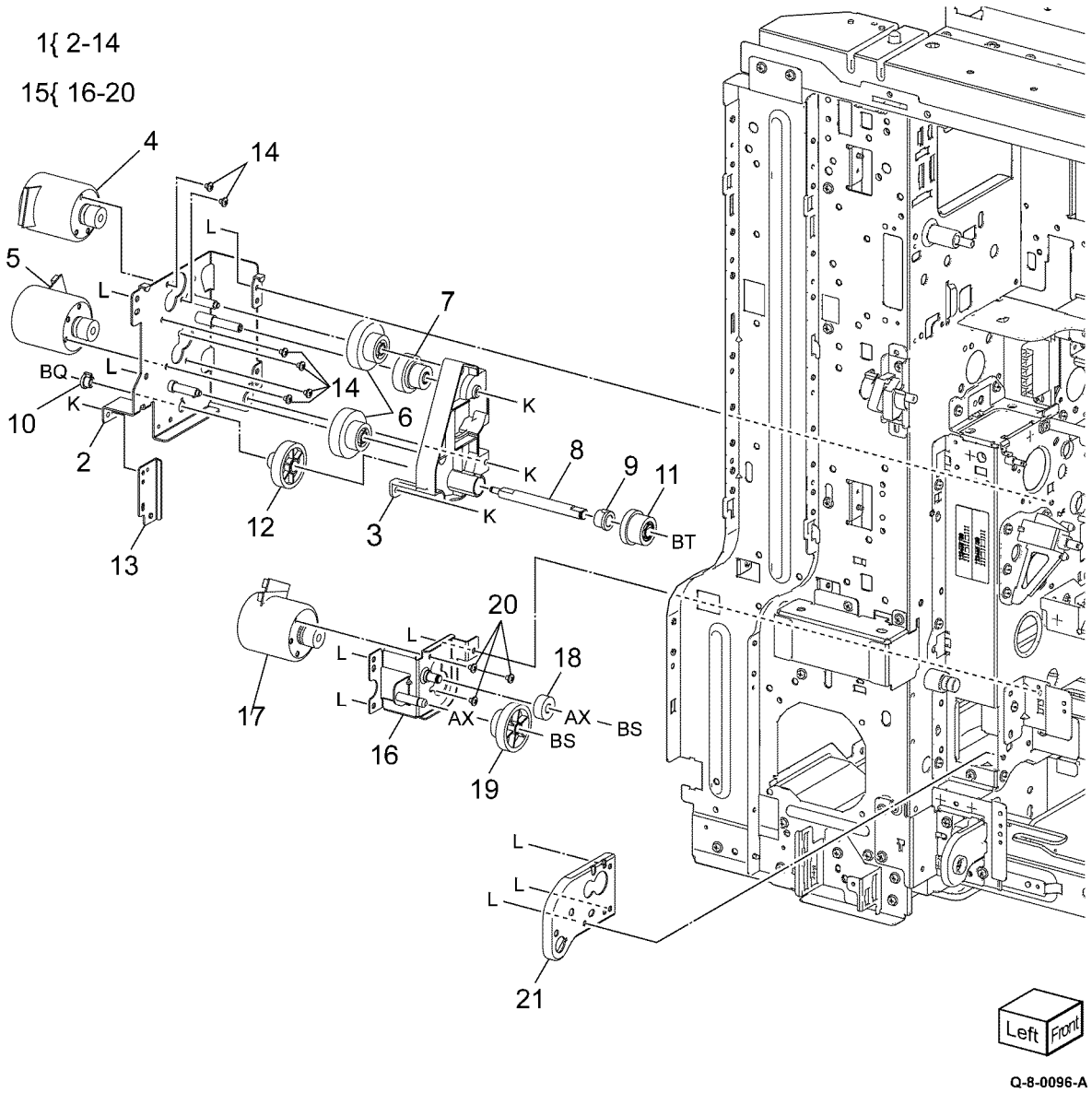
PL 80.90 Registration Transport Assembly

Item	Part	Description
1	859K15190	Registration transport assembly (REP 80.30)
2	—	Registration transport (P/O PL 80.90 Item 1)
3	—	Chute holder (P/O PL 80.90 Item 1)
4	—	Not used
5	054K55492	Chute (REP 80.31)
6	032E48421	Chute guide
7	859K02290	Takeaway roll 2 assembly (alternative) (REP 80.32)
—	859K07200	Takeaway roll 2 assembly (REP 80.32)
8	807E52000	Drive gear
9	013E46820	Bearing
10	—	Connector cover (Not Spared)
11	054K56173	Upper chute assembly



PL 80.95 Registration Drive Assembly

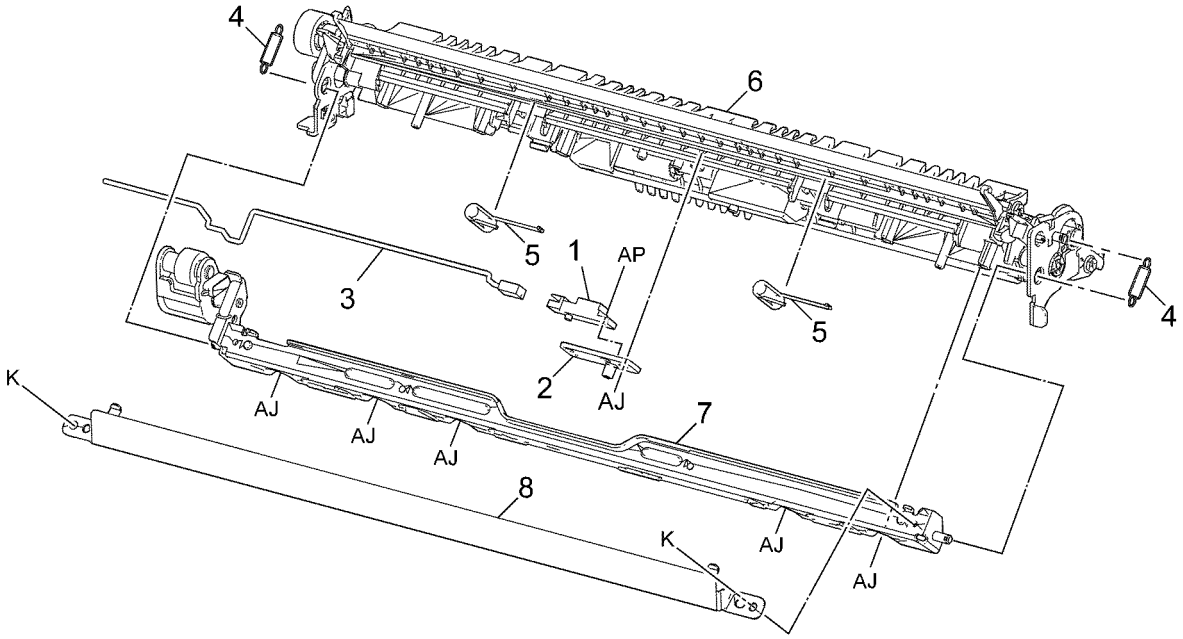
Item	Part	Description
1	007K23700	Registration drive assembly (REP 80.33)
2	—	Motor bracket (P/O PL 80.95 Item 1)
3	—	Block (P/O PL 80.95 Item 1)
4	—	Registration motor (MOT77-055) (P/O PL 80.95 Item 1)
5	—	Takeaway motor 1 (MOT77-050) (P/O PL 80.95 Item 1)
6	—	Gear (39/22) (P/O PL 80.95 Item 1)
7	—	Gear (30/18) (P/O PL 80.95 Item 1)
8	—	Shaft (P/O PL 80.95 Item 1)
9	—	Bearing (P/O PL 80.95 Item 1)
10	—	Bearing (P/O PL 80.95 Item 1)
11	—	Gear (37) (P/O PL 80.95 Item 1)
12	—	Gear (25) (P/O PL 80.95 Item 1)
13	—	Bracket (P/O PL 80.95 Item 1)
14	—	Screw (P/O PL 80.95 Item 1)
15	007K22022	Takeaway drive assembly (REP 80.34)
16	—	Takeaway motor 2 bracket (P/O PL 80.95 Item 15)
17	—	Takeaway motor 2 (MOT77-051) (P/O PL 80.95 Item 15)
18	—	Gear (18) (P/O PL 80.95 Item 15)
19	—	Gear (Z39/22) (P/O PL 80.95 Item 15)
20	—	Screw (P/O PL 80.95 Item 15)
21	—	Drive bracket (Not Spared)



PL 80.115 Bypass Tray Takeaway Assembly

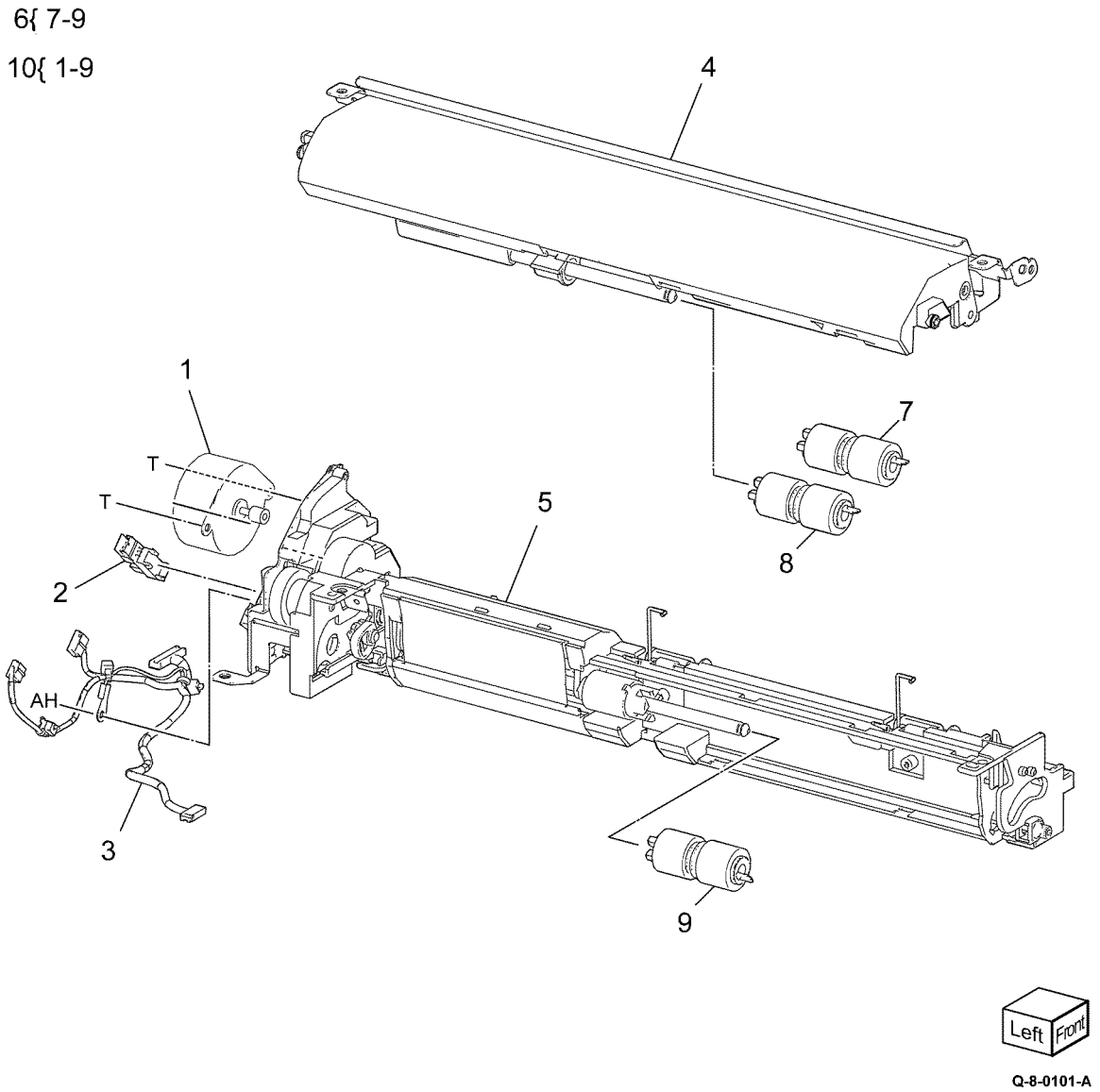
Item	Part	Description
1	930W00211	Feed out sensor (Q77-104)
2	—	Feed out sensor holder
3	—	Feed out sensor harness
4	—	Spring
5	—	Spring
6	—	Pinch chute
7	—	Tie plate
8	—	Miler plate

Note: All parts are part of PL 70.50 Item 4.



PL 80.120 Bypass Tray Feedhead Assembly

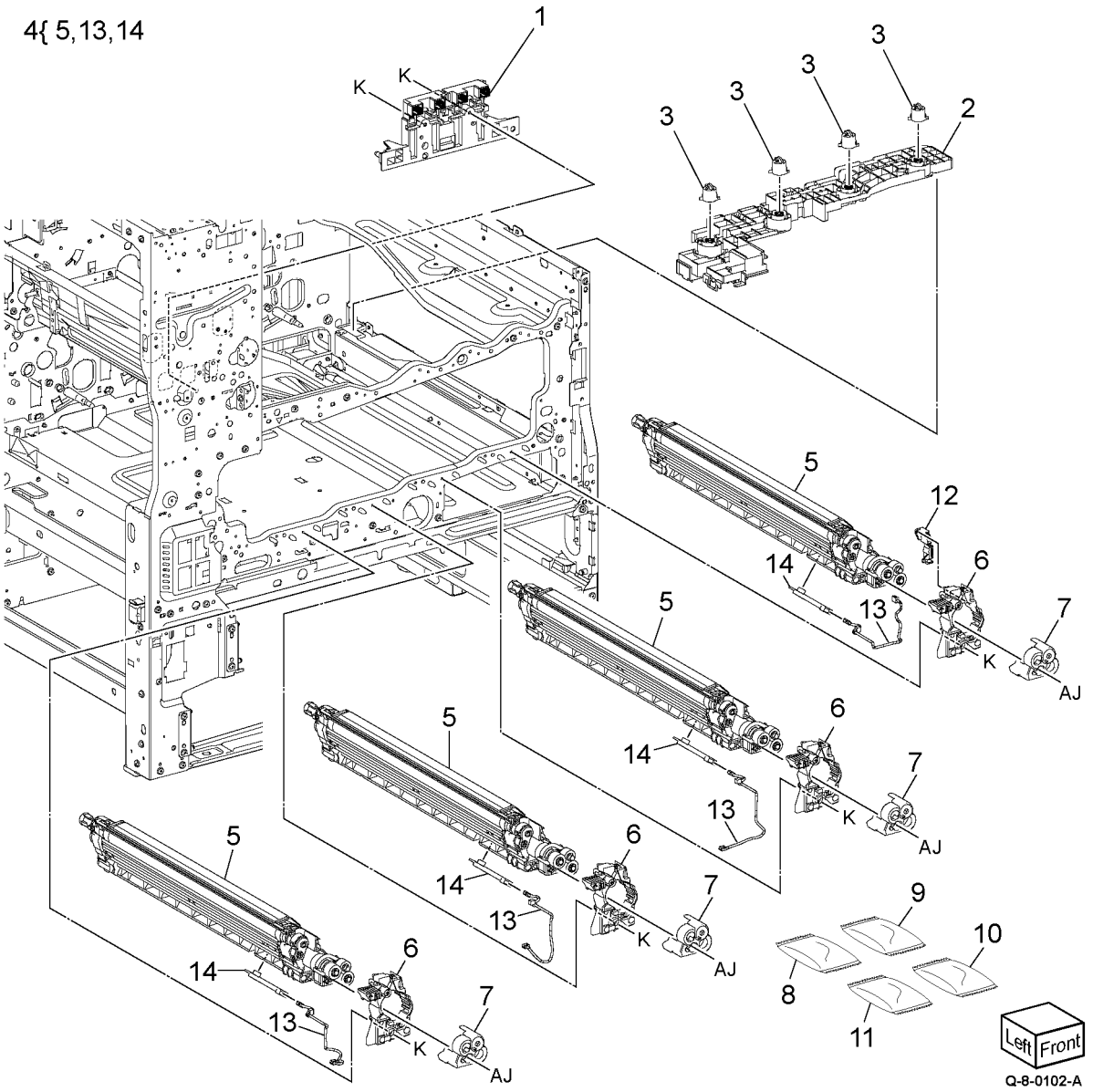
Item	Part	Description
1	127K52790	Bypass tray feed/lift motor (MOT75-003)
2	930W00113	Bypass tray nudger position sensor (Q75-102)
3	952K30302	Harness assembly
4	—	Upper feedhead assembly (P/O PL 80.120 Item 10)
5	—	Lower frame (P/O PL 80.120 Item 10)
6	676K61351	Bypass tray roll kit (REP 80.20)
7	—	Feed roll (P/O PL 80.120 Item 6)
8	—	Nudger roll (P/O PL 80.120 Item 6)
9	—	Retard roll (P/O PL 80.120 Item 6)
10	607K15040	Bypass tray feeder kit (REP 80.19)



PL 90.05 Developer Unit

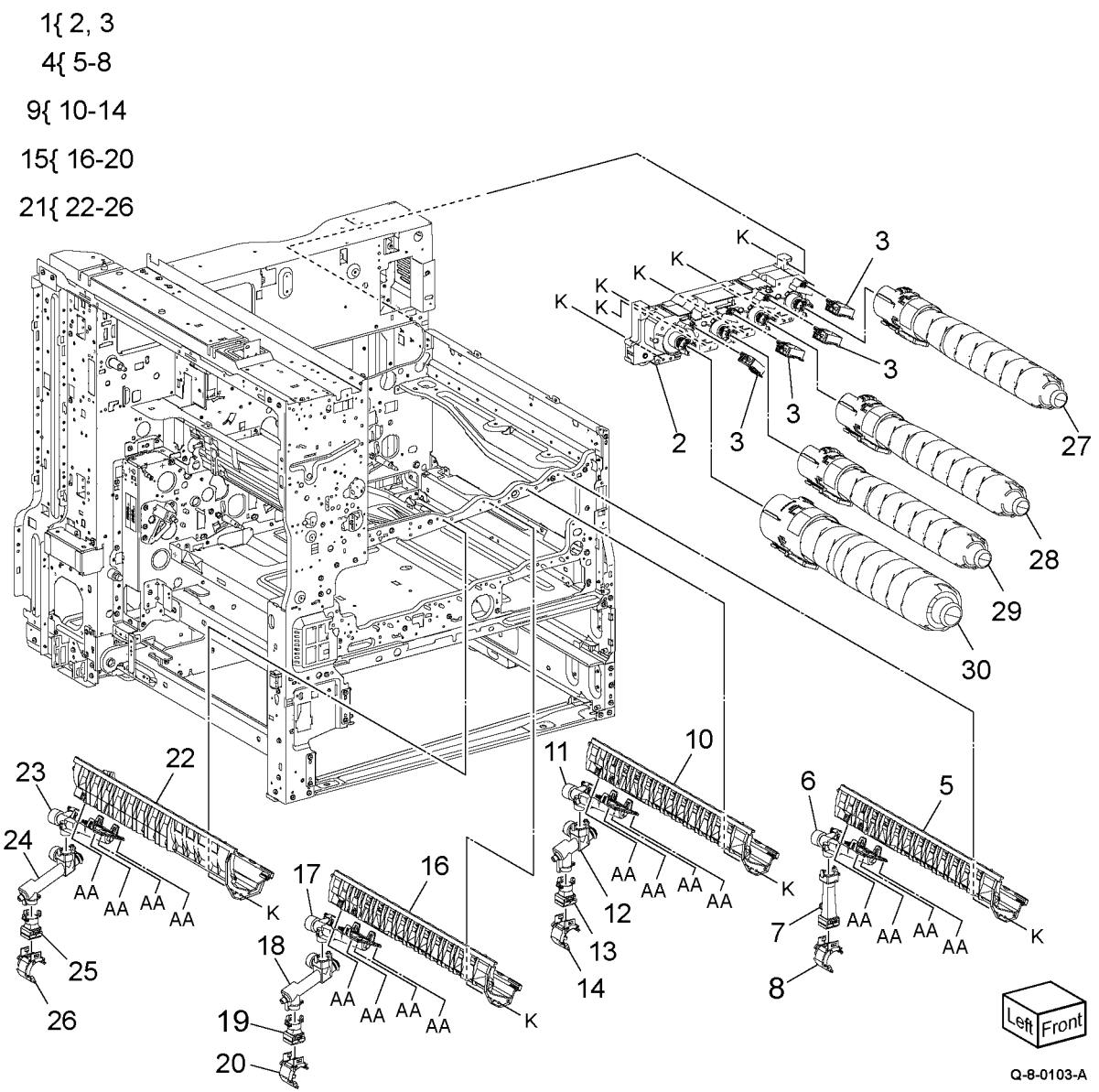
Item	Part	Description
1	948K01510	Conductor housing assembly (REP 90.1)
2	948K01530	Developer conductor housing assembly
3	010E96730	Plunger (REP 90.2)
4	948K13034	Developer housing kit (C8145/C8155/C8170)
—	948K13024	Developer housing kit (C8130/C8135)
5	—	Developer assembly (P/O PL 90.05 Item 4) (See NOTE) (REP 90.3)
6	815K16880	Developer plate assembly (Y)
—	815K16910	Developer plate assembly (K)
—	815K16900	Developer plate assembly (C)
—	815K16890	Developer plate assembly (M)
7	948K11800	Gear cover
8	676K51561	Developer material (Y) (REP 90.7)
9	676K51551	Developer material (M) (REP 90.7)
10	676K51541	Developer material (C) (REP 90.7)
11	676K51531	Developer material (K) (REP 90.7)
12	—	Harness guide (Not Spared)
13	—	Wire harness (P/O PL 90.05 Item 4)
14	930K00330	ATC sensor

Note: When ordering item 4 also order relevant Developer material items 8,9,10 or 11.



PL 90.10 Toner Dispense

Item	Part	Description
1	007K21500	Toner dispense motor assembly (MOT92-005) (REP 90.4)
2	—	Drive assembly (P/O PL 90.10 Item 1)
3	019K16490	Toner CRUM connector assembly (REP 90.5)
4	094K94141	Dispenser assembly (Y) (REP 90.6)
5	—	Toner guide assembly (P/O PL 90.10 Item 4)
6	—	Main pipe (Y) (P/O PL 90.10 Item 4)
7	—	Lower pipe (Y) (P/O PL 90.10 Item 4)
8	—	Shutter (Y) (P/O PL 90.10 Item 4)
9	094K94151	Dispenser assembly (M) (REP 90.6)
10	—	Toner guide assembly (M) (P/O PL 90.10 Item 9)
11	—	Main pipe (M) (P/O PL 90.10 Item 9)
12	—	Sub pipe (M) (P/O PL 90.10 Item 9)
13	—	Lower pipe (M) (P/O PL 90.10 Item 9)
14	—	Shutter (M) (P/O PL 90.10 Item 9)
15	094K94161	Dispenser assembly (C) (REP 90.6)
16	—	Toner guide assembly (C) (P/O PL 90.10 Item 15)
17	—	Main pipe (C) (P/O PL 90.10 Item 15)
18	—	Sub pipe (C) (P/O PL 90.10 Item 15)
19	—	Lower pipe (C) (P/O PL 90.10 Item 15)
20	—	Shutter (C) (P/O PL 90.10 Item 15)
21	094K94171	Dispenser assembly (K) (REP 90.6)
22	—	Toner guide assembly (K) (P/O PL 90.10 Item 21)
23	—	Main pipe (K) (P/O PL 90.10 Item 21)
24	—	Sub pipe (K) (P/O PL 90.10 Item 21)
25	—	Lower pipe (K) (P/O PL 90.10 Item 21)
26	—	Shutter (K) (P/O PL 90.10 Item 21)
27	—	Toner cartridge (Y) (REF: PL 26.10 Item 1)
28	—	Toner cartridge (M) (REF: PL 26.10 Item 2)
29	—	Toner cartridge (C) (REF: PL 26.10 Item 3)

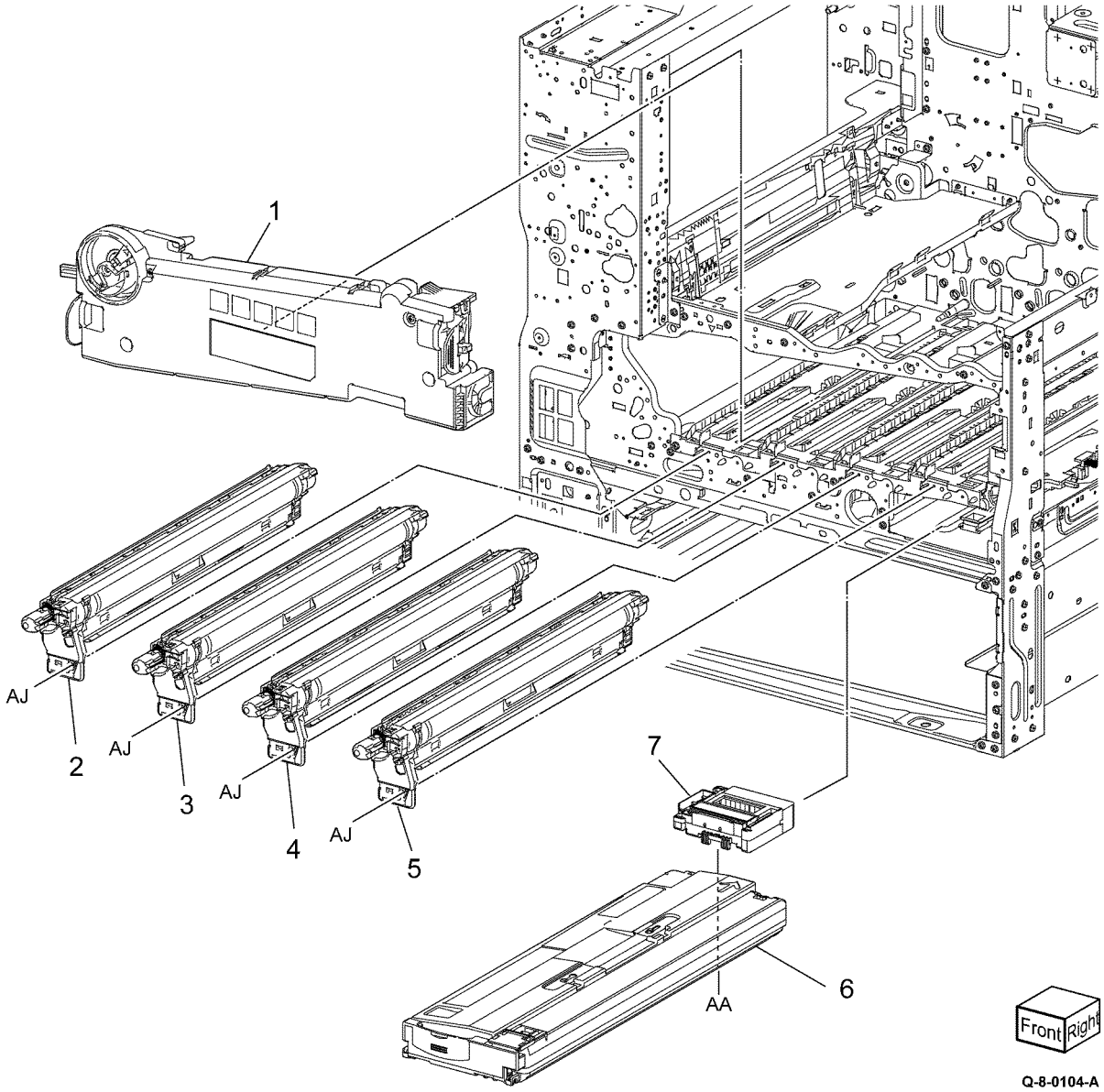


30	—	Toner cartridge (K) (REF: PL 26.10 Item 4)

PL 90.15 Xerographic Components

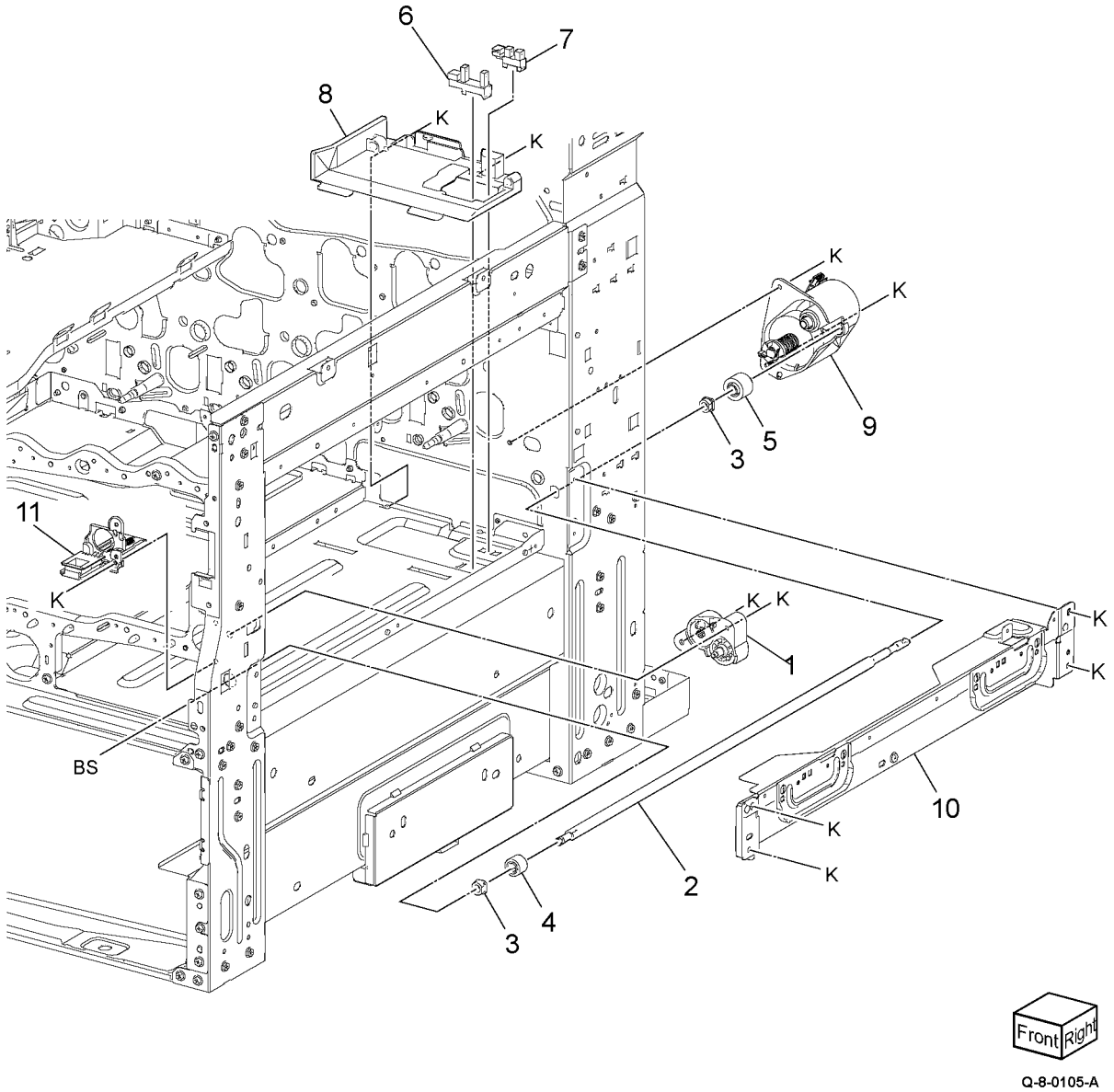
Item	Part	Description
1	948K00016	Waste toner transport assembly
2	—	Drum assembly (K) (NOTE) (REP 90.11)
3	—	Drum assembly (C) (NOTE) (REP 90.11)
4	—	Drum assembly (M) (NOTE) (REP 90.11)
5	—	Drum assembly (Y) (NOTE) (REP 90.11)
6	008R08101	Waste cartridge (C8130/C8135/C8145/C8155)
—	008R08102	Waste cartridge (C8170)
7	—	Suction case (C8170)

Note: The part number for all Drum assemblies is 013R00681.



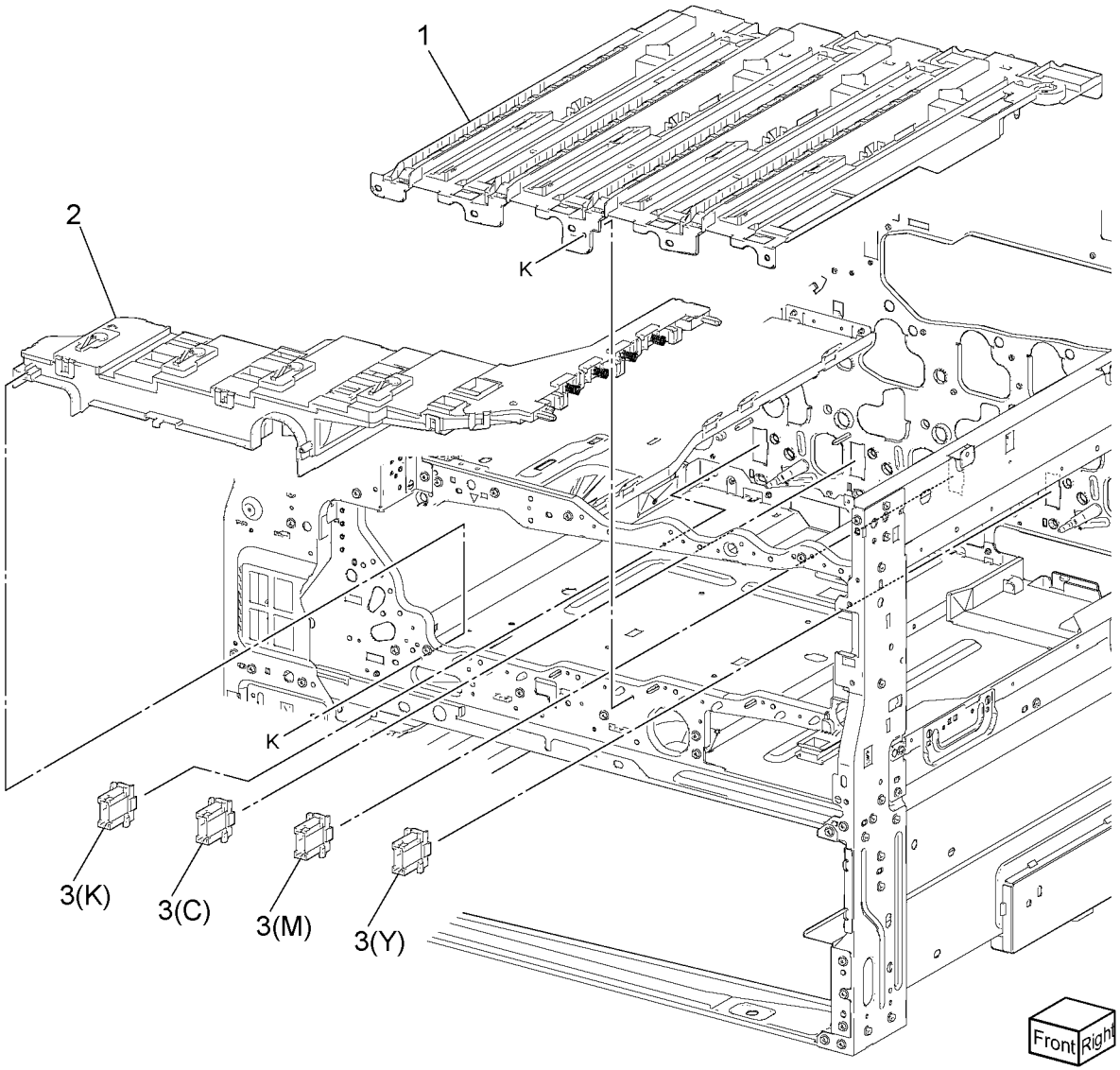
PL 90.20 Xerographic Assembly (1 of 2)

Item	Part	Description
1	948K02890	Gear housing assembly (REP 90.12)
2	806E47221	Drive shaft (REP 90.13)
3	413W11660	Sleeve bearing (REP 90.17)
4	807E52060	Gear
5	807E51980	Helical gear
6	930W00511	Waste toner bottle full sensor (Q91-201) (REP 90.18)
7	130E81600	Waste toner bottle position sensor (Q91-200) (REP 90.18)
8	032E47030	Bottle guide
9	948K00350	Agitator motor assembly (MOT91-006) (REP 90.14)
10	—	Handle assembly (Not Spared)
11	052K14000	Joint pipe assembly (REP 90.15)



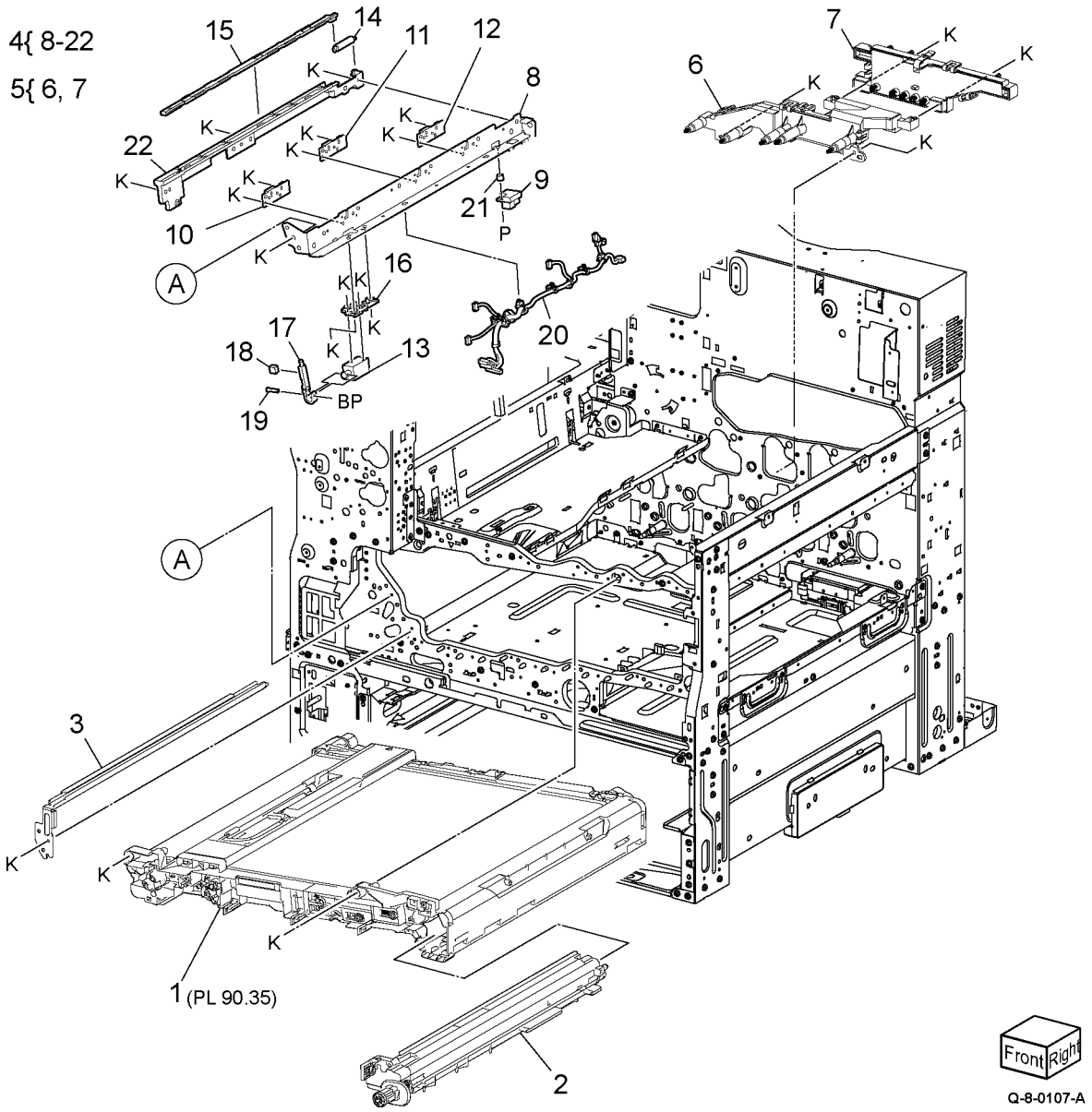
PL 90.25 Xerographic Assembly (2 of 2)

Item	Part	Description
1	—	Marking guide (P/O PL 60.05 Item 1)
2	948K00060	Housing assembly (REP 90.16)
3	113E48880	Drum CRUM connector



PL 90.30 IBT Belt Unit Components

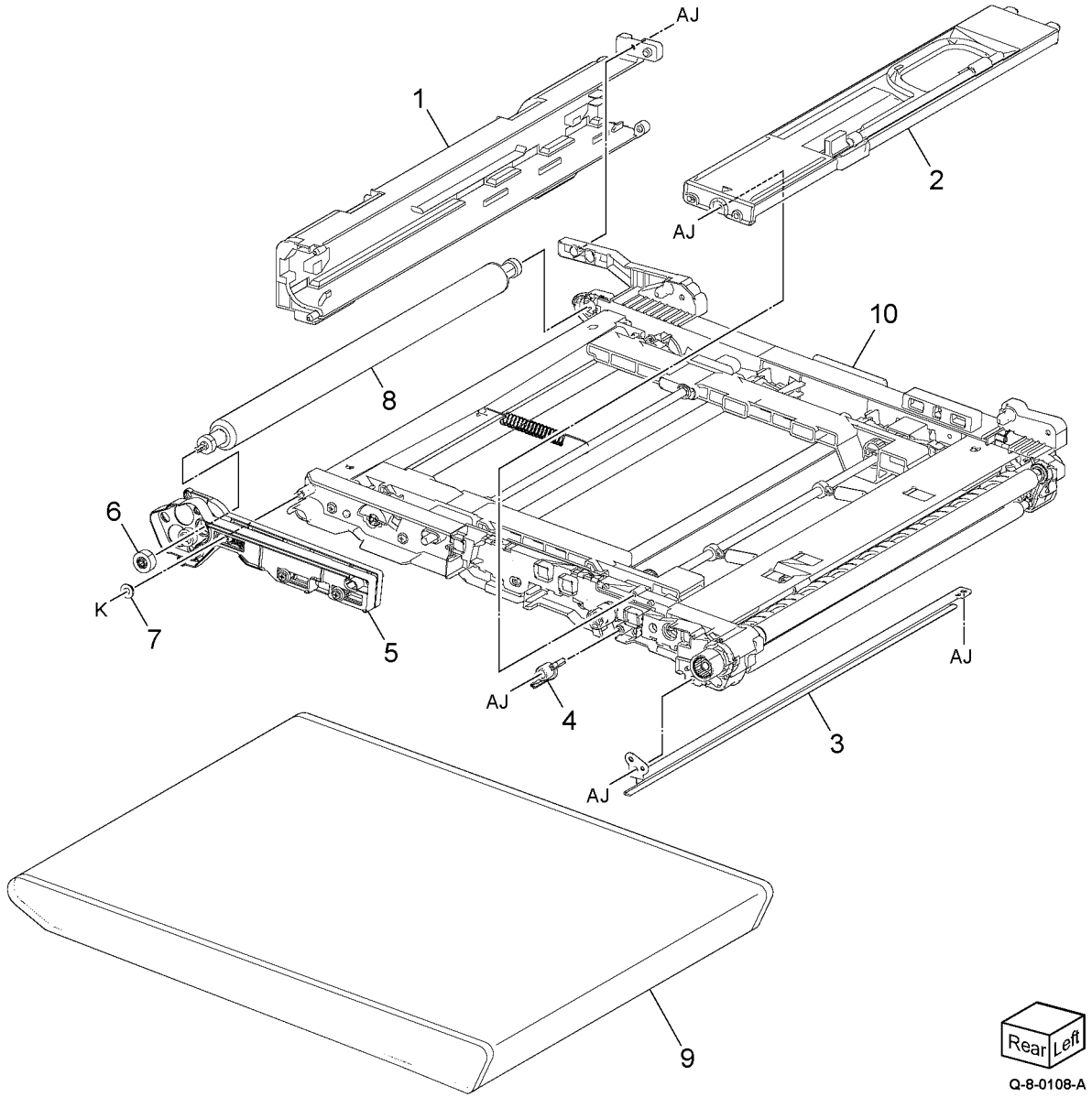
Item	Part	Description
1	607K08607	IBT belt assembly (REP 90.8)
2	001R00623	IBT belt cleaner assembly
3	—	IBT lower guide (Not Spared)
4	930K02752	MOB/ADC Assembly (REP 90.9)
5	948K01955	Conductor housing assembly (REP 90.10)
6	—	Lower conductor housing assembly (P/O PL 90.30 Item 5)
7	—	Upper conductor housing assembly (P/O PL 90.30 Item 5)
8	—	Bracket (P/O PL 90.30 Item 4)
9	—	Temp/Humidity sensor (internal) (P/O PL 90.30 Item 4)
10	—	Front MOB sensor (P/O PL 90.30 Item 4)
11	—	ADC sensor (Q92-029) (P/O PL 90.30 Item 4)
12	—	Rear MOB sensor (P/O PL 90.30 Item 4)
13	—	Shutter solenoid (P/O PL 90.30 Item 4)
14	—	Spring (P/O PL 90.30 Item 4)
15	—	Shutter (P/O PL 90.30 Item 4)
16	—	Solenoid holder (P/O PL 90.30 Item 4)
17	—	Arm (P/O PL 90.30 Item 4)
18	—	Cushion (P/O PL 90.30 Item 4)
19	—	Pin (P/O PL 90.30 Item 4)
20	—	MOBC harness assembly (P/O PL 90.30 Item 4)
21	—	Humidity spacer (P/O PL 90.30 Item 4)
22	—	Cover (P/O PL 90.30 Item 4)



PL 90.35 IBT Belt Unit Assembly

Item	Part	Description
1	—	Cleaner housing guide
2	—	Handle holder
3	—	IBT upper guide
4	—	Belt arm
5	—	Tension holder assembly
6	—	Tension gear
7	—	Tension collar
8	859K02811	Tension roller assembly
9	064K94660	IBT belt
10	—	IBT handle unit

Note: All parts are part of PL 90.30 Item 1.



Common Hardware

Item	Part	Description
A	—	Flat head screw (M3 x 14)
B	—	Screw (M3x6:Red)
C	—	Sems screw (M3x6)
D	—	Sems screw (M3x8)
E	—	Sems screw (M8x20)
F	—	Pan head screw (M2x10)
G	—	Screw (M3x4:Blue)
H	—	Screw (M3x4:White)
J	—	Screw (M3x6:Red)
K	—	Screw (M3x6:White)
L	—	Round point screw (M3x6:White)
M	—	Screw (M3x8)
N	—	Screw (M3x8)
P	—	Screw (M3x10)
Q	—	Screw (M3x12:White)
R	—	Screw (M3x14:White)
S	—	Screw (M3x16)
T	—	Pan head screw (M3x6:White)
U	—	Pan head screw (M3x14)
V	—	Screw (M4x6:White)
W	—	Screw (M4x8:White)
X	—	Pan head screw (M4x8:White)
Y	—	Screw (M4x10:White)
Z	—	Bind head screw (M3x6)
AA	—	Bind shuthead screw (3x8)
AB	—	Bind head screw (M3x4)
AC	—	Bind head screw (M3x6)
AD	—	Shoulder screw
AE	—	Setscrew (M4x4)
AF	—	Setscrew (M4x6)
AG	—	Tapping screw (M4x10)
AH	—	Tapping screw (M3x6:White)
AJ	—	Tapping screw (M3x8:White)
AK	—	Tapping screw (M3x10:White)
AL	—	Tapping screw (M3x10)
AM	—	Screw (M3x6)
AN	—	Round point screw (M3x7:White)
AP	—	Screw (M3x8:White)
AQ	—	Round point screw (M3x9:White)
AR	—	Screw (M4x8:White)
AS	—	Flat head knurling screw
AT	—	Flange nut (3)
AU	—	Special nut
AV	—	Washer (4)
AW	—	Nylon washer (6) (t 0.25)
AX	—	Nylon washer (6) (t 0.5)
AY	—	Nylon washer (6) (t 1)
AZ	—	Nylon washer (8) (t 1)
BA	—	Nylon washer (10) (t1.5)

BB	—	Dowel pin (1.6x8)
BC	—	Dowel pin (2.5x10)
BD	—	Dowel pin (2.5x16)
BE	—	Dowel pin (2.5x14)
BF	—	Dowel pin (3x10)
BG	—	Dowel pin (4x20)
BH	—	Spring pin (2x8)
BJ	—	Spring pin (2x12)
BK	—	Slotted tubular pin spring (2.5x10)
BL	—	Slotted tubular pin spring (3x10)
BM	—	Slotted tubular pin spring (3x16)
BN	—	C-clip (8)
BP	—	E-Clip (2:White)
BQ	—	E-Clip (3:White)
BR	—	KL-Clip (4)
BS	—	E-Clip (4:White)
BT	—	E-Clip (5:White)
BU	—	KL-Clip (6)
BV	—	E-Clip (6:White)
BW	—	E-clip (7)
BX	—	Pan Head Screw (M3x4:White)
BY	—	Knurling screw
BZ	—	Nylon washer (8) (t0.5)
CA	—	E-Clip (10:White)
CB	—	Screw (M4x16:White)
CC	—	Screw (M3x10:White)
CD	—	Screw (M4x30:White)
CE	—	Shoulder Screw
CF	—	Tapping Screw (M4x8:White)
CG	—	Tapping Screw (M3x14:White)
CH	—	Screw (M3x12:White)
CJ	—	Screw (M4x6:White)
CK	—	Screw (M4x10:White)
CL	—	Hexagon Nut
CM	—	Washer (10:White)
CN	—	Nylon Washer (8) (t 0.25)
CP	—	Nylon Washer (8) (t 1.5)
CQ	—	Spring Washer
CR	—	Dowel Pin (2x10)
CS	—	Dowel Pin (3x16)
CT	—	KL-Clip (3)
CU	—	KL-Clip (8)
CV	—	E-Clip (8:White)
CW	—	Sems Screw (M3x10)
CX	—	Pan Head Screw (Mx5)
CY	—	Screw (M2x10)
CZ	—	Tapping screw (M3x4)
DA	—	Pan Head Screw (M2.5x6)
DB	—	Pan Head Screw (M3x4)
DC	—	Pan head screw (M3x8)
DD	—	Set screw (M3x4)

DE	—	Tapping screw (M4x12)
DF	—	Tapping screw (M3x8)
DG	—	Washer (2.5(10.5))
DH	—	Washer (4) (10.8)
DJ	—	Washer (5)
DK	—	Nylon washer (4)
DL	—	Nylon washer (5)
DM	—	Nylon washer (10) (10.25)
DN	—	Nylon washer (10) (10.5)
DP	—	Spring washer
DQ	—	Dowel pin (2x12)
DR	—	Dowel pin (3x12)
DS	—	Dowel pin (3x14)
DT	—	Dowel pin (4x16)
DU	—	E-clip (1.5)
DV	—	E ring (2.5)
DW	—	Wing screw
DX	—	Screw (M4x6)
DY	—	Sems Screw (M3x6)
DZ	—	Screw (M3x6)
EA	—	Screw (M3x5)
EB	—	Screw (M2x10)
EC	—	Bind Head Screw (M3x8)
ED	—	screw (3x18)
EE	—	E-ring
EF	—	Dowel pin (2x10)
EG	—	Tapping screw (M4x5)
EH	—	Screw (3x6)
EJ	—	Washer (3) (10.5)
EK	—	Screw (3x8)
EL	—	Screw (2x4)
EM	—	Screw (3x8)

6 General Procedures and Information

Service Diagnostic Mode

Procedure

1. Press and hold the **Home** button on the UI for about 7 seconds, then release it.

   The Login screen displays.

2. On the Login screen, enter the Passcode **6789** , then select **OK**.

   The UI Diagnostic menu displays.

UI Diagnostics

The following menu selections appear on the left side of the UI Diagnostic menu screen: **General Information, Service Information**, **Diagnostics**, **Adjustments** , and **Maintenance** . Touch a button to see the routines available within that group. Touch a dC routine to launch it.

- **General Information**
  - This is the default selection for UI Diagnostics. It contains general information such as Product Code, Serial Number, Total Images, Images Since Last Call, System Software Version, IPV4 Address, Device Name, and IPV6 Address.
- **Service Information**
  - The button contains:

    dC104, dC108, dC120, dC122, and dC135.
- **Diagnostics**
  - This button contains:

    dC140, dC304, dC305, dC312, dC330, and dC612.
- **Adjustments**
  - This button contains:

    dC126, dC128, dC301, dC361, dC363, dC527, dC603, dC608, dC671, dC673, dC675, dC740, dC919, dC924, dC931, dC937, dC945, dC949, dC950, dC991, and dC1215

    .
- **Maintenance**
  - This button contains:

    dC120, dC122, dC132, dC135, and dC710.

Call Closeout

The Call Closeout button is located on the upper right side of the screen. Call Closeout selections are:

- **Exit Only**

  This selection enables a fast return to customer mode.
- **Exit & Reboot**

  This selection reboots the machine after exiting UI Diagnostics. Some changes to NVM or other settings may require a reboot to store values in the proper places in NVM.
- **Reset Counters**

  Select this check box when exiting UI Diagnostics to clear fault history.
- **Cancel**

  Select Cancel to return to the UI Diagnostic menu screen.

Service Copy (Tools) Mode

The CSE Service Copy (Tools) mode provides access to the machine that is greater than that of a user but less than that of the System Administrator. This mode allows you to perform a number of checks and run copies without compromising the customer's security settings. This mode can be used if the Administrator user name and passcode are not at the default, and the Administrator is not available to enter the admin passcode. (GP2)

Entering CSE Service Copy mode

1. Press and hold the **Home** button on the UI for about 7 seconds, then release it.

   The Login screen displays.

2. On the Login screen, enter the Passcode **2732** , then select **OK**.

   The Service Copy mode opens. A **CSE** button appears in the upper left corner of the display.

   Note: CSE Service Copy mode remains active until the **CSE** button is pressed or the session times out. When finished with Tools, always log out of CSE Service Copy mode by pressing the **CSE** button and confirming logout.

dC104 System Usage Counters

Purpose

Displays a history of system usage.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Service Information**.
3. Select **dc104 Usage Counters....**
4. Touch the **Diagnostic Counters** button to filter the results:
   - **Diagnostic Counters** - lists sheet counters for service operations and tray totals.
   - **Impression Counters** - lists all impressions, categorized by B/W, Color, Large, Small, Print, Copy.
   - **Sheet Counters** - Color and B/W for copied and printed sheets.
   - **Images Sent Counters** - Server Fax, Internet Fax, E-mail images, and Network Scan.
   - **Fax Impressions Counters** - If Fax is enabled, lists the number of received Faxes that were printed.
   - **All Usage Counters** - all the above.

Press the **Update** button for the most current count.

dC108 Software Versions

Purpose

Displays the installed software versions for the various modules installed in the system.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Service Information**.
3. Select **dc108 Software Version...** . Depending on installed options, software version information appears for these modules:
   - Software Upgrade
   - Copy Controller
   - Copy Controller OS
   - UI Panel Firmware
   - Fax
   - Imaging Output Terminal
   - Network Controller
   - Image Input Terminal
   - Document Feeder
   - User Interface
   - XUI Language Version
   - Finisher

dC120 Fault Counter

Purpose

Displays the number of occurrences of each IOT fault since the last Service Exit with the **Clear Counters** option selected.

Note:

1. Faults detected while in Service Mode are not counted.
2. An Interlock open while the machine is stopped is not counted.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Service Information**.
3. Select **dc120 Fault Counters...**.
4. Select the **Sort on Count** check box to list the most frequent faults first. (A check mark will appear in the box.)
5. Selecting the **Include Zero Counts** check box lists all faults in the database. (A check mark will appear in the box.) Deselecting this box lists only those faults with a recorded occurrence.
6. The screen displays all fault codes in the machine database by **Chain-Link**, **Description** , and **Count** since the last time the **Reset Counters** option was selected during Call Closeout.
7. To jump to the start of the fault list for a particular chain, touch the small **Chain** window on the left side of the screen (there will be a cursor flashing in the window), enter the chain number using the keypad, and touch the **Search** button to the right of the **Chain** window.

dC122 Fault History

Purpose

Displays the Last 40 faults.

Note:

1. Faults detected while in Service Mode are not counted.
2. An Interlock open while the machine is stopped is not counted.
3. If multiple faults occurred in the machine, the primary fault is recorded.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Service Information**.
3. Select **dc122 Fault History....**
4. A five-column table will appear, listing the **Fault Name**, **Code**, **Date/Time**, **Total Impression** , and **Size** of the last 40 machine faults.
5. To clear the fault history, select **Reset Counters** on the **Call Closeout** screen.

dC126 Paper Registration

Purpose

This procedure is used to align the Lead Edge and Side Edge of the developed image with media fed from the various paper trays.

For instructions, refer to ADJ 90.1.

dC128 Fold Position Adjustment

Purpose

This procedure allows access to the NVM locations affecting the Finisher folding and staple position setup. There are several different adjustments, depending on the Finisher. Refer to the Finisher Service Documentation for more information.

dC131 NVM Read/Write

Note: NVM values are listed in the procedures where they are called out.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dc131 NVM Read/Write....**
4. Enter the NVM Chain and Link (as listed in the procedure that called **dC131**) in the **Chain** and **Link** windows.

   Note: Use the touch keypad or the scroll buttons on the UI to enter the **Chain** and the **Link** . Enter only the numeric value of the **Link** , from 1 to 999. Leading zeros cannot be entered in the **Link** window

   Note: It is not necessary to re-enter NVM locations that have already been entered. You can select previously entered locations by touching the row in the table where that location is listed. If more than four NVM locations are entered, a scroll bar will appear on the right side of the table.
5. Select the **Read** button.

   Note: When an NVM is displayed in the table, it will remain displayed until **Clear** is selected. The **Clear** button only clears the table display, not an NVM value.
6. Touch the **Value of:** window and use the keypad to enter the new NVM Value. Use the **+/-** button to enter negative numbers.
7. Select **Write** to load the new value.

dC132 Serial Number Synchronize

Purpose

This procedure synchronizes the serial number information on the components where it is stored.

Serial number information is stored at these locations:

- **Halftone PWB** - The replacement Halftone PWB is spared which a memory is integrated (non-replaceable).
- **IIT PWB EEPROM (U4)** - The EEPROM on the old IIT PWB contains IIT setup and calibration data; it should be removed and transferred to the new IIT PWB, if possible.
- **System Disk Drive** - A System Disk Drive from Xerox Distribution must be used, otherwise, the machine will be unable to boot.
- **ESS PWB** - The replacement ESS PWB is spared which a memory is integrated (non-replaceable).

Note: In order to replace any one of the components listed above, you must power down the system, replace the individual component, then power up the system. When the system powers up, the replaced component's serial number data will synchronize automatically with the data on the other components. **In such instances, dC132 need not be performed**.

Initial Action

Check dC122 for Communications faults (Chain 303 and 316). These faults can prevent serial number synchronization. Resolve these faults before continuing. Please obtain a serial number re-synchronization request form from GSN Library 15053.

Procedure

Part 1 - Notify service support.

Note: It may take up to 24 – 72 hours to receive a password from A-CAST.

1. Enter Service Diagnostic Mode.
2. Select **Maintenance**.
3. Select **dc132 Machine Serial Number....**

CAUTION: After the Unique Machine Identifier is generated, **DO NOT** touch the **Generate New Identifier Code** button again, as this will invalidate the Password that will be provided.

4. Select **Generate New Identifier Code** . Record the Unique Machine Identifier.

   Note: Follow all instructions included in the form. You must complete the form, print it, obtain required signatures and data, then scan it.

5. Contact service support for instructions on how to complete the form.
6. Follow form instructions and warnings carefully.
7. Note that there is a cost for this service.
8. Fill in all the information. Print the completed form. Have your budget center manager sign the form. If **any** information is missing, we cannot perform the service.
9. Have the National Technical Specialist (NTS, RSE or FE) forward a copy of service log and proof of the location of the machine to A-CAST. This information must indicate machine location, customer name and address.

   The proof must be a screen capture of the NTS/FE/RSE customer support database (account management database), FWSS, ICSS, DFM BT, VQMS, VALE, STPR, eSAP, etc. The information on the proof must match the information on the form.

Part 2 - Re-serialize machine

1. Enter Service Diagnostic Mode.
2. Select **Maintenance**.
3. Select **dc132 Machine Serial Number....**

CAUTION: After the Unique Machine Identifier is generated, **DO NOT** touch the **Generate New Identifier Code** button, as this will invalidate the Passcode that will be provided.

4. Select **Enter Passcode....**
5. Enter the Passcode received from A-CAST in the box named **Enter Passcode**.
6. Select **OK**.
7. Please verify UI screen indicated **Serial Number Verification Complete, Your machine serial number has been verified**.
8. Exit Diagnostic mode.
9. Switch the machine power off, then on.
10. Print a configuration report and verify that the serial number is corrected. The serial numbers are now synchronized.
11. Perform dC945 if the ESS PWB and/or System Disk Drive are replaced.

dC135 HFSI Counters

Purpose

This routine displays the percentage of service life remaining for periodic replacement parts.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Service Information** or **Maintenance**.
3. Select **dc135 CRU/HFSI....**
4. The CRU/HFSI screen lists the serviceable items and displays **Estimated Pages Remaining**.
5. Refer to SCP 4 Subsystem Maintenance. Perform the listed Service Action for all HFSI counters that are at or near end of life.
6. To reset the count after replacing the parts, select the appropriate HFSI item, then select **Reset Counter**.

dC140 Analog Monitor

Purpose

This routine monitors the status of sensors listed in Table 1, below. Temporary change of output values is possible.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Diagnostics**.
3. Select **dC140 Analog Monitor....**

   The system displays the **Analog Monitor** screen.

   - The system displays the **ID**, **Component Name**, **Status**, **Range,** and **Value**.
   - The status of all components shows **Inactive** . The **Value** columns are blank.
4. To run a component check:

   a. Select the component to check.

   b. Select **Start** on the popup which displays.

   c. The component status changes to **Active**.

   d. The bit count displays in the **Value** column.

   e. You can switch on an input component to monitor an output component.

      Note: If the component has a runtime restriction, the component is switched on for that period and automatically switched off.

      Note: Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off.

      Note: If the component cannot be automatically turned off, the following message appears: **Cannot check the component. Stop another output component**.

Checking multiple components

1. To check multiple components simultaneously, repeat Steps 4a through 4e.
2. To stop the check, touch the row for the component you wish to stop and select **Stop**.

   Select **Stop All** to switch off multiple selected components.

Table 1 dC140 Analog Monitor Codes List

ID	Component	Description
10.200	Heat Belt STS Center	Heat Belt Center STS temperature AD value
10.201	Heat Belt STS Rear	Heat Belt Rear STS temperature AD value
41.200	Fuse 1 Check	
41.201	Fuse 2 Check	
41.202	Fuse 3 Check	
41.203	Fuse 4 Check	
41.204	Fuse 6 Check	
41.205	Fuse 7 Check	
42.200	NOHAD Sensor	Environmental Sensor value
71.200	Tray 1 Size Sensor	Displays AD value for Tray 1 paper size
72.200	Tray 2 Size Sensor	Displays AD value for Tray 2 paper size
73.200	Tray 3 Size Sensor	Displays AD value for Tray 3 paper size
74.200	Tray 4 Size Sensor	Displays AD value for Tray 4 paper size
75.200	MSI Size Sensor	Displays AD value for MSI paper size
89.200	MOB Inboard	
89.202	MOB Outboard	
91.202	BDR DC current Y	Y-color BDR DC Current Monitor
91.203	BDR DC current M	M-color BDR DC Current Monitor
91.204	BDR DC current C	C-color BDR DC Current Monitor
91.205	BDR DC current K	K-color BDR DC Current Monitor
92.203	ATC Sensor Y	Detection of TC in Y-color Developer Housing
92.204	ATC Sensor M	Detection of TC in M-color Developer Housing
92.205	ATC Sensor C	Detection of TC in C-color Developer Housing
92.206	ATC Sensor K	Detection of TC in K-color Developer Housing
92.207	ADC Sensor VSPC	
92.208	Env Temperature Sensor	
92.209	Env Humidity Sensor	
92.210	ADC Sensor VDIF	

dC301 NVM Initialization

Purpose

This procedure may be needed when the machine cannot recover for some unknown reason, including problems such as producing blank copies/prints, continuously declaring system faults, etc.

CAUTION: Before Initializing NVM on any subsystem, perform dC361 NVM Save and Restore. Performing NVM Initialization on any subsystem may cause damage or degradation of machine performance.

Initial Actions

- Disconnect any Foreign Interface devices.
- Obtain all of the following information:
  - Saved Machine Settings, if possible.
  - NVM value factory setting report (typically it is located in the Tray 1 pocket)
  - Any customer setting Auditron account from the system administrator
  - Any setting changes (specifically NVM settings) shown on the machine's service log.
  - Any customer settings in the Tools mode.
- If possible, perform dC361 NVM Save and Restore.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select the **dC301 NVM Initialization**....

   Note: The Sub Domain check boxes toggle between selected and unselected states when touched.

4. Select the appropriate **Domain, Sub Domain,** and **NVM Data** using the features on the UI screen.
5. Select **Initialize** to run the routine. Select the **[X]** button to exit the routine without running it.
6. When prompted by the message **Are you sure you want to initialize NVM?** , select **Initialize**.

   Note: If the screen displays the message **The device is in a non-customer mode** after completing this step, perform dC361 to restore the machine to customer mode.

7. After the initialization is complete, use the data accumulated in **Initial Actions** to restore the machine to its previous configuration.
8. If it is not possible to restore NVM using dC361, perform the following in order:

a. Go to GP 30 and reenter the values from the NVM Setting Value List. **Do not perform the adjustments listed in GP 30.** Instead, return to this procedure and continue with the next steps in order.

b. ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC126)

c. ADJ 90.18 Image Size Adjustment (dC603)

d. ADJ 90.7 ATC Sensor Setup (dC950)

e. ADJ 90.8 ATC Developer Setup (dC949)

f. ADJ 90.11 Color Registration Control Sensor Check Cycle (dC673)

g. ADJ 90.10 Color Registration Control Setup Cycle (dC675)

h. ADJ 5.5 Color DADF Registration Automatic Adjustment (dC608)

i. ADJ 90.10 Registration Control Setup (dC675)

j. ADJ 90.9 Color Registration Measurement Cycle (dC671)

k. ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

l. ADJ 5.5 DADF Registration Automatic Adjustment (dC608)

m. ADJ 90.3 ProCon On/Off Print Check (dC937)

n. Enter the entire customer profile in Admin Mode

o. Enter the entire customer Auditron account information

dC304 LPH EEPROM Self test

Purpose

To check the integrity of data in the control logic of the LED Print Heads.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Diagnostics**.
3. Select **dC304 LPH EEPROM Self Test**....
4. Press **Start**.
5. If the data are correct and communication is possible, **OK** will appear for each of the Print Heads (**Yellow**, **Magenta**, **Cyan** , and **Black**).
6. If any color reports **NG** , check the display and fault history for any Chain 061 faults.

dC305 Panel Diagnostics Test

This utility tests UI operation. The utility consists of six (6) tests which are detailed in ADJ 4.1.

dC312 Network Echo Tests

Purpose

Tests the machine's ability to communicate on the network.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Diagnostics**.
3. Select **dC312 Network Echo Test**....

   Note: Protocols that are not enabled will not be selectable (they will be grayed out).

4. Select the **Protocol** to be tested.
5. Select the **Start Network Echo Test** button. The test will run. A message will be displayed on the UI indicating whether the test was successful.

dC330 Component Control

Purpose

The purpose of dC330 Component Control is to actuate or monitor the operation of individual or multiple related components.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Diagnostics**.
3. Select **dC330 Component Control....**
4. The **dC330 Component Control** screen displays. There are two tables. The upper table lists all component control codes, selectable by Chain. The lower table contains codes to be activated.

   The display indicates the following:

   - **Chain Link**
   - **I/O** (whether the component is Input (I) or Output (O))
   - **Description**
   - **Status**

Finding a code

Note: Codes related to a specific accessory (for example, an HCF) will not be listed on the UI unless that accessory is installed in the machine. For Finisher codes, refer to the Service Documentation for the BR Finisher.

Component Control Codes are listed in menus on the UI and in the following table:

1. Chain 005 DADF

   Chain 10 Fuser

   Chain 12 Finisher

   Chain 13 Finisher

   Chain 20 FAX

   Chain 41 IM

   Chain 42 Drives/Fans

   Chain 61 LPH

   Chain 62 Scanner

   Chain 66 Scanner

   Chain 71 Tray 1

   Chain 72 Tray 2

   Chain 73 Tray 3

   Chain 74 Tray 4

   Chain 75 Tray 5 Bypass

   Chain 77 IOT Media Path

   Chain 78 HCF

   Chain 91 IOT Xerographics

   Chain 92 IOT ADC

   Chain 93 IOT Developer Drive

   Chain 94 IOT Transfer Belt

2. Component control codes in the UI menus are arranged by Chain. Touch the **Chain** button and select a chain. The codes within that chain are listed.
3. Select the desired code by pressing it. A popup menu gives you a choice: **Add** the code to the lower table or **Close Menu** without taking any action.

Activating a code

CAUTION: Some components have special machine safety requirements, such as removing the IBT assembly before running the IBT Drive, etc. Read the code description in tables 1 - 19 in order to avoid machine damage.

1. To add a code directly to the lower table, press the desired code on the list and select **Add** on the popup menu. You can also add the code with the keypad. Press the **Chain** box in the lower right corner of the screen, and type in the 6-digit code. The **Link** box will automatically highlight as you type the last three digits of the code. Press the **Add** button to place the code in the lower table.
2. A component is activated by touching its name in the lower table, then selecting **Start** on the popup menu that appears. The component's **Status** changes to **On**, **Off**, **Low** , or **Hi** , as applicable.

   Note: If the component has a runtime restriction, the component is switched on for that period and automatically switched off.

3. To deactivate a component, touch its name in the lower table, and press the **Stop** or **Stop All** button on the popup menu. The component is still listed in the lower table, but its **Status** changes to **Off** or **-**.

Note: You can also deactivate a component by pressing the **Remove** button on the popup menu. The component will not only stop, but also be removed from the lower table.

4. To remove a component from the lower table, touch its name and then select **Remove** on the popup menu.
5. To close the popup menu, press **Close Menu**.

> **Note:** Pressing **Close Menu** does not change a component's **Status** in the lower table.

Stacking component codes (running more than one component at the same time)

Note: Some components cannot be energized at the same time as another component. If you activate such a combination of components, the first component switched on will be automatically switched off. If the component cannot be automatically turned off, the following message will appear:**Cannot check the component. Stop another output component**.

1. To stack several codes, select the first code and press **Start** ; then select the next code and press **Start** . Up to 11 codes may be stacked.
2. The **Status** of each component changes, as applicable.
3. To stop an individual component, highlight it and press **Stop** .
4. To switch off all components, select any one and press **Stop All**.

Exiting Component Control

CAUTION: Ensure that all components that were activated are stopped before closing Component Control.

To exit dC330 Component Control, press the **Close** button in the upper right corner of the screen.

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
05-001-00	Feed Motor(CW) 200.0mm/s	IIT	DADF	Output	005-002 thru 005-010, 005-010 thru 005-014,005-074	60 sec	On/Off
05-002-00	Feed Motor (CCW)300.0mm/s	IIT	DADF	Output	005-001,005-003 thru 005-010, 005-013 thru 005-014, 005- 074	60 sec	On/Off
05-003-00	Feed Motor (CCW)490.0mm/s	IIT	DADF	Output	005-001,005-002,005-004 thru 005-010,005-013 ,005- 014,005-074	60 sec	On/Off
05-004-00	Feed Motor (CCW)600.0mm/s	IIT	DADF	Output	005-001 thru 005-003,005-005,005-010,005-013,005-014,005-074	60 sec	On/Off
05-005-00	Feed Motor (CCW)700.0mm/s	IIT	DADF	Output	005-001 thru 005-004,005-006 thru 005-010,005-013,005-014,005-074	60 sec	On/Off
05-011-00	Pre Regi Motor (CW)300.0mm/s	IIT	DADF	Output		60 sec	On/Off
05-012-00	Pre Regi Motor (CW)350.0mm/s	IIT	DADF	Output		60 sec	On/Off
05-013-00	Pre Regi Motor (CW)400.0mm/s	IIT	DADF	Output	005-001 thru 005-010,005-014, 005-074	60 sec	On/Off
05-014-00	Pre Regi Motor (CW)490.0mm/s	IIT	DADF	Output	005-001 thru 005-010,005-013, 005-074	60 sec	On/Off
05-015-00	Pre Regi Motor (CW)510.0mm/s	IIT	DADF	Output	005-016 thru 005-025,005-076 thru 005-077, 005-089	60 sec	On/Off
05-016-00	Pre Regi Motor (CW)700.0mm/s	IIT	DADF	Output	005-015, 005-017 thru 005-025 005-076 thru 005-077 ,005- 089	60 sec	On/Off
05-017-00	Pre Regi Motor (CW)860.0mm/s	IIT	DADF	Output	005-015,005-016,005-018 thru 005-025,005-076,005-077,005-089	60 sec	On/Off
05-021-00	Regi Motor (CCW)490.0mm/s	IIT	DADF	Output	005-015 thru 005-020,005-022 thru 005-025,005-076 thru 005-077 005-089	60 sec	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
05-022-00	Regi Motor (CCW)700.0mm/s	IIT	DADF	Output	005-015 thru 005-021,005-023 thru 005-025,005-076 thru 005-077 005-089	60 sec	On/Off
05-026-00	Regi Motor (CCW) 41.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-027-00	Regi Motor (CCW) 55.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-028-00	Regi Motor (CCW) 73.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-029-00	Regi Motor (CCW) 82.5mm/s	IIT	DADF	Output		50 sec	On/Off
05-030-00	Regi Motor (CCW) 110.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-031-00	Platen Motor (CW)490.0mm/s	IIT	DADF	Output	005-026 thru 005-030 005-032 thru 005-036 005-078 thru 005-080	60 sec	On/Off
05-032-00	Regi Motor (CCW) 146.7mm/s	IIT	DADF	Output		50 sec	On/Off
05-032-00	Platen Motor (CW)700.0mm/s	IIT	DADF	Output	005-026 thru 005-031, 005-033 thru 005-036, 005-078 thru 005-080	60 sec	On/Off
05-033-00	Regi Motor (CCW) 165.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-035-00	Regi Motor (CCW) 220.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-037-00	Regi Motor (CCW) 293.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-038-00	Regi Motor (CCW) 330.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-041-00	Regi Motor (CCW) 440.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-041-00	Exit2 Motor(CW) 220.0mm/s	IIT	DADF	Output	005-037 thru 005-039,005-042 thru 005-047,005-085	60 sec	On/Off
05-042-00	Exit2 Motor(CW) 350.0mm/s	IIT	DADF	Output	005-037 thru 005-039, 005-041, 005-043 thru 005-047,005- 085	60 sec	On/Off
05-043-00	Regi Motor (CCW) 350.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-043-00	Exit2 Motor(CW) 490.0mm/s	IIT	DADF	Output	005-037 thru 005-039, 005-041,005-042,005-044 thru 005-047,005-085	60 sec	On/Off
05-044-00	Regi Motor (CCW) 460.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-044-00	Exit2 Motor(CW) 700.0mm/s	IIT	DADF	Output	005-037 thru 005-039,005-041 thru 005-043,005-045 thru 005-047, 005-085	60 sec	On/Off
05-045-00	Feed Motor(CW) 440.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-046-00	Feed Motor(CW) 550.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-047-00	Feed Motor(CW) 400.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-048-00	Feed Motor(CW) 300.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
05-049-00	Feed Motor(CW) 240.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-050-00	Feed Motor(CW) 150.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-051-00	Feed Motor(CW) 460.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-051-00	Tray Motor (CCW)55.0mm/s	IIT	DADF	Output	005-048 thru 005-050,005-052 thru 005-054,005-057 thru 005-061	60 sec	On/Off
05-052-00	Feed Motor(CW) 100.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-052-00	Tray Motor(CW) 55.0mm/s	IIT	DADF	Output	005-048 thru 005-051 , 005-053 thru 005-054 ,005-057 thru 005-061	60 sec	On/Off
05-053-00	Feed Motor(CW) 350.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-053-00	Tray Motor (CCW)12.5mm/s	IIT	DADF	Output	005-048 thru 005-052, 005-054 005-057 thru 005-061	60 sec	On/Off
05-054-00	Feed Motor(CW) 220.0mm/s Feed	IIT	DADF	Output		50 sec	On/Off
05-054-00	Tray Motor(CW) 12.5mm/s	IIT	DADF	Output	005-048 thru 005-053, 005-057 thru 005-061	60 sec	On/Off
05-057-00	PreRegi Motor (CCW) 41.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-058-00	PreRegi Motor (CW) 55.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-059-00	PreRegi Motor (CW) 73.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-060-00	PreRegi Motor (CW) 82.5mm/s	IIT	DADF	Output		50 sec	On/Off
05-061-00	PreRegi Motor (CW) 110.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-064-00	PreRegi Motor (CW) 146.7mm/s	IIT	DADF	Output		50 sec	On/Off
05-065-00	PreRegi Motor (CW) 165.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-067-00	PreRegi Motor (CW) 220.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-069-00	PreRegi Motor (CW) 293.3mm/s	IIT	DADF	Output		50 sec	On/Off
05-070-00	PreRegi Motor (CW) 330.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-072-00	PreRegi Motor (CW) 500.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-074-00	PreRegi Motor (CW) 150.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-076-00	PreRegi Motor (CW) 440.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-078-00	PreRegi Motor (CW) 350.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-079-00	PreRegi Motor (CW) 460.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-080-00	PreRegi Motor (CW) 100.0mm/s	IIT	DADF	Output		50 sec	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
05-083-00	Doc Ready	IIT	DADF	Output		N/A	On/Off
05-084-00	Doc Set LED	IIT	DADF	Output		5 sec	On/Off
05-086-00	Nudger Solenoid	IIT	DADF	Output		60 sec	On/Off
05-087-00	TA Clutch -high	IIT	DADF	Output		60 sec	On/Off
05-088-00	Image Area	IIT	DADF	Output		5 sec	On/Off
05-089-00	CIS Sync	IIT	DADF	Output		5 sec	On/Off
05-091-00	Tray elevation operation	IIT	DADF	Output	005-086□005-087 005-092		On/Off
05-092-00	Slight Tray elevation operation during Job	IIT	DADF	Output	005-086□005-087 005-091		On/Off
05-093-00	Nudger Initialize RCP operation	IIT	DADF	Output		N/A	On/Off
05-093-00	Tray move-down operation	IIT	DADF	Output			On/Off
05-094-00	Feed Motor (CCW) 400.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-094-00	The fastest Nudger Solenoid RCP	IIT	DADF	Output			On/Off
05-095-00	Feed Motor (CCW) 165.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-096-00	Feed Motor (CCW) 100.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-097-00	Feed Motor (CCW) 220.0mm/s	IIT	DADF	Output		50 sec	On/Off
05-098-00	TA Clutch	IIT	DADF	Output		50 sec	On/Off
05-099-00	PreRegi Clutch	IIT	DADF	Output		50 sec	On/Off
05-102-00	DADF document set sensor	IIT	DADF	Input		N/A	High/ Low
05-110-00	DADF regi sensor	IIT	DADF	Input		N/A	High/ Low
05-192-00	Skew Sensor	IIT	DADF	Input			High/ Low
05-193-00	Double Feeding Detection Sensor(Double feeding)	IIT	DADF	Input			High/ Low
05-202-00	Bottom Sensor	IIT	DADF	Input			High/ Low
05-203-00	Level Sensor	IIT	DADF	Input			High/ Low
05-204-00	CVT-DADF Feed Sensor	IIT	DADF	Input			High/ Low
05-205-00	CVT - DADF feed out sensor	IIT	DADF	Input		N/A	High/ Low
05-206-00	CVT - DADF pre-reg sensor	IIT	DADF	Input		N/A	High/ Low
05-207-00	Lead Regi Sensor	IIT	DADF	Input			High/ Low
05-208-00	CVT-DADF Out Sensor	IIT	DADF	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
05-209-00	CVT-DADF #1 Exit Sensor	IIT	DADF	Input			High/ Low
05-212-00	CVT - DADF feeder cover interlock switch	IIT	DADF	Input		N/A	High/ Low
05-213-00	CVT - DADF platen interlock switch	IIT	DADF	Input		N/A	High/ Low
05-215-00	CVT - DADF #1 tray APS sensor	IIT	DADF	Input		N/A	High/ Low
05-216-00	CVT - DADF #2 tray APS sensor	IIT	DADF	Input		N/A	High/ Low
05-217-00	CVT - DADF #3 tray APS sensor	IIT	DADF	Input		N/A	High/ Low
05-218-00	CVT - DADF #1 APS sensor	IIT	DADF	Input		N/A	High/ Low
05-219-00	CVT - DADF #2 APS sensor	IIT	DADF	Input		N/A	High/ Low
05-220-00	CVT - DADF #3 APS sensor	IIT	DADF	Input		N/A	High/ Low
05-221-00	CVT Tray Size SNR No.1	IIT	DADF	Input			High/ Low
05-222-00	CVT Tray Size SNR No.2	IIT	DADF	Input			High/ Low
05-223-00	L/H Cover Interlock Sensor	IIT	DADF	Input			High/ Low
05-224-00	Scan start	IIT	DADF	Input		N/A	High/ Low
05-226-00	CVT - DADF #2 invert sensor	IIT	DADF	Input		N/A	High/ Low
05-233-00	Encoder Pulse of Feed Motor	IIT	DADF	Input			High/ Low
05-302-00	#4 Tray APS Sensor	IIT	DADF	Input			High/ Low
10-001-00	Fuser Motor 308mm/s	IOT	Fuser	Output	10-002 thru 10-006,94- 008,94-009		On/Off
10-002-00	Fuser Motor 255mm/s	IOT	Fuser	Output	10-001 ,10-003thru 10-006,94-008,94-009		On/Off
10-003-00	Fusing Motor (233mm Speed)	IOT	Fuser	Output	10-001 ,10-002,10-004 thru 10-006,94-008,94-009		On/Off
10-004-00	Fusing Motor (185mm Speed)	IOT	Fuser	Output	10-001 thru 10-003,10-005 ,10-006,94-008,94-009		On/Off
10-005-00	Fusing Motor (150mm Speed)	IOT	Fuser	Output	10-001 thru 10-004,10- 006,94-008,94-009		On/Off
10-006-00	Fusing Motor (121mm Speed)	IOT	Fuser	Output	10-001 thru 10-005,94- 008,94-009		On/Off
10-009-00	P/Roll Latch ON	IOT	Fuser	Output	10-010,10-011		On/Off
10-010-00	P/Roll Latch OFF	IOT	Fuser	Output	10-009,10-011		On/Off
10-011-00	P/Roll Half Latch	IOT	Fuser	Output	10-009,10-010		On/Off
10-201-00	Fusing Thermostat Status	IOT	Fuser	Input			High/ Low
10-202-00	Fusing P/Roll Latch Sensor	IOT	Fuser	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
10-203-00	Belt Speed Sensor	IOT	Fuser	Input			High/ Low
12-001-00	Main Transport Motor 350 On	IOT	CH-Finisher	Output	012-002, 012-003	-	On/Off
12-001-00	Transport Motor	IOT	GA-Finisher	Output			On/Off
12-002-00	Main Transport Motor 600 On	IOT	CH-Finisher	Output	012-001,012-003	-	On/Off
12-003-00	Main Transport Motor 800 On	IOT	CH-Finisher	Output	012-001, 012-002	-	On/Off
12-004-00	Exit Motor 350 Forward On	IOT	CH-Finisher	Output	012-005,012-006,012-007,12-008,12-009	-	On/Off
12-005-00	Exit Motor 600 Forward On	IOT	CH-Finisher	Output	012-004, 012-006 thru 12-009	-	On/Off
12-006-00	Exit Motor 800 Forward On	IOT	CH-Finisher	Output	012-004, 012-005,12-007 thru 12-009	-	On/Off
12-007-00	Exit Motor 350 Reverse On	IOT	CH-Finisher	Output	012-004, 012-005,012-006 ,12-008, 12-009	-	On/Off
12-008-00	Exit Motor 600 Reverse On	IOT	CH-Finisher	Output	012-004 thru 012-007,12- 009	-	On/Off
12-009-00	Exit Motor 800 Reverse On	IOT	CH-Finisher	Output	012-004, 012-005, 012-006	-	On/Off
12-010-00	Transport Gate Solenoid (Pull)	IOT	CH-Finisher	Output	012-011	200ms	On/Off
12-011-00	Transport Gate Solenoid (Push)	IOT	CH-Finisher	Output	012-010	200ms	On/Off
12-011-00	HTU Motor (Forward)	IOT	GB-Finisher	Output			High/ Low
12-012-00	Front Tamper Motor(Low Speed)	IOT	GA-Finisher	Output	12-013 thru 12-015	100 pulse	On/Off
12-012-00	Transport Motor (Forward)	IOT	GB-Finisher	Output			On/Off
12-013-00	Front Tamper Motor(High Speed)	IOT	GA-Finisher	Output	12-012 , 12-014thru 12-015	100 pulse	On/Off
12-013-00	Sub Paddle Solenoid	IOT	SB-Finisher	Output	012-014	660ms	On/Off
12-014-00	Front Tamper Motor(Rear/Low Speed)	IOT	GA-Finisher	Output	12-012,12-013 ,12-015	100 pulse	On/Off
12-015-00	Front Tamper Motor(Rear/High Speed)	IOT	GA-Finisher	Output	12-012 thru 12-014	100 pulse	On/Off
12-016-00	Rear Tamper Motor(Low Speed)	IOT	GA-Finisher	Output	12-017 thru 12-019	100 pulse	On/Off
12-017-00	Rear Tamper Motor(High Speed)	IOT	GA-Finisher	Output	12-016,12-018,12-019	100 pulse	On/Off
12-018-00	Transport Motor Reverse	IOT	SB-Finisher	Output	012-036 thru 012-038		On/Off
12-018-00	Rear Tamper Motor(Rear/Low Speed)	IOT	GA-Finisher	Output	12-016,12-017,12-019	100 pulse	On/Off
12-019-00	Rear Tamper Motor(Rear/High Speed)	IOT	GA-Finisher	Output	12-016 thru 12-018	100 pulse	On/Off
12-020-00	Front Tamper Motor Low Speed - Front	IOT	SB-Finisher	Output	012-022, 012-023, 012-025	82 PULSE	On/Off
12-020-00	Front Tamper Motor(Front/Low Speed)	IOT	CH-Finisher	Output	12-021 thru 12-025	100 pulse	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-021-00	Front Tamper Motor Medium Speed - Front	IOT	CH-Finisher	Output	012-020, 012-022 lipari: 12-20,12-022 thru 12- 025	100pulse	On/Off
12-022-00	Front Tamper Motor High Speed - Front	IOT	SB-Finisher	Output	012-020, 012-021, 012-023 thru 012-025	82 pulse	On/Off
12-022-00	Front Tamper Motor(Front/ High Speed)	IOT	CH-Finisher	Output	12-020,12-021,12-023,12-024,12-025	100 pulse	On/Off
12-023-00	Front Tamper Motor Low Speed - Rear	IOT	SB-Finisher	Output	012-020 thru 012-022, 12-024, 012-025	100pulse	On/Off
12-023-00	Front Tamper Motor(Rear/Low Speed)	IOT	CH-Finisher	Output	12-020,12-021,12-022,12-024,12-025	100 pulse	On/Off
12-024-00	Front Tamper Motor Medium Speed - Rear	IOT	CH-Finisher	Output	012-020, 012-021 lipari:012-020, 012-021, 012-022 ,012-023,12-024	100pulse	On/Off
12-025-00	Front Tamper Motor High Speed - Rear	IOT	SB-Finisher	Output	012-020, 012-022, 012-023	82 pulse	On/Off
12-025-00	Front Tamper Motor(Rear/High Speed)	IOT	CH-Finisher	Output	12-020,12-021,12-022,12-023,12-024	100 pulse	On/Off
12-026-00	Rear Tamper Motor Low Speed - Front	IOT	SB-Finisher	Output	012-028, 012-029, 012-031	82 pulse	On/Off
12-026-00	Rear Tamper Motor(Front/Low Speed)	IOT	CH-Finisher	Output	12-027 thru 12-031	100 pulse	On/Off
12-027-00	Rear Tamper Motor Middle Speed - Front	IOT	CH-Finisher	Output	012-026, 012-028,12- 029,12-030,12-031	100pulse	On/Off
12-028-00	Rear Tamper Motor High Speed - Front	IOT	SB-Finisher	Output	012-026, 012-029, 012-031	82 pulse	On/Off
12-028-00	Rear Tamper Motor(Front/ High Speed)	IOT	CH-Finisher	Output	12-026,12-027 12-029 thru 12-031	100 pulse	On/Off
12-029-00	Rear Tamper Motor Low Speed - Rear	IOT	SB-Finisher	Output	012-026, 012-028, 012-031	82 pulse	On/Off
12-029-00	Rear Tamper Motor(Rear/Low Speed)	IOT	CH-Finisher	Output	12-026,12-027 12-028 12- 031 thru 12-031	100 pulse	On/Off
12-030-00	Front Tamper Motor(Front/Low Speed)	IOT	GB-Finisher	Output	12-31 thru 12-033	100 pulse	On/Off
12-030-00	Rear Tamper Motor Middle Speed - Rear	IOT	CH-Finisher	Output	012-025, 012-026, 012- 027, 012-028, 012-029, 012-031	100pulse	On/Off
12-031-00	Rear Tamper Motor High Speed - Rear	IOT	SB-Finisher	Output	012-026, 012-028, 012-029	82 pulse	On/Off
12-031-00	Stapler Move Motor(Front)	IOT	GA-Finisher	Output	12-032 thri 12-034	400 pulse	On/Off
12-031-00	Front Tamper Motor(Front/ High Speed)	IOT	GB-Finisher	Output	12-030,12-032,12-033	100 pulse	On/Off
12-031-00	Rear Tamper Motor(Rear/High Speed)	IOT	CH-Finisher	Output	12-026 thru 12-030	100 pulse	On/Off
12-032-00	Xport Motor 1	IOT	SB-Finisher	Output	012-033, 012-034, 012- 035, 012-039		On/Off
12-032-00	Stapler Move Motor(Rear)	IOT	GA-Finisher	Output	12-031,12-033,12-034	400 pulse	On/Off
12-032-00	Front Tamper Motor(Rear/Low Speed)	IOT	GB-Finisher	Output	12-030,12-031,12-032	100 pulse	On/Off
12-033-00	Xport Motor 2	IOT	SB-Finisher	Output	012-032, 012-034, 012- 035, 012-039		On/Off
12-033-00	Stapler Motor (Forward)	IOT	GA-Finisher	Output	12-031,12-032,12-034,12-081,12-082		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-033-00	Front Tamper Motor(Rear/High Speed)	IOT	GB-Finisher	Output	12-030 thru 12-032	100 pulse	On/Off
12-034-00	Xport Motor 3	IOT	SB-Finisher	Output	012-032, 012-033, 012- 035, 012-039		On/Off
12-034-00	Stapler Motor (Reverse)	IOT	GA-Finisher	Output	12-031,12-032,12-033,12-081,12-082	50ms	On/Off
12-035-00	Xport Motor 4	IOT	SB-Finisher	Output	012-032 thru 012-034, 012-039		On/Off
12-035-00	Rear Tamper Motor(Front/Low Speed)	IOT	GB-Finisher	Output	12-036,12-037,12-038	100 pulse	On/Off
12-036-00	Transport Motor 1	IOT	SB-Finisher	Output	012-037, 012-038, 012-018		On/Off
12-036-00	Rear Tamper Motor(Front/ High Speed)	IOT	GB-Finisher	Output	12-035,12-037,12-038	100 pulse	On/Off
12-037-00	Transport Motor 2	IOT	SB-Finisher	Output	012-036, 012-038, 012-018		On/Off
12-037-00	Rear Tamper Motor(Rear/Low Speed)	IOT	GB-Finisher	Output	12-035,12-036,12-038	100 pulse	On/Off
12-038-00	Transport Motor 3	IOT	SB-Finisher	Output	012-036, 012-037, 012-018		On/Off
12-038-00	Rear Tamper Motor(Rear/High Speed)	IOT	GB-Finisher	Output	12-035,12-036,12-037	100 pulse	On/Off
12-039-00	Xport Motor Reverse	IOT	SB-Finisher	Output	012-032 thru 012-035		On/Off
12-040-00	Stapler Move Front Move - Low speed	IOT	SB-Finisher/ CH-Finisher	Output	12-041,012-042, 012-043, 012-044,12-045	400pulse	On/Off
12-040-00	HB HA Stapler Move Motor (Forward)	IOT	GB-Finisher	Output	12-041 thru 12-043 ,12-050 thru 12-054		On/Off
12-041-00	Stapler Move Motor High Front On	IOT	CH-Finisher	Output	012-040, 012-042,12- 043,12-044,12-045	400pulse	On/Off
12-041-00	HB HA Stapler Move Motor (Reverse)	IOT	GB-Finisher	Output	12-040,12-042 ,12-043 ,12- 050 thru 12-054		On/Off
12-042-00	Stapler Move Motor Low Rear On	IOT	SB-Finisher/ CH-Finisher	Output	012-040, 012-041,12- 043,12-044,12-045	400pulse	On/Off
12-042-00	Stapler Motor (Forward)	IOT	GB-Finisher	Output	12-040,12-041 ,12-043 ,12- 050 thru 12-054		On/Off
12-043-00	Stapler Move Motor High Rear On	IOT	SB-Finisher/ CH-Finisher	Output	012-040, 012-041,12- 042,12-044,12-045	400pulse	On/Off
12-043-00	Stapler Motor (Reverse)	IOT	GB-Finisher	Output	12-040,12-041 ,12-042 ,12- 050 thru 12-054	50 ms	On/Off
12-044-00	Stapler Move Motor Forward On	IOT	CH-Finisher	Output	012-040, 012-041	(Somewhat longer to Fail occurs) stops at the Staple Home Sensor OFF → ON	On/Off
12-045-00	Stapler Move Motor Reverse On	IOT	SB-Finisher/ CH-Finisher	Output	012-040, 012-041, 012-042,12-043,12-044	50ms	On/Off
12-046-00	Staple Motor Forward On	IOT	SB-Finisher	Output	012-047		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-047-00	Staple Motor Reverse On	IOT	SB-Finisher	Output	012-046		On/Off
12-050-00	Set Clamp Clutch On	IOT	SB-Finisher	Output		200msec	On/Off
12-050-00	HB HN Stapler Move Motor (Forward)	IOT	GB-Finisher	Output	12-040 thru 12-043 ,12-051 thru 12-054		On/Off
12-051-00	Ejector Home Initialize	IOT	GA-Finisher	Output	12-052 thru 12-063,12-066		On/Off
12-051-00	HB HN Stapler Move Motor (Reverse)	IOT	GB-Finisher	Output	12-040 thru 12-043 ,12-050 12-052 thru 12-054		On/Off
12-052-00	Eject Clamp Up	IOT	SB-Finisher	Output	012-053 thru 012-055		On/Off
12-052-00	Sub Paddle (Down/Up)	IOT	GA-Finisher	Output	12-051,12-053 thru 12- 063,12-066		On/Off
12-052-00	HN Stapler Staple	IOT	GB-Finisher	Output	12-040 thru 12-043 ,12- 050, 12-051 12-053 ,12- 054		On/Off
12-053-00	Eject Clamp Down	IOT	SB-Finisher	Output	012-052, 012-054, 012-055		On/Off
12-053-00	Shelf / Set Clamp(Push)	IOT	GA-Finisher	Output	12-051 thru 12-052 ,12- 054thru 12-063,12-066	300 pulse	On/Off
12-053-00	HN Stapler Head Home	IOT	GB-Finisher	Output	12-040 thru 12-043 ,12- 050, 12-051 12-052 ,12- 054		On/Off
12-054-00	Eject Motor Low Forward On	IOT	SB-Finisher	Output	012-052, 012-053, 012-055	1136 pulse	On/Off
12-054-00	Shelf/ Set Clamp (Pull)	IOT	GA-Finisher	Output	12-051 thru 12-053 ,12- 055thru 12-063,12-066	300 pulse	On/Off
12-054-00	HN Stapler Motor(Reverse)	IOT	GB-Finisher	Output	12-040 thru 12-043 ,12- 050, 12-051 12-052 ,12- 053	100 ms	On/Off
12-055-00	Eject Motor High Forward On	IOT	SB-Finisher	Output	012-052 thru 012-054	1136 pulse	On/Off
12-055-00	Eject Cam Shelf Lock Release Positioning	IOT	GA-Finisher	Output	12-051 thru 12-054 ,12- 056thru 12-063,12-066	155 pulse	On/Off
12-056-00	Eject Clamp Down	IOT	GA-Finisher	Output	12-051 thru 12-055,12- 057thru 12-063,12-066		On/Off
12-057-00	Eject Clamp Up	IOT	GA-Finisher	Output	12-051 thru 12-056,12- 058thru 12-063,12-066		On/Off
12-058-00	Eject Motor(Forward/High)	IOT	GA-Finisher	Output	12-051 thru 12-057,12-059 thru 12-063,12-066		On/Off
12-059-00	Eject Motor(Reverse/High)	IOT	GA-Finisher	Output	12-051 thru 12-058,12-060 thru 12-063,12-066		On/Off
12-060-00	Stacker Motor Up On	IOT	SB-Finisher	Output	012-061	500msec	On/Off
12-060-00	Eject Motor(Forward/Mid1)	IOT	GA-Finisher	Output	12-051 thru 12-059,12- 061thru 12-063,12-066		On/Off
12-060-00	Ejector Cam Home	IOT	GB-Finisher	Output	12-061 thru 12-064 , 12- 070		On/Off
12-060-00	Stacker Motor (Lift Up/Low Speed)	IOT	CH-Finisher	Output	12-061,12-062	2000 ms Stacker No Paper Sensor ON	On/Off
12-061-00	Stacker Motor Down On	IOT	SB-Finisher	Output	012-060	500msec	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-061-00	Eject Motor(Reverse/Mid1)	IOT	GA-Finisher	Output	12-051 thru 12-060,12-062 thru 12-063,12-066		On/Off
12-061-00	Sub Paddle (Down/Up)	IOT	GB-Finisher	Output	12-060 ,12-062 thru 12-064 , 12-070		On/Off
12-061-00	Stacker Motor (Lift Up/High Speed)	IOT	CH-Finisher	Output	12-060,12-062	12000 ms Stacker No Paper Sensor ON	On/Off
12-062-00	Stacker Motor Down Low Speed On	IOT	CH-Finisher	Output	012-060, 012-061	500ms	On/Off
12-062-00	Eject Clamp Down(Set)	IOT	GB-Finisher	Output	12-060 ,12-061, 12-063,12- 064 , 12-070		On/Off
12-063-00	Eject Clamp Down(Sheet)	IOT	GB-Finisher	Output	12-060 ,12-061, 12-062,12- 064 , 12-070		On/Off
12-064-00	Eject Clamp Up	IOT	GB-Finisher	Output	12-060 ,12-061, 12-062,12- 063 , 12-070		On/Off
12-065-00	Eject Motor (Forward)	IOT	GB-Finisher	Output			On/Off
12-066-00	Eject Cam Clutch	IOT	GA-Finisher	Output	12-051 thru 12-063	1000 ms	On/Off
12-066-00	Eject Motor (Reverse)	IOT	GB-Finisher	Output	12-062,12-063		On/Off
12-067-00	Eject Cam Clutch	IOT	GB-Finisher	Output		1000 ms	On/Off
12-068-00	Set Clamp(Push)	IOT	GB-Finisher	Output			On/Off
12-069-00	Set Clamp(Pull)	IOT	GB-Finisher	Output			On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-070-00	Puncher Move Motor Low Front On	IOT	CH-Finisher	Output	012-071 thru 012-079	100pulse	On/Off
12-070-00	Set Eject	IOT	GB-Finisher	Output	12-060 thru 12-064		On/Off
12-071-00	Puncher Move Motor High Front On	IOT	CH-Finisher	Output	012-070, 012-072thru 012-079	100pulse	On/Off
12-071-00	Stacker Motor (Lift Up)	IOT	GB-Finisher	Output	12-072,12-042,12-043,12-052,12-053		On/Off
12-072-00	Puncher Move Motor Low Rear On	IOT	CH-Finisher	Output	012-070, 012-071, 012-073 thru 12-079	100pulse	On/Off
12-072-00	Stacker Motor (Lift Down)	IOT	GB-Finisher	Output	12-071,12-042,12-043,12-052,12-053		On/Off
12-073-00	Puncher Move Motor High Rear On	IOT	CH-Finisher	Output	012-070 thru 012-072,12- 074 thru 12-079	100pulse	On/Off
12-074-00	Puncher Motor 2 Hole Home Move	IOT	SB-Finisher/ CH-Finisher	Output	012-070, 012-071 Lipari:12-070,12-071,12-072, 12-073,12-075,12- 076,12-077,12-078,12-079	Punch Home Sensor is a change in the OFF → ON	On/Off
12-075-00	Puncher Motor 3 Hole Home Move	IOT	CH-Finisher	Output	012-070 thru 012-074, 012-076 thru 12-079	Punch Home Sensor is a change in the OFF → ON	On/Off
12-076-00	Puncher Motor 4 Hole Home Move	IOT	CH-Finisher	Output	012-070 thru 012-075, 012-077 thru 012-079	Punch Home Sensor is a change in the	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
						OFF → ON	
12-077-00	Punch - 2 hole	IOT	SB-Finisher/ CH-Finisher	Output	012-070, 012-071 Lipari:12-070 thru 12-076 ,12-077,12-078,12-079	Punch Home Sensor is a change in the OFF → ON	On/Off
12-078-00	Punch - 3 hole	IOT	SB-Finisher/ CH-Finisher	Output	012-070, 012-071, 012-072 Lipari:012-070 thru 12- 077,12-079	Punch Home Sensor is a change in the OFF → ON	On/Off
12-079-00	Punch - 4 hole	IOT	SB-Finisher/ CH-Finisher	Output	012-070, 012-071 Lipari:12-070 thru 12-078	Punch Home Sensor is a change in the OFF → ON	On/Off
12-080-00	Sub Paddle Solenoid (Pull)	IOT	CH-Finisher	Output	012-081, 012-082	200ms	On = Made
12-080-00	Punch Home Operation	IOT	GB-Finisher	Output	12-081,12-082		On/Off
12-081-00	Sub Paddle Solenoid (Push)	IOT	CH-Finisher	Output	012-080, 012-082	200ms	On = Made
12-081-00	Stacker Motor (Lift Up)	IOT	GA-Finisher	Output	12-082 ,12-033 ,12-034	90 ms	On/Off
12-081-00	Punch 2-Hole Punch Operation	IOT	GB-Finisher	Output	12-080,12-082		On/Off
12-082-00	Sub Paddle Solenoid Rotation	IOT	CH-Finisher	Output	012-080, 012-081	-	On = Made
12-082-00	Stacker Motor (Lift Down)	IOT	GA-Finisher	Output	12-081 ,12-033,12-034	90 ms	On/Off
12-082-00	Punch 3/4-Hole Punch Operation	IOT	GB-Finisher	Output	12-080,12-081		On/Off
12-083-00	Set Clamp Push Out / Pull Back	IOT	CH-Finisher	Output	012-084, 012-085 Lipari: 12-084thru 12-087	Projects / save operation is completed	On = Made
12-084-00	Eject Motor Low Forward On	IOT	CH-Finisher	Output	012-083, 012-085 Lipari:012-083, 012-085,12- 086,12-087	2000-ms	On = Made
12-085-00	Eject Motor High Forward On	IOT	CH-Finisher	Output	012-083, 012-084 Lipari:012-083, 012-084,12- 086,12-087	2000-ms	On = Made
12-086-00	Eject Motor Low Reverse On	IOT	CH-Finisher	Output	012-083, 012-084 Lipari:012-083 thru 12-085,12-087	2000-ms	On = Made
12-087-00	Eject Motor High Reverse On	IOT	CH-Finisher	Output	012-083, 012-084 Lipari:12-083 thru 12-086	2000-ms	On = Made
12-088-00	Eject Clamp Motor (Latch)	IOT	CH-Finisher	Output	012-089	Latch operation completion	On = Made
12-089-00	Eject Clamp Motor (Release)	IOT	CH-Finisher	Output	012-088	Release operation is completed	On = Made
12-090-00	H-Tra Transport Motor (High Speed)	IOT	CH-Finisher	Output	012-093	-	On = Made

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-090-00	Knife Motor (Forward)	IOT	GB-Finisher	Output	12-091		On/Off
12-091-00	Knife Motor (Reverse)	IOT	GB-Finisher	Output	12-090		On/Off
12-092-00	Booklet Staple Motor F (Forward) Operation	IOT	GB-Finisher	Output	12-093		On/Off
12-093-00	Booklet Staple Motor F (Reverse) Operation	IOT	GB-Finisher	Output	12-092		On/Off
12-094-00	Booklet Staple Motor R (Forward) Operation	IOT	GB-Finisher	Output	12-095		On/Off
12-095-00	Booklet Staple Motor R (Reverse) Operation	IOT	GB-Finisher	Output	12-094		On/Off
12-096-00	Booklet Staple Move Motor (Move to inside)	IOT	GB-Finisher	Output	12-097		On/Off
12-097-00	Booklet Staple Move Motor (Move to outside)	IOT	GB-Finisher	Output	12-095		On/Off
12-097-00	Top Tray Offset Motor (Forward)	IOT	CH-Finisher	Output	012-098	41pulse	On/Off
12-098-00	Top Tray Offset Motor (Reverse)	IOT	CH-Finisher	Output	012-097	41pulse	On/Off
12-098-00	Booklet Staple Move Motor A4S	IOT	GB-Finisher	Output	12-92 thru 12-97, 12-99		On/Off
12-099-00	Booklet Staple Move Motor A3S	IOT	GB-Finisher	Output	12-92 thru 12-98		On/Off
12-100-00	Entrance Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-101-00	Booklet In Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-101-00	Finisher Front Door Interlock Switch	IOT	GA-Finisher	Input			High/ Low
12-101-00	Finisher Front Door Interlock Switch	IOT	GB-Finisher	Input			High/ Low
12-102-00	Punch In Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-110-00	IOT Exit Sensor (Hot Line)	IOT	GB-Finisher	Input			High/ Low
12-110-00	Regi Clutch ON	IOT	SB-Finisher	Input			High/ Low
12-111-00	HTU Entrance Sensor	IOT	GB-Finisher	Input			High/ Low
12-111-00	IOT Exit Sensor (Hot Line)	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-111-00	IOT Exit Sensor (Hot Line)	IOT	GA-Finisher	Input			High/ Low
12-112-00	Entrance Sensor	IOT	GA-Finisher	Input			High/ Low
12-112-00	Finisher Entrance Sensor	IOT	GB-Finisher	Input			High/ Low
12-113-00	Compile Exit Sensor	IOT	GA-Finisher	Input			High/ Low
12-113-00	Compile Exit Sensor	IOT	GB-Finisher	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-114-00	HTU Open Sensor	IOT	GB-Finisher	Input			High/ Low
12-115-00	Top Exit Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-120-00	Compile No Paper Sensor	IOT	GB-Finisher	Input			High/ Low
12-121-00	Eject Cam Home Sensor	IOT	GA-Finisher	Input			High/ Low
12-121-00	Eject Cover Switch	IOT	GB-Finisher	Input			High/ Low
12-122-00	Set Clamp Home Sensor	IOT	GA-Finisher	Input			High/ Low
12-123-00	Front Tamper Home Sensor	IOT	GA-Finisher	Input			High/ Low
12-124-00	Rear Tamper Home Sensor	IOT	GA-Finisher	Input			High/ Low
12-125-00	Staple Move Position Sensor	IOT	GA-Finisher	Input			High/ Low
12-126-00	Low Staple Sensor	IOT	GA-Finisher	Input			High/ Low
12-127-00	Self Priming Sensor	IOT	GA-Finisher	Input			High/ Low
12-128-00	Staple Home Sensor	IOT	GA-Finisher	Input			High/ Low
12-129-00	Stacker No Paper Sensor	IOT	GA-Finisher	Input			High/ Low
12-130-00	Stacker Hight Sensor	IOT	GA-Finisher	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-130-00	Front Tamper Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-131-00	Rear Tamper Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-140-00	Staple Move Position Sensor	IOT	GB-Finisher	Input			High/ Low
12-141-00	Low Staple Sensor	IOT	GB-Finisher	Input			High/ Low
12-142-00	Self Priming Sensor	IOT	GB-Finisher	Input			High/ Low
12-143-00	HA Staple Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-144-00	HN Staple Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-145-00	HN Staple Move Sensor	IOT	GB-Finisher	Input			High/ Low
12-150-00	Compile Exit Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-151-00	Compile Tray NO Paper Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-160-00	Eject Cam Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-160-00	Option Transport Detect 1	IOT	CH-Finisher	Input	-	-	High/ Low
12-161-00	Option Transport Detect 2	IOT	CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-161-00	Set Clamp Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-162-00	Puncher Detect	IOT	CH-Finisher	Input	-	-	High/ Low
12-163-00	S-Tra Detect	PRO	CH-Finisher	Input			High/ Low
12-170-00	Stacker Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-171-00	Stacker Height Sensor	IOT	GB-Finisher	Input			High/ Low
12-180-00	Punch Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-181-00	Punch Dust Box	IOT	GB-Finisher	Input			High/ Low
12-189-00	Knife Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-190-00	H-Xport Entrance Sensor	IOT	SB-Finisher	Input		N/A	High/ Low
12-190-00	Booklet Front Staple Cam Switch	IOT	GB-Finisher	Input			High/ Low
12-191-00	H-Tra Exit Sensor/V-Tra Exit Sensor / S-Tra Exit Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-191-00	Booklet Rear Staple Cam Switch	IOT	GB-Finisher	Input			High/ Low
12-192-00	Booklet Front Low Staple Switch	IOT	GB-Finisher	Input			High/ Low
12-193-00	Booklet Rear Low Staple Switch	IOT	GB-Finisher	Input			High/ Low
12-194-00	Booklet Staple Move Home Sensor	IOT	GB-Finisher	Input			High/ Low
12-195-00	Booklet Staple Move Position Sensor	IOT	GB-Finisher	Input			High/ Low
12-196-00	Booklet Cover Open Switch	IOT	GB-Finisher	Input			High/ Low
12-197-00	Booklet Front Safety Switch	IOT	GB-Finisher	Input			High/ Low
12-198-00	Booklet Rear Safety Switch	IOT	GB-Finisher	Input			High/ Low
12-199-00	Option Switch	IOT	GB-Finisher	Input			High/ Low
12-200-00	Side Regi Sensor 1	IOT	CH-Finisher	Input	-	-	High/ Low
12-201-00	Side Regi Sensor 2	IOT	CH-Finisher	Input	-	-	High/ Low
12-215-00	Top Tray Full Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-216-00	Top Tray Offset Home Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-220-00	Front Tamper Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-221-00	Rear Tamper Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-240-00	Stapler Move Position Sensor	IOT	CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-241-00	Stapler Move Position Sensor	IOT	SB-Finisher	Input		N/A	High/ Low
12-242-00	Low Staple Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-243-00	Self Priming Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-244-00	Staple Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-250-00	Eject Clamp Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-251-00	Set Clamp Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-262-00	Stacker NO Paper Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-263-00	Stack Encoder Sensor	IOT	SB-Finisher	Input		N/A	High/ Low
12-264-00	Stack Height Sensor 1	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-265-00	Stack Height Sensor 2	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
12-266-00	Folder-Z Full Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-270-00	Puncher Move Home Sensor	IOT	CH-Finisher	Input	-	-	High/ Low
12-271-00	Puncher Home Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-272-00	Puncher Front Sensor	IOT	CH-Finisher	input	-	-	High/ Low
12-273-00	Punch Hole Select Sensor	IOT	CH-Finisher	input	-	-	High/ Low
12-274-00	Puncher Encoder Sensor	IOT	SB-Finisher	input		N/A	High/ Low
12-275-00	Punch BOX Set Sensor	IOT	SB-Finisher/ CH-Finisher	input	-	-	High/ Low
12-277-00	Puncher Detect	IOT	SB-Finisher	input		N/A	High/ Low
12-300-00	Eject Cover Switch	IOT	SB-Finisher	input		N/A	High/ Low
12-302-00	Finisher Front Door Interlock Switch	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-303-00	H-Tra Cover Open Sensor	IOT	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
12-400-00	Finisher Main Interlock 24V Detect	IOT	CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
13-001-00	Booklet Folder Roll Motor Forward	PRO	CH-Finisher	Output	013-002	-	On/Off
13-002-00	Booklet Folder Roll Motor Reverse	PRO	CH-Finisher	Output	013-001	-	On/Off
13-003-00	Knife Clutch Solenoid	PRO	CH-Finisher	Output	-	200ms	On/Off
13-004-00	Booklet End Guide Motor (Down/High Speed)	PRO	CH-Finisher	Output	-	200pulse	On/Off
13-005-00	Booklet End Guide Motor (Up/High Speed)	PRO	CH-Finisher	Output	-	200pulse	On/Off
13-006-00	Booklet Tamper Motor 1 (Out)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-007-00	Booklet Tamper Motor 1 (In)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-008-00	Booklet Stapler Motor	PRO	CH-Finisher	Output	-	Staple operation end (620-ms)	On/Off
13-009-00	Booklet Tray Belt Drive Motor	PRO	CH-Finisher	Output	-	-	On/Off
13-010-00	Booklet Paddle Motor (Release)	PRO	CH-Finisher	Output	013-019	-	On/Off
13-011-00	Booklet Endguide Motor Low Down	PRO	CH-Finisher	Output	-	200pulse	On/Off
13-012-00	Booklet Endguide Motor Low Up	PRO	CH-Finisher	Output	-	200pulse	On/Off
13-013-00	Booklet Tamper Motor 2 (Out)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-014-00	Booklet Tamper Motor 2 (In)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-015-00	Booklet Tamper Motor 3 (Out)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-016-00	Booklet Tamper Motor 3 (In)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-017-00	Booklet Tamper Motor 4 (Out)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-018-00	Booklet Tamper Motor 4 (In)	PRO	CH-Finisher	Output	-	100pulse	On/Off
13-019-00	Booklet Paddle Motor (Clamp)	PRO	CH-Finisher	Output	013-010	-	On/Off
13-020-00	Folder Up Transport Motor (D-Class/High Speed)	PRO	CH-Finisher	Output	013-021, 013-022, 013- 023, 013-024	-	On/Off
13-021-00	Folder Up Transport Motor (D-Class/Low Speed)	PRO	CH-Finisher	Output	013-020, 013-022, 013- 023, 013-024	-	On/Off
13-022-00	Knife Motor Forward On	PRO	SB-Finisher	Output	013-023		On/Off
13-022-00	Folder Up Transport Motor(C-Class/High Speed)	IOT	CH-Finisher	Output	13-20,13-21,13-023,13-024		On/Off
13-023-00	Knife Motor Reverse On	PRO	SB-Finisher	Output	013-022		On/Off
13-023-00	Folder Up Transport Motor(C-Class/Middle Speed)	IOT	CH-Finisher	Output	13-20,13-21,13-022,13-024		On/Off
13-024-00	Booklet Staple Motor F Forward	PRO	SB-Finisher	Output	013-025		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
13-024-00	Folder Up Transport Motor(C-Class/Low Speed)	IOT	CH-Finisher	Output	13-20,13-21,13-022,13-023		On/Off
13-025-00	Booklet Staple Motor F Reverse	PRO	SB-Finisher	Output	013-024		On/Off
13-025-00	Folder Middle Transport Motor (High Speed)	IOT	CH-Finisher	Output	13-026		On/Off
13-026-00	Booklet Staple Motor R Forward	PRO	SB-Finisher	Output	013-027		On/Off
13-026-00	Folder Middle Transport Motor (Low Speed)	IOT	CH-Finisher	Output	13-025		On/Off
13-027-00	Booklet Staple Motor R Reverse	PRO	SB-Finisher	Output	013-026		On/Off
13-027-00	Folder Fold Transport Motor (High Speed)	IOT	CH-Finisher	Output	13-028		On/Off
13-028-00	Booklet Staple Move Motor In	PRO	SB-Finisher	Output	013-029	350 pulse	On/Off
13-028-00	Folder Fold Transport Motor (Low Speed)	IOT	CH-Finisher	Output	13-027		On/Off
13-029-00	Booklet Staple Move Motor Out	PRO	SB-Finisher	Output	013-028	350 pulse	On/Off
13-029-00	Up End Guide Motor(Up)	IOT	CH-Finisher	Output	13-027	100 pulses Up End Guide Home Sensor ON	On/Off
13-030-00	Up End Guide Motor (Down)	PRO	CH-Finisher	Output	013-029	100pulse	On/Off
13-031-00	Low End Guide Motor (Up)	PRO	CH-Finisher	Output	013-032	100pulse Low End Guide Home Sensor ON	On/Off
13-032-00	Low End Guide Motor (Down)	PRO	CH-Finisher	Output	013-031	100pulse	On/Off
13-033-00	Folder Up Gate Solenoid Push	PRO	CH-Finisher	Output	013-034	200ms	On/Off
13-034-00	Folder Up Gate Solenoid Pull	PRO	CH-Finisher	Output	013-033	200ms	On/Off
13-035-00	Folder Low Gate Solenoid Push	PRO	CH-Finisher	Output	013-036	200ms	On/Off
13-036-00	Folder Low Gate Solenoid Pull	PRO	CH-Finisher	Output	013-035	200ms	On/Off
13-037-00	Nip Release Solenoid	PRO	CH-Finisher	Output	-	200ms	On/Off
13-038-00	Folder C Solenoid	PRO	CH-Finisher	Output	-	200ms	On/Off
13-039-00	Envelope Tray Lock Solenoid	PRO	CH-Finisher	Output	-	200ms	On/Off
13-040-00	Envelope Tray LED	PRO	CH-Finisher	Output	-	-	On/Off
13-101-00	Knife Home Sensor	PRO	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
13-102-00	Booklet Compile No Paper Sensor	PRO	CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
13-103-00	Booklet Exit Sensor	PRO	CH-Finisher	Input	-	-	High/ Low
13-104-00	Booklet Drawer Set Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-105-00	Booklet Stapler Head Position Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-106-00	Booklet Compile No Paper Sensor2	PRO	CH-Finisher	Input	-	-	High/ Low
13-107-00	Booklet Front Low Staple Sensor	PRO	SB-Finisher/ CH-Finisher	input	-	-	High/ Low
13-108-00	Booklet Rear Low Staple Sensor	PRO	SB-Finisher/ CH-Finisher	input	-	-	High/ Low
13-115-00	Folder Entrance Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-119-00	Folder Path Sensor 2	PRO	CH-Finisher	input	-	-	High/ Low
13-120-00	Folder Path Sensor 3	PRO	CH-Finisher	input	-	-	High/ Low
13-121-00	Up End Guide Home Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-122-00	Low End Guide Home Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-123-00	Envelope Full Tray Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-125-00	Folder Path Sensor 1	PRO	CH-Finisher	input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
13-126-00	Folder Path Sensor 4	PRO	CH-Finisher	input	-	-	High/ Low
13-134-00	Booklet Tamper Home Sensor	PRO	CH-Finisher	Input	-	-	High/ Low
13-137-00	Booklet End Guide Home Sensor	PRO	CH-Finisher	input	-	-	High/ Low
13-139-00	Booklet Tray No Paper Sensor	PRO	CH-Finisher	Input	-	-	High/ Low
13-141-00	Booklet Staple Cam Front Switch	PRO	SB-Finisher	Input		N/A	High/ Low
13-141-00	Folder Exit Sensor	PRO	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low
13-142-00	Booklet Staple Cam Rear Switch	PRO	SB-Finisher	Input		N/A	High/ Low
13-143-00	Booklet Staple Move Home Sensor	PRO	SB-Finisher	Input		N/A	High/ Low
13-144-00	Bookler Staple Move Position Sensor	PRO	SB-Finisher	input		N/A	High/ Low
13-154-00	Envelope Tray Open Switch	PRO	CH-Finisher	Input	-	-	High/ Low
13-155-00	Folder Front Door Interlock Switch	PRO	CH-Finisher	Input	-	-	High/ Low
13-156-00	Folder Envelope Tray Switch	PRO	CH-Finisher	Input	-	-	High/ Low
13-160-00	Folder Detect	PRO	SB-Finisher/ CH-Finisher	Input	-	-	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
13-161-00	Booklet Detect	PRO	SB-Finisher/ CH-Finisher	input	-	-	High/ Low
13-162-00	MBX Detect	PRO	CH-Finisher	input	-	-	High/ Low
13-300-00	Booklet Cover Open Switch	PRO	SB-Finisher	input		N/A	High/ Low
13-301-00	Booklet Safety Switch	PRO	SB-Finisher	input		N/A	High/ Low
13-400-00	Folder Envelope Tray 24V Detect	PRO	CH-Finisher	input	-	-	High/ Low
20-010-00	Single Tone 0Hz Ln1	FAX	FAX	Output			On/Off
20-011-00	Single Tone 400Hz Ln1	FAX	FAX	Output			On/Off
20-012-00	Single Tone 1100Hz Ln1	FAX	FAX	Output			On/Off
20-013-00	Single Tone 1300Hz Ln1	FAX	FAX	Output			On/Off
20-014-00	Single Tone 1650Hz Ln1	FAX	FAX	Output			On/Off
20-015-00	Single Tone 1850Hz Ln1	FAX	FAX	Output			On/Off
20-016-00	Single Tone 2100Hz Ln1	FAX	FAX	Output			On/Off
20-017-00	ANSAM Ln1	FAX	FAX	Output			On/Off
20-018-00	CI Ln1	FAX	FAX	Output			On/Off
20-020-00	DTMF # Line1	FAX	FAX	Output			On/Off
20-021-00	DTMF * Line1	FAX	FAX	Output			On/Off
20-022-00	DTMF 0 Line1	FAX	FAX	Output			On/Off
20-023-00	DTMF 1 Line1	FAX	FAX	Output			On/Off
20-024-00	DTMF 2 Line1	FAX	FAX	Output			On/Off
20-025-00	DTMF 3 Line1	FAX	FAX	Output			On/Off
20-026-00	DTMF 4 Line1	FAX	FAX	Output			On/Off
20-027-00	DTMF 5 Line1	FAX	FAX	Output			On/Off
20-028-00	DTMF 6 Line1	FAX	FAX	Output			On/Off
20-029-00	DTMF 7 Line1	FAX	FAX	Output			On/Off
20-030-00	DTMF 8 Line1	FAX	FAX	Output			On/Off
20-031-00	DTMF 9 Line1	FAX	FAX	Output			On/Off
20-032-00	DTMF A Line1	FAX	FAX	Output			On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
20-033-00	DTMF B Line1	FAX	FAX	Output			On/Off
20-034-00	DTMF C Line1	FAX	FAX	Output			On/Off
20-035-00	DTMF D Line1	FAX	FAX	Output			On/Off
20-040-00	V.21 300 bps Line1	FAX	FAX	Output			On/Off
20-041-00	V.27ter 2400 bps Line1	FAX	FAX	Output			On/Off
20-042-00	V.27ter 4800 bps Line1	FAX	FAX	Output			On/Off
20-043-00	V.29 7200 bps Line1	FAX	FAX	Output			On/Off
20-044-00	V.29 9600 bps Line1	FAX	FAX	Output			On/Off
20-045-00	V.17 7200 bps Line1	FAX	FAX	Output			On/Off
20-046-00	V.17 9600 bps Line1	FAX	FAX	Output			On/Off
20-047-00	V.17 12000 bps Line1	FAX	FAX	Output			On/Off
20-048-00	V.17 14400 bps Line1	FAX	FAX	Output			On/Off
20-049-00	V.34 2400 bps Line1	FAX	FAX	Output			On/Off
20-050-00	V.34 4800 bps Line1	FAX	FAX	Output			On/Off
20-051-00	V.34 7200 bps Line1	FAX	FAX	Output			On/Off
20-052-00	V.34 9600 bps Line1	FAX	FAX	Output			On/Off
20-053-00	V.34 12000 bps Line1	FAX	FAX	Output			On/Off
20-054-00	V.34 14400 bps Line1	FAX	FAX	Output			On/Off
20-055-00	V.34 16800 bps Line1	FAX	FAX	Output			On/Off
20-056-00	V.34 19200 bps Line1	FAX	FAX	Output			On/Off
20-057-00	V.34 21600 bps Line1	FAX	FAX	Output			On/Off
20-058-00	V.34 24000 bps Line1	FAX	FAX	Output			On/Off
20-059-00	V.34 26400 bps Line1	FAX	FAX	Output			On/Off
20-060-00	V.34 28800 bps Line1	FAX	FAX	Output			On/Off
20-061-00	V.34 31200 bps Line1	FAX	FAX	Output			On/Off
20-062-00	V.34 33600 bps Line1	FAX	FAX	Output			On/Off
20-080-00	Sngl Tone 0Hz Ln2	FAX	FAX	Output			On/Off
20-081-00	Sngl Tone 400Hz Ln2	FAX	FAX	Output			On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
20-082-00	Sngl Tone 1100Hz Ln2	FAX	FAX	Output			On/Off
20-083-00	Sngl Tone 1300Hz Ln2	FAX	FAX	Output			On/Off
20-084-00	Sngl Tone 1650Hz Ln2	FAX	FAX	Output			On/Off
20-085-00	Sngl Tone 1850Hz Ln2	FAX	FAX	Output			On/Off
20-086-00	Sngl Tone 2100Hz Ln2	FAX	FAX	Output			On/Off
20-087-00	ANSAM Ln2	FAX	FAX	Output			On/Off
20-088-00	CI Ln2	FAX	FAX	Output			On/Off
20-090-00	DTMF # Line2	FAX	FAX	Output			On/Off
20-091-00	DTMF * Line2	FAX	FAX	Output			On/Off
20-092-00	DTMF 0 Line2	FAX	FAX	Output			On/Off
20-093-00	DTMF 1 Line2	FAX	FAX	Output			On/Off
20-094-00	DTMF 2 Line2	FAX	FAX	Output			On/Off
20-095-00	DTMF 3 Line2	FAX	FAX	Output			On/Off
20-096-00	DTMF 4 Line2	FAX	FAX	Output			On/Off
20-097-00	DTMF 5 Line2	FAX	FAX	Output			On/Off
20-098-00	DTMF 6 Line2	FAX	FAX	Output			On/Off
20-099-00	DTMF 7 Line2	FAX	FAX	Output			On/Off
20-100-00	DTMF 8 Line2	FAX	FAX	Output			On/Off
20-101-00	DTMF 9 Line2	FAX	FAX	Output			On/Off
20-102-00	DTMF A Line2	FAX	FAX	Output			On/Off
20-103-00	DTMF B Line2	FAX	FAX	Output			On/Off
20-104-00	DTMF C Line2	FAX	FAX	Output			On/Off
20-105-00	DTMF D Line2	FAX	FAX	Output			On/Off
20-110-00	V.21 300 bps Line2	FAX	FAX	Output			On/Off
20-111-00	V.27ter 2400 bps Line2	FAX	FAX	Output			On/Off
20-112-00	V.27ter 4800 bps Line2	FAX	FAX	Output			On/Off
20-113-00	V.29 7200 bps Line2	FAX	FAX	Output			On/Off
20-114-00	V.29 9600 bps Line2	FAX	FAX	Output			On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
20-115-00	V.17 7200 bps Line2	FAX	FAX	Output			On/Off
20-116-00	V.17 9600 bps Line2	FAX	FAX	Output			On/Off
20-117-00	V.17 12000 bps Line2	FAX	FAX	Output			On/Off
20-118-00	V.17 14400 bps Line2	FAX	FAX	Output			On/Off
20-119-00	V.34 2400 bps Line2	FAX	FAX	Output			On/Off
20-120-00	V.34 4800 bps Line2	FAX	FAX	Output			On/Off
20-121-00	V.34 7200 bps Line2	FAX	FAX	Output			On/Off
20-122-00	V.34 9600 bps Line2	FAX	FAX	Output			On/Off
20-123-00	V.34 12000 bps Line2	FAX	FAX	Output			On/Off
20-124-00	V.34 14400 bps Line2	FAX	FAX	Output			On/Off
20-125-00	V.34 16800 bps Line2	FAX	FAX	Output			On/Off
20-126-00	V.34 19200 bps Line2	FAX	FAX	Output			On/Off
20-127-00	V.34 21600 bps Line2	FAX	FAX	Output			On/Off
20-128-00	V.34 24000 bps Line2	FAX	FAX	Output			On/Off
20-129-00	V.34 26400 bps Line2	FAX	FAX	Output			On/Off
20-130-00	V.34 28800 bps Line2	FAX	FAX	Output			On/Off
20-131-00	V.34 31200 bps Line2	FAX	FAX	Output			On/Off
20-132-00	V.34 33600 bps Line2	FAX	FAX	Output			On/Off
41-001-00	AllSub coherent mode	IOT	IM	Output	41-002,41-003,41-004		On/Off
41-002-00	DRUM noise detection mode	IOT	IM	Output	41-001, 41-003,41-004		On/Off
41-003-00	DISPENSE noise detection	IOT	IM	Output	41-001,41-002,41-004		On/Off
41-004-00	PH_WasteBox-Auger_FUSER_EXIT	IOT	IM	Output	41-001~41-003		On/Off
42-001-00	K_IBT Motor (308mm/s)	IOT	Drive	Output	42-002 thru 42-006,42-018 thru 42-025,91-007		On/Off
42-002-00	K_IBT Motor (255mm/s)	IOT	Drive	Output	42-001, 42-002 thru 42- 006,42-018 thru 42-025,91- 007		On/Off
42-003-00	K_IBT Motor (233mm/s)	IOT	Drive	Output	42-001, 42-002,42-004 thru 42-006,42-018 thru 42- 025,91-007		On/Off
42-004-00	K_IBT Motor (185mm/s)	IOT	Drive	Output	42-001 thru 42-003,42- 005,42-006,42-018 thru 42- 025,91-007		On/Off
42-005-00	K_IBT Motor (155mm/s)	IOT	Drive	Output	42-001 thru 42-004,42- 006,42-018 thru 42-025,91- 007		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
42-006-00	K_IBT Motor (120mm/s)	IOT	Drive	Output	42-001 thru 42-005,42-018 thru 42-025,91-007		On/Off
42-007-00	YMC Motor (255mm/s)	IOT	Drive	Output	42-008 thru 42-011,42-018 thru 42-025,91-007		On/Off
42-008-00	YMC Motor (233mm/s)	IOT	Drive	Output	42-007,42-009 thru 42- 011,42-018 thru 42-025,91- 007		On/Off
42-009-00	YMC Motor (185mm/s)	IOT	Drive	Output	42-007,42-008,42-010, 42-011,42-018 thru 42-025,91- 007		On/Off
42-010-00	YMC Motor (155mm/s)	IOT	Drive	Output	42-007 thru 42-009, 42- 011,42-018 thru 42-025,91- 007		On/Off
42-011-00	YMC Motor (120mm/s)	IOT	Drive	Output	42-007 thru 42-010,42-018 thru 42-025,91-007		On/Off
42-012-00	YMC-DRUM Motor(308mm/s)	IOT	Drive	Output	42-013,42-014,42-018 thru 42-025,91-007		On/Off
42-013-00	YMC-DRUM Motor(233mm/s)	IOT	Drive	Output	42-012,42-014,42-018 thru 42-025,91-007		On/Off
42-014-00	YMC-DRUM Motor(185mm/s)	IOT	Drive	Output	42-012,42-013,42-018 thru 42-025,91-007		On/Off
42-015-00	YMC-DEVE Motor(308mm/s)	IOT	Drive	Output	42-016,42-017,42-018 thru 42-025,91-007		On/Off
42-016-00	YMC-DEVE Motor(233mm/s)	IOT	Drive	Output	42-015,42-017,42-018 thru 42-025,91-007		On/Off
42-017-00	YMC-DEVE Motor(185mm/s)	IOT	Drive	Output	42-015,42-016,42-018 thru 42-025,91-007		On/Off
42-018-00	Main Drive Motor All(Low/Mid 255mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-019 thru 42-025,91-007		On/Off
42-019-00	Main Drive Motor All(Low/Mid 233mm/s)	IOT	Drive	Output	42-001 thru 42-011,42- 018,42-020 thru 42-025,91- 007		On/Off
42-020-00	Main Drive Motor All(Low/Mid 185mm/s)	IOT	Drive	Output	42-001 thru 42-011,42- 018,42-019 thru 42-025,91- 007		On/Off
42-021-00	Main Drive Motor All(Low/Mid 155mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-018 thru 42-020, 42-022 thru 025,91-007		On/Off
42-022-00	Main Drive Motor All(Low/Mid 120mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-018 thru 42-021, 42-023 thru 025,91-007		On/Off
42-023-00	Main Drive Motor All(High 308mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-018 thru 42-022, 42-024 thru 025,91-007		On/Off
42-024-00	Main Drive Motor All(High 233mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-018 thru 42-023,42-025,91-007		On/Off
42-025-00	Main Drive Motor All(High 185mm/s)	IOT	Drive	Output	42-001 thru 42-011,42-018 thru 42-024,91-007		On/Off
42-050-00	M_FAN low-speed rotation	IOT	Drive	Output	42-51		On/Off
42-051-00	M_FAN high-speed rotation	IOT	Drive	Output	42-050		On/Off
42-052-00	LVPS_FAN low-speed rotation	IOT	Drive	Output	42-053		On/Off
42-053-00	LVPS_FAN high-speed rotation	IOT	Drive	Output	42-052		On/Off
42-054-00	P1_FAN Rotation	IOT	Drive	Output			On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
42-055-00	C_FAN Rotation	IOT	Drive	Output			On/Off
42-056-00	C_EXHAUST_ FAN Rotation	IOT	Drive	Output			On/Off
42-057-00	REAR_ADD_FAN Rotation	IOT	Drive	Output			On/Off
42-058-00	FUSING_FAN low-speed rotation	IOT	Drive	Output	42-059,42-060		On/Off
42-059-00	FUSING_FAN Mid-speed Rotation	IOT	Drive	Output	42-058,42-060		On/Off
42-060-00	FUSING_FAN high-speed rotation	IOT	Drive	Output	42-058,42-059		On/Off
42-061-00	P2_FAN_FL low-speed rotation	IOT	Drive	Output	42-062		On/Off
42-062-00	P2_FAN_FL high-speed rotation	IOT	Drive	Output	42-061		On/Off
42-063-00	SUCTION_FAN low-speed rotation	IOT	Drive	Output	42-064,42-065,42-066		On/Off
42-064-00	SUCTION_FAN Mid-speed Rotation	IOT	Drive	Output	42-063,42-065,42-066		On/Off
42-065-00	SUCTION_FAN high-speed rotation	IOT	Drive	Output	42-063,42-064,42-066		On/Off
42-066-00	SUCTION_FAN MAX Rotation	IOT	Drive	Output	42-063,42-064,42-065		On/Off
42-067-00	LH_FAN1,2 low-speed rotation	IOT	Drive	Output	42-068		On/Off
42-068-00	LH_FAN1,2 high-speed rotation	IOT	Drive	Output	42-067		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
42-069-00	IHP_INTAKE_ FAN low-speed rotation	IOT	Drive	Output	42-070		On/Off
42-070-00	IHP_INTAKE_ FAN high-speed rotation	IOT	Drive	Output	42-069		On/Off
61-001-00	LPH forced lighting (Cin100%)	IOT	LPH	Output	61-002,61-003		On/Off
61-002-00	LPH forced lighting (Cin50%)	IOT	LPH	Output	61-001,61-003		On/Off
61-003-00	LPH forced lighting (Thyristor lights)	IOT	LPH	Output	61-001,61-002		On/Off
62-002-00	Exposure lamp	IIT	IISS	Output		N/A	On/Off
62-005-00	IIT Scan Motor (Scan)	IIT	IISS	Output	062-006	N/A	On/Off
62-006-00	IIT Scan Motor (Return)	IIT	IISS	Output	062-005	N/A	On/Off
62-015-00	Lamp cooling fan PF1	IIT	IISS	Output			On/Off
62-017-00	Ccd Cooling Fan	IIT	IISS	Output		N/A	On/Off
62-018-00	Carriage home sensor	IIT	IISS	Input		N/A	High/ Low
62-019-00	Platen down sensor	IIT	IISS	Input		N/A	High/ Low
62-020-00	24 volts	IIT	IISS	Input		N/A	High/ Low
62-022-00	DH hotline detect	IIT	IISS	Input		N/A	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
62-023-00	Carriage move home position	IIT	IISS	Output		N/A	High/ Low
62-024-00	Carriage move doc size position	IIT	IISS	Output		N/A	On/Off
62-025-00	Carriage move CVT position	IIT	IISS	Output		N/A	On/Off
62-026-00	Carriage move test position A	IIT	IISS	Output		N/A	On/Off
62-027-00	Carriage move test position B	IIT	IISS	Output		N/A	On/Off
62-028-00	Carriage move test position C	IIT	IISS	Output		N/A	On/Off
62-030-00	Carriage move cal strip position	IIT	IISS	Output		N/A	On/Off
62-212-00	IIT Regi Sensor	IIT	IISS	Input		N/A	High/ Low
62-240-00	DADF exist	IIT	IISS	Input		N/A	High/ Low
62-251-00	Document size sensor 1	IIT	IISS	Input		N/A	High/ Low
62-253-00	Document size sensor 2	IIT	IISS	Input		N/A	High/ Low
62-280-00	CCD Fan Fail	IIT	IISS	Input		N/A	High/ Low
62-300-00	Platen I/L Switch	IIT	IISS	Input		N/A	High/ Low
62-301-00	Angle sensor	IIT	IISS	Input		N/A	High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
66-002-00	DADF exposure lamp	IIT	IISS	Output		N/A	On/Off
71-001-00	#1 Feed Motor (CW2) feed direction	IOT	Paper	Output	071-002, 071-003		On/Off
71-002-00	#1 Feed Motor 2-phase (CCW2) Lift Up direction	IOT	Paper	Output	71-001,71-003		On/Off
71-003-00	#1 Feed Motor 1-2-phase (CW1-2) Feed direction	IOT	Paper	Output	71-001,71-002		On/Off
71-101-00	#1 No Paper Sensor	IOT	Paper	Input			High/ Low
71-102-00	#1 Level Sensor	IOT	Paper	Input			High/ Low
71-104-00	#1 Tray Paper Size Switch	IOT	Paper	Input			High/ Low
71-105-00	#1 Pre Feed Sensor	IOT	Paper	Input			High/ Low
72-001-00	#2 Feed Motor (CW2) Feed direction	IOT	PAPER	Output	72-002		On/Off
72-002-00	#2 Feed Motor (CCW2) Lift Up direction	IOT	PAPER	Output	72-001		On/Off
72-101-00	#2 No Paper Sensor	IOT	PAPER	Input			High/ Low
72-102-00	#2 Level Sensor	IOT	PAPER	Input			High/ Low
72-103-00	#2 Feed Out Sensor	IOT	PAPER	Input			High/ Low
72-104-00	#2 TRAY Paper Size Switch	IOT	PAPER	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
72-105-00	#2 Pre Feed Sensor	IOT	PAPER	Input			High/ Low
73-001-00	#3 Feed Motor (CW2) Feed direction	IOT	PAPER	Output	73-002		On/Off
73-002-00	#3 Feed Motor (CCW2) Lift Up direction	IOT	PAPER	Output	73-001		On/Off
73-101-00	#3 No Paper Sensor	IOT	PAPER	Input			High/ Low
73-102-00	#3 Level Sensor	IOT	PAPER	Input			High/ Low
73-103-00	#3 Feed Out Sensor	IOT	PAPER	Input			High/ Low
73-104-00	#3 TRAY Paper Size Switch	IOT	PAPER	Input			High/ Low
73-105-00	#3 Pre Feed Sensor	IOT	PAPER	Input			High/ Low
74-001-00	#4 Feed Motor (CW2) Feed direction	IOT	Paper	Output	74-002		On/Off
74-002-00	#4 Feed Motor (CCW2) Lift Up direction	IOT	Paper	Output	74-001		On/Off
74-101-00	#4 No Paper Sensor	IOT	Paper	Input			High/ Low
74-102-00	#4 Level Sensor	IOT	Paper	Input			High/ Low
74-103-00	#4 Feed Out Sensor	IOT	Paper	Input			High/ Low
74-104-00	#4 TRAY Paper Size Switch	IOT	Paper	Input			High/ Low
74-105-00	#4 Pre Feed Sensor (TTM Only)	IOT	Paper	Input			High/ Low
75-003-00	MSI Feed Motor (CW1-2) Feed direction	IOT	Paper	Output	75-004		On/Off
75-004-00	MSI Feed Motor (CCW1-2) Nudger Up/Down direction	IOT	Paper	Output	75-003		On/Off
75-101-00	MSI No Paper sensor	IOT	Paper	Input			High/ Low
75-102-00	MSI Nudger Position Sensor	IOT	Paper	Input			High/ Low
77-001-00	Take away Clutch	IOT	Paper	Output			On/Off
77-003-00	Exit Gate Solenoid	IOT	Paper	Output			On/Off
77-004-00	Face Up Gate Solenoid	IOT	Paper	Output			On/Off
77-032-00	TM Feed Ready Signal	IOT	Paper	Output			On/Off
77-033-00	IOT Regi Stop Signal	IOT	Paper	Output			On/Off
77-034-00	IOT Feed On Signal	IOT	Paper	Output			On/Off
77-035-00	TM T/A Motor1 Full Speed	IOT	Paper	Output			On/Off
77-037-00	TM T/A Motor2 Full Speed High TTM only	IOT	Paper	Output			On/Off
77-040-00	OCT1 Motor CW 1-2-phase	IOT	Paper	Output	77-041,77-042,77-043	1000-ms	On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
77-041-00	OCT1 Motor CCW 1-2-phase	IOT	Paper	Output	77-040,77-042,77-043	1000-ms	On/Off
77-042-00	OCT1 Motor CW 2-phase	IOT	Paper	Output	77-040,77-041,77-043	1000-ms	On/Off
77-043-00	OCT1 Motor CCW 2-phase	IOT	Paper	Output	77-040,77-041,77-042	1000-ms	On/Off
77-045-00	OCT2 Motor CW 1-2-phase	IOT	Paper	Output	77-046,77-047,77-048	1000-ms	On/Off
77-046-00	OCT2 Motor CCW 1-2-phase	IOT	Paper	Output	77-045,77-047,77-048	1000-ms	On/Off
77-047-00	OCT2 Motor CW 2-phase	IOT	Paper	Output	77-045,77-046,77-048	1000-ms	On/Off
77-048-00	OCT2 Motor CCW 2-phase	IOT	Paper	Output	77-045,77-046,77-047	1000-ms	On/Off
77-050-00	Take Away Motor 1-2 phase (CW2 / forward)	IOT	Paper	Output			On/Off
77-051-00	Take Away Motor2	IOT	Paper	Output			On/Off
77-055-00	Regi Motor 1-2-phase (CW1-2 / forward)	IOT	PAPER	Output			On/Off
77-060-00	Exit2 Motor CW	IOT	Paper	Output	77-061		On/Off
77-061-00	Exit2 Motor CCW/ ReverseRotation	IOT	Paper	Output	77-060		On/Off
77-062-00	Exit1 Motor	IOT	Paper	Output			On/Off
77-063-00	Exit2 Drive Motor 2 phase CW2 reverse	IOT	Paper	Output			On/Off
77-071-00	Duplex Drive Motor 1-2 phase CW2 reverse	IOT	Paper	Output			On/Off
77-073-00	Duplex Drive Motor 2 phase CW2 reverse..	IOT	Paper	Output			On/Off
77-100-00	#2 Exit Sensor	IOT	Paper	Input			High/ Low
77-101-00	#1 Exit Sensor	IOT	Paper	Input			High/ Low
77-102-00	POB Sensor	IOT	Paper	Input			High/ Low
77-103-00	Regi sensor	IOT	Paper	Input			High/ Low
77-104-00	MSI Feed Out Sensor	IOT	Paper	Input			High/ Low
77-109-00	#1 OCT Home Position Sensor	IOT	Paper	Input			High/ Low
77-110-00	#2 OCT Home Position Sensor	IOT	Paper	Input			High/ Low
77-112-00	FaceUp Exit Sensor	IOT	Paper	Input			High/ Low
77-113-00	Exit2 Tray Sensor	IOT	Paper	Input			High/ Low
77-124-00	Full Stack Sensor 1	IOT	Paper	Input			High/ Low
77-125-00	OCT2 Full Stack Sensor	IOT	Paper	Input			High/ Low
77-201-00	Face Up Tray Detect Switch	IOT	Paper	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
77-300-00	Left Hand Cover Interlock switch	IOT	Paper	Input			High/ Low
77-303-00	Front Interlock Switch	IOT	Paper	Input			High/ Low
77-306-00	TM Left Hand Interlock switch	IOT	Paper	Input			High/ Low
77-307-00	Trans Path Drawer Switch	IOT	Paper	Input			High/ Low
78-003-00	HCF Feed Motor-Feed	IOT	Paper	Output	78-004		On/Off
78-004-00	HCF Feed Motor-Lift Up	IOT	Paper	Output	78-003		On/Off
78-006-00	HCF1 T/A Motor (500mm/s)	IOT	Paper	Output	78-007,78-008		On/Off
78-007-00	HCF T/A Motor (640mm/s)	IOT	Paper	Output	78-006,78-007		On/Off
78-008-00	HCF1T/A Motor (364mm/s)	IOT	Paper	Output	78-006,78-007		On/Off
78-100-00	HCF Pre Feed Sensor	IOT	Paper	Input			High/ Low
78-101-00	HCF Feed Out Sensor	IOT	Paper	Input			High/ Low
78-102-00	HCF2.1 Exit Sensor	IOT	Paper	Input			High/ Low
78-200-00	HCF NoPaper Sensor	IOT	Paper	Input			High/ Low
78-201-00	HCF Level Sensor	IOT	Paper	Input			High/ Low

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
78-202-00	HCF Size Sensor A	IOT	Paper	Input			High/ Low
78-203-00	HCF Size Sensor B	IOT	Paper	Input			High/ Low
78-204-00	HCF Tray In Sensor	IOT	Paper	Input			High/ Low
78-300-00	HCF Transport Interlock	IOT	Paper	Input			High/ Low
78-301-00	HCF Side Out Switch	IOT	Paper	Input			High/ Low
91-001-00	BCR Y AC DC	IOT	Xerographic	Output	91-005,91-008,91-012,		On/Off
91-002-00	BCR M AC DC	IOT	Xerographic	Output	91-005,91-009,91-013		On/Off
91-003-00	BCR C AC DC	IOT	Xerographic	Output	91-005,91-010,91-014		On/Off
91-004-00	BCR K AC DC	IOT	Xerographic	Output	91-005,91-011,91-015		On/Off
91-005-00	BCR ACClock	IOT	Xerographic	Output	91-001 thru 91-004, 91-008 thru 91-011		On/Off
91-006-00	Agitator Motor	IOT	Xerographic	Output	91-007		On/Off
91-007-00	Toner feed sequence when in CRU replacement	IOT	Xerographic	Output	94-010 thru 94-016,42-001 thru 42-025,91-001 thru 91- 006		On/Off
91-008-00	BCR Y AC	IOT	Xerographic	Output	91-001,91-005		On/Off
91-009-00	BCR M AC	IOT	Xerographic	Output	91-002,91-005		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
91-010-00	BCR C AC	IOT	Xerographic	Output	91-003,91-005		On/Off
91-011-00	BCR K AC	IOT	Xerographic	Output	91-004,91-005		On/Off
91-012-00	BCR Y DC	IOT	Xerographic	Output	91-001		On/Off
91-013-00	BCR M DC	IOT	Xerographic	Output	91-002		On/Off
91-014-00	BCR C DC	IOT	Xerographic	Output	91-003		On/Off
91-015-00	BCR K DC	IOT	Xerographic	Output	91-004		On/Off
91-200-00	WasteTonerBottleSensor	IOT	Xerographic	Input			High/ Low
91-201-00	WasteTonerFullSensor	IOT	Xerographic	Input			High/ Low
92-003-00	ADC shutter open	IOT	Xerographic	Output		100 msec	On/Off
92-004-00	ADC Shutter Close	IOT	Xerographic	Output		100 msec	On/Off
92-005-00	DISPENSE MOTOR-Y_(120mm/s)	IOT	Xerographic	Output	92-009,92-013,92-017,92-021,92-025		On/Off
92-006-00	DISPENSE MOTOR-M_(120mm/s)	IOT	Xerographic	Output	92-010,92-014,92-018,92-022,92-026		On/Off
92-007-00	DISPENSE MOTOR-C_(120mm/s)	IOT	Xerographic	Output	92-011,92-015,92-019,92-023,92-027		On/Off
92-008-00	DISPENSE MOTOR-K_(120mm/s)	IOT	Xerographic	Output	92-012,92-016,92-020,92-024,92-028		On/Off
92-009-00	DISPENSE MOTOR-Y_(150mm/s)	IOT	Xerographic	Output	92-005,92-013,92-017,92-021,92-025		On/Off
92-010-00	DISPENSE MOTOR-M_(150mm/s)	IOT	Xerographic	Output	92-006,92-014,92-018,92-022,92-026		On/Off
92-011-00	DISPENSE MOTOR-C_(150mm/s)	IOT	Xerographic	Output	92-007,92-015,92-019,92-020,92-027		On/Off
92-012-00	DISPENSE MOTOR-K_(150mm/s)	IOT	Xerographic	Output	92-008,92-016,92-020,92-021,92-028		On/Off
92-013-00	DISPENSE MOTOR-Y_(185mm/s)	IOT	Xerographic	Output	92-005,92-009,92-017,92-021,92-025		On/Off
92-014-00	DISPENSE MOTOR-M_(185mm/s)	IOT	Xerographic	Output	92-006,92-010,92-018,92-022,92-026		On/Off
92-015-00	DISPENSE MOTOR-C_(185mm/s)	IOT	Xerographic	Output	92-007,92-011,92-019,92-023,92-027		On/Off
92-016-00	DISPENSE MOTOR-K_(185mm/s)	IOT	Xerographic	Output	92-008,92-012,92-020,92-024,92-028		On/Off
92-017-00	DISPENSE MOTOR-Y_(246mm/s)	IOT	Xerographic	Output	92-005,92-009,92-013,92-021,92-025		On/Off
92-018-00	DISPENSE MOTOR-M_(246mm/s)	IOT	Xerographic	Output	92-006,92-010,92-014,92-022,92-026		On/Off
92-019-00	DISPENSE MOTOR-C_(246mm/s)	IOT	Xerographic	Output	92-007,92-011,92-015,92-023,92-027		On/Off
92-020-00	DISPENSE MOTOR-K_(246mm/s)	IOT	Xerographic	Output	92-008,92-012,92-016,92-024,92-028		On/Off
92-021-00	DISPENSE MOTOR-Y_(278mm/s)	IOT	Xerographic	Output	92-005,92-009,92-013,92-017,92-025		On/Off
92-022-00	DISPENSE MOTOR-M_(278mm/s)	IOT	Xerographic	Output	92-006,92-010,92-014,92-018,92-026		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
92-023-00	DISPENSE MOTOR-C_(278mm/s)	IOT	Xerographic	Output	92-007,92-011,92-015,92-019,92-027		On/Off
92-024-00	DISPENSE MOTOR-K_(278mm/s)	IOT	Xerographic	Output	92-008,92-012,92-016,92-020,92-028		On/Off
92-025-00	DISPENSE MOTOR-Y_(308mm/s)	IOT	Xerographic	Output	92-005,92-009,92-013,92-017,92-021		On/Off
92-026-00	DISPENSE MOTOR-M_ (308mm/s)	IOT	Xerographic	Output	92-006,92-010,92-014,92-018,92-022		On/Off
92-027-00	DISPENSE MOTOR-C_(308mm/s)	IOT	Xerographic	Output	92-007,92-011,92-015,92-019,92-023		On/Off
92-028-00	DISPENSE MOTOR-K_(308mm/s)	IOT	Xerographic	Output	92-008,92-012,92-016,92-020,92-024		On/Off
92-029-00	ADC_SNR_LED	IOT	Xerographic	Output			On/Off
93-001-00	Deve Motor YMC #120mm/s	IOT	Develop	Output	93-002 thru 93-006,		On/Off
93-002-00	Deve Motor YMC #150mm/s	IOT	Develop	Output	093-001,93-003 thru 093- 006		On/Off
93-003-00	Deve Motor YMC #185mm/s	IOT	Develop	Output	093-001,93-002,93-004 thru 093-006		On/Off
93-004-00	Deve Motor YMC #235mm/s	IOT	Develop	Output	093-001thru 93-003,93- 005, 093-006		On/Off
93-005-00	Deve Motor YMC #278mm/s	IOT	Develop	Output	093-001 thru 93-004, 093-006		On/Off
93-006-00	Deve Motor YMC #308mm/s	IOT	Develop	Output	93-001 , 93-002 thru 93- 005		On/Off
93-007-00	Deve Motor K #120mm/s	IOT	Develop	Output	93-008 thru 93-012		On/Off
93-008-00	Deve Motor K #150mm/s	IOT	Develop	Output	93-007,93-009 thru 93-012		On/Off
93-009-00	Deve Motor K #185mm/s	IOT	Develop	Output	93-007,93-008,93-010 thru 93-012		On/Off
93-010-00	Deve Motor K #235mm/s	IOT	Develop	Output	93-007 thru93-009 , 93-011,93-012		On/Off
93-011-00	Deve Motor K #278mm/s	IOT	Develop	Output	93-007 thru 93-010,93-012		On/Off
93-012-00	Deve Motor K #308mm/s	IOT	Develop	Output	93-007 thru93-011		On/Off
93-013-00	Deve Motor YMC #120mm/s	IOT	Develop	Output	93-014 thru 93-018		On/Off
93-014-00	Deve Motor YMC #150mm/s	IOT	Develop	Output	93-013, 93-015 thru 93-018		On/Off
93-015-00	Deve Motor YMC #185mm/s	IOT	Develop	Output	93-013,93-014, 93-016 thru 93-018		On/Off
93-016-00	Deve Motor YMC #235mm/s	IOT	Develop	Output	93-013 thru 93-015,93- 017,93-018		On/Off
93-017-00	Deve Motor YMC #278mm/s	IOT	Develop	Output	93-013 thru 93-016, 93-018		On/Off
93-018-00	Deve Motor YMC #308mm/s	IOT	Develop	Output	93-013 thru 93-017		On/Off
93-019-00	Deve Motor K #120mm/s -high	IOT	Develop	Output	93-020 thru 93-024		On/Off
93-020-00	Deve Motor K #150mm/s -high	IOT	Develop	Output	93-019, 93-021 thru 93-024		On/Off
93-021-00	Deve Motor K #185mm/s -high	IOT	Develop	Output	93-019,93-020, 93-022 thru 93-024		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
93-022-00	Deve Motor K #235mm/s -high	IOT	Develop	Output	93-019 thru 93-021,93- 023, 93-024		On/Off
93-023-00	Deve Motor K #278mm/s -high	IOT	Develop	Output	93-019 thru 93-022, 93- 024		On/Off
93-024-00	Deve Motor K #308mm/s -high	IOT	Develop	Output	93-019 thru 93-023		On/Off
93-025-00	Deve Bias DC Y #120mm/s	IOT	Develop	Output	93-029,93-033,93-037,93-041,93-045		On/Off
93-026-00	Deve Bias DC M #120mm/s	IOT	Develop	Output	93-030,93-034,93-038,93-042,93-046		On/Off
93-027-00	Deve Bias DC C #120mm/s	IOT	Develop	Output	93-031,93-035,93-039,93-043,93-047		On/Off
93-028-00	Deve Bias DC K #120mm/s	IOT	Develop	Output	93-032,93-036,93-040,93-044,93-048		On/Off
93-029-00	Deve Bias DC Y #150mm/s	IOT	Develop	Output	93-025,93-033,93-037,93-041,93-045		On/Off
93-030-00	Deve Bias DC M #150mm/s	IOT	Develop	Output	93-026,93-034,93-038,93-042,93-046		On/Off
93-031-00	Deve Bias DC C #150mm/s	IOT	Develop	Output	93-027,93-035,93-039,93-043,93-047		On/Off
93-032-00	Deve Bias DC K #150mm/s	IOT	Develop	Output	93-028,93-036,93-040,93-044,93-048		On/Off
93-033-00	Deve Bias DC Y #185mm/s	IOT	Develop	Output	93-025,93-029,93-037,93-041,93-045		On/Off
93-034-00	Deve Bias DC M #185mm/s	IOT	Develop	Output	93-026,93-030,93-038,93-042,93-046		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
93-035-00	Deve Bias DC C #185mm/s	IOT	Develop	Output	93-027,93-031,93-039,93-043,93-047		On/Off
93-036-00	Deve Bias DC K #185mm/s	IOT	Develop	Output	93-028,93-032,93-040,93-044,93-048		On/Off
93-037-00	Deve Bias DC Y #235mm/s	IOT	Develop	Output	93-025,93-029,93-033,93-041,93-045		On/Off
93-038-00	Deve Bias DC M #235mm/s	IOT	Develop	Output	93-026,93-030,93-034,93-042,93-046		On/Off
93-039-00	Deve Bias DC C #235mm/s	IOT	Develop	Output	93-027,93-031,93-035,93-043,93-047		On/Off
93-040-00	Deve Bias DC K #235mm/s	IOT	Develop	Output	93-028,93-032,93-036,93-044,93-048		On/Off
93-041-00	Deve Bias DC Y #278mm/s	IOT	Develop	Output	93-025,93-029,93-033,93-037,93-045		On/Off
93-042-00	Deve Bias DC M #278mm/s	IOT	Develop	Output	93-026,93-030,93-034,93-038,93-046		On/Off
93-043-00	Deve Bias DC C #278mm/s	IOT	Develop	Output	93-027,93-031,93-035,93-039,93-047		On/Off
93-044-00	Deve Bias DC K #278mm/s	IOT	Develop	Output	93-028,93-032,93-036,93-040,93-048		On/Off
93-045-00	Deve Bias DC Y #308mm/s	IOT	Develop	Output	93-025,93-029,93-033,93-037,93-041		On/Off
93-046-00	Deve Bias DC M #308mm/s	IOT	Develop	Output	93-026,93-030,93-034,93-038,93-042		On/Off
93-047-00	Deve Bias DC C #308mm/s	IOT	Develop	Output	93-027,93-031,93-035,93-039,93-043		On/Off
93-048-00	Deve Bias DC K #308mm/s	IOT	Develop	Output	93-028,93-032,93-036,93-040,93-044		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
93-049-00	Deve Bias AC Y #120mm/s	IOT	Develop	Output	93-053,93-057,93-061,93-065,93-069		On/Off
93-050-00	Deve Bias AC M #120mm/s	IOT	Develop	Output	93-054,93-058,93-062,93-066,93-070		On/Off
93-051-00	Deve Bias AC C #120mm/s	IOT	Develop	Output	93-055,93-059,93-063,93-067,93-071		On/Off
93-052-00	Deve Bias AC K #120mm/s	IOT	Develop	Output	93-056,93-060,93-064,93-068,93-072		On/Off
93-053-00	Deve Bias AC Y #150mm/s	IOT	Develop	Output	93-049,93-057,93-061,93-065,93-069		On/Off
93-054-00	Deve Bias AC M #150mm/s	IOT	Develop	Output	93-050,93-058,93-062,93-066,93-070		On/Off
93-055-00	Deve Bias AC C #150mm/s	IOT	Develop	Output	93-051,93-059,93-063,93-067,93-071		On/Off
93-056-00	Deve Bias AC K #150mm/s	IOT	Develop	Output	93-052,93-060,93-064,93-068,93-072		On/Off
93-057-00	Deve Bias AC Y #185mm/s	IOT	Develop	Output	93-049,93-053,93-061,93-065,93-069		On/Off
93-058-00	Deve Bias AC M #185mm/s	IOT	Develop	Output	93-050,93-054,93-062,93-066,93-070		On/Off
93-059-00	Deve Bias AC C #185mm/s	IOT	Develop	Output	93-051,93-055,93-063,93-067,93-071		On/Off
93-060-00	Deve Bias AC K #185mm/s	IOT	Develop	Output	93-052,93-056,93-064,93-068,93-072		On/Off
93-061-00	Deve Bias AC Y #235mm/s	IOT	Develop	Output	93-049,93-053,93-057,93-065,93-069		On/Off
93-062-00	Deve Bias AC M #235mm/s	IOT	Develop	Output	93-050,93-054,93-058,93-066,93-070		On/Off
93-063-00	Deve Bias AC C #235mm/s	IOT	Develop	Output	93-051,93-055,93-059,93-067,93-071		On/Off
93-064-00	Deve Bias AC K #235mm/s	IOT	Develop	Output	93-052,93-056,93-060,93-068,93-072		On/Off
93-065-00	Deve Bias AC Y #278mm/s	IOT	Develop	Output	93-049,93-053,93-057,93-061,93-069		On/Off
93-066-00	Deve Bias AC M #278mm/s	IOT	Develop	Output	93-050,93-054,93-058,93-062,93-070		On/Off
93-067-00	Deve Bias AC C #278mm/s	IOT	Develop	Output	93-051,93-055,93-059,93-063,93-071		On/Off
93-068-00	Deve Bias AC K #278mm/s	IOT	Develop	Output	93-052,93-056,93-060,93-064,93-072		On/Off
93-069-00	Deve Bias AC Y #308mm/s	IOT	Develop	Output	93-049,93-053,93-057,93-061,93-065		On/Off
93-070-00	Deve Bias AC M #308mm/s	IOT	Develop	Output	93-050,93-054,93-058,93-062,93-066		On/Off
93-071-00	Deve Bias AC C #308mm/s	IOT	Develop	Output	93-051,93-055,93-059,93-063,93-067		On/Off
93-072-00	Deve Bias AC K #308mm/s	IOT	Develop	Output	93-052,93-056,93-060,93-064,93-068		On/Off
94-001-00	2nd BTR Voltage	IOT	Develop	Output	94-002,94-003		
94-002-00	2nd BTR CLN Voltage	IOT	Develop	Output	94-001,94-003		
94-003-00	2nd BTR Current	IOT	Develop	Output	94-001,94-002		
94-004-00	1st BTR Current Y	IOT	Develop	Output			

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
94-005-00	1st BTR Current M	IOT	Develop	Output			
94-006-00	1st BTR Current C	IOT	Develop	Output			
94-007-00	1st BTR Current K	IOT	Develop	Output			
94-008-00	1st BTR Retract	IOT	Develop	Output	94-009,10-001 thru 10-006		On/Off
94-009-00	1st BTR Contact	IOT	Develop	Output	94-008,10-001 thru 10-006		On/Off
94-010-00	IBT MOT ON [120mm/s]	IOT	Develop	Output	94-011 thru 94-016,42-001 thru 42-006,91-007		On/Off
94-011-00	IBT MOT ON [155mm/s]	IOT	Develop	Output	94-010,94-012 thru 94- 016,42-001 thru 42-006,91- 007		On/Off
94-012-00	IBT MOT ON [185mm/s]	IOT	Develop	Output	94-010,94-011, 94-013 thru 94-016,42-001 thru 42- 006,91-007		On/Off
94-013-00	IBT MOT ON [233mm/s]	IOT	Develop	Output	94-010 thru 94-012 94-014 thru 94-016,42-001 thru 42- 006,91-007		On/Off
94-014-00	IBT MOT ON [255mm/s]	IOT	Develop	Output	94-010 thru 94-013, 94- 015,94-016,42-001 thru 42- 006,91-007		On/Off
94-015-00	IBT MOT ON [308mm/s]	IOT	Develop	Output	94-010 thru 94-014, 94- 016,42-001 thru 42-006,91- 007		On/Off
94-016-00	IBT MOT REVERSE ON	IOT	Develop	Output	94-010 thru 94-015,42-001 thru 42-006,91-007		On/Off

Chain Link	PWS / Diagnostic Name	Device	Module	Type	Multiple input/ output inhibition	Time Out	Display State
94-200-00	1st BTR ConRet Sensor	IOT	Develop	Input			High/ Low
94-201-00	POB Jam Sensor	IOT	Develop	Input			High/ Low

dC361 NVM Save and Restore

Purpose

Provides a method to capture the state of NVM to a file and write the NVM file back to the NVM device when desired.

