Phaser® 4600/4620/4622
Laser Printer

Sample
Fault Code Structure:
07-130

Phaser® 4600/4620/4622
Service Manual   Updated 4/12/16 DAW/DFK

xerox

Phaser 4600/4620/4622 Printer Service Manual

Service Documentation

Phaser 4600/4620/4622 Printer Service Manual

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Revised

04/2016

This documentation has been revised to include the Xerox® Phaser 4622 Printer.

Xerox Corporation

Content Development and Language Services, North America

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Introduction

About This Manual

The Phaser 4600/4620/4622 Printer Service Manual is part of a multinational service documentation system organized in the standard Xerox EDOC service manual format. This manual is the primary document used for diagnosing, repairing, maintaining, and troubleshooting these systems. The Service Manual is the controlling publication for a service call. Information on using this document is found in the Introduction section. To ensure understanding of this product, complete the Xerox Service Training Program for this particular printer.

Organization

Section titles and the information contained in each is presented in the following paragraphs:

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 sub-assembly.

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/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 / Information

This section contains all other procedures, product specifications and general information.

Section 7 Wiring Data

This section contains the wiring diagrams.

Section 8 Accessories

This section contains details of any accessories that the machine may have.

Publication Comments Sheet

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

Component Names

Names of parts that appear in the disassembly procedures may not be exactly the same as the names that appear on the part or listed in the Parts List. For example; a part called the Registration Chute Assembly may appear on the Parts List as Assembly, Chute REGI.

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

The machine will be identified in this manual by the model identifier 4600/4620/4622.

The 4622A is a Blue Angel certified model with software configuration for 55 ppm capability. Model 4622A hardware is identical to model 4622. Refer to parts and procedures for model 4622.

When a procedure, parts list description or other reference is unique amongst different models of machine, the appropriate model designator is indicated. Any artwork is also specific.

NOTE: This manual services all configurations of the machine. Ignore references to options not installed on the machine.

Warnings, Cautions and Notes

<div align="center">

WARNING

</div>

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.

<div align="center">

CAUTION

</div>

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.

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Introduction
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Service Safety Summary

General Guidelines

For qualified service personnel only: Refer also to the preceding Electrical Safety.

Avoid servicing alone: Do not perform internal service or adjustment of this product unless another person capable of rendering first aid or resuscitation is present.

Use care when servicing with power applied: Dangerous voltages may exist at several points in this product. To avoid personal injury, do not touch exposed connections and components while power is on. Disconnect power before removing the power supply shield or replacing components.

Do not wear jewelry: Remove jewelry prior to servicing. Rings, necklaces and other metallic objects could come into contact with dangerous voltages and currents.

Electrical Safety

- Use the Power Cord supplied with the printer.
- Plug the Power Cord directly into a properly grounded electrical outlet.
- Do not use a ground adapter plug to connect the printer to an electrical outlet that does not have a ground connection terminal.
- Do not use an extension cord or power strip.
- Do not place the system in an area where people might step on the power cord.
- Do not place objects on the power cord.
- Do not block the ventilation openings. These openings are provided to prevent overheating of the printer.
- Do not drop paper clips or staples into the printer.

Operational Safety

The printer and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.

Pay attention to these safety guidelines to ensure the continued, safe operation of the printer.
- Use the supplies specifically designed for your system. The use of unsuitable materials may cause poor performance and a possible safety hazard.
- Follow all warnings and instructions marked on, or supplied with, the system, options and supplies.

NOTE: The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

Maintenance Safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation supplied with the printer.
- Do not use aerosol cleaners. The use of supplies that are not approved may cause poor performance and could create a hazardous condition.
- Do not burn any consumables or routine maintenance items. For information on Xerox supplies recycling programs, go to www.xerox.com/gwa.

Warning Labels

Read and obey all posted warning labels. Throughout the printer, warning labels are displayed on potentially dangerous components. As you service the printer, check to make certain that all warning labels remain in place.

Safety Interlocks

Make sure all covers are in place and all interlock switches are functioning correctly after you have completed a printer service call. If you bypass an interlock switch during a service call, use extreme caution when working on or around the printer.

Symbols Used On The Product

The following precautionary symbols may appear on the machine.

This symbol indicates Danger High Voltage.

Figure 1 High Voltage Symbol

Protective Ground (Earth) symbol.

Figure 2 Protective Ground (Earth) Symbol

This symbol indicates hot surface. Use caution to avoid personal injury.

Figure 3 Hot Surface Symbol

The surface is hot while the printer is running. After turning off the power, wait 30 minutes.

Figure 4 Wait 30 Minutes Symbol

Avoid pinching fingers in the printer. Use caution to avoid personal injury.

Figure 5 Pinch Injury Symbol

Use caution (or draws attention to a particular component). Refer to the manual(s) for information.

Figure 6 Use Caution Symbol

Voltage Measurement and Specifications

Measurements of DC voltage must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure. All measurements of AC voltage should be made with respect to the adjacent return or ACN wire.

Table 1 Voltage Measurement and Specifications

Voltage	Specification
Input Power 220 V	198 VAC TO 254 VAC
Input Power 100 V	90 VAC TO 135 VAC
Input Power 120 V	90 VAC TO 135 VAC
+5 VDC	+4.75 VDC TO +5.25 VDC
+24 VDC	+23.37 VDC TO +27.06 VDC

Logic Voltage Levels

Measurements of logic levels must be made with reference to the specified DC Common, unless some other point is referenced in a diagnostic procedure.

Table 2 Logic Levels

Voltage	H/L Specification
+5 VDC	H = +3.00 V or greater L = below 0.8 V
+3.3V	H = +2 V or greater L =below 0.8 V

DC Voltage Measurement in RAPs

The RAPs have been designed so that when it is required to use the DMM to measure a DC voltage, the first test point listed is the location for the red (+) meter lead and the second test point is the location for the black meter lead. For example, the following statement may be found in a RAP.

There is +5 VDC from P/J7 to P/J68.

In this example, the red meter lead would be placed on P/J7 and the black lead on P/J68.

If a second test point is not given, it is assumed that the black meter lead may be attached to chassis ground.

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 & 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 any of the following methods:

   - For incidents in North America and Developing Markets West (Brazil, Mexico, Latin American North and Latin American South):
     – Phone* Xerox EH&S at: 1-800-828-6571.
     – Electronic mail Xerox EH&S at: Doris.Bush@xerox.com.
     – Fax Xerox EH&S at: 1-585-422-6449 [intelnet 8*222 6449].
   - For incidents in Europe and Developing Markets East (Middle East, Africa, India, China and Hong Kong):
     – Phone* Xerox EH&S at: +44 (0) 1707 353434.
     – Electronic mail Xerox EH&S at: Elaine.Grange@xerox.com.
     – Fax Xerox EH&S at: +44 (0) 1707 353914 [intelnet 8*668 3914].

*Initial notification made by phone must be followed within 24 hours by a completed incident report and sent to the indicated electronic mail address or fax number.

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.

Regulatory Specifications

Xerox has tested this product to electromagnetic emission and immunity standards. These standards are designed to mitigate interference caused or received by this product in a typical office environment.

United States (FCC Regulations)

The Phaser 4600/4620/4622 has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with these instructions, it may cause harmful interference to radio communications. Operation of Class A equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. There is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment Off and On, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiver.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Any changes or modifications not expressly approved by Xerox could void the user's authority to operate the equipment. To ensure compliance with Part 15 of the FCC rules, use shielded interface cables.

Canada (Regulations)

This Class A digital apparatus (4600/4620/4622) complies with Canadian ICES-003.

Cet appareil numérique (4600/4620/4622) de la classe A est conforme à la norme NMB-003 du Canada.

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European Union

CE Mark

Figure 1 CE Symbol

The CE mark applied to this product symbolizes Xerox's declaration of conformity with the following applicable Directives of the European Union as of the dates indicated:

December 12, 2006: Low Voltage Directive 2006/95/EC
December 15, 2004: Electromagnetic Compatibility Directive 2004/108/EC

This product, if used properly in accordance with the user's instructions, is neither dangerous for the consumer nor for the environment.

To ensure compliance with European Union regulations, use shielded interface cables.

A signed copy of the Declaration of Conformity for this product can be obtained from Xerox.

Translation of Warnings

WARNING

Switch off the electricity to the machine. 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. 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. 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. 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. 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

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

Use safe handling procedures when removing the module. Refer to GP 16. The module is heavy.

DANGER: Conformez-vous aux procédures de manipulation de sécurité pour le retrait du module. Reportez-vous à GP 16. Le module est lourd.

AVVERTENZA: Utilizzare procedure di gestione sicure durante la rimozione del modulo. Vedere GP 16. Il modulo è pesante.

VORSICHT: Verwenden Sie sichere Vorgehensweisen zum Entfernen des Moduls. Siehe auch GP 16. Das Modul ist sehr schwer.

AVISO: Utilice los procedimientos de seguridad cuando elimine el módulo. Consulte el GP 16. El módulo es pesado.

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WARNING

Follow the service procedure exactly as written. Use of controls or adjustments other than those specified in this manual, may result in an exposure to invisible laser radiation. During servicing, the invisible laser radiation can cause eye damage if looked at directly.

DANGER : Les procédures de dépannage doivent être suivies à la lettre. Si les réglages ou vérifications ne sont pas effectués suivant les instructions de ce manuel, il peut y avoir un risque d'exposition dangereuse au faisceau laser. Celui-ci peut provoquer des lésions oculaires s'il est observé directement.

AVVERTENZA: Eseguire le procedure di servizio esattamente come descritto. L'utilizzo di dispositivi di controllo o di registrazione diversi da quelli riportati in questo manuale potrebbe comportare un'esposizione a radiazioni laser invisibili. Tali radiazioni possono danneggiare gli occhi se si guarda direttamente il fascio laser durante gli interventi di servizio.

VORSICHT: Die Wartungsarbeiten genau den Anweisungen entsprechend durchführen. Der Umgang mit Steuer- oder Bedienelementen, deren Verwendung nicht ausdrücklich in diesem Handbuch angewiesen wurde, kann dazu führen, dass unsichtbare Laserstrahlung frei gesetzt wird. Direkter Blickkontakt mit dem Laserstrahl kann bleibende Augenschäden verursachen.

AVISO: Siga los procedimientos de mantenimiento tal como están descritos. El uso de controles o ajustes no especificados en este manual puede tener como resultado la exposición a radiación láser invisible. Durante las operaciones de mantenimiento, la radiación de láser invisible puede causar daños en los ojos si se mira directamente a ella.

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.

DANGER : États-Unis et Canada. Si cette machine est installée dans un couloir ou une voie de sortie, 1,12 m (44 pouces) d'espace supplémentaire à l'espace normal doit être disponible devant la machine conformément aux normes de sécurité d'incendie.

AVVERTENZA: N/A

VORSICHT: N/A

AVISO: Estados Unidos y Canadá. No instale esta máquina en un corredor o ruta de salida que no tenga 1.12 m (44 pulgadas) de ancho delante de la máquina, sin incluir el espacio que ocupe la máquina. Este espacio adicional de 1.12 m (44 pulgadas) delante de la máquina en corredores y rutas de salida es necesario para cumplir los requisitos de las normas sobre incendios.

WARNING

Use only Xerox materials and components. This product is safety certified using Xerox materials and components. The use of non Xerox materials and components may invalidate the safety certificate.

DANGER : N'utilisez que des matières premières et des composants Xerox. La sécurité du produit est assurée dans le cadre de son utilisation avec des matières premières et des composants Xerox. L'utilisation de matières premières et de composants autres que ceux de Xerox risque d'invalider le certificat de sécurité.

AVVERTENZA: Utilizzare solo materiali e componenti Xerox per avvalersi della certificazione di protezione. L'utilizzo di materiali e componenti non Xerox può rendere nulla la certificazione di protezione.

VORSICHT: Verwenden Sie nur Materialien und Komponenten von Xerox. Dieses Produkt besitzt die Sicherheitszertifizierung bei Verwendung von Xerox-Materialien und -Komponenten. Die Verwendung von Materialien und Komponenten anderer Hersteller setzt möglicherweise das Sicherheitszertifikat außer Kraft.

AVISO: Utilice solo los materiales y componentes Xerox. Este producto dispone de un certificado de seguridad si se utilizan los materiales y componentes Xerox. Este certificado de seguridad no será válido si se utilizan materiales y componentes que no sean de Xerox.

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.

Phaser 4600/4620/4622 Overview

The Phaser 4600/4620/4622 combines a monochrome laser print engine with a multi-purpose Tray 1 (bypass) and universal media tray, Tray 2. The Output Tray holds 500 20lb. sheets face-down. Phaser 4600/4620/4622 options add memory, media capacity, and functionality. For models not originally equipped, a 160 GB Hard Drive is available. A memory upgrade raises the installed RAM to the 768 MB maximum. Configurations of up to four 520-Sheet Feeders, or an additional 2 520-sheet feeders and the high-capacity 2000-sheet feeder. On the output side, 500 sheet stapler/stacker or 4-bin, 400-sheet Mailbox are available, Figure 1.

Front View
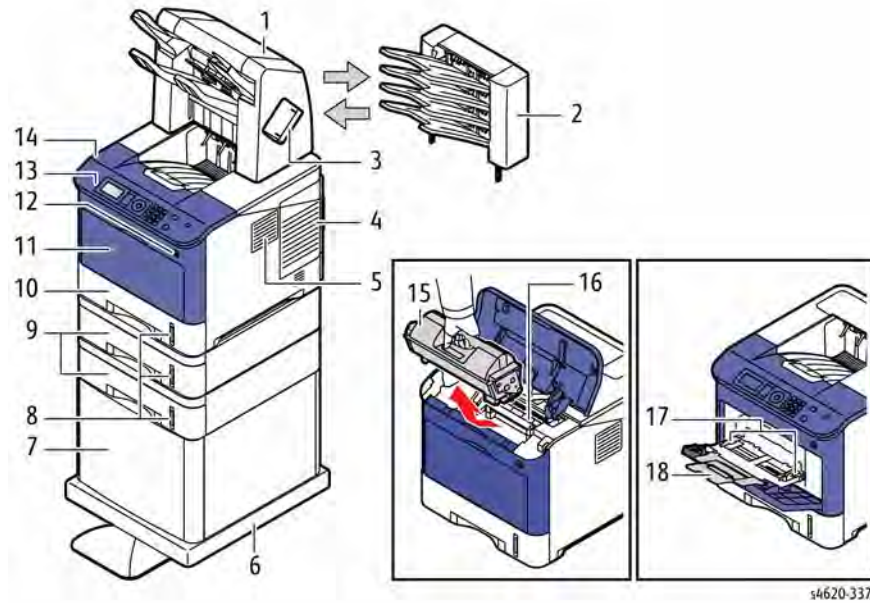
Figure 1 Front View

Table 1 Front View

1.	Finisher (Stacker & Stapler)	10.	Tray 2
2.	Mailbox	11.	Front Door
3.	Staple Cartridge Door	12.	Top Door
4.	IP Board Cover	13.	Control Panel
5.	Filter Cover	14.	Top Cover
6.	Printer Stand	15.	Toner Cartridge
7.	2000-Sheet Feeder	16.	Drum Cartridge
8.	Media level Indicator	17.	Tray 1 (bypass)
9.	520-Sheet Feeder(s)	18.	Tray 1 Media Extension

Rear View

Figure 2 shows features located at the rear of the system.
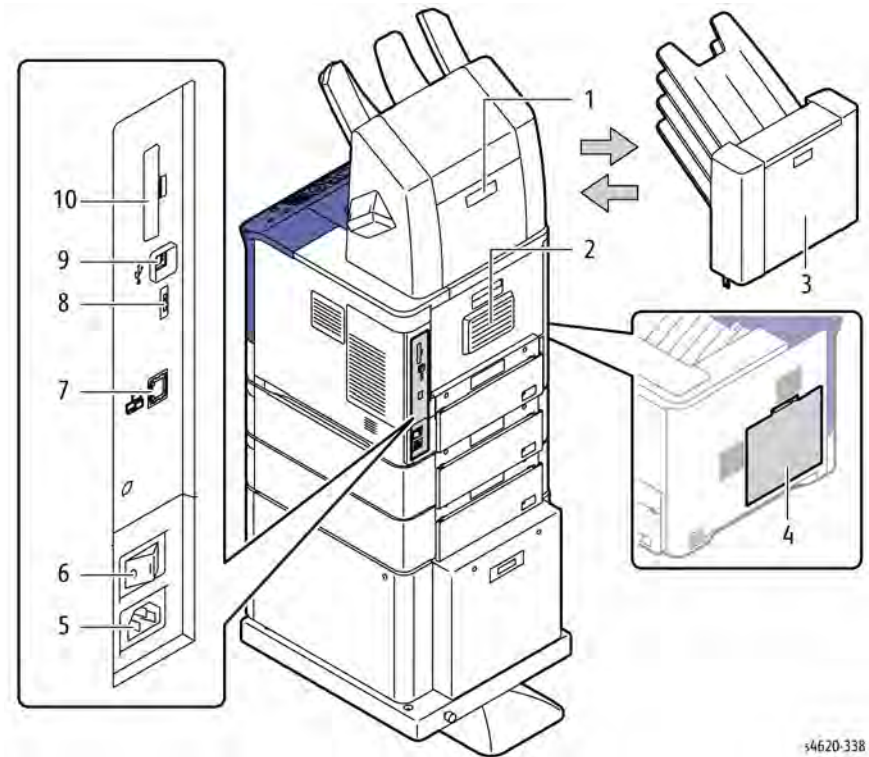
Figure 2 Rear view

Table 2 Rear View

1.	Finisher Rear Door	6.	Power Switch
2.	Rear Door	7.	Ethernet Connection
3.	Mailbox Rear Door	8.	Configuration Card Slot
4.	Waste Toner Cartridge Door	9.	USB Port
5.	AC Input	10.	Wireless Network Adaptor Slot

Printer Options

Phaser 4600/4620/4622 options include:

- Additional Memory (512 MB)
- Hard Disk
- Wireless network adaptor
- Printer stand
- 520-sheet Feeder
- 2000-sheet Feeder with casters
- Finisher with stapler, 500-sheet stacker.
- Mailbox, 4-bin, 400-sheets

Table 1 lists both Service and Sales part numbers for available options and accessories.

Table 1 Option and Accessory Part Numbers

Item	Service Part Number	Sales Part Number
520-Sheet Feeder	050K74180	097N01874
2000-Sheet Feeder	059K77920	097N01875
Finisher (500-sheet)	059K77910	097N01876
Mailbox (400-sheet)	050K74190	097N01877
Duplex Unit	022N02484	097N01923
Memory Upgrade	128K01770	097N01878
160MB Hard Disk	007N01651	097N01879
Wireless Network Adaptor	120K03640	097N01880
Stand	078K00870	097N01916

Hard Disk Drive

The Phaser 4600/4620/4622 supports an internal 160 GB Hard Disk Drive mounted to the IP Board. Features enabled by Hard Drive installation include:

- Secure Print
- Proof Print
- Save Print
- Disk Collation

Additional Memory

The Phaser 4600/4620/4622 IP Board includes 1 slot for a 512 MB DDR2 DIMM, Figure 1. Memory must meet these characteristics:

- 200 Pin DDR2 SODIMM
- Unbuffered, Non-parity

The printer's Configuration page lists the amount of RAM installed in the printer.
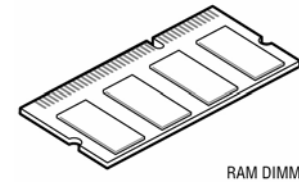
Figure 1 Optional memory

520-Sheet Feeder

The 520-sheet Feeder increases the input capacity of the printer and is attached to the printer underneath Tray 2. These additional tray combinations are supported:

- One 520-Sheet Feeder (Tray 3)
- Up to 4, 520-Sheet Feeders (Trays 3, 4, 5, and 6)
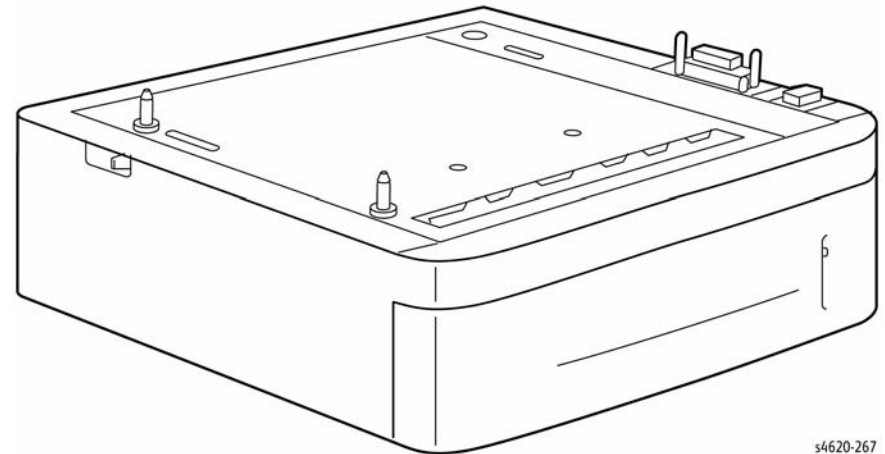
Figure 2 520-Sheet Feeder

2000-Sheet Feeder

The 2000-sheet Feeder increases the input capacity of the printer and is attached to the printer underneath Tray 2 or installed 520-sheet Feeders. These additional tray combinations are supported:

- One 2000-Sheet Feeder (Tray 3)
- Up to 2 520-Sheet Feeders (Trays 3, 4) and 1 2000-Sheet Feeder (Tray 5).
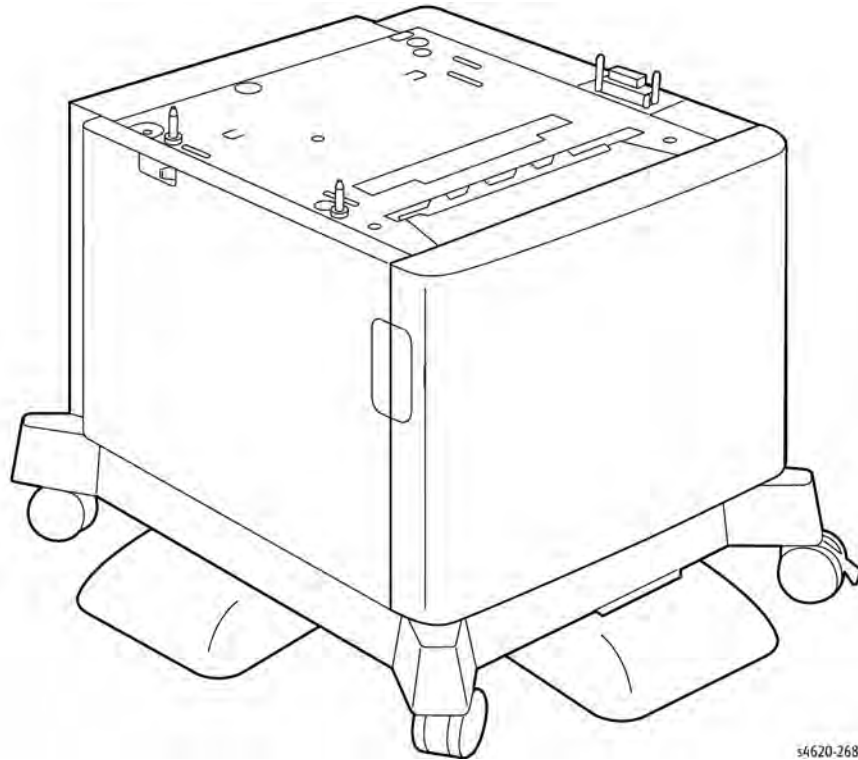
Figure 3 2000-Sheet Feeder

Mailbox

The Mailbox provides four 100-sheet output trays.
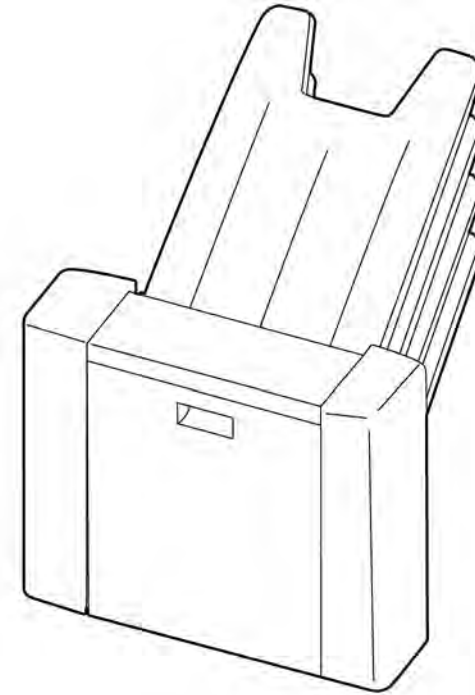
Figure 4 Optional Mailbox

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Finisher

The finisher provides a 500-sheet, offset Stacker Tray and includes a fixed-head stapler.
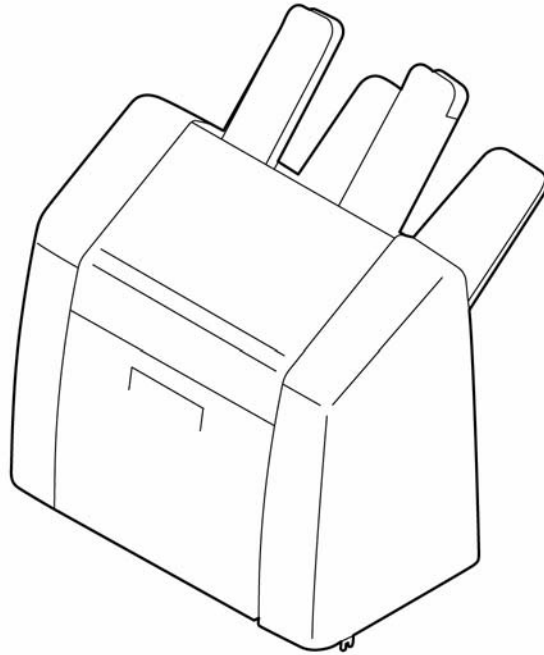
s4620-380

Figure 5 Finisher

Control Panel Layout

The Control Panel consists of one LED, a display window, a keypad, and several buttons. These buttons are used to navigate the menu system, perform functions, and select modes of operation for the printer. Table 1 lists the function of each control.
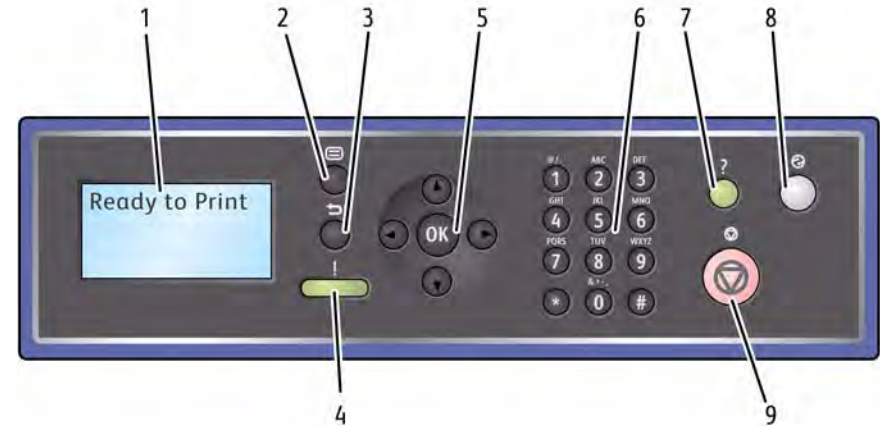
s4620-269

Figure 1 Control Panel

Table 1 Control Panel Features

1.	**Display**	Displays printer settings, status, messages and menus.
2.	**Menu**	Enters Menu Mode and scrolls through the available menus.
3.	**Back**	Sends you back one level in the menu.

4.	**Status LED**	• Green: Printer is ready to print.
		• Yellow: Startup sequence or error condition.
		• Flashing:
		  – Yellow: Error Condition
		  – Green: Warming up or Receiving data

5.	**OK**	Accepts the selected settings.
6.	**Keypad**	Use to enter alphanumeric characters.
7.	**Help (?)**	Additional information.
8.	**Energy Saver**	Illuminates when the printer is in Power Saver mode. Press to enter or exit from Power Saver mode.
9.	**Stop**	Press to cancel the current activity.

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Routine Maintenance Items

Table 1 Routine Maintenance Items

Item	Description	Print Life
1.	Transfer Roller	100,000 images
2.	Fuser	150,000 images
3.	Feed Roller	200,000 pages

Consumables

The rated life expectancy of 4600/4620/4622 consumables is listed in Table 1.

Table 1 Consumable Life Expectancy

Item	Description	Print Life
1.	Standard Toner Cartridge	13,000 cycles
	High Capacity Toner Cartridge	30,000 cycles
	Starter Toner Cartridge	10,000 cycles
2.	Drum Cartridge	80,000 cycles
3.	Waste Toner Cartridge	Provided with new Toner Cartridge
4.	Staple Cartridge	15,000
5.	Maintenance Kit (Fuser, Feed Rollers, Transfer Roller)	200,000 cycles

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1 Service Call Procedures

Service Call Procedures

This section provides an overview of the steps a service technician should take to service the printer and attached options. The printer's diagnostic routines report problems using error messages and fault codes displayed on the Control Panel, logged in the Service Usage Profile, or by flashing LEDs. These error indications serve as the entry point into the troubleshooting process. System problems not directly indicated by or associated with an error message or fault code are covered in Section 6, General Procedures. Print-quality problems are covered in Section 3, Image Quality.

The steps listed here are a guide for performing any service on this printer. If you choose not to use these steps, it is recommended that you start at the appropriate troubleshooting procedure and proceed from there. When servicing the printer, follow the safety measures detailed in the Service Safety Summary section.

1. Identify the problem.
    - Verify the reported problem does exist.
    - Check for any error codes and write them down.
    - Print normal customer prints and service test prints.
    - Make note of any print-quality problems in the test prints.
    - Make note of any mechanical or electrical abnormalities present.
    - Make note of any unusual noise or smell coming from the printer.
    - Print a Usage Profile, if the printer is able to print.
    - View the Engine Error and Jam Histories under the Tools menu.
    - Verify the AC input from the wall outlet is within specifications.
2. Inspect and clean the printer.
    - Follow the cleaning instructions.
    - Verify that the power cord is in serviceable condition.
    - Restart the printer to check if the error reoccurs.
3. Find the cause of the problem.
    - Use the troubleshooting procedures to find the root cause of the problem.
    - Use Service Diagnostics to check the printer and optional components.
    - Use the Wiring Diagrams and Plug/Jack Locator to locate test points.
    - Take voltage readings as instructed in the troubleshooting procedure.
4. Correct the problem.
    - Use the Parts List to locate a part number.
    - Use the Repair procedures to replace the part.
5. Final Checkout
    - Test the printer to verify the problem is corrected and no new problems arose.

Accessing Engine Fault History

Listed below are two ways in which you can access fault history records.

1. Print (if possible) the Error Message report from the **Troubleshooting menu**. The error history is listed on the report.

    NOTE: Error and fault code definitions of the codes appear in Section 2.

2. If the printer is connected to a network and has a TCP/IP address, view the printer's web page using a web browser.
    a. Open a web browser.
    b. Enter the printer's IP address as the URL.
    c. Select **Support** --> **Troubleshooting** --> **Diagnostics Logs and the fault history**

SCP 1 Initial Actions

Initial Actions are used to gather information on the machine performance

Start a service call with SCP 1 and end with SCP6 Final Actions.

Also refer to SCP 7 Configurations and Options.

Procedure

WARNING

Switch off the electricity to the machine. 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

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

NOTE: Ignore any references in this manual to options not installed on the machine.

1. Take note of symptoms or error messages.
2. Ask the operator to describe or demonstrate the problem.
3. Make sure that:
   a. The power cord is connected to the wall outlet and to the machine.
   b. Paper is loaded correctly and all paper trays and covers are closed
   c. If installed, the USB cable or network connection is installed correctly.
4. If available, check the machine service log book for any previous actions that may be relevant to the call.
5. If this is the first service call to this machine perform SCP 2 First Call Actions, otherwise go to SCP 3 Normal Call Actions.

SCP 2 First Call Actions

First Call Actions are used for the first service call.

Procedure

1. Check the machine configuration with the customer, refer to SCP 7 Machine Configurations and Options. Check that all required hardware and software is installed and/or enabled.
2. Check that all the relevant machine settings are correctly entered, refer to GP 4 System Administration Tools.
3. If a fault is present, go to SCP 3 Normal Call Actions. If there is no fault present, go to SCP 6 Final Actions.
4. Enter the machine details and the customer details in the service log.

SCP 3 Normal Call Actions

Normal Call Actions are used to determine the reason for the service call.

Procedure

NOTE: If a fault message appears at any time. Refer directly to the RAP for the fault message and perform the procedure.

If possible, perform the following:

1. Review any defective print samples.
2. Determine that the user accessible settings are correct. If necessary refer to the user documentation.
3. Check all job queues and verify with the customer any requirement to print the documents in memory, before switching off the power or clearing memory.
4. Print the Customer Assistance Report (Call for Assistance), then record the total print count.
5. Go to SCP 4 Fault Analysis.

SCP 4 Fault Analysis

Fault Analysis is used to identify a fault.

Procedure

When diagnosing or repairing a fault in a particular subsystem, exercise the machine in all modes until the fault is determined. In the instance of finding more than one fault or failure, correct one fault before going to the next fault. If no fault is found, go to SCP 5 Subsystem Maintenance.

Fault Codes

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

UI Faults

If the machine is on but the UI is blank, test the UI with dC330.

Stapler Faults

If the machine has a stapler fault, test the Stapler with dC330.

Image Quality Defects

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

For image quality specifications, refer to the following:

- IQS 1 Solid Area Density.
- IQS 2 Skew.
- IQS 3 Registration.

Additional Information

If necessary, refer to the following general procedures and information:

- GP 1 Diagnostics Entry
- GP 2 Fault Codes and History Files
- GP 3 System Administration Tools
- GP 4 Reports
- GP 5 Firmware Upgrade
- GP 6 Electrostatic Discharge Prevention
- GP 7 Machine Specifications
- GP 8 General Disassembly Precautions
- GP 9 Service Menu Map
- GP 10 How to Check a Motor
- GP 11 How to Check a Sensor
- GP 12 How to Check a Solenoid or Clutch
- GP 13 How to Check a Switch
- GP 14 Separate System Modules
- GP 15 How to Safely Move heavy Modules
- GP 16 Machine Lubrication
- GP 17 Installation Space Requirements

SCP 5 Subsystem Maintenance

Subsystem Maintenance contains information regarding the component life of the machine.

Procedure

<div align="center">WARNING</div>

Switch off the electricity to the machine. 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. Clean the Pick Rollers on every call.
2. Use the Control Panel to check maintenance item counters.
3. Compare the counter values to those listed in Consumables.
4. Advise the customer of any routine maintenance items that are approaching or over the service limit.

Inspection

Rollers

Replace the Rollers when you see any of the following defects:

- Flat spots
- Out of roundness
- Cracked rubber
- Loss of traction (tackiness) causing pick or feed failures

Gears

Replace Gears that show any signs of wear or damage. Look for these problems:

- Thinned gear teeth
- Bent or missing gear teeth; check especially where a metal gear drives a plastic gear.
- Fractured or cracked Gears (oil or incorrect grease on a plastic Gear can cause the Gear to crack).

Belts

There are rubber belts in the printer. Inspect the belts for wear. Look for these problems:

- Loose rubber particles below the belts indicate a worn belt.
- Missing teeth in the belts.
- Cracking or moderate fraying; a small amount of fraying is inevitable, so look for other signs of wear before replacing the belt.

Lubrication

The printer is lubricated during assembly at the factory and does not require periodic lubrication. Some parts require lubrication following replacement. These parts are identified in the replacement procedures. When lubricating during replacement, use the grease approved for all Phaser printers.

<div align="center">CAUTION</div>

Plastic parts will deteriorate when unspecified grease and chemicals are used. To avoid damage to the printer, use only Rheolube 768 grease.

- Rheolube 768 Grease: Part Number 070E00890

Component Life

The design life of the major components are shown in Table 1. Environmental conditions and actual use will vary these factors. The component life shown in Table 1 is for reference only.

Table 1 Component Life Expectancies

Item	Description	Print Life
1.	Pick and nudger Rollers	200,000 pages
2.	Separator Roller	100,000 pages
3.	Transfer Roller	100,000 images
4.	Fuser	200,000 images
5.	Feed Roller	100,000 pages

HFSI

The High Frequency Service Items are shown in Table 2.

Table 2 High frequency service items

Item	Description	Recommended life	Reference
Drum Cartridge	The total sides of copies and prints after the last HFSI reset.	80k impressions	PL 9.10 Item 1
Tray 1 Pick Roller	Sheets fed from Tray 1 after last HFSI reset.	150k feeds	PL 8.10 Item 3
Tray 2 Pick Rollers	Sheets fed from Tray 2 after last HFSI reset.	200k feeds	PL 8.15 Item 10
Transfer Roller	Total prints after the last HFSI reset.	100k impressions	PL 9.10 Item 2
Fuser	Total prints after the last HFSI reset.	200k impressions	PL 10.10 Item 1

To Reset HFSIs

1. Log into Diagnostics
2. Scroll to Printer Information
3. Scroll to HFSI
4. Select the appropriate HFSI and reset its counter.

SCP 6 Final Actions

Final Actions are used to evaluate the total operation of the system and to identify the actions required to complete the service call.

Procedure

Complete the following, if a fault is identified, return to SCP 4 Fault Analysis:

- Perform the end of call subsystem maintenance actions, SCP 5 Subsystem Maintenance.
- Exercise the machine in all modes, printing from all trays. If a fault message is displayed or some other problem is evident, go to SCP 4 Fault Analysis.
- Make a print of a customer document.
- If any of the customers selections were changed, return them to the customers preferred settings. Refer to GP 4 System Administration Tools.
- At the first service and at any subsequent service where changes are made or options are added, print the configuration report and store it with machine log book. Discard any previous versions of the configuration report.
- Remove and destroy any copies of test patterns.
- Ensure the machine and service area are clean before leaving the customer premises.
- Provide customer training if required.

SCP 7 Configurations and Options

Configurations and Options

Refer to Table 1 for basic configurations and options. This service manual covers all configurations. Within this manual ignore any references to options that are not installed.

Table 1 Phaser 4600/4620/4622 Configurations

Features	4600N	4600DN	4600DT	4620DN	4620DT
Processor Speed	700 MHz	700 MHz	700 MHz	700 MHz	700 MHz
Memory*	256 MB	256 MB	256 MB	256 MB	256 MB
Print Speed	55 ppm, Letter 52 ppm A4	55 ppm, Letter 52 ppm, A4	55 ppm, Letter 52 ppm, A4	65 ppm, Letter 62 ppm, A4	65 ppm, Letter 62 ppm, A4
PS3 Fonts (136)	Standard	Standard	Standard	Standard	Standard
PCL6 Fonts (80 Scalable, 9 Bitmap)	Standard	Standard	Standard	Standard	Standard
USB 2.0	Standard	Standard	Standard	Standard	Standard
Ethernet Interface	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX	10/100 Base-TX
Tray 1 (100 sheet)	Standard	Standard	Standard	Standard	Standard
Tray 2 (520 sheet)	Standard	Standard	Standard	Standard	Standard
Tray 3 (520 sheet)	Optional	Standard	Standard	Optional	Standard
Tray 4 (520 sheet)	Optional	Optional	Optional	Optional	Optional
Tray 5 (2000 / 520-sheet)	Optional	Optional	Optional	Optional	Optional
Tray 6 (520-sheet)	Optional	Optional	Optional	Optional	Optional
Duplex	Not available	Standard	Standard	Standard	Standard
Mailbox (4-bin)	Optional	Optional	Optional	Optional	Optional
Finisher	Optional	Optional	Optional	Optional	Optional
Hard Disk Drive	Optional	Optional	Optional	Optional	Optional
Printer Stand	Optional	Optional	Optional	Optional	Optional
Wireless LAN	Optional	Optional	Optional	Optional	Optional
Printer Resolution	600 x 600 dpi 1200 Class	600 x 600 dpi 1200 Class	600 x 600 dpi 1200 Class	600 x 600 dpi 1200 Class	600 x 600 dpi 1200 Class
* All configurations have one memory slot supporting a 512 MB DDR2 DIMM, to a maximum 768 MB total.					

2 Status Indicator RAPS

01-100-00 Top Door Open RAP

01-100-00 The Top Door is not latched.

BSD-Reference: WD 1

Initial Actions

• Close the Top Door.
• Check for obstructions blocking the latch.

Procedure

<p style="text-align:center; color:red">WARNING</p>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Reseat the Toner Cartridge and close the Top Door. **The error message is displayed.**
Y   N
    Complete.

Check the Top Door interlock actuators. **The interlock actuators are undamaged.**
Y   N
    Replace the Top Door, REP 28.5.

Select dC330 code 01-100. **The switch is operational (open/closed).**
Y   N
    Replace the Top/Rear Door Interlock Switch, REP 1.6.

Remove the Left Cover (REP 28.3) and check P/J45 and CN9 on the MCU Board. **The   connections are secure.**
Y   N
    Secure the connections.

Replace these components in order until the error is corrected.
1.   Top Door Interlock Switch, PL 28.15 Item 2
2.   MCU Board, PL 3.10 Item 3

01-102-00 Rear Door Open RAP

01-102-00 The Rear Door is not latched.

BSD-Reference: WD 1

Initial Actions

• Close the Rear Door.
• Check for obstructions or bent pins in P/J61.

Procedure

<p style="text-align:center; color:red">WARNING</p>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Close the Rear Door. **The error message is displayed.**
Y   N
    Complete.

Check the Rear Door connection P/J63. **The connector is undamaged.**
Y   N
    Repair or replace the Rear Door, REP 28.6.

Select dC330 code 01-300. **The connection is operational (open/closed).**
Y   N
    Repair or replace the Rear Door, REP 28.6.

Select dC330 code 01-100 and open/close the Rear Door. **The Status   LED   on   the Control Panel is green when the door is closed, and amber when opened.**
Y   N
    Replace the Top/Rear Door Interlock Switch, REP 1.6.

Replace these components in order until the error is corrected.
1.   Rear Door, PL 28.25 Item 1
2.   Joint Board, PL 9.15 Item 7
3.   Exit Assembly, PL 10.30 Item 25

01-500-00 Finisher Door Open RAP

01-500-00 The Finisher Rear Door is not latched.

BSD-Reference: WD 17

Initial Actions

- Close the Finisher Rear Door.
- Check for obstructions blocking the sensor.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
   Complete.

Check the Rear Door sensor actuator. **The actuator is undamaged.**

Y   N
   Repair or replace the Finisher Rear Door, REP 12.17.

Select dC330 code 12-895. **The sensor is operational (high/low).**

Y   N
   Remove the Finisher Top Cover (REP 12.18) and check the Finisher Rear Door Open Sensor (PL 12.35 Item 14). **The sensor connection is secure.**

   Y   N
      Secure the Finisher Rear Door Open Sensor connection.

   Check the Finisher option harness in the Finisher right cover. **The harness is undamaged.**

   Y   N
      Repair or replace the Finisher option harness.

   Replace the Finisher Rear Door Open Sensor, REP 12.20.

Replace these components in order until the error is corrected.

1. Finisher Rear Door Open Sensor, PL 12.35 Item 14
2. Finisher Control Board, PL 12.15 Item 2
3. IOT Upper Option Harness, PL 10.30 Item 24
4. MCU Board, PL 3.10 Item 3

01-700-00 Stapler Door Open RAP

01-700-00 The Staple Cartridge Door is not latched securely.

BSD-Reference: WD 17

Initial Actions

- Close and latch the Staple Cartridge Door.
- Check for obstructions blocking the interlock switch.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
   Complete.

Check the Staple Cartridge Door interlock actuator. **The actuator is undamaged.**

Y   N
   Repair or replace the Finisher right cover, REP 12.11.

Select dC330 code 12-870. The switch is operational (high/low).

Y   N
   Replace the Staple Cartridge Door Interlock Switch, REP 12.13.

Remove the Finisher Right Cover (REP 12.11) and check the Staple Cartridge Door Interlock Switch (PL 12.45 Item 4). **The switch connections are secure.**

Y   N
   Secure the Staple Cartridge Door Interlock Switch connections.

Check the Finisher option harness in the Finisher right cover. **The** harness **is undamaged.**

Y   N
   Repair or replace the Finisher option harness.

Replace these components in order until the error is corrected.

1. Staple Cartridge Door Interlock Switch (PL 12.45 Item 4)
2. Finisher Control Board, PL 12.15 Item 2
3. IOT Upper Option Harness, PL 10.30 Item 24
4. MCU Board, PL 3.10 Item 3

01-900-00 Mailbox Rear Door Open RAP

01-900-00 The Mailbox Rear Door is not latched securely.

BSD-Reference: WD 18

Initial Actions
• Close the Mailbox Rear Door.
• Check for obstructions blocking the interlock switch.

Procedure
<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Check the Mailbox Rear Door interlock actuator. **The actuator is undamaged.**

Y   N
    Repair or replace the Mailbox rear door, REP 11.4.

Select dC330 code 12-915. **The switch is operational (high/low).**

Y   N
    Replace the Mailbox Rear Door Interlock Switch, REP 11.13.

Remove the Mailbox top cover (REP 11.12, step 5) and check the Rear Door Interlock Switch (PL 11.30 Item 4). **The switch connections are secure.**

Y   N
    Secure the Mailbox Rear Door Interlock Switch connections.

Check the Mailbox option harness in the Mailbox right cover. **The harness is undamaged.**

Y   N
    Repair or replace the Mailbox option harness, PL 11.15 Item 4.

Replace these components in order until the error is corrected.
1. Mailbox Rear Door Interlock Switch, PL 11.30 Item 4
2. Mailbox Control Board, PL 11.15 Item 1
3. IOT Upper Option Harness, PL 10.30 Item 24
4. MCU Board, PL 3.10 Item 3

03-100-00, 03-110-00 Finisher Interface Error RAP

03-100-00 Communications between the Finisher and IOT has failed.

03-110-00 Communications between the Finisher and IOT has failed.

BSD-Reference: WD 17

Initial Actions
• Reseat the Finisher on the IOT connection.
• Check for obstructions or damage to the interface connection.

Procedure
<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove the Finisher right cover (REP 12.11) and check the option harness. **The   harness   is undamaged.**

Y   N
    Repair or replace the Finisher option harness.

Check the IOT Upper Option Harness. **The harness is undamaged.**

Y   N
    Repair or replace the Upper Option Harness, REP 10.4.

Replace these components in order until the error is corrected.
1. Finisher Control Board, PL 12.15 Item 2
2. MCU Board, PL 3.10 Item 3

03-115-00 Mailbox Interface Error RAP

03-115-00 Communications between the Mailbox and IOT has failed.

BSD-Reference: WD 18

Initial Actions

- Reseat the Mailbox on the IOT connection.
- Check for obstructions or damage to the interface connection.

Procedure
WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Remove the Mailbox right cover (REP 11.3) and check the option harness. **The   harness   is undamaged.**
Y   N
    Repair or replace the Mailbox option harness, PL 11.15 Item 4.

Check the IOT Upper Option Harness. **The** harness **is undamaged.**
Y   N
    Replace the Upper Option Harness, REP 10.4.

Replace these components in order until the error is corrected.
1. Mailbox Control Board, PL 11.15 Item 1
2. MCU Board, PL 3.10 Item 3

03-120-00, 03-940-00 Tray 3 Communications Fault RAP

03-120-00 A communication error has occurred between the MCU Board and Tray 3.

03-940-00 A communication error has occurred between the MCU Board and Tray 3.

BSD-Reference: WD 15

Initial Actions

- Lock the feeder to the IOT.
- Reseat the IOT on the Feeder.
- Check for obstructions blocking the option harness.

Procedure
WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.
WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Remove the IOT from the Feeder and check the Feeder Option Connector. **The connector is undamaged.**
Y   N
    Replace the Feeder Upper Option Harness, REP 7.31.

Check the Lower Option Harness. **The** harness **is undamaged.**
Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Feeder Board, PL 8.30 Item 7
2. MCU Board, PL 3.10 Item 3

03-130-00, 03-950-00 Tray 4 Communications Fault RAP

03-130-00 A communication error has occurred between the MCU Board and Tray 4.

03-950-00 A communication error has occurred between the MCU Board and Tray 4.

BSD-Reference: WD 15

Initial Actions

- Lock the feeder to Tray 3.
- Reseat the IOT and Tray 3 on the Feeder.
- Check for obstructions blocking the option harnesses.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove the IOT and Tray 3 from the Feeder. Check feeder option harness continuity. **The harnesses are undamaged.**

Y   N
    Replace the damaged option harness.

Check the IOT option connector. **The harness is undamaged.**

Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Feeder Board, PL 8.30 Item 7
2. MCU Board, PL 3.10 Item 3

03-140-00, 03-960-00 Tray 5 Communications Fault RAP

03-140-00 A communication error has occurred between the MCU Board and Tray 5.

03-960-00 A communication error has occurred between the MCU Board and Tray 5.

BSD-Reference: WD 15

Initial Actions

- Lock the feeder to Tray 5.
- Reseat the IOT, Tray 3, and Tray 4 on the Feeder.
- Check for obstructions blocking the option harnesses.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove the IOT, Tray 3, and Tray 4 from the Feeder. Check feeder option harness continuity. **The harnesses are undamaged.**

Y   N
    Replace the damaged option harness.

Check the IOT option harness. **The harness is undamaged.**

Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Feeder Board, PL 8.30 Item 7
2. MCU Board, PL 3.10 Item 3

03-150-00, 03-965-00 Tray 6 Communications Fault RAP

03-150-00 A communication error has occurred between the MCU Board and Tray 6.

03-965-00 A communication error has occurred between the MCU Board and Tray 6.

BSD-Reference: WD 15

Initial Actions

- Lock the feeder to Tray 6.
- Reseat the IOT, Tray 3, Tray 4, and Tray 5 on the Feeder.
- Check for obstructions blocking the option connections.

Procedure

WARNING
Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y N
   Complete.

Remove the IOT, Tray 3, Tray 4, and Tray 5 from the Feeder. Check feeder option connector continuity. **The harnesses are undamaged.**

Y N
   Replace the damaged option harness.

Check the IOT option connector. **The harness is undamaged.**

Y N
   Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Feeder Board, PL 8.30 Item 7
2. MCU Board, PL 3.10 Item 3

03-160-00, 03-990-00 HCF Communications Fault RAP

03-160-00 A communication error has occurred between the MCU Board and the HCF.

03-990-00 A communication error has occurred between the MCU Board and the HCF.

BSD-Reference: WD 16

Initial Actions

- Lock the feeder to the HCF.
- Reseat the IOT, Tray 3, Tray 4, on the HCF.
- Check for obstructions blocking the option connections.

Procedure

WARNING
Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y N
   Complete.

Remove the IOT and installed feeders from the HCF. Check the HCF option harness. **The harness is undamaged.**

Y N
   Replace the damaged option harness.

Check feeder option harness continuity for all feeders. **The harnesses are undamaged.**

Y N
   Replace the damaged option harness.

Check the IOT Lower Option Harness. **The harness is undamaged.**

Y N
   Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. HCF Control Board, PL 7.25 Item 18
2. MCU Board, PL 3.10 Item 3

03-305-00 Configuration Card Not Present RAP

03-305-00 The Configuration Card is missing from its slot on the rear panel.

BSD-Reference: WD 1

Initial Actions
- Reseat the Configuration Card.
- Cycle system power.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove and inspect the Configuration Card. **The card is undamaged.**

Y   N
    Replace the Configuration Card.

Check the configuration card holder. **The holder is secure.**

Y   N
    Secure the holder to the IP Board. Install the card.

Replace these components in order until the error is corrected.
1. Configuration Card, PL 3.10 Item 6
2. IP Board, PL 3.10 Item 2

03-315-00, 03-325-00 Manufacturer ID RAP

03-315-00 The Configuration Card is invalid for this system.

03-325-00 The Configuration Card is invalid for this system.

BSD-Reference: WD 1

Initial Actions
- Reseat the Configuration Card.
- Cycle system power.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove and inspect the Configuration Card. **The card is undamaged.**

Y   N
    Replace the Configuration Card.

Replace these components in order until the error is corrected.
1. Configuration Card, PL 3.10 Item 6
2. IP Board, PL 3.10 Item 2

03-335-00 Configuration Card Not Configured RAP

03-335-00 The Configuration Card did not initialize.

BSD-Reference: WD 1

Initial Actions

• Reseat the Configuration Card.

• Cycle system power.

Procedure

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

  Complete.

Remove and inspect the Configuration Card. **The card is undamaged.**

Y   N

  Replace the Configuration Card.

Replace these components in order until the error is corrected.

1. Configuration Card, PL 3.10 Item 6

2. IP Board, PL 3.10 Item 2

03-410-00 Tray 2 Paper Mismatch RAP

03-410-00 Media size setting for Tray 2 differs from the media size reported by the Tray 2 Size Switch.

BSD-Reference: WD 3

Initial Actions

• Check media size settings for the tray from the Control Panel.

• Reset the tray side and rear guides.

• Check for obstructions blocking the Size Switch.

Procedure

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

  Complete.

Remove Tray 2 and inspect the Size Switch. **The Size Switch is undamaged.**

Y   N

  Replace the Size Switch, REP 7.30.

Inspect the Tray 2 end guide. **The end guide operates the Size Switch actuators.**

Y   N

  Replace the Tray,

Select dC330 codes 07-220, 07-230, 07-240. **The switches are operational (high/low).**

Y   N

  Replace the Size Switch, REP 7.30.

Replace these components in order until the error is corrected.

1. Size Switch, PL 3.10 Item 9

2. Tray, PL 7.10 Item 23

3. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS

03-335-00 , 03-410-00

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03-420-00 Tray 3 Paper Mismatch RAP

03-420-00 Media size setting for Tray 3 differ from those reported by the Size Switch.

BSD-Reference: WD 13

Initial Actions

- Check media size settings for the tray from the Control Panel.
- Reset the tray side and rear guides.
- Check for obstructions blocking the Size Switch.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y N
   Complete.

Inspect the Tray 2 end guide. **The end guide operates the Size Switch actuators.**
Y N
   Replace the Tray,

Select dC330 codes 07-320, 07-330, 07-340. **The switches are operational (high/low).**
Y N
   Replace the Size Switch, REP 7.30.

Remove the IOT from the Feeder. Check the Tray 3 Upper Option Harness. **The harness is undamaged.**
Y N
   Replace the Upper Option Connector, REP 7.31.

Check the IOT option connector. **The harness is undamaged.**
Y N
   Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Size Switch, PL 3.10 Item 9
2. Tray, PL 7.10 Item 23
3. Feeder Board, PL 8.30 Item 7
4. MCU Board, PL 3.10 Item 3

03-430-00 Tray 4 Paper Mismatch RAP

03-430-00 Media size setting for Tray 4 differ from those reported by the Size Switch.

BSD-Reference: WD 13

Initial Actions

- Check media size settings for the tray from the Control Panel.
- Reset the tray side and rear guides.
- Check for obstructions blocking the Size Switch.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y N
   Complete.

Inspect the Tray 4 end guide. **The end guide operates the Size Switch actuators.**
Y N
   Replace the Tray,

Select dC330 codes 07-420, 07-430, 07-440. **The switches are operational (high/low).**
Y N
   Replace the Size Switch, REP 7.30.

Remove the IOT and Tray 3 from the Feeder. Check the Tray 4 Upper Option Harness. **The harness is undamaged.**
Y N
   Replace the Upper Option Harness, REP 7.31.

Check option harness continuity through Trays 3 and 4. **The connectors are undamaged.**
Y N
   Replace damaged connectors.

Check the IOT Lower Option Harness. **The harness is undamaged.**
Y N
   Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Size Switch, PL 3.10 Item 9
2. Tray, PL 7.10 Item 23
3. Feeder Board, PL 8.30 Item 7
4. MCU Board, PL 3.10 Item 3

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03-420-00, 03-430-00

03-440-00 Tray 5 Paper Mismatch RAP

03-440-00 Media size setting for Tray 5 differ from those reported by the Size Switch.

BSD-Reference: WD 13

Initial Actions

- Check media size settings for the tray from the Control Panel.
- Reset the tray side and rear guides.
- Check for obstructions blocking the Size Switch.

Procedure

WARNING
Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
| Complete.
|
Inspect the Tray 5 end guide. **The end guide operates the Size Switch actuators.**
Y   N
| Replace the Tray,
|
Select dC330 codes 07-520, 07-530, 07-540. **The switches are operational (high/low).**
Y   N
| Replace the Size Switch, REP 7.30.
|
Remove the IOT, Tray 3 and Tray 4 from the Feeder. Check the Tray 5 Upper Option Harness. **The harness is undamaged.**
Y   N
| Replace the Upper Option Harness, REP 7.31.
|
Check option harness continuity through all trays. **The harnesses are undamaged.**
Y   N
| Replace damaged harnesses.
|
Check the IOT Lower Option Harness. **The harness is undamaged.**
Y   N
| Replace the Lower Option Harness, REP 10.5.
|
Replace these components in order until the error is corrected.
1.   Size Switch, PL 3.10 Item 9
2.   Tray, PL 7.10 Item 23
3.   Feeder Board, PL 8.30 Item 7
4.   MCU Board, PL 3.10 Item 3

03-450-00 Tray 1 Paper Mismatch RAP

03-450-00 Tray 1 is not configured with the proper media resources for the current job.

BSD-Reference: WD 5

Initial Actions

- Check media size settings for the tray from the Control Panel.
- Load Tray 1 with the media specified in the print job.

Procedure

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
| Complete.
|
Select dC330 code 07-110. **The sensor is operational (high/low).**
Y   N
| Replace the Tray 1 No Paper Sensor, REP 7.15.
|
Remove the Tray 1 Feeder (REP 7.0) and inspect the wiring. **The harness is undamaged and connected to the MCU Board.**
Y   N
| Reconnect or repair the harness.
|
Replace these components in order until the error is corrected.
1.   Tray 1 Feeder, PL 8.10 Item 14
2.   MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS
03-440-00, 03-450-00

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03-470-00 Tray 6 Paper Mismatch RAP

03-470-00 Media size setting for Tray 6 differ from those reported by the Size Switch.

BSD-Reference: WD 13

Initial Actions

• Check media size settings for the tray from the Control Panel.
• Reset the tray side and rear guides.
• Check for obstructions blocking the Size Switch.

Procedure

WARNING
Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Inspect the Tray 6 end guide. **The end guide operates the Size Switch actuators.**

Y   N
    Replace the Tray,

Select dC330 codes 07-620, 07-630, 07-640. **The switches are operational (high/low).**

Y   N
    Replace the Size Switch, REP 7.30.

Remove the IOT, Tray 3, 4 and 5 from the Feeder. Check the Tray 6 Upper Option Harness. **The** harness **is undamaged.**

Y   N
    Replace the Upper Option Harness, REP 7.31.

Check option harness continuity through all trays. **The** harnesses **are undamaged.**

Y   N
    Replace damaged harnesses.

Check the IOT Lower Option Harness. **The** harness **is undamaged.**

Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1. Size Switch, PL 3.10 Item 9
2. Tray, PL 7.10 Item 23
3. Feeder Board, PL 8.30 Item 7
4. MCU Board, PL 3.10 Item 3

03-480-00 HCF Paper Mismatch RAP

03-480-00 Media size setting for the HCF differs from those reported by the Size Switch.

NOTE: Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.

BSD-Reference: WD 16

Initial Actions

• Check media size settings for the HCF from the Control Panel.
• Check for obstructions blocking the media guide.

Procedure

WARNING
Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Remove media and check operation of the length guide. **The media guide moves smoothly.**

Y   N
    Clear obstructions blocking guide movement.

Select dC330 codes dependent on HCF position. **The switches are operational (high/low).**

Y   N
    Remove the IOT, Tray 3, and Tray 4 from the HCF. Check the HCF Option Harness. **The** harness **is undamaged.**

    Y   N
        Replace the HCF Option Harness.

    Check option harness continuity through all trays. **The** harnesses **are undamaged.**

    Y   N
        Replace damaged connectors.

    Check the IOT Lower Option Harness. **The** harness **is undamaged.**

    Y   N
        Replace the Lower Option Harness, REP 10.5.

    Replace the Size Switch, PL 7.25 Item 5.

Replace these components in order until the error is corrected.
1. Size Switch, PL 7.25 Item 5
2. HCF Option Connector, PL 7.25 Item 15

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03-470-00, 03-480-00

3. Control Board, PL 7.25 Item 18

4. MCU Board, PL 3.10 Item 3

03-600-00 Memory Failure RAP

03-600-00 A memory access failure has been detected within the Network Controller.

BSD-Reference: WD 9

Initial Actions

*   Cycle system power.
*   Reseat or remove optional memory.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

> Complete.

Remove optional memory, if installed and retest. **The error message is displayed.**

Y   N

> Replace the optional memory using the instructions provided.

Replace the IP Board, REP 3.6.

2 Status Indicator RAPS

03-480-00, 03-600-00

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03-800-00 Hard Disk Drive Failure RAP

03-800-00 A Hard Disk Drive access failure detected.

BSD-Reference: WD 9

Initial Actions

- Cycle system power.
- Reseat Hard Drive connection to the IP board.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Replace the Hard Drive using the instructions provided. **The error message is displayed.**
Y   N
    Complete.

Replace the IP Board, REP 3.6.

03-970-00 Software Lock Up RAP

03-970-00 A problem has been detected with software running on the MCU Board.

Initial Actions

- Cycle system power.
- Reseat MCU Board connections.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Remove the Right Cover (REP 28.2) and reseat all connections to the MCU Board. **The error message is displayed.**
Y   N
    Complete.

Replace the MCU Board, REP 3.4.

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2 Status Indicator RAPS

03-800-00, 03-970-00

04-100-00 Tray 2 Lift Error RAP

04-100-00 Tray 2 Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

BSD-Reference: WD 3

Initial Actions

- Remove and replace Tray 2.
- Check for obstructions blocking bottom plate movement.

Procedure

WARNING

Switch off the electricity to the machine. 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 Tray bottom plate linkage and sector gear condition. Use an alternate Tray, if available, to test lift operation.The **Tray is undamaged.**

Y   N
┊   Replace the Tray.

Check Tray 2 pick assembly (PL 8.15) motion. **Pick assembly motion is good.**

Y   N
┊   Repair improper pick assembly motion.

Check the Lift Gear, PL 4.10. **The gear is undamaged and properly installed.**

Y   N
┊   Replace the Lift Gear, REP 7.8.

Test Lift Motor operation. **The Lift Motor rotates.**

Y   N
┊   Remove the Right Cover (REP 28.2), reseat CN11 on the MCU Board, then retest. **The Lift Motor rotates.**
┊   **Y   N**
┊   ┊   Remove the MCU Board and reseat P/J49 on the Lift Motor, then retest. **The   Lift Motor rotates.**
┊   ┊   **Y   N**
┊   ┊   ┊   Replace the Lift Motor, REP 7.7, then retest. **The Lift Motor rotates.**
┊   ┊   ┊   **Y   N**
┊   ┊   ┊   ┊   Replace the MCU Board, REP 3.4.
┊   ┊   ┊
┊   ┊   ┊   Reassemble and perform SCP 6 Final Actions.
┊   ┊
┊   ┊   Reassemble and perform SCP 6 Final Actions.
┊
┊   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Tray
2. Tray 2 Stack Height Sensor, PL 8.50 Item 25
3. MCU Board, REP 3.4

04-110-00 Tray 6 Lift Error RAP

04-110-00 Tray 6 Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

BSD-Reference: WD 13

Initial Actions

- Remove and replace Tray 6.
- Check for obstructions blocking bottom plate movement.
- Reorder Feeder position to isolate the problem.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
┊   Complete.

Check Tray bottom plate linkage and sector gear condition. Use an alternate Tray to test lift operation.The **Tray is undamaged.**

Y   N
┊   Replace the Tray.

Check the Pick Assembly (PL 8.20) motion. **Pick assembly motion is good.**

Y   N
┊   Repair improper pick assembly motion.

Select dC330 code 07-650. **The sensor is operational (high/low).**

Y   N
┊   Repair or replace the Stack Height Sensor, REP 7.37.

Check the Lift Gear, PL 8.35 Item 4. **The gear is undamaged and properly installed.**

Y   N
┊   Replace the Lift Gear, REP 7.8.

Remove the IOT, Tray 3, 4 and 5 from the Feeder. Reassemble the system using a different feeder in the Tray 6 position. **The error message changes to the new feeder position.**

Y   N
┊   Check the IOT Lower Option Harness. **The harness is undamaged.**
┊   **Y   N**
┊   ┊   Replace the Lower Option Harness, REP 10.5.
┊
┊   Replace the MCU Board, REP 3.4.

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04-100-00, 04-110-00

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A

Test Lift Motor operation in the affected Feeder. **The Lift Motor rotates.**

Y   N

Remove the Right Cover (REP 7.25), reseat CN2 on the Feeder Board, then retest. **The Lift Motor rotates.**

Y   N

Check the Feeder Option Harness. **The connectors are undamaged.**

Y   N

Repair or replace the affected harness, REP 7.31, REP 7.32.

Replace the Lift Motor, REP 7.7, then retest. **The Lift Motor rotates.**

Y   N

Replace the Feeder Board, REP 7.28.

Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Check the affected Feeder's Upper Option Harness. **The connector is undamaged.**

Y   N

Replace the Upper Option Connector, REP 7.31.

Replace these components in order until the error is corrected.

1. Tray, PL 7.10 Item 23
2. Feeder Board, PL 8.30 Item 7
3. MCU Board, PL 3.10 Item 3

04-200-00 Tray 3 Lift Error RAP

04-200-00 Tray 3 Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

BSD-Reference: WD 13

Initial Actions

• Remove and replace Tray 3.

• Check for obstructions blocking bottom plate movement.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

Complete.

Check Tray 3 bottom plate linkage and sector gear condition. Use an alternate Tray to test lift operation. The **Tray is undamaged.**

Y   N

Replace the Tray.

Check the Pick Assembly (PL 8.20) motion. **Pick assembly motion is good.**

Y   N

Repair improper pick assembly motion.

Select dC330 code 07-350. **The sensor is operational (high/low).**

Y   N

Repair or replace the Stack Height Sensor, REP 7.37.

Check the Lift Gear, PL 8.35 Item 4. **The gear is undamaged and properly installed.**

Y   N

Replace the Lift Gear, REP 7.8.

Test Lift Motor operation. **The Lift Motor rotates.**

Y   N

Remove the Right Cover (REP 7.25), reseat CN2 on the Feeder Board, then retest. **The Lift Motor rotates.**

Y   N

Check the Feeder Upper Option Harness. **The** harness **is undamaged.**

Y   N

Repair or replace the harness, REP 7.31.

Replace the Lift Motor, REP 7.7, then retest. **The Lift Motor rotates.**

A   B

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A   B
    Y   N
        Replace the Feeder Board, REP 7.28.

    Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Remove the IOT and check the IOT Lower Option Harness. **The harness is undamaged.**
Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace these components in order until the error is corrected.
1.   Tray, PL 7.10 Item 23
2.   Feeder Board, PL 8.30 Item 7
3.   MCU Board, PL 3.10 Item 3

04-300-00 Tray 4 Lift Error RAP

04-300-00 Tray 4 Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

BSD-Reference: WD 13

Initial Actions

- Remove and replace Tray 4.
- Check for obstructions blocking bottom plate movement.
- Reorder Feeder position to isolate the problem.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Check Tray 4 bottom plate linkage and sector gear condition. Use an alternate Tray to test lift operation.The **Tray is undamaged.**
Y   N
    Replace the Tray.

Check the Pick Assembly (PL 8.20) motion. **Pick assembly motion is good.**
Y   N
    Repair improper Pick Assembly motion.

Select dC330 code 07-450. **The sensor is operational (high/low).**
Y   N
    Repair or replace the Stack Height Sensor, REP 7.37.

Check the Lift Gear, PL 8.35 Item 4. **The gear is undamaged and properly installed.**
Y   N
    Replace the Lift Gear, REP 7.8.

Remove the IOT and Tray 3 from the Feeder. Reassemble the system to exchange Feeder positions. **The error message changes to the new feeder position.**
Y   N
    Check the IOT Lower Option Harness. **The harness is undamaged.**
    Y   N
        Replace the Lower Option Harness, REP 10.5.

    Replace the MCU Board, REP 3.4.

A

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A

Test Lift Motor operation in the affected Feeder. **The Lift Motor rotates.**

Y   N
    Remove the Right Cover (REP 7.25), reseat CN2 on the Feeder Board, then retest. **The Lift Motor rotates.**

    Y   N
        Check the Feeder Upper Option Harness. **The harness is undamaged.**

        Y   N
            Repair or replace the harness, REP 7.31.

        Replace the Lift Motor, REP 7.7, then retest. **The Lift Motor rotates.**

        Y   N
            Replace the Feeder Board, REP 7.28.

        Reassemble and perform SCP 6 Final Actions.

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1.   Tray, PL 7.10 Item 23
2.   Feeder Board, PL 8.30 Item 7
3.   MCU Board, PL 3.10 Item 3

04-400-00 Tray 5 Lift Error RAP

04-400-00 Tray 5 Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

BSD-Reference: WD 13

Initial Actions

- Remove and replace Tray 5.
- Check for obstructions blocking bottom plate movement.
- Reorder Feeder position to isolate the problem.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Check Tray 5 bottom plate linkage and sector gear condition. Use an alternate Tray to test lift operation.The **Tray is undamaged.**

Y   N
    Replace the Tray.

Check the Pick Assembly (PL 8.20) motion. **Pick assembly motion is good.**

Y   N
    Repair improper Pick Assembly motion.

Select dC330 code 07-550. **The sensor is operational (high/low).**

Y   N
    Repair or replace the Stack Height Sensor, REP 7.37.

Check the Lift Gear, PL 8.35 Item 4. **The gear is undamaged and properly installed.**

Y   N
    Replace the Lift Gear, REP 7.8.

Remove the IOT, Tray 3 and Tray 4 from the Feeder. Reassemble the system to exchange Feeder positions. **The error message changes to the new feeder position.**

Y   N
    Check the IOT Lower Option Harness. **The harness is undamaged.**

    Y   N
        Replace the Lower Option Harness, REP 10.5.

    Replace the MCU Board, REP 3.4.

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2 Status Indicator RAPS

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A

Test Lift Motor operation in the affected Feeder. **The Lift Motor rotates.**

Y   N

    Remove the Right Cover (REP 7.25), reseat CN2 on the Feeder Board, then retest. **The Lift Motor rotates.**

    Y   N

        Check the Feeder Upper Option Harness. **The harness is undamaged.**

        Y   N

            Repair or replace the harness, REP 7.31.

        Replace the Lift Motor, REP 7.7, then retest. **The Lift Motor rotates.**

        Y   N

            Replace the Feeder Board, REP 7.28.

        Reassemble and perform SCP 6 Final Actions.

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Tray, PL 7.10 Item 23
2. Feeder Board, PL 8.30 Item 7
3. MCU Board, PL 3.10 Item 3

04-500-00 Main Motor Failure RAP

04-500-00 An error occurred in the Main Drive Assembly.

BSD-Reference: WD 5

Initial Actions

• Close the Top Door.

• Check for obstructions blocking the latch.

Procedure

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

Cycle system power. **The error message is displayed.**

Y   N

    Perform SCP 6 Final Actions.

Select dC330 code 04-100. **All motors rotate.**

Y   N

    Remove the Right Cover (REP 7.25), reseat CN5 and CN9 on the MCU Board, then retest. **All motors rotate.**

    Y   N

        Manually rotate the motors. The motors turn freely.

        Y   N

            Remove the Toner and Drum Cartridges and manually rotate the motors. The motors turn freely.

            Y   N

                Replace the Main Drive Assembly, REP 4.1,

            Replace the affected cartridge.

        Check the Main Drive Assembly harnesses. **The harnesses are undamaged.**

        Y   N

            Repair the harness.

        Replace the Main Drive Assembly, REP 4.1, then retest. **All motors rotate.**

        Y   N

            Replace the MCU Board, REP 3.4.

        Reassemble and perform SCP 6 Final Actions.

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. MCU Board, PL 3.10 Item 3
2. HVPS, PL 1.10 Item 1

2 Status Indicator RAPS
04-400-00, 04-500-00

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Revised
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04-730-00 HCF Lift Error RAP

04-730-00 HCF Stack Height Sensor did not change state within 13 seconds of Lift Motor activation.

NOTE: Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.

BSD-Reference: WD 16

Initial Actions

- Open and close the HCF Front Door.
- Check for obstructions blocking bottom plate movement.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y N
 | Complete.

Raise and lower the lower lift plate. The **lower lift plate moves up and down smoothly.**
Y N
 | Repair or replace damaged components.

Check Pick Assembly (PL 8.25) motion. **Pick assembly motion is good.**
Y N
 | Repair improper Pick Assembly motion.

Select dC330 code for the HCF position. **The sensor is operational (high/low).**
Y N
 | Repair or replace the Stack Height Sensor, REP 8.50.

Check the Lift Gear, PL 8.35 Item 4. **The gear is undamaged and properly installed.**
Y N
 | Replace the Lift Gear, REP 7.8.

Test HCF Lift Motor operation by opening and closing the front door. **The Lift Motor rotates.**
Y N
 | Remove the IOT, Tray 3 and Tray 4 from the HCF and check the HCF Option Harness, PL 7.25 Item 15. **The harness is undamaged.**
 | Y N
 | | Replace the harness ().
 |
 | Check the IOT Lower Option Harness. **The harness is undamaged.**

A

Y N
 | Replace the Lower Option Harness, REP 10.5.

Remove the Right Cover (), reseat CN2 on the Control Board and CN1, CN2 on the Jumper Board, then retest. **The Lift Motor rotates.**
Y N
 | Replace the Lift Motor, (), then retest. **The Lift Motor rotates.**
 | Y N
 | | Replace the Control Board, ().
 |
 | Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Feeder Assembly, PL 8.25 Item 16
2. Control Board, PL 7.25 Item 18
3. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

04-730-00

04-810-00 Rear Fan Failure RAP

04-810-00 The Rear Door Fan has failed.

BSD-Reference: WD 7

Initial Actions

- Close the Rear Door.
- Check for obstructions blocking fan rotation.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
│   Perform SCP 6 Final Actions.

Select dC330 code 10-500 to test the Rear Fan. **The Fan rotates.**
Y   N
│   Replace the Fan, REP 28.7, then retest. **The Fan rotates.**
│   **Y   N**
│   │   Check the Rear Door connection P/J63. **The connector is undamaged.**
│   │   **Y   N**
│   │   │   Repair or replace the Rear Door, REP 28.6.
│   │
│   │   Remove the Right Cover (REP 28.2) and check CN4 on the Joint Board. **The   connection is secure.**
│   │   **Y   N**
│   │   │   Secure the connections.
│   │
│   │   Replace these components in order until the error is corrected.
│   │   1.   Rear Door, PL 28.25 Item 1
│   │   2.   Joint Board, PL 9.15 Item 7
│   │   3.   Exit Assembly, PL 10.30 Item 25
│   │
│   Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

04-930-00 Main Fan Failure RAP

04-930-00 The SMPS Fan has failed.

BSD-Reference: WD 8

Initial Actions

- Check for obstructions blocking fan rotation.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
│   Perform SCP 6 Final Actions.

Select dC330 code 04-120 to test the SMPS Fan. **The Fan rotates.**
Y   N
│   Replace the Fan, REP 28.7, then retest. **The Fan rotates.**
│   **Y   N**
│   │   Remove the Left Cover (REP 28.3) and check CN1 on the Joint Board. **The   connection is secure.**
│   │   **Y   N**
│   │   │   Secure the connections.
│   │
│   │   Replace these components in order until the error is corrected.
│   │   1.   SMPS Fan, PL 1.15 Item 6
│   │   2.   Joint Board, PL 9.15 Item 7
│   │
│   Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

2 Status Indicator RAPS
04-810-00, 04-930-00

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06-100-00, 06-200-00 LSU Error RAP

06-100-00 The Laser Unit has failed. The Laser Unit did not reach ready within a defined time.

06-200-00 LSU Hsync Error. The Laser Unit has failed.

BSD-Reference: WD 8

Initial Actions

• Cycle system power.

Procedure

<p style="text-align:center">**WARNING**</p>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

   Perform SCP 6 Final Actions.

Select dC330 code 06-100 to test the Laser Unit. **The Laser Unit is operational (on/off).**

Y   N

   Replace the Laser Unit (REP 6.1), then retest. **The Laser Unit is operational.**

   Y   N

      Replace the IP Board (REP 3.6).

   Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

07-110-00 Paper Empty at Tray 2 RAP

07-110-00 The Tray 2 No Paper indicates the Tray is empty.

BSD-Reference: WD 3

Initial Actions

1. Add media to the Tray.
2. Check the No Paper Sensor Actuator.
3. Check for obstruction of the Pick mechanism.

Procedure

<p style="text-align:center">**WARNING**</p>

Switch off the electricity to the machine. 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 Tray 2 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**

Y   N

   Repair or replace the Tray 2 No Paper Sensor Actuator.

Select dC330 code 07-210 to test the sensor. **The sensor signal changes (high/low).**

Y   N

   Replace the Tray 2 No Paper Sensor (PL 8.15 Item 19), then retest. **The sensor signal changes.**

   Y   N

      Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The sensor signal changes.**

      Y   N

         Replace the MCU Board, REP 3.4.

   Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Revised

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2 Status Indicator RAPS

06-100-00, 06-200-00, 07-110-00

07-120-00 Tray 2 is Open RAP

07-120-00 The Size Switch indicates the Tray is not fully installed.

BSD-Reference: WD 3

Initial Actions

1. Close the Tray.
2. Check the Size Switch.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

    Complete.

Remove Tray 2 and inspect the Size Switch. **The Size Switch is undamaged.**

Y   N

    Replace the Size Switch, REP 7.30, then retest.

Select dC330 code 07-200 to test the switch. **The switch signals change (open/closed).**

Y   N

    Remove the Right Cover (REP 28.2) and reseat CN11 on the MCU Board, then retest. **The sensor signal changes.**

    Y   N

        Replace the MCU Board, REP 3.4.

Replace these components in order until the error is corrected.

1. Size Switch, PL 3.10 Item 9
2. MCU Board, PL 3.10 Item 3

07-130-00 Jam 0 in Tray 2 RAP

07-130-00 Media present at the Take Away Sensor.

BSD-Reference: WD 3

Initial Actions

1. Check media condition.
2. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N

    Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

    Clear the media path of obstructions or debris.

Check Tray 2 pick assembly (PL 8.15) motion. **Pick assembly motion is good.**

Y   N

    Repair improper pick assembly motion.

Select dC330 code 08-820 to test the Feed Clutch. **The clutch is engaged (on/off).**

Y   N

    Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The clutch is engaged.**

    Y   N

        Replace the Feed Clutch, REP 4.2.

    Reassemble and perform SCP 6 Final Actions.

Select dC330 code 04-580 to test the Feed Drive Assembly. **The Feed Drive Assembly rotates (on/off).**

Y   N

    Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The Feed Drive Assembly rotates.**

    Y   N

        Replace the Feed Drive Assembly, REP 4.4.

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS

07-120-00, 07-130-00

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07-210-00 Paper Empty at Tray 3 RAP

07-210-00 The Tray 3 No Paper indicates the Tray is empty.

BSD-Reference: WD 3

Initial Actions

1. Add media to the Tray.
2. Check the No Paper Sensor Actuator.
3. Check for obstruction of the Pick mechanism.

Procedure

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Tray 3 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**
Y   N
    Repair or replace the Tray 3 No Paper Sensor Actuator.

Select dC330 code 07-310 to test the sensor. **The sensor signal changes (high/low).**
Y   N
    Remove the IOT, from the Feeder and check the Upper Option Harness, PL 8.30 Item 10. **The harness is undamaged.**
    Y   N
        Replace the harness, REP 7.31.

    Check the IOT Lower Option Harness. **The harness is undamaged.**
    Y   N
        Replace the IOT Lower Option Harness, REP 10.5.

    Replace the Tray 3 No Paper Sensor (REP 7.35), then retest. **The sensor signal changes.**
    Y   N
        Remove the Right Cover (REP 28.2) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**
        Y   N
            Replace the MCU Board, REP 3.4.

        Reassemble and perform SCP 6 Final Actions.

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

07-220-00 Tray 3 is Open RAP

07-220-00 The Size Switch indicates the Tray is not fully installed.

BSD-Reference: WD 3

Initial Actions

1. Close the Tray.
2. Check the Size Switch.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Remove Tray 3 and inspect the Size Switch. **The Size Switch is undamaged.**
Y   N
    Replace the Size Switch, REP 7.30, then retest.

Select dC330 code 07-300 to test the switch. **The switch signals change (open/closed).**
Y   N
    Remove the Right Cover (REP 28.2) and reseat CN5 on the Feeder Board, then retest. **The sensor signal changes.**
    Y   N
        Replace the Feeder Board, REP 7.28.

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Size Switch, PL 8.30 Item 9
2. Feeder Board, PL 8.30 Item 7
3. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

07-210-00, 07-220-00

07-230-00, 07-231-00 Jam in Tray 3 RAP

07-230-00 Jam 0 at Tray 3. Media did not exit the Tray 3 Pick Assembly.

07-231-00 Check Tray 3 Feed Area. Media remains at the Tray 3 Take Away Sensor.

BSD-Reference: WD 13

Initial Actions

1. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N
 Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
 Clear the media path of obstructions or debris.

Check Tray 3 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**
Y   N
 Repair improper pick assembly motion.

Select dC330 code 08-830 to test the Feed Clutch. **The clutch is engaged (on/off).**
Y   N
 Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**
 Y   N
  Replace the Feed Clutch, REP 8.41.

 Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-930 to test the Feed Drive Assembly. **The assembly rotates (on/off).**
Y   N
 Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**
 Y   N
  Replace the Feed Drive Assembly, REP 8.42.

 Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Feed Assembly, PL 8.40 Item 10
2. Pick Assembly, PL 8.20 Item 17

07-310-00 Paper Empty at Tray 4

07-310-00 The Tray 4 No Paper Sensor indicates Tray 4 is empty.

BSD-Reference: WD 13

Initial Actions

1. Check the No Paper Sensor Actuator.
2. Check for obstruction of the Pick mechanism.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**
Y   N
 Repair or replace the Tray 4 No Paper Sensor Actuator.

Select dC330 code 07-410 to test the sensor. **The sensor signal changes (high/low).**
Y   N
 Remove the IOT and Tray 3. Check the option harness connections. **The harness connectors are undamaged.**
 Y   N
  Replace any damaged harnesses.

 Reassemble the system to exchange Feeder positions. **The error changes to the new feeder position.**
 Y   N
  Check the IOT Lower Option Harness. **The harness is undamaged.**
  Y   N
   Replace the Lower Option Harness, REP 10.5.

  Replace the MCU Board, REP 3.4.

Replace the No Paper Sensor (REP 7.35), then retest. **The signal changes.**
Y   N
 Remove the Right Cover (REP 28.2) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**
 Y   N
  Replace the Feeder Board, REP 7.28.

 Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS
07-230-00, 07-231-00, 07-310-00

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07-320-00 Tray 4 is Open RAP

07-320-00 The Tray 4 Size Switch indicates Tray 4 is open.

BSD-Reference: WD 13

Initial Actions

1.   Close the Tray.
2.   Check the Size Switch.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
| Complete.

Remove Tray 4 and inspect the Size Switch. **The Size Switch is undamaged.**

Y   N
| Replace the Size Switch, REP 7.30, then retest.

Select dC330 code 07-400 to test the switch. **The switch signal changes (open/closed).**

Y   N
| Remove the Right Cover (REP 28.2) and reseat CN5 on the Feeder Board, then retest. **The sensor signal changes.**
|
| **Y   N**
| | Replace the Feeder Board, REP 7.28.
|
| Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1.   Size Switch, PL 8.30 Item 9
2.   Feeder Board, PL 8.30 Item 7
3.   MCU Board, PL 3.10 Item 3

07-330-00, 07-331-00 Jam in Tray 4 RAP

07-330-00 Jam 0 in Tray 4. Media remains in the Tray 4 Pick-up Assembly.

07-331-00 Check Tray 4 Feed Area. Media remains at the Tray 4 Take Away Sensor.

BSD-Reference: WD 13

Initial Actions

1.   Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N
| Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N
| Clear the media path of obstructions or debris.

Check Tray 3 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**

Y   N
| Repair improper pick assembly motion.

Select dC330 code 08-840 to test the Feed Clutch. **The clutch is engaged (on/off).**

Y   N
| Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**
|
| **Y   N**
| | Replace the Feed Clutch, REP 8.41.
|
| Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-940 to test the Feed Drive. **The Feed Drive Assembly rotates (on/ off).**

Y   N
| Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**
|
| **Y   N**
| | Replace the Feed Drive Assembly, REP 8.42.
|
| Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1.   Feed Assembly, PL 8.40 Item 10

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2 Status Indicator RAPS
07-320-00, 07-330-00, 07-331-00

2. Pick Assembly, PL 8.20 Item 17

07-410-00 Paper Empty at Tray 5

07-700-00 The No Paper Sensor indicates Tray 5 is empty.

BSD-Reference: WD 13

Initial Actions

1. Check the No Paper Sensor Actuator.
2. Check for obstruction of the Pick mechanism.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**
Y   N
  Repair or replace the Tray 5 No Paper Sensor Actuator.

Select dC330 code 07-510 to test the sensor. **The sensor signal changes (high/low).**
Y   N
  Remove the IOT, Tray 3 and Tray 4. Check the option harness connections. **The   harness connectors are undamaged.**
  Y   N
    Replace any damaged harnesses.

  Reassemble the system to exchange Feeder positions. **The error changes to the new feeder position.**
  Y   N
    Check the IOT Lower Option Harness. **The harness is undamaged.**
    Y   N
      Replace the Lower Option Harness, REP 10.5.

    Replace the MCU Board, REP 3.4.

  Replace the No Paper Sensor (REP 7.35), then retest. **The signal changes.**
  Y   N
    Remove the Right Cover (REP 28.2) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**
    Y   N
      Replace the Feeder Board, REP 7.28.

    Reassemble and perform SCP 6 Final Actions.

  Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS

07-330-00, 07-331-00, 07-410-00

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07-420-00 Tray 5 is Open RAP

07-420-00 The Size Switch indicates Tray 5 is not completely installed.

BSD-Reference: WD 13

Initial Actions

1. Close the Tray.
2. Check the Size Switch.

Procedure
WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
 Complete.

Remove Tray 5 and inspect the Size Switch. **The Size Switch is undamaged.**
Y   N
 Replace the Size Switch, REP 7.30, then retest.

Select dC330 code 07-500 to test the switch. **The switch signals change (open/closed).**
Y   N
 Remove the Right Cover (REP 28.2) and reseat CN5 on the Feeder Board, then retest. **The sensor signal changes.**
 Y   N
  Replace the Feeder Board, REP 7.28.

 Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Size Switch, PL 8.30 Item 9
2. Feeder Board, PL 8.30 Item 7
3. MCU Board, PL 3.10 Item 3

07-430-00, 07-431-00 Jam in Tray 5 RAP

07-430-00 Jam 0 in Tray 5. Media remains in the Tray 5 Pick-up Assembly.

07-431-00 Check Tray 5 Feed Area. Media remains at the Tray 5 Take Away Sensor.

BSD-Reference: WD 13

Initial Actions

1. Check for obstructions in the media path.

Procedure
WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N
 Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
 Clear the media path of obstructions or debris.

Check Tray 5 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**
Y   N
 Repair improper pick assembly motion.

Select dC330 code 08-855 to test the Feed Clutch. **The clutch is engaged (on/off).**
Y   N
 Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**
 Y   N
  Replace the Feed Clutch, REP 8.41.

 Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-950 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**
Y   N
 Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**
 Y   N
  Replace the Feed Drive Assembly, REP 8.42.

 Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Feed Assembly, PL 8.40 Item 10

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2 Status Indicator RAPS

07-420-00, 07-430-00, 07-431-00

2.   Pick Assembly, PL 8.20 Item 17

07-500-00 Paper Empty in Tray 1 RAP

07-500-00 The Tray 1 No Paper Sensor indicates Tray 1 is empty.

BSD-Reference: WD 5

Initial Actions

1.   Add media to the Tray.

2.   Check the No Paper Sensor Actuator.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Tray 1 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**

Y   N

> Repair or replace the Tray 1 No Paper Sensor Actuator.

Select dC330 code 07-110 to test the sensor. **The sensor signal changes (high/low).**

Y   N

> Replace the Tray 1 No Paper Sensor (REP 7.15), then retest. **The   sensor   signal changes.**
>
> **Y   N**
>
> > Remove the Right Cover (REP 28.2) and reseat CN13 on the MCU Board, then retest. **The sensor signal changes.**
> >
> > **Y   N**
> >
> > > Replace the MCU Board, REP 3.4.
> >
> > Reassemble and perform SCP 6 Final Actions.
>
> Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS

07-430-00, 07-431-00, 07-500-00

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07-510-00, 07-700-00 Paper Empty at Tray 6

07-510-00 The Tray 6 No Paper Sensor indicates Tray 6 is empty.

07-700-00 Tray 6 Out of Paper.

BSD-Reference: WD 13

Initial Actions

1. Check the No Paper Sensor Actuator.

Procedure

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**

Y   N

   Repair or replace the Tray 6 No Paper Sensor Actuator.

Select dC330 code 07-610 to test the sensor. **The sensor signal changes (high/low).**

Y   N

   Remove the IOT, Tray 3, 4 and 5. Check the option harness connections. **The harness connectors are undamaged.**

   Y   N

      Replace any damaged harnesses.

   Exchange Feeder positions. **The error changes to the new feeder position.**

   Y   N

      Check the IOT Lower Option Harness. **The harness is undamaged.**

      Y   N

         Replace the Lower Option Harness, REP 10.5.

      Replace the MCU Board, REP 3.4.

Replace the No Paper Sensor (REP 7.35), then retest. **The signal changes.**

Y   N

   Remove the Right Cover (REP 28.2) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**

   Y   N

      Replace the Feeder Board, REP 7.28.

   Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

07-520-00 Tray 6 is Open RAP

07-520-00 The Size Switch indicates Tray 6 is not completely installed.

BSD-Reference: WD 13

Initial Actions

1. Close the Tray.
2. Check the Size Switch.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

   Complete.

Remove Tray 6and inspect the Size Switch. **The Size Switch is undamaged.**

Y   N

   Replace the Size Switch, REP 7.30, then retest.

Select dC330 code 07-600 to test the switch. **The switch signals change (open/closed).**

Y   N

   Remove the Right Cover (REP 28.2) and reseat CN5 on the Feeder Board, then retest. **The sensor signal changes.**

   Y   N

      Replace the Feeder Board, REP 7.28.

   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Size Switch, PL 8.30 Item 9
2. Feeder Board, PL 8.30 Item 7
3. MCU Board, PL 3.10 Item 3

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07-510-00, 07-700-00, 07-520-00

07-530-00 Jam 0 in Tray 1 RAP

07-530-00 Media remains in the Tray 1 Feeder.

BSD-Reference: WD 5

Initial Actions

1. Check media condition.
2. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Feed and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N

>   Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

>   Clear the media path of obstructions or debris.

Select dC330 code 08-810 to test the Tray 1 Feed Clutch. **The clutch is engaged (on/off).**

Y   N

>   Remove the Right Cover (REP 28.2) and reseat CN13 on the MCU Board, then retest. **The clutch is engaged.**
>
>   **Y   N**
>
> >   Replace the Feed Clutch, REP 7.16.
>
>   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-820 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**

Y   N

>   Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The Feed Drive Assembly rotates.**
>
>   **Y   N**
>
> >   Replace the Feed Drive Assembly, REP 4.4.
>
>   Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

07-531-00, 07-630-00 Jam in Tray 6 RAP

07-531-00 Check Tray 6 Feed Area. Media remains in the Tray 6 Take Away Sensor.

07-630-00 Jam 0 in Tray 6. Media remains at the Tray 6 Pick-up Assembly.

BSD-Reference: WD 13

Initial Actions

1. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N

>   Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

>   Clear the media path of obstructions or debris.

Check Tray 6 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**

Y   N

>   Repair improper pick assembly motion.

Select dC330 code 08-856 to test the Tray 6 Feed Clutch. **The clutch is engaged (on/off).**

Y   N

>   Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**
>
>   **Y   N**
>
> >   Replace the Feed Clutch, REP 8.41.
>
>   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-960 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**

Y   N

>   Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**
>
>   **Y   N**
>
> >   Replace the Feed Drive Assembly, REP 8.42.
>
>   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Feed Assembly, PL 8.40 Item 10

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2. Pick Assembly, PL 8.20 Item 17

07-710-00 HCF Out of Paper

07-710-00 The HCF No Paper Sensor indicates the HCF is empty.

NOTE: Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.

BSD-Reference: WD 16

Initial Actions

- Check the No Paper Sensor Actuator.
- Check for obstructions lift plate movement.

Procedure

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
    Complete.

Check the No Paper Sensor Actuator. **The actuator is undamaged and motion is good.**

Y   N
    Repair or replace the No Paper Sensor Actuator.

Select dC330 code for the No Paper Sensor based on HCF position. **The   sensor   signal changes (high/low).**

Y   N
    Replace the No Paper Sensor (REP 8.50), then retest. **The sensor signal changes.**

    Y   N
        Remove the IOT and installed Feeders. Check the option harness connections. **The harnesses are undamaged.**

        Y   N
            Replace any damaged harnesses.

        Check the IOT Lower Option Harness. **The harness is undamaged.**

        Y   N
            Replace the Lower Option Harness, REP 10.5.

        Remove the Right Cover REP 7.39, reseat CN3 on the HCF Control Board, then retest. **The sensor signal changes.**

        Y   N
            Replace the HCF Control Board, REP 7.44.

        Reassemble and perform SCP 6 Final Actions.

A   B

A B

Reassemble and perform SCP 6 Final Actions.

Raise and lower the lower lift plate. The **lower lift plate moves up and down smoothly.**

Y   N

Repair or replace damaged components.

Check Pick-up Assembly (PL 8.25) motion. **Pick assembly motion is good.**

Y   N

Repair improper Pick-up Assembly motion.

Replace these components in order until the error is corrected.

1. Pick-up Assembly, PL 8.25 Item 16
2. HCF Control Board, PL 7.25 Item 18
3. MCU Board, PL 3.10 Item 3

07-720-00 HCF Door is Open RAP

07-720-00 The Front Door Interlock Switch indicates the HCF Front Door is open.

NOTE: Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.

BSD-Reference: WD 16

Initial Actions

• Check the interlock actuator located on the Front Door.

• Check for obstructions blocking the interlock switch.

Procedure

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N

Complete.

Check the HCF Front Door interlock actuator. **The actuator is undamaged.**

Y   N

Repair the Front Door actuator.

Select dC330 code for Tray Home Position (07-300, 400, or 500) based on HCF position to test the HCF Front Door Interlock Switch. **The signal changes (open/closed).**

Y   N

<div align="center">

CAUTION

</div>

The Front Door Interlock Switch is easily damaged. Use care while removing or installing the HCF left cover.

Remove the Left Cover (REP 7.40) and check contact of the Front Door Interlock Switch (REP 7.43) and Front Door actuator. **The actuator and switch make proper contact.**

Y   N

Adjust or replace the Front Door Interlock Switch.

Remove the Right Cover (REP 7.39), reseat CN3 on the HCF Control Board, then retest. **The signal changes.**

Y   N

Replace the Front Door Interlock Switch (REP 7.43), then retest. **The   signal changes.**

Y   N

Remove the IOT and installed Feeders. Check the option harness connections. **The harnesses are undamaged.**

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Y   N
    Replace the damaged harnesses.

Check the IOT Lower Option Harness. **The harness is undamaged.**
Y   N
    Replace the Lower Option Harness, REP 10.5.

Replace the HCF Control Board (REP 7.44), then retest. **The signal changes.**
Y   N
    Replace the MCU Board, REP 3.4.

Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Front Door Interlock Switch, PL 11.30 Item 4
2. HCF Control Board, PL 7.25 Item 18
3. MCU Board, PL 3.10 Item 3

07-730-00, 07-731-00 Jam in HCF RAP

07-700-00 Jam 0 in HCF. Media remains in the Pick Assembly.

07-731-00 Media jam at the HCF take away roller.

NOTE: Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.

BSD-Reference: WD 16

Initial Actions

1. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N
    Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
    Clear the media path of obstructions or debris.

Check HCF Pick Assembly (PL 8.25 Item 16) motion. **Pick assembly motion is good.**
Y   N
    Repair improper pick assembly motion.

Select dC330 code (08-830, 840 or 855) based on HCF position to test the HCF Feed Clutch. **The clutch is engaged (on/off).**
Y   N
    Remove the Right Cover (REP 7.39) and reseat CN9 on the HCF Control Board, then retest. **The clutch is engaged.**
    Y   N
        Replace the Feed Clutch, REP 7.46.

    Reassemble and perform SCP 6 Final Actions.

Select dC330 code (08-930, 940 or 950) based on HCF position to test the HCF Feed Drive Assembly. **The Feed Drive Assembly rotates (on/off).**
Y   N
    Remove the Right Cover (REP 7.39) and reseat CN7 on the HCF Control Board, then retest. **The Feed Drive Assembly rotates.**
    Y   N
        Replace the Feed Drive Assembly, REP 7.47.

A   B

A   B
| Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Feed Assembly, PL 7.25 Item 10
2. Pick Assembly, PL 8.25 Item 16

08-100-00 Jam 1 in Registration RAP

08-100-00 Media remains in the Registration Rollers.

BSD-Reference: WD 6

Initial Actions

• Check the media.

• Check Toner and Drum Cartridge installation.

• Check for obstructions blocking the media path.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Registration Rollers for excessive wear, poor spring tension or contamination. **The rollers are undamaged and clean.**
Y   N
| Clean or replace the Registration Roller Assembly, REP 8.27.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
| Clear the media path of obstructions or debris.

Select dC330 code 08-850 to test the Registration Clutch. **The clutch is engaged (on/off).**
Y   N
| Remove the Right Cover (REP 28.2) and reseat CN5 and P/J36, then retest. **The clutch is engaged.**
| Y   N
| | Replace the Registration Clutch, REP 4.3.
|
| Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-820 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**
Y   N
| Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The Feed Drive Assembly rotates.**
| Y   N
| | Replace the Feed Drive Assembly, REP 4.4.
|
| Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Registration Roller Assembly, PL 8.45 Item 12
2. Registration Clutch, PL 4.10 Item 7

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08-110-00 Feed Motor Failure RAP

08-110-00 The Feed Drive Assembly failed to rotate.

BSD-Reference: WD 3

Initial Actions

- Check all interlocks.
- Check for obstructions blocking motor rotation.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
   Complete.

Select dC330 code 08-820 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**
Y   N
   Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The Feed Drive Assembly rotates.**
   Y   N
      Manually rotate the feed motor. **The motor rotates freely.**
      Y   N
         Check for obstructions in the media path. If no obstructions are present, replace the Feed Drive Assembly, REP 4.4.

      Replace the Feed Drive Assembly, REP 4.4.

   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. MCU Board, PL 3.10 Item 3
2. HVPS, PL 1.10 Item 1

08-200-00 Jam in Tray 2 RAP

08-200-00 Media remains in the Tray 2 Pick-up Assembly.

BSD-Reference: WD 3

Initial Actions

1. Check media condition.
2. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N
   Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
   Clear the media path of obstructions or debris.

Select dC330 code 08-100 to test the Take Away Sensor. **The sensor signal changes (high/low).**
Y   N
   Remove the Right Cover (REP 7.25) and reseat CN12 on the MCU Board, then retest. **The sensor signal changes.**
   Y   N
      Replace the sensor.

   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-820 to test the Feed Clutch. **The clutch is engaged (on/off).**
Y   N
   Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The clutch is engaged.**
   Y   N
      Replace the Feed Clutch, REP 4.2.

   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-820 to test the Feed Drive Assembly. **The Feed Drive Assembly rotates (on/off).**
Y   N
   Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The Feed Drive Assembly rotates.**
   Y   N
      Replace the Feed Drive Assembly, REP 4.4.

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Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

08-300-00 Jam in Tray 3 RAP

08-300-00 Media remains in the Tray 3 Pick-up Assembly.

BSD-Reference: WD 13

Initial Actions

1. Check media condition.
2. Check for obstructions in the media path.
3. Check for worn or damaged rollers.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N

Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N

Clear the media path of obstructions or debris.

Check Tray 3 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**
Y   N

Repair improper Pick-up Assembly motion.

Select dC330 code 08-300 to test the Take Away Sensor. **The sensor signal changes (high/ low).**
Y   N

Remove the Right Cover (REP 7.25) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**
Y   N

Replace the sensor, REP 8.44.

Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-830 to test the Feed Clutch. **The clutch is engaged (on/off).**
Y   N

Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**
Y   N

Replace the Feed Clutch, REP 8.41.

Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-930 to test the Feed Drive. **The Feed Drive Assembly rotates (on/ off).**

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Y   N

   Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**

   Y   N

      Replace the Feed Drive Assembly, REP 8.42.

   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1.   Feed Assembly, PL 8.40 Item 10
2.   Pick Assembly, PL 8.20 Item 17

08-400-00 Jam in Tray 4 RAP

08-400-00 Media remains in the Tray 4 Pick-up Assembly.

BSD-Reference: WD 13

Initial Actions

1.   Check media condition.
2.   Check for obstructions in the media path.
3.   Check for worn or damaged rollers.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N

   Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

   Clear the media path of obstructions or debris.

Check Tray 3 Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**

Y   N

   Repair improper pick assembly motion.

Select dC330 code 08-400 to test the Take Away Sensor. **The sensor signal changes (high/low).**

Y   N

   Remove the Right Cover (REP 7.25) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**

   Y   N

      Replace the sensor, REP 8.44.

   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-840 to test the Feed Clutch. **The clutch is engaged (on/off).**

Y   N

   Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**

   Y   N

      Replace the Feed Clutch, REP 8.41.

   Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-940 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**

Y   N

　　Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest. **The Feed Drive Assembly rotates.**

　　Y   N

　　　　Replace the Feed Drive Assembly, REP 8.42.

　　Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1.　Feed Assembly, PL 8.40 Item 10
2.　Pick Assembly, PL 8.20 Item 17

08-450-00 Jam in Tray 5 RAP

08-450-00 Media remains in the Tray 5 Pick Assembly.

BSD-Reference:　　WD 13

Initial Actions

1.　Check media condition.
2.　Check for obstructions in the media path.
3.　Check for worn or damaged rollers.

Procedure

WARNING

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N

　　Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

　　Clear the media path of obstructions or debris.

Check the Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**

Y   N

　　Repair improper pick assembly motion.

Select dC330 code 08-550 to test the Take Away Sensor. **The sensor signal changes (high/low).**

Y   N

　　Remove the Right Cover (REP 7.25) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**

　　Y   N

　　　　Replace the sensor, REP 8.44.

　　Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-855 to test the Feed Clutch. **The clutch is engaged (on/off).**

Y   N

　　Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest. **The clutch is engaged.**

　　Y   N

　　　　Replace the Feed Clutch, REP 8.41.

　　Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-950 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**

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Y   N

  Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest.
  The Feed Drive Assembly rotates.

  Y   N

    Replace the Feed Drive Assembly, REP 8.42.

  Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Feed Assembly, PL 8.40 Item 10
2. Pick Assembly, PL 8.20 Item 17

08-500-00 Jam 2 in Fuser Exit RAP

08-500-00 Media remains in the Fuser exit.

BSD-Reference: WD 4

Initial Actions
*   Check the media.
*   Check for obstructions in the media path.
*   Check Fuser installation and condition.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

WARNING

</div>

Do not touch the Fuser while it is hot.

Check the Fuser Gear for damage. **The gear is undamaged.**

Y   N

  Replace the Fuser Gear, REP 10.14.

Check the Fuser Heat and Pressure rollers. **The rollers rotate freely and are clean**

Y   N

  Replace Fuser components as needed to restore proper operation:

  *   Heat Roller and Bearings, PL 10.11 Item 12
  *   Pressure Roller and Bearings, PL 10.11 Item 3
  *   Fuser Gear, PL 10.11 Item 14

Select dC330 code 10-400 to test the Fuser Drive Assembly. **The Fuser Drive Assembly rotates (on/off).**

Y   N

  Remove the Right Cover (REP 28.2) and reseat CN5 on the MCU Board, then retest. **The Fuser Drive Assembly rotates.**

  Y   N

    Replace the Fuser Drive Assembly, REP 10.8.

  Reassemble and perform SCP 6 Final Actions.

Refer to WD 8 and select dC330 code 10-900 to test the Fuser Release Drive. **The Fuser Release Drive rotates (on/off).**

Y   N

  Remove the Left Cover (REP 28.3) and reseat CN1 on the Joint Board, then retest. **The Fuser Release Drive rotates.**

  Y   N

    Replace the Fuser Release Drive, REP 10.17.

  Reassemble and perform SCP 6 Final Actions.

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Test the Exit Drive Assembly. **The Exit Drive rotates the exit rollers.**

Y   N

> Remove the Right Cover (REP 28.2) and reseat CN5 on the MCU Board. **The exit rollers rotate.**
>
> **Y   N**
>
> > Replace the Exit Drive Assembly, REP 10.32.
>
> Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Fuser, PL 10.10 Item 1 (110V) PL 10.10 Item 2 (220V)
2. MCU Board, PL 3.10 Item 3

08-600-00 Jam 0 in Duplex Unit RAP

08-500-00 Media jam at the rear of the Duplex Unit.

BSD-Reference: WD 3

Initial Actions

1. Check media condition.
2. Check the Rear Door latch.
3. Check for obstructions in the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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 Duplex Unit transport components for damage or excessive wear. **The rollers are undamaged and clean.**

Y   N

> Clean or replace the Duplex Unit, PL 10.25 Item 26.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

> Clear the media path of obstructions or debris.

Check the Fuser thumbscrews. **The Fuser thumbscrews are tight.**

Y   N

> Tighten the thumbscrews

Check the condition of the Duplex Unit Timing Belt, PL 10.25 Item 11. **The belt is undamaged.**

Y   N

> Replace the Timing Belt, REP 10.19.

Check the exit gate and duplex roller. The exit gate and duplex roller move freely.

Y   N

> Replace the Exit Assembly, REP 10.6.

Select dC330 code 04-230 to test the Duplex Drive Assembly. **The Duplex Drive Assembly rotates (on/off).**

Y   N

> Remove the Right Cover (REP 28.2) and reseat CN11 on the MCU Board, then retest. **The Duplex Drive Assembly rotates.**
>
> **Y   N**
>
> > Replace the Duplex Drive Assembly, REP 10.9.
>
> Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS

08-500-00, 08-600-00

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08-610-00 Jam 1 in Duplex Unit RAP

08-500-00 Media jam at the front of the Duplex Unit.

BSD-Reference: WD 3

Initial Actions

1. Check media condition.
2. Check the position of the Duplex Unit media size switch.

Procedure

WARNING

Switch off the electricity to the machine. 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 Duplex Unit transport components for damage or excessive wear. **The rollers are undamaged and clean.**

Y   N

    Clean or replace the Duplex Unit, PL 10.25 Item 26.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N

    Clear the media path of obstructions or debris.

Check the condition of the Duplex Unit Timing Belt, PL 10.25 Item 11. **The belt is undamaged.**

Y   N

    Replace the Timing Belt, REP 10.19.

Select dC330 code 08-700 to test the Duplex Feed Sensor. **The sensor signal changes (high/low).**

Y   N

    Remove the Right Cover (REP 28.2) and reseat CN12 on the MCU Board, then retest. **The sensor signal changes.**

    Y   N

        Replace the sensor, PL 8.15 Item 19.

    Reassemble and perform SCP 6 Final Actions.

Select dC330 code 04-230 to test the Duplex Drive Assembly. **The Duplex Drive Assembly rotates in both directions.**

Y   N

    Remove the Right Cover (REP 28.2) and reseat CN11 on the MCU Board, then retest. **The Duplex Drive Assembly rotates.**

    Y   N

        Replace the Duplex Drive Assembly, REP 10.9.

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

08-650-00 Duplex Unit Not Installed RAP

08-650-00 Duplex Unit Detect Sensor indicates the Duplex Unit is not installed.

BSD-Reference: WD 8

Initial Actions

• Reseat the Duplex Unit.
• Check for obstructions blocking the sensor.

Procedure

WARNING

Switch off the electricity to the machine. 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 Duplex Unit where the housing actuates the Duplex Unit Detect Sensor. **The actuator area is undamaged.**

Y   N

    Replace the Duplex Unit.

Check the Duplex Unit Detect Sensor for damage or disconnection. **The sensor is connected and undamaged.**

Y   N

    Reconnect or replace the sensor, REP 10.18.

Check the Duplex Unit Detect Sensor. **The sensor is connected and undamaged.**

Y   N

    Replace the sensor (REP 10.18), then retest. **The error is displayed.**

    Y   N

        Remove the Left Cover (REP 28.3) and reseat CN1 on the Joint Board, then retest. **The sensor signal changes.**

        Y   N

            Replace the Joint Board, REP 9.8.

        Reassemble and perform SCP 6 Final Actions.

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

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2 Status Indicator RAPS

08-610-00, 08-650-00

08-800-00 Jam in Tray 6 RAP

08-800-00 Media remains in the Tray 6 Pick Assembly.

BSD-Reference: WD 14

Initial Actions

1. Check media condition.
2. Check for obstructions in the media path.
3. Check for worn or damaged rollers.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**

Y   N
  | Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**

Y   N
  | Clear the media path of obstructions or debris.

Check Pick Assembly (PL 8.20 Item 17) motion. **Pick assembly motion is good.**

Y   N
  | Repair improper pick assembly motion.

Select dC330 code 08-650 to test the Take Away Sensor. **The sensor signal changes (high/low).**

Y   N
  | Remove the Right Cover (REP 7.25) and reseat CN3 on the Feeder Board, then retest.
  | **The sensor signal changes.**
  | **Y   N**
  | | Replace the sensor, REP 8.44.
  |
  | Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-856 to test the Feed Clutch. **The clutch is engaged (on/off).**

Y   N
  | Remove the Right Cover (REP 7.25) and reseat CN9 on the Feeder Board, then retest.
  | **The clutch is engaged.**
  | **Y   N**
  | | Replace the Feed Clutch, REP 8.41.
  |
  | Reassemble and perform SCP 6 Final Actions.

Select dC330 code 08-960 to test the Feed Drive. **The Feed Drive Assembly rotates (on/off).**

Y   N
  | Remove the Right Cover (REP 7.25) and reseat CN7 on the Feeder Board, then retest.
  | **The Feed Drive Assembly rotates.**
  | **Y   N**
  | | Replace the Feed Drive Assembly, REP 8.42.
  |
  | Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Feed Assembly, PL 8.40 Item 10
2. Pick Assembly, PL 8.20 Item 17

2 Status Indicator RAPS

08-800-00

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08-850-00 Jam in HCF RAP

08-850-00 HCF jam.

NOTE: *Optional Tray numbering varies by configuration. When testing HCF components, use the dC330 codes appropriate for the HCF's position. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 control codes.*

BSD-Reference: WD 16

Initial Actions

1.   Check media condition.
2.   Check for obstructions in the media path.
3.   Check for worn or damaged rollers.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Nudger, Feed, and Separator Rollers for excessive wear or contamination. **The rollers are undamaged and clean.**
Y   N
| Clean or replace the rollers.

Check for obstructions or debris in the media path. **The media path is clear.**
Y   N
| Clear the media path of obstructions or debris.

Check HCF Pick Assembly (PL 8.25 Item 16) motion. **Pick assembly motion is good.**
Y   N
| Repair improper pick assembly motion.

Select dC330 code (08-300, 08-400 or 08-550) based on HCF position to test the Take Away Sensor. **The sensor signal changes (high/low).**
Y   N
| Remove the Right Cover (REP 7.25) and reseat CN3 on the Feeder Board, then retest. **The sensor signal changes.**
| **Y   N**
| | Replace the sensor, REP 8.44.
|
| Reassemble and perform SCP 6 Final Actions.

Select dC330 code (08-830, 840 or 855) based on HCF position to test the HCF Feed Clutch. **The clutch is engaged (on/off).**
Y   N
| Remove the Right Cover (REP 7.39) and reseat CN9 on the HCF Control Board, then retest. **The clutch is engaged.**
| **Y   N**
| | Replace the Feed Clutch, REP 7.46.

A   B

A   B
Reassemble and perform SCP 6 Final Actions.

Select dC330 code (08-930, 940 or 950) based on HCF position to test the HCF Feed Drive Assembly. **The Feed Drive Assembly rotates (on/off).**
Y   N
| Remove the Right Cover (REP 7.39) and reseat CN7 on the HCF Control Board, then retest. **The Feed Drive Assembly rotates.**
| **Y   N**
| | Replace the Feed Drive Assembly, REP 7.47.
|
| Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1.   Feed Assembly, PL 7.25 Item 10
2.   Pick Assembly, PL 8.25 Item 16

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2 Status Indicator RAPS

08-850-00

09-003-00 Developer Motor Failure RAP

09-003-00 A drum motor error occurred in the Main Drive Assembly.

BSD-Reference: WD 4

Initial Actions
- Check the Drum Cartridge
- Cycle system power

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**

Y   N
 | Complete.
 |

Check for obstructions or debris in the media path blocking drum rotation. Remove the Drum Cartridge and clear any debris. **The media path is clear.**

Y   N
 | Clear the media path of obstructions or debris.
 |

Select dC330 code 04-181 to test the drum motor. **The motor rotates (on/off).**

Y   N
 | Remove the Right Cover (REP 28.2) and reseat CN5 on the MCU Board, then retest. **The motor rotates.**
 |
 | **Y   N**
 | | Replace the Main Drive Assembly, REP 4.1.
 | |
 | Reassemble and perform SCP 6 Final Actions.
 |

Replace these components in order until the error is corrected.
1. Drum Cartridge, PL 9.10 Item 1
2. Main Drive Assembly, PL 4.10 Item 1
3. MCU Board, PL 3.10 Item 3

09-100-00 Toner Low RAP

09-100-00 Toner is almost empty. Possible low Toner, or toner unevenly distributed.

BSD-Reference: WD 7

Initial Actions
- Check Toner Cartridge life count.
- Gently agitate the cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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 Toner Cartridge life counter. **Life count is at or near end of life.**

Y   N
 | Cycle system power. **The error message is displayed.**
 |
 | **Y   N**
 | | Reassemble and perform SCP 6 Final Actions.
 | |
 | Replace the Toner Cartridge. **The error message is displayed.**
 |
 | **Y   N**
 | | Reassemble and perform SCP 6 Final Actions.
 | |
 | Replace the Joint Board, REP 9.8.
 |

Replace the Toner Cartridge.

2 Status Indicator RAPS
09-003-00, 09-100-00

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09-200-00, 09-220-00 Toner Empty RAP

09-200-00 Toner Cartridge has reached end of life.

09-220-00 Toner Cartridge has reached end of life.

BSD-Reference: WD 7

Initial Actions

- Check Toner Cartridge life count.
- Replace the Toner Cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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 Toner Cartridge life counter. **Life count at end of life.**
Y   N
 Cycle system power. **The error message is displayed.**
 Y   N
  Reassemble and perform SCP 6 Final Actions.

 Replace the Toner Cartridge. **The error message is displayed.**
 Y   N
  Reassemble and perform SCP 6 Final Actions.

 Replace the Joint Board, REP 9.8.

Replace the Toner Cartridge.

09-210-00, 09-270-00 Toner (ADC) Sensor Error RAP

09-210-00 ADC Sensor error.

09-270-00 ADC Sensor communications errors or failure.

BSD-Reference: WD 6

Initial Actions

- Cycle system power.
- Check for obstructions, debris, or accumulations of toner blocking the ADC Sensor and shutter.
- Check Toner Cartridge life count.
- Check Drum Cartridge life count.

Procedure

WARNING

Switch off the electricity to the machine. 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 ADC Sensor shutter. **Shutter motion is unobstructed.**
Y   N
 Clear the obstructions or repair the damage. **The error message is displayed.**
 Y   N
  Reassemble and perform SCP 6 Final Actions.

 Replace the ADC Sensor, REP 9.2. **The error message is displayed.**
 Y   N
  Reassemble and perform SCP 6 Final Actions.

 Remove the Right Cover (REP 28.2) and reseat CN15 on the MCU Board. **The   error message is displayed.**
 Y   N
  Reassemble and perform SCP 6 Final Actions.

 Replace the MCU Board, REP 9.8.

Replace the ADC Sensor, REP 9.2. **The error message is displayed.**
Y   N
 Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. HVPS, REP 1.4
2. Toner Cartridge
3. Drum Cartridge, PL 9.10 Item 1
4. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

09-200-00, 09-220-00, 09-210-00, 09-270-00

09-230-00, 09-250-00 Toner Cartridge CRUM Write/Read Error RAP

09-230-00 Fail to write the information to the Toner Cartridge CRUM.

09-230-00 Fail to read the information from the Toner Cartridge CRUM.

BSD-Reference: WD 7

Initial Actions

*   Cycle system power.
*   Replace the Toner Cartridge.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Toner Cartridge CRUM connection. **The connection is clean and undamaged.**
Y   N

 Cycle system power. **The error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Replace the Toner Cartridge. **The error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The   error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Replace the MCU Board, REP 9.8.

Remove the Left Cover (REP 28.3) and check the toner CRUM harness. **The harness is connected and undamaged.**
Y   N

 Repair or reconnect the harness.

Replace these components in order until the error is corrected.
1.   Joint Board, PL 9.15 Item 7
2.   MCU Board, PL 3.10 Item 3

09-240-00 Toner Cartridge Communications Error RAP

09-240-00 Fail to communicate with the Toner Cartridge CRUM.

NOTE: Messages are different based on the Toner Fault Count.

BSD-Reference: WD 7

Initial Actions

*   Cycle system power.
*   Replace the Toner Cartridge.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Toner Cartridge CRUM connection. **The connection is clean and undamaged.**
Y   N

 Cycle system power. **The error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Replace the Toner Cartridge. **The error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The   error message is displayed.**
 Y   N

  Reassemble and perform SCP 6 Final Actions.

 Replace the MCU Board, REP 9.8.

Remove the Left Cover (REP 28.3) and check the toner CRUM harness. **The harness is connected and undamaged.**
Y   N

 Repair or reconnect the harness.

Replace these components in order until the error is corrected.
1.   Joint Board, PL 9.15 Item 7
2.   MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS
09-230-00, 09-250-00, 09-240-00

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09-271-00 Clean ID (ADC) Sensor RAP

09-271-00 ADC Sensor is dirty.

BSD-Reference: WD 6

Initial Actions

- Remove the Toner and Drum Cartridges and clean the surface of the ADC Sensor
- Check for obstructions blocking the ADC Sensor shutter.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Clean the ADC Sensor using a clean, lint-free cloth or cotton swab. **The error message is displayed.**

Y   N

| Reassemble and perform SCP 6 Final Actions.

Follow procedures in 09-210-00, 09-270-00 to correct the ADC Sensor error.

09-290-00 Adjusting Image Quality RAP

09-290-00 Automated image quality routine in progress. The printer idles and adjusts process parameters until they fall within established setpoints.

Listed are situations where the status message is displayed:
- Toner density adjustments (ADC)
- Toner mixing at warm-up or ready
- Toner supply at warm-up or ready
- Adjust internal temperature
- Adjust fusing temperature

These messages can appear as media type changes while fusing temperature is adjusted to the new media type.

Initial Actions

- Cycle system power.
- Allow the automatic process to complete.

Procedure

If the printer is unsuccessful in automatically adjusting image quality, an error appears indicating the problem. Use the information above to isolate the problem.

09-300-00 Drum Warning RAP

09-300-00 The drum cartridge is near end of life.

BSD-Reference: WD 6

Initial Actions

• Check Drum Cartridge life count. Replace if at or near end of life.
• Reseat the Drum Cartridge.

Procedure

<p style="text-align:center"><b style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 Drum Cartridge life counter. **Life count is at or near end of life.**
Y   N

> Cycle system power. **The error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Replace the Drum Cartridge. **The error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Remove the Right Cover (REP 28.2) and reseat CN16 on the MCU Board. **The   error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Replace the MCU Board, REP 9.8.

Replace the Drum Cartridge.

09-400-00 Replace Drum Cartridge RAP

09-400-00 The Drum Cartridge has reached end of life.

BSD-Reference: WD 6

Initial Actions

• Check Drum Cartridge life count. Replace if at or near end of life.

Procedure

<p style="text-align:center"><b style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 Drum Cartridge life counter. **Life count is at end of life.**
Y   N

> Cycle system power. **The error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Replace the Drum Cartridge. **The error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Remove the Right Cover (REP 28.2) and reseat CN16 on the MCU Board. **The   error message is displayed.**
> **Y   N**
>
>> Reassemble and perform SCP 6 Final Actions.
>
> Replace the MCU Board, REP 9.8.

Replace the Drum Cartridge.

2 Status Indicator RAPS
09-300-00, 09-400-00

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09-500-00 Toner Cartridge Not Installed RAP

09-500-00 The toner cartridge is not installed or the CRUM did not properly connect.

BSD-Reference: WD 7

Initial Actions
• Cycle system power.
• Replace the Toner Cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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 Toner Cartridge CRUM connection. **The connection is clean and undamaged.**
Y   N
    Cycle system power. **The error message is displayed.**
    Y   N
        Reassemble and perform SCP 6 Final Actions.

    Replace the Toner Cartridge. **The error message is displayed.**
    Y   N
        Reassemble and perform SCP 6 Final Actions.

    Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The   error message is displayed.**
    Y   N
        Reassemble and perform SCP 6 Final Actions.

    Replace the MCU Board, REP 9.8.

Remove the Left Cover (REP 28.3) and check the CRUM harness. **The   harness   is   connected and undamaged.**
Y   N
    Repair or reconnect the harness.

Replace these components in order until the error is corrected.
1.   Joint Board, PL 9.15 Item 7
2.   MCU Board, PL 3.10 Item 3

09-508-00 Waste Toner Cartridge Near Full RAP

09-508-00 Waste Toner Cartridge is near end of life.

BSD-Reference: WD 7

Initial Actions
• Replace the Waste Toner Cartridge.
• Check for dust or toner blocking the sensor window on the cartridge.

Procedure

A replacement Waste Toner Cartridge is included with each new Toner Cartridge. When installing a new Toner Cartridge, install the new Waste Toner Cartridge. When this error occurs, replace both components.

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2 Status Indicator RAPS

09-500-00, 09-508-00

09-589-00 Waste Toner Cartridge Full RAP

09-589-00 The Waste Toner Full Sensor indicates the cartridge is full.

BSD-Reference: WD 7

Initial Actions

• Replace the Waste Toner and Toner Cartridges.

• Check for dust covering the sensor window on the cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Replace the Waste Toner and Toner Cartridges. **The error message is displayed.**

Y   N

    Reassemble and perform SCP 6 Final Actions.

Remove the Left Cover (REP 28.3) and check sensor harness connections and condition. **The harness is clean, connected and undamaged.**

Y   N

    Repair or reconnect the harness.

Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The error message is displayed.**

Y   N

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Waste Toner Full Sensor, PL 9.15 Item 5

2. Joint Board, PL 9.15 Item 7

3. MCU Board, PL 3.10 Item 3

09-590-00 Waste Toner Cartridge Not Installed RAP

09-590-00 The Waste Toner Cartridge Detect Sensor indicates the Waste Toner Cartridge is not installed.

BSD-Reference: WD 7

Initial Actions

• Check the actuator on the Waste Toner Cartridge Door.

Procedure

WARNING

Switch off the electricity to the machine. 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 condition of the actuator on the Waste Toner Cartridge Door. **The actuator is undamaged.**

Y   N

    Repair or replace the waste toner cartridge cover, PL 28.10 Item 2

Check the function of the waste toner port on the Waste Toner Cartridge. **The port cover opens when actuated.**

Y   N

    Repair of replace the Waste Toner Cartridge.

Remove the Left Cover (REP 28.3) and check sensor harness connections and condition. **The harness is clean, connected and undamaged.**

Y   N

    Repair or reconnect the harness.

Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The error message is displayed.**

Y   N

    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Waste Toner Cartridge Detect Sensor, PL 9.15 Item 6

2. Joint Board, PL 9.15 Item 7

3. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS
09-589-00, 09-590-00

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09-591-00 Waste Toner Full Sensor Error RAP

09-591-00 An error occurred in the Waste Toner Cartridge Full Sensor.

BSD-Reference: WD 7

Initial Actions
- Cycle system power.
- Check for dust covering the sensor window on the cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Perform SCP 6 Final Actions.

Remove the Left Cover (REP 28.3) and check sensor harness connections and condition. **The harness is clean, connected and undamaged.**
Y   N
    Repair or reconnect the harness.

Remove the Right Cover (REP 28.2) and reseat CN2 on the MCU Board. **The   error   message is displayed.**
Y   N
    Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.
1. Waste Toner Full Sensor, PL 9.15 Item 5
2. Joint Board, PL 9.15 Item 7
3. MCU Board, PL 3.10 Item 3

09-600-00 Drum Cartridge Not Installed RAP

09-600-00 The Drum Cartridge is not installed or the CRUM did not properly connect.

BSD-Reference: WD 6

Initial Actions
- Reseat the DRUM Cartridge.
- Cycle system power.

Procedure

WARNING

Switch off the electricity to the machine. 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 Drum Cartridge CRUM connection. **The connection is clean and undamaged.**
Y   N
    Clean or repair the Drum Cartridge CRUM connection, then retest. **The   error   message is displayed.**
    Y   N
        Reassemble and perform SCP 6 Final Actions.

    Replace the Drum Cartridge, PL 9.10 Item 1.

Remove the Right Cover (REP 28.2) and reseat CN16 on the MCU Board. **The   error   message is displayed.**
Y   N
    Reassemble and perform SCP 6 Final Actions.

Cycle system power. **The error message is displayed.**
Y   N
    Reassemble and perform SCP 6 Final Actions.

Replace the Drum Cartridge. **The error message is displayed.**
Y   N
    Perform SCP 6 Final Actions.

Replace the MCU Board, REP 9.8.

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2 Status Indicator RAPS

09-591-00, 09-600-00

09-700-00 Toner Supply Error RAP

09-700-00 Inadequate toner supply to the Drum Cartridge.

BSD-Reference: WD 5

Initial Actions

- Check the Toner Cartridge for seal tape.
- Cycle system power.

Procedure

<div style="text-align:center"><strong style="color:red">WARNING</div>

Switch off the electricity to the machine. 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 Toner Cartridge. **The Toner Cartridge is installed correctly and the seal tape is removed.**

Y   N
   Remove seal tape if present, then gently agitate the Toner Cartridge and install.

Remove the Right Cover (REP 28.2) and check the Top Door linkage. The linkage is connected and operates freely when the Top Door is raised and lowered.

Y   N
   Repair the Top Door linkage.

Test the toner motor in the Main Drive Assembly. **The motor rotates.**

Y   N
   Reseat CN9 on the MCU Board, then retest the toner motor. **The motor rotates.**

   Y   N
      Replace the Main Drive Assembly, REP 4.1.

   Reassemble and perform SCP 6 Final Actions.

Check all connections between the MCU Board and Main Drive Assembly. **The   harnesses are connected and undamaged.**

Y   N
   Repair or reconnect the harness.

Replace these components in order until the error is corrected.
1. Toner Cartridge
2. Main Drive Assembly, PL 4.10 Item 1
3. MCU Board, PL 3.10 Item 3

09-800-00, 09-810-00 Invalid Toner Cartridge RAP

09-800-00 Invalid Toner Cartridge detected. Unmatched area code, or CRU plan code error.

09-810-00 Non-Xerox Toner Cartridge detected.

BSD-Reference: WD 7

Initial Actions

- Install a genuine Xerox Toner Cartridge.
- Cycle system power.

Procedure

<div style="text-align:center"><strong style="color:red">WARNING</div>

Switch off the electricity to the machine. 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.

Replace the Toner Cartridge with a genuine Xerox cartridge with the proper SKU. **The   error message is displayed.**

Y   N
   Perform SCP 6 Final Actions.

Check the Toner Cartridge CRUM connector. **The connector is clean and undamaged.**

Y   N
   Clean or repair the toner CRUM connector.

Remove the Left Cover (REP 28.3) and check toner CRUM harness connections and condition. **The harness is clean, connected and undamaged.**

Y   N
   Repair or reconnect the harness.

Replace these components in order until the error is corrected.
1. Toner Cartridge
2. Joint Board, PL 9.15 Item 7
3. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS
09-700-00, 09-800-00, 09-810-00

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09-900-00, 09-910-00 Invalid Drum Cartridge RAP

09-900-00 Non-Xerox Drum Cartridge detected.

09-910-00 Non-Xerox Drum Cartridge detected.

BSD-Reference: WD 6

Initial Actions

• Install a genuine Xerox Drum Cartridge.

• Cycle system power.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Replace the Drum Cartridge with a genuine Xerox cartridge with the proper SKU. **The   error message is displayed.**

Y   N
│   Perform SCP 6 Final Actions.

Check the Drum Cartridge CRUM connector. **The connector is clean and undamaged.**

Y   N
│   Clean or repair the CRUM connector.

Remove the Right Cover (REP 28.2) and reseat CN16 on the MCU Board. **The   error   message is displayed.**

Y   N
│   Reassemble and perform SCP 6 Final Actions.

Replace these components in order until the error is corrected.

1. Drum Cartridge
2. MCU Board, PL 3.10 Item 3

09-920-00 Transfer Unit Error RAP

09-910-00 The Transfer Roller high voltage contact point is not connected or is dirty.

BSD-Reference: WD 11

Initial Actions

• Reseat the Transfer Roller.

• Clean the high voltage contact.

Procedure

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Remove the Transfer Roller and inspect the high voltage contact point. **The contact is clean and undamaged.**

Y   N
│   Replace the Transfer Roller.

Select dC330 codes 09-300 and 09-310 to check Transfer Roller bias voltage. **The reading is within the operating range.**

Y   N
│   Remove the Left Cover (REP 28.3) and check the high voltage connection to the HVPS. **The harness is clean, connected and undamaged.**
│   **Y   N**
│   │   Repair or connect the harness.
│
│   Replace the HVPS, REP 1.4.

Replace these components in order until the error is corrected.

1. Transfer Roller, PL 9.10 Item 2
2. HVPS, PL 1.10 Item 1

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2 Status Indicator RAPS

09-900-00, 09-910-00, 09-920-00

10-100-00, 10-200-00, 10-300-00 Fuser Thermal Errors RAP

10-100-00 Open Fuser Circuit Error. The Fuser did not warm up during operation. Thermistor did not connect or contact point is not coupled tightly in power on.

10-200-00 Fuser Low Heat Error. The Fuser could not reach proper temperature, or improper thermistor reading.

10-300-00 Fuser Overheat Error. The Fuser temperature has risen to a very high degree. If the temperature of the Heat Roller increases above the toner-fusing-temperature, parts of Fuser may be thermally degraded. The thermistor is disconnected or providing erroneous readings.

BSD-Reference: WD 11

Initial Actions

• Reseat the Fuser.

• Check for obstructions or damage to the Fuser connection.

Procedure
WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Check the Fuser connector for dirt or damage. **The connector is clean and undamaged.**
Y   N
⎸ Clean or repair the connection.

Select dC330 codes 10-200 and 10-210 to check Heat Roller temperature readings. **The readings are 184-194 degrees C?.**
Y   N
⎸ Replace the Fuser Thermistor, REP 10.11. **The error message is displayed.**
⎸ Y   N
⎸ ⎸ Reassemble and perform SCP 6 Final Actions.
⎸
⎸ Replace the Fuser, REP 10.10.

Remove the Right Cover (REP 28.2) and bottom fuser bracket, Figure 1. Check the Fuser Drive Board, MCU Board (CN10) and HVPS connections. **The harnesses are connected and undamaged.**
Y   N
⎸ Repair or connect the harness.

Use dC330 code 01-300 to check Rear Door Interlock Switch. If good, replace in order...
1. Fuser, PL 10.10 Item 1
2. Fuser Drive Board, PL 1.15 Item 2
3. MCU Board, PL 3.10 Item 3

10-308-00 Fuser Motor Failed RAP

10-308-00 The Fuser Drive Assembly failed to rotate.

BSD-Reference: WD 4

Initial Actions

• Check Fuser Heat Roller movement.

• Check for obstructions in the Fuser.

Procedure
WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Remove the Fuser (REP 10.10) and manually rotate the Heat Roller using the Fuser Gear. **The Heat Roller rotates.**
Y   N
⎸ Clear the obstruction or repair the damage preventing Heat Roller rotation.
⎸ Replace Fuser components as needed to restore proper operation:
⎸ • Heat Roller and Bearings, PL 10.11 Item 12
⎸ • Pressure Roller and Bearings, PL 10.11 Item 3
⎸ • Fuser Gear, PL 10.11 Item 14
⎸ • Fuser, PL 10.10 Item 1

Open the Rear Door and manually rotate the Fuser Drive Assembly. **The Fuser Drive Assembly rotates.**
Y   N
⎸ Replace the Fuser Drive Assembly, REP 10.8.

Select dC330 code 10-400 to test the Fuser Drive Assembly. **The Fuser Drive Assembly rotates.**
Y   N
⎸ Remove the Right Cover (REP 28.2) and reseat CN5 on the MCU Board. **The error message is displayed.**
⎸ Y   N
⎸ ⎸ Reassemble and perform SCP 6 Final Actions.
⎸
⎸ Replace the Fuser Drive Assembly, REP 10.8.

Replace the MCU Board, REP 3.4.

2 Status Indicator RAPS

10-100-00, 10-200-00, 10-300-00, 10-308-00

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10-500-00, 10-510-00 Fuser End of Life RAP

10-500-00 The Fuser life count indicates the Fuser is near end of life.

10-510-00 Fuser has reached end of life.

BSD-Reference: WD 11

Initial Actions

• Check the Fuser life count.
• Cycle system power.

Procedure

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Check the Fuser life count in NVM. **The Fuser life count is at or near end of life.**
Y   N

    Cycle system power. **The error message is displayed.**
    Y   N

        Reassemble and perform SCP 6 Final Actions.

    Remove the Right Cover (REP 28.2) and reseat CN10 on the MCU Board. **The   error message is displayed.**
    Y   N

        Reassemble and perform SCP 6 Final Actions.

    Replace the MCU Board, REP 3.4.

Replace the Fuser, REP 10.10. **The error message is displayed.**
Y   N

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

10-700-00, 10-710-00 Fuser Initial Fuse Error RAP

10-700-00 The fuse on the replacement Fuser did not open after installation.

10-710-00 The status of the initialization fuse is unknown after installation.

BSD-Reference: WD 11

Initial Actions

• Check the Fuser connector.
• Cycle system power.

Procedure

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Check the Fuser connector. **The Fuser connector is clean and undamaged.**
Y   N

    Remove the Right Cover (REP 28.2) and reseat CN10 on the MCU Board. **The   error message is displayed.**
    Y   N

        Reassemble and perform SCP 6 Final Actions.

    Cycle system power. **The error message is displayed.**
    Y   N

        Reassemble and perform SCP 6 Final Actions.

    Replace the MCU Board, REP 3.4.

Replace the Fuser, REP 10.10. **The error message is displayed.**
Y   N

    Reassemble and perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4.

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2 Status Indicator RAPS

10-500-00, 10-510-00, 10-700-00, 10-710-00

12-100-00, 12-487-00 Jam at Finisher Entrance RAP

12-100-00 Media jam at Finisher entrance as indicated by the Finisher entrance sensor.

12-487-00 Media jam at Finisher entrance as reported by the Finisher entrance sensor.

BSD-Reference: WD 17

Initial Actions

• Check media transport through the IOT Exit Assembly.

• Check the Finisher entrance sensor actuator.

• Check for obstructions in the media path.

Procedure

<p style="text-align:center;">**WARNING**</p>

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access the sensor, agitator, and entrance motor.

Check the condition of the Finisher feed rollers. **The feed rollers are clean and rotate freely.**
Y   N
  Clean or repair the affected feed rollers.

Select dC330 code 12-800 to test the Finisher Entrance Sensor. **The sensor signal changes (high/low).**
Y   N
  Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
  Y   N
    Replace the sensor or repair the harness.

  Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-100 to test the Finisher entrance motor, PL 12.40 Item 10. **The motor rotates (on/off).**
Y   N
  Check the entrance motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher right cover. **The harness is undamaged.**
Y   N
  Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

12-200-00 Jam 1 in Finisher RAP

08-500-00 Media did not reach the exit sensor and remains inside the Finisher.

BSD-Reference: WD 17

Initial Actions

• Check the Finisher exit sensor and actuator.

• Check for obstructions blocking the media path.

Procedure

<p style="text-align:center;">**WARNING**</p>

Switch off the electricity to the machine. 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: Remove the Finisher top cover, REP 12.18 to access the sensor and actuator. Use REP 12.5 to access the transport motor.

Check the condition of the Finisher feed rollers. **The feed rollers are clean and rotate freely.**
Y   N
  Clean or repair the affected feed rollers.

Select dC330 code 12-805 to test the Finisher exit sensor. **The sensor signal changes (high/low).**
Y   N
  Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
  Y   N
    Replace the sensor or repair the harness.

  Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-110 to test the Finisher transport motor, PL 12.40 Item 8. **The motor rotates (on/off).**
Y   N
  Check the transport motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
  Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS

12-100-00, 12-487-00, 12-200-00

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12-300-00, 12-488-00, 12-489-00 Jam in Finisher Exit RAP

12-300-00 Media jam at Finisher exit.

12-488-00 Media did not clear the Finisher exit sensor.

12-489-00 Media did not reach the Finisher exit sensor on time.

BSD-Reference: WD 17

Initial Actions

• Check the exit sensor and actuator.

• Check for obstructions blocking the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Finisher top cover, REP 12.18 to access the sensor and actuator. Use REP 12.5 to access the transport motor.

Check the condition of the Finisher feed rollers. **The feed rollers are clean and rotate freely.**
Y   N
       Clean or repair the affected feed rollers.

Select dC330 code 12-805 to test the Finisher exit sensor. **The   sensor   signal   changes (high/low).**
Y   N
       Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
       Y   N
              Replace the sensor or repair the harness.

       Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-110 to test the Finisher Transport Motor, PL 12.40 Item 8. **The   motor rotates (on/off).**
Y   N
       Check the Transport Motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
       Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

12-500-00 Full Stack RAP

12-500-00 The Stack Full Sensor indicates the Finisher Stacker Tray is full.

BSD-Reference: WD 17

Initial Actions

• Check the stacker full sensor actuator.

• Check for obstructions blocking actuator motion.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access the sensor and actuator.

Select dC330 code 12-770 to test the stacker full sensor. **The sensor signal changes (high/low).**
Y   N
       Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
       Y   N
              Replace the sensor or repair the harness.

       Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-885 to test Finisher entrance motor, PL 12.40 Item 10. **The   motor rotates (on/off).**
Y   N
       Check the entrance motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
       Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

12-300-00, 12-488-00, 12-489-00, 12-500-00

12-605-00 Staples Low RAP

12-605-00 The Staple Cartridge is near empty as indicated by the low staple sensor in the Stapler.

BSD-Reference: WD 17

Initial Actions

- Reseat the Staple Cartridge.
- Replace the Staple Cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access the Stapler harness.

Cycle system power. **The error message is displayed.**
Y   N
    Perform SCP 6 Final Actions.

Select dC330 code 12-860 to test the low staple sensor. **The sensor signal changes (high/low) as the staple cartridge is installed or removed.**
Y   N
    Remove the Finisher, GP 14 to check the condition of the Finisher option connector and harness. **The connector and harness are undamaged.**
    Y   N
        Replace the sensor or repair the harness.

    Check Stapler harness connections. **The sensor is connected and the harness undamaged.**
    Y   N
        Repair or reconnect the harness.

    Replace the Stapler, REP 12.14. **The error message is displayed.**
    Y   N
        Reassembly and perform SCP 6 Final Actions.

    Replace the Finisher Control Board, REP 12.2.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-610-00, 12-855-00 Out of Staples RAP

12-610-00 The Stapler Cartridge is empty as indicated by the Stapler self priming sensor.

12-855-00 The Stapler is not properly primed with staples as reported by the self priming sensor.

BSD-Reference: WD 17

Initial Actions

- Reseat the Staple Cartridge.
- Replace the Staple Cartridge.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access the Stapler harness.

Cycle system power. **The error message is displayed.**
Y   N
    Perform SCP 6 Final Actions.

Select dC330 code 12-855 to test the self priming sensor. **The sensor signal changes as the staple cartridge is installed or removed.**
Y   N
    Remove the Finisher, GP 14 to check the condition of the Finisher option connector and harness. **The connector and harness are undamaged.**
    Y   N
        Replace the sensor or repair the harness.

    Check Stapler harness connections. **The sensor is connected and the harness undamaged.**
    Y   N
        Repair or reconnect the harness.

    Replace the Stapler, REP 12.14. **The error message is displayed.**
    Y   N
        Reassembly and perform SCP 6 Final Actions.

    Replace the Finisher Control Board, REP 12.2.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS

12-605-00, 12-610-00, 12-855-00

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12-715-00, 12-716-00 Front Jogger Home Fault RAP

12-715-00 The left tamper did not move from home position as indicated by the Left Tamper Home Position Sensor.

12-716-00 The left tamper did not move to home position as indicated by the Left Tamper Home Position Sensor.

BSD-Reference: WD 17

Initial Actions

- Check for obstructions blocking tamper motion.
- Cycle system power.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Finisher top cover, REP 12.18 to access the tamper motor and left cover REP 12.1 to access the Left Tamper Home Position Sensor.

Select dC330 code 12-815 to test the Left Tamper Home Position Sensor. **The sensor signal changes (high/low).**
Y   N
   Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
   Y   N
      Replace the sensor (REP 12.10), or repair the harness.

   Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-300 to test the tamper motor, PL 12.35 Item 19. **The motor rotates (on/off).**
Y   N
   Check the tamper motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
   Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

12-725-00, 12-726-00 Rear Jogger Home Fault RAP

12-725-00 The right tamper did not move from home position as indicated by the Right Tamper Home Position Sensor.

12-726-00 The right tamper did not move to home position as indicated by the Right Tamper Home Position Sensor.

BSD-Reference: WD 17

Initial Actions

- Check the stacker full sensor actuator.
- Check for obstructions blocking actuator motion.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Finisher top cover, REP 12.18 to access the tamper motor and left cover REP 12.1 to access the Left Tamper Home Position Sensor.

Select dC330 code 12-820 to test the Right Tamper Home Position Sensor. **The sensor signal changes (high/low).**
Y   N
   Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
   Y   N
      Replace the sensor (REP 12.10), or repair the harness.

   Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-320 to test the tamper motor, PL 12.35 Item 19. **The motor rotates (on/off).**
Y   N
   Check the tamper motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
   Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

12-715-00, 12-716-00, 12-725-00, 12-726-00

12-735-00, 12-736-00 Support Finger Home Fault RAP

12-735-00 The eject assembly did not move from home position as indicated by the Eject Home Position Sensor.

12-735-00 The Compile Tray eject assembly did not move to home position as indicated by the Eject Home Position Sensor.

BSD-Reference: WD 17

Initial Actions

• Cycle system power.

• Check for obstructions blocking eject assembly motion.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access eject assembly components.

Select dC330 code 12-825 to test the Eject Home Position Sensor. **The sensor signal changes (high/low).**
Y   N
    Remove the Finisher, GP 14 to check the condition of the Finisher option connector, sensor and harness. **The sensor is connected and the harness undamaged.**
    Y   N
        Replace the sensor, or repair the harness.

    Replace the Finisher Control Board, REP 12.2.

Select dC330 code 12-400 to test the eject motor, PL 12.30 Item 12. **The motor rotates (on/off).**
Y   N
    Check the eject motor connection and harness. Repair or reconnect as necessary.

Check the Finisher option harness in the Finisher Right Cover. **The harness is undamaged.**
Y   N
    Repair the harness.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

12-750-00, 12-755-00 Stapler Fault RAP

12-750-00 The Stapler failed.

12-750-00 The Stapler jaw did not move to home position as indicated by the staple home sensor.

BSD-Reference: WD 17

Initial Actions

• Open the Stapler Cartridge Door and check for obstructions in the Stapler.

• Cycle system power.

Procedure

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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: Remove the Stacker Shield Assembly, REP 12.24 to access the Stapler harness.

Cycle system power. **The error message is displayed.**
Y   N
    Perform SCP 6 Final Actions.

Select dC330 code 12-850 to test the staple home sensor. **The sensor signal changes (high/low).**
Y   N
    Remove the Finisher, GP 14 to check the condition of the Finisher option connector and harness. **The connector and harness are undamaged.**
    Y   N
        Repair the harness.

    Check Stapler harness connections. **The Stapler is connected and the harness undamaged.**
    Y   N
        Repair or reconnect the harness.

    Replace the Stapler, REP 12.14. **The error message is displayed.**
    Y   N
        Reassembly and perform SCP 6 Final Actions.

    Replace the Finisher Control Board, REP 12.2.

Replace these components in order until the error is corrected.
1.   IOT Upper Option Harness, PL 10.30 Item 24
2.   MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS

12-735-00, 12-736-00, 12-750-00, 12-755-00

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12-760-00, 12-770-00 Stacker Fault RAP

12-760-00 The Stacker Tray failed to reach home position.

12-770-00 The Stacker Tray failed to lower.

BSD-Reference: WD 17

Initial Actions
- Open and close the Finisher Rear Door.
- Check for obstructions blocking Stacker Tray movement.

Procedure
WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
> Perform SCP 6 Final Actions.

Select dC330 code 12-600 (down), 12-610 (up) to test the Stacker Drive Assembly. **The Stacker Tray moves up and down.**
Y   N
> Remove the Finisher, GP 14 to check the condition of the Finisher option connector and harness. **The connector and harness are undamaged.**
> **Y   N**
> > Repair the harness.
>
> Remove the Finisher right cover (REP 12.11) and check the stacker drive belt, PL 12.25 Item 10. **The drive belt is undamaged.**
> **Y   N**
> > Repair or replace the belt.
>
> Check harness connections for the Stacker Drive Assembly on the Finisher Control Board. **The drive assembly is connected and the harness undamaged.**
> **Y   N**
> > Repair or reconnect the harness.
>
> Replace the Stacker Drive Assembly, REP 12.15. **The error message is displayed.**
> **Y   N**
> > Reassembly and perform SCP 6 Final Actions.
>
> Replace the Finisher Control Board, REP 12.2.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-870-00 Stapler Safety Not Detected RAP

12-870-00 The Stapler Interlock Switch is open.

BSD-Reference: WD 17

Initial Actions
- Check the Staple Cartridge Door
- Check for obstructions blocking the switch.

Procedure
WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
> Complete.

Check the Staple Cartridge Door interlock actuator. **The actuator is undamaged.**
Y   N
> Repair or replace the Finisher right cover, REP 12.11.

Remove the Finisher Right Cover (REP 12.11) and check the Interlock Switch (PL 12.45 Item 4). **The switch is undamaged and the connections are secure.**
Y   N
> Connect, repair, or replace (REP 12.13) the switch.

Select dC330 code 12-890 to test the Stapler Cartridge Door Interlock Switch. **The switch signal changes (open/closed).**
Y   N
> Replace the switch, REP 12.13.

Check the Finisher option harness in the Finisher right cover. **The harness is undamaged.**
Y   N
> Repair the harness.

Replace these components in order until the error is corrected.
1. Staple Cartridge Door Interlock Switch, PL 12.45 Item 4
2. Finisher Control Board, PL 12.15 Item 2
3. IOT Upper Option Harness, PL 10.30 Item 24
4. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

12-760-00, 12-770-00, 12-870-00

12-906-00, 12-907-00 Jam in Mailbox Entrance RAP

12-906-00 Media did not reach the mailbox Entrance Sensor on time. Media remains in the IOT exit.

12-907-00 Media did not clear the Mailbox entrance sensor on time.

12-908-00 Media is blocking the Mailbox Entrance Sensor.

BSD-Reference: WD 18

Initial Actions

* Check the Mailbox entrance sensor actuator.
* Check for obstructions blocking the media path.

Procedure

WARNING

Switch off the electricity to the machine. 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: Remove the Mailbox Rear Door (REP 11.4) and base plate (PL 11.10 Item 7) to access the entrance sensor and actuator.

Check the condition of the Mailbox feed rollers. **The feed rollers are clean and rotate freely.**
Y   N
 Clean or repair the affected feed rollers.

Select dC330 code 12-905 to test the Mailbox entrance sensor. **The sensor signal changes (high/low).**
Y   N
 Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector, entrance sensor and harness. **The sensor is connected and the harness undamaged.**
 Y   N
  Replace the sensor or repair the harness.

 Replace the Mailbox Control Board, REP 11.5.

Select dC330 code 12-120 to test the Mailbox Transport Motor, PL 11.20 Item 1. **The   motor rotates.**
Y   N
 Check the Transport Motor connection and harness (REP 11.14). Repair or reconnect as necessary.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-910-00, 12-920-00, 12-930-00, 12-940-00 Mailbox Bin Full

12-910-00 Mailbox Bin 1 is full.

12-920-00 Mailbox Bin 2 is full.

12-930-00 Mailbox Bin 3 is full.

12-940-00 Mailbox Bin 4 is full.

BSD-Reference: WD 18

Initial Actions

* Check the stack full actuator of the affected output tray.
* Reseat the Mailbox on the IOT.

Procedure

WARNING

Switch off the electricity to the machine. 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: Bins (output trays) are numbered 1 through 4, 4 being the top tray.

Check the condition of the stack full actuator. **The actuator moves freely and is undamaged.**
Y   N
 Clean or repair the affected actuator.

Select dC330 code 12-910 (1), 12-920 (2), 12-930 (3), or 12-940 (4) to test the stack sensor of the affected output tray. **The sensor signal changes (high/low).**
Y   N
 Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
 Y   N
  Repair the harness.

 Remove the Mailbox right cover and reseat P/J5 on the Mailbox Control Board. **The error message is displayed.**
 Y   N
  Reassembly and perform SCP 6 Final Actions.

 Replace the Mailbox Control Board, REP 11.5.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS

12-906-00, 12-907-00, 12-910-00, 12-920-00, 12-930-00,

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12-911-00, 12-921-00, 12-931-00, 12-941-00 Mailbox Bin Jam

12-911-00 Mailbox Bin 1 jam to exit.

12-921-00 Mailbox Bin 2 jam to exit.

12-931-00 Mailbox Bin 3 jam to exit.

12-941-00 Mailbox Bin 4 jam to exit.

BSD-Reference: WD 18

Initial Actions

- Open the Mailbox Rear Door and check the media path.
- Check the exit actuator of the affected output tray.
- Reseat the Mailbox on the IOT.

Procedure

WARNING

Switch off the electricity to the machine. 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: Bins (output trays) are numbered 1 through 4, with 4 being the top tray.

Check the condition of the exit actuator. **The actuator moves freely and is undamaged.**
Y   N
        Clean or repair the affected actuator.

Select dC330 code 12-911 (1), 12-921 (2), 12-931 (3), or 12-941 (4) to test the bin empty sensor of the affected output tray. **The sensor signal changes (high/low).**
Y   N
        Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
        Y   N
                Repair the harness.

        Remove the Mailbox right cover and reseat P/J5 on the Mailbox Control Board. **The error message is displayed.**
        Y   N
                Reassembly and perform SCP 6 Final Actions.

        Replace the Mailbox Control Board, REP 11.5.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-912-00, 12-922-00, 12-932-00, 12-942-00 Mailbox Bin Jam

12-912-00 Mailbox Bin 1 jam from exit.

12-922-00 Mailbox Bin 2 jam from exit.

12-932-00 Mailbox Bin 3 jam from exit.

12-942-00 Mailbox Bin 4 jam from exit.

BSD-Reference: WD 18

Initial Actions

- Open the Mailbox Rear Door and check the media path.
- Check the exit actuator of the affected output tray.
- Reseat the Mailbox on the IOT.

Procedure

WARNING

Switch off the electricity to the machine. 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: Bins (output trays) are numbered 1 through 4, with 4 being the top tray.

Check the condition of the exit actuator. **The actuator moves freely and is undamaged.**
Y   N
        Clean or repair the affected actuator.

Select dC330 code 12-911 (1), 12-921 (2), 12-931 (3), or 12-941 (4) to test the bin empty sensor of the affected output tray. **The sensor signal changes (high/low).**
Y   N
        Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
        Y   N
                Repair the harness.

        Remove the Mailbox right cover and reseat P/J5 on the Mailbox Control Board. **The error message is displayed.**
        Y   N
                Reassembly and perform SCP 6 Final Actions.

        Replace the Mailbox Control Board, REP 11.5.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

12-911-00, 12-921-00, 12-931-00, 12-941-00, 12-912-

12-913-00, 12-923-00, 12-933-00, 12-943-00 Mailbox Bin Jam

12-913-00 Mailbox Bin 1 jam in bin.

