DOCUPRINT® N4525 NETWORK LASER PRINTER

Service Quick Reference Guide

Book II — Options

Warning
The following servicing instructions are for use by qualified service personnel only. To avoid personal injury, do not perform any servicing other than that contained in operating instructions unless you are qualified to do so.

This printing: April 5, 2001
Rev. NEW
721P58090

RJ/MP
sn/ck

Users safety summary

Terms in manual: Various terms are used throughout this manual to either provide additional information on a specific topic or to warn of possible danger that might be present during a procedure or action. Be aware of all symbols and terms when they are used, and always read **NOTE**, **CAUTION** and **WARNING** messages.

NOTE: A **NOTE** may indicate an operating or maintenance procedure, practice or condition that is necessary to efficiently accomplish a task.
A **NOTE** may also provide additional information related to a specific subject or add a comment on the results achieved through a previous action.

CAUTION: A **CAUTION** indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.

WARNING: A **WARNING** indicates an operating, or maintenance procedure, practice or condition that, if not strictly observed, could result in injury or loss of life.

Terms on product:

CAUTION: A personal injury hazard exists that may not be apparent. For example, a panel may cover the hazardous area.

DANGER: A personal injury hazard exists in the area where you see the sign.

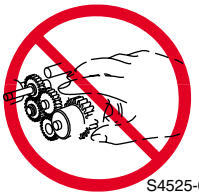
Power source: For 110 VAC printers, Do not apply more than 130 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. For 220 VAC printers, do not apply more than 250 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. Refer to a qualified service technician for changes to the cord or connector.

WARNING: If the product loses the ground connection, usage of knobs and controls (and other conductive parts) can cause an electrical shock.

Power Supply and Electrical Components: Before starting any service procedure, switch off the printer power and unplug the power cord from the wall outlet. If you must service the printer with power applied, be aware of the potential for electrical shock.
Do not touch any electrical component unless you are instructed to do so by a service procedure.


S4525-01

Mechanical components: Manually rotate drive assemblies to inspect sprockets and gears.
Do not try to manually rotate or manually stop the drive assemblies while any printer motor is running


S4525-02

Laser Components

WARNING: This printer generates a laser beam as part of the printing process. The laser beam is a concentrated narrow beam of light that produces extreme heat at its focal point. The laser beam in this printer is invisible. Although you cannot see the beam, it can still cause severe damage. Direct eye exposure to the laser beam may cause eye injury or blindness.

To avoid permanent eye damage, follow these directions:

- Before starting any service procedure, switch off the printer power and unplug the power cord from the AC wall outlet.
- Do not disassemble the Raster Output Scanner Assembly (laser scanner) or any laser component that displays a Laser Warning Sticker.
- Use caution when you are working around the Raster Output Scanner Assembly or when you are performing laser related troubleshooting or repair procedures.
- Never place a mirror or a reflective tool or object in the laser beam path.
- Do not disassemble the printer in such a way that the laser beam can exit the print engine during a print cycle.

Fuser Components

WARNING: This printer uses heat to fuse the toner image to a sheet of paper. The Fuser Assembly is very hot. Switch off printer power and wait at least 30 minutes for the Fuser to cool before you attempt to service the Fuser Assembly or adjacent components.

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

Warning Labels: Throughout the printer, warning labels are displayed on potentially dangerous components. When you service the printer, check to make certain that all warning labels are in place.
Most importantly, read and obey all posted warning labels.

WARNING: Turning the power off using the On/Off switch does not de-energize the printer. You must remove the power cord to disconnect the printer from the main power source. Keep the power cord accessible for removal in case of an emergency.

Safety instructions: Read all installation instructions carefully before you plug the product into a power source.

Care of product: Disconnect the power plug by pulling the plug, not the cord.

- Disconnect the power plug if the power cord or plug is frayed or otherwise damaged,
- Or if any liquid or foreign material is spilled into the case,
- Or if the printer is exposed to any excess moisture,
- Or if the printer is dropped or damaged,
- Or if you suspect that the product needs servicing or repair,
- And whenever you clean the product.

Ground the product: Plug the three-wire power cord (with grounding prong) into grounded AC outlets only. If necessary, contact a licensed electrician to install a properly grounded outlet.

Service Safety Summary

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

Do not service 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: 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, soldering 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.

Power source: This product is intended to operate from a power source that will not apply more then 250 volts rms between the supply conductors or between wither supply conductor and ground. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

This product is certified under IEC 825 as a Class 1 Laser Product.

CLASS 1 LASER PRODUCT

The DocuPrint® N4525 Network Laser Printer is certified to comply with Laser Product Performance Standards set by the U.S. Department of Health and Human Services as a Class 1 Laser Product. This means that this is a class of laser product that does not emit hazardous laser radiation; this is possible only because the laser beam is totally enclosed during all modes of customer operation.

The laser and output of the laser scanner unit produces a beam that, if looked into, could cause eye damage. Service procedures must be followed exactly as written without change.

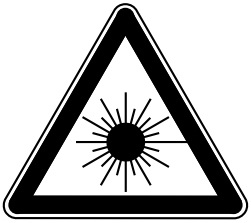
When servicing the machine or laser module, follow the procedures specified in the manual and there will be no hazards from the laser.

Laser (FDA): Any laser label visible to service must be reproduced in the service manual with location shown or indicated. Safe working procedures and clear warnings concerning precautions to avoid possible exposure must also be included.

The Laser contained in the DocuPrint® N4525 Network Laser Printer meets the following standard: Laser class 3B, maximum 5mW, wavelength 780nm.

The following LASER symbol will be displayed at the start of any procedure

where possible exposure to the laser beam exists.



LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

Federal Communications Commission Compliance

This equipment has been tested and found to comply with the limits set for a Class B digital device, as stated in 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 may radiate radio frequency energy. If not installed and used in accordance with the instructions provided, this equipment may cause disruptive interference to nearby radio and television communications. Even if the equipment is installed according to the instructions, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause disruptive interference to nearby radio and television reception, switch the equipment off to determine if it is the true cause of the interference. If the equipment is the cause of the interference, the user should try to minimize the interference by taking one or more of the following courses of action:

NOTE: Installation of the Finisher and/or the Token Ring Interface results in an FCC classification change to Class A.

- Either re–orient or relocate the radio/television receiving antenna.
- Increase the separation between the equipment and the radio/television receiver.
- Connect the equipment to an AC outlet that is not on the same circuit as the radio/television receiver.
- If the previous solutions fail to bring results, you should consult either your equipment dealer or an experienced radio/television technician.

For more information on interference, refer to the Federal Communications Commission's booklet "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402, Stock No. 004-000-00345-4.

Canadian Notice

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as described in the radio interference regulations of the Canadian Department of Communications.

NOTE: Installation of the Finisher and/or the Token Ring Interface results in a classification change to Class A.

Avis Canadien

Cet appareil numerique est conforme aux limites émission de bruits radioélectriques pour les appareils de classe B stipulés das le réglement sur le brouillage radioéletrique du Ministére des Communcations du Canada.

European Notice

This equipment was tested and is determined to be compliant with VDE requirements for a Class B device.

Hinweis

Hiermit wird bescheinigt, dass der Babe Laserdrucker, in bereinstimmung mit den Betimmunngen der Vfg 104ß 984 funkenstört ist. Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gertëes angqeigt und die Berechtigung zur berprufung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Manual Organization

This Service Quick Reference Guide (QRG) is divided into two volumes.

Book I

Book I of the QRG contains technical information for the N4525 Print Engine (Volume 1), as well as complete Error Code and Repair Analysis Procedures (RAPs) for the Print Engine and all options for the printer. Information specific to each option is repeated in that option's volume.

NOTE: All pages, figures, tables, RAPs, RRPs (Remove and Replace Procedures) and Parts List numbers are preceded by a "dash" number, indicating the volume number for that module according to the following legend

Volume	Module
1	Print Engine
2	High Capacity Feeder
3	Duplex Unit
4	Envelope Feeder
5	Face Up Bin
6	Finisher

Volume 1 - Print Engine

Frontis - Introductory, Safety and Regulatory Information

This is the section you are reading at this moment. It contains important safety information regarding technical components, regulatory agency requirements and information about this manual, which is applicable to both Books I and II.

Section 1 - General Information

This section contains a general overview of the printer and basic information regarding RAM, print engine illustrations (major assembly locations, sensor locations, general views, etc.), printer specifications and vital information regarding service call procedures.

Section 2 - Error Codes and Messages

Information regarding certain Error Codes and Messages for conditions the user may not be aware of, or conditions that exist which may not yet be made apparent by printer performance or by image quality. Also contained in this section is a vital error table which references Repair Analysis Procedures (RAPs) for the Printer and all options, and referring the reader to appropriate sections in each option manual supplement. In addition, there is additional, but valuable, information on how to use the Repair Analysis Procedures for the Print Engine and the options.

Section 3 - Troubleshooting

This section specifically discusses the most common problems (using additional Repair Analysis Procedures) encountered in the following areas:

- Printer Performance Problems
- Image Quality Problems
- Electrical Interference Problems.

Section 4 - Diagnostics, Test Prints, Service Tests & NVRAM Adjustments

This section provides a wide variety of test prints to assist in evaluating and/or troubleshooting the printer and options. Also provided are many accessed diagnostic tests and adjustments to assist in analyzing, adjusting registration and fine tuning the printer and options performance.

Section 5 - Cleaning and Maintenance

A quick guide to routine cleaning and maintenance for the printer and options.

Section 6 - Key FRU Removal and Replacement Procedures

This large section provides many procedures and illustrations for removing and replacing key Field Replaceable Units (FRUs) within the print engine. Option specific Removal and Replacement Procedures (RRPs) appear in the Volume 2 manual supplement for each option. For more detailed procedures, please refer to the CD version of the service manual.

Section 7 - FRU List

This is the parts list for the Field Replaceable Units. This section contains exploded views of the FRUs as well as part numbers for items available as FRUs.

Section 8 - Plug/Jack Connector Locations

This section contains a connector table and several locator illustrations to aid in identifying all electrical connections within the printer and options.

Section 9 - Wiring Diagram

The Master Wiring Diagram is contained in this section. Please refer to the CD version of the service manual for additional diagrams.

Book II

Book II contains technical information for all options for the N4525 Network Laser Printer. Information for each option is contained in a separate volume as see below.

Volume 2 - High Capacity Feeder (HCF)

This section contains information specific to the HCF with General Information, Error Codes, RAPs, RRPs, Parts Lists, Plug/Jack Locators and wiring information.

NOTE: All page, figure, table, RAP, RRP and Parts List numbers for this section are preceded by a "2-".

Volume 3 - Duplex Unit (DUP)

This section contains information specific to the DUP with General Information, Error Codes, RAPs, RRPs, Parts Lists, Plug/Jack Locators and Wiring information.

NOTE: All page, figure, table, RAP, RRP and Parts List numbers for this section are preceded by a "3-".

Volume 4 - Envelope Feeder (ENV)

This section contains information specific to the ENV with General Information, Error Codes, RAPs, RRPs, Parts Lists, Plug/Jack Locators and Wiring information.

NOTE: All page, figure, table, RAP, RRP and Parts List numbers for this section are preceded by a "4-".

Volume 5 - Face Up Bin (FUB)

This section contains information specific to the FUT with General Information, Error Codes, RAPs, RRPs, Parts Lists, Plug/Jack Locators and Wiring information.

NOTE: All page, figure, table, RAP, RRP and Parts List numbers for this section are preceded by a "5-".

Volume 6 - Finisher (FIN)

This section contains information specific to the Finisher with General Information, Error Codes, RAPs, RRPs, Parts Lists, Plug/Jack Locators and Wiring information.

NOTE: All page, figure, table, RAP, RRP and Parts List numbers for this section are preceded by a "6-".

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High Capacity Feeder

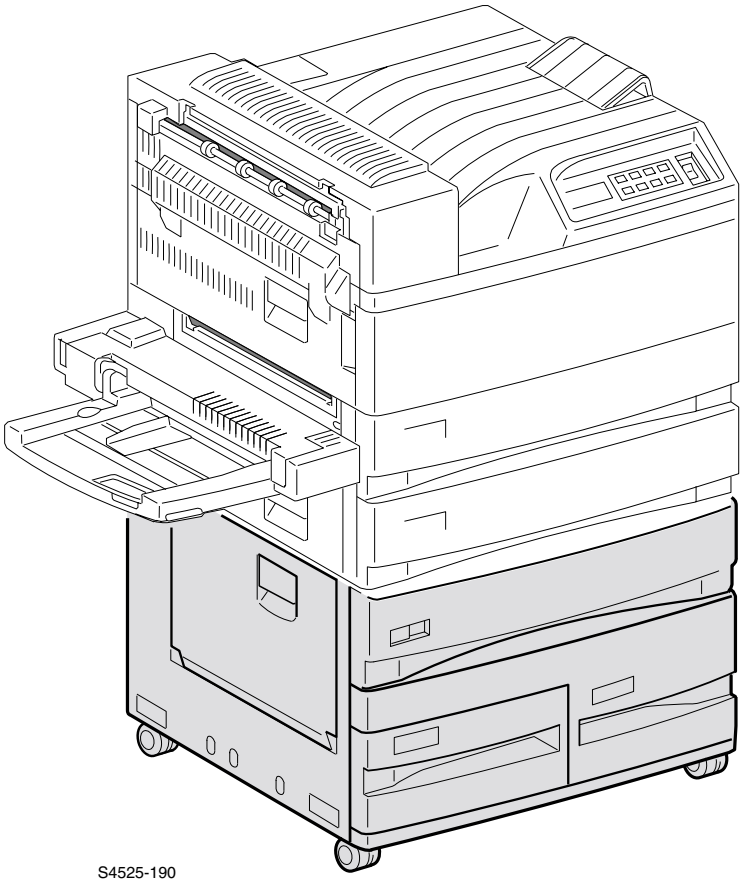


Fig 2-1 DocuPrint N4525 Network Laser Printer with the High Capacity Feeder Option Highlighted.

This Service Quick Reference Guide contains information useful in verifying the operation, troubleshooting, repair and maintenance of the **High Capacity Feeder Option** for the DocuPrint N4525 Network laser printer. This Guide contains detailed Repair Analysis Procedures (RAPs) for error codes and messages, a Field Replacement Unit Parts List (PL) and Removal and Replacement Procedures (RRPs).

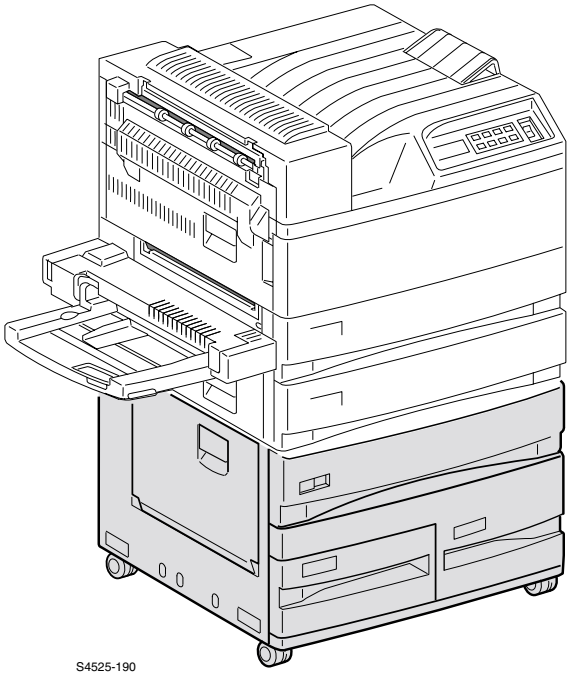
Topics, such as the High Capacity theory of operation and configuration page details, etc., are located on the companion *Printer Service & Support Resources CD-ROM*.

To ensure complete understanding of the product, participation in Xerox DocuPrint N4525 printer service training is recommended.

High Capacity Feeder Overview

- The High Capacity Feeder is a customer installed option that adds three additional paper feeders to the existing two paper feeds, standard with the DocuPrint N4525 print engine.
- The print engine sits on top of the High Capacity Feeder.
- The base print engine LVPS provides all of the DC voltages that are required by the High Capacity Feeder.
- Four +24VDC motors inside the High Capacity Feeder provide all of the mechanical drive that is required for operation. Three electrical clutches control Feed Motor drive.
- One Board, two sensors, and one interlock switch inside the High Capacity Feeder provide all of the control and paper path monitoring that are required for operation.

Table 2-2 Specifications

Category	Specification
Configuration	Customer installed option. The print engine sits on top of the High Capacity Feeder. The High Capacity Feeder has three paper trays: Tray 3 - upper tray. Tray 4 - lower left tray. Tray 5 - lower right tray  S4525-190
Paper feed	The High Capacity Feeder feeds Letter (LEF), A4 (LEF), Executive (LEF), and B5 (LEF). See specifications in Volume 1 of the Service Guide.
Power requirements	The Printer provides all of the High Capacity Feeder power requirements; +5VDC and +24VDC.
High Capacity Feeder noise level	Standby, with all trays closed: 58db Printing: 70db
Size and weight	Height: 426mm / 16.7 inches Width: 520mm / 20.4 inches Depth: 490mm / 19.2 inches Weight: 35kg /77 lbs

The High Capacity Feeder Paper Path

The High Capacity Feeder Paper Path is the physical route a sheet of paper takes from the High Capacity Feeder paper tray to the printer, during a single print cycle. Special rollers drive the paper along the Paper Path.

Feed from Tray 3

At the start of a print cycle the Tray 3 Pick Roller moves a sheet of paper to Tray 3 Feed Roller. The Feed Roller moves a single sheet of paper out of Tray 3 and toward the Tray 2 Take Away Roller in the main printer body. The Tray 3 Retard Roller ensures only one sheet of paper is fed. As the paper enters the main stream paper path, it actuates the Tray 3 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has been delivered to the Tray 2 Take Away Roller. The Tray 2 Take Away Roller then transports the sheet to the Tray 1 Take Away Roller, which transports the sheet to the Registration Roller. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is delivered to an output bin.

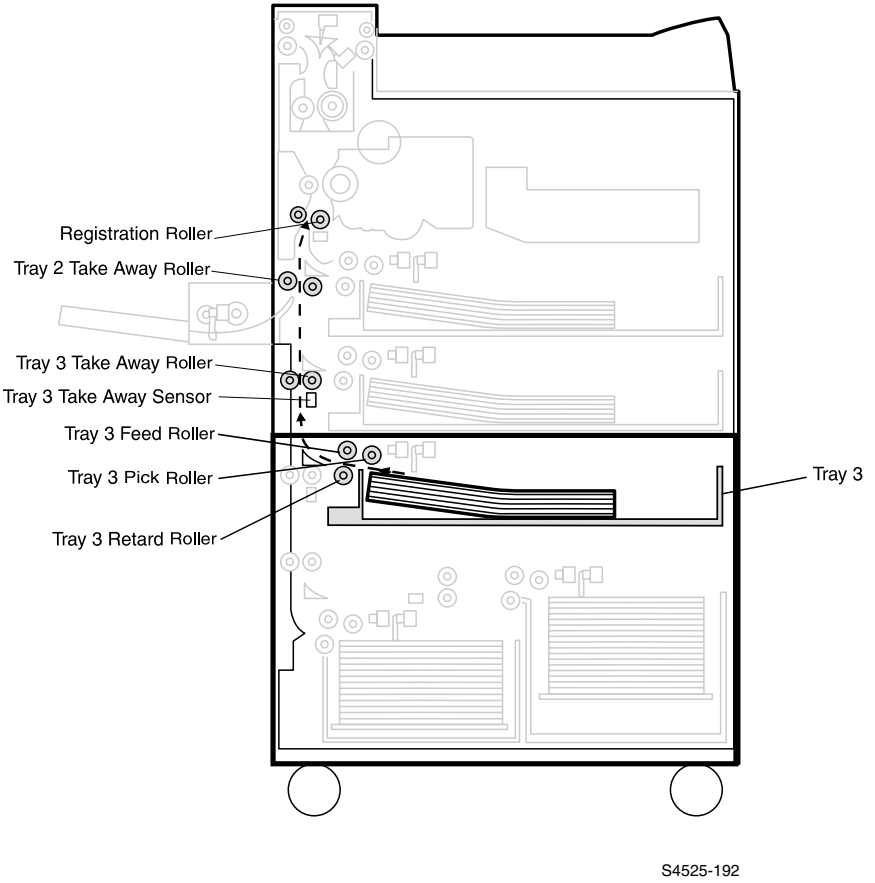


Fig 2-2 Feed From Tray 3

Tray 3 Paper Path Components

The High Capacity Feeder Tray 3 Paper Path is made up of a number of transport rollers and paper sensors.

1. Tray 3 Assembly
   Holds plain paper of various sizes. Slides into the top feeder, Feeder 3, of the High Capacity Feeder.
2. Tray 3 Lift Motor
   Raises the tray bottom plate so the paper contacts the Feed Roller.
3. Tray 3 No Paper Sensor
   Notifies the Print Engine Controller Board when there is no paper present in Tray 3.
4. Tray 3 Paper Level Sensor
   Monitors the level of paper in Tray 3.
5. Tray 3 Paper Size Sensor
   Monitors the size of paper that is loaded into Tray 3.
6. Tray 3 Feed Clutch
   Transmits High Capacity Feeder Motor drive to the Tray 3 Feed Roller and Pick Roller
7. Tray 3 Pick Roller
   Drives the top sheet of paper into the Feed Roller.
8. Tray 3 Feed Roller
   Drives the top sheet of paper out of Tray 3 and into the Tray 2 Take Away Roller area of the base engine.
9. Tray 3 Take Away Sensor
   Monitors paper travel from the High Capacity Feeder into the base engine.
10. Tray 2 Take Away Roller
    Drives the sheet of paper into the base engine Tray 1 Take Away Rollers .
11. Tray 1 Take Away Roller
    Part of the base engine. Drives the sheet of paper into the printer Registration Rollers .

Feed from Tray 4

At the start of a print cycle the Tray 4 Pick Roller moves a sheet of paper to Tray 4 Feed Roller. The Feed Roller moves a single sheet of paper out of Tray 4 and toward the Tray 4 Take Away Roller. The Tray 4 Retard Roller ensures only one sheet of paper is fed. Tray 4 Take Away Roller transports the paper to Tray 3 Take Away Roller. As the sheet of paper is driven toward the Tray 3 Take Away Roller it actuates the Tray 4 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has been delivered to the Tray 3 Take Away Roller, which then drives the sheet to the Tray 2 Take Away Roller. As the sheet of paper is driven to the Take 2 Take Away Roller it actuates the Tray 3 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has arrived. The Tray 2 Take Away Roller drives the sheet to Tray 1 Take Away Rollers. Tray 1 Take Away Roller drives the sheet of paper to the Registration Roller. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is delivered to an output bin.

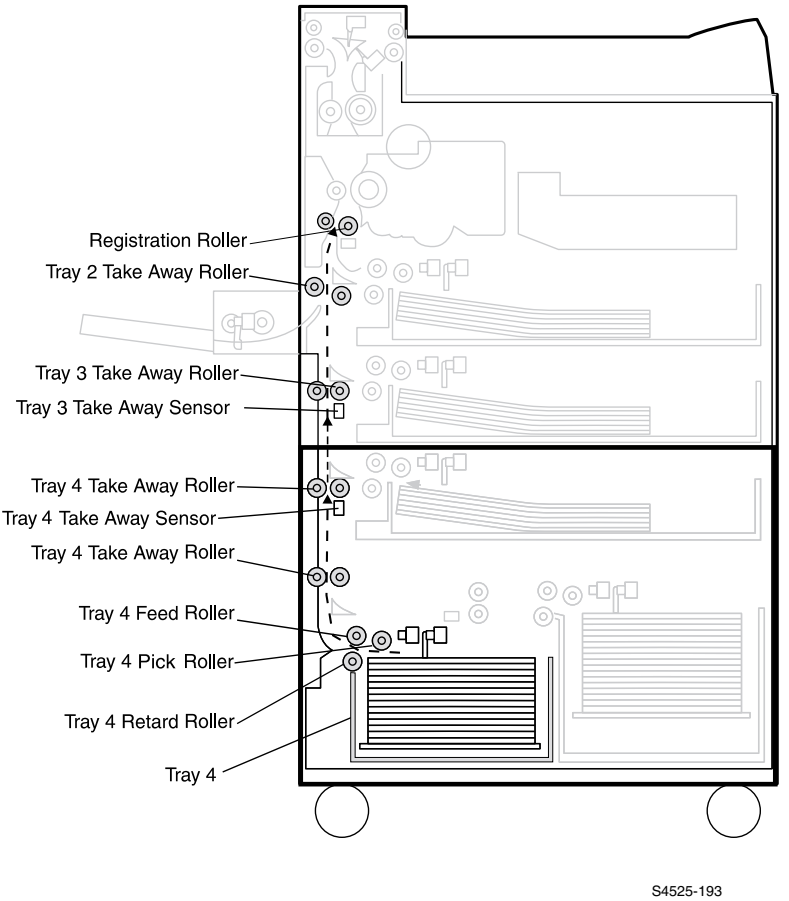


Fig 2-3 Feed From Tray 4

Tray 4 Paper Path Components

The High Capacity Feeder Tray 4 Paper Path is made up of a number of transport rollers and paper sensors.

1. Tray 4 Assembly
   Holds plain paper of various sizes. Slides into the bottom left feeder, Feeder 4, of the High Capacity Feeder.
2. Tray 4 Lift Motor
   Raises the tray bottom plate so the paper contacts the Feed Roller.
3. Tray 4 No Paper Sensor
   Notifies the Print Engine Controller Board when there is no paper present in Tray 4.
4. Tray 4 Paper Level Sensor
   Monitors the level of paper in Tray 4.
5. Tray 4 Paper Size Sensor
   Monitors the size of paper that is loaded to Tray 4.
6. Tray 4 Feed Clutch
   Transmits High Capacity Feeder Motor drive to the Tray 4 Feed Roller and Pick Roller.
7. Tray 4 Pick Roller
   Drives the top sheet of paper into the Feed Roller.
8. Tray 4 Feed Roller
   Drives the top sheet of paper out of Tray 4 and into the Tray 4 Take Away Roller.
9. Tray 4 Take Away Roller
   Drives the sheet of paper out of Feeder 4 and into Tray 3 Take Away Roller.
10. Tray 4 Take Away Sensor
    Monitors paper travel from the Tray 4 to Tray 3 Take Away Roller.
11. Tray 3 Take Away Roller
    Drives the sheet of paper into the Tray 2 Take Away Roller area of the base engine.
12. Tray 3 Take Away Sensor
    Monitors paper travel from the High Capacity Feeder into the base engine.
13. Tray 2 Take Away Roller
    Drives the sheet of paper into the printer Registration Roller .
14. Tray 1 Take Away Roller
    Part of the base engine. Drives the sheet of paper into the printer Registration Roller.

Feed from Tray 5

At the start of a print cycle the Tray 5 Pick Roller moves a sheet of paper to the Tray 5 Feed Roller. The Feed Roller moves a single sheet of paper out of Tray 5 and toward the Tray 5 Take Away Roller. The Tray 5 Retard Roller ensures only one sheet of paper is fed. Tray 5 Take Away Roller drives the paper to the Tray 4 Take Away Roller. As the paper is transported to the Tray 4 Take Away Roller, it actuates the Tray 5 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has left Take Away Roller 5. Tray 4 Take Away Roller drives the paper into Tray 3 Take Away Roller. As the sheet of paper is driven to the Tray 3 Take Away Roller it actuates the Tray 4 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has arrived. The Tray 3 Take Away Roller drives the sheet of paper to the Tray 2 Take Away Roller. As the sheet of paper is driven into the Take 2 Take Away Roller it actuates the Tray 3 Take Away Sensor, notifying the Print Engine Controller Board logic that the paper has arrived. The Tray 2 Take Away Roller drives the sheet to Tray 1 Take Away Rollers. Tray 1 Take Away Roller delivers the sheet to the Registration Roller. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is driven into an output bin.

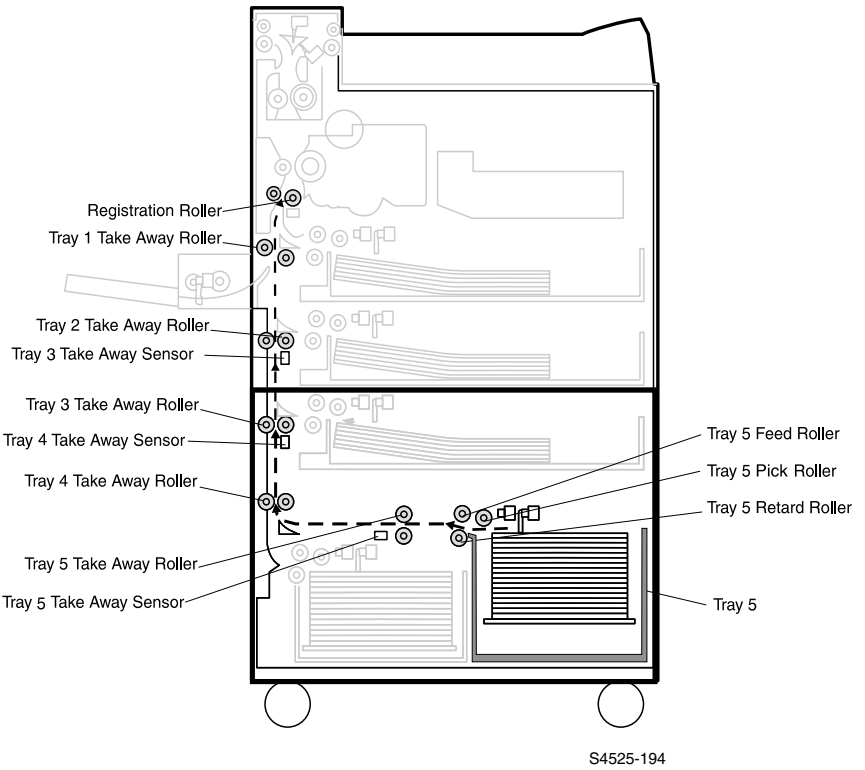


Fig 2-4 Feed From Tray 5

Tray 5 Paper Path Components

The High Capacity Feeder Tray 5 Paper Path is made up of a number of transport rollers and paper sensors.

1. Tray 5 Assembly
   Holds plain paper of various sizes. Slides into the bottom right feeder, Feeder 5, of the High Capacity Feeder.
2. Tray 5 Lift Motor
   Raises the tray bottom plate so the paper contacts the Feed Roller.
3. Tray 5 No Paper Sensor
   Notifies the Print Engine Controller Board when there is no paper present in Tray 5.
4. Tray 5 Paper Level Sensor
   Monitors the level of paper in Tray 5.
5. Tray 5 Paper Size Sensor
   Monitors the size of paper that is loaded into Tray 5.
6. Tray 5 Feed Clutch
   Transmits High Capacity Feeder Motor drive to the Tray 5 Feed Roller and Pick Roller
7. Tray 5 Pick Roller
   Drives the top sheet of paper into the Feed Roller.
8. Tray 5 Feed Roller
   Drives the top sheet of paper out of Tray 5 and into the Tray 5 Take Away Roller.
9. Tray 5 Take Away Sensor
   Monitors paper travel from the Tray 5 Take Away Roller to Tray 3 Take Away Roller.
10. Tray 4 Take Away Roller
    Drives the sheet of paper out of Feeder 4 and into Tray 3 Take Away Roller.
11. Tray 4 Take Away Sensor
    Monitors paper travel from the Tray 4 Take Away Roller to Tray 3 Take Away Roller.
12. Tray 3 Take Away Roller
    Drives the sheet of paper into the Tray 2 Take Away Roller area of the base engine.
13. Tray 3 Take Away Sensor
    Monitors paper travel from the High Capacity Feeder to the base engine.
14. Tray 2 Take Away Roller
    Drives the sheet of paper to the printer Registration rollers .
15. Tray 1 Take Away Roller
    Part of the base engine. Drives the sheet of paper to the printer Registration Rollers.

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Error Codes and Messages

Error messages

The front panel displays error codes when it encounters certain system failures or anomalies otherwise undetected by the user. These error codes are discussed in this section. When an error code first occurs, cycle power on the printer to see if the error re-occurs.

- For **Printer Performance problems**, start in the Error Codes and/or Troubleshooting Sections of Book I, Volume 1 of the QRG.
- For **Image Quality problems**, go to the Troubleshooting Section of Book I, Volume 1 of this QRG.
- For **High Capacity Feeder problems**, go to the Error Codes and Troubleshooting sections of Book II, Volume 2 in this QRG.
- For **Duplex Unit problems**, go to the Error Codes and Troubleshooting sections of Book II, Volume 3 of this QRG.
- For **Envelope Feeder problems**, go to the Error Codes and Troubleshooting sections of Book II, Volume 4 of this QRG.
- For **Finisher problems**, go to the Error Codes and Troubleshooting sections of Book II, Volume 6 of this QRG.

High Capacity Feeder Error Code Table

This table lists all of the High Capacity Feeder related Error Codes that are generated by the Print Engine Controller Board.

Note *Depending on the level of firmware on your Print Engine Controller Board some codes listed in this table may be invalid, some codes generated by the Print Engine Controller may not appear in this table, and Error and Message Code text presented in this table may differ slightly from the Error and Message Code text that is actually generated by your Print Engine Controller.*

Table 2-3 High Capacity Feeder Error Code Table

Displayed Error Message	Error Code	Error Description	Go to RAP No.	Unit/ Page No.
Paper Jam Clear Areas A, B	C3-2	**There is a paper jam between Tray 3 and Tray 2 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Feed Clutch was actuated.	2-1	2-373
Paper Jam Clear Area A, B	C3-3	**There is a paper jam between Tray 3 and the Registration Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 3, the Registration Sensor did not actuate within the specified time after the Tray 2 Take Away Sensor actuated.	2-2	2-375
Clear Area C Reset Tray 4	C4-0	**There is a paper jam between Paper Tray 4 and the Tray 3 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Feed Clutch was actuated.	2-20	2-407
Paper Jam Clear Areas B, C	C4-1	**There is a paper jam between Paper Tray 4 and the Tray 3 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Feed Clutch was actuated.	2-3	2-377
Paper Jam Clear Areas A, B, C	C4-2	**There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.	2-4	2-379

Table 2-3 High Capacity Feeder Error Code Table

Displayed Error Message	Error Code	Error Description	Go to RAP No.	Unit/ Page No.
Paper Jam Clear Area A, B	C4-3	**There is a paper jam between Paper Tray 4 and the Registration Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Registration Sensor did not actuate within then specified time after the Tray 2 Take Away Sensor was actuated.	2-5	2-381
Clear Area C Reset Tray 5	C5-0	**There is a paper jam between paper Tray 5 and the Tray 4 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 4 Take Away Sensor did not actuate within the specified time after the Tray 5 Feed Clutch was actuated.	2-6	2-383
Paper Jam Clear Areas B, C	C5-1	**There is a paper jam between paper Tray 5 and the Tray 3 take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Take Away Sensor was actuated.	2-7	2-385
Paper Jam Clear Areas A, B, C	C5-2	**There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 2 Take Away Sensor signal did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.	2-8	2-387
Paper Jam Clear Area A, B	C5-3	**There is a paper jam between paper Tray 5 and the Registration Sensor.** Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Registration Sensor did not actuate within then specified time after the Tray 2 Take Away Sensor was actuated.	2-9	2-389
Clear Area C Reset Tray 5	C5-4	**There is a paper jam between Paper Tray 5 and the Tray 5 Take Away Sensor.** Paper fed from Tray 5 did not reach the Take-Away Roller 5 Sensor within the specified time.	2-21	2-409
Paper Jam Clear Areas B, C	C8-3	**There is a problem with the Tray 3 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed the Tray 3 Take Away Sensor was on while the printer was in standby.	2-10	2-391
Paper Jam Clear Area C	C8-4	**There is a problem with the Tray 4 Take Away Sensor.** Logic Control on the Print Engine Controller Board sensed the Tray 4 Take Away Sensor was on while the printer was in standby.	2-11	2-392

Table 2-3 High Capacity Feeder Error Code Table

Displayed Error Message	Error Code	Error Description	Go to RAP No.	Unit/ Page No.
Clear Area C Reset Tray 5	C8-5	Remaining paper detected by the Take Away Roller 5 Sensor.	2-22	2-411
Close Door C	E6-1	**Door C is sensed to be open.** Logic Control on the Print Engine Controller Board sensed that Door C is open.	2-12	2-393
Insert Tray 3	H1-3	**There is a problem with Tray 3.** Logic Control on the Print Engine Controller Board sensed that the Tray 3 Paper Level Sensor did not actuate within the specified time after the Tray 3 Lift Motor was actuated.	2-13	2-395
Insert Tray 4	H1-4	**There is a problem with Tray 4.** Logic Control on the Print Engine Controller Board sensed that the Tray 4 Paper Level Sensor did not actuate within the specified time after the Tray 4 Lift Motor was actuated.	2-14	2-397
Insert Tray 5	H1-5	**There is a problem with Tray 5.** Logic Control on the Print Engine Controller Board sensed that the Tray 5 Paper Level Sensor did not actuate within the specified after the Tray 5 Lift Motor was actuated.	2-15	2-399
HCF NVM Fail Power Off/On	H7-3 H7-4 H7-7	**There is a communication problem between the Print Engine controller and the High Capacity Feeder or a problem with NVM on the HCF.** NVM on the High capacity feeder control Board cannot execute a READ/WRITE, is non-functional, or there is a communication error between the HCF and the Print Engine Controller Board.	2-19	2-406

RAP 2-1

Error Code C3-2 Paper Jam Clear Areas A,B

There is a paper jam between Tray 3 and Tray 2 Take Away Sensor.
Logic Control on the Print Engine Controller Board sensed that the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Feed Clutch was actuated.

Table 2-4 Error Code C3-2 Paper Jam Clear Areas A,B

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 3 LIFT MOTOR TEST** 1. Enter Diagnostic Mode. 2. Open, then close Tray 3. 3. From the Main Menu select Comp Output Test / HCF Unit / Tray 3 Lift. 4. Press [4] to start a 2-second test. **Does the Motor switch on when you press [4]?**	Go to step 4	Replace Tray 3 Lift Motor [(RRP 2-10)]
4	**TRAY 3 FEED CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 3 Feed Clut. 3. Press [4] to actuate the feed clutch, listen carefully for two clicks. **Does the Tray 3 Feed Clutch actuate?**	Go to step 5	Replace the Tray 3 Feed Clutch (RRP 2-13)
5	**FEED, PICK, AND RETARD ROLLER CHECK** After performing step 4, open Door B of the High Capacity Feeder. 1. Enter Diagnostics Mode. 2. From the Main Menu select Test Print / Start Print. 3. Press [4]. **Was a sheet of paper fed out of the tray?**	Go to step 6	Replace Tray 3 Feeder Assembly (RRP 2-19)
6	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does the window display "Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 2 Take Away Sensor.

Table 2-4 Error Code C3-2 Paper Jam Clear Areas A,B (cont'd.)

Step	Actions and Questions	Yes	No
7	**HIGH CAPACITY BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 9	Problem solved
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-2

Error Code C3-3 Paper Jam Clear Area A

There is a paper jam between Paper Tray 3 and the Registration Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 3, the Registration Sensor did not actuate within the specified time after the Tray 2 Take Away Sensor actuated.

Table 2-5 Error Code 3-3 Paper Jam Clear Area A

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**REGISTRATION SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / IOT Unit / Reg. Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Registration Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Registration Sensor, and does the display "Without Paper" when you remove the paper?**	Go to step 4	Replace the Registration Sensor [PL 6.1]
4	**TRAY 2 TAKE AWAY ROLLER CHECK** 1. Enter Diagnostic Mode. 2. From the Main Menu select, Comp Output Test / IOT Unit / Main Motor On. 3. Press [4] to start, [0] to stop. 4. Open Door B to observe the rollers. **Does the Take Away Roller 2 rotate when you run the Main Motor?**	Go to step 5	Replace Tray 2 Feeder [RRP 1-22 Tray 2 Feeder Assembly (PL 3.5)]
5	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 6	Replace the Tray 2 Take Away Sensor [PL 5.1].

Table 2-5 Error Code 3-3 Paper Jam Clear Area A (cont'd.)

Step	Actions and Questions	Yes	No
6	**HIGH CAPACITY BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-3

Error Code C4-1 Paper Jam Clear Areas B,C

There is a paper jam between Paper Tray 4 and the Tray 3 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Feed Clutch was actuated.

Table 2-6 Error Code C4-1 Paper Jam Clear Areas B,C

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 4 LIFT MOTOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Lift.. 3. Open, then close Tray 4. 4. Press [4] to start a 2-second test. **Does the Motor switch on and the tray lift, when you Press [4]?**	Go to step 4	Replace Tray 4 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
4	**TRAY 4 FEED CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Feed Clutch. 3. Press [4] to start test, listen carefully for two clicks. **Does the Tray 4 Feed Clutch actuate when you Press [4]?**	Go to step 5	Replace the Tray 4 Feed Clutch [RRP 2-13 Trays 3, 4, and 5 Feed Clutches (PL 12.5~PL 12.7~PL 12.9)]
5	**FEED, PICK, AND RETARD ROLLER CHECK** 1. Enter Diagnostics Mode. 2. From the Main Menu select Test Print / Start Print. 3. Press [4]. **Was a sheet of paper fed out of the tray?**	Go to step 6	Replace Tray 4 Feeder Assembly [RRP 2-26 Tray 4 Feeder Assembly (PL 12.7)]

Table 2-6 Error Code C4-1 Paper Jam Clear Areas B,C (cont'd.)

Step	Actions and Questions	Yes	No
6	**TRAY 3 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll3 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 3 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 3 Take Away Sensor [PL 5.2].
7	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 9	Problem solved
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-4

Error Code C4-2 Paper Jam Clear Areas A,B

There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.

Table 2-7 Error Code C4-2 Paper Jam Clear Areas A,B

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the tray wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 3 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll3 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 3 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 3 Take Away Sensor [PL 5.2].
4	**TRAY 3 TAKE AWAY ROLLER CHECK** 1. Enter Diagnostic Mode 2. From the Main Menu select, Comp Output Test / IOT Unit / Main Motor On. 3. Press [4] to start, [0] to stop. 4. Open Door C to observe the rollers. **Does Tray 3 Take Away Roller rotate when you run the Main Motor?**	Go to step 5	Troubleshoot the drive transmission from the High Capacity Feeder Motor to the Take Away Gear

Table 2-7 Error Code C4-2 Paper Jam Clear Areas A,B (cont'd.)

Step	Actions and Questions	Yes	No
5	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does the window display "Without Paper" when you remove the paper?**	Go to step 6	Replace the Tray 2 Take Away Sensor [PL 5.1].
6	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-5

Error Code C4-3 Paper Jam Clear Area A

There is a paper jam between Paper Tray 4 and the Registration Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Registration Sensor did not actuate within then specified time after the Tray 2 Take Away Sensor was actuated.

Table 2-8 Error Code C4-3 Paper Jam Clear Area A

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does the window display "Without Paper" when you remove the paper?**	Go to step 4	Replace the Tray 2 Take Away Sensor.
4	**REGISTRATION SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / IOT Unit / Reg. Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Registration Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Registration Sensor, and does it display "Without Paper" when you remove the paper?**	Go to step 5	Replace the Registration Sensor.
5	**TRAY 2 TAKE AWAY ROLLER CHECK** 1. Remove Tray 1 from the printer to observe the Tray 2 rollers. 2. Enter Diagnostic Mode 3. From the Main Menu select, Comp Output Test / IOT Unit / Main Motor On. 4. Press [4] to start, [0] to stop. **Does the Take Away Roller 2 rotate when you run the Main Motor?**	Go to step 6	Replace Tray 2 Feeder [RRP 1-22 Tray 2 Feeder Assembly (PL 3.5)]

Table 2-8 Error Code C4-3 Paper Jam Clear Area A (cont'd.)

Step	Actions and Questions	Yes	No
6	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-6

Error Code C5-0 Clear Area C Reset Tray 5

There is a paper jam between Paper Tray 5 and the Tray 4 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 4 Take Away Sensor did not actuate within the specified time after the Tray 5 Feed Clutch was actuated.

Table 2-9 Error Code C5-0 Clear Area C Reset Tray 5

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 5 LIFT MOTOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Lift. 3. Open, then close Tray 5. 4. Press [4] to start a 2-second test. **Does the Motor switch on when you Press [4]?**	Go to step 4	Replace Tray 5 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
4	**TRAY 5 FEED CLUTCH TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Feed Clut. 3. Press [4] to start, listen carefully for 2 clicks. **Does the Tray 5 Feed Clutch actuate when you Press [4]?**	Go to step 5	Replace the Tray 5 Feed Clutch [RRP 2-13 Trays 3, 4, and 5 Feed Clutches (PL 12.5~PL 12.7~PL 12.9)]
5	**FEED, PICK, AND RETARD ROLLER CHECK** 1. Enter Diagnostics Mode. 2. From the Main Menu select Test Print / Start Print. 3. Press [4]. **Was a sheet of paper fed out of Tray 5?**	Go to step 6	Replace Tray 5 Feeder Assembly [RRP 2-31 Tray 5 Feeder Assembly (PL 12.9)]

Table 2-9 Error Code C5-0 Clear Area C Reset Tray 5 (cont'd.)

Step	Actions and Questions	Yes	No
6	**TRAY 4 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll4 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 4 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 4 Take Away Sensor [PL 12.11.12]
7	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 9	Problem solved
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-7

Error Code C5-1 Paper Jam Clear Areas B,C

There is a paper jam between Paper Tray 5 and the Tray 3 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Take Away Sensor was actuated.

Table 2-10 Error Code C5-1 Paper Jam Clear Areas B,C

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 3 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll3 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 3 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 4	Replace the Tray 3 Take Away Sensor [PL 5.2].
4	**TRAY 4 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll4 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 4 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 5	Replace the Tray 4 Take Away Sensor [RRP 2-18 Tray 4 Take Away Sensor (PL 12.11)].

Table 2-10 Error Code C5-1 Paper Jam Clear Areas B,C (cont'd.)

Step	Actions and Questions	Yes	No
5	**TRAY 5 TAKE AWAY ROLLER CHECK** 1. Remove Tray 3 from the HCF to observe the Tray 5 T/A roller. 2. Enter Diagnostic Mode 3. From the Main Menu select, Comp Output Test / HCF Unit / TTM Feed Motor. 4. Press [4] to start, [0] to stop. **Does the Tray 5 Take Away Roller rotate when you run the TTM Feed Motor?**	Go to step 6	Troubleshoot the drive transmission from the High Capacity Feeder Motor to the Tray 5 Take Away Gear
6	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-8

Error Code C5-2 Paper Jam Clear Areas A,B

There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Tray 2 Take Away Sensor signal did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.

Table 2-11 Error Code C5-2 Paper Jam Clear Areas A,B

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does the window display "Without Paper" when you remove the paper?**	Go to step 4	Replace the Tray 2 Take Away Sensor.
4	**TRAY 3 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll3 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 3 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 5	Replace the Tray 3 Take Away Sensor [PL 5.2]

Table 2-11 Error Code C5-2 Paper Jam Clear Areas A,B (cont'd.)

Step	Actions and Questions	Yes	No
5	**TRAY 3 TAKE AWAY ROLLER CHECK** 1. Enter Diagnostic Mode 2. From the Main Menu select, Comp Output Test / IOT Unit / Main Motor On. 3. Open the left door B to observe the roller. 4. Press [4] to start, [0] to stop. **Does the Tray 3 Take Away Roller rotate when you run the Main Motor?**	Go to step 6	Troubleshoot the drive transmission from the High Capacity Feeder Motor to the Take Away Gear
6	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT Board REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-9

Error Code C5-3 Paper Jam Clear Area A

There is a paper jam between Paper Tray 5 and the Registration Sensor.

Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 5, the Registration Sensor did not actuate within then specified time after the Tray 2 Take Away Sensor was actuated.

Table 2-12 Error Code C5-3 Paper Jam Clear Area A

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**REGISTRATION SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / IOT Unit / Reg. Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Registration Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Registration Sensor, and does it display "Without Paper" when you remove the paper?**	Go to step 4	Replace the Registration Sensor
4	**TRAY 2 TAKE AWAY ROLLER CHECK** 1. Remove Tray 1 to observe rollers. 2. Enter Diagnostic Mode 3. From the Main Menu select, Comp Output Test / IOT Unit / Main Motor On. 4. Press [4] to start, [0] to stop. **Does the Tray 2 Take Away Roller rotate when you run the Main Motor?**	Go to step 5	Replace Tray 2 Feeder [RRP 1-22 Tray 2 Feeder Assembly (PL 3.5)]
5	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 2 Take Away Sensor, and does it display "Without Paper" when you remove the paper?**	Go to step 6	Replace the Tray 2 Take Away Sensor [PL 5.1].

Table 2-12 Error Code C5-3 Paper Jam Clear Area A (cont'd.)

Step	Actions and Questions	Yes	No
6	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-10

Error Code C8-3 Paper Jam Clear Areas B,C

There is a problem with the Tray 3 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed the Tray 3 Take Away Sensor was on while the printer was in standby.

Table 2-13 Error Code C8-3 Paper Jam Clear Areas B,C

Step	Actions and Questions	Yes	No
1	**TRAY 3 TAKE AWAY SENSOR INSPECTION** Remove Tray 3 and inspect the Tray 3 Take Away Sensor for paper scraps that may be actuating the sensor. **Is the Sensor free of paper scraps?**	Go to step 2	Remove the paper scraps
2	**TRAY 3 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll3 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 3 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 3	Replace the Tray 3 Take Away Sensor [PL 5.2]
3	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 4	Problem solved
4	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-11

Error Code C8-4 Paper Jam Clear Area C

There is problem with the Tray 4 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed the Tray 4 Take Away Sensor was on while the printer was in standby.

Table 2-14 Error Code C8-4 Paper Jam Clear Area C

Step	Actions and Questions	Yes	No
1	**TRAY 4 TAKE AWAY SENSOR INSPECTION** Open the High Capacity Feeder Left Cover and inspect the Tray 4 Take Away Sensor for paper scraps that may be actuating the sensor. **Is the Sensor free of paper scraps?**	Go to step 2	Remove the paper scraps
2	**TRAY 4 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll4 Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 4 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 3	Replace the Tray 4 Take Away Sensor [RRP 2-18 Tray 4 Take Away Sensor (PL 12.11)]
3	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 4	Problem solved
4	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-12
Error Code E6-1 Close Door C

Door C is sensed to be open.

Table 2-15 Error Code E6-1 Close Door C

Step	Actions and Questions	Yes	No
1	**LEFT DOOR C CHECK** Open and close Left Door C. **Does the error code appear when the door is closed?**	Go to step 2	Problem solved
2	**LEFT DOOR C INTERLOCK SWITCH INSPECTION** Inspect the Door C Interlock Switch for damage that may have locked the Switch in the off position. **Is the switch undamaged?**	Go to step 3	Replace the Left Cover Interlock Switch [RRP 2-17 Left Door C Interlock Switch (PL 12.11)]
3	**CABINET INTERLOCK ACTUATOR INSPECTION** Inspect the Door C Interlock Actuator tab for damage that may prevent the Cover from actuating the Interlock when the Cover is closed. **Is the Interlock Actuator tab undamaged?**	Go to step 4	Replace the Left Cover Assembly [RRP 2-4 Door C Assembly (PL 12.11)]
4	**LEFT COVER INTERLOCK SWITCH TEST** 1. Enter Diagnostic Mode. 2. Open Door C. 3. From the Main Menu, select Comp Input Test / HCF Unit / HCF Cab. Cover C. 4. Press [4] to start test, [0] to stop. 5. Actuate and deactuate the Left Cover C Interlock Switch. **Does the Control Panel Display "Open" when you release the switch, and does the display show "Close" when you press the switch?**	Go to step 5	Replace the Left Cover Interlock Switch [RRP 2-17 Left Door C Interlock Switch (PL 12.11)]
5	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 6	Problem solved
6	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 7	Problem solved

Table 2-15 Error Code E6-1 Close Door C (cont'd.)

Step	Actions and Questions	Yes	No
7	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 8	Problem solved
8	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-13

Error Code H1-3 Insert Tray 3

There is a problem with Tray 3.

Tray 3 is sensed to be out of printer or Lift Motor non-functional.

Table 2-16 Error Code H1-3 Insert Tray 3

Step	Actions and Questions	Yes	No
1	**TRAY 3 LIFT MOTOR TEST** 1. Remove the High Capacity Feeder Rear Cover [RRP 2-2 High Capacity Feeder Rear Cover (PL 12.1)]. 2. Load paper into Tray 3 and slide Tray 3 into Feeder. 3. Enter Diagnostic Mode 4. From the Main Menu, select Comp Output Test / HCF Unit / Tray 3 Lift. 5. Press [4] to start a 2-second test. **Does the Tray 3 Lift Motor run when you Press [4]?**	Go to step 2	Replace Tray 3 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 3 CHECK** Slowly slide Tray 3 out of Feeder 3. **Can you hear the Tray 3 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 3
3	**TRAY 3 LEVEL SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 3 Level. 3. Press [4] to start test, [0] to stop. 4. Repeatedly open and close Tray 3 while observing the display. **Does the Control Panel display "Up" when you pull the tray out, and display "Down" when push in the tray?**	Go to step 4	Replace the Tray 3 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 6	Problem solved
6	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 7	Problem solved

Table 2-16 Error Code H1-3 Insert Tray 3

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-14

Error Code H1-4 Insert Tray 4

There is a problem with Tray 4.

Tray 4 is sensed to be out of printer or Lift Motor in non-functional.

Table 2-17 Error Code H1-4 Insert Tray 4

Step	Actions and Questions	Yes	No
1	**TRAY 4 LIFT MOTOR TEST** 1. Remove Tray 3 from the High Capacity Feeder so you can observe Tray 4. 2. Enter Diagnostic Mode 3. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Lift. 4. Press [4] to start a 2-second test. **Does the Tray 4 Lift Motor run when you press [4]?**	Go to step 2	Replace Tray 4 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 4 CHECK** Slowly slide Tray 4 out of Feeder 4. **Does the Tray 4 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 4 [RRP 2-22 High Capacity Feeder Tray 4 (PL 13.1)]
3	**TRAY 4 LEVEL SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 4 Level. 3. Press [4] to start test, [0] to stop. 4. Repeatedly open and close Tray 4 while observing the display. **Does the Control Panel display "Up" when you pull the tray out, and display "Down" when push in the tray?**	Go to step 4	Replace the Tray 4 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 6	Problem solved
6	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 7	Problem solved

Table 2-17 Error Code H1-4 Insert Tray 4 (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-15

Error Code H1-5 Insert Tray 5

There is a problem with Tray 5.

Tray 5 is sensed to be out of paper or the Lift Motor is non-functional.

Table 2-18 Error Code H1-5 Insert Tray 5

Step	Actions and Questions	Yes	No
1	**TRAY 5 LIFT MOTOR TEST** 1. Remove Tray 3 from the High Capacity Feeder so you can observe Tray 5. 2. Enter Diagnostic Mode 3. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Lift. 4. Press [4] to start a 2-second test. **Does the Tray 5 lift Motor run when you press [4]?**	Go to step 2	Replace Tray 5 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 5 CHECK** Slowly slide Tray 5 out of Feeder 5. **Does the Tray 5 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 5 [RRP 2-29 High Capacity Feeder Tray 5 (PL 13.2)]
3	**TRAY 5 LEVEL SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 5 Level. 3. Press [4] to start test, [0] to stop. 4. Repeatedly open and close Tray 5 while observing the display. **Does the Control Panel display "Up" when you pull the tray out, and display "Down" when push in the tray?**	Go to step 4	Replace the Tray 5 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 6	Problem solved
6	**PRINT ENGINE CONTROLLER Board REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 7	Problem solved

Table 2-18 Error Code H1-5 Insert Tray 5 (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-16

Error Code H4-3 Load Tray 3

There is a problem with paper fed from Tray 3.

Tray 3 out of paper or size/type is incorrect for print job.

Table 2-19 Error Code H4-3 Load Tray 3

Step	Actions and Questions	Yes	No
1	**TRAY 3 LIFT MOTOR TEST** 1. Remove the High Capacity Feeder Rear Cover [RRP 2-2 High Capacity Feeder Rear Cover (PL 12.1)]. 2. Load paper into Tray 3 and slide Tray 3 into Feeder. 3. Enter Diagnostic Mode 4. From the Main Menu, select Comp Output Test / HCF Unit / Tray 3 Lift. 5. Press [4] to start a 2-second test. **Does the Tray 3 Lift Motor run when you Press [4]?**	Go to step 2	Replace Tray 3 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 3 CHECK** Slowly slide Tray 3 out of Feeder 3. **Can you hear the Tray 3 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 3
3	**TRAY 3 NO PAPER SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 3 Paper Sen. 3. Press [4] to start test, [0] to stop. 4. Remove Tray 3 from the printer and push the Actuator up and release it, while observing the display. **Does the Control Panel display "With Paper" when you push the actuator up, and display"Without Paper" when you release it?**	Go to step 4	Replace the Tray 3 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved

Table 2-19 Error Code H4-3 Load Tray 3 (cont'd.)

Step	Actions and Questions	Yes	No
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-17

Error Code H4-4 Load Tray 4

There is a problem with paper fed from Tray 4.

Tray 4 is out of paper or size/type is incorrect for print job.

Table 2-20 Error Code H4-4 Load Tray 4

Step	Actions and Questions	Yes	No
1	**TRAY 4 LIFT MOTOR TEST** 1. Remove Tray 3 from the High Capacity Feeder so you can observe Tray 4. 2. Enter Diagnostic Mode. 3. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Lift. 4. Press [4] to start a 2-second test. **Does the Tray 4 lift Motor run when you press [4]?**	Go to step 2	Replace Tray 4 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 4 CHECK** Slowly slide Tray 4 out of Feeder. **Does the Tray 5 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 4.
3	**TRAY 4 NO PAPER SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 4 Paper Sen. 3. Press [4] to start test, [0] to stop. 4. Remove Tray 4 from the printer, then push the Actuator up and release it, while observing the display. **Does the Control Panel display "With Paper" when you push the actuator up, and display"Without Paper" when you release it?**	Go to step 4	Replace the Tray 5 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-18

Error Code H4-5 Load Tray 5

There is a problem with paper fed from Tray 5.

Tray 5 is out of paper or the size/type is incorrect for the print job.

Table 2-21 Error Code H4-5 Load Tray 5

Step	Actions and Questions	Yes	No
1	**TRAY 5 LIFT MOTOR TEST** 1. Remove Tray 3 from the High Capacity Feeder so you can observe Tray 5. 2. Enter Diagnostic Mode. 3. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Lift. 4. Press [4] to start a 2-second test.. **Does the Tray 5 lift Motor run when you press [4]?**	Go to step 2	Replace Tray 5 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
2	**TRAY 5 CHECK** Slowly slide Tray 5 out of Feeder. **Does the Tray 5 bottom plate drop as you slide the Tray out of the Feeder?**	Go to step 2	Replace Tray 5 [RRP 2-29 High Capacity Feeder Tray 5 (PL 13.2)]
3	**TRAY 5 NO PAPER SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / Tray 5 No Paper Sen. 3. Press [4] to start test, [0] to stop. 4. Remove Tray 5 from the printer, then push the Actuator up and then release it. **Does the Control Panel display "With Paper" when you push the actuator up, and display "Without Paper" when you release it?**	Go to step 4	Replace the Tray 5 No Paper Sensor [RRP 2-15 Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)]
4	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved

Table 2-21 Error Code H4-5 Load Tray 5

Step	Actions and Questions	Yes	No
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-19

Error Code H7-3, H7-4, H7-7 HCF NVM Fail Power Off/On

There is a communication problem between the Print Engine Controller and the High Capacity Feeder or a problem with NVM on the HCF.

NVM on the High Capacity Feeder Control Board cannot execute a READ/WRITE, is non-functional, or there is a communication error between the HCF and the Print Engine Controller Board.

Table 2-22 Error Code U6-3 HCF NVM Fail Power Off/On

Step	Actions and Questions	Yes	No
1.	**CHECK INTERFACE CABLE** Visually inspect the interface cable to see if it is securely connected to the printer and undamaged in any way. **Is the cable connected securely and undamaged?**	Go to step 2	Replace Cable
2.	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 3	Problem solved
3.	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 4	Problem solved
4.	**INTERFACE CABLE** Replace the interface cable. **Does the error code appear?**	Call for Technical Support	Problem solved

RAP 2-20

Error Code C4-0 Clear Area C Reset Tray 4

There is a paper jam between Paper Tray 4 and the Tray 3 Take Away Sensor.
Logic Control on the Print Engine Controller Board sensed that when paper was fed from Tray 4, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Feed Clutch was actuated.

Table 2-23 Error Code C4-0 Clear Area C Reset Tray 4

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 4 LIFT MOTOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Lift. 3. Open, then close Tray 4. 4. Press [4] to start a 2-second test. **Does the Motor switch on and the tray lift, when you Press [4]?**	Go to step 4	Replace Tray 4 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)
4	**TRAY 4 FEED CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 4 Feed Clut. 3. Press [4] to start, listen carefully for two clicks. **Does the Tray 4 Feed Clutch actuate when you Press [4]?**	Go to step 5	Replace the Tray 4 Feed Clutch [RRP 2-13 Trays 3, 4, and 5 Feed Clutches (PL 12.5~PL 12.7~PL 12.9)
5	**FEED, PICK, AND RETARD ROLLER CHECK** Run a test print from Tray 4. **Was a sheet of paper fed out of the tray?**	Go to step 6	Replace Tray 4 Feeder Assembly [RRP 2-26 Tray 4 Feeder Assembly (PL 12.7)]

Table 2-23 Error Code C4-0 Clear Area C Reset Tray 4 (cont'd.)

Step	Actions and Questions	Yes	No
6	**TRAY 4 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll4 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 4 Take Away Sensor, and does the Control Panel display"Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 4 Take Away Sensor [RRP 2-18 Tray 4 Take Away Sensor (PL 12.11)].
7	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 9	Problem solved
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-21

Error Code C5-4 Clear Area C Reset Tray 5

Paper fed from Tray 5 did not reach the Take-Away Roller 5 Sensor within the specified time.

Table 2-24 Error Code C5-4 Clear Area C Reset Tray 5

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step 3	Clear the paper path
3	**TRAY 5 LIFT MOTOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Lift. 3. Open, then close Tray 5. 4. Press [4] to start a 2-second test. **Does the Motor switch on when you Press [4]?**	Go to step 4	Replace Tray 5 Lift Motor [RRP 2-10 Lift Motor (PL 12.3)]
4	**TRAY 5 FEED CLUTCH TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Output Test / HCF Unit / Tray 5 Feed Clut. 3. Press [4] to start, listen carefully for 2 clicks. **Does the Tray 5 Feed Clutch actuate when you Press [4]?**	Go to step 5	Replace the Tray 5 Feed Clutch [RRP 2-13 Trays 3, 4, and 5 Feed Clutches (PL 12.5~PL 12.7~PL 12.9)]
5	**FEED, PICK, AND RETARD ROLLER CHECK** Run a test print from Tray 5. **Was a sheet of paper fed out of Tray 5?**	Go to step 6	Replace Tray 5 Feeder Assembly [RRP 2-31 Tray 5 Feeder Assembly (PL 12.9)]

Table 2-24 Error Code C5-4 Clear Area C Reset Tray 5 (cont'd.)

Step	Actions and Questions	Yes	No
6	**TRAY 5 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll5 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 5 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 7	Replace the Tray 5 Take Away Sensor [RRP 2-24 Tray 5 Take Away Sensor (PL 12.4)]
7	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 8	Problem solved
8	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 9	Problem solved
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 2-22

Error Code C8-5 Clear Area C Reset Tray 5

Remaining paper detected by the Take-Away Roller 5 Sensor.

Table 2-25 Error Code C8-5 Clear Area C Reset Tray 5

Step	Actions and Questions	Yes	No
1	**TRAY 5 TAKE AWAY SENSOR INSPECTION** Open the High Capacity Feeder Left Cover and inspect the Tray 4 Take Away Sensor for paper scraps that may be actuating the sensor. **Is the Sensor free of paper scraps?**	Go to step 2	Remove the paper scraps
2	**TRAY 5 TAKE AWAY SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / HCF Unit / T/A Roll5 Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 5 Take Away Sensor. **Does the Control Panel display "With Paper" when you insert the paper into the Tray 5 Take Away Sensor, and does the Control Panel display "Without Paper" when you remove the paper?**	Go to step 3	Replace the Tray 5 Take Away Sensor [RRP 2-24 Tray 5 Take Away Sensor (PL 12.4)]
3	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Does the error code appear?**	Go to step 4	Problem solved
4	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the I/O Board [RRP 1-70 Input/Output Board (PL 11.2)]. **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board [RRP 1-72 Print Engine Controller Board (PL 11.3)]. **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

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RAP 2-90

High Capacity Feeder Performance Problems

Inoperative High Capacity Feeder

When you switch on the printer the Lift Motors do not raise the High Capacity Feeder trays into place, none of the High Capacity Feeder feeders respond to feed commands from the printer, and the problem is not identified by a displayed Error Code.

Table 2-25 Inoperative High Capacity Feeder

Step	Actions and Questions	Yes	No
1	**HIGH CAPACITY FEEDER OPERATION CHECK** Generate a test print from Tray 3, Tray 4, and Tray 5. **Does the printer generate a test print from Tray 3, Tray 4, and Tray 5?**	Go to step 4	Go to step 2
2	**PRINTER OPERATION CHECK** Generate a printer test print fed from Tray 1 and Tray 2. **Does the printer generate a test print fed from both Tray 1 and Tray 2?**	Go to step 3	Go to RAP 1-50 .
3	**HIGH CAPACITY FEEDER INTERFACE CABLE INSPECTION** Check the High Capacity Feeder to printer interface cable. **Is the cable firmly connected to the P/J at the rear of the printer?**	Go to step 6	Reconnect the interface cable
4	**APPLICATION SOFTWARE** If possible, run a Tray 3, Tray 4, and Tray 5 print job from a different application. **Does the printer process the print request?**	Reload application software	Go to step 5
5	**DRIVER SOFTWARE RELOAD** 1. Reload the printer driver software. 2. Run a Tray 3, Tray 4, and Tray 5 print job from the host computer. **Does the printer process the print request?**	Problem solved	Contact Technical Support for assistance.

Table 2-25 Inoperative High Capacity Feeder (cont'd.)

Step	Actions and Questions	Yes	No
6	**HIGH CAPACITY FEEDER +5VDC VOLTAGE CHECK** 1. Remove the High Capacity Feeder Rear Cover [RRP 2-2 High Capacity Feeder Rear Cover (PL 12.1)]. 2. Measure the voltage between J480-B4 and frame ground. **Is there +5VDC between J480-B4 and frame ground?**	Go to step 7	Go to tBook 1 and troubleshoot for a loss of +5VDC from the Print Engine Controller Board
7	**HIGH CAPACITY FEEDER +24VDC VOLTAGE CHECK** Measure the voltage between J480-B1 and frame ground and between J480-B2 and frame ground on the High Capacity Feeder Board. **Is there +24VDC between J480-B1 to frame ground and J480-B2 to frame ground?**	Go to step 8	Go to Book 1 and troubleshoot for a loss of +24VDC from the Print Engine Controller Board
8	**HIGH CAPACITY FEEDER BOARD REPLACEMENT** Replace the High Capacity Feeder Board [RRP 2-9 High Capacity Feeder Board (PL 12.2)]. **Is the High Capacity Feeder still inoperative?**	Go to step 9	Problem solved
9	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this FIP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

Key FRU Removal and Replacement Procedures (RRPs)

This section contains the removal and replacement procedures for select parts of the High Capacity Feeder.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power and disconnect the power cord from the AC wall outlet.
2. Wear an electrostatic discharge wrist strap to help prevent damage to the sensitive electronics of the printer controller boards.
3. Wait at least 30 minutes after you have switched OFF printer power for the Fuser to cool before you work on or around the Fuser.

Work Notes

Note *Names of parts that appear in the RRPs may not be exactly the same as the names that appear in the Parts List. For example; a part called the Metal Registration Roller in an RRP may appear on the Parts List as Registration Metal Roller.*

Note *When working on an RRP, ignore any prerequisite RRP if you have already performed that removal procedure.*

Caution *Always use the correct type and size screw. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install either a screw or a printer part.*

Warning *Unplug the AC power cord from the AC wall outlet before removing any printer part.*

Notations in the RRP text

- Locations, such as R or right, given in the RRPs assume you are facing the printer console panel.
- The notation "rear" of a component, in place or removed, refers to the surface of the component that is, when installed, facing the rear of the print engine.
- The notation "front" of a component refers to the surface of the component that is, if installed, facing the front of the print engine.
- The notation “(RRP X.Y)” in a RRP step, directs you to another RRP for information on how to perform a related or prerequisite procedure.

- The notation “(Figure x)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(FRU#)” indicates that this component is listed in the FRU parts list.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- Call-outs in an illustration point to the specific RRP component and also to associated and adjacent components that are related to the removal and replacement of the specific component.
- In many instances, you will find only a Removal Procedure for an assembly, with no Replacement Procedure. In such cases, to reinstall/replace the assembly/component simply reverse the Removal Procedure. Replacement Procedures are only present when the replacement or installation of an assembly requires special attention or is so convoluted, that a procedure to install is felt to be necessary.

RRP 2-1 High Capacity Feeder

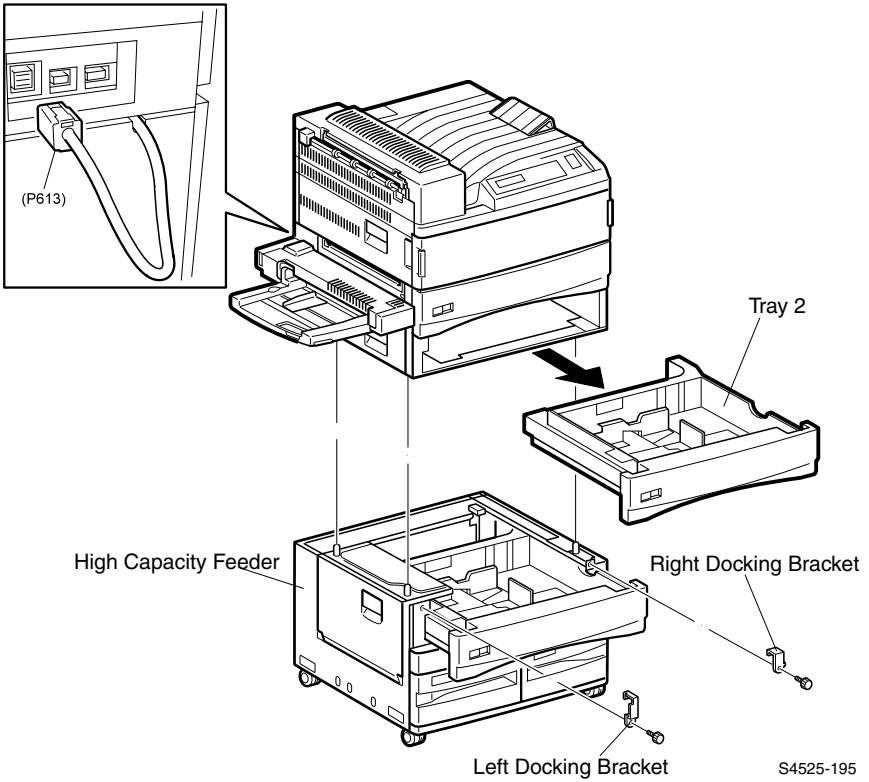


Fig 2-6 High Capacity Feeder

Removal

1. Lock the two front High Capacity Feeder casters.
2. Disconnect the High Capacity Feeder interface cable from P613 located at the rear of the base printer.
3. Remove Tray 2 from the base printer.
4. Open Tray 3 and remove the two thumbscrews securing the Left and Right Docking Brackets to the High Capacity Feeder frame, then remove the brackets.

Warning *The following step requires the printer to be lifted. The printer is very heavy and requires two people to lift it. Do not attempt to lift the printer by yourself.*

5. Lift the printer off of the High Capacity Feeder
6. Set the printer on a level and stable surface.

Replacement

1. Position the High Capacity Feeder and lock the two front casters.
2. Remove Tray 2 from the base printer.

Warning *The following step requires the printer to be lifted. The printer is very heavy and requires two people to lift it. Do not attempt to lift the printer by yourself.*

3. Lift the printer and position it a few inches above the base printer.
4. Align the three positioning holes in the bottom of the base printer with the three metal position posts in the top of the High Capacity Feeder.
5. Slowly lower the printer onto the High Capacity Feeder.
6. Open Tray 3.
7. Reinstall the Left Docking Bracket between the High Capacity Feeder and the printer (as shown in the figure).
8. Use one thumbscrew to secure the Left Docking Bracket.
9. Reinstall the Right Docking Bracket between the High Capacity Feeder and the printer (as shown in the figure).
10. Use one thumbscrew to secure the Right Docking Bracket.
11. Close Tray 3.
12. Reinstall Tray 2.
13. Reconnect the High Capacity Feeder interface cable to P613 located at the rear of the base printer.

RRP 2-2High Capacity Feeder Rear Cover (PL 12.1)

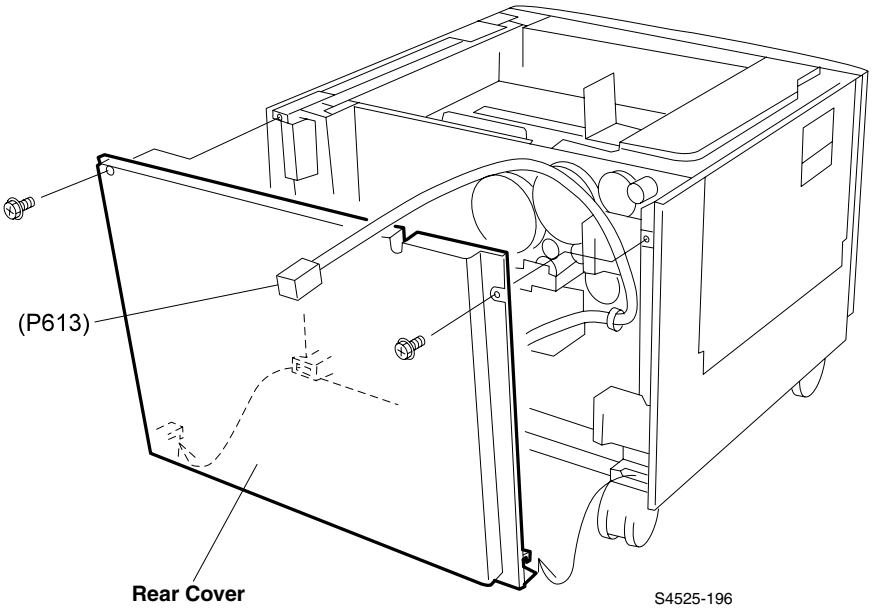


Fig 2-7 High Capacity Feeder Rear Cover

Removal

1. Remove the two machine screws securing the Rear Cover to the High Capacity Feeder frame.
2. Pull up on the Rear cover and remove it from the frame.

Replacement

1. Slip the two tabs that are located at the bottom of the Rear Cover into the openings at the bottom of the High Capacity Feeder frame.
2. Slide the edges the Rear Cover into the groves in the Left and Right Covers.
3. Use two machine screws to secure the Rear Cover to the High Capacity Feeder frame.

RRP 2-3High Capacity Feeder Left Cover (PL 12.1)

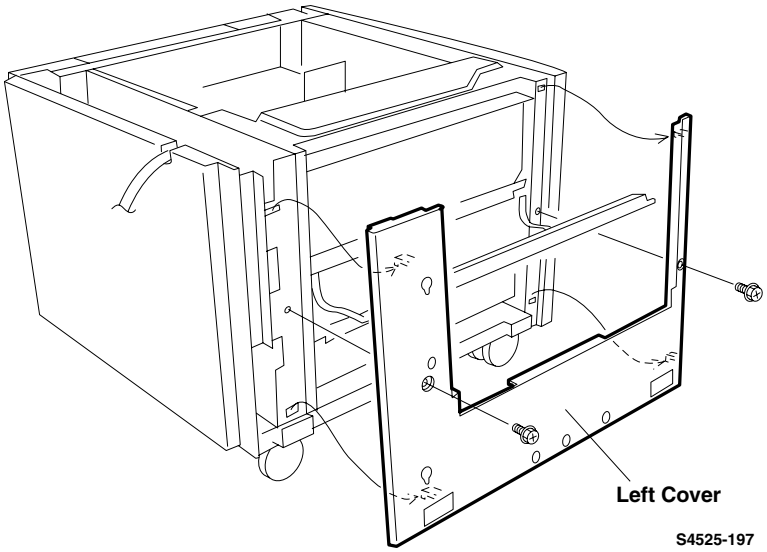


Fig 2-8 High Capacity Feeder Left Cover

Removal

1. Slide Trays 3 and 4 a few inches out of the High Capacity Feeder.
2. Open the Left Door C.
3. Remove two machine screws securing the Left Cover to the High Capacity Feeder frame.
4. Lift up the Left Cover to free the four latching tabs from the High Capacity Feeder frame, and remove the Cover.

Replacement

1. Slide Trays 3, 4, and 5 a few inches out of the High Capacity Feeder.
2. Open the Left Door C.
3. Align the Left Cover so the four latches tabs on the back of the Cover are opposite the four openings in the High Capacity Feeder Frame.
4. Press the Cover into the frame, then push down on the Cover to lock the tabs in place.
5. Use two machine screws to secure the Left Cover to the High Capacity Feeder frame.
6. Close Left Door C.