Procedure

CAUTION: In this procedure it is important to follow the steps in order, read and understand all notes, and perform all actions correctly for each step. Failure to do so may result in saving an old and/or incorrect NVM file, then inadvertently reloading it when NVM is restored.

Note: The NVM Save and Restore process does not write or read directly from a USB drive to the NVM in the machine. Instead:

- For **NVM Save** , the NVM data files first are saved to the Hard Disk Drive, then, if necessary, they are transferred to the USB drive.
- For **NVM Restore** , when an AltBoot or Forced AltBoot has been performed, the files are first copied to the Hard Disk Drive from the USB drive, then written to the various NVM locations in the machine.

Note: Always save NVM data to a USB drive if you are going to perform an AltBoot or Forced AltBoot. Performing AltBoot or Forced AltBoot will delete all data from the Hard Disk Drive.

To Save NVM

1. Enter Service Diagnostic Mode.
2. If you are saving to a USB drive, connect the USB drive to one of the USB ports on the machine.
3. Select **Adjustments**.
4. Select **dc361 NVM Save and Restore...** . The **dC361 NVM Save and Restore** screen displays.

   Note: The top line represents the NVM data stored in the various locations in the machine. Subsequent lines represent the data stored on the Hard Disk Drive and USB drive. Each time NVM is saved to the Hard Disk Drive a new file is created on the Hard Disk Drive. Each file shows up as a separate line in the window and each has a unique date and time. Unless the Hard Disk Drive is replaced, or an AltBoot or Forced AltBoot is performed, these files will remain and be listed each time dc361 is accessed. The USB Device lines are always listed at the bottom.
5. Touch the **Machine NVM** line. A popup menu will open.
6. Select **Save To Hard Drive** from the popup menu.

   A screen with a progress bar will display and the NVM data will be saved to the Hard Drive immediately. No confirmation popup will display.
7. New line(s) will be added to the screen in date and time order.
8. If it is necessary to copy the NVM files to a USB drive, touch the **Hard Drive** line from the save you just made. A popup menu will open.
9. Select **Copy To USB Device** from the popup menu.

   A screen with a progress bar will display and the NVM data will be saved to the USB device immediately. No confirmation popup will display.

To Restore NVM

1. Enter Service Diagnostic Mode.
2. If you are restoring from a USB drive, connect your USB Drive to a USB port on the machine.
3. Select **Adjustments**.
4. Select **dc361 NVM Save and Restore...** . The **dC361 NVM Save and Restore** screen displays.

   Note: The top line represents the NVM data stored in the various locations in the machine. Subsequent lines represent the data stored on the Hard Disk Drive and USB drive. Each time NVM is saved to the Hard Disk Drive a new file is created on the Hard Disk Drive. Each file shows up as a separate line in the window and each has a unique date and time. Unless the Hard Disk Drive is replaced, or an AltBoot or Forced AltBoot is performed, these files will remain and be listed each time dc361 is accessed. The USB Device lines are always listed at the bottom.
5. If you are restoring from the Hard Disk Drive only, skip to step 9.
6. Touch the **USB Device** line. A popup menu will open.
7. Select **Save To Hard Drive** from the popup menu.
8. New line(s) may be added to the screen in date and time order.
9. Touch the **Hard Drive** line corresponding to either the save made previously or to the copy just made from the USB drive. A popup menu will open.
10. Select **Restore Machine NVM** from the popup menu.

    Note: You must switch power off and on before the restored data will be available to the machine.

dC363 EEPROM Backup and Restore…

Purpose

To Backup or Restore EEPROM for Scanner or Print Engine.

Backup

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC363 EEPROM Backup and Restore**….
4. Select Sub System: **Scanner** or **Print Engine**
5. Select **Backup**.
6. Wait for the process to complete, then select **X** to close.

Restore

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC363 EEPROM Backup and Restore**….
4. Select Sub System: **Scanner** or **Print Engine**
5. Select the Backed-up file to restore.
6. Select **Restore**.
7. Wait for the process to complete, then select **X** to close.

dC527 DADF Size Detection...

Purpose

For DADF Size Detection.

1. Service Diagnostic Mode
2. Select **Adjustments**.
3. Select **dC527 DADF Size Detection...**…..
4. Follow the on-screen instructions.

dC603 Image Size Adjustment

Purpose

The purpose of the dc603 Image Size Adjustment is to compensate for minor variations in machine speed which result in process direction elongation or compression of the image placed on the media. Compensation of image size offset in the process direction is approximately +/- 1.0mm over a 200mm length on the test pattern image.

For instructions, refer to ADJ 90.18 .

dC608 Document Feeder Registration Automatic Adjustment

Purpose

This feature checks the registration of the document feeder and corrects misalignments. The process runs automatically. The only user intervention that is required is inserting six blank sheets in the document feeder.

For instructions, refer to ADJ 5.5.

dC609 Document Glass Registration Automatic Adjustment

Purpose

This feature checks the registration of the document glass and corrects any misalignments. The process runs automatically and does not require any user intervention other than keeping the document feeder open during the operation.

For instructions, refer to ADJ 60.7.

dC612 Print Test Pattern

Purpose

Prints the built-in test patterns to help identify Image Quality problems.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Diagnostics**.
3. Select **dC612 Print Test Pattern....**
4. Select a pattern from the **Test Patterns** menu.

   Note: Not all of the following parameters are applicable to all test patterns, and some test patterns require a specific set of parameters. Refer to Table 1, below.

5. Press the **Color Mode** button and select the color mode.
6. Press the Tray button and select the paper tray to be used.

   Note: If you open a paper tray to check/change the paper size, a **Paper Settings - Tray X** screen should appear. Select **Confirm** to continue. If this screen does not appear, you must exit and then reenter diagnostics in order to continue with the procedure.

   Note: On the **Plex Mode** menu, only Simplex is available. Duplex is not an available option and is "grayed out".

7. Select the number of **Copies** (prints) to be made.
8. Select **Start**.

CAUTION: Test Pattern 5 (16 Tone PG) will cause print deletions if run in 4 color mode. Test Pattern 9 (Full Halftone) will cause print jams if run in 3 or 4 color mode. These patterns should be run in a single color only.

Table 1 Test Patterns

#	Description	Paper Size	Color Mode
1	Grid 45deg	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
2	Grid 90deg 20mm density 4	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
3	Grid(90deg) Side 1 and 2	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
4	ProCon PG	11x17/A3, 8.5x11/A4	4C
5	16 Tone PG	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B

#	Description	Paper Size	Color Mode
6	ADC check	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
7	TP-Life	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
8	TED Starvation check	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
9	Full Halftone	11x17/A3, 8.5x11/A4	Y, M, C, K, G, R, B
10	IN-OUT adjust (Primary)	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
11	IN-OUT adjust (Secondary)	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
12	IN-OUT adjustment	8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
13	Adjustment in SS direction(YC)	11x17/A3, 8.5x11/A4	Y, M, C, K, G, R, B
14	Adjustment in SS direction(MK)	11x17/A3, 8.5x11/A4	Y, M, C, K, G, R, B
15	Drum-space Halftone	11x17/A3, 8.5x11/A4	4C
16	LPH streak adj chart (IOT mounted)	11x17/A3, 8.5x11/A4	4C
17	LPH streak adj chart (LPH mounted)	11x17/A3, 8.5x11/A4	4C
18	LPH streak adj chart 2 (LPH implement...	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
19	X talk Test Chart (Failure Analysis)	11x17/A3, 8.5x11/A4	4C
20	Banding	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
21	Ladder Halftone pattern	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
22	Calibrate for Paper Setup	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
23	Custom Paper Type Adjust	11x17/A3	4C, 3C, Y, M, C, K, G, R, B
24	Transfer RGB Chart	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
25	TMA Measurement Chart(A4LEF)	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
26	Grid (fold position adjustment)	11x17/A3, 8.5x11/A4	4C, 3C, Y, M, C, K, G, R, B
27	DrumPitch HT/Full HT/Procon PG	11x17/A3	4C, M, C, K, G
28	DrumPitch HT/Full HT CMYK	11x17/A3, 8.5x11/A4	4C, Y, M, C, K
29	DrumPitch HT/Full HT M	11x17/A3, 8.5x11/A4	4C, M
30	Controller Test Pattern	N/A	4C

dC671 Measurement Cycle

Purpose

This procedure checks and adjusts color registration.

- Performs measurement to determine the condition of the registration control.
- Checks that the Belt Control, etc., operate normally.
- Measures/displays the amount of color shift relative to Black in the Fast Scan/Slow Scan direction.
- Displays the results as either **ok** or **ng**.

For instructions, refer to ADJ 90.9.

dC673 Registration Control Sensor Check

Purpose

This is a self-diagnostic cycle for checking that the registration detection system is operating normally. Color shift is detected using a Cyan patch. Any misregistration detected in the MOB sensor is displayed on the UI screen. This result is compared with the target value to determine the **ok** or **ng** status. Correction is not performed.

For instructions, refer to ADJ 90.11.

dC675 Registration Control Setup

Purpose

This is a setup procedure to be used after replacement of key marking module components such as the IBT Assembly, LPHs, Drum Cartridges, etc. It can also be used as part of a troubleshooting process.

For instructions, refer to ADJ 90.10.

dC710 No Paper Run

Purpose

This routine operates all of the media feed and transport functions without actually feeding media to enable examination of the subsystem operation.

Note: Even though no paper is fed, Tray 1 must be loaded with 8.5 x 11 or A4 paper in order to run this routine.

If you open a paper tray to check/change the paper size, a **Paper Settings - Tray X** screen should appear. Select **Confirm** to continue. If this screen does not appear, you must exit and then re-enter diagnostics in order to continue with the procedure.

Procedure

1. Enter the Service Diagnostic Mode.
2. Select **Maintenance**.
3. Select **dC710 No Paper Run....**
4. Select **Color Mode** (**Color** or **Fast Black**).
5. Enter the number (1 - 99) of simulated print cycles you wish to run. Select **Start** to activate the routine.
6. Select **Stop** to halt the routine.

dC740 MSI Side Guide Adjustment

Purpose

This procedure calibrates the paper size detection circuits for the MSI (Tray 5). It should be performed when the MSI size sensor is replaced or a size detection error occurs

Procedure

1. Enter the Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC740 MSI Side Guide Adjustment**....
4. Follow the on-screen instructions.

dC919 Color Balance Adjustment

Purpose

This procedure enables fine adjustment of the center value of the low density/medium density/high density output balance for each color for copy images.

Note: This procedure has no effect on printing output.

CAUTION: Do not run this procedure unless strongly requested to by the customer.

Ensure that the customer understands that when this procedure is completed, color balance for the Copy function will be permanently altered and can only be reset back to defaults or to previous settings by a CSE.

Refer to ADJ 90.12 for instructions.

dC924 TRC Manual Adjustment

Purpose

This procedure allows you to perform a manual density adjustment. It sets an offset amount of the ADC-LUT created by the ADC patch to finely adjust the gradation.

Note: This procedure affects both copy and print output.

CAUTION: Do not run this procedure unless strongly requested to by the customer.

Ensure that the customer understands that when this procedure is completed, color balance for both the Copy and the Print functions will be permanently altered and can only be reset back to defaults or to previous settings by a CSE.

Refer to ADJ 90.13 for instructions.

dC931 Input / Output Manual Setup…

Purpose

To Backup or Restore EEPROM for Scanner or Print Engine.

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC931 Input / Output Manual Setup**….

dC937 ProCon On/Off Print

Purpose

This procedure prints out the Process Control Test Pattern in two different modes. The comparison between the two prints can help isolate process control-related image quality problems.

Refer to ADJ 90.3 for instructions.

dC945 IIT Calibration

Purpose

This procedure sets the following:.

- White Reference Correction Coefficient.
- IIT sensitivity dispersion (LED Calibration).
- Platen-to-Lens-to-LED alignment (Optical Axis).

For instructions, refer to ADJ 60.5.

dC949 ATC Developer Setup

Purpose

Immediately after the replacement of a Developer Housing with known toner density, this sets the ATC Target Value by having the ATC Sensor measure the toner density of the developer. This can also work as the check function of the ATC Sensor.

Refer to ADJ 90.8 for instructions.

dC950 ATC Sensor

Purpose

To set the calibration values [ATC Correction Coefficient], [ATC Correction Offset] in NVM to calibrate the new ATC Sensor

Refer to ADJ 90.7 for instructions.

dC991 Tone Up/Tone Down

Purpose

This procedure compares measured toner concentration (TC) against a target, and allows manual adjustment of TC.

Refer to ADJ 90.14 for instructions.

dC1215 Calibrate for Paper

Purpose

Adjusts the 2nd Image Transfer Power output (ATVC) to compensate for thick or specialty media. **dC1215** is used to correct the following types of defects on simplex and duplex prints:

- Low density
- Foggy background
- Voids
- White spots

For instructions, refer to ADJ 9.17.

GP 1 FAX PWB Internal Selftest

Procedure

Note: The Fax PWB must be installed.

1. Insert a document in the DADF or place one on the glass.
2. Select **Fax > Add Recipient > Manual Entry**.
3. Enter 0000 as the phone number on the Enter Recipient screen, then select **Add**.
4. Select **Send** . The machine will scan the document.
5. The scanned image(s) is received by the Fax PWB from the SBC PWB. The Fax PWB sends it back to the SBC PWB, which then sends it to the IOT to print the scanned image.

This is a closed loop test. It does not check the phone line. It does prove that the image path in the machine is working correctly. You should end up with a copy of the scanned document with a fax header on the page. It also will print a Transmission (Confirmation) Report if this feature is enabled in Tools (refer to the Faxing chapter in the **System Administrator Guide**).

For additional Fax testing, refer to GP 14 External Fax Line Test.

GP 2 Accessing Tools

The Tools menu has three levels of access: User (walk-up), Administrator, and CSE. User mode offers copy and print color calibration adjustments; Administrator mode offers a more comprehensive suite of options; and CSE mode offers a limited set of Administrator options. CSE mode is available if the Administrator user name and passcode are not at the default, and the Administrator is not available to enter the code.

Accessing Tools as Administrator

1. Press the **Log In** button on the UI.
2. Enter the Administrator User Name (default is **admin**) and select **Next**.
3. Enter the Administrator passcode (default is **the Machine Serial Number**) and select **Done**. **Admin** appears in the upper left corner of the screen.

   Note: Administrator mode remains active until the **Admin** button is pressed or the session times out. When finished, always log out of Administrator mode by pressing the **Admin** button and confirming log out.
4. Select the **Device** icon on the UI.
5. Select **Tools** . The Tools menu appears.

   On the left side of the screen are several buttons for the categories of features (such as **Device Settings**, **App Settings** , etc.).

   Within each category are groups of features (such as **General...**, **Paper Management...** , etc.). Each group contains one or more features (such as **Energy Saver...**, **Date and Time...** , etc.).
6. Select the category, then the group, then the feature.

Accessing Tools as CSE

If administrator credentials are unknown, log in as a CSE.

1. Press and hold the **Home** button on the UI for about 7 seconds, then release it.

   The Login screen displays.
2. On the Login screen, enter the Passcode **2732** , then select **OK**.

   The Service Copy mode opens. A **CSE** (log out) button appears in the upper left corner of the display.

   Note: CSE Service Copy mode remains active until the **CSE** button is pressed or the session times out. When finished with Tools, always log out of CSE Service Copy mode by pressing the **CSE** button and confirming logout.

1. Select the **Device** icon on the UI.
2. Select **Tools** . The Tools menu appears.

On the left side of the screen are several buttons for the categories of features (such as **Device Settings**, **Network Settings** , etc.).

Within each category are groups of features (such as **General...**, **Paper Management...** , etc.). Each group contains one or more features (such as **Energy Saver...**, **Date and Time...** , etc.).

3. Select the category, then the group, then the feature.

Note: The Tools available in CSE mode are a subset of those available in Administrator mode.

GP 3 Controller Boot Sequence

Sequence

From the instant the Power button is pressed, the on-screen indications of a normal bootup are:

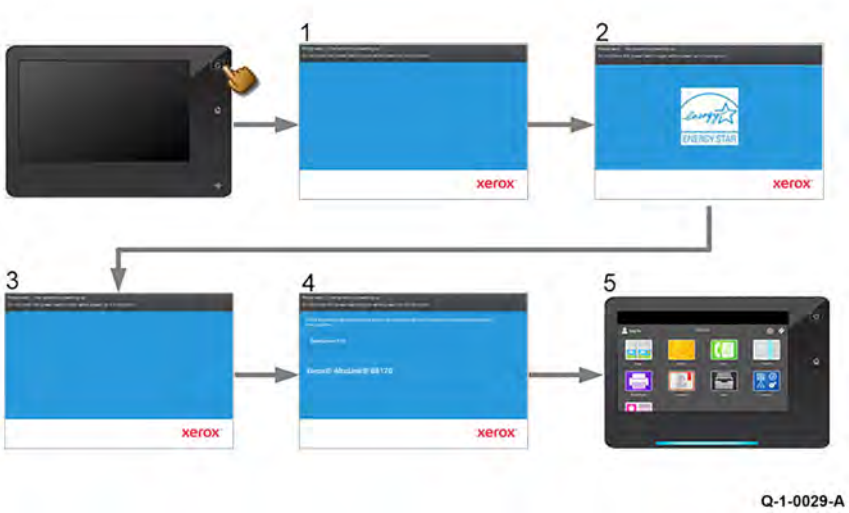


Figure 1

1. The Xerox splash screen displays before five seconds elapse.
2. The Energy Star logo screen displays at about 35 seconds.
3. The Trademark screen, with a static ribbon, displays at about 50 seconds.
4. The ribbon animates at about one minute. The Product and Software Version display about 20 seconds later.
5. The Product and Software Version display at about 1 minute 20 seconds.
6. The Home screen displays after about one and one-half minutes.

A Configuration Report, if enabled prints at about two minutes.

GP 4 Power the System Off/On

Power the System Off

1. Press the UI Power Button.
2. Select **Power Off** on the menu that displays.
3. Select **Power Off** on the confirmation screen that asks, "Are you sure you want to power off the device?"

CAUTION: Be sure to observe the precautions which display on the UI while the machine powers off.

4. Wait for the pulsing Power Button LED to turn off, then switch off the Main Power Switch.

Power the System On

1. Move the Main Power Switch to the ON position.
2. Press the Power Button on the UI.
3. Observe the message area at the top left of the UI screen as the machine boots up.

   The message "Ready to start a new session." will display at the completion of the power up and boot processes.

GP 5 Image Quality Calibration

This procedure details the method by which CSEs can restore print and copy image calibration to factory settings.

Procedure

Note: It is not necessary to enter SA mode (log in) in order to perform this procedure.

1. Select the **Device** icon on the UI.
2. Select **Tools**.
3. Select **Troubleshooting > Calibration**.
4. Perform the following to restore factory default settings:
   a. Select **Reset Copy Calibration**
   b. Select **Next**
   c. Close the **Calibration Compete** window when it appears
   d. Select **Reset Print Calibration**.
   e. Select **Next**
   f. Close the **Calibration Compete** window when it appears
   g. Select **Reset Color Matching**.
   h. Select **Next**
   i. Close the **Reset Color Matching** window when it appears
5. Go to ADJ 90.16 Max Setup and perform the adjustment.

GP 6 Printing Configuration Reports

Purpose

This procedure describes the procedure for accessing Configuration Reports.

Procedure

A Configuration Report can be produced in three ways:

1. Switching power off then on (if configured).
2. Through use of Embedded Web Server (refer to the User Guide or the System Administrator Guide for more information).
3. From the local UI:

   Note: It is not necessary to enter SA mode (log in) in order to perform this procedure.

   - Select the **Device** icon on the UI.
   - Select **Information Pages**.
   - Select **Configuration Report** and press **Print**.

GP 7 Network Printing Simulation

Purpose

This procedure details a method of troubleshooting network printing problems using a PWS directly connected to the printer with a network crossover Ethernet cable.

Prerequisites

- Crossover Ethernet cable and a PWS equipped with a network interface card.
- Clear Internet Explorer proxy settings.
- User software CD or printer driver files downloaded and extracted to a folder on the PWS.

Clear Internet Explorer Proxy Settings

The following steps will ensure that the Proxy Server settings are correct.

1. Open **Internet Explorer.**
2. Select **Tools - Internet Options...**.
3. Select the **Connections** Tab.
4. Select the **LAN Settings...** box.

   Note: Make a note of the current settings on this screen. At the end of the Network Printing Simulation, you will restore these settings on your PWS.

5. Ensure that the **Automatically detect settings** radio button is **checked** and the **Use automatic configuration script** radio button is **un-checked**.
6. Ensure that the **Use a proxy server for your LAN** box is **un-checked**.
7. Select **OK** to close the **Local Area Network (LAN) Settings** window.
8. Select **OK** to close the **Internet Options** window.
9. Close **Internet Explorer**.

Windows Connection Procedure

Note: Clear Internet Explorer proxy settings.

1. Print a Configuration Report. Refer to GP 6 Printing Configuration Reports.
2. Configure the PWS IP Address:

   a. Click on the Windows **Start** button.

   b. Select **Control Panel**.

   c. Select **(Network and Internet) Network and Sharing Center** .

d. On the left Windows pane, Select **Change Adapter Settings**.

e. Right click on **Local Area Connection** and select **Properties**.

f. Select the **Networking** tab and scroll down to **Internet Protocol Version 4 (TCP/IPv4)** . Highlight **Internet Protocol Version 4 (TCP/IPv4)** and select **Properties**.

> **Note:** Make a note of the current settings on this screen. At the end of the Network Printing Simulation, you will restore these settings on your PWS.

g. Select the **Use the following IP address** radio button.

h. Enter an IP address one digit different than the machine IP address listed on the Configuration Report (ex., if the machine IP address is 12.138.147.44, enter 12.138.147.45 or 12.138.147.43).

i. Enter **255.255.255.0** for Subnet mask.

j. Select **OK**.

k. Select **Close** on the **Local Area Connection Properties** window.

l. Close the **Network Connections** window.

3. Connect the PWS directly to the printer with a crossover Ethernet Cable.
4. Click the Windows **Start** button.
5. Select **Control Panel** , then (when View by: is Large or Small icons) select **Devices and Printers**.
6. Select **Add a printer**.
7. Select **The printer I want isn't listed**

   On the **Add Printer** screen, select **Add a local printer or network printer with manual settings** , then select**Next**.
8. When the **Add Printer** screen asks you to select a printer port, select **Create a new port:** . In the **Type of port:** menu, select **Standard TCP/IP Port** , then click **Next**.
9. At the **Type a printer hostname or IP address** screen, enter the printer's IP address (on the Configuration Report). Click **Next**.
10. If the printer driver was previously loaded on the PWS, you will be asked which version of the driver you want to use. Select **Use the driver that is currently installed (recommended)** and click **Next** . Otherwise, click **Have Disk** . Print Drivers can be found on the customer's User Software CD or downloaded from the UI via Web Tools or Xerox Website. Navigate to the CD or downloaded driver for your PWS' operating system. Click **OK**.
11. On the **Type a printer name** screen, the printer name will appear in the text box. Click **Next**.
12. On the **Printer Sharing** screen, select **Do not share...** , then select **Next**.
13. Click the **Print a test page** button. A message will appear saying that a test page has been sent to the printer. Printing of the test page indicates a functioning network connection.
14. Upon successful completion of the test print, press **Close** , then **Finish**.
15. Restore the original IE Proxy settings and Local Area Connection Properties settings.

GP 8 Speed Kit Enablement

Purpose

To provide information about the process to follow when the Speed Enablement Kit is missing during machine installation. The Initialization Kit is missing and the machine has not been recorded as installed.

If the Speed Pin is needed after the machine has been recorded as installed, go to the **SWAP Website** https://www.xeroxlicensing.xerox.com/fik/ for the Speed Pin.

If a Speed Enablement code has been previously generated, it will be displayed on the screen. Follow GP 17 How to Re-Enter Optional Feature Installation Keys.

Due to control of the machine speed, the Speed Enablement Kit, which contains the Speed Pin, will not be supported in spares as a standard spare part. The Speed Enablement Kit is supplied as part of the Initialization Kit, Speed Badge, CDs, Customer Documentation and Install Instructions. See Table 1 for the Initialization Kit part numbers

Table 1 Initialization Kits

Initialization Kit	Part Number	OPCO
AltaLink C8130 Initialization Kit	097S05032	Americas
AltaLink C8135 Initialization Kit	097S05035	Americas
AltaLink C8145 Initialization Kit	097S05034	Americas
AltaLink C8155 Initialization Kit	097S05036	Americas
AltaLink C8170 Initialization Kit	097S05037	Americas
AltaLink C8130 Initialization Kit BIM	097S05038	Americas
AltaLink C8135 Initialization Kit BIM	097S05039	Americas
AltaLink C8145 Initialization Kit BIM	097S05057	Americas
AltaLink C8155 Initialization Kit BIM	097S05040	Americas
AltaLink C8170 Initialization Kit BIM	097S05041	Americas
AltaLink C8130 Initialization Kit	097S05042	EMEA - E
AltaLink C8135 Initialization Kit	097S05043	EMEA - E
AltaLink C8145 Initialization Kit	097S05044	EMEA - E
AltaLink C8155 Initialization Kit	097S05045	EMEA - E
AltaLink C8170 Initialization Kit	097S05046	EMEA - E
AltaLink C8130 Initialization Kit BIM /PP	097S05047	EMEA
AltaLink C8135 Initialization Kit BIM /PP	097S05048	EMEA
AltaLink C8145 Initialization Kit BIM /PP	097S05049	EMEA
AltaLink C8155 Initialization Kit BIM /PP	097S05050	EMEA
AltaLink C8170 Initialization Kit BIM /PP	097S05051	EMEA

Procedure (If you do not have the Speed Enablement Kit)

Perform one of the following:

- **US:** The Speed Enablement Kit replacement is a part of the Product Coded Initialization Kit and must be ordered using the DOA (Dead on Arrival) or IDR (Identical Replacement) tools

  If a replacement is needed at the time of install and the equipment has not been recorded as installed yet, use the DOA tool to order the Initialization Kit accessory only. The DOA should be requested to be shipped via air to ensure timely delivery.

- **Authorized Service Provider:** Please use this link to order a Speed Enablement Kit https://www.office.xerox.com/partners/productreplacementform/index.cfm

  In the Box Description of technical problem and any steps taken to resolve, enter, Speed Enablement Kit request. In the Box Options, Speed Enablement Kit. Under **Reason for Return**, select **Other** and enter **Speed Enablement Kit** in the comments section.

- **Xerox Business Solution (XBS):** - Replacement Speed Kit for XBS Field Service should be ordered as product coded Initialization Kit via the standard Returned Goods Equipment Spares Consumables XBS Process Guide (Version 2011.05.16).

- **Canada:** For the Speed Enablement Kit replacement process. Please contact the Local OTI Delivery Analyst.

- **LATAM (Latin America):** Log a complaint request in the system PNP. ISC STW (Integrated Supply Chain Service Team West) will handle the complaint and arrange shipment.

- **XE:** For Speed Enablement Kit replacements. Follow the standard product replacement process (DOA/TEX) for the relevant part number.

- **EMEA — E:** Log a complaint in the system PNP. ISC STE (Integrated Supply Chain Service Team East) will handle the complaint and arrange shipment.

GP 9 Installing System Software

Preparation

CAUTION: The AltBoot procedure may delete all stored data on the System Disk Drive, including e-mail addresses, Xerox Standard Accounting data, and network configuration information. If possible, clone the machine (GP 13) and back up customer settings (GP 12) before performing AltBoot. If the machine failure is such that a Back-up and Restore cannot be performed, notify the customer that data will be lost.

Perform the following, if possible:

1. Save NVM to a USB drive. (dC361)
2. Print a Configuration Report. (GP 6)
3. Clone the network configuration. (GP 13)
4. Create a backup file of customer settings. (GP 12)

Purpose

This procedure provides installation instructions for upgrading, downgrading, or restoring system software. This procedure provides installation instructions for upgrading, downgrading, or restoring system software:

- Loading Software Using a USB Flash Drive
- Embedded Web Server (EWS) upgrade using the network
- AltBoot Software Loading using a USB Flash Drive
- PWS AltBoot Procedure using PWS Altboot tools
- Fleet Orchestrator

Additional software installation options are available using EWS when software updates are enabled. Customers can upload system software using EWS or they can configure EWS to monitor an FTP site and automatically upgrade when a newer version is detected. Table 1 lists the available software installation procedures and their effects on each module.

Note: If a newly installed component has a different version of software than the software set that is on the SBC PWB, the software on the new component may be upgrade or downgraded at system startup.

Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

Table 1 Software Loading Options

		Phase 1 - BIOS / Flash Update			Phase 2 - Platform Upgrade											
Software Platform (Upgrade Screen)	Procedure Overview	"Flash Update in process"			Network Controller	Copy Controller					UI	Scanner		Feeder	Marking Engine	Finisher
Platform Components		OS kernel & FPGAs	SW Upgrade	BIOS	Network Controller	Fax	Copy Controller	UI Application	OS	OS kernel & FPGAs	UI Panel Firmware	IIT Apps	DADH	HCF	IOT	Finisher
POST Code	Failure code that may persist on controller diagnostic display after an upgrade failure.	u		5	C	F	d	A	u	u	A	b			E	
HW Location	Physical location of the software component	Disk Drive		SBC PWB	Disk Drive						UI PWB	SBC PWB	DADH PWB	HCF PWB	MCU PWB (MSO-C)	Finisher PWB
Normal USB Upgrade *recommended CSE method…customer data should always be preserved"	DLM file placed in "Upgrade" folder on a USB drive and inserted after the machine is fully booted. - Machine must be Online - USB Ports must be Enabled - Software Upgrade must be enabled - Uses smaller 'differential" DLM (only changes from Launch DLM)	Version Check: Upgrade Downgrade	Version Check: Upgrade Downgrade	Version Check: Upgrade Downgrade	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Upgrade / Downgrade / Reload	Version Check: Upgrade Only	Version Check: Upgrade Only	Version Check: Upgrade Only	Version Check: Upgrade Only
Customer Manual Upgrade via **EWS**	DLM file is loaded through CWIS Properties -> General Setup -> Machine Software -> Manual Upgrade - Machine must be Online - Software Upgrade must be enabled - Uses smaller 'differential" DLM (only changes from Launch DLM)															
SWUP Utility	DLM file is loaded through SWUP utility - Machine must be Online															

	- Uses smaller 'differential" DLM (only changes from Launch DLM)															
Customer Automatic FTP Upgrade	DLM file is placed on an FTP server and CWIS is configured (Properties -> General Setup -> Machine Software -> Auto Upgrade) to periodically check the FTP site for updated SW. - Machine must be Online - Software Upgrade must be enabled - Uses smaller 'differential" DLM (only changes from Launch DLM)															
Remote Services	New major SW releases are automatically pushed to connected machines. - Machine must be Online - Software Upgrade via Remote Services must be enabled with device communitating with Xerox. - Uses smaller 'differential" DLM (only changes from Launch DLM)															
Customer Fleet Orchestrator Upgrade	Contents of the different platform behaviors (upgrade/downgrade/reload) is same as all customer upgrades (EWS/ Normal USB upgrade/Etc).															
Automatic Power On Software Upgrade (POSU)	At every power on, they system automatically checks the current version of components and compares with the copy retained on the Hard Disk. Supported platforms will be upgraded / downgraded if a mismatch exists. [can occur after certain parts replacement or Normal Altboot] - Machine must be Online - Auto power on upgrade will not occur if install phase (616-	none	none	none	none	none	none	none	none	none	Upgrade / Downgrade	Upgrade / Downgrade	None	Upgrade	Upgrade	Upgrade

	14) is set to manufacturing (0) or customer install (2)															
USB AltBoot	DLM file placed in "Altboot" folder on a USB drive and inserted prior to powering on the machine. - Customer data/configuration should be retained. As a precaution, create, or have customer create, a Backup file through EWS (GP 12). - "Revert to Previous Settings" file is automatically created and is automatically restored. - USB Port must be Enabled - Uses full sized ALTBOOT DLM - Add file called "DISABLE_DATA_BACKUP" (case sensitive with no file extension) to altboot folder to prevent most data saving (Fax NVM, Revert Previous Settings, Network controller configurations) **Special Altboot:** Add Product / Version specific "EFI" folder that contains associated USB boot files if disk drive or SBC is replaced or if the disk drive files have become corrupted. Launch DLM Recovery patch is required following 'Special Altboot' to restore the Launch DLM to the disk drive.	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	None	After Altboot, POSU may occur if version mismatch exists.	None	After Altboot, POSU may occur if version mismatch exists.	After Altboot, POSU may occur if version mismatch exists.	After Altboot, POSU may occur if version mismatch exists.

Forced USB Altboot **Method used for failed SW Upgrade recovery	DLM file placed in "Altboot" folder on a USB drive, along with a file called "FORCED_UPGRADE" (case sensitive with no file extension) and inserted prior to powering on the machine. - USB Ports must be Enabled - Customer data/configuration should be retained. As a precaution, create, or have customer create, a Backup file through EWS (GP 12). - "Revert to Previous Settings" file is automatically created, but it is NOT automatically restored. Restore customer settings via Tools (Device -> Login (login as admin) -> Tools -> General > Revert To Previous Settings) - Add file called "DISABLE_DATA_BACKUP" (case sensitive with no file extension) to altboot folder to prevent any data saving (Fax NVM, Revert Previous Settings, Network controller configurations) **Special Altboot:** Add Product / Version specific "EFI" folder that contains associated USB boot files if disk drive or SBC is replaced or if the disk drive files have become corrupted. Launch DLM Recovery patch is required following 'Special Altboot' to restore the Launch DLM to the disk drive.	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload	Upgrade Downgrade Reload

Description

System software sets are compilations of software modules and a software compatibility database (SCD). The SCD lists software versions suitable for the system and its installed options. System software is supplied as a .dlm file.

Two versions of the software DLM file will be provided.

1. The Full-sized Altboot versions of the software upgrade DLM files will only be made available on GSN for Service to use during Altboot upgrades.

   example: XeroxAltaLink_X81XX_ALTBOOT_system-sw#1xx.xxx.xxx.xxxxx#ENG_MOD.DLM

   - Product Type: AltaLink
   - Product Numer: X8XXX_xx
   - DLM: ALTBOOT_DLM

   CAUTION

   Do not attempt to open this file. Attempting to open the file may corrupt it, making it unusable.

   Note: The Altboot DLM can be used even when the Launch DLM is missing from storage drive.

2. The smaller Thin/BDC DLM files only contain changes from the base launch software that resides on the storage drive (referred to as Launch DLM) for all other customer upgrade types.

   example: XeroxAltaLink_X81XX_XX_ system-sw#1xx.xxx.xxx.xxxxx#ENG_MOD.DLM

   - If the Launch DLM is missing from the drive, the BDC upgrade will fail and the launch DLM recovery patch (LDRP) will be required.
   - Obtain the correct (LDRP) patch for the machine you are upgrading at GSN Library 16910 or 500 for Approved Service Providers.
   - Version number is a numeric series to identify product, version, and release dat
   - Optional Text may or may not appear in the file name.

CAUTION: The software will not load if no pound (#) signs appear in the file name.

Note: Software version information appears in **Service Information > dC108** in service mode.

Note: If the screen displays the message **The device is in a non-customer mode** after completing Power On, the POSU (Power On Software Upgrade) will not be performed. In this case it will be necessary to perform GP 29 to restore the machine to customer mode so that POSU can complete successfully. If the Billing Counters have been lost, follow GP 21 to report Billing Meter reset.

At Power On, the system checks the version information for each installed module and compares it to locally stored SCDs. If a mismatch is detected, an automatic upgrade (POSU) or downgrade of the affected module is initiated to correct the mismatch.

Software Installation Procedures

Note: Depending on the procedure used, the software installation could require up to 60 minutes. If the installation fails, go to the Machine Not Ready RAP OF1.

Installing the system software requires:

- That the system be fully operational, if possible. Correct any active faults or jams.
- Obtain a Xerox-approved USB Flash drive with a minimum capacity of 1GB.
- Check the software level on the machine.
- Download the latest .dlm file from GSN library 16910 or xerox.com

Software Upgrade Installation

Two software upgrade procedures are described:

- Loading Software Using a USB Flash Drive
- Embedded Web Server (EWS) upgrade using the network
- AltBoot Software Loading using a USB Flash Drive
- PWS AltBoot Procedure using PWS Altboot tools
- Fleet Orchestrator

Loading Software Using a USB Flash Drive

1. Either allow all pending print jobs to finish or delete them. If the print jobs cannot be deleted, inform the customer that all pending jobs will be lost.
2. Check the Release Notes and the currently loaded software. Ensure that the upgrades can be applied.

   Note: Before inserting the USB drive, ensure the machine is in a Ready state.

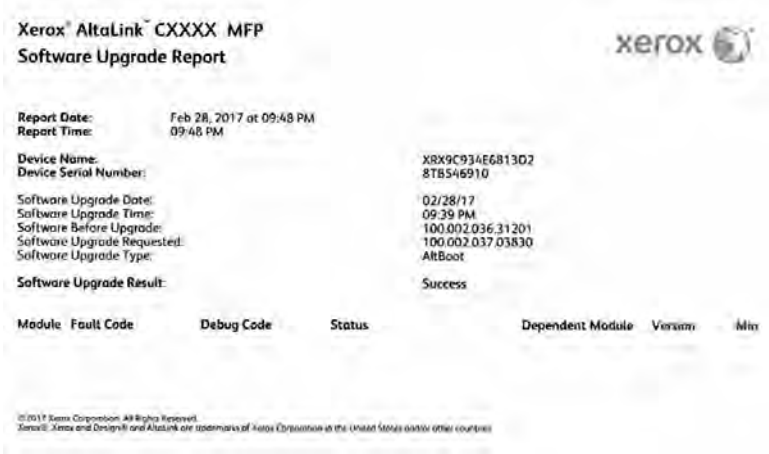
3. Enable SW Upgrade via UI Tools or the EWS.
4. Connect the USB Flash drive containing the .dlm file to any one of the USB ports.

   Note: It is not necessary to switch off the system to perform a software upgrade.

   Note: If the USB Flash drive is not compatible with the system, replace it with a Xerox approved model, then restart the process.

5. Select **Install File** on the USB Drive Detected popup, then browse for and select the .dlm file. The upgrade will start.

6. Do not remove the USB drive until the message **Software upgrade is completed** displays on the UI.
7. The system upgrade process may take up to 60 minutes to complete.
8. If the process fails, use a Forced AltBoot procedure to recover.
9. The system reboots several times before returning to a ready state.
10. After the software has upgraded, a software upgrade report prints. (Figure 1)


Xerox® AltaLink® CXXXX MFP
Software Upgrade Report

xerox

Report Date: Feb 28, 2017 at 09:48 PM
Report Time: 09:48 PM

Device Name: XRX9C934E6813D2
Device Serial Number: 8TB546910

Software Upgrade Date: 02/28/17
Software Upgrade Time: 09:39 PM
Software Before Upgrade: 100.002.036.31201
Software Upgrade Requested: 100.002.037.03830
Software Upgrade Type: AltBoot

Software Upgrade Result: Success

Module Fault Code Debug Code Status Dependent Module Version Min

Figure 1 Software Upgrade Report

Embedded Web Server (EWS) upgrade using the network

1. Connect to the system web page from either a PC connected to the network or a PWS and cross-over cable connected to the machine.
2. Open a web browser, enter the system IP address in the Address field, then press **Enter**. The system EWS will open.
3. Log in as Administrator.
4. Select **Properties > General Setup > Software Upgrade**.
5. Select **Create / Install File**.
6. Select **Install a File**, then **Browse**. Select the .dlm file from the Upgrade directory.
7. Select **Software Upgrade File**
8. Select **Browse**, select the .dlm file from the Upgrade directory.
9. Select **Install**.

   Note: All network connectivity is lost. Progress can be monitored from the UI.
10. The system reboots before returning to a ready state.

AltBoot Software Loading using a USB Flash Drive

CAUTION: The AltBoot Software Loading procedure may erase some unique customer configuration settings. NVM data must be saved and restored during this procedure. Do not remove the Flash drive or switch off power until the system reboots.

Note: To restore the XSA data, use the customers XSA data backup (clone) file on the customer's PC. Refer to the Customer Administrators Guide CD.

AltBoot reloads system software. It is used to upgrade, downgrade, or reload software on systems that will not come to a ready state. It also can be used to upgrade or downgrade the software on system options.

AltBoot should only be used under these circumstances:

- To upgrade system software without running multiple software upgrades.
- To downgrade machine software.

Note: If the customer purchased Adobe PS or McAfee Integrity Control features, perform the following:

- Access Tools as Admin. Refer to GP2.
- If the features still are not installed, refer to GP 17 How to Re-Enter Optional Feature Installation Keys.

CAUTION: If the system appears to hang during the AltBoot process (stays on one screen without apparent progress), it may still be loading software in the background. Wait 10 minutes before switching the system off. Switching the system off while software is loading will corrupt the software load on Hard Disk Drive. Restart AltBoot.

CAUTION: Use Forced AltBoot with extreme caution because it replaces boot and application code. Power failure during a Forced Altboot may result in certain PWBs becoming unrecoverable.

1. Create a top level folder on the USB Flash drive named **AltBoot** (not case sensitive).
2. Copy the unzipped ALTBOOT dlm file into the Altboot folder on the USB Flash drive.
3. **Optional – Perform this step to execute a Forced Altboot**

   A Forced Altboot uses the available .dlm file to upgrade or downgrade every component in the system, regardless of installed software. A Forced Altboot is required to recover from corrupt application code on devices such as Fax, IOT, IIT. Use Forced AltBoot to downgrade the IOT/IIT software.

   Create a file named **FORCED_UPGRADE** inside the altboot folder. This is an empty file and must not have an extension; the AltBoot routine only checks to see that a file with this name is present. To create the empty file:

- Open the **AltBoot** folder
- In a blank area of the screen, right click and select **"New"**.
- Select **"Text Document"**.
- The name "New Text Document.txt" will be highlighted.
- Type **"FORCED_UPGRADE"** (the file name is case sensitive) and press **"Enter"**.
- A pop-up with the message "If you change a file name extension, the file might become unusable. Are you sure you want to change it?" will appear.
- Click on **Yes**.

Note: Ensure the Microsoft Windows Safely remove hardware procedure is followed before the USB Flash drive is removed.

4. **Optional – Perform this step to execute a Special Altboot:**

Note: Only perform Special Altboot procedure when the Solid State Drive (SSD) / Hard Disk Drive (HDD), or SBC PWBA is replaced or the disk drive files have become corrupted.

- **Download:** SpecialAltboot/X81xx_SpecialAltboot_.zip (From GSN Library 16910) Example: B8145_B8155_105.011.009.34422_SpecialAltboot.zip. These files are product specific and MUST match the Altboot system software DLM being used.

Note: Special Altboot files will only be provided for general releases. Recovering to a SPAR is a two step upgrade.

- **Unzip:** the SpecialAltboot.zip content into the root folder of USB drive, not the "Altboot" folder. Note: The default unzip location for the specific unzip tool being you are using may not be at the root level.

5. **Optional – Disable data backup:** This prevents the NC from keeping data normally retained through an AltBoot. This file is used to eliminate backup of corrupt customer settings

Create a file named **DISABLE_DATA_BACKUP** inside the altboot folder. This is an empty file and must not have an extension; the AltBoot routine only checks to see that a file with this name is present. To create the empty file

- Open the **AltBoot** folder
- In a blank area of the screen, right click and select **"New"**.
- Select **"Text Document"**.
- The name "New Text Document.txt" will be highlighted.
- Type **"DISABLE_DATABACKUP"** (the file name is case sensitive) and press **"Enter"**.
- A pop-up with the message "If you change a file name extension, the file might become unusable. Are you sure you want to change it?" will appear.
- Click on **Yes**.

6. **Confirm USB file and directory structure is configured correctly. Below structure is required in the root level of the USB drive.**

Confirm:

Note: Ensure that there is only one .dlm file in the Altboot folder.

— altboot

— XeroxAltalink_X81xx_ALTBOOT_system-sw#1xx.xxx.xxx.xxxxx#ENG_MOD.DLM

— FORCED_UPGRADE (Optional – only when doing Forced Altboot)

— DISABLE_DATA_BACKUP (Optional – only when preventing data backup)

— EFI (Optional – only when doing Special Altboot)

— BOOT

— bootx64.efi

— swup_usb.txz

— XeroxAltalink_X81xx_105.xxx.009.34422

Note: Ensure the Microsoft Windows Safely remove hardware procedure is followed before the USB Flash drive is removed.

7. Insert the USB Flash drive into the system.
8. Save the NVM settings (dC361). Verify that the NVM data were saved to the USB Flash drive.

Note: The same USB Flash drive that has the .dlm file can be used to store NVM data.

9. Perform Backup and Restore of customer settings. (GP 12)
10. Complete or delete all pending print jobs. If the jobs cannot be deleted, inform the customer that all pending jobs will be lost.
11. Power OFF the system (GP 4).
12. Power ON the system (GP 4). The Altboot process starts automatically. No button presses are required to initiate the Altboot.
13. The upgrade start screen displays.

Note: If the USB Flash drive is incompatible with the system, the upgrade start screen will display continuously. If the screen has not changed after 10 minutes, replace the USB flash drive with a Xerox approved model, then restart the process.

14. The upgrade begins and the progress screen opens in about 2 minutes.

    Note: If the upgrade process screen is not displayed after 4 minutes, restart the process.

15. The AltBoot process may take up to 60 minutes to complete. When the AltBoot complete screen opens, follow the on screen instructions.
16. If the AltBoot process fails, the AltBoot failed screen opens. Follow the on screen instructions. Restart the procedure and troubleshoot as necessary.

    Note: Do not switch the system Off unless directed to on the UI.

17. The system will reboot one time before returning to a ready state.
18. Check that the software set has installed. Refer to the printed software upgrade report or press the **Status** button.
19. Restore the customer settings. (GP 12)
20. Only if you performed a Forced AltBoot, select the **Device** icon, then **Tools** > **General** > **Revert to previous settings**.

    Note: A Forced AltBoot enables the **Revert to previous settings** feature to display. This feature restores machine-specific information.

PWS AltBoot Procedure using PWS Altboot tools

PWS AltBoot Procedure is used to load system software in accounts that do not permit the use of USB Flash drives.

Before beginning the procedure perform the following:

1. Go to GSN Library 16910 and download the following items:
   - **AltaLink_C8XXX_Family_Altboot_Tool_PWS**
   - **Altboot_SW_and_support_files_AltaLink_C8XXX_system_sw** . Download the version for the machine you are working on and store it in a folder named **Altboot_SW_and_support_files** on the PWS. The support files are paired with the software version. The support files will only work for that specific software version.
2. Obtain a Communication Data Cable 600T02332
3. Install the Altboot tool downloaded in Step 1 on the PWS. Use the instructions in the Readme file included with the tool.

CAUTION: **BEFORE** attempting to connect the cable to the SBC or configuring the PWS to use the AltBoot tool, read the instructions provided in GSN Library 16910. The cable is **NOT** keyed and can be connected in two orientations. Connecting the cable incorrectly may cause damage to the machine or to the PWS.

Also, the cable may be in any of several possible internal configurations and the AltBoot tool must be configured for the particular cable being used.

Note: Before loading system software, the system should be fully operational. If possible, clear any active faults or jams before starting this procedure.

1. Perform an NVM Save. (dC361)
2. Back up customer settings. (GP 12)
3. Print a Configuration Report. (GP 6)
4. If possible, complete or delete all pending print jobs. If jobs cannot be deleted, warn the customer that all pending jobs will be lost.
5. If the machine is equipped with a Wireless Network Interface, enter Tools mode using CSE Tools (GP2), disable wireless, and switch the system off and on.

   Note: To power down the machine, press the UI Power Button and then respond to the on-screen prompts. Wait until the Power Button LED turns off, then switch off the Main Power Switch (GP 4).

6. Power down the machine.
7. Use these steps to configure a PWS LAN connection so the PWS can communicate with the system Network Controller. Once established, settings remain in effect until changed.

   Note: Record the original data for every place you make a change. You may or may not need to reset the IP address, depending on PWS usage and local network practice.

   a. Right click on the **My Network Places** icon.
   b. Select **Properties** to bring up the Network and Dial-up Connections window.
   c. Right click on **Local Area Connection** and select **Properties**.
   d. Select the **General** tab and scroll down to Internet Protocol (TCP/IP). Highlight **TCP/IP** and select **Properties**.
   e. Select the **Use the following IP address** radio button.
   f. Enter the IP address 192.168.0.2.
   g. Enter 255.255.255.0 for Subnet mask.
   h. Select **OK** to close the **TCP/IP Properties** window

i. Select **OK** to close the **Local Area Connection Properties** window.

j. You may need to reboot the PWS to load the settings.

CAUTION: **BEFORE** attempting to connect the cable to the SBC or configuring the PWS to use the AltBoot tool, read the instructions provided in GSN Library 16910. The cable is **NOT** keyed and can be connected in two orientations. Connecting the cable incorrectly may cause damage to the machine or to the PWS.

8. Connect the PWS to the system with the USB Data Cable 600T02332. Connect the 5-pin flat connector to the data port on the SBC PWB. Connect the other end to one of the USB ports on your PWS.

Note: The SBC PWB data port may have a cover over it. Remove the cover if necessary. The port is located just above the RJ-45 Ethernet connector on the SBC PWB Panel.

9. Disconnect the customer's network connection. Connect a crossover Ethernet cable between the network ports on the system and PWS.
10. Start the PWS AltBoot tool on the PWS and follow the instruction in the file AltaLink-PWS-Altboot-Instructions.pdf to configure the Altboot tool. The file is in the Altboot tool package that was downloaded at the beginning of the PWS Altboot Procedure.
11. Switch on the machine using the Main Power Switch. After approximately 10 seconds, the transfer of the uImage and uboot files begins.
12. After file transfer, the settings menu appears in the terminal window. Check that the 'Received packet' line is displayed and that the IP address is set one digit away from the packet was received from address.

    Press **y** at the prompt and continue. If the valid netmask is not set, press **n** and change it to 255.255.255.0
13. From the next menu, select **5> Install SBC software**.
14. At the **Proceed?** prompt, select **Y**.
15. At the second **Proceed?** prompt, select **Y**.
16. From the next menu, select **4> Continue**.
17. A list will display the ".dlm" file in the directory identified in step 2 . Select the DLM file to download to the machine. A transfer progress window will then open.
18. After the DLM file has been downloaded to the machine, the Software Upgrade start screen will display on the UI.
19. After approximately 1 minute the upgrade will begin and the Software Upgrade in progress screen will open. If the upgrade process screen is not displayed after 2 minutes, restart the process.
20. The AltBoot process should complete after approximately 5 minutes, and the Upgrade Complete screen will open. Ignore the instruction to remove the USB flash drive, only press **0** to continue.
21. The machine will reboot several times before returning to a ready state. During the reboot, the Hard Disk Drive is encrypted. Switching off the machine can cause only partial encryption of the Hard Disk's partitions. The AltBoot process may need to be re-run if power is removed at this step. The UI displays the Data Encryption/Decryption in Progress screen.
22. After the reboots have finished the machine will boot up and come online. In the SBC-Alternate-Boot window on the PWS should display SBC System is 'OPERATIONAL.
23. Disconnect the cable from the PWS serial port and the machine. Disconnect the crossover Ethernet cable from the PWS network and the machine.
24. Connect the customer's network cable to the machine. If the machine is equipped with a Wireless Network Interface, enter Tools mode using CSE Tools (GP2), enable Wireless and switch the machine off and on.
25. Check that the software set has been installed. Refer to the printed software upgrade report or by pressing the machine status button.
26. Perform an NVM Restore. (dC361)
27. Restore the customer settings. (GP 12)

    Note: If the screen displays the message **The device is in a non-customer mode** after completing this step, perform GP 29 to restore the machine to customer mode.

Troubleshooting

Listed below are possible problems that may stop AltBoot software loading:

Possible causes and solutions are:

- Incompatible USB Flash drive. Use a Xerox approved model of USB Flash drive.
- Corrupt.dlm file. Replace the .dlm file.
- Incorrect spelling of the AltBoot directory on USB flash drive.
- AltBoot and upgrade folders on the USB Flash drive.
- Bad data connection to the Hard Disk Drive. Reseat the Hard Disk Drive harnesses.
- Hard Disk Drive corruption or failure.
- USB port or cable damage. Use a different USB port or cable.
- UI failure.
- SBC PWB failure.
- Check the +5V supply to the USB ports on the SBC PWB.

- Failure to disable Wireless Networking when using a PWS.
- Pound (#) signs missing from the .dlm file name.

Note: Only perform this procedure when the Solid State Drive (SSD), Hard Disk Drive (HDD), or SBC PWBA is replaced or the disk drive files have become corrupted.

Fleet Orchestrator

The Fleet Orchestrator feature allows you to configure many devices in similar ways, automatically. After you configure one device, you can distribute any of the configuration settings to other devices, as needed. You can set up schedules to share configuration settings regularly and automatically. The Fleet Orchestrator feature enables you to share the following types of configuration files

- **Software upgrade files:** A software upgrade file contains the latest firmware for the device. Xerox releases upgrades when needed. **Refer to the System Administrator Guide**
- **Clone files:** A clone file contains configuration settings from a device. When you install a clone file on another device, the clone file changes the configuration settings to match the settings on the cloned device. **Refer to the System Administrator Guide**
- **1-Touch Add-On files:** A 1-Touch Add-On file adds workflows to a device without overwriting existing apps or workflows. **Refer to the System Administrator Guide**

Software Upgrade Files: When Xerox releases a new version of software for the device, Fleet Orchestrator can be used to install the software upgrade file. Software upgrade files do not overwrite printer configuration settings.

GP 10 PWS Communication with the SBC

Purpose

This procedure provides instruction on how to connect the PWS directly to the CCS communication port on the SBC using the SBC Data Cable 600T02332.

Note: This procedure should only be used for advanced troubleshooting when directed by a RSE (Remote Support Engineer) or support person.

Connection Procedure

To configure your PWS for a USB connection, go to GSN Library 16910 and select **GP 10 PWS Communication with the SBC** to download the driver, the Putty tool, and detailed instructions.

GP 11 Resetting the System Administrator Password

When a customer requires a new administrator password, the customer must call the Welcome Center and request an administrator password reset.

1. The Welcome Center will request the machine serial number and current copy count.
2. The Welcome Center generates a 12 digit Feature Key number.
3. Press the **Device** icon, then select **Tools**.
4. If necessary, select **Device Settings** , then select **General** > **Feature Installation**.
5. Enter the Feature Key on the Feature Installation Key screen to reset the Administrator credentials to the default values (**admin** and the **1111**).

CAUTION: The next step calls for a Forced AltBoot procedure to be performed. In this case, **DO NOT** back up or restore customer settings using GP 12. Doing so will re-lock the administrator password. Instead, tell the customer that the settings will need to be restored manually. Ask the customer to record all appropriate settings so that they can restore them after the procedure is complete.

6. If Password reset has been disabled in EWS by the customer (Figure 1), the password can only be reset by a CSE arriving on site and performing a **Forced AltBoot** (GP 9).

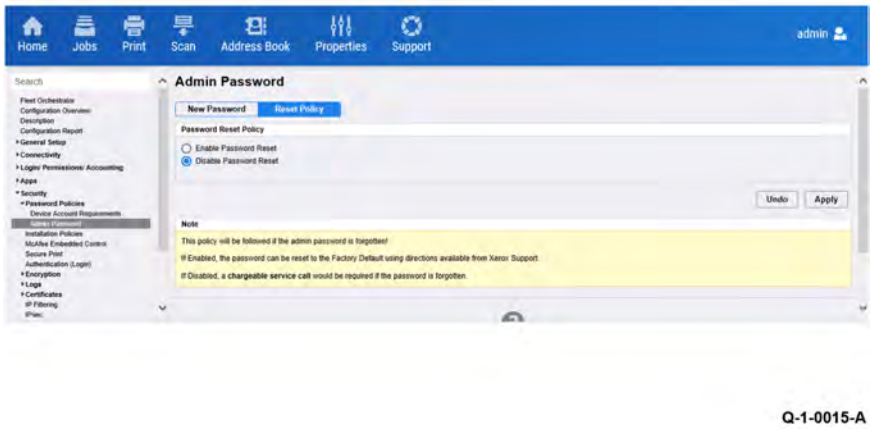


Figure 1 Disable Password Reset EWS screen

GP 12 Back Up and Restore Settings

Purpose

This procedure provides a System Administrator with the ability to back up and restore customer settings via the Embedded Web Server (EWS).

Procedure

1. Inform the System Administrator when a service procedure may result in the loss of saved customer settings.
2. Before you perform the service, arrange to have the System Administrator log in to the EWS, create a manual backup file, and export the file to the customer PC.
3. On completion of the service, have the System Administrator restore the settings.

Note: The encrypted backup file for a particular device is compatible only with that device.

CAUTION: The information below is reproduced from the **System Administrator Guide** . In order to perform the procedures, you must be logged into the EWS as administrator (GP2 Accessing Tools). It is strongly suggested that these procedures be performed by the System Administrator. If that is not practical or possible, use the procedures below to back up the settings.

Backup and Restore Settings

The Backup and Restore feature allows you to save device settings and to restore them. The device automatically saves a backup of its configuration settings periodically. You can create a backup file of your device settings manually, at any time. These backup files contain the specific settings for your device.

You can store a manual backup file on the device or in an external folder. Xerox recommends that you create a backup of your device settings when the device is operating as expected. This practice is useful for restoring the device settings at any time, such as when the settings have changed in error.

You can restore the device settings from an automatic backup file or from a manually created backup file that is stored locally or externally.

Note: Only backup files created on this device can be restored to this device.

Before you begin, set the installation policy to allow backup file restoration.

Setting the Security Installation Policy for Backup and Restore

To set the security installation policy to allow backup file installation:

1. In the Embedded Web Server, select **Properties > General Setup > Backup & Restore Settings**.

2. If the button on the right side of the Backup & Restore Setting screen says **Allow Installation** , click the **Allow Installation**. button. Figure 1
3. On the pop-up window, click **OK**.

Figure 1 Allow Installation

To set the security installation policy to prevent backup file installation:

1. In the Embedded Web Server, select **Properties > General Setup > Backup & Restore Settings**.
2. If the button on the right side of the Backup & Restore Setting screen says **Restrict Installation** , click the **Restrict Installation**. button. Figure 2
3. On the pop-up window, click **OK**.

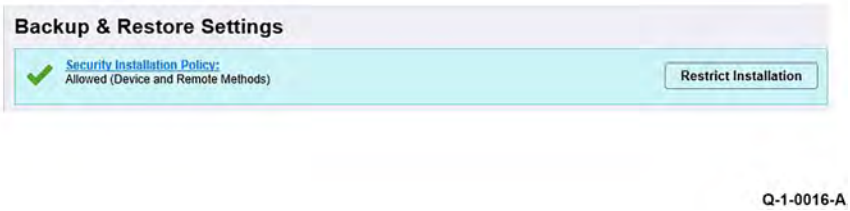


Figure 2 Restrict Installation

Note: To view all installation policies, click **Security > Installation Policies**.

Restoring Settings

You can restore settings from a backup file stored on the device or from a previously exported backup file. When restoring from a file stored on the device, you can choose a manual backup file or an automatic backup file. Automatic backup files are created daily. These backup files contain the state of the settings at the time the automatic backup starts.

To restore settings from a file stored on the device:

1. In the Embedded Web Server, click **Properties > General Setup > Backup & Restore Settings**.
2. To locate the backup file that you want to restore, for Locally Stored Backup Files, use the information in the Date/Time column and Type column.
3. In the Actions column, for the backup file, click **Restore**.

To restore settings from a previously exported backup file:

1. In the Embedded Web Server, click **Properties > General Setup > Backup & Restore Settings**.
2. Click **Browse**.
3. Navigate to the location of the file that you want to import, then click **Open**.
4. Click **Import and Restore**.

Creating a Manual Backup File that is Stored on the Device

CAUTION: If a manual backup file exists in the list, the new file overwrites it. The previous manual backup file cannot be recovered.

1. In the Embedded Web Server, click **Properties > General Setup > Backup & Restore Settings**.
2. For Create Backup, click **Create Local** . The new backup file appears in the list.

Creating and Downloading a Backup File

1. In the Embedded Web Server, click **Properties > General Setup > Backup & Restore Settings**.
2. Click **Create and Export**.
3. To download the new backup file, right-click the file name link and select **Save target as...**.

Deleting a Backup File

1. In the Embedded Web Server, click **Properties > General Setup > Backup & Restore Settings**.
2. For Locally Stored Backup Files, in the actions column locate the file that you wish to remove, then click **Delete**.

Note: Only backup files that were created manually can be deleted. The device overwrites the automatic backup files during the daily automatic backup.

GP 13 Cloning Network Configurations

Purpose

Use this procedure to connect to the printer and capture Network Configuration settings. The clone file is used to duplicate settings to other machines or restore settings following Forced AltBoot. If Internet Explorer is being used, clear browser proxy settings.

Clear IE Proxy Settings

Perform these steps to clear Internet Explorer proxy settings before connecting to the printer.

1. Open **Internet Explorer**.
2. Select **Tools > Internet Options**.
3. Select the **Connections** Tab.
4. Select the **LAN Settings** box.
5. Ensure that the "Use a proxy server for your LAN" box is **unchecked**.
6. Select **OK** to close the **Local Area Network Settings** window.
7. Select **OK** to close the **Internet Options window**.
8. Close **Windows Internet Explorer**.

Windows Connection Procedure

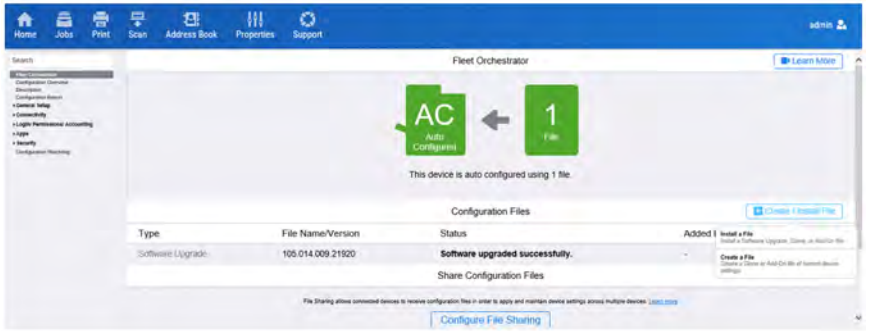
Note: Clear all Internet Explorer proxy settings.

1. Print a Configuration Report (GP 6).
2. Configure the PWS IP Address:
   a. Click on the Windows **Start** button.
   b. Select **Control Panel**.
   c. Select **(Network and Internet) Network and Sharing Center**.
   d. On the left Windows pane, Select **Change adaptor settings**.
   e. Right click on **Local Area Connection** and select **Properties**.
   f. Select the **Networking** tab and scroll down to Internet Protocol Version 4 (TCP/IPv4). Highlight TCP/ IP and select **Properties**.
   g. Select the **Use the following IP address** radio button.
   h. Enter an IP address one digit different than the machine IP address listed on the Configuration Report (ex., if the machine IP address is 12.138.147.44, enter 12.138.147.45 or 12.138.147.43).
   i. Enter **255.255.255.0** for Subnet mask.
   j. Select **OK** to close the window.
   k. Select **Close** to close the Local Area Connection Properties window.
3. Connect a crossover Ethernet cable between ethernet ports on the PWS and SBC.

Create the Clone File

1. Open Internet Explorer
2. Enter the machine's IP address in the **Address** line.

   Note: If the customer has enabled Administrator Password, you will be asked for a user name and password. Defaults are **admin** as the user name, and **Machine Serial Number** for the password.
3. When Embedded Web Server opens, select **Properties**. On the **Fleet Orchestrator** screen, select **+ Create/Install File** and select **Create a File** (Figure 1).



Q-1-0018-A

Figure 1 Cloning Screen

4. Be sure **Clone File** is selected Figure 2.

Q-1-0019-A

Figure 2 Clone File

5. Scroll down the page to see critical information about the cloning process (Figure 3). Click the **(Details...) links** to see lists of data that are backed up and/or restored using the Cloning Feature.

Q-1-0020-A

Figure 3 Features and feature details

6. Select or deselect the various features, as required.
7. Select the **Create** button below the features listing.
8. To download the new backup file, right-click the file name link and select **Save target as....**

CAUTION: It will take several minutes to create the cloning.dlm file. Do not make any changes or attempt to do anything with the machine such as power off until the process is complete.

CAUTION: After the clone file has been created, do not attempt to open the clone file as it may corrupt it.

9. Click on **Close** to save the clone file.

Note: When the file is saved, a ".txt" extension may automatically be placed at the end of the file name. Before loading this clone file, navigate to the saved file, right-click on the file and select **Rename** . The correct format for the file name is xxxxxxxx.dlm.

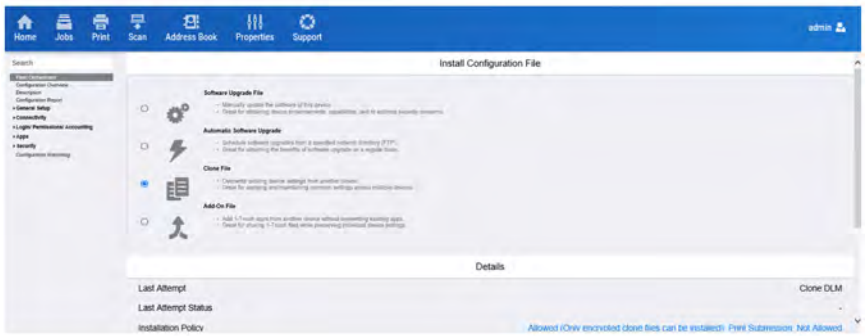
Uploading a Clone file

Note: This procedure can be done from ANY PC connected to the network or the PWS connected to the machine using a crossover Ethernet cable. The only requirement is an Internet Browser.

1. Open Internet Explorer
2. Enter the machine's IP address in the **Address** line.

   Note: If the customer has enabled Administrator Password, you will be asked for a user name and password. Defaults are **admin** as the user name, and **Machine Serial Number** for the password.

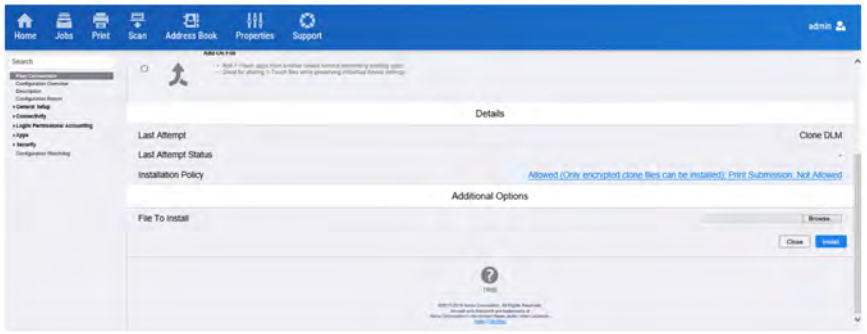
3. When the Embedded Web Server window opens, select **Properties**. On the **Fleet Orchestrator** screen select **+ Create/Install File** and select **Install a File** (Figure 4).
4. On the **Install Configuration File** select **Clone File**



Q-1-0021-A

Figure 4 Install a File

5. Scroll down and select the **Browse** button to navigate to the clone file, or type the full path to the file (Figure 5).



Q-1-0022-A

Figure 5 Browse for a File

Click the **Install** button. If the machine does not reboot after five minutes, power the machine off/on.

6. Print a Configuration Report (GP 6) and verify the cloned settings.

GP 14 External Fax Line Test

When the customer reports a fax issue sometimes it is very difficult to determine if the problem is with the customers phone line or the Xerox machine.

The preferred method of verifying the phone line functionality is to use the Modem saver device part number 600T2133 to ensure the fax line is wired correctly and to use the Analog hand set part number 600T1937 or customer's analog phone to place calls on the line. Be sure that both local and long distance calls can be placed and the line quality is clear, no static.

Use Handset:

- Can it dial externally on the line?
- Can it receive a call on the line?
- Evaluate Line quality. Check Line for unwanted beeps, or noise.

Use Breakout Box to measure voltages (Use the machine chassis as ground). Refer to Fax 101 training for Breakout Box usage instruction:

- Check ground continuity.
- Line Voltage -20 to -50 VDC?
- Loop Current 15 to 95 mA DC?
- Ring Signal 50 to 90 VAC?
- Check Ring-Ground and Tip-Ground <1VAC

If a line quality issue or incorrect voltage is found then the customer will need to resolve these problems.

GP 15 Electrical Power Requirements

Power Requirements

Refer to Table 1

Table 1 Electrical Power Requirements

Nominal Voltage	Average Current	Frequency
North America: 110-127VAC (60Hz) Plus 10 % minus 10 %	Less than or equal to 12A. For C8170, less than or equal to 16A.	50/60Hz +/- 3 %
Europe: 220-240VAC (50Hz) Plus 10 % minus 10 %	Less than or equal to 8A. For C8170, less than or equal to 10A.	50/60Hz +/- 3 %

Power Consumption

Refer to Table 2.

Table 2 Power Consumption (TBD)

Region	Voltage	Power Consumption Value (W)
XC	115VAC (TBD)	2112 or less (TBD)
XE	220VAC (TBD)	2400 or less (TBD)

Operation Modes

Refer to Table 3 and Table 4.

Table 3 Operation Modes (TBD)

Mode	State
Standby/Ready	The state prior to entering run mode.
Run Mode	Normal operation mode
Low Power/Semiconscious Mode	A lower power consumption mode than ready mode
Deep Sleep Mode	A lower power consumption mode than low power mode.
Plug-in/Off Mode (sub power)	The controller is maintained with the programs running.

Table 4 IOT States (TBD)

Sub-System	Standby/ Ready Mode	Run Mode	Low Power Mode/Semicon-scious Mode	Deep Sleep Mode	Plug-in/Off Mode (sub power)
Fuser	Maintaining standby temperature	Maintaining operating temperature	Maintaining low temperature	Off	Off
Xero-graphcs	Off	Operating state	Off	Off	Off
Print Head Assembly	Off	Operating state	Off	Off	Off
Fusing Fan	Temperature control in stop or ro-tate (slow)	Temperature controlled slow or fast rotation	Temperature control in stop or rotate (slow)	Off	Off
Marking Fan	Temperature control led either stop or slow rotation	Temperature controlled, ei-ther stopped or slow or fast rotation	Temperature control led ei-ther stop or slow rotation	Off	Off
ESS (Refer-ence only)	Standby	Operating state	Standby	Ready to receive	Inactive
HDD	Accessible	Accessible	Accessible	Not accessible	Not accessible

GP 16 Service Plan Conversion

Purpose

This procedure explains how to set the Geographic Differentiation Code and Toner Cartridge Type to the correct values.

Introduction

The machines are shipped with "Worldwide Neutral" Toner Cartridges. When the cartridges shipped with the machine are installed, the machine is set to Worldwide Neutral configuration. When the first toner cartridge (any color) is replaced, the Geographic Differentiation Code and Toner Cartridge Type in NVM are automatically changed to the same settings as the replacement cartridge. Once these NVM are set, the toner configuration can only be changed with a Supplies Plan Conversion Code

There are three types of toner: Metered Service, which is a single part number worldwide, Sold toner that is specific to the EMEA-E market, and Sold toner that is specific to Americas/EMEA market. See PL 26.10 for part numbers. If an incorrect type of toner cartridge is installed, it will generate a fault code and/or a message on the UI indicating toner incompatibility.

To check which state the machine is in:

At the Machine UI:

1. Print Configuration Report GP 6
2. The service plan is shown on the configuration report under the General Setup heading.

At the Web UI:

1. Enter the machine IP address.
2. On the Welcome screen scroll to the bottom and select Configuration Report.
3. The screen displays the configuration report in alphabetical order. Select **General Setup**.
4. The service plan is shown in the list.

Note: Do not attempt to change the NVM settings in Table 1; they are for reference only.

Table 1 CRU Service Plan

State	CRU Service Plan (NVM 606-269)	Regional Differentiator (NVM 616-235)	Toner Allowed
Neutral	100=Neutral	63=Factory	NA/XE Sold, DMO Sold, Metered, Neutral
NA/XE Sold	0 = Sold	15 = NA, XE, Enterprise	NA/XE Sold, Neutral
DMO Sold	0 = Sold	6 = DMO, Enterprise	DMO Sold, Neutral
Metered	3 =Neutral	13 =Factory	NA/XE Sold, DMO Sold, Metered, Neutral
PagePack	4 = PagePack	13 = WW, Enterprise	NA/XE Sold, DMO Sold, Metered, Neutral

If a problem occurs after several toner replacements, the customer may have received the wrong toner in a consumables order; either because the wrong part number was ordered, or the shipment did not match the order. Resolution in this case is simple; the customer should exchange the toner for the correct part.

If the wrong toner was installed at the first toner replacement after install, or if the configuration NVM have changed due to software or NVM corruption, correct the problems and then perform the following procedure:

Procedure to Get the Service Plan Conversion code (for NON-PagePack devices)

1. Press the **Device** icon on the UI and select **About**.
2. Record the Serial Number.
3. Select **X**
4. Select **Billing/Usage** and record the number of Total Impressions
5. Contact the relevant OPCO, provide the machine Serial Number and the number of Total Impressions.
   - **US:** Call Xerox Corporate Licensing Systems (XDSS) directly on 1-800-890-3260 or 1-800-635-8054 prompt 8 (license strings) for toner conversions. Provide the machine serial number and the number of total impressions.
   - **Xerox Business Solution (XBS):** All requests for such conversions must be approved by the XBS Headquarter VP of Service. Technicians should request that their field service manager contact their XBS Company VP of Service for directions. The XBS Core Company VP of Service will require authorization to convert the machine from sold to metered and provide a status of your request. Do not call field engineering to obtain a service plan conversion pin code.
   - **US Authorized Service Provider (ASP):** Call PageConnect at 1-888-892-6483 or send an email to pageconnectprogram@xerox.com requesting a pin code. Provide the machine serial number and the total number of impressions.

- **Canada:** Call the Customer Delivery Organization (CDO) field support number 1-800-647-1331 prompt 8 (license strings) for a Service Plan Conversion code. Provide the machine serial number and the total number of impressions.
- **LATAM (Latin America):** Follow Local Process.

Note: The Service Plan Conversion code must be entered within 500 Total Impressions counts of when it was issued, or it will not be valid.

6. You will be given a 6-character Service Plan Conversion code.

Procedure to Change the Service Plan via Machine UI

1. Log in to Admin mode (GP2).
2. Press the **Device** icon on the UI and select **Tools**.
3. Select the **Device Settings** category from the column of buttons on the left side of the control panel.
4. Scroll down and select the **Supplies** group, then select **Enter Plan Conversion**.
5. Enter the 6-character Service Plan Conversion code provided in step above. Use the shift key to access special characters as required.
6. Select **OK**.

   The Geographic Differentiation Code and Toner Cartridge Type will be reset to the values of the customer's agreed-to supplies plan.

Pocedure to change the Service Plan via Remote Control Panel

1. In the Embedded Web Server window, enter the machine IP address and login as **admin**.
2. Scroll down to remote control panel and start remote session.
3. Press the **Device** icon on the UI.
4. Select **Tools**.
5. Select **Device Settings**.
6. Scroll down and select the **Supplies** group, then select **Enter Plan Conversion**.
7. Enter the 6-character Service Plan Conversion code provided in step above. Use the shift key to access special characters as required.
8. Select **OK**.

   The Geographic Differentiation Code and Toner Cartridge Type will be reset to the values of the customer's agreed-to supplies plan.

Procedure to Get the Service Plan Conversion Code (for PagePack devices)

EMEA Operation

- **LATAM (Latin America:** Follow Local Process.
- **XE:** Contact office.europe.page.pack.pin@xerox.com.
- **EMEA-E:** Follow Local Process.

Note: You must provide the machine Serial Number and the PagePack Sequence number

Note: The Service Plan Conversion code must be entered within 500 Total Impressions counts of when it was issued, or it will not be valid.

Procedure to change the PagePack Service Plan via Web UI

1. In the Embedded Web Server window, enter the machine IP address and login as **admin**.
2. Select the **Properties** tab and in the left column select **General Setup**.
3. Select **Supplies Plan Activation Code** category in the left column.
4. Enter the 6-character Service Plan Conversion code provided above in **Supplies Plan Activation Code** and select **Apply**.

   The Geographic Differentiation Code and Toner Cartridge Type will be reset to the values of the customer's agreed-to supplies plan.

Procedure to change the PagePack Service Plan via Remote Control Panel

1. In the Embedded Web Server window, login as **admin**.
2. Scroll down to remote control panel and start remote session.
3. Press the **Device** icon on the UI.
4. Select **Tools**.
5. Select **Device Settings**.
6. Scroll down and select the **Supplies** group, then select **Enter Supplies Plan Activation Code**.
7. Enter the 6-character Service Plan Conversion code provided in step above. Use the shift key to access special characters as required.
8. Select **OK**.

   The Geographic Differentiation Code and Toner Cartridge Type will be reset to the values of the customer's agreed-to supplies plan.

Procedure to change the PagePack Service Plan via Machine UI

1. Log in to Admin mode (GP2).
2. Press the **Device** icon on the UI and select **Tools**.

3. Select the **Device Settings** category from the column of buttons on the left side of the control panel.
4. Scroll down and select the **Supplies** group, then select **Enter Supplies Plan Activation Code**.
5. Enter the 6-character Service Plan Conversion code provided in step above. Use the shift key to access special characters as required.
6. Select **OK**.

   The Geographic Differentiation Code and Toner Cartridge Type will be reset to the values of the customer's agreed-to supplies plan.

GP 17 How to Re-Enter Optional Feature Installation Keys

Purpose

To explain how to re-enter optional feature installation keys after installation of a new HDD/SDD.

Procedure

Perform the following:

1. Obtain the valid Feature Installation key(s) by either:
   a. Asking the customer.
   b. Logging into the SWAP portal, https://www.xeroxlicensing.xerox.com/fik/.

      From the Welcome screen, select **Find** and existing key.

      Enter the machine serial number in the window, then select **Next**.
   c. Contacting the Licensing Admin Centre (USSG/XCL) or the Xerox sales representative (XE/DMO).
2. Enter the Feature Installation keys(s). Perform the following:
   a. Select the **Device** icon on the UI.
   b. Select **Tools**.
   c. Select **Device Settings** > **General**.
   d. Select **Feature Installation** . Enter the Feature Installation key, then select **OK** . If necessary, enter the second Feature Installation key.

GP 18 Restoring the Device Address Book

The Device Address Book is not included in the clone file. To restore the Public Address Book use one of these procedures.

Restore from a USB Flash Drive

Use this procedure to restore the address book using a Flash drive. Refer to Figure 1.

1. Press **Log In** on the UI.
2. Log in as administrator (admin / the machine serial number is the default).
3. Select the **Device** icon > **Tools**.
4. Select **App Settings** > **Device Address Book**.
5. Select the **Management** button.
6. From the menu that displays, select **Import**.
7. Insert the USB flash drive.

   The Browse for File screen will display.

   Note: If the Browse for File screen fails to display automatically, select the **Browse** button.

   Browse to the address book .csv file on the USB flash drive.
8. Select the correct **Delimiting Character** and **Addition Policy**.
9. Select the **Import** button to transfer the .csv file.

Figure 1 UI Address book import screen

Restore Using EWS

To import address books (.csv format), enable HTTPS (SSL) using Embedded Web Server . With HTTPS enabled, use this procedure to restore the Public Address Book. Refer to Figure 2:

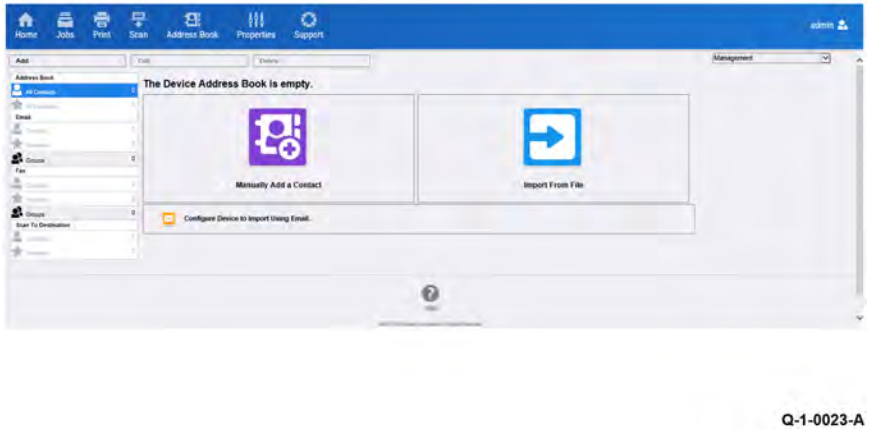


Figure 2 Import from File

1. On the menu bar select **Address Book** > **Import From File**.
2. Select the **Browse ...** button and locate the .csv file to import (Figure 3).
3. Select **Comma (hex 2C)** for the record delimiter for .csv files.
4. Check the **Remove Bracket** checkbox, if desired.
5. Select the radio button to specify whether to:

   a. Add new contacts to the existing Device Address Book, or to...

   b. Replace existing Device Address Book with the new contacts
6. Click on the **Upload File** button to transfer the .csv file.

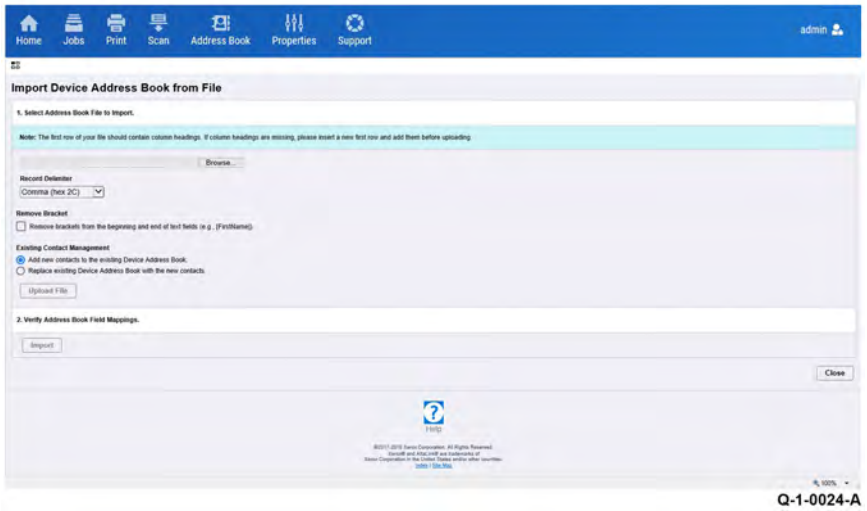


Figure 3 Address book file import screen

GP 19 Environmental Data

Operating Environment

- Temperature range: 10 to 28 degrees C (50 to 82 degrees F).
- Relative humidity: 10 to 85 % .
- Altitude: 0 to 2500 metres (0 to 8200 feet). (TBD)
- Noise:
  - Table 1 contains the maximum value in decibels of noise that can be generated by the C81xx.

Table 1 C81XX

	IOT
Declared A-weighted sound power level (B) at standby	4.00 — 4.3
Declared A-weighted sound power level (B) running	6.5 — 8.3
Sound pressure level (dB)	N/A

Note: LpAm – sound pressure level at a bystander position.

Note: LwAd – sound power level at a source = measure LwA value (per 1 machine) + 0.3B

Storage (TBD)

- Altitude: 0 to 3100 metres (0 to 10170 feet).
- Maximum temperature 48 degrees C (118 degrees F).

GP 20 Reporting Billing Meter Resets

Procedure

Americas Operation

US Only

The TSR is required to call in billing meter reads to one of these Customer Business Centers (CBC) when a machine's meters have been reset:

- Call 1-888-771-5225 (7am - 7pm Central Time). Choose Option 4 - (All other administrative Inquiries).
- Call 1-888-435-6333 (8am - 8pm Eastern Standard Time). Choose Option 4 - (If you have questions regarding your Invoice or account.)
- Call 1-888-339-7887 (7am - 6pm Central Time). Choose Option 4 - (If you have questions regarding your Invoice or account.)

The Customer Business Centers will need the following information:

- TSR/Analyst/Service Agent Name and Employee Number
- 9 Digit Equipment Serial Number
- Old Meter Read and Date
- New Meter Read and Date

Canada

- TSRs follow procedure on GSN Library # 16355
- Non-Xerox TSRs – GSN Library #14988

LATAM

- Follow your local country process

EMEA

- Follow your local country process

GP 21 First Print Out Time and Power On Time

First Print Out Time

The first print out time (FPOT) is the duration from selecting the print button on a client computer to the delivery of the first copy to output tray 1. Values are based on paper fed from tray 1.

Table 1 First Print Out Time

Models	Speed (Color / Black and White)	First Print Out Time Color	First Print Out Time Black-and-White
C8130	Up to 30 / 30 ppm	As fast as 6.5 seconds	As fast as 4.8 seconds
C8135	Up to 35 / 35 ppm	As fast as 6.5 seconds	As fast as 4.8 seconds
C8145	Up to 45 / 45 ppm	As fast as 5.9 seconds	As fast as 4.3 seconds
C8155	Up to 55 / 55 ppm	As fast as 5.0 seconds	As fast as 3.5 seconds
C8170	Up to 70 / 70 ppm	As fast as 3.9 seconds	As fast as 3.1 seconds

Power On Time

Refer to Table 2 for power on timings.

Table 2 Power On Time

Description	Response Time
Time to Standby/Ready Mode from Plug-in/Off Mode (sub power)	30 seconds or less
Time to Standby/Ready Mode from Semiconscious/Low-Power Mode	10 seconds or less
Time to Standby/Ready Mode from Deep Sleep Mode	20 seconds or less

GP 22 Foreign Device Interface Setup

Purpose

This procedure explains the process for troubleshooting, installing, and configuring the Foreign Device Interface (FDI).

Procedure

1. The FDI Kit has been installed, but the Configuration sheet indicates that the Foreign Interface Board is not present. Go to Configuring the Foreign Device Interface.
2. The External Device does not enable the machine or does not count. Use the Foreign Interface and External Device Test Tool to resolve the problem.
3. Directions for the Foreign Device Test Tool are not packaged with the tool.

Installation

Prerequisites: FDI Interface Kit.

Note: This is a purchased item and must be ordered through Sales.

Note: Observe all Electrostatic Discharge (ESD) precautions when performing this procedure.

1. Switch off the printer power. Disconnect the power cord.
2. Remove the Control Unit.
3. Remove the FDI harness connector cutout cover from the Control Unit. (Figure 1)
4. Remove the standoffs (2) from the FDI connector, then using the standoffs, secure the FDI connector to the Control Unit. (Figure 2).
5. Plug the harness into the FDI PWB, then mount the FDI PWB on the SBC PWB.

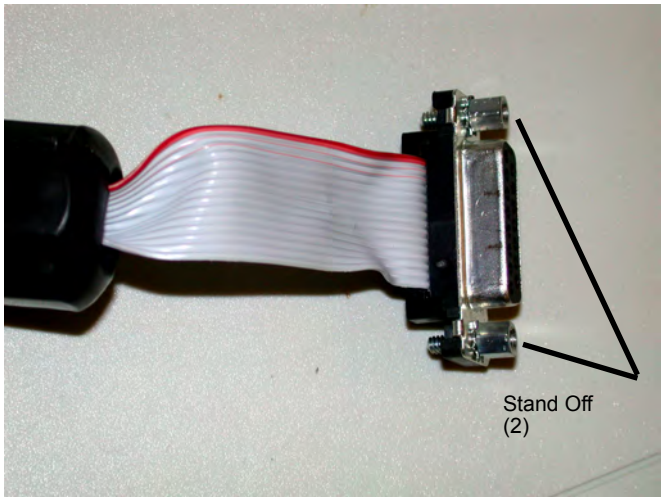
   Note: It is possible to connect the Foreign Interface Cable in reverse on the FDI PWB. Orient the cable correctly.
6. Replace the Control Unit and power on the machine.

Configuring the Foreign Device Interface

1. Press **Log In** on the UI.
2. Log in as **admin** , with default password **Machine Serial Number**.
3. Touch the **Device** icon > **Tools** > **Accounting Settings**.
4. Select **Accounting Mode**.
5. Press **Auxiliary Access** and select **Auxiliary Device Type**.
6. Select the appropriate device, then select **OK**.
7. From the Auxiliary Device Configuration menu, Select **Service Access & Accounting** and select those services that will be restricted by the auxiliary device. A check mark in the box will indicate those services which will be restricted, Select Save.

   Note: If no selections are made, the Foreign Interface board will indicate **not present** on the configuration report.

Figure 1 FDI cut out cover



GP 23 Intermittent or Noise Problem RAP

Purpose

The purpose of this RAP is to provide guidance for resolving an intermittent or noise problem. This is not an exact procedure, but a set of recommended actions that use the resources of the service manual to help locate the cause of an intermittent or noise problem.

Procedure

1. Check the service log. Recent service actions may provide information about the problem. For example, a component that was recently replaced to correct another problem may be the cause of the new intermittent problem.
2. Noise problems may be due to improper installation. Check for packing materials that have not been removed. Check for loose or missing hardware.
3. Run the machine in a mode that vigorously exercises the function that is suspected. The machine may fail more frequently or may fail completely under these conditions. Look for signs of failure or abnormal operation.

   An intermittent problem can usually be associated with a RAP, since when it does fail, it results in a fault code, a jam code, or some other observable symptom.
4. Using the RAP that is associated with the symptom of the intermittent problem, examine all of the components that are referenced in the RAP. Look for:
   - contamination, such as a feed roller that has a build up of dirt or toner
   - wear, such as gear teeth that are rounded or have excessive backlash
   - HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value
   - wires chafing against components of the machine, especially against moving components
   - misaligned, misadjusted, or incorrectly installed components
   - slow or slipping clutches; slow or binding solenoids
   - damaged components
   - excessive heat, or symptoms of excessive heat, such as the discoloration of a component
   - loose cables or wires
5. Using the RAP that is associated with the symptom of the intermittent problem, perform all of the adjustments for the components or functions that are referred to in the RAP. Check to ensure that the adjustment can be made and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem.
6. Operate all of the components in the appropriate RAP that is associated with the symptom of the intermittent problem with Component Control. Observe the components for any symptoms of abnormal operation, such as a hesitation or an unusual sound.
7. Check that the AC and DC power are within specification.
8. Get technical advice or assistance when it is appropriate. This will depend upon the situation and the established local procedures.
9. Examine the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Look for:
   - contamination, such as a feed roller that has a build up of dirt or toner
   - wear, such as gear teeth that are rounded or have excessive backlash
   - HFSI, even if they are not near or have not exceeded the SPEC LIFE or COPY COUNT value
   - wires chafing against components of the machine, especially against moving components
   - misaligned, mis-adjusted, or incorrectly installed components
   - slow or slipping clutches; slow or binding solenoids
   - damaged components
   - excessive heat, or symptoms of excessive heat, such as the discoloration of a component
   - loose cables or wires
10. Perform the adjustments for the components that are not in the RAP, but are associated with the function that is failing. Refer to the BSDs. Check to ensure that the adjustment CAN BE MADE and that there is an adequate range of adjustment, and that it can be set to or near the nominal value. Any abnormality that is observed may be an indication of the cause of the problem. For example, a component can be adjusted to the nominal value, but it is at the limit of the adjustment range. This is not normal and may be an indication of the cause of the problem
11. Operate all of the components that are not in the RAP, but are associated with the function that is failing with Component Control. Refer to the BSDs. Observe the components for any symptoms of abnormal operation, such as a hesitation, or an unusual sound.
12. Replace any components or consumables that are known to be a frequent cause of the problem. When doing this, consider the cost and time required. If the suspected item is inexpensive, can be installed quickly, and has a high probability of resolving the problem, then it is reasonable to replace it.
13. Leave an accurate and detailed record of your actions in the service log. Describe what you have observed, what actions you took, and the recommended next steps.

GP 24 How to turn off the Power Saver Functions

The following procedure is to be used to disable the power saver and/or Low Power Mode per customer request or for testing purposes.

Procedure

Note: Only the engine power saver modes can be disabled. The Network Controller cannot be disabled due to requirements for meeting Energy Star and similar specifications.

1. Enter dC131 NVM Read/Write in the UI diagnostics and change the following locations from 1 (enabled) to 0 (disabled):

   616-002 power saver enabled

   616-009 power off timeout enabled

2. Exit diagnostics and power off, then power on.

GP 25 Remote Control Panel

The Remote Control Panel feature provides users with the ability to:

- Remotely view the local UI display graphics
- Operate both hard and soft buttons on the UI

The Remote Control Panel on the remote user PC mimics the device control panel enabling the remote user to operate the device as though they were standing at the machine.

Operation

Feature enablement - The feature is defaulted off when delivered to the customer. The System Administrator is required to enable the feature to allow usage.

1. In the Embedded Web Server window, login as admin.
2. Select **Support** > **Remote Control Panel**.
3. Under Configuration, select **Edit**.
4. Select **Enable**, and choose Feature Access Permission.

Feature Access Permissions - The SA is required to set the permissions of the feature for it to be usable. When Enable is selected, the permission levels display.

- **For Admin Only:** This setting will prevent any user including Service Engineer personal from using the feature.
- **For Admin and Diagnostics Users Only:** This setting allows only the SA or Service Engineer to use the feature by authenticating their respective user credentials.
- **For All Users**: This opens the feature to all users without the need to authenticate.

Remote Session - The Remote Control Panel session is initiated under Access. This feature allows only the Admin and Diagnostics User to interact with the machine's local Control Panel. Before starting the session, the remote user should determine if the session collaborative or non-collaborative (blocked).

- **Non-Collaborative (Local UI blocking)** - Check the box beside **Block device control panel (local user can only observe)** to block access to the local panel during the remote session. This protects the machine during remote service procedures. When activated, the local user is notified by a message that the local panel hard and soft keys are not functional at this time.
- **Collaborative** - Do not check the box beside **Block device control panel (local user can only observe).** This mode means that both the Remote Control Panel and the Local UI are active. This mode can be used by System administrator, help desk support, IT support, or training when the person at the machine and the remote user need to see how the other is operating the machine.

Only one remote connection at a time is allowed. If a user attempts to initiate a session while another one is active, they will get a message indicating the system is busy and to try again later. This allows a service engineer to view the device remotely without concern that another non-Service Engineer session can also connect.

Note: If a general user has a remote session active and an SA initiates a session, the SA has a button that will disconnect the general user. This way the SA can take control when desired.

A secure connection is required to create a remote session. If SSL is not set on the machine, a message will appear stating that it must be set. The window for enabling SSL will be displayed and can be set so that the machine is configured to allow the remote session. After the machine reboots, the remote session can start.

Remote session indication - When the remote session is initiated, a temporary popup message is displayed on the Local UI alerting any local users that there is a remote user online. A status message is then indicated in the status region and soft login button. The soft login button region is meant to describe the user roles. Authenticated users, including CSEs, are displayed. These remain persistent until the session is closed. A local Service Engineer will know whether the device is being used.

Remote Session Operation - When the Remote Control Panel is opened, the remote user will see a mimic of the local UI.

- The soft and hard buttons from the machine control panel display on the Remote Control Panel. The hard buttons function the same as on the local control panel.
- Operation of all the machine features is the same on the Remote Control Panel as at the local control panel and UI.

  Note: If the browser magnification is set to 75%, then the viewing window will be smaller than the control panel and the touch screen will be truncated. Conversely, if the browser magnification is set to 125%, the viewing window is larger than the remote control panel. The entire control panel is visible but there will be large grey areas around the panel.

Service Access

Note: The System Administrator has access to the machine within the customer firewall. The service engineer must be invited inside the firewall.

- The procedure for the customer to invite the service engineer to remotely access the machine is OPCO dependent. Contact your OPCO for instructions on how to engage the customer.
- After the customer has given the service engineer a portal through their firewall, the service engineer can connect to the machine.

Only the service engineer should have the diagnostic User ID and Password. Only the Service Engineer can launch a diagnostics session from the remote UI.

Note: If the device is in service mode when a remote session is initiated, the session will only connect if logged in as **diag** in Embedded Web Server. This prevents non-service engineers from connecting into the device while it is being serviced.

1. Connect to the printer via Embedded Web Server IS.
2. Log in as **admin** , with default password **Machine Serial Number**.
   – To access remote diagnostics, log in as **diag**, with the default password **Machine Serial Number**.
3. Initiate the remote session.
   a. Select **Support**.
   b. Select **Remote Control Panel**.
   c. If required, check **Block Local Control Panel (user can only observe)**.
   d. Select **Start Remote Session** (Figure 1).

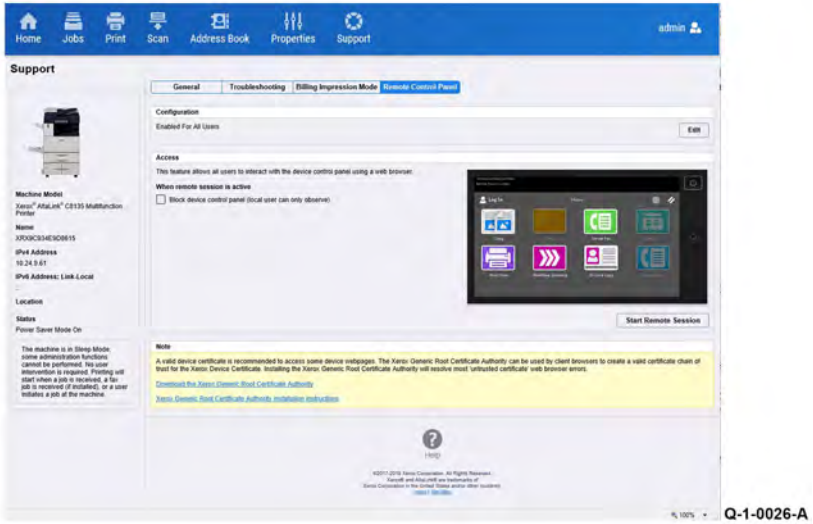


Figure 1 Initiate the remote session

Note: Only one Remote Control session at a time is allowed. If a remote session is in progress, a message (Remote Control Panel session is already active.) will appear. If approved by the SA, select Disconnect Current Session to enable access. If the message returns, the machine may need to be rebooted.

4. If the window “The web site’s certificate cannot be verified. Do you want to continue.” appears, select **[Yes.]**.

   If the window “There is a problem with this website’s security certificate.” appears, select **[Continue to this website (not recommended.)]**

5. To start diagnostic mode on the machine, place the cursor over the **Home** button, depress and hold the left mouse button about seven seconds, and then log in on the mimic (6789).

Ending the session - A session can be terminated in several different ways. If in a diagnostic session, remember to perform Call Closeout on the machine before ending the session.

Note: If the session is terminated before performing Call Closeout, it may not be possible to reestablish the Remote Control Panel session. If, when you attempt to reconnect to the machine an error message comes up that indicates a problem with initiating the session for some reason, either Call Closeout will have to be done at the machine, or the power will have to be switched off and on before the session can be reestablished and/or the machine returned to Customer operating mode.

- Remote user closes the Remote Control Panel window.
- Machine reboots.
- Unplug the internet cable at the machine.
- Customer host that invited the service access closes their browser.
- System Timers - The session will be terminated if the system timers time out.

GP 28 Billing Impression Mode Verification

Purpose

This procedure provides a way to determine which Billing Impression Mode (BIM) the machine is in. In addition, you can obtain a code so that the BIM can be corrected, if necessary.

Overview

Sales will order the equipment using a market code to determine if Billing Impression Mode is A3 Impressions or A4 Impressions.

Billing Impression **A3 Impressions** will bill the customer one count of the Usage Counters for all paper sizes.

Billing Impression **A4 Impressions** will bill the customer one count for any media up to 145 square inches (935 cm) and two counts for paper sizes greater than 145 square inches (935 cm).

For example:

If the BIM is set to A3 Impressions

- 8.5x11 (A4) one(1) click
- 8.5x14 one(1) click
- 11x17 (A3) one(1) click

If the BIM is set to A4 Impressions

- 8.5x11 (A4) one(1) click
- 8.5x14 one(1) click
- 11x17 (A3) two(2) clicks

Note: The sequence number and the device serial number is required to obtain a new BIM PIN code.

Note: Billing Impression Mode can only be changed if it does not match the customer contract. If the customer disagrees, they should contact their Sales Representative to discuss their contract.

How to check Billing Impressions Mode from the Local Machine UI

Note: It is not necessary to enter SA mode (log in) in order to perform this procedure.

1. Press the **Device** icon on the UI.
2. Select **Tools**.
3. Select **Device Settings**.
4. Select **General**.
5. Select **Billing Impression Mode**.

How to Check Billing Impression Mode from the Remote Control Panel

1. In the Embedded Web Server window, login as **admin**.
2. Select **Support** > **Remote Control Panel** > **Start Remote Session**.
3. Press the **Device** icon on the UI.
4. Select **Tools**.
5. Select **Device Settings**.
6. Select **General**.
7. Select **Billing Impression Mode**.

How to check Billing Impressions Mode from the Web UI

1. In the Embedded Web Server window, login as admin.
2. Select **Support** > **Billing Impression Mode**.

If the Billing Impression Mode May Have Been Set Wrong

Call the appropriate support organization to verify the customer's contract. The support organization will need the device's Serial number and the current Sequence number. If the device does not match the customer's contract, the support organization can generate a PIN code to correct the BIM. Refer to the appropriate region.

- US/Canada/ Authorized Service Provider: Contact **XDSS Licensing** Hotline at 1-800-890-3260
- Xerox Business Solution (XBS): Contact your Service Manager
- LATAM (Latin America): Contact DMO West SW Licensing Center DMO.West.SW.Licensing.Center@xerox.com.
- XE/EMEA-E: Have the customer contact their Sales Representative

Once a support organization has generated a PIN code, they can provide it over the phone, via email, or it can be found on Xerox Software Activation Portal: https://www.xeroxlicensing.xerox.com/fik/

To Enter a BIM PIN Code Via the Local Machine UI

1. Press the **Device** icon on the UI.
2. Scroll down and select **Tools**.
3. Select **Device Settings**.
4. Select **General**.
5. Select **Billing Impression Mode**.
6. Select **Impression Mode**.
7. Enter the 6–digit PIN code.
8. Select **OK**.
9. Verify that the Billing Impression Mode has been changed and now matches the contract

To Enter a BIM PIN Code via the Remote Control Panel

1. In the Embedded Web Server window, login as **admin**.
2. Select **Support** > **Remote Control Panel** > **Start Remote Session**.
3. Press the **Device** icon on the UI.
4. Scroll down and select **Tools**.
5. Select **Device Settings**.
6. Select **General**.
7. Select **Billing Impression Mode**.
8. Select **Impression Mode**.
9. Enter the 6–digit PIN code.
10. Select **OK**.
11. Verify that the Billing Impression Mode has been changed and now matches the contract

To Enter a BIM PIN Code via the WEB UI

1. In the Embedded Web Server window, login as **admin**.
2. Select **Support** > **Billing Impression Mode**.
3. Enter the 6–digit PIN code.
4. Select **Apply**.
5. Verify that the Billing Impression Mode has been changed and now matches the contract

GP 29 Restoring Customer Mode

Purpose

This procedure provides a method to restore normal customer mode in the event that a procedure such as a software load, or NVM initialization has reset NVM 616-014 system install phase to the default value of 0 (non-customer mode).

Overview

During some service procedures, NVM 616-014 may be set to the default value of 0. When this occurs, the screen will display the message **The device is in a non-customer mode** . (Figure 1)

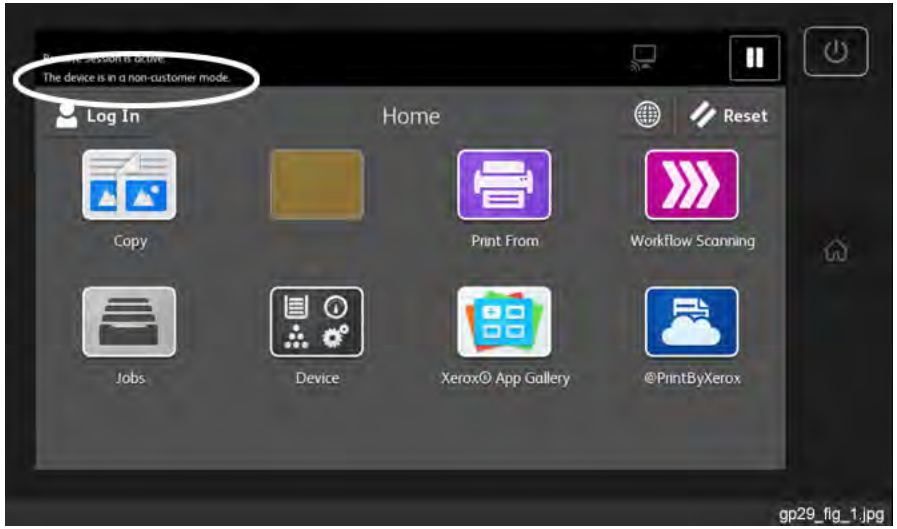


Figure 1 UI displaying The device is in a non-customer mode

When the NVM value is reset to 2, using the procedure listed below, it will cause the machine to restart in Install Wizard mode. Re-running the Install Wizard will restore other customer data that also may have been lost.

After the Install Wizard completes, the value of NVM 616-014 is automatically set to 4.

CAUTION: POSU will NOT run if the machine is in non-customer mode, even though it may appear that SW load has completed successfully. For some SW upgrades, it is necessary for POSU to run to finish installing upgrades in all platforms.

Procedure

1. Enter Service Diagnostic Mode.
2. Select **Adjustments**.
3. Select **dC131 NVM Read/Write....**
4. Enter **616-014** and select **Read**.
5. Set the NVM value to 2. (Figure 2)

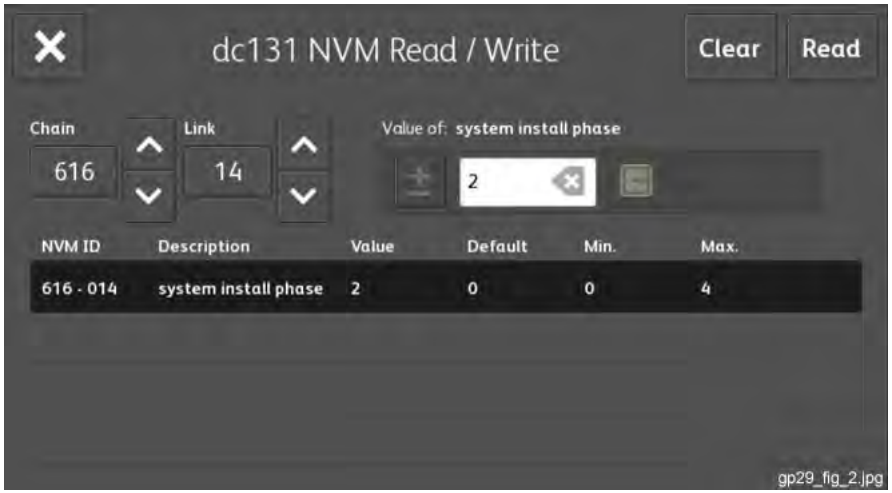


Figure 2 NVM 616-014 set to 2 to enable Customer Mode

6. Close **dC131** and select the **Call Closeout** button.
7. Select **Exit & Reboot**.
8. When the machine completes rebooting, it will be in Install Wizard mode. Follow the instructions on the screen and enter appropriate values as required. When the Install Wizard process has been completed, the machine will reboot and the value of **NVM 616-014** will automatically be set to 4 (customer mode). During this reboot, if POSU is required, it will be performed.

Note: There is no indication on the screen when the machine is in customer mode. The only time any indication appears on the UI screen is when the machine is in non-customer mode.

GP 30 Reloading NVM from the Tray 1 List

Purpose

This procedure provides a method to restore NVM values in the event that either NVM was corrupt, or for some other reason it is not possible to restore NVM using **dC361 NVM Save and Restore**. The process uses the **NVM Setting Value List** that is stored in Tray 1.

Overview

During some service procedures it may be necessary to restore NVM to the original factory settings. This can be done using the values entered on the NVM Setting Value List stored in the compartment located in the front right corner of Tray 1.

After entering the values on the NVM Setting Value List it will be necessary to run several adjustments to set the machine up for changes that may have occurred over time and due to usage. Thus the values from the NVM Setting Value List are only a starting point toward restoring full functionality.

Figure 1 Tray 1 Storage Compartment

Procedure

1. Open Tray 1 and remove the NVM Setting Value List from the storage compartment (Figure 1).
2. Enter Service Diagnostic Mode.
3. Select **Adjustments**.
4. Select **dC131**.
5. Enter the NVM chain and link values, one-by-one, from the NVM Setting Value List.
6. For each Chain/Link NVM location, check that the NVM value stored in that location is the same as the NVM value listed in the NVM Setting Value List.

   If the value stored in the location does not match the value listed on the NVM Setting Value List; use **dC131** to write the NVM value from the NVM Setting Value List to the NVM location.
7. After all of the NVM values have been checked and, if necessary, written to the NVM locations, perform the following adjustments in order.

   a. ADJ 90.1 IOT Lead Edge/Side Edge Registration (dC129)

   b. ADJ 60.7 Document Glass Registration Automatic Adjustment (dC609)

   c. ADJ 5.5 DADF Registration Automatic Adjustment (dC608)

   d. ADJ 90.7 ATC Sensor Setup (dC950)

   e. ADJ 60.5 IIT Calibration (dC945)
8. Close d**dC131** and select **Call Closeout**.
9. Select **Exit & Reboot**.

GP 31 Print/Copy Orientation Definitions

Purpose

To describe the print/copy orientation definitions.

Definitions

Refer to Figure 1 . Be aware of the points that follow:

- **Inboard edge** - can also be described as the top edge or side edge.
- **In process direction** - can also be described as the slow scan direction.
- **Cross process direction** - can also be described as the fast scan direction.

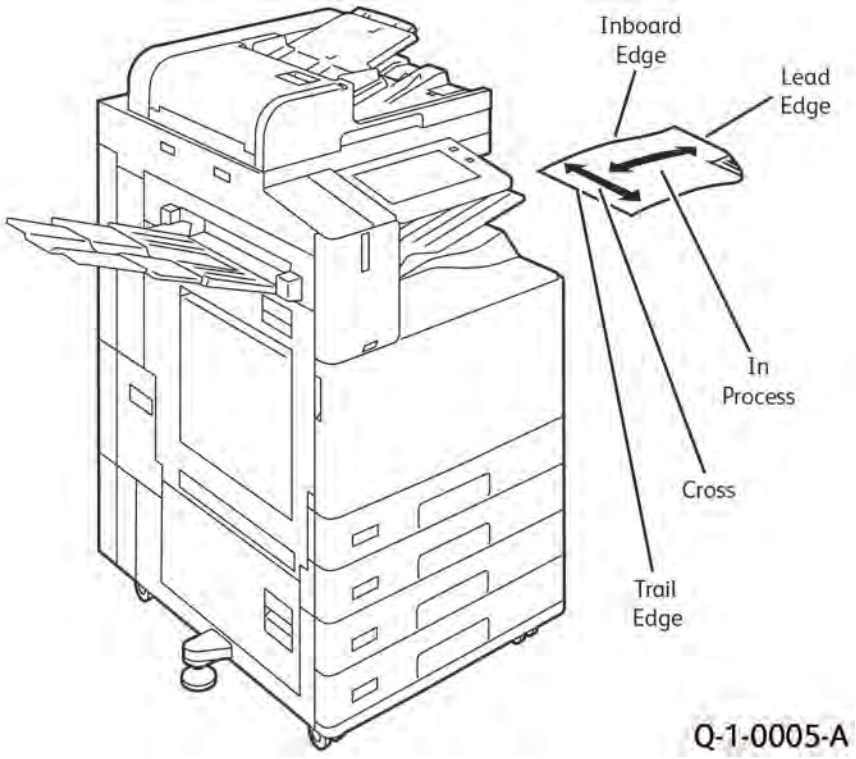


Figure 1 Print/Copy Orientation Definitions

GP 32 How to Open and Close the Video Contact Chassis Unit

Purpose

To open the video contact chassis assembly during repair and replacement procedures.

Opening Procedure

WARNING: Switch off the electricity to the machine. Refer to GP 4. Disconnect the power cord from the customer supply while performing tasks that do not need electricity. Electricity can cause death or injury. Moving parts can cause injury.

Figure 1 ESD symbol

CAUTION: Observe ESD procedures during this procedure.

1. Remove the Controller cover assembly. PL 3.10
2. Remove the Upper Rear cover. PL 28.10
3. Remove the Lower Right Rear cover. PL 28.10
4. Remove the IIT Rear cover.(C8130/35/45/55) PL 60.35
   (C8170) PL 60.10
5. Disconnect ribbon cable from IIT Trans PWB (C8130/35/45/55) (1) PL 60.45 Refer to Figure 2
   (C8170) PL 60.20 Refer to Figure 3
6. Release wiring harness from chassis (2)

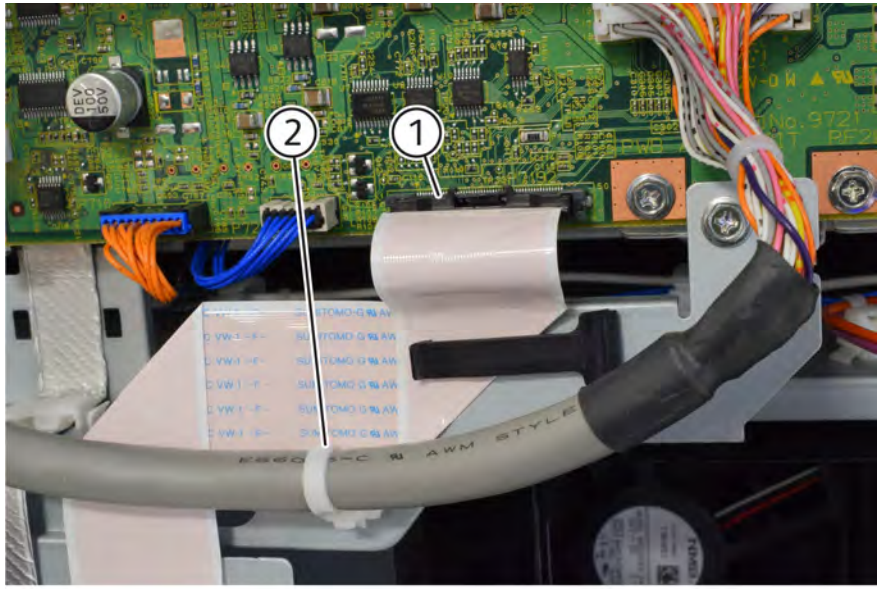


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Figure 2 IIT Trans PWB

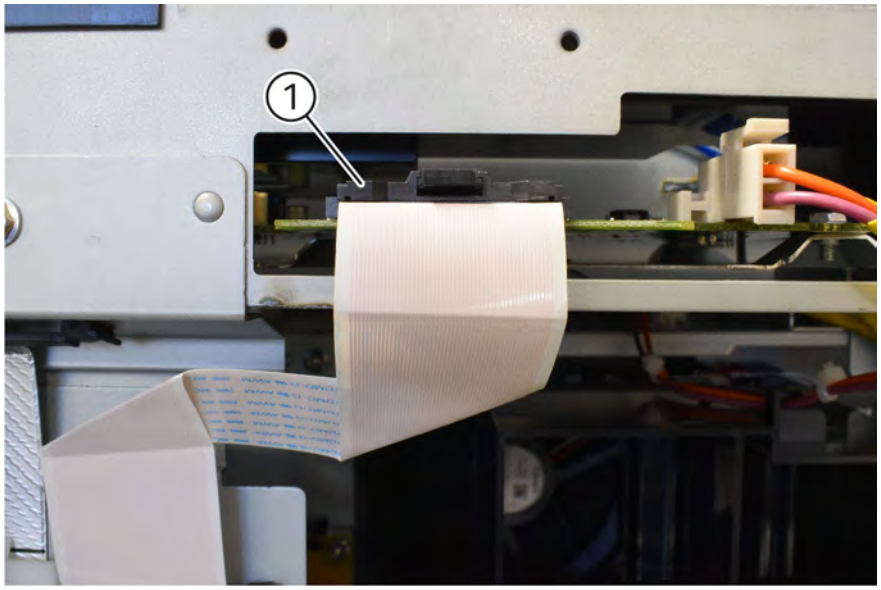

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Figure 3 C8170 IIT PWB

7. Disconnect the motor drive ribbon cable (1) from the Controller PWB PL 3.05 Refer to Figure 3
8.

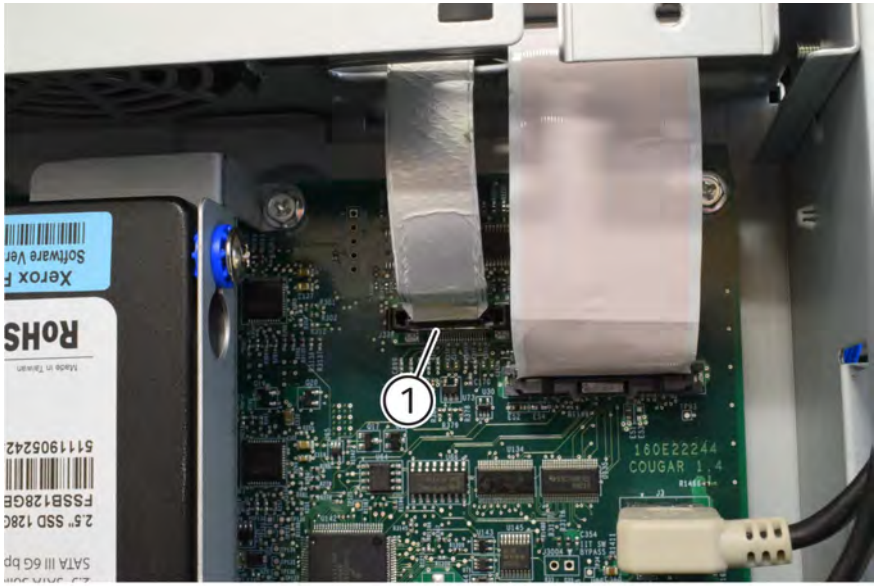

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Figure 4 Ribbon cable disconnect

9. Remove two screws (1) from behind the motor drive ribbon cable and above the motor drive PWB. Refer toFigure 4

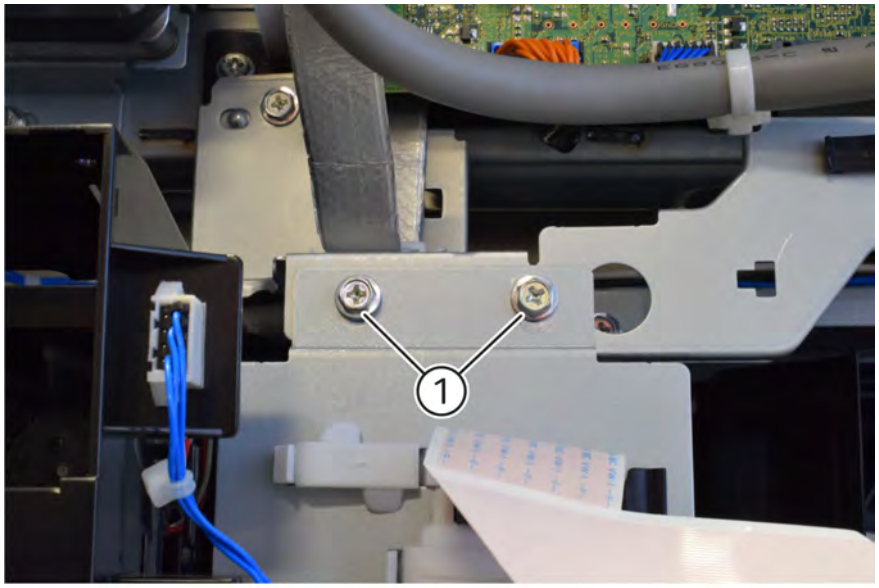

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Figure 5 Screw removal

10. Remove five screws (5), Refer to Figure 5

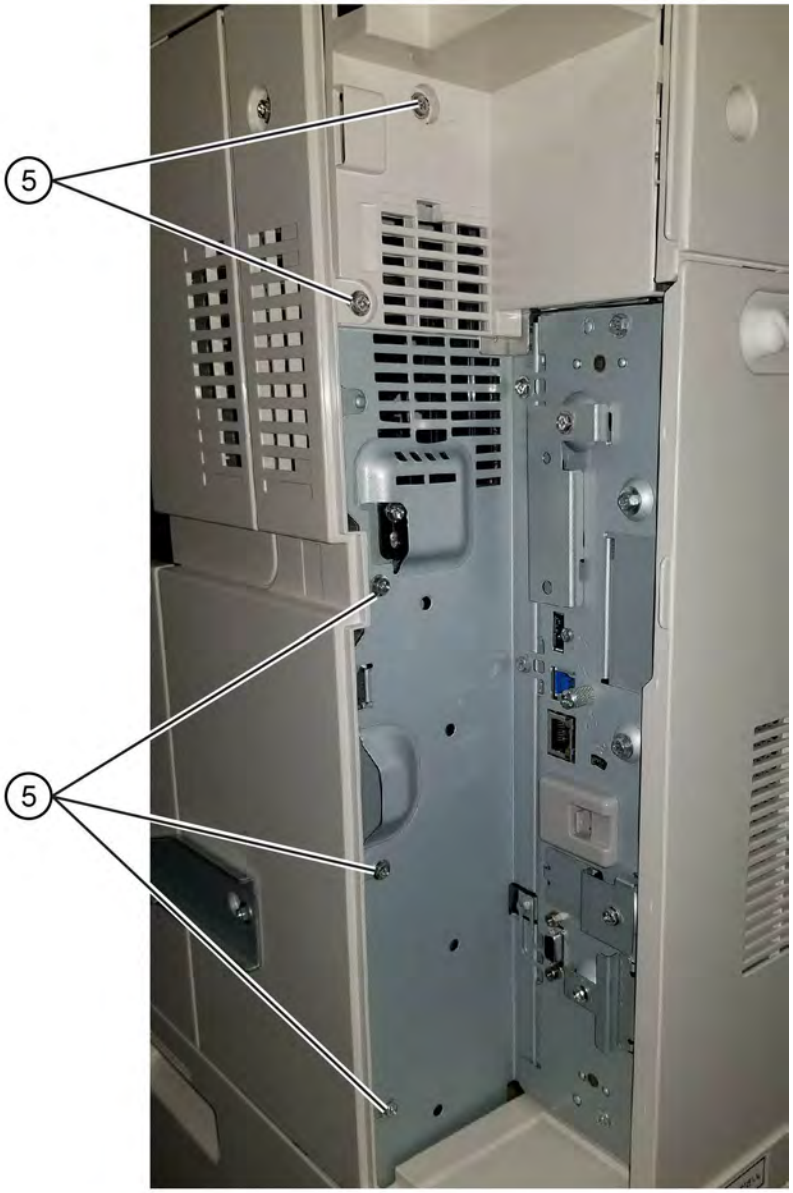


Figure 6 Screw removal

11. Open the video contact chassis unit.

Closing Procedure

Closing is the reverse of the opening procedure.

GP 33 Installation Space Requirements

Purpose

To outline the general space requirements to enable safe use and adequate access for service.

WARNING: Do not work in a confined space. 1 m (39 inches) space is needed for safe working.

WARNING: USA and Canada. Do not install this machine in a hallway or exit route that does not have 1.12 m (44 inches) of space additional to the normal space requirements in front of the machine. To conform with fire regulations this additional 1.12 m (44 inches) of space is needed in front of the machine in hallway and exit routes.

Machine Height

The height of the machine is 1142.7mm (45 inches).

Machine Weight

- Base configuration: 135.8kg (299lb) — 159.7kg (352lb).
- Base configuration with integrated Office Finisher: 160.8kg (354.5lb) — 174.7kg (385.1lb).
- Base configuration with Business Ready (BR) Finisher: 175.3kg (386.5lb) — 199.2kg (439.1lb).
- Base configuration with BR Booklet Maker Finisher: 192.3kg (424lb) — 216.2kg (476.6lb).
- Base configuration with BR Booklet Maker Finisher and C-fold / Z-fold Unit: 186.1kg (410.3lb) — 220kg (485lb).
- Base configuration with BR Booklet Maker Finisher, C-fold / Z-fold Unit and High Capacity Feeder: 242.6kg (534.8lb) — 266.5kg (587.5lb).

Machine Dimensions and Installation Space Requirements

Table 1 shows the dimensions of the machine and the installation space required for safe operation.

Note: The installation dimensions in Table 1 allow for a 1 metre (39.4 inches) minimum safety work space around the machine. To acquire this minimum safety work space, it may be necessary to move the machine within the area specified.

A gap of 100mm (4 inches) is required at the rear for airflow to fans.

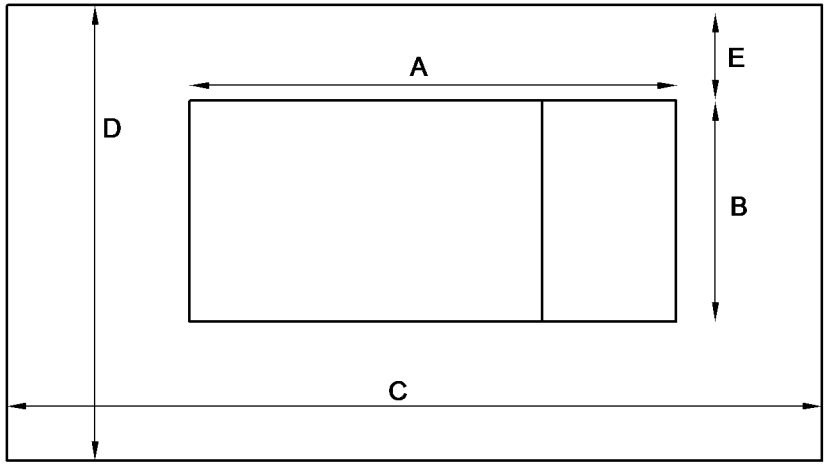
For machines with an HCF, the required install width (dimension C) includes the extra space required (250mm/9.8 inches) to slide the HCF away from the machine. (TBD)

The installation dimensions in Table 1 show the machine footprint with the bypass tray and output trays fully extended.

Table 1 Dimensions and space requirements

Configuration	Machine Width (A) mm / inches	Machine Depth (B) mm / inches
Base configuration	620 / 25.4	723 / 28.5
Base configuration with Global A Finisher	819 / 26	723 / 28.5
Base configuration with Business Ready (BR) Finisher	1395 / 54.9	723 / 28.5
Base configuration with BR Booklet Maker Finisher	1429.2 / 56.3	732.8 / 28.9
Base configuration with BR Booklet Maker Finisher and C-fold / Z-fold Unit	1632 / 64.3	793 / 31.2
Base configuration with BR Booklet Maker Finisher, C-fold / Z-fold Unit and High Capacity Feeder	2361 / 93	793 / 31.2

Figure 1represents a plan view of a machine installation and is to be read in conjunction with Table 1. The dimensions A and B outline a footprint of the machine within the boundary of safe operation, dimensions C and D. The dimension E indicates the area required for airflow/work space at the rear of the machine. (TBD)



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GP 34 How to Enable HTTP

Purpose

To enable the hyper text transfer protocol (HTTP) networking protcol.

Procedure

Perform the steps that follow:

1. Enter Customer Administration Tools, GP2.
2. Select the **Device** icon.
3. Scroll down and select **Tools**.
4. Select **Network Settings**.
5. Select **Advanced Settings**.
6. Select **HTTP Settings**.
7. Select **Enable**.
8. Select **Save**.
9. Select **Close**.
10. Log out of Customer Administration Tools.

GP 35 How to Change Ethernet Speed

Purpose

To change the machine's ethernet speed.

Procedure

Perform the steps that follow:

1. Enter Customer Administration Tools, GP2.
2. Press the **Machine Status** button.
3. Select the **Tools** tab.
4. Select **Network Settings**.
5. Select **Advanced Settings**.
6. Select **Wired Physical Media**.
7. Select the speed, then **OK**.
8. Log out of Customer Administration Tools.

GP 36 How to Disable the Firewall of the PWS

Procedure

Go to the relevant procedure:

- Windows 7 (32 bit and 64 bit).
- Windows 10 (64 Bit).

Purpose

To disable the firewall of the PWS.

Windows 7 (32 bit and 64 bit)

Perform the steps that follow:

1. Open Start / Control Panel / Windows Firewall.
2. From the left pane, select Turn Windows Firewall on or off.
3. Select all 3 Turn off Windows Firewall (not recommended) radio buttons to disable the windows firewall, Figure 1.

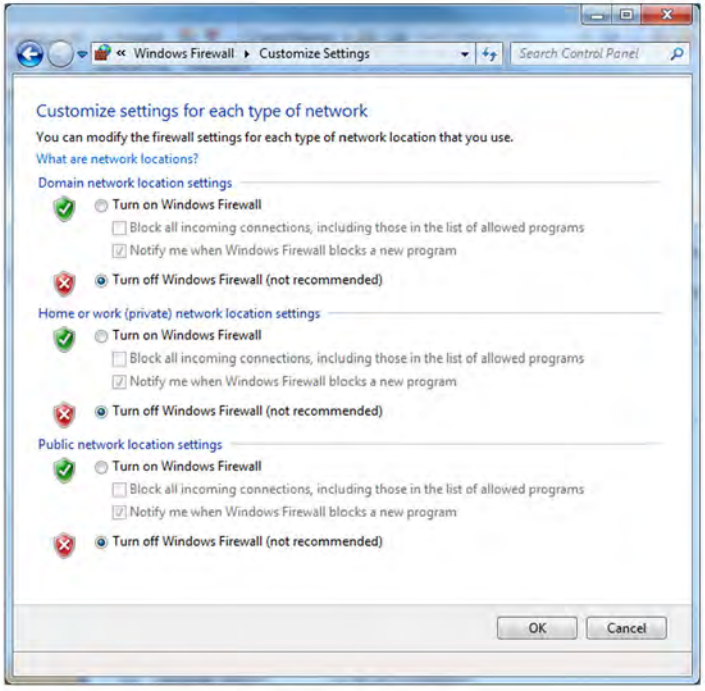

Figure 1 Settings buttons

4. Select OK.

Windows 10 (64 Bit)

Perform the steps that follow:

1. From the task bar select the Search icon and type Firewall / then select Windows Firewall.
2. On the left side of the Control Panel window select Turn Windows Firewall on or off.
3. Select both Turn off Windows Firewall (not recommended) radio buttons to disable the windows firewall Figure 2.

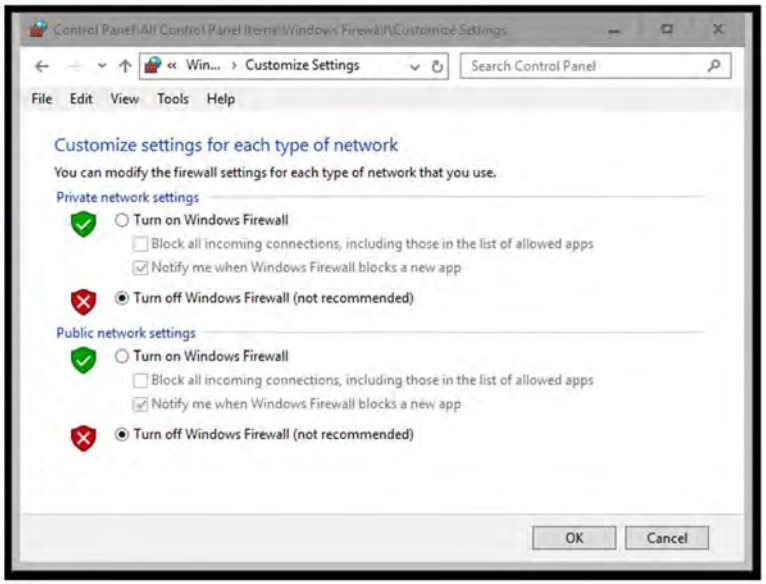

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Figure 2 Settings buttons

4. Select OK.

GP 37 How to Configure the PWS to Ping a Device

Purpose

To configure the PWS to ping a device on a network.

Procedure Windows 7

Perform the steps that follow:

1. Set the IP address of the PWS one digit higher or lower than the device to be pinged. For example, if the IP address of the device is 192.168.10.15, set the PWS to 192.168.10.14 or 192.168.10.16. To set the IP address of the PWS, refer to GP 38.
2. Set the subnet mask of the PWS the same as the device to be pinged.
3. Perform the steps that follow:
   a. Click on the Windows Start icon.
   b. In the Search programs and files dialog box, type cmd.
   c. Click on OK. A command window will open.
4. In the command window, type 'ping' and the address of the device. Refer to number 1 in Figure 1.
5. If the ping command is successful, a reply from the device will be received. Refer to number 2 in Figure 1.

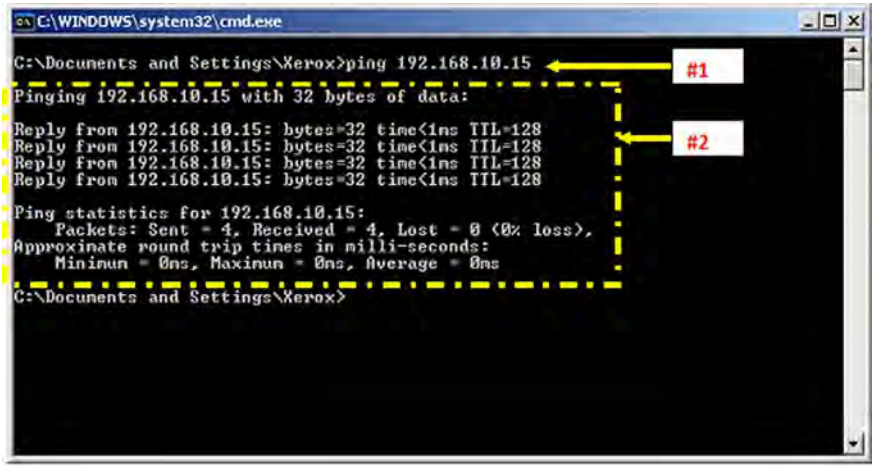

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Figure 1 Successful ping command

6. If the ping command is unsuccessful, a timed out message will be received, Figure 2.

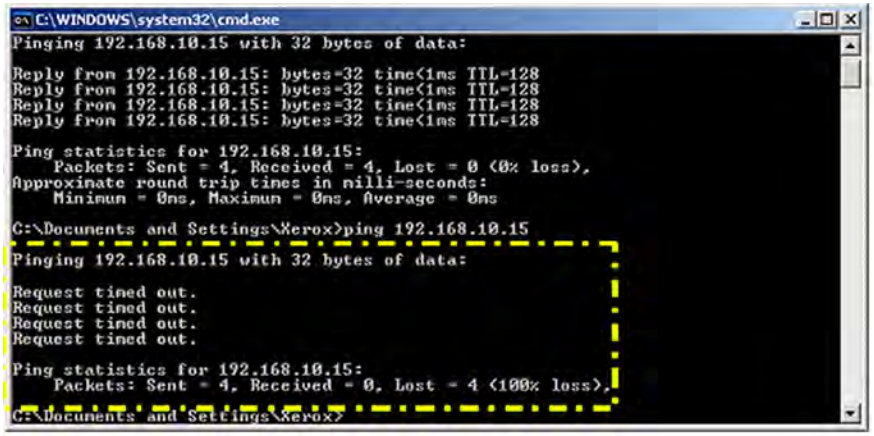

Figure 2 Unsuccessful ping command

GP 38 How to Set the IP Address of the PWS

Purpose

To set the IP address of the PWS.

Windows 7

Perform the steps that follow:

1. Open Start / Control Panel / Network and Sharing Centre.
2. From the left pane, select Change adapter settings.
3. Right-click on the Local Area Connection icon. Select Properties. The Local Area Connection Properties window will open.
4. Highlight Internet Protocol Version 4 (TCP/IPv4). Select Properties, refer to Figure 1 . The Internet Protocol Version 4 (TCP/IPv4) Properties window will open.

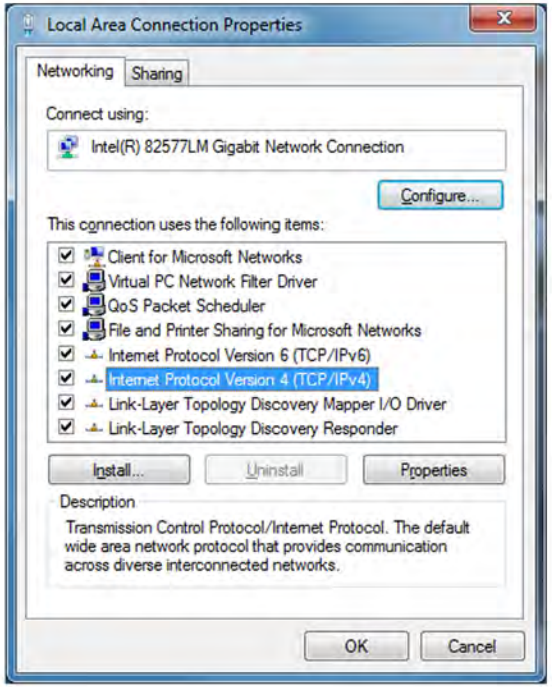

Figure 1 Properties window

5. Double-click the entry Internet Protocol Version 4 (TCP/IPv4).
6. Select Use the following IP address. Enter the IP address and subnet mask, Figure 2 .

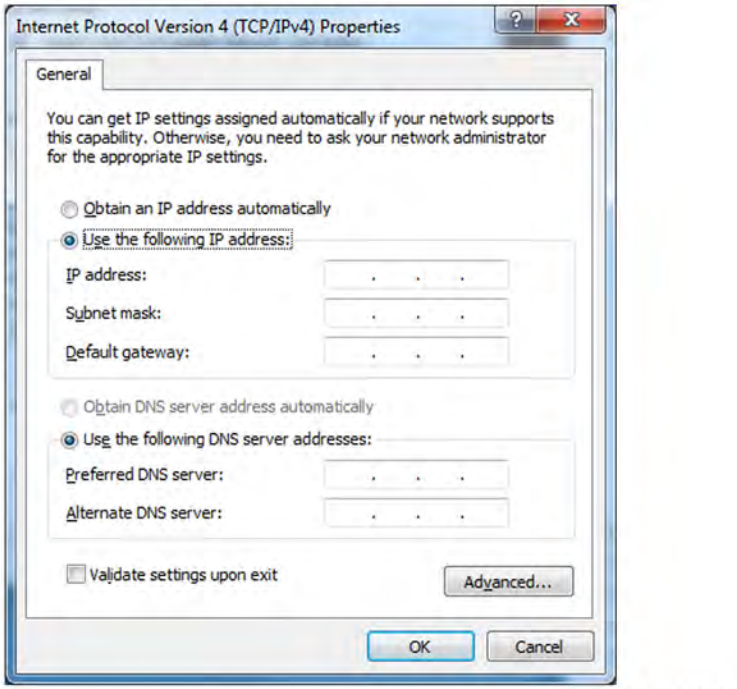

Figure 2 Properties window

7. Refer to the configuration report. Set the IP address of the laptop one number higher than the device. For example, if the IP address of the device is 192.168.196.112, set the IP address of the laptop to 192.168.196.113.
8. Refer to the configuration report. Set the Subnet mask of the laptop to the same as the Subnet mask of the device.
9. Click on OK to close the properties dialog box, then OK to close the second properties dialog box.
10. Close the Local Area Connection Status dialog box.

Change Tags

Glossary of Terms, Acronyms and Abbreviations

Where possible unit designations as appear in ISO 1000 (International Organization for Standardization) and Xerox Standard MN2-905 have been used. All measurements appear in ISO units followed by any conversion in brackets e.g.; 22.5mm (0.885 inches)

Refer to Table 1.

Table 1 Abbreviations

Term	Description
1TM	One Tray Module
2TM	Two Tray Module
AAA	Authentication, Authorisation and Accounting
ABS	Automatic Background Suppression.
AC	Alternating Current
ACAST	Anti Counterfeiting Activities Support/Strategy Team
ACL	Alternating Current Live
ACN	Alternating Current Neutral
AGC	Automatic Gain Control
AHA	Advanced Hardware Architecture
AMPV	Average Monthly Print Volume
ANSAM	Answer Tone, Amplitude Modulated
APS	Auto Paper Selection
ARP	Address Resolution Protocol. Converts an IP address to a MAC address. See RARP.
ASIC	Application Specific Integrated Circuit
B	Bels (applies to sound power level units)
Binding	Part of the communication between modules.
BM	Booklet Maker
BootP	Boot Protocol. AN IP protocol for automatically assigning IP addresses.
BPS	Bits Per Second
BS	Behavior Specification
BT	Busy Tone
BCR	Bias Charge Roll
BTR	Bias Transfer Roll
C	Celsius
CAT	Customer Administration Tool
CBC	Customer Business Center
CCD	Charged Coupled Device
CCM	Copy Controller Module
CCS	Copy Controller Service
CentreWare	CentreWare internet services is the embedded HTTP server application that is available on network enabled machines. It enables access to printing over the internet.
CIPS	Common Image Path Software
CIS	Contact Image Sensor
CL	Copy Lighter. A copy density setting
CQ	Copy Quality
CRC	Cyclic Redundancy Check
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Monitor
CSE	Customer Service Engineer
CVT	Constant Velocity Transport
CWIS	CentreWare Internet Services (also known as Web UI)
DADF	Duplex Automatic Document Feeder
dB	Decibel (applies to sound pressure level units)
dC	Diagnostic code
DC	Device Controller, generic term for any module that acts as a image handling device e.g., SIP. Digital Copier
DC	Direct Current
DCN	Disconnect
DCS	Digital Command Signal
DDNS	Dynamic Domain Name System

Term	Description
DH	Document Handler
DHCP	Dynamic Host Configuration Protocol (similar to BootP)
DIMM	Dual In-line Memory Module
DIP	Dual In-line Package (switch)
DIS	Digital Identification Signal
DLM	Dynamically Loadable Module
DM	Document Manager
DMA	Direct Memory Access
DMO	Developing Markets Operations
DMO-E	Developing Markets Operations East
DMO-W	Developing Markets Operations West
DPI	Dots Per Inch
DRAM	Dynamic Random Access Memory
DST	Daylight Saving Time
DT	Dial Tone
DTMF	Dual Tone Multiple Frequency
DTS	Detack Saw
Dust Off	Routine to return machine to pre-install state
DVMA	Direct Virtual Memory Access
EEC	European Economic Community
EEPROM	Electrically Erasible/Programmable Read Only Memory
EH&S	Environmental Health and Safety
EJS	Easy Java Simulation
ELT	Extract, Load, Transform
EMC	Electromagnetic Compatibility
EME	Electromagnetic Emission
ENS	Event Notification Service. Used by a software module to alert another module of an event.