12-923-00 Mailbox Bin 2 jam in bin.

12-933-00 Mailbox Bin 3 jam in bin.

12-943-00 Mailbox Bin 4 jam in bin.

BSD-Reference: WD 18

Initial Actions

• Open the Mailbox Rear Door and check the media path.

• Check the exit actuator of the affected output tray.

• Reseat the Mailbox on the IOT.

Procedure

WARNING

Switch off the electricity to the machine. 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: Bins (output trays) are numbered 1 through 4, with 4 being the top tray.

Check the condition of the exit actuator. **The actuator moves freely and is undamaged.**
Y   N
   Clean or repair the affected actuator.

Select dC330 code 12-911 (1), 12-921 (2), 12-931 (3), or 12-941 (4) to test the bin empty sensor of the affected output tray. **The sensor signal changes (high/low).**
Y   N
   Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
   Y   N
      Repair the harness.

   Remove the Mailbox right cover and reseat P/J5 on the Mailbox Control Board. **The error message is displayed.**
   Y   N
      Reassembly and perform SCP 6 Final Actions.

   Replace the Mailbox Control Board, REP 11.5.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-915-00 Diverter Fault RAP

12-915-00 The Finisher IOT exit gate diverter could not find home position as indicated by the Finisher Exit Gate Sensor.

BSD-Reference: WD 17

Initial Actions

• Open, then close the Finisher Rear Door.

• Cycle system power.

Procedure

WARNING

Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
   Complete.

Select dC330 code 12-900 to test the Exit Gate Sensor. **The sensor signal changes (high/low).**
Y   N
   Remove the Finisher, GP 14 to check the condition of the Finisher option connector and harness. **The connector and harness are undamaged.**
   Y   N
      Repair the harness.

   Remove the Finisher right cover and reseat P/J1 on the Finisher Control Board. **The error message is displayed.**
   Y   N
      Reassembly and perform SCP 6 Final Actions.

   Replace the Exit Gate Sensor, REP 12.6. **The error message is displayed.**
   Y   N
      Reassembly and perform SCP 6 Final Actions.

   Replace the Mailbox Control Board, REP 11.5.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

2 Status Indicator RAPS
12-913-00, 12-923-00, 12-933-00, 12-943-00, 12-915-00

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12-925-00, 12-935-00 Upper Diverter Fault Home RAP

12-925-00 The Mailbox upper diverter did not move from home position.

12-935-00 The Mailbox upper diverter did not move to home position.

BSD-Reference: WD 18

Initial Actions
- Open, then close the Mailbox Rear Door.
- Cycle system power.

Procedure
WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Select dC330 code 12-925 to test the upper diverter home position sensor. **The sensor signal changes (high/low).**
Y   N
    Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
    Y   N
        Repair the harness.

    Remove the Mailbox right cover and reseat P/J3 on the Mailbox Control Board. **The error message is displayed.**
    Y   N
        Reassembly and perform SCP 6 Final Actions.

    Replace the Mailbox Control Board, REP 11.5.

Select dC330 code 12-935 to test the Mailbox Upper Diverter Drive Assembly, PL 11.25 Item 1. **The motor rotates (on/off).**
Y   N
    Check the Upper Diverter Drive Assembly connections and harness (REP 11.7). Repair or reconnect as necessary.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

12-945-00, 12-955-00 Lower Diverter Fault Home RAP

12-945-00 The Mailbox lower diverter did not move from home position.

12-955-00 The Mailbox lower diverter did not move to home position.

BSD-Reference: WD 18

Initial Actions
- Open, then close the Mailbox Rear Door.
- Cycle system power.

Procedure
WARNING
Switch off the electricity to the machine. 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.

Cycle system power. **The error message is displayed.**
Y   N
    Complete.

Select dC330 code 12-945 to test the lower diverter home position sensor. **The sensor signal changes (high/low).**
Y   N
    Remove the Mailbox, GP 14 to check the condition of the Mailbox option connector and harness. **The connector and harness are undamaged.**
    Y   N
        Repair the harness.

    Remove the Mailbox right cover and reseat P/J3 on the Mailbox Control Board. **The error message is displayed.**
    Y   N
        Reassembly and perform SCP 6 Final Actions.

    Replace the Mailbox Control Board, REP 11.5.

Select dC330 code 12-955 to test the Mailbox Lower Diverter Drive Assembly, PL 11.25 Item 1. **The motor rotates.**
Y   N
    Check the Lower Diverter Drive Assembly connection and harness (REP 11.7). Repair or reconnect as necessary.

Replace these components in order until the error is corrected.
1. IOT Upper Option Harness, PL 10.30 Item 24
2. MCU Board, PL 3.10 Item 3

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2 Status Indicator RAPS

12-925-00, 12-935-00, 12-945-00, 12-955-00

15-110-00 Email Send Failed RAP

15-110-00 Email SMTP server returned an error during transmission.

Initial Actions

- Resend the email.
- Check network configuration.

Procedure

The SMTP server authentication may be supported but not enabled on the device or any 500 code is returned from the mail server. Resend the email.

15-120-00 Invalid Recipient Email Address RAP

15-120-00 Email address has either been restricted or is in an improper format.

Initial Actions

- Resend the email.
- Check network configuration.

Procedure

Enter the email address and resend the email.

2 Status Indicator RAPS

15-110-00, 15-120-00

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15-300-00 Network Connection Failure RAP

15-300-00 A communication or network failure occurred during SMTP or LDAP operations.

Initial Actions
- Check the network connection.
- Check network configuration.

Procedure
Cycle system power.

15-310-00, 15-600-00 Authentication Failure RAP

15-310-00 An authentication failure for invalid account or password was entered by the user.

15-600-00 Account authentication is required by the mail server.

Initial Actions
- Check account configuration parameters.
- Check network configuration.

Procedure
Enter valid user credentials.

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15-320-00, 15-330-00 Mail Server Connection Failure RAP

15-320-00 The printer can not contact the SMTP server.

15-330-00 The printer can not contact a DNS server to resolve the SMTP host name.

Initial Actions
- Check the SMTP IP address or host name.
- Check network configuration.

Procedure

Check that the SMTP port is open and working correctly.

15-700-00 DNS Error RAP

15-700-00 A DNS resolution failure or the DNS server is not reachable.

Initial Actions
- Check DNS server configuration.
- Check network configuration.

Procedure

Check that the DNS server is online.

2 Status Indicator RAPS

15-320-00, 15-330-00, 15-700-00

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17-100-00 IP Address Conflict RAP

17-100-00 Two devices are trying to use the same IP address.

Initial Actions

• Check DHCP settings.

• Check network configuration.

Procedure

Cycle system power.

17-110-00 Connection Error RAP

17-110-00 A connection error occurred while establishing a connection to the server.

Initial Actions

• Check network configuration.

Procedure

Cycle system power.

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2 Status Indicator RAPS

17-100-00, 17-110-00

17-120-00 Server Not Found RAP

17-120-00 The designated server is not found.

Initial Actions

- Check network configuration.

Procedure

Cycle system power.

17-200-00 Network Cable Disconnected RAP

17-200-00 Network cable is not connected.

Initial Actions

- Check the network connection.

   NOTE: The network connection has two LEDs The green LED on indicates that the network connection is ready. The amber LED flashing indicates that the network is good.

Procedure

Reseat the network cable to the IP Board.

2 Status Indicator RAPS

17-120-00, 17-200-00

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17-700-00, 17-710-00 BOOTP Server Error RAP

17-700-00 BOOTP and auto IP is not working.

17-710-00 BOOTP and auto IP is not working.

Initial Actions
- Check BOOTP configuration.
- Check network configuration.

Procedure

Cycle system power.

17-800-00, 17-810-00 DHCP Server Error RAP

17-800-00 DHCP and auto IP is not working.

17-810-00 DHCP and auto IP is not working.

Initial Actions
- Check DHCP settings.
- Check network configuration.

Procedure

Cycle system power.

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2 Status Indicator RAPS

17-700-00, 17-710-00, 17-800-00, 17-810-00

17-900-00 802.1X Authentication Error RAP

17-200-00 802.1X Authentication failed.

Initial Actions

• Close the Rear Door.
• Check for obstructions blocking the latch.

Procedure

Ensure that the 802.1X EAP type, user name and password for the machine authentication switch and authentication server match.

17-910-00 Firmware Upgrade Fault RAP

17-910-00 Upgrade aborted invalid file.

Initial Actions

• Download a new firmware file.
• Check the USB connection

Procedure

Cycle system power and repeat the upgrade procedure.

2 Status Indicator RAPS

17-900-00, 17-910-00

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3 Image Quality

IQ1 Image Quality Entry RAP

The purpose of this RAP is to establish the source and type of imaging defect. Print-quality defects can be attributed to printer components, consumables, media, internal software, external software applications, and environmental conditions. To successfully troubleshoot print-quality problems, eliminate as many variables as possible. First, recreate the perceived defect using the customer's job or test print. Use approved laser paper from a fresh ream acclimated to room temperature and humidity.

If the print-quality defect is still present after printing on approved media from an unopened ream of paper, investigate software applications being used and environmental conditions. Check the temperature and humidity under which the printer is operating. Compare this to the "Environmental Specifications". Extreme temperature and humidity can adversely affect the printer's xerographic and fusing characteristics.

When analyzing a imaging defect, determine if the defect is repeating or random. Continuous defects in the process direction, such as voids and lines, are the most difficult to diagnose. Check the CRU life counters for end of life conditions. Inspect the visible surfaces of all rollers for obvious defects. If a cursory inspection does not reveal any obvious defects, continue troubleshooting the defect, starting with the list of initial actions.

Initial Actions

Use the following steps to determine which part of the system is at fault.

1. If possible, discuss the defect with the customer to determine if the percieved defect is outside the printer's image specifications.
2. Ensure all connections to the printer are secure.
3. Check the CRU life counts. Replace components at end of life.
4. Cycle system power.
5. Make sure the printer is positioned to allow adequate airflow at all vents. Refer to GP 17, Installation Space Requirements.
6. Make sure the printer's interior is clean.
7. Check the tray guides.
8. Use the customer's print job to check defect reoccurrence. If the defect persists, begin to isolate the defect by attempting to identify the component responsible.
9. Check stored tray settings for media size and type.
10. Check image adjustment and print mode settings being used.

Defects Associated with Specific Components

To aid with defect diagnosis, listed below are defects associated with specific components.

Laser Unit image defects:
- Black Print
- Vertical white lines
- Curved lines

Transfer Roller image defects:
- Uneven Density
- Background contamination
- Ghosting

- Vertical white lines
- Vertical black line or band
- Stains on the page back

Fuser image defects:
- Ghosting
- Stains on the page back or front
- Poor image adhesion

Drum Cartridge image defects:
- Uneven density
- Background contamination
- Spots, smudges, or smears
- Ghosting
- Vertical white lines
- Vertical black line or band
- Stains on the page front
- Blank prints
- Black prints
- Horizontal Black lines or bands

After determining the defect type and possible source, match the defect with thoses listed in Table 1. Go to the RAP listed to correct the defect.

Image Defect Definitions

Table 1 lists image defect definitions and the RAP(s) used to correct the problem.

Table 1 Image Defect Definitions

Defect	Definition	Go To
Deletions	There are areas (lines, bands, spots) missing entirely.	IQ2
Unfused Image	Part or all of the image is infused. Refer to the specification.	IQ3
Resolution	At 600 dpi, the two pixel lines and halftone patches cannot be reproduced clearly on the print.	IQ4
Skips and Smears	**Skip** - Image loss or stretching in horizontal bands. **Smear** - Image distortion in bands across the process direction that appear blurred or compressed.	IQ2
Spots	There are spots of toner on the page.	IQ7
Skewed Image	Angular image displacement from its intended position.	IQ5
Light Prints	The overall image density is too light.	IQ6
Blank Prints	Prints with no visible image.	IQ8
Black Prints	The print is completely covered with toner with no image.	IQ9
Process Deltions	Areas of the image are extremely light or missing entirely. Defects run vertically in the direction of paper movement.	IQ2
Scan Deletions	Areas of the image are extremely light or missing entirely. Defects run horizontally across the page.	IQ2
Process Streaks	Extraneous dark lines/bands in the process direction.	IQ10
Scan Streaks	Extraneous dark lines/bands in the direction of scan.	IQ11

Table 1 Image Defect Definitions

Defect	Definition	Go To
Damaged Prints	Creases, wrinkles, excessive curl, cuts, folds or embossed marks.	IQ12
Spot Deletions	Solid areas are marked with irregular white areas.	IQ2
Repeating Defects	Recurring marks, spots, lines, or voids.	IQ13
Residual Image	The image from a previous print appears on the current print.	IQ14
Background	Uniform toner contamination in non image areas. See Background specification.	IQ15
Uneven Density	The text/line darkness and solid area density image varies across the print.	IQ16
Registration	Displacement of the image, in the process or scan direction, from its intended position on the print.	IQ18
Curved Vertical Lines	Vertical lines are curved and distorted.	IQ19
Stains on Print Back	Toner appears on the reverse side on single-sided images.	IQ17

To print the test print:

1. From the Main menu, scroll to **Troubleshooting**, then press the **OK** button.
2. Scroll to **Test Prints**, then press the **OK** button.
3. Select test print 1. Press OK to print.

IQ2 Deletions (line, band, spots)

Use this RAP to correct defects that appear as areas of image deletions.

Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check installation of the Drum Cartridge.
- Check the Drum Cartridge contacts.
- Check the Transfer Roller for contamination or wear.
- Check that rollers and other media path components are clean and unobstructed.
- If vertical lines of deletion appear, clean the Laser Unit window.
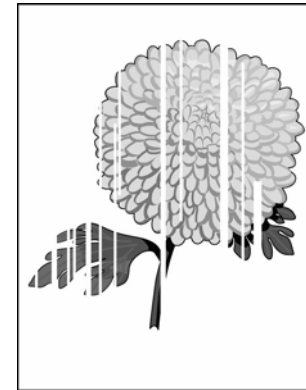
Vertical Blank Lines

Figure 1 Line, Band, or Spot Deletions Example

Procedure

Inspect the test print for deletions (missing image). There should be no deletions with a diameter larger than 0.5 mm visible on the test prints. **No deletions are visible.**
Y   N
    Perform SCP 6 Final Actions.

Check the media. **The media is clean, of the approved type, and free of defects.**
Y   N
    Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**
Y   N
    Perform GP ?? to clean the media path.

Replace the Drum Catridge and reprint the test print. **The image contains spots.**
Y   N
    Perform SCP 6 Final Actions.

A

A

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N

Replace the Transfer Roller, REP 9.1.

Check for debris on the Laser Unit window or obstructions between the Laser Unit and Drum Cartridge. **The laser path is clear.**

Y   N

Clear the laser path of obstructions.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**

Y   N

Clean or replace as necessary;

- Heat Roller PL 10.11 Item 12
- Pressure Roller PL 10.11 Item 3
- Fuser PL 10.10 Item 1

Check connections between the IP Board and Laseer Unit. **The connections are secure.**

Y   N

Secure the connections.

Replace the IP Board.

IQ3 Unfused Image

The printed image is not fully fused to the paper. The image rubs off easily. A cold environment affects the warm-up time, while high humidity has an adverse effect on fusing. Also, media weight and composition affect fusing performance.

Initial Actions

- Check the printing environment. A location that's too cold or humid reduces fusing performance.
- Verify that the media type is set correctly.

Procedure

WARNING

Do not touch the Fuser while it is hot.

Rub the image with a soft cloth or tissue. **The image smears when rubbed.**

Y   N

Perform SCP 6 Final Actions.

Replace the media with new, dry media from an unopened ream. Print TP ??. **The image smears when rubbed.**

Y   N

Perform SCP 6 Final Actions.

Check the Fuser thumbscrews. **The Fuser thumbscrews are tight.**

Y   N

Tighten the Fuser, cycle system power and reprint TP ??.

Remove and inspect the Fuser (REP 10.10). The Fuser Heat and Pressure Rollers are good.

Y   N

Replace the Fuser or worn components:

- Fuser PL 10.10 Item 1
- Heat Lamp PL 10.11 Item 17
- Heat Roller and bearings PL 10.11 Item 12
- Pressure Roller PL 10.11 Item 3
- Thermistor PL 10.15 Item 3
- Thermostat PL 10.15 Item 4

Check the Fuser electrical connection. **The connector is good.**

Y   N

Repair or replace the harness.

Check connections to the Fuser Drive Board. **Connections to the Fuser Drive board are secure.**

Y   N

Secure the connections between the Fuser Drive Board.

Replace the Fuser Drive Board REP 1.3.

IQ4 Resolution

The two pixel lines and halftone patches cannot be reproduced clearly on the test print.
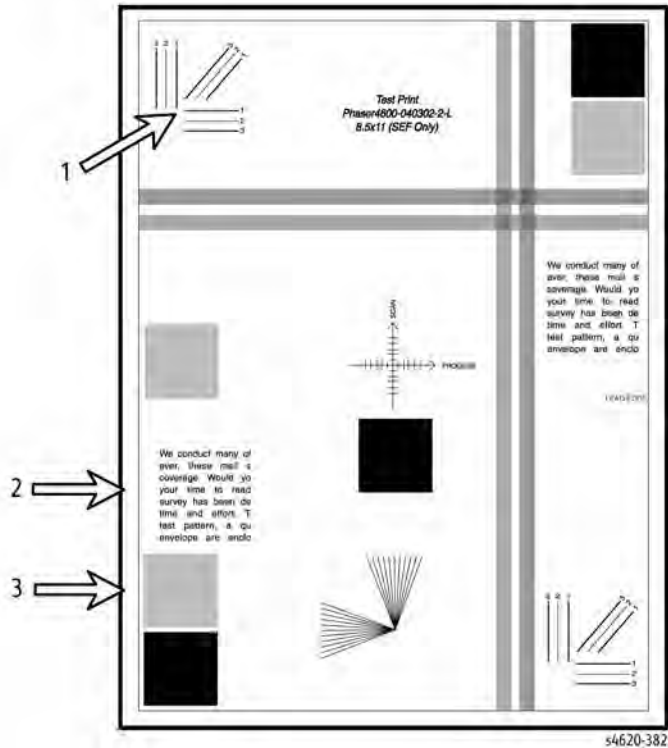
Figure 1 Resolution defect points on the test print

Procedure

Inspect the three resolution check points on several test prints. Check the image resolution in each of these ares:
*   **Arrow 1:** The vertical, horizontal, and diagonal lines should be clear and continuous. The diagonal lines might appear to be narrower than the others.
*   **Arrow 2:** The text paragraphs should be roughly equal in density.
*   **Arrow 3:** The half-tone patches adjacent to the solid blocks in the corners should be uniform in appearance.

The check points (arrows 1, 2, and 3) meet specification.
Y   N

> Replace the following as necessary:
> *   Drum Cartridge PL 9.10 Item 1
> *   Fuser, PL 10.10 Item 1

> *   Laser Unit PL 6.10 Item 1
> *   MCU Board PL 3.10 Item 3
> *   IP Board PL 3.10 Item 2

Perform SCP 6 Final Actions.

IQ5 Skewed Image

The image is not parallel to the edge of the print sheet.

Initial Actions

- Check that the paper guides are set correctly.
- Load new, dry paper that meets specifications.
- Check the Duplex Unit media size setting.
- Check the rollers in the paper path for any obstructions, damage, or debris.
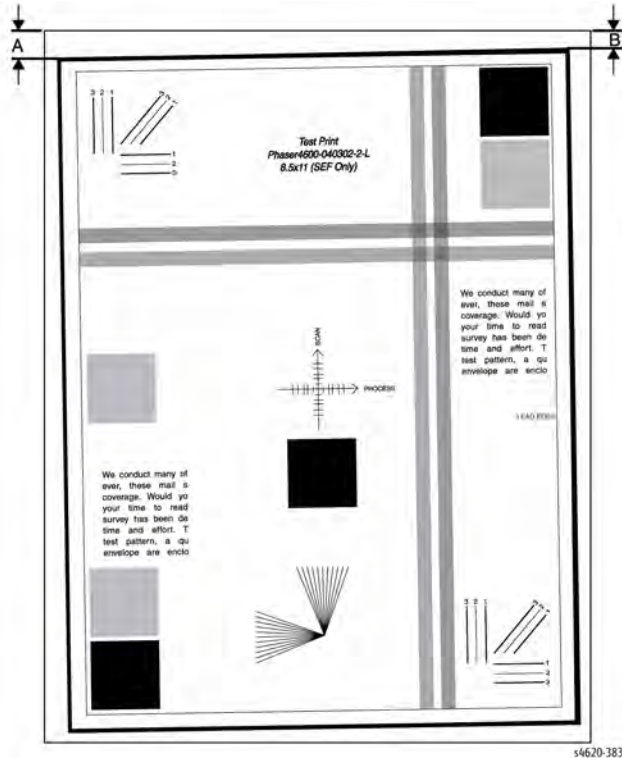
Figure 1 Skewed print example

Procedure

Print a test print and measure the difference between dimensions A and B as indicated in Figure 1. **The difference is more than 1 MM or less for single side or 4 MM front to back on double sided prints.**

Y   N
> The printer is operating within specification. Perform SCP 6 Final actions

Check the installation. **The printer is on a level surface.**

Y   N
> Correct the installtion. No more than a 10 mm difference side to side or front to back is required.

Reload the tray with new, previoulsly unopened media and reprint the test print. **The image is skewed.**

Y   N
> Instruct the customer on proper media storage and perform SCP 6 Final Actions.

Print test prints from a different source tray. **The image is skewed.**

Y   N
> Check the rollers and guides for the affected tray. Clean, repair or replace damaged or worn components.

Check rollers in the entire paper path.

1. Check the registration rollers for contamination, wear, or damage.
2. Check whether pinch rollers rotate freely and spring pressure is applied evenly.

Replace these components in order until the error is corrected.

1. Registration Clutch, PL 10.30 Item 24
2. Registration Roller Assembly, PL 8.45 Item 12.
3. MCU Board, PL 3.10 Item 3

IQ6 Light or Undertoned Print

The overall image density is too light.

<div align="center">WARNING</div>

Switch off the electricity to the machine. 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.

Initial Actions

- Check the Drum Cartridge life counter. If at end of life, replace the Drum Cartridge.
- Check that the Drum Cartridge electrical contact points are clean.
- Ensure that there are no obstructions in the laser path.
- Ensure that draft mode is turned off (see below).
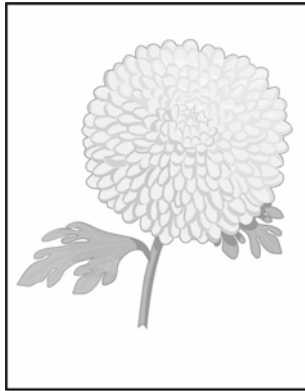
Light or Undertone Print

<div align="center">Figure 1 Light or undertone print example</div>

Procedure

Check the paper condition. Load new, dry recommended paper, and print a test print. **The image is too light.**

Y   N
    | Perform SCP 6 Final Actions.

Replace the Drum Catridge and reprint the test print. **The image is too light.**

Y   N
    | Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N
    | Replace the Transfer Roller, REP 9.1.

A

Remove the Drum Cartridge, clean the electrical contacts, then print a test print. **The image is too light.**

Y   N
    | Perform SCP 6 Final Actions.

Print a test print. While the print is printing, turn off system power. Remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. **The image is poorly forrmed, faint and difficult to read.**

Y   N
    | Check the image formed on the drum, right after the Transfer Roller. The image is completely transferred to the paper
    | Y   N
    | | Replace the Transfer Roller, REP 9.1.

    | Continue with the procedure.

Replace the HVPS, REP 1.4, and print a test print. **The images is too light.**

Y   N
    | Perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4. **The image is too light.**

Y   N
    | Perform SCP 6 Final Actions.

Replace the IP Board, REP 3.6.

Turning off Draft Mode

1. Press the **Menu** button on the control panel.
2. Press the up/down arrows to highlight **Tools** and press **OK**.
   Note: If a password is required, enter 1111.
3. Press the up/down arrows to highlight **Setup** and press **OK**.
4. Press the up/down arrows to highlight **General Setup** and press **OK**.
5. Press the up/down arrows to highlight **Print Quality Mode** and press **OK**.
   The following Print Quality Mode options are available:
    - **600 x 600** dpi Best general-purpose mode for high-speed printing. Produces crisp, bright prints.
    - **1200 x 1200** (Enhanced) Highest-quality prints with best detail. Recommended for photo prints.
    - **Draft Mode** This mode saves toner and is suitable for draft printing.
6. Press the up/down arrows to highlight the setting required and press **OK**.
7. Press **Stop** to return to ready mode.

A

IQ7 Spots

There are spots of toner randomly scattered on the page.

<div align="center">

WARNING
</div>

Do not touch the Fuser while it is hot.

Initial Actions

- Check that the paper is clean, dry, and meets specifications.
- If using recycled paper, it may have spots.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check if the defects repeat at regular intervals. If so, see IQ18.
- Check Drum surface for spots or contamination.
- Check the Fuser for wear or contamination.
- Check that the Drum Cartridge contacts are clean.

Random Spots

<div align="center">

Figure 1 Spots example
</div>

Procedure

Check the media. **The media is clean, of the approved type, and free of defects.**
Y   N
    Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**
Y   N
    Clean the media path.

Replace the Drum Catridge and reprint the test print. **The image contains spots.**
Y   N
    Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N
    Replace the Transfer Roller, REP 9.1.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**
Y   N
    Clean or replace as necessary;
- Heat Roller PL 10.11 Item 12
- Pressure Roller PL 10.11 Item 3
- Fuser PL 10.10 Item 1

Check connections between the IP Board and Laseer Unit. **The connections are secure.**
Y   N
    Secure the connections.

Replace the IP Board, REP 3.6.

IQ8 Blank Print

No visible image anywhere on the output.

Initial Actions

- Check CRU life counters. Replace components at end of life.
- Clear any obstructions in the Laser path.
- Check for multi-sheet feeds.
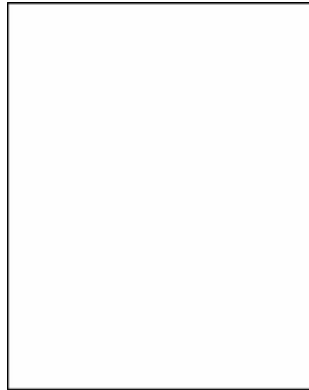
Blank Print

Figure 1 Blank print example

Procedure

Print a test print. **The test print is blank.**
Y   N
    Check the customer's print job setttings and the printer's Ethernet or USB connections.
    Print job settings and network connections are good.
    Y   N
        Correct the settings or connections.

    Replace the IP Board, REP 3.6.

Remove the Drum Cartridge and clean the electrical contacts. Replace the Drum Catridge and reprint the test print. **The image is blank.**
Y   N
    Perform SCP 6 Final Actions.

Install a new Drum Cartridge and reprint the test print. **The image is blank.**
Y   N
    Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**
Y   N
    Replace the Transfer Roller, REP 9.1.

A

Check for obstructions between the Laser Unit and Drum Cartridge. **The laser path is clear.**
Y   N
    Clear the laser path of obstructions.

Check connections to the Laser Unit from the IP Board. **The connections are secure.**
Y   N
    Secure the connections.

Check HVPS connections to the bias contacts. **The connections are secure.**
Y   N
    Secure the connections.

Replace the HVPS, REP 1.4, and print a test print. **The images is blank.**
Y   N
    Perform SCP 6 Final Actions.

Replace the Laser Unit and reprint the test print. **The image is blank.**
Y   N
    Perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4. **The image is blank.**
Y   N
    Perform SCP 6 Final Actions.

Replace the IP Board, REP 3.6.

A

3 Image Quality

IQ8

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IQ9 Black Print

A totally black output print. There is toner on the paper with no visible image.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

Initial Actions

• Check that the Drum Cartridge contacts are clean.

• Ensure the covers are in place and no outside light enters the printer.
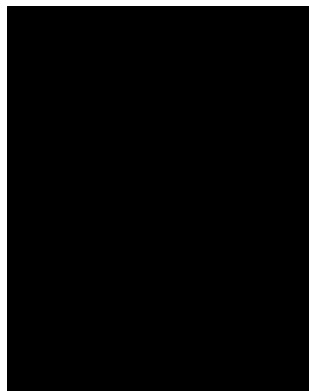
Black Print

Figure 1 Black print example

Procedure

Print a test print. **The test print is completely black.**
Y   N
> Check the customer's print settings.

Remove the Drum Cartridge and clean the electrical contacts. Replace the Drum Catridge and reprint the test print. **The image is blank.**
Y   N
> Perform SCP 6 Final Actions.

Install a new Drum Cartridge and reprint the test print. **The image is blank.**
Y   N
> Perform SCP 6 Final Actions.

Check HVPS connections to the bias contacts. **The connections are secure.**
Y   N
> Secure the connections.

Replace the HVPS, REP 1.4, and print a test print. **The images is blank.**

Y   N
> Perform SCP 6 Final Actions.

Replace the Laser Unit and reprint the test print. **The image is blank.**
Y   N
> Perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4. **The image is blank.**
Y   N
> Perform SCP 6 Final Actions.

Replace the IP Board.

IQ10 Process Streaks

Extraneous vertical dark lines or bands.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check that the Drum Cartridge contacts are clean.
- Inspect the media path for contamination or obstruction.
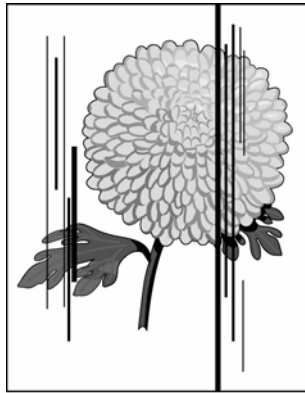
Figure 1 Process streak example

Procedure

Check the media. **The media is clean, of the approved type, and free of defects.**
Y   N
    Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**
Y   N
    Clean the media path.

Replace the Drum Catridge and reprint the test print. **The image contains vertical streaks.**
Y   N
    Perform SCP 6 Final Actions.

A

A
Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**
Y   N
    Replace the Transfer Roller, REP 9.1.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**
Y   N
    Clean or replace as necessary;
    - Heat Roller PL 10.11
    - Pressure Roller PL 10.11
    - Fuser PL 10.10

Check connections between the IP Board and Laser Unit. **The connections are secure.**
Y   N
    Secure the connections.

Replace the IP Board.

3 Image Quality

IQ10

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IQ11 Scan Streaks

There are black lines running horizontally across the page.

<div style="text-align:center; color:red; font-weight:bold;">WARNING</div>

Switch off the electricity to the machine. 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.

<div style="text-align:center; color:red; font-weight:bold;">WARNING</div>

Do not touch the Fuser while it is hot.

Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the Drum Cartridge Drum surface for scratches.
- Check the Drum Cartridge contacts.
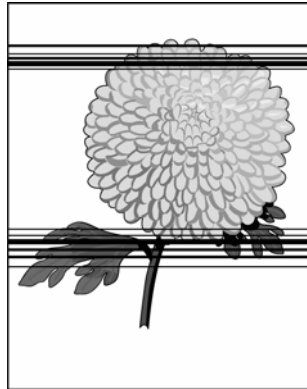
Horizontal Stripes

Figure 1 Horizontal streaks example

Procedure

Check the media. **The media is clean, of the approved type, and free of defects.**
Y   N
    Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**
Y   N
    Perform GP ?? to clean the media path.

Remove the Drum Cartridge and clean the electrical contacts. Replace the Drum Catridge and reprint the test print. **The image has horizontal streaks.**
Y   N
    Perform SCP 6 Final Actions.

A

A
Install a new Drum Cartridge and reprint the test print. **The image has horizontal streaks.**
Y   N
    Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**
Y   N
    Replace the Transfer Roller, REP 9.1.

Check for debris on the Laser Unit window or obstructions between the Laser Unit and Drum Cartridge. **The laser path is clear.**
Y   N
    Clear the laser path of obstructions.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**
Y   N
    Clean or replace as necessary;
    - Heat Roller PL 10.11
    - Pressure Roller PL 10.11
    - Fuser PL 10.10

Check HVPS connections to the bias contacts. **The connections are secure.**
Y   N
    Secure the connections.

Replace the HVPS, REP 1.4, and print a test print. **The images is blank.**
Y   N
    Perform SCP 6 Final Actions.

Check connections between the IP Board and Laser Unit. **The connections are secure.**
Y   N
    Secure the connections.

Replace the IP Board.

Revised

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3 Image Quality

IQ11

IQ12 Damaged Print

The page comes out of the Output Tray either wrinkled, creased, or torn.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

NOTE: If paper damage occurs within an installed option, determine the location where the damage occurs an correct as necessary to eliminate the problem.

Initial Actions

- Check media type settings are correct.
- Check that chutes operate properly when doors or covers are opened or closed.
- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check that rollers and other paper path components are clean and unobstructed.

Procedure

Check that the printer is level, has its feet, and has adaquate airflow. **The installation location is within specification.**

Y   N
> Correct the installation.

Check the media. **The media is clean, of the approved type, and free of defects.**

Y   N
> Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**

Y   N
> Clean the media path.

Check rollers in the paper path.
1. Check feed and media path rollers for contamination, wear, or damage.
2. Check whether the pinch rollers rotate freely and spring pressure is applied evenly.

The rollers are good.

Y   N
> Replace worn or damaged rollers.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**

Y   N
> Clean or replace as necessary;
> - Heat Roller PL 10.11
> - Pressure Roller PL 10.11
> - Fuser PL 10.10

A

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N
> Replace the Transfer Roller, REP 9.1.

Replace the following, in order, until the defective component is found.
- Feed and transport rollers
- Fuser, REP 10.10
- Transfer Roller, REP 9.1.
- Exit Assembly, REP 10.6.

3 Image Quality

IQ12

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IQ13 Repeating Defects

Recurring marks, spots, lines, or voids.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Initial Actions

- Check that the paper is clean, dry, and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check CRU life counts. Replace components at end of life.

Figure 1 Repeating defects example

Procedure

Check the media. **The media is clean, of the approved type, and free of defects.**
Y N
    Replace the media with approved media from a freshly opened package.

Check the media path for dirt, debris, or toner residue. **The media path is clean.**
Y N
    Clean the media path.

Print a test print and compare the defect to the values listed in Table 1. Replace the defective component.

Xerographic Component Dimensions

The following table lists measurements of critical printer components. Refer to these measurements when diagnosing a repeating print-quality problem.

Table 1 Xerographic Component Specifications

Component	Circumference
OPC Drum (Drum Cartridge)	94.4 mm (3.7 inches)
Registration Roller	59.1 mm (inches)
Feed Roller	47.1 mm (1.85 inches)
Nudger, Pick, Seperator Rollers	72.3 mm (inches)
Tray 1 Pick Roller	47.1 mm (1.85 inches)
Fuser Heat Roller	155 mm (inches)
Duplex Roller	35.5 mm (1.4 inches)
Cleaning Roller (Drum Cartridge)	40.8 mm
Transfer Roller	57.8 mm

IQ14 Residual Image

The image from a previous print appears on the current print.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Initial Actions

- Check media type settings are correct.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contact points are clean.
- Verify the paper is within the specifications on the Paper Tips Page.

Residual Image/Ghosting

Figure 1 Residual image (ghosting) example

Procedure

Print 10 test prints. A residual image appears on all copies.
Y   N

    Print an additional 10 prints to clean residual toner from the rollers.

Measure the defect frequency on the prints. **No defect pattern is visible.**
Y   N

    Refer to IQ13 Repeating Defects to determine the deffective component.

Remove the Drum Cartridge and clean the electrical contacts. Replace the Drum Catridge and reprint the test print. **The residual image defect is still visible.**
Y   N

    Perform SCP 6 Final Actions.

A

A

Install a new Drum Cartridge and reprint the test print. **The residual image defect is still visible.**
Y   N

    Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**
Y   N

    Replace the Transfer Roller, REP 9.1.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**
Y   N

    Clean or replace as necessary;
-     Heat Roller PL 10.11
-     Pressure Roller PL 10.11
-     Fuser PL 10.10

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**
Y   N

    Replace the Transfer Roller, REP 9.1.

Replace the following, in order, until the defective component is found.
- Drum Cartridge
- Transfer Roller, REP 9.1
- Fuser, REP 10.10
- HVPS, REP 1.4

3 Image Quality

IQ14

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IQ15 Background

There is toner contamination on all or part of the page. The contamination appears as a very light gray dusting.

WARNING

Switch off the electricity to the machine. 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.

Initial Actions

- Check media type settings are correct.
- Check that the paper is clean, dry, and meets specifications.
- Verify the Toner Cartridge is a Xerox manufactured part with adaquate life remaining. If a non-Xerox Toner Cartridge is being used, this could be the problem.
- Check that the Drum Cartridge contacts are clean.
- Ensure the covers are in place and no outside light enters the printer.

Background Contamination

Figure 1 Background defect example

Procedure

Check the paper condition. Load new, dry recommended paper, and print a test print. **The image includes background defects.**

Y   N
> Perform SCP 6 Final Actions.

Remove the Drum Cartridge, clean the electrical contacts, then print a test print. **The image includes background defects.**

Y   N
> Perform SCP 6 Final Actions.

Replace the Drum Catridge and reprint the test print. **The image includes background defects.**

Y   N
> Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N
> Replace the Transfer Roller, REP 9.1.

Print a test print. While the print is printing, turn off system power. Remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. **The image is poorly forrmed, faint and difficult to read.**

Y   N
> Check the image formed on the drum, right after the Transfer Roller. The image is completely transferred to the paper
>
> **Y   N**
> > Replace the Transfer Roller, REP 9.1.
>
> Continue with the procedure.

Replace the HVPS, REP 1.4, and print a test print. **The image includes background defects.**

Y   N
> Perform SCP 6 Final Actions.

Replace the MCU Board, REP 3.4. **The image includes background defects.**

Y   N
> Perform SCP 6 Final Actions.

Replace the IP Board.

IQ16 Uneven Density

Image density varies across the page in either direction.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

Initial Actions

• Check media type settings are correct.

• Load new, dry paper that meets specifications.

• Check that the Toner Cartridge is properly installed and not empty.

• Ensure that the printer is level.

• Check to make sure the Laser path is clean and unobstructed.

• Remove the Drum Cartridge and check for contamination or obstructions.
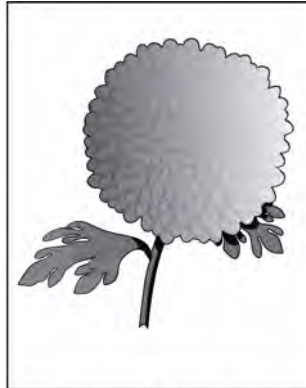
Density Uneven or Wrong (Scan Direction)

Figure 1 Uneven density defect example

Procedure

Check the paper condition. Load new, dry recommended paper, and print a test print. **The image includes density defects.**

Y   N

> Perform SCP 6 Final Actions.

Remove the Drum Cartridge, clean the electrical contacts, then print a test print. **The image has density defects.**

Y   N

> Perform SCP 6 Final Actions.

Replace the Drum Catridge and reprint the test print. **The image has density defects.**

Y   N

> Perform SCP 6 Final Actions.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N

> Replace the Transfer Roller, REP 9.1.

Print a test print. While the print is printing, turn off system power. Remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. **The   image   is poorly formed, faint and difficult to read.**

Y   N

> Check the image formed on the drum, right after the Transfer Roller. The image is completely transferred to the paper
>
> **Y   N**
>
> > Replace the Transfer Roller, REP 9.1.
>
> Continue with the procedure.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**

Y   N

> Clean or replace as necessary;
>
> • Heat Roller PL 10.11
>
> • Pressure Roller PL 10.11
>
> • Fuser PL 10.10

Replace the following, in order, until the defective component is found.

• Transfer Roller, REP 9.1.

• Fuser, REP 10.10

3 Image Quality

IQ16

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IQ17 Stains on Print Back

Use this RAP when the printed sheets have stains on the non-image side of the paper.

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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.

<div align="center">

WARNING
</div>

Do not touch the Fuser while it is hot.

Initial Actions

- Load new, dry paper that meets specifications.
- Ensure that the printer is level.
- Remove the Drum Cartridge and check for contamination or obstructions.

Toner on Back of Print
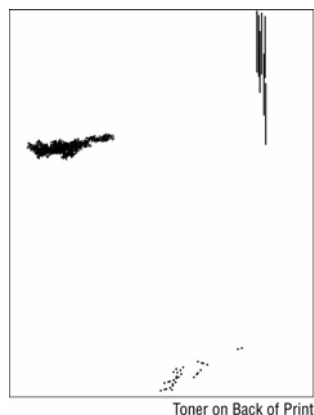
Figure 1 Toner on the back of prints

Procedure

Print 10 test prints. A staining appears on all copies.

Y   N

    Print an additional 10 prints to clean residual toner from the rollers.

Remove the Transfer Roller and check for surface contamination or excessive wear. **The Transfer Roller is good.**

Y   N

    Replace the Transfer Roller, REP 9.1.

Remove the Fuser. Check for damage or debris on the rollers. **The Fuser rollers are good.**

Y   N

    Clean or replace as necessary;

- Heat Roller PL 10.11
- Pressure Roller PL 10.11

A

- Fuser PL 10.10

Replace the following, in order, until the defective component is found.
- Transfer Roller, REP 9.1
- Fuser, REP 10.10

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3 Image Quality

IQ17

IQ18 Registration

The image is positioned incorrectly in either the process or scan direction.

Initial Actions

- Check the Duplex Unit media size setting on the Duplex Unit.
- Check the customer's application settings.
- Check that the paper supply is new, dry, and loaded correctly.
- Check that the paper tray guides are set correctly.
- Check that components in the paper path are clean and unobstructed.

If registration defects occur on duplex prints only, replace the Duplex Unit. If registration defects occur on prints sourced from all trays in the process direction, replace the Registration Assembly.

If registration defects occur from a specific tray in the process direction, check these compontents in sequence and replace as necessary:

- Feed, Nudger, Retard Rollers
- Take Away Clutch
- Feeder Assembly
- Registration Assembly

If registration defects occur In the cross-process direction, check these compontents in sequence and replace as necessary:

- Laser Unit
- IP Board
- Drum Cartridge
- Tray

To make registration and margin adjustments, use dC131 to adjust NVRAM values.

Procedure

Measure the registration on two consecutive test prints. Registration is within specification, refer to **IQS 3**.

Y   N
    Print test prints from all input sources to isolate the defective component.

Perform IQ5 Skew.

IQ19 Curved Vertical Lines

When printing, vertical lines are not straight.

<p align="center"><strong style="color:red">WARNING</p>

<strong style="color:red">Switch off the electricity to the machine. 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.

Initial Actions

- Cycle system power.
- Check connections from the HVPS to the Drum Cartridge.
- Check AC supply and power cord.
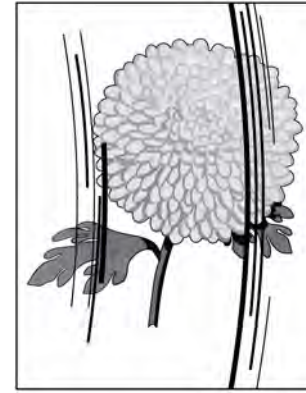
Curved Vertical Stripes

Figure 1 Curved vertical lines defect example

Procedure

Remove the Drum Cartridge and clean the electrical contacts. Replace the Drum Cartridge and print a test print. **The vertical curved lines defect is visible.**

Y   N
    Perform SCP 6 Final Actions

Check HVPS operation and bias contacts to the Drum Cartridge. **The HVPS is good.**

Y   N
    Replace the HVPS.

Check connections between the Laser Unit and IP Board. **The connections are secure.**

Y   N
    Replace the Laser Unit.

Replace the MCU Board.

3 Image Quality

IQ18, IQ19

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Test Prints

Table 1 describes the test patterns and the purpose for which they should be used to identify image quality defects.

Table 1 Internal test patterns

Number	Description	Purpose
1	S600 Pattern (Letter), Figure 1.	Light density uniformity, deletions, lines, bands, streaks, smears, solid area reproducibility, motion quality (LSU).
2	S600 Pattern (A4), Figure 1.	Light density uniformity, deletions, lines, bands, streaks, smears, solid area reproducibility, motion quality (LSU).

Test Print 1, 2

TP 1 and 2 provides a variety of different line styles in both process and cross-process directions. The pattern is used to check registration, dot size and image density.
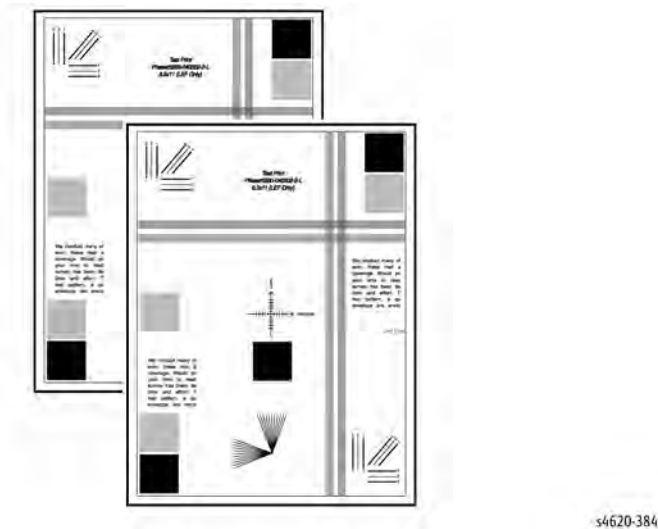
Figure 1 Test pattern 1, 2

IQS 1 Solid Area Density

Documents

TP 1 or TP 2 and the solid area density scales, 82E8230 (SIR 542.00) or 82P448 (SIR 494.00).

The Phaser 4600/4620/4622 is ISO11798 compliant with archival paper. Image density is no less than 90% across core media list. Media must fix toner well enough to pass taping test. Using a 500g weight, after rubbing the test pattern 5 times, calculate the ratio of pre- and post-test data (density).

After taping test, the image density of black area of test pattern should be higher than 80% of its original density in standard paper under N/N environmental condition.

Specification

Print the TP 1 or TP 2 test pattern. Compare the print with the solid area density scale. The density of the 1.0 areas on the print of the test pattern, must be as dark or darker than the 0.8 reference on the solid area density scale of the SIR Pattern.

Corrective Action

Go to the IQ1 Image Quality Entry RAP.

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3 Image Quality

Test Prints, IQS 1
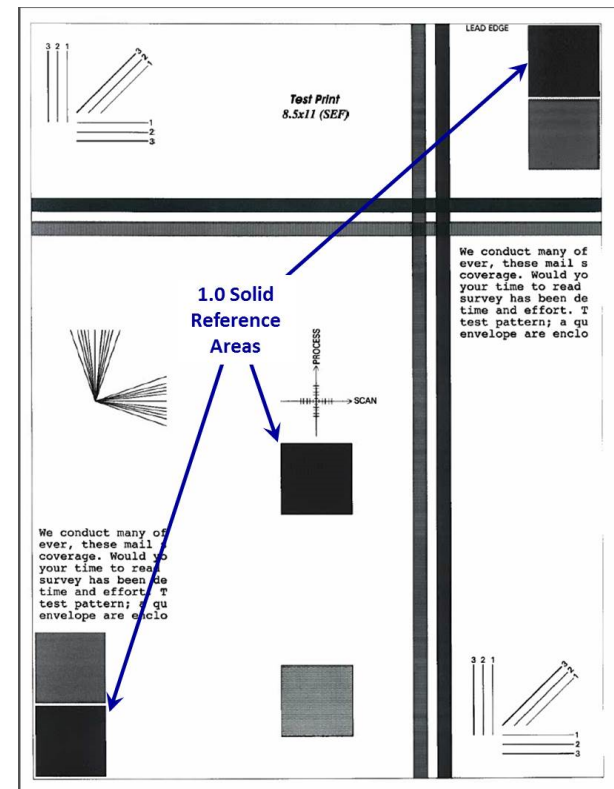
IQS 2 Skew

Documents

Internal Test Page DC612, TP1

Specifications

Refer to Table 1.

Table 1 Margin Specifications

MODE	TRAY	Lead Edge C–D	Side Edge A–B
SIMPLEX	Tray 1,2	± 1.0 mm	± 1.5 mm
	Tray 3,4	± 1.5 mm	± 2.0 mm
	Tray 5,6	± 2.0 mm	± 2.5 mm
DUPLEX	Tray 1,2	± 1.5 mm	±2.0 mm
	Tray 3,4	± 2.0 mm	± 2.5 mm
	Tray 5,6	± 2.0 mm	± 2.5 mm
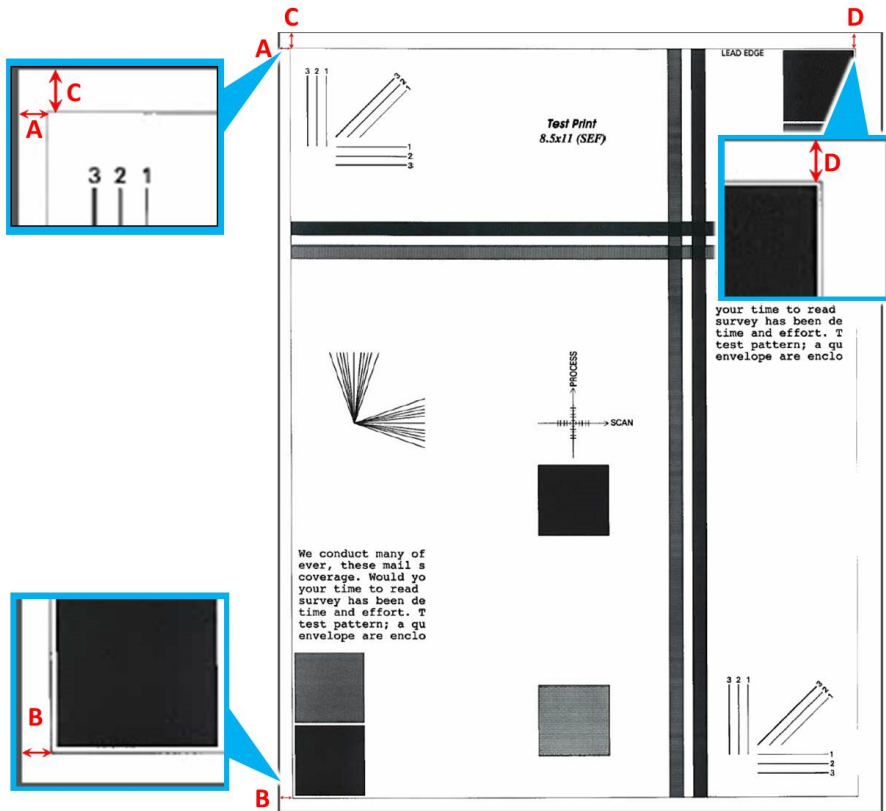
IQS 3 Registration

Documents

Internal Test Page DC612, TP1.

Specifications

Refer to Table 1.

Table 1 Registration measurement

Registration	Specification
Lead edge F	4mm (5/32 inches) +/- 3mm (1/8 inches)
Top edge E	4mm (5/32 inches) +/- 3mm (1/8 inches)

Corrective Action

Refer to dC131 Table 1 to adjust registration using different NVMs.

3 Image Quality
IQS 2, IQS 3

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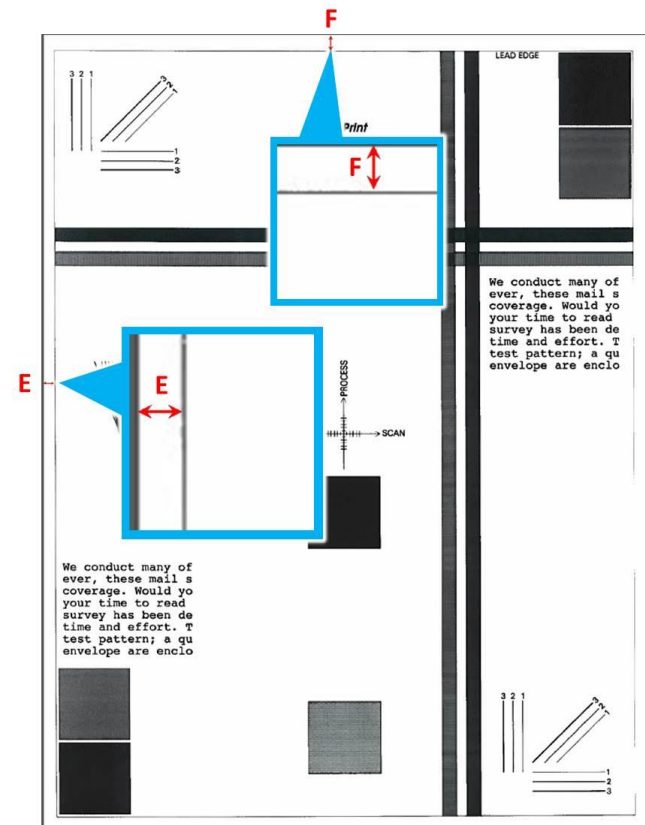
IQS 4 Transparencies

NOTE: Customer must use standard Transparency media (A4, Letter) designed exclusively for Xerox 3R9023. Separate each page after printing.

Specifications

Refer to Table 1.

Table 1 Registration measurement

Registration	Specification
Shearing Angle	+/- 4 degrees
Thickness	0.114 +/- 0.01mm
Weight	138~146g/m2
Curl	+/- 5 mm

IQS 5 Image Area

Specifications

Refer to Figure 1.
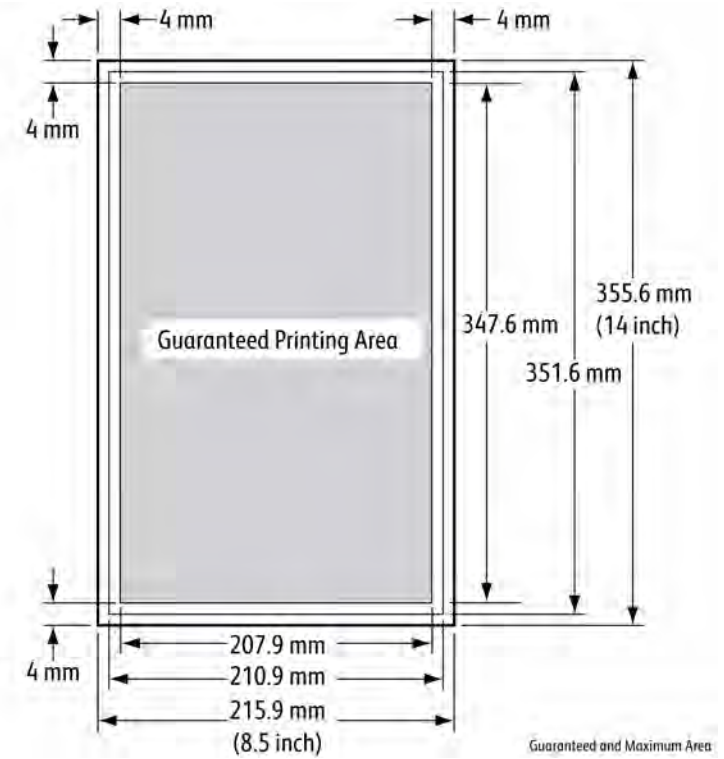
Figure 1 Image area specifications

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3 Image Quality

IQS 4, IQS 5

3 Image Quality

IQS 4, IQS 5

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4 Repairs and Adjustments

REP 1.2 Fuser Drive Board

Parts List on PL 1.15 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the IP Board Cage, REP 3.5.
5. Remove the Fuser Drive Board Assembly, REP 1.3.
6. Release 5 hooks and remove 1 screw that secure the cover to the assembly.
7. Disconnect the board from the harness to remove, Figure 1.
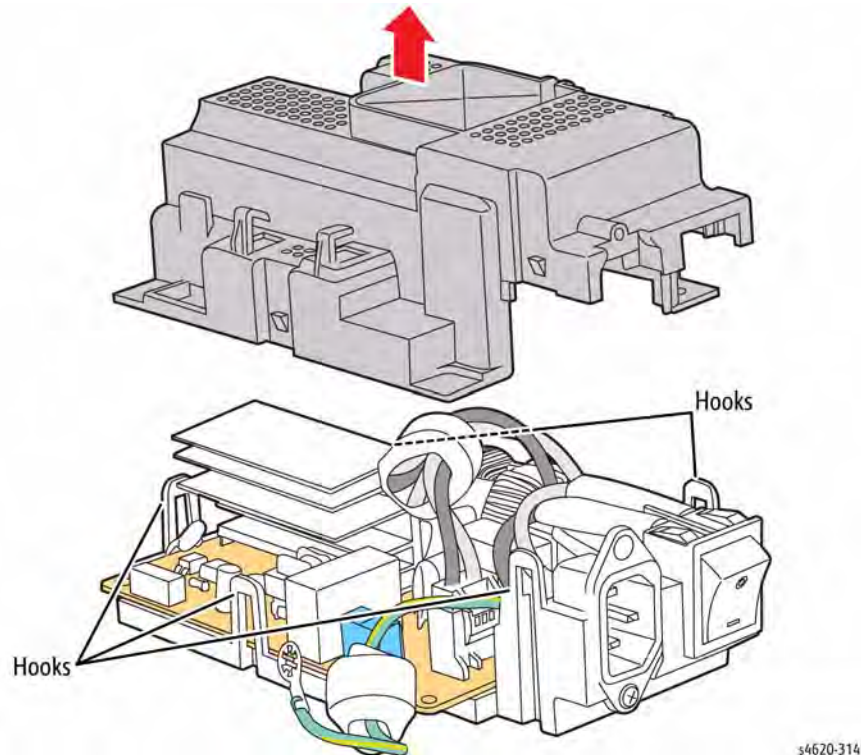
Figure 1 Remove the Fuser Drive Board

REP 1.3 Fuser Drive Board Assembly

Parts List on PL 1.15 Item 8

Removal

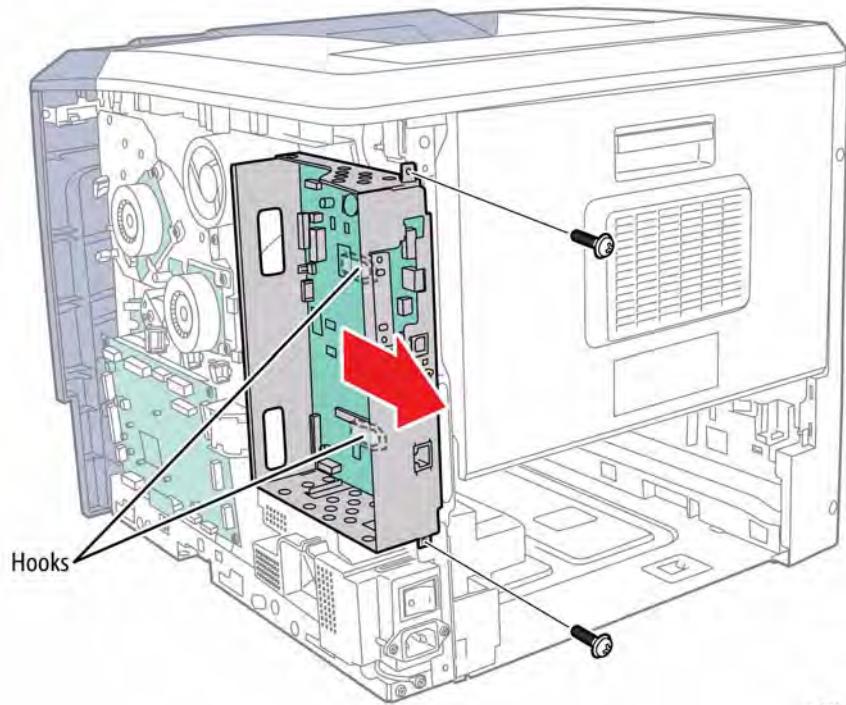### WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the IP Board Cage, REP 3.5.
5. Remove 1 screw (metal) that secures the ground connection to the chassis
6. Remove 4 screws (metal) that secure the assembly to the chassis, Figure 1.
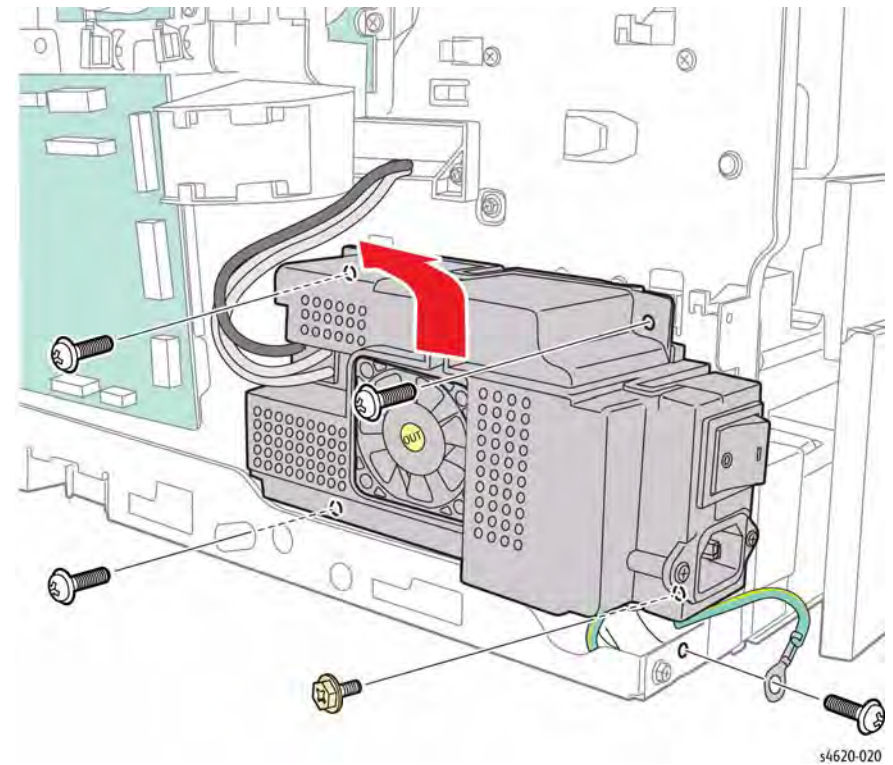
Figure 1 Remove the Fuser Drive Assembly screws

7. Disconnect 4 connections to the Fuser Drive Assembly, Figure 2.
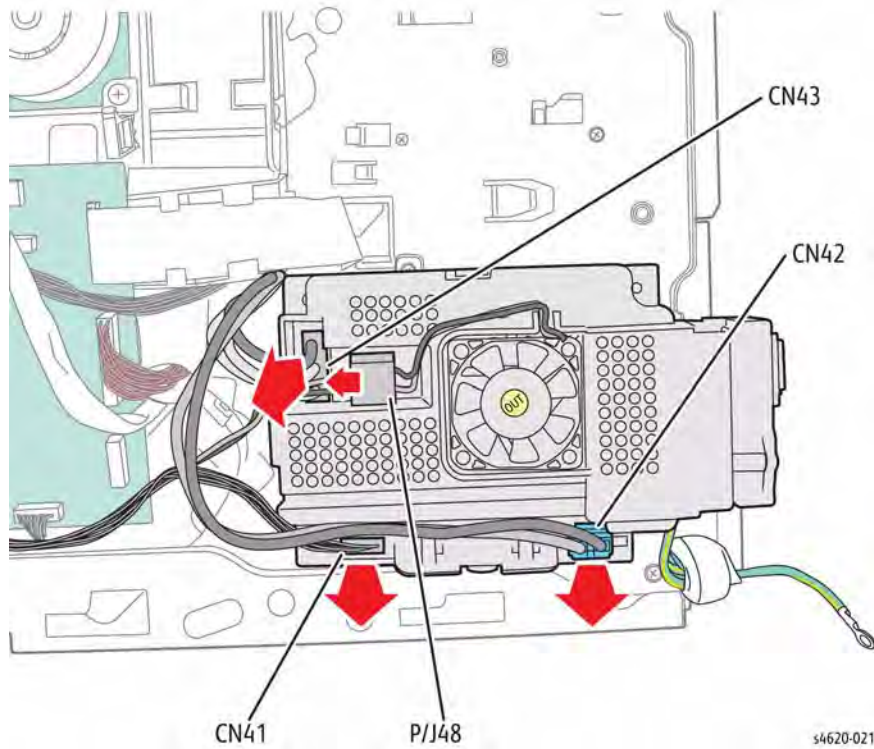
Figure 2 Disconnect the Fuser Drive Assembly

REP 1.4 HVPS

Parts List on PL 1.10 Item 1

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

WARNING

</div>

Do not touch the Fuser while it is hot.

1. Remove the Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the IP Board Cover, REP 28.1.
5. Remove the Right Cover, REP 28.2.
6. Remove the IP Board Cage REP 3.5.
7. Remove the Rear Door, REP 28.6.
8. Remove the Fuser, REP 10.10.
9. Remove 5 screws (2 plastic, 3 metal) that secure the bottom fuser bracket to the chassis, Figure 1.

Figure 1 Remove the bottom fuser bracket

10. Disconnect CN6 from the MCU Board, Figure 2.
11. Release the ribbon cable from the guide and remove 1 screw (metal) that secures the guide to the MCU Board bracket, Figure 2.

Figure 2 Remove the cable guide

12. Remove 2 screws (metal) that secure the right side of the power supply tray to the chassis, Figure 3.

Figure 3 Remove the right side power supply tray screws

13. Remove 2 screws (metal) that secure the left side of the power supply tray to the chassis, Figure 4.

Figure 4 Remove the left side power supply tray screws

14. Remove 2 screws (shank, metal) that secure the Fuser connector to the power supply tray, Figure 5.
15. Disconnect CN3 from the HVPS and move the Fuser harness to the side, Figure 5.

Figure 5 Remove the Fuser connector

16. Pull the power supply tray out of the chassis to access CN2 through the SMPS Fan duct, Figure 6.

17. Disconnect CN2 from the HVPS using a small screwdriver to release the connector hook, Figure 6.

Figure 6 Disconnect the drum bias voltage connector

18. Disconnect CON1 from the SMPS and raise the harness over the SMPS heat sink to release the power supply tray from the chassis, Figure 7.

Figure 7 Slide the power supply tray out of the chassis

19. Disconnect CN1 and remove 5 screws (metal) that secure the HVPS to the power supply tray, Figure 8.
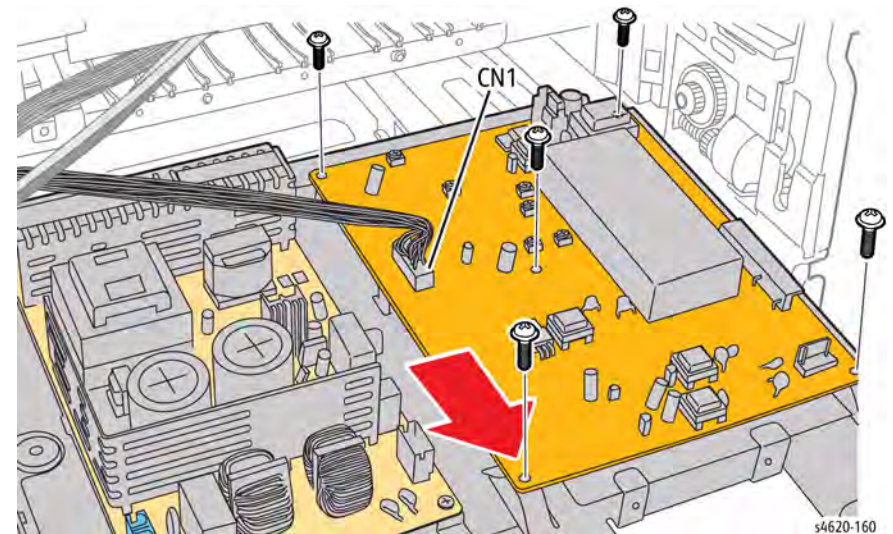
Figure 8 Remove the HVPS

REP 1.5 SMPS

Parts List on PL 1.10 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

1. Remove the Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the IP Board Cover, REP 28.1.
5. Remove the Right Cover, REP 28.2.
6. Remove the IP Board Cage, REP 3.5.
7. Remove the Rear Door, REP 28.5.
8. Remove the Fuser, REP 10.10.
9. Remove 5 screws (2 plastic, 3 metal) that secure the bottom fuser bracket to the chassis, Figure 1.

Figure 1 Remove the bottom fuser bracket

10. Disconnect CN6 from the MCU Board, Figure 2.
11. Release the ribbon cable from the guide and remove 1 screw (metal) that secures the guide to the MCU Board bracket, Figure 2.

Figure 2 Remove the cable guide

12. Remove 2 screws (metal) that secure the right side of the power supply tray to the chassis, Figure 3.

Figure 3 Remove the right side power supply tray screws

13. Remove 2 screws (metal) that secure the left side of the power supply tray to the chassis, Figure 4.

Figure 4 Remove the left side power supply tray screws

14. Remove 2 screws (shank, metal) that secure the Fuser connector to the power supply tray, Figure 5.
15. Disconnect CN3 from the HVPS and move the Fuser harness to the side, Figure 5.

Figure 5 Remove the Fuser connector

16. Pull the power supply tray out of the chassis to access CN2 through the SMPS Fan duct, Figure 6.
17. Disconnect CN2 from the HVPS using a small screwdriver to release the connector hook, Figure 6.

Figure 6 Disconnect the drum bias voltage connector

18. Disconnect CON1 from the SMPS and raise the harness over the SMPS heat sink to release the power supply tray from the chassis, Figure 7.

Figure 7 Slide the power supply tray out of the chassis

19. Disconnect CON3, release the harness from the clamp, and remove 4 screws (metal) that secure the SMPS to the power supply tray, Figure 8.
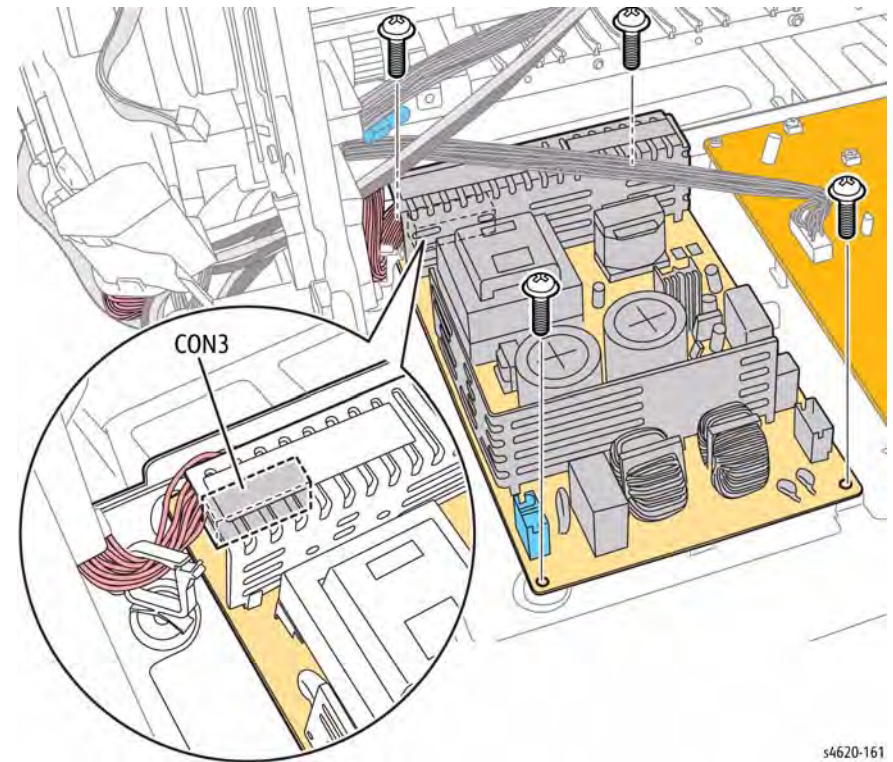
Figure 8 Remove the SMPS

REP 1.6 Top/Rear Door Interlock Switch

Parts List on PL 28.15 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the IP Board Cover, REP 28.1.
5. Remove the Right Cover, REP 28.2.
6. Remove the Top Cover, REP 28.5.
7. Turn the cover over and release 4 hooks that secure the switches to the cover, Figure 1.

s4620-032
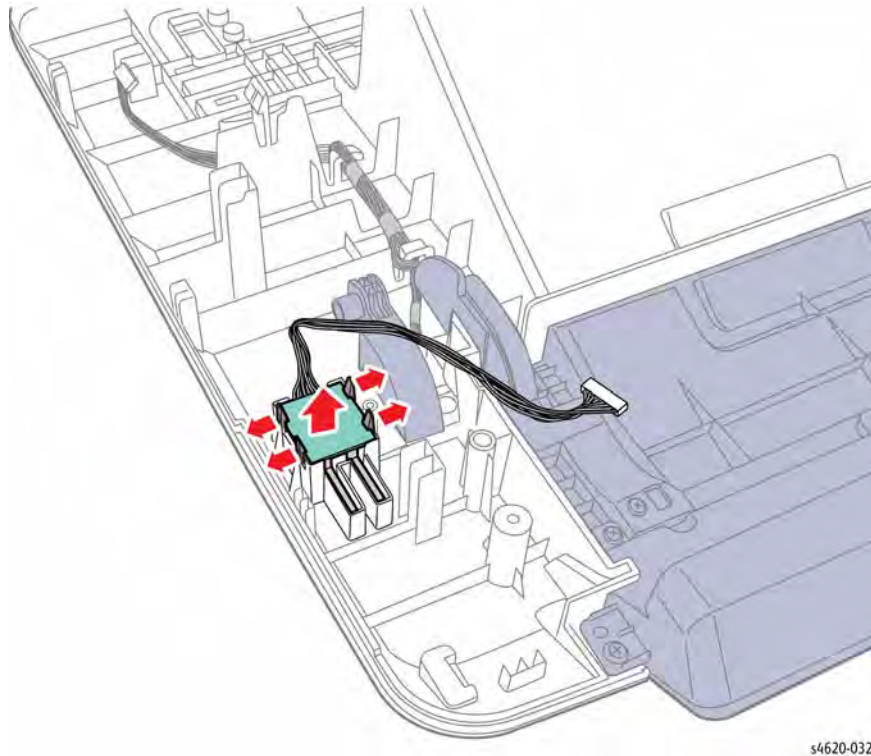
Figure 1 Remove the Interlock Switch

REP 1.7 SMPS Fan

Parts List on PL 1.15 Item 6

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Release 2 hooks that secure the SMPS Fan in the duct.
5. Disconnect P/J22 to remove the fan, Figure 1.

P/J22

s4620-057
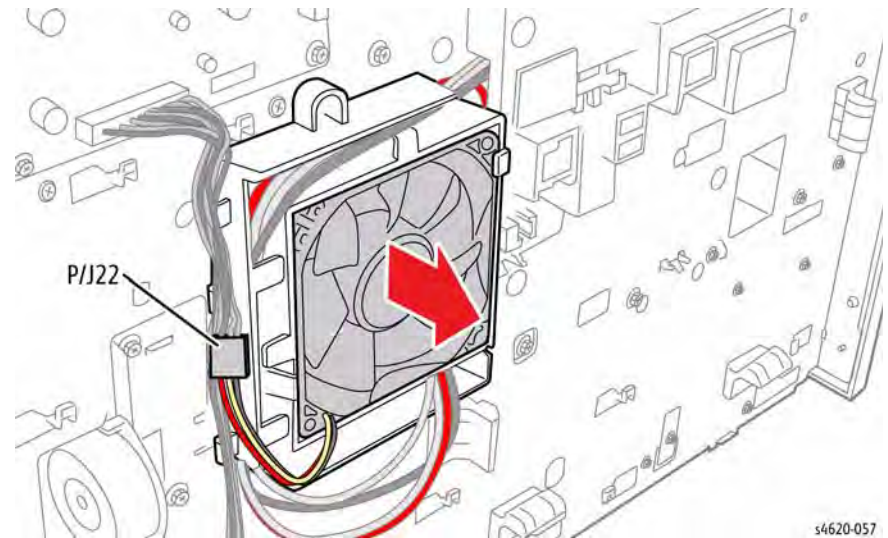
Figure 1 Remove the SMPS Fan

4 Repairs and Adjustments

REP 1.6, REP 1.7

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REP 2.1 Control Panel Assembly

Parts List on PL 2.10 Item 1

Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the Right Cover, REP 28.2.
5. Remove the Top Cover, REP 28.5.
6. Release the Control Panel harness from the hooks, Figure 1.
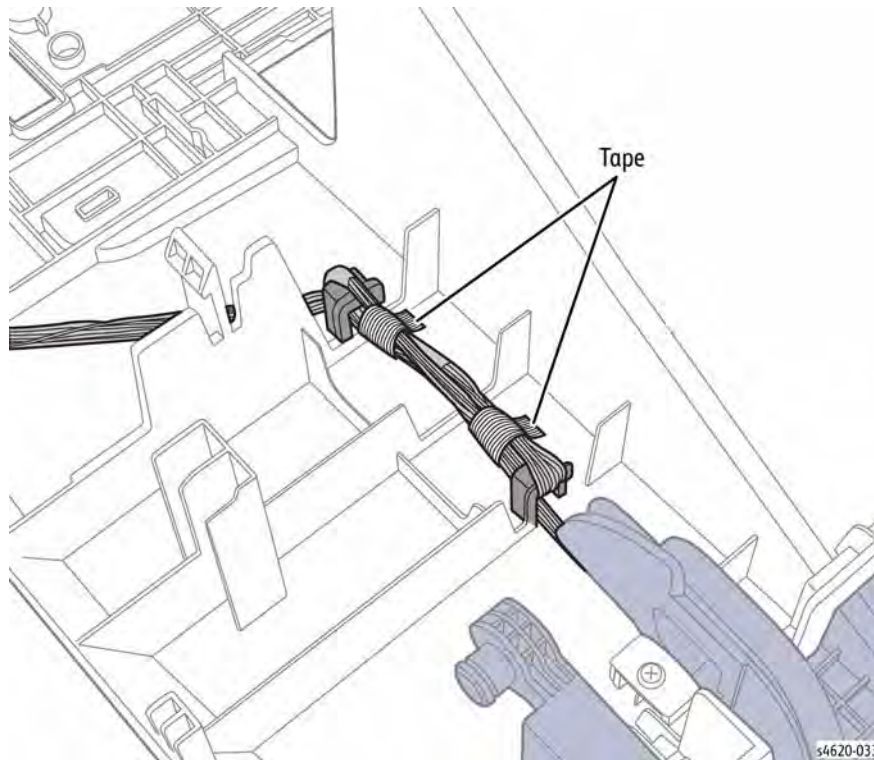
Figure 1 Release the Control Panel harness

7. Remove 2 screws (plastic) that secure the Top Door hinges to the Top Cover, Figure 2.
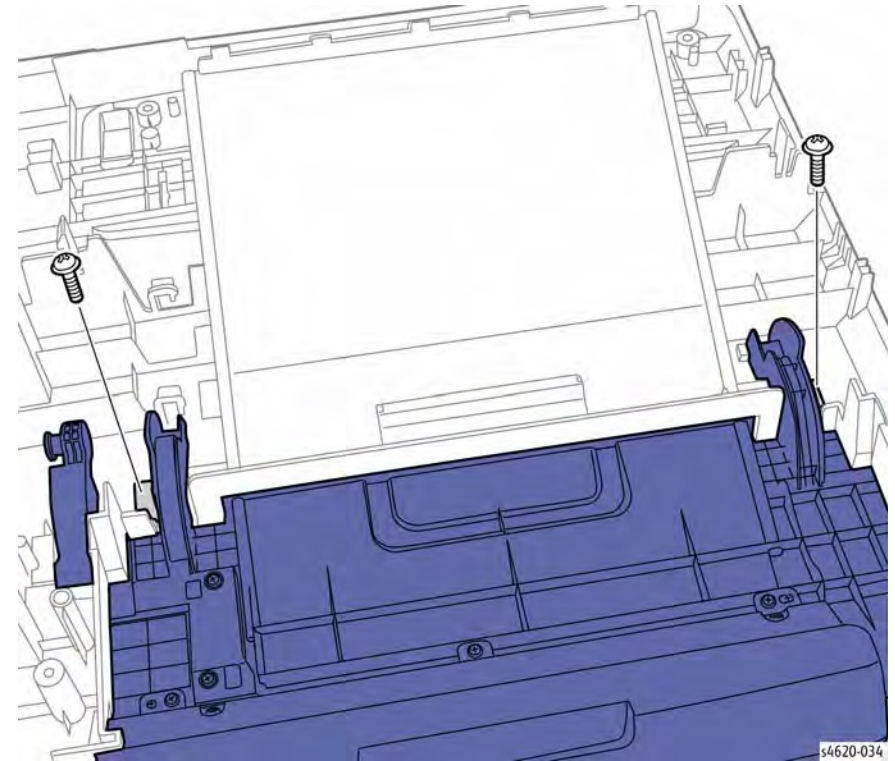
Figure 2 Remove the Top Door hinges

8. Release 2 bosses that secure the Top Door to the Top Cover, Figure 3.

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4 Repairs and Adjustments

REP 2.1
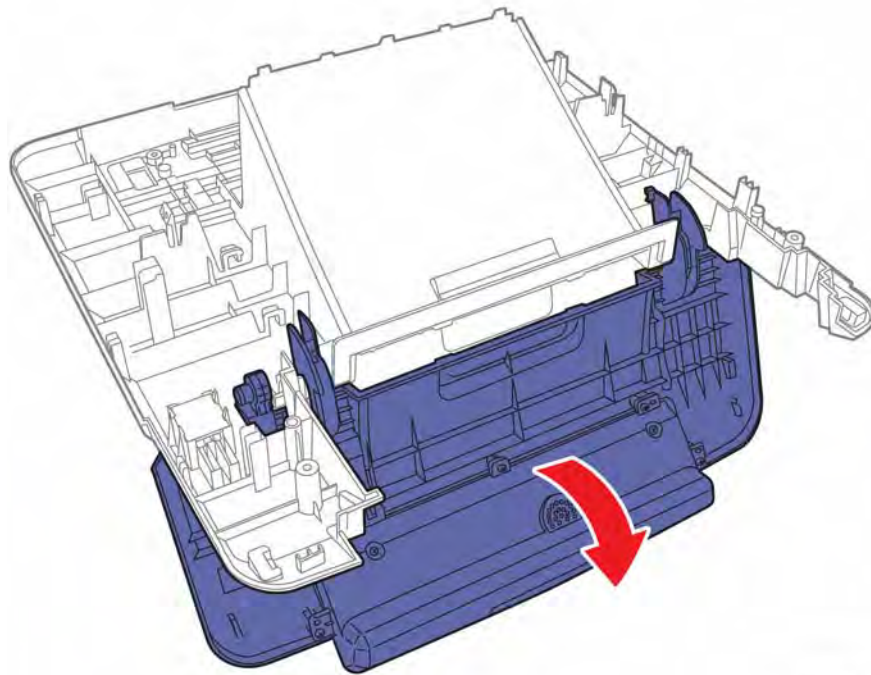
Figure 3 Remove the Top Door

9. Remove 4 screws (plastic) that secure the harness cover to the Top Door, Figure 4.
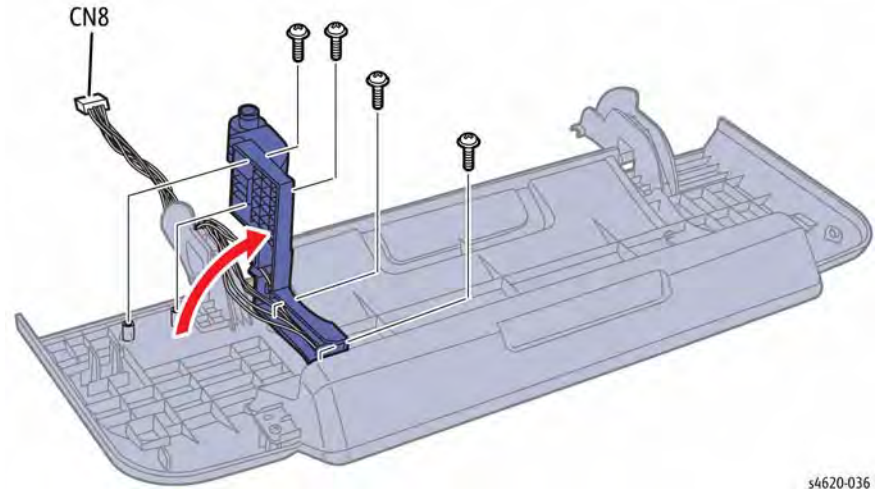
Figure 4 Remove the Control Panel harness cover

10. Release the Control Panel harness from 2 hooks on the harness cover.

11. Remove 2 screws (plastic) that secure the Control Panel to the Top Door and feed the harness through the hole in the Top Door, Figure 5.
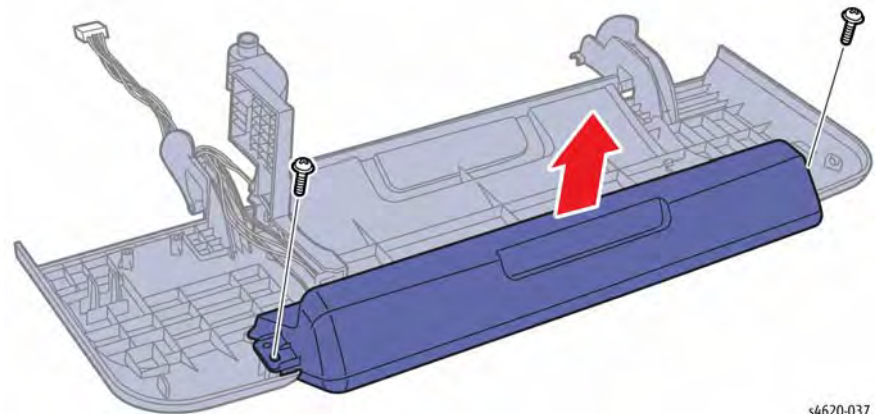
Figure 5 Remove the Control Panel from the Top Door

4 Repairs and Adjustments

REP 2.1

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Replacement

After installation of the Top Door to the Top Cover and before lacing the Control Panel harness, position the Top Cover so the Top Door hangs in the open position. With the Top Door in the open position, lace the Control Panel harness around the 2 Top Cover Hooks.
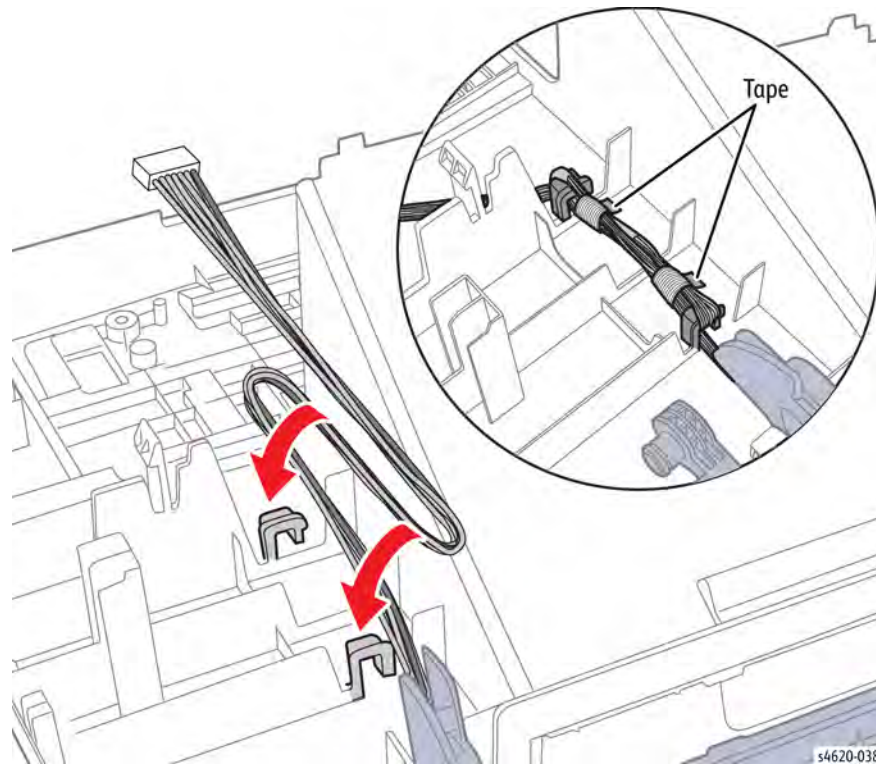
Figure 6 Lacing the Control Panel harness

REP 2.2 Control Panel Board

Parts List on PL 2.10 Item 8

Removal

WARNING

Switch off the electricity to the machine. 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

Control Panel buttons are not captive to the Control Panel Board. During disassembly, use care to avoid dropping buttons into the printer.

1. Open the Top Door.
2. Remove 7 screws (plastic) that secure the lower cover to the Control Panel Assembly, Figure 1.
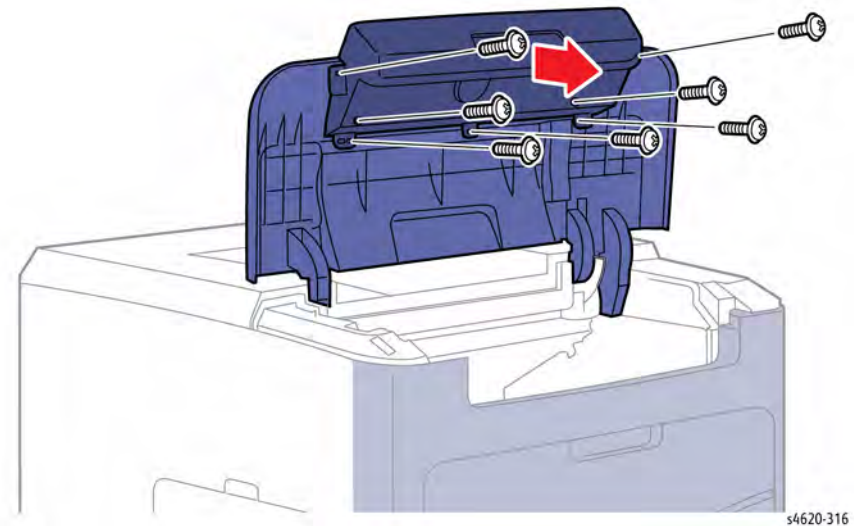
Figure 1 Remove the Control Panel Assembly lower cover

3. Remove 7 screws (plastic) that secure the Control Panel Bard to the lower cover, Figure 2.

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4 Repairs and Adjustments

REP 2.1, REP 2.2

Figure 2 Remove the Control Panel Board

Figure 3 Remove the LCD screen

Replacement

Install the LCD screen on the new board and reconnect the Control Panel harness before securing the new board to the top cover.
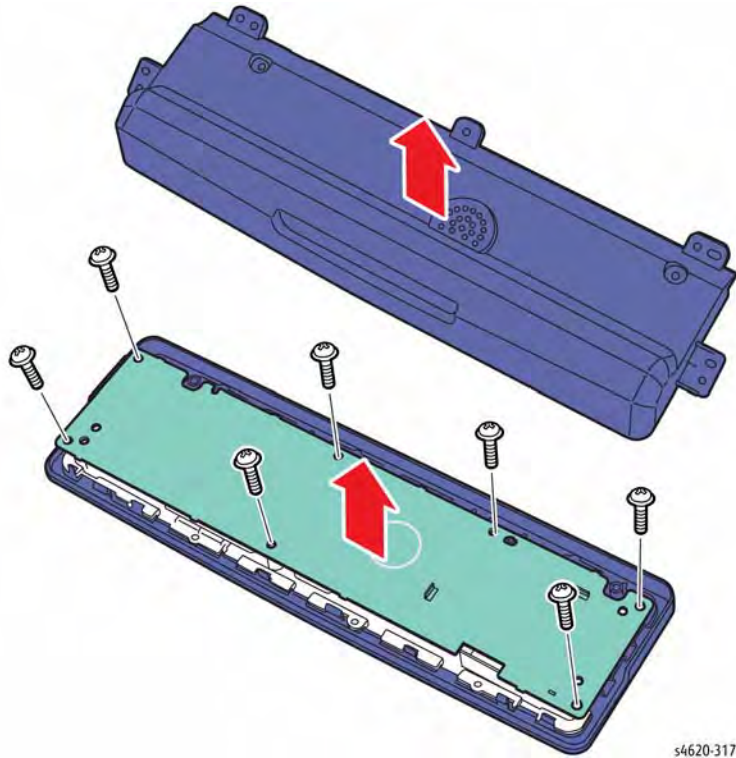
4.   Release 2 hooks that secure the LCD screen to the Control Panel Board.

5.   Disconnect CN1 and CN3 from the Control Panel Board to remove the LCD screen.

4 Repairs and Adjustments

REP 2.2

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REP 3.4 MCU Board

Parts List on PL 3.10 Item 3

Removal

WARNING

Switch off the electricity to the machine. 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: After removal of the MCU Board, move the MSOK board, located in CN4 at Red arrow in Figure 1, to the new board.

1. Remove Tray 2.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the MCU Board Cover, REP 28.1.
4. Remove the Right Cover, REP 28.2.
5. Disconnect all harness connections to the MCU Board.
6. Release the harnesses from 1 harness clamp.
7. Remove 3 screws (metal) that secure the bracket to the chassis.
8. Lift the assembly up to remove the MCU Board and bracket, Figure 1.

CN20
CN20 is not used and may, or may not, be on the MCU.
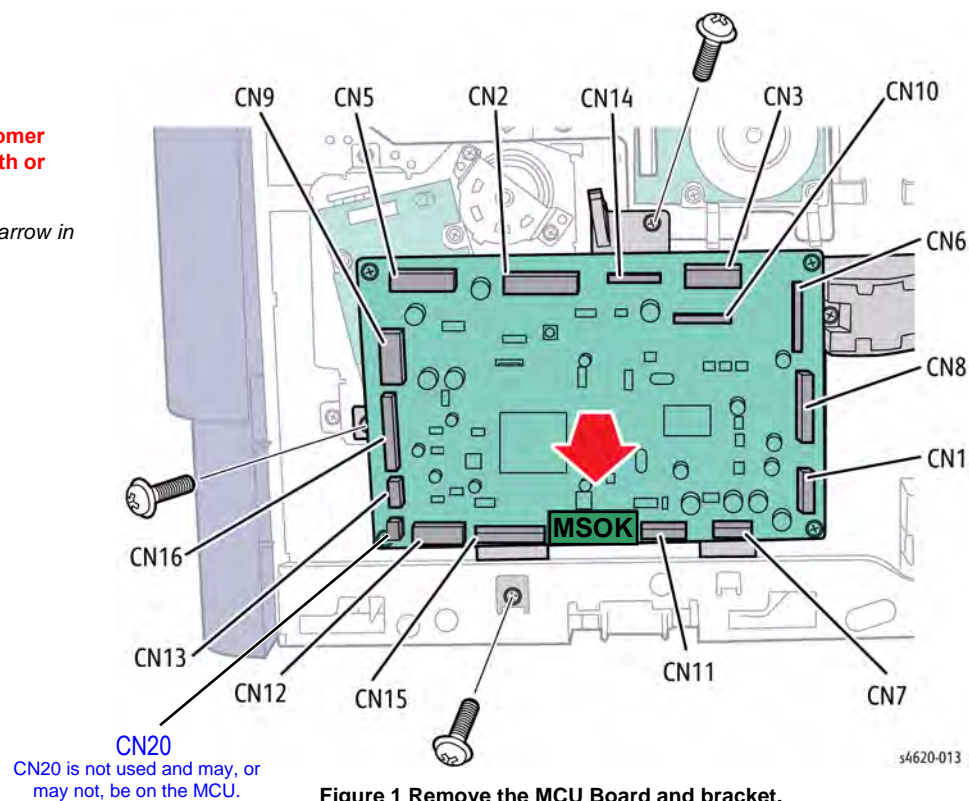
Figure 1 Remove the MCU Board and bracket.

Replacement

After removal of the MCU Board, move the MSOK board, located in CN4 at Red arrow in Figure 1, to the new board.

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4 Repairs and Adjustments
REP 3.4

REP 3.5 IP Board Cage

Parts List on PL 3.10 Item 1

Removal

<p style="text-align:center">WARNING</p>

Switch off the electricity to the machine. 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 2.

2. Remove the Duplex Unit, REP 10.1.

3. Remove the IP Board Cover, REP 28.1.

4. Remove the Right Cover, REP 28.2.

5. Disconnect 5 connections (CN8, CN10, CN12, CN13, and CN14) to the IP Board and feed the harnesses out the holes provided, Figure 1.
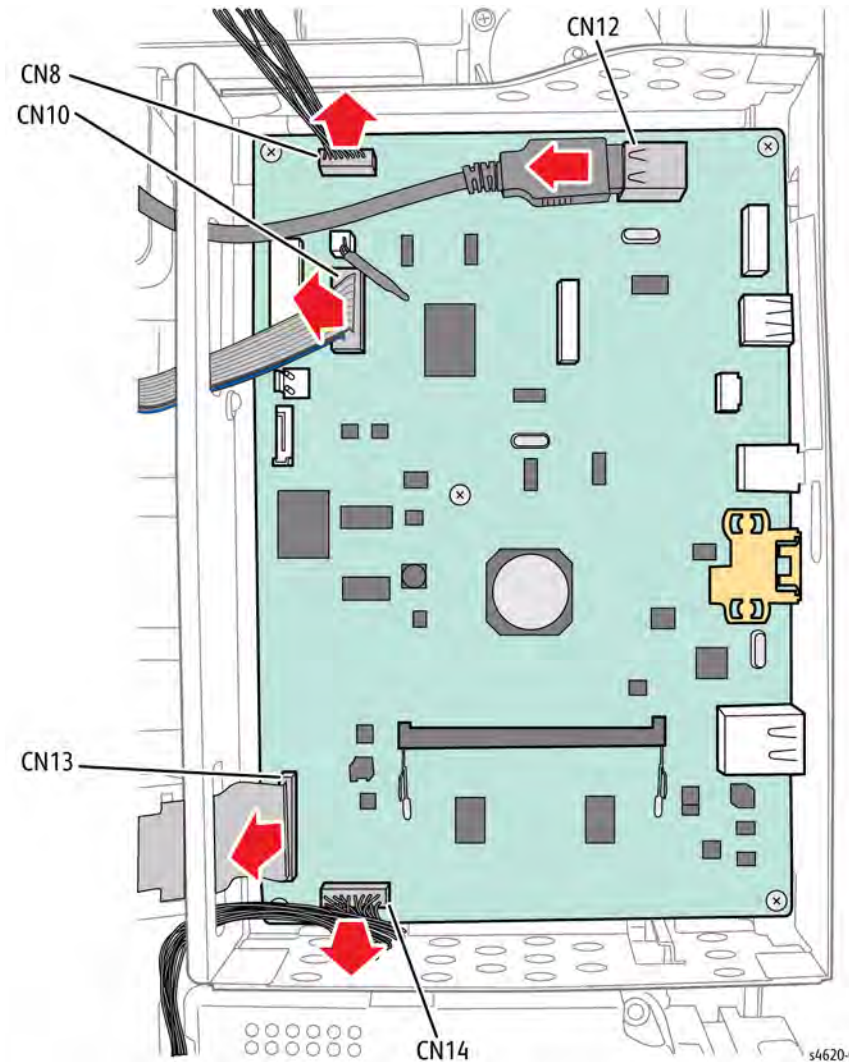
Figure 1 Disconnect the IP Board

6. Remove 2 screws (metal) and slide the IP Cage to the rear to release 2 hooks that secure the cage to the chassis, Figure 2.

4 Repairs and Adjustments

REP 3.5

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Figure 2 Remove the IP Board Cage

REP 3.6 IP Board

Parts List on PL 3.10 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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: After removal of the MCU Board from the cage, move the Configuration Card, Configuration Card holder and if installed, optional memory and Hard Drive to the new board.

1. Remove Tray 2.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the IP Board Cover, REP 28.1.
4. Disconnect 5 connections (CN8, CN10, CN12, CN13, and CN14) to the IP Board and feed the harnesses out the holes provided, Figure 1.

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4 Repairs and Adjustments

REP 3.5, REP 3.6
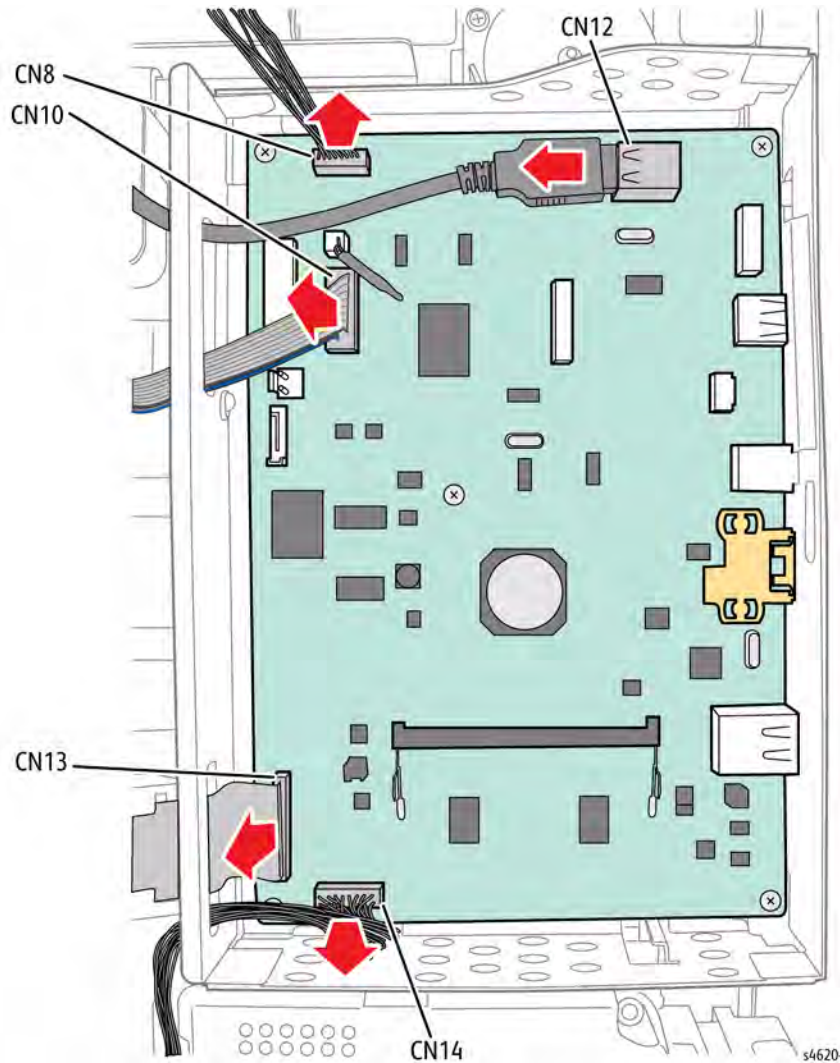
Figure 1 Disconnect the IP Board
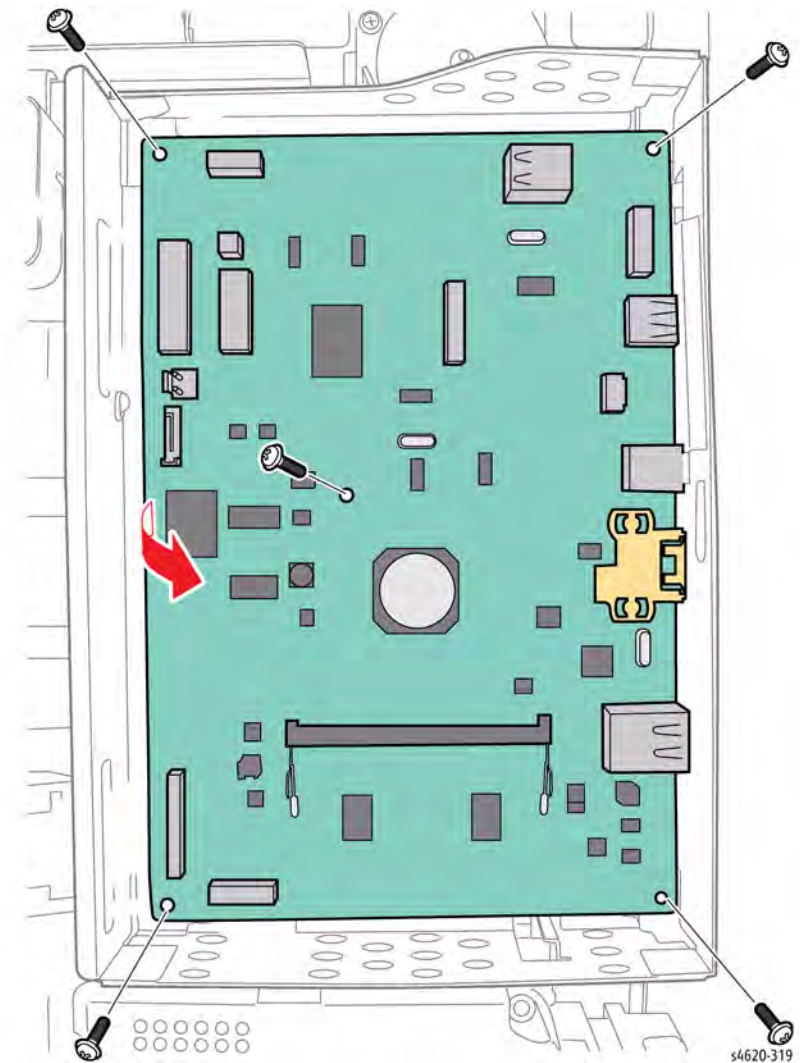
Figure 2 Remove the IP Board

5. Remove 5 screws (metal) and swing the front edge out to release the connectors from the rear panel, Figure 2.

Replacement

After removal of the IP Board from the cage, move the Configuration Card, Configuration Card holder and if installed, optional Memory and Hard Drive to the new board.

4 Repairs and Adjustments

REP 3.6

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REP 4.1 Main Drive Assembly

Parts List on PL 4.10 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 2.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the IP Board Cover, REP 28.1.
4. Remove the Right Cover, REP 28.2.
5. Disconnect 4 connections from the Main Drive Assembly, Figure 1.
6. Release the harnesses from 4 harness clamps, Figure 1.
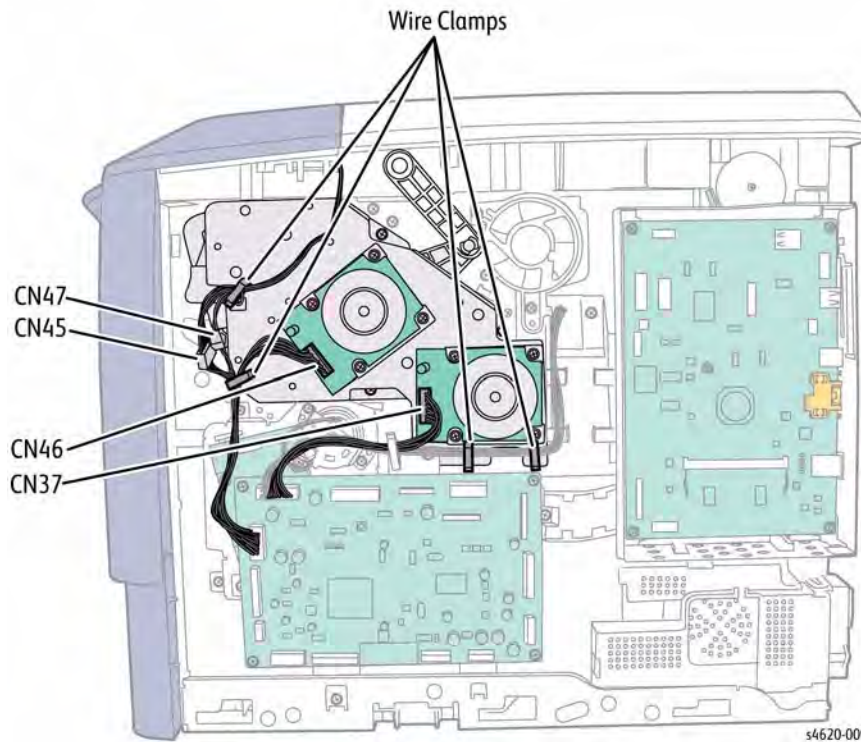
Figure 1 Disconnect the Main Drive Assembly

7. Disconnect the USB cable from the Front Cover.
8. Raise the Top Door.
9. Release the top door linkage from the Main Drive Assembly, Figure 2.
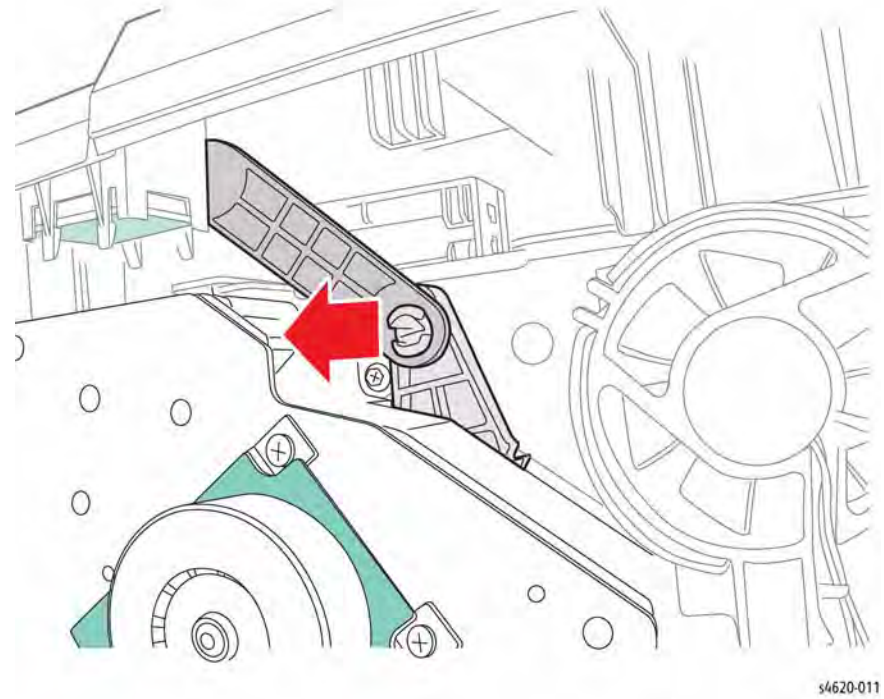
Figure 2 Disconnect Top Door linkage from the Main Drive Assembly

10. Remove 6 screws (1 silver, 5 gold) that secure the Main Drive Assembly to the chassis, Figure 3.

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4 Repairs and Adjustments

REP 4.1
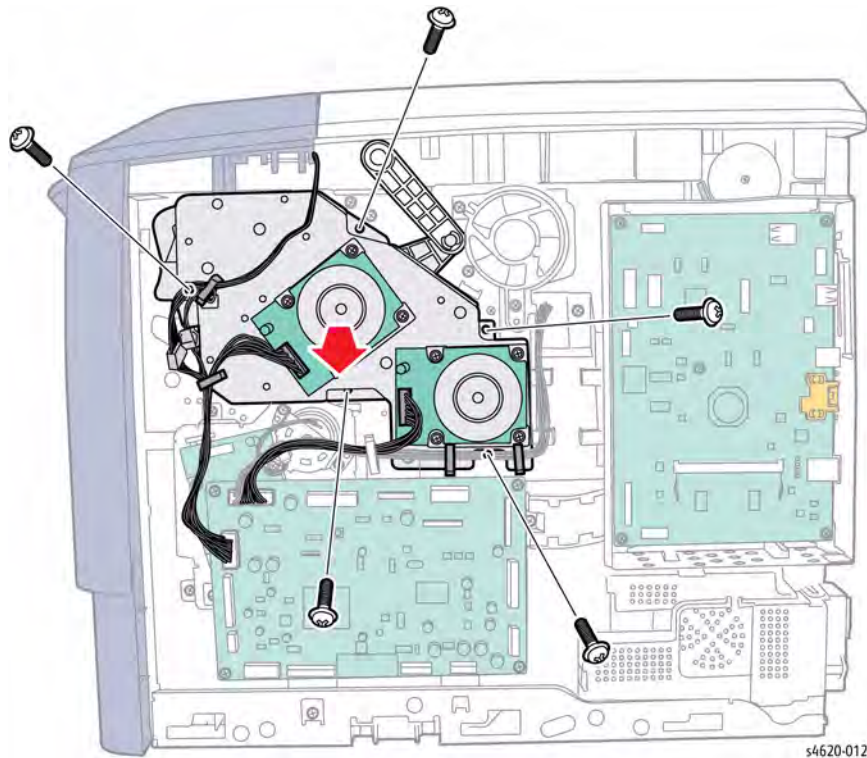
Figure 3 Remove main Drive Assembly screws

REP 4.2 Tray 2 Feed Clutch

Parts List on PL 4.10 Item 7

Removal

The Tray 2 Feed Clutch is located behind the MCU Board. This procedure partially removes the MCU Board to access to the clutch.

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Disconnect the Registration Clutch (P/J36) from the harness.
5. Disconnect P/J37 from the Main Drive Assembly.
6. Disconnect CN9, 12, 13, and 16 from the MCU Board.
7. Release the harnesses from 3 clamps at the top of the MCU Board.
8. Remove 3 screws (metal) that secure the MCU Board bracket to the chassis, Figure 1.

4 Repairs and Adjustments

REP 4.1, REP 4.2

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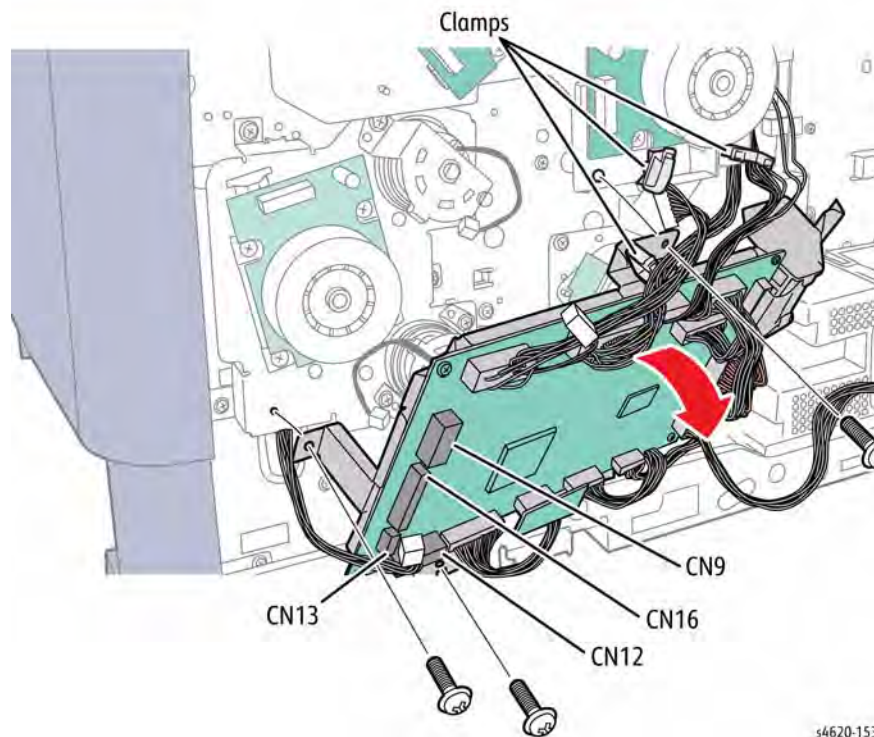
Figure 1 Disconnect the MCU Board

9. Lift the MCU Board bracket to release the tabs and move the board out and right to access the clutch, Figure 2.
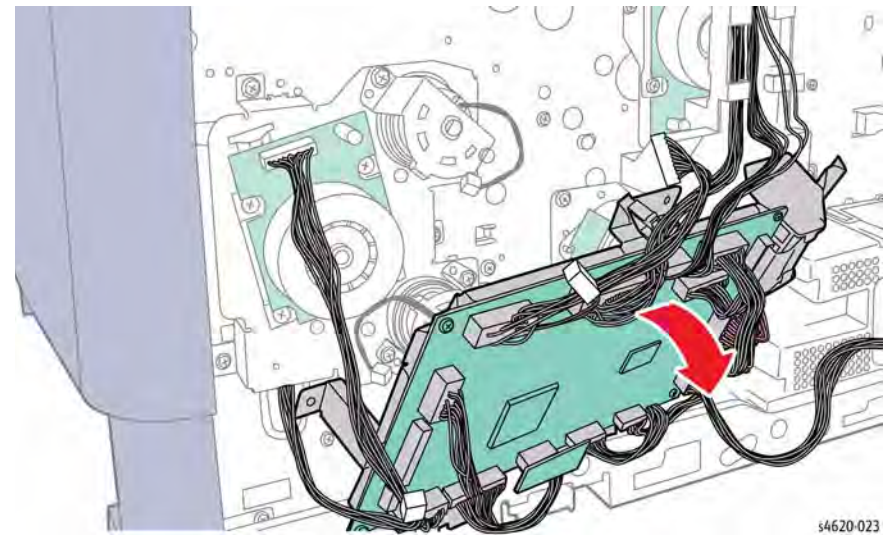
Figure 2 Loosen the MCU Board and bracket to access the clutch

10. Disconnect P/J52 from the Tray 2 Feed Clutch.
11. Remove 2 screws (Gold, metal) that secure the clutch bracket to the Feed Drive.
12. Remove the E-ring that secures the clutch to the shaft, Figure 3.

Figure 3 Remove the Tray 2 Feed Clutch

REP 4.3 Registration Clutch

Parts List on PL 4.10 Item 7

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Disconnect the Registration Clutch (P/J36) from the harness.
5. Remove 2 screws (Gold, metal) that secure the clutch bracket to the Feed Drive, Figure 1.
6. Remove the E-ring that secures the clutch to the shaft.
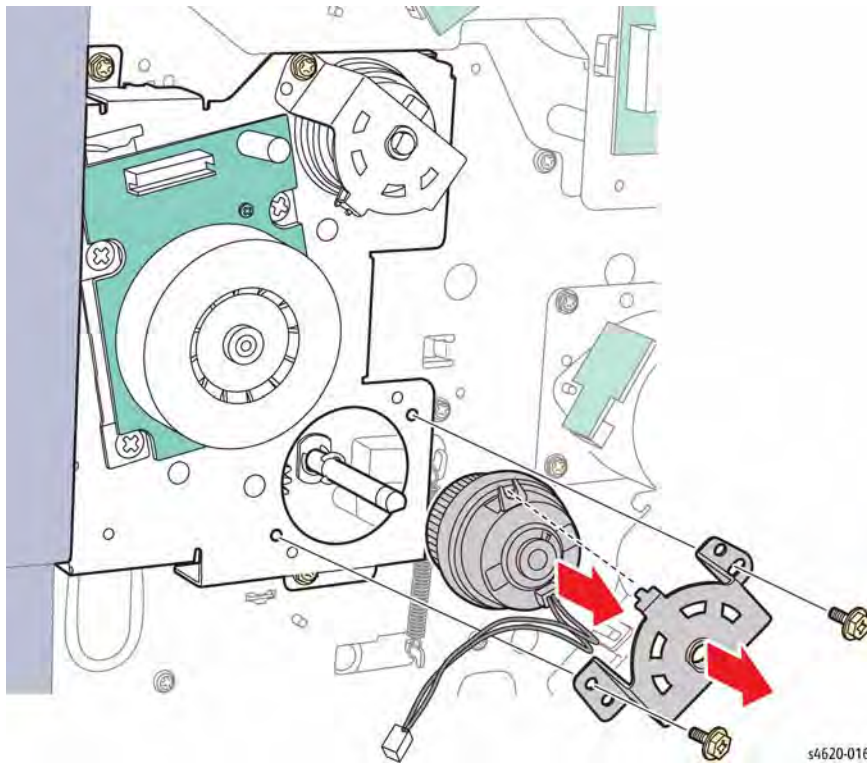
Figure 1 Remove the Registration Clutch

4 Repairs and Adjustments

REP 4.2, REP 4.3

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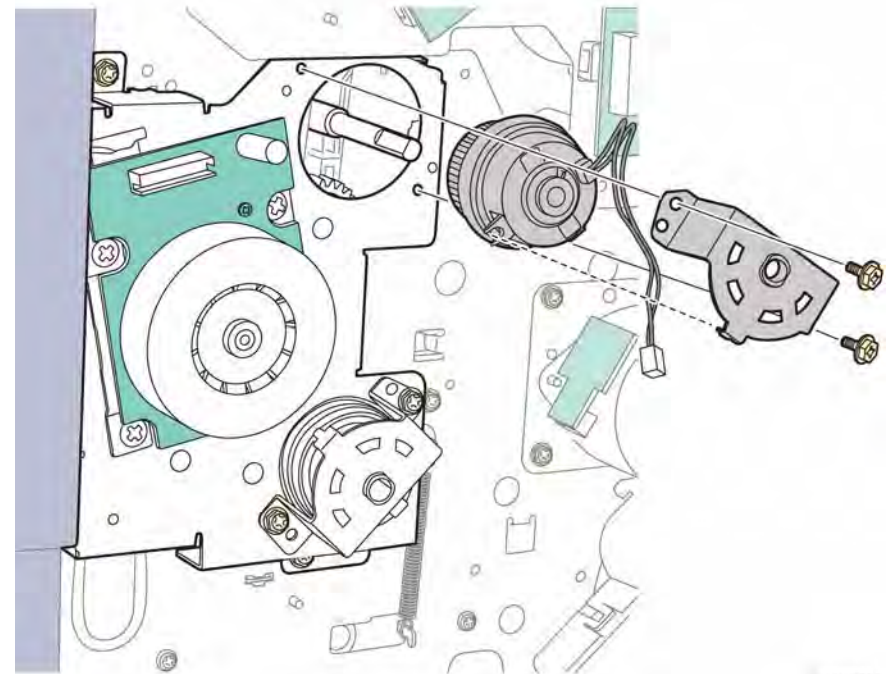
REP 4.4 Feed Drive Assembly

Parts List on PL 4.10 Item 6

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the MCU Board, REP 3.4.
5. Remove the Registration Clutch, REP 4.3.
6. Remove the Feed Clutch, REP 4.2.
7. Disconnect P/J53 from the Feed Drive Assembly.
8. Remove 5 screws (Gold, metal) that secure the Feed Drive Assembly.

Figure 1 Remove the Feed Drive Assembly

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4 Repairs and Adjustments

REP 4.4
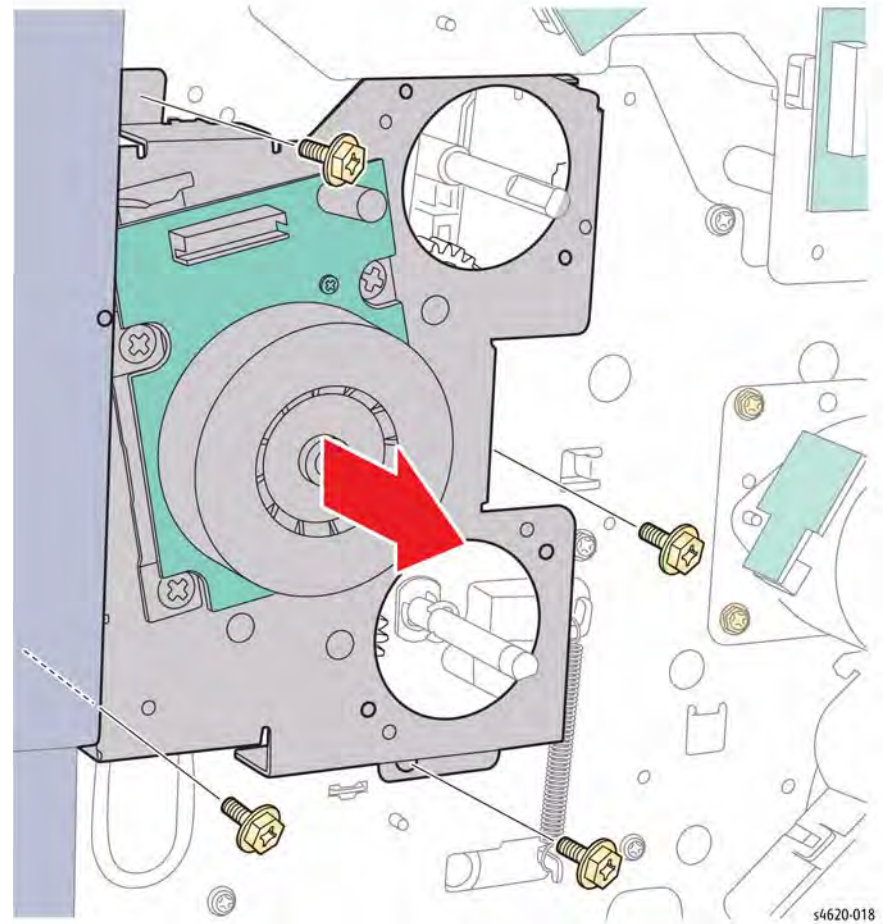
REP 4.5 Right Side Chassis Fan

Parts List on PL 4.10 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Disconnect P/J38 from the harness.
5. Remove 1 screw (plastic) that secures the fan in the duct.
6. Pull the fan from the duct to remove.
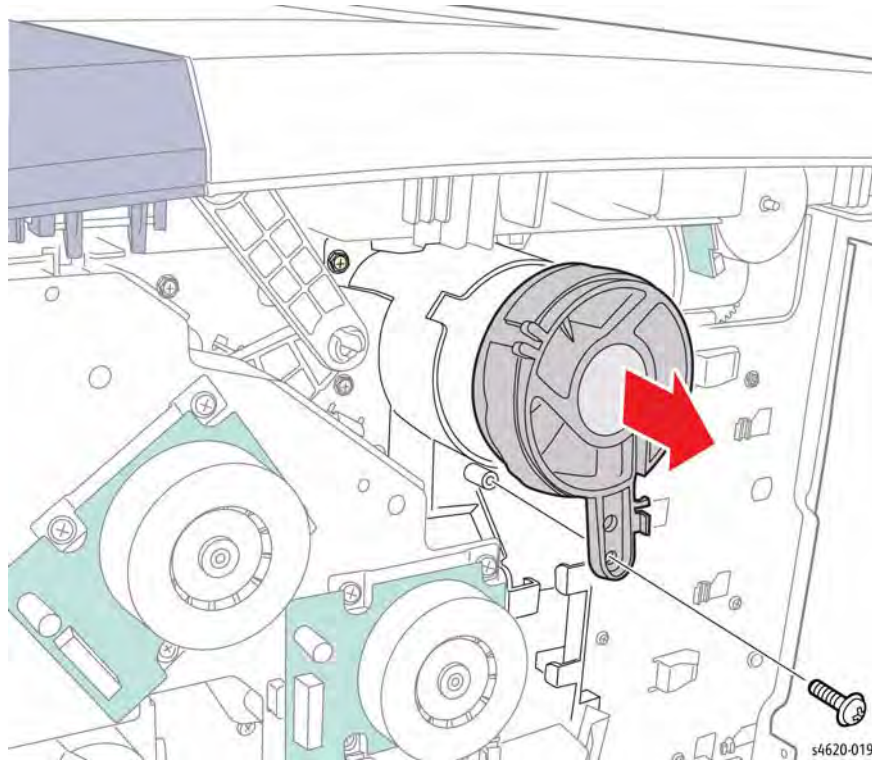
Figure 1 Remove the Right Side Chassis Fan

REP 6.1 Laser Unit

Parts List on PL 6.10 Item 1

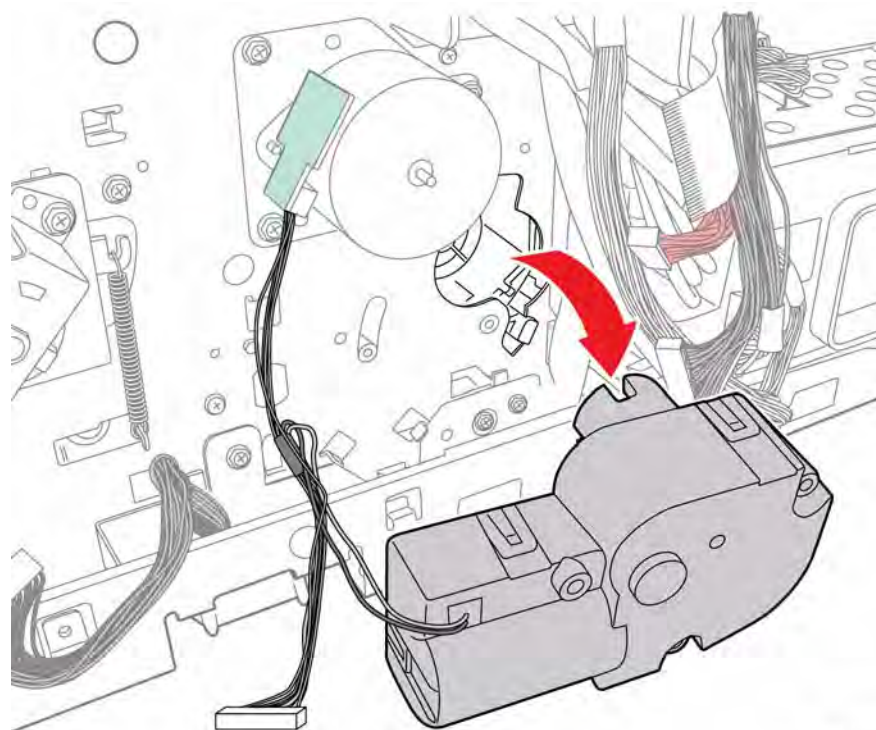**Removal**

WARNING

Switch off the electricity to the machine. 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: Laser Unit part numbers vary by model.

1. Remove the Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the Waste Toner Cartridge.
5. Remove the Left Cover, REP 28.3.
6. Remove the Top Cover, REP 28.5.
7. Disconnect P/J21 from the Laser Unit.
8. Remove 4 screws (metal) that secure the Laser Unit to the chassis, Figure 1.
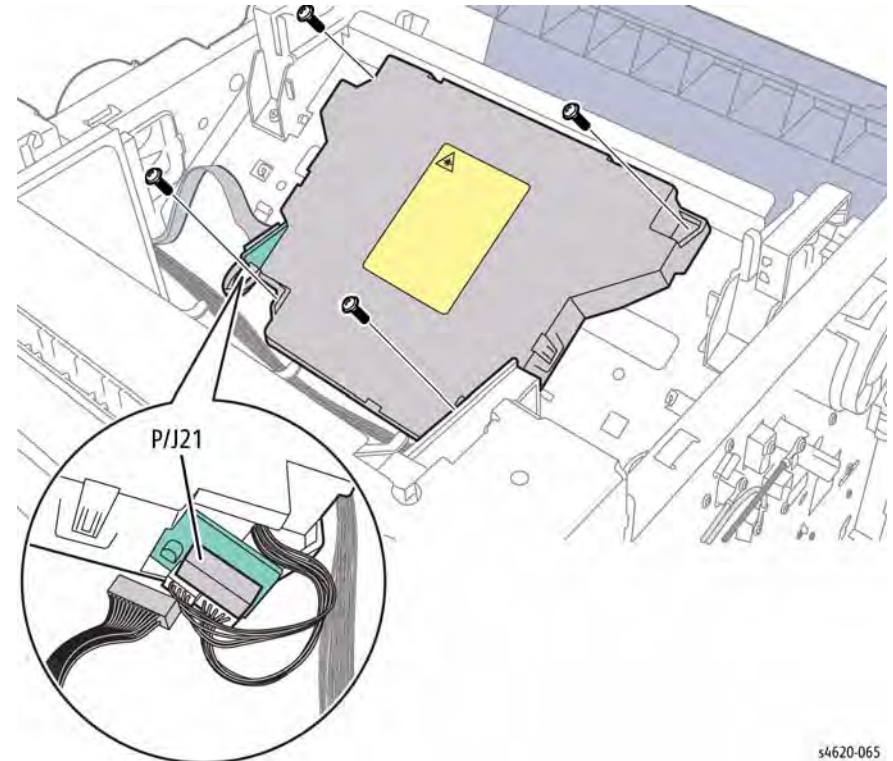
Figure 1 Remove the Laser Unit

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REP 4.5, REP 6.1

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REP 7.0 Tray 1 Feeder Assembly
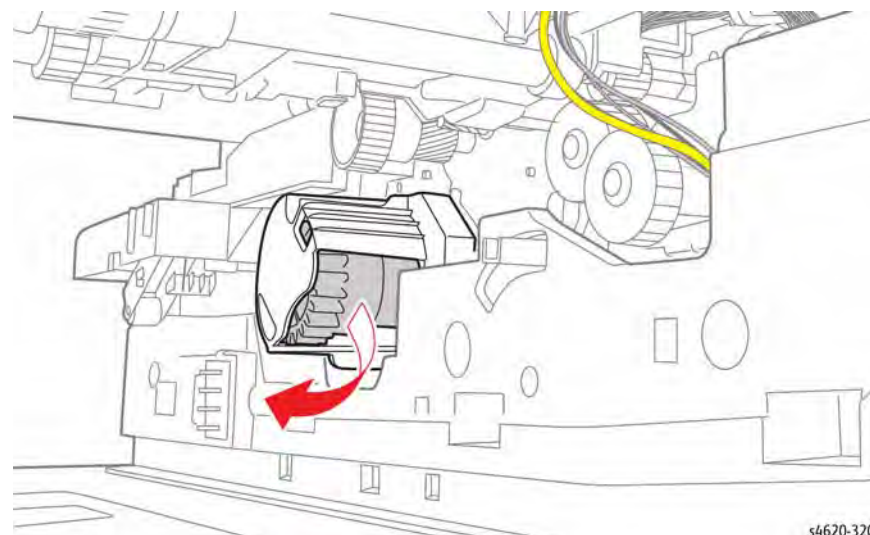
Parts List on PL 8.10 Item 14

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Remove Tray 2.
2. Open the Top Door.
3. Remove the Toner Cartridge.
4. Remove the Drum Cartridge.
5. Remove the Duplex Unit, REP 10.1.
6. Remove the Right Cover, REP 28.1.
7. Remove the Front Cover, REP 28.4.
8. Disconnect CN13 from the MCU Board and feed the harness through the hole into the chassis, Figure 1.

CN13

s4620-071
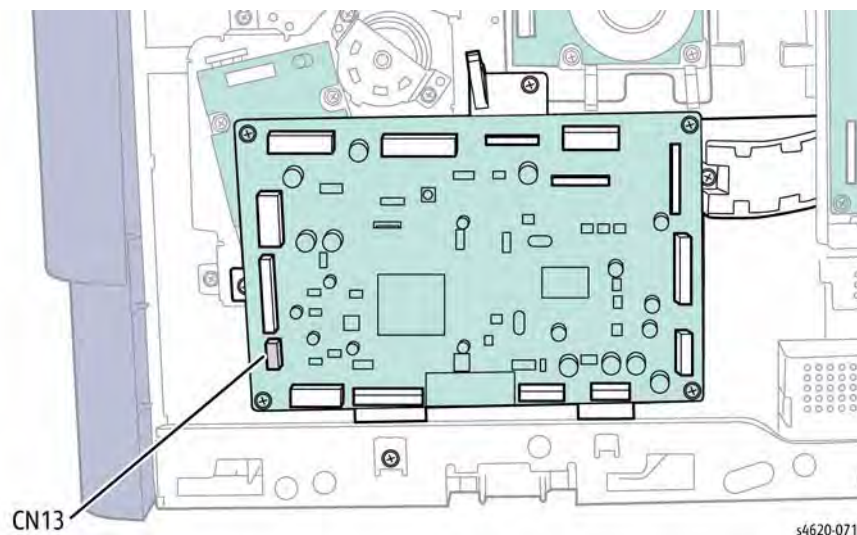
Figure 1 Disconnect the Tray 1 Feeder harness from the MCU Board

9. Remove 4 screws (metal) that secure the feeder to the chassis, Figure 2.

s4620-072
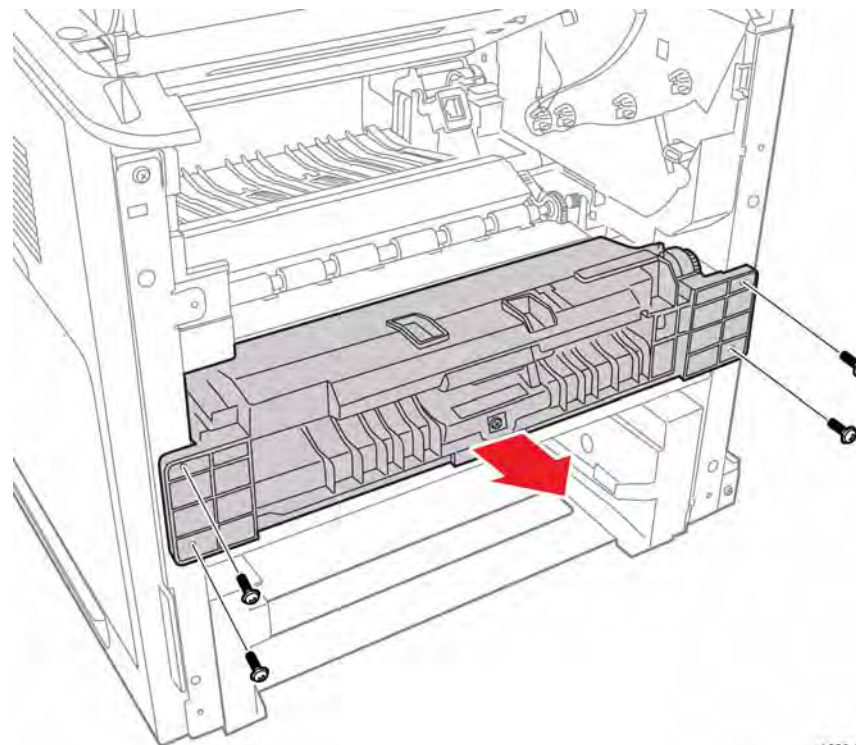
Figure 2 Remove the Feed Assembly screws

Replacement

Feed the harness into the tray cavity, install the feeder, then feed the harness behind the tray guide through the hold to reconnect CN13 to the MCU Board, Figure 3.

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REP 7.0
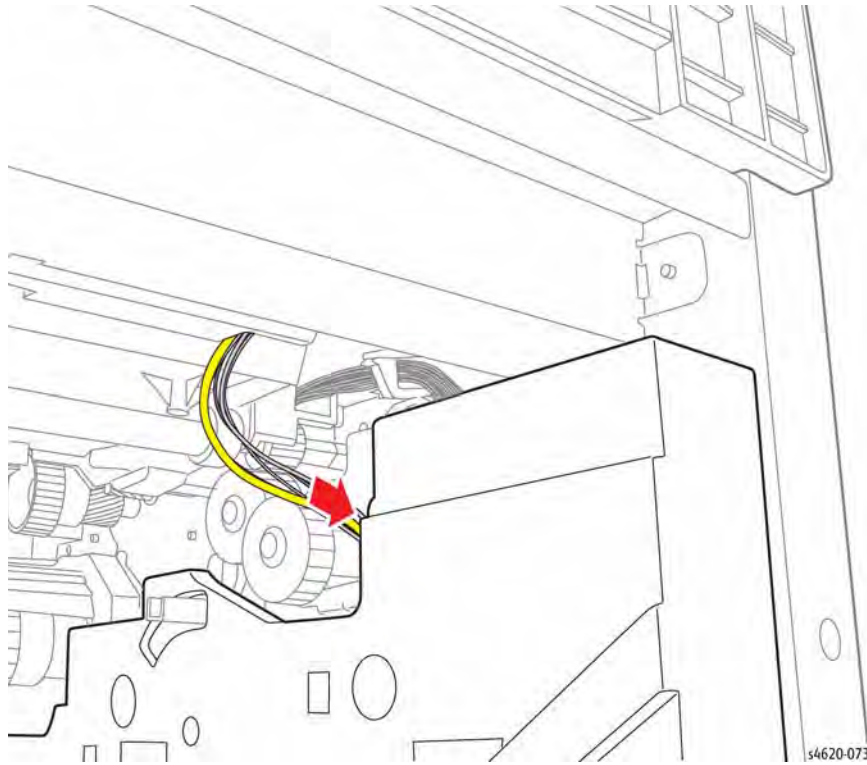
Figure 3 Feeder Assembly wire routing

REP 7.3 Tray 1 Pick-up Assembly

Parts List on PL 8.10 Item 3

Removal

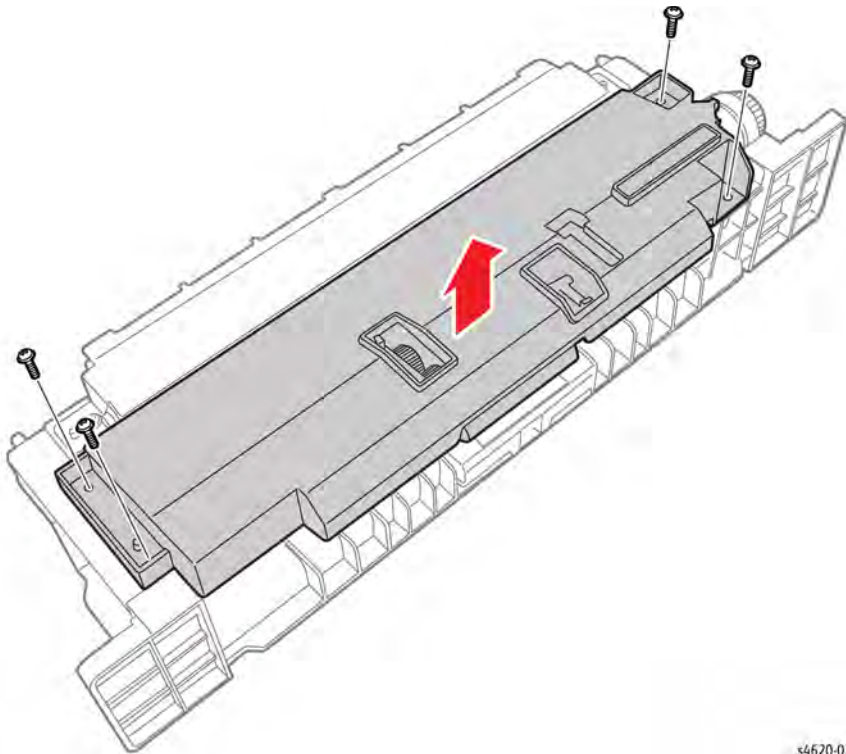**WARNING**

Switch off the electricity to the machine. 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

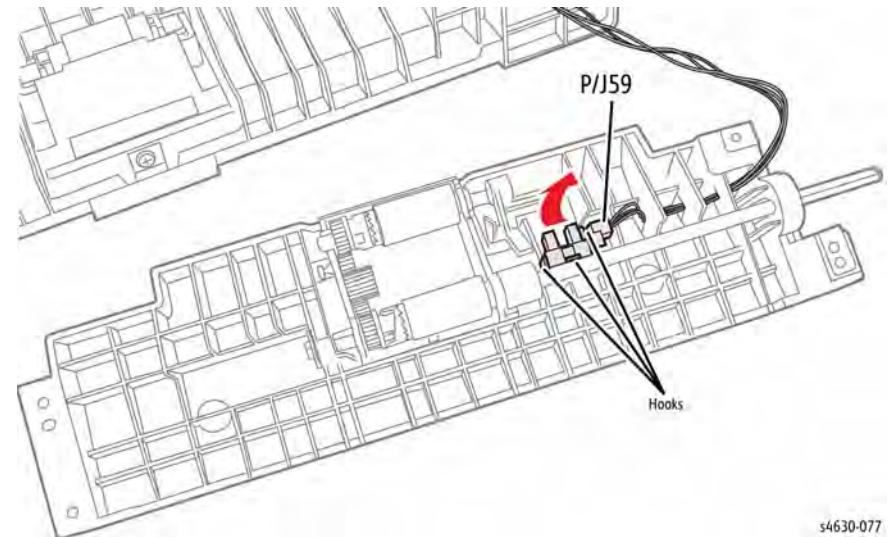*Cover the Drum Cartridge to prevent light exposure.*

1. Remove Tray 2.
2. Open the Top Door.
3. Remove the Toner Cartridge.
4. Remove the Drum Cartridge.
5. Remove the Duplex Unit, REP 10.1.
6. Remove the IP Board Cover, REP 28.1.
7. Remove the Right Cover, REP 28.2.
8. Remove the Front Cover, REP 28.4.
9. Remove the Tray 1 Feeder Assembly, REP 7.0.
10. Remove the Tray 1 Feed Clutch, REP 7.16.
11. Remove 4 screws (plastic) that secure the top of the Feeder Assembly, Figure 1.

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REP 7.0, REP 7.3

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Figure 1 Remove the Feeder Assembly top screws
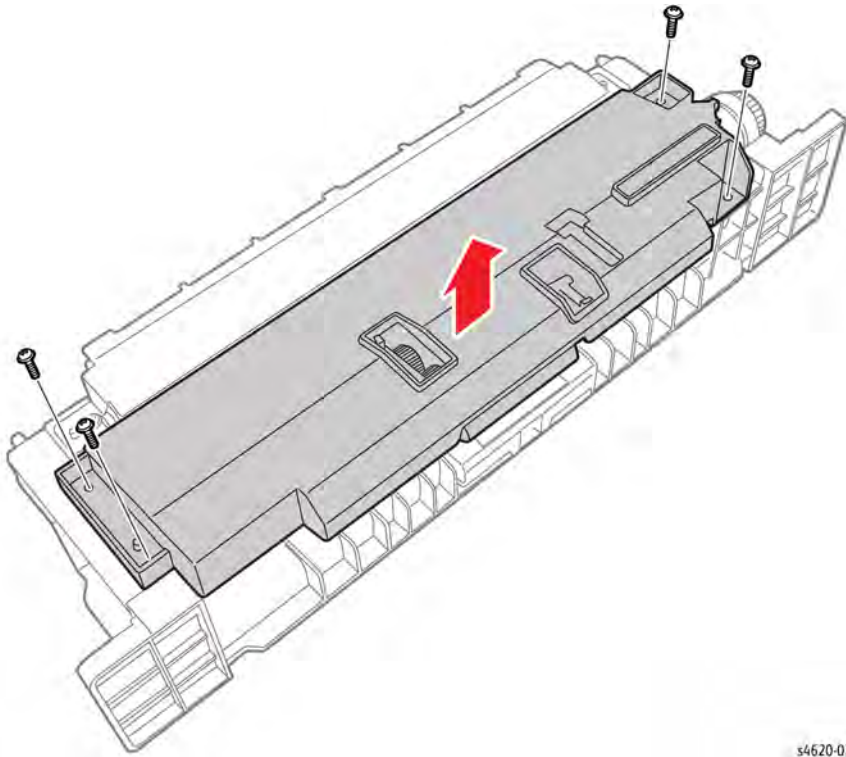
12. Remove the Pick Assembly from the Feeder Assembly, Figure 2.
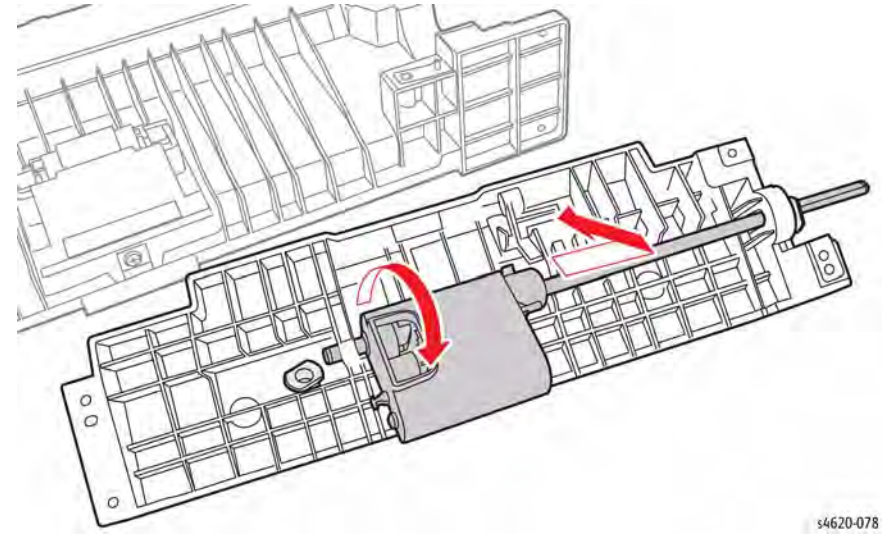
Figure 2 Remove the Tray 1 Pick-up Assembly

Replacement

Check No Paper Sensor actuator operation and position before securing the Tray 1 Feeder Assembly top cover, Figure 3.