RRP 2-4Door C Assembly (PL 12.11)

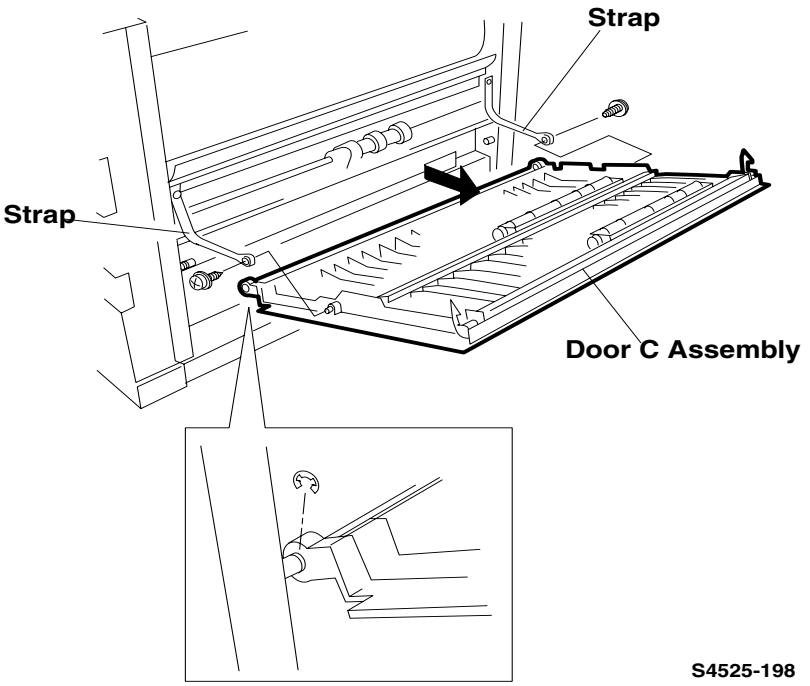


Fig 2-9 Door C Assembly

Removal

1. Open Left Door C.
2. Remove the two screws securing Left Door C to the Straps.
3. Remove the E-ring from the rear of the Cover Assembly shaft.
4. Slide Door C Assembly to the rear until the front of the Assembly clears the front shaft, and remove the Assembly.

RRP 2-5Right Cover (PL 12.1)

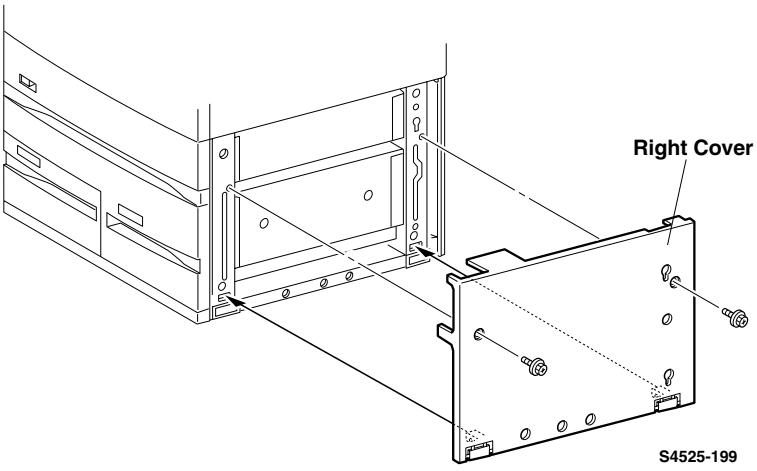


Fig 2-10 Right Cover

Removal

1. Remove the two machine screws securing the Right Cover to the High Capacity Feeder frame.
2. Lift up the Right Cover to free the two latching tabs from the High Capacity Feeder frame, and remove the Cover.

Replacement

1. Hook the two latching tabs that are located at the bottom edge of the Right Cover into the openings at the bottom of the High Capacity Feeder frame.
2. Press the Right Cover against the frame.
3. Use two machine screws to secure the Right Cover to the High Capacity Feeder.

RRP 2-6Bottom Front Cover (PL 12.1)

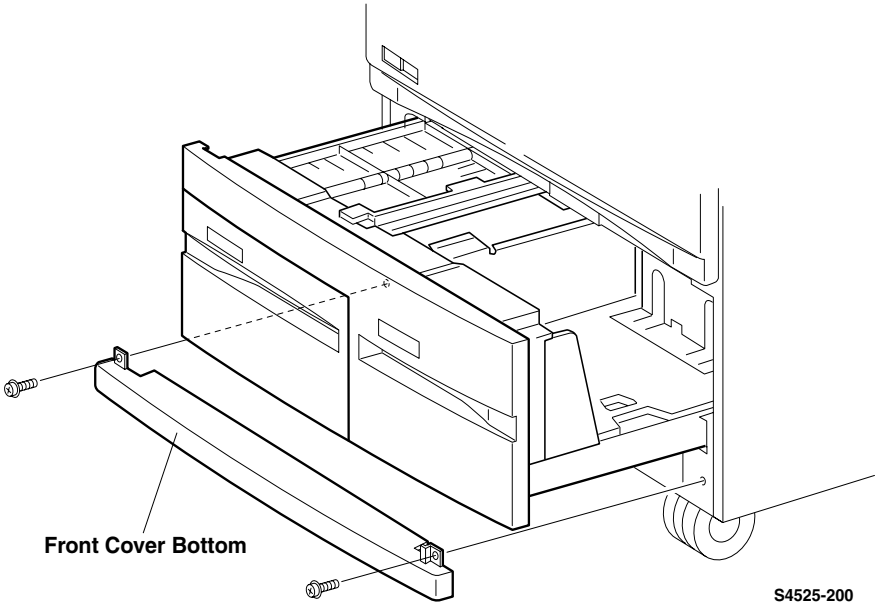


Fig 2-11 Bottom Front Cover

Removal

1. Slide Trays 4 and 5 out of the High Capacity Feeder far enough so you can access the two screws securing the Bottom Front Cover to the High Capacity Feeder frame.
2. Remove the two screws securing the Bottom Front Cover to the High Capacity Feeder frame, and remove the Cover.

Replacement

1. Slide Trays 4 and 5 out of the High Capacity Feeder far enough so you can access the two screw holes located on both ends of the Bottom Front Cover.
2. Reinstall the Bottom Front Cover onto the High Capacity Feeder frame.
3. Use two screws to secure the Cover to the frame.
4. Close Trays 4 and 5.

RRP 2-7High Capacity Feeder Feed Motor (PL 12.2)

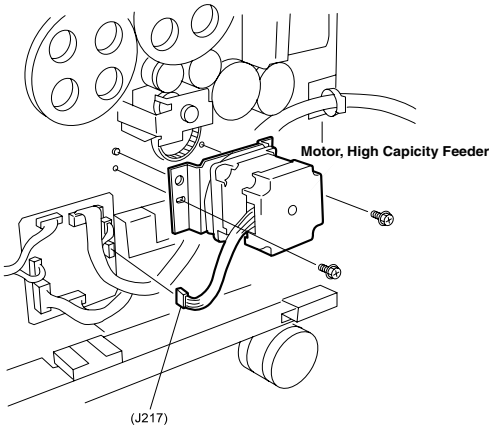


Figure 1

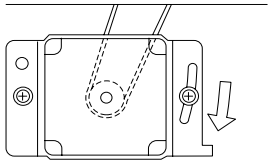


Figure 2

S4525-201

Fig 2-12 High Capacity Feeder Feed Motor

Removal

1. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
2. Disconnect P/J217 from the High Capacity Feeder Board.
3. Hold on to the rear of the Feed Motor while you remove the two screws securing the Motor Bracket to the frame (Figure 1).
4. Slide the Feed Motor out of the High Capacity Feeder Drive Belt and remove the Motor from the frame.

Replacement

1. Position the Feed Motor so the wire harness is on the left side of the Motor (Figure 1).
2. Reinstall the Motor and slip the Drive Belt over the Feed Motor Gear.
3. Align the Motor Bracket with the frame positioning tabs.
4. Use two screws to secure the Motor Bracket to the frame, but do not tighten fully.
5. Tighten the Drive Belt tension by pushing the Motor Bracket in the direction of the arrow (see illustration) and fully tightening the two screws securing the Bracket to the frame (Figure 2).
6. Reconnect P/J217 to the High Capacity Feeder Board.
7. Reinstall the Rear Cover (RRP 2-2).

RRP 2-8High Capacity Feeder Drive Belt (PL 12.2)

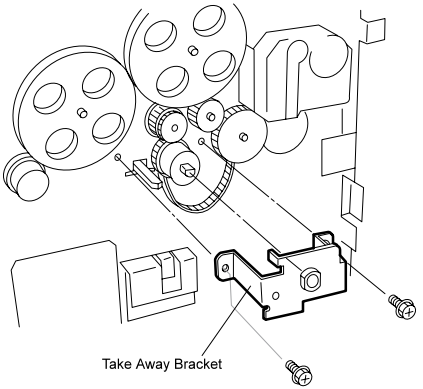


Figure 1

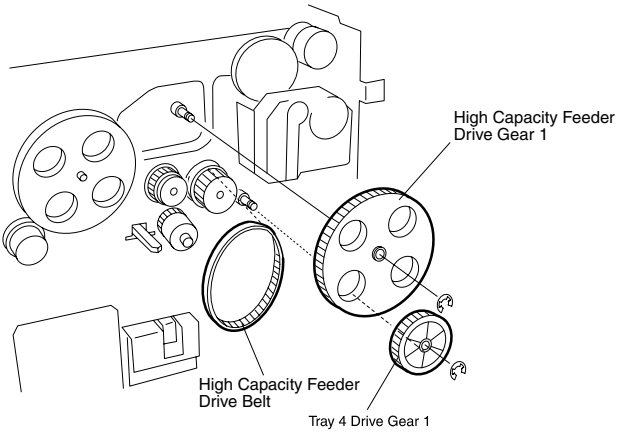


Figure 2 S4525-202

Fig 2-13 High Capacity Feeder Drive Belt

Removal

1. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
2. Remove the High Capacity Feeder Feed Motor (RRP 2-7).
3. Remove two screws securing the Take Away Bracket to the frame and remove the Bracket (Figure 1).
4. Remove the E-ring securing High Capacity Feeder Drive Gear 1 and the E-ring securing Tray 4 Drive Gear 1 and slide both Gears off of the shafts (Figure 2).
5. Remove the Drive Belt from the High Capacity Feeder Drive Pulley.

RRP 2-9High Capacity Feeder Board (PL 12.2)

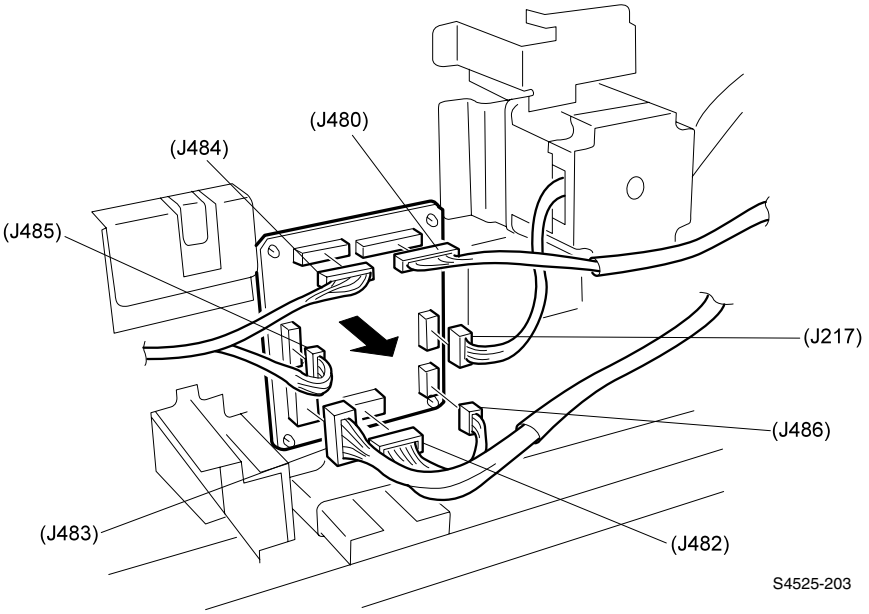


Fig 2-14 High Capacity Feeder Board

Removal

1. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
2. Disconnect all seven P/Js from the High Capacity Feeder Board.
3. Press in and release the latches on the four plastic standoffs securing the Board to the High Capacity Feeder frame, and remove the Board.

Replacement

1. Position the High Capacity Feeder Board so P/Js 484 and 480 are at the top.
2. Reinstall the High Capacity Feeder Board onto the High Capacity Feeder frame, and align the four holes in the Board with the four standoffs on the frame.
3. Press the Board onto the four standoffs until they latch into place.
4. Reconnect the seven P/Js to the High Capacity Feeder Board.
5. Reinstall the High Capacity Feeder Rear Cover (RRP 2-2).

RRP 2-10Lift Motor (PL 12.3)

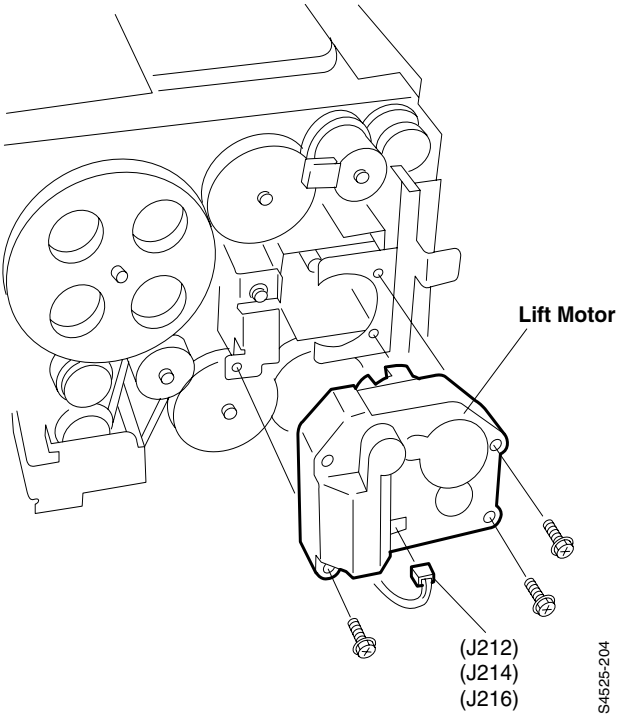


Fig 2-15 Lift Motor

Use this procedure for removal of Tray 3, Tray 4, and Tray 5 Lift Motors.

Removal

1. Remove the Paper Tray (3~5) from the Paper Feeder (3~5).
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Disconnect the P/J that is attached to the Lift Motor.
4. Remove the three long screws securing the Motor to the High Capacity Feeder frame.
5. Slide the Motor out to remove it.

Replacement

1. Remove the Paper Tray (3~5) from the Paper Feeder (3~5).
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Reinstall the Lift Motor onto the printer frame.
4. Use three long screws to secure the Motor to the frame.
5. Reconnect the P/J to the rear of the Motor.
6. Reinstall the High Capacity Feeder Rear Cover.
7. Reinstall the Paper Tray.

RRP 2-11Tray 3 Paper Size Sensor Board (PL 12.3)

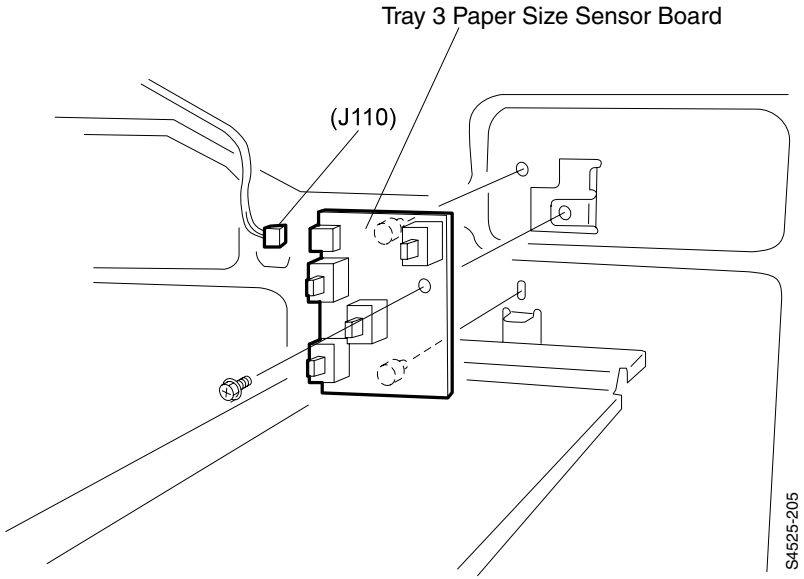


Fig 2-16 Tray 3 Paper Size Sensor Board

Removal

1. Slide Paper Tray 3 out of the High Capacity Feeder.
2. Disconnect the P/J110 from the Size Sensor Board.
3. Remove the screw securing the Tray 3 Paper Size Sensor Board to the High Capacity Feeder frame, then remove the Sensor.

Replacement

1. Slide Paper Tray 3 out of the High Capacity Feeder.
2. Reinstall the Tray 3 Paper Size Sensor Board onto the High Capacity Feeder frame.
3. Align the two positioning tabs on the Board with two holes in the frame.
4. Use one screw to secure the Board to the frame.
5. Reconnect the P/J110 to the Size Sensor Board.
6. Reinstall Paper Tray 3.

RRP 2-12Tray 4 and Tray 5 Paper Size Sensor (PL 12.3)

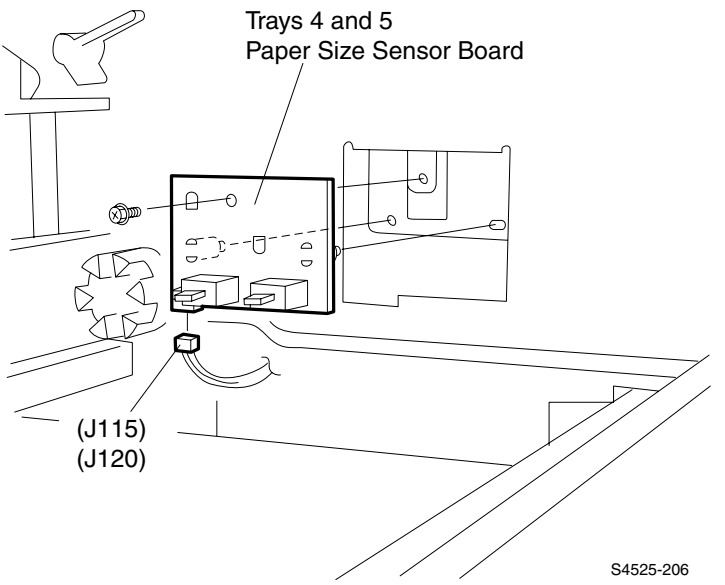


Fig 2-17 Tray 4 and Tray 5 Paper Size Sensor Boards

Removal

1. Remove Tray 4 and Paper Tray 5 from the High Capacity Feeder.
2. Disconnect the P/J from the Size Sensor Board.
3. Remove the screw securing the Size Sensor Board to the High Capacity Feeder frame, pull the Board straight out and remove it from the frame.

Replacement

1. Remove Paper Tray 4 and Paper Tray 5.
2. Reinstall the Paper Size Sensor Board onto the High Capacity Feeder frame.
3. Align the positioning tabs and screw holes.
4. Reconnect the P/J to the Size Sensor Board.
5. Use one screw to secure the Board to the frame.
6. Reinstall Paper Tray 4 and Paper Tray 5.

RRP 2-13Trays 3, 4, and 5 Feed Clutches (PL 12.5~PL 12.7~PL 12.9)

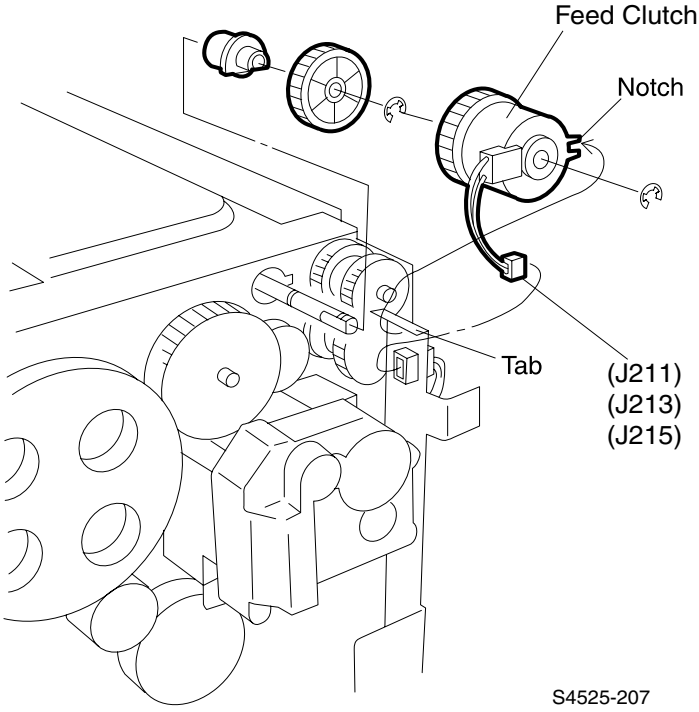


Fig 2-18 Trays 3, 4, and 5 Feed Clutches

Removal

1. Remove the Rear Cover.
2. Remove the Paper Tray associated with the Feed Clutch you are going to remove.
3. Disconnect the P/J from the Feed Clutch.
4. Remove the E-ring securing the Feed Clutch to the Feed Shaft and slide the Clutch off of the Shaft.

RRP 2-14Trays 3, 4, and 5 No Paper Actuators (PL 12.3~PL 12.4)

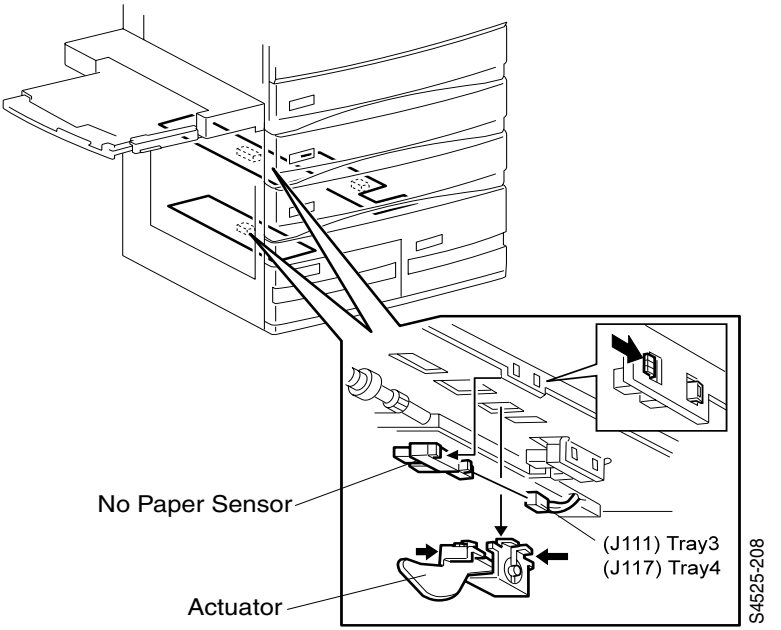


Fig 2-19 Trays 3, 4, and 5 No Paper Actuators

Use this procedure for removing and replacing the No Paper Actuator for Trays 3, 4 and 5.

Removal

1. Remove the Paper Tray associated with the No Paper Actuator you are going to remove.
2. Remove the No Paper Sensor (RRP 2-15) associated with the No Paper Actuator you are going to remove.
3. Squeeze together the sides of the Actuator Bracket and remove the Actuator Bracket from the High Capacity Feeder frame.
4. Press the Actuator out of the Bracket.

Replacement

1. Press the legs of the Actuator into the slots on the Bracket. The Actuator snaps in to place.
2. Reinstall the Bracket into the opening in the High Capacity Feeder frame by positioning the Bracket so the Actuator paddle faces the front of the printer.
3. Insert the left side of the Bracket into the opening, then squeeze together the sides of the Bracket while inserting the right side into the opening.
4. Release the Bracket and it should snap into place and secure the Bracket to the frame.
5. Reinstall the No Paper Sensor (RRP 2-15).
6. Reinstall the Paper Tray.

RRP 2-15Trays 3, 4, and 5 No Paper Sensors (PL 12.3~PL 12.4)

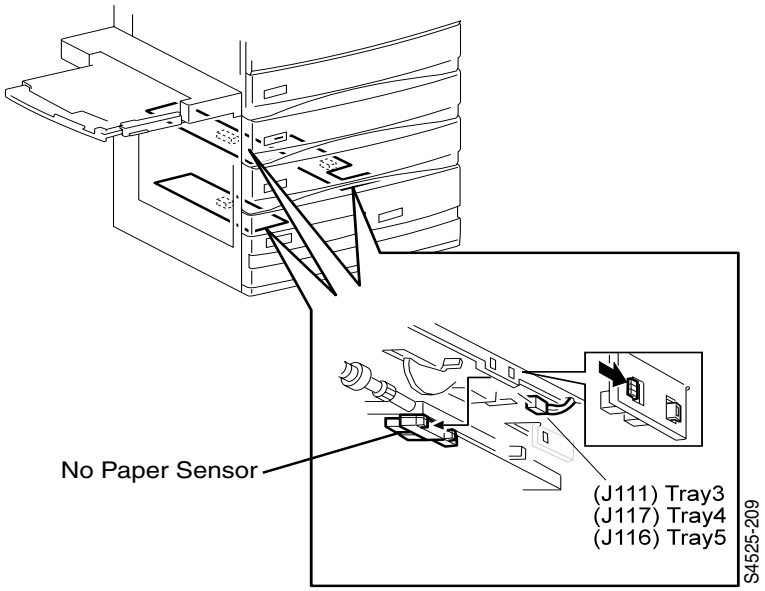


Fig 2-20 Trays 3, 4, and 5 No Paper Sensors

Use this procedure for removing and replacing the No Paper Sensors for Trays 3, 4, and 5.

Removal

1. Remove the Paper Tray associated with the No Paper Sensor you are going to remove.
2. Squeeze the Sensor latches and remove the No Paper Sensor from the frame.
3. Disconnect the P/J from the Sensor.

Replacement

1. Reconnect the P/J to the Sensor.
2. Push the No Paper Actuator up and out of the way.
3. Position the Sensor with the arms of the Sensor facing the Actuator.
4. Reinstall the No Paper Sensor into the slot in the frame by first inserting the front latch of the Sensor through the front opening in the frame.
5. Press in on the rear latch and inserting it into the rear opening.
6. Release the rear latch and the Sensor snaps into place.
7. Release the Actuator and make sure it moves freely between the arms of the Sensor.
8. Reconnect the P/J to the Sensor.
9. Reinstall the Paper Tray.

RRP 2-16Trays 3, 4, and 5 Paper Level Sensors (PL 12.3~PL 12.4)

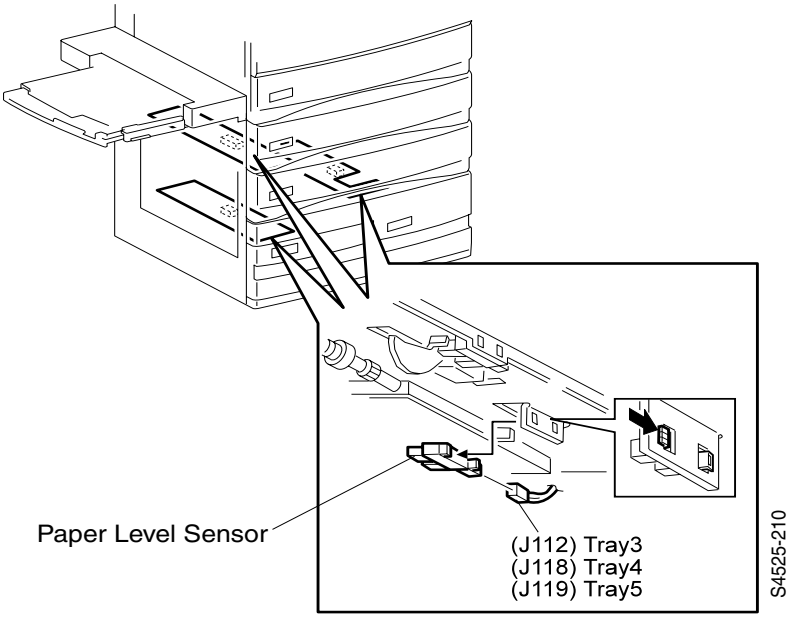


Fig 2-21 Trays 3, 4, and 5 Paper Level Sensors

Use this procedure for removing and replacing the Paper Level Sensors for Trays 3, 4, and 5.

Removal

1. Remove the Paper Tray associated with the Paper Level Sensor you are going to remove.
2. Squeeze the Sensor latches and remove the Paper Level Sensor from the frame.
3. Disconnect the P/J from the Sensor.

Replacement

1. Reconnect the P/J to the Sensor.
2. Position the Sensor with the arms of the Sensor facing the Feed Assembly Actuator.
3. Reinstall the Paper Level Sensor into the slot in the frame by first inserting the front latch of the Sensor through the front opening in the frame.
4. Press in on the rear latch and inserting it into the rear opening.
5. Release the rear latch and the Sensor snaps into place.
6. Release the Actuator and make sure it moves freely between the arms of the Sensor.
7. Reconnect the P/J to the Sensor.
8. Reinstall the Paper Tray.

RRP 2-17Left Door C Interlock Switch (PL 12.11)

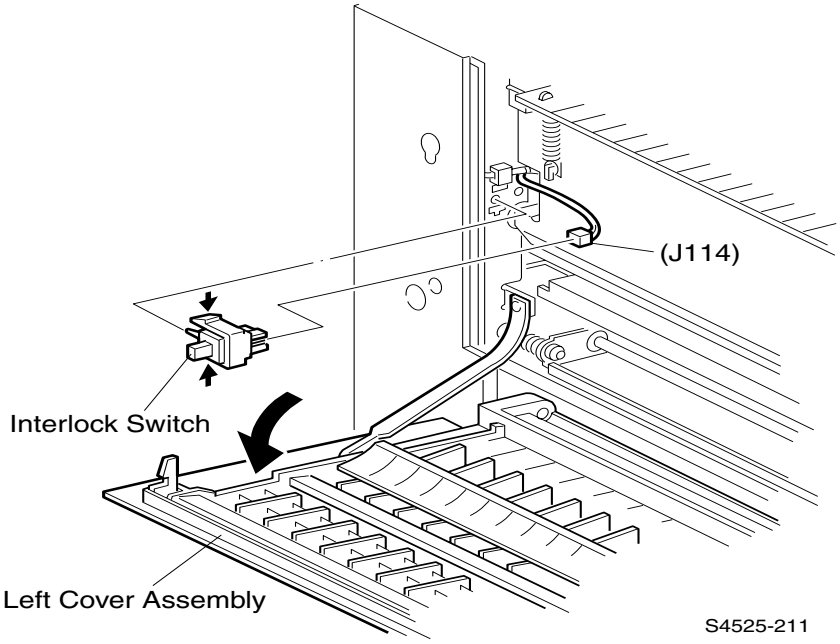


Fig 2-22 Left Door C Interlock Switch

Removal

1. Open the Left Door C Assembly.
2. Squeeze together the top and bottom of the Interlock Switch to release the Switch latches, and pull the Switch away from the High Capacity Feeder frame.
3. Disconnect P/J114 from the Switch.

Replacement

1. Reconnect P/J114 to the Left Door C Interlock Switch.
2. Squeeze together the top and bottom of the Switch while inserting the bottom of the Switch into the opening in the frame.
3. Insert the top of the Switch into the opening.
   The Switch snaps into place.
4. Close the Left Door C Assembly.

RRP 2-18Tray 4 Take Away Sensor (PL 12.11)

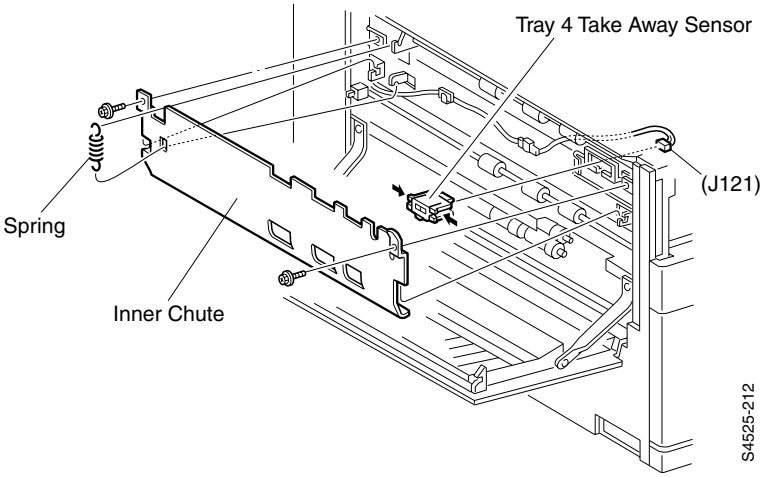


Fig 2-23 Tray 4 Take Away Sensor

Removal

1. Open the Left Door C Assembly.
2. Remove the Spring that is located on the left side of the Inner Chute.
3. Remove the two screws securing the Inner Chute to the High Capacity Feeder frame, and remove the Inner Chute.
4. Squeeze the four latches that are located at the four corners of the Sensor, while pulling the Sensor forward.
5. Remove the Sensor from the High Capacity Feeder frame.
6. Disconnect P/J121 from the Sensor.

Replacement

1. Reconnect P/J121 to the Sensor.
2. Position the Sensor with the positioning tab facing down.
3. Insert the Sensor into the opening in the High Capacity Feeder frame.
4. Press the Sensor into the opening unit it snaps into place.
5. Reinstall the Inner Chute onto the High Capacity Feeder frame.
6. Use two screws to secure the Inner Chute.
7. Reinstall the Spring to the left side of the Inner Chute.
8. Close the Left Door C Assembly.

RRP 2-19Tray 3 Feeder Assembly (PL 12.5)

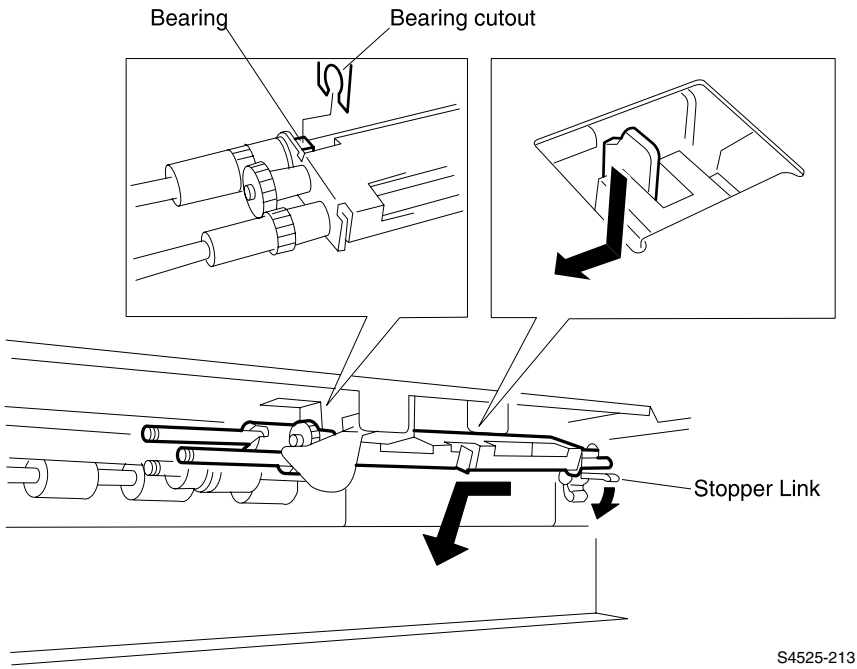
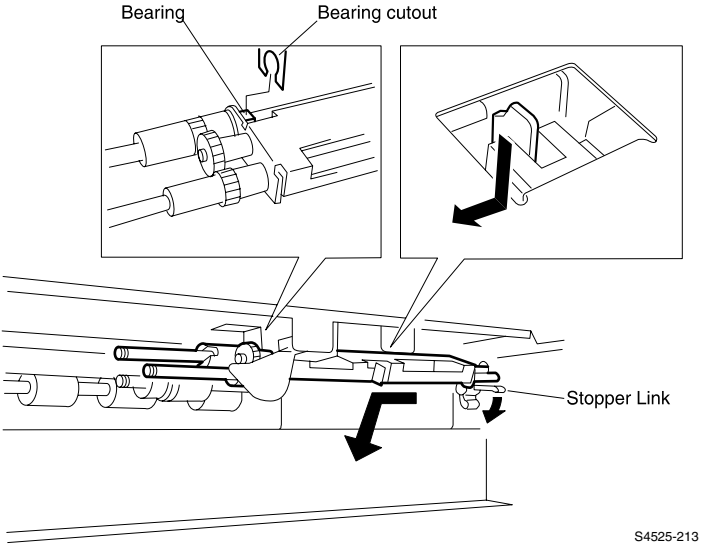


Fig 2-24 Tray 3 Feeder Assembly

Caution *Take care not to break or dislodge the No Paper Actuator when removing or replacing the Tray 3 Feeder Assembly.*

Removal

1. Remove Tray 3 from the High Capacity Feeder.
2. Remove the Rear Cover (RRP 2-2).
3. Open the Left Door C Assembly.
4. Remove the Spring that is located on the left side of the Inner Chute.
5. Remove the two screws securing the Inner Chute to the High Capacity Feeder frame, and remove the Inner Chute.
6. Remove the screw securing the Feed In Chute to the High Capacity Feeder frame.
7. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute to the front of the High Capacity Feeder.
8. Push the Chute back and remove it from the frame.
9. Remove Tray 3 Feed Clutch (RRP 2-13).
10. Remove the E-ring that is securing the Feed Gear (located behind the Feed Clutch) to the shaft, and remove the Feed Gear and Bearing.
11. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the High Capacity Feeder frame.
12. Remove the Feeder Assembly from Feeder 3.



Replacement

1. Hold down the Stopper Link while you insert the end of the Feed Shaft into the opening in the rear of the High Capacity Feeder frame.
2. Slide the Bearing into the Bearing cutout (refer to the figure).
3. When both the Bearing is in place and the end of the Feed Shaft is through the opening in the rear of the frame, release the Stopper Link.
   The Pick Shaft should rest on top of the Stopper Link, and the Link should secure the Feeder Assembly in place on the frame.
4. Make sure the Paper Level Actuator tab on the Feeder is positioned in the center of the arms of the Paper Level Sensor.
5. Slide the Feed Bearing onto the Feed Shaft and press the Bearing into the cutout in the frame.
6. Reinstall the Feed Gear onto the Feed Shaft, and use an E-ring to secure it to the Shaft.
7. Reinstall Tray 3 Feed Clutch (RRP 2-13).
8. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute under the Retard Assembly and against the High Capacity Feeder frame.
9. Slide the Chute to the rear of the High Capacity Feeder so the rear of the Chute hooks on to the frame, and the screw hole at the front of the Chute aligns with the screw hole in the High Capacity Feeder frame.
10. Use one screw to secure the Feed In Chute to the High Capacity Feeder frame.
11. Reinstall the Inner Chute onto the High Capacity Feeder frame.
12. Use two screws to secure the Inner Chute.
13. Reinstall the Spring to the left side of the Inner Chute.
14. Reinstall the Rear Cover (RRP 2-2).
15. Reinstall Tray 3.

RRP 2-20Tray 3 Retard Assembly (PL 12.6)

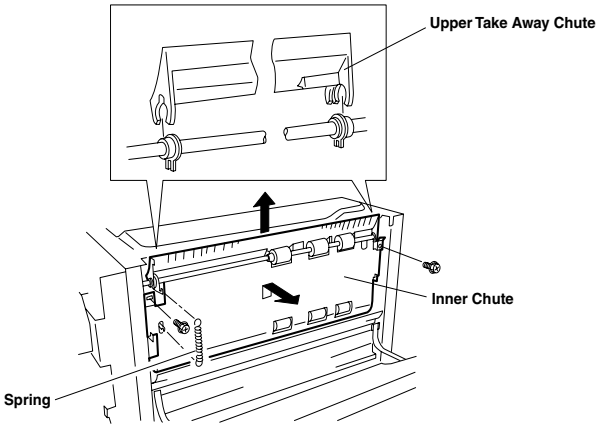


Figure 1

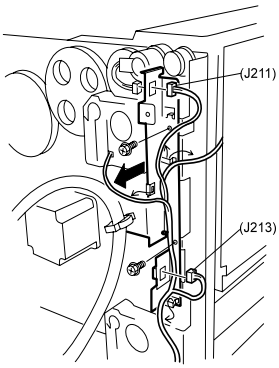


Figure 2

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Fig 2-25 Tray 3 Retard Assembly

Removal

1. Remove Tray 3 from the High Capacity Feeder.
2. Remove the Rear Cover (RRP 2-2).
3. Remove the High Capacity Feeder Left Door C (RRP 2-3)
4. Open the Left Door C Assembly.
5. Remove the Spring that is located on the left side of the Inner Chute (Figure 1).
6. Remove the two screws securing the Inner Chute to the High Capacity Feeder frame, and remove the Inner Chute.
7. Carefully pull the plastic Upper Take Away Chute off of the Bearings, and remove the Chute.
8. Remove the screw securing the Feed In Chute (PL12.6.16) to the High Capacity Feeder frame.
9. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute to the front of the High Capacity Feeder.

Note *Sliding the Feed In Chute to the front unhooks the Chute from the High Capacity Feeder frame.*

10. Push the Chute back and remove it from the frame.
11. Disconnect P/J211 from Tray 3 Feed Clutch.
12. Disconnect J211 and J213 from the Bracket (PL 12.4.8) (Figure 2), and free the wire harness from the harness clips.
13. Remove the two screws securing the Bracket to the High Capacity Feeder frame, and remove the Bracket.
14. Remove Tray 3 Feed Clutch (RRP 2-13).
15. Remove the E-ring securing the Drive Transmission Gear to the shaft and remove the Gear.
16. Remove the E-ring securing the Take Away Gear to the shaft and remove the Gear.
17. Remove the E-ring securing the Fixed Gear to the shaft and remove the Gear.
18. Slide the Retard Gear off of the shaft.
19. Slide the Take Away Bearing off of the shaft.
20. Slide the Retard Assembly to the front of the High Capacity Feeder, then swing the rear of the Assembly out of the High Capacity Feeder (Figure 3).

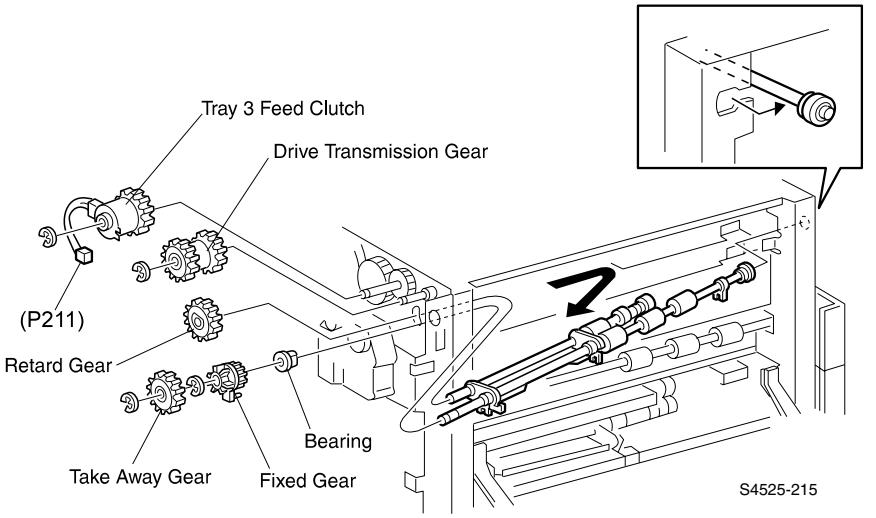

Fig 2-26 Tray 3 (cont'd)

Replacement

1. Insert the Retard Assembly into the High Capacity Feeder as shown in the figure.
2. Insert the bearing end of the Shaft into the bearing cutout at the front of the High Capacity Feeder frame.
3. Slide the Shaft far enough to the front so you can insert the rear of the Shaft into the cutout in at the rear of the High Capacity Feeder frame.
4. Slide the Shaft to the rear, and seat the Bearing at the front of the shaft into the bearing cutout at the front of the High Capacity Feeder frame (Figure 3).
5. Slide the Take Away Bearing onto the shaft (Figure 3).
6. Reinstall the Retard Gear.
7. Reinstall the Fixed Gear and use an E-ring to secure it to the shaft.
8. Reinstall the Take Away Gear and use an E-ring to secure it to the shaft.
9. Reinstall the Drive Transmission Gear and use an E-ring to secure it to the shaft.
10. Reinstall the Bracket to the High Capacity Feeder frame, and use two screws to secure it.
11. Reinstall the Tray 3 Feed Clutch (RRP 10.13).
12. Reconnect J211 and J213 to the Bracket, and route the wire harness through the harness clips.
13. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute under the Retard Assembly and against the High Capacity Feeder frame.
14. Slide the Chute to the rear of the High Capacity Feeder so the rear of the Chute hooks on to the frame, and the screw hole at the front of the Chute aligns with the screw hole in the High Capacity Feeder frame.
15. Use one screw to secure the Feed In Chute to the High Capacity Feeder frame.
16. Reinstall the plastic Upper Take Away Chute onto the three bearings on the Take Away Roller (Figure 1).
17. Reinstall the Inner Chute onto the High Capacity Feeder frame.
18. Use two screws to secure the Inner Chute.
19. Reinstall the Spring to the left side of the Inner Chute.
20. Reinstall the High Capacity Feeder Left Door C (RRP 2-3).
21. Reinstall the Rear Cover (RRP 2-2).
22. Reinstall Tray 3.

RRP 2-21Tray 3 Pick, Feeder, and Retard Rollers (PL 12.5~PL 12.6)

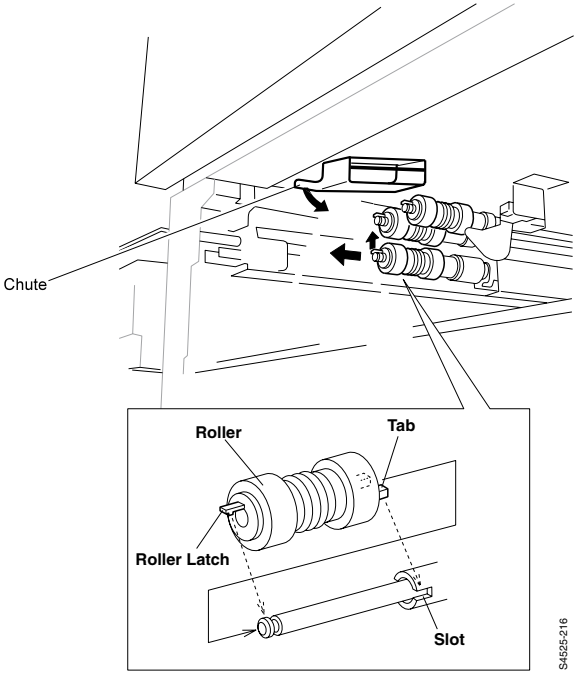

Fig 2-27 Tray 3 Pick, Feeder, and Retard Rollers

Note *Replace the Feed, Pick and Retard Rollers as a unit.*

Removal

1. Remove Tray 3.
2. Swing the Chute down so it clears the Rollers.
3. Pull out on the Retard Roller latch and slide the Retard Roller off of the shaft.
4. Repeat step 3 for the Pick and Feed Rollers.

Replacement

1. Swing the Chute down so it clears the Rollers.
2. Position the Roller with the latch end facing out, and slide the Roller onto the Feed shaft.
3. Rotate the Roller so the end tabs line up with the slots on the shaft One-Way Clutch (PL12.5.7) and push the Roller down the shaft until the latch locks the Roller into place.
4. Repeat steps 2 and 3 for the Pick and Retard Rollers.
5. Reinstall Tray 3.

RRP 2-22High Capacity Feeder Tray 4 (PL 13.1)

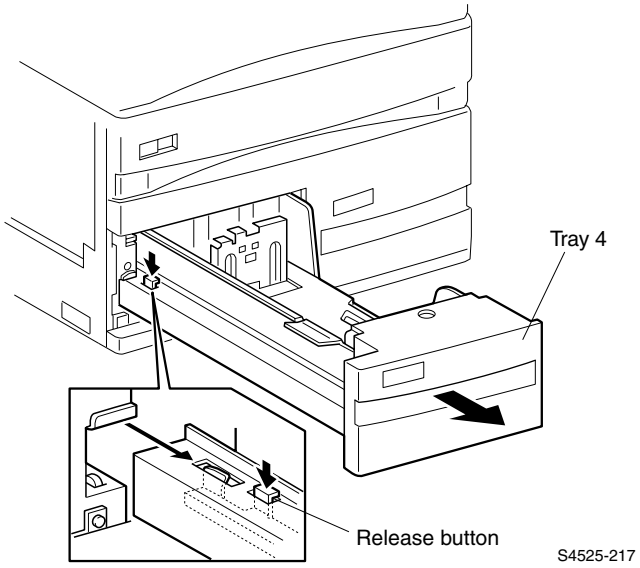

Fig 2-28 High Capacity Feeder Tray 4

Removal

1. Pull Tray 4 out until it stops.
2. Press and hold the tray release button while you slide Tray 4 out of the High Capacity Feeder.

Replacement

1. Align the guide rails on both sides of Tray 4 with the guide rails on the High Capacity Feeder frame.
2. Push Tray 4 all the way into the High Capacity Feeder.

RRP 2-23Tray 4 Front Cover (PL 13.1)

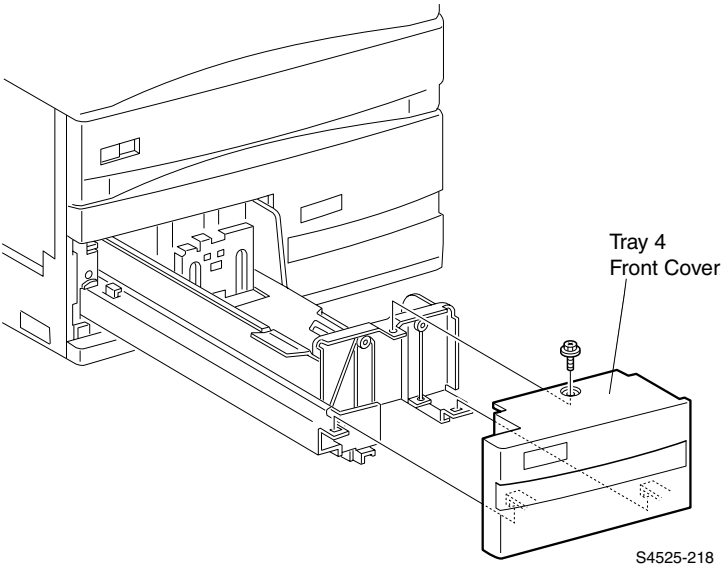

Fig 2-29 Tray 4 Front Cover

Removal

1. Slide Tray 4 a few inches out of the High Capacity Feeder.
2. Remove the screw securing the Tray 4 Front Cover to the Tray frame.
3. Lift up and out to remove the Front Cover.

Replacement

1. Insert the two latches located on the inside of the Front Cover into the two slots in the Tray frame.
2. Press the Cover against the frame.
3. Use one screw to secure the Cover to the frame.
4. Slide Tray 4 back into the High Capacity Feeder.

RRP 2-24Tray 5 Take Away Sensor (PL 12.4)

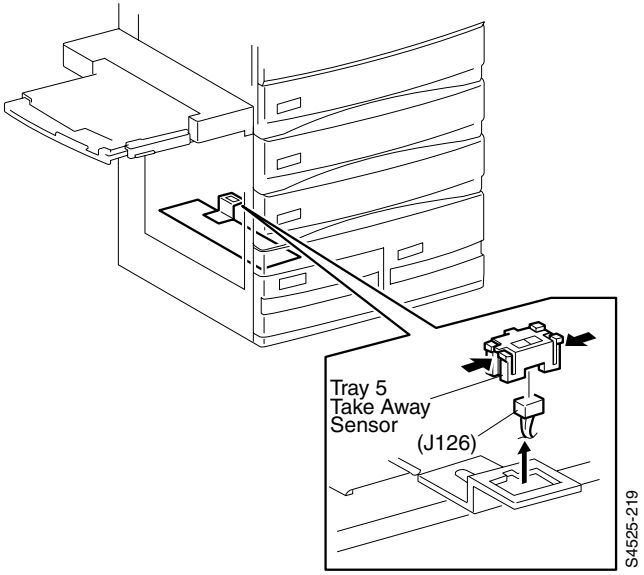

Fig 2-30 Tray 5 Take Away Sensor

Removal

1. Remove Tray 3, Tray 4 and Tray 5 from the High Capacity Feeder.
2. Squeeze together the four latches that are located at the four corners of the Tray 5 Take Away Sensor, while pulling the Sensor up and out of the cutout in the High Capacity Feeder frame.
3. Disconnect P/J126 from the Sensor.

RRP 2-25Tray 4 Take Away Roller (PL 12.8)

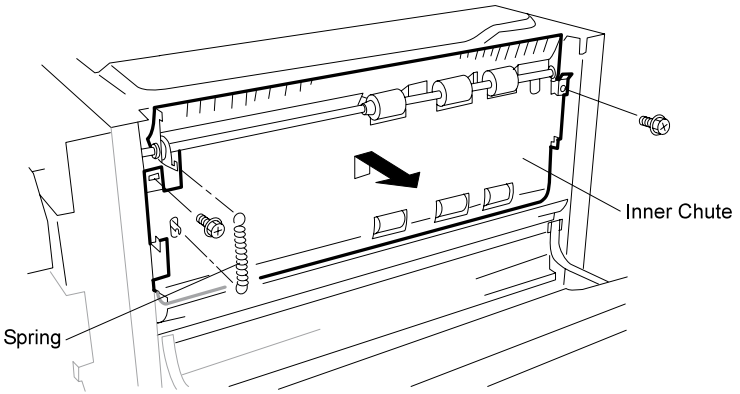

Figure 1

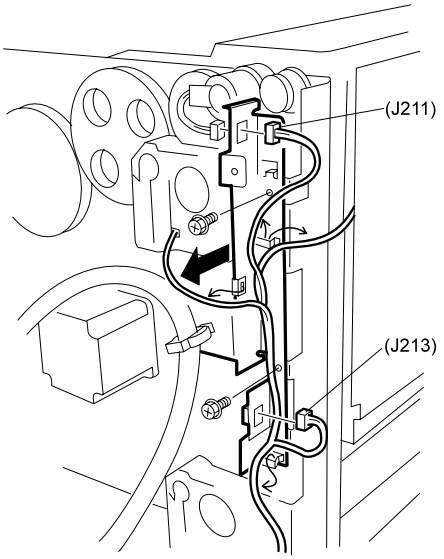

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Figure 2

Fig 2-31 Tray 4 Take Away Roller

Removal

1. Slide out Tray 5.
2. Remove the Rear Cover (RRP 2-2).
3. Remove the High Capacity Feeder Left Cover (RRP 2-3)
4. Open the Left Door C Assembly.
5. Remove the Spring that is located on the left side of the Inner Chute (Figure 1).
6. Remove the two screws securing the Inner Chute to the High Capacity Feeder frame, and remove the Inner Chute.
7. Disconnect P/J211 from Tray 3 Feed Clutch.
8. Disconnect J211 and J213 from the Bracket (PL 12.4.8) (Figure 2), and free the wire harness from the harness clips.
9. Remove the two screws securing the Bracket to the High Capacity Feeder frame, and remove the Bracket.
10. Remove the E-ring securing Gear 22T to the Take Away Roller shaft (Figure 3)z
11. Hold on to Gear 22T as you slide Tray 4 Take Away Roller toward the front of the High Capacity Feeder.
12. Remove Gear 22T and the Bearing.
13. Remove Tray 4 Take Away Roller.

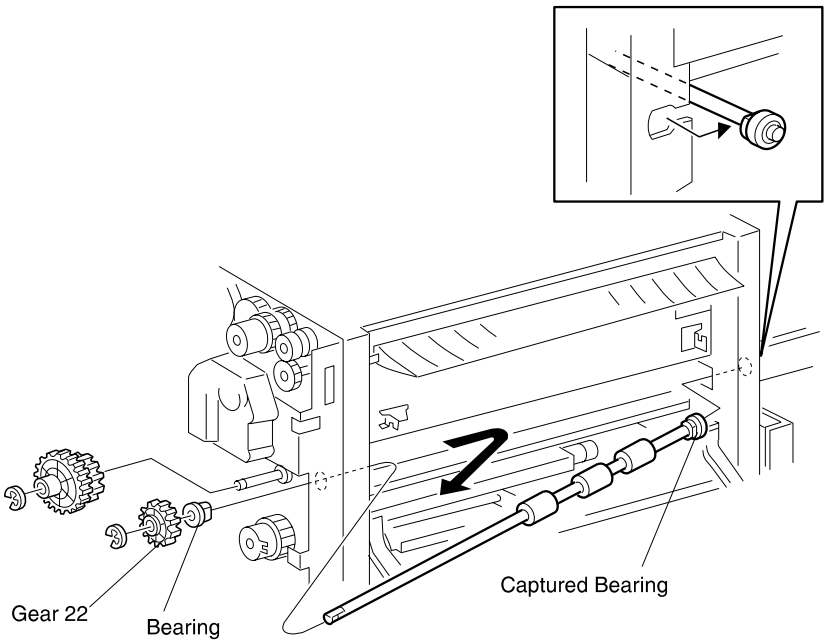

Figure 3

Fig 2-32 Tray 4 (cont'd)

RRP 2-26Tray 4 Feeder Assembly (PL 12.7)

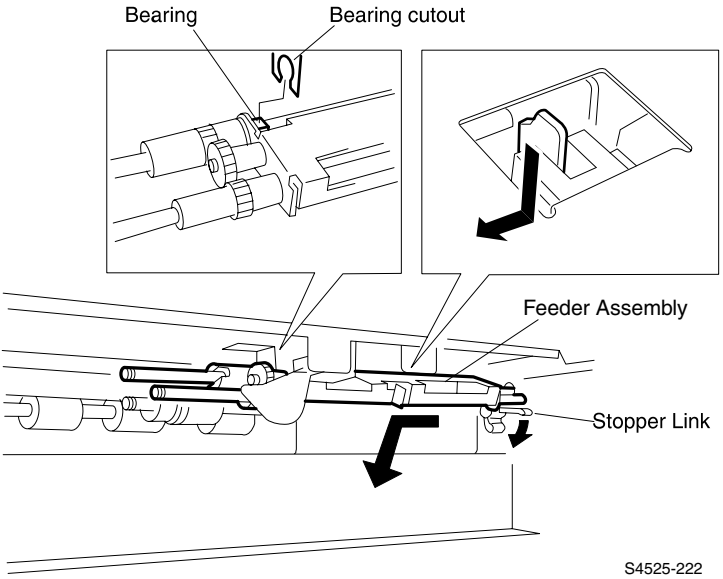

Fig 2-33 Tray 4 Feeder Assembly

Removal

1. Remove Tray 4 from the High Capacity Feeder (RRP 2-22).
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Open the Left Door C Assembly.
4. Remove Tray 4 Feed Clutch (RRP 2-13).
5. Remove the E-ring securing the Feed Shaft Bearing to the High Capacity Feeder frame, and slide the Bearing off of the shaft.
6. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the High Capacity Feeder frame.
7. Remove the Feeder Assembly from Feeder 4.

RRP 2-27Tray 4 Retard Assembly (PL 12.8)

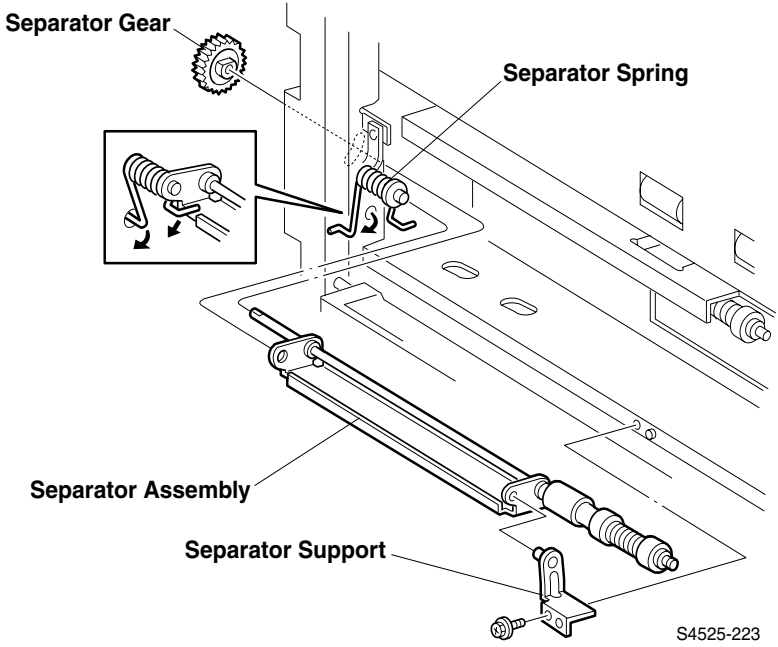

Fig 2-34 Tray 4 Retard Assembly

Removal

1. Remove Tray 4 from the High Capacity Feeder (RRP 2-22).
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Open the Left Door C Assembly.
4. Remove the screw securing the Left Door C Left Strap to the High Capacity Feeder frame, and move the Strap out of the way.
5. Unhook one arm of the Retard Spring from the hole in the High Capacity Feeder frame, and release the Spring.
6. Unhook the other arm of the Retard Spring from the Retard Assembly.
7. Remove the screw securing the Retard Support to the High Capacity Feeder frame, and remove the Support.
8. Hold on to the Retard Gear while you slide the Assembly off of the Spring shaft and out of the High Capacity Feeder.

RRP 2-28Tray 4 Feed, Pick and Retard Rollers (PL 12.7~PL 12.8)

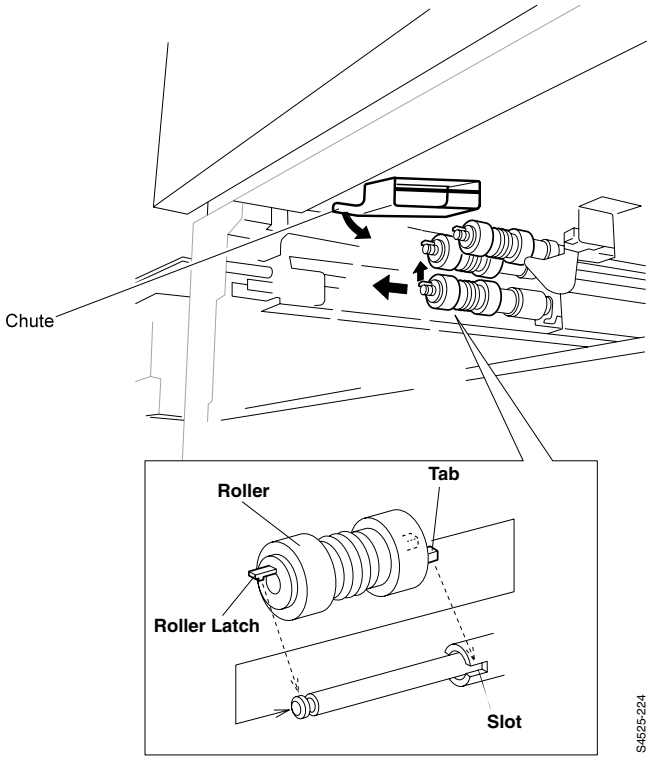

Fig 2-35 Tray 4 Feed, Pick and Retard Rollers

Note *Replace the Feed, Pick and Retard Rollers as a unit.*

Removal

1. Remove the Tray 4.
2. Swing the Chute down so it clears the Rollers.
3. Pull out on the Retard Roller latch and slide the Retard Roller off of the shaft.
4. Repeat step 3 for the Pick and Feed Rollers.

Replacement

1. Swing the Chute down so it clears the Rollers.
2. Position the Roller with the latch end facing out, and slide the Roller onto the Feed shaft.
3. Rotate the Roller so the end tabs line up with the slots on the shaft One-Way Clutch (PL12.7.6) and push the Roller down the shaft until the latch locks the Roller into place.
4. Repeat steps 2 and 3 for the Pick and Retard Rollers.
5. Reinstall Tray 4.

RRP 2-29High Capacity Feeder Tray 5 (PL 13.2)

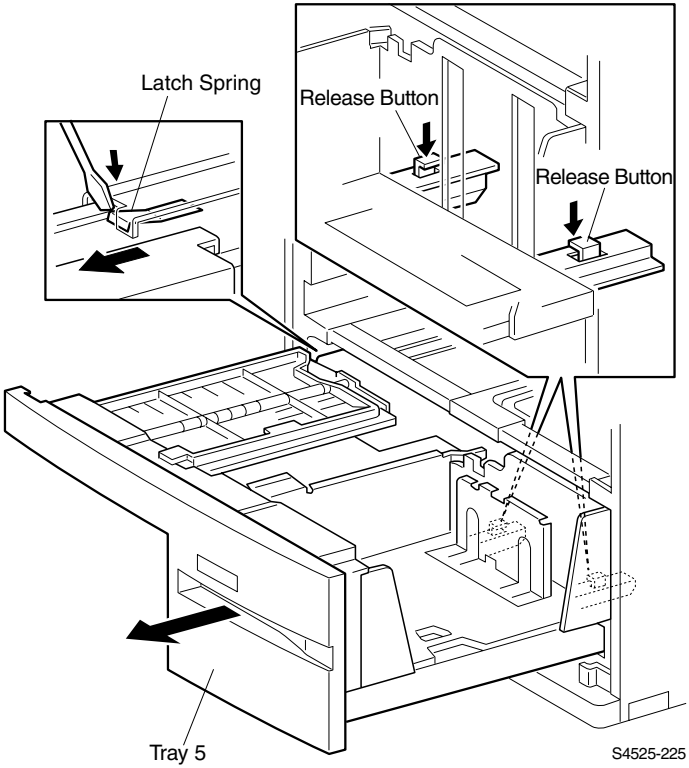

Fig 2-36 High Capacity Feeder Tray 5

Removal

1. Remove Tray 3.
2. Slide Tray 5 out unit it stops.
3. Use a flat screwdriver blade to press down on the latch spring that is located on the left Tray 5 guide rail, while you slide free the left side of the Tray.
4. Press and hold the two release buttons, that are located behind Tray 5, while you slide Tray 5 out of the High Capacity Feeder.

Replacement

1. Align the guide rails on both sides of Tray 5 with the guide rails on the High Capacity Feeder frame.
2. Push Tray 5 all the way into the High Capacity Feeder.
3. Reinstall Tray 3.

RRP 2-30Tray 5 Front Cover (PL 13.3)

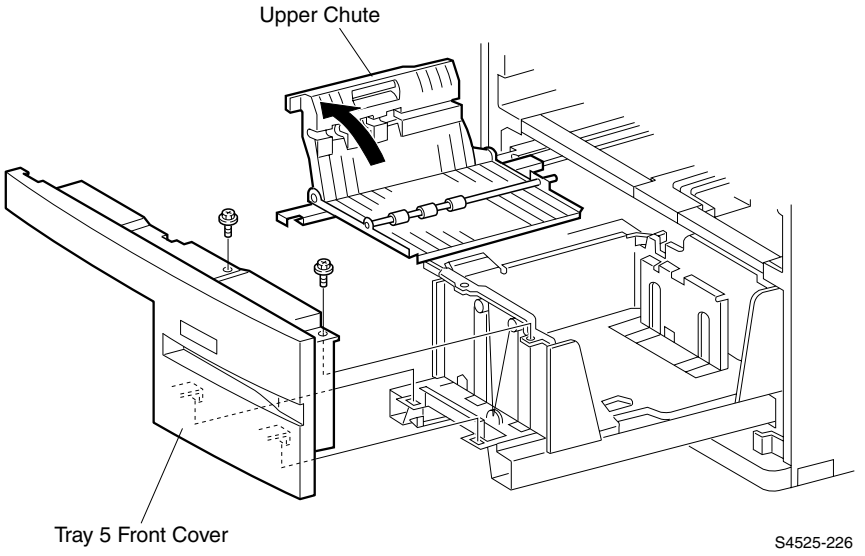

Fig 2-37 Tray 5 Front Cover

Removal

1. Slide Tray 5 out unit it stops.
2. Open Tray 5 Upper Chute.
3. Remove the two screws securing the Tray 5 Front Cover to the Tray frame.
4. Lift up and out to remove the Front Cover.

Replacement

1. Insert the two latches located on the inside bottom of the Front Cover into the two slots in the Tray frame.
2. Press the Cover against the frame.
3. Use two screws to secure the Cover to the frame.
4. Close Tray 5 Upper Chute.
5. Slide Tray 5 back into the High Capacity Feeder.

RRP 2-31Tray 5 Feeder Assembly (PL 12.9)

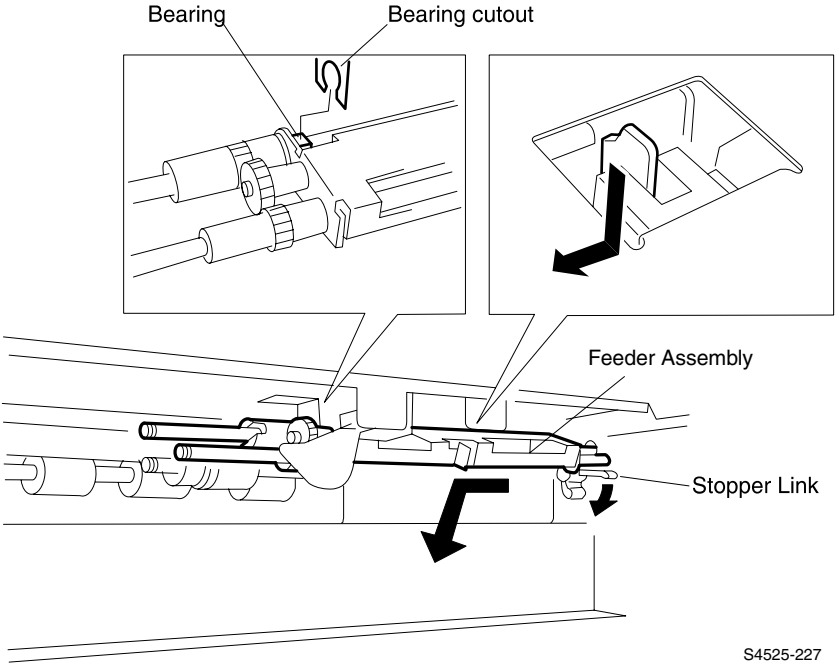

Fig 2-38 Tray 5 Feeder Assembly

Removal

1. Remove Tray 3 and Tray 5 from the High Capacity Feeder.
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Remove Tray 5 Feed Clutch (RRP 2-13).
4. Remove the E-ring securing the Feed Shaft Bearing to the High Capacity Feeder frame, and slide the Bearing off of the shaft.
5. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the High Capacity Feeder frame and remove from Feeder 5.

Replacement

1. Hold down the Stopper Link while you insert the end of the Feed Shaft into the opening in the rear of the High Capacity Feeder frame.
2. Slide the Bearing into the Bearing cutout (refer to the figure).
3. When both the Bearing is in place and the end of the Feed Shaft is through the opening in the rear of the frame, release the Stopper Link.
   The Pick Shaft should rest on top of the Stopper Link, and the Link should secure the Feeder Assembly in place on the frame.
4. Make sure the Paper Level Actuator tab on the Feeder is positioned in the center of the arms of the Paper Level Sensor.
5. Use and E-ring to secure the Bearing to the shaft.
6. Reinstall Tray 5 Feed Clutch (RRP 2-13).
7. Reinstall the Rear Cover (RRP 2-2).
8. Reinstall Tray 3 and Tray 5.

RRP 2-32Tray 5 Retard Assembly (PL 12.10)

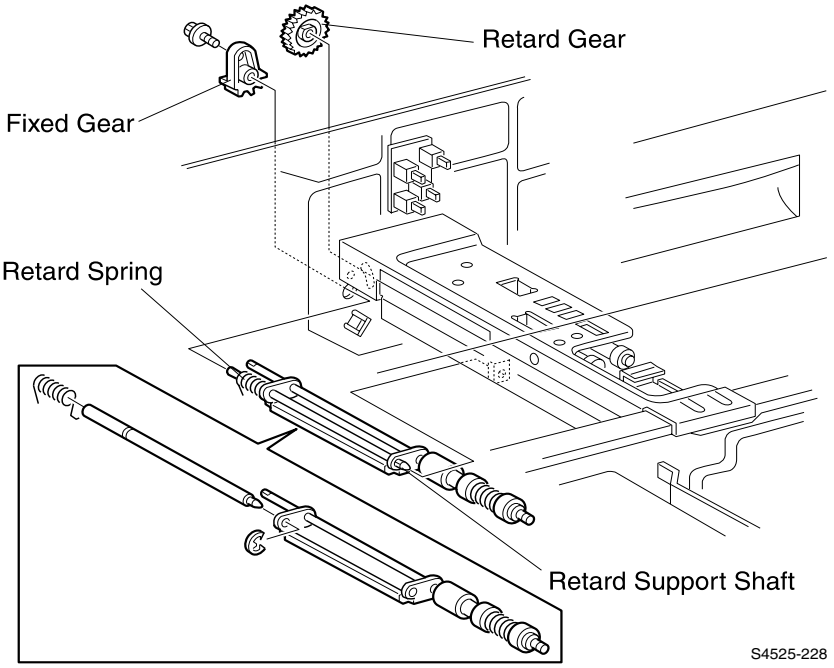

Fig 2-39 Tray 5 Retard Assembly

Removal

1. Remove Tray 3 and Tray 5 from the High Capacity Feeder.
2. Remove the High Capacity Feeder Rear Cover (RRP 2-2).
3. Remove the screw securing the Fixed Gear to the High Capacity Feeder frame, and remove the Gear.
4. Slide the Retard Gear off of the Retard Shaft.
5. Slide the Retard Assembly to the rear of the High Capacity Feeder in order to release the front of the Retard Support Shaft from the cutout in the High Capacity Feeder frame.
6. Slide the Retard Assembly to the front of the High Capacity Feeder, and remove the Assembly.

RRP 2-33Tray 5 Feed, Pick and Retard Rollers (PL 12.9~PL 12.10)

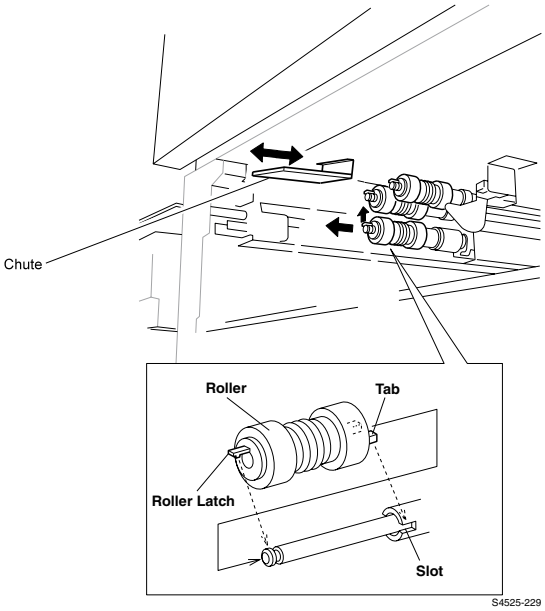

Fig 2-40 Tray 5 Feed, Pick and Retard Rollers

Note *Replace the Feed, Pick and Retard Rollers as a unit.*

Removal

1. Remove Tray 4 and slide out Tray 5.
2. Slide the Chute forward so it clears the Rollers.
3. Pull out on the Retard Roller latch and slide the Retard Roller off of the shaft.
4. Repeat step 3 for the Pick and Feed Rollers.

Replacement

1. Position the Roller with the latch end facing out, and slide the Roller onto the Feed shaft.
2. Rotate the Roller so the end tabs line up with the slots on the shaft One-Way Clutch (PL12.9.6) and push the Roller down the shaft until the latch locks the Roller into place.
3. Repeat steps 1 and 2 for the Pick and Retard Rollers.
4. Slide the Chute back into position.
5. Reinstall Tray 4.

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PL12 & PL13 High Capacity Feeder Parts List

Using the Parts List

1. The callout numbers shown in each parts exploded illustration correspond to the parts list numbers for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of Parts List 3.
3. The capital letters “C”, “E”, "KL", and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle t in an illustration means that the item is an assembly that is made up of a number of individual parts.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.