Term	Description
EOM	End Of Message
EOP	End Of Procedure
EOR	End Of Retransmission
EPA	Environmental Protection Agency
EPROM	Erasable / Programmable Read Only Memory
ERR	End Retransmission Response
ERU	Engineer Replaceable Unit
ESD	Electrostatic Discharge
ESS	Electronic Sub-System (equivalent to Network Controller)
EU	European Union
EUR	Europe
FAR	Fully Active Retard feeder
FCOT	First Copy Out Time
FDI	Foreign Device Interface
FIFO	First In First Out
Firmware	Software in a ROM
FLASH	On board erasable and re-programmable non volatile memory
FPGA	Field Programmable Gate Array
FPOT	First Print Out Time
FRU	Field Replaceable Unit
FRU	Fuser Replacement Unit
FX	Fuji Xerox
g	gram or gramme (one thousandth part of a kilogram)
G3	Group 3
GMT	Greenwich Mean Time
GND	Ground
GSM	Grams per square metre
GUI	Graphical User Interface

Term	Description
HCF	High Capacity Feeder
HDD	Hard Disk Drive
HFSI	High Frequency Service Intervals
HTTP	Hyper Text Transfer Protocol
HVPS	High Voltage Power Supply
Hz	Hertz (unit of frequency of one cycle per second)
I/O	Input/Output
I2C-bus	Inter Integrated Circuit bus. This provides a simple bidirectional 2-wire bus for efficient inter-IC control. All I2C-bus compatible devices incorporate an interface which allows them to communicate directly with each other via the I2C-bus.
ID	Identification
IDG	Inter Document Gap
IIT	Image Input Terminal
Intlk	Interlock
ioctl	Input/output control
IOT	Image Output Terminal
IP	Internet Protocol
IPS	Image Processing Service
IPSec	Internet Protocol Security
IPX	Internetwork Protocol eXchange
IQ	Image Quality
IQS	Image Quality Specification
IR	Intelligent Ready
ISDN	Integrated Services Digital Network / International Standard Data Network
ISO	International Standards Organization
ITP	Internal Test Pattern
JBA	Job Based Accounting (Network Accounting)
JIS	Japanese Industrial Standards

Term	Description
kg	kilogram (International unit of mass)
kHz	kilohertz (frequency of one thousand cycles per second)
Kill All	Routine to return all NVM, including protected NVM, to a virgin state. Factory use only
KO	Key Operator
LAN	Local Area Network
LCD	Liquid Crystal Display
LCSS	Low Capacity Stapler Stacker
LDAP	Lightweight Directory Access Protocol (allows sharing of corporate phone book information)
LE	Lead Edge
LED	Light Emitting Diode
LEF	Long Edge Feed
LOA	Load Object Attributes
LPD	Line Printer Daemon
LPH	LED Print Head. An LED array in close proximity to and the same width as the photoreceptor. Individual LEDs are switched on/off to develop the image on the xerographic drum.
lpi	Lines Per Inch
LVF BM	Low Volume Finisher Booklet maker
LVDS	Low Voltage Differential Signal
LVPS	Low Voltage Power Supply
LUI	Local User Interface
m	metre (International unit of measurement)
MAC Address	Media Access Code. This is the basic, unique identifier of a networked device. An incoming message is analysed and an address in another form, such as an IP address, is resolved by a lookup table to a MAC address. The message is then directed to, and accepted by the equipment thus identified. It is the burnt-in, hardware address of a NIC.
Mark Service	Mark Service is the software module that tells the hardware to put toner on paper.
MB	Megabyte (one MB = 1,048,576 bytes = 1024 kilobytes). Mail Box

Term	Description
Mb	Mega bit (one million bits)
MCF	Message Confirmation
MF	Multifunction
mm	millimeter (one thousandth of a metre)
Modem	MOdulator/DEModulator. Hardware unit that converts the 'one' and 'zero' binary values from the computer to 2 frequencies for transmission over the public telephone network (modulation). It also converts the 2 frequencies received from the telephone network to the binary values for the computer (demodulation).
Moire	Image quality defect caused by interference between patterned originals and the digital imaging process. Moire patterns are repetitive and visible as bands, plaids or other texture.
MSG	Management Steering Group
ms	millisecond (one thousandth of a second)
N	Newton (a unit of force)
NA	North America
NC	Network Controller (equivalent to ESS)
NC	Normal Contrast. Copy contrast setting
NCR	No Copying Required
NetBIOS	Network Basic Input / Output System. Software developed by IBM that provides the interface between the PC operating system, the I/O bus, and the network. Since its design, NetBIOS has become a de facto standard.
Nm	Newton metre (a unit of torque equivalent to one Newton at one metre radius)
NOHAD	Noise, Ozone, Heat, Airflow and Dust
NTP	Network Time Protocol
NVM	Non-Volatile Memory
OA	Open Architecture
ODIO	On Demand Image Overwrite
OEM	Original Equipment Manufacturer
OpCo	Operating Company
OS	Operating System
P/R	Photoreceptor

Term	Description
PABX	Private Automatic Branch Exchange
PC	Personal Computer
PCI	Peripheral Component Interface
PCL	Printer Control Language
PDF	Adobe Acrobat Portable Document Format
PFM	Paper Feed Module
PIN	Procedural Interrupt Negative
PIN	Personal Identification Number
ping	Packet InterNet Groper. Tool to test connections between nodes by sending and returning test data.
PME	Power Management Event
POPO	Power Off Power On
POO or P of O	Principles of Operation
POST	Power On Self Test
POTS	Plain Old Telephone System
PPM	Prints Per Minute / Parts Per Million
PR	Photo-Receptor
Procon	Process control
Process Death	A process has stopped working.
PS	Post Script
PS	Power Supply
PSTN	Private Switched Telephone Network
PSW	Portable Service Workstation
Pthread	Process Thread. A very low level operating system concept for code execution.
PTO	Product Technical Overview
PWB	Printed Wiring Board
PWBA	Printed Wiring Board Assembly
PWM	Pulse-Width Modulation

Term	Description
PWS	Portable Work Station
RAM	Random Access Memory
RARP	Reverse Address Resolution Protocol. Reverse of ARP. Converts a MAC address to an IP address. The document centre resolves its address using RARP. See also MAC, NIC and ARP.
RDT	Remote Data Transfer
Reg	Registration
Registration Service	Monitors when RPC services go online and offline.
RF	Radio Frequency
RFID	Radio Frequency Identification
RPC	Remote Procedure Call. How the device communicates internally between software modules.
RH	Relative humidity
RMS	Root Mean Square (AC effective voltage)
RNR	Receive Not Ready
RoHS	Restriction of Hazardous Substances
ROM	Read Only Memory
RR	Receive Ready
RS-232, RS-423, RS-422, RS-485	Series of standards for serial communication of data by wire. RS-232 operates at 20kbits/s, RS-423 operates at 100kbits/s, RS-422 and RS-485 operate at 10Mbits/s. See FireWire and USB.
RTC	Real Time Clock
Rx	Receive
SA	Systems Administration
SAKO	Systems Administration Key Operator
SAR	Semi-Active Retard feeder
SBC	Single board controller. Copy, print and UI controllers all on one PWB within the image processing module.
SCD	Software Compatibility Database
SD	Secure Digital, memory card format
SEF	Short Edge Feed

Term	Description
Semaphore	A variable or abstract data type.
SESS	Strategic Electronic Sub-System
SH	Staple Head
SIM	Subscriber Identity Module (also known as a SOK-Software Option Key)
SIMM	Single In-line Memory Module
SIR	Standard Image Reference
SLP	Service Location Protocol (finds servers)
SM	Scheduled Maintenance
SMART	Systematic Material Acquisition Release Technique
Smile Correction	Correction process that allows the adjustment of uniformity of density, giving accurate color edge-to-edge and page-to-page.
SMP	Service Maintenance Pack (contains a software package)
SNMP	Simple Network Management Protocol
Snr	Sensor
SOK	Software Option Key (also known as a SOIM-Subscriber Identity Module)
SPAR	Software Problem Action Request
spi	Spots per inch
SPI	Service Provider Interface. Steps to process a job.
SR	Service Representative
SRS	Service Registry Service
SS or S/S	Sub System
SSDP	Simple Service Discovery Protocol
SSID	Service Set Identifier (wireless network name)
STM	Single Tray Module
SU	Staple Unit
SW	Switch
SW or S/W	Software
sync	Synchronize

Term	Description
TAR	Take Away Roll
TAR or tar	An archive file format, derived from Tape ARchive
TBC	To Be Confirmed
TBD	To Be Defined
TC	Toner Concentration
TCF	Training Check Field
TCO	Thermal Cutout
TCP/IP	Transmission Control Protocol/Internet Protocol
TE	Trail Edge
TIFF	Tagged Image File Format
TP	Test Point
TRC	Toner Reproduction Curve
TTM	Tandem Tray Module
TTY	Teletype Terminal
Tx	Transmit
UART	Universal Asynchronous Receiver Transmitter
U-boot	Universal Boot Loader
UI	User Interface (display screen)
UK	United Kingdom
UM	Unscheduled Maintenance
USB	Universal Serial Bus. High speed successor to parallel port for local device communications. Operates at 12Mbits/s. See FireWire and RS-232.
USCO	United States Customer Operations
USSG	United States Solutions Group
V.17 / V.29 / V.34	Modem standards
VOIP	Voice Over Internet Protocol
WC	WorkCentre
WEB UI	CentreWare Internet Services

Term	Description
XCL	Xerox Canada Limited
XE	Xerox Europe
XEIP	Xerox Extensible Interface Platform
XLA	Xerox Latin America
XML	eXtensible Markup Language
XPS	XML Paper Specification (printing format)
XRU	Xerographic Replacement Unit
XSA	Xerox Standard Accounting

7 Wiring Data

Plug/Jack Location List

How to Use the Plug/Jack Location List

- To find which position to install specific connectors to, refer to Table 1 Plug/Jack Location List for Figure No. and Item No., and then to the figure in "7.1.2 Plug/Jack Positions."
- P/J No. in the Plug/Jack Location List is expressed in the four ways below:
  - J250 represents Jack 250
  - P250 represents Plug 250
  - CN1 represents Connector 1
  - DJ600 represents Double Jack 600
  - DP600 represents Double Plug 600
  - FS1 represents Faston Terminal 1
  - T represents Terminal

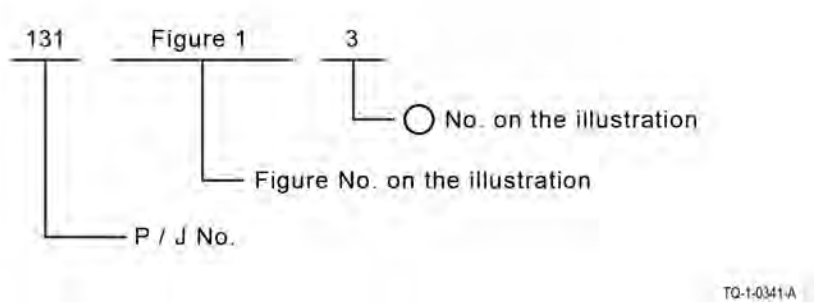

Figure 1 Plug/Jack Location

Plug/Jack Location List

P/J No	Figure No.	Item No.	Remarks (where to connect)
P/J1	29	9	LVPS CP1U
P1	4	5	Motor Drive PWB
J1	11	6	CIS (DADF 130)
J1	8	7	CIS (DADF 250)
P/J1	36	14	Controller (SBC) PWB - USB 3 Ports (2X)
P/J1	39	3	Fax Option
P2	4	45	Motor Drive PWB
P2	41	1	Relay PWB (Connect to MCU PWB J2)
J2	11	5	CIS (DADF 130)
J2	8	6	CIS (DADF 250)
J2	40	1	MCU PWB (Connect to relay PWB)
P/J2	36	6	Controller (SBC) PWB - Front USB
P/J2	39	2	Fax Option
P/J3	36	5	Controller (SBC) PWB - Front USB
P/J3	37	7	AC Drive PWB
P/J4	36	8	Controller (SBC) PWB - Power
P/J4	37	6	AC Drive PWB
P/J5	37	10	AC Drive PWB
P5	23	15	LVPS CC4 (High Only) (TTM)
P/J6	2	1	Controller (SBC) PWB
P/J6	37	13	AC Drive PWB
P/J6	36	7	Controller (SBC) PWB - UI I/F
P/J7	37	14	AC Drive PWB
P/J8	36	15	Controller (SBC) PWB - Network
P8	37	8	AC Drive PWB
P/J10	32	10	GFI (BLK)
P/J11	32	7	GFI (WHT)
P/J12	1	2	Main Power Switch (BLK)
P/J13	1	3	Main Power Switch (BLK)
P/J14	1	5	Main Power Switch (WHT)
P/J15	1	4	Main Power Switch (WHT)
J20	23	16	GFI Plug 2 (BLK) (TTM)
J21	23	17	GFI Plug 2 (WHT) (TTM)
P/J21	36	13	Controller (SBC) PWB - USB Target Port
P/J22	32	11	Finisher Outlet (BLK)
P/J23	32	5	Finisher Outlet (WHT)
P/J23	36	2	Controller (SBC) PWB - SSD/HDD Power
P/J24	32	6	Finisher Outlet (GN/YL)

P/J24	36	1	Controller (SBC) PWB - SSD/HDD Data
P/J28	36	17	Controller (SBC) PWB - Debug Connection
P/J30	31	6	Fuser Heater Power Supply
J33	23	15	LVPS CC4 (High Only) (TTM)
P/J45	36	11	Controller (SBC) PWB - Fax Flex Cable
P/J45	39	1	Fax Option
P60	31	3	Fuser Heater Power Supply (Connect to J61)
J60	31	4	Connector (1pin) (Connect to P61)
P61	31	4	Fuser Heater Power Supply (Connect to J60)
J61	31	3	Connector (1pin) (Connect to P60)
P/J101	6	9	Registration Sensor (DADF 250)
P/J101	25	2	Connector (4pin) (TTM)
P/J101	33	3	L/H Cover Interlock Switch
P/J102	6	10	Lead Registration Sensor (DADF 250)
P/J102	22	9	Tray 3 Paper Size Sensor (5Bit) (2TM)
P/J102	25	1	Tray 3 Paper Size Sensor (2Bit) (TTM)
P/J103	22	10	Tray 4 Paper Size Sensor (5Bit) (2TM)
P/J103	25	3	Tray 4 Paper Size Sensor (2Bit) (TTM)
P/J103	30	5	Front Cover Interlock Switch
P/J104	6	8	Out Sensor (DADF 250)
P/J104	22	16	TM L/H Interlock Switch (2TM)
P/J104	24	4	TM L/H Interlock Switch (TTM)
P/J104	30	6	Front Cover Interlock Switch
P/J105	6	7	Pre Registration Sensor (DADF 250)
P/J105	30	7	Front Cover Open Switch
P/J106	6	6	APS Sensor 1 (DADF 250)
P/J107	6	5	APS Sensor 2 (DADF 250)
P/J108	6	4	APS Sensor 3 (DADF 250)
P/J109	8	5	DADF L/H Cover Interlock Sensor (DADF 250)
P/J110	8	3	Document Set LED (DADF 250)
P/J110	22	11	Feed Out Sensor 3 (2TM)
P/J110	24	12	Feed Out Sensor 3 (TTM)
P/J110	28	6	Toner Bottle Full Sensor
P/J111	6	13	Skew Detect Sensor (DADF 250)
P/J111	22	4	Tray 3 Pre Feed Sensor (2TM)
P/J111	24	14	Tray 3 Pre Feed Sensor (TTM)
P/J111	28	7	Toner Bottle Position Sensor
P/J112	6	15	Feed Out Sensor (DADF 250)
P/J112	22	3	Tray 3 No Paper Sensor (2TM)
P/J112	24	15	Tray 3 No Paper Sensor (TTM)
P/J113	6	14	Exit Sensor (DADF 250)
P/J113	22	2	Tray 3 Level Sensor (2TM)
P/J113	24	16	Tray 3 Level Sensor (TTM)
P/J114	6	3	Document Set Sensor (DADF 250)
P/J115	6	18	Bottom Sensor (DADF 250)
P/J115	30	3	NOHAD Temp & Humidity Sensor
P/J116	6	20	Tray APS Sensor 1 (DADF 250)
P/J116	16	1	Toner Cartridge Crum (K)
P/J117	6	1	Tray APS Sensor 2 (DADF 250)
P/J117	16	4	Toner Cartridge Crum (Y)
P/J118	6	2	Tray APS Sensor 3 (DADF 250)
P/J118	16	3	Toner Cartridge Crum (M)
P/J119	6	19	Tray APS Sensor 4 (DADF 250)
P/J119	16	2	Toner Cartridge Crum (C)
P/J120	8	4	DADF Feed In Sensor 1 (DADF 250)
P/J120	24	11	Feed Out Sensor 4 (TTM)
P/J120	28	2	Drum Crum PWB (Y)
P/J121	8	1	DADF Feed In Sensor 2 (DADF 250)

P/J121	22	5	Tray 4 Pre Feed Sensor (Mid Only) (2TM)
P/J121	24	10	Tray 4 Pre Feed Sensor (TTM)
P/J121	28	3	Drum Crum PWB (M)
P/J122	8	2	DADF Level Sensor (DADF 250)
P/J122	22	6	Tray 4 No Paper Sensor (2TM)
P/J122	24	9	Tray 4 No Paper Sensor (TTM)
P/J122	28	4	Drum Crum PWB (C)
P/J123	22	7	Tray 4 Level Sensor (2TM)
P/J123	24	8	Tray 4 Level Sensor (TTM)
P/J123	28	5	Drum Crum PWB (K)
P/J124	30	12	ATC Sensor K
P/J125	30	13	ATC Sensor C
P/J126	30	14	ATC Sensor M
P/J127	30	15	ATC Sensor Y
P/J129	33	4	Regi. Heater
P/J130	5	3	Human Motion Sensor PWB
P/J132	33	13	Regi. Sensor
P/J133	33	14	POB Jam Sensor
P/J134	19	10	Bypass Feed Out Sensor
P/J135	35	11	Exit 2 Sensor
P/J136	35	10	Exit 2 OCT Home Position Sensor
P/J138	35	15	Exit 1 OCT Full Stack Sensor (Option)
P/J139	35	13	Exit 1 OCT Home Position Sensor
J140	26	4	1st BTR Contact/Retract Sensor
P/J141	35	1	Face Up Exit Sensor (Option)
P/J142	35	3	Face Up Tray Switch (Option)
P/J143	35	2	Face Up Gate Solenoid (Option)
P/J144	35	18	Exit2 Tray Sensor
P/J145	35	17	Exit1 Tray Sensor

P/J151	17	1	Temp & Humidity Sensor
P/J152	17	2	Shutter Solenoid
P/J153	17	7	ADC Sensor
P/J154	17	8	Rear MOB Sensor
P/J155	17	6	Front MOB Sensor
P/J170	20	5	Tray 1 Level Sensor
P/J171	20	6	Tray 1 No Paper Sensor
P/J172	20	9	Tray 1 Pre Feed Sensor (Mid/High)
P/J174	18	1	Tray 1 Paper Size Sensor
P/J175	18	2	Tray 2 Paper Size Sensor
P/J177	20	12	Tray 2 Level Sensor
P/J178	20	11	Tray 2 No Paper Sensor
P/J179	20	10	Tray 2 Pre Feed Sensor (Mid/High)
P/J181	19	2	Bypass Paper Size Sensor
P/J182	19	1	Bypass No Paper Sensor
P/J183	19	9	Bypass Nudger Position Sensor
P/J190	34	1	Fusing Unit EEPROM
P/J192	34	8	Fusing Unit Exit Sensor
P/J193	34	10	P/Roll Latch Sensor
P/J194	34	7	Belt Speed Sensor
P/J195	34	11	IH Center Thermistor / IH Rear Thermistor
P/J196	34	9	Thermostat
P/J197	37	11	Connector (3pin)
P/J201	7	3	Nudger Solenoid (DADF 250)
P/J201	22	1	Tray 3 Feed/Lift Motor (2TM)
P/J201	24	17	Tray 3 Feed/Lift Motor (TTM)
P/J201	26	2	Fusing Unit Drive Motor (2pin)
P/J202	22	8	Tray 4 Feed/Lift Motor (2TM)
P/J202	24	7	Tray 4 Feed/Lift Motor (TTM)

P/J202	26	6	K Drum/Deve & IBT Motor (2pin)
P/J203	7	5	Take Away Clutch (DADF 250)
P/J203	21	4	Take Away Motor (2TM)
P/J203	23	7	Take Away Motor (TTM)
P/J203	26	8	YMC Drum Motor (2pin) (High)
P/J203	26	13	YMC Drum/Deve Motor (2pin) (Low/Mid)
P/J204	6	11	Connector (3pin) (DADF 250)
P/J204	26	10	YMC Deve Motor (2pin) (High)
P/J205	6	12	Connector (4pin) (DADF 250)
P/J210	7	6	Platen Motor (DADF 250)
P/J211	7	9	Exit Motor (DADF 250)
P/J211	26	11	Fusing Unit Drive Motor (6pin)
P/J212	7	2	Feed Motor (DADF 250)
P/J212	26	5	K Drum/Deve & IBT Motor (6pin)
P/J213	7	7	Pre Registration Motor (DADF 250)
P/J213	26	7	YMC Drum Motor (6pin) (High)
P/J213	26	12	YMC Drum/Deve Motor (6pin) (Low/Mid)
P/J214	7	8	Registration Motor (DADF 250)
P/J214	26	9	YMC Deve Motor (6pin) (High)
P/J215	7	13	Tray Motor (DADF 250)
P/J215	28	1	Agitator Motor
P/J216A	7	1	Feeder Cover Interlock Switch (DADF 250)
P/J216B	7	14	Feeder Cover Interlock Switch (DADF 250)
P/J220	32	1	Dispense Motor Y
P/J221	32	2	Dispense Motor M
P/J222	32	3	Dispense Motor C
P/J223	32	4	Dispense Motor K
P/J225	26	3	P/Roll Latch Motor
P/J226	35	16	Exit 1 OCT Motor
P/J231	20	2	Take Away Motor 2
P/J232	20	1	Regi. Motor
P/J233	20	3	Take Away Motor 1
P/J234	33	5	Duplex Motor
P/J235	35	12	Exit 2 OCT Motor
P/J236	35	8	Exit 2 Drive Motor
P/J237	35	9	Exit 1 Gate Solenoid
P/J240	26	1	1st BTR Contact/Retract Clutch
P/J261	30	9	Front Right Marking Fan (Mid/High)
P/J262	27	3	Fusing Unit Exhaust Fan
P/J263	27	1	IHPS Intake Fan
P/J264	27	4	LVPS Fan
P/J265	30	2	Front Left Marking Fan (Mid/High)
P/J267	30	1	Toner Cartridge Cooling Fan (Mid/High)
P/J268	33	2	L/H Fan 1 (Option) (Low/Mid)
P268S/ J268	33	2	L/H Fan 1 (High Only)
P/J269	33	1	L/H Fan 2 (Option) (Low/Mid)
P269S/ J269	33	1	L/H Fan 2 (High Only)
P/J270	27	5	Marking Fan (Mid/High)
P/J270	27	5	Marking Fan (Option) (Low)
P/J271	27	6	Suction Fan (High)
P/J272	27	7	Toner Cartridge Exhaust Fan (Mid/High)
P/J273	27	2	ESS Fan
P/J275	20	4	Tray 1 Feed/Lift Motor
P/J276	20	15	Tray 2 Feed/Lift Motor
P/J277	19	8	Bypass Feed/Lift Motor
J321	13	8	Connector-FFC (High) (Connect to P321)
J321	15	11	Connector-FFC (Low/Mid) (Connect to P321)

P/J321	36	4	Controller (SBC) PWB - Scanner Control
J335	38	1	Back Plane (BP) PWB (Controller PWB)
P/J335	36	9	Controller (SBC) PWB - IOT/Backplane Interface
J336	12	6	Connector-FFC (High) (Connect to P336)
J336	14	5	Connector-FFC (Low/Mid) (Connect to P336)
P/J336	36	3	Controller (SBC) PWB - Side 1 Platen Video Data
J390	6	16	Connector (50pin) (Connect to P390) (DADF 250)
J390	9	18	Connector (50pin) (Connect to P390) (DADF 130)
P/J390	36	16	Controller (SBC) PWB - Side 2 Scanning Data
P/J400	4	29	Motor Drive PWB
P/J401	4	31	Motor Drive PWB
P/J404	4	30	Motor Drive PWB
P/J405	4	9	Motor Drive PWB
P/J408	4	18	Motor Drive PWB
P/J409	4	27	Motor Drive PWB
P/J410	4	1	Motor Drive PWB
P/J411	4	11	Motor Drive PWB
P/J412	4	47	Motor Drive PWB
P/J413	4	44	Motor Drive PWB
P/J414	4	41	Motor Drive PWB
P/J415	4	40	Motor Drive PWB
P/J416	4	6	Motor Drive PWB
P/J417	4	37	Motor Drive PWB
P/J418	4	39	Motor Drive PWB
P/J420	4	10	Motor Drive PWB
P/J421	4	14	Motor Drive PWB
P/J422	4	19	Motor Drive PWB
P/J423	4	2	Motor Drive PWB
P/J424	4	3	Motor Drive PWB
P/J425	4	7	Motor Drive PWB
P/J426	4	43	Motor Drive PWB
P/J427	4	46	Motor Drive PWB
P/J428	4	26	Motor Drive PWB
P/J429	4	24	Motor Drive PWB
P/J431	4	25	Motor Drive PWB
P/J433	4	12	Motor Drive PWB
P/J434	4	16	Motor Drive PWB
P/J435	4	8	Motor Drive PWB
P/J436	4	23	Motor Drive PWB
P/J437	4	13	Motor Drive PWB
P/J441	4	42	Motor Drive PWB
P/J442	4	38	Motor Drive PWB
P/J443	4	4	Motor Drive PWB
P/J444	4	28	Motor Drive PWB
P/J445	4	15	Motor Drive PWB
P/J446	4	17	Motor Drive PWB
P/J451	37	5	Halftone PWB
P451	4	34	Motor Drive PWB (Connect to J451)
J451	21	1	Connector (15pin) (Connect to P451) (2TM)
J451	23	4	Connector (15pin) (Connect to P451) (TTM)
J451	38	5	Back Plane (BP) PWB (Connect to P451)
P452	4	33	Motor Drive PWB (Connect to J452)
J452	21	2	Connector (19pin) (Connect to P452) (2TM)
J452	23	5	Connector (19pin) (Connect to P452) (TTM)
P453	4	32	Motor Drive PWB (Connect to J453)
J453	21	3	Connector (11pin) (Connect to P453) (2TM)
J453	23	6	Connector (11pin) (Connect to P453) (TTM)
P454	4	20	Motor Drive PWB (Connect to J454)
P479	38	6	Back Plane (BP) PWB (Connect to relay PWB J479)
J479	41	2	Relay PWB

P/J480Y	16	6	LPH (Y)
P/J480M	16	7	LPH (M)
P/J480C	16	8	LPH (C)
P/J480K	16	9	LPH (K)
J481	37	1	Halftone PWB (Connect to P550)
P490	4	36	Motor Drive PWB (Connect to Finisher)
P491	4	35	Motor Drive PWB (Connect to Finisher)
P/J492	4	21	Motor Drive PWB
P/J493	4	22	Motor Drive PWB
P/J501	29	7	LVPS CP1U
P/J502	29	5	LVPS CP1U
P/J503	29	6	LVPS CP1U
P/J504	23	14	LVPS CC4 (High Only) (TTM)
P/J505	23	13	LVPS CC4 (High Only) (TTM)
P/J506	23	12	LVPS CC4 (High Only) (TTM)
P/J509	29	8	LVPS CP1U
P/J510	29	4	LVPS CP1U
P/J511	37	12	AC Drive PWB
P/J513	1	1	BCR HVPS
P/J514	29	1	Deve Bias HVPS
P/J515	29	2	Deve Bias HVPS
P/J516	31	1	BTR HVPS
P/J530	31	5	Fuser Heater Power Supply
P/J540	37	9	AC Drive PWB
P550	37	1	Halftone PWB (Connect to J481)
P/J551	37	4	Halftone PWB
P552	37	2	Halftone PWB
P554	37	15	Halftone PWB (Connect to J480Y)
P555	37	16	Halftone PWB (Connect to J480M)
P556	37	17	Halftone PWB (Connect to J480C)
P557	37	3	Halftone PWB (Connect to J480K)
DP600/ P600	34	2	Fusing Unit (Connect to DJ600/J600)
DJ600/ J600	34	3	Connector (Connect to DP600/P600)
P/J601	20	7	Connector (13pin)
P/J602	20	8	Connector (3pin) (Mid/High)
P/J604	30	8	Connector (3pin)
P/J605	30	10	Connector (3pin)
P/J606	30	4	Connector (3pin)
P/J607	30	11	Connector (3pin)
P/J608	17	5	Connector (5pin)
P/J609	17	3	Connector (12pin)
P/J610	17	4	Connector (7pin)
P/J611	22	17	Connector (3pin) (2TM)
P/J611	24	19	Connector (3pin) (TTM)
P/J612	22	15	Connector (12pin) (2TM)
P/J612	24	18	Connector (9pin) (TTM)
P/J613	22	14	Connector (4pin) (2TM)
P/J613	24	20	Connector (4pin) (TTM)
P/J614	23	11	Connector (4pin) (TTM)
P/J616	24	5	Connector (4pin) (TTM)
P/J617	24	13	Connector (4pin) (TTM)
DJ618	24	1	Connector (4pin) (TTM)
DJ618A	24	2	Connector (9pin) (TTM)
DJ618B	24	3	Connector (11pin) (TTM)
DP618	23	3	Connector (4pin) (TTM)
DP618A	23	2	Connector (9pin) (TTM)
DP618B	23	1	Connector (11pin) (TTM)
P/J619	24	6	Connector (9pin) (TTM)

P/J619	33	8	Connector (6pin) (Option) (Low/Mid)
P619/ J619S	33	8	Connector (6pin) (High Only)
P/J621	20	13	Connector (4pin)
P/J621	22	13	Connector (12pin) (2TM)
P/J622	20	14	Connector (12pin)
P/J622	22	12	Connector (4pin) (2TM)
P/J623	19	4	Connector (7pin)
P/J623	21	6	Connector (15pin) (2TM)
P/J623	23	9	Connector (12pin) (TTM)
P/J624	19	7	Connector (13pin)
P/J624	21	7	Connector (12pin) (2TM)
P/J624	23	10	Connector (14pin) (TTM)
P/J625	21	5	Connector (8pin) (2TM)
P/J625	23	8	Connector (8pin) (TTM)
P/J625	33	10	Connector (12pin x 2)
P/J626	33	9	Connector (6pin)
P/J628	19	6	Connector (4pin)
P/J629	33	6	Connector (3pin)
P/J630	33	7	Connector (5pin)
P/J631	35	6	Connector (9pin)
P/J632	35	4	Connector (7pin) (Option)
P/J633	35	14	Connector (3pin)
P/J634	35	5	Connector (8pin)
P634	31	2	IOT Coil Unit (Connect to J634)
J634	34	5	Connector (2pin) (Connect to P634)
P/J636	16	5	Connector (3pin)
P/J638	35	7	Connector (12pin)
P/J651	5	4	Connector (6pin)

P/J700	12	5	CCD PWB (High)
P/J700	14	4	CCD PWB (Low/Mid)
P/J701	12	7	CCD PWB (High)
P/J701	14	6	CCD PWB (Low/Mid)
P/J710	13	5	IIT Trans PWB (High)
P/J710	15	6	IIT Trans PWB (Low/Mid)
P/J720	13	7	IIT Trans PWB (High)
P/J720	15	3	IIT Trans PWB (Low/Mid)
P/J721	13	11	IIT Trans PWB (High)
P/J721	15	7	IIT Trans PWB (Low/Mid)
P/J722	13	6	IIT Trans PWB (High)
P/J722	15	2	IIT Trans PWB (Low/Mid)
P/J723	13	4	IIT Trans PWB (High)
P/J723	15	8	IIT Trans PWB (Low/Mid)
P/J724	15	5	IIT Trans PWB (Low/Mid)
P/J725	13	1	Platen Angle Sensor (High)
P/J727	12	8	Platen Interlock Switch (High)
P/J728	12	2	IIT Regi. Sensor (High)
P/J729	13	3	CCD Fan (High)
P/J745	7	12	DCDC PWB (DADF 250)
P/J745	11	3	DCDC PWB (DADF 130)
P/J746	7	10	DCDC PWB (DADF 250)
P/J746	11	1	DCDC PWB (DADF 130)
J750	6	17	Connector (36pin) (Connect to P7501) (DADF 250)
J750	9	17	Connector (36pin) (Connect to P7501) (DADF 130)
P/J751	7	27	DADF PWB (DADF 250)
P/J751	10	17	DADF PWB (DADF 130)
P/J752	7	26	DADF PWB (DADF-250)
P/J752	10	16	DADF PWB (DADF 130)

P/J753	7	20	DADF PWB (DADF-250)
P/J753	10	15	DADF PWB (DADF 130)
P/J754	7	18	DADF PWB (DADF-250)
P/J754	10	11	DADF PWB (DADF 130)
P/J755	7	21	DADF PWB (DADF-250)
P/J755	10	13	DADF PWB (DADF 130)
P/J756	7	15	DADF PWB (DADF-250)
P/J756	10	10	DADF PWB (DADF 130)
P/J757	7	24	DADF PWB (DADF-250)
P/J757	10	9	DADF PWB (DADF 130)
P/J758	7	23	DADF PWB (DADF-250)
P/J758	10	8	DADF PWB (DADF 130)
P/J759	7	22	DADF PWB (DADF-250)
P759	10	19	DADF PWB (DADF 130)
P/J760	7	25	DADF PWB (DADF-250)
P760	10	18	DADF PWB (DADF 130)
P/J761	7	19	DADF PWB (DADF-250)
P/J762	7	17	DADF PWB (DADF-250)
P/J762	9	2	Document Tray Size Sensor 1 (DADF 130)
P/J763	9	1	Document Tray Size Sensor 2 (DADF 130)
P/J764	9	3	DADF Tray APS Sensor 3 (DADF 130)
P/J765	9	4	DADF Tray APS Sensor 2 (DADF 130)
P/J766	9	21	DADF Tray APS Sensor 1 (DADF 130)
P/J768	7	16	DADF PWB (DADF-250)
P/J768	9	6	DADF APS Sensor 3 (DADF 130)
P/J769	9	5	DADF APS Sensor 2 (DADF 130)
P/J770	9	7	DADF APS Sensor 1 (DADF 130)
P/J772	9	9	DADF Registration Sensor (DADF 130)
P/J773	9	8	DADF Out Sensor (DADF 130)
P/J774	9	10	DADF Pre Registration Sensor (DADF 130)
P/J775	9	16	DADF Document Set Sensor (DADF 130)
P/J777	9	14	Connector (3pin) (DADF 130)
P/J778	9	20	DADF Exit Sensor (DADF 130)
P/J779	9	12	Connector (6pin) (DADF 130)
P/J780	9	19	DADF Feed Out Sensor (DADF 130)
P/J781	9	15	DADF Feed In Sensor (DADF 130)
P/J782	10	4	DADF Registration Motor (DADF 130)
P/J784	10	3	DADF Pre Registration Motor (DADF 130)
P/J786	10	5	Connector (2pin) (DADF 130)
P/J790	10	1	Stamp Solenoid (Option) (DADF 130)
P/J791	11	4	Document Set LED (DADF 130)
P/J792	10	12	DADF PWB (DADF 130)
P/J793	10	14	DADF PWB (DADF 130)
P/J794	10	2	DADF Feed Motor (DADF 130)
P/J795	9	13	DADF Take Away Clutch (DADF 130)
P/J796	9	11	DADF Pre Regi. Clutch (DADF 130)
DP800	29	3	Connector (18pin) (Connect to HCF)
P/J900	3	5	UI I/F PWB
P/J901	3	4	UI I/F PWB
P/J903	3	6	UI I/F PWB
P/J904	3	2	UI I/F PWB
P/J906	3	3	UI I/F PWB
P/J910	3	1	UI Switch PWB
P998	7	28	DADF PWB (DADF-250)
P999	7	4	DADF PWB (DADF-250)
J1341	38	4	Back Plane (BP) PWB (SWE & SWEA) (Connect to P1371)
P11	38	2	Back Plane (BP) PWB (Seep Rom)
P313	38	3	Back Plane (BP) PWB (Connect to Fax 24V)

P1371	38	4	Back Plane (BP) PWB (SWE & SWEA) (Connect to J1341)
P/J7001	12	1	LED Lamp PWB (High)
P/J7001	14	2	LED Lamp PWB (Low/Mid)
P/J7192	13	9	IIT Trans PWB (High)
P/J7192	15	4	IIT Trans PWB (Low/Mid)
P/J7211	13	2	Carriage Motor (High)
P/J7251	15	10	Platen Close Sensor (Low/Mid)
P/J7252	15	9	Platen Angle Sensor (Low/Mid)
P/J7253	14	1	IIT Regi. Sensor (Low/Mid)
P/J7254	14	3	APS Sensor 1 (Low/Mid)
P/J7255	14	7	APS Sensor 2 (Low/Mid)
P/J7258	15	12	Carriage Motor (Low/Mid)
P/J7261	12	3	APS Sensor 1 (High)
P/J7262	12	4	APS Sensor 2 (High)
P/J7461	7	11	DCDC PWB (DADF-250)
P/J7461	11	2	DCDC PWB (DADF 130)
P/J7501	13	10	IIT Trans PWB (High) (Connect to J750)
P/J7501	15	1	IIT Trans PWB (Low/Mid) (Connect to J750)
BT1	36	10	Controller (SBC) PWB - Battery
CN1	5	2	Human Motion Sensor PWB
CN2	5	1	Human Motion Sensor PWB
D53	36	12	Controller (SBC) PWB - Post Code Display
F1	10	6	DADF Interlock Switch (DADF 130)
F2	10	7	DADF Interlock Switch (DADF 130)
T20	34	6	Terminal
T21	34	4	Terminal
T31	19	5	Terminal
T33	33	11	Terminal
T34	33	12	Terminal
T80	23	18	Terminal
T80	32	8	Terminal
T82	19	3	Terminal
T88	32	9	Terminal

Plug/Jack Location

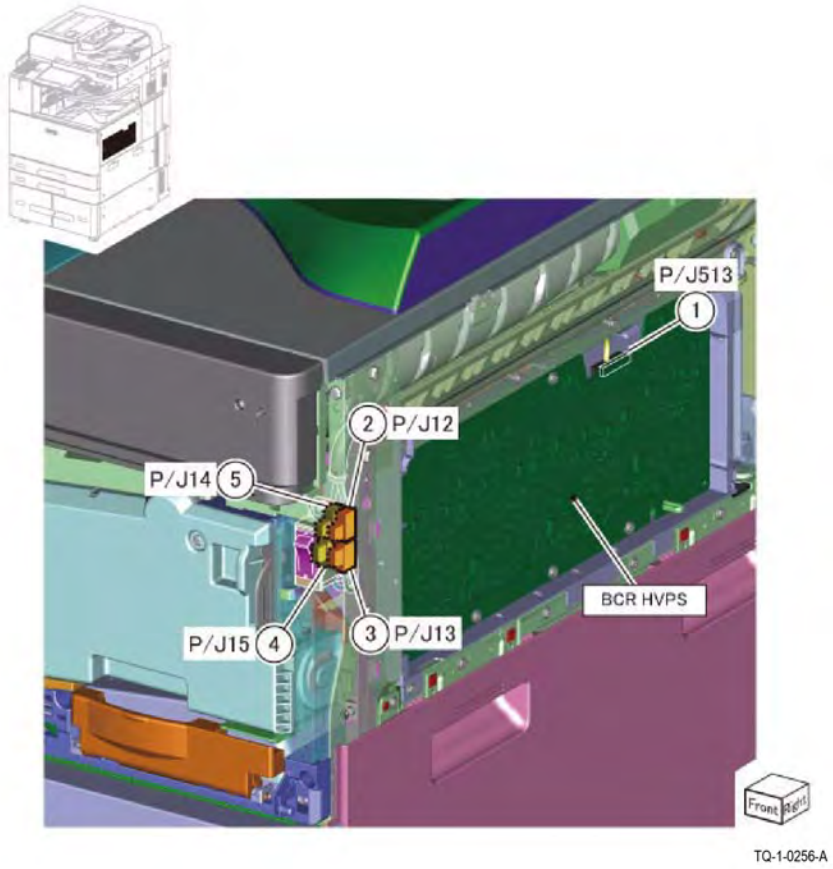

Figure 1 Main Power Switch / BCR HVPS

Figure 2 User Interface

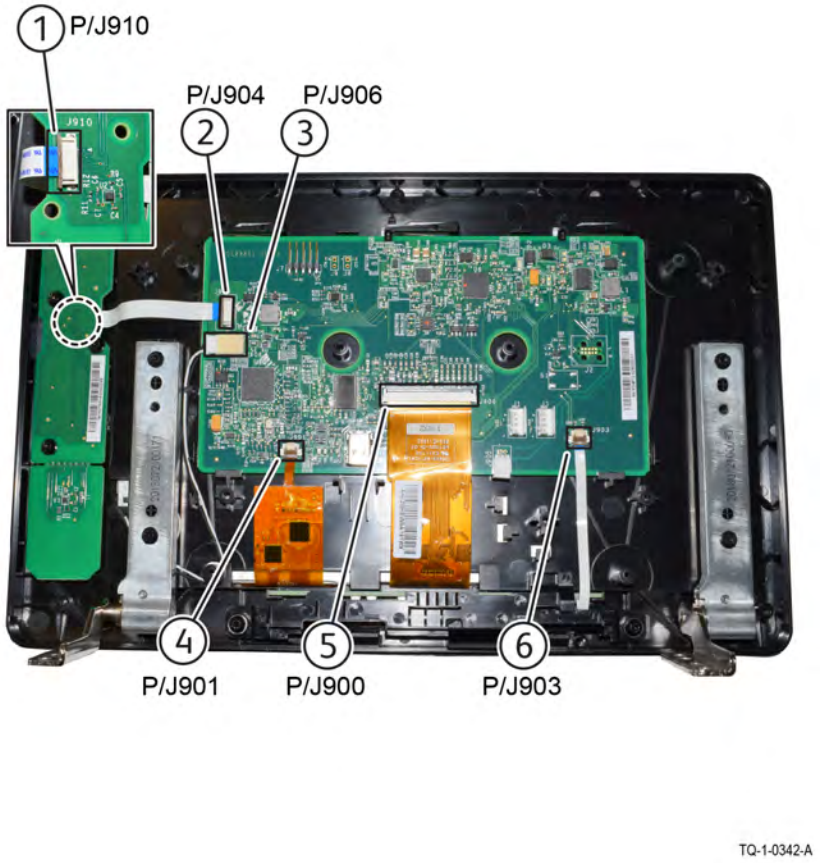

Figure 3 User Interface Console Assembly

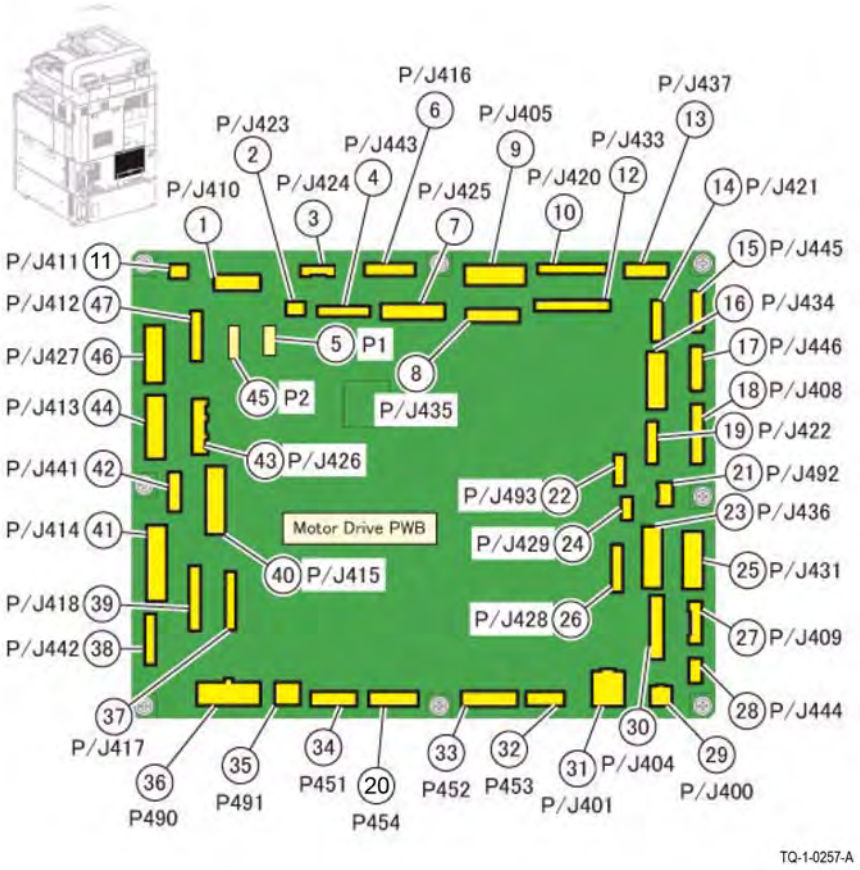

Figure 4 Motor Drive PWB

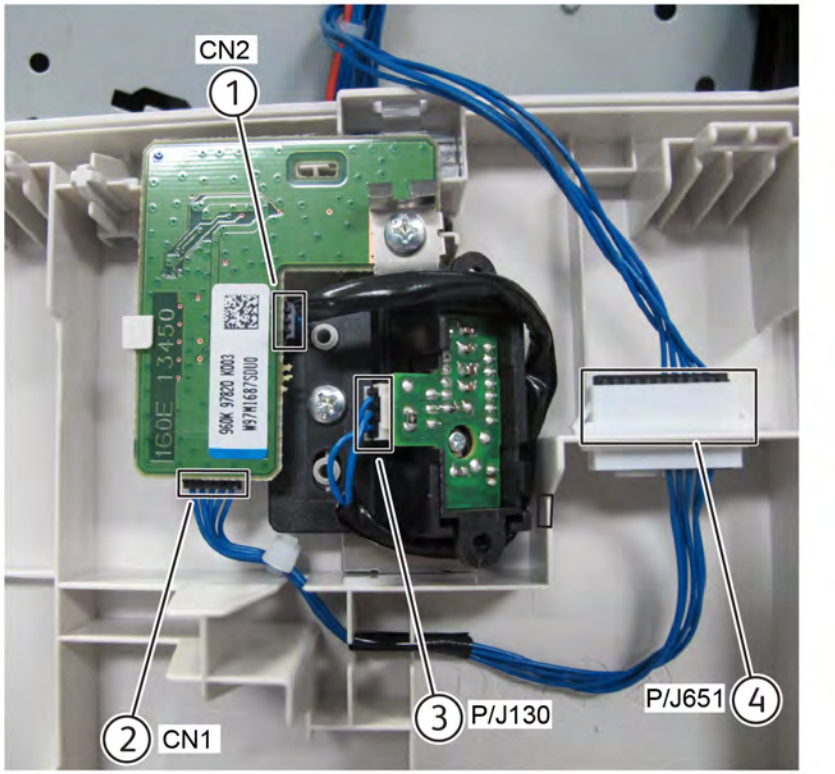

Figure 5 Human Motion Sensor

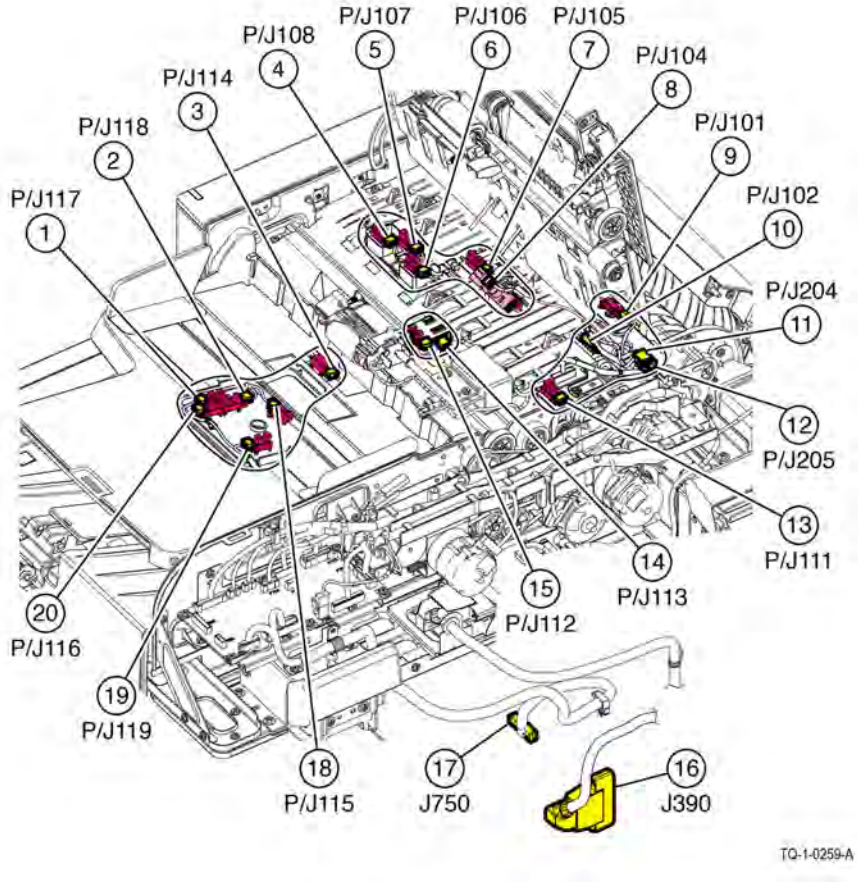

Figure 6 DADF 250 1 of 3 (C8170)

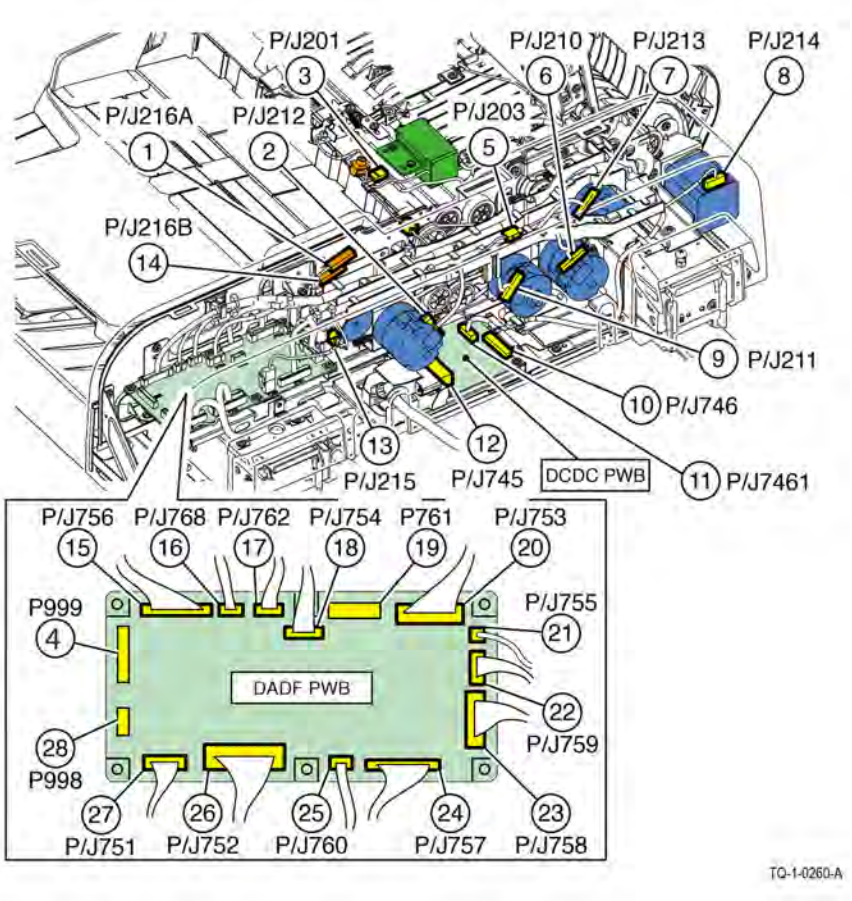

Figure 7 DADF 250 2 of 3 (C8170)

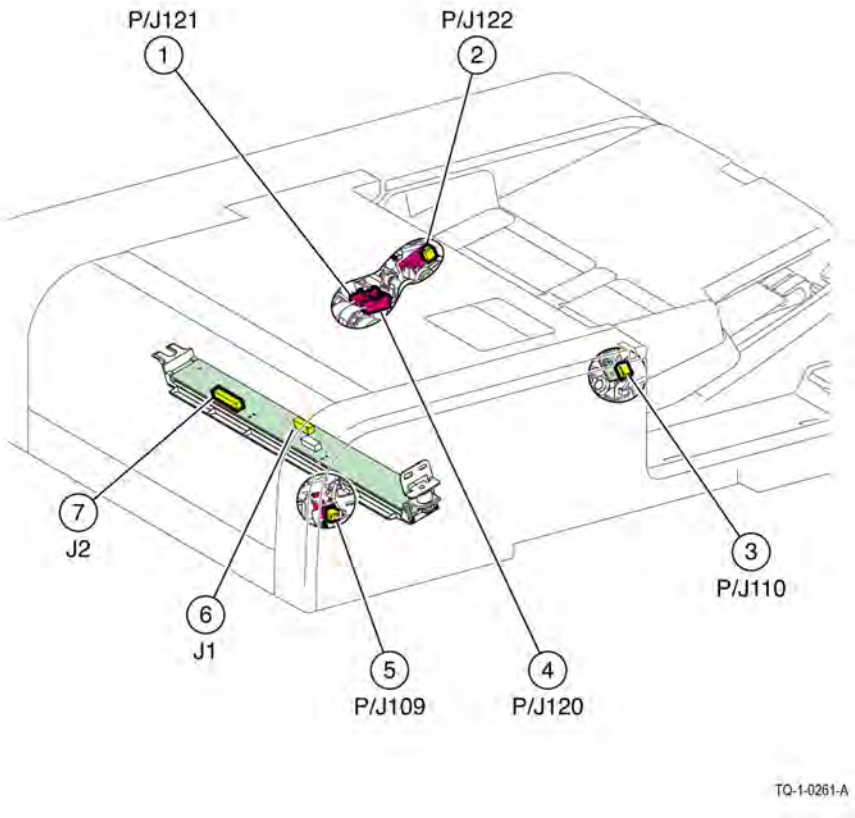

Figure 8 DADF 250 3 of 3 (C8170)

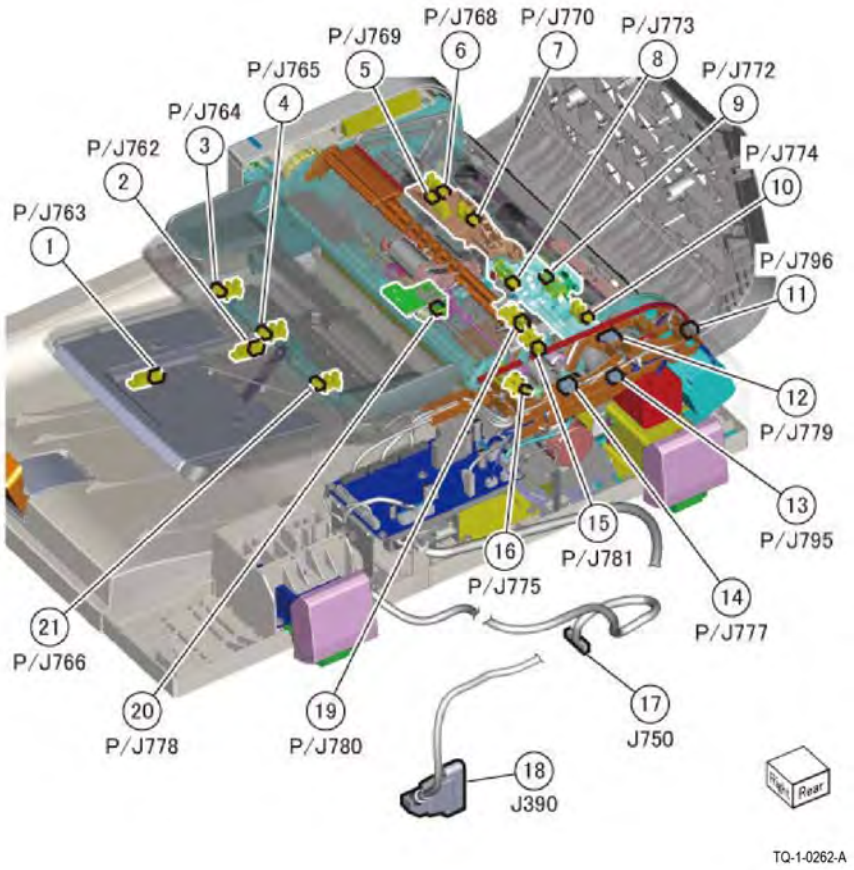

Figure 9 DADF 130 1 of 3 (C8130/C8135/C8145/C8155)

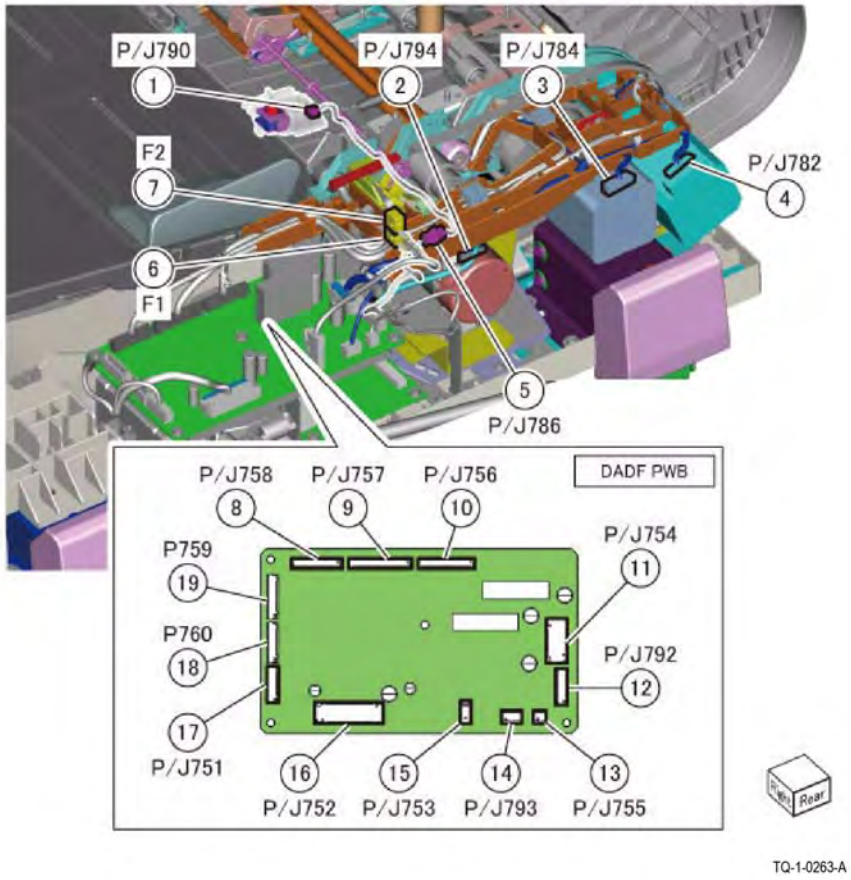

Figure 10 DADF 130 2 of 3 (C8130/C8135/C8145/C8155)

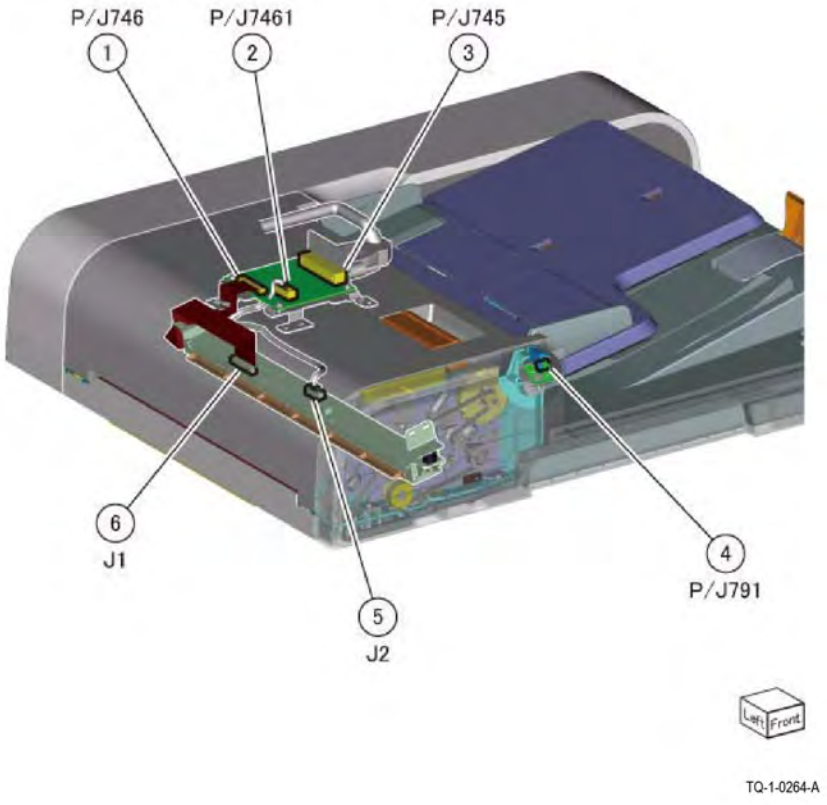

Figure 11 DADF 130 3 of 3 (C8130/C8135/C8145/C8155)

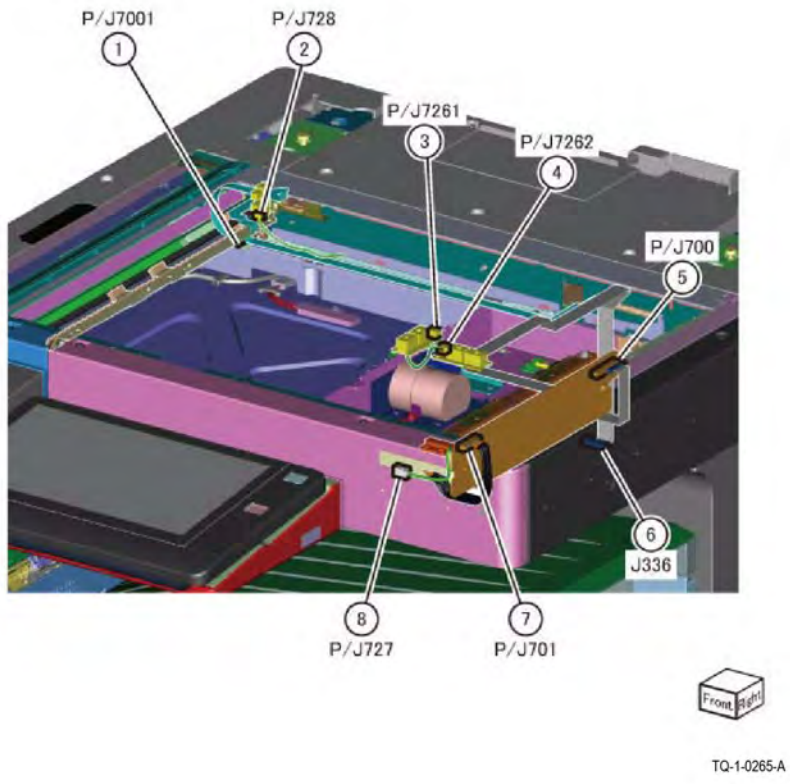

Figure 12 IIT Assembly 1 of 2 (C8170)

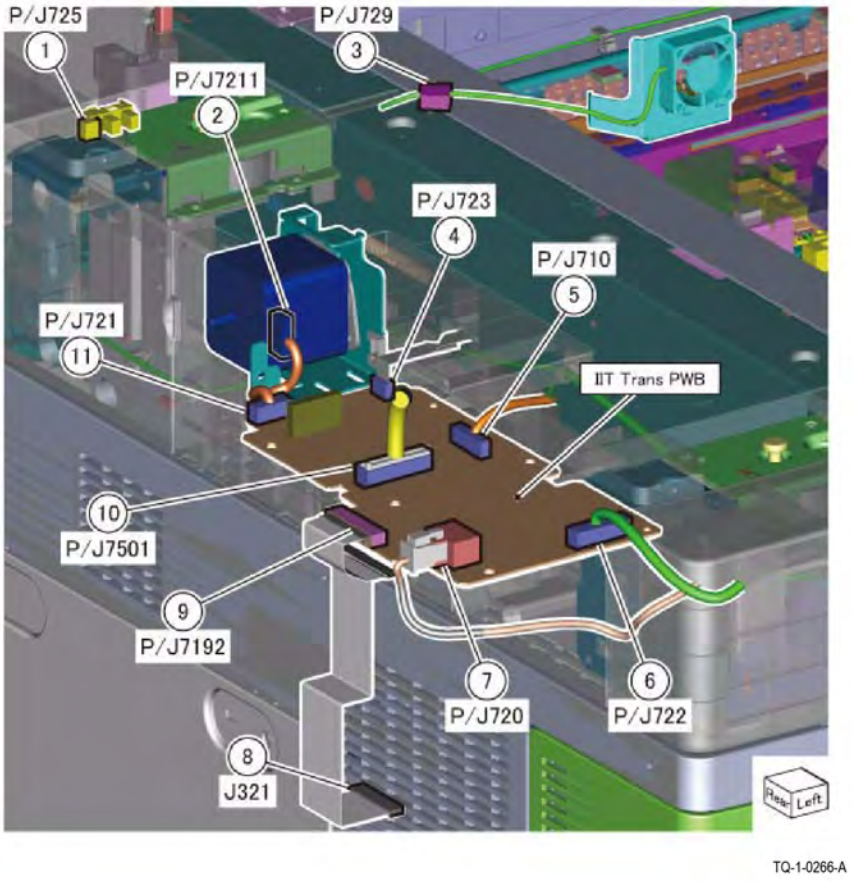

Figure 13 IIT Assembly 2 of 2 (C8170)

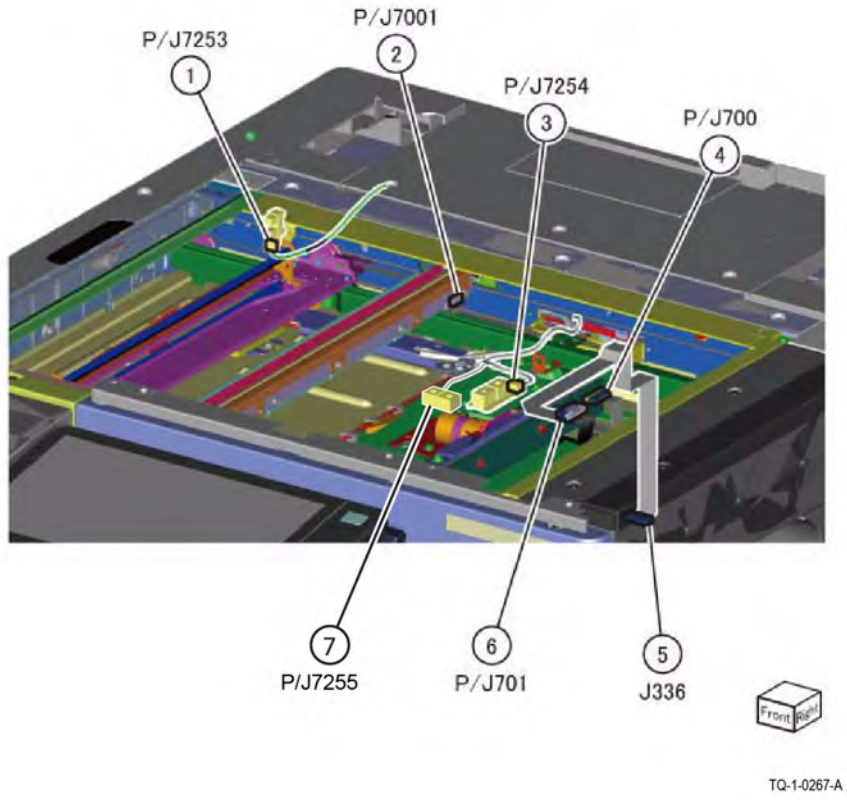

Figure 14 IIT Assembly 1 of 2 (C8130/C8135/C8145/C8155)

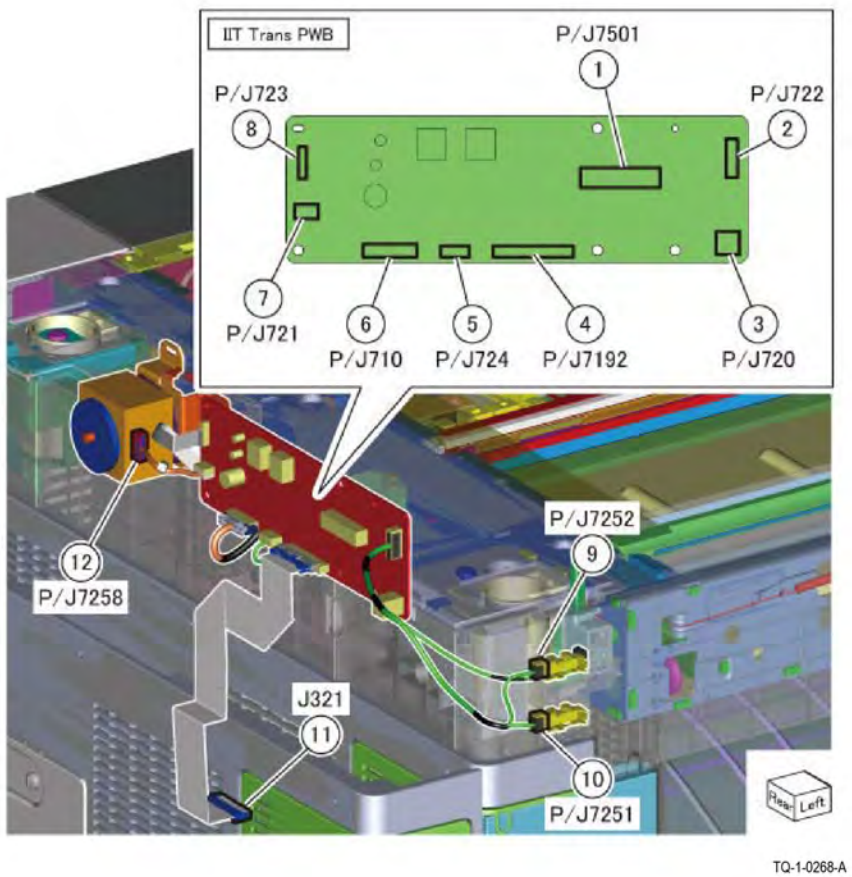

Figure 15 IIT Assembly 2 of 2 (C8130/C8135/C8145/C8155)

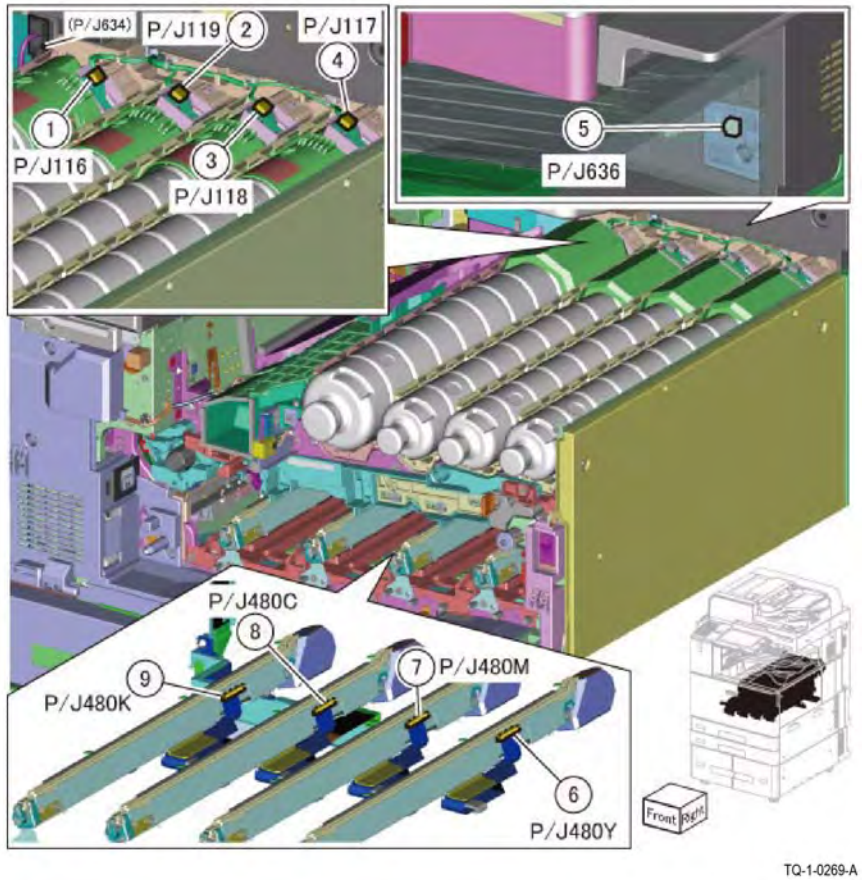

Figure 16 LPH / Toner Cartridge Crum

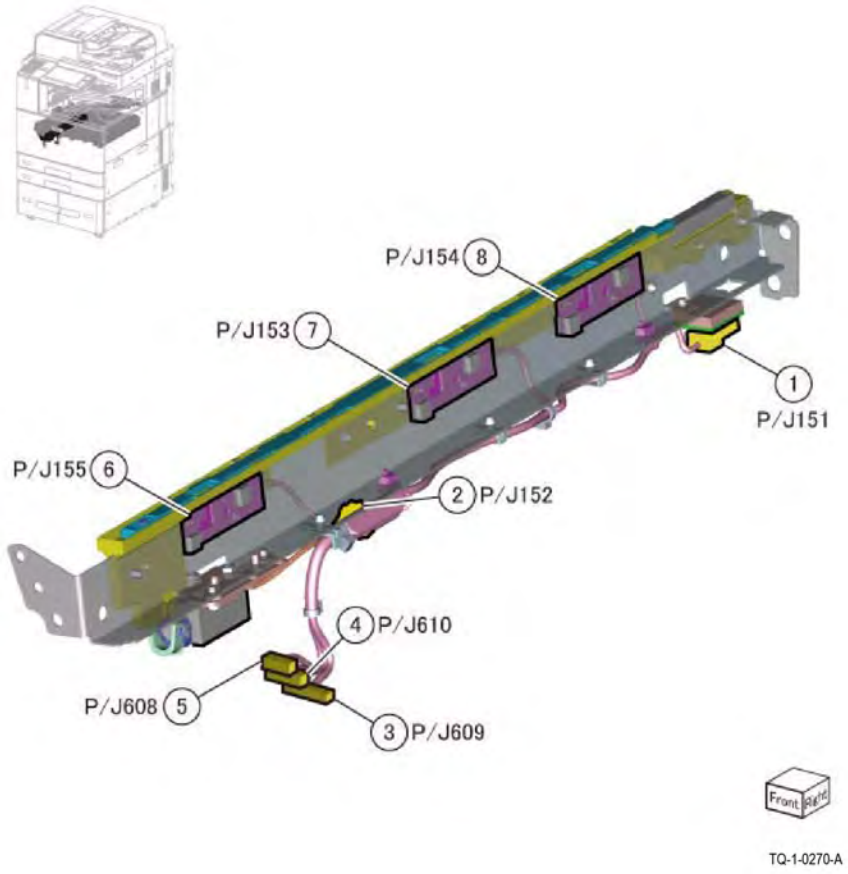

Figure 17 MOB Assembly

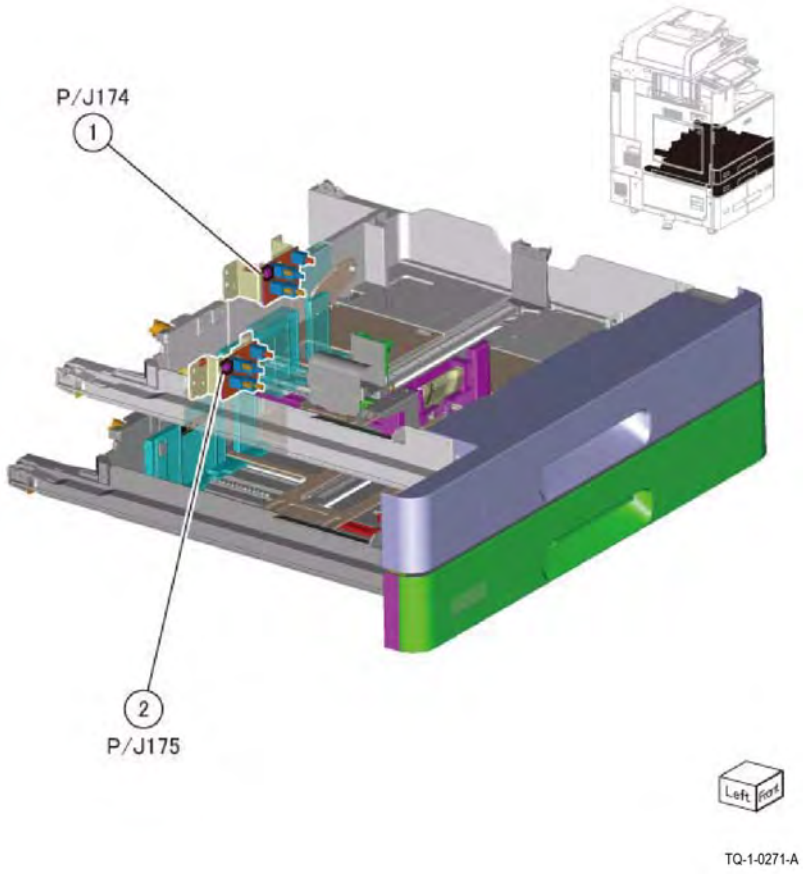

Figure 18 Tray Paper Size Sensors 1/2

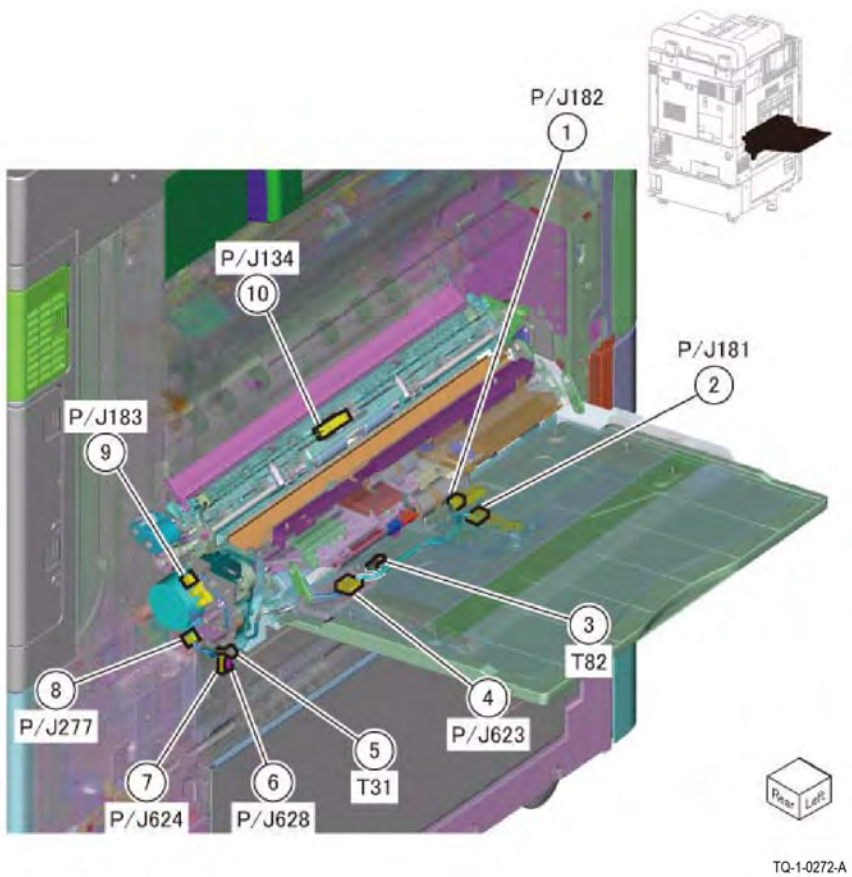

Figure 19 Bypass Tray

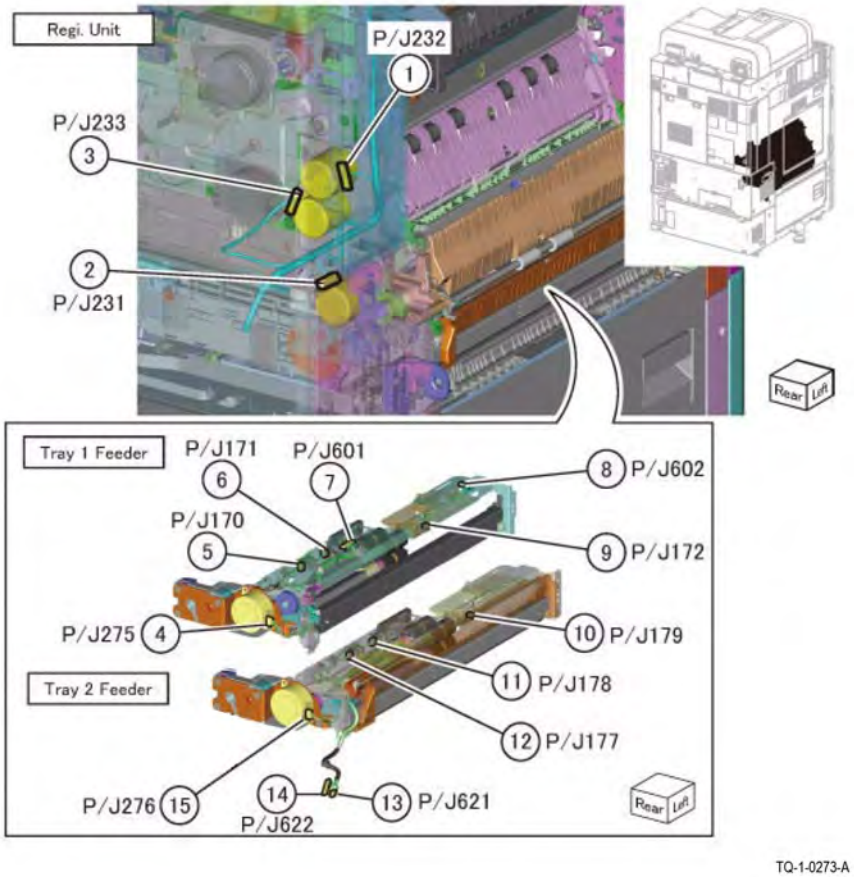

Figure 20 Registration Unit, Tray Feeder 1/2

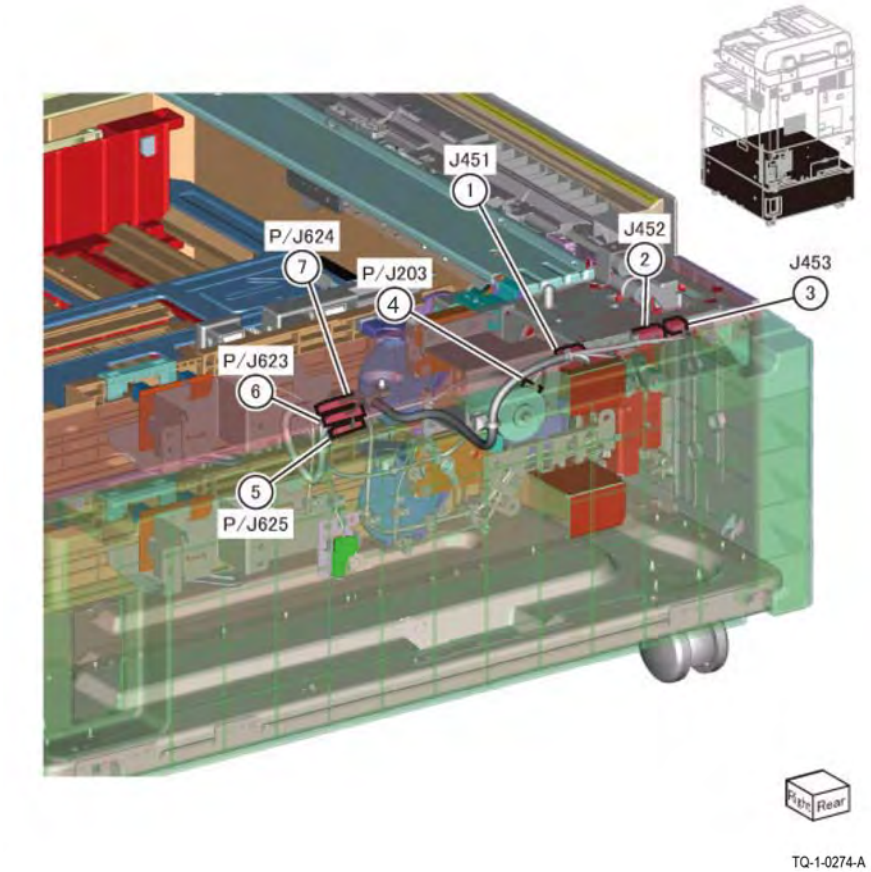

Figure 21 Two Tray Module (2TM) 1 of 2

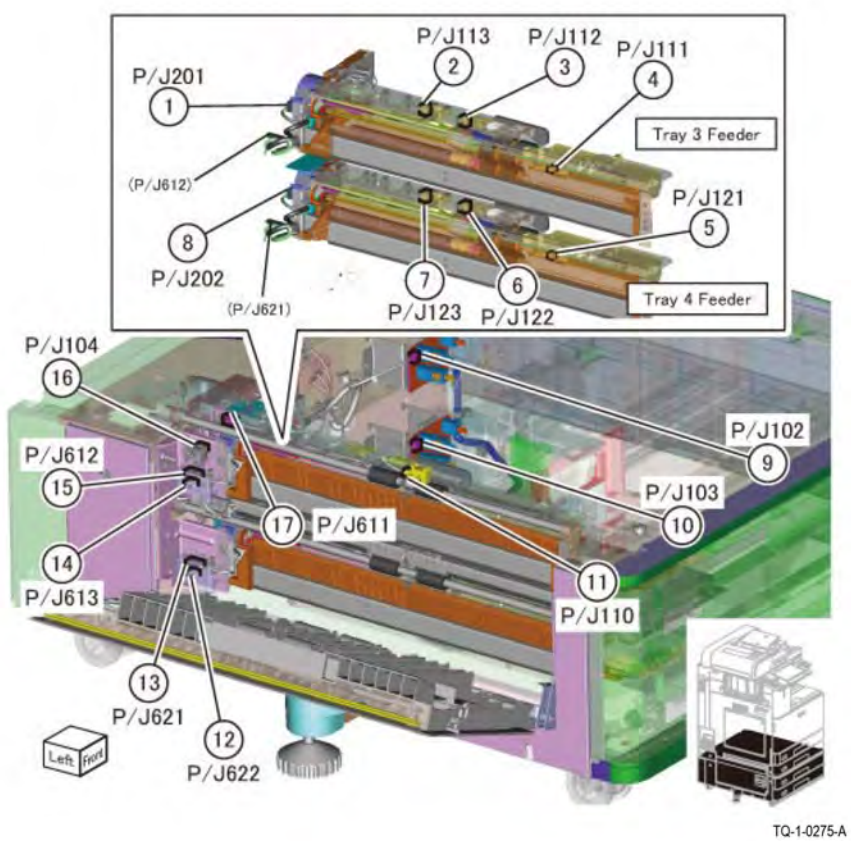

Figure 22 Two Tray Module (2TM) 2 of 2

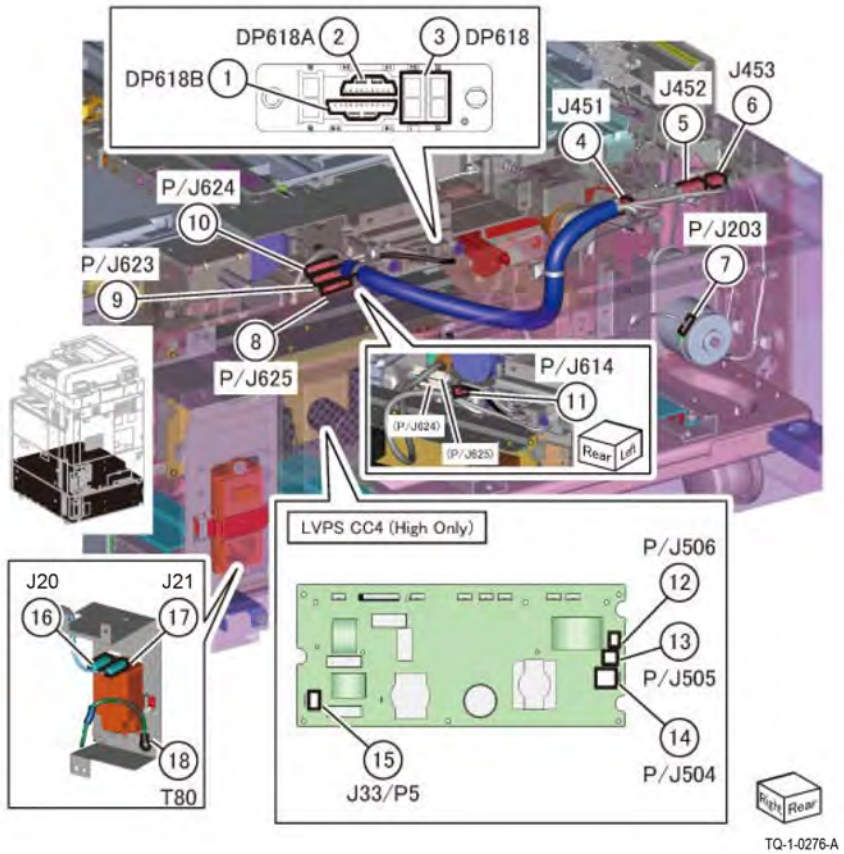

Figure 23 Tandem Tray Module (TTM) 1 of 3

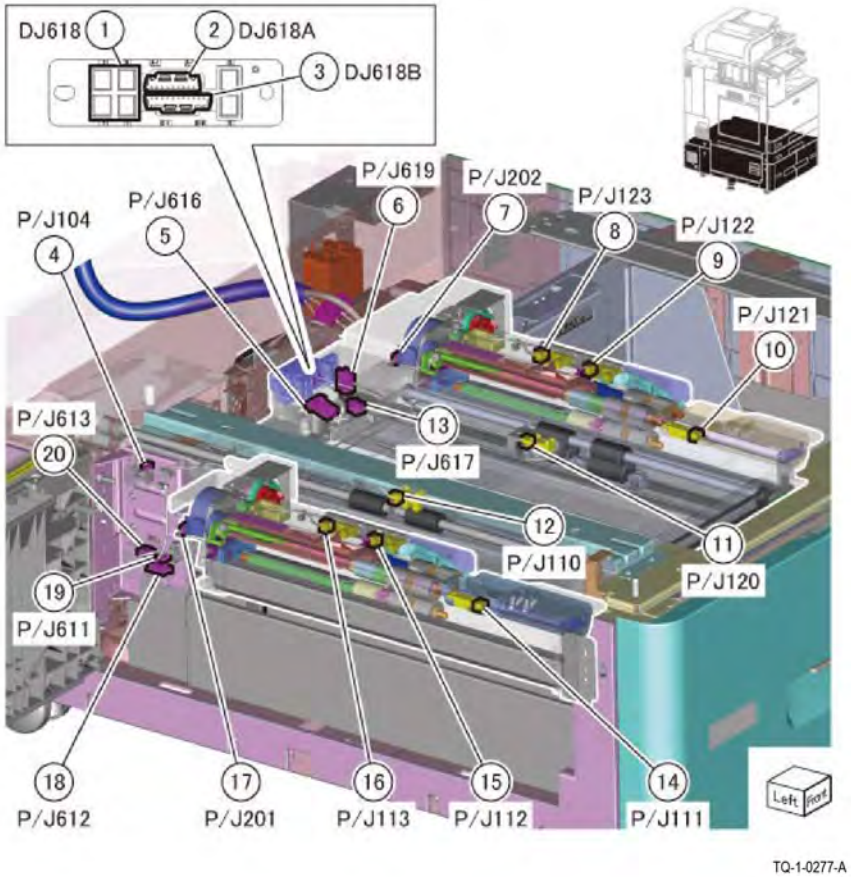

Figure 24 Tandem Tray Module (TTM) 2 of 3

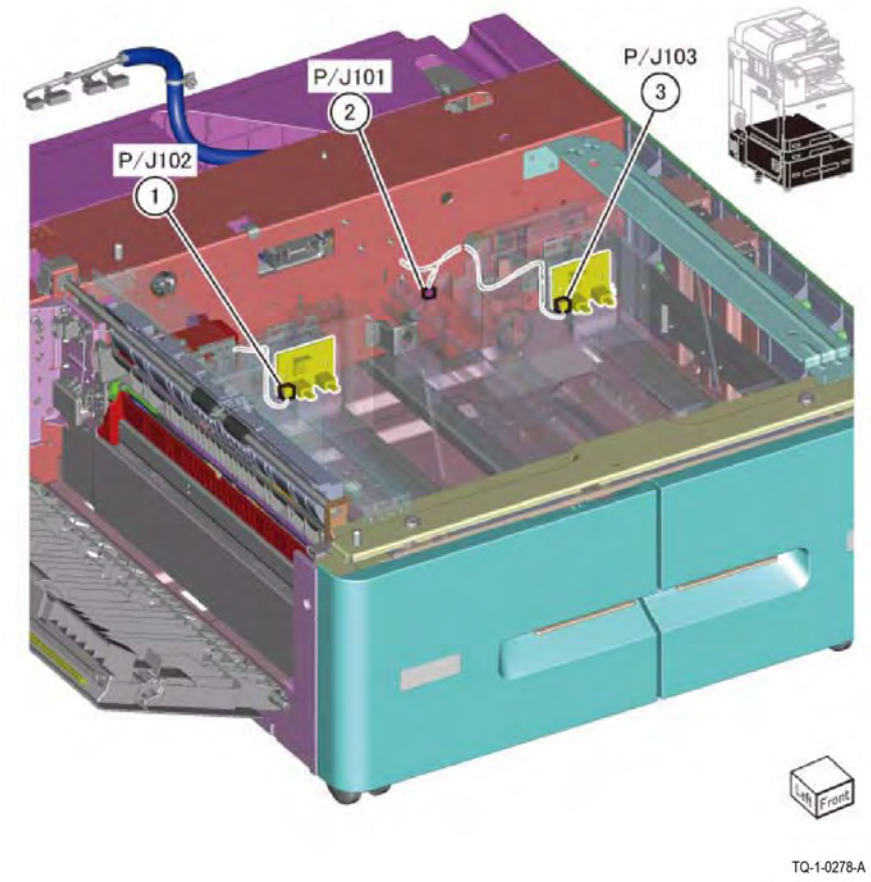

Figure 25 Tandem Tray Module (TTM) 3 of 3

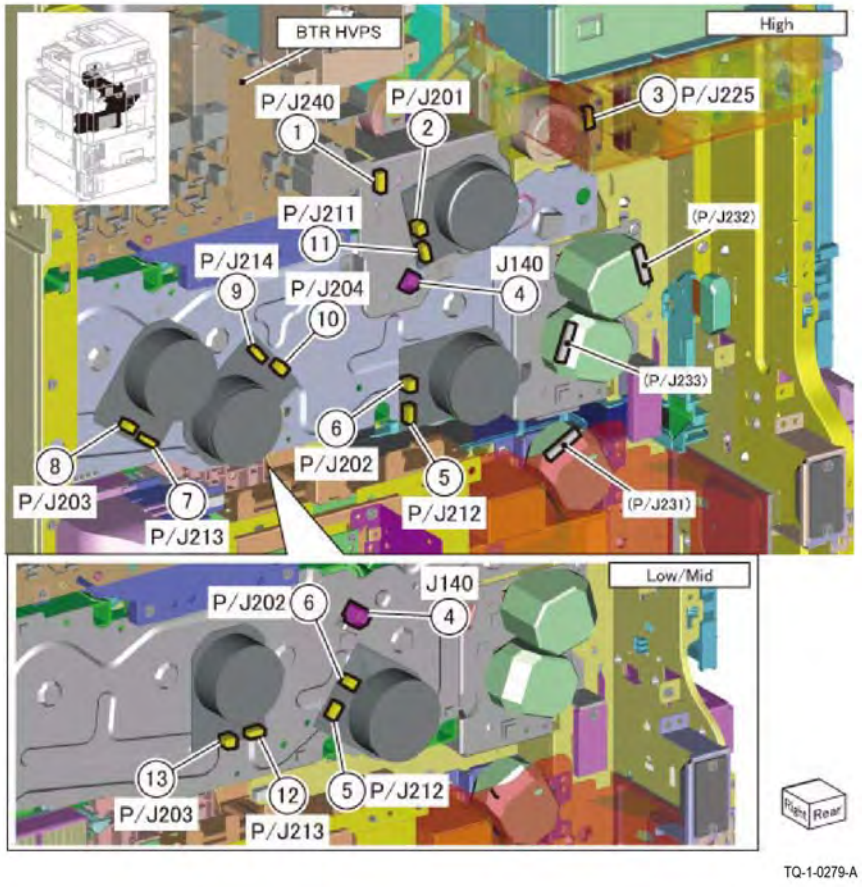

Figure 26 Drum/Developer Motor/Fusing Unit Drive

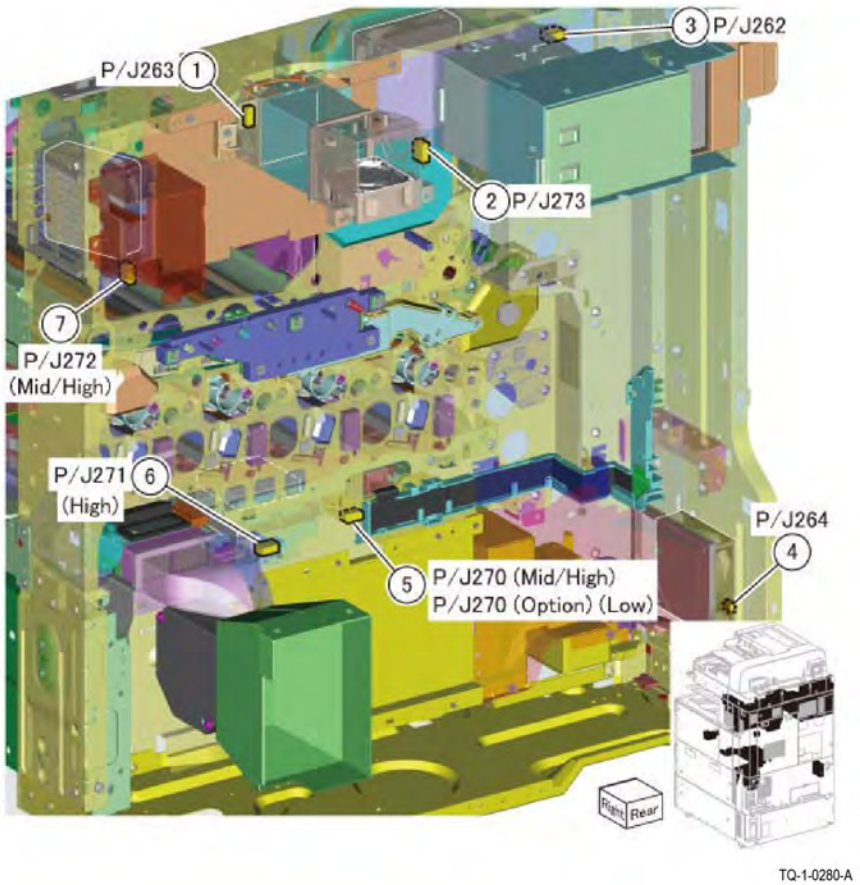

Figure 27 NOHAD

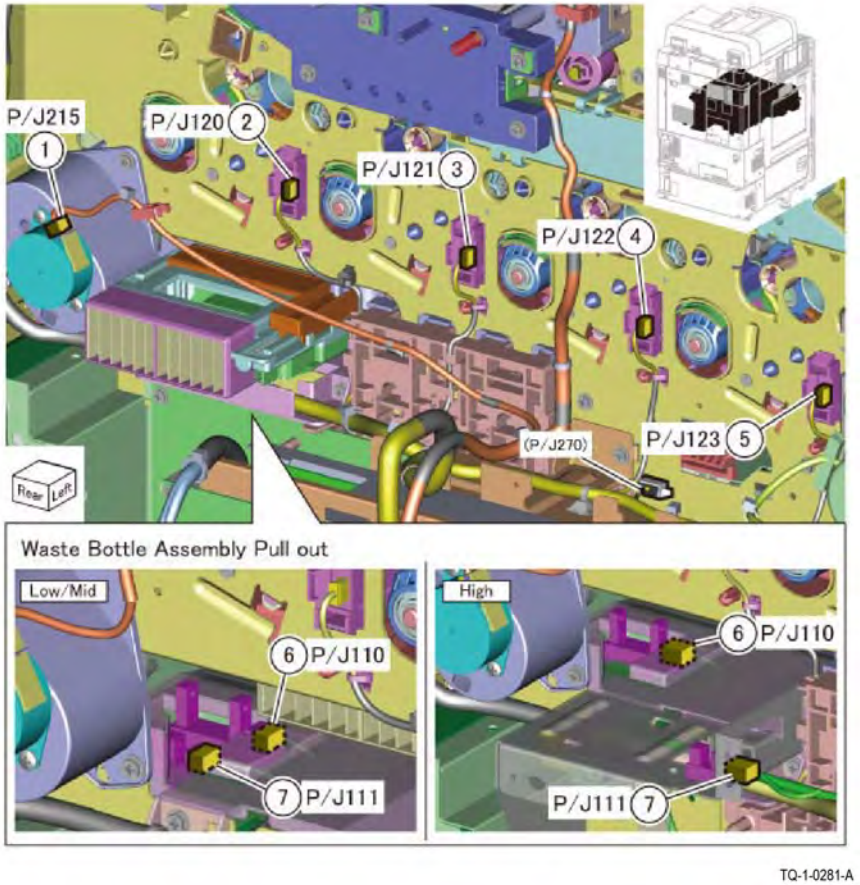

Figure 28 Drum Crum

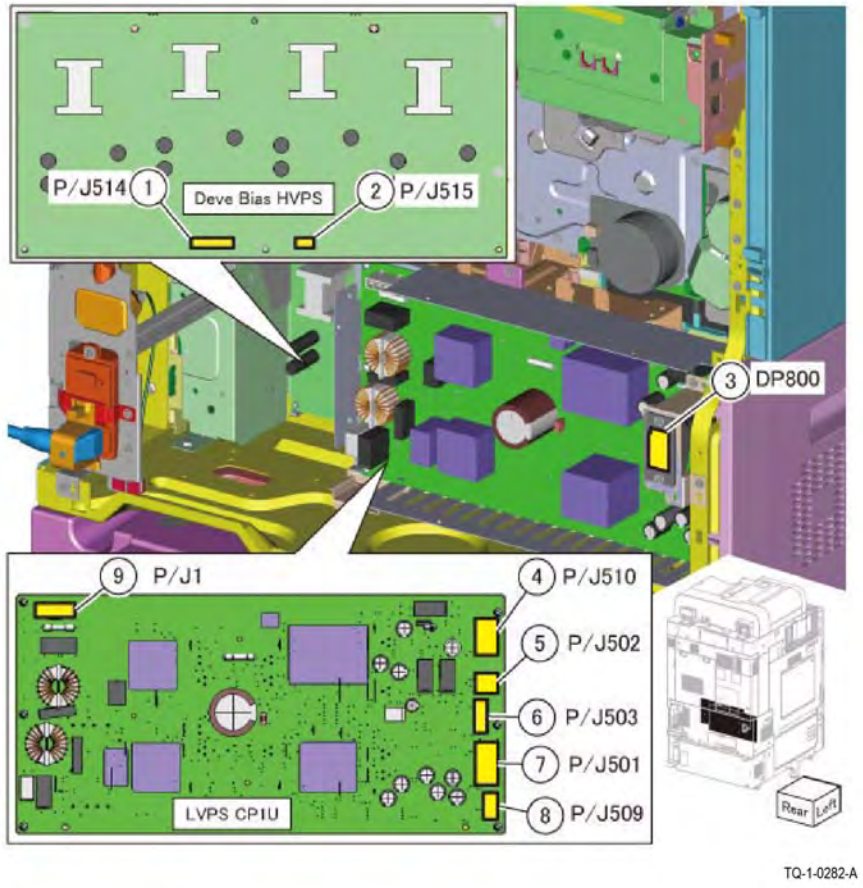

Figure 29 Developer Bias HVPS / LVPS CP1U

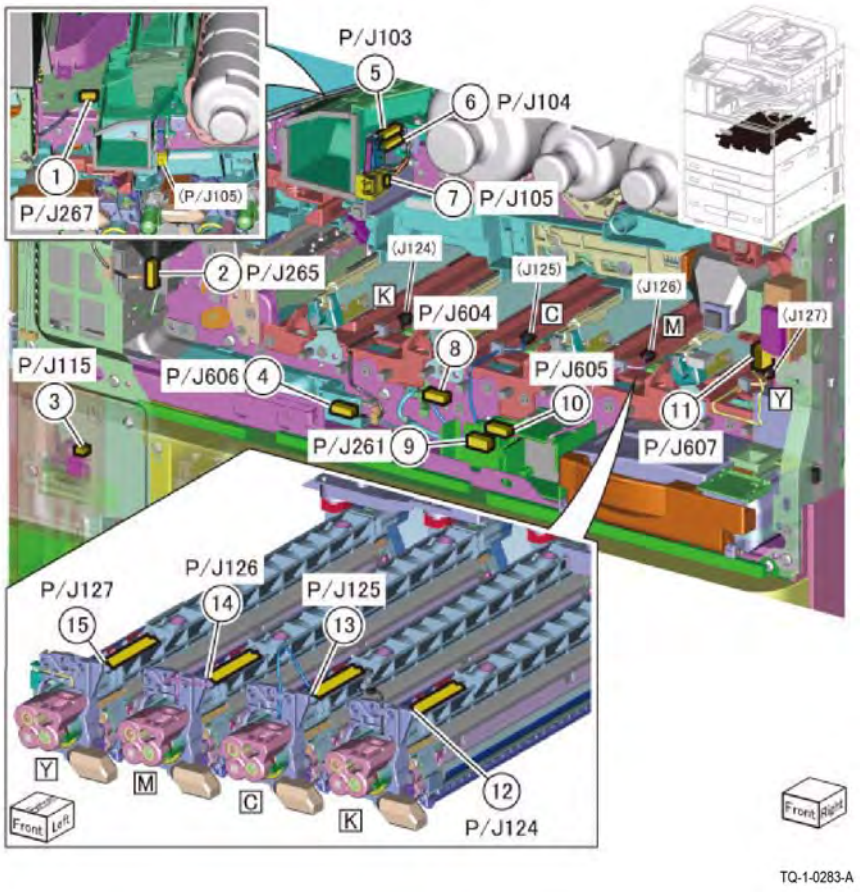

Figure 30 IOT Front Location / ATC Sensor

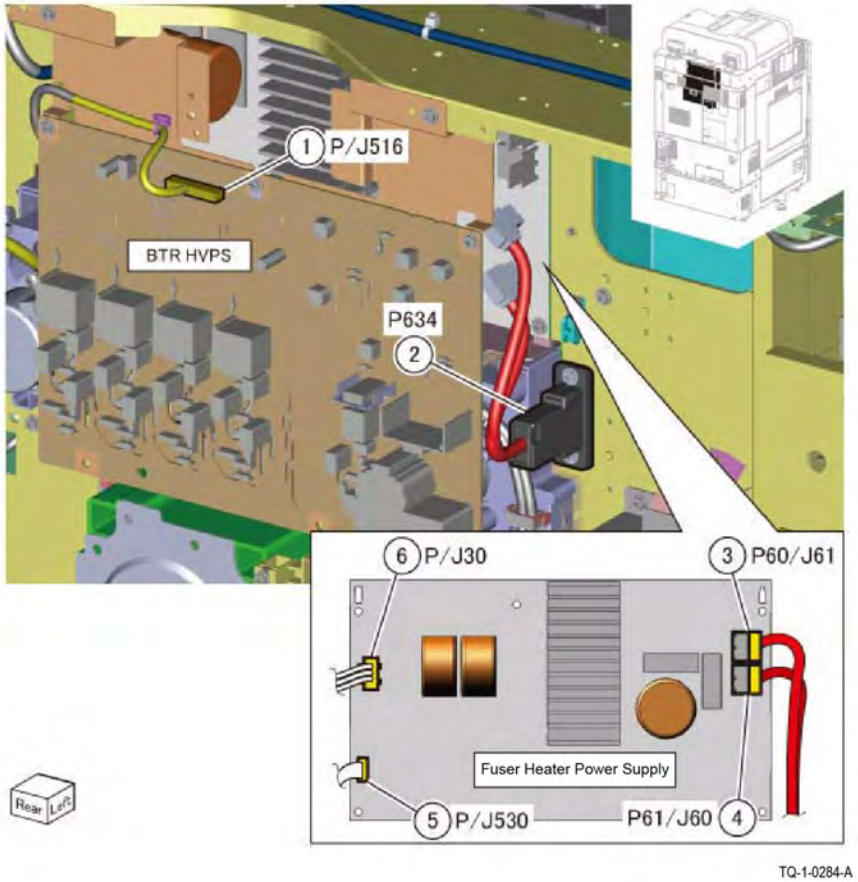

Figure 31 BTR HVPS / Fuser Heater Power Supply

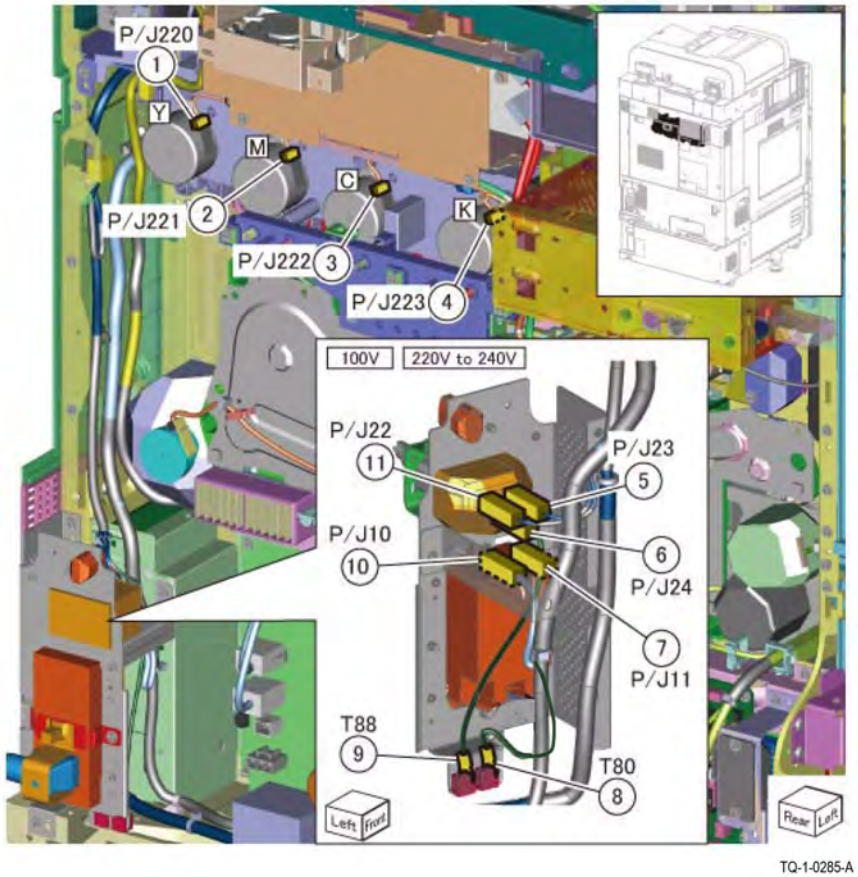

Figure 32 Dispence Motor / GFI

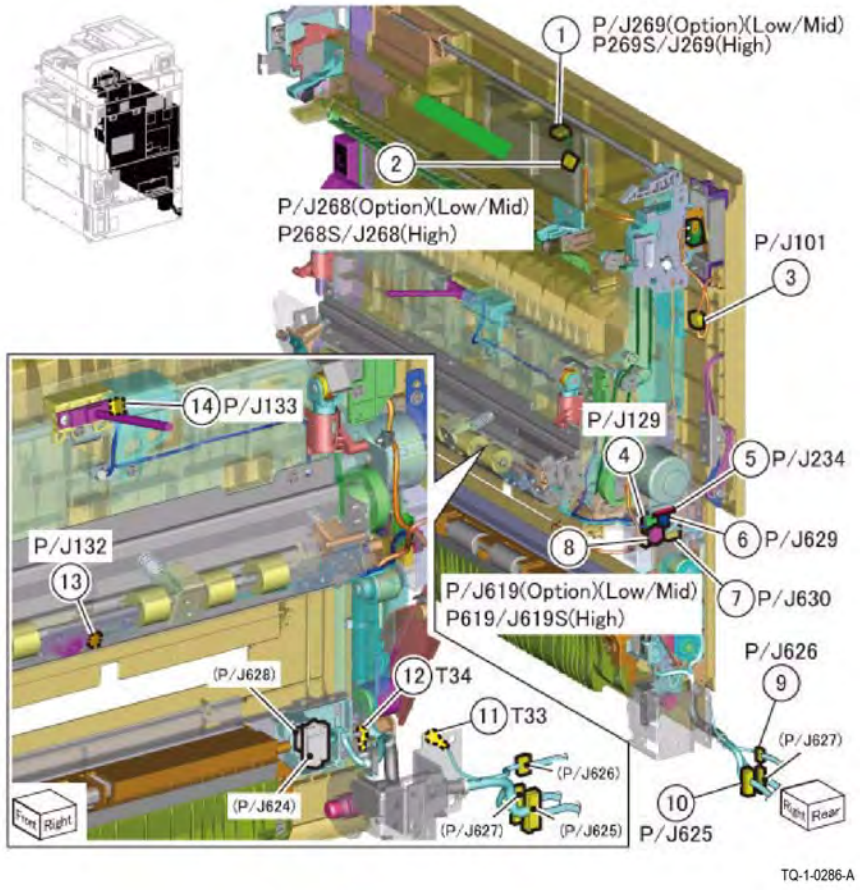

Figure 33 Left Cover

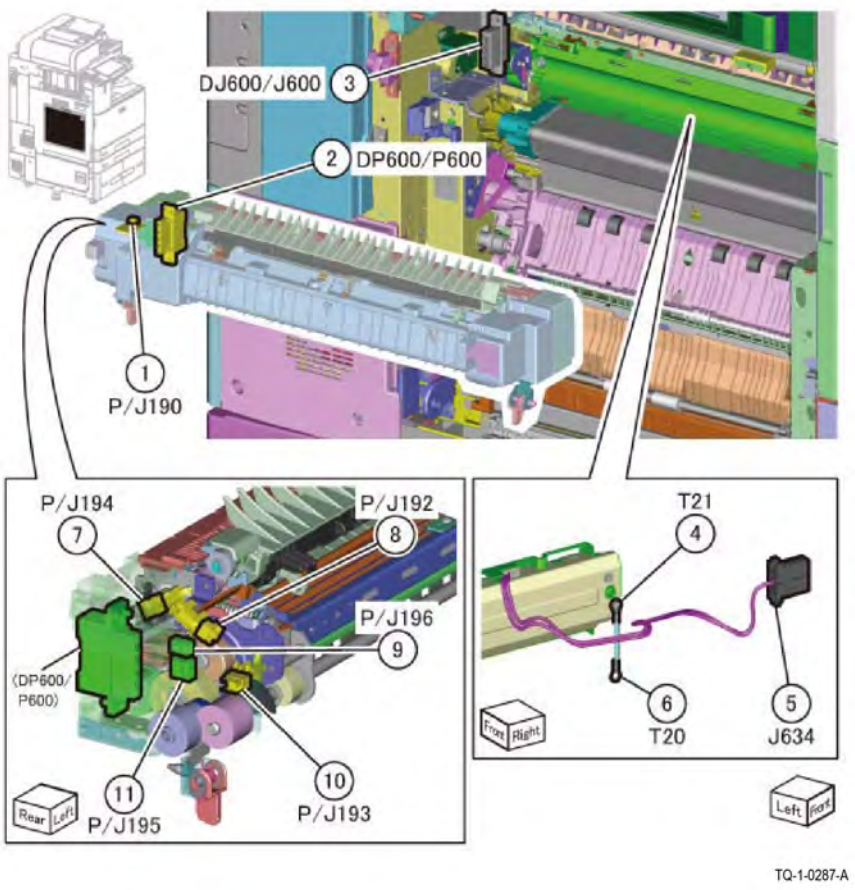

Figure 34 Fusing Unit

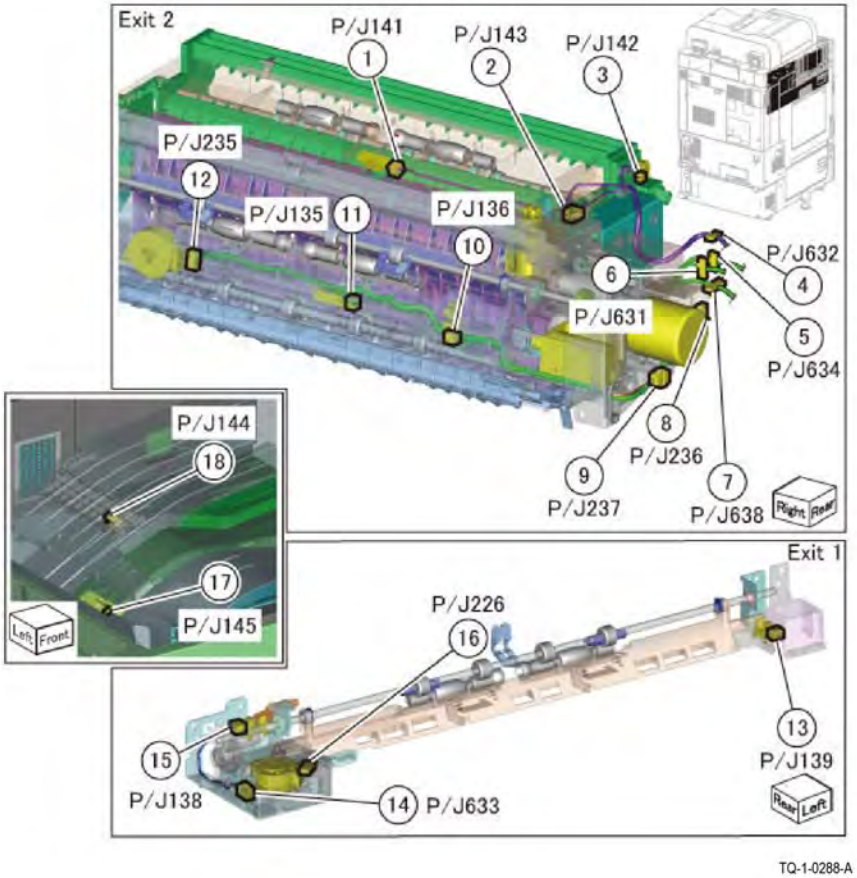

Figure 35 Exit 1 and 2

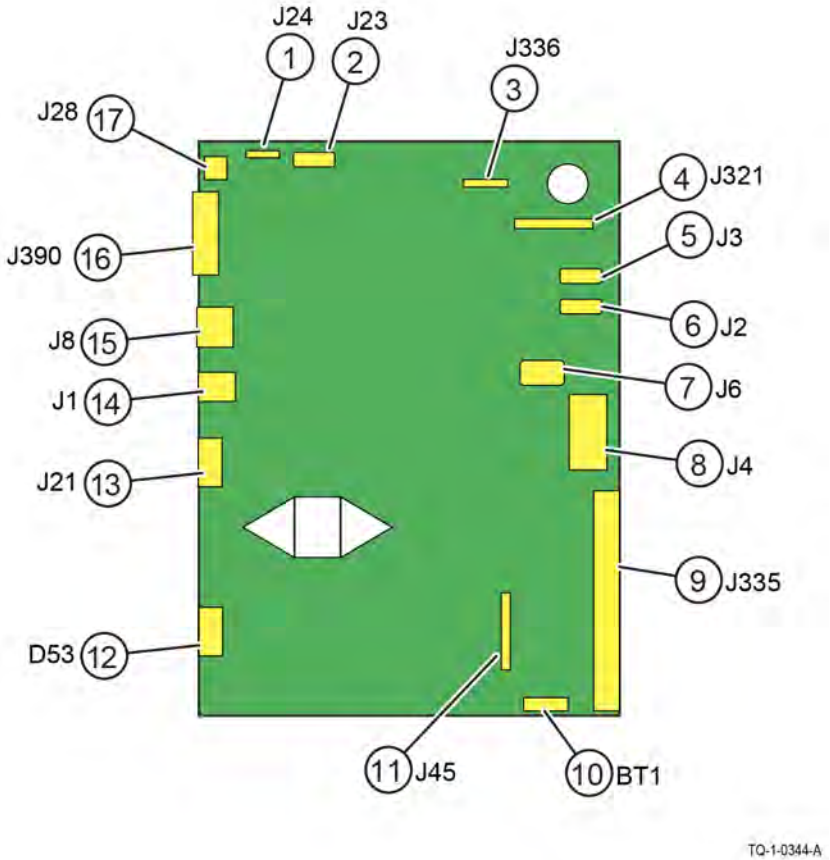

Figure 36 Controller (SBC) PWB

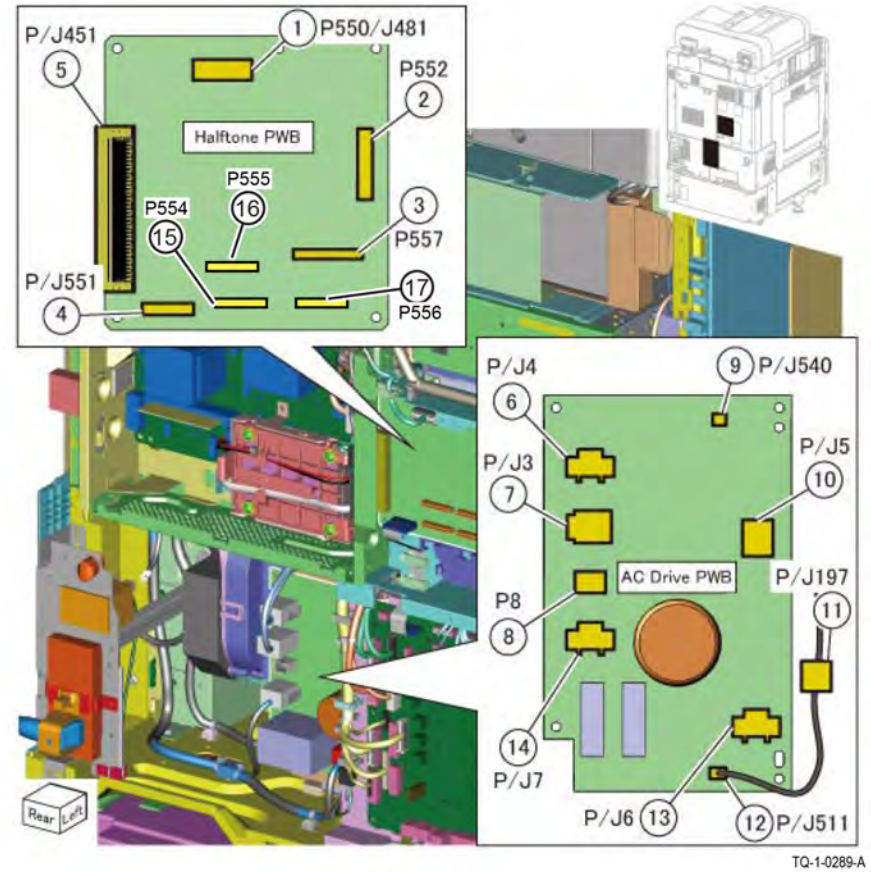

Figure 37 Halftone PWB / AC Drive PWB

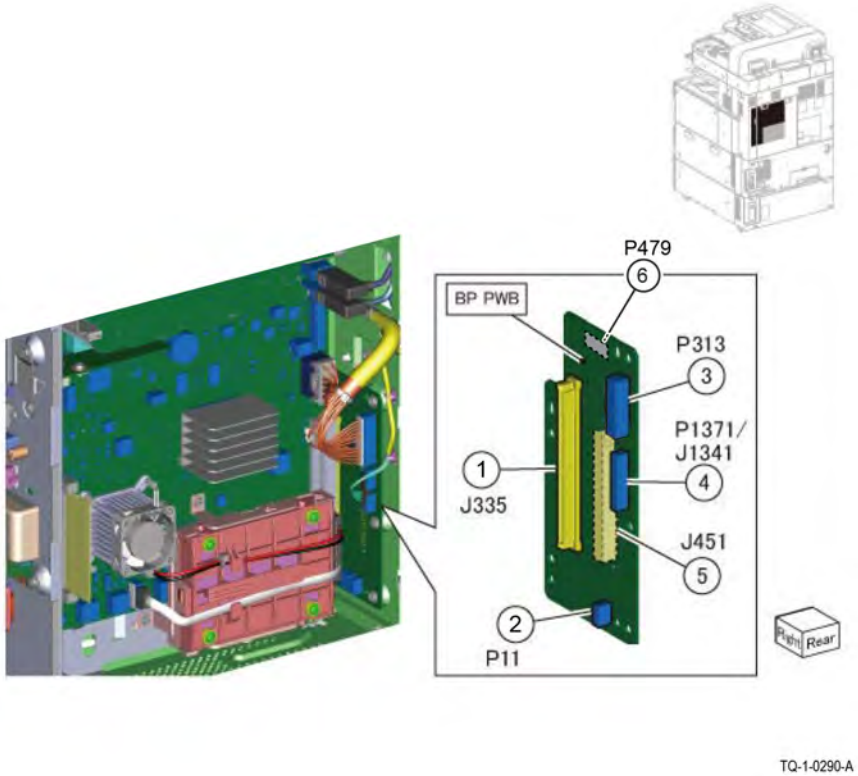

Figure 38 Back Plane (BP) PWB

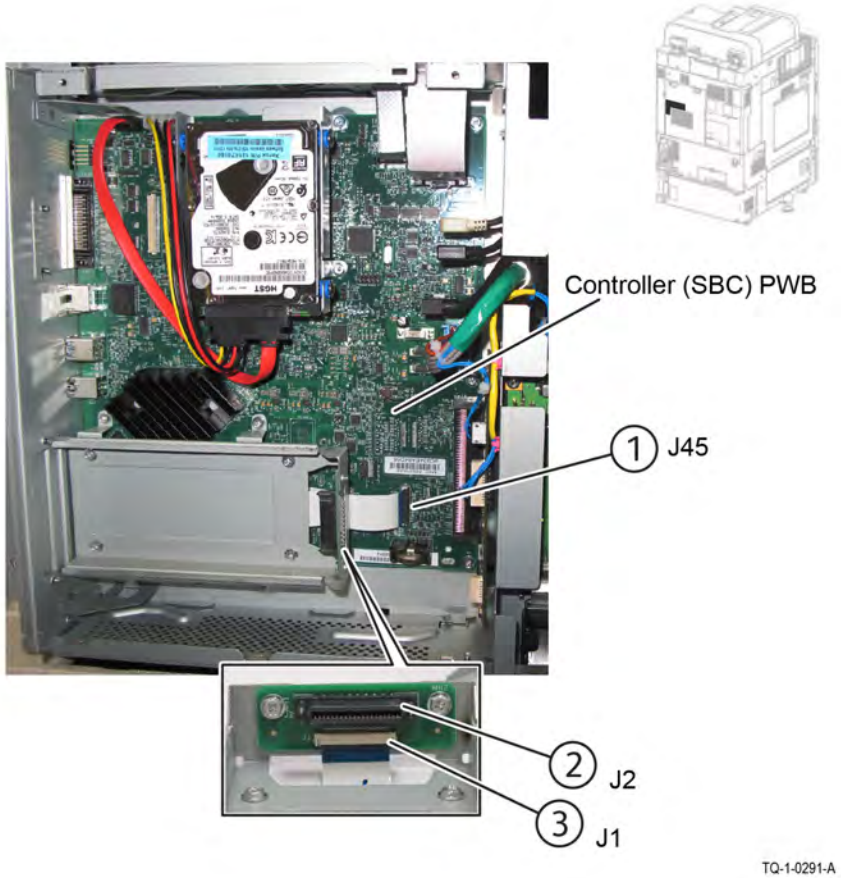

Figure 39 Fax

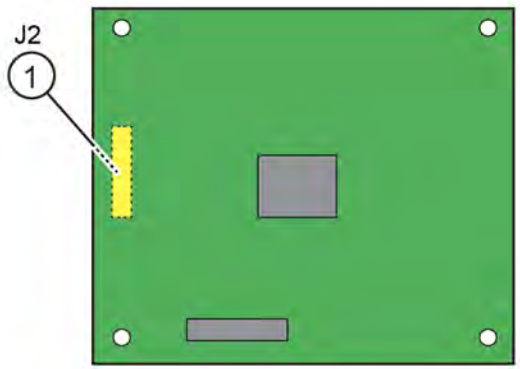

Figure 40 MCU PWB

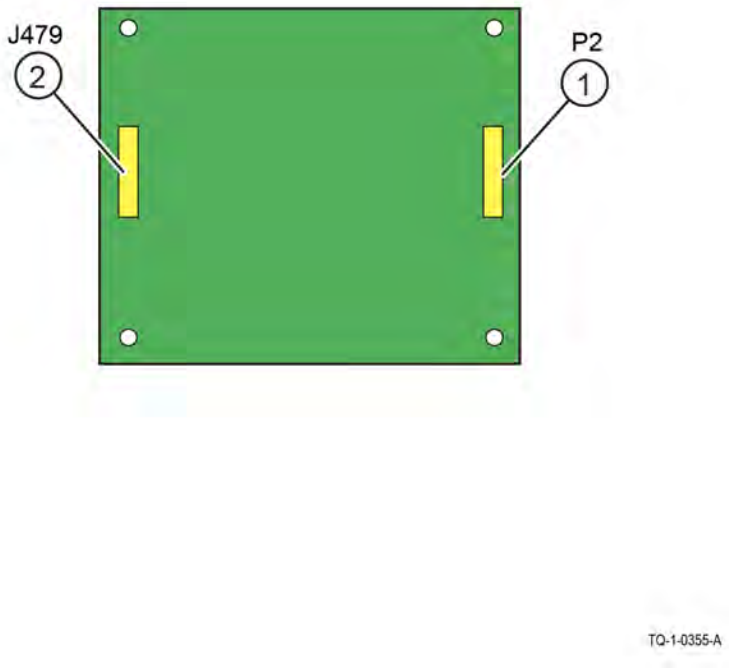

Figure 41 Relay PWB

Introduction

Wiring diagrams are an aid to trace wiring faults. Wiring diagrams are used to complement the block schematic diagrams (BSDs). Refer to the wiring diagrams that follow:

- Wiring Diagram 1 ACH/ACN 100VAC (Low/Mid)
- Wiring Diagram 2 ACH/ACN 100VAC (High) (2 Plugs)
- Wiring Diagram 3 ACH/ACN 220-240VAC (Low/Mid/High)
- Wiring Diagram 4 — Not Used
- Wiring Diagram 5 +24VDC (Low/Mid)
- Wiring Diagram 6 +24VDC (High)
- Wiring Diagram 7 +24VDC (1 of 2)
- Wiring Diagram 8 +24VDC (2 of 2)
- Wiring Diagram 9 +5VDC (Low/Mid) (1 of 2)
- Wiring Diagram 10 +5VDC (Low/Mid) (2 of 2)
- Wiring Diagram 11 +5VDC (High) (1 of 2)
- Wiring Diagram 12 +5VDC (High) (2 of 2)
- Wiring Diagram 13 +5VDC (1 of 2)
- Wiring Diagram 14 +5VDC (2 of 2)
- Wiring Diagram 15 +3.3VDC/+2.5VDC (1 of 2)
- Wiring Diagram 16 +3.3VDC/+2.5VDC (2 of 2)
- Wiring Diagram 17 DC COM (Low/Mid) (1 of 2)
- Wiring Diagram 18 DC COM (Low/Mid) (2 of 2)
- Wiring Diagram 19 DC COM (High) (1 of 2)
- Wiring Diagram 20 DC COM (High) (2 of 2)
- Wiring Diagram 21 DC COM (1 of 5)
- Wiring Diagram 22 DC COM (2 of 5)
- Wiring Diagram 23 DC COM (3 of 5)
- Wiring Diagram 24 DC COM (4 of 5)
- Wiring Diagram 25 DC COM (5 of 5)
- Wiring Diagram 26 TRAY +24VDC/+5VDC/+3.3VDC (2TM)
- Wiring Diagram 27 TRAY +24VDC/+5VDC/+3.3VDC (TTM)
- Wiring Diagram 28 TRAY DC COM (2TM)

Wiring Diagram 1 ACH/ACN 100VAC (Low/Mid)

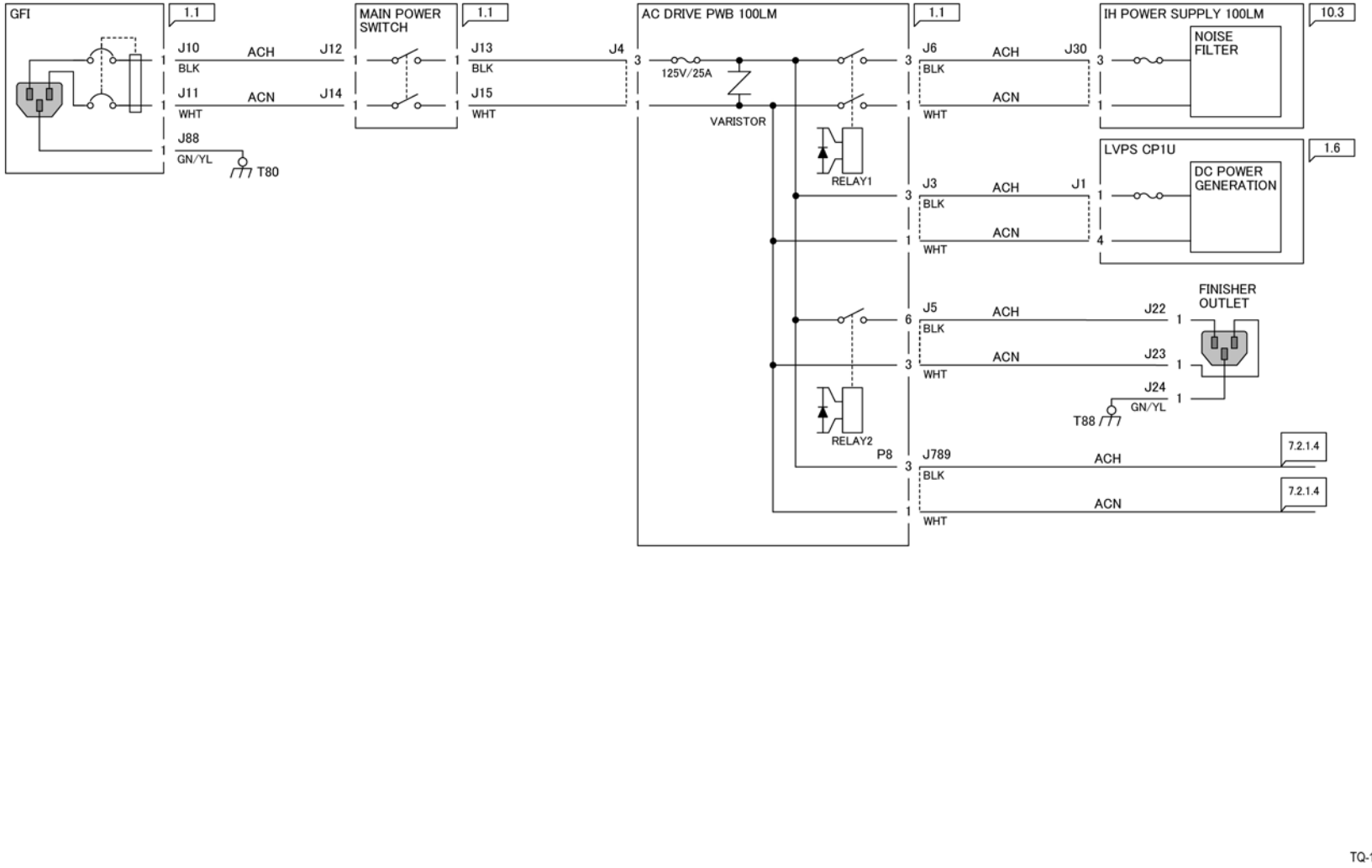

Figure 1 Wiring Diagram 1 ACH/ACN 100VAC (Low/Mid)

Wiring Diagram 2 ACH/ACN 100VAC (High) (2 Plugs)

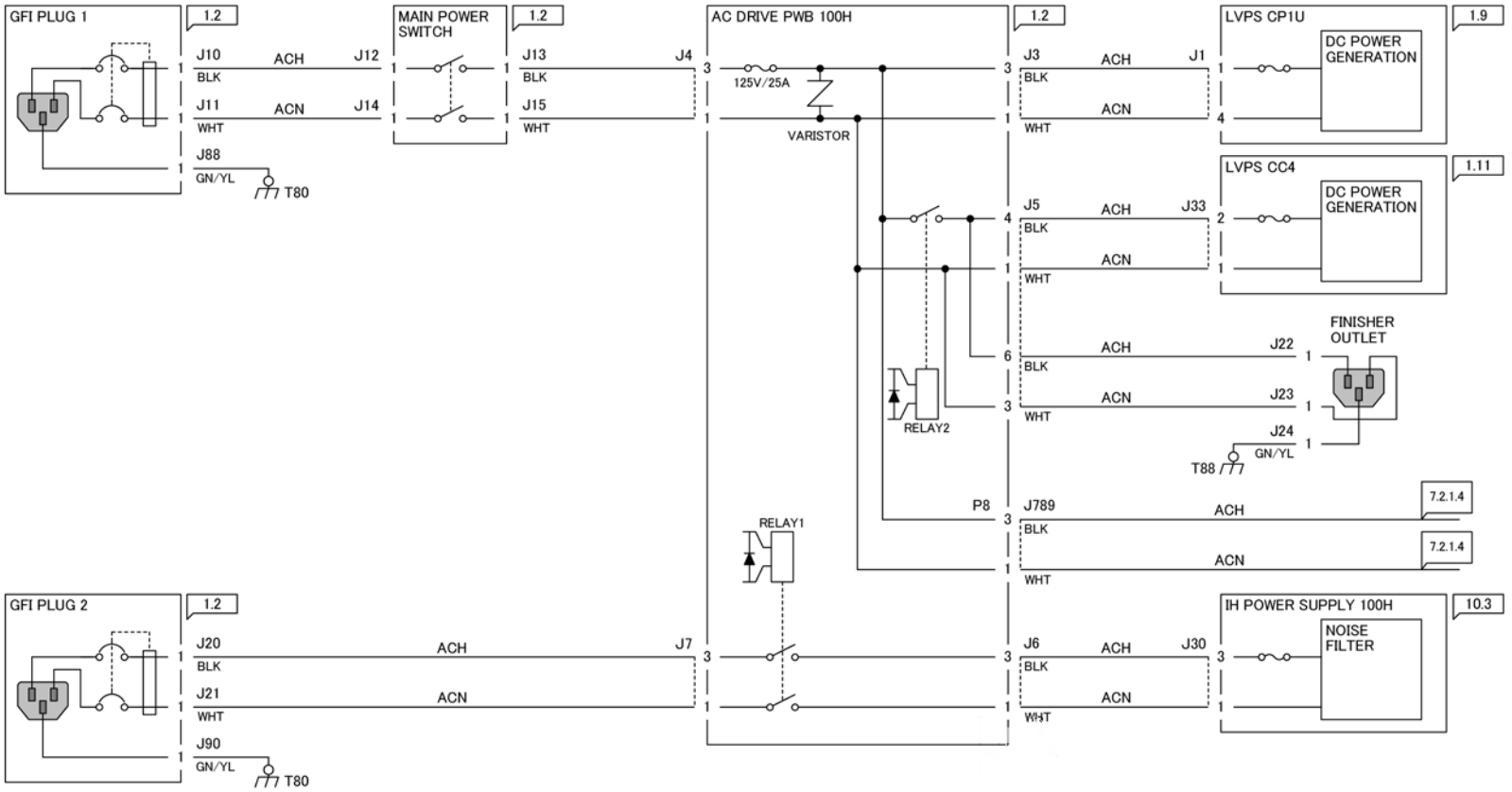

Figure 1 Wiring Diagram 2 ACH/ACN 100VAC (High) (2 Plugs)

Wiring Diagram 3 ACH/ACN 220-240VAC (Low/Mid/High)

7.2.1.3 ACH/ACN (220-240VAC LOW/MID/HIGH M/C)

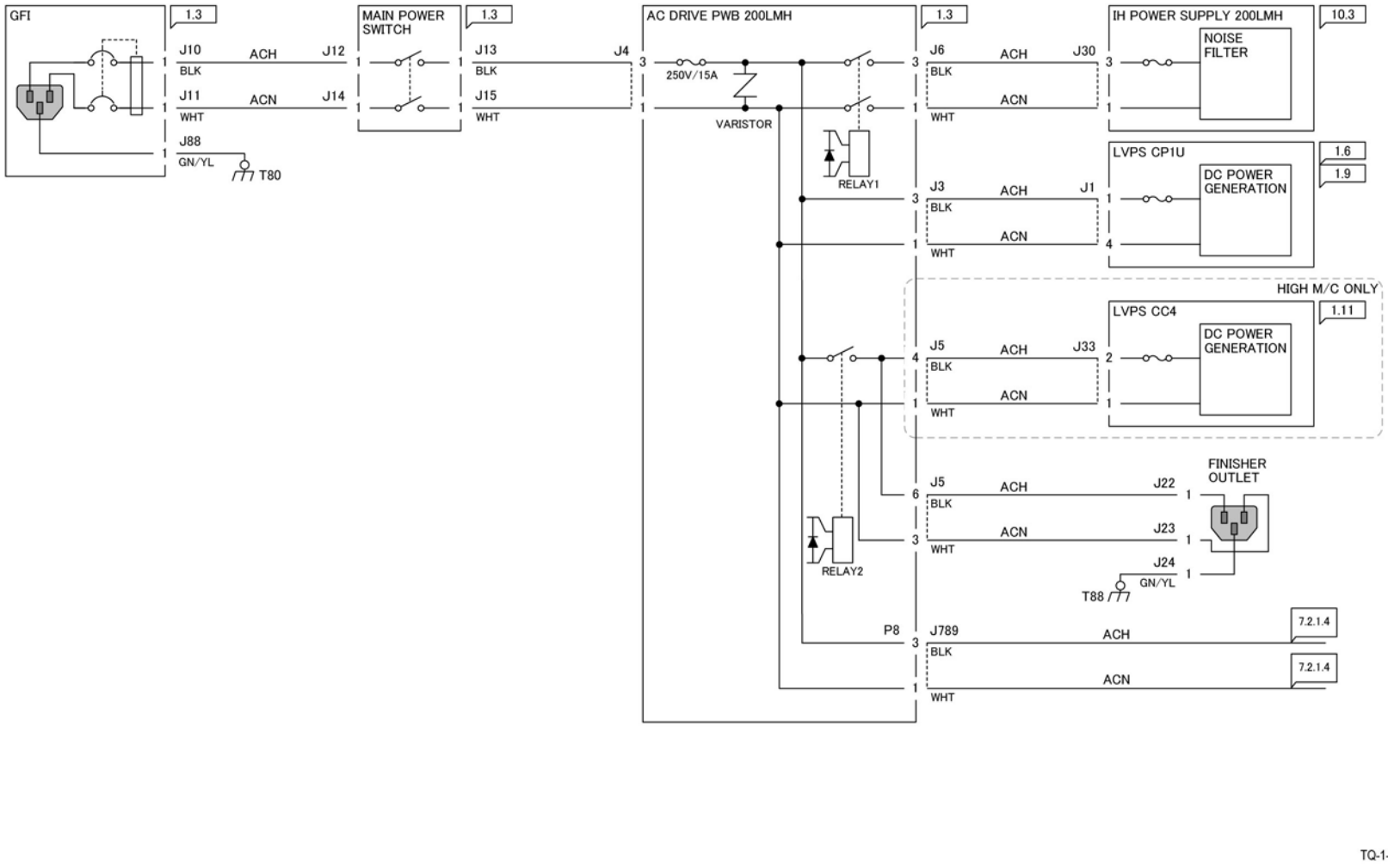

Figure 1 Wiring Diagram 3 ACH/ACN 220-240VAC (Low/Mid/High)

Wiring Diagram 4 Not Used

Wiring Diagram 5 +24VDC (Low/Mid)

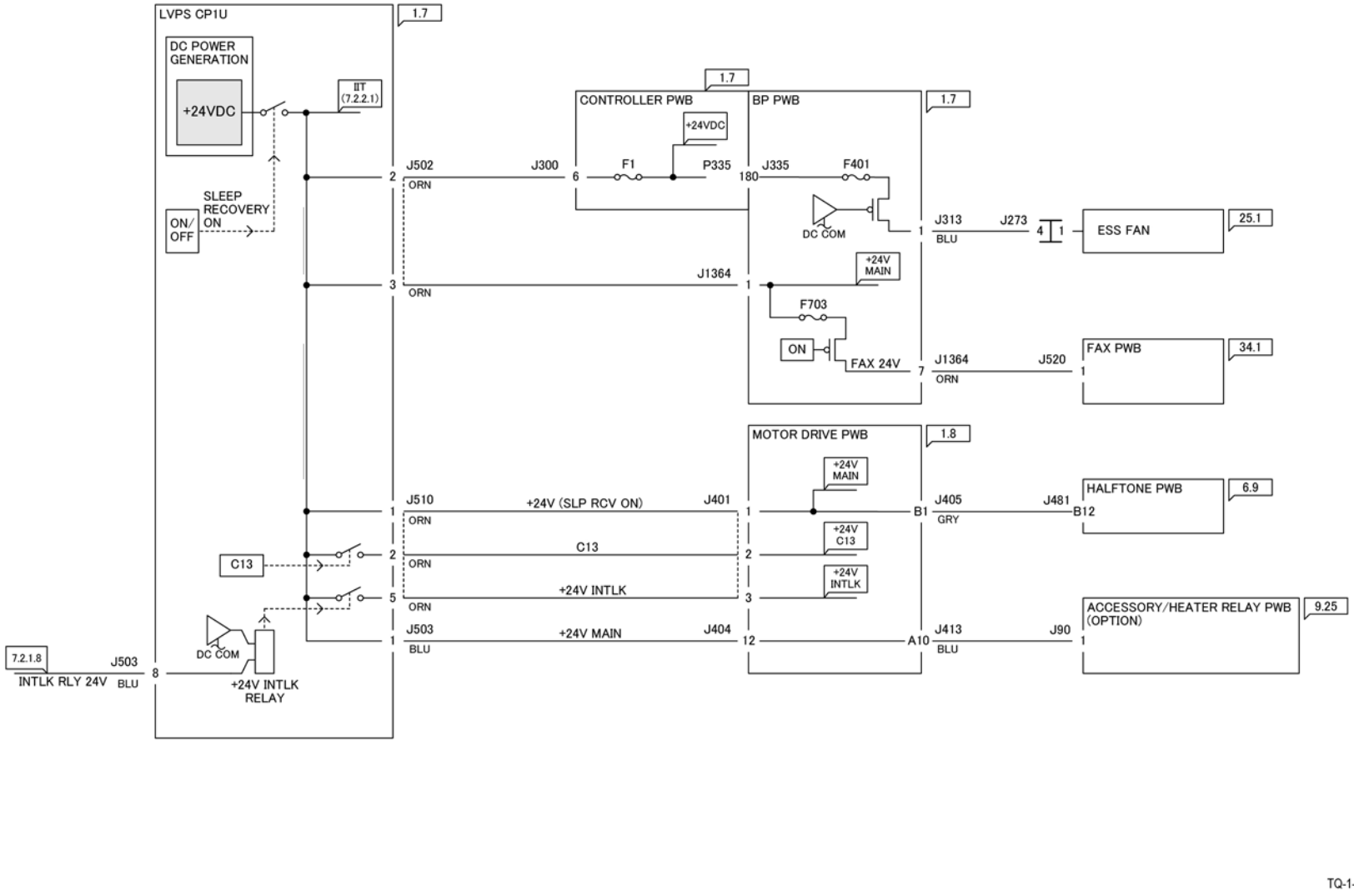

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Figure 1 Wiring Diagram 5 +24VDC (Low/Mid)

Wiring Diagram 6 +24VDC (High)

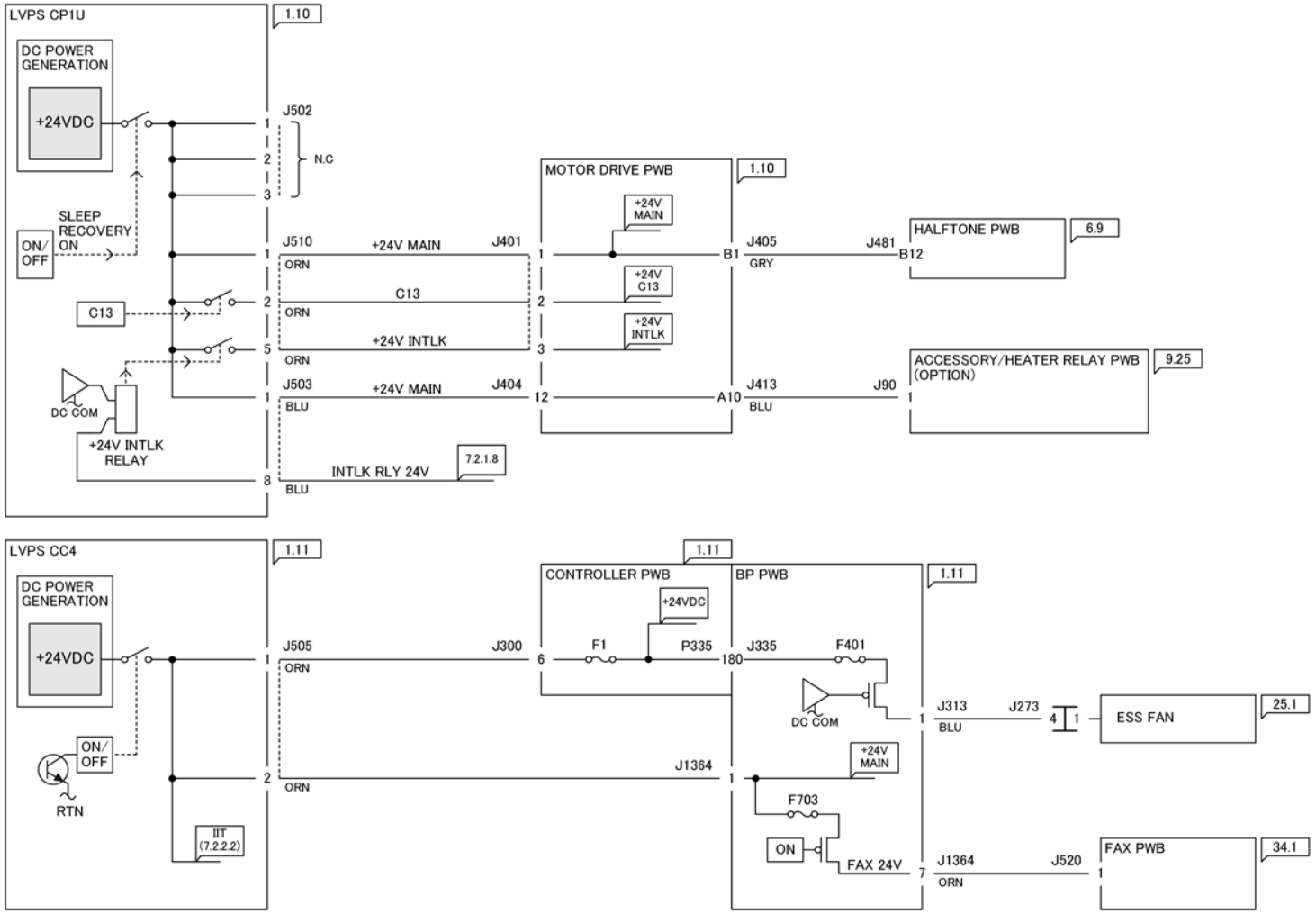

Figure 1 Wiring Diagram 6 +24VDC (High)

Wiring Diagram 7 +24VDC (1 of 2)

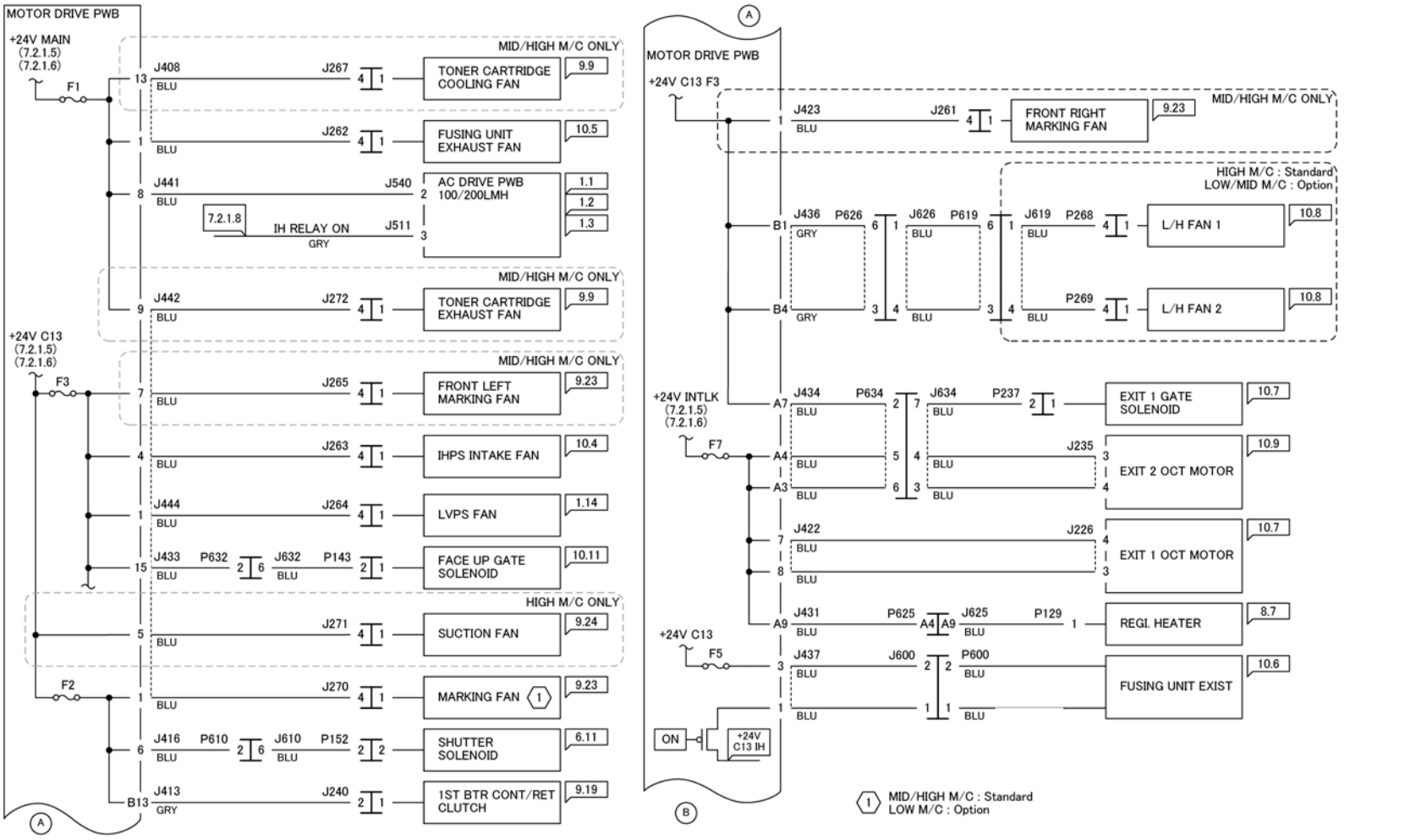

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Figure 1 Wiring Diagram 7 +24VDC (1 of 2)

Wiring Diagram 8 +24VDC (2 of 2)

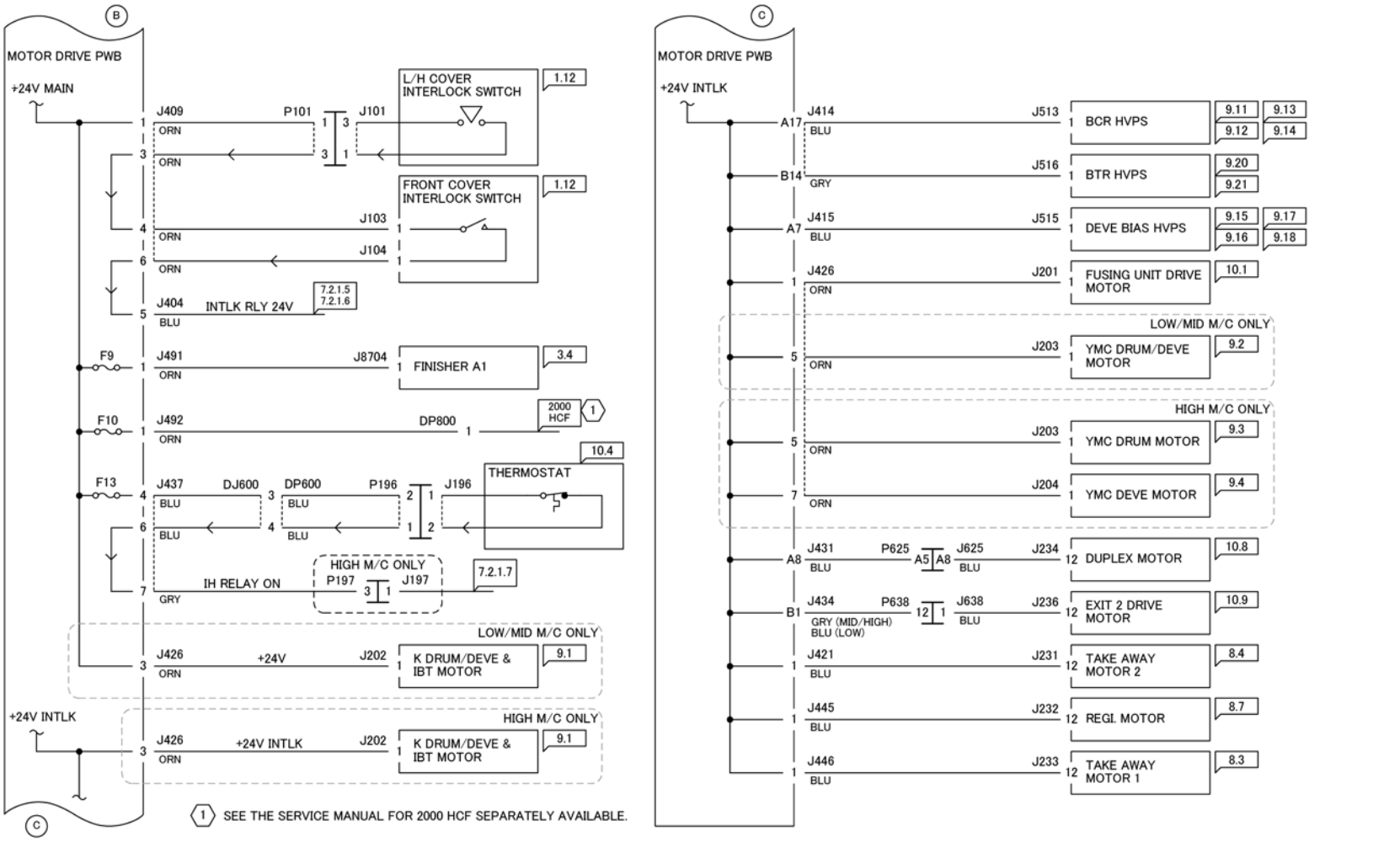

Figure 1 Wiring Diagram 8 +24VDC (2 of 2)

Wiring Diagram 9 +5VDC (Low/Mid) (1 of 2)

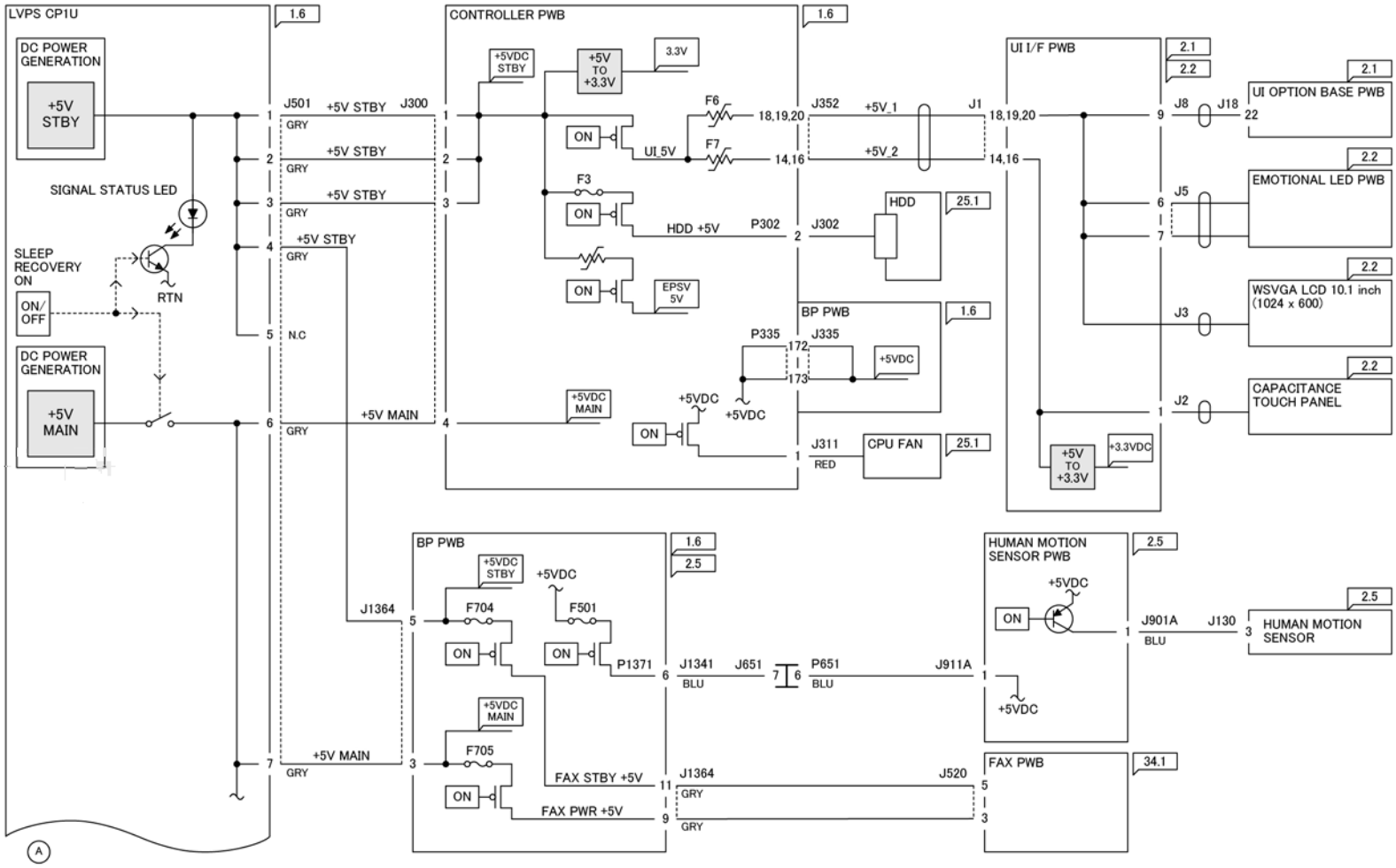

Figure 1 Wiring Diagram 9 +5VDC (Low/Mid) (1 of 2)

Wiring Diagram 10 +5VDC (Low/Mid) (2 of 2)

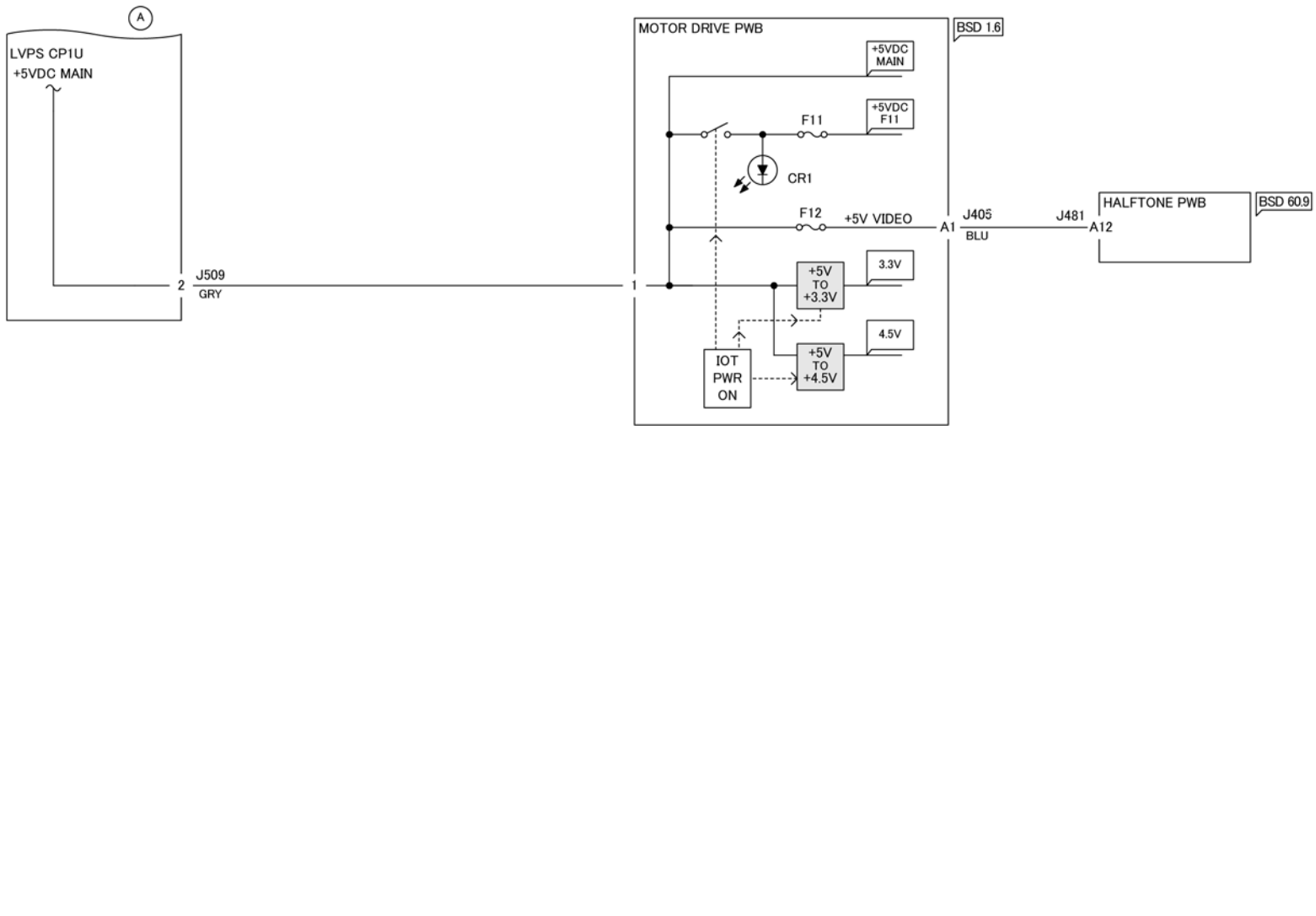

Figure 1 Wiring Diagram 10 +5VDC (Low/Mid) (2 of 2)

Wiring Diagram 11 +5VDC (High) (1 of 2)

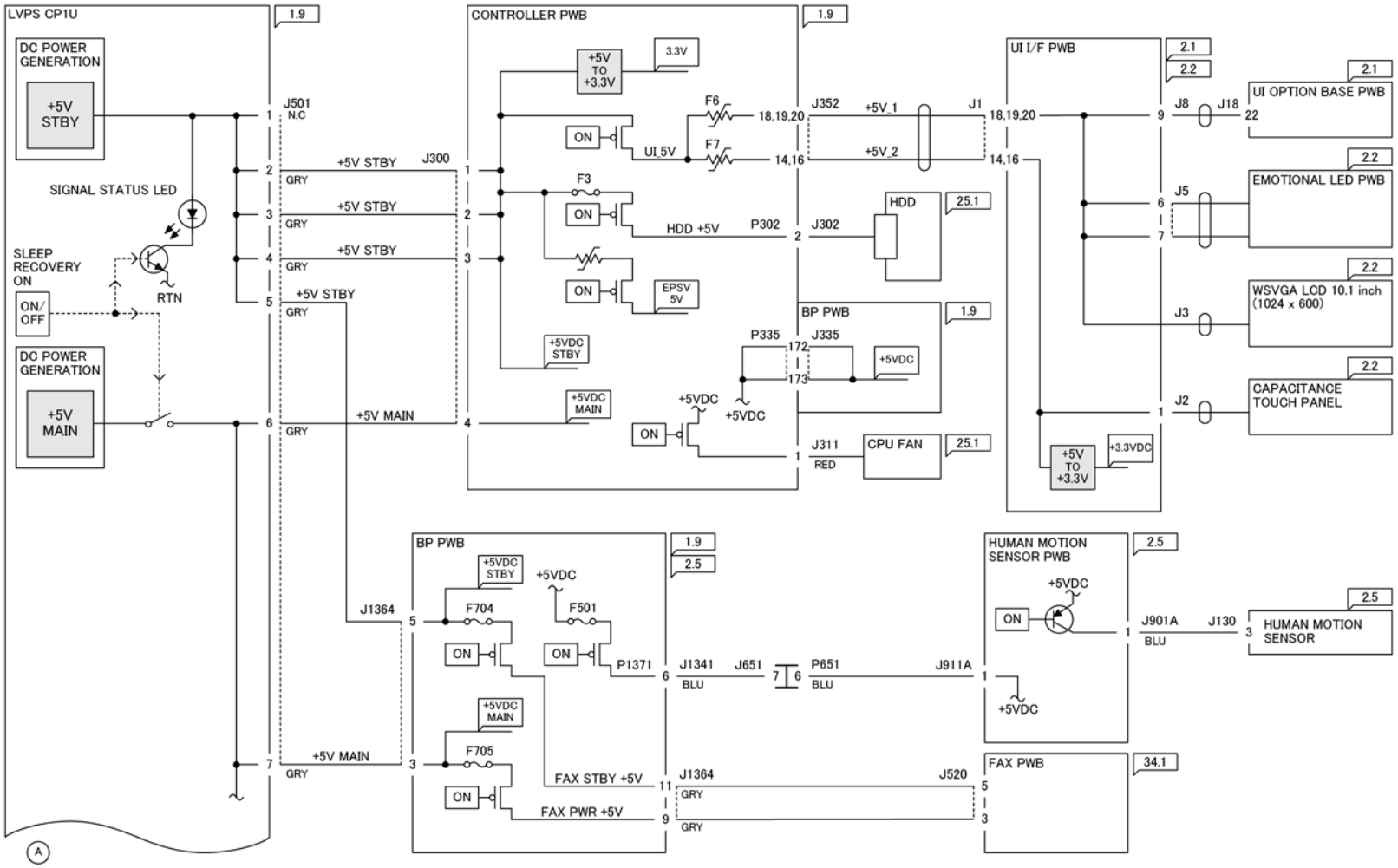

Figure 1 Wiring Diagram 11 +5VDC (High) (1 of 2)