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REP 7.3
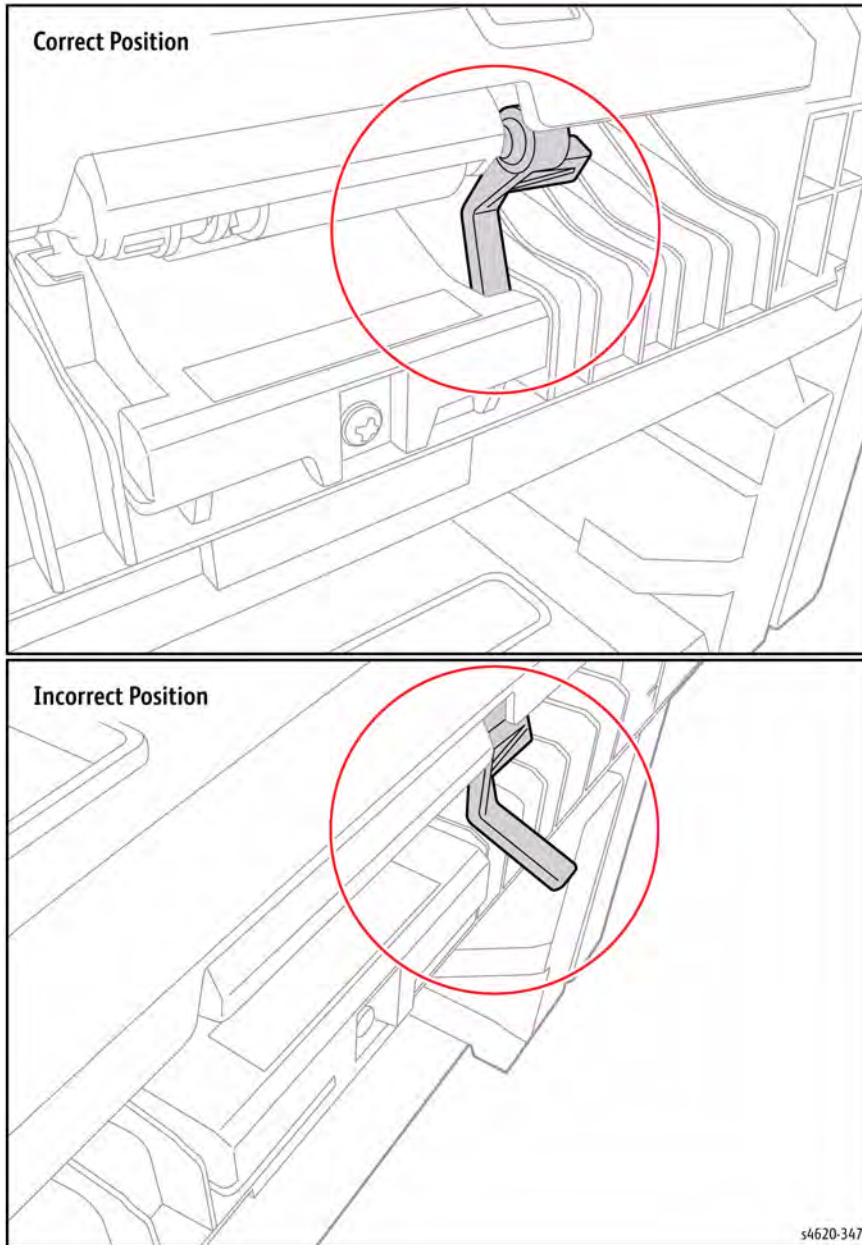
Figure 3 Tray 1 No Paper Sensor actuator position

REP 7.5 Tray 1 Separator Assembly

Parts List on PL 8.10 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Tray 1.
2. Release the Tray 1 guide (PL 28.20 Item 4) pins from the Tray 1 cover, Figure 1.
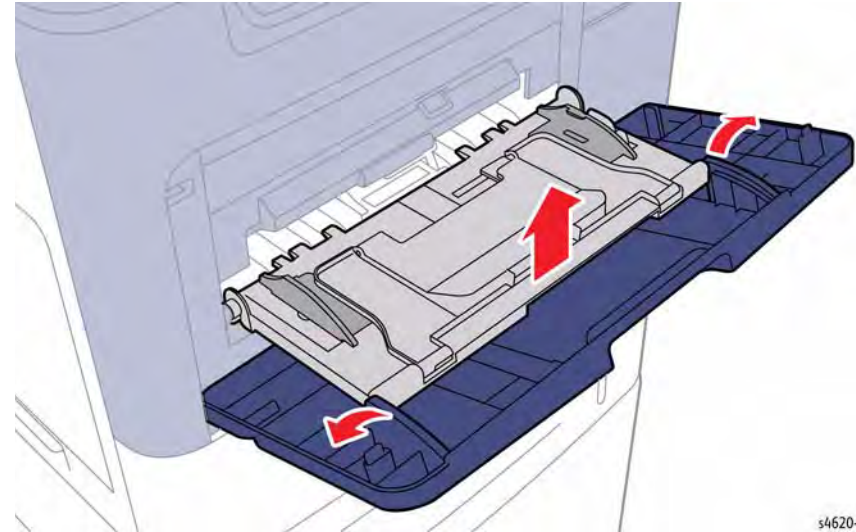
s4620-385

Figure 1 Release the Tray 1 guide from the cover

3. Rotate the Tray 1 cover to horizontal to release the cover from the Front Cover, Figure 2.

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REP 7.3, REP 7.5

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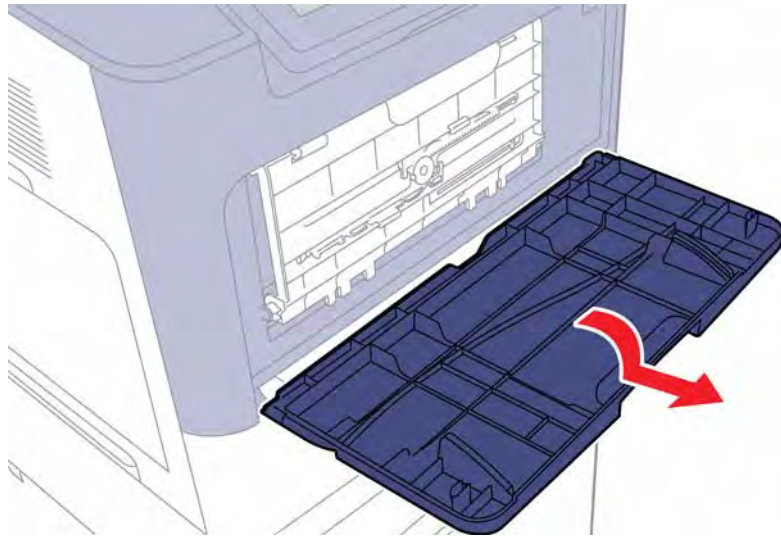
Figure 2 Remove the Tray 1 cover

4. Rotate the Tray 1 guide to its lowest point to release the guide from the Front Cover, Figure 3.
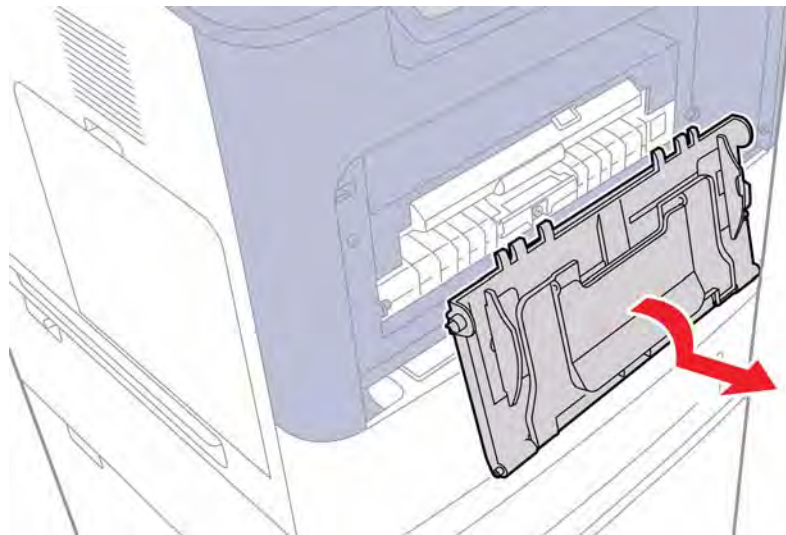
Figure 3 Remove the Tray 1 guide

5. Remove the screw that secures the Separator Roller Assembly to the feeder, Figure 4.
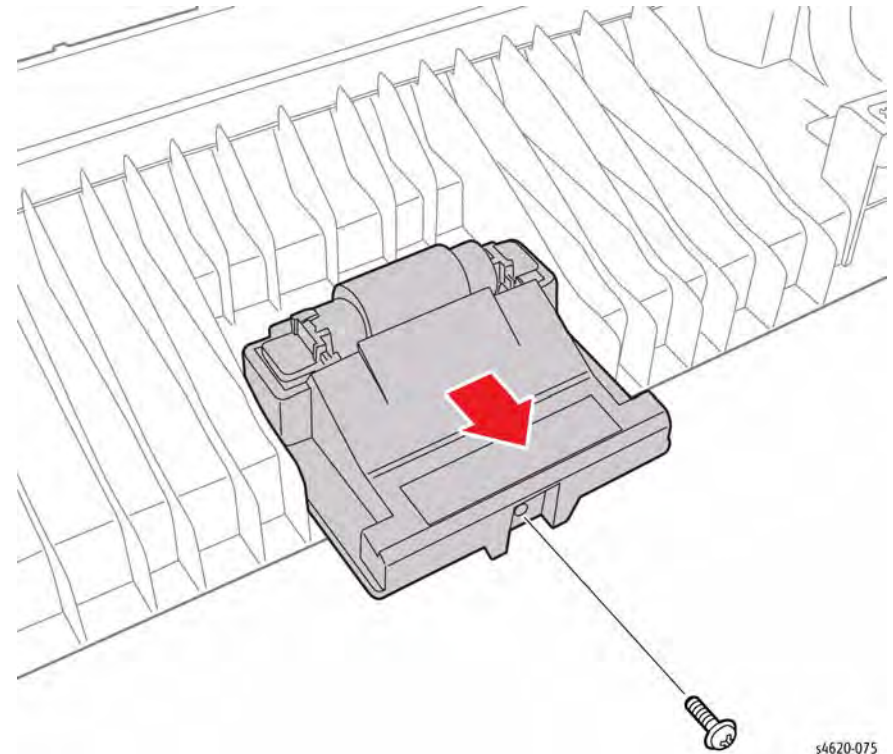
Figure 4 Remove the Tray 1 Separator Roller Assembly screw

Replacement

Hold the No Paper Sensor Actuator in while during Separator Roller Assembly installation. The actuator should rest behind the Separator Roller Assembly, Figure 5.

Correct Position

Incorrect Position

s4620-347
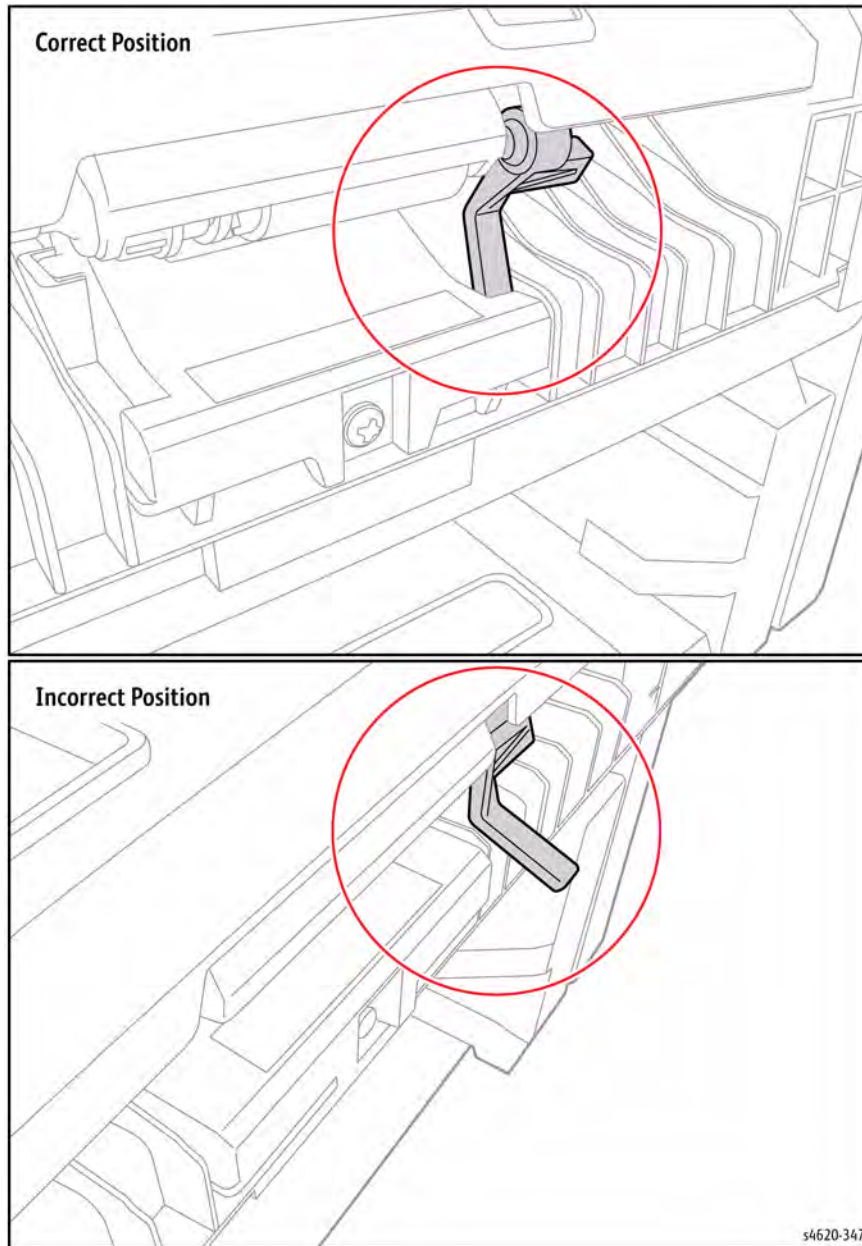
Figure 5 Tray 1 No Paper Sensor actuator position

REP 7.6 Tray 2 Feeder Assembly

Parts List on PL 8.15 Item 21

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

CAUTION

</div>

Cover the Drum Cartridge to prevent light exposure.

NOTE: *To service or replace the Tray 2 Feeder Assembly requires separation of the left side chassis. With the left side chassis separated, the chassis is prone to collapse, As you release the left side chassis, use a prop placed in the Tray 2 cavity to maintain, as best as possible, chassis alignment.*

1. Remove Tray 2.
2. Open the Top Door.
3. Remove the Toner Cartridge.
4. Remove the Drum Cartridge.
5. Remove the Duplex Unit, REP 10.1.
6. Remove the IP Board Cover, REP 28.1.
7. Remove the Right Cover, REP 28.2.
8. Remove the Top Cover, REP 28.5.
9. Remove 5 screws (2 plastic, 3 metal) that secure the rear support bracket to the chassis.
10. Lift the bracket and rest on the printer chassis, Figure 1.

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REP 7.5, REP 7.6

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Figure 1 Remove the rear support bracket

11. Remove the Front Cover, REP 28.4.

12. Remove the Rear Door, REP 28.6.

13. Remove the Fuser, REP 10.10.

14. Remove the MCU Board and bracket, REP 3.4.

15. Remove the Tray 2 Feed Clutch, REP 4.2.

16. Remove the Registration Clutch, REP 4.3.

17. Remove the Feed Drive Assembly, REP 4.4.

18. Remove 4 screws (metal) that secure the front support bracket, Figure 2.
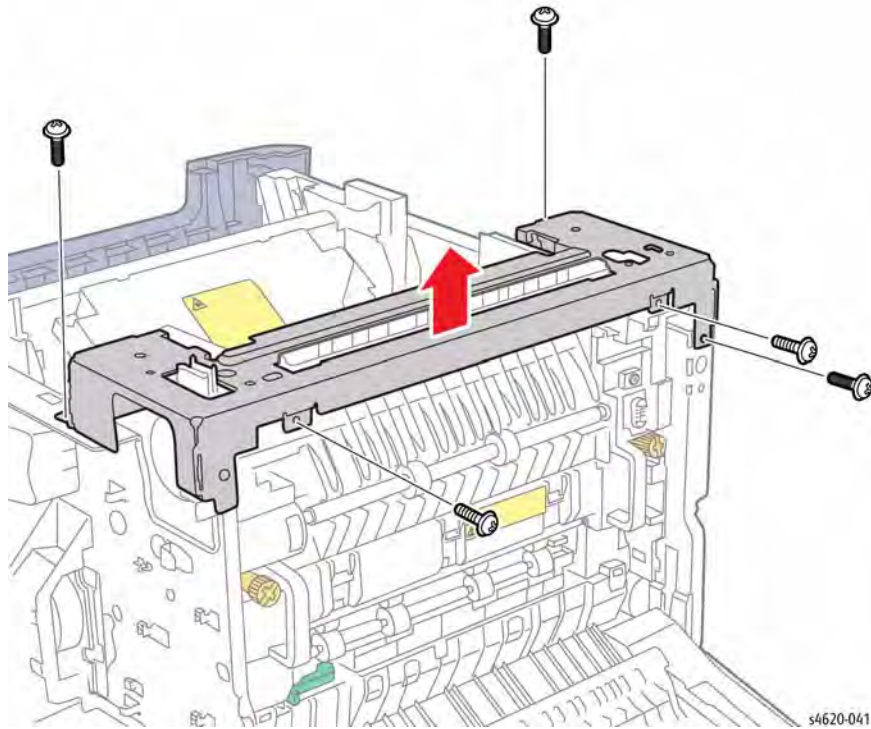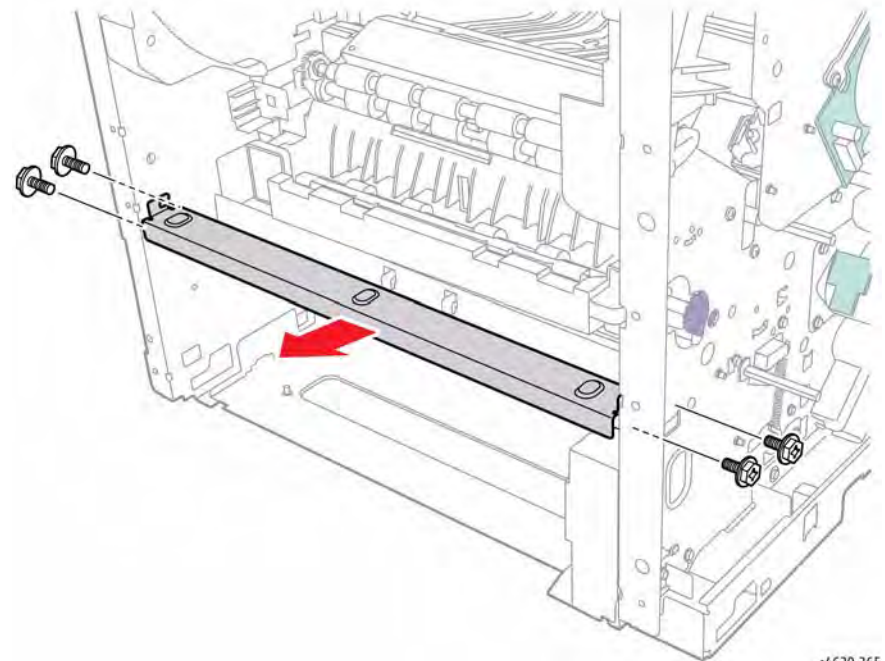
Figure 2 Remove the front support bracket

19. Remove 3 (plastic) screws, disconnect the Duplex Unit Detect Sensor P/J24, depress 1 tab and slide the guide to the rear to release the hooks and remove the left upper tray guide from the chassis, Figure 3.

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4 Repairs and Adjustments

REP 7.6
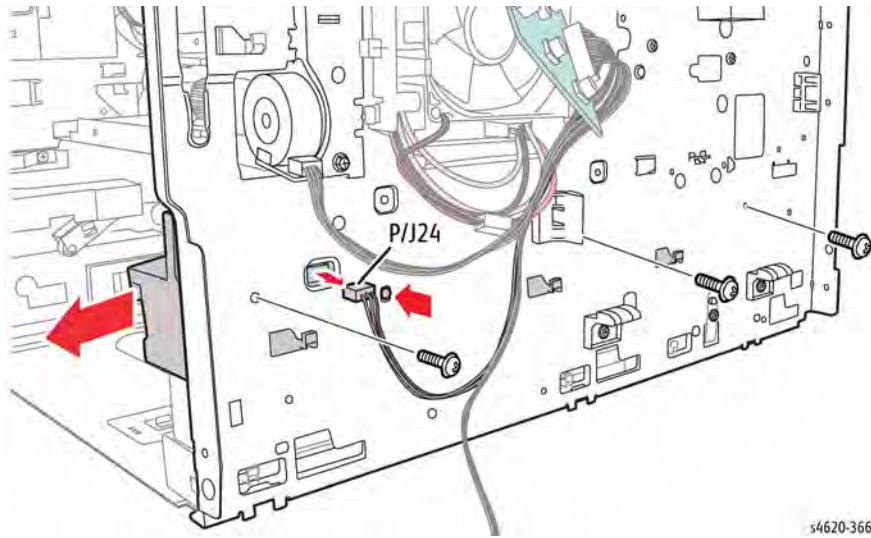
Figure 3 Remove the left upper tray guide

20. Remove 4 (3 plastic, 1 metal) screws that secure the lower left tray guide and ground strap. Remove the ground strap, then slide the guide forward to release the hooks and remove the left lower tray guide from the chassis, Figure 4.
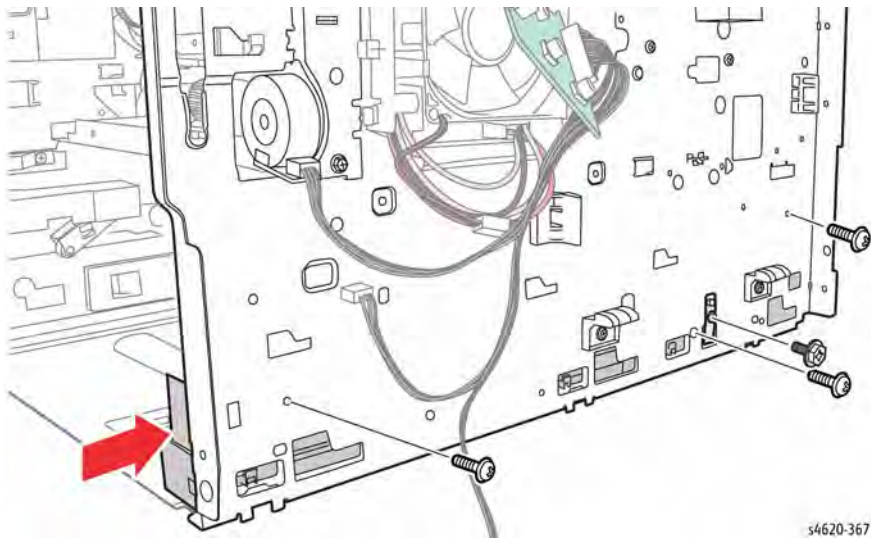
Figure 4 Remove the left lower tray guide

21. Remove 2 (plastic) screws that secure the left side of the middle frame assembly, Figure 5.
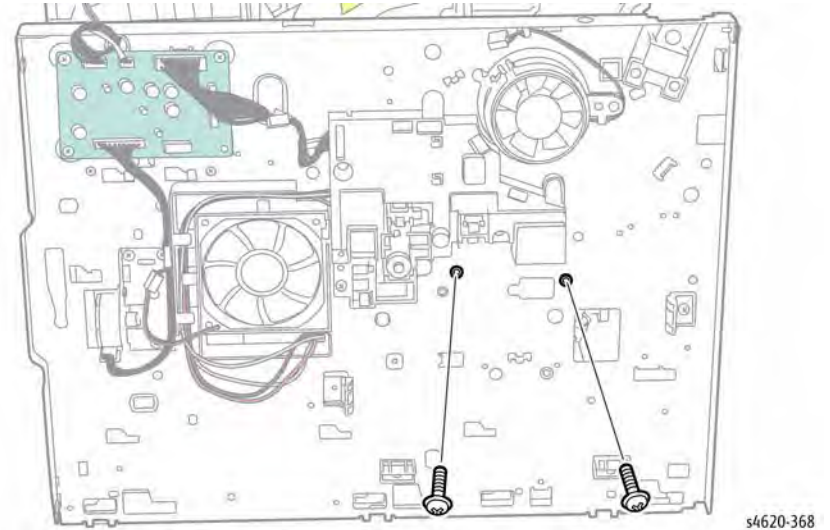
Figure 5 Remove the left side middle frame assembly screws

22. Remove the Joint Board, REP 9.8.

23. Remove 3 (2 plastic, 1 metal) screws that secure the left side of the Exit Assembly, Figure 6.

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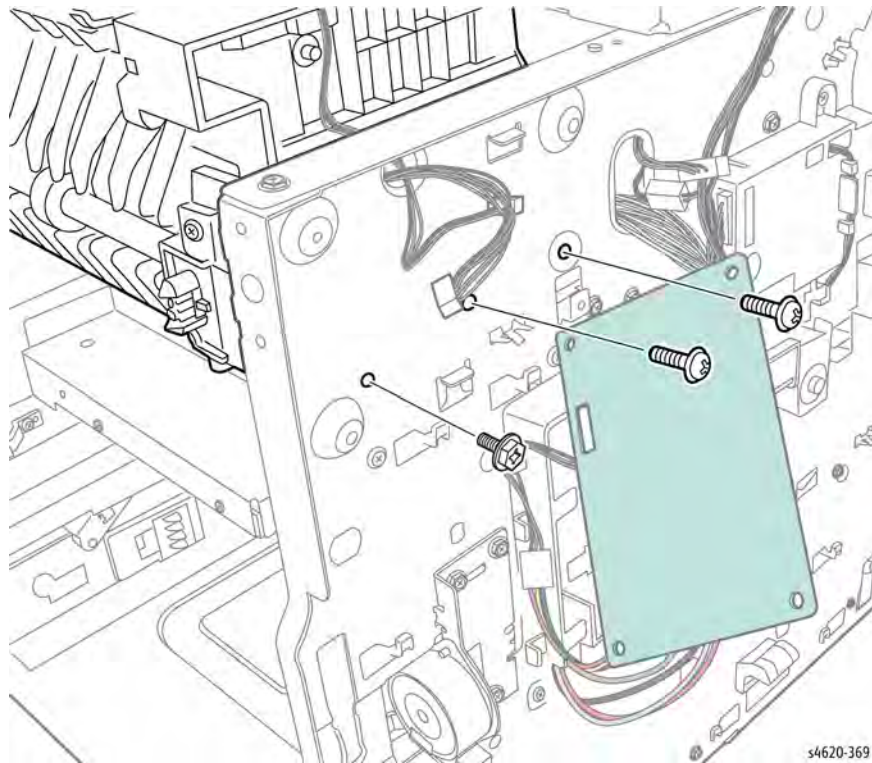
Figure 6 Remove the left side Exit Assembly screws

24. Remove 4 metal screws that secure the Tray 2 baseplate, Figure 8.

25. Remove the bearing from the Pick-up Assembly shaft, Figure 8.

26. Release the feeder harness from the clamp and feed the harness into the Tray 2 cavity, Figure 7.
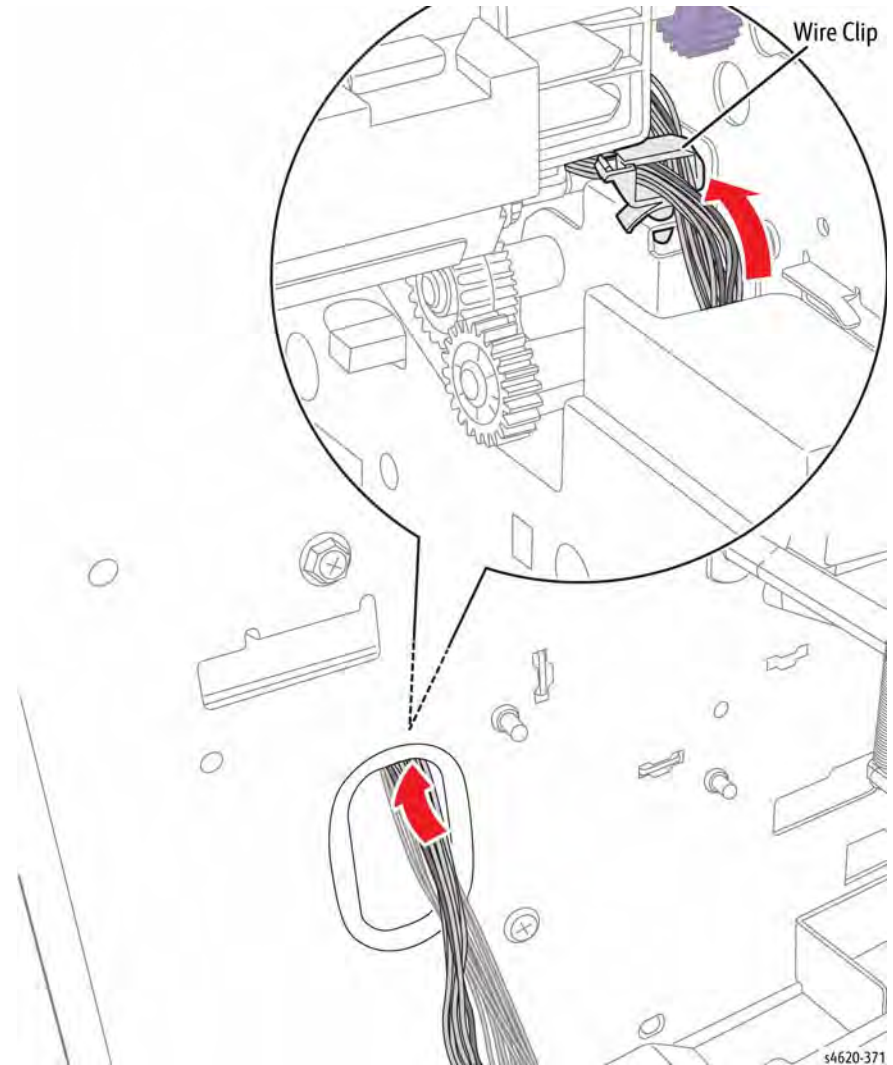
Figure 7 Release the Tray 2 Feeder harness

27. Remove the spring from the Pick-up Assembly, Figure 8.

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REP 7.6
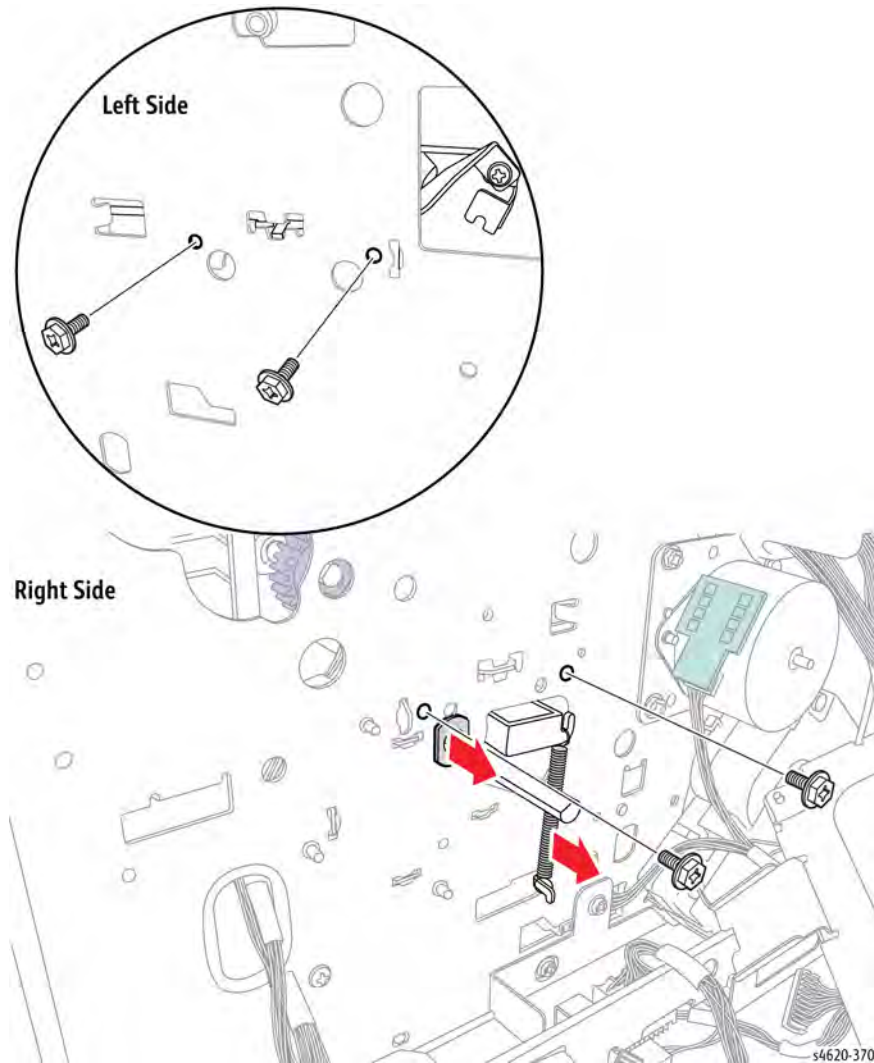
Figure 8 Remove the Tray 2 baseplate screws, bearing and spring

28. Remove 2 metal screws that secure the left side of the power supply tray, Figure 9.
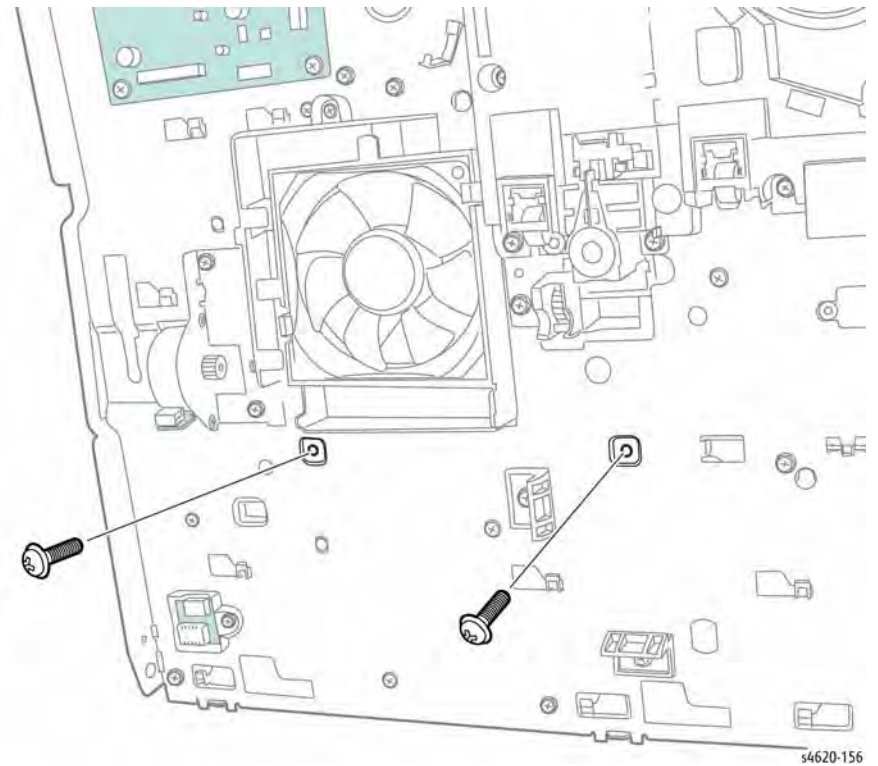
Figure 9 Remove the left side power supply tray screws

29. Remove 3 (metal) screws that secure the left side of the lower LSU frame, Figure 10.
30. Remove 3 (metal) screws that secure the left side chassis to the bottom plate, Figure 10.

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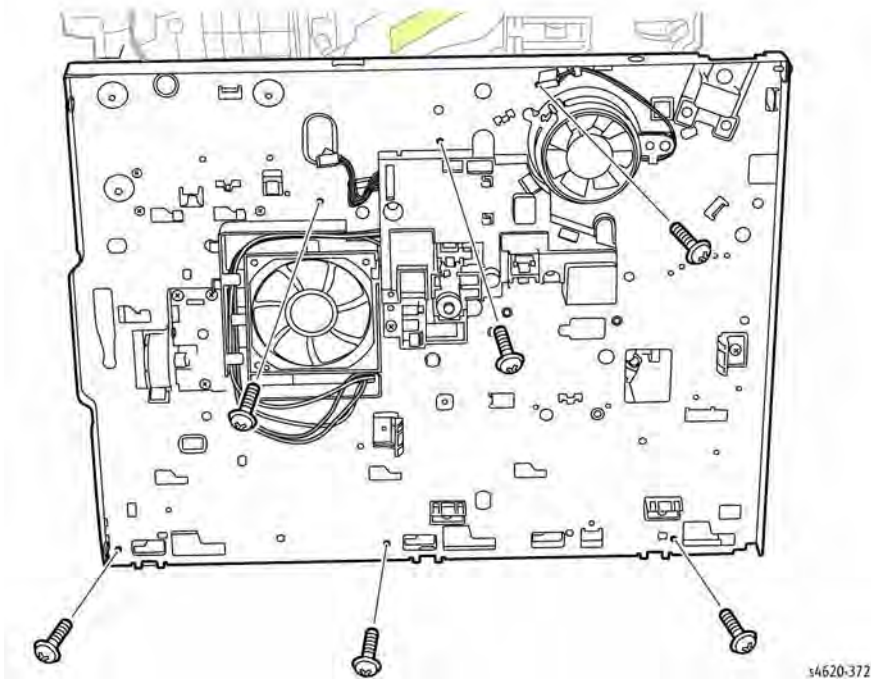
Figure 10 Remove the left side lower LSU frame and left chassis screws

31. Hold the left side chassis and release the Tray 2 baseplate from the chassis to remove the Tray 2 Feeder Assembly from the chassis, Figure 11.
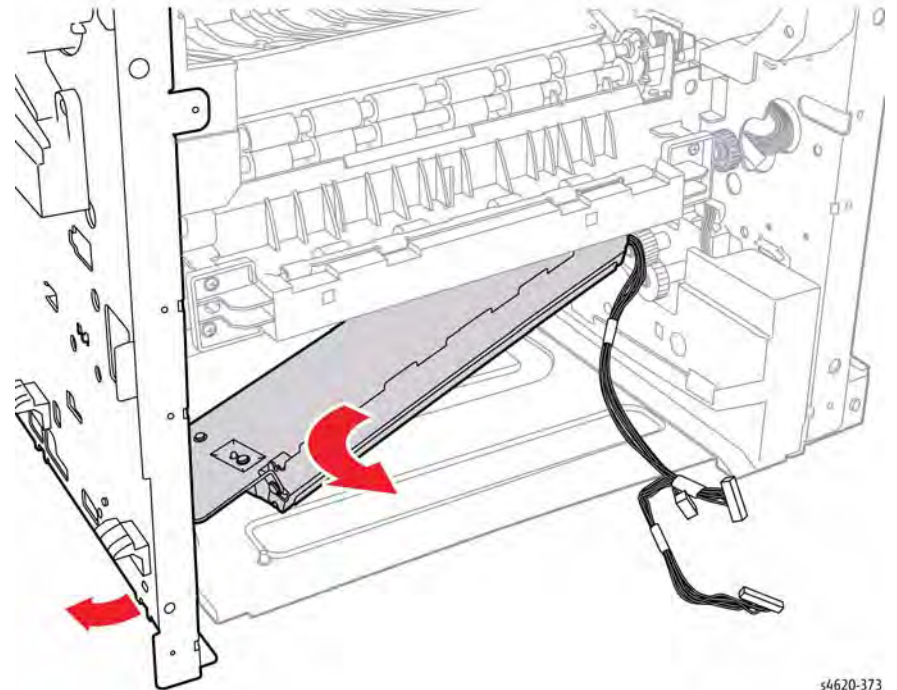
Figure 11 Remove the Tray 2 Feeder Assembly and baseplate

Replacement

Perform the removal steps in reverse order. Pay particular attention to chassis alignment features, bosses and pins, as you install each component. Do not overtighten fasteners in plastic.

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4 Repairs and Adjustments

REP 7.6

REP 7.7 Tray 2 Lift Motor

Parts List on PL 4.10 Item 11
Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 2.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the IP Board Cover, REP 28.1.
4. Remove the Right Cover, REP 28.2.
5. Remove the MCU Board, REP 3.4.
6. Disconnect P/J49 from the Tray 2 Lift Motor.
7. Remove 3 screws (long, metal) that secure the assembly to the chassis, Figure 1.

<div align="center">

Figure 1 Remove the Tray 2 Lift Motor
</div>

REP 7.8 Tray 2 Lift Gear

Parts List on PL 4.10 Item 12
Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 2.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the IP Board Cover, REP 28.1.
4. Remove the Right Cover, REP 28.2.
5. Remove the MCU Board, REP 3.4.
6. Remove the Tray 2 Lift Motor, REP 7.7.
7. Reach into the Tray 2 cavity and remove the gear, Figure 1.

<div align="center">

Figure 1 Remove the Tray 2 Lift Gear
</div>

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REP 7.7, REP 7.8

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REP 7.15 Tray 1 No Paper Sensor

Parts List on PL 8.10 Item 10

Removal

<p style="color:red; text-align:center; font-weight:bold">WARNING</p>

Switch off the electricity to the machine. 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.

<p style="text-align:center; font-weight:bold">CAUTION</p>

Cover the Drum Cartridge to prevent light exposure.

1. Remove Tray 2.
2. Open the Top Door.
3. Remove the Duplex Unit, REP 10.1.
4. Remove the IP Board Cover, REP 28.1.
5. Remove the Right Cover, REP 28.2.
6. Remove the Front Cover, REP 28.4.
7. Remove the Tray 1 Feeder Assembly, REP 7.0.
8. Remove 4 screws (plastic) that secure the top of the Feeder Assembly., Figure 1.

Figure 1 Remove the Feeder Assembly top screws

9. Disconnect the spring from the Pick Assembly.
10. Remove 2 E-clips and 2 bearings, then rotate the shaft 180 degrees and slide to the right to release the assembly from the top of the Feeder Assembly, Figure 2.

Figure 2 Remove the Tray 1 No Paper Sensor

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4 Repairs and Adjustments

REP 7.15

REP 7.16 Tray 1 Feed Clutch

Parts List on PL 8.10 Item 11

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Remove Tray 2.
2. Open the Top Door.
3. Remove the Duplex Unit, REP 10.1.
4. Remove the IP Board Cover, REP 28.1.
5. Remove the Right Cover, REP 28.2.
6. Remove the Front Cover, REP 28.4.
7. Remove the Tray 1 Feeder Assembly, REP 7.0.
8. Disconnect P/J58 from the feeder harness.
9. Remove the fibre retainer that secures the clutch to the shaft, Figure 1.
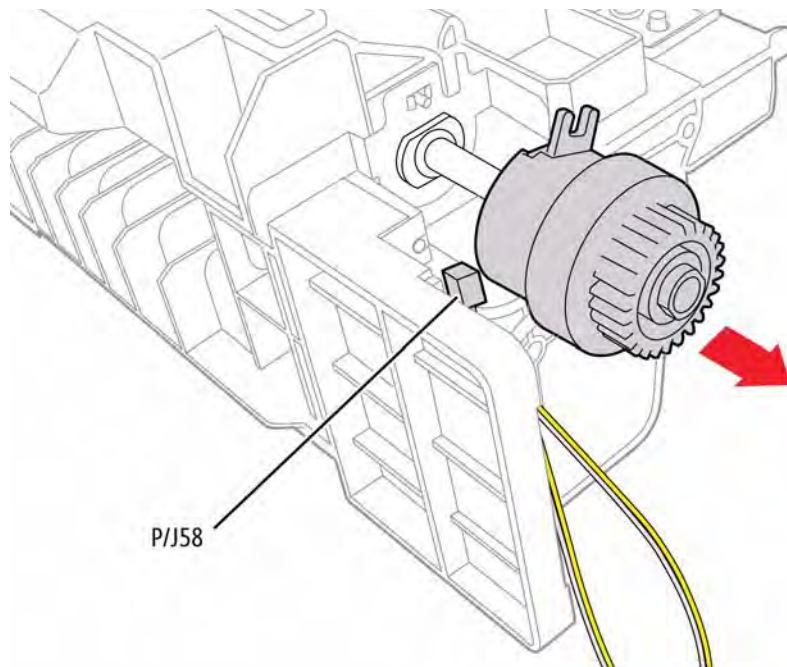
Figure 1 Remove the Feeder Assembly top screws

REP 7.20 Tray Separator Roller

Parts List on PL 7.10 Item 6

Removal

1. Open the Tray.
2. Open the separator cover.
3. Release the hook that secures the roller to the shaft and slide the roller off the shaft, Figure 1.

Figure 1 Remove the Separator Roller

4 Repairs and Adjustments
REP 7.16, REP 7.20

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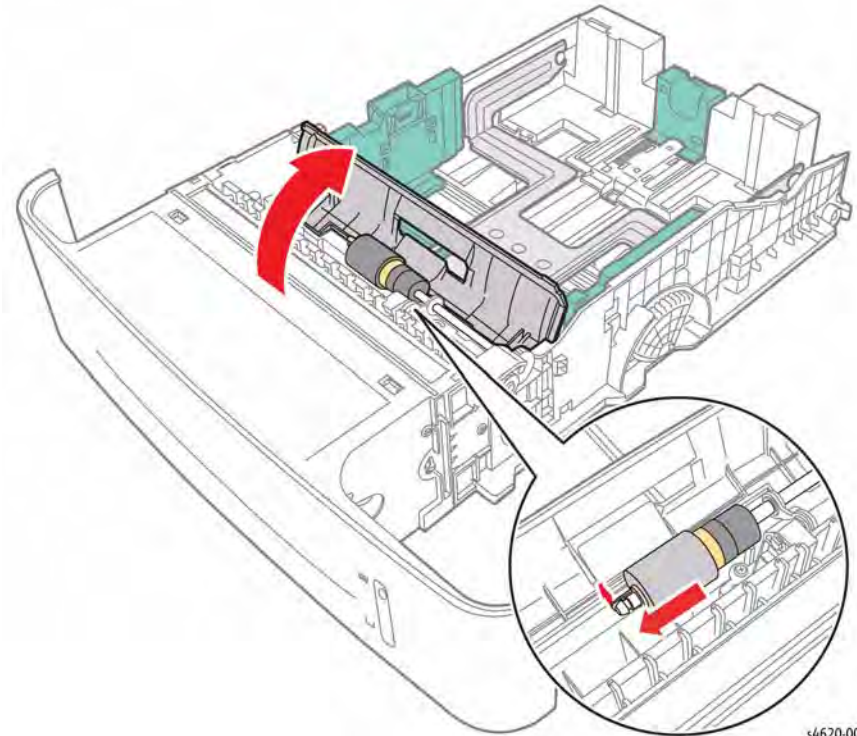
REP 7.21 Tray Separator Clutch

Parts List on PL 7.10 Item 7

Removal

1. Open the Tray.
2. Open the separator cover.
3. Remove the Separator Roller, REP 7.20.
4. Remove the E-clip that secures the clutch to the shaft and slide the clutch off the shaft, Figure 1.
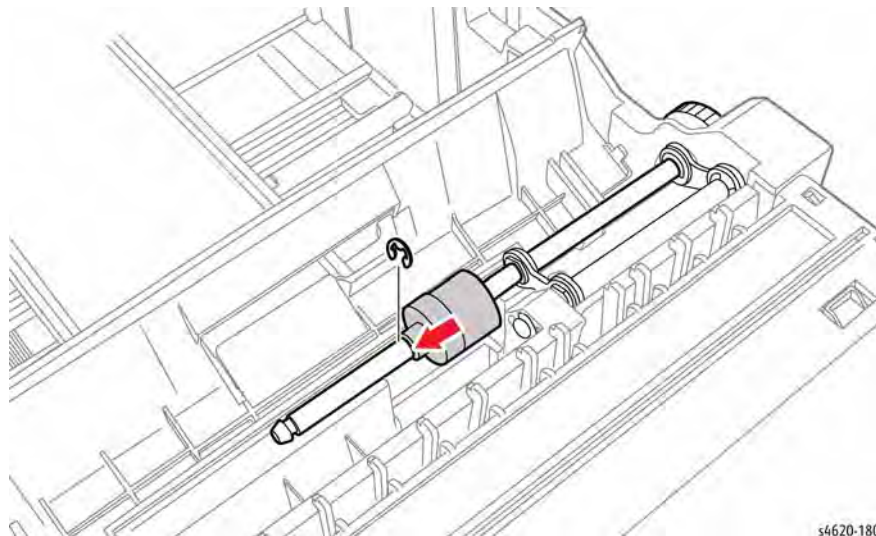
Figure 1 Remove the Separator Clutch

REP 7.22 Tray Front Cover

Parts List on PL 7.10 Item 1

Removal

1. Remove the Tray.
2. Remove 2 screws (plastic) and release 4 hooks that secure the cover to the tray.
3. Release the media level indicator from the opening and remove the cover, Figure 1

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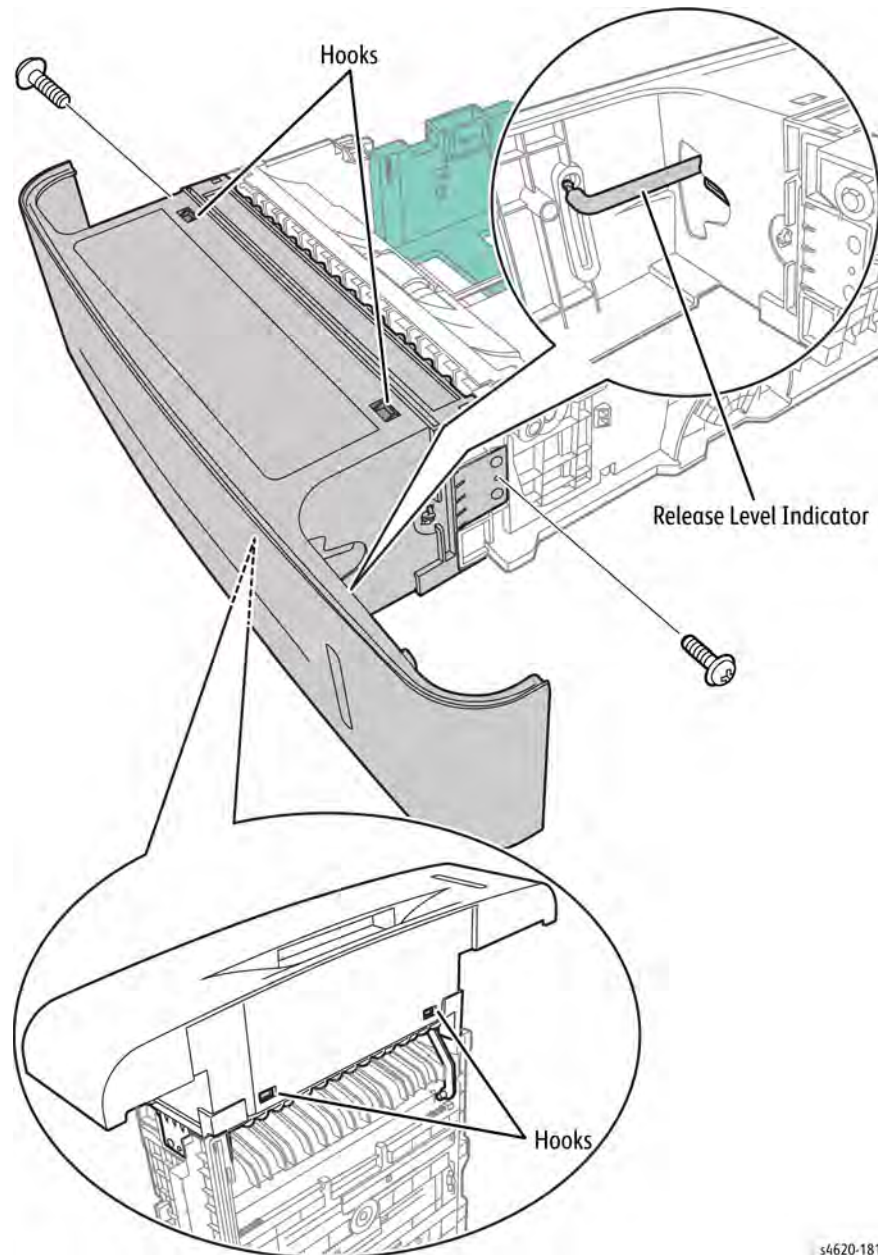
REP 7.21, REP 7.22

Figure 1 Remove the Tray 3 Front Cover

REP 7.23 Tray Media Level Indicator

Parts List on PL 7.10 Item 22

Removal

1. Remove the Tray.

2. Remove the Tray Front Cover, REP 7.22.

3. Remove the indicator from the tray by releasing the hooks from the tray, Figure 1,
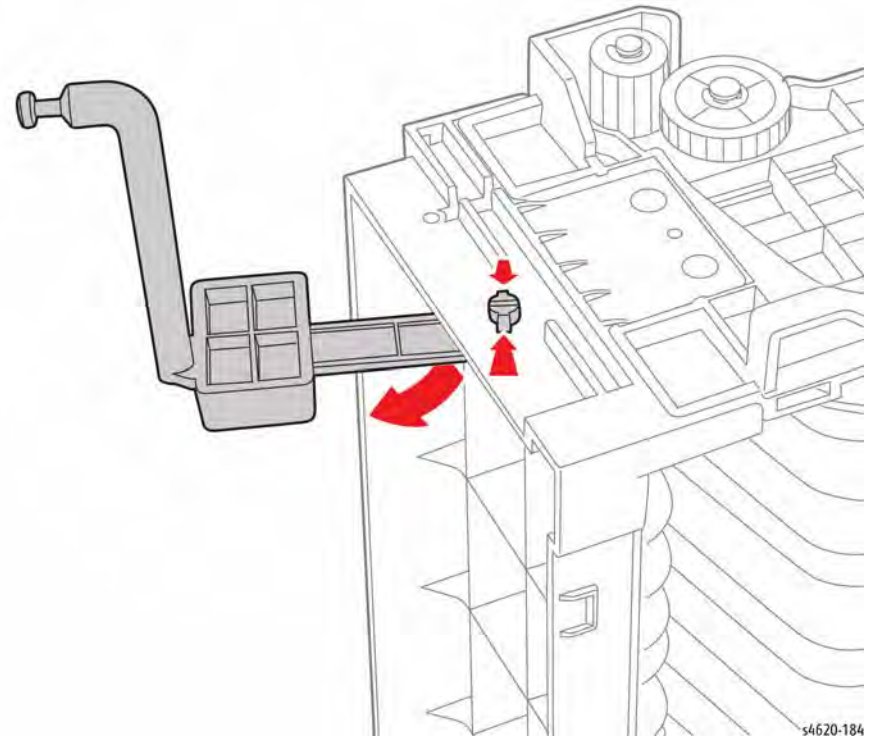
Figure 1 Remove the Media Level Indicator

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REP 7.22, REP 7.23

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REP 7.24 Feeder Front Cover

Parts List on PL 7.15 Item 3

Removal

<div align="center">

WARNING
</div>

Use safe handling procedures when removing the module. Refer to GP XX. The module is heavy.

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 option feeder from the printer GP XX.

2. Remove 4 screws and lift to release 2 hooks that secure the Front Cover, Figure 1.
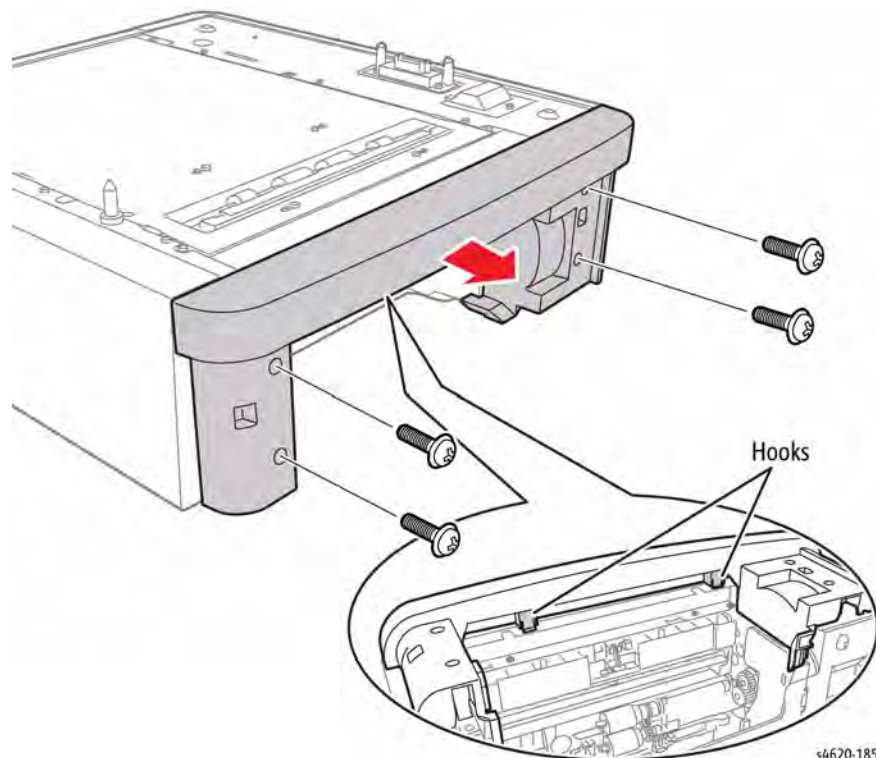
Figure 1 Remove the Front Cover

REP 7.25 Feeder Right Cover

Parts List on PL 7.15 Item 7

Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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: Removal of the Right Cover is possible without removing the feeder from the printer.

1. Remove the Tray.

2. Remove 1 screw (plastic) and slide the cover to the rear to release 6 hooks that secure the cover, Figure 1.

Figure 1 Remove the Right Cover

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4 Repairs and Adjustments

REP 7.24, REP 7.25
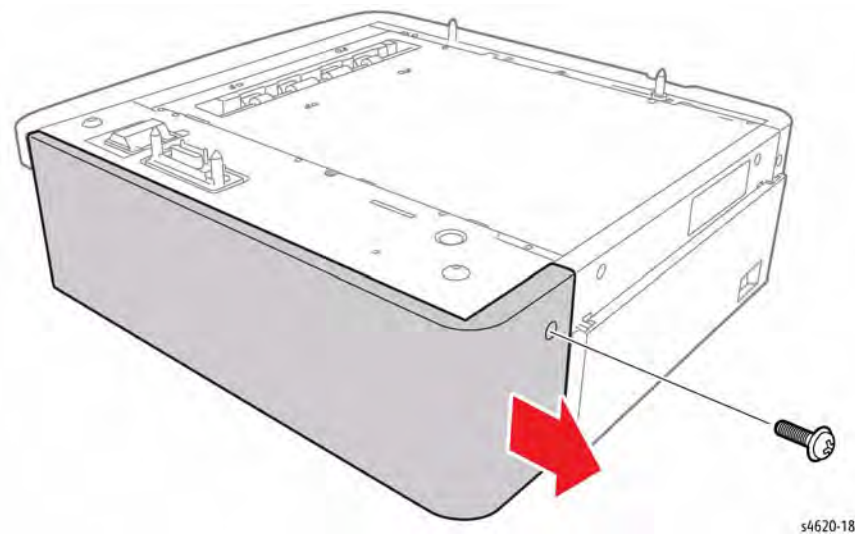
REP 7.26 Feeder Left Cover

Parts List on PL 7.15 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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: Removal of the Left Cover is possible without removing the feeder from the printer.

1. Remove the Tray.
2. Remove 1 screw (plastic) and slide the cover to the rear to release 6 hooks that secure the cover, Figure 1.

Figure 1 Remove the Left Cover

Replacement

To install the Left Cover on a 550-Sheet Feeder removed from the system, lower the safety hook into the feeder chassis and with the slider completely forward, replace the cover.
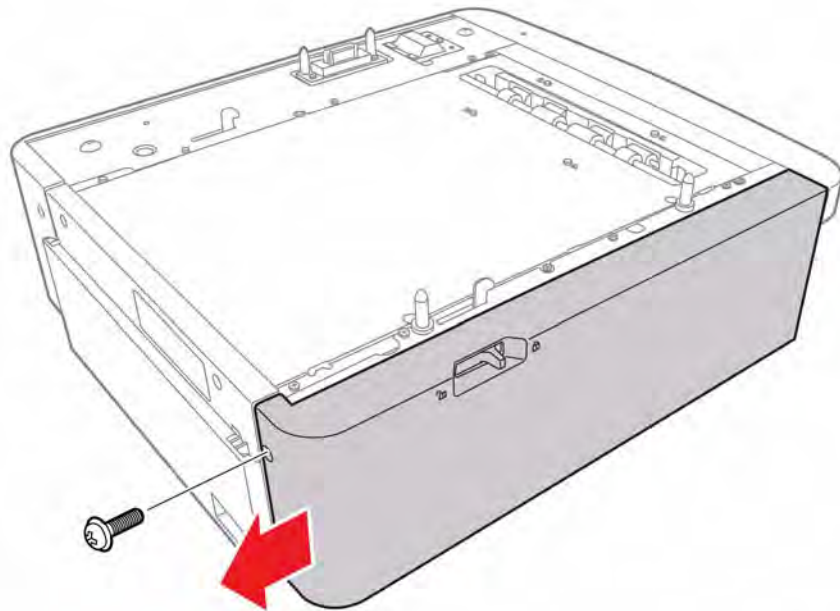
REP 7.27 Feeder Rear Cover

Parts List on PL 7.15 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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: Removal of the Rear Cover is possible without removing the feeder from the printer.

1. Remove the Tray.
2. Remove the Right Cover, REP 7.25.
3. Remove the Left Cover REP 7.26.
4. Remove 2 screws (plastic), and release 2 hooks that secure the Rear Cover,

Figure 1 Remove the Rear Cover

4 Repairs and Adjustments

REP 7.26, REP 7.27

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REP 7.28 Feeder Board

Parts List on PL 8.30 Item 7

Removal

WARNING

Switch off the electricity to the machine. 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 Tray.
2. Remove the Right Cover, REP 7.25.
3. Disconnect 8 connections and remove 3 screws (metal) that secure the Feeder Board, Figure 1.
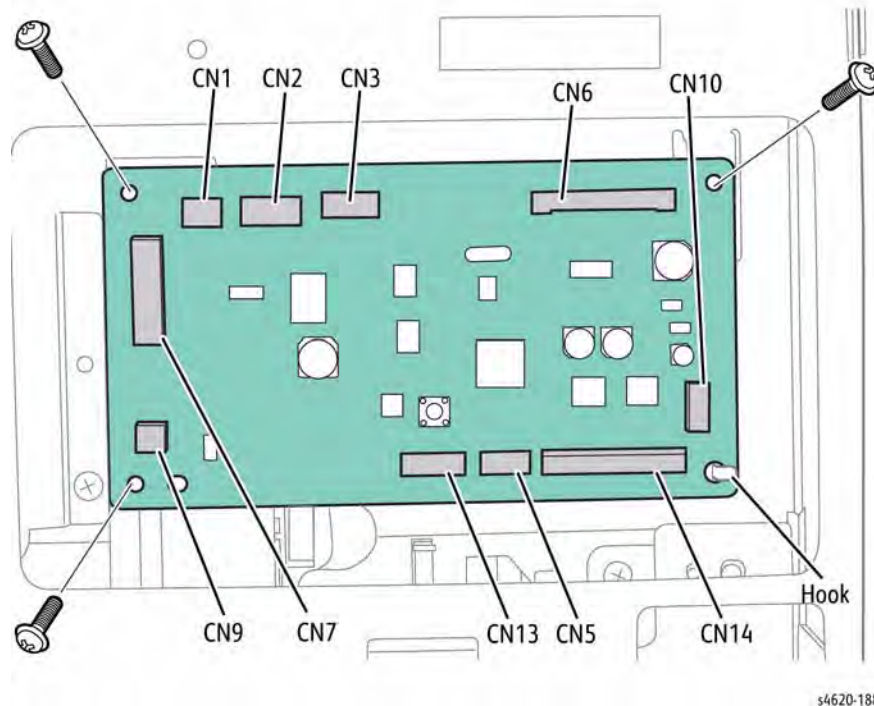
REP 7.29 Feeder Lift Motor

Parts List on PL 8.35 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Tray.
2. Remove the Right Cover, REP 7.25.
3. Disconnect P/J83 from the Lift Motor.
4. Remove 4 screws (metal) that secure the Lift Motor to the chassis, Figure 1.

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Figure 1 Remove the Feeder Board

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REP 7.28, REP 7.29

P/J83

Figure 1 Remove the Lift Motor

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REP 7.30 Feeder Size Switch

Parts List on PL 8.30 Item 9

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Tray.

2. Release the upper hook that secures the switch in the tray cavity.

3. Disconnect P/J86 and remove the switch, Figure 1.

4 Repairs and Adjustments

REP 7.29, REP 7.30

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P/J86
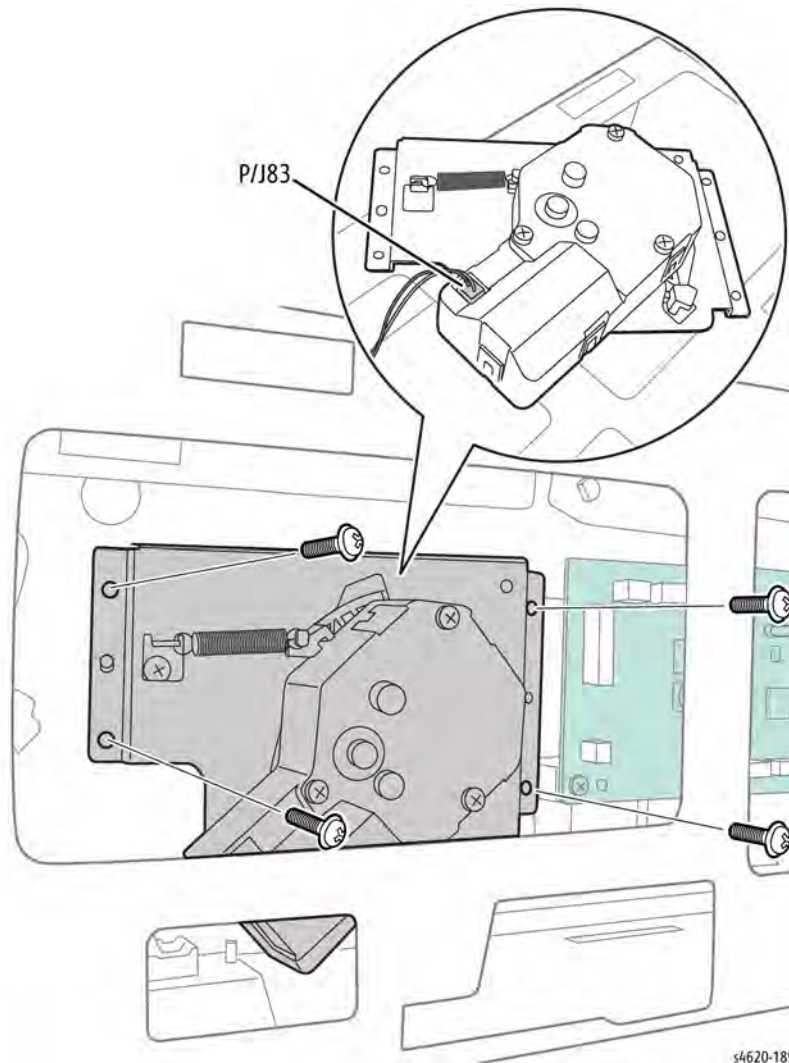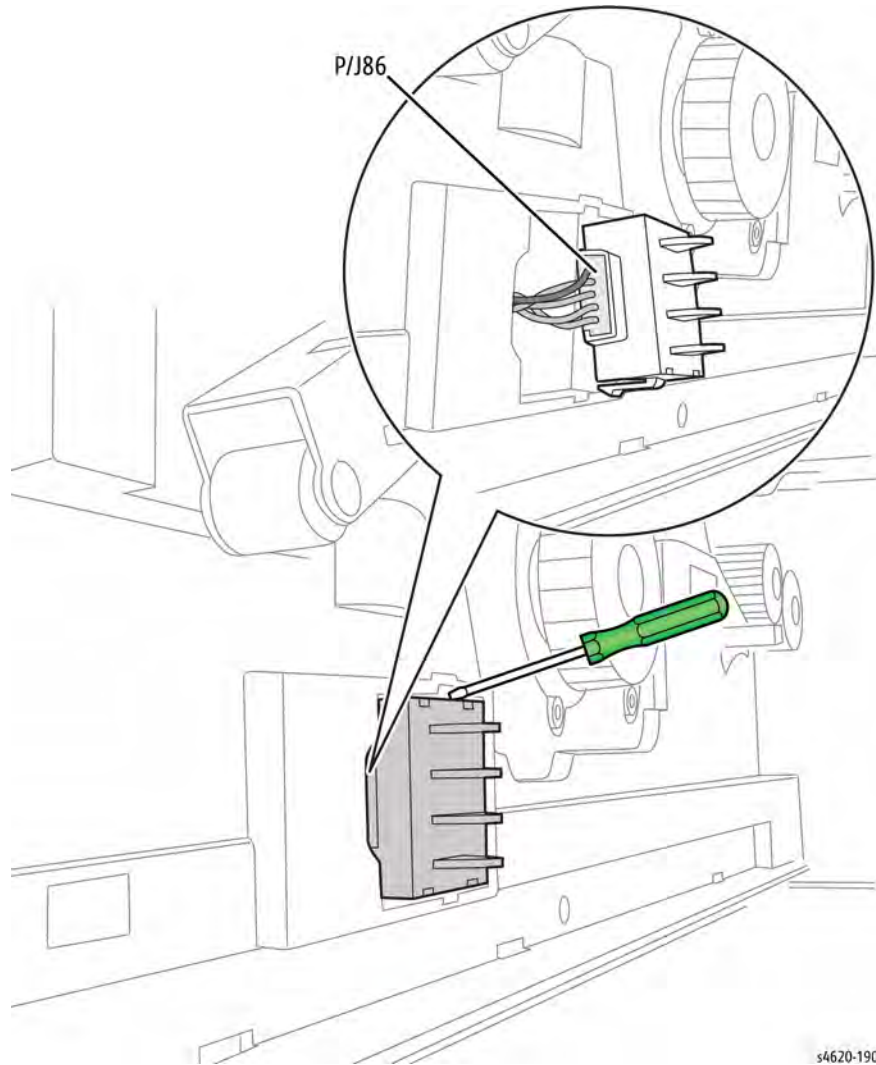
Figure 1 Remove the Size Switch

s4620-190

REP 7.31 Upper Option Harness

Parts List on PL 8.30 Item 10

Removal

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 option feeder from the printer GP 15.
2. Remove the Tray.
3. Remove the Right Cover, REP 7.25.
4. Disconnect CN6 from the Feeder Board, Figure 1.

CN6

Figure 1 Disconnect the Upper Feeder Harness

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5. Remove 2 screws that secure the upper harness bracket to the chassis.
6. Remove the harness from the chassis, Figure 2.

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4 Repairs and Adjustments

REP 7.30, REP 7.31

Figure 2 Remove the Upper Option Harness

REP 7.32 Lower Option Harness

Parts List on PL 8.30 Item 11

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer GP 15.
2. Remove the Tray.
3. Remove the Right Cover, REP 7.25.
4. Disconnect CN14 from the Feeder Board, Figure 1.
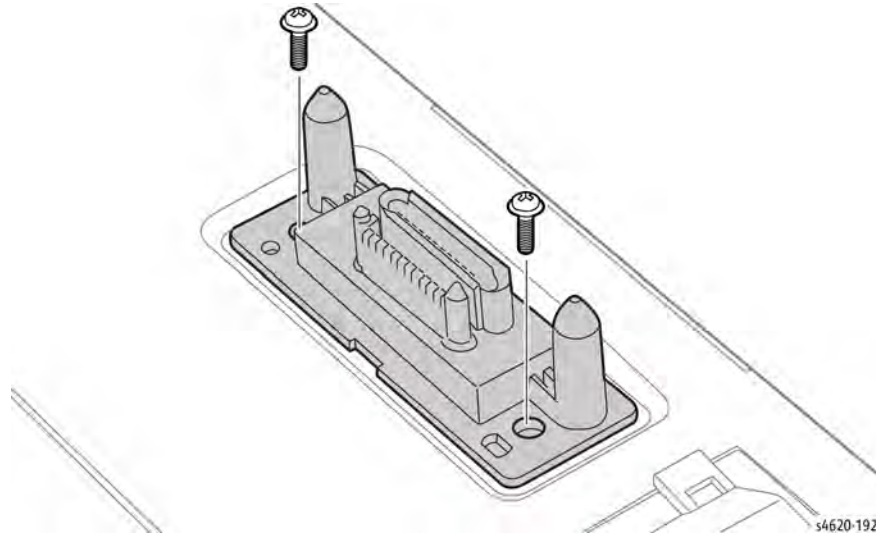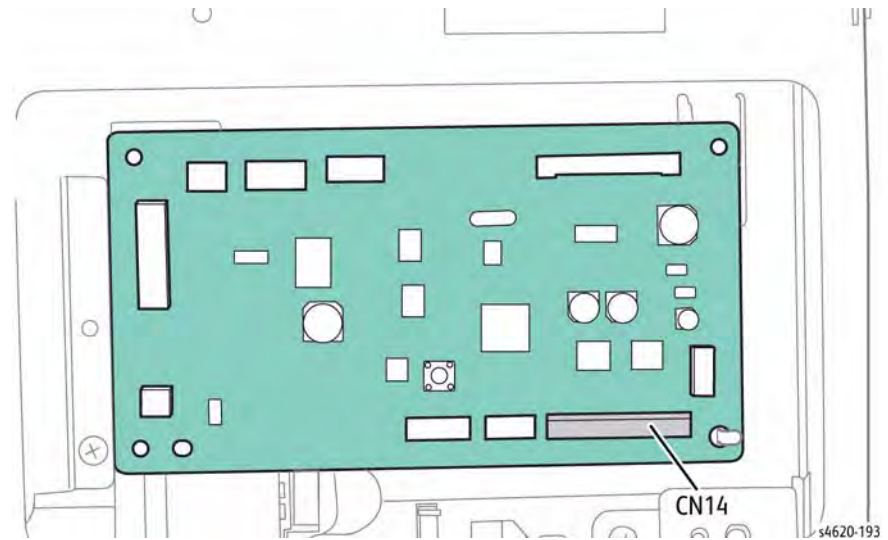
Figure 1 Disconnect the Upper Feeder Harness

5. Remove 2 screws that secure the lower harness bracket to the chassis.
6. Remove the harness from the chassis, Figure 2.

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REP 7.31, REP 7.32

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REP 7.33 Left Side Frame

Parts List on PL 7.15 Item 2

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the safety latch spring.
7. Remove 7 screws (metal) that secure the left side frame to the chassis, Figure 1.

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Figure 2 Remove the Upper Option Harness

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Figure 1 Remove the left side frame

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REP 7.32, REP 7.33
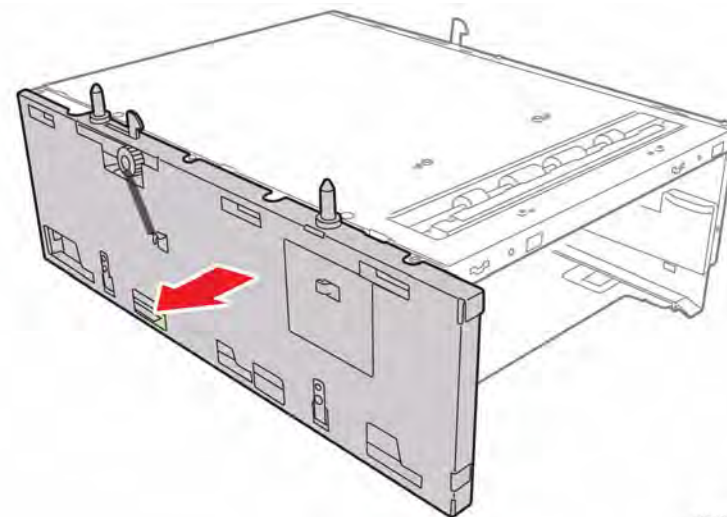
REP 7.34 Right Side Frame

Parts List on PL 7.15 Item 6

Removal
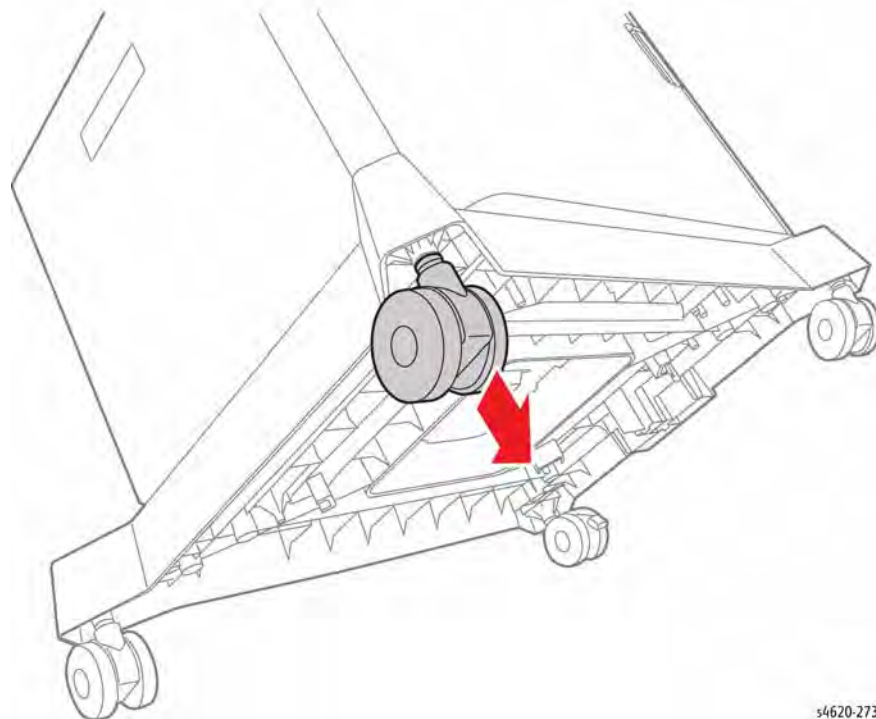

WARNING

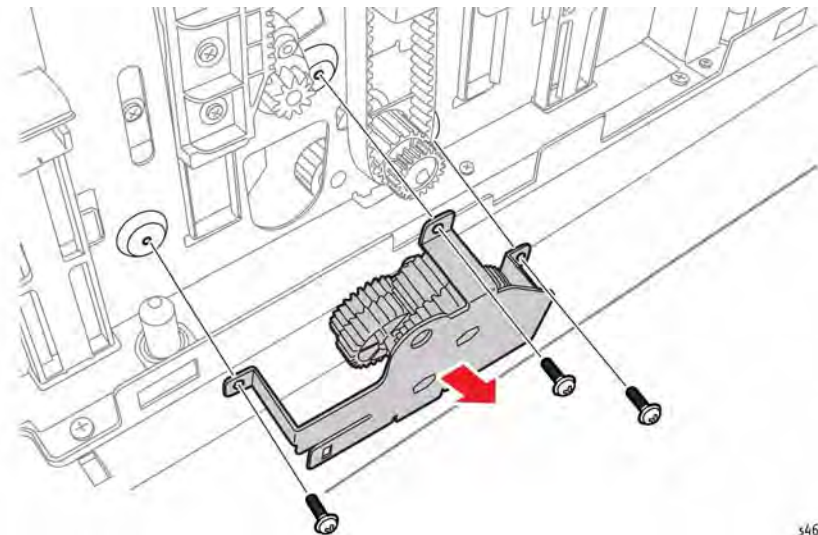**Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.**

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Disconnect CN6 and CN14 from the Feeder Board.

Figure 2 Remove the right side frame
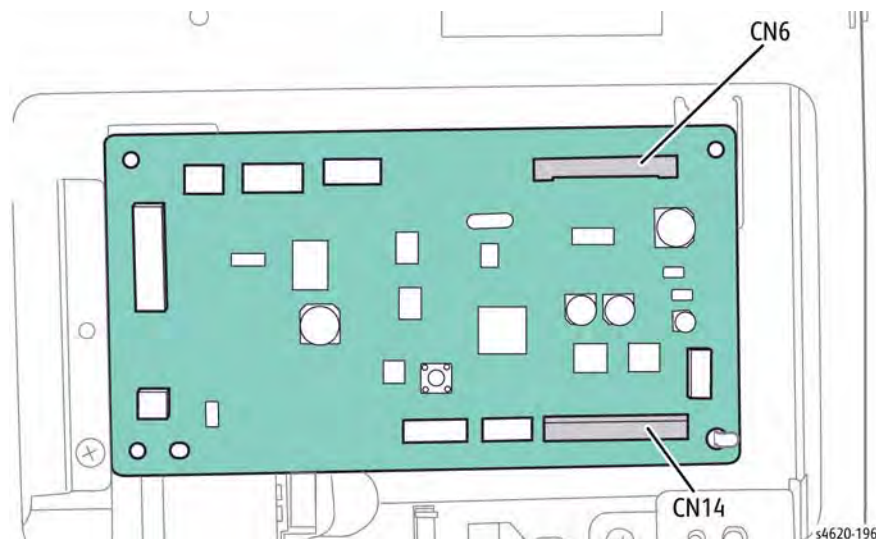
Figure 1 Disconnect the Upper and Lower Option Harness

7. Remove 7 screws (metal) that secure the left side frame to the chassis, Figure 2.

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REP 7.34

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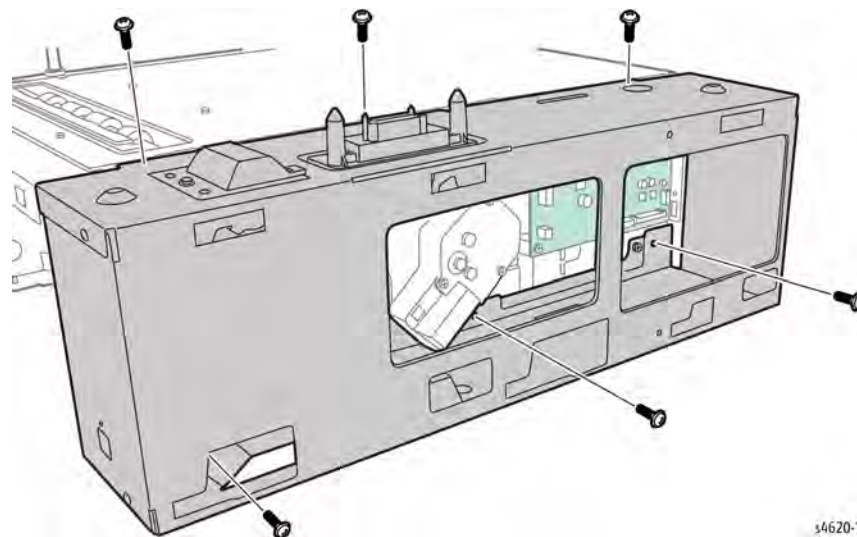
REP 7.35 Feeder No Paper Sensor

Parts List on PL 8.20 Item 2

Removal

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

Figure 2 Remove the top cover

12. Remove the Feed Assembly, REP 8.46.
13. Turn the assembly over and release 3 hooks that secure the sensor to the Feed Assembly. Figure 3.

Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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REP 7.35

Figure 3 Remove the No Paper Sensor

P/J84

Hooks
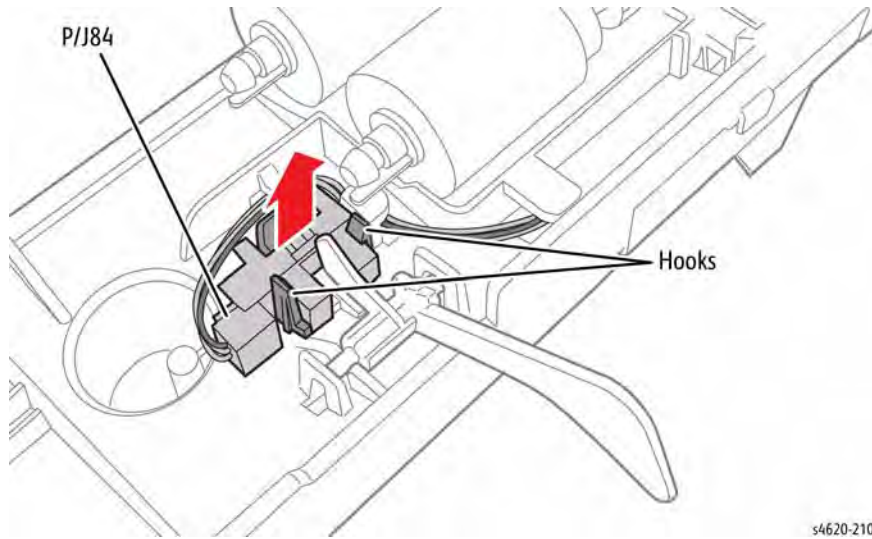
s4620-210

REP 7.36 Feeder No Paper Sensor Actuator

Parts List on PL 8.20 Item 3

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

s4620-203

Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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REP 7.35, REP 7.36

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Figure 2 Remove the top cover

Figure 3 Remove the No Paper Sensor Actuator

12. Remove the Feed Assembly, REP 8.46.

13. Turn the assembly over and release the actuator shaft from the Feed Assembly, Figure 3.

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4 Repairs and Adjustments

REP 7.36

REP 7.37 Feeder Stack Height Sensor

Parts List on PL 8.20 Item 2

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

Figure 2 Remove the top cover

12. Remove the Feed Assembly, REP 8.46.
13. Turn the assembly over and release the hook that secures the sensor to the Feed Assembly, Figure 3.

Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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REP 7.37

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Figure 3 Remove the Stack Height Sensor

REP 7.38 HCF Rear Cover

Parts List on PL 7.20 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove 2 screws (metal) that secure the rear cover to the chassis, Figure 1.

Figure 1 Remove the rear cover

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4 Repairs and Adjustments

REP 7.37, REP 7.38

REP 7.39 HCF Right Cover

Parts List on PL 7.20 Item 3

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Slide the right cover to the rear to release the hooks that secure the cover to the chassis, Figure 1.

s4620-271
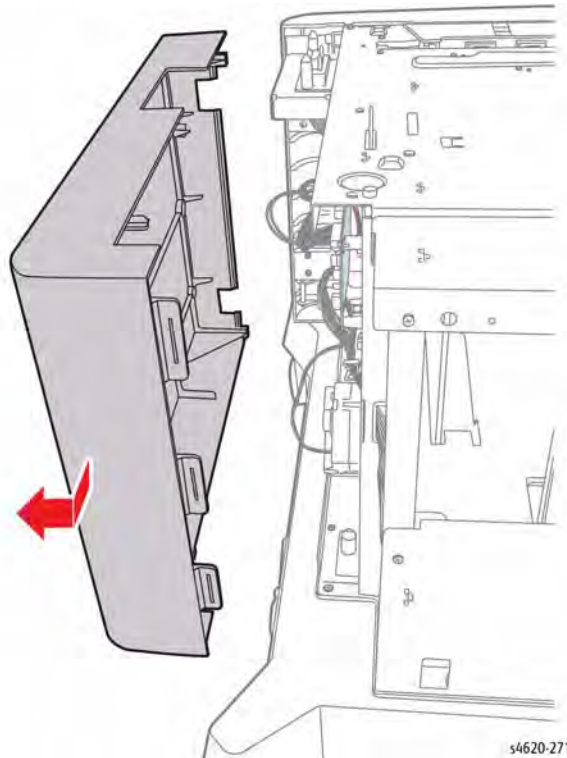
Figure 1 Remove the right cover

REP 7.40 HCF Left Cover

Parts List on PL 7.20 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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

The Front Door Interlock Switch is easily damaged during left cover removal and installation.

NOTE: Cover removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Open the HCF front door.
3. Slide the left cover to the rear to release the hooks that secure the cover to the chassis, Figure 1.

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Figure 1 Remove the left cover

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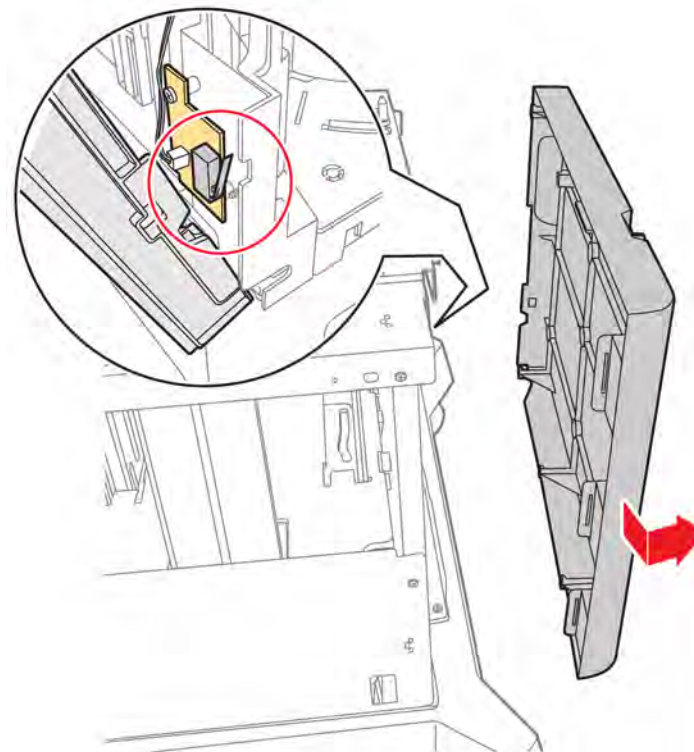
REP 7.41 HCF Caster

Parts List on PL 7.25 Item 2

Removal

<p style="text-align:center"><strong style="color:red">WARNING</p>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Pull the affected caster from the base unit, Figure 1.

Figure 1 Remove the Caster

REP 7.42 HCF Reduction Gear Assembly

Parts List on PL 7.25 Item 7

Removal

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Open the HCF front door.
3. Remove the HCF left cover, REP 7.40.
4. Remove 3 screws (metal) that secure the assembly to the chassis, Figure 1.

Figure 1 Remove the Reduction Gear Assembly

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4 Repairs and Adjustments

REP 7.41, REP 7.42

REP 7.43 HCF Front Door Interlock Switch

Parts List on PL 7.25

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Open the HCF front door.
3. Remove the HCF left cover, REP 7.40.
4. Disconnect CN2 and remove 2 screws (metal) that secure the switch to the chassis, Figure 1.

s4620-275
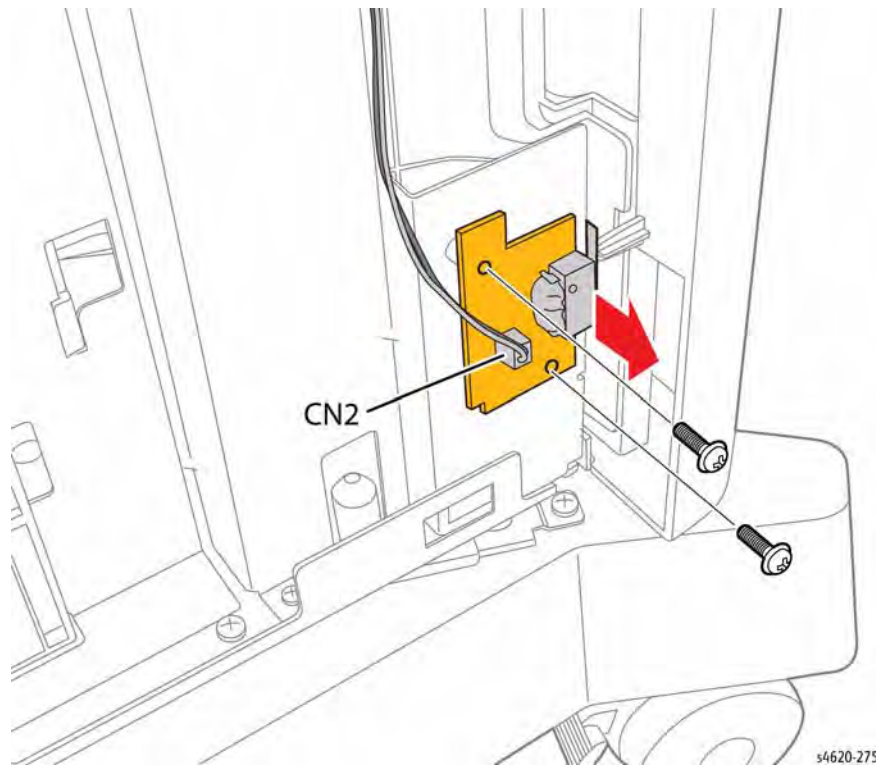
Figure 1 Remove the Front Door Interlock Switch

REP 7.44 HCF Control Board

Parts List on PL 7.25 Item 18

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Remove the HCF right cover, REP 7.39.
3. Disconnect 8 connections and remove 3 screws (metal) that secure the board, Figure 1.

s4620-276
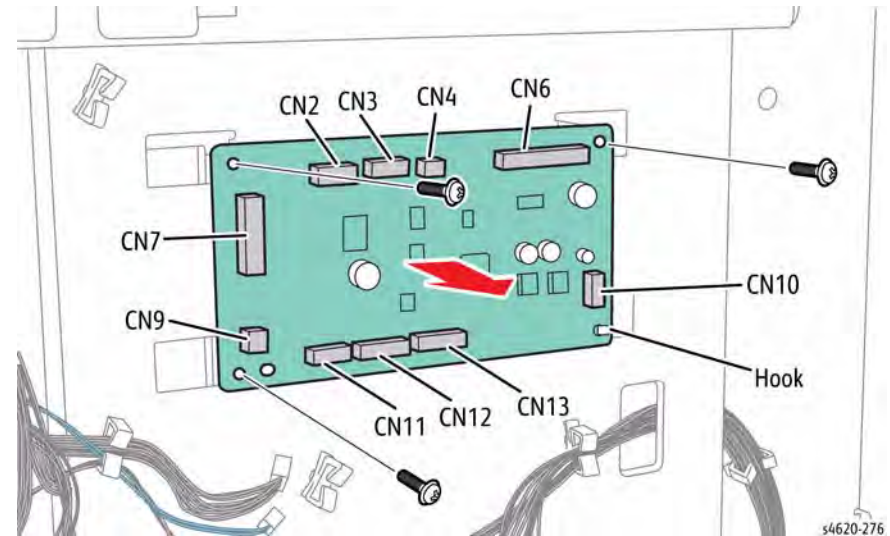
Figure 1 Remove the HCF Control Board

4 Repairs and Adjustments

REP 7.43, REP 7.44

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REP 7.45 HCF Lift Motor Assembly

Parts List on PL 7.25 Item 19

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Remove the HCF right cover, REP 7.39.
3. Release the spring from the lift linkage.
4. Disconnect the motor and remove 4 screws (metal) that secure the assembly to the chassis, Figure 1.
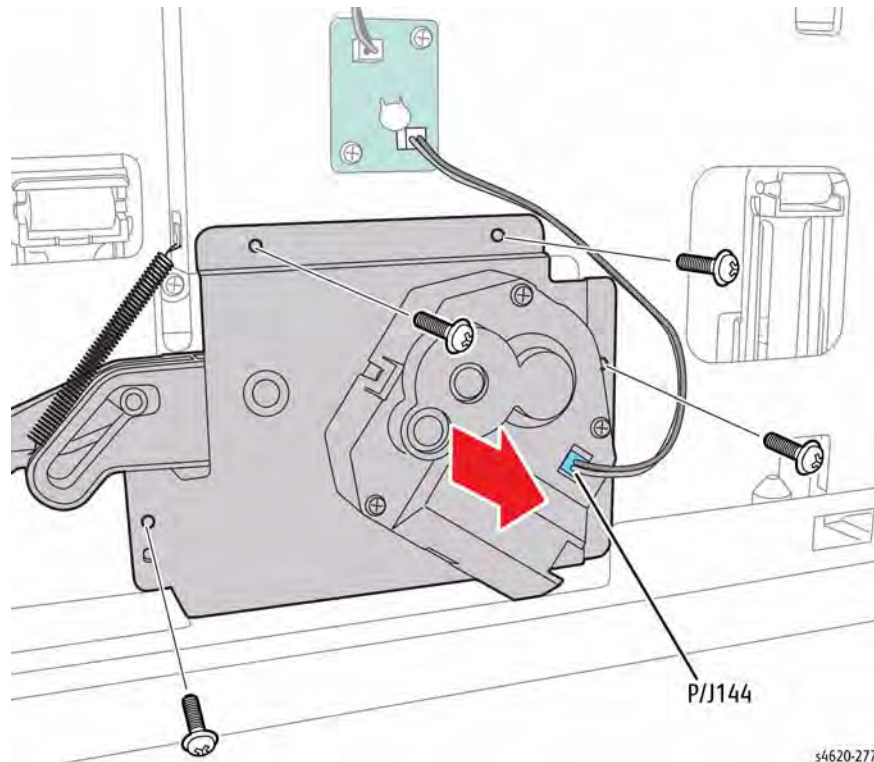
Figure 1 Remove the Lift Motor Assembly

REP 7.46 HCF Feed Clutch

Parts List on PL 7.25 Item 24

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Remove the HCF right cover, REP 7.39.
3. Disconnect CN9 from the HCF Control Board.
4. Remove the E-clip that secures the clutch to the shaft, Figure 1.

Figure 1 Remove the Feed Clutch

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REP 7.45, REP 7.46
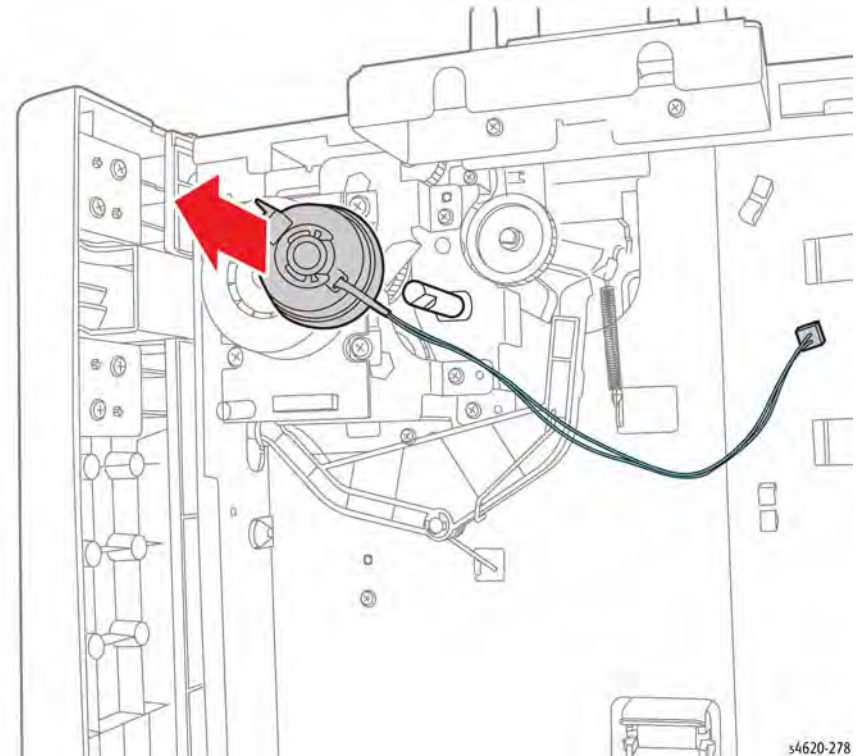
REP 7.47 HCF Feed Drive Assembly

Parts List on PL 7.25 Item 28

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Remove the HCF right cover, REP 7.39.
3. Remove the HCF Feed Clutch, REP 7.46.
4. Disconnect CN1 from the feed motor and remove 5 screws (metal) that secure the assembly to the chassis, Figure 1.
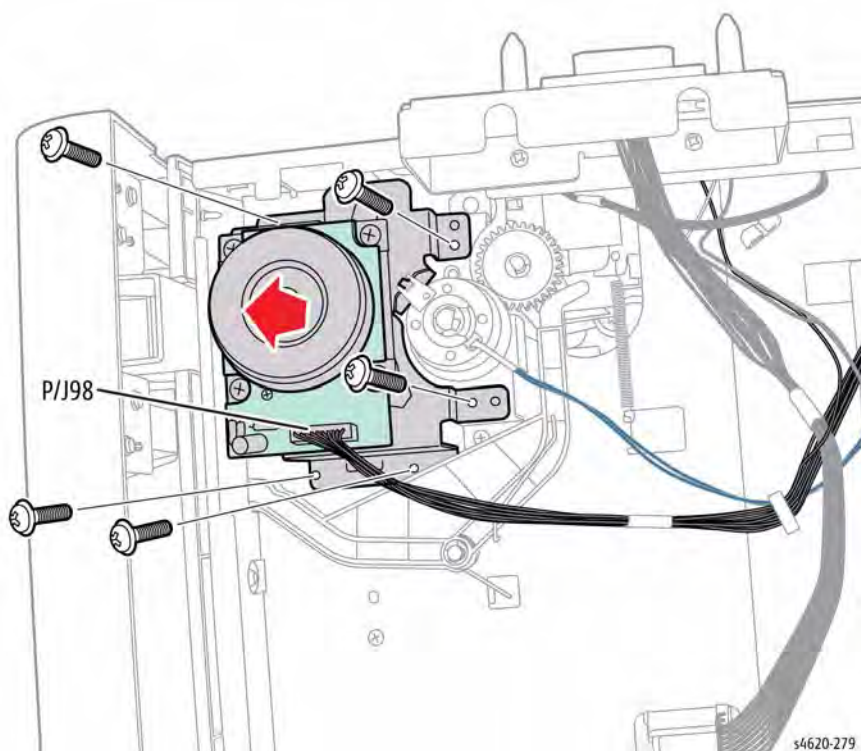
Figure 1 Remove the Feed Drive Assembly

REP 7.48 HCF Feed Motor

Parts List on PL 7.25 Item 20

Removal

WARNING

Switch off the electricity to the machine. 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 removal is possible without removing the feeder from the printer.

1. Remove the HCF rear cover, REP 7.38.
2. Remove the HCF right cover, REP 7.39.
3. Disconnect CN1 from the feed motor and remove 4 screws (metal) that secure the motor to the drive assembly, Figure 1.

Figure 1 Remove the Feed Motor

4 Repairs and Adjustments

REP 7.47, REP 7.48

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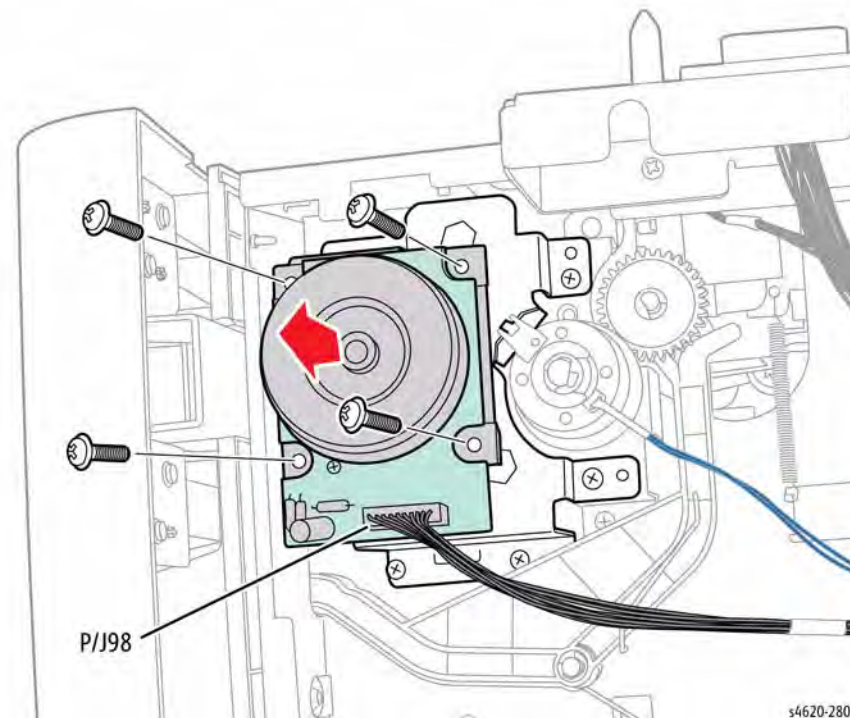
REP 7.49 HCF Top Plate

Parts List on PL 7.25 Item 13

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Remove the HCF rear cover, REP 7.38.
4. Remove the HCF right cover, REP 7.39.
5. Remove the HCF left cover, REP 7.40.
6. Disconnect CN2, CN3, CN4, and CN6 from the HCF Control Board, Figure 1.
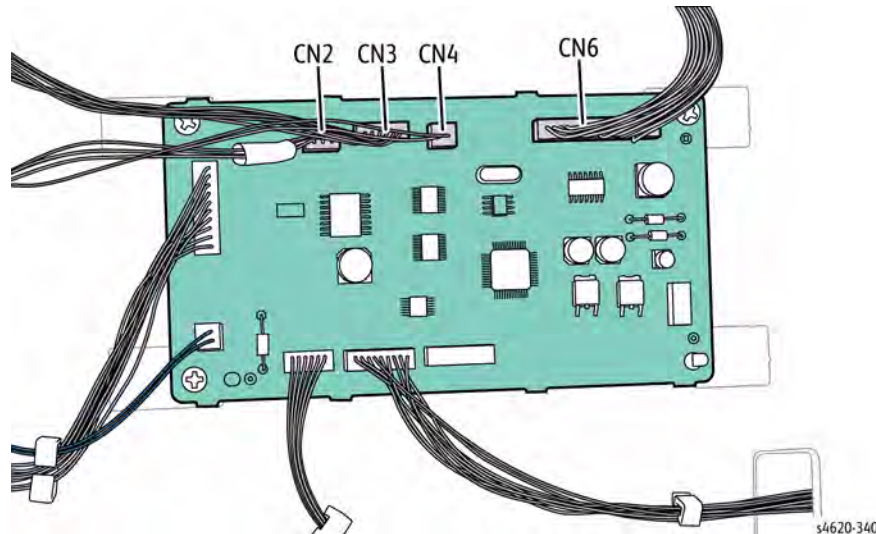
Figure 1 Disconnect the harnesses from the HCF Control Board

7. Disconnect CN2 from the Jumper Board.
8. Remove the e-clip and pick gear from the HCF pick Assembly.
9. Release the pick-up spring from the pick assembly, Figure 2.
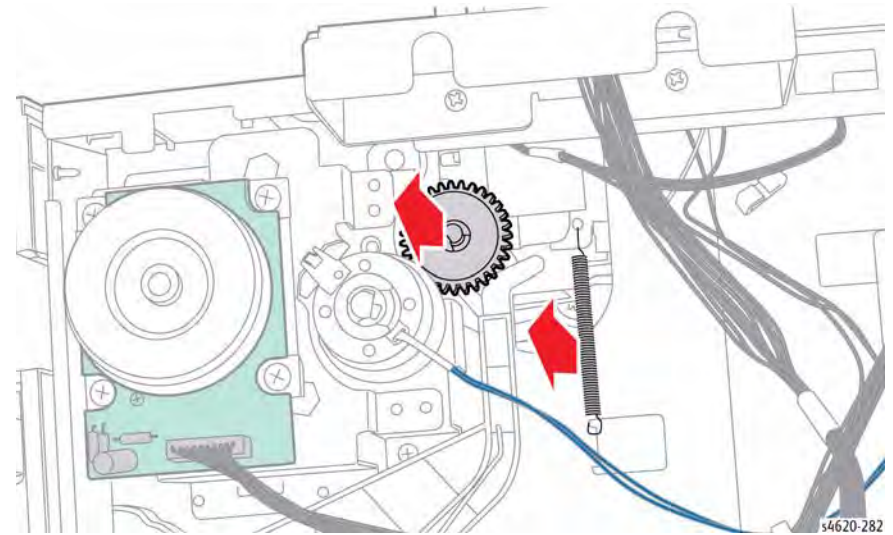
Figure 2 Remove the pick-up gear and spring

10. Open the Front Door.
11. Remove 12 (metal) and 2 (plastic) screws that secure the top plate, Figure 3.

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REP 7.49

Figure 3 Removing the top plate

REP 8.11 Registration Sensor

Parts List on PL 8.50 Item 25

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

CAUTION

</div>

Cover the Drum Cartridge to prevent light exposure.

NOTE: *To service or replace the Registration Sensor requires separation of the left side chassis. With the left side chassis separated, the chassis is prone to collapse, As you release the left side chassis, use a prop placed in the Tray 2 cavity to maintain, as best as possible, chassis alignment.*

The Registration Sensor is located on the underside of the middle frame assembly. Access the Registration Sensor by removing the Tray 2 Feeder Assembly.

1. Remove the Tray 2 Feeder Assembly, REP 7.6,
2. Reach into the Tray 2 cavity to release 3 hooks that secure the sensor to the assembly.
3. Disconnect P/J63 from the Registration Sensor, Figure 1.

Figure 1 Remove the Registration Sensor

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REP 7.49, REP 8.11

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REP 8.12 Feed Sensor

Parts List on PL 8.50 Item 25

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

NOTE: *To service or replace the Registration Sensor requires separation of the left side chassis. With the left side chassis separated, the chassis is prone to collapse, As you release the left side chassis, use a prop placed in the Tray 2 cavity to maintain, as best as possible, chassis alignment.*

The Feed Sensor is located on the underside of the middle frame assembly. Access the Registration Sensor by removing the Tray 2 Feeder Assembly.

1. Remove the Tray 2 Feeder Assembly, REP 7.6,
2. Reach into the Tray 2 cavity to release 3 hooks that secure the sensor to the assembly.
3. Disconnect P/J64 from the Feed Sensor, Figure 1.
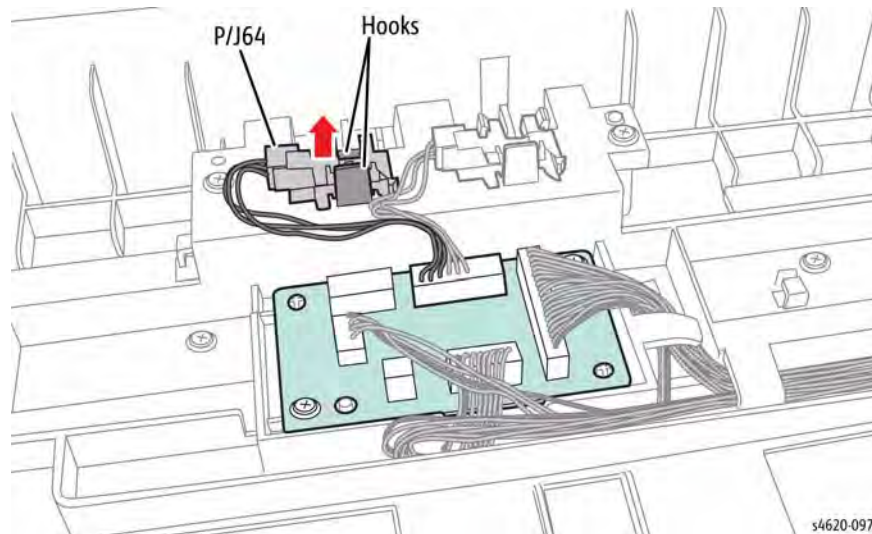
Figure 1 Remove the Feed Sensor

REP 8.16 Shaft Frame Assembly

Parts List on PL 8.50 Item 15

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Open the Top Door.
2. Remove the Toner Cartridge.
3. Remove the Drum Cartridge.
4. Remove the Waste Toner Cartridge.
5. Remove the Left Cover, REP 28.3.
6. Remove 5 screws that secure the bias cover to the chassis, Figure 1.
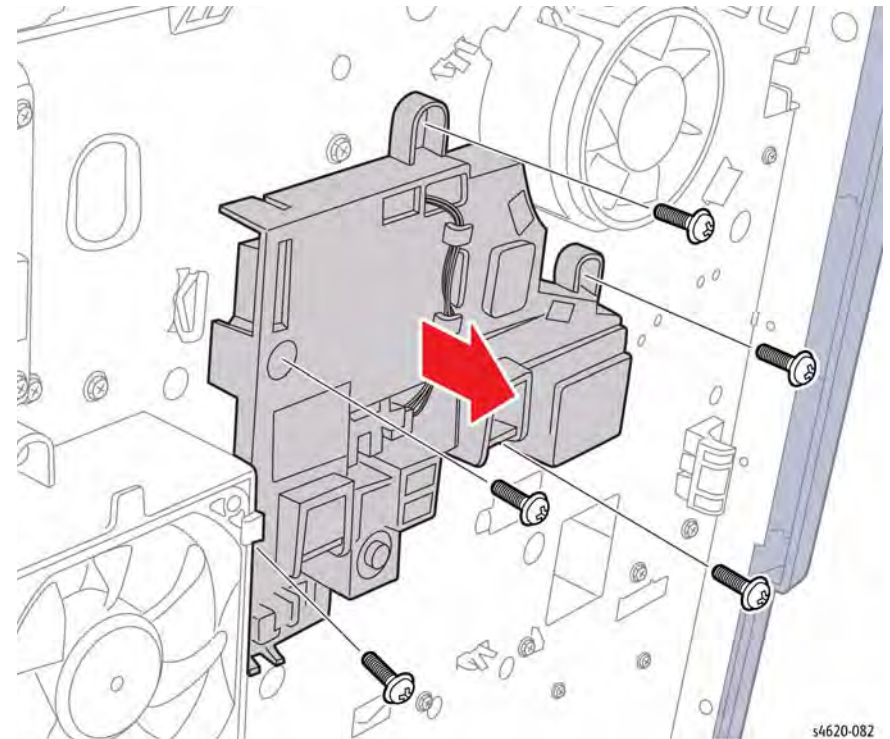
Figure 1 Remove the bias cover screws

7. Remove the Pipe Assembly, REP 9.7.
8. Remove 1 screw (plastic) that secures the Shaft Frame Assembly to the frame, Figure 2.

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REP 8.12, REP 8.16
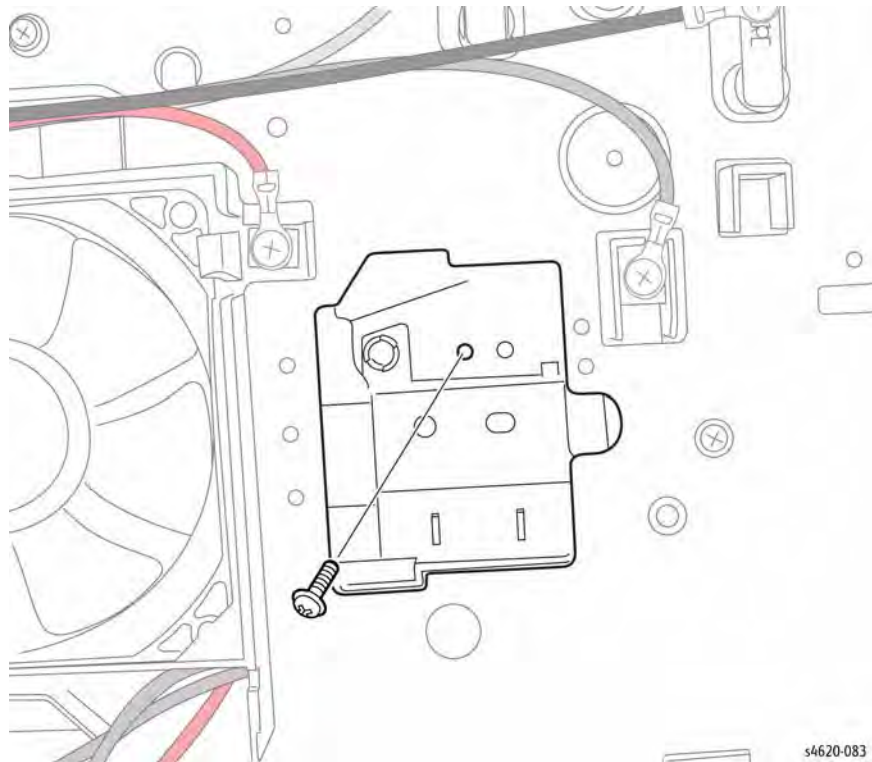
Figure 2 Remove the Shaft Frame Assembly screw

9. Slide the assembly to the left to release the shaft from the Fuser Drive Assembly.

10. Raise the assembly to remove it from the printer, Figure 3.

Figure 3 Remove the Shaft Frame Assembly

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REP 8.16

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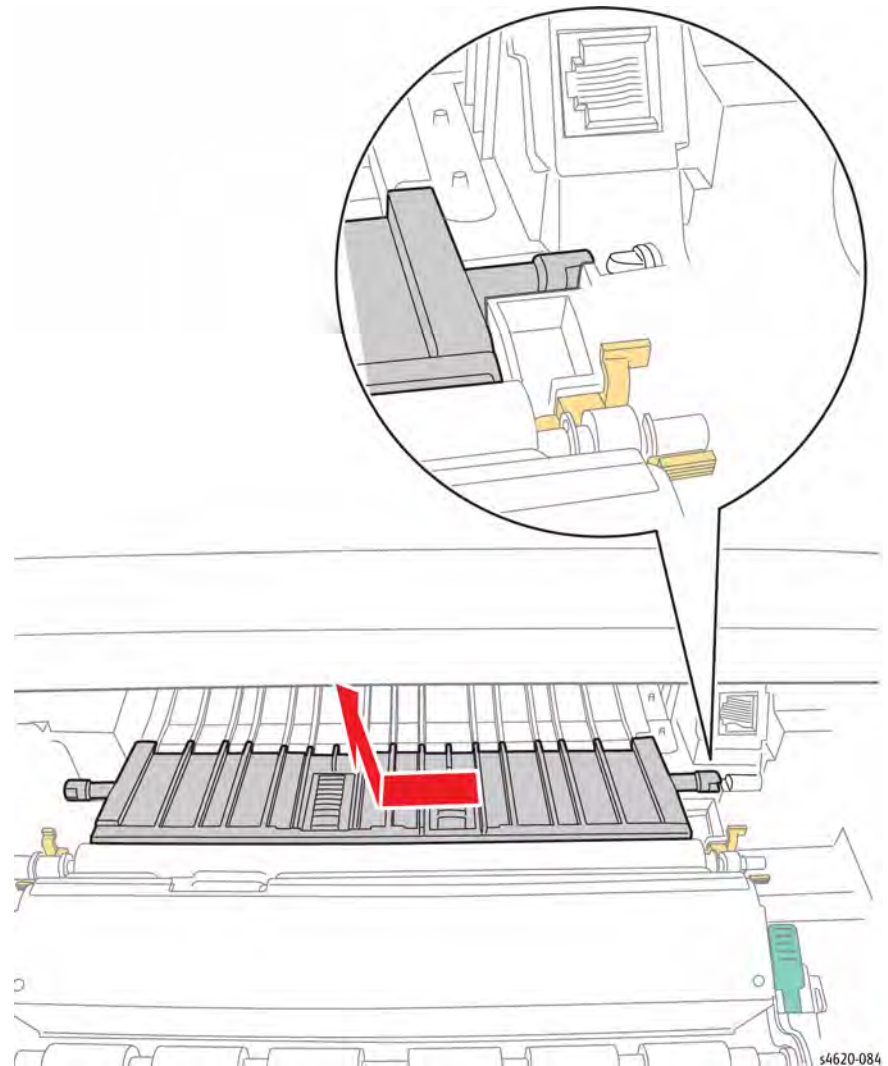
REP 8.24 Drum Cartridge CRUM Connector

Parts List on PL 8.50 Item 22

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

NOTE: *To service or replace the Drum Cartridge CRUM connector requires separation of the left side chassis. With the left side chassis separated, the chassis is prone to collapse, As you release the left side chassis, use a prop placed in the Tray 2 cavity to maintain, as best as possible, chassis alignment.*

The Drum Cartridge CRUM harness connection is located on the underside of the middle frame assembly. Access the harness and connection by removing the Tray 2 Feeder Assembly.

1. Remove Tray 2 Feeder Assembly, REP 7.6,
2. Reach into the Tray 2 cavity to locate the harness connector.
3. Locate CN4 on the Connector Board.
4. Release the CRUM Connector harness from the harness guides, Figure 1.

Figure 2 Remove the Drum Cartridge CRUM Connector
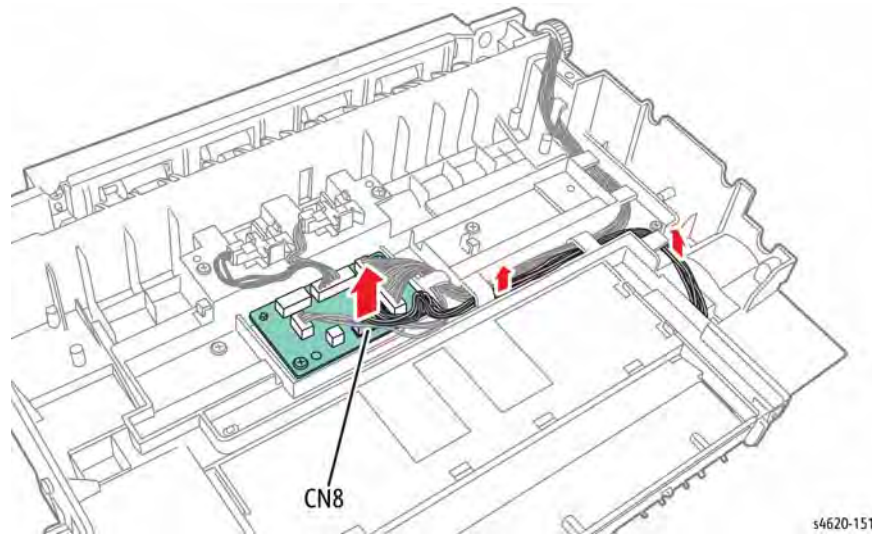
Figure 1 Release the CRUM Connector harness

5. Remove 1 screw that secures the CRUM connector holder to the middle frame assembly.
6. Remove the CRUM connector holder and disconnect the CRUM Connector.
7. Release 2 hooks that secure the connector in the holder, Figure 2.

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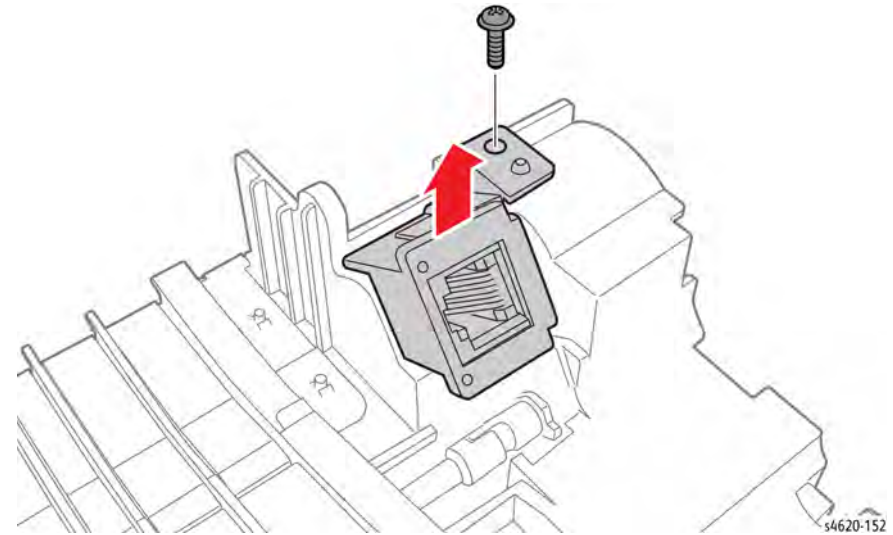
REP 8.24

REP 8.27 Registration Roller Assembly

Parts List on PL 8.45 Item 12

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Remove Tray 2,
2. Open the Top Door.
3. Remove the Toner Cartridge.
4. Remove the Drum Cartridge.
5. Remove the Duplex Unit, REP 10.1.
6. Remove the IP Board Cover, REP 28.1.
7. Remove the Right Cover, REP 28.2.
8. Remove the Registration Clutch, REP 4.3.
9. Remove 4 screws (plastic) that secure the assembly to the frame, Figure 1, and one more screw behind the front door, REP 28.4.

Figure 2 Remove the Registration Roller Assembly
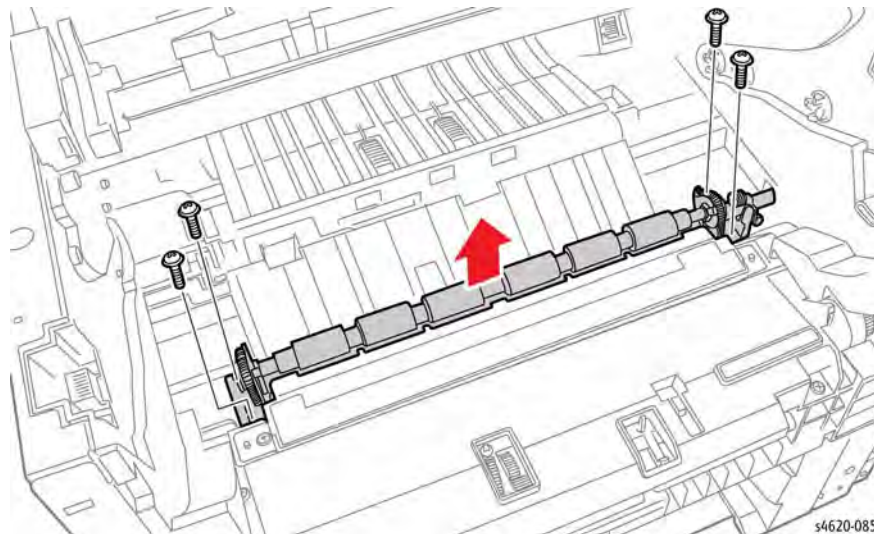
Figure 1 Remove the Registration Roller Assembly screws

10. Raise the left side of the assembly, then remove the registration roller shaft from the hole in the chassis, Figure 2.

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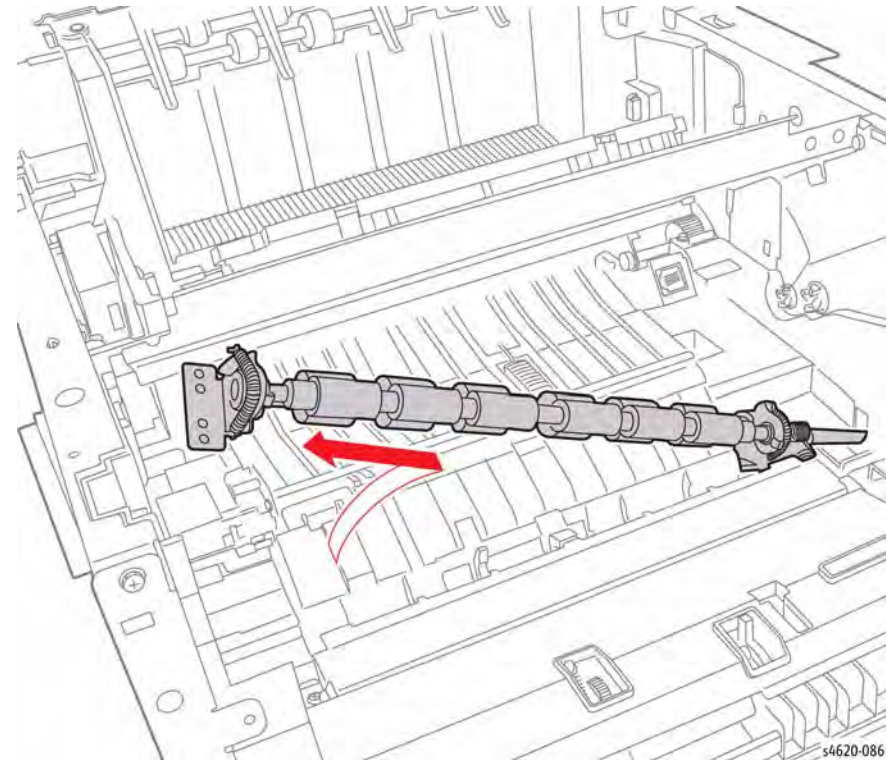
REP 8.31 Registration Sensor Actuator

Parts List on PL 8.50 Item 27

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Remove Tray 2,
2. Remove the Toner Cartridge.
3. Remove the Drum Cartridge.
4. Remove the Duplex Unit, REP 10.1.
5. Remove the IP Board Cover, REP 28.1.
6. Remove the Right Cover, REP 28.2.
7. Remove the Registration Clutch, REP 4.3.
8. Remove the Registration Roller Assembly, REP 8.27.
9. Remove 2 screws (plastic) that secure the envelope guide to the frame, Figure 1.

Figure 1 Remove the envelope guide screws

10. Release 2 clips that secure the actuator cap to the frame and remove the cap, Figure 2.

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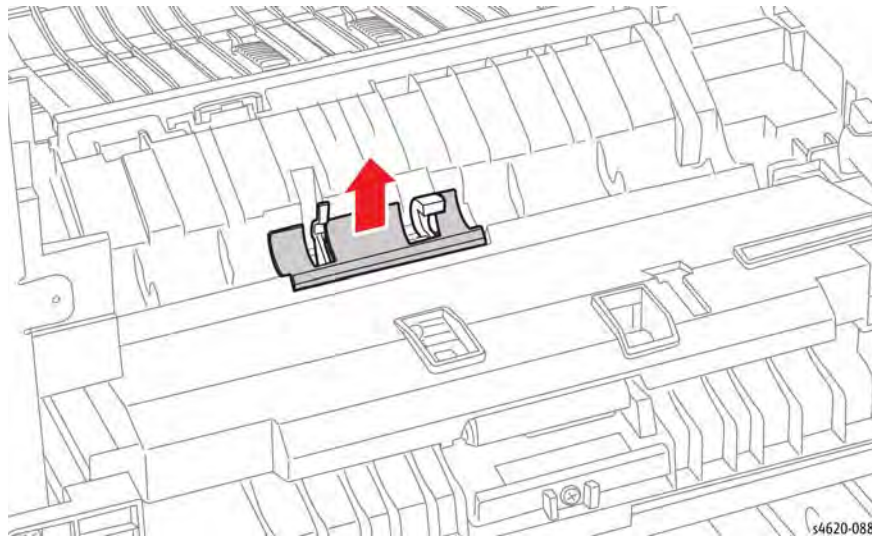
REP 8.31

Figure 2 Remove the actuator cap

11. Release the actuator and spring from the tabs in the frame to remove the actuator.

Figure 3 Remove the Registration Sensor Actuator

REP 8.32 Feed Sensor Actuator

Parts List on PL 8.50 Item 26

Removal

WARNING

Switch off the electricity to the machine. 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 Cartridge to prevent light exposure.

1. Remove Tray 2,
2. Remove the Toner Cartridge.
3. Remove the Drum Cartridge.
4. Remove the Duplex Unit, REP 10.1.
5. Remove the IP Board Cover, REP 28.1.
6. Remove the Right Cover, REP 28.2.
7. Remove the Registration Clutch, REP 4.3.
8. Remove the Registration Roller Assembly, REP 8.27.
9. Remove 2 screws (plastic) that secure the envelope guide to the frame, Figure 1.

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Figure 1 Remove the envelope guide screws

10. Release 2 clips that secure the actuator cap to the frame and remove the cap, Figure 2.

Figure 2 Remove the actuator cap

11. Release the actuator and spring from the tabs in the frame to remove the actuator.
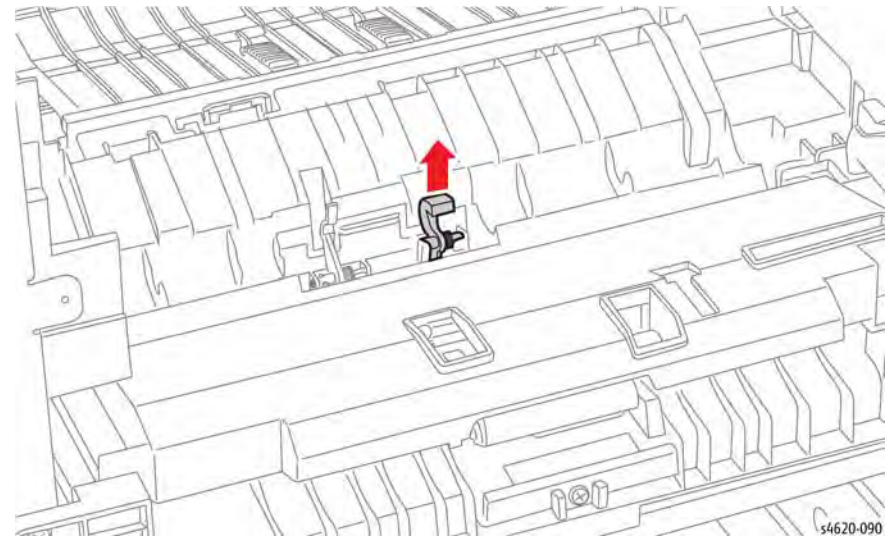
Figure 3 Remove the Feed Sensor Actuator

REP 8.40 Feeder Take Away Clutch

Parts List on PL 8.30 Item 5

Removal

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove 2 screws (metal) that secure the clutch bracket to the Feed Motor Assembly.
8. Disconnect P/J80 to remove the clutch from the shaft, Figure 1.
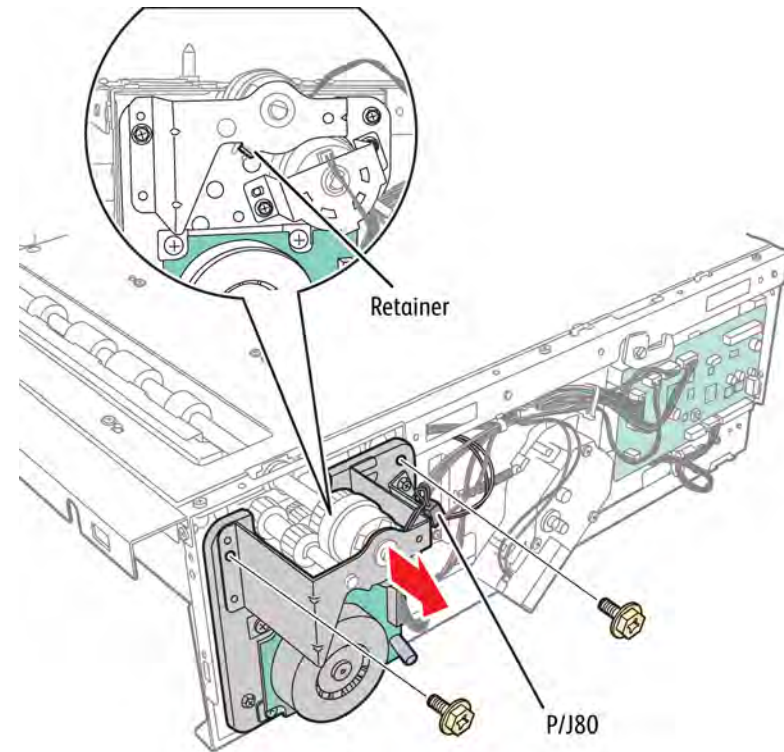
Figure 1 Remove the Take Away Clutch bracket

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REP 8.41 Feeder Feed Clutch

Parts List on PL 8.30 Item 2

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34
7. Remove 2 screws (metal) that secure the clutch bracket to the Feed Motor Assembly.
8. Remove the E-clip that holds the bracket to the clutch.
9. Disconnect P/J89 to remove the clutch from the shaft, Figure 1.
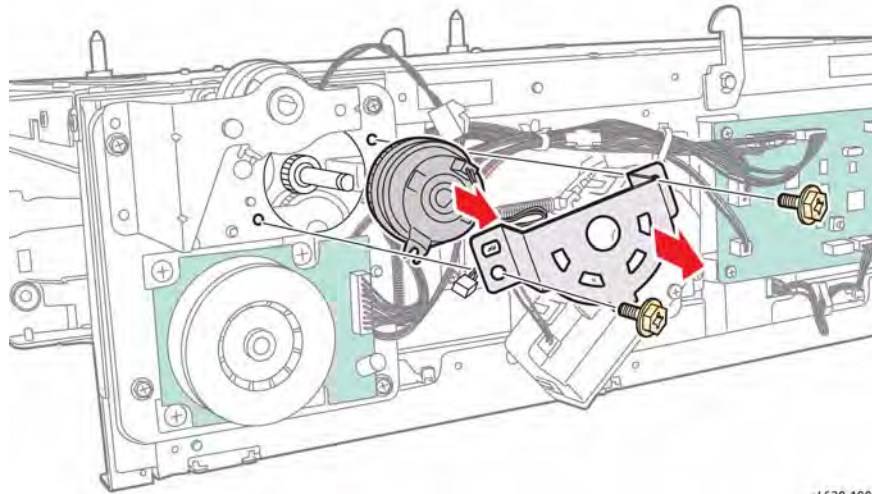
Figure 1 Remove the Feed Clutch

REP 8.42 Feeder Feed Drive Assembly

Parts List on PL 8.30 Item 1

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41
9. Disconnect P/J88 from the motor and release the harnesses from the clamp, Figure 1.
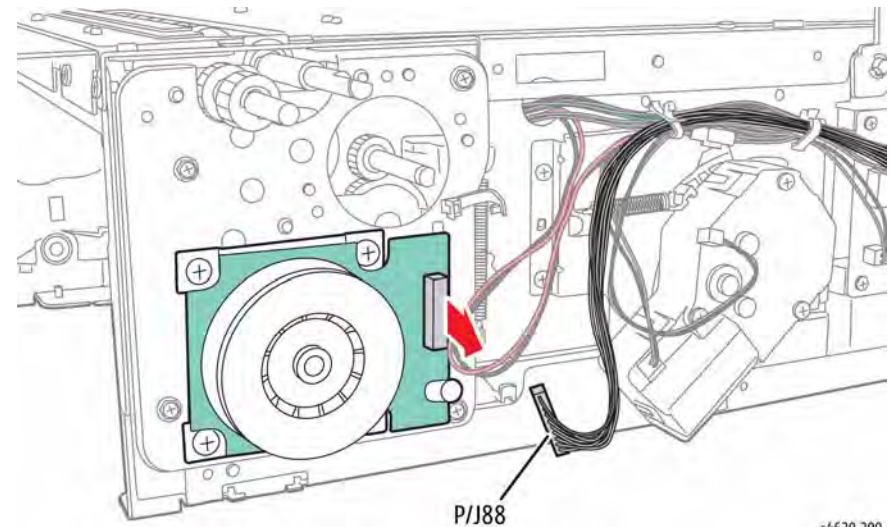
Figure 1 Disconnect the Feed Drive Assembly

10. Remove 4 screws (Gold, metal) that secure the assembly to the chassis, Figure 2.

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REP 8.41, REP 8.42
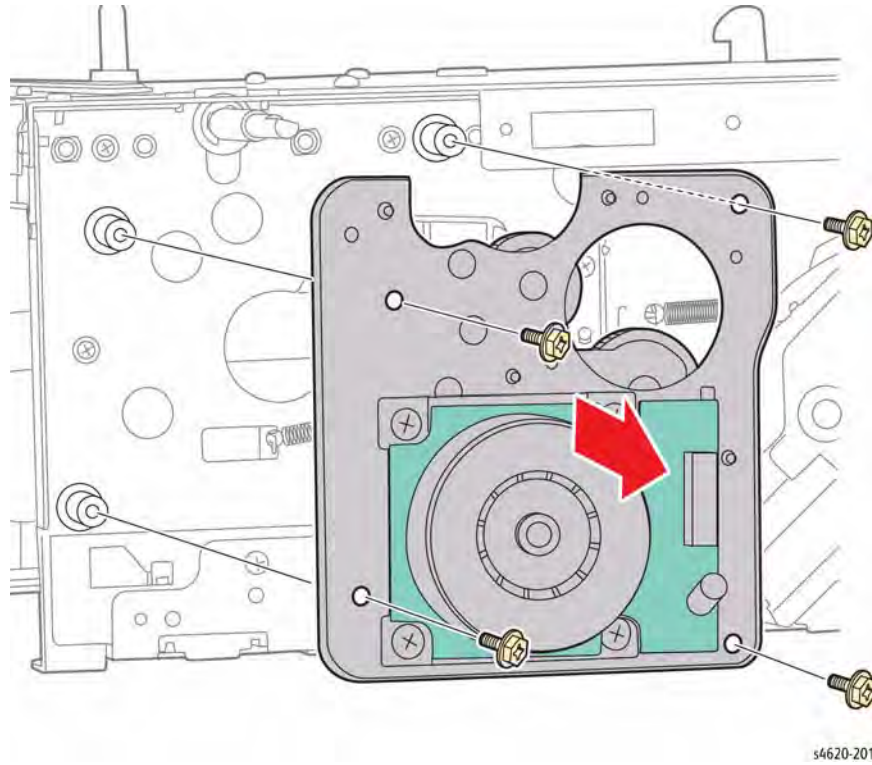
Figure 2 Remove the Feed Drive Assembly

REP 8.43 Feeder Take Away Sensor Actuator

Parts List on PL 8.40 Item 9

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP XX. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer GP XX.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Release the actuator from the tabs to remove, Figure 1.

Figure 1 Remove the Take Away Sensor Actuator

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REP 8.42, REP 8.43

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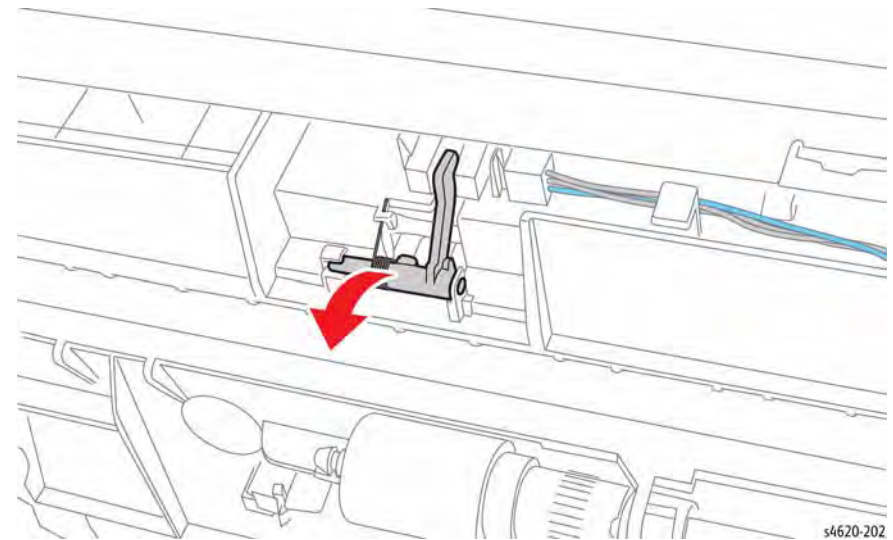
REP 8.44 Feeder Take Away Sensor

Parts List on PL 8.40 Item 7

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

Figure 2 Remove the top cover

12. Release the 3 hooks that secure the sensor to the chute, Figure 3.

Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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P/J85
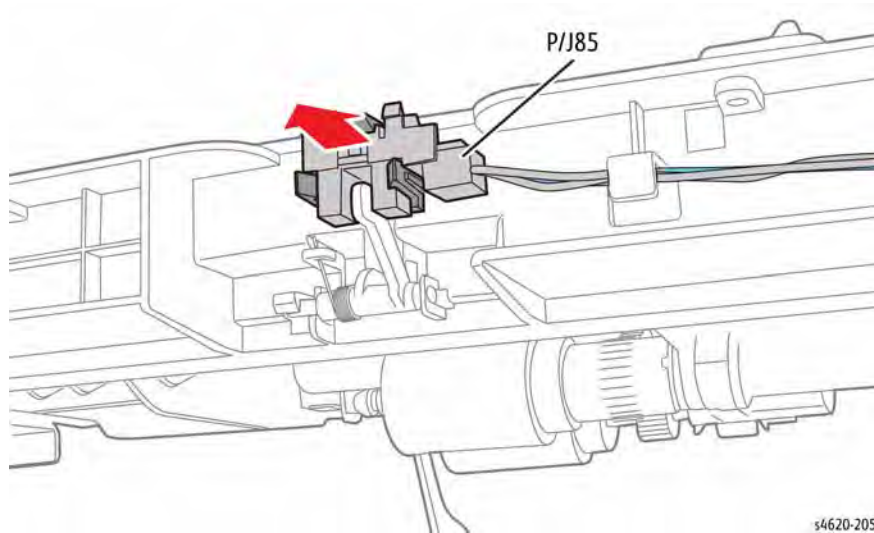
s4620-205

Figure 3 Remove the Take Away Sensor

REP 8.45 Feeder Take Away Roller

Parts List on PL 8.30 Item 8

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

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Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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Figure 2 Remove the top cover

12. Remove 2 E-clips and 2 bearings, then move the shaft to release it from the chassis, Figure 3.

Figure 3 Remove the Take Away Roller

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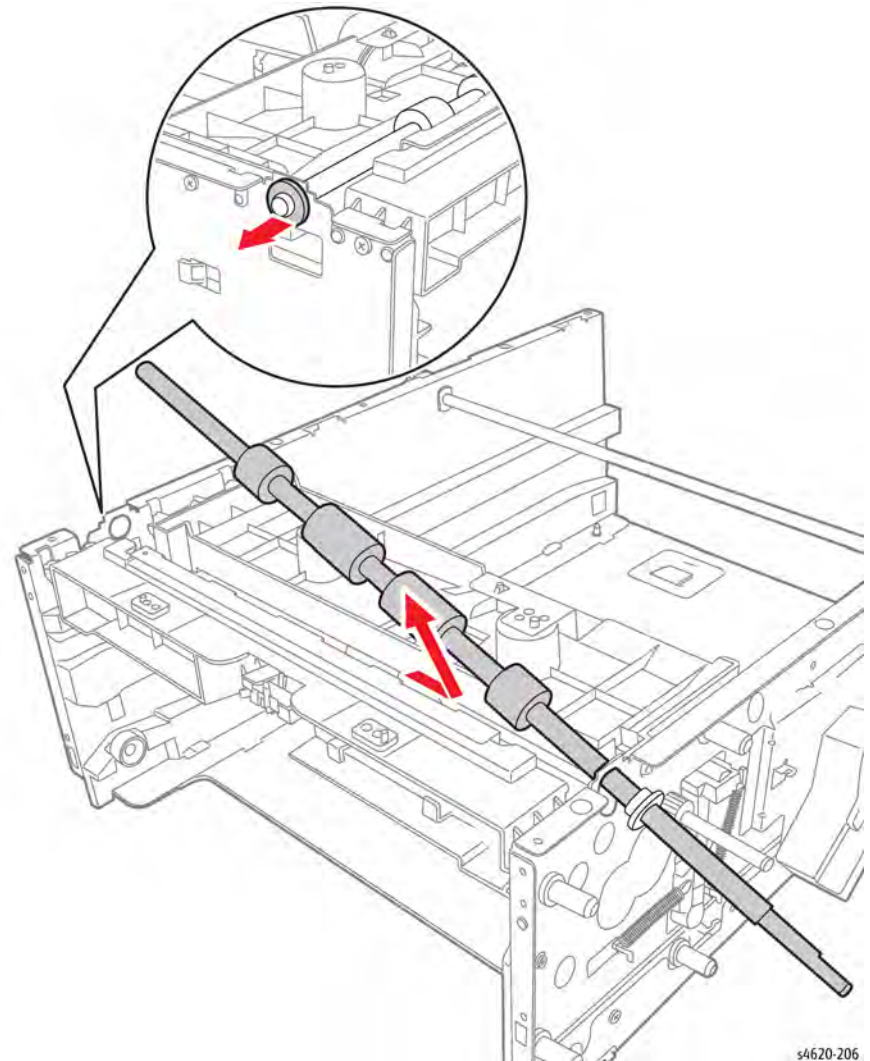
REP 8.45

REP 8.46 Feeder Feed Assembly

Parts List on PL 8.20 Item 17

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 option feeder from the printer, GP 15.
2. Remove the Tray.
3. Remove the Front Cover, REP 7.24.
4. Remove the Right Cover, REP 7.25.
5. Remove the Rear Cover, REP 7.27.
6. Remove the right side frame, REP 7.34.
7. Remove the Take Away Clutch, REP 8.40.
8. Remove the Feed Clutch, REP 8.41.
9. Remove the Feed Drive Assembly, REP 8.42.
10. Remove the 2 screws that secure front frame rail to the chassis, Figure 1.

Figure 2 Remove the top cover

12. Disconnect CN2, CN3, and P/J85, then feed the harnesses into the tray cavity, Figure 3.

Figure 1 Remove the frame rail

11. Remove 10 (metal) and 4 (plastic) screws that secure the cover to the chassis, Figure 2.

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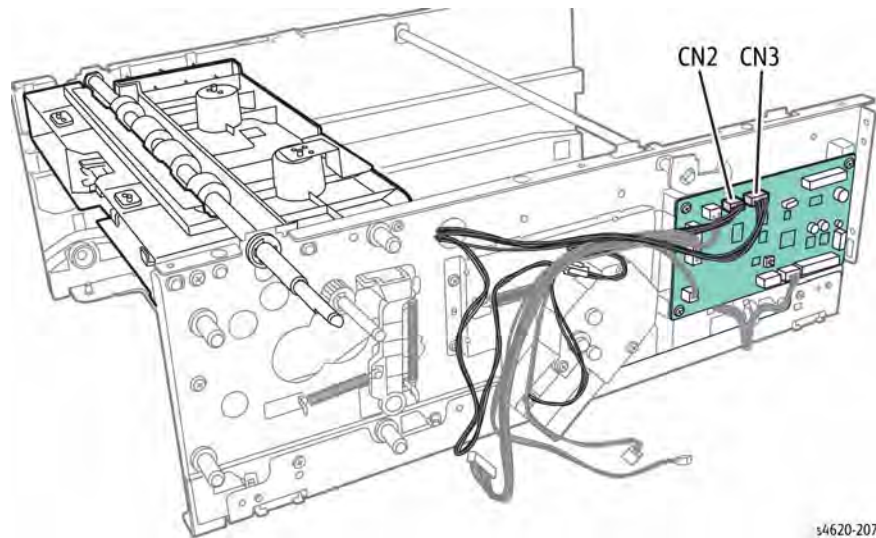
Figure 3 Disconnect the Feed Assembly

13. Remove the spring from the pick assembly

14. Remove 2 screws (Black, plastic) and release 4 bosses that secure the Feed Assembly to the chassis.
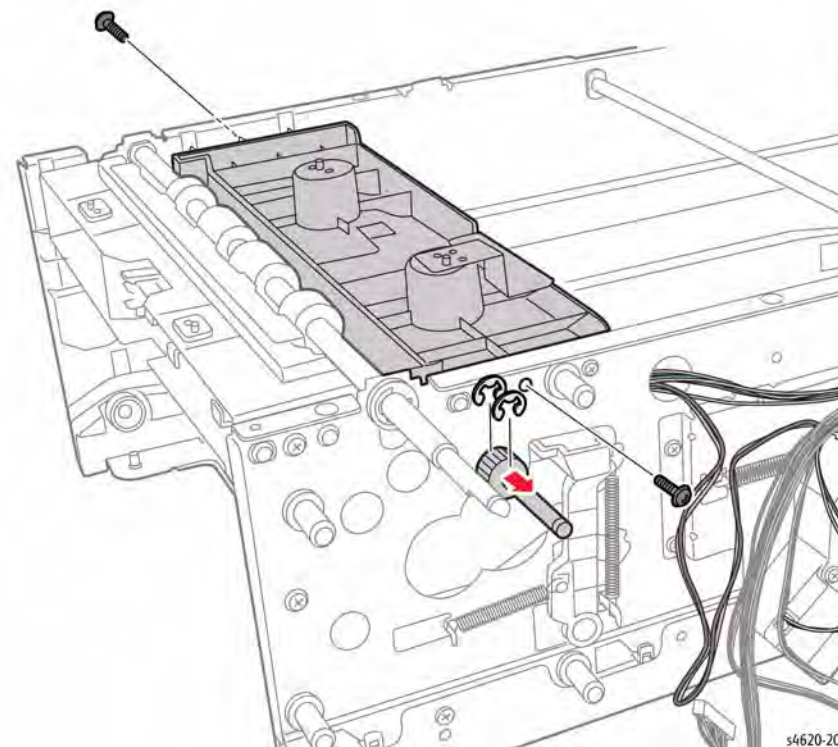
Figure 4 Remove the Feed Assembly screws

15. Lift the left side and lower the right side to remove the Feed Assembly from the chassis, Figure 5.

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REP 8.46

Figure 5 Remove the Feed Assembly

REP 8.47 HCF Feed Assembly

Parts List on PL 8.25 Item 16

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.
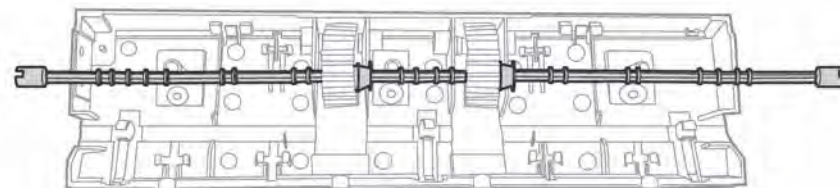
WARNING

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2.   Separate the HCF feeder from the printer, GP 15.
3.   Remove the HCF rear cover, REP 7.38.
4.   Remove the HCF right cover, REP 7.39.
5.   Remove the HCF left cover, REP 7.40.
6.   Remove the HCF top plate, REP 7.49.
7.   Remove 4 (plastic) screws that secure the HCF Feed Assembly to the top plate, Figure 1.
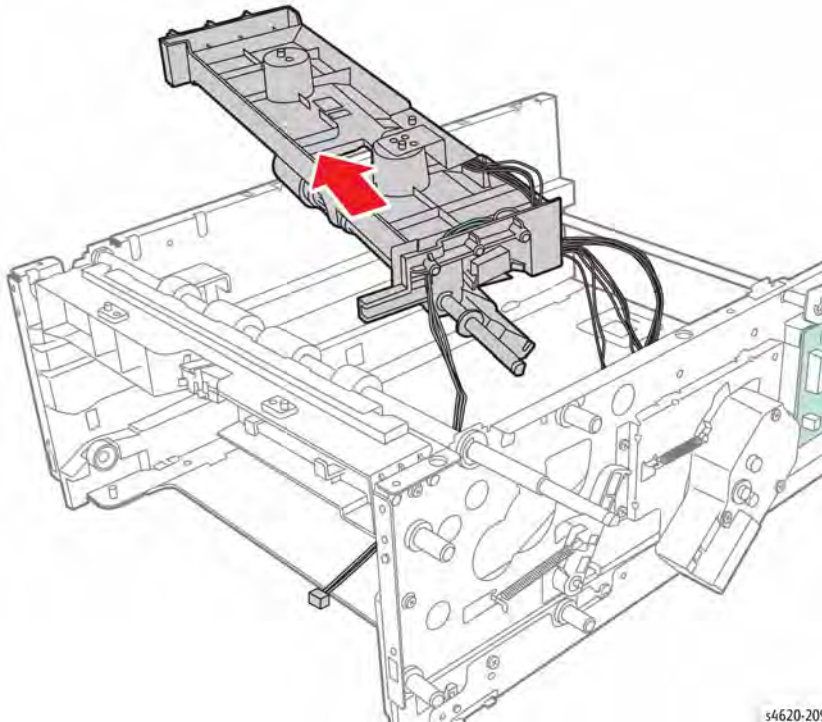
Figure 1 Remove the HCF Feed Assembly

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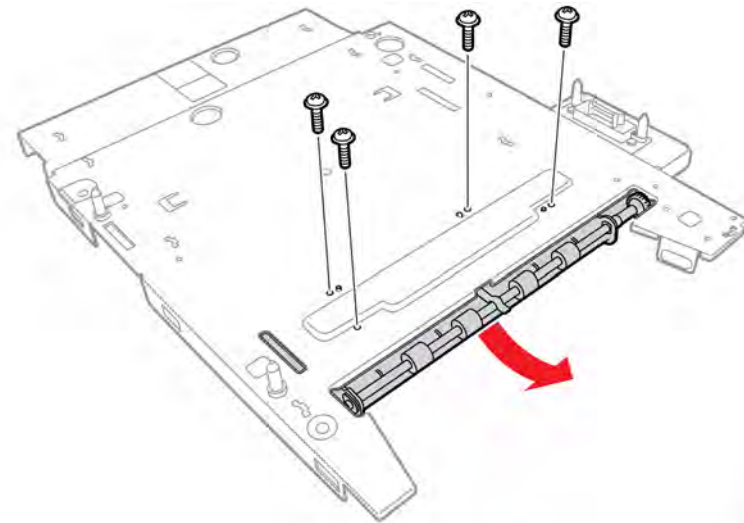
REP 8.48 HCF Lift Limit Switch

Parts List on PL 8.25 Item 14

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Remove the HCF rear cover, REP 7.38.
4. Remove the HCF right cover, REP 7.39.
5. Remove the HCF left cover, REP 7.40.
6. Remove the HCF top plate, REP 7.49.
7. Disconnect P/J93 and release 2 hooks that secure the switch to the HCF Feed Assembly, Figure 1.
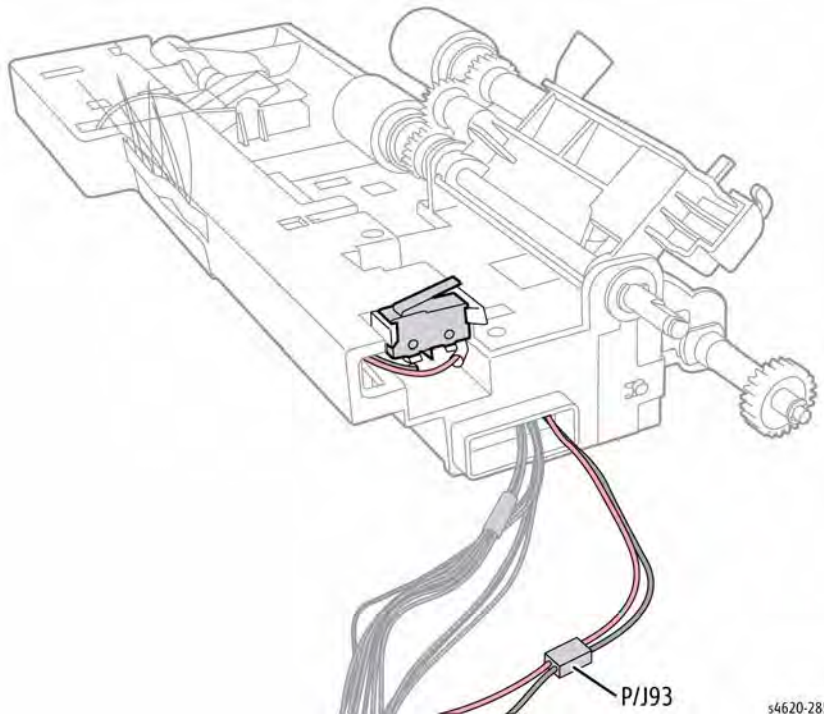
Figure 1 Remove the Lift Limit Switch

REP 8.49 HCF Take Away Sensor

Parts List on PL 8.25 Item 2

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Remove the HCF rear cover, REP 7.38.
4. Remove the HCF right cover, REP 7.39.
5. Remove the HCF left cover, REP 7.40.
6. Remove the HCF top plate, REP 7.49.
7. Remove the HCF Feed Assembly, REP 8.47.
8. Disconnect P/J95 and release 2 hooks that secure the sensor to the HCF Feed Assembly, Figure 1.
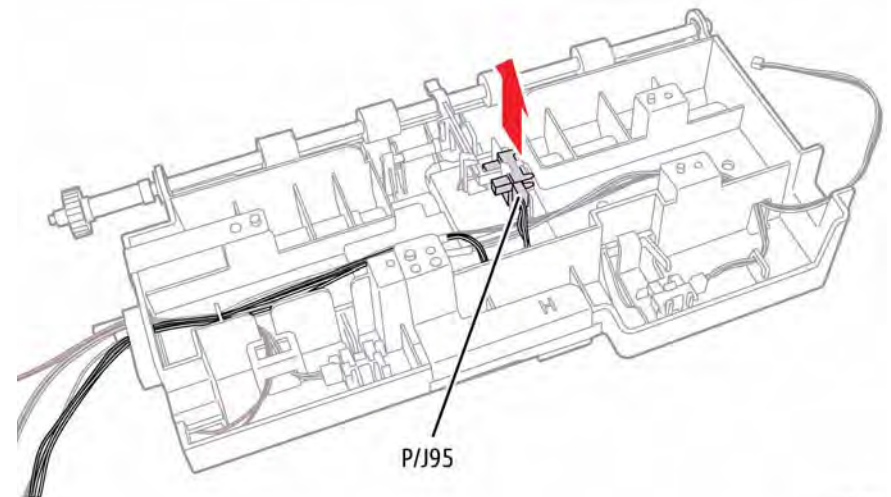
Figure 1 Remove the HCF Take Away Sensor

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4 Repairs and Adjustments

REP 8.48, REP 8.49

REP 8.50 HCF No Paper Sensor

Parts List on PL 8.25 Item 2

Removal

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Remove the HCF rear cover, REP 7.38.
4. Remove the HCF right cover, REP 7.39.
5. Remove the HCF left cover, REP 7.40.
6. Remove the HCF top plate, REP 7.49.
7. Remove the HCF Feed Assembly, REP 8.47.
8. Disconnect P/J94 and release 2 hooks that secure the sensor to the HCF Feed Assembly, Figure 1.
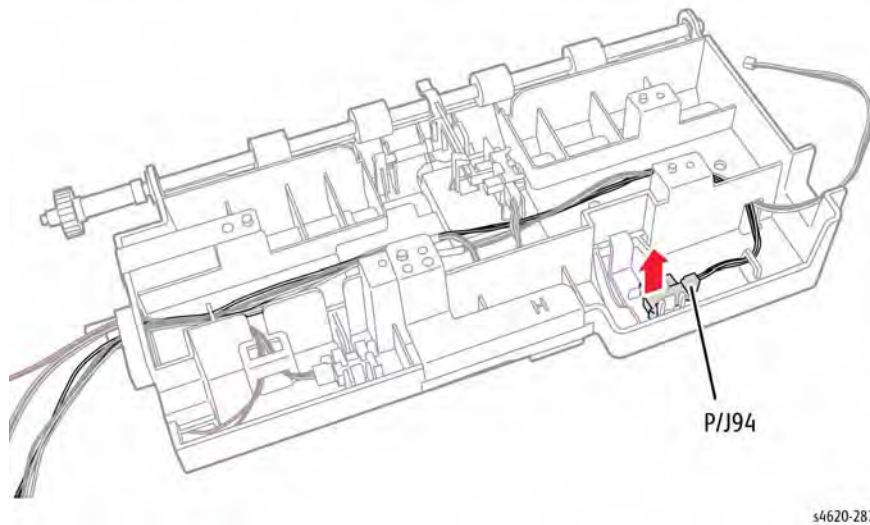
Figure 1 Remove the HCF No Paper Sensor

REP 8.51 HCF Stack Height Sensor

Parts List on PL 8.25 Item 2

Removal

<div align="center">

WARNING

</div>

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 any installed finishing options from the IOT, GP 14.
2. Separate the HCF feeder from the printer, GP 15.
3. Remove the HCF rear cover, REP 7.38.
4. Remove the HCF right cover, REP 7.39.
5. Remove the HCF left cover, REP 7.40.
6. Remove the HCF top plate, REP 7.49.
7. Remove the HCF Feed Assembly, REP 8.47.
8. Disconnect P/J91 and release 2 hooks that secure the sensor to the HCF Feed Assembly, Figure 1.
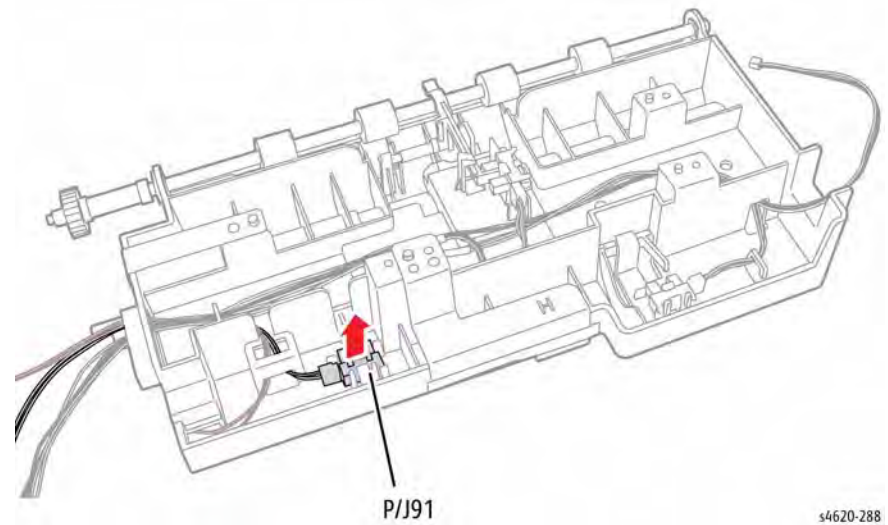
Figure 1 Remove the HCF Stack Height Sensor

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REP 8.50, REP 8.51

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REP 8.52 Shaft Frame Assembly Transport Belt

Parts List on PL 8.50 Item 15

Removal

WARNING

Switch off the electricity to the machine. 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 Shaft Frame Assembly from the machine, REP 8.16.