PL 12.1 Covers and Frame

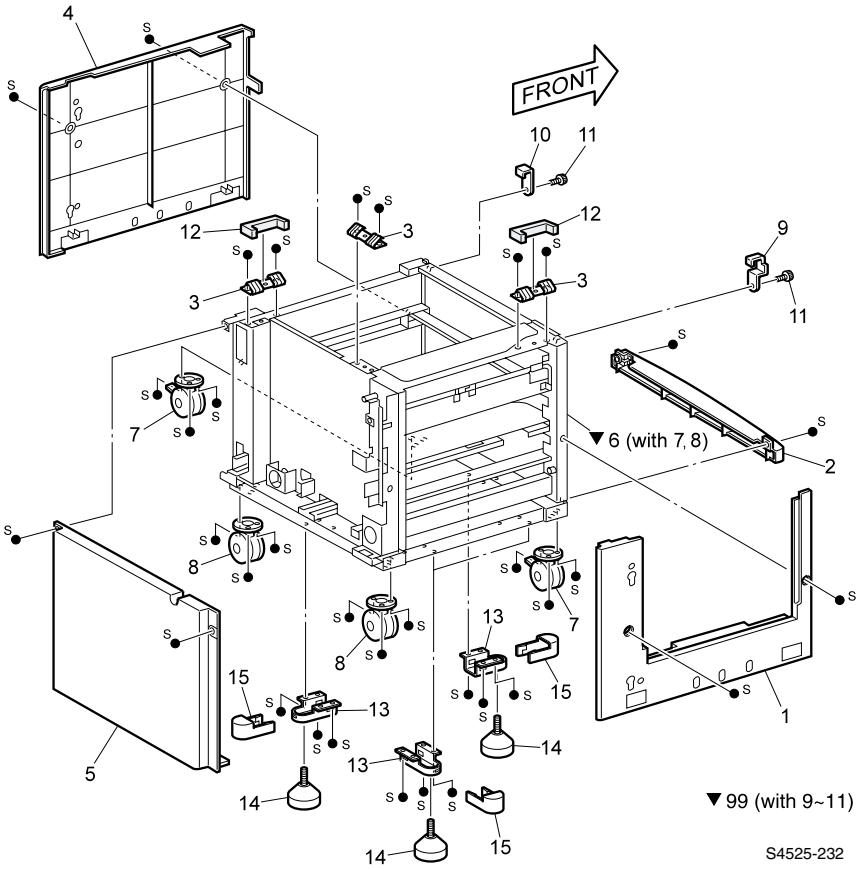

Fig 2-40 PL12.1 Covers and Frame

Table 2-26 PL 12.1 Covers and Frame

ID No.	Part Number	Qty	Name / Description
1	048E37272	1	Cover, Left High Capacity Feeder
2	802E08720	1	Cover, Front
3		3	Spring, Ground
4	802E12540	1	Cover, Right
5	048E37260	1	Cover, Rear
6		1	Frame Assembly, Cabinet, High Capacity Feeder (with 7 & 8)
7	017E91970	2	Caster
8	017E91980	2	Caster
9	049E30790	1	Docking Bracket, Left
10	049E30781	1	Docking Bracket, Right
11		2	Screw
12		2	Guard, Safety
13	830E44280	3	Bracket, Foot
14	017K92561	3	Adjuster, Foot Assembly
15	802E08710	3	Cover, Foot
99	600K65520		Kit, HCF Mounting (with 9~11)

PL 12.2 High Capacity Feeder Board, Harness and Drive

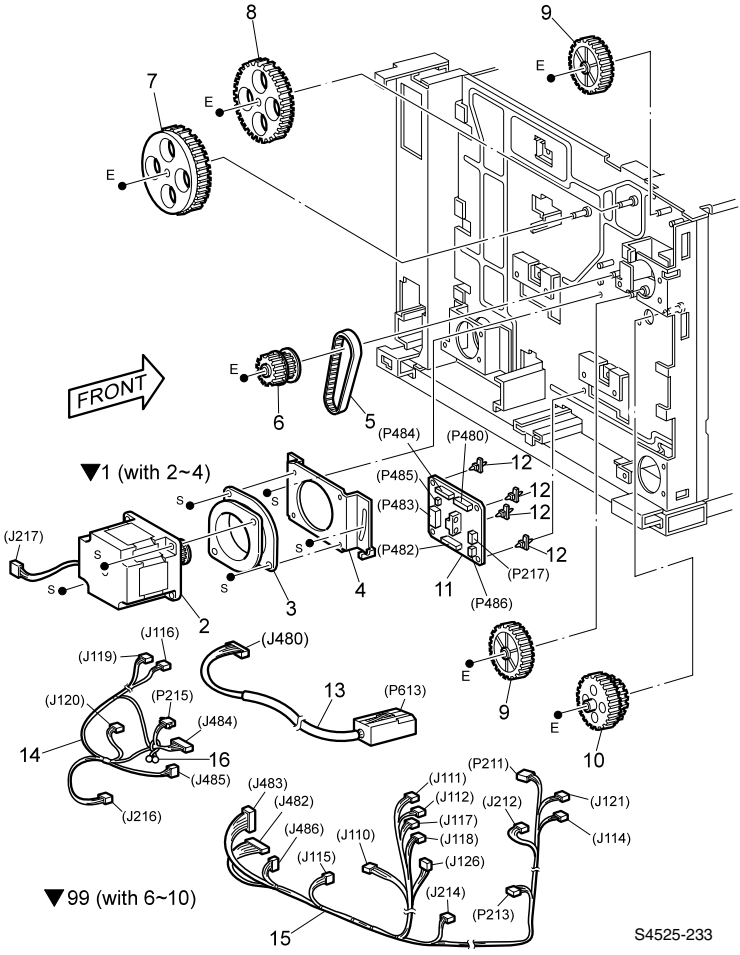

Fig 2-41 PL 12.2 High Capacity Feeder Board, Harness, and Drive

Table 2-27 PL 12.2 High Capacity Feeder Board, Harness & Drive

ID No.	Part Number	Qty	Name / Description
1	127K28460	1	Motor Assembly, Feed (with 2~4)
2		1	Motor Assembly, Feed, High Capacity Feeder
3		1	Damper Assembly, Motor
4		1	Bracket, Motor
5	423W47353	1	Belt, Synchronous
6		1	Gear, 27/26T
7		1	Gear, 88T
8		1	Gear, 87T
9		2	Gear, 46T
10		1	Gear, 44/40T
11	160K62024	1	Main Board Assembly
12		4	Support Board
13	162K55240	1	Cable Assembly, High Capacity Feeder (P613<>J480)
14		1	Harness Assembly, High Capacity Feeder (J484<>J120/J116/J119, J485<>P215/J216)
15		1	Harness Assembly - High Capacity Feeder A (J482<>J121/J114/P211/J212/J214/P213, J483<>J111/J112/J110/J115/J117/J118, J486<>J126)
16		1	Clip Wire
99.	600K60990	1	Kit, High Capacity Feeder Drive Gear (with 6~10)

PL 12.3 Tray Interface 1

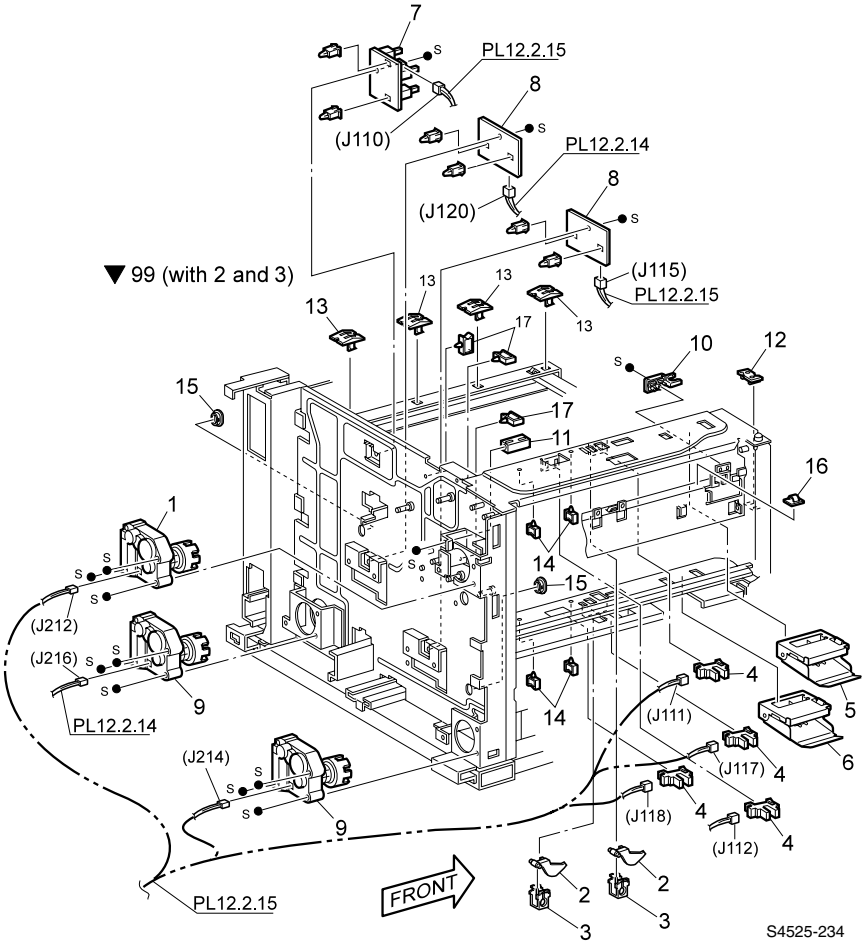

Fig 2-42 Tray Interface 1

Table 2-28 PL 12.3 Tray Interface 1

ID No.	Part Number	Qty	Name / Description
1	127K20662	1	Motor Assembly, Tray 3
2		2	Sensor Actuator, Trays 3 & 4
3		2	Support Actuator, Trays 3 & 4
4	107E08680	4	Sensor, Trays 3 & 4
5	054K09030	1	Chute Assembly, Front (Tray 3)
6	054K08820	1	Chute Assembly, Front (Tray 4)
7	110K07040	1	Switch Assembly, Paper Size (Tray 3)
8	110K98760	2	Switch Assembly, Paper Size (Trays 4 & 5)
9	127K19080	2	Motor Assembly (Trays 4 & 5)
10	003E23672	1	Tray Stopper, Front (Tray 3)
11	003E23690	1	Tray Stopper, Rear (Tray 3)
12		1	Spacer, Left (Tray 3)
13		4	Slider, Right (Tray 3)
14		4	Holder, Harness
15		2	Guide, Tray (Trays 4 & 5)
16		1	Clamp
17		1	Clamp
99.	600K56730	1	Kit, Actuator Sensor Assembly (with 2 & 3)

PL 12.4 Tray Interface 2

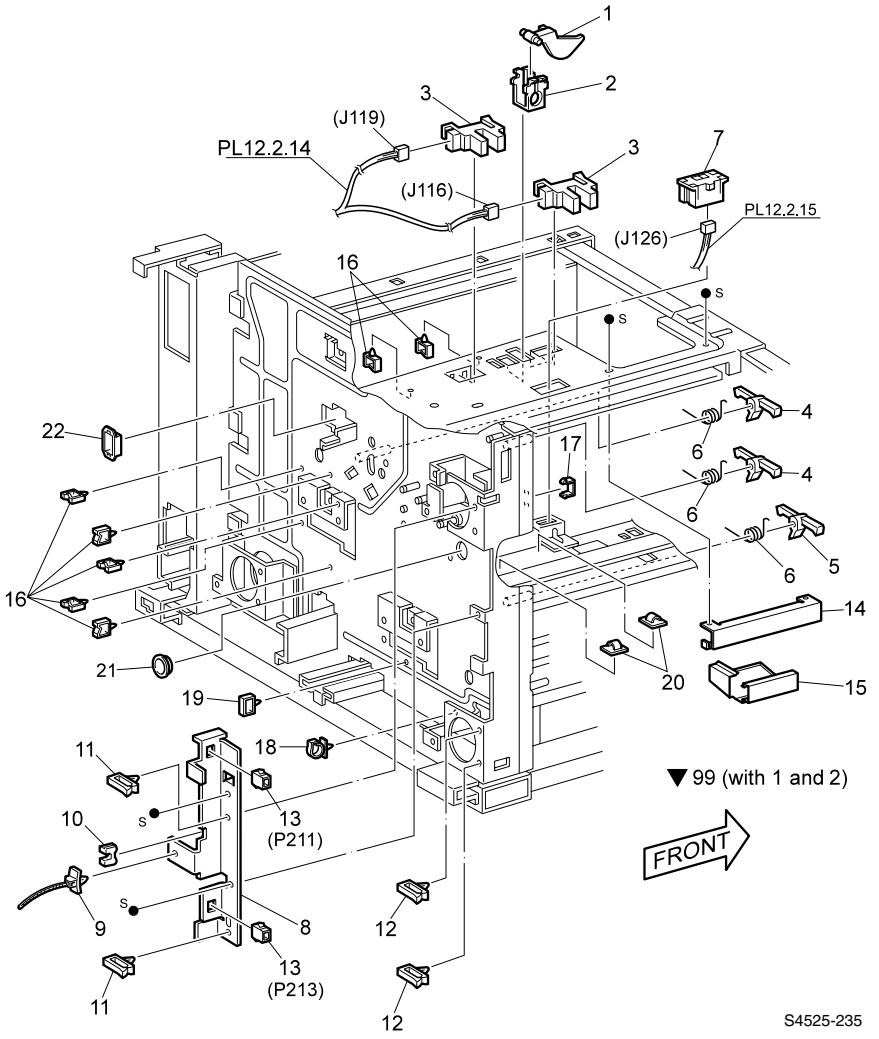

Fig 2-43 Tray Interface 2

Table 2-29 PL 12.4 Tray Interface 2

ID No.	Part Number	Qty	Name / Description
1		1	Sensor Actuator, Tray 5
2		1	Support Actuator, Tray 5
3	107E08680	2	Sensor, Tray 5
4		2	Stopper Link, Trays 3 & 5
5		1	Stopper Link, Tray 4
6		3	Spring, Torsion
7	130E81311	1	Sensor, Tray 5
8		1	Bracket, Stopper
9		1	Cable Tie
10		1	Clamp
11		2	Clamp
12		2	Clamp
13		2	Connector
14		1	Support, Chute
15		1	Chute, Front Right
16		7	Holder, Harness
17		1	Clamp
18		1	Clamp, Locking
19		1	Mini Saddle
20		2	Clamp
21		1	Bush Closed
22		1	Edge Saddle
99.	600K56730	1	Kit, Actuator Sensor Assembly (with 1 & 2)

PL 12.5 Paper Pick Up - Tray 3

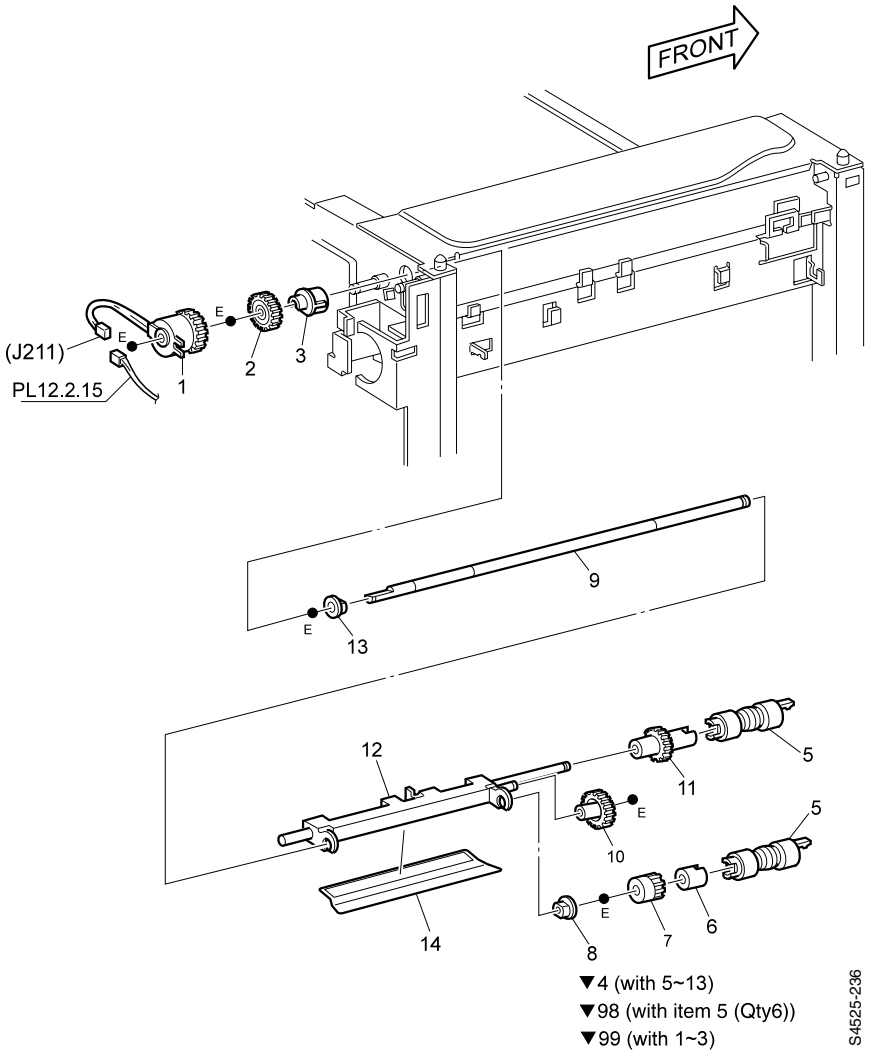

Fig 2-44 Paper Pick-Up Tray 3

Table 2-30 PL 12.5 Paper Pick Up - Tray 3

ID No.	Part Number	Qty	Name / Description
1		1	Clutch Assembly
2		1	Gear, 28T
3	013E86260	1	Bearing, Feeder
4	050K43520		Feeder Assembly, (with 5~13)
5		2	Roller Assembly
6		1	Clutch Assembly, One Way
7		1	Clutch Gear, 25T
8		1	Bearing
9		1	Shaft, Feed
10		1	Gear, 31T
11		1	Gear, 25T
12		1	Support Assembly
13		1	Bearing
14		1	Guide, Paper
98	604K01130	1	Kit, Feed Roller [item 5 (Qty. 6)]
99	600K65530	1	Kit, Tray 3 Clutch (with 1~3)

PL 12.6 Retard and Take Away Roller - Tray 3

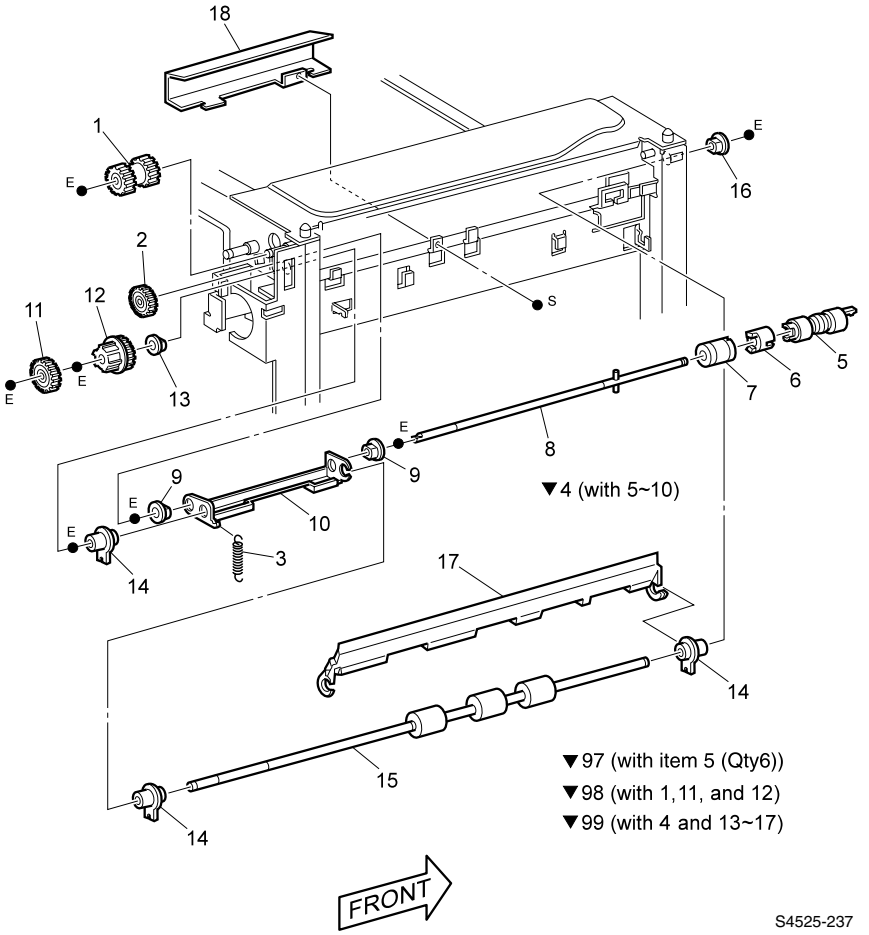

Fig 2-45 Retard and Take Away Roller - Tray 3

Table 2-31 PL 12.6 Retard and Take Away Roller - Tray 3

ID No.	Part Number	Qty	Name / Description
1		1	Gear, 22/20T
2		1	Spacer, Retard
3	809E27440	1	Spring
4		1	Retard Assembly, (with 5~10)
5		1	Roller Assembly
6		1	Spacer
7		1	Clutch Assembly, Friction
8		1	Shaft Assembly, Retard
9		2	Bearing 6
10		1	Support, Retard
11		1	Gear, 22T
12		1	Gear Stopper
13		1	Bearing
14		3	Bearing
15		1	Roller Assembly, Take Away
16		1	Bearing
17		1	Chute, Feed Out
18		1	Chute, Feed In
97	604K01130	1	Kit, Feed Roller [item 5 (Qty. 6)]
98	600K85110	1	Kit, Gear, Take Away Tray 3 (with 1, 11 & 12)
99	600K85120	1	Kit, Retard, Take Away Tray 3 (with 4 & 13~17)

PL 12.7 Paper Pick-Up - Tray 4

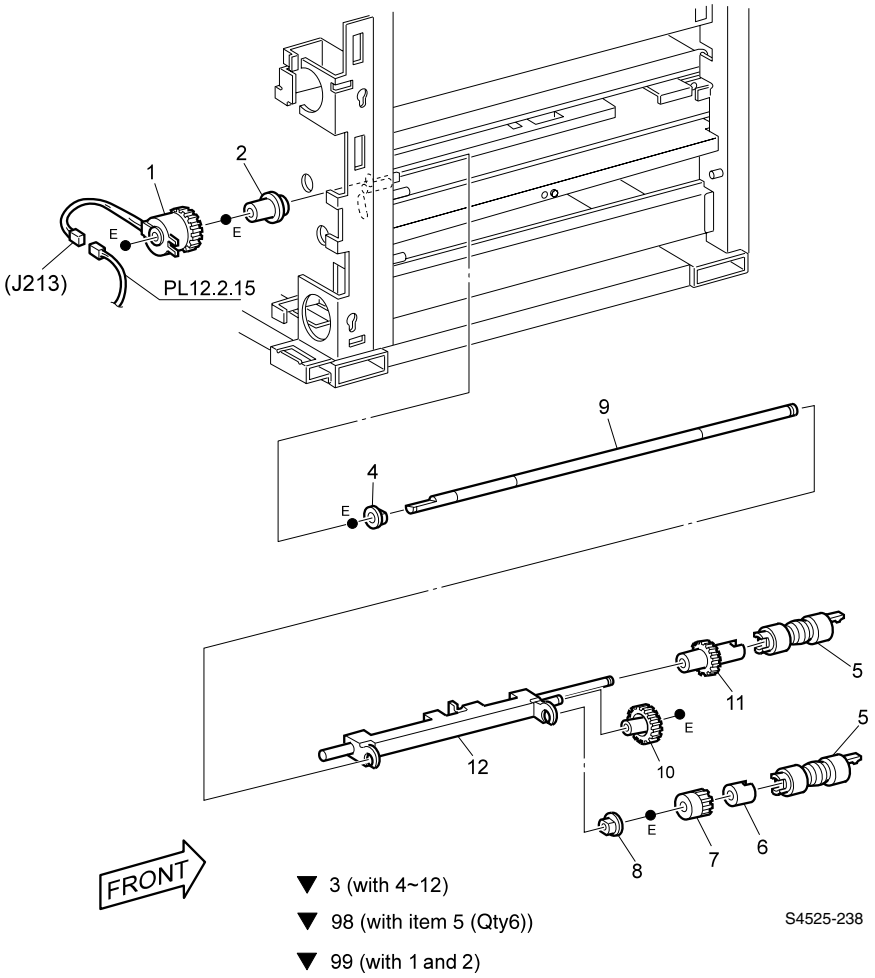

Fig 2-46 Paper Pick-Up Tray 4

Table 2-32 PL.12.7 Paper Pick-Up - Tray 4

ID No.	Part Number	Qty	Name / Description
1		1	Clutch Assembly
2		1	Bearing, Feed
3	050K43510	1	Feeder Assembly, High Capacity Feeder (with 4~12)
4		1	Bearing
5		2	Roller Assembly
6		1	Clutch Assembly One Way
7		1	Clutch Gear, 25T
8		1	Bearing
9		1	Shaft Feed High Capacity Feeder
10		1	Gear, 31T
11		1	Gear, 25T
12		1	Support Assembly Pick
98	604K01130	1	Kit, Feed Roller [item 5 (Qty. 6)]
99.	600K65550	1	Kit, Paper Pick Up (with 1 & 2)

PL 12.8 Retard and Take Away Roller - Tray 4

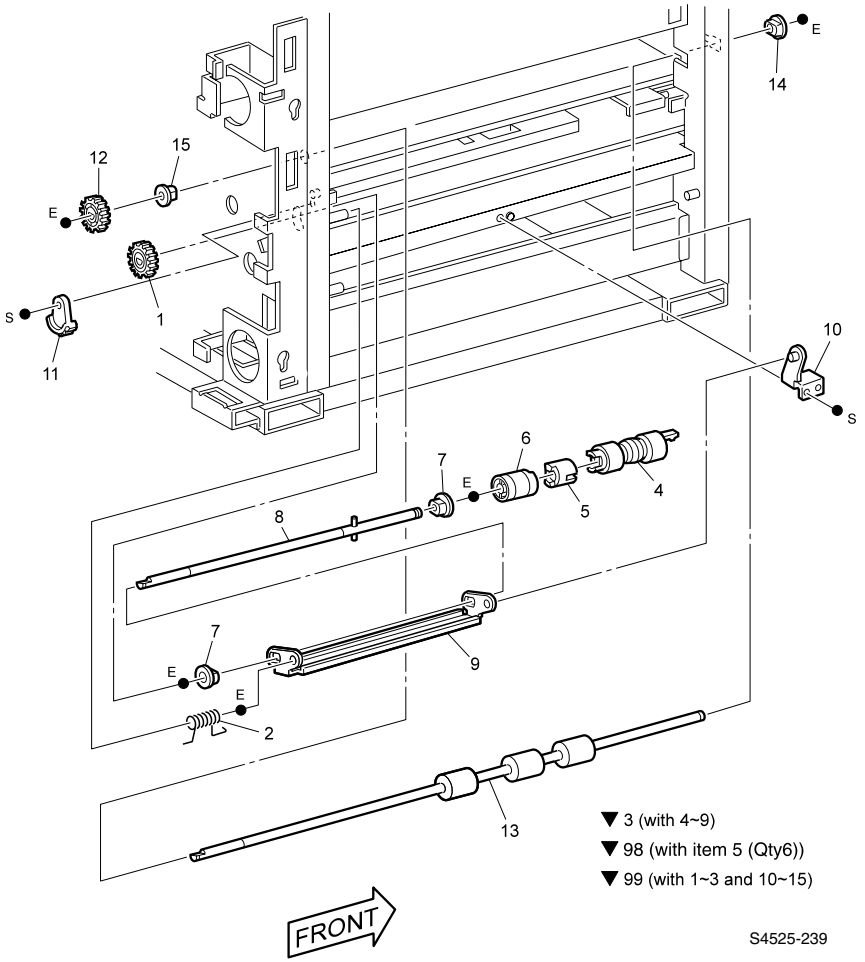

Fig 2-47 Retard and Take Away Roller - Tray 4

Table 2-33 PL 12.8 Retard and Take Away Roller - Tray 4

ID No.	Part Number	Qty	Name / Description
1		1	Gear, 22T
2		1	Spring, Retard
3	050K42411	1	Retard Assembly (with 4~9)
4		1	Roller Assembly
5		1	Spacer
6		1	Clutch Assembly, Friction
7		2	Bearing
8		1	Shaft Assembly, Retard,
9		1	Support, Retard
10		1	Support Assembly, Retard
11		1	Gear Stopper
12		1	Gear, 22T
13	059K06190	1	Roller Assembly, Drive
14		1	Bearing
15		1	Bearing
98	604K01130	1	Kit, Feed Roller (6 ea. of item 5)
99	604K01180	1	Kit, Retard, Take Away Tray 4 (with 1~3 & 10~15)

PL 12.9 Paper Pick Up - Tray 5

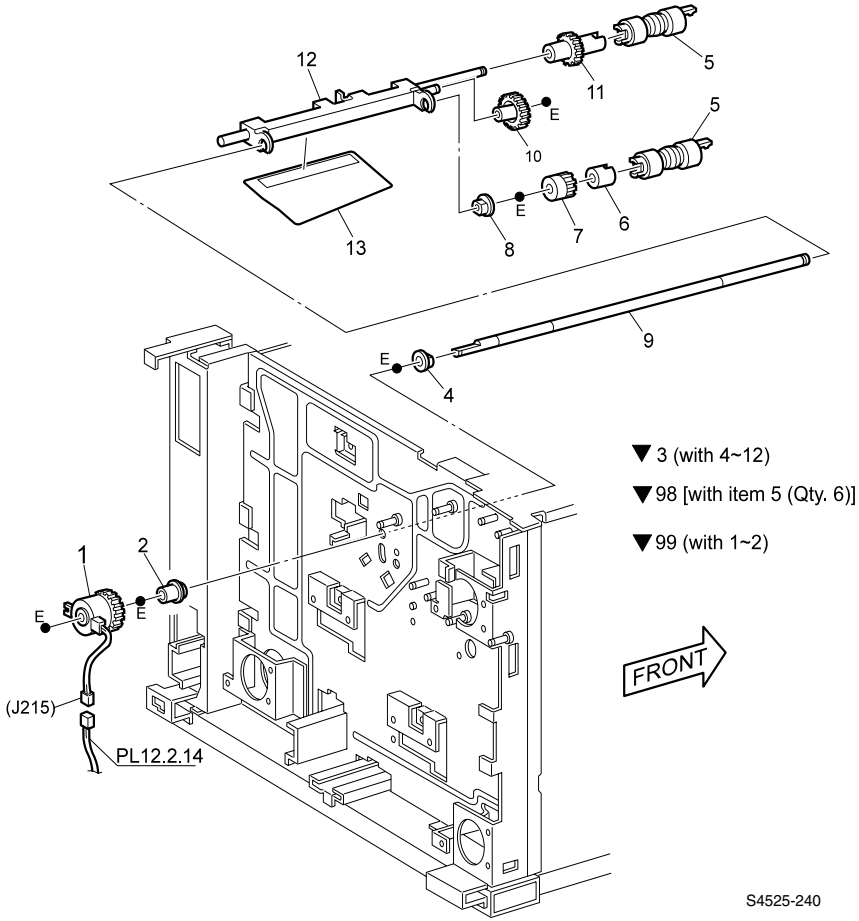

Fig 2-48 Paper Pick-Up Tray 5

Table 2-34 PL 12.9 Paper Pick Up - Tray 5

ID No.	Part Number	Qty	Name / Description
1		1	Clutch Assembly
2		1	Bearing, Feed
3	050K43510	1	Feeder Assembly, (with 4~12)
4		1	Bearing
5		2	Roller Assembly
6		1	Clutch Assembly, One-Way
7		1	Clutch, Gear 25T
8		1	Bearing
9		1	Shaft, Feed
10		1	Gear, 31T
11		1	Gear, 25T
12		1	Support Assembly, Pick
13	038E20200	1	Guide, Paper
98	600K61600	1	Kit, Feed Roller [item 5 (Qty. 6)]
99	600K65550	1	Kit, Paper Pickup (with 1 & 2)

PL 12.10 Retard and Take Away Roller - Tray 5

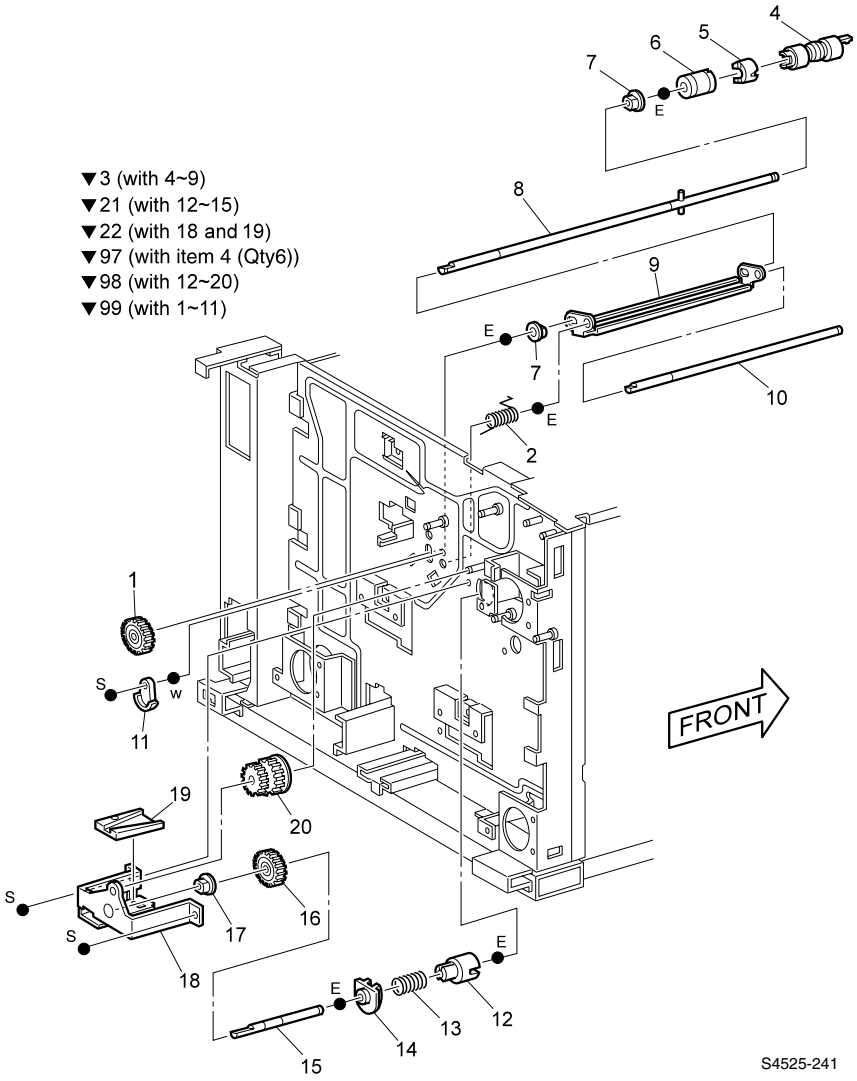

Fig 2-49 Retard and Take Away Roller - Tray 5

Table 2-35 PL 12.10 Retard and Take Away Roller - Tray 5

ID No.	Part Number	Qty	Name / Description
1		1	Gear 22 MN
2		1	Spring, Retard RT
3		1	Retard Assembly, (with 4~9)
4		1	Roller Assembly
5		1	Spacer
6		1	Clutch Assembly, Friction
7		2	Bearing
8		1	Shaft Assembly, Retard
9		1	Support Retard
10		1	Shaft Hinge
11		1	Gear Stopper
12		1	Joint
13		1	Spring
14		1	Bearing
15		1	Shaft Assembly, Joint
16		1	Gear, 22T
17		1	Bearing
18		1	Bracket Joint
19		1	Guide, Rod
20		1	Gear, 22/20T
21		1	Joint Assembly, Drive (with 12~15)
22		1	Bracket Assembly, Joint
97	604K01130	1	Kit, Feed Roller [item 4 (Qty. 6)]
98	600K65570	1	Kit, Take Away Tray 5 (with 12~20)
99	604K01200	1	Kit, Retard Take Away Tray 5 (with 1~11)

PL 12.11 Left Cover Assembly

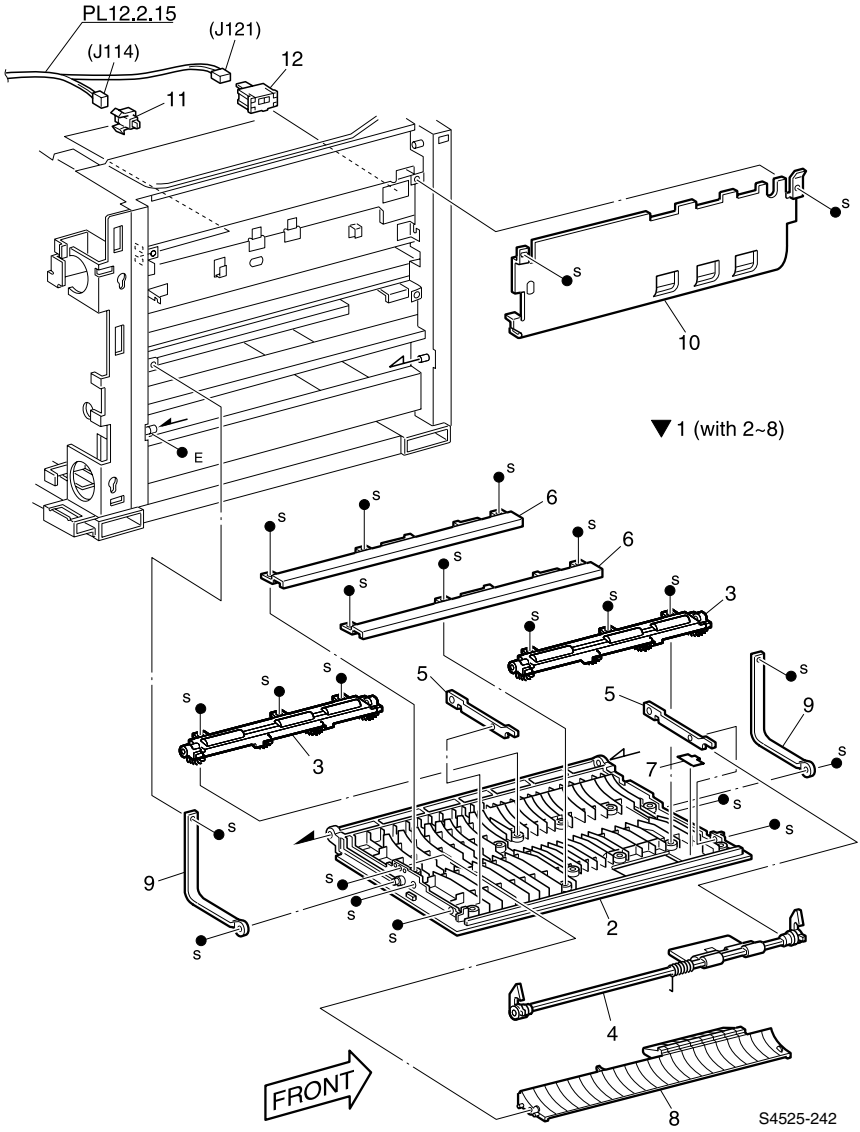

Fig 2-50 Left Cover Assembly

Table 2-36 PL 12.11 Left Cover Assembly

ID No.	Part Number	Qty	Name / Description
1	802K29120	1	Cover Assembly, L/H (with 2 ~8)
2		1	Cover, L/H
3		2	Bracket Assembly, Pinch
4		1	Handle Assembly, L/H
5		2	Support, Cover
6		2	Support, Cover
7		1	Pad
8		1	Chute, Feed, Out, HCF
9		2	Support, L/H Cover
10		1	Chute, L/H
11	110E93440	1	Switch, Interlock
12	130E81311	1	Sensor

PL 13.1 High Capacity Tray 4

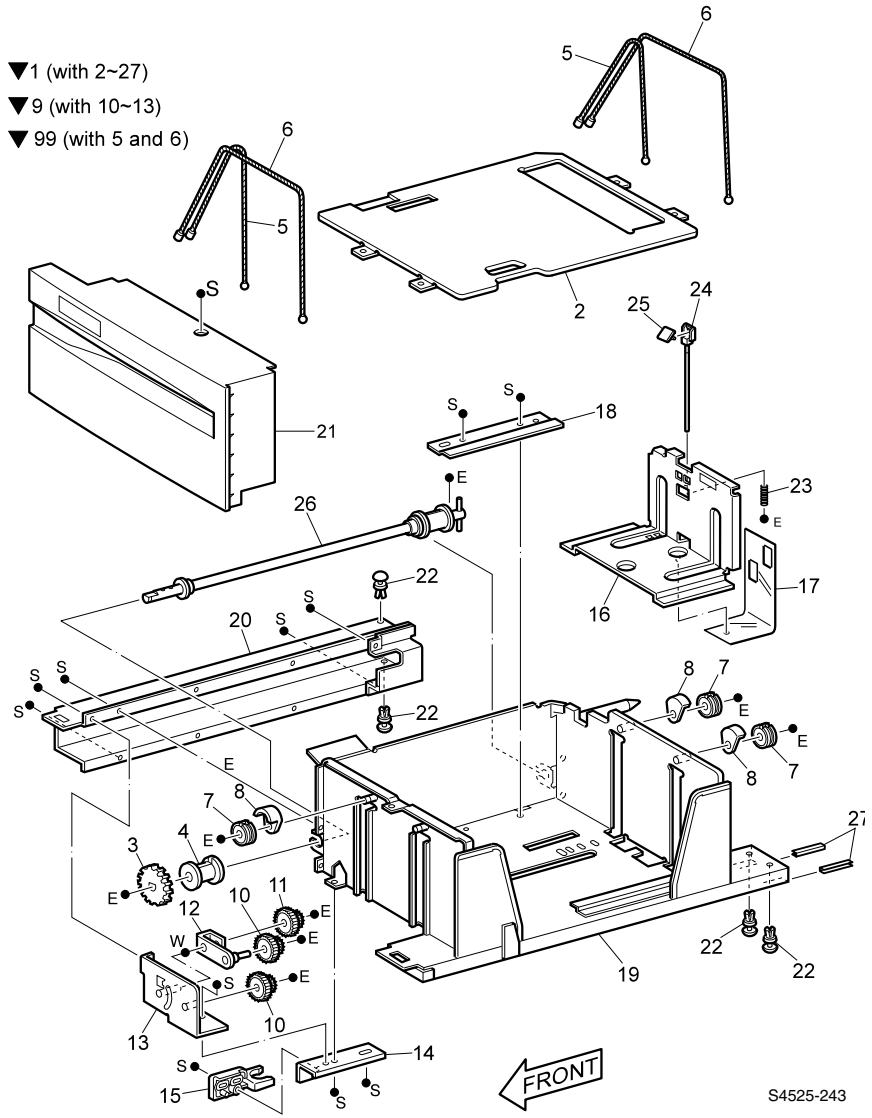

Fig 2-51 High Capacity Tray 4

Table 2-37 PL 13.1 High Capacity Tray 4

ID No.	Part Number	Qty	Name / Description
1	05K42643	1	Tray Assembly, LT (with 2~27
2		1	Plate, Bottom
3		1	Gear, 33T
4		1	Pulley, Cable
5		2	Cable, Lt
6		2	Cable, Lt
7		3	Pulley
8		3	Guide Wire
9		1	Bracket Assembly, Brake L (with 10~13)
10		1	Gear, 12/28T
11		1	Gear, 12/28T
12		1	Link Assembly, Brake
13		1	Bracket Assembly, Brake
14		1	Stopper, Bracket
15		1	Tray Stopper, F
16		1	Guide Assembly, Side
17		1	Actuator
18		1	Bracket Guide
19		1	Housing Assembly, Lt
20		1	Rail Assembly, Lt
21	802K11920	2	Cover Assembly - Lt
22		2	Spacer B
23		1	Spring, Comp
24		1	Lever Assembly
25		1	Knob
26		1	Shaft Assembly, Drive
27		1	Spacer, Rail
99.	600K61010	1	Kit, Tray 4 Cables (with 5 & 6)

PL 13.2 High Capacity Tray 5 - Paper Stack

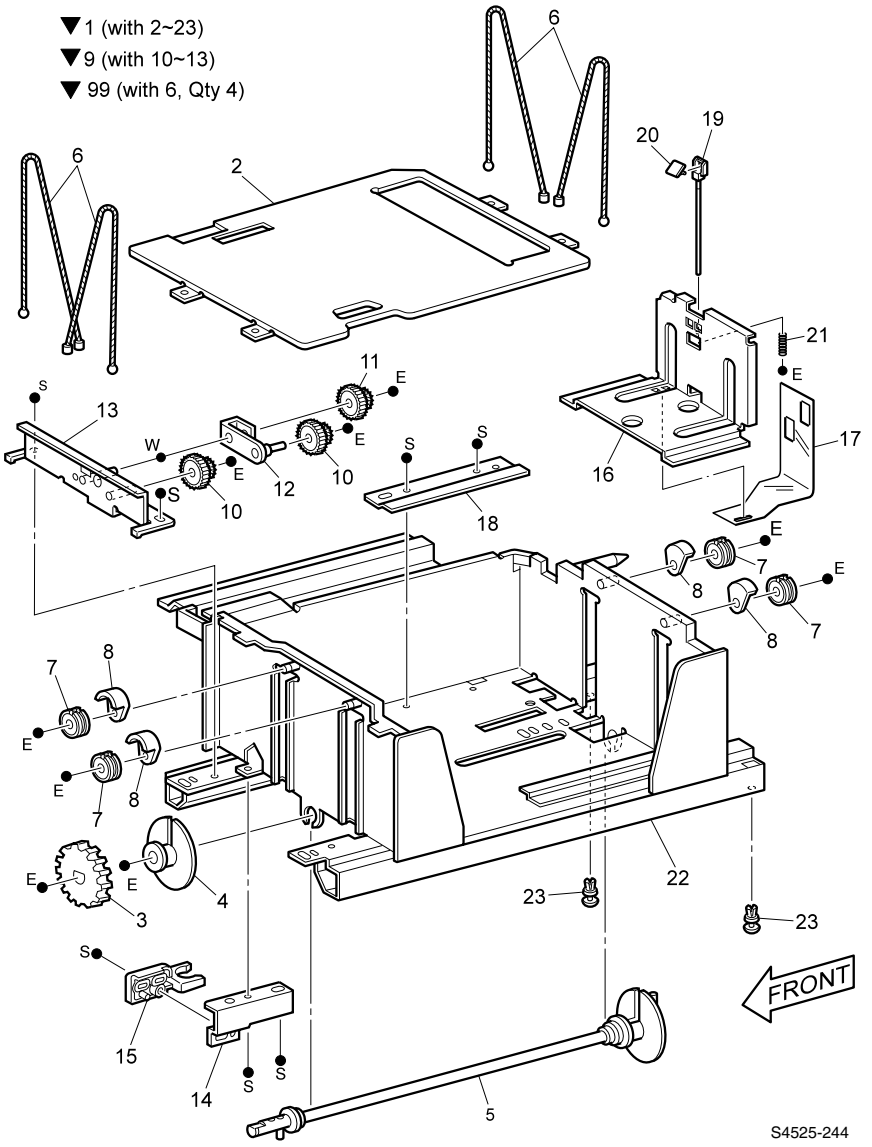

Fig 2-52 High Capacity Tray 5 - Paper Stack

Table 2-38 PL 13.2 High Capacity Tray 5 -Paper Stack

ID No.	Part Number	Qty	Name / Description
1	050K42653	1	Tray Assembly, Rt (with 2~23)
2		1	Plate, Bottom
3		1	Gear, 33T
4		1	Pulley, Cable
5		1	Shaft Assembly, Drive
6		4	Cable
7		4	Pulley
8		4	Guide Wire
9		1	Bracket Assembly, Brake R (with 10~13)
10		2	Gear, 12/28T
11		1	Gear, 12/28T
12		1	Link Assembly, Brake
13		1	Bracket Assembly, Brake
14		1	Bracket, Stopper
15		1	Stopper, Tray F
16		1	Guide Assembly, Side
17		1	Actuator
18		1	Bracket,Guide
19		1	Lever Assembly
20		1	Knob
21		1	Spring Comp
22		1	Housing Assembly
23		2	Spacer
99.	600K60950	1	Kit, Tray 5 Cables (with 6, Qty 4)

PL 13.3 High Capacity Tray 5 - Paper Feed

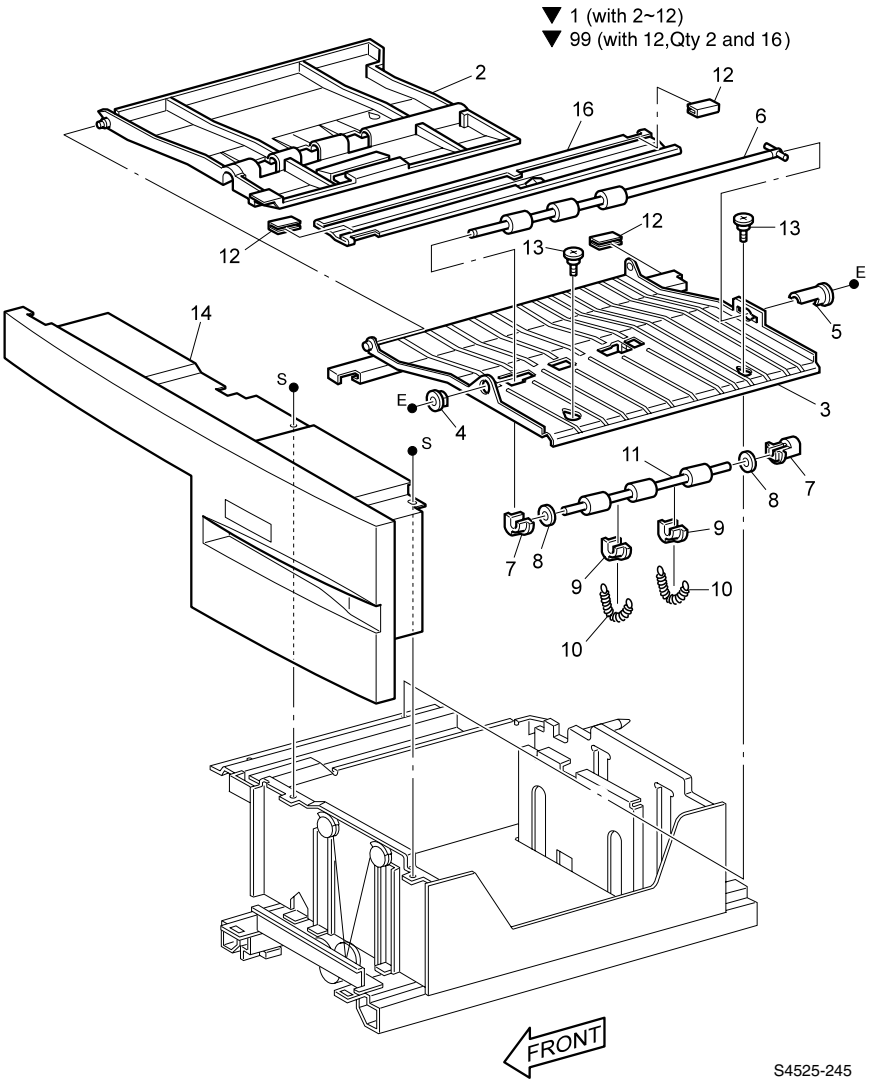

Fig 2-53 High Capacity Tray 5 - Paper Feed

Table 2-39 PL 13.3 High Capacity Tray 5 - Paper Feed

ID No.	Part Number	Qty	Name / Description
1	059K14770	1	Transport Assembly - High Capacity Feeder (with 2~12
2		1	Chute Assembly, Upper
3		1	Chute Assembly, Lower
4		1	Bearing
5		1	Bearing
6		1	Roller Assembly, Take Away
7		2	Bearing, Out
8		2	Washer, Nylon
9		2	Bearing, In
10		2	Spring, Exit
11		1	Roller Assembly, Pinch
12		1	Spacer,Rail
13		2	Screw
14	802K11910	1	Cover Assembly, Rt
15		1	Spacer, Rail
16		1	Rail Assembly, Transport
99	600K85130	1	Kit, Slide Bar [with 12 (Qty 2) & 16]

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Plug/Jack Connectors

Use the table and map in this section to locate specific P/J connectors within the High Capacity Feeder.

To find the location of a P/J within the High Capacity Feeder:

1. Locate the P/J connector number in the first column of the P/J Location table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. With this information, go to the appropriate map (in this case map M1) and locate the item number (in this case 5).

P/J Location Table

Table 2-40 Plug/Jack Location Table

P/J	Map & Number	Connected to...	Other end connected to...
110	M2-2	Tray 3 Size Sensor	P483 High Capacity Feeder Board
111	M1-4	Tray 3 No Paper Sensor	P483 High Capacity Feeder Board
112	M1-3	Tray 3 Level Sensor	P483 High Capacity Feeder Board
114	M1-9	Interlock Switch	P482 High Capacity Feeder Board
115	M2-9	Tray 4 Size Sensor	P483 High Capacity Feeder Board
116	M1-2	Tray 5 No Paper Sensor	P484 High Capacity Feeder Board
117	M1-7	Tray 4 No Paper Sensor	P483 High Capacity Feeder Board
118	M1-8	Tray 4 Level Sensor	P483 High Capacity Feeder Board
119	M1-1	Tray 5 Level Sensor	P484 High Capacity Feeder Board
120	M2-15	Tray 5 Size Sensor	P484 High Capacity Feeder Board
121	M1-6	Tray 4 Take Away Sensor	P482 High Capacity Feeder Board
126	M1-5	Tray 5 Take Away Sensor	P486 High Capacity Feeder Board
211	M2-3	Tray 3 Feed Clutch	P482 High Capacity Feeder Board
212	M2-4	Tray 3 Lift Motor	P482 High Capacity Feeder Board
213	M2-6	Tray 4 Feed Clutch	P482 High Capacity Feeder Board
214	M2-8	Tray 4 Lift Motor	P482 High Capacity Feeder Board
215	M2-16	Tray 5 Feed Clutch	P485 High Capacity Feeder Board
216	M2-14	Tray 5 Lift Motor	P485 High Capacity Feeder Board
217	M2-7	Feed Motor	P217 High Capacity Feeder Board
480	M2-5	High Capacity Feeder Board	P406 I/O Board
482	M2-11	High Capacity Feeder Board	P114 Interlock Switch P121 Tray 3 Take Away Sensor P211 Tray 3 Feed Clutch P212 Tray 3 Lift Motor P213 Tray 4 Feed Clutch P214 Tray 4 Lift Motor
483	M2-12	High Capacity Feeder Board	P110 Tray 3 Size Sensor P111 Tray 3 No Paper Sensor P112 Tray 3 Level Sensor P115 Tray 4 Size Sensor P117 Tray 4 No Paper Sensor P118 Tray 4 Level Sensor

Table 2-40 Plug/Jack Location Table (cont'd.)

P/J	Map & Number	Connected to...	Other end connected to...
484	M2-2	High Capacity Feeder Board	P116 Tray 5 No Paper Sensor P119 Tray 5 Level Sensor P120 Tray 5 Size Sensor
485	M2-13	High Capacity Feeder Board	P215 Tray 5 Feed Clutch P216 Tray 5 Lift Motor
486	M2-10	High Capacity Feeder Board	P126 Tray 4 Take Away Sensor
613	M2-17	P/J480 High Capacity Feeder Board	P/J466 I/O Board

P/J Location Map 1

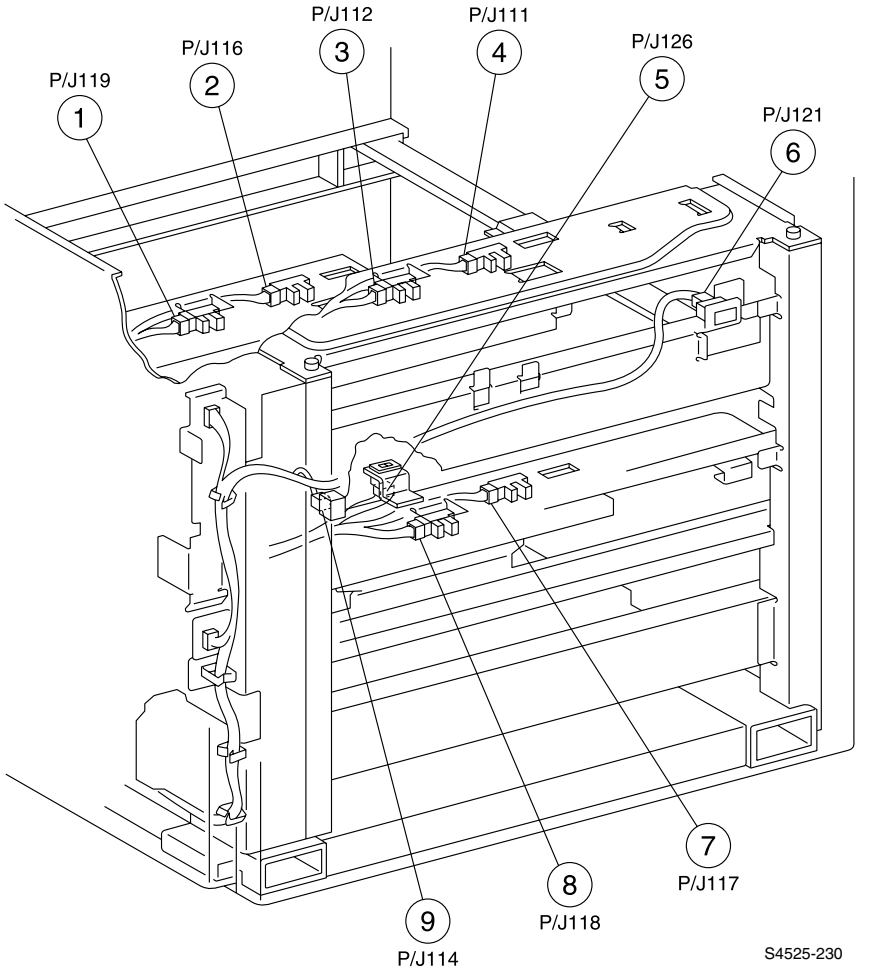

Fig 2-54 Map 1

P/J Location Map 2

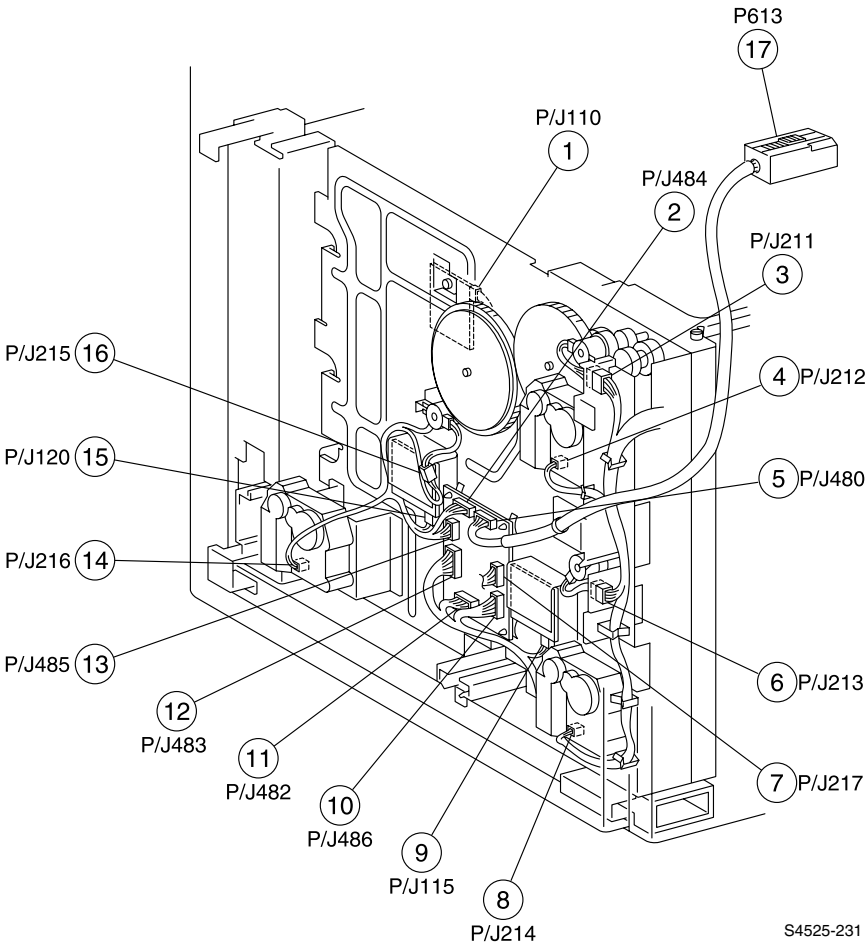

Fig 2-55 Map 2

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Wiring Diagrams and Signal Information

This section of the manual contains a Master Wiring Diagram for the High Capacity Feeder option. The Master Wiring Diagram shows the interconnections of the major subsystems within the High Capacity Feeder. The remainder of this section presents individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the High Capacity Feeder. Each wire in the diagrams is tagged with a signal name and each wire is terminated at both ends with a pin number.

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the High Capacity Feeder.

High Capacity Feeder Master Wiring Diagram

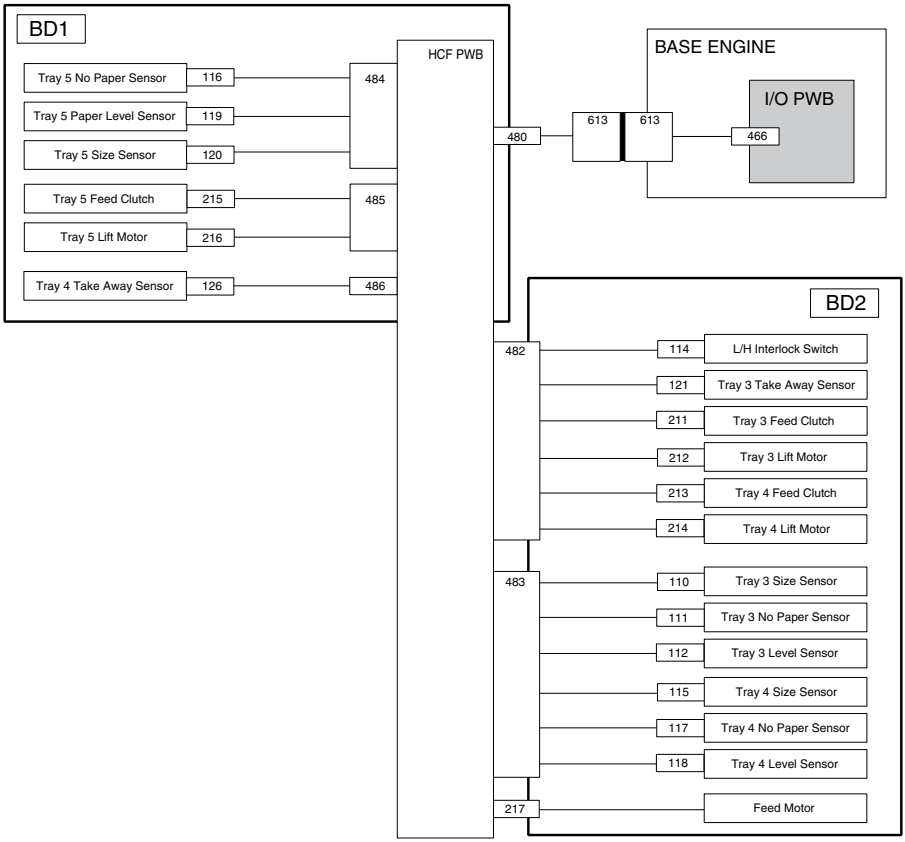

Fig 2-56 HCF Master Wiring Diagram

BD1 High Capacity Feeder Board↔Tray 5 Components

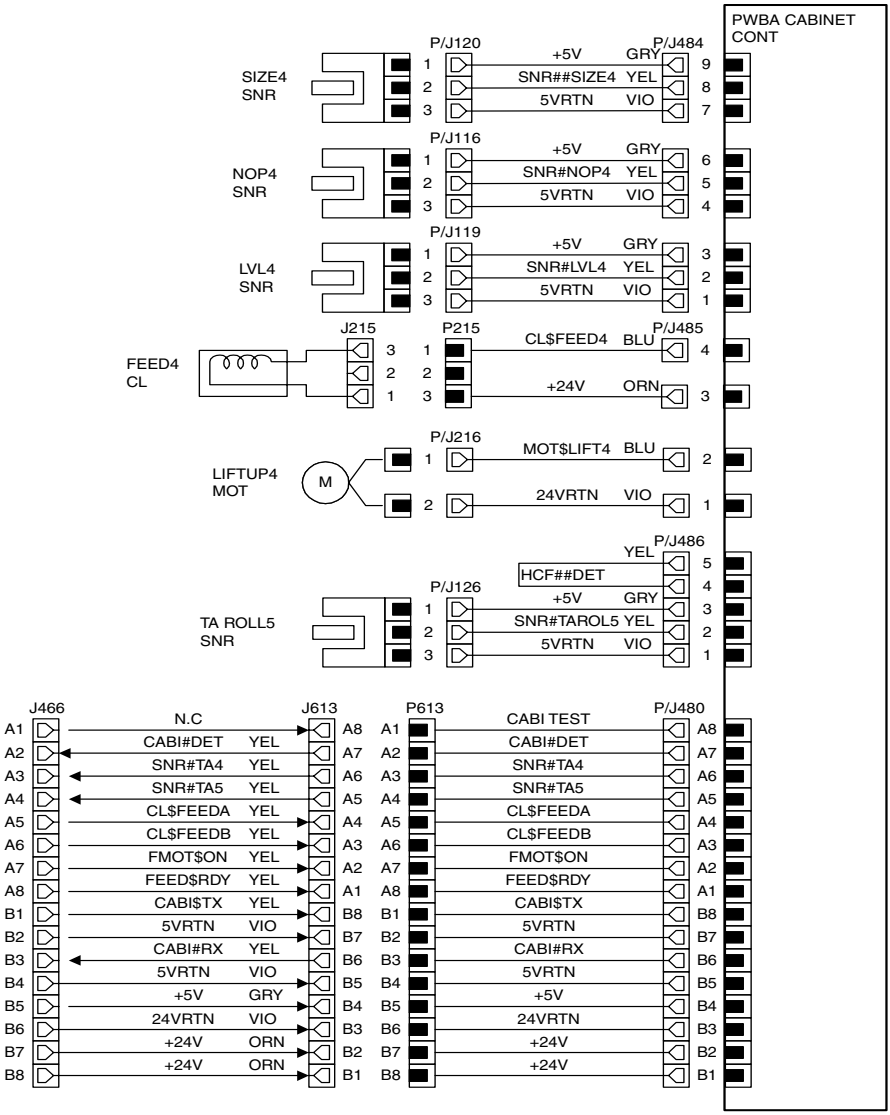

Fig 2-57 HCF Board - Tray 5 Components

Table 2-41 HCF Board - Tray 5 Components

Signal Name	Description
CABI TEST	Test point
CAB#DET	Monitors presence of the High Capacity Feeder. High=Not attached. Low=Attached
SNR#TA4	Monitors paper travel between Tray 4 and Tray 3. High=Paper present. Low=Paper not present
SNR#TA5	Monitors paper travel between Tray 5 and Tray 4. High=Paper present. Low=Paper not present
CL$FEEDA	Controls Feed Clutch.
CL$FEEDB	Controls Feed Clutch.
FMOT#ON	Switches the High Capacity Feeder Feed Motor. High=Motor off. Low=Motor on.
FEED$RDY	Status signal
CABI$TX	Data signal
CABI$RX	Data signal
SNR##SIZE4	Analog signal from the Tray 5 Size Sensor
SNR#NOP4	Monitors the level of paper in Tray 5.
SNR#LVL4	Monitors the position of Tray 5. High=In position. Low=Not in position
MOT$LIFT4	Switches Tray 5 Lift Motor. High=On. Low=Off
CL$FEED4	Controls Tray 5 Feed Clutch. High=Off. Low=On (feed)
SNR#TAROL5	Monitors paper travel between Tray 5 and Tray 4. High=Paper present. Low=Paper not present

BD2 HCF Board – HCF Tray 3 and Tray 4 Components

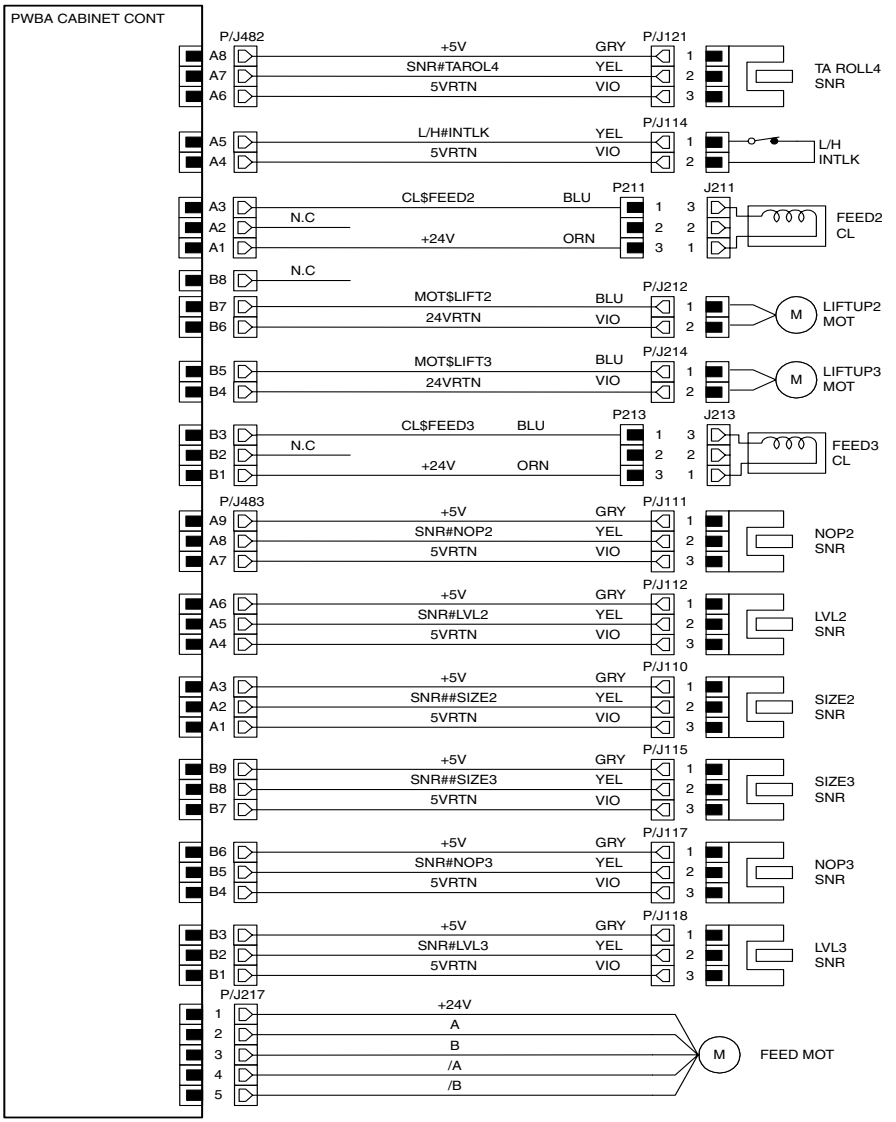

Fig 2-58 HCF Board - HCF Tray 3 and Tray 4 Components

The following table shows the signal names for this BD:

Table 2-42 HCF Board - HCF Tray 3 and Tray 4 Components

Signal Name	Description
SNR#TAROL4	Monitors paper travel between Tray 4 and Tray 3. High=Paper present. Low=Paper not present
L/H#INTLK	Monitors the High Capacity Feeder Cover Interlock Switch. High=Cover closed. Low=Cover open
CL$FEED2	Controls Tray 3 Feed Clutch. High=On (feed). Low=Off
MOT$LIFT2	Switches Tray 3 Lift Motor. High=On. Low=Off
SNR#NOP2	Monitors the level of paper in Tray 3.
SNR#LVL2	Monitors the position of Tray 3. High=In position. Low=Not in position
SNR##SIZE2	Analog signal from the Tray 3 Size Sensor
CL$FEED3	Controls Tray 4 Feed Clutch. High=Off. Low=On (feed)
MOT$LIFT3	Switches Tray 4 Lift Motor. High=On. Low=Off
SNR#NOP3	Monitors the level of paper in Tray 4.
SNR#LVL3	Monitors the position of Tray 4. High=In position. Low=Not in position
SNR##SIZE3	Analog signal from the Tray 4 Size Sensor
A, B, /A, /B	Duplex Motor stepper signals

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Duplex Unit

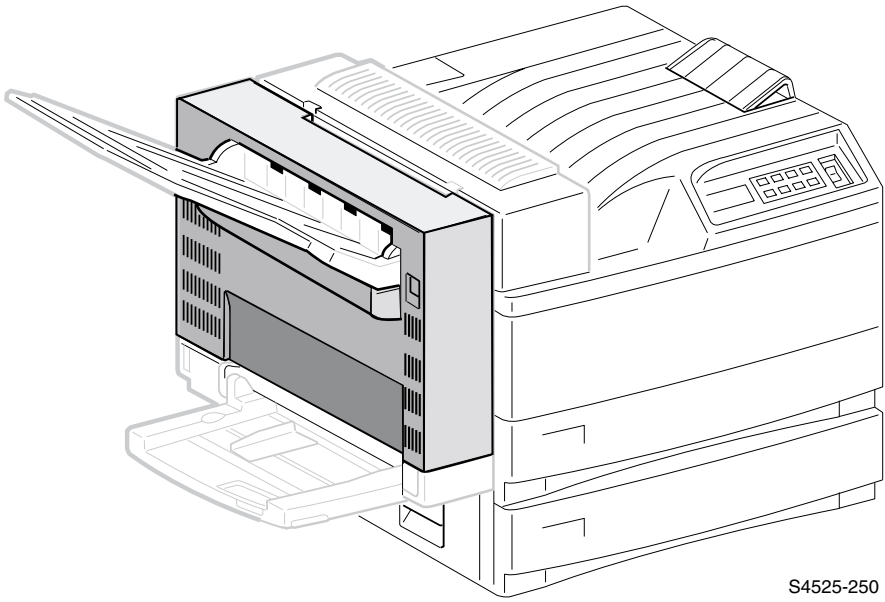


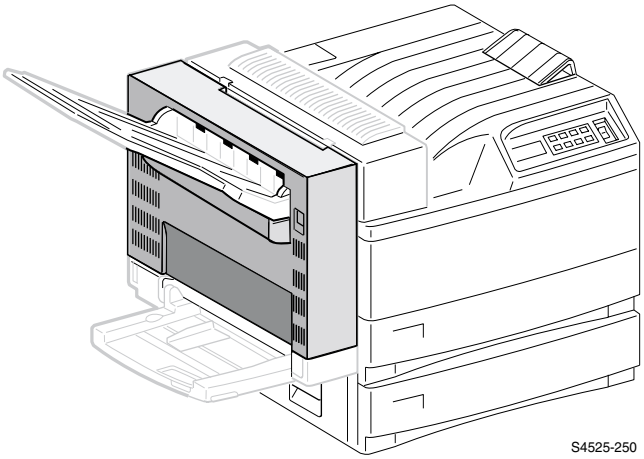
Fig 3-1 Docuprint 4525 Printer shown with the Duplex Unit Option Highlighted.

This Service Quick Reference Guide contains information useful in verifying the operation, troubleshooting, repair and maintainance of the **Duplex Unit Option** for the DocuPrint N4525 Network Laser Printer. This Guide contains detailed Repair Analysis Procedures (RAPs) for error codes and messages, a Field Replacement Unit (FRU) Parts List (PL) and Removal and Replacement Procedures (RRPs).

Topics, such as the Duplex Unit theory of operation and configuration page details, etc., are located on the companion (supplemental) *Printer Service & Support Resources CD-ROM*.

To ensure complete understanding of the product, participation in Xerox DocuPrint N4525 printer service training is recommended.

Table 3-1 Specifications

Category	Specification
Configuration	Customer installed option. Attaches to the left side of the printer, above the Multi-sheet Bypass Feeder. The optional Face Up Bin can be used with the Duplex Unit.  **Fig 3-2 Duplex Unit option highlighted**
Paper feed	The Duplex Unit provides duplex printing for paper fed from all available paper trays, **except the Envelope Feeder. Paper fed from the Envelope Feeder cannot be duplexed.**
Power requirements	The base printer provides all of the Duplex Unit power requirements; +5VDC and +24VDC
Size and weight	Height: 369mm / 14.5 inches Width: 92mm / 3.6 inches Depth: 484mm / 19.0 inches Weight: 5.5kg / 12.1 pounds

Continuous Printing Speed

After The First Sheet Out in Duplex Mode

Table 3-2 Continuous Printing Speed

Paper Type	Tray 1 and 2 (prints per minute)	Tray 3 (prints per minute)	High Capacity Feeder 4 & 5 (prints per minute)	Multi-sheet Bypass Feeder (prints per minute)
A4 LEF	31	28	23	19
LETTER LEF	31	28	23	19
A4 SEF	17	17	--	--
LETTER SEF	17	17	--	--
B4 SEF	15	15	--	--
Legal 13" SEF	15	15	--	--
Legal 14" SEF	15	15	--	--
A3 SEF	14	13	--	--
Ledger SEF	14	13	--	--

Paper Path

The Duplex Unit Paper Path is the physical route that a sheet of paper takes through the printer and through the Duplex Unit during a duplex print cycle. Rubber rollers and solenoid activated gates drive and direct the paper along the Paper Path. The primary purpose of the Duplex Unit Paper Path is to accept a printed sheet of paper from the Fuser exit area, drive that sheet down through the Duplex Unit, effectively flipping over the sheet, and refeed the sheet back into the printer registration area so the printer can begin to transfer an image onto the second side.

Note *The Duplex Unit provides duplex printing for paper fed from all available paper trays except the Envelope Feeder, which cannot be duplexed.*

Step 1

The Drum and Bias Transfer Roller place an image on side one of a sheet of paper. The Drum/Bias Transfer Roller drive the paper into the Heat and Pressure Rollers. The Heat and Pressure Rollers drive the sheet into the Exit Unit. The Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Offset Roller. The Offset Roller drives the sheet partially into the Output Bin, then stops.