Wiring Diagram 12 +5VDC (High) (2 of 2)

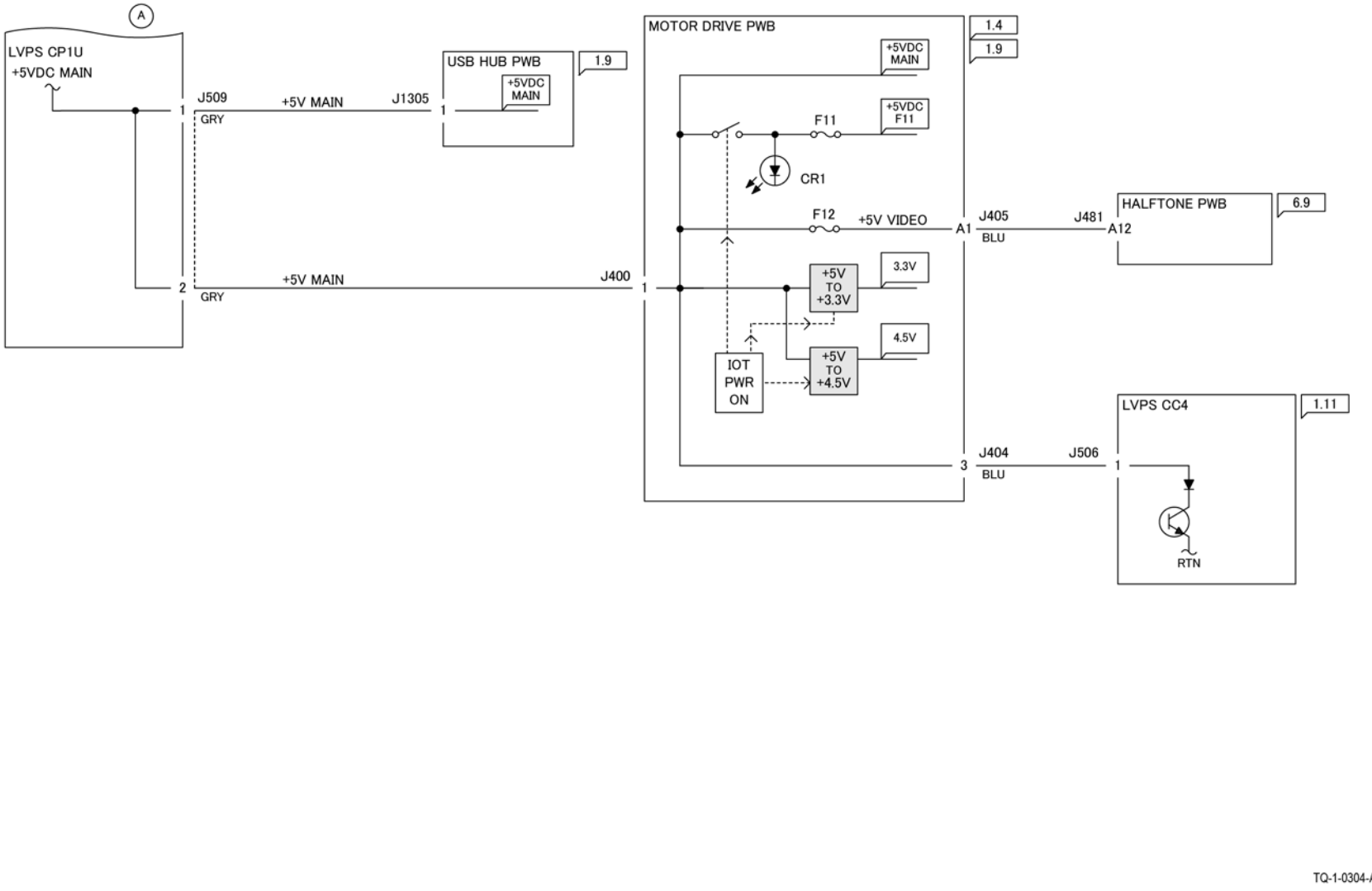

Figure 1 Wiring Diagram 12 +5VDC (High) (2 of 2)

Wiring Diagram 13 +5VDC (1 of 2)

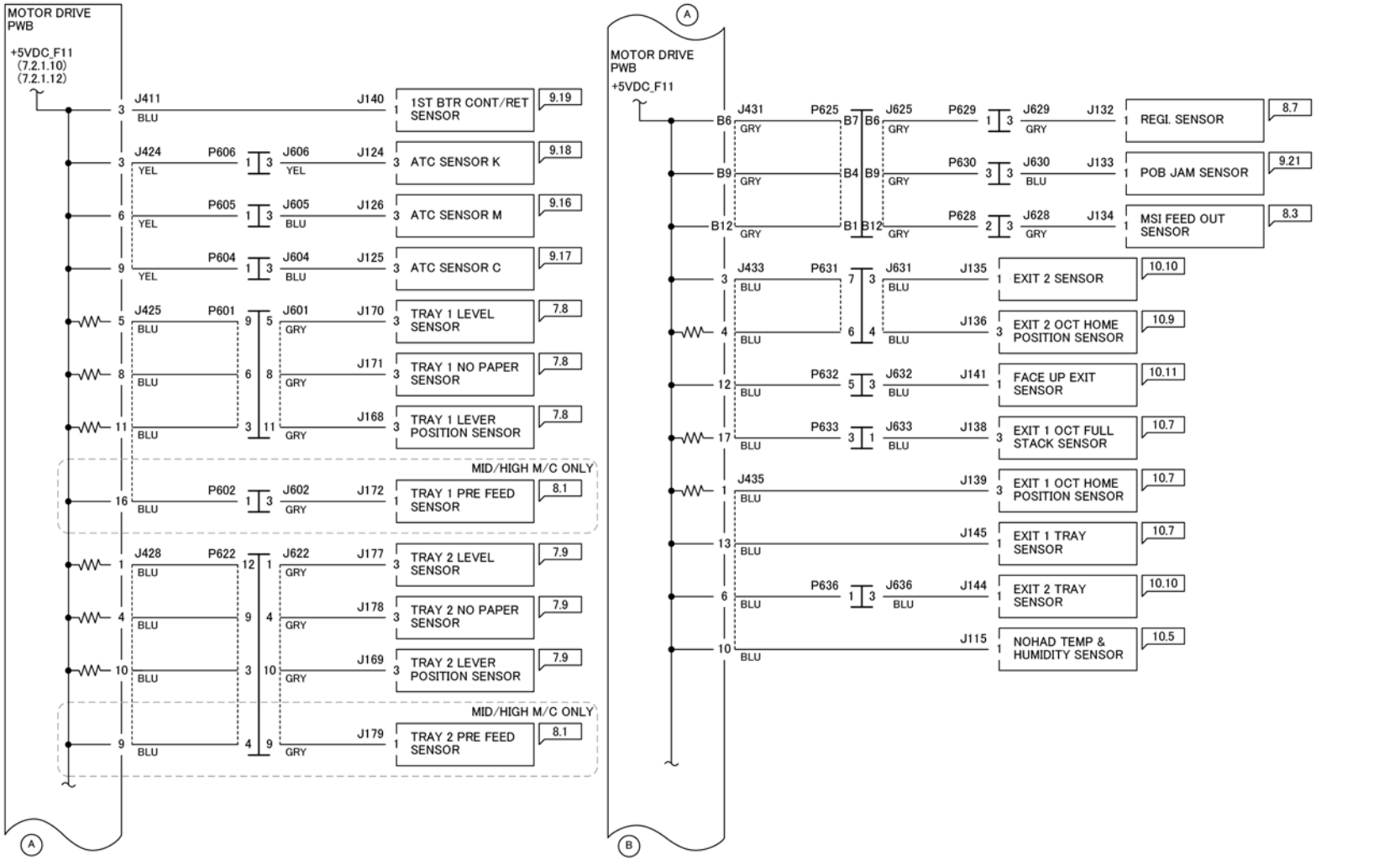

Figure 1 Wiring Diagram 13 +5VDC (1 of 2)

Wiring Diagram 14 +5VDC (2 of 2)

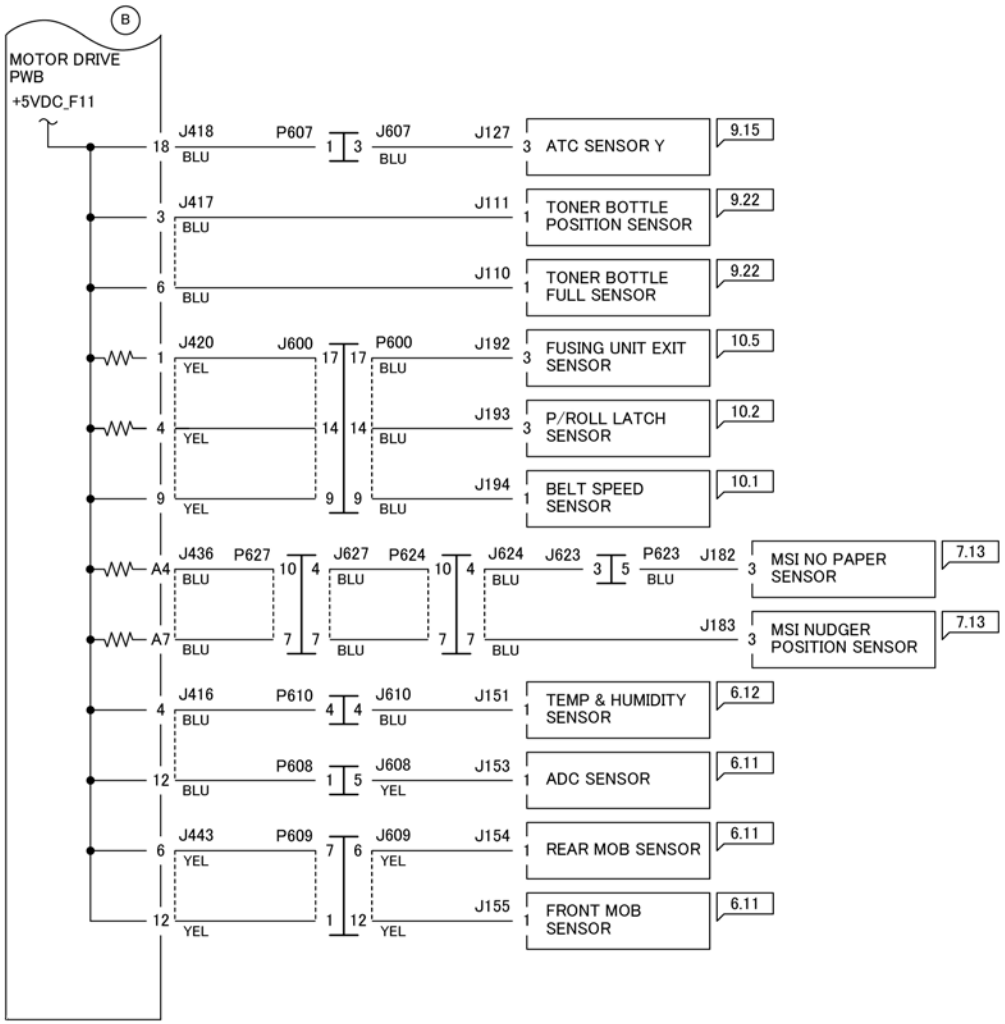

Figure 1 Wiring Diagram 14 +5VDC (2 of 2)

Wiring Diagram 15 +3.3VDC/+2.5VDC (1 of 2)

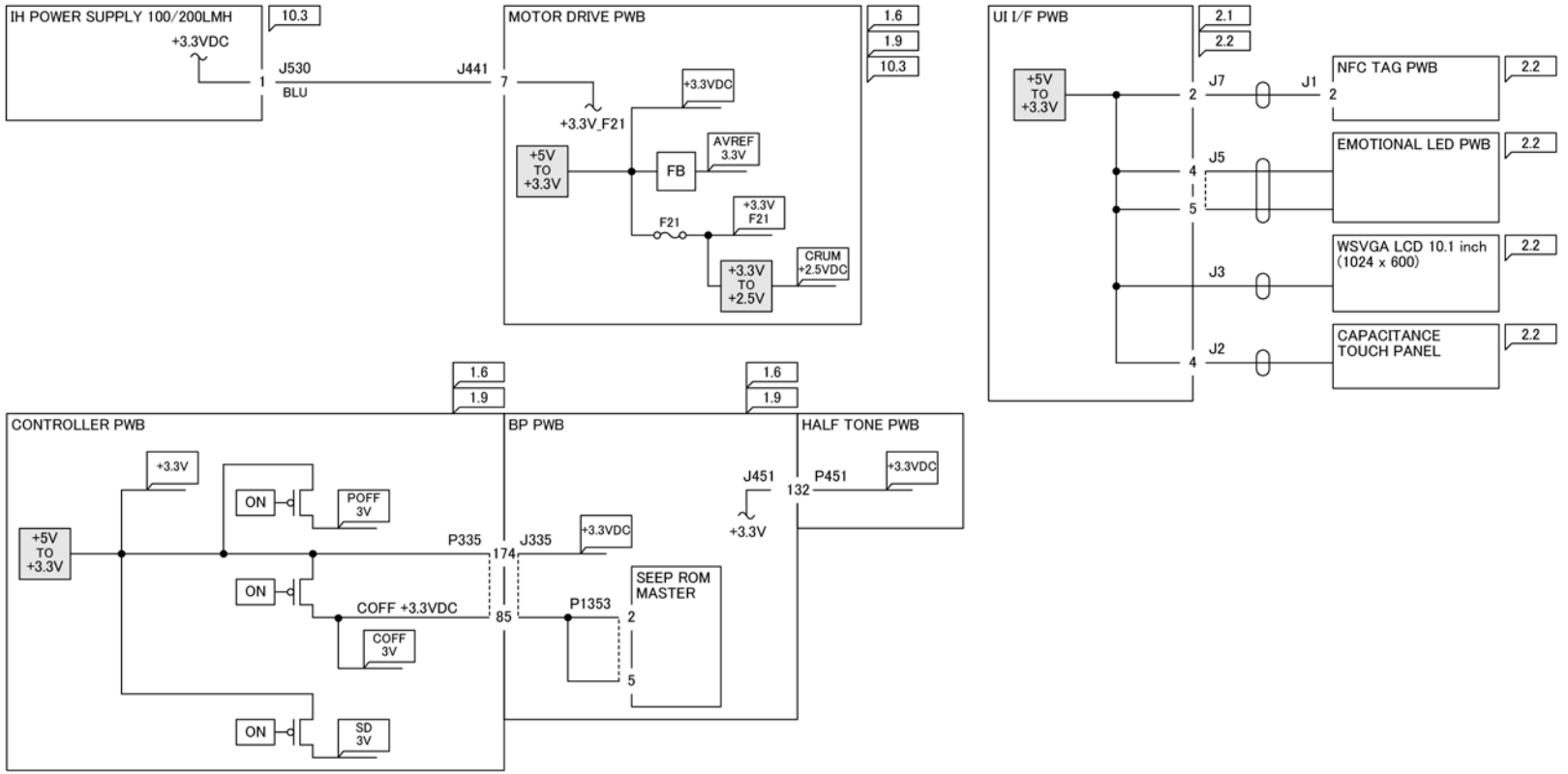

Figure 1 Wiring Diagram 15 +3.3VDC/+2.5VDC (1 of 2)

Wiring Diagram 16 +3.3VDC/+2.5VDC (2 of 2)

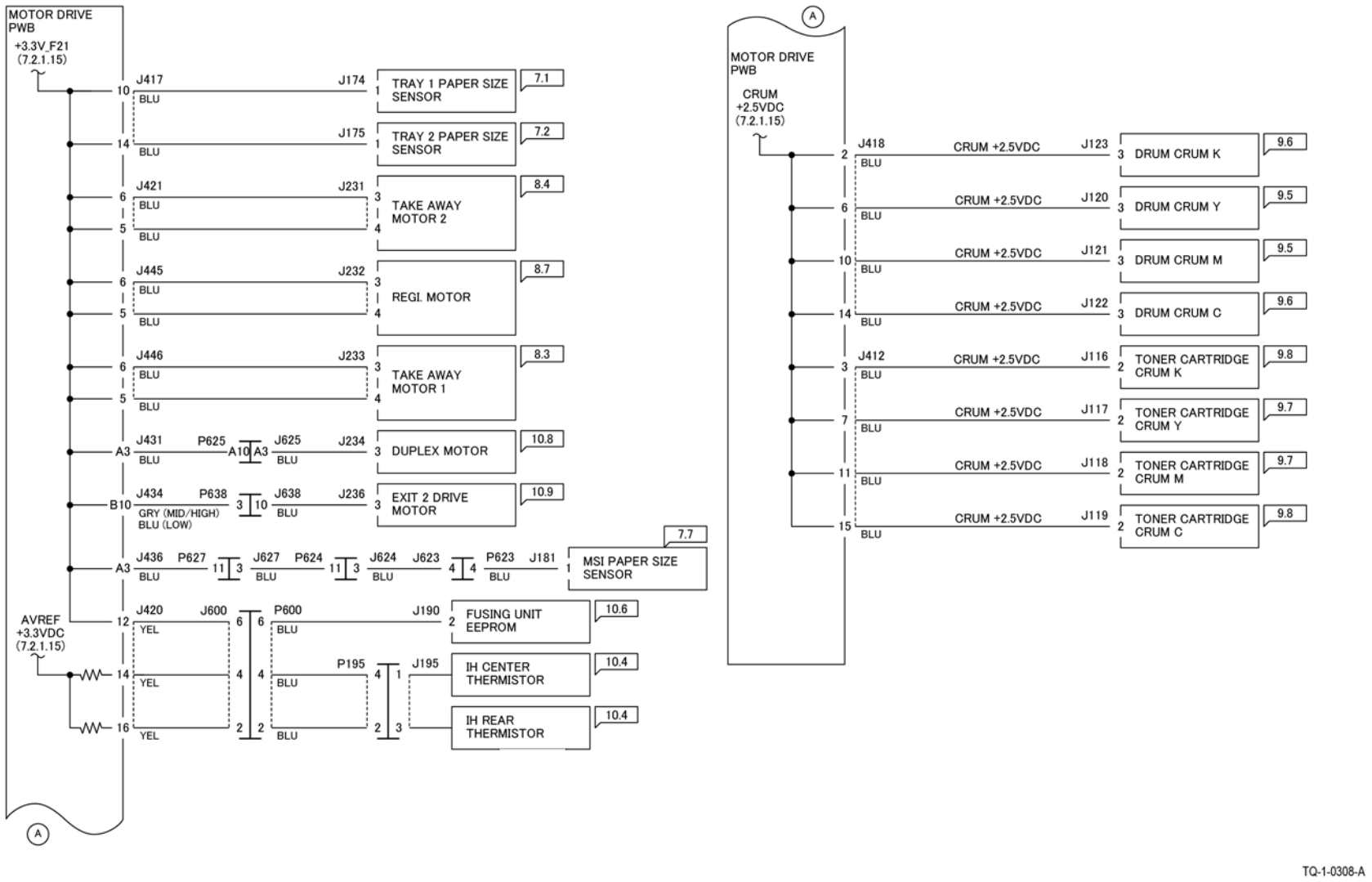

Figure 1 Wiring Diagram 16 +3.3VDC/+2.5VDC (2 of 2)

Wiring Diagram 17 DC COM (Low/Mid) (1 of 2)

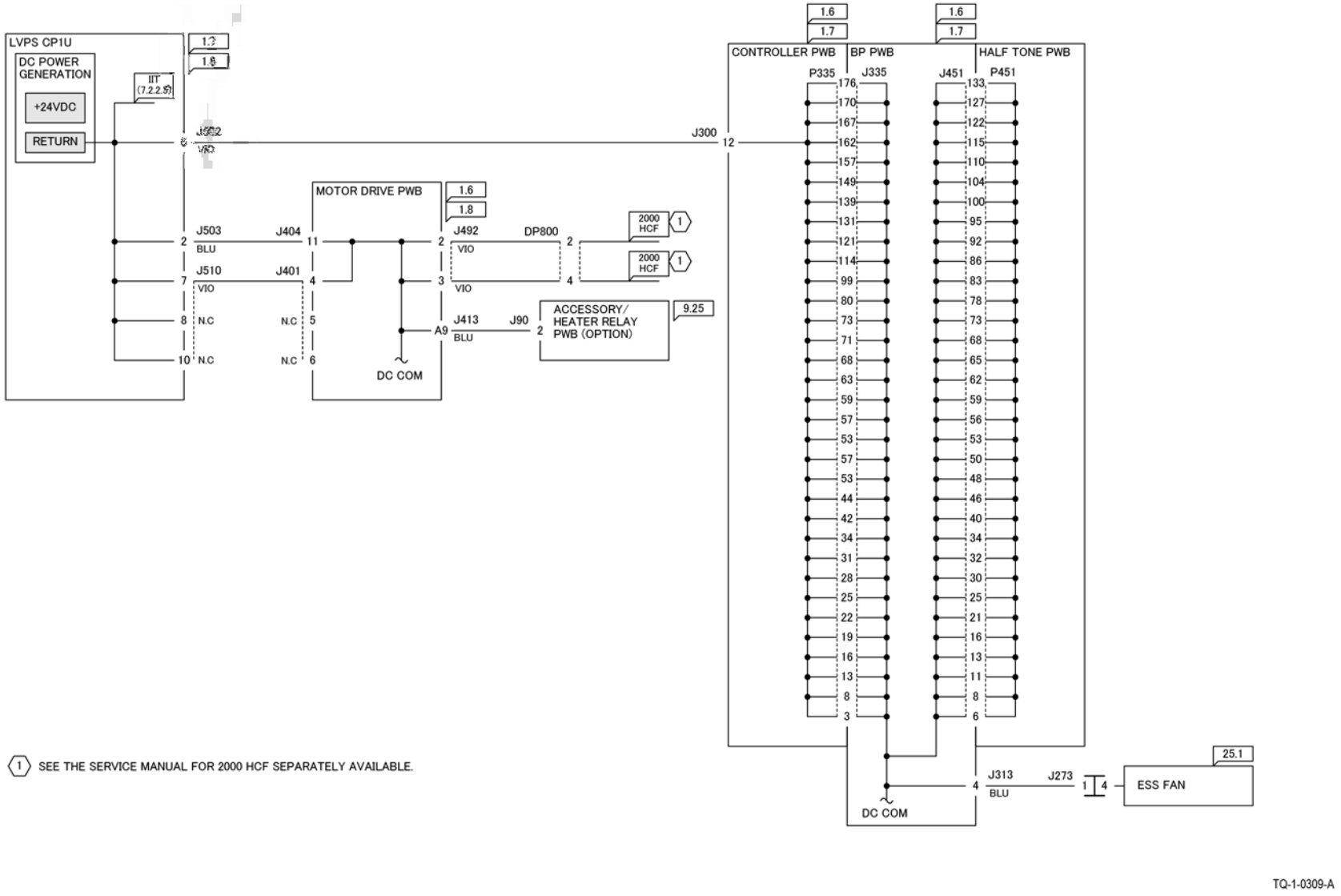

Figure 1 Wiring Diagram 17 DC COM (Low/Mid) (1 of 2)

Wiring Diagram 18 DC COM (Low/Mid) (2 of 2)

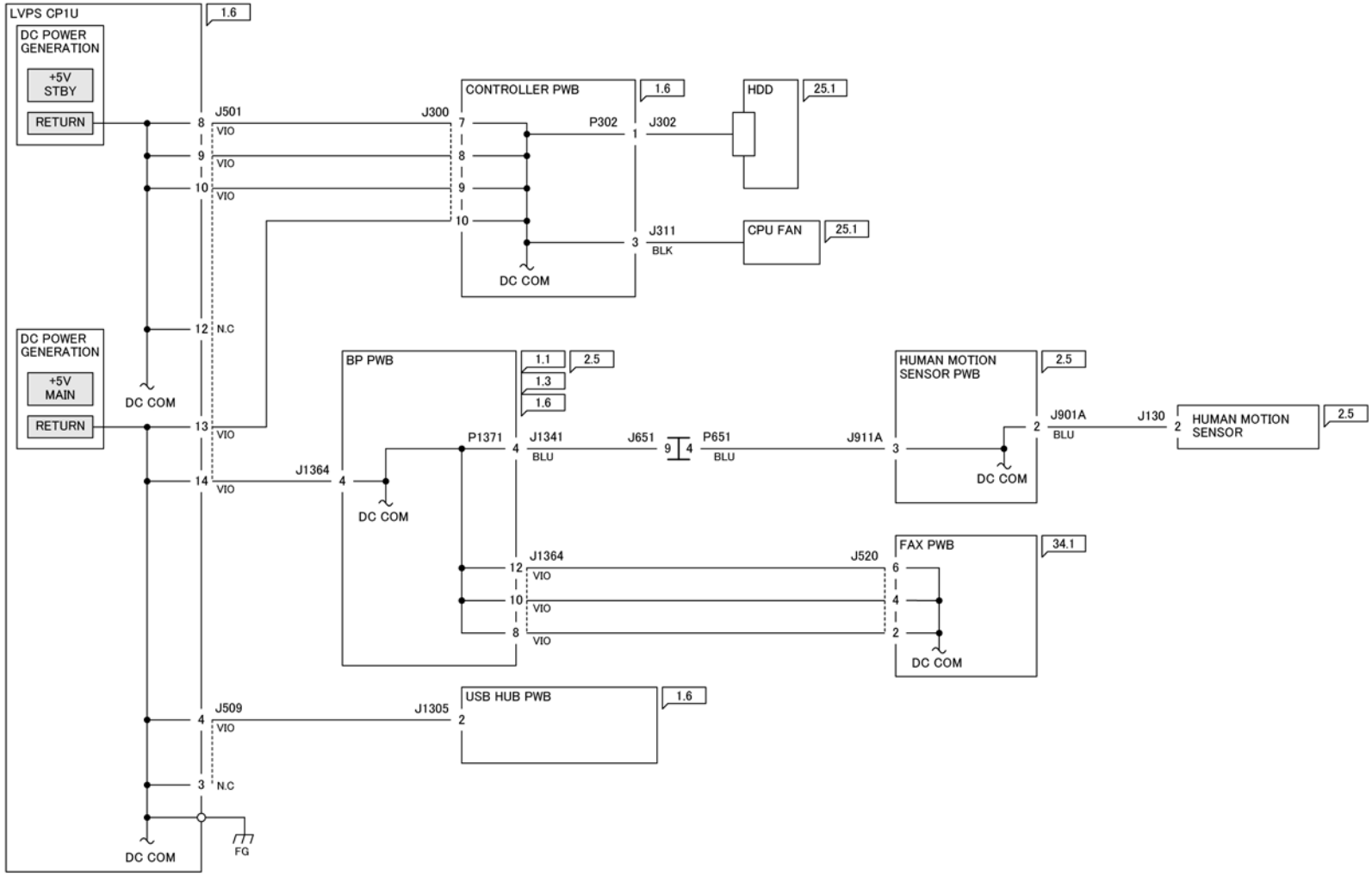

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Figure 1 Wiring Diagram 18 DC COM (Low/Mid) (2 of 2)

Wiring Diagram 19 DC COM (High) (1 of 2)

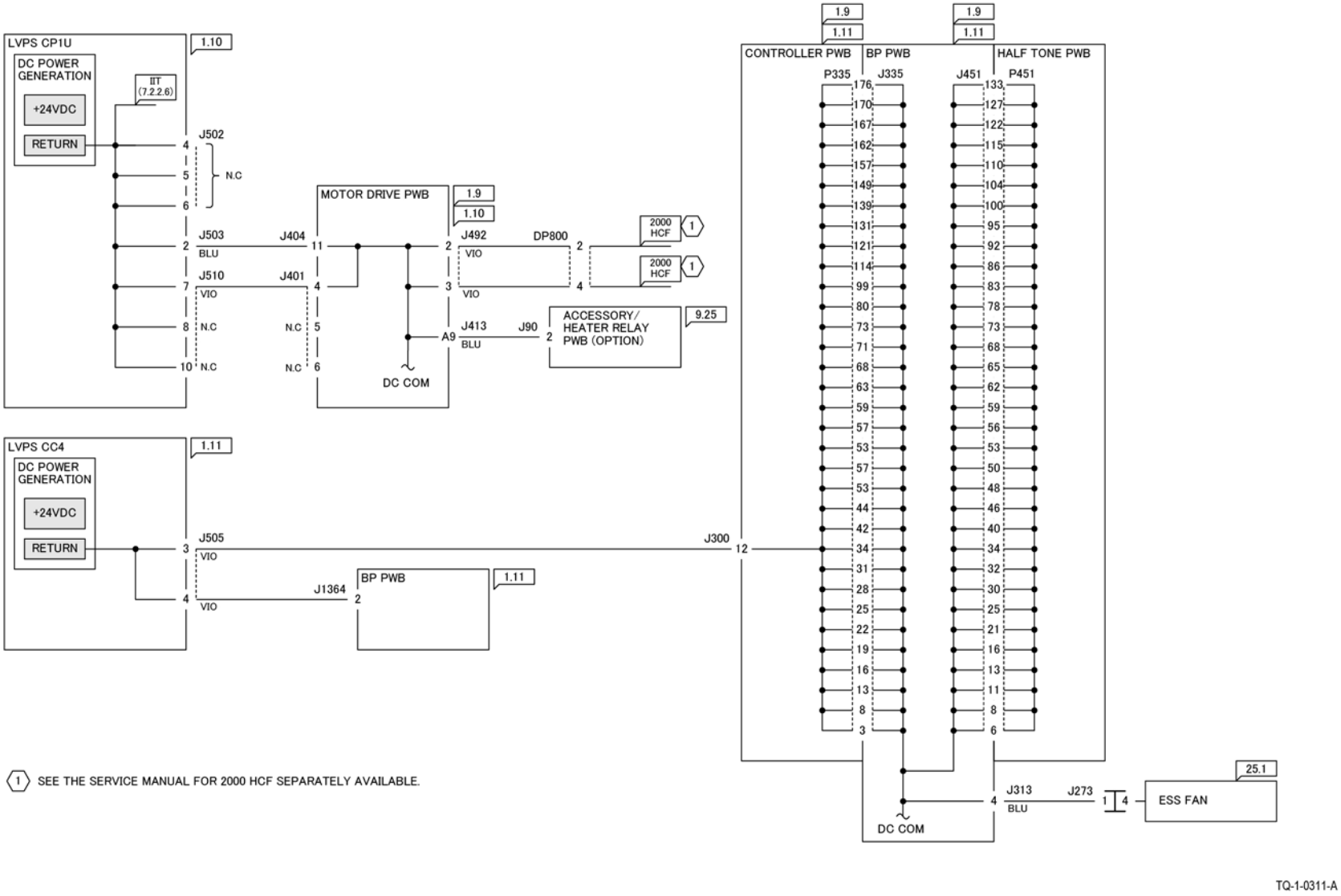

Figure 1 Wiring Diagram 19 DC COM (High) (1 of 2)

Wiring Diagram 20 DC COM (High) (2 of 2)

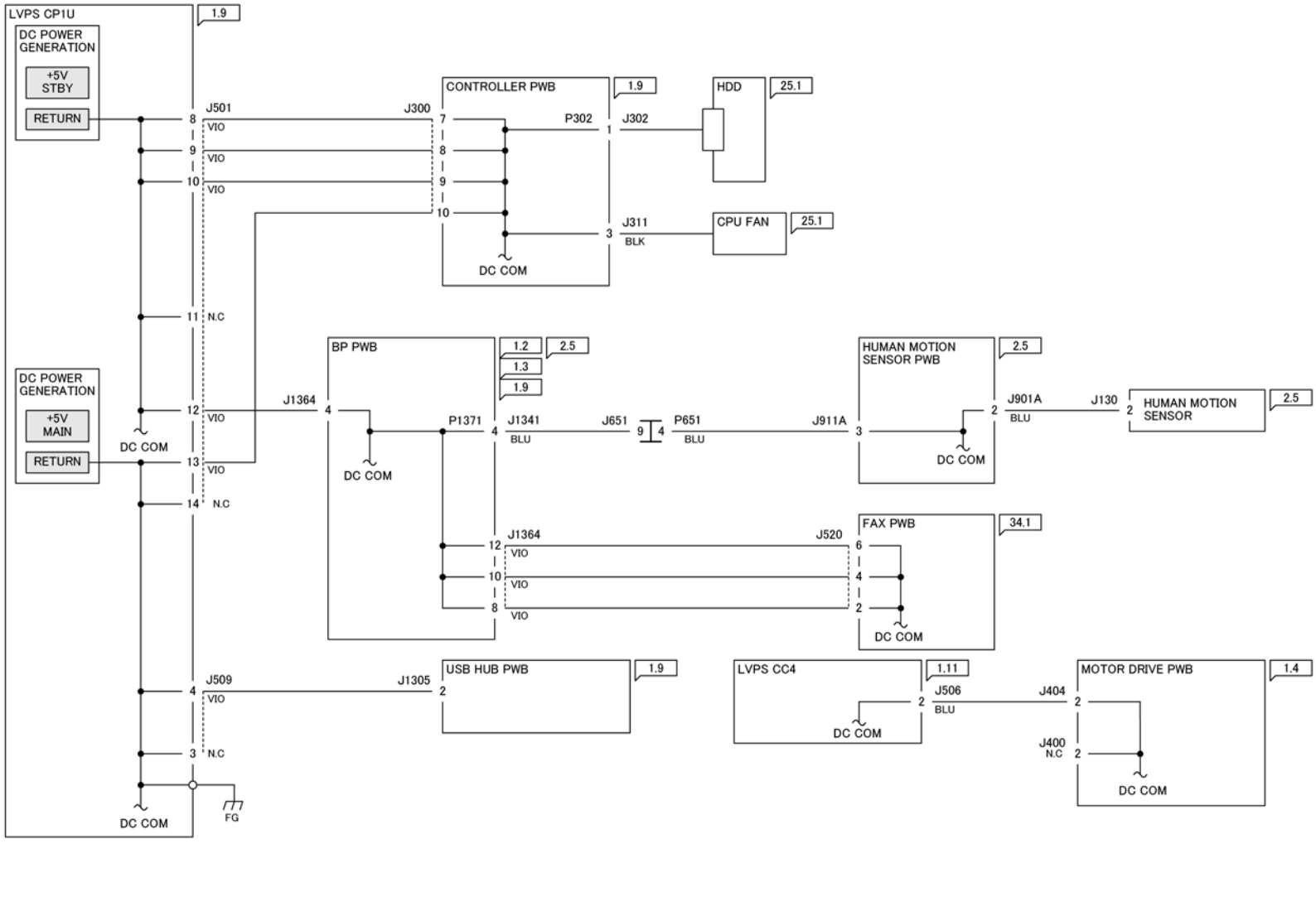

Figure 1 Wiring Diagram 20 DC COM (High) (2 of 2)

Wiring Diagram 21 DC COM (1 of 5)

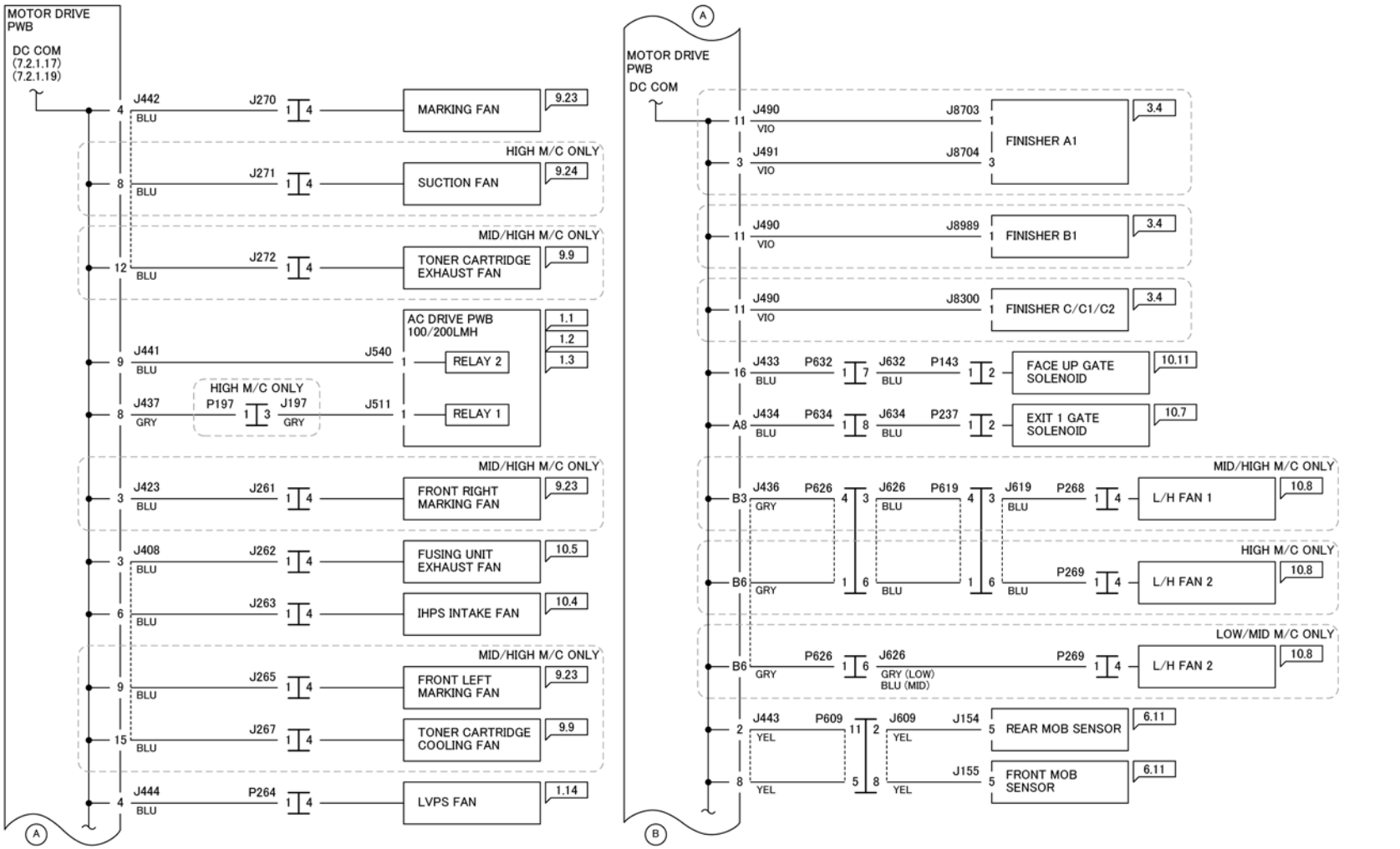

Figure 1 Wiring Diagram 21 DC COM (1 of 5)

Wiring Diagram 22 DC COM (2 of 5)

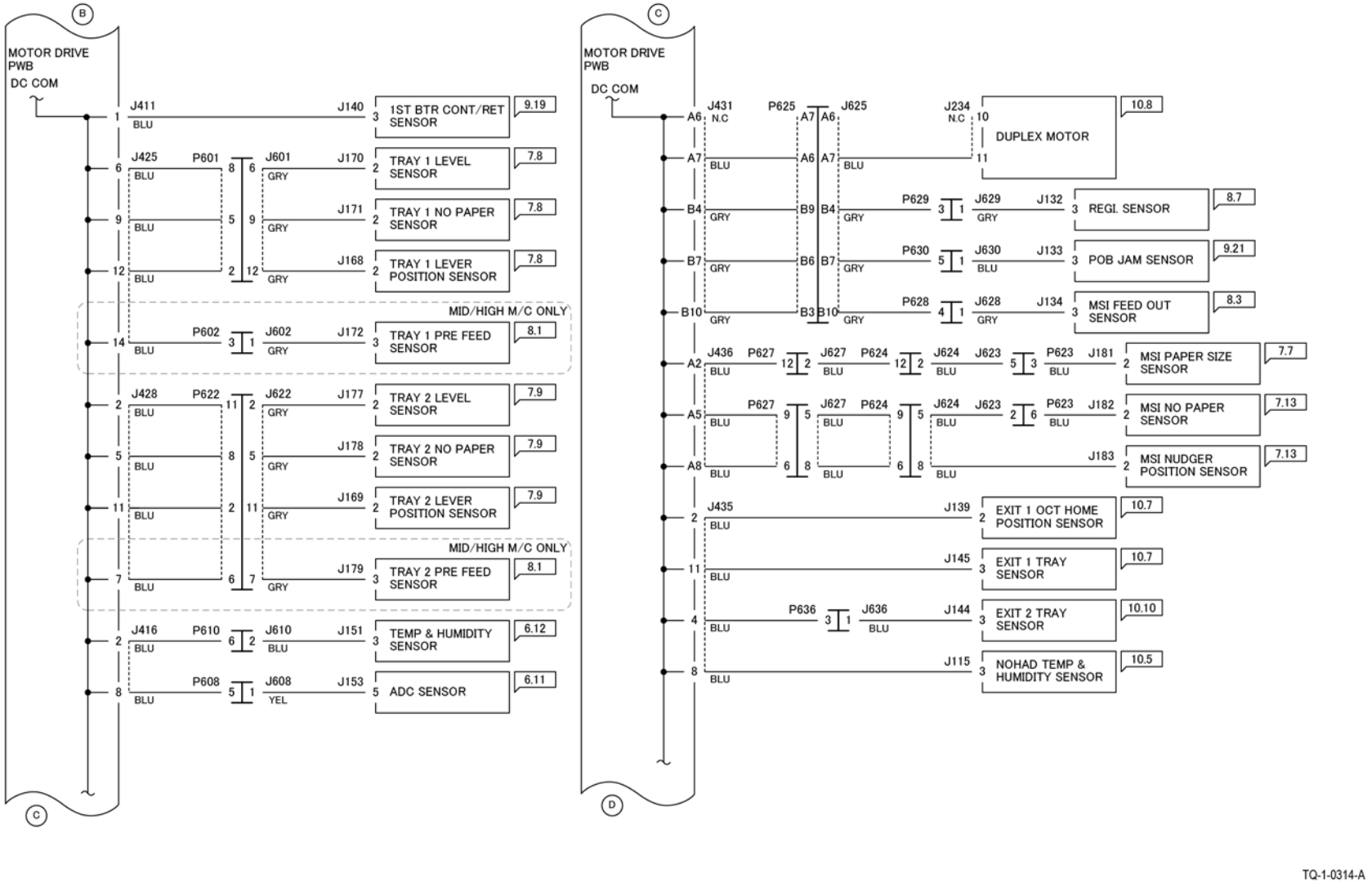

Figure 1 Wiring Diagram 22 DC COM (2 of 5)

Wiring Diagram 23 DC COM (3 of 5)

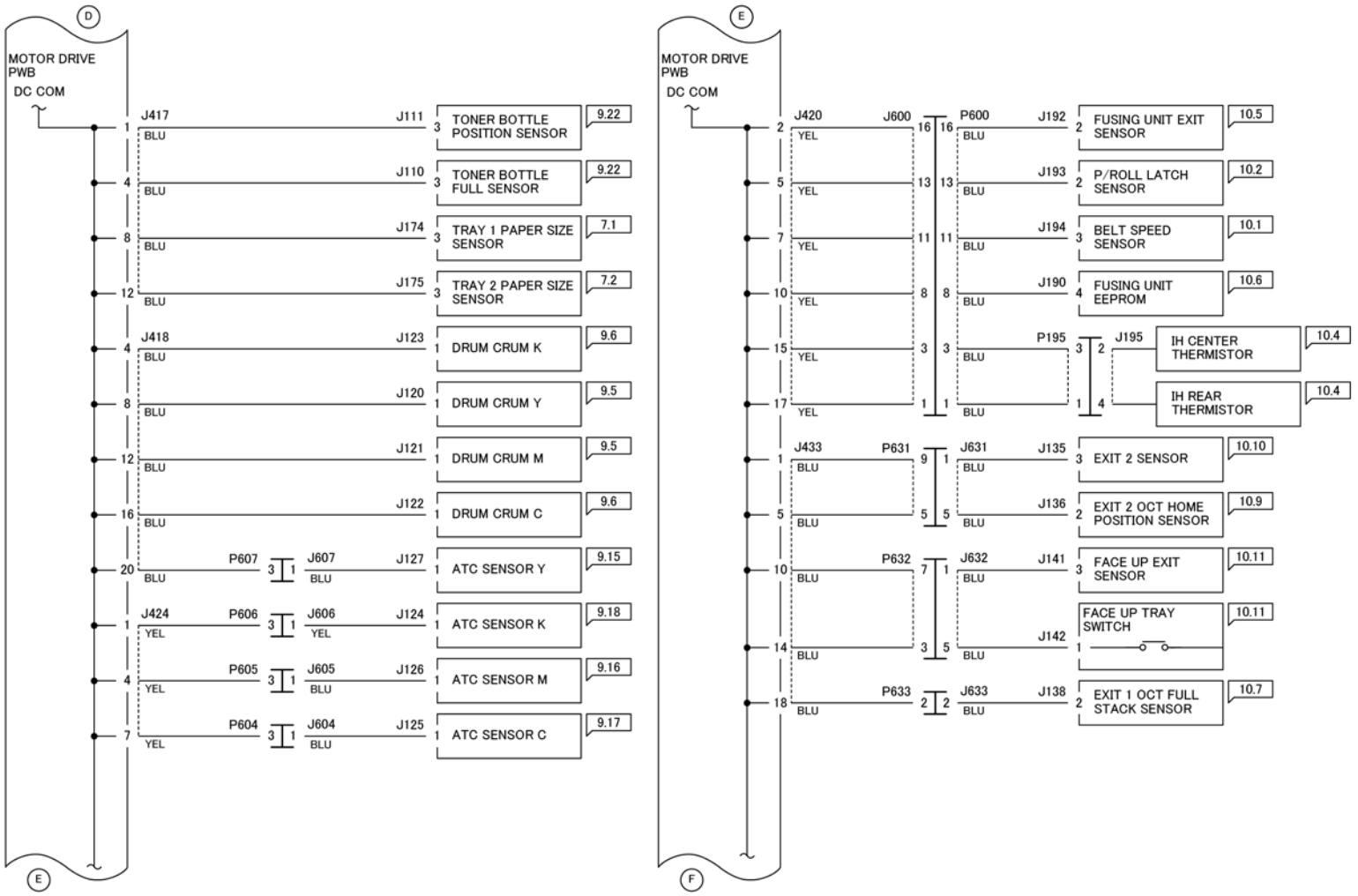

Figure 1 Wiring Diagram 23 DC COM (3 of 5)

Wiring Diagram 24 DC COM (4 of 5)

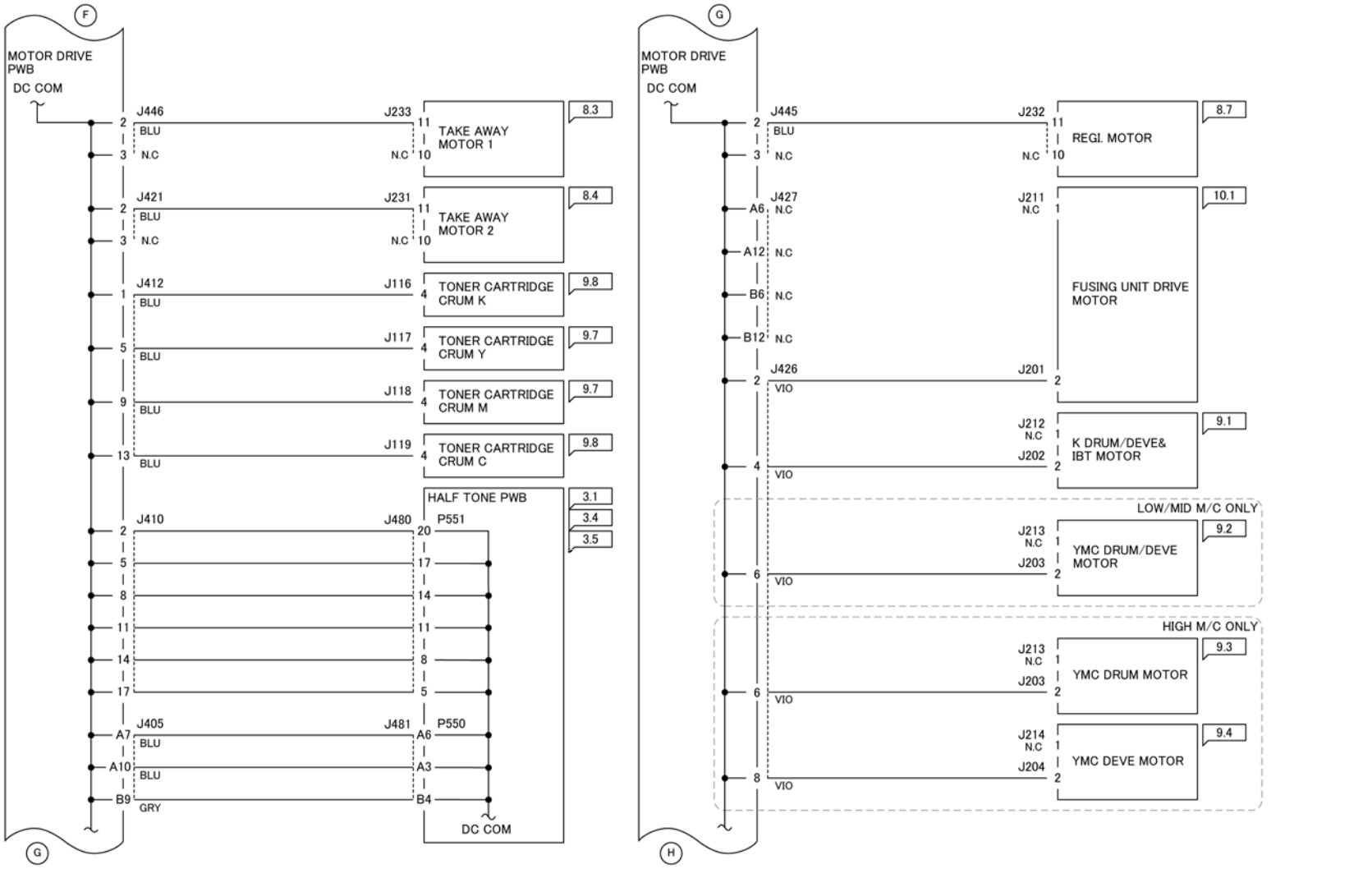

Figure 1 Wiring Diagram 24 DC COM (4 of 5)

Wiring Diagram 25 DC COM (5 of 5)

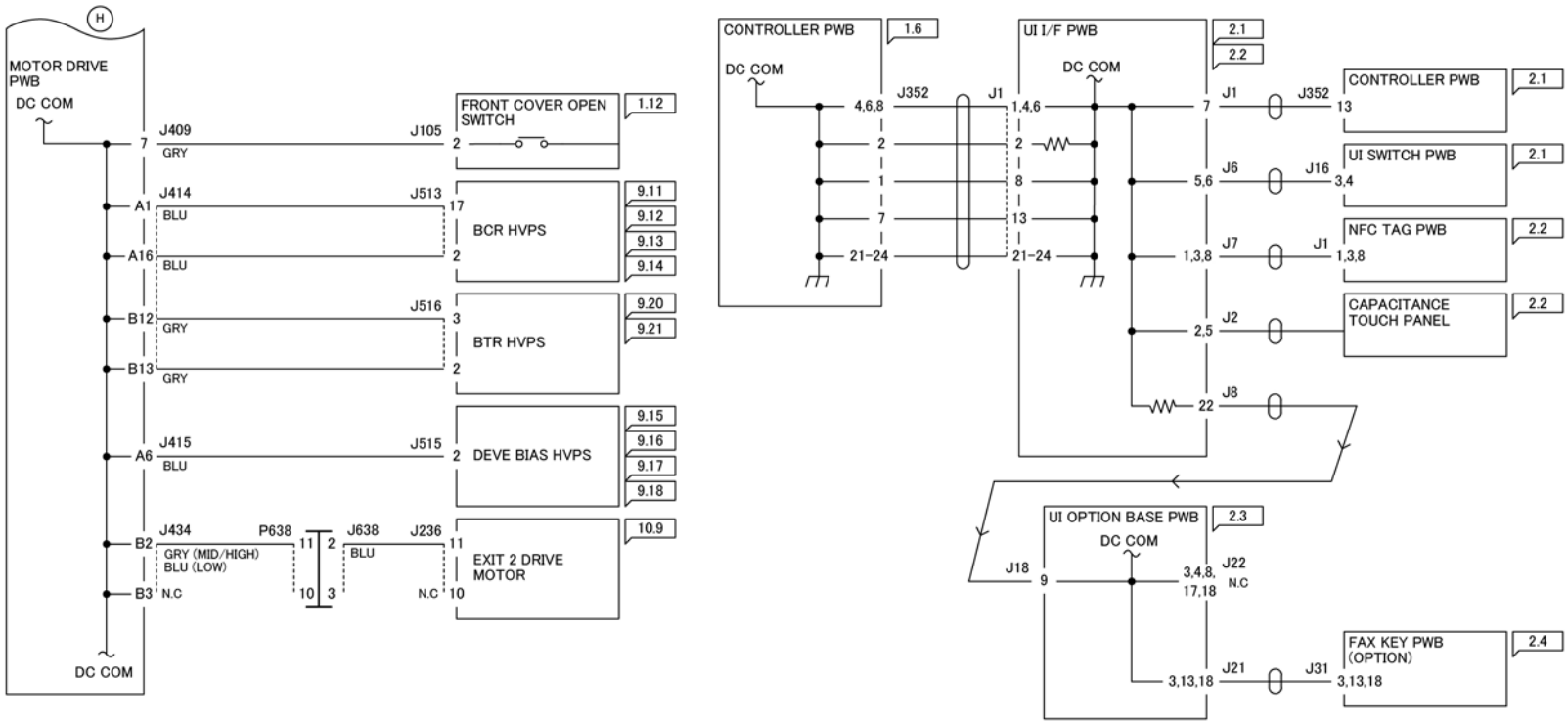

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Figure 1 Wiring Diagram 25 DC COM (5 of 5)

Wiring Diagram 26 Tray +24VDC/+5VDC/+3.3VDC (2TM)

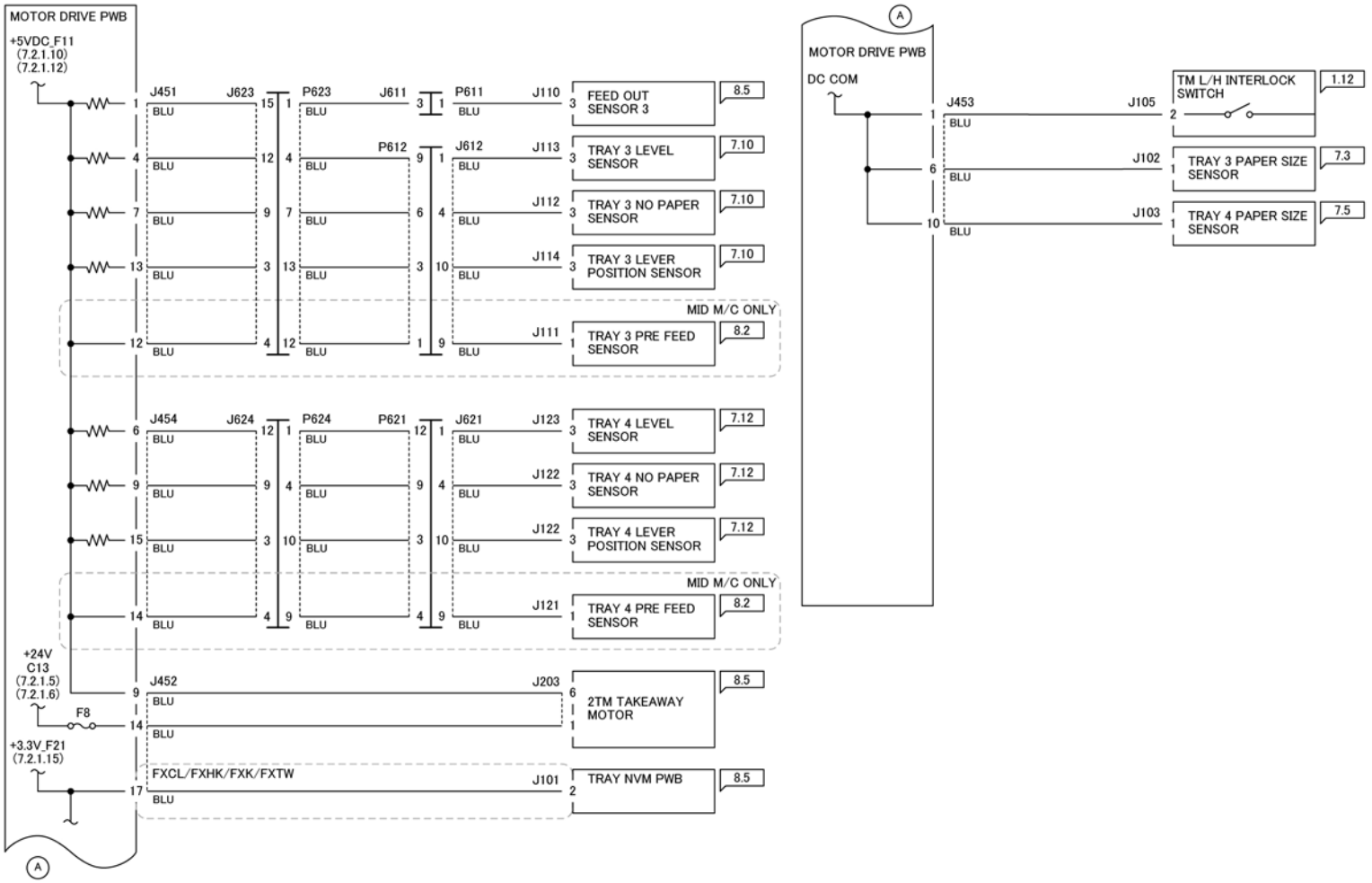

Figure 1 Wiring Diagram 26 Tray +24VDC/+5VDC/+3.3VDC (2TM)

Wiring Diagram 27 Tray +24VDC/+5VDC/+3.3VDC (TTM)

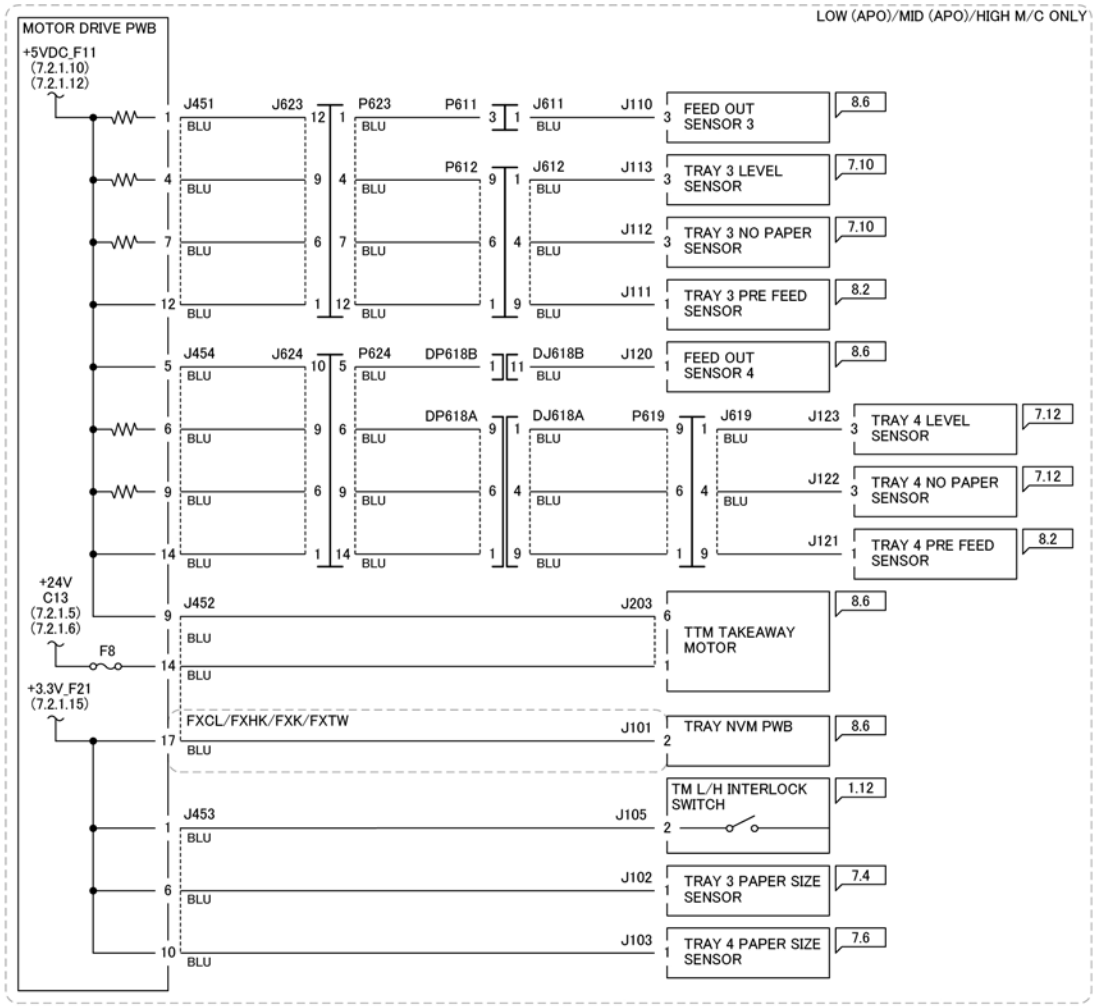

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Figure 1 Wiring Diagram 27 Tray +24VDC/+5VDC/+3.3VDC (TTM)

Wiring Diagram 28 Tray DC COM (2TM)

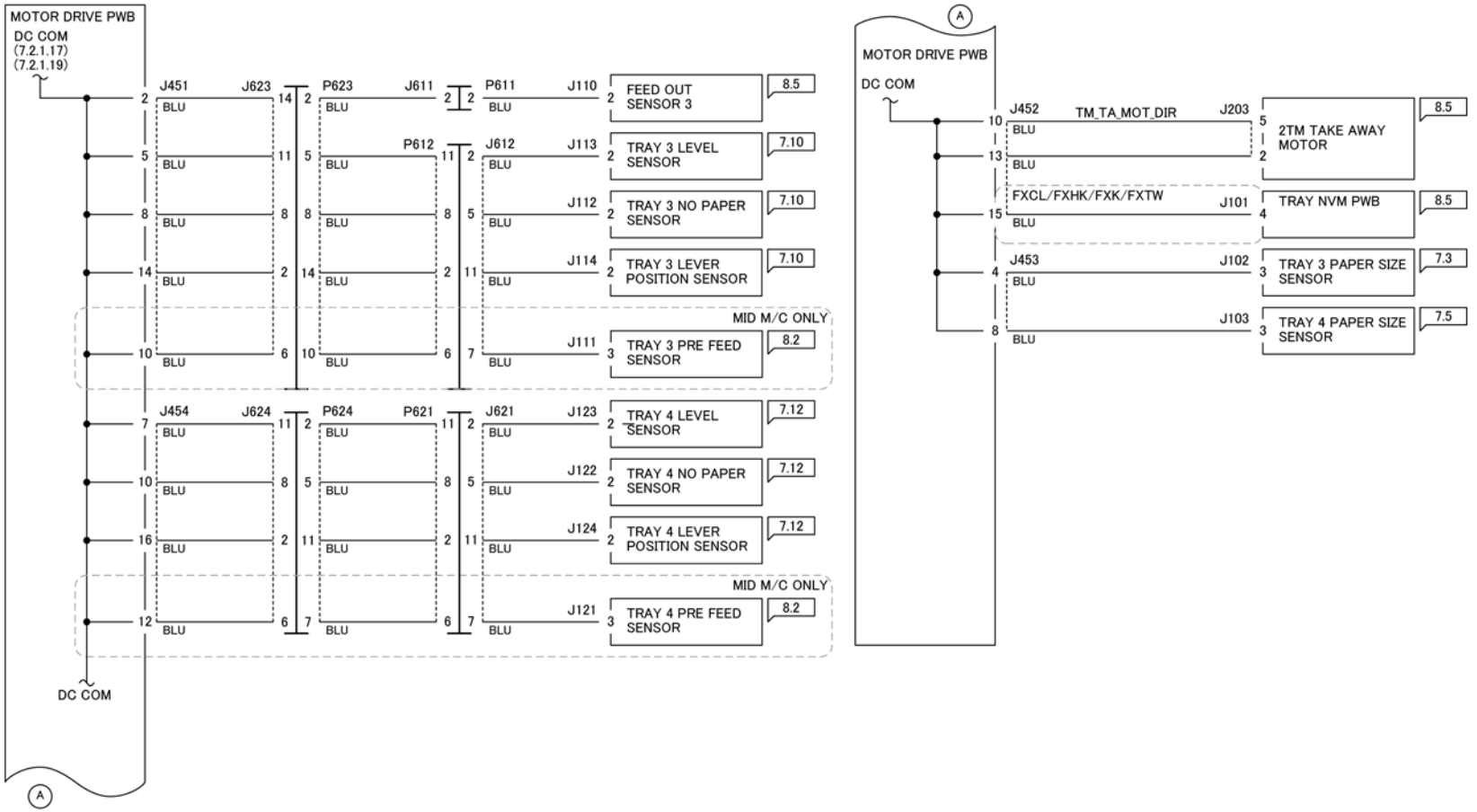

Figure 1 Wiring Diagram 28 Tray DC COM (2TM)

Wiring Diagram 29 Tray DC COM (TTM)

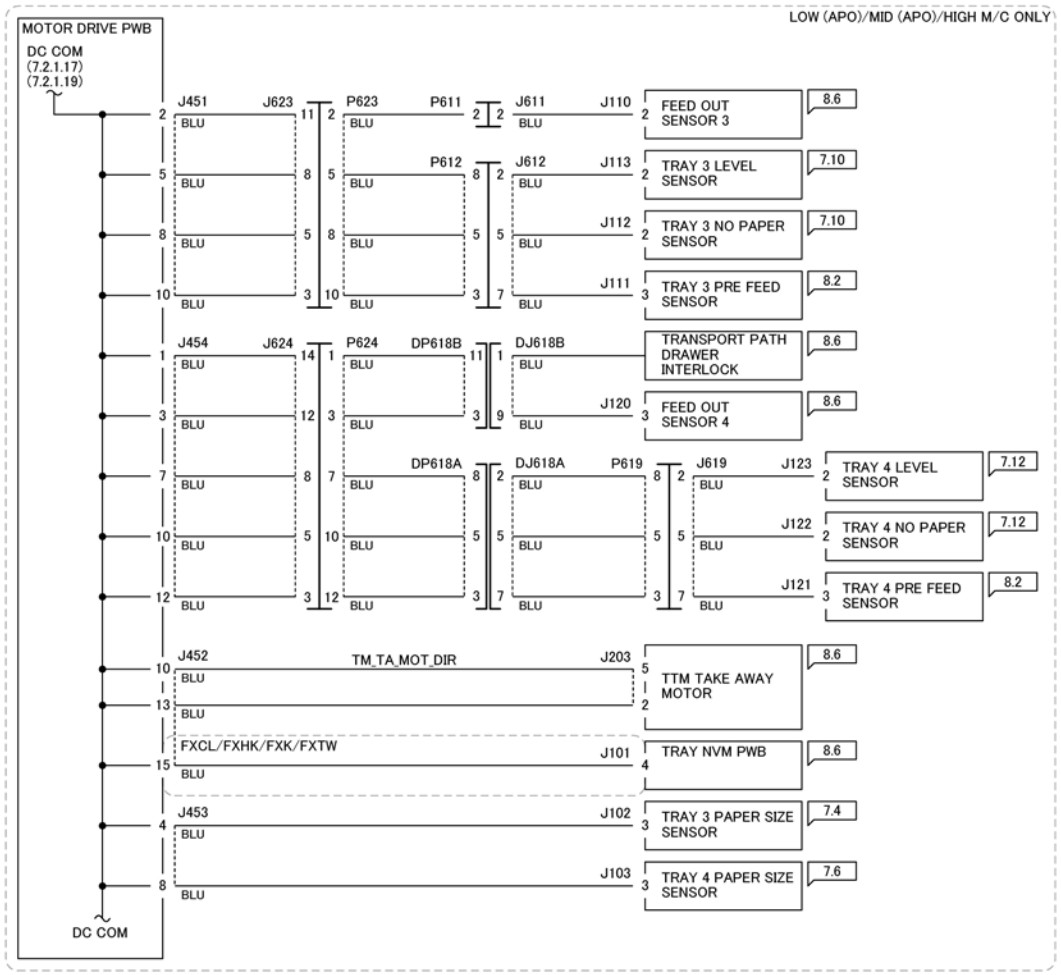

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Figure 1 Wiring Diagram 29 Tray DC COM (TTM)

Wiring Diagram 30 IIT +24VDC (Low/Mid)

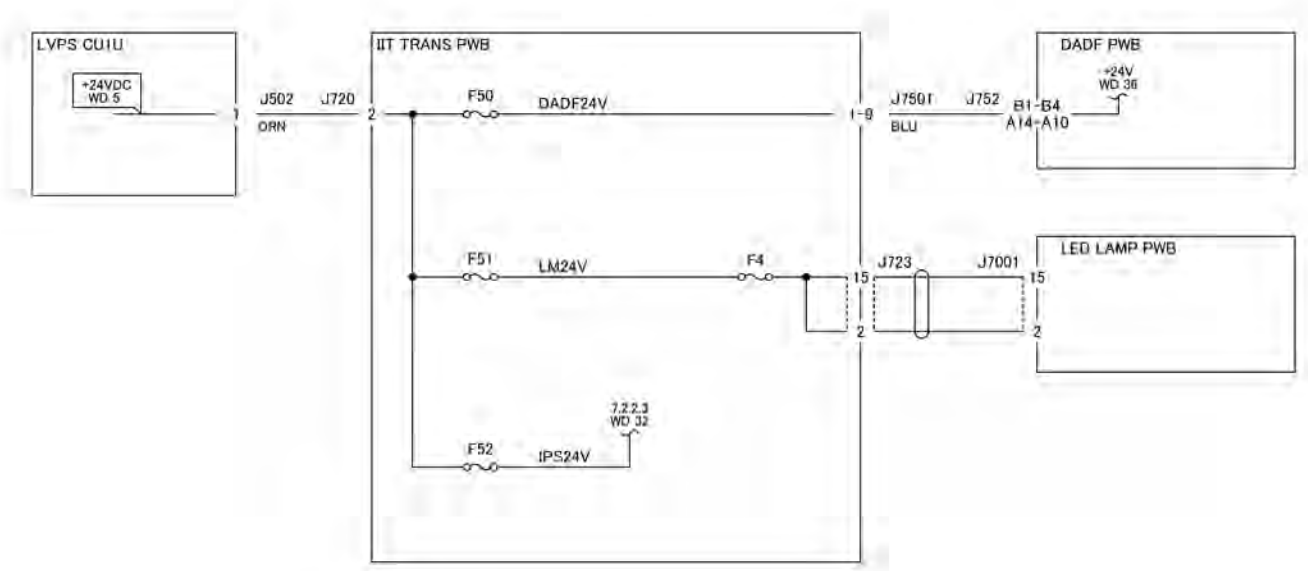

Figure 1 Wiring Diagram 30 IIT +24VDC (Low/Mid)

Wiring Diagram 31 IIT +24VDC (High)

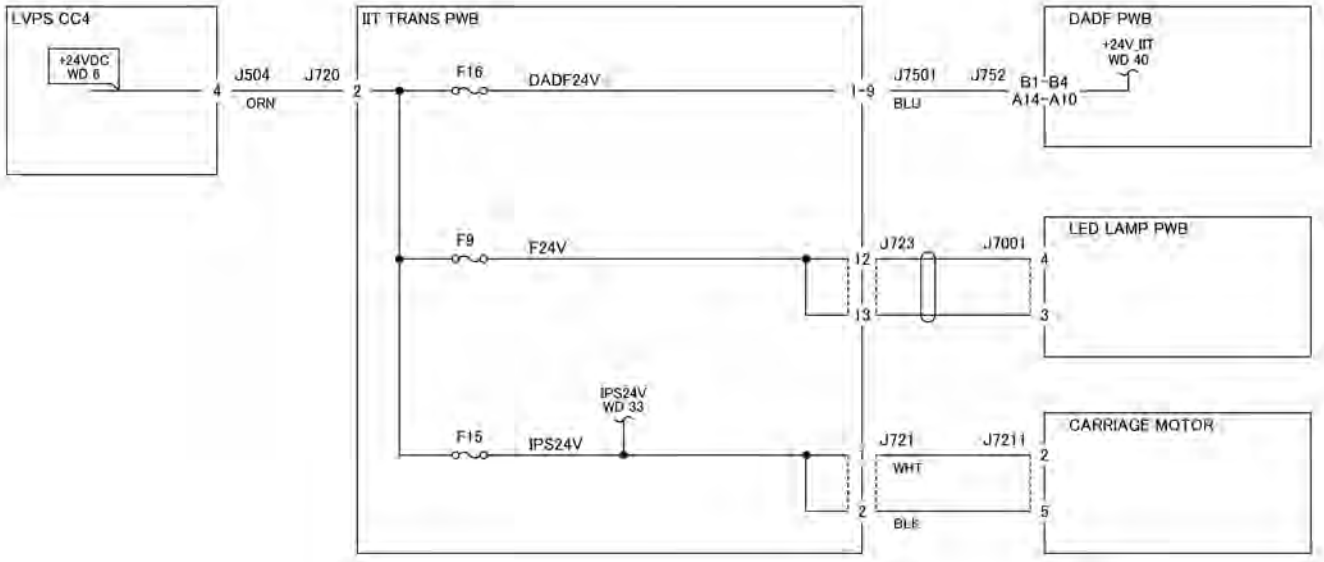

Figure 1 Wiring Diagram 31 IIT +24VDC (High)

Wiring Diagram 32 IIT +24VDC/+11VDC/+10VDC/+5VDC/ +1.9VDC (Low/Mid)

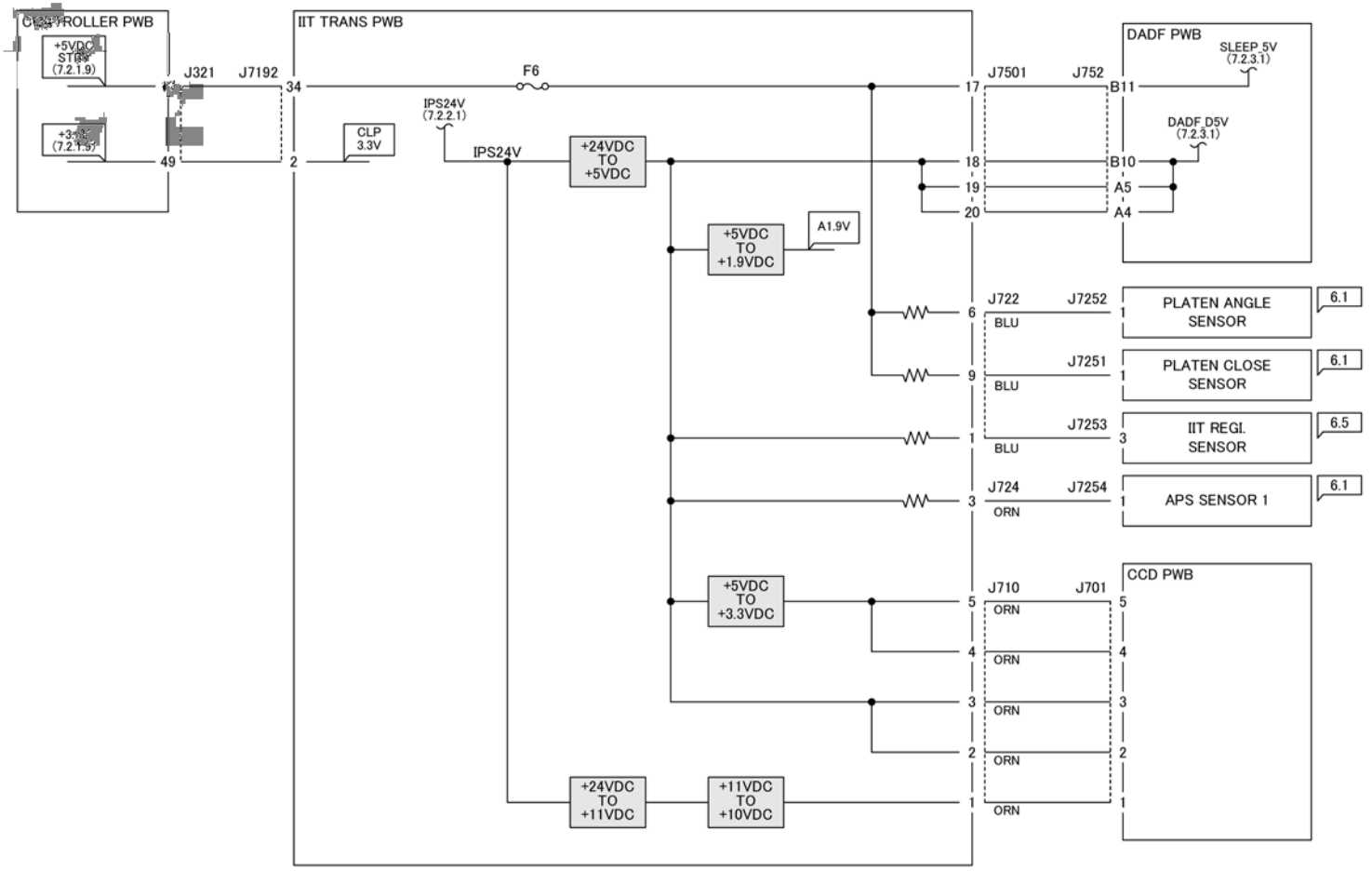

Figure 1 Wiring Diagram 32 IIT +24VDC/+11VDC/+10VDC/+5VDC/+1.9VDC (Low/Mid)

Wiring Diagram 33 IIT +24VDC/+11VDC/+10VDC/+5VDC/ +1.9VDC (High)

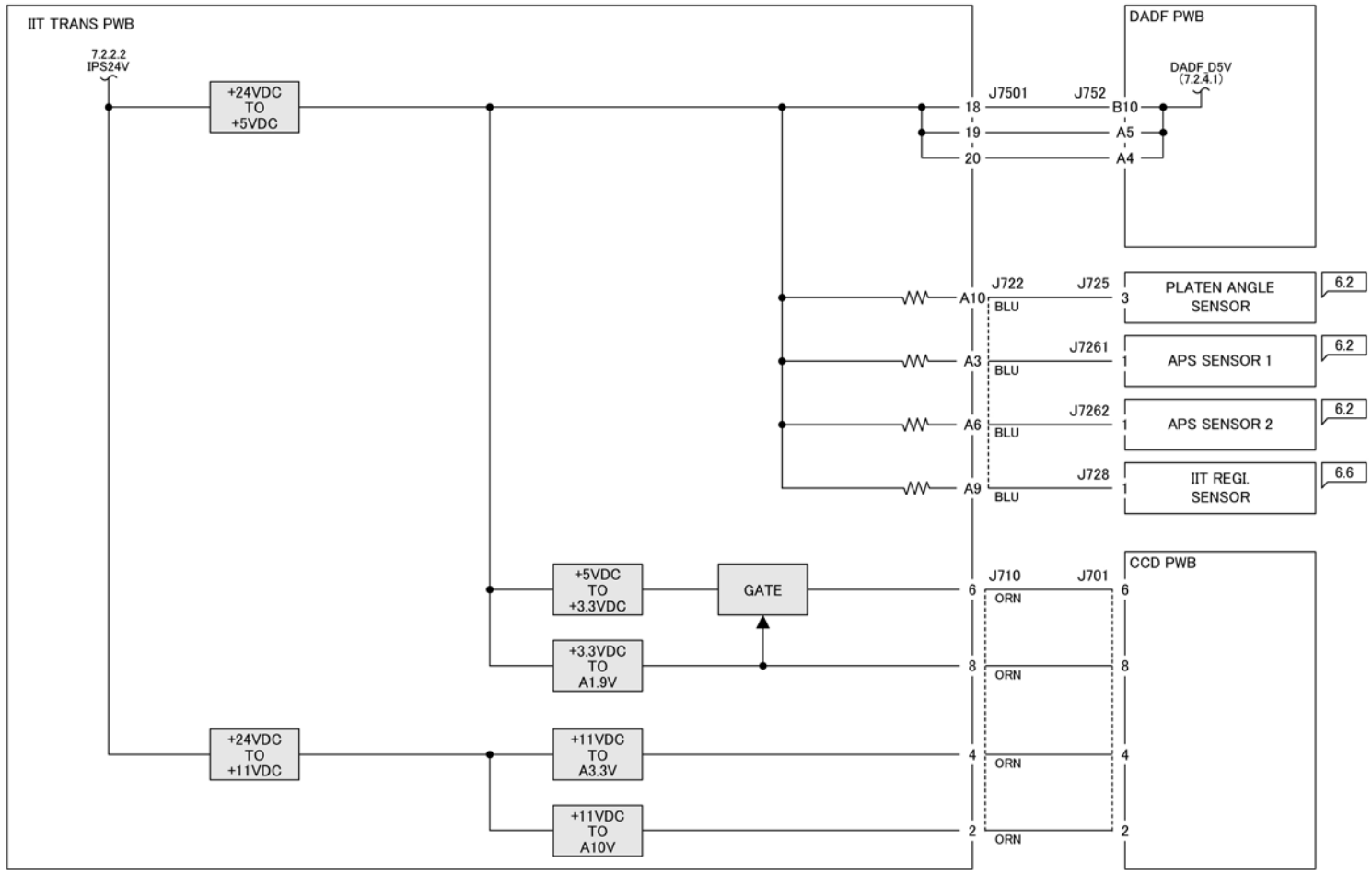

Figure 1 Wiring Diagram 33 IIT +24VDC/+11VDC/+10VDC/+5VDC/+1.9VDC (High)

Wiring Diagram 34 IIT Return (Low/Mid)

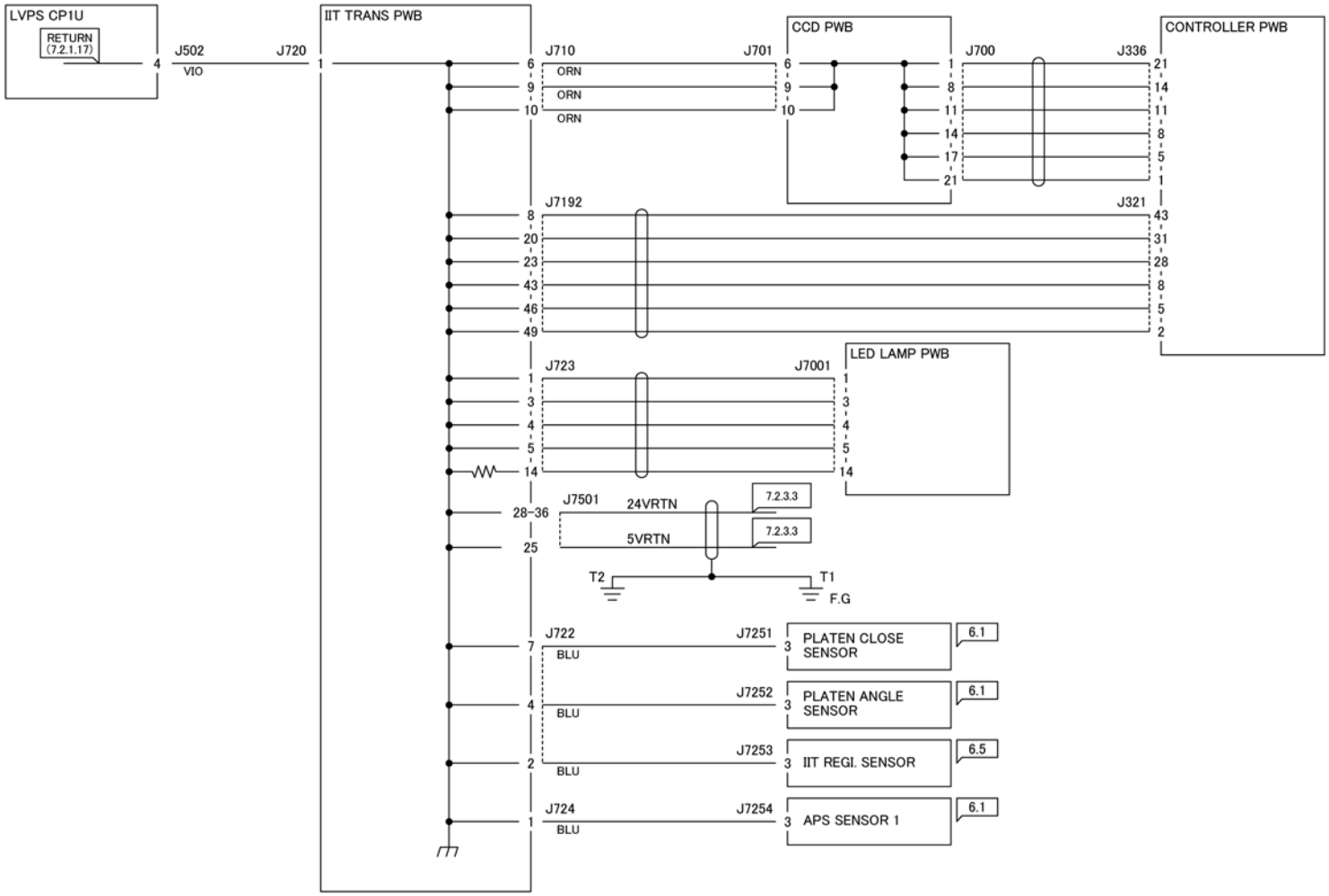

Figure 1 Wiring Diagram 34 IIT Return (Low/Mid)

Wiring Diagram 35 IIT Return (High)

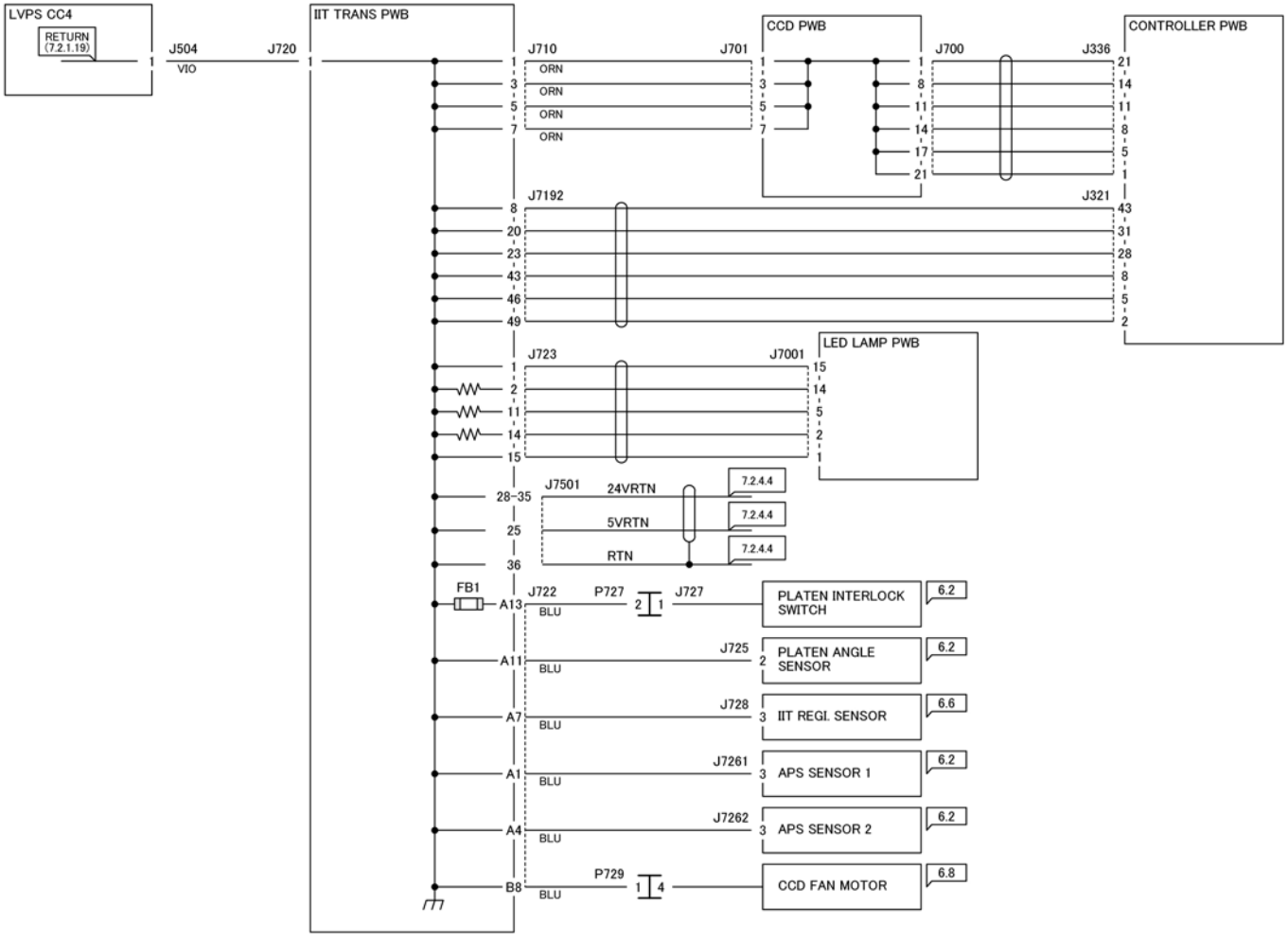

Figure 1 Wiring Diagram 35 IIT Return (High)

Wiring Diagram 36 DADF 130 +24VDC/+5VDC (1 of 2)

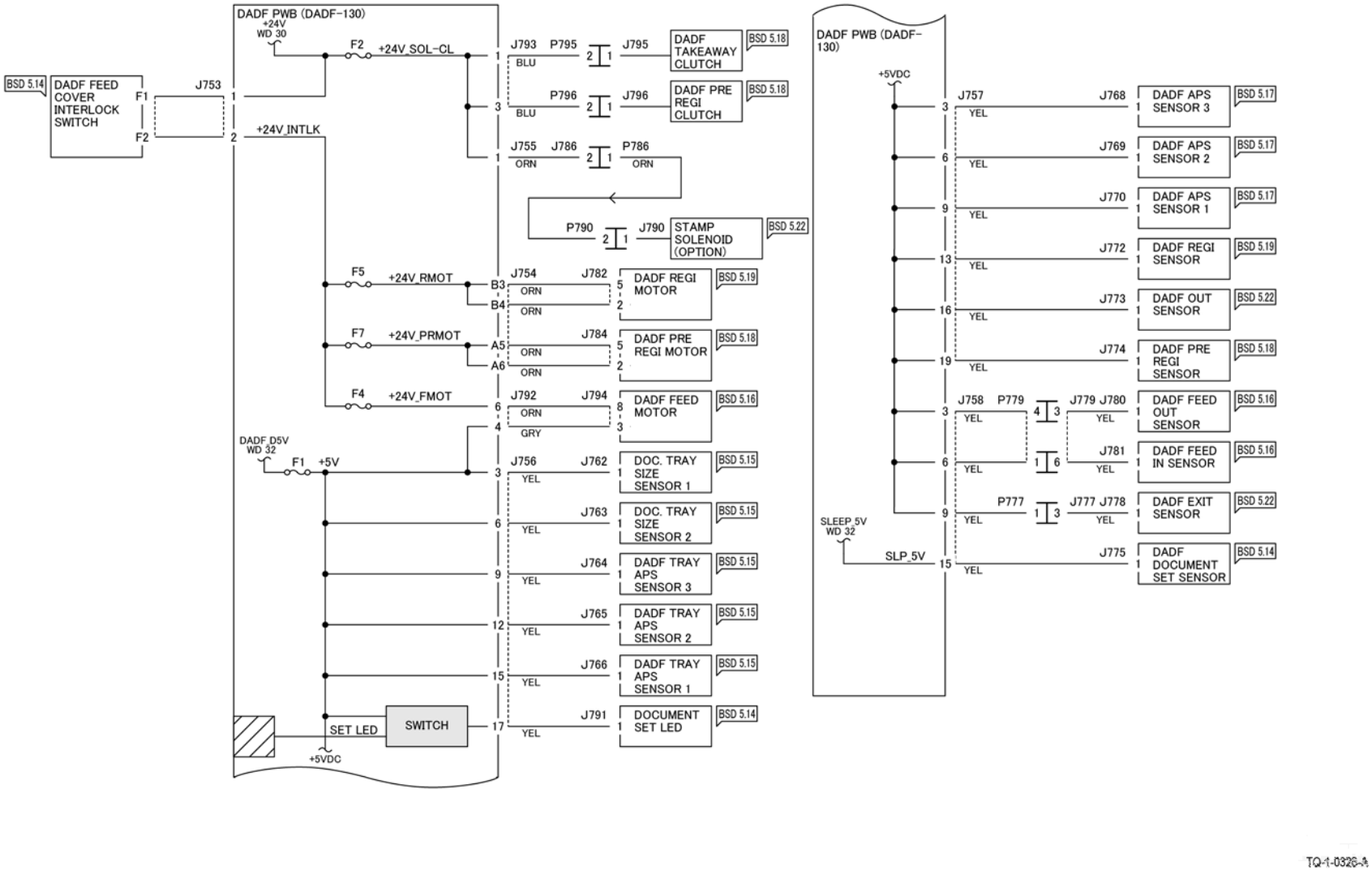

Figure 1 Wiring Diagram 36 DADF 130 +24VDC/+5VDC (1 of 2)

Wiring Diagram 37 DADF 130 +24VDC/+5VDC (2 of 2)

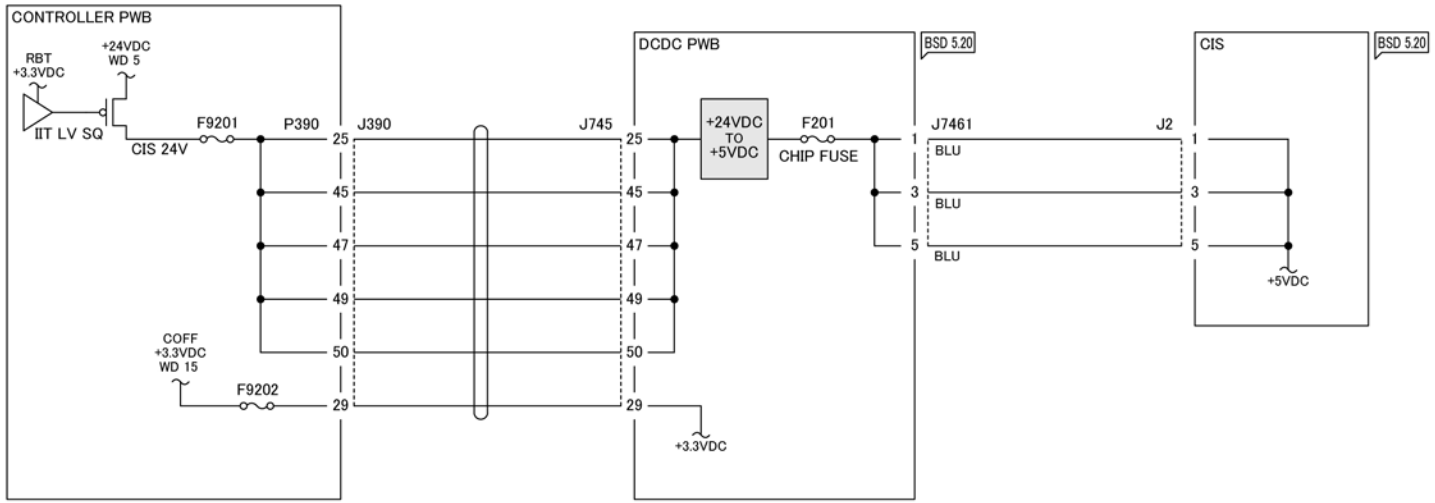

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Figure 1 Wiring Diagram 37 DADF 130 +24VDC/+5VDC (2 of 2)

Wiring Diagram 38 DADF 130 Return (1 of 2)

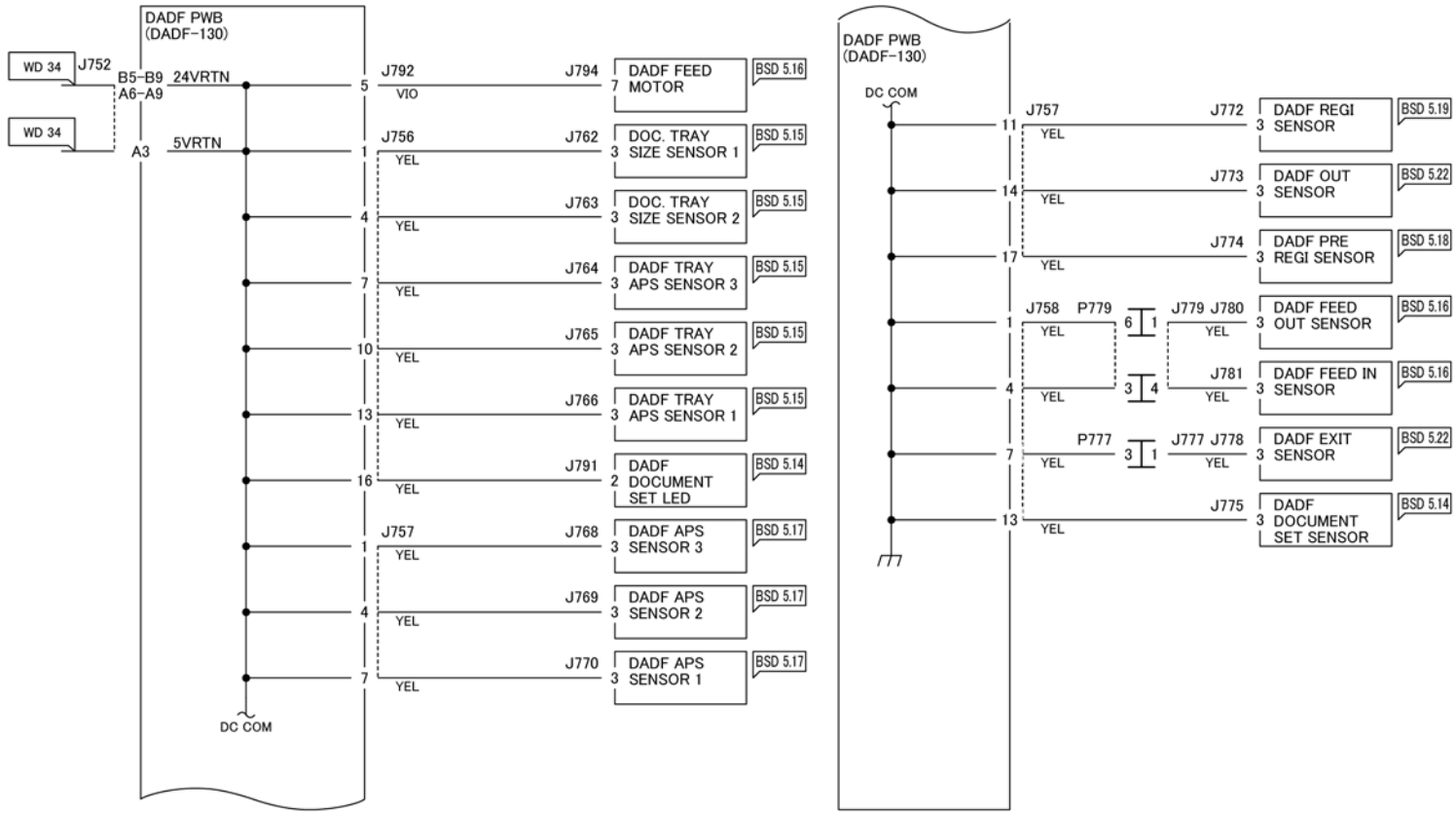


Figure 1 Wiring Diagram 38 DADF 130 Return (1 of 2)

Wiring Diagram 39 DADF 130 Return (2 of 2)

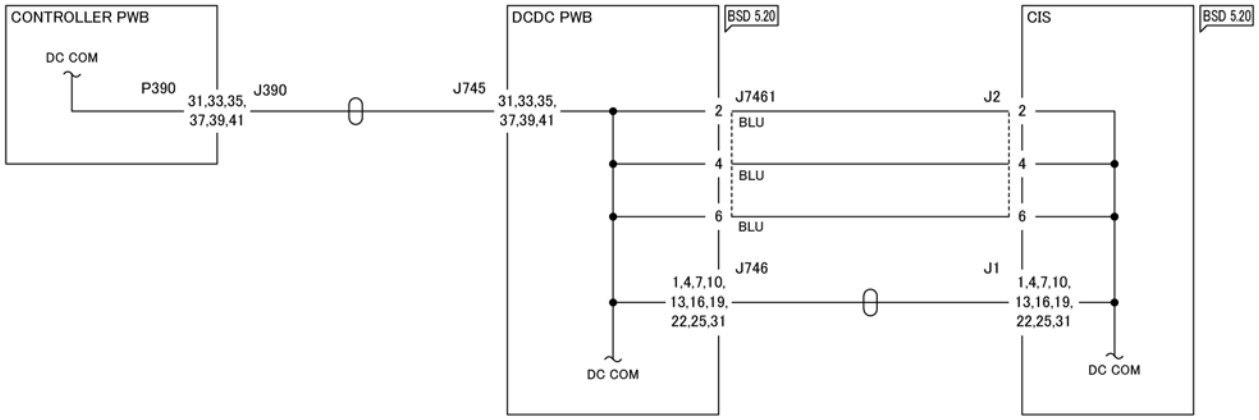


Figure 1 Wiring Diagram 39 DADF 130 Return (2 of 2)

Wiring Diagram 40 DADF 250 +24VDC/+5VDC

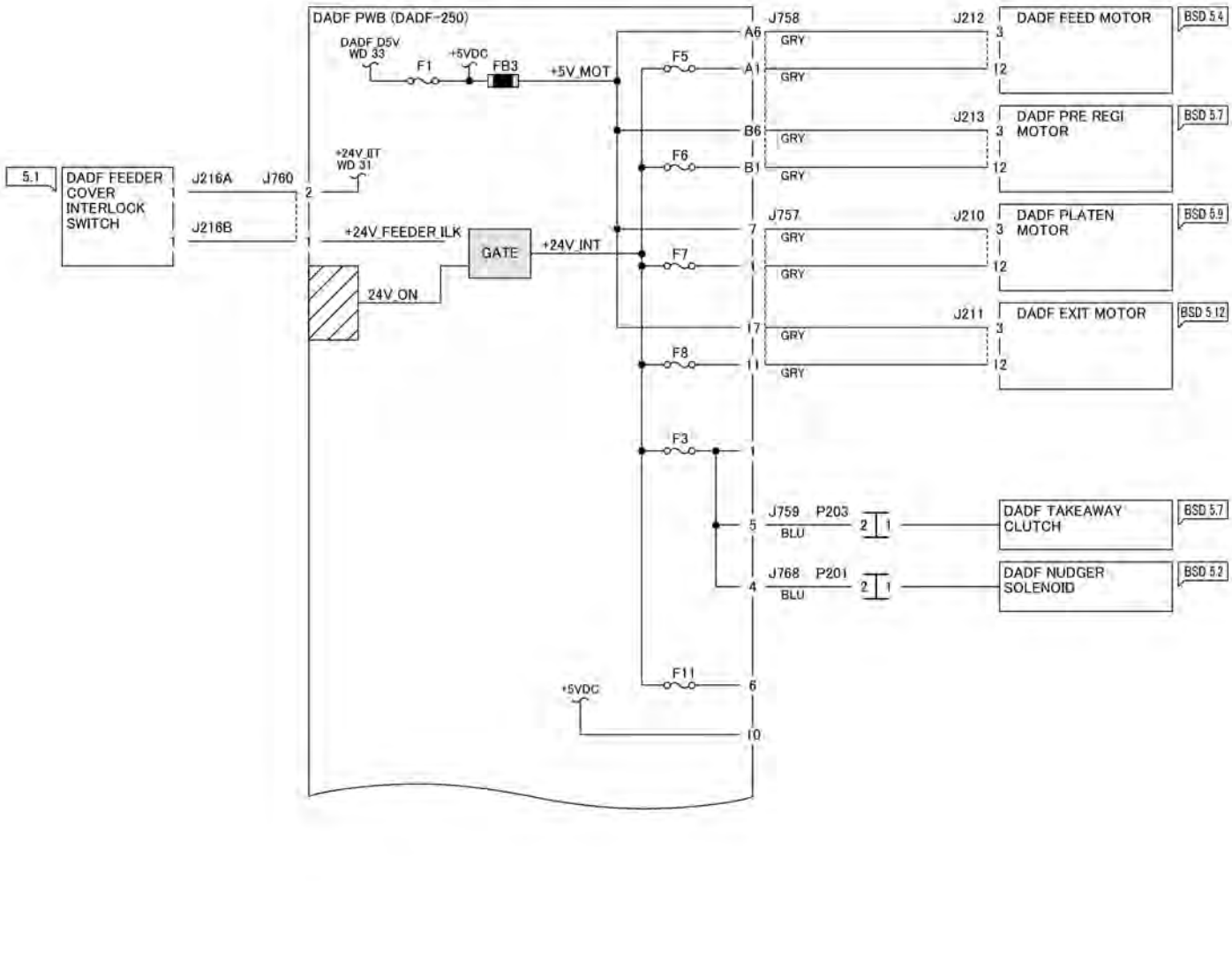


Figure 1 Wiring Diagram 40 DADF 250 +24VDC/+5VDC

Wiring Diagram 41 DADF 250 +5VDC

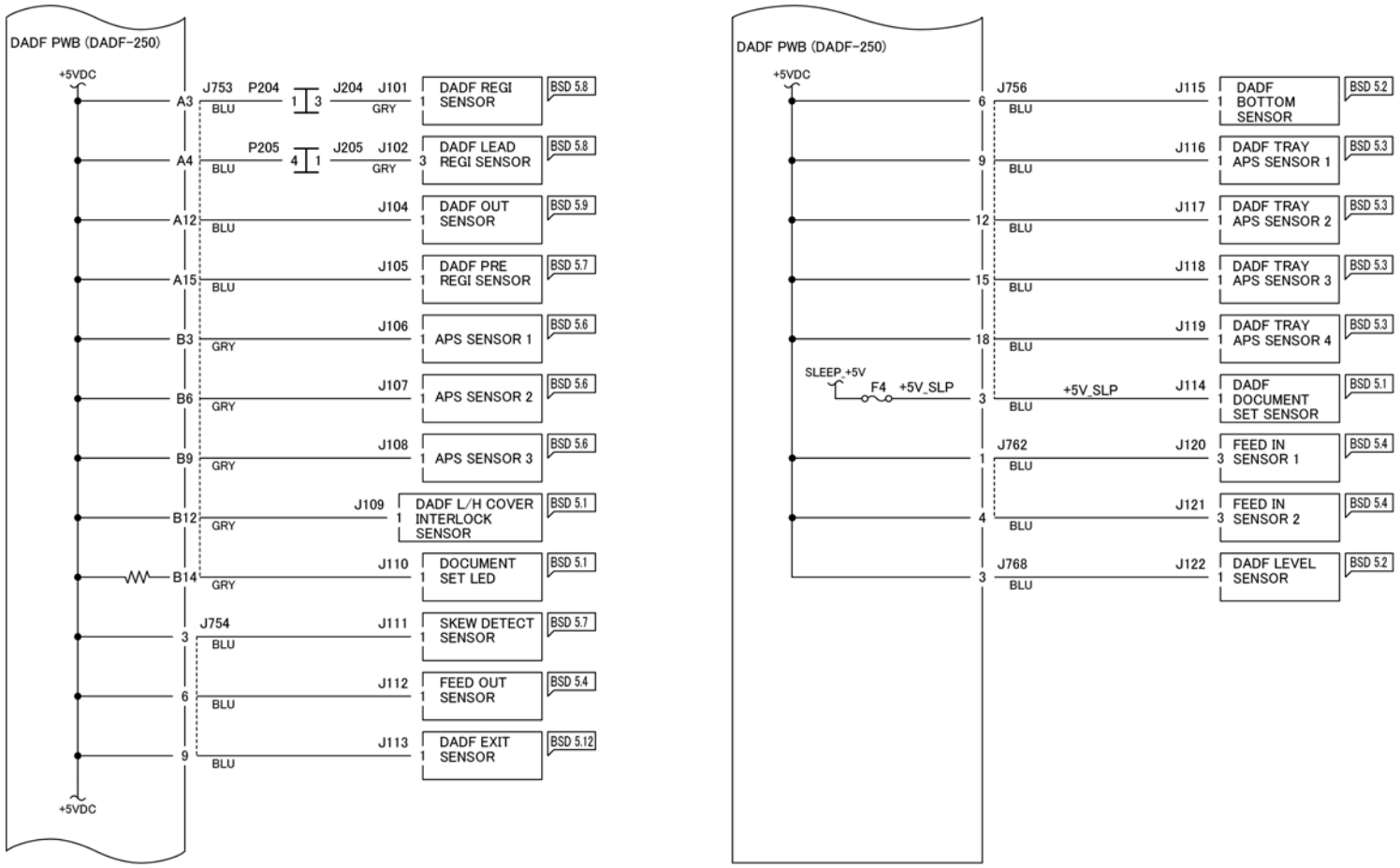


Figure 1 Wiring Diagram 41 DADF 250 +5VDC

Wiring Diagram 42 DADF 250 +24VDC/+5VDC/+3.3VDC

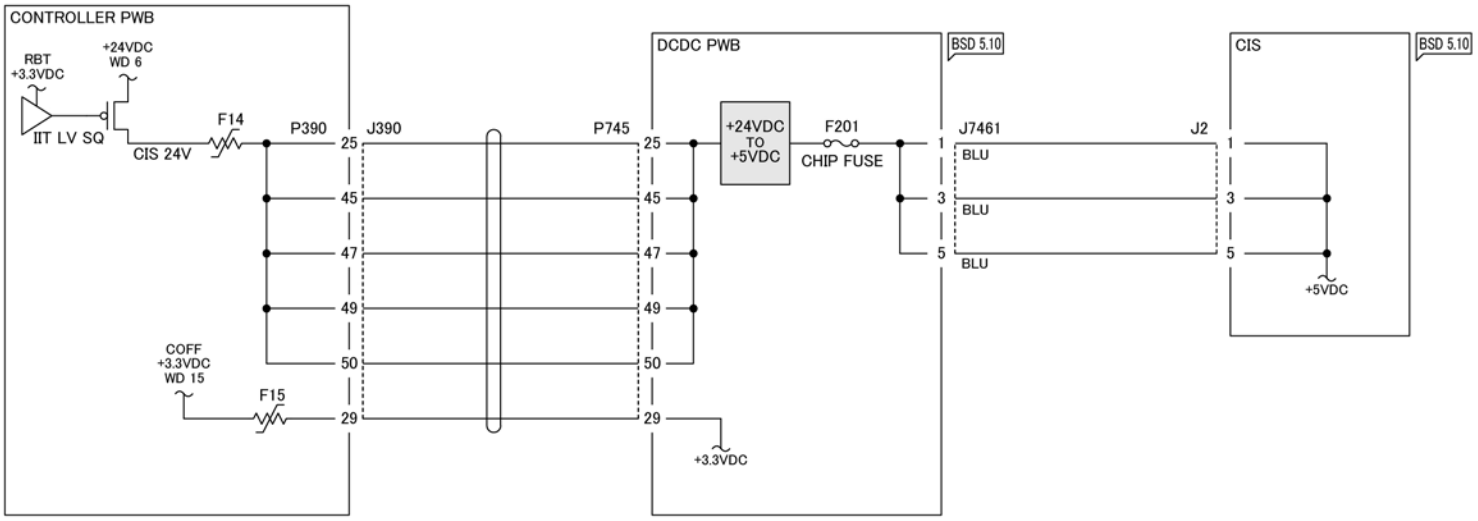


Figure 1 Wiring Diagram 42 DADF 250 +24VDC/+5VDC/+3.3VDC

Wiring Diagram 43 DADF 250 Return (1 of 2)

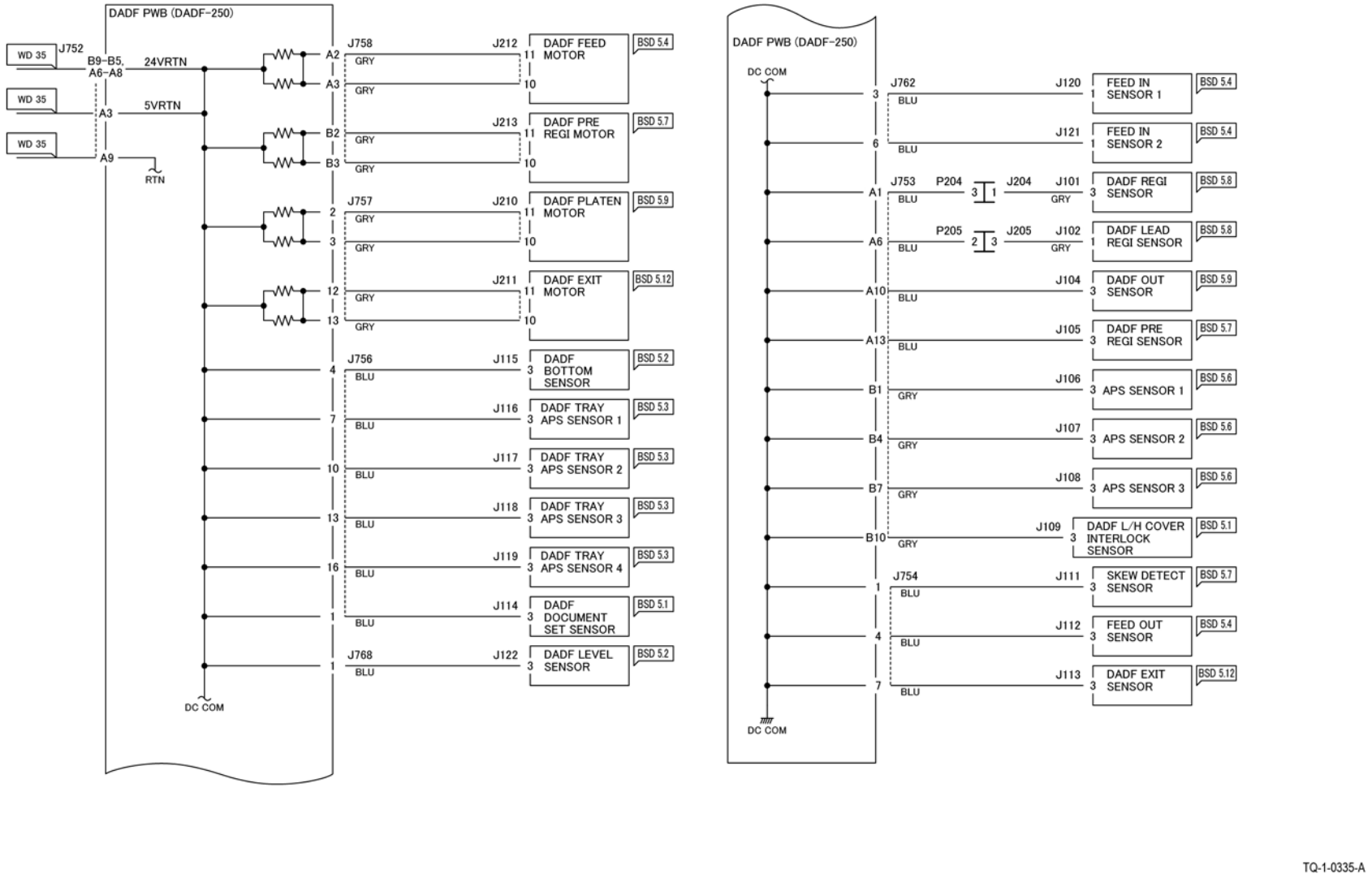


Figure 1 Wiring Diagram 43 DADF 250 Return (1 of 2)

Wiring Diagram 44 DADF 250 Return (2 of 2)

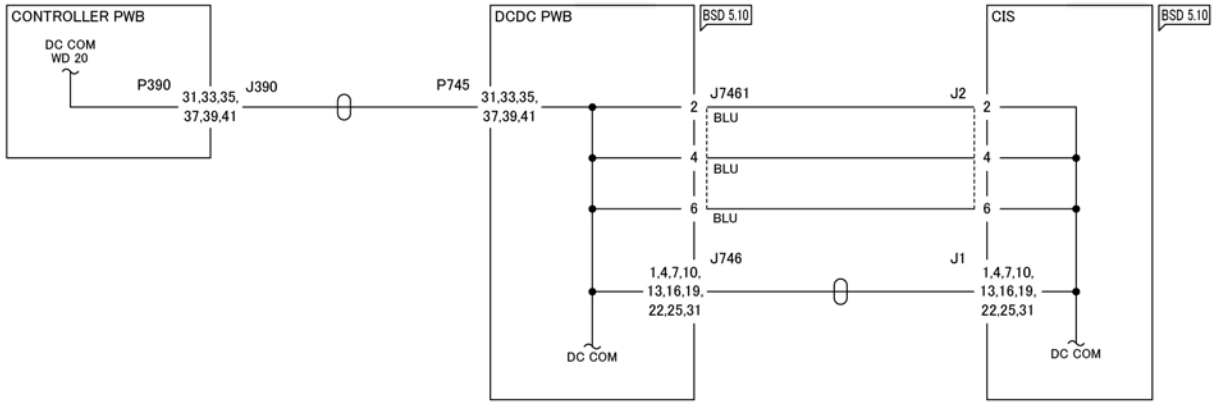
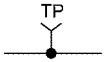
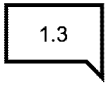
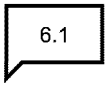
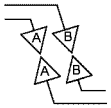
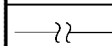
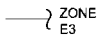
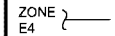
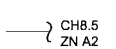
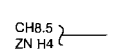
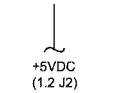
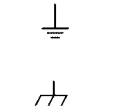
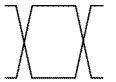
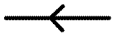
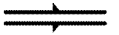
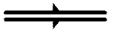


Figure 1 Wiring Diagram 44 DADF 250 Return (2 of 2)

Symbology

Refer to Figure 1.

Symbol	Description
	Refers to Notes that are usually on the same page.
	Refers to test data usually on the same page in case the voltage value shown on the BSD is different from the measured value.
PL 7.7	Refers to a component in the Parts List.
	Refers to an adjustment procedure.
	A variable resistor adjustable in the field.
	A signal test point.
	Identifies where the input comes from.
	Identifies where the output from the functions go.
	Signal lines are connected vertically.
	Signal lines connected horizontally.
	Signal line connected to a specific location in the same function.
	Signal line connected to a specific location in the same function.

Symbol	Description
	Signal line connected to a specific location in another sheet (shown at lower right of the BSD).
	Signal line connected to a specific location in another sheet (shown at lower right of the BSD).
	Power output in Chain 1.
	Frame ground.
	Twisted pair of wires.
	Signal runs from right to left.
	Feedback signal.
	Mechanical linkage to a part
	Mechanical drive signal showing signal direction.
	Paper feed direction.
	Heat , light or air signal showing signal direction.
	Control logic.

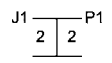
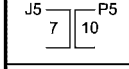
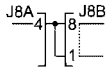
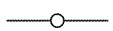
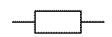
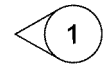
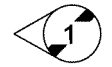
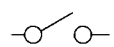
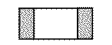
Symbol	Description
	Double plug connector.
	Drawer plug connector.
	Shorting plug connector.
	Fasten connector.
	Electrically conductive material such as a leaf spring or plate is used for connection.
	The part highlighted by the arrow has been modified.
	The part highlighted by the arrow has not been modified.
	The whole figure or framed illustration has been modified.
	The whole figure or framed illustration has not been modified.
	Direction of air flow.
	Switch that is also used as an interlock switch.
	Cheater type of interlock switch.
	Chip fuse.

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Figure 1 BSD Symbology

BSD 1.1 Main Power On 100VAC (Low/Mid)

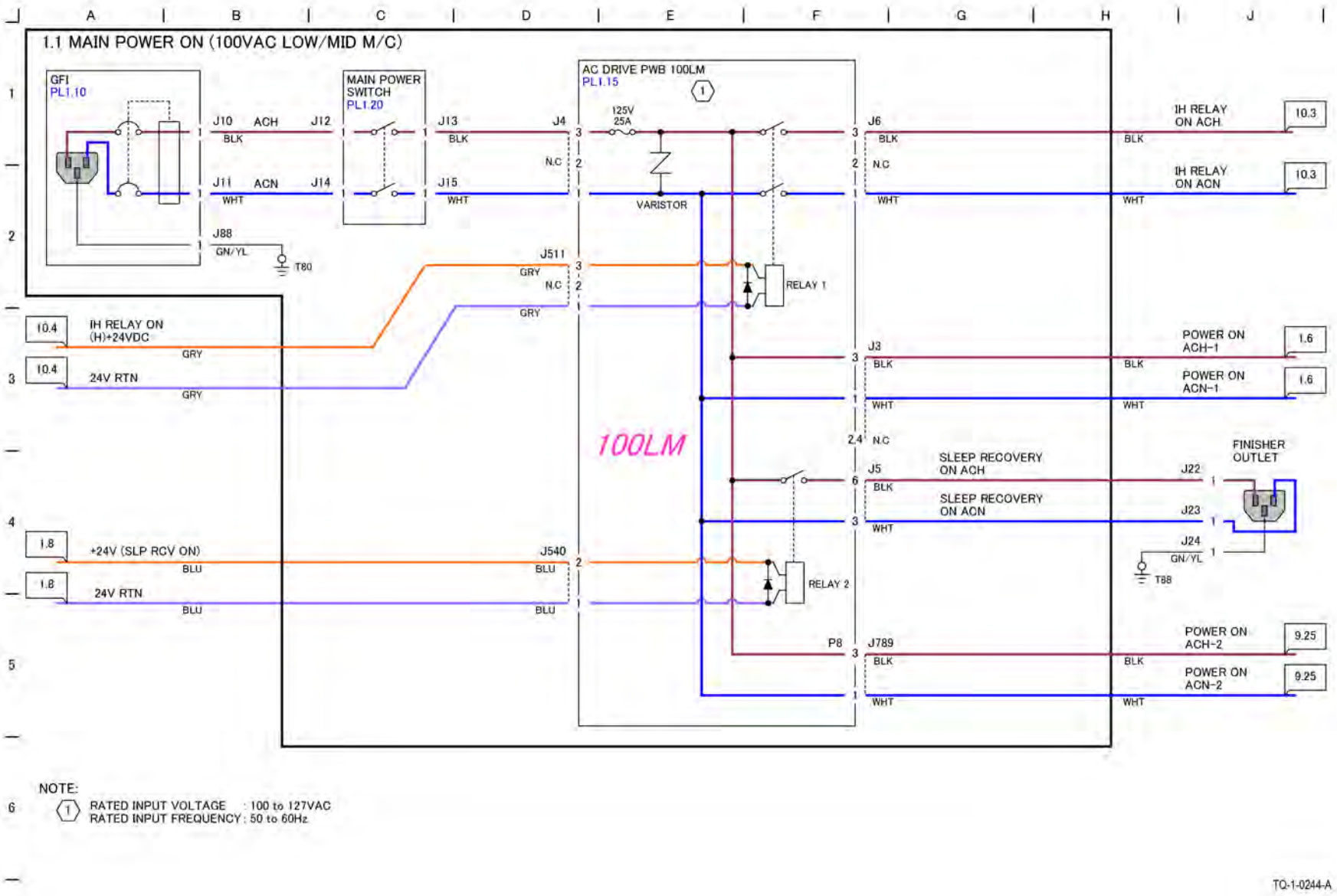


Figure 1 BSD 1.1 Main Power On 100VAC (Low/Mid)

BSD 1.2 Main Power On 100VAC (High) (2 Plugs)

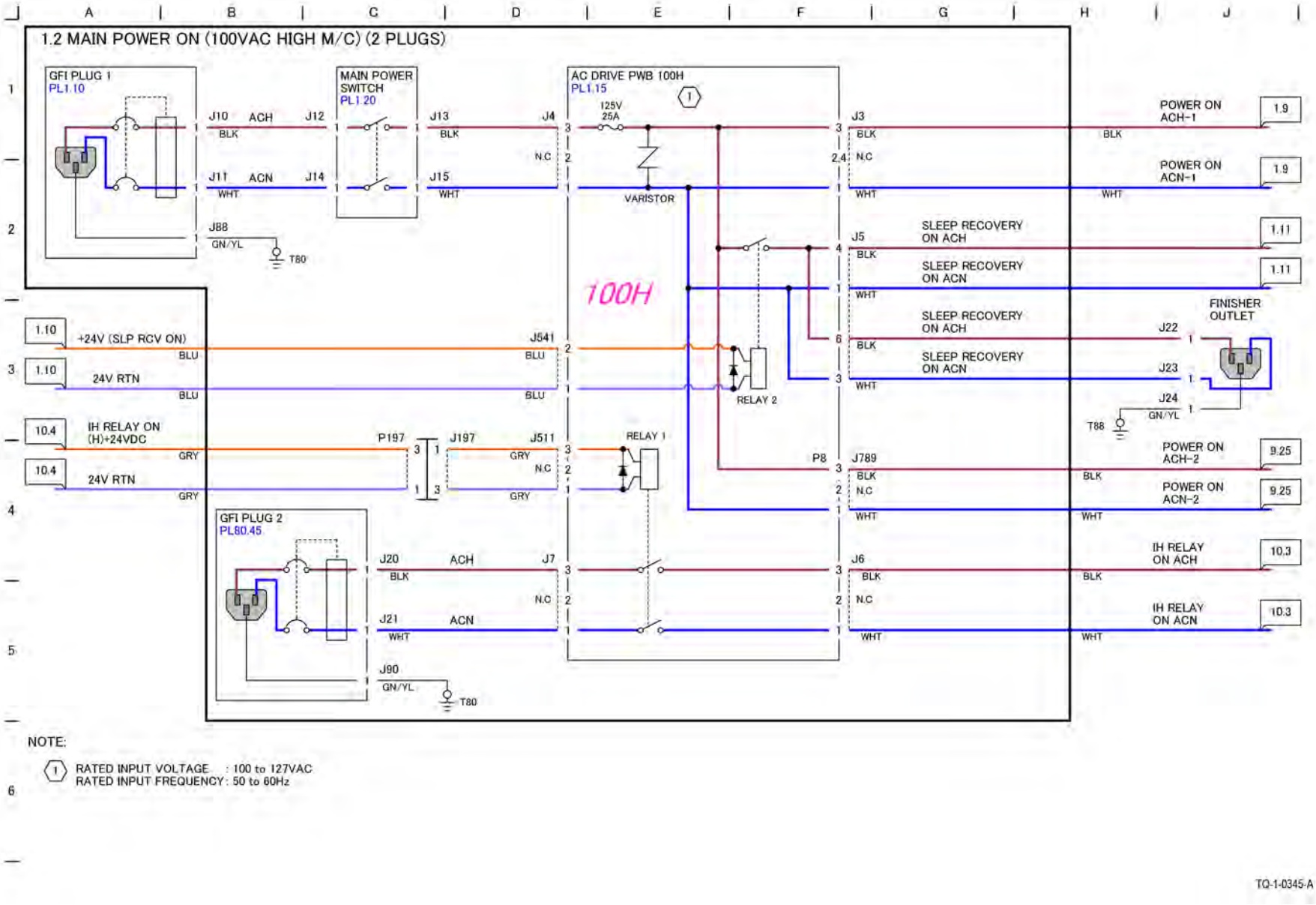


Figure 1 BSD 1.2 Main Power On 100VAC (High) (2 Plugs)

BSD 1.3 Main Power On 220-240VAC (Low/Mid/High)

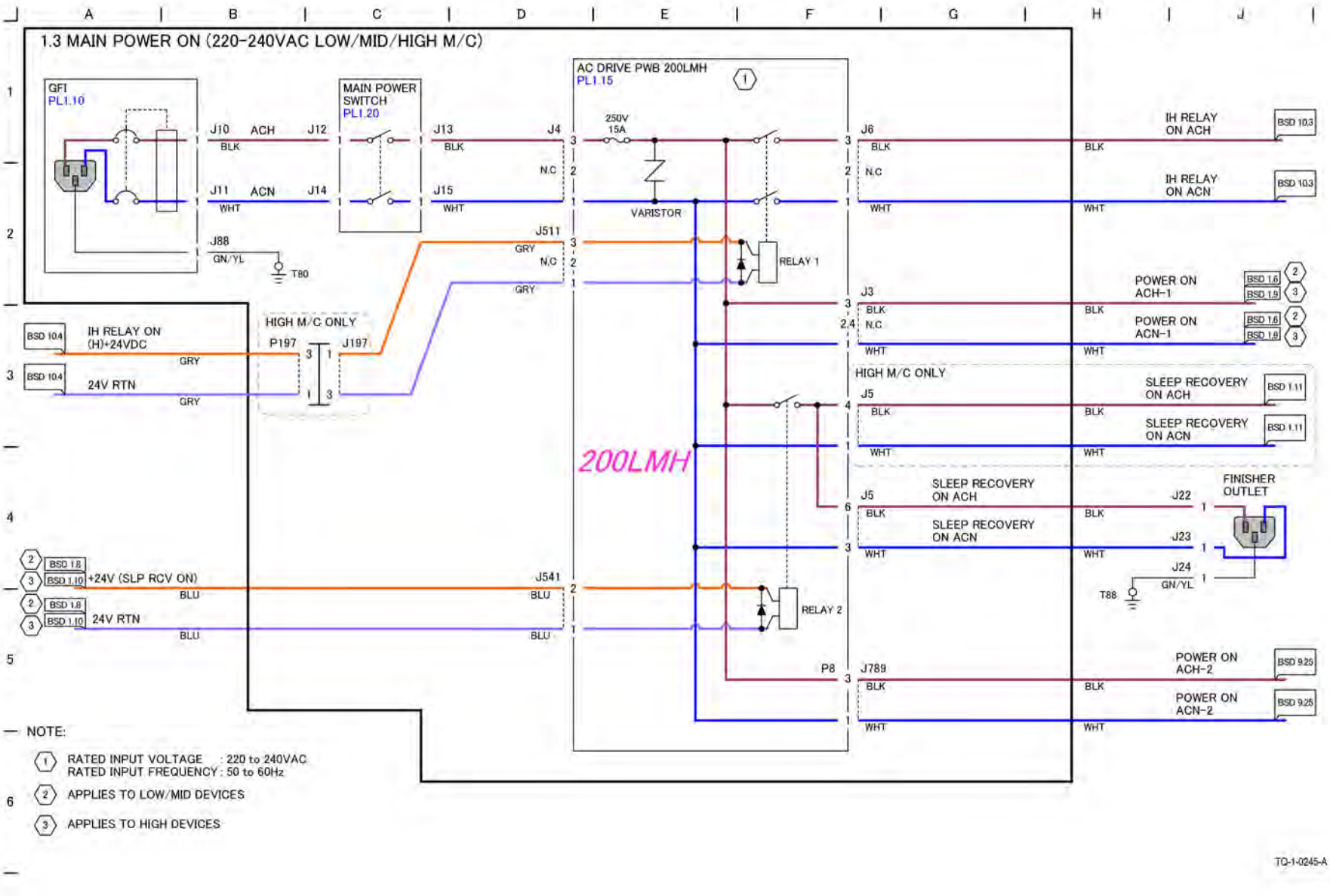
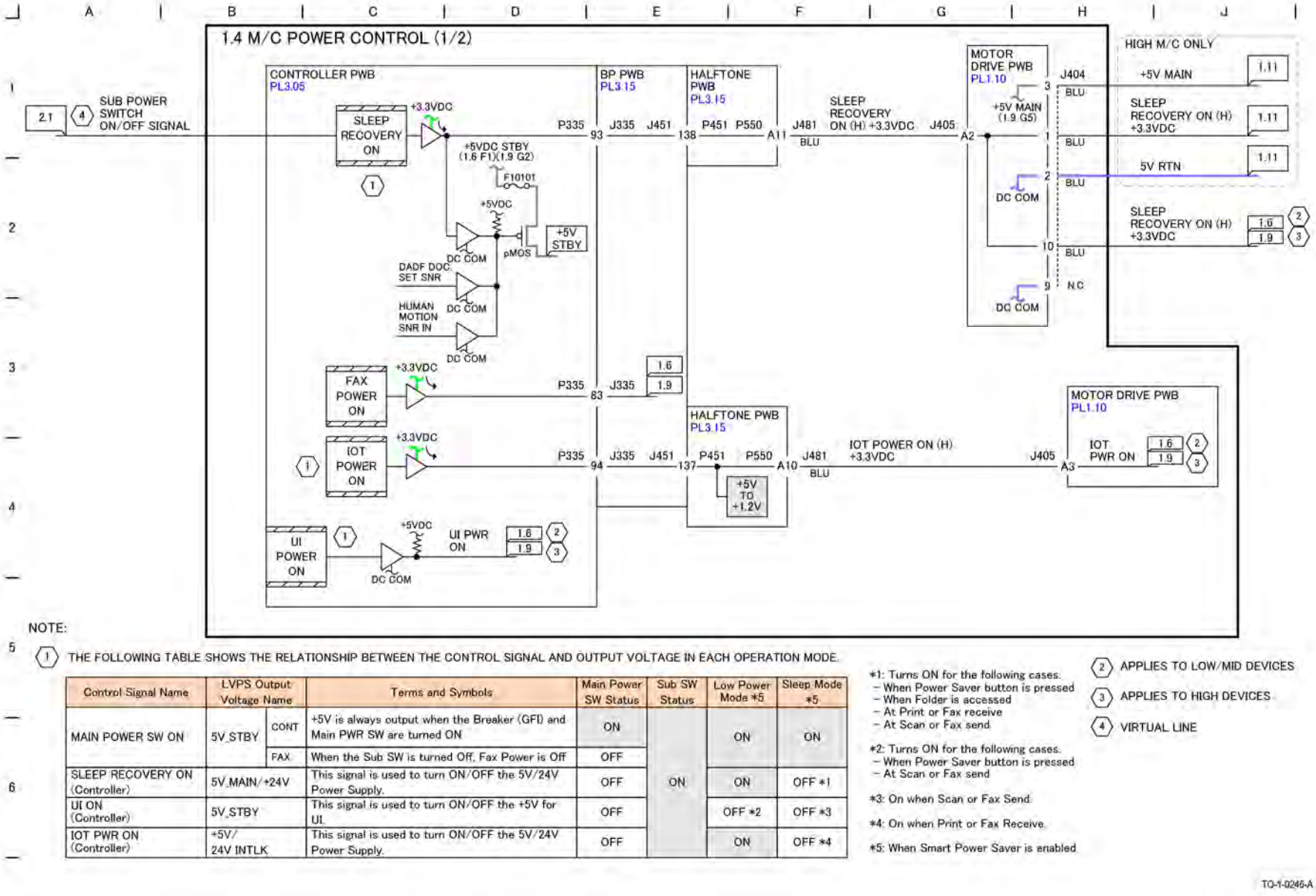


Figure 1 BSD 1.3 Main Power On 220-240VAC (Low/Mid/High)

BSD 1.4 Machine Power Control (1 of 2)



NOTE:

(1) THE FOLLOWING TABLE SHOWS THE RELATIONSHIP BETWEEN THE CONTROL SIGNAL AND OUTPUT VOLTAGE IN EACH OPERATION MODE.

Control Signal Name	LVPS Output Voltage Name		Terms and Symbols	Main Power SW Status	Sub SW Status	Low Power Mode *5	Sleep Mode *5
MAIN POWER SW ON	5V_STBY	CONT	+5V is always output when the Breaker (GFI) and Main PWR SW are turned ON	ON	ON	ON	ON
		FAX	When the Sub SW is turned Off, Fax Power is Off	OFF			
SLEEP RECOVERY ON (Controller)	5V_MAIN/+24V		This signal is used to turn ON/OFF the 5V/24V Power Supply.	OFF		ON	OFF *1
UI ON (Controller)	5V_STBY		This signal is used to turn ON/OFF the +5V for UI.	OFF		OFF *2	OFF *3
IOT PWR ON (Controller)	+5V/ 24V INTLK		This signal is used to turn ON/OFF the 5V/24V Power Supply.	OFF		ON	OFF *4

*1: Turns ON for the following cases.
- When Power Saver button is pressed
- When Folder is accessed
- At Print or Fax receive
- At Scan or Fax send

*2: Turns ON for the following cases.
- When Power Saver button is pressed
- At Scan or Fax send

*3: On when Scan or Fax Send.

*4: On when Print or Fax Receive.

*5: When Smart Power Saver is enabled

(2) APPLIES TO LOW/MID DEVICES

(3) APPLIES TO HIGH DEVICES

(4) VIRTUAL LINE

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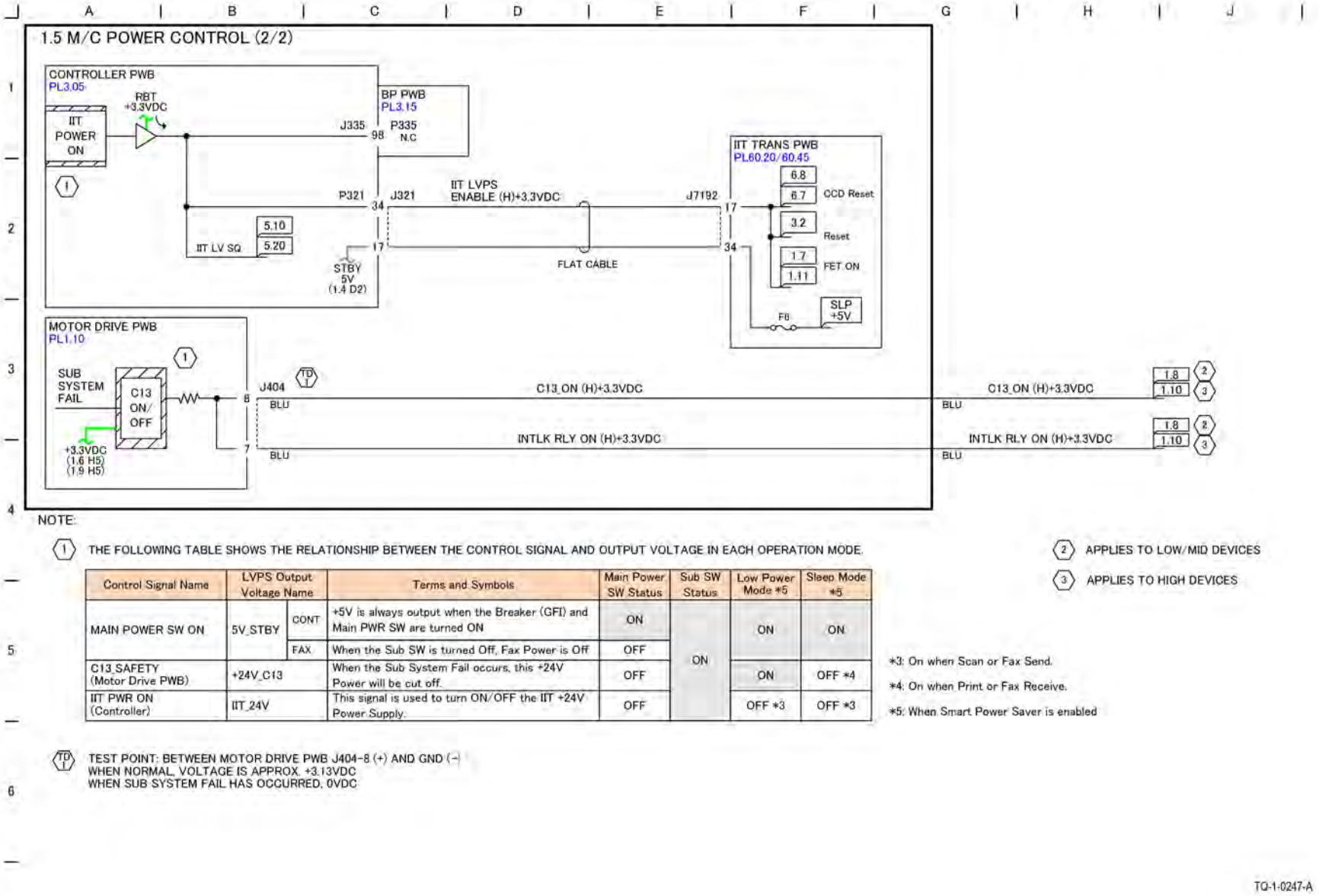
Figure 1 BSD 1.4 Machine Power Control (1 of 2)

BSD 1.5 Machine Power Control (2 of 2)



Control Signal Name	LVPS Output Voltage Name		Terms and Symbols	Main Power SW Status	Sub SW Status	Low Power Mode *5	Sleep Mode *5
MAIN POWER SW ON	5V_STBY	CONT	+5V is always output when the Breaker (GFI) and Main PWR SW are turned ON	ON	ON	ON	ON
		FAX	When the Sub SW is turned Off, Fax Power is Off	OFF			
C13_SAFETY (Motor Drive PWB)	+24V_C13		When the Sub System Fail occurs, this +24V Power will be cut off.	OFF		ON	OFF *4
IIT PWR ON (Controller)	IIT_24V		This signal is used to turn ON/OFF the IIT +24V Power Supply.	OFF		OFF *3	OFF *3

*3: On when Scan or Fax Send.
*4: On when Print or Fax Receive.
*5: When Smart Power Saver is enabled

Figure 1 BSD 1.5 Machine Power Control (2 of 2)

BSD 1.6 DC Power Generation +5V (Low/Mid)

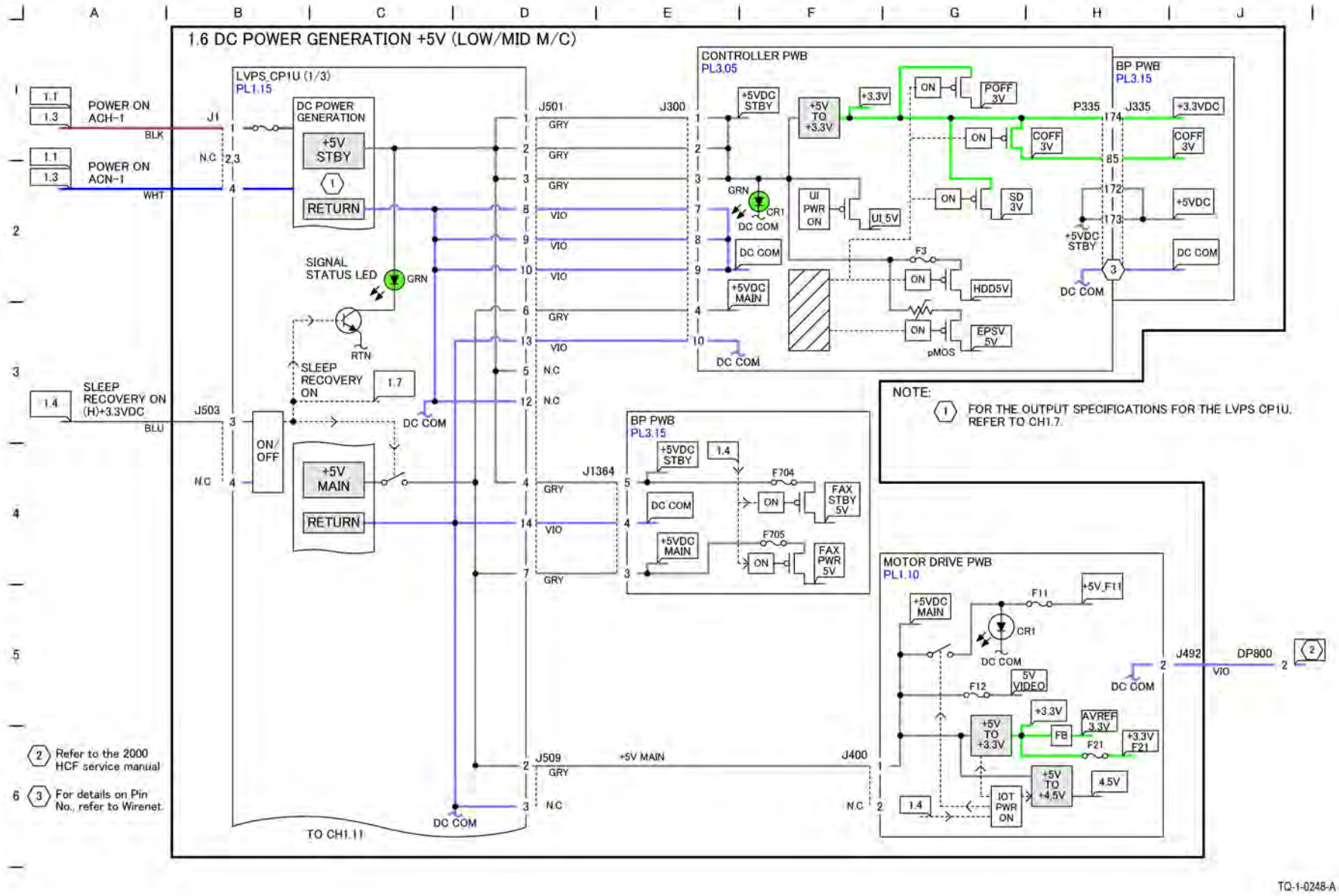
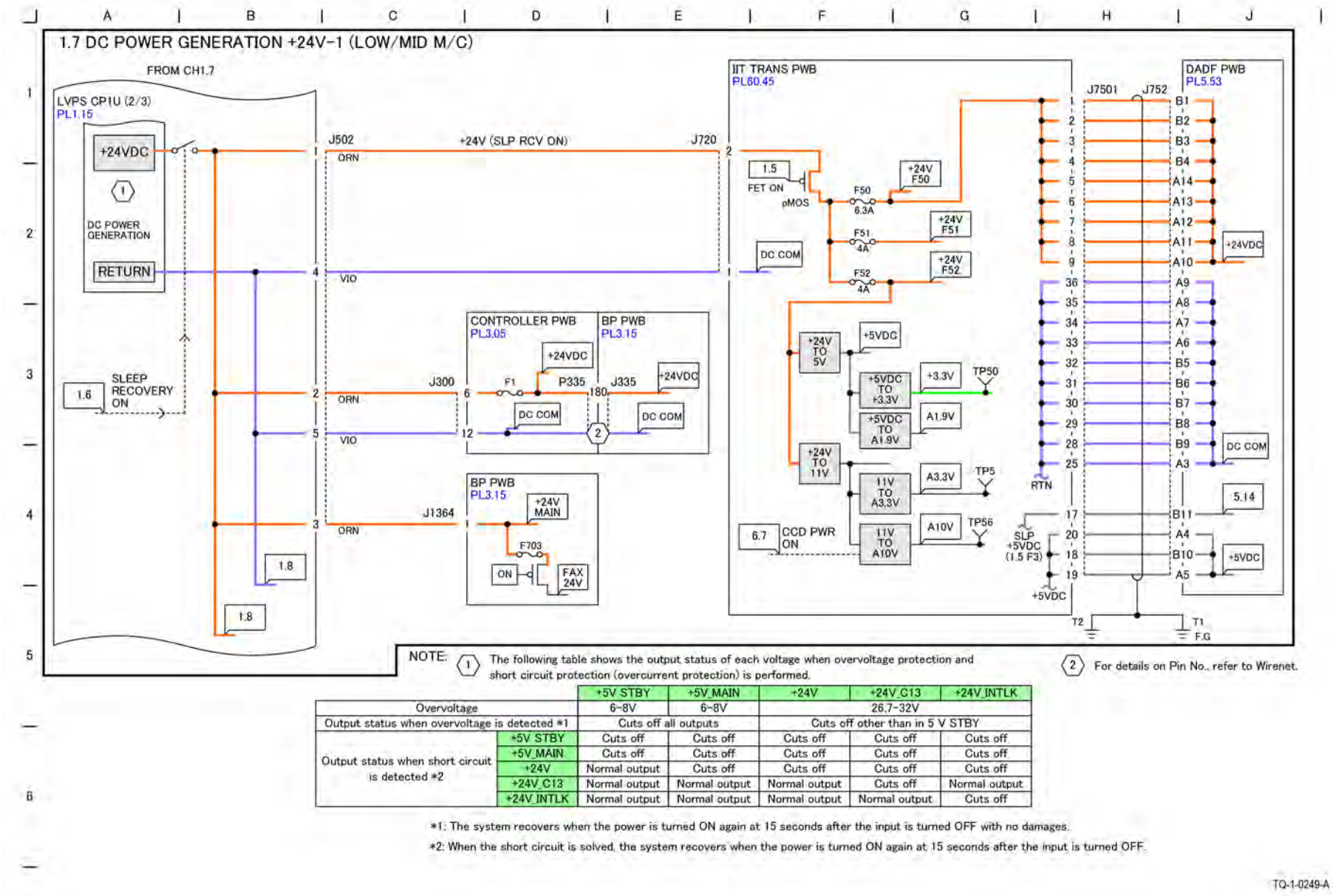


Figure 1 BSD 1.6 DC Power Generation +5V (Low/Mid)

BSD 1.7 DC Power Generation +24V (1 of 2) (Low/Mid)



		+5V STBY	+5V_MAIN	+24V	+24V_C13	+24V_INTLK
Overvoltage		6~8V	6~8V	26.7~32V		
Output status when overvoltage is detected *1		Cuts off all outputs		Cuts off other than in 5 V STBY		
Output status when short circuit is detected *2	+5V STBY	Cuts off	Cuts off	Cuts off	Cuts off	Cuts off
	+5V_MAIN	Cuts off	Cuts off	Cuts off	Cuts off	Cuts off
	+24V	Normal output	Cuts off	Cuts off	Cuts off	Cuts off
	+24V_C13	Normal output	Normal output	Normal output	Cuts off	Normal output
	+24V_INTLK	Normal output	Normal output	Normal output	Normal output	Cuts off

*1: The system recovers when the power is turned ON again at 15 seconds after the input is turned OFF with no damages.

*2: When the short circuit is solved, the system recovers when the power is turned ON again at 15 seconds after the input is turned OFF.