2. Release the drive shaft from the frame by releasing from the 3 clips.

s4620-392

Figure 2 Drive Shaft released from securing clips

3. Release the De-Tack Saw from the frame by sliding in the direction shown in Figure 3 .

    NOTE: The DTS is held in place by 3 clips as shown in Figure 4. Care should be taken not to damage the clips when removing the DTS.

s4620-391

Figure 1 Locations of securing clips for Drive Shaft
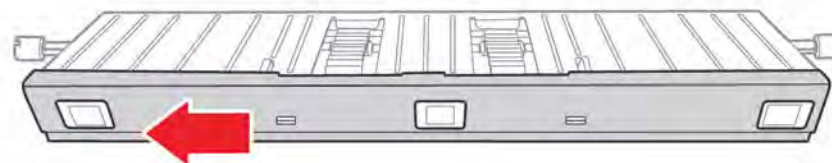
s4620-393

Figure 3 Direction to remove DTS

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REP 8.52
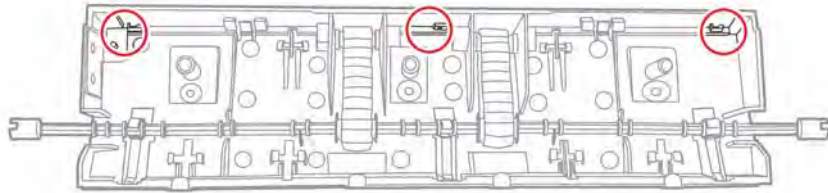
s4620-394

Figure 4 Location of mounting clips

s4620-396
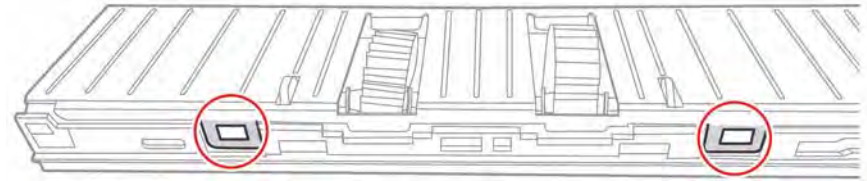
Figure 6 Tabs to release guide plate

s4620-395
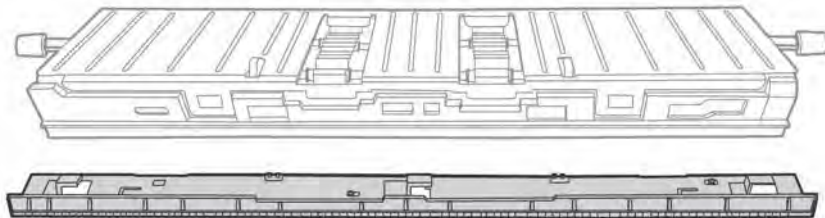
Figure 5 DTS removed from Shaft Frame Assembly

s4620-397
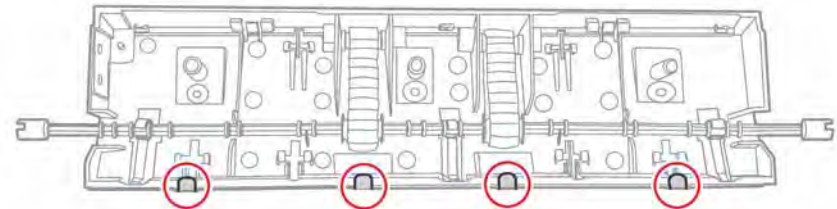
Figure 7 Tabs to secure guide plate - seated first when re-installing plate

4. Release the remove metal guide plate by releasing two tabs as indicated in Figure 6. When re-installing guide plate, secure tabs on other side of the plate first, as shown in Figure 7.

5. Remove the belts from the frame by removing the idle roller (Figure 8).

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Figure 8 Idle rollers

6. Replace the belts and reassemble, reversing the disassembly procedure.

7. Reinstall the Shaft Frame Assembly (REP 8.16).

REP 9.1 Transfer Roller

Parts List on PL 9.10 Item 2

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

CAUTION

</div>

Cover the Drum Cartridge to prevent light exposure.

1. Open the Top Door.

2. Remove the Toner Cartridge.

3. Remove the Drum Cartridge.

4. Release 2 clips that secure the Transfer Roller and remove the roller, Figure 1.

Figure 1 Removing the Transfer Roller

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4 Repairs and Adjustments

REP 8.52, REP 9.1

REP 9.2 ADC Sensor

Parts List on PL 8.50

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div align="center">

CAUTION

</div>

Cover the Drum Cartridge to prevent light exposure.

1. Open the Top Door.
2. Remove the Toner Cartridge.
3. Remove the Drum Cartridge.
4. Remove 3 screws (plastic) that secure the transfer roller guide plate, Figure 1.

<div align="center">
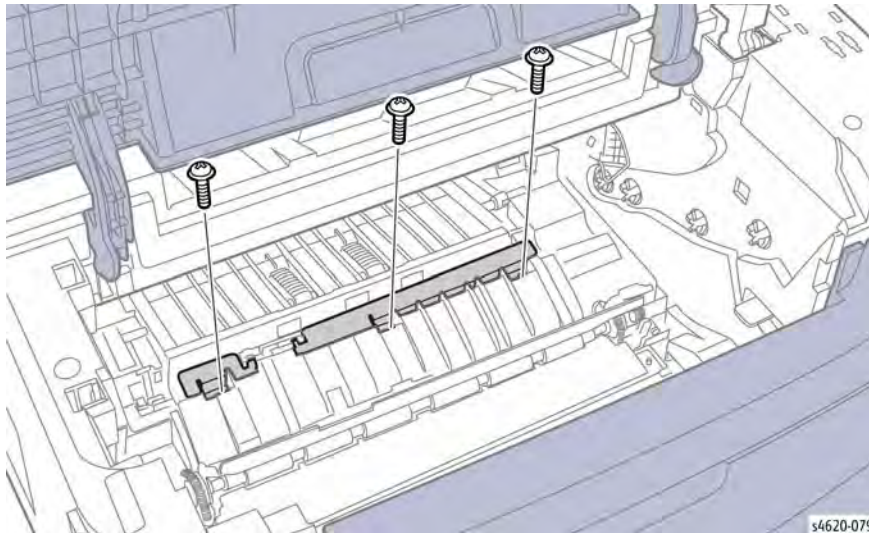
Figure 1 Remove the transfer roller guide plate

</div>

5. Remove 2 screws that secure the sensor holder to the frame, Figure 2.

<div align="center">
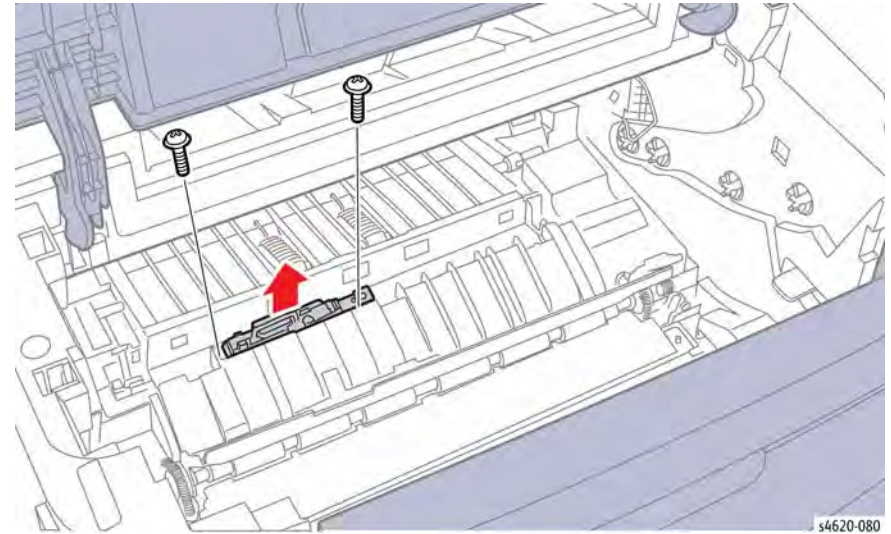
Figure 2 Remove the ADC Sensor holder screws

</div>

6. Remove 1 screw and loosen 1 screw, then disconnect P/J65 to remove the ADC Sensor from the holder, Figure 3.

<div align="center">
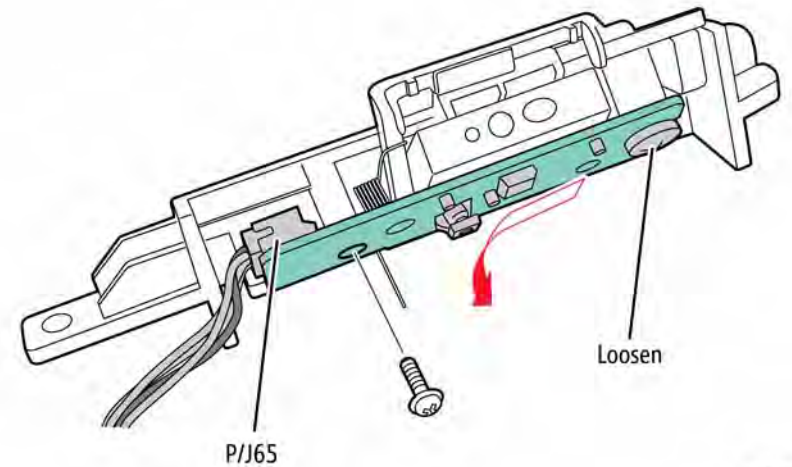
Figure 3 Remove the ADC Sensor from the holder

</div>

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REP 9.2

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REP 9.3 Waste Toner Cartridge Detect Sensor

Parts List on PL 9.15 Item 6

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Release 3 hooks that secure the sensor to the bias cover.
5. Disconnect P/J30 to remove the sensor, Figure 1.
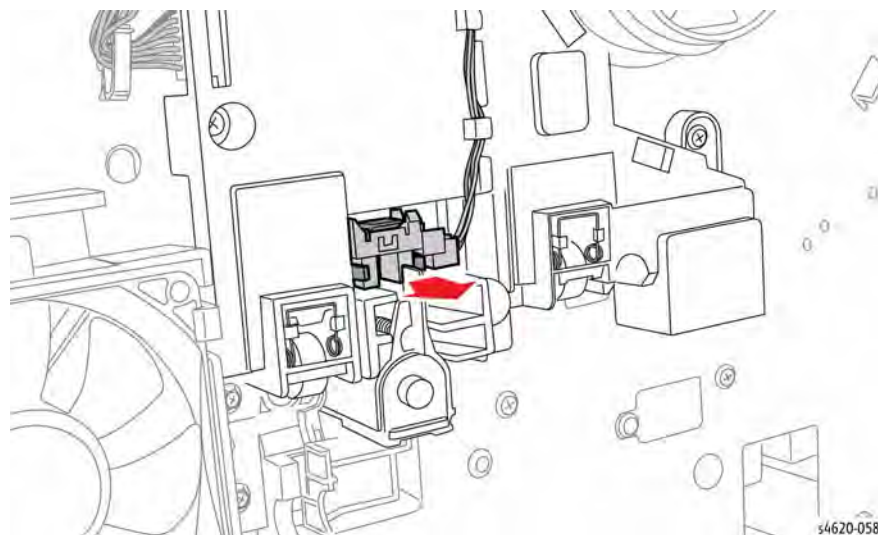
Figure 1 Remove the Waste Toner Cartridge Detect Sensor

REP 9.4 Left Side Chassis Fan

Parts List on PL 9.15 Item 3

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Release 1 screw that secures the fan to the duct.
5. Disconnect P/J33 to remove the fan, Figure 1.

Figure 1 Remove the Left Side Chassis Fan

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4 Repairs and Adjustments

REP 9.3, REP 9.4
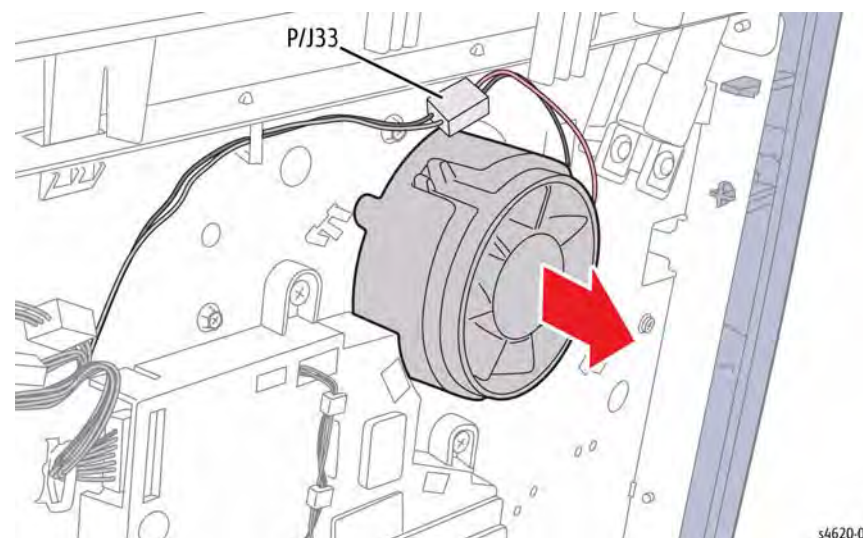
REP 9.5 Environmental Sensor

Parts List on PL 9.15 Item 8

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Release 1 hook that secures the sensor to the holder.
5. Disconnect P/J26 to remove the sensor, Figure 1.
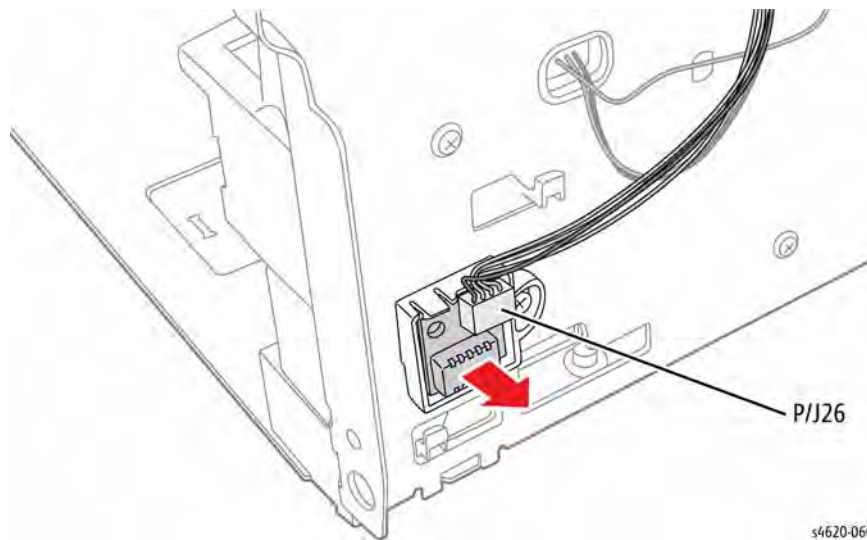
Figure 1 Remove the Environmental Sensor

REP 9.6 Waste Toner Full Sensor

Parts List on PL 9.15 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Disconnect P/J29 from the bias contact cover.
5. Remove 5 screws (metal) that secure the bias contact cover to the chassis, Figure 1.
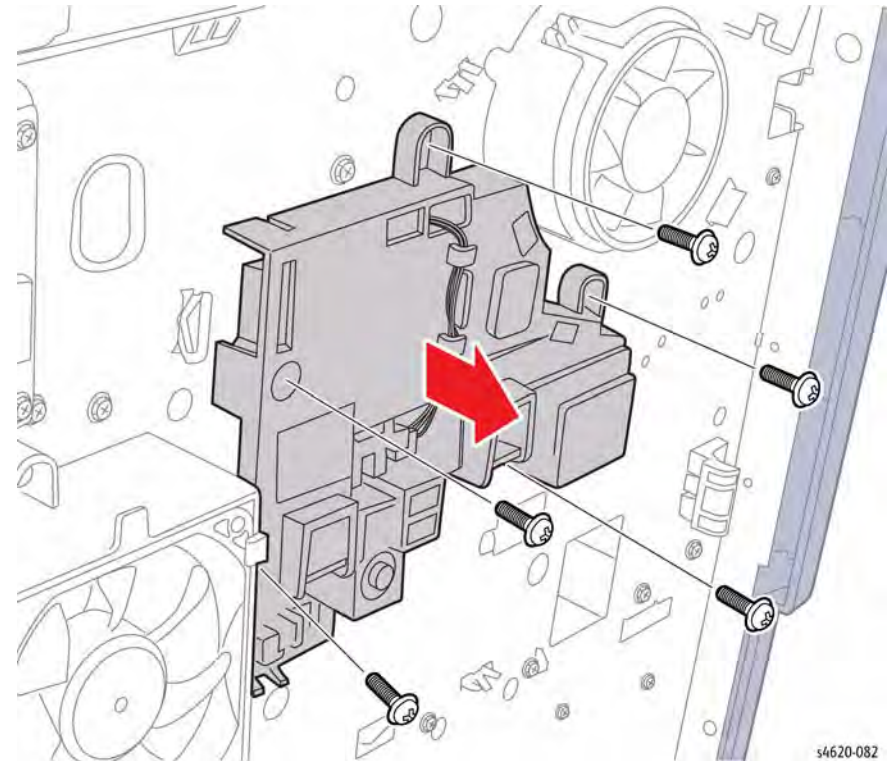
Figure 1 Remove the bias contact cover

6. Remove the Waste Toner Cartridge Detect Sensor, REP 9.3.
7. Remove 1 screw that secures the Waste Toner Full Sensor to the bias contact cover.
8. Disconnect P/J30 from the cover connector.
9. Release the senor harness from the guides to remove the sensor and harness, Figure 2.

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REP 9.5, REP 9.6

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Figure 2 Remove the Waste Toner Full Sensor

REP 9.7 Pipe Assembly

Parts List on PL 9.15 Item 2

Removal

<div style="color:red; text-align:center">

WARNING

</div>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Disconnect P/J29 from the bias contact cover.
5. Remove 5 screws (metal) that secure the bias contact cover to the chassis, Figure 1.

Figure 1 Remove the bias contact cover

6. Remove 2 screws (Gold, metal) that secure the Pipe Assembly.
7. Pull the assembly from the chassis to remove, Figure 2.

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REP 9.6, REP 9.7
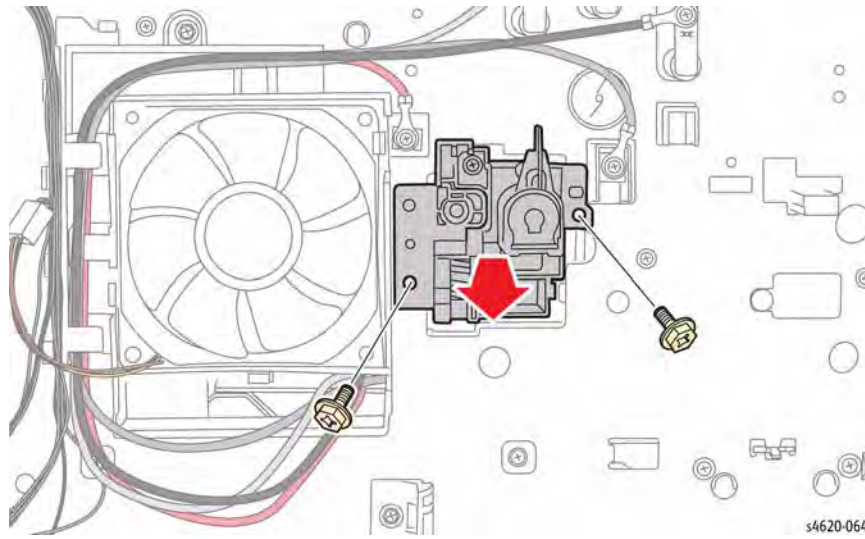
Figure 2 Remove the Pipe Assembly

REP 9.8 Joint Board

Parts List on PL 9.15 Item 7

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Disconnect all connections to the Joint Board.
5. Remove 4 screws (metal) that secure the Joint Board to the chassis, Fgiure 1.
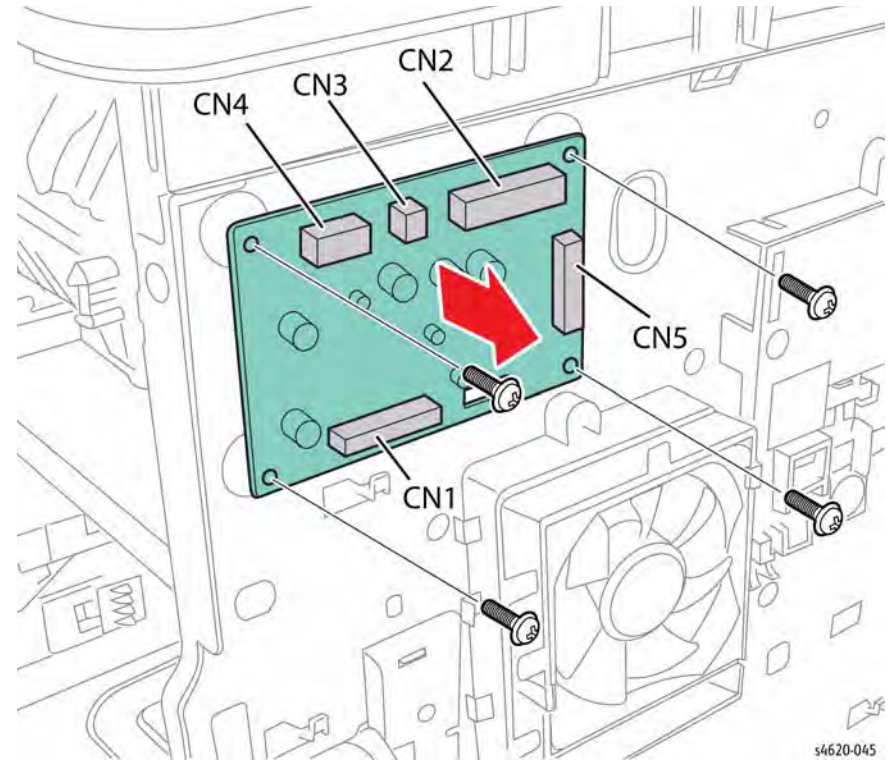
Figure 1 Remove the Interconnect Board screws

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REP 9.7, REP 9.8

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REP 10.1 Duplex Unit

Parts List on PL 10.25 Item 26

Removal

Pull the Duplex Unit out using the handle, Figure 1.
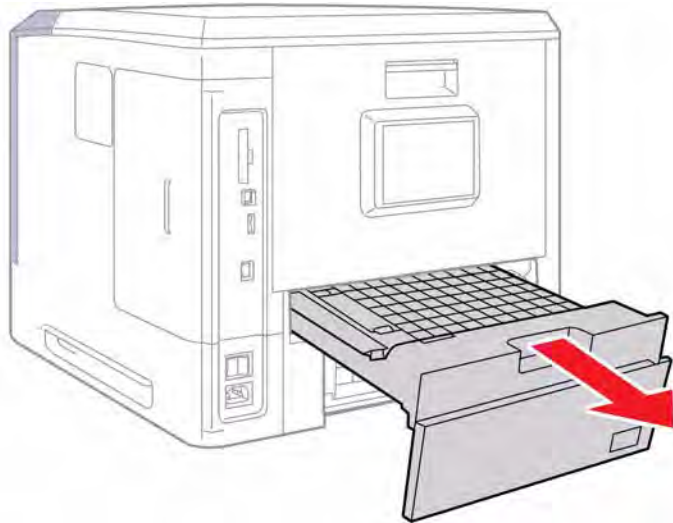
Figure 1 Remove the Duplex Unit

REP 10.4 Upper Option Harness

Parts List on PL 10.30 Item 24

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the Right Cover, REP 28.2.
5. Remove the Top Cover, REP 28.5.
6. Disconnect CN14 from the MCU Board, Figure 1.
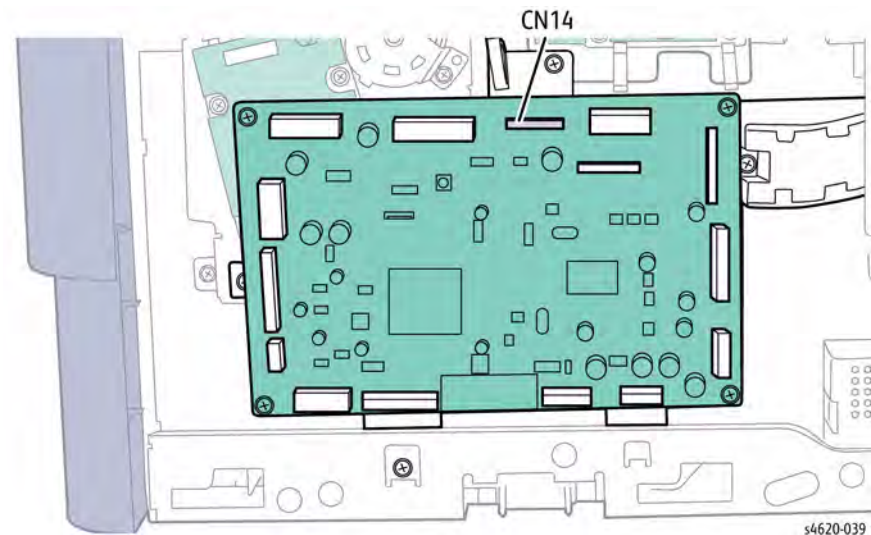
Figure 1 Disconnect CN14 from the MCU Board

7. Remove 2 screws (plastic) that secure the connector to the chassis,

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REP 10.1, REP 10.4
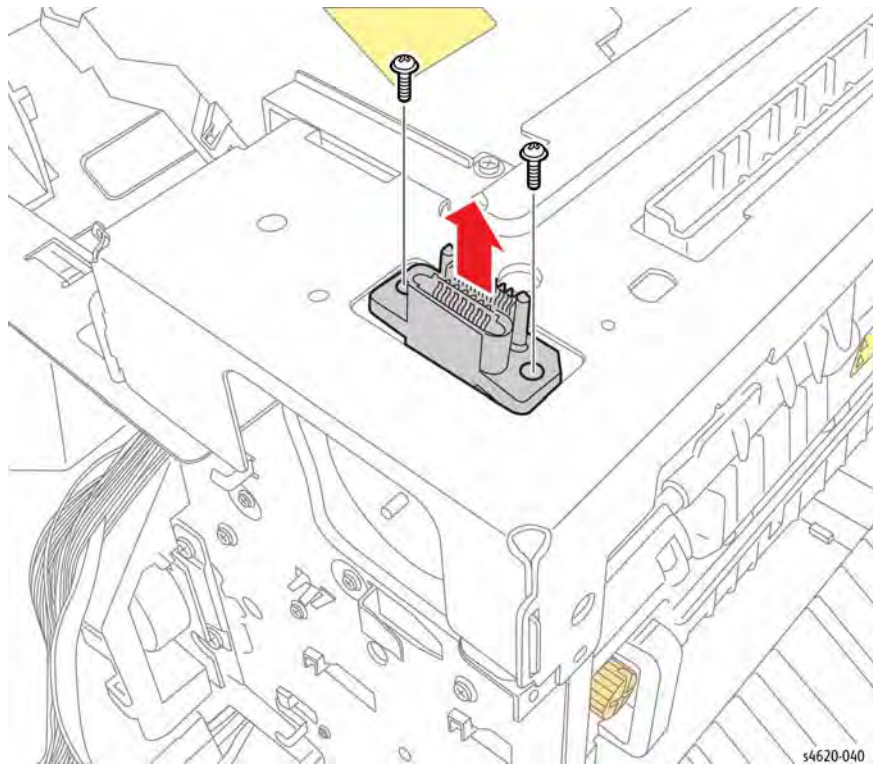
Figure 2 Remove the Upper Option Connector

REP 10.5 Lower Option Harness

Parts List on PL 3.10

Removal

WARNING

Use safe handling procedures when removing the module. Refer to GP 15. The module is heavy.

WARNING

Switch off the electricity to the machine. 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 IOT from Tray 3, if installed.
2. Remove the Duplex Unit, REP 10.1.
3. Remove the Right Cover, REP 28.2.
4. Disconnect CN15 from the MCU Board, Figure 1.
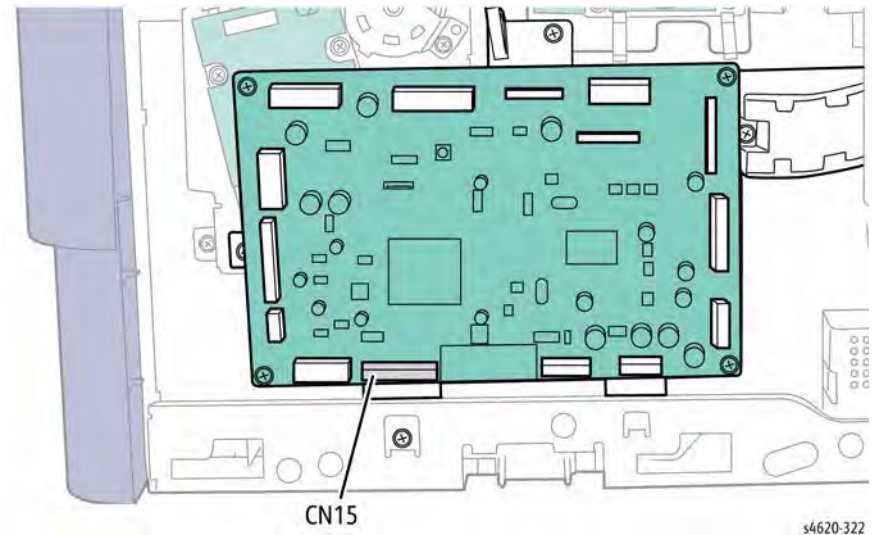
Figure 1 Disconnect CN15 from the MCU Board

5. Move the printer so the right side overhangs the edge of the work surface.
6. Remove 2 screws (metal) that secure the connector to the chassis,

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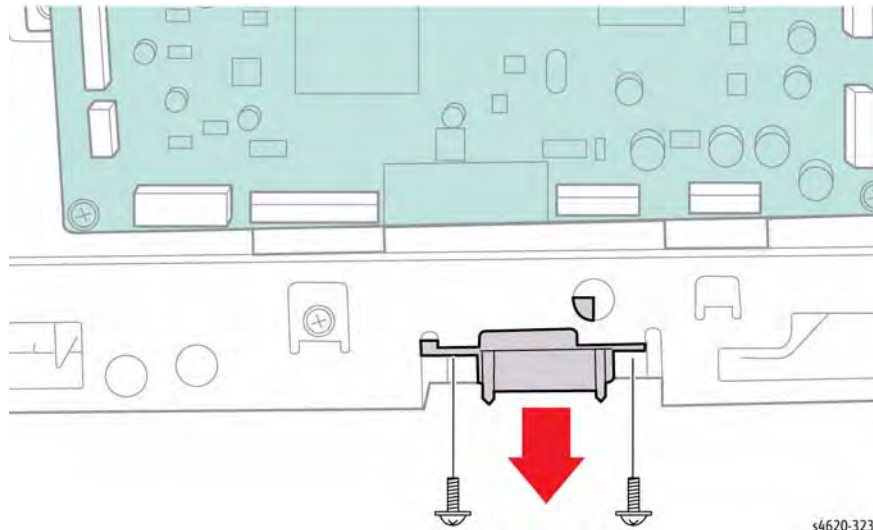
Figure 2 Remove the Lower Option Connector

REP 10.6 Exit Assembly

Parts List on PL 10.30 Item 25

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the Waste Toner Cartridge.
5. Remove the Left Cover, REP 28.3.
6. Remove the IP Board Cage, REP 3.5.
7. Remove the Top Cover, REP 28.5.
8. Remove 2 screws that secure the Upper Option Connector to the chassis, Figure 1.
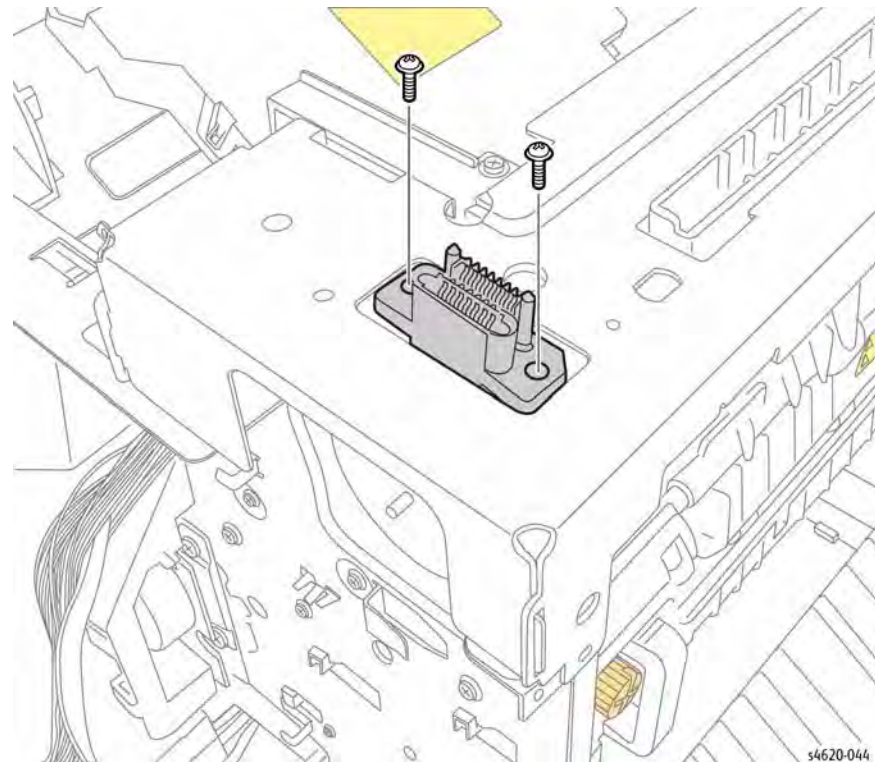
Figure 1 Remove the Upper Option Connector screws

9. Remove 5 screws (2 plastic, 3 metal) that secure the rear support bracket to the chassis.

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REP 10.5, REP 10.6

10. Lift the bracket and rest on the printer chassis, Figure 2.
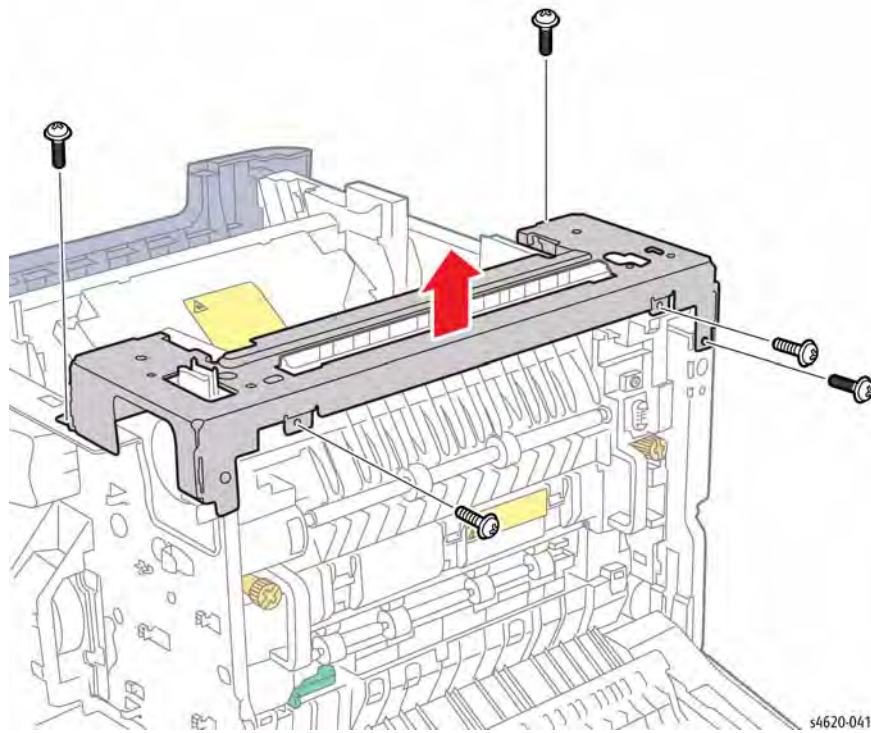
Figure 2 Remove the rear support bracket

11. Disconnect CN3 and CN4 from the Joint Board and feed into the chassis.

12. Remove 4 screws (metal) that secure the Joint Board to the chassis, Figure 3.
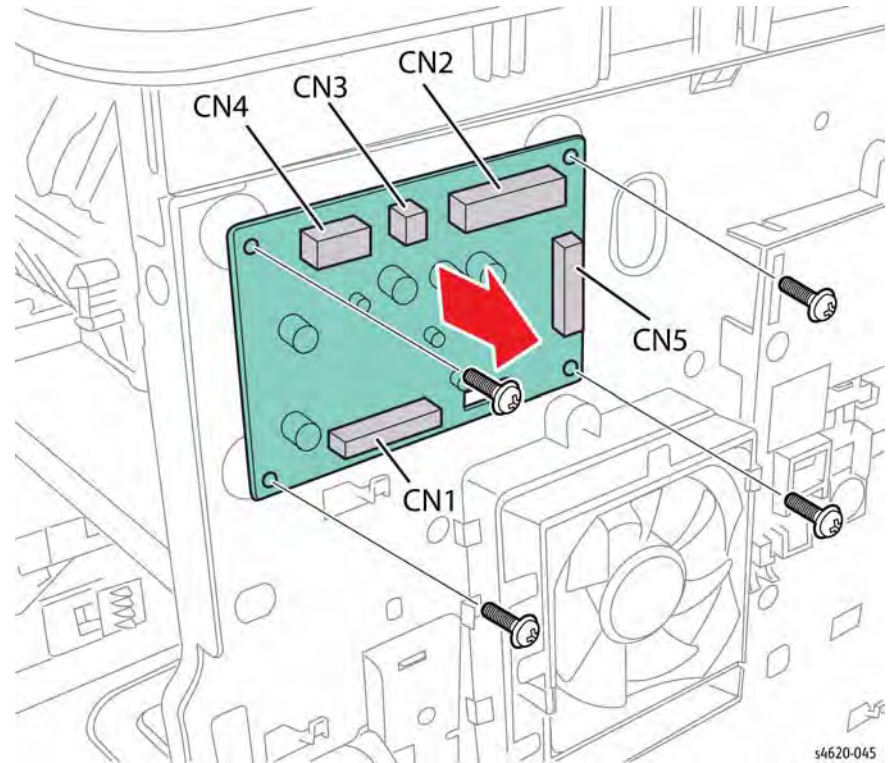
Figure 3 Remove the Joint Board screws

13. Disconnect P/J40 from the Exit Assembly, Figure 4.

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REP 10.6

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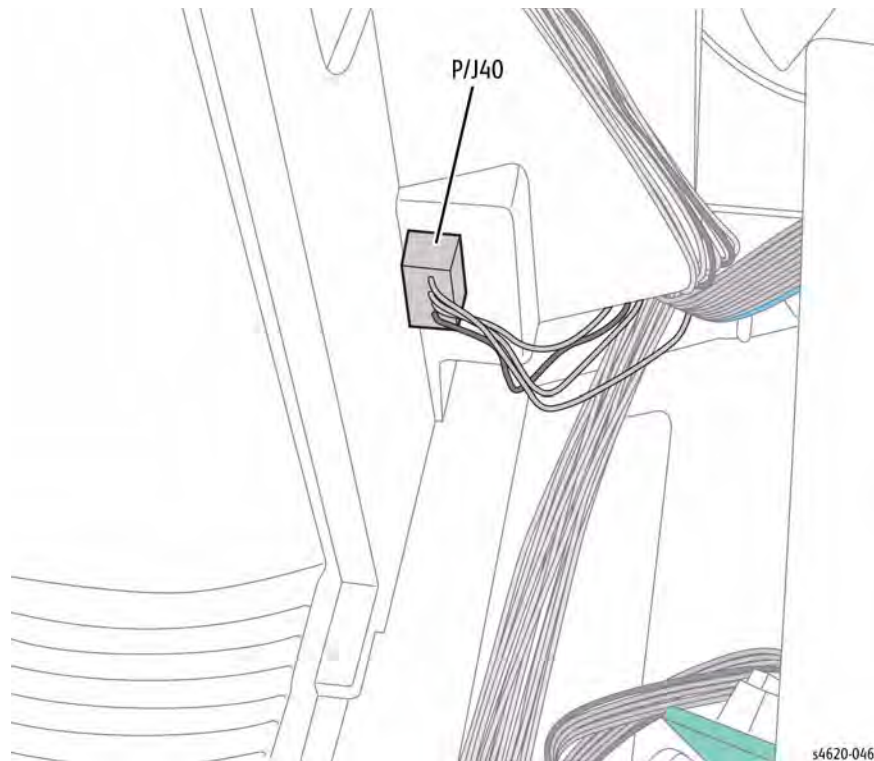
Figure 4 Disconnect the Exit Assembly
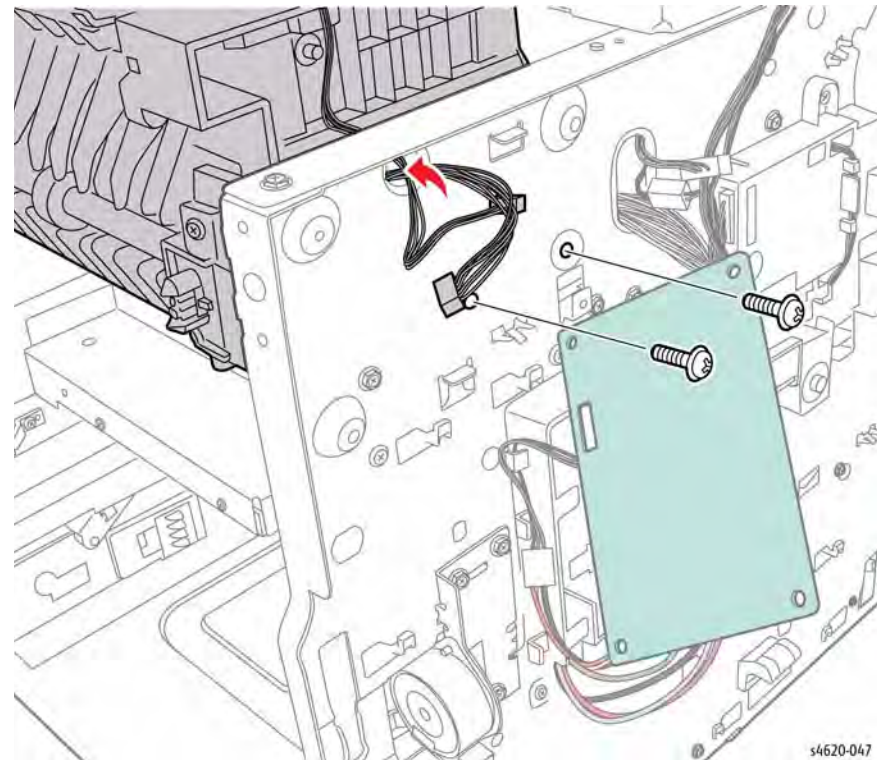
14. Remove 2 screws (metal) from the left side that secure the Exit Assembly, Figure 5.

Figure 5 Remove the left side Exit Assembly screws

15. Remove 2 screws (metal) from the right side that secure the Exit Assembly, Figure 6.

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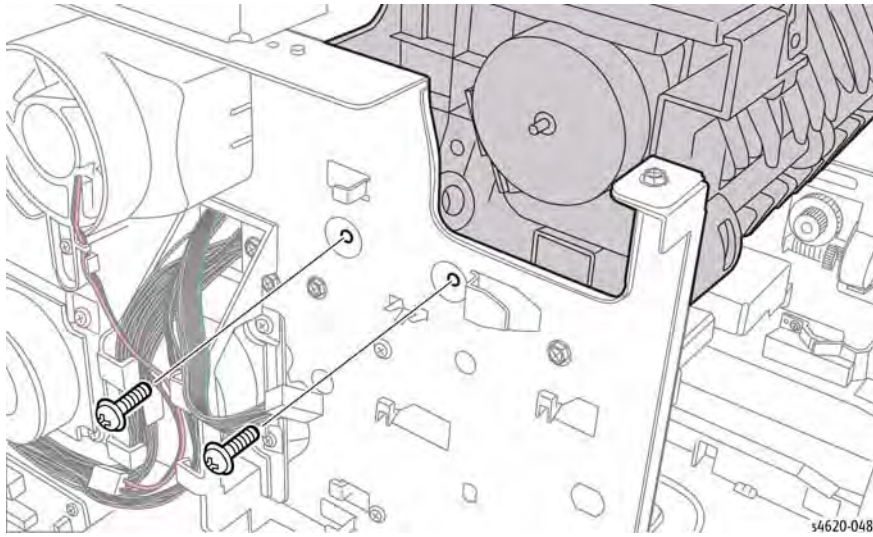
REP 10.6

Figure 6 Remove the right side Exit Assembly screws

16. Raise the Exit Assembly up to remove, Figure 7.
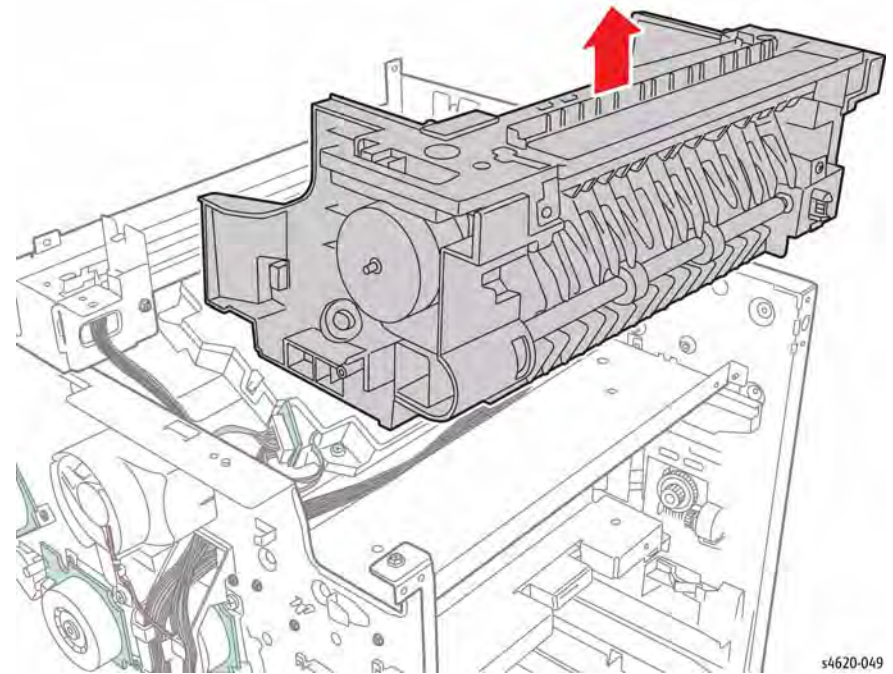
Figure 7 Remove the Exit Assembly

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REP 10.7 Stack Full Sensor

Parts List on PL 10.30 Item 9

Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the Waste Toner Cartridge.
5. Remove the Left Cover, REP 28.3.
6. Remove the Top Cover, REP 28.5.
7. Remove 5 screws (2 plastic, 3 metal) that secure the rear support bracket to the chassis.
8. Lift the bracket and rest on the printer chassis, Figure 1.
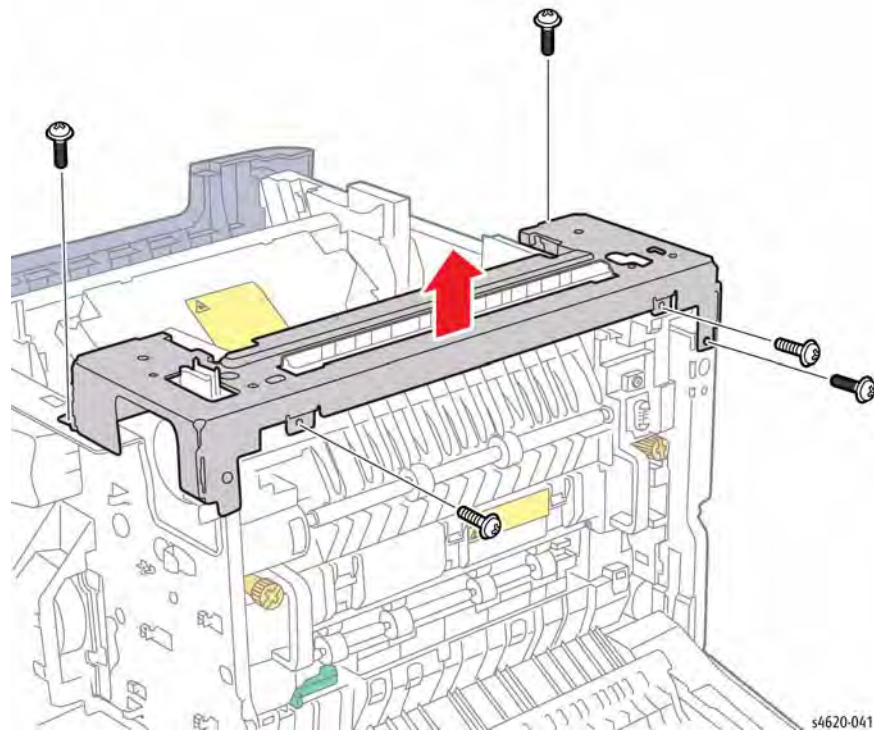
Figure 1 Remove the rear support bracket

9. Remove 4 screws (plastic) that secure the Exit Chute to the chassis.

10. Lift the chute and rest on the support bracket, Figure 2.
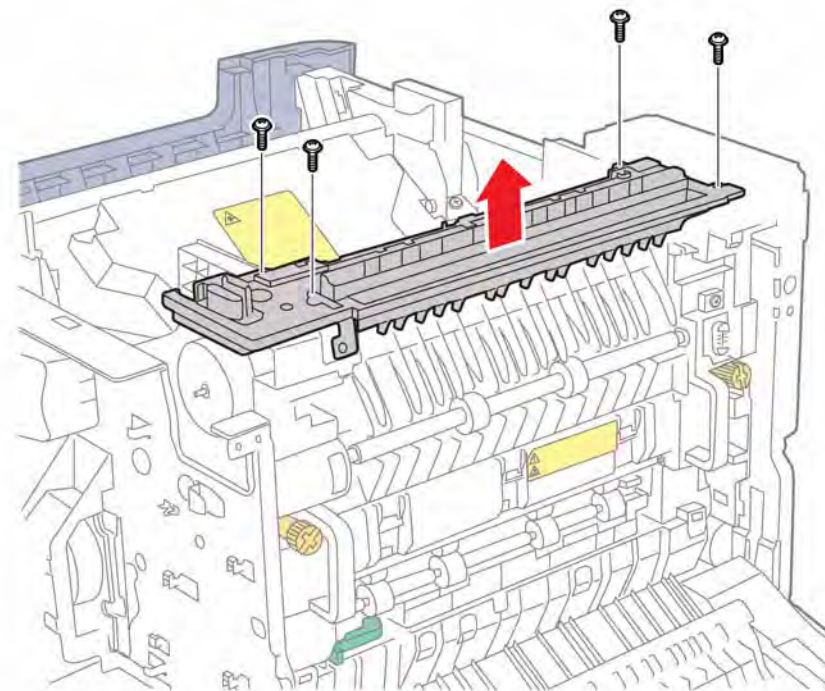
Figure 2 Remove the Exit Chute

11. Disconnect P/J27 from the Stack Full Sensor.
12. Release 3 hooks that secure the sensor to the Exit Chute, Figure 3.

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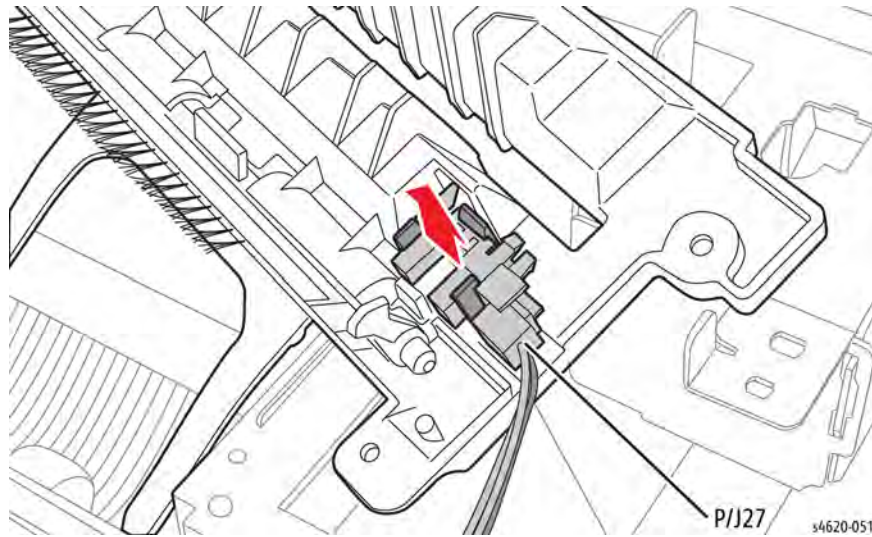
REP 10.7

Figure 3 Remove the Stack Full Sensor

REP 10.8 Fuser Drive Assembly

Parts List on PL 4.10 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the Rear Door, REP 28.6.
5. Remove the Fuser, REP 10.10.
6. Remove the IP Board Cage, REP 3.5.
7. Remove the Main Drive Assembly, REP 4.1.
8. Disconnect CN9, CN12, CN13, CN16 from the MCU Board and CN37 from the developer motor. Release the harnesses from the upper clamps, Figure 1.
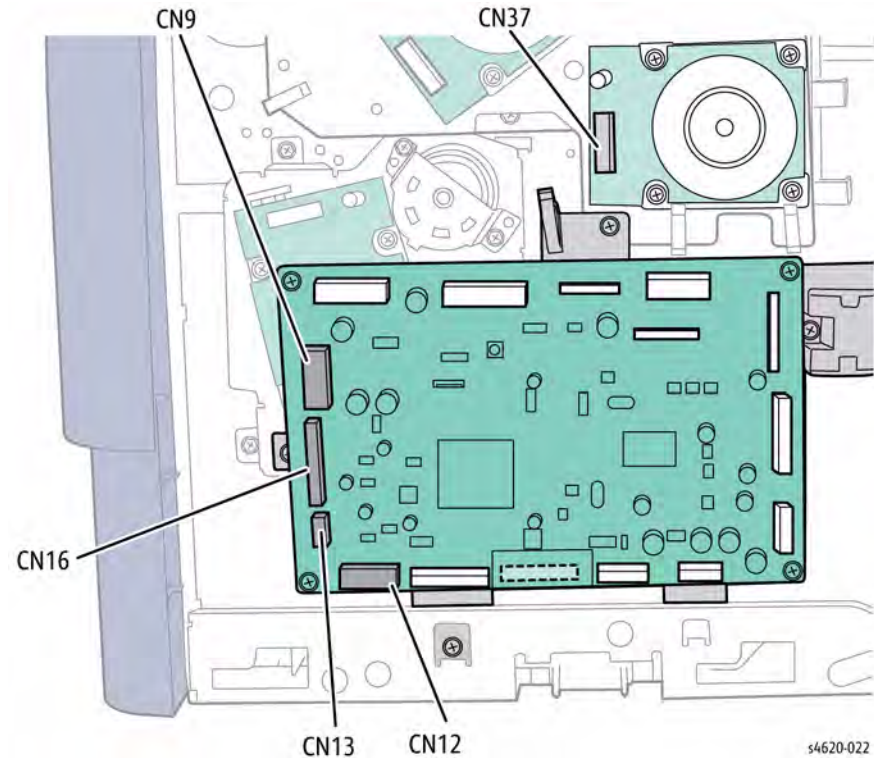
Figure 1 Remove the MCU Board bracket screws

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9. Disconnect P/J52 (Feed Clutch) and P/J36 (Registration Clutch).

10. Remove 3 screws (metal) that secure the MCU Board bracket to the chassis, Figure 2.
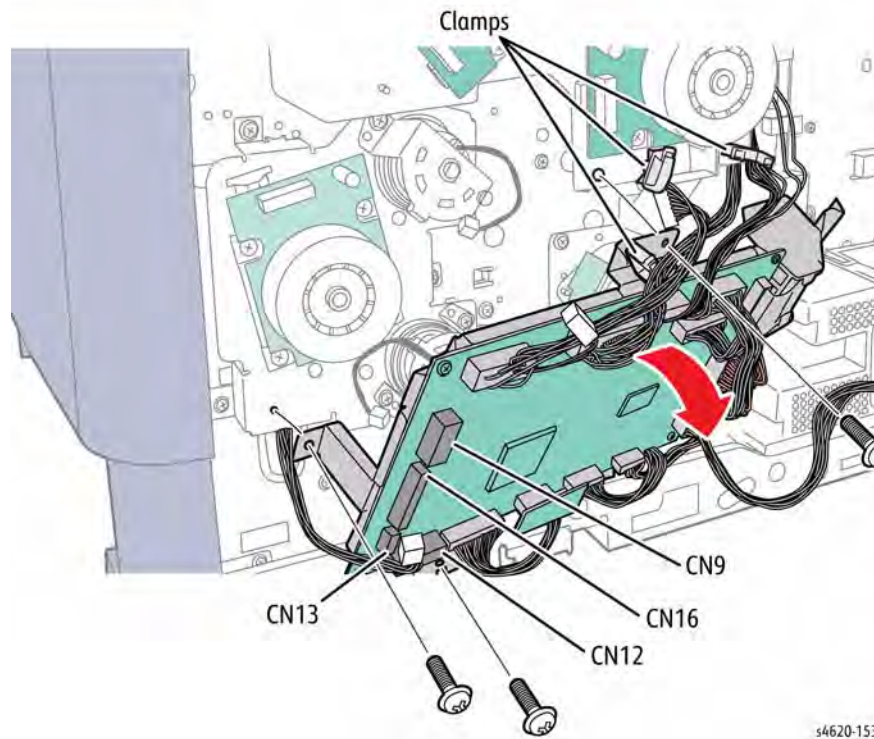
Figure 2 Remove the MCU Board and bracket

11. Raise the MCU Board bracket to release the tabs from the chassis and move the board away from the center harness guide, Figure 3.
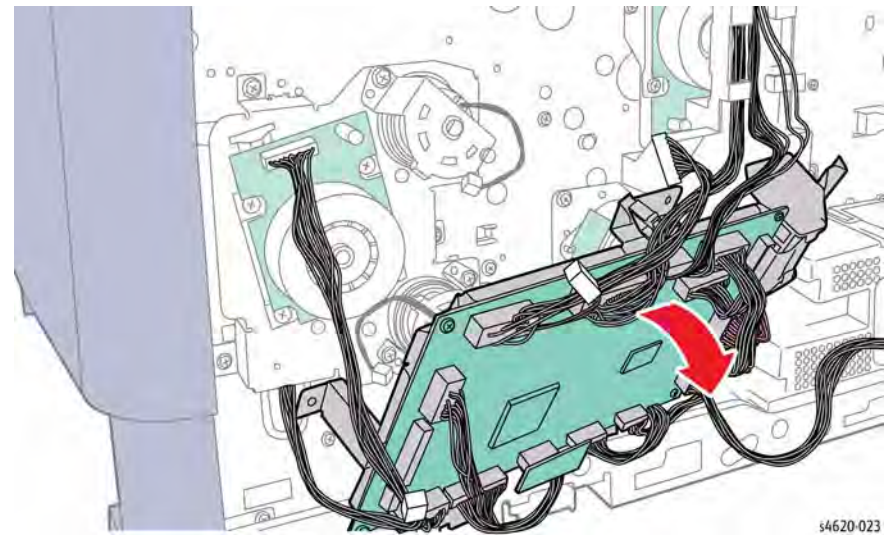
Figure 3 Position the MCU Board bracket to access the center harness guide

12. Remove 3 screws (metal) that secure the center harness guide to the chassis and move the guide away from the Fuser Drive Assembly, Figure 4.

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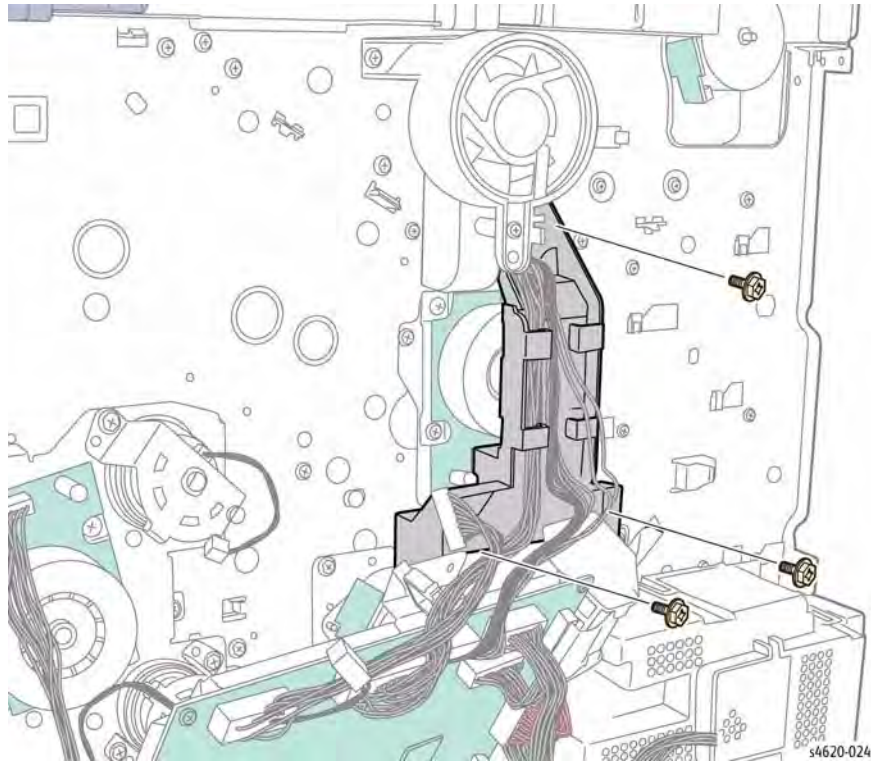
Figure 4 Remove the center harness guide screws
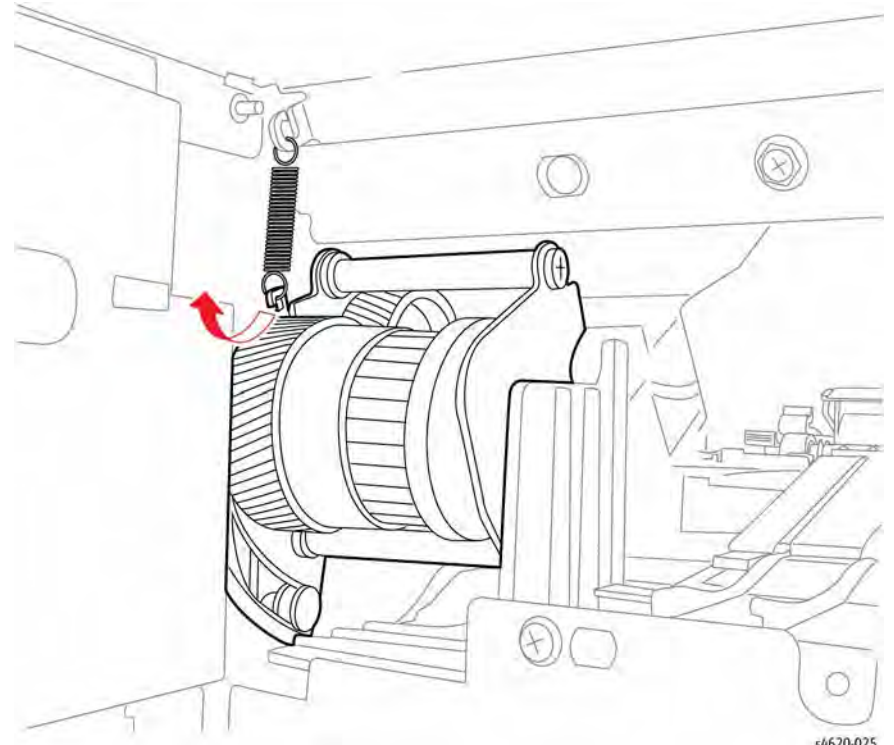
13. Remove the Fuser Drive spring, Figure 5.

Figure 5 Remove the Fuser Drive spring

14. Disconnect P/J39 from the Fuser Drive Assembly.

15. Remove 4 screws (metal) that secure the Fuser Drive Assembly, Figure 6.

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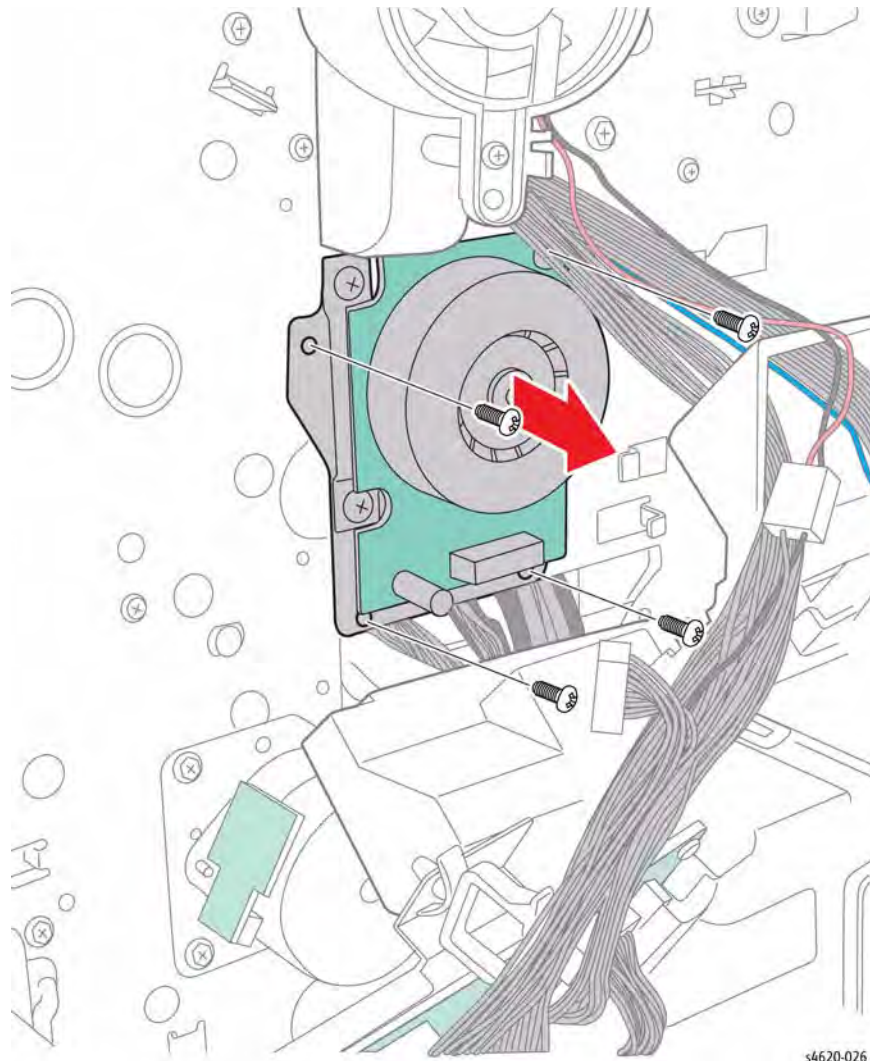
Figure 6 Remove the Fuser Drive screws
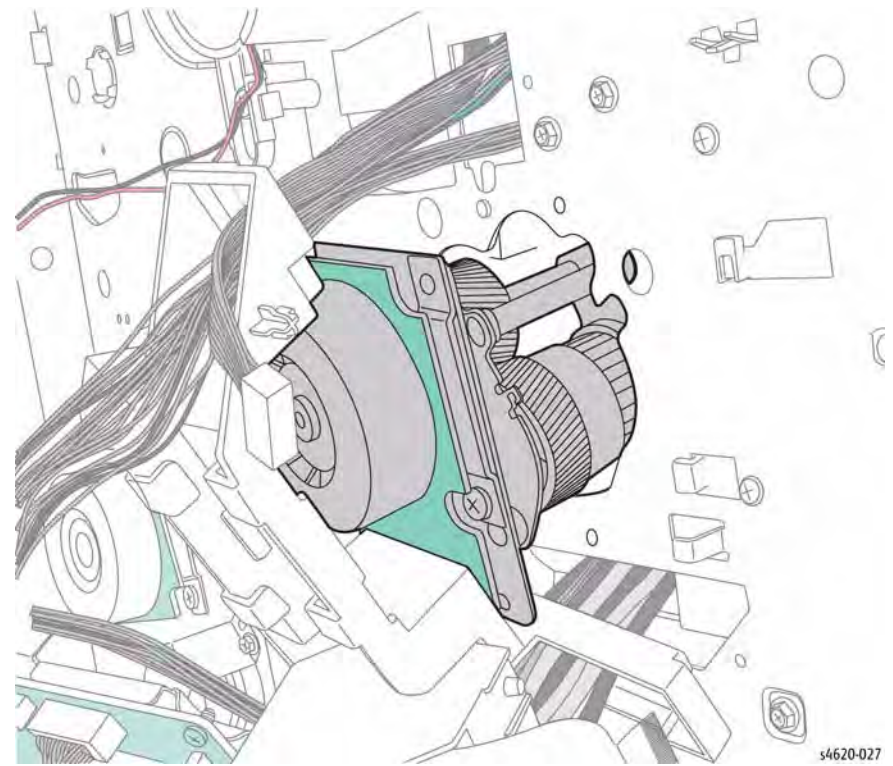
Figure 7 Remove the Fuser Drive Assembly

16. Pull the assembly through the hole in the chassis, Figure 7.

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REP 10.8

REP 10.9 Duplex Drive Assembly

Parts List on PL 4.10 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the MCU Board, REP 3.4.
5. Disconnect P/J37 from the Duplex Dive Assembly.
6. Remove 4 screws (Gold, metal) that secure the assembly to the chassis, Figure 1.
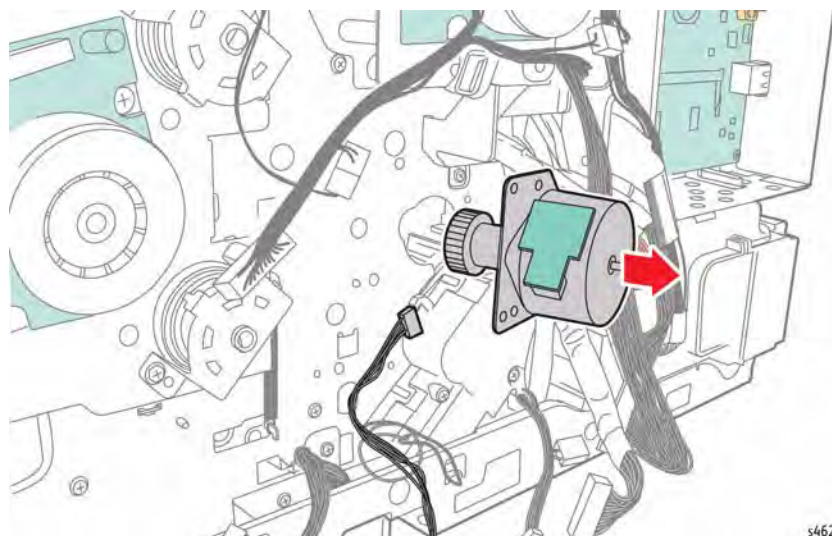
s4620-014

Figure 1 Remove the Duplex Drive Assembly screws

REP 10.10 Fuser

Parts List on PL 10.10 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

1. Remove the Rear Door, REP 28.6.
2. Remove 4 thumbscrews that secure the Fuser in the chassis.
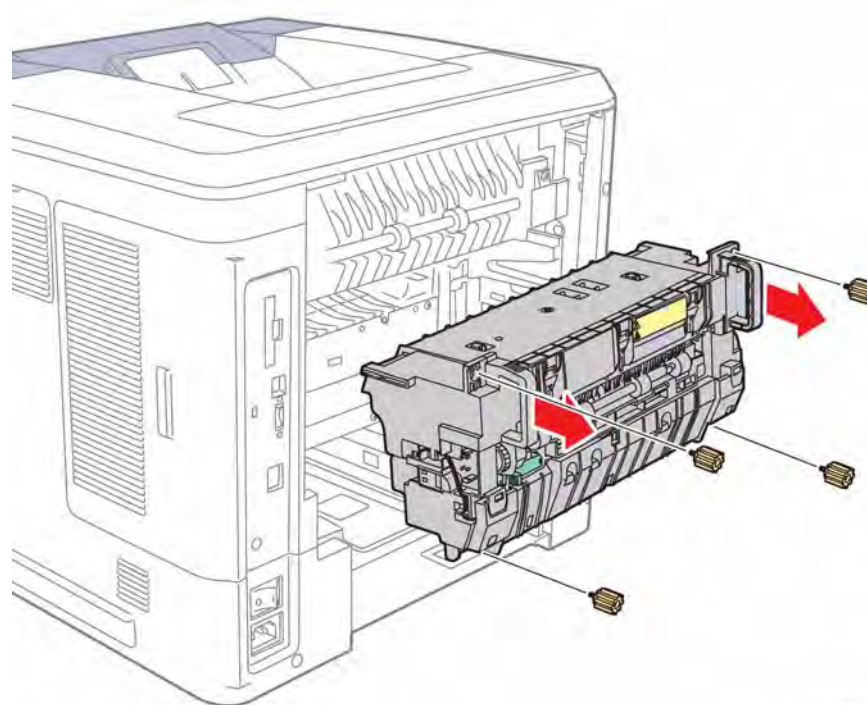3. Hold the handles and slide the Fuser from the chassis, Figure 1.

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Figure 1 Remove the Fuser

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REP 10.9, REP 10.10

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REP 10.11 Fuser Thermistor Assembly

Parts List on PL 10.15 Item 3

Removal

<div align="center"><strong style="color:red">WARNING</div>

Switch off the electricity to the machine. 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.

<div align="center"><strong style="color:red">WARNING</div>

Do not touch the Fuser while it is hot.

1. Remove the Rear Door, REP 28.6.

2. Remove the Fuser, REP 10.10.

3. Remove 3 screws (2 metal) and (1 plastic) that secure the Fuser top cover, Figure 1.
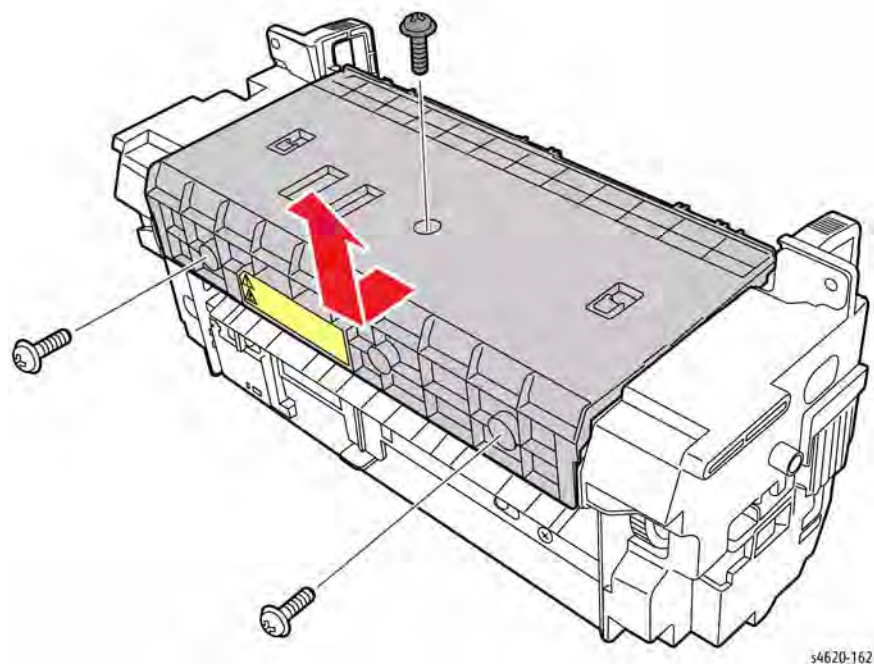
Figure 2 Remove the Thermistor
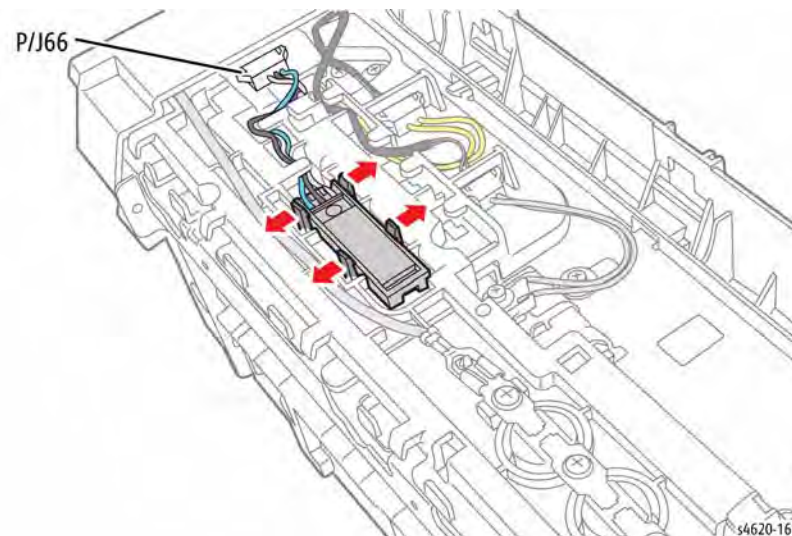
Figure 1 Remove the Fuser top cover

4. Release 4 hooks and disconnect P/J66 to remove the Thermistor from the Fuser, Figure 2.

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4 Repairs and Adjustments

REP 10.11

REP 10.12 Fuser Thermostat

Parts List on PL 10.15 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

CAUTION

Fuser plastic is easily over stressed or broken. Use care when releasing hooks that secure Fuser covers and guides.

CAUTION

Two small bushings (washers) are located under the Thermostat. Use care removing the Thermostat.

1. Remove the Rear Door, REP 28.6.
2. Remove the Fuser, REP 10.10.
3. Remove 3 screws (2 metal) and (1 plastic) that secure the Fuser top cover, Figure 1.
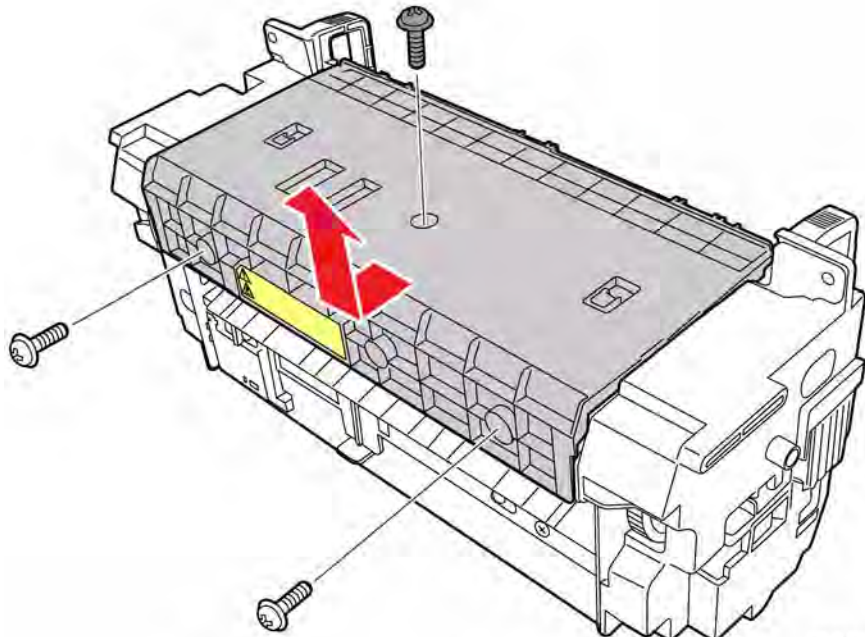

Figure 1 Remove the Fuser top cover

4. Remove 3 screws (Black, plastic) that secure the Thermostat to the Fuser.
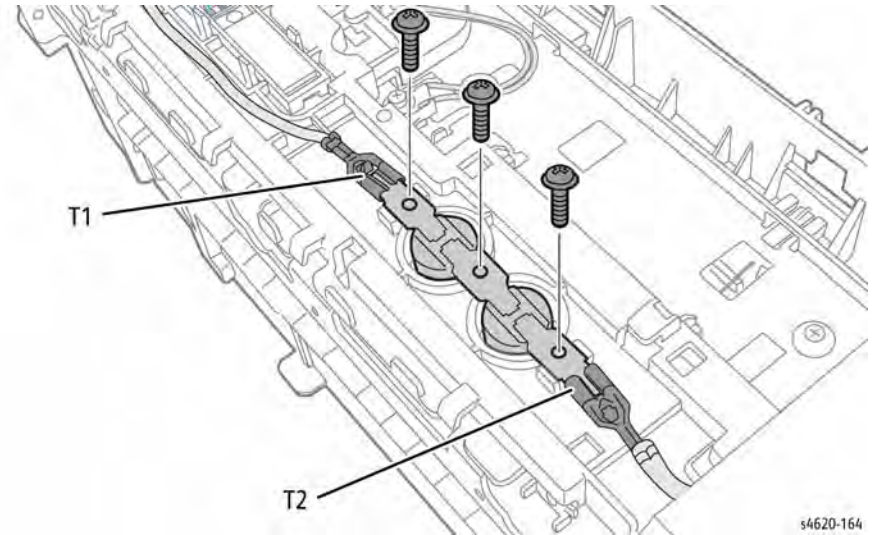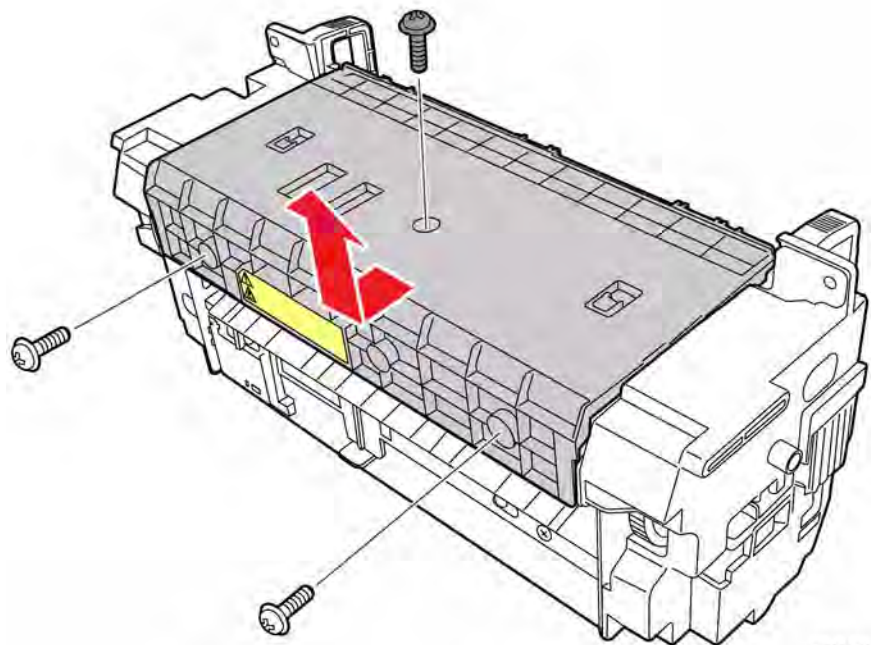5. Disconnect 2 terminals (T1, T2) to remove the Thermistor from the Fuser, Figure 2.

Figure 2 Remove the Thermostat

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REP 10.13 Fuser Heat Lamp

Parts List on PL 10.11 Item 17

Removal

<div style="text-align:center">

WARNING

</div>

Switch off the electricity to the machine. 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.

<div style="text-align:center">

WARNING

</div>

Do not touch the Fuser while it is hot.

<div style="text-align:center">

CAUTION

</div>

Fuser plastic is easily over stressed or broken. Use care when releasing hooks that secure Fuser covers and guides.

1. Remove the Rear Door, REP 28.6.
2. Remove the Fuser, REP 10.10.
3. Remove 3 screws (2 metal) and (1 plastic) that secure the Fuser top cover, Figure 1.

Figure 2 Remove the duplex cover

5. Open the lower exit guide, Figure 3.

Figure 1 Remove the Fuser top cover

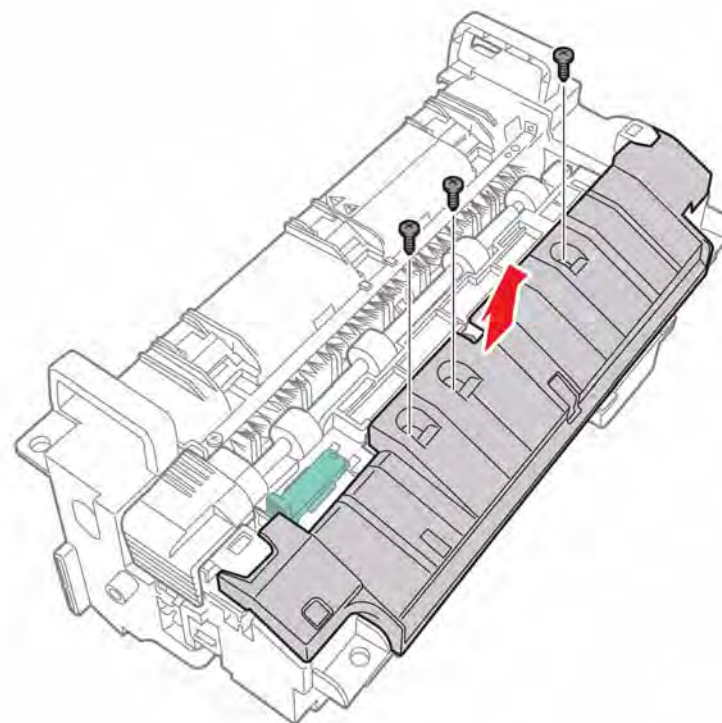4. Remove 3 screws (Black, plastic) that secure the duplex cover to the Fuser, Figure 2.

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REP 10.13

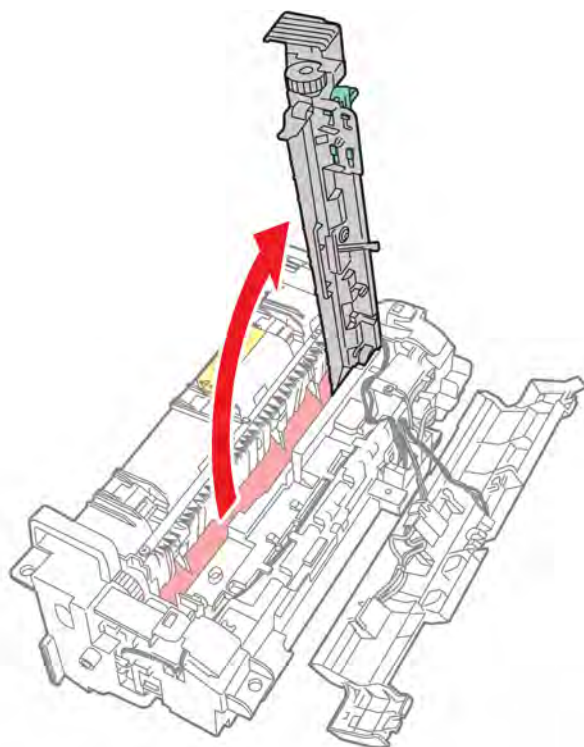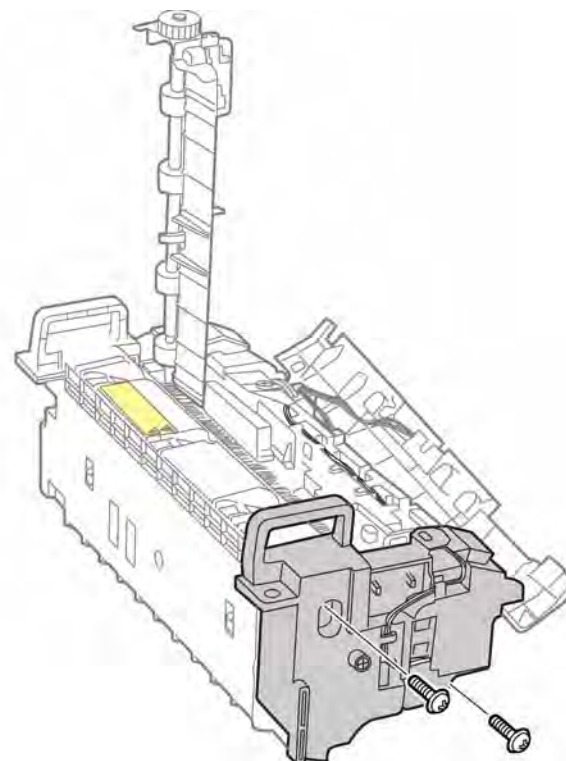**Figure 3 Open the lower exit guide**

Figure 4 Remove the Fuser Right Cover

6. Remove 2 screws (silver, metal) that secure the right cover, Figure 4.
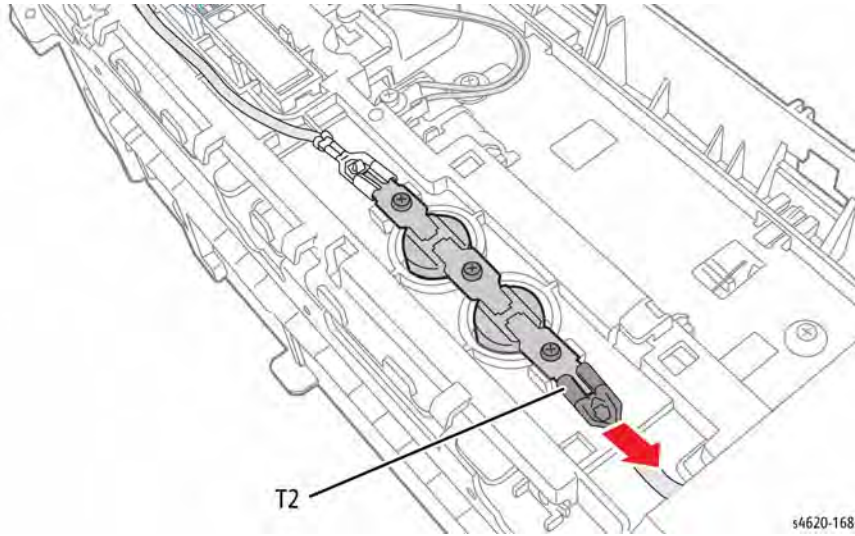
7. Disconnect T2 from the Thermostat, Figure 5.

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Figure 5 Disconnect the Thermostat

8. Remove 1 screw (Black, plastic) that secures the lamp bracket to the Fuser, Figure 6.
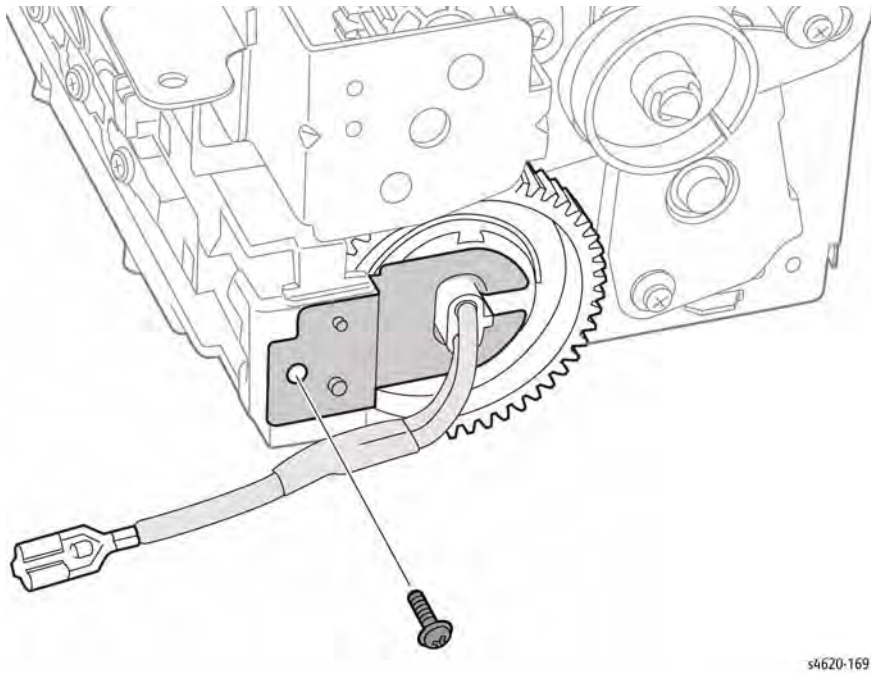

Figure 6 Remove the right side lamp bracket

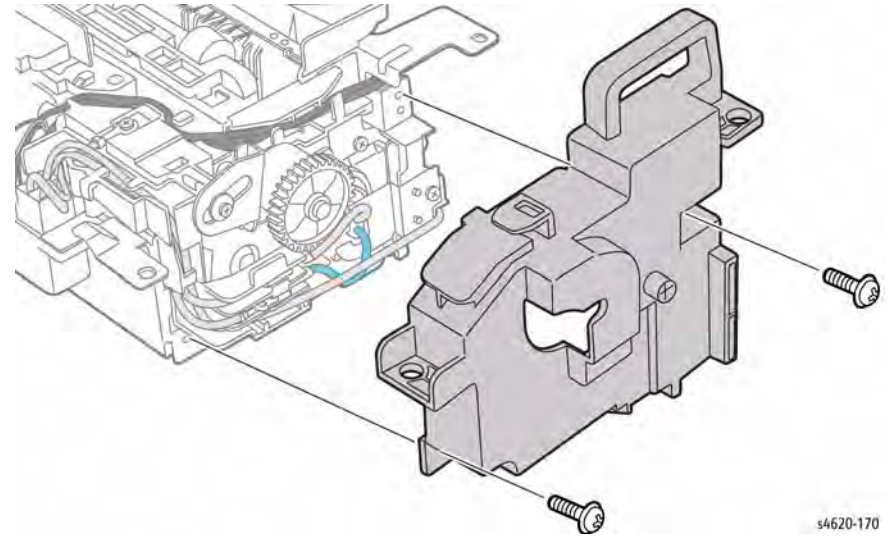9. Remove 2 screws (Silver, metal) that secure the Fuser left cover, Figure 7.

Figure 7 Remove the Fuser left cover

10. Disconnect the Heat Lamp from the 2 terminals (T3, T4) and remove, Figure 8.
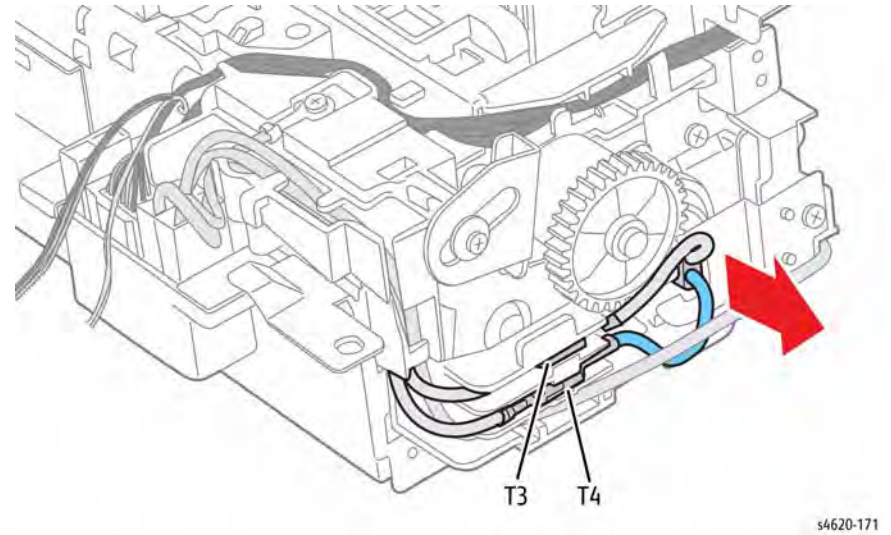

Figure 8 Remove the Heat Lamp

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4 Repairs and Adjustments

REP 10.13

REP 10.14 Fuser Gear

Parts List on PL 10.11 Item 14

Removal

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

CAUTION

Fuser plastic is easily over stressed or broken. Use care when releasing hooks that secure Fuser covers and guides.

1. Remove the Rear Door, REP 28.6.
2. Remove the Fuser, REP 10.10.
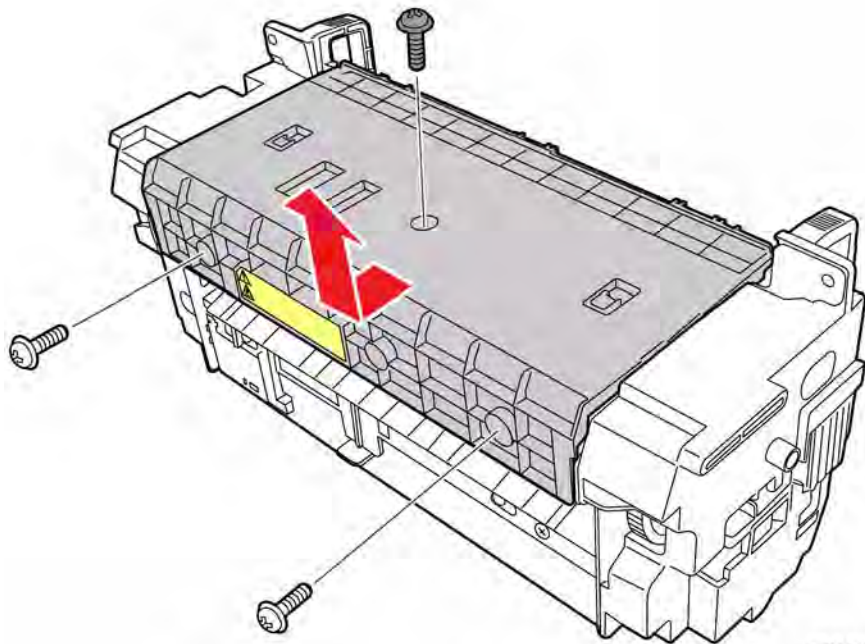3. Remove 3 screws (2 metal) and (1 plastic) that secure the Fuser top cover, Figure 1.

Figure 2 Remove the duplex cover

5. Open the lower exit guide, Figure 3.

Figure 1 Remove the Fuser top cover

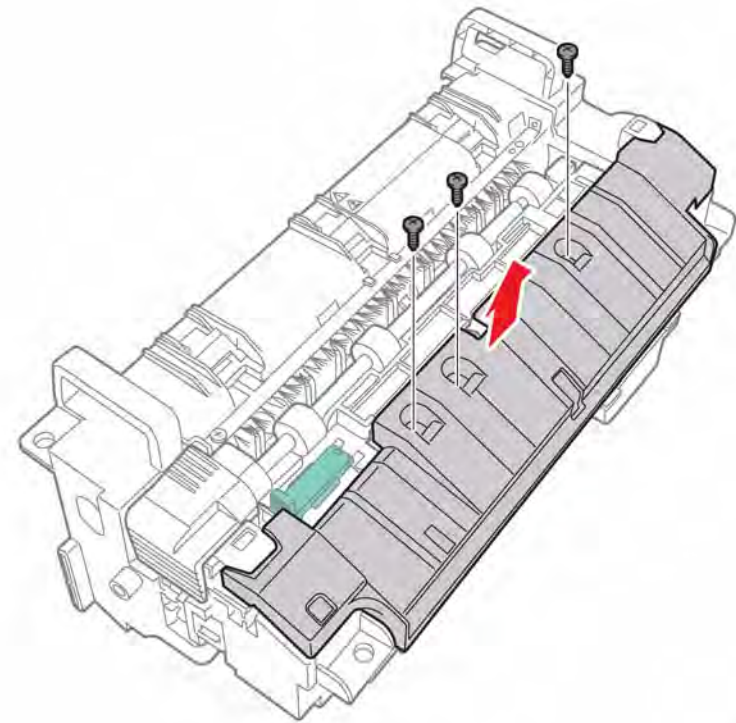4. Remove 3 screws (Black, plastic) that secure the duplex cover to the Fuser, Figure 2.

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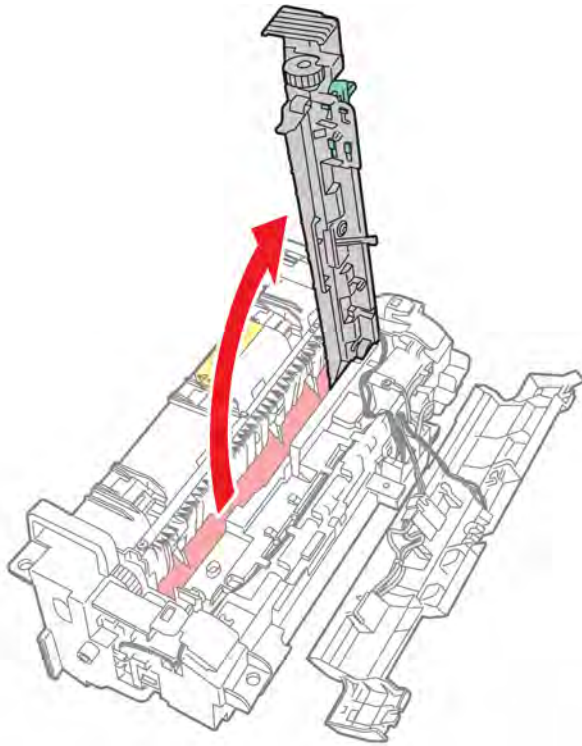**Phaser 4600/4620/4622 Printer Service Manual**
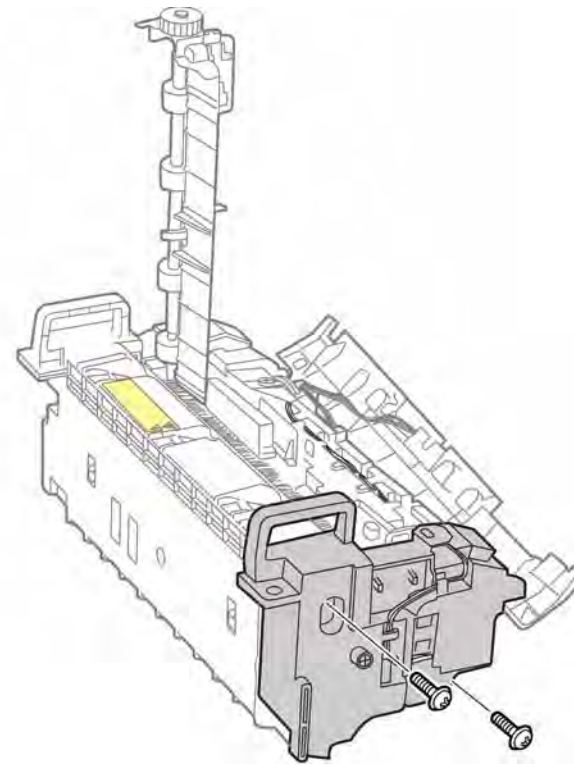
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Figure 3 Open the lower exit guide

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Figure 4 Remove the Fuser Right Cover

6. Remove 2 screws (silver, metal) that secure the right cover, Figure 4.

7. Disconnect 1 terminal from the Thermostat, Figure 5.

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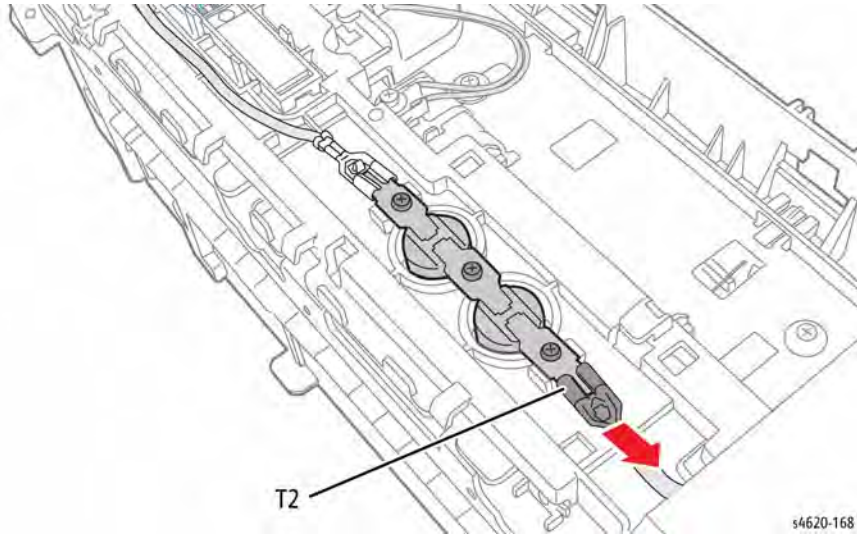**4-105**

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REP 10.14

Figure 5 Disconnect the Thermostat

8. Remove 1 screw (Black, plastic) that secures the right lamp bracket to the Fuser, Figure 6.
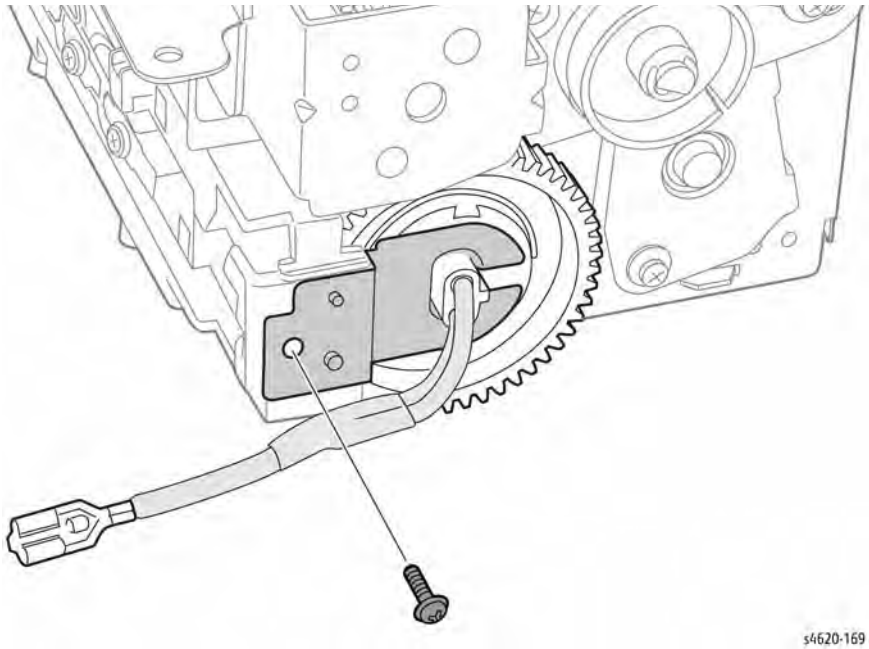

Figure 6 Remove the right side lamp bracket

9. Remove 2 screws (silver, metal) that secure the Fuser left cover, Figure 7.

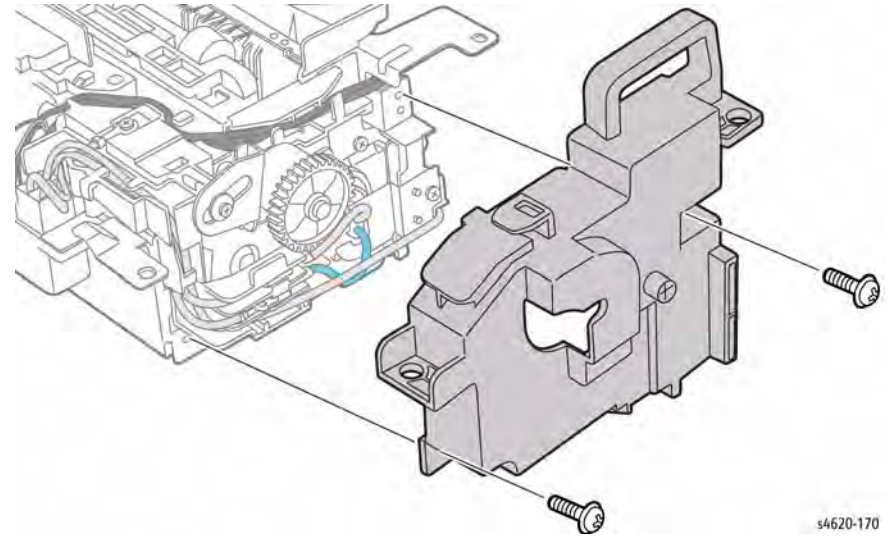
Figure 7 Remove the Fuser left cover

10. Remove the spring the secures the Fuser Gear to the Heat Roller.

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Figure 8 Remove the Fuser Gear Spring

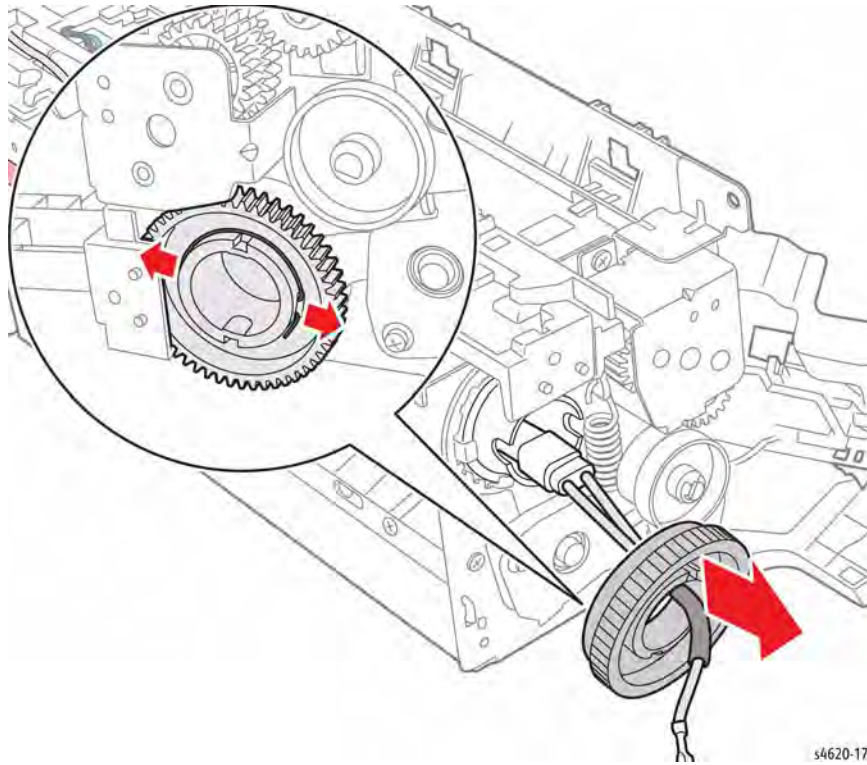
Figure 9 Release the thermostat holder

11. Remove 1 screw (silver, metal) that secures the thermostat holder to the upper fuser bracket.

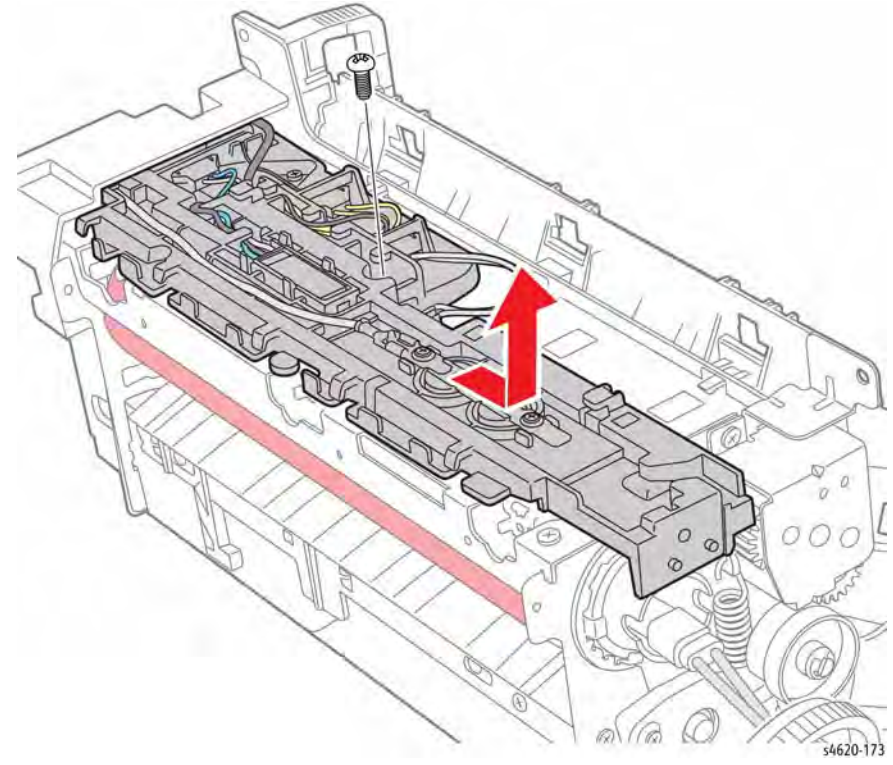12. Shift the thermostat holder right to release the hooks and lift the holder.
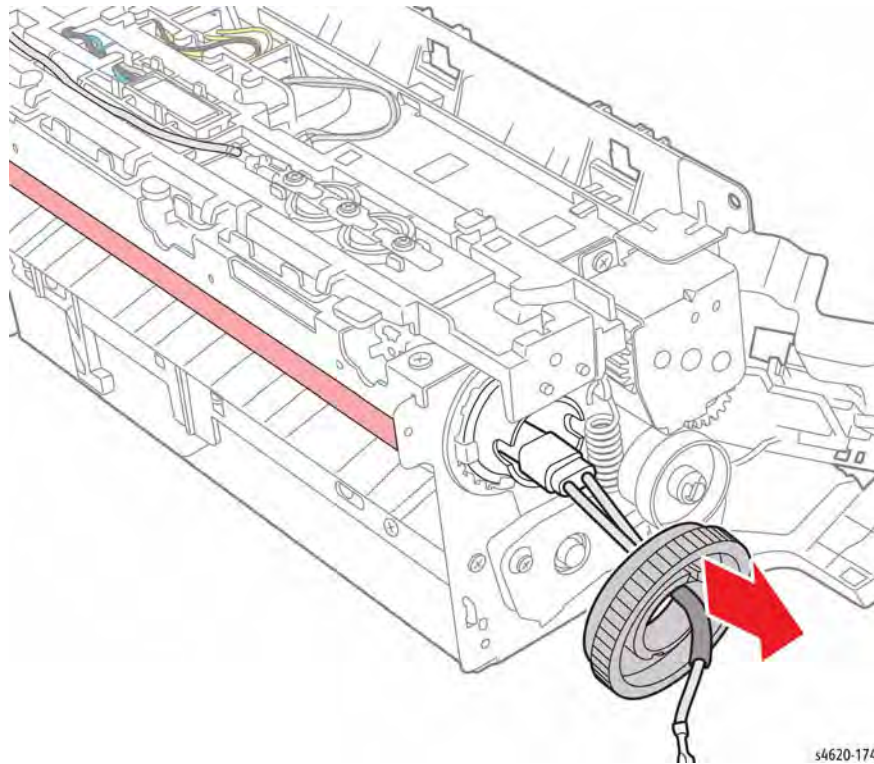
13. Remove the Fuser Gear from the Heat Roller.

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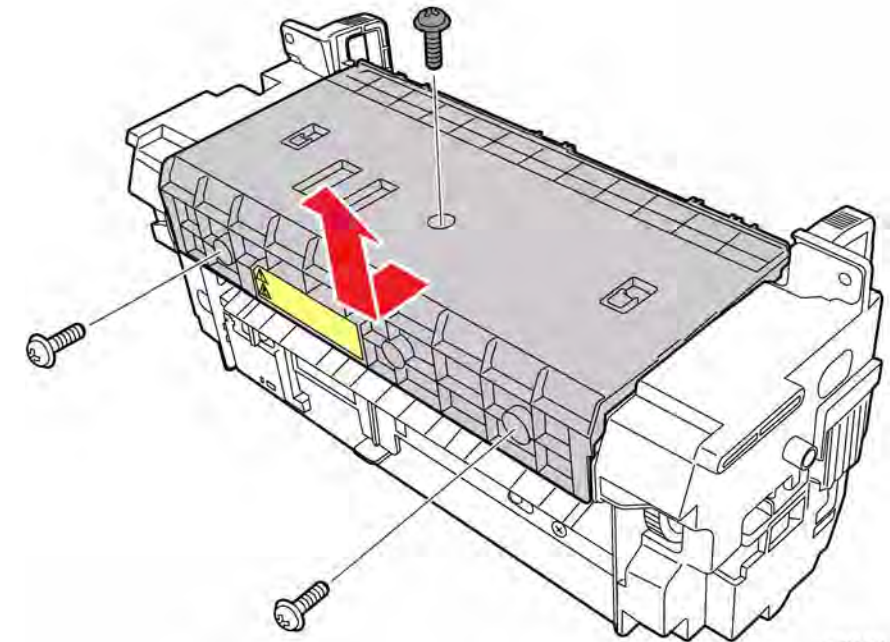
REP 10.14

Figure 10 Remove the Fuser Gear

REP 10.15 Fuser Heat Roller and Bearings

Parts List on PL 10.11 Item 12

Removal

This procedure lists steps to remove the Heat Roller and Bearings from the Fuser.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

CAUTION

Fuser plastic and metal components are easily over stressed, bent, or broken. Use care when releasing hooks that secure Fuser covers and guides.

1. Remove the Rear Door, REP 28.6.

2. Remove the Fuser, REP 10.10.

3. Remove 3 screws (2 metal) and (1 plastic) that secure the Fuser top cover, Figure 1.

Figure 1 Remove the Fuser top cover

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4. Remove 3 screws (Black, plastic) that secure the duplex cover to the Fuser, Figure 2.

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Figure 2 Remove the duplex cover

5. Open the lower exit guide, Figure 3.

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Figure 3 Open the lower exit guide

6. Remove 2 screws (silver, metal) that secure the right cover, Figure 4.

Figure 4 Remove the Fuser Right Cover

7. Disconnect 2 terminals (T1, T2) to the Thermostat, Figure 5.
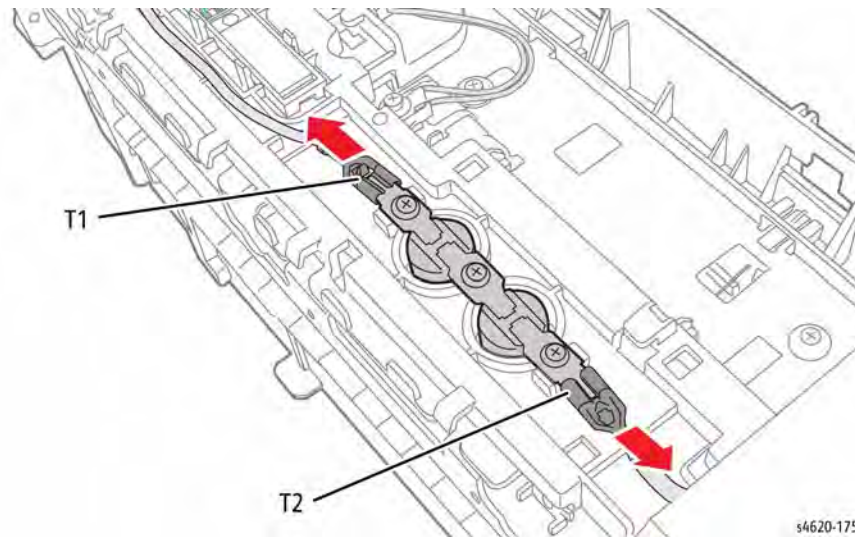
Figure 5 Disconnect the Thermostat

8. Remove 1 screw (Black, plastic) that secures the lamp bracket to the Fuser, Figure 6.

Figure 6 Remove the right side lamp bracket

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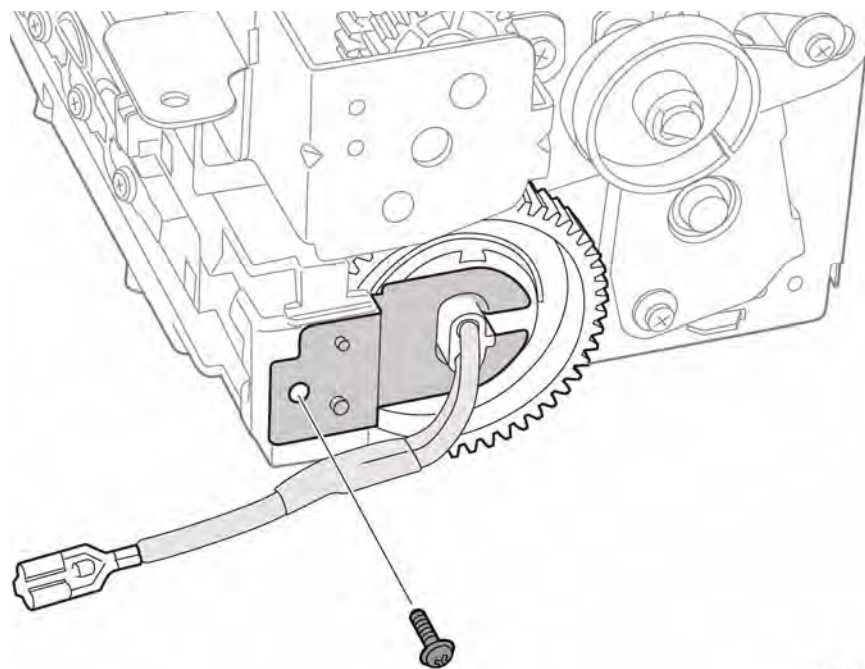
9. Remove 2 screws (silver, metal) that secure the Fuser left cover, Figure 7
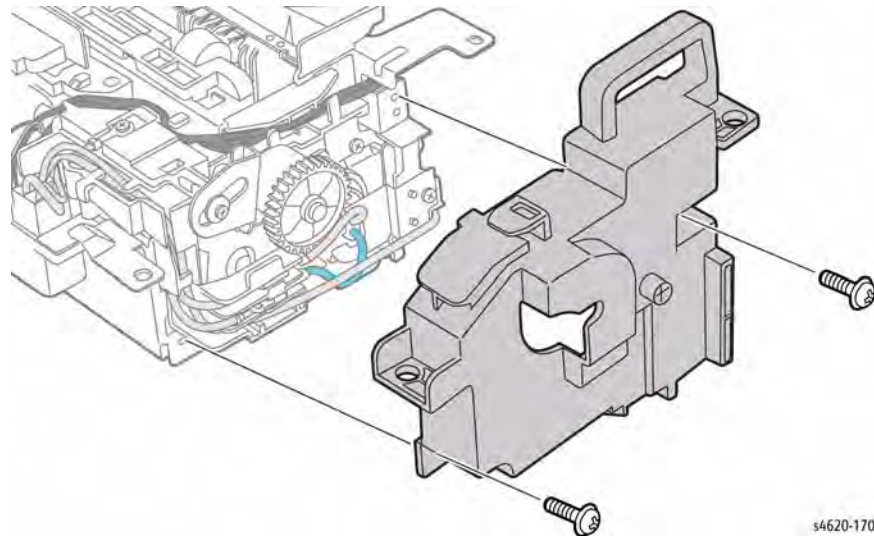
Figure 7 Remove the Fuser left cover

10. Disconnect the Heat roller thermistors (P/J67 and P/J68) and release the wiring from the thermostat holder guides, Figure 8.
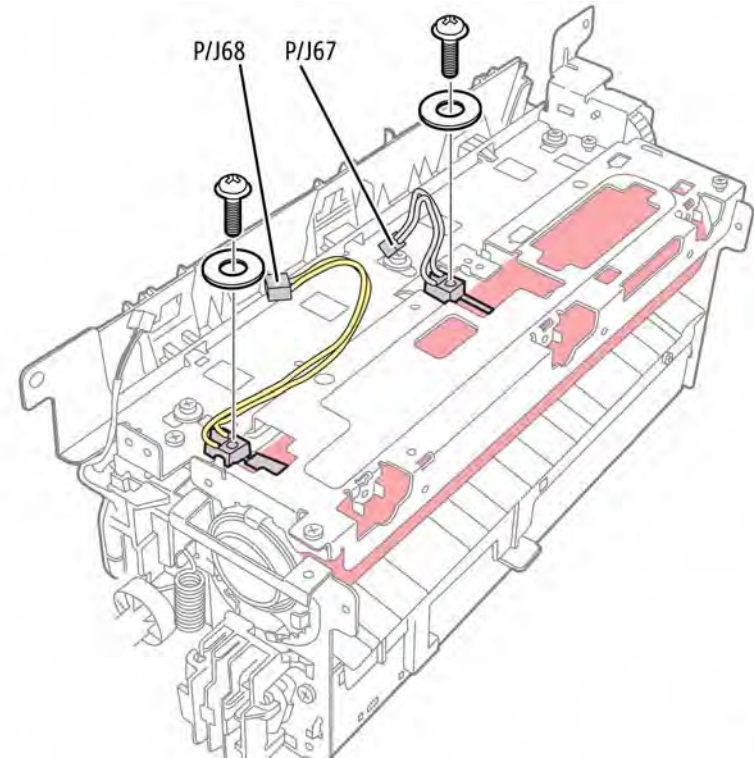
Figure 8 Disconnect Heat Roller thermistors

11. Remove 1 screw that secures the Thermostat holder to the Fuser and move the holder right to release the hooks, Figure 9.
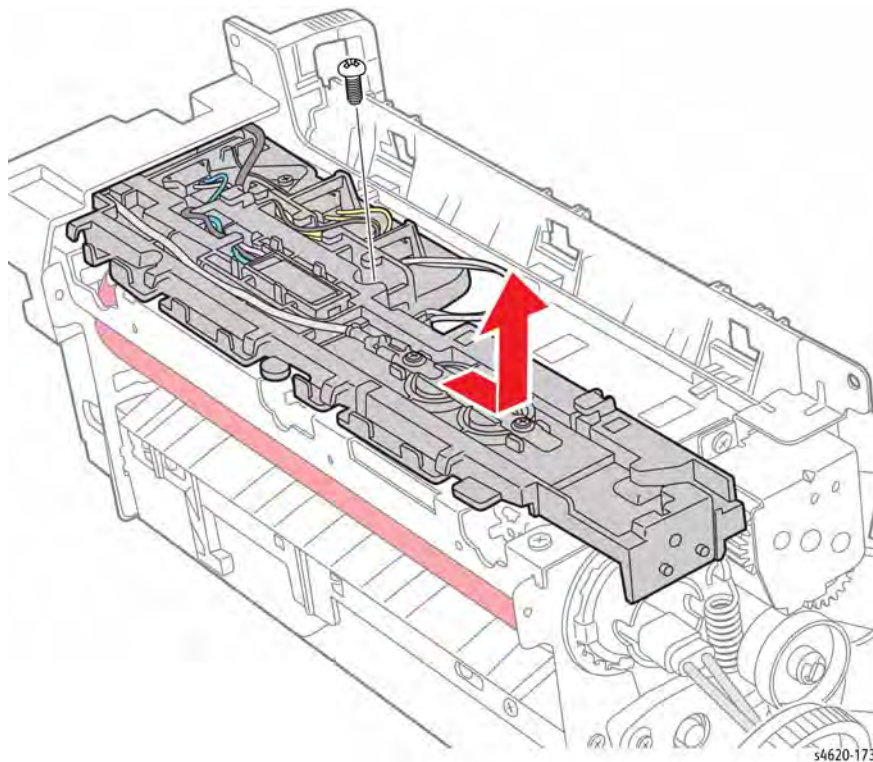
Figure 9 Remove the thermostat holder
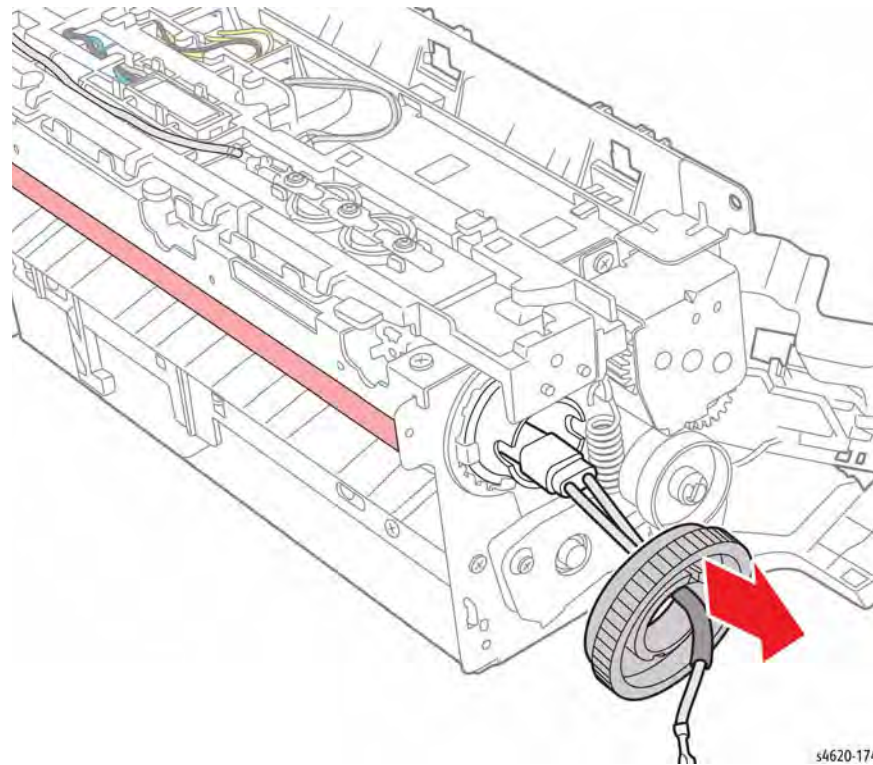
Figure 10 Remove the Fuser Gear

12. Remove the Fuser Gear from the Heat Roller, Figure 10.

13. Remove 3 screws (silver, metal with washers) and release 3 hooks that secure the upper exit guide to the Fuser. Open the lower exit guide if closed earlier, Figure 11.

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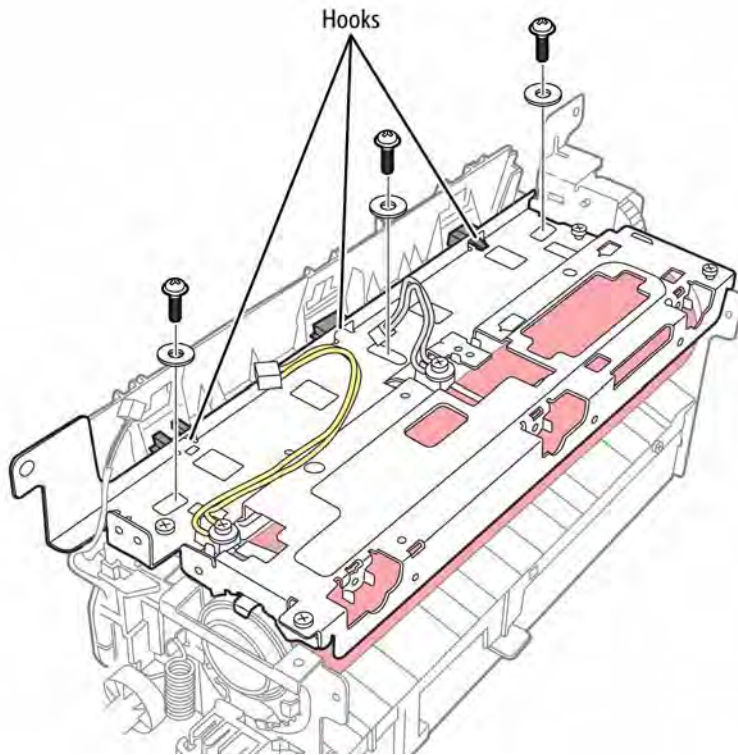
Figure 11 Remove the upper exit guide

14. Remove 5 screws (silver, metal) that secure the upper fuser bracket, Figure 12.
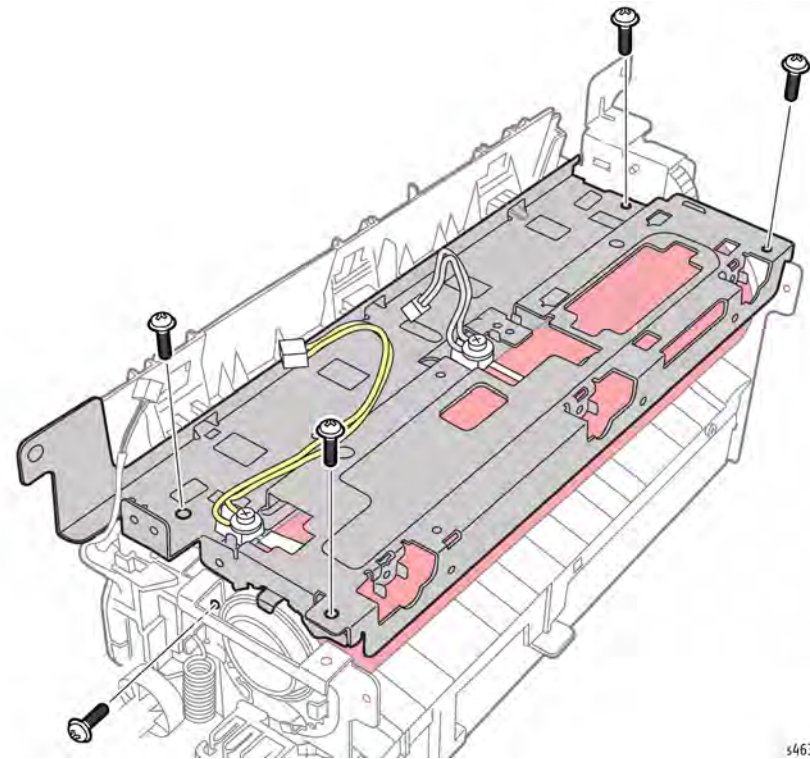
Figure 12 Remove the upper fuser bracket

15. Remove the Heat Roller and Bearings from the Fuser, Figure 13.

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REP 10.15

Figure 13 Remove the Heat Roller and Bearings

REP 10.16 Fuser Pressure Roller and Bearings

Parts List on PL 10.11 Item 3

Removal

This procedure lists steps to remove the Pressure Roller and Bearings from the Fuser. A spring hook is recommended for this procedure.

WARNING

Switch off the electricity to the machine. 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

Do not touch the Fuser while it is hot.

CAUTION

Fuser plastic and metal components are easily over stressed, bent, or broken. Use care when releasing hooks that secure Fuser covers and guides.

1. Remove the Rear Door, REP 28.6.
2. Remove the Fuser, REP 10.10.
3. Remove the Fuser Heat Roller and Bearings. REP 10.15.
4. Release the right cam follower spring.
5. Remove 2 screws with washers (1 metal, 1 plastic) that secure the cam follower to the Fuser, Figure 1.

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Figure 1 Remove the cam follower

Figure 2 Remove the Pressure Roller and Bearings

6. Remove the Pressure Roller from the Fuser by first lifting the right end of the roller up. Next, move the roller to the right to release the roller shaft from the left cam follower. Now lift the left end of the roller up to remove the roller from the Fuser.

7. Remove the Pressure Roller Bearings from the cam followers, Figure 2.

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REP 10.16

REP 10.17 Fuser Release Drive Assembly

Parts List on PL 4.10 Item 3

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Disconnect P/J23 from the Fuser Release Drive Assembly,
5. Remove 3 screws (Gold, metal) that secure the Release Drive Assembly to the chassis, Figure 1.
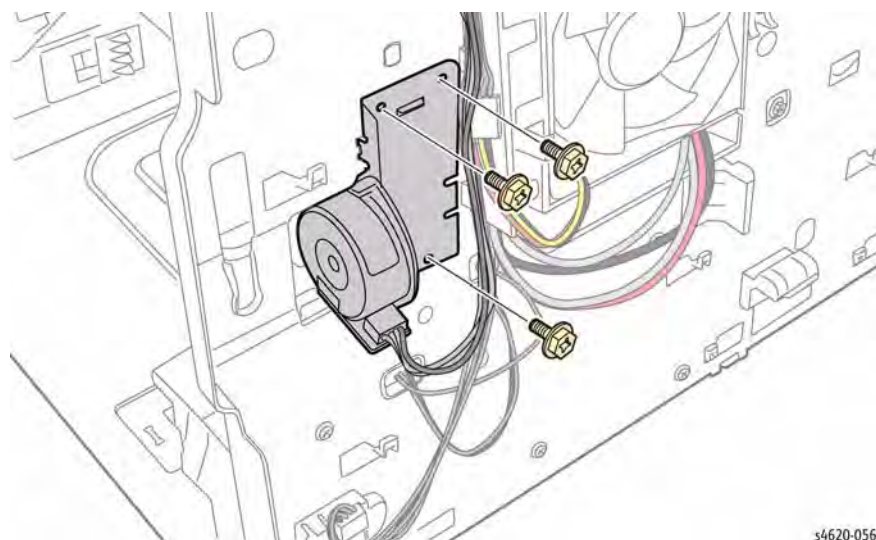
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Figure 1 Remove the Fuser Release Drive Assembly

REP 10.18 Duplex Unit Detect Sensor

Parts List on PL 10.25 Item 25

Removal

WARNING

Switch off the electricity to the machine. 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.
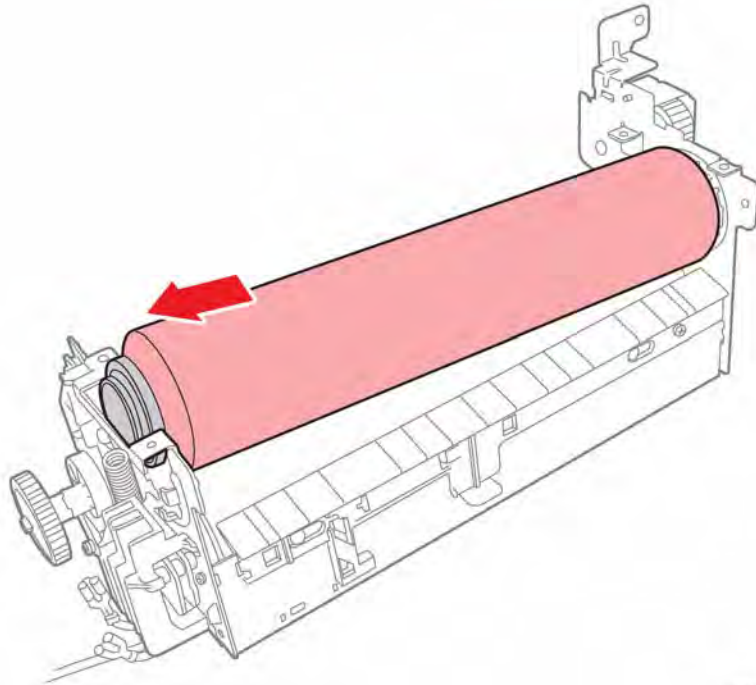
1. Remove the Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Release 3 hooks that secure the sensor to the left side tray guide.
5. Disconnect P/J25 to remove the sensor, Figure 1.

P/J25

P/J24

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Figure 1 Remove the Duplex Unit Detect Sensor

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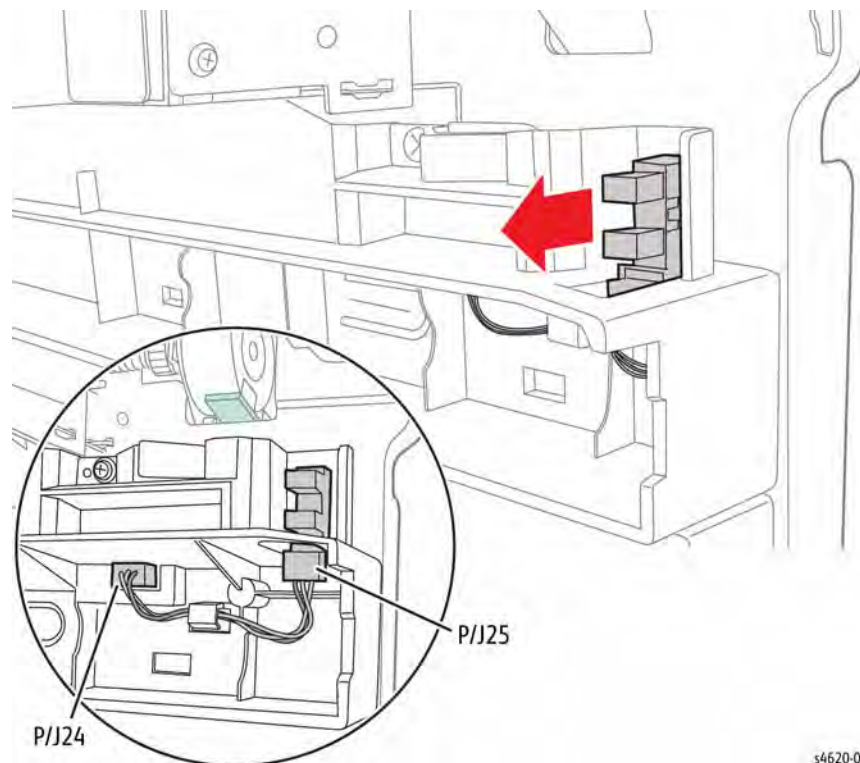
REP 10.19 Duplex Unit Timing Belt

Parts List on PL 10.25 Item 11

Removal

1. Remove the Duplex Unit, REP 10.1.

2. Remove 6 screws (plastic) that secure the cover to the Duplex Unit, Figure 1.
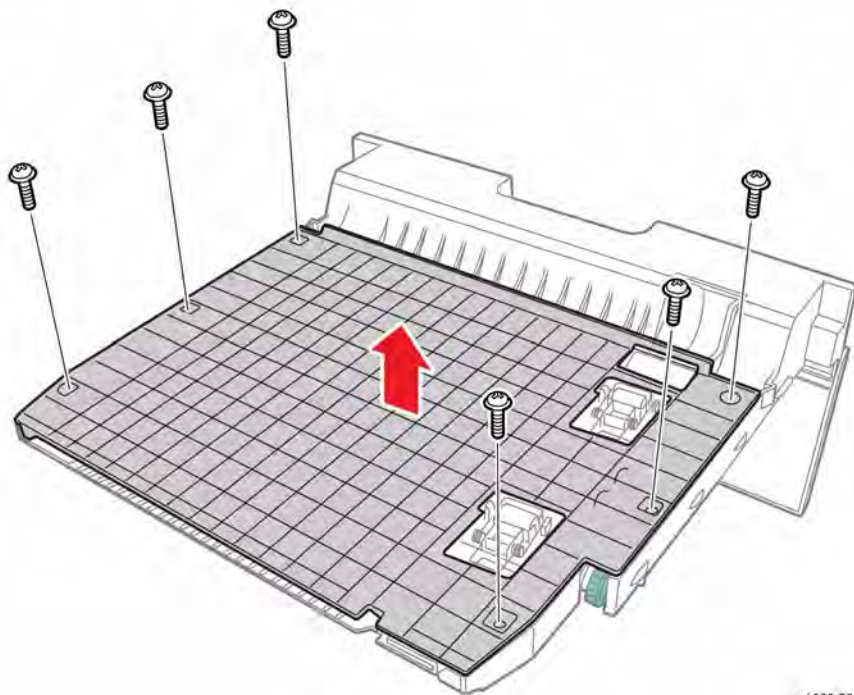
Figure 1 Remove the Duplex Unit cover

3. Remove the belt from the rear pulley and belt around the front pulley to release the belt from the Duplex Unit, Figure 2.