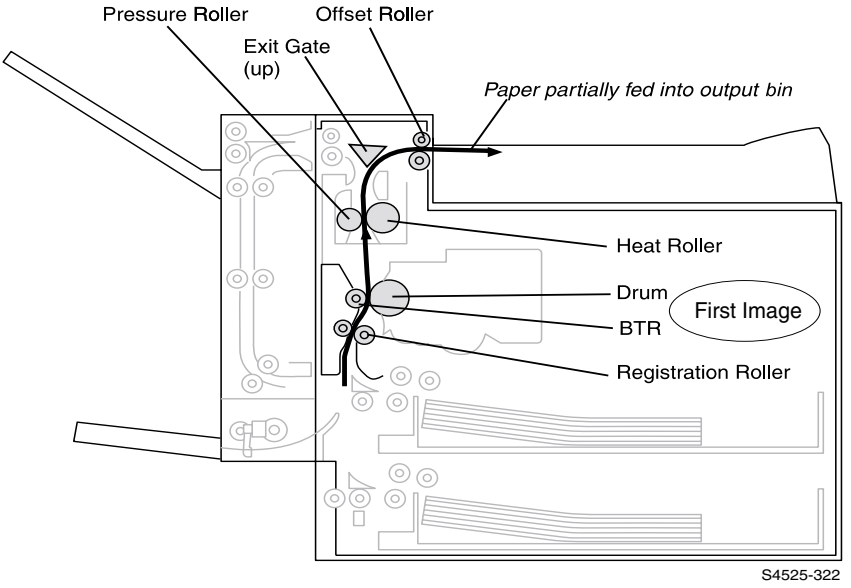


Fig 3-3 Duplex Paper Path - Step 1

Step 2

The Inverter Counterclockwise Clutch switches on and rotates the Offset Roller backwards, driving the sheet of paper back into the Exit Unit. The Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Exit Roller. The Exit Roller drives the sheet of paper toward the Duplex Unit. The Duplex Exit Solenoid toggles the Duplex Exit Gate such that the paper path runs to the Duplex Transport Roller 1. Two sets of Transport Rollers drive the paper down to the Wait Roller. The paper stops momentarily at the Wait Roller. When it is time to send the sheet of paper back into the printer for printing on the second side, the Wait Clutch switches on and the Wait Roller drives the paper out the bottom of the Duplex Unit and into the printer Registration Roller. The paper stops at the Registration Roller so the image on the Drum can align with the leading edge of the paper. When registration is complete, the Registration Roller drives the paper into the Drum and Bias Transfer Roller where the second side is printed.

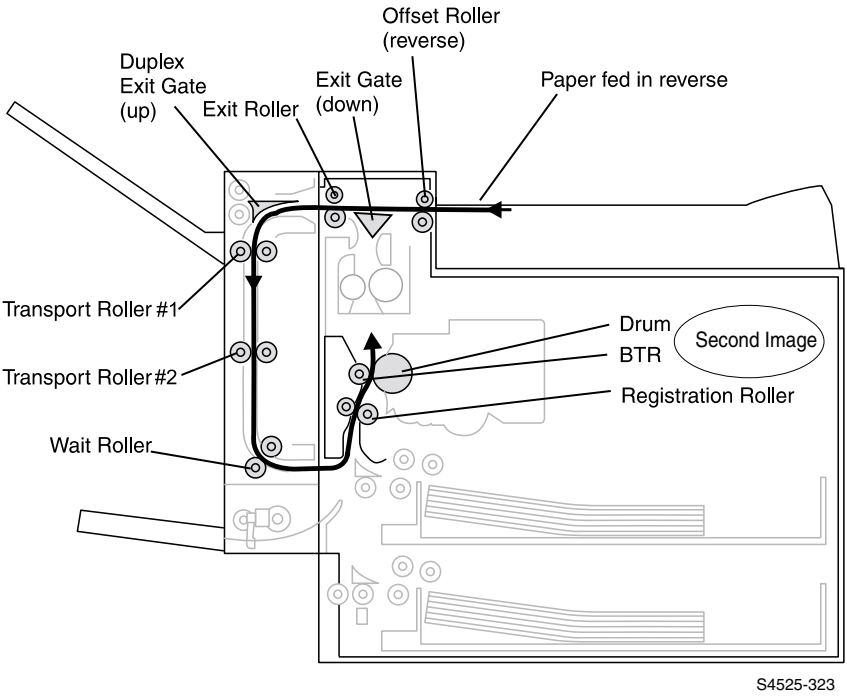


Fig 3-4 Duplex Paper Path - Step 2

Step 3

The Drum and Bias Transfer Roller place an image onto the second side of the sheet of paper. The Drum/Bias Transfer Roller drive the paper into the Heat and Pressure Rollers. The Heat and Pressure Rollers drive the sheet into the Exit Unit. Depending on the output location the user selected, the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to either the Face Down Output Bin or back through the Duplex Unit and into the Face Up Output Bin.

If the user selected the Face Down Output Bin the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Offset Roller, which drives the sheet into the Face Down Output Bin.

If the user selected the Face Up Output Bin, the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Exit Rollers, which drive the sheet into the Duplex Unit. Inside the Duplex Unit the Duplex Exit Gate Solenoid toggles the Duplex Exit Gate so the paper path runs to the Duplex Exit Rollers, which drive the paper into the Face Up Output Bin.

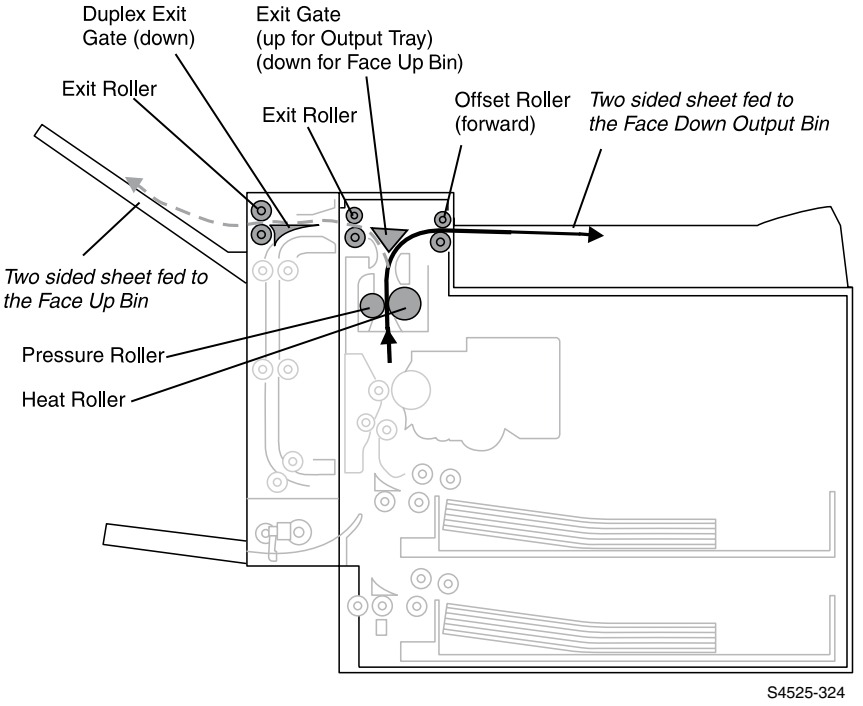


Fig 3-5 Duplex Paper Path - Step 3

Duplex Unit Paper Path Components

The Duplex Unit Paper Path is made up of a number of transport rollers and paper sensors.

1. Exit Gate and Exit Gate Solenoid
   Diverts paper to either the Duplex Transport Roller #1 or to the Face Up Bin.
2. Transport Roller #1 and Pinch Roller
   Drives paper down through the Duplex Unit and into the lower Transport Roller.
3. Transport Roller #2 and Pinch Roller
   Drive the paper into the Wait Roller.
4. Wait Sensor
   Monitors paper at the Wait Roller. Holds paper there until it is time to refeed the sheet into the printer, to the Registration Roller.
5. Wait Roller and Pinch Roller
   Refeed the sheet into the printer for the second side printing (at the proper time). The Wait Roller drives the paper out of the Duplex Unit and back into the printer.
6. Exit Roller
   Drives paper out of the Duplex Unit and into the Face Up output Bin.
7. Exit Sensor
   Monitors paper travel through the Exit Roller and into the Face Up output Bin.

Duplexer Unit Assemblies and Sensors

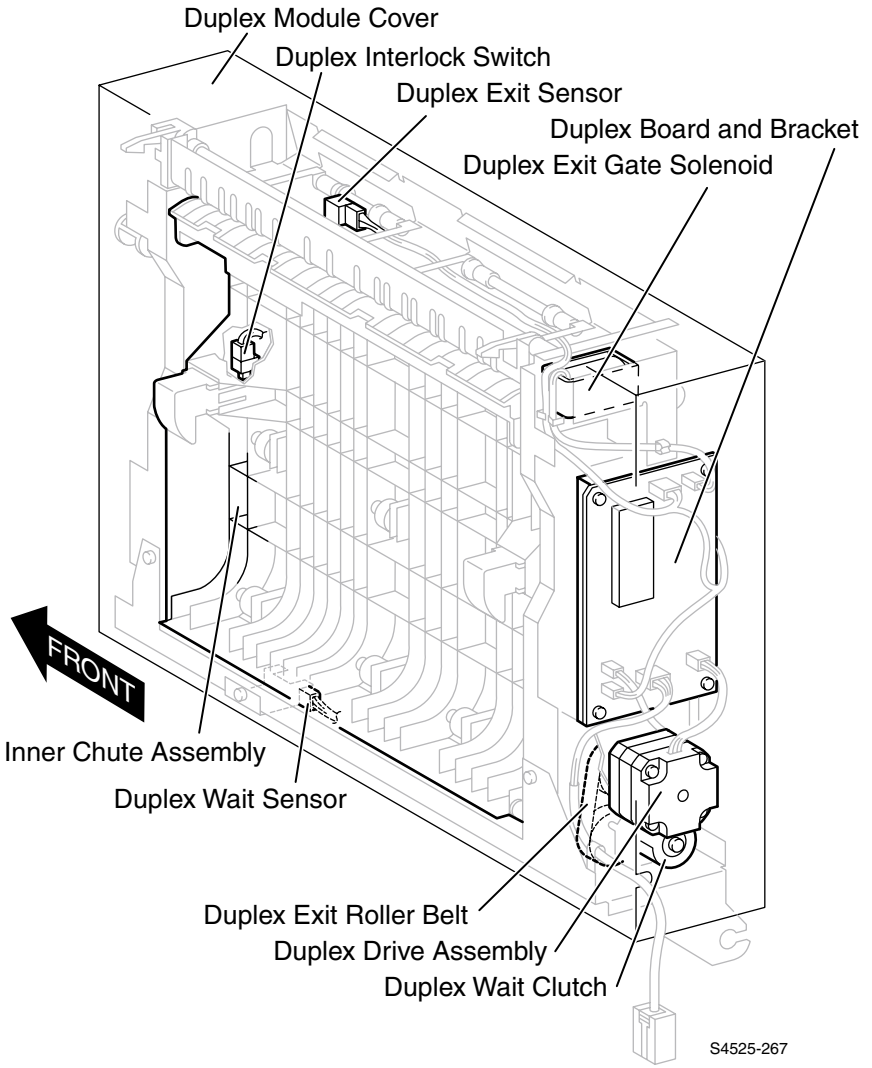


Fig 3-6 Duplex Unit Assemblies and Sensors

Error Codes and Messages

Error messages

The front panel displays error codes when it encounters certain system failures or problems otherwise undetected by the user. These error codes are discussed in this section. When an error code first occurs, cycle power on the printer to see if the error re-occurs.

- For **Printer Performance problems**, go to the Error Codes and Troubleshooting sections of Book 1, Volume 1 of this QRG.
- For **Image Quality problems**, go to the Troubleshooting section of Book 1, Volume 1 of this QRG.
- For **High Capacity Feeder problems**, go to the Error Codes and Troubleshooting sections of Book 2, Volume 2 of this QRG.
- For **Envelope Feeder problems**, go to the Error Codes and Troubleshooting sections of Book 2, Volume 4 of this QRG.
- For **Finisher-related problems**, go to the Error Codes and Troubleshooting sections of Book 2, Volume 6 of this QRG.

Duplex Unit Error Code Table

This table lists all of the Duplex Unit related Error Codes that are generated by the Print Engine Controller Board.

Note *Depending on the level of firmware on your Print Engine Controller Board some codes listed in this table may be invalid, some codes generated by the Print Engine Controller may not appear in this table, and Error and Message Code text presented in this table may differ slightly from the Error and Message Code text that is actually generated by your Print Engine Controller.*

Table 3-3 Duplex Unit Error Codes

Diplayed Error Message	Error Code	Fault Description	RAP No.	Unit Page
Paper Jam Clear Duplx Unit	E4-2	**There is a paper jam at the Duplex Exit Sensor.** Logic control on the Print Engine Controller Board sensed that the Duplex Exit Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.	3-1	3-509
Close Duplx Unit	E7-3	**The Duplex Cover is Open.** The Duplex Unit is closed, but logic control on the Print Engine Controller Board sensed that the Duplex Interlock Switch is open.	3-2	3-511
Paper Jam Clear Duplx Unit	E8-1	**There is a jam at the Duplex Exit Sensor.** Inverted page to be output to the Face Up Bin did not leave the Duplex Exit Sensor within the specified time.	3-3	3-512
Paper Jam Clear Duplx Unit	E8-2	**There is a paper jam between the Face Up Exit Sensor and the Duplex Wait Sensor.** Logic control on the Print Engine Controller Board sensed that the Duplex Wait Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.	3-4	3-514
Paper Jam Clear Duplx Unit	E8-6	**There is a problem with the Duplex Exit Sensor.** Remaining paper detected in the Duplex Unit.	3-5	3-516
Paper Jam Clear Duplx Unit	C6-1	**There is a paper jam between the duplex Wait Sensor and the registration Sensor.** Logic control on the Print Engine Controller Board sensed that the Registration Sensor did not actuate within the specified time after the Duplex Wait Clutch was actuated.	3-6	3-518
Paper Jam Clear Duplx Unit	C8-6	**There is a paper jam at the Duplex Exit sensor.** Logic control on the Print Engine Controller Board sensed that there is paper remaining in the Duplex Unit.	3-7	3-520

RAP 3-1

Error Code E4-2 Paper Jam Clear Duplx Unit

There is a paper jam at the Duplex Exit Sensor.

Logic Control on the Print Engine Controller Board sensed that the Duplex Exit Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.

Table 3-4 Error Code E4-2 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper that is loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Open the Duplex Unit and inspect the paper path between the Fuser and the Duplex Unit for paper scraps or foreign objects that could cause a paper jam. **Is the paper path clear?**	Go to step	Clear the paper path
3	**FACE UP EXIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / IOT / Face Up Exit Sen. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Face Up Exit Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Face Up Exit Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Face Up Exit Sensor RRP 1-63
4	**DUPLEX UNIT EXIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Exit Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper from the Duplex Exit Sensor. **Does the Control Panel Display show " With Paper" when you insert the paper into the Exit Sensor, and does the Display show "Without Paper " when you remove the paper?**	Go to step 5	Replace the Duplex Exit Sensor RRP 3-8
5	**INVERTER CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Invert Clut. CCW. 3. Press [4] to start test, [0] to stop. 4. With test on, hand rotate (counter clockwise) the Main Motor. **Do the Exit Rollers rotate?**	Go to step 6	Replace the Exit Drive Assembly RRP 1-55

Table 3-4 Error Code E4-2 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
6	**DUPLEX EXIT GATE SOLENOID TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Exit Gate Sol. 3. Press [4] to start test, [0] to stop. **Does the Duplex Exit Gate Solenoid actuate when you start the test?**	Go to step 7	Replace the Duplex Exit Gate Solenoid (RRP 3-9)
7	**DUPLEX EXIT GATE INSPECTION** 1. Open the Inner Chute. 2. Check the Duplex Exit Gate and Gate Spring. **Is the Duplex Exit Gate in place on the Inner Chute, is the Gate unbroken, does it pivot freely on the Inner Chute, and does it have a spring-action return?**	Go to step 8	Reinstall the Exit Gate and Spring or replace the Exit Gate and Spring (PL14.5)
8	**DUPLEX EXIT GATE TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Exit Gate Sol. 3. Press [4], the Duplex Exit Gate should actuate for two seconds, then release. **Does the Duplex Exit Gate Solenoid toggle the Exit Gate when you start the Output Test, and does it toggle the Exit Gate in the other direction when you stop the Output Test?**	Go to step 9	Realign the Exit Gate Solenoid plunger with the fork at the end of the Gate, or replace the Exit Gate (PL14.5)
9	**DUPLEX BOARD REPLACEMENT** Replace the Duplex Board (RRP 3-5). **Does the error code appear?**	Go to step 10	Problem solved
10	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 11	Problem solved
11	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 12	Problem solved
12	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Fuser Drive Assembly (RRP 1-53) ■ Fuser Assembly.		

RAP 3-2

Error Code E7-3 Close Duplx Unit

The Duplex Cover is open.

The Duplex Unit is closed, but Logic Control on the Print Engine Controller Board sensed that the Duplex Interlock Switch is open.

Table 3-5 Error Code E7-3 Close Duplex Unit

Step	Actions and Questions	Yes	No
1	**DUPLEX COVER CHECK** Open and close the Duplex Cover. **Is the error cleared?**	Problem solved. Treat as an intermittent.	Go to step 2
2	**DUPLEX INTERLOCK SWITCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Interlock. 3. Press [4] to start test, [0] to stop. 4. Open and close the Duplex Unit. **Does the Control Panel Display show "Closed" when you close the Duplex Unit and does the Display show "Open" when you open the Duplex Unit?**	Go to step 3	Replace the Duplex Interlock Switch (RRP 3-12)
3	**DUPLEX BOARD REPLACEMENT** Replace the Duplex Board (RRP 3-5). **Does the error code appear?**	Go to step 4	Problem solved
4	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 5	Problem solved
5	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 3-3

Error Code E8-1 Paper Jam Clear Duplx Unit

There is a paper jam at the Duplex Exit Sensor.

Inverted page to be output to the Face Up Bin did not leave the Duplex Exit Sensor within the specified time.

Table 3-6 Error Code E8-1 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper that is loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Observe the location of the last sheet of paper out of the Duplex Unit. **Did the paper exit the Duplex Unit?**	Go to step 3	Go to step 4
3	**DUPLEX UNIT EXIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Exit Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Duplex Exit Sensor). **Does the Control Panel Display show "With Paper" when you insert the paper into the Duplex Exit Sensor, and does the Display show "Without Paper" when you remove the paper?**	Replace the Duplex Board (RRP 3-5)	Replace the Duplex Exit Sensor (RRP 3-8)
4	**DUPLEX MOTOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Motor Slow. 3. Press [4] to start test, [0] to stop. **Does the Duplex Drive Motor run and do the gears of the Drive Assembly rotate?**	Go to step 5	Replace the Duplex Drive Assembly (RRP 3-7)
5	**EXIT ROLLER AND TRANSPORT ROLLER CHECK** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Motor Slow. 3. Press [4] to start test, [0] to stop. **Do the Exit Roller and Transport Roller rotate when you run the test?**	Replace the Exit Roller (RRP 3-10)	Go to step 6
6	**EXIT ROLLER BELT REPLACEMENT** Replace the Exit Roller Belt (RRP 3-13). **Does the error code appear?**	Go to step 7	Problem solved

Table 3-6 Error Code E8-1 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Print Engine Controller Board ■ Input/Output Board.		

RAP 3-4

Error Code E8-2 Paper Jam Clear Duplx Unit

There is a paper jam between the Face Up Exit Sensor and the Duplex Wait Sensor.

Logic Control on the Print Engine Controller Board sensed that the Duplex Wait Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.

Table 3-7 Error Code E8-2 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** Inspect the paper that is loaded in the paper tray. **Is the paper that is loaded in the cassette wrinkled or damaged?**	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Open the Inner Chute and observe the location of the jammed sheet of paper. **Did the paper actuate the Wait Sensor?**	Go to step 3	Go to step 4
3	**DUPLEX WAIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Wait Sensor. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Duplex Wait Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Duplex Wait Sensor, and does the Display show "Without Paper" when you remove the paper?**	Replace the Duplex Board (RRP 3-5)	Replace the Duplex Wait Sensor (RRP 3-11)
4	**DUPLEX MOTOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Motor Fast. 3. Press [4] to start the test, [0] to stop. **Does the Motor run when you start the test?**	Go to step 5	Check the Duplex Moter and Drive System (RRP 3-7)
5	**DUPLEX ROLLER OBSERVATION** **When performing step 4 above, do all of the Duplex Rollers rotate?**	Go to step 6	Troubleshoot the rollers and mechanical Drives.
6	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 7	Problem solved

Table 3-7 Error Code E8-2 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Input/Output Board.		

RAP 3-5

Error Code E8-6 Paper Jam Clear Duplx Unit

There is a problem with the Duplex Exit Sensor.

Remaining paper detected in the Duplex Unit..

Table 3-8 Error Code E8-6 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**DUPLEX EXIT SENSOR INSPECTION** Inspect the Duplex Exit Sensor for contamination or paper scraps that may be actuating the sensor. **Is the Duplex Exit Sensor clean and free of paper scraps?**	Go to step 2	Clean or clear paper scraps from the Sensor
2	**DUPLEX EXIT SENSOR INSPECTION** Inspect the Duplex Exit Sensor for damage, such as a broken spring or actuator, that may have locked the Sensor in the on position. **Is the sensor undamaged?**	Go to step 3	Replace the Duplex Exit Sensor (RRP 3-8)
3	**DUPLEX EXIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Exit Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Duplex Exit Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Duplex Exit Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Duplex Exit Sensor (RRP 3-8)
4	**DUPLEX BOARD REPLACEMENT** Replace the Duplex Board (RRP 3-5). **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 6	Problem solved
6	**INPUT/OUTPUT BOARD REPLACEMENT** Replace theInput/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 7	Problem solved

Table 3-8 Error Code E8-6 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 3-6

Error Code C6-1 Paper Jam Clear Duplx Unit

There is a paper jam between the Duplex Wait Sensor and the Registration Sensor.

Logic Control on the Print Engine Controller Board sensed that the Registration Sensor did not actuate within the specified time after the Duplex Wait Clutch was actuated.

Table 3-9 Error Code C6-1 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**PAPER INSPECTION** **Inspect the paper that is loaded in the paper tray.** Is the paper that is loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	**PAPER PATH INSPECTION** Open the Duplex Unit and observe the location of the jammed sheet of paper. **Is the paper sticking a few inches out of the bottom of the Duplex Unit?**	Go to step 3	Go to step 4
3	**REGISTRATION SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit/ Reg. Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Registration Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Registration Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Registration Sensor
4	**DUPLEX WAIT CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Wait Clutch. 3. Press [4], the Wait Clutch should actuate for two seconds, then release. **Does the Wait Clutch actuate when you start the test?**	Go to step 5	Replace the Wait Clutch (RRP 3-6) Replace the Duplex Board (RRP 3-5)
5	**WAIT ROLLER OBSERVATION** **Inspect the condition of the Wait Roller, is it in good condition?**	Go to step 6	Replace the Wait Roller (RRP 3-11)
6	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 7	Problem solved

Table 3-9 Error Code C6-1 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 3-7

Error Code C8-6 Paper Jam Clear Duplx Unit

There is a paper jam at the Duplex Exit Sensor.

Logic Control on the Print Engine Controller Board sensed that the Duplex Wait Sensor detected paper during standby.

Table 3-10 Error Code C8-6 Paper Jam Clear Duplex Unit

Step	Actions and Questions	Yes	No
1	**DUPLEX WAIT SENSOR INSPECTION** Inspect the Duplex Wait Sensor for contamination or paper scraps that may be actuating the sensor. **Is the Duplex Wait Sensor clean and free of paper scraps?**	Go to step 2	Clean or clear paper scraps from the Sensor
2	**DUPLEX WAIT SENSOR INSPECTION** Inspect the Duplex Wait Sensor for damage, such as a broken spring or actuator, that may have locked the Sensor in the on position. **Is the sensor undamaged?**	Go to step 3	Replace the Duplex Wait Sensor (RRP 3-11
3	**DUPLEX WAIT SENSOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Input Test / Duplex Unit / Wait Sensor. 3. Press [4] to start test, [0] to stop. 4. Insert, then remove, a sheet of paper into the Duplex Wait Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Duplex Wait Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Duplex Wait Sensor (RRP 3-11)
4	**DUPLEX BOARD REPLACEMENT** Replace the Duplex Board (RRP 3-5). **Does the error code appear?**	Go to step 5	Problem solved
5	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 6	Problem solved
6	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 7	Problem solved

Table 3-10 Error Code C8-6 Paper Jam Clear Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
7	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

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Inoperative Duplex Unit

The Duplex Unit does not function, the Duplex Motor does not switch on, and the problem is not identified by a displayed Error Code.

Table 3-11 Inoperative Duplex Unit

Step	Actions and Questions	Yes	No
1	**INTERFACE CABLE INSPECTION** Check the Duplex Interface Cable. **Is the cable firmly connected to the Plug/Jack at the rear of the printer?**	Go to step 2	Reconnect the Duplex Interface Cable
2	**DUPLEX MODE TEST PRINT** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Test Print / Select Pattern / Grid. 3. Press [4] to select. 4. From the Main Menu, select Test Print / Duplex / On. 5. Press [4] to select. 6. From the Main Menu, select Test Print / Start Print. 7. Press [4] to start. **Does the Duplex Unit process the Duplex Test Print?**	Go to step 3	Go to step 5
3	**COMPUTER/PRINTER CONNECTION CHECK** Run a simplex print job from the host computer, with output to the Face Down Output Bin. **Does the printer process the simplex print job?**	Go to step 4	Reconnect or replace the computer/ printer interface cable or check for a possible computer hardware problem
4	**DRIVER SOFTWARE RELOAD** 1. Reload the printer driver software. 2. Run a duplex print job from the host computer. **Does the printer process the duplex print job?**	Problem solved	Replace the System Controller Board (RRP 1-73l)
5	**DUPLEX MOTOR TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / Duplex Unit / Motor Slow. 3. Press [4] to start, [0] to stop. **Does the Duplex Motor run?**	Go to step 8	Go to step 6

Table 3-11 Inoperative Duplex Unit (cont'd.)

Step	Actions and Questions	Yes	No
6	**DUPLEX UNIT VOLTAGE CHECK** 1. Switch off the printer power. 2. Remove the Duplex Cover (RRP 3-2). 3. Reconnect the Duplex Interface Cable to the Plug/Jack at the rear of the printer. 4. Switch on the printer power. 5. Measure the voltage between J473-13 and frame ground, and the voltage between J473-2 and frame ground on the Duplex Board. **Is there +5VDC between J473-13 and frame ground, and is there +24VDC between J473-2 and frame ground?**	Replace the Duplex Drive Assembly (RRP 3-7)	Go to step 7
7	**LOW VOLTAGE POWER SUPPLY +5VDC CHECK** Measure the voltage between J400, pins 1, 2 & 3 (on the Print Engine Controller Board and frame ground. **Is there +5VDC between J400, pins 1,2 & 3 and frame ground?**	Go to step 6	Replace the Low Voltage Power Supply Assembly (RRP 1-67)
8	**LOW VOLTAGE POWER SUPPLY +24VDC CHECK** Measure the voltage between J400-8 (on the Print Engine Controller Board) and frame ground. **Is there +24VDC between J400-8 and frame ground?**	Go to step 7	Replace the Low Voltage Power Supply Assembly (RRP 1-67)
9	**DRIVE BELT INSPECTION** 1. Remove the Duplex Cover (see RRP 2-2) and reinstall the coverless Unit onto the printer. 2. Reconnect the Duplex Interface Cable to the Plug/Jack at the rear of the printer. 3. Enter Diagnostic Mode. 4. From the Main Menu, select Comp Output Test / Duplex Unit / Motor Slow. 5. Inspect the various belts and gears driven by the Duplex Motor. **Are any of the drive belts slipping or any of the drive gears not rotating?**	Replace the problem belt or gear. (PL 14.2)	Go to step 9
10	**DUPLEX BOARD REPLACEMENT** Replace the Duplex Board (RRP 3-5). **Does the Duplex Unit function normally?**	Problem solved	Go to step 10
11	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this RAP, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Input/Output Board.		

Removal and Replacement Procedures (RRPs)

This section provides many procedures and illustrations for removing and replacing key Field Replaceable Units (FRUs) within the Duplex Unit.

Notations in the RRP text

- Locations, such as R or right, given in the RRPs assume you are facing the printer console panel.
- The notation "rear" of a component, in place or removed, refers to the surface of the component that is, when installed, facing the rear of the print engine.
- The notation "front" of a component refers to the surface of the component that is, if installed, facing the front of the print engine.
- The notation “(see RRP Y)” in a RRP step, directs you to another RRP for information on how to perform a related or prerequisite procedure.
- The notation “(Figure x)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(PL#)” indicates that this component is listed in the PL# parts list.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- Call-outs in an illustration point to the specific RRP component and also to associated and adjacent components that are related to the removal and replacement of the specific component.

Contents

RRP 3-1 Duplex Unit Assembly (PL 14.1)

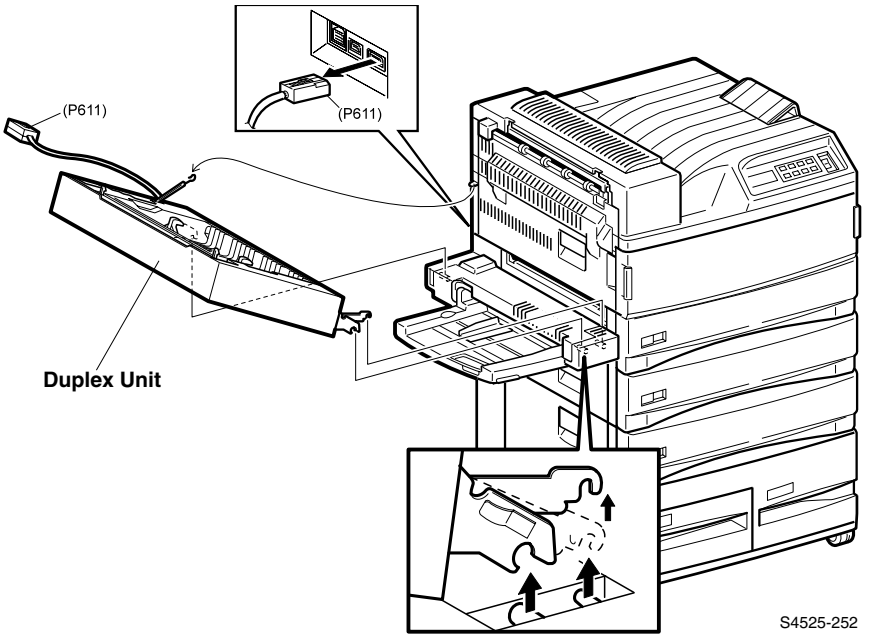

Fig 3-7 Duplex Unit Assembly

Removal

1. Disconnect the Duplex Unit interface cable from the rear of the printer.
2. Tilt the Duplex Unit back so it is open half way.
3. Unhook the Support Cable from the printer frame.
4. Support the Duplex Unit with your left hand.
5. Close the Duplex Unit such that you can release the metal arm that runs from the Unit to the metal stud on the front of the Multi-sheet Bypass Feeder Support (see the lower inset in the illustration).
6. Open the Duplex Unit all the way and lift it up to remove it from the printer.

Replacement

1. Hold the Duplex Unit so the front of the Unit is facing down and the metal hinges facing the printer.
2. Slip both the front and rear hinges onto the metal studs on the front and rear Multi-sheet Bypass Feeder Supports.
3. Support the Duplex Unit with your left hand.
4. Close the Duplexer Unit such that you can hook the metal arm that runs from the Duplexer Unit to the metal stud on the front Multi-sheet Bypass Feeder Support.
5. Hook the Support Cable to the printer frame and close the Duplex Unit.
6. Reconnect the Duplex Unit interface cable at the rear of the printer.

RRP 3-2 Duplex Unit Cover (PL 14.1)

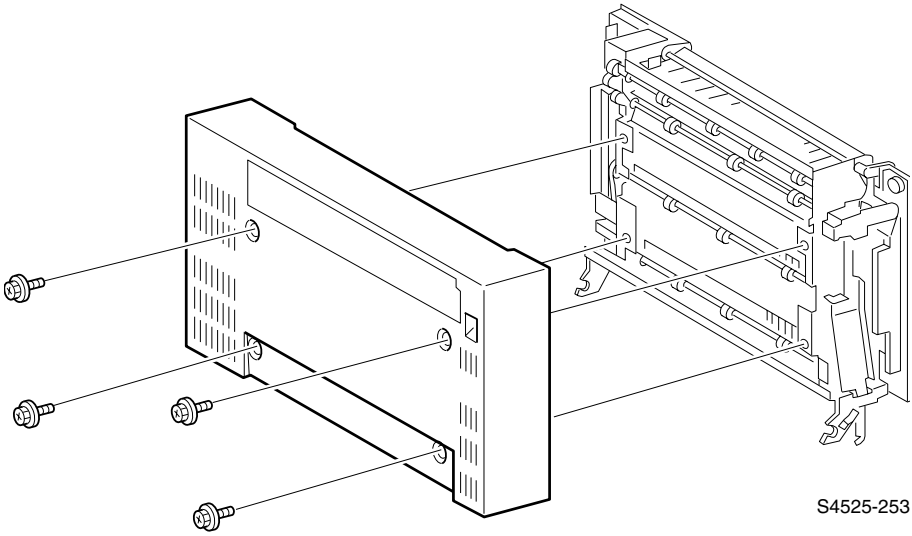

Fig 3-8 Duplex Unit Cover

Removal

1. If the Face Up Output Bin is installed, remove the two knurled screws securing the Bin to the Cover, and remove the Bin.
2. Remove the four screws securing the Duplex Unit Cover to the Duplex Unit frame, and remove the cover.

Replacement

1. Reinstall the Duplex Unit Cover over the Duplex Unit frame. Use four screws to secure it to the frame.
2. If a Face Up Output Bin is installed then reinstall the Bin onto the Cover and use two knurled screws to secure it to the Cover.

RRP 3-3 Duplex Unit Rear Cover (PL 14.1)

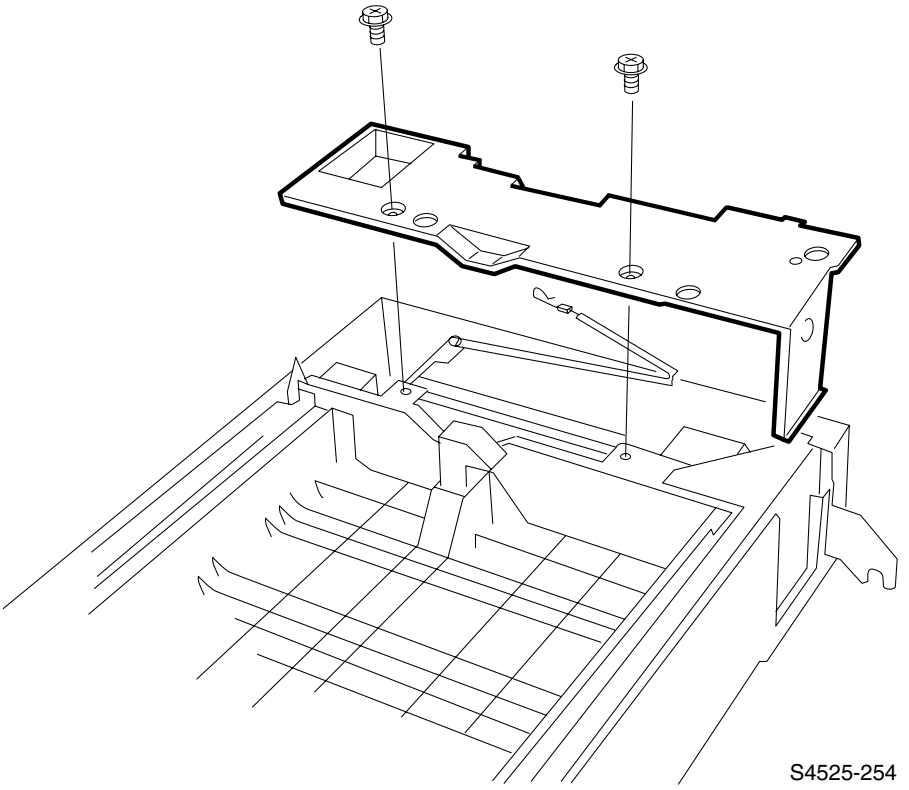

Fig 3-9 Duplex Unit Rear Cover

Removal

1. Remove the two screws, shown in the figure, securing the Rear Cover to the Duplex Unit, and remove the cover.

Replacement

1. Position the Rear Cover over the Duplex Unit.
2. Route the Support Cable through the cutout in the side of the Rear Cover.
3. Seat the Cover on the Duplex Unit, and use two screws to secure the Cover.

RRP 3-4 Duplex Unit Front Cover (PL 14.1)

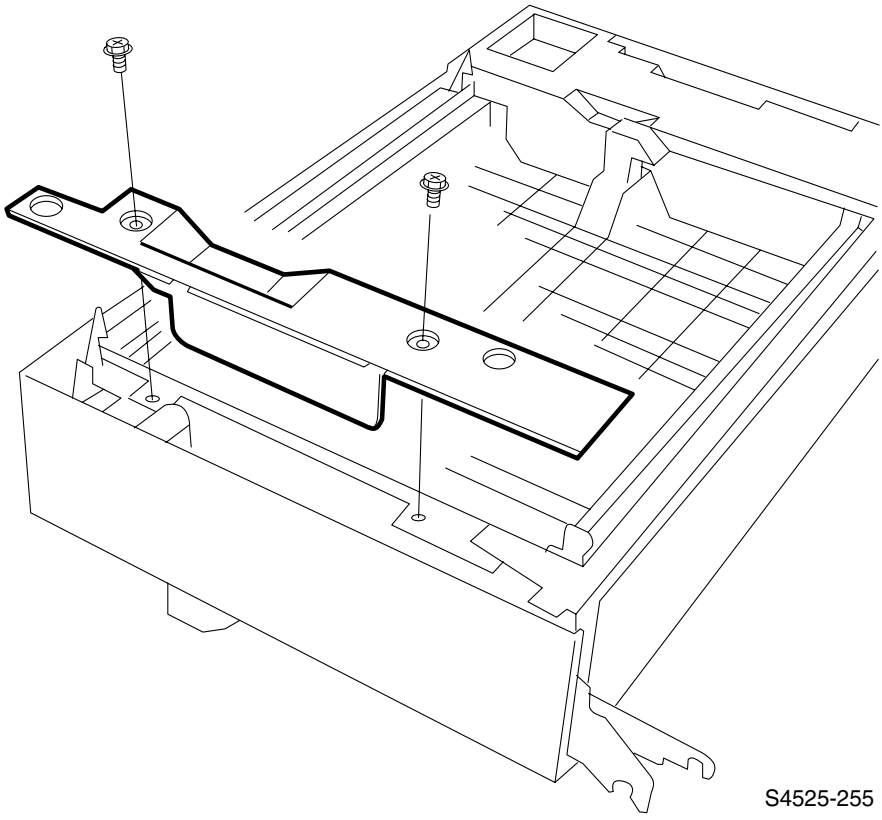

Fig 3-10 Duplex Unit Front Cover

Removal

1. Remove the two screws, shown in the figure, securing the front Cover to the Duplex Unit, and remove the Cover.

Replacement

1. Seat the front Cover on the Duplex Unit, and use two screws to secure the Cover.

RRP 3-5 Duplex Board and Bracket (PL 14.2)

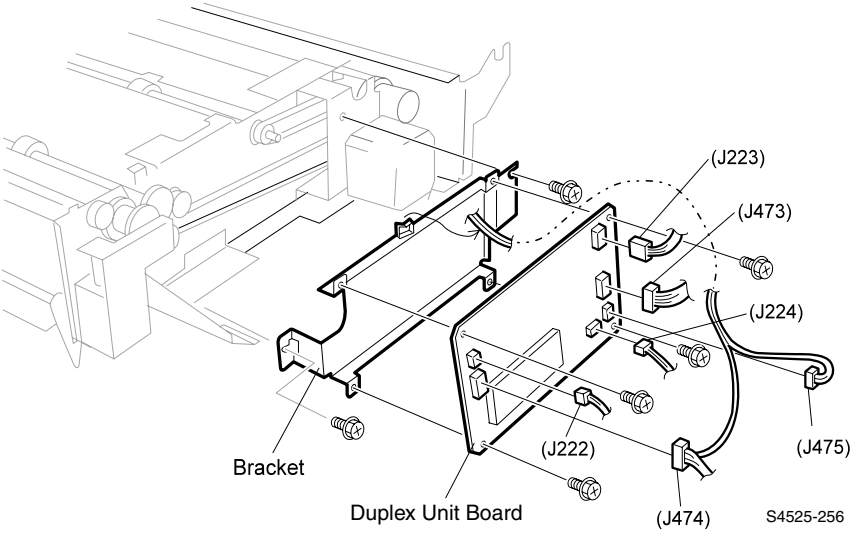

Fig 3-11 Duplex Board and Bracket

Removal

1. Power the printer off and disconnect the power cord.

Caution Remove the Duplex Cover (RRP 3-2). *Wear an electrostatic wrist strap and use caution when working with the Duplex Board. Static electricity can damage the sensitive electronics of the Board.*

Caution *Handle the Duplex Board by the edges of the Board. Never touch any of the ICs that are mounted on the Board.*

2. Disconnect the six P/Js that are connected to the Duplex Board.
3. Remove the four screws securing the Duplex Board to the Duplex Board Bracket, and remove the Board.
4. Remove the two screws securing the Bracket to the frame, and remove the Bracket.

Replacement

1. Reinstall the Board Bracket onto the frame, and use two screws to secure it.
2. Reinstall the Duplex Board onto the Board Bracket.
Position the Board so P223 is near the Duplex Motor.
3. Use four screws to secure the Board to the Bracket.
4. Reconnect the six P/Js to the Duplex Board.
5. Reinstall the Duplex Cover (RRP 3-2).

RRP 3-6 Duplex Wait Clutch (PL 14.2)

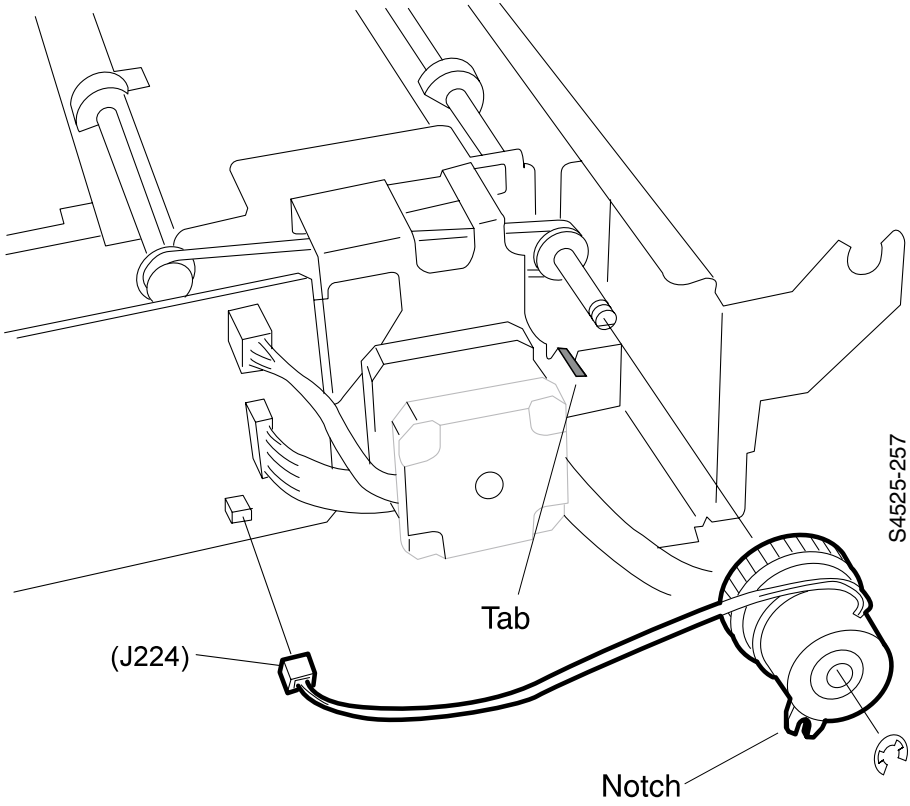

Fig 3-12 Duplex Wait Clutch

Removal

1. Remove the Duplex Rear Cover (RRP 3-3).
2. Disconnect P/J224 (wait Clutch) from the Duplex Board.
3. Remove the E-ring from the end of the Wait Clutch shaft.
4. Push up on the shaft latch as you slide the Clutch off of the shaft.

Replacement

1. Position the Wait Clutch so the notch in the Clutch lines up with the tab on the Duplex Unit frame.
2. Slide the Clutch onto the shaft.
   The shaft latch snaps the Clutch into place on the shaft.
3. Use an E-ring to secure the Clutch to the shaft.
4. Reconnect P/J224 to the Duplex Board.
5. Reinstall the Duplex Rear Cover (RRP 3-3).

RRP 3-7 Duplex Drive Assembly (PL 14.2)

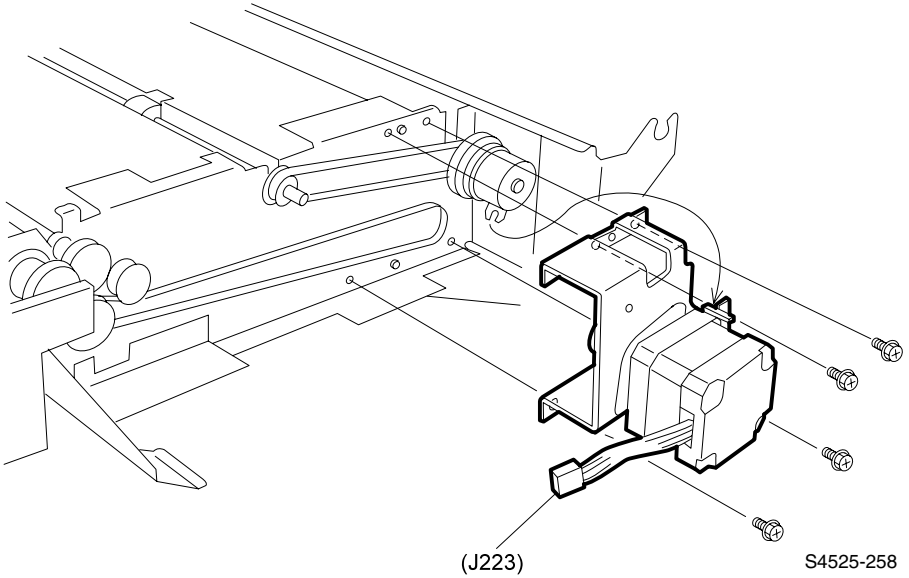

Fig 3-13 Duplex Drive Assembly

Removal

1. Remove the Duplex Rear Cover (RRP 3-3).
2. Remove the Duplex Board and Bracket (RRP 3-5).
3. Remove the four screws securing the Duplex Drive Assembly to the Duplex Unit frame.
4. Remove the Assembly.

Replacement

1. Reinstall the Drive Assembly onto the Duplex Unit frame.
2. Slip the Drive Belt onto the Motor Gear.
3. Align the four screw holes in the Duplex Drive Assembly with the four screw holes in the frame.

Note *Make sure you align the Notch on the Wait Clutch with the Tab on the Drive Assembly (RRP 3-6).*

4. Use four screws to secure the Drive Assembly to the Duplex Unit frame.
5. Reinstall the Duplex Board and Bracket (RRP 3-5).
6. Reinstall the Duplex Rear Cover (RRP 3-3).

RRP 3-8 Duplex Exit Sensor (PL 14.3)

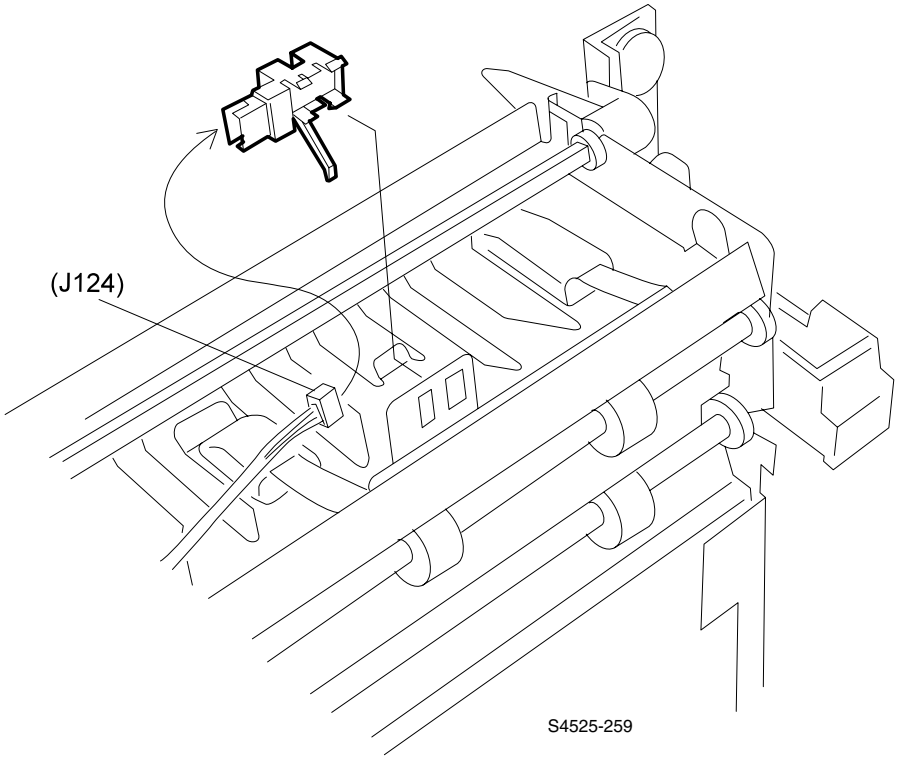

Fig 3-14 Duplex Exit Sensor

Removal

1. Remove the Duplex Cover (RRP 3-2).
2. Squeeze the four latches securing the Sensor to the bracket on the Upper Chute and remove the Duplex Exit Sensor.
3. Disconnect P/J124 from the Sensor.

Replacement

1. Remove the Duplex Cover (RRP 3-2).
2. Position the Duplex Exit Sensor so the P/J is facing the wire harness.
3. Insert the Sensor actuator through the opening in the Upper Chute.
4. Press the four latches on the bottom of the Sensor into the four openings in the bracket on the Upper Chute.
   The Sensor snaps into place.
5. Reconnect P/J124 to the Sensor.
6. Reinstall the Duplex Cover.

RRP 3-9 Duplex Exit Gate Solenoid (PL 14.3)

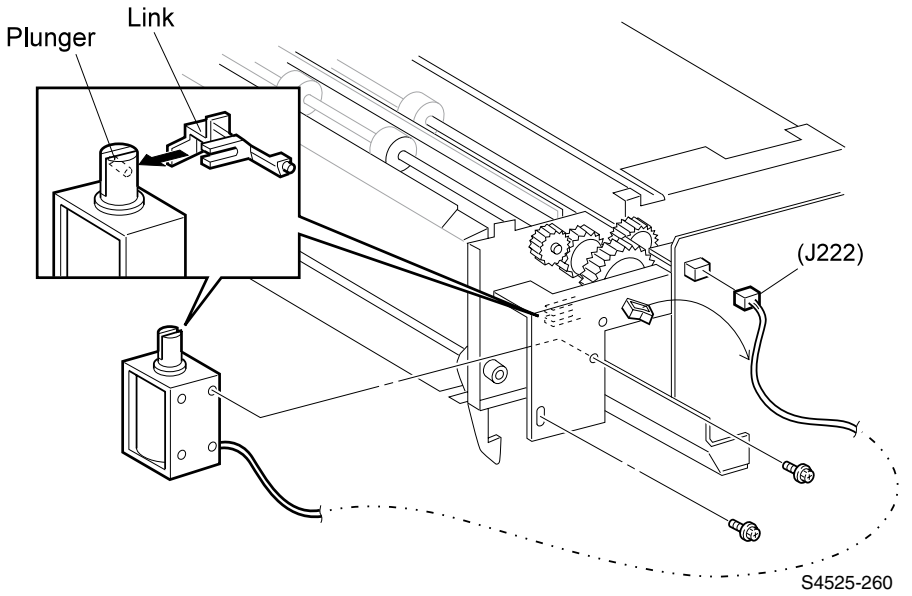

Fig 3-15 Duplex Exit Gate Solenoid

Removal

1. Remove the Duplex Cover (RRP 3-2)
2. Remove the Duplex Rear Cover (RRP 3-3).
3. Disconnect P/J222 from the Duplex Board.
4. Remove the wire harnesses from the wire clip that is mounted on the Solenoid Bracket.
5. Remove the two screws securing the Duplex Exit Gate Solenoid to the Bracket, and remove the solenoid.
6. If removal of the Solenoid is required, remove the two screws securing the Duplex Exit Gate Solenoid Bracket to the Duplex frame
7. Remove the Bracket.

Replacement

1. Reinstall the Duplex Gate Solenoid Bracket to the Duplex Frame
2. Reinstall the Duplex Exit Gate Solenoid onto the bracket.
3. Rotate the Solenoid plunger so the fork in the Link slips through the slot in the plunger.
4. Use two short black screws to secure the Solenoid to the Bracket.
5. Lift and release the Solenoid plunger to make sure it opens the Link correctly.
6. Reconnect P/J222 to the Duplex Board.
7. Reroute the wire harness through the wire clip located on the Solenoid Bracket.
8. Reinstall the Duplex Rear Cover (RRP 3-3).
9. Reinstall the Duplex Cover (RRP 3-2).

RRP 3-10 Exit Roller (PL 14.4)

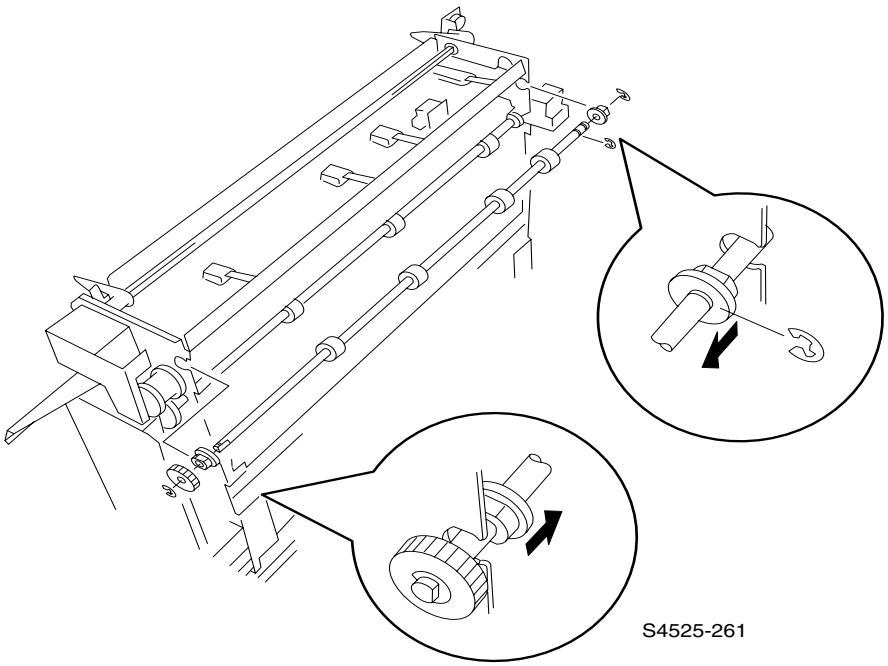

Fig 3-16 Exit Roller

Removal

1. Remove the Duplex Cover (RRP 3-2).
2. Remove the E-rings securing the rear and Front ends of the Exit Roller shaft to the Duplex Unit frame.
3. Slide both bearings toward the center of the shaft, and lift the Exit Roller shaft out of the Duplex Unit frame.
4. Remove the E-ring securing the Exit Roller Gear to the shaft, and remove the gear.
5. Remove the two bearings from the shaft.

Replacement

1. Slide the two bearings onto the Exit Roller shaft with the lip of each facing to the center of the shaft.
2. Reinstall the Exit Roller Gear, use an E-ring to secure it.
3. Reinstall the Exit Roller shaft into the slot in the Duplex Unit frame with the gear at the rear of the Duplex Unit.
4. Slide the shaft so the rubber rollers drop into the cutouts in the Duplex Unit.
5. Slide the bearings along the shaft and into the cutouts in the frame.
6. Use E-rings at the front and rear ends of the Exit Roller shaft to secure the bearings.
7. Reinstall the Duplex Cover (RRP 3-2).

RRP 3-11 Duplex Wait Sensor (PL 14.4)

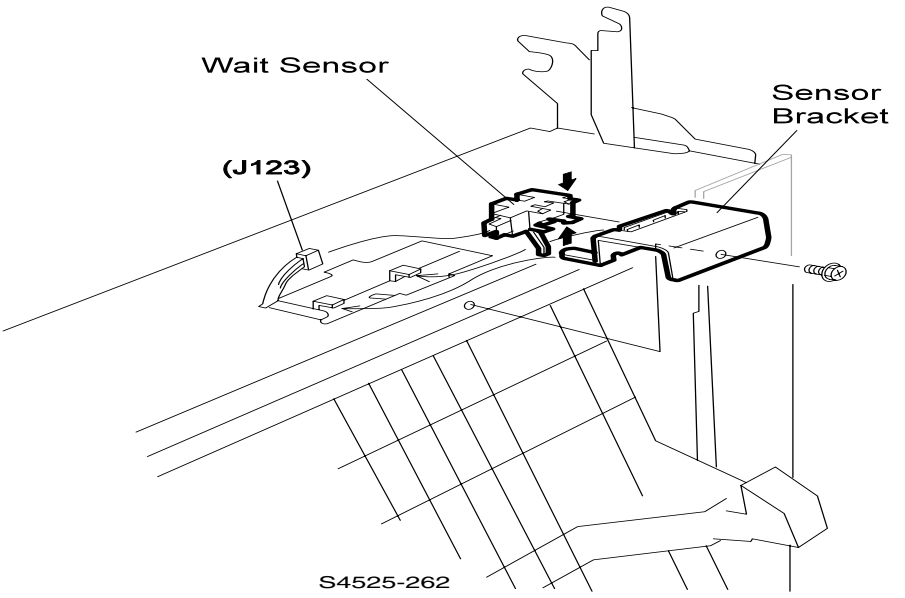

Fig 3-17 Duplex Wait Sensor

Removal

1. Remove the Duplex Cover (RRP 3-2).
2. Remove the screw securing the Wait Sensor Bracket to the Duplex Unit frame.
3. Remove the bracket and the attached Wait Sensor.
4. Disconnect P/J123 from the sensor.
5. Squeeze the four latches securing the Sensor to the bracket and remove the sensor.

Replacement

1. Position the sensor on the bracket so the sensor latches match the openings in the bracket.
2. Press the four latches on the bottom of the sensor into the four openings in the bracket. Then press the Sensor until it snaps into place.
3. Reconnect P/J123 to the sensor.
4. Slide the sensor actuator through the slot in the Duplex Unit, and slide the two arms of the sensor bracket under the two tabs next to the actuator slot.
5. Replace the black screw that secures the bracket to the Duplex Unit.
6. Reinstall the Duplex Cover (RRP 3-2).

RRP 3-12 Duplex Interlock Switch (PL 14.4)

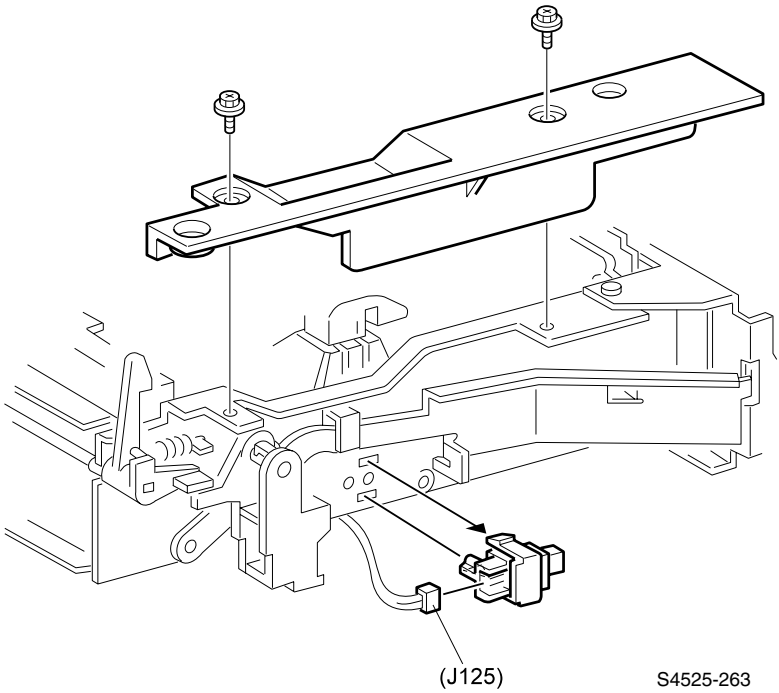

Fig 3-18 Duplex Interlock Switch

Removal

1. Remove the Duplex Cover (RRP 3-2).
2. Remove the Duplex Front Cover (RRP 3-4).
3. Disconnect P/J125 from the Interlock Switch.
4. Squeeze the sides of the switch together to release the two latches securing the Duplex Interlock Switch to the Duplex Unit frame, and remove the switch.

Replacement

1. Position the Interlock Switch as shown in the figure.
2. Insert the two locating tabs of the switch into the two corresponding holes in the Duplex Unit frame.
3. Press the switch into the frame.
   The Switch snaps into place.
4. Reconnect P/J125 to the Interlock Switch.
5. Reinstall the Duplex Front Cover (RRP 3-4).
6. Reinstall the Duplex Cover (RRP 3-2).

RRP 3-13 Exit Roller Belt (PL 14.4)

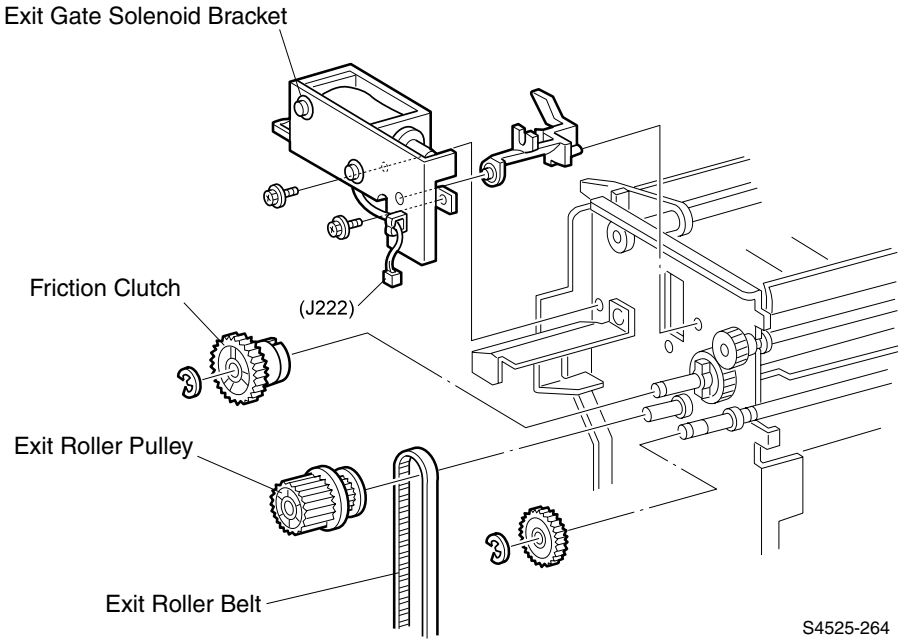

Fig 3-19 Exit Roller Belt

Removal

1. Remove the Duplex Board Bracket (RRP 3-5).
2. Remove the Duplex Drive Assembly (RRP 3-7).
3. Remove the two screws securing the Exit Gate Solenoid Bracket to the frame and remove the Bracket and Solenoid (RRP 3-9).
4. Remove the E-ring from the #1 Transport Roller Drive Gear, and slide the gear off of the shaft.
5. Remove the E-ring from the Friction Clutch, and slide the Clutch off of the shaft.
6. Slide the Exit Roller Pulley off of the shaft and remove the Exit Roller Belt.

Replacement

1. Reinstall one end of the Exit Roller Belt over the small end of the Exit Roller Pulley.
2. Slide the Exit Roller Pulley onto the Exit Roller shaft.
3. Slide the Friction Clutch onto the shaft and use an E-ring to secure it to the shaft.
4. Slide the #1 Transport Roller Drive Gear onto the Transport Roller shaft and use an E-ring to secure it to the shaft.
5. Reinstall the Exit Gate Solenoid Assembly and Bracket onto the frame. Use two black screws to secure the Bracket (RRP 3-9).
6. Reinstall the Duplex Drive Assembly (RRP 3-7).
7. Reinstall the Duplex Board Bracket (RRP 3-5).

RRP 3-14 Duplex Pinch Roller (PL 14.5)

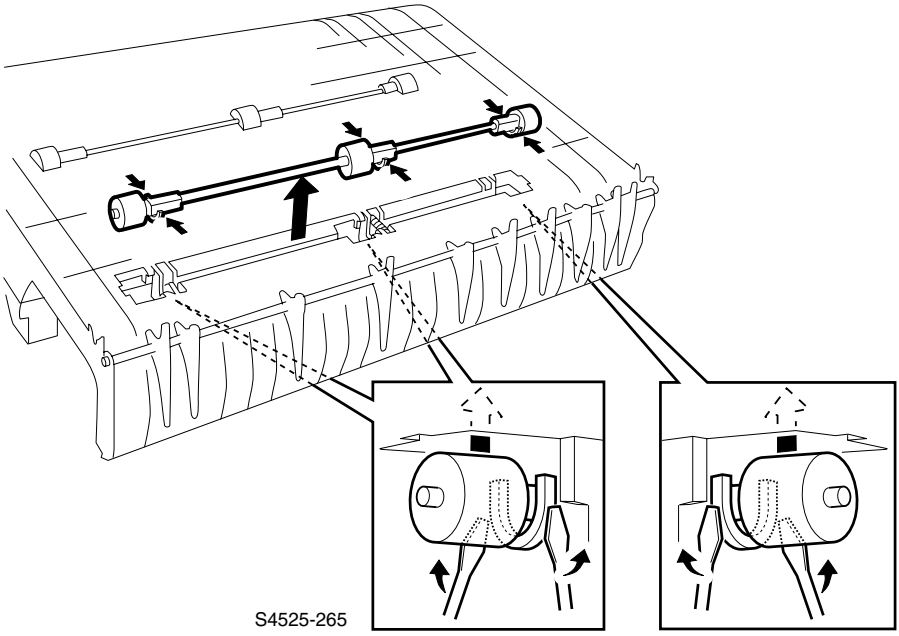

Fig 3-20 Duplex Pinch Roller

Removal

1. Remove the Inner Chute Assembly (RRP 3-15).
2. Working from the front of the Chute, use the flat blade of a screwdriver to carefully free the arms of the roller latch from the Inner Chute (see the figure), while pressing out on the rubber roller
3. Repeat step 3 for each of the remaining two rubber rollers on shaft.
4. Remove the Pinch Roller from the Inner Chute.
5. Repeat steps 3 through 5 and remove the other two Pinch Rollers attached to the Inner Chute.

Replacement

1. Open the Inner Chute.
2. Reinstall the Pinch Roller.
3. Rotate the three roller latches on each Pinch Roller shaft so the bow of the latches face down and the arms of the latches face up.
4. Press each latch into the Inner Chute until they snap into place.
5. Rotate the Pinch Roller to make sure it rotates smoothly.
6. Press and release the Pinch Roller to make sure it has a spring-action return.
7. Repeat steps 2 through 6 for each of the other two Pinch Rollers.
8. Reinstall the Inner Chute Assembly (RRP 3-15).

RRP 3-15 Inner Chute Assembly (PL 14.5)

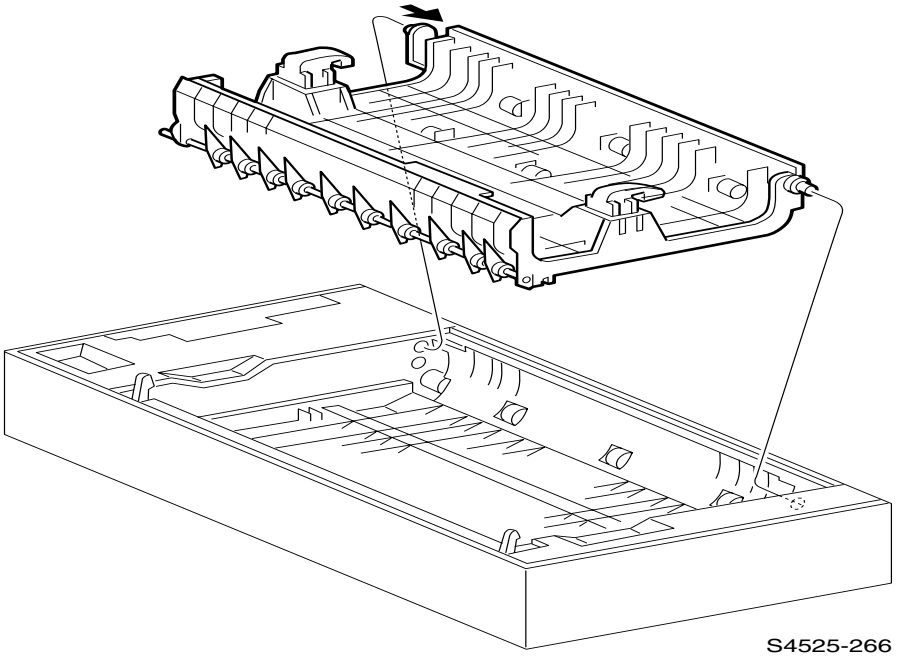

Fig 3-21 Inner Chute Assembly

Removal

1. Open the Duplex Unit.
2. Use the flat blade of a screwdriver to pry (arrow in the figure) the rear hinge of the Inner Chute out of hole in the Duplex Unit frame.
3. Remove the Inner Chute.

FRU PL 14 Duplex Unit Parts List

Usint the Parts List

1. The callout numbers shown in each parts exploded illustration correspond to the parts list numbers for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL14.3.12 means the part is item 12 of Parts List 3 of FRU Parts List 14 Duplex Unit.
3. The capital letters “C”, “E”, "KL", and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle ▼ in an illustration means that the item is an assembly that is made up of a number of individual parts.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.