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Figure 1 BSD 1.7 DC Power Generation +24V (1 of 2) (Low/Mid)

BSD 1.8 DC Power Generation +24V (2 of 2) (Low/Mid)

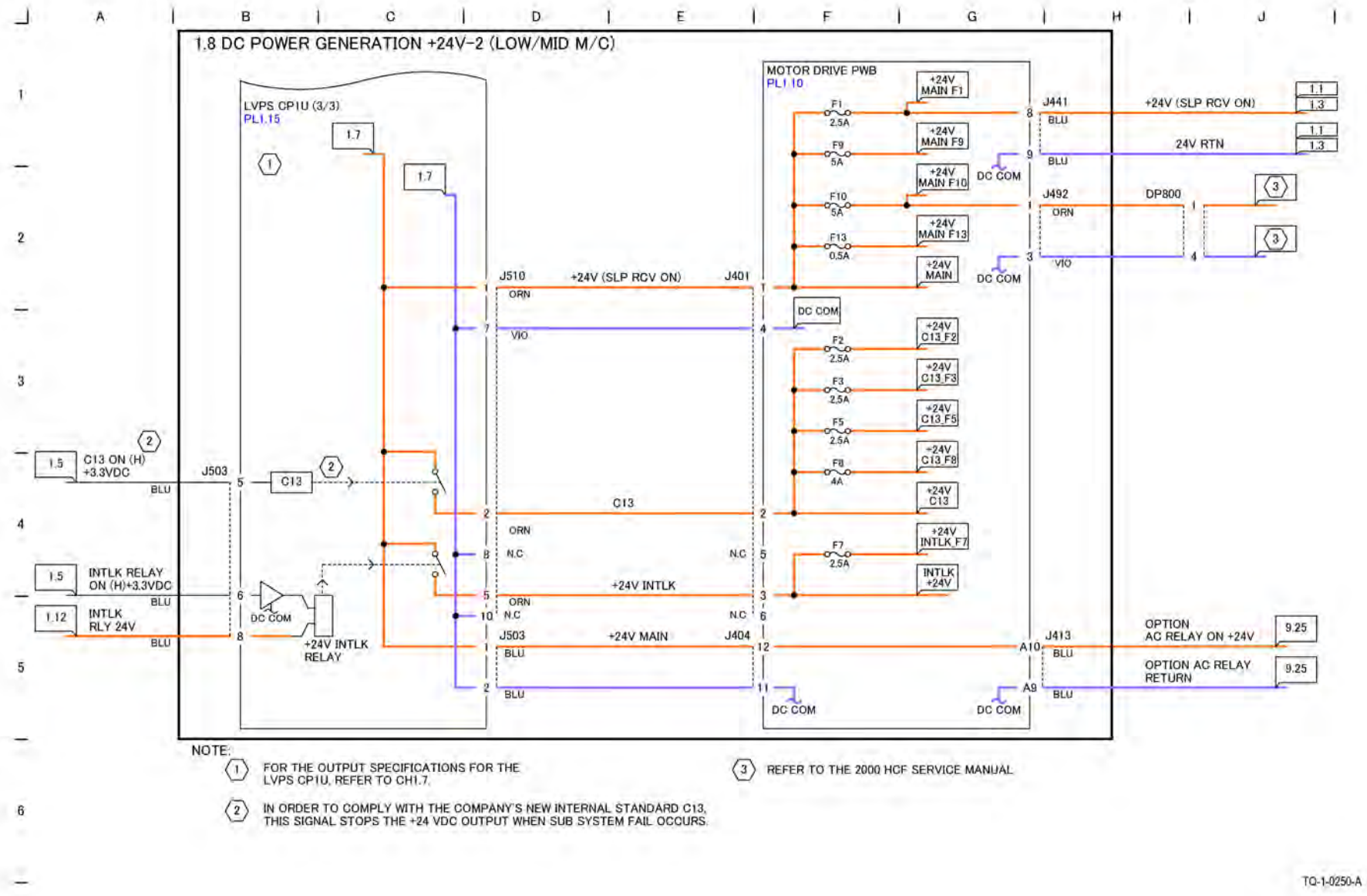


Figure 1 BSD 1.8 DC Power Generation +24V (2 of 2) (Low/Mid)

BSD 1.9 DC Power Generation +5V (High)

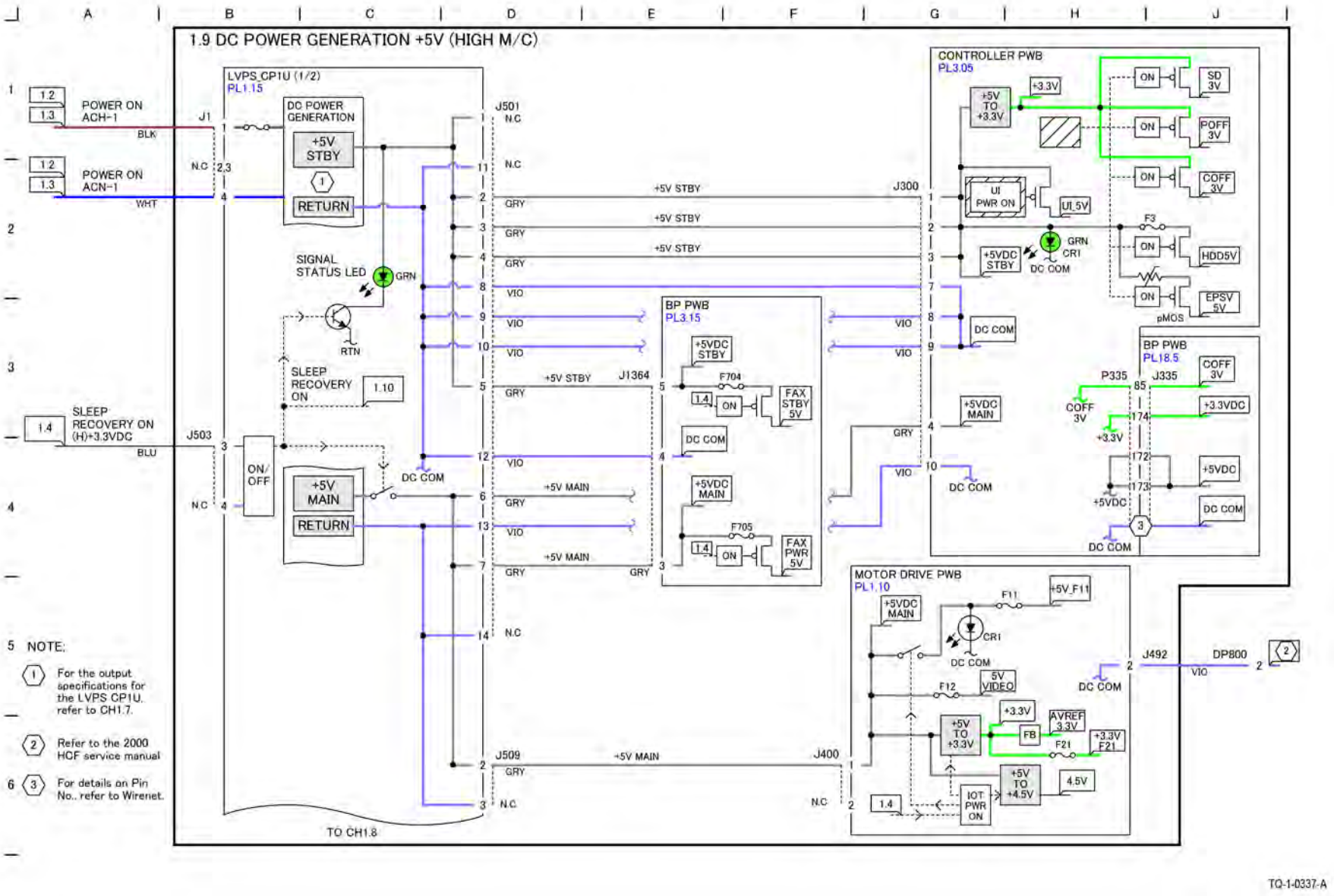


Figure 1 BSD 1.9 DC Power Generation +5V (High)

BSD 1.10 DC Power Generation +24V (1 of 2) (High)

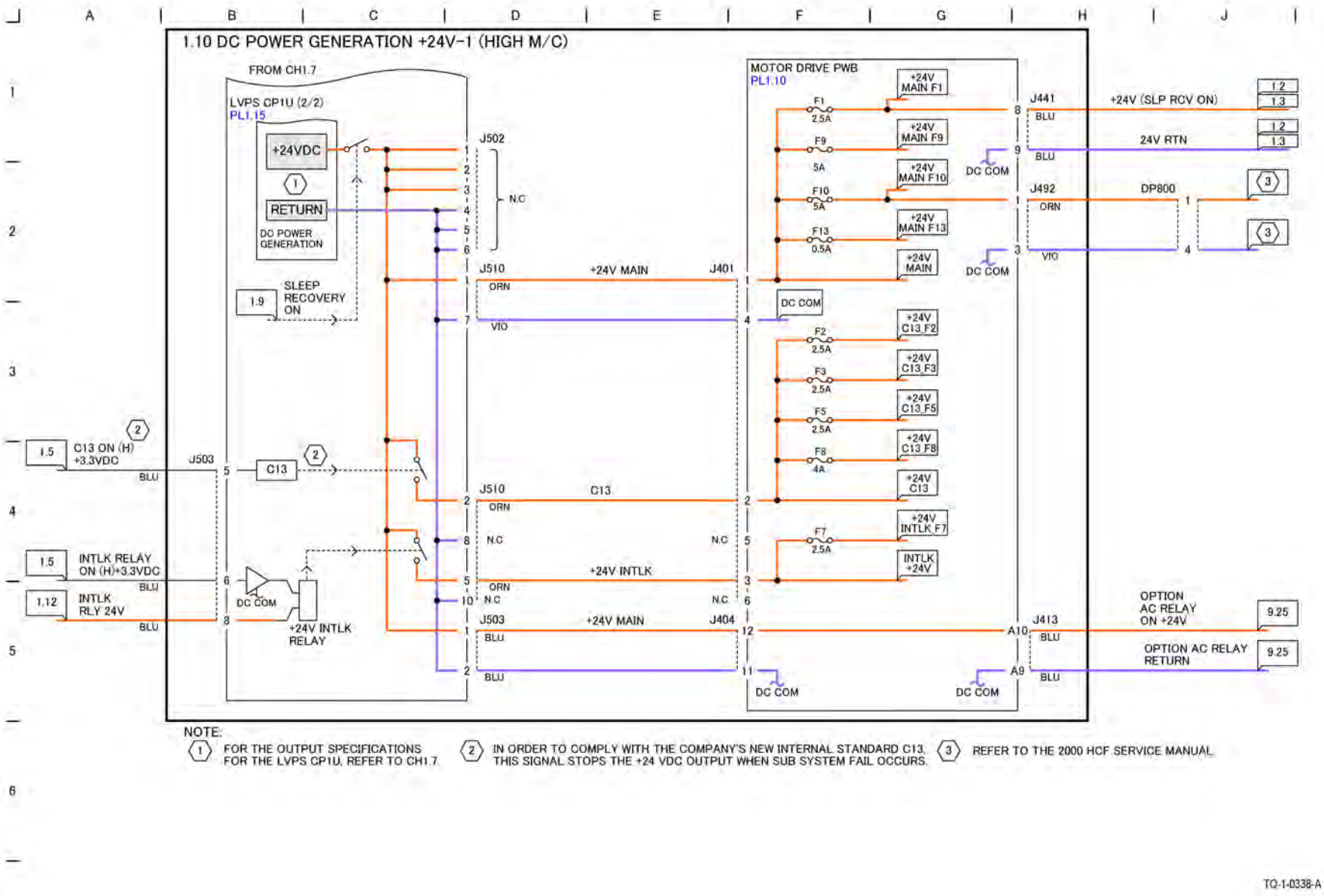


Figure 1 BSD 1.10 DC Power Generation +24V (1 of 2) (High)

BSD 1.11 DC Power Generation +24V (2 of 2) (High)

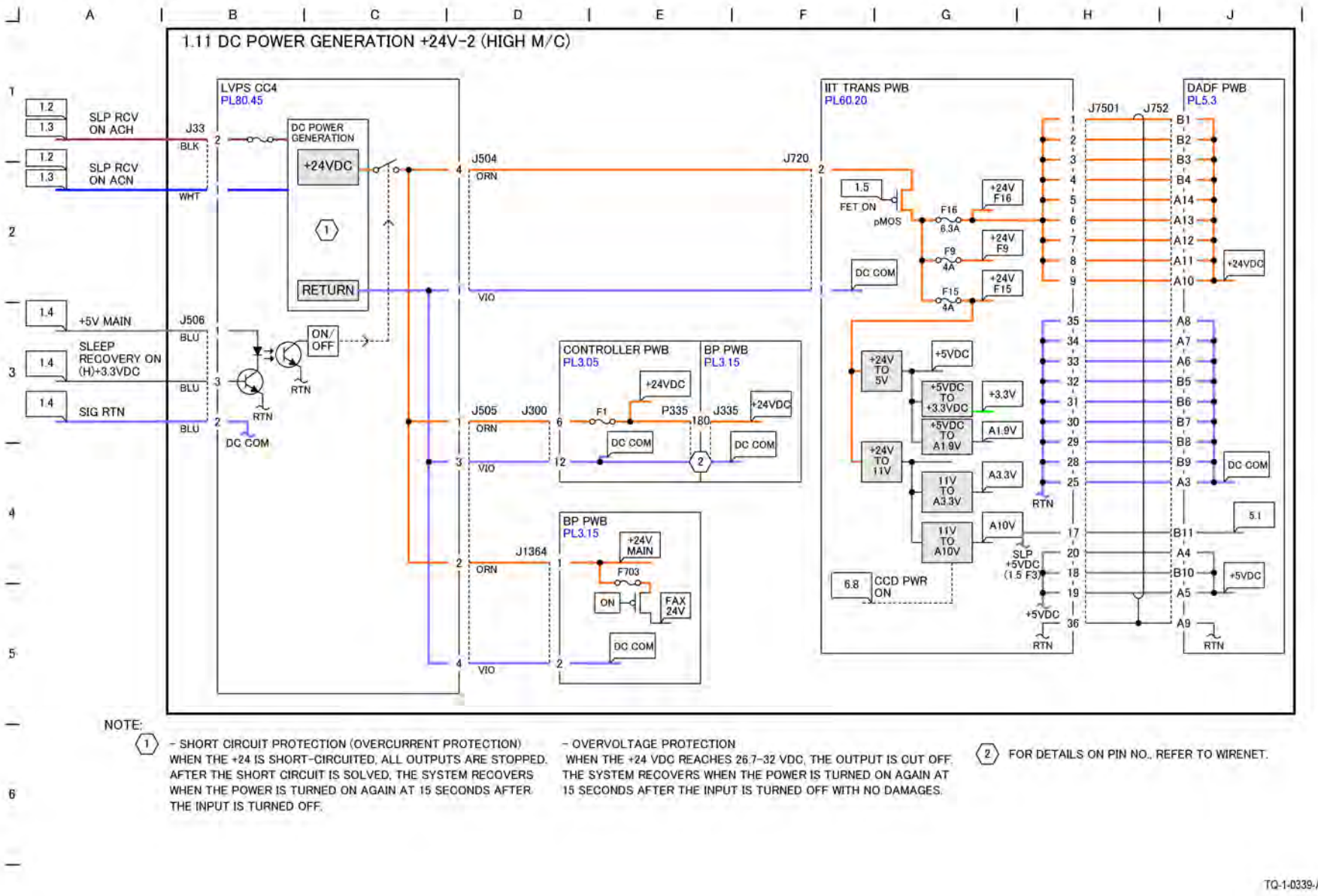


Figure 1 BSD 1.11 DC Power Generation +24V (2 of 2) (High)

BSD 1.12 Interlock Switching

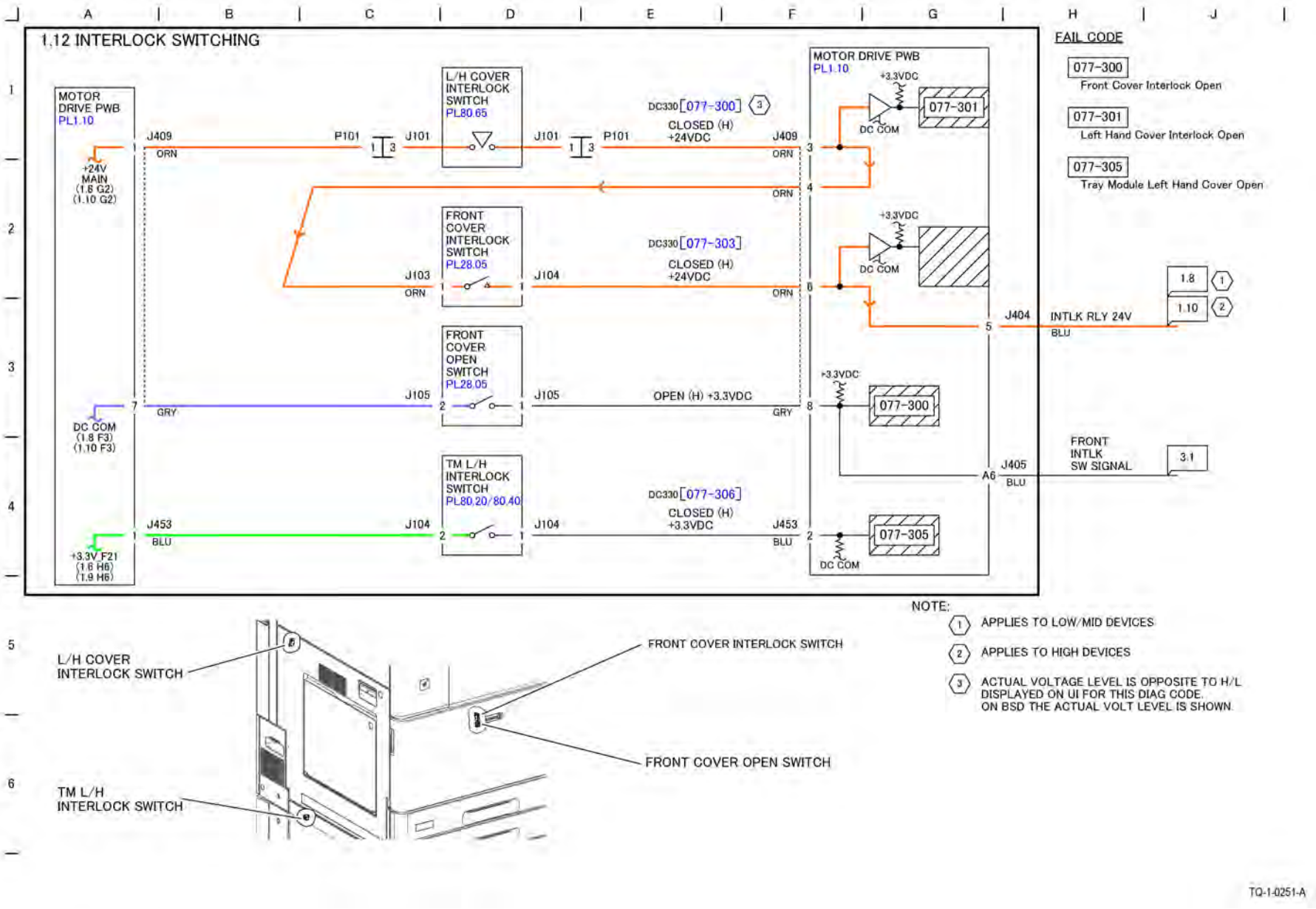


Figure 1 BSD 1.12 Interlock Switching

BSD 1.13 Fuse Check

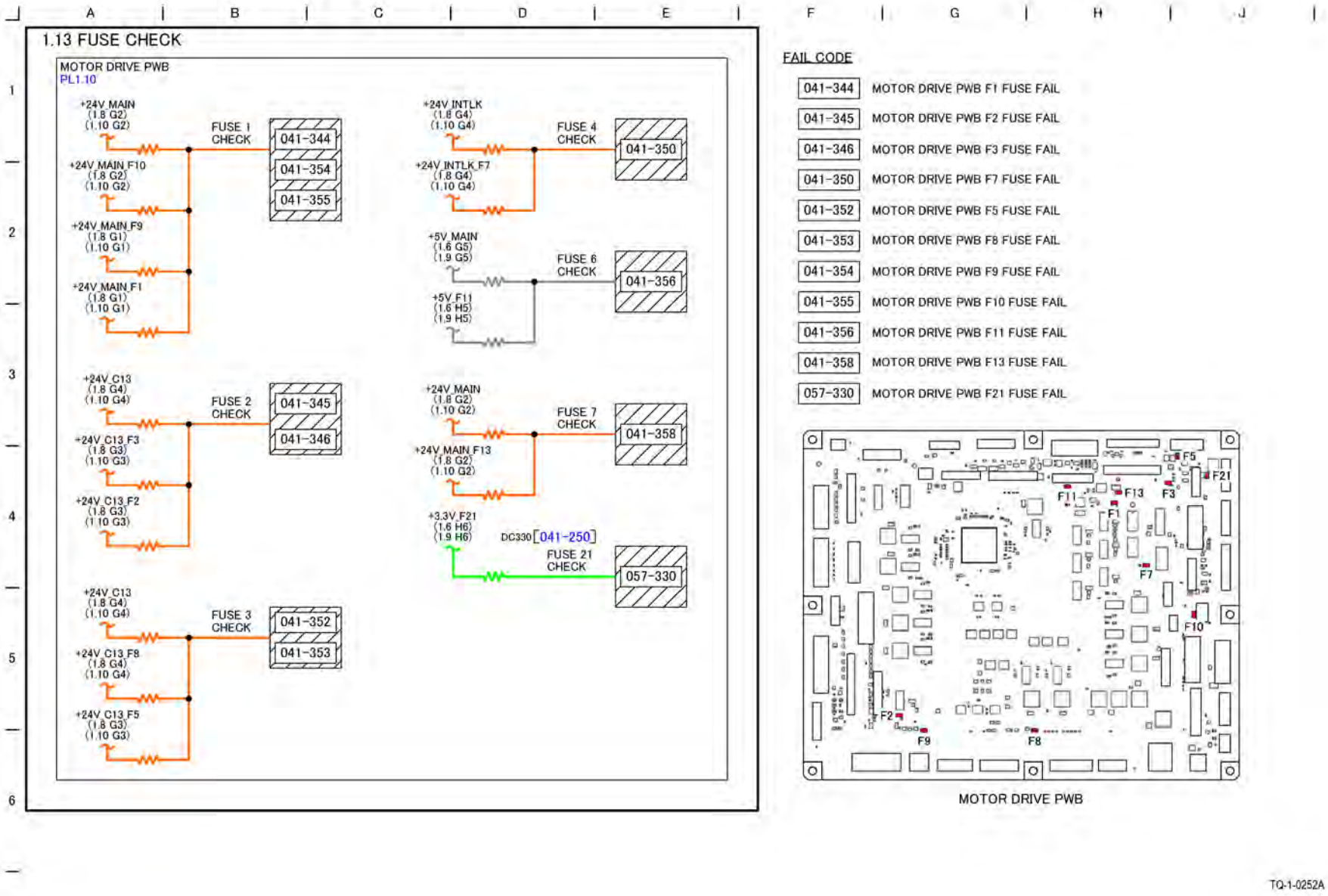


Figure 1 BSD 1.13 Fuse Check

BSD 1.14 LVPS Cooling

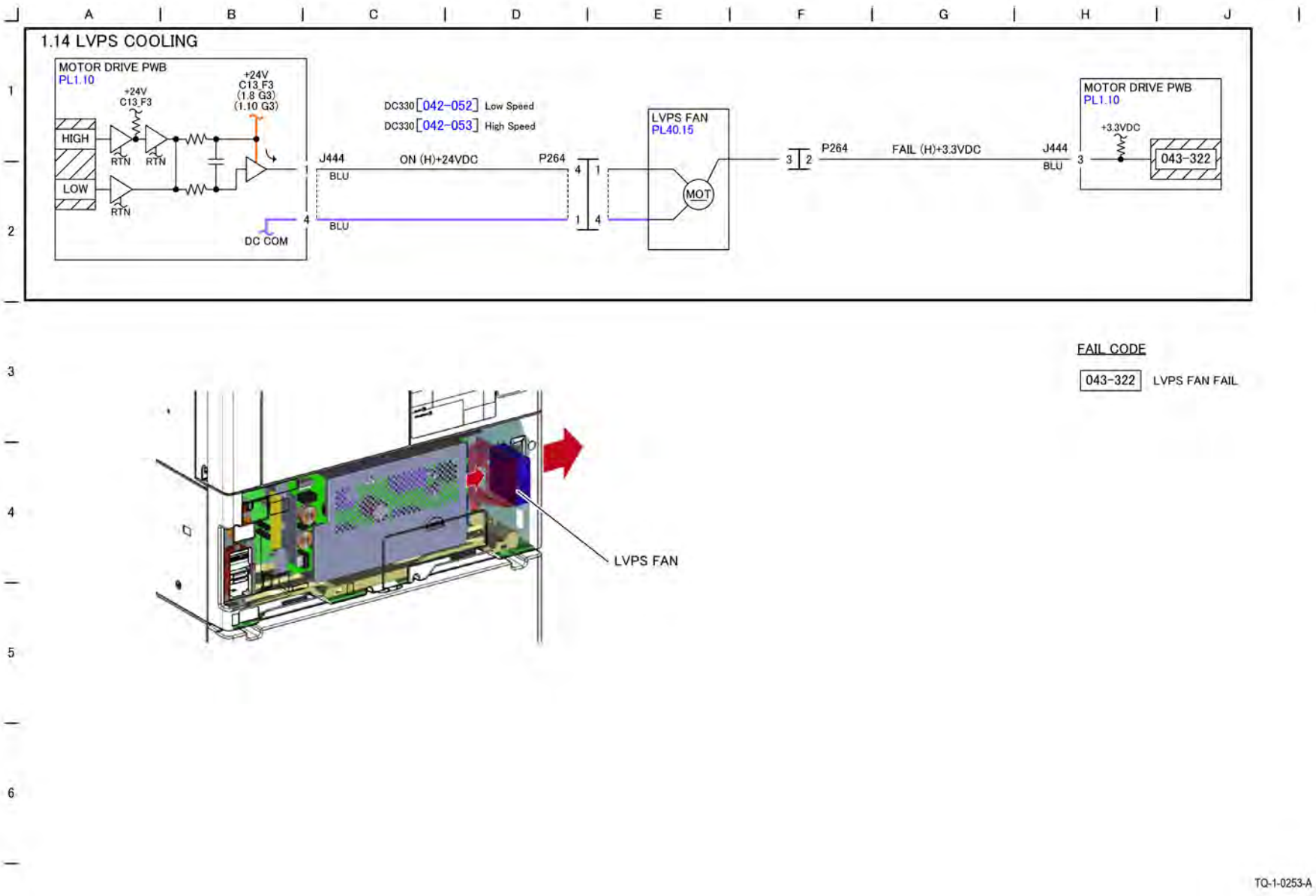


Figure 1 BSD 1.14 LVPS Cooling

BSD 1.15 PWB Locations (Low/Mid)

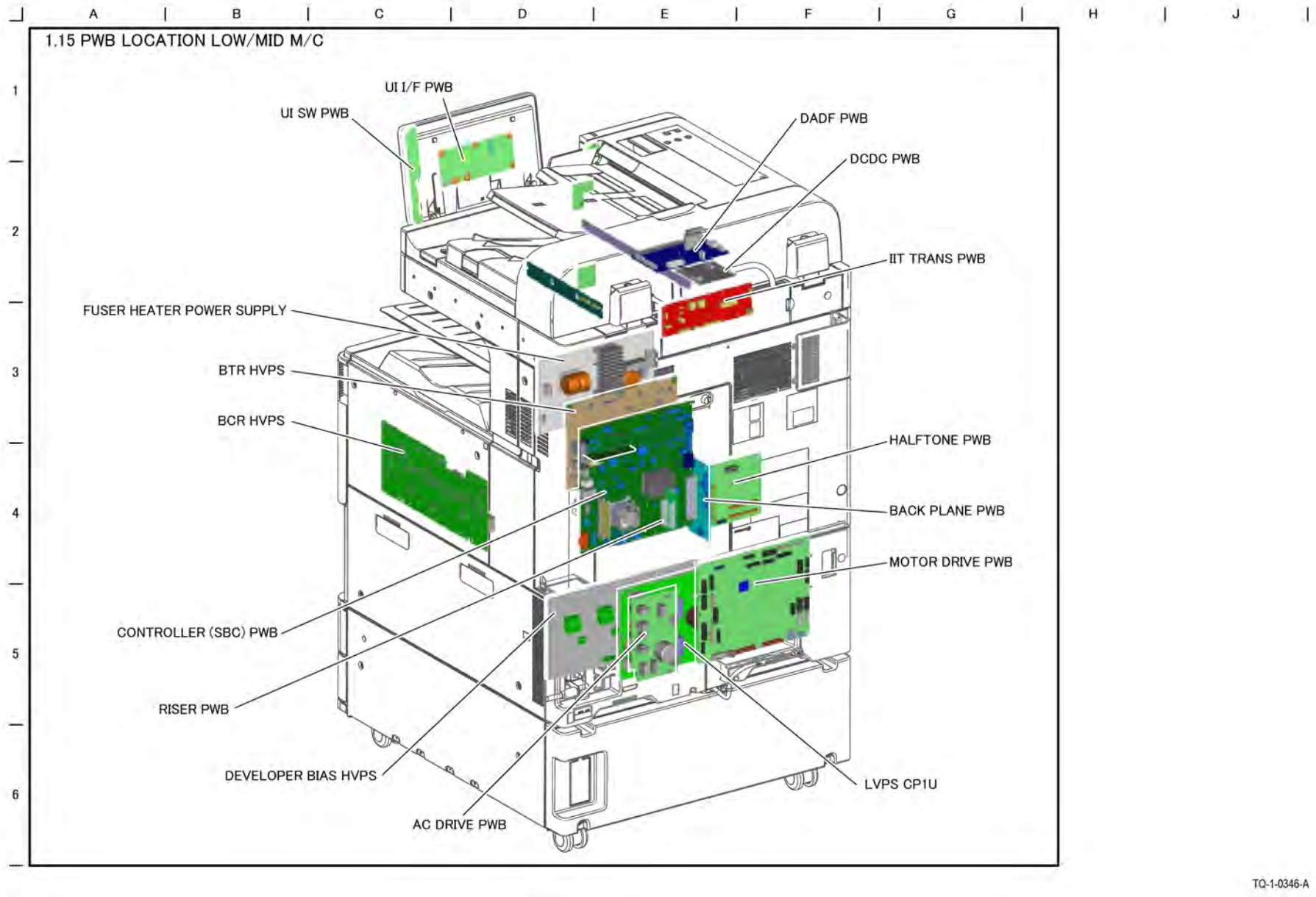


Figure 1 BSD 1.15 PWB Locations (Low/Mid)

BSD 1.16 PWB Locations (High)

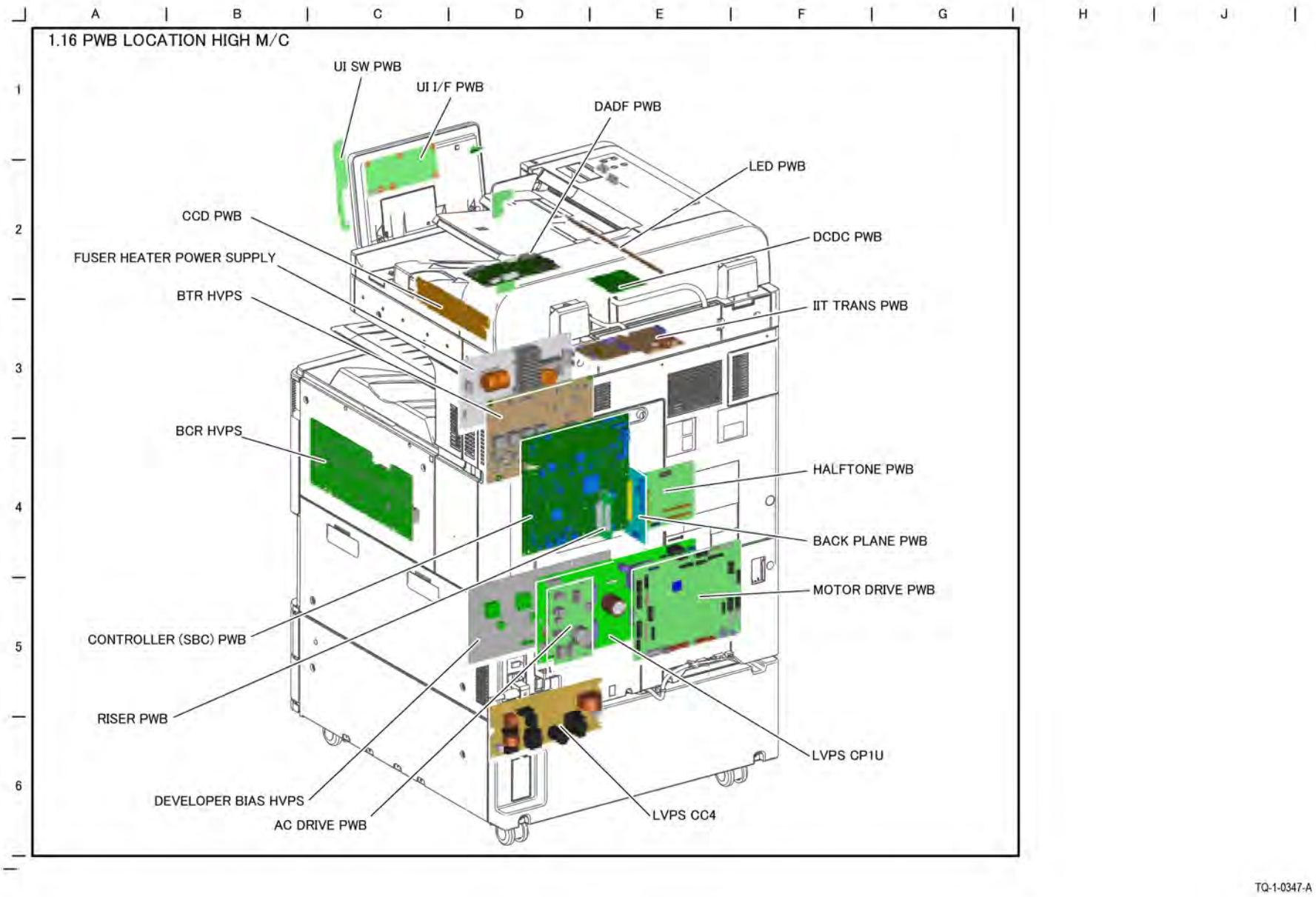


Figure 1 BSD 1.16 PWB Locations (High)

BSD 3.1 PWB Communications (Controller to Motor Drive PWB)

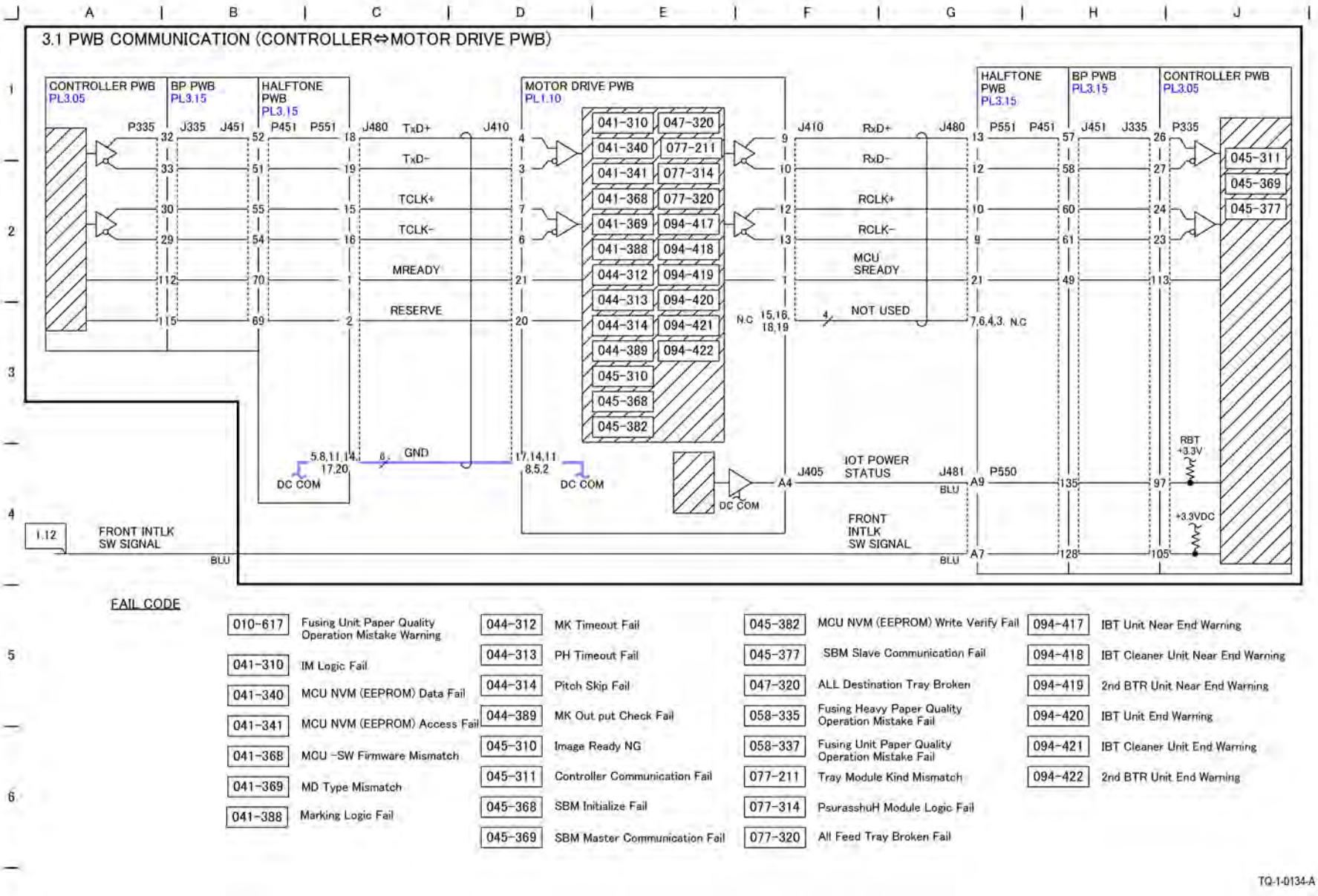


Figure 1 BSD 3.1 PWB Communication (Controller to Motor Drive PWB)

BSD 3.2 PWB Communications (Controller to UI)

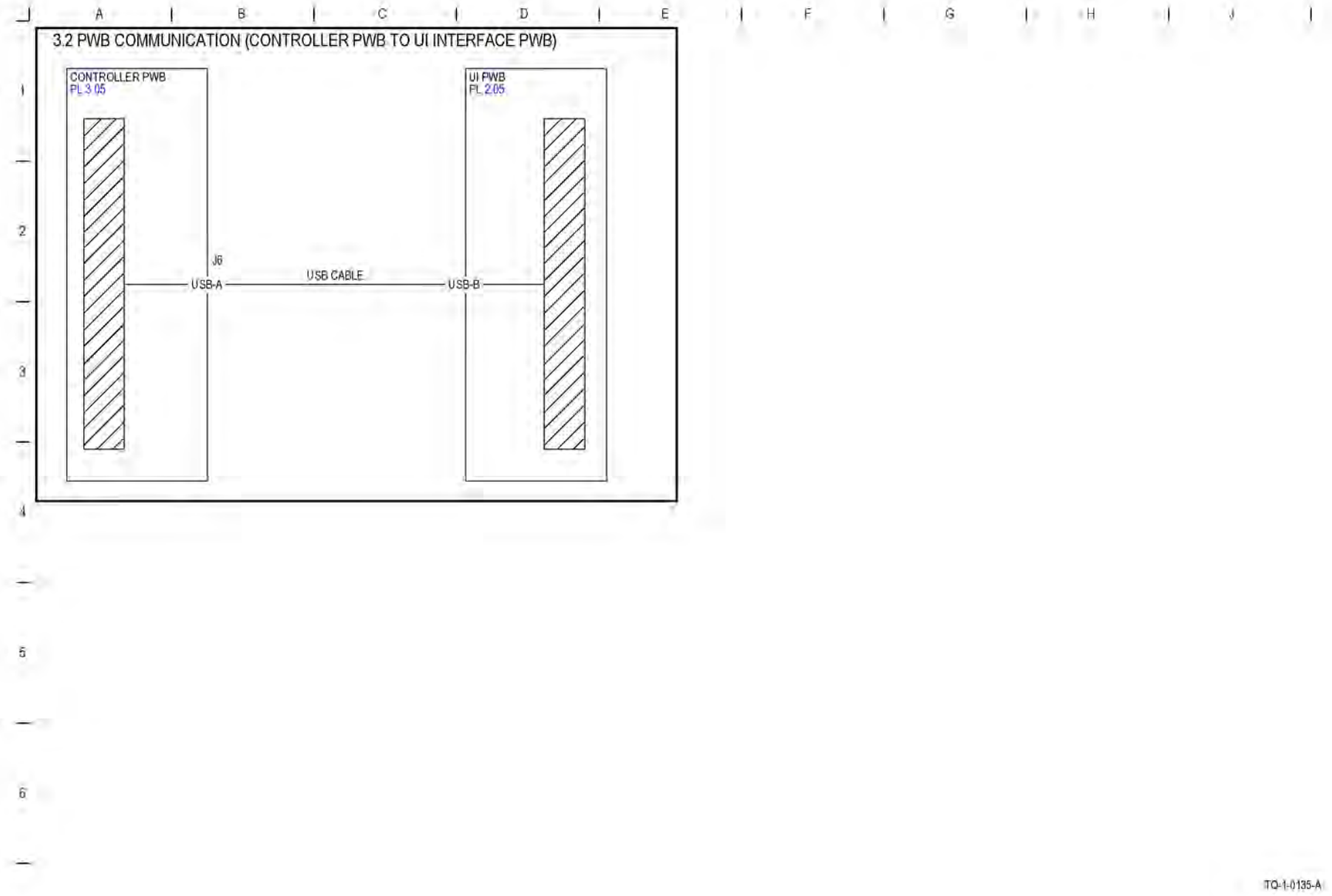


Figure 1 BSD 3.2 PWB Communications (Controller to UI)

BSD 3.3 PWB Communications (Controller to Finisher)

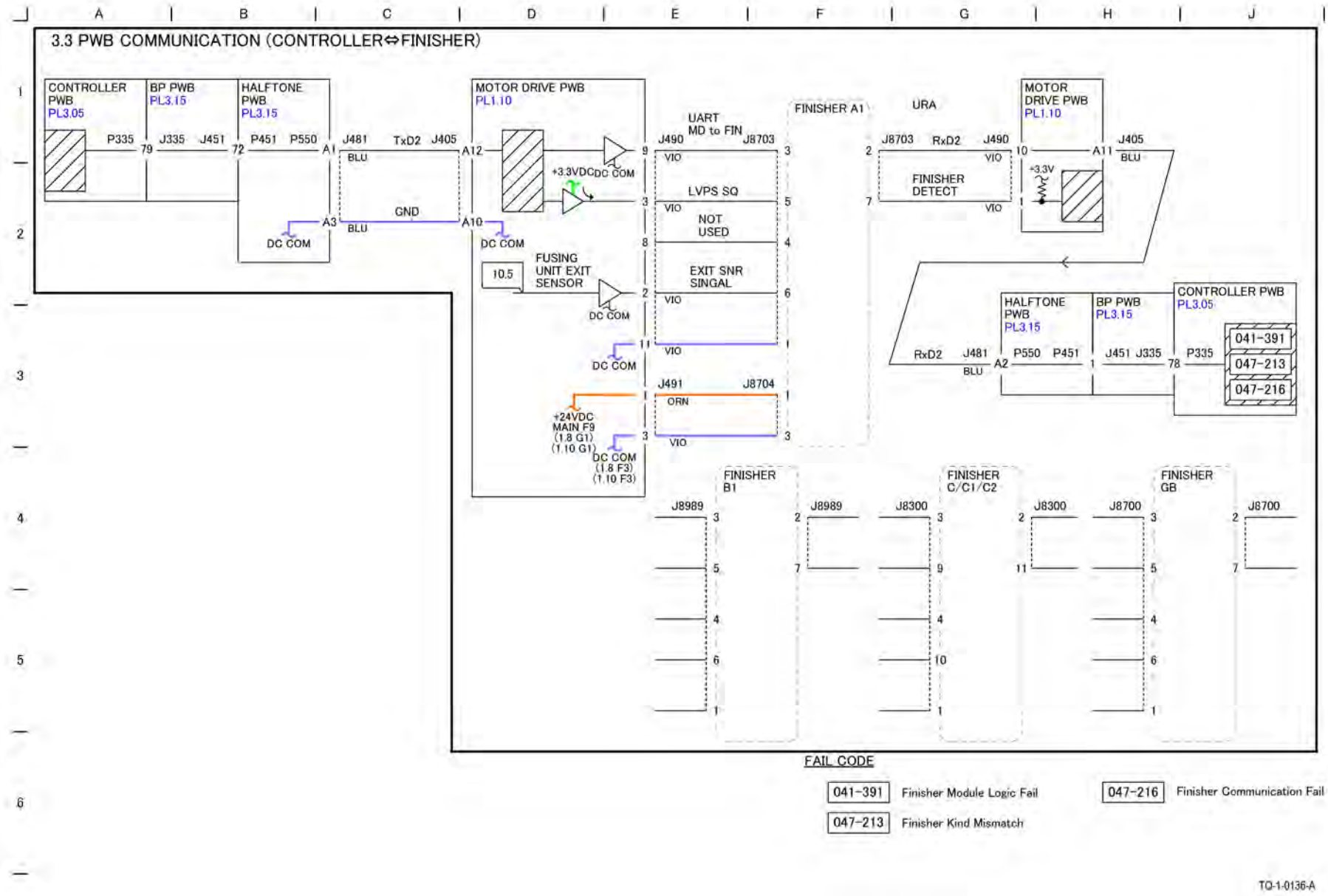


Figure 1 BSD 3.3 PWB Communications (Controller to Finisher)

BSD 3.4 PWB Communications (Controller to HCF)

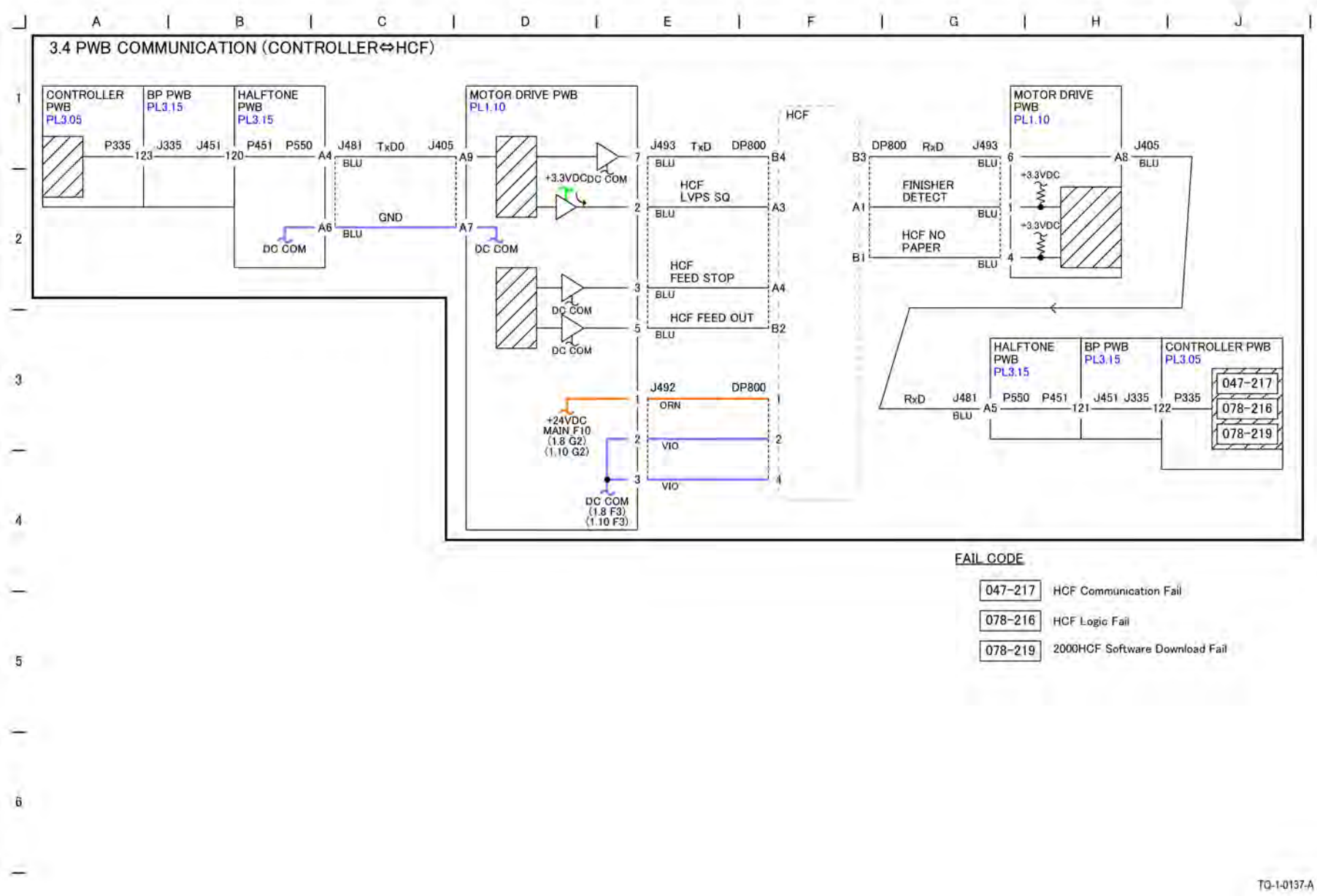


Figure 1 BSD 3.4 PWB Communications (Controller to HCF)

BSD 3.5 PWB Communications (Controller to Halftone/Back Plane)

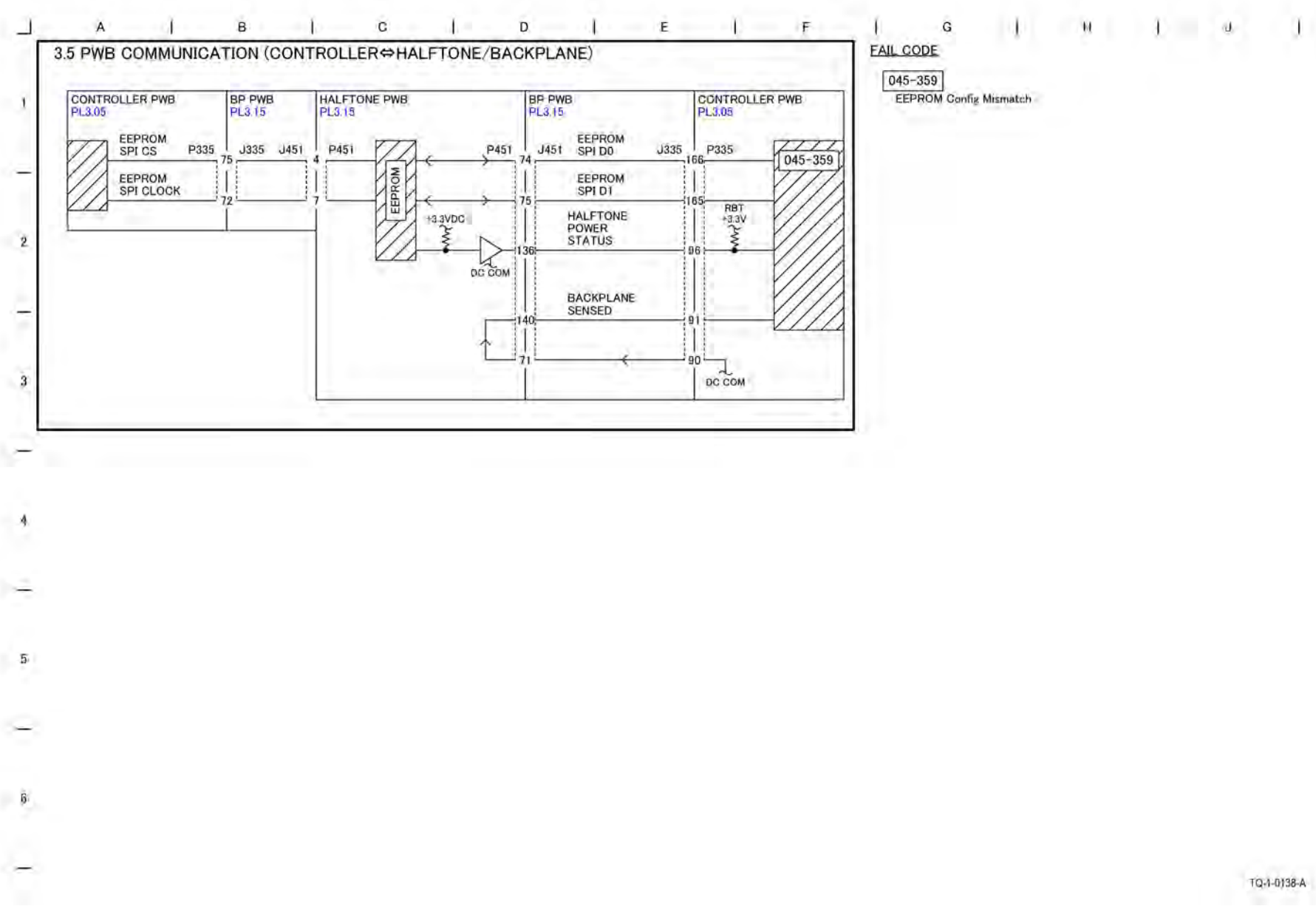


Figure 1 BSD 3.5 PWB Communications (Controller to Halftone/Back Plane)

BSD 3.6 PWB Communications (Controller to DADF PWB) (Low/Mid/High)

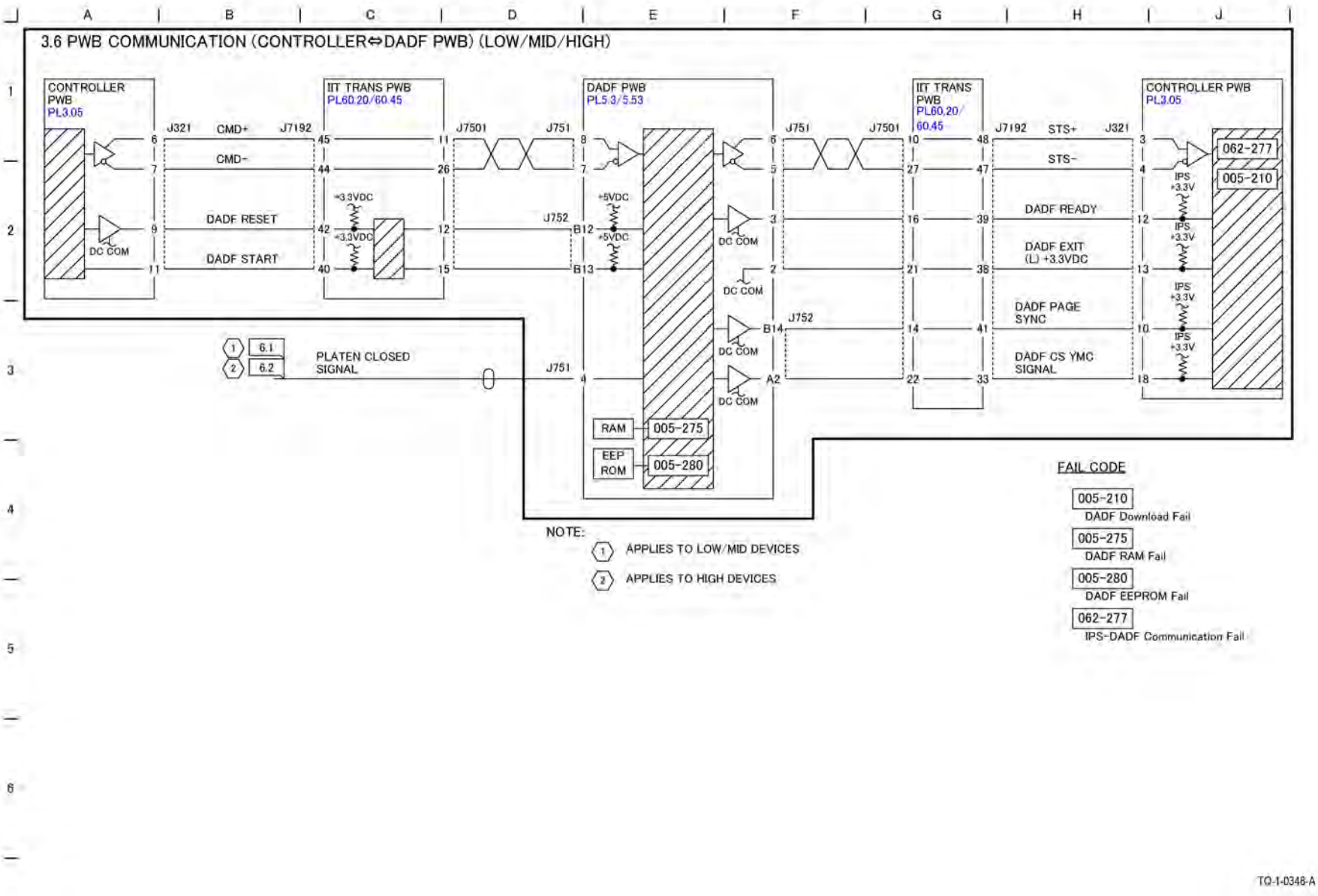
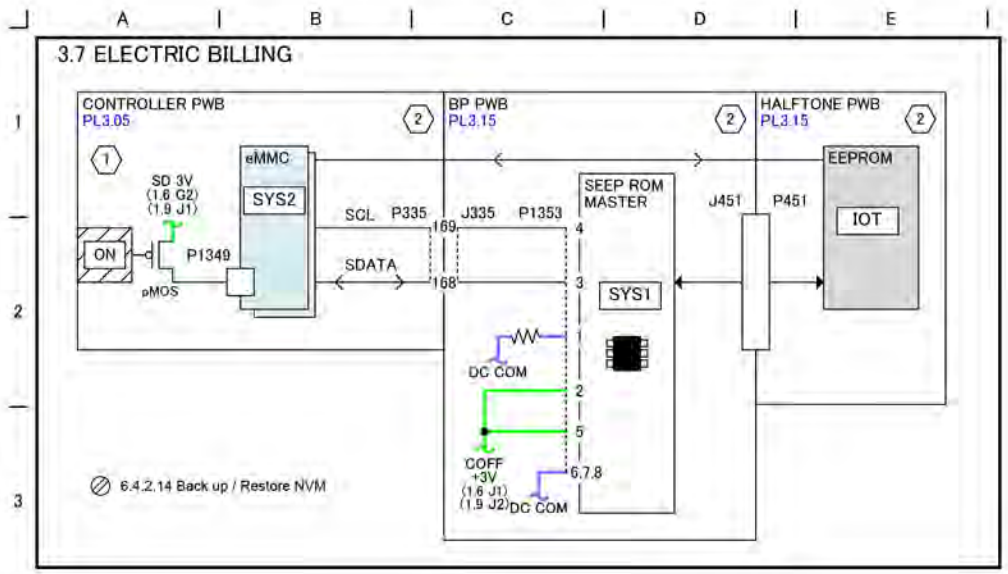


Figure 1 BSD 3.6 PWB Communications (Controller to DADF PWB) (Low/Mid/High)

BSD 3.7 Electric Billing



NOTE:

(1) Fail Code is as follows.

024-600	124-314 DC132 01	124-324 All Billing Mismatch
024-601	124-315 DC132 02	124-325 Billing Restoration Fail
024-602	124-316 DC132 03	
024-603	124-317 DC132 04	
024-604	124-318 DC132 07	
024-605	124-319 DC132 08	
124-310 DC132 11	124-322 DC132 05	
124-311 DC132 09	124-323 DC132 06	
124-312 DC132 12		
124-313 DC132 10		

In the following cases, perform manual recovery of billing data using DC132.
- When HALFTONE PWB is replaced
- When CONTROLLER PWB is replaced
- When BP PWB is replaced
- When Fail Code [124-324] (count value is different for 3) has occurred
- When Fail Code [124-325] (failed to automatically restore count value) has occurred

(2) Only 1 PWB can be replaced.
It is not possible to replace 2 or more PWBs at the same time.
(3 errors can not be recovered by market.)

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Figure 1 BSD 3.7 Electric Billing

BSD 3.8 Controller (SBC) PWB

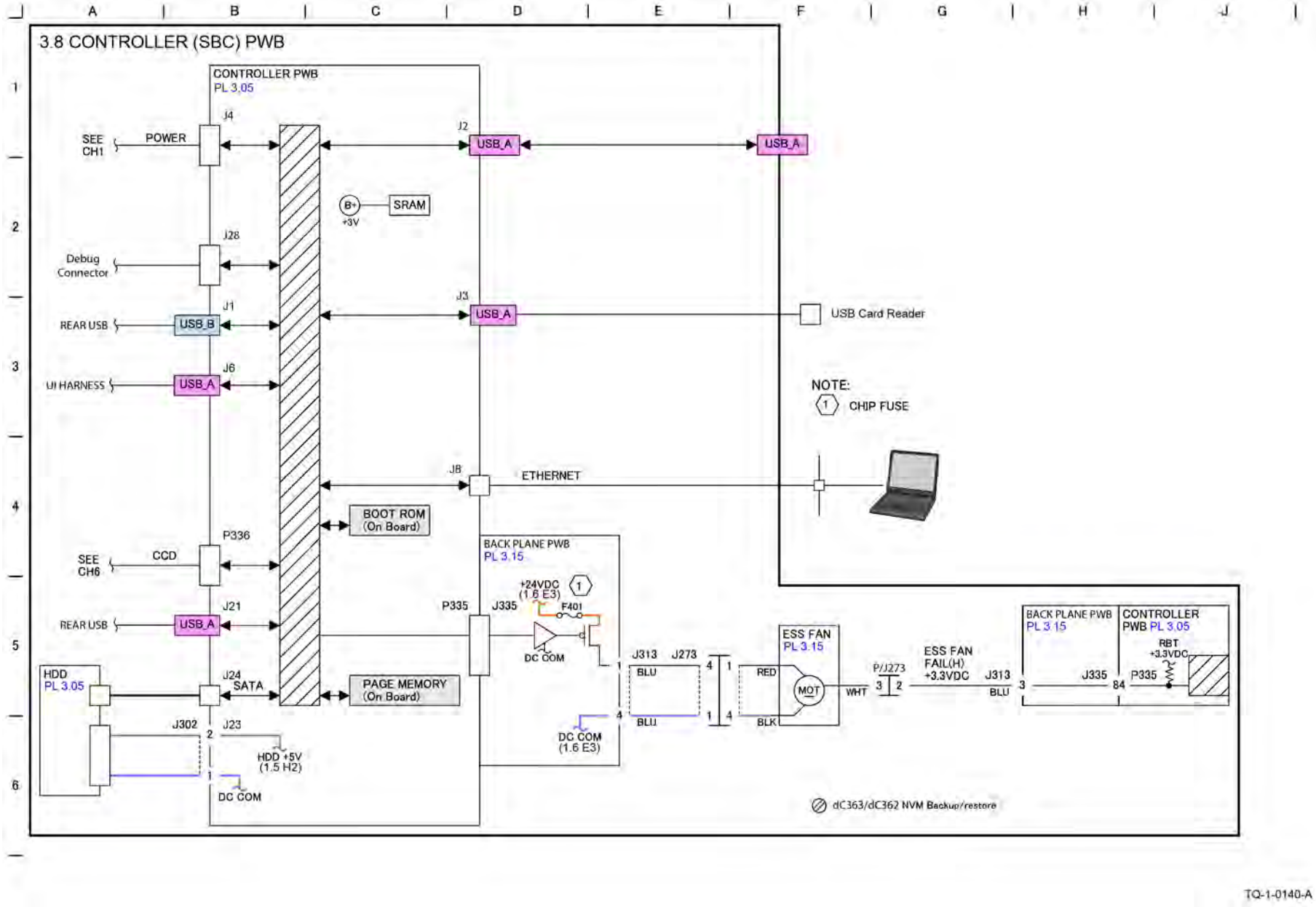


Figure 1 BSD 3.8 Controller (SBC) PWB

BSD 3.9 PWB Communications (Controller to IIT Trans PWB)

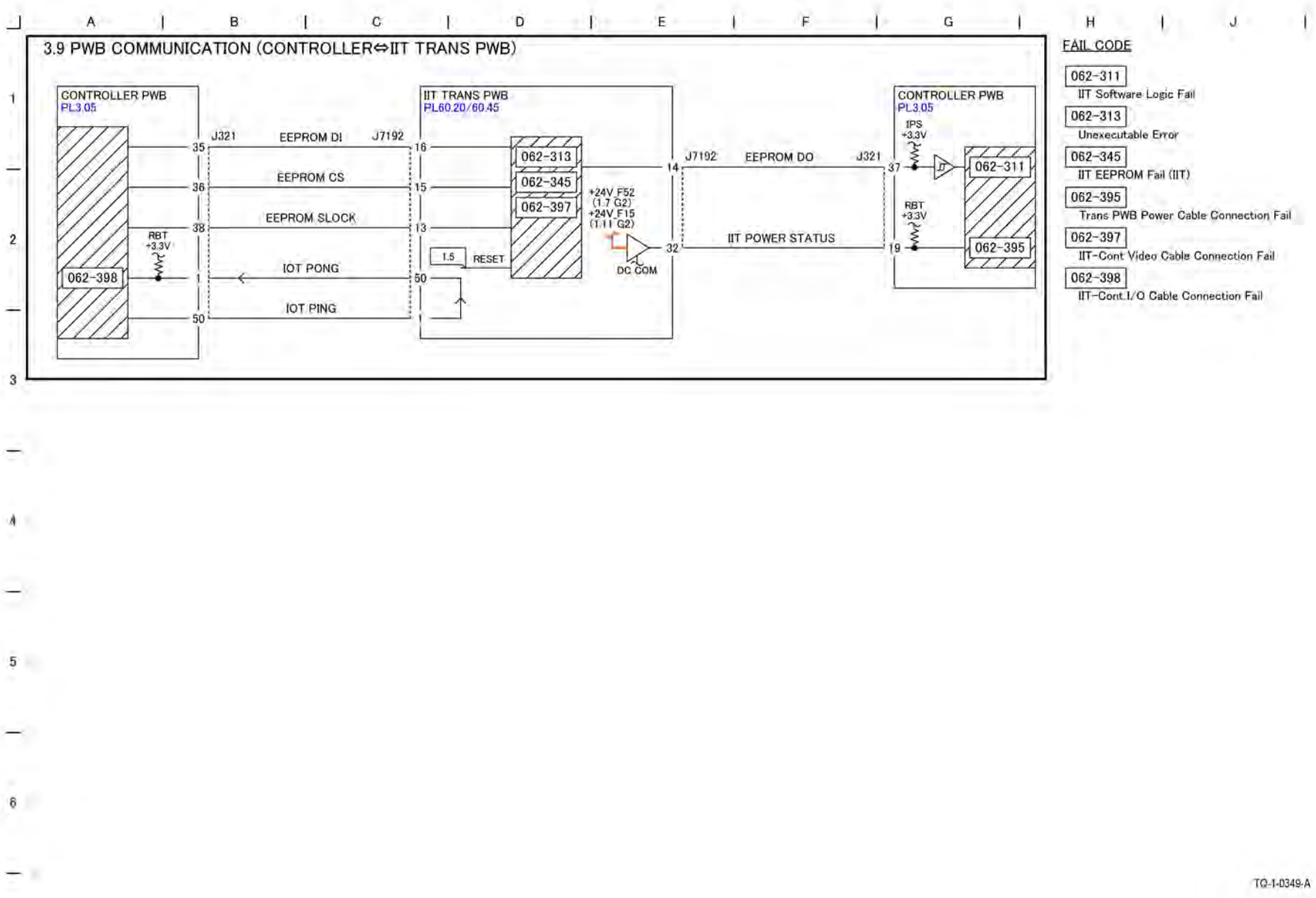


Figure 1 BSD 3.9 PWB Communications (Controller to IIT Trans PWB)

BSD 5.1 DADF 250 Interlock and Document Set

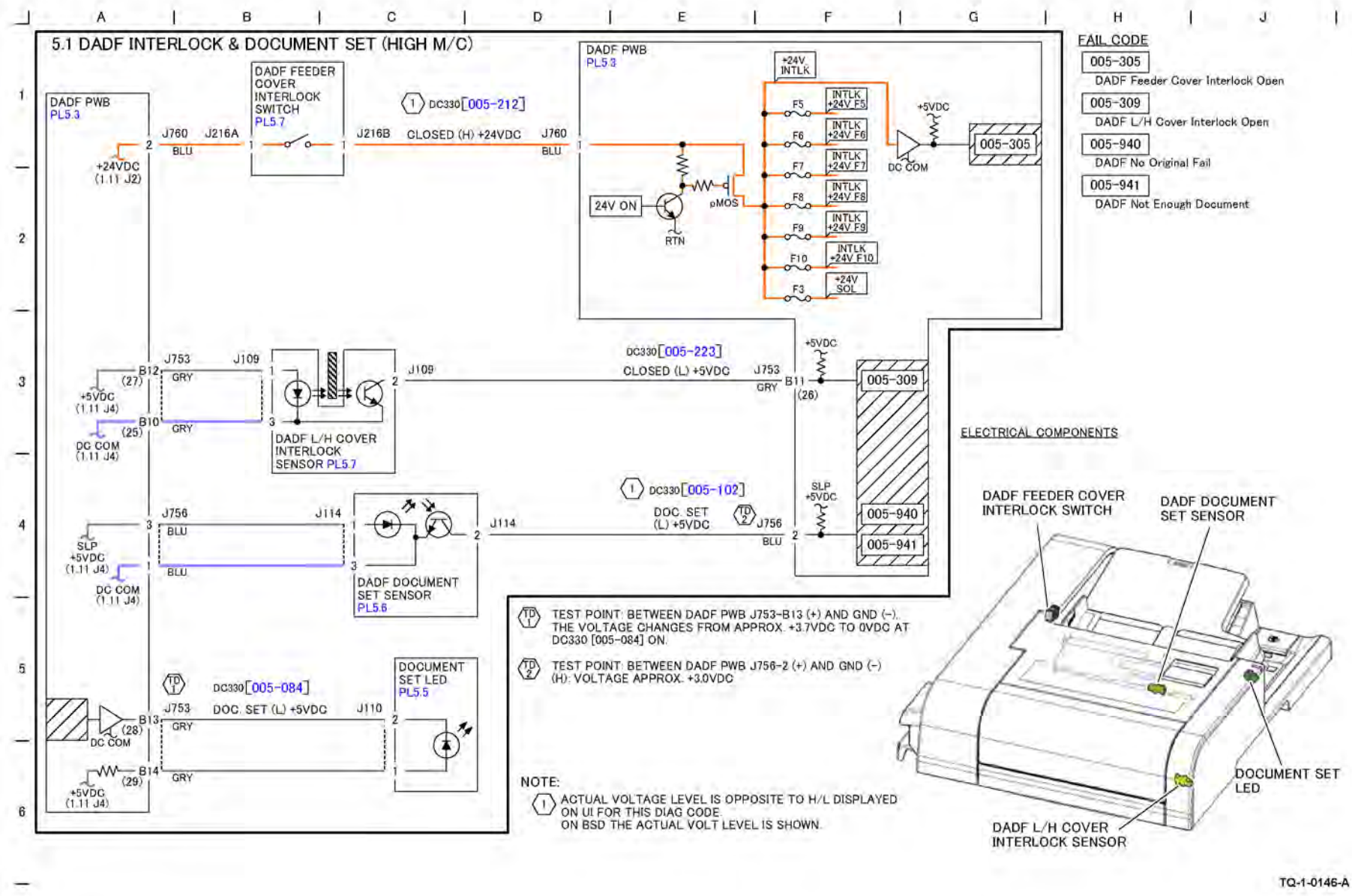


Figure 1 BSD 5.1 DADF 250 Interlock and Document Set

BSD 5.2 DADF 250 Document Stacking

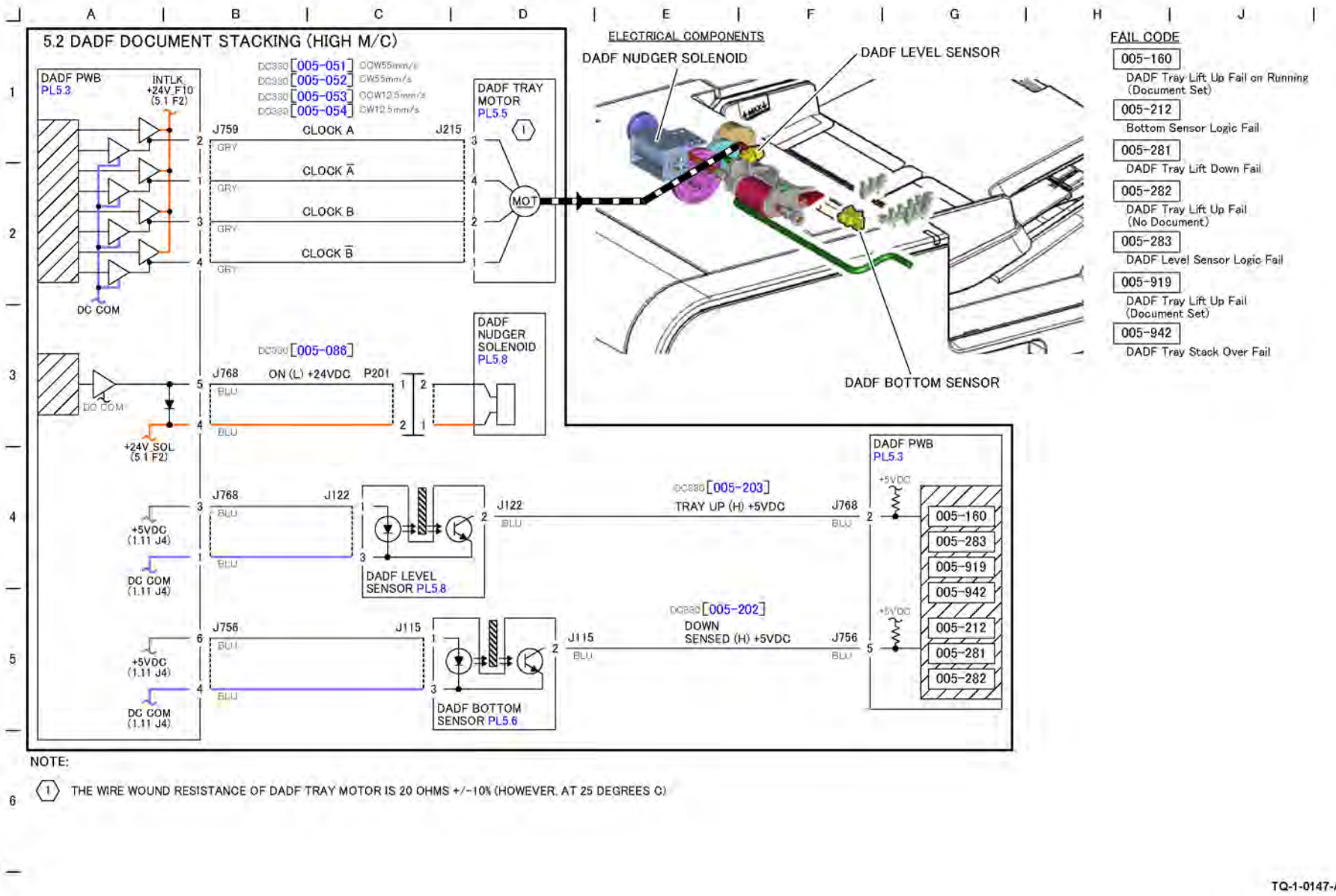
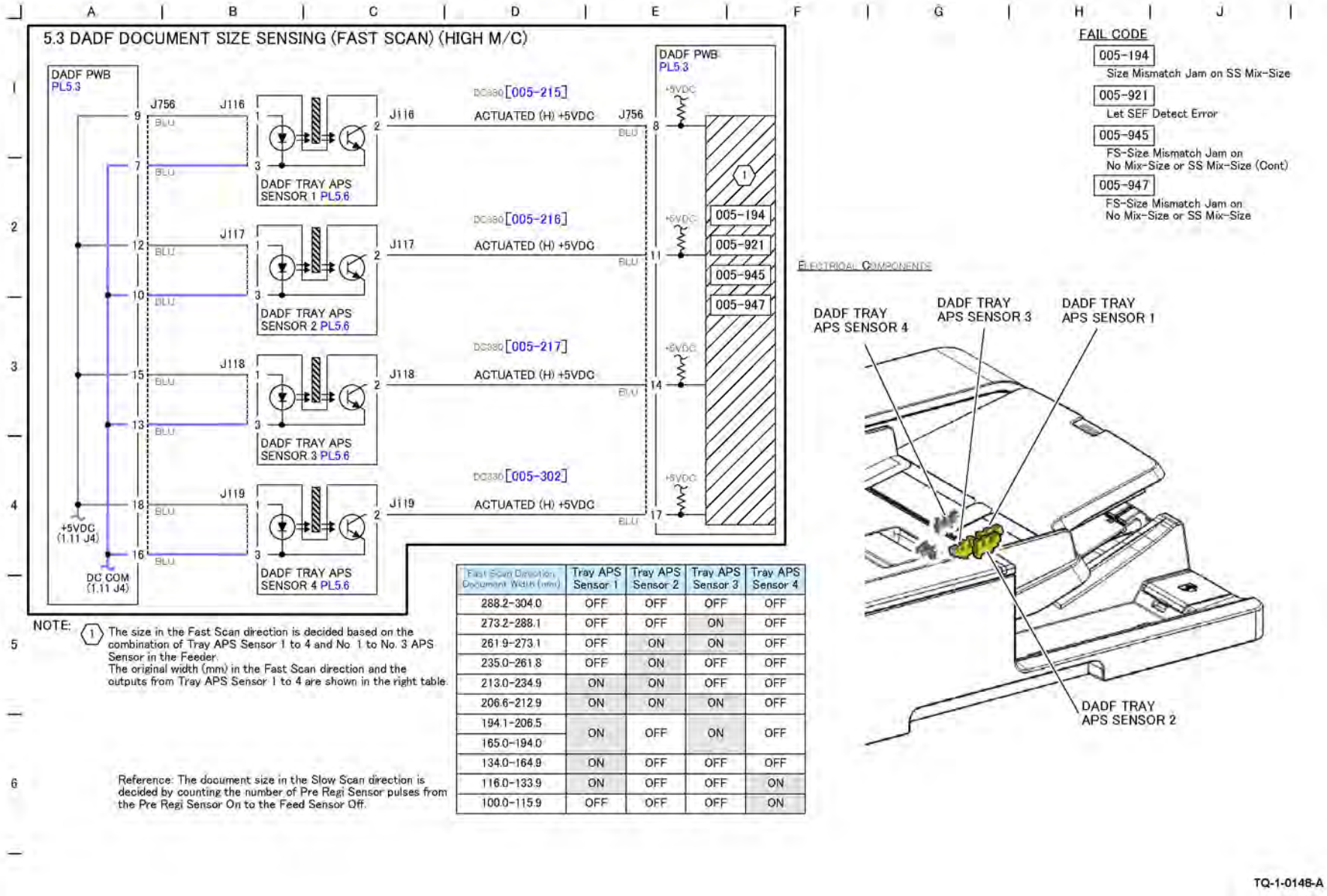


Figure 1 BSD 5.2 DADF 250 Document Stacking

BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)



Fast Scan Direction Document Width (mm)	Tray APS Sensor 1	Tray APS Sensor 2	Tray APS Sensor 3	Tray APS Sensor 4
288.2-304.0	OFF	OFF	OFF	OFF
273.2-288.1	OFF	OFF	ON	OFF
261.9-273.1	OFF	ON	ON	OFF
235.0-261.8	OFF	ON	OFF	OFF
213.0-234.9	ON	ON	OFF	OFF
206.6-212.9	ON	ON	ON	OFF
194.1-206.5	ON	OFF	ON	OFF
165.0-194.0				
134.0-164.9	ON	OFF	OFF	OFF
116.0-133.9	ON	OFF	OFF	ON
100.0-115.9	OFF	OFF	OFF	ON

Figure 1 BSD 5.3 DADF 250 Document Size Sensing (Fast Scan)

BSD 5.4 DADF 250 Document Feeding

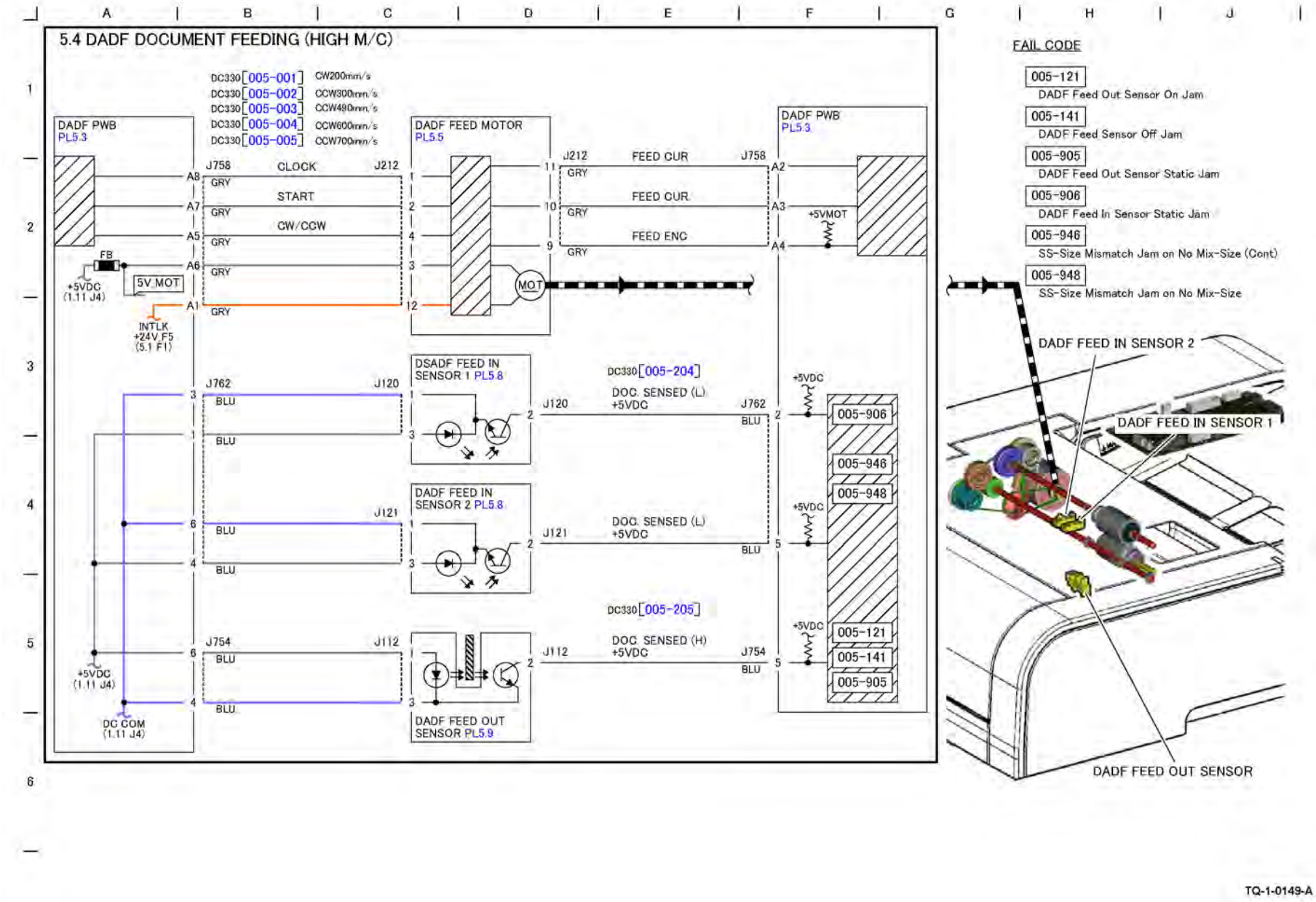


Figure 1 BSD 5.4 DADF 250 Document Feeding

BSD 5.5 NOT USED

BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

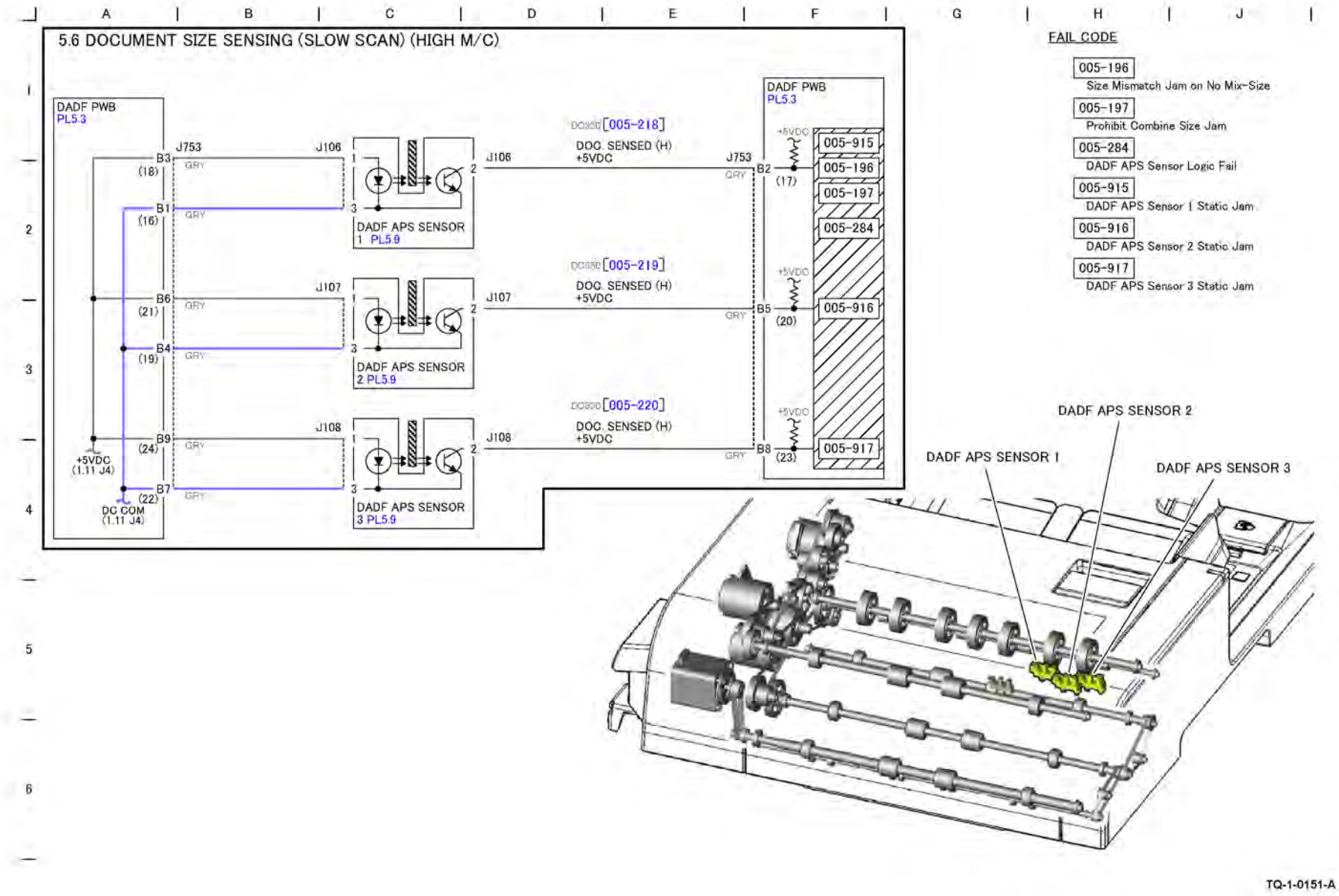


Figure 1 BSD 5.6 DADF 250 Document Size Sensing (Slow Scan)

BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

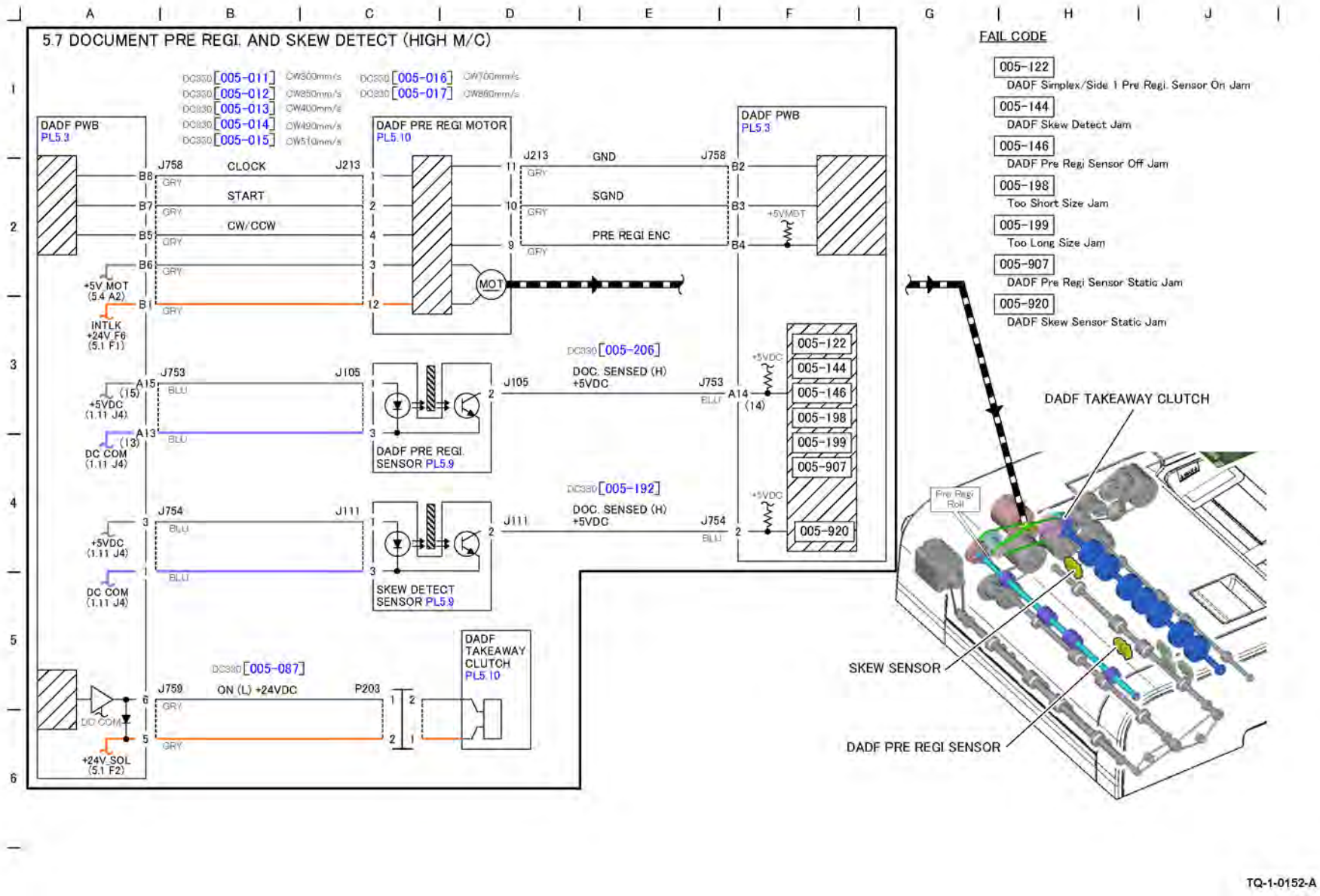


Figure 1 BSD 5.7 DADF 250 Document Pre Registration and Skew Detect

BSD 5.8 DADF 250 Document Registration

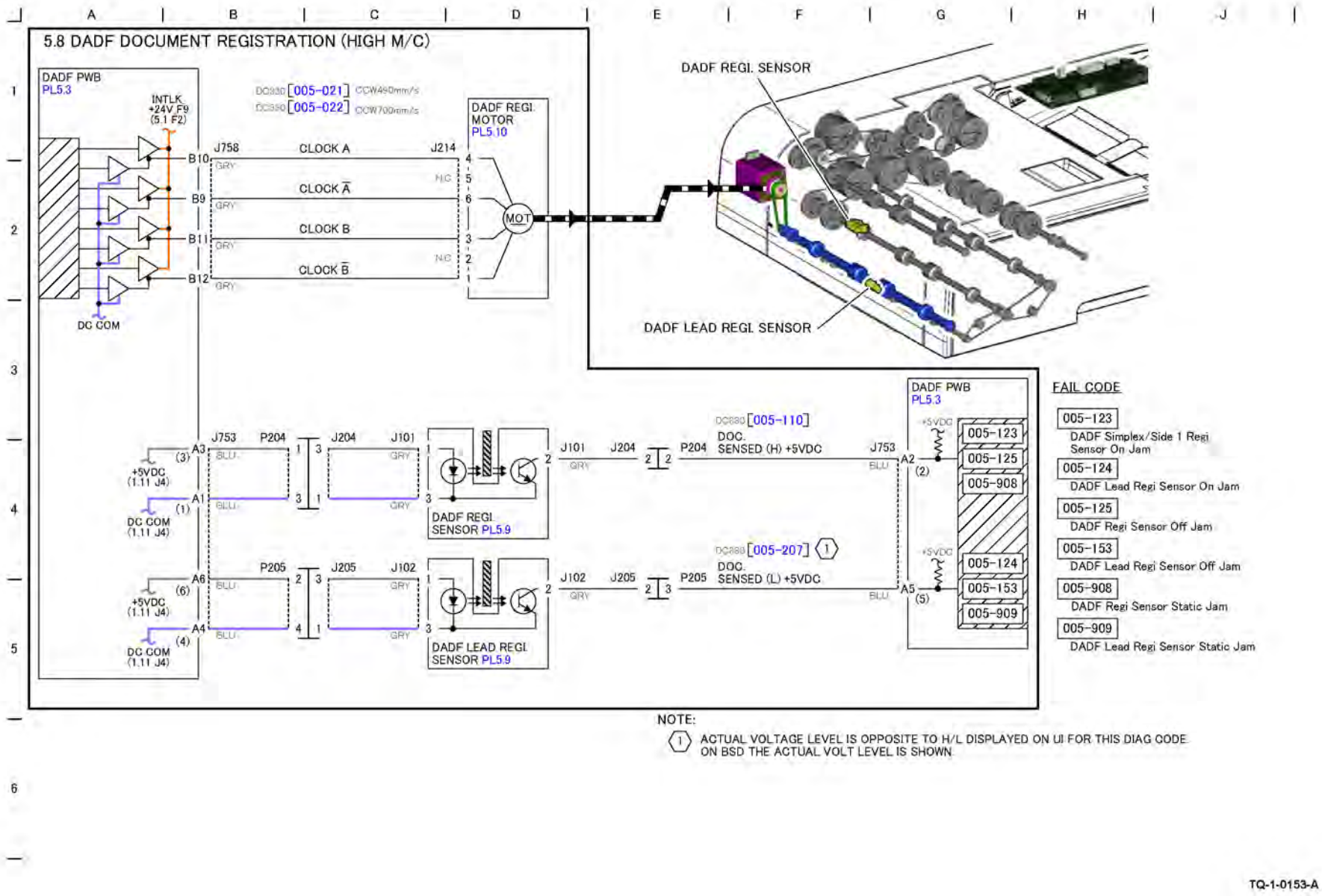


Figure 1 BSD 5.8 DADF 250 Document Registration

BSD 5.9 DADF 250 Document Scan (Side 1)

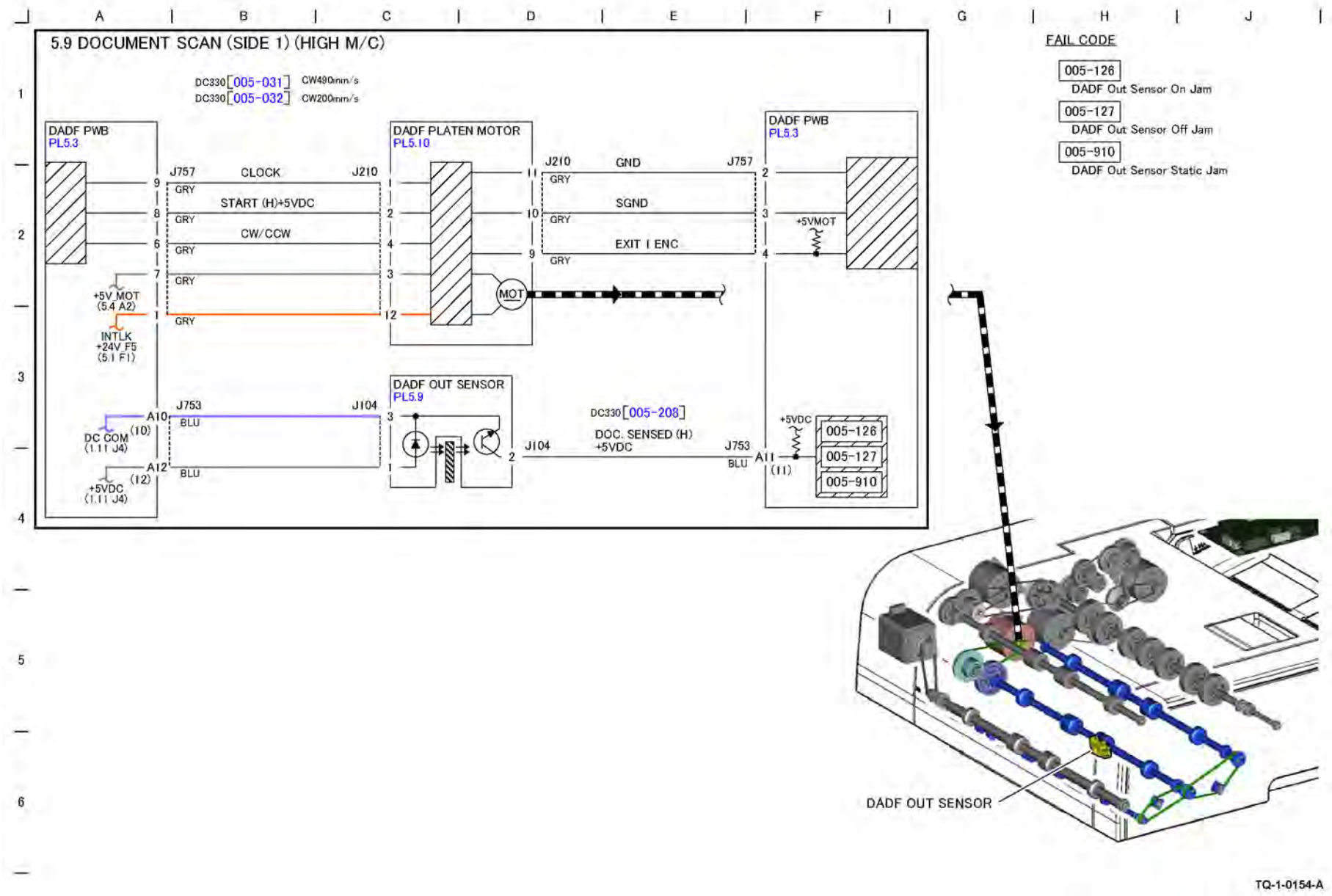


Figure 1 BSD 5.9 DADF 250 Document Scan (Side 1)

BSD 5.10 DADF 250 Document Scan (Side 2) (1 Of 2)

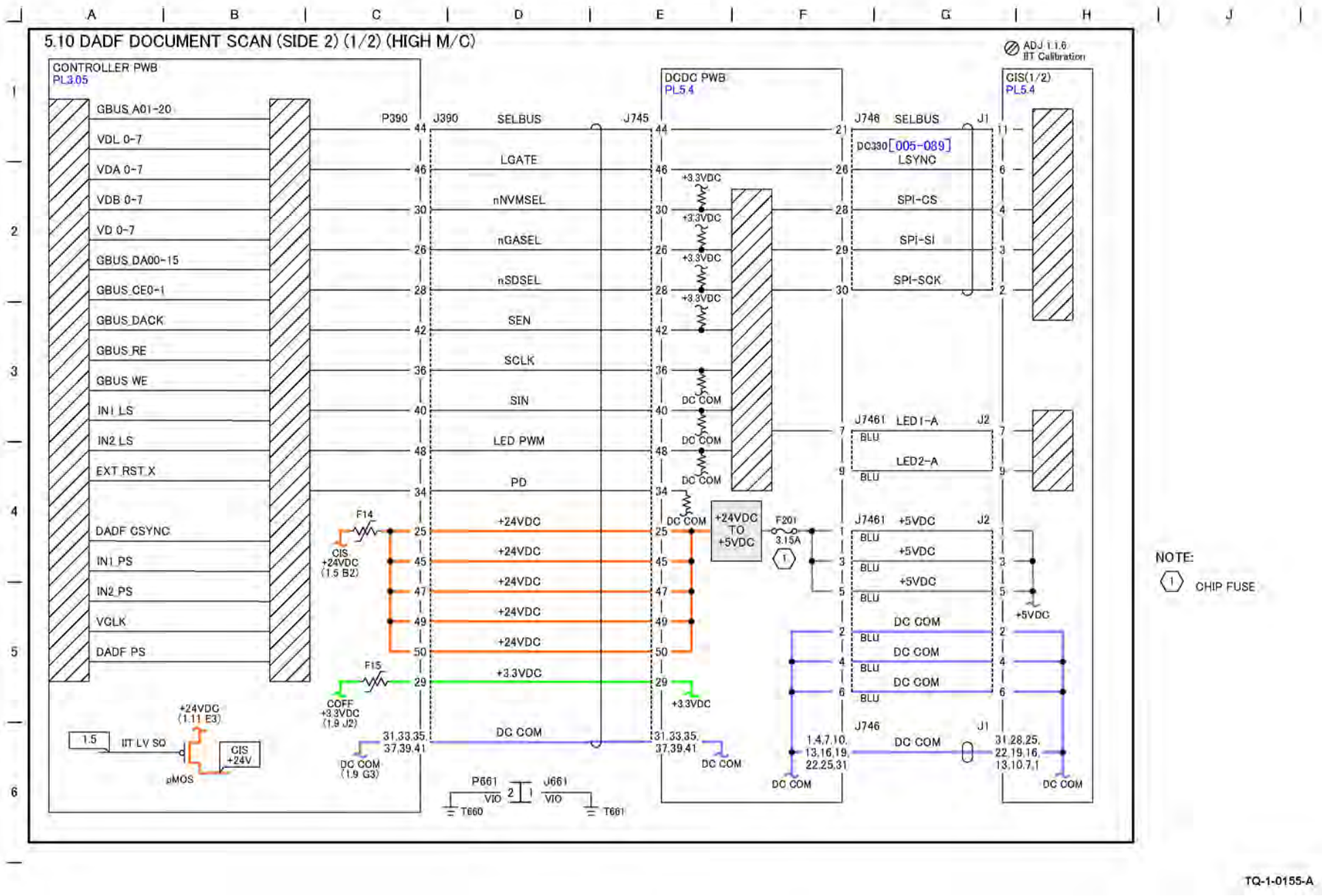


Figure 1 BSD 5.10 DADF 250 Document Scan (Side 2) (1 Of 2)

BSD 5.11 DADF 250 Document Scan (Side 2) (2 Of 2)

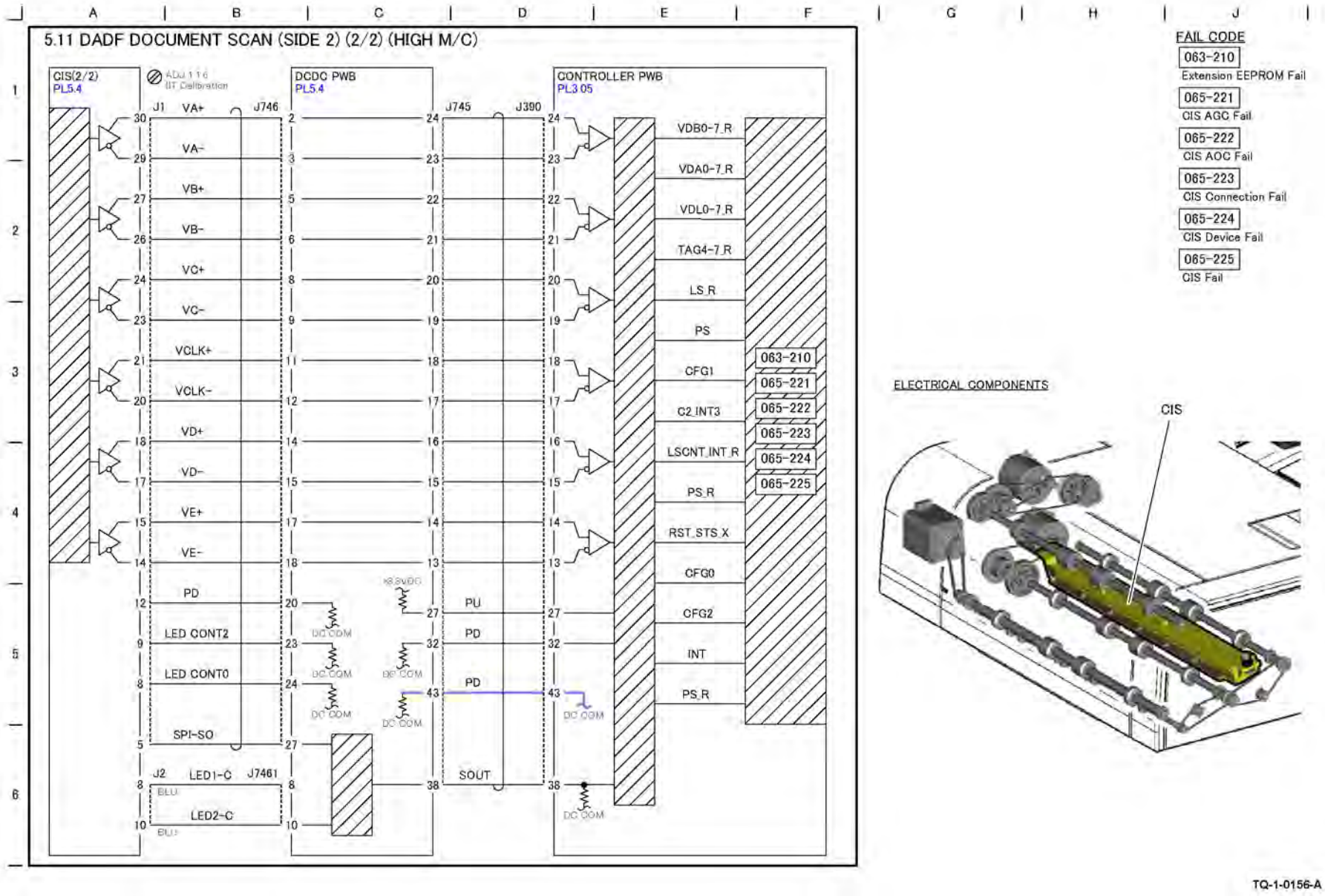


Figure 1 BSD 5.11 DADF 250 Document Scan (Side 2) (2 Of 2)

BSD 5.12 DADF 250 Document Exit

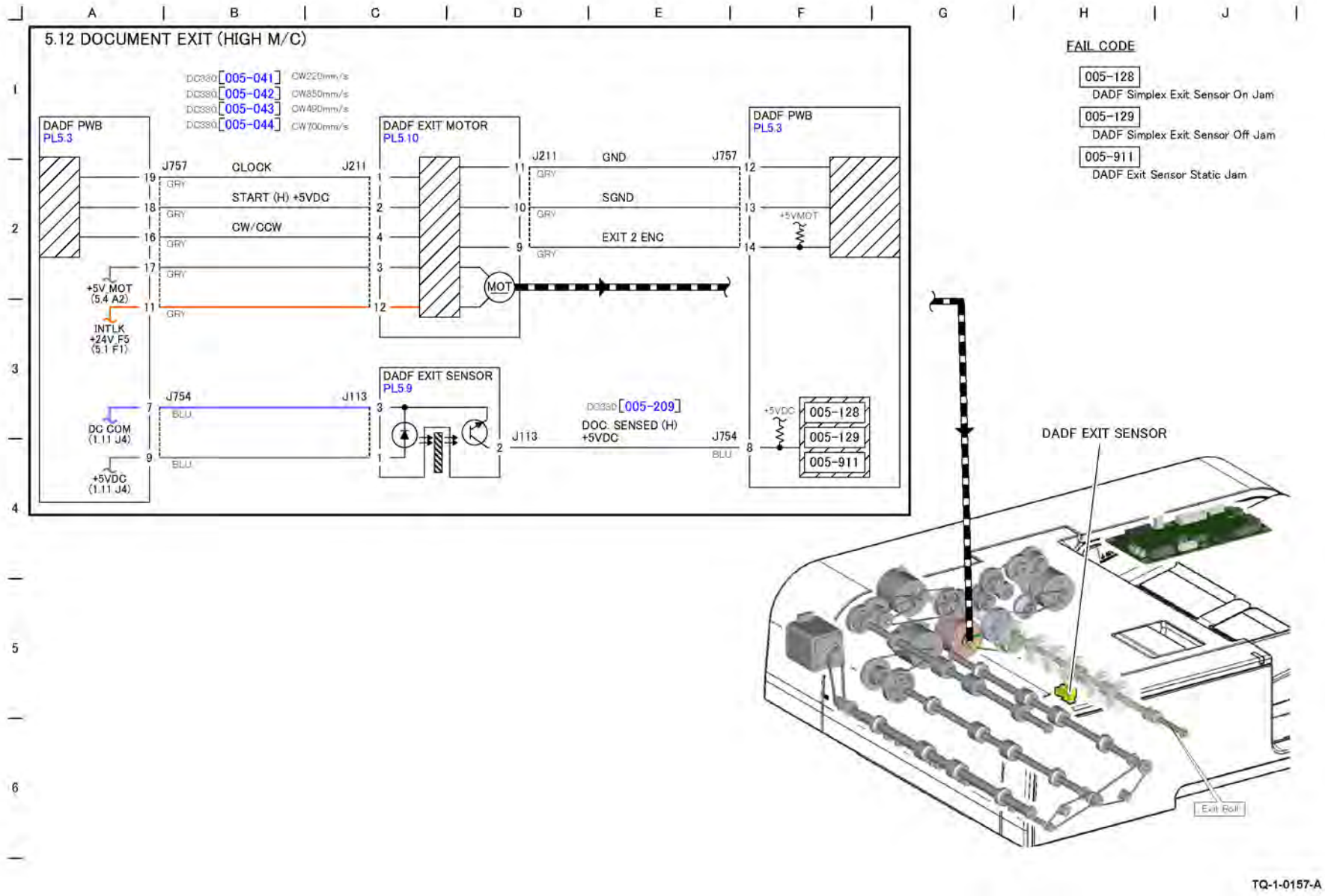


Figure 1 BSD 5.12 DADF 250 Document Exit

BSD 5.13 DADF 250 Document Path and Drive Transmission

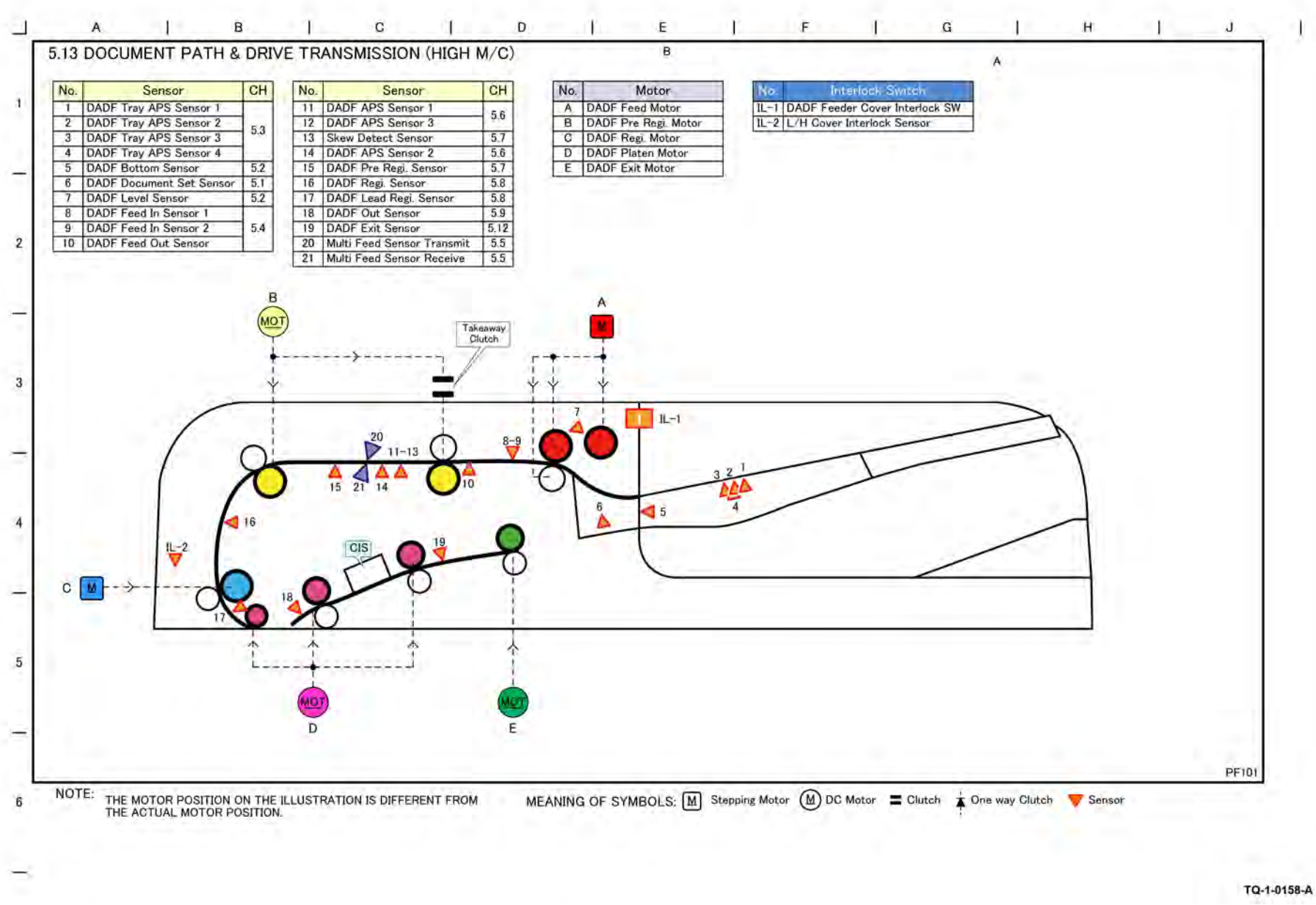


Figure 1 BSD 5.13 DADF 250 Document Path and Drive Transmission

BSD 5.14 DADF 130 Interlock And Document Setting

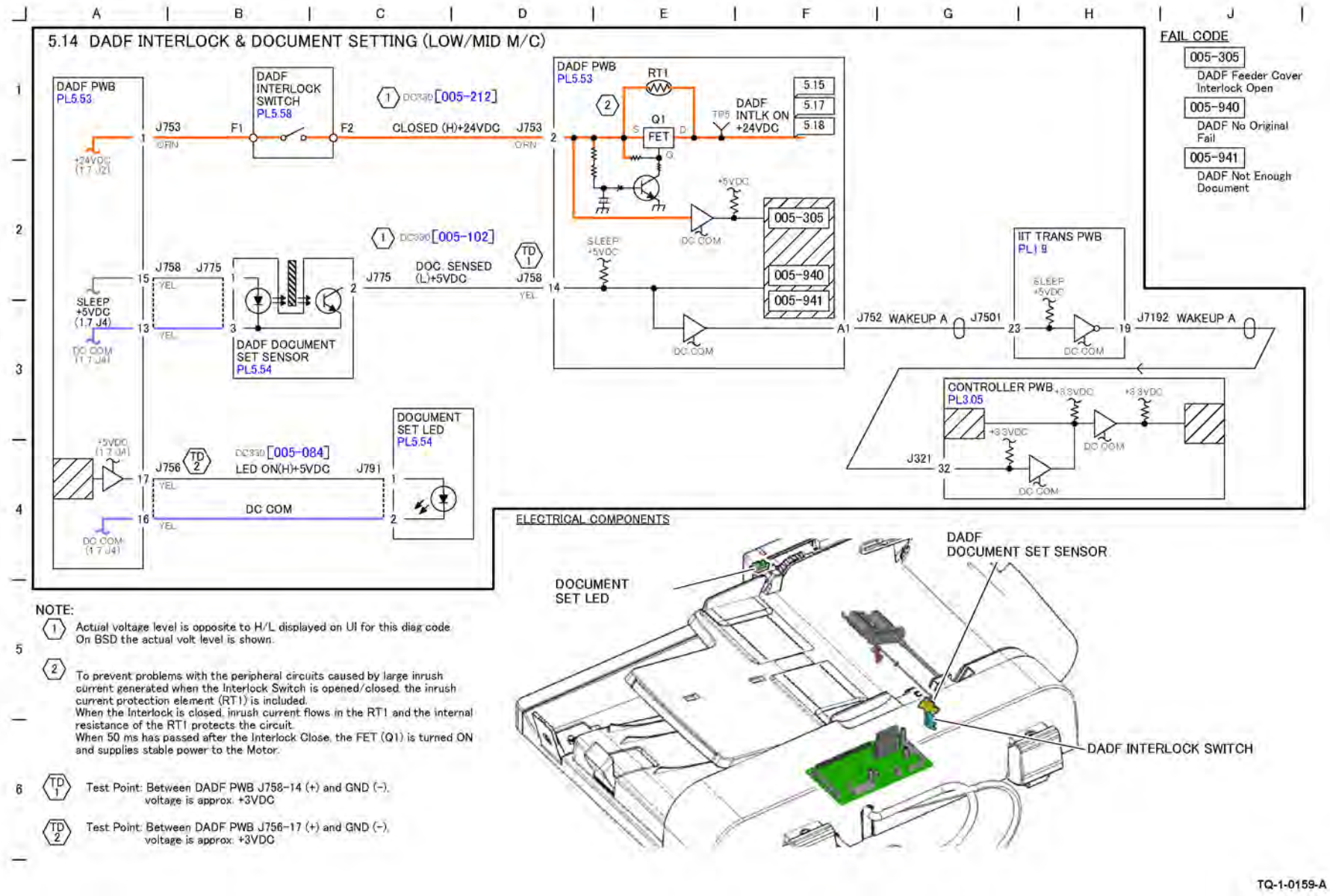
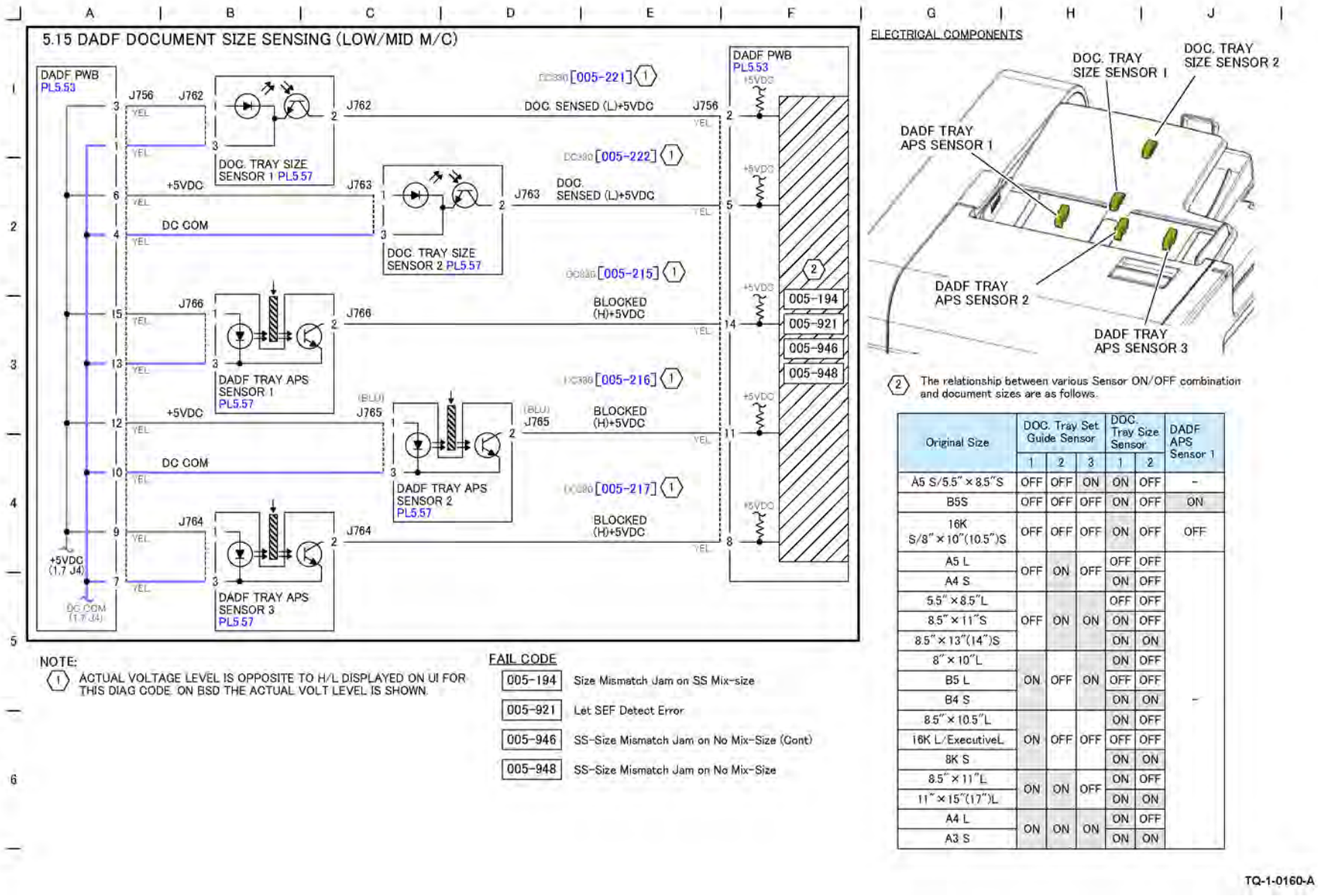


Figure 1 BSD 5.14 DADF 130 Interlock And Document Setting

BSD 5.15 DADF 130 Document Size Sensing



Original Size	DOC. Tray Set Guide Sensor			DOC. Tray Size Sensor		DADF APS Sensor 1
	1	2	3	1	2	
A5 S/5.5″ × 8.5″S	OFF	OFF	ON	ON	OFF	-
B5S	OFF	OFF	OFF	ON	OFF	ON
16K S/8″ × 10″(10.5″)S	OFF	OFF	OFF	ON	OFF	OFF
A5 L	OFF	ON	OFF	OFF	OFF	
A4 S				ON	OFF	
5.5″ × 8.5″L	OFF	ON	ON	OFF	OFF	
8.5″ × 11″S				ON	OFF	
8.5″ × 13″(14″)S				ON	ON	
8″ × 10″L	ON	OFF	ON	ON	OFF	
B5 L				OFF	OFF	
B4 S				ON	ON	-
8.5″ × 10.5″L	ON	OFF	OFF	ON	OFF	
16K L/ExecutiveL				OFF	OFF	
8K S				ON	ON	
8.5″ × 11″L	ON	ON	OFF	ON	OFF	
11″ × 15″(17″)L				ON	ON	
A4 L	ON	ON	ON	ON	OFF	
A3 S				ON	ON	

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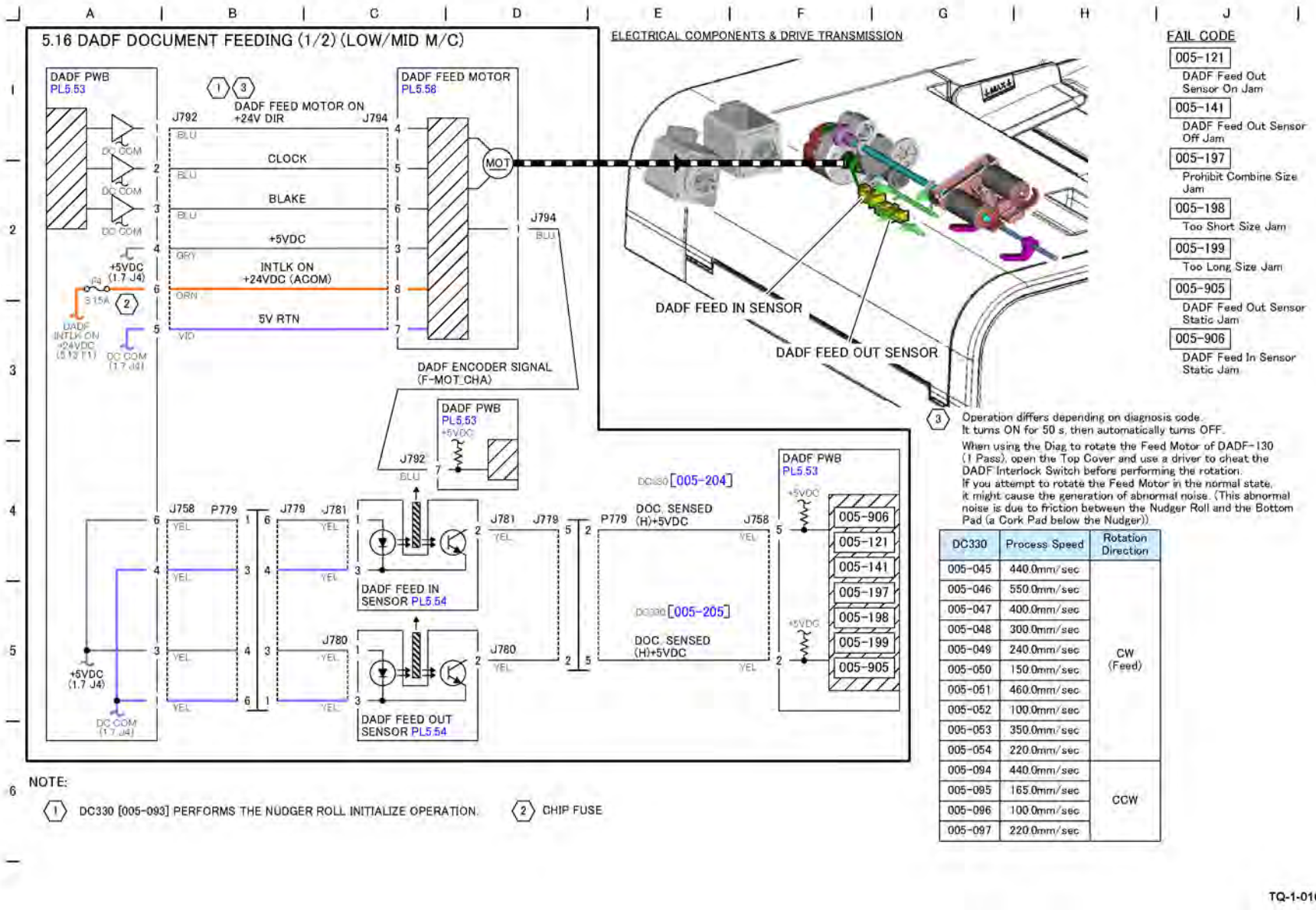
Figure 1 BSD 5.15 DADF 130 Document Size Sensing

BSD 5.16 DADF 130 Document Feeding (1 of 2)



DC330	Process Speed	Rotation Direction
005-045	440.0mm/sec	CW (Feed)
005-046	550.0mm/sec	
005-047	400.0mm/sec	
005-048	300.0mm/sec	
005-049	240.0mm/sec	
005-050	150.0mm/sec	
005-051	460.0mm/sec	
005-052	100.0mm/sec	
005-053	350.0mm/sec	
005-054	220.0mm/sec	
005-094	440.0mm/sec	CCW
005-095	165.0mm/sec	
005-096	100.0mm/sec	
005-097	220.0mm/sec	

Figure 1 BSD 5.16 DADF 130 Document Feeding (1 of 2)

BSD 5.17 DADF 130 Document Feeding (2 of 2)

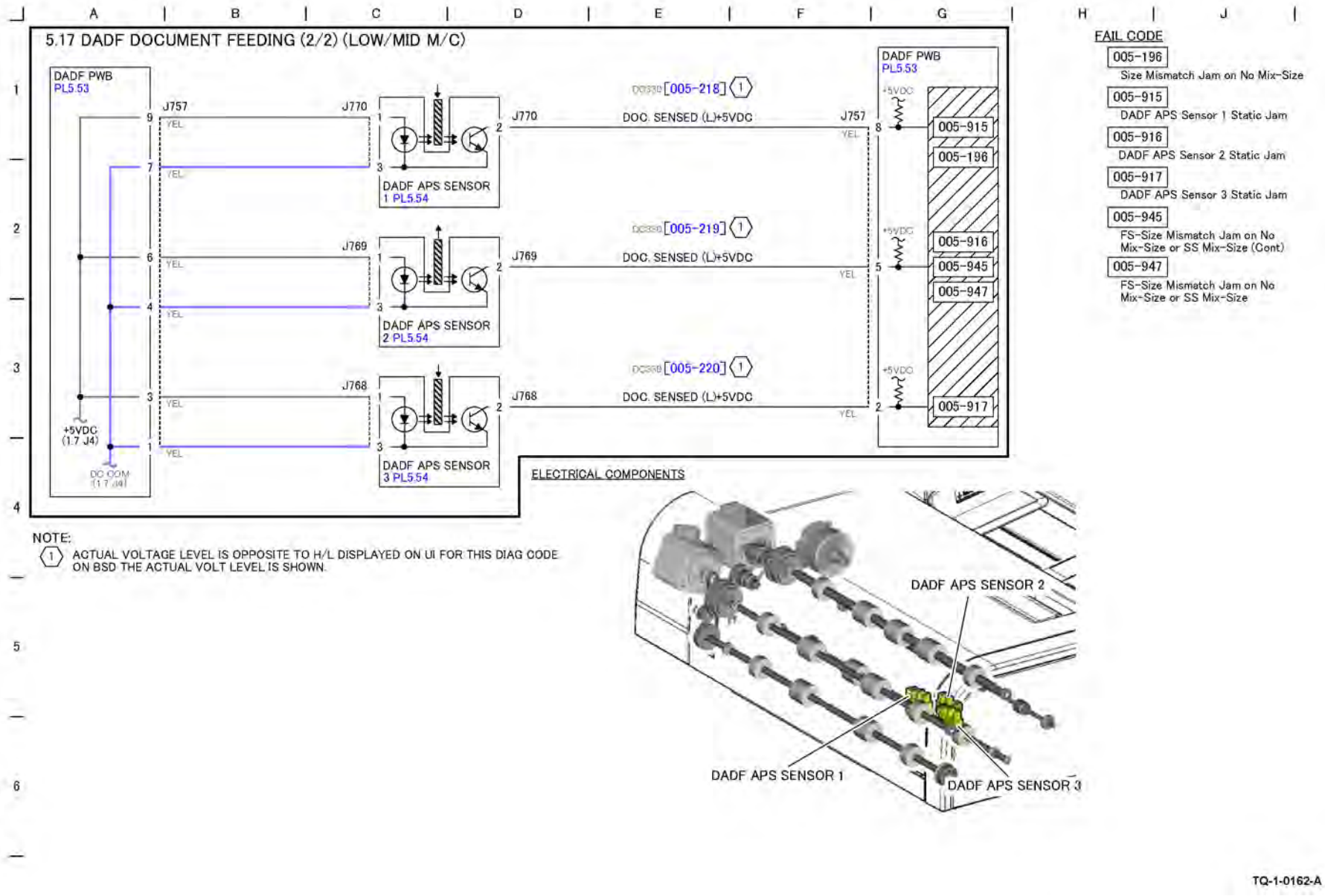
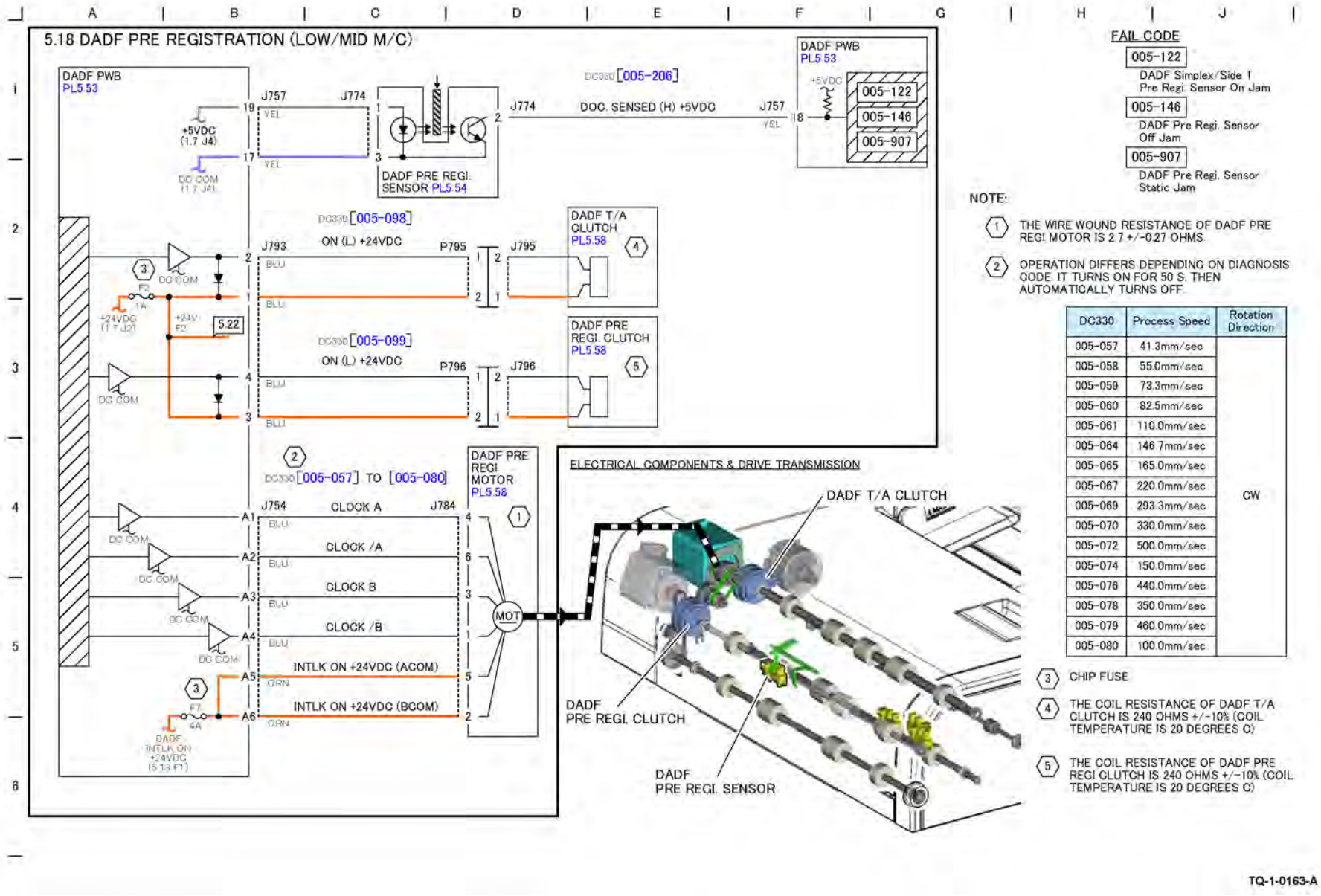


Figure 1 BSD 5.17 DADF 130 Document Feeding (2 of 2)

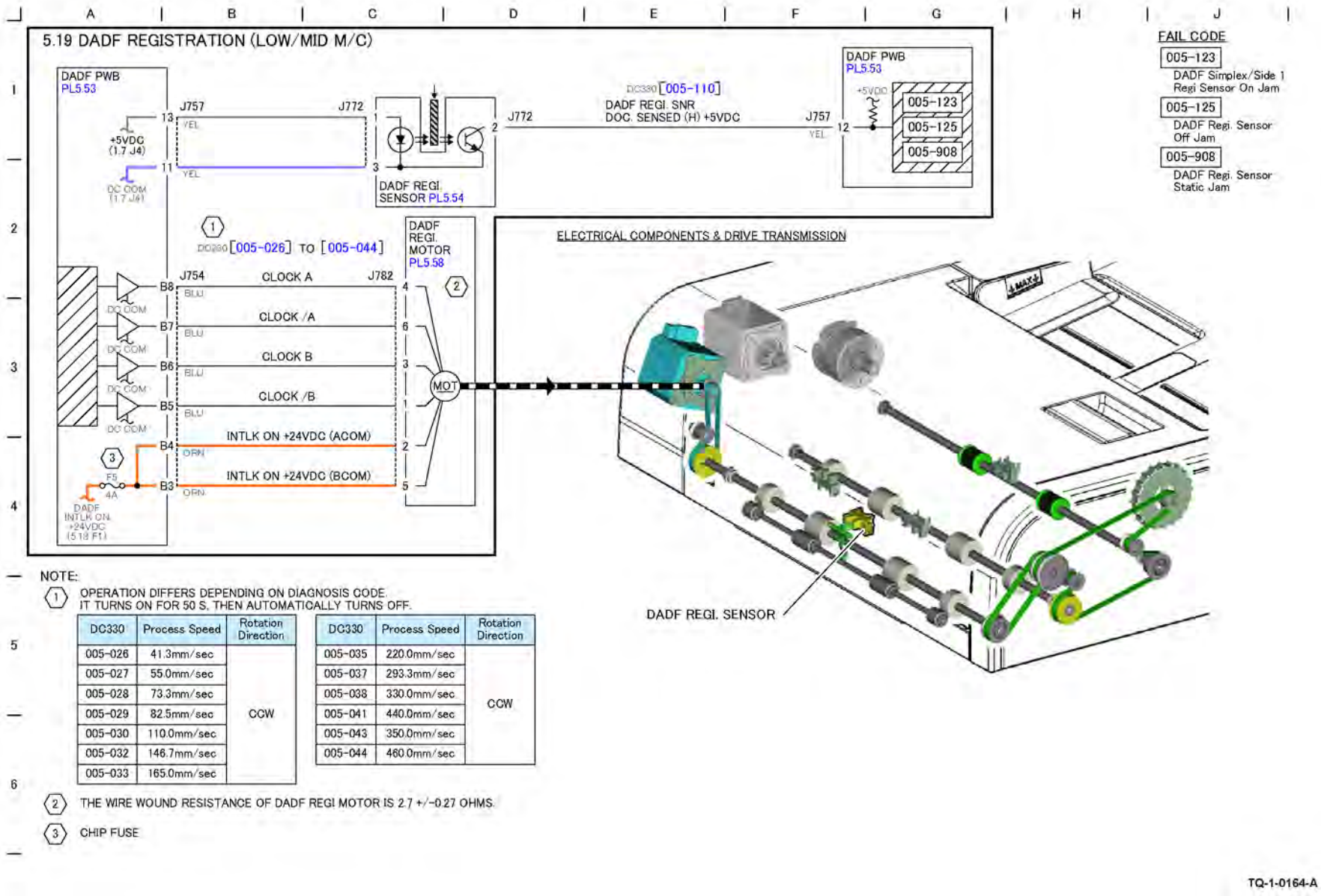
BSD 5.18 DADF 130 Pre Registration



DC330	Process Speed	Rotation Direction
005-057	41.3mm/sec	CW
005-058	55.0mm/sec	
005-059	73.3mm/sec	
005-060	82.5mm/sec	
005-061	110.0mm/sec	
005-064	146.7mm/sec	
005-065	165.0mm/sec	
005-067	220.0mm/sec	
005-069	293.3mm/sec	
005-070	330.0mm/sec	
005-072	500.0mm/sec	
005-074	150.0mm/sec	
005-076	440.0mm/sec	
005-078	350.0mm/sec	
005-079	460.0mm/sec	
005-080	100.0mm/sec	

Figure 1 BSD 5.18 DADF 130 Pre Registration

BSD 5.19 DADF 130 Registration



DC330	Process Speed	Rotation Direction
005-026	41.3mm/sec	CCW
005-027	55.0mm/sec	
005-028	73.3mm/sec	
005-029	82.5mm/sec	
005-030	110.0mm/sec	
005-032	146.7mm/sec	
005-033	165.0mm/sec	

DC330	Process Speed	Rotation Direction
005-035	220.0mm/sec	CCW
005-037	293.3mm/sec	
005-038	330.0mm/sec	
005-041	440.0mm/sec	
005-043	350.0mm/sec	
005-044	460.0mm/sec	

Figure 1 BSD 5.19 DADF 130 Registration

BSD 5.20 DADF 130 Document Scan (1 of 2)

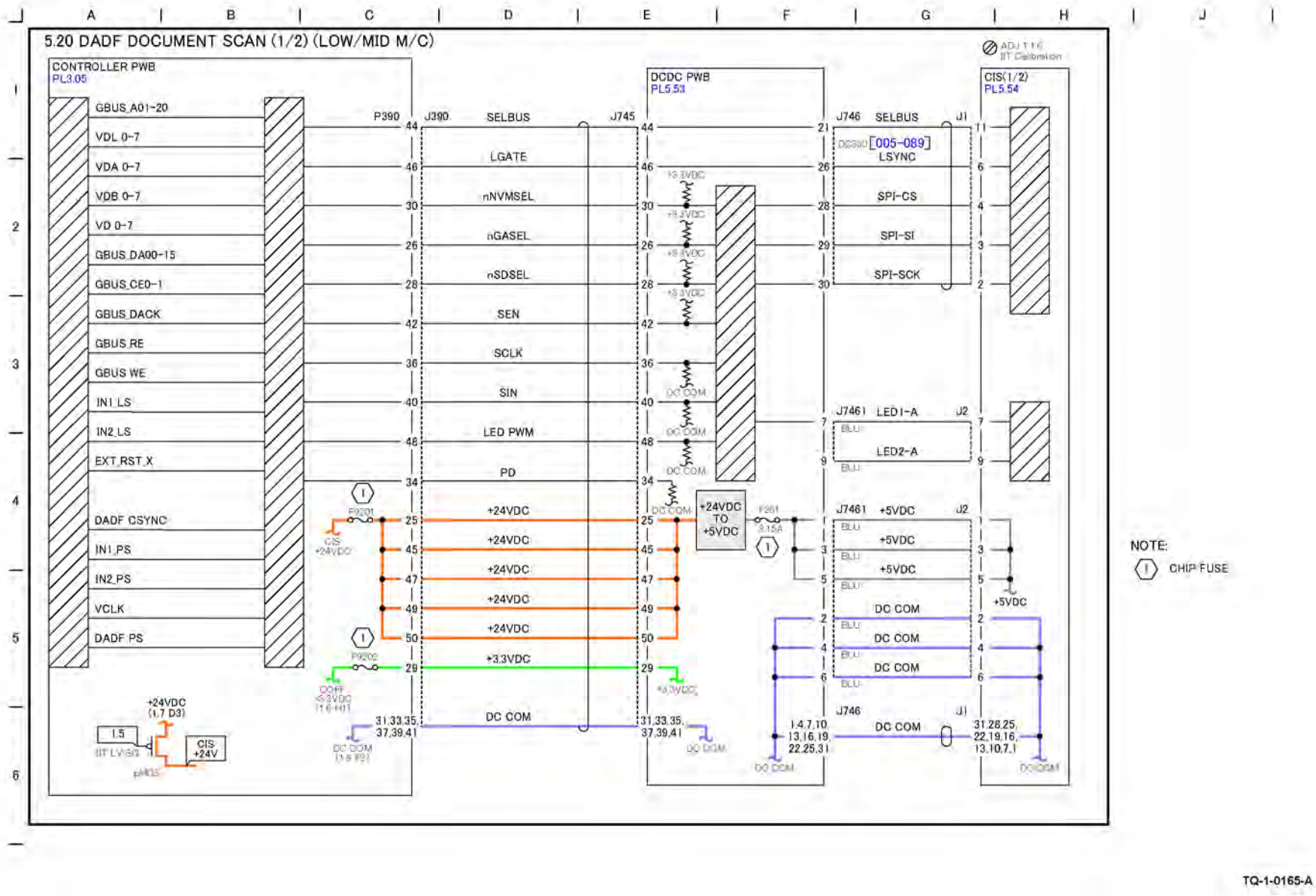


Figure 1 BSD 5.20 DADF 130 Document Scan (1 of 2)

BSD 5.21 DADF 130 Document Scan (2 of 2)

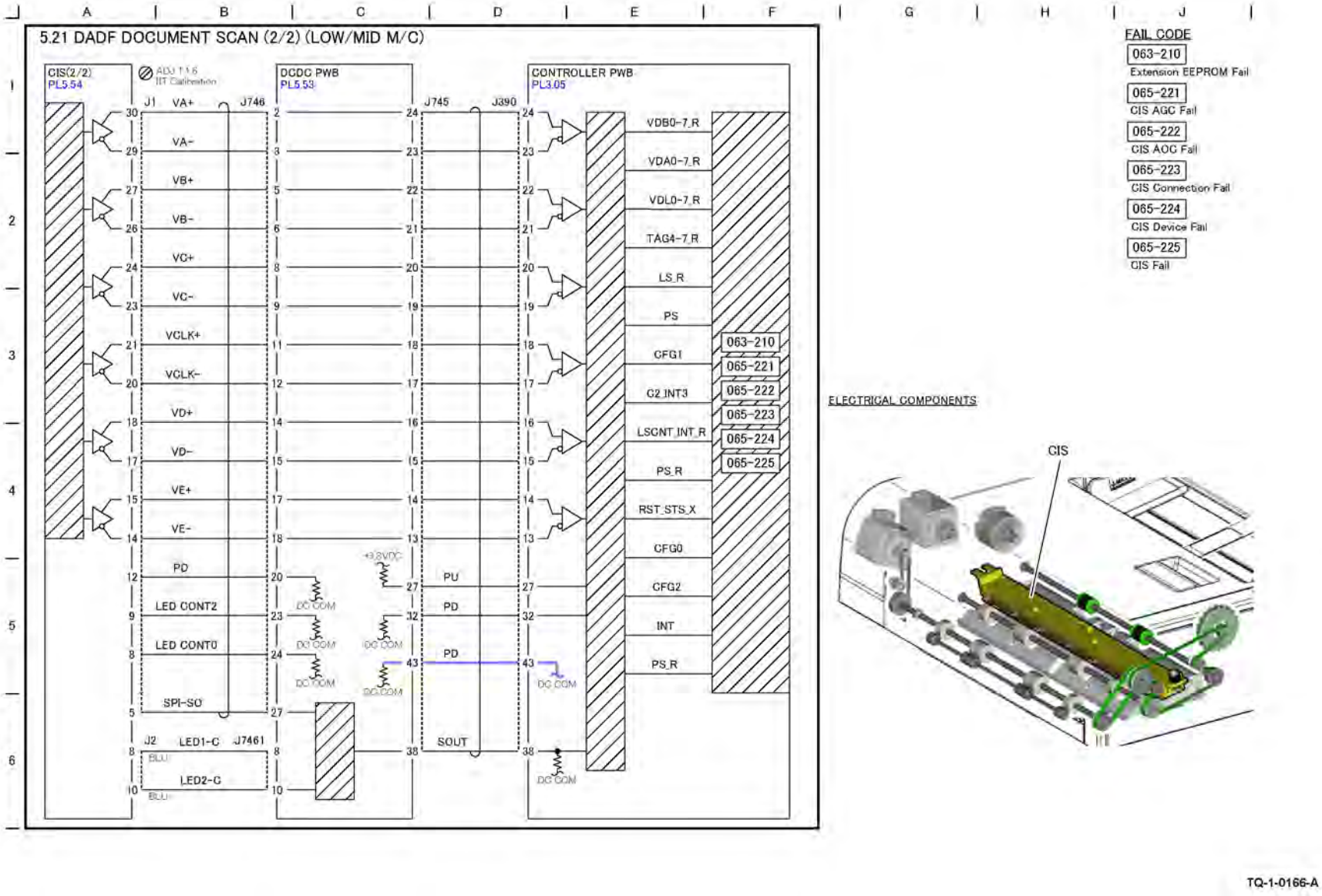


Figure 1 BSD 5.21 DADF 130 Document Scan (2 of 2)

BSD 5.22 DADF 130 Document Exit

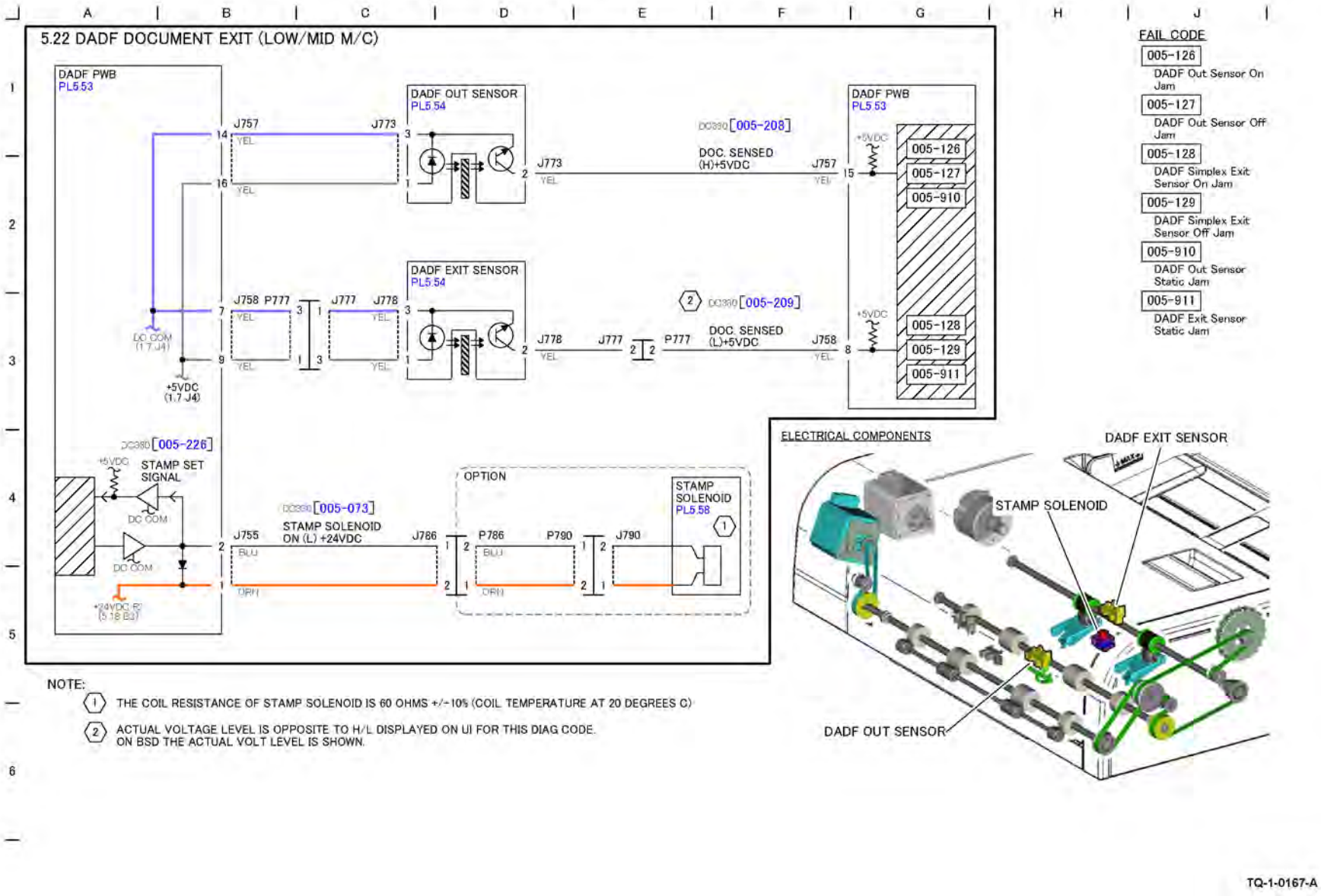
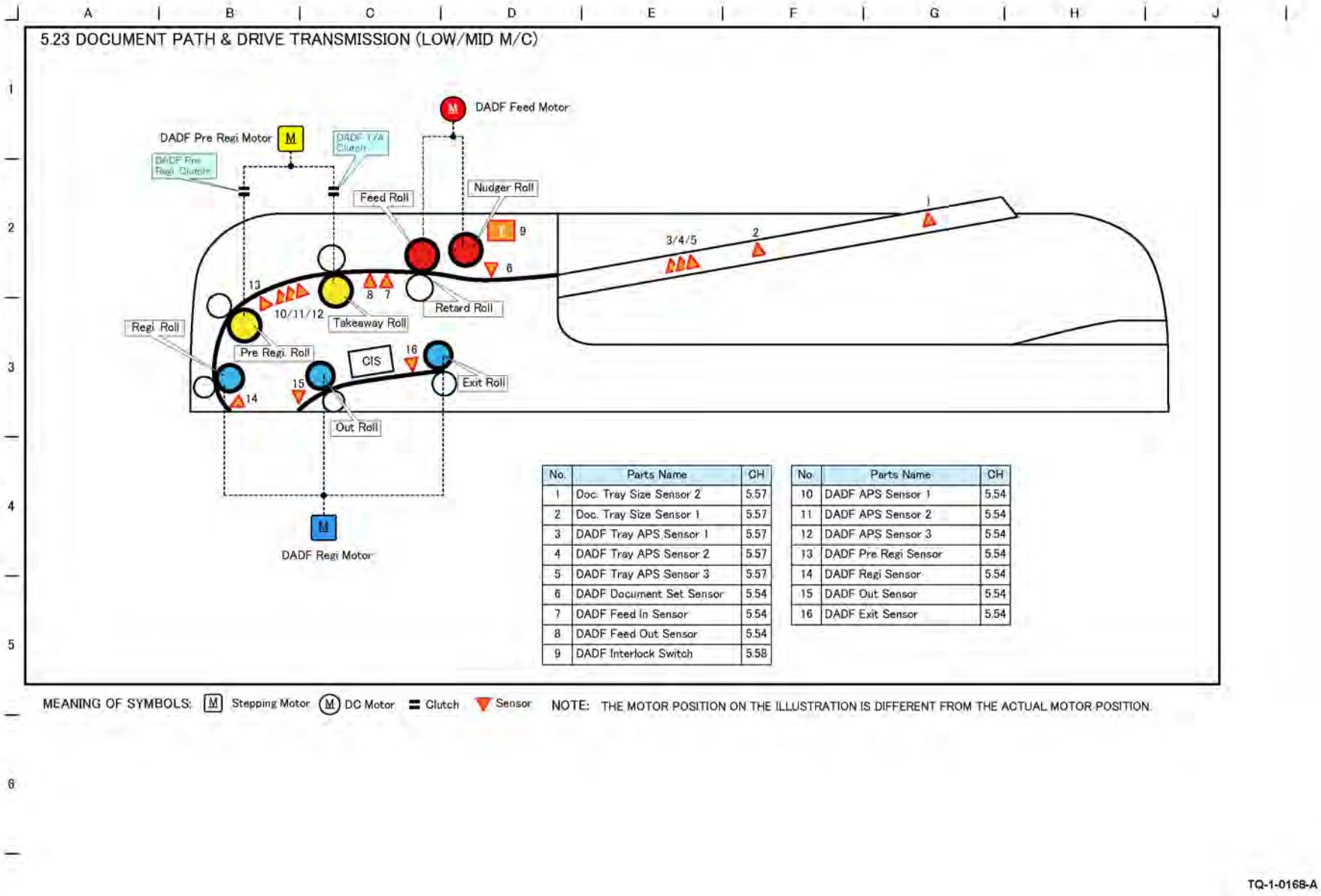


Figure 1 BSD 5.22 DADF 130 Document Exit

BSD 5.23 DADF 130 Document Path and Drive Transmission



No.	Parts Name	CH
1	Doc. Tray Size Sensor 2	5.57
2	Doc. Tray Size Sensor 1	5.57
3	DADF Tray APS Sensor 1	5.57
4	DADF Tray APS Sensor 2	5.57
5	DADF Tray APS Sensor 3	5.57
6	DADF Document Set Sensor	5.54
7	DADF Feed In Sensor	5.54
8	DADF Feed Out Sensor	5.54
9	DADF Interlock Switch	5.58

No.	Parts Name	CH
10	DADF APS Sensor 1	5.54
11	DADF APS Sensor 2	5.54
12	DADF APS Sensor 3	5.54
13	DADF Pre Regi Sensor	5.54
14	DADF Regi Sensor	5.54
15	DADF Out Sensor	5.54
16	DADF Exit Sensor	5.54

Figure 1 BSD 5.23 DADF 130 Document Path and Drive Transmission

BSD 10.1 Fusing Unit Drive

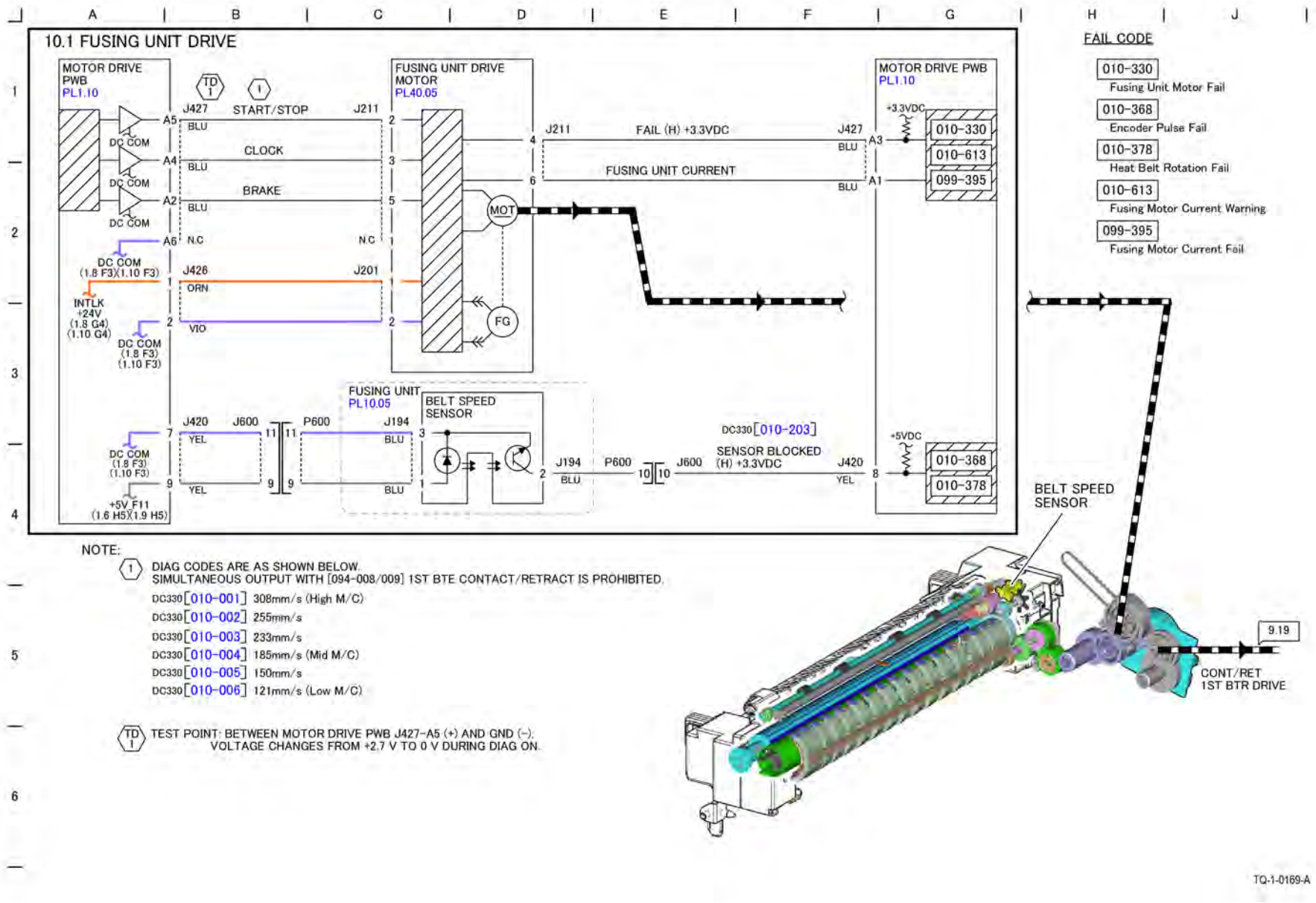


Figure 1 BSD 10.1 Fusing Unit Drive

BSD 10.2 Pressure Roll Latch/Unlatch

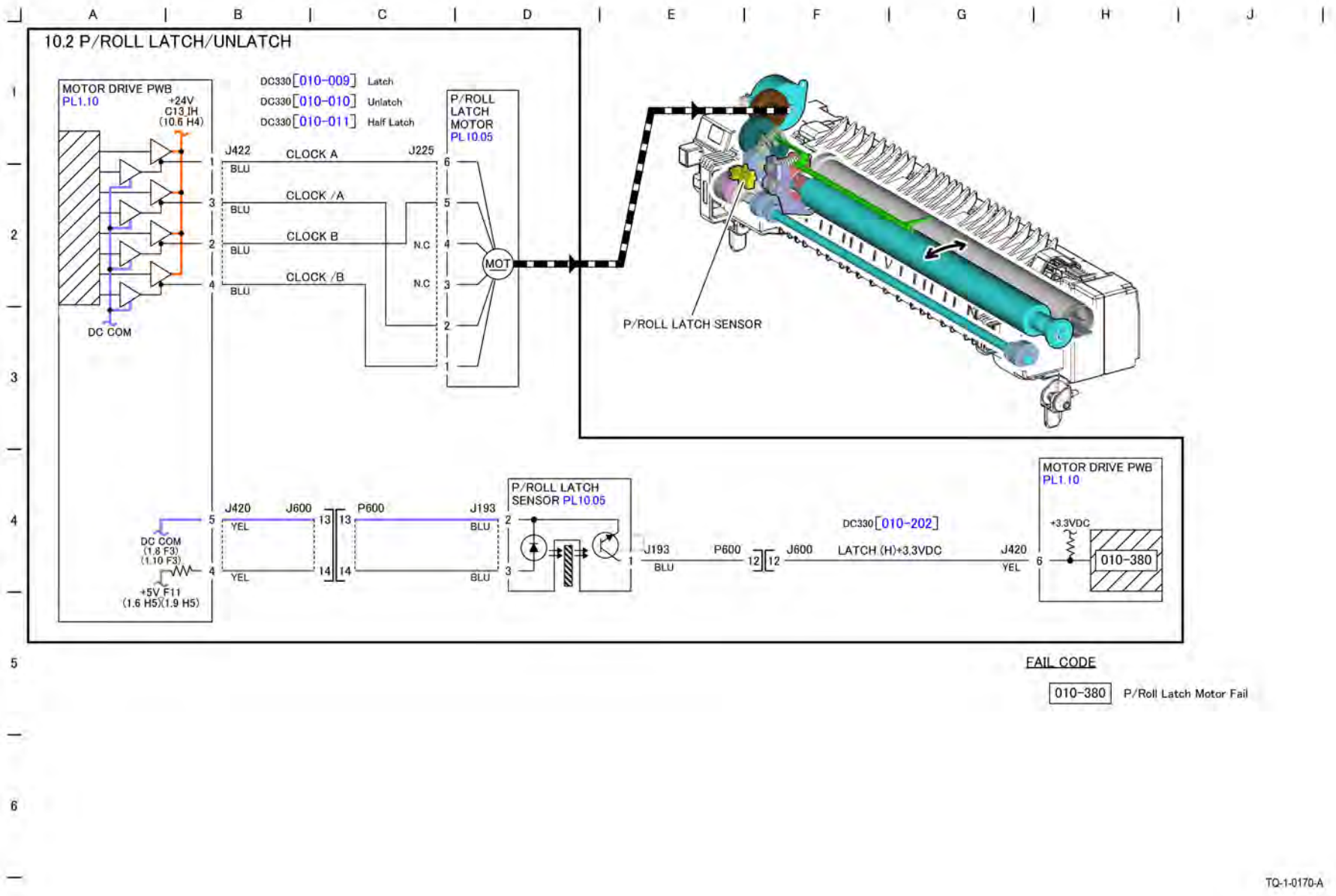


Figure 1 BSD 10.2 Pressure Roll Latch/Unlatch

BSD 10.3 Fusing Heat (1 of 2)

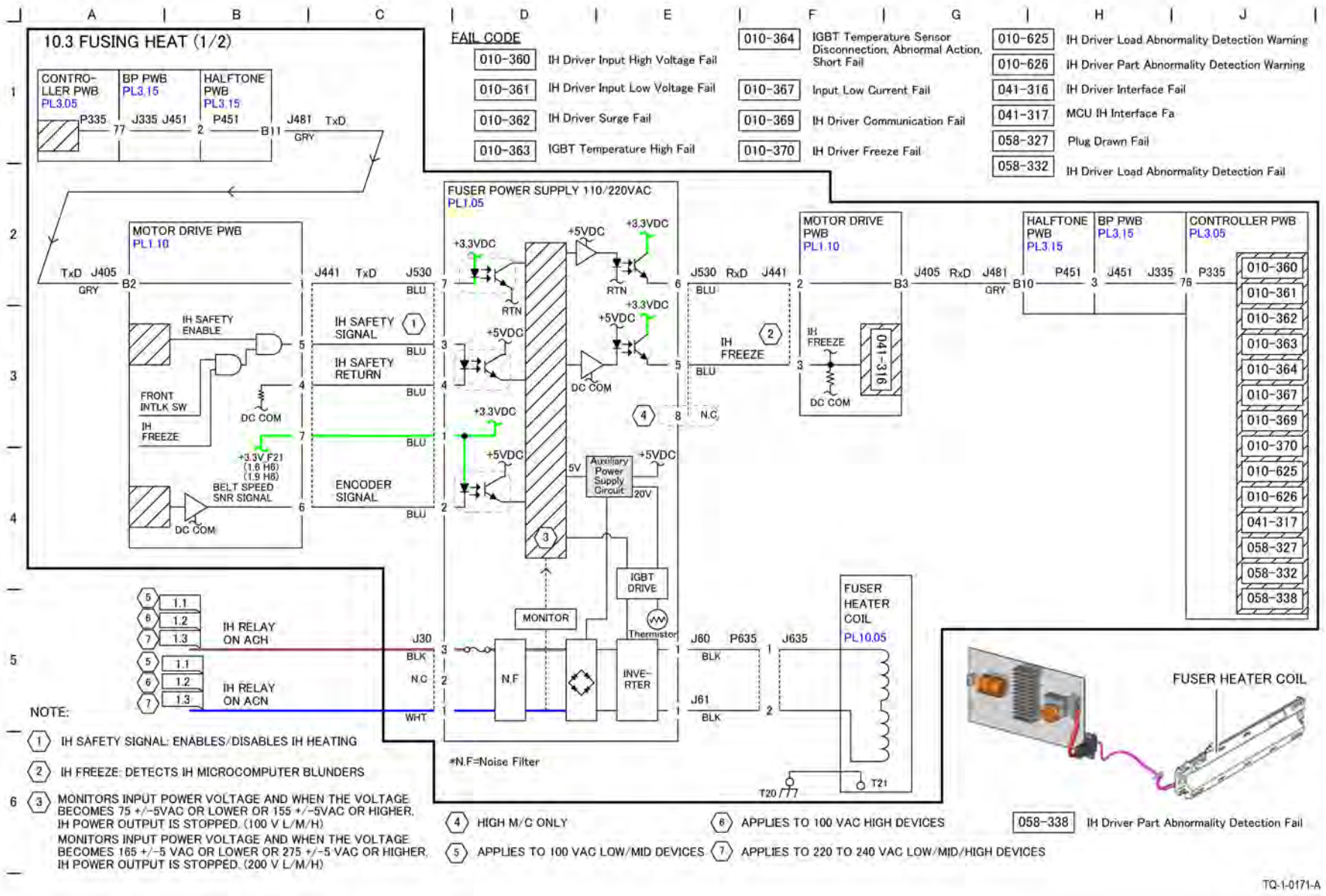


Figure 1 BSD 10.3 Fusing Heat (1 of 2)

BSD 10.4 Fusing Heat (2 of 2)