Figure 2 Remove the Duplex Unit Timing Belt

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REP 10.19
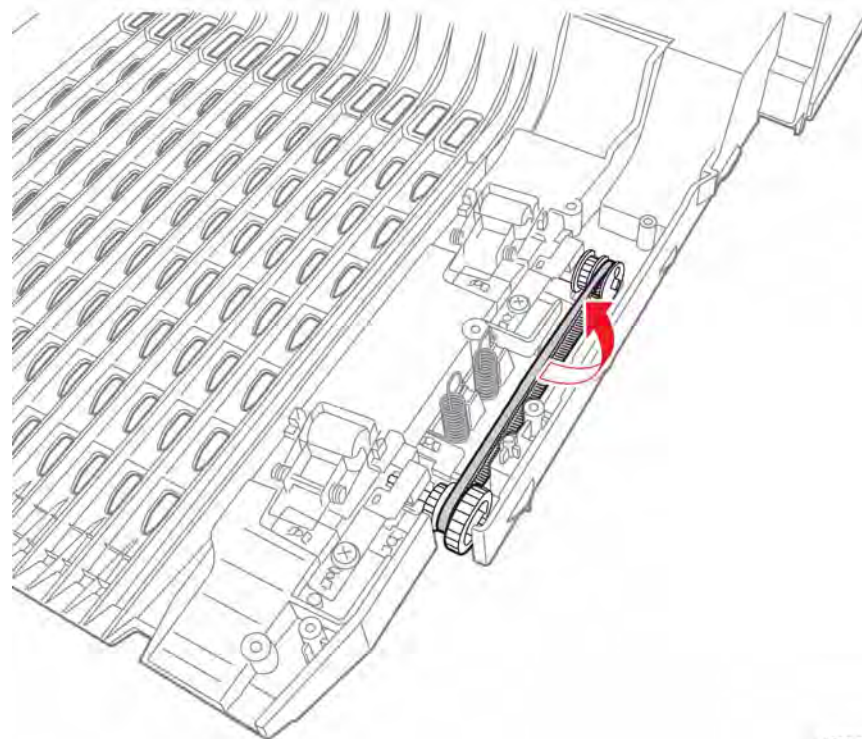
REP 10.32 Exit Drive Assembly

Parts List on PL 10.30 Item 23

Removal

<div align="center">

WARNING
</div>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove the Right Cover, REP 28.2.
4. Remove the Waste Toner Cartridge.
5. Remove the Left Cover, REP 28.3.
6. Remove the IP Board Cage, REP 3.5.
7. Remove the Top Cover, REP 28.5.
8. Remove 5 screws (2 plastic, 3 metal) that secure the rear support bracket to the chassis.
9. Lift the bracket and rest on the printer chassis, Figure 1.
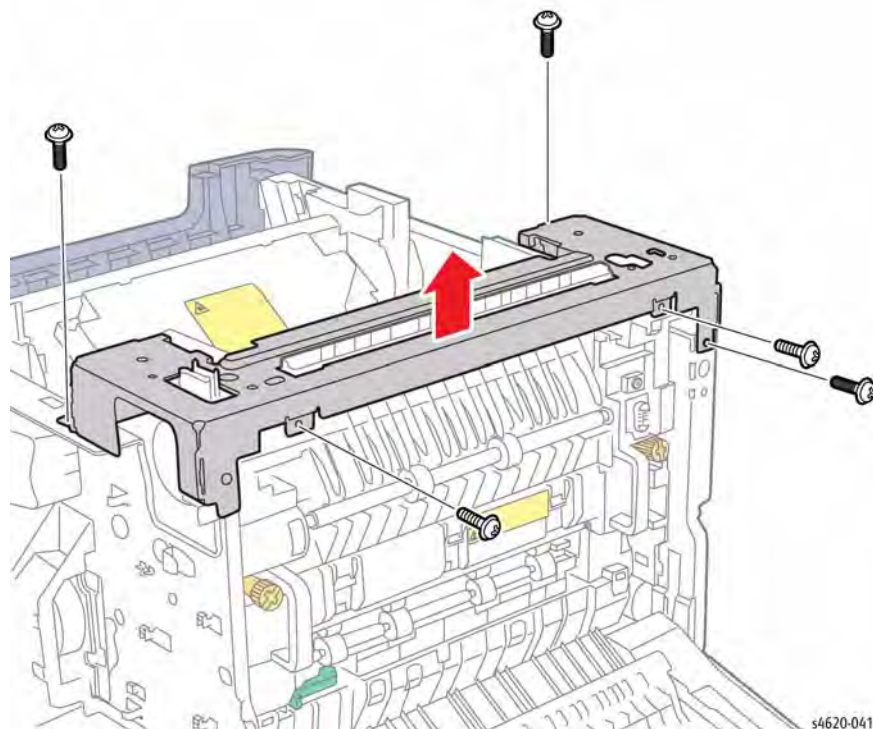
10. Remove 4 screws (plastic) that secure the Exit Chute to the chassis.
11. Lift the chute and rest on the support bracket, Figure 2.
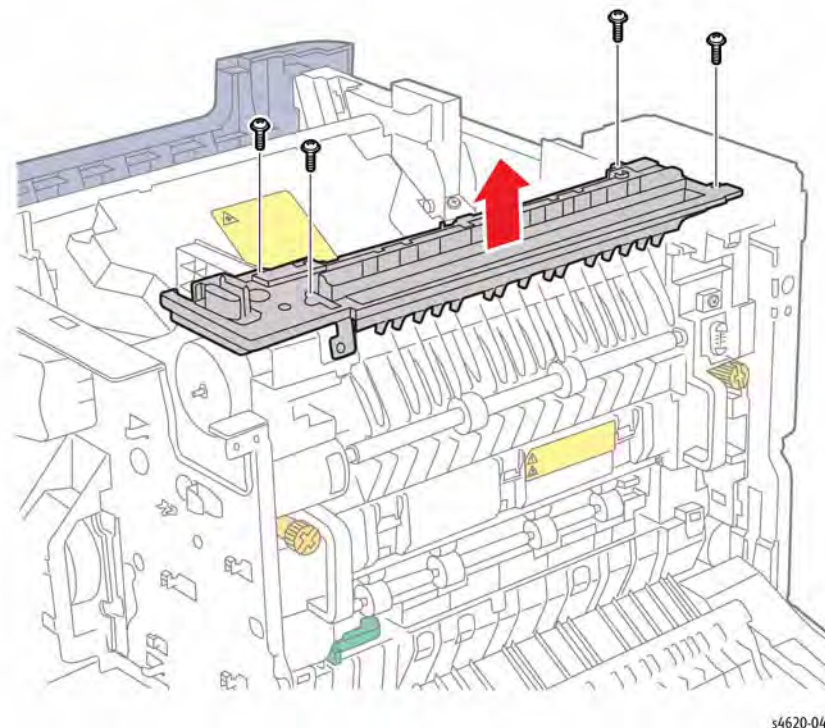
Figure 2 Remove the Exit Chute screws

12. Remove 4 screws (metal) that secure the Exit Drive Assembly to the chassis.
13. Disconnect P/J40 to remove the Exit Drive Assembly, Figure 3.

Figure 1 Remove the rear support bracket

4 Repairs and Adjustments

REP 10.32

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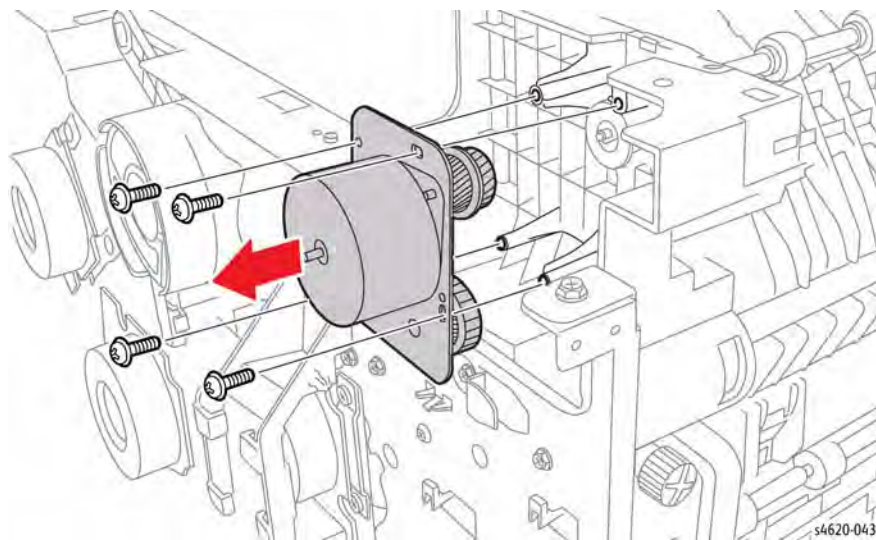
Figure 3 Remove the Exit Drive Assembly

REP 11.1 Mailbox Output Tray

Parts List on PL 11.10 Item 4

Removal

Lift the end of the Output Tray to remove it from the slot on the Mailbox.
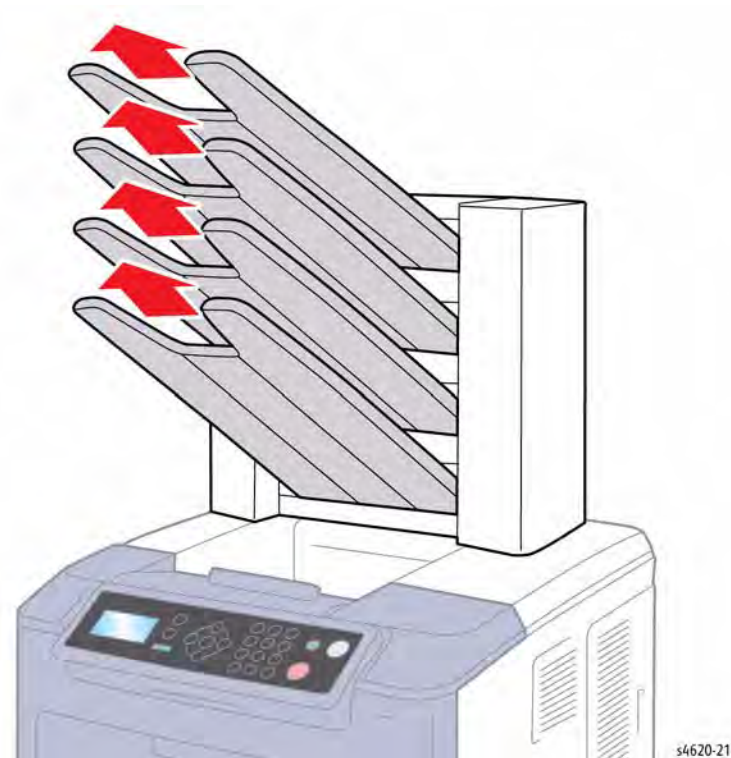
Figure 1 Remove the Output Trays

Replacement

Install the Output trays beginning with the lowest tray.

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4 Repairs and Adjustments

REP 10.32, REP 11.1

REP 11.2 Mailbox Left Cover

Parts List on PL 11.10 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove 1 screw and release 1 hook that secures the Left Cover to the Mailbox, Figure 1.
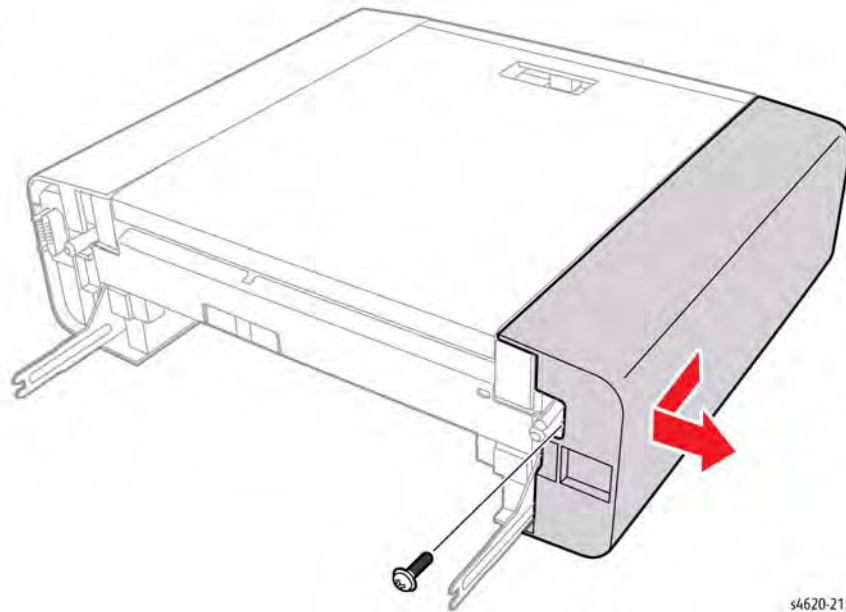
s4620-215

Figure 1 Remove the Left Cover

REP 11.3 Mailbox Right Cover

Parts List on PL 11.10 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14
3. Remove 1 screw and release 1 hook that secures the cover to the Mailbox, Figure 1.
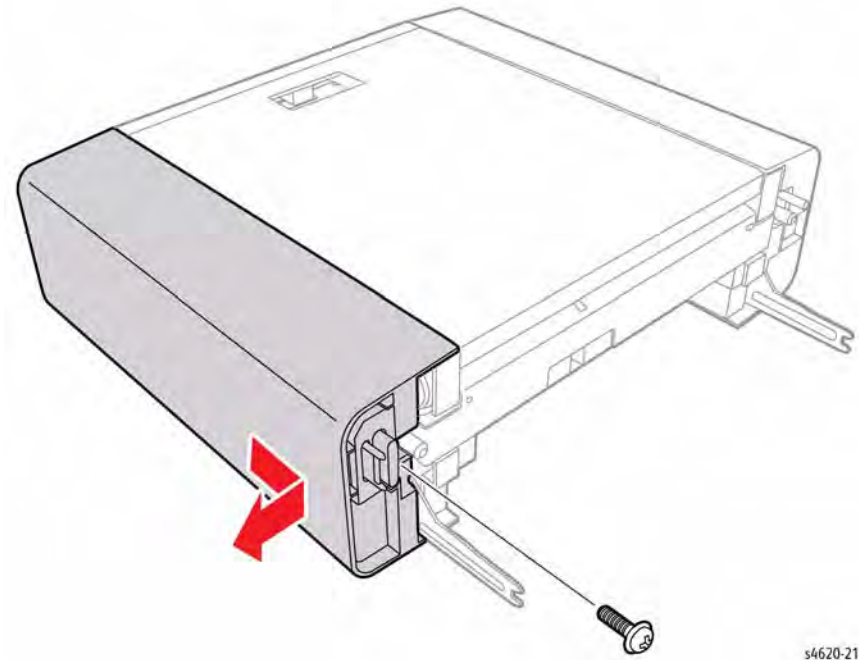
s4620-216

Figure 1 Remove the right cover

4. Disconnect P/J 1 on the Mailbox Control Board,

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REP 11.2, REP 11.3

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Figure 2 Disconnect the Mailbox connector

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REP 11.4 Mailbox Rear Door

Parts List on PL 11.10 Item 5

Removal

<p style="text-align:center">**WARNING**</p>

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove 2 screws and loosen the side covers.
4. Open the rear door 90 degrees to release the hinges for the side covers, Figure 1.

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Figure 1 Remove the rear door

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4 Repairs and Adjustments

REP 11.3, REP 11.4

REP 11.5 Mailbox Control Board

Parts List on PL 11.15 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the Right Cover, REP 11.3.
4. Disconnect all Control Board Connections P/J2 ~ P/J5.
5. Remove 4 (metal) screws that secure the board to the bracket, Figure 1.
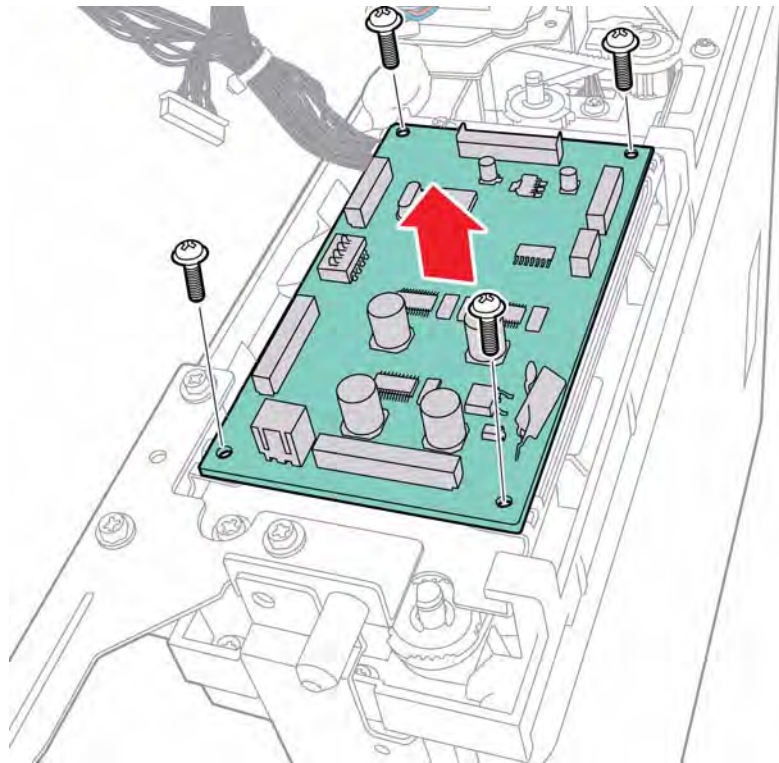
s4620-219

Figure 1 Remove the Control Board

REP 11.6 Mailbox Drive Belts

Parts List on PL 11.20 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the right cover, REP 11.3.
4. Remove the Control Board, REP 11.5.
5. Remove 3 (plastic) screws that secure the mounting bracket, Figure 1.
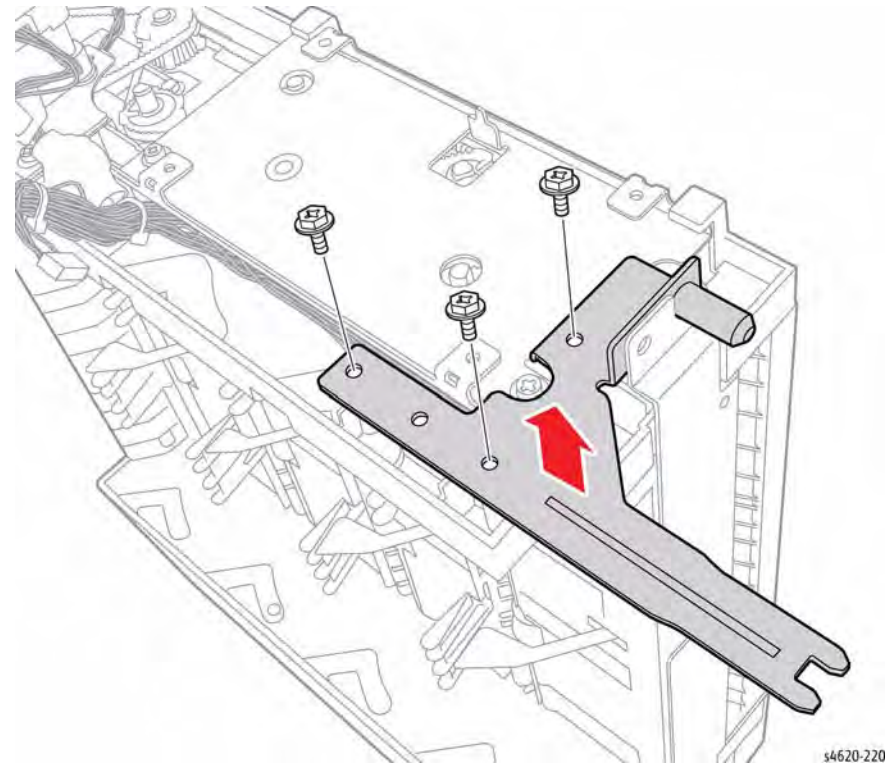
s4620-220

Figure 1 Remove the mounting bracket

6. Remove 2 screws (plastic) that secure the Control Board bracket to the Mailbox.

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REP 11.5, REP 11.6

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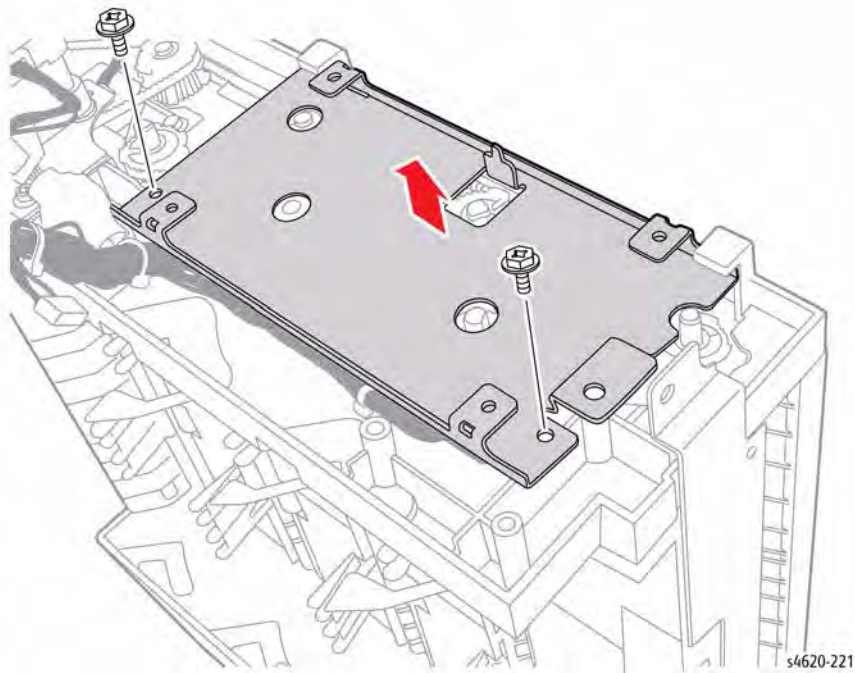
Figure 2 Remove the Control Board bracket
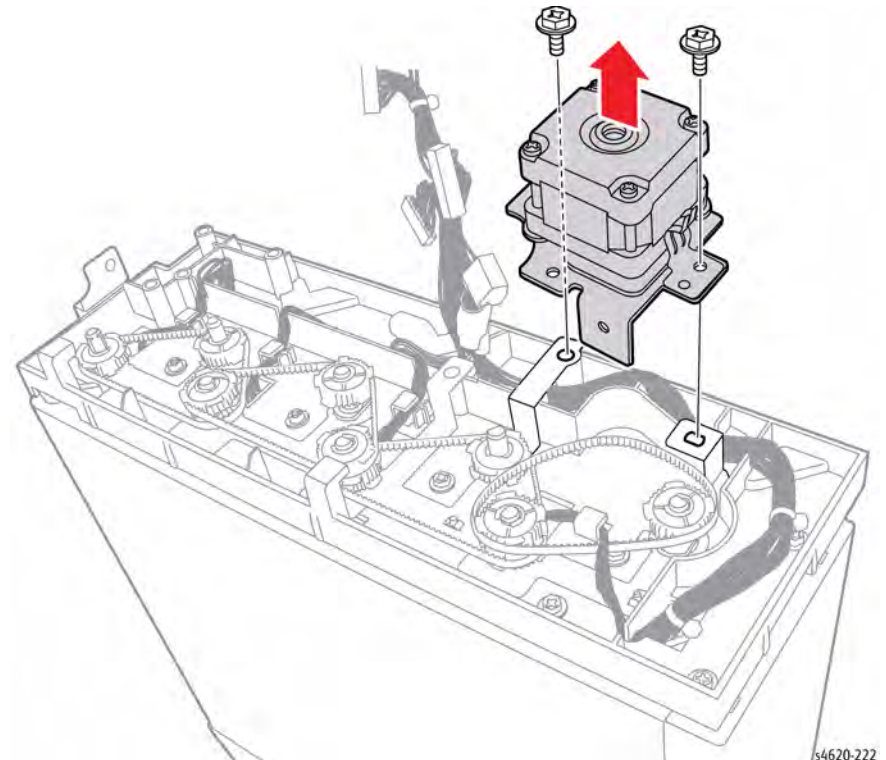
Figure 3 Mailbox Drive Belt configuration

NOTE: *If the primary drive belt is being replaced, remove the Transport Motor.*

7. Remove the damaged belt, Figure 3.

REP 11.7 Mailbox Diverter Drive Assemblies

Parts List on PL 11.25 Item 1

Removal

This procedure applies to both the upper and lower Diverter Drive Assemblies.

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the left cover, REP 11.2.
4. Release the harness from the clamp.
5. Disconnect the Diverter Home Position Sensor and affected Diverter Drive Assembly.
6. Remove 2 (plastic) screws that secure the assembly to the Mailbox, Figure 1.
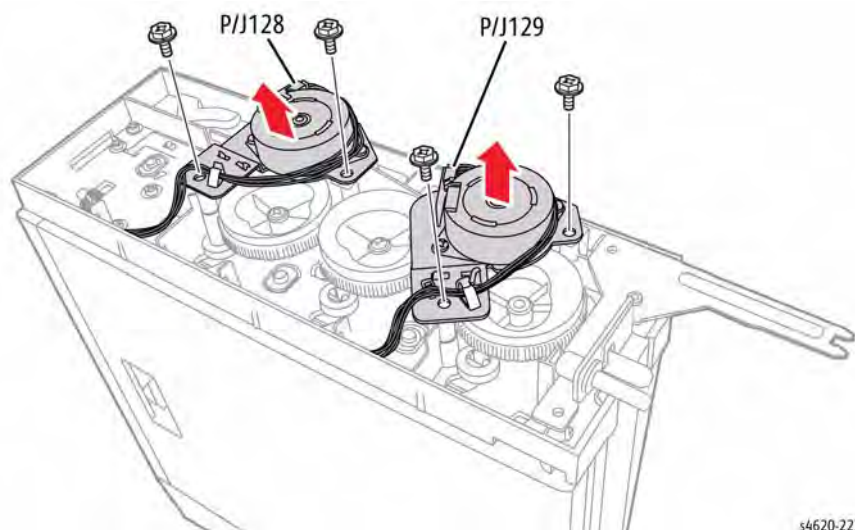
s4620-223

Figure 1 Remove the Diverter Drive Assembly

REP 11.8 Mailbox Diverter Home Position Sensor

Parts List on PL 11.25 Item 2

Removal

This procedure applies to both the upper and lower home position sensors.

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the left cover, REP 11.2.
4. Remove, but do not disconnect the affected Diverter Drive Assembly.
5. Release 3 hooks that secure the sensor to the Diverter Drive Assembly, Figure 1.

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Figure 1 Remove the Diverter Home Position Sensor

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REP 11.7, REP 11.8

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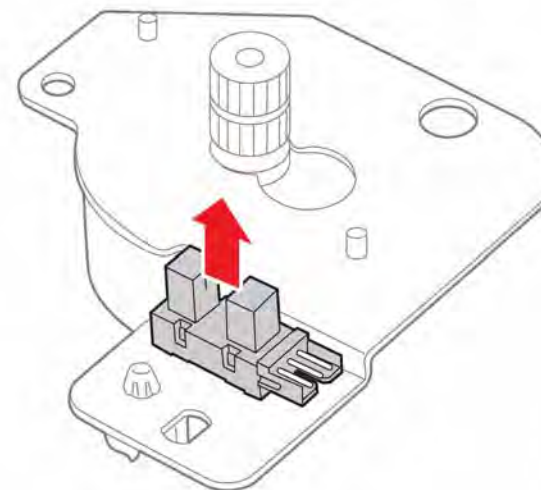
REP 11.9 Mailbox Exit Gate Actuator

Parts List on PL 11.25 Item 6

Removal

<p style="text-align:center;color:red;font-weight:bold">WARNING</p>

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the left cover, REP 11.2.
4. Remove 2 (plastic) screws that secure the mounting bracket, Figure 1.

Figure 2 Remove the exit gate actuator
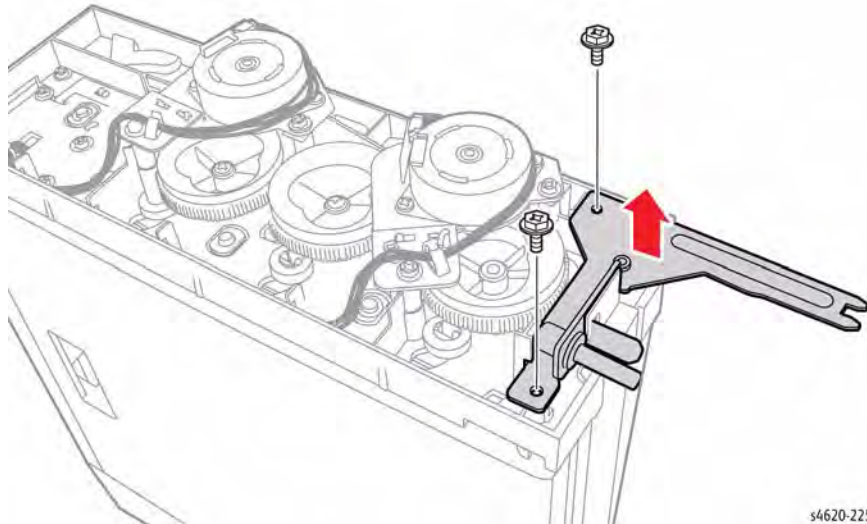
Figure 1 Remove the exit gate bracket

5. Remove the actuator and bearing from the mounting bracket, Figure 2.

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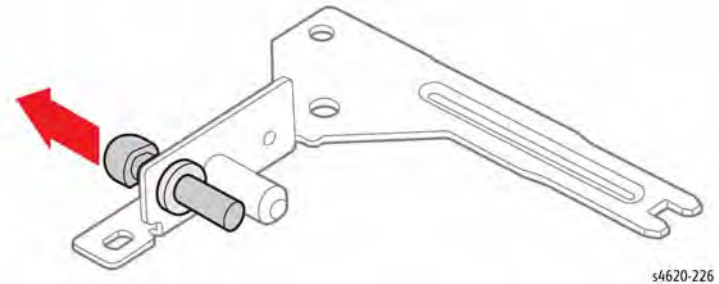
REP 11.9

REP 11.10 Mailbox Exit Gate Cam Follower

Parts List on PL 11.25 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the left cover, REP 11.2.
4. Remove the lower Diverter Drive Assembly, REP 11.7.
5. Remove 1 screw (plastic) that secures the cam gear. Figure 1.
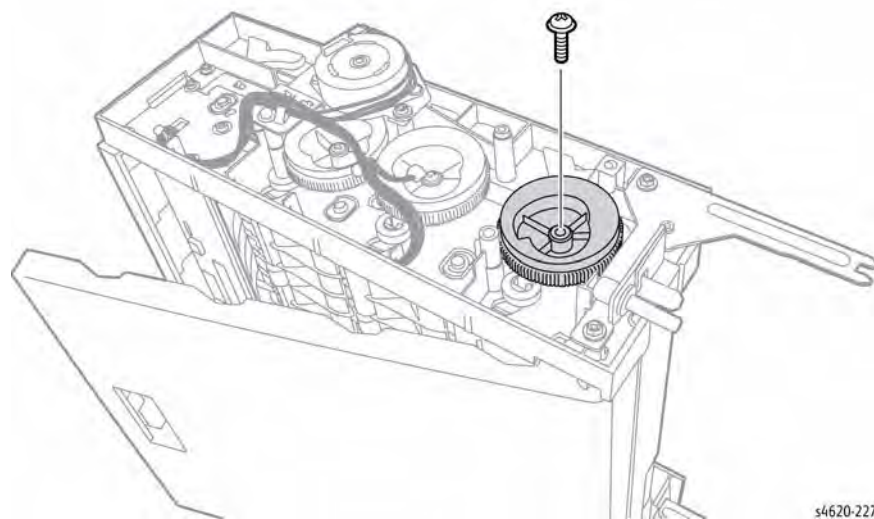
Figure 1 Remove the cam gear

6. Remove 2 (plastic) screws that secure the mounting bracket, Figure 2.
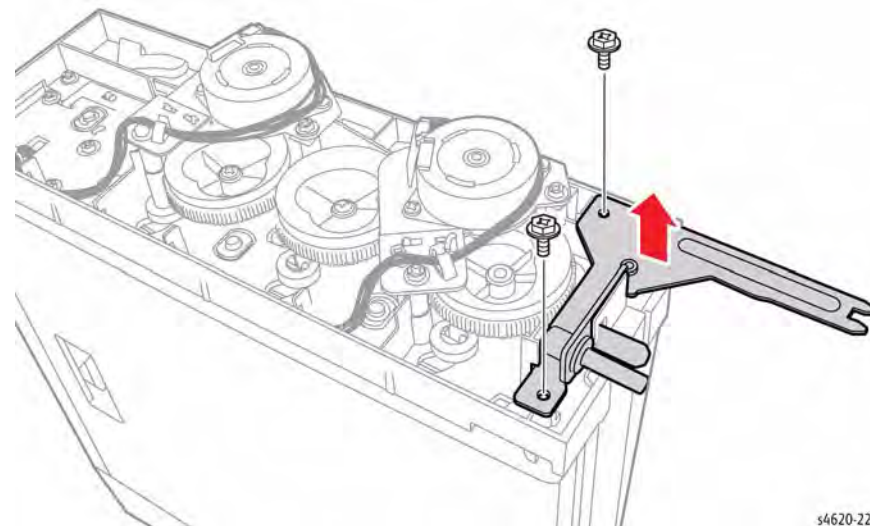
Figure 2 Remove the exit gate bracket

NOTE: Hold the cam follower spring while removing the cam follower from the Mailbox.

7. Remove 1 (plastic) screw that secures the cam follower to the Mailbox, Figure 3.
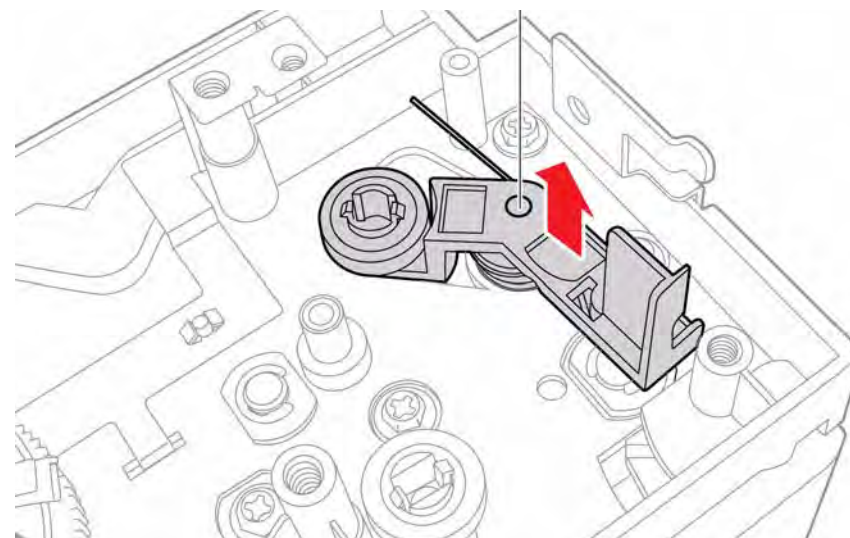
Figure 3 Remove the cam follower

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REP 11.10

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REP 11.11 Mailbox Option Harness

Parts List on PL 11.15 Item 4
Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the right cover, REP 11.3.
4. Disconnect P/J1 from the Control Board.
5. Release 2 hooks that secure the connector cover to the right cover and remove the connector, Figure 1.
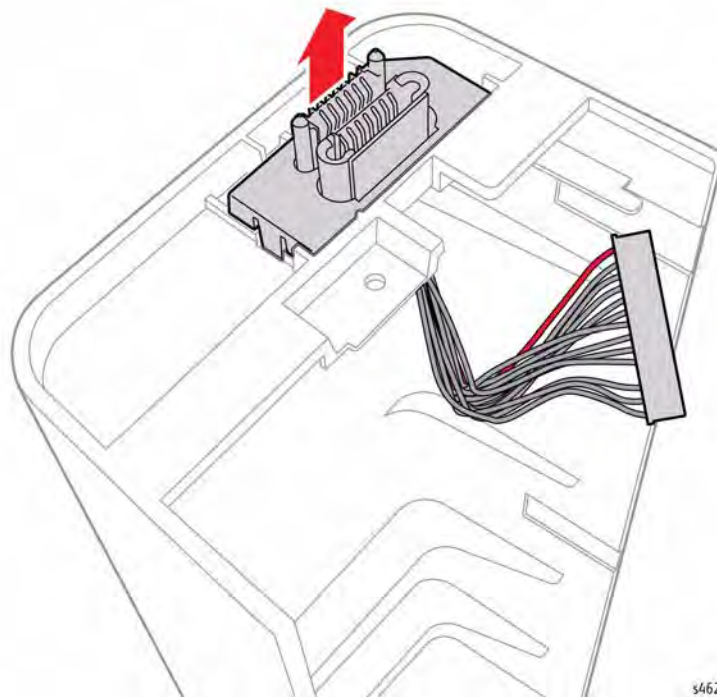
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Figure 1 Remove the option connector

Replacement

Check connector orientation before Mailbox installation.

REP 11.12 Mailbox Output Tray 4 Stack Full Sensor

Parts List on PL 11.30 Item 13
Removal

WARNING

Switch off the electricity to the machine. 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: Mailbox output trays are numbered 1 through 4 with 4 being the top tray.

1. Remove the Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the right cover, REP 11.3.
4. Remove the left cover REP 11.2.
5. Remove 4 screws (plastic) that secure the Top Cover to the Mailbox, Figure 1.
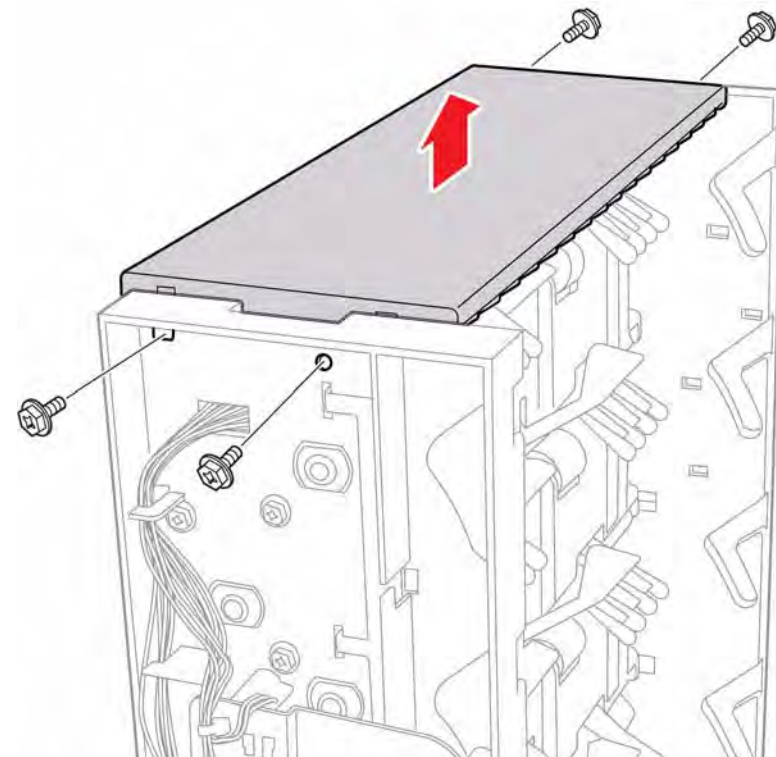
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Figure 1 Remove the top cover

6. Disconnect P/J141 from the sensor.
7. Release 4 hooks that secure the sensor to the bracket, Figure 2.

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REP 11.11, REP 11.12

Figure 2 Remove the Stack Full Sensor

REP 11.13 Mailbox Rear Door Interlock Switch

Parts List on PL 11.30 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the right cover, REP 11.3.
4. Remove the left cover, REP 11.2.
5. Remove 4 screws (plastic) that secure the Top Cover to the Mailbox, Figure 1.
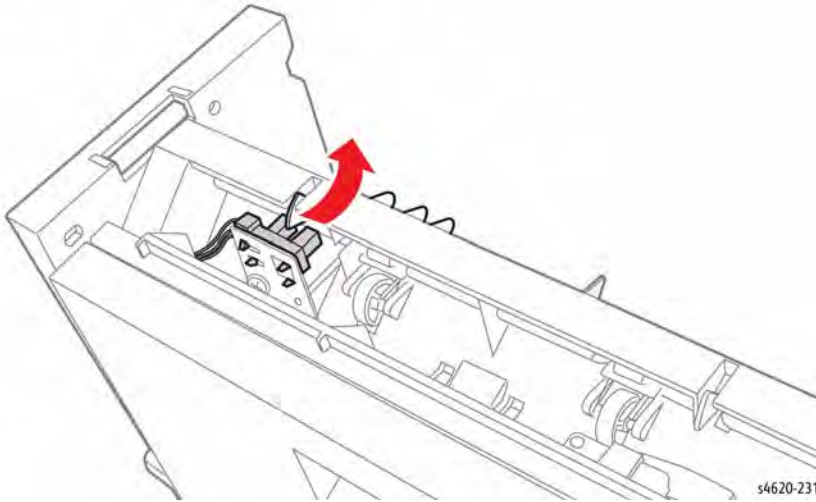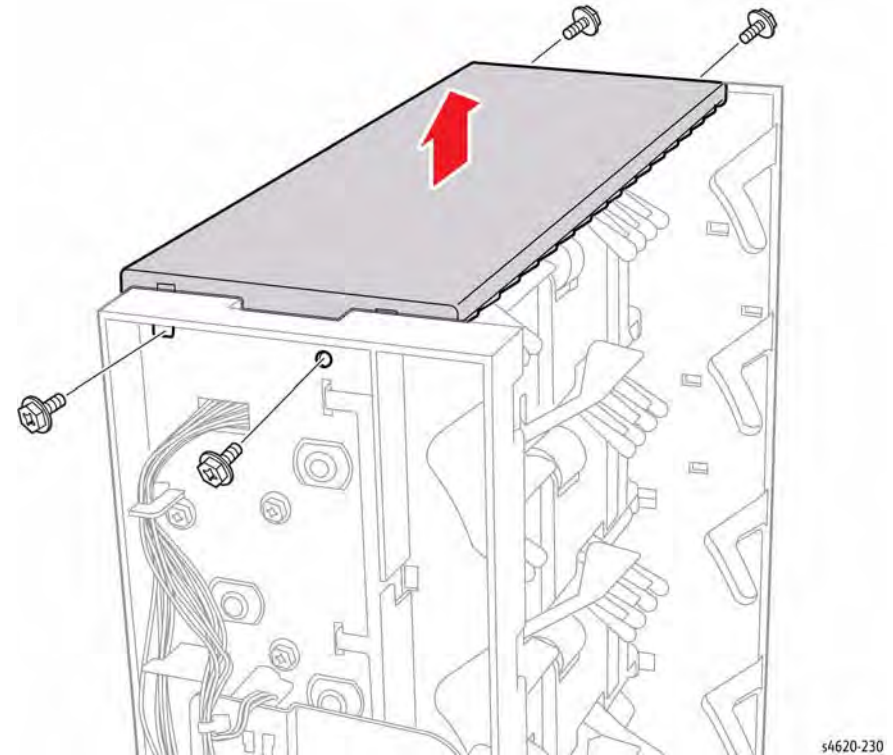
Figure 1 Remove the top cover

6. Lift the hook and slide the switch to release the switch.
7. Slide the insulation off the switch terminals and using a small screwdriver, release the harness connectors from the switch, Figure 2.

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REP 11.12, REP 11.13

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Figure 2 Remove the harness from the switch

REP 11.14 Mailbox Transport Motor

Parts List on PL 11.20 Item 1

Removal

<div style="text-align: center">

WARNING

</div>

Switch off the electricity to the machine. 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: Ground straps secured by the Transport Motor screws are not captive to the motor.

1. Remove the Mailbox Output Trays, REP 11.1.
2. Separate the Mailbox from the printer, GP 14.
3. Remove the right cover, REP 11.3.
4. Remove 2 screws (metal) and disconnect P/J127 remove the motor, Figure 1.

Figure 1 Remove the Transport Motor

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REP 11.13, REP 11.14

REP 12.1 Finisher Left Cover

Parts List on PL 12.10 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove 3 screws (1 metal and 2 plastic) that secure the cover to the Finisher, Figure 1.

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Figure 1 Remove the left cover

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REP 12.1

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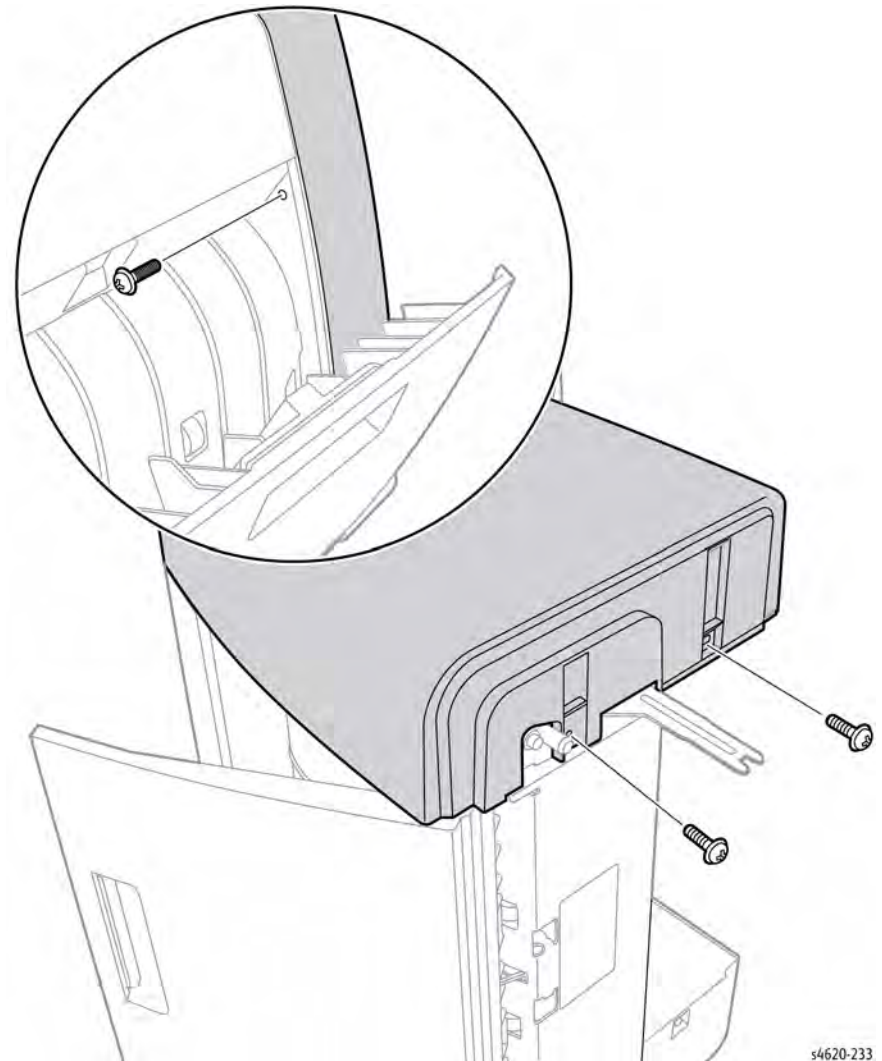
REP 12.2 Finisher Control Board

Parts List on PL 12.15 Item 2

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Disconnect all connections to the Control Board.
4. Remove 5 screws (metal) that secure the board to the bracket, Figure 1.
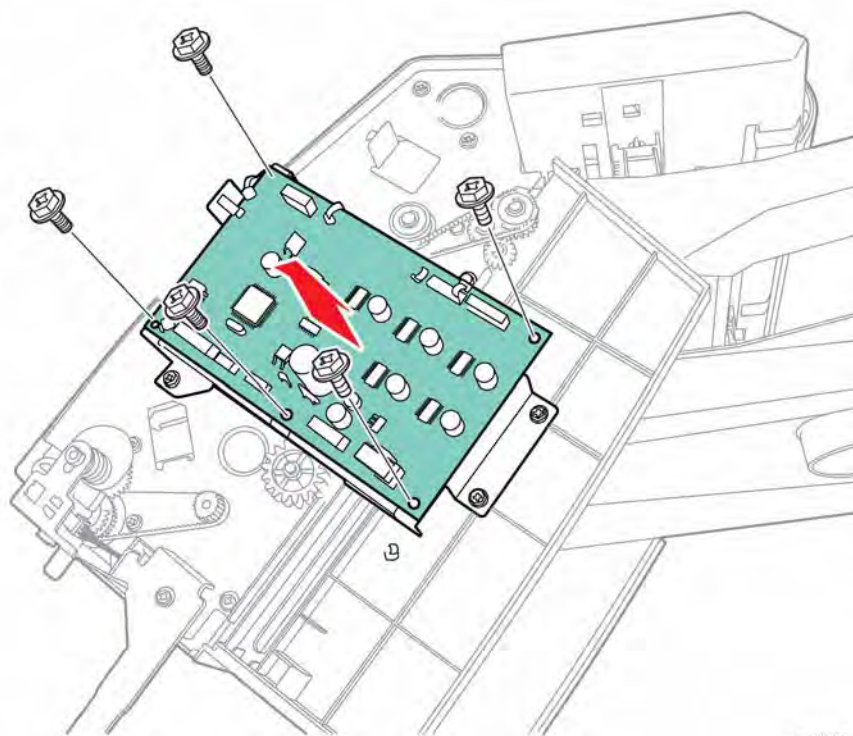
s4630-326

Figure 1 Remove the Finisher Control Board

REP 12.3 Finisher Stacker Full Sensor

Parts List on PL 12.15 Item 3

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Remove 4 screws (2 metal, 2 plastic) that secure the Control Board bracket to the Finisher, Figure 1.

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Figure 1 Remove the Control Board bracket screw,

4. Release the harness clamp and lift the front of the bracket, Figure 2.

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REP 12.2, REP 12.3

Figure 2 Position the Control Board bracket

P/J113

Figure 3 Remove the Stacker Full Sensor

5. Disconnect P/J113 from the Stacker Full Sensor and release the 3 hooks to remove the sensor, Figure 3.

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REP 12.3

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REP 12.5 Finisher Transport Drive Assembly

Parts List on PL 12.40 Item 8

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Remove 4 screws (2 metal, 2 plastic) that secure the Control Board bracket to the Finisher, Figure 1.

Figure 1 Remove the Control Board bracket screw,

4. Release the harness clamp and lift the front of the bracket, Figure 2.
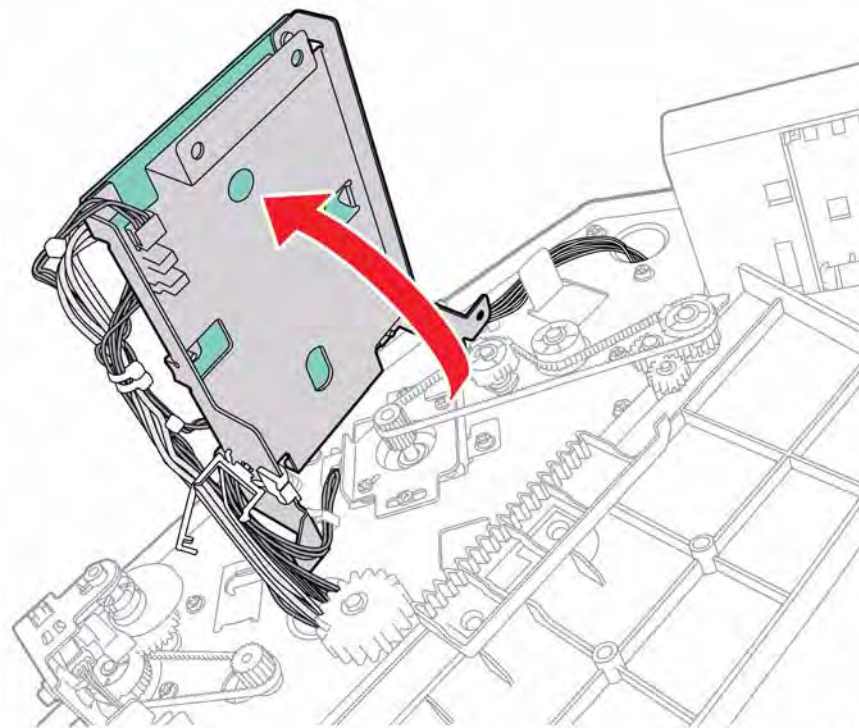
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Figure 2 Position the Control Board bracket

5. Remove the Transport Drive Belt from the motor, Figure 3.

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REP 12.5
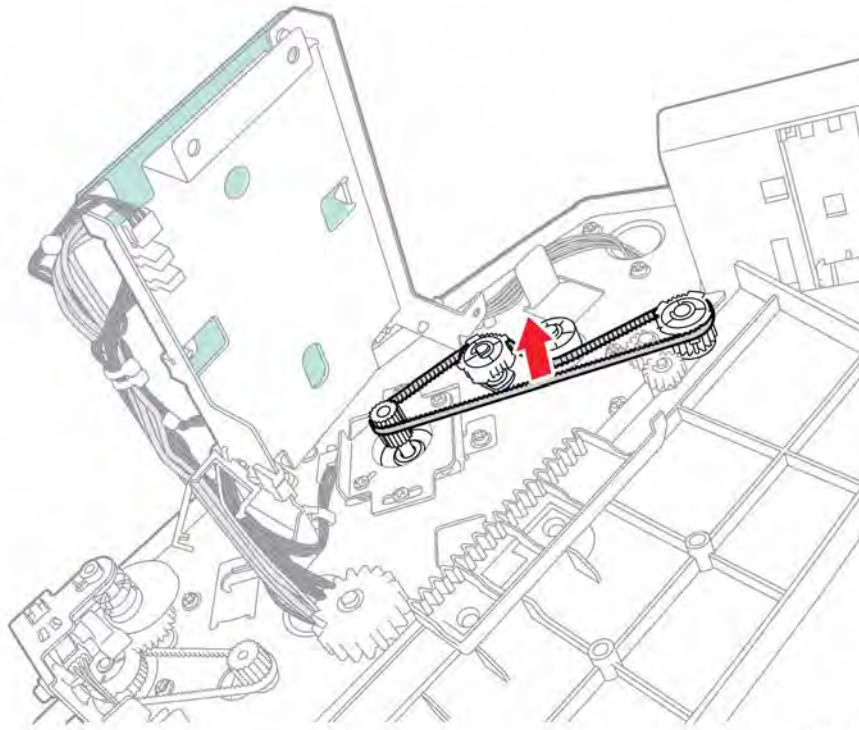
Figure 3 Remove the drive belt

6. Mark the position of the bracket in relation to the frame.

7. Remove 2 screws (metal) that secure the motor bracket to the frame.

8. Disconnect P/J108 from the motor and remove the motor, Figure 4.

Figure 4 Remove the Transport Drive Assembly

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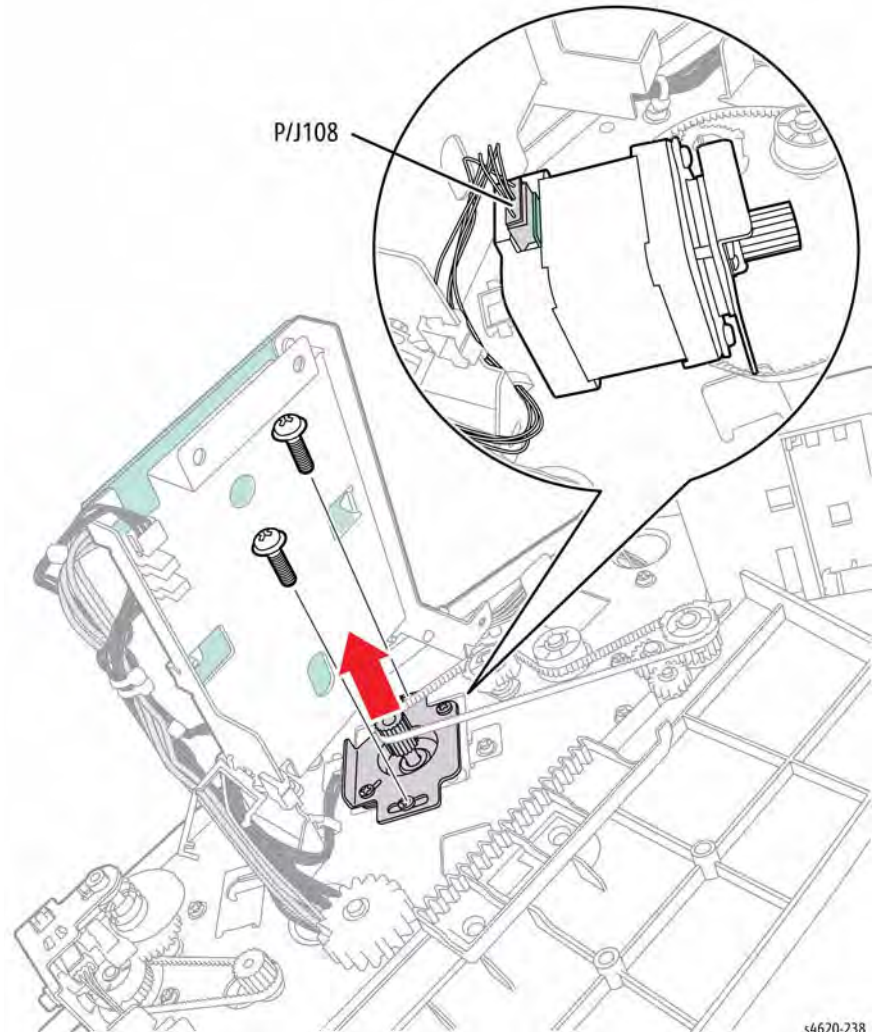
REP 12.6 Finisher Exit Gate Sensor

Parts List on PL 12.40 Item 18

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Disconnect P/J116 and release 3 hooks that secure the sensor to the bracket, Figure 1.
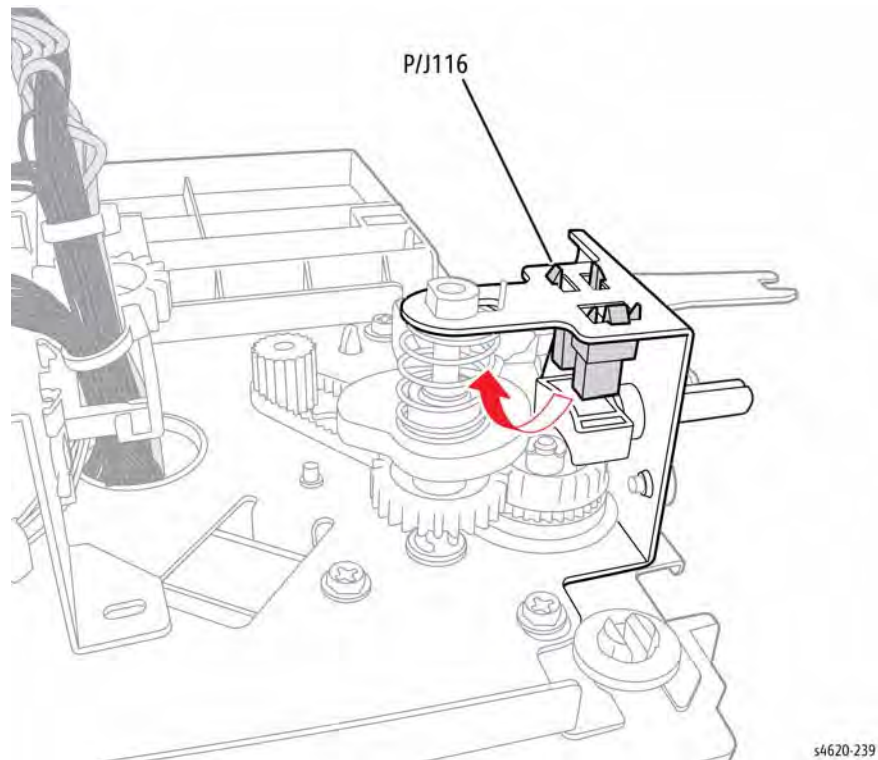
Figure 1 Remove the Exit Gate Sensor

REP 12.7 Finisher Exit Gate Actuator

Parts List on PL 12.40 Item 19

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Remove 2 (metal) screws that secure the actuator bearing to the bracket.
4. Turn the cam lobe to provide clearance to remove the actuator from the bracket, Figure 1.

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4 Repairs and Adjustments

REP 12.6, REP 12.7

Figure 1 Remove the exit gate actuator

REP 12.8 Finisher Entrance Drive Belt

Parts List on PL 12.40 Item 16

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Remove the exit gate actuator, REP 12.7.
4. Remove but do not disconnect the Exit Gate Sensor, REP 12.6.
5. Compress the spring and remove the E-clip that secures the outer bearing in the bracket, Figure 1.

Figure 1 Release the bearing from the bracket

6. Move the shaft outwards to release the shaft from the Finisher, then tilt the shaft up to remove, Figure 2.

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REP 12.7, REP 12.8

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Figure 2 Remove the shaft from the bracket

Figure 3 Remove the Entrance Drive Belt

7.   Remove the belt from the entrance motor shaft and pulley, Figure 3.

REP 12.9 Finisher Exit Gate Cam Shaft

Parts List on PL 12.40 Item 25

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the left cover, REP 12.1.
3. Remove the exit gate actuator, REP 12.7.
4. Remove but do not disconnect the Exit Gate Sensor, REP 12.6.
5. Compress the spring and remove the E-clip that secures the outer bearing in the bracket, Figure 1.

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Figure 2 Remove the shaft from the bracket

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Figure 1 Release the bearing from the bracket

6. Move the shaft outwards to release the shaft from the Finisher, then tilt the shaft up to remove, Figure 2.

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REP 12.9

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REP 12.10 Left Tamper Home Position Sensor

Parts List on PL 12.35 Item 10

Removal

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.

2. Remove the Left Cover, REP 12.1.

3. Release the hook and disconnect P/J118 to remove the sensor., Figure 1.

P/J118
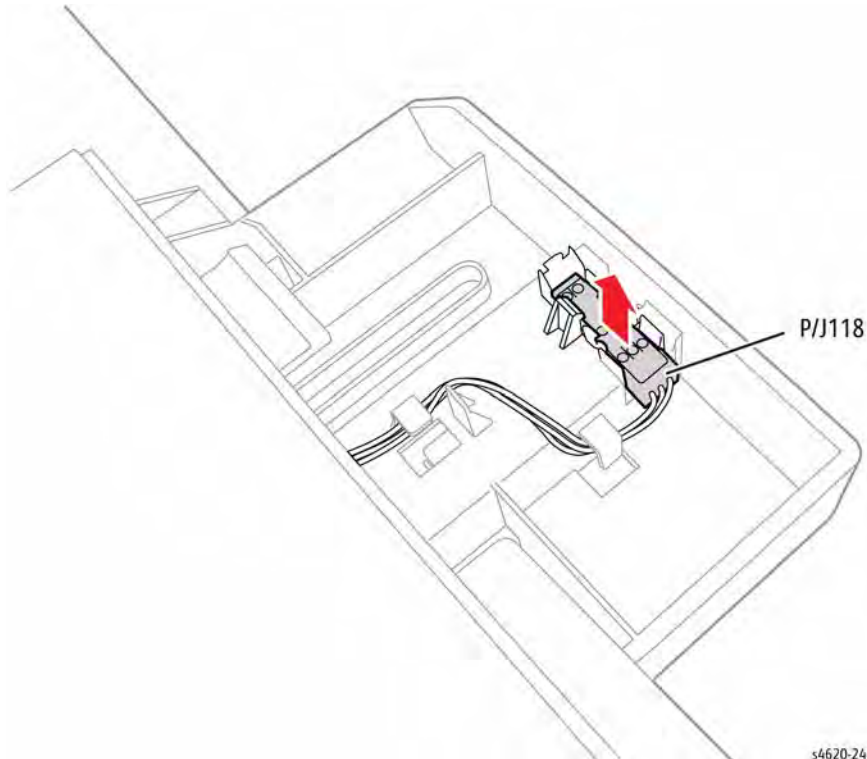
s4620-244

Figure 1 Remove the Left Tamper Home Position Sensor

REP 12.11 Finisher Right Cover

Parts List on PL 12.10 Item 2

Removal

NOTE: The option harness is fed through the Right Cover and retained by a small cover.

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.

2. Remove 3 screws (1 metal, 2 plastic) that secure the cover, Figure 1.
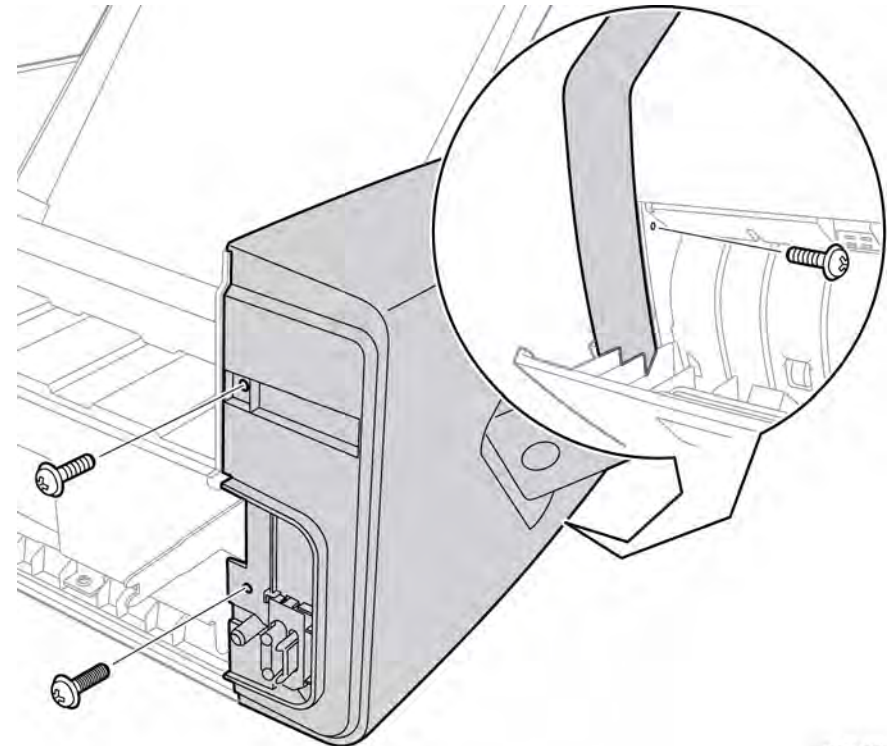
s4620-245

Figure 1 Remove the right cover screws

3. Release 2 hooks that secure the option connector cover to the Right Cover and remove the harness through the slot provided,

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4 Repairs and Adjustments
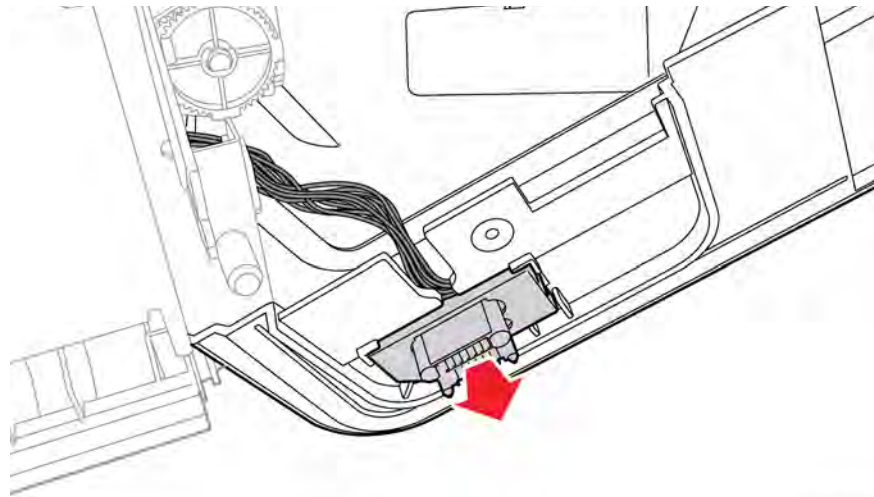
REP 12.10, REP 12.11

Figure 2 Release the option connector and harness

REP 12.12 Right Tamper Home Position Sensor

Parts List on PL 12.35 Item 10

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.

2. Remove the Right Cover, REP 12.11.

3. Release the hook and disconnect P/J119 to remove the sensor., Figure 1.

Figure 1 Remove the Right Tamper Home Position Sensor

4 Repairs and Adjustments

REP 12.11, REP 12.12

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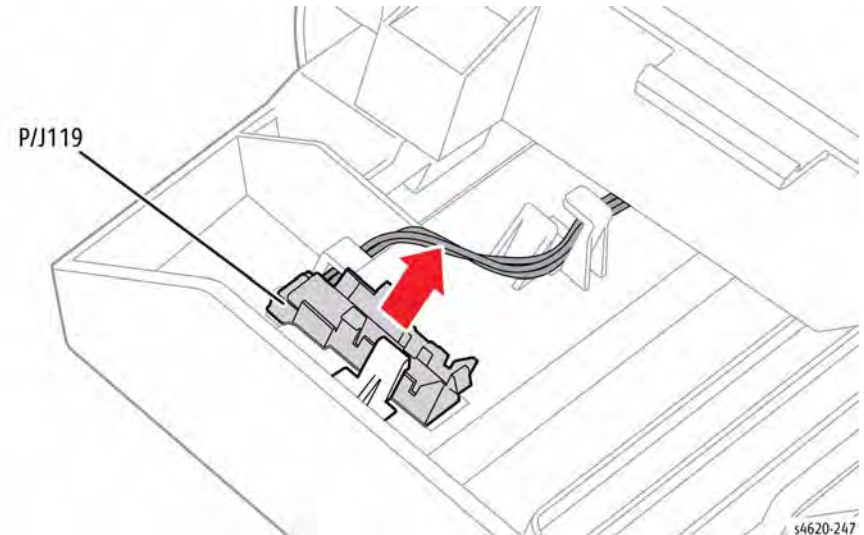
REP 12.13 Staple Cartridge Door Interlock Switch

Parts List on PL 12.45 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove 3 screws (1 metal, 2 plastic) that secure the stapler bracket and stapler to the Finisher., Figure 1.

Figure 2 Remove the switch bracket screws

5. Slide the insulation off the switch terminals and using a small screwdriver, release the harness connectors from the switch, Figure 3.
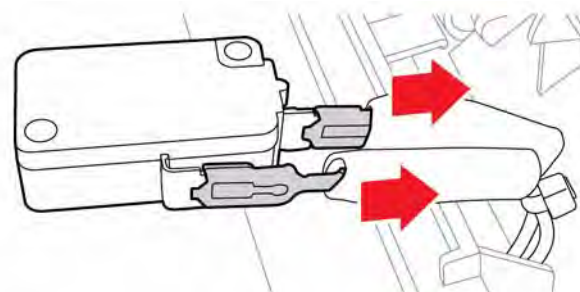
Figure 3 Remove the harness from the switch

Figure 1 Remove the Stapler

4. Remove 2 screws (metal) that secure the switch to the bracket, Figure 2.

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4 Repairs and Adjustments

REP 12.13

REP 12.14 Stapler Assembly

Parts List on PL 12.45 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Disconnect P/J122 and P/J123 from the Stapler Assembly, Figure 1.
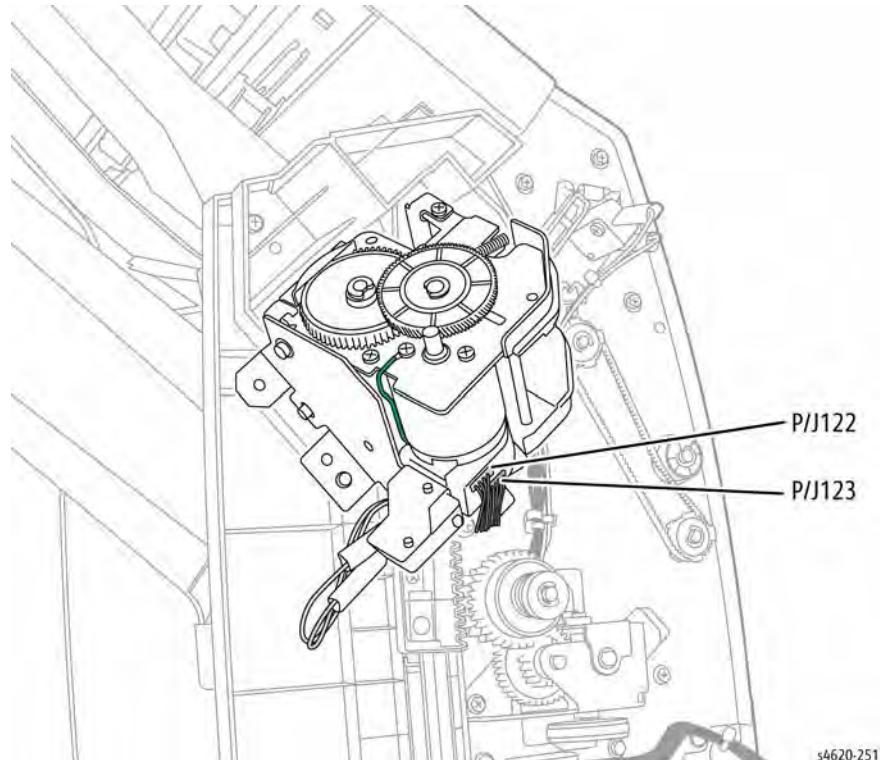
Figure 1 Disconnect the Stapler Assembly
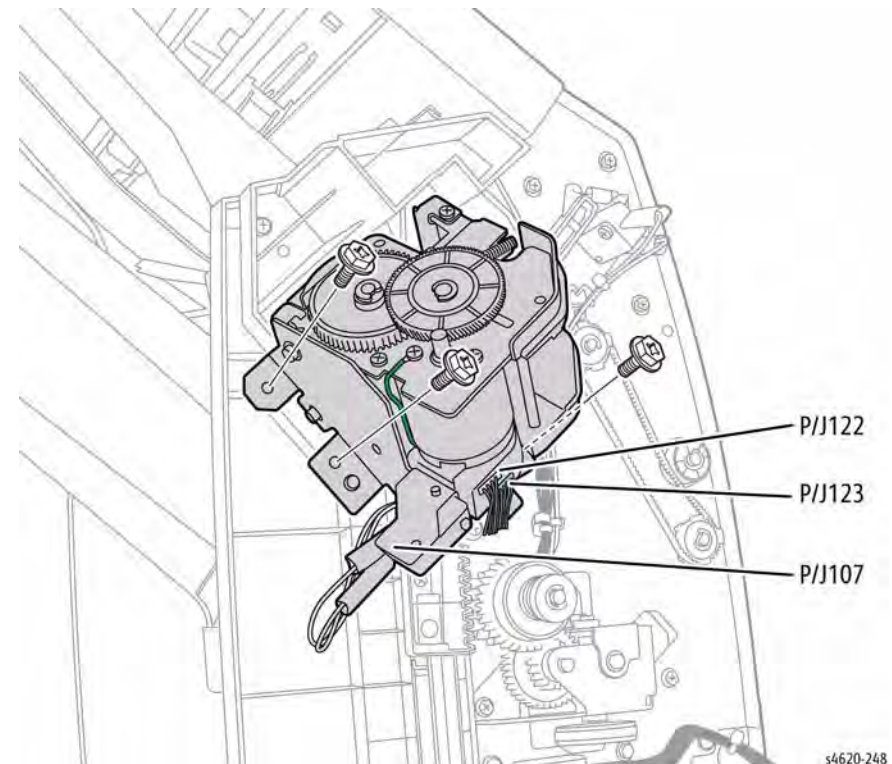
Figure 2 Remove the stapler bracket

4. Remove 2 screws (metal) that secure the Stapler to the bracket, Figure 2.

4 Repairs and Adjustments

REP 12.14

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REP 12.15 Stacker Drive Assembly

Parts List on PL 12.25 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove 2 screws (metal) that secure the Stacker Drive Assembly to the Finisher.
4. Disconnect P/J124 from the motor to remove the assembly, Figure 1.

s4620-253
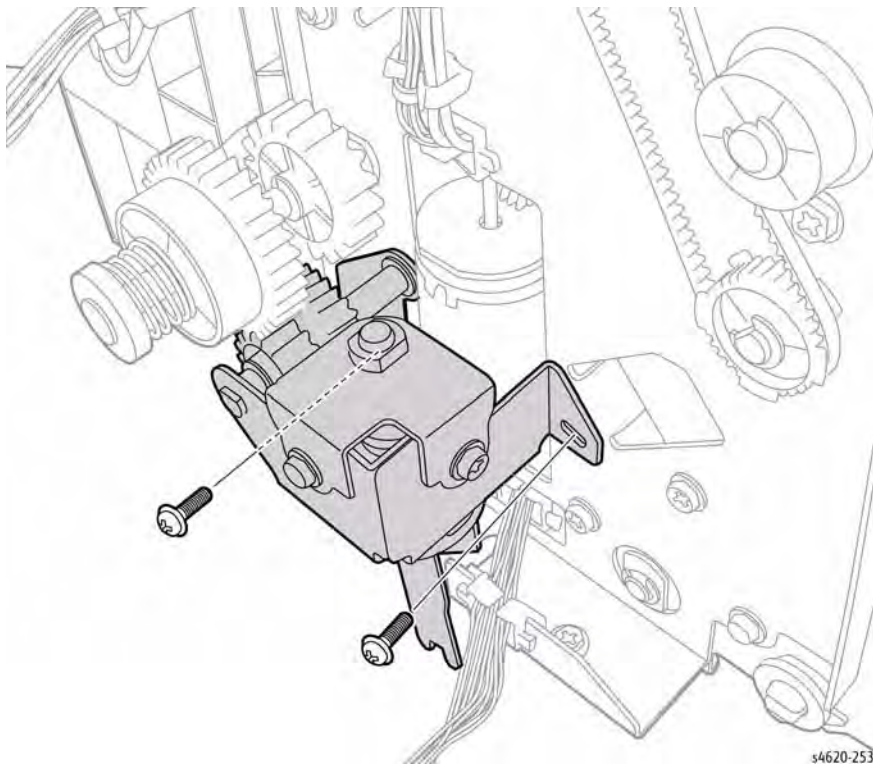
Figure 1 Disconnect and remove the Stacker Drive Assembly

Replacement

Compress the spring and gear to provide clearance to install the Stacker Drive Assembly

REP 12.16 Staple Interlock Switch

Parts List on PL 12.45 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove 1 screw that secures the switch to the Finisher, Figure 1.

s4620-254
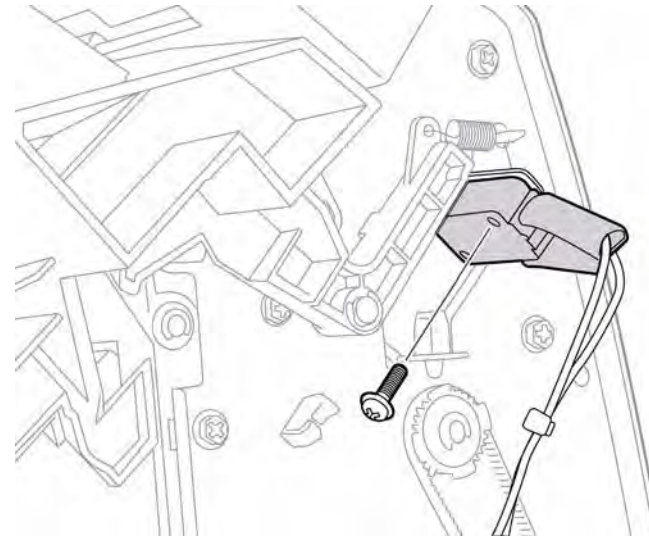
Figure 1 Remove the Stapler Interlock Switch

4. Slide the insulation off the switch terminals and using a small screwdriver, release the harness connectors from the switch, Figure 2.

s4620-250
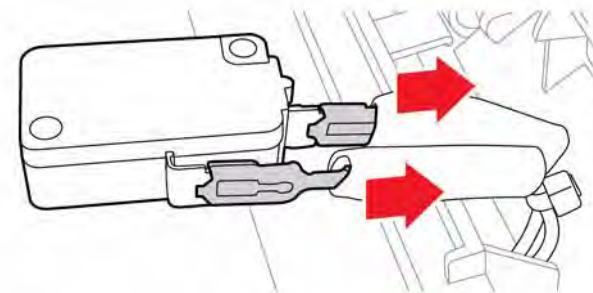
Figure 2 Remove the switch from the harness

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4 Repairs and Adjustments

REP 12.15, REP 12.16

REP 12.17 Finisher Rear Door

Parts List on PL 12.10 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Release the hinges from the 2 bearings and remove the door, Figure 1.

Figure 1 Remove the rear door

Replacement

Install the bearings with the Rear Door closed and hinges in the slots.

REP 12.18 Finisher Top Cover

Parts List on PL 12.10 Item 6

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove 4 screws (plastic) that secure the top cover to the Finisher, Figure 1.

Figure 1 Remove the top cover

4 Repairs and Adjustments
REP 12.17, REP 12.18

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REP 12.19 Tamper Motor

Parts List on PL 12.35 Item 19

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove the top cover, REP 12.18.
5. Disconnect the affected Tamper Motor.
6. Remove 2 screws (metal) that secure the Tamper Motor to the Finisher.
7. Slide the motor to feed the gear through the bracket opening, Figure 1.
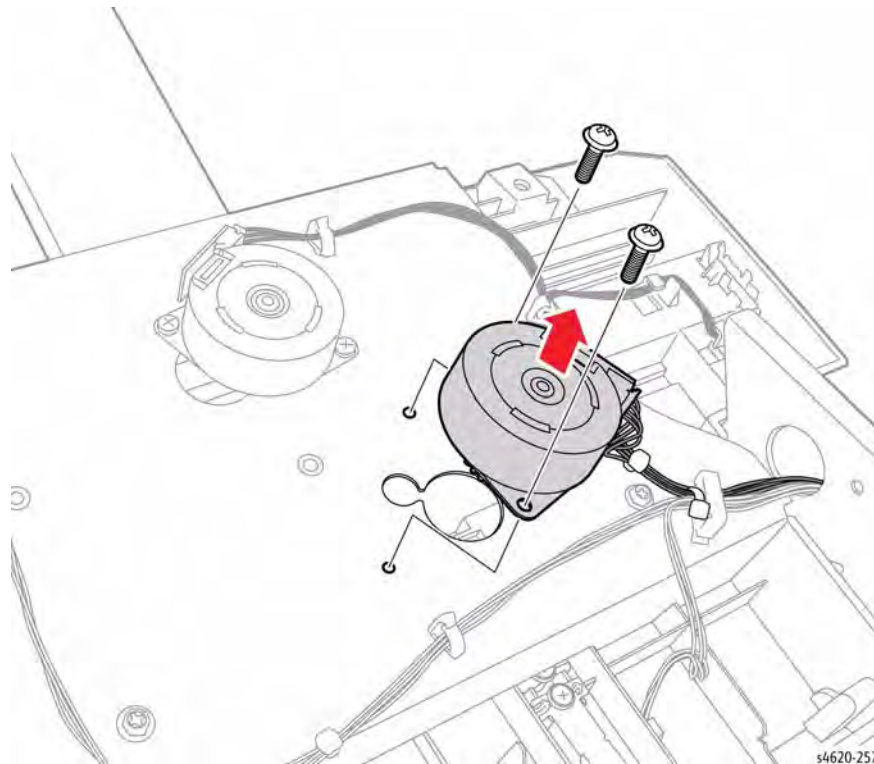
Figure 1 Remove the Tamper Motor

REP 12.20 Finisher Rear Door Open Sensor

Parts List on PL 12.35 Item 10

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove the top cover, REP 12.18.
5. Release 1 hook that secures the sensor.
6. Disconnect P/J121 to remove the sensor, Figure 1 .

P/J121
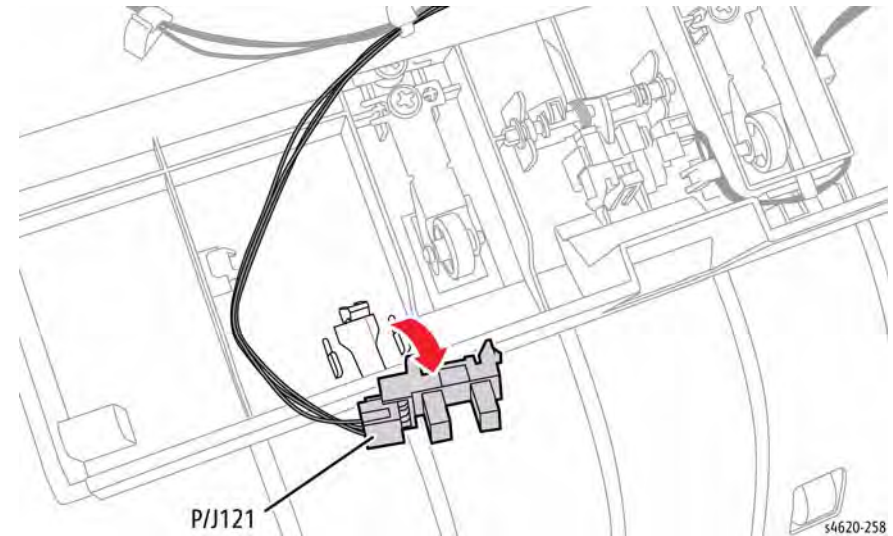
Figure 1 Remove the Rear Door Open Sensor

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REP 12.19, REP 12.20

REP 12.21 Finisher Exit Sensor

Parts List on PL 12.35 Item 10

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove the top cover, REP 12.18.
5. Release 1 hook that secures the sensor.
6. Disconnect P/J120 to remove the sensor, Figure 1.

s4620-259
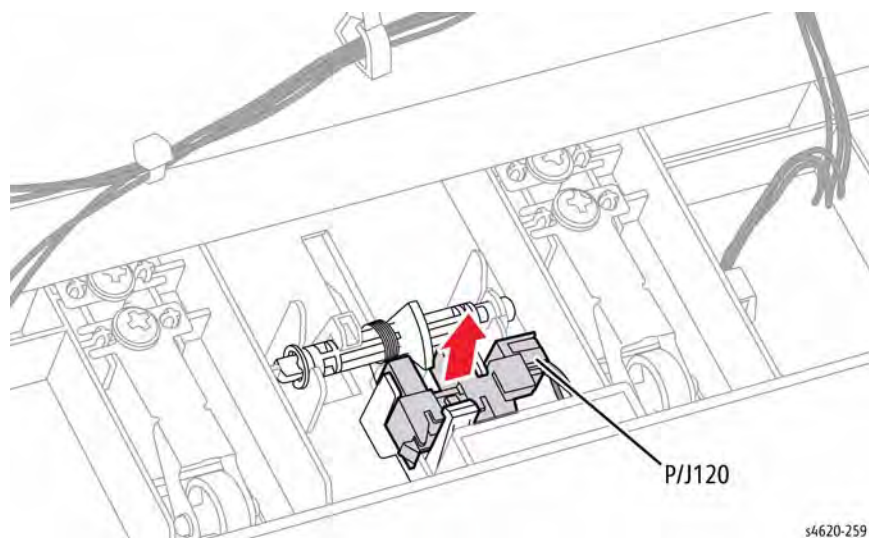
Figure 1 Remove the Finisher Exit Sensor

REP 12.22 Finisher Exit Sensor Actuator

Parts List on PL 12.35 Item 11

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove the top cover, REP 12.18.
5. Remove the E-ring that secures the actuator shaft.
6. Slide the actuator to the right, then left to remove the actuator, Figure 1.

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Figure 1 Remove the Finisher exit sensor actuator

4 Repairs and Adjustments
REP 12.21, REP 12.22

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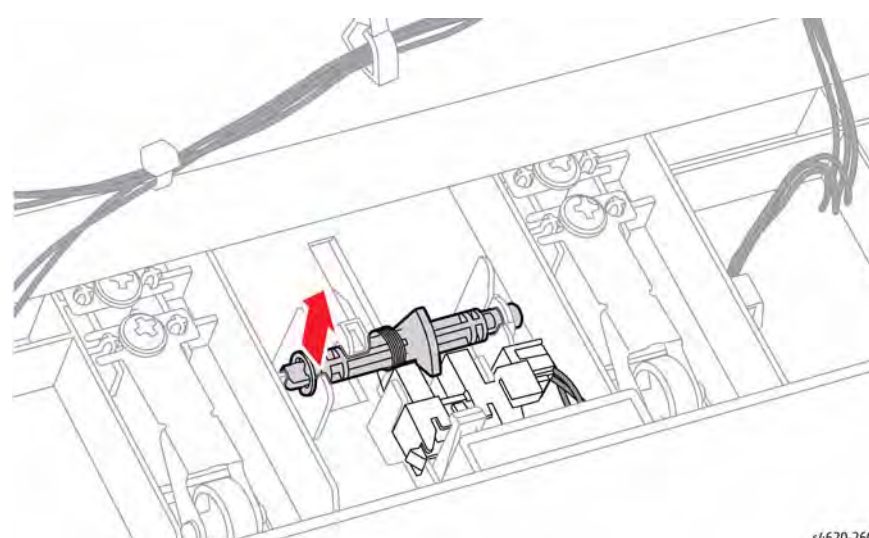
REP 12.23 Compile Tray Assembly

Parts List on PL 12.35 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Remove the top cover, REP 12.18.
5. Disconnect the 5 connections in Figure 1.
6. Remove and disconnect the Finisher Exit Sensor.
7. Release the Compile Tray harness from 6 clips, Figure 1.

Figure 2 Remove the Compile Tray Assembly

Figure 1 Release the Compile Tray harness
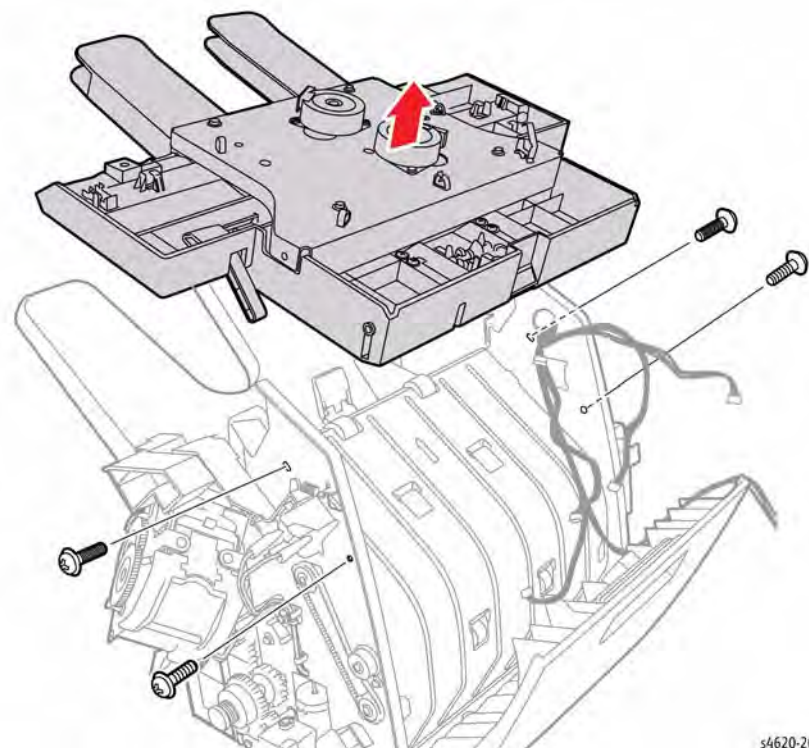
8. Remove 4 screws (2 plastic, 2 metal) that secure the assembly to the Finisher.
9. Lift to remove the Compile Tray from the Finisher,

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4 Repairs and Adjustments

REP 12.23

REP 12.24 Stacker Shield Assembly

Parts List on PL 12.20 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Finisher from the printer, GP 14.
2. Remove the right cover, REP 12.11.
3. Remove the left cover, REP 12.1.
4. Retract the eject assembly into the Finisher.
5. Remove 4 screws (plastic) that secure the assembly to the Control Board bracket and Finisher chassis, Figure 1.

Figure 2 Remove, but do not disconnect the Stapler Assembly

7. Remove 3 screws (plastic) that secure the Stacker Shield Assembly to the Finisher, Figure 3.
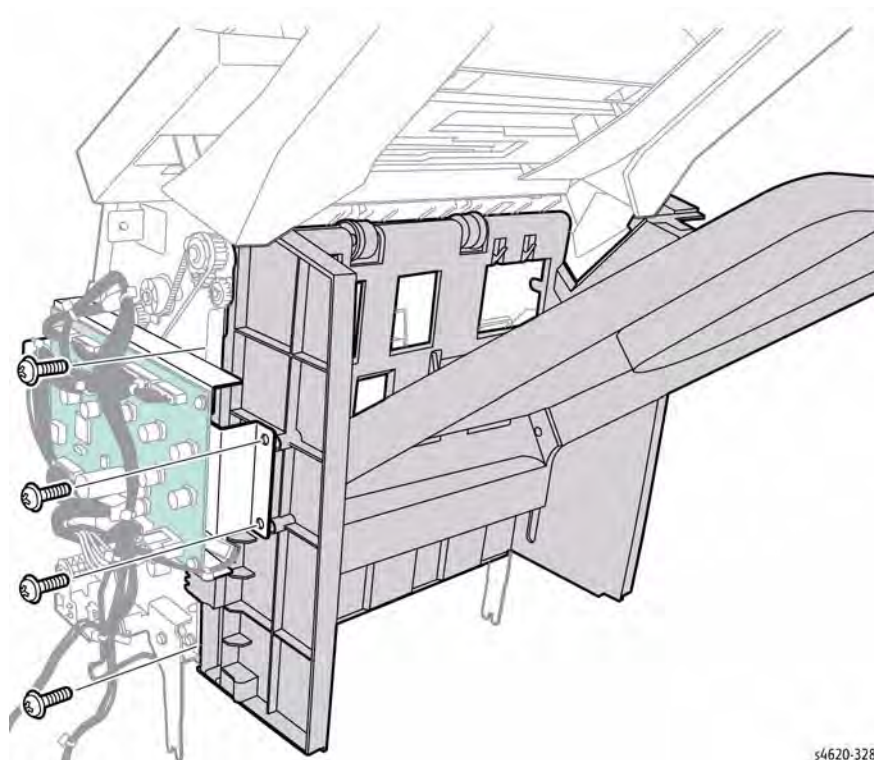
Figure 1 Remove 4 screws of the left side

6. Remove 3 screws (1 metal, 2 plastic) that secure the Stapler Assembly to the Finisher, Figure 2.

4 Repairs and Adjustments

REP 12.24

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Figure 3 Remove the Stacker Shield Assembly

REP 28.1 IP Board Cover

Parts List on PL 28.10 Item 6

Removal

WARNING

Switch off the electricity to the machine. 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.

Slide the cover to the rear to release the hooks that secure the cover, Figure 1.
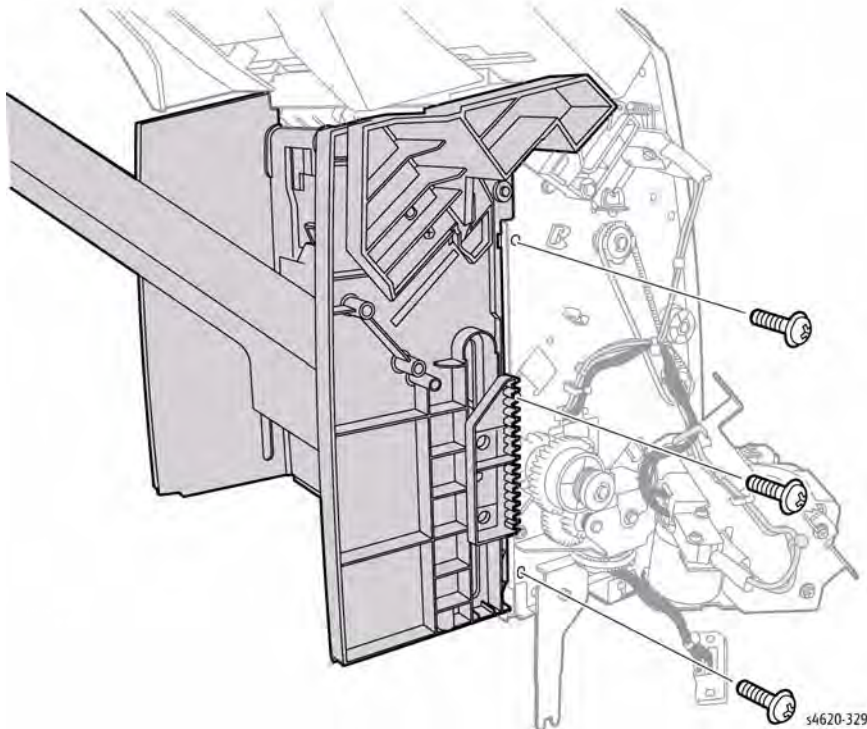
Figure 1 Remove the IP Board Cover

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4 Repairs and Adjustments

REP 12.24, REP 28.1
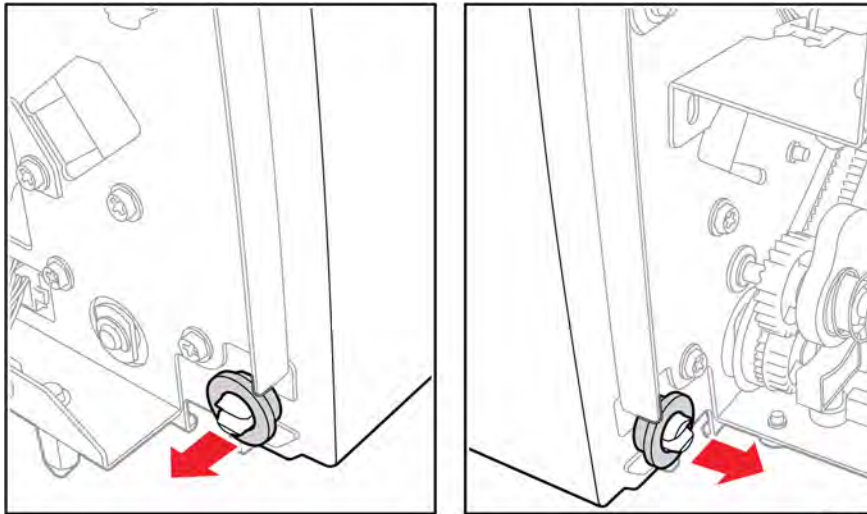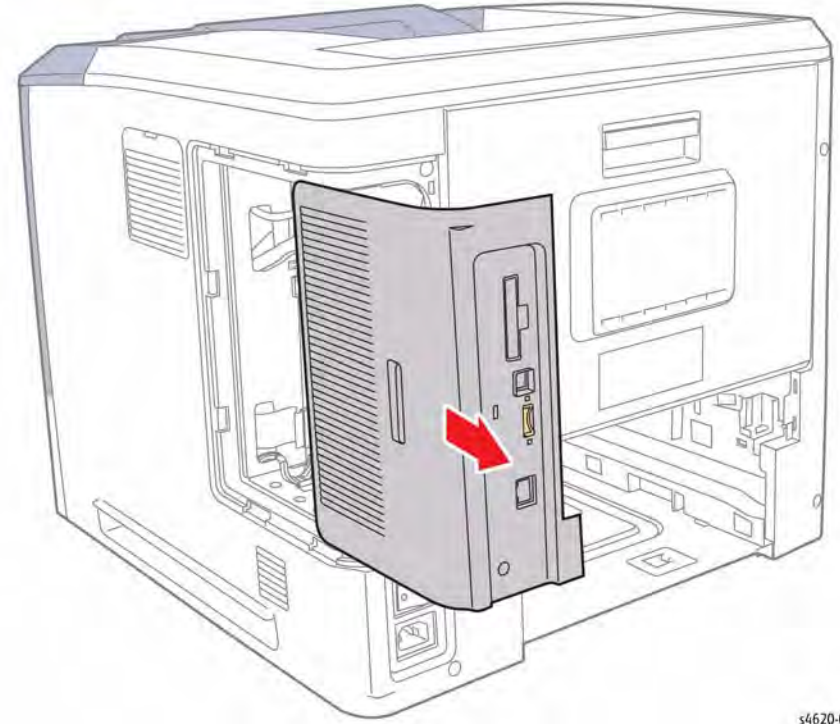
REP 28.2 Right Cover

Parts List on PL 28.10 Item 4

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the IP Board Cover, REP 28.1.
3. Remove 2 screws (metal) that secure the cover to the chassis.
4. Slide the cover to the rear to release 6 hooks to remove the cover, Figure 1.
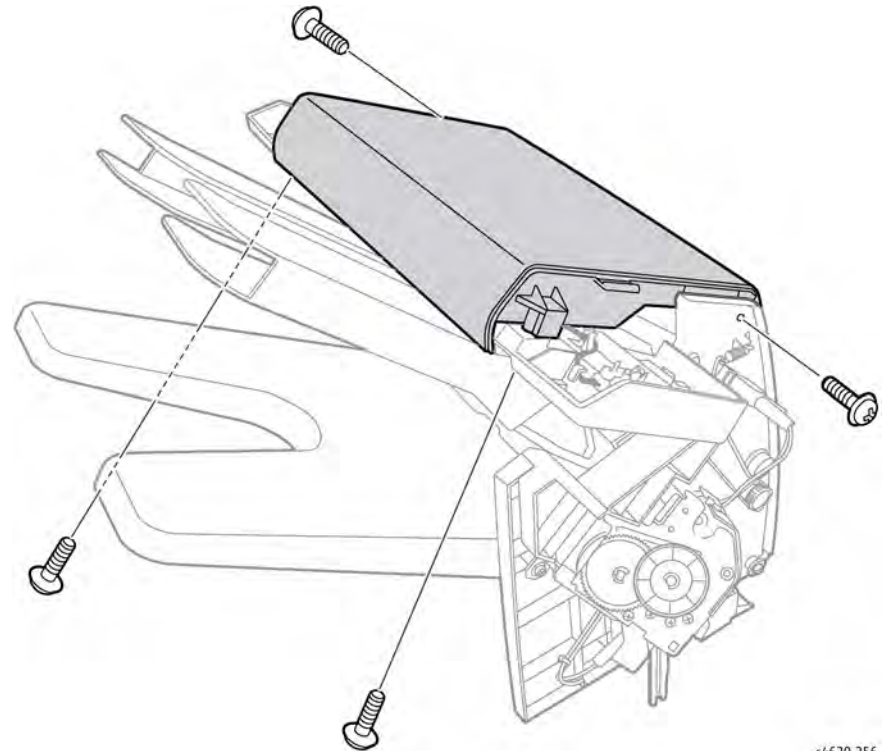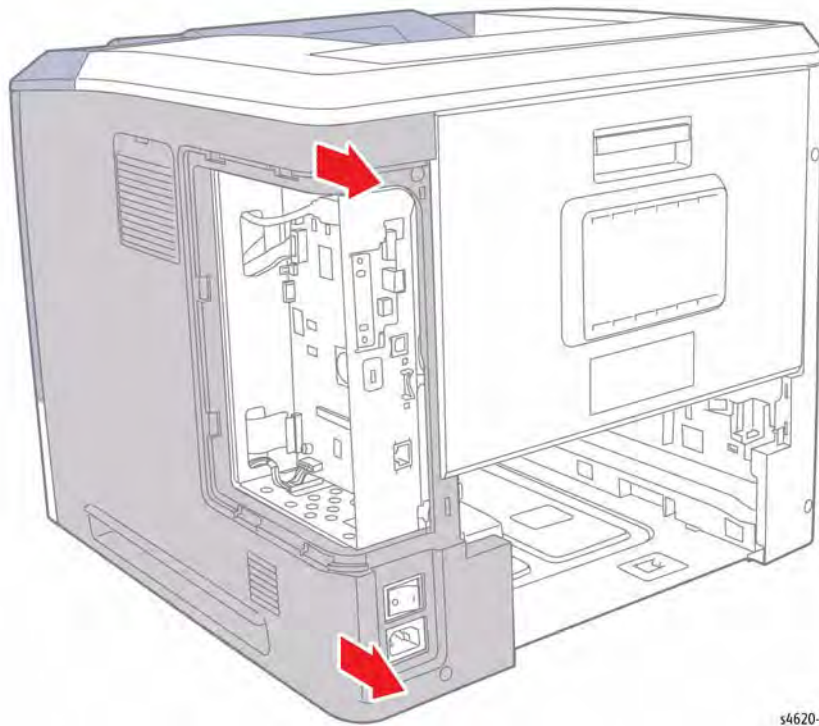
REP 28.3 Left Cover

Parts List on PL 28.10 Item 1

Removal

WARNING

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove 2 screws (metal) that secure the cover to the chassis.
4. Slide the cover to the rear to release 6 hooks to remove the cover, Figure 1.

s4620-0

Figure 1 Remove the Right Cover

4 Repairs and Adjustments

REP 28.2, REP 28.3

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Figure 1 Remove the Left Cover

REP 28.4 Front Cover

Parts List on PL 28.10 Item 5

Removal

WARNING

Switch off the electricity to the machine. 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 2.
2. Raise the Top Door.
3. Remove 2 screws that secure the front of the Top Cover.
4. Position the front of the printer at the edge of the work surface and tilt the cover outward at the bottom, then lower the cover to release the bosses at the top, Figure 1.

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4 Repairs and Adjustments

REP 28.3, REP 28.4
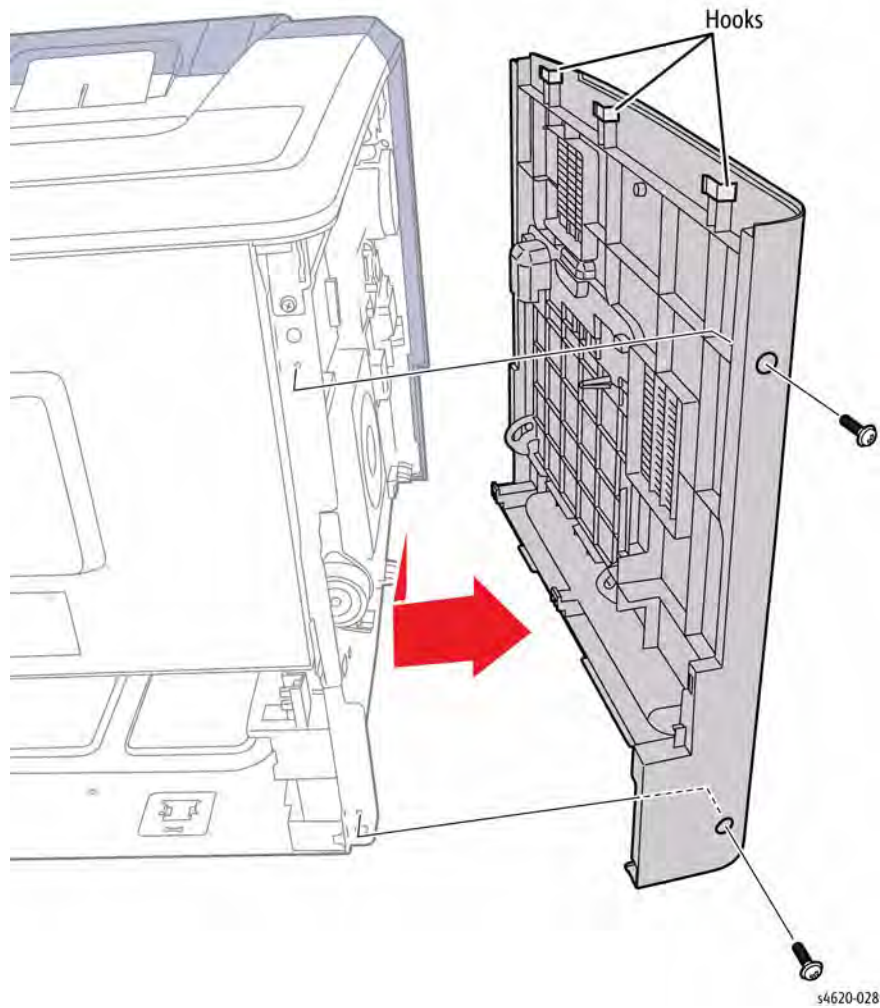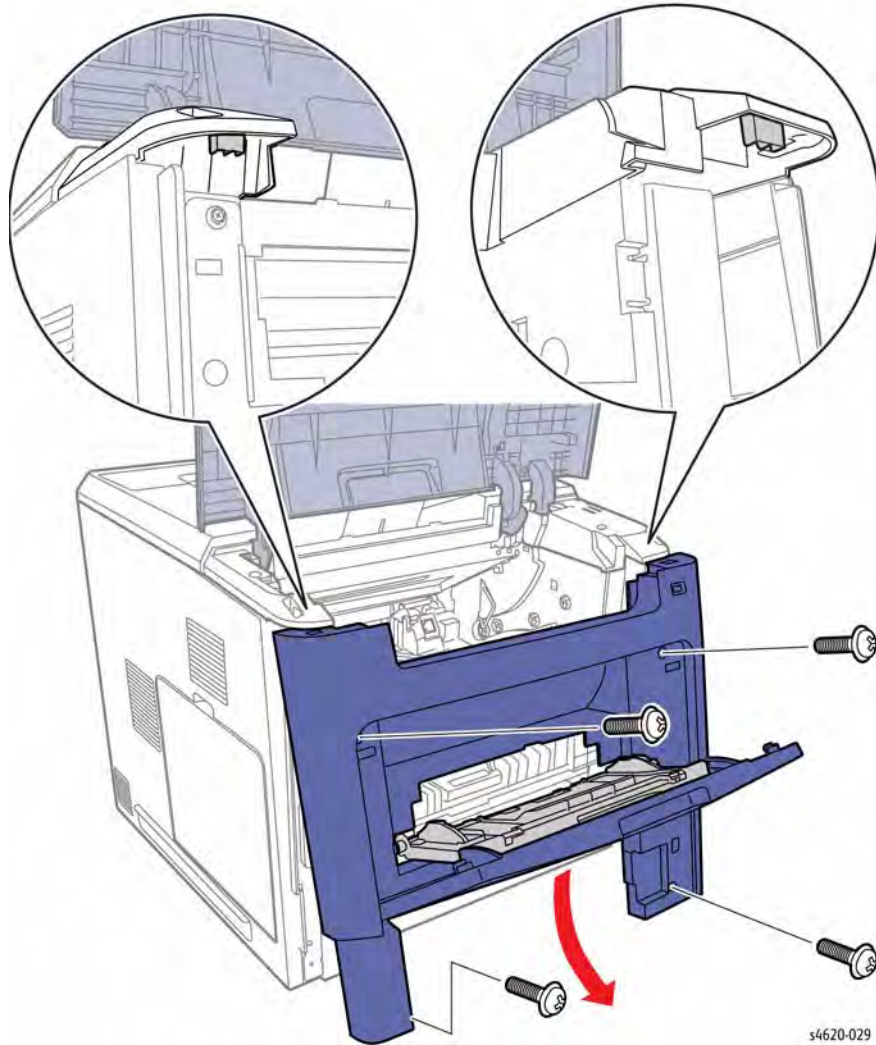
Figure 1 Remove the Front Cover

REP 28.5 Top Cover

Parts List on PL 28.10 Item 7

Removal

<p style="text-align:center"><strong style="color:red">WARNING</p>

Switch off the electricity to the machine. 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 Duplex Unit, REP 10.1.
2. Remove the Waste Toner Cartridge.
3. Remove the Left Cover, REP 28.3.
4. Remove the Right Cover, REP 28.2.
5. Release the Top Door linkage from the Main Drive Assembly.
6. Disconnect CN8 from the IP Board and P/J45 from the harness, Figure 1.
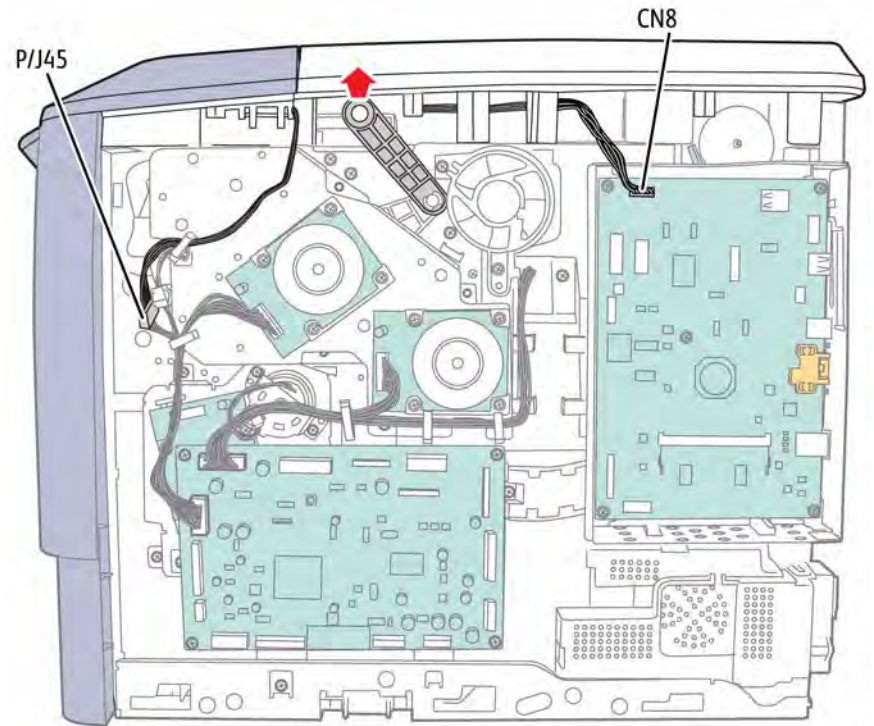
Figure 1 Disconnect the Control Panel and Top Door linkage

7. Remove the option panel and raise the top door to remove 4 screws (metal).
8. Release 2 hooks that secure the cover to the chassis, Figure 2.

4 Repairs and Adjustments

REP 28.4, REP 28.5

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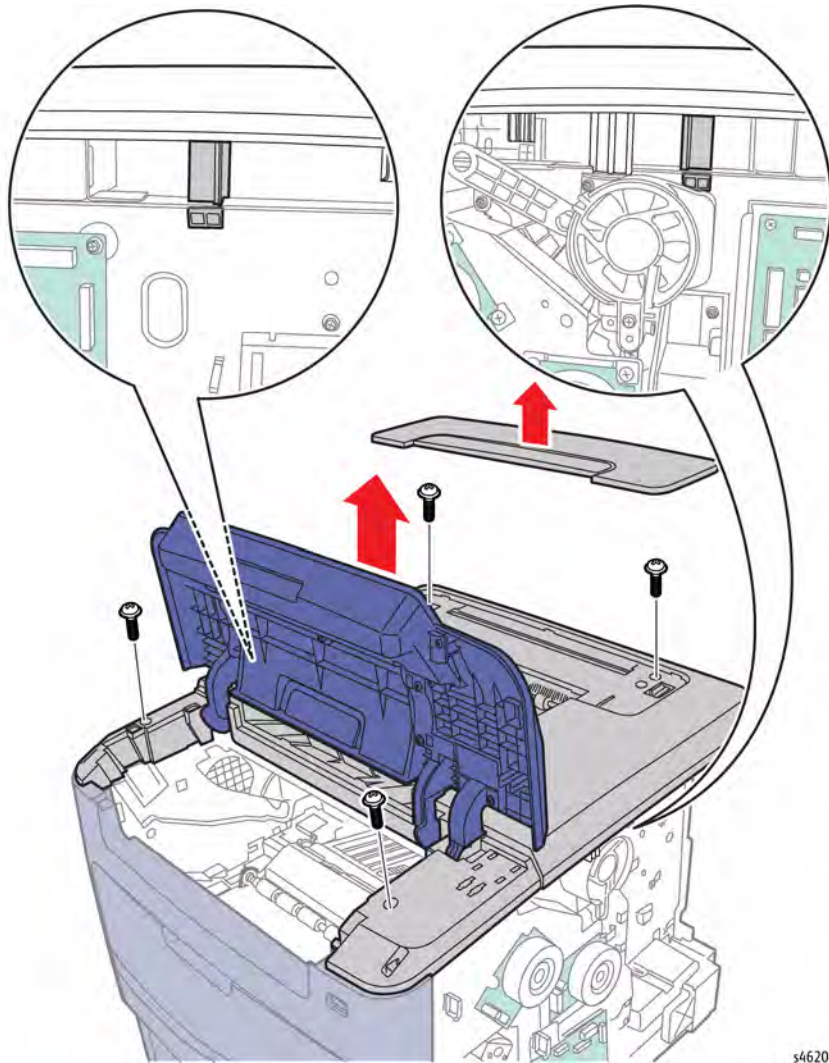
Figure 2 Remove the Top Cover

REP 28.6 Rear Door

Parts List on PL 28.10 Item 3

Removal

1. Open the Rear Door.

2. Raise the right side to release the boss from the slot and rotate the door away from the printer, Figure 1.

Figure 1 Remove the Rear Door

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4 Repairs and Adjustments

REP 28.5, REP 28.6
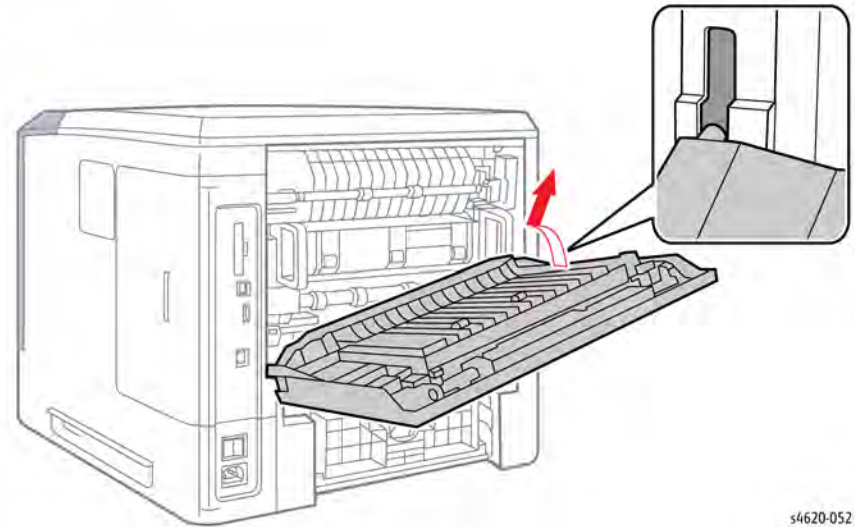
REP 28.7 Rear Door Fan

Parts List on PL 28.25 Item 13

Removal

1. Remove the Rear Door, REP 28.6.

2. Flex the diverter gate at the center and remove.

3. Flex the duplex chute to release the bosses from the door, Figure 1.
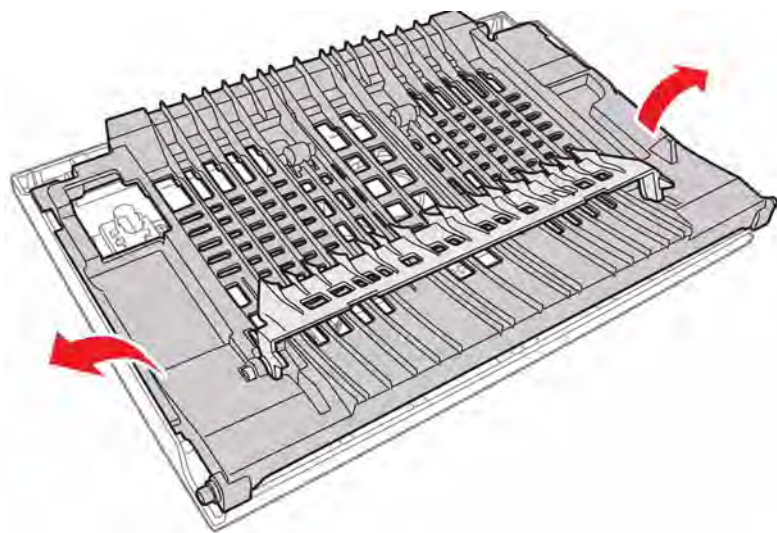
Figure 1 Remove the duplex chute
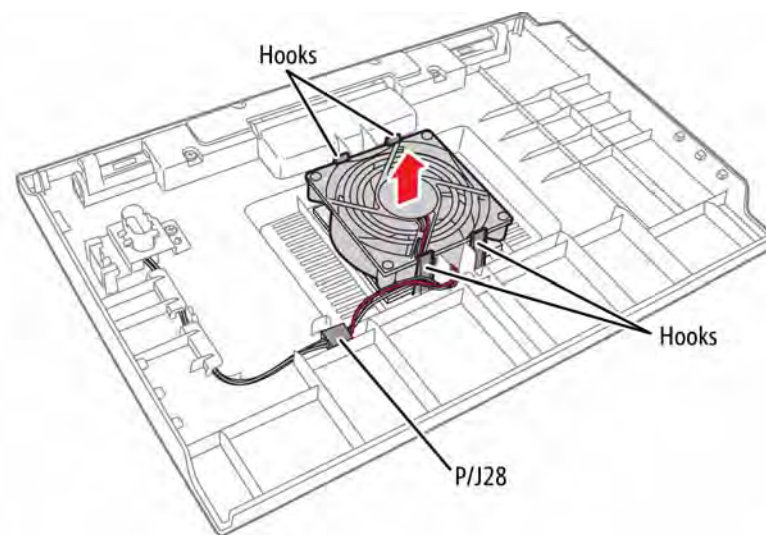
Figure 2 Remove the Rear Door fan

4. Disconnect P/J28 and release 4 hooks that secure the Fan to the door, Figure 2.

4 Repairs and Adjustments

REP 28.7

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REP 28.8 Right Seal Filter

Parts List on PL 28.10 Item 10

Removal

1. Release the hook that secures the filter cover to the Right Cover and remove the filter, Figure 1.
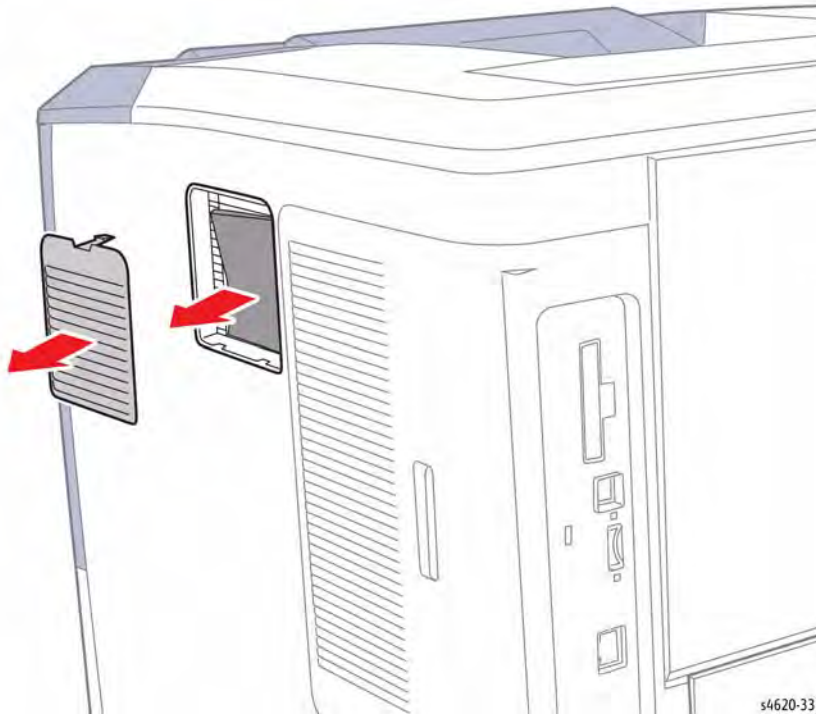
Figure 1 Remove the Right Seal Filter

REP 28.9 USB Host Board

Parts List on PL 28.20 Item 8

Removal

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 2.
2. Raise the Top Door.
3. Remove the Front Cover, REP 28.4.
4. Remove 2 screws (plastic) that secure the holder to the Front Cover.
5. Remove 2 screws (plastic) that secure the USB Host Board to the holder, Figure 1.
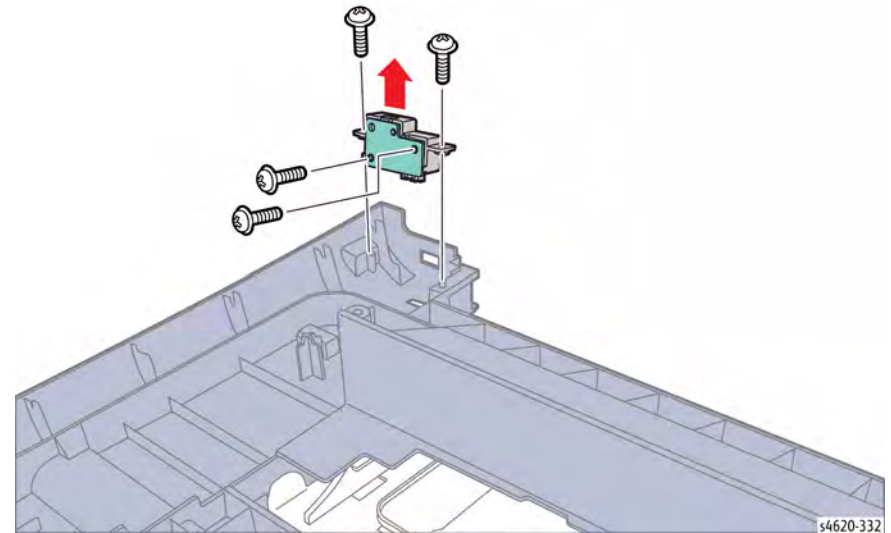
Figure 1 Remove the USB Host Board

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4 Repairs and Adjustments

REP 28.8, REP 28.9

REP 28.10 Rear Seal Filter

Parts List on PL 28.25 Item 12

Removal

1. Remove the Rear Door, REP 28.6.

2. Remove, but do not disconnect the Rear Door Fan, REP 28.7.

3. Remove the filter from the door, Figure 1.
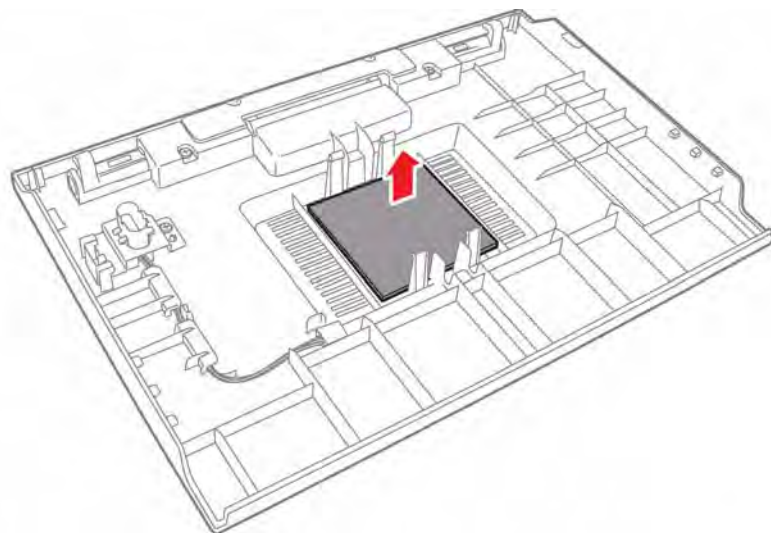
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Figure 1 Remove the Rear Seal Filter

4 Repairs and Adjustments

REP 28.10

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5 Parts Lists

Serial Number Ranges

XLT 268501 to XLT 348500 - Phaser 4600 (110 VAC)

388 348501x to 388 378500x - Phaser 4600 (220 VAC)

XLV 886001 to XLV 887500 - Phaser 4620 (110 VAC)

324 887501x to 324 897500x - Phaser 4620 (220 VAC)

D6X 449501 - D6X 484500 - Phaser 4622 (110VAC)

322 484501x - 322 520500x - Phaser 4622 (220VAC)

PL 1.10 HVPS/SMPS

Item	Part	Description
1	105N02193	HVPS (REP 1.4)
2	105N02157	SMPS (110V) (REP 1.5)
3	–	HVPS shield (P/O PL 1.10 Item 6)
–	105N02158	SMPS (220V) (REP 1.5)
4	–	HVPS insulation sheet (P/O PL 1.10 Item 6)
5	–	Fuser connector (P/O PL 1.10 Item 6)
6	–	HVPS assembly
7	–	Bottom fuser bracket (Not Spared)

6{1-5
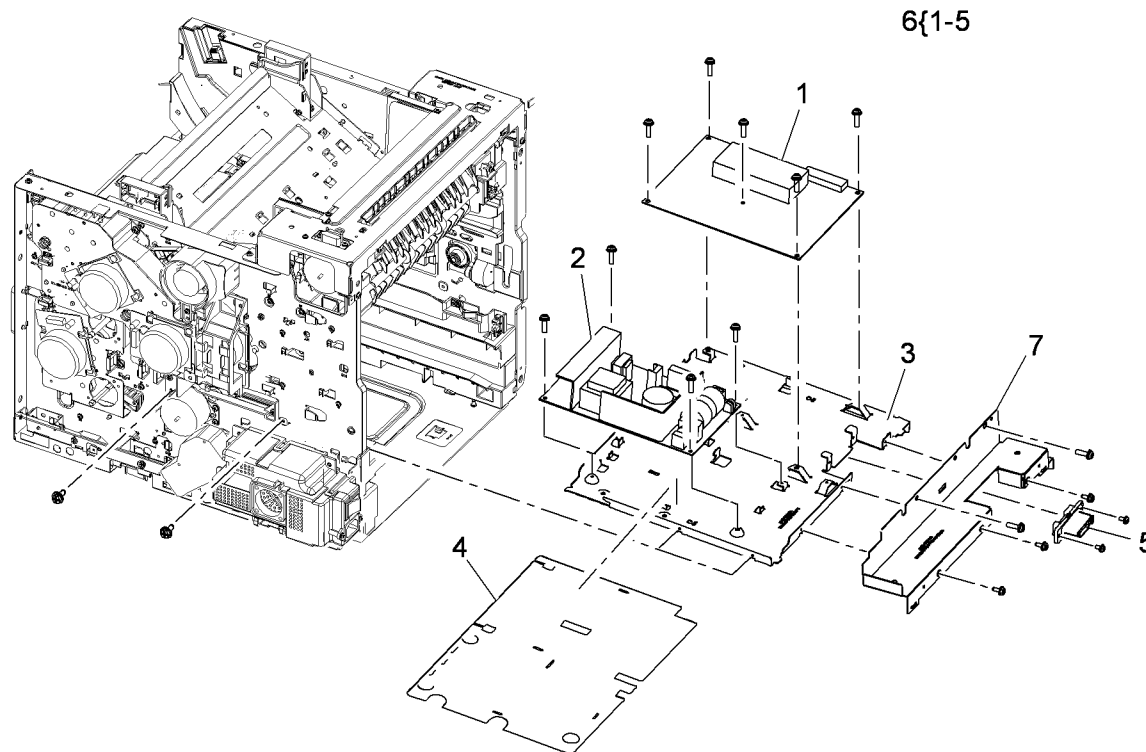
s4620-101

PL 1.15 Fuser Drive Board Assembly

Item	Part	Description
1	–	Fuser drive cover (P/O PL 1.15 Item 8)
2	140N63472	Fuser drive board (110V) (REP 1.3)
–	140N63473	Fuser drive board (220V) (REP 1.2)
3	–	Back cover (P/O PL 1.15 Item 8)
4	–	Main power switch (P/O PL 1.15 Item 8)
5	–	Main power socket (P/O PL 1.15 Item 8)
6	127N07668	SMPS fan (MOT09-500) (REP 1.7)
7	–	Fan duct (Not Spared)
8	001N00525	Fuser drive board assembly (110V) (REP 1.3)
–	140N63538	Fuser drive board assembly (220V)
9	127N07584	Fan-DC

8{1-5,9
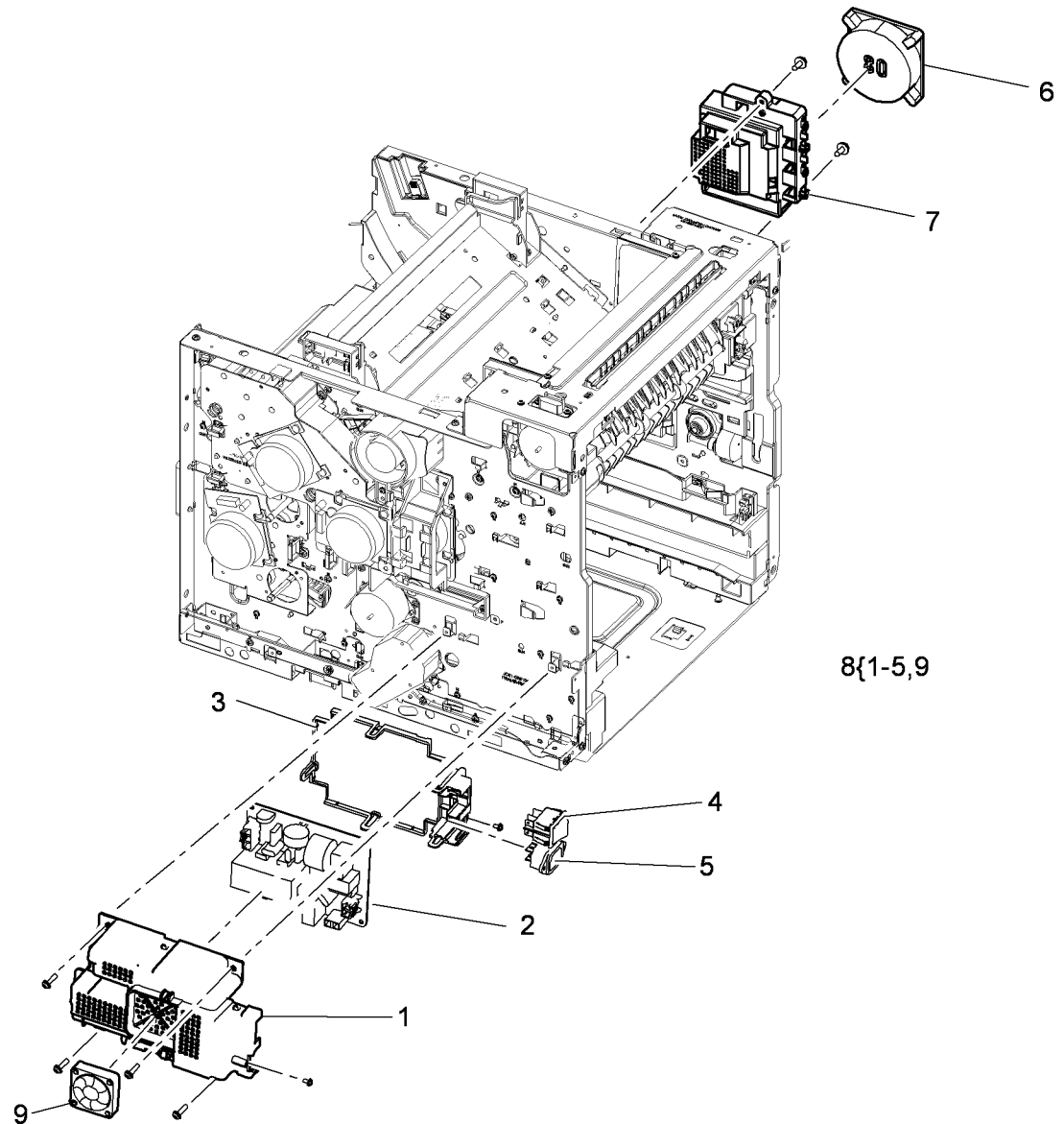
s4620-102

PL 2.10 Control Panel

Item	Part	Description
1	002N02990	Control panel assembly (4600) (REP 2.1)
–	002N02989	Control panel assembly (4620) (REP 2.1)
–	109N00774	Control panel assembly (4622) (REP 2.1)
2	–	Decoration cover (P/O PL 2.10 Item 1)
3	–	Top cover housing (P/O PL 2.10 Item 1)
4	–	UI top cover (P/O PL 2.10 Item 1)
5	–	Help key (P/O PL 2.10 Item 1)
6	–	Power key (P/O PL 2.10 Item 1)
7	–	Stop key (P/O PL 2.10 Item 1)
8	140N63466	Main UI board (4600/4620) (REP 2.2)
–	140N63688	Main UI board (4622) (REP 2.2)
9	–	Lower cover (P/O PL 2.10 Item 1)
10	–	LCD screen housing (P/O PL 2.10 Item 1)
11	–	LCD ground (P/O PL 2.10 Item 1)
12	–	LCD screen (P/O PL 2.10 Item 1)
13	–	Rubber stop (P/O PL 2.10 Item 1)
14	–	Number keys (P/O PL 2.10 Item 1)

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5 Parts List

PL 2.10

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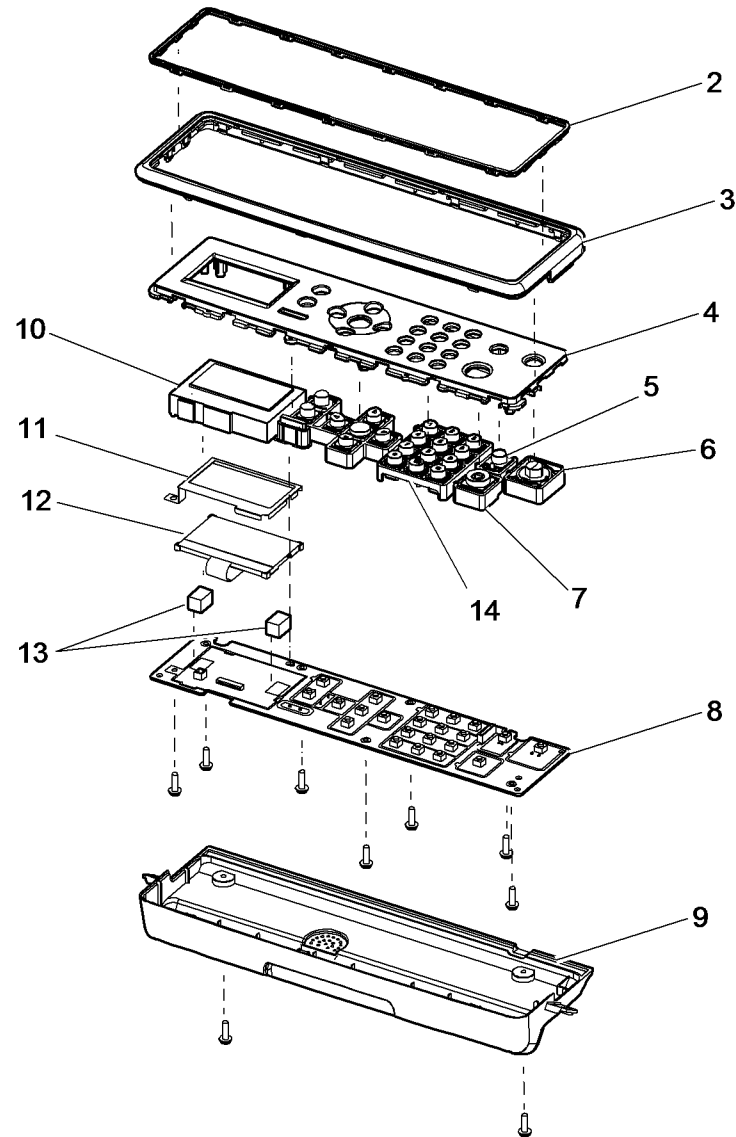
PL 3.10 Main PWB's

Item	Part	Description
1	–	IP board cage (Not Spared) (REP 3.5)
2	140N63662 or 109N00709	(4600 IP Board) (REP 3.6)
–	140N63681 or 109N00710	(4620 IP Board) (REP 3.6)
–	140N63686	IP board (4622 IP Board) (REP 3.6)
3	140N63467	MCU board (4600/4620) (REP 3.4)
–	140N63687	MCU board (4622) (REP 3.4)
4	–	MCU board bracket (Not Spared) (REP 3.4)
5	–	Lower option connector (Not Spared) (REP 10.5)
6	–	Configuration card (Not Spared) (See NOTE 2)
7	113N01312	Configuration card holder
8	128K01770	Memory card
9	007N01703	160Gb Hard disk (4600/4620)
–	–	320Gb Hard disk (4622) (Not Spared) (See NOTE 3)
10	–	Tray 2 size switch (Not Spared) (See NOTE 1)
11	117N01902	Ribbon cable
12	120K03640	Wireless network adapter
13	140N63740	Fax Card (4622)
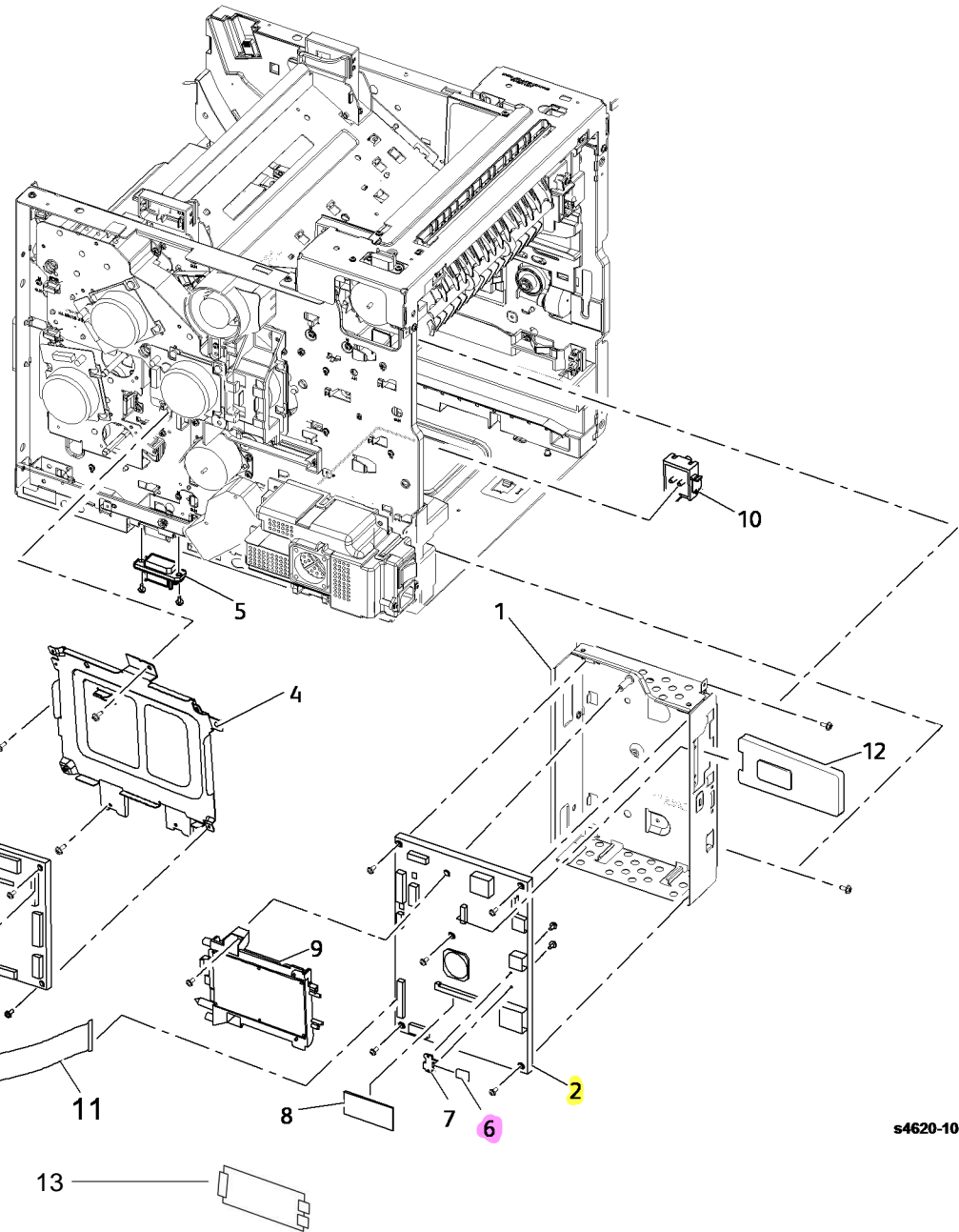
NOTE: 1. Tray 2 size switch is not spared but available as part of the 520- Sheet Feeder (050K74180).

NOTE: 2. Configuration cards cannot be ordered through the normal spares ordering process. Please contact 2nd level support to order.

NOTE: 3. Order the 320Gb Hard disk (4622) using Sales part number 097N02157.

*NOTE: 4. If the 4622 IP board is replaced in the machine due to a service call, check to see if the firmware version is at the Digitally signed level (35.11.06.000) or higher.
If it is not at level 35.11.06.000 or higher, please upgrade the machine after pwb replacement.*

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PL 3.10

PL 4.10 Main Drives

Item	Part	Description
1	007N01663	Main drive assembly (REP 4.1)
2	127N07590	Right side chassis fan (MOT06-300) (REP 4.5)
3	007N01664	Fuser release drive assembly (REP 10.17)
4	007N01659	Fuser drive assembly (REP 10.8)
5	007N01661	Duplex drive assembly (REP 10.9)
6	007N01662	Feed drive assembly (REP 4.4)
7	005N01128	Registration clutch (CL08-850)(REP 4.3)/Tray 2 feed clutch (CL08-820)(REP 4.2)
8	–	Registration clutch bracket (Not Spared)
9	–	Not Used
10	–	Feed clutch bracket (Not Spared)
11	127N07688	Tray 2 lift motor (REP 7.7)
12	007N01665	Tray 2 lift gear (REP 7.8)
13	019N01081	Lift motor housing
14	–	Spring (Not Spared)
15	007N01658	Pick-up drive

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5 Parts List

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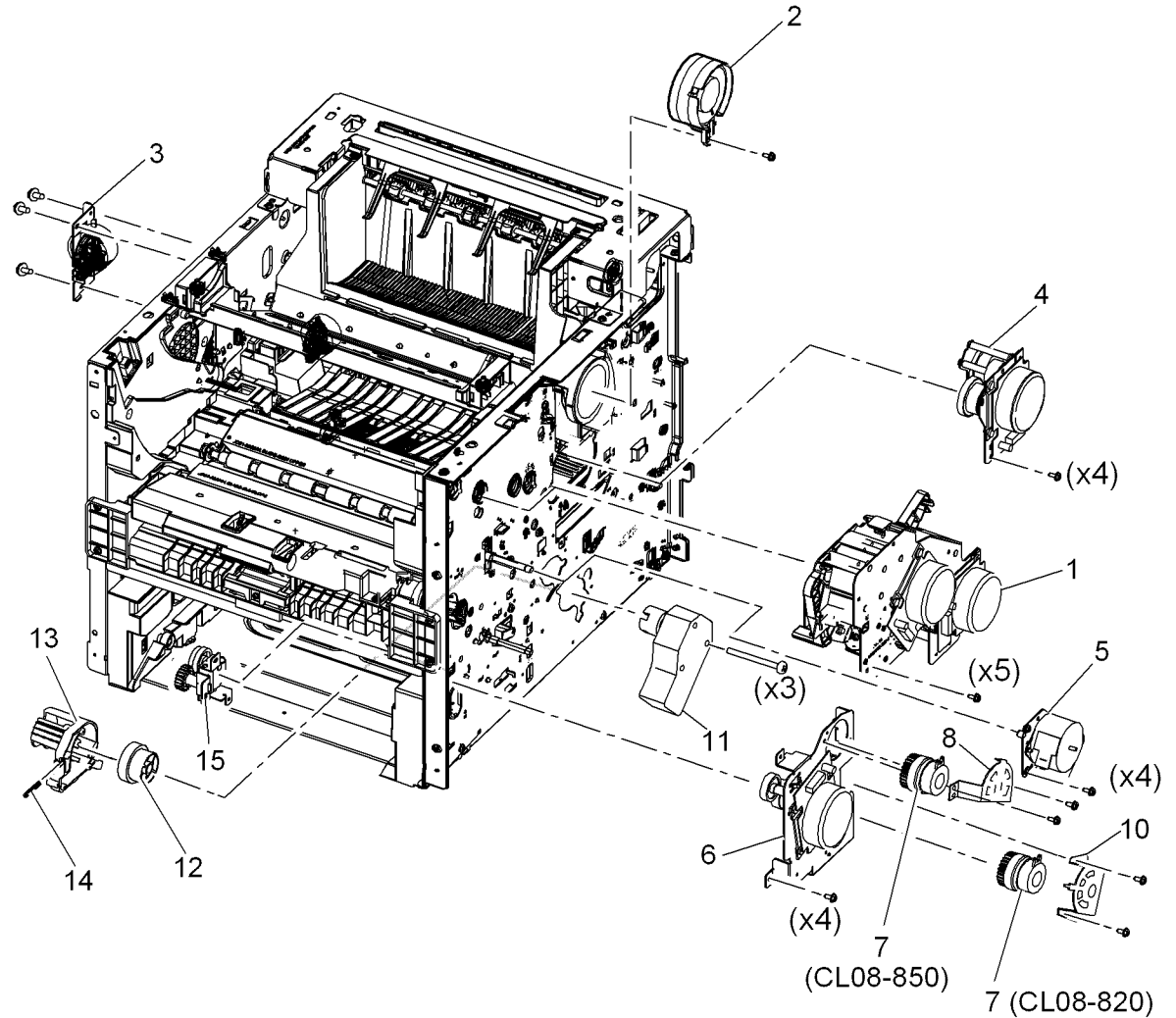
PL 6.10 Laser Unit

Item	Part	Description
1	122N00292	Laser unit (4600) (REP 6.1)
–	122N00293	Laser unit (4620/4622) (REP 6.1)
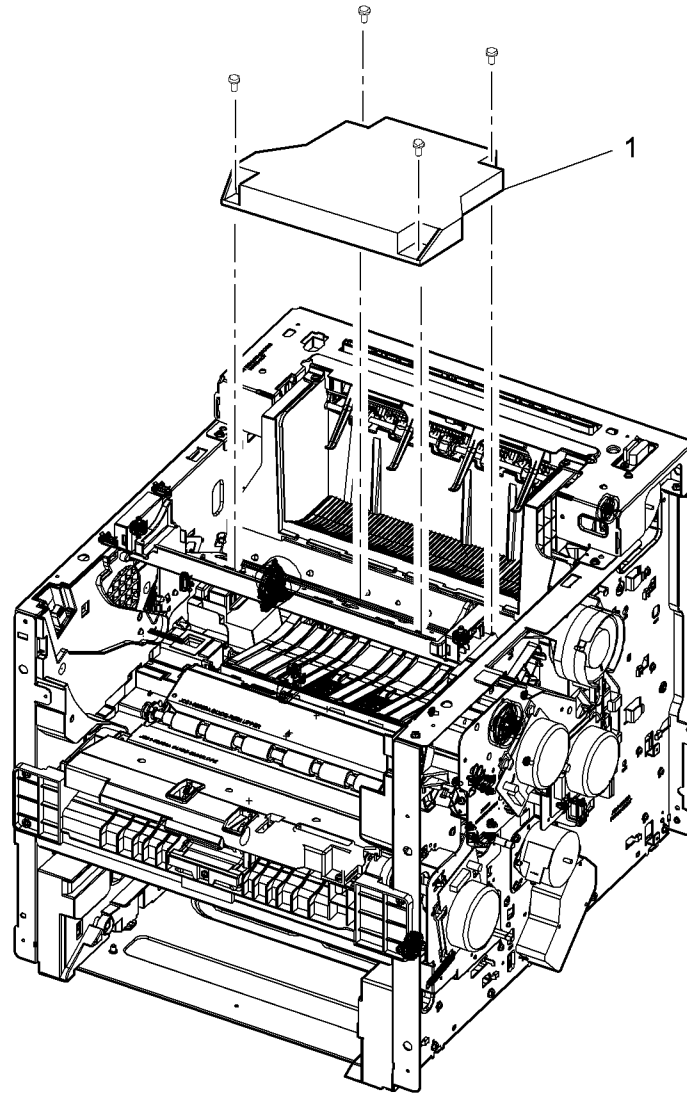
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PL 7.10 Paper Tray (Tray 2 & Optional Feeder)

Item	Part	Description
1	–	Front cover (P/O PL 7.10 Item 23) (REP 7.22)
2	–	Tray frame (P/O PL 7.10 Item 23)
3	–	Tray lift plate (P/O PL 7.10 Item 23)
4	–	Left width paper guide (P/O PL 7.10 Item 23)
5	–	Right width paper guide (P/O PL 7.10 Item 23)
6	022N02232	Separator roller (REP 7.20) (See NOTE 1 below)
7	022N02231	Separator clutch (REP 7.21)
8	017N00259	Torque limiter
9	–	Shaft (P/O PL 7.10 Item 23)
10	–	Bearing (P/O PL 7.10 Item 23)
11	–	Idle shaft (P/O PL 7.10 Item 23)
12	–	Lift plate shaft (P/O PL 7.10 Item 23)
13	–	Lift shaft plate (P/O PL 7.10 Item 23)
14	–	Pad (P/O PL 7.10 Item 23)
15	–	Pick-up mounting bracket (P/O PL 7.10 Item 23)
16	–	Rack guide (P/O PL 7.10 Item 23)
17	–	Rack drive gear (P/O PL 7.10 Item 23)
18	–	Sector gear (P/O PL 7.10 Item 23)
19	–	Pick-up gear (P/O PL 7.10 Item 23)
20	–	Pick-up idle gear (P/O PL 7.10 Item 23)
21	–	Tray guide roller (P/O PL 7.10 Item 23)
22	–	Media level indicator (P/O PL 7.10 Item 23) (REP 7.23)
23	050N00562	Tray assembly

NOTE: 1. Order 3 of the 022N02232, since it is recommended to replace all the 3 Feed Rollers (Separator Roller, Nudger Roller, and Pick Roller) at the same time.