PL 14.1 Duplex Covers and Assembly

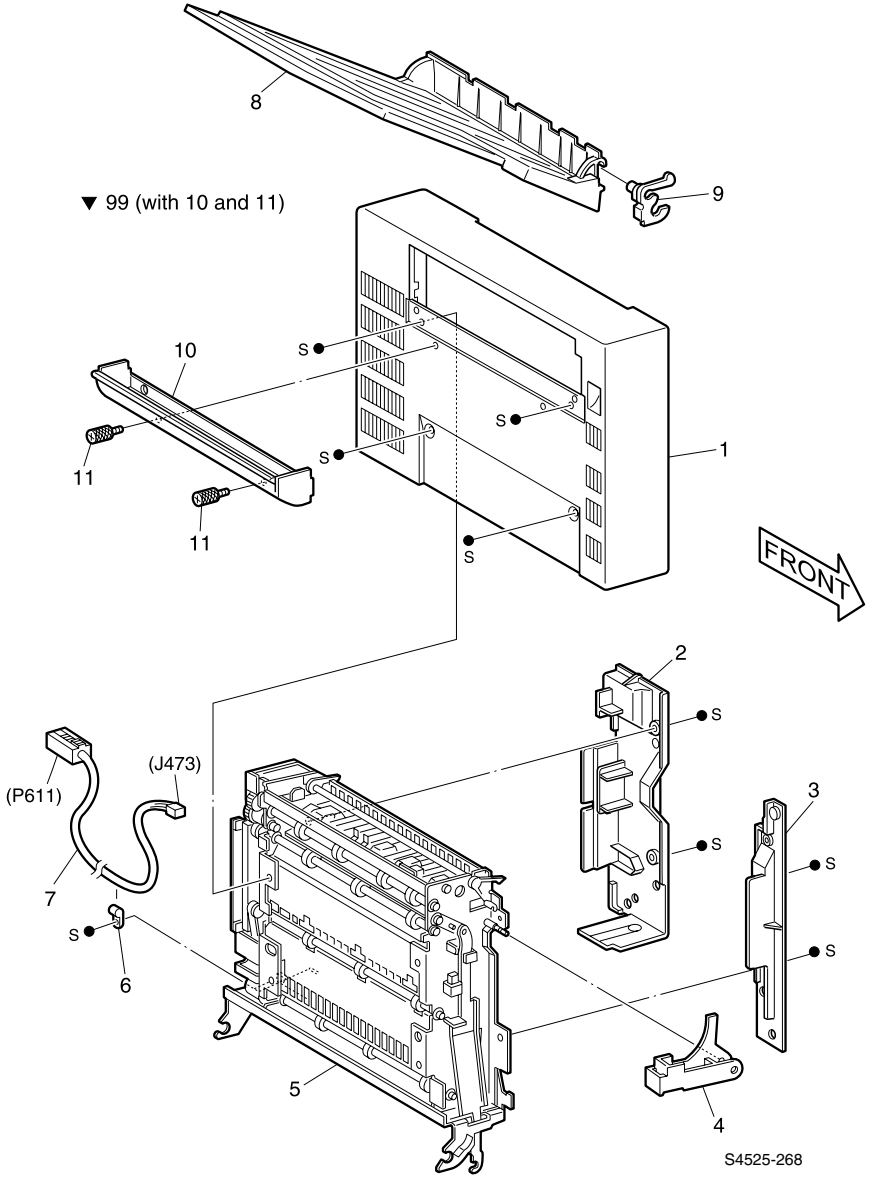

Fig 3-22 PL 14.1 Duplex Covers and Assembly

Table 3-12 PL 14.1 Duplex Covers and Assembly

ID No.	Part Number	Qty	Name / Description
1	048E41201	1	Cover, Duplex Unit
2	048E36010	1	Cover, Duplex Unit - rear
3	048E41213	1	Cover, Duplex Unit - front
4		1	Handle, Duplexer Unit release lever.
5	022K57110	1	Transport Assembly, Duplex (PL14.2, PL14.3, PL14.4, & PL14.5)
6		1	Clamp,Cable
7	162K30660	1	Cable Assembly, (J473<>P611)
8	050K29690	1	Bin, Face Up
9	031K92370	1	Link Assembly, Tray
10		1	Cover, Tray
11		2	Screw, Tray Cover Knurled
99	600K61021	1	Kit, Tray Cover Duplex (with 10 & 11)

PL 14.2 Duplex Drive

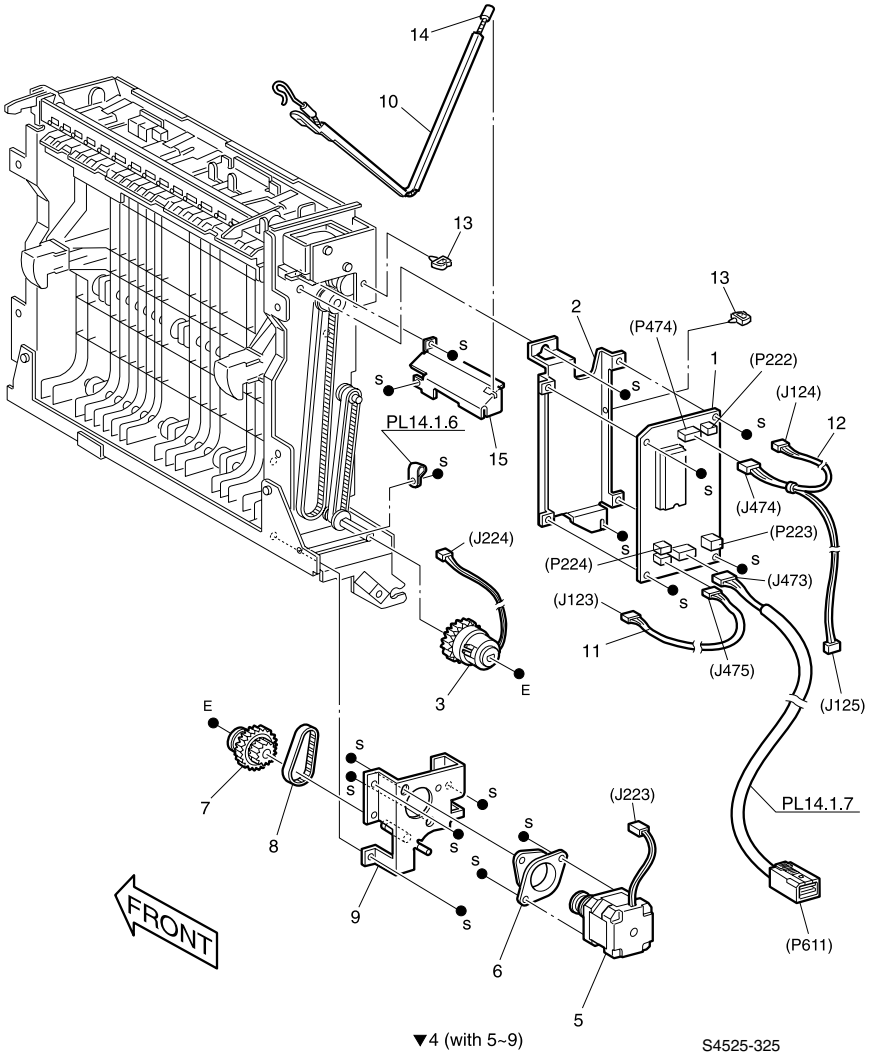

Fig 3-23 PL 14.2 Duplex Drive

Table 3-13 PL 14.2 Duplex Drive

ID No.	Part Number	Qty	Name / Description
1	160K62772	1	Board, Duplex
2		1	Bracket, Duplex
3	121K84001	1	Clutch, Assembly
4	127K83981	1	Motor Assembly, Duplex (with 5~9)
5		1	Motor, Duplex
6		1	Damper Assembly, Motor
7		1	Gear, 24/30/32T
8		1	Belt, Synchronous
9		1	Bracket Assembly, Motor
10		1	Support Assembly, Duplex
11		1	Harness Assembly, Wait Sensor (J475<>J123)
12		1	Harness Assembly, Exit Sensor (J474<>J124/J125)
13		1	Clamp
14	049E74600	1	Support, Wire
15		1	Bracket, Wire

PL 14.3 Duplex Upper Chute

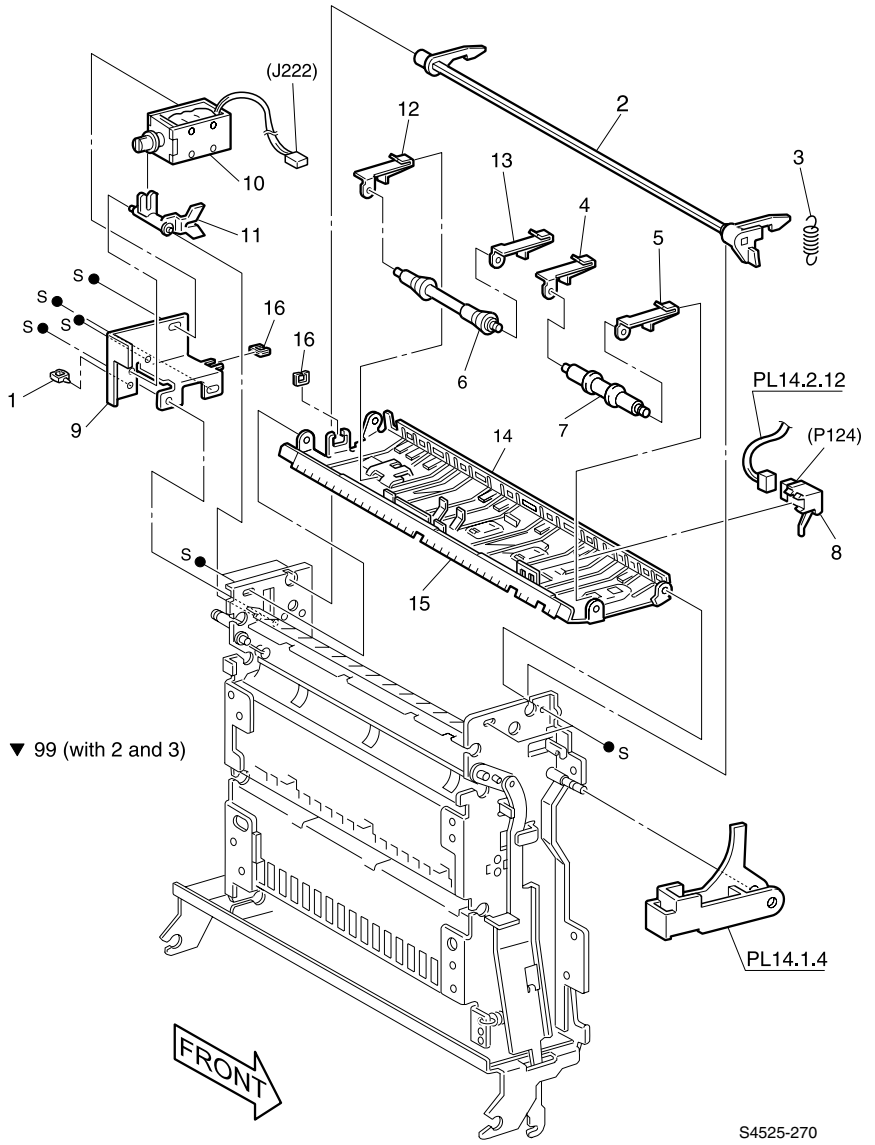

Fig 3-24 PL 14.3 Duplex Upper Chute

Table 3-14 PL 14.3 Duplex Upper Chute

ID No.	Part Number	Qty	Name / Description
1		1	Clamp
2		1	Latch Assembly (part of 99)
3		1	Spring, Latch (part of 99
4		1	Spring Assembly, Pinch.i
5		1	Spring Assembly, Pinch.h
6		1	Roller, Pinch.b
7		1	Roller, Pinch.a
8	130K83340	1	Sensor
9		1	Bracket, Solenoid
10	121K82870	1	Solenoid Assembly (J222)
11		1	Link, Gate
12		1	Spring Assembly, Pinch.m
13		1	Spring Assembly, Pinch.l
14		1	Chute, Upper
15		1	Eliminator
16		2	Clamp
99	600K65600	1	Kit, Duplex Latch (with 2 & 3)

PL 14.4 Duplex Paper Transport

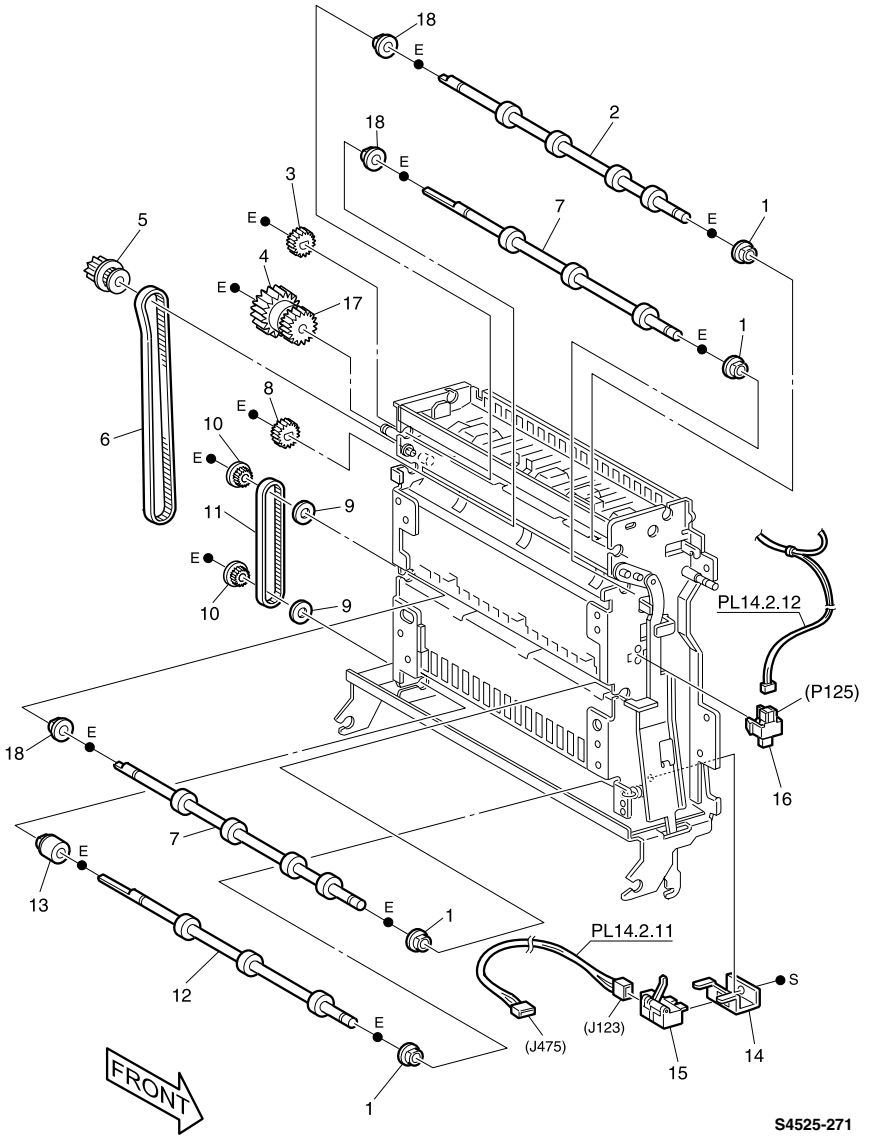

Fig 3-25 PL 14.4 Duplex Paper Transport

Table 3-15 PL 14.4 Duplex Paper Transport

ID No.	Part Number	Qty	Name / Description
1	413W75959	4	Bearing
2	022K46650	1	Roller Assembly, Exit
3		1	Gear, 14T
4	05K81820	1	Clutch Assembly, Friction
5		1	Gear, 20/25T
6	423W00453	1	Belt, Synchronous
7	022K33940	2	Roller Assembly, Transport
8		1	Gear, 18T
9		2	Spacer
10		2	Pulley, 20
11	423W12553	1	Belt, Synchronous
12	022K33950	1	Roller Assembly, Wait
13	005K81090	1	Clutch, One-way
14		1	Bracket, Sensor
15	130K83340	1	Sensor
16	110E93440	2	Switch, Cab
17		1	Gear, 21T
18	413W11660	3	Bearing

PL 14.5 Duplex Inner Chute

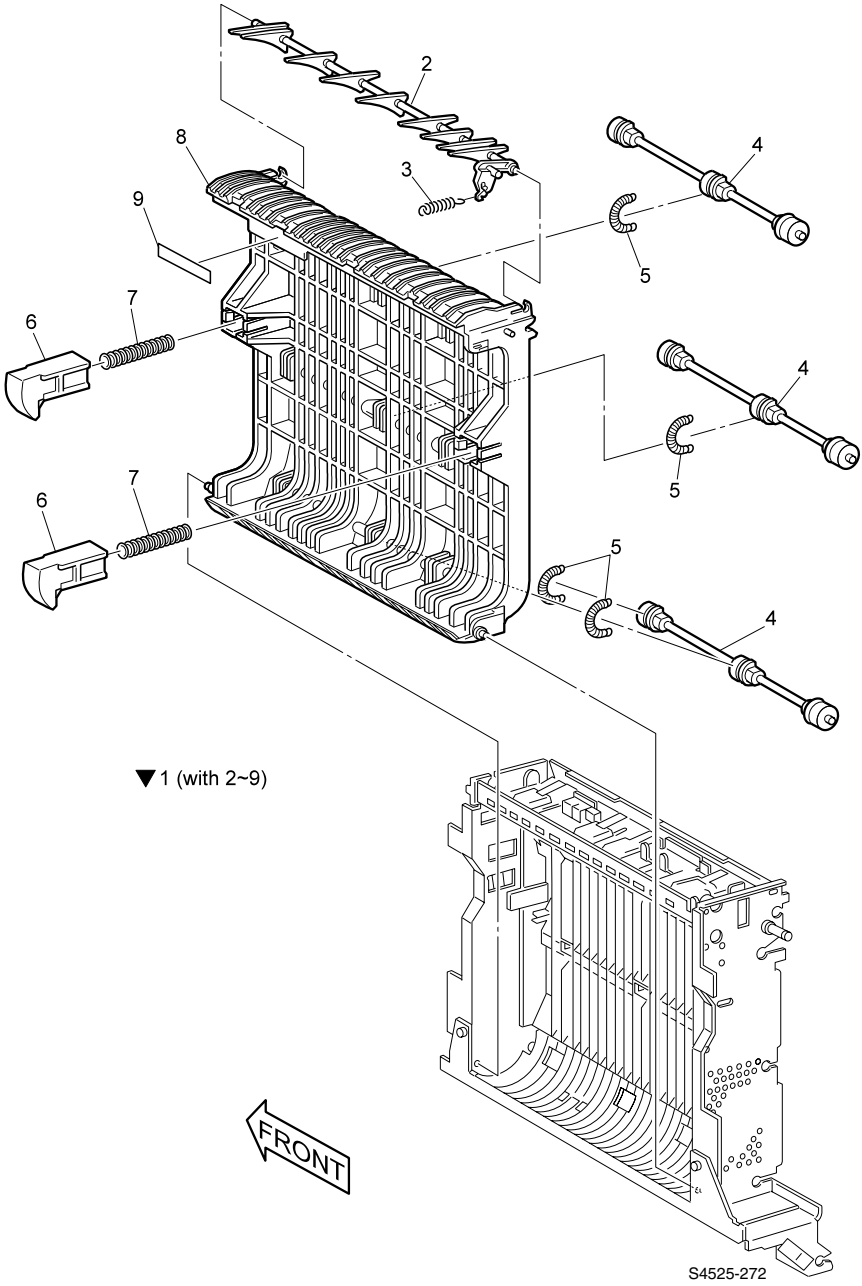

Fig 3-26 PL 14.5 Duplex Inner Chute

Table 3-16 PL 14.5 Duplex Inner Chute

ID No.	Part Number	Qty	Name / Description
1	054K08671	4	Chute Assembly, Inner (with 2~9)
2		1	Exit Gate, Duplex
3		1	Spring, Exit Gate
4		1	Pinch Roller, Duplex
5		1	Spring, Lower Pinch Roller
6		1	Duplex Holder
7		2	Spring, Duplex Holder
8		1	Chute, Inner
9		2	Label, Handle

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Plug/Jack Connectors

Use the table and map in this section to locate specific Plug/Jack connectors within the Duplex Unit.

To find the location of a Plug/Jack within the Duplex Unit;

1. Locate the Plug/Jack connector number in the first column of the Plug/Jack Location table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. With this information, go to the appropriate map (in this case map M1) and locate the item number (in this case 5).

Table 3-17 Plug / Jack Locations

Plug/ Jack	Map & Number	Connected to...	Other end connected to...
123	M1-10	Wait Sensor	P475 Duplex Board
124	M1-2	Exit Sensor	P474 Duplex Board
125	M1-1	Duplex Interlock Switch	P474 Duplex Board
222	M1-3	Duplex Board	Exit Sensor
223	M1-5	Duplex Board	Duplex Motor
224	M1-9	Duplex Board	Wait Clutch
473	M1-6	Duplex Board	P611 Duplex Interface Cable then to P463 Input/Output Board
474	M1-4	Duplex Board	J125 Duplex Interlock Switch and J124 Exit Sensor
475	M1-8	Duplex Board	J123 Wait Sensor
611	M1-7	Duplex Interface Cable	P473 Duplex Board

Plug Jack Connectors - Duplex Unit

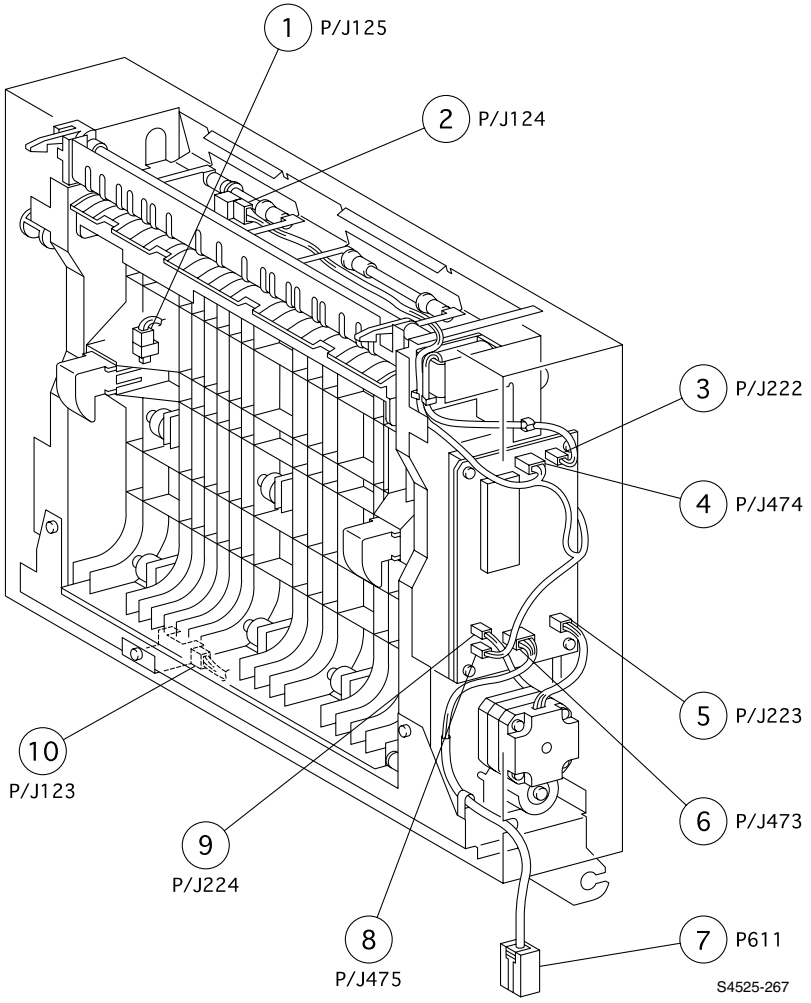


Fig 3-27 Plug/Jack Location Map 1

Wiring Diagrams and Signal Information

This section of the manual contains a Master Wiring Diagram for the Duplex Unit option. The Master Wiring Diagram shows the interconnections of the major subsystems within the Duplex Unit. The remainder of this section presents an individual block diagram (BD) to better illustrate the electrical relationships between components and assemblies within the Duplex Unit. Each wire in the diagrams is tagged with a signal name and each wire is terminated at both ends with a pin number.

Duplex Unit Master Wiring Diagram

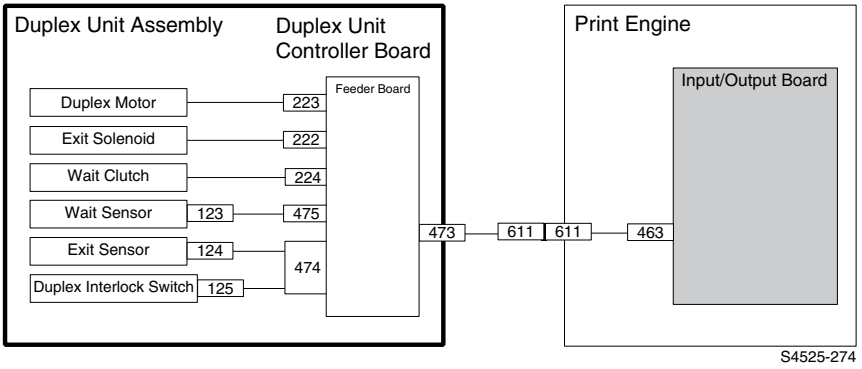


Fig 3-28 Duplex Unit Master Wiring Diagram

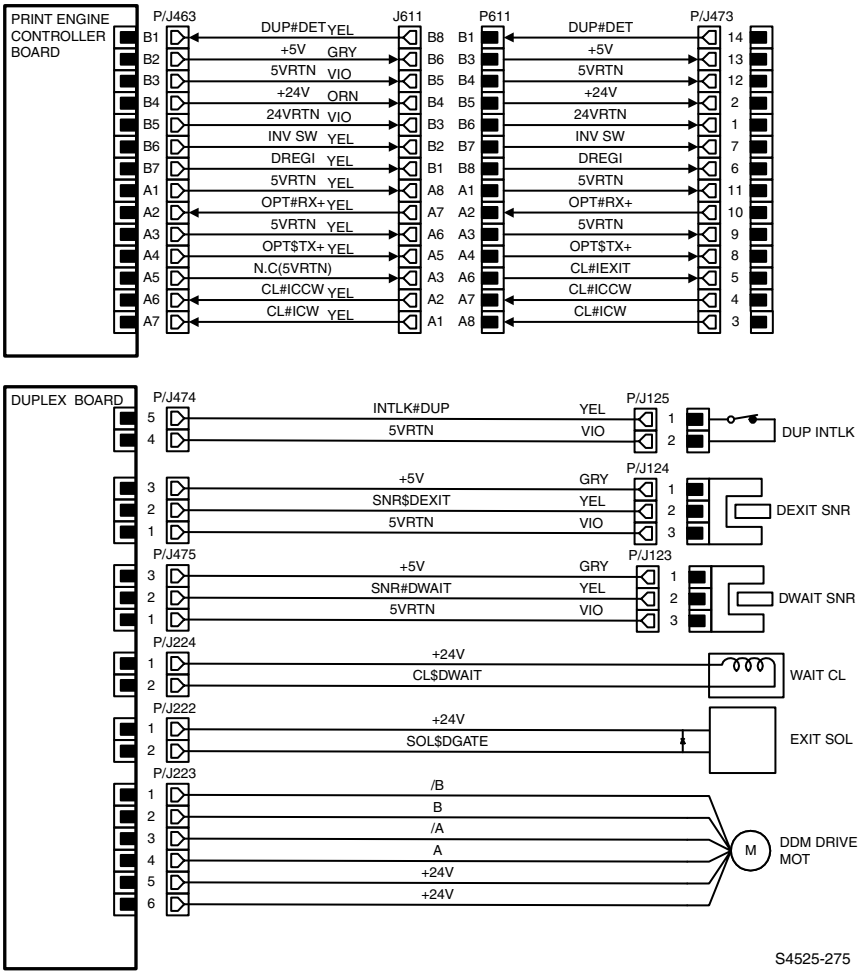


Fig 3-29 BD1 Input/Output Board↔Duplex Board↔Duplex Components

Table 3-18 BD1 Input/Output Board↔Duplex Board↔Duplex Components

Signal Name	Description
OPT$TX+	Status of Duplex Unit sent to Print Engine Controller. High=Mark. Low=No mark
OPT#RX+	Status of Print Engine Controller sent to the Duplex Unit. High=Mark. Low=No mark
DUP#DET	Monitors presence of a Duplex Unit. High=Duplex Unit not installed. Low=Duplex Unit installed
DREGI	Monitors paper at the Registration Sensor. High=Paper present. Low=Paper not present
INV SW	Monitors paper at the Fuser Exit Sensor. High=Actuated. Low=No actuated
CLS#ICW	Switches the Inverter Clockwise Clutch. High=Off. Low=On
CLS#ICCW	Switches the Inverter Couterclockwise Clutch. High=Off. Low=On
INTLK#DUP	Monitors the Duplex Cover Interlock Switch. High=Cover Open. Low=Cover closed
SNR$DEXIT	Monitors paper at the Duplex Exit Sensor. High=Not actuated. Low=Actuated
SNR$DWAIT	Monitors paper at the Duplex Wait Sensor. High=Not actuated. Low=Actuated
CL$DWAIT	Switches the Wait Roller. High=On. Low=Off
SOL$DGATE	Switches the Duplex Exit Gate Solenoid. High=Off. Low=On
/A, A, /B, B	Pulse signals sent by the Duplex Board to rotate the Duplex Motor

Envelope Feeder

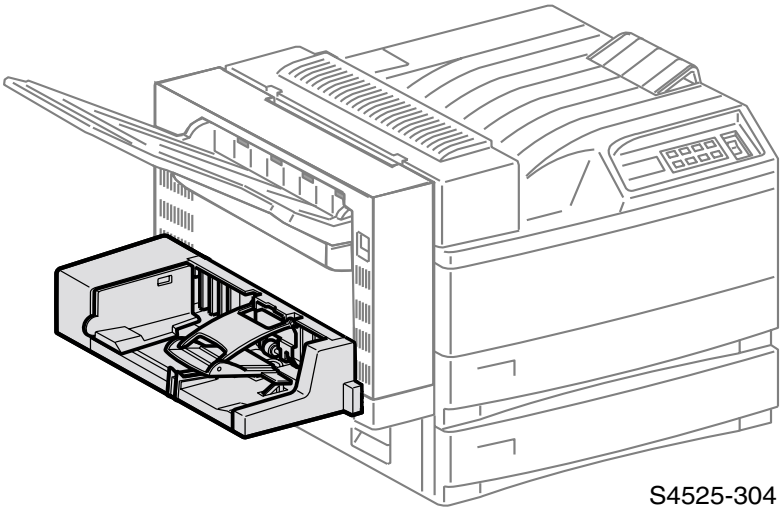


Fig 4-1 The DocuPrint N4525 Network Laser Printer shown with Envelope Feeder Option highlighted.

This Service Quick Reference Guide contains information useful in verifying the operation, troubleshooting, repairing and maintaining the **Envelope Feeder Option** for the DocuPrint N4525 Network Laser Printer. This Guide contains a detailed Field Replacement Unit (FRU) and Remove/Replace Procedures (RRPs) parts list.

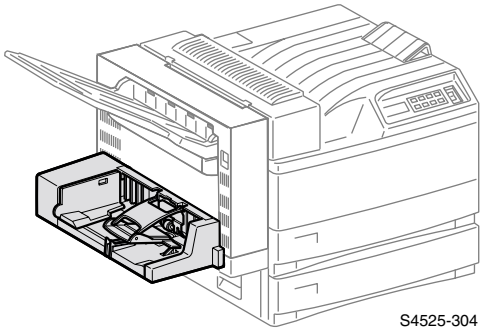
Topics, such as Envelope Feeder theory of operation, configuration page details, etc., are located on the companion (supplemental) *Printer Service & Support Resources CD-ROM*.

To ensure complete understanding of the product, participation in Xerox DocuPrint N4525 printer service training is recommended.

Envelope Feeder Overview

The Envelope Feeder is a customer installed option that feeds a variety of envelopes into the DocuPrint N4525 Network laser printer. It is easily installed in place of the Multi_Sheet Bypass Feeder. The printer's low voltage power supply provides all the the DC voltages required by the Envelope Feeder. One +24VDC motor inside the Envelope Feeder provides all of the mechanical drive required for operation. One electronic circuit board and three sensors inside the Envelope Feeder provide all of the control and paper path monitoring required for operation.

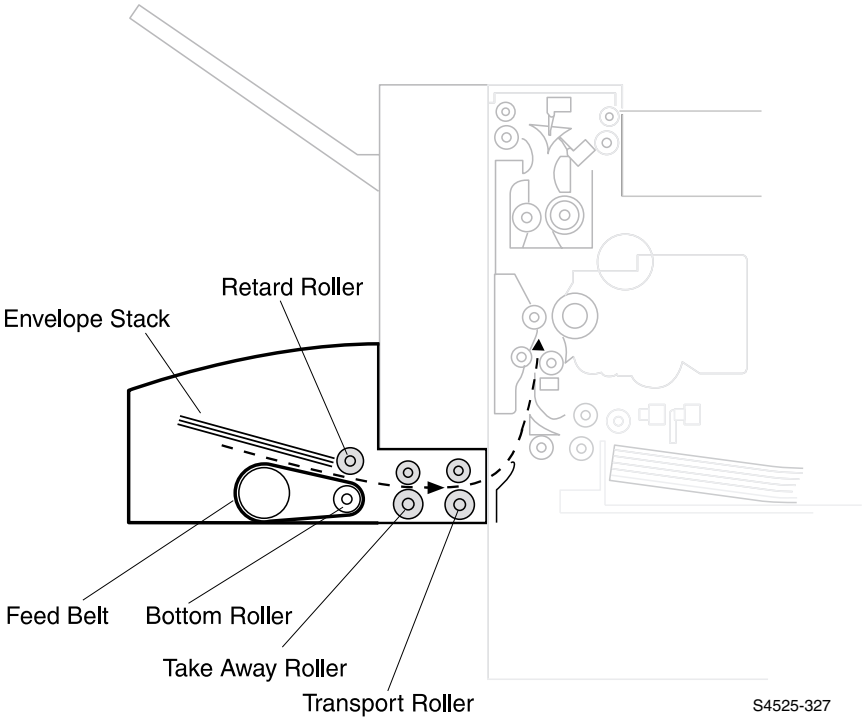
Table 4-1 Specifications

Category	Specification
Configuration	Customer installed option. The Envelope Feeder replaces the Mult4i-sheet Bypass Feeder. The Envelope Feeder attaches to the Multi-sheet Bypass Feeder Support. Paper fed from the Envelope Feeder cannot be duplexed.  S4525-304 **Fig 4-2 Envelope Feeder highlighted**
Envelope stack capacity	Maximum 100 envelope. Envelope Feeder is equipped with a No Paper Sensor
Recommended envelope sizes	Monroe Brand COM #10 - 104.8mm x 241.3mm Monroe Brand Monarch - 98.4mm x 190.5mm C5 - 162mm x 220mm DL - 110mm x 220mm
Power requirements	The Printer provides all of the Envelope Feeder power requirements; +5VDC and +24VDC.
Size and weight	Height: 133mm / 5.2 inches Width: 278mm / 10.9 inches Depth: 444mm / 17.4 inches Weight: 3.0kg / 6.6 lbs

The Envelope Feeder Paper Path

The Envelope Feeder Paper Path is the physical route that an envelope takes through the Envelope Feeder during a print cycle. The Feed Belt and Retard Roller feed a single envelope out of the stack and into the Take Away Roller. The Take Away Roller drives the envelope into the Transport Roller. The Transport Roller drives the envelope out of the Envelope Feeder and into the printer Registration Roller.

Fig 4-3 Envelope Feeder Paper Path



Envelope Feeder Paper Path Components

1. Envelope Stack
   Presses the stack of envelopes against the Feed Belt
2. Feed Belt & Bottom Roller
   Feeds an envelope off of the stack and into the Take Away Roller.
3. Retard Roller
   Prevents multiple envelope feed
4. Take Away Roller
   Continues to drive the envelope out of the feed area and into the Transport Roller.
5. Transport Roller
   Drives the envelope out of the Envelope Feeder and into the printer Registration Roller.

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Error Codes and Messages

Error messages

The front panel displays error codes when it encounters certain system failures or anomalies otherwise undetected by the user. These error codes are discussed in this section. When an error code first occurs, cycle power OFF, then ON to see if the error re-occurs.

- For **Printer Performance problems** or **Image Quality problems** go to the Error Codes or Troubleshooting section of Book 1, Volume 1 of this QRG.
- For **High Capacity Feeder problems**, go to the Error Codes or Troubleshooting section of Book 2, Volume 2 of this QRG.
- For **Duplex Unit problems**, go to the Error Codes or Troubleshooting of Book 2, Volume 3 of this QRG.
- For **Finisher problems**, go to the Error Codes or Troubleshooting section of Book 2, Volume 6 of this QRG.

Envelope Feeder Error Code Table

Note *Depending on the level of firmware on your print engine controller board some codes listed in this flowchart may be invalid, some codes generated by the print engine controller may not appear in this flowchart, and Error and Message Code text presented in this flowchart may differ slightly from the Error and Message Code text that is actually generated by your print engine controller.*

Table 4-2 Error Code Table

Displayed Error Message	Error Code	Go To Fault Description	Go to RAP No.	Unit Page
Paper Jam Reset Env/Bypass	C8-1	**There is a problem with the Envelope Feed Sensor.** Logic Control on the Print Engine Controller Board sesed the Envelope Feed Sensor was actuated while the printer was in Standby.	4-1	4-565
Paper Jam Reset Env/Bypass	C9-1	**There is a paper jam between the Envelope Tray and the Envelope Feed Sensor.** Logic Contol on the Print Engine Controller Board sensed that the Envelope Feed Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.	4-2	4-566
Paper Jam Reset Env/Bypass	C9-2	**There is a paper jam between the Envleope Feeder and the Tray 2 Take Away Sensor.** Logic control on the Print Engine Controller Board sesned that the Tray 2 Take Away Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.	4-3	4-569
Paper Jam Reset Env/Bypass	C9-3	**There is a paper jam between the Envelope Feeder and the Registration Sensor.** Logic control on the Print Engine Controller Board sensed that the Registration Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.	4-4	4-571

For Envelope Feeder Performance Problems, refer to the Envelope Feeder Performance Problems refer to the Troubleshooting section of this manual.

RAP 4-1

Error Code C8-1 Paper Jam Reset Env/Bypass Feeder

There is problem with the Envelope Feed Sensor.

Logic Control on the Print Engine Controller Board sensed the Envelope Feed Sensor was actuated while the printer was in standby.

Table 4-3 Error Code C8-1 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
1	**ENVELOPE FEED SENSOR INSPECTION** Inspect the Envelope Feed Sensor for paper scraps that may be actuating the sensor. **Is the Sensor free of paper scraps?**	Go to step 2	Remove the paper scraps
2	**ENVELOPE FEED SENSOR TEST** 1. Enter Diagnosticss Mode. 2. From the Main Menu, select Comp Input Test / MBF/ENV Unit / Env Feed Out Sen. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Envelope Feeder Sensor. **Does the Display show "With Paper" when you insert the paper into the Envelope Feed Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 3	Replace the Envelope Feed Sensor (RRP 4-16)
3	**ENVELOPE CONTROLLER BOARD REPLACEMENT** Replace the Envelope controller board (RRP 4-8). **Does the error code appear?**	Go to step 4	Problem solved
4	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 5	Problem solved
5	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 6	Problem solved
6	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedures, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 4-2

Error Code C9-1 Paper Jam Reset Env/bypass Feeder

There is a paper jam between the Envelope Tray and the Envelope Feed Sensor.

Logic Control on the Print Engine Controller Board sensed that the Envelope Feed Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated..

Table 4-4 Error Code C9-1 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
1	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps that may cause a paper jam. **Is the paper path free of paper scraps?**	Go to step 2	Clean the paper path
2	**PAPER INSPECTION** Inspect the envelopes that are loaded in the Envelope Tray. **Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?**	Replace the envelopes with new envelopes	Go to step 3
3	**JAM LOCATION INSPECTION** 1. Generate a single envelope feed. 2. Continue generating single envelope feeds until the Feeder stops with a C9-1 jam. 3. Observe where the envelope stopped along the paper path. **Did the envelope reach the Feed Sensor?**	Go to step 4	Go to step 8
4	**ENVELOPE FEED SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / MBF/ENV Unit / Env Feed Out Sen. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Envelope Feeder Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Envelope Feed Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 5	Replace the Envelope Feed Sensor (RRP 4-16)
5	**ENVELOPE CONTROLLER BOARD REPLACEMENT** 1. Replace the Envelope Controller Board (RRP 4-8) 2. Run a series of multiple envelope feeds. **Does the error code appear?**	Go to step 6	Problem solved

Table 4-4 Error Code C9-1 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
6	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the error code appear?**	Go to step 7	Problem solved
7	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 8	Problem solved
8	**JAM LOCATION INSPECTION** Observe where the envelope stopped along the paper path. **Was the envelope fed to or partially through the Transport Rolls?**	Clean the Transport Rolls. If there is any damage to the Rolls or to the gears, replace the Rolls and drive gears	Go to step 9
9	**ENVELOPE MOTOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / MBF/ENV Unit / Env Feed Motor. 3. Press [4] to start, [0] to stop. **Does the Envelope Motor run when you start the Output Test?**	Go to step 10	Go to step 11
10	**ENVELOPE FEED CLUTCH TEST** 1. Enter Diagnostic Mode. 2. From the Main Menu, select Comp Output Test / MBF/ENV Unit / Env Clutch On. 3. Press [4] to start, the clutch should actuate for two seconds, then release. **Does the Envelope Feed Clutch actuate when you start Output Test?**	Replace the Envelope Feed Belt (RRP 4-9)	Replace the Envelope Feed Clutch (RRP 4-14)
11	**+24VDC CHECK** Measure the voltage between P/J 700-7 and P/J 700-12 on the Envelope Controller Board. **Is there +24VDC between P/J 700-7 and P/J 700-12?**	Go to step 12	Use the Block Diagrams in the Base Engine Technical Manual to trouble-shoot a loss of +24VDC from the Print Engine Controller Board.
12	**ENVELOPE MOTOR REPLACEMENT** Replace the Envelope Motor (RRP 4-7). **Does the error code appear?**	Go to step 13	Problem solved

Table 4-4 Error Code C9-1 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
13	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedures, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

RAP 4-3

Error Code C9-2 Paper Jam Reset Env/Bypass Feeder

There is a paper jam between the Envelope Feeder and the Tray 2 Take Away Sensor.

Logic Control on the Print Engine Controller Board sensed that the Tray 2 Take Away Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.

Table 4-5 Error Code C9-2 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
1	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps that may cause a paper jam. **Is the paper path free of paper scraps?**	Go to step 2	Clean the paper path
2	**PAPER INSPECTION** Inspect the envelopes that are loaded in the Envelope Tray. **Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?**	Replace the envelopes with new envelopes	Go to step 3
3	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sensor. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Tray 2 Take Away sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Tray 2 Take Away Sensor (PL 5.1)
4	**ENVELOPE FEED SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / MBF/ENV Unit / Env Feed Out Sen. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Envelope Feed Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Envelope Feed Sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 5	Replace the Envelope Feed Sensor (RRP 4-16)

Table 4-5 Error Code C9-2 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
5	**ENVELOPE MOTOR TEST** 1. Enter Diagnostics Mode 2. From the Main Menu, select Comp Output Test / MBF/ENV Unit / Env Feed Motor. 3. Press [4] to start, [0] to stop. **Does the Envelope Motor run when you start the output test ?**	Go to step 6	Go to step 8
6	**ENVELOPE FEED CLUTCH TEST** 1. Enter Diagnostics Mode 1. From the Main Menu, select Comp Output Test / MBF/ENV Unit / Env Clutch On. 2. Press [4] to actuate the clutch, listen carefully for two clicks. **Does the Envelope Feed Clutch actuate when you start the Output Test?**	Go to step 7	Replace the Envelope Feed Clutch (RRP 4-14)
7	**TRANSPORT ROLLER OBSERVATION** Generate a test print from the Envelope Feeder. **Do the Transport Rolls rotate smoothly and without stalling or slipping?**	Clean or replace the Transport Rolls.	Replace the Envelope Motor (RRP 4-7) and the Envelope Feed Clutch (RRP 10.14)
8	**+24VDC CHECK** Measure the voltage between P/J 700-7 and P/J 700-12 on the Envelope Controller Board. **Is there +24VDC between Plug/Jack700-7 and Plug/Jack700-12?**	Go to step 9	Use the Block Diagrams in the Base Engine Technical Manual to troubleshoot a loss of +24VDC from the Print Engine Controller Board.
9	**ENVELOPE MOTOR REPLACEMENT** Replace the Envelope Motor (RRP 4-7). **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedures, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Envelope Controller Board (RRP 4-8) ■ Print Engine Controller Board (RRP 1-72) ■ Input/Output Board (RRP 1-70).		

RAP 4-4

Error Code C9-3 Paper Jam Reset Env/Bypass Feeder

There is a paper jam between the Envelope Feeder and the Registration Sensor.

Logic Control on the Print Engine Controller Board sensed that the Registration Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.

Table 4-6 Error Code C9-3 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
1	**PAPER PATH INSPECTION** Inspect the paper path for paper scraps that may cause a paper jam. **Is the paper path free of paper scraps?**	Go to step 2	Clean the paper path
2	**PAPER INSPECTION** Inspect the envelopes that are loaded in the Envelope Tray. **Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?**	Replace the envelopes with new envelopes	Go to step 3
3	**REGISTRATION SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu select Comp Input Test / IOT Unit / Reg. Sensor 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Registration Sensor. **Does the Control Panel Display show With Paper" when you insert the paper into the Registration sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 4	Replace the Registration Sensor (PL 6.1)
4	**TRAY 2 TAKE AWAY SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / IOT Unit / T/A Roll2 Sen. 3. Press [4] to start, [0] to stop. 4. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. **Does the Control Panel Display show "With Paper" when you insert the paper into the Tray 2 Take Away sensor, and does the Display show "Without Paper" when you remove the paper?**	Go to step 5	Replace the Tray 2 Take Away Sensor (PL 5.1)

Table 4-6 Error Code C9-3 Paper Jam Reset Env/Bypass Feeder

Step	Actions and Questions	Yes	No
5	**ENVELOPE MOTOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu Select Output Test / MBF/ENV Unit / Env Feed Motor. 3. Press [4] to start, [0] to stop. **Does the Envelope Motor run when you start Press [4]?**	Go to step 6	Go to step 8
6	**ENVELOPE FEED CLUTCH TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu Select Output Test / MBF/ENV Unit / Env Clutch On. 3. Press [4] to actuate the clutch, listen carefully for two clicks. **Does the Envelope Feed Clutch actuate when you start the Output Test?**	Go to step 7	Replace the Envelope Feed Clutch (RRP 4-14)
7	**TRANSPORT ROLLER OBSERVATION** Generate a test print from the Envelope Feeder. **Do the Transport Rolls rotate smoothly and without stalling or slipping?**	Clean or replace the Transport Rolls.	Replace the Envelope Motor (RRP 4-7) and the Envelope Feed Clutch (RRP 4-14)
8	**+24VDC CHECK** Measure the voltage between P/J 700-7 and P/J 700-12 on the Envelope Controller Board. **Is there +24VDC between P/J700-7 and P/J 700-12?**	Go to step 9	Use the Block Diagrams in the Base Engine Manual to troubleshoot a loss of +24VDC from the Print Engine Controller Board
9	**ENVELOPE MOTOR REPLACEMENT** Replace the Envelope Motor (RRP 4-7). **Does the error code appear?**	Go to step 10	Problem solved
10	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedures, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components ■ Envelope Controller Board (RRP 4-8) ■ Print Engine Controller Board (RRP 1-72) ■ Input/Output Board (RRP 1-70).		

Envelope Feeder Performance Problems

Inoperative Envelope Feeder

The Envelope Feeder does not function, the Envelope Motor does not switch on, and the problem is not identified by a displayed Error Code.

Table 4-7 Inoperative Envelope Feeder

Step	Actions and Questions	Yes	No
1	**ENVELOPE FEEDER CONNECTION INSPECTION** 1. Remove the Envelope Feeder from the Base Engine. 2. Inspect the Plug/Jack that connects the Feeder to the Base Engine. **Is the Plug/Jack free of damage, loose wires, and damaged or missing pins?**	Go to step 2	Replace or repair the connector
2	**ENVELOPE TEST PRINT** 1. Enter Diagnostics Mode 2. From the Main Menu, select Test Print / Input Tray / MBF/ENV Unit. 3. Press [4]. 4. Select start print. 5. Press [4] to start print. **Does the Envelope Feeder feed an envelope?**	Go to step 3	Go to step 5
3	**COMPUTER/PRINTER CONNECTION CHECK** Check the computer/printer connection then run an envelope print job from the host computer. **Does the printer process the envelope print job?**	Problem solved	Go to step 4
4	**DRIVER SOFTWARE RELOAD** 1. Reload the printer driver software. 2. Run an envelope print job from the host computer. **Does the printer process the envelope print job?**	Problem solved	Replace the System Controller Board (RRP 1-73)
5	**ENVELOPE MOTOR TEST** 1. Enter Diagnostics Mode 2. From Main Menu, select Output Test / MBF/ENV Unit / Env Feed Mot. 3. Press [4] to start, [0] to stop. **Does the Envelope Motor run?**	Go to step 11	Go to step 6

Table 4-7 Inoperative Envelope Feeder

Step	Actions and Questions	Yes	No
6	**ENVELOPE FEEDER VOLTAGE CHECK** 1. Remove the Envelope Bottom Cover (RRP 4-2). 2. Remove the Envelope Top Cover (RRP 4-3). 3. Remove the Envelope Rear Cover (RRP 4-5). 4. Reinstall the coverless Envelope Feeder onto the printer. 5. Switch on the printer power. 6. Measure the voltage between J700-1 and J700-5, and the voltage between J700-7 and J700-12 on the Envelope Controller Board. **Is there +5VDC between J700-1 and J700-5, and is there +24VDC between J700-7 and J700-12?**	Replace the Envelope Feeder Board (RRP 4-8)	Go to step 7
7	**LOW VOLTAGE POWER SUPPLY +5VDC CHECK** Measure the voltage between J400, pins 1, 2 & 3 (on the Print Engine Controller Board) and frame ground. **Is there +5VDC between J400, pins 1,2 & 3 and frame ground?**	Go to step 8	Replace the Low Voltage Power Supply Assembly ("Low Voltage Power Supply Assembly (PL 11.1)")
8	**LOW VOLTAGE POWER SUPPLY +24VDC CHECK** Measure the voltage between J400-8 (on the Print Engine Controller Board) and frame ground. **Is there +24VDC between J400-8 and frame ground?**	Go to step 9	Replace the Low Voltage Power Supply Assembly ("Low Voltage Power Supply Assembly (PL 11.1)")
9	**PRINT ENGINE CONTROLLER BOARD REPLACEMENT** Replace the Print Engine Controller Board (RRP 1-72). **Does the Envelope Feeder function normally?**	Problem solved	Go to step 10
10	**INPUT/OUTPUT BOARD REPLACEMENT** Replace the Input/Output Board (RRP 1-70). **Does the error code appear?**	Go to step 13	Problem solved

Table 4-7 Inoperative Envelope Feeder

Step	Actions and Questions	Yes	No
11	**DRIVE BELT INSPECTION** 1. Remove the Envelope Bottom Cover (RRP 4-2). 2. Remove the Envelope Top Cover (RRP 4-3). 3. Remove the Envelope Rear Cover (RRP 4-5). 4. Reinstall the coverless Envelope Feeder onto the printer. 5. Switch on the printer power. 6. Enter Diagnostics / Mode 7. From the Main Menu, select Comp Output Test / MBF/ENV Unit / Env Motor 8. Press [4] to start, [0] to stop. 9. Observe the gears are driven by the Envelope Motor. **Are any of the drive gears not rotating?**	Replace the problem gears. (PL 16.2)	Go to step 12
12	**ENVELOPE FEED CLUTCH REPLACEMENT** Replace the Envelope Feed Clutch (RRP 4-14). **Does the Envelope Feeder function normally?**	Problem solved	Go to step 13
13	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedures, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Wiring and connectors linking the components.		

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Removal and Replacement Procedures (RRPs)

This section contains the removal and replacement procedures for select parts of the Envelope Feeder.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power and disconnect the power cord from the AC wall outlet.
2. Wear an electrostatic discharge wrist strap to help prevent damage to the sensitive electronics of the printer Boards.
3. Wait at least 30 minutes after you have switched OFF printer power for the Fuser to cool before you work on or around the Fuser.

Work Notes

Note *Names of parts that appear in the RRPs may not be exactly the same as the names that appear in the Parts List. For example; a part called the Metal Registration Roller in an RRP may appear on the Parts List as Registration Metal Roller.*

Note *When working on an RRP, ignore any prerequisite RRP if you have already performed that removal procedure.*

Caution *Always use the correct type and size screw. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install either a screw or a printer part.*

Warning *Unplug the AC power cord from the AC wall outlet before removing any printer part.*

Notations in the RRP text

- Locations, such as R or right, given in the RRPs assume you are facing the printer console panel.
- The notation "rear" of a component, in place or removed, refers to the surface of the component that is, when installed, facing the rear of the print engine.
- The notation "front" of a component refers to the surface of the component that is, if installed, facing the front of the print engine.
- The notation “(RRP X.Y)” in a RRP step, directs you to another RRP for information on how to perform a related or prerequisite procedure.
- The notation “(Figure x)” points to the illustration that corresponds to the RRP you are performing.

- The notation “(FRU#)” indicates that this component is listed in the FRU parts list.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- Call-outs in an illustration point to the specific RRP component and also to associated and adjacent components that are related to the removal and replacement of the specific component.

RRP 4-1 Envelope Feeder (PL16.1)

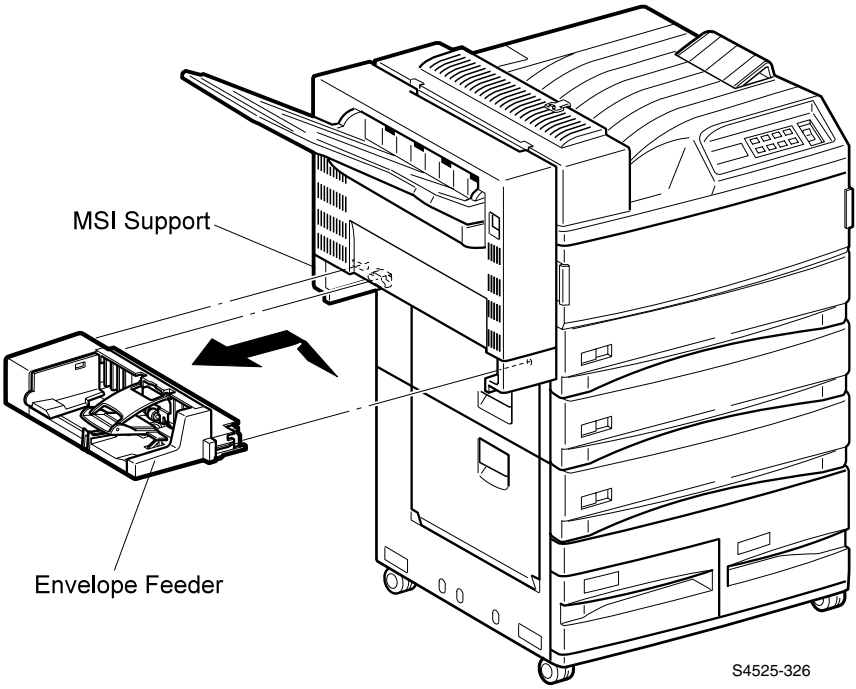

Fig 4-4 Envelope Feeder

Removal

1. Pull the Envelope Feeder out and remove it from the Multi-sheet Bypass Feeder Support.

Replacement

1. If the Multi-sheet Bypass Feeder is installed, pull the Multi-sheet Bypass Feeder Assembly out of the Multi-sheet Bypass Feeder Support.
2. Align the two pins on the Envelope Feeder with the corresponding openings in the Multi-sheet Bypass Feeder Support, and slide the Feeder into the Support.
3. Push the Envelope Feeder firmly against the Multi-sheet Bypass Feeder Support to make sure the Feeder is securely in place.

RRP 4-2 Envelope Feeder Bottom Cover (PL16.1)

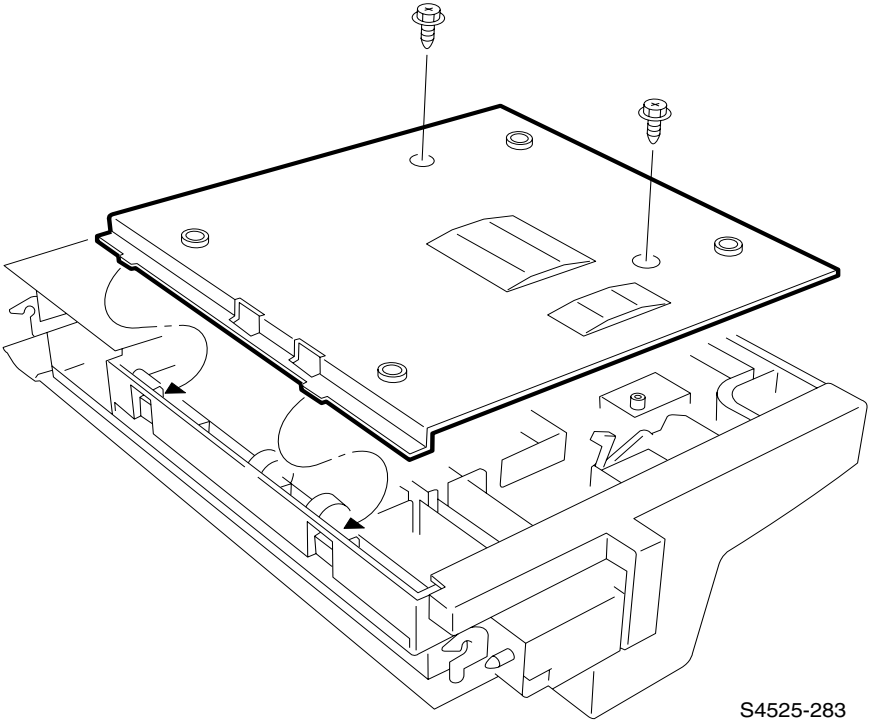

Fig 4-5 Envelope Feeder Bottom Cover

Removal

1. Remove the Envelope Feeder from the base engine (RRP 1-1).
2. Turn the Feeder over to access the bottom.
3. Remove the two screws securing the Bottom Cover to the Feeder frame and remove the Cover.

Replacement

1. Turn the Feeder upside down.
2. Reinstall the Bottom Cover onto the Feeder frame.
3. Use two screws to secure the Bottom Cover to the Feeder frame.

RRP 4-3 Envelope Feeder Top Cover (PL16.1)

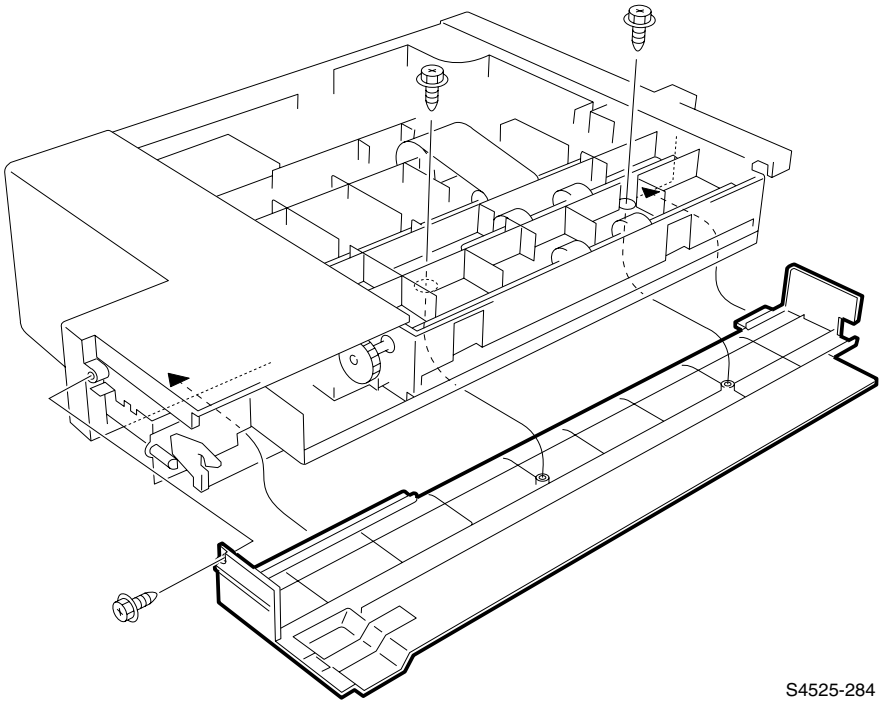

Fig 4-6 Envelope Feeder Top Cover

Removal

1. Remove the Envelope Feeder Bottom Cover (RRP 4-2).
2. Remove the two screws at the top and one screw on the side securing the Top Cover to the Feeder frame, and remove the Top Cover.

Replacement

1. Reinstall the Top Cover onto the Feeder frame.
2. Use three screws to secure the Top Cover to the Feeder frame.
3. Reinstall the Envelope Feeder Bottom Cover (RRP 4-2).

RRP 4-4 Envelope Feeder Front Cover (PL16.1)

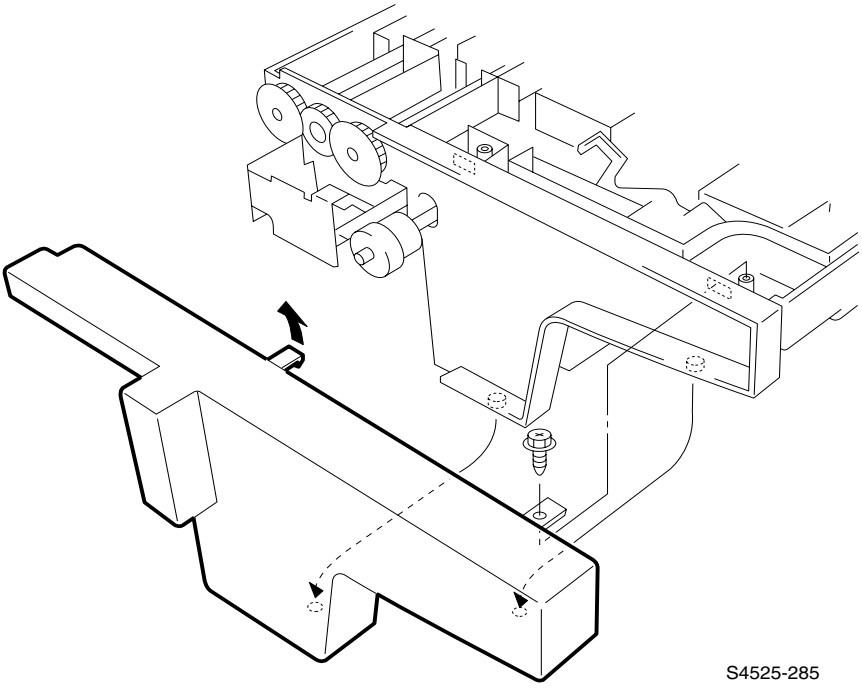

Fig 4-7 Envelope Feeder Front Cover

Removal

1. Remove the Bottom Cover (RRP 4-2).
2. Remove the screw securing the Front Cover to the Feeder frame and remove the Cover.

Replacement

1. Reinstall the Front Cover onto the Feeder frame.
2. Align the positioning tabs on the Cover with the tabs on the frame.
3. Use one screw to secure the Cover to the frame.
4. Reinstall the Bottom Cover (RRP 4-2).

RRP 4-5 Envelope Feeder Rear Cover (PL16.1)

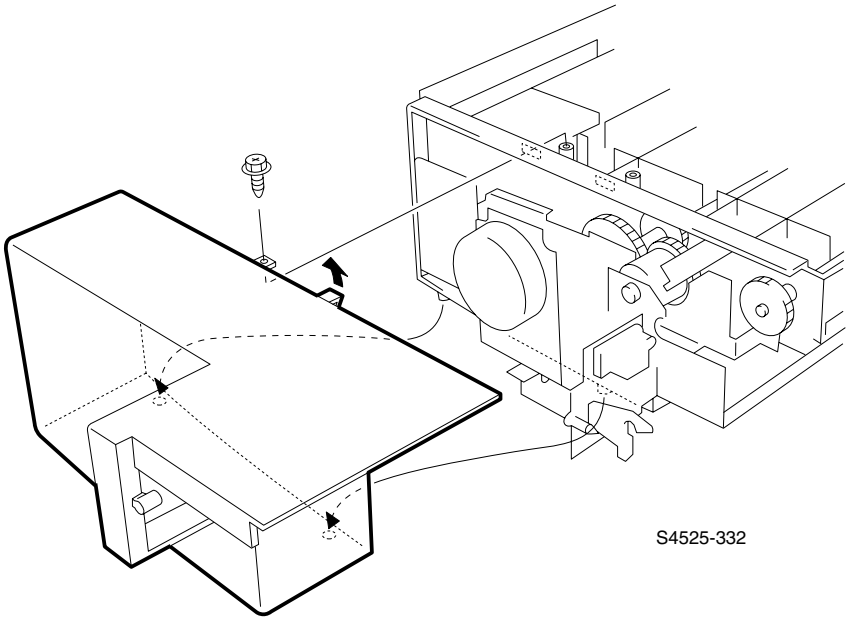

Fig 4-8 Envelope Feeder Rear Cover)

Removal

1. Remove the Bottom Cover (RRP 4-2).
2. Remove the Top Cover (RRP 4-3).
3. Remove the screw securing the Rear Cover to the Feeder frame.
4. Release the latch and remove the Cover.

RRP 4-6 Envelope Feeder Center Bracket Assembly (PL16.1)

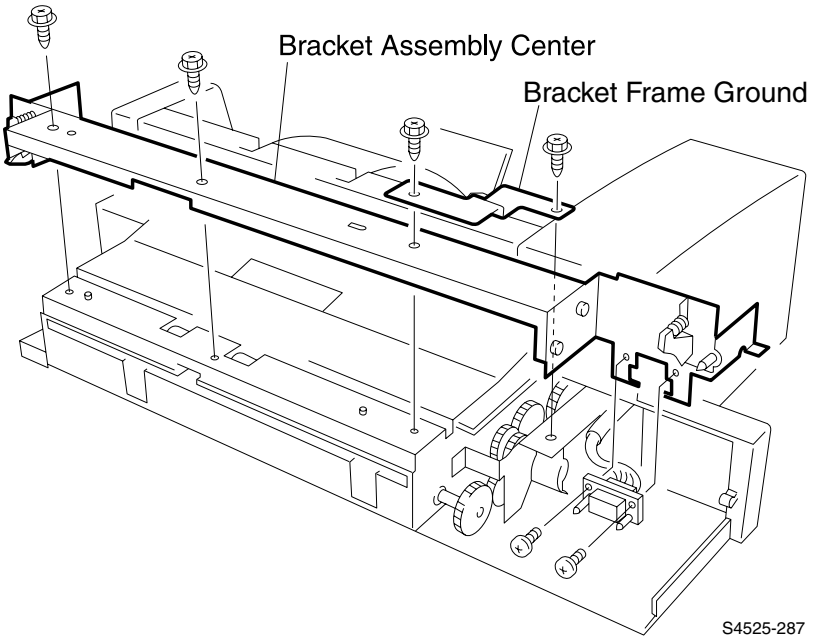

Fig 4-9 Envelope Feeder Center Bracket Assembly

Removal

1. Remove the Top Cover (RRP 4-3).
2. Remove the two screws securing P/J604 to the Center Bracket, and slide the P/J off of the Bracket.
3. Remove the screw securing one end of the frame ground Bracket to the frame.
4. Remove the three screws securing the Center Bracket Assembly to the frame, and remove the Center Bracket and frame ground Bracket.

RRP 4-7 Envelope Motor (PL 16.2)

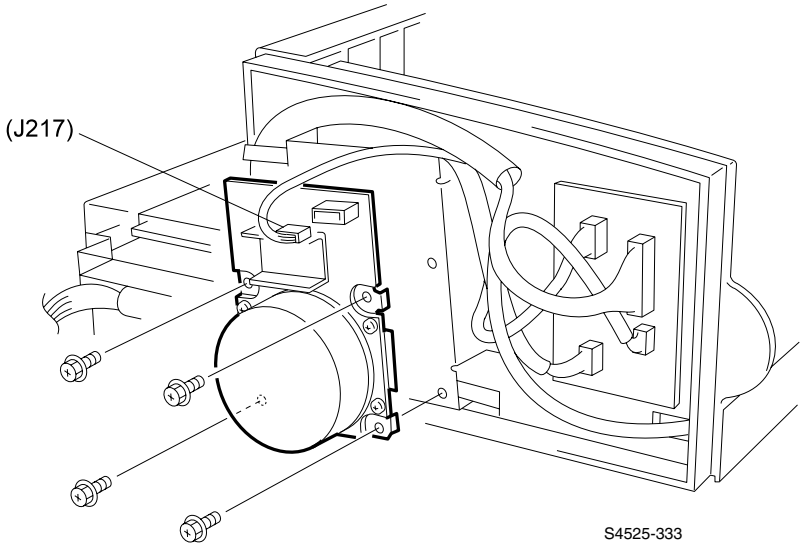

Fig 4-10 Envelope Motor

Removal

1. Remove the Rear Cover (RRP 4-5).
2. Disconnect the P/J217 from the Envelope Motor Board.
3. Remove four screws securing the Motor to the Motor Bracket, and remove the Motor.

RRP 4-8 Envelope Feeder Board (PL 16.2)

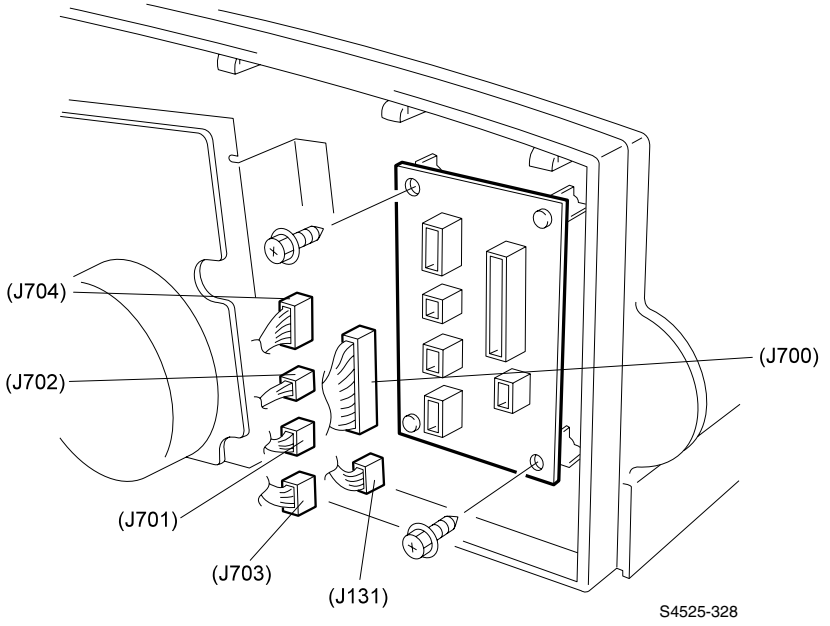

Fig 4-11 Envelope Feeder Board

Removal

1. Remove the Rear Cover (RRP 4-5).
2. Disconnect the six P/Js from the Envelope Feeder Board.
3. Remove the two screws securing the Board to the frame, and remove the Board.

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RRP 4-9 Feed Belt (PL 16.2)

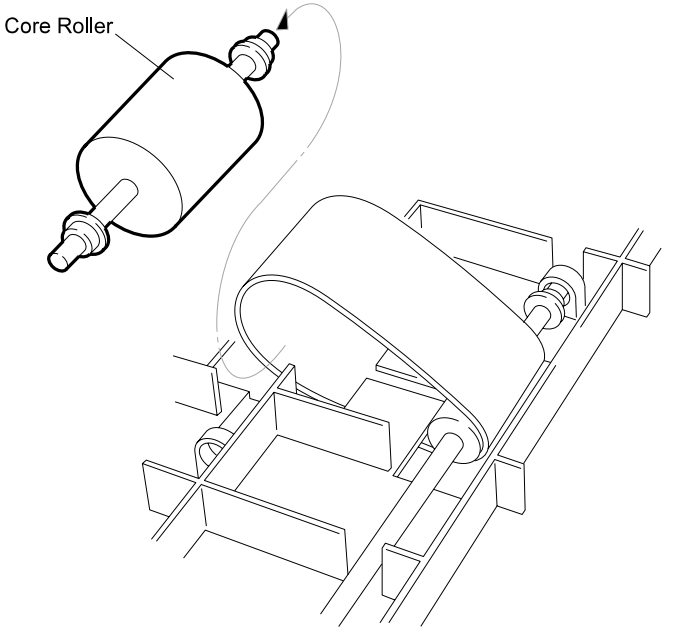

Figure 1

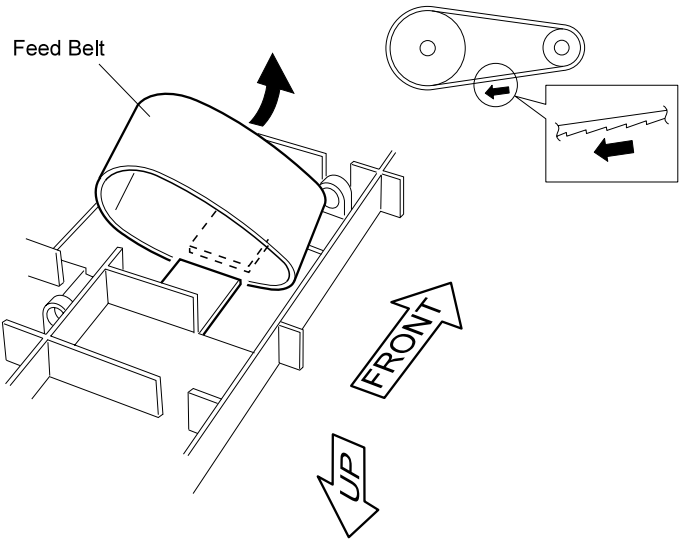

Figure 2

Fig 4-12 Feed Belt

Removal

1. Remove the Rear Cover (RRP 4-5).
2. Remove the Center Bracket Assembly (RRP 4-6).
3. Pull the Motor Bracket away from the Feeder (refer to RRP 4-14).
4. Remove one KL-Clip from the end of the Core Roller shaft.
5. Slide the shaft free, and remove it and the Core Roller from the frame (Figure 1).
6. Remove the KL-Clip from the inboard end of the Bottom Roller shaft.
7. Slide the shaft out the side of the feeder, far enough to free the Feed Belt from the Bottom Roller.
8. Remove the Feed Belt from the Feeder (Figure 2).

Replacement

1. Position the Feed Belt such that the tooth of the Belt is pointing in the direction as shown in Figure 2.
2. Look at the side of the Feed Belt, and align the Belt so the teeth are in the position as shown in Figure 2.
3. Slide the Feed Belt over the Bottom Roller.
4. Reinstall the Bottom Shaft into the slot in the Feeder, and use a KL-Clip to secure the shaft to the frame.
5. Reinstall the Motor Bracket to the frame.
6. Slide the Core Roller and Core Shaft through the Feed Belt.
7. Reinstall, if necessary, the Bearings on to both ends of the Core Shaft.
8. Slide the Core Shaft into the Bearing holes in the frame.
9. Use a KL-Clip to secure the free end of the Core Shaft to the Feeder frame.
10. Use your finger to drive the Belt forward to make sure it is centered on the Core Roller.
11. Reinstall the Center Bracket Assembly (RRP 4-6).
12. Reinstall the Rear Cover (RRP 4-5).

RRP 4-10 Envelope Feeder Retard Roller Assembly (PL 16.3)

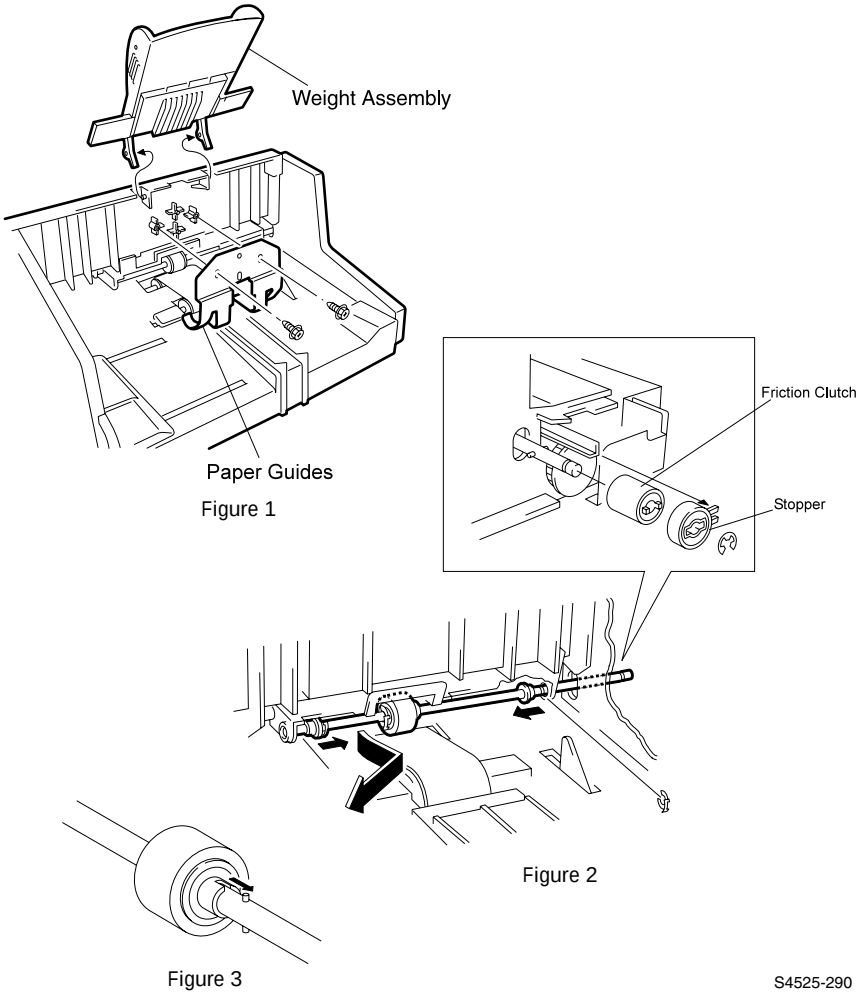

Fig 4-13 Envelope Feeder Retard Roller Assembly)

Removal

1. Remove the Top Cover (RRP 4-3).
2. Remove the Front Cover (RRP 4-4).
3. Spread the Weight Arm legs so they release from the Feeder frame, and remove the Weight Arm (Figure 1).
4. Remove the two screws that secure the Paper Guide to the Upper Cover (Figure 1).
5. Remove the KL-Clip securing the Friction Clutch and Stopper to the Retard Shaft (Figure 2), and remove the Clutch and the Stopper.
6. Remove the KL-Clip securing one end of the Retard Shaft to the frame.
7. Slide the Retard Shaft out of the Feeder (Figure 2).
8. Slide the Feeder Bearing off of the Retard Shaft.
9. Remove the KL-Clip securing the Retard Roller to the Shaft and remove the Roller.

Replacement

1. Slide the Retard Roller onto the Retard Shaft.
2. Rotate the Roller until the notches in the Roller engage the pin in the Shaft (Figure 3).
3. Use a KL-Clip to secure the Roller to the Shaft.
4. Reinstall, if necessary, the two Retard Shaft bearings.
5. Reinstall the Shaft into the Feeder (Figure 2), and use a KL-Clip to secure the Shaft.
6. Slide the Clutch Stopper and Friction Clutch onto the Retard Shaft (Figure 2).
7. Make sure the notch on the Stopper is trapped by the plastic lip of the Retard Holder.
8. Use a KL-Clip to secure the Clutch and Stopper.
9. Reinstall the Paper Guide onto the Upper Cover and use two screws to secure the Guide (Figure 1).
10. Reinstall the Weight Arm onto the Feeder Assembly.
11. Reinstall the Front Cover (RRP 4-4).
12. Reinstall the Top Cover (RRP 4-3).

RRP 4-11 No Paper Actuator (PL 16.2)

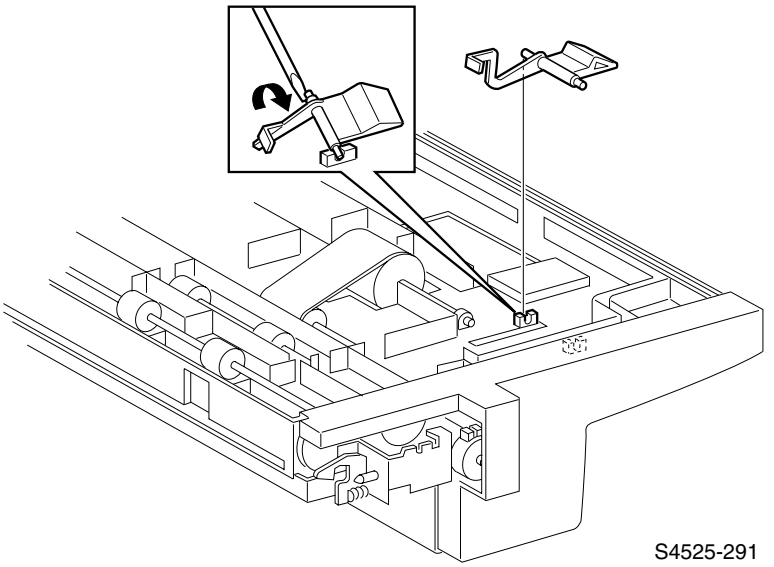

Fig 4-14 No Paper Actuator

Removal

1. Remove the Bottom Cover (RRP 4-2).
2. Use the flat blade of a standard screwdriver to carefully pry the Actuator legs out of the slots in the frame, and remove the Actuator.

Replacement

1. Position the Actuator as shown in the figure.
2. Press the Actuator legs into the slots in the frame.
3. Rock the Actuator back and forth to make sure it moves freely in the slots, and the small end of the Actuator moves freely between the two arms of the No Paper Sensor.
4. Reinstall the Bottom Cover (RRP 4-2).

RRP 4-12 No Paper Sensor (PL 16.2)

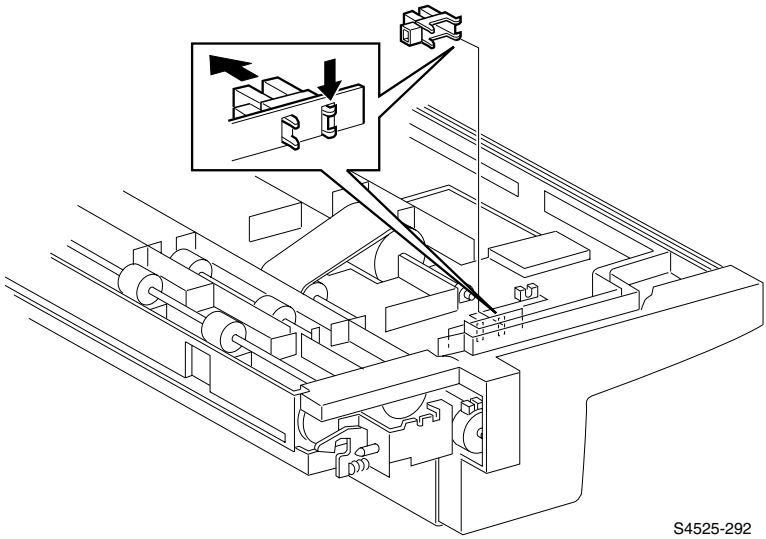

Fig 4-15 No Paper Sensor

Removal

1. Remove the Bottom Cover (RRP 4-2).
2. Squeeze the Sensor latches while pulling the Sensor away from the frame, and remove the Sensor.
3. Disconnect P/J130 from the Sensor.

Replacement

1. Reconnect P/J130 to the Sensor.
2. Position the Sensor so the P/J faces the rear of the Envelope Feeder.
3. Hook the front Sensor latches into the opening in the frame.
4. Insert the rear latches into the adjacent opening and press the Sensor into place be sure the latches snap into place.
5. Rock the No Paper Actuator to make sure it moves freely between the two arms of the No Paper Sensor.
6. Reinstall the Bottom Cover (RRP 4-2).

RRP 4-13 Envelope Size Sensor Assembly (PL16.1)

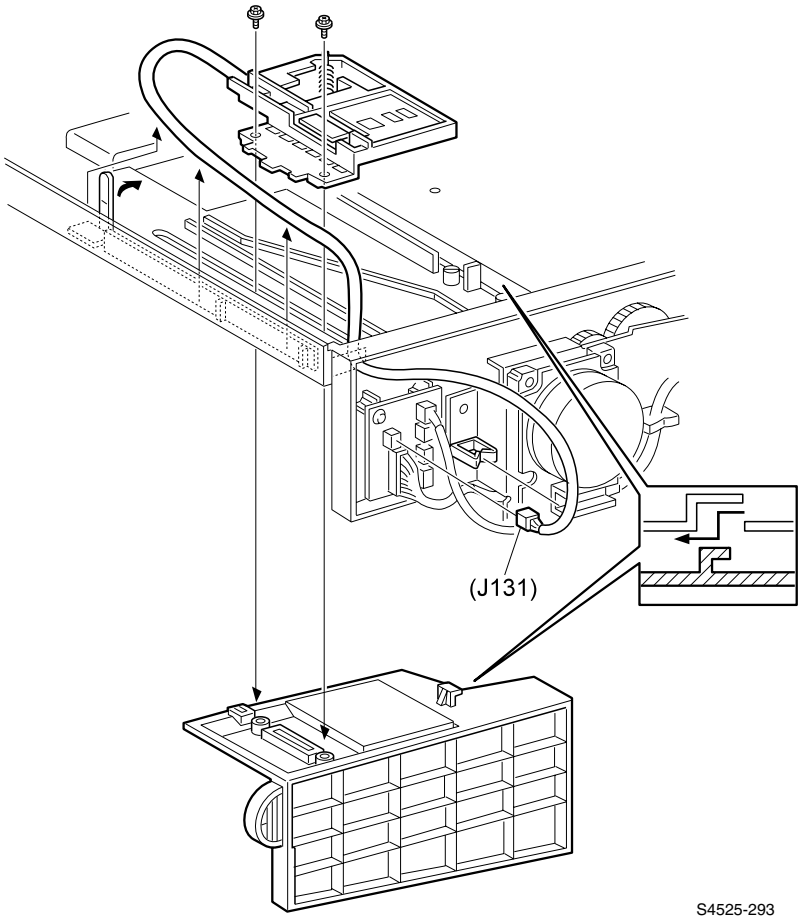

Fig 4-16 Envelope Size Sensor Assembly

Removal

1. Remove the Bottom Cover (RRP 4-2).
2. Remove the Rear Cover (RRP 4-5)
3. Disconnect P/J131 from the Envelope Board.
4. Remove the wire harness from the wire channel and from the harness clip.
5. Remove the two screws securing the Sensor Assembly to the Side Guide and remove the Assembly.