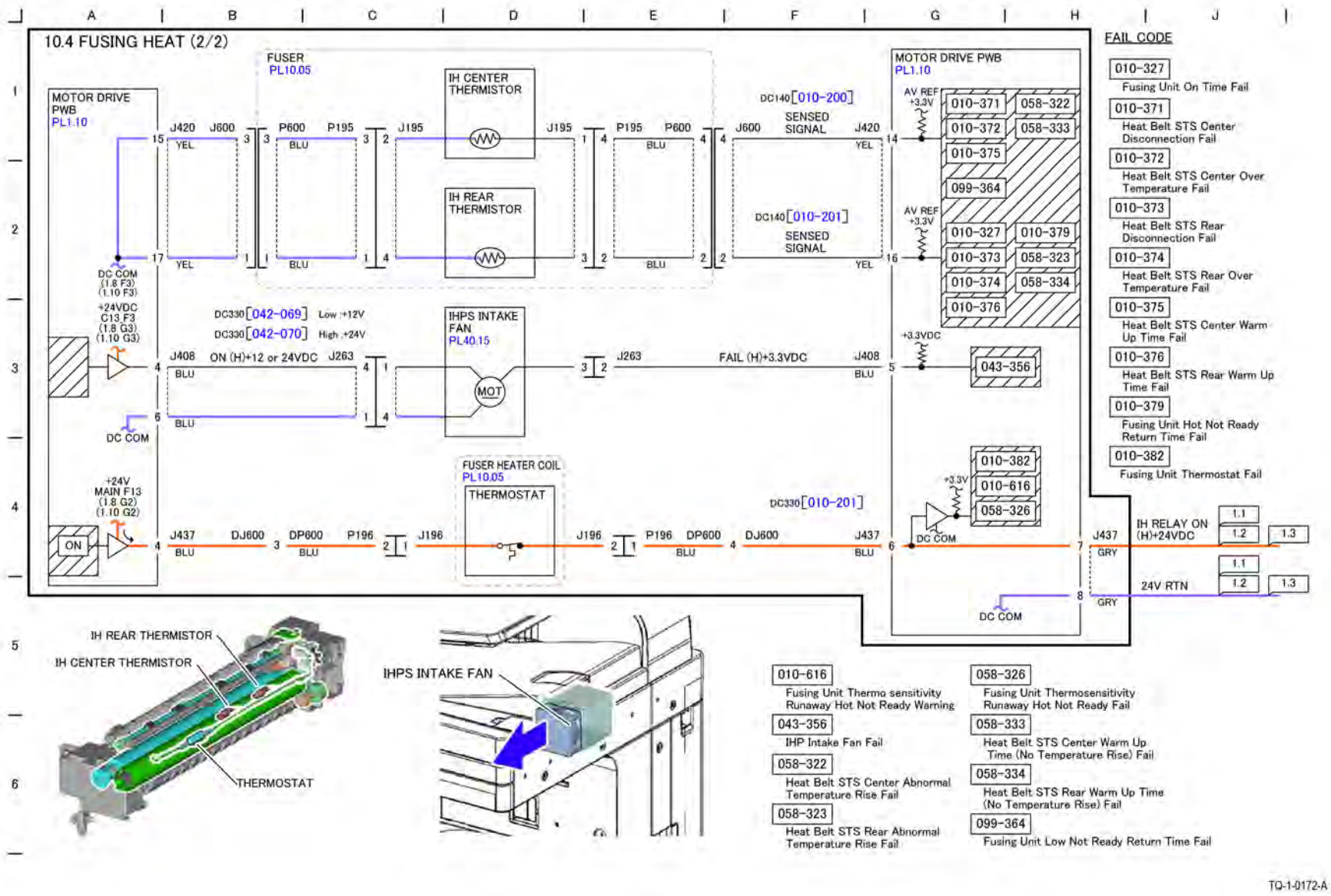


Figure 1 BSD 10.4 Fusing Heat (2 of 2)

BSD 10.5 Fusing

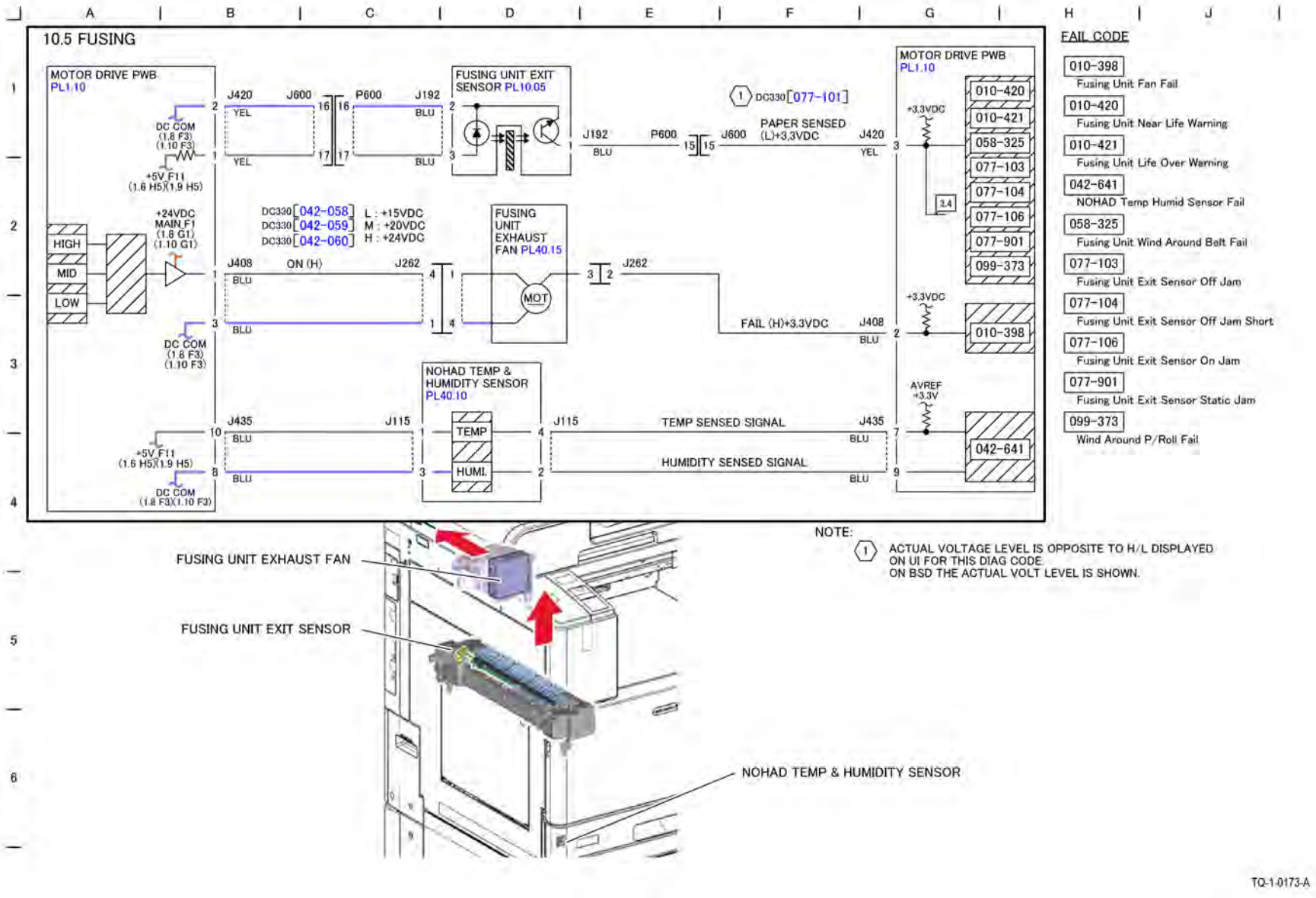


Figure 1 BSD 10.5 Fusing

BSD 10.6 Fuser Detection

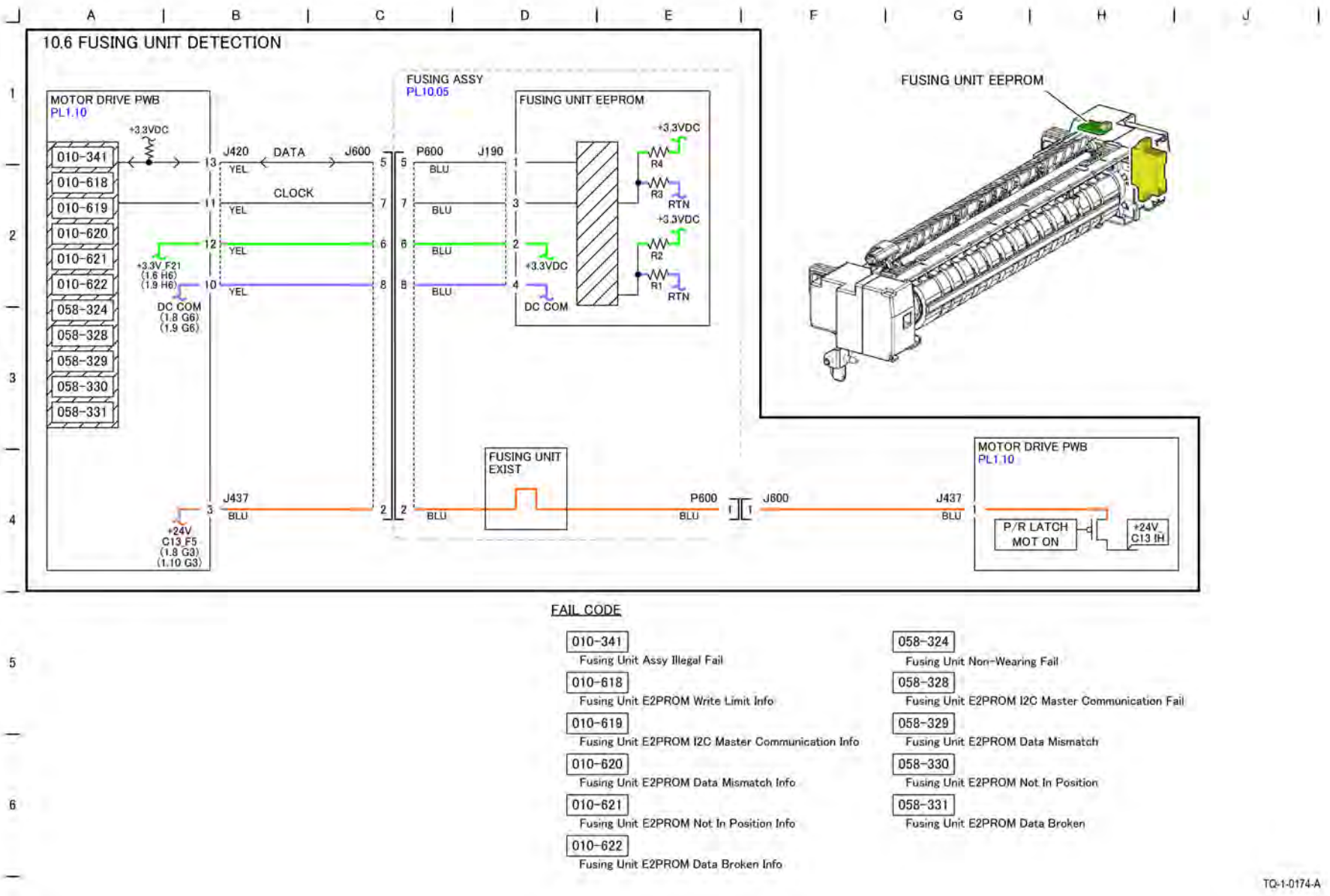


Figure 1 BSD 10.6 Fuser Detection

BSD 10.7 Exit 1 Paper Transport

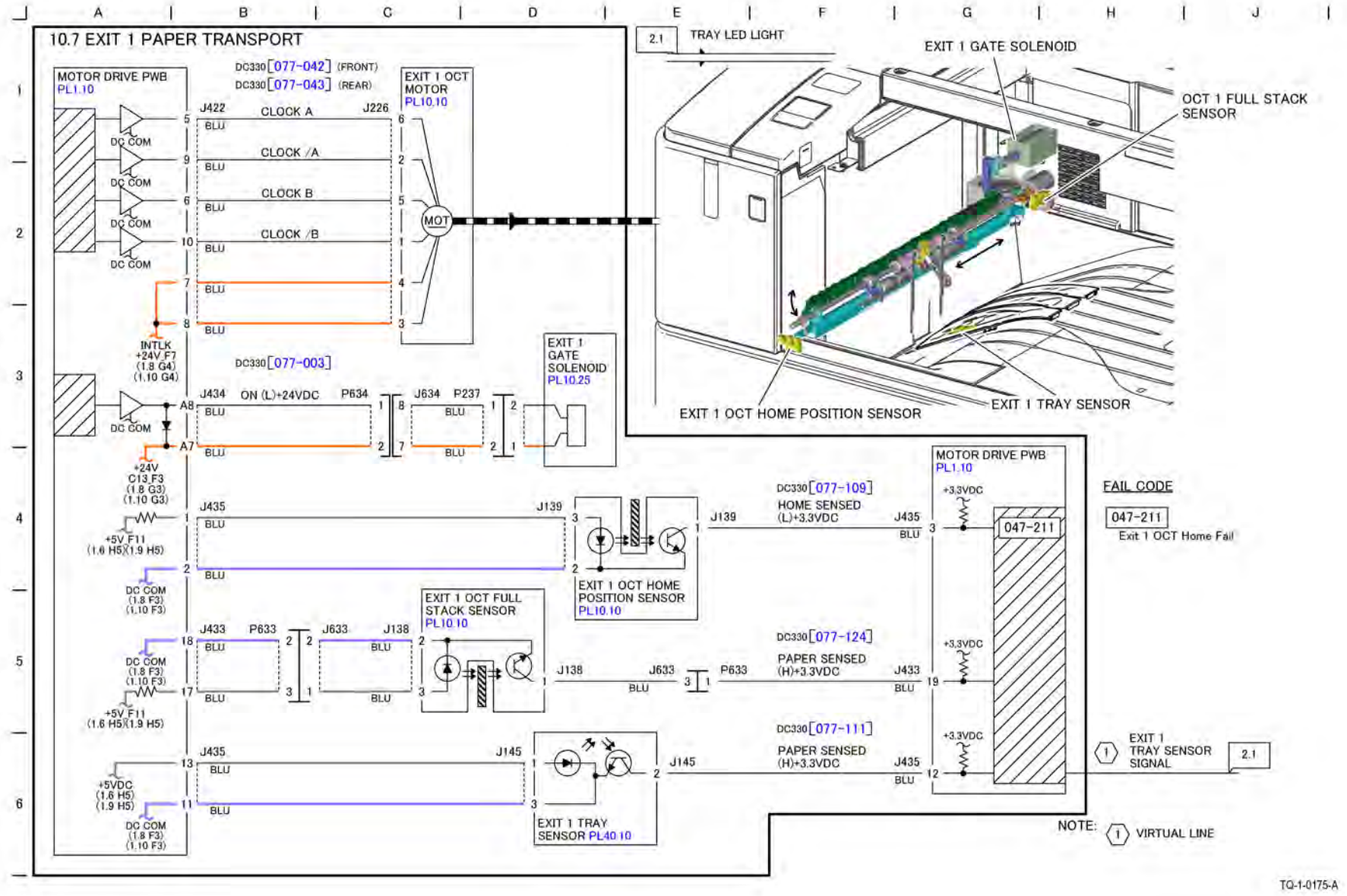


Figure 1 BSD 10.7 Exit 1 Paper Transport

BSD 10.8 Duplex Paper Transport

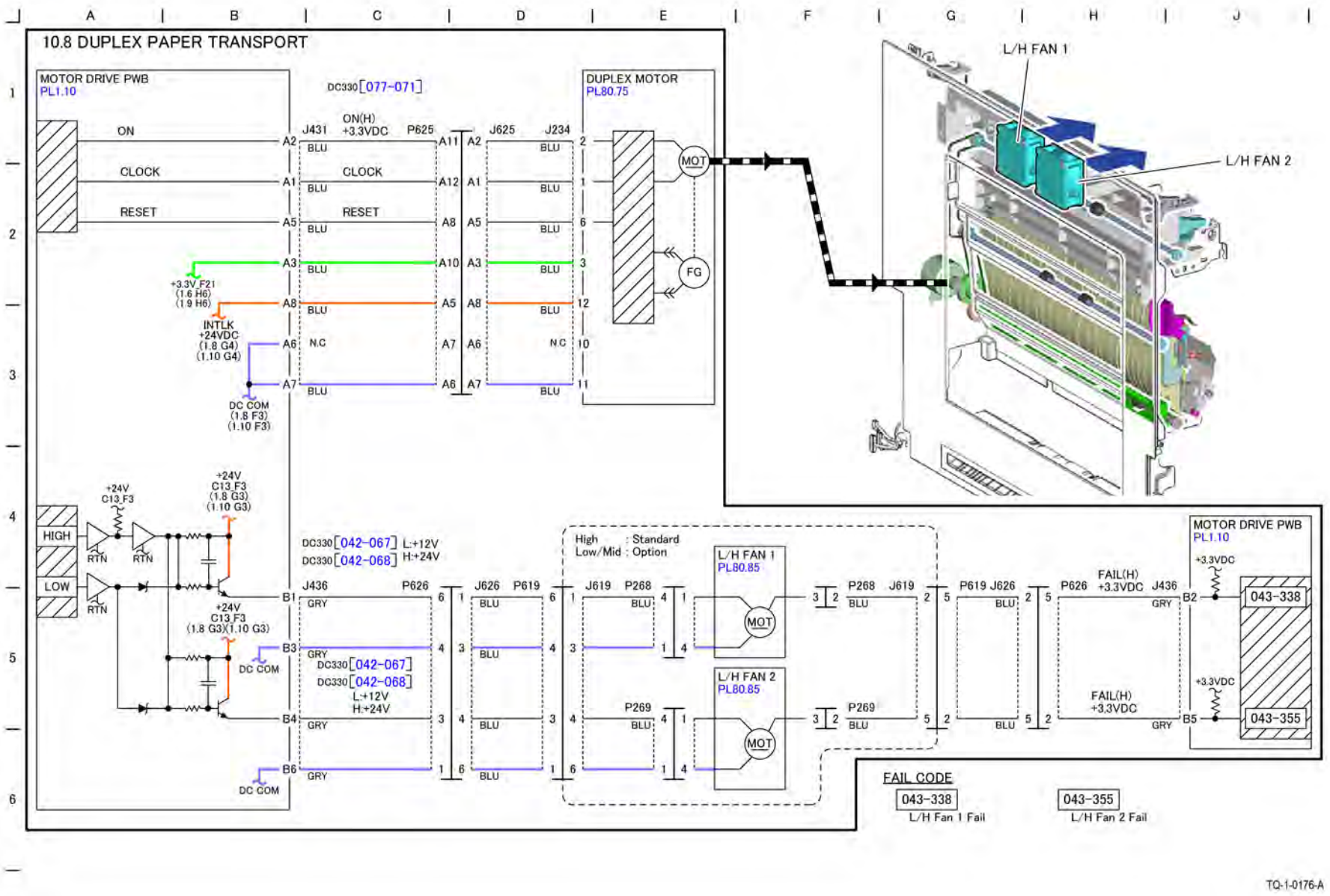


Figure 1 BSD 10.8 Duplex Paper Transport

BSD 10.9 Exit 2 Paper Transport (1 of 2)

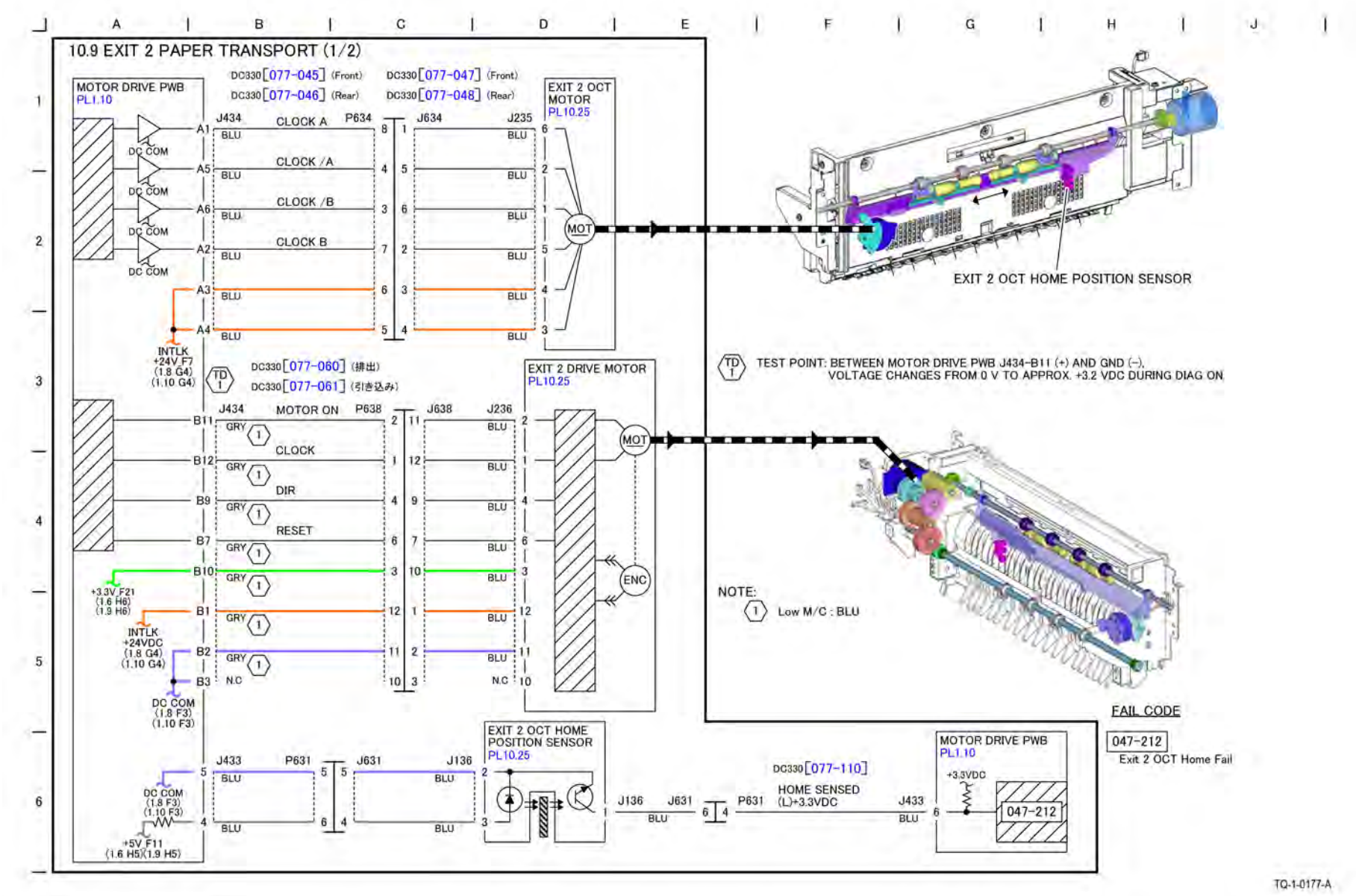


Figure 1 BSD 10.9 Exit 2 Paper Transport (1 of 2)

BSD 10.10 Exit 2 Paper Transport (2 of 2)

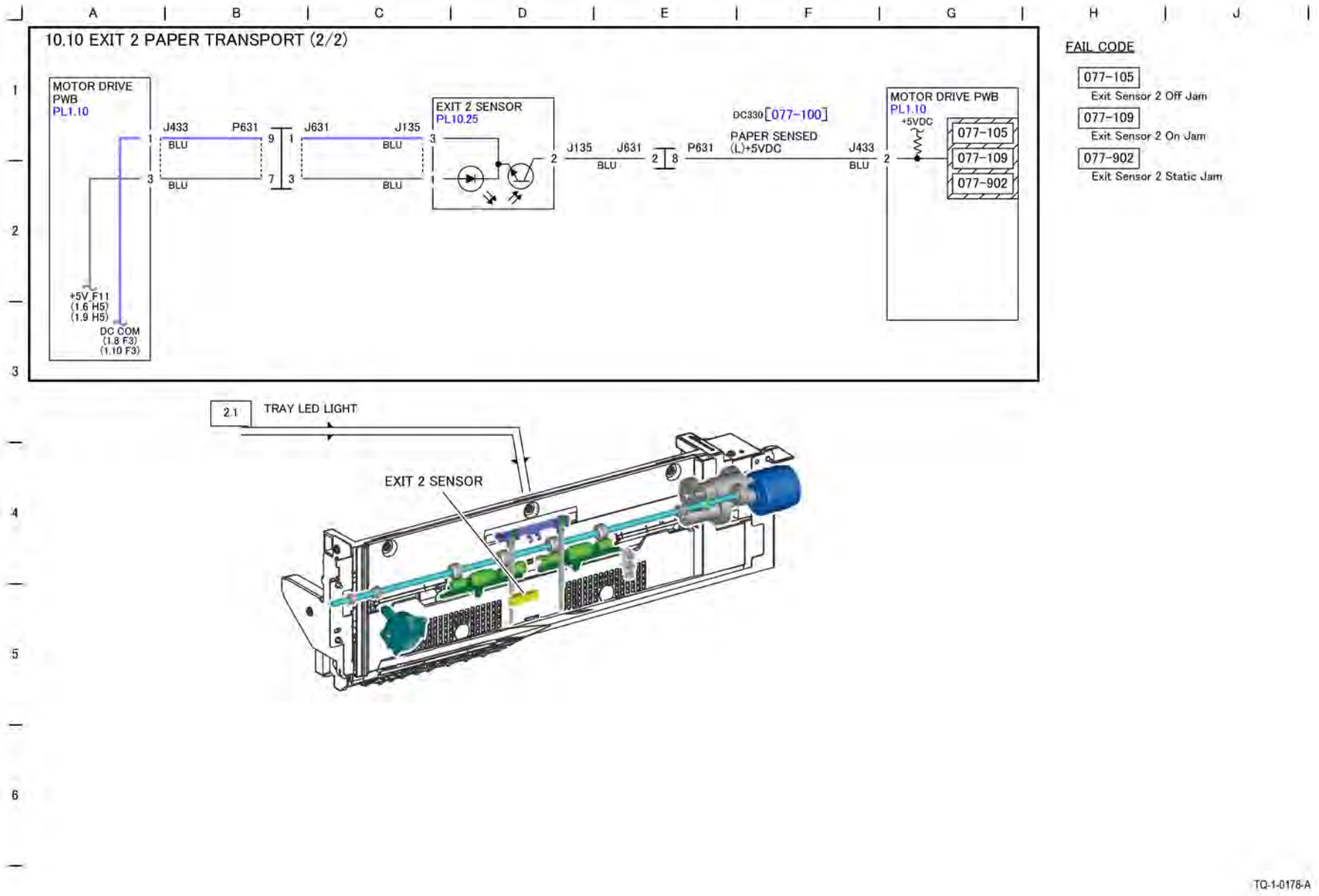


Figure 1 BSD 10.10 Exit 2 Paper Transport (2 of 2)

BSD 10.11 Face Up Paper Transport

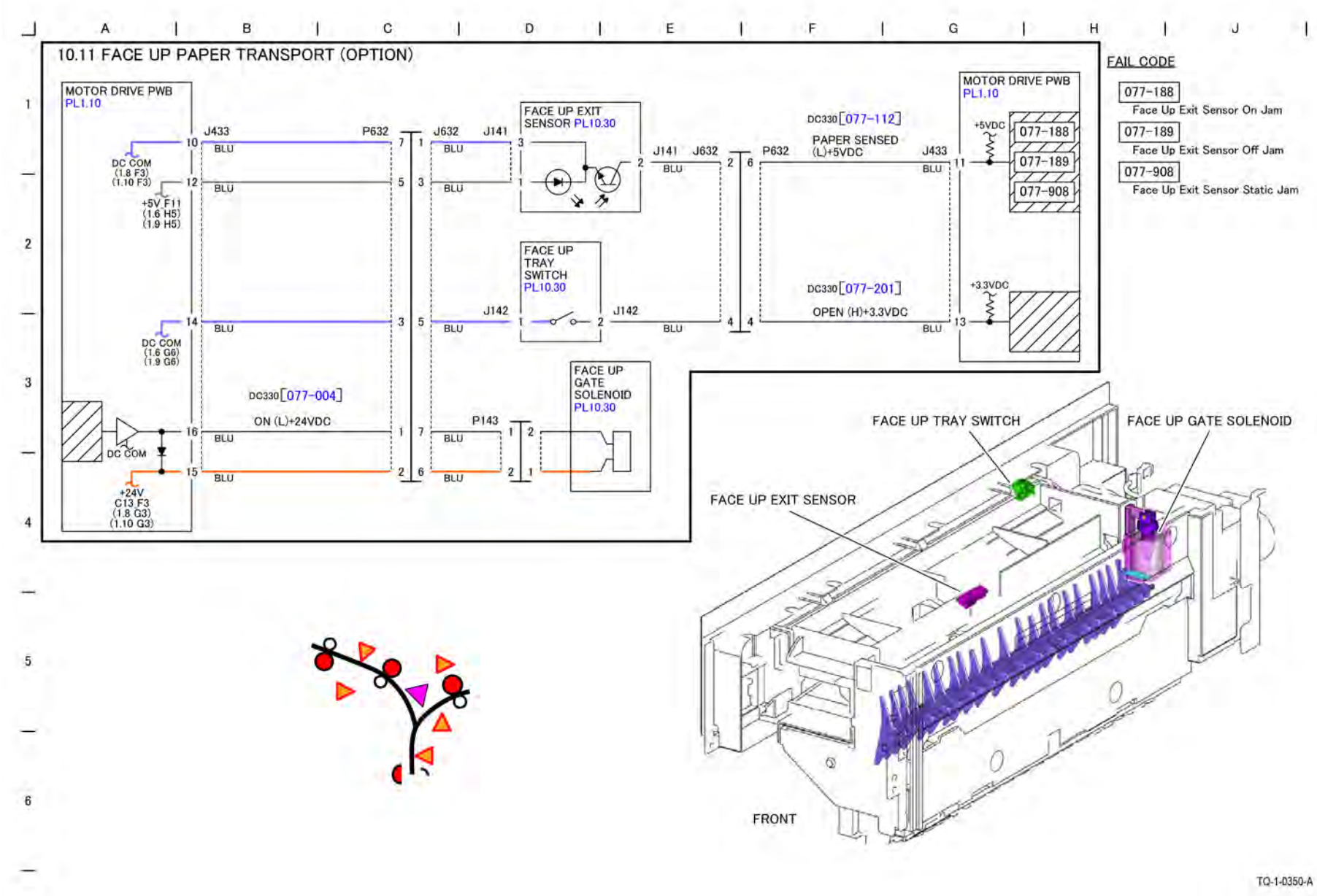


Figure 1 BSD 10.11 Face Up Paper Transport

BSD 34.1 Fax

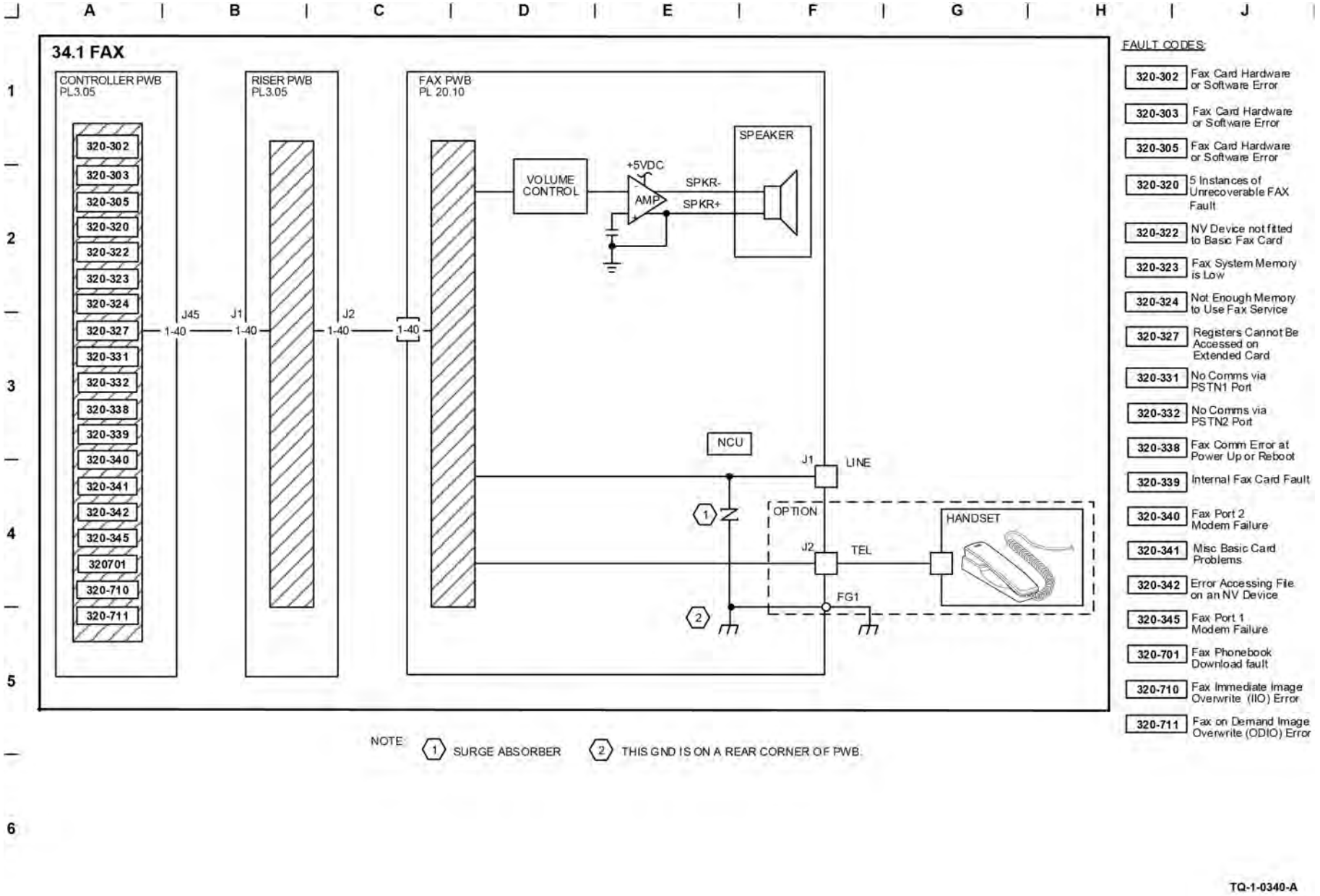
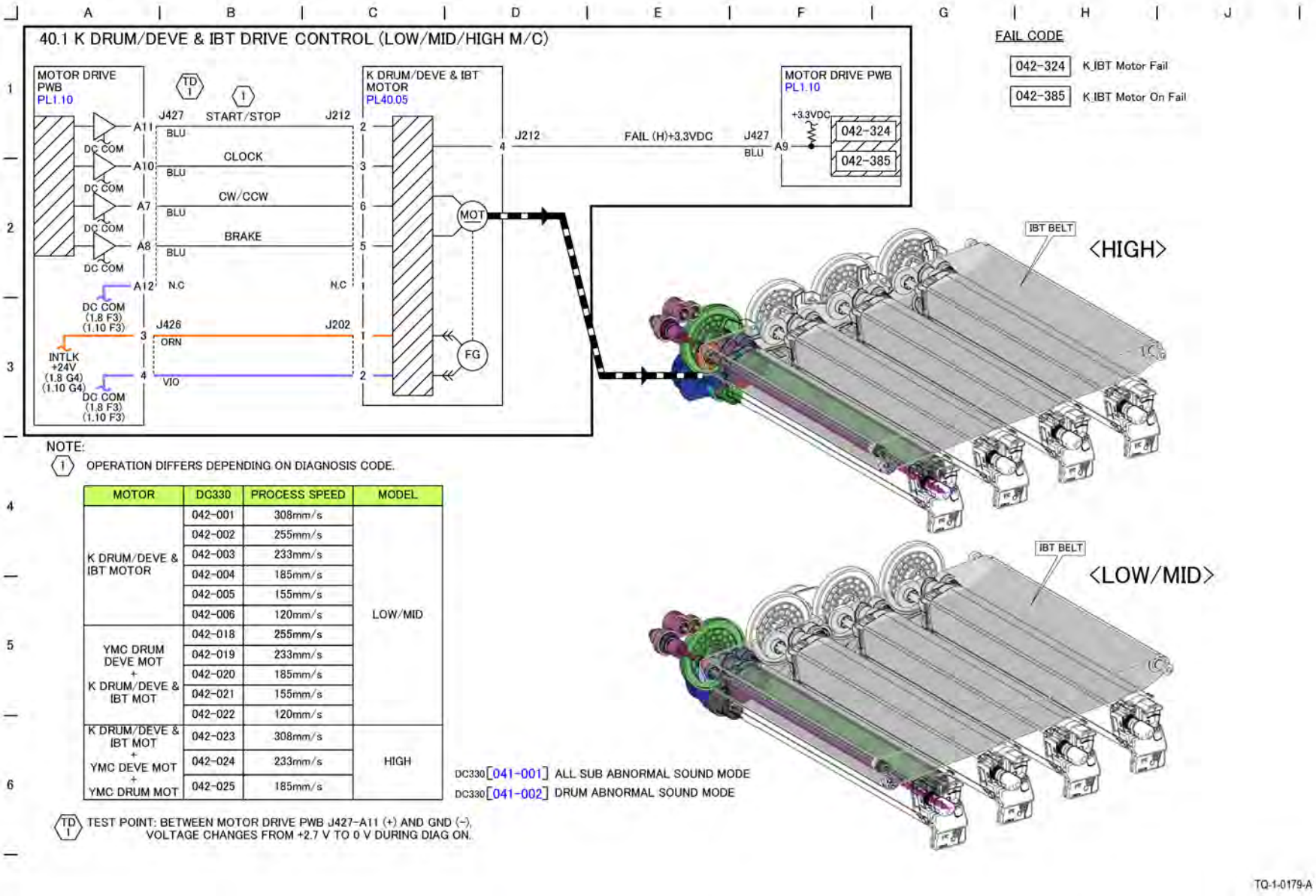


Figure 1 BSD 34.1 Fax

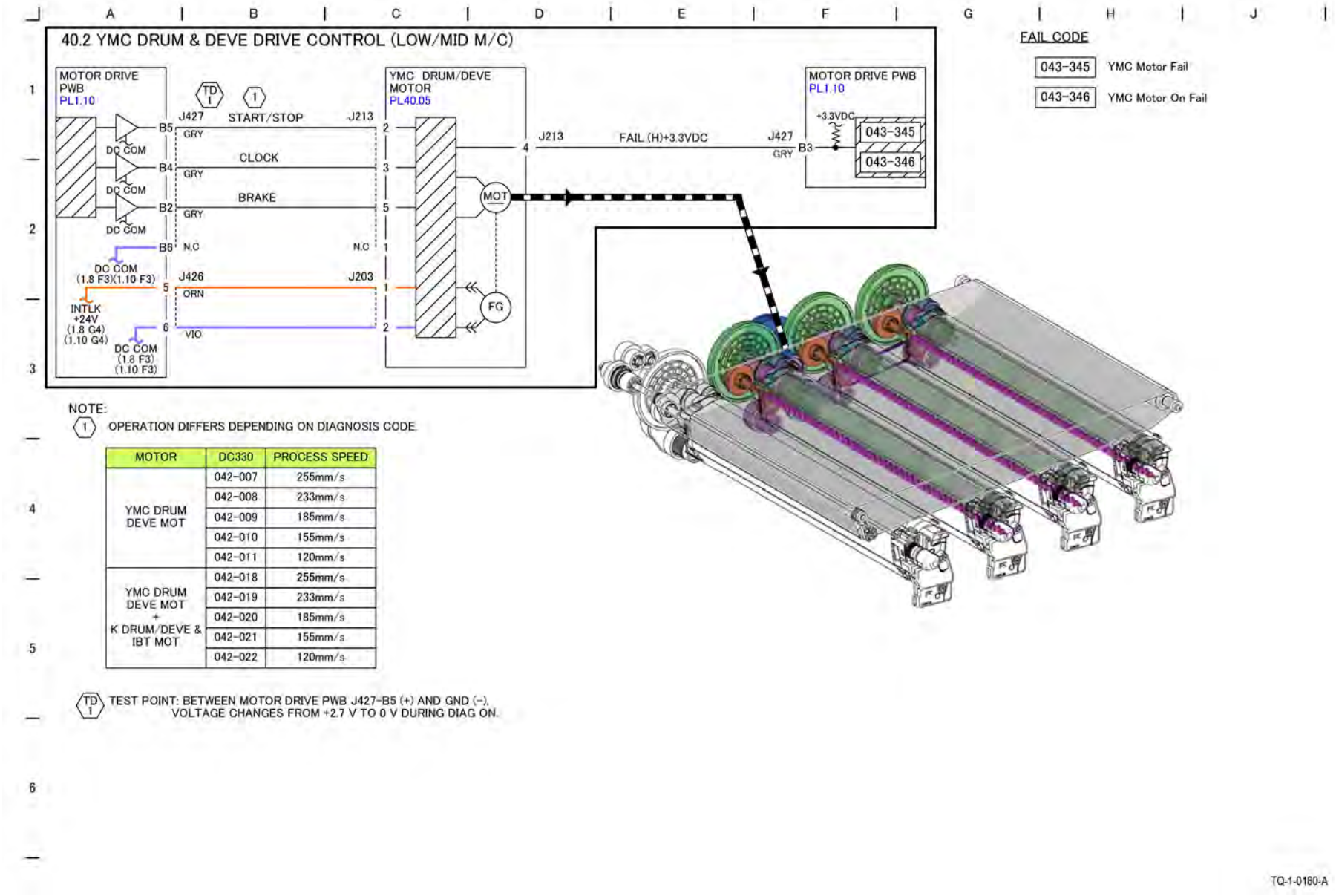
BSD 40.1 K Drum/Developer and IBT Drive Control (Low/Mid/High)



MOTOR	DC330	PROCESS SPEED	MODEL
K DRUM/DEVE & IBT MOTOR	042-001	308mm/s	LOW/MID
	042-002	255mm/s	
	042-003	233mm/s	
	042-004	185mm/s	
	042-005	155mm/s	
	042-006	120mm/s	
YMC DRUM DEVE MOT + K DRUM/DEVE & IBT MOT	042-018	255mm/s	
	042-019	233mm/s	
	042-020	185mm/s	
	042-021	155mm/s	
	042-022	120mm/s	
K DRUM/DEVE & IBT MOT + YMC DEVE MOT + YMC DRUM MOT	042-023	308mm/s	HIGH
	042-024	233mm/s	
	042-025	185mm/s	

Figure 1 BSD 40.1 K Drum/Developer and IBT Drive Control (Low/Mid/High)

BSD 40.2 YMC Drum and Developer Drive Control (Low/Mid)



MOTOR	DC330	PROCESS SPEED
YMC DRUM DEVE MOT	042-007	255mm/s
	042-008	233mm/s
	042-009	185mm/s
	042-010	155mm/s
	042-011	120mm/s
YMC DRUM DEVE MOT + K DRUM/DEVE & IBT MOT	042-018	255mm/s
	042-019	233mm/s
	042-020	185mm/s
	042-021	155mm/s
	042-022	120mm/s

Figure 1 BSD 40.2 YMC Drum and Developer Drive Control (Low/Mid)

BSD 40.3 YMC Drum Drive Control (High)

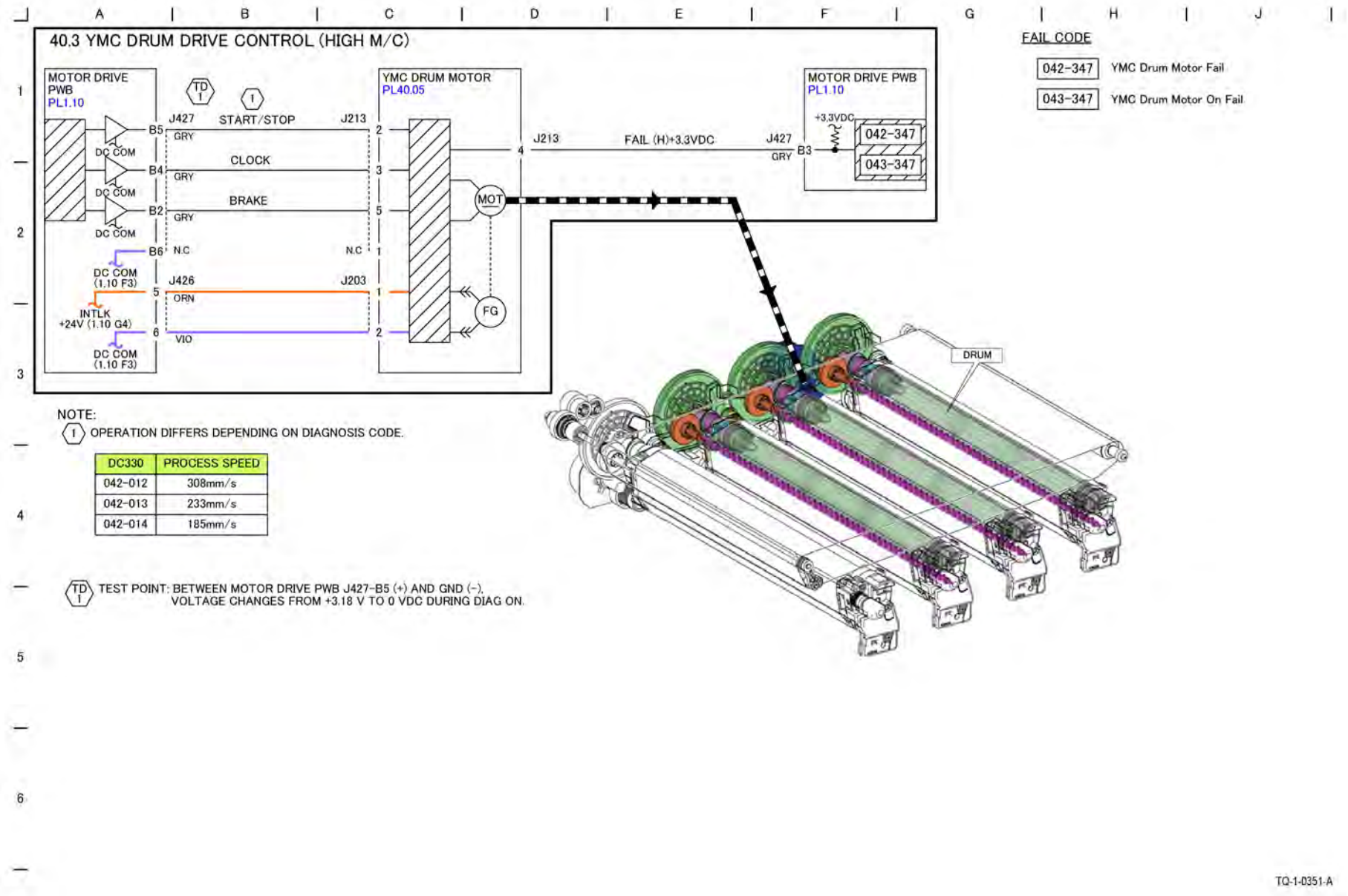


Figure 1 BSD 40.3 YMC Drum Drive Control (High)

BSD 40.4 YMC Developer Drive Control (High)

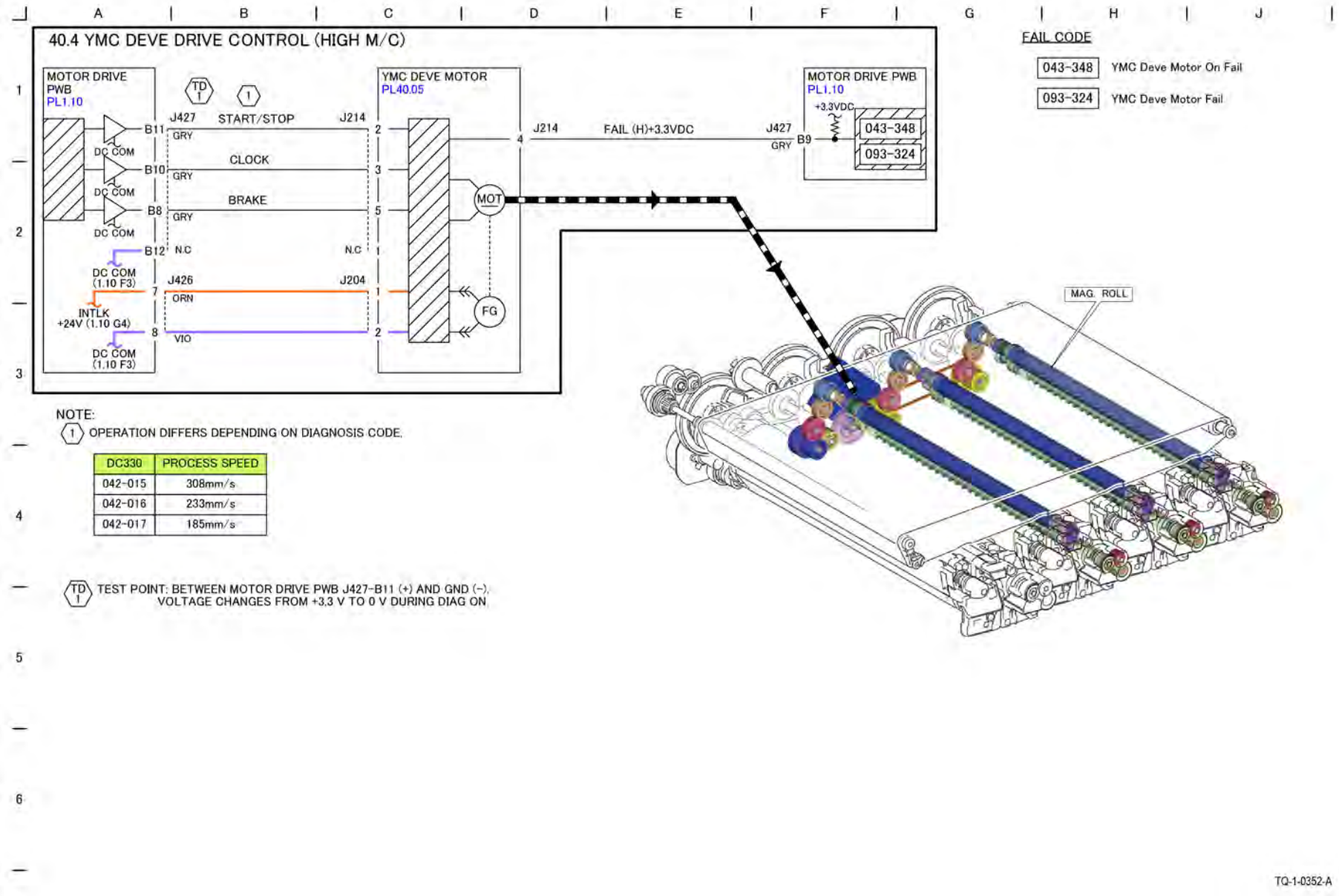


Figure 1 BSD 40.4 YMC Developer Drive Control (High)

BSD 60.1 Platen Document Sensing (Low/Mid — C8130/35/45/55)

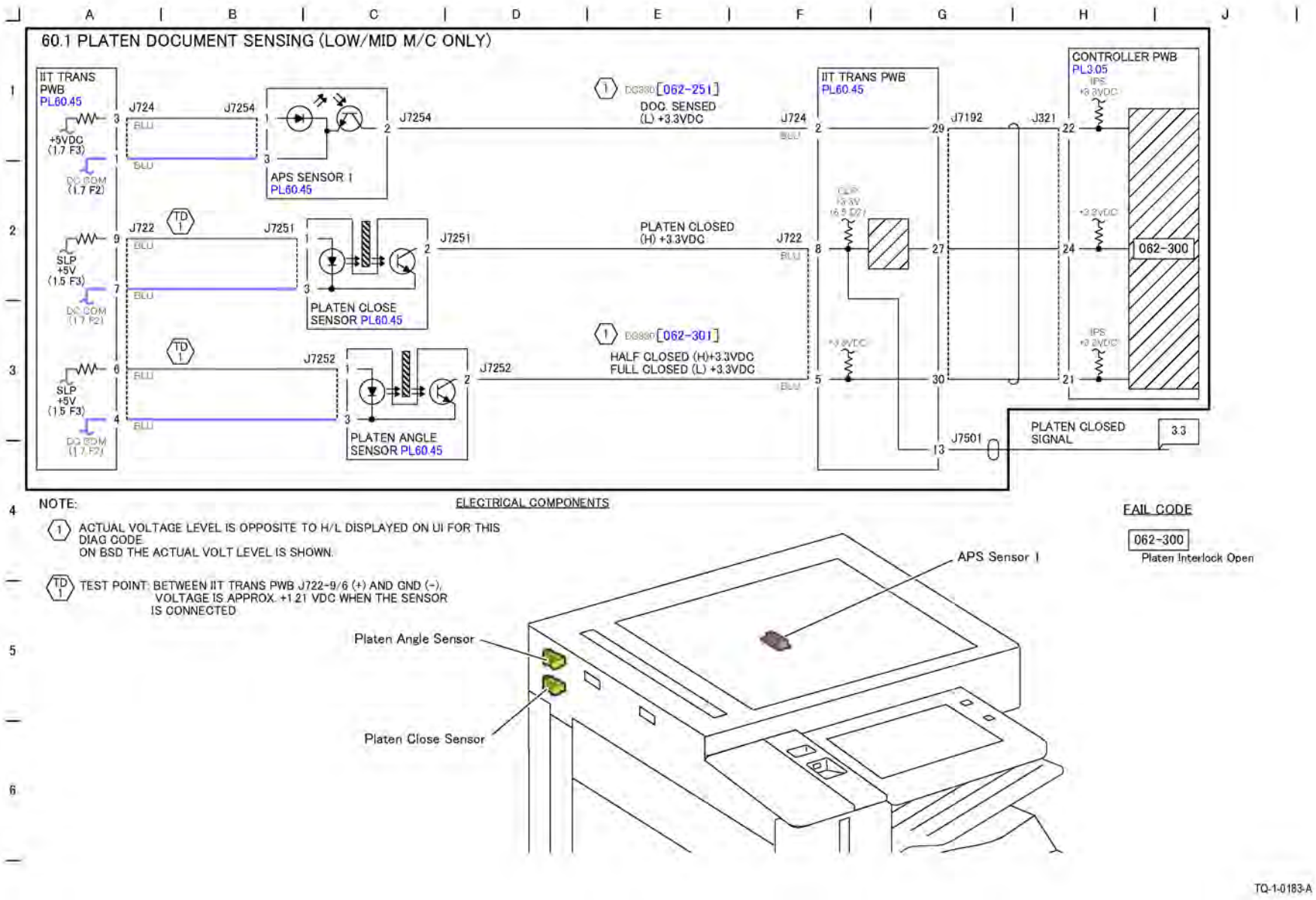


Figure 1 BSD 60.1 Platen Document Sensing (Low/Mid — C8130/35/45/55)

BSD 60.2 Platen Document Sensing (High — C8170)

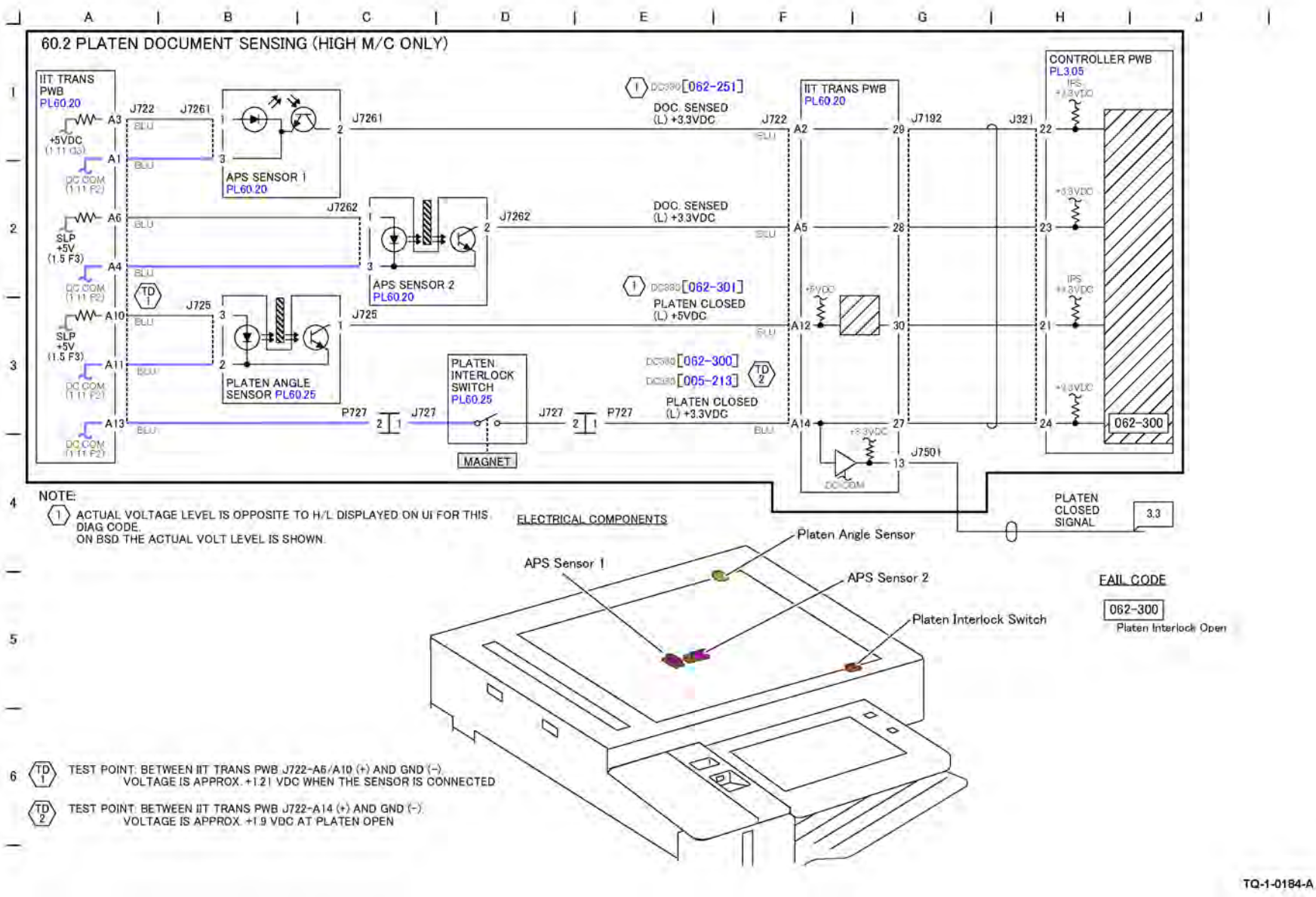


Figure 1 BSD 60.2 Platen Document Sensing (High — C8170)

BSD 60.3 Document Illumination (Low/Mid — C8130/35/45/55)

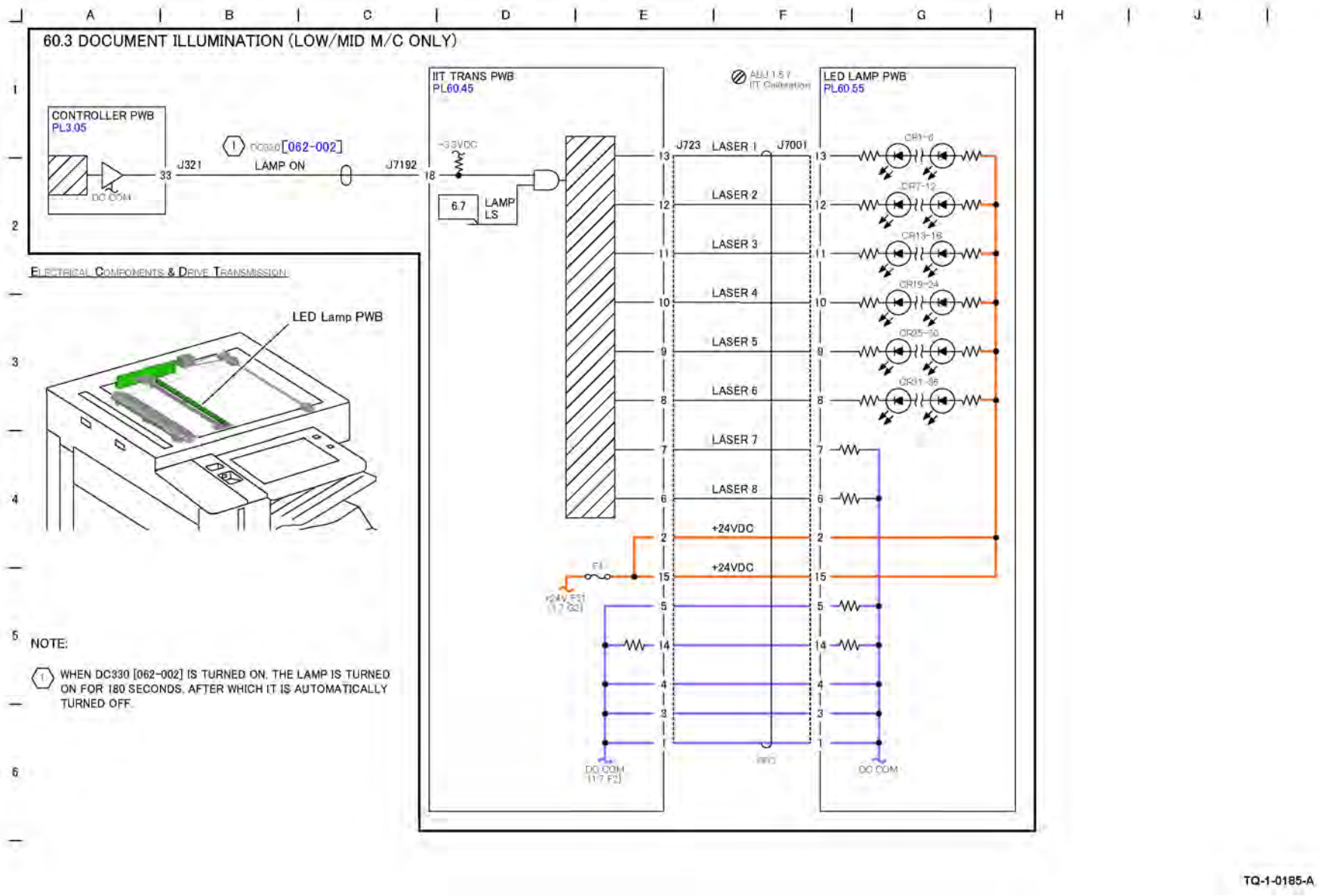


Figure 1 BSD 60.3 Document Illumination (Low/Mid — C8130/35/45/55)

BSD 60.4 Document Illumination (High — C8170)

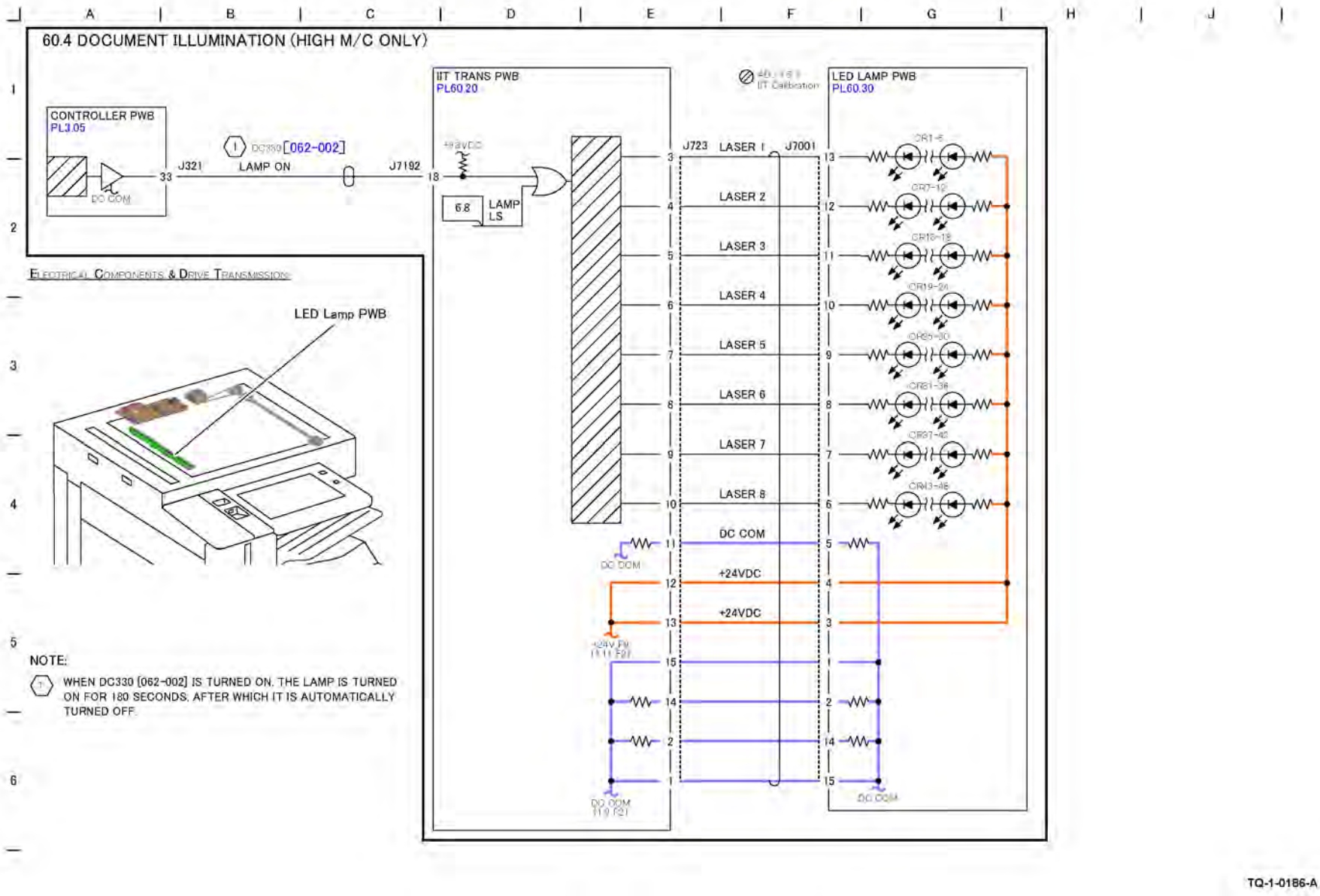


Figure 1 BSD 60.4 Document Illumination (High — C8170)

BSD 60.5 Carriage Control (Low/Mid — C8130/35/45/55)

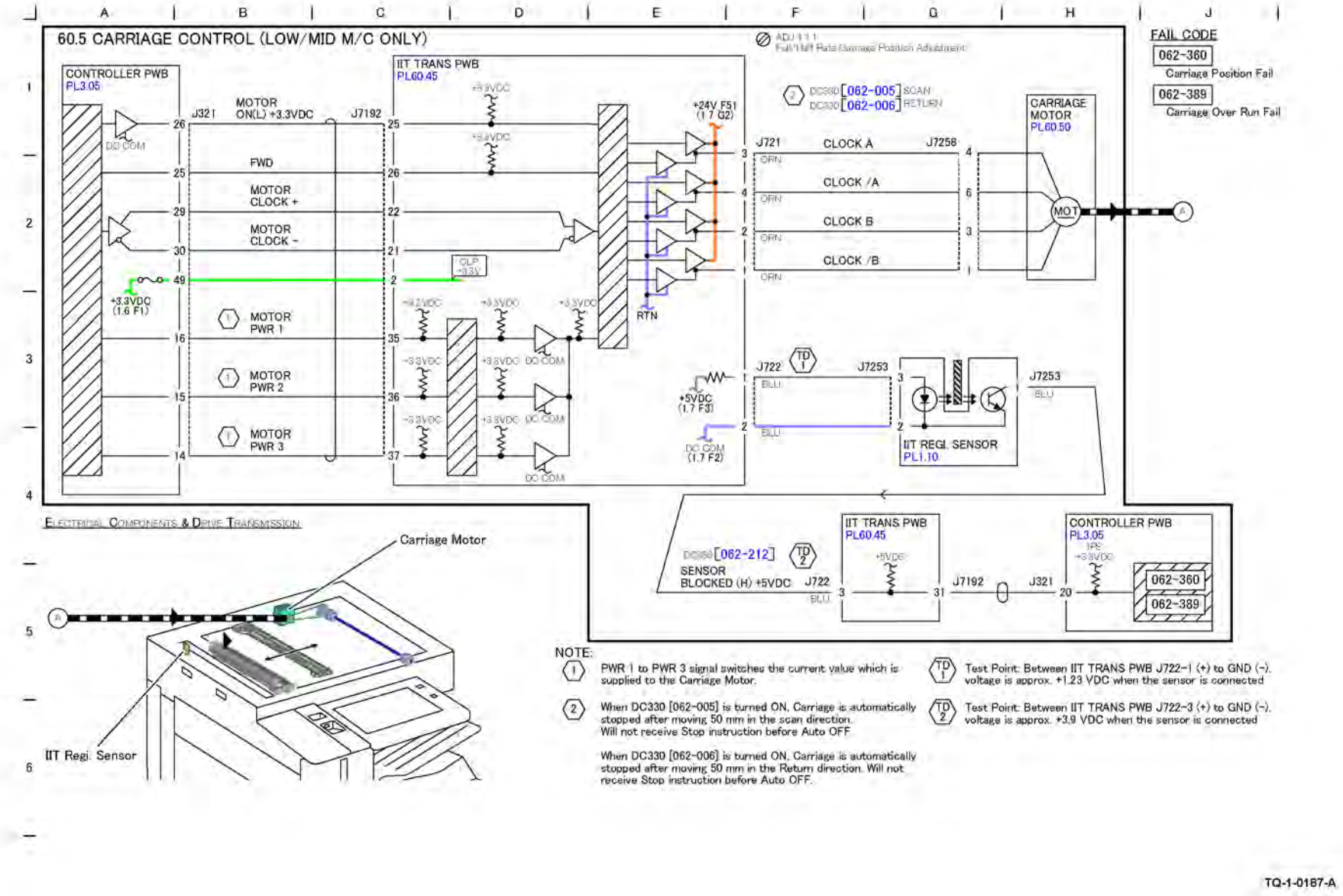


Figure 1 BSD 60.5 Carriage Control (Low/Mid — C8130/35/45/55)

BSD 60.6 Carriage Control (High — C8170)

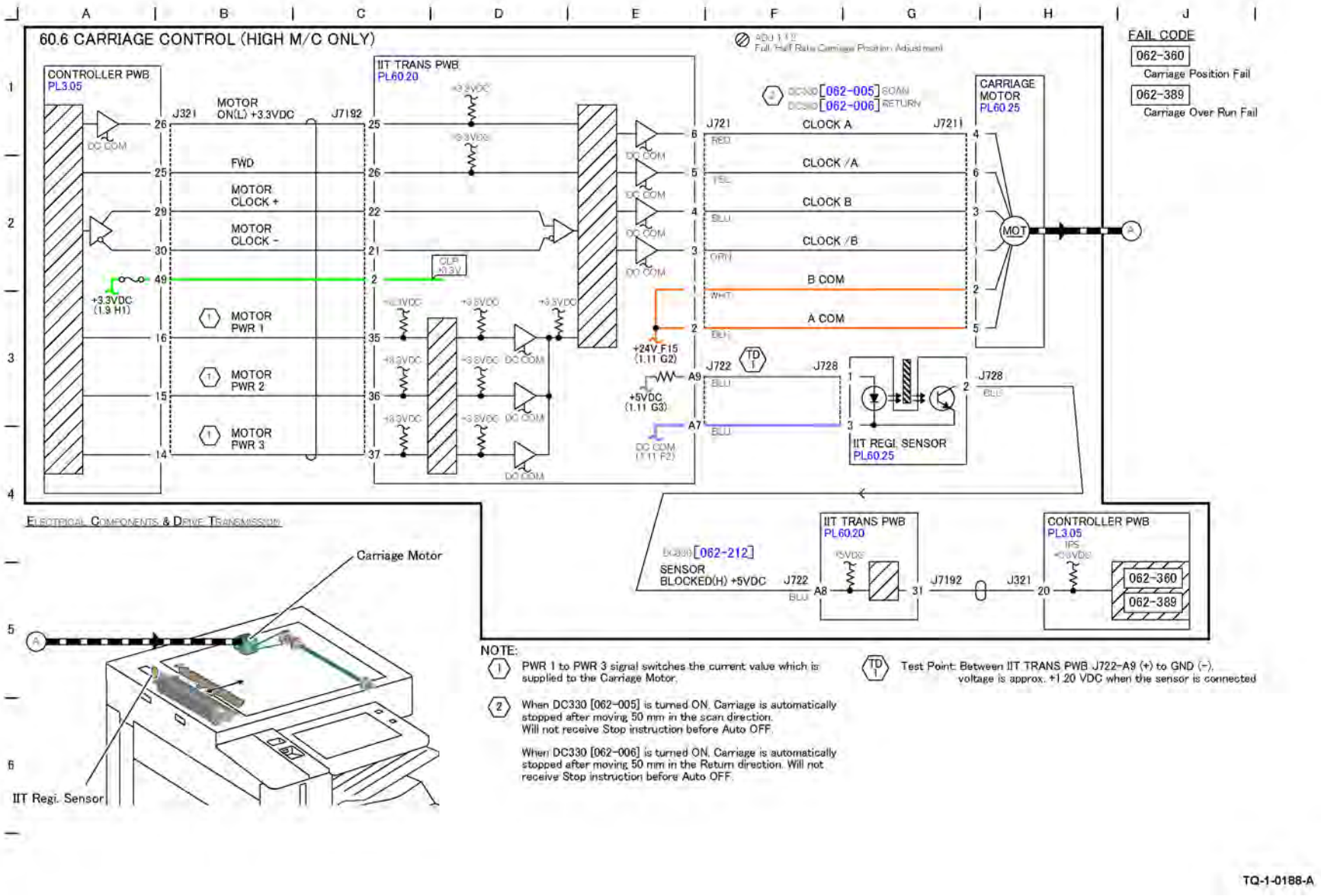


Figure 1 BSD 60.6 Carriage Control (High — C8170)

BSD 60.7 Image Input (Low/Mid — C8130/35/45/55)

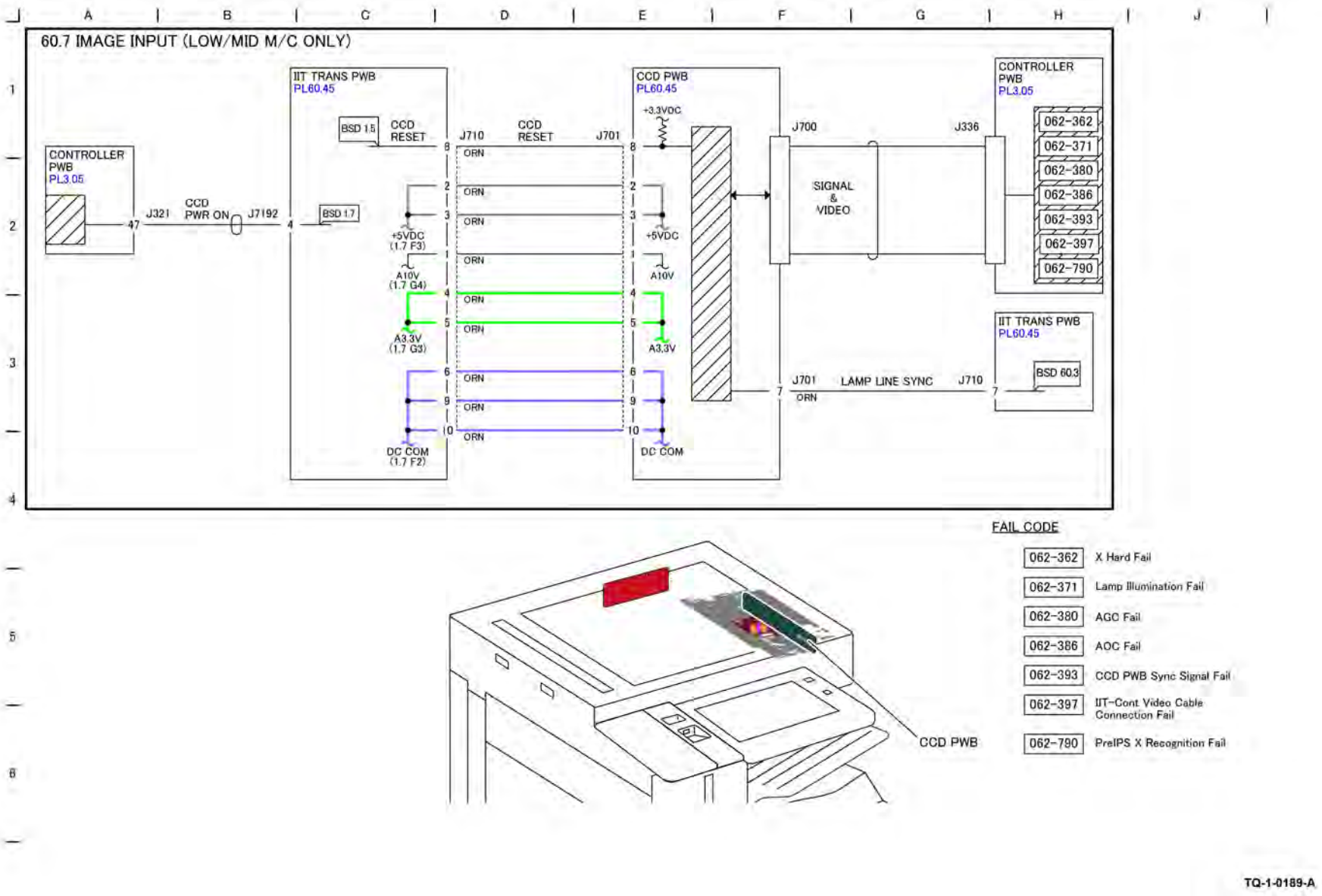


Figure 1 BSD 60.7 Image Input (Low/Mid — C8130/35/45/55)

BSD 60.8 Image Input (High - C8170)

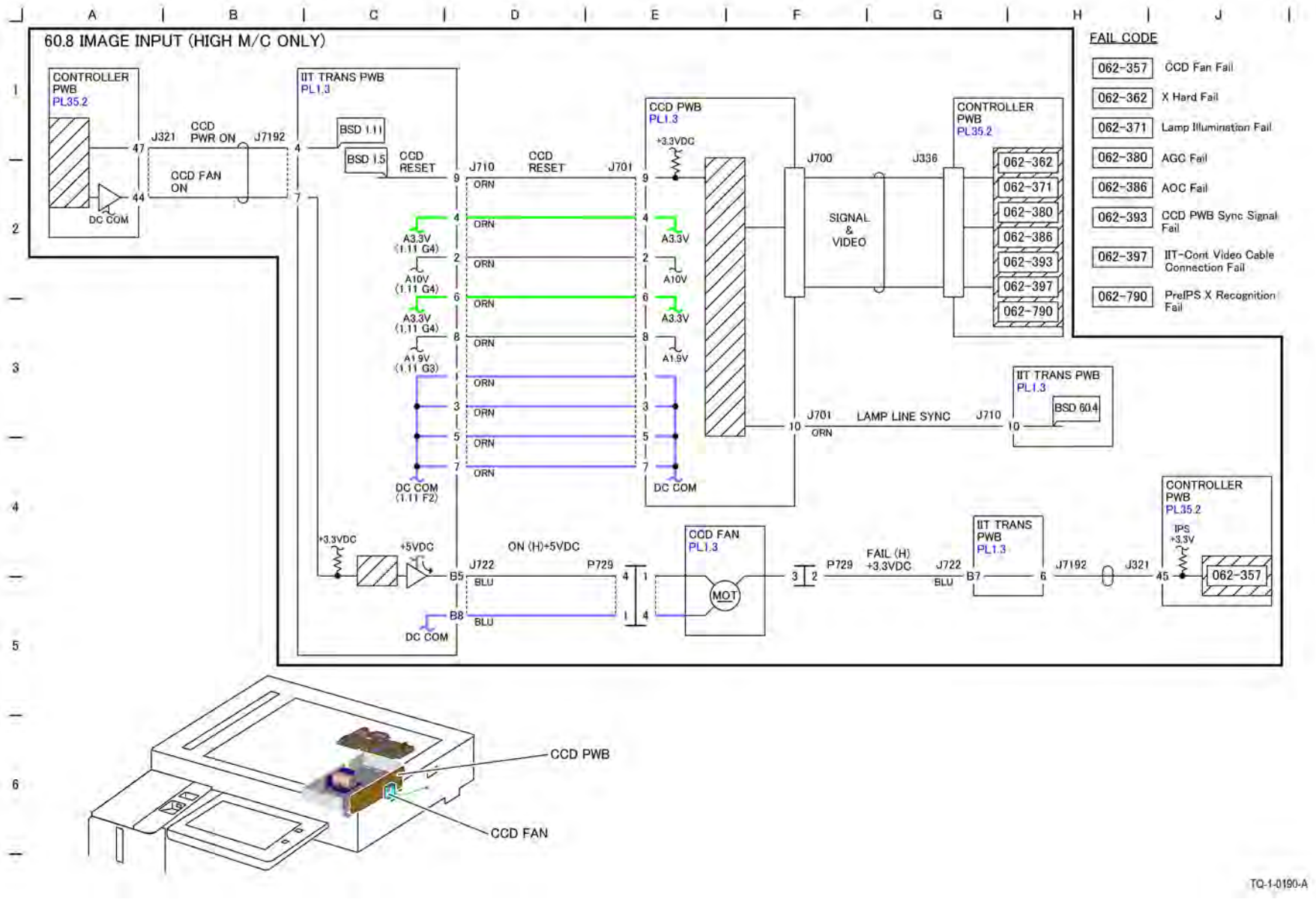


Figure 1 BSD 60.8 Image Input (High - C8170)

BSD 60.9 LPH Y & M

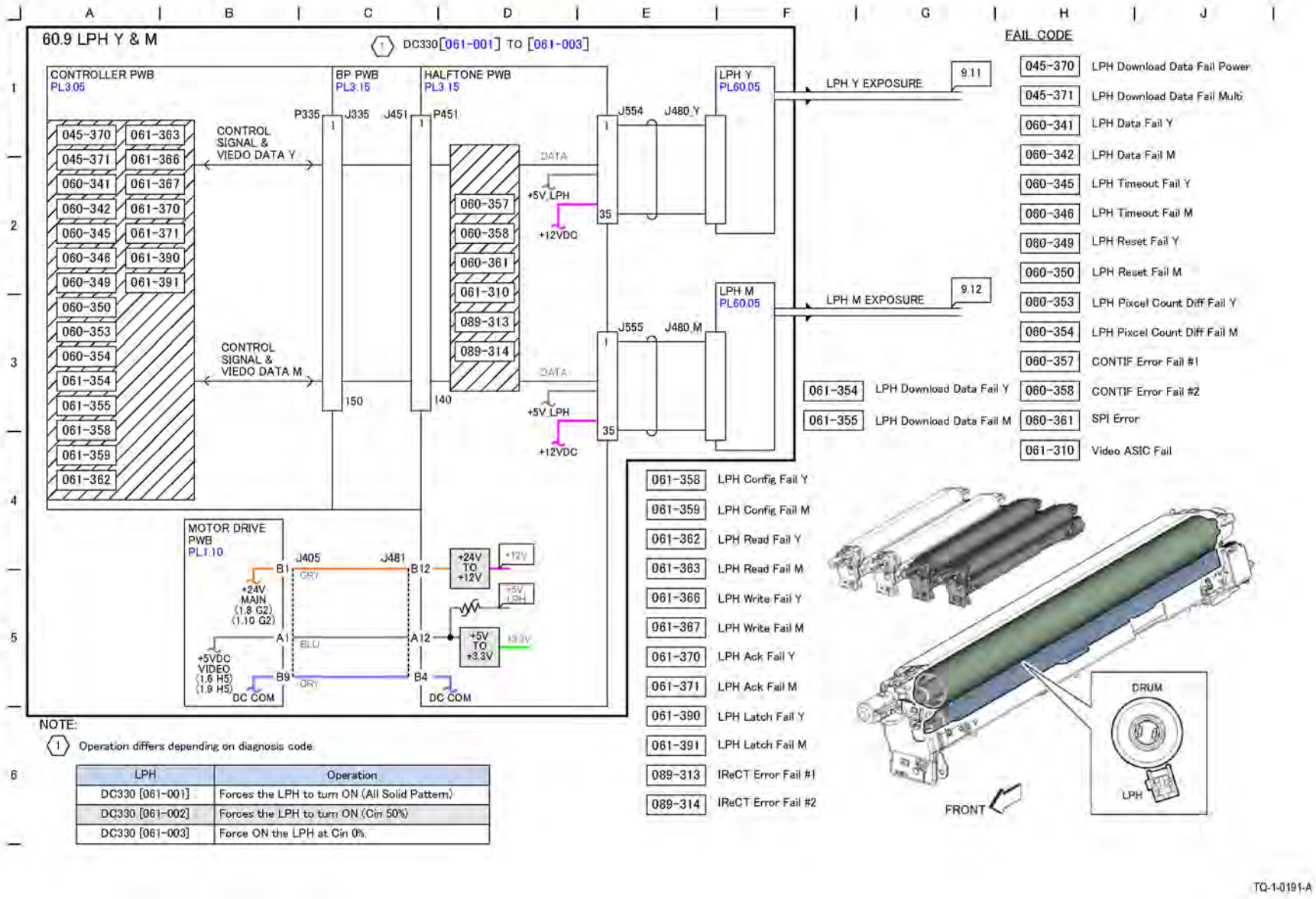


Figure 1 BSD 60.9 LPH Y & M

BSD 60.10 LPH C & K

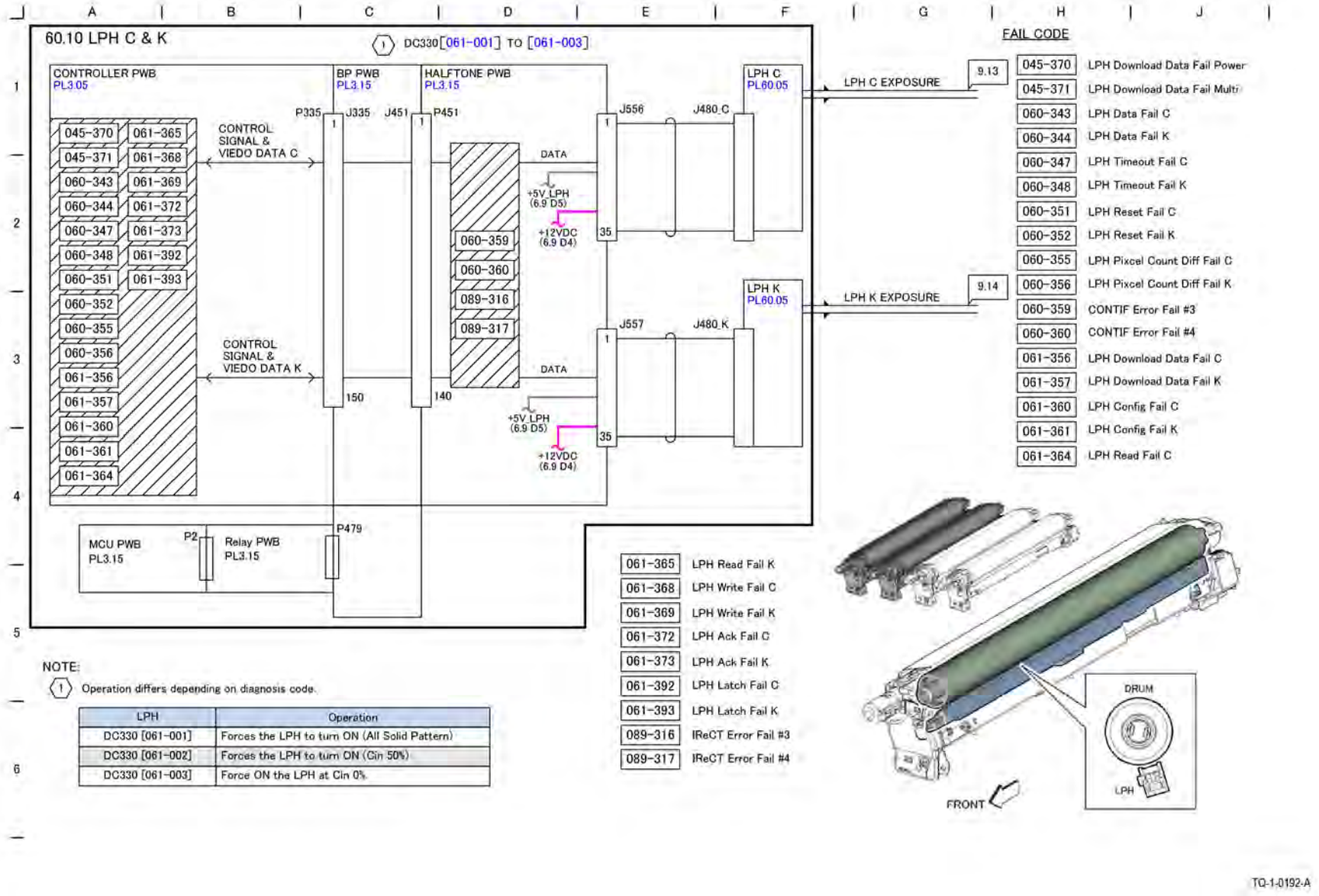


Figure 1 BSD 60.10 LPH C & K

BSD 60.11 Color Registration

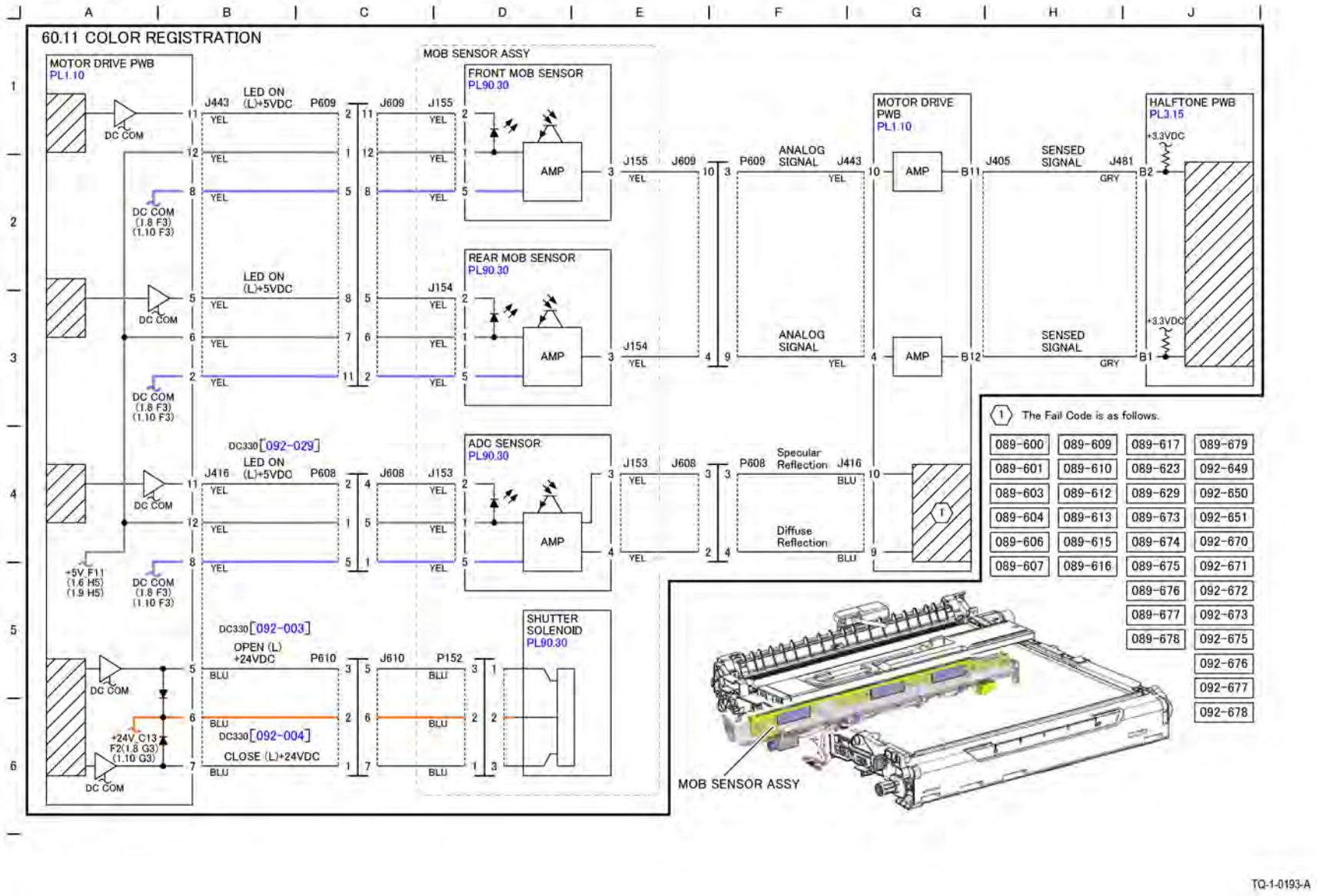


Figure 1 BSD 60.11 Color Registration

BSD 60.12 Temperature and Humidity Sensing

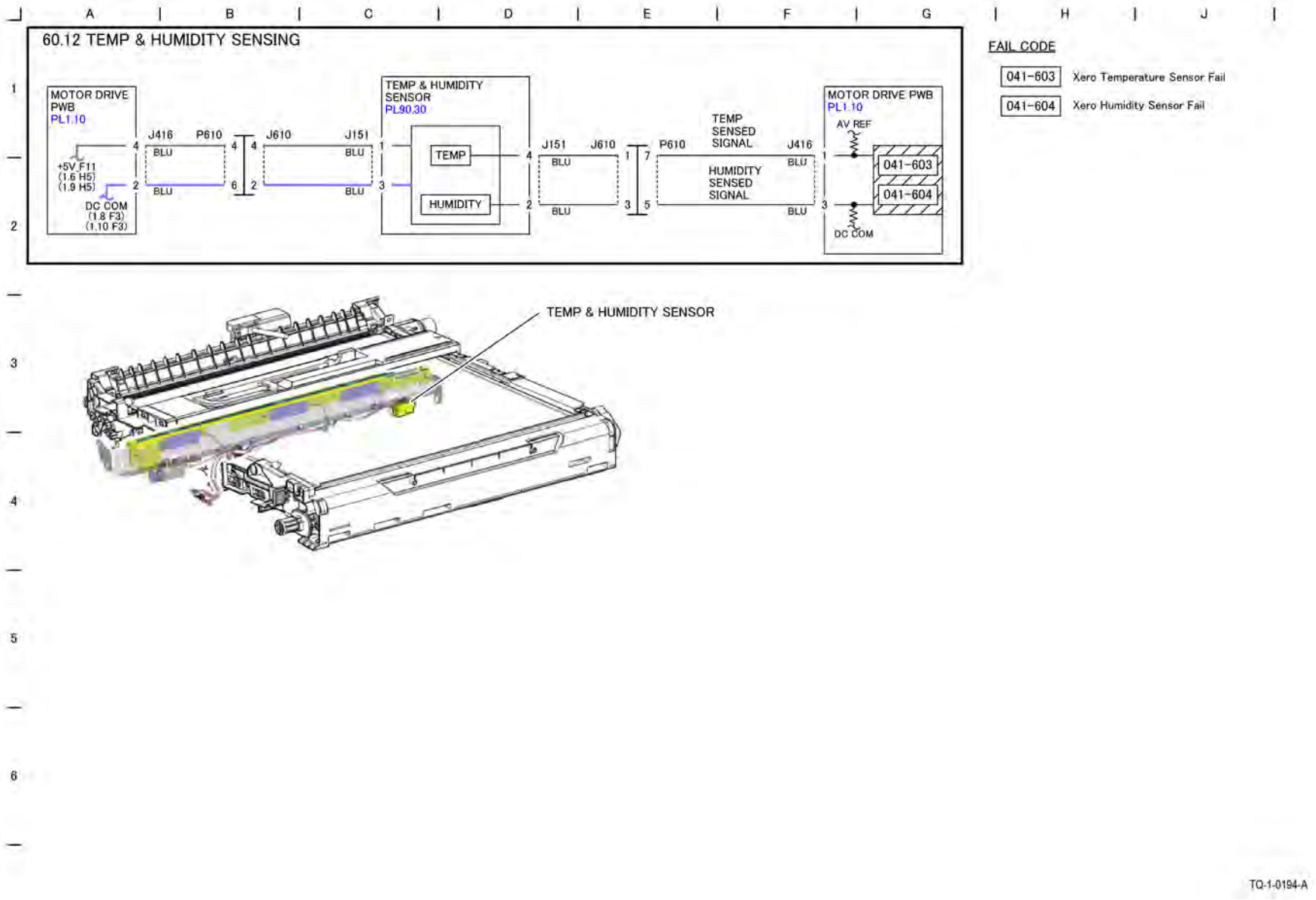
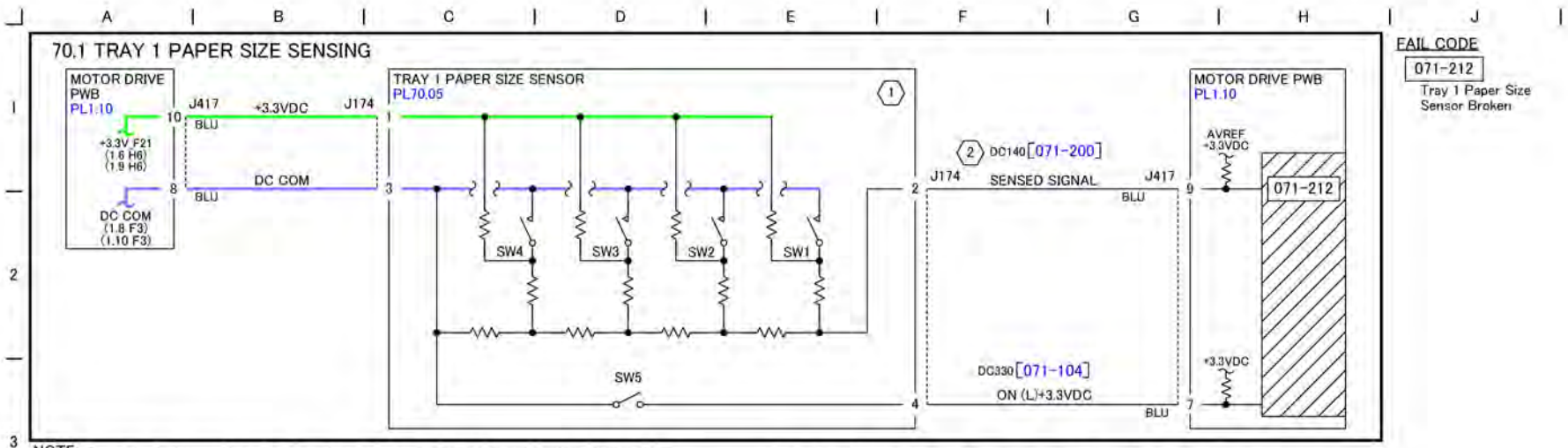


Figure 1 BSD 60.12 Temperature and Humidity Sensing

BSD 70.1 Tray 1 Paper Size Sensing



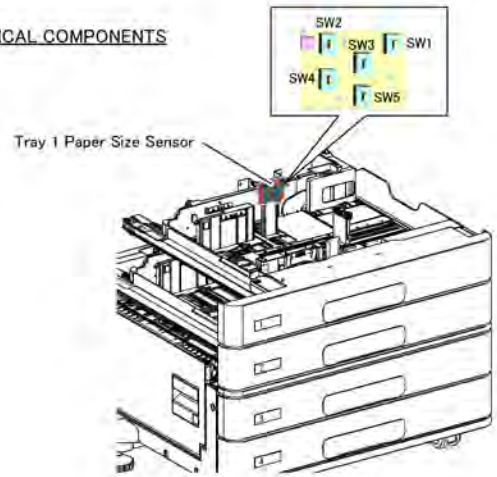
NOTE:
(1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J417-9)	AD Value DC140[071-200]
No Tray	OFF	OFF	OFF	OFF	OFF	3.085±0.066	922-989
Post Card (100x148)	OFF	OFF	OFF	OFF	ON	3.085±0.066	922-989
A5S/5.5"X8.5"S (*1)	OFF	OFF	ON	OFF	OFF	2.671±0.066	797-857
B5S	OFF	OFF	ON	ON	ON	2.468±0.066	735-796
8.5"X13"S	OFF	ON	OFF	ON	OFF	2.064±0.066	610-671
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S	OFF	ON	ON	OFF	OFF	1.864±0.066	548-609
8.5"X11"S	OFF	ON	ON	OFF	ON		
SRA3 S/ 13"X18"S/12"X18"S(*1)	ON	OFF	OFF	ON	ON	1.278±0.066	366-427
A4L	ON	OFF	ON	OFF	OFF	1.079±0.066	304-365
A3S	ON	OFF	ON	ON	OFF	0.881±0.066	244-303
B5L/7.25"X10.5"L(*1)	ON	ON	OFF	OFF	ON	0.691±0.066	184-243
8KS(*2)	ON	ON	OFF	ON	OFF	0.493±0.066	124-183
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.300±0.066	64-123
16KL(*2)/7.25"X10.5"L(*1)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.106±0.066	0-63

*1: Paper Size is switched with Diag.
*2: APO size switching is available by using the System Settings.

(2) DC140 [071-200] shows the AD value of the Tray 1 Paper Size Sensor.
Normally, the value is within the following output range.
- Normal Output Range: 0 to 989
- When 11x17" is loaded: 0 to 63
- When A5 SEF is loaded: 797 to 857
- When the Tray is pulled out: 922 to 989

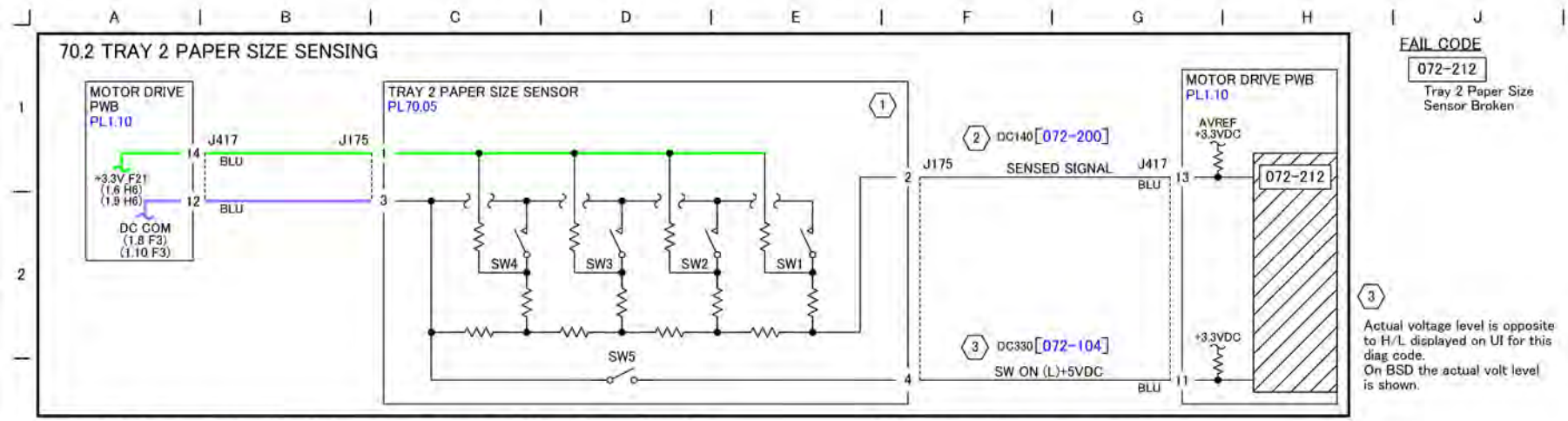
ELECTRICAL COMPONENTS



TQ-1-0196-A

Figure 1 BSD 70.1 Tray 1 Paper Size Sensing

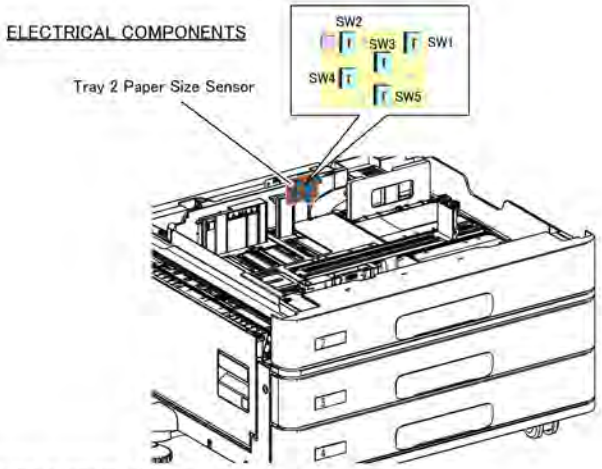
BSD 70.2 Tray 2 Paper Size Sensing



NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below.
(Any other combinations are treated as Unknown Size.)

Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J417-13)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	3.085±0.066	922-989
Post Card (100x148)	OFF	OFF	OFF	OFF	ON	3.085±0.066	922-989
A5S/5.5"X8.5"S (*1)	OFF	OFF	ON	OFF	OFF	2.671±0.066	797-857
B5S	OFF	OFF	ON	ON	ON	2.468±0.066	735-796
8.5"X13"S	OFF	ON	OFF	ON	OFF	2.064±0.066	610-671
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S/DT特A4S	OFF	ON	ON	OFF	OFF	1.864±0.066	548-609
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	1.666±0.066	488-547
12.6"×19.2"Sor13"×19"S	ON	OFF	OFF	OFF	ON	1.481±0.066	428-487
SRA3 S/12"X18"S(*1)	ON	OFF	OFF	ON	ON	1.278±0.066	366-427
A4L/DT特A4L	ON	OFF	ON	OFF	OFF	1.079±0.066	304-365
A3S	ON	OFF	ON	ON	OFF	0.881±0.066	244-303
B5L/7.25"X10.5"L(*1)	ON	ON	OFF	OFF	ON	0.691±0.066	184-243
8KS(*2)	ON	ON	OFF	ON	OFF	0.493±0.066	127-183
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.300±0.066	64-123
16KL(*2)/7.25"X10.5"L(*1)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.106±0.066	0-63

(2) DC140 [072-200] shows the AD value of the Tray 2 Paper Size Sensor.
Normally, the value is within the following output range.
- Normal Output Range: 0 to 989
- When 11x17" is loaded: 0 to 63
- When A5 SEF is loaded: 797 to 857
- When the Tray is pulled out: 922 to 989



*1: Paper Size is switched with Diag.
*2: APO size switching is available by using the System Settings.

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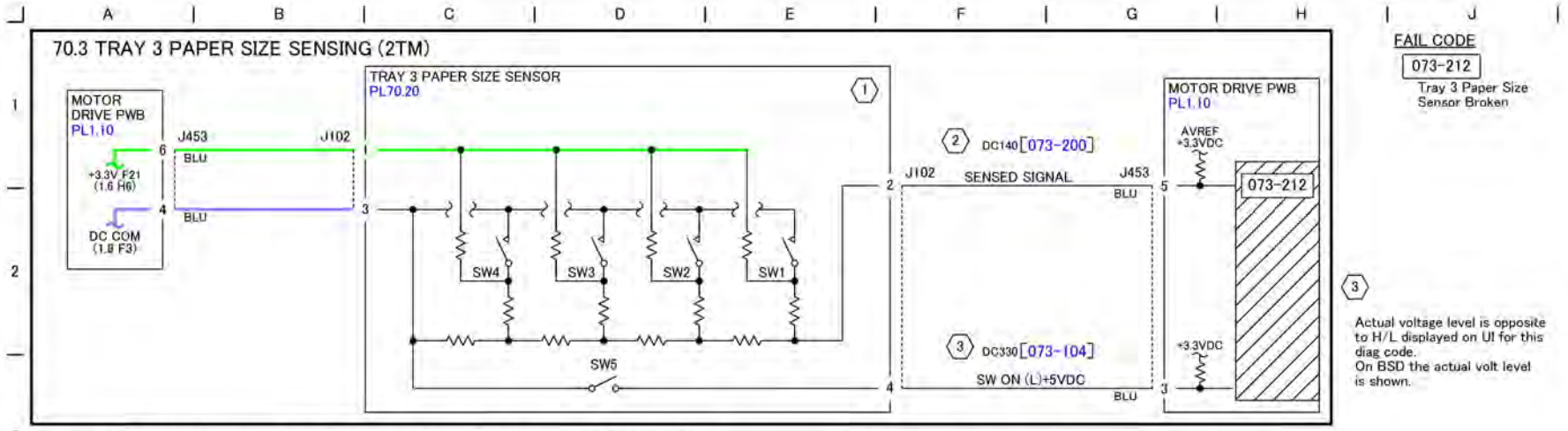
Figure 1 BSD 70.2 Tray 2 Paper Size Sensing

BSD 70.3 Tray 3 Paper Size Sensing (2TM)

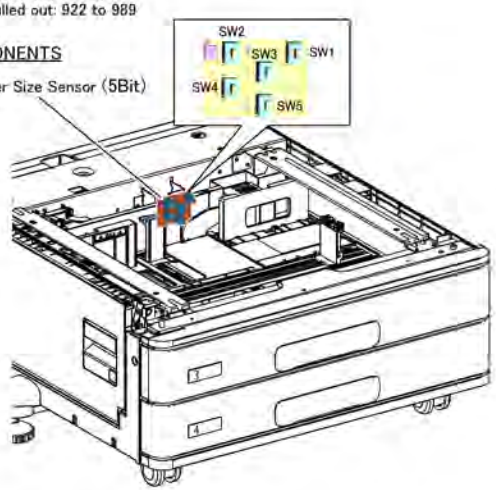


NOTE: ① Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J417-13)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	3.085±0.066	922-989
Post Cord (100x148)	OFF	OFF	OFF	OFF	ON	3.085±0.066	922-989
A5S/5.5"X8.5"S (*1)	OFF	OFF	ON	OFF	OFF	2.671±0.066	797-857
B5S	OFF	OFF	ON	ON	ON	2.468±0.066	735-796
8.5"X13"S	OFF	ON	OFF	ON	OFF	2.064±0.066	610-671
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S/DT特A4S	OFF	ON	ON	OFF	OFF	1.864±0.066	548-609
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	1.666±0.066	488-547
12.6" × 19.2"Sor13" × 19"S	ON	OFF	OFF	OFF	ON	1.481±0.066	428-487
SRA3 S/12"X18"S(*1)	ON	OFF	OFF	ON	ON	1.278±0.066	366-427
A4L/DT特A4L	ON	OFF	ON	OFF	OFF	1.079±0.066	304-365
A3S	ON	OFF	ON	ON	OFF	0.881±0.066	244-303
B5L/7.25"X10.5"L(*1)	ON	ON	OFF	OFF	ON	0.691±0.066	184-243
8KS(*2)	ON	ON	OFF	ON	OFF	0.493±0.066	127-183
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.300±0.066	64-123
16KL(*2)/7.25"X10.5"L(*1)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.106±0.066	0-63

② DC140 [073-200] shows the AD value of the Tray 3 Paper Size Sensor.
Normally, the value is within the following output range.
- Normal Output Range: 0 to 989
- When 11x17" is loaded: 0 to 63
- When A5 SEF is loaded: 797 to 857
- When the Tray is pulled out: 922 to 989

ELECTRICAL COMPONENTS



*1: Paper Size is switched with Diag.
*2: APO size switching is available by using the System Settings

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Figure 1 BSD 70.3 Tray 3 Paper Size Sensing (2TM)

BSD 70.4 Tray 3 Paper Size Sensing (TTM)

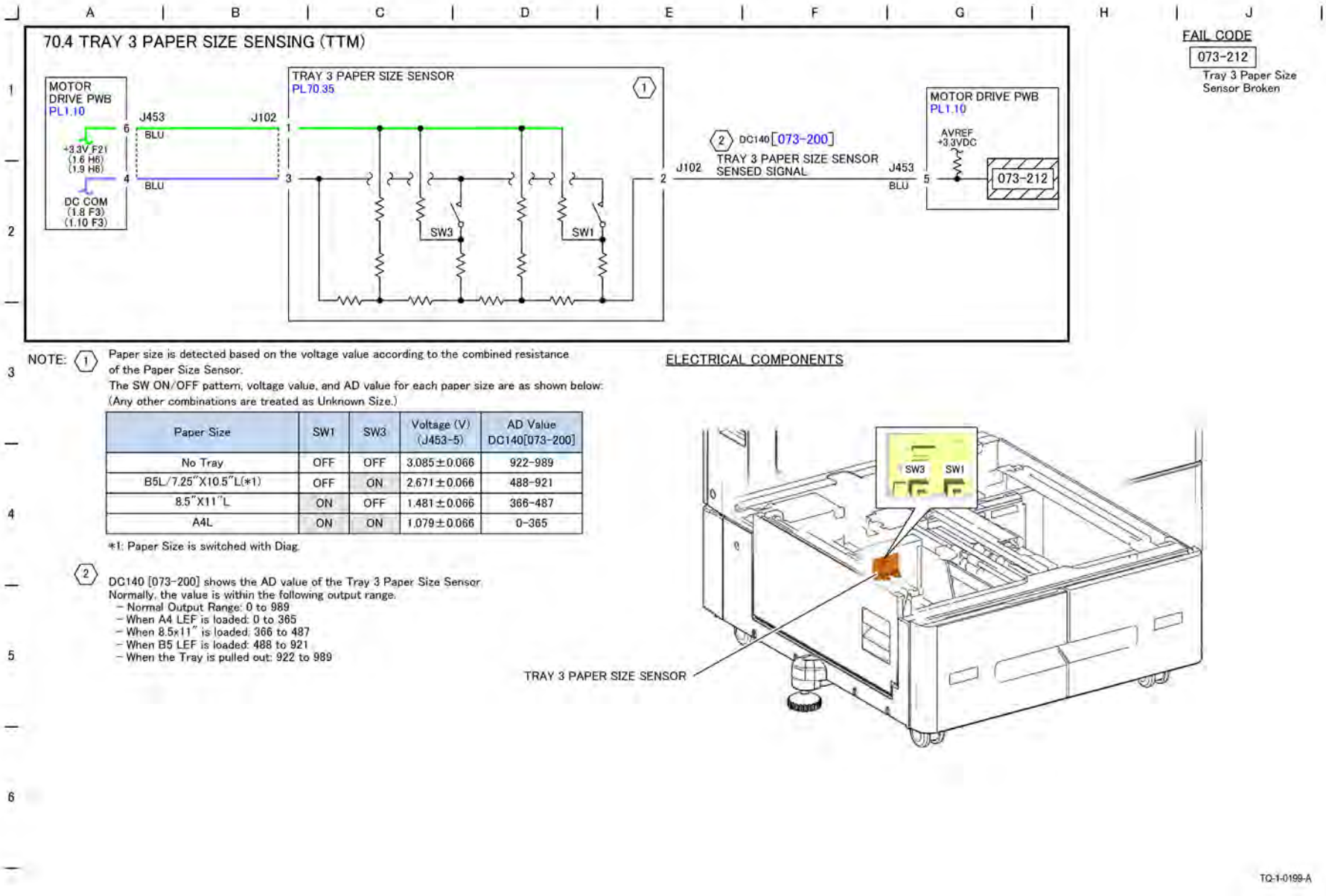
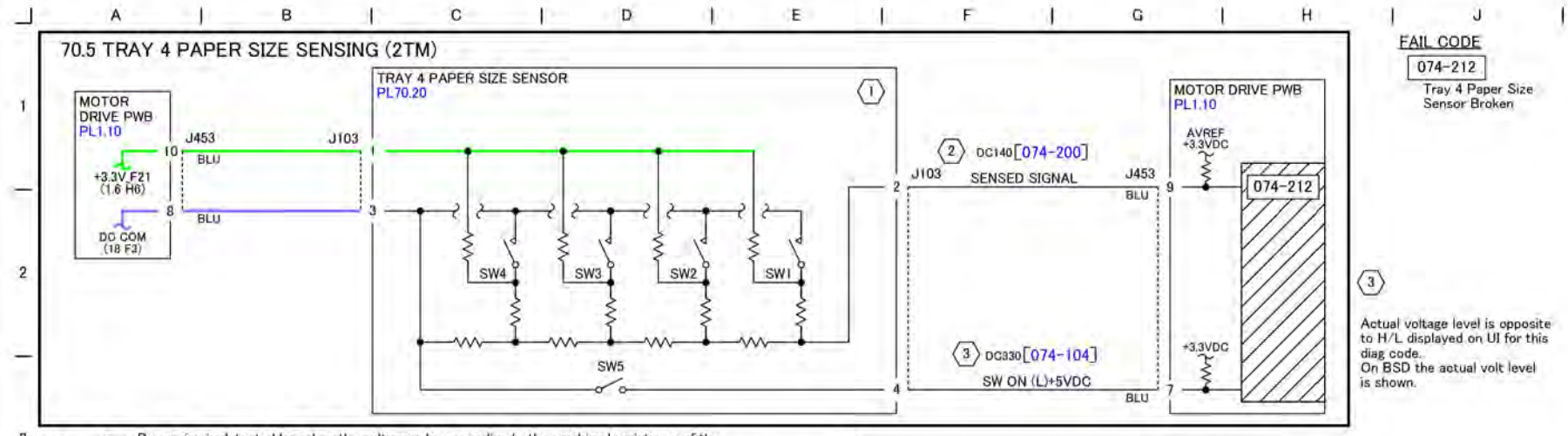


Figure 1 BSD 70.4 Tray 3 Paper Size Sensing (TTM)

BSD 70.5 Tray 4 Paper Size Sensing (2TM)

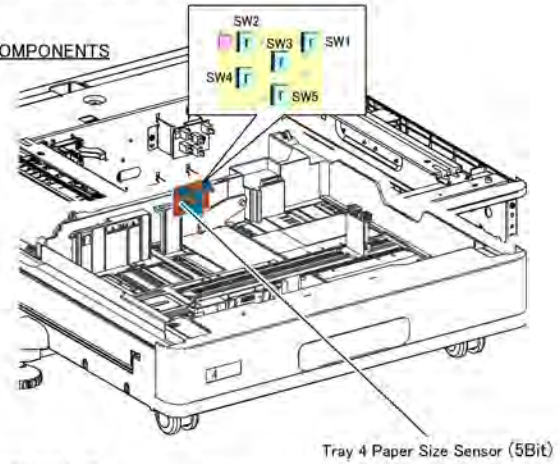


NOTE: (1) Paper size is detected based on the voltage value according to the combined resistance of the Paper Size Sensor, as well as ON/OFF status of the SW 5.
The SW ON/OFF pattern, voltage value, and AD value for each paper size are as shown below:
(Any other combinations are treated as Unknown Size.)

Paper Size	SW1	SW2	SW3	SW4	SW5	Voltage (V) (J453-9)	AD Value DC140[072-200]
No Tray	OFF	OFF	OFF	OFF	OFF	3.085±0.066	922-989
Post Card (100x148)	OFF	OFF	OFF	OFF	ON	3.085±0.066	922-989
A5S/5.5"X8.5"S (*1)	OFF	OFF	ON	OFF	OFF	2.671±0.066	797-857
B5S	OFF	OFF	ON	ON	ON	2.468±0.066	735-796
8.5"X13"S	OFF	ON	OFF	ON	OFF	2.064±0.066	610-671
8.5"X14"S	OFF	ON	OFF	ON	ON		
A4S/DT特A4S	OFF	ON	ON	OFF	OFF	1.864±0.066	548-609
8.5"X11"S	OFF	ON	ON	OFF	ON		
8"X10"S	OFF	ON	ON	ON	ON	1.666±0.066	488-547
12.6" × 19.2"Sor13" × 19"S	ON	OFF	OFF	OFF	ON	1.481±0.066	428-487
SRA3 S/12"X18"S(*1)	ON	OFF	OFF	ON	ON	1.278±0.066	366-427
A4L/DT特A4L	ON	OFF	ON	OFF	OFF	1.079±0.066	304-365
A3S	ON	OFF	ON	ON	OFF	0.881±0.066	244-303
B5L/7.25"X10.5"L(*1)	ON	ON	OFF	OFF	ON	0.691±0.066	184-243
8KS(*2)	ON	ON	OFF	ON	OFF	0.493±0.066	127-183
B4S	ON	ON	OFF	ON	ON		
8.5"X11"L	ON	ON	ON	OFF	OFF	0.300±0.066	64-123
16KL(*2)/7.25"X10.5"L(*1)	ON	ON	ON	OFF	ON		
11"X17"S	ON	ON	ON	ON	ON	0.106±0.066	0-63

(2) DC140 [074-200] shows the AD value of the Tray 4 Paper Size Sensor.
Normally, the value is within the following output range.
- Normal Output Range: 0 to 989
- When 11x17" is loaded: 0 to 63
- When A5 SEF is loaded: 797 to 857
- When the Tray is pulled out: 922 to 989

ELECTRICAL COMPONENTS



*1: Paper Size is switched with Diag.
*2: APO size switching is available by using the System Settings.

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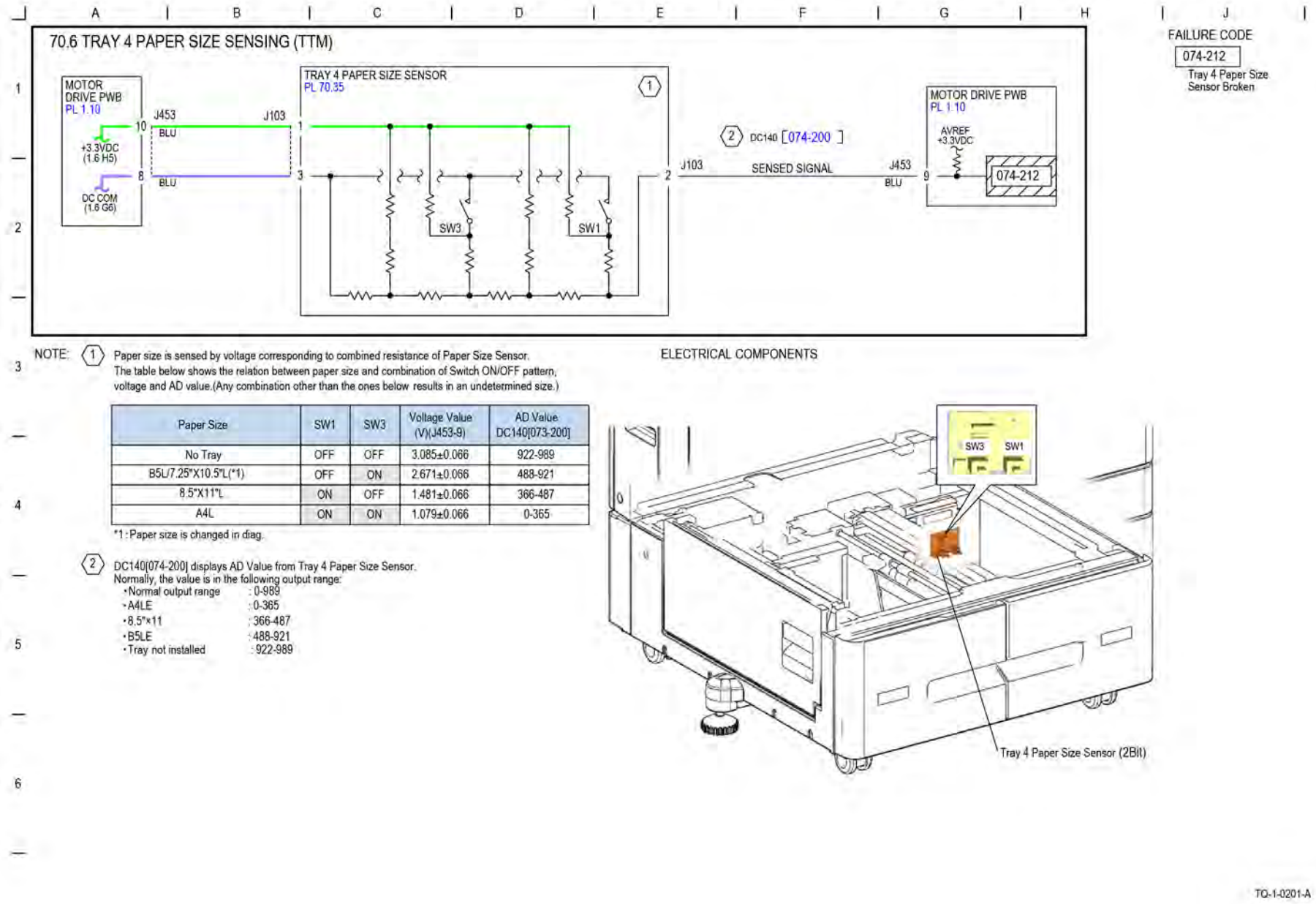
Figure 1 BSD 70.5 Tray 4 Paper Size Sensing (2TM)

BSD 70.6 Tray 4 Paper Size Sensing (TTM)

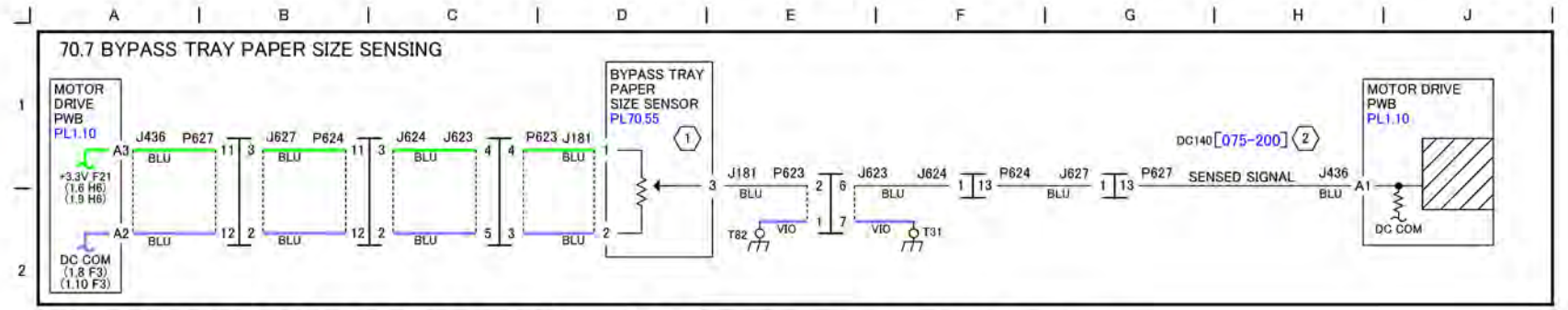


Paper Size	SW1	SW3	Voltage Value (V)(J453-9)	AD Value DC140[073-200]
No Tray	OFF	OFF	3.085±0.066	922-989
B5L/7.25"X10.5"L(*1)	OFF	ON	2.671±0.066	488-921
8.5"X11"L	ON	OFF	1.481±0.066	366-487
A4L	ON	ON	1.079±0.066	0-365

*1 : Paper size is changed in diag.

Figure 1 BSD 70.6 Tray 4 Paper Size Sensing (TTM)

BSD 70.7 Bypass Tray Paper Size Sensing



NOTE: (1) Paper width (size in the Fast Scan direction) is detected based on the voltage value according to the resistance of the Bypass Tray Paper Size Sensor.
Since the Bypass Tray adjusts the Bypass Tray Size Detection in Diag when it is installed to the IOT before shipment, the AD value of each paper size (width) differs among individual machines. The following are reference values.

Paper Size	Voltage (V) (J436-A1)	AD Value DC140[075-200]
Post Card S	2.945-3.004	908.374-935.445
5.5"X8.5"S	2.472-2.531	762.064-788.741
A5S	2.373-2.432	731.393-758.070
B5S	1.968-2.026	605.752-632.429
8"X10"S	1.801-1.860	554.018-580.694
8.5"X11"S(Letter)&X13"&X14"	1.564-1.622	480.481-507.157
A4S	1.634-1.693	502.283-528.959
7.25"X10.5"L	0.958-1.017	292.758-319.434
B5L	1.074-1.132	328.603-355.279
B4S		
16KL(Taiwan)	0.954-1.013	291.649-318.326
8KS(Taiwan)		
16KL(Mainland China)	0.919-0.977	280.563-307.240
8KS(Mainland China)		
11"X17"S	0.807-0.865	245.827-272.504
8.5"X11"L(Letter)		
A4L	0.597-0.656	180.790-207.466
A3S		
12.6"X19.2"S	0.457-0.516	137.554-164.231
13"X19"(X18")	0.341-0.399	101.340-128.016
SRA3	0.323-0.381	95.797-122.474

Ref. The paper length (size in Slow Scan direction) is , detected by measuring the time required for paper to pass the Regi Sensor.

(2) DC140 [075-200] shows the AD value of the Bypass Tray Paper Size Sensor
Normally, the value is within the following output range.
- Normal Output Range: 86 to 966 (nominal)
  51 to 1023 (NVM range)
- Failure Determination Level: No changes within the above NVM range

ELECTRICAL COMPONENTS

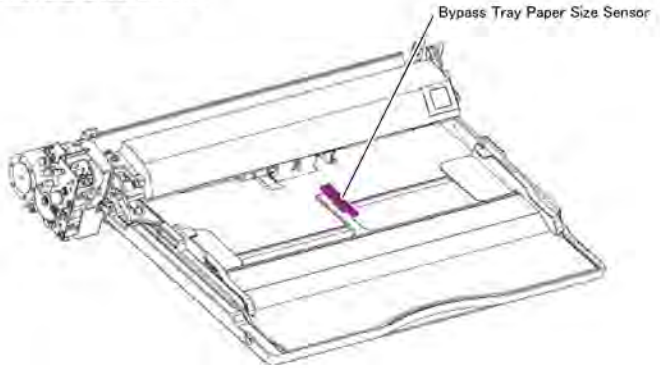


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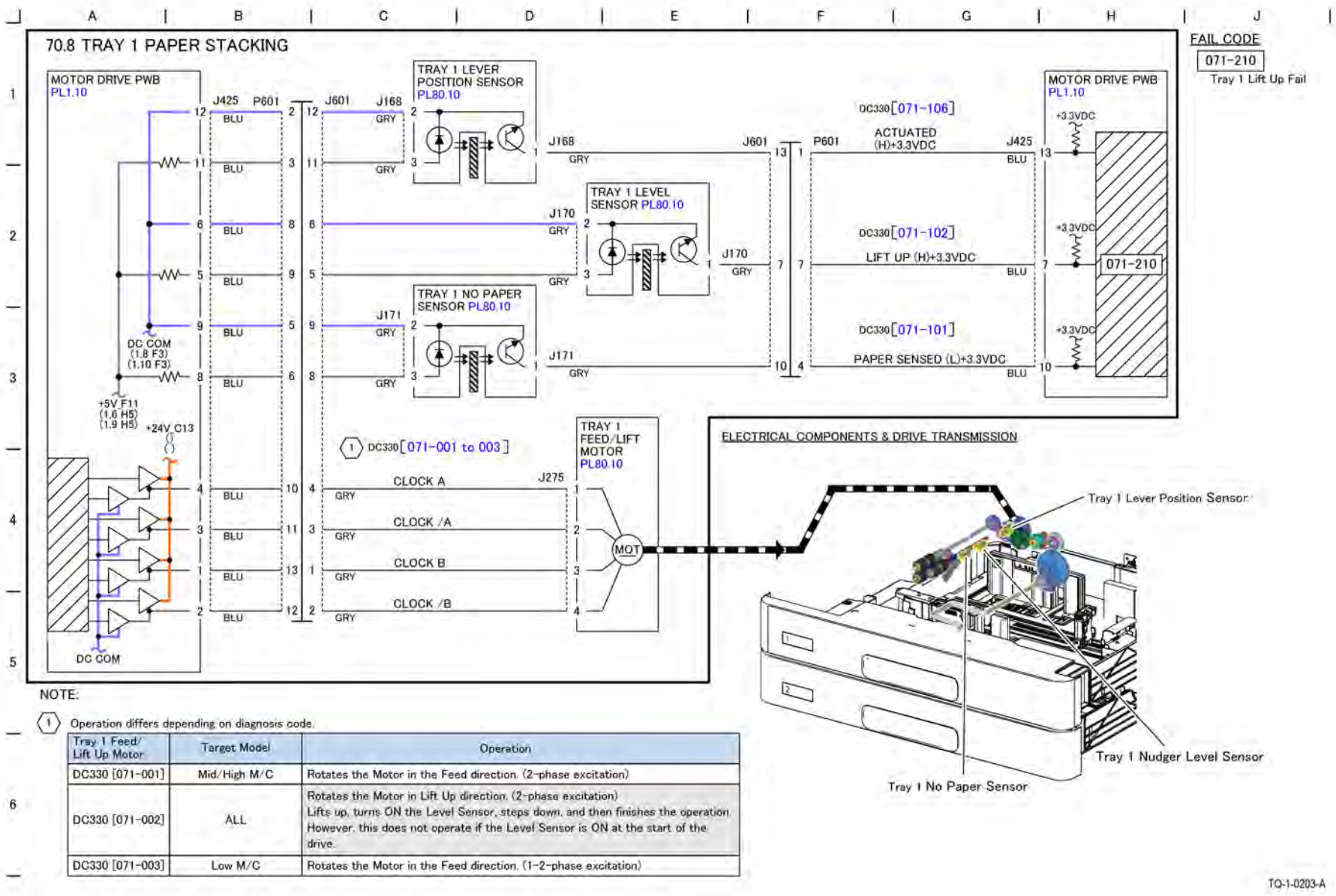
Figure 1 BSD 70.7 Bypass Tray Paper Size Sensing

BSD 70.8 Tray 1 Paper Stacking



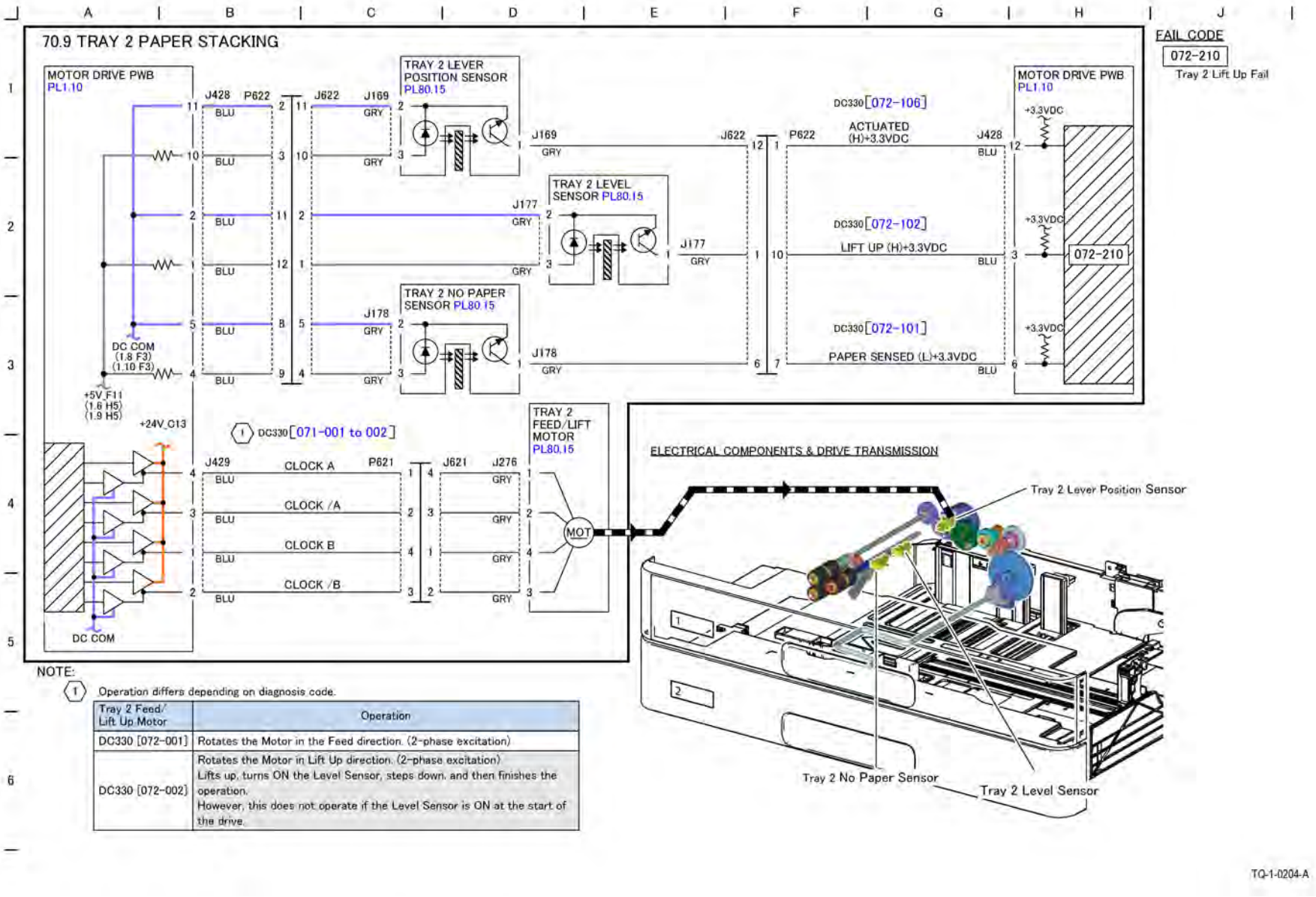
NOTE:

(1) Operation differs depending on diagnosis code.

Tray 1 Feed/ Lift Up Motor	Target Model	Operation
DC330 [071-001]	Mid/High M/C	Rotates the Motor in the Feed direction. (2-phase excitation)
DC330 [071-002]	ALL	Rotates the Motor in Lift Up direction. (2-phase excitation) Lifts up, turns ON the Level Sensor, steps down, and then finishes the operation. However, this does not operate if the Level Sensor is ON at the start of the drive.
DC330 [071-003]	Low M/C	Rotates the Motor in the Feed direction. (1-2-phase excitation)

Figure 1 BSD 70.8 Tray 1 Paper Stacking

BSD 70.9 Tray 2 Paper Stacking



NOTE:

(1) Operation differs depending on diagnosis code.

Tray 2 Feed/ Lift Up Motor	Operation
DC330 [072-001]	Rotates the Motor in the Feed direction. (2-phase excitation)
DC330 [072-002]	Rotates the Motor in Lift Up direction. (2-phase excitation) Lifts up, turns ON the Level Sensor, steps down, and then finishes the operation. However, this does not operate if the Level Sensor is ON at the start of the drive.

Figure 1 BSD 70.9 Tray 2 Paper Stacking

BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

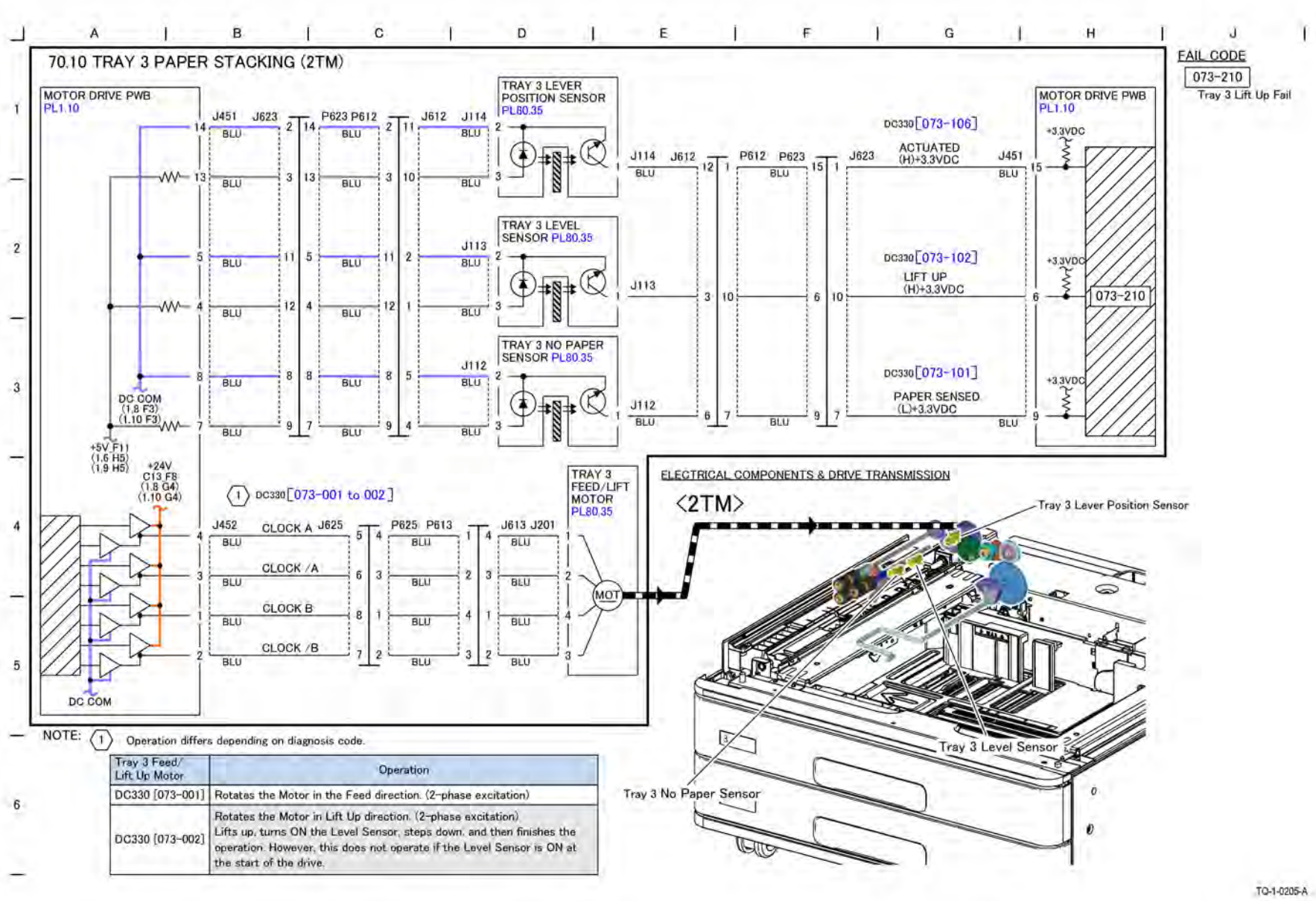
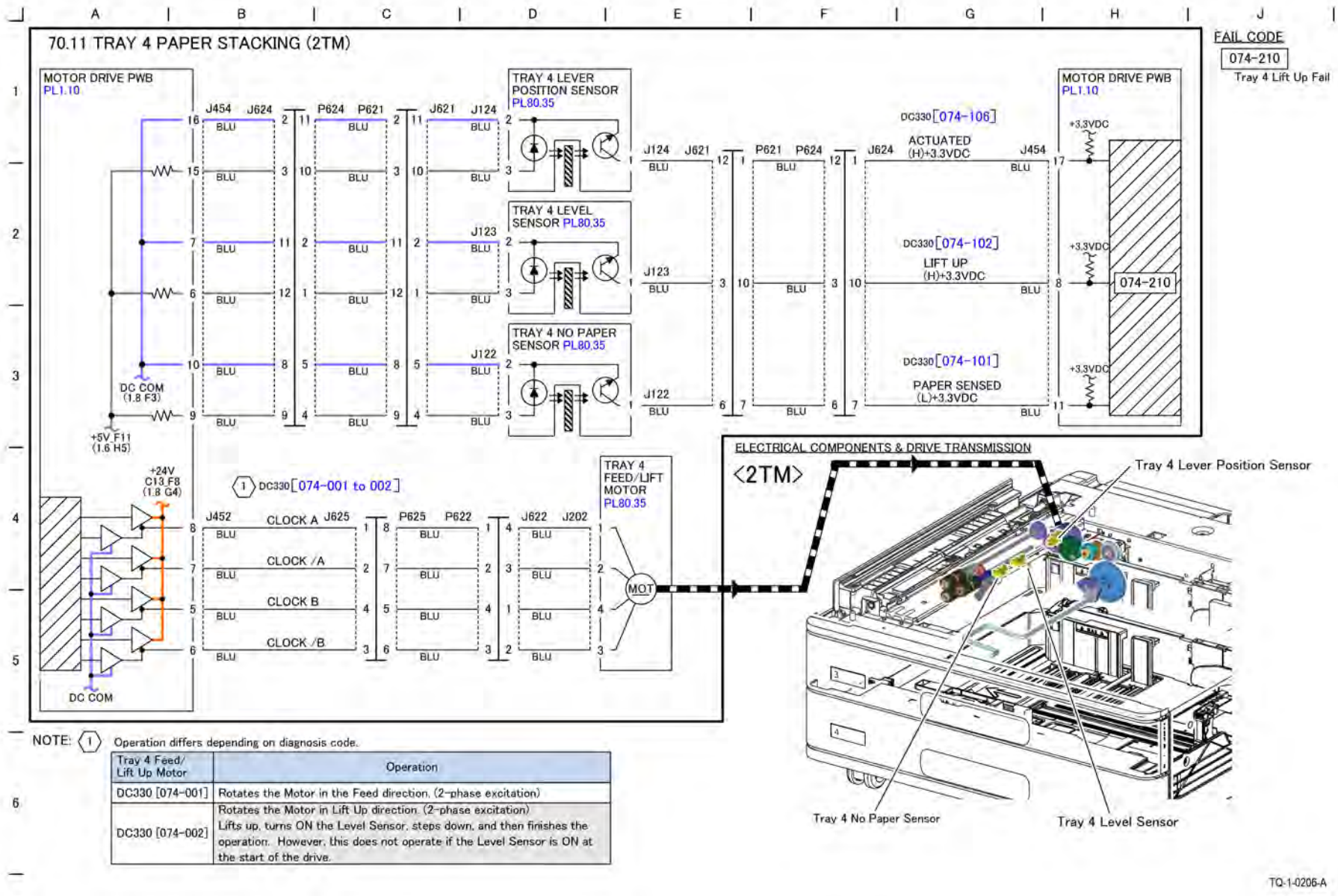


Figure 1 BSD 70.10 Tray 3 Paper Stacking (2TM/TTM)

BSD 70.11 Tray 4 Paper Stacking (2TM)

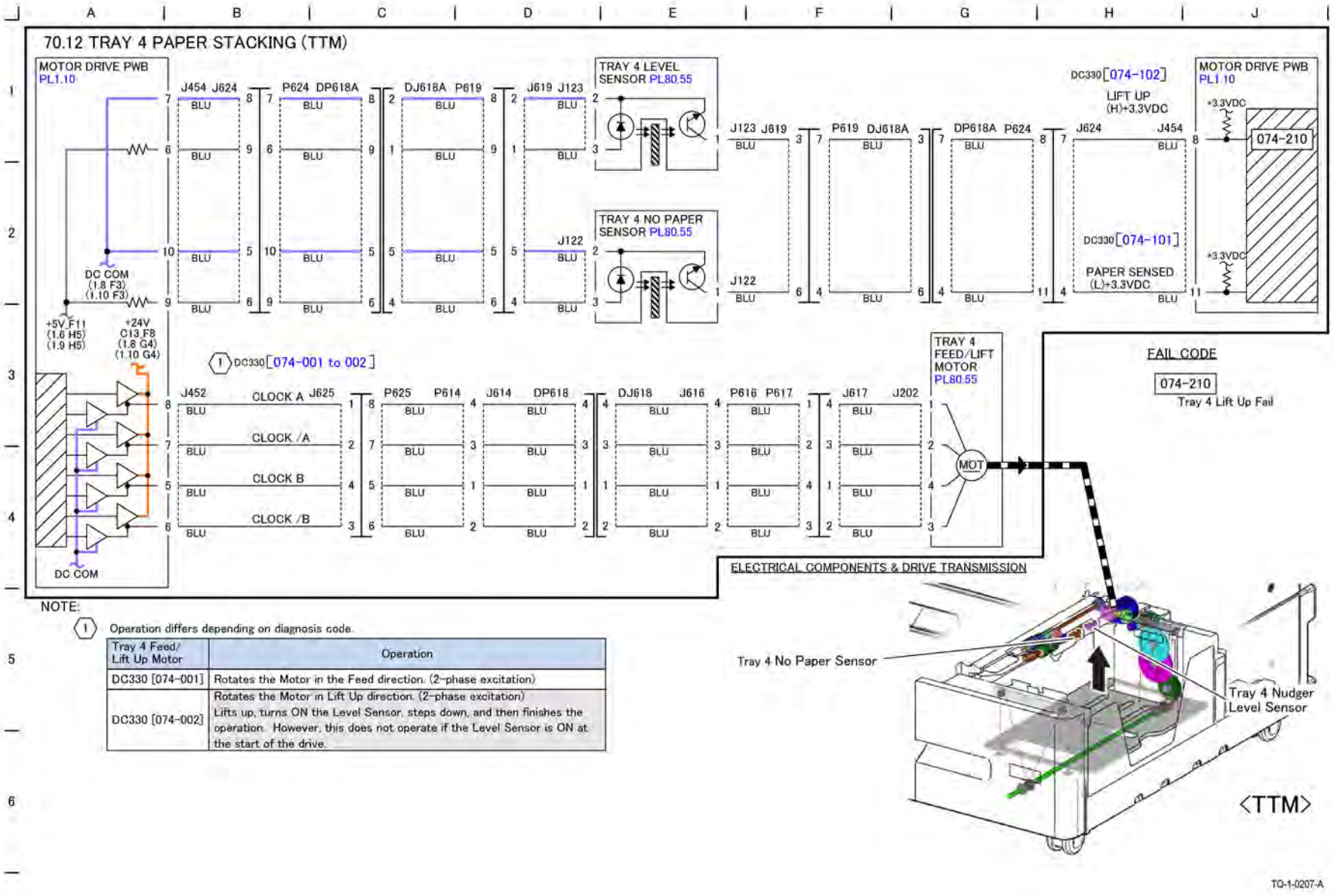


NOTE: 1 Operation differs depending on diagnosis code.

Tray 4 Feed/ Lift Up Motor	Operation
DC330 [074-001]	Rotates the Motor in the Feed direction. (2-phase excitation)
DC330 [074-002]	Rotates the Motor in Lift Up direction. (2-phase excitation) Lifts up, turns ON the Level Sensor, steps down, and then finishes the operation. However, this does not operate if the Level Sensor is ON at the start of the drive.

Figure 1 BSD 70.11 Tray 4 Paper Stacking (2TM)

BSD 70.12 Tray 4 Paper Stacking (TTM)



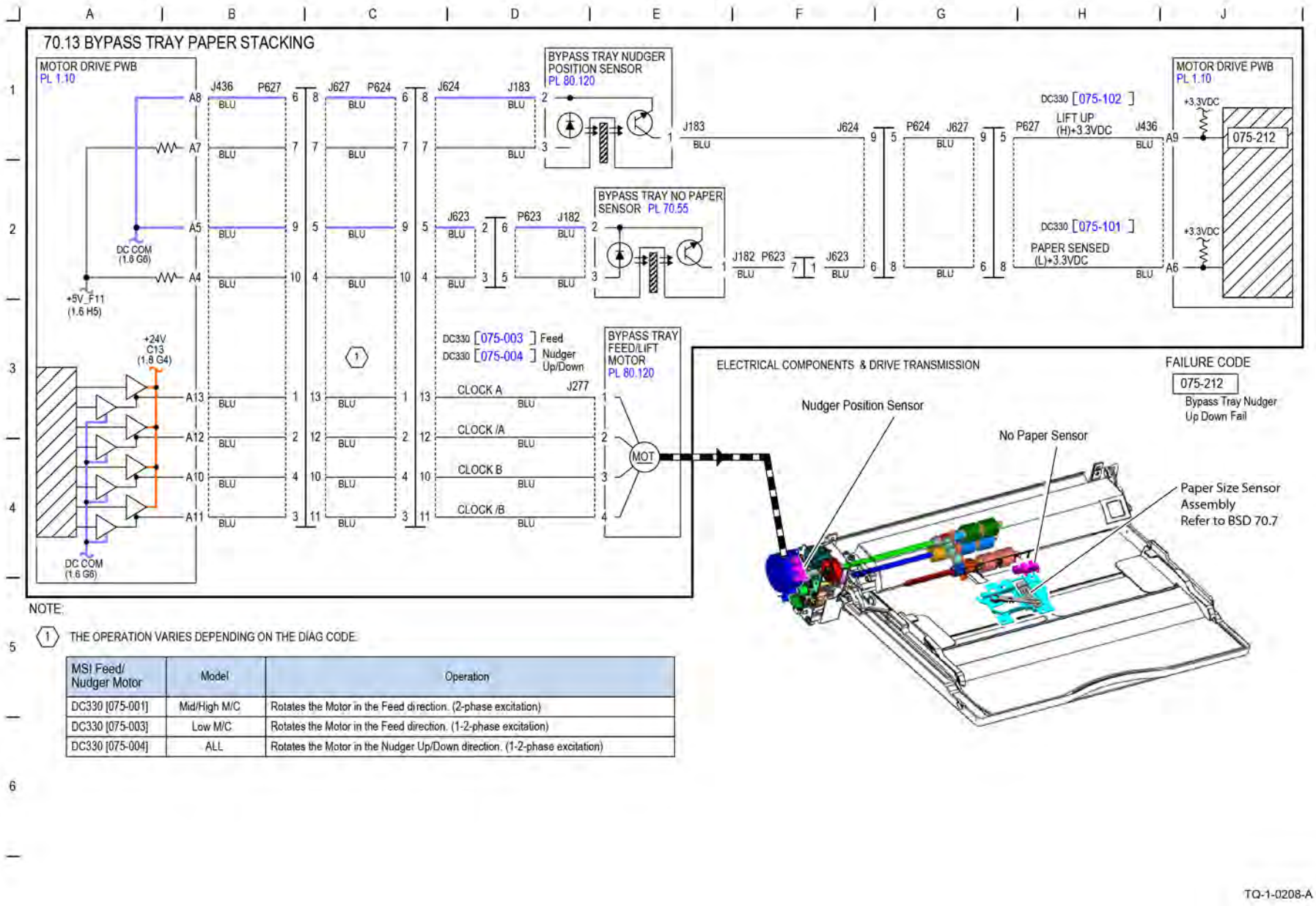
NOTE:

① Operation differs depending on diagnosis code.

Tray 4 Feed/ Lift Up Motor	Operation
DC330 [074-001]	Rotates the Motor in the Feed direction. (2-phase excitation)
DC330 [074-002]	Rotates the Motor in Lift Up direction. (2-phase excitation) Lifts up, turns ON the Level Sensor, steps down, and then finishes the operation. However, this does not operate if the Level Sensor is ON at the start of the drive.