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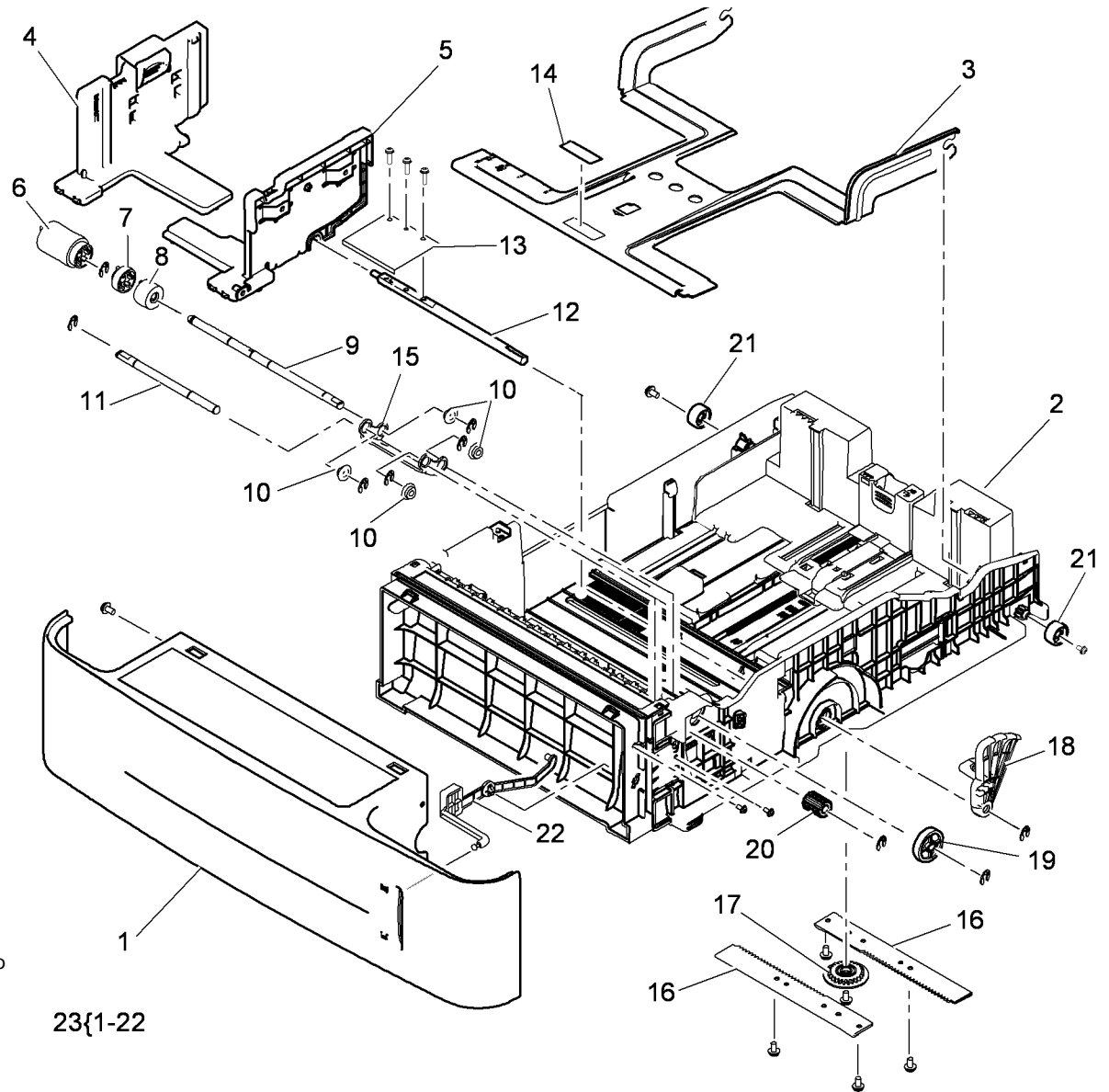
PL 7.15 Optional Feeder Main Covers

Item	Part	Description
1	–	Left cover (Not Spared) (REP 7.26)
2	–	Left side frame (Not Spared) (REP 7.33)
3	–	Front cover (Not Spared) (REP 7.24)
4	–	Rear tray cover (Not Spared)
5	–	Rear cover (Not Spared) (REP 7.27)
6	–	Right side frame (Not Spared) (REP 7.34)
7	–	Right cover (Not Spared) (REP 7.25)
8	–	Clutch cover (Not Spared)

NOTE: *Order the entire 520-Sheet Feeder using Service part number 050K74180 or Sales part number 097N01874.*
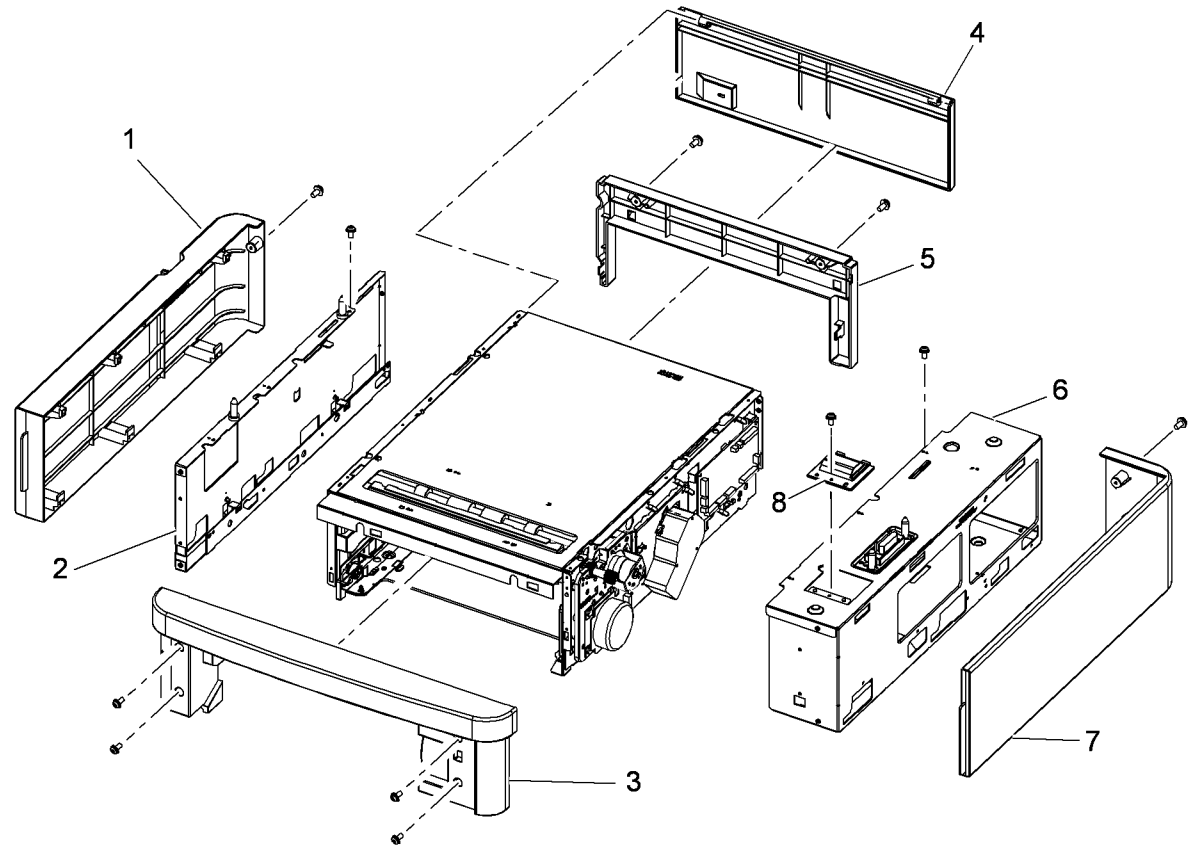
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PL 7.20 HCF Covers

Item	Part	Description
1	–	Paper feed assembly (Not Spared)
2	–	Rear cover (Not Spared) (REP 7.38)
3	–	Right cover (Not Spared) (REP 7.39)
4	–	Front cover assembly (Not Spared)
5	–	Left cover (Not Spared) (REP 7.40)
6	002N02988	Front cover dummy
7	–	Retard cover (Not Spared)

NOTE: Order the entire 2000-Sheet Feeder using Service part number 059K77920 or Sales part number 097N01875.

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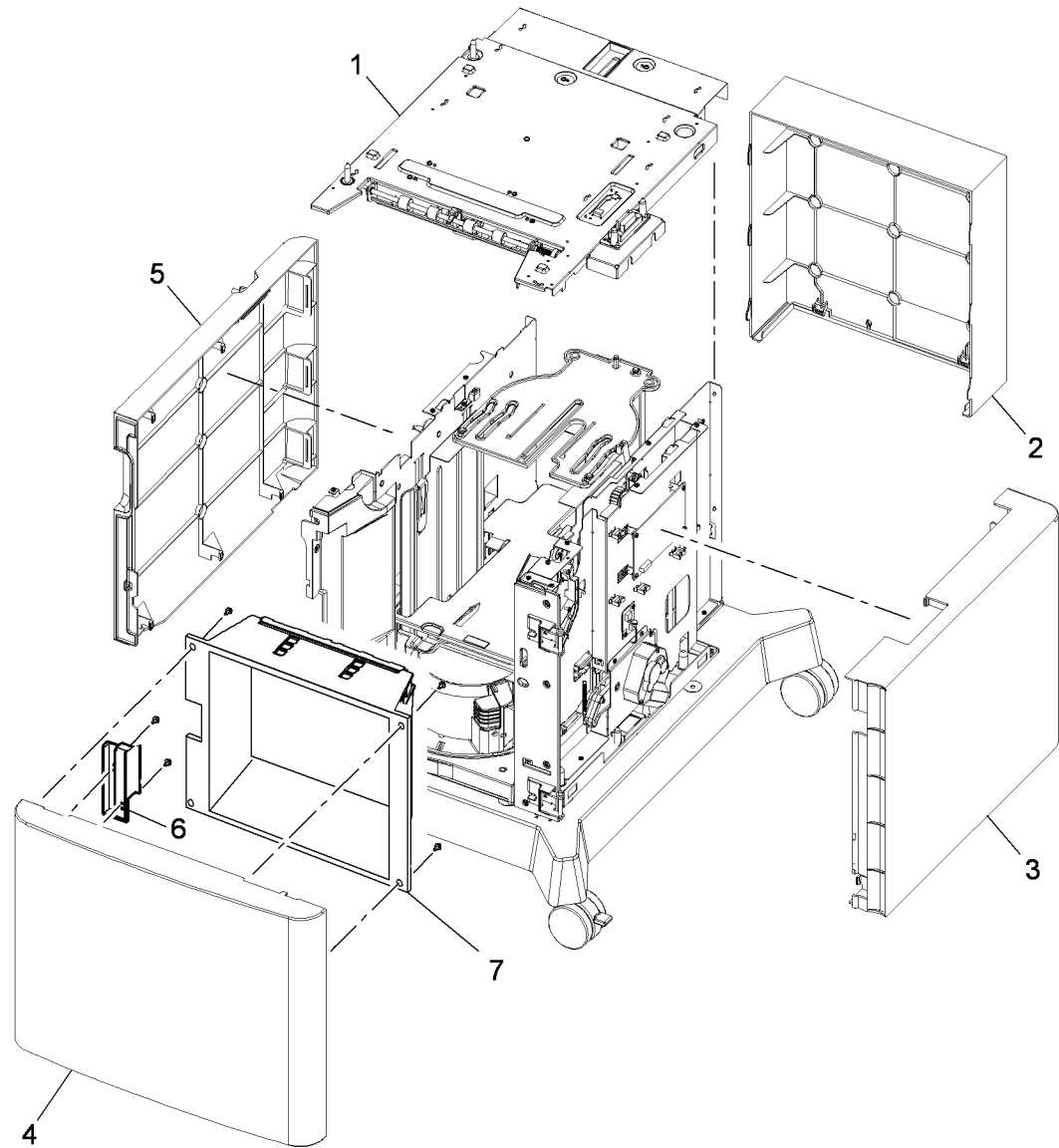
PL 7.25 HCF Assembly

Item	Part	Description
1	–	Base unit (P/O PL 7.25 Item 26)
2	017N00295	Caster (REP 7.41)
3	017N00294	Locking caster
4	–	Sensor bracket (P/O PL 7.25 Item 26)
5	110K14300	Size 1 sensor / Size 2 sensor / Size 3 sensor (see NOTE)
6	–	Safety cover (P/O PL 7.25 Item 26)
7	007N01669	Reduction gear assembly (REP 7.42)
8	–	Lift plate housing (P/O PL 7.25 Item 26)
9	–	Left side plate (P/O PL 7.25 Item 26)
10	022N02481	Paper feeder
11	–	Lift plate (lower) (P/O PL 7.25 Item 26)
12	–	Lift plate (upper) (P/O PL 7.25 Item 26)
13	–	Top plate (P/O PL 7.25 Item 26) (REP 7.49)
14	–	Harness mount (P/O PL 7.25 Item 26)
15	–	Harness (P/O PL 7.25 Item 26)
16	–	Rear plate (P/O PL 7.25 Item 26)
17	–	Right side plate (P/O PL 7.25 Item 26)
18	140N63469	HCF control board (REP 7.44)
19	127N07669	Lift motor (see NOTE) (REP 7.45)
20	127N07588	Feed motor (see NOTE) (REP 7.48)
21	–	Feed motor gear bracket (P/O PL 7.25 Item 28)
22	–	Clutch bracket assembly (P/O PL 7.25 Item 27)
23	–	Bearing (P/O PL 7.25 Item 27)
24	121N01206	Feed clutch (see NOTE) (REP 7.46)
25	–	Clutch shaft (P/O PL 7.25 Item 27)
26	059K77920	HCF assembly
27	121N01205	Clutch assembly
28	007N01667	Feed drive assembly (REP 7.47)
29	110N01452	Front door interlock switch (see NOTE) (REP 7.43)
30	140N63395	Jumper board
31	–	Feed sensor (P/O PL 7.25 Item 26) (see NOTE)
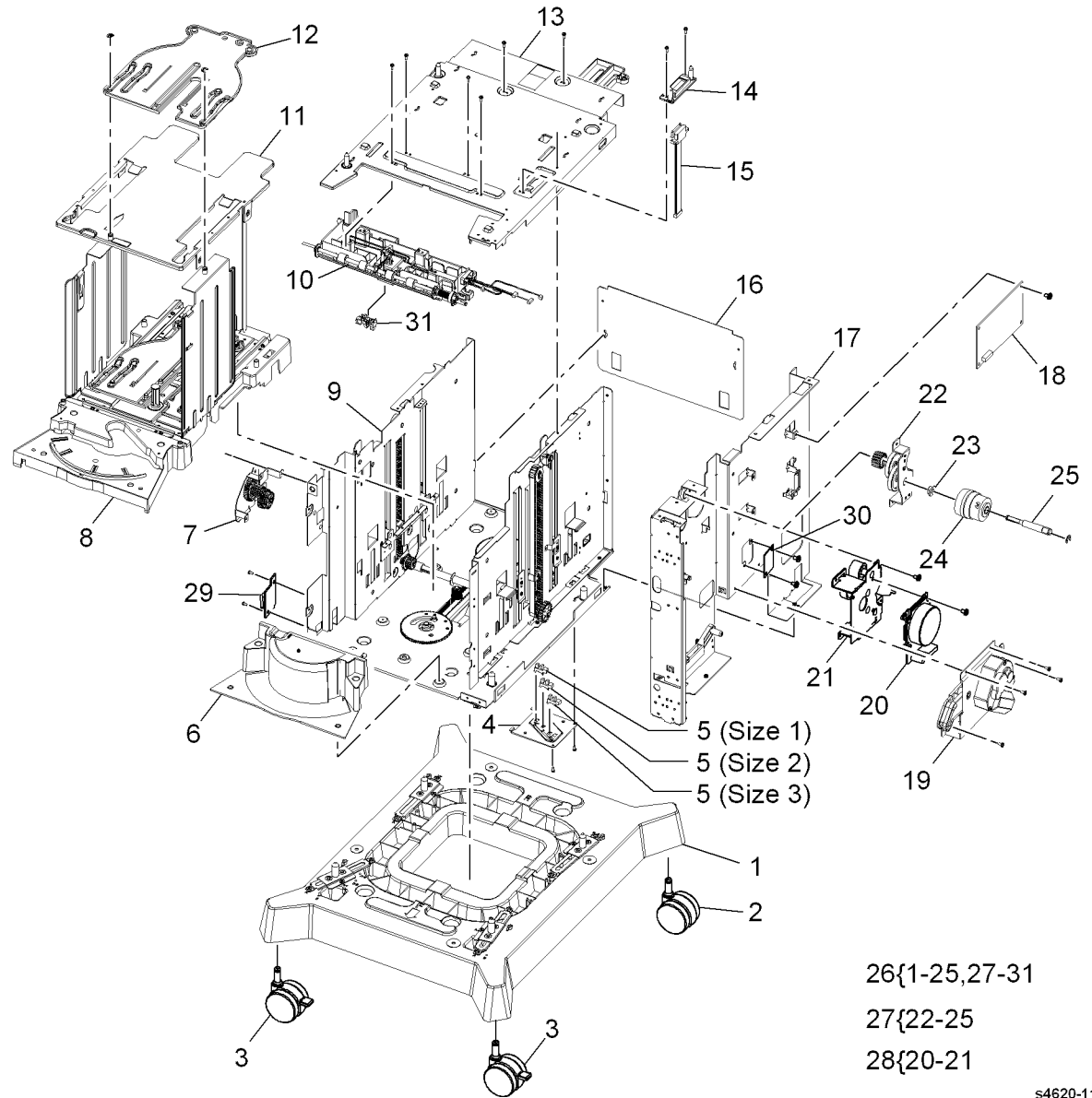
NOTE: *The component control codes are dependent on the machine configuration.*

5 (Size 1)
5 (Size 2)
5 (Size 3)

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27{22-25

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PL 7.25

PL 8.10 Tray 1 Feeder Assembly

Item	Part	Description
1	–	Bottom frame (P/O PL 8.10 Item 14)
2	–	Top frame (P/O PL 8.10 Item 14)
3	022N02480	Pick assembly; (See NOTE 1) (REP 7.3)
4	022N02479	Seperator roller (See NOTE 1) (REP 7.5)
5	–	Envelope guide (P/O PL 8.10 Item 14)
6	–	Release guide (P/O PL 8.10 Item 14)
7	–	Top ground (P/O PL 8.10 Item 14)
8	–	Ground (P/O PL 8.10 Item 14)
9	–	Release ground (P/O PL 8.10 Item 14)
10	130N01628	No paper sensor (Q07-110) (REP 7.15)
11	–	Feed clutch (CL08-810) (P/O PL 8.10 Item 14) (REP 7.16)
12	–	Bearing (P/O PL 8.10 Item 14)
13	–	Actuator arm (P/O PL 8.10 Item 14)
14	See note 2 below	Tray 1 feeder assembly (REP 7.0)

NOTE: 1. Item 3, Pick assembly, contains the Pick and Feed Rolls. It is recommended to replace the Separation Roller assembly (item 4) at the same time.

NOTE 2: Since there are 2 styles of Registration Frame and MP Assemblies, be sure you order the correct part for your machine's configuration. Refer to the figure below.

Current Structure

105N02192
PL 8.45, Item 12
No Paper Guide assembled
Registration Roller Assy.

038N00539
PL 8.10, Item 14
Paper Guide assembled with screws
Tray 1 Feeder Assy.

Modified Structure

001N00556
PL 8.45, Item 12
Paper Guide assembled and can open with fingers
Registration Roller Assy.

084N00753
PL 8.10, Item 14
No Paper Guide assembled
Tray 1 Feeder Assy.

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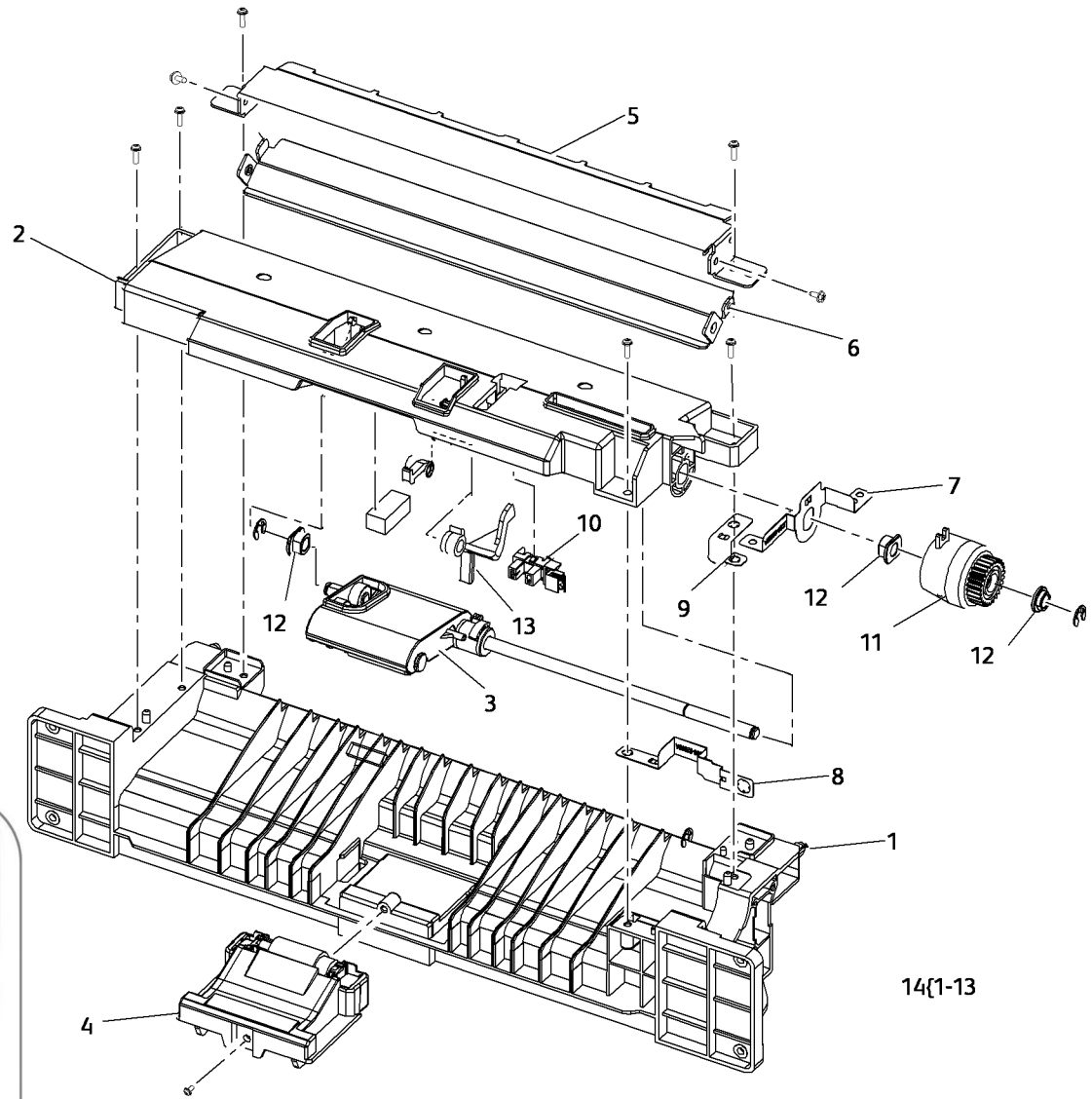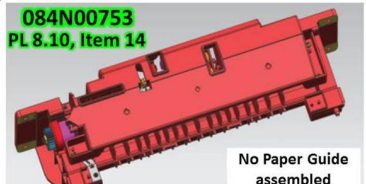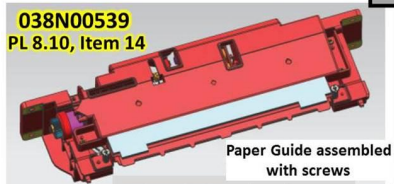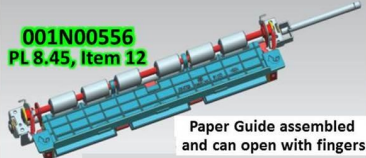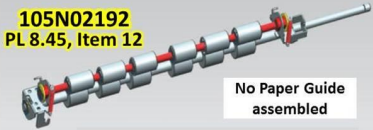
Item	Part	Description
1	–	Baseplate (P/O PL 8.15 Item 21)
2	–	Holder (P/O PL 8.15 Item 21)
3	–	Housing (P/O PL 8.15 Item 21)
4	120N00541	No paper sensor actuator
5	–	Duplex feed sensor actuator (P/O PL 8.15 Item 21)
6	–	Drive gear (P/O PL 8.15 Item 21)
7	–	Paper guide (P/O PL 8.15 Item 21)
8	–	Shaft (P/O PL 8.15 Item 21)
9	–	Static eliminator (P/O PL 8.15 Item 21)
10	022N02232	Feed roller (See NOTE 1)
11	–	Idle forward roller (P/O PL 8.15 Item 21)
12	–	One way gear (P/O PL 8.15 Item 21)
13	–	Feed idle gear (P/O PL 8.15 Item 21)
14	–	Feed joint gear (P/O PL 8.15 Item 21)
15	–	Spring (P/O PL 8.15 Item 21)
16	–	Bearing (P/O PL 8.15 Item 21)
17	–	Bearing (P/O PL 8.15 Item 21)
18	–	Tray up limit switch (P/O PL 8.15 Item 21)
19	130N01628	Duplex feed sensor (Q08-700)/ Stack Height sensor (Q07-250)/ No paper sensor (Q07-210)
20	–	Not Used
21	001N00527	Feed assembly
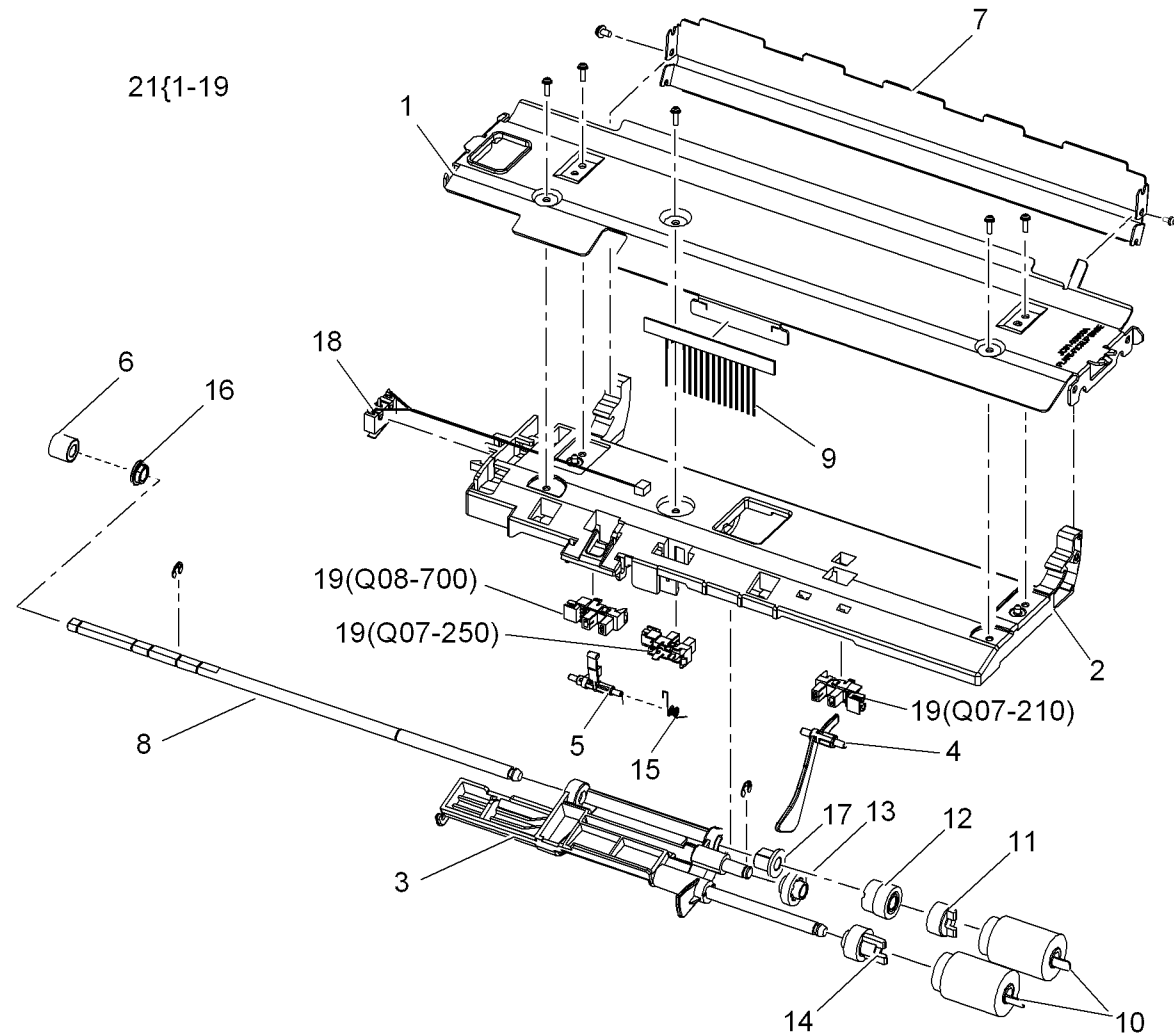
NOTE: 1. Order 3 of the 022N02232, since it is recommended to replace all the 3 Feed Rollers (Separator Roller, Nudger Roller, and Pick Roller) at the same time.

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19(Q08-700)

19(Q07-250)

19(Q07-210)

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PL 8.15

PL 8.20 Optional Feeder Pick-up Assembly

Item	Part	Description
1	–	Feed roll frame (P/O PL 8.20 Item 17)
2	130N01628	Tray 3 no paper sensor (Q07-310), Tray 4 no paper sensor (Q07-410), Tray 5 no paper sensor (Q07-501), Tray 6 no paper sensor (REP 7.35) Tray 3 Stack Height Sensor (Q07-350) Tray 4 Stack Height Sensor (Q07-450) Tray 5 Stack Height Sensor (Q07-550) Tray 6 Stack Height Sensor (Q07-650) (REP 7.37) (see NOTE 2)
3	–	No paper sensor actuator (P/O PL 8.20 Item 17) (REP 7.36)
4	022N02232	Feed roller (order 3)
5	–	Idle gear (P/O PL 8.20 Item 17)
6	–	One way gear (P/O PL 8.20 Item 17)
7	–	Bearing (P/O PL 8.20 Item 17)
8	–	Feed roll shaft (P/O PL 8.20 Item 17)
9	–	Static eliminator (P/O PL 8.20 Item 17)
10	–	Ground strip (P/O PL 8.20 Item 17)
11	–	Feed joint gear (P/O PL 8.20 Item 17)
12	–	Idle gear (P/O PL 8.20 Item 17)
13	–	Not used
14	–	Housing (P/O PL 8.20 Item 17)
15	–	Tray up limit switch (P/O PL 8.20 Item 17) (see NOTE 2)
16	–	Bearing (P/O PL 8.20 Item 17)
17	050K74180	Feed assembly
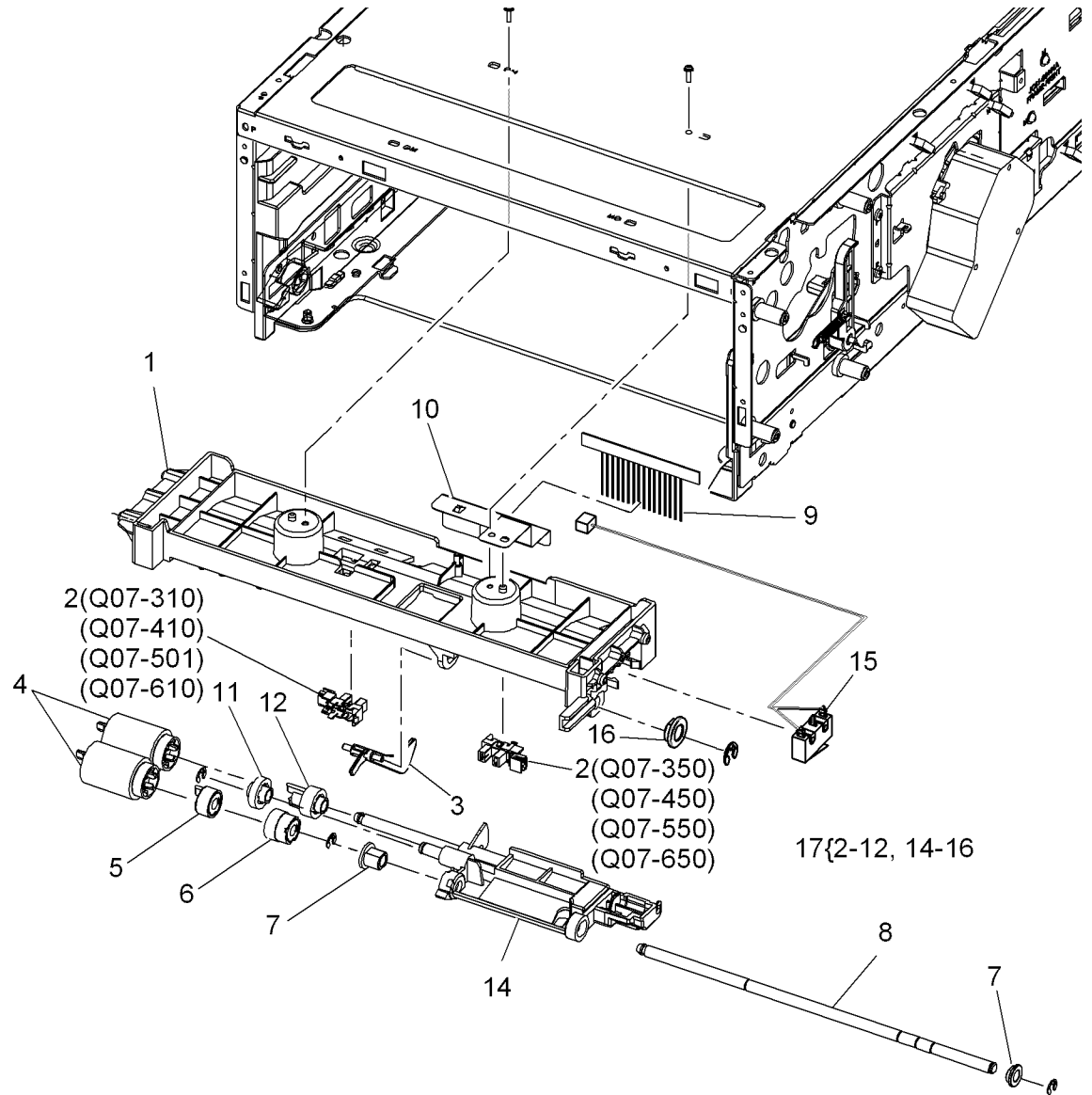
NOTE: 1. Order the entire 520-Sheet Feeder using Service part number 050K74180 or Sales part number 097N01874.

NOTE: 2. The component control codes are dependent on the machine configuration.

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PL 8.25 HCF Pick-up Assembly

Item	Part	Description
1	–	Feed roll frame (P/O PL 8.25 Item 16)
2	130N01628	No paper sensor (A)(REP 8.50)/ Feed sensor (B)(REP 8.51) (see NOTE)
3	120N00541	No paper sensor actuator (P/O PL 8.25 Item 16) (REP 7.36)
4	022N02232	Feed roller (order 3)
5	–	Idle gear (P/O PL 8.25 Item 16)
6	–	One way gear (P/O PL 8.25 Item 16)
7	–	Bearing (P/O PL 8.25 Item 16)
8	–	Feed roll shaft (P/O PL 8.25 Item 16)
9	–	Static eliminator (P/O PL 8.25 Item 16)
10	–	Ground strip (P/O PL 8.25 Item 16)
11	–	Feed joint gear (P/O PL 8.25 Item 16)
12	–	Idle gear (P/O PL 8.25 Item 16)
13	–	Housing (P/O PL 8.25 Item 16)
14	–	Tray up limit switch (P/O PL 8.25 Item 16) (see NOTE)
15	–	Bearing (P/O PL 8.25 Item 16)
16	–	Feed assembly (REP 8.47)

NOTE: The component control codes are dependent on the machine configuration.

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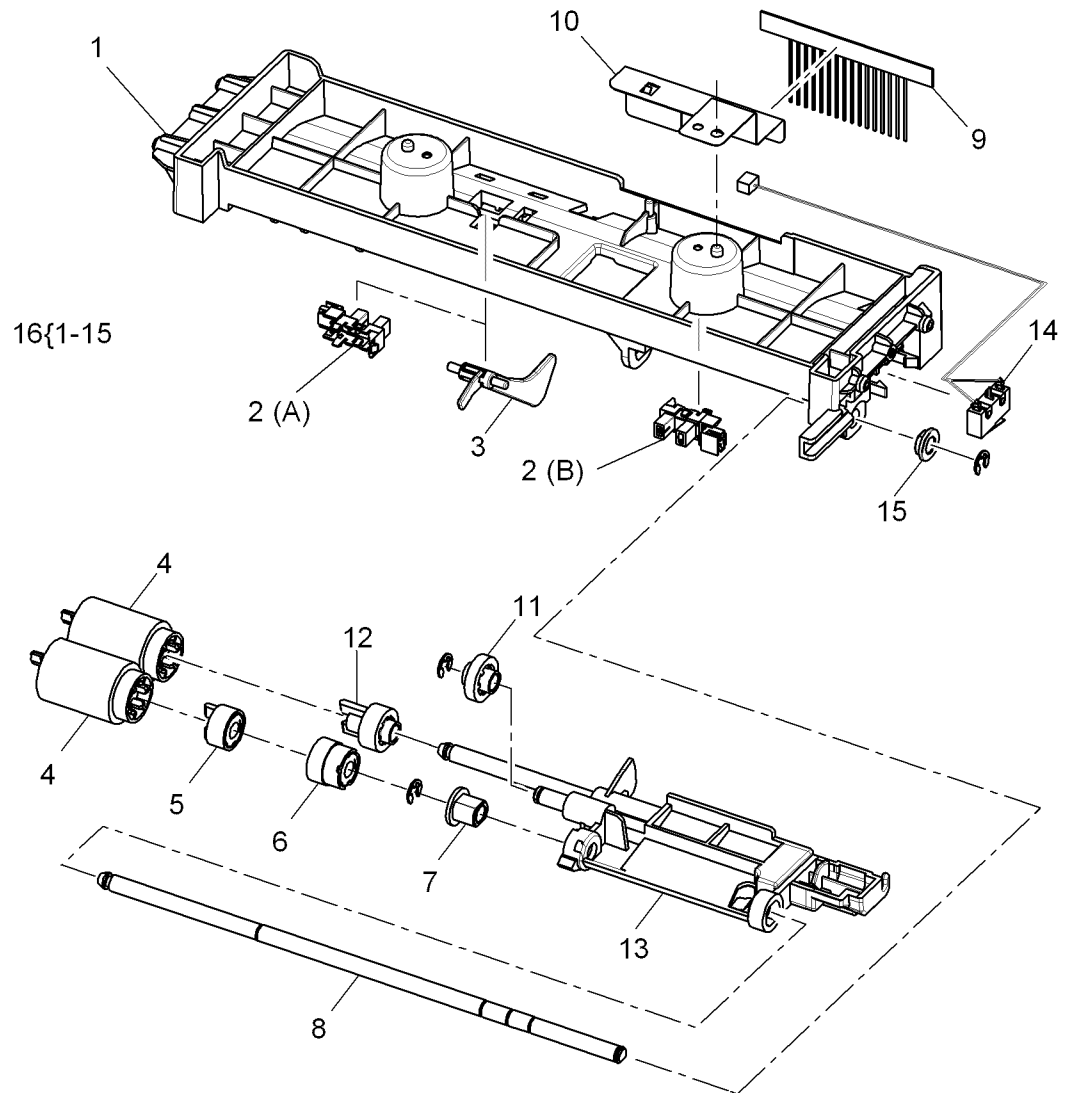
PL 8.30 Optional Feeder Main Drives

Item	Part	Description
1	007N01666	Feed drive assembly (REP 8.42)
2	005N01116	Tray 3 feed clutch (CL08-830), Tray 4 feed clutch (CL08-840), Tray 5 feed clutch (CL08-855), Tray 6 feed clutch (CL08-856) (see NOTE) (REP 8.41)
3	–	Bracket (Not Spared)
4	–	Bearing (Not Spared)
5	005N01085	Take away clutch (see NOTE) (REP 8.40)
6	–	Bracket (Not Spared)
7	140N63468	Feeder board (REP 7.28)
8	–	Take away roller (Not Spared) (REP 8.45)
9	–	Size switch (Not Spared) (see NOTE) (REP 7.30)
10	–	Upper option harness (Not Spared) (REP 7.31)
11	–	Lower option harness (Not Spared) (REP 7.32)

NOTE: The component control codes are dependent on the machine configuration.

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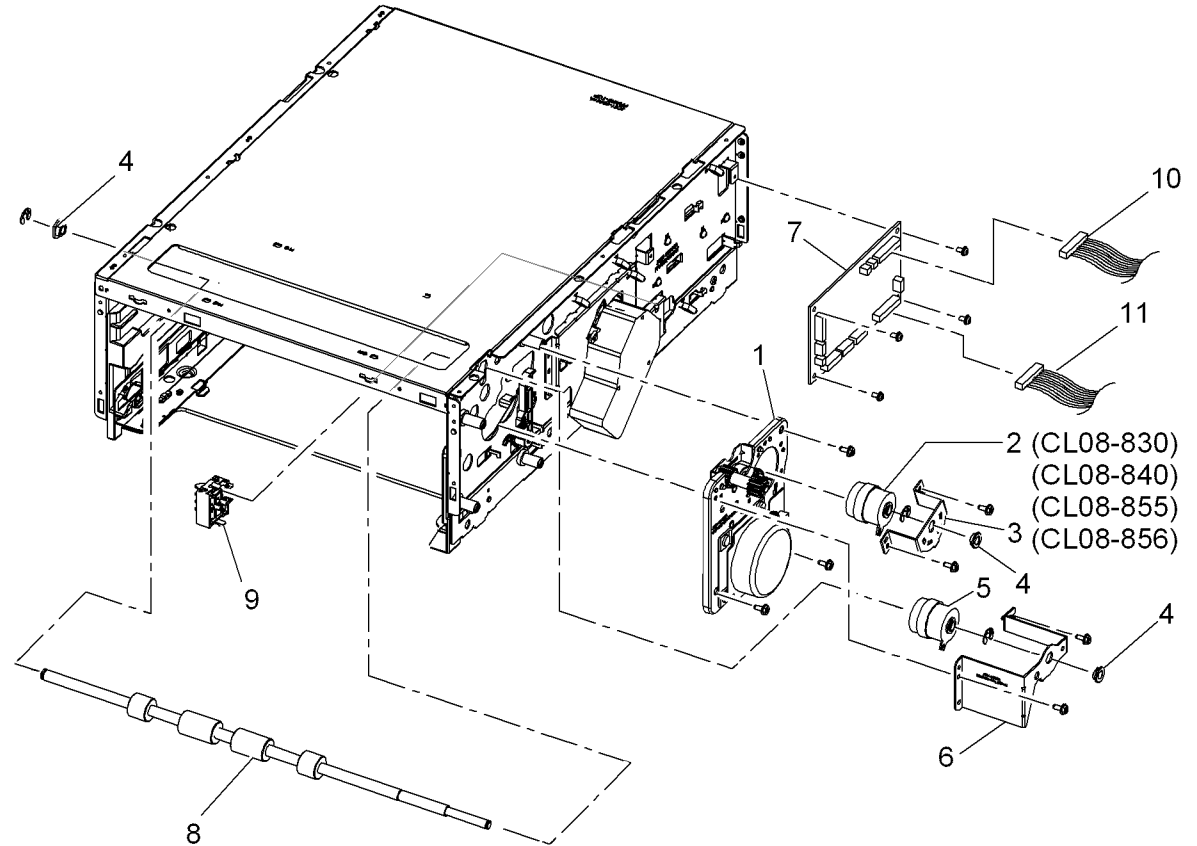
PL 8.35 Optional Feeder Lift Assembly

Item	Part	Description
1	120N00537	Lift motor (see NOTE) (REP 7.29)
2	–	Lift motor bracket (p/o item 1)
3	–	Swing housing (p/o item 1)
4	–	Lift gear (p/o item 1)

NOTE: The component control codes are dependent on the machine configuration.

1{2, 3, 4
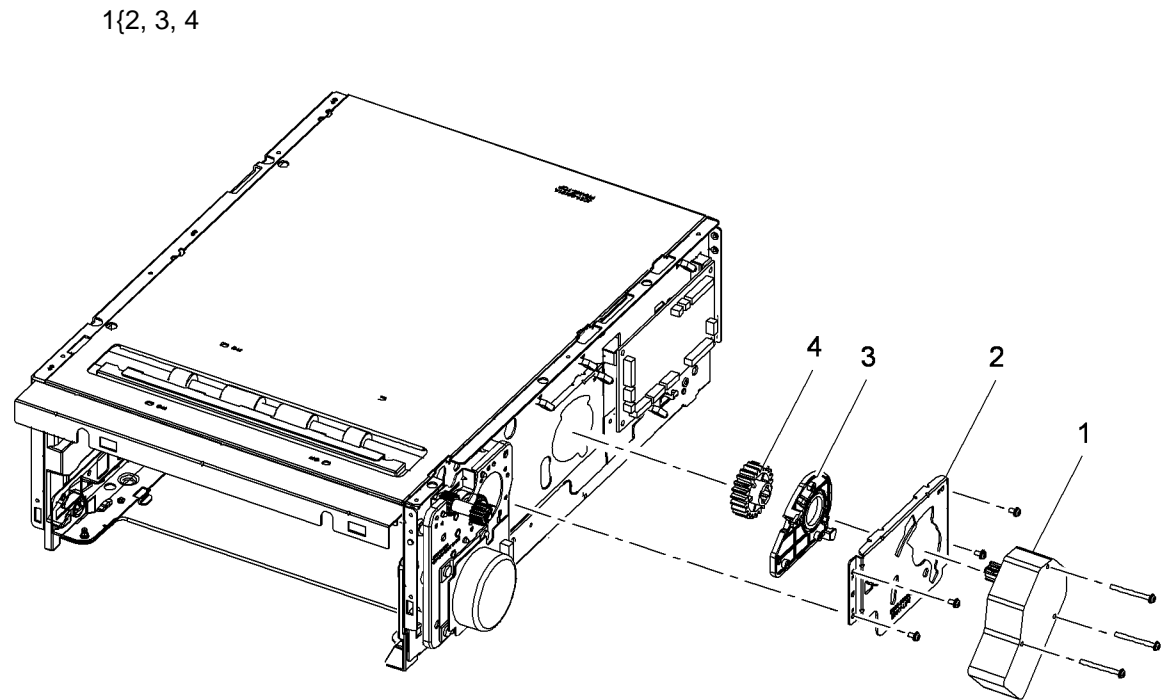
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PL 8.40 Optional Feeder Feed Assembly

Item	Part	Description
1	–	Feed guide frame (P/O PL 8.40 Item 10)
2	–	Idle roller assembly (P/O PL 8.40 Item 10)
3	–	Feed guide plate (P/O PL 8.40 Item 10)
4	–	Paper guide plate (P/O PL 8.40 Item 10)
5	–	Mylar guide (P/O PL 8.40 Item 10)
6	–	Ground strip (P/O PL 8.40 Item 10)
7	130N01628	Tray 3 take away sensor (Q08-300), Tray 4 take away sensor (Q08-400), Tray 5 take away sensor (Q08-550), Tray 6 take away sensor (see NOTE) (REP 8.44)
8	–	Spring (P/O PL 8.40 Item 10)
9	–	Take away sensor actuator (P/O PL 8.40 Item 10) (REP 8.43)
10	050K74180	Feed assembly (REP 8.46)

NOTE: *The component control codes are dependent on the machine configuration. The code for tray 6 was not known at time of publication*

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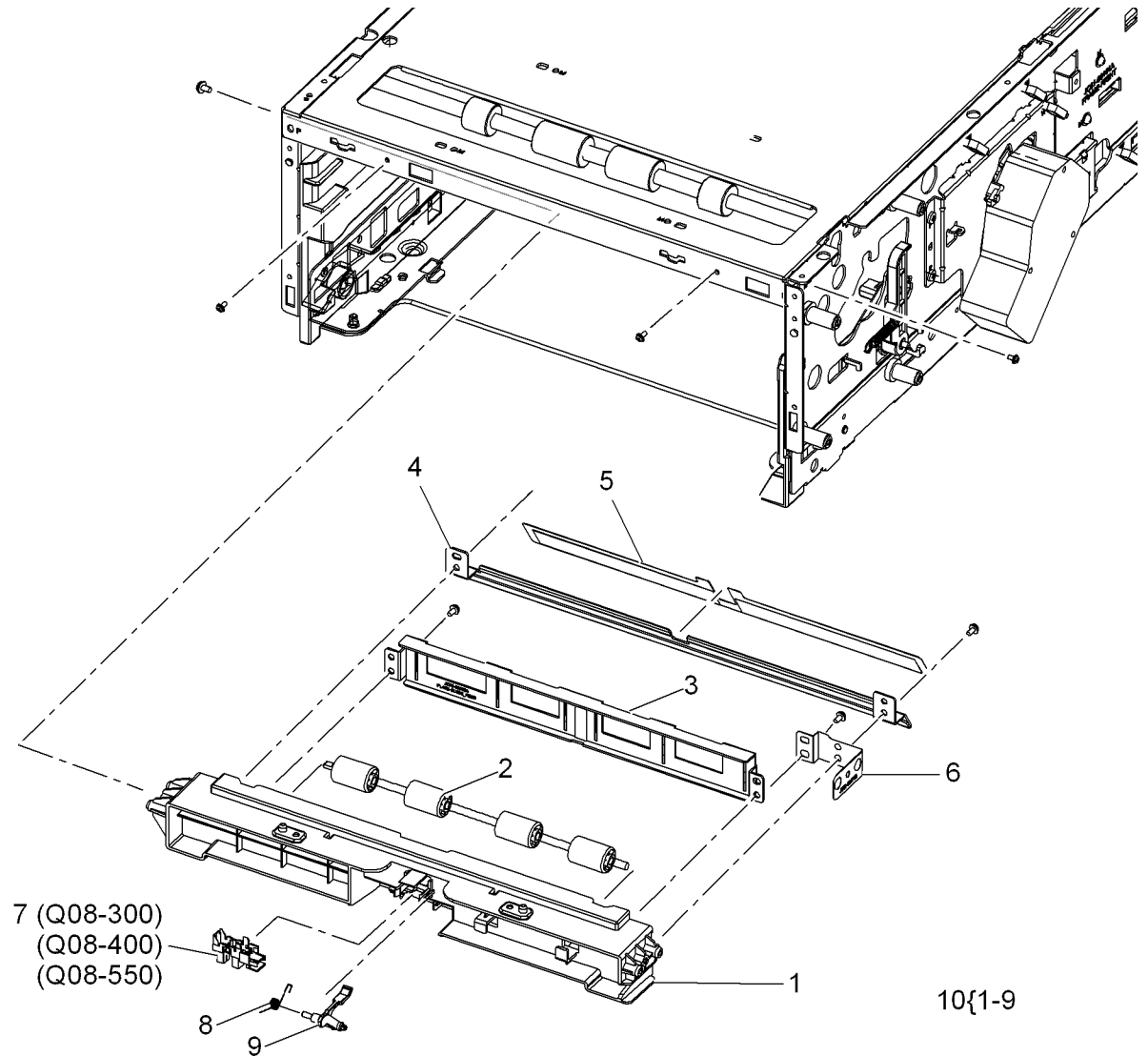
PL 8.45 Registration Roller Assembly

Item	Part	Description
1	–	Registration drive roller (P/O PL 8.45 Item 12)
2	–	Registration idle roller (P/O PL 8.45 Item 12)
3	–	Not Used
4	–	Right registration bracket (P/O PL 8.45 Item 12)
5	–	Left registration bracket (P/O PL 8.45 Item 12)
6	–	Spring (P/O PL 8.45 Item 12)
7	–	Not Used
8	–	Not Used
9	–	Spring (P/O PL 8.45 Item 12)
10	–	Bearing (P/O PL 8.45 Item 12)
11	–	Bearing (bronze) (P/O PL 8.45 Item 12)
12	See note below	Registration roller assembly (REP 8.27)

NOTE 1: Since there are 2 styles of Registration Frame and MP Assemblies, be sure you order the correct part for your machine's configuration. Refer to the figure below.

Current Structure

105N02192
PL 8.45, Item 12

No Paper Guide assembled

Registration Roller Assy.

038N00539
PL 8.10, Item 14
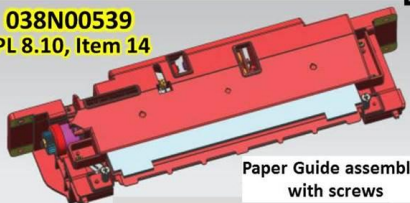
Paper Guide assembled with screws

Tray 1 Feeder Assy.

Modified Structure

001N00556
PL 8.45, Item 12
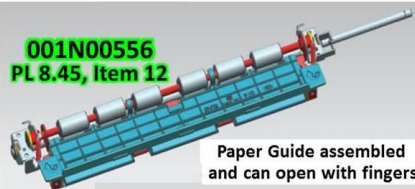
Paper Guide assembled and can open with fingers

Registration Roller Assy.

084N00753
PL 8.10, Item 14
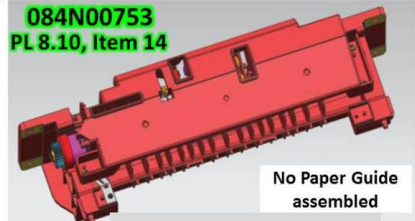
No Paper Guide assembled

Tray 1 Feeder Assy.

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PL 8.50 Middle Frame Assembly

Item	Part	Description
1	–	Base frame (P/O PL 8.50 Item 28)
2	–	Actuator frame (P/O PL 8.50 Item 28)
3	–	Connector board (P/O PL 8.50 Item 28)
4	–	Rear transfer ground (P/O PL 8.50 Item 28)
5	–	Saw side ground (P/O PL 8.50 Item 28)
6	–	Earth ground (P/O PL 8.50 Item 28)
7	–	Spring (P/O PL 8.50 Item 28)
8	–	Ground (P/O PL 8.50 Item 28)
9	–	ADC sensor holder (P/O PL 8.50 Item 29)
10	–	Guide plate (P/O PL 8.50 Item 28)
11	–	Shaft (P/O PL 8.50 Item 28)
12	–	PMO Bearing (P/O PL 8.50 Item 28)
13	–	Exit gear (P/O PL 8.50 Item 28)
14	–	Rear transfer guide (P/O PL 8.50 Item 28)
15	001N00526	Shaft frame assembly (REP 8.16)
16	–	Feed sheet (P/O PL 8.50 Item 28)
17	–	Registration ground (P/O PL 8.50 Item 28)
18	022N02670	Take away roller
19	–	Bearing (P/O PL 8.50 Item 28)
20	–	Feed frame assembly (P/O PL 8.50 Item 28)
21	–	Feed gear (P/O PL 8.50 Item 28)
22	–	Drum cartridge CRUM connector (P/O PL 8.50 Item 28) (REP 8.24)
23	–	Actuator cover (P/O PL 8.50 Item 28)
24	–	Harness connector (P/O PL 8.50 Item 28)
25	130N01628	Registration sensor (Q08-500)(REP 8.11)/Tray 2 Feed sensor (Q08-100) (REP 8.12)
26	120N00550	Feed sensor actuator (P/O PL 8.50 Item 28) (REP 8.31)
27	120N00551	Registration sensor actuator (P/O PL 8.50 Item 28) (REP 8.32)
28	–	Middle frame assembly (Not Spared)
29	130N01770	ADC sensor (REP 9.2)
30	023N01310	Transport belt (See NOTE) (REP 8.52)
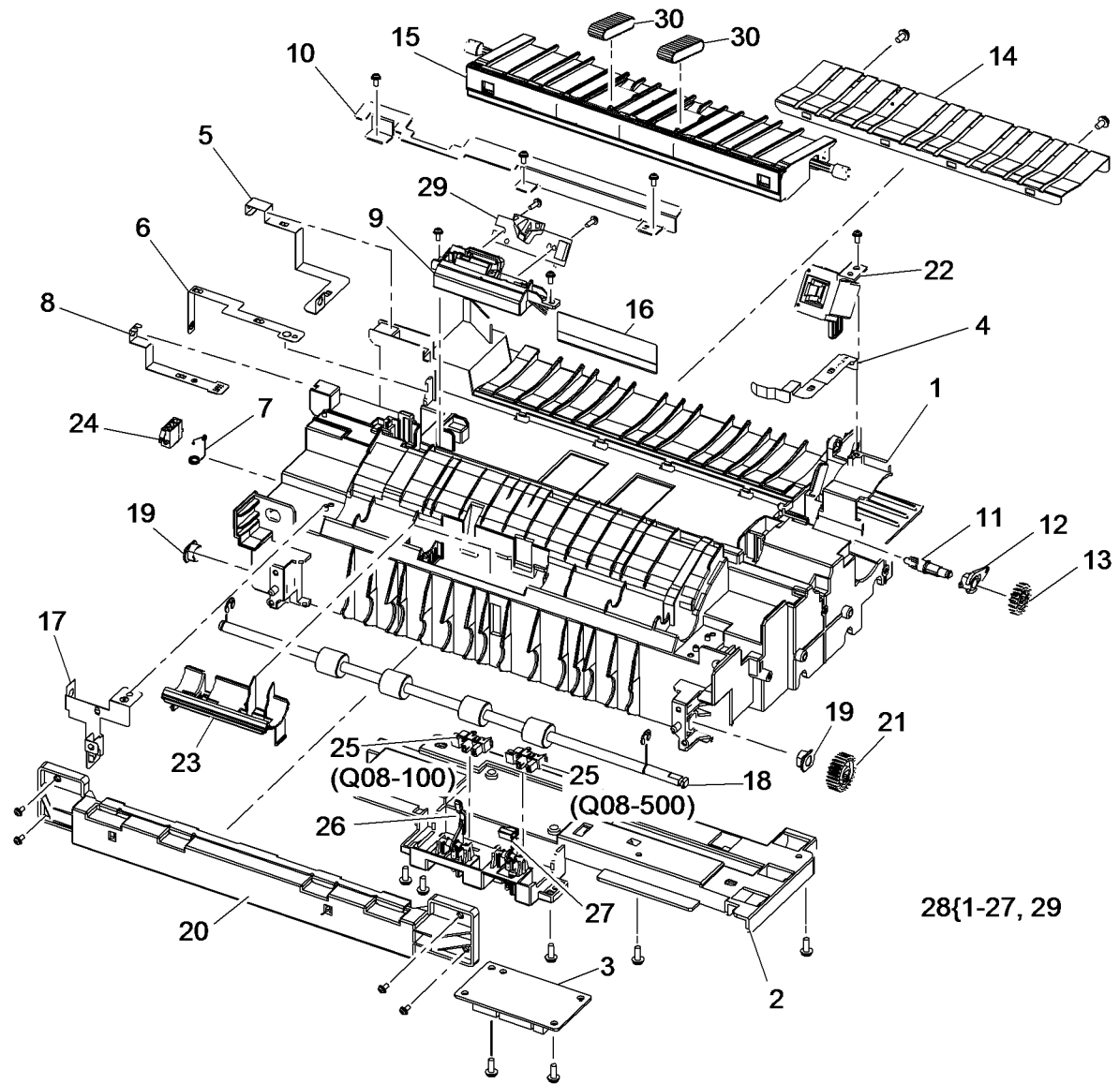
NOTE: *Order 2 belts as both belts need to be replaced together.*

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5 Parts List
PL 8.50

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PL 8.55 Upper Frame Assembly

Item	Part	Description
1	–	Lower LSU frame
2	–	Upper fuser frame (P/O PL 8.55 Item 9)
3	–	Left registration bracket (P/O PL 8.55 Item 9)
4	–	Right registration bracket (P/O PL 8.55 Item 9)
5	–	LED holder (P/O PL 8.55 Item 9)
6	–	Eraser board (P/O PL 8.55 Item 9)
7	–	Slide B roller (P/O PL 8.55 Item 9)
8	–	Spring (P/O PL 8.55 Item 9)
9	–	Upper frame assembly (Not Spared)

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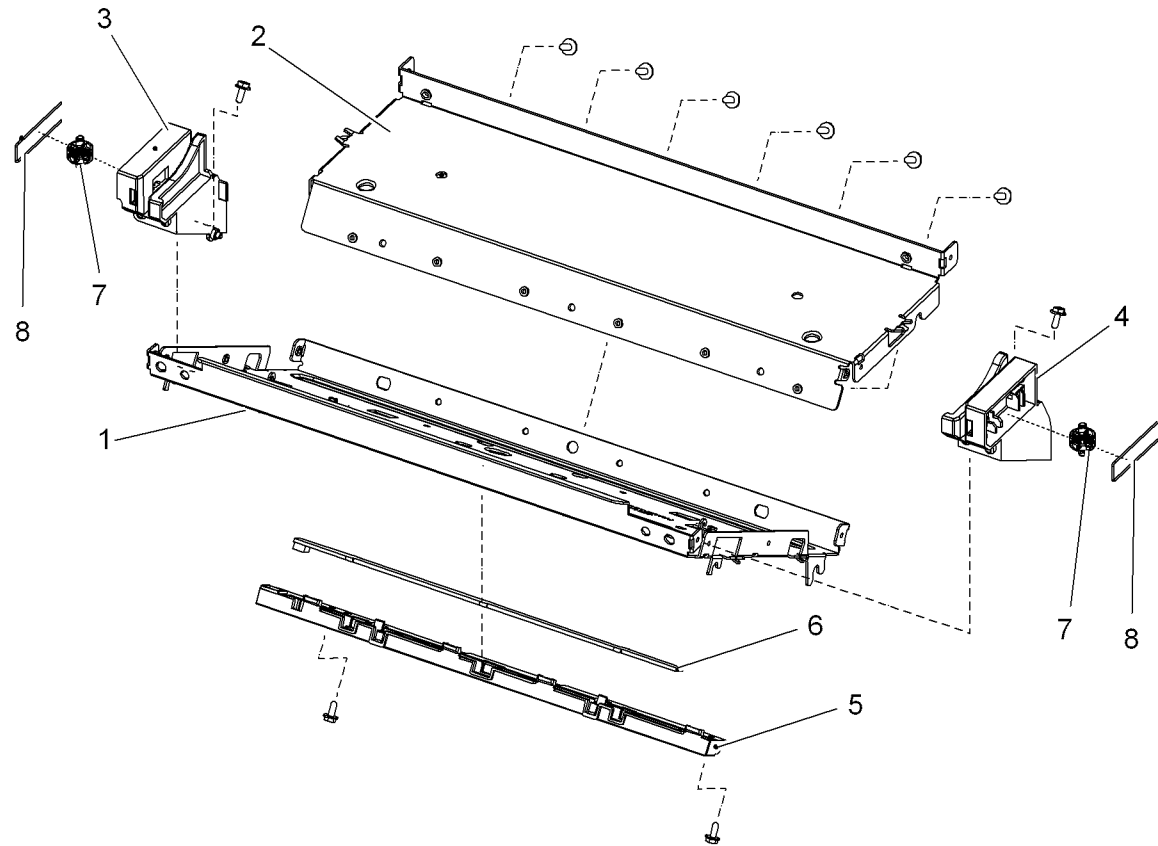
s4620-120

PL 9.10 Toner/Drum Cartridges

Item	Part	Description
1	113R00762	Drum cartridge (80K)
–	113R00769	Drum cartridge (80K) (TAA/GSA)
2	022N02478	Transfer roller (REP 9.1)
3	–	Holder (Not Spared)
4	–	Spring (Not Spared)
5	–	Retaining clip (Not Spared)
6	106R01533	NA/XE standard toner cartridge (13K)
–	106R01534	DMO standard toner cartridge (13K)
–	106R01535	NA/XE High capacity toner cartridge (30K)
–	106R01536	DMO High capacity toner cartridge (30K)
–	106R02638	Metered/PagePack high capacity toner cartridge (40K) (TAA/GSA)
–	106R02625	FX AP Metered high capacity toner cartridge (40K)
–	106R02318	Metered/PagePack high capacity toner cartridge (40K)

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5 Parts List

PL 9.10

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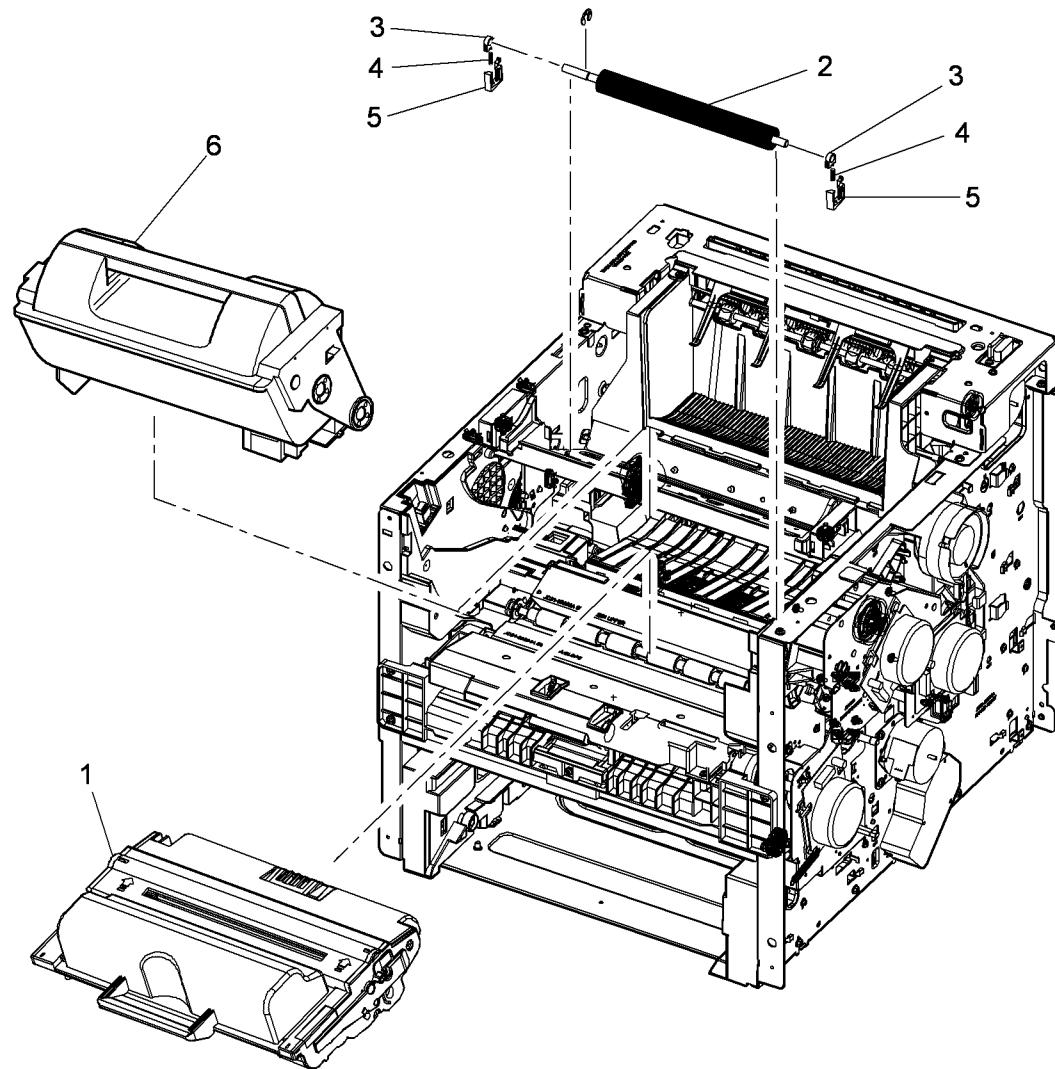
PL 9.15 Waste Toner

Item	Part	Description
1	–	Bias contact cover (Not Spared)
2	001N00528	Pipe assembly (REP 9.7)
3	127N07668	Left side chassis fan (MOT04-120) (REP 9.4)
4	093N01732	Waste toner cartridge
5	–	Waste toner full sensor (Not Spared) (REP 9.6)
6	130N01628	Waste toner cartridge detect sensor (REP 9.3)
7	140N63465	Joint board (REP 9.8)
8	–	Environmental sensor (Not Spared) (REP 9.5)
9	–	Sensor holder (Not Spared)
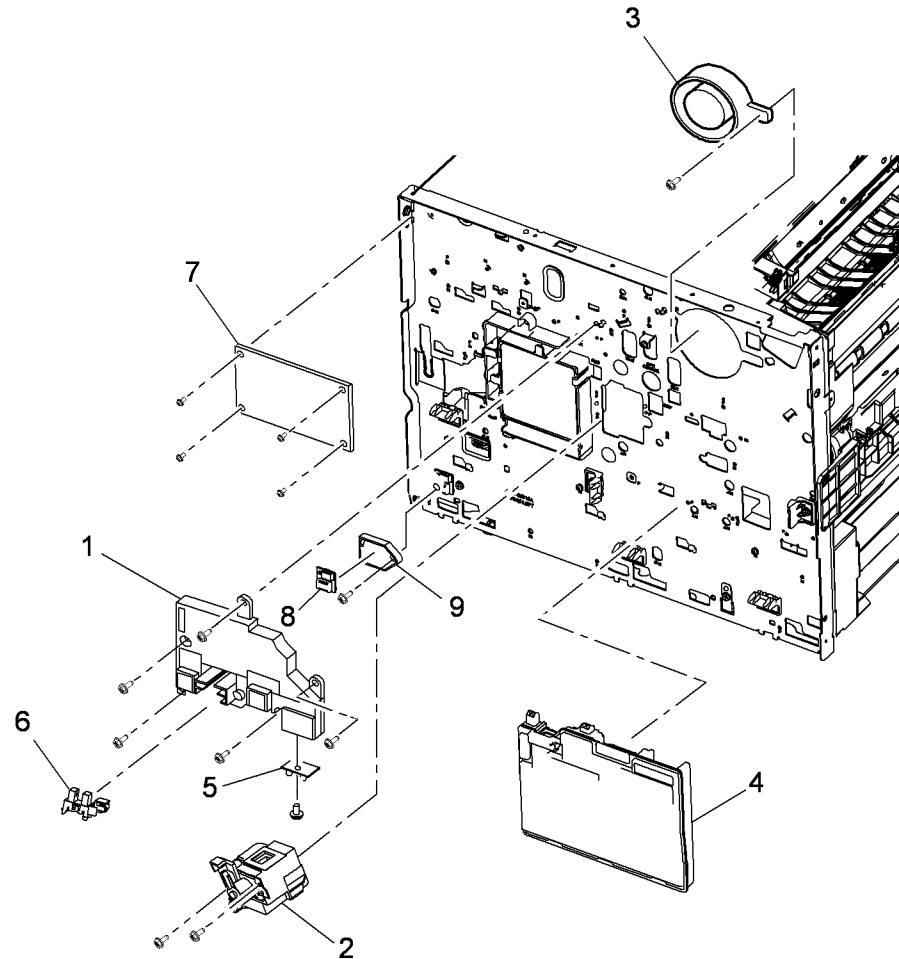
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PL 10.10 Fuser Assembly (1 of 2)

Item	Part	Description
1	126N00339	Fuser assembly (110V) (REP 10.10)
–	126N00340	Fuser assembly (220V) (REP 10.10)
2	–	Thumbscrew (Not Spared)

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5 Parts List

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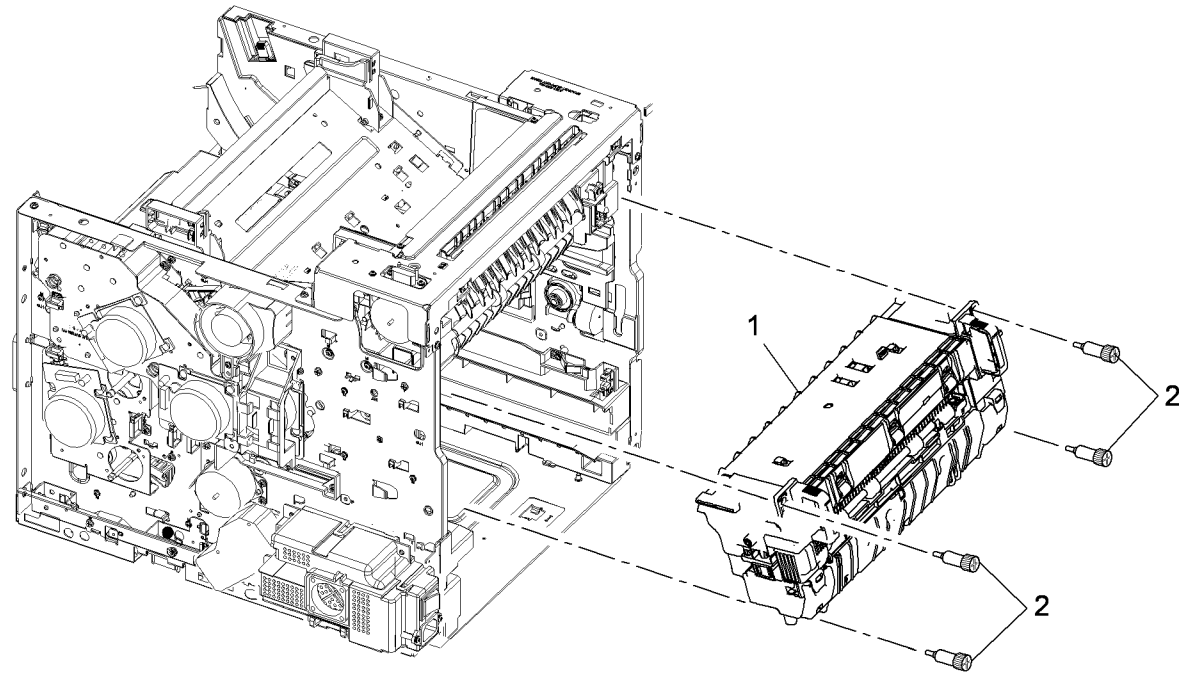
PL 10.11 Fuser Assembly (2 of 2)

Item	Part	Description
1	–	Lower bracket (P/O PL 10.10 Item 1)
2	–	Cleaning roller assembly (P/O PL 10.10 Item 1)
3	022N02476	Pressure roller (REP 10.16)
4	013N13847	Roller bearing
5	–	Right bracket (P/O PL 10.10 Item 1)
6	–	Left bracket (P/O PL 10.10 Item 1)
7	–	Cam shaft assembly (P/O PL 10.10 Item 1)
8	–	Bush (P/O PL 10.10 Item 1)
9	–	Release cam (P/O PL 10.10 Item 1)
10	–	Shaft holder (P/O PL 10.10 Item 1)
11	–	Spring (P/O PL 10.10 Item 1)
12	022N02477	Heat roller (REP 10.15)
13	013N13929	Heat roller bearing (REP 10.15)
14	007N01657	Fuser gear (REP 10.14)
15	–	Spring clamp (P/O PL 10.10 Item 1)
16	–	Upper fuser bracket assembly (REF: PL 10.15)
17	122N00290	Heat lamp (110V) (REP 10.13)
–	122N00291	Heat lamp (220V)
18	–	Lamp bracket (P/O PL 10.10 Item 1)
19	–	Gear bracket (P/O PL 10.10 Item 1)
20	–	Upper exit guide (P/O PL 10.10 Item 1)
21	–	AC harness holder (P/O PL 10.10 Item 1)
22	–	Sub AC harness holder (P/O PL 10.10 Item 1)
23	–	Right cover (P/O PL 10.10 Item 1)
24	–	Left cover (P/O PL 10.10 Item 1)
25	–	Duplex cover (P/O PL 10.10 Item 1)
26	–	Upper cover (P/O PL 10.10 Item 1)
27	–	Input guide (P/O PL 10.10 Item 1)
28	–	Lower fuser exit guide assembly (REF: PL 10.20)
29	–	Connector (P/O PL 10.10 Item 1)
30	130N01628	Fuser exit sensor (Q08-600)/ Fuser home sensor (Q10-910)

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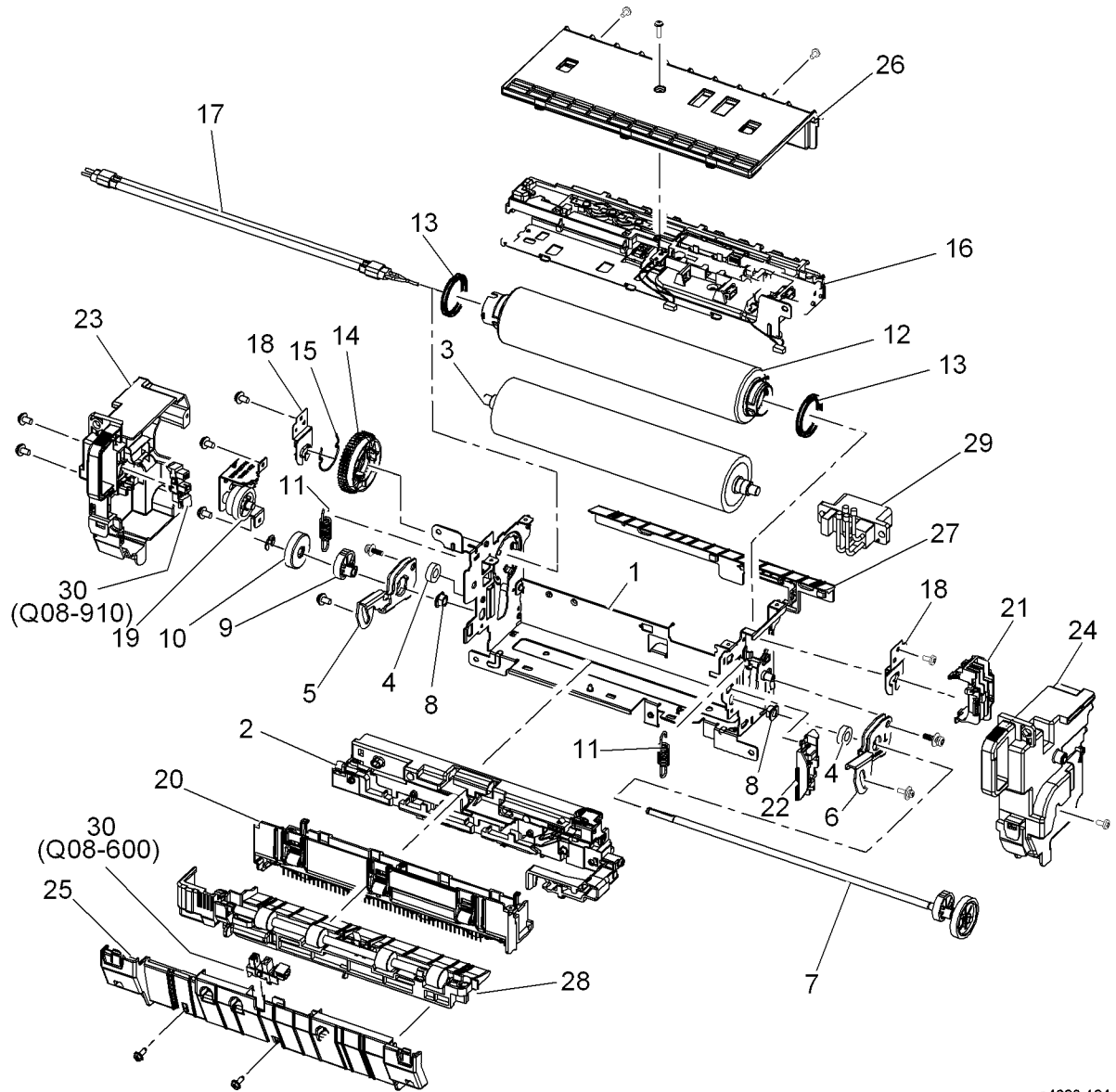
PL 10.11

PL 10.15 Upper Fuser Bracket Assembly

Item	Part	Description
1	–	Upper bracket (Not Spared)
2	–	Thermostat holder (Not Spared)
3	130N01561	Thermistor NTC (REP 10.11)
4	–	Thermostat (Not Spared) (REP 10.12)
5	130N01641	Thermistor NTC (side)
6	130N01615	Thermistor NTC (center)

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5 Parts List

PL 10.15

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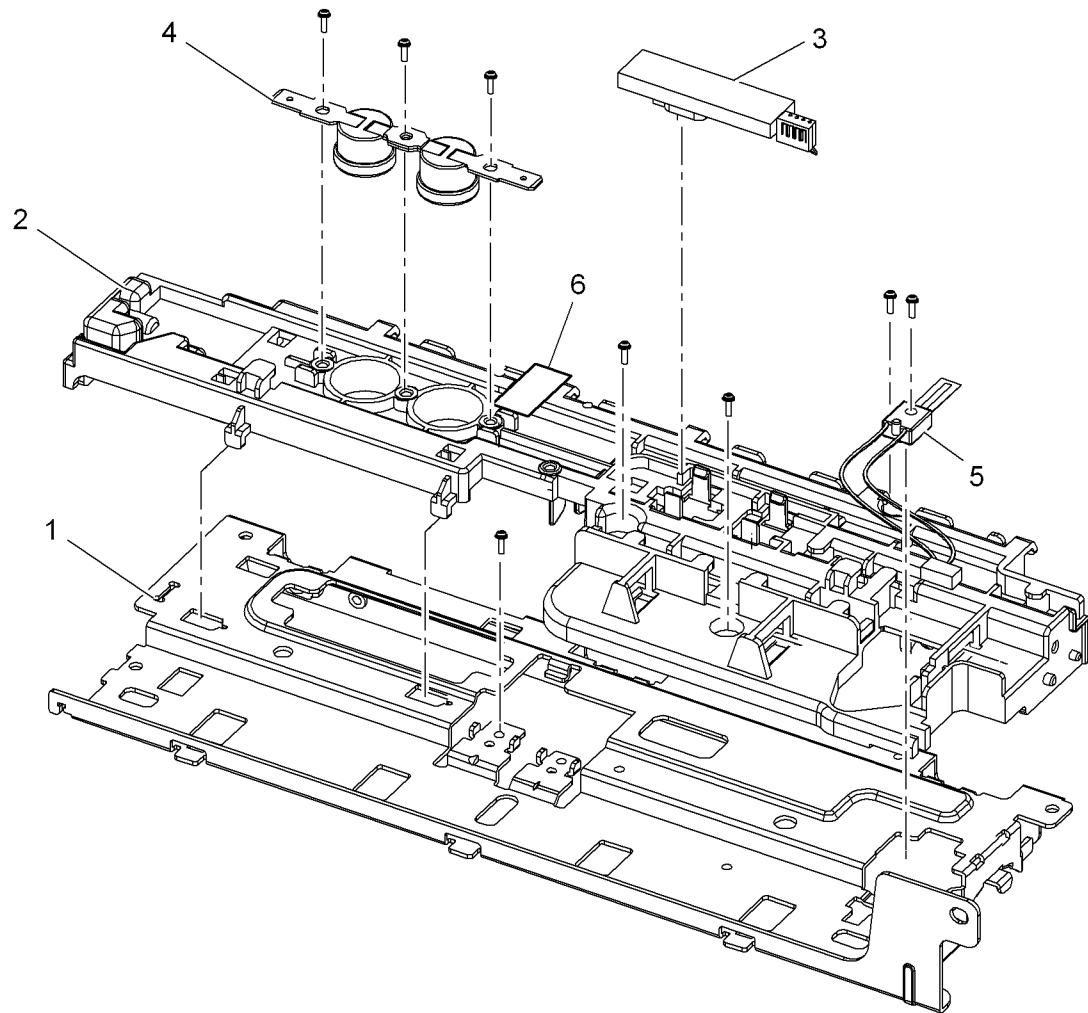
PL 10.20 Lower Fuser Exit Guide Assembly

Item	Part	Description
1	–	Lower exit guide (Not Spared)
2	–	Clip (Not Spared)
3	–	Spring (Not Spared)
4	–	Rear lever (Not Spared)
5	–	Actuator holder (Not Spared)
6	–	Fuser exit sensor actuator (Not Spared)
7	–	Actuator spring (Not Spared)
8	–	Upper fuser exit roller (Not Spared)
9	–	Duplex exit gear (Not Spared)

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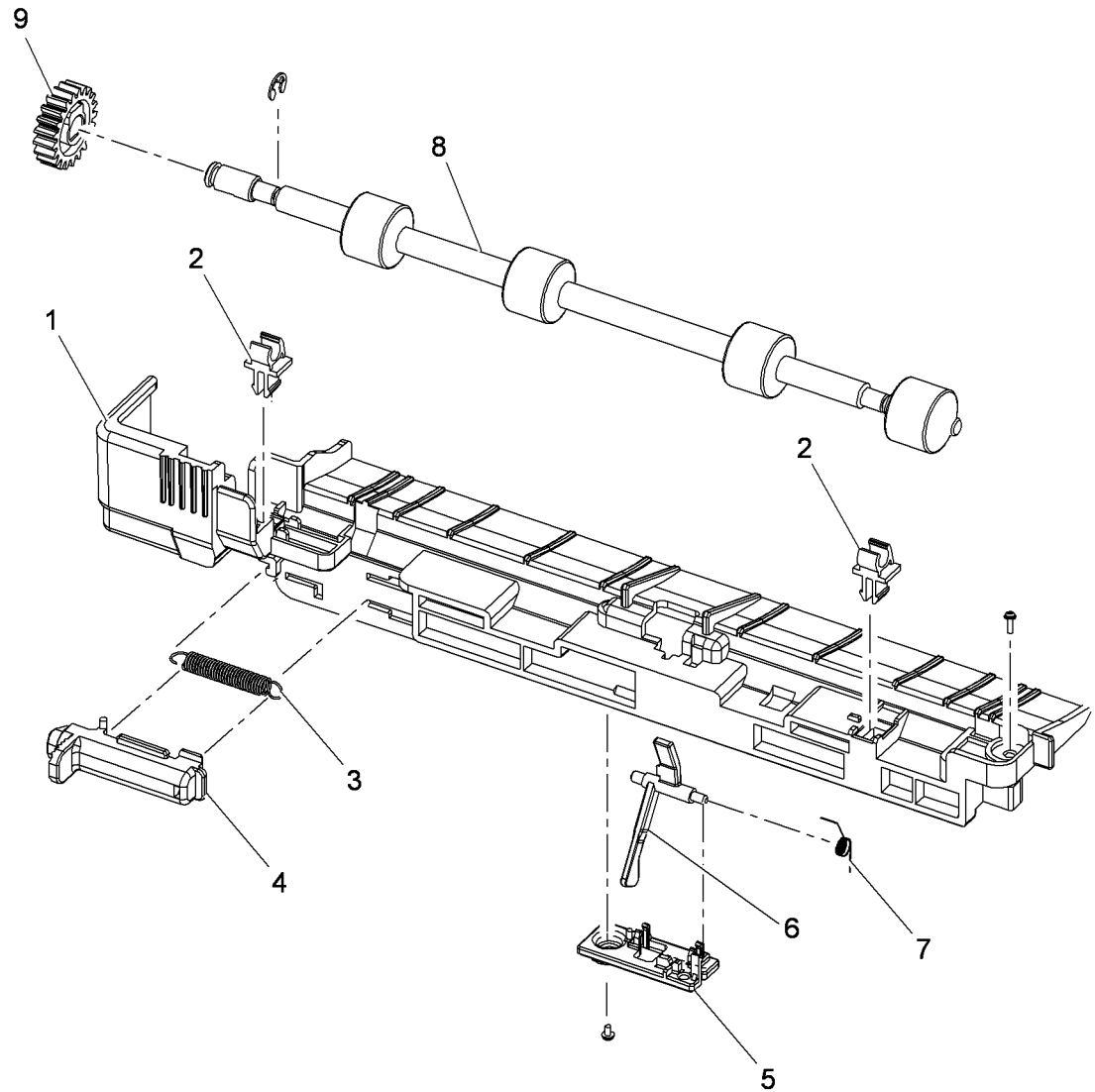
PL 10.20

PL 10.25 Duplex Unit Assembly

Item	Part	Description
1	–	Duplex lower frame (P/O PL 10.25 Item 26)
2	–	Duplex upper frame (P/O PL 10.25 Item 26)
3	–	Duplex align guide (P/O PL 10.25 Item 26)
4	–	Bottom duplex ground (P/O PL 10.25 Item 26)
5	–	Duplex feed brush ground (P/O PL 10.25 Item 26)
6	–	Duplex gasket ground (P/O PL 10.25 Item 26)
7	–	PTT label (P/O PL 10.25 Item 26)
8	–	Information label (P/O PL 10.25 Item 26)
9	–	Cassette cover (P/O PL 10.25 Item 26)
10	–	Tension spring (P/O PL 10.25 Item 18)
11	023N01051	Timing belt (REP 10.19)
12	–	M-feed bush (P/O PL 10.25 Item 26)
13	–	Conductive gasket (P/O PL 10.25 Item 26)
14	–	P terminal ground (P/O PL 10.25 Item 26)
15	–	Exit F gear (P/O PL 10.25 Item 26)
16	–	Idle roll shaft (P/O PL 10.25 Item 26)
17	–	Pulley-18 (P/O PL 10.25 Item 26)
18	–	Pulley-M-18-dummy (P/O PL 10.25 Item 26)
19	–	Idle roller (P/O PL 10.25 Item 26)
20	–	Static eliminator (P/O PL 10.25 Item 26)
21	–	Paper guide stud (P/O PL 10.25 Item 26)
22	–	Sponge cover (P/O PL 10.25 Item 26)
23	–	ELA unit roller 1 (P/O PL 10.25 Item 26)
24	–	ELA unit roller 2 (P/O PL 10.25 Item 26)
25	130N01628	Duplex unit detect sensor (REP 10.18)
26	022N02484	Duplex unit assembly (REP 10.1)

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5 Parts List

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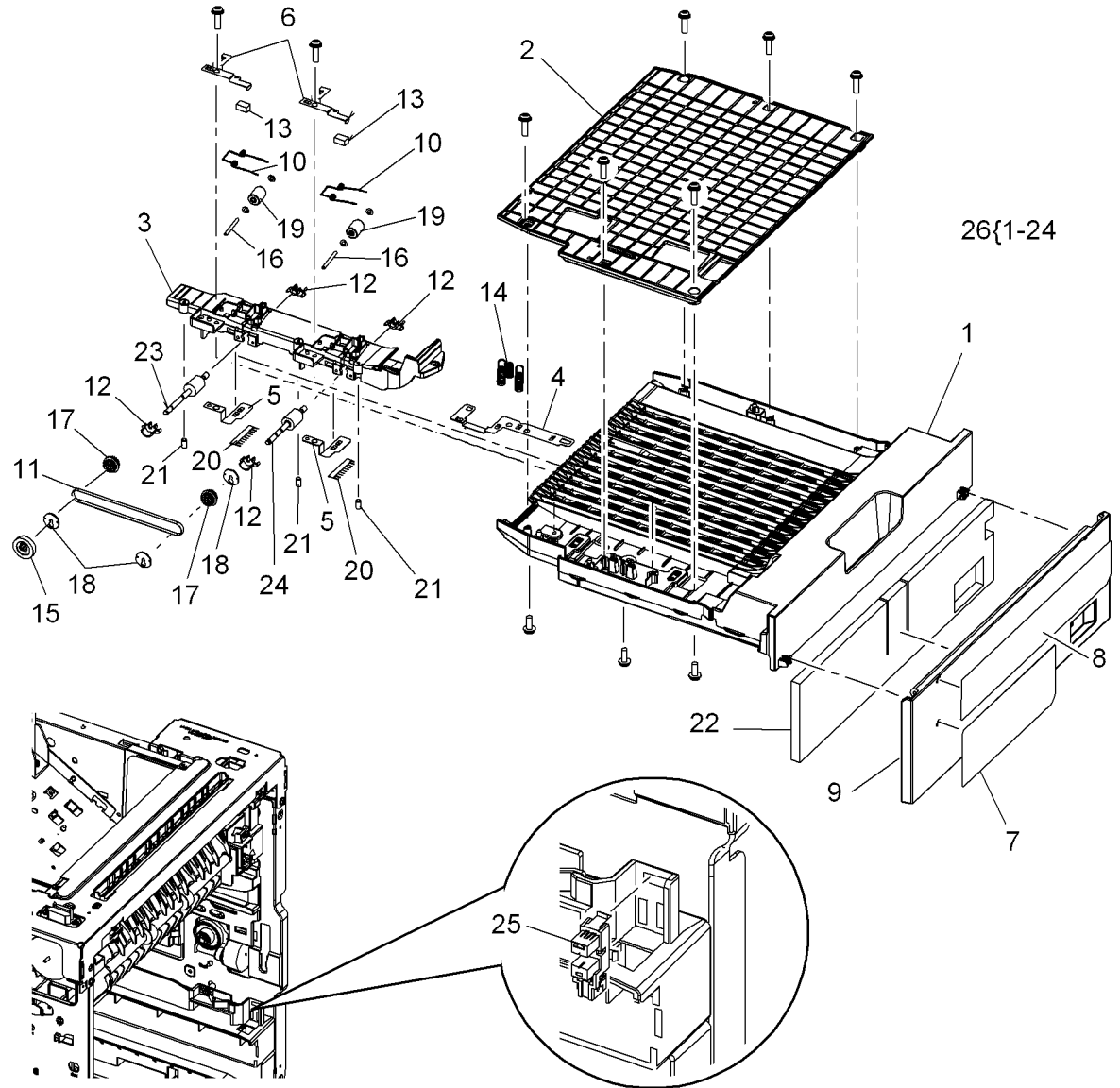
PL 10.30 Exit Assembly

Item	Part	Description
1	–	Exit frame (P/O PL 10.30 Item 25)
2	–	Exit chute (P/O PL 10.30 Item 25)
3	–	Stacking lever (P/O PL 10.30 Item 25)
4	–	Deflector guide (P/O PL 10.30 Item 25)
5	–	Exit roller ground (P/O PL 10.30 Item 25)
6	–	Exit ground (P/O PL 10.30 Item 25)
7	–	Upper exit roller (P/O PL 10.30 Item 25)
8	–	Lower exit roller (P/O PL 10.30 Item 25)
9	130N01628	Stack full sensor (Q08-720) (REP 10.7)
10	–	Spring (P/O PL 10.30 Item 25)
11	–	Bearing (P/O PL 10.30 Item 25)
12	–	Bearing (P/O PL 10.30 Item 25)
13	–	Bearing (P/O PL 10.30 Item 25)
14	–	Rear bracket (P/O PL 10.30 Item 25)
15	–	Damper pad (P/O PL 10.30 Item 25)
16	–	Duplex exit gear (P/O PL 10.30 Item 25)
17	–	Upper exit gear (P/O PL 10.30 Item 25)
18	–	Lower exit gear (P/O PL 10.30 Item 25)
19	–	Static eliminator (P/O PL 10.30 Item 25)
20	–	Stacking lever sponge (P/O PL 10.30 Item 25)
21	–	Exit roller cap (P/O PL 10.30 Item 25)
22	–	Duplex roller (P/O PL 10.30 Item 25)
23	007N01660	Exit drive assembly (REP 10.32)
24	–	Upper option connector (Not Spared) (REP 10.4)
25	022N02483	Exit assembly (REP 10.6)
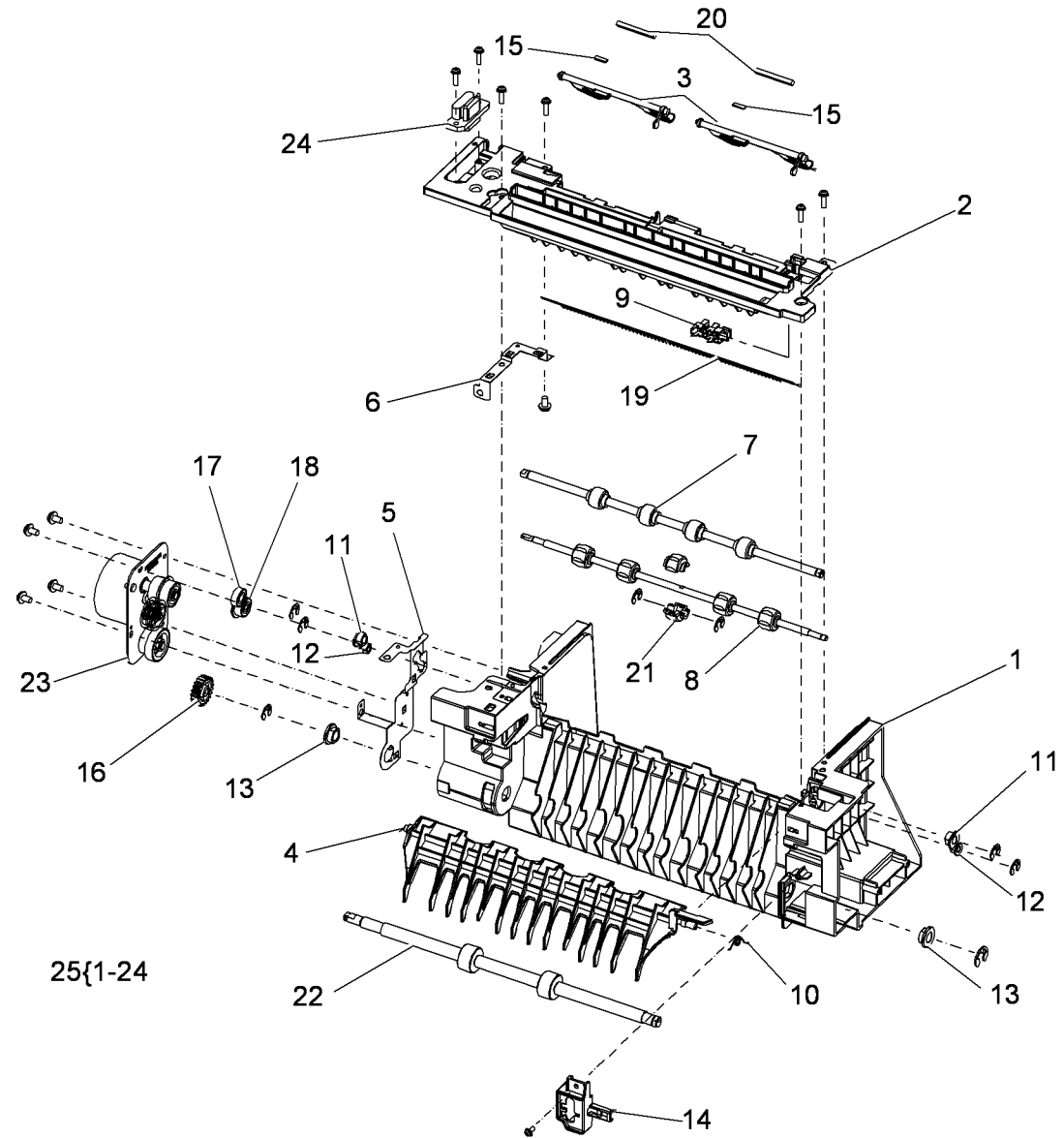
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PL 11.10 Mailbox Covers

Item	Part	Description
1	–	Left cover (Not Spared) (REP 11.2)
2	–	Right cover (Not Spared) (REP 11.3)
3	–	Top cover (Not Spared)
4	–	Output tray assembly (Not Spared) (REP 11.1)
5	–	Rear door (Not Spared) (REP 11.4)
6	–	Connector cover (Not Spared)
7	–	Base plate (Not Spared)

NOTE: *Order the entire Mailbox using Service part number 050K74190 or Salest number 097N01877.*

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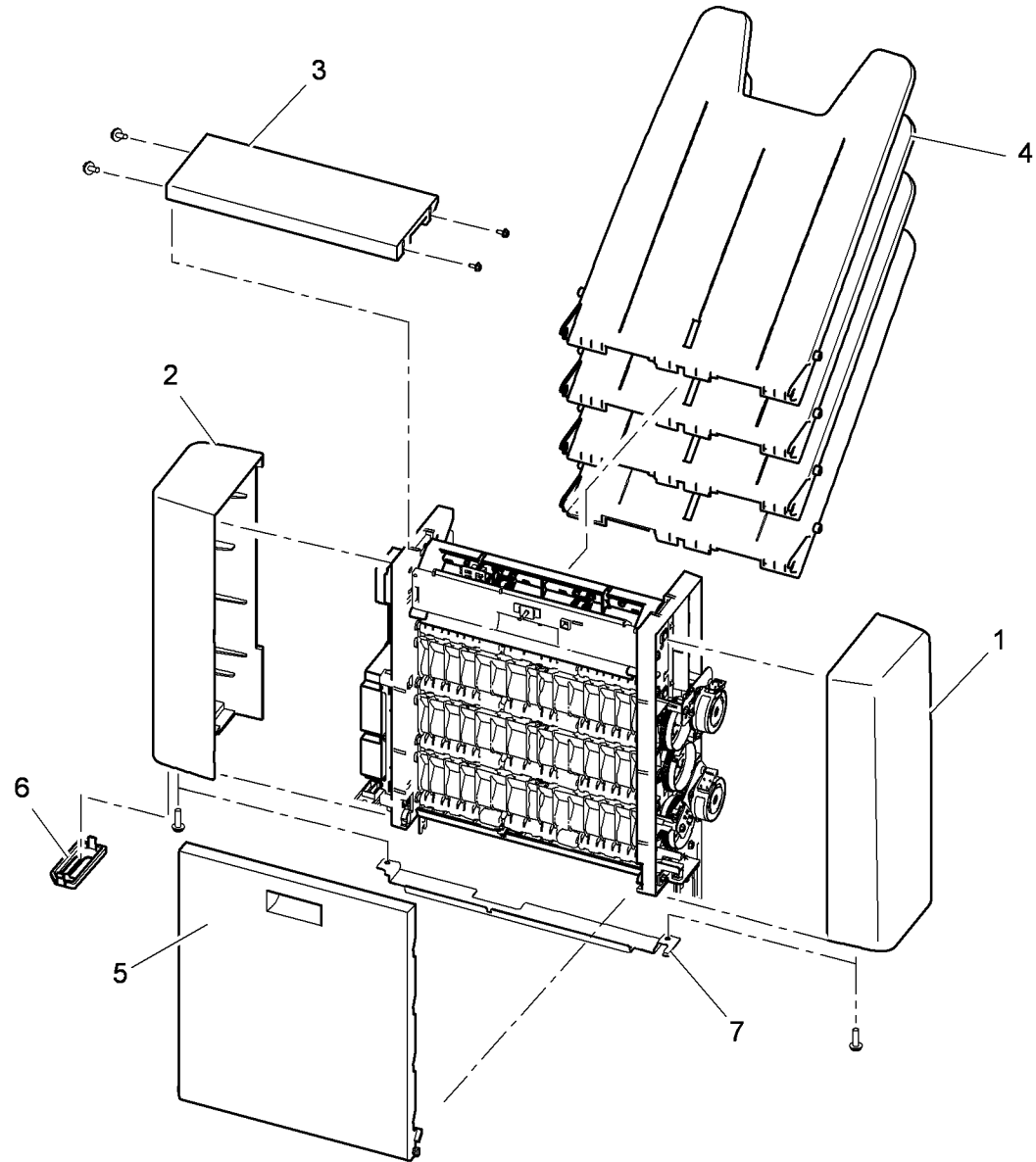
PL 11.15 Mailbox Control Board

Item	Part	Description
1	140N63470	Control board (REP 11.5)
2	–	Control board bracket (Not Spared)
3	–	Mounting bracket (Not Spared)
4	–	Mailbox option harness (Not Spared) (REP 11.11)

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PL 11.15
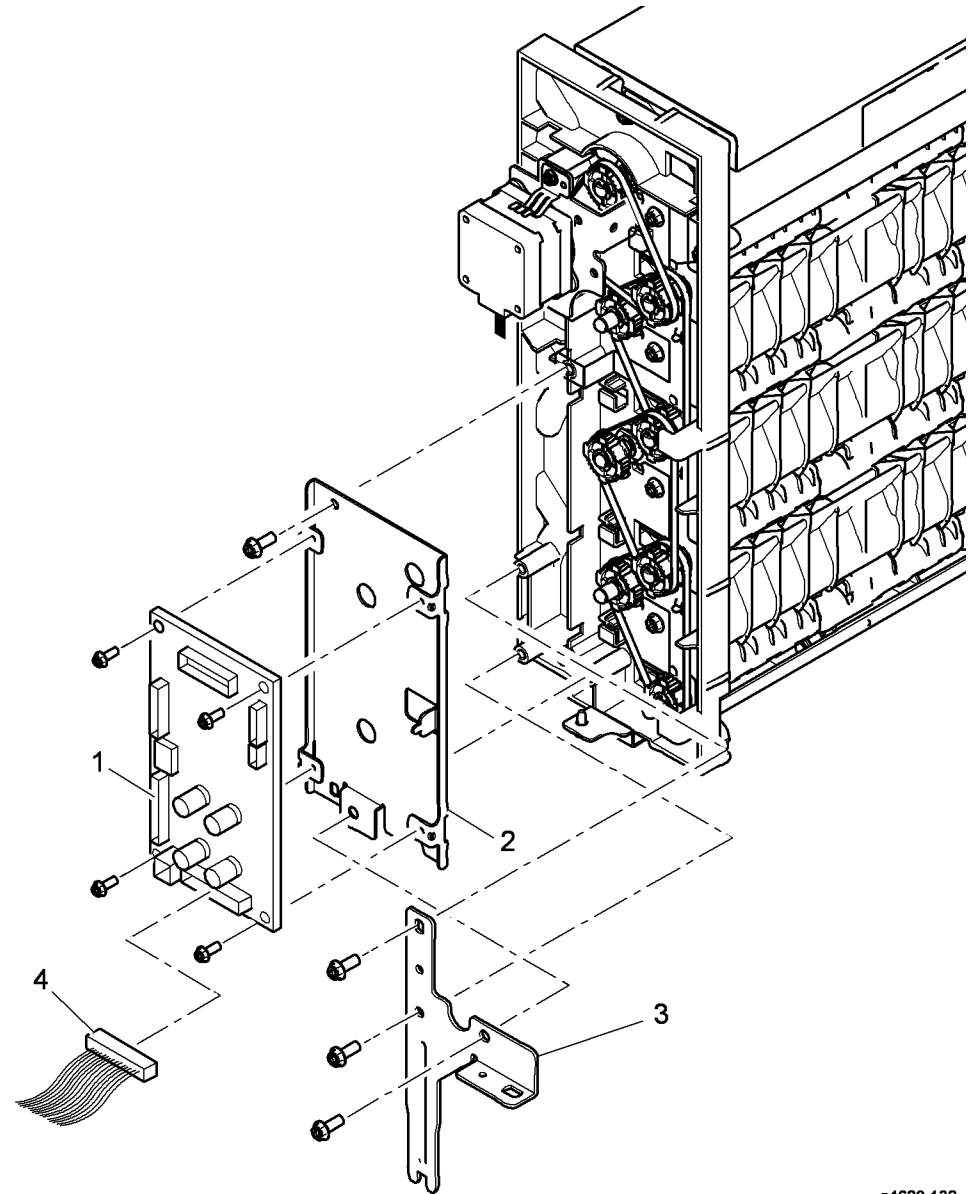
PL 11.20 Mailbox Drive Belts

Item	Part	Description
1	127N07670	Transport motor (MOT12-120) (REP 11.14)
2	–	Grounding strip (Not Spared)
3	–	Motor bracket (Not Spared)
4	023N01282	Primary drive belt (REP 11.6)
5	023N01281	Drive belt (REP 11.6)

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5 Parts List

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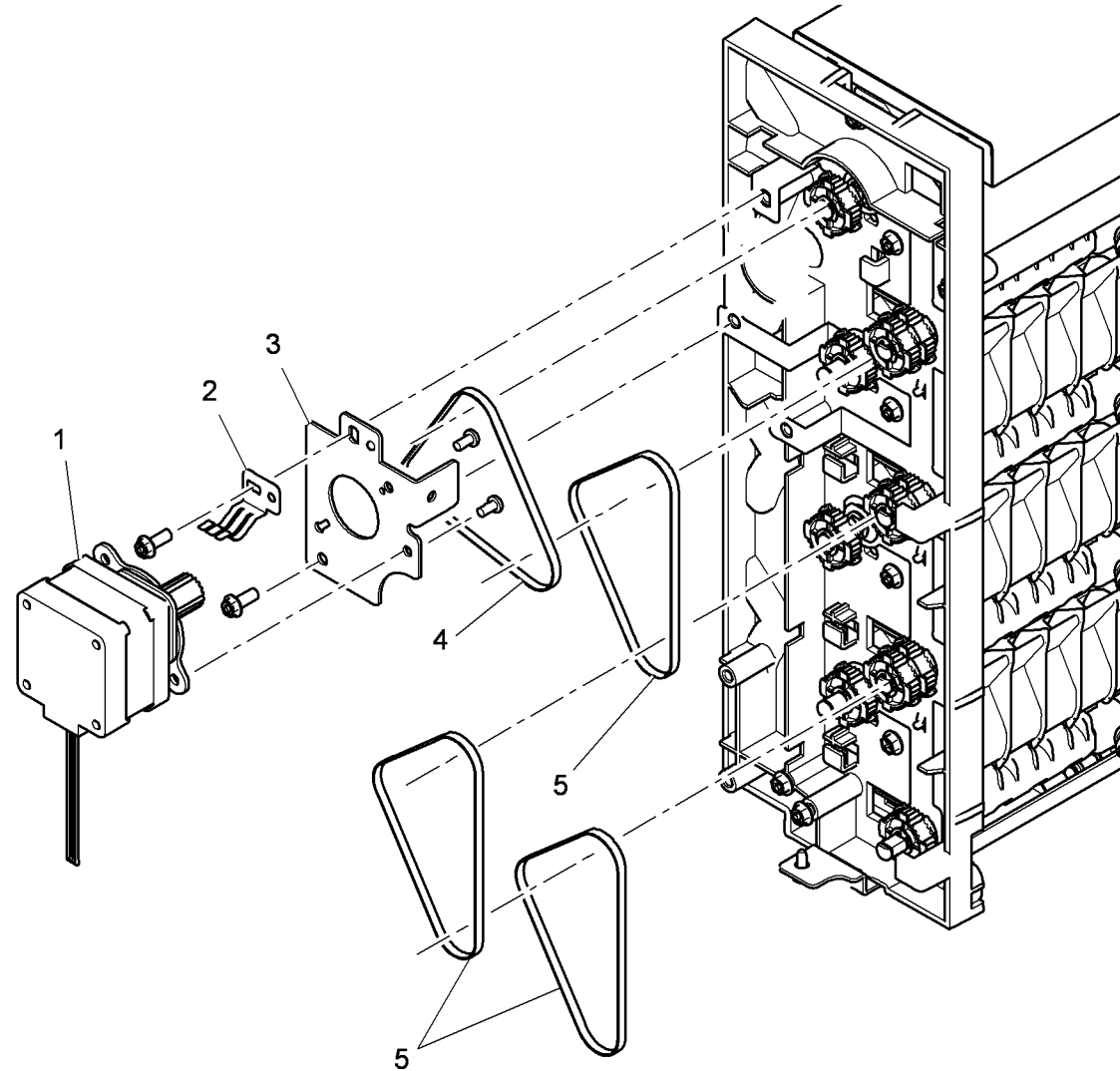
PL 11.25 Mailbox Diverter Assembly

Item	Part	Description
1	127N07671	Upper diverter drive assembly (MOT12-935) / Lower diverter drive assembly (MOT12-955) (REP 11.7)
2	–	Upper diverter home position sensor (Q12-925)/ Lower diverter home position sensor (Q12-945) (Not Spared) (REP 11.8)
3	–	Not used
4	–	Cam gear (Not Spared)
5	–	Exit gate cam follower (Not Spared) (REP 11.10)
6	–	Exit gate actuator (Not Spared) (REP 11.9)
7	–	Mounting bracket (Not Spared)
8	–	Bearing (Not Spared)
9	–	Cam follower spring (Not Spared)

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5 Parts List

PL 11.25
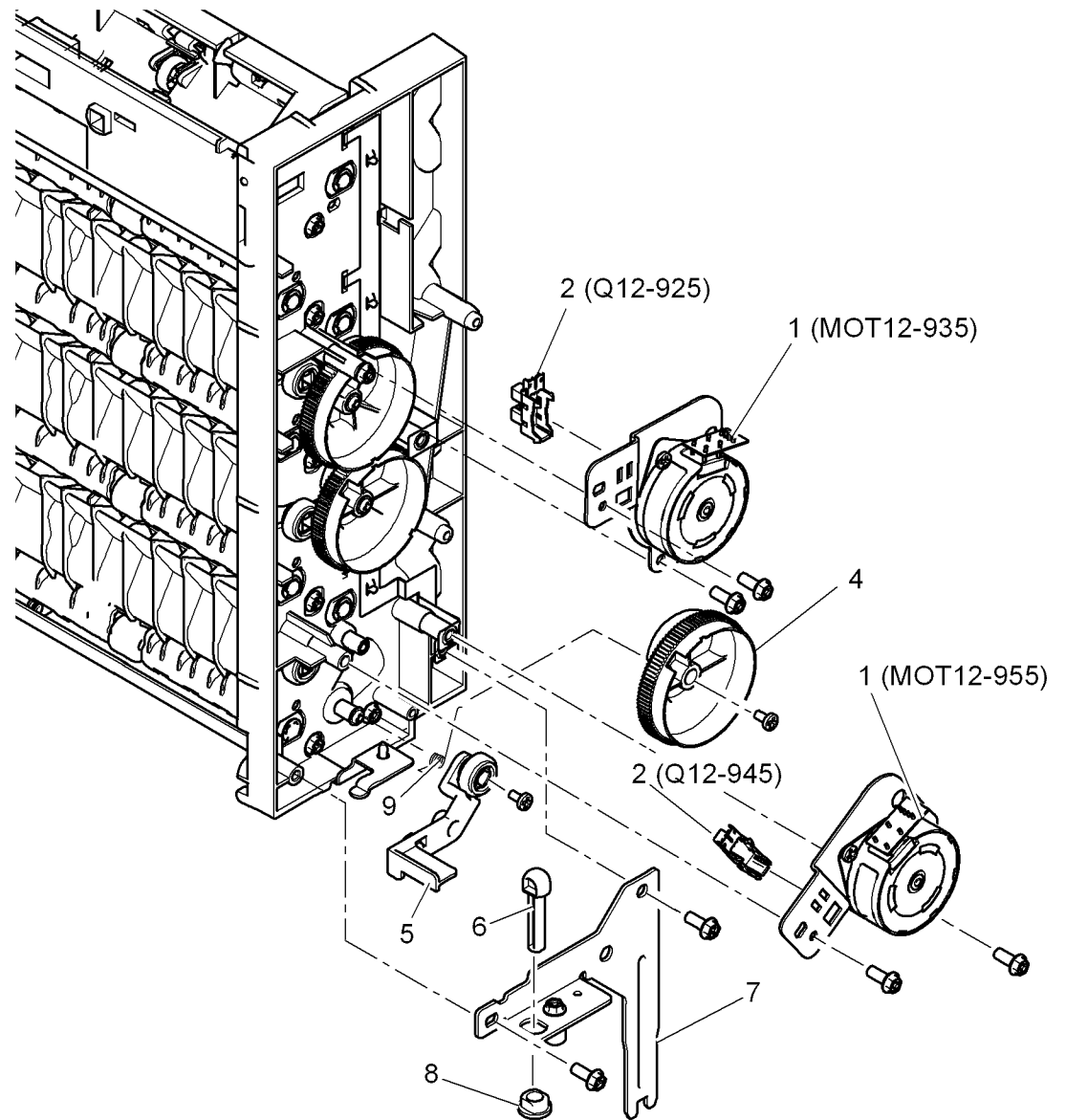
PL 11.30 Mailbox Top Stacker Assembly

Item	Part	Description
1	–	Harness cover assembly (Not Spared)
2	–	Harness cover (Not Spared)
3	–	Magnet (Not Spared)
4	–	Rear door interlock switch (S12-915) (Not Spared) (REP 11.13)
5	–	Top stacker shield (Not Spared)
6	–	Static eliminator (Not Spared)
7	–	Stacker full actuator (Not Spared)
8	–	Idle feed roll assembly (Not Spared)
9	–	Idle feed roll (Not Spared)
10	–	Pin (Not Spared)
11	–	Spring (Not Spared)
12	–	Stack full sensor assembly (Not Spared)
13	–	Output tray 1 stack full sensor (Q12-910) (Not Spared) (REP 11.12)
14	–	Sensor bracket (Not Spared)

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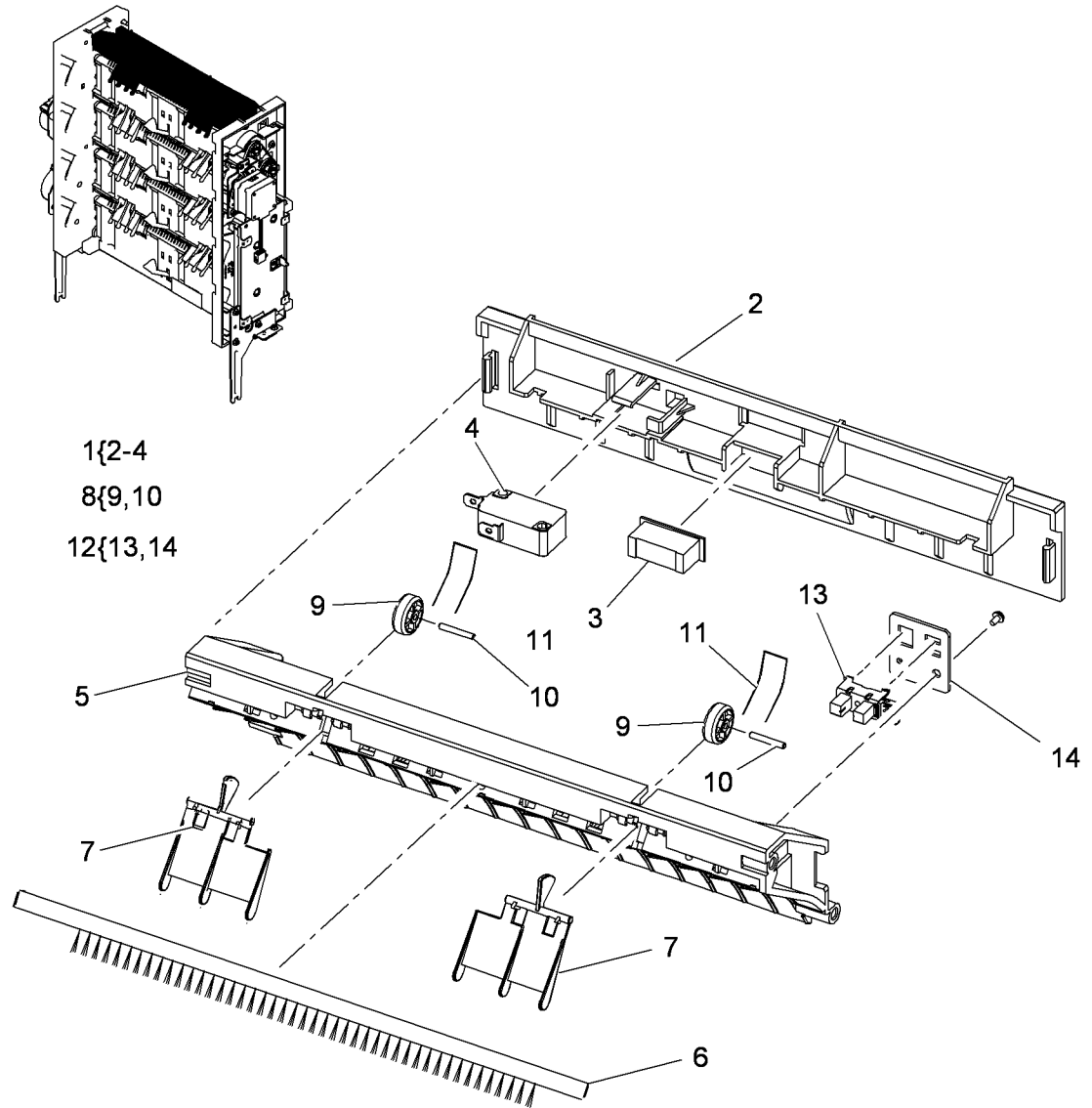
PL 11.35 Mailbox Actuator Shield Assembly

Item	Part	Description
1	–	Stacker shield (Not Spared)
2	–	Tray 1 stacker empty sensor (Q12-911), Tray 2 stacker empty sensor (Q12-921), Tray 3 stacker empty sensor (Q12-931), Tray 4 stacker empty sensor (Q12-941)/Tray 2 stacker full sensor (Q12-920), Tray 3 stacker full sensor (Q12-930), Tray 4 stacker full sensor (Q12-940) (Not Spared)
3	–	Actuator shaft (Not Spared)
4	–	Spring (Not Spared)
5	–	Stacker empty actuator (Not Spared)
6	–	Exit feed actuator (Not Spared)
7	–	Spring (Not Spared)
8	–	Stacker sensor bracket (Not Spared)
9	–	Idle feed roll assembly (Not Spared)
10	–	Idle feed shaft (Not Spared)
11	–	Idle feed roll (Not Spared)
12	–	Spring guide (Not Spared)
13	–	Feed guide (Not Spared)
14	–	Static eliminator (Not Spared)
15	–	Stacker full actuator (Not Spared)
16	–	Harness (Not Spared)

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PL 11.35
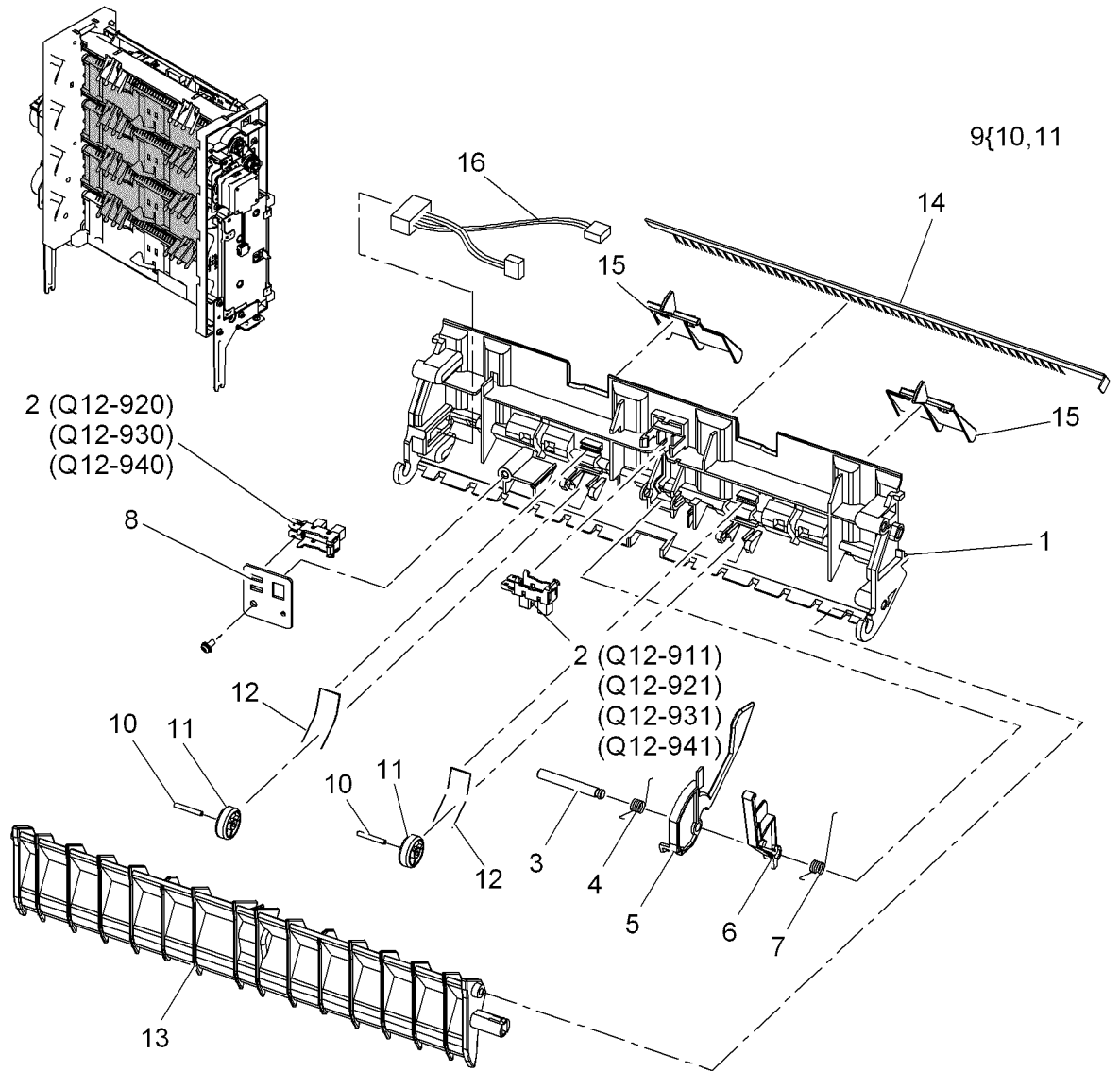
PL 11.40 Mailbox Base Assembly

Item	Part	Description
1	–	Bottom shield (Not Spared)
2	–	Entrance feed sensor (Q12-905)/ Stacker empty sensor (Q12-910) (Not Spared)
3	–	Entrance actuator assembly (Not Spared)
4	–	Shaft (Not Spared)
5	–	Entrance feed actuator (Not Spared)
6	–	Spring (Not Spared)
7	–	Stacker actuator shaft (Not Spared)
8	–	Spring (tray empty) (Not Spared)
9	–	Stacker empty actuator (Not Spared)
10	–	Exit feed actuator (Not Spared)
11	–	Spring (paper path) (Not Spared)
12	–	Harness (Not Spared)

NOTE: *Order the entire Mailbox using Service part number 050K74190 or Sales part number 097N01877.*

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2(Q12-910)

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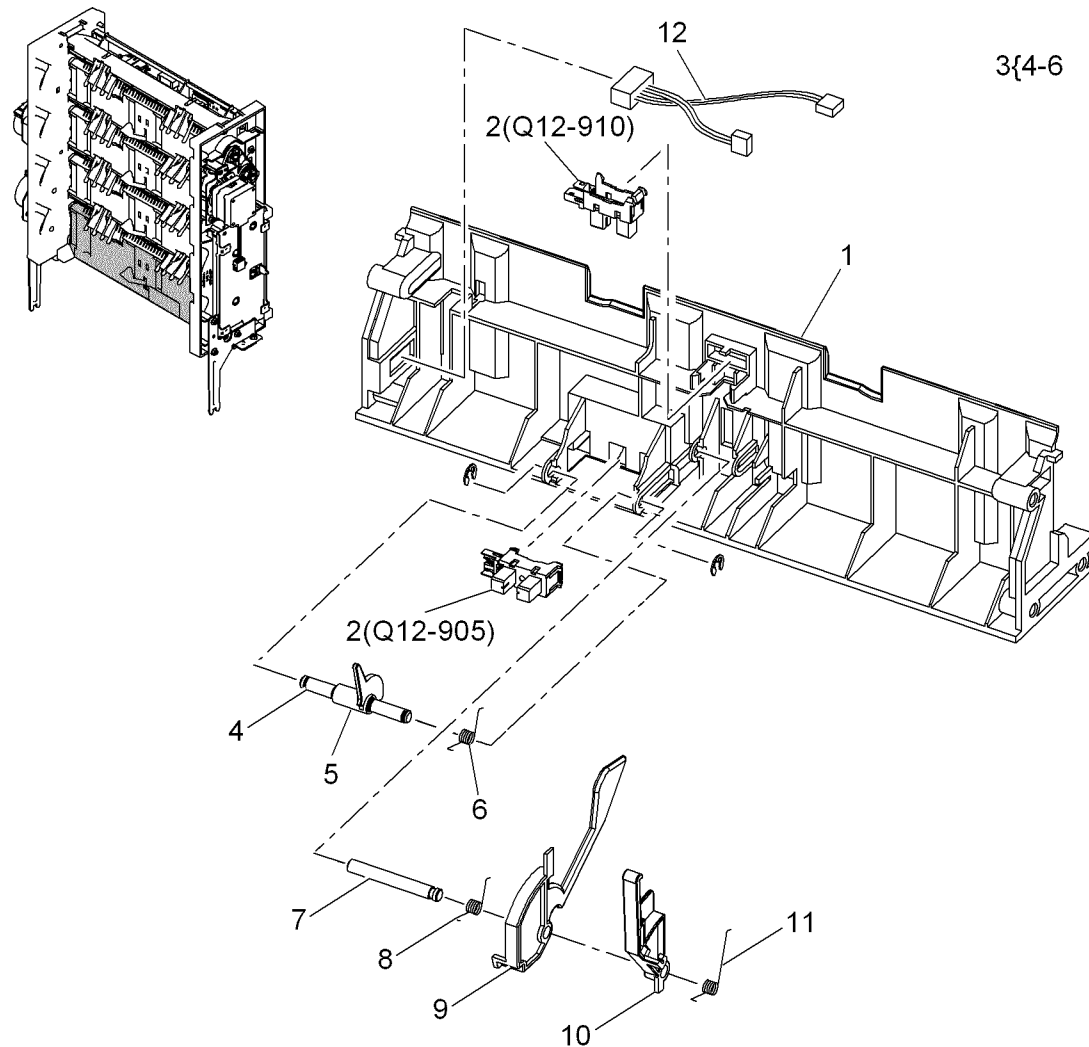
PL 12.10 Finisher Covers

Item	Part	Description
1	–	Left cover (Not Spared) (REP 12.1)
2	–	Right cover (Not Spared) (REP 12.11)
3	–	Option connector cover (Not Spared)
4	–	Rear door (Not Spared) (REP 12.17)
5	–	Bearing (Not Spared)
6	–	Top cover (Not Spared) (REP 12.18)

NOTE: *Order the entire Finisher using Service part number 607K05900 or Sales part number 097N01876.*

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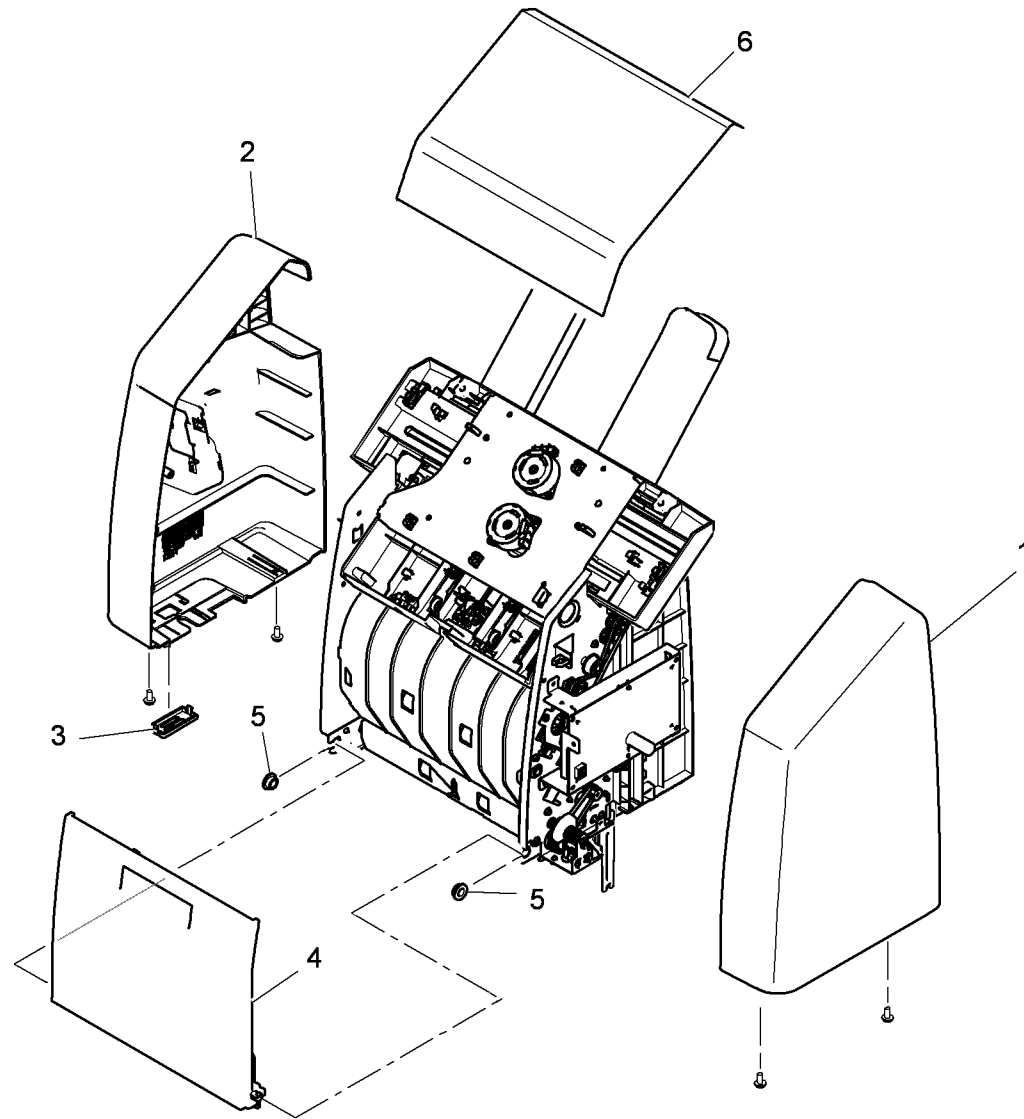
PL 12.10

PL 12.15 Finisher Control Board

Item	Part	Description
1	–	Control board bracket (Not Spared) (REP 12.3)
2	140N63471	Control board (REP 12.2)
3	–	Stacker full sensor (Q12-845) (Not Spared) (REP 12.3)

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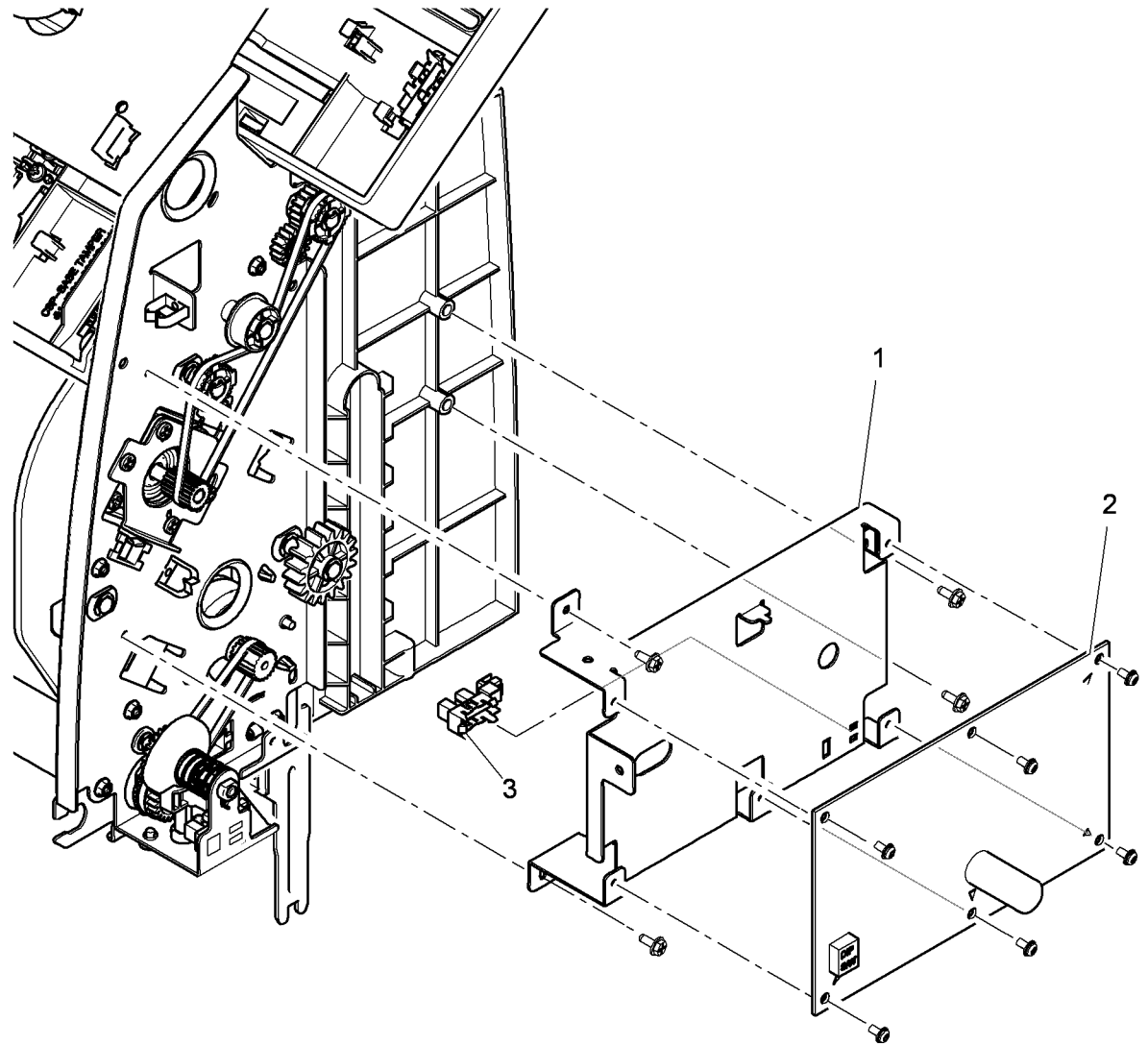
PL 12.20 Finisher Stacker Shield Assembly

Item	Part	Description
1	050N00559	Stacker shield assembly (REP 12.24)
2	–	Stacker tray (P/O PL 12.20 Item 1)
3	–	Left guide (P/O PL 12.20 Item 1)
4	–	Right guide (P/O PL 12.20 Item 1)
5	–	Bearing (P/O PL 12.20 Item 1)
6	–	Gear (P/O PL 12.20 Item 1)
7	–	Shaft (P/O PL 12.20 Item 1)
8	–	Guide roll (P/O PL 12.20 Item 1)

NOTE: *Order the entire Finisher using Service part number 607K05900 or Sales part number 097N01876.*

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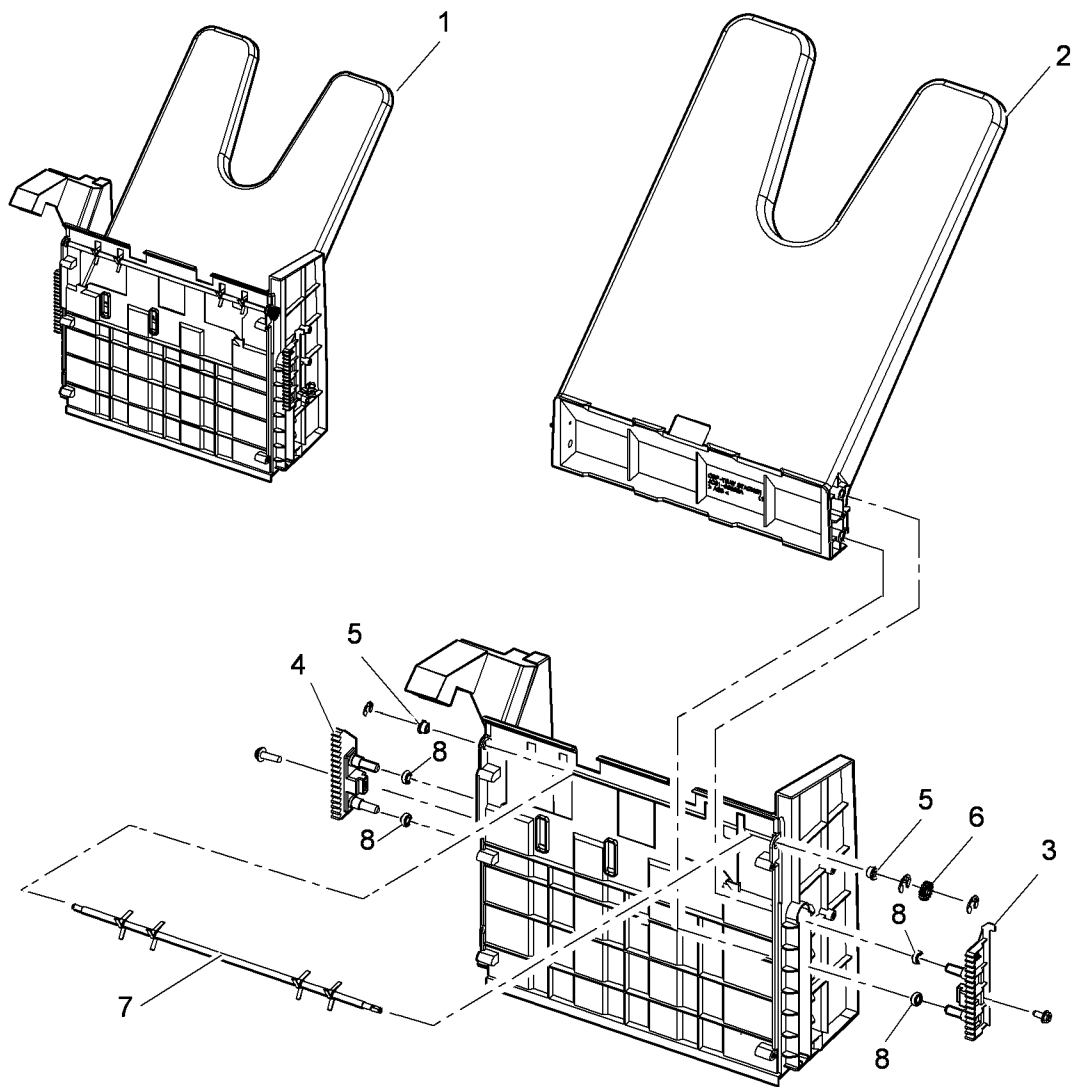
PL 12.20

PL 12.25 Finisher Stacker Drive Assembly

Item	Part	Description
1	007N01668	Stacker drive assembly (REP 12.15)
2	–	Bearing (P/O PL 12.25 Item 1)
3	–	Collar (P/O PL 12.25 Item 1)
4	–	Shaft (P/O PL 12.25 Item 1)
5	–	Mounting bracket (P/O PL 12.25 Item 1)
6	–	Idle shaft (P/O PL 12.25 Item 1)
7	–	Idle gear (P/O PL 12.25 Item 1)
8	–	Transport motor (P/O PL 12.25 Item 1)
9	–	Drive gear (P/O PL 12.25 Item 1)
10	–	Drive belt (P/O PL 12.25 Item 1)
11	–	Securing bracket (P/O PL 12.25 Item 1)

NOTE: Order the entire Finisher using Service part number 607K05900 or Sales part number 097N01876.