Replacement

1. Route the wire harness through the wire channel and under the harness clip.
2. Insert the plug end of the wire harness into the square opening at the side of the frame, and reconnect it to P/J131 on the Envelope Board.
3. Make sure the opening in the spring-loaded plastic arm on underside of the Assembly hooks onto the metal tab of the variable resistor.
4. Push the arm back and forth to make sure it and the resistor tab move smoothly together.
5. Slide the Side Guide out to maximum so it presses against the frame.
6. Reinstall the Size Sensor Assembly, arm and resistor facing against the frame, onto the Feeder frame.
7. Line up the two circular holes in the Assembly with the two tabs on the Side Guide.
8. Push up slightly on the spring-loaded arm so the metal tab of the variable resistor is on top of the molded track.
9. Use two screws to secure the Sensor Assembly to the Side Guide.
10. Slide the Side Guide to the center of the Feeder and observe the Assembly plastic arm to make sure it moves up and down as you move the Side Guide to the center and out again.
11. If the arm does not move up and down, slide the Side Guide out to maximum again, and lift up slightly on the plastic arm and put it back on the track.
12. Reinstall the Rear Cover (RRP 4-5).
13. Reinstall the Bottom Cover (RRP 4-2).

RRP 4-14 Envelope Feed Clutch (PL 16.2)

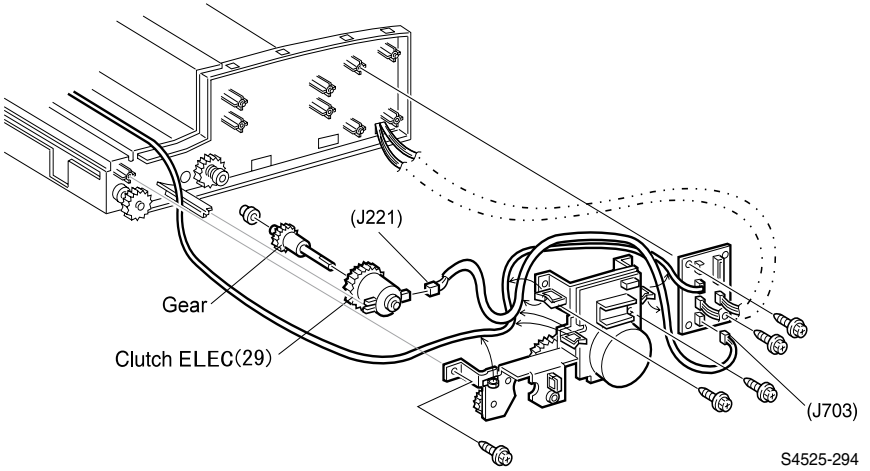

Fig 4-17 Envelope Feed Clutch

Removal

1. Remove the Rear Cover (RRP 4-5).
2. Remove the Center Bracket (RRP 4-6).
3. Disconnect P/J221 from the Feed Clutch.
4. Remove the three screws securing the Motor Bracket to the Feeder frame.
5. Carefully pull the Motor Bracket an inch away from the frame.
6. Slide the Feed Clutch off of the Bracket.
7. Remove the Gear from the Clutch.

Replacement

1. Slide the Gear into the Feed Clutch.
2. Reinstall the Clutch into the cutout in the Motor Bracket.
   Make sure the metal tab on the Bracket slides into the locking notch on the Clutch.
3. Press the Motor Bracket against the Feeder frame, while guiding the end of the Clutch Gear into the Bearing in the frame.
4. Use three screws to secure the Bracket to the frame.
5. Reconnect P/J221 to the Feed Clutch.
6. Reinstall the Center Bracket (RRP 4-6).
7. Secure all wire harnesses onto the wire clips.
8. Reinstall the Rear Cover (RRP 4-5).

RRP 4-15 Upper Cover (PL 16.3)

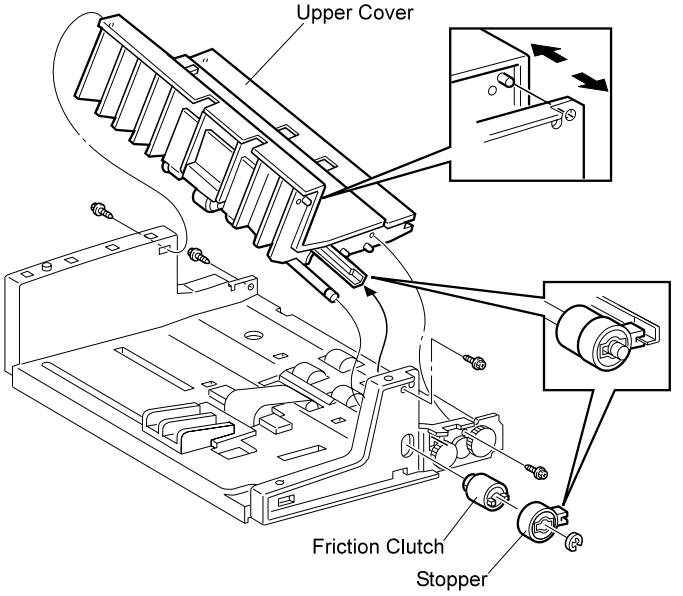

Figure 1

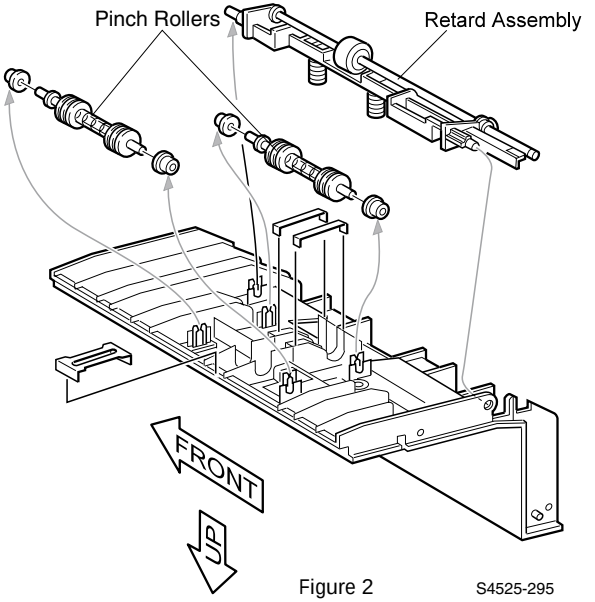

Figure 2 S4525-295

Fig 4-18 Upper Cover

Removal

1. Remove the Front Cover (RRP 4-4).
2. Remove the Center Bracket Assembly (RRP 4-6).
3. Spread the Weight Arm legs so they release from the Feeder frame, and remove the Weight Arm.
4. Remove the KL-Clip securing the Friction Clutch and Stopper to the Retard Shaft (Figure 1), and remove the Clutch and the Stopper.
5. Disconnect P/J702 from the Envelope Board.
6. Remove the Feed Sensor wire harness from the harness clips running from the Board to the top of the Upper Cover.
7. Remove the four screws securing the Upper Cover to the Feeder frame.
8. Remove the Upper Cover.
9. Disconnect P/J702 from the Feed Sensor.
10. Remove the screws securing the Paper Guides and remove the Guides.
11. Pry the two Pinch Rollers and the Retard Assembly out of the slots in the Upper Cover (Figure 2).

Replacement

1. Reinstall the Pinch Rollers and Retard Assembly into the slots in the Upper Cover (Figure 2).
2. Reinstall the Paper Guides and use three screws to secure them to the Feeder frame.
3. Reconnect P/J702 to the Feeder Sensor.
4. Reinstall the Upper Cover onto the Feeder frame by first sliding the Retard Shaft through the hole in the side of the frame.
5. Lower the Cover onto the frame, and use four screws to secure it to the Frame.
6. Reinstall the Feed Sensor wire harness under the clips on top of the Upper Cover.
7. Reconnect P/J702 to the Envelope Board.
8. Slide the Clutch Stopper and Friction Clutch onto the Retard Shaft.
9. Make sure the notch on the Stopper is trapped by the plastic lip of the Retard Holder.
10. Use a KL-Clip to secure the Clutch and Stopper.
11. Reinstall the Weight Arm to the Feeder frame.
12. Reinstall the Center Bracket Assembly (RRP 4-6).
13. Reinstall the Front Cover (RRP 4-4).

RRP 4-16 Feed Sensor (PL 16.3)

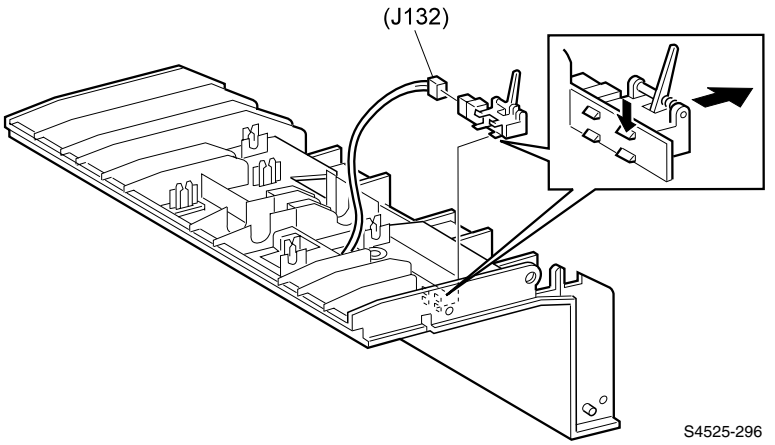

Fig 4-19 Feed Sensor

Removal

1. Remove the Upper Cover (RRP 4-15).
2. Remove the wire harness from the wire clips.
3. Disconnect P/J132 from the Sensor.
4. Squeeze the Sensor latches while pulling the Sensor away from the frame, and remove the Sensor.

Replacement

1. Position the Sensor so the faces up.
2. Press the Sensor latches into the holes in the frame.
   The latches snap into place.
3. Reconnect P/J132 to the Sensor.
4. Reinstall the wire harness into the wire clips.
5. Reinstall the Upper Cover (RRP 4-15).

FRU PL 16 Envelope Feeder Parts List

Using the Parts List

1. The callout numbers shown in each parts explode illustration correspond to the parts list numbers for that illustration.
2. Throughout this manual, parts are identified by the prefix “FRU”, followed by a number, a decimal point, and another number. For example, PL16.3.12 means the part is item 12 of Parts List 3 of FRU Parts List 16 Envlope Feeder.
3. The capital letters “C”, “E”, "KL", and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle t in an illustration means that the item is an assembly that is made up of a number of individual parts.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.

PL16.1 Envelope Feeder 1

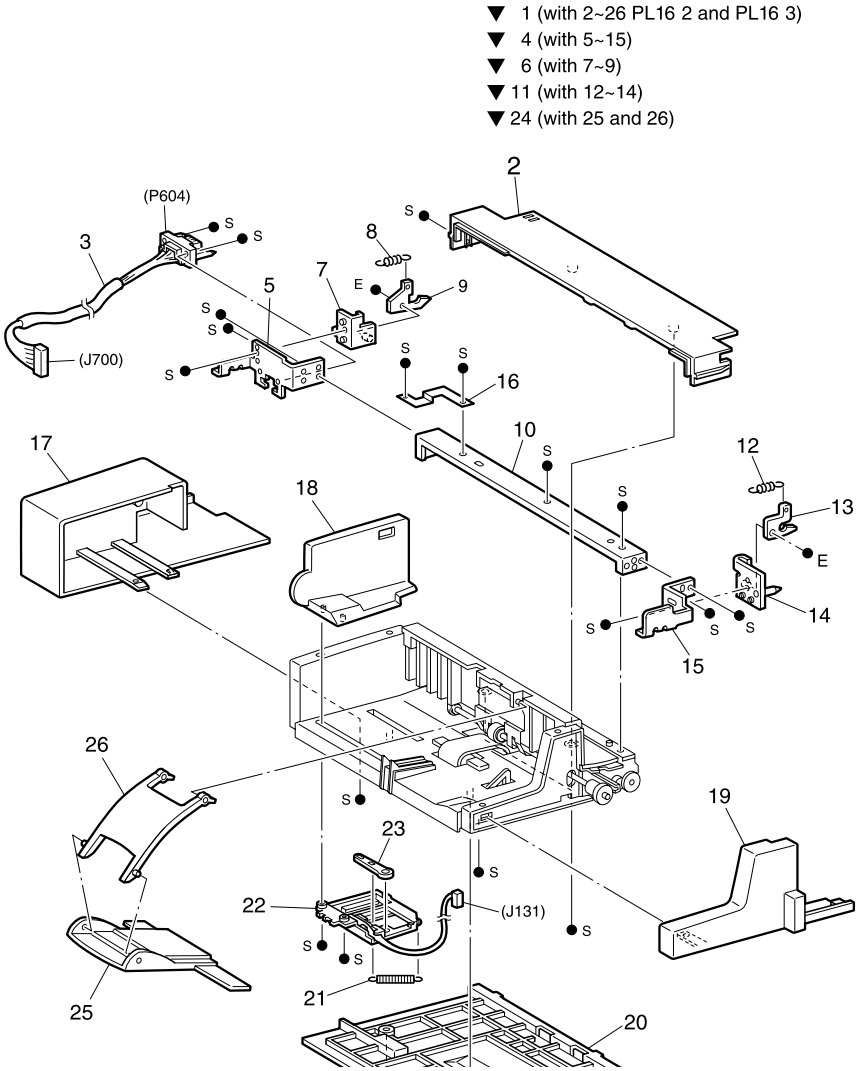

Fig 4-20 Pl 16.1 Envelope Feeder 1

Table 4-8 PL 16.1 Envelope Feeder 1

ID No.	Part Number	Qty	Name / Description
1	097S02567	1	Feeder Assembly, Envelope (with 2~26, PL16.2 & PL16.3)
2	048E54590	1	Cover, Top
3	162K37420	1	Harness (P604<>J700)
4		1	Bracket Assembly, Center (with 5~15)
5		1	Bracket, Rear
6		1	Bracket, Assembly - Rear (with 7~9)
7		1	Latch Assembly, Rear
8	809E16860	1	Spring, Latch
9	003E35350	1	Latch, Rear
10		1	Bracket, Center
11		1	Bracket Assembly, Front (with 12~14)
12	809E16860	1	Spring, Latch
13	003E35360	1	Latch, Front
14		1	Latch Assembly, Front
15		1	Bracket, Front
16		1	Bracket, frame ground
17	048K74530	1	Cover, Rear
18	038K83930	1	Guide, Side
19	048K74540	1	Cover, Front
20	048E54571	1	Cover, Bottom
21		1	Spring, Sensor
22	130K83630	1	Sensor Assembly, MBF
23		1	Link, Sensor
24		1	Weight Assembly, Paper (with 25 and 26)
25	036K91380	1	Weight Assembly, Paper
26	031E92970	1	Arm Weight

PL 16.2 Envelope Feeder 2

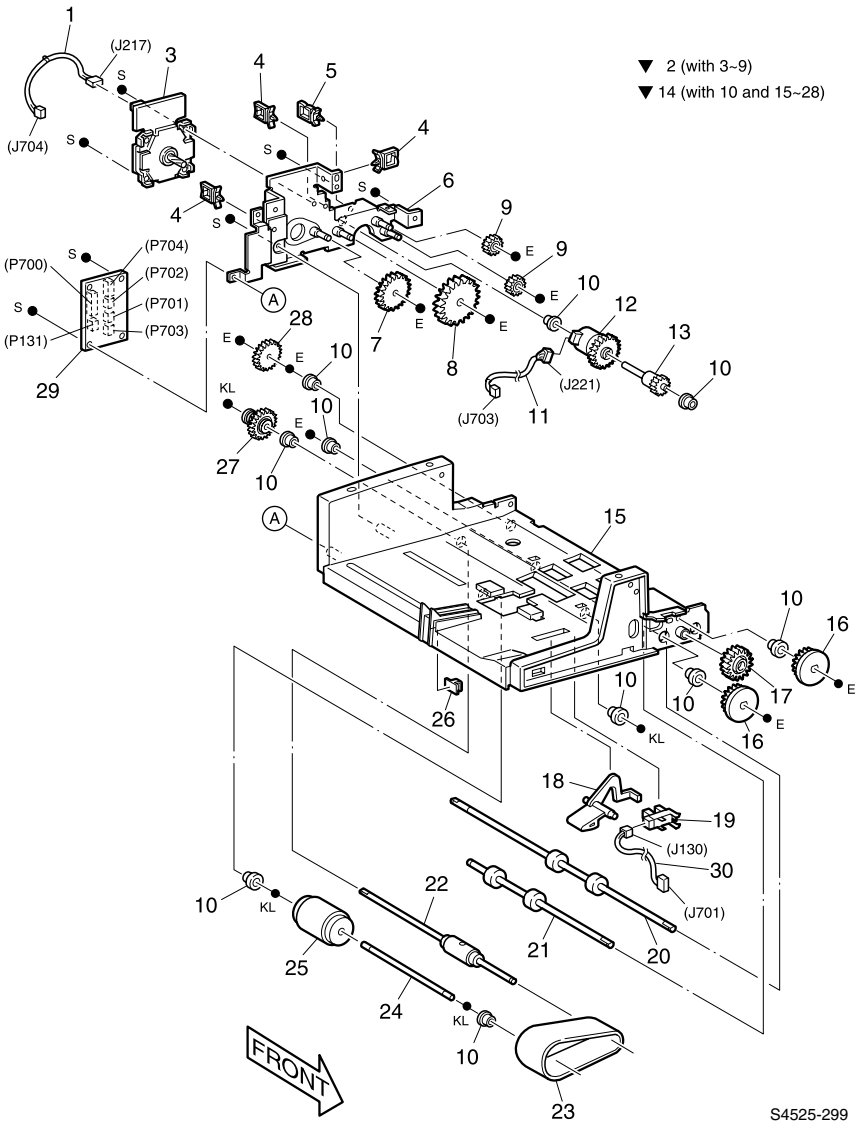

Fig 4-21 PL 16.2 Envelope Feeder 2

Table 4-9 PL 16.2 Envelope Feeder 2

ID No.	Part Number	Qty	Name / Description
1		1	Harness, Dc - Motor (J217 <> J704)
2		1	Bracket Assembly, Motor (with 3~9)
3	127K21850	1	Motor
4		3	Clamp
5		2	Clamp
6		1	Bracket Assembly, Motor
7		1	Gear, Z56/18
8		1	Gear, Z47
9		2	Gear Idler
10	013E82680	8	Bearing Feeder
11		1	Harness, Clutch (J221<>J703)
12	121K87190	1	Clutch, Electric
13		1	Gear, Z17
14		1	Frame Assembly, Main (with 10 and 15~28)
15		1	Frame, Main
16		2	Stopper, Gear Z25
17		1	Gear, Idler (21)
18	120E12900	1	Actuator, No Paper
19	130E82530	1	Sensor
20	022K49860	1	Roller Assembly, Transport
21	022K48570	1	Roller Assembly, Take Away
22	022K49870	1	Roller Assembly, Feed
23	023E15580	1	Belt, Feed
24		1	Shaft, Bottom 1
25	022E19170	1	Core, Belt
26		1	Clamp
27	121K16450	1	Clutch, Spring
28		1	Gear, Z25
29	160K46160	1	Board, Env - Drv
30		1	Harness, No Paper Sensor (J130<>J701)

PL 16.3 Envelope Feeder 3

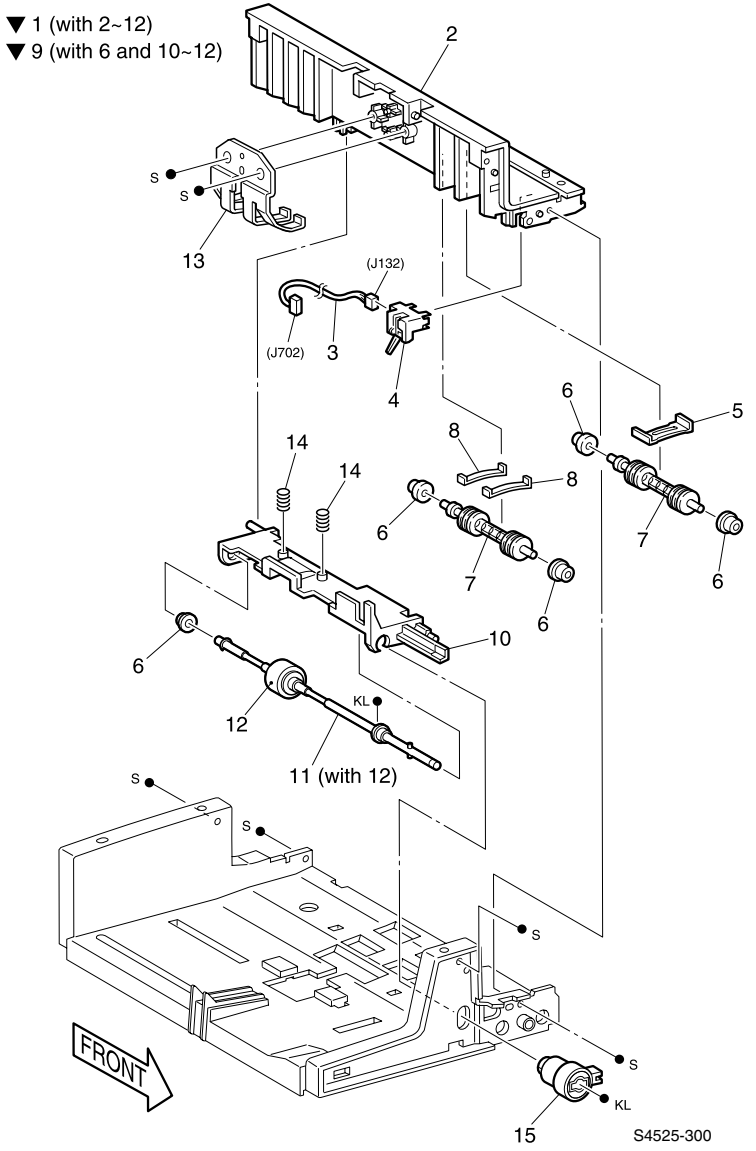

Fig 4-22 PL 16.3 Envelope Feeder 3

Table 4-10 PL 16.3 Envelope Feeder 3

ID No.	Part Number	Qty	Name / Description
1		1	Cover Assembly, Upper (with 2~12)
2	048K74520	1	Cover, Upper
3		1	Harness, I/F Sensor (J132<>J702)
4	130E83280	1	Sensor
5		1	Spring, Plate
6		5	Bearing, Feeder
7	059E90750	2	Roller, Pinch
8		2	Spring, Plate
9		1	Holder Assembly, Retard (with 6 & 10~12)
10		1	Holder, Retard
11	022K49880	1	Roller Assembly, Retard (with 12)
12		1	Roller, Retard
13		1	Guide, Paper
14	809E07920	2	Spring, Retard
15	121K16460	1	Clutch Assembly, Torque

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Wiring Diagrams and Signal Information

This section of the manual contains a Master Wiring Diagram for the Envelope Feeder option. The Master Wiring Diagram shows the interconnections of the major subsystems within the Envelope Feeder. The remainder of this section presents an individual block diagram (BD) to better illustrate the electrical relationships between components and assemblies within the Envelope Feeder. Each wire in the diagrams is tagged with a signal name and each wire is terminated at both ends with a pin number.

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the Envelope Feeder.

Envelope Feeder Master Wiring Diagram

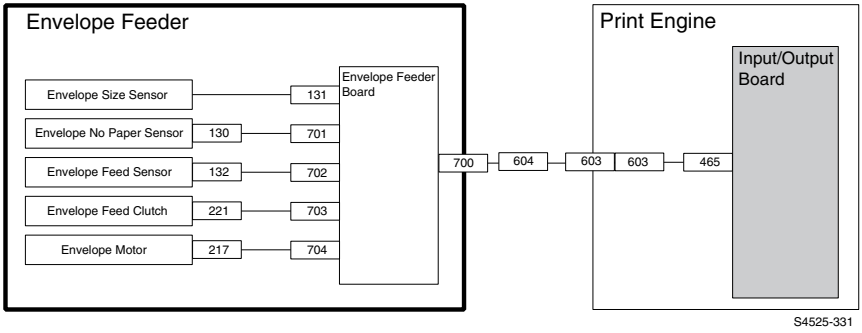

Fig 4-24 Envelope Feeder Master Wiring Diagram

BD1 Print Engine Controller Board to Envelope Feeder Components

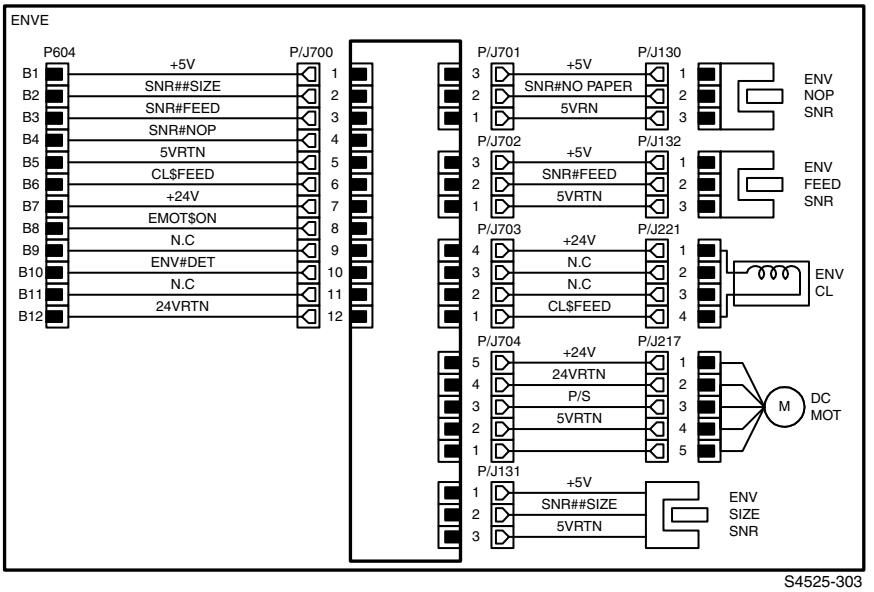

Fig 4-25 BD1 Print Engine Controller Board to Envelope Feeder Components.

BD1 Print Engine Controller Board↔Envelope Controller Board↔Envelope Feeder Components

The following table shows the signal names for this Controller Board.

Table 4-12 Signal Names and Descriptions

Signal Name	Description
SNR#SIZE	Analog signal from the Envelope Size Sensor. Voltage levels 0VDC~5VDC
SNR#FEED	Monitors paper between Envelope Feeder and base engine. High=Paper present. Low=No paper present
SNR#NOP	Signal from No Paper Sensor
CLS$FEED	Switches Envelope Feed Clutch. High=No Feed. Low=Feed
EMOT$ON	Switches Envelope Feed Motor. High=Off. Low=On
ENV#DET	Monitors presence of Envelope Feeder. High=Envelope Feeder not present. Low=Envelope Feeder present
SNR#NO PAPER	Monitors level of paper in the Envelope Feeder. High=No paper present. Low=Paper present
P/S	Switches the Envelope Motor

Locating Plug/Jack Connectors Map

Use the table and map in this section to locate specific Plug/Jack connectors within the Envelope Feeder.

To find the location of a Plug/Jack within the Envelope Feeder:

1. Locate the Plug/Jack connector number in the first column of the Plug/Jack Location table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. With this information, go to the appropriate map (in this case map M1) and locate the item number (in this case 5).

Plug/Jack Location Table

Table 4-11 Plug/Jack Location Table

Plug/Jack	Map & Number	Connected to...	Other end connected to...
130	M1-10	No Paper Sensor	Plug/Jack701 Envelope Feeder Board
131	M1-6	Envelope Feeder Board	Size Sensor
132	M1-9	Feed Sensor	Plug/Jack702 Envelope Feeder Board
217	M1-7	Envelope Motor	Plug/Jack704 Envelope Feeder Board
221	M1-11	Feed Clutch	Plug/Jack703 Envelope Feeder Board
604	M1-8	Input/Output Board	Plug/Jack700 Envelope Feeder Board
700	M1-5	Envelope Feeder Board	P604 Input/Output Board
701	M1-3	Envelope Feeder Board	Plug/Jack130 No Paper Sensor
702	M1-2	Envelope Feeder Board	Plug/Jack132 Feed Sensor
703	M1-4	Envelope Feeder Board	Plug/Jack221 Feed Clutch
704	M1-1	Envelope Feeder Board	Plug/Jack217 Envelope Motor

Plug/Jack Location Map 1

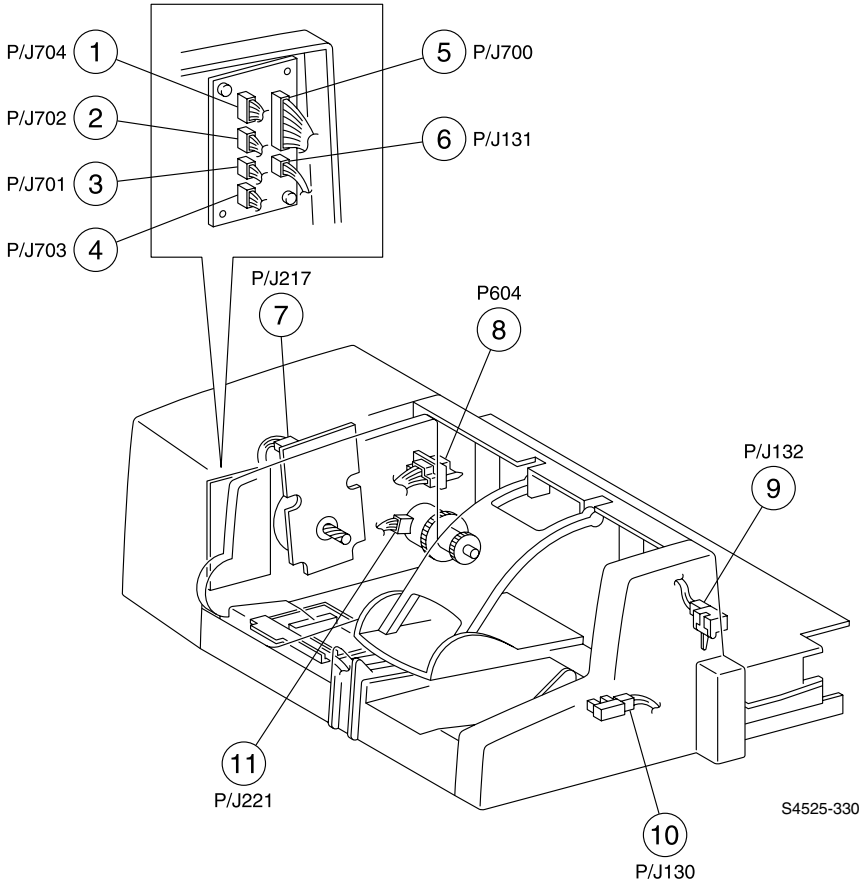

Fig 4-23 Plug/Jack Location Map

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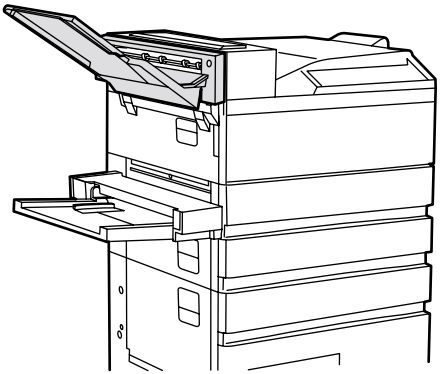
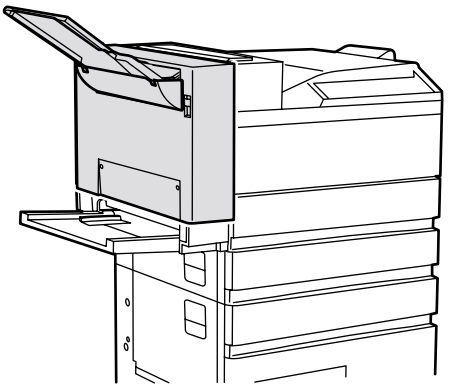
Face-Up Bin



S4525-601

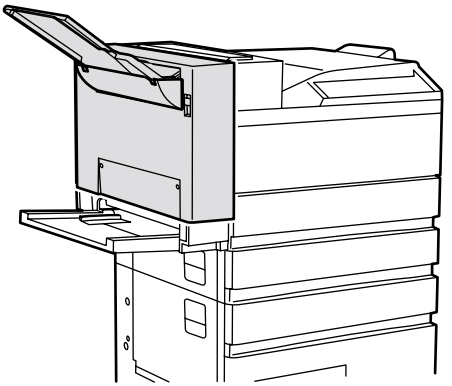
Fig 5-1 The DocuPrint N4525 Network Laser Printer Face-Up Bin.



S4525-600

Fig 5-2 The DocuPrint N4525 Network Laser Printer Face-Up Bin with the Optional Duplex Unit shown highlighted

Table 5-1 General Specifications

Category	Specification
Configuration	Customer installed.  S4525-600 **Fig 5-3 Envelope Feeder highlighted**
Face-Up stack capacity	200 Sheets (80 gsm)
Recommended Paper sizes	See Book I, Volume 1, General Infromation or the N4525 User Guide.

Removal and Replacement Procedures (RRPs)

Contents

RRP 5-1 Face-Up Bin without the Duplex Unit Option

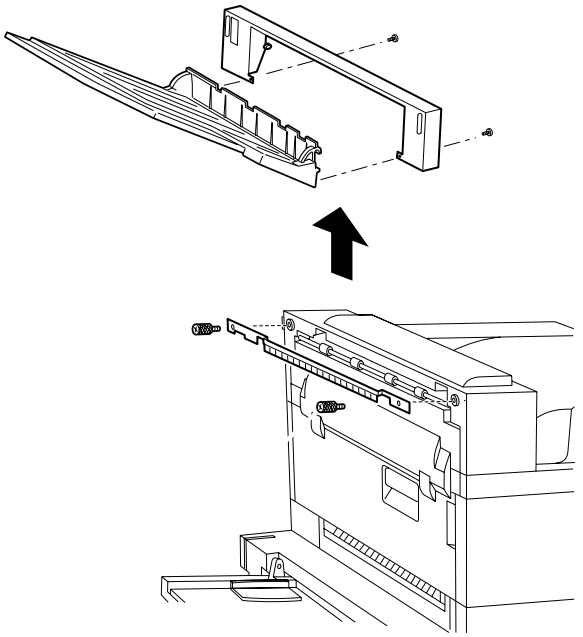


Fig 5-4 Face-Up Bin

Removal

1. Remove the Face-Up Bin with the attached bracket.
2. Remove the two screws securing the Face-Up Bin to the printer bracket.
3. Remove the two screws securing the printer bracket to the Print Engine and remove.

Replacement

1. Reverse the above procedures.

RRP 5-2 Face-Up Bin with the Duplex Unit

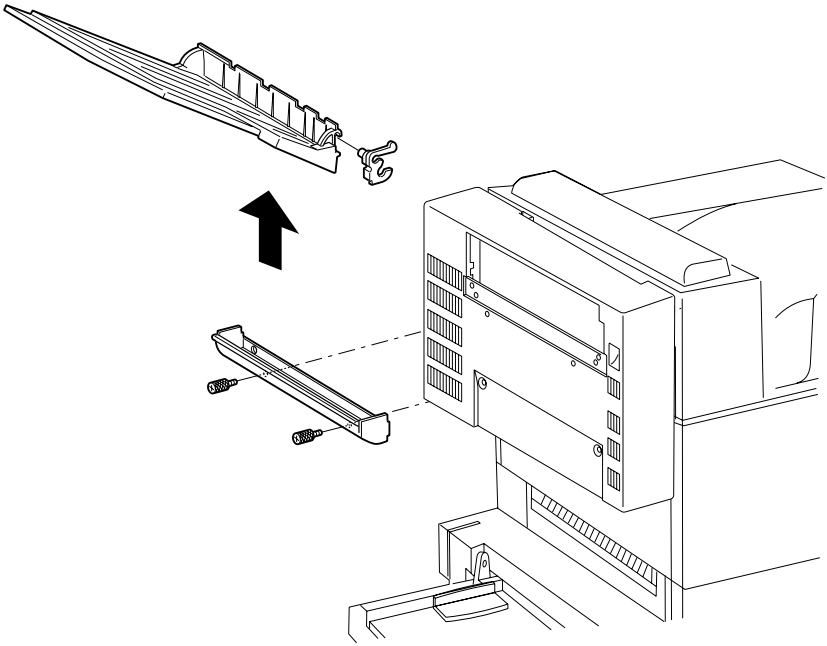


Fig 5-5 Face-Up Bin attached to the Optional Duplex Unit

Removal

1. Remove the Face-Up Bin from the Bin Cover.
2. Remove the link on the inside front of the Bin Cover by lifting up, then removing from the Duplex Unit and Bin Cover.
3. Remove the two screws securing the Bin Cover to the Duplex Unit.
4. Remove the Cover Tray.

Installation

Note *Step 1 below is performed only one time. The Cut-out Plate is removed when installing the FUB on the Duplex Unit the first time only. The Cut-out Plate is not reinstallable.*

1. Remove the cut-out plate from the front of the Duplex Unit.
2. Reverse the above procedures.

PL21.1 Face-Up Bin

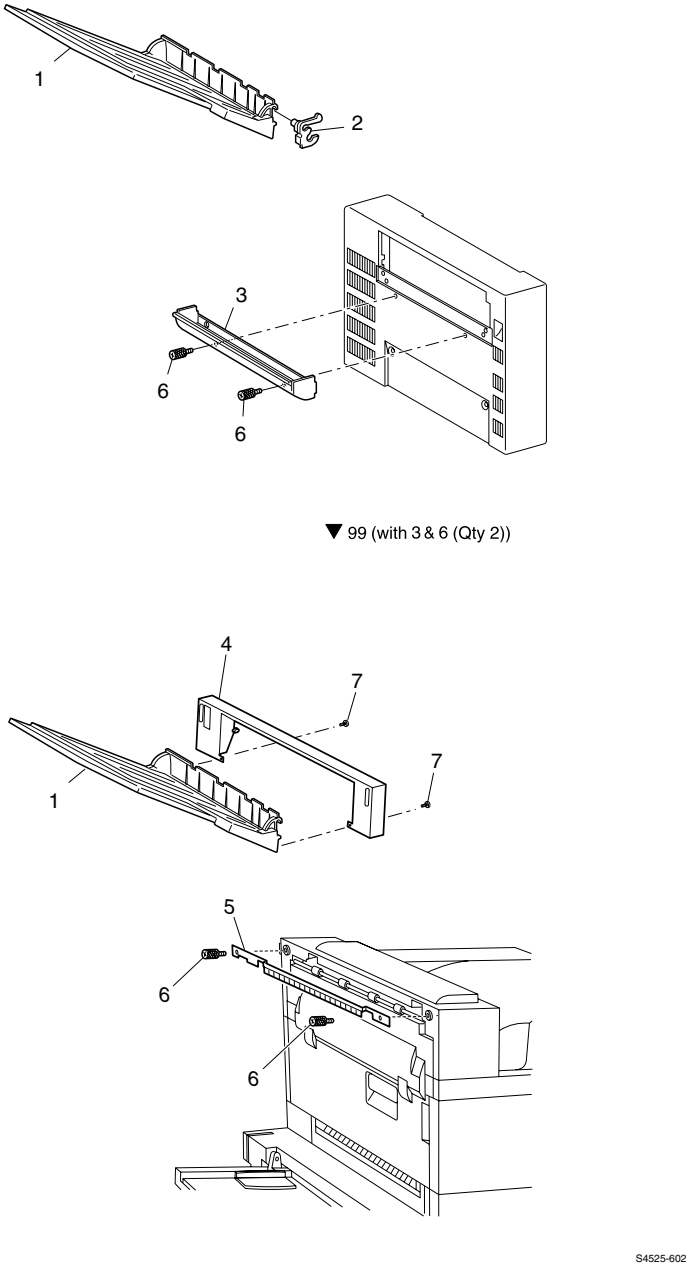


Fig 5-6 Face-Up Bin

Table 5-2 PL 21.1 Face-Up Bin

ID No.	Part Number	Qty	Name / Description
1	050K29690	1	Bin, Face Up
2	031K92370	1	Link, Bin
3		1	Cover, Bin
4			
5			
6		2	Screw, Bin Cover
7		2	Screw
99	600K61021	1	Kit, Bin Cover Duplex [with items 3 & 6 (Qty. 2)]

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Finisher

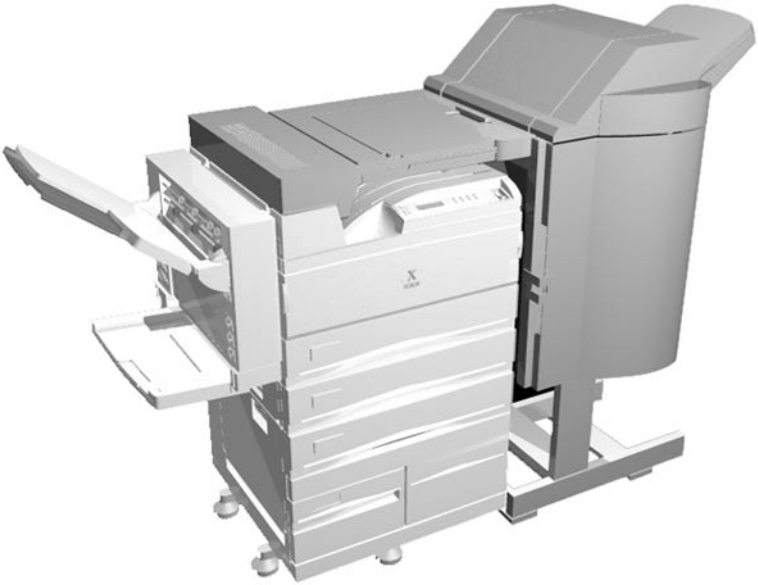


Fig 2-1 DocuPrint N4525 Network Laser Printer with the Finisher Option Highlighted.

This Service Quick Reference Guide contains information useful in verifying the operation, troubleshooting, repair and maintenance of the **Finisher Option** for the DocuPrint N4525 Network laser printer. This Guide contains detailed Repair Analysis Procedures (RAPs) for error codes and messages, a Field Replacement Unit Parts List (PL) and Removal and Replacement Procedures (RRPs).

Topics, such as the Finisher theory of operation and configuration page details, etc., are located on the companion *Printer Service & Support Resources CD-ROM*.

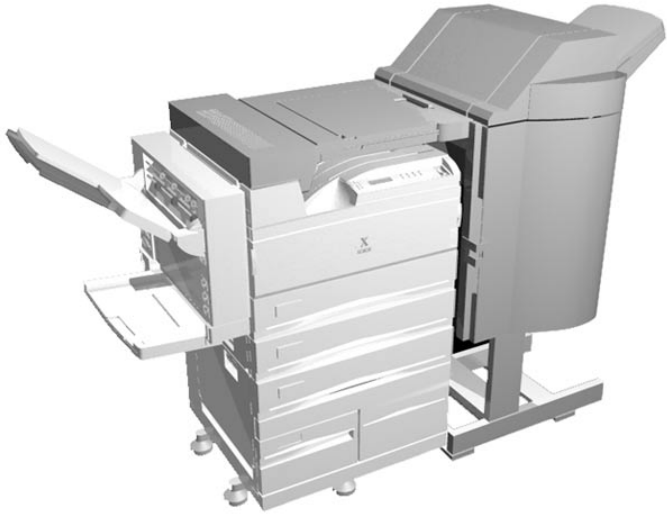
To ensure complete understanding of the product, participation in Xerox DocuPrint N4525 printer service training is recommended.

Finisher Overview

- The Finisher is a customer installed option that adds hole punching, stapling (up to 50 sheets and job stacking (up to 3000 sheets), as well as shifting between print jobs.
- The Finisher docks with the Print Engine and High Capacity Feeder.
- The Finisher's built in power supply provides all the DC voltages required.

General Information

Table 2-2 Finisher Specifications

Category	Specification
Configuration	User installed option. The Finisher provides hole punch, stapling (up to 50 sheets), print job offset and stacking up to 3,000 sheets of paper. The Finisher docks and latches with the Printer. All Finisher operations are controlled by the Printer, specifically from the System Controller Board through The Print Engine Controller Board. 
Paper feed	Paper leaving the Exit section of the Printer is fed to the Docking Cover Assembly, then directly into the Horizontal Transport. The H-Tra then delivers the paper to the Finisher where hole punching, stapling, offsetting (shifting) and stacking occur.
Power requirements	The Printer provides 110 VAC to the Finisher. The Finisher's power supply provides all required DC voltages throughout the Finisher Option.

The Finisher Paper Path

Finisher Paper Path

A brief description of the main sections of the Finisher paper path are described below, with more detail in the following sub-sections:

1. *Horizonstal Transport (H-Tra)* section: Mechanism to transfer paper from the *Print Engine (IOT)* to the *Finisher*
2. *Punch* section: Mechanism to punch paper
3. *Shift* section: Mechanism to shift paper towards the front or rear
4. *Compile & Jogging* section: Mechanism to draw the paper into the *Compiler Tray* by the paddle and to jog a bundle of paper in a jogging job (only when the stapling is performed)
5. *Staple* section: Mechanism to compile a bundle of paper on the *Compiler Tray* (only when the stapling is performed)
6. *Exit* section: Mechanism to deliver paper, or to transfer paper to the *Compiler Tray*
7. *Paper Stack* section: Mechanism to stack up the delivered paper on the bin and to move the *Stacker Bin* up or down according to the stacking volume.

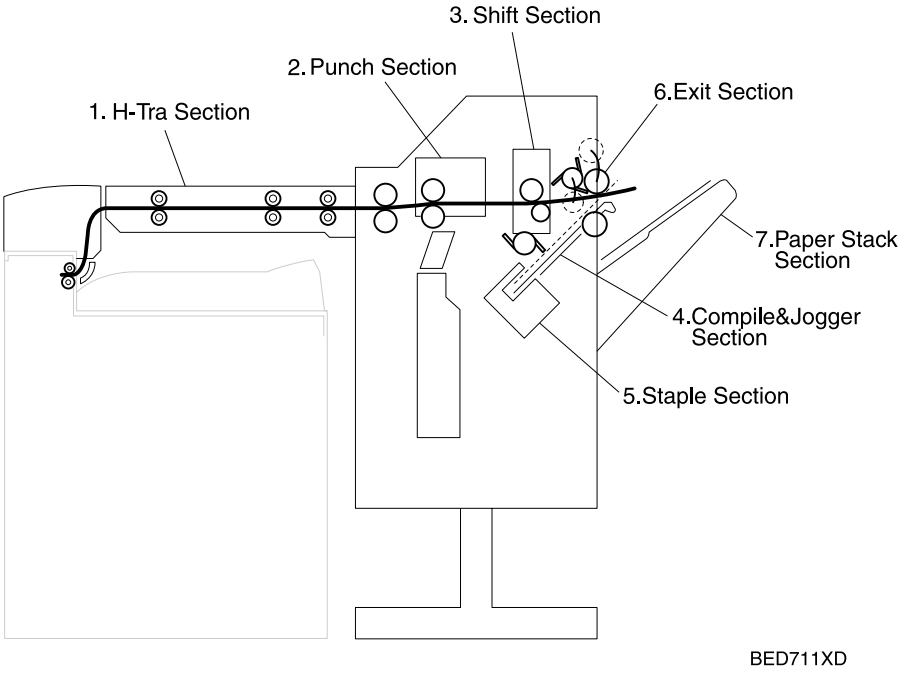


Fig 2-2 Finisher Paper Path

Horizontal Transport (H-Tra) Section

The paper delivered from the printer passes the *Horizontal Transport In-Gate* and is transferred into the *Horizontal Transport*. Then, the rotation of the *Horizontal Transport Feed Roller* in the *Horizontal Transport* transfers the paper towards the *Finisher*. Also, during the paper transfer, the rotation of the *Horizontal Transport Feed Roller* shifts the paper toward the front side, to aid registration.

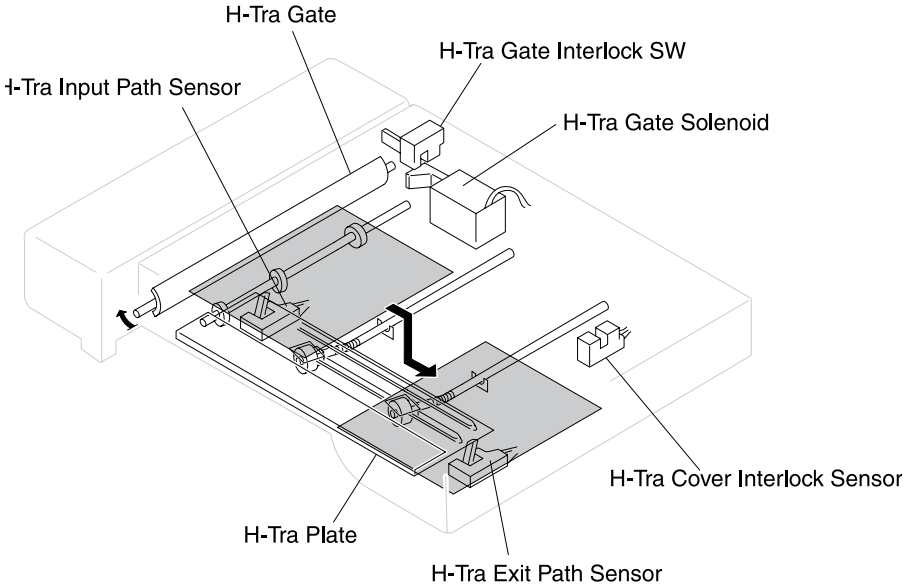


Fig 2-3 Horizontal Transport Section

Horizontal Transport Components

1. Horizontal Transport In-Gate Solenoid

The *Horizontal Transport In-Gate Solenoid* opens and closes the *Horizontal Transport In-Gate*.

2. Horizontal Transport In-Gate

Opened by the *Horizontal Transport In-Gate Solenoid*, the *Horizontal Transport In-Gate* transfers the paper towards the *Horizontal Transport*.

Gate opens: When paper is transferred to the *Horizontal Transport*

Gate closes: When paper is delivered on the *IOT Face Down Bin*.

3. Horizontal Transport Input Path Sensor

The *Horizontal Transport Input Path Sensor* monitors paper being transferred from the *IOT* into the *Horizontal Transport*.

4. Horizontal Transport Exit Path Sensor

The *Horizontal Transport Exit Path Sensor* monitors paper passing the *Horizontal Transport* paper exit.

5. Horizontal Transport Feed Roller

The *Horizontal Transport Feed Roller* feeds the paper transferred into the *Horizontal Transport* toward the *Finisher*.

6. Horizontal Transport In-Gate Interlock

The *Horizontal Transport In-Gate Interlock* detects *Horizontal Transport In-Gate* open state, and cuts off the power supply.

7. Horizontal Transport Top Cover Interlock Sensor

The *Horizontal Transport Cover Interlock Sensor* detects the *Horizontal Transport Top Cover* open state.

8. Face Down Bin Full Sensor

The *Face Down Bin Full Sensor* detects when the *Printer's Face Down Bin,* located under the *Horizontal Transport, and on the top of the Printer,* becomes full with paper.

Punch Section

The paper transferred from the *Horizontal Transport* to the *Finisher* passes the *Finisher Input Path Sensor* in the Finisher, and it is transferred towards the *Shift Roller* by the rotation of the *Finisher Input Roller* and *Regi Roller*. After the trailing edge of the paper passed the *Finisher Input Path Sensor*, the rotation speed of the *Shift Roller* decreases to reduce the paper transfer speed of the *Shift Roller* towards the *Exit Roller*. Due to the reduced paper transfer speed of the *Shift Roller*, a part of the paper located near the *Chute Guide* starts to deflect. Paper deflection is caused by the *Regi Roller* rotation faster than the *Shift Roller* rotation. Since then, the paper deflects successively by the *Regi Roller*, and after the specified pulses, the Punch Unit punches the paper. After the punching operation is finished, the *Shift Roller* rotation speed returns to normal speed to restart the paper transfer.

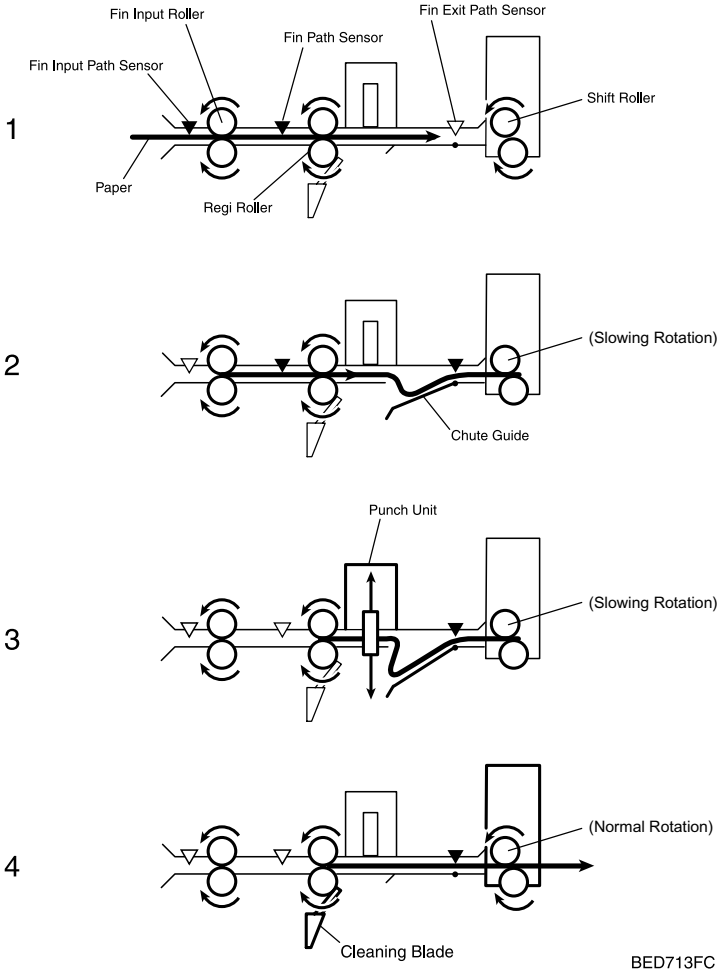


Fig 2-4 Punch Section Paper Flow

Punch components

1. Finisher Input Path Sensor

The *Finisher Input Path Sensor* monitors paper being transferred from the *Horizontal Transport* into the *Finisher*.

At the specified pulses after this sensor detects the trailing edge of the paper, the *Shift Roller* rotation speed decreases to start the punching operation.

2. Finisher Path Sensor

The *Finisher Path Sensor* monitors the paper passing condition between the *Finisher Input Roller* and the *Regi Roller*.

3. Punch Unit

The *Punch Unit* punches paper.

Shift Section

Shifting Job

After the trailing edge of paper passes the *Finisher Path Roller*, the *Exit Pinch Roll Guide* opens upwards. Then, the *Shift Roller Unit* is moved forwards or backwards to perform an offset job, and, at the same time, the *Shift Roller* rotates to transfer the paper towards the *Exit Roller*. Also, each time a sheet of paper is moved forwards or backwards, the *Exit Pinch Roll Guide* closes and the *Exit Roller* rotates to deliver the paper. Then, at the specified pulses after the *Finisher Exit Path Sensor* detects the trailing edge of the paper, the *Shift Roller Unit* returns to the home position. Hence, the operation mentioned above is repeated if the shift job is executed.

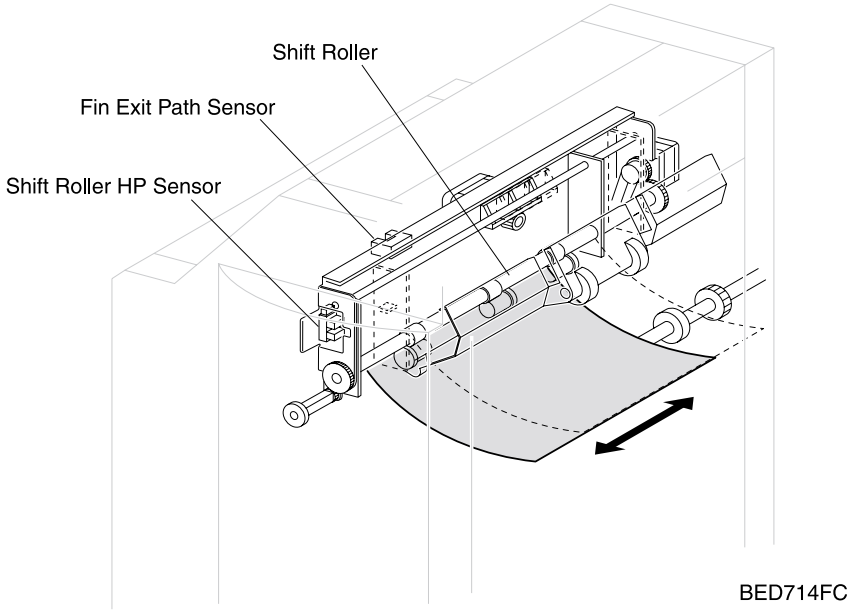


Fig 2-5 Shift Section

Shift Components

1. Finisher Path Sensor
   The *Finisher Path Sensor* monitors the paper passing condition between the *Finisher Input Roller* and the *Regi Roller*.

2. Finisher Exit Path Sensor
   The *Finisher Exit Path Sensor* monitors paper passing condition before the *Shift Roller*.

3. Shift Roller
   The *Shift Roller* transfers paper towards the *Exit Roller*.

4. Shift Roller Home Position Sensor
   The *Shift Roller Home Position Sensor* detects the home position of the *Shift Roller Unit*.

Fixing the Paper on the Stacker Bin (only when the shifting job is executed)

After the paper is delivered on the *Stacker Bin*, it is held and fixed by the actuator on the *Sheet Clamp Shaft*. When the trailing edge of the delivered paper passes the *Finisher Exit Path Sensor*, the actuator releases the fixed paper. When the next paper is delivered to the Stacker Bin, the actuator holds and fixes the paper again with certain timing. This series of actions is repeated every time the shifting job is executed.

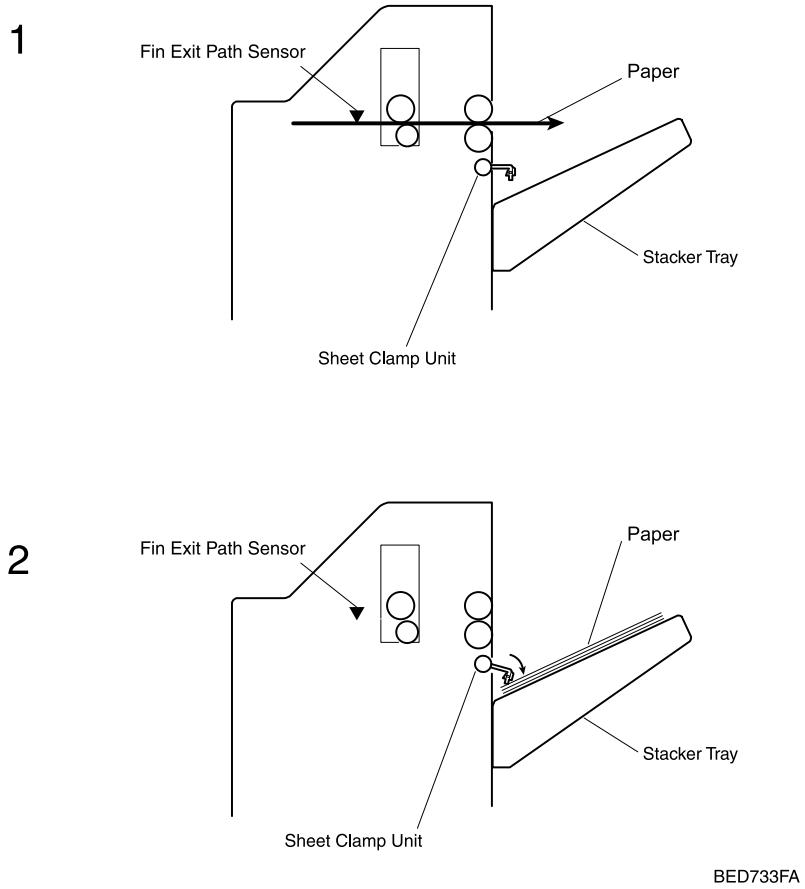


Fig 2-6 Fixing Paper on the Stacker Bin

Paper Stopper Components

Sheet Clamp Shaft

The rotation of the *Sheet Clamp Shaft* drives three actuators on the *Sheet Clamp Shaft*, which hold and fix the paper stacked on the *Stacker Bin*.

Compiler and Jogger Section

The paper transferred toward the *Shift Roller* by the *Regi Roller* starts to be drawn into the *Compiler Bin* by the clockwise rotation of the *Sub Paddle* at the specified pulses after the *Finisher Exit Path Sensor* before the *Shift Roller* detects the trailing edge of the paper. Also, the trailing edge passed the *Finisher Exit Path Sensor*, the *Exit Roller* rotates counterclockwise to draw out the *Compiler Move Tray*. The drawn-out *Compiler Move Tray* assists the paper to be easily drawn into the *Compiler Tray*. Further, the rotation of the *Main Paddle* near the *Compiler Tray* pushes surely the trailing edge of the paper against the end wall in the *Compiler Tray* so as to ensure the paper alignment.

The bundle of paper transferred into the *Compiler Tray* is jogged by the *Jogger Flap*. The *Jogger Flap* moves rapidly to the position 10 mm before the paper edge with respect to the *Jogger Home Position Sensor.* Then, the *Jogger Flap* decelerates and jogs the bundle of paper.

Note *The stapling job cannot be executed, if the Shift Job is performed.*

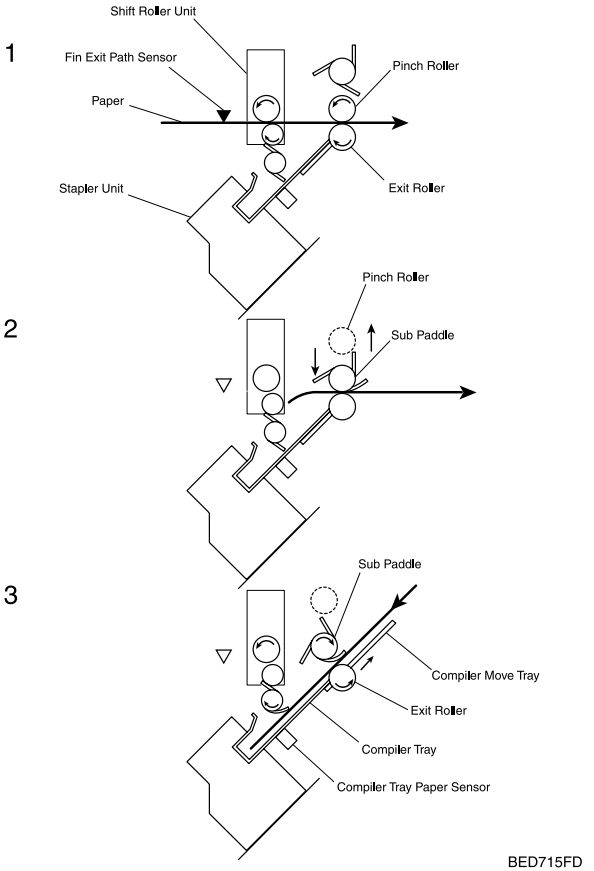


Fig 2-7 Compiler and Jogger Section

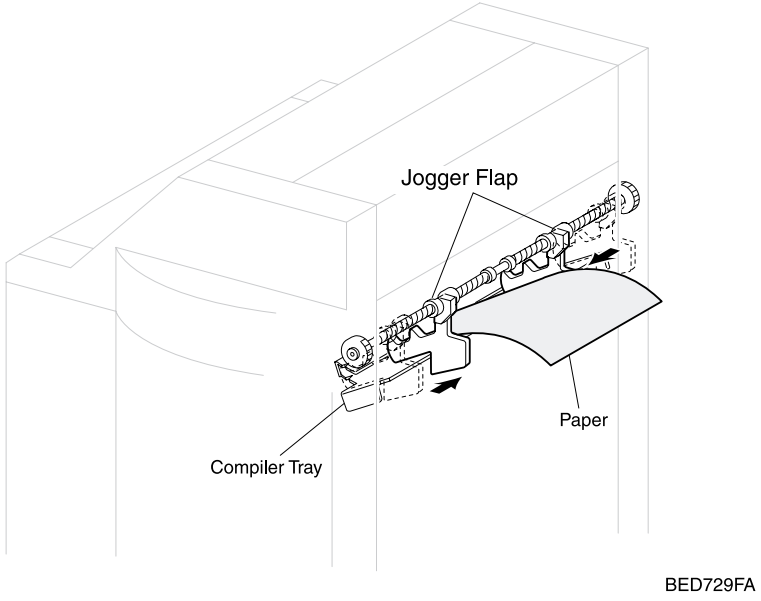


Fig 2-8 Compiler and Jogger Section, *continued*

Compiler and Jogger Components

1. Exit Roller
The *Exit Roller* delivers paper to the *Stacker Bin*, and transfers paper to the *Compiler Tray.*

2. Sub Paddle
The *Sub Paddle* assists the paper to be drawn into the *Compiler Tray.*

3. Main Paddle
The *Main Paddle* draws the paper into the *Compiler Tray,* and then pushes surely the trailing edge of the paper against the end wall in the *Compiler Tray.*

4. Compile Tray Paper Sensor
The *Compile Tray Paper Sensor* detects the presence of paper in the *Compiler.*

5. Compiler Move Tray
The *Compiler Move Tray* extends to assist the paper to be drawn easily into the *Compiler Tray.*

6. Jogger Home Position Sensor
The *Jogger Home Position Sensor* detects the *Jogger* home position to confirm the *Jogger Flap* position.

Staple Section

The *Stapler* staples a bundle of paper in the *Compiler Tray*. When performing the stapling, the *Stapler Unit* starts moving along rails to the paper staple position. The *Stapler Unit* moves to the front side when the right side of paper is stapled, or to the rear side when the left side of paper is stapled. When the *Stapler Unit* moves, the *Stapler Traverse Home Position Sensor* detects the absolute position of the *Stapler Unit* from the presence of a notch on the guide. After the *Stapler Unit* moves to the paper staple position, the bundle of paper is stapled immediately in the *Dual Stapling* mode, but in the *Corner Stapling* mode the *Stapler Unit* swings 45^{o} before the bundle of paper is stapled. As for the *Stapler* tilt angle in the *Corner Stapling* mode, the *Stapler* swings +45^{o} when the *Stapler Unit* moved to the front side, but -45^{o} when it moved to the rear side. After the *Stapler* staples the bundle of paper, *the Exit Roller* rotates together with the *Main Paddle* to deliver the bundle of paper to the *Stacker Bin* via the *Exit* section.

Note *The staple positions below are specified for Letter and A4 paper size.*

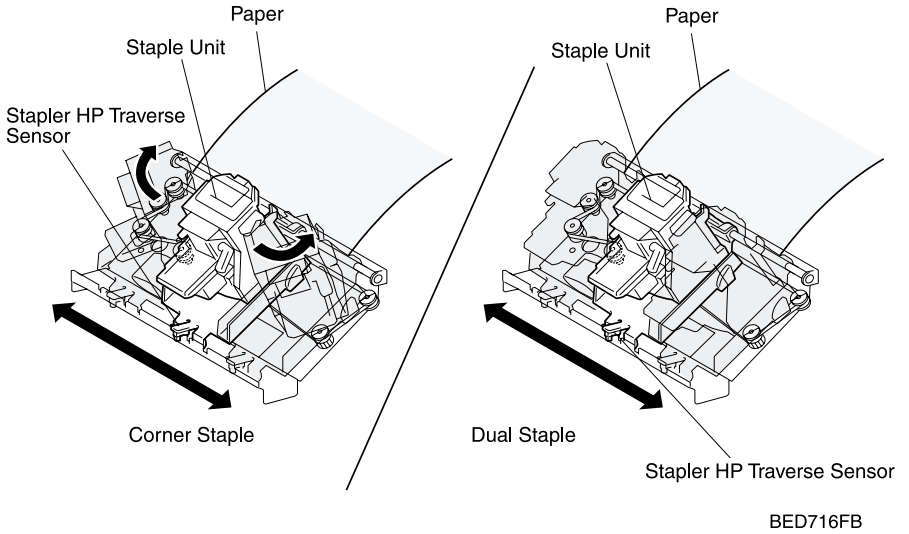


Fig 2-9 Staple Section

Staple Components

1. Staple Unit
The *Staple Unit* staples a bundle of paper.

2. Stapler Traverse Home Position Sensor
The *Stapler Traverse Home Position Sensor* detects the absolute position of the *Stapler Unit* from the presence of a notch on the guide rail.

Exit Section

When the staple job is not performed.

At the specified pulses after the *Finisher Exit Path Sensor* detects the leading edge of the paper, the *Exit Pinch Roll Guide* lowers to nip the paper with the *Exit Roller.* Then the rotation of the *Exit Roller* delivers the paper on the *Stacker Bin*. And after the trailing edge of the paper passes the *Paper Exit Sensor*, the *Exit Pinch Roll Guide* opens upwards.

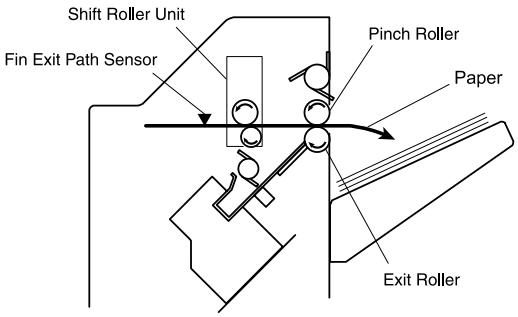


Fig 2-10 Non-Stapling Job

When the staple job is performed.

After the stapling operation is finished, the bundle of paper stacked on the Compiler Tray is delivered to the Stacker Bin by the rotataion of the Main Paddle and Exit Roller.

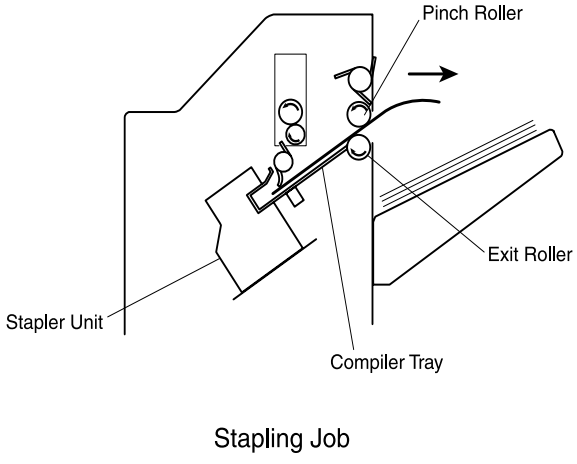


Fig 2-11 Stapling Job

Exit Components

1. Exit Roller
   The *Exit Roller* delivers paper to the *Stacker Bin*, and transfers paper to the *Compiler Tray*.

2. Exit Pinch Roll Guide
   The *Exit Pinch Roll Guide* nips the paper with the *Exit Roller* to assist the paper to be delivered surely.

3. Paper Exit Sensor
   The *Paper Exit Sensor* monitors the paper passing condition on the *Exit Pinch Roll Guide*.

4. Exit Roller Open/Close Home Position Sensor
   The *Exit Roller Open/Close Home Position Sensor* detects whether the *Exit Pinch Roll Guide* is in the home position.

Paper Stack Section

From the *Finisher Exit* section, the paper or a bundle of paper is delivered on the *Stacker Bin*. The *Stacker Height Sensor* detects the stack amount of bundles of paper, and moves up or down the *Stacker Bin* according to the stack amount. At the initialization, the absolute position of the *Stacker Bin i*s recognized by the rotation of the *Linear Encoder.* The *Stacker Bin* absolute position is defined to three positions, 25%, 50% and 100%, according to the stack amount. The slits differently spaced on the *Linear Encoder* correspond to respective positions. The absolute position is recognized when the *Stacker Bin Position Sensor* detects a slit on the *Linear Encoder* for the first time. Then, the *Stacker Bin* moves up to the position where the *Sensor B* of the S*tacker Height Sensor* turns off.

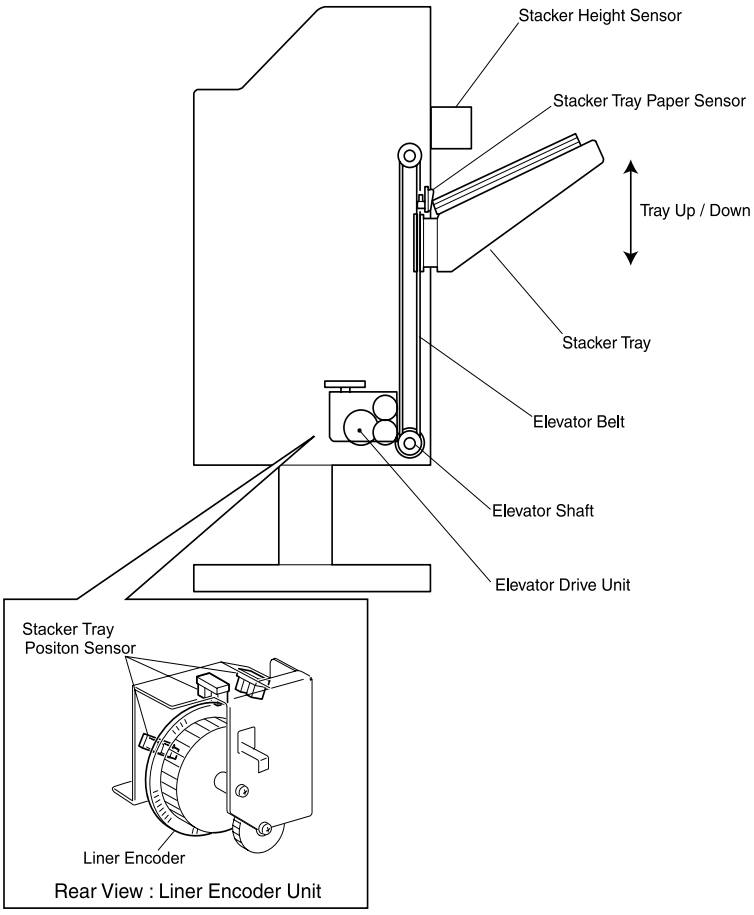


Fig 2-12 Paper Stack Sections

Paper Stack Components.

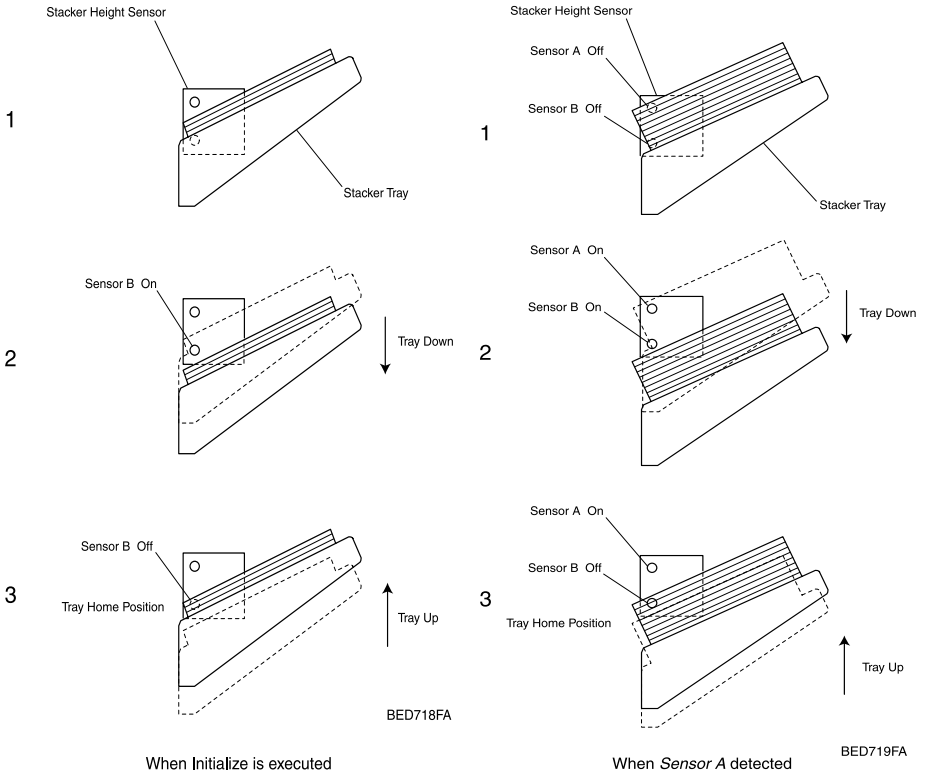


Fig 2-13 Stacker Height Sensor

1. Stacker Bin Paper Sensor

The *Stacker Bin Paper Sensor* detects the presence of paper on the *Stacker Bin*.