Figure 1 BSD 70.12 Tray 4 Paper Stacking (TTM)

BSD 70.13 Bypass Tray Paper Sensing and Stacking



MSI Feed/ Nudger Motor	Model	Operation
DC330 [075-001]	Mid/High M/C	Rotates the Motor in the Feed direction. (2-phase excitation)
DC330 [075-003]	Low M/C	Rotates the Motor in the Feed direction. (1-2-phase excitation)
DC330 [075-004]	ALL	Rotates the Motor in the Nudger Up/Down direction. (1-2-phase excitation)

Figure 1 BSD 70.13 Bypass Tray Paper Stacking

BSD 70.14 IOT and 2TM Paper Path and Drive Transmission (Low/Mid)

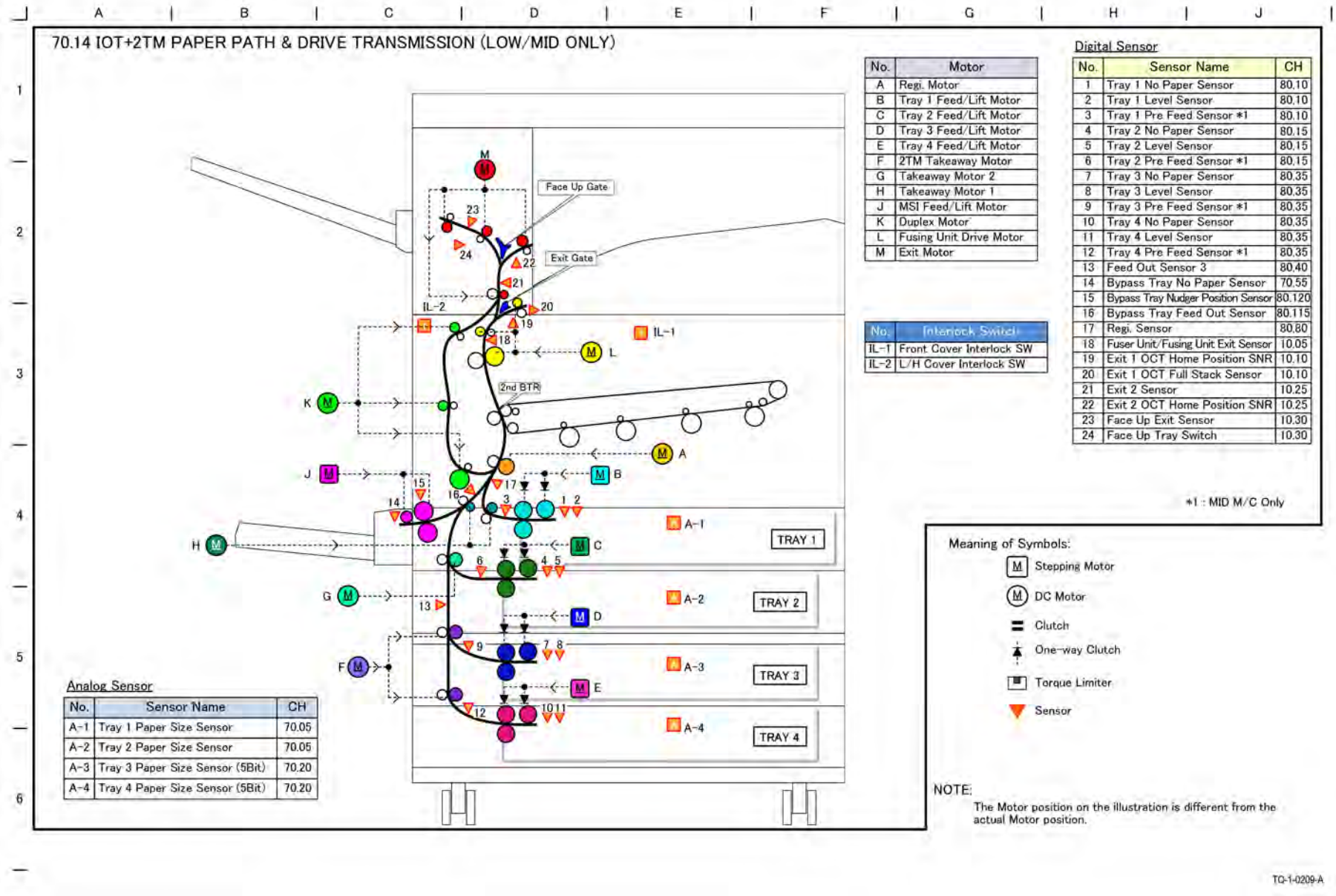
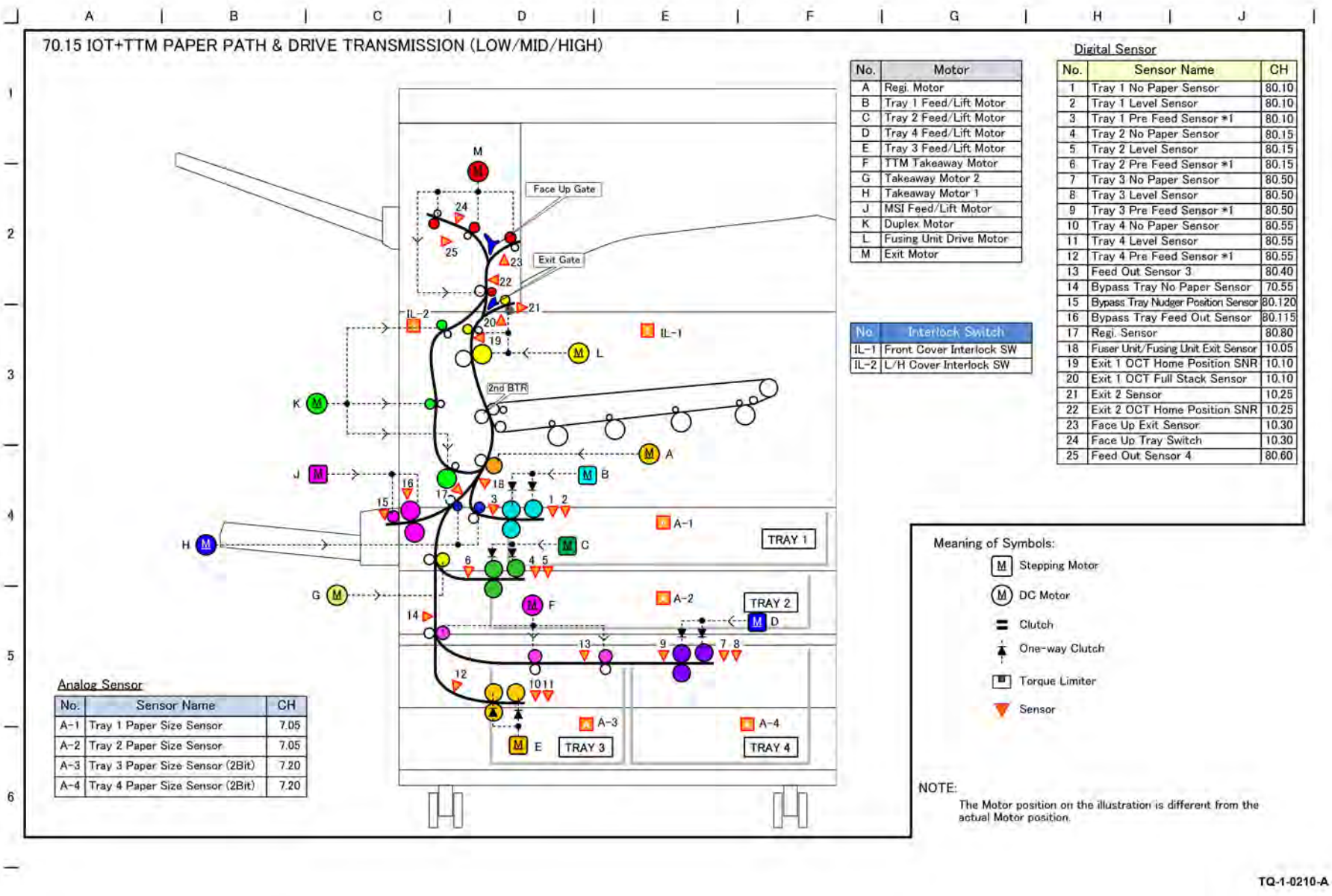


Figure 1 BSD 70.14 IOT and 2TM Paper Path and Drive Transmission

BSD 70.15 IOT and TTM Paper Path and Drive Transmission (Low/Mid/High)



No.	Motor
A	Regi. Motor
B	Tray 1 Feed/Lift Motor
C	Tray 2 Feed/Lift Motor
D	Tray 4 Feed/Lift Motor
E	Tray 3 Feed/Lift Motor
F	TTM Takeaway Motor
G	Takeaway Motor 2
H	Takeaway Motor 1
J	MSI Feed/Lift Motor
K	Duplex Motor
L	Fusing Unit Drive Motor
M	Exit Motor

No.	Interlock Switch
IL-1	Front Cover Interlock SW
IL-2	L/H Cover Interlock SW

Digital Sensor

No.	Sensor Name	CH
1	Tray 1 No Paper Sensor	80.10
2	Tray 1 Level Sensor	80.10
3	Tray 1 Pre Feed Sensor *1	80.10
4	Tray 2 No Paper Sensor	80.15
5	Tray 2 Level Sensor	80.15
6	Tray 2 Pre Feed Sensor *1	80.15
7	Tray 3 No Paper Sensor	80.50
8	Tray 3 Level Sensor	80.50
9	Tray 3 Pre Feed Sensor *1	80.50
10	Tray 4 No Paper Sensor	80.55
11	Tray 4 Level Sensor	80.55
12	Tray 4 Pre Feed Sensor *1	80.55
13	Feed Out Sensor 3	80.40
14	Bypass Tray No Paper Sensor	70.55
15	Bypass Tray Nudger Position Sensor	80.120
16	Bypass Tray Feed Out Sensor	80.115
17	Regi. Sensor	80.80
18	Fuser Unit/Fusing Unit Exit Sensor	10.05
19	Exit 1 OCT Home Position SNR	10.10
20	Exit 1 OCT Full Stack Sensor	10.10
21	Exit 2 Sensor	10.25
22	Exit 2 OCT Home Position SNR	10.25
23	Face Up Exit Sensor	10.30
24	Face Up Tray Switch	10.30
25	Feed Out Sensor 4	80.60

Analog Sensor

No.	Sensor Name	CH
A-1	Tray 1 Paper Size Sensor	7.05
A-2	Tray 2 Paper Size Sensor	7.05
A-3	Tray 3 Paper Size Sensor (2Bit)	7.20
A-4	Tray 4 Paper Size Sensor (2Bit)	7.20

Figure 1 BSD 70.15 IOT and TTM Paper Path and Drive Transmission

BSD 80.1 Tray 1 and 2 Paper Pre-feeding (Mid/High)

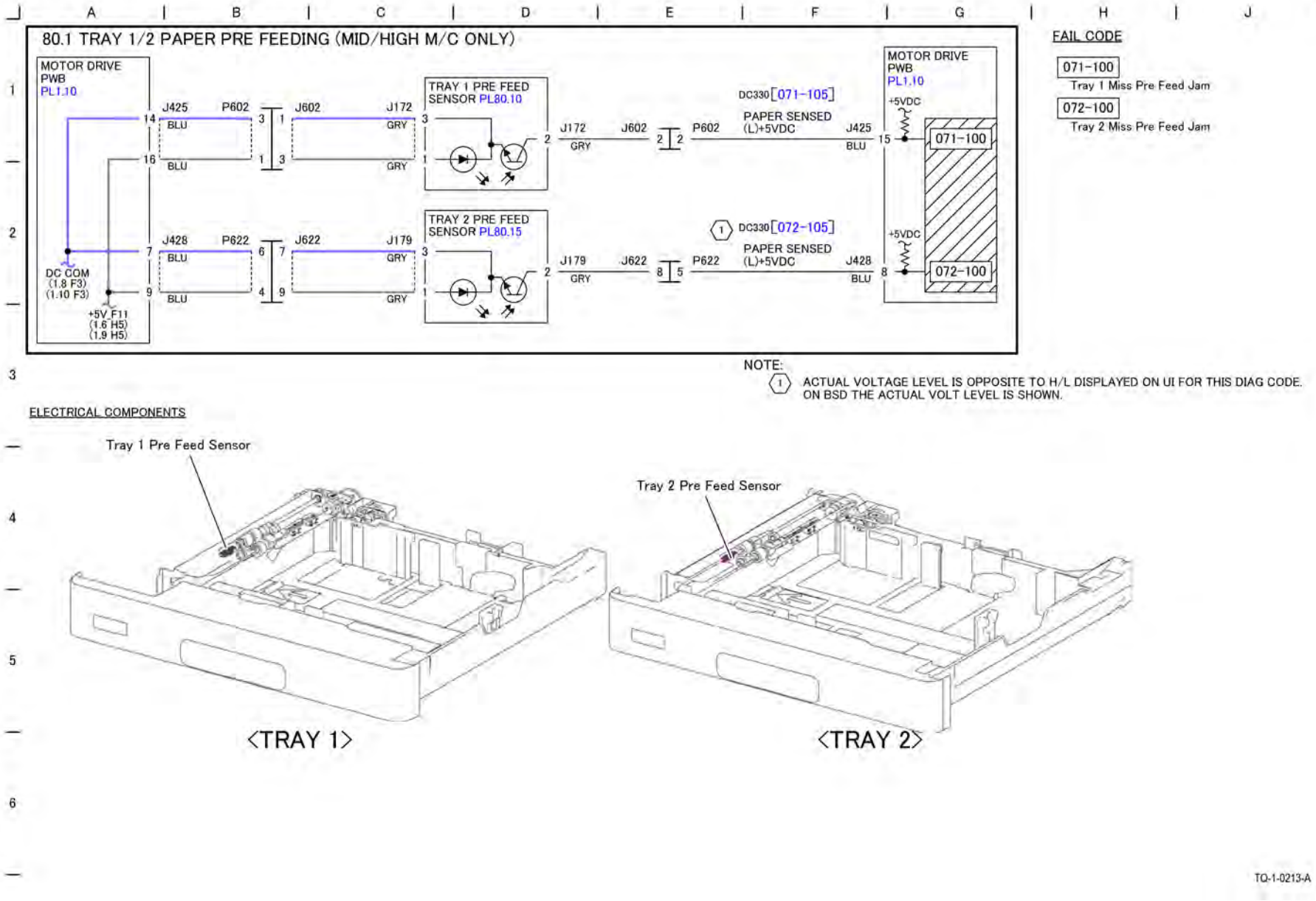


Figure 1 BSD 80.1 Tray 1 and 2 Paper Pre-feeding (Mid/High)

BSD 80.2 Tray 3 and 4 Paper Pre-Feeding

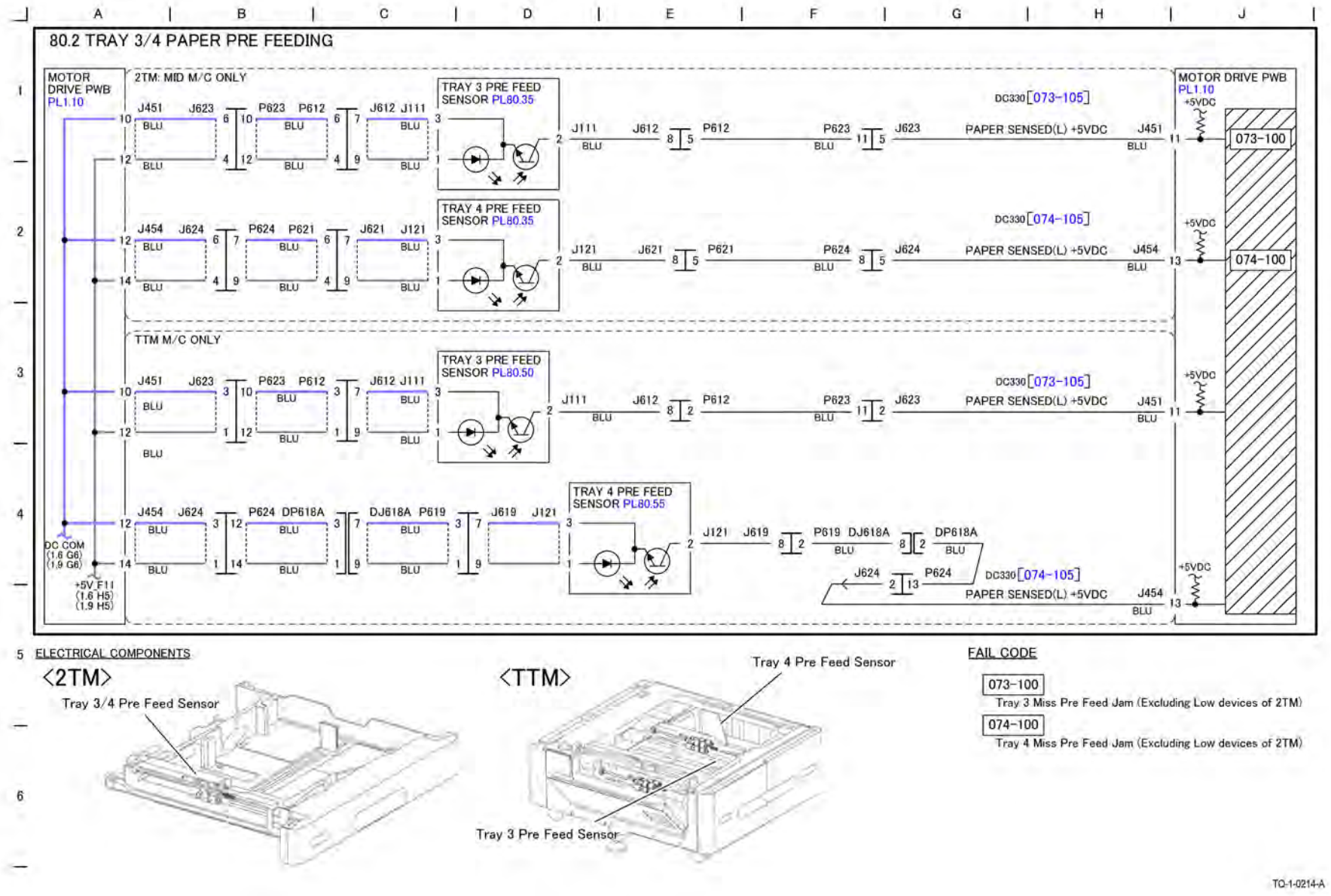


Figure 1 BSD 80.2 Tray 3 and 4 Paper Pre-Feeding

BSD 80.3 Tray 1 and Bypass Tray Paper Transport

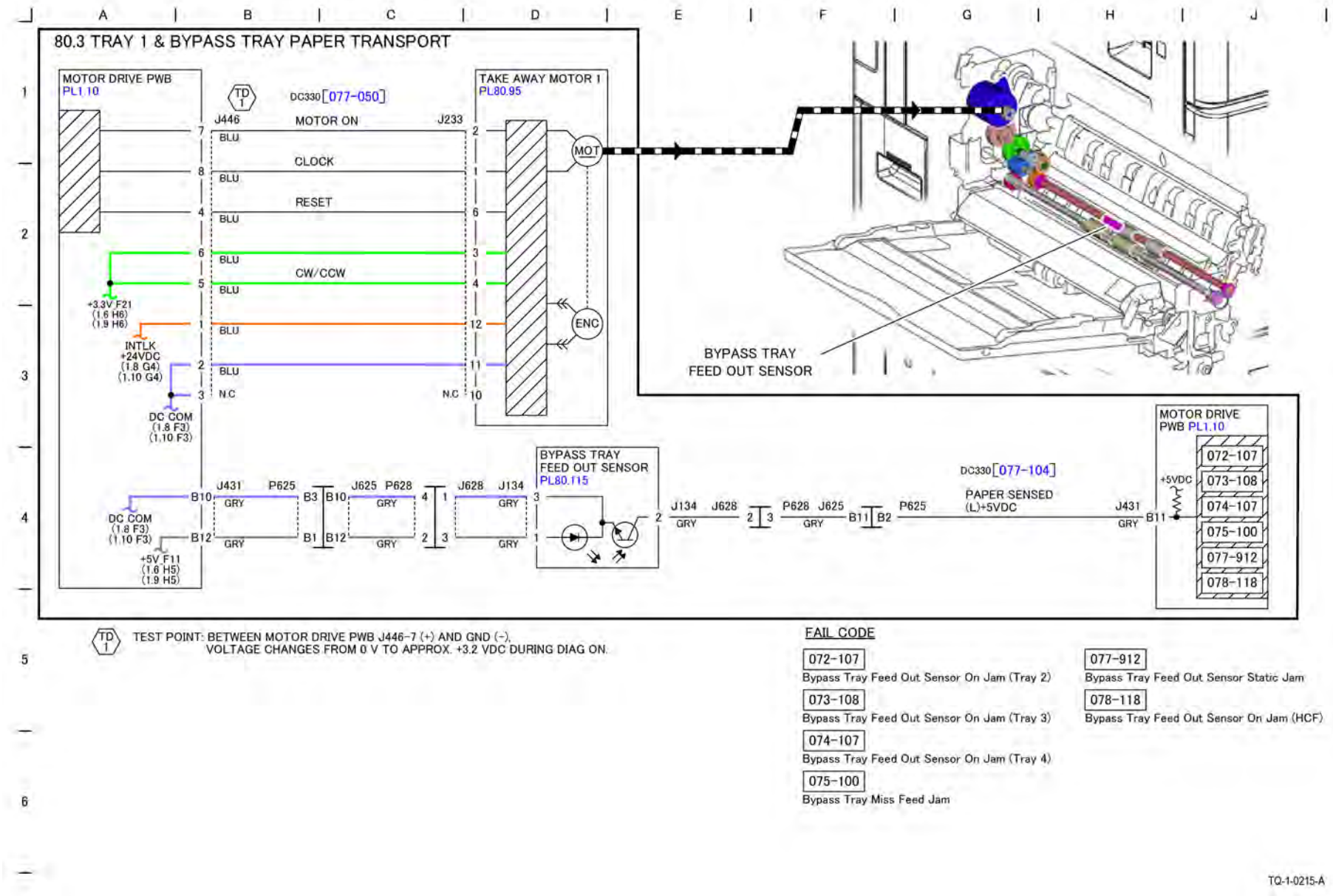


Figure 1 BSD 80.3 Tray 1 and Bypass Tray Paper Transport

BSD 80.4 Tray 2 Paper Transport

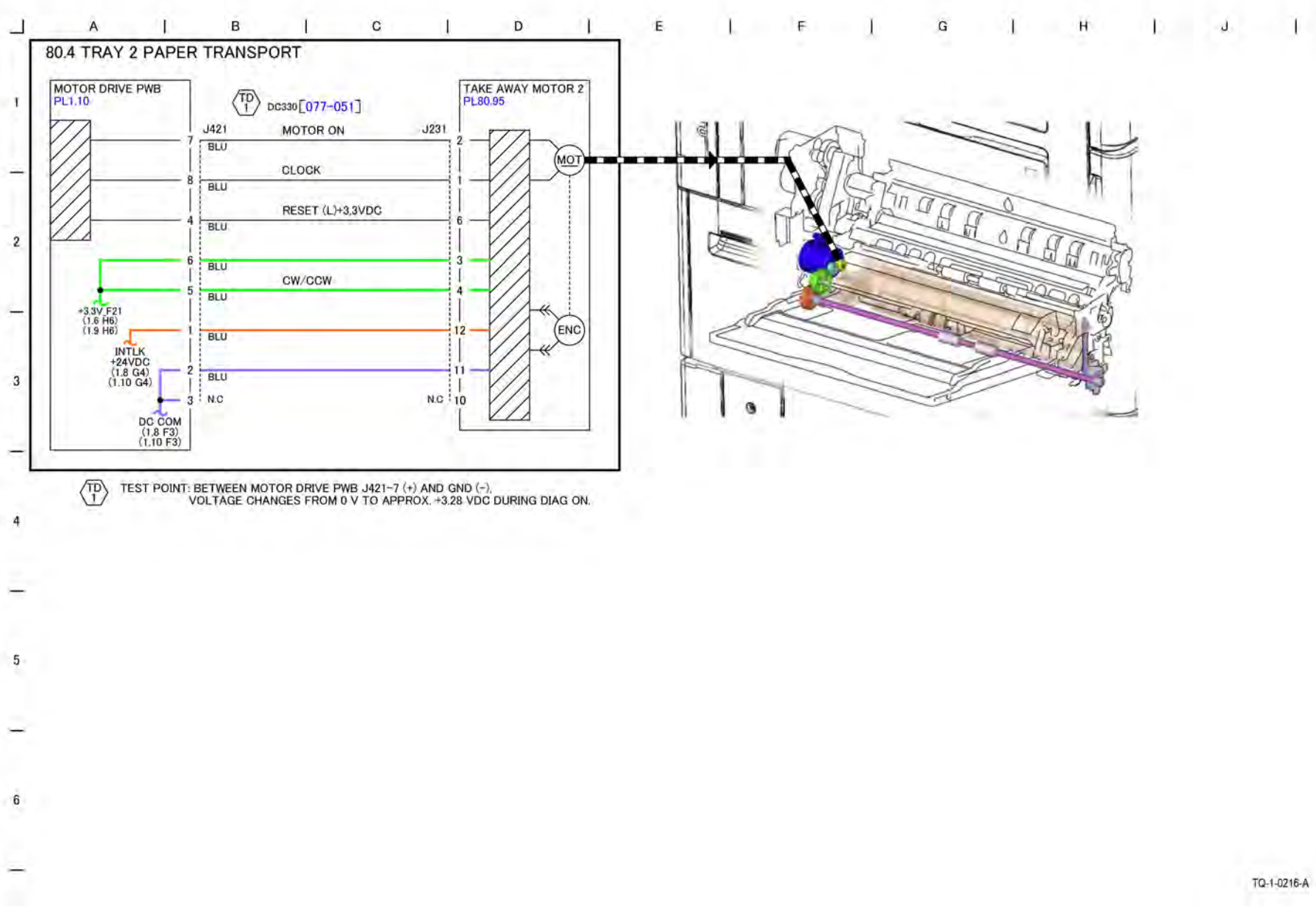


Figure 1 BSD 80.4 Tray 2 Paper Transport

BSD 80.5 2TM Paper Transport

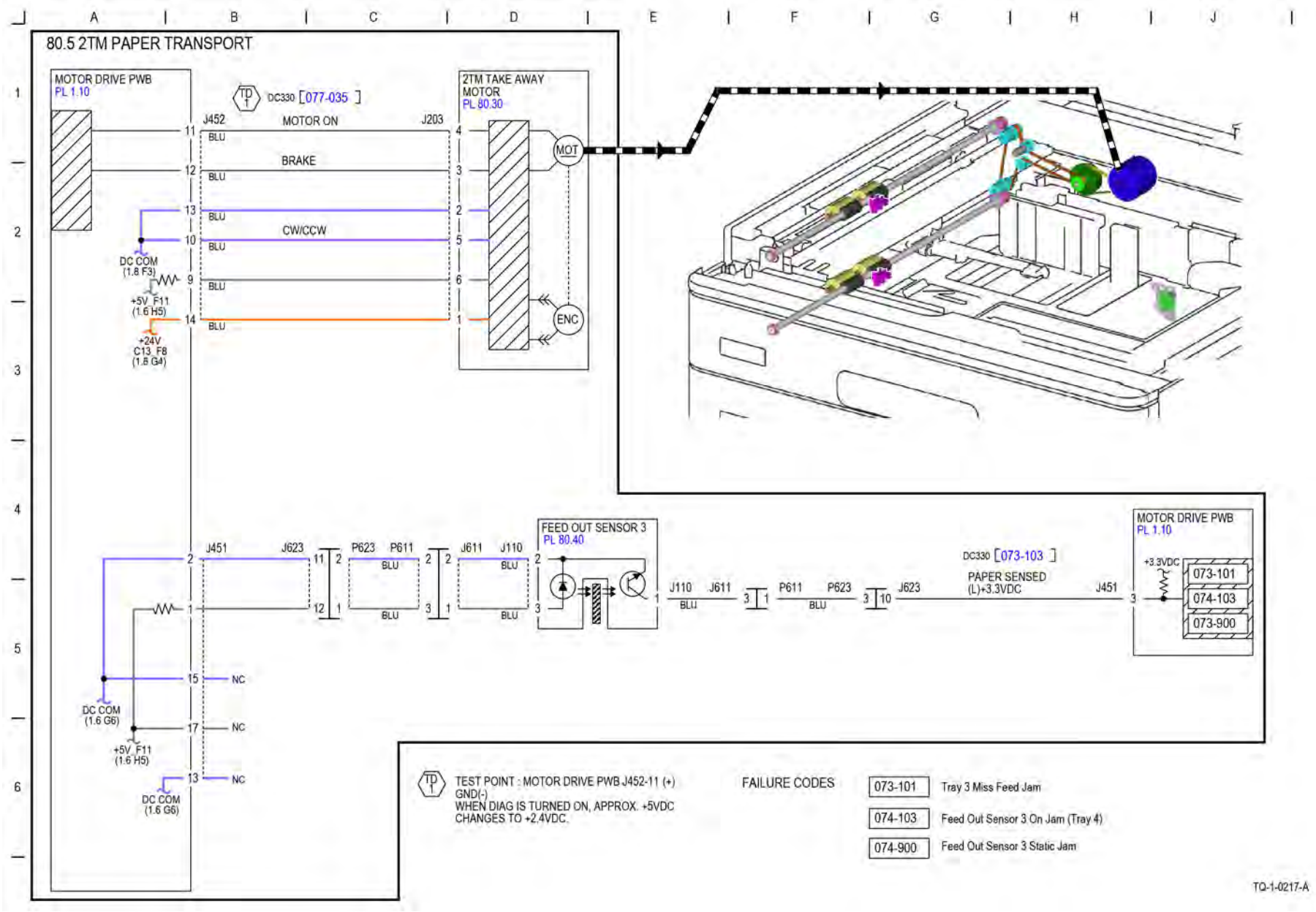


Figure 1 BSD 80.5 2TM Paper Transport

BSD 80.6 TTM Paper Transport

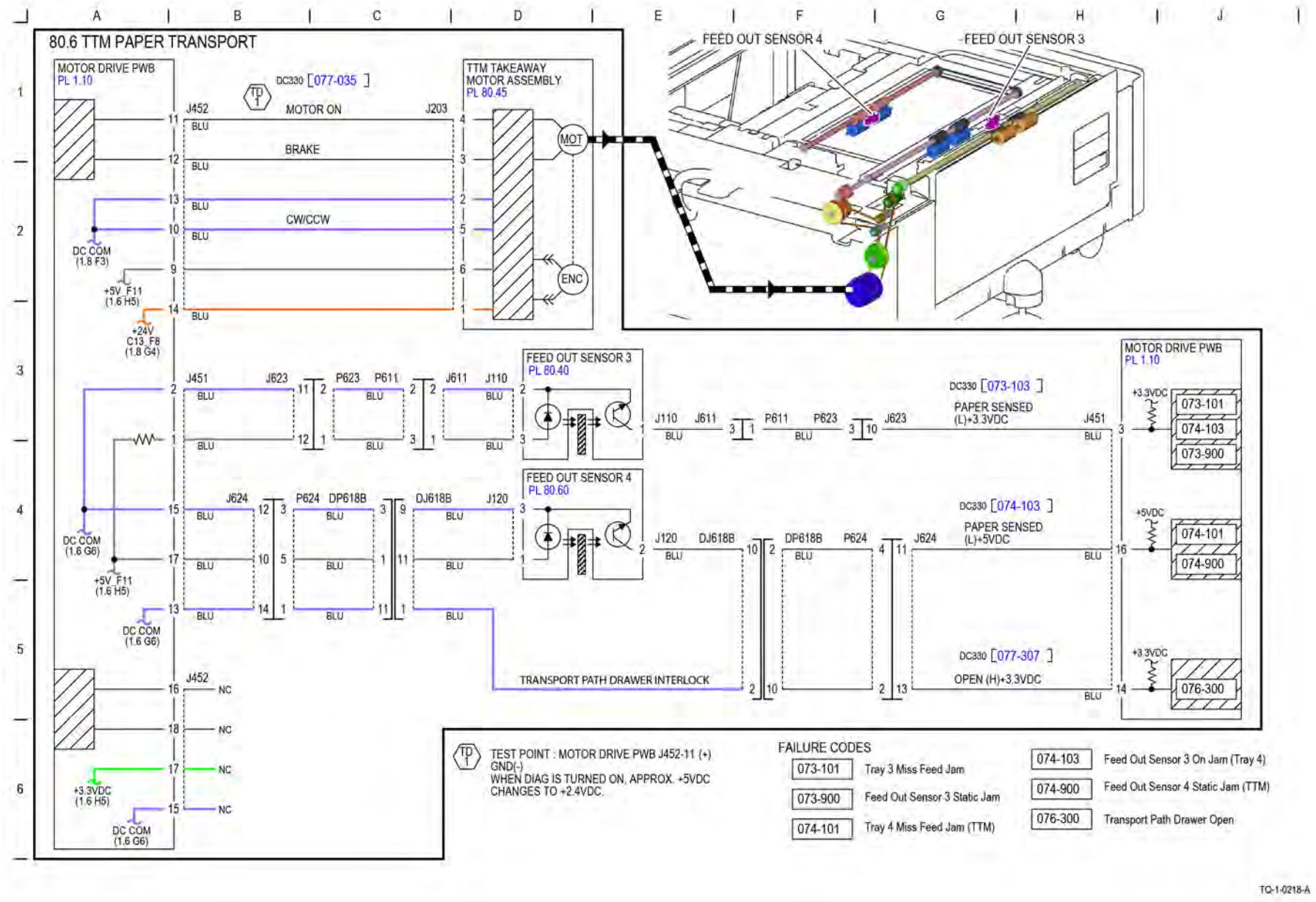


Figure 1 BSD 80.6 TTM Paper Transport

BSD 80.7 Registration

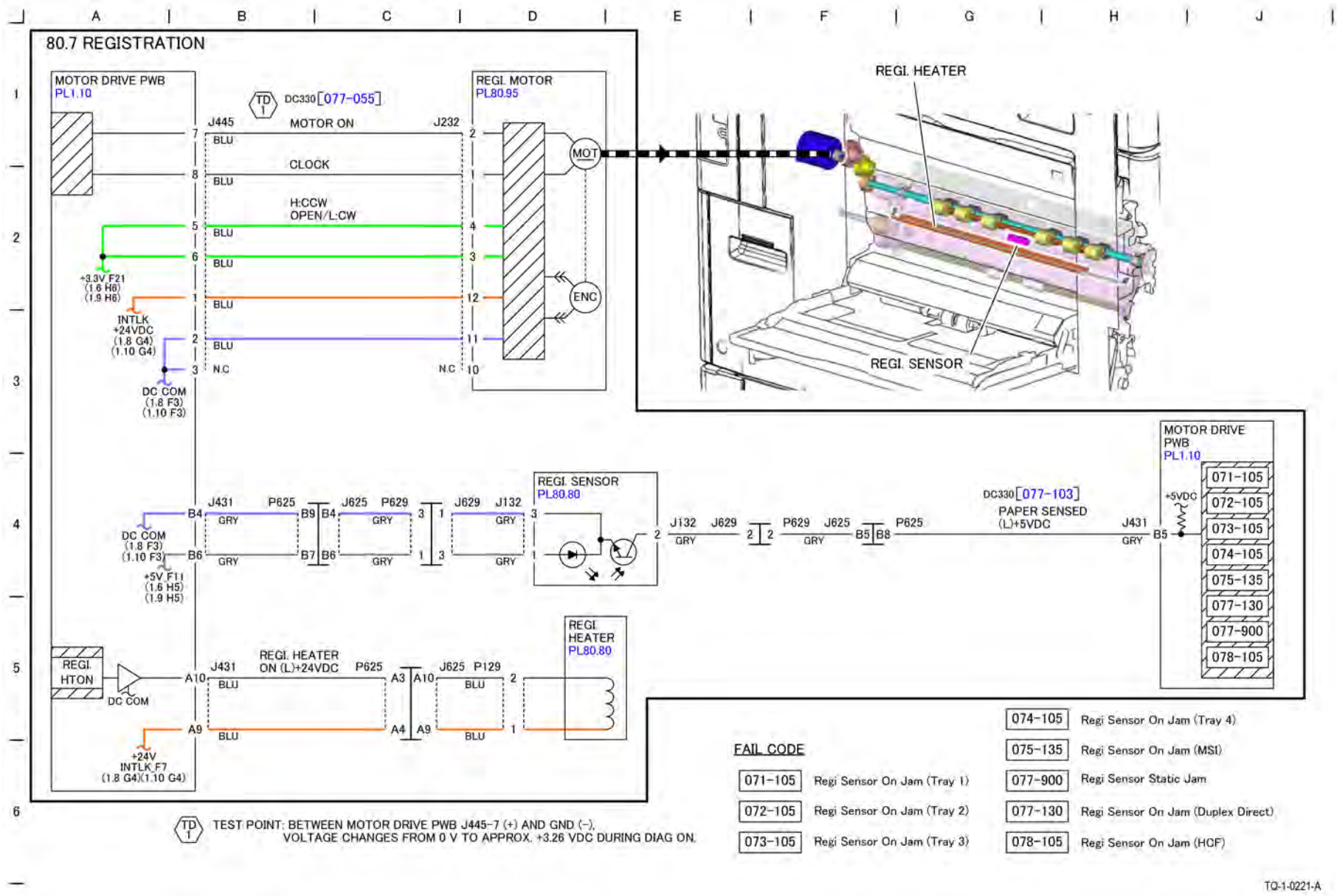


Figure 1 BSD 80.7 Registration

BSD 90.1 NOT USED

BSD 90.2 NOT USED

BSD 90.3 Drum Life Control (Y, M)

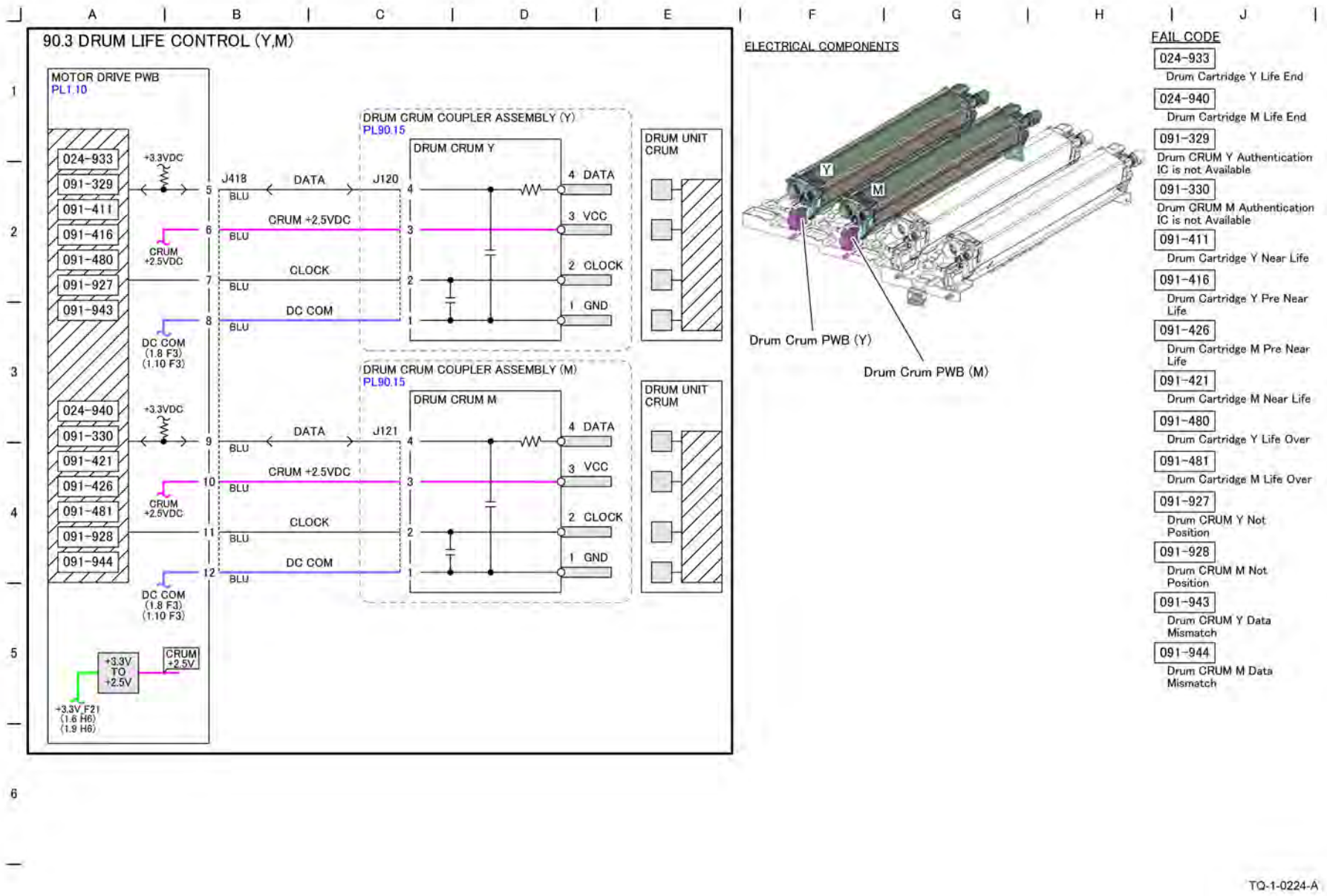


Figure 1 BSD 90.3 Drum Life Control (Y, M)

BSD 90.4 Drum Life Control (C, K)

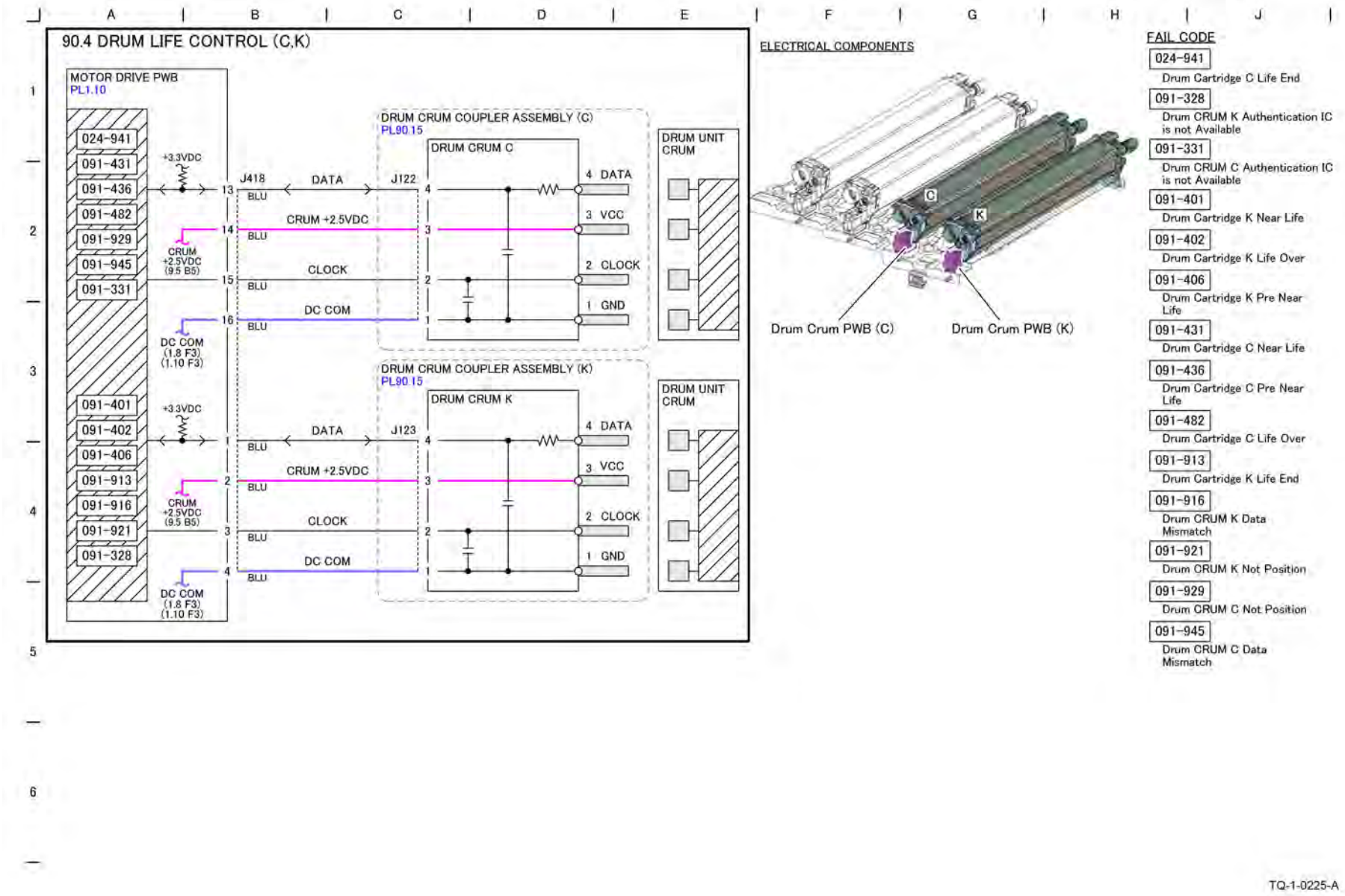


Figure 1 BSD 90.4 Drum Life Control (C, K)

BSD 90.5 Toner Cartridge Life Control (Y, M)

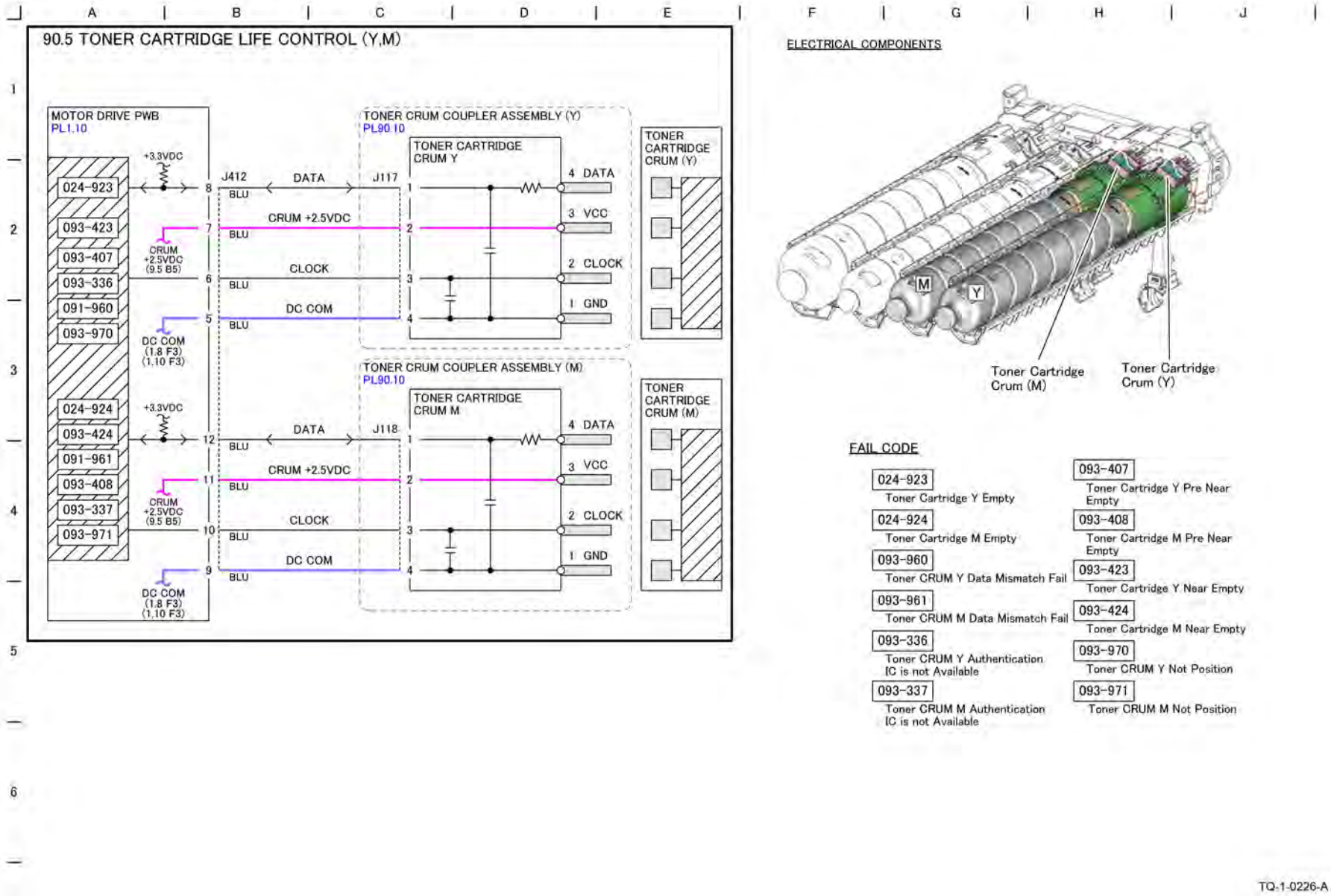


Figure 1 BSD 90.5 Toner Cartridge Life Control (Y, M)

BSD 90.6 Toner Cartridge Life Control (C, K)

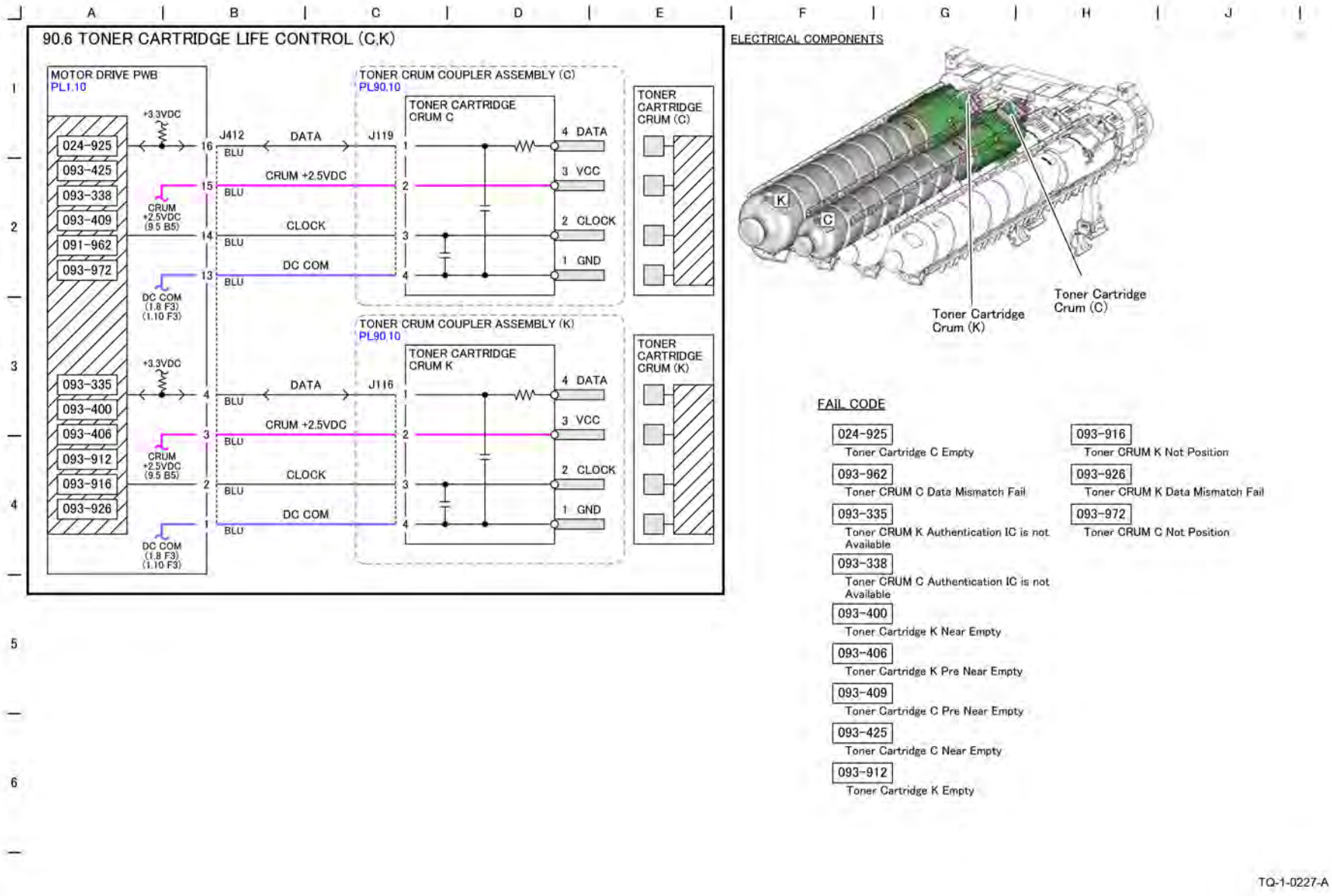


Figure 1 BSD 90.6 Toner Cartridge Life Control (C, K)

BSD 90.7 Toner Cartridge Cooling (Mid/High)

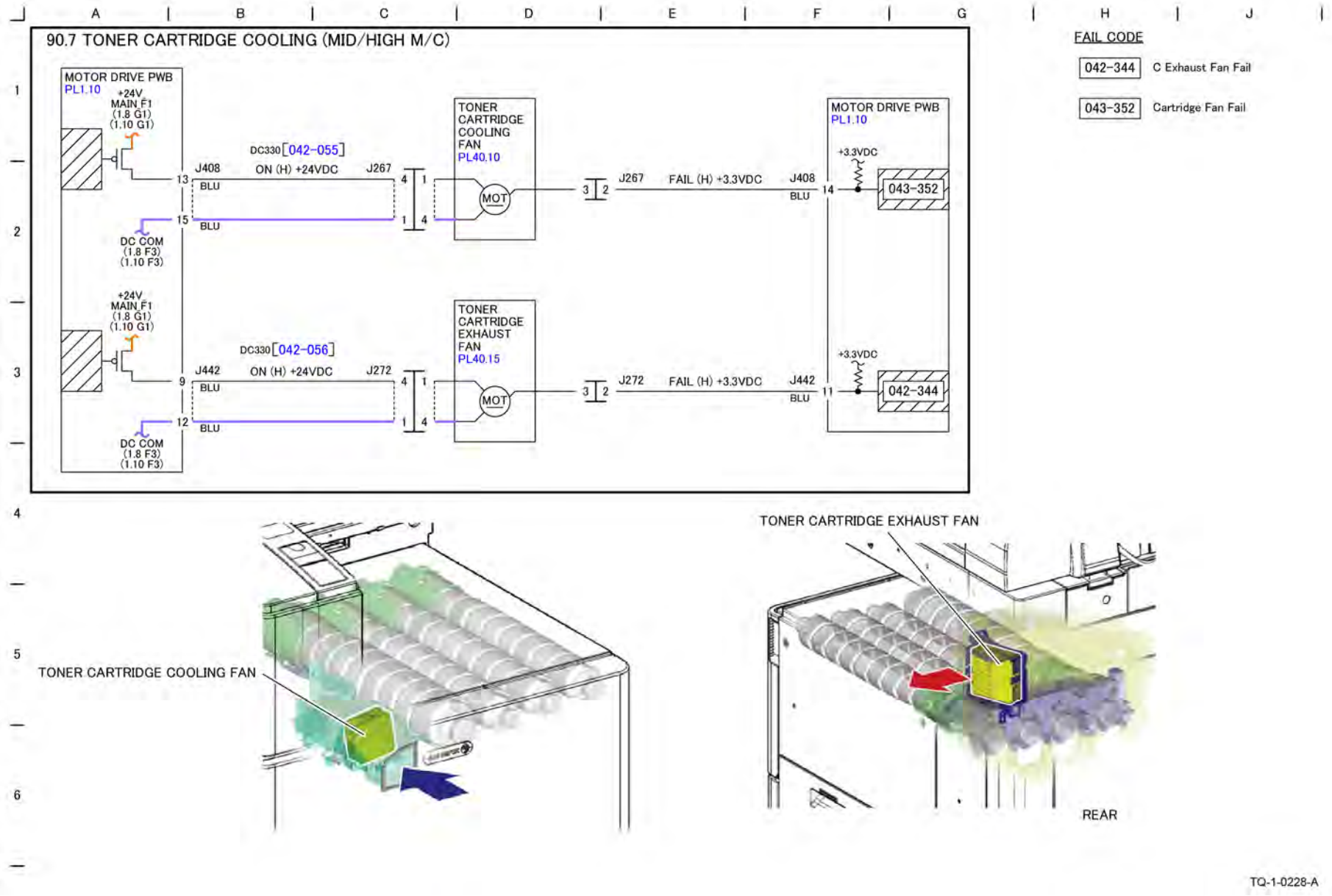


Figure 1 BSD 90.7 Toner Cartridge Cooling (Mid/High)

BSD 90.8 Toner Dispense

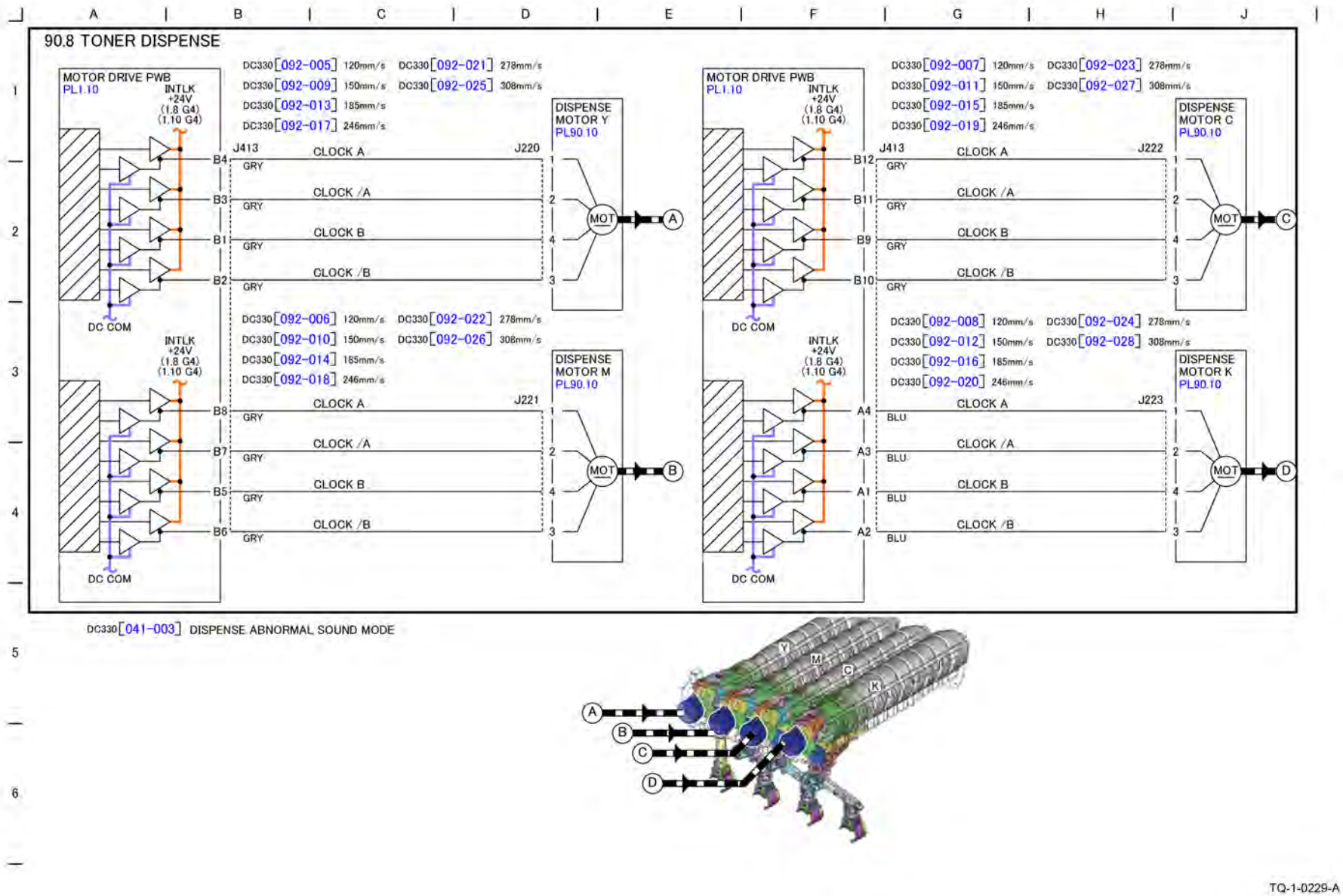


Figure 1 BSD 90.8 Toner Dispense

BSD 90.9 Charging and Exposure Y

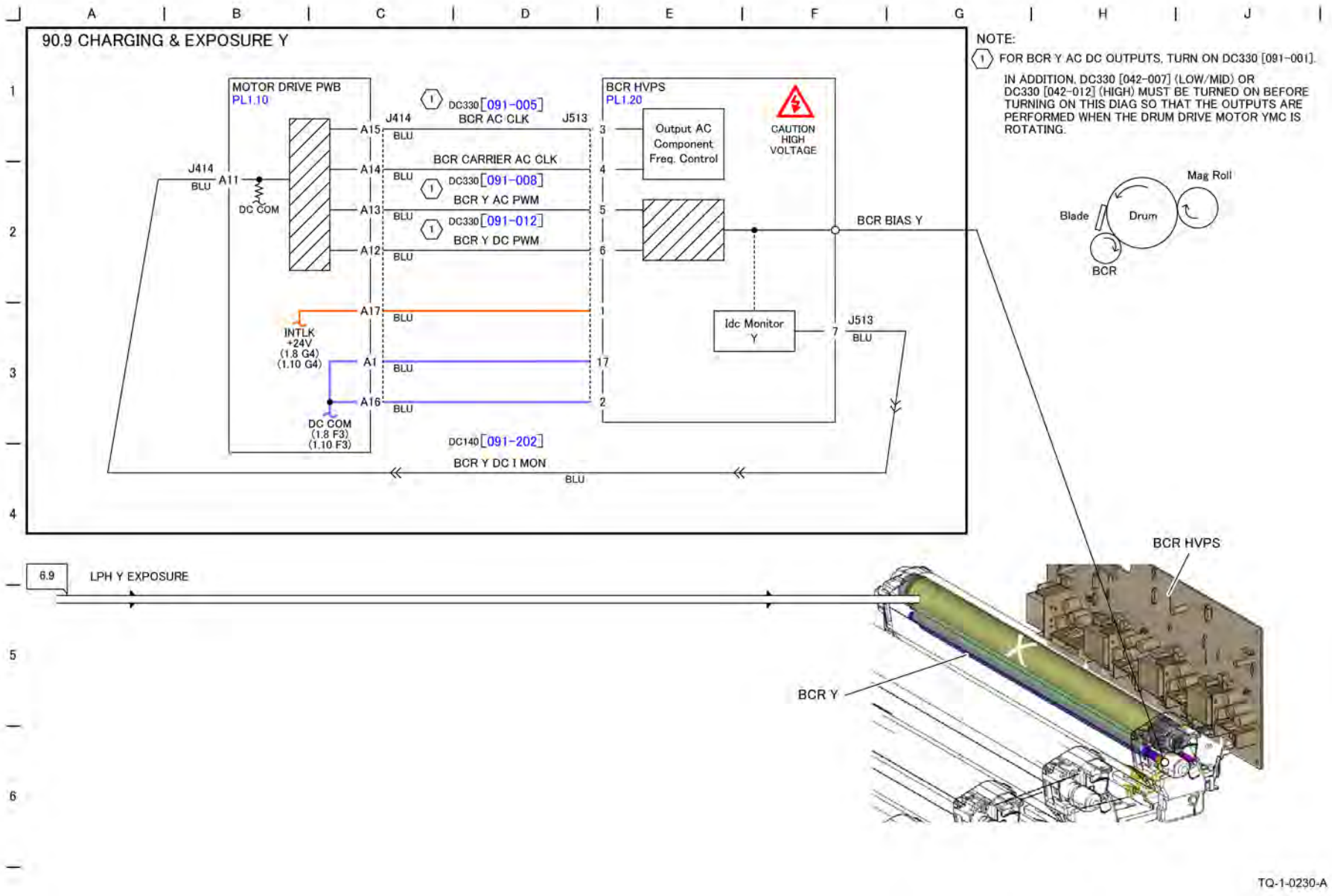


Figure 1 BSD 90.9 Charging and Exposure Y

BSD 90.10 Charging and Exposure M

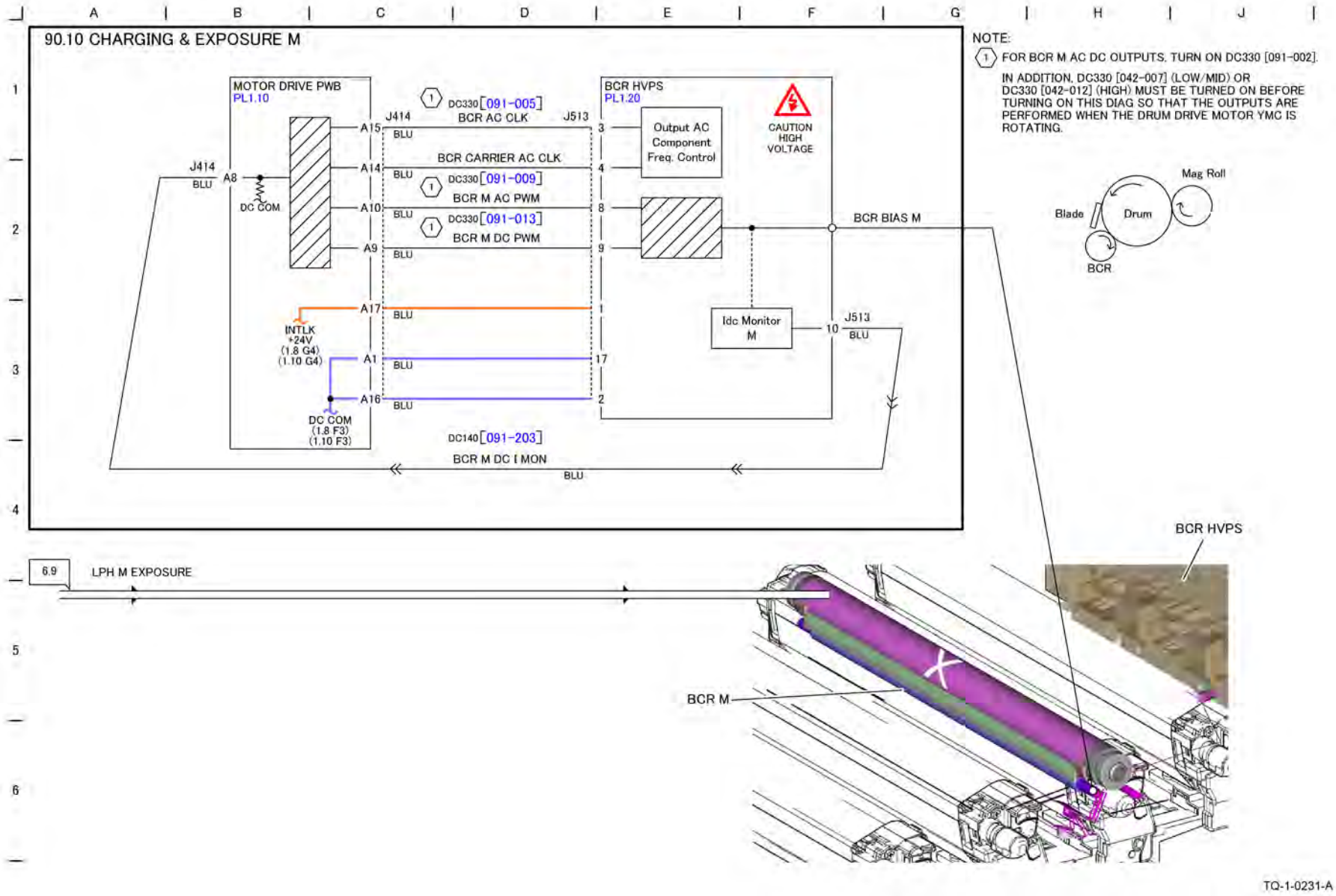


Figure 1 BSD 90.10 Charging and Exposure M

BSD 90.11 Charging and Exposure C

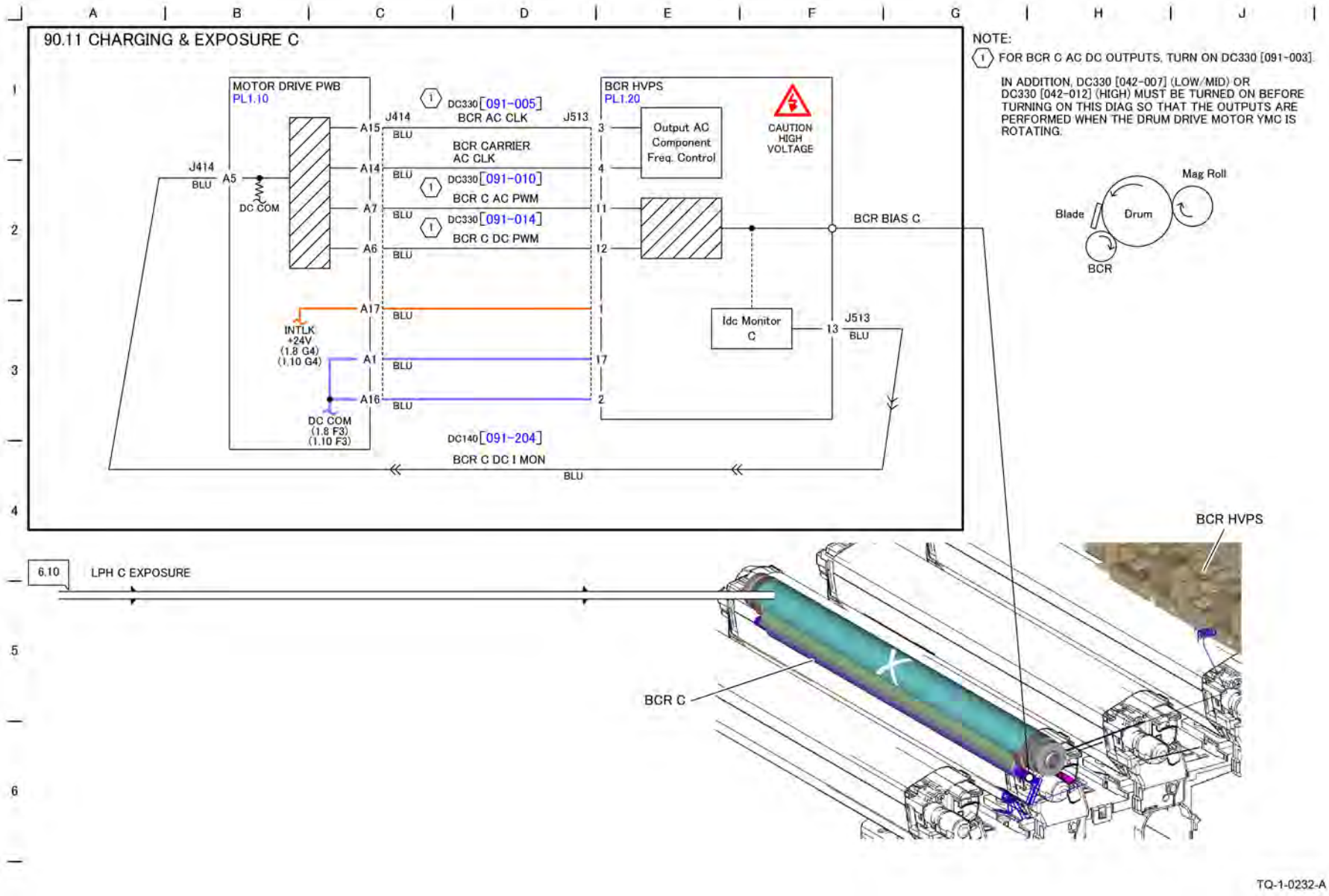


Figure 1 BSD 90.11 Charging and Exposure C

BSD 90.12 Charging and Exposure K

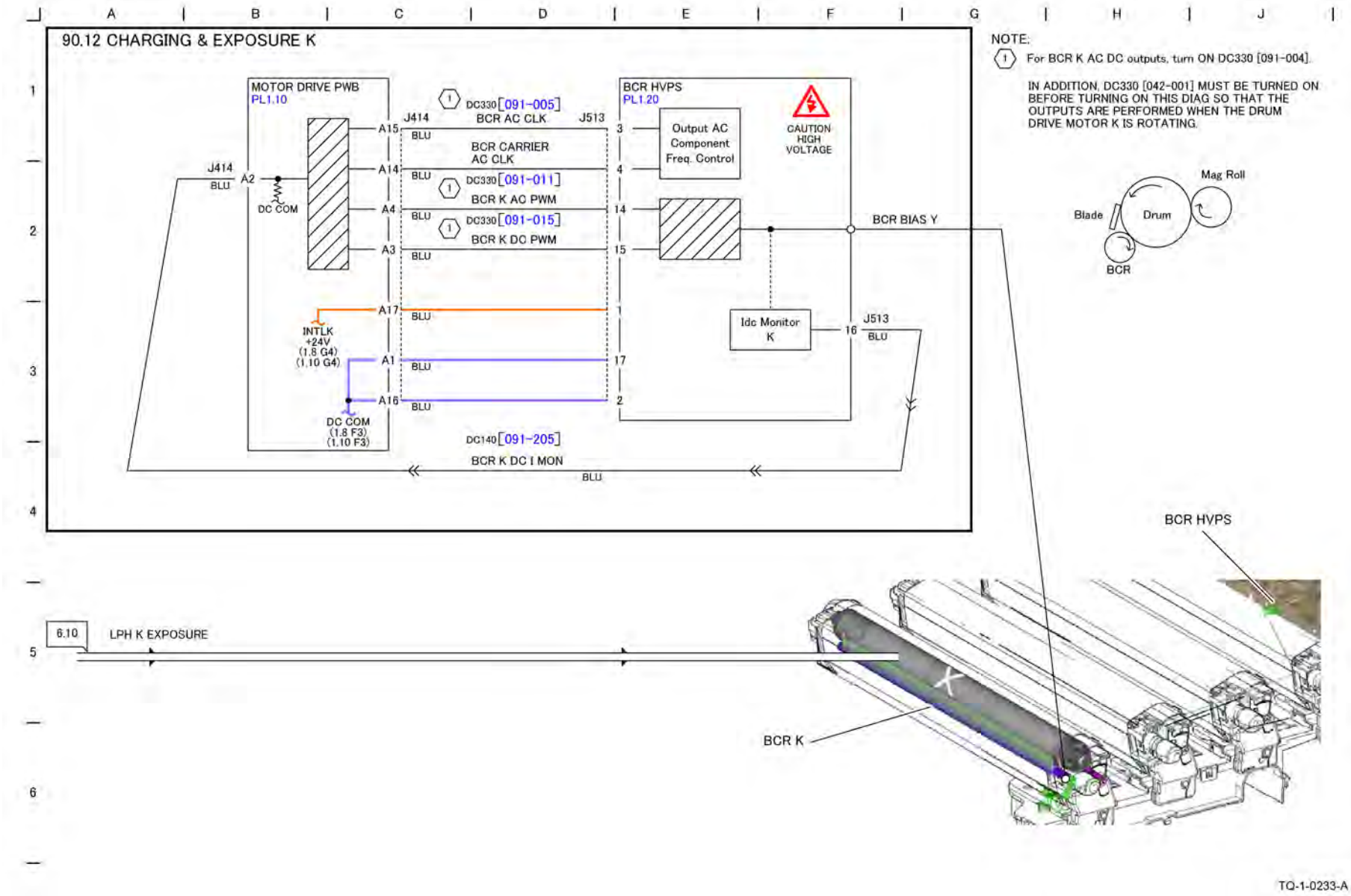


Figure 1 BSD 90.12 Charging and Exposure K

BSD 90.13 Development Y

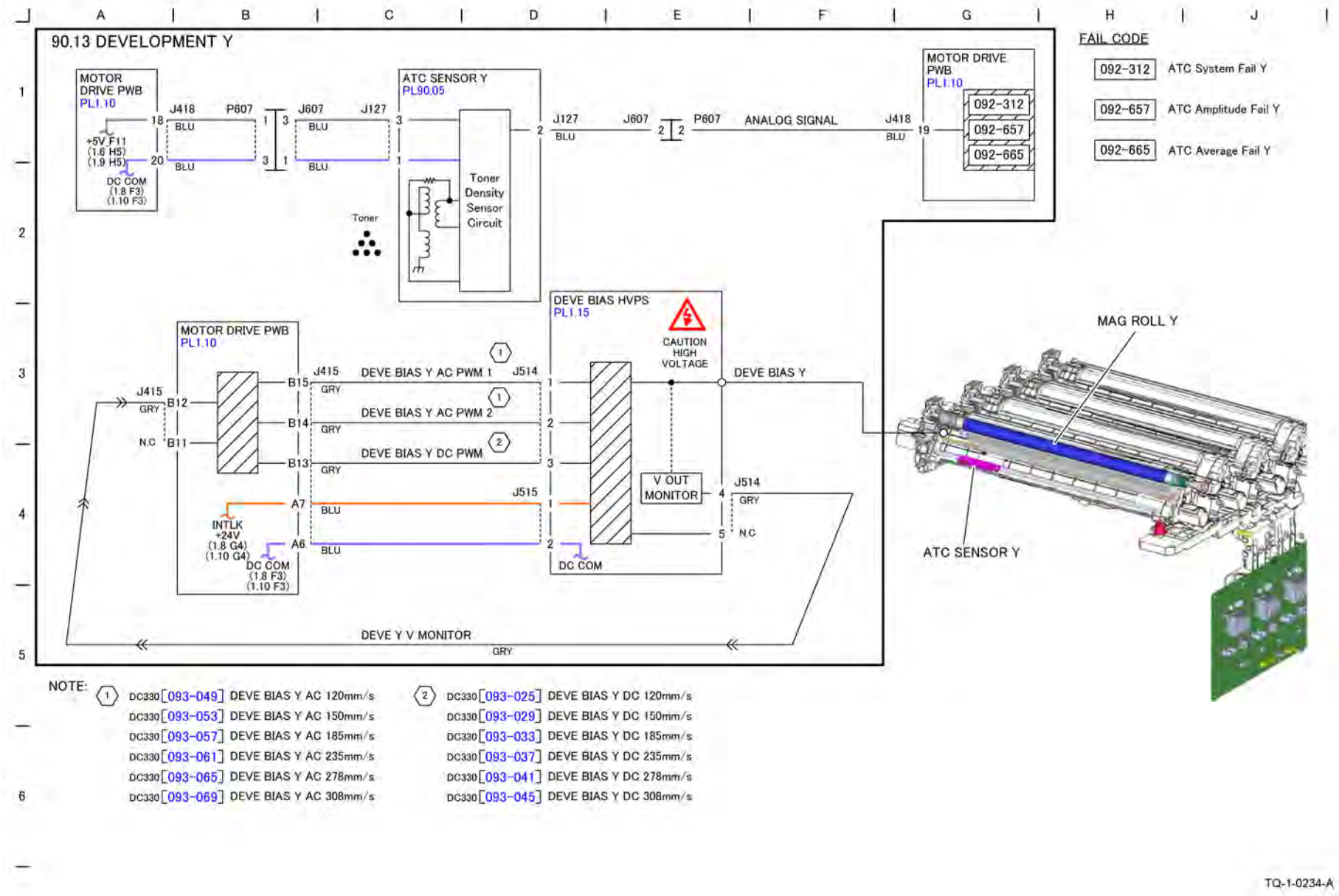


Figure 1 BSD 90.13 Development Y

BSD 90.14 Development M

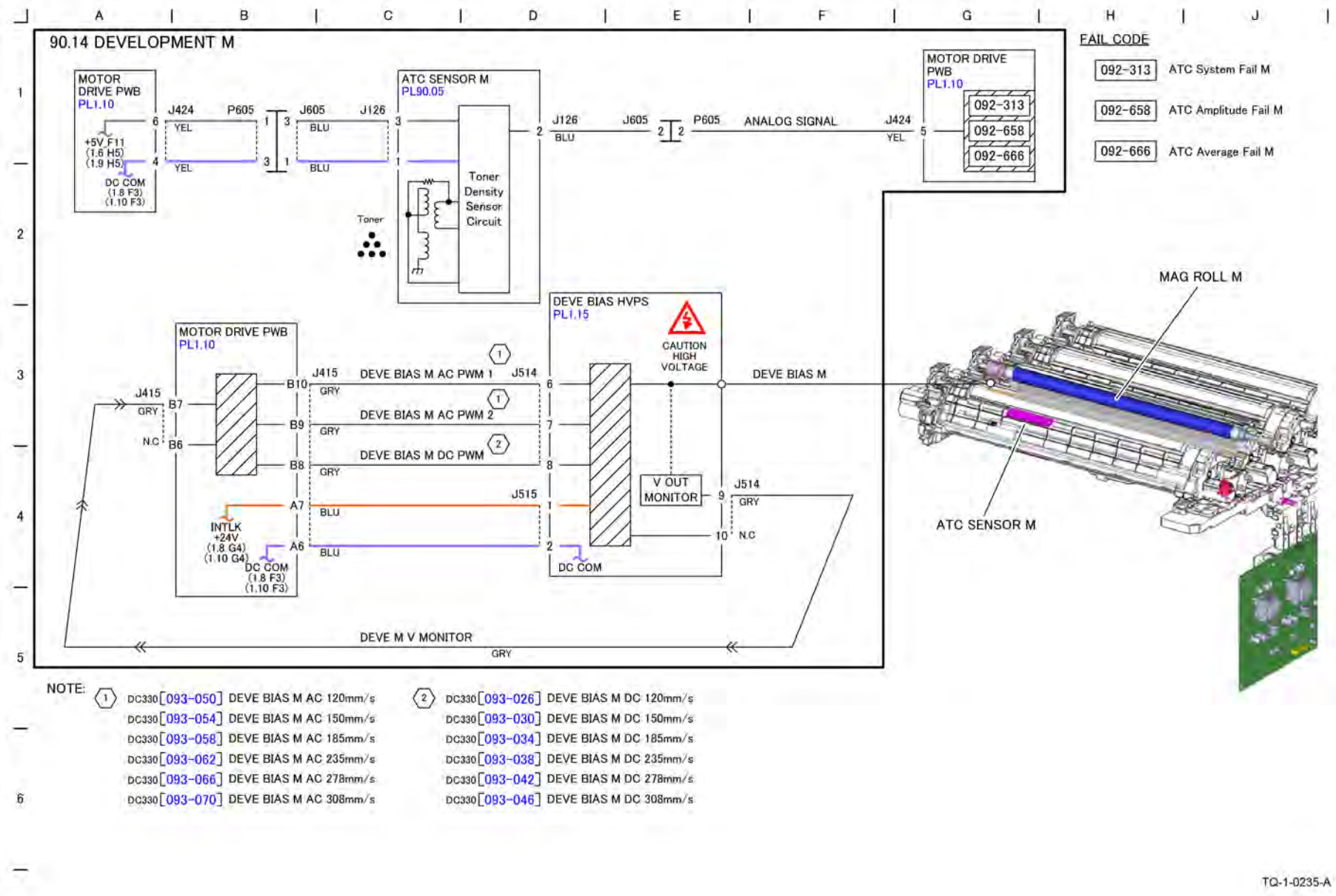
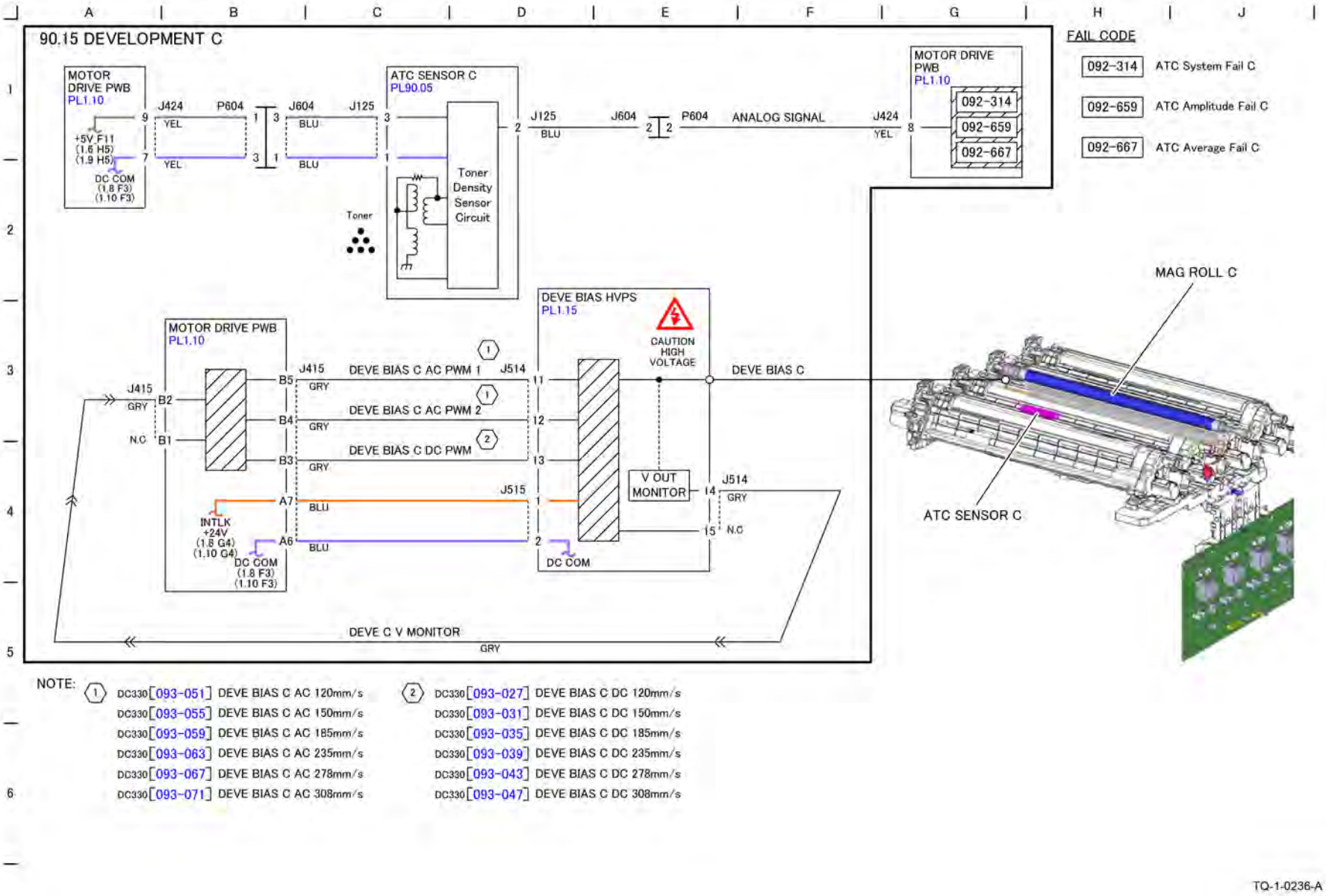


Figure 1 BSD 90.14 Development M

BSD 90.15 Development C



NOTE:

①		②	
DC330[093-051]	DEVE BIAS C AC 120mm/s	DC330[093-027]	DEVE BIAS C DC 120mm/s
DC330[093-055]	DEVE BIAS C AC 150mm/s	DC330[093-031]	DEVE BIAS C DC 150mm/s
DC330[093-059]	DEVE BIAS C AC 185mm/s	DC330[093-035]	DEVE BIAS C DC 185mm/s
DC330[093-063]	DEVE BIAS C AC 235mm/s	DC330[093-039]	DEVE BIAS C DC 235mm/s
DC330[093-067]	DEVE BIAS C AC 278mm/s	DC330[093-043]	DEVE BIAS C DC 278mm/s
DC330[093-071]	DEVE BIAS C AC 308mm/s	DC330[093-047]	DEVE BIAS C DC 308mm/s

Figure 1 BSD 90.15 Development C

BSD 90.16 Development K

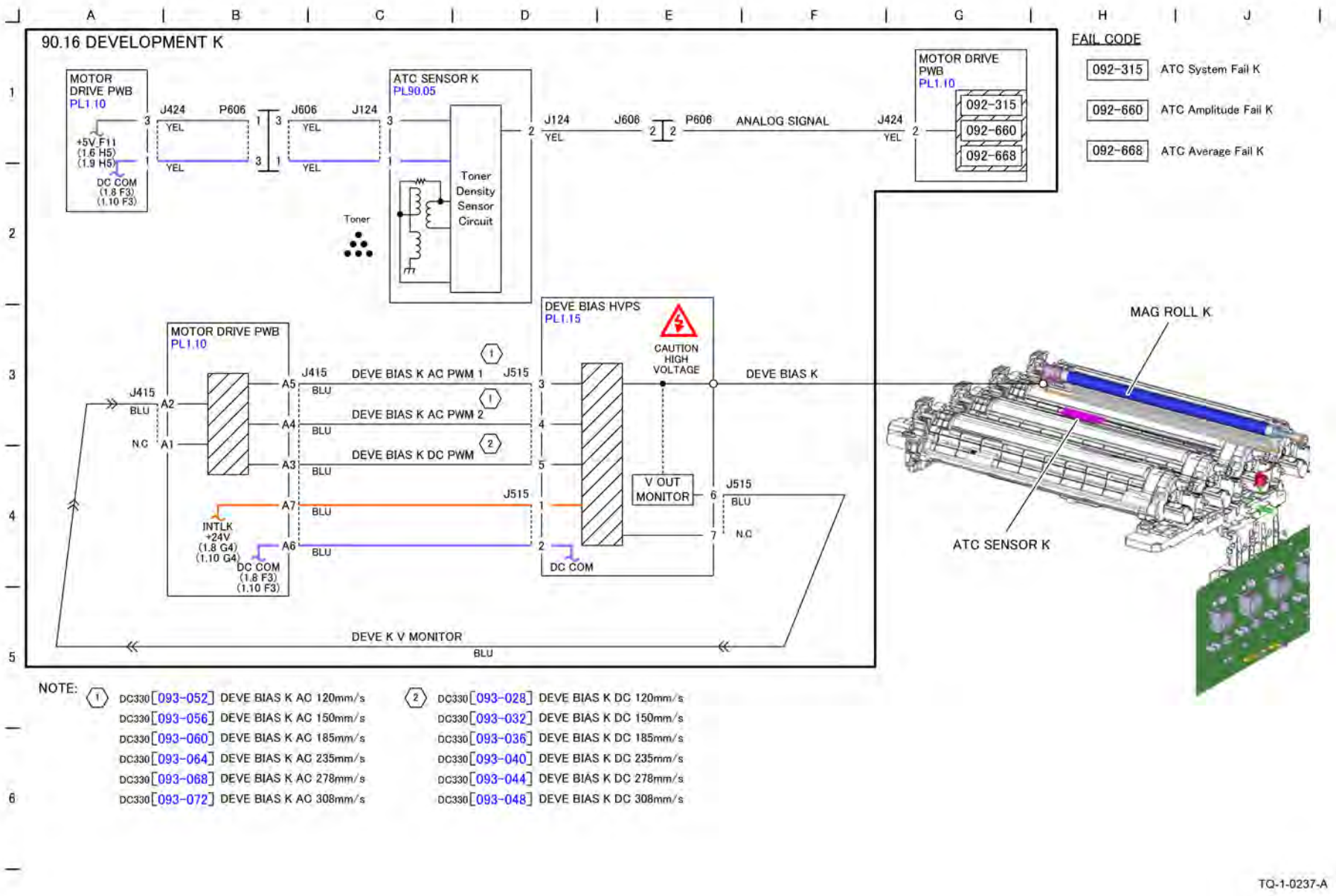


Figure 1 BSD 90.16 Development K

BSD 90.17 1st BTR Contact/Retract

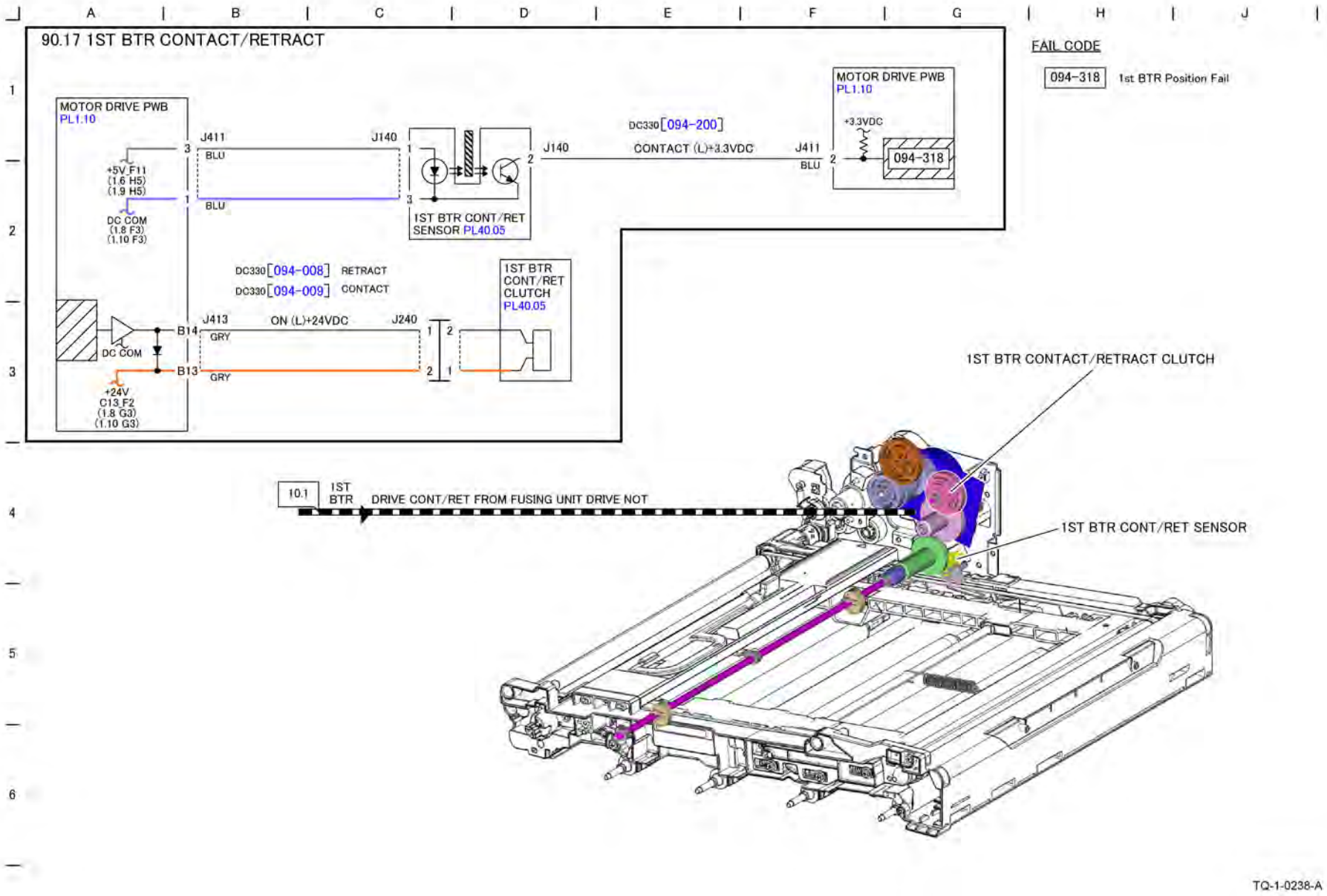


Figure 1 BSD 90.17 1st BTR Contact/Retract

BSD 90.18 Image Transfer to IBT

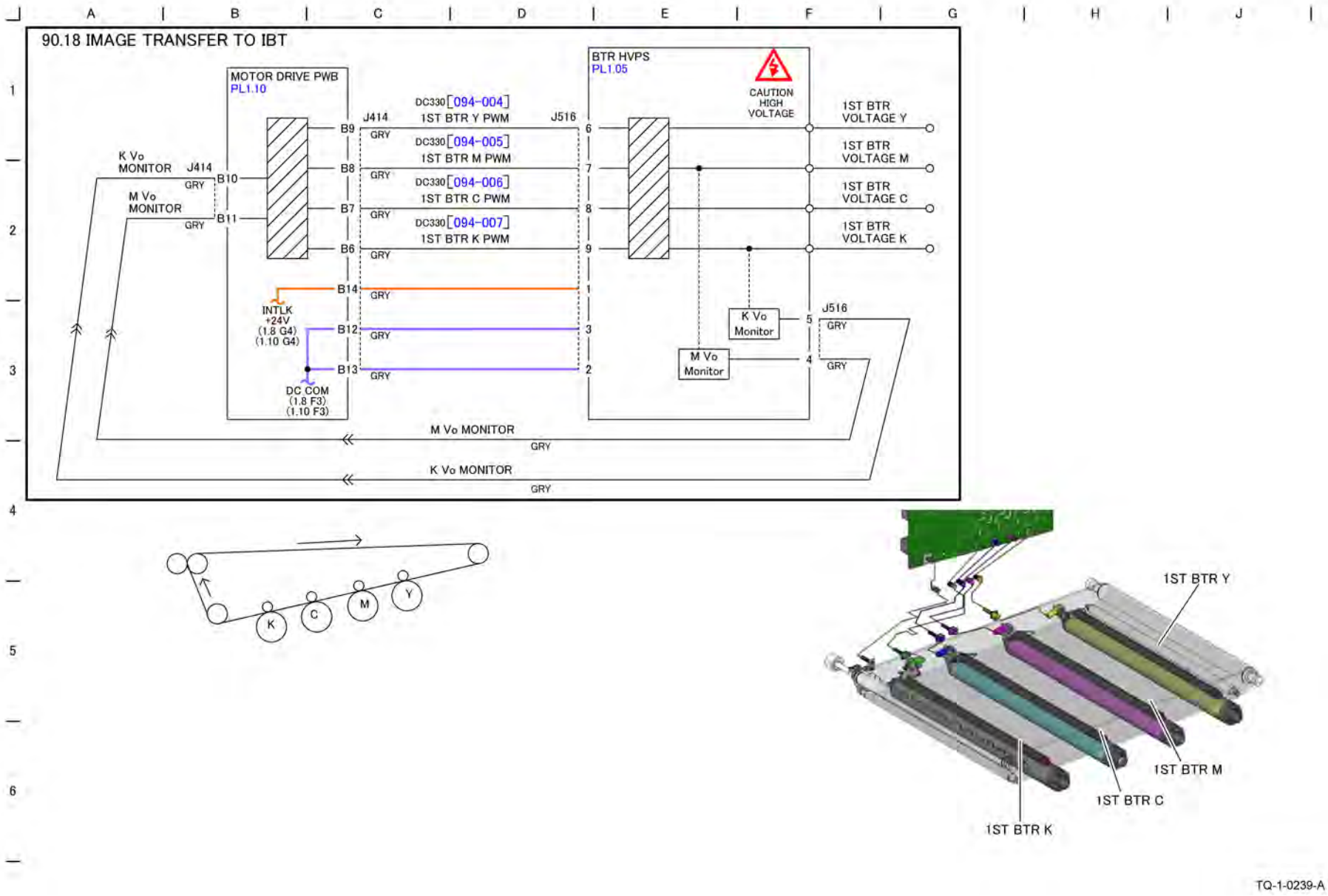


Figure 1 BSD 90.18 Image Transfer to IBT

BSD 90.19 Image Transfer to Paper

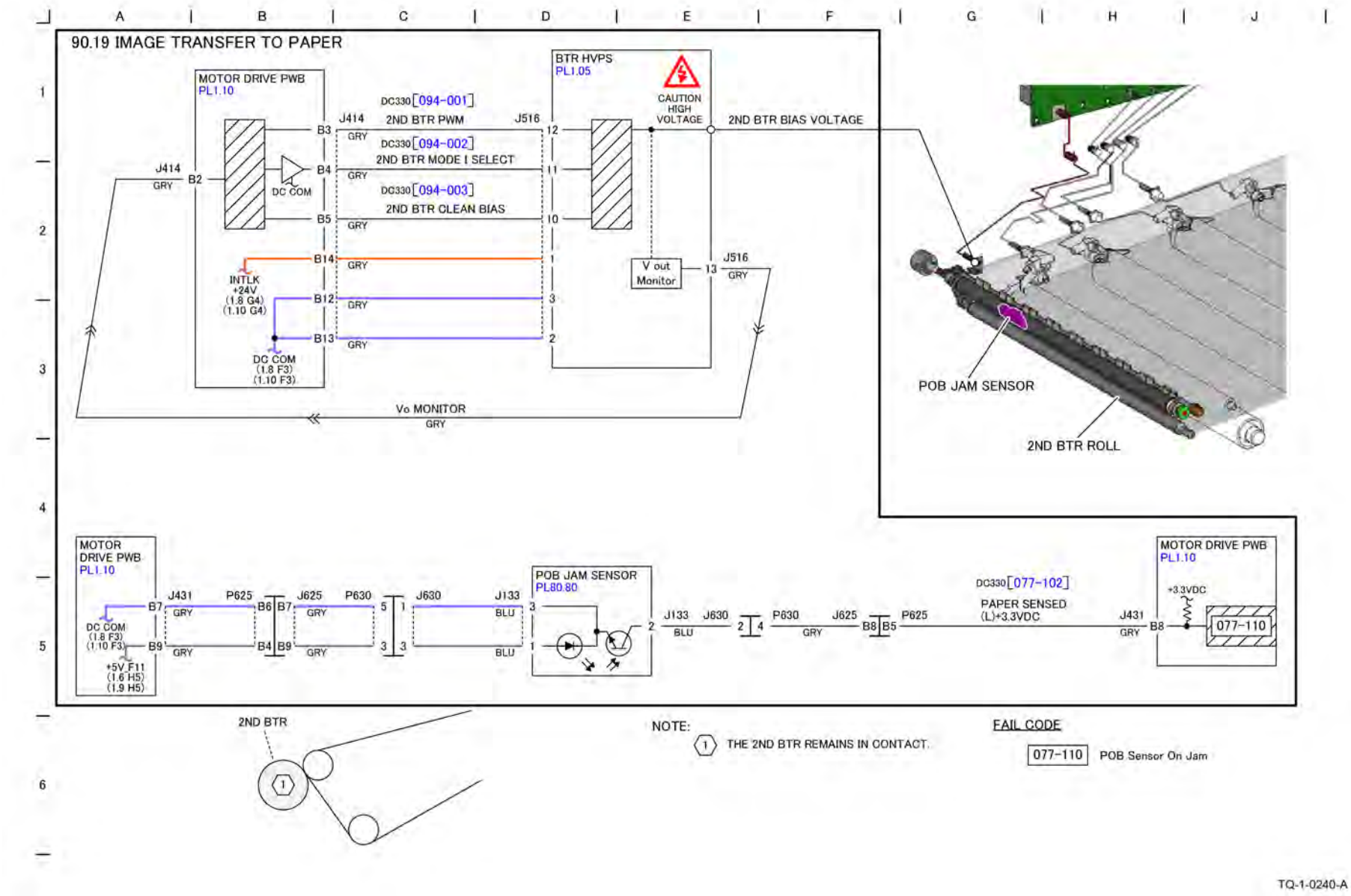


Figure 1 BSD 90.19 Image Transfer to Paper

BSD 90.20 Waste Toner Disposal

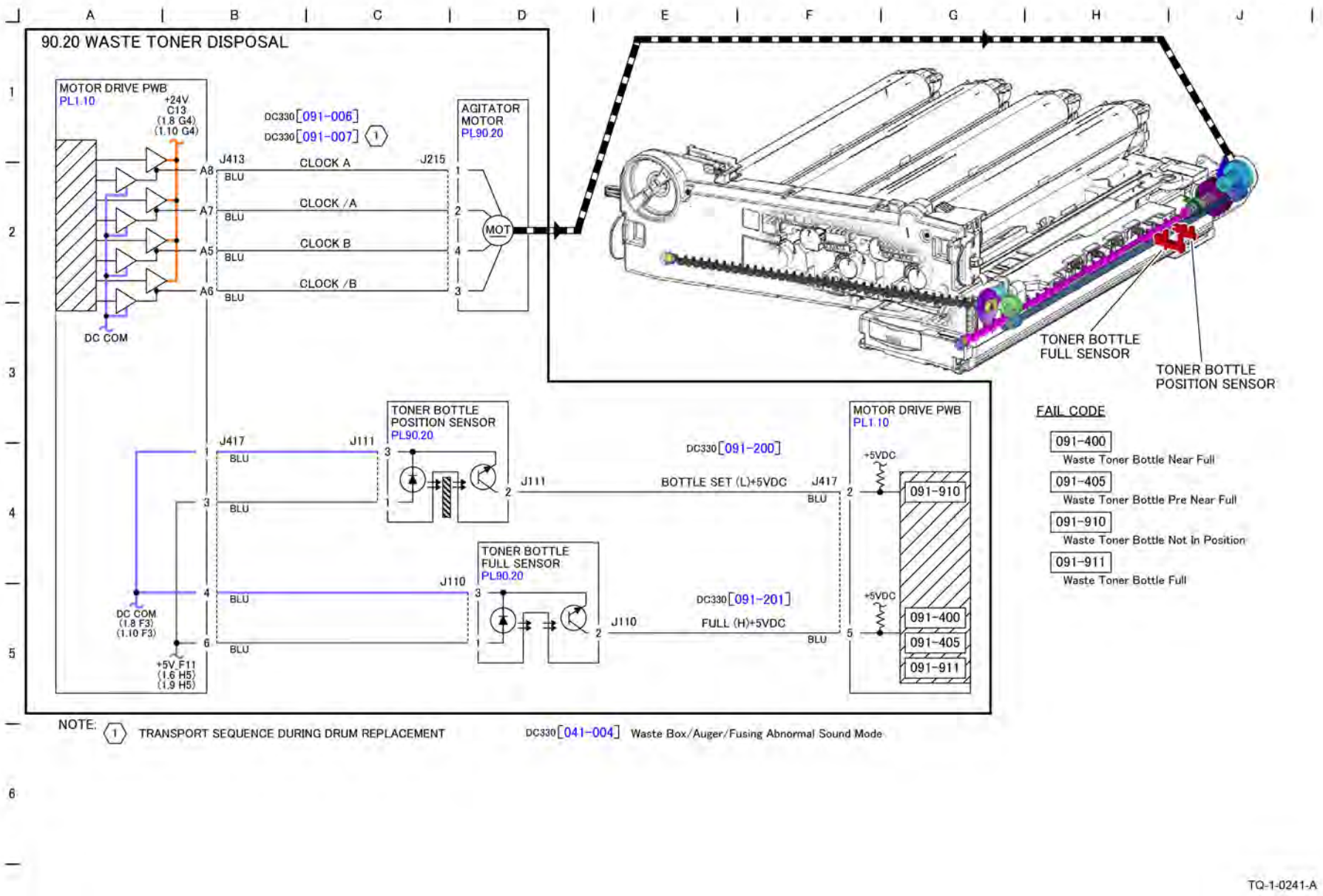


Figure 1 BSD 90.20 Waste Toner Disposal

BSD 90.21 Marking Air Flow

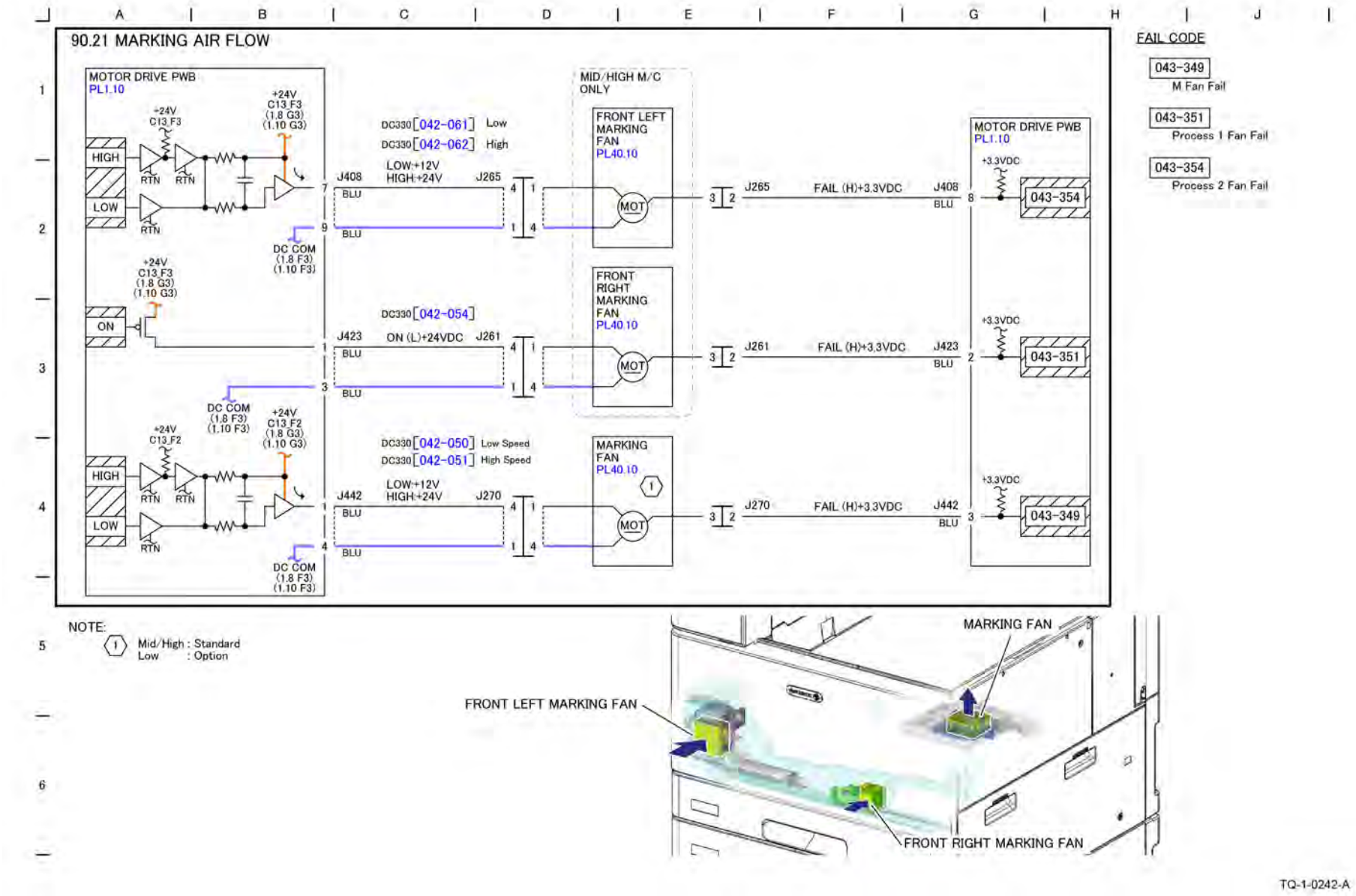


Figure 1 BSD 90.21 Marking Air Flow

BSD 90.22 Marking Air Flow (High only)

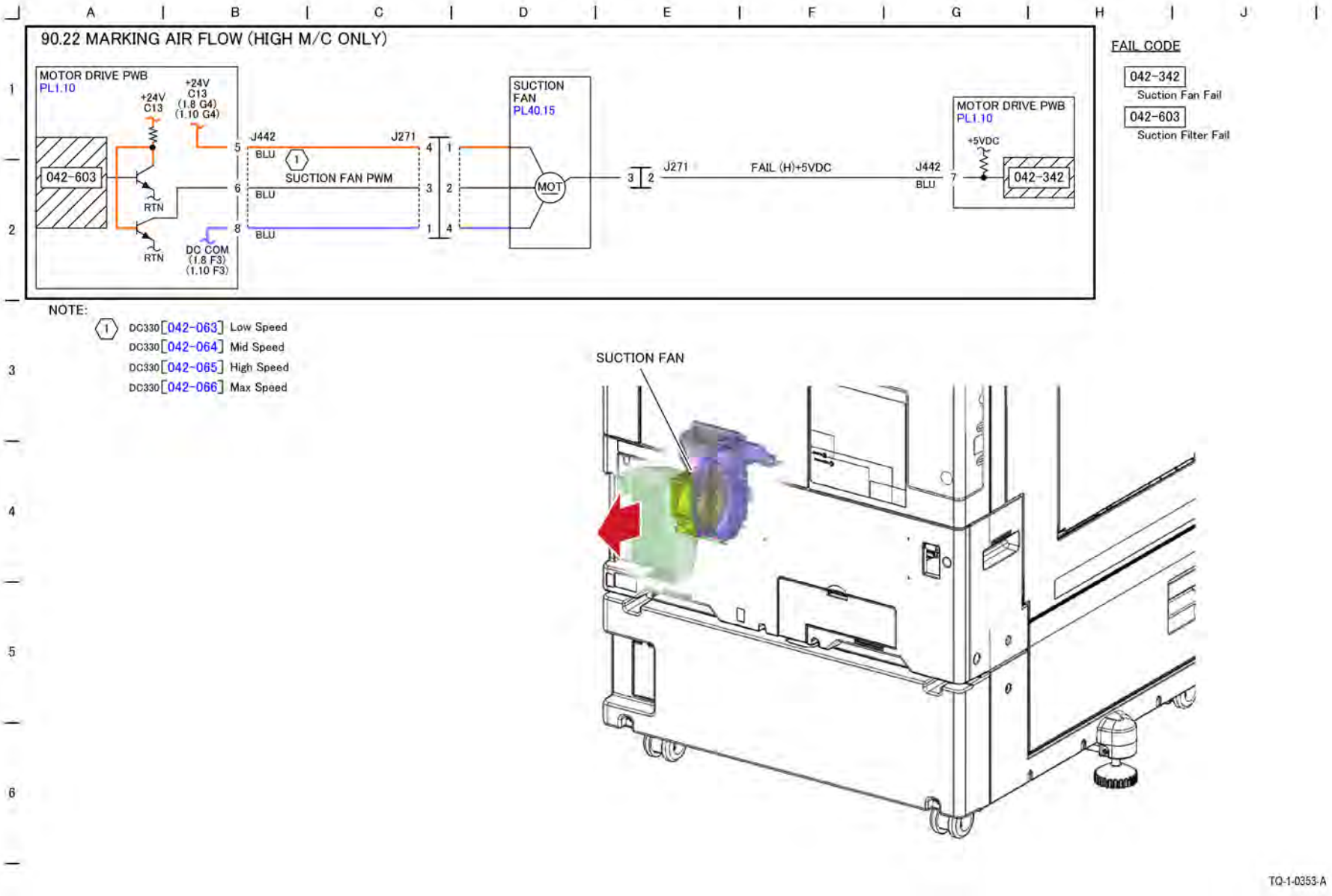


Figure 1 BSD 90.22 Marking Air Flow (High only)

8 Product Technical Overview

Product Technical Overview

Overview

Xerox® AltaLink® C8100 Multi-Function Printers (MFP) are designed for outstanding performance with professional image quality.

The digital full-color MFP is available in three models:

- Low – C8130/C8135
- Mid – C8145/C8155
- High – C8170

Figure 1 AltaLink C8100 Multi-function Printers

All models are network interface configured.

Xerox® AltaLink® C8100 MFPs have a variety of options:

- 3K Sheet HCF
- Global A Integrated Finisher up to 55 ppm
- Global B Office Finisher – booklet creaser and hole punch
- Business Ready (BR) Finisher – staple, hole punch, and optional C-Z Folder
- BR Booklet Maker Finisher – staple, hole punch, saddle-stitched booklets, and optional C-Z Folder
- H-Transports for Global B Office Finisher and BR Finishers

DADF

The MFP has two Single Pass Duplex Automatic Document Handlers (DADF):

- AltaLink C8130/C8135 and C8145/C8155 use DADF 130 with a 130 sheet capacity.
- AltaLink C8170 uses DADF 250 with a 250 sheet capacity.

Both DADFs use constant velocity transport (CVT) when the document feeder is used during scanning. The scanner is in a fixed position, and the document is transported across the scan area of the platen glass.

Note: The DADF and Scanning are described in Image Input in the PTO.

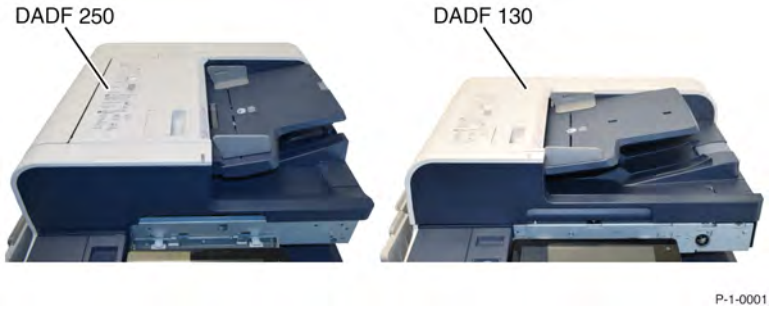


Figure 2 DADF 250 and DADF 130

Paper Supplies

Xerox® AltaLink® C8100 MFP is equipped with 5 paper trays.

Each printer includes:

- Tray 1 specs - 520 sheets 11x17 in. media (A3)
- Tray 2 specs - 520 sheets 12x18 in. media (SRA3)
- Bypass Tray specs - Up to 100 sheets, 12.5x52 in./320x1321mm banner.
- Trays 3 and 4:
  - TTM: 2000 sheets of 8.5x11 in. media (A4)
  - 2TM: 520 sheets up to 12x18 in. media (SRA3)

Note: The paper supplies are described in Media Supply in the PTO.

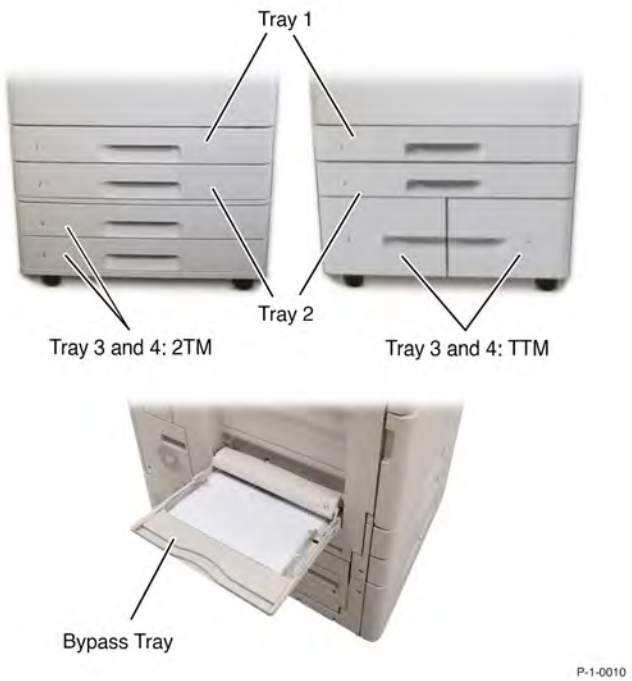


Figure 3 IOT tray options

User Interface

Job programming and other user functions are controlled from the User Interface (UI), which uses two forms of input: the touch screen and the panel buttons. These buttons and screens are used to perform user and service activities.

Note: The UI is described in User Interface in the PTO.

Figure 4 User interface

Basic components

Xerox® AltaLink® C8100 MFPs use the following Toner Cartridges: one black, one cyan, one magenta, and one yellow. The black toner cartridge is bigger, to deal with the large amount of black used in printing. Each cartridge is labeled and cannot be interchanged.

The Drum Cartridge Module is located under the Toner Cartridges. It contains the four Drum Cartridges that are customer replaceable and the four Developer Modules that are not customer replaceable.

Note: The Toner Cartridges and Drum Cartridges are described in Xerographics > Toner Cartridges and Drum Cartridges in the PTO.

Figure 5 Xerographics section

Basic components

This machine uses the trickle development system that increases the life of the developer material.

Each drum is charged by a Bias Charge Roll (BCR).

Note: The Development system is described in Xerographics > Drum Cartridges in the PTO.

Figure 6 DRUM cartridges

Basic Components

The developed image from each of the four (C, M, Y, and K) photoreceptor drums is applied to the Intermediate Belt Transfer Assembly (IBT) as a complete registered image. The image is then transferred from the IBT to the registered paper at the second Bias Transfer Roll (BTR).

Note: The IBT and the Xerographic process is described in Xerographics > IBT Assembly, Transfer Belt, and Transfer Belt Cleaning in the PTO.

Figure 7 Image transfer belt (IBT) assembly

Basic components

The Second Bias Transfer Roll (BTR) aligns the media to meet the image on the Image Transfer Belt (IBT) and transfers the image from the Transfer Belt to the media. The Fuser fuses the image to the media. The Fuser is a Customer Replaceable Unit (CRU), and there are no serviceable parts in the Fuser.

Note: The Registration Transport is described in Media Feed to Transfer and Print Transport and Fusing in the PTO.

Note: The Secondary Transfer Module is described in Xerographics > Secondary Transfer in the PTO.

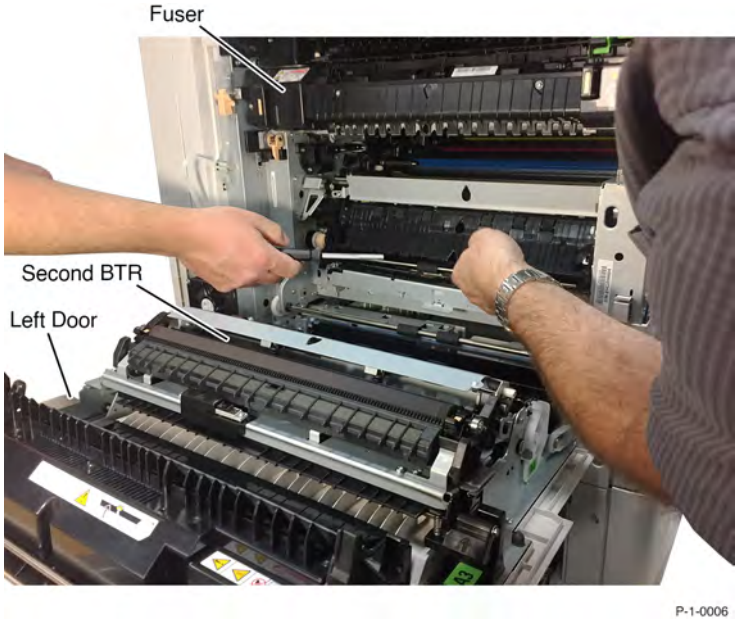


Figure 8 Second BTR

Basic components

The Waste Toner Bottle collects and stores the residual toner from the four color drums. It is located under the Waste Toner Transport and is a Customer Replaceable Unit.

The Waste Toner Bottle includes a filter for high configuration printers.

The Waste Toner Transport is located in the front of the MFP.

Note: The Waste Toner is described in Xerographics > Waste Toner Collection in the PTO.

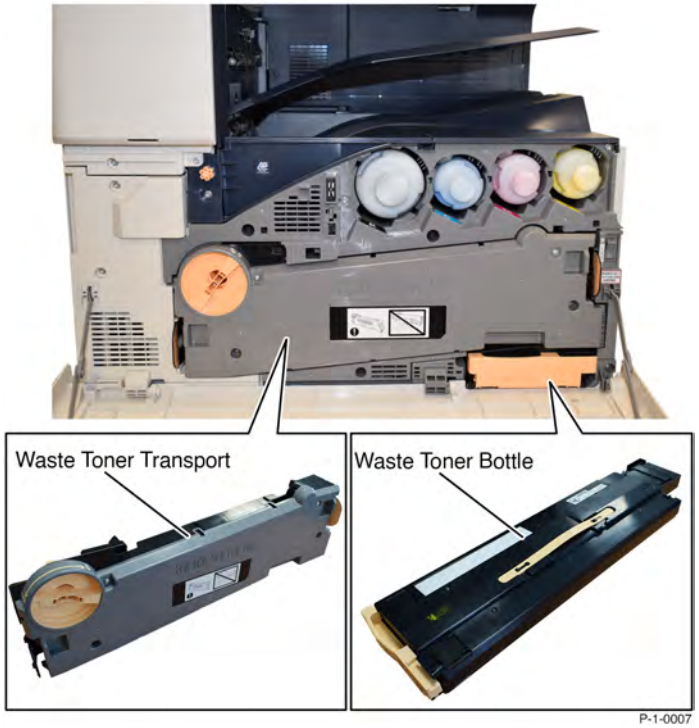


Figure 9 Waste toner bottle and Waste toner transport

Feeding Options

There is one paper feeding option:

- 3K Sheet High Capacity Feeder (HCF)

HCF:

- 3000 sheets of 8.5x11 in. media (A4)

Figure 10 High capacity feeder

Finishing Options

The output of the Image Output Terminal (IOT) is delivered to one of the following finishing options.

BR Finisher:

- 500-sheet top tray, 3000-sheet stacker, hole punching, and stapling
- Optional C-Z Folder

BR Booklet Maker Finisher:

- 500-sheet top tray, 1500-sheet stacker, hole punching, and stapling
- Booklet Making
- Optional C-Z Folder

Global A Integrated Finisher:

- Used with C8130/C8135 and C8145/C8155 (up to 55 ppm)
- Stacking: 500 sheets A4, 8.5x11 in. or 250 sheets A3, 11x17 in. Single stapling: 50 sheets A4, 8.5x11 in. or 30 sheets of 80 g/m² Legal, B4, A3, 11x17 in.

Global B Office Finisher:

- Stacking: 2000 sheets unstapled, 1000 sheets single-stapled, or 250 sheets dual-stapled. Multiple-position stapling: 50 sheets. Hole Punch: Optional 2–3 or 2–4 Hole Punch.
- Includes transport module
- Optional Book Creaser and Hole Punch

Note: The different finishing options are described in their respective service manuals.

Figure 11 Finisher options

Finishing Components

The interface between the IOT and the BR Finishers, and between the IOT and the Global B Office Finisher is called the Horizontal Transport (H-Transport). The H-Transport moves the print from the output of the IOT to the input of the finisher. There are two different models of H-Transports. One is used for the BR Finishers and the other is used for the Global B Office Finisher.

The H-Transports are considered to be part of the Finisher and so are covered in more detail in the separate service documentation for the those finishers.

Figure 12 Horizontal transport

Input Power

AC Power

The MFP receives AC power from a line cord connected to either a 120VAC or a 220VAC source. This voltage is supplied to the MFP through a circuit breaker, Figure 1.

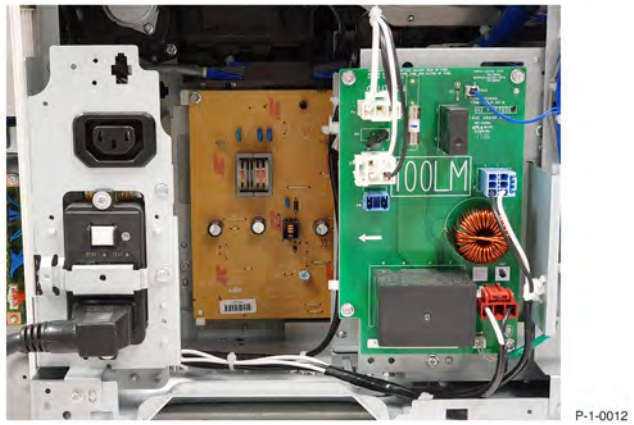


Figure 1 Input power

Note: Throughout the Input Power section of the PTO, refer to the Wiring Data in Section 7 of the EDOC.

Power Switches

The Xerox® AltaLink® C8100 MFPs are equipped with two power switches. To access the Main Power Switch, open the Front Cover Assembly. The Main Power Switch is located near the top front corner of the output area, Figure 2.

Powering ON the system from a cold start:

1. Switch ON the Main Power Switch.
2. Press, then release the Power/Wake button on the User Interface.

Powering down the system:

1. Press and release the Power/Wake button on the UI. Wait until the UI is dark.
2. Open the Front Cover Assembly and switch OFF the Main Power Switch.

Note: Customers generally leave the Main Power Switch on during everyday usage.

Figure 2 Power switch locations

AC Drive PWB

The AC drive PWB receives AC power from the main power switch. The main functions of the AC drive PWB are as follows:

- Provides ground fault interrupt and filtered power
- Supplies AC Power to the Low Voltage Power Supply (LVPS) CP1U on the Low/Mid/High MFPs
- Supplies AC power to a second Low Voltage Power Supply, LVPS CC4 on the High MFPs
- Supplies AC power to the IH power supply PWB
- Supplies AC power to the finisher outlet

Note: Refer to the Xerographics Overview and the Main Power On (100VAC) and Main Power On (220-240VAC) BSDs for more information.

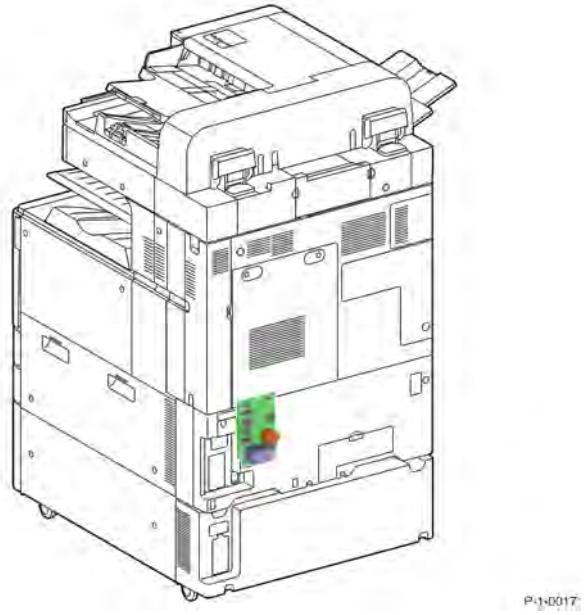


Figure 3 AC Drive PWB

Low Voltage Power Supply (LVPS CP1U)

The LVPS CP1U receives AC power from the AC Drive PWB. The LVPS CP1U generates 5VDC power and 24VDC power distributed to the following:

- Controller (SBC) PWB
- Back Plane PWB
- Motor Drive PWB

When the machine goes into sleep mode the 5VDC power and the 24VDC power is withheld and only a 5VDC standby power is supplied.

Note: Refer to Sleep Recovery in the UI section for details of power up during sleep recovery.

Refer to Machine Wake Up in the Machine Run Control section for other ways that the machine can recover from lower power and sleep modes.

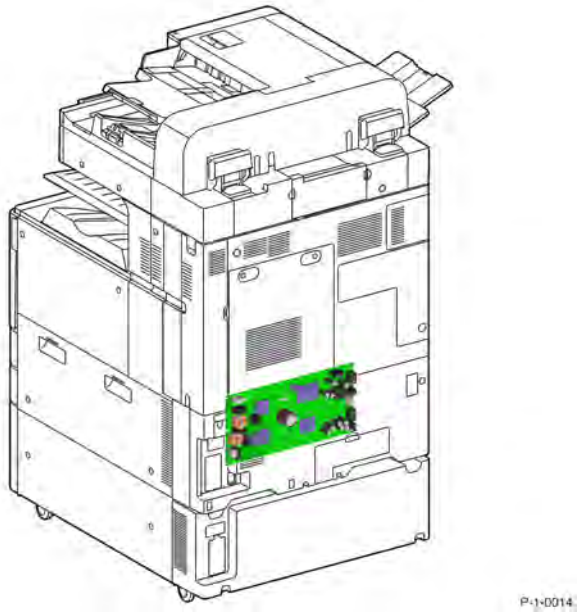


Figure 4 LVPS CP1U

Low Voltage Power Supply (LVPS CC4 (High Only)

The LVPS CC4 is used in the AltaLink C8170 (High) only. For the AltaLink C8170, the LVPS CP1U power supply does not produce enough power for machine operation. To accommodate the extra power needs of the C8170, a second low voltage power supply, the LVPS CC4, is required. The LVPS CC4 receives AC power from the AC Drive PWB. The LVPS generates 24VDC power distributed to the following:

- Controller (SBC) PWB
- Back Plane PWB
- IIT PWB

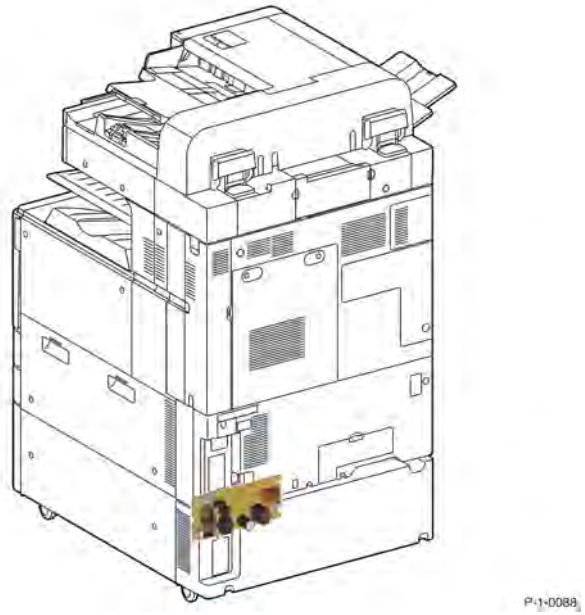


Figure 5 LVPS CC4

Bias Charge Roll HVPS PWB

The BCR HVPS converts 24VDC power into the high voltages required by the bias charge roller within the xerographic subsystem.

Note: Refer to the Xerographics Overview and the four Charging and Exposure BSDs for more information.

The bias charge roll HVPS receives 24VDC interlocked power from the Motor Drive PWB.

The BCR HVPS transforms the voltages into high voltage and supplies them to each of the bias charge rollers, one for each color (C, M, Y, and K). The BCR HVPS monitors the bias charge roll bias output and feeds it back to the Motor Drive PWB.

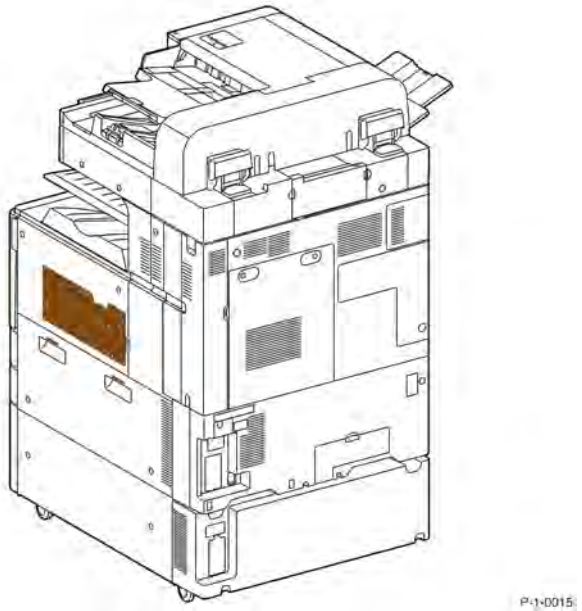


Figure 6 BCR HVPS

Bias Transfer Roller HVPS PWB

The BTR HVPS converts 24VDC power into the high voltages required by the bias transfer roller within the xerographic subsystem.

Note: Refer to the Xerographics Overview and the Image Transfer to IBT and Image Transfer to Paper BSDs for more information.

The bias transfer roller HVPS receives 24VDC interlocked power from the Motor Drive PWB.

The BCR HVPS transforms the voltages into high voltage and supplies them to each of the bias charge rollers, one for each color (C, M, Y, and K). The BCR HVPS monitors the magenta and black output voltages and feeds them back to the Motor Drive PWB.

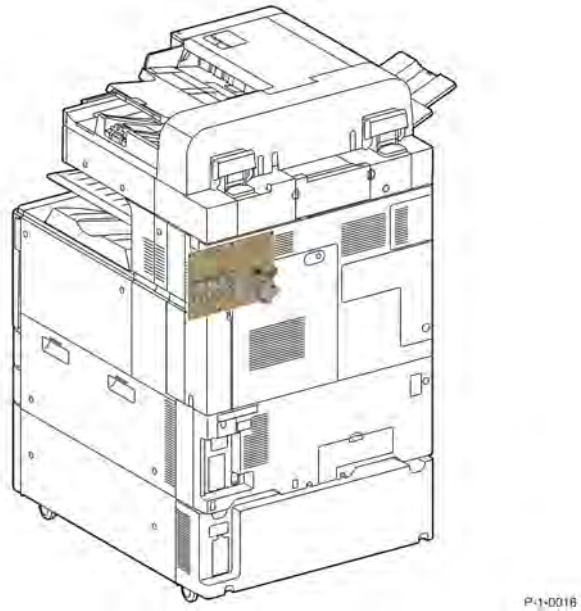


Figure 7 BTR HVPS

Developer Bias HVPS PWB

The Developer Bias HVPS converts 24VDC power into the high voltages required by the bias transfer roller within the xerographic subsystem.

Note: Refer to the Xerographics Overview and the Development Y, Development M, Development C, and Development K BSDs for more information.

The Developer Bias HVPS receives 24VDC interlocked power from the Motor Drive PWB.

The Developer Bias HVPS transforms the voltages into high voltage and supplies them to each of the Developer Bias rollers, one for each color (C, M, Y, and K). The BCR HVPS monitors the Developer Bias HVPS power output and feeds it back to the Motor Drive PWB.

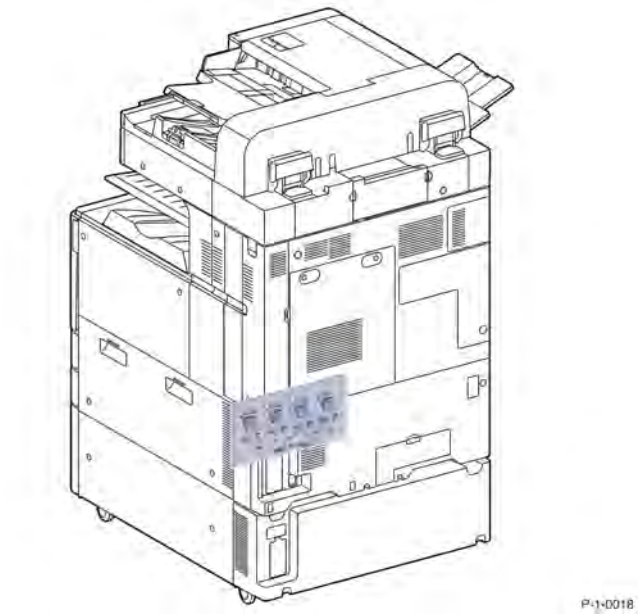


Figure 8 Developer Bias HVPS

IH (Induction Heating) Power Supply

The IH Power Supply takes power from the IH relay and converts it to the high voltages required for fusing. The fuser is in two parts, the fuser and the (IH) coil unit.

Note: Refer to the Fusing section of the PTO for more information.

The IH power supply is monitored by the Motor Drive PWB which in turn communicates with the Controller (SBC) PWB.

Note: Refer to the Fusing Heat (1 of 2), Fusing Heat (2 of 2), and Fusing BSDs for more information.

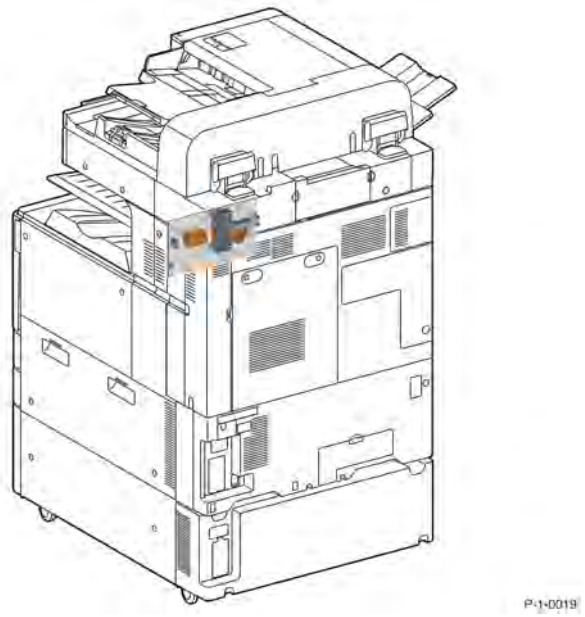


Figure 9 IH power supply

Machine Interlocks

Front Cover Interlock Assembly

The front cover interlock assembly contains 2 switches, one to generate the code that the cover is open and to prompt a change of display on the UI, the second switch cuts the 24VDC interlocked supply. They are operated by the same action of opening the front cover.

Front Cover Open Switch

The front cover open switch is monitored by the Motor Drive PWB.

Front Cover Interlock Switch

The front cover interlock switch is wired in series with the left cover interlock switch. It cuts power to the 24V interlocked supply.

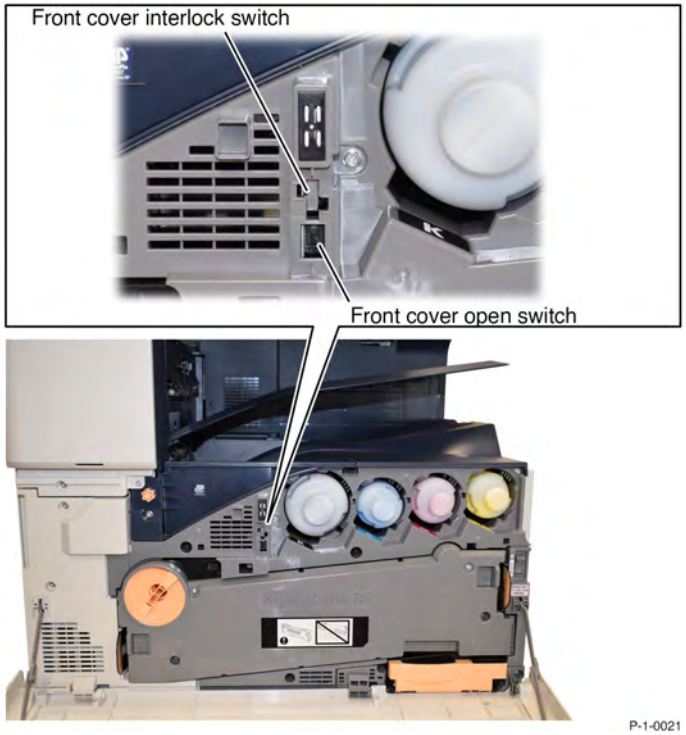


Figure 10 Front cover switches

Left Cover Interlock Switch

The left cover interlock switch is monitored by the Motor Drive PWB. It is wired in series with the front cover interlock switch so it cuts power to the 24V interlocked supply.

Figure 11 Left cover interlock switch

Transport Path Drawer Interlock

The transport path drawer interlock is not an interlock in the normal sense. It does not disconnect power, it is a signal to the IOT that the TTM transport assembly is in the operational position.

The Interlock is simply a short between two pins on one of the connectors that connect the TTM to the IOT. When the connector is connected, the signal path is completed and that indicates to the IOT that the TTM is present in the machine. Refer to the TTM Paper transport BSD for more information.

Tray Module Interlocks

The tray module interlock acts when the tray module left door is opened.

The same circuit is used in the 2TM and the TTM.

- 2TM - refer to Figure 12
- TTM - refer to Figure 13

Figure 12 Two tray module interlock switch

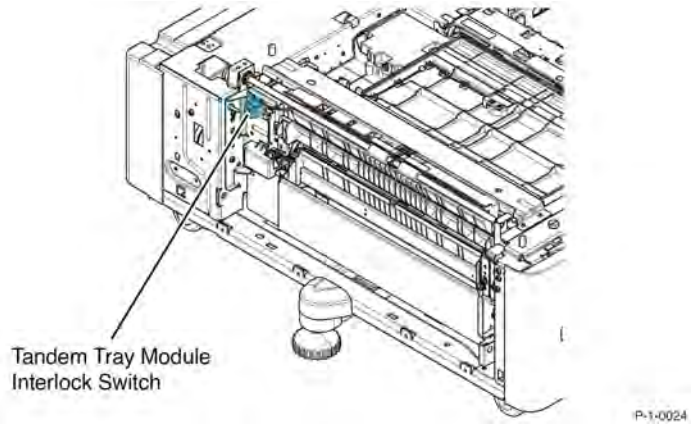


Figure 13 Tandem tray module interlock switch

Note: Refer to the accessory service documentation for HCF and Finisher Interlocks for more information.

Machine Run Control

Overview

The Machine Run Control subsystem is made up of a distributed set of control and interface PWBs.

The main functions of run control are to:

- Perform self-testing at power on to verify the communication status between PWBs
- Monitor and control the operation of the base machine and the installed options during all power states
- Detect, log, and report faults
- Communicate with the user through the user interface

IOT Modes and System Status

Plug-in/Off Mode (sub power)

This is not an operating mode. Plug in/off is the condition of the machine when power is connected but the machine is powered down. When the power button is pressed to shut down (and confirmed) this is the condition of the machine. This is the lowest power state that the machine can enter. Only the AC Drive PWB, Low Voltage Power Supply and power management circuitry on the Controller (SBC) PWB is active. The only method that can be used to power the machine on, in this mode, is to press the UI power button.

Standby/Ready Mode

This is the normal operating condition of the machine when it is ready for printing. The UI is active and illuminated in this mode. This is the condition of the machine while a user is programming a job via the UI or performing any other UI activity. In this mode the system is ready to print with little or no delay in hard copy output. The system has full functionality when in this mode.

Run Mode

This is the condition of the machine when it is actively printing a job. The machine enters this state when it executes a print job via the network. In this mode the system is in the process of marking images and/or collating in an output device.

Sleep States

Note: The user will not be able to tell the difference semi-conscious state and deep sleep state. Visually the machine appears the same.

Semiconscious/Low Power Mode

The machine enters semi conscious mode after a period of inactivity after the most recent print job. In semi-conscious mode the UI is inactive and the power button is illuminated. The delay time is preset but is adjustable by the customer in the range 0 to 30 minutes.

Semi-conscious mode allows the system to perform the following limited functions:

- Access to the remote control panel via the web UI
- Wireless printing (if installed)
- All non-print related network requests (including HDD access), such as access from the web UI

Note: If Wake on USB is enabled the system remains in semi conscious mode and does not enter deep sleep mode.

Deep Sleep Mode

Recovery from this mode to standby/ready is from either pressing the UI power button or an incoming print job. The machine does not wake from sleep mode upon insertion of a USB drive.

- Only standby power is available, controller network control, power management.
- The system is able to wake up for network printing.
- The system is able to wake up when a user presses the UI power button.

Auto Power Off

Enables the system to switch off after a specified time in deep sleep mode via an adjustable timeout that is accessed using tools or in the Web UI. The default is 'disabled'. Once the machine has switched off it can be switched on via the power switch on the UI. When the machine has powered down automatically it is in the same state as it would be after first connecting AC power.

Machine Wake Up

Overview

When the machine is in Semiconscious Mode or Deep Sleep Mode, there are several ways that it can return to Standby/Ready Mode.

USB Drive Insertion

The machine can be set to wake up from semiconscious/low power mode upon insertion of a USB drive.

Network Printing

Print Jobs sent over the network will wake a machine from either Semiconscious/Low Power or Deep Sleep Modes.

UI Power Button

Touching the Power button on the UI will wake the machine from either Semiconscious/Low Power or Deep Sleep Modes.

DADF

Inserting a document into the DADF document feeder will activate the Document Set Sensor. The signal from the Document Set Sensor activates the Sleep Recovery signal which is sent to the Controller (SBC) PWB, and then from the Controller through the Backplane PWB and the Halftone PWB to the Motor Drive PWB. The Motor Drive PWB completes the sleep recovery process. This will wake the machine from either Semiconscious/Low Power or Deep Sleep Modes. For more information refer to the Machine Power BSD.

Human Motion Sensors

Several different types of Human Motion Sensors are located on the front left upper area of the machine. When the machine is approached from the front the sensors detect the presence of a human using infrared and heat sensing and send a signal to the Human Motion PWB. The Human Motion PWB sends a signal Controller (SBC) PWB, which in turn sends a signal through the Backplane PWB and the Halftone PWB to the Motor Drive PWB. The Motor Drive PWB completes the sleep recovery process. This will wake the machine from either Semiconscious/Low Power or Deep Sleep Modes. For more information refer to the Machine Power BSD and the Human Motion Detection BSDs, Figure 1.

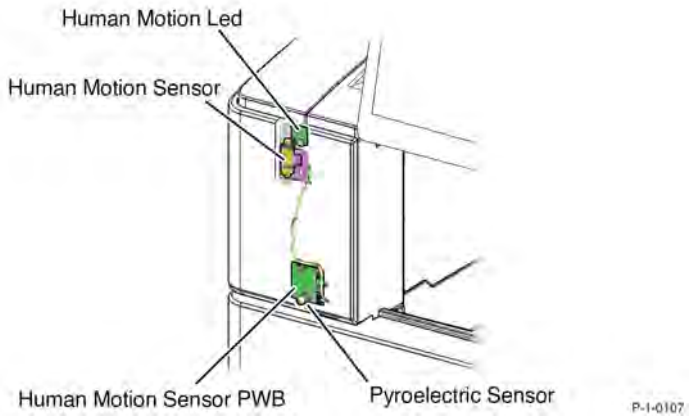


Figure 1 Human Motion Sensors and PWB

Power On Self-Test

When the machine is powered up it performs a series of self-tests known as Power On Self-Test (POST). Refer to OF6Power On Self Test RAP

Machine Run Control PWBs

The Single Board Controller (SBC) PWB controls the entire system, Figure 2. It communicates with the MSOC PWB, Motor Drive PWB, Tray Module PWBs and the IIT PWB to control the operation of the machine.

The Motor Drive PWB controls and communicates with the PWBs in the IOT, the HCF, and the Finisher.

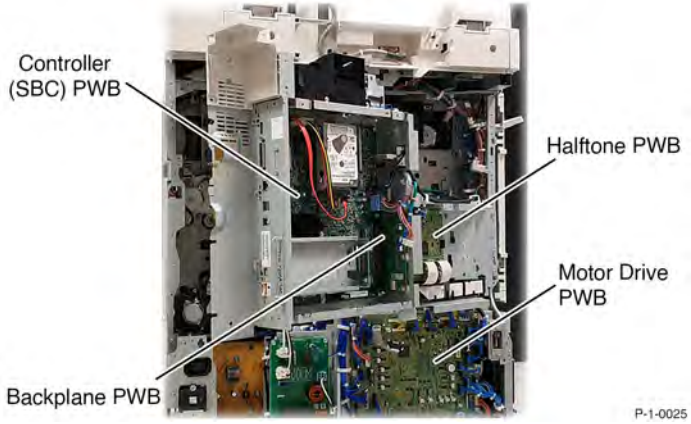


Figure 2 Machine run control components

Controller (SBC) PWB

The primary functions of the Controller (SBC) PWB are as follows:

1. Receives digital data from the network.
2. Processes this data based upon the user's requests (made at the user interface or a remote PC/ server).
3. Sends the processed image data to the LPH, via the Back Plane PWB and the Halftone PWB to be written to the LED Print Head (LPH) for each of the four colors.
4. Sends printing, paper supply, and finishing requests to the Motor Drive PWB.

The Controller (SBC) PWB performs the following functions:

- Sends data to the Motor Drive PWB via the Back Plane PWB and the Halftone PWB. The motor drive PWB in turns sends signals back to the Controller (SBC) PWB via the halftone PWB, back plane PWB.
- Communicates with the UI.
- Communicates with the finisher via the Back Plane PWB, Halftone PWB and the Motor Drive PWB receiving information from the finisher by the reverse route.
- Communicates with the High Capacity Feeder via the Back Plane PWB, Halftone PWB and the Motor Drive PWB receiving information from the HCF by the reverse route.

The Controller (SBC) PWB is contained in a separate chassis, along with the Hard Drive, Figure 3.

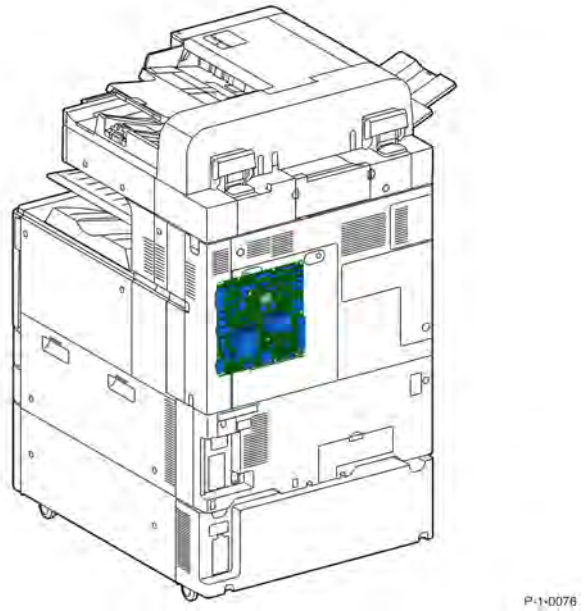


Figure 3 Controller (SBC) PWB

Controller Interface

The functions of the connectors along the external edge of the Controller (SBC) PWB are shown in Figure 4.

Figure 4 Controller interface

Back Plane PWB

The back plane PWB provides a communication link between the Controller (SBC) PWB and the Halftone PWB. The route through the back plane PWB and the Halftone PWB carries all the communications between the controller PWB and the Motor Drive PWB. Refer to Figure 5.

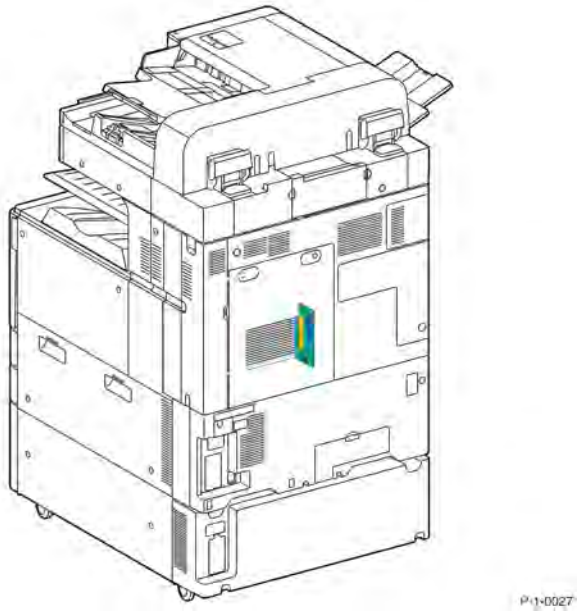


Figure 5 Back Plane PWB

Halftone PWB

The halftone PWB, takes the image data from the Controller (SBC) PWB, via the Back Plane PWB, and sends it to the LED Print Head (LPH) for each of the 4 colors. The halftone PWB receives 24VDC and 5VDC from the Motor Drive PWB. The 24VDC is converted to 12VDC. The 5VDC is converted to 3.3VDC.

The halftone PWB, along with the Back Plane PWB also provides the communication route from the Controller (SBC) PWB to the Motor Drive PWB. Refer to Figure 6.

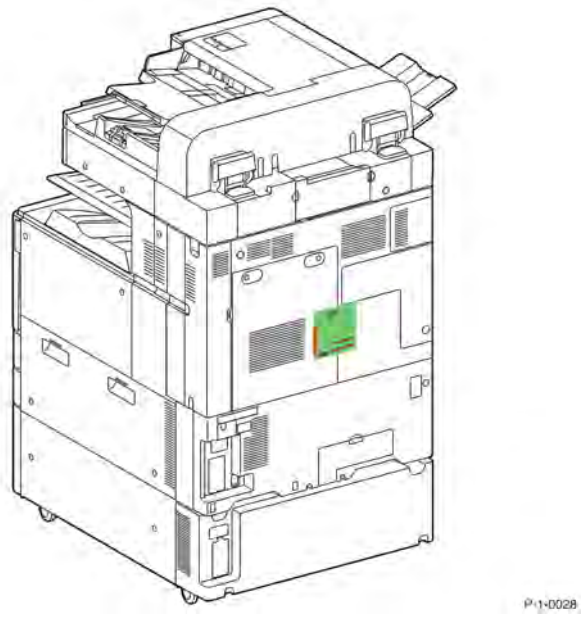


Figure 6 Halftone PWB

MSOC PWB

The MSOC PWB is a master board to the Motor Drive PWB. The Controller (SBC) PWB communicates through the Backplane PWB to the MSOC PWB.

The MSOC PWB communicates through the Backplane PWB with the Motor Drive PWB.

The MSOC sets the clock timing, synchronizes the operation of the IOT, and controls communication within the IOT.

The MSOC PWB is located on the front side of the Video Chassis. That is, the MSOC PWB is on the opposite side of the Video chassis from the Halftone PWB, which is on the rear side of the video chassis, Figure 7.

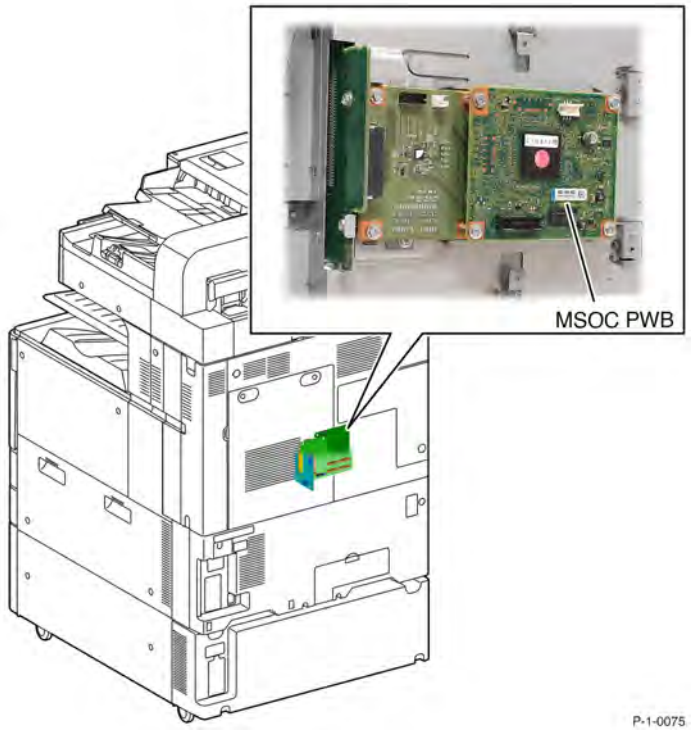


Figure 7 MSOC PWB

Motor Drive PWB

The Motor Drive PWB controls the print engine, providing power and drive signals to most of the motors, sensors, clutches and solenoids. Refer to Figure 8. It performs the following functions:

- **Power**:
  - Receives 5VDC and 24VDC from the Low Voltage Power Supply
  - Passes on sleep recovery signal to Low Voltage Power Supply
  - Monitors the interlocks on the left cover, front cover, front cover open switch, and the tray module interlock switch
  - Monitors the continuity of fuses and generates a fault code on failure
  - Supplies 24VDC to the LVPS fan and monitors for failure
  - Supplies 24VDC and 5VDC power to the halftone PWB
- **Communications**:
  - Monitors communication from the Controller (SBC) PWB to the motor drive PWB and logs fault codes
  - Acts as a path receiving data from the Controller (SBC) PWB (via the back plane PWB and the halftone PWB) and communicates with the finisher
  - Acts as a path receiving data from the Controller (SBC) PWB (via the back plane PWB and the halftone PWB) and communicates with the High Capacity Feeder
- **Image Quality and Internal Environment**:
  - Monitors the marks on belt (MOB) sensors and the automatic density control (ADC) sensor
  - Monitors the internal temperature and humidity sensors
- **Paper Feed**:
  - Monitors the paper size sensors for trays 1, 2, 3, 4 and the bypass tray (MSI)
  - Monitors the paper level sensors and no paper sensors for trays 1, 2, 3 and 4
  - Monitors the pre-feed sensors and for trays 1, 2, 3 and 4
  - Controls the feed/lift motor for trays 1, 2, 3 and 4
  - Monitors the bypass tray (MSI) nudger position sensor and no paper sensor
  - Controls the bypass tray feed lift motor
  - Controls the bypass tray takeaway motor and monitors the feed out sensor for the bypass tray
  - Controls the 2TM takeaway motor and monitors the feed out sensor 3 within the 2TM
  - Controls the TTM takeaway motor and monitors the feed out sensor 3 and 4 within the TTM
  - Monitors the presence of the TTM
  - Controls the registration motor and monitors the registrations sensor
  - Supplies 24VDC to the registration heater
- **Imaging**:
  - Controls the drum/development and IBT drive motor (K)
  - Controls the drum/development motor (C, M, and Y)
  - Monitors the drum CRUMs for K, C, M, and Y
  - Monitors the toner cartridge CRUM for K, C, M, and Y
  - Controls and monitors the toner cartridge cooling and exhaust fans
  - Controls the toner dispense motors for K, C, M, and Y
  - Supplies 24VDC interlocked power to the BCR HVPS for K, C, M, and Y and monitors the outputs
  - Monitors the automatic toner control (ATC) sensor for K, C, M, and Y
  - Supplies 24VDC to the developer bias HVPS for K, C, M, and Y

  - Monitors the BTR contact/retract sensor and controls the BTR contact/retract clutch
  - Supplies 24VDC interlocked power to the BTR HVPS for 1st bias transfer (K, C, M, and Y) and monitors the output to M and K
  - Supplies 24VDC interlocked power to the BTR HVPS for the 2nd bias transfer and monitors the output
  - Monitors the paper on belt (POB) jam sensor
  - Controls the agitator motor (waste toner) and monitors the (waste) toner bottle position sensor and the (waste) toner bottle full sensor
  - Controls the marking fans
- **Fusing**:
  - Controls the fusing unit drive motor and monitors the fusing belt speed sensor
  - Controls the pressure roll latch motor and monitors the pressure roll latch sensor
  - Controls the induction heater power supply and monitors the output. Data is fed back to the Controller (SBC) PWB via the halftone PWB and the Back Plane PWB
  - Monitors the fuser thermistors and the induction heat coil unit thermostat. It also controls the induction heat power supply intake fan
  - Monitors the fusing unit exit sensor, fusing unit exhaust fan and the NOHAD temperature and humidity sensor
  - Monitors the fusing unit EEPROM to verify that the fuser is installed
- **Paper Transport**:
  - Controls the exit 1 offset catch tray motor and the exit 1 gate solenoid. It also monitors the exit 1 offset catch tray home position sensor and the exit 1 offset catch tray full stack sensor
  - Controls the duplex motor
  - Controls the exit 2 offset catch tray motor, the exit 2 drive motor and monitors the exit 2 offset catch tray home position sensor
  - Monitors the exit 2 sensor and the exit 2 offset catch tray home position sensor
  - Controls the Face Up Gate Solenoid
  - Monitors the Face Up Tray Switch
  - Monitors the Face Up Exit Sensor

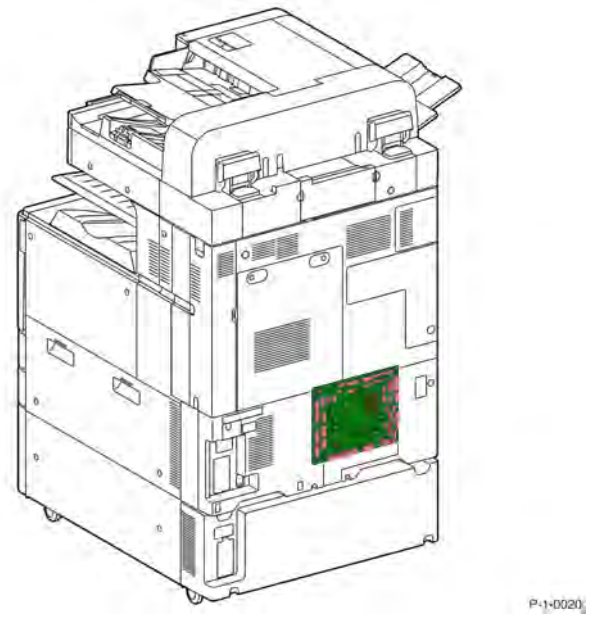


Figure 8 Motor drive PWB

Machine Specific Information Storage

There are three locations in the machine where machine and account specific information is stored. These are:

- Controller (SBC) PWB – On the SSD and in a backup EEPROM
- Halftone PWB – in an EEPROM
- IIT PWB – in an EEPROM

The following information is synced automatically between the 3 locations:

- Machine serial number
- Machine speed
- Toner contract (metered/sold/pagepack/etc.)

Care must be taken when replacing any of these PWBs to ensure that only one is changed at a time, then the system must be rebooted to re-sync the information. After re-syncing, if necessary, another PWB can be changed and then the machine rebooted again to re-sync again. The EDOC contains detailed instructions and cautions for each of these PWBs to prevent data loss during repairs.

Main Drives

Main Drives

The main drives are located to the rear of the machine behind the Controller (SBC) PWB and the Halftone PWB.

Main Drive Assembly

Note: The Xerox® AltaLink C8100 Multi-Function Printers use the same main drive assembly. The print speed difference is generated by the software.