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5 Parts List
PL 12.25

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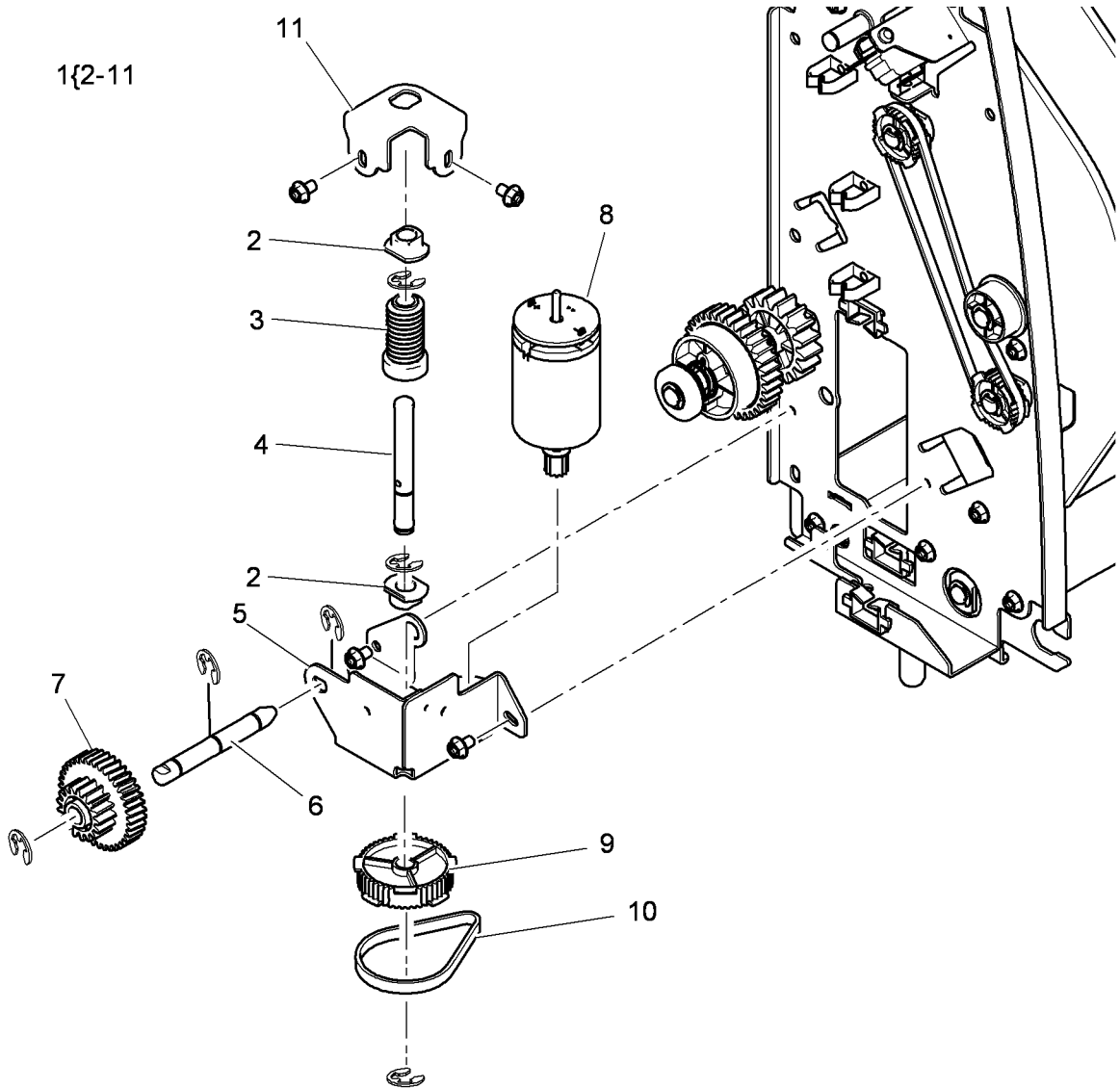
PL 12.30 Finisher Compile Tray Eject Assembly

Item	Part	Description
1	–	Extension tray assembly (Not Spared)
2	–	Clip (P/O PL 12.30 Item 1)
3	–	Tray (P/O PL 12.30 Item 1)
4	–	Right bracket (P/O PL 12.30 Item 1)
5	–	Roller (P/O PL 12.30 Item 1)
6	–	Link arm (P/O PL 12.30 Item 1)
7	–	Idle gear (P/O PL 12.30 Item 1)
8	–	Drive belt (P/O PL 12.30 Item 1)
9	–	Drive gear (P/O PL 12.30 Item 1)
10	–	Actuator (P/O PL 12.30 Item 1)
11	–	Mounting plate (P/O PL 12.30 Item 1)
12	–	Drive motor (MOT12-400) (P/O PL 12.30 Item 1)
13	–	Left bracket (P/O PL 12.30 Item 1)
14	–	Support finger home sensor (Q12-825)/Stacker top sensor (Q12-840) (P/O PL 12.30 Item 1)

NOTE: *Order the entire Finisher using Service part number 607K05900 or Sales part number 097N01876.*

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5 Parts List
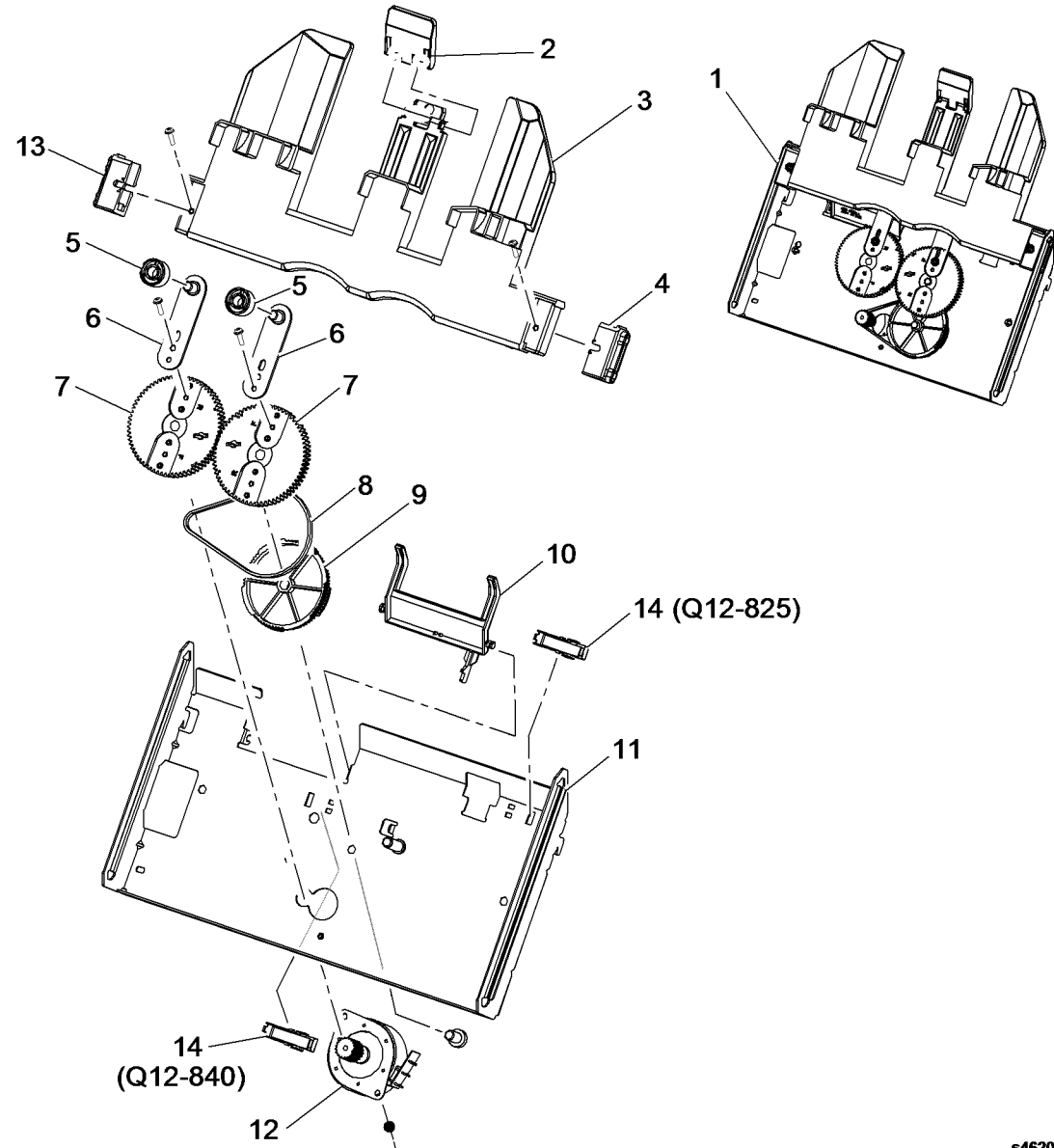
PL 12.30

PL 12.35 Finisher Compile Tray Assembly

Item	Part	Description
1	022N02482	Compile tray assembly (REP 12.23)
2	–	Left guide (P/O PL 12.35 Item 1)
3	–	Right guide (P/O PL 12.35 Item 1)
4	–	Mylar guide (P/O PL 12.35 Item 1)
5	–	Left rack (P/O PL 12.35 Item 1)
6	–	Right rack (P/O PL 12.35 Item 1)
7	–	Static eliminator (P/O PL 12.35 Item 1)
8	–	Compile tray (P/O PL 12.35 Item 1)
9	–	Idle roll (P/O PL 12.35 Item 1)
10	130N01628	Left tamper home position sensor (Q12-820)(REP 12.10)/Rear door open sensor (Q12-895)(REP 12.20)/Right tamper home position sensor (Q12-815)(REP 12.12)/Exit sensor (Q12-805)(REP 12.21)
11	–	Exit sensor actuator (P/O PL 12.35 Item 1) (REP 12.22)
12	–	Spring (P/O PL 12.35 Item 1)
13	–	Drive gear (P/O PL 12.35 Item 1)
14	–	Not used
15	–	Tamper link arm (P/O PL 12.35 Item 1)
16	–	Shaft (P/O PL 12.35 Item 1)
17	–	Not used
18	–	Mounting bracket (P/O PL 12.35 Item 1)
19	–	Right tamper motor (MOT12-300)/Left tamper motor (MOT12-320) (P/O PL 12.35 Item 1) (REP 12.19)

NOTE: *Order the entire Finisher using Service part number 607K05900 or Sales part number 097N01876.*

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5 Parts List
PL 12.35

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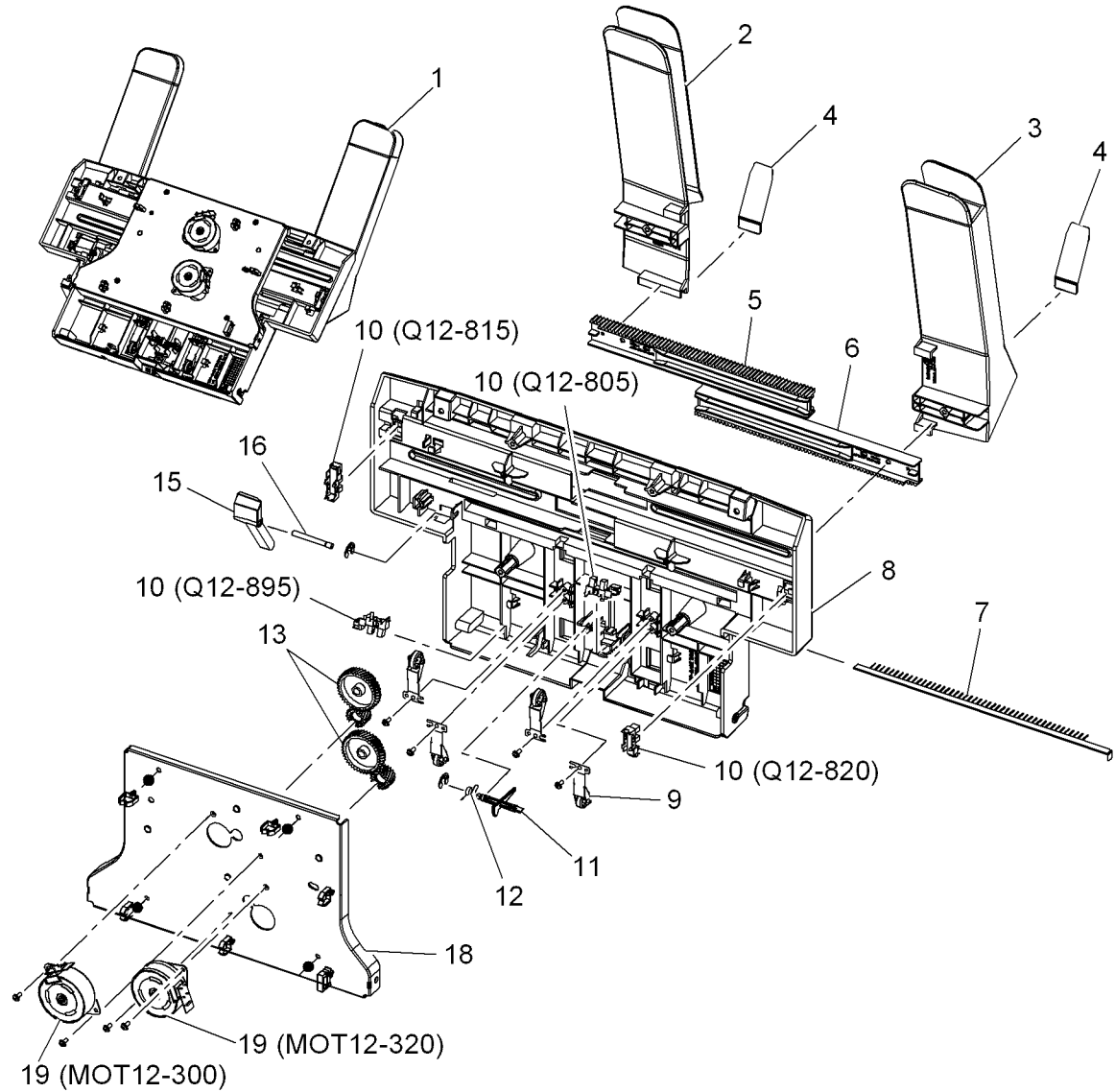
PL 12.40 Finisher Transport Drive Assembly

Item	Part	Description
1	–	Transport drive assembly (Not Spared) (REP 12.5)
2	–	Front frame (P/O PL 12.40 Item 1)
3	–	Rear frame (P/O PL 12.40 Item 1)
4	–	Feed roll 1 (P/O PL 12.40 Item 1)
5	–	Feed roll 2 (P/O PL 12.40 Item 1)
6	–	Feed roll 3 (P/O PL 12.40 Item 1)
7	–	Feed roll 4 (P/O PL 12.40 Item 1)
8	–	Transport motor (MOT12-110) (P/O PL 12.40 Item 1) (REP 12.5)
9	–	Bracket (P/O PL 12.40 Item 1)
10	–	Entrance motor (MOT12-100) (P/O PL 12.40 Item 1)
11	–	Bearing (P/O PL 12.40 Item 1)
12	–	Drive gear (P/O PL 12.40 Item 1)
13	–	Idle pulley (P/O PL 12.40 Item 1)
14	–	Idle gear (P/O PL 12.40 Item 1)
15	–	Motor bracket (P/O PL 12.40 Item 1)
16	023N01283	Entrance drive belt (REP 12.8)
17	–	Transport drive belt (P/O PL 12.40 Item 1) (REP 12.5)
18	–	Exit gate sensor (Q12-900)()/ Finisher entrance sensor (Q12-800)(REP 12.21) (Not Spared)
19	–	Exit gate sensor actuator (P/O PL 12.40 Item 1) (REP 12.7)
20	–	Actuator bearing (P/O PL 12.40 Item 1)
21	–	Plastic washer (P/O PL 12.40 Item 1)
22	–	Lower drive gear (P/O PL 12.40 Item 1)
23	–	Bearing (P/O PL 12.40 Item 1)
24	–	Lower idle gear (P/O PL 12.40 Item 1)
25	–	Exit gate cam shaft (P/O PL 12.40 Item 1) (REP 12.9)
26	–	Cam (P/O PL 12.40 Item 1)
27	–	Spring (P/O PL 12.40 Item 1)
28	–	Lower frame (P/O PL 12.40 Item 1)
29	–	Entrance sensor actuator (P/O PL 12.40 Item 1) (REP 12.22)
30	–	Inner rear cover (P/O PL 12.40 Item 1)
31	023N01284	Rear drive belt
32	–	Ground strip (P/O PL 12.40 Item 1)

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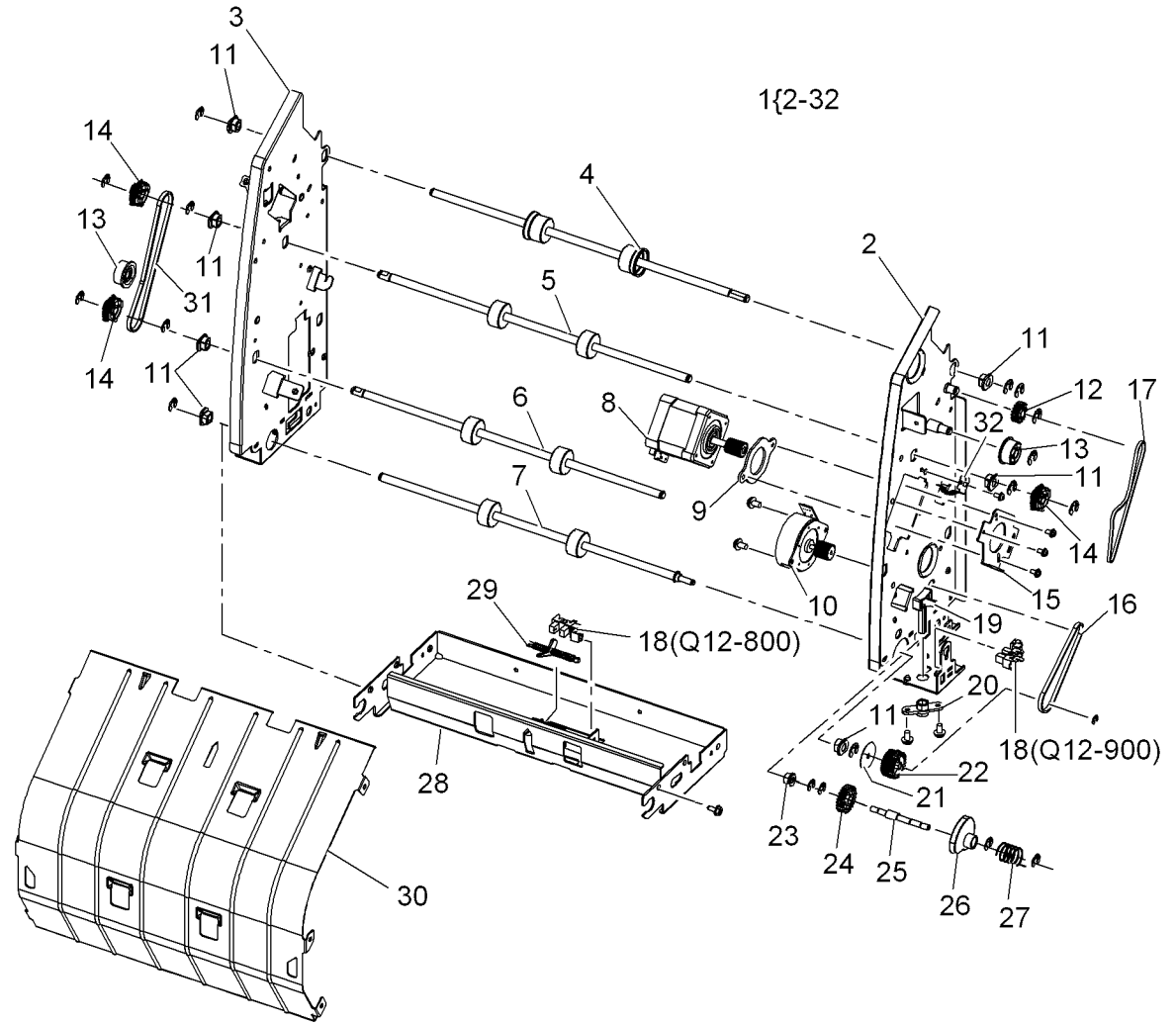
PL 12.40

PL 12.45 Finisher Stapler Assembly

Item	Part	Description
1	029N00417	Stapler assembly (REP 12.14)
2	–	Stapler bracket (P/O PL 12.45 Item 1)
3	–	Stapler (P/O PL 12.45 Item 1)
4	–	Staple cartridge door interlock switch (S12-870) (Not Spared) (REP 12.13)
5	–	Staple interlock switch (S12-890) (Not Spared) (REP 12.16)

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5 Parts List

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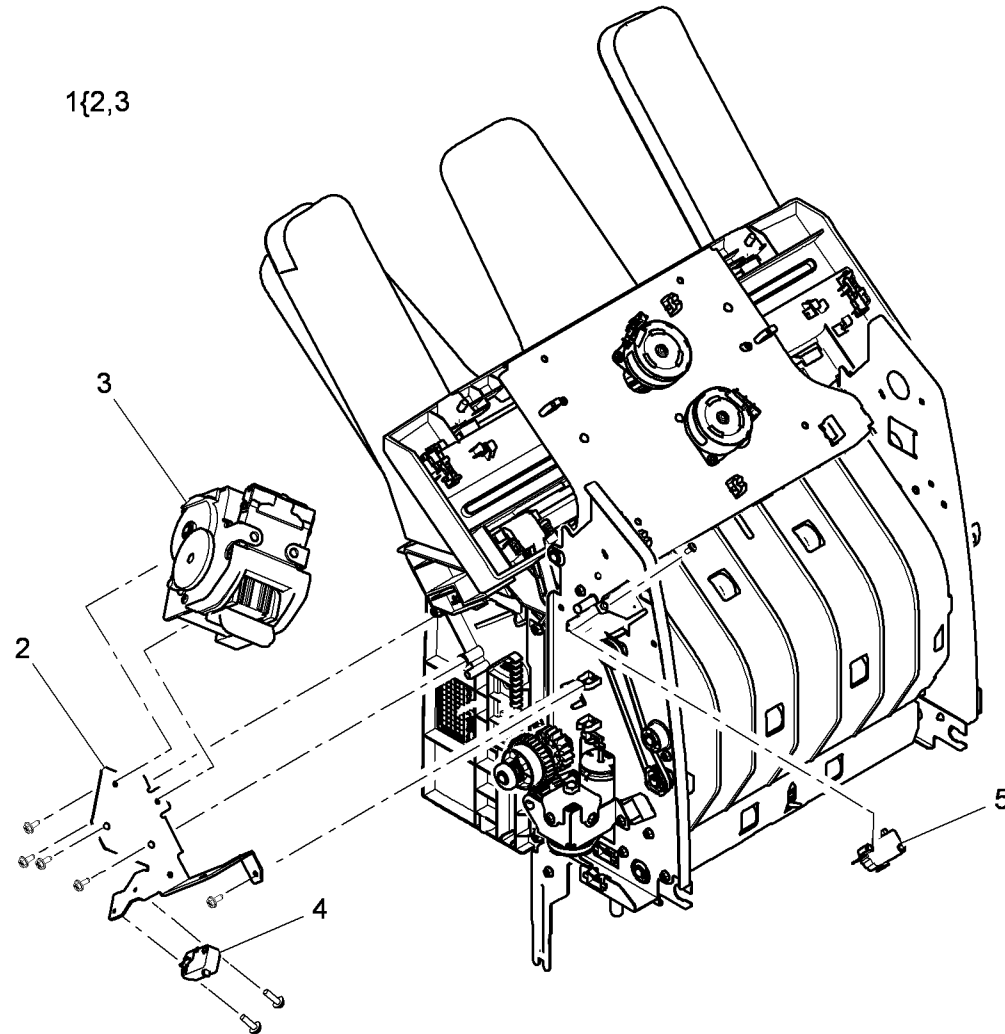
PL 28.10 Main Covers

Item	Part	Description
1	002N02984	Left cover (REP 28.3)
2	002N03024	Waste toner box cover
3	002N02996	Rear door assembly (REP 28.1)
4	002N02986	Right cover (REP 28.2)
5	002N02995	Front cover assembly (REP 28.4)
6	002N02985	MCU board cover (REP 28.1)
7	–	Top cover (REF: PL 28.15) (REP 28.5)
8	–	Right fan cover (Not Spared)
10	035N00428	Right seal filter
11	–	Rear support bracket (Not Spared)

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5 Parts List
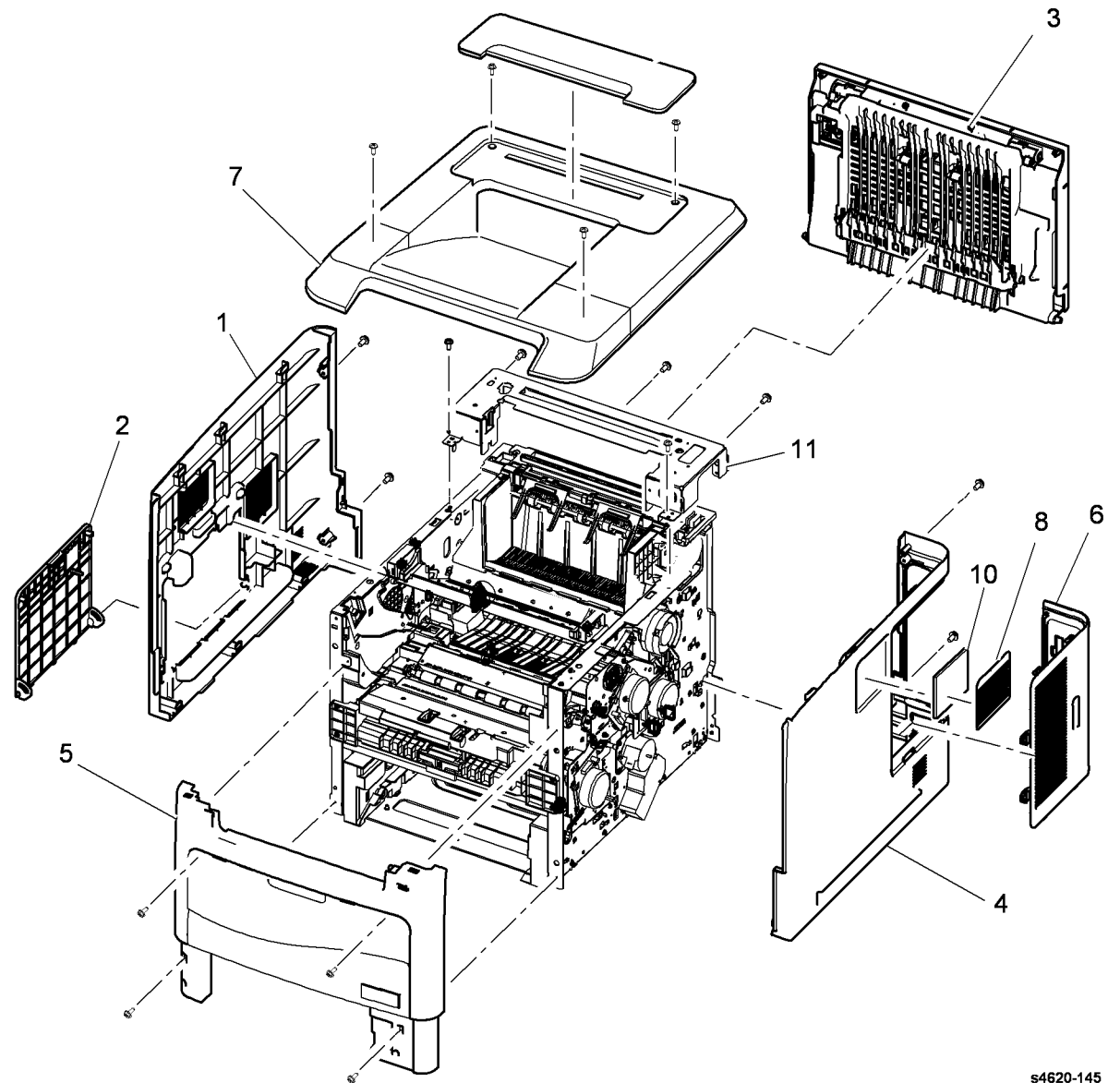
PL 28.10

PL 28.15 Top Cover Assembly

Item	Part	Description
1	002N02981	Top cover
2	130N01558	Top door / Rear Door interlock Switch (Q01-100) (REP 1.6)
3	–	Hinge stopper (P/O PL 28.15 Item 9)
4	–	Harness cover (P/O PL 28.15 Item 9)
5	–	Control panel assembly (REF: PL 2.10 Item 1)
6	–	Top door (P/O PL 28.15 Item 9)
7	–	Exit gate actuator (P/O PL 28.15 Item 9)
8	–	Stacker guide (P/O PL 28.15 Item 9)
9	002N03100	Top cover assembly (4600)
–	002N02982	Top cover assembly (4620)
–	002N03093	Top cover assembly (4622)

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5 Parts List

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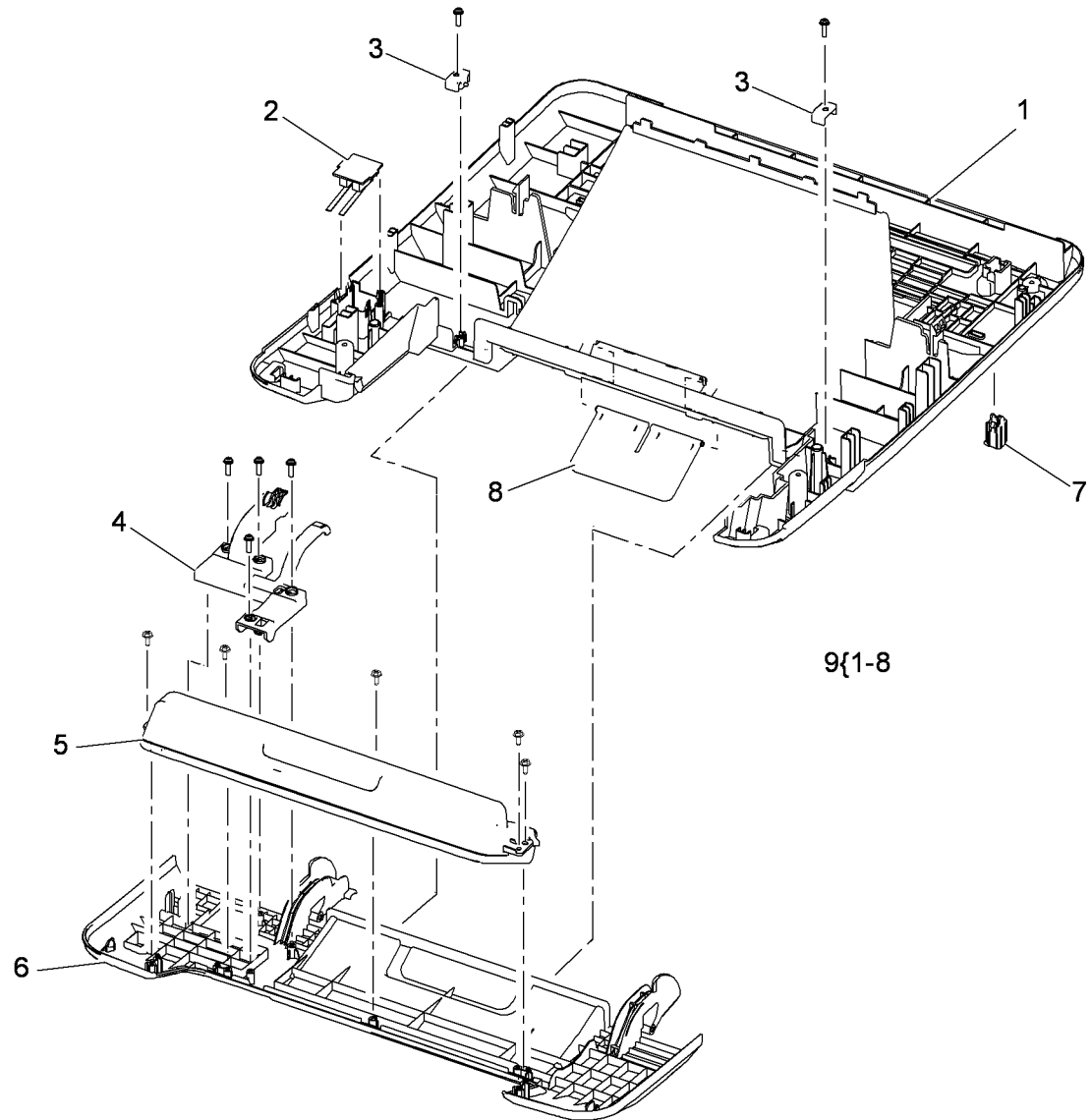
PL 28.20 Front Cover Assembly

Item	Part	Description
1	–	Front cover assembly (REF: PL 28.10 Item 5) (REP 28.4)
2	–	Front cover
3	–	Tray 1 cover (P/O PL 28.20 Item 1)
4	–	Tray 1 paper guide asembly (P/O PL 28.20 Item 1)
5	002N02991	Tray 1 stacker
6	–	Tray 1 extension tray (P/O PL 28.20 Item 1)
7	–	USB host holder (P/O PL 28.20 Item 1)
8	140N63464	USB host board (4600/4620) (REP 28.9)

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5 Parts List
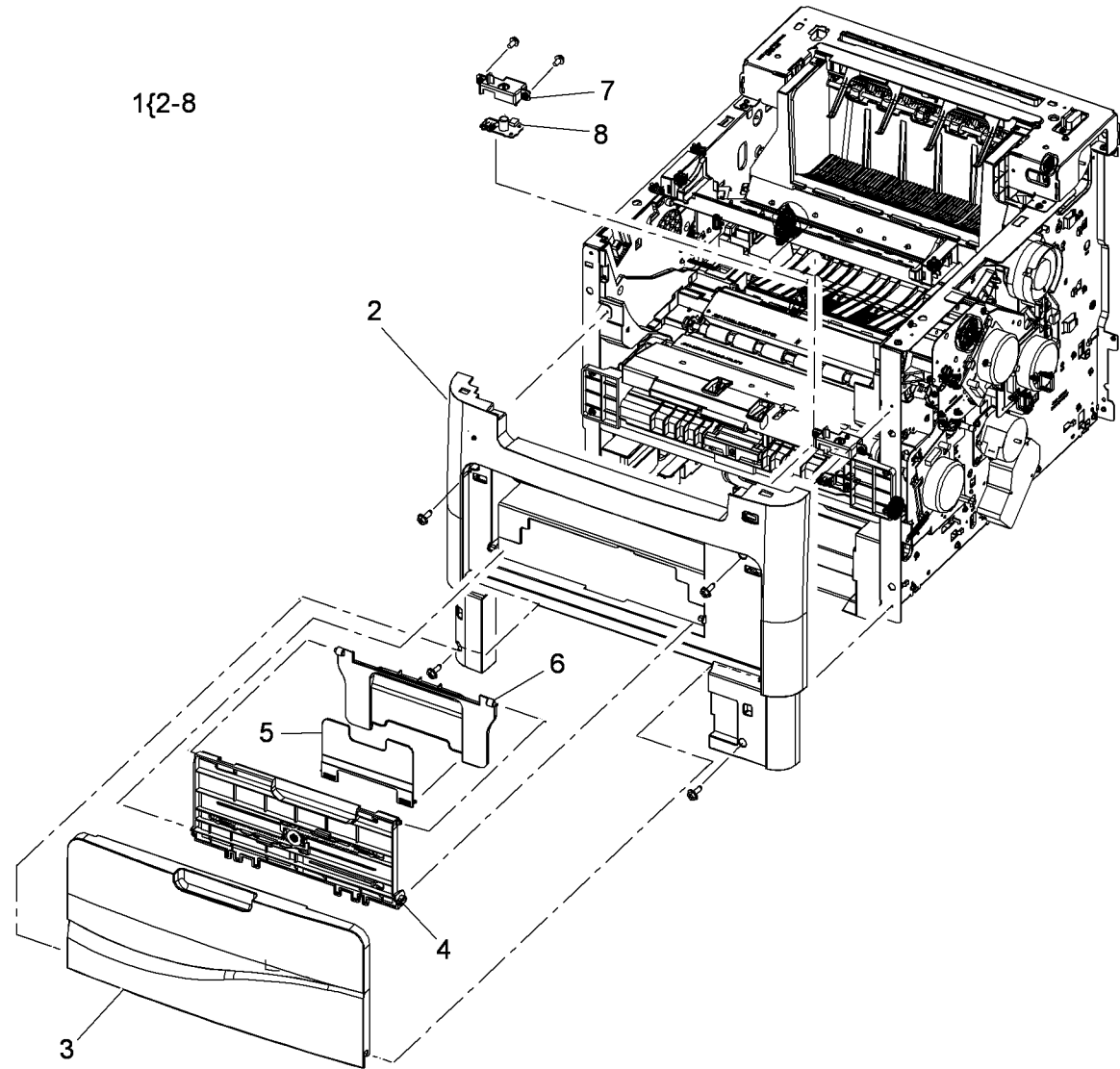
PL 28.20

PL 28.25 Rear Door Assembly

Item	Part	Description
1	–	Rear door assembly (REF: PL 28.10 Item 3)(REP 28.5)
2	–	Rear cover
3	–	Rear guide (P/O PL 28.15 Item 1)
4	–	Exit guide (P/O PL 28.15 Item 1)
5	–	Rear left locker (P/O PL 28.15 Item 1)
6	–	Rear right locker (P/O PL 28.15 Item 1)
7	–	Spring (P/O PL 28.15 Item 1)
8	–	Handle bracket (P/O PL 28.15 Item 1)
9	–	Rear cover handle (P/O PL 28.15 Item 1)
10	–	Handle sponge (P/O PL 28.15 Item 1)
11	–	Locker handle (P/O PL 28.15 Item 1)
12	–	Not Used
13	127N07668	Rear door fan (MOT10-500) (REP 28.7)
14	–	Tension spring (P/O PL 28.15 Item 1)
15	–	Roller (P/O PL 28.15 Item 1)
16	–	Idle shaft (P/O PL 28.15 Item 1)
17	–	Damper pad (P/O PL 28.15 Item 1)
18	–	Female bracket (P/O PL 28.15 Item 1)
19	–	Rear door switch (Q01-300) (P/O PL 28.15 Item 1)

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5 Parts List

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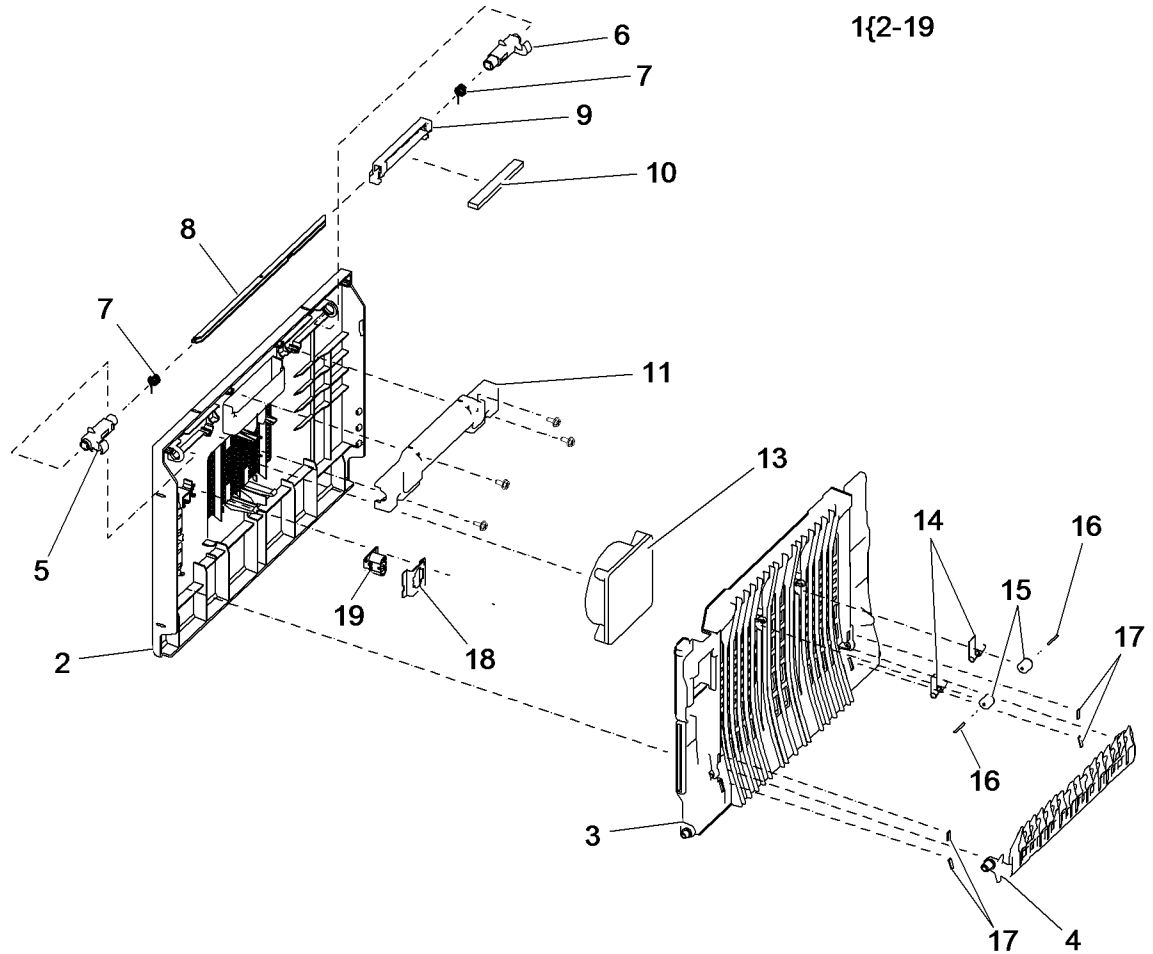
Supplies/Customer Replaceable Units

NA/XE Standard Capacity Toner Cartridge 13K - 106R01533
DMO Standard Capacity Toner Cartridge 13K - 106R01534
NA/XE High Capacity Toner Cartridge 30K - 106R01535
DMO High Capacity Toner Cartridge 30K - 106R01536

Metered/PagePack High Capacity Toner Cartridge - 40K - 106R02318

Metered/PagePack High Capacity Toner Cartridge - 40K (TAA/SGA) - 106R02638

Drum Cartridge - 80K - 113R00762

Staples - 008R12941

Maintenance Kit (Fuser, Transfer Roller, Feed rollers)
110V-115R00069
220V-115R00070

Table 1 Option and Accessory Part Numbers

Item	Service Part Number	Sales Part Number
520-Sheet Feeder	050K74180	097N01874
2000-Sheet Feeder	059K77920	097N01875
Finisher (500-Sheet)	059K77910	097N01876
Mailbox (400-Sheet)	050K74190	097N01877
Duplex Unit	022N02484	097N01923
Memory Upgrade	128K01770	097N01878
160MB Hard Disk (4600/4620)	007N01651	097N01879
320MB Hard Disk (4622)	N/A	097N02157
Wireless Network Adaptor	120K03640	097N01880
Stand	078K00870	097N01916

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5 Parts List
Supplies/Customer Replaceable Units

5 Parts List
Supplies/Customer Replaceable Units

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Part Number Index

The Part Number Index Table has been deleted from the EDOC.

Use SearchLite to search for Part Numbers and Part Descriptions.

6 General Procedures and Information

GP 1 Diagnostics Entry and Exit

Purpose

This procedure describes the following items:

- How to enter diagnostics
- The diagnostic screen
- How to exit diagnostics

NOTE: When the diagnostic mode is entered, all existing print jobs are suspended. All scheduled jobs will be held in a queue until diagnostics exits.

Procedure

Use these steps to enter diagnostics:

1. Press the Menu button.
2. Press the # button.
3. Enter 1934 on the keypad
4. Press the OK button.

Use these methods to exit diagnostics:

1. Allow diagnostics to time-out.
2. Cycle system power

Refer to GP 9 for the diagnostics menu map of available functions.

GP 2 Fault Codes and History Logs

Purpose

To describe access to fault history information, explain the fault code structure and define error messages and codes generated by the printer's operating system.

Description

- To access history files from the Control Panel, refer to GP 1 and GP 9.
- For information on fault codes, refer to Table 1.

Function and Fault Codes

Refer to Table 1 for a list of Fault code prefixes. These prefixes are also commonly referred to as chain codes.

Table 1 Function and Fault Code Prefixes

Chain Code	Function
01	Electrical (power)
03	Run control
04	Drives and Fans
06	Laser Unit (LSU or ROS)
07	Media Trays and detection
08	Media feed
09	Xerography
10	Fusing
11	Mailbox components
12	Finisher components
15	Network functions
17	Network configuration

Machine Status and Fault History

View error messages at the Control Panel or print the last 40 messages by printing the Error Message report from the Control Panel.

1. Enter diagnostics, refer to GP 1.
2. Select Troubleshooting
3. Select Error Messages and print the Last 40 Error Messages report.

Print Process Traces

Printers equipped with a Hard Drive record system activity, To retrieve printer's activity, use this procedure:

1. Insert a thumbdrive into the front USB port.
2. Press the Menu button.
3. Select Information and press OK.
4. Select Firmware Versions and press OK.
5. Wait approximately 30 seconds as the traces are transferred to the thumbdrive.

GP 9 Service Menu Map
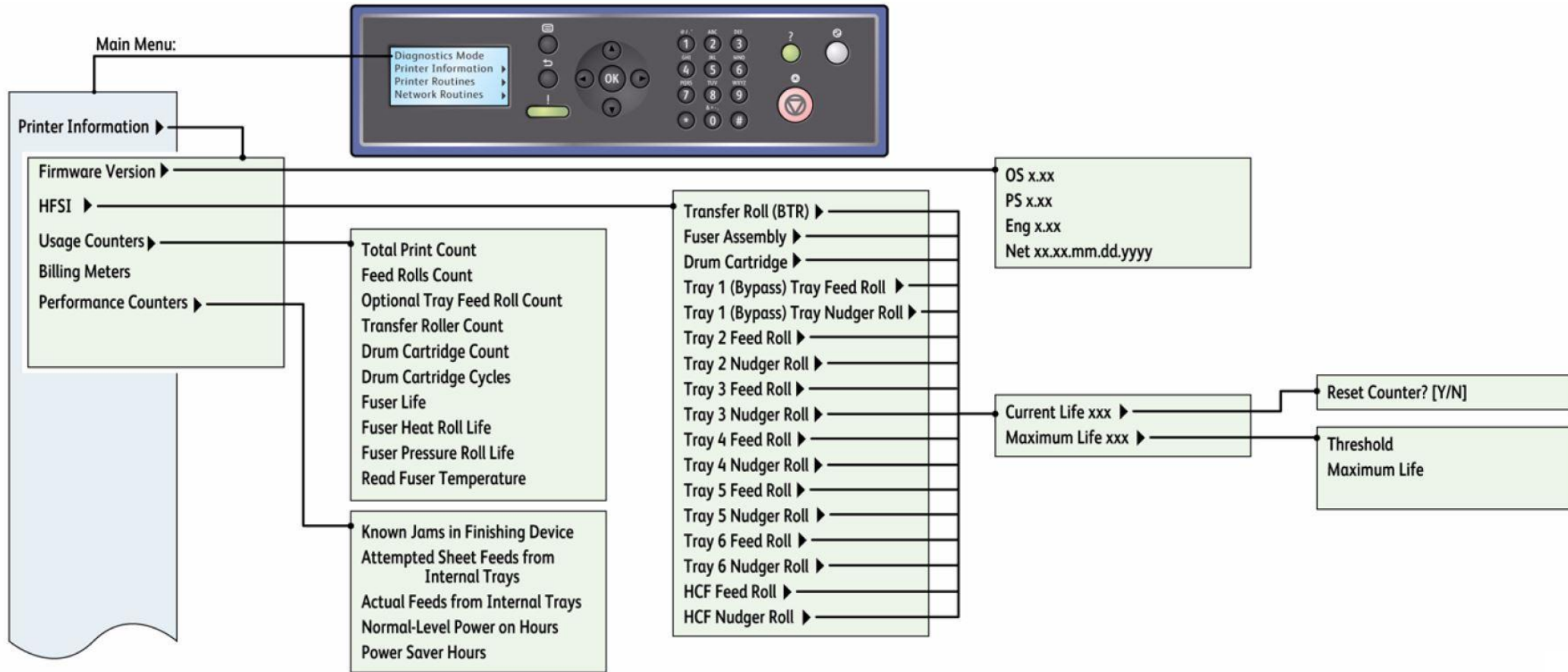
Figure 1 Service Menu Map (1/3)
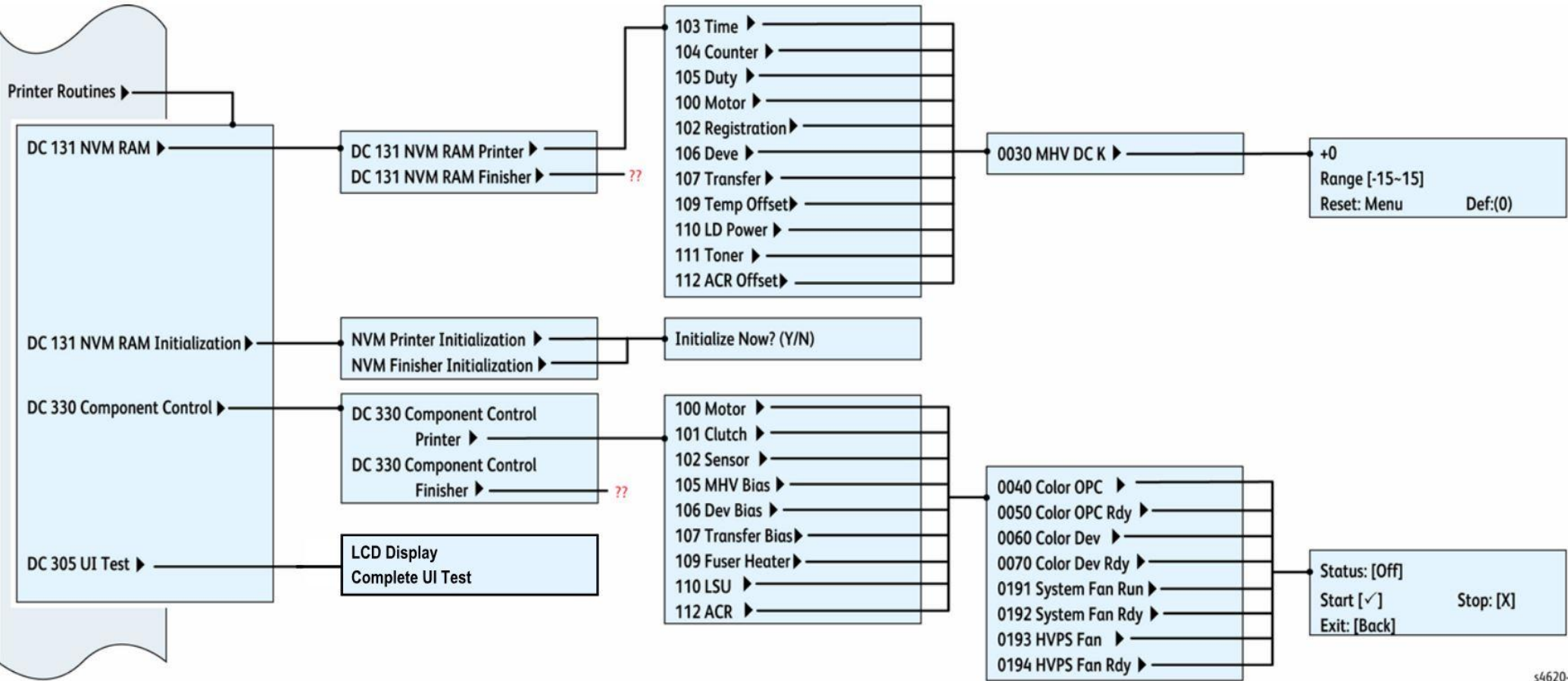
Figure 1 Service Menu Map (2/3)
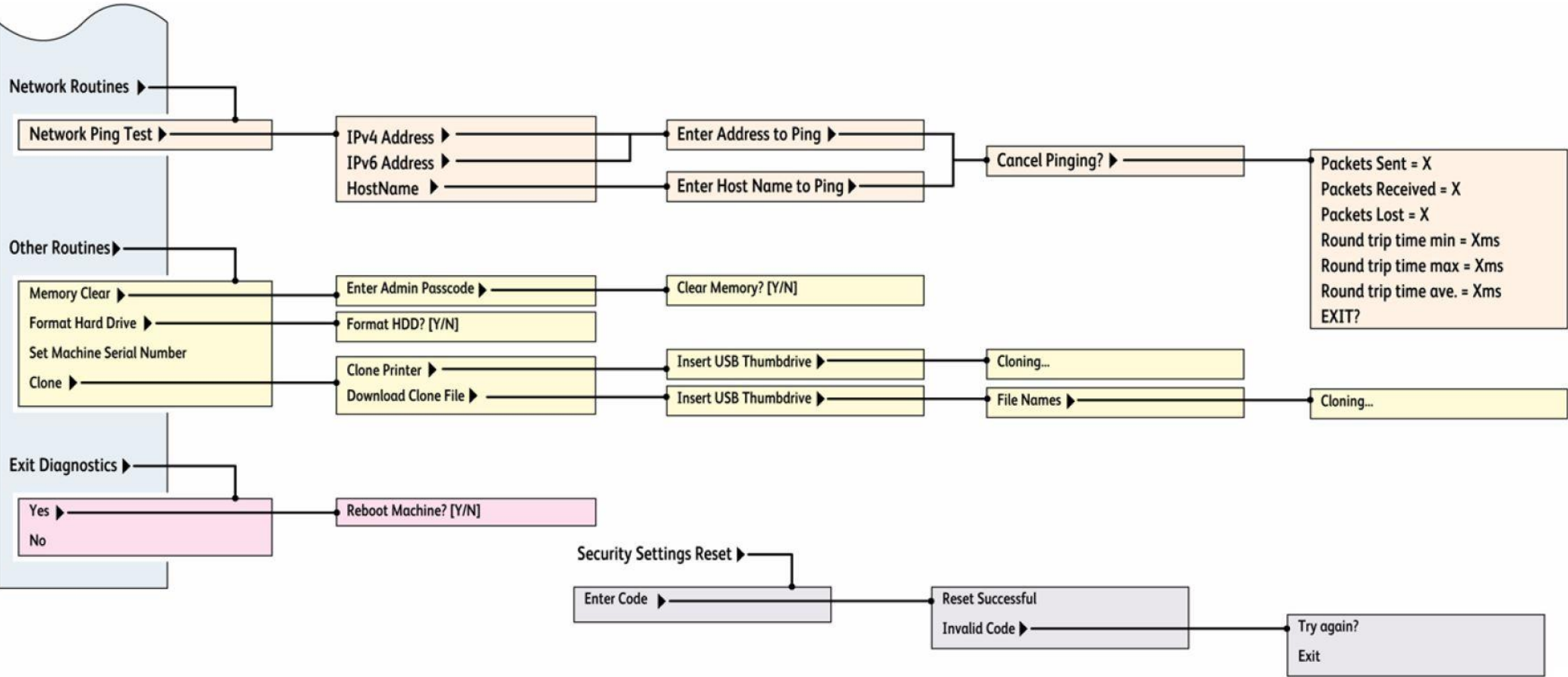
Figure 1 Service Menu Map (3/3)

GP 3 System Administration Tools
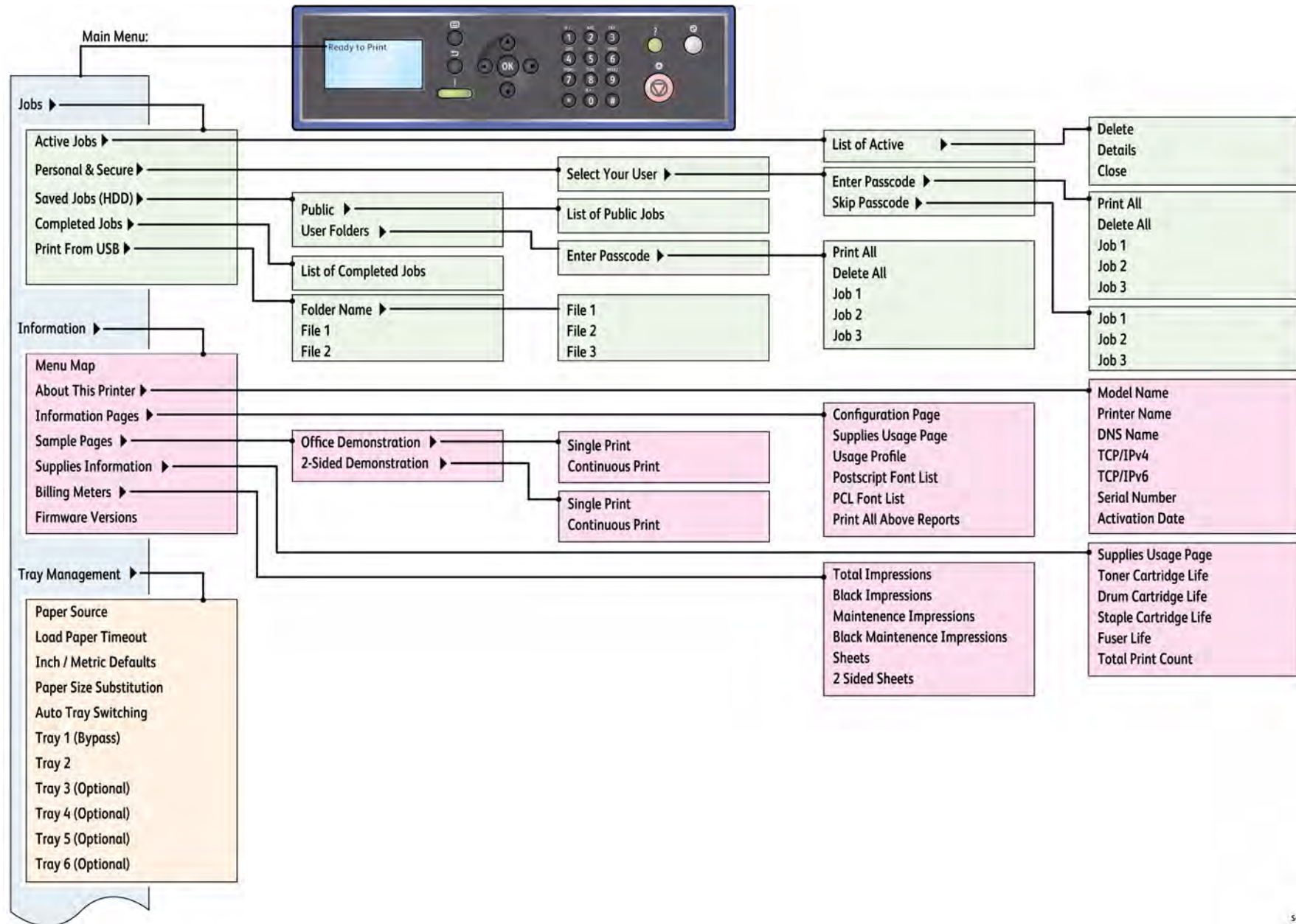
Figure 1 Customer menu map 1 of 2

Use Current Setup
Change Setup ▶ ──── Tray 1 Paper Type
Tray 1 Paper Size
Tray 1 Paper Color

Tray Paper Settings ▶

Use Current Setup
Change Setup ▶ ──── Tray 2 Paper Type
Tray 2 Paper Size
Tray 2 Paper Color

Tray 1 (Bypass) Paper ▶
Tray 2 Paper ▶
Tray 3 Paper ▶
Tray 4 Paper ▶
Tray 5 Paper ▶
Tray 6 Paper ▶

Use Current Setup
Change Setup ▶ ──── Tray 3 Paper Type
Tray 3 Paper Size
Tray 3 Paper Color

Use Current Setup
Change Setup ▶ ──── Tray 4 Paper Type
Tray 4 Paper Size
Tray 4 Paper Color

Use Current Setup
Change Setup ▶ ──── Tray 5 Paper Type
Tray 5 Paper Size
Tray 5 Paper Color

Use Current Setup
Change Setup ▶ ──── Tray 6 Paper Type
Tray 6 Paper Size
Tray 6 Paper Color

Tools ▶

Enter System Passcode ▶

Configurations Page
Setup ▶ ──── Network Settings
File Security ▶ ──── PostScript Setup
Special Feature Options   PCL Setup
Clone Printer   General Setup
Account Enablement   Machine Settings

Troubleshooting ▶

Immediate Overwrite
On Demand Overwrite

Error Messages
Last 40 Error Messages
Call For Assistance
Print All Above Reports
Test Prints
Hexadecimal Mode

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Figure 2 Customer menu map 2 of 2

GP 4 Reports

Purpose

To list reports available from the printer's Control Panel, refer to GP 3 and GP 9.

- Configuration report
- Supplies Usage page
- Usage Profile
- PostScript Font List
- PCL Font List
- Last 40 Error Messages
- Call for Assistance

Configuration Report

The Configuration Report lists the current state of system configuration parameters including installed options and network settings.

Supplies Usage

The Supplies Usage report includes the current status of printer consumables and routine maintenance items. Life counts, installation dates and replacement part numbers are listed for all items.

Usage Profile

The Usage Profile report lists page counts, coverage, and billing meter totals.

PostScript Font List

This report provides a list of the installed PostScript fonts.

PCL Font List

This report provides a list of the installed PCL fonts.

Last 40 Error Messages Report

This report lists the chain-code, error message, and date of the last 40 errors.

Customer Assistance

This report provides basic system and maintenance information including consumables, system model and serial numbers, page counts, and installed options.

GP 5 Firmware Upgrade

Purpose

Procedure to upgrade system firmware.

- Remote procedure
- Local procedure

Remote Upgrade

There are 2 methods to upgrade the firmware on networked machines, CentreWare Internet Service (CWIS) and CentreWare Web.

NOTE: CentreWare Web can only be used by the System Administrator.

Use this procedure to upgrade system firmware from CWIS:

1. Open Microsoft Internet Explorer. Enter the machines IP address.
2. Enter the machines IP address. Press return. The CentreWare Internet Services window will open.
3. Click on the Properties tab.
4. In the Properties window, click on Maintenance, then Firmware Upgrade.
5. Enter the customer's username and password (defaults: admin / 1111). The Firmware Upgrade window will open.
6. In the Firmware Upgrade window, select Browse.
7. Browse to the location of the firmware files. Select the correct firmware file.
8. Select Install Software. The firmware file will now be transmitted to the machine. The machine will automatically initialize when the upgrade procedure is finished.
9. Check that the machine has been successfully upgraded.

Local Upgrade

The firmware upgrade is initiated at the Control Panel from a USB thumbdrive through the standard thumbdrive port.

Use this procedure to upgrade system firmware through the USB port on the Front Cover.

1. Load the firmware onto a USB thumbdrive.
2. Connect the USB thumbdrive to the standard thumbdrive port on the front of the machine.
3. Select Print from USB.
4. From the displayed list, navigate to the relevant firmware file. Select the firmware file.
5. Select Add. The firmware file will be added to the print list.
6. Select Done. The print list will be displayed.
7. Select the firmware file to be downloaded to the machine. Press OK to send the firmware file to the machine.

   NOTE: The progress of the upgrade procedure will be displayed on the UI. The machine will reboot after the upgrade.

8. After the firmware has been upgraded, check that the correct version appears on the Configuration page. Refer to GP 4 Reports.

GP 6 Electrostatic Discharge Prevention

Some semiconductor components, and the respective sub-assemblies that contain them, are vulnerable to damage by Electrostatic Discharge (ESD). These components include Integrated Circuits (ICs), Large-Scale Integrated circuits (LSIs), field-effect transistors, and other semiconductor chip components. The following techniques will reduce the occurrence of component damage caused by static electricity.

Be sure the power is Off to the chassis or the circuit board, and observe all other safety precautions.

- Immediately before handling any semiconductor components assemblies, drain the electrostatic charge from your body. This can be accomplished by touching an earth ground source or by wearing a wrist strap device connected to an earth ground source. Wearing a wrist strap will also prevent accumulation of additional bodily static charges. Be sure to remove the wrist strap before applying power to the unit under test to avoid potential shock.
- After removing a static sensitive assembly from its anti-static bag, replace it on a grounded conductive surface. If the anti-static bag is conductive, you may ground the bag and use it as a conductive surface.
- Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage some devices.
- Do not remove a replacement component or electrical sub-assembly from its protective package until you are ready to install it.
- Immediately before removing the protective material from the leads of a replacement device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- Minimize body motions when handling unpacked replacement devices. Motion such as your clothes brushing together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an electro-statically sensitive device.
- Handle IC's and Erasable Programmable Read-Only Memories (EPROM's) carefully to avoid bending pins.
- Pay attention to the direction of parts when mounting or inserting them on the Printed Circuit Boards (PCB's).

GP 7 Machine Specifications

Functional Specifications

Table 1 lists the functional specifications of the printer.

Table 1 Functional Specifications

Characteristic	Specifications
Printing Process	Laser exposed drum.
Image System	Toner/developer drum and Fuser.
Resolution	600 x 600 dpi (optical) 1200 x 1200 (enhanced)
Maximum Duty Cycle	275,000 sheets/month (A4 size, ISO)
Recommended AMPV	7,000 pgs (A4 size, ISO)
First Page-Out (from Sleep)	50 seconds
Warm-Up Time	• From Cold Start: Less than 10 minutes • From Energy Star Mode: Less than 4 minutes
Printer Life	5 years or 1,000,000 pages
Operating System	• Windows 2000/ 2003, 2008 Server/ XP/ Vista/W7 • Macintosh: OS 10.5 or higher • Linux
* Assumes a 30 day month of printing.	

Electrical Specifications

Table 2 lists the printer's electrical requirements.

Table 2 Electrical Specifications

Characteristic	Specifications
Primary Line Voltages	• 90 - 140 VAC • 180 - 264 VAC
Primary Line Voltages Frequency Range	47 - 63 Hz
Power Consumption at Rated Voltage Input	• Printing: 550 W • Idle: 33 W • Power Saver: 11 W

6 General Procedures and Information

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GP 8 General Disassembly Precautions

Purpose

Use these precautions when disassembling and reassembling components.

Procedure

NOTE: The close proximity of cables to moving parts makes proper routing essential. If components are removed, any cables disturbed by the procedure must be restored as close as possible to their original positions. Before removing any component from the machine, note the cable routing that will be affected.

Whenever servicing the machine, perform the following:

1. Check to verify that jobs are not stored in memory.
2. Unplug the power cord.
3. Use a flat and clean surface.
4. Only install authorized components.
5. Do not forcibly remove plastic components.
6. Ensure all components are in their correct position.
7. When replacing screws into plastic components, turn the screw counterclockwise to engage the original thread, then turn the screw clockwise. Do not overtighten. If a new thread is cut, the plastic component will lose the ability to hold the screw. This also applies to metal components.

GP 10 How to Check a Motor

This procedure describes how to check a motor:

Initial Actions

<div align="center">

WARNING

</div>

Switch off the electricity to the machine. 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 that the motor is free to rotate.
2. Check that all the motors mechanisms are clean, free to move and lubricated correctly.
3. Enter the component control code for the motor, refer to dC330. Run the motor for 30 seconds, if the motor shows signs of or can be heard to slow down, the motor is defective. Replace the motor.
4. Perform the appropriate procedure:
   - Two Wire DC Motor
   - DC Motor with Integral Encoder
   - Four Wire Stepper Motor

NOTE: The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the wiring diagram associated with the RAP for the correct information.

Two Wire DC Motor

NOTE: In cases where the motor may be driven forward or backward, the same two feed wires are used, but the voltages on them are reversed, to reverse the motor direction. Such motors may have two component control codes, for forward and reverse. A typical application is a tray lift motor with a tray-up and a tray-down direction

1. Check the drive voltage when the component control code for the motor is entered. If the drive voltage is measured, install a new motor. If the drive voltage is not measured, continue to the next step.
2. Check that the drive voltage can be measured on the PWB when the component control code for the motor forward is entered. If no drive voltage is measured, check the power to the PWB. If the power is good install a new PWB. If the drive voltage is measured at the PWB, check the wiring to the motor. Repair or install new wiring.

DC Motor with integral Encoder

NOTE: This type of motor has the normal drive voltages for a DC motor, plus the +3.3V and 0V lines for the encoder. The encoder has two outputs, A and B, producing pulses when the motor is on. When the motor is running in one direction, the encoder A pulses lead the encoder B pulses. In the other direction, encoder B pulses lead encoder A pulses. In this way the controller can detect that the motor is running in the correct direction.

Check the operation of the motor as follows:

1. Check the drive voltage when the component control code for the motor is entered. If the drive voltage is present at the motor, install a new motor. If the drive voltage is not present, go to step 2.

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2. Check that the drive voltage at the driver PWB when the component control code for the motor is entered. If the drive voltage is present, check the wiring and connectors to the motor. If the drive voltage is not present, check the power to the driver PWB. If the power to the PWB is good, install a new driver PWB.

NOTE: When checking for pulses, use a standard digital multimeter. Using the DC volts range, or the AC volts range, expect to obtain a reading greater than 1V and less than 4 volts, while the motor is running. The actual value depends on the meter's reaction to square waves and to the particular frequency of the pulses. It is common to obtain a reading of 2 to 3 volts. If the meter has a minimum and maximum recording facility, expect a maximum value of around +4.9 volts DC, and a minimum value of around +0.2 volts DC

Check the operation of the encoder as follows:

Check for pulses when the motor is running. If pulses are present, check the driver PWB. If pulses are not present at the motor, check the wiring to the motor and repair to install new wiring. If pulses are present, install a new driver PWB.

Four Wire Stepper Motor

NOTE: A stepper motor with an internal open circuit may appear to be fully functional under dC330 component control. However, under normal operation it will run with intermittent failure. Use the multimeter to check stepper motor coil resistance is similar.

1. Refer to Figure 1. Disconnect PJ23. Check the +24V supply and the phase pulses to GND when the component control code for the motor is entered. If the supply and pulses are present, install a new motor.
2. Check the connectors and wiring to the motor. Repair or install new wiring, as necessary.
3. Disconnect CN1. Check the +24V. If +24V is not present, check the power to the PWB. If the power is good, install a new PWB. Check the phase pulses at the PWB. If the phase pulses are not present at the PWB, install a new PWB
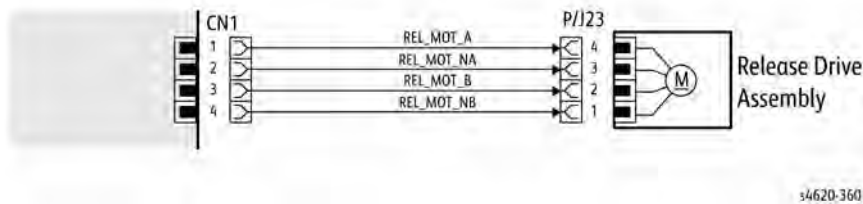
Figure 1 Example Motor Wiring Diagram

GP 11 How to Check a Sensor

Use this procedure to check the operation of all types of sensor.

NOTE: Some sensors have a resistor within the sensor and other sensors require a resistor on the PWB. The resistor limits the current through the LED. The voltage to the sensor LED with an external resistor, is typically 1.2V.

NOTE: The voltages, PJ numbers, pin numbers and PWB names shown are examples only. Go to the wiring diagram associated with the RAP for the correct information.

NOTE: In some cases, two sensors are used to form an interruptible beam of light. In these cases, the LED of one sensor and the sensing element of the other sensor are used. Treat the two sensors as if they were housed in the same body for diagnostic purposes, ignoring the unused part of each sensor. If the combined sensors do not operate correctly and the beam path is clear of obstruction, it may be necessary to install both new sensors.

Quick Sensor Check

Enter the component control code for the sensor, refer to dC330. Actuate the sensor. If the display changes, the sensor operates correctly. If the display does not change, perform the procedure.

Procedure

For the sensor in the wiring diagram shown in Figure 1:

1. Actuate the sensor and check for a change in voltage at PJ24, pin 2. If the voltage changes, install a new PWB. If the voltage does not change, continue to the next step.
2. Disconnect PJ25. Check for +3.3V and 0V (GND) on the harness.
3. Disconnect PJ24 and PJ25. Check the harness and the connectors for continuity.
4. Check for +3.3V and 0V (GND) at the PWB.
5. If necessary, install new components or repair the wiring.
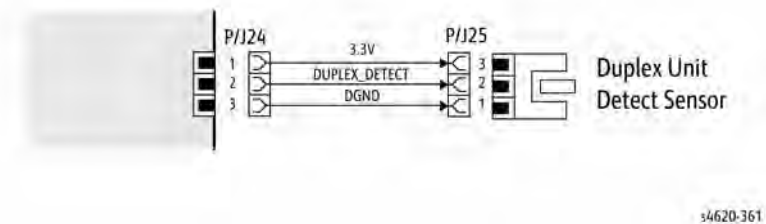
Figure 1 Example Sensor Wiring Diagram

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GP 12 How to Check a Solenoid or Clutch

Use this procedure to check a clutch or solenoid.

Initial Actions

WARNING

Switch off the electricity to the machine. 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. For a clutch, check that the shafts, gears, rolls etc., associated with the clutch are free to rotate, clean and lubricated where applicable.
2. For a solenoid, check that the solenoid is free to actuate and that the mechanisms associated with the solenoid are free to move.

Procedure

NOTE: The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the wiring diagram associated with the RAP for the correct information.

NOTE: When a solenoid is energized in diagnostics, movement is seen. When a clutch is energized in diagnostics, the sound of the clutch action is heard. If possible, run the motor connected to the clutch to confirm when the clutch is energized

1. Enter the dC330 output code for the clutch or solenoid. If the clutch or solenoid does not energize, continue with step 2.
2. Figure 1, disconnect PJ32, check for +24V at PJ32 pin 2 on the wiring side of the connector, If the voltage is not correct, trace the faulty component.
3. Reconnect PJ32, enter the dC330 output code for the clutch or solenoid, while measuring the voltage between CN1 pin 1 and the machine frame. If the voltage does not change when the code is entered, Install a new PWB.
4. There may be an intermittent fault, perform the actions that follow:
   a. Check the wiring. Repair or install new components as necessary.
   b. Operate the clutch or solenoid under normal running conditions. If the clutch or solenoid operates intermittently or with hesitation, install new parts.
   c. Check that the clutch or solenoid has enough drive to operate the mechanism to which it is attached, if necessary install a new clutch or solenoid.
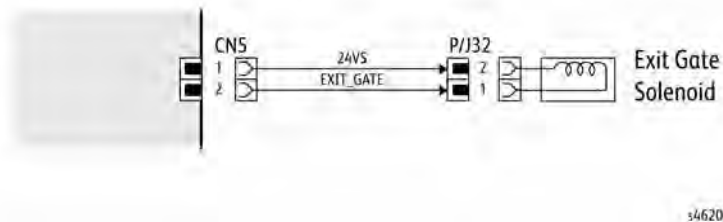
Figure 1 Example Clutch Wiring Diagram

GP 13 How to Check a Switch

Use this procedure to check the operation of a switch.

NOTE: Figure 1 shows an interlock switch actuated by the closing of a door.

Initial Actions

WARNING

Switch off the electricity to the machine. 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.

Manually check that the switch operates. Ensure that the magnet or other actuator has enough mechanical movement to operate the switch.

NOTE: The voltages, PJ numbers, pin numbers and PWB names shown are an example only. Go to the wiring diagram associated with the RAP for the correct information.

Procedure

1. Enter diagnostics and check the switch. The switch is operating correctly, check and adjust the mechanism that actuates the switch
2. Refer to Figure 1, then disconnect T072.
3. +5V is available between pin 1 and pin 2 on the wiring side of the connector.
4. +5V is available at PJ5 between pins 3 and 4 on the PWB.
5. Check the supply voltage. If +5V is available, install a new PWB.
6. Check the wiring between PJ5 and T072. Repair or install new parts as necessary.
7. Install a new switch.
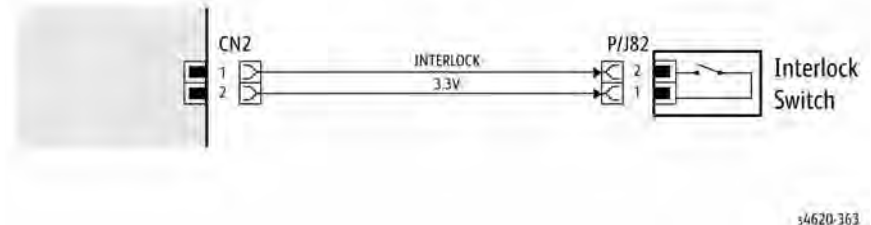
Figure 1 Example Switch Wiring Diagram

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GP 14 Separate System Modules

Use this procedure to remove the Mailbox or Finisher modules from the printer.

Description

Most service procedures for finishing modules require separation of the module from the printer. Only 1 person is required to separate the Mailbox or Finisher from the printer.

WARNING

Switch off the electricity to the machine. 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

Always move the printer separately from the Finisher, Mailbox, and optional trays.

1. Clear the media path and output trays.
2. Remove the output trays from the mailbox before servicing the module.
3. Lift the module to clear the support brackets.
4. Place the module on a suitable work surface to avoid damage.
5. Check the position of the option connector before module installation on the IOT.

GP 15 How to Safely Lift or Move Heavy Modules

Use this procedure when lifting or moving heavy modules.

Description

Most service procedures for optional feeder modules require separation of the printer and feeders. Removal of the printer from the feeder requires 2 people. The Mailbox and Finisher modules only require 1 person for removal.

WARNING

Mandatory safety warning. This procedure must be performed by 2 people. The module is heavy.

CAUTION

Always move the printer separately from the Finisher, Mailbox, and optional trays.

CAUTION

Failure to properly repackage the printer for shipment can result in damage to the printer. Printer damage caused by improper packaging is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee.

When removing heavy modules from the machine, observe the following:

1. Ensure that a suitable stable surface to support the module after removal is located in close proximity to the machine.
2. Ensure the support surface height is between 750mm and 1000mm (30 inches and 39 inches).
3. Ensure there are no hazards or obstacles between the machine and the support surface.
4. Two people are required if the module is to be lifted on to the floor or lifted from the floor.

Figure 1 Printer lifting technique

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GP 16 Machine Lubrication

Purpose

To give information on the use of lubricants.

Procedure

Take the following precautions when performing machine lubrication:

- Wear disposable gloves.
- Only use lubricants that are specified in the Parts List.
- Only lubricate parts of the machine as directed in the relevant RAPs, Repairs and Adjustments etc.
- Apply only the smallest amount of lubricant, sufficient to lubricate the parts. To prevent contamination, remove any surplus lubricant before the machine is run.
- Take great care not to contaminate other parts of the machine with the lubricant.

GP 17 Installation Space Requirements

Space Requirements

Figure 1 shows the required amounts of space needed to properly operate and service the machine.

1. In order to function properly, the printer must be placed on a flat surface with the following minimum clearances, Figure 1.

Figure 1 Minimum Clearances

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2. Mounting surface flatness must be within the specified range.

3. The printer must not be tipped or tilted more than 10 mm in either direction.
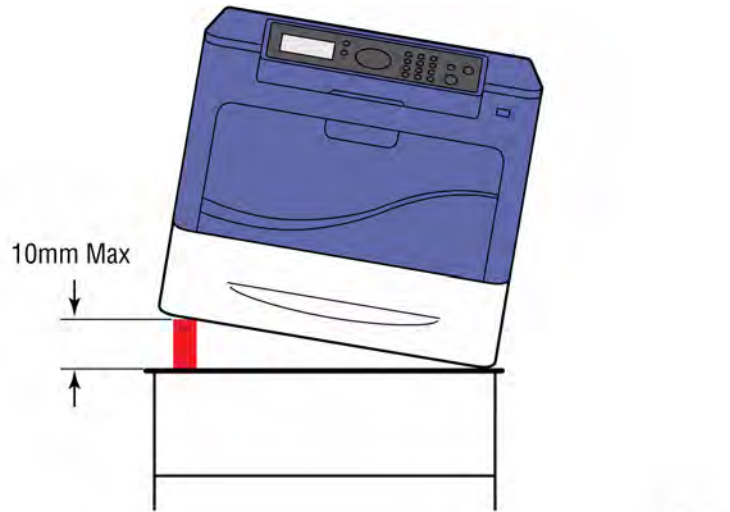
Figure 2 Tilting Specifications

Dimensions

Table 1 Print Engine

Dimensions	N/ DN/ DT
Width	18.3 in. (46.4 cm)
Depth	20.5 in. (52.1 cm)
Height	16.4 in. (41.9 cm)
Weight	66.0 lbs. (30.2 kg)

GP 18 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.; 22.5 mm (0.885 inches)

Refer to Table 1.

Table 1 Glossary

Term	Description
AAA	Authentication, Authorisation and Accounting
ABS	Automatic Background Suppression. ABSolute
ACK	Acknowledge
AGC	Automatic Gain Control
AHA	Advanced Hardware Architecture
AMCV	Average Monthly Copy Volume
AMPV	Average Monthly Print Volume
AMR	Automatic Meter Read
AMS	Automatic Magnification Selection
ANSI	American National Standards Institute
API	Application Programming Interface
APS	Auto Paper Selection
ARP	Address Resolution Protocol. Converts an IP address to a MAC address. See RARP.
ASIC	Application Specific Integrated Circuit
ASP	Authorized Service Provider
ASTM	American Standard Test Method
ATPD	Across The Process Direction
AZAP	Any Zone Any Paper
B	Bels (applies to sound power level units)
B (A)	Bels (A weighted) (applies to sound power level units)
B (A) I	Bels (A weighted) Impulse response (applies to sound power level units)
BABT	British Approvals Board for Tele-Communication
BAM	Bundes Anstalt fur Materialprufung
BEUI	BIOS Extended User Interface
Bluetooth	Wireless local area network
BootP	Boot Protocol. AN IP protocol for automatically assigning IP addresses.
bps	Bits per second
BS	Behavior Specification
BT	Busy Tone
C	Celsius
CAT	Customer Admin Tool
CB	Certification Bodies
CCA	Cenelec Certification Agreement

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Table 1 Glossary

Term	Description
CCA	Customer Call Assistance
CCD	Charged Coupled Device
CCITT	Comite Consultatif International Telegraphique et Telephonique
CCR	Change Control Request
CD	Copy Darker. A copy density setting
CD-ROM	Compact Disk - Read Only Memory
CDDU	Controller and Drivers Delivery Unit
CDDUW	Controller and Drivers Delivery Unit - West Coast
CDS	Charge - deficient spot. A photoconductor defect that as a very small black spot (image quality parameter).
CED	Called Station Identification
CEH&S	Corporate Environmental Heath and Safety
CentreWare	CentreWare internet services is the embedded HTTP server application that is available on network enabled machines. It enables access to printing, faxing and scanning over the internet.
CFR	Confirmation To Receive
CISPR	Comite International Special des Perturbations
CID	Command Identification
CIG	Calling Subscriber Identification
CIS	Contact Image Sensor
CL	Copy Lighter. A copy density setting
Click Charge	Charge by copy/print rate
COD	Customer Operating Division
CPHI	Calls Per Hundred Installs
cpm	Copies per minute
CQ	Copy Quality
CR	Change Request
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Monitor
CSE	Customer Service Engineer
CSF	Call Service Fault
CSMS	Customer Satisfaction Management System
Customer Drivers	Customer drivers are specially developed generally made with a driver toolkit. These drivers can provide a full set of features for Xerox printers. In the past, customers drivers have been provided for all major operating systems. A customer print driver is costly to develop, and does not used standard operating system components. For this reason, PPD / GPD solutions will be used in future whenever possible.
CTC	Continue To Correct
CTF	Contrast Transfer Function
CTR	Response For Continue To Correct
CTS	Clear To Send

Table 1 Glossary

Term	Description
CVT	Constant Velocity Transport
CWW	CentreWare Web
DADF	Duplex Automatic Document Feeder (feeds documents to a different stack)
DADH	Duplex Automatic Document Handler (feeds documents to bottom of existing feed stack)
DB	Database
dB	Decibel (applies to sound pressure level units)
dB(A)	Decibels (A weighted) (applies to sound pressure level units)
dB(A)I	Decibels (A weighted) Impulse response (applies to sound pressure level units)
dC	Diagnostic code
DC	Digital Copier
DC	Device Controller, generic term for any module that acts as a image handling device e.g., SIP. Digital Copier
DC	Direct Current
DC + Fax	Digital Copier with embedded Fax card
DCN	Disconnect
DCS	Digital Command Signal
DDF	Device Description File
DHCP	Dynamic Host Config Protocol (similar to BootP)
DIMM	Dual In Line Memory Module
DIN	Deutches Institute fur Normung
DLM	Dynamically Loadable Module
DMO-E	Developing Markets Operations East (was part of RX)
DMO-W	Developing Markets Operations West (was part of ACO)
DOS	Disk Operating Systems
DPHM	Defects Per Hundred Machines
DIS	Digital Identification Signal
DMA	Direct Memory Access
DMO	Developing Markets Operations
dpi	Dots per inch
DRAM	Dynamic Random Access Memory
DRS	Drum to Roll Spacing
DSR	Data Set Ready
DST	Daylight Saving Time
DT	Dial Tone
DTC	Digital Transmit Command
DTMF	Dual Tone Multiple Frequency
DU	Density Units
Dust Off	Routine to return machine to pre-install state

Table 1 Glossary

Term	Description
EAA	Electron Auditron Administrator
EBS	Electronic Billing Service
EC	European Community
ECE	External Customer Engagement
ECM	Error Correction Mode. Electronic Counter Measure
EEC	European Economic Community
EET	Edge Enhancement Technology
EH&S	Environmental Health and Safety
ELOG	Electronic Log
EMC	Electromagnetic Compatibility
Embedded Fax	A fax system included in a system device
EME	Electromagnetic Emission
EN	European Norm
EOL	End Of Line
EOM	End Of Message
EOP	End Of Procedure
EOR	End Of Retransmission
EPA	Environmental Protection Agency
EPC	Electronic Page Collation (memory dedicated to temporary retention of images captured from the scanner and network controller)
EPROM	Erasable / Programmable Read Only Memory
EP-SV	Electronic Partnership Supervisor (kit)
EQM	Eye Quality Monitor
ERR	End Retransmission Response
ERU	Engineer Replaceable Unit
ESD	Electrostatic Discharge
ESG	European Solutions Group
ESS	Electronic Sub-System. For this machine use NC
ETP	Electronic Test Pattern
EU	European Union
EUR	Europe
FAX	Facsimile
FCC	Federal Communications Commission
FCD	Facsimile Coded Data
FCS	Facsimile Checking Sequence
FCOT	First Copy Out Time
FD	Functional Description
FEK	Feature Enablement Key
FER	Feature Enhancement Request
FID	Foreign Interface Device
FIF	Facsimile Information Field

Table 1 Glossary

Term	Description
FIFO	First In First Out
FireWire	IEEE 1349. High speed serial communications system, comprising hardware plus protocol. Operates at 100, 200 or 400 Mbits/s, with 800 Mbits/s under development. See USB and RS-232
firmware	Software in a chip which cannot be altered
FLASH	On board erasable and reprogrammable non volatile memory
FOIP	FAX Over Internet Protocol
FPGA	Field Programmable Gate Array
FPOT	First Print Out Time
FRU	Fuser Replacement Unit
FSK	Frequency Shift Keying
FSMA	Field Service Maintenance Agreement
FTP	File Transfer Protocol
FTT	Failure To Train
FX	Fuji Xerox
G3	Group 3
GC	Group Command
GDI	Graphical Display Interface
GI	Group Identification
GLCD	Graphic Liquid Crystal Display
GND	Ground
GPD Minidrivers	A Generic Printer Description file has a function similar to PPD files. This format was developed by Microsoft to provide a simple method to develop drivers for non-postScript printers. Standard GPD minidrivers share the same lamentations as the PPD minidrivers, but they too can be enhanced using plug-ins. GPD Minidrivers are a new technology introduced for Windows 2000 and they will also be supported Windows NT 4. In Windows 95/98, a similar, but less powerful 'unidriver' format was used.
GS	German safety
gsm	Grams per square metre
GUI	Graphics User Interface
HC	High Capacity
HDD	Hard Disk Drive
HDLC	High Level Data Link Control
HFLEN	High - Frequency (random) Line - Edge Noise. image quality metric.
HFSI	High Frequency Service Intervals
HLD	High Level Design. A document that defines the software high level design.
HTTP	Hyper Text Transfer Protocol
HUI	Hybrid User Interface
HVPS	High Voltage Power Supply

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Table 1 Glossary

Term	Description
Hz	Hertz
IB	InBoard
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.
ICAT	Internal Customer Acceptance Test
ICE	Internal Customer Engagement
ID	Identification
IEC	International Electrotechnical Commission
IEE	Institute of Electrical Engineers
IEEE 1284	Parallel port communication
IETF	Internal Engineering Task Force
IFAX	Internet Fax
IIT	Image Input Terminal
IM	Interim Maintenance
Intlk	Interlock
IOT	Image Output Terminal
IOTC	Image Output Terminal Controller (IOT PWB, LVPS and HVPS). Sometimes referred to as the Power and Control Assembly.
IP	Internet Protocol
IPA	Image Processing Accelerator. Used by the machine scanning services to convert scanned images to a standard format e.g. for scan to file / scan to E-mail for network transmission.
IPM	Incremental Preventative Maintenance
IPM	Images per minute
IPP	Internet Printing Protocol
IPS	Image Processing Service
IPS1	Image Processing System
IPX	Internetwork Protocol eXchange
IQ	Image Quality
IR	Infra Red
ISDN	Integrated Services Digital Network / International Standard Data Network
ISIL	Inter and Side Image Lamp
ISO	International Standards Organisation
ITP	Internal Test Pattern
ITTCC	International Telegraph and Telephone Consultative Committee
ITU -T	International Telecommunications Union - Telecommunication
JBA	Job Based Accounting (Network Accounting)
JBIG	Joint Bi-Level Image Experts Group file interchange format
jitter	A line of missing or corrupted information in the fast scan direction.

Table 1 Glossary

Term	Description
JPEG	Joint Photographic Experts Group file interchange format
kg	kilogram
kHz	kilohertz
Kill All	Routine to return all NVM, including protected NVM, to a virgin state. Factory use only
KO	Key Operator
LAA	Local Area Addressing
LAN	Local Area Network
LCD	Liquid Crystal Display
LCDM	Liquid Crystal Display Module
LCS	Line Conditioning Signal
LDAP	Lightweight Directory Access Protocol (allows sharing of corporate phone book information)
LE	Lead edge
LED	Light Emitting Diode
LEF	Long Edge Feed
LEISUS	Low End Interface Unsolicited Status-B
LG	Legal
LOA	Load Object Attributes
lpi	Lines per inch
LSI	Large Scale Integration
LT	Letter
LVPS	Low Voltage Power Supply
Lwr	Lower
LUI	Local user Interface
m	metre
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.
MB	Megabyte (one MB = 1,048,576 bytes = 1024 kilobytes). Mail Box
Mb	Mega bit (one million bits)
MCB	Main Control Board
MCF	Message Confirmation
MF	Multifunction
MFLEN	Mid - Frequency (random) Lines - Edge Noise
MH	Modified Huffman
MIB	Machine Information Block. SNMP database element
MJ	Modular Jack
mm	millimetre
MMC	Microsoft Management Console

Table 1 Glossary

Term	Description
MMR	Modified Modified Read compression
MN	Multi - National
Modem	MOdulator/DEModulator. Hardware unit that converts the 'one' and 'zero' binary values from the computer to two frequencies for transmission over the public telephone network (modulation). It also converts the two 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.
MPS	Multi-Page Signal
MR	Modified Read compression
MRD	Machine Resident Diskette
MRC	Modified Read Compression
MSG	Management Steering Group
ms	millisecond
MSI	Multi-Sheet Inserter
MSO	Mixed Size Originals
MSOK	Master System Option Key
MMSOK	Manufacturing Master System Option Key
MX	Modi Xerox
N	Newton
NASG-N	North American Solutions Group (equivalent to XCI)
NASG-S	North American Solutions Group (equivalent to USCO)
nC	nanoCoulomb
NC	Network Controller (equivalent to ESS).
NC	Normal Contrast. Copy contrast setting
NCR	No Copying Required
NCU	Network Control Unit
NDS	NetWare Domain Services or Novell Directory Services
NDS Context	NetWare Domain Services Context
NDS Tree	NetWare Domain Services Tree
NetBEUI	NetBIOS Extended User Interface. A network device driver or transport protocol that is the transport driver supplied with LAN Manager. It can bind with as many as eight media access control drivers.
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.
NGI	Next Generation Infrastructure (new files and mail servers)
NIC	Network Interface Card. Converts the data to a form suitable for transmission and reception. Uses ARP and RARP.
Nm	Newton metre

Table 1 Glossary

Term	Description
NOHAD	Noise, Ozone, Heat, Airflow and Dust
NP	Printer configuration
NS	Normal Sharpness. Copy sharpness setting
NSC	Non-Standard Facilities Command
NSF	Non-Standard Facilities
NSS	Non-Standard Set-Up
NSSD	Network. The SESS and CentreWare development team based in Rochester NY. This group is now named CDDU.
NVM	Non-Volatile Memory
OA	Open Architecture
OB	Out Board
OEM	Original Equipment Manufacturer
OGM	On Going Maintenance
OpCo	Operating Company
OSA	Online support Assistant
OSCG	Office Systems Component Group
OSOK	Optional System Option Key
P/R	Photoreceptor
PABX	Private Automatic Branch Exchange
PC	Personal Computer
PC Fax	Personal Computer Fax
PCI	Peripheral Component Interface
PCI	Personal Computer Interface
PCL	Printer Control Language
PCMCIA	Personal Computer Memory Card International Association
PD	Process Direction
PDF	Adobe Acrobat Portable Document Format
PDL	Page Description Language
PDT	Product Delivery Team
PEK	Product Enablement Key
Pels	Picture Data (Pixel)
PFM	Paper Feed Module
PHI	per Hundred Installs
PIN	Procedural Interrupt Negative
PIN	Personal Identification Number
ping	Packet InterNet Groper. Tool to test connections between nodes by sending and returning test data.
PIP	Procedural Interrupt Positive
PJL	Printed Job Language. Hewlett Packard page description language.
PMC	Programme Management Committee
POPO	Power Off Power On

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Table 1 Glossary

Term	Description
POO or P of O	Principles of Operation
POST	Power On Self Test
PPC	Power PC. A EPROM manufacturer
PPD	Postscipt Printer Description. A PPD file is a simple formatted text file that contains a description of the printers features and the corresponding PostScript 'code' needed to activate each feature. Apple LaserWrite drivers and application programs such as Adobe PageMaker can use PPD files. With a OOD file, many of the printing features of a network printer can be made available to users. However advanced features such as LAN Fax, Accounting and Exception Page Programming cannot be provided.
PPD Minidrivers	PPD minidrivers are available in Windows operating systems (from Windows 95 onwards). With these, a Xerox - supplied PPD file is used in conjunction with an operating system supplied driver ton create a PostScript driver tailored for a specific device. In windows 95/98, a driver provided by this method has lamentations and not all devices features can be made available to the user. With Windows NT 4 and Windows 2000, it is possible to make more features available by using a user interface rendering plug - in. In this document, if the driver is to be provided with If no plug-ins are provided, then it is called a standard minidriver.
PPHI	Problems Per Hundred Installs
ppm	Prints per minute / Parts Per Million
PPR	Partial page Request
pps	Partial Page Signal / pulses per second
PPS	Product Performance Specification
PR	Photo-Receptor
PRI-EOM	Procedure Interrupt-EOM
PRI-EOP	Procedure Interrupt-EOP
PRI-MPS	Procedure Interrupt-MPS
PSM1	Power Save Mode 1 (low power mode)
PSM 3	Power Save Mode 3 (sleep mode)
PS	Post Script
PSTN	Private Switched Telephone Network
PSW	Portable Service Workstation
PTT	Post, Telephone, Telegraph (national public utilities)
PVC	Poly Vinyl Chloride
PVT	Product Verification Test
PWB	Printed Wiring Board
PWS	Portable Work Station
QIT	Quality Improvement Team
RAM	Random Access Memory

Table 1 Glossary

Term	Description
RARP	Reverse Address Resolution. 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.
RBT	Ring Back Tone
RCA	Remote Customer Assistance
RDT	Remote Data Transfer
R/E	Reduction / Enlargement
REN	Ringer Equivalence Number
RFC	Request for comment. An IETF standard reference.
ROHS	Restriction of Hazardous Substances
RPC	Remote Procedure Call
RH	Relative humidity
RIC	Remote Interactive Communications
RIS	Raster Input Scanner
Riser PWB	A card that increases the number of PCI slots.
RJ 45	Phone type network connector
RM	Requirements Management
RMS	Root Mean Square (AC value)
RNR	Receive Not Ready
RO	Regional Operations
ROS	Raster Output Scanner
RR	Receive Ready
RRB	Requirements Review Board
RS-232, RS-423, RS-422, RS-485	Series of standards for serial communication of data by wire. RS-232 operates at 20 kbits/s, RS-423 operates at 100 kbits/s, RS-422 and RS-485 operate at 10 Mbits / s. See FireWire and USB.
RTN	Retrain Negative
RTP	Retrain Positive
RTS	Request To Send
Rx	Receive
SA	Systems Administration
SAD	Solid Area Density
SAF	Safety
SAKO	Systems Administration Key Operator
SAP	Service Advertising Protocol. a network device will broadcast its capabilities onto the network at a defined intervals.
SAP	Service Advertising Protocol
SAR	Semi-Active Retard feeder
SCD	Software Compatibility Database
SCF	Second Cassette Feeder
SCM	Software Configuration Management

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Table 1 Glossary

Table 1 Glossary

Term	Description
SCN	Specification Change Notice
SCR	Software Change Request
SCSI	Small computer Systems Interface
SCT	Simple Catch Tray
S/D	Shut Down
SDK	Software Development Kit
SDP	Software Development Plan
SDR	Shut Down Rate
SDRAM	Synchronous Dynamic Remote Access Memory
Server Fax	A fax system that uses a remote Fax server. Faxes transmit as a Scan to File job sent to the server. Fax receive as print jobs submitted to the Connection Device.
SEF	Short Edge Feed
SESS	Strategic Electronic Sub-System
SFO	Special Feature Option
SIM	Scanner Input Module
SIP	Scanning and Image Processing
SIR	Standard Image Reduction
Sixth Sense	A single device and group management tool
SLP	Service Location Protocol (finds servers)
SM	Scheduled Maintenance
SMB	Server Message Block. Microsoft Server / Client Communications protocol
SMP1	Service Maintenance Pack 1 (contains a software package)
SPAR	Software Problem Action Request
SNMP	Simple Network Management Protocol
Snr	Sensor
SOD	System Operating Description
SPL	Sound Pressure Level
SPP	Short Paper Path
spi	Spots per inch
SPID	Service Profile Identification
SQA	Software Quality Assurance
SR	Service Representative
SRAM	Static Random Access Memory
SRC	Software Requirements
SS or S/S	Sub System
ST	System Terminal Device. Multi-functional device as defined by Energy Star (includes DC / NC and DC / NC / Fax)
STP	Standard Test Pattern
SW	Switch

Term	Description
SW or S/W	Software
SWL	Sound Power Level
system kernel	Minimal operating system
T & M	Time and Materials
TAR	Take away Roll
TBC	To Be Confirmed
TBD	To Be Defined
TCP / IP	Transmission Control Protocol / Internet Protocol
TE	Trail Edge
Template	A collection of Scan to File attributes that can be conveniently re-used.
TC	Toner Concentration
TCF	Training Check Field
TEI	Terminal Endpoint Identifier
TIFF	Tagged Image File Format
TIFF FX	TIFF Fax eXtended
TIFFX	Tagged Image File Format - for internet FAX
TP	Test Point
TPM	Technical Programme Manager
Transmissive LCD	Liquid Crystal Display lit from the back
TRC	Toner Reproduction Curve
TRN	Train
TSH	Technical Service Hours
TSI	Transmit Subscriber Identification
TTY	Teletype Terminal
TUI	Textual User Interface
Tx	Transmit
UGD	An upgrade file, i.e. filename.ugd
UART	Universal Asynchronous Receiver Transmitter
UDP	User Datagram Protocol
UI	User Interface (display screen)
UK	United Kingdom
UM	Unscheduled Maintenance
UMR	Unscheduled Maintenance Rate
URL	Universal Resource Locator
USB	Universal Serial Bus. High speed successor to parallel port for local device communications. Operates at 12 Mbits / s. See FireWire and RS-232.
USCO	United States Customer Operations
UTP	Unsheilded Twisted Pair
V.17 / V.29 / V.34	Modem standards
VALO	Value Added Logistic Organisation

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Table 1 Glossary

Term	Description
VAR	Value Added Reseller
VDE	Verband Deutscher Elektrotechniker
VGA	Video Graphics Array
VOIP	Voice Over Internet Protocol
WC	WorkCentre
WC + PS	WorkCentre + PostScript print drivers
WEB UI	CentreWare Internet Services
WINS	Window Internet Name Service
XAP	Xerox Asia Pacific
XC	Xerox Canada
XCMI	Xerox Common Management Interface
XE	Xerox Europe
XI	Xerox Initiated
XL	Xerox Limited
XLA	Xerox Latin America
XOG	Xerox Office Group
XRU	Xerographic Replacement Unit
XSA	Xerox Standard Accounting
XUL	Xerox Unique Login enables use of the xerox corporate directory

GP 19 Restriction of Hazardous Substances (RoHS)

Purpose

To give information on the RoHS Directive.

The RoHS Directive restricts the use of certain hazardous substances in electrical and electronic equipment. It applies to equipment placed in the European Union (EU) market. The directive takes effect from 1st July 2006.

NOTE: Currently these restrictions are only for the European Union (EU) market and some associated countries. For more information go to www.Xerox.com.

The hazardous substances are:

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent Chromium (Cr 6+, Cr [VI])
- Polybrominated Diphenyl Ethers (PBDE's)
- Polybrominated Biphenyls (PBB's)

Identification of a RoHS Compliant Machine

Xerox will maintain a central list of RoHS compliant machines. This general procedure is for information only. All Phaser machines are RoHS compliant.

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GP 20 First Print Output Time

Purpose

First Print Output Time (FPOT) is defined as the time from when the engine receives a Start signal in Ready state, until a single page is printed and delivered to the output tray.

From Ready State

Table 1 Ready State

Resolution	FPOT
600 x 600	7.8 sec.

From Sleep State

First Print Out Time includes the time required to print any maintenance pages (such as the configuration page) and a single customer page on A size media from Tray 2.

Table 2 Sleep State

Starting State	FPOT
Sleep	50 sec.

GP 21 Media Specifications

Purpose

To list the paper and media specifications.

Media and Tray Specifications

The media trays accommodate most sizes and types of paper, transparencies, or other specialty media. Print the Paper Tips page for a list of supported media.

Media that May Damage to the Printer

The printer can use a variety of media for print jobs. However, some media can cause poor output quality, increased jams, or damage. Unacceptable media includes:

- Rough, plastic, or porous media
- Paper that has been stapled, folded, photocopied, or wrinkled
- Envelopes with windows, metal clasps, padding, or adhesives with release strips
- CD labels
- Media that is less than 60 g/m^2 or more than 220 g/m^2

Media Storage Guidelines

If media handling problems are a common occurrence, review the following storage guidelines with the customer.

- Store paper in dark, cool, relatively dry locations. Most paper items are susceptible to damage from ultraviolet (UV) and visible light. UV radiation, which is emitted by the sun and fluorescent bulbs, is particularly damaging to paper items. The intensity and length of exposure to visible light on paper items should be reduced as much as possible.
- Maintain constant temperatures and relative humidity
- Avoid light, heat, and dampness.
- Avoid attics, kitchens, garages, and basements for storing paper. Inside walls are drier than outside walls where moisture can collect.
- Store paper flat. Paper should be stored on pallets, cartons, shelves, or in cabinets.
- Avoid having food or drinks in the area where paper is stored or handled.
- Do not open sealed packages of paper until needed. Leave paper in the original packaging. For most commercial grades, the wrapper's inner lining protects the paper.
- Some specialty media is packaged inside sealed plastic bags. Leave the media inside the bag until needed; return unused media to the bag.

Supported Media

The following sections provide information about paper sizes and weights that can be used in the system trays. For more detailed information about supported paper and other media, print the Paper Tips page:

1. On the Control Panel, press the **System** button.
2. Select **Information**, and then press the **OK** button.
3. Select **Information Pages**, and then press the **OK** button.
4. Select **Paper Tips**, and then press the **OK** button to print.

See also: Recommended Media List at www.xerox.com/paper

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Tray Capacity

Table 1 lists capacities for each tray.

Table 1 Tray Capacity

Media and Weight	Tray 1	Tray 2	Optional Trays
Standard Paper	100 Sheets	500 Sheets	500/2000 Sheets
Transparency	20 Sheets	120 Sheets	120 Sheets
Envelope	10	50	0
Weight	60-220 g/m^2	60-150 g/m^2	60-105 g/m^2

GP 22 Environmental Data

Environmental Specifications

Table 1 Environmental Specifications

Characteristic	Specifications	
	Operating	**Storage**
Temperature	15° to 32° C (59° to 86° F)	-20° to 40° C (-4° to 104° F)
Humidity	20% to 80% RH Non-Condensing	10% to 90% RH, non-condensing
Acoustic Noise	**Operation**	**Standby or Ready**
Sound Pressure (Deci-bels)	56.0 dB	30.0 dB

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dC131 NVM Read/Write

Purpose

To review and modify values within the machine configuration and control parameters stored in NVM.

Description

Each NVM item is identified using a chain and location code in the form XX-XXX, where XX- is the chain prefix, and -XXX is an identifier in the range 001 to 999. For example 05-100.

NOTE: Tray numbering is dynamic according to available configuration, such that the registration adjustments must be accomplished by adjusting the appropriate tray listed in the configuration. For example, if the configuration is 5 trays and the 5th tray is the HCF, use Tray 5 registration adjustments for the HCF.

Procedure

1. Enter diagnostics, GP 1.
2. Select Diagnostic Routines.
3. Select the required dC routine category:
4. Select 131 NVM Read/Write.
5. Select the appropriate NVM chain.
6. View or edit the chain as necessary.
7. Refer to the tables that follow for NVM chain locations and parameters:
   - Table 1 NVM chain 7
   - Table 2 NVM chain 8
   - Table 3 NVM chain 9
   - Table 4 NVM chain 10
8. When the values of an editable NVM have been changed, switch off the machine, the switch on the machine, to check and evaluate the changes made to the NVM.

Table 1 NVM Chain 7

Location	NVM Name	NVM Description	Value	Default
07-100	Top Registration Tray 1 Simplex	The changed dimension of Tray 1 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-110	Side Registration Tray 1 Simplex	The changed dimension of Tray 1 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-120	Top Registration Tray 1 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-130	Side Registration Tray 1 Dup_long (2nd side)	The changed dimension of tray 1 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30
07-140	Top Registration Tray 1 Duplex (1st side)	The changed dimension of tray 1 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30

Table 1 NVM Chain 7

Location	NVM Name	NVM Description	Value	Default
07-150	Side Registration Tray 1 Duplex (1st side)	The changed dimension of tray 1 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-200	Top Registration Tray 2 Simplex	The changed dimension of Tray 2 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-210	Side Registration Tray 2 Simplex	The changed dimension of Tray 2 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-220	Top Registration Tray 2 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-230	Side Registration Tray 2 Dup_long (2nd side)	The changed dimension of Tray 2 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30
07-240	Side Registration Tray 2 Duplex (1st side)	The changed dimension of Tray 2 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-250	Top Registration Tray 3 Simplex	The changed dimension of Tray 2 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-300	Top Registration Tray 3 Simplex	The changed dimension of Tray 3 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-310	Side Registration Tray 3 Simplex	The changed dimension of Tray 3 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-320	Top Registration Tray 3 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-330	Side Registration Tray 3 Dup_long (2nd side)	The changed dimension of Tray 3 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30
07-340	Side Registration Tray 3 Duplex (1st side)	The changed dimension of Tray 3 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-350	Top Registration Tray 3 Duplex (1st side)	The changed dimension of Tray 3 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-400	Top Registration Tray 4 Simplex	The changed dimension of Tray 4 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-410	Side Registration Tray 4 Simplex	The changed dimension of Tray 4 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-420	Top Registration Tray 4 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-430	Side Registration Tray 4 Dup_long (2nd side)	The changed dimension of Tray 4 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30

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Table 1 NVM Chain 7

Location	NVM Name	NVM Description	Value	Default
07-440	Top Registration Tray 4 Duplex (1st side)	The changed dimension of Tray 4 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-450	Side Registration Tray 4 Duplex (1st side)	The changed dimension of Tray 4 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-500	Top Registration Tray 5 Simplex	The changed dimension of Tray 5 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-510	Side Registration Tray 5 Simplex	The changed dimension of Tray 5 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-520	Top Registration Tray 5 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-530	Side Registration Tray 5 Dup_long (2nd side)	The changed dimension of Tray 5 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30
07-540	Top Registration Tray 5 Duplex (1st side)	The changed dimension of Tray 5 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-550	Side Registration Tray 5 Duplex (1st side)	The changed dimension of Tray 5 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-600	Top Registration Tray 6 Simplex	The changed dimension of Tray 6 top registration in simplex	0 ~ 60 (0.5mm / 13 steps)	30
07-610	Side Registration Tray 6 Simplex	The changed dimension of Tray 6 side registration in simplex.	0 ~ 60 (0.5mm / 13 steps)	30
07-620	Top Registration Tray 6 Dup_long (2nd side)	1 top registration of 2nd side in duplex long.	0 ~ 60 (0.5mm / 13 steps)	30
07-630	Side Registration Tray 6 Dup_long (2nd side)	The changed dimension of Tray 6 side registration of 2nd side in duplex long	0 ~ 60 (0.5mm / 13 steps)	30
07-640	Top Registration Tray 6 Duplex (1st side)	The changed dimension of Tray 6 top registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30
07-650	Side Registration Tray 6 Duplex (1st side)	The changed dimension of Tray 6 side registration of 1st side in duplex long and short.	0 ~ 60 (0.5mm / 13 steps)	30

Table 2 NVM Chain 8

Location	NVM Name	NVM Description	Value	Default
08-120	Tray 1 Pick Roller life page counter	Number of Tray 1 sheets since last reset. Read only.	Current count	None
08-130	Tray 2 Pick Roller life page counter	Number of Tray 2 sheets since last reset. Read only.	Current count	None

Table 2 NVM Chain 8

Location	NVM Name	NVM Description	Value	Default
08-140	Tray 3 Pick Roller life page counter	Number of Tray 3 sheets since last reset. Read only.	Current count	None
08-150	Tray 4 Pick Roller life page counter	Number of Tray 4 sheets since last reset. Read only.	Current count	None
08-160	Tray 5 Pick Roller life page counter	Number of Tray 5 sheets since last reset. Read only.	Current count	None
08-170	Tray 6 Pick Roller life page counter	Number of Tray 6 sheets since last reset. Read only.	Current count	None

Table 3 NVM Chain 9

Location	NVM Name	NVM Description	Value	Default
09-100	LD Light Level	600dpi laser light level. Value in PWM.	200 ~ 600	350
09-110	MHV Control Bias Control	Main charge bias control. Basic of value (HVPS setting is value). Value in PWM.	108 ~145	126
09-120	THV Control Bias Control	Transfer bias control. Basic of value (HVPS setting is value). Value in PWM.	41 ~ 220	76
09-130	Deve Bias Control	Developer bias control. Basic of value (HVPS setting is value). Value in PWM standard voltage: -500V (PWM 522).	408 ~ 607	522
09-140	Detack Bias Control	Detack bias control. Basic of value (HVPS setting is value). Value in PWM standard voltage: -1800V	80 ~ 160	123
09-150	Altitude Adjustment	Altitude adjustment in meters.	Current setting	None
09-200	Drum Life Page Counter	Drum life count since last reset. Read only.	Current count.	None
09-210	Toner Cartridge Life Page Count	Toner Cartridge life count since last reset. Read only.	Current count	None
09-220	Drum life Time	Drum rotation time in minutes. Read only.	Current count	None
09-230	Transfer Roller Life Page Count	Transfer Roller life count since last reset. Read only.	Current count	None
09-300	Dot Count	Dot count value of consecutive printing. Read only.	One page dot count.	

Table 4 NVM Chain 10

Location	NVM Name	NVM Description	Value	Default
10-100	StandBy Temperature Offset	Target temperature during standby mode.	0 ~ 15 (4 steps / 5 degree intervals)	10

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Table 4 NVM Chain 10

Location	NVM Name	NVM Description	Value	Default
10-105	Run Tempera-ture Offset	Target temperature during run mode.	0 ~ 15 (3 steps / 5 degree intervals)	5
10-115	101-185 mm Temperature Off-set	Offset temperature required on thermistor B for paper width.	0 ~ 15 (4 steps / 5 degree intervals)	5
10-120	186-216 mm Temperature Off-set	Offset temperature required on thermistor B for paper width.	0 ~ 15 (4 steps / 5 degree intervals)	5
10-125	60gms Tempera-ture Offset	Media weight offset for heat roll temperature.	0 ~ 15 (4 steps / 5 degree intervals)	5
10-130	90gms Tempera-ture Offset	Media weight offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-135	Bond Tempera-ture Offset	Media weight offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-140	Transparency Temperature Off-set	Media type offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-145	Cardstock Tem-perature Offset	Media weight offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-150	Envelope Tem-perature Offset	Media type offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-155	label Tempera-ture Offset	Media type offset for heat roll temperature.	0 ~ 10 (3 steps / 5 degree intervals)	5
10-200	Fuser Life Page Counter	Fuser life count since last reset. Read only.	Current count	None
10-210	Heat Roller Life Page Counter	Heat Roller life count since last reset. Read only.	Current count	None
10-220	Pressure Roller Life Page Counter	Pressure Roller life count since last reset. Read only.	Current count	None
10-300	Pick-up Interval Delay	Change the time interval for paper pick-up.	0 ~ 100 (* 100 msec)	0
10-310	Pick-up Interval Delay (Special)	Change the time interval for special media pick-up.	0 ~ 100 (* 100 msec)	0

dC132 NVM Reset

Purpose

To reset NVRAM to factory defaults.

1. Enter diagnostics, refer to GP 1.
2. Select Printer Routines, the DC132 NVRAM Initialization.
3. Confirm, Yes, to reset NVRAM to factory defaults.

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dC305 UI Test

Purpose

To test Control panel display function.

1. Enter diagnostics, refer to GP 1.
2. Select Printer Routines, the DC305 NVRAM Initialization.
3. Select from LDCD test or a complete UI test.

The display turns black as data is written to the display buffer. For the complete test, following the LCD test, the test continues prompting for each Control Panel button.

dC330 Component Control

Purpose

To show the status of input components e.g. sensors, and to energize output components e.g. motors, solenoids.

Description

Output and input component codes are entered into the Component Control Table on the Control Panel, and then energized individually or in permitted groups. The codes in the tables are grouped in similar functional behavior.

NOTE: Test display names do not necessarily match part names used in this manual. Where possible, test descriptions identify the part as named in the manual.

Go to the appropriate procedure:

- Input Components
- Output Components

Input Components

When the appropriate code is entered, component status appears on the Control Panel.

NOTE: The actual signal as measured with a service meter will not necessarily be the same as the logic state shown on the Control Panel, especially where the output is inverted. When testing components using these control codes, look for a change in state, not for a high or low.

The displayed status of the input component can be changed by causing the component status to change, e.g. operating a sensor with a sheet of paper.

Go to the appropriate table:

- Table 1 Input Codes 01 IOT Interlocks
- Table 2 Input Codes 04 Main Drive Assembly
- Table 3 Input Codes 06 Laser Unit
- Table 4 Input Codes 07 Tray and size sensors
- Table 5 Input Codes 08 Media path sensors
- Table 6 Input Codes 09 Developer bias voltages
- Table 7 Input Codes 10 Fuser
- Table 8 Input Codes 12 Finisher / Mailbox

    NOTE: Mailbox output trays are numbered 1 through 4 with 4 being the top tray.

Table 1 Input Codes 01

Code	Display Name	Description	General
01-100	Top/Rear Door Open	Top/Rear Door Interlock Switch	Open/Closed
01-300	Top/Rear Door Open	Top/Rear Door connection	Open/Closed

Table 2 Input Codes 04

Code	Display Name	Description	General
04-110	Main BLDC Motor Ready		High = normal speed Low = abnormal speed

Table 3 Input Codes 06

Code	Display Name	Description	General
06-110	LSU Motor Ready	Laser Unit scan motor	High = normal speed Low = abnormal speed

Table 4 Input Codes 07

Code	Display Name	Description	General
07-110	T1 Paper Empty Sensor	Tray 1 No Paper Sensor	High/Low
07-200	Tray 2 Home Position	Tray 2 Size Switch SW1.	Open/Closed
07-210	T2 Paper Empty Sensor	Tray 2 No Paper Sensor	High/Low
07-220	T2 Size1 Sensor	Tray 2 Size Switch SW2	High/Low
07-230	T2 Size2 Sensor	Tray 2 Size Switch SW3	High/Low
07-240	T2 Size3 Sensor	Tray 2 Size Switch SW4	High/Low
07-250	T2 Stack Height Sensor	Tray 2 Stack Height Sensor	High/Low
07-300	Tray 3 Home Position	Tray 3 Size Switch SW1	Open/Closed
07-310	T3 Paper Empty Sensor	Tray 3 No Paper Sensor	High/Low
07-320	T3 Size1 Sensor	Tray 3 Size Switch SW2	High/Low
07-330	T3 Size2 Sensor	Tray 3 Size Switch SW3	High/Low
07-340	T3 Size3 Sensor	Tray 3 Size Switch SW4	High/Low
07-350	T3 Stack Height Sensor	Tray 3 Stack Height Sensor	High/Low
07-400	Tray 4 Home Position	Tray 4 Size Switch SW1	Open/Closed
07-410	T4 Paper Empty Sensor	Tray 4 No Paper Sensor	High/Low
07-420	T4 Size1 Sensor	Tray 4 Size Switch SW2	High/Low
07-430	T4 Size2 Sensor	Tray 4 Size Switch SW3	High/Low
07-440	T4 Size3 Sensor	Tray 4 Size Switch SW4	High/Low
07-450	T4 Stack Height Sensor	Tray 4 Stack Height Sensor	High/Low
07-500	Tray 5 Home Position	Tray 5 Size Switch SW1	Open/Closed
07-501	T5 Paper Empty Sensor	Tray 5 No Paper Sensor	High/Low
07-520	T5 Size1 Sensor	Tray 5 Size Switch SW2	High/Low
07-530	T5 Size2 Sensor	Tray 5 Size Switch SW3	High/Low
07-540	T5 Size3 Sensor	Tray 5 Size Switch SW4	High/Low
07-550	T5 Stack Height Sensor	Tray 5 Stack Height Sensor	High/Low
07-600	Tray 6 Home Position	Tray 6 Size Switch SW1	Open/Closed
07-610	T6 Paper Empty Sensor	Tray 6 No Paper Sensor	High/Low
07-620	T6 Size1 Sensor	Tray 6 Size Switch SW2	High/Low
07-630	T6 Size2 Sensor	Tray 6 Size Switch SW3	High/Low
07-640	T6 Size3 Sensor	Tray 6 Size Switch SW4	High/Low
07-650	T6 Stack Height Sensor	Tray 6 Stack Height Sensor	High/Low

Table 5 Input Codes 08

Code	Display Name	Description	General
08-100	Feed Sensor	Tray 2 Feed Sensor	High/Low

Table 5 Input Codes 08

Code	Display Name	Description	General
08-300	T3 Feed Sensor	Tray 3 Take Away Sensor	High/Low
08-400	T4 Feed Sensor	Tray 4 Take Away Sensor	High/Low
08-500	Regi Sensor	Registration Sensor	High/Low
08-550	T5 Feed Sensor	Tray 5 Take Away Sensor	High/Low
08-600	Fuser Exit Sensor	Fuser Exit Sensor	High/Low
08-650	T6 Feed Sensor	Tray 6 Take Away Sensor	High/Low
08-700	Duplex Jam1	Duplex Jam Sensor	High/Low
08-720	Out-bin Full Sensor	Stack Full Sensor	High/Low

Table 6 Input Codes 09

Code	Display Name	Description	General
09-110	MHV Bias Read	Detects the MHV value on the MHV roller. Use in conjunction with 09-100.	Displays MHV value = XXX
09-310	THV Bias Read	Detects the THV value. Use in conjunction with 09-300 and 09-400.	Displays THV value = XXX
09--700	Toner Sensor	TC sensor in developer	Displays value = X.XX volts

Table 7 Input Codes 10

Code	Display Name	Description	General
10-200	Fuser Temperature A	Reports Fuser temperature as measured at thermistor A.	Displays temperature in degrees C = XXX
10-210	Fuser Temperature B	Reports Fuser temperature as measured at thermistor B.	Displays temperature in degrees C = XXX
10-420	Fuser Motor Forward Ready	Test Fuser motor operation.	High = normal speed Low = abnormal speed
10-910	Fuser Home Sensor	Detect home position	High/Low

Table 8 Input Codes 12

Code	Display Name	Description	General
12-800	Entrance Sensor	Finisher Entrance Sensor	High/Low
12-805	Exit Sensor	Finisher Exit Sensor	High/Low
12-815	Front Jog Home Sensor	Right Tamper Home Position	High/Low
12-820	Rear Jog Home Sensor	Left Tamper Home Position	High/Low
12-825	Support Finger Home Sensor	Support Finger Home Position	High/Low
12-840	Stacker Top Sensor	Stacker Top Sensor	High/Low
12-845	Stacker Bottom Switch	Stacker Full Sensor	High/Low
12-850	Staple Home Sensor	Staple Home Position	High/Low
12-855	Staple Ready Sensor	Self Priming Sensor	High/Low

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Table 8 Input Codes 12

Code	Display Name	Description	General
12-860	Low Staple Sensor	Low Staple Sensor	High/Low
12-870	Staple Door Switch	Staple Door Interlock	High/Low
12-890	Diverter Home Sensor	Exit Gate Sensor	High/Low
12-895	Jam Cover Sensor	Rear Door Sensor	High/Low
12-900	Diverter Home Sensor	Exit Gate Sensor	High/Low
12-905	Entrance Sensor	Mailbox Entrance Sensor	High/Low
12-910	Bin1 Full	Mailbox Tray 1 Stack Full	High/Low
12-911	Bin1 Empty	Mailbox Tray 1 No Paper	High/Low
12-915	Rear Door	Mailbox Rear Door Interlock	High/Low
12-920	Bin2 Full	Mailbox Tray 2 Stack Full	High/Low
12-921	Bin2 Empty	Mailbox Tray 2 No Paper	High/Low
12-925	Upper Diverter Home	Upper Diverter Home Position	High/Low
12-930	Bin3 Full	Mailbox Tray 3 Stack Full	High/Low
12-931	Bin3 Empty	Mailbox Tray 3 No Paper	High/Low
12-940	Bin4 Full	Mailbox Tray 4 Stack Full	High/Low
12-941	Bin4 Empty	Mailbox Tray 4 No Paper	High/Low
12-945	Lower Diverter Home	Lower Diverter Home Position	High/Low

Output Components

When the appropriate code is entered, the component is activated and its status appears on the Control Panel.

Go to the appropriate table:

- Table 9 Output Codes 04 IOT Motors
- Table 10 Output Codes 06 Laser Unit
- Table 11 Output Codes 08 Feeder motors and clutches
- Table 12 Output Codes 09 Xerographics
- Table 13 Output Codes 10 Fuser drive
- Table 14 Output Codes 12 Finisher/Mailbox drive

Table 9 Output Codes 04

Code	Display Name	Description	General
04-100	Main BLDC Motor	Run the Main Drive motor	On/Off
04-120	Main Fan	Run the SMPS Fan	On/Off
04-181	K Dev motor	Run the developer motor	On/Off
04-191	K Dev motor ready	Run the developer motor	High/Low
04-200	Exit Motor Forward Fast	Run the Exit Drive Assembly	On/Off
04-220	Exit Motor Reverse	Reverse the Exit Drive	On/Off
04-230	Duplex Motor Forward	Run the Duplex Drive	On/Off
04-580	Feed BLDC Motor	Run the Feed Drive Assembly	On/Off
04-590	Feed BLDC Motor Ready	Feed Drive Assembly	On/Off

Lift Motor Check

Table 10 Output Codes 06

Code	Display Name	Description	General
06-100	LSU Motor Run	Laser Unit scan motor	On/Off
06-200	LSU LD power	Laser diode half power	On/Off
06-300	LSU Fan Run	Right Chassis Fan	On/Off
06-310	Checking LSU Hsync		

Table 11 Output Codes 08

Code	Display Name	Description	General
08-810	T1 Pick-up Clutch	Tray 1 Feed Clutch	On/Off
08-820	T2 Pick-up Clutch	Tray 2 Feed Clutch	On/Off
08-830	T3 Pick-up Clutch	Tray 3 Feed Clutch	On/Off
08-840	T4 Pick-up Clutch	Tray 4 Feed Clutch	On/Off
08-850	Registration Clutch	Registration Clutch	On/Off
08-855	T5 Pick-up Clutch	Tray 5 Feed Clutch	On/Off
08-856	T6 Pick-up Clutch	Tray 6 Feed Clutch	On/Off
08-820	T2 Feed Motor Run	Tray 2 Feed Drive Motor	On/Off
08-930	T3 Feed Motor Run	Tray 3 Feed Drive Motor	On/Off
08-940	T4 Feed Motor Run	Tray 4 Feed Drive Motor	On/Off
08-950	T5 Feed Motor Run	Tray 5 Feed Drive Motor	On/Off
08-960	T6 Feed Motor Run	Tray 6 Feed Drive Motor	On/Off

Table 12 Output Codes 09

Code	Display Name	Description	General
09-100	MHV Bias	MHV bias voltage on at normal drive level.	On/Off
09-200	Dev Bias	Developer bias voltage on at normal drive level.	On/Off
09-300	THV Bias	THV plus bias voltage on at normal drive level.	On/Off
09-400	THV Bias	THV negative bias voltage on at normal drive level.	On/Off
09-500	SMPS Fan Run	Run SMPS Fan	On/Off
09-600	Toner dispense motor	Run the toner dispense motor in the Main Drive Assembly	On/Off
09-950	Erase lamp	Toggle the Erase lamp	On/Off

Table 13 Output Codes 10

Code	Display Name	Description	General
10-100	Fuser Power On Main	Raises Fuser temperature to 180 degree setpoint.	On/Off
10-110	Fuser Power On Side	Raises Fuser temperature to 180 degree setpoint.	On/Off

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Table 13 Output Codes 10

Code	Display Name	Description	General
10-400	Fuser Motor Forward	Run Fuser Drive Assembly.	On/Off
10-500	Rear Fan Run	Run Rear Door Fan.	On/Off
10-600	Fuser Bias	Fuser bias voltage on at normal drive level.	On/Off
10-900	Fuser Gap Motor	Run the Fuser Release Drive Assembly	On/Off

Table 14 Output Codes 12

Code	Display Name	Description	General
12-100	Entrance Motor	Run Finisher entrance motor for about 5 sec.	On/Off
12-110	Exit Motor	Run Finisher Transport Motor for about 5 sec.	On/Off
12-120	Feed Motor	Run Mailbox Transport Motor for about 5 sec.	On/Off
12-300	Front Jog Home	Move right tamper to home position	On
12-310	Front Jog Stand	Move right tamper to stand position	On
12-320	Rear Jog Home	Move left tamper to home position	On
12-330	Rear Jog Stand	Move left tamper to stand position	On
12-400	Support Finger Home	Move supporter to home position	On
12-410	Support Finger Stand	Move supporter to stand position	On
12-600	Stacker Down	Lower Stacker Tray	On
12-610	Stacker Up	Raise Stacker Tray	On
12-700	Stapler	Staple when no cartridge	On
12-885	Diverter Motor	Run entrance motor to actuate exit gate	On/Off
12-935	Upper Diverter Motor	Cycle upper diverter between three positions	On/Off
12-955	Lower Diverter Motor	Cycle lower diverter between three positions	On/Off

dC612 Print Test Pattern

Purpose

To print embedded test prints useful for troubleshooting print quality problems.

1. Enter diagnostics, refer to GP 1.
2. Select Printer Routines, the DC612 Print Test pattern.
3. Select the test pattern to print from those listed on the display.

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7 Wiring Data

WD 1 IOT

Figure 1 IOT system diagram

s4620-182

WD 2 IP Board Interface
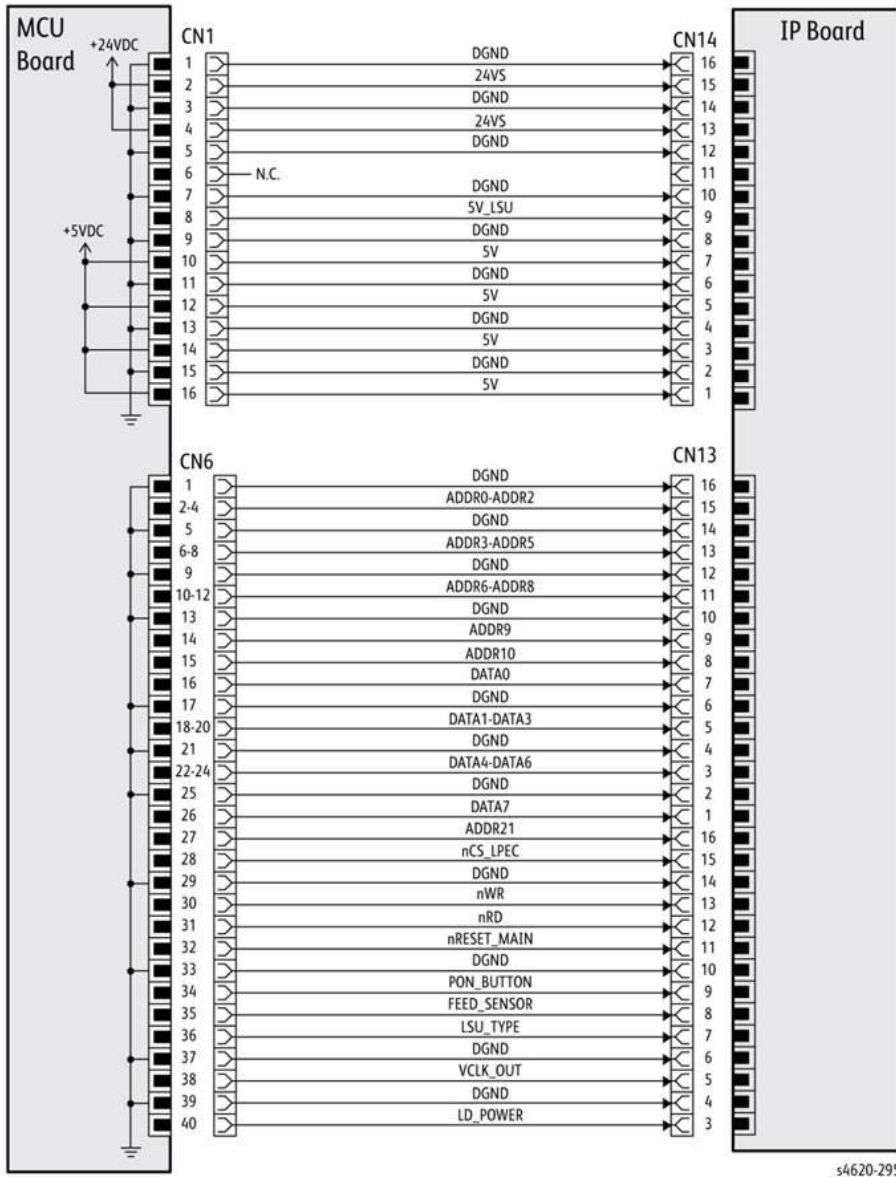
Figure 2 IP Board interface

WD 3 MCU Board (1/4)
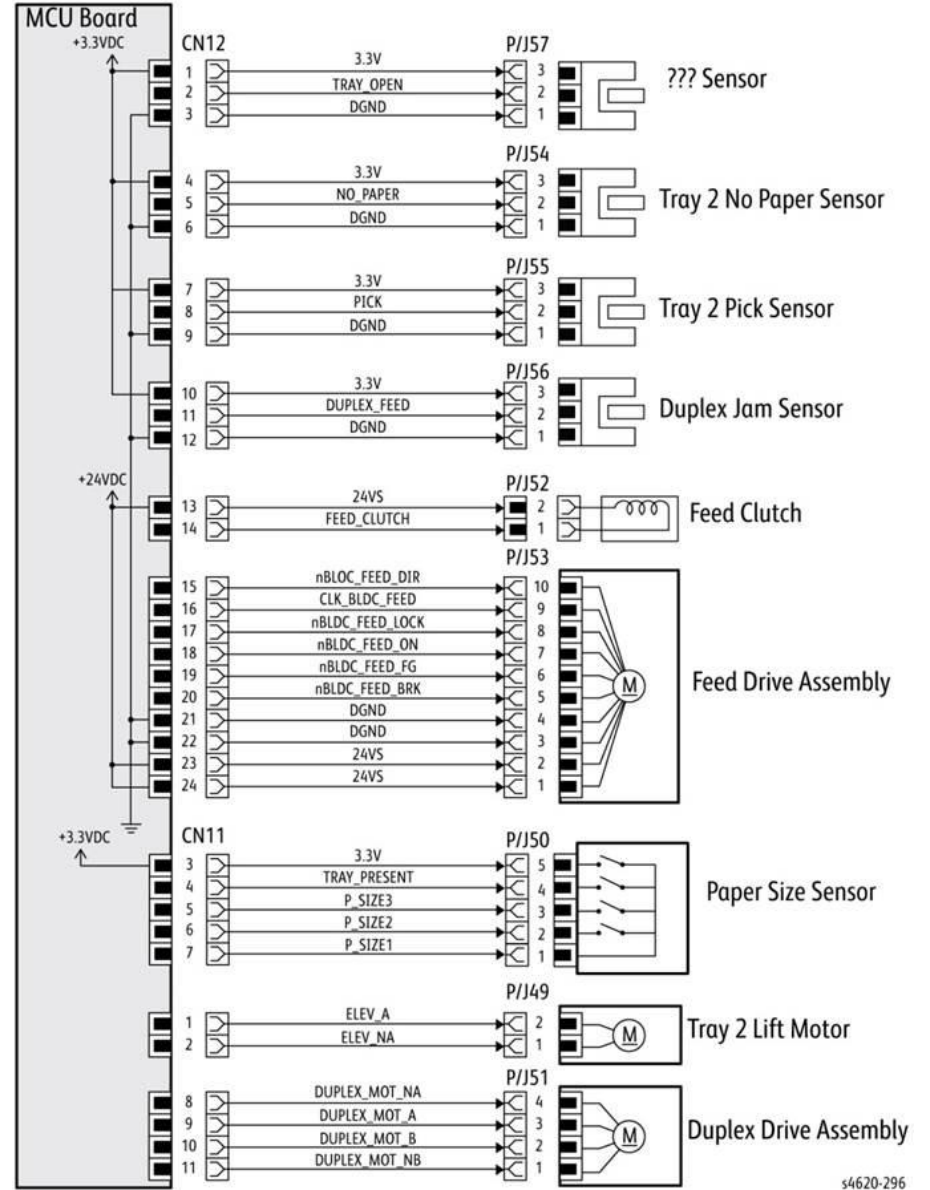
Figure 3 MCU Board (1/4)

WD 4 MCU Board (2/4)
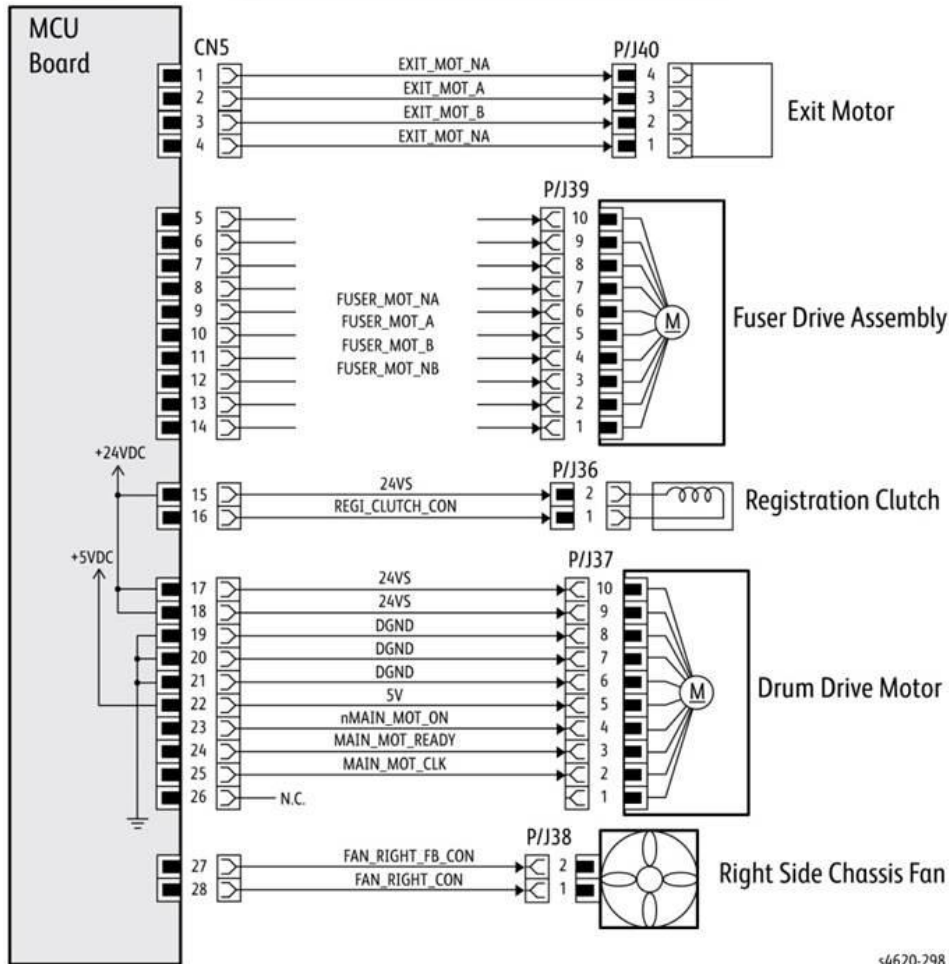
WD 5 MCU Board (3/4)

Figure 4 MCU Board (2/4)

s4620-298
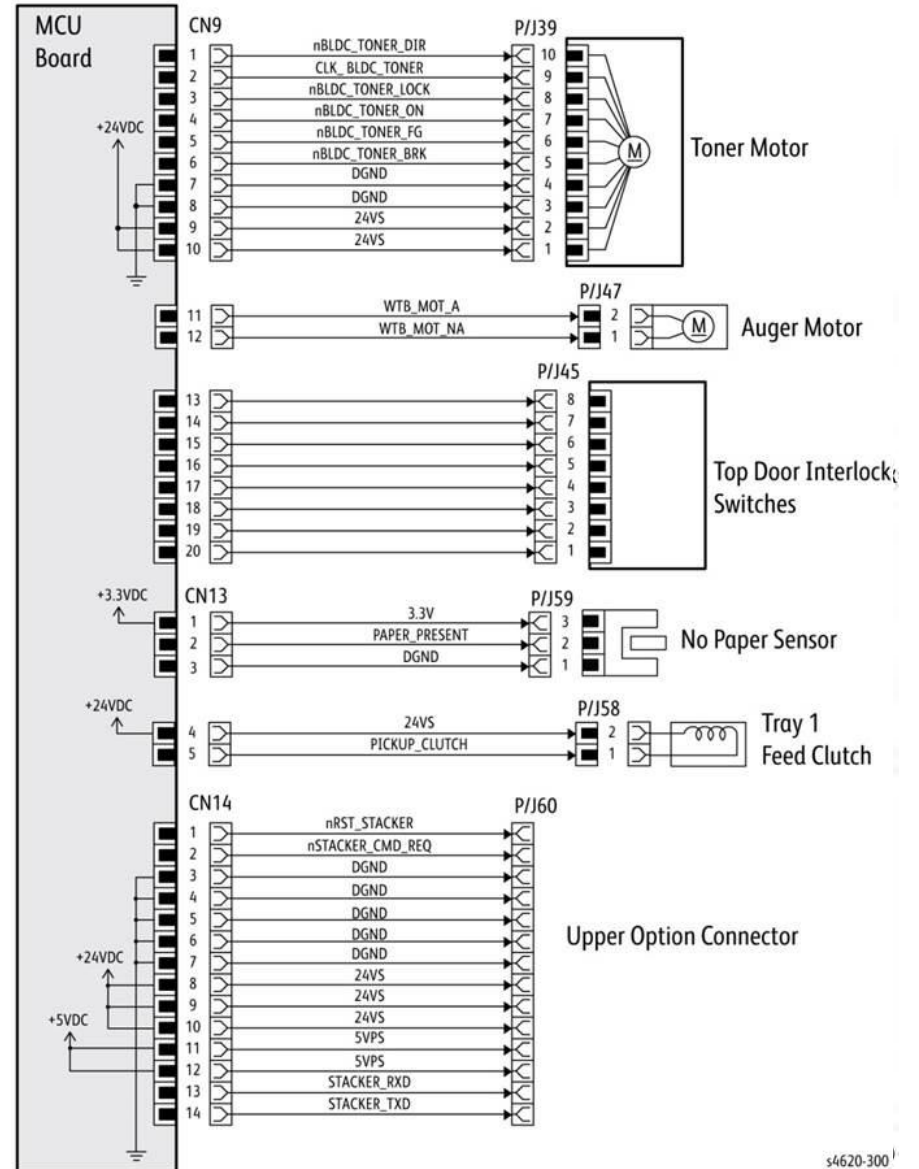
Figure 5 MCU Board (3/4)

s4620-300
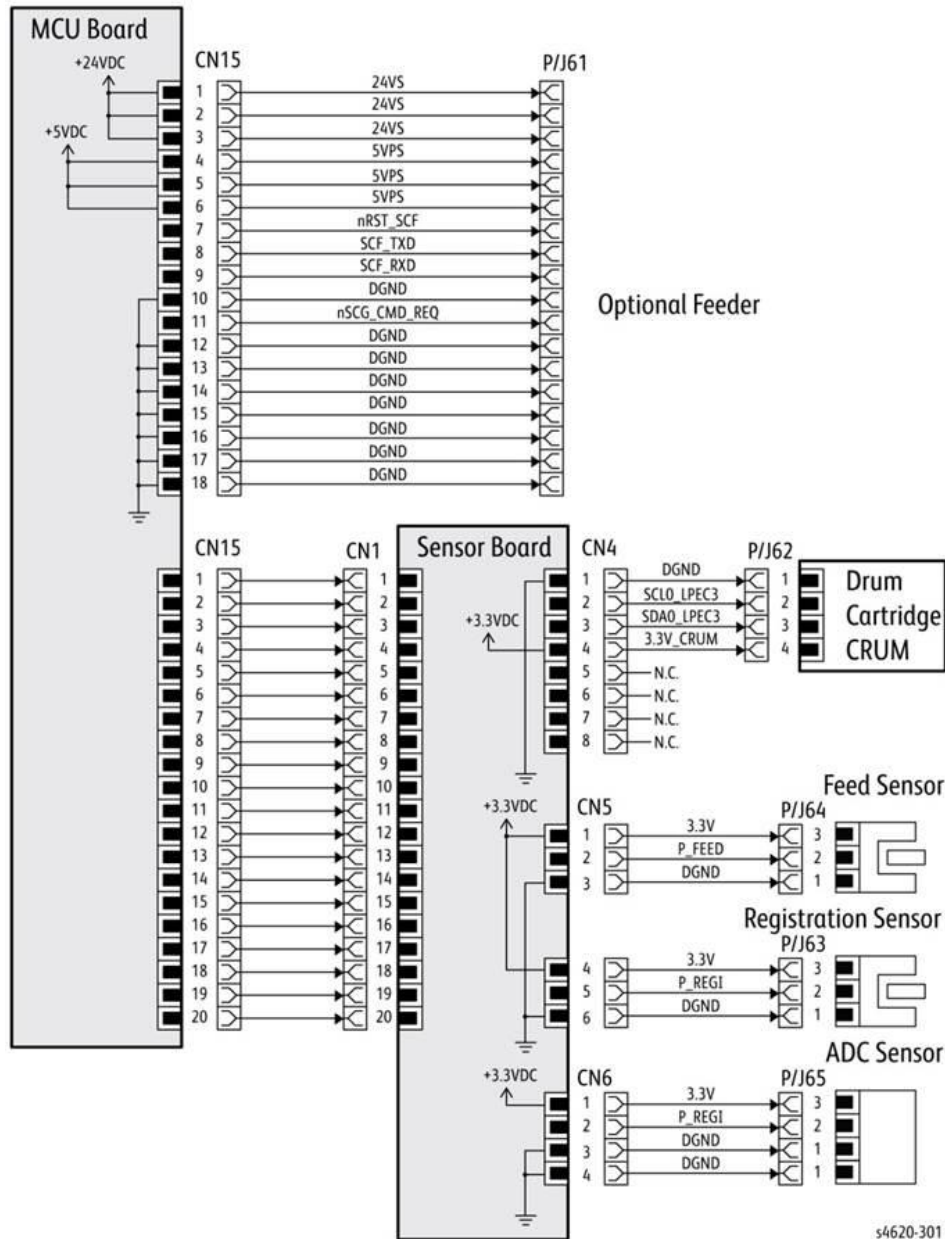
Figure 6 MCU Board (4/4)
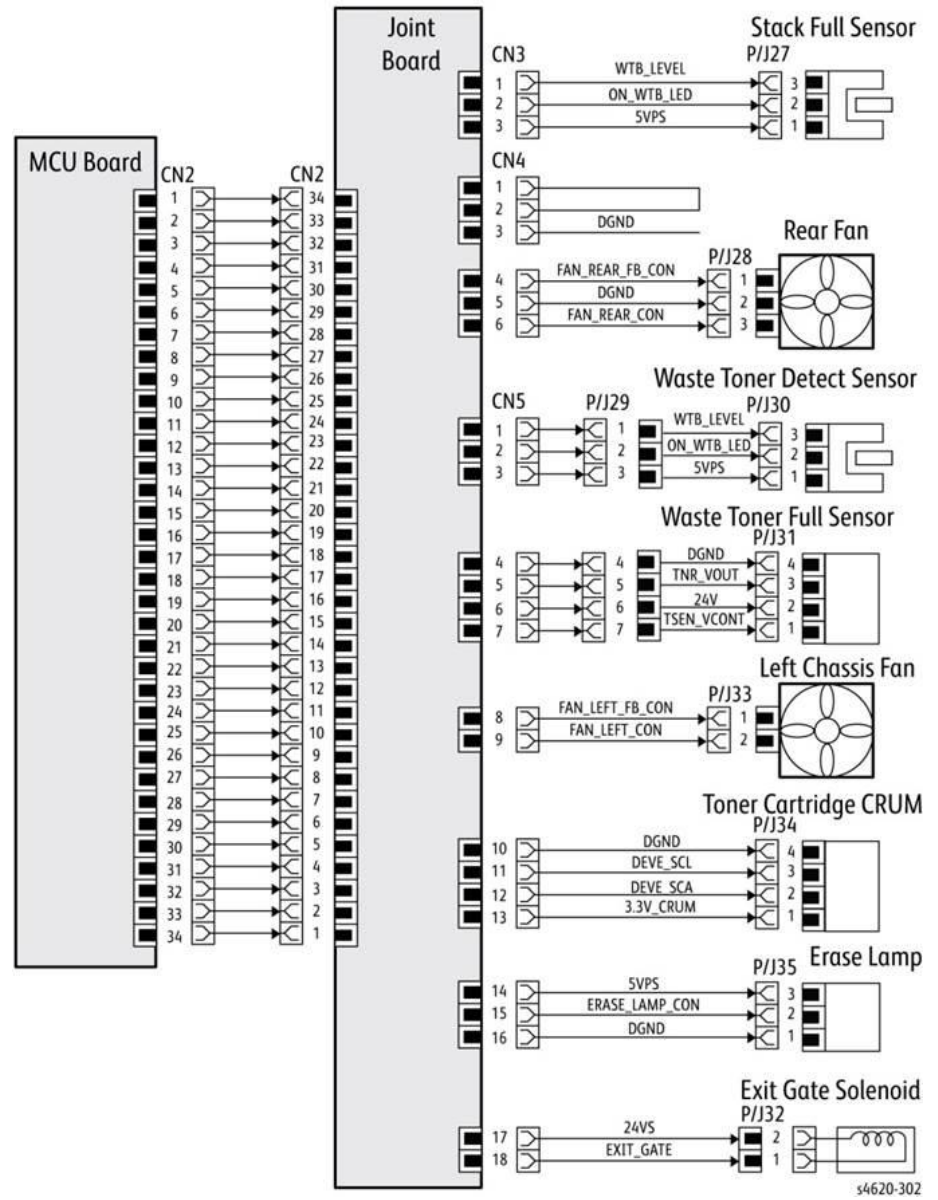
Figure 7 Joint Board (1/2)

WD 8 Joint Board (2/2)
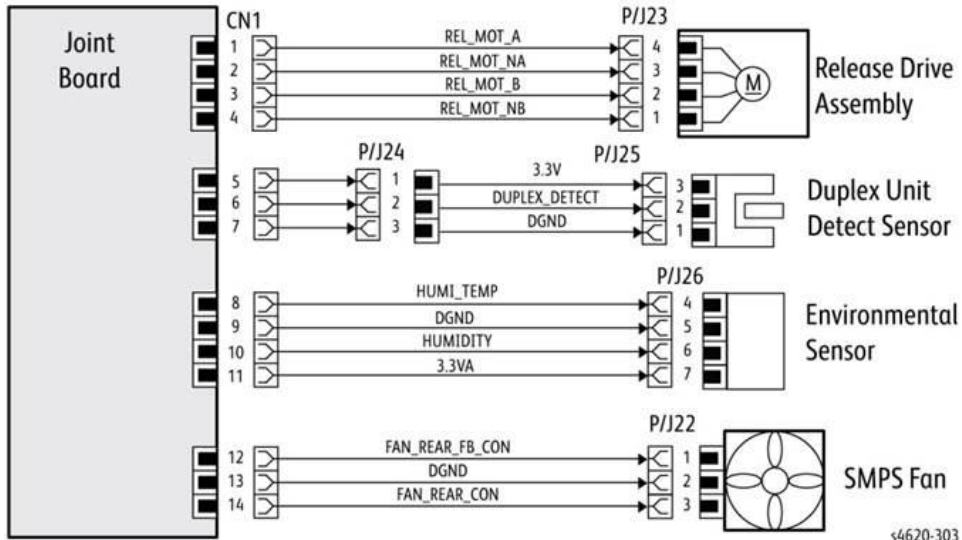
Figure 8 Joint Board (2/2)
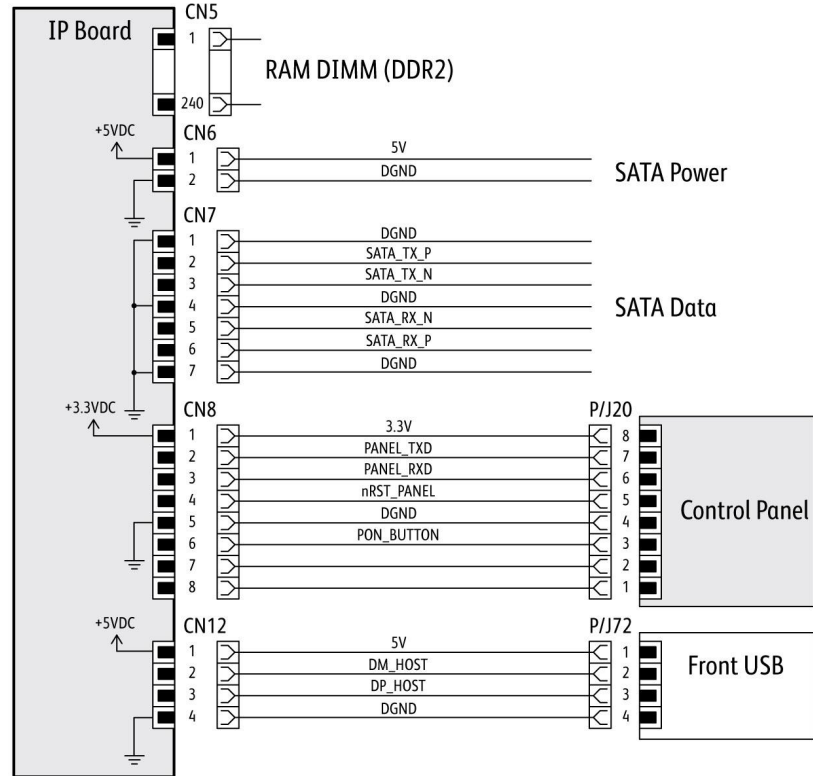
WD 9 IP Board (1/2)

Figure 9 IP Board (1/2)

WD 10 Laser Unit
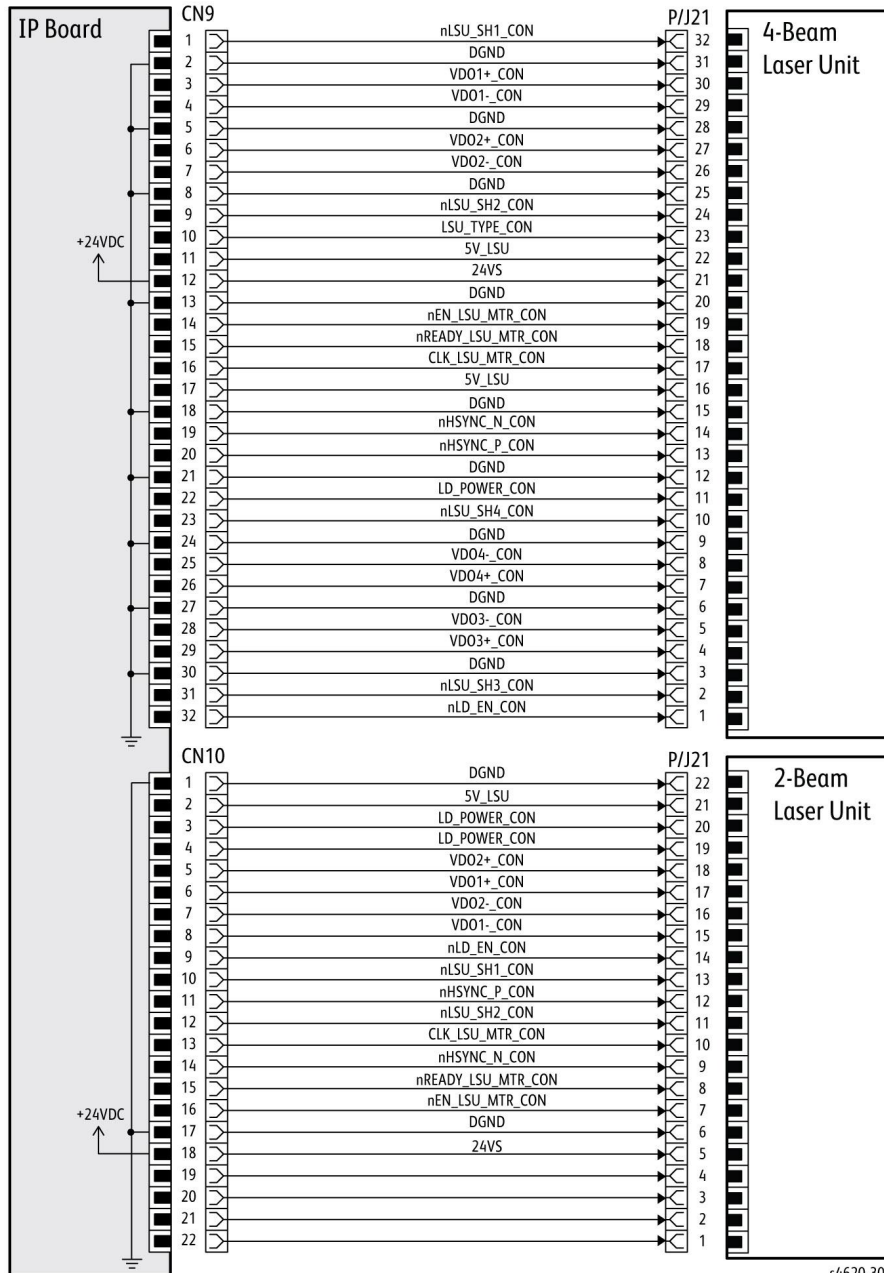
WD 11 HVPS

Figure 10 Laser Unit connections
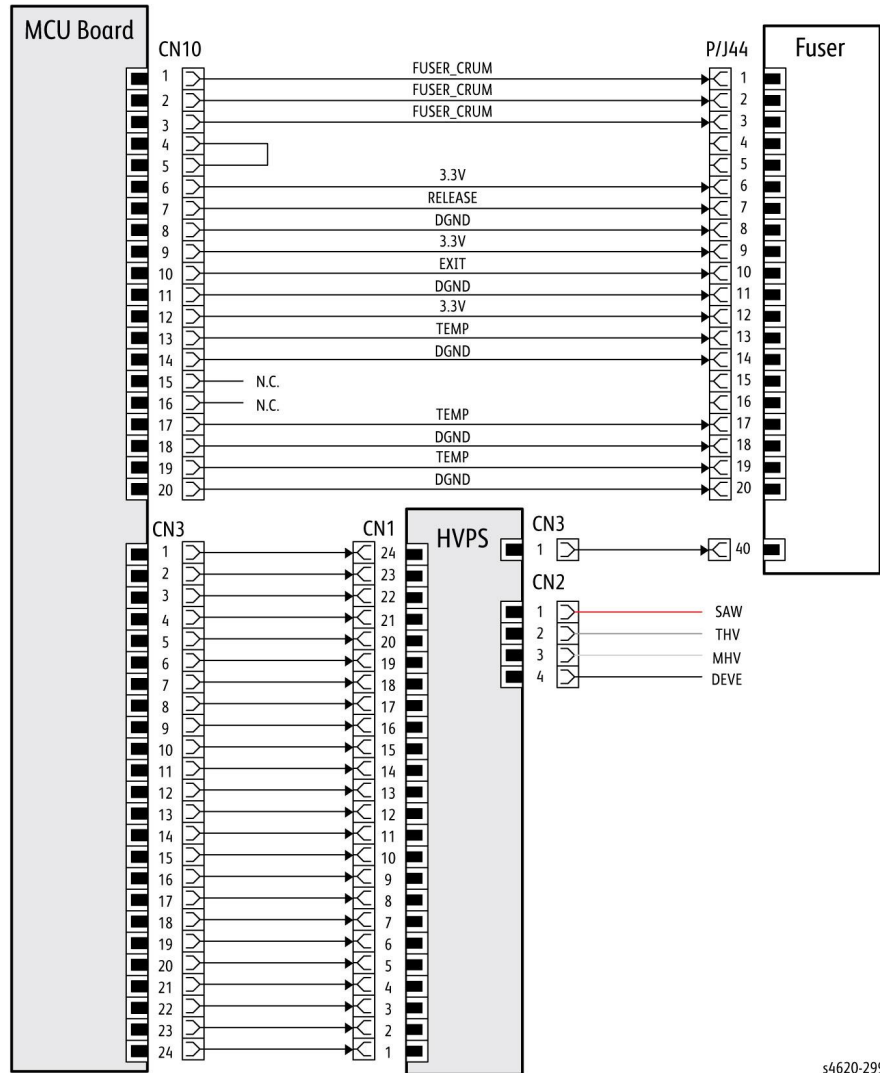
Figure 11 HVPS connections
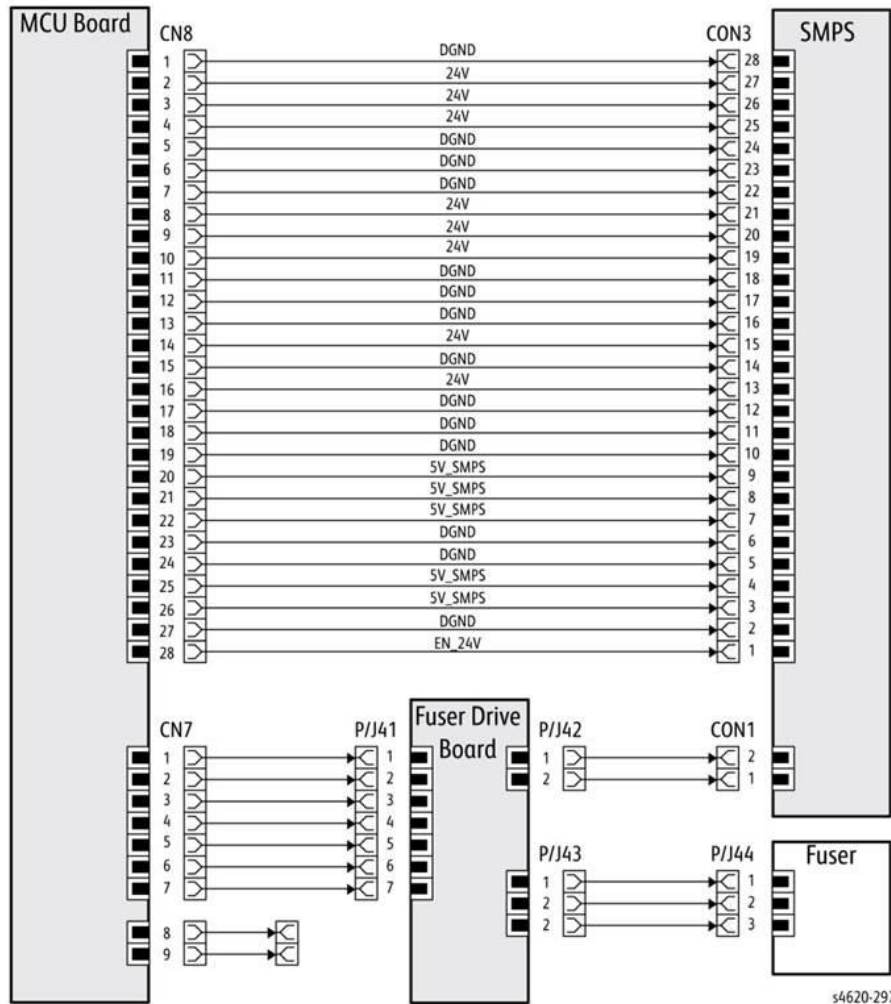
WD 12 SMPS