2. Stacker Bin Position Sensor

The *Stacker Bin Position Sensor* detects the current position of the *Stacker Bin* from the *Linear Encoder.* The Linear Encoder has three slits differently spaced along the edge, and according to these differently spaced slits, the *Stacker Bin* positions on the *Finisher* are classified into 25%, 50% and 100% positions.

3. The two sensors on the side of the *Stacker Height Sensor* detect the top surface of the bundle of paper on the *Stacker Bin.*

The sensors *A and B* are shown in Fig. 2-13.

Once the *Stacker Bin* moves down where the top surface of paper is below the *Sensor B*, it moves up again. After the *Sensor B* detects that the top surface of paper passed the *Sensor B*, the *Stacker Bin* moves up further by the specified level, and then stops. This position is the Home Position (HP).

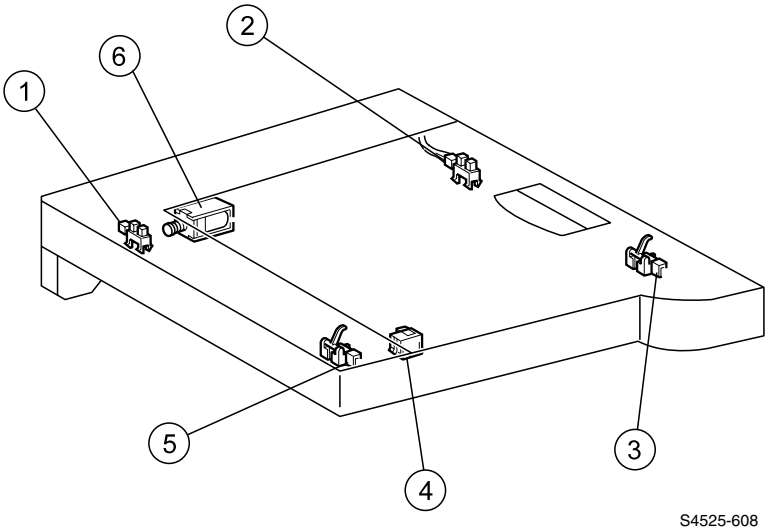
When the *Sensor A* detects the bundle of paper stacked on the *Stacker Bin*, the *Stacker Bin* moves down where the top surface of paper is below the *Sensor B*, and then moves up again to the home position.

When the bundle of paper on the *Stacker Bin* is removed and the *Sensor B* detects no paper, the *Stacker Bin* moves up and down to the home position.

FRU, Sensor & Interlock Locations

FRU, Sensor & Interlock Locator Map 1

Fig 2-14 FRU, Sensor & Interlock Locator Map 1

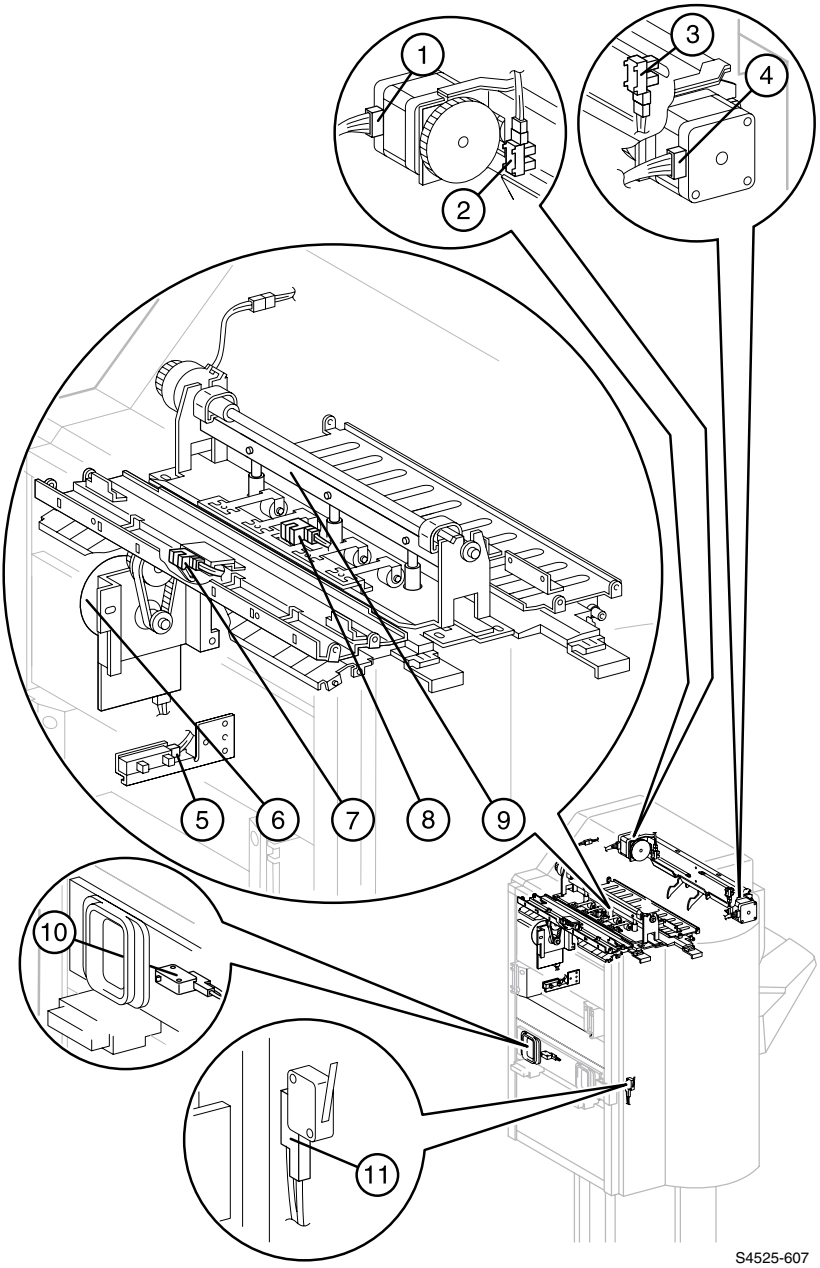


FRU PL List 14.1 FRU, Sensor & Interlock Locator Map 1 Legend

Callout Number	Description	Identifier
1	Horizontal Transport In-Gate Sensor	SE29
2	Horizontal Transport Top Cover Open Sensor	SE30
3	Horizontal Transport Exit Sensor	Se32
4	Face Down Bin Full Sensor	
5	Horizontal Transport Input Path Sensor	Se31
6	In-Gate Solenoid	

FRU, Sensor & Interlock Locator Map 2

Fig 2-15 FRU, Sensor & Interlock Locator Map 2

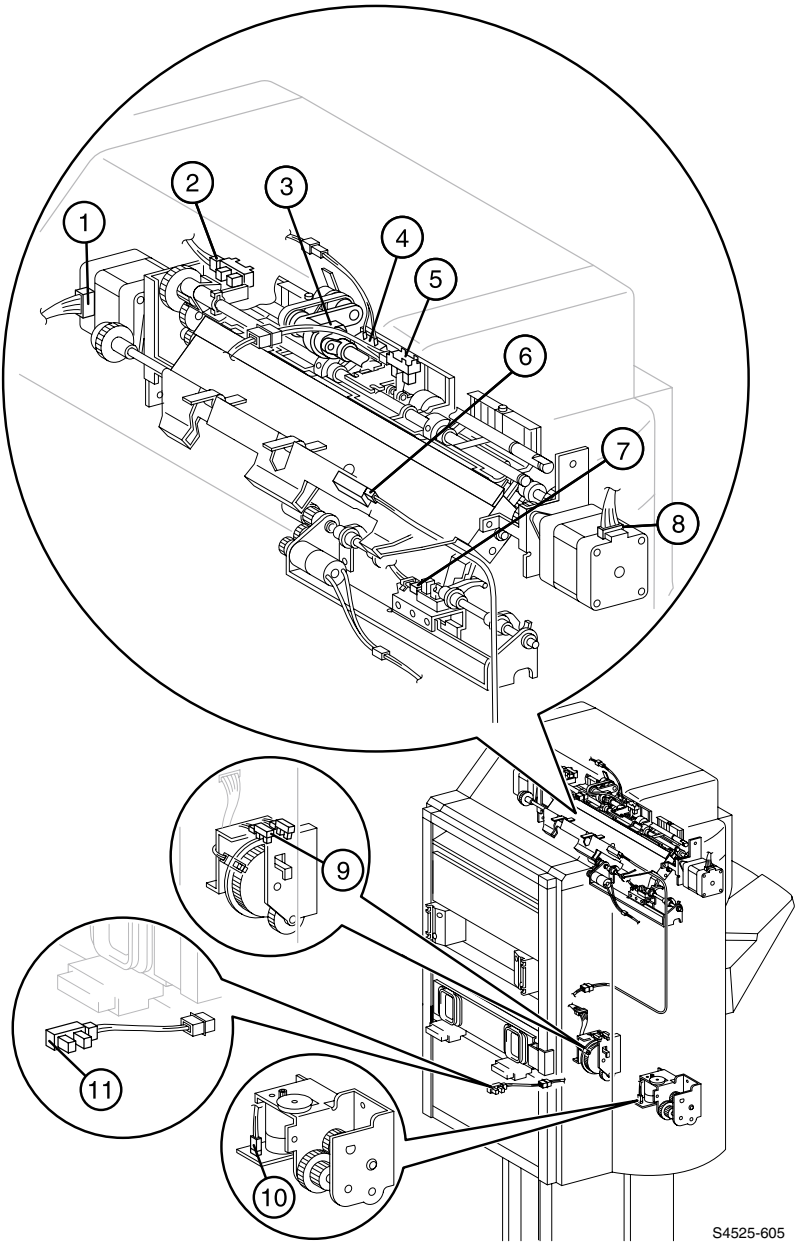


FRU PL List 14.2 FRU, Sensor & Interlock Locator Map 2 Legend

Callout Number	Description	Identifier
1	Jogging Motor Rear	
2	Jogging Motor Rear Home Position Sensor	SE9
3	Jogging Motor Front Home Position Sensor	Se8
4	Jogging Motor Front	
5	Punch Dust Bin Full Sensor	
6	Finisher Main Feed Motor	
7	Finish Paper Input Path Sensor	SE1
8	Finisher Paper Path Sensor	SE2
9	Punch Assembly	
10	Docking Interlock Switch	SW24
11	Front (Stapler) Door Interlock Switch	SW27

FRUs, Sensors and Interlocks Locator

Fig 2-16 FRU, Sensor & Interlock Locator Map 3

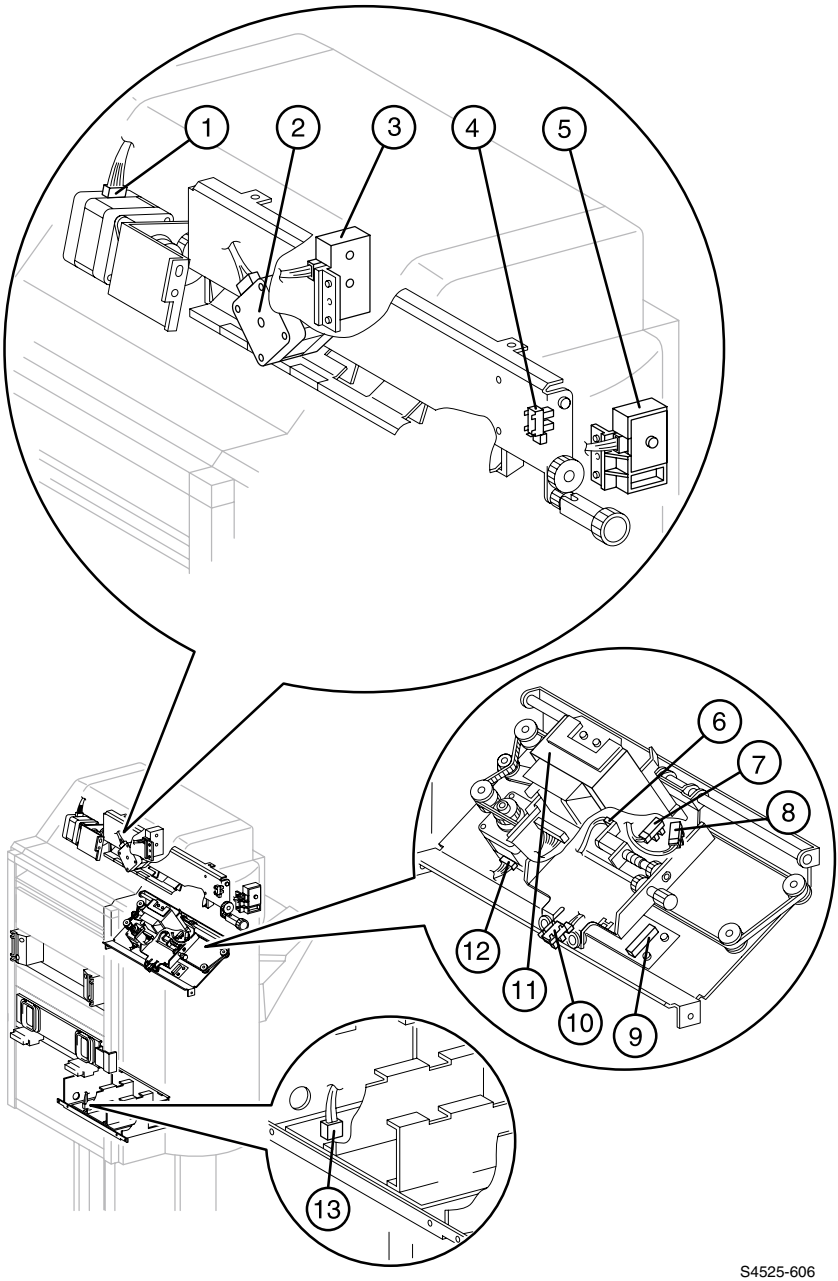


FRU PL List 14.3 FRU, Sensor & Interlock Locator Map 3 Legend

Callout Number	Description	Identifier
1	Clamp Motor	MP4, SE5
2	Compiler Home Position Sensor	
3	Paddle Assembly	
4	Compiler Exit Roller Safety Interlock Switch	SW26
5	Finisher Exit Path Sensor	SE3
6	Compiler Tray No Paper Sensor	
7	Stacker Bin No Paper Sensor	
8	Exit Motor	
9	Elevator Encoder Assembly	
10	Elevator Motor Assembly	
11	Punch Dust Bin Present Sensor	

FRU, Sensor & Interlock Locator Map 4

Fig 2-17 FRU, Sensor & Interlock Locator Map 4



FRU PL List 14.4 FRU, Sensor & Interlock Locator Map 4 Legend

Callout Number	Description	Identifier
1	Compiler Tray Motor [Stacking]	MP2
2	Shift Motor	MP5
3	Stack Height Sensor Rear	
4	Shift Assembly Home Position Sensor	SE6
5	Stack Height Sensor Front	
6	Stapler Swing Motor Assembly	
7	Stapler Swing Home Position 1 Sensor	SE11
8	Stapler Swing Home Position 2 Sensor	SE12
9	Stapler Base Assembly	SE16
10	Stapler Traverse Home Position Sensor	SE10
11	Stapler Head Assembly	
12	Traverse Motor	
13	Power Supply location	

Blank Page

Error Codes and Messages

Error messages

The Control Panel displays error codes when it encounters certain system failures or anomalies otherwise undetected by the user. These error codes are discussed in this section. When an error code first occurs, cycle power on the printer to see if the error recurs.

- For **Printer Performance problems**, go to the Error Codes and Troubleshooting sections of Book I, Volume 1 of this QRG.
- For **Image Quality problems**, go to the Troubleshooting section of Book I, Volume 1 of this QRG.
- For **High Capacity Feeder problems**, go to the High Capacity Feeder section in Book II, Volume 2 of this QRG.
- For **Duplex Module problems**, go to the Duplex Module section in Book II, Volume 3 of this QRG.
- For **Envelope Feeder problems**, go to the Envelope Feeder section in Book II, Volume 4 of this QRG.

Service Flowchart

Note *A Service Flowchart that outlines one possible approach to troubleshooting and repair of the printer has been provided. The Service Flowchart is an overview of the path a service technician could take, using this technical manual, to service the printer engine and options.*

To use the Service Flowchart, start at Block 1 to identify the problem. After you have identified the problem, return to the Service Flowchart and proceed to Block 2 where you inspect and clean the printer (a through cleaning frequently solves many printer problems). You continue down the Flowchart in this manner, always returning to the next block in the Service Flowchart after you have completed the tasks outlined in the current block.

If you choose not to use the Service Flowchart, it is recommended that you start at the appropriate Repair Analysis Procedure (RAP) Table and proceed from there.

Service Flowchart *cont'd*

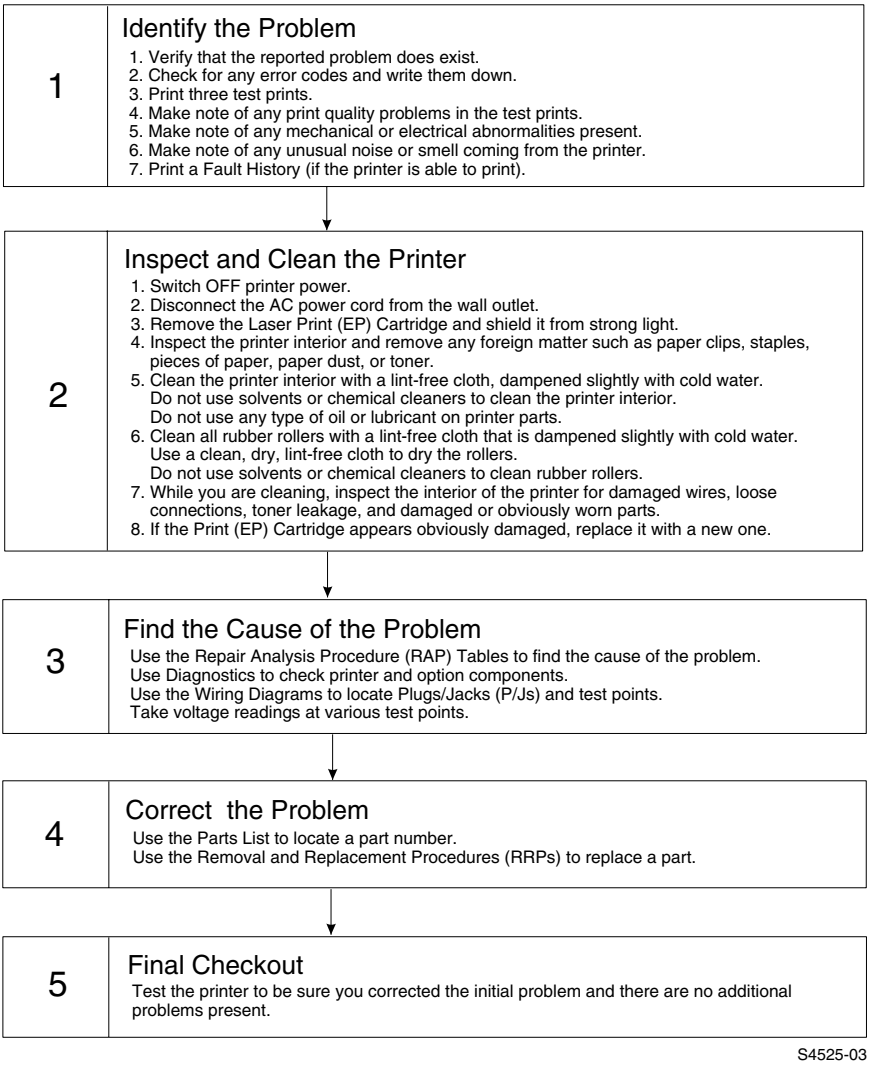


Fig 6-1 Service Flowchart

Repair Analysis Procedure Table

Table 6-3 Repair Analysis Procedure Table

Displayed Error Message	Error Code	Fault Description	Go To RAP No.	Unit/ Page
Paper Jam Clear Area E	F4-11	The Trail Edge of paper does not leave the Finisher Transport Entrance Sensor within the specified time. **(SE 31)**	RAP 6-1	6-655
Paper Jam Clear Area E	F4-12	After leaving the Fuser Exit Sensor, the Lead Edge of paper does not reach the Finisher Transport Entrance Sensor within specified time. **(SE 31)**	RAP 6-2	6-657
Paper Jam Clear Area E	F4-16	■ Remaining paper detected by the Horizontal Transport Input Path Sensor. **(SE 31)** ■ Paper was detected by the Horizontal Transport Input Path Sensor during the initialization of the Finisher. **(SE 31)**	RAP 6-3	6-659
Paper Jam Clear Area F	F4-21	Paper does not leave the Finisher Transport Exit Sensor within specified time. **(SE 32)**	RAP 6-4	6-661
Paper Jam Clear Area F	F4-22	After leaving the Finisher Transport Entrance Sensor, the Lead Edge of paper does not reach the Finisher Transport Exit Sensor within specified time. **(SE 32)**	RAP 6-5	6-663
Paper Jam Clear Area F	F4-26	■ Remaining paper detected by the Finisher Transport Exit Sensor. **(SE 32)** ■ Paper was detected by the Finisher Transport Exit Sensor when the Finisher was initialized. **(SE 32)**	RAP 6-6	6-665
Paper Jam Clear Area F	F4-31	Paper does not leave the Finisher Input Path Sensor after the paper has reached the Finisher Input Path Sensor. **(SE 1)**	RAP 6-7	6-667
Paper Jam Clear Areas F	F4-32	After leaving the Finisher Transport Exit Sensor, the Lead Edge of paper does not reach the Finisher Input Path Sensor within specified time. **(SE 1)**	RAP 6-8	6-669
Paper Jam Clear Areas G	F4-36	Remaining paper detected by the Finisher Input Path Sensor. **(SE 1)**	RAP 6-9	6-671
Paper Jam Clear Area G	F4-41	Paper does not leave the Finisher Path Sensor after the paper has reached the Finisher Path Sensor. **(SE 2)**	RAP 6-10	6-673
Paper Jam Clear Area G	F4-42	Paper does not reach the Finisher Path Sensor for prescribed period of time, after the Lead Edge of paper has reached the Finisher Input Path Sensor. **(SE 2)**	RAP 6-11	6-675
Paper Jam Clear Area G	F4-46	Remaining paper detected by the Finisher Path Sensor. **(SE 2)**	RAP 6-12	6-677
Paper Jam Clear Area G	F4-51	Paper does not leave the Finisher Exit Path Sensor after paper has reached the Finisher Exit Path Sensor. **(SE 3)**	RAP 6-13	6-678

Table 6-3 Repair Analysis Procedure Table

Displayed Error Message	Error Code	Fault Description	Go To RAP No.	Unit/ Page
Paper Jam Clear Area G	F4-52	After the Lead Edge of paper has reached the Finisher Path Sensor, the paper does not reach the Finisher Exit Path Sensor within specified time. **(SE 3)**	RAP 6-14	6-680
Paper Jam Clear Area G	F4-56	Paper was detected by the Finisher Exit Path Sensor when the Finisher was initialized. **(SE 3)**	RAP 6-15	6-682
Paper Jam Clear Area H	F4-61	1. In Staple Mode, the Compiler Tray Exit Path Sensor does not turn OFF within a prescribed period of time from the time the set was to be ejected. 2. In Non-staple Mode, the Compiler Tray Exit Path Sensor does not turn OFF within a prescribed period of time from the time the Compiler Tray Exit Path Sensor turned ON. **(SE 4)**	RAP 6-16	6-684
Paper Jam Clear Area H	F4-66	Remaining paper detected by the Compiler Tray Exit Path Sensor. **(SE 4)**	RAP 6-17	6-686
Close Cover E	F6-1	Horizontal Transport In-Gate Cover is sensed to be open. **(SE 29)**	RAP 6-18	6-688
Close Door F	F6-2	Finisher Transport Door F is sensed to be open. **(SE 30)**	RAP 6-19	6-690
Close Stapler Door	F7-1	Finisher Stapler Door is sensed to be open. **(SW 27)**	RAP 6-20	6-691
Close Exit Roller Unit	F7-3	Exit Roller Unit Interlock is Open. **(SW 26**)	RAP 6-21	6-692
Slide In Finisher	F8-1	Finisher Interlock Switch is sensed to be open. **(SW 24)**	RAP 6-22	6-694
Finisher Failure Power Off/On	H5-11	Failure of Finisher Bin. **(SE21)**	RAP 6-23	6-696
Finisher Failure Power Off/On	H5-21	Failure of Finisher Front Jogger. **(SE 8)**	RAP 6-24	6-698
Finisher Failure Power Off/On	H5-22	Failure of Finisher Rear Jogger. **(SE 9)**	RAP 6-25	6-699
Finisher Failure Power Off/On	H5-81	Failure of Exit Roller Open/Close**.** **(SE 5)**	RAP 6-26	6-700
Finisher Failure Power Off/On	H5-83	Failure of Roller Shift. **(SE 6)**	RAP 6-27	6-702
Finisher Failure Power Off/On	H5-91	Failure of Stapler. **(SE 16)**	RAP 6-28	6-704
Finisher Failure Power Off/On	H5-92	Failure of Stapler Head Home Sensor. **(SE 16)**	RAP 6-29	6-705
Finisher Failure Power Off/On	H5-93	Failure of Stapler Front Staple Position. **(SE 10)**	RAP 6-29	6-705
Finisher Failure Power Off/On	H5-96	Failure of Stapler Swing. **(SE 11/12)**	RAP 6-30	6-707
Finisher Failure Power Off/On	H6-7	Communication Error between Print Engine Controller and Finisher Board.	RAP 6-31	6-709
Install Correct Finisher	H6-8	Incorrect Finisher Option detected as being installed. (N24/N32/N40 Finisher Installed instead of N4525 Finisher.	RAP 6-32	6-710

RAP 6-1

Error Code F4-11 Paper Jam Clear Area E

There is a problem at the Horizontal Transport Input Path Sensor.

The trail edge of the paper does not leave the Finisher Horizontal Transport Input Path Sensor within the specified time (**SE 31**).

Table 6-4 Error Code F4-11

Step	Actions and Questions	Yes	No
1	**PAPER PATH INSPECTION** Inspect the position of the sheet of paper in the Horizontal Transport. **Has the trail edge of the sheet of paper cleared the Horizontal Transport Input Path Sensor?**	Go to step 2	Go to step 5
2	**HORIZONTAL INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Input P. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert and remove a sheet of paper into the Horizontal Transport Input Path Sensor and observe the display. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT INPUT PATH SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Input Path Sensor (RAP 6-11). 2. Repeat the Horizontal Transport Input Path Sensor test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the entire Horizontal Transport Assembly. **Are all of the Drive Rollers in the Horizontal Transport Assembly clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If still NO, go to step 8.

Table 6-4 Error Code F4-11 (cont'd.)

Step	Actions and Questions	Yes	No
6	**FINISHER MAIN MOTOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor actuate when you run the test?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 8.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Horizontal Transport Assembly from the Finisher Main Feed Motor to Feed Roller 1. **Does the entire drive train of the Horizontal Transport Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-2

Error Code F4-12 Paper Jam Clear Area E

There is a problem at the Horizontal Transport Input Path Sensor.

Logic control on the Print Engine Controller Board sensed that the Horizontal Transport Input Path Sensor was not actuated within a specified time after the Fuser Exit Sensor was actuated (**SE 31**).

Table 6-5 Error Code F4-12

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper entering the Horizontal Transport. **Has the lead edge of the sheet of paper actuated the Horizontal Transport Input Sensor?**	Go to step 5	Go to step 2
2	**HORIZONTAL TRANSPORT IN-GATE SOLENOID TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Tran Gate **Pull**. 3. Press [4] to open the Horizontal Transport In-Gate and verify it opened. 4. After opening the Horizontal Transport In-Gate, select Comp Input Test / Finisher Unit / H Tran Gate **Push**. 5. Press [4] to close the Horizontal Transport In-Gate, then verify it closed. **Does the Horizontal Transport In-Gate open when you actuate the "Pull" test, then close when you actuate the "Push" test?**	Go to step 3	Go to step 7
3	**HORIZONTAL TRANSPORT IN-GATE INSPECTION** 1. Inspect the Horizontal Transport In-Gate for damage. **Is the Horizontal Transport In-Gate in good condition and move freely when you actuate it by hand?**	Go to step 4	Replace the Horizontal Transport In-Gate & retest. If still NO, go to step 4.
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport In-Gate Solenoid Test in Step 2 above. **Does the Horizontal Transport In-Gate open when you actuate the "Pull" test, then close when you actuate the "Push" test?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.

Table 6-5 Error Code F4-12 (cont'd.)

Step	Actions and Questions	Yes	No
5	**HORIZONTAL TRANSPORT INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Input P. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert and remove a sheet of paper into the Horizontal Transport Input Path Sensor and observe the display. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Go to step 7	Go to step 6
6	**HORIZONTAL TRANSPORT INPUT PATH SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Input Path Sensor (RRP 6-11). 2. Repeat the Horizontal Transport Input Path Sensor Test in Step 5 above. **Does the Horizontal Transport In-Gate open when you actuate the "Pull" test, then close when you actuate the "Push" test?**	Problem solved	Go to step 8
7	**HORIZONTAL TRANSPORT IN-GATE SOLENOID REPLACEMENT** 1. Replace the Horizontal Transport In-Gate Solenoid (RRP 6-7). 2. Repeat the Horizontal Transport In-Gate solenoid Test in Step 2 above. **Does the Horizontal Transport In-Gate open when you actuate the "Pull" test, then close when you actuate the "Push" test?**	Problem solved	Go to step 9
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport In-Gate Solenoid (RRP 6-7) ■ Horizontal Transport Input Path Sensor (RRP 6-11) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-3

Error Code F4-16 Paper Jam Clear Area E

There is a problem with the Horizontal Transport Input Path Sensor.

- Remaining paper is detected by the Horizontal Transport Input Path Sensor (**SE 31**).
- Paper was detect by the Horizontal Transport Input Path Sensor during initialization of the finisher (**SE 31**).

Table 6-6 Error Code F4-16

Step	Actions and Questions	Yes	No
1	**SENSOR INSPECTION** Inspect the Horizontal Transport Input Path Sensor for secure mounting and/or paper or foreign matter actuating the Sensor. **Is the sensor mounted securely? Is there paper or foreign matter actuating the Sensor?**	Secure the sensor and/or remove whatever is actuating it.	Go to step 2
2	**HORIZONTAL TRANSPORT INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Input P. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert and remove a sheet of paper into the Horizontal Transport Input Path Sensor and observe the display. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT INPUT PATH SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Input Path Sensor (RRP 6-11). 2. Repeat the Horizontal Transport Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Input Path Sensor in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Horizontal Transport Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.

Table 6-6 Error Code F4-16 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport Input Sensor (RRP 6-11) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-4

Error Code F4-21 Paper Jam Clear Area F

There is a problem at the Horizontal Transport Exit Sensor.

Logic Control sensed that the Horizontal Transport Exit Sensor was not deactuated within a specified time after it was actuated (**SE 31**).

Table 6-7 Error Code F4-21

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the piece of paper exiting the Horizontal Transport Exit Sensor. **Has the trail edge of the sheet of paper cleared the Horizontal Transport Exit Sensor?**	Go to step 2	Go to step 5
2	**HORIZONTAL TRANSPORT EXIT SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Exit P. 3. Press [4] to start, [0] to stop. 4. Raise the Horizontal Transport top Cover and actuate the Exit Sensor. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT EXIT SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Exit Sensor (RRP 6-12). 2. Repeat the Horizontal Transport Exit Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Exit Sensor in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PAPER PATH INSPECTION** Inspect the Drive rollers in the Finisher, especially the Input Rollers and the Registration Rollers. **Are all of the Drive Rollers in the finisher clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers and retest. If still NO, go to step 6.

Table 6-7 Error Code F4-21 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. 4. Observe the Main Motor for operation. **Does the Finisher Main Motor run smoothly?**	Go to step 7	Replace the Finisher Main Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears of the entire Finisher Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	go to step 8	Replace all suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport Exit Sensor (RRP 6-12) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-5

Error Code F4-22 Paper Jam Clear Area F

There is a problemat the Horizontal Transport Exit Sensor.

Logic Control on the Print Engine Controller Board sensed that the Horizontal Transport Exit Sensor was not actuated within a specified time after the Horizontal Transport Input Path Sensor was actuated (**SE 32**).

Table 6-8 Error Code F4-22

Step	Actions and Questions	Yes	No
1.	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper on the Horizontal Transport. **Has the lead edge of the sheet of paper actuated the Horizontal Transport Exit Sensor?**	Go to step 2	Go to step 5
2	**HORIZONTAL TRANSPORT EXIT SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Exit P. 3. Press [4] to start, [0] to stop. 4. Raise the Horizontal Transport top Cover and actuate the Exit Sensor. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT EXIT SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Exit Sensor (RRP 6-12). 2. Repeat the Horizontal Transport Exit Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Exit Sensor in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the entire Horizontal Transport Assembly. **Are all of the Drive Rollers in the Horizontal Transport Assembly clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If problem still exists, go to step 6.

Table 6-8 Error Code F4-22 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor actuate when you run the test?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38). If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Horizontal Transport Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Horizontal Transport Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace all suspect belts, pulleys, gears & retest. If problem still exists, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport Exit Sensor (RRP 6-12) ■ Finisher Main Board (RRP 6-84) ■ Finisher Main Motor (RRP 6-38) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-6

Error Code F4-26 Paper Jam Clear Area F

There is a problem at the Horizontal Transport Exit Sensor.

- Remaining paper detected by the Horizontal Transport Exit Sensor (**SE 32**).
- Paper was detected by the Horizontal Transport Exit Sensor when the Finisher was initialized (**SE 32**).

Table 6-9 Error Code F4-21

Step	Actions and Questions	Yes	No
1	**HORIZONTAL TRANSPORT EXIT SENSOR INSPECTION** Inspect the Horizontal Transport Exit Sensor for secure ;mounting and/or paper or foreign matter actuating the Sensor. **Is the Sensor mounted securely? Is there paper or foreign matter actuating the Sensor?**	Secure the sensor and/or remove whatever is actuating the Sensor.	Go to step 2
2	**HORIZONTAL TRANSPORT EXIT SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Exit P. 3. Press [4] to start, [0] to stop. 4. Raise the Horizontal Transport top Cover and actuate the Exit Sensor. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT EXIT SENSOR REPLACEMENT** 1. Replace the Horizontal Transport Exit Sensor (RRP 6-12). 2. Repeat the Horizontal Transport Exit Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Exit Sensor in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Horizontal Transport Exit Sensor, and "without paper" when you deactuate it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.

Table 6-9 Error Code F4-21 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport Exit Sensor (RRP 6-12) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-7

Error Code F4-31 Paper Jam Clear Area F

There is a problem at the Finisher Input Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Input Path Sensor was not deactuated within a specified time after it was actuated.

Table 6-10 Error Code F4-31

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper exiting the Finisher Input Path Sensor. **Has the trail edge of the sheet of paper cleared the Finisher Input Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Input Path Sen. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert a sheet of paper into the Finisher Input Path Sensor and remove it. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER INPUT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Input Path Sensor (RRP 6-29). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the Input Rollers and the Registration Rollers. **Are all of the Drive Rollers in the Horizontal Transport and Finisher input area clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers. If problem still exists, go to step 6.

Table 6-10 Error Code F4-31

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If problem still exists, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Input Path Sensor (RRP 6-29) ■ Finisher Main Board (RRP 6-84) ■ Finisher Main Motor (RRP 6-38) ■ Print Engine Controller Board (RRP 1-72) ■ Finisher drive train components including gears, belts, and rollers. ■ Wiring and connectors linking the components.		

RAP 6-8

Error Code F4-32 Paper Jam Clear Area F

There is a problem at the Finisher Input Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Input Path Sensor was not actuated within the specified time after the Horizontal Transport Exit Sensor was actuated.

Table 6-11 Error Code F4-32

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper exiting the Finisher Input Path Sensor. **Has the lead edge of the sheet of paper acutated the Finisher Input Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Input Path Sen. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert a sheet of paper into the Finisher Input Path Sensor and remove it. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER INPUT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Input Path Sensor (RRP 6-29). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the Input Rollers and the Registration Rollers. **Are all of the Drive Rollers in the Horizontal Transport and Finisher input area clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If the problem still exists, go to step 6.

Table 6-11 Error Code F4-32 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If problem still exists, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Input Path Sensor (RRP 6-29) ■ Finisher Main Board (RRP 6-84) ■ Finisher Main Motor (RRP 6-38) ■ Print Engine Controller Board (RRP 1-72) ■ Finisher drive train components including gears, belts, and rollers. ■ Wiring and connectors linking the components.		

RAP 6-9

Error Code F4-36 Paper Jam Clear Area G

There is a problem at the Finisher Input Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Input Path Sensor was actuated at start of printing.

Table 6-12 Error Code F4-36

Step	Actions and Questions	Yes	No
1	**FINISHER INPUT PATH SENSOR INSPECTION** Inspect the Finisher Input Path Sensor for secure mounting and/or paper or foreign matter actuating the Sensor.. **Is the sensor mounted securely? Is there paper or foreign matter actuating the sensor?**	Secure the sensor and/or remove whatever is actuating it.	Go to step 2
2	**FINISHER INPUT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Input Path Sen. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert a sheet of paper into the Finisher Input Path Sensor and remove it. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER INPUT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Input Path Sensor (RRP 6-29). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.

Table 6-12 Error Code F4-36 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Input Path Sensor (RRP 6-29) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-10

Error Code F4-41 Paper Jam Clear Area G

There is a problem at the Finisher Path Sensor.

Logic Control on the Print engine Controller Board sensed that the Finisher Path Sensor did not deactuate within the specified time after it was actuated.

Table 6-13 Error Code F4-41

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper with respect to the Finisher Path Sensor. **Has the trail edge of the sheet of paper cleared the Finisher Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Path Sensor. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER PATH SENSOR REPLACEMENT** 1. Replace the Finisher Path Sensor (RRP 6-41). 2. Repeat the Finisher Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the Input Rollers and the Registration Rollers. **Are all of the Drive Rollers in the Finisher clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If the problem still exists, go to step 6.

Table 6-13 Error Code F4-41 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Path Sensor (RRP 6-41) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-11

Error Code F4-42 Paper Jam Clear Area G

There is a problem at the Finisher Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Path Sensor was not actuated within the specified time after the Finisher Input Path Sensor was actuated.

Table 6-14 Error Code F4-42

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper with respect to the Finisher Path Sensor. **Has the trail edge of the sheet of paper actuated the Finisher Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Path Sensor. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER PATH SENSOR REPLACEMENT** 1. Replace the Finisher Path Sensor (RRP 6-41). 2. Repeat the Finisher Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Input Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Input Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the Input Rollers and the Registration Rollers. **Are all of the Drive Rollers in the Finisher clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If the problem still exists, go to step 6.

Table 6-14 Error Code F4-42

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor to the Registration Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Path Sensor (RRP 6-41) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-12

Error Code F4-46 Paper Jam Clear Area G

There is a problem at the Finisher Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Path Sensor was actuated at start of printing.

Table 6-15 Error Code F4-46

Step	Actions and Questions	Yes	No
1	**FINISHER PATH SENSOR INSPECTION** Inspect the Finisher Path Sensor for secure mounting and/or paper or foreign matter actuating the Sensor. **Is the sensor securely mounted? Is there paper or foreign matter actuating the sensor?**	Secure the sensor and/or remove whatever is actuating it	Go to step 2
2	**FINISHER PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Path Sensor. 3. Press [4] to start, [0] to stop. 4. Repeatedly insert, then remove, a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER PATH SENSOR REPLACEMENT** 1. Replace the Finisher Path Sensor (RRP 6-41). 2. Repeat the Finisher Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.
5	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Path Sensor (RRP 6-41) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-13

Error Code F4-51 Paper Jam Clear Area G

There is a problem at the Finisher Exit Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Exit Path Sensor did not deactuate within the specified time after it was actuated.

Table 6-16 Error Code F4-51

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper with respect to the Finisher Exit Path Sensor. **Has the trail edge of the sheet of paper passed the Finisher Exit Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER EXIT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Exit Path Sen. 3. Open the Finisher Front Door. 4. Press [4] to start, [0] to stop. 5. Lower the right green handle to access the Finisher Exit Path Sensor. 6. Repeatedly insert, then remove, a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER EXIT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Exit Path Sensor (RRP 6-30). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the the Registration Rollers, Shift Rollers and Exit Rollers. **Are all of the Drive Rollers in the Finisher clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If still NO, go to step 6.

Table 6-16 Error Code F4-51 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor through the Shift Rollers to the Exit Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following printer components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Exit Path Sensor (RRP 6-30) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Shift Roller Unit (RRP 6-50) ■ Wiring and connectors linking the components.		

RAP 6-14

Error Code F4-52 Paper Jam Clear Area G

There is a problem at the Finisher Exit Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Finisher Exit Path Sensor was not actuated within the specified time after the Finisher Path Sensor was actuated.

Table 6-17 Error Code F4-52

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper with respect to the Finisher Exit Path Sensor. **Has the lead edge of the sheet of paper actuated the Finisher Exit Path Sensor?**	Go to step 2	Go to step 5
2	**FINISHER EXIT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Exit Path Sen. 3. Open the Finisher Front Door. 4. Press [4] to start, [0] to stop. 5. Lower the right green handle to access the Finisher Exit Path Sensor. 6. Repeatedly insert, then remove, a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER EXIT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Exit Path Sensor (RRP 6-30). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.
5	**PATH PAPER INSPECTION** Inspect the Drive Rollers in the Finisher, especially the the Registration Rollers, Shift Rollers and Exit Rollers. **Are all of the Drive Rollers in the Finisher clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Drive Rollers & retest. If still NO, go to step 6.

Table 6-17 Error Code F4-52 (cont'd.)

Step	Actions and Questions	Yes	No
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Fin Main Motor. 3. Press [4] to start, [0] to stop. **Does the Finisher Main Feed Motor run smoothly?**	Go to step 7	Replace the Finisher Main Feed Motor (RRP 6-38) & retest. If still NO, go to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears, of the entire Finisher Assembly from the Finisher Main Feed Motor through the Shift Roller to the Exit Rollers. **Does the entire drive train of the Finisher Assembly appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Exit Path Sensor (RRP 6-30) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Shift Roller Unit (RRP 6-50) ■ Wiring and connectors linking the components.		

RAP 6-15

Error Code F4-56 Paper Jam Clear Area G

There is a problem at the Finisher Exit Path Sensor.

Logic Control on; the Print Engine Controller Board sensed that the Finisher Exit Path Sensor was actuated at start of printing.

Table 6-18 Error Code F4-56

Step	Actions and Questions	Yes	No
1	**FINISHER PATH SENSOR INSPECTION** Inspect the Finisher Path Sensor for secure mounting and/or paper or foreign matter actuating the Sensor. **Is the sensor securely mounted? Is there paper or foreign matter actuating the sensor?**	Secure the sensor and/or remove whatever is actuating it	Go to step 2
2	**FINISHER EXIT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Exit Path Sen. 3. Open the Finisher Front Door. 4. Press [4] to start, [0] to stop. 5. Lower the right green handle to access the Finisher Exit Path Sensor. 6. Repeatedly insert, then remove, a sheet of paper into the Path Sensor. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Go to step 4	Go to step 3
3	**FINISHER EXIT PATH SENSOR REPLACEMENT** 1. Replace the Finisher Exit Path Sensor (RRP 6-30). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.

Table 6-18 Error Code F4-56 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Exit Path Sensor (RRP 6-30) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Shift Roller Unit (RRP 6-50) ■ Wiring and connectors linking the components.		

RAP 6-16

Error Code F4-61 Paper Jam Clear Area H

There is a problem at the Compiler Exit Path Sensor.

1. In Staple Mode, the Compiler Tray Exit Path Sensor does not turn OFF within a prescribed period of time from the time the set was to be ejected.
2. In Unstaple Mode, the Compiler Tray Exit Path Sensor does not turn OFF within a prescribed period of time from the time the Compiler Tray Exit Path Sensor turned ON (**SE 4**).

Table 6-19 Error Code F4-61

Step	Actions and Questions	Yes	No
1	**PATH LOCATION INSPECTION** Inspect the position of the sheet of paper exiting the Complier Tray. **Has the trail edge of the sheet of paper cleared the Compiler Exit Path Sensor?**	Go to step 2	Go to step 5
2	**COMPILER EXIT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Compile Exit. 3. Press [4] to start, [0] to stop. 4. Repeatedly actuate and release the Compiler Exit Path Sensor. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Go to step 4	Go to step 3
3	**COMPILER EXIT PATH SENSOR REPLACEMENT** 1. Replace the Compiler Exit Path Sensor (RAP 6-54). 2. Repeat the Compiler Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RAP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you insert the paper into the Finisher Exit Path Sensor, and "without paper" when you remove it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 8.

Table 6-19 Error Code F4-61 (cont'd.)

Step	Actions and Questions	Yes	No
5	**PATH PAPER INSPECTION** Inspect the Exit Rollers in the Compiler. **Are all of the Exit Rollers in the Compiler clean and free of obvious wear and damage?**	Go to step 6	Replace the suspect Rollers & retest. If the problem still exists, go to step 6.
6	**DRIVE TRAIN TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Exit Motor CW. 3. Press [4] to start, [0] to stop. 4. From the Main Menu, select Comp Output Test / Finisher Unit / Exit Motor CCW. 5. Press [4] to start, [0] to stop. **Does the Compiler Exit Motor run smoothly and rotate clockwise and counter clockwise?**	Go to step 7	Replace the Compiler Exit Motor (RRP 6-59) & retest. If still NO, to to step 7.
7	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, pulleys, and gears. **Does the drive train appear to be in good condition, with no damaged or slipping belts and no chipped or broken pulleys or gears?**	Go to step 8	Replace the suspect belts, pulleys, gears & retest. If still NO, go to step 8.
8	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Compiler Exit Path Sensor (RRP 6-54) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Exit Motor (RRP 6-59) ■ Wiring and connectors linking the components		

RAP 6-17

Error Code F4-66 Paper Jam Clear Area H

There is a problem at the Compiler Exit Path Sensor.

Logic Control on the Print Engine Controller Board sensed that the Compiler Exit Path Sensor was actuated at start of printing.

Table 6-20 Error Code F4-66

Step	Actions and Questions	Yes	No
1	**COMPILER EXIT PATH SENSOR INSPECTION** Inspect the Compiler Exit Path Sensor for paper or foreign matter. **Is there paper or foreign matter actuating the sensor?**	Remove whatever is actuating the sensor	Go to step 2
2	**COMPILER EXIT PATH SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Compile Exit. 3. Press [4] to start, [0] to stop. 4. Repeatedly actuate and release the Compiler Exit Path Sensor. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Go to step 4	Go to step 3
3	**COMPILER EXIT PATH SENSOR REPLACEMENT** 1. Replace the Compiler Exit Path Sensor (RRP 6-54). 2. Repeat the Compiler Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.

Table 6-20 Error Code F4-66 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Compiler Exit Path Sensor (RRP 6-54) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Exit Motor (RRP 6-59) ■ Wiring and connectors linking the components		

RAP 6-18

Error Code F6-1 Close Cover E

The Horizontal Transport In-Gate is open.

Logic Control on the Print Engine Controller Board sensed that the Horizontal Transport In-Gate Interlock was deactuated.

Table 6-21 Error Code F6-1

Step	Actions and Questions	Yes	No
1	**HORIZONTAL TRANSPORT IN-GATE INSPECTION** Inspect the Horizontal Transport In-Gate for damage and freedom of movement. **Is the Horizontal Transport In-Gate in good condition and does the In-Gate move freely?**	Go to step 2	Replace the Horizontal Transport In-Gate & retest. If still NO, go to step 2.
2	**HORIZONTAL TRANSPORT IN-GATE SOLENOID TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / H Tran Gate Pull. 3. Observing the Horizontal Transport In-Gate, press [4] to test. **Does the Horizontal Transport In-Gate open when you press [4]?** 4. From the Main Menu, select Comp Output Test / Finisher Unit / H Tran Gate Push. 5. Observing the Horizontal Transport In-Gate, press [4] to test. **Does the Horizontal Transport In-Gate close when you press [4]?**	Go to step 3	Replace the Horizontal Transport In-Gate Solenoid (RRP 6-7) & retest. If still NO, go to step 5.
3	**HORIZONTAL TRANSPORT IN-GATE INTERLOCK TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Gate. 3. Press [4] to start test, [0] to stop. 4. Observing the display, open and close the Horizontal Transport In-Gate manually. **Does the display read "Open" when you open the In-Gate and "Close" when you release it?**	Go to step 5	Go to step 4
4	**HORIZONTAL TRANSPORT IN-GATE INTERLOCK REPLACEMENT** 1. Replace the Horizontal Transport In-Gate Interlock sensor (RRP 6-2). 2. Repeat the Horizontal Transport In-Gate Interlock Test in Step 3 above. **Does the display read "Open" when you open the In-Gate and "Close" when you release it?**	Problem solved	Go to step 5

Table 6-21 Error Code F6-1 (cont'd.)

Step	Actions and Questions	Yes	No
5	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Exit Path Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you actuate the Compiler Exit Path Sensor, and "without paper" when you release it?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 6.
6	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport In-Gate Interlock (RRP 6-2) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components		

RAP 6-19

Error Code F6-2 Close Door F

The Horizontal Transport cover is open.

Logic Control on the Print Engine Controller Board sensed that the Horizontal Transport Cover Interlock was deactuated.

Table 6-22 Error Code F6-2

Step	Actions and Questions	Yes	No
1	**HORIZONTAL TRANSPORT TOP COVER INSPECTION** Inspect the Horizontal Transport Top Cover to make sure it actuates the Horizontal Transport Cover Interlock when closed. **Is the Horizontal Transport Top Cover in good condition and does it actuate the Horizontal Transport Cover Interlock when closed?**	Go to step 2	Replace the Horizontal Transport Top Cover (RRP 6-8)
2	**HORIZONTAL TRANSPORT TOP COVER INTERLOCK TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / H Trans Cover. 3. Press [4] to start, [0] to stop. 4. Observe display while alternately opening and closing the Horizontal Transport Top Cover. **Does the display read "Close" when the Top Cover is down and "Open" when up?**	Go to step 4	Go to step 3
3	**HORIZONTAL TRANSPORT COVER INTERLOCK REPLACEMENT** 1. Replace the :Horozontal Transport Top Cover Interlock (RRP 6-12). 2. Repeat the Horizontal Transport Top Cover Interlock Test in Step 2 above. **Does the display read "Close" when the Top Cover is down and "Open" when up?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Horizontal Transport Top Cover Interlock Test in Step 2 above. **Does the display read "Close" when the Top Cover is down and "Open" when up?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 6.
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Horizontal Transport Top Cover Interlock (RRP 6-12) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-20

Error Code F7-1 Close Stapler Door

The Front Cover is open.

Logic Control on the Print Engine Controller Board sensed that the Front Cover Interlock Switch is deactuated.

Table 6-23 Error Code F7-1

Step	Actions and Questions	Yes	No
1	**FINISHER FRONT COVER INSPECTION** Inspect the Front Cover to make sure it actuates the Front Cover Interlock when closed. **Is the Front Cover in good condition and does it actuate the Front Cover Interlock when closed?**	Go to step 2	Replace the Front Cover (RRP 6-17) & retest. If still NO, go to step 2.
2	**FINISHER FRONT COVER INTERLOCK TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Front Cover Lock. 3. Press [4] to start, [0] to stop. 4. Observe the display while opening and closing the Front Cover to actuate and deactuate the interlock. **Does the display read "Close" when the door is closed and "Open" when it is open?**	Go to step 4	Go to step 3
3	**FINISHER FRONT COVER INTERLOCK REPLACEMENT** 1. Replace the Finisher Front Cover Interlock (RRP 6-18). 2. Repeat the Finisher Front Cover Interlock Test in Step 2 above. **Does the display read "Close" when the door is closed and "Open" when it is open?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Finisher Front Cover Interlock Test in Step 2 above. **Does the display read "Close" when the door is closed and "Open" when it is open?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Front Cover Interlock (RRP 6-18) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-21

Error Code F7-3 Close Exit Roller Unit

The Exit Roller Unit is open.

Logic Control on the Print Engine Controller Board sensed that the Exit Roller Safety Switch is actuated.

Table 6-24 Error Code F7-3

Step	Actions and Questions	Yes	No
1	**EXIT ROLLER SAFETY INTERLOCK SWITCH INSPECTION** 1. Remove the top covers of the Finisher. 2. Remove the metal cover to gain access to the Exit Roller Safety Interlock Switch. 3. Inspect the Exit Roller Unit and the area around the Exit Roller Safety Interlock Switch. **Is the Exit Roller Unit in good condition and is the area clear of obvious damage and is the Interlock Switch positioned properly and mounted securely?**	Go to step 2	Secure and/or replace any suspect components & retest. Go to step 2.
2	**EXIT ROLLER SAFETY INTERLOCK SWITCH TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Exit Roller Lock. 3. Press [4] to start, [0] to stop. 4. Through the Exit port, locate the two small upper rollers about 4 inches apart. Lift upward on the black plastic between the rollers, taking it to the limit of travel, while observing the display. **Does the Control Panel display "Out of Range" before lifting the rollers, and "In Range" when you lift them to their limit?**	Go to step 4	Go to step 3
3	**EXIT ROLLER SAFETY INTERLOCK SWITCH REPLACEMENT** 1. Replace the Exit Roller Safety Interlock Switch (RRP 6-57). 2. Repeat the Exit Roller Safety Interlock Switch Test in Step 2 above. **Does the Control Panel display "Out of Range" before lifting the rollers, and "In Range" when you lift them to their limit?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Exit Roller Safety Interlock Switch Test in Step 2 above. **Does the Control Panel display "Out of Range" before lifting the rollers, and "In Range" when you lift them to their limit?**	Problem solved	Replace the Print Engine Controller Board (RRP 6-84) & retest. If still NO, go to step 5.

Table 6-24 Error Code F7-3 (cont'd.)

Step	Actions and Questions	Yes	No
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Exit Roller Safety Interlock (RRP 6-57) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-22

Error Code F8-1 Slide in Finisher

The Finisher is not connected to the printer.

Logic Control on the Print Engine Controller Board sensed that the Docking Interlock Switch is deactuated.

Table 6-25 Error Code F8-1

Step	Actions and Questions	Yes	No
1	**FINISHER RESEAT** Reseat the Finisher to the printer. **Does the error code still appear?**	Go to step 2	Problem solved
2	**FINISHER INSPECTION** Inspect the Finisher docking components, such as the Horizontal Transport docking posts, the docking latch, etc. **Are the Finisher docking components in good condition and undamaged?**	Go to step 3	Replace any damaged components. Go to step 3.
3	**DOCKING INTERLOCK SWITCH TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Docking Lock. 3. Press [4] to start, [0] to stop. 4. Undock the Finisher and move it slightly back from the printer. Manually actuate the Docking Interlock Switch and observe the display. **Does the display read "Docked" when the Finisher is locked into the printer and "Undocked" when it is unlatch and move back from the printer?**	Go to step 5	Go to step 4
4	**DOCKING INTERLOCK SWITCH REPLACEMENT** 1. Replace the Docking Interlock Switch (RRP 6-19). 2. Repeat the Docking Interlock Switch Test in Step 3 above. **Does the display read "Docked" when the Finisher is locked into the printer and "Undocked" when it is unlatch and move back from the printer?**	Problem solved	Go to step 5
5	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Docking Interlock Switch Test in Step 3 above. **Does the display read "Docked" when the Finisher is locked into the printer and "Undocked" when it is unlatch and move back from the printer?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 6.

Table 6-25 Error Code F8-1 (cont'd.)

Step	Actions and Questions	Yes	No
6	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Docking Interlock (RRP 6-19) ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-23

Error Code H5-11 Finisher Failure Power Off/On

There is a problem with the Finisher Stacker Bin.

Logic Control on the Print Engine Controller board sensed that there is a problem with the Stacker Bin.

Table 6-26 Error Code H5-11

Step	Actions and Questions	Yes	No
1	**STACKER BIN INSPECTION** Inspect the position of the Stacker Bin. **Has the Bin blocked the lower Stacker Bin Height Sensor?**	Go to step 2	Go to step 4
2	**STACKER BIN HEIGHT SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Stker Hight Sen LW. 3. Press [4] to start, [0] to stop. 4. Insert a sheet of paper, or any object, to interrupt the lower beam between the Stack Height Low Sensors (Front and Rear). **Does the Control Panel display "with paper" when you interrupt the lower beam between the Stacker Bin and "without paper" when you restore the beam?** 5. From the Main Menu, select Comp Input Test / Finisher Unit / Stk Hight Sen Up. 6. Press [4] to start, [0] to stop. 7. Interrupt the upper beam between the Front and Rear Stacker Bin Height Sensors. **Does the Control Panel display "with paper" when you interrupt the lower beam between the Stacker Bin and "without paper" when you restore the beam?**	Go to step 4	Go to step 3
3	**STACKER BIN HEIGHT SENSOR REPLACEMENT** 1. Replace the Stacker Bin Height Sensor (RRP 6-77). 2. Repeat the Stacker Bin Height Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you interrupt the lower beam between the Stacker Bin and "without paper" when you restore the beam?**	Problem solved	Go to step 5
4	**ENCODER ASSEMBLY REPLACEMENT** Replace the Encoder Assembly (RRP 6-82). **After powering on the printer, does the finisher go through a normal initialization and is the problem resolved?**	Problem solved	Go to step 5

Table 6-26 Error Code H5-11 (cont'd.)

Step	Actions and Questions	Yes	No
5	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Stacker Bin Height Sensor Test in Step 2 above. **Does the Control Panel display "with paper" when you interrupt the lower beam between the Stacker Bin and "without paper" when you restore the beam?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 6.
6	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Elevator Drive Unit (RRP 6-80) ■ Elevator Belt & Holder Assembly (RRP 6-75) ■ Stacker Bin ■ Stacker Bin Height Sensor (RRP 6-77) ■ Finisher Main Board (RRP 6-84) ■ Wiring and connectors linking the components.		

RAP 6-24

Error Code H5-21 Finisher Failure Power Off/On

There is a problem with the Finisher Jogger Home Position Front Sensor.

Logic Control on the Print Engine Controller Board sensed that there is a problem at the Jogger Home Position Front Sensor.

Table 6-27 Error Code H5-21

Step	Actions and Questions	Yes	No
1	**JOGGER HOME POSITION FRONT SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Jogger HP Front. 3. Press [4] to start, [0] to stop. 4. Observe the display, then gently push the Front Jogger paddle to its home position. Observe the display again. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Go to step 3	Go to step 2
2	**JOGGER HOME POSITION FRONT SENSOR REPLACEMENT** 1. Replace the Jogger Home Position Front Sensor (RRP 6-48). 2. Repeat the Jogger Home Position Front Sensor Test in Step 1 above. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Problem solved	Go to step 3
3	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Jogger Home Position Front Sensor Test in Step 2 above. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 4.
4	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Components within the Jogger Assembly ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-25

Error Code H5-22 Finisher Failure Power Off/On

There is a problem with the Finisher Jogger Home Position Rear Sensor.

Logic control on the Print Engine Controller Board sensed that there is a problem at the Jogger Home Position Rear Sensor.

Table 6-28 Error Code H5-22

Step	Actions and Questions	Yes	No
1	**JOGGER HOME POSITION REAR SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Jogger HP Rear. 3. Press [4] to start, [0] to stop. 4. Observe the display, then gently push the Rear Jogger paddle to its home position. Observe the display again. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Go to step 3	Go to step 2
2	**JOGGER HOME POSITION REAR SENSOR REPLACEMENT** 1. Replace the Jogger Home Position Rear Sensor (RRP 6-48). 2. Repeat the Jogger Home Position Rear Sensor Test in Step 1 above. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Problem solved	Go to step 3
3	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Jogger Home Position Rear Sensor Test in Step 2 above. **Does the Control Panel display "Not Home" before you push it to the home position and "Home" when you push it home?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 4.
4	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Components within the Jogger Assembly ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-26

Error Code H5-81 Finisher Failure Power Off/On

There is a problem with the Finisher Exit Roller Assembly.

Logic Control on the Print Engine Controller Board sensed that there is a problem at the Exit Roller Assembly.

Table 6-29 Error Code H5-81

Step	Actions and Questions	Yes	No
1	**EXIT ROLLER HOME POSITION SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Exit Rol Open HP. 3. Press [4] to start, [0] to stop. 4. Observe the display and manually move the upper Exit Rollers to the full up position. **Does the display read "Home" shen the roller are in the full up position (home position) and "Not Home" when not in the full up position?**	Go to step 3	Go to step 2
2	**EXIT ROLLER HOME POSITION SENSOR REPLACEMENT** 1. Replace the Exit Roller Home Position Sensor (RRP 6-56). 2. Repeat the Exit Roller Home Position Sensor Test in Step 1 above. **Does the display read "Home" shen the roller are in the full up position (home position) and "Not Home" when not in the full up position?**	Problem solved	Go to step 6
3	**EXIT ROLLER OPEN/CLOSE MOTOR TESTS** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Exit Motor Open. 3. Press [4] to start. The Exit Motor Open should cycle, then stop. You can observe the rollers breifly when this happens. This action will happen each time you press [4]. **Does the Exit Motor cycle?** 4. From the Main Menu, select Comp Output Test / Finisher Unit / Exit Motor Close. 5. Press [4] to start. The Exit Motor Close should cycle, then stop. You can observe the rollers breifly when this happens. This action will happen each time you press [4]. **Does the Exit Motor cycle?**	Go to step 5	Go to step 4
4	**EXIT ROLLER OPEN/CLOSE MOTOR REPLACEMENT** 1. Replace the Exit Roller Open/Close Motor (RRP 6-61). 2. Repeat the Exit Roller Open/Close Motor Tests in Step 3 above. **Does the Exit Motor cycle?**	Problem solved	Go to step 5

Table 6-29 Error Code H5-81

Step	Actions and Questions	Yes	No
5	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, gears, and levers of the entire Exit Roller Assembly. **Does the entire drive train of the Exit Roller Assembly appear to be in good condition, with no damaged or slipping gears and no broken levers?**	Go to step 6	Replace the damaged components (RRP 6-60) & retest. If problem still exists, go to step 6.
6	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Exit Roller Open/Close Test in Step 1 above. **Does the display read "Home" shen the roller are in the full up position (home position) and "Not Home" when not in the full up position?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 7.
7	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Components within the Exit Roller Assembly ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-27

Error Code H5-83 Finisher Failure Power Off/On

There is a problem with the Finisher Shift Roller.

Logic Control on the Print Engine Controller Board sensed that the Shift roller has failed.

Table 6-30 Error Code H5-83

Step	Actions and Questions	Yes	No
1	**SHIFT ROLLER HOME POSITION SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Sht Rol HP Front 3. Press [4] to start, [0] to stop. 4. Insert an object into the Shift Roller Home Position Sensor or pull the Shift Roller toward the front to its home position. **Does the Control Panel display "Home" when you insert the object into the Shift Roller Home Position Sensor, and "Not Home" when you remove it?**	Go to step 3	Go to step 2
2	**SHIFT ROLLER HOME POSITION SENSOR REPLACEMENT** 1. Replace the Shift Roller Home Position Sensor (PL 20.10.9). 2. Repeat the Shift Roller Home Position Sensor Test in Step 1 above. **Does the Control Panel display "Home" when you insert the object into the Shift Roller Home Position Sensor, and "Not Home" when you remove it?**	Problem solved	Go to step 6
3	**SHIFT MOTOR FRONT TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Shift Motor Frnt. 3. Press [4] to start, the Shift Roller should move to its Home Position, then back slightly to its normal Front Position. **Does the Shift Motor move the Shift Roller to its Home Position Front momentarily, then back to its norm Front Ready Position?** 4. From the Main Menu, select Comp Output Test / Finisher Unit / Shift Motor Rear. 5. Press [4] to start, the Shift Roller should move to its normal rear position. **Does the Shift Motor move the Shift Roller to its normal Rear Position?**	Go to step 5	Go to step 4
4	**SHIFT MOTOR REPLACEMENT** 1. Replace the Shift Motor (RRP 6-52). 2. Repeat the Shift Motor Tests in Step 3 above. **Does the Shift Motor test OK?**	Problem solved	Go to step 5

Table 6-30 Error Code H5-83 (cont'd.)

Step	Actions and Questions	Yes	No
5	**DRIVE TRAIN INSPECTION** Inspect the drive train, including belts, gears, and levers of the entire Shift Roller Assembly. **Does the entire drive train of the Shift Roller assembly appear to be in good condition, with no damaged or slipping gears and no broken levers?**	Go to step 6	Replace any damaged components (RRP 6-50). If problem still exists, go to step 6
6	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Shift Roller Home Position Sensor Test in Step 1 above. **Does the Control Panel display "Home" when you insert the object into the Shift Roller Home Position Sensor, and "Not Home" when you remove it?** 3. Repeat the Shift Motor Tests in Step 3 above **Does the Shift Motor move the Shift Roller per the tests in Step 3 above?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 7.
7	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Components within the Shift Roller Assembly ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Wiring and connectors linking the components.		

RAP 6-28

Error Code H5-91 Finisher Failure Power Off/On

There is a problem with the Stapler.

Logic Control on the Print Engine Controller Board sensed that the Stapler failed.

Table 6-31 Error Code H5-91

Step	Actions and Questions	Yes	No
1	**STAPLER INSPECTION** Inspect the Stapler for broken parts, jammed staples, or obvious signs of damage. **Does the Stapler appear to be in good condition, with no jammed staples or obvious signs of damage?**	Go to step 2	Clear the staples or replace the damaged components
2	**STAPLER CARTRIDGE REPLACEMENT** 1. Replace the Stapler Cartridge. 2. Test the Stapler by sending a stapling job to the printer. **Does the Stapler function correctly?**	Problem solved	Go to step 3
3	**STAPLER ASSEMBLY REPLACEMENT** 1. Replace the Stapler Assembly (RRP 6-65). 2. Test the Stapler by sending a stapling job to the printer. **Does the Stapler function correctly?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Test the Stapler by sending a stapling job to the printer. **Does the Stapler function correctly?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Broken or damaged components within the Stapler area, Compiler area, or along the paper path ■ Wiring and connectors linking the components.		

RAP 6-29

Error Code H5-92 Finisher Failure
Error Code H5-93 Power Off/On

There is a problem with the Stapler.

Logic Control on the Print Engine Controller Board sensed that there is a problem at the Stapler Traverse Home Position Sensor..

Table 6-32 Error Code H5-92

Step	Actions and Questions	Yes	No
1	**STAPLER TRAVERSE HOME POSITION SENSOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Input Test / Finisher Unit / Stpl Traverse HP. 3. Press [4] to start, [0] to stop. 4. Observe the display and pull the Stapler Head to the fron of the printer. Observe the display again, then push the Stapler Head slightly back toward the rear. **Does the display read "Not Home" when the Stapler Head is at the fron limit of its travel (sensor not blocked) and "Home" when inboard of the front limit (sensor blocked)?**	Go to step 3	Go to step 2
2	**STAPLER TRAVERSE HOME POSITION SENSOR REPLACEMENT** 1. Replace the Stapler Traverse Home Position Sensor (RRP 6-73). 2. Repeat the Stapler Traverse Home Position Sensor Test in Step 1 above. **Does the display read "Not Home" when the Stapler Head is at the fron limit of its travel (sensor not blocked) and "Home" when inboard of the front limit (sensor blocked)?**	Problem solved	Go to step 6
3	**STAPLER TRAVERSE MOTOR TEST** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Trav Mot Rear. 3. Press [4] to start. **Does the Stapler Traverse Motor move the Stapler Base slightly to the rear and back to front and does it move freely without binding?** NOTE: Most stapler motor tests result in a slight back and forth movement, identical to each other. This is normal.	Go to step 4	Go to step 5
4	**STAPLER BASE ASSEMBLY REPLACEMENT** 1. Replace the Stapler Base Assembly (RRP 6-64). 2. Repeat the Stapler Traverse Motor test in Step 3 above. **Does the Stapler Traverse Motor move the Stapler Base slightly to the rear and back to front and does it move freely without binding?**	Problem solved	Go to step 5

Table 6-32 Error Code H5-92 (cont'd.)

Step	Actions and Questions	Yes	No
5	**STAPLER TRAVERSE MOTOR REPLACEMENT** 1. Replace the Stapler Traverse Motor (RRP 6-68). 2. Repeat the Stapler Traverse Motor Test in Step 3 above. **Does the Stapler Traverse Motor move the Stapler Base slightly to the rear and back to front and does it move freely without binding?**	Problem solved	Go to step 6
6	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Stapler Traverse Home Position Sensor Test in Step 1 above. **Does the display read "Not Home" when the Stapler Head is at the fron limit of its travel (sensor not blocked) and "Home" when inboard of the front limit (sensor blocked)?** 3. Repeat the Stapler Traverse Motor Test in Step 3 above. **Does the Stapler Traverse Motor move the Stapler Base slightly to the rear and back to front and does it move freely without binding?** 4. Test the Stapler by sending a stapling job to the printer. **Does the Stapler function correctly?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 7.
7	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Broken or damaged components within the Stapler area, Compiler area, or along the paper path ■ Wiring and connectors linking the components.		

RAP 6-30

Error Code H5-96 Finisher Failure Power Off/On

There is a mechanical problem with the Stapler Swing.

Logic Control on the Print Engine Controller Board sensed that there is a problem with the Stapler Swing.

Table 6-33 Error Code H5-96

Step	Actions and Questions	Yes	No
1	**SWING MOTOR TESTS** 1. Enter Diagnostics Mode. 2. From the Main Menu, select Comp Output Test / Finisher Unit / Swing Mot Frnt45. 3. Press [4] to test. The Stapler should swing to the front at approximately 45°. 4. From the Main Menu, select Comp Output Test / Finisher Unit / Swing Mot Flat. 5. Press [4] to test. The Stapler should swing to the flat position. 6. From the Main Menu, select Comp Output Test / Finisher Unit / Swing Mot Rear45. 7. Make certain the Compiler Tongue is fully extended by pulling it out gently. 8. Carefully push the Stapler Unit to the rear of the Finisher. 9. Press [4] to test. The Stapler should swing to the rear at approximately 45°. **Does the Stapler Swing Motor test OK and does the Stapler Base move freely back and forth?**	Go to step 2	Go to step 4
2	**TRAVERSE MOTOR TESTS** 1. Enter Diagnostics Mode. 2. Fromt; he Main Menu, select Comp Output Test / Finisher Unit / Trav Mot Rear. 3. Press [4] to test. 4. The Stapler should move slightly toward the rear of the Finisher. **Does the Stapler Base move freely toward the rear of the Finisher?** 5. From the Main Menu, select Comp Output Test / Finisher / Trav Mot Front. 6. Press [4] to test. 7. The Stapler Base should move toward the front of the finisher. **Does the Stapler Base mover freely toward the front of the Finisher?**	Go to step 3	Go to step 5
3	**STAPLER ASSEMBLY REPLACEMENT** 1. Replace the Stapler Assembly (RRP 6-64). 2. Repeat the Swing Motor Tests in Step 1 above. **Does the Stapler Swing Motor test OK and does the Stapler Base move freely back and forth?**	Problem solved	Go to step 6

Table 6-33 Error Code H5-96 (cont'd.)

Step	Actions and Questions	Yes	No
4	**SWING MOTOR REPLACEMENT** 1. Replace the Swing Motor (RRP 6-69). 2. Repeat the Swing Motor Tests in Step 1 above. **Does the Stapler Swing Motor test OK and does the Stapler Base move freely back and forth?**	Problem solved	Go to step 6
5	**TRAVERSE MOTOR REPLACEMENT** 1. Replace the Traverse Motor (RRP 6-68). 2. Repeat the Treverse Motor Tests in Step 2 above. **Does the Traverse Motor test OK?**	Problem solved	Go to step 6
6	**FINISHER MAIN BOARD REPLACEMENT** 1. Replace the Finisher Main Board (RRP 6-84). 2. Repeat the Swing Motor Tests in Step 1 above. 3. Repeat the Traverse Motor Tests in Step 2 above. **Does the Stapler Swing Motor test OK and does the Stapler Base move freely back and forth?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 5.
7	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Broken or damaged components within the Stapler area, Compiler area, or along the paper path ■ Wiring and connectors linking the components.		

RAP 6-31

Error Code H6-7 Finisher Failure Power Off/On

There is a communication problem with the Finisher.

Logic Control on the Print Engine Controller Board sensed that there is a communication problem between the printer and the Finisher.

Table 6-34 Error Code H6-7

Step	Actions and Questions	Yes	No
1	**RESET** 1. Switch off the printer and the Finisher. 2. Wait one minute, then switch on the printer and the Finisher **Is the error code gone?**	Problem solved	Go to step 2
2	**RESEAT** Disconnect then reconnect the Finisher from the printer. **Is the error code gone?**	Problem solved	Go to step 3
3	**FINISHER MAIN BOARD REPLACEMENT** Replace the Finisher Main Board (RRP 6-84). **Is the error code gone when you power the printer on?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 4.
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Broken or damaged components within the Stapler area, Compiler area, or along the paper path ■ Wiring and connectors linking the components.		

RAP 6-32

Error Code H6-8 Install Correct Finisher

There is an identification problem with the Finisher.

Logic Control on the Print Engine Controller Board sensed that the installed Finisher is not compatible with the printer.

Table 6-35 Error Code H6-8

Step	Actions and Questions	Yes	No
1	**FINISHER INSPECTION** Inspect the Finisher to make sure it is the correct manufacture and model for the printer. **Is the Finisher the correct manufacture and model for this printer?**	Go to step 2	Replace the Finisher with a correct one
2	**RESET** 1. Switch off the printer and the Finisher. 2. Wait one minute, then switch on the printer and the Finisher **Is the error code gone?**	Problem solved	Go to step 3
3	**RESEAT** Disconnect then reconnect the Finisher from the printer. **Is the error code gone?**	Problem solved	Go to step 4
4	**FINISHER MAIN BOARD REPLACEMENT** Replace the Finisher Main Board (RRP 6-84). **Is the error code gone when you power the printer on?**	Problem solved	Replace the Print Engine Controller Board (RRP 1-72) & retest. If still NO, go to step 4.
5	The following Finisher components and areas are associated with this specific problem. One or more of these components or areas may have failed partially or completely. If you cannot isolate this problem using the steps in this Repair Analysis Procedure, replace each component or troubleshoot each area listed below, one at a time, until you isolate and solve the problem. ■ Finisher Main Board (RRP 6-84) ■ Print Engine Controller Board (RRP 1-72) ■ Broken or damaged components within the Stapler area, Compiler area, or along the paper path ■ Wiring and connectors linking the components.		

Key FRU Removal and Replacement Procedures (RRPs)

Removal and Replacement Procedures Contents

Removal and Replacement Procedures (RRP)

This section contains the removal and replacement procedures for major parts within the printer Finisher (Finisher).

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Disconnect the AC power cord from the wall outlet.
3. Remove the EP Cartridge and cover it with a dark cloth or place it in a sealed container to protect it from exposure to light.
4. Wear an electrostatic discharge wrist strap to protect sensitive printer parts from damage.

Work Notes

Note *Names of parts that appear in the RRPs may not be exactly the same as the names appear in the parts list. For example, an RRP for the Multi-sheet Bypass Feeder Tray Assembly may appear on the parts list as Tray Assembly, Multi-sheet Bypass Feeder.*

Caution *Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.*

Notations in the RRP text

Locations, such as R or right, given in the RRPs assume you are facing the printer console panel.

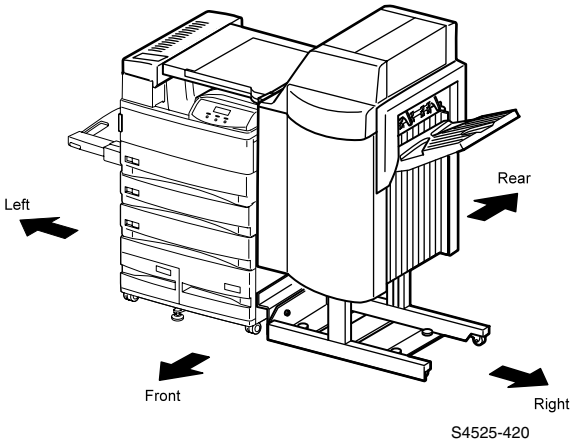


Fig 6-1 Notations in the RRP text

- The notation “(See RRP X.Y)” in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation “(Figure X)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(PL X.Y.Z)” indicates that this component is listed in the PL X.Y.Z parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 6-2 Horizontal Transport Pulley 2, Tension Spring, In-Gate Sensor and Ground Wire (PL 20.2)

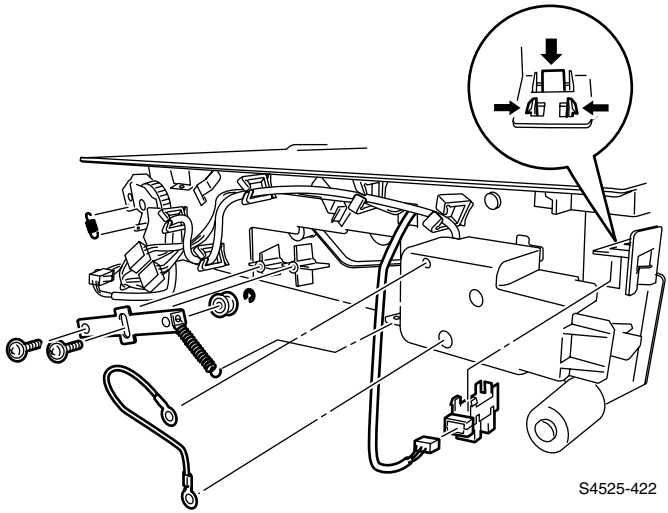


Fig 6-2 Pulley 2, Tension Spring, Sensor and Ground Wire

Removal

1. Remove the Horizontal Transport Rear Cover.
2. Unhook the Tension Spring from the hole in the Horizontal Transport frame.
3. Remove two screws that secure the Tension Bracket Assembly (PL 20.2.11) to the Horizontal Transport, and remove the bracket together with the spring.
4. Unplug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) from the Sensor.
5. Unclip the Sensor at three places, and remove the In-Gate Sensor (PL 20.2.17).
6. Remove two screws that secure the ground wire to the Horizontal Transport, and remove the wire.