The main drive assembly drives the xerographic drums and associated components including the developers and the IBT belt.

The main drive assembly consists of:

- The drum motor which is controlled by the Motor Drive PWB. It drives the following:
  - Xerographic drum for colors Y, M and C
  - Developer for Y, M and C
- The drum/developer IBT motor is controlled by the Motor Drive PWB. It drives the following:
  - Xerographic drum for K
  - Developer for K
  - IBT belt
- The drum drive bracket assembly.
- The drum drive housing assembly.

Refer to Figure 1 and Figure 2.

Note: Refer to the K Drum/Developer and IBT Drive Control BSD and the YMC Drum and Developer Drive Control BSD for more information.

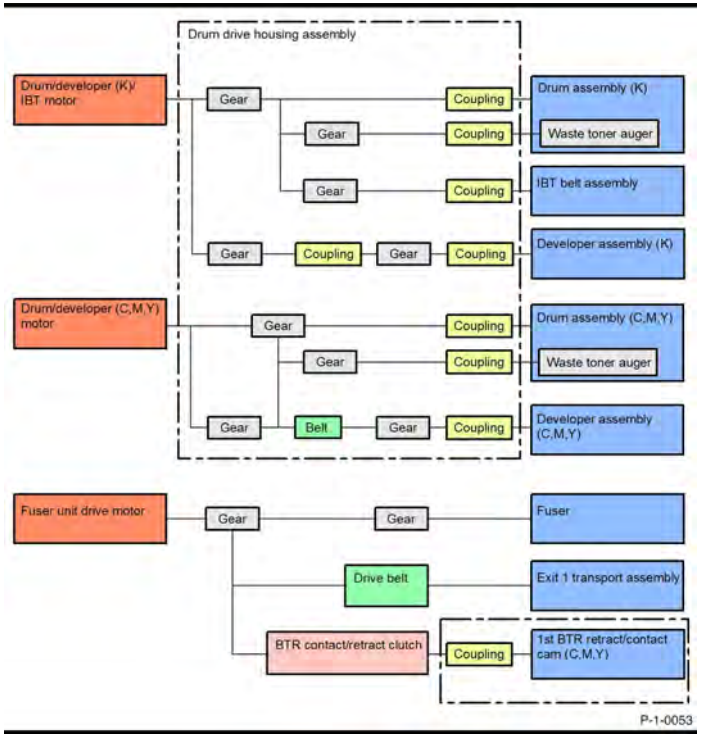


Figure 1 Main drive assembly

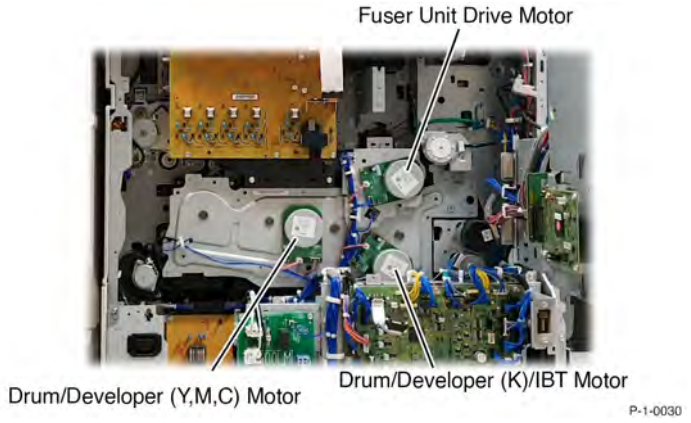


Figure 2 Main drives

Fuser Drive Assembly

The fuser drive assembly is controlled by the Motor Drive PWB. It drives the fuser. The motor drive PWB monitors the belt speed sensor within the fuser unit.

The fuser drive assembly consists of:

- The fuser unit drive motor
- The fuser drive bracket assembly
- The BTR contact/retract clutch assembly

Refer to Figure 1 and Figure 2.

Note: Refer to the Fusing Unit Drive BSD for more information.

NOHAD

NOHAD

The Xerox® AltaLink C8100 Multi-Function Printers employ 8 main cooling fans.

Note: Refer also to Temperature and Humidity Detection for more information.

- Low Voltage Power Supply fan receives 24VDC from the Motor Drive PWB. The motor drive PWB logs a fault code if a fan failure is detected, Figure 1.
- IHPS intake duct assembly runs at 2 speeds, The fan receives power from the Motor Drive PWB. At low speed the fan receives 12VDC, at high speed it receives 24VDC. The motor drive PWB logs a fault code if a fan failure is detected, Figure 2.
- Front/right marking fan receives 24VDC from the Motor Drive PWB. The motor drive PWB logs a fault code if a fan failure is detected, Figure 3.
- Front left marking fan runs at 2 speeds. The fan receives power from the Motor Drive PWB. At low speed the fan receives 12VDC, at high speed it receives 24VDC. The motor drive PWB logs a fault code if a fan failure is detected, Figure 3.
- Fuser unit exhaust fan Figure 4.
- Marking fan duct assembly runs at 2 speeds. The fan receives power from the Motor Drive PWB. At low speed the fan receives 12VDC, at high speed it receives 24VDC. The motor drive PWB logs a fault code if a fan failure is detected, Figure 3.
- Toner cartridge cooling fan assembly receives 24VDC from the Motor Drive PWB. The motor drive PWB logs a fault code if a fan failure is detected, Figure 5.
- Toner cartridge exhaust fan assembly receives 24VDC from the Motor Drive PWB. The motor drive PWB logs a fault code if a fan failure is detected, Figure 5.

  Note: Refer to the Marking Air Flow BSD and the Toner Cartridge Cooling BSD for more information.

- There is also a fan on the SBC PWB.

  Note: Refer to the SBC (Controller) BSD for more information.

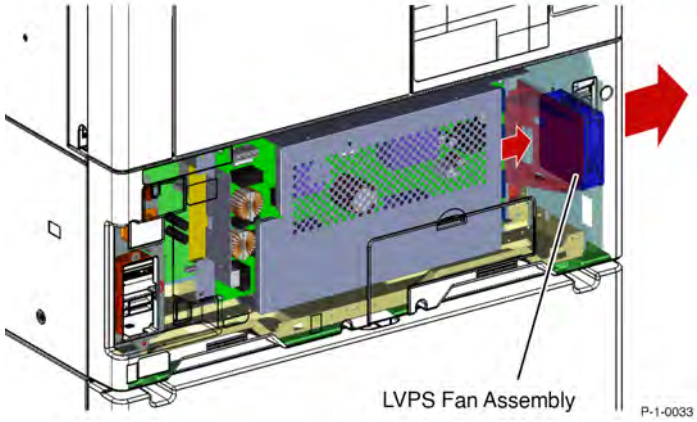


Figure 1 LVPS fan assembly

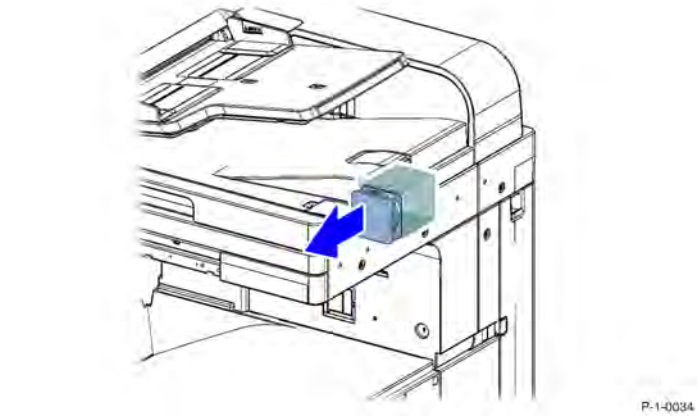


Figure 2 IHPS intake duct assembly

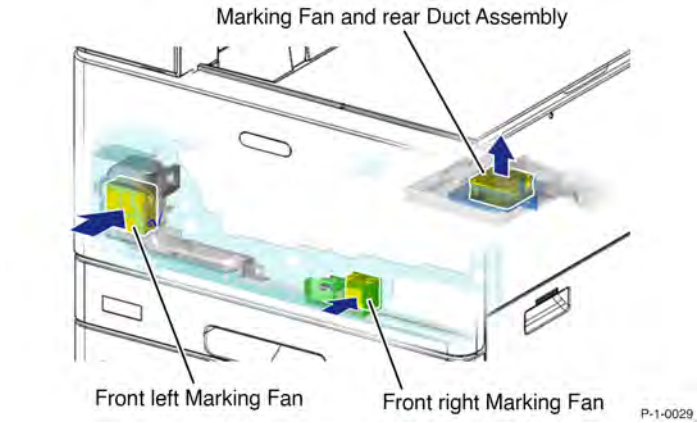


Figure 3 Front marking fans

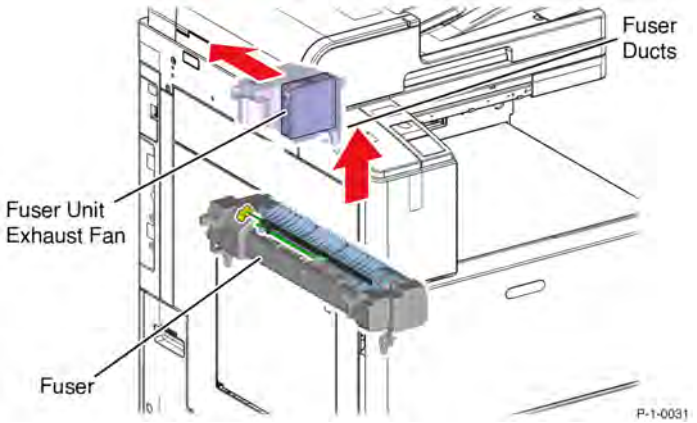


Figure 4 Fuser fan and ducts

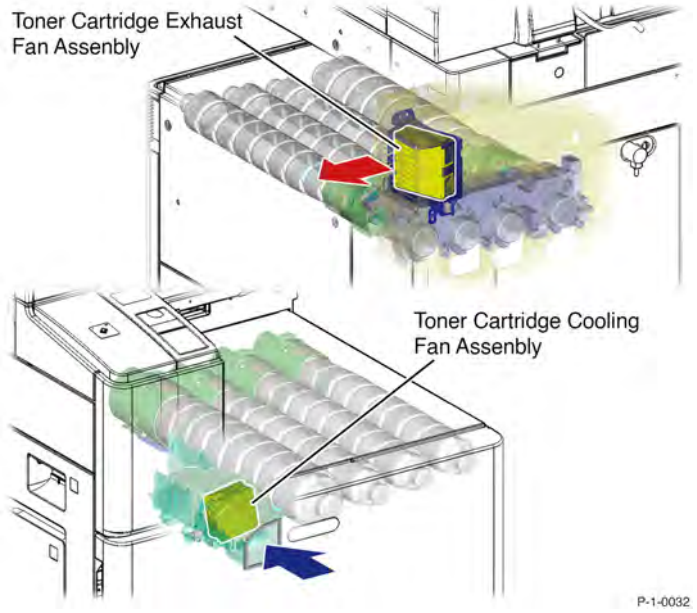


Figure 5 Toner cartridge cooling fan and exhaust fan

Temperature and Humidity Detection

Temperature and humidity measurement is done by the following two sensors:

- NOHAD Temperature/Humidity (No.1, External) Sensor
- Temperature/Humidity (No.2, Internal) Sensor

NOHAD Temperature/Humidity (No.1, External) Sensor

The NOHAD temperature & humidity sensor is monitored by the Motor Drive PWB. The sensor detects changes in external temperature and humidity. The Motor Drive PWB logs a fault code if a value is detected outside of the optimum for the machine.

Note: The fault code is categorized as a hidden value and does not appear on the UI. dC120 will show the fault code in the fault code listing.

Values from the sensor are used as part of the ON/OFF control logic for the following fans:

Note: The external sensor only contributes to ON/OFF signals for these fans, fan speed is controlled by the Temperature/Humidity (No.2, Internal) Sensor.

- Fusing unit exhaust fan
- Marking fan
- Front/right marking fan (P1)
- Front/left marking fan (P2)
- Toner cartridge cooling fan assembly
- Toner cartridge exhaust fan
- LVPS fan
- IHPS intake duct assembly

The external sensor, in conjunction with values from the Temperature/Humidity (No.2, Internal) Sensor, also contributes to ON/OFF control logic for the registration heater assembly.

Refer to Figure 6 and BSD 10.5 Fusing.

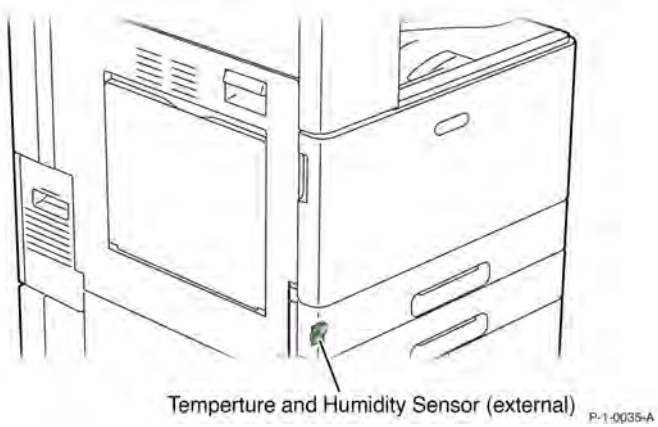


Figure 6 Temperature and humidity sensor (external)

Temperature/Humidity (No.2, Internal) Sensor

A second temperature and humidity sensor is located below the IBT belt assembly. This sensor measures the temperate and humidity inside the machine. Values from the internal temperature and humidity sensor are used for many subsystems including control of fans and heaters, fuser temperature control and process control.

Refer to Figure 7 and the Temperature and Humidity Sensing BSDs.

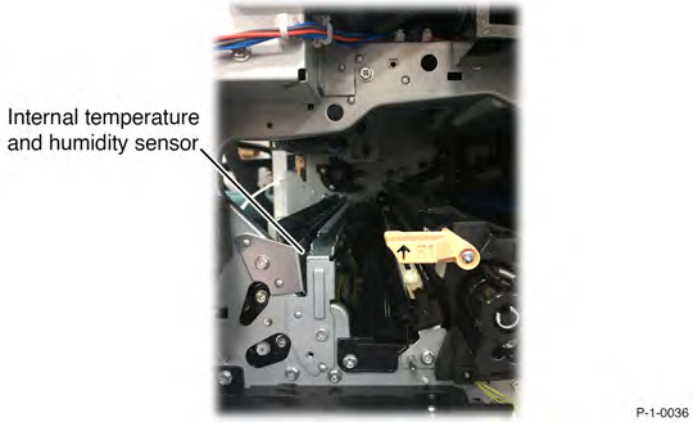


Figure 7 Temperature and humidity sensor (internal)

User Interface (UI)

Overview

The main functions of the User Interface (UI) are to enable users to program jobs for the machine and to display machine status. The information is entered by selecting buttons on the control panel and icons on the LCD touch screen.

The Controller (SBC) PWB directly controls the UI display.

The user interface (UI) displays the state of the printer via the LCD touch screen. The UI enables operation of the machine by means of the touch screen and buttons, Figure 1. The UI speaker generates synchronized operational sounds for the UI.

The user interface (UI) assembly consists of the following components:

- LCD tablet-like display
- Power button
- Home button
- Card reader assembly
- Customer USB port

Figure 1 User Interface

Sleep Recovery

When the UI power button is activated, a 3.3V sleep recovery signal is sent via a path through the Back Plane PWB, the Controller (SBC) PWB (waking the controller PWB in the process), the Halftone PWB and the Motor Drive PWB. When the sleep recovery signal reaches the Low Voltage Power Supply, the 5VDC power is restored. The restoration of 5V power, in turn, restores the 24V DC power. Refer to Figure 1 and the User Interface BSD.

DADF

DADF Document Scanning and Feeding

DADF Overview

The AltaLink C8130/35/45/55/70 printers use Single Pass DADFs. Single Pass DADFs can scan both sides of a document during one pass of the document through the DADF.

Two different DADFs are used. The AltaLink C8170 uses the DADF 250. The C8130/8135 and C8145/55 printers use a DADF 130. The same scanning technology is used in both DADFs. The differences are mainly in the document capacity and the number of pages per minute (ppm) that can be scanned. Internally, the DADF document drives are different to accommodate the differences in document scanning speed.

Table 1 lists the scan rates in ipm (images/minute) for the two DADF models.

Note: The reason that the Duplex scanning speed is 2 times the simplex speed is because both sides of the document are scanned at the same time.

Table 1 DADF Document Scanning and Feeding

Machine Model (DADF model)	Simplex scan rate in ipm (images/minute)	Duplex scan rate in ipm (images/minute)
AltaLink C8170 (DADF 250)	Up to 80 ipm	Up to 160 ipm
AltaLink C8135/45 & C8145/55 (DADF 130)	Up to 135 ipm	Up to 270 ipm

DADF – Scanning Technology Overview

The following applies to both DADFs. During DADF operation, the scanner carriage is stationary. As documents pass over the scanner located under the platen glass, the LED lamp illuminates side-1 of the document and the image is reflected to the image capture CCD located in the scanner.

After passing over the scan zone for side-1, the document is fed up into DADF where the Contact Image Sensor (CIS) is located. The document passes under the CIS and side-2 is scanned. The document is then fed to the output tray of the DADF.

DADF Control

Both the 250 and 130 DADFs contain the same two PWBs:

- DCDC PWB passes power and control signals from the Controller (SBC) PWB to the DADF CIS.
- DCDC PWB passes the scan data from the DADF CIS (side 2 scan) to the Controller (SBC) PWB
- DADF PWB controls the power and operation of the DADF

Document Size Sensing

Document Width

Readings from the DADF Auto Paper Select (APS) sensors detect the paper width. Refer to Figure 1 and Figure 2.

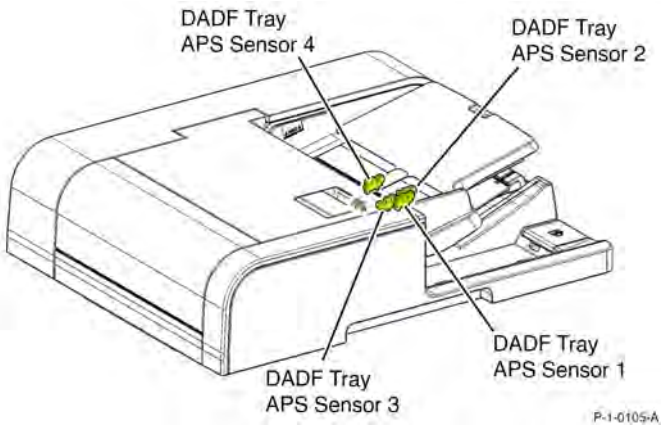


Figure 1 DADF 250 Tray APS Sensors

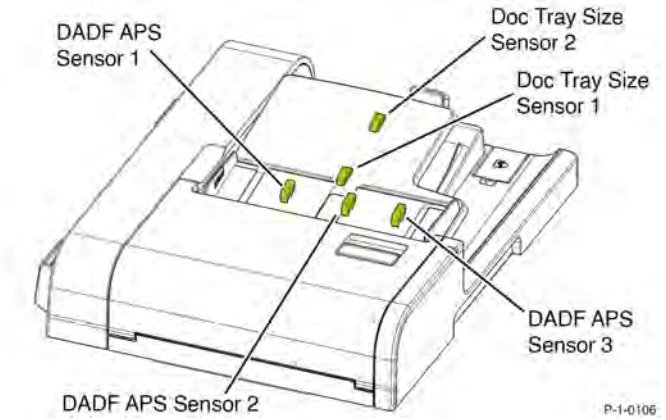


Figure 2 DADF 130 Tray APS Sensors

Document Length

DADF APS Sensors 1, 2, and 3 detect the length of the document. Prior to entering Pre-Registration, control logic verifies the document size. DADF Pre Regi Motor actuates the DADF Takeaway Clutch and Takeaway Roll. Refer to Figure 3 and Figure 4.

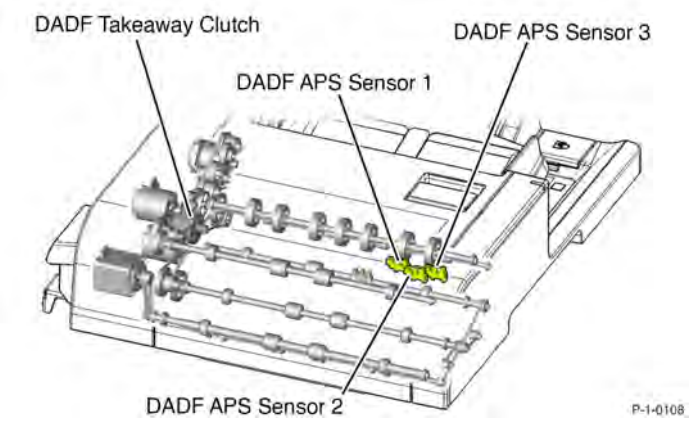


Figure 3 DADF 250 DADF APS Sensors

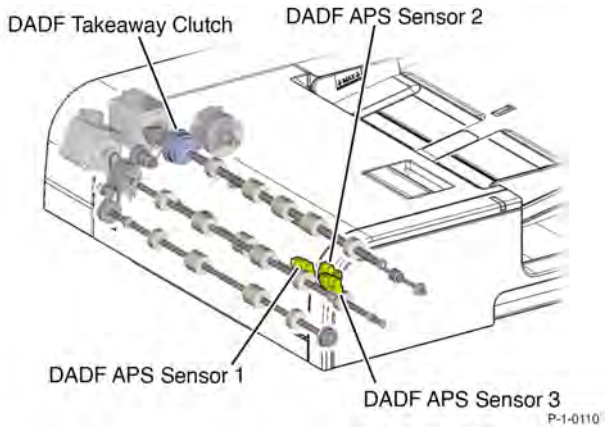


Figure 4 DADF 130 DADF APS Sensors

DADF Interlock and Set Sensors

The Cover Interlock Sensor detects when the Interlock Switch is closed and communicates with the DADF PWB. The DADF Document Set Sensor detects the document sets and causes the Document Set LED to be lit. Refer to Figure 5 and Figure 6.

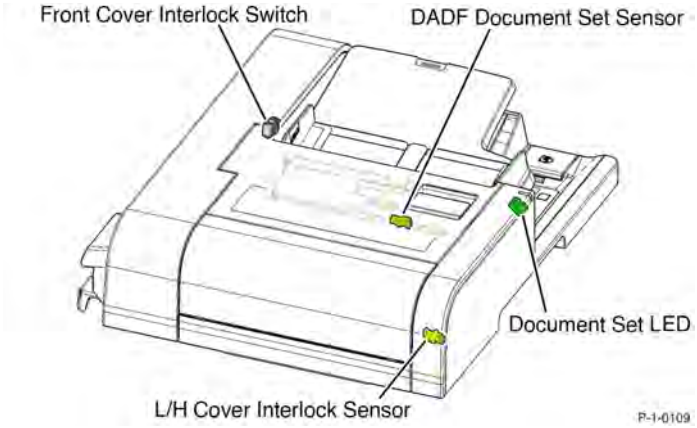


Figure 5 DADF 250 Interlock and Document Set Sensors

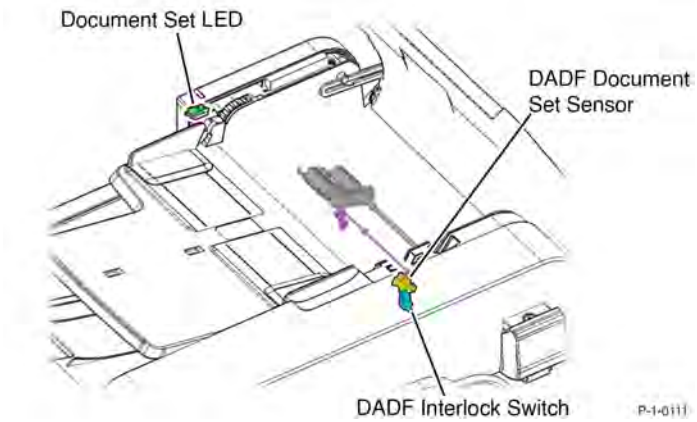


Figure 6 DADF Interlock and Document Set Sensors

Document Feeding and Scanning

Document Stacking and Feeding

The DADF Nudger Solenoid actuates the Nudger Roll. Documents lift the Nudger Roll and the actuator blocks the Document Bottom Sensor. The DADF Feed Motor feeds each document. Feed In and Feed Out Sensors detect the movement of each document toward the Takeaway Roll. Refer to Figure 7 and Figure 8.

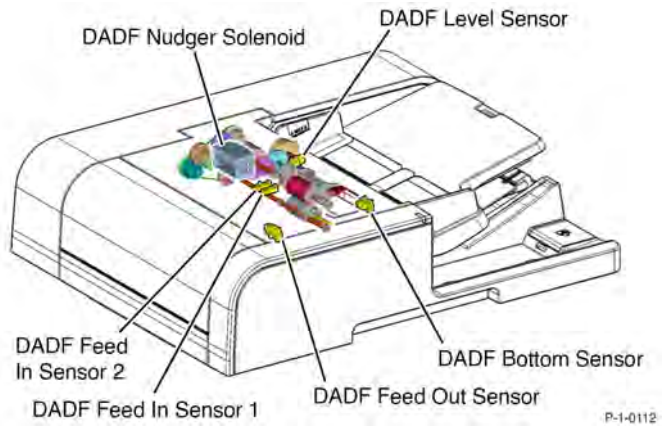


Figure 7 DADF 250 Feed In/Out Sensors and Level Sensors

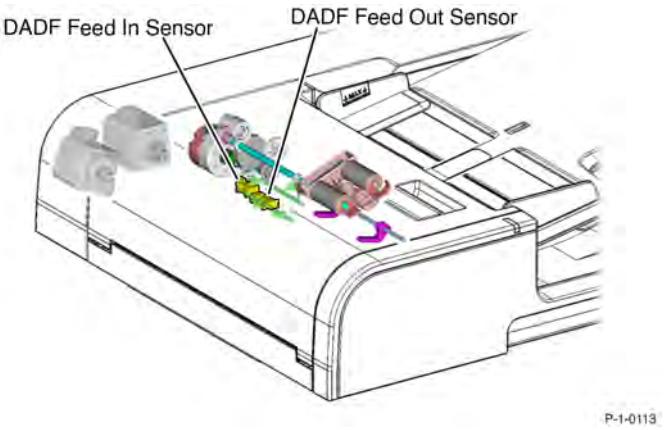


Figure 8 DADF130 Feed In/Out Sensors

Pre-Registration and Registration

The Takeaway Roll increases the document speed. The Skew Detect Sensor detects any document skew which is corrected during image processing. The DADF Pre Regi Sensor detects the document as it moves through the Pre Regi Roll. DADF Regi Motor drives the Regi Roll and transports the document to the scan position. Refer to Figure 9 and Figure 10.

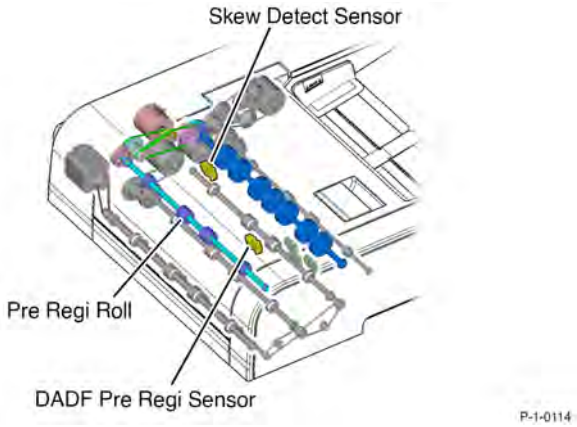


Figure 9 DADF250 Registration and Skew Sensors

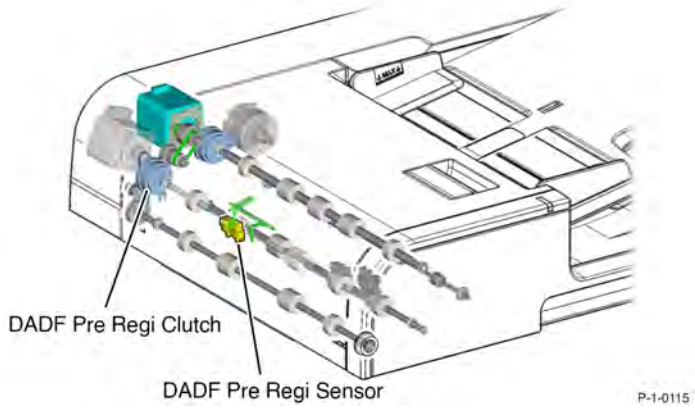


Figure 10 DADF130 Registration

Document Scan Side 1

DADF Regi Sensors detect the document coming into the Platen scan area. In the DADF 250, the Platen Motor drives the Platen Rolls to move the document through the scan zone. The Full Rate Carriage moves to the CVT window. The document is scanned into the CCD through a series of mirrors. The DADF Out Sensor detects the lead edge. Refer to Figure 11 and Figure 12.

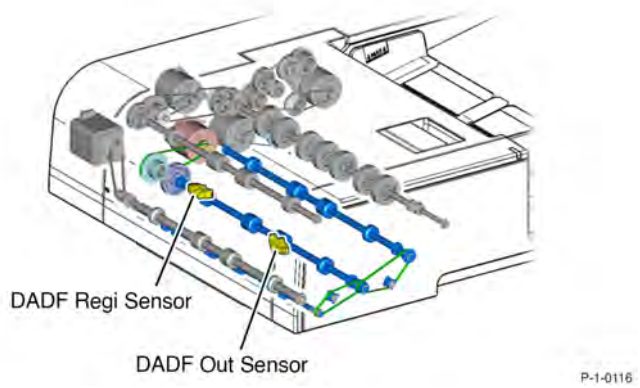


Figure 11 DADF250 Side 1 Scan

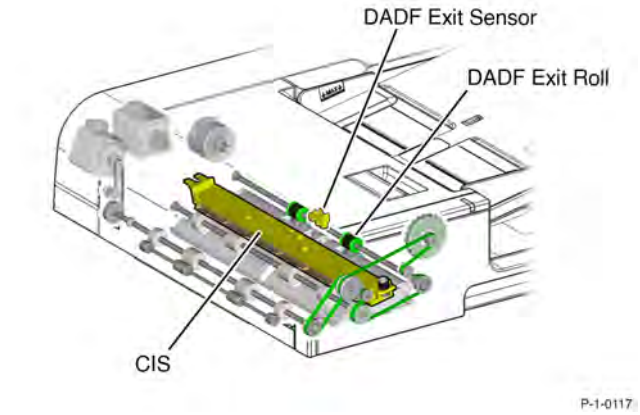


Figure 12 DADF130 Side 1 Scan

Figure 13 shows side 1 of the document being illuminated by the LED lamp in the scanner.

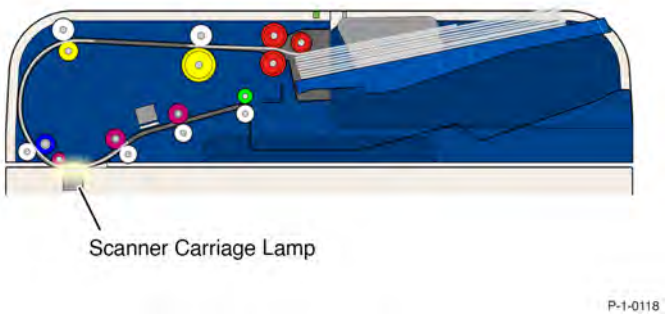


Figure 13 Side one illumination (typical)

Document Scan Side 2 and Document Exit

Immediately after the document passes the scan position, the CIS scans side 2. The DADF Exit Sensor detects the document. The Exit Roll moves the document to the Exit Tray. Refer to Figure 14 and Figure 15.

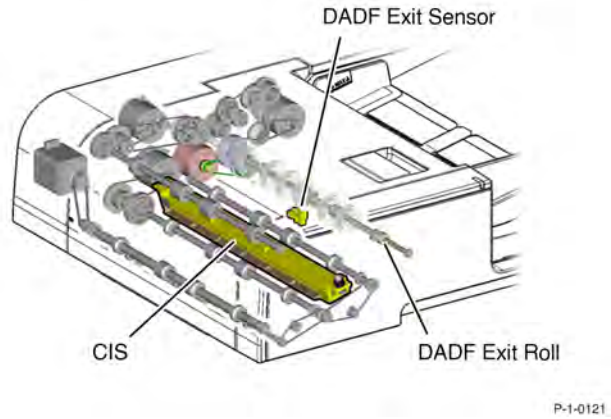


Figure 14 DADF250 Side 2 Scan and Document Exit

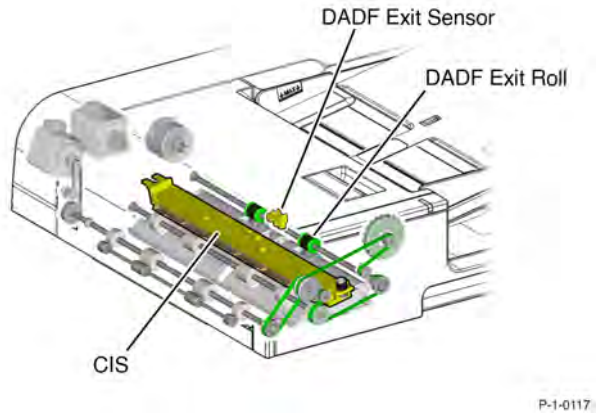


Figure 15 DADF130 Side 2 Scan and Document Exit

Figure 16 shows both side 1 and side 2 of the document being scanned. Side 2 is illuminated by the CIS the DADF.

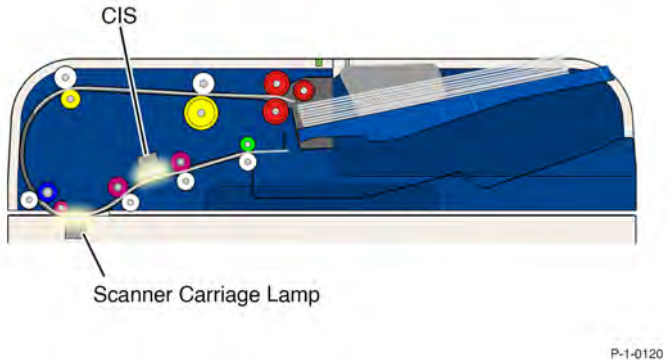


Figure 16 Side 1 and side 2 scan (typical)

Figure 17 shows the document after it has passed the scan zone in the scanner being illuminated by the CIS alone and passing out into the exit tray.

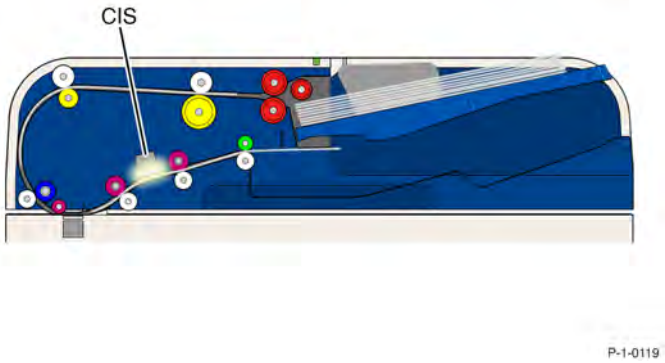


Figure 17 Document exit (typical)

Paper Path Overview

Figure 18 shows the DADF 250 drive rolls and motors, as well as the sensors. Refer to Table 2 for the DADF 250 sensor names.

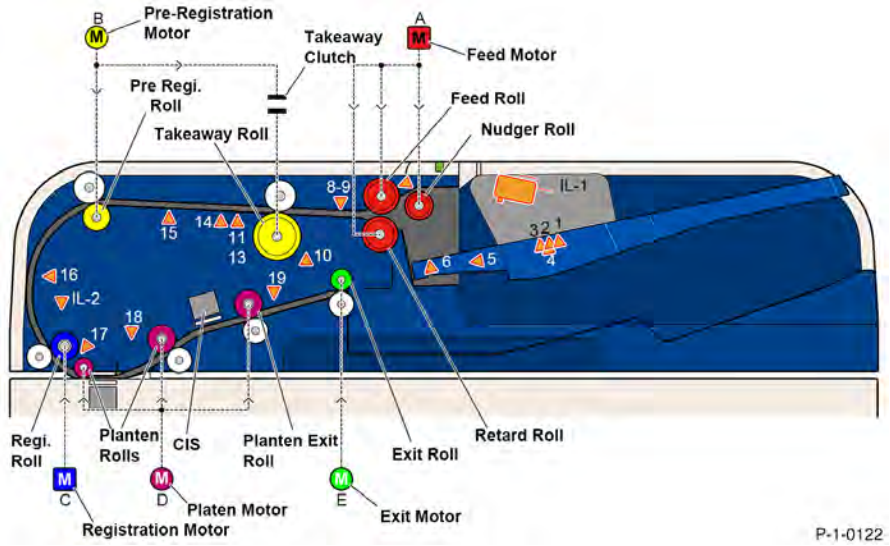


Figure 18 DADF 250 Paper Path Drives and Sensors

Table 2 DADF 250 Sensors

Sensor Number	Sensor Name
IL-1	Front Cover Interlock SW
IL-2	L/H Cover Interlock SW

Sensor Number	Sensor Name
1	DADF Tray APS Sensor 1
2	DADF Tray APS Sensor 2
3	DADF Tray APS Sensor 3
4	DADF Tray APS Sensor 4
5	DADF Bottom Sensor
6	DADF Document Set Sensor
7	DADF Level Sensor
8	DADF Feed In Sensor 1
9	DADF Feed In Sensor 2
10	DADF Feed Out Sensor
11	DADF APS Sensor 1
12	DADF APS Sensor 3
13	Skew Detect Sensor
14	DADF APS Sensor 2
15	DADF Pre-Registration Sensor
16	DADF Registration Sensor
17	DADF Lead Registration Sensor
18	DADF Out Sensor
19	DADF Exit Sensor

Figure 19 shows the DADF 130 drive rolls and motors, as well as the sensors. Refer to Table 3 for the DADF 130 sensor names.

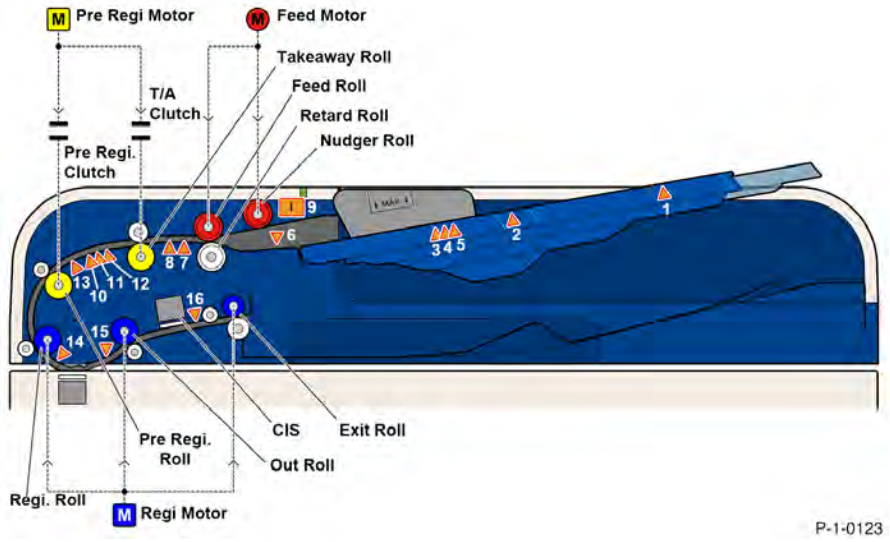


Figure 19 DADF 130 Paper Path Drives and Sensors

Table 3 DADF 130 Sensors

Sensor Number	Sensor Name
1	Doc. Tray Size Sensor 2
2	Doc. Tray Size Sensor 1
3	DADF Tray APS Sensor 1
4	DADF Tray APS Sensor 2
5	DADF Tray APS Sensor 3
6	DADF Document Set Sensor
7	DADF Feed In Sensor
8	DADF Feed Out Sensor
9	DADF Interlock Switch
10	DADF APS Sensor 1
11	DADF APS Sensor 2
12	DADF APS Sensor 3
13	DADF Pre-Registration Sensor
14	DADF Registration Sensor
15	DADF Out Sensor
16	DADF Exit Sensor

IIT

IIT Scanner Overview

The Image Input Terminal (IIT) detects the presence and size of a document placed on the platen glass, illuminates and scans an image of the document, then converts the image to digital data which is transmitted to the Controller though the IIT PWB.

Although different IIT scanners are used in the AltaLink C8170 from the AltaLink C8130/8135 and C8145/55, both scanners operate the same way and contain the same types of components.

Unlike document scanning done using the DADF, the IIT scanners take the image from only one side of a document that is placed on the platen glass. In the case of the IIT scanners, the document remains stationary and the scanner carriage moves under the document.

The main components of the IIT scanner are:

- the LED Lamp
- the scanner carriages which include a full rate carriage and a half rate carriage
- a set of mirrors
- a lens and a light sensitive CCD PWB
- the IIT PWB

During a scan, the LED Lamp, mounted on the full rate carriage, moves across the document and illuminates it. As the lamp moves, the light is reflected from the document across three mirrors mounted on the full rate and half rate carriages. The mirrors reflect the image data to the lens.

The image data is transmitted through the lens to the CCD PWB. The CCD PWB converts the analog image data to digital information. The CCD PWB sends the digital data to the Controller (SBC) PWB via the IIT PWB.

In the Controller (SBC) PWB, the digital data is processed to correct for variations in color contrast, color balance, character formation, and other image processes needed to optimize image quality.

Platen Sensors

The Platen Angle Sensor monitors the angle at which the DADF is opened to determine the correct time to scan for the size of the document. The Platen Interlock Switch and the Platen Close Sensor monitor the opening and closing of the DADF.

The Automatic Paper Select (APS) Sensors 1 and 2 detect the document length and width. Refer to Figure 1, Figure 2, and Figure 3.

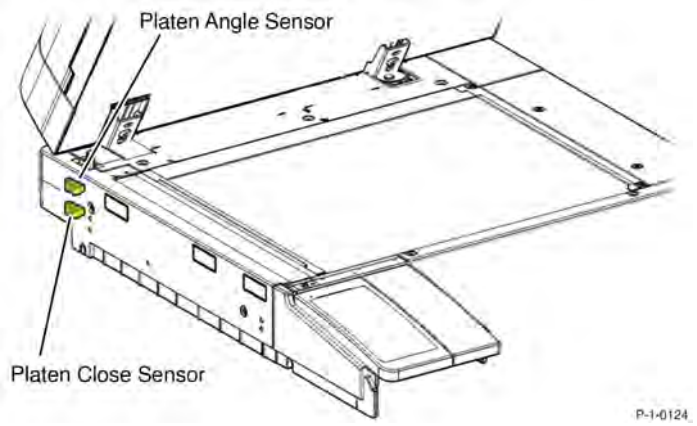


Figure 1 Platen Angle Sensor and Platen Close Sensor (Mid and Low)

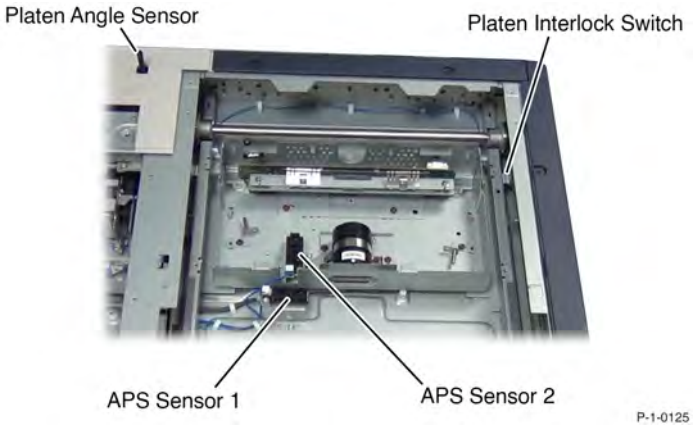


Figure 2 Platen Angle Sensor (High), APS Sensors and Platen Interlock

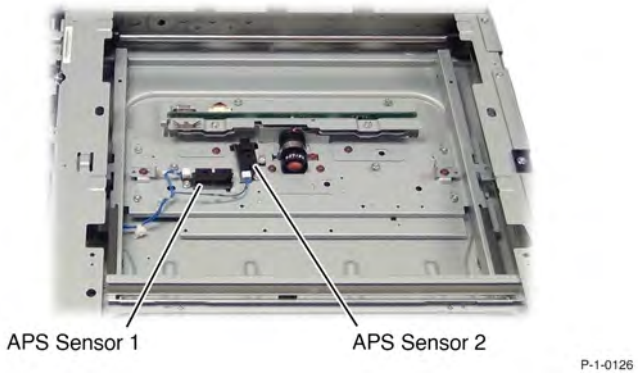


Figure 3 Platen Angle Sensor (Mid/Low), APS Sensors and Platen Interlock

Full and Half Rate Carriage

For both the High and Mid/Low scanners, the Carriage Motor drives the Full and Half Rate Carriages through pulleys and cables to scan the image. The IIT Registration Sensor detects the position of the Full Rate Carriage as it begins the scanning process.

The lower frame at the rear of the Full Rate Carriage actuates the sensor. The Half Rate Carriage is linked to the Full Rate Carriage and moves half the distance.

The Carriage Motor drives the carriages, from left-to-right, through pulleys and cables to scan the image on the platen glass.

Image data reflected by the Carriage LED Lamp transmits the light to the 2 mirrors on the Half Rate and 1 mirror on the Full Rate Carriages. The mirrors reflect the light through the lens to the CCD. Refer to Figure 4, Figure 5, Figure 6.

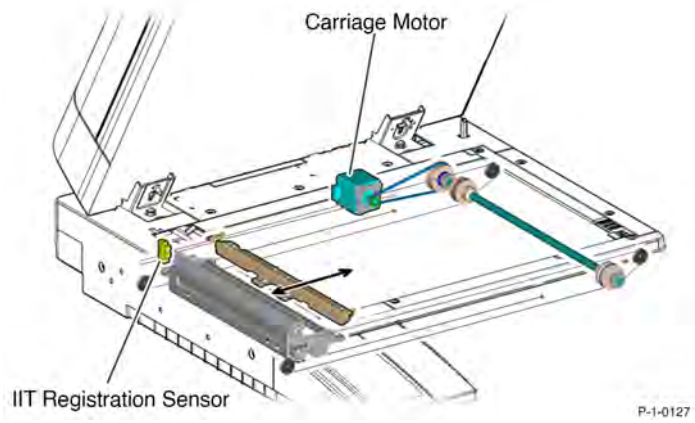


Figure 4 Carriage Motor and IIT Registration Sensor

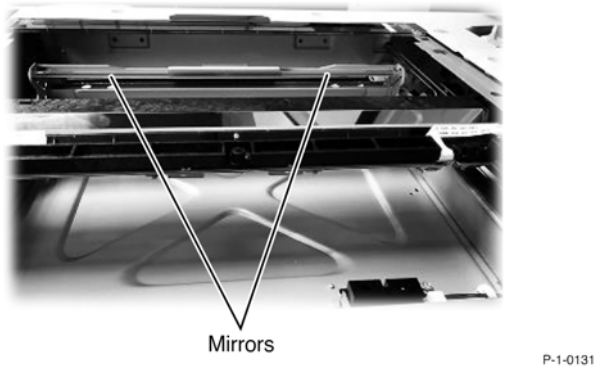


Figure 5 Mirrors

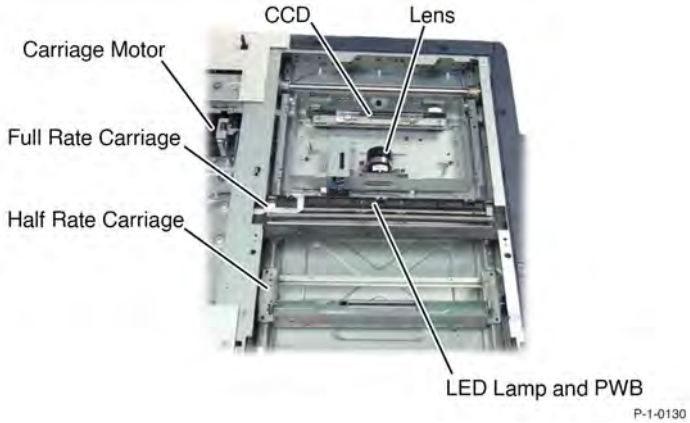


Figure 6 Carriages, LED Lamp, Lens and CCD

Size Detection through Fast and Slow Scan

APS Sensors 1 and 2 detect the document length and width during the scanning process.

APS Sensor 1 detects the Slow Scan, vertical lead edge.

APS Sensor 2 detects the Fast Scan, horizontal lead edge. Refer to Figure 7.

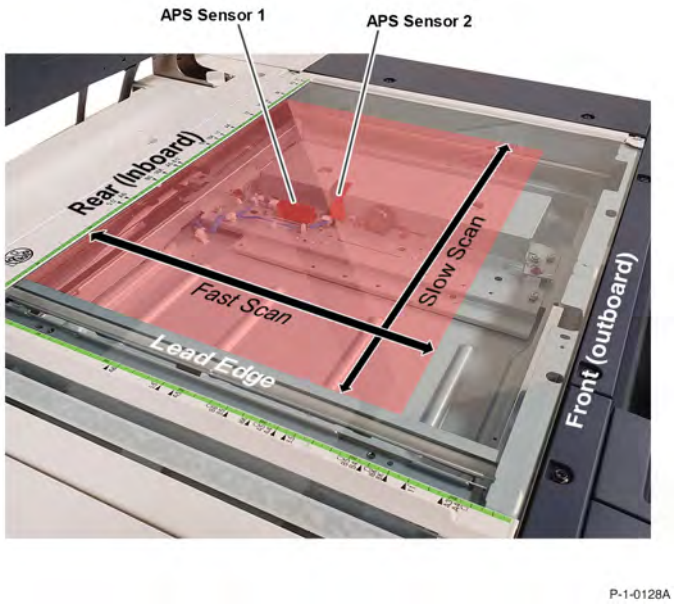


Figure 7 Size Detection

Charged Coupled Device (CCD)

The scanner uses a linear CCD that contains millions of capacitive elements that interact with light to create voltages. The brighter the light or the longer the exposure time, the more charge is registered. The CCD scans Red Blue and Green in separate channels. Refer to Figure 8.

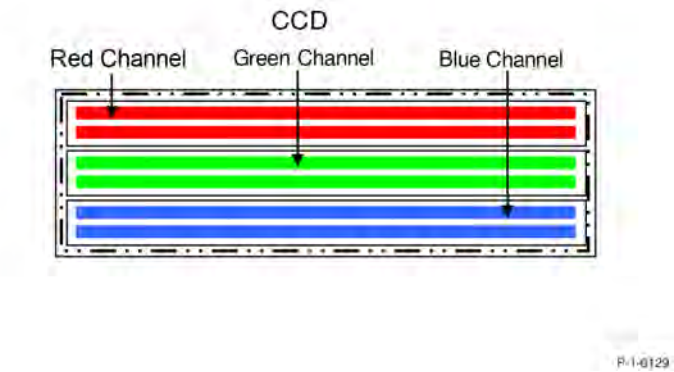


Figure 8 Red, Green, Blue CCD Channels

During the scanning process, the charge from the CCD elements is measured and recorded on the CCD. Scanning takes place in a single direction where each line of information is captured, stored, and amplified before stepping to the next.

The CCD processes each color as separate analog signals.

The same CCD is used for the color and mono printers. When the CCD captures black-and-white images, it uses all three color channels to create black. This means that the mono printers can capture color images (and store them) but the image can only print in black-and-white.

The High printers have an additional black channel which increases the processing speed of black-and-white images, uses less memory, gives black-and-white images a higher definition.

The High printers have a CCD Fan that prevents overheating of the Lens and CCD Assembly. Refer to Figure 9.

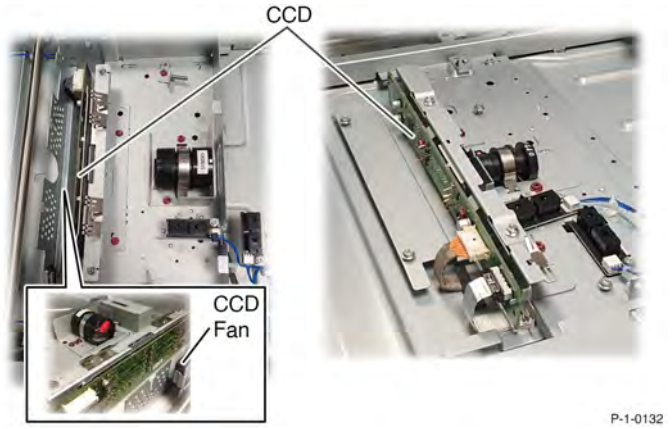


Figure 9 Mid, Low and High CCDs

Scanner Control and Video Cables

The CCD Controller Video Flat Cable is a flat ribbon cable that connects the Scanner CCD PWB to the Controller (SBC) PWB. This is for the video (image) data transfer.

The RGB data from the CCD is sent to the Controller (SBC) PWB where the digital data is processed to correct for variations in color contrast, color balance, character formation, and other image manipulation. The Controller (SBC) PWB generates CMYK separations for each color.

The IIT Controller I/O Flat Cable is a flat ribbon cable that connects the Scanner CCD PWB to the IIT PWB, and then to the Controller (SBC) PWB. This is a communication cable that communicates commands for scanner control and NVM data transfer. Refer to Figure 10.

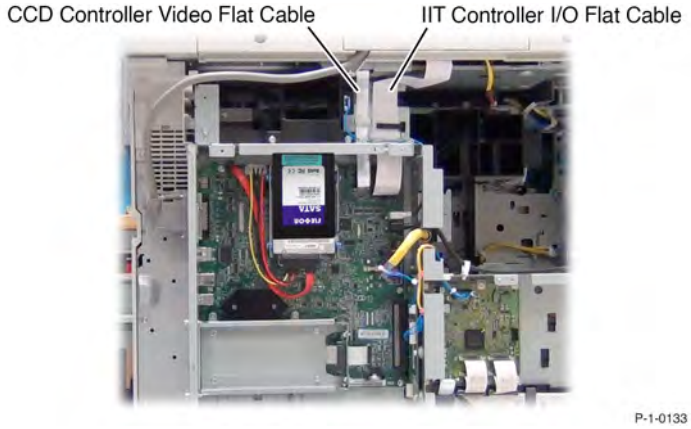


Figure 10 IIT Scanner Control and Video Cable

Figure 12 IIT Transport PWB (Mid/Low)

IIT Transport PWB

The IIT PWB has three different functions:

- It is one of 3 places on the MFP that has a non-removal EEPROM that contains proprietary information, such as machine speed, toner contract and serial number.
- Connects to and provides power to the DADF.
- Connects to the Scanner CCD PWB through the IIT Controller I/O Flat Cable.

Figure 11 IIT Transport PWB (High)

Image Output

Image Output

Note: A more detailed description of the LED Print Head (LPH) technology is provided in the Xerographics section of this PTO.

As described in the Image Input section, imaging data is received by the Controller (SBC) PWB. This is true no matter what the source of the image data. Possible sources are:

- Scans using the DADF in conjunction with the IIT Scanner
- Scans using the IIT Scanner alone
- Printable files from the network
- Fax files
- Files submitted via USB by the customer

The Controller uses the input to generate CMYK separations. The CMYK data is routed as video data from the Controller, through the Backplane to the Halftone PWB.

The Halftone PWB processes the data and sends it directly to the four LPH's (LED Print Heads), Control Signals from the Controller PWB accompany the video data to control the operation of the four LPH's. Refer to Figure 1.

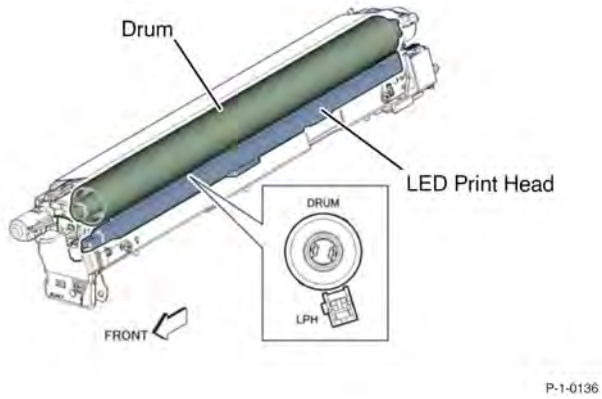


Figure 1 LED Print Head and Drum

Media Supply

Paper Supply

Paper tray characteristics

- Tray 1 - up to 520 sheets (80gsm/54lbs) A4/letter LEF or SEF or A3/11 x 17in SEF
- Tray 2 - up to 520 sheets (80gsm/54lbs) A4/letter LEF or SEF or SRA3 SEF, 12x18 inch SEF
- Tray 3 2TM - up to 520 sheets (80gsm/54lbs) A4/letter LEF or SEF or SRA3 SEF, 12x18 inch SEF
- Tray 4 2TM - up to 520 sheets (80gsm/54lbs) A4/letter LEF or SEF or SRA3 SEF, 12x18 inch SEF
- Tray 3 TTM - up to 980 sheets (80gsm/54lbs) A4/letter LEF or 8.5x11in LEF
- Tray 4 TTM - up to 1280 sheets (80gsm/54lbs) A4/letter LEF or 8.5x11in LEF
- HCF - up to 3000 sheets A4/letter LEF or 8.5x11in LEF (80gsm/54lbs)
- Bypass tray - up to 100 sheets custom sizes (80gsm/54lbs)
- Envelope tray (replaces tray 1) - up to 50 envelopes
- Bypass tray - Banner media 12.6x52in./320x1321mm

Paper Supply Configurations

The Xerox® AltaLink® C8100 paper supply is available in the following configurations:

- C8100 (all models) with built in paper tray 1 and 2 and tandem tray module (TTM), Figure 1.
- C8130/8135 only with paper tray 1 and 2 and 2 tray module (2TM), Figure 1.
- An optional envelope tray can be added in the position of tray 1.
- An optional 3000 sheet high capacity feeder (HCF) can also be added to a stacked machine. This would normally be used with a finisher.
- All Xerox® AltaLink® C8100 machine configurations feature a bypass tray (Tray 5).

Figure 1 Paper Supply Configuration (2TM and TTM)

Trays 1 and 2

Paper Tray 1 and Tray 2

Paper Tray 1 and Tray 2 are very similar, Figure 2. The capacity of Tray 1 and Tray 2 is 520 sheets of 20lb (75gsm) paper. They can accommodate a wide variety of sizes and weights. Tray 1 accommodates larger sized sheets, Table 1.

Note: Tray 2 is located directly under Tray 1.

Note: Custom sizes can be entered in the UI for Tray 1 and Tray 2.

Table 1 Paper Specifications

Tray	Maximum Paper Size	Minimum Paper Size	Maximum Paper Weight	Capacity (20#-75gsm)
1	11 x 17 (A3)	5.5 x 8.5 (A5)	256gsm	520
2	12 x 18 (SRA3)	5.5 x 8.5 (A5)	256gsm	520

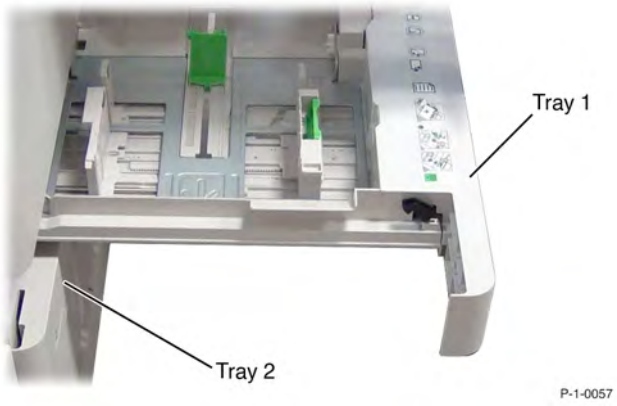


Figure 2 Tray 1 and tray 2 location

Paper Size Sensing for Tray 1 and Tray 2

Paper Tray 1 and Tray 2 can be adjusted for the various paper sizes by positioning the paper guides in the trays, Figure 3. As the paper guides are moved, a corresponding actuator tab on the back of the tray is moved to actuate a combination of Paper Size Sensors.

Actuating different combinations of the Paper Size Sensors (or not actuating) produces different combinations of analog and digital signals, which informs control logic the size paper to display. After the paper tray is adjusted and the tray is pushed back into the machine, the paper size in the tray is displayed on the User Interface screen.

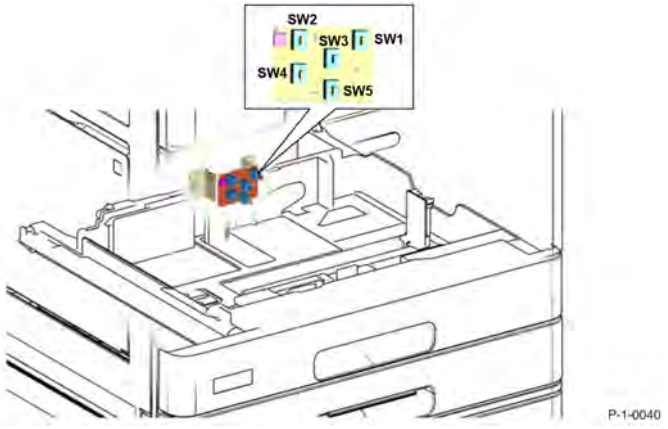


Figure 3 Paper tray sensors location

The Paper Size Sensors also determines tray presence in the machine. Any actuation of the Paper Size Sensor signals tray presence.

The Motor Drive PWB, detects the paper size from the analog and digital signals generated by the Paper Size Sensors. Different combinations of S/W1 to S/W4 changes the total internal resistance of the Paper Size Sensor circuit, Figure 4.

This changes the corresponding output Analog voltage input to the Motor Drive PWB. The digital signal from S/W5 is sent to the Motor Drive PWB as a high or low signal. Adding a digital signal in this manner has the effect of doubling the number of combinations that can be used for detecting paper sizes. Refer to Figure 4

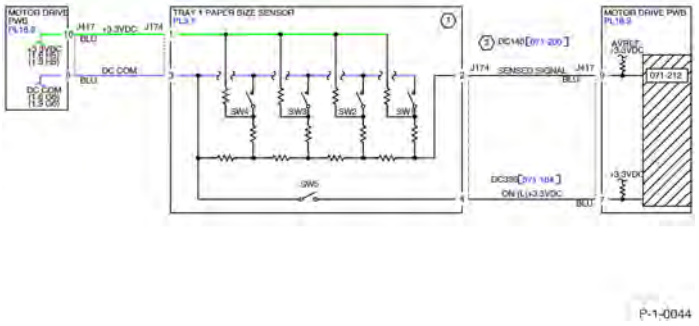


Figure 4 Paper size sensing signaling

Paper sizes are checked and information is sent to the Halftone PWB, each time the machine is switched ON, Figure 5.

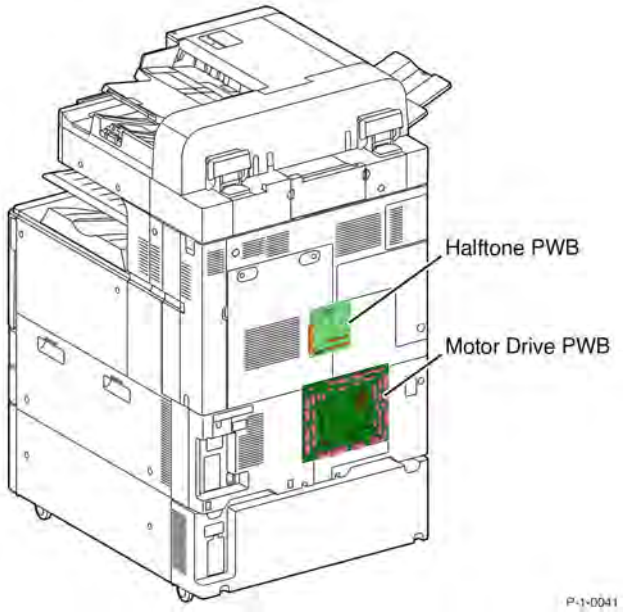


Figure 5 Halftone PWB and Motor Drive PWB locations

Tray Lift and Stack Height Sensing for Tray 1 and Tray 2

At power ON, control logic switches ON the Feed/Lift Up Motor to raise the tray to the feed position. The Feed/Lift Up Motor serves two functions, Figure 6:

1. When the motor rotates CCW, drive is transferred to a set of gears that causes the Tray Lift Shaft located under the tray to lift up the paper tray.
   a. The motor switches OFF when an actuator on the Nudger Roll shaft blocks the Stack Height Sensor.

   The tray is now in the feed position.

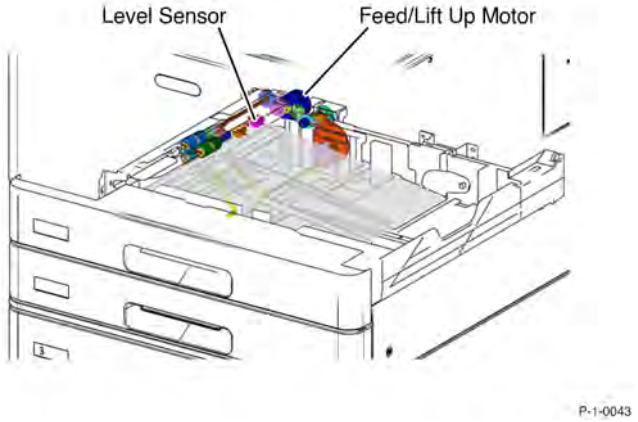


Figure 6 Initiating paper feed

2. When the motor rotates CW, drive is transferred to the Nudger Roll and Feed Roll to feed paper to the Vertical Transport, Figure 7:
   a. As paper continues to feed, the stack diminishes, eventually, the actuator on the Nudger Roll shaft drops below the Level Sensor.
   b. Control logic stops paper feed and reverses the Feed/Lift Up Motor to raise the Paper Tray, causing the actuator to block the Level Sensor again, signaling the control logic to resume feeding paper.

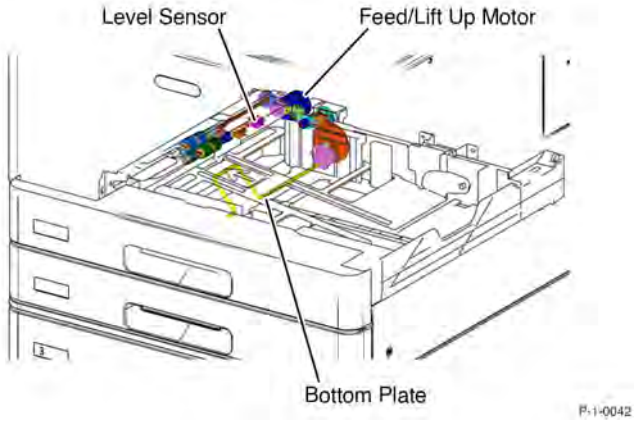


Figure 7 Resume paper feeding

Feedhead Components

The feedheads in trays 1 and 2 and trays 3 and 4 (in both the 2TM and the TTM) are similar. Tray 1 feedhead is shown as a typical example, Figure 8.

The tray level sensor, no paper sensor and pre feed sensor are all integral to the feeder assembly. The pre feed sensor is used to detect paper mis feeds and paper jams.

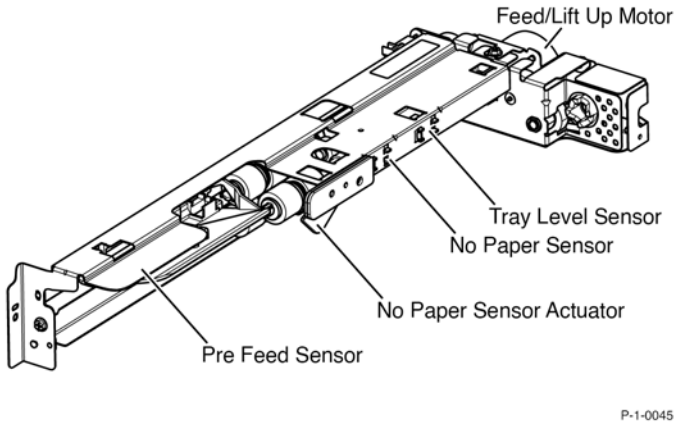


Figure 8 Feedhead Components

No Paper Detection

When the last sheet is fed from the tray, the No Paper Sensor actuator drops into an opening in the Paper Tray Elevator and unblocks the No Paper Sensor. This signals the control logic that the tray is empty and to display a Tray Empty message on the UI screen, Figure 9.

Note: The stack height and no paper detection operations are the same for Tray 1, Tray 2, Tray 3, and Tray 4.

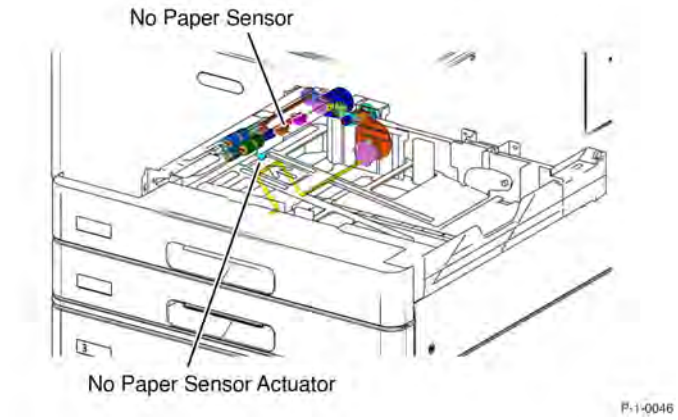


Figure 9 Tray empty sensing

Tray 3 and 4

Tray 3 and 4 (TTM)

Paper Trays 3 and 4 serve as high capacity media trays and can only be loaded with 8.5 X 11 (A4) or 7.25x10.5. Paper capacity for Trays 3 and 4 is 980/1280 sheets of 20lb (75gsm) paper, Figure 10.

Refer to the table for a detailed listing of weights and sizes, Table 2.

Table 2 Tray 3 Paper Specifications

Tray	Maximum Paper Size	Minimum Paper Size	Maximum Paper Weight	Capacity (20#-75gsm)
3	8.5 x 11 (A4)	7.5 x 10.25 (B5)	256gsm	980/1280

Figure 10 Paper tray 3 and 4 location

Paper Size Sensing for Trays 3 and 4 (TTM)

The TTM paper size sensors contain two switches mounted on the rear of the bay into which the tray is installed. Movement of the paper guides moves an actuator assembly on the rear of the paper tray

The actuator assembly consists of a black housing with two openings facing the switches. A sheet of transparent film, mounted inside the housing, is moved by the paper guides. Holes in the film align with the holes in the housing to either open or close the opening dependent on the position of the paper guides. As the paper tray closes the combination of open or closed openings actuate the switches.

The combination of the on and off states of the switches changes the output voltage which is sensed by the Motor Drive PWB, Figure 11.

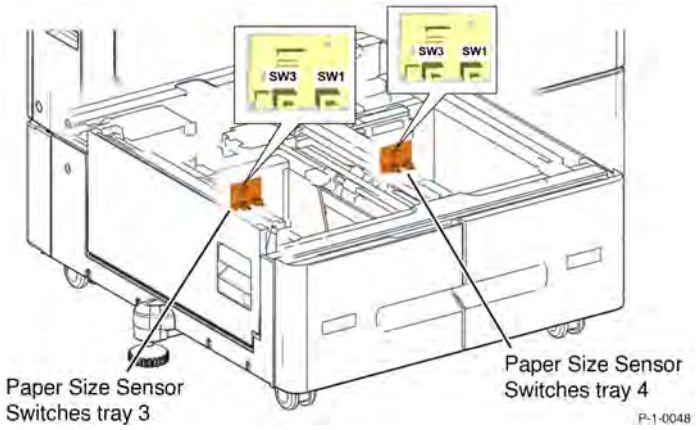


Figure 11 TTM paper size sensing

Tray 3 and 4 Tray Lift (TTM)

Lifting the paper stack is accomplished through a cable and pulley combination.

When the tray is loaded and pushed into the machine, actuating any paper size sensor, signals control logic to turn on the Tray 3 Feed/Lift Motor CW. The motor provides drive to the cable and pulley system to raise the tray. When the paper stack actuates the Tray 3 Level Sensor the motor stops. The stack is now in the feed position, Figure 12.

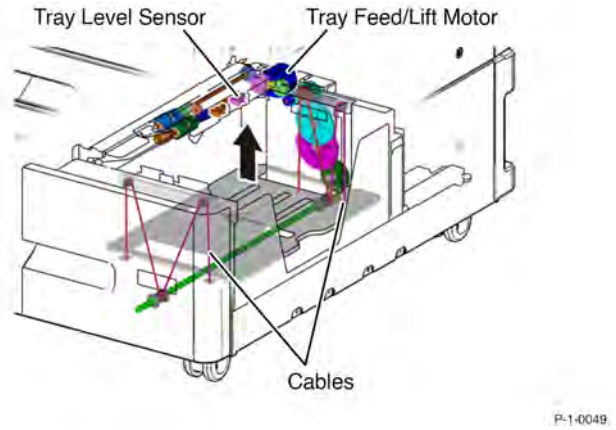


Figure 12 Tray lift components location

Tray 3 and 4 Stack Hight Sensor (TTM)

Maintaining the stack height is done in the same way for tray 1, tray 2, tray 3, and tray 4.

Note: For more details see Tray 1 and Tray 2.

Tray 3 and 4 No Paper Detection (TTM)

When the last sheet is fed from the tray, the Tray 3 (or Tray 4) No Paper Sensor actuator drops into an opening in the Paper Tray Elevator and unblocks the No Paper Sensor. This signals the control logic that the tray is empty and to display a Tray Empty message on the UI screen, Figure 13.

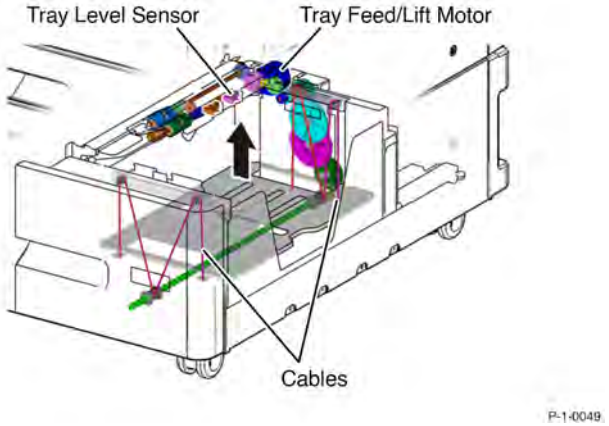


Figure 13 No paper detection

Tray 3 and Tray 4 (2TM)

Tray 3 and tray 4 for the 2TM are essentially the same in functionality as trays 1 and 2. Refer to the section Paper Tray 1 and Tray 2 for more information. Refer to the table for a detailed listing of weights and sizes, Table 3.

Table 3 Tray 3 and Tray 4 Specifications

Tray	Maximum Paper Size	Minimum Paper Size	Maximum Paper Weight	Capacity (20#-75gsm)
3	SAR3/12 x 18	5.5 x 8.5/A5	256gsm	520
4	SAR3/12 x 18	5.5 x 8.5/A5	256gsm	520

Tray 5 / Bypass
Tray 5 (Bypass Tray)

Tray 5 is located on the left side of the machine and enables feeding of special paper stock and envelopes as well as standard paper stock and sizes. Paper capacity for Tray 5 is 100 sheets of 20lb (75gsm) paper, Figure 14.

Note: Custom sizes can be entered for Tray 5.

Refer to the table for a detailed listing of weights and sizes, Table 4.

Table 4 Tray 5 Specifications

Tray	Maximum Paper Size	Minimum Paper Size	Maximum Paper Weight	Capacity (20#-75gsm)
5	52 x 19	3.5 x 5.5	280gsm	100

Figure 14 Tray 5 / Bypass tray location

Tray 5 / Bypass No Paper Sensor

The bypass tray has a no paper sensor actuated by a flag when paper is inserted. The Motor Drive PWB continually monitors the no paper sensor, a High signal (3.3VDC) indicates no paper. When the signal goes Low the control logic determines that paper has been inserted, Figure 15.

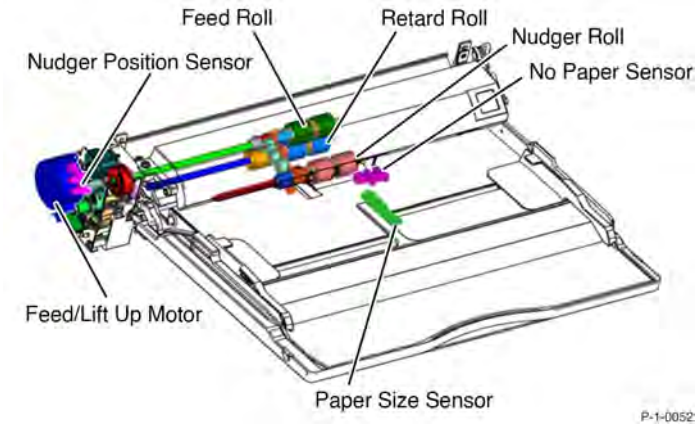


Figure 15 Tray 5 size sensor location

Tray 5 / Bypass Paper Size Sensor

The bypass tray has an analogue paper size sensor. The sensor is actuated by a link. The link is driven by a gear actuated by the paper width guides. The Motor Drive PWB monitors the position of the paper size sensor and references a list of paper sizes stored in NVM.

Tray 5 / Bypass Tray Nudger Position Sensor

The bypass tray has a bypass tray nudger position sensor. The sensor is actuated when the bypass tray nudger roll is lifted by the paper stack. The Motor Drive PWB monitors the nudger position sensor, a Low signal indicates the nudger roll has been lifted by paper.

Tray 5 / Bypass Tray paper Feed

When paper is loaded into the bypass tray the Motor Drive PWB detects a High signal (3.3VDC) from the bypass tray no paper sensor and the control logic activates the feed/lift motor to run. The motor elevates the tray (via a gear train and lift shaft) and paper stack acting on a link attached to the base of the tray. When the paper stack actuates the bypass tray nudger position sensor the control logic deactivates the feed/lift motor. When paper is requested from the bypass tray the feed/lift motor operates in the feed direction. If feeding the paper causes the bypass tray nudger position sensor to go High (3.3VDC) the control logic runs the feed/lift motor again in the lift direction until the stack is detected once more.

High Capacity Feeder

The HCF for Xerox® AltaLink® C8100 is the new 3K HCF.

Note: The High-Capacity Feeding Option is described in a separate 3K HCF service manual.

Paper Transport

Paper Transport Overview

The purpose of the paper transport system is to take a sheet of media from any of the various paper trays and then deliver that media un-skewed to the point of xerographic transfer.

Takeaway Rolls and Drives

Each individual paper tray with the exception of tray 3 and 4 of the TTM has an associated takeaway roll that takes over transportation of media fed via the paper feeder and then drives that media along the paper path towards the registration nip rolls. The TTM tray 4 has a transport assembly that transports the paper across the top of tray 3 to a combined takeaway roll for the TTM unit.

Tray 1 and Tray 2. Refer to Figure 1 or Figure 2.

- Tray 1 takeaway roll is driven by takeaway motor 1
- Takeaway roll 2 is driven by takeaway motor 2

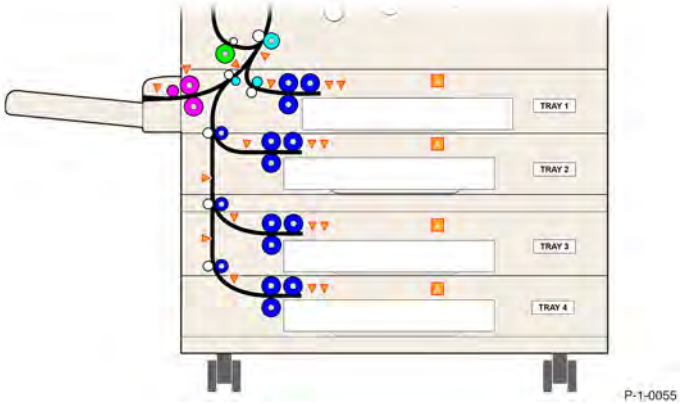


Figure 1 Paper path from 2TM configuration

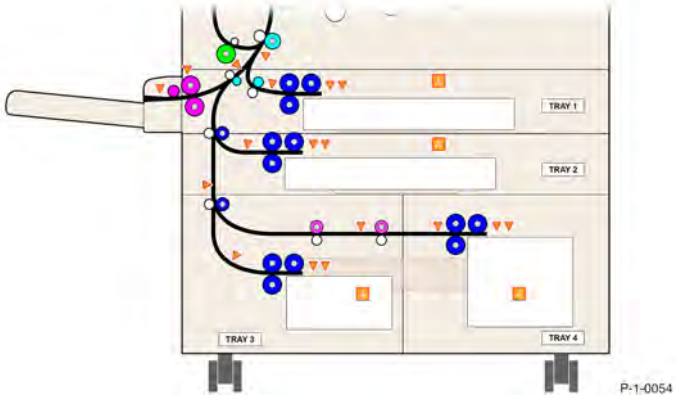


Figure 2 Paper path from TTM configuration

Two tray module (2TM):

- 2TM upper takeaway roll, the upper takeaway roll serves tray 3 and tray 4. Driven by 2TM takeaway motor assembly.
- 2TM lower takeaway roll, the lower takeaway roll serves tray 4 only. Driven by 2TM takeaway motor assembly.

Tandem tray module (TTM). Refer to Figure 2.

- TTM takeaway roll serves tray 3 and 4. Driven by TTM takeaway motor assembly.
- TTM tray 4 transport assembly transports the paper from tray 4 across the top of tray 3 to the TTM takeaway roll.

  The TTM transport assembly contains the following:

  – Transport roll assembly is driven by TTM takeaway motor assembly.

  – Transport roll is driven by TTM takeaway motor assembly.

Bypass tray. Refer to Figure 1 or Figure 2.

- Bypass tray takeaway roll, driven by takeaway motor 1.

Paper Transport to Registration Transport Assembly

Refer to Figure 1 and Figure 2.

- Paper from tray 1:

  1. Triggers the tray 1 pre feed sensor
  2. Passes through the tray 1 takeaway roll
  3. Triggers the registration sensor

4. Passes into the Registration Transport Assembly

- Paper from tray 2:

1. Triggers the tray 2 pre feed sensor
2. Passes through takeaway roll 2
3. Passes through the bypass tray takeaway roll
4. Triggers the registration sensor
5. Passes into the Registration Transport Assembly

- Paper from 2TM tray 3:

1. Triggers the tray 3 pre feed sensor
2. Passes through the 2TM upper takeaway roll
3. Triggers tray 3 feed out sensor 3
4. Passes through takeaway roll 2
5. Passes through the bypass tray takeaway roll
6. Triggers the registration sensor
7. Passes into the Registration Transport Assembly

- Paper from 2TM tray 4:

1. Triggers the tray 4 prefeed sensor
2. Passes through 2TM lower takeaway roll
3. Triggers tray 4 feed out sensor
4. Passes through 2TM upper takeaway roll
5. Triggers tray 3 feed out sensor
6. Passes through takeaway roll 2
7. Passes through the bypass tray takeaway roll
8. Triggers the registration sensor
9. Passes into the Registration Transport Assembly

- Paper from TTM tray 3

1. Triggers tray 3 pre-feed sensor
2. Passes through the TTM takeaway roll assembly
3. Triggers feed out sensor 3
4. Passes through takeaway roll 2
5. Passes through the bypass tray takeaway roll
6. Triggers the registration sensor
7. Passes into the Registration Transport Assembly

- Paper from TTM tray 4:

1. Triggers tray 4 pre-feed sensor
2. Passes through TTM transport rol
3. Triggers feed out sensor 4
4. Passes through TTM transport roll assembly
5. Passes through the TTM takeaway roll assembly
6. Triggers feed out sensor 3
7. Passes through takeaway roll 2
8. Passes through the bypass tray takeaway roll
9. Triggers the registration sensor
10. Passes into the Registration Transport Assembly

- Paper from the bypass tray:

1. Passes through the bypass tray takeaway roll
2. Triggers the bypass tray feed out sensor
3. Triggers the registration sensor
4. Passes into the Registration Transport Assembly

Registration Transport Assembly

The registration roll is driven by the registration motor. As the registration roll receives the paper fed from the paper trays a buckle is formed in each sheet as it reaches the registration nip to remove any skew. At this point there is a small delay for sheet scheduling. After this time has expired the registration roll is run to transport the sheet to the Intermediate Belt Transfer (IBT) Unit.

The registration motor is controlled by the Motor Drive PWB with an encoder signal monitored by the Motor Drive PWB.

The registration sensor is monitored by the Motor Drive PWB. When paper is sensed the 5VDC signal from the sensor goes LOW.

Registration Heater

The purpose of the registration heater is to prevent dew condensation inside the printer. ON/ OFF control of the registration heater is determined by temperature and humidity values from Temperature/Humidity (No.2, Internal) Sensor.

The registration heater is designed for use in environments with wide variations in temperature and humidity.

- NVM 741-335 activates the registration heater control based on the temperature inside the printer. Default value 0 = activation disabled. 1 = activation enabled.
- The registration heater starts working when temperature from Temperature/Humidity (No.2, Internal) Sensor is lower than threshold value and stops working when temperature from the internal sensor rises beyond the threshold value, Figure 3.

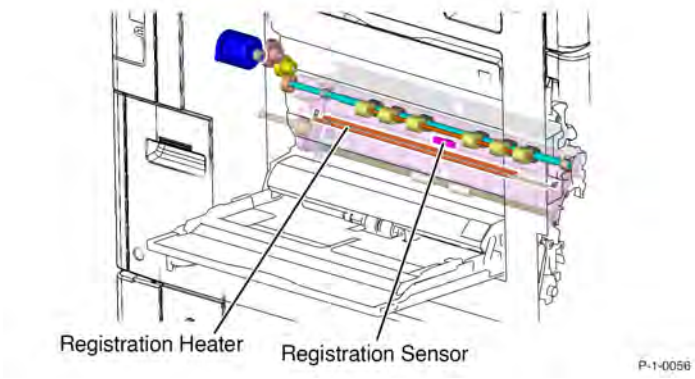


Figure 3 Registration transport

Duplex Transport

The duplex paper path reverses the direction of travel, enabling side 2 printing. The three duplex rolls are driven by the duplex motor. The duplex motor is controlled by the Motor Drive PWB with an encoder signal monitored by the Motor Drive PWB. The duplex transport fans are also controlled by the Motor Drive PWB, Figure 4.

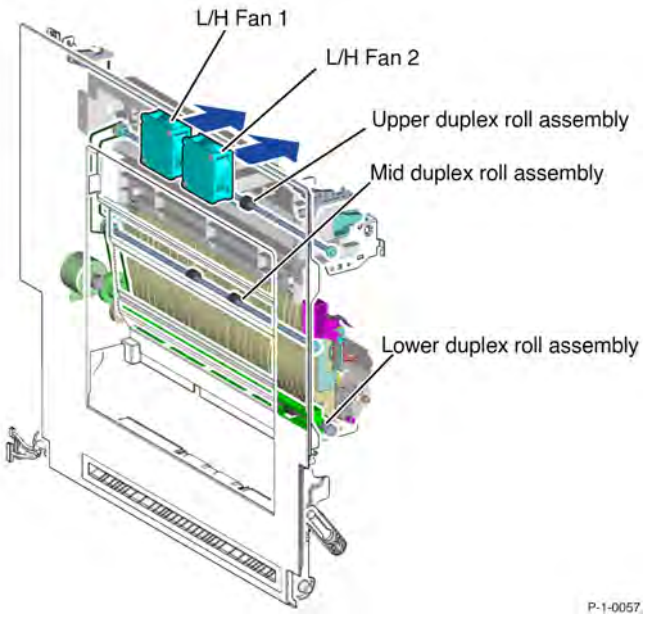


Figure 4 Duplex transport assembly

Media Path Sensors and Motors for Print Engine Plus 2TM (Low Only)

Table 1 Media Path Motor (2TM)

No.	Motor
A	Regi. Motor
B	Tray 1 Feed/Lift Motor
C	Tray 2 Feed/Lift Motor
D	Tray 3 Feed/Lift Motor
E	Tray 4 Feed/Lift Motor
F	2TM Takeaway Motor
G	Takeaway Motor 2
H	Takeaway Motor 1
J	MSI Feed/Lift Motor
K	Duplex Motor

No.	Motor
L	Fusing Unit Drive Motor
M	Exit 2 Drive Motor

Table 2 Digital Sensor (2TM)

No.	Sensor Name
1	Tray 1 No Paper Sensor
2	Tray 1 Level Sensor
3	Tray 1 Pre Feed Sensor *1
4	Tray 2 No Paper Sensor
5	Tray 2 Level Sensor
6	Tray 2 Pre Feed Sensor *1
7	Tray 3 No Paper Sensor
8	Tray 3 Level Sensor
9	Tray 3 Pre Feed Sensor *1
10	Tray 4 No Paper Sensor
11	Tray 4 Level Sensor
12	Tray 4 Pre Feed Sensor *1
13	Feed Out Sensor 3
14	MSI No Paper Sensor
15	MSI Nudger Position Sensor
16	MSI Feed Out Sensor
17	Regi. Sensor
18	Fusing Unit Exit Sensor
19	Exit 1 OCT Home Position SNR
20	Exit 1 OCT Full Stack Sensor
21	Exit 2 Sensor
22	Exit 2 OCT Home Position SNR
23	Face Up Exit Sensor
24	Face Up Tray Switch

Table 3 Analog Sensor (2TM)

No.	Sensor Name
A-1	Tray 1 Paper Size Sensor
A-2	Tray 2 Paper Size Sensor
A-3	Tray 3 Paper Size Sensor (5Bit)
A-4	Tray 4 Paper Size Sensor (5Bit)

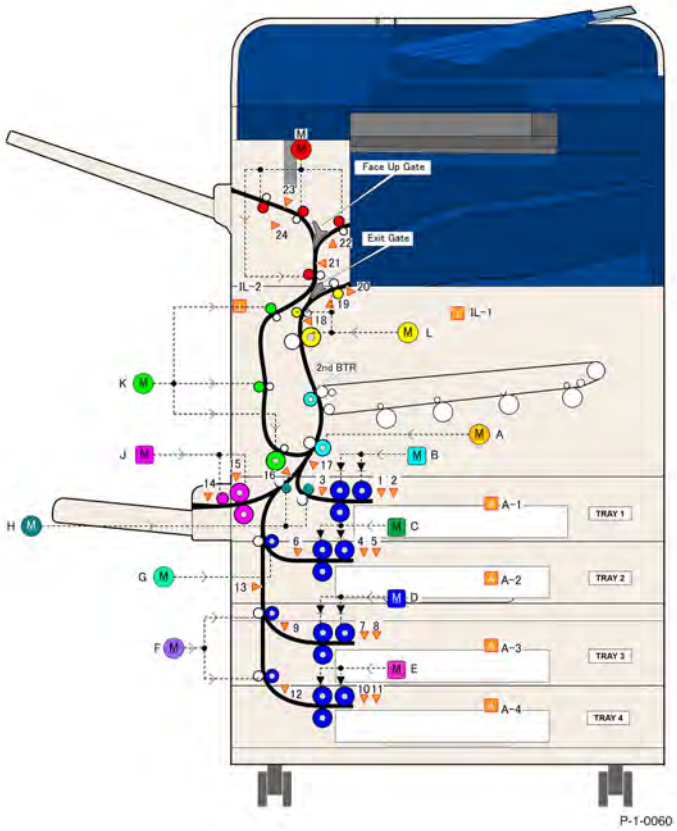


Figure 5 Media path sensors location for 2TM

Media Path Sensors and Motors for Print Engine Plus TTM (Low/Mid/High)

Table 4 Media Path Motor (TTM)

No.	Motor
A	Regi. Motor
B	Tray 1 Feed/Lift Motor
C	Tray 2 Feed/Lift Motor
D	Tray 3 Feed/Lift Motor
E	Tray 4 Feed/Lift Motor
F	TTM Takeaway Motor
G	Takeaway Motor 2
H	Takeaway Motor 1
J	MSI Feed/Lift Motor
K	Duplex Motor
L	Fusing Unit Drive Motor
M	Exit 2 Drive Motor

Table 5 Digital Sensor (TTM)

No.	Sensor Name
1	Tray 1 No Paper Sensor
2	Tray 1 Level Sensor
3	Tray 1 Pre Feed Sensor
4	Tray 2 No Paper Sensor
5	Tray 2 Level Sensor
6	Tray 2 Pre Feed Sensor
7	Tray 3 No Paper Sensor
8	Tray 3 Level Sensor
9	Tray 3 Pre Feed Sensor
10	Tray 4 No Paper Sensor
11	Tray 4 Level Sensor
12	Tray 4 Pre Feed Sensor
13	Feed Out Sensor 4
14	Feed Out Sensor 3
15	MSI No Paper Sensor
16	MSI Nudger Position Sensor

No.	Sensor Name
17	MSI Feed Out Sensor
18	Regi. Sensor
19	Fusing Unit Exit Sensor
20	Exit 1 OCT Home Position SNR
21	Exit 1 OCT Full Stack Sensor
22	Exit 2 Sensor
23	Exit 2 OCT Home Position SNR
24	Face Up Exit Sensor
25	Face Up Tray Switch

Table 6 Analog Sensor (TTM)

No.	Sensor Name
A-1	Tray 1 Paper Size Sensor
A-2	Tray 2 Paper Size Sensor
A-3	Tray 3 Paper Size Sensor (2Bit)
A-4	Tray 4 Paper Size Sensor (2Bit)

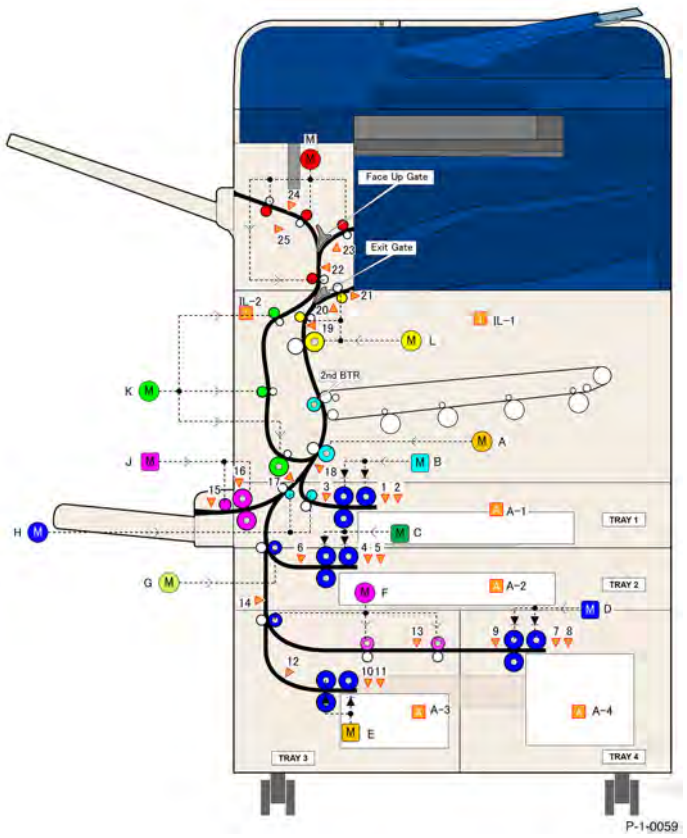


Figure 6 Media path sensors location for TTM

Xerographics

Xerographics Overview

The Xerox® AltaLink® C8100 printer employs a four-color, intermediate belt transfer print engine which utilizes the xerographic process described below:

1. Charge: A negative charge is uniformly distributed over the surface of each of the four photoreceptor drums by a dedicated bias charge roll (BCR). The BCR is a part of the drum assembly.
2. Expose: Each color-specific LED Print Head (LPH) creates a latent image on the Photoreceptor Drum Assembly for the specific color by exposing it with light emitted from a semiconductor LED.
3. Develop: Toner is transported from the color-specific Toner Cartridges via the dispenser, to the corresponding Developer Units, then via a magnetic developer roll onto the Photoreceptor Drum Assembly. The toner particles are attracted to the latent image formed on the photoreceptor drum by the exposure process.
4. Transfer: The 1st Bias Transfer roll (1st BTR), one for each color, transfers the toner image from each photoreceptor drum to the Intermediate Belt Transfer (IBT) Unit to build up the color image. The 2nd Bias Transfer (2nd BTR) then transfers the image from the IBT assembly to the surface of the paper. The four 1st bias transfer rollers are within the IBT assembly. The 2nd bias transfer roller is within the left cover trans- port.
5. Clean: Waste toner is removed from the surface of each Photoreceptor Drum Assembly and the Intermediate Belt Transfer (IBT) Unit by independent cleaning mechanisms, then transported to a waste toner bottle for periodic emptying. Refer to Drum Cartridge and Transfer Belt Cleaning.

> **Note:** The print engine employs the “Write Black” xerography principle; when developing the image, the discharged areas of the photoreceptor drum attract toner.

The print engine uses the following components in the xerographic process.

- Toner Cartridge (customer replaceable unit)
- Toner dispenser assembly
- LED Print Head (LPH)
- Developer unit
- Drum cartridge (customer replaceable unit)
- Intermediate belt transfer unit (IBT) containing the transfer belt and 1st BTR
- 2nd BTR (customer replaceable unit)
- Bias Charge Roll HVPS PWB
- Bias Transfer Roll HVPS PWB

Figure 1 shows the main xerographic components as viewed from the front of the machine, with the waste toner bottle removed.

Figure 1 Main Xerographics components

Toner Cartridges

The toner cartridges are customer replaceable units (CRU). The larger black toner cartridge carries a higher capacity of toner than the yellow, cyan and magenta cartridges due to the expected higher use of black toner, Figure 2.

Figure 2 Toner cartridges and CRUM location

Toner Cartridge Life Control

The toner cartridge does not include a toner empty sensor. Toner level is monitored by a combination of feedback from the automatic toner control (ATC) sensor, and pixel counting. The machine monitors toner level and informs the user when it reaches these states:

- Pre-Near End-of-Life: the toner cartridge is approximately 25 % full.

- Near End-of-Life: the dispense motor is on but the ATC sensor detects no increase in toner in the drum cartridge.
- End-of-Life: the ATC sensor detects no toner in the drum cartridge. The machine hard stops at this point. The ATC sensors are within the Developer Units.

Note: The toner cartridge is a CRU and is not serviceable.

Toner Cartridge CRUM

The toner cartridges are each equipped with customer replaceable unit monitor (CRUM). The CRUM monitors and stores information about the customer replaceable unit (CRU). The information stored in the CRUM is used to:

- Monitor CRU usage (total number of copies/prints).
- Indicate how near the CRU is to the end of its life.
- Prevent the installation and use of an unauthorized or incorrect CRU (CRUM checks for Xerox trademark on the CRU).
- Indicate that a new CRU has been installed.

The CRUM consists of two components - a CRUM reader and a CRUM PWB. The CRUM PWB is mounted at the rear of the toner cartridge.

Toner Dispenser Assemblies

Each toner cartridge is installed in a toner dispenser. Toner is transported from the toner cartridge to each developer. The four dispensers are driven by the dispense motor assembly. There is one dispense motor for each color within the toner dispense motor assembly. The toner dispense motors are controlled by the Motor Drive PWB, Figure 3.

Figure 3 Toner dispense motor assembly

LED Print Head (LPH)

Exposure of the image on the drums is achieved using a dedicated LED print head (LPH), one for each color, C, M, Y and K.

The LED printheads are controlled by the Controller (SBC) PWB via the Back Plane PWB and the Halftone PWB.

The LEDs are switched on and off based on the image density data from the Controller (SBC) PWB. Light from the LED is directed onto the surface of the photoreceptor. The regions of the photoreceptor that are exposed by the LED become discharged, forming the electrostatic latent image that attracts the toner, Figure 4.

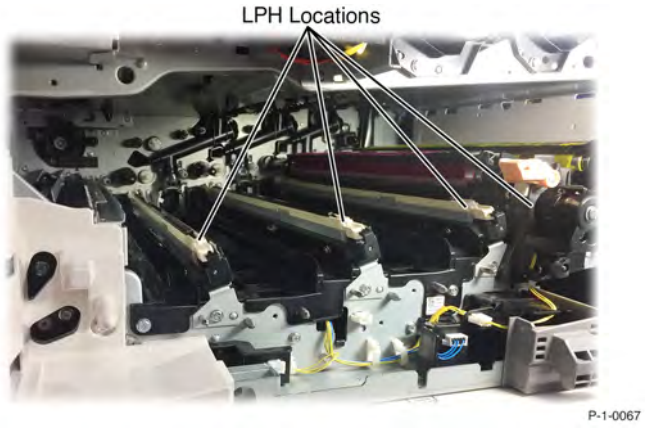


Figure 4 LED print head (LPH) locations

Developer Units

The four developer units are engineer replaceable units (ERU), Figure 6. The machine will stop operation when developer unit end of life is reached and will generate a fault code. Refer to the HFSI data in dC135 for developer unit life span.

Toner is supplied from each of the toner cartridges to the corresponding photoreceptor drum by the Toner Dispenser Assemblies, the augers and developer rolls. The rotation of the augers mixes the toner and carrier beads which make up the developer mixture. The mixing process produces an electrostatic charge on the toner, Figure 5.

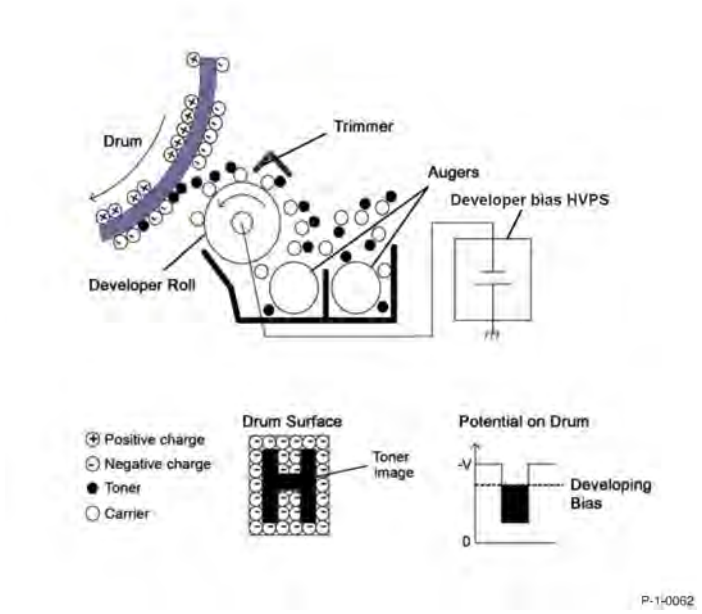


Figure 5 Developer operation

Figure 6 Developer locations

Each developer roll has a magnetic core which causes a brush composed of developer mixture to form at its surface similar to the way iron filings stand up on the surface of a magnet. The height of the brush is controlled by the trimmer blade. The developer brush contacts the photo receptor drum and the toner is attracted from the brush to the latent image formed by exposure to the LPH, that is, to the areas that have a reduced charge. The carrier material and any excess toner not attracted to the drum falls back into the developer reservoir where it is mixed back into the developer mixture by the continued movement of the augers.

Toner concentration, the amount of toner to carrier material in the developer mixture, is controlled by an automatic toner control system. The automatic toner control (ATC) sensor on each developer, feeds data back to the Motor Drive PWB. As toner is used up in the printing process the developer level rises and more toner is added from the toner cartridge until the ATC sensor detects the designated toner concentration.

The ATC system allows for calculation of toner usage to calculate the remaining toner level. This is described in the Toner Cartridges section.

A developer bias voltage that is applied to the developer roll controls the development process and thereby controls the amount of toner applied to the drum. The developer bias voltage is modified based on the user's selections on the UI. Darker images require a greater amount of charge to be applied than lighter images. The high voltages required by each developer unit to energize the developer rolls are provided by the Developer Bias HVPS PWB.

The mechanical drive for each of the four developer units is provided by the Main Drive Assembly.

Photoreceptor Drum Assembly

The printer contains four drums, one for each color K,C,M and Y. The drums are customer replaceable units, (CRU). The machine will stop operation when end of life is reached and generate a fault code. A message on the UI will inform the customer to replace the cartridge. Refer to the HFSI data in dC135 for drum assembly life span.

Each of the four drum cartridges contains the following components: Figure 7

- Photoreceptor drum
- Bias charge roll (BCR)
- Drum cartridge CRUM
- Waste toner auger

Figure 7 Drum cartridges

Bias Charge Roll

WIthin each of the four drum cartridges a bias charge roll (BCR) is in constant contact with and rotates with the photoreceptor drum. It applies a uniform DC voltage charge superimposed with AC voltage on the surface of the photoreceptor, preparing it to be exposed by the LED print head (LPH).

The surface of the drum is a light-sensitive, dispersion undercoat (DUC) membrane. After the photoreceptor's surface receives a uniform charge from the bias charge roller, the LPH exposes (discharges) the image areas, Figure 8.

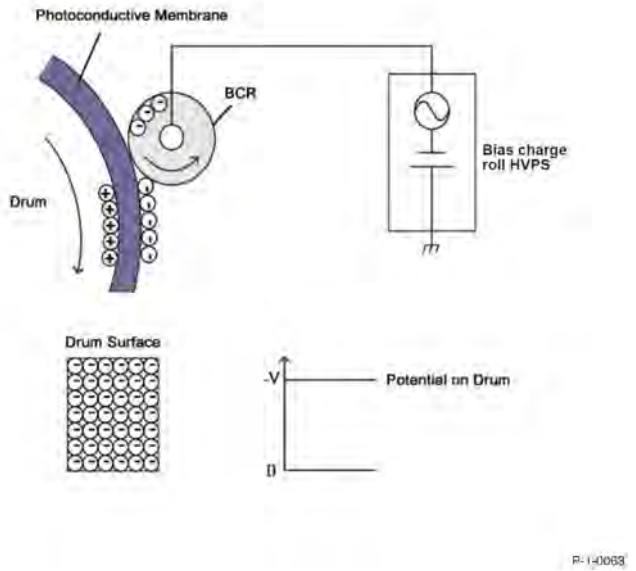


Figure 8 Photoreceptor drum charging

Drum Cartridge (Drive)

The mechanical drives for the drums are driven by two motors, Figure 9.

- Drum assembly K - driven by drum/developer (K)/IBT motor
- For Low/Med printers, the cyan, magenta and yellow drums - driven by the YMC drum/developer motor
- For High printers, the cyan, magenta and yellow drums - driven by the YMC drum motor. A separate YMC deve motor drives the YMC developers

The drum waste toner auger is driven by the same motor as the drum via a separate gear and coupling.

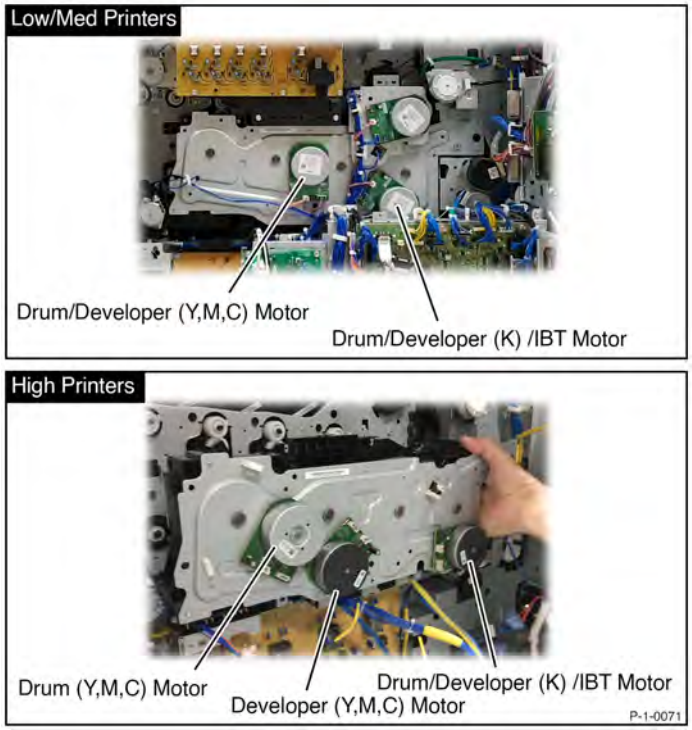


Figure 9 Drum and developer drive motors

Drum Cartridge CRUM

Note: The drum cartridge is a CRU and is not serviceable.

The drum cartridge is equipped with customer replaceable unit monitor (CRUM). A CRUM monitors and stores information about the customer replaceable unit (CRU). The information stored in the CRUM is used to:

- Monitor CRU usage (total number of copies/prints)
- Indicate how near the CRU is to the end of its life.
- Prevent the installation and use of an unauthorized or incorrect CRU (CRUM checks for Xerox trademark on the CRU)
- Indicate that a new CRU has been installed

The CRUM consists of two components - a CRUM coupler assembly and a CRUM PWB. The CRUM PWB is mounted at the rear of the drum cartridge, Figure 10.

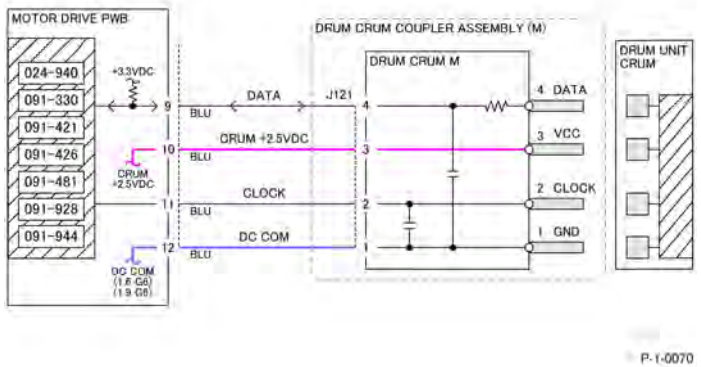


Figure 10 Drum cartridge CRUM and CRUM coupler assembly

Intermediate Belt Transfer (IBT) Unit

The Intermediate Belt Transfer (IBT) unit is an engineer replaceable unit (ERU). The IBT unit contains the transfer belt and four 1st Bias Transfer Rolls (1st BTR) to facilitate the first image transfer from the CMYK photoreceptor drums. Refer to the HFSI data in dC135 for IBT unit life span, Figure 11.

The four colors of toner are transferred to the belt in four layers in the order Y, M, C and K. The belt then transfers the four colors of toner to the paper at 2nd Bias Transfer before the paper is transported to the fusing module.

First bias transfer (1st Bias Transfer) refers to the process of transfer to the belt. Second bias transfer (2nd Bias Transfer) refers to transfer from the belt to the paper. Therefore, there is one 1st BTR for each color. The transfer to the paper is performed by the 2nd bias transfer roll.

In the case of 1st bias transfer the bias transfer roller carries a charge that has a greater electrostatic attraction than the charge that is holding the image on the drum. This means that the toner particles are drawn away from the drum to the belt as the belt passes between the BTR and the drum.

The 1st bias transfer process continues for each of the four colors until the four toner colors are on the belt together. The process is then repeated, at 2nd bias transfer, to transfer the image from the belt to the paper.

The belt is then cleaned before repeating the cycle. Refer to Drum Cartridge and Transfer Belt Cleaning.

Mechanical drive for the IBT units is provided by the K drum/developer/IBT motor, via the drum drive housing assembly.

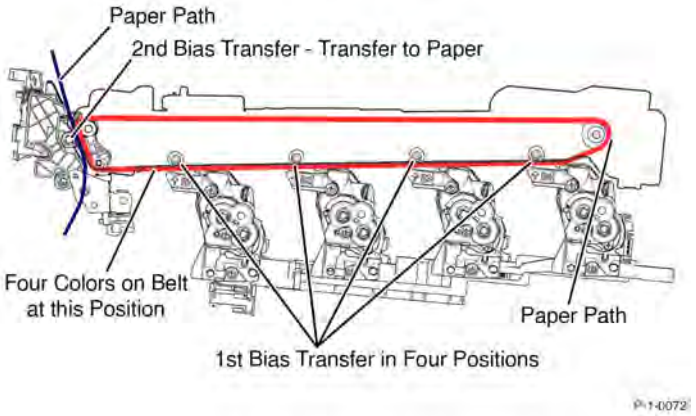


Figure 11 Image transfer process

1st Bias Transfer

The toner image is transferred first from the Photoreceptor Drum Assembly to the surface of the IBT belt by the 1st bias transfer roll (1st BTR). The 1st BTR is constructed of a metal shaft surrounded by a soft, conductive urethane roll which is given a positive charge. Power for the charge on the 1st BTR is supplied by the Bias Transfer Roll HVPS PWB.

As the photoreceptor and BTR rotate together, the positive charge of the BTR attracts the negative charge of the toner from the photoreceptor drum to the transfer belt. This process is repeated for all four colors to build up the image on the transfer belt. The four 1st bias transfer rolls are part of the IBT belt assembly. Figure 12

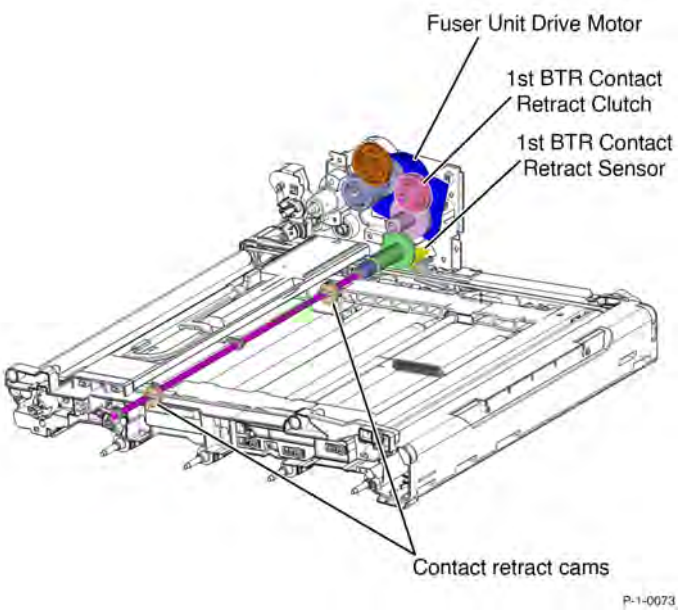


Figure 12 First BTR contact/retract mechanism

IBT Unit grayscale and full-color mode switching

In order to reduce wear on the cyan, yellow and magenta photoreceptor drums in C8100 printers, the 1st BTR rollers are retracted from the C, M and Y drums when operating in grayscale modes.

The Motor Drive PWB operates the 1st BTR contact retract clutch. The clutch allows drive from the fuser unit drive motor, to the 1st BTR contact/retract cam which moves the 1st bias transfer roll (C, M, and Y only) away from the belt. The BTR contact/ retract sensor is monitored by the Motor Drive PWB to monitor the state of the 1st BTR rolls. The sensor monitors one of the 1st bias transfer rolls and implies the state of the other two.

There is a single drive from the fuser unit drive motor with a signal contact retract clutch. Beyond the clutch the drive splits to drive the individual cams for the C, M and Y bias transfer rollers.

2nd Bias Transfer

The toner image is transferred from the Intermediate Belt Transfer (IBT) Unit to the surface of the paper using the 2nd bias transfer roll (2nd BTR). The 2nd BTR is constructed of a metal shaft surrounded by a soft, conductive urethane roll which is given a positive charge. Power for the charge is supplied by the Bias Transfer Roll HVPS PWB. As the transfer belt and paper pass between the 2nd BTR and the belt the positive charge of the 2nd BTR attracts the negatively charged toner to the paper.

The paper is released from the transfer belt by the detack saw. A voltage is applied to the detack saw to eliminate the charge on the paper and allow it to release from the belt. If the detack saw fails to separate the paper from the belt the Paper on Belt Jam Sensor detects the jam.

Figure 13 shows the IBT belt and the 2nd bias transfer roll. The tension roll and other IBT components inside the belt have been removed for clarity.

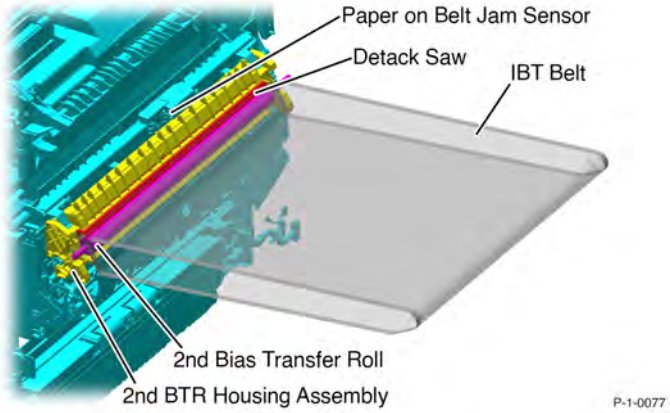


Figure 13 Second transfer

Paper on Belt Jam Sensor

The paper on belt jam sensor detects paper in the path from the Intermediate Belt Transfer (IBT) Unit to the fuser.

The sensor is located on the Left Door (A) near the 2nd BTR Assembly. It is monitored by the Motor Drive PWB. When the sensor detects High (3.3VDC) the control logic determines a detack failure. Detack failure indicates that the paper has left the paper path and is jammed on the IBT unit. The IBT unit is stopped and code 077-110 is logged, Figure 14.

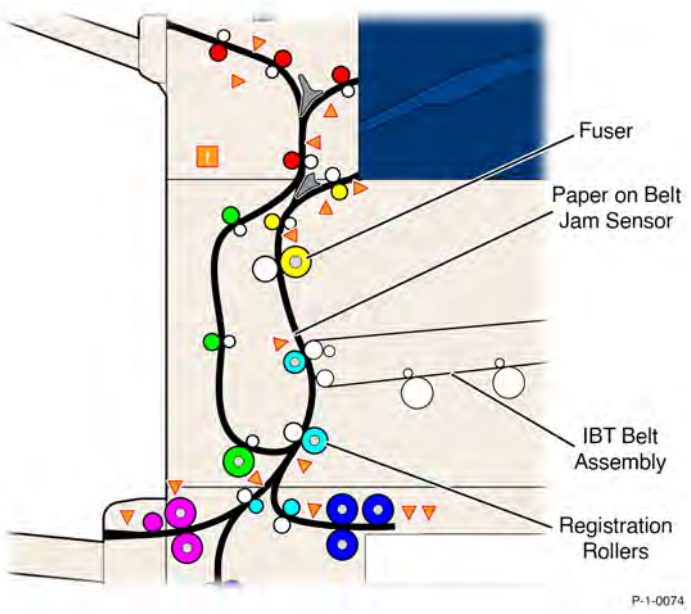


Figure 14 Paper on belt jam sensor

Drum Cartridge Cleaning

As each of the four photoreceptor drums rotate (Photoreceptor Drum Assembly) their surfaces are cleaned by the cleaning blade. A waste toner auger within the drum cartridge carries the waste toner and developer particles away from the cleaning blade to the waste toner transport assembly. The waste toner transport assembly transports the waste to the waste toner bottle assembly. The waste toner bottle assembly contains an auger to carry the waste toner away from the point where it enters from the waste toner transport assembly, Figure 15.

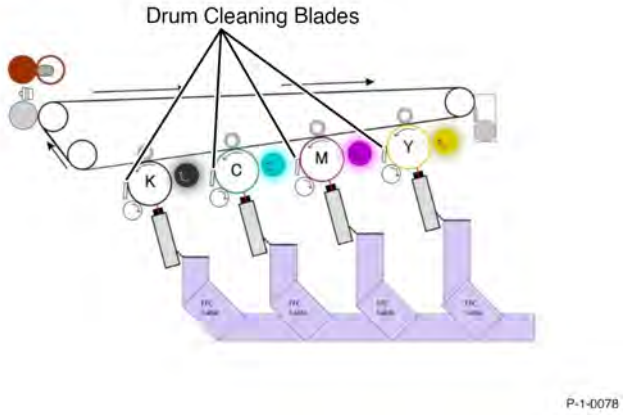


Figure 15 Cleaning blades

Transfer Belt Cleaning

The Intermediate Belt Transfer (IBT) Unit is cleaned by the customer-replaceable IBT belt cleaner assembly. Waste toner is transported by an auger to the front of the IBT belt cleaner assembly into the waste toner transport assembly. The waste toner from the belt joins the waste from the drums and is transported into the waste toner bottle assembly, Figure 16.

Figure 16 IBT belt cleaner assembly

Waste Toner Bottle Sensors

- Waste toner bottle full sensor: This sensor detects the fill level of the waste toner bottle in three levels, full, near full and pre near full, Figure 17.
- Waste toner bottle position sensor. This sensor detects that the waste tone bottle is in position.
- The waste toner bottle sensors are monitored by the Motor Drive PWB.

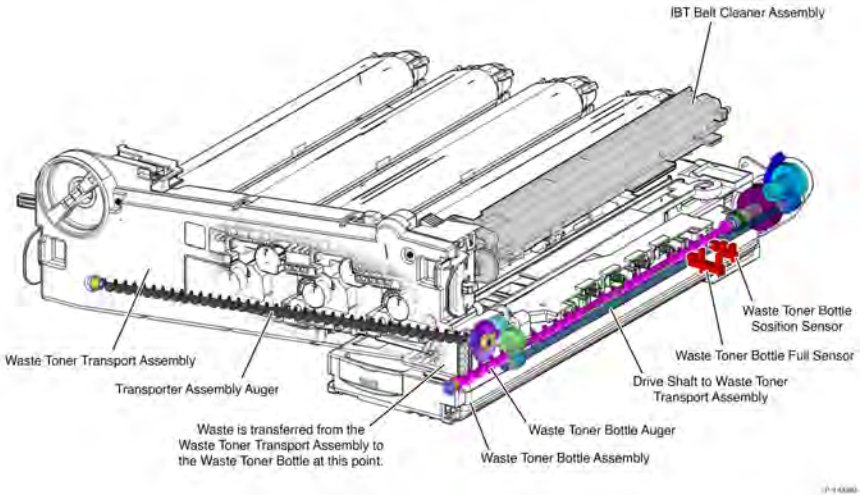


Figure 17 Waste toner bottle sensors

Drives (See also Main Drives)

- The auger within the waste toner bottle assembly is driven by the agitator motor assembly, Figure 18.
- The waste toner transport assembly is driven by a drive from the agitator motor assembly
- The IBT cleaning assembly is driven by a drive from the waste toner transport assembly
- The drum cartridge augers are driven by the drum/developer motors

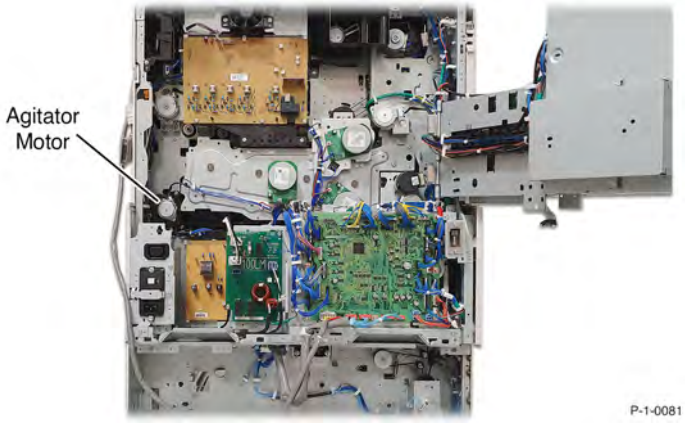


Figure 18 Agitator motor

Process Control

Overview

Process control maintains image quality by compensating for changes in temperature and humidity and the aging of machine components. In part, this involves controlling the charge potential of the Bias Charge Roll and the light output from the LED Print Head (LPH). Image quality deterioration also occurs as the photoconductive layer on the Photoreceptor Drum Assembly wears with increased use.

Process control uses inputs from the:

- CRUMs
- Environment sensors (refer to Temperature and Humidity Detection).
- Automatic toner control (ATC) sensor one each for K, C, M, Y (refer to Developer Units).
- Marks on belt (MOB) sensor.
- Automatic density control (ADC) sensor.

The internal temperature/humidity sensor monitors the environmental conditions inside the machine

Automatic Toner Control Sensors

The ATC sensors (one within each of the Developer Units), monitor the toner concentration inside the developer. The ATC system is described in the developer units section and hereafter in Automatic Toner Control (ATC) Sensor Check.

MOB and ADC sensors

The MOB and ADC sensors monitor the toner concentration on the transfer belt. The sensors are mounted in a row across the belt in a position after the fourth color has been added and before the toner is transferred to the paper, Figure 19. The MOB and ADC sensors are monitored by the Motor Drive PWB which feeds data to the Halftone PWB. Refer to Automatic Density Control.

Process control uses the information from the Automatic Toner Control Sensors and the MOB and ADC sensors to:

- Alter the voltage of the Bias Charge Roll as required
- Alter the LED Print Head (LPH) light intensity
- Control the toner dispense rate, see Toner Dispenser Assemblies

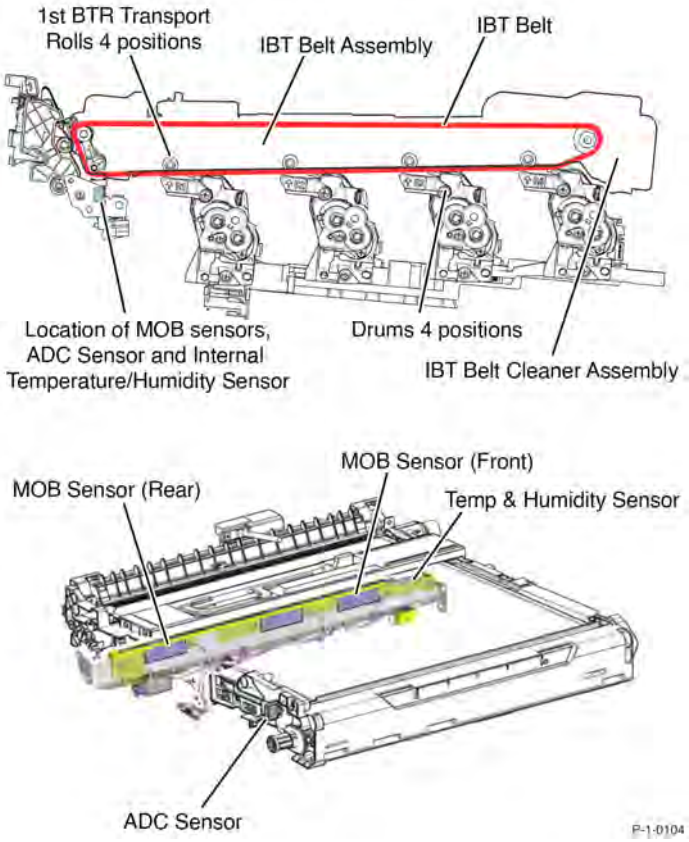


Figure 19 MOB and ADC sensors

Process Control Sensor Checks
Environmental Sensor Check

When the power is ON, the temperature and humidity sensor values are continuously monitored to measure the temperature and humidity in the machine. The sensors are mounted on the same bracket as the MOB and ADC sensors.

Automatic Toner Control (ATC) Sensor Check

Each of the four ATC sensors (Figure 20) check the toner concentration while the developer roll is being driven (Developer Units). The method is as follows:

- The ATC sensor output is read at predetermined intervals.
- The read values, excluding some of the highest and lowest, are averaged.
- The difference between maximum and minimum values is calculated.
- The average read value is corrected to determine the ATC output value (current toner concentration).

Values derived from the internal temperature and humidity sensor and the cumulative drum rotation time are used to adjust the ATC target value.

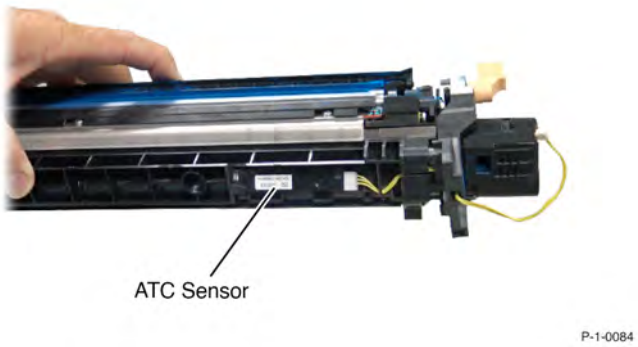


Figure 20 ATC sensor

Charge Control

Charge control corrects the charge voltage (the BCR output, Bias Charge Roll HVPS PWB). Charge control correction factors include temperature and humidity and the cumulative number of drum rotations. These values are added to calculate the charge voltage correction value. Charge control occurs at the following times:

- At power on
- On return from Power Save Mode
- At the start of a print job

Exposure Control

Exposure control corrects the quantity of LED light for image exposure on the Photoreceptor Drum Assembly. Correction factors for temperature and humidity (Temperature and Humidity Detection), cumulative number of drum rotations, and no-toner state detection are added to calculate the exposure correction value. Exposure control occurs at the following times:

- At power on
- On return from Power Save Mode
- At the start of a print job
- When the print count reaches a predetermined level

Automatic Density Control

Image density control uses the automatic density control sensor and marks on belt sensors, to read the density of ADC patches that are developed on the transfer belt. Process control then compensates for the difference between the reading and an ADC Target Value by controlling the voltage potentials, Figure 21.

The ADC Patch is generated at specified times, such as at Power ON, at recovery from Sleep Mode, at the start, during, and at the end of a job. If the measured density of the ADC patch is lighter than the target, the machine controls the drum charging potential, developer bias, and LPH light quantity to bring the density closer to the ADC target.

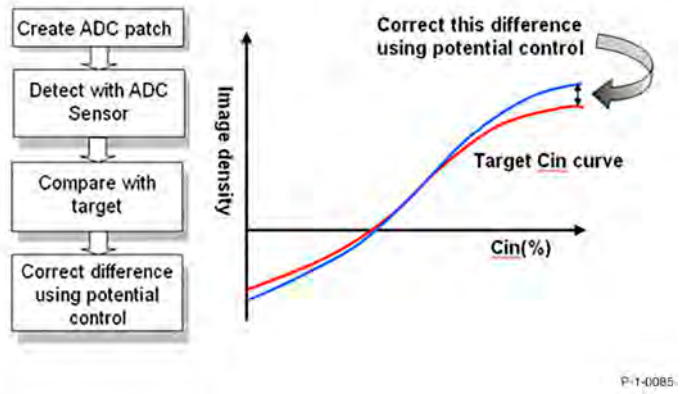


Figure 21 Automatic density control

Toner Dispensing

This control function supplies toner from the Toner Cartridges to the Photoreceptor Drum Assembly to maintain optimum toner concentration. The control logic calculates the dispensing time using image count dispense control (ICDC) and automatic toner control (ATC). See Figure 22.

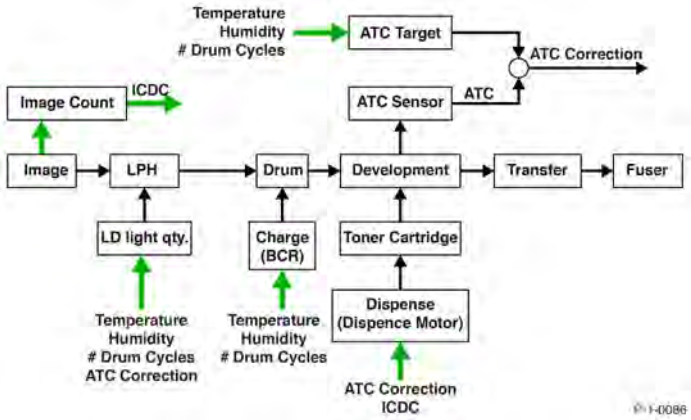


Figure 22 Toner dispensing control

ATC Dispensing

The dispense time is calculated from the toner concentration in the Developer Units. The difference between the ATC target value and the ATC output value is calculated. From this difference, the ATC dispense time is calculated.

ICDC Dispensing

The dispense time is calculated from the number of pixels in image data. From each print, the pixels per page are counted. From the ICDC count, the dispense time per sheet is calculated.

Dispense Motor Drive

The dispense motor is driven for the dispense time calculated from ATC and ICDC.

Note: Toner dispense may be set in the NVMs to timed dispense, ICDC dispense, or dispense based on ATC control. When either timed or ICDC dispense is selected, ATC s will not be reported but TC will be out of control. The preferred (default) setting allows Toner Control to manage dispense.

Fusing

Fusing

Fuser Overview

The fuser module bonds the toner to the paper by applying heat and pressure. This process melts the toner and fuses it to the paper.

Refer to HFSI data in dC135 for fuser unit life span, Figure 1.

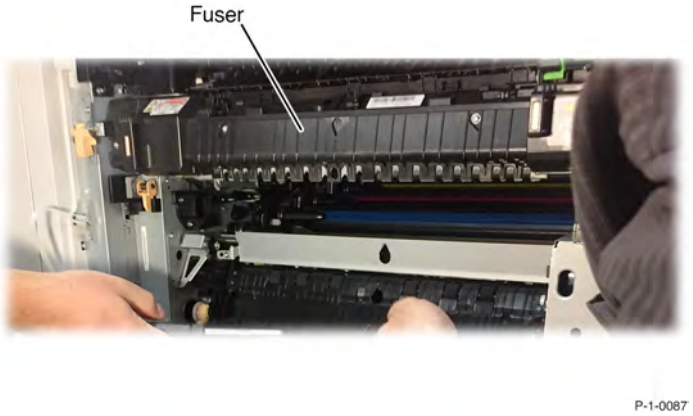


Figure 1 Fuser

Fusing works using a free belt nip fusing mechanism consisting of a pressure roll that presses against a heated belt (Figure 2). The belt is held against the pressure roll by a pressure pad inside the belt. The belt is driven by friction applied by the rotation of the pressure roll and the movement of the paper through the fusing nip. The pressure roll is driven by the fuser unit drive motor.

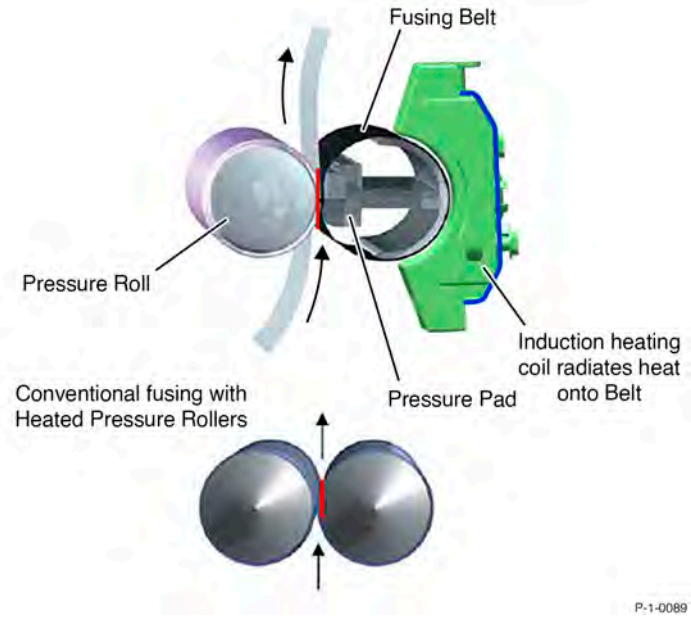


Figure 2 Free belt nip fusing

A latch mechanism allows for the fusing nip to open for jam clearance when the left cover is opened. The fuser nip is opened when printing is not in progress to prevent deformation of the pressure roll.

Fuser Components

The fuser module consists of a pressure roll, a fusing belt, a thermostat and thermistors. An induction heat (IH) coil unit is installed separately from the fuser. The fuser unit can be used in any territory whereas the IH coil unit is specified for use on either 110V or 220V supplies, Figure 3.

The fuser contains three sensors

- Belt speed sensor
- Pressure roll latch sensor
- Fusing unit exit sensor

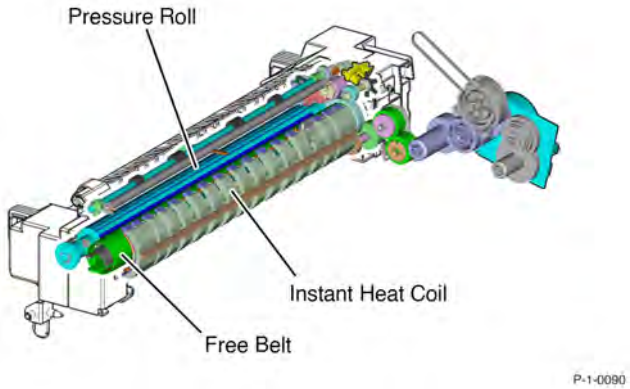


Figure 3 Fuser with IH coil unit

A separate retract motor assembly drives the latch/unlatch mechanism. The motor is mounted on the rear of the machine behind the video contact chassis assembly.

Fuser Heater Power

The fuser is powered by the IH (Induction Heating) Power Supply (Figure 4). The IH power supply is controlled by the Motor Drive PWB which is in turn controlled by the Controller (SBC) PWB.

The IH Power Supply supplies high voltage AC power to the IH coil unit.

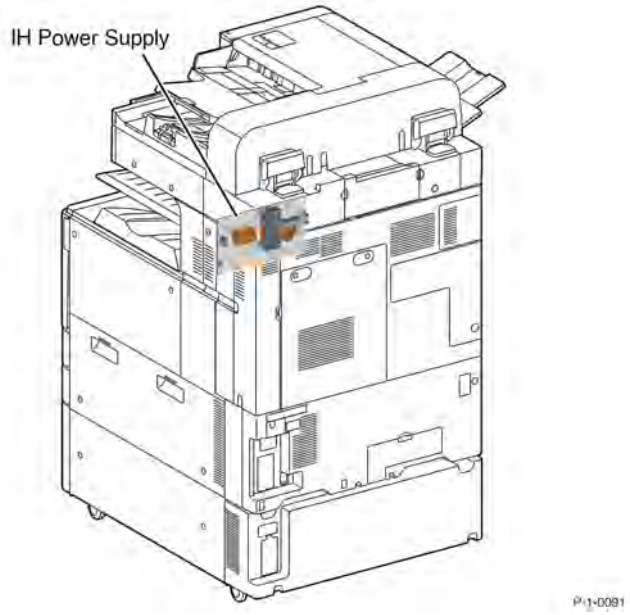


Figure 4 IH power supply location

Fuser Sensors and Drives

Note: The sensors within the fuser are part of the fuser unit and are not shown in the Parts List.

The main drive for the fuser unit is supplied by the Fuser Drive Assembly. The motor drives the pressure roll which drives the fuser belt. Movement of the belt is measured by the belt speed sensor.

The belt speed sensor is monitored by the Motor Drive PWB, Figure 5.

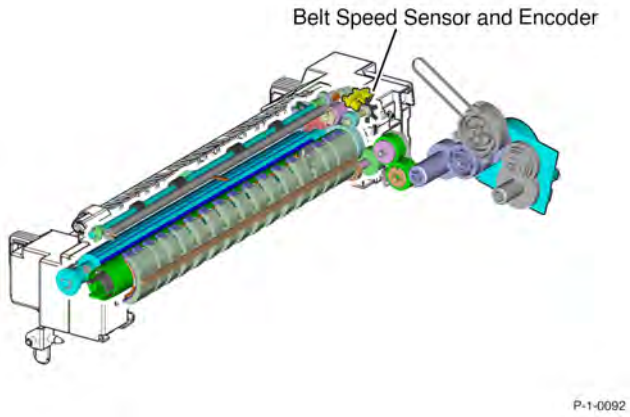


Figure 5 Belt speed sensor

Pressure Roll Latch

The Fuser Pressure Roll Latch/Unlatch function controls the nip between the Pressure Roll and Fuser Belt (Figure 6). Using the P/Roll Latch motor, the printer opens the nip when the Left Door is open to clear paper jams, and to allow the Fuser to reach operating temperature more quickly before and between jobs.

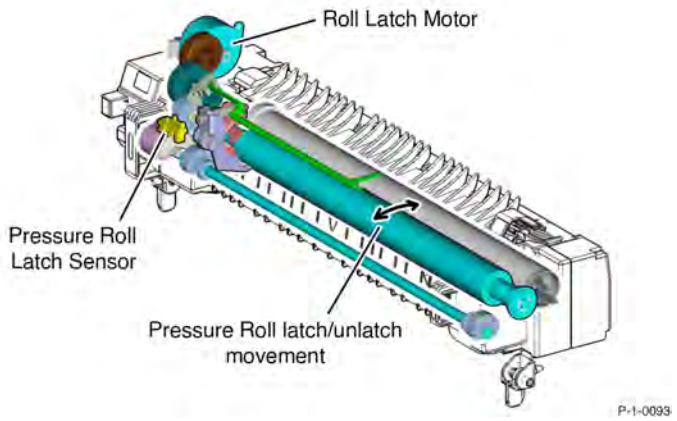


Figure 6 Pressure roll latch mechanism

The pressure roll latch sensor is monitored by the Motor Drive PWB. It measures the position of a cam attached to the pressure roll mechanism.

The pressure roll latch is driven by the retract motor assembly. The pressure roll is unlatched when the fuser is not operational or when the left cover is opened for jam clearance.

Fusing Nip Exit Sensor

The fusing unit exit sensor (exit sensor 1) is monitored by the Motor Drive PWB. Paper leaving the fuser lifts an actuator which unblocks the sensor sending a 3.3VDC signal to the motor drive PWB. Once the paper has fully exited the fuser the actuator returns to the default position blocking the sensor, Figure 7.

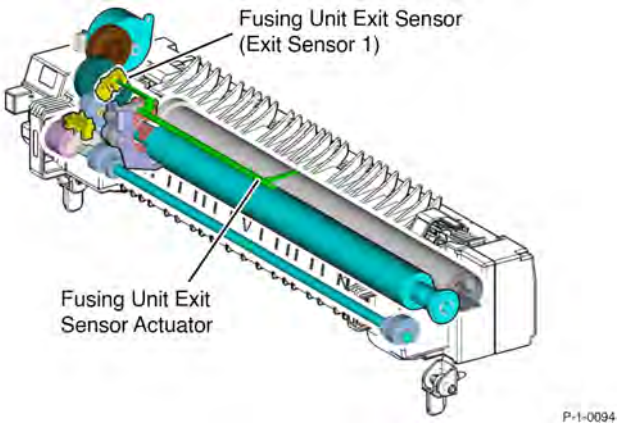


Figure 7 Fusing unit exit sensor

Fusing Unit EEPROM

The fusing unit EEPROM contains data about the fuser which is read by the Motor Drive PWB The Motor drive PWB monitors the connection of pin 2 across P/J 600 to verify that the fuser is installed, Figure 8.

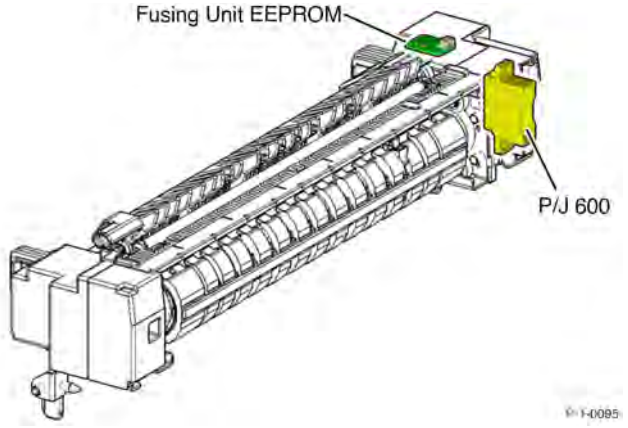


Figure 8 Fuser presence detection

Fuser Temperature Control

Fuser temperature control is monitored by the Motor Drive PWB. Two thermistors (IH center thermistor, IH rear thermistor) are mounted inside the fuser belt to monitor the temperature of the fuser unit.

The maximum temperature of the IH coil unit is defined by a thermostat in the IH coil unit. If the temperature exceeds a predetermined value it cuts the +24VDC supply to the IH relay on the AC Drive PWB. This switches off the AC supply from the IH Power Supply to the IH coil unit, Figure 9.

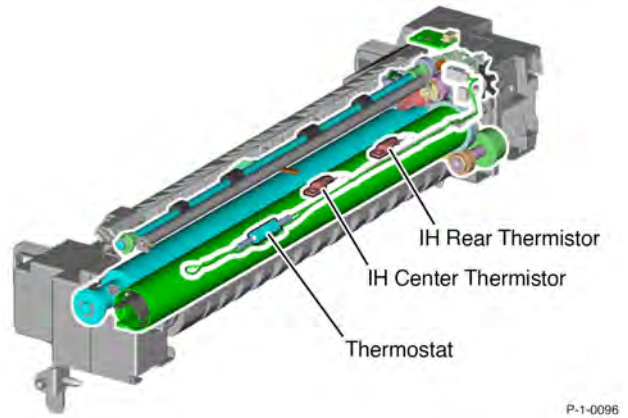


Figure 9 Thermistors and thermostat

Fuser Cooling

Fuser cooling is performed by the fuser unit exhaust fan assembly. Warm air is drawn away by the fan and expelled by the fuser duct assembly, Figure 10.

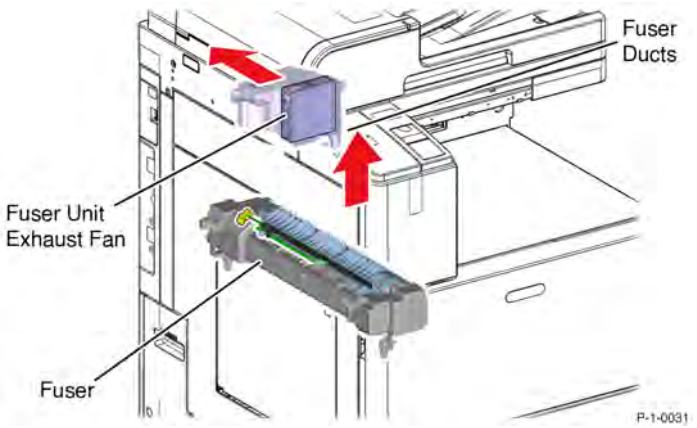


Figure 10 Fuser unit exhaust fan

Fuser Life

The fuser and fuser heater coil are engineer replaceable units. Refer to the HFSI data in dC135 for fuser unit life span.

The fuser may require more frequent replacement if any of the following usage factors exist:

- Area coverage exceeds 5 %
- Paper larger than letter size is commonly printed
- Printing short-edge feed
- Printing on specialty media

Fusing assembly print count increments each time the fuser exit sensor registers OFF.

Each A4 LEF fed sheet is counted as 100 HFSI counts. When the HFSI counter reaches the threshold value listed in dC135, a request for change of fuser is indicated.

Print Transport

Print Transportation

Print Transportation Overview

Print transportation consists of two diverter gates, three exits and associated sensors and drives (Figure 1, Figure 2 and Figure 3).

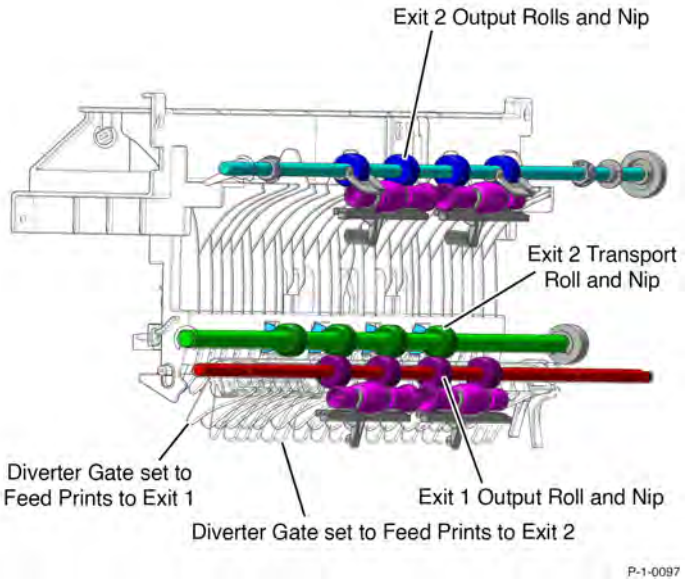


Figure 1 Exit 1 and Exit 2 Print transport components

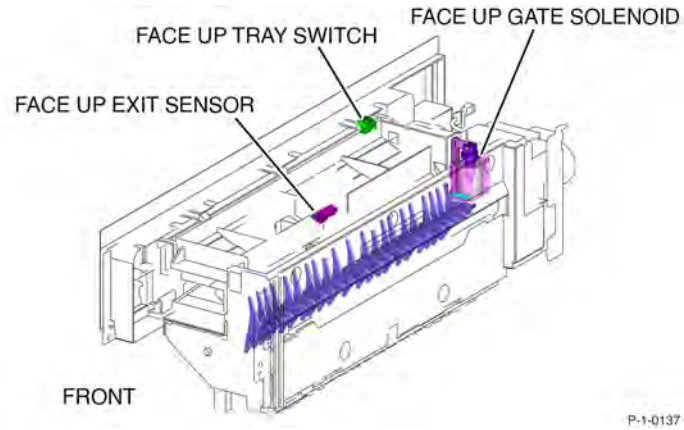


Figure 2 Face Up Tray Print transport components

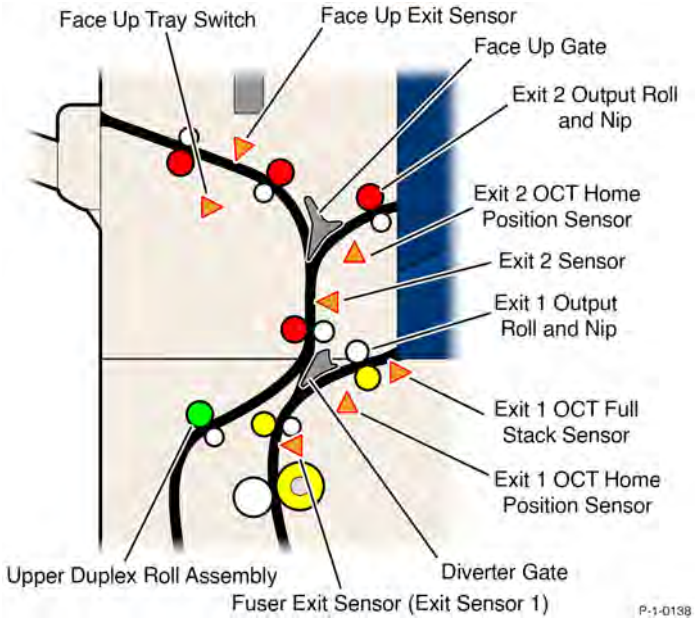


Figure 3 Print transportation sensors and rollers

- The lower exit is designated Exit 1. Refer to exit 1 transport assembly. If a finisher is installed output to the finisher passes through exit 1 into the horizontal transport.
- The upper exit is designated Exit 2. Refer to exit 2 chute assembly. If a finisher is installed prints output to exit 2 are collated on top of the horizontal transport.
- Diverter gate, part of exit 2 transport assembly. The diverter gate is driven by exit 1 gate solenoid. Refer also to Figure 1. The exit gate solenoid is normally de-energized (L). With the solenoid in this state, the diverter gate directs prints to exit 1. To direct prints to exit 2 the Motor Drive PWB supplies 24VDC (H) to energize the solenoid.
- The Face Up Tray is located on the left upper side of the machine. When a print is sent to this tray, the Face Up gate is actuated, and the print is output to the Face Up Tray. The Face Up Gate is driven by the Face Up Gate Solenoid. The Face Up Solenoid is normally de-energized. With the Solenoid in this state, the Face Up Gate directs prints to Exit 2.

Exit 1

Exit 1 offsets prints for collation in the main output tray. If a finisher is installed exit 1 is used to feed prints into the horizontal transport. Offsetting is disabled if a horizontal transport is installed, Figure 4.

Exit 1 transport consists of the following:

- Exit 1 transport nip. Refer to Figure 2.

- Exit 1 offset catch tray (OCT) motor. drives the movement of the offsetting mechanism.
- Exit 1 offset catch tray (OCT) home position sensor. The sensor is actuated by the position of the offsetting mechanism. When the offsetting mechanism is in the home position no signal is generated (L) and code 047-211 is logged by the Motor Drive PWB. When the offsetting mechanism is in the away position 3.3VDC (H) is generated.
- Exit 1 offset catch tray (OCT) full stack sensor. The sensor is actuated when the paper in offset catch tray 1 reaches the full level. The signal from the sensor goes high and 3.3VDC is sent to the Motor Drive PWB.

Print transport for exit 1 is driven by the fuser unit drive motor.

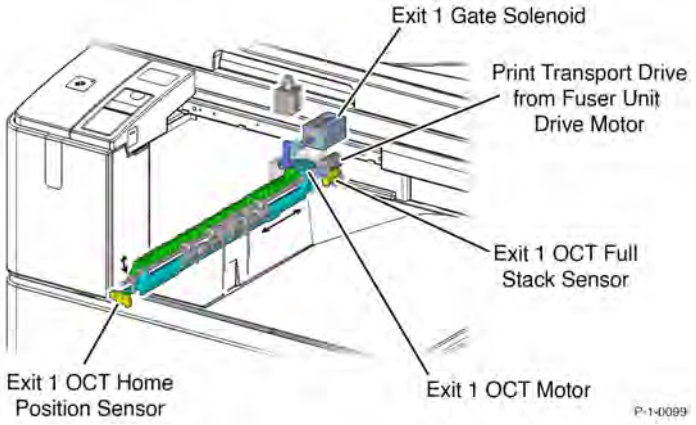


Figure 4 Exit 1

Exit 2

Exit 2 chute assembly contains the following:

- The exit 2 rolls are driven by the exit 2 drive motor. An encoder on the motor sends data to the Motor Drive PWB. Refer to Figure 5.

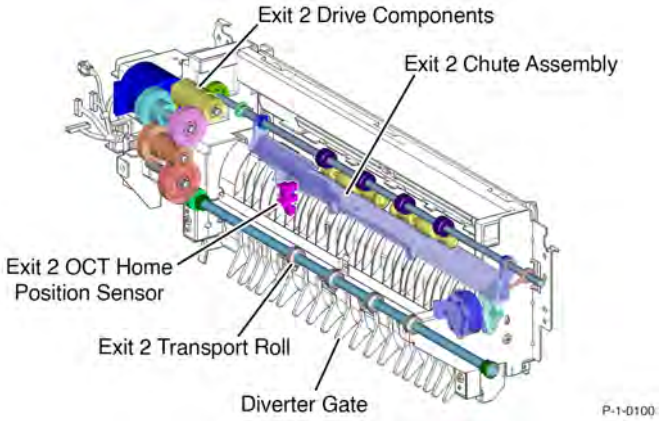


Figure 5 Exit 2 rolls and drives

- The Exit 2 sensor (Figure 6) is actuated by paper passing the exit 2 transport roll and along the exit 2 print path. The sensor sends 5VDC to the Motor Drive PWB. When paper is sensed the signal goes Low.

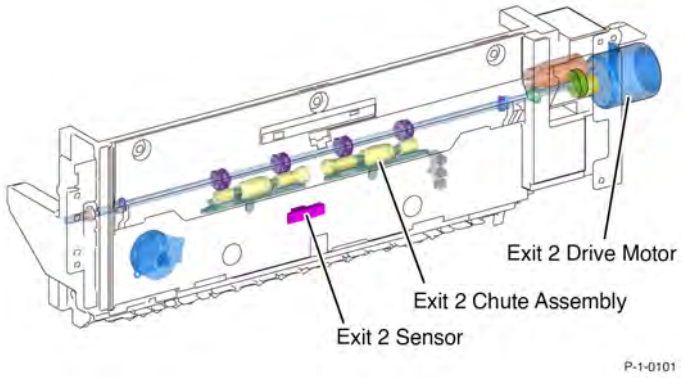


Figure 6 Exit 2 chute assembly

- Exit 2 offset catch tray (OCT) home position sensor (Figure 7) is actuated by a flag on the exit 2 chute assembly. The sensor goes High and sends 3.3VDC to the Motor Drive PWB when the chute moves away from the home position.
- Exit 2 offset catch tray (OCT) motor is controlled by the Motor Drive PWB operating a gear and lever that moves the exit 2 chute assembly.

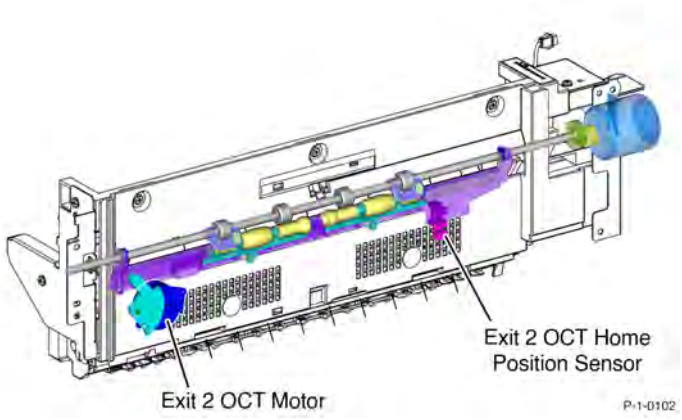


Figure 7 Exit 2 OCT components

Face Up Tray Exit

The face Up Tray is used for the following purposes:

- When very heavyweight paper is used
- When it is desired to have prints delivered face up
- When banner sheets are printed. The paper path for banner sheets is from the Bypass Tray, through image transfer and fusing, and then directly to the Face Up Tray. Refer to the Media Supply, Bypass Tray section for more information about banner sheets.

The Face Up Tray exit contains the following:

- The Face Up Solenoid. This is normally de-energized. With the Face Up Tray Solenoid in this state, the Face Up Gate directs prints to Exit 2.
- The Face Up Gate normally directs prints to Exit 2. When the Face Up Tray Solenoid is energized, prints are directed to the face Up Tray.
- The Face Up Exit Sensor. This detects that prints directed to the Face Up Tray are following the correct paper path.
- The Face Up Tray Switch
- The Face Up Tray Drive Rolls are driven by the Exit 2 Drive Motor. The Exit 2 Drive Motor is controlled by the Motor Drive PWB.

Duplex Printing

The duplex printing function first prints the front side of the sheet and then partially ejects the lead edge of the sheet into the exit 2 tray. If a finisher is installed the lead edge is ejected onto the top of the horizontal transport.

After the trail edge of the sheet passes the diverter gate the sheet is drawn back into the machine. The junction to the duplex path is straight so the sheet automatically passes into the duplex path via the duplex rolls. At the end of the duplex path the sheet arrives at the registration sensor to begin the process of printing the second side, Figure 8.

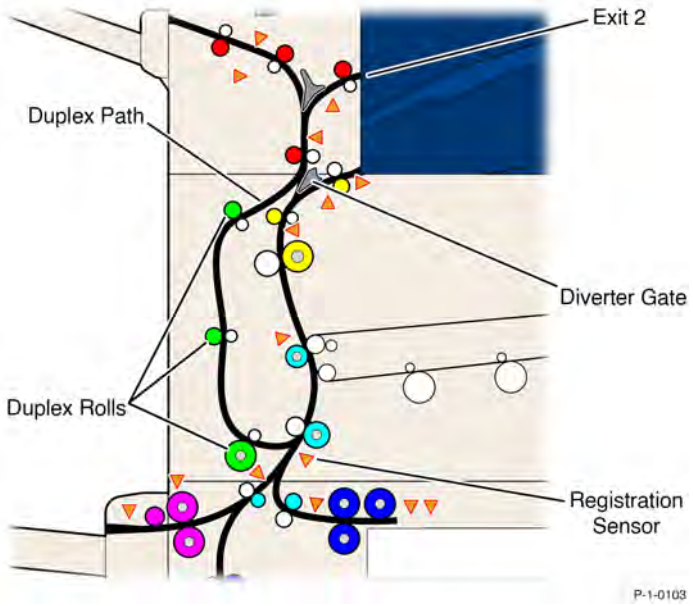


Figure 8 Duplex path