Figure 12 SMPS connections

WD 13 500-Sheet Feeder
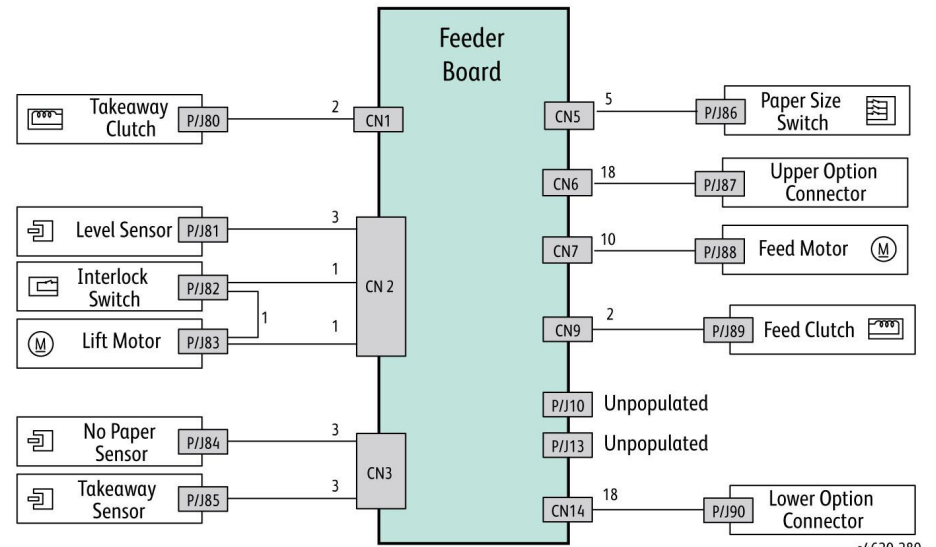
Figure 13 500-sheet Feeder system diagram

WD 14 500-Sheet Feeder Board (1/2)
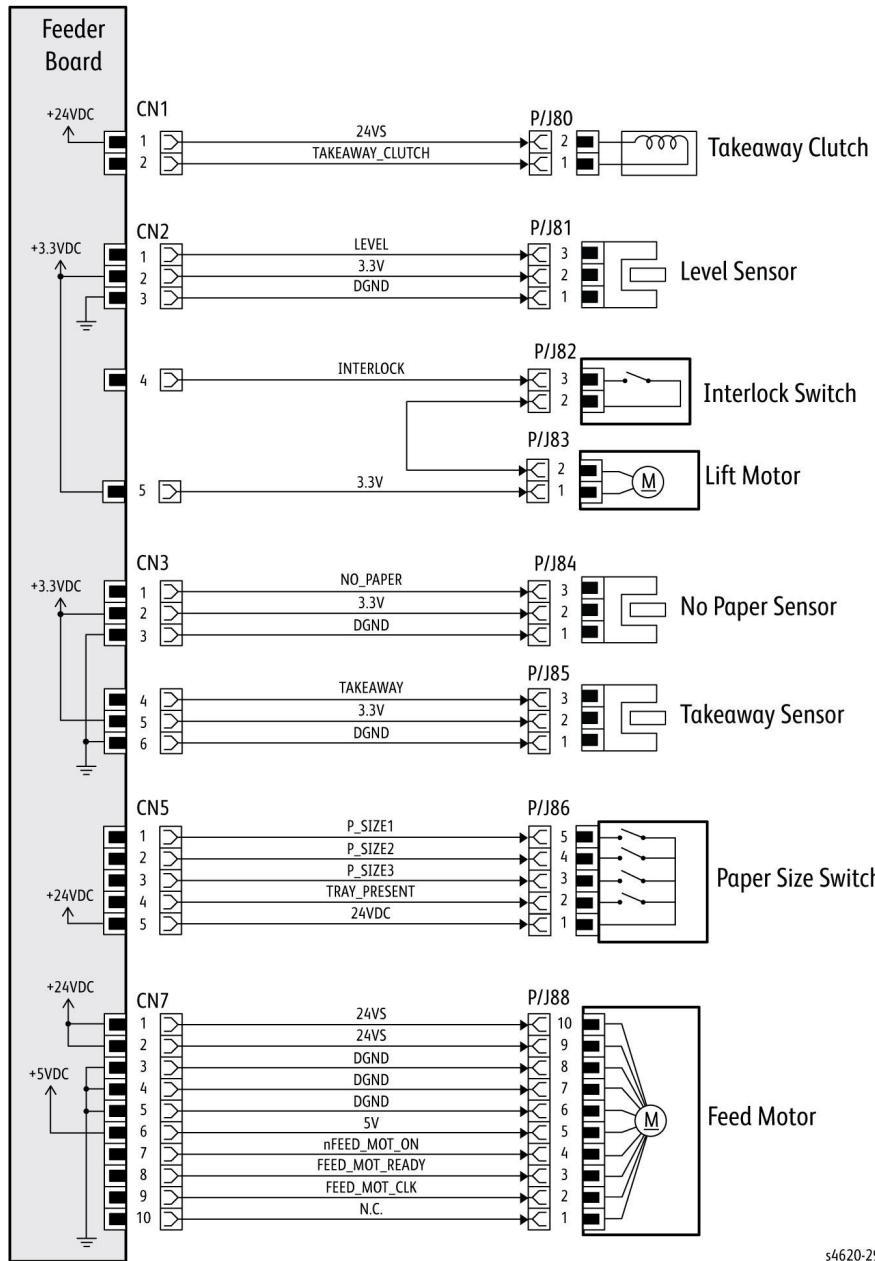
Figure 14 Feeder Board connections

WD 15 500-Sheet Feeder Board (2/2)
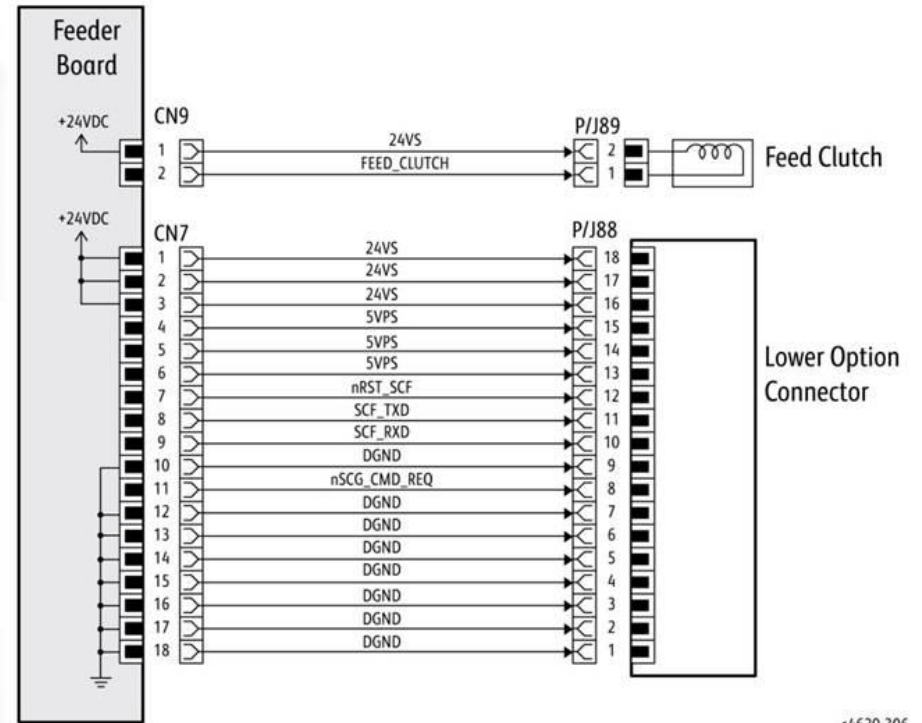
Figure 15 500-sheet Feeder (2/2)

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WD 16 2000-Sheet Feeder
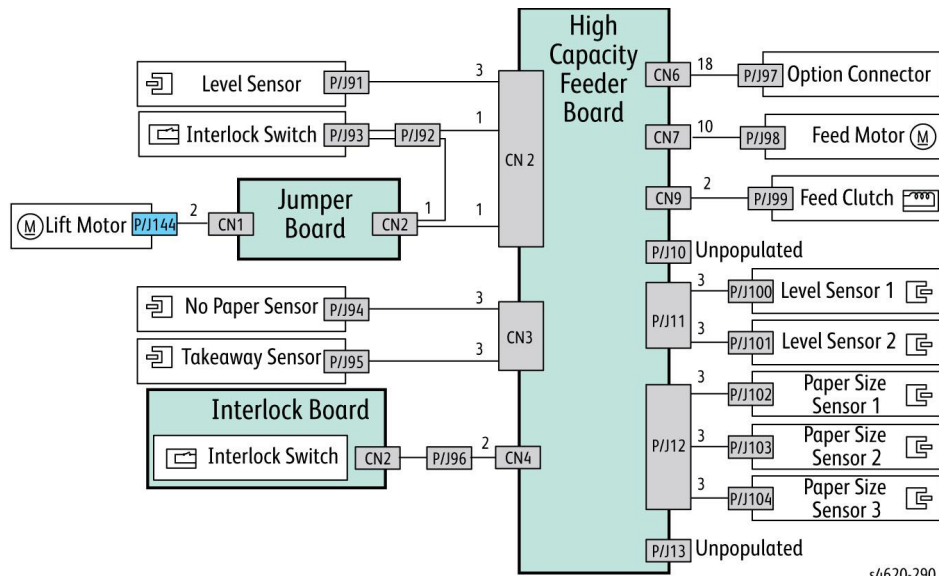
Figure 16 2000-sheet Feeder system diagram

s4620-290
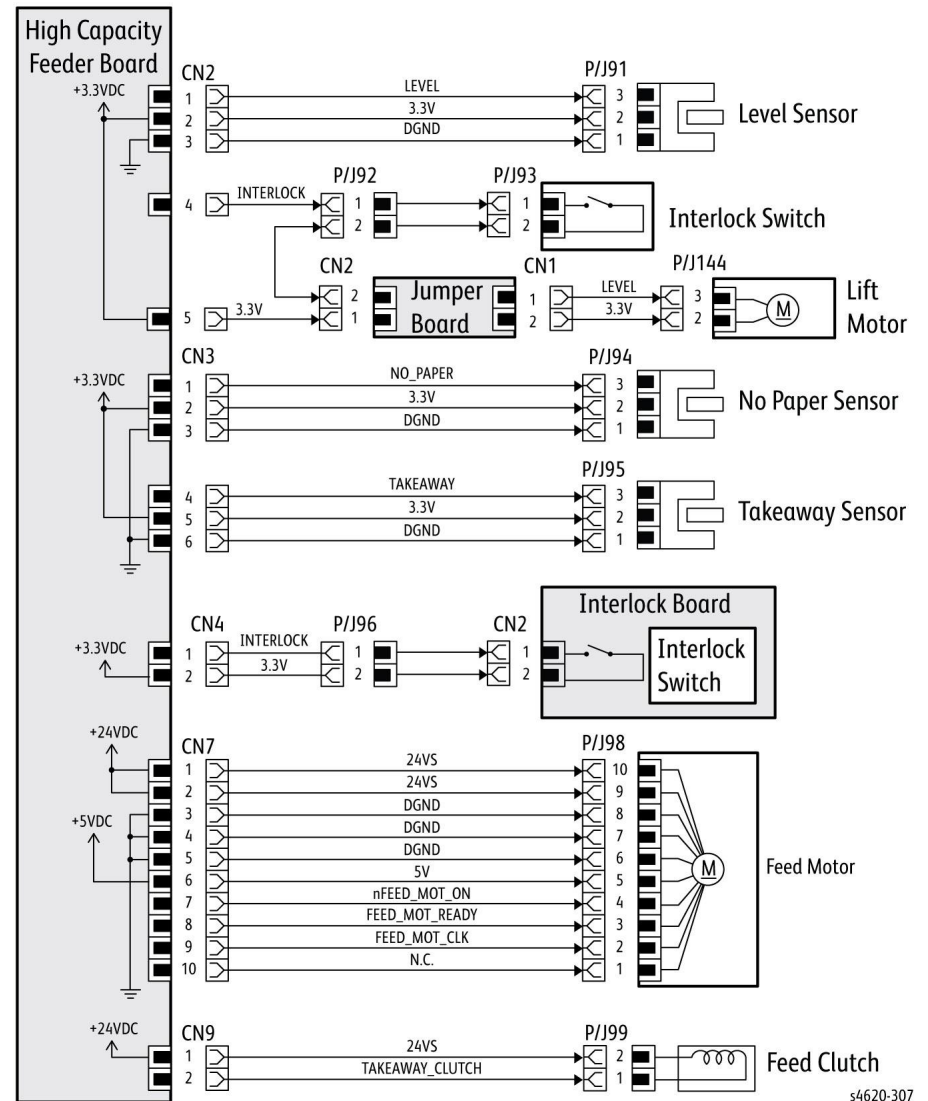
Figure 17 HCF Feeder Board (1/2)

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WD 16
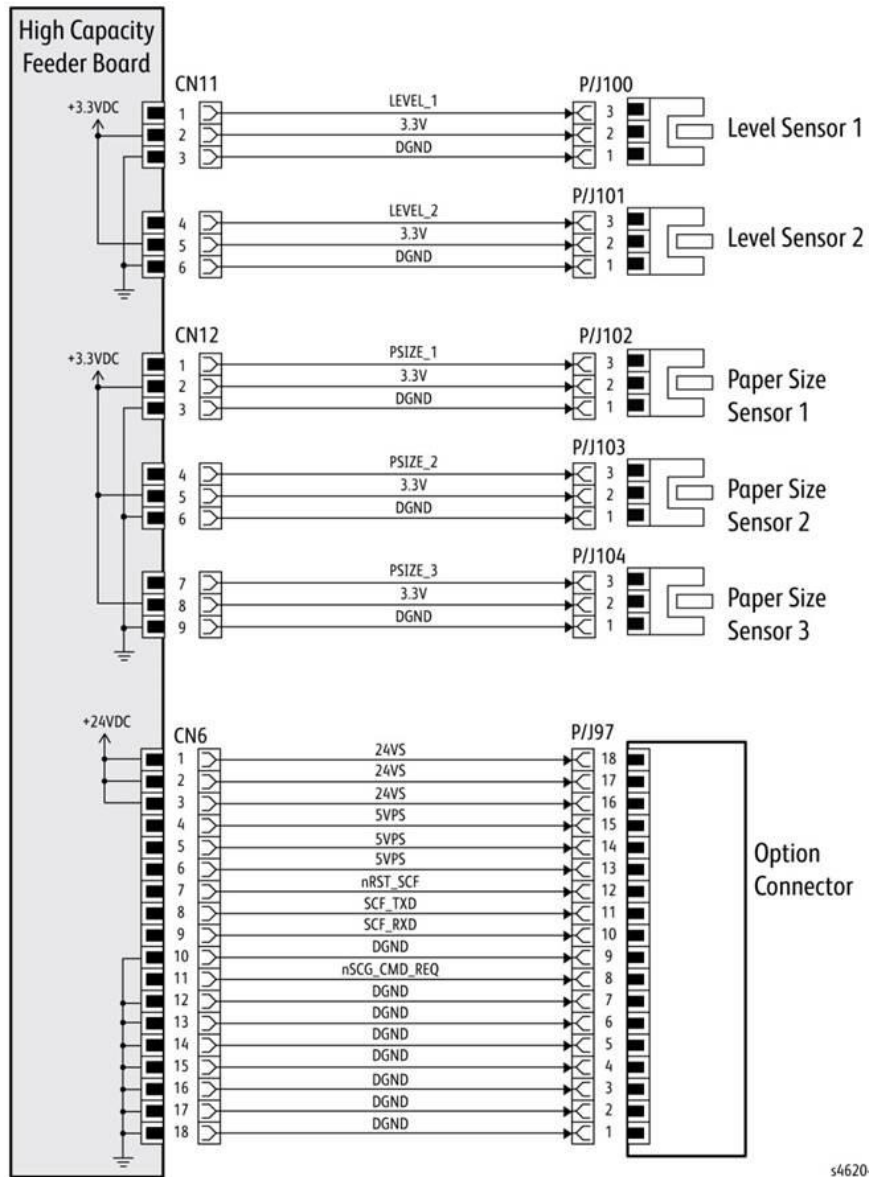
WD 17 Finisher

Figure 18 HCF Feeder Board (2/2)

s4620-308
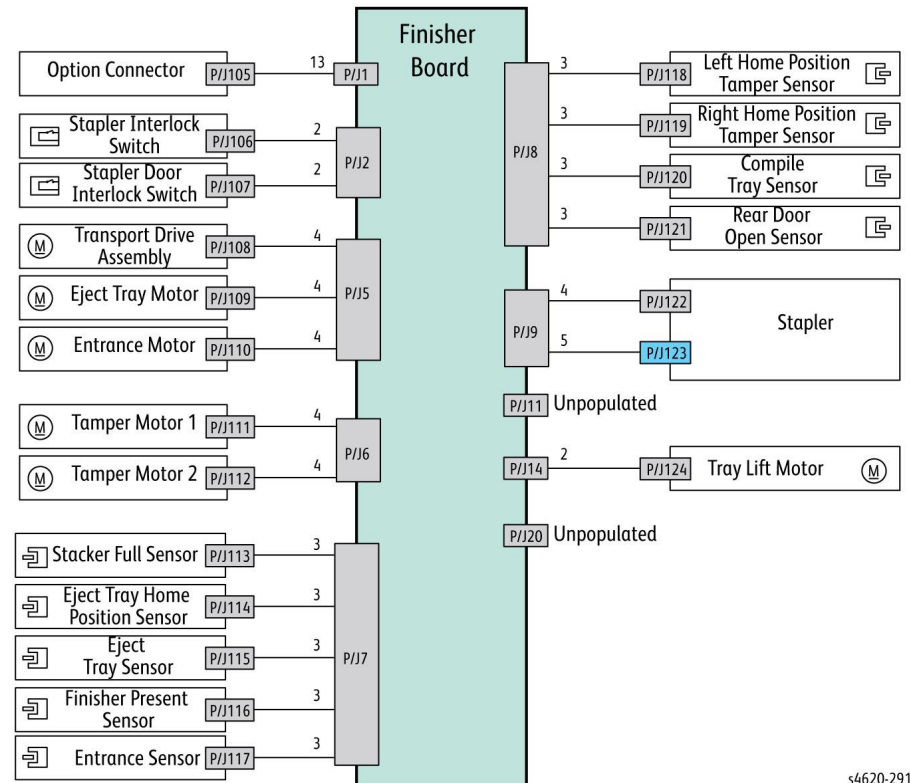
Figure 19 Finisher system diagram

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7 Wiring Data
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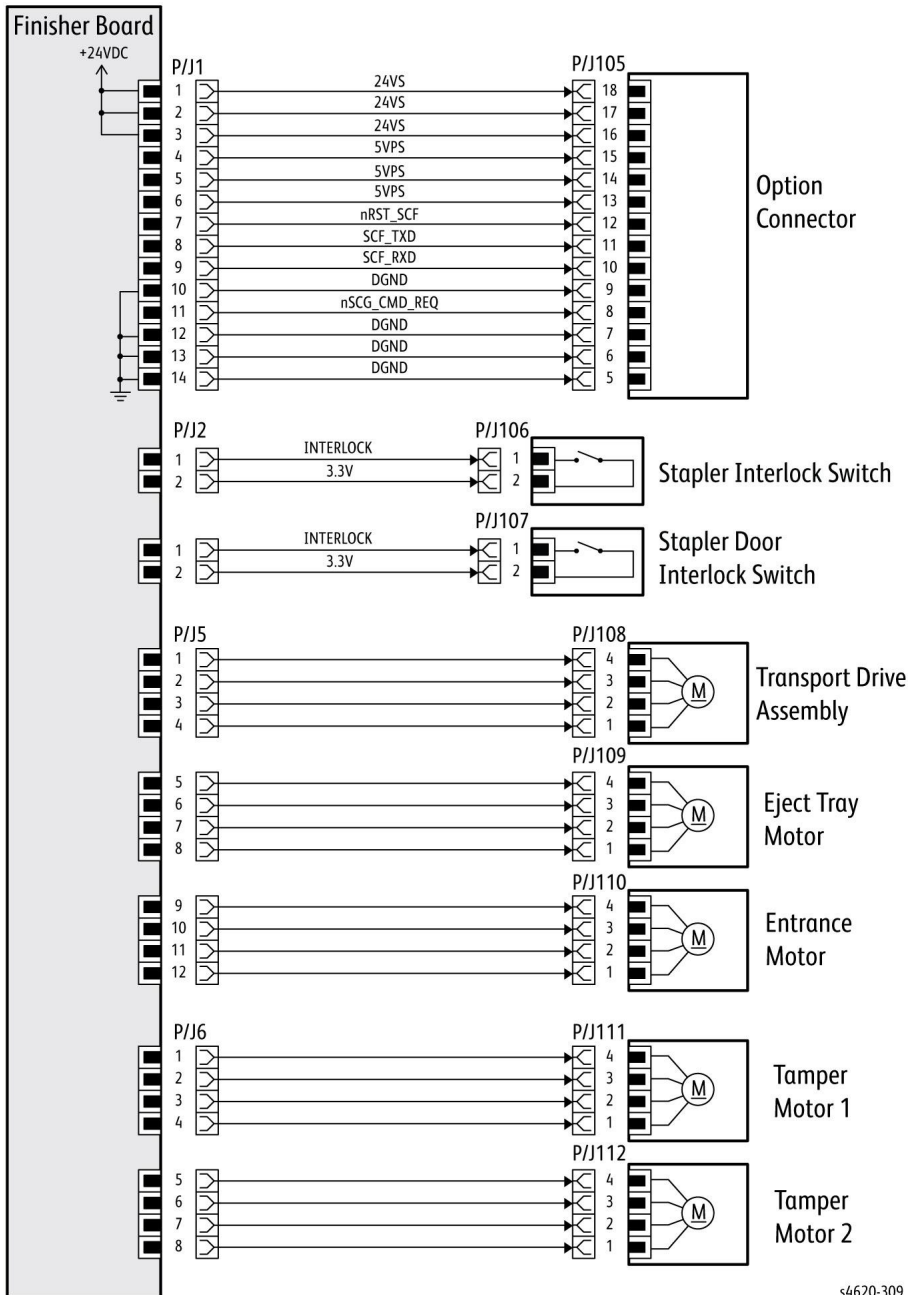
Figure 20 Finisher Control Board (1/3)
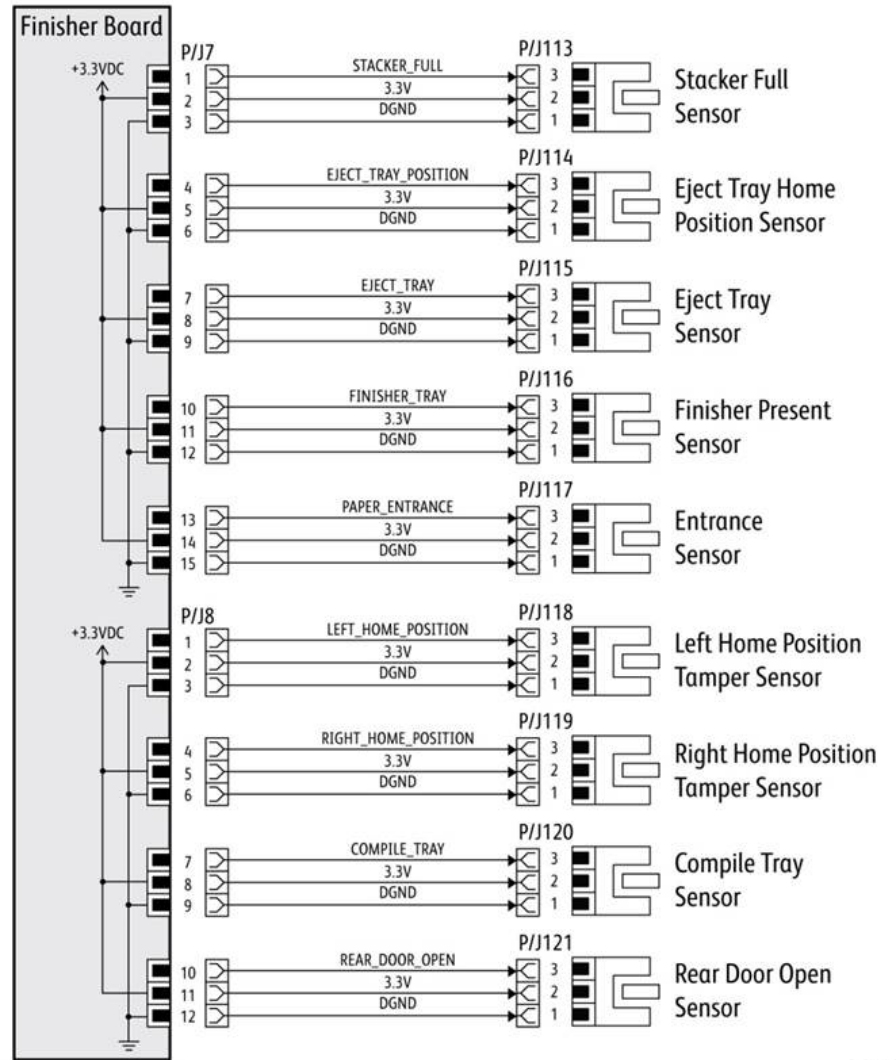
Figure 21 Finisher Control Board (2/3)
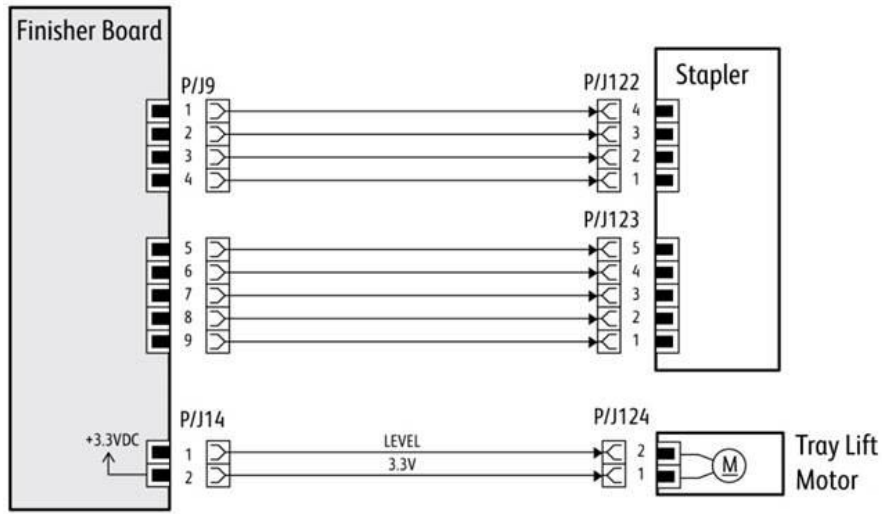
Figure 22 Finisher Control Board (3/3)
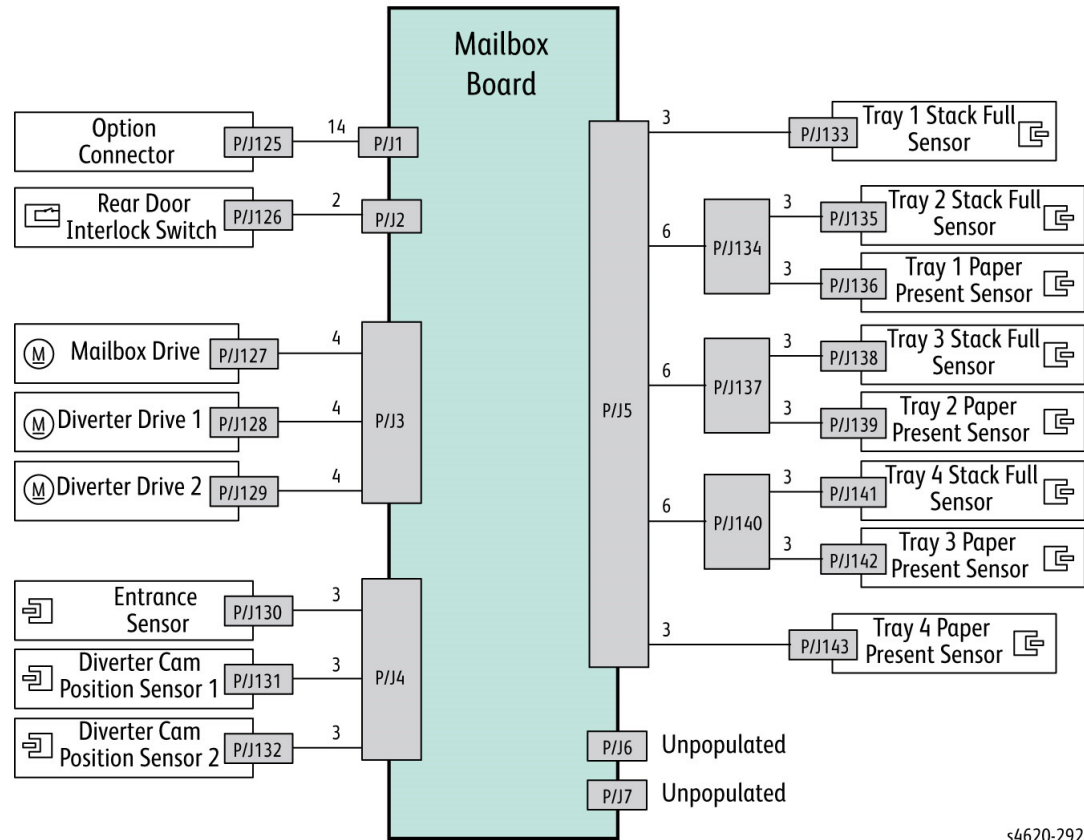
Figure 23 Mailbox system diagram

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Mailbox Board

+24VDC

P/J1

1	24VS
2	24VS
3	24VS
4	5VPS
5	5VPS
6	5VPS
7	nRST_SCF
8	SCF_TXD
9	SCF_RXD
10	DGND
11	nSCG_CMD_REQ
12	DGND
13	DGND
14	DGND

P/J125
14 13 12 11 10 9 8 7 6 5 4 3 2 1

Option Connector

P/J2
1 INTERLOCK
2 3.3V

P/J126
1
2

Rear Door Interlock Switch

P/J3
1 2 3 4

P/J127
4 3 2 1

M Mailbox Drive

5 6 7 8

P/J128
4 3 2 1

M Diverter Drive 1

9 10 11 12

P/J129
4 3 2 1

M Diverter Drive 2

+3.3VDC

P/J4
1 PAPER_ENTRANCE
2 3.3V
3 DGND

P/J130
3 2 1

Entrance Sensor

4 CAM1_POSITION
5 3.3V
6 DGND

P/J131
3 2 1

Diverter Cam Position Sensor 1

7 CAM2_POSITION
8 3.3V
9 DGND

P/J132
3 2 1

Diverter Cam Position Sensor 2

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Figure 24 Mailbox Control Board (1/2)

Mailbox Board

+3.3VDC

P/J5
1 STACK_FULL
2 3.3V
3 DGND

P/J133
3 2 1

Tray 1 Stack Full Sensor

4 STACK_FULL
5 3.3V
6 DGND

P/J134
6 5 4

P/J135
3 2 1

Tray 2 Stack Full Sensor

7 PAPER_PRESENT
8 3.3V
9 DGND

P/J136
3 2 1

Tray 1 No Paper Sensor

10 STACK_FULL
11 3.3V
12 DGND

P/J137
6 5 4

P/J138
3 2 1

Tray 3 Stack Full Sensor

13 PAPER_PRESENT
14 3.3V
15 DGND

P/J139
3 2 1

Tray 2 No Paper Sensor

16 STACK_FULL
17 3.3V
18 DGND

P/J140
6 5 4

P/J141
3 2 1

Tray 4 Stack Full Sensor

19 PAPER_PRESENT
20 3.3V
21 DGND

P/J142
3 2 1

Tray 3 No Paper Sensor

22 PAPER_PRESENT
23 3.3V
24 DGND

P/J143
3 2 1

Tray 4 No Paper Sensor

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Figure 25 Mailbox Control Board (2/2)

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7 Wiring Data

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8 Principles of Operation

Phaser 4600/4620/4622 Operational Overview

The Phaser 4600/4620/4622 base configuration combines a monochrome laser print engine with a multi-purpose Tray 1 (bypass) and 1 universal media tray, Tray 2. The Output Tray holds 500 20lb. sheets facedown. Phaser 4600/4620/4622 options add memory, media capacity, and functionality. For models not originally equipped, a 160 GB Hard Drive is available. A memory upgrade raises the installed RAM to the 768 MB maximum. Additional media capacity is also available. Trays 3, 4 and 5 (520-Sheet Feeder) when installed, add two 520-sheet universal media trays. An optional high-capacity 2000-Sheet Feeder brings the maximum paper capacity to 3,660 sheets. On the output side, 500-sheet stapler/stacker and 400-sheet Mailbox is available.

This section focuses on the printer's operational characteristics providing detailed descriptions of the media path, sensors, xerographics and major system assemblies.

The Printing Process

Figure 1 shows components associated with the xerographics process.
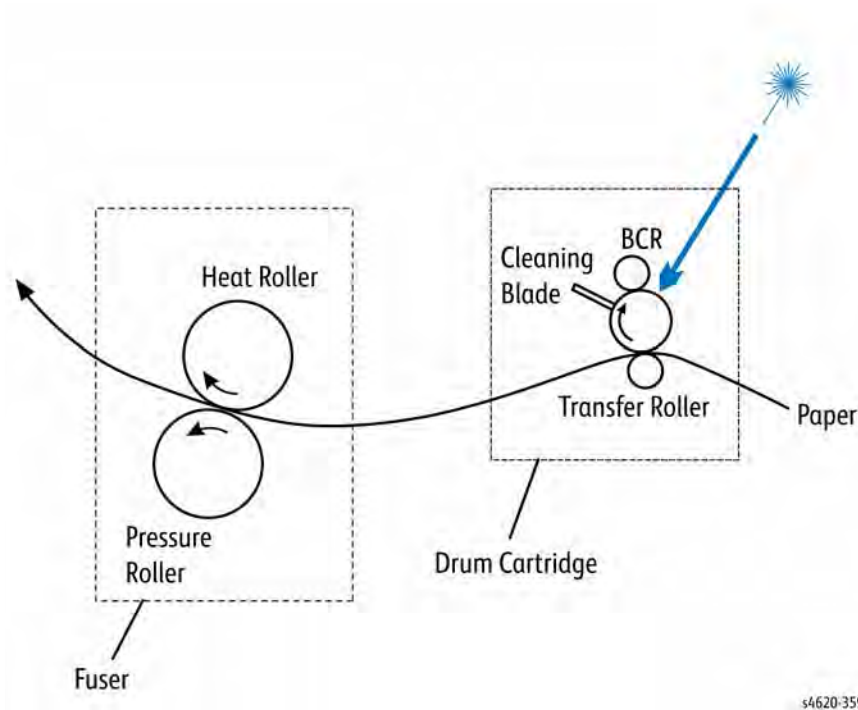
Figure 1 Xerographic process

The laser print process consists of these steps:

1. **Charge** – The Drum Cartridge contains a bias charge roller that uniformly distributes a negative electrical charge over the photoconductive (OPC) drum surface.

2. **Exposure** – The Laser Unit scans the surface of the OPC drum located inside the Drum Cartridge. The laser diode produces laser beams which are turned on and off according to a data signal. A multi-faceted polygonal mirror is rotated at a specified speed. The laser beams are reflected off of the mirror and onto the drum surface through a series of lenses and mirrors. The laser beams scan the drum surface from one end to the other, neutralizing the negative charge to create one line of a latent image on the drum surface. The drum is rotated and the scan process is repeated.

3. The Toner Cartridge supplies toner to the Drum Cartridge. Capacity is 30,000 pages at 5% area coverage.

4. **Development** – A magnetic roller in the Drum Cartridge carries a thin layer of developer and toner supplied by an agitator in the cartridge's toner compartment. The charging and metering blade inside the cartridge applies a negative charge to the toner and spreads the toner onto the Magnetic Roller. The negatively charged toner is transferred to the Areas of the drum surface that have been discharged.

5. **Media Transport** – The Size Switch detects media length. Movable actuators located on the tray indicate the location of the end guide. The printer uses a three-roller system to pick paper. A DC motor raises the tray's bottom plate, along with the media stack, against the Nudger Roller of the feeder assembly. To pick media, the Nudger Roller advances the top sheet to the Feed and Separator Rollers. The Separator Roller prevents multi-picks. The Feed Roller advances the paper to the Take Away Rollers, which feeds the media to the Registration Rollers.

6. **Transfer** – The pressure of the Transfer Roller against the drum assists in driving the paper through the transfer area. The Transfer Roller applies a positive charge to the rear surface of the paper. The negatively charged toner image on the drum is attracted to the positive charge on the rear surface of the paper, transfers the image from the surface of the drum onto the paper.

7. **Fusing** – The paper is driven into the Fuser, which uses heat and pressure rolls to melt and bond the toner onto the surface of the paper. Heat Roller fingers inside the fuser peel off the leading edge of the paper from the Heat Roller to prevent the paper from becoming wrapped around the drum. The Fuser Exit Sensor detects paper exiting the fuser.

8. **Cleaning** – A cleaning blade in the Drum Cartridge scrapes off toner remaining on the drum surface after Transfer has occurred. Then, the latent charge pattern remaining on the photoconductive drum is neutralized to prepare the drum for the next exposure cycle.

9. **Exit** – The media advances upward into the exit rollers and into the selected output tray. Two-sided printing reverses the direction of media through the Duplex Unit rollers and back to the Registration Rollers. Two sensors within the IOT detect the presence and position of media during duplex operation.

Media Handling

Media is driven along the media path by various drive motors, belts, gear assemblies and rollers. Synchronization of these components is managed by the MCU Board. The operating system monitors sensors located along the media path throughout the print engine and attached options. As a sheet travels along the media path, sensors change state temporarily to indicate the sheet's presence. If the pattern of sensor state changes differs from the expected timing for a particular paper size and path, an error is reported.

Input Media Path

Media supplied from each tray is transported through the printer along the path shown in the flow chart in Figure 1.

Tray 1

When feeding media from Tray 1, the control logic instructs the mechanical drive to activate the Feed Roller. When the control logic calls for media feed, it sends a feed signal to momentarily energize the Tray 1 Pick Clutch causing the Feed Roller to rotate. When the Feed Roller contacts the paper, a sheet is fed into the gap between the Feed Roller and the Pinch Rollers.

Tray 2

When the control logic calls for media feed, the Nudger Roller moves the sheet to the Feed Roller. The Feed Roller moves a single sheet out of the tray and toward the tray's Take Away Roller. The Separator Roller ensures only one sheet is fed. The media then moves past the Pick Sensor and up the vertical path driven by the Take Away Roller. The media continues along the path until the sheet reaches the Registration Roller.

Trays 3 through 6

Feeder operation of the 520-sheet feeders (SCF) and 2000-sheet feeder (HCF) is much the same as Tray 2. Optional feeders employ similar feeder components.

Output Media Path

The path for media exiting the Fuser are:

- Through the Exit Assembly to the Output Tray on the Top Cover (facedown).
- Through Exit Assembly to the Mailbox or Finisher.

Output Tray

The Output Tray is a face-down, 500-sheet tray located on the printer's Top Cover. The tray receives media from the Exit Assembly.

Mailbox

The mailbox sorts prints into 4 separate 100 sheet output trays.

Finisher

Media fed from the Exit Assembly is redirected upwards by the exit gate. Media is drawn into the Finisher by an entrance roller driven by the Finisher Transport Motor. The exit gate is switched by the exit gate solenoid controlled by signals received from the MCU Board.
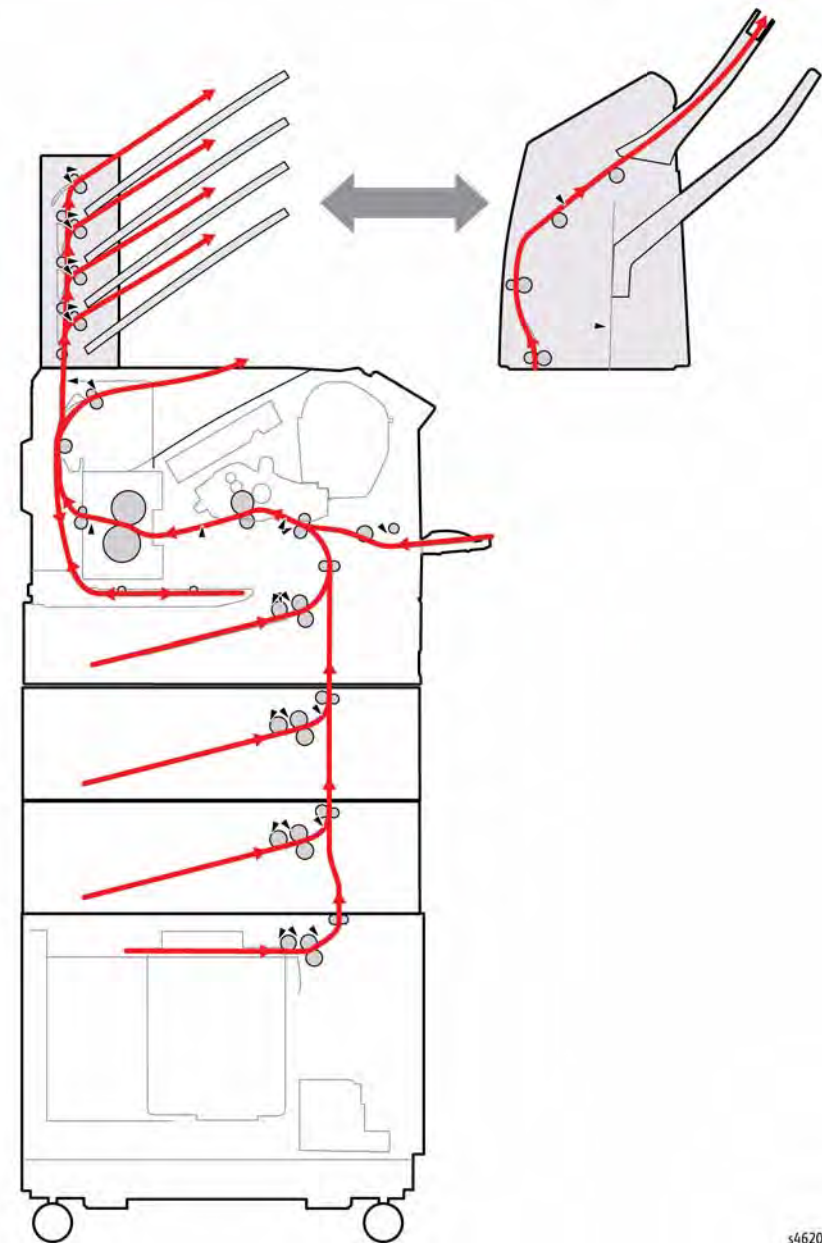
s4620-364

Figure 1 Media Transport Path

Sensors

The printer contains sensors of various types that perform a variety of functions. One group of sensors track the progress of the paper along the paper path, and detect if a paper jam occurs. Other sensors detect the presence of the Drum Cartridge, stop printer activity if a door is open (interlock), and monitor the fusing temperature.

Sensor Types

The types of sensors used vary with function. In general, there are three types in use.

Photo Sensors

Two types of photo sensors are used, photo-reflective and photo-receptive. Photo-reflective sensors use light reflected back from an object to detect its presence. Photo-receptive sensors use an actuator or the object itself to block the light path to detect an object or condition.

Photo-reflective sensors have the light emitter and light receiver aligned on a single surface. Output of the photo-receptor is High (> +4.5 V) when light is being reflected back and Low (< +.3 V) when it is not. Photo-receptive sensors consist of a LED in one arm of a U-shaped holder, and a photo-transistor in the other arm. When the sensing area is vacant, nothing is between the arms of the sensor, light falls on the photo-receptor sending the signal High. If the light is interrupted, the photo-transistor goes Low. Figure 1 shows a typical photo-receptive sensor with the hooks (catches) used to secure the sensor to its bracket.
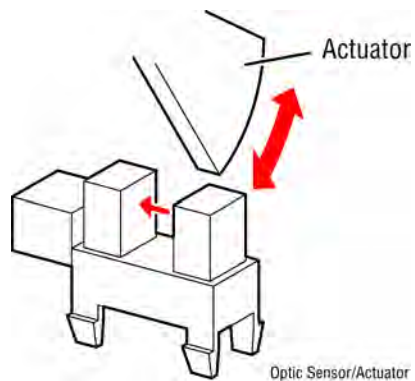
Figure 1 Photo Sensor

Microswitches

Microswitches are used primarily as cover interlocks in the printer. They are in a normally open state, and close when actuated. A bank of microswitches is used to detect paper size in the universal trays. Microswitches also employ hooks or catches for retention in the bracket or frame. Figure 2 illustrates a typical microswitch.
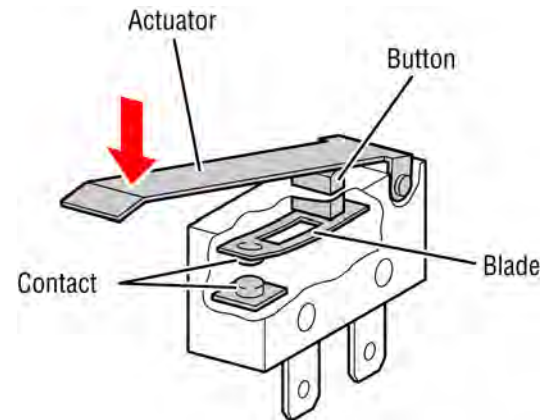
Figure 2 Door interlock switch

Thermistors have a known value of resistance whose value varies with temperature. Used primarily in the Fuser for temperature sensing.

Sensors in the Media Path

Figure 3 shows the location and designation of sensors located in the media path. Error detection is based on media transport timing through the sensing area.

Table 1 briefly describes the type and function of sensors and switches used to determine operational status and detect jams or failures.

Table 1 List of Sensor and Interlock Functions

Number	Name	Type	Function
S1	No paper	Photo-receptive	Signals no media remaining in Tray 2
S2	Registration	Photo-receptive	Signals leading edge at registration
S3	Feed	Photo-receptive	Signals leading edge registered
S4	Exit	Photo-receptive	Signals media present at exit
S5	Stack Full	Photo-receptive	Signals output tray full
S6	Duplex	Photo-receptive	Signals media present
S7	No paper	Photo-receptive	Signals no media remaining in Tray 1
S8	ADC	Photo-reflective	Monitors Toner density
S9	Duplex	Photo-receptive	Signals media present (leading edge)
S10	Rear Door	Microswitch	Signals Rear Door open
S11	Port open	Photo-receptive	Signals Waste Toner Cartridge installed
S12	Top Door	Microswitch	Signals Top Door open
S13	Size Switch	Microswitch	Signals media size in tray
S14	Pick	Photo-receptive	Signals Pick Assembly position
S15	Level	Photo-receptive	Signals lift motor to raise tray bottom
S16	Environmental	pcb	Monitors temperature and humidity
S17	Internal temp	Thermistor	Monitors internal temperature
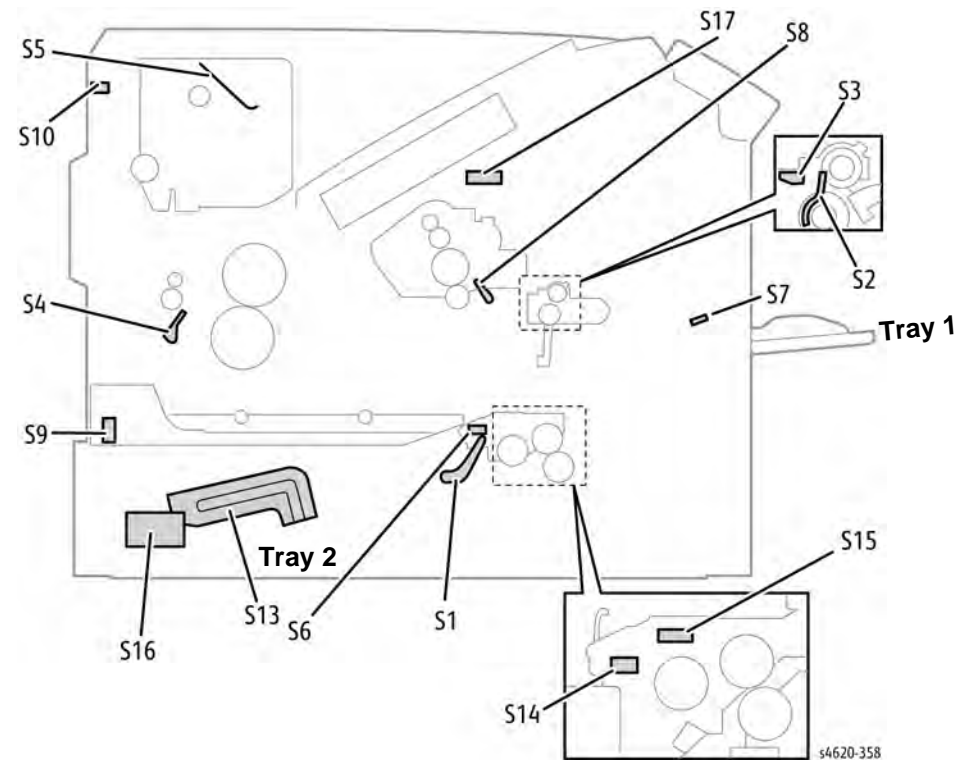
Figure 3 IOT Sensors

Media Size Sensing

Trays 2 and optional feeders detect media size using an array of microswitches (Size Switch) mounted in the tray cavity. When the tray end guide is adjusted, the guide changes the Size Switch actuator positions. Actuating different combinations of the Size Switch produces different combinations of high and low signals. These signals identify what size media is loaded and what to display on the Control Panel. Also, actuation of the Size Switch signals the tray is present and closed to the MCU Board.

Media Present Sensing

When the last sheet is fed from any tray, the No Paper Sensor actuator drops to block the No Paper Sensor. Feeding is inhibited until media is loaded into the tray.

Media Level Sensing

As media is fed from the tray, the media level drops. When the level reaches a certain point, an actuator unblocks the Stack Height Sensor signaling the control logic to raise the tray bottom plate with the Lift Motor. Raising the tray bottom plate pushes media up to achieve optimum force against the Nudger Roller and blocks the Stack Height Sensor resuming paper feed. This loop continues until the No Paper sensor is activated. Paper level sensing operates the same way for Trays 2 through 6. Tray 1 uses No Paper sensing only.

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Drum Cartridge

The Drum Cartridge is located under the Toner Cartridge and is reached through the Top Door. The Drum Cartridge is a customer-replaceable item. The Drum Cartridge consists of OPC drum unit and the development unit. The OPC drum unit has an OPC drum, a scorotron which charges the OPC, a light-guide and cleaning blade. The development unit has a magnetic roller, two mixing augers, developer, a Dr-blade and an ADC sensor.
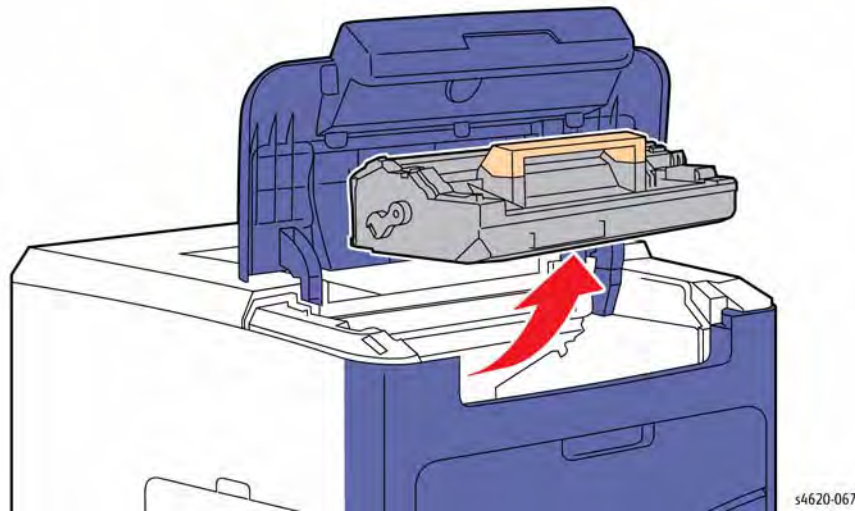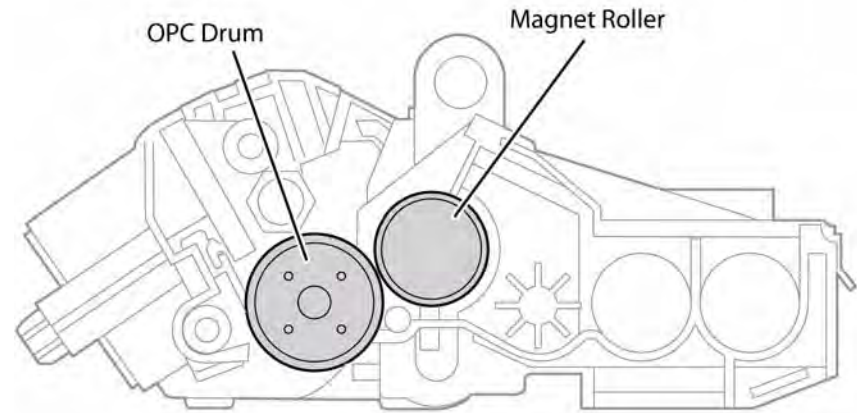

Figure 1 Drum Cartridge

Figure 2 Drum Cartridge components

The OPC drum is charged with a negative voltage and exposed by the Laser Unit. The laser light creates a latent image on the surface of the OPC drum. The negatively charged toners are attracted to the latent image. Toner on the OPC drum moves to the media by the positive bias charge applied to the media by the Transfer Roller. To better understand how the Drum Cartridge operates, the name and function for each Drum Cartridge component is listed below.

Table 1 Drum Cartridge Components

Component	Function
Drum	The Drum is an aluminum cylinder coated with a layer of photo-conductive material that retains electrical charges on its surface until exposed to light, when electrical conduction occurs.
Magnetic Roller	A thin layer of developer and toner adheres to the surface of this roller, which transports the toner to the Drum surface.
Charging and Metering (Dr) Blade	The CM Blade controls the thickness of developer and toner over the Magnet Roller, and applies negative charges to the toner.
Cleaning Blade	The Cleaning Blade removes toner remaining on the Drum.

Transfer Roller

The Transfer Roller, located beneath the Drum Cartridge, is driven by direct contact with the OPC drum. When media moves between the Transfer Roller and drum, the Transfer Roller applies a positive charge to the rear surface of the media. The negatively charged, developed image on the drum is attracted by the media's positive charge and is transferred from the drum to the media.
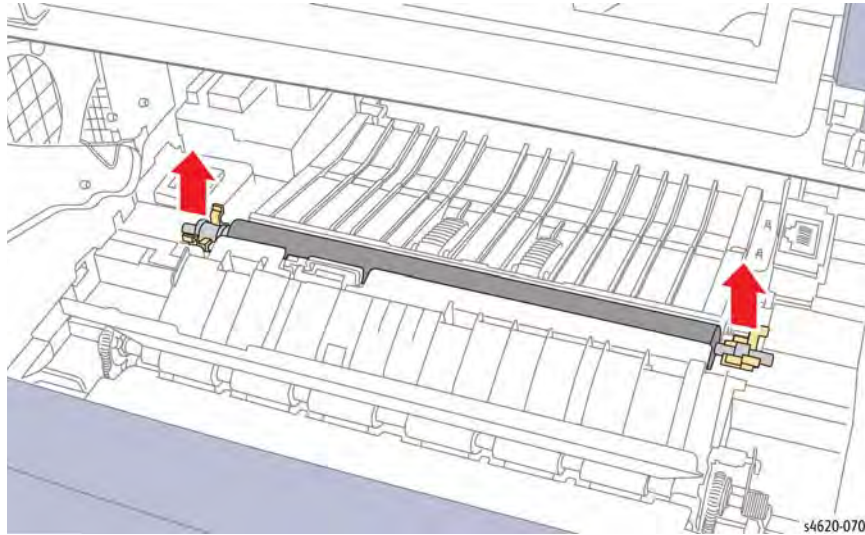
Figure 3 Transfer Roller

Toner Cartridge

The main Drive Assembly drives the Toner Cartridge to deliver toner to the Drum Cartridge.
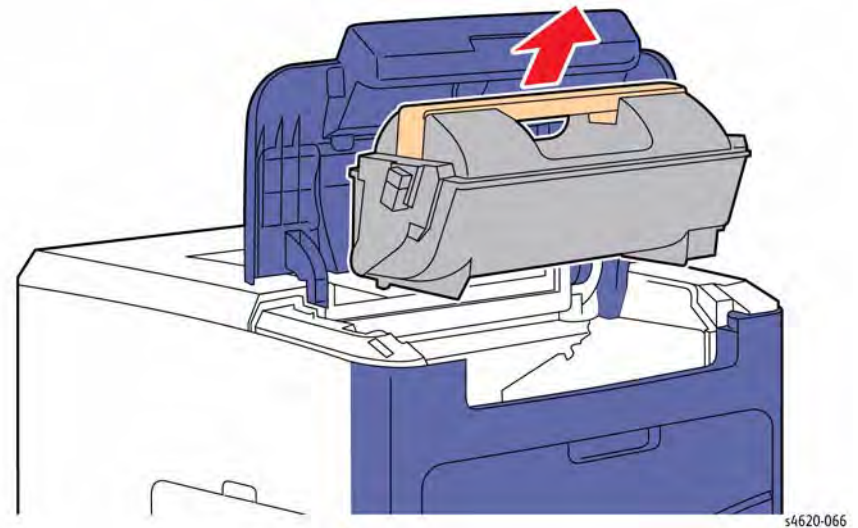
Figure 4 Toner Cartridge

Waste Toner Cartridge

Excess toner is collected through a series of augers and deposited into the Waste Toner Cartridge. A new cartridge is supplied with each replacement Toner Cartridge. Replace the Waste Toner Cartridge when you install a new Toner Cartridge.
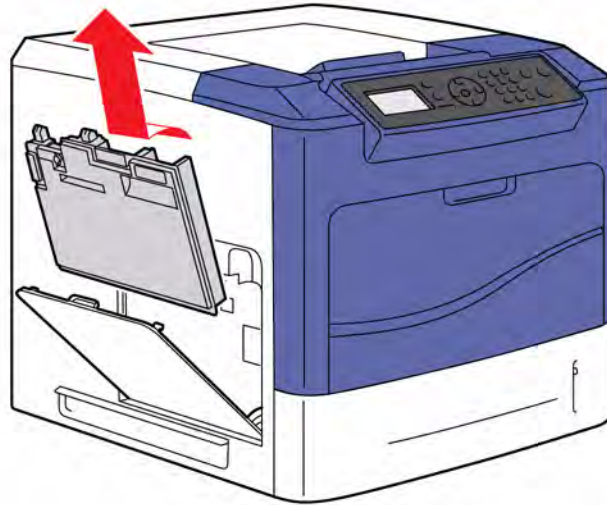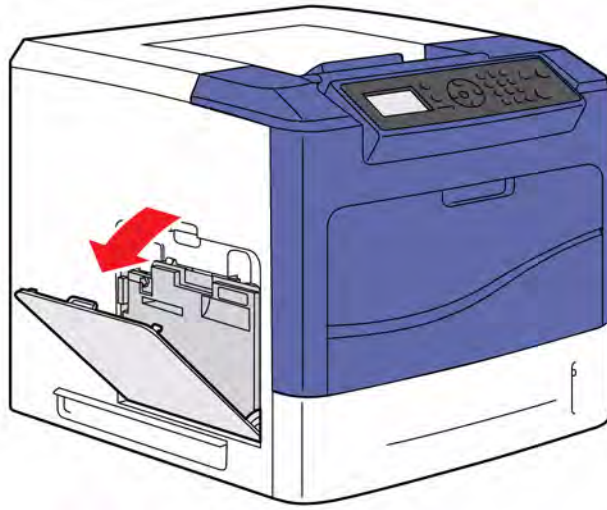
Figure 5 Waste Toner Cartridge

Laser Unit

The Laser Unit interprets signals from the IP Board and scans the surface of the drum with a laser to create a latent image. The dual-beam laser scans from one end of the drum surface to the other while being turned off and on forming a single line of a latent image. The resolution of the dual-beam laser is either 600 dpi or 1200 dpi and is determined by the customer setting. Both beams are always on. For 600 dpi, both beams receive the same data. For 1200 dpi, the beams receive different data resulting in a smaller pixel size. The scanner motor turns On when it receives a signal, and turns Off after printing ends. The motor remains Off in the standby and power-saving states.
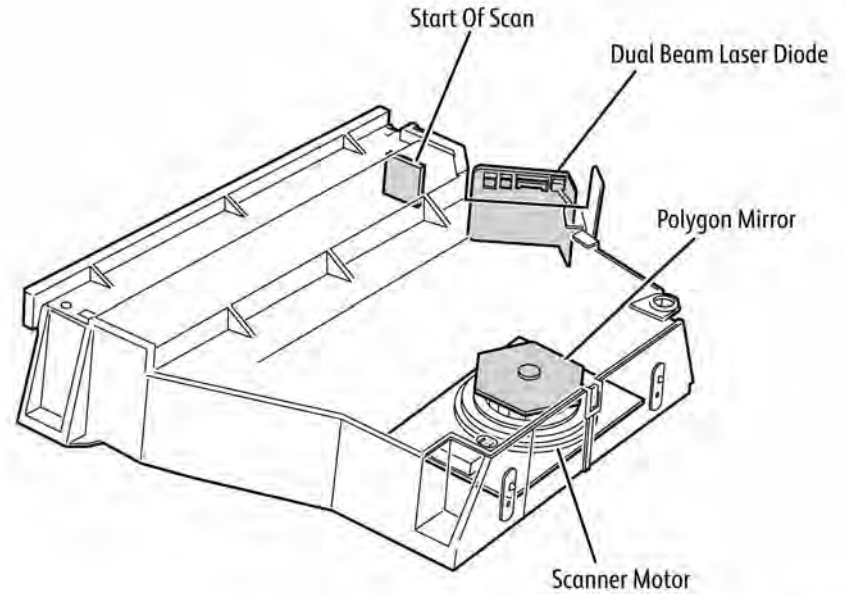
Figure 6 Laser Assembly

- The Laser Unit is field replaceable and contains the laser diodes, scanner motor/mirror, and several lenses and mirrors.
- The Laser Unit "reflects" the laser beam so it strikes the Drum.

The Laser Unit consists of four components: the laser diode (LD) Assembly, the scanner assembly, lenses and mirrors, and the start of scan (SOS) board.

Table 2 Laser Assembly Components

Component	Function
Laser Diode Assembly	Produces two laser beams that are turned on and off according to the print data signal.
Scanner Assembly	Consists of a faceted polygonal mirror mounted on the shaft of the scanner motor that reflects the beams to the drum surface through lenses and mirrors, to scan the beams across the drum.
Start of Scan Board	When the laser beams strike the sensor on the SOS board, the signal generated indicates the initial position of the scan. The initial position where a scan is started on each line is detected.

Scanner Motor control is performed according to the mode of operation as shown below.

Table 3 Scanner Motor Operational Modes

Operational Mode	Laser Power On/Off
Standby Mode	Always Off
Print Mode	Turns On upon receiving the signal from the controller, and turns Off after a preset time has passed from the end of printing. Also turns Off if a print command is not received within 30 seconds from the reception of the signal.
Sleep Mode	Always Off

Fuser

The Fuser, using a combination of heat and pressure, bonds the toner to the media. As a CRU, the Fuser is replaced as a unit. However, spares are available for the Heat Lamp, Heat and Pressure Rollers, and Fuser Drive Gear.

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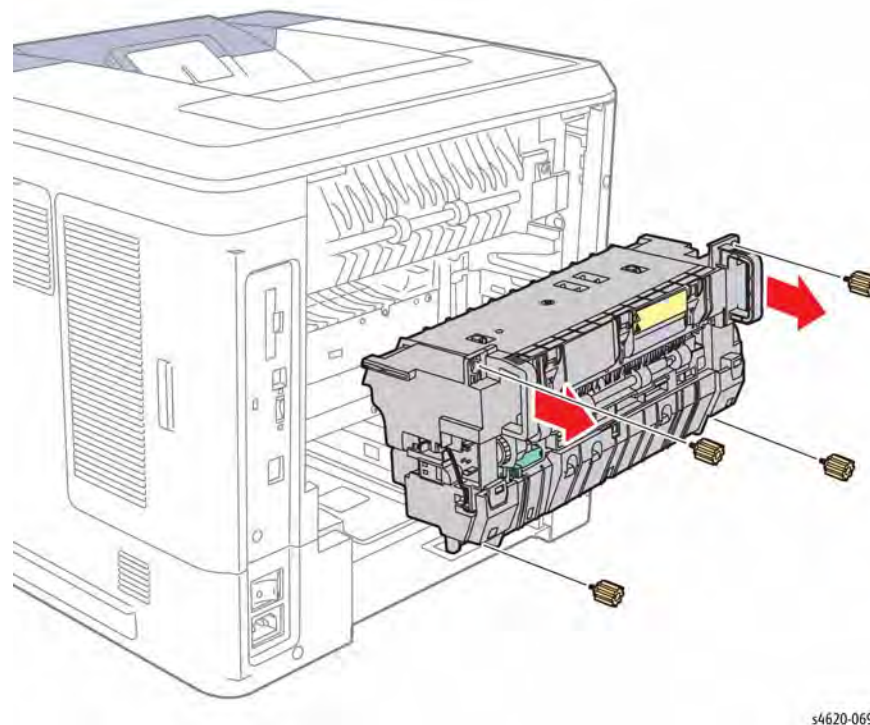
Figure 7 Fuser

The Fuser receives its drive from the Fuser Drive Assembly. After the toner image is transferred to the media, the media passes through the Fuser. The Pressure Roller is pressed against the Heat Roller to melt the toner and bond the image to the media.

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To better understand Fuser errors, Fuser components are described below.

Table 4 Fuser Components

Component	Function
Heat Roller	The Heat Roller is a metal tube with a coated surface and a Heat Lamp inside. As media passes between the Heat Roller and Pressure Roller, the heat fuses the toner to the media.
Pressure Roller	The Pressure Roller maintains pressure on the media passing between it and the Heat Roller. This pressure bonds the melted toner to the paper.
Heat Lamp	The Heat Lamp is a quartz glass tube containing heater coils. The Heat Lamp heats the entire length of the Heat Roller.
Temperature Sensors	These are Thermistors having a known value of resistance that varies with temperature. There are three Temperature Sensors in the Fuser. One is located at the center of Heat Roller, the other is located where the edge of a letter size sheet of paper comes through. The third is located at the center of the Pressure Roller. The sensors monitor the surface temperature of the Heat and Pressure Rollers.
Thermostat	The Thermostat provides a second-level of protection. If the Heat Roll temperature exceeds the preset temperature, the Thermostat cuts off the AC power to the Heater Rods.
Fuser Exit Sensor	This sensor detects the arrival of the paper at the Fuser exit.

Fuser Life Expectancy

The life expectancy of the Fuser is 300,000 Letter/A4 size pages. Several factors can reduce Fuser life:

*   Greater than 5% coverage
*   Printing on heavy media
*   Printing on transparencies or specialty media

Power Shutoff to the Fuser

The printer shuts off power to the Fuser for the following reasons:

*   Fuser error
*   Jam error
*   Cover or doors open
*   Laser Unit error
*   CPU or NVRAM error
*   Fuser Fan error

Major IOT Assemblies

Components of the Phaser 4600/4620/4622 printer described in this section include:

*   Trays
*   Duplex Unit
*   Exit Assembly
*   Drive and Electrical

Trays

Standard trays include the 100-sheet, multi-purpose Tray 1 and 1 520-sheet universal tray, Tray 2. The trays adjust to accept various media sizes.

Tray 1

The Tray 1 Feeder feeds paper into the printer. The Feed Drive Assembly drives the Tray 1 Feed Roller to feed media from the tray. Tray 1 components include:

*   Feed Roller
*   Pick Clutch that engages the Feed Drive Assembly to the Feed Roller.
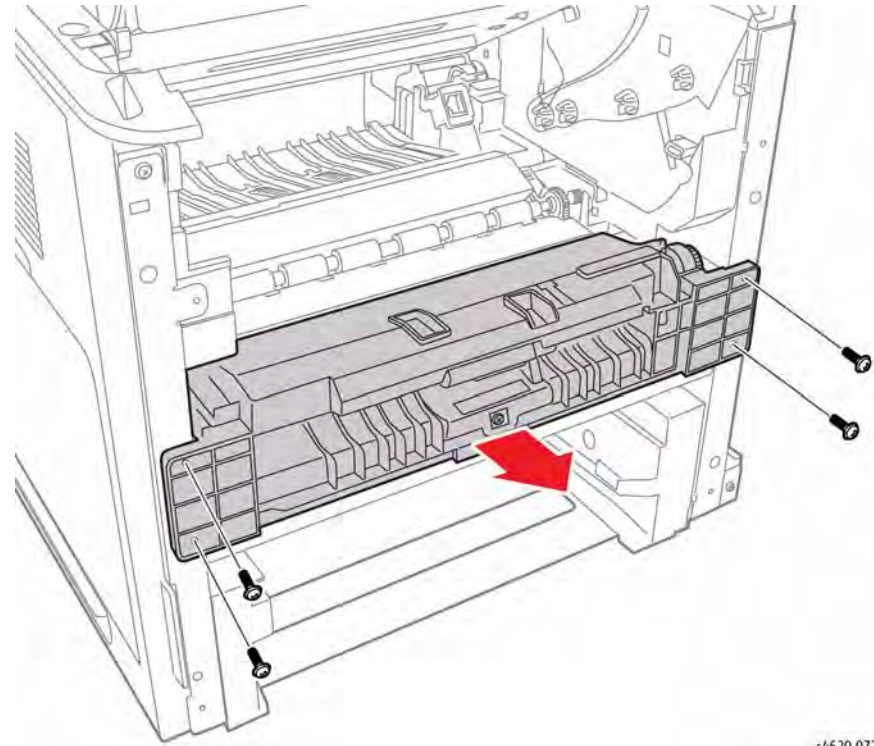*   No Paper Sensor that detects whether paper is in Tray 1.

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Figure 1 Tray 1 Feeder

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Tray 1 incorporates a single set of guides. When media is placed in Tray 1, the leading edge strikes the actuator of the No Paper Sensor indicating the presence of paper. As the last sheet of paper is fed from the tray the actuator blocks the sensor opening indicating No Paper remains in the tray.

Tray 2

Tray 2 includes guides that manually adjust to the media loaded in the tray. The guides contact the edges of the media to hold it in position. Media size is determined by the position of the switches in the Size Switch. The position of the end guide determines the size signal created by these switches.

Tray components include, Figure 2:

*   **Separator** Roller

    The Separator Roller prevents multi-sheet picks from the tray by applying drag to the bottom of each passing sheet.

*   **End and Side Guides**

    The End and Side Guides adjust to different media sizes by moving them to contact the media edges and hold it in position. Size Switch actuators, located on the tray, are set by the position of the end guide to indicate loaded media size.

*   **Sector Gear**

    The sector gear engages the lift gear on the Lift Motor shaft to raise the bottom plate.

*   **Bottom Plate**

    The Lift Motor through the lift gear and tray sector gear turn the lift shaft raising the bottom plate which causes the media to contact the Nudger Roller. This activity is monitored by the Lift Sensor. The bottom plate also actuates the media level indicator.

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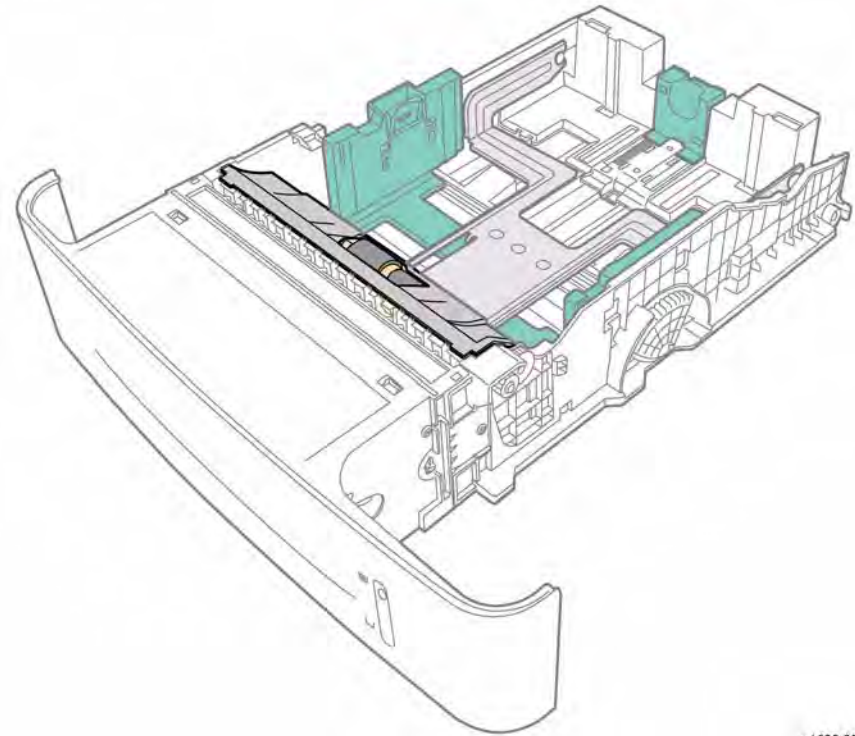
Figure 2 Tray Components

Tray 2 and the optional trays are functionally equivalent in terms of the feeder mechanism that moves media from the tray into the media path. The Feed Drive Assembly drives the Feed and Nudger Rollers to pick paper from the tray. A Lift Motor lifts the tray's bottom plate to maintain media contact with the Nudger Roller.

The media supply and path are monitored by these sensors.

*   **Stack Height Sensor**

    The Stack Height Sensor uses an actuator to determine whether media in the tray is lifted to the feeding position. As the level of media drops, the flag of the actuator enters the Level Sensor's sensing area, triggering the Lift Motor to raise the bottom plate. The Lift Motor raises the bottom plate by rotating the Lift Gear which drives the tray's sector gear.

*   **Take Away Sensor**

    The Take Away Sensor detects a paper jam in the tray by the paper position and sensor transition time.

*   **No Paper Sensor**

    The No Paper Sensor uses an actuator to determine whether the tray is empty. When the actuator lowers, the No Paper Sensor signal goes High indicating an empty tray.

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Duplex Unit

The Duplex Unit provides an area in the media path to flip the printed sheet over, and reinsert the sheet back into the registration area to receive an image on the reverse side. The Duplex Unit includes a media size switch to select fed media and provides 2-sided printing for media fed from all available trays except envelopes.
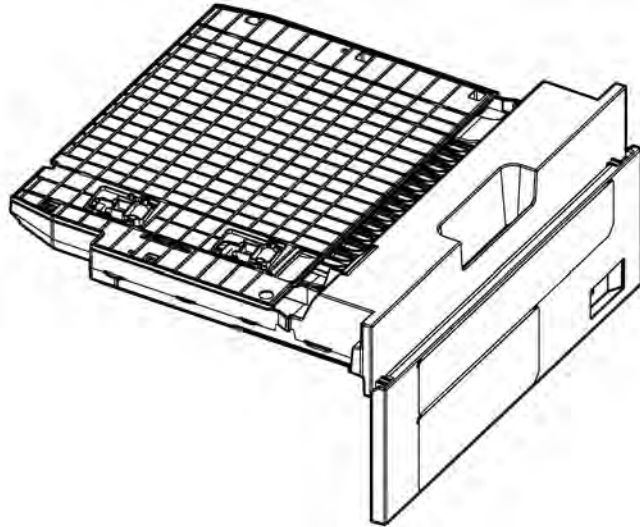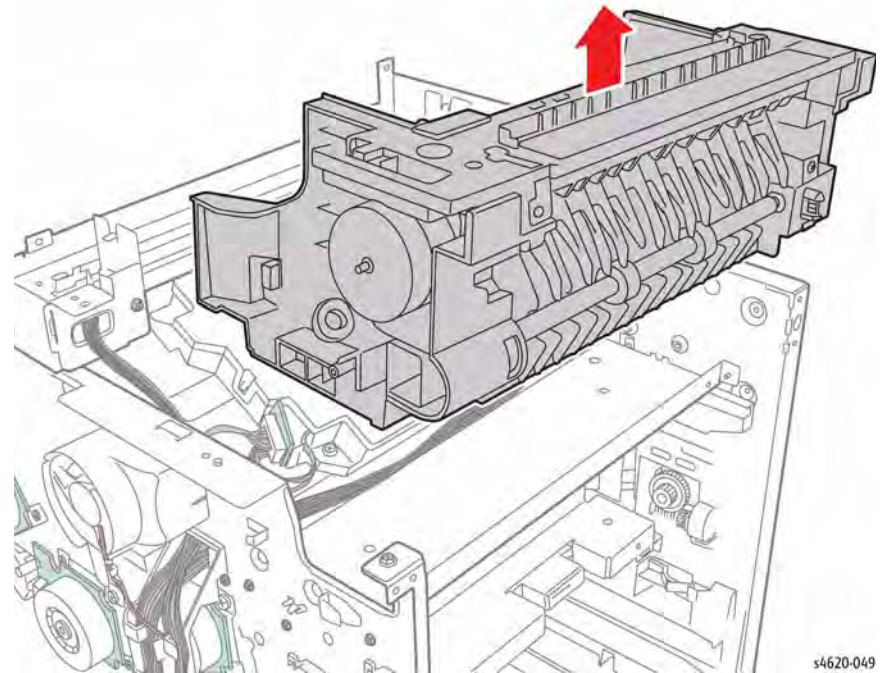

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Figure 3 Duplex Unit

Exit Assembly

The Exit discharges the printed paper out of the printer, sending it either to the Output Tray or when installed, the optional Mailbox or Finisher.

s4620-049

Figure 4 Exit Assembly

Exit Assembly components include:

• **Exit Rollers**

These rollers eject paper to the Output Tray or feed an installed option.

• **Exit Gate**

The exit gate switches the media path between the Output Tray and installed Finisher or Mailbox. When the exit gate is in its resting position, media is fed to the Output Tray. When actuated by the exit gate solenoid, media is fed into the installed option.

• **Full Stack Sensor**

This sensor detects that the Output Tray is full, using an Actuator.

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Printer Drive

The Drive subsystem includes motors and their driven assemblies.

Main Drive Assembly

This assembly includes 3 motors. One drives media transport, one drives the Toner Cartridge auger, and a third drives the Drum Cartridge. The assembly gets +24 VDC power from the SMPS. Motor control signals come from the MCU Board.

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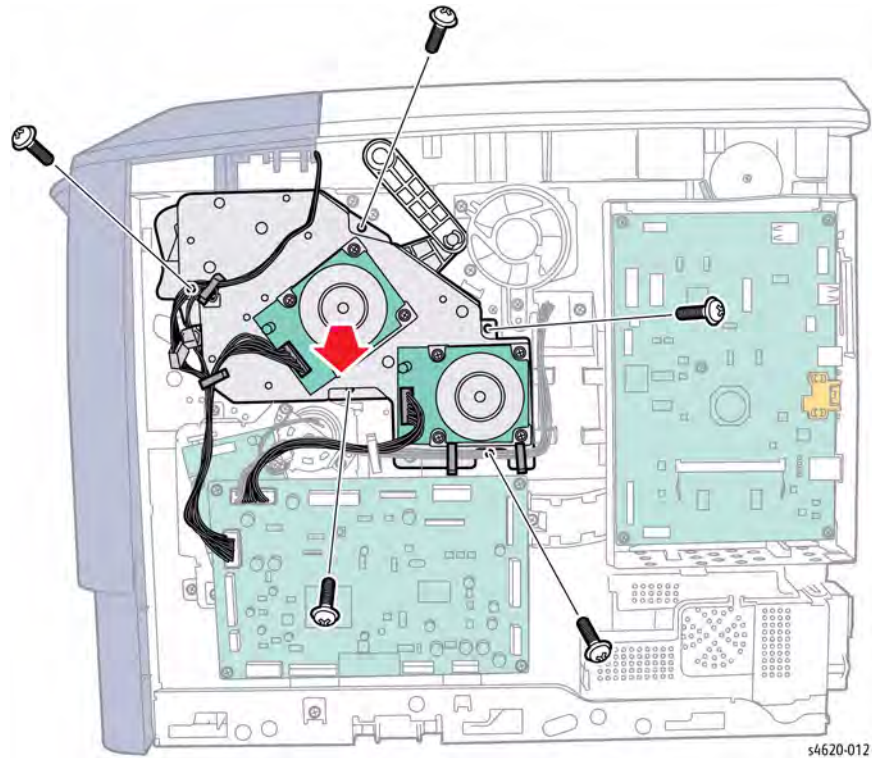
Figure 5 Main Drive Assembly

Feed Drive Assembly

The Feed Drive Assembly drives the Tray 2 feeder and Registration Roller Assembly.

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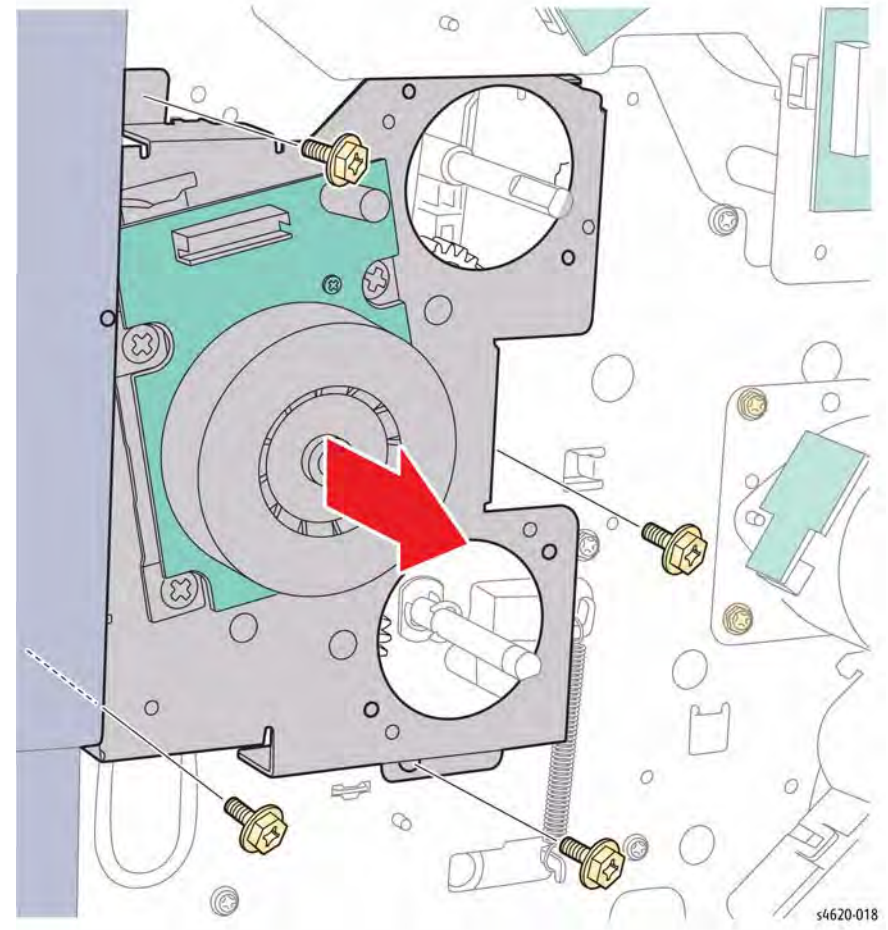
Figure 6 Feed Drive Assembly

Fuser Drive Assembly

The Fuser Drive Assembly drives the Fuser Rollers.

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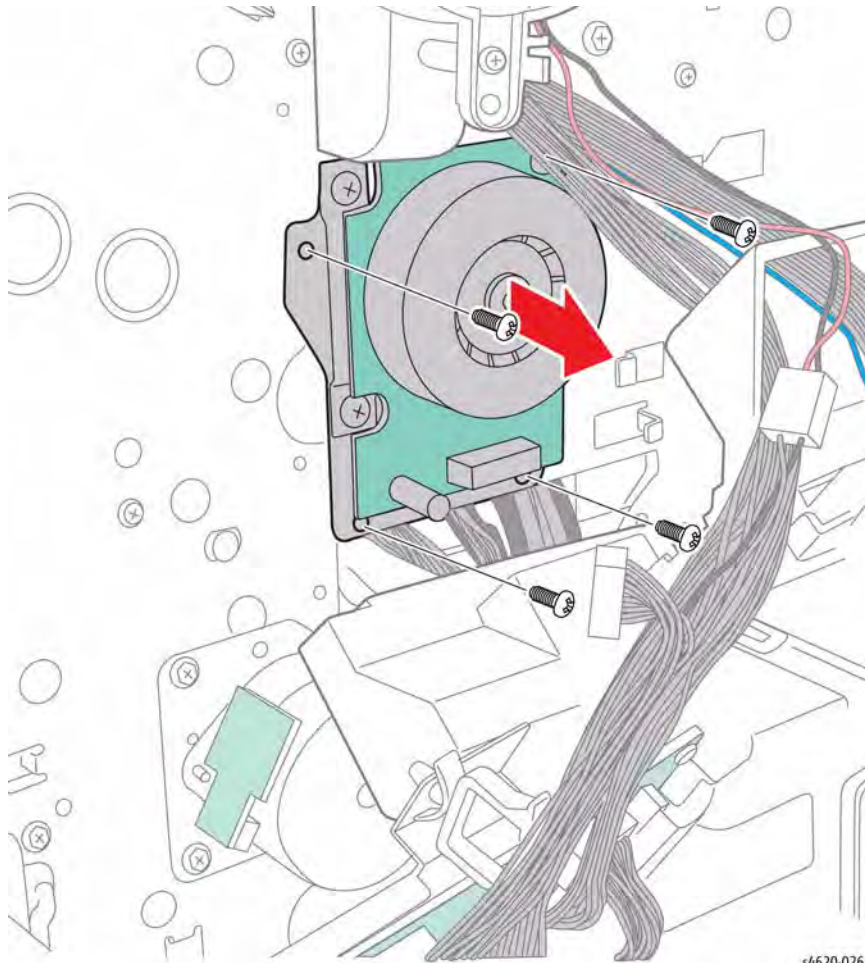
Figure 7 Fuser Drive Assembly

Fuser Release Drive Assembly

The Fuser Release Drive operates a camshaft the actuates the Fuser Pressure Roller.
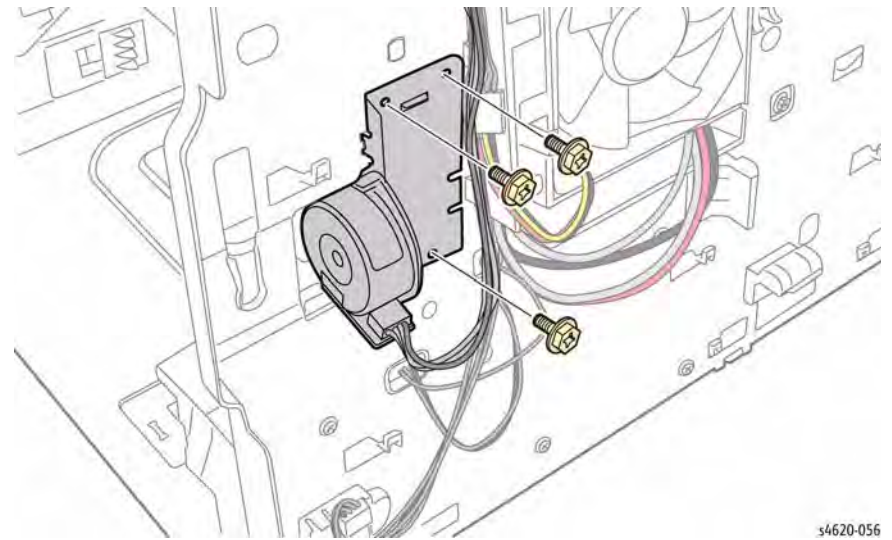
Figure 8 Fuser Release Drive Assembly

Duplex Drive Assembly

If 2-sided printing is selected, paper is directed through the duplex path The Duplex Drive Assembly reverses direction and loads the paper into the Duplex Unit. The paper pauses briefly, then continues through the Duplex Unit to the Registration Roller for printing on the opposite side. Rollers and solenoid-activated gates drive and direct the paper along the duplex path.
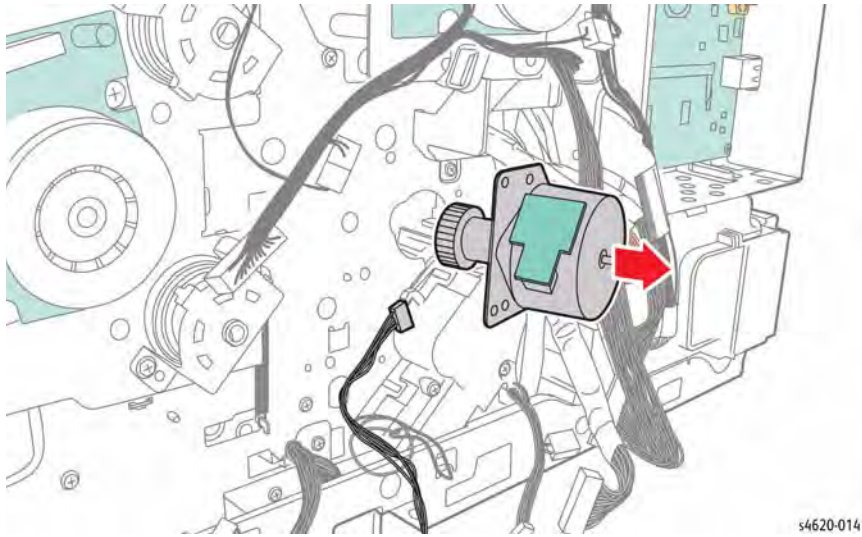
Figure 9 Duplex Drive Assembly

Exit Drive Assembly

The Exit Drive Assembly, drives the exit rollers in the Exit Assembly.
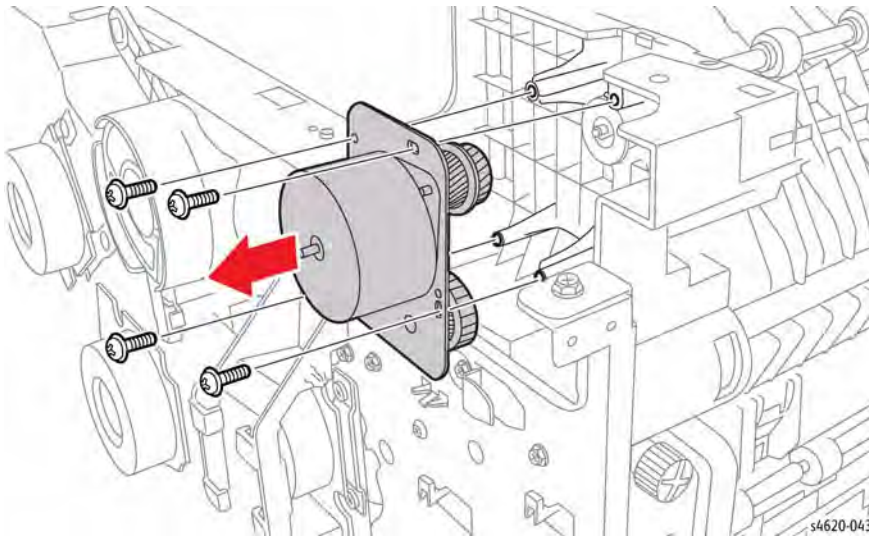
Figure 10 Exit Drive Assembly

Printer Electrical

Image Processor Board

The function of the IP Board is to receive host data through one of the following available ports (USB, or Ethernet). The received host data is buffered and stored and sent to the print engine in a rasterized format. The secondary function of the I/P Board is to provide print control, Control Panel control, configuration setup, error reporting, and job recovery.

The IP Board connects to the MCU Board directly. The Control Panel is connected to the I/P Board and signals pass through the MCU Board via the I/P Board.

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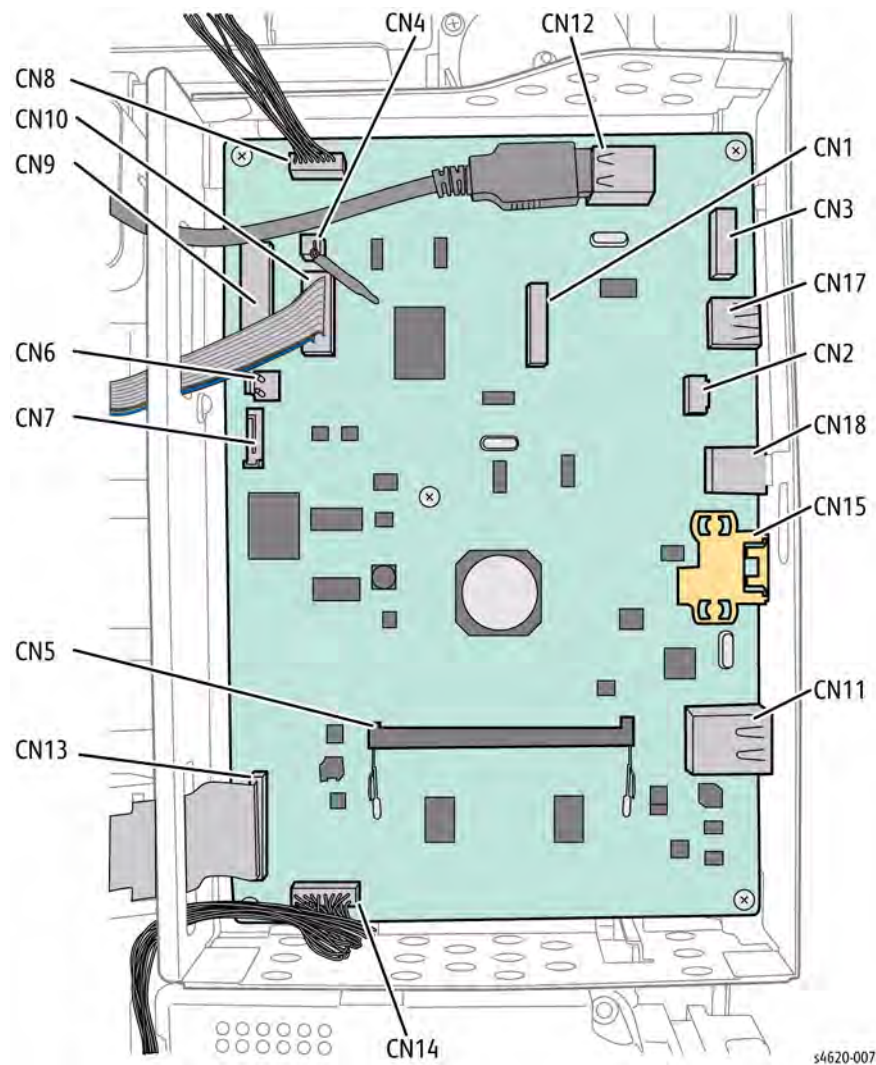
Figure 11 Image Processor Board

- Communicates with the Image Processor.
- Controls the print sequence.
- Distributes low DC voltages to various printer components.
- Monitors printer status.
- Maintains a running print count.
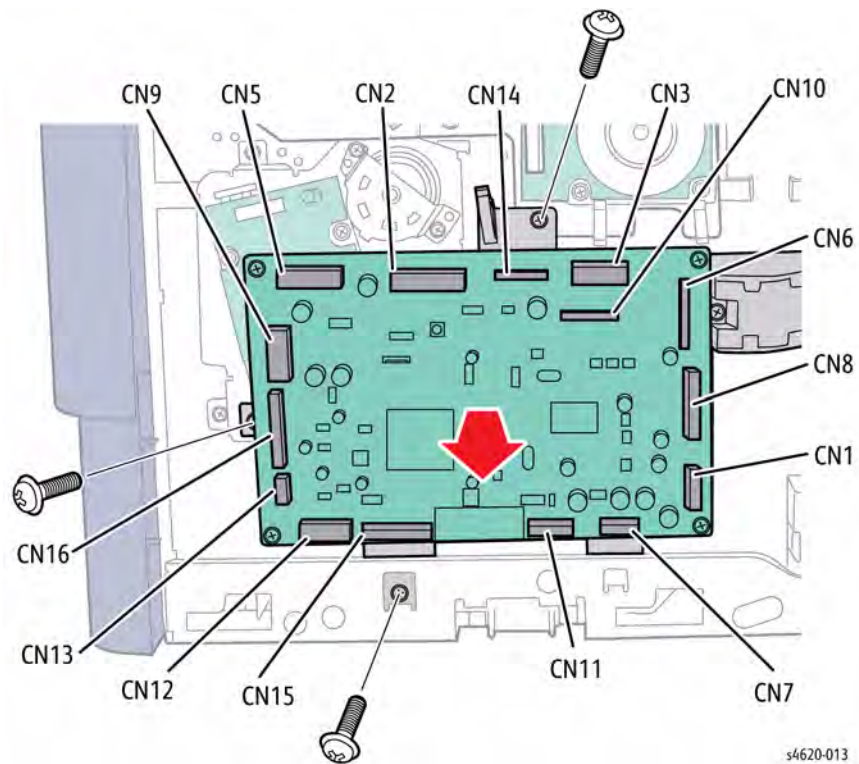- Writes the NVRAM settings.
- Controls printer options.

Figure 12 MCU Board

MCU Board

The MCU Board manages the printing operation according to information obtained through communications with the IP Board and from sensors and switches located throughout the printer.

The MCU Board performs these functions:

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Joint Board

The Joint Board provides for intermediary connections on the chassis left side.
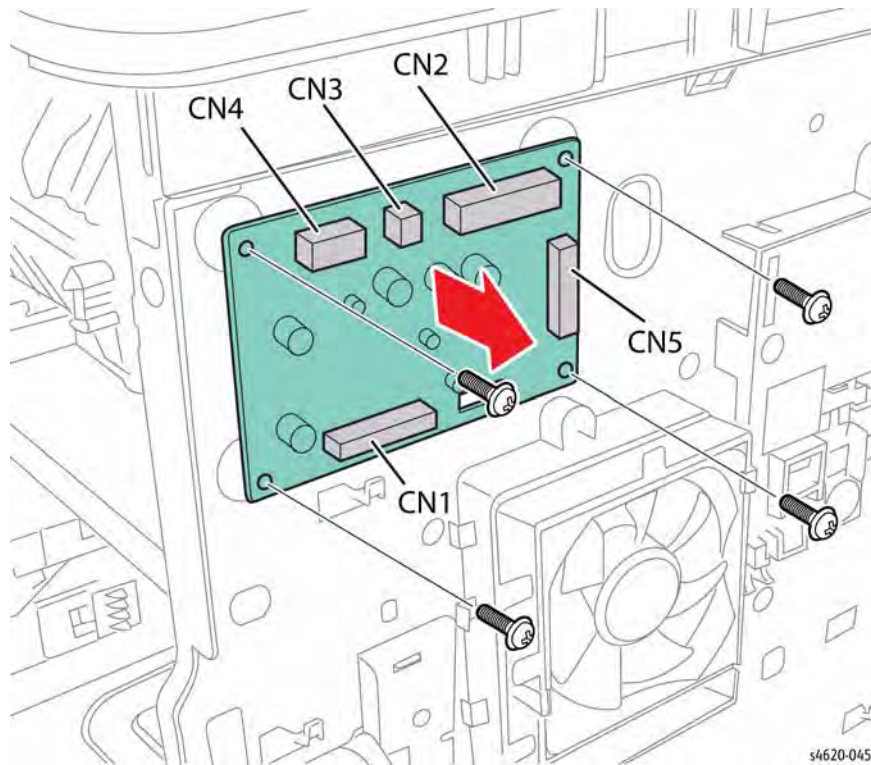
Figure 13 Interconnect Board

HVPS

Located behind the Rear Door, the High Voltage Power Supply (HVPS) provides high voltage to the OPC drum, magnetic roller, and Transfer Roller.

Figure 14 HVPS

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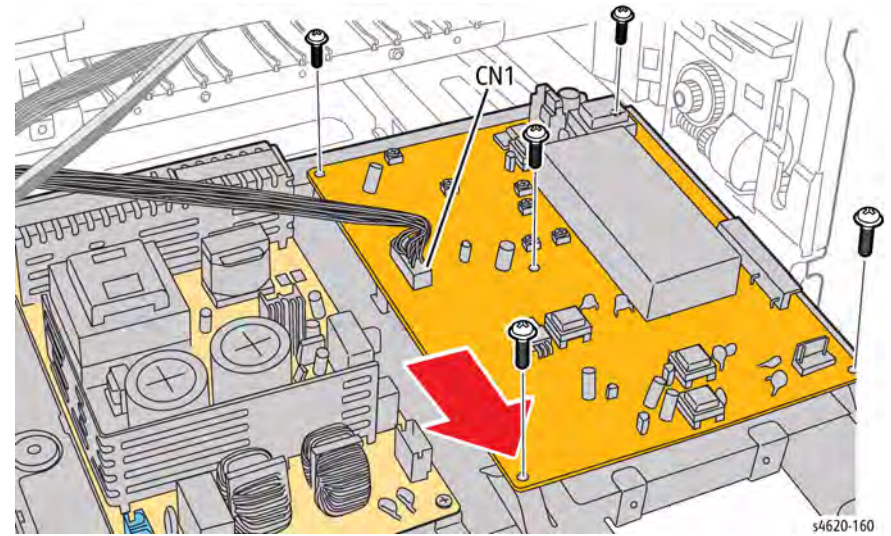
SMPS

The Switched Mode Power Supply (SMPS) generates low voltages (+5 V and +3.3 V for logic circuits, +5 V for laser diodes, and +24 V for motors/clutches from AC power provided by the Fuser Drive Board.
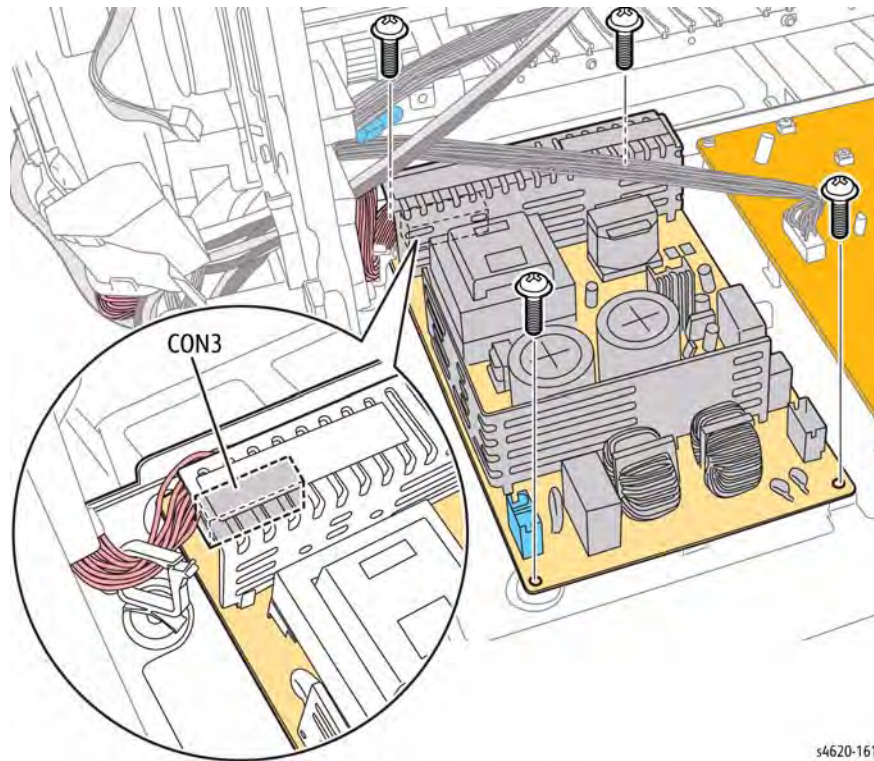
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Figure 15 SMPS

Fuser Drive Board

The Fuser Drive Board provides AC power for the Fuser and HVPS.
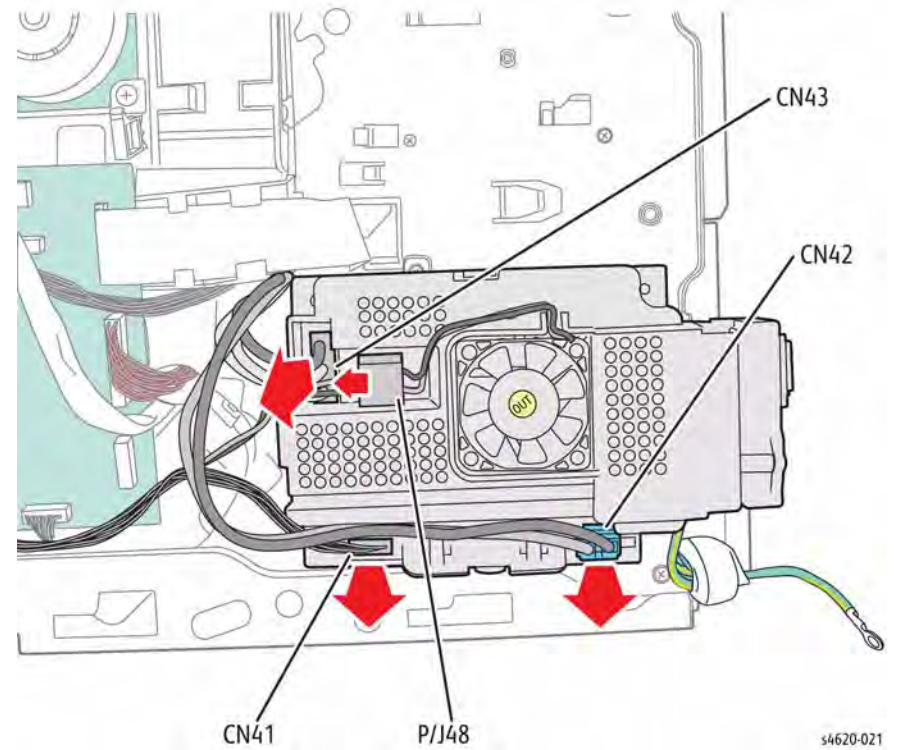
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Figure 16 Fuser Drive Board

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Phaser 4600/4620/4622 Options

Phaser 4600/4620/4622 options add memory, paper capacity, and functionality. For models not originally equipped, a 160 GB Hard Drive is available. A memory upgrade raises the installed RAM to the 768 MB maximum. Additional media capacity is also available. An optional 520-Sheet Feeder and high-capacity 2000-Sheet Feeder brings the maximum input media capacity to 3,660 sheets. On the output side, 500-sheet stapler/stacker and 4-bin, 400-sheet Mailbox are available.

This section describes in detail the paper path, sensors, major assemblies, and operational characteristics for each of these options.

- 520-Sheet Feeder
- 2000-Sheet Feeder
- Mailbox
- Finisher

Memory, Hard Drive, and Wireless options are documented in their respective installation instructions.

520-Sheet Feeder

When one or more optional 520-Sheet Feeders is installed under the printer, additional 520-sheet universal trays are available extending the media path. These trays are identical to the 520-sheet tray standard with the printer. The feeder assemblies are also identical to those used for Tray 2.

Trays

Media size is set using the media guides in each tray. Adjust the side and end guides to match the media size. The bottom plate is used to raise the level of the media stack for feeding. The Separator Roller inhibits the pick of multiple sheets. These components appear in Figure 1.
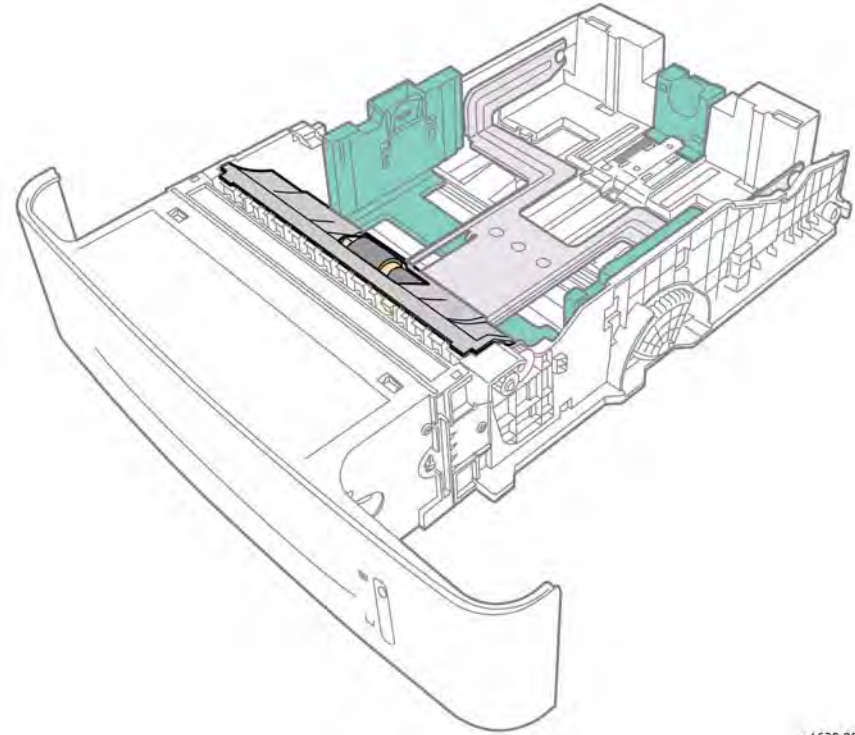
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Figure 1 Tray Components

- **Separator Roller**

  The Separator Roller prevents multi-sheet picks from the tray by applying drag to the bottom of each passing sheet.

- **End and Side Guides**

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The End and Side Guides adjust to different media sizes by moving them to contact the media edges and hold it in position. Size Switch actuators, located on the tray, are set by the position of the end guide to indicate loaded media size.

- **Sector Gear**

  The sector gear engages the lift gear on the Lift Motor shaft to raise the bottom plate.

- **Bottom Plate**

  The Lift Motor through the lift gear and tray sector gear turn the lift shaft raising the bottom plate which causes the media to contact the Nudger Roller. This activity is monitored by the Lift Sensor. The bottom plate also actuates the media level indicator.

520-Sheet Feeder Feed Assembly

Optional trays are functionally equivalent in terms of the feeder mechanism that moves media from the tray into the printer. The driving force from each feeder's Feed Motor is transmitted via a gear assembly to the Feed and Nudger Rollers, moving paper from the tray into the printer.
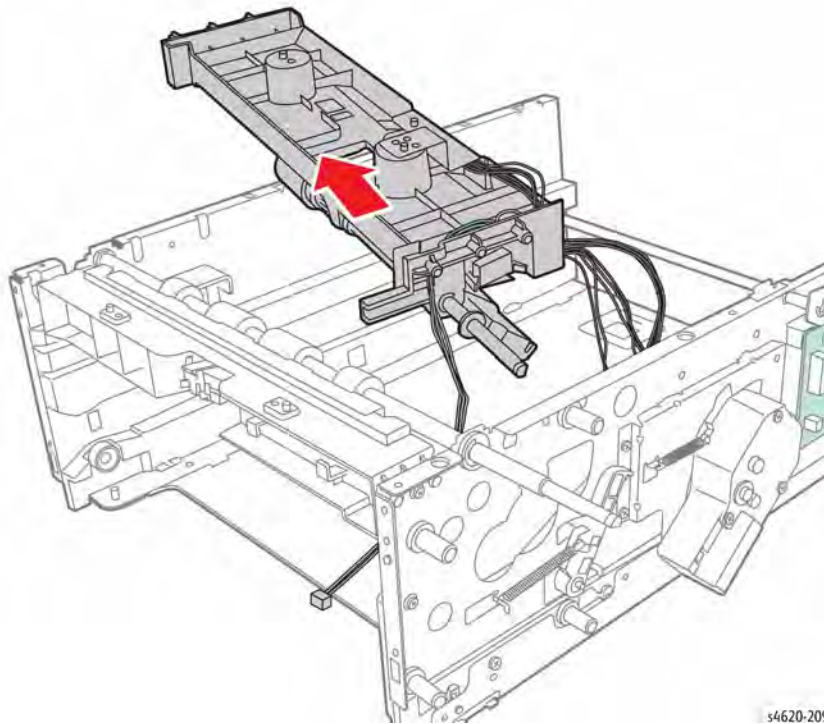

Figure 2 Feeder Assembly

520-Sheet Feeder Drive and Electrical

The 520-Sheet Feeder includes these drive and electrical components:

- Feed Drive Assembly

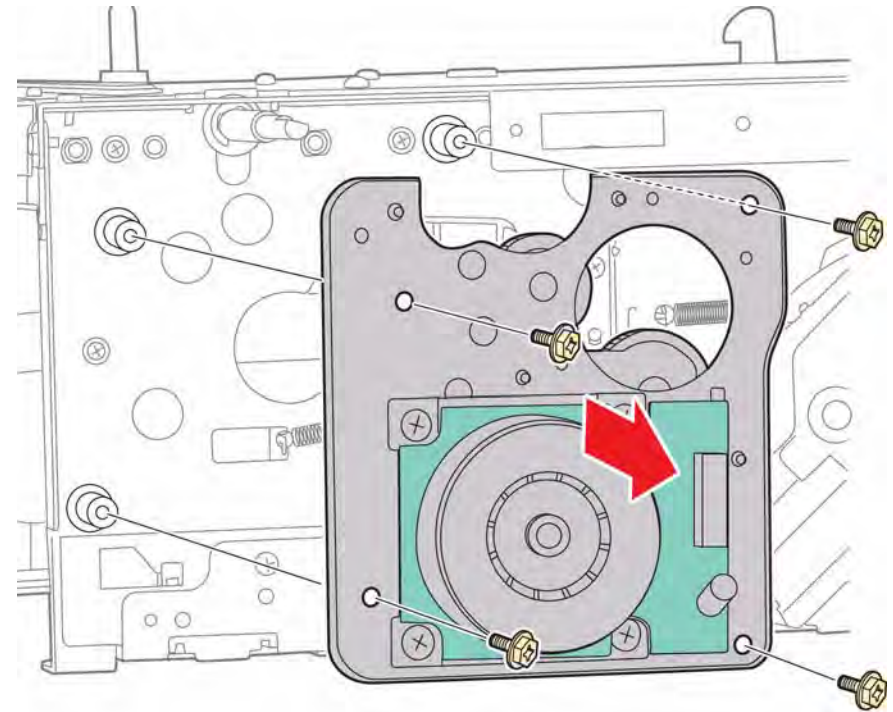 The Feed Drive Assembly drives the feed and take away rollers.

Figure 3 Feed Drive Assembly

- Lift Motor

  The Lift Motor through the lift gear and tray sector gear turn the lift shaft raising the bottom plate which causes the media to contact the Nudger Roller. This activity is monitored by the Lift Sensor. The bottom plate also actuates the media level indicator.
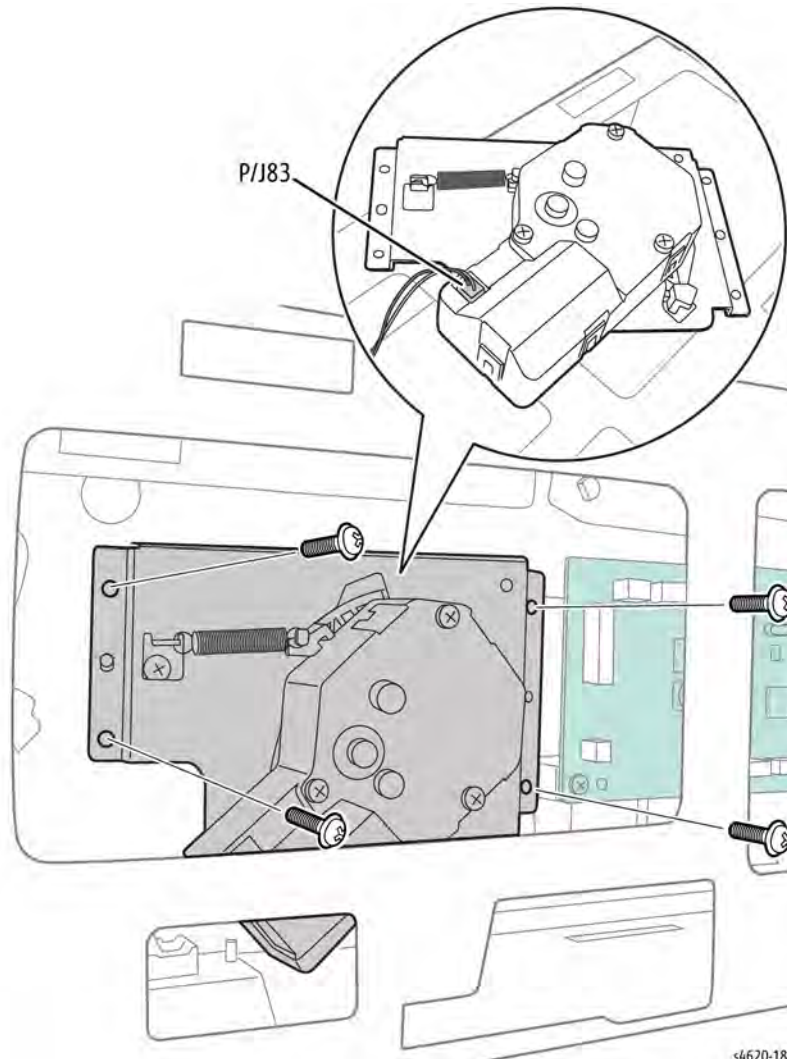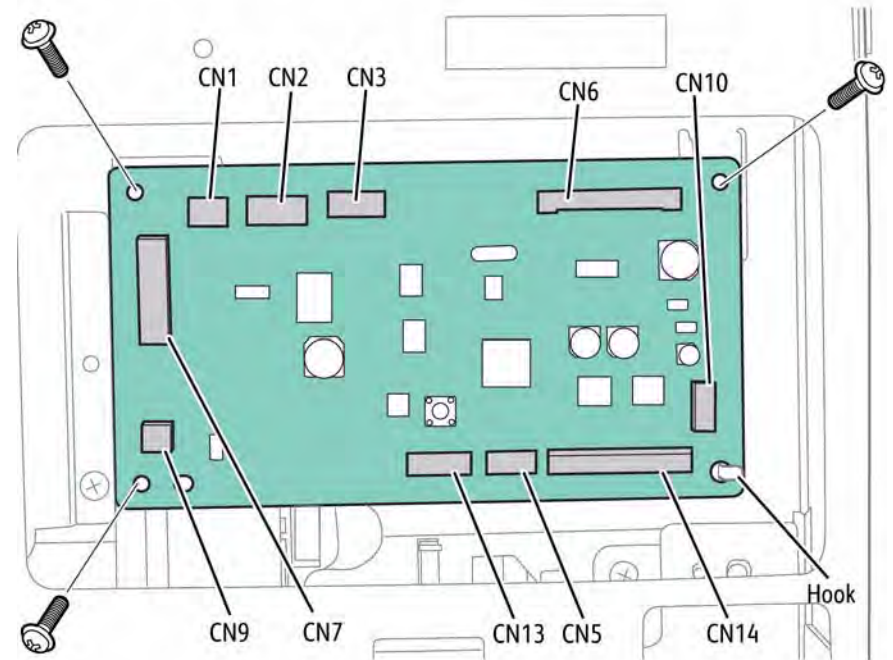
Figure 4 Lift Motor

Figure 5 Feeder Board

- Size Switch

  The Size Switch reports the position of the tray end and side guides to the MCU Board. The end and side guides adjust to different media sizes by moving them to contact the media edges and hold it in position. Size Switch actuators, located on the tray, are set by the position of the end guide to indicate loaded media size.
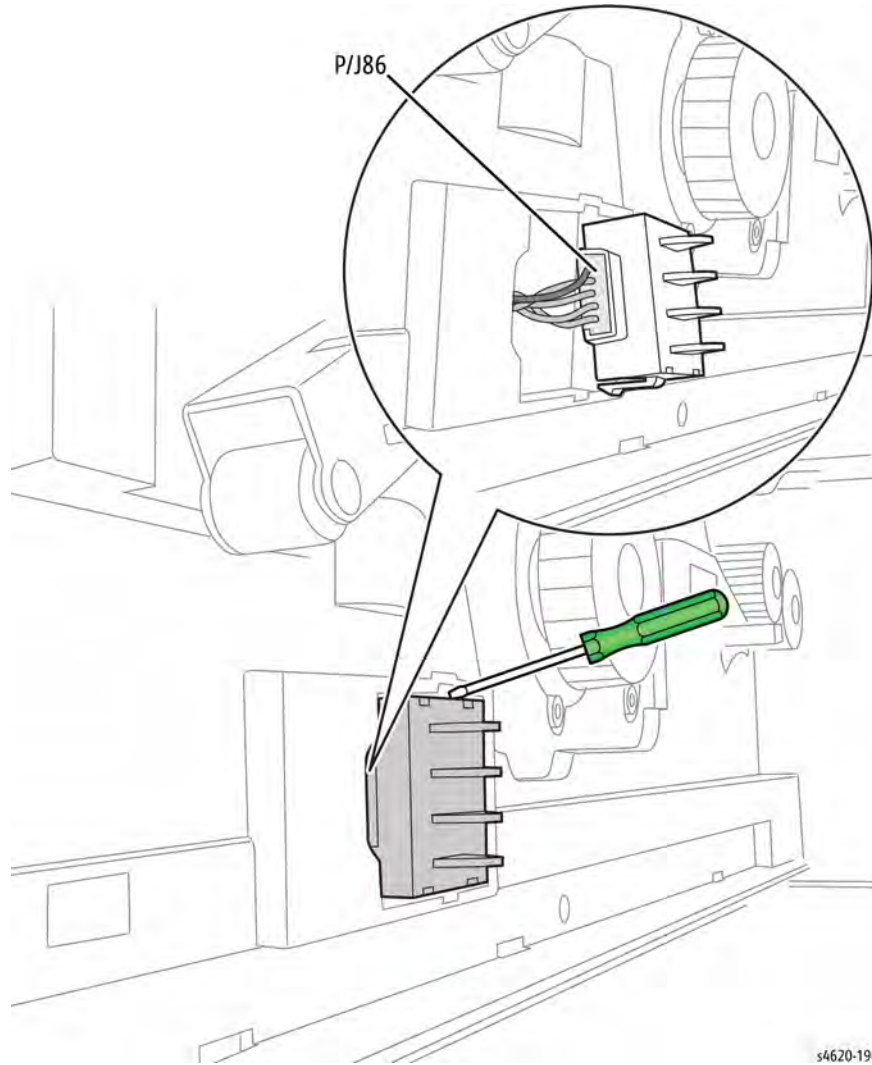
- Feeder Board

  The Feeder Board manages control signals and communications from the MCU Board. Feeder power is provided by the SMPS.

Figure 6 Size Switch

2000-Sheet Feeder

2000-Sheet Feeder Sensors

- **No Paper Sensor**

  This sensor, located on the Feeder, uses an actuator to determine whether the tray is empty. When the actuator lowers, the sensor state changes to High and signals the Engine Control Board.

- **Stack Height Sensor**

  This sensor, located on the Feeder, uses an actuator to determine whether paper in the tray is lifted. When the flag of the actuator leaves the sensing area, the sensor detects that the paper has been lifted.

- **Take Away Sensor**

  This sensor, located on the upper chute in front of the Feeder, uses an actuator to determine whether the paper has moved into the media path from the tray.

- **Size Sensors**

  Three sensors located under the lift mechanism are actuated by the guides to report the media size settings.
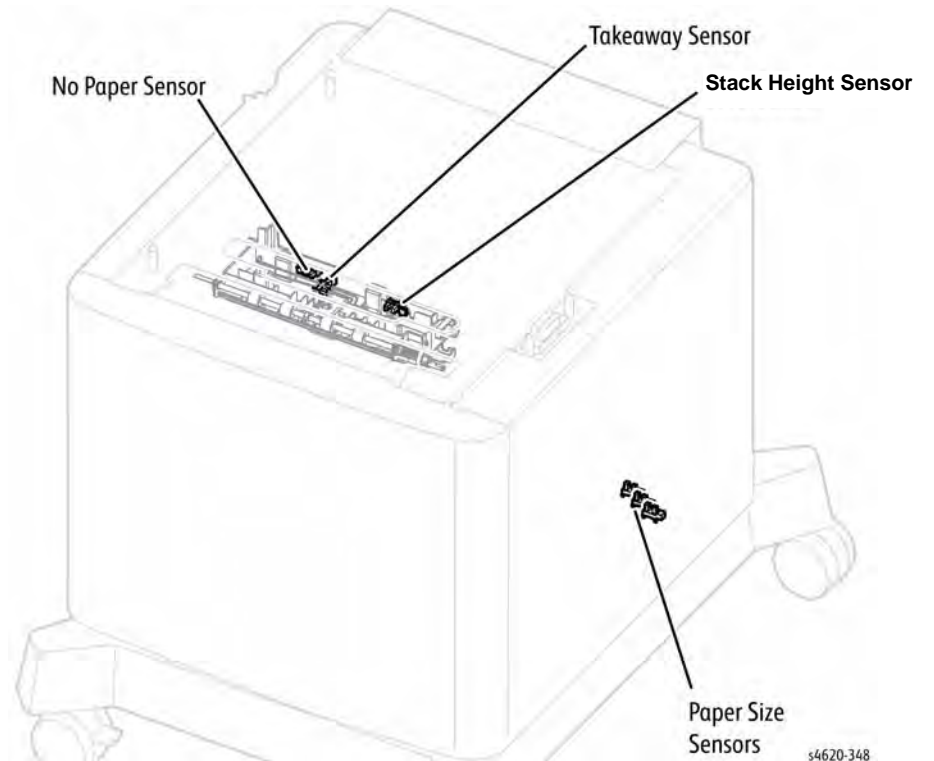

Figure 1 2000-sheet feeder sensors

2000-Sheet Feeder Drive and Electrical

- **Feed Motor**

    This motor, one on each Feeder, is activated by the Stack Height Sensor to feed paper and to lift he Bottom Plate. When feeding paper, it rotates forward to drive the Nudger Roller. When lifting the Bottom Plate, it rotates in reverse to drive the tray gears to turn the Lift Shaft.

- **Door Interlock Switch**

    The Door C Interlock Switch detects whether Door C is open or closed.

- **Take Away Clutch**

    The Take Away Clutch transmits Take Away Motor force to the gear set driving the Take Away Roller.

- **Feeder Board**

    The Feeder Board controls media feeding on command from the MCU Board and reports sensor/switch information.

- **Take Away Motor**

    The rotating force of the Tray 4-5 Take Away Motor is transmitted through the gears to the Take Away Roller as shown in.
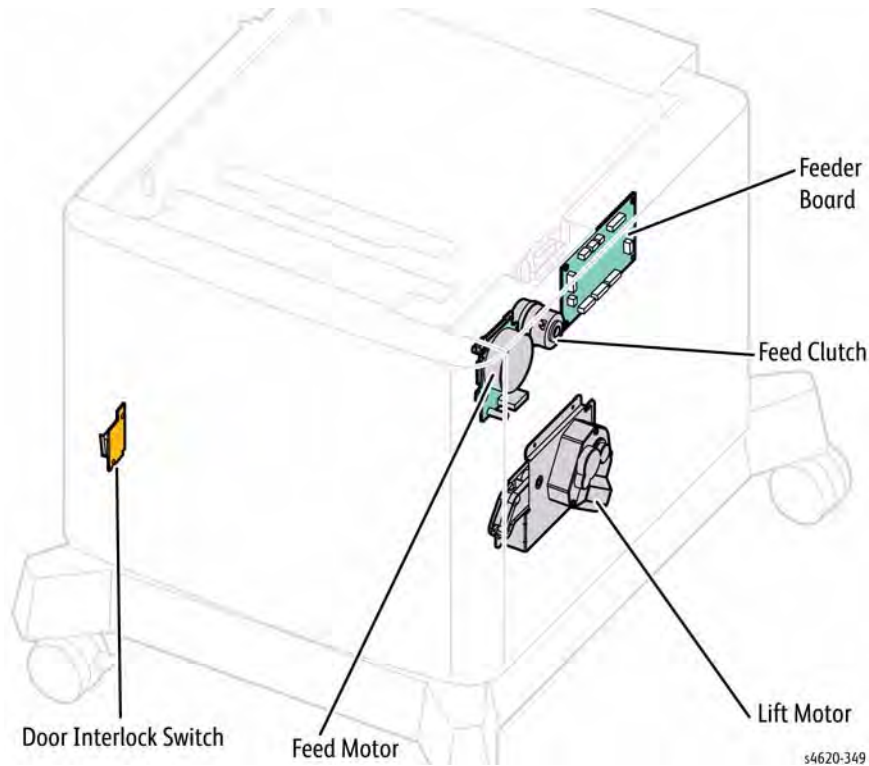

Figure 2 2000-sheet Feeder drive and electrical

Mailbox

The Mailbox provides 4, individually assigned 100-sheet output trays. This allows for job collation or specific output tray assignment. The Mailbox Control Board communicates with the MCU Board to receive instructions to activate the IOT exit gate using the Lower Diverter Drive Assembly, cam follower, and exit gate actuator to divert media into the Mailbox and subsequently into one of the four output trays, Figure 3.
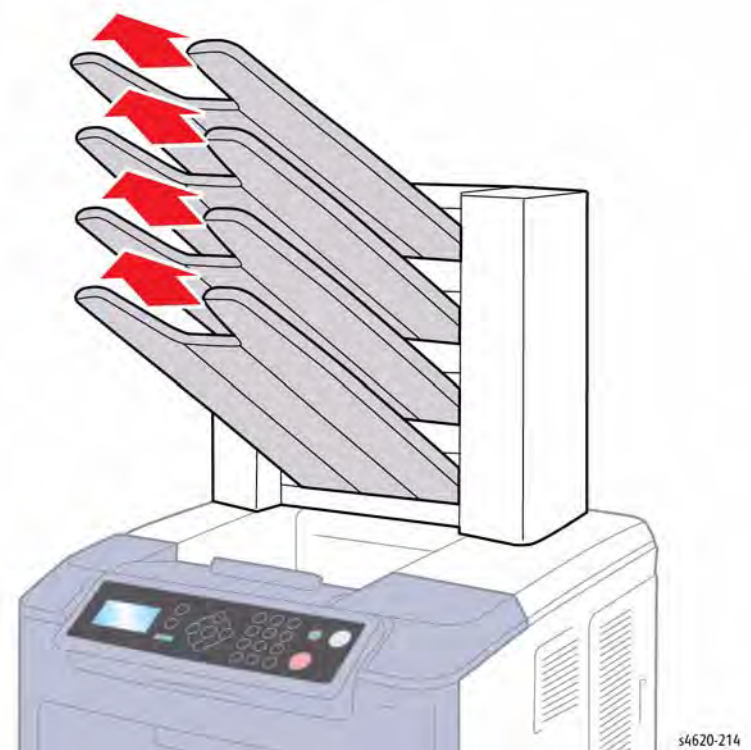

Figure 1 Mailbox output trays

NOTE: Output trays are identified as Bins 1 through 4 with 4 being the uppermost tray.

Media is detected entering the Mailbox by the Mailbox Entrance Sensor. As media enters, the Diverter Drive Assemblies move a series of diverter gates to direct the media to the requested output tray. Position of each diverter is monitored by the Diverter Home Position Sensor located on each of two Diverter Diver Assemblies (upper/lower). Two sensors monitor the amount of media in each tray to signal empty and full conditions.

Mailbox Sensors

These sensors monitor Mailbox status and media location, Figure 2.

- Mailbox Entrance Sensor

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This sensor detects the entry of media into the mailbox from the IOT exit. The Mailbox activates the IOT exit gate when the print job specifies output to the mailbox.

- Stack (Bin) Full Sensors

These sensors detect when the amount of media in each output tray reaches the maximum of 100 sheets.

- Tray Empty Sensor

These sensors detect when each output tray is empty or when media is jammed at the diverter.

- Rear Door Interlock Switch

Located under the top cover, this microswitch monitors the Mailbox rear door position. When the rear door is opened, power to the drive assemblies is cut off and the firmware enters a reinitiation state.
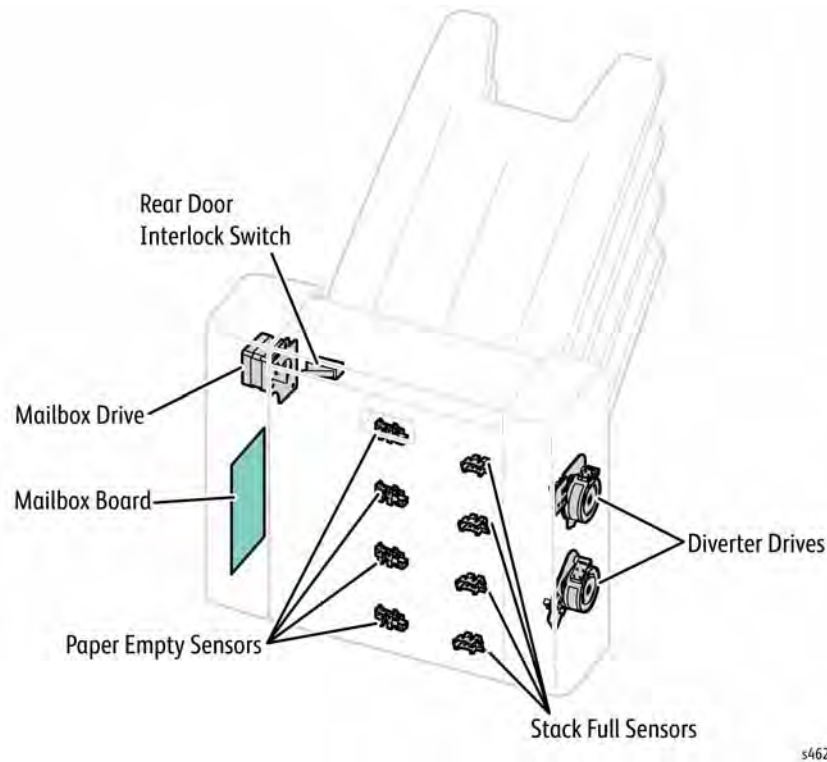

Figure 2 Mailbox component locator

Mailbox Drive and Electrical

The Mailbox uses these components to drive media transport and activate the IOT exit gate and diverters that route media into and out of the Mailbox.

- Transport Motor, Figure 3.

This motor, using a series of 4 belts, drives the transport rollers that move media through the Mailbox and to the output trays.

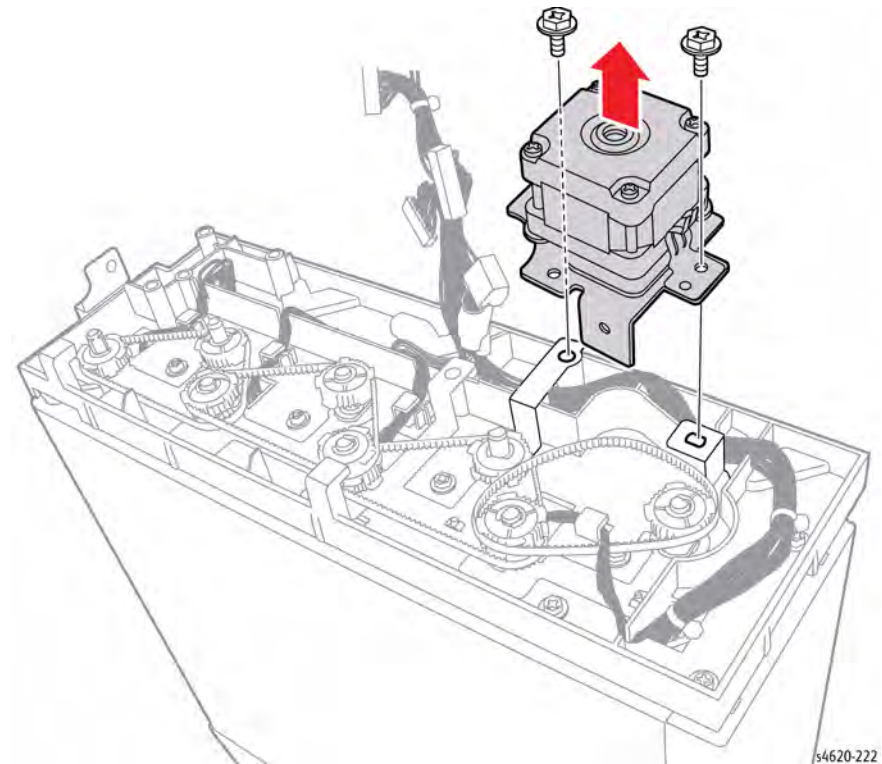**Figure 3 Mailbox Transport Motor**

- Diverter Drive Assemblies, Figure 4.

The Upper and Lower Diverter Drive Assemblies drive the diverters used to direct the media into the Mailbox and appropriate output tray.
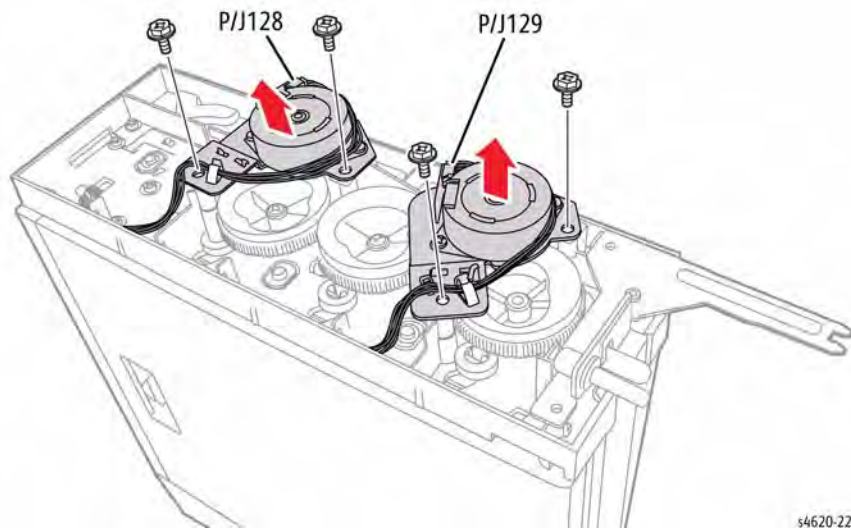
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Figure 4 Mailbox Diverter Drive Assemblies

- Mailbox Control Board, Figure 5.

  The Mailbox Control Board is responsible for all functions within the Mailbox. Signals from the MCU Board reach the Mailbox Control Board through the option interface connector located in the right cover.
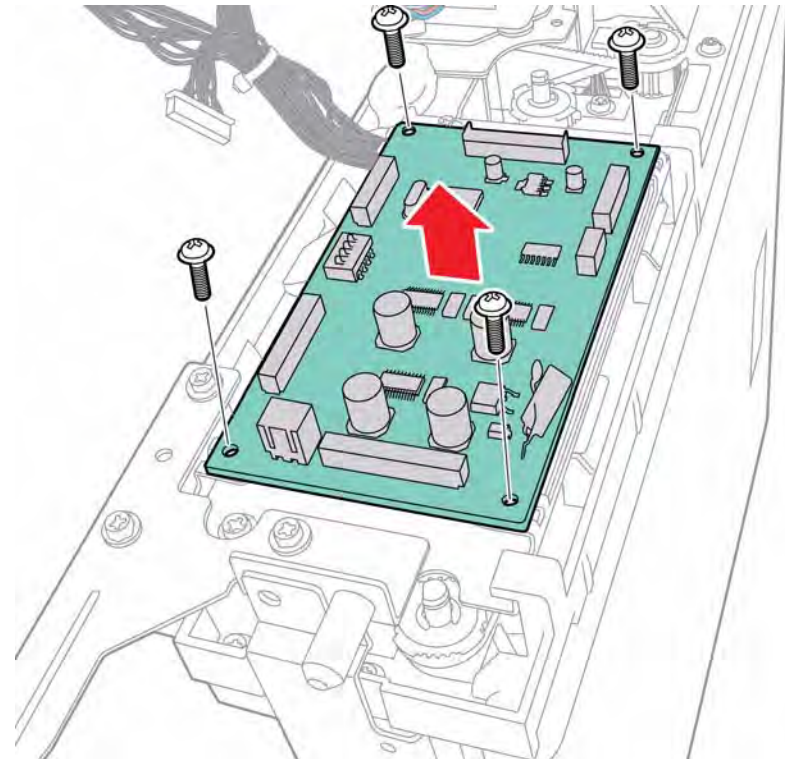

Figure 5 Mailbox Control Board

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Finisher

The Finisher is a customer installed option that adds hole punching, stapling (up to 50 sheets) and job stacking with offset (up to 500 sheets). The Finisher docks with the printer and receives power and control signals through an option connector located in the Top Cover. The operational descriptions presented in this section cover all the capabilities of the Finisher.

Finisher Media Path Components

The Finisher media path is described below:

- Compiler Tray's function is to align media in preparation for stapling and offset.
- Exit section delivers media from the Compiler Tray to the Stacker Tray.

What follows is an overview of the way each of these sections operate and the components involved. The Finisher paper path begins at the printer's exit.

Media directed to the Finisher is fed out the IOT exit into the Finisher. As the media enters the Finisher it is detected by the Entrance Sensor activating the entrance roller driven by the Finisher Transport Motor. The Top Exit Roller is also driven by the Finisher Transport Motor and ejects media into the Stacker Tray, Figure 1.

Stapled or aligned sets on the Compile Tray are held between the Eject Clamp and the Eject Roller Shaft. The clamp paddles attached to the Eject Roller Shaft transfer the compiled sets from the Compile Tray to the Stacker Tray.

Finisher Media Path Sensors

Sensors along the Finisher media path. See earlier illustrations for the location of each sensor. Punch, Staple, Stacker, and Compile Tray sensors are listed separately with each component description, Figure 1.

- **Exit Gate Sensor**

  Detects IOT exit gate position. The exit gate actuator is actuated by the exit gate cam driven by the entrance motor.

- **Entrance Sensor**

  Senses the arrival of media from the printer into the Finisher media path.

- **Exit Sensor**

  Detects media as it passes through the Exit Sensor. The Exit Sensor signal goes High when the actuator is driven out of the sensing area.

- **Stacker Full Sensor**

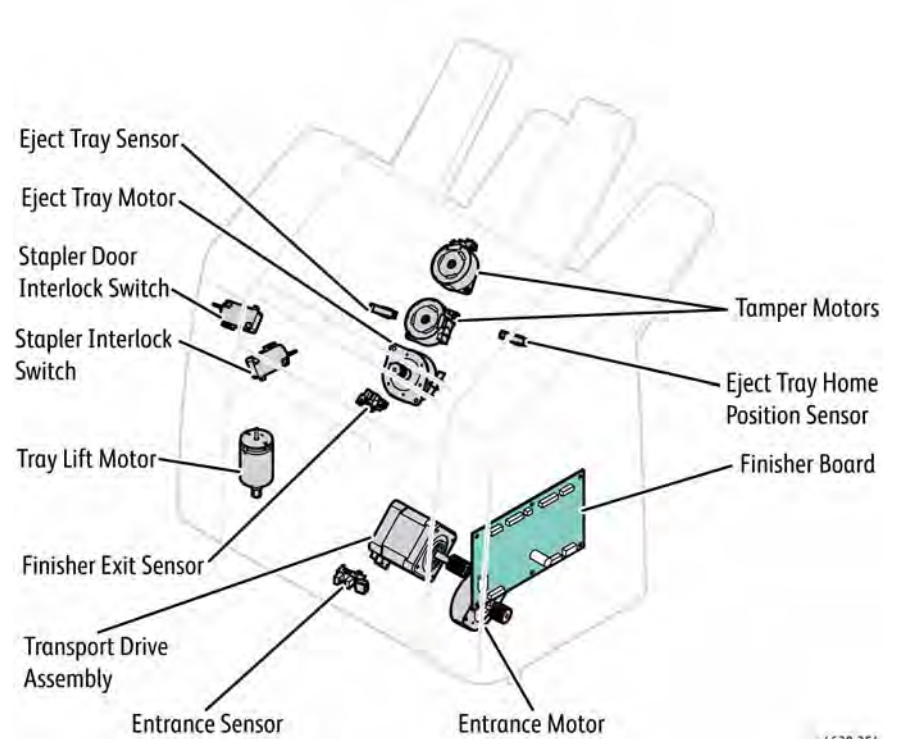 A reflective photo-sensor to detect the stack volume of paper in the Stacker Upper Tray.

Figure 1 Finisher Components

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Compile Tray

The Compile Tray assembles sets and aligns the paper edges for stapling. When media is fed onto the Compile Tray, a tamping operation is performed to align the media edge along the media's width. The Compile Tray also offsets stapled sets when ejecting to the Stacker Tray.
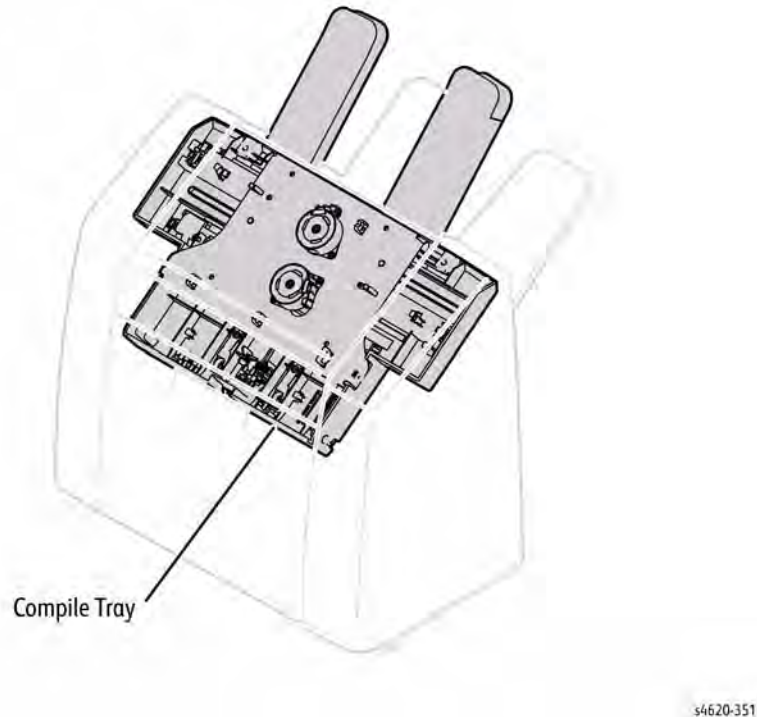

Compile Tray

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Figure 2 Compile Tray

Media capacity depends on whether the media is being stapled or not, as well as media size. If the number of sheets of one stapled set exceeds the Compile Tray limit set in NVRAM, the sheets exceeding this setting are ejected to the Stacker Tray. This avoids damage to the Staple assembly. The default capacity value is 50 sheets.

When two or more paper sizes are used and their widths are identical, all sheets are compiled and stapled as a set, then ejected to the Stacker Tray. If different widths of media are used, stapling is stopped and the paper is ejected to the Stacker Tray.

Tamping

Tamping aligns the media edges using the Left or Right Tamper by moving them to the edge of paper by their respective motors. Tamping occurs each time a sheet of media reaches the Compiler Tray. Additional tamping occurs after tamping the last sheet of a set.

Offset

Offset shifts the paper position as each set is ejected to the Stacker Tray to avoid ejection jams due to the stacking of multiple stapled sets. Offset occurs for these staple positions.

Offset is not executed for small paper.

Compile Tray Sensors / Motors

* **Left Tamper Home Sensor**

  A photo-interrupter to detect the left tamper home position. When the left tamper comes to the home position, it enters the sensor's sensing area, which turns the Left Tamper Home Sensor signal High.

* **Right Tamper Home Sensor**

  A photo-interrupter to detect the right tamper home position. When the right tamper comes to the home position, it enters the sensor's sensing area, which turns the Right Tamper Home Sensor signal High.

* **Left Tamper Motor**

  A DC motor to move the left tamper.

* **Right Tamper Motor**

  A DC motor to move the right tamper.

Eject Assembly

The eject assembly collects bundles from the Compile Tray and is retracted into the Finisher chassis by the eject motor. This action releases media into the Stacker Tray. Eject assembly position is monitored by the eject home position sensor.

Stapler

The Stapler staples a set of edge-aligned media. After the Stapler staples the media bundle, the exit roller rotates together with the paddles to deliver the stack to the Stacker Tray. The Stapler is replaced as a single FRU.

Stapling is completed by actuating the staple motor. When staple supply is low, the low staple sensor detects it and stapling stops. An error message is displayed to notify the operator. A similar message also appears when the Staple Cartridge isn't installed in the Stapler.
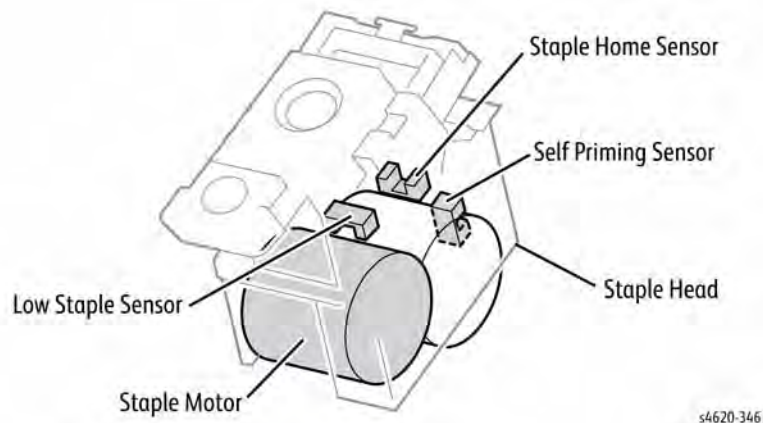
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Figure 3 Stapler Components

Staple Limit

Sheets of media are tamped in the Compile Tray, and then positioned for stapling. The number of sheets is limited to prevent Stapler damage. If the number of sheets per set exceeds the limit set in NVRAM, the sheets exceeding the limit are ejected to the tray without being stapled. A single sheet set is also ejected without being stapled. The stapling limit per set is 50 sheets.

Stapler Sensors/Motors

- **Low Staple Sensor**

  A sensor in the Stapler detects near end of staples. The Low Staple Sensor signal goes High when the quantity of staples remaining in the cartridge is approximately 20 or less.

- **Self Priming Sensor**

  A sensor in the Stapler detects the Staple Cartridge is empty, or a failure in stapling. The Self Priming Sensor signal goes Low to indicate that the Stapler is ready to staple.

- **Staple Home Sensor**

  A photo-interrupter in the Stapler to detect staple failure. This sensor also functions as a trigger to stop the staple motor. The Staple Home Sensor signal goes Low while the Stapler Head is at the home position.

- **Staple Motor**

  A DC motor in the Stapler to for stapling. Clockwise rotation of this motor staples, while counterclockwise rotation opens the Stapler.

Stacker

Stacker Tray

The Stacker Tray adjusts position according to the state of the Stack Full and Limit Sensors. When media actuates the Stack Full Sensor, the Elevator Motor is activated to move the Stacker Tray down until the sensor's signal returns to a Low state. If the Limit Sensor is low, indicating the Stacker Tray is at its limit of travel, a stack full message is displayed on the Control Panel. If an obstacle blocks the tray from lowering, the tray stops and a warning is reported.

The Stacker No Paper Sensor is switched by an actuator attached to the right-hand Carriage assembly. In case the Stacker Lower Tray goes above the Stacker No Paper Sensor, the Upper Limit Sensor is installed directly above the No Paper Sensor as a lift cutoff for abnormal operation.

Stacker Tray Sensors/Motors

- **Stack Full Sensor**

  Detects the height the Stacker Tray and controls the Elevator Motor. When blocked by the flag of the left guide, the sensor indicates the lower limit of Stacker Tray travel.

- **No Paper Sensor**

  A photo-interrupter to detect that the tray is at the highest position, and also to detect no paper. When the actuator enters the sensing area, the emitted light is blocked, switching the Stacker No Paper Sensor signal to High.

- **Elevator Motor**

  A DC motor to raise or lower the Stacker Lower Tray. Clockwise rotation elevates the tray, counterclockwise rotation lowers the tray.

Finisher Interlock

The Finisher is equipped with two interlock switches. One is activated when the Staple Cartridge Door is opened blocking power to the finisher motors. The other, when the media set exceeds 50 sheets or a jam occurs.

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