Replacement

1. Secure the ground wire to the Horizontal Transport with two screws.
2. Align the In-Gate Sensor with the mounting position in the Horizontal Transport, and push in to secure.
3. Plug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) to the Sensor.
4. Align the Tension Bracket Assembly (PL 20.2.11) with the mounting position in the Horizontal Transport, and secure it with two screws.
5. Hook the Tension Spring to the holes in the Tension Bracket Assembly and the Horizontal Transport frame.
6. Mount the Horizontal Transport Rear Cover.

RRP 6-3 Horizontal Transport Sync-Belt (PL 20.2)

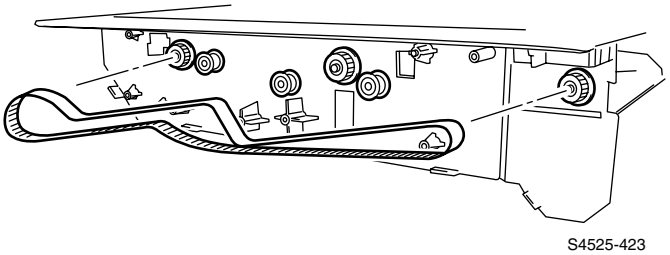


Fig 6-3 Sync-Belt

Removal

1. Remove the Horizontal Transport Rear Cover.
2. Unplug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) from the Sensor (PL 20.2.17).
3. Remove the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
4. Remove the In-Gate Solenoid Assembly (RRP 6-7).
5. Remove the Transport Gear Kit (RRP 6-6).
6. Remove the Bracket Assembly (RRP 6-4).

Note *Before removing the Sync-Belt, refer to the routing in Figure 6-4 in RRP 6-4.*

7. Remove the Sync-Belt from the Horizontal Transport.

Replacement

1. Mount the Sync-Belt while taking care of the routing to the gear and pulley on the Horizontal Transport.
2. Mount the Bracket Assembly (RRP 6-4).
3. Mount the Transport Gear Kit (RRP 6-6).
4. Mount the In-Gate Solenoid Assembly (RRP 6-7).
5. Mount the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
6. Plug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) to the Sensor (PL 20.2.17).
7. Install the Horizontal Transport Rear Cover.

RRP 6-4 Horizontal Transport Bracket Assembly (PL 20.2)

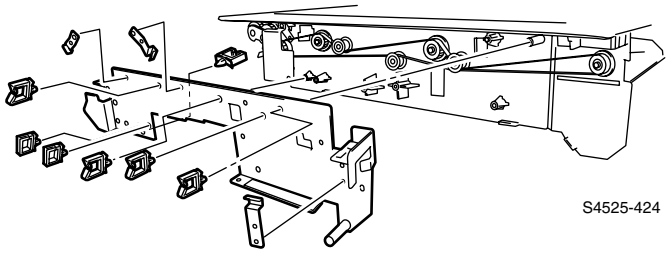


Fig 6-4 Bracket Assembly

Removal

1. Remove the Horizontal Transport Rear Cover.
2. Unplug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) from the Sensor (PL 20.2.17).
3. Remove the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
4. Remove the In-Gate Solenoid Assembly (RRP 6-7).
5. Remove the Transport Gear Kit (RRP 6-6).

Replacement

1. Align the Bracket Assembly with it's mounting position in the Horizontal Transport, and secure it with two screws.
2. Mount the Transport Gear Kit (RRP 6-6).
3. Mount the In-Gate Solenoid Assembly (RRP 6-7).
4. Mount the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
5. Plug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) to the Sensor (PL 20.2.17).
6. Mount the Rear Cover.

RRP 6-6 Transport Gear Kit (PL 20.2)

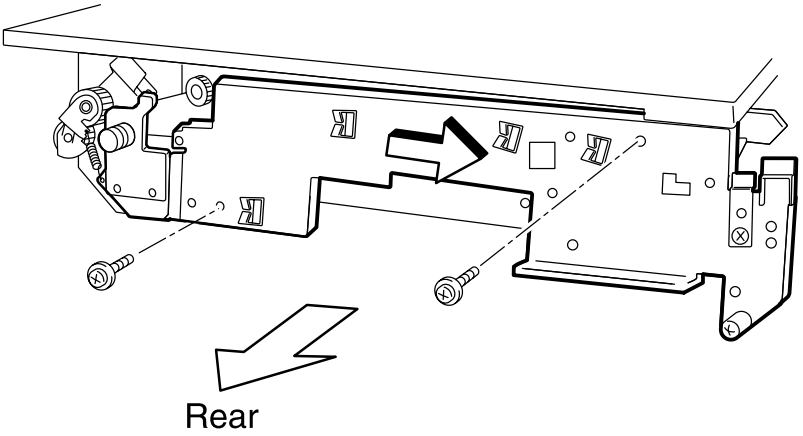


Figure 1

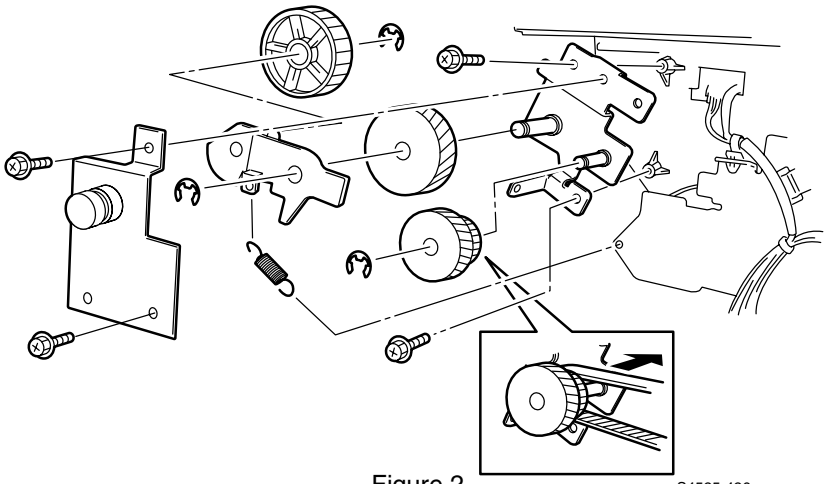


Figure 2 S4525-426

Fig 6-5 Transport Gear Kit

Removal

1. Remove the Horizontal Transport Rear Cover.
2. Remove the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
3. Remove the In-Gate Solenoid Assembly (RRP 6-7)
4. Remove two screws that secure the Idler Bracket (PL 20.2.28), and remove the Idler Bracket.
5. Unhook the Spring (PL 20.2.7) from the Support Assembly Gear Idler HT (PL 20.2.5).
6. Remove two screws that secure the Bracket Assembly (PL 20.2.18) to the Horizontal Transport, and shift the Bracket Assembly in the arrow direction. (Figure 1).
7. Remove the E-ring that secures the Gear Idler to the shaft fo the support Assembly Gear Idler HT, and remove the Gear Idler.
8. Remove the E-ring that secures the Gear Pulley 32/26 (PL 20.2.8) to the shaft of the Bracket Assembly Drive, and remove the Gear Pulley 32/26 from the shaft and the Sync-Belt.

Replacement

1. Insert the Gear Pulley 32/26 (PL 20.2.8) into the shaft of the Bracket Assembly Drive, and engage the Sync-Belt with the Gear Pulley 32/26 and push it into position.
2. Secure the Gear Pulley 32/26 with an E-ring.
3. Insert the Gear Idler (PL 20.2.4) into the shaft of the Support Assembly Gear Idler HT (PL 20.2.5), and secure it with an E-ring.
4. Insert the Gear Idler L (PL 20.2.6) into the shaft of the Bracket Assembly Drive.
5. Install Gear Idler L, Support Assembly Gear Idler HT and Gear Idler onto the shaft of the Bracket Assembly Drive (PL 20.2.3) and secure with an E-ring.
6. Hook the Spring (PL 20.2.7) to holes in the Bracket Assembly (PL 20.2.18) and Support Assembly Gear Idler HT.
7. Align the Idler Bracket (PL 20.2.28) with the mounting position, and secure it with two screws.
8. Install the In-Gate Solenoid Assembly (RRP 6-7)
9. Install the Pulley 2, Tension Spring, Sensor and Ground Wire (4)
10. Install the Horizontal Transport Rear Cover.

RRP 6-7 Horizontal Transport In-Gate Solenoid Assembly (PL 20.2)

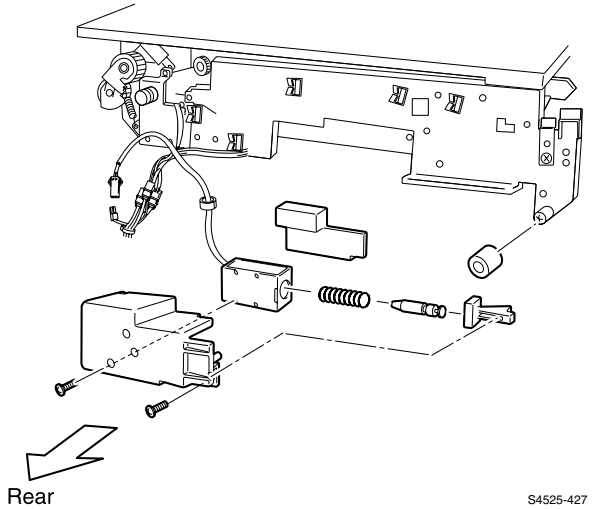


Fig 6-6 In-Gate Solenoid Assembly

Removal

1. Remove the Horizontal Transport Rear Cover.
2. Detach the Ground Wire from the Solenoid Cover Assembly.
3. Unplug the connector (P/J 256M) of the Solenoid Assembly (PL 20.2.14).
4. Unclamp the harness of the Solenoid Assembly at five places on the Bracket Assembly (PL 20.2.18).
5. Pull the Roller (PL 20.2.16) off the shaft of the Bracket Assembly.
6. Remove two screws that secure the Solenoid Cover Assembly (PL 20.2.20), and remove the Solenoid Cover Assembly together with the In-Gate Solenoid Assembly (PL 20.2.99).

Replacement

1. Secure the Solenoid Cover Assembly to the Horizontal Transport with two screws.
2. Attach the Ground Wire, removed in Step 2 above, to the Solenoid Cover Assembly.
3. Insert the Roller (PL 20.2.16) onto the shaft of the Bracket Assembly (PL 20.2.18) so that the shoulder faces toward the frame.
4. Clamp the harness of the Solenoid Assembly at five places on the Bracket Assembly.
5. Plug the connector (P/J 256M) of the Solenoid Assembly .
6. Mount the Rear Cover.

RRP 6-8 Cover Top, Horizontal Transport Assembly (PL 20.3)

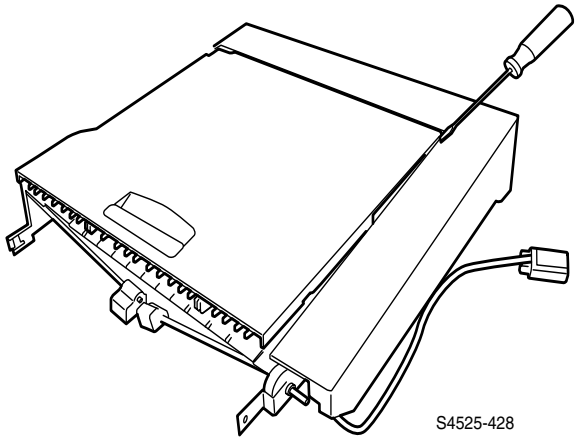


Fig 6-7 Cover Top, Horizontal Transport Assembly

Removal

1. Insert a flat-tip screwdriver between the cover on the rear side of the Horizontal Transport and the Cover Assembly Open (PL 20.3.2), and deflect the cover on the rear side of the Horizontal Transport to release the pin on the rear side of the Cover Assembly Open from the pivot hole on the rear side of the Horizontal Transport.
2. Remove the Cover Top Horizontal Transport Assembly (PL 20.3.1) in the front diagonal upward direction.

Caution *When lifting the cover away from the Horizontal Transport, be aware the cover is still attached by the strap. Be careful that it does not jerk out of your hands and cause damage.*

Replacement

1. Insert the cover onto the pin on the front of the Horizontal Transport.
2. Deflect the cover on the rear side (near the pivot pin) and and insert the pin into the hole on the rear side of the Horizontal Transport.

RRP 6-9 Horizontal Transport Roller and Aligner Roller Kit (PL 20.3)

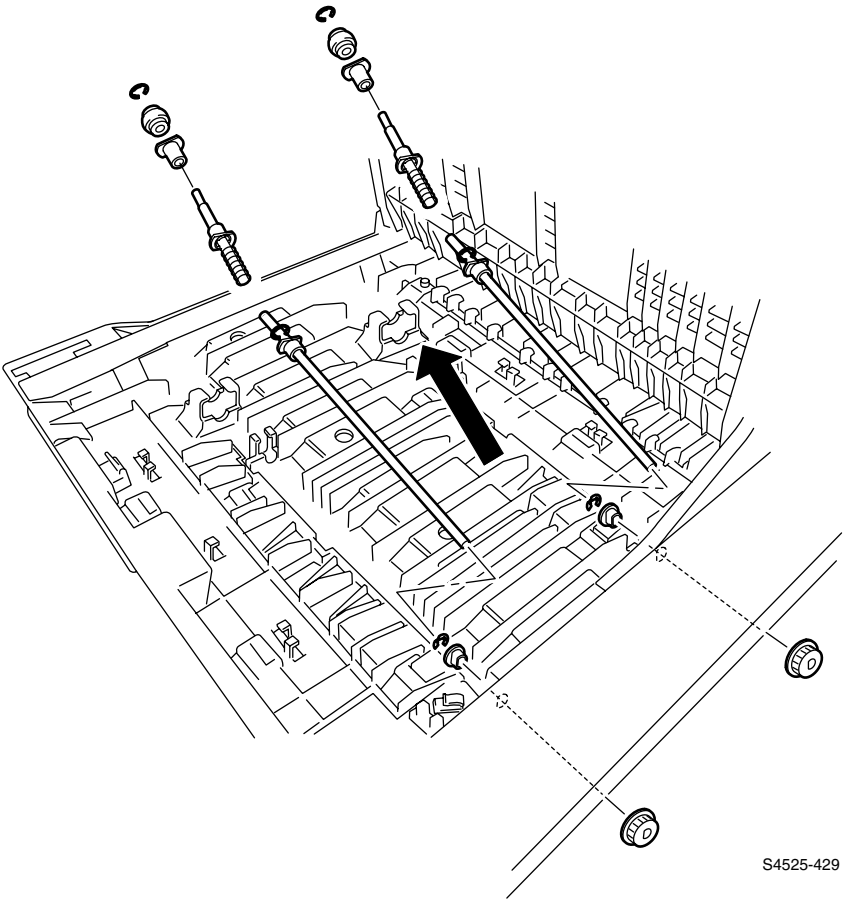


Fig 6-8 Transport Roller and Aligner Roller

Removal

1. Open Top cover Horizontal Transport and detach Cover Support.

Note *The procedure is the same for both rollers*

2. Remove the five screws that secure the Aligner Guide Assembly (PL 20.3.32) and remove the assembly.

Note In the following steps, the procedure for removing the Transport Roller (PL 20.3.10) and Aligner Roller Kit (PL 20.3.99) is the same on both sides.

3. Remove the Pulley Oneway (PL 20.3.15) from the Transport Roller (PL 20.3.10).
4. Remove five screws that secure to the Horizontal Transport from the Guide Assembly-Aligner (PL 20.3.34), and remove the Guide Assembly-Aligner.
5. Remove the E-ring that secures the Aligner Roller (PL 20.3.41), and remove the Aligner Roll.
6. Remove the E-ring that secures the Bearing (PL 20.3.40).
7. Shift the Shaft Aligner Roller (PL 20.3.39) toward the front, and pull it off the Transport Roller.
8. Remove the E-ring that secures the Bearing (PL 20.3.16) and the Bearing (PL 20.3.40), and remove the Transport Roller together with them.

Replacement

1. Insert the Bearing (PL 20.3.16) into the hole in the Horizontal Transport.
2. Aligning the Transport Roller with the mounting positions in the Horizontal Transport, Insert the Bearing (PL 20.3.40) into the Transport Roller, and secure two bearings with an E-ring.
3. With two Bearing (PL 20.3.40) inserted into the Shaft Aligner Roller (PL 20.3.39), align it with the mounting position in the Horizontal Transport, and secure it with an E-ring.
4. Insert the Aligner Roller (PL 20.3.41) into the the Shaft Aligner Roll, and secure it with an E-ring.
5. Aligning the Guide Assembly-Aligner (PL 20.3.34) with the mounting position in the Horizontal Transport, and secure it with five screws.
6. Insert the Pulley Oneway (PL 20.3.15) into the Transport Roller (PL 20.3.10).
7. Mount the Sync-Belt (RRP 6-3).
8. Mount the Bracket Assembly (RRP 6-4).
9. Mount the Transport Gear Kit (RRP 6-6).
10. Mount the In-Gate Solenoid Assembly (RRP 6-7).
11. Mount the Pulley 2, Tension Spring, Sensor and Ground Wire (RRP 6-2).
12. Plug the connector (P/J260) of the Horizontal Transport Harness Assembly (PL 20.2.24) to the Sensor (PL 20.2.17).
13. Mount the Rear Cover.

RRP 6-11 H-Tra Input Path & Face Up Bin Full Sensors (PL 20.3)

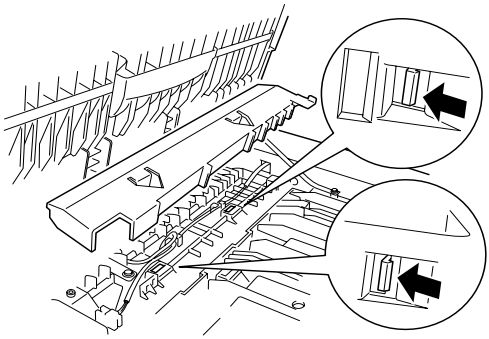


Figure 1

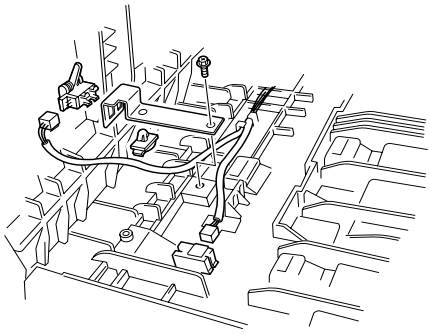


Figure 2

S4525-431

Fig 6-9 H-Tra Input Path & Face Up Bin Full Sensors

Removal

1. Open the top cover of the Horizontal Transport Assembly Top Cover, and unhook the Sensor Cover (PL 20.3.14) at two places from the back of the Horizontal Transport, and remove the Sensor Cover. (Figure 1)
2. Remove the screw that secures the mounting bracket for the **Horizontal Transport** Input Path Sensor (PL 20.3.12) and remove the bracket.
3. Release the Pinch Roller (PL 20.3.24) from the Idler Bracket (PL 20.2.28).
4. Unplug the connector (P/J259) of the Horizontal Transport Harness Assembly (PL 20.2.24) from the Face Down Bin Full Sensor (PL 20.3.19).
5. Tighten the latch of the MINI Clamp and remove the Clamp MINI from the Bracket Path Sensor.
6. Unhook the sensor at fourplaces, and remove the Sensor from the Bracket.
7. Unplug the connector (P/J275M) of the Horizontal Transport Harness Assembly from the Sensor.
8. Unhook theSensor at four places, and remove the Sensor from the bottom of the Horizontal Transport.

Replacement

1. Reverse the above procedure.

RRP 6-12 H-Tra Cover Open Sensor and Exit Path Sensor (PL 20.3)

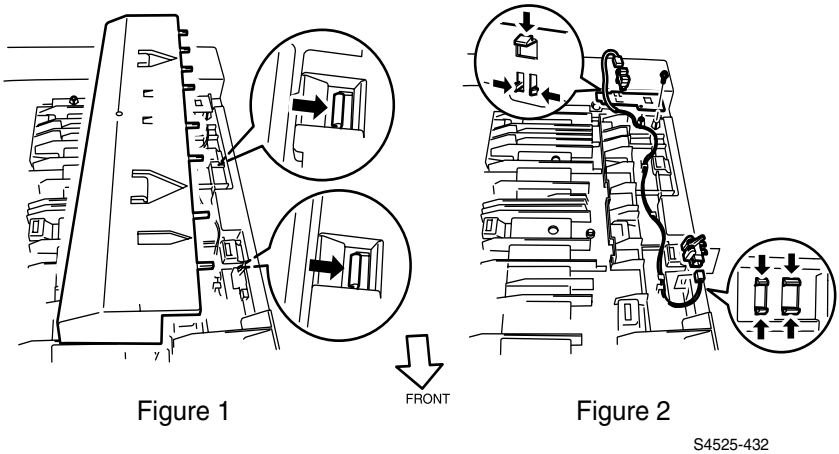


Fig 6-10 Sensors

Removal

1. Open the top cover of the Horizontal Transport, remove the two screws and remove the Cover Sensor Path . (Figure1)
2. Remove the screw that secures the Top Cover Sensor to the Horizontal Transport.
3. Unhook the wire from the harness clamp.
4. Unplug the connector (P/J261) of the Horizontal Transport Harness Assembly (PL 20.2.24) from the Horizontal Transport Cover Open Sensor (PL 20.3.29).
5. Unhook the Sensor at three places from the rear side of the Top Sensor, and remove the Sensor.
6. Unplug the connector (P/J263) of the Horizontal Transport Harness Assembly from the Horizontal Transport Exit Sensor (PL 20.3.13).
7. Unhook the Horizontal Transport Exit Sensor at four places from the right side of the Horizontal Transport, and remove it.

Replacement

1. Reverse the above procedure.

RRP 6-14 Jogging Cover (PL 20.4)

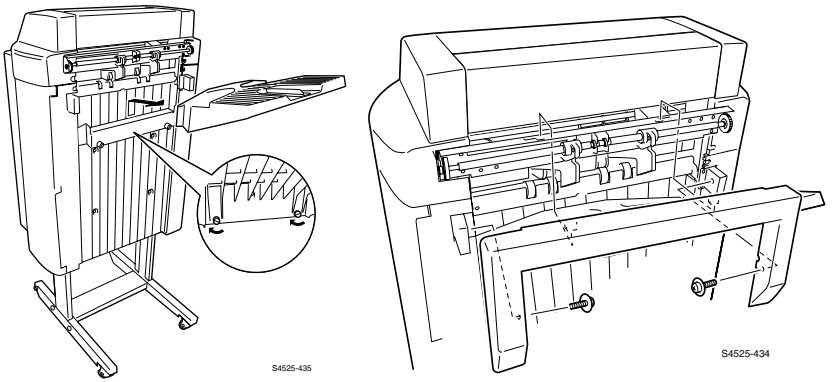


Fig 6-11 Jogging Cover

Removal

1. Remove Output Tray/
2. Remove two screws that secure the Jogging Cover to the Finisher, lift and remove the Jogging Cover.

Note *Carefully lift the top of the jogging cover to disengage the aligning tabs from the Finisher Frame.*

Replacement

1. Reverse the above procedure.

RRP 6-16 Top Covers, Front (PL 20.4) and Rear (PL 20.5)

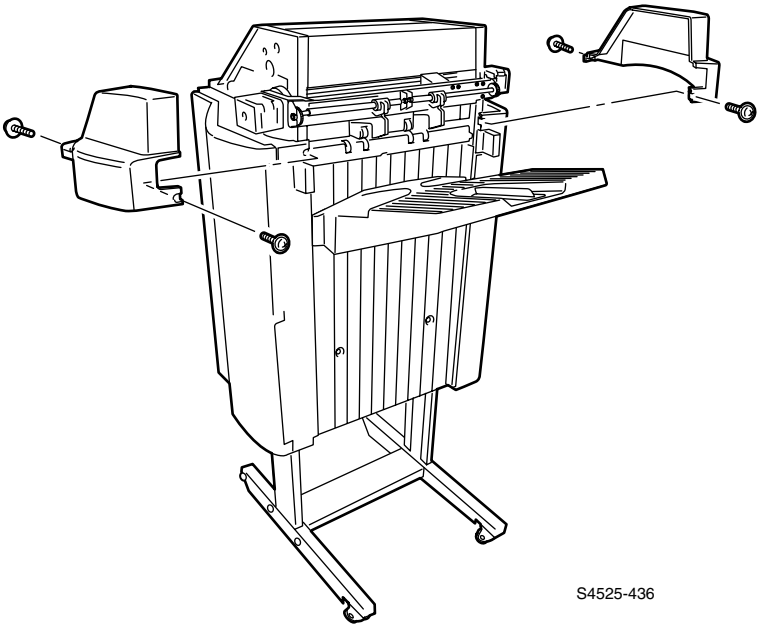


Fig 6-12 Top Cover, Front and Rear

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Loosen the two screws that secure the Front Top Cover and remove.
3. Loosen the two screws that secure the Rear Top Cover and remove.

Replacement

1. Reverse the above procedure.

RRP 6-17 Front (Stapler) Door (PL 20.4)

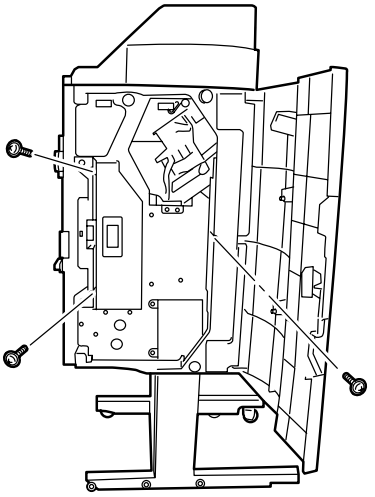


Figure 1

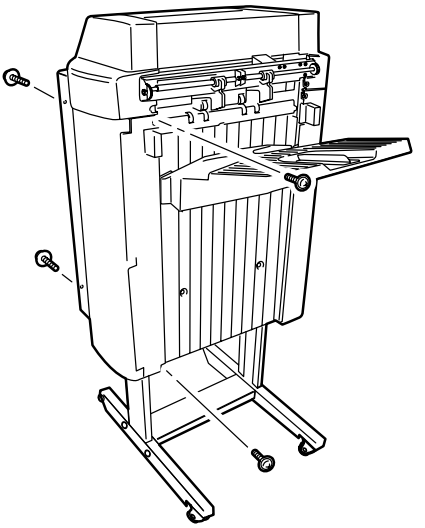


Figure 2

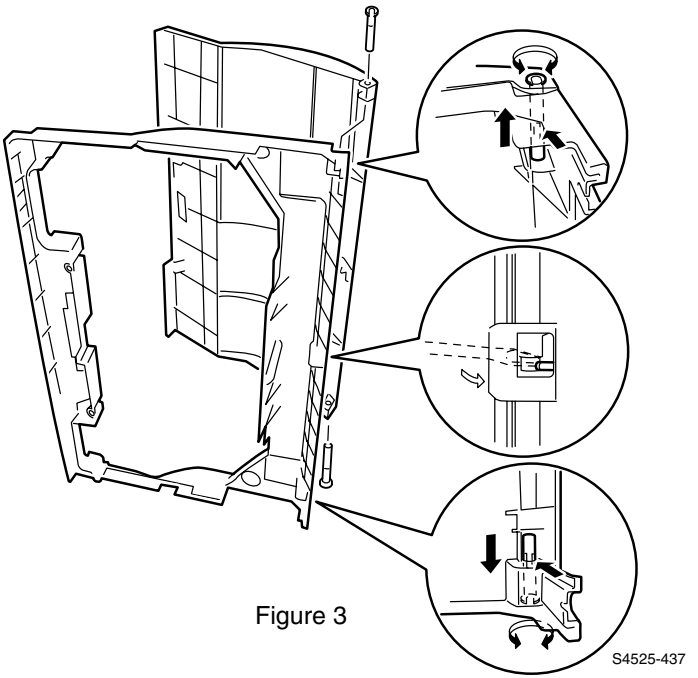


Figure 3

Fig 6-13 Front Cover-Open Front Cover and Kit Stud Cover

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Open the Front Cover (PL 20.4.5), and remove three screws that secure the Front Cover (PL 20.4.6) to the Finisher. (Figure 1)
3. Loosen the four screws that secure the Front Cover, and remove the Front Cover.
4. From the back of the Front Cover, face the notch of the upper Cover Stud toward the back. (Figure 3)
5. Pushing the latch of the upper Cover Stud , pull it off upward from the Front Covert. (Figure 3)
6. From the back of the Front Cover, face the notch of the lower Cover Stud toward the back. (Figure 3)
7. Pushing the latch of the lower Cover Stud, pull it off upward from the Front Cover. (Figure 3)
8. Push the bearing of the Cover-Open,Front out of the square hole in the center of the Front Cover by the action of lever using a flat-tip screwdriver inserted between the bearing of the Cover-Open,Front and the shaft of the Front Cover. (Figure 3)

Replacement

1. Aligning the shaft in the center of the Front Cover (PL 20.4.6) with the bearing in the center of the Front Cover-Open (PL 20.4.5), push them in to mount the Front Cover-Open, on the Front Cover. (Figure 3)
2. Insert the Cover Stud (PL 20.4.4) into the hole at the bottom surface of the Front Cover-Open, and secure the lower Front Cover-Open. (Figure 3)
3. Insert the Cover Stud into the hole at the top surface of the Front Cover-Open, and secure the upper Front Cover-Open. (Figure 3)
4. Align the Front Cover with the mounting position in the Finisher so that two bosses are engaged, and secure the Front Cover together with the Cover Stud and Front Cover using four screws. (Figure 2)
5. Secure the Front Cover to the Finisher with three screws. (Figure 1)
6. Mount the Jogging Cover (RRP 6-14).

RRP 6-18 Front Door Interlock Switch (PL 20.4)

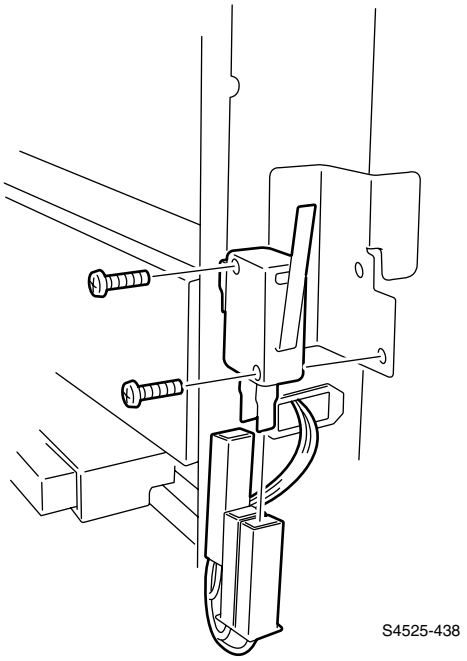


Fig 6-14 Switch Cover Front

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Front (RRP 6-16).
3. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
4. Unplug the connector (S2-1) of the Harness DC (PL 20.16.12) from the Switch Cover Front (PL 20.4.7).
5. Remove two screws that secure the Finisher from the Switch Cover Front, and remove the Switch Cover Front.

Replacement

1. Align the Switch Cover Front (PL 20.4.7) with the mounting position in the Finisher, and secure it with two screws.
2. Plug the connector (S2-1) of the Harness DC (PL 20.16.12) to the Switch Cover Front.
3. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
4. Mount the Top Cover, Front (RRP 6-16).
5. Mount the Jogging Cover (RRP 6-14).

RRP 6-19 Docking Latch and Interlock Switch (PL 20.4)

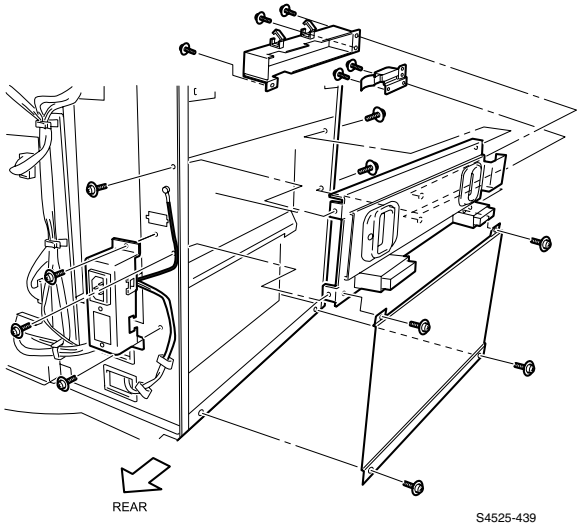


Fig 6-15 Latch Assembly and Switch Docking

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Front and the Rear Cover(RRP 6-16).
3. Remove the Front Cover-Open, Front Cover and Kit Stud Cover (RRP 6-17).
4. Remove the top screw and loosen the bottom screw that secure to the Finisher from the Down Inlet Bracket (PL 20.15.7), and move the Inlet Bracket together with the Inlet Bracket (PL 20.15.8) to access the lower screws.
5. Remove four screws that secure the Lower Left Cover (PL 20.4.18) to the Finisher.
6. Remove four screws that secure the Latch Assembly (PL 20.4.10) to Finisher Frame and remove the Lower Left Cover.

Note *In the following steps, do not detach the Latch Assembly far away because the connector and harness are still connected.*

7. Remove three screws of the Cover Switch Docking (PL 20.4.17) that secure to the back of the Latch Assembly, and remove the Cover Switch Docking.
8. Release the harness from two (PL 20.4.19).
9. Unplug the connector (S1-1) of the Docking Harness (PL 20.16.10) from the Docking Switch (PL 20.4.11).
10. Remove the two screws securing the Docking Switch and remove the Docking Switch.

Replacement

1. Reverse the above procedure.

RRP 6-21 Rear Cover (PL 20.5)

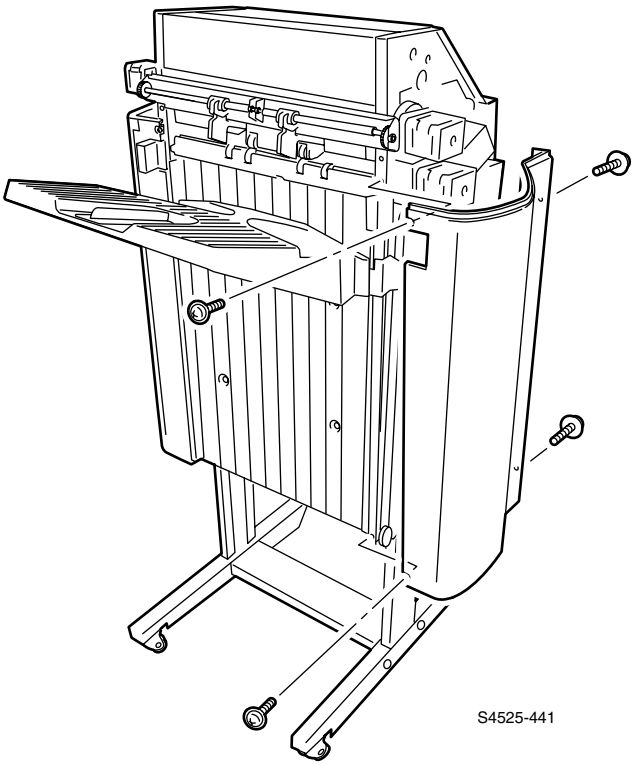


Fig 6-16 Rear Cover

Removal

1. Remove the Cover Jogging (RRP 6-14).
2. Remove the Front Top Cover (RRP 6-16).
3. Loosen or remove the four screws that secure the Rear Cover to the Finisher (PL 20.5.1), and remove the Rear Cover.

Replacement

1. Align the Rear Cover (PL 20.5.1) with the mounting position in the Finisher, and secure the Rear Cover with four screws.
2. Mount the Front Top Cover (RRP 6-16).
3. Mount the Jogging Cover (RRP 6-14).

RRP 6-22 Top Cover-Left (PL 20.5)

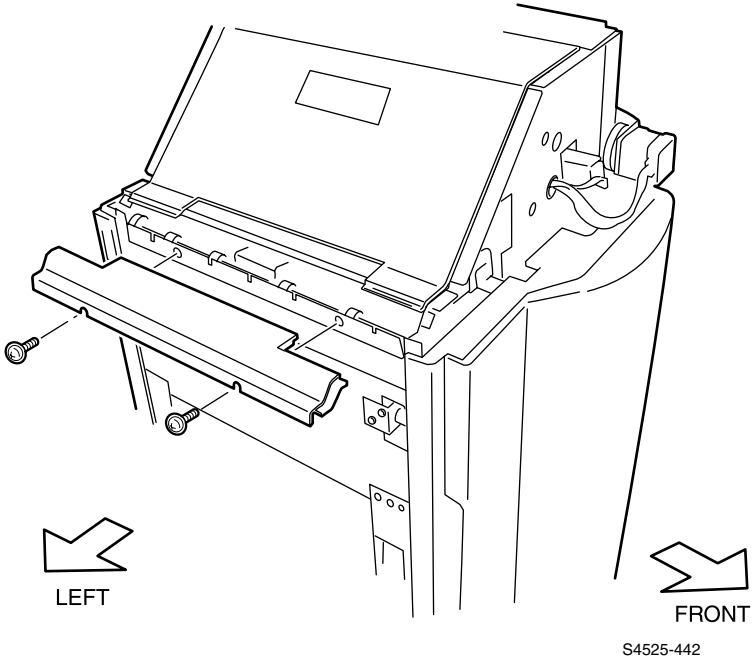


Fig 6-17 Top Cover-Left

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front Top Cover and Rear Top Cover (RRP 6-16).
3. Loosen or remove the two screws that secure the Left Top Cover to the Finisher (PL 20.5.3) and remove the Left Top Cover.

Replacement

1. Reverse the above procedure.

RRP 6-23 Top Cover Assembly, Center (PL 20.5)

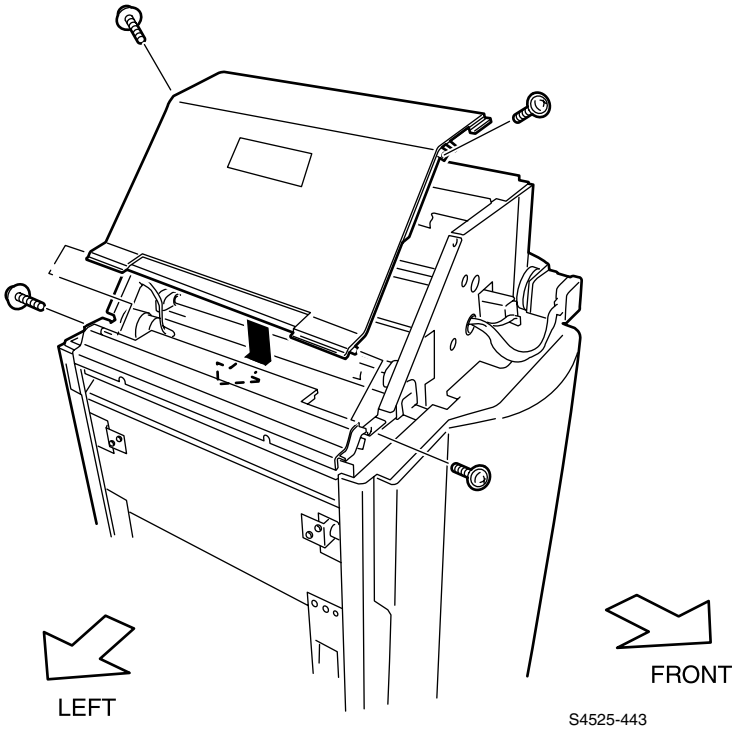


Fig 6-18 Top Center Cover Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove four screws that secure to the Finisher from the Top Center Cover Assembly (PL 20.5.9), and remove the Top Center Cover Assembly.

Replacement

1. Align the Top Center Cover Assembly (PL 20.5.9) with the mounting position in the Finisher, and secure it with four screws.
2. Mount the Front and Rear Top Cover (RRP 6-16).
3. Mount the Jogging Cover (RRP 6-14).

RRP 6-24 Kit Bracket Assembly and Screw (PL 20.6)

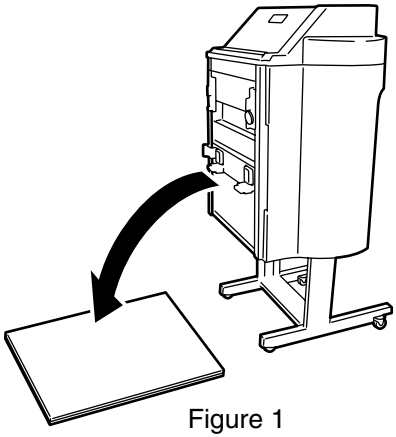


Figure 1

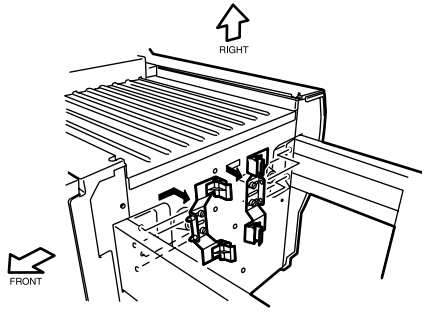


Figure 2

S4525-444

Fig 6-19 Kit Bracket Assembly and Screw

Removal

1. Place several-ply cardboards or newspapers on the floor, and carefully lay the Finisher on its left side. (Figure 1)
2. Remove two Thumb Screw (PL 20.6.2) on the front side.
3. Sliding the Bracket Assembly (PL 20.6.1) on the front side toward the inside, remove the Bracket Assembly.
4. For the Bracket Assembly and Thumb Screw on the rear side, perform the above steps in the same manner.

Replacement

Note *Replacement In the following steps, align the holes on both front and rear sides of the Frame Post (PL 20.6.3) with the holes on both front and rear sides of the Finisher in advance.*

1. Align two pins on the front side of the Bracket Assembly (PL 20.6.1) with the holes in the Finisher.
2. Push in the Bracket Assembly on the front side up to the specified position, and secure it with two Thumb Screw (PL 20.6.2).
3. For the Bracket Assembly and Thumb Screw on the rear side, perform the above steps in the same manner.
4. Erect the Finisher carefully.
5. Mount the Cap-END.
6. Mount the Kit Bracket Assembly and Screw (RRP 6-24).
7. Erect the Finisher carefully.

RRP 6-27 Caster Assembly (PL 20.6)

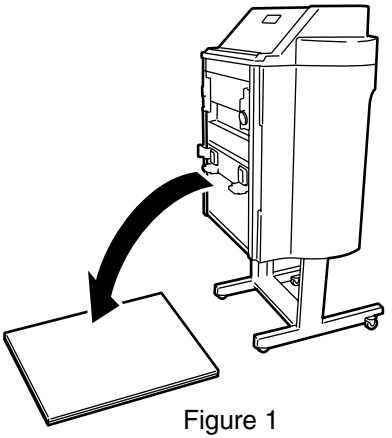


Figure 1

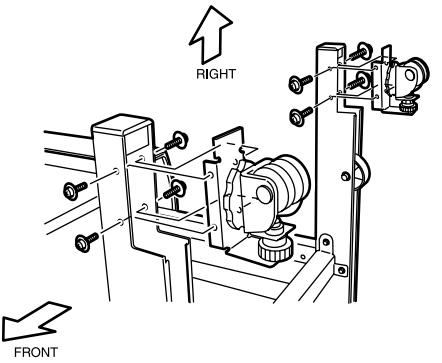


Figure 2

S4525-447

Fig 6-20 Caster Assembly

Removal

1. Remove the Horizontal Transport Assembly and Mounting Brackets.
2. Remove the End Caps
3. Place several-ply cardboards or newspapers on the floor, and tumble carefully the Finisher from the left side there. (Figure 1)
4. Remove four screws that secure the Caster Assembly on the front side, and remove the Caster Assembly.
5. For the rear side, perform the above step in the same manner.

Replacement

1. Align the Caster Assembly with the mounting position on the front side (PL 20.6.3), and secure it with four screws.
2. For the rear side, perform the above step in the same manner.
3. Install the End Caps.
4. Erect the Finisher carefully.
5. Install the Horizontal Transport Assembly and Mounting Brackets.

RRP 6-29 Finisher Input Paper Path Sensor (PL 20.7)

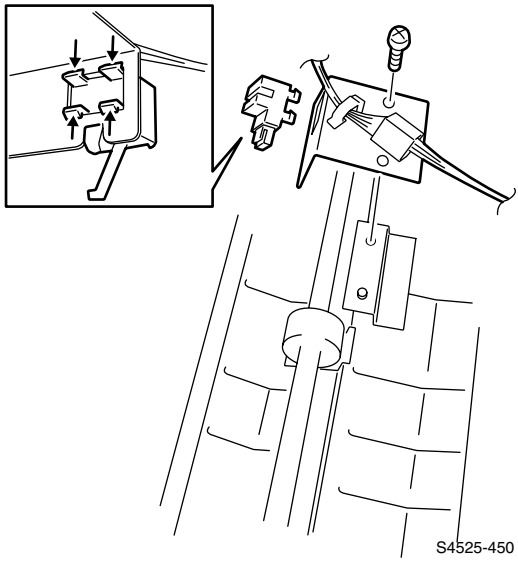


Fig 6-21 Finisher Input Paper Path Sensor

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Covers (RRP 6-16).
3. Remove the Left Top Cover (RRP 6-22).
4. Remove the Top Center Cover Assembly (RRP 6-23).
5. Unplug (P/J 1) of the Sensor Harness (PL 20.16.4) from the Input Paper Path Sensor.
6. Remove the screw that secures the Input Paper Path Sensor Bracket (PL 20.7.7), and lift up the Sensor Bracket.
7. Unhook the Input Path Sensor at four places, and remove.

Replacement

1. Align the Input Path Sensor with the mounting position in the Sensor Bracket (PL 20.7.7), and mount the Input Path Sensor.
2. Align the Sensor Bracket, together with the Input Path Sensor and Clamp (PL 20.7.6), with the mounting positions in the Finisher, and secure them with a screw.
3. Plug the connector (P/J 1) of the Sensor Harness (PL 20.16.4) to the Input Path Sensor.
4. Mount the Top Center Cover Assembly (RRP 6-23).
5. Mount the Top Left Cover (RRP 6-22).
6. Mount the Front and Rear Top Covers (RRP 6-16).
7. Mount the Jogging Cover (RRP 6-14).

RRP 6-30 Finisher Exit Path Sensor (PL 20.7)

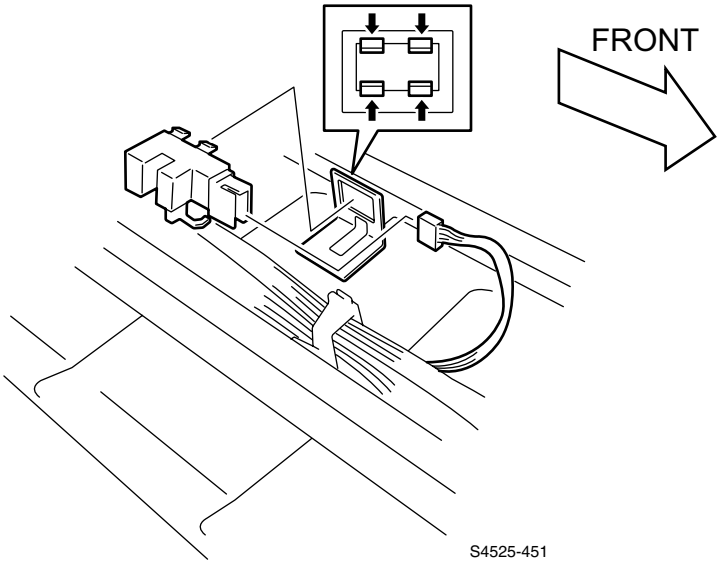


Fig 6-22 Finisher Exit Path Sensor

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Covers (RRP 6-16).
3. Remove the two top screws on the top Center Cover and pivot open the Cover.
4. Disconnect connector (P/J 4) from the Exit Path Sensor, then unhook the four latch hooks and remove the sensor.

Replacement

1. Reverse the above procedure.

RRP 6-31 Registration Roller Assembly (PL 20.7)

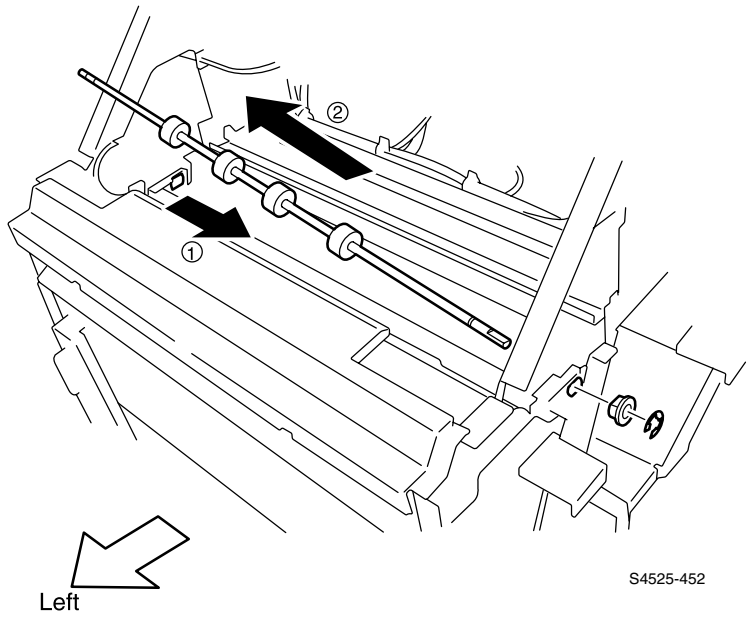


Fig 6-23 Registration Roller Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Top Center Cover Assembly (RRP 6-23).
4. Remove the Front Cover-Open, Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the Rear Cover (RRP 6-2).
6. Remove the Knob : Registration Roller .
7. Remove the Puncher (RRP 6-39).
8. Remove the Guide Assembly-Dust (RRP 6-42).
9. Remove the E-Ring on the rear of the REGI Roller Assembly and remove the two Gears and Bearing (PL 20.7.12).

Note *On re-assembly the small gear is installed towards the rear of the unit.*

10. Remove the Blade Assembly.
11. Slide the Roller Assembly-Registration toward the rear (1), lifting up the shaft on the front side, pull it off in a diagonal upward direction. (2)

Replacement

1. Reverse the above procedure.

RRP 6-32 Finisher Transport Roller (PL 20.7)

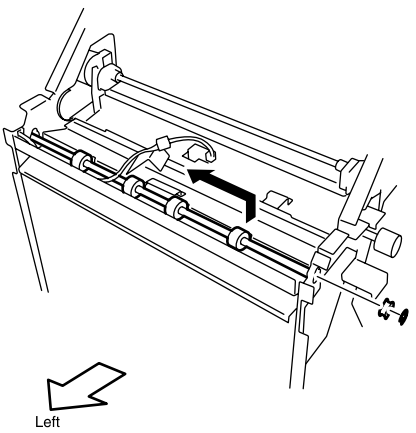


Figure 1

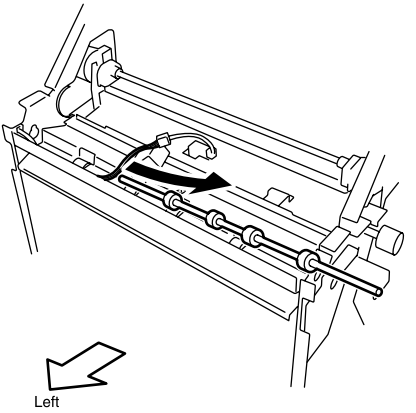


Figure 2

S4525-453

Fig 6-24 Transport Roller

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Front Cover-Open, Front Cover and Kit Stud Cover (RRP 6-17).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Top Cover-Left (RRP 6-22).
6. Remove the Top Center Cover Assembly (RRP 6-23).
7. Disconnect Path Sensor Harness (P/J 1).
8. Remove the Input Path Sensor (RRP 6-29) and Bracket.
9. Disconnect the wiring harness from seven clamps on the Drive Assembly Bracket.
10. Remove the three screw securing the drive Assembly Bracket.
11. Remove the E-Ring, One-Way Gear and Bearing from the Inlet Roller Shaft on the rear of the Finisher.
12. Remove the Bearing (PL 20.7.12) that secures the shaft on the front side of the Transport Roller.
13. Lift up the Inlet Roller and move it toward the front so that the leading end of the shaft on the side enters into the inside of the Finisher frame.
14. Lifting up the shaft on the rear side of the Roller, pull it off.

Replacement

1. Place shaft on the rear side of the Roller (PL 20.7.5) through the bearing on the rear side.
2. Insert the shaft on the front side of the Transport Roller into the bearing on the front side of the Finisher, and secure it with the E-Ring (PL 20.7.12).
3. Install the One-Way Gear on the rear of the Inlet Roller shaft with the shoulder toward the Frame and secure it with an E-Ring.
4. Mount the Drive Assembly Bracket with three screws.
5. Mount the Wiring Harness in Clamps.
6. Mount Input Path Ssensor Bracket.
7. Connect Path Sensor Harness (P/J 1).
8. Mount the Top Center Cover Assembly (RRP 6-23).
9. Mount the Top Cover-Left (RRP 6-22).
10. Mount the Rear Cover (RRP 6-21).
11. Mount the Front Cover-Open, Front Cover and Kit Stud Cover (RRP 6-17).
12. Mount the Front and Rear Top Covers (RRP 6-16).
13. Mount the Jogging Cover (RRP 6-14).

RRP 6-33 Drive Assembly Kit (PL 20.7)

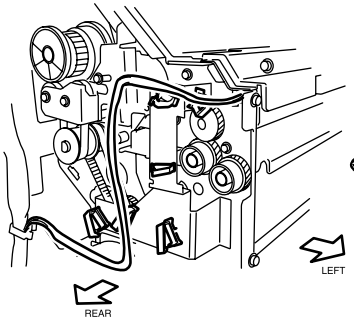


Figure 1

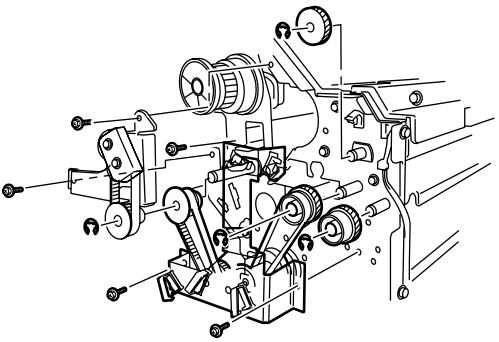


Figure 2

S4525-454

Fig 6-25 Drive Assembly Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Unclamp the harness at seven places on the Drive Assembly (PL 20.7.40). (Figure 2)
5. Remove the E-ring that secures two Gears (PL 20.7.36) to the Roller Assembly-Registration (PL 20.7.4).
6. Remove three screws that secure to the Finisher from the Gear and Belt Assembly (PL 20.7.39), and remove the Gear and Belt Assembly together with the Gear (PL 20.7.43).
7. Remove the E-ring that secures the Flange (PL 20.7.18) and Gear (PL 20.7.19) to the shaft of the Finisher.
8. Remove three screws that secure to the Finisher from the Drive Assembly, and remove the Drive Assembly together with the Flange, Gear (PL 20.7.19), Gear (PL 20.7.36).

Replacement

1. Insert the Flange (PL 20.7.18) and Gear (PL 20.7.19) into the Finisher, and secure it with an E-ring.
2. Insert the Gear (PL 20.7.36) into the shaft of the Roller Assembly-Registration (PL 20.7.4).
3. Engage the belt on the right side of the Drive Assembly (PL 20.7.40) to the Gear (PL 20.7.36), and also engage the belt on the left side of the Drive Assembly to the Gear.
4. Align the Drive Assembly with the mounting position in the Finisher, and secure it with three screws.
5. Insert the Gear (PL 20.7.43) into the shaft of the Roller Assembly-REGI, and secure it with an E-ring.
6. Engage the belt of the Gear and Belt Assembly (PL 20.7.39) to the Gear (PL 20.7.43), and align the Gear and Belt Assembly with the mounting position in the Finisher, then secure it with three screws.
7. Clamp the harness at seven places on the Drive Assembly. (Figure 2)
8. Mount the Rear Cover (RRP 6-21).
9. Mount the Front and Rear Top Cover (RRP 6-16).
10. Mount the Jogging Cover (RRP 6-14).

RRP 6-34 Inlet Chute Assembly (PL 20.7)

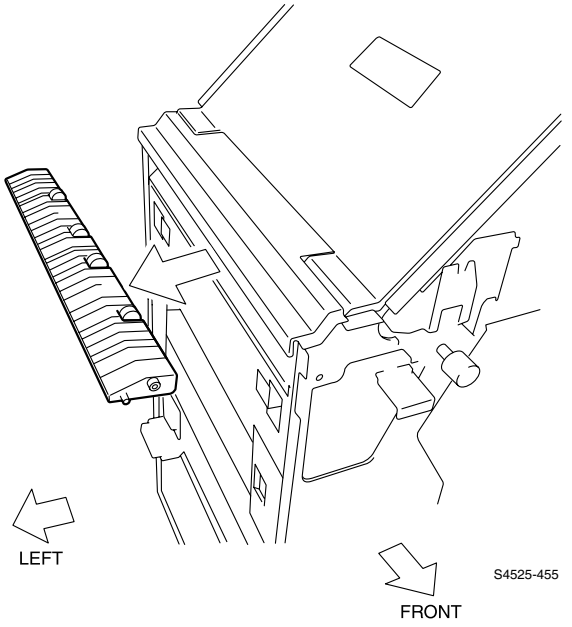


Fig 6-26 Inlet Chute Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open, Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the three screws securing the Drive Assembly Kit Bracket and move to access the Gear (PL 20.7).
6. Remove the E-Ring, Flange (PL 20.7) and Gear (PL 20.7) to acess the rear screw for the Inlet Chute-Assembly.
7. Remove two screws that secure to the Finisher from the Chute Assembly-Inlet.
8. Pull the Chute Assembly-Inlet off the Finisher toward the left.

Replacement

1. Reverse the above procedure.

RRP 6-35 Invert Guide Kit (PL 20.7)

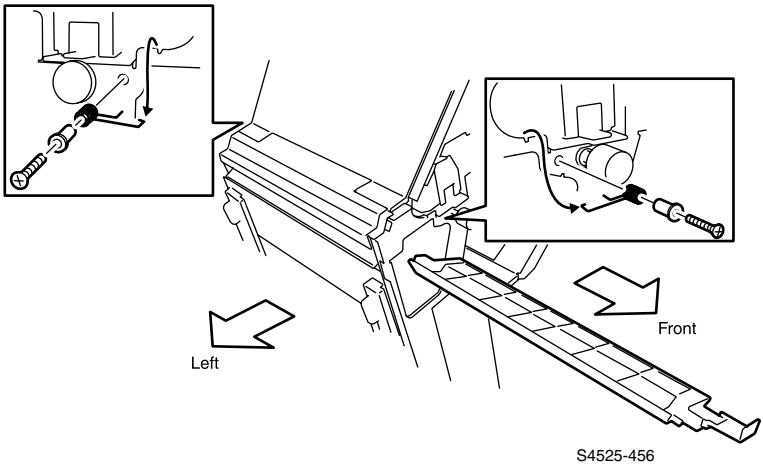


Fig 6-27 Invert Guide Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the screw that secures the Invert Guide Assembly (PL 20.7.26) and Spring (PL 20.7.30) on the rear side, and remove the Spring while unhooking the Spring from the notch of the Finisher frame.

Note *In the following steps, the Invert Guide Assembly is not secured. Accordingly, take care not to drop or damage it.*

6. Remove the screw that secures the Invert Guide Assembly and Spring on the front side, and remove the Spring while unhooking from the notch of the Finisher frame.
7. From the front side of the Finisher, remove the Invert Guide Assembly toward the front.

Replacement

1. Insert the Screw (PL 20.7.29) from the short hook side of the Spring (PL 20.7.28).
2. Insert the Invert Guide Assembly (PL 20.7.26) from the front side of the Finisher, align it with the mounting position.
3. Engaging the long hook of the Spring with the notch of the Finisher frame, engage the short hook of the Spring with the concave of the Invert Guide Assembly, and secure the Invert Guide Assembly and Spring on the front side to the Finisher.
4. On the rear side, engaging the long hook of the Spring with the notch of the Finisher frame, engage the short hook of the Spring with the concave of the Invert Guide Assembly, and secure the Invert Guide Assembly and Spring on the rear side to the Finisher.
5. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
6. Mount the Rear Cover (RRP 6-21).
7. Mount the Front and Rear Top Cover (RRP 6-16).
8. Mount the Jogging Cover (RRP 6-14).

RRP 6-36 Buffer Chute Kit (PL 20.7)

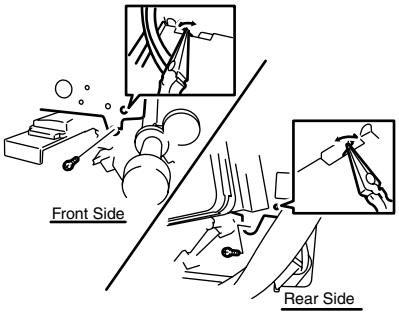


Figure 1

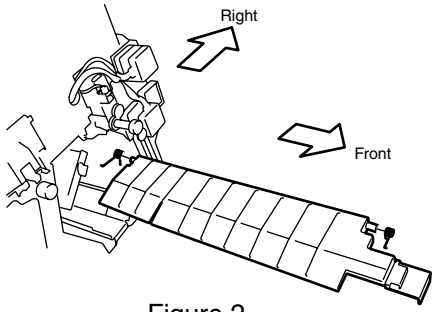


Figure 2

S4525-457

Fig 6-28 Buffer Chute Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
5. Unhook the Spring (PL 20.7.32) from the hole in the frame on the front side of the Finisher.
6. Unhook the Spring (PL 20.7.33) from the hole in the frame on the rear side of the Finisher.
7. On the rear side, loosen the screw that secures the rear side of the Chute-Buffer Assembly (PL 20.7.27).
8. On the front side, loosen the screw that secures the front side of the Chute-Buffer Assembly, and remove the Chute-Buffer Assembly together with the Springs (PL 20.7.32) toward the front by sliding the mounting screws out of Frame Slots. (Figure 2)
9. Remove two Spring (PL 20.7.32) from the shafts of both sides of the Chute-Buffer Assembly.

Replacement

1. Insert the Spring (PL 20.7.33) into the shaft on the rear side of the Chute-Buffer Assembly (PL 20.7.27) so that the straight hook is on the inside and loosely install the screw. (Figure 2)
2. Insert the Spring (PL 20.7.32) into the shaft on the rear side of the Chute-Buffer Assembly so that the straight hook is on the inside and loosely install the screw.

Note *In the following steps, the Spring (*PL 20.7.*32) and Spring (*PL 20.7.*33) are easily removed from the shafts. Accordingly, take care not to drop or damage them.*

3. From the front side, insert the Chute-Buffer Assembly together with the Spring (PL 20.7.32) and Spring (PL 20.7.33) into the inside of the Finisher, and align them with the mounting positions, securing rear first.
4. Secure the front side of the Chute-Buffer Assembly (PL 20.7.32). (Figure 1)
5. Hook the Spring (PL 20.7.33) to the hole in the frame on the rear side of the Finisher with a small screwdriver, etc.
6. Hook the Spring (PL 20.7.32) to the hole in the frame on the front side of the Finisher with a small screwdriver, etc.
7. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
8. Mount the Rear Cover (RRP 6-21).
9. Mount the Front and Rear Top Cover (RRP 6-16).
10. Mount the Jogging Cover (RRP 6-14).

RRP 6-38 Transport (Main Feed) Motor Assembly (PL 20.7)

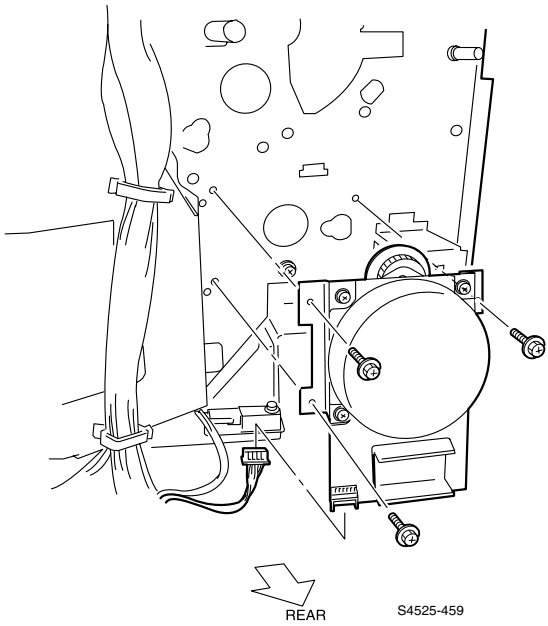


Fig 6-29 Transport (Main Feed) Motor Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Unplug the connector (CN 1) of the Harness Motor (PL 20.16.13) from the Transport Motor Assembly (PL 20.7).
5. Remove three screws that secure to the Finisher from the Transport Motor Assembly, and remove the Transport Motor Assembly.

Replacement

1. Align the Transport Motor Assembly with the mounting position, and secure it with four screws.
2. Plug the connector (CN 1) of the Harness Motor (PL 20.16.13) to the Transport Motor Assembly (PL 20.7).
3. Mount the Rear Cover (RRP 6-21).
4. Mount the Front and Rear Top Cover (RRP 6-16).
5. Mount the Jogging Cover (RRP 6-14).

RRP 6-39 Puncher Assembly (PL 20.8)

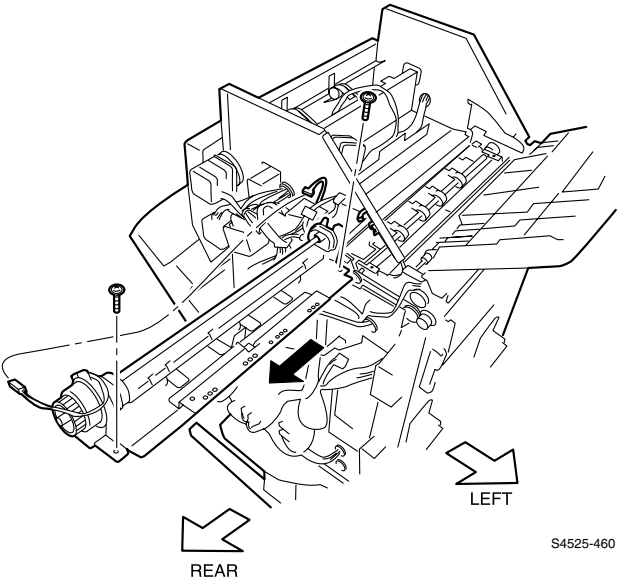


Fig 6-30 Puncher Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Unplug the Path Sensor (RRP 6-41).
5. Unplug the connector (CN 18) of the Harness Motor (PL 20.16.13) from the Clutch of the Puncher.
6. Unclamp the harness of the Puncher at two places on the Finisher.

Note *Refer to the Puncher alignment procedure at the end of this RRP when reinstalling or replacing the Puncher Assembly..*

7. Remove two screws that secure to the Puncher to the Finisher.
8. Lifting up the Puncher move it toward the rear to remove it.

Replacement

1. Insert the Puncher from the rear side, and align it with the mounting position.
2. Secure the Puncher to the Finisher with two screws.
3. Clamp the harness of the Puncher at two places on the Finisher.
4. Plug the connector (CN 18) of the Harness Motor (PL 20.16.13) to the Clutch of the Puncher.
5. Connect Sensor Harness, Path Sensor (RRP 6-41).
6. Mount the Rear Cover (RRP 6-21).
7. Mount the Front and Rear Top Cover (RRP 6-16).
8. Mount the Jogging Cover (RRP 6-14).

Puncher Alignment

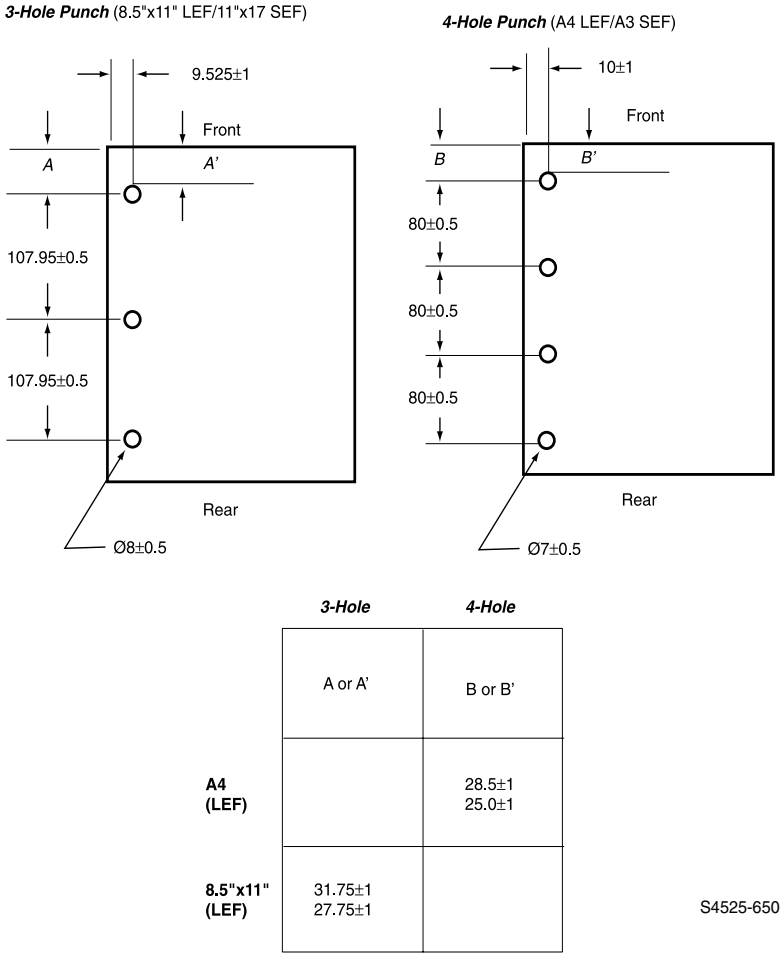


Fig 6-31 Puncher Position Adjustment Dimensions

Puncher Alignment

1. Use Letter size paper for 3-hole punch, and A4 for 4-hole punch.
2. Measure dimension A or A' for 3-hole and B or B' for 4-hole.
3. If measured value is smaller than criteria shown in above table, loosen punch unit fixing screws (2) and move the unit toward the rear by the gap (Criteria - Measured valut).
4. If measured value is larger than criteria shown in above table, loosen punch unit fixing screws (2) and move the unit toward the front by the gap (Measured value - Criteria).
5. Tighten the fixing screws (2).
6. Run a test print using hole punch and remeasure. If out of specification, repeat steps 2-6 above until proper alignment is achieved.

RRP 6-40 Pinch Roller Kit (PL 20.8)

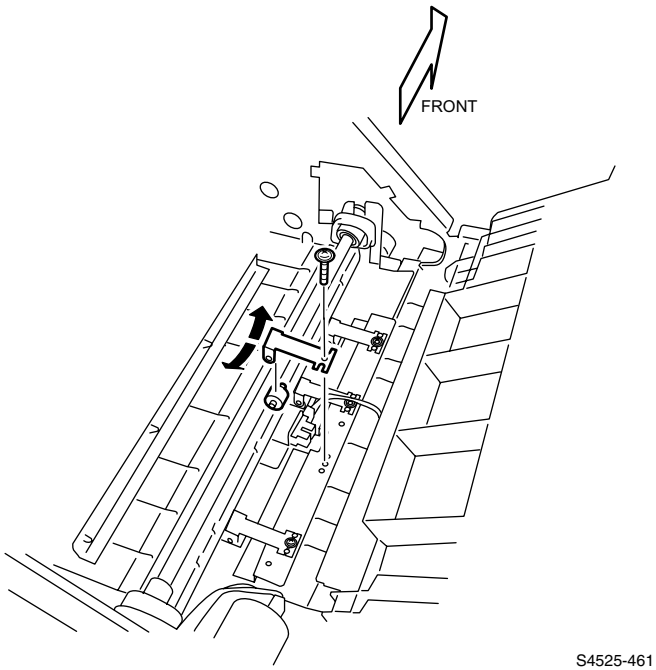


Fig 6-32 Pinch Roller Pinch

Removal

1. Remove the Top Center Cover Assembly (RRP 6-22, RRP 6-23).
2. Remove the screw that secures to the Finisher from the Pinch Roll, and remove the Pinch Roller.
3. Loosen the bracket of the Pinch Roll, and remove the roller of the Pinch Roll.
4. Repeat step 4 until you have removed all, or the necessary, roller of the Kit Roller Pinch.

Replacement

1. Loosen the bracket of the Pinch Roll, and mount the roller of the Pinch Roll.
2. Align the Pinch Roller with the mounting position in the Finisher, and secure it with a screw.
3. Repeat the above steps until you have mounted all the Kit Roller Pinch.
4. Mount the Top Center Cover Assembly (PL 20.5.9).

RRP 6-41 Finisher Exit Path Sensor (PL 20.8)

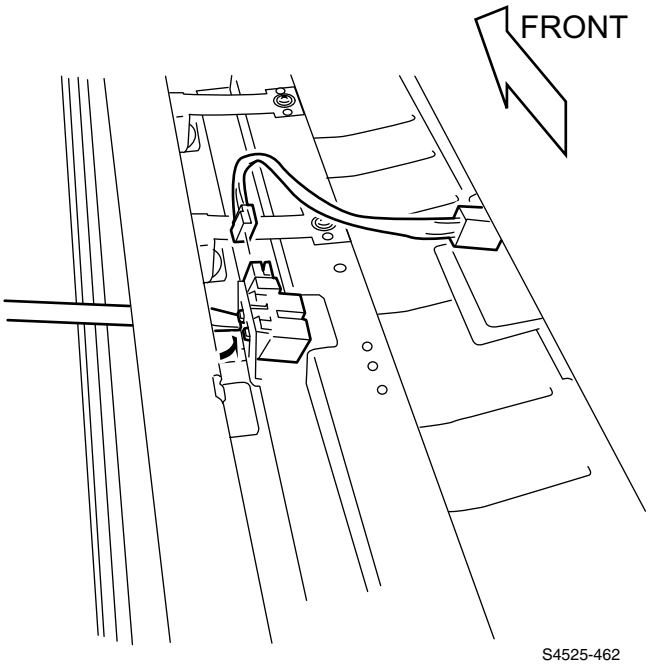


Fig 6-33 Finisher Exit Path Sensor

Removal

1. Open the Top Center Cover Assembly (PL 20.5.9) (RRP 6-23).
2. Remove the second Kit Roller Pinch (PL 20.8.98) from the rear side. (RRP 6-40)
3. Unplug the connector (P/J 2) of the Harness Sensor (PL 20.16.4) from the Sensor : Path.
4. Pressing the leading end of the Sensor : Path downward, disengage two hooks on the upper side by pushing with a small screwdriver.
5. Disengage two hooks on the lower side of the Sensor : Path by pushing with a small screwdriver, and remove the Sensor : Path.

Replacement

1. Align the Sensor : Path with the mounting position in the Finisher so that the connector faces toward the rear, and hook it at four places.
2. Plug the connector (P/J 2) of the Harness Sensor (PL 20.16.4) to the Sensor : Path.
3. Mount the second Kit Roller Pinch (PL 20.8.98) from the rear side. (RRP 6-40)
4. Close the Top Center Cover Assembly (PL 20.5.9).

RRP 6-42 Dust Guide Assembly (PL 20.8)

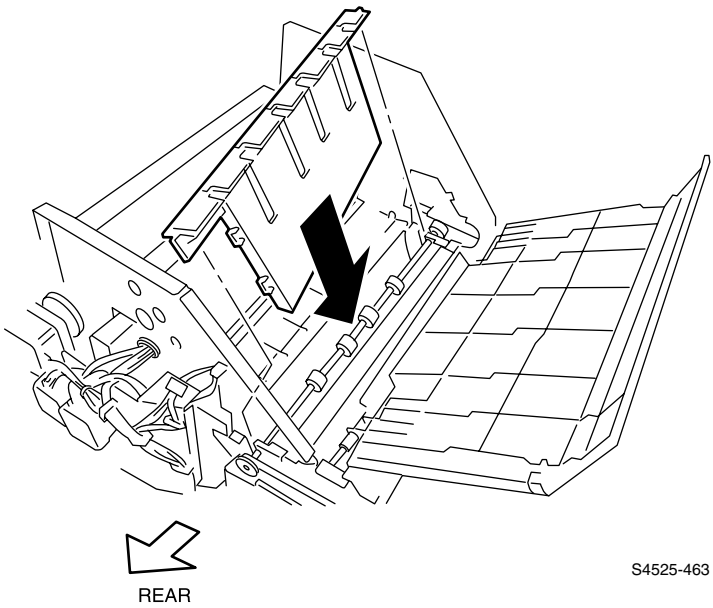


Fig 6-34 Dust Guide Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Open Top Center Cover.
5. Remove Left-Cover
6. Remove the Puncher (RRP 6-39).
7. Lift up the Guide Assembly-Dust (PL 20.8.5) a little, pull it off the notch of the Finisher frame, and tilt the Guide Assembly-Dust to remove them upward.

Replacement

1. Tilt the Guide Assembly-Dust (PL 20.8.5) and insert it into the Finisher from the rear side, and align two bosses of the Guide Assembly-Dust with the notch of the Finisher to mount them.
2. Mount the Puncher (RRP 6-39).
3. Mount the Left-Cover
4. Mount the Top Center Cover
5. Mount Rear Cover (RRP 6-21).
6. Mount the Front and Rear Top Cover (RRP 6-16).
7. Mount the Jogging Cover (RRP 6-14).

RRP 6-44 Dust Sensor Assembly (PL 20.8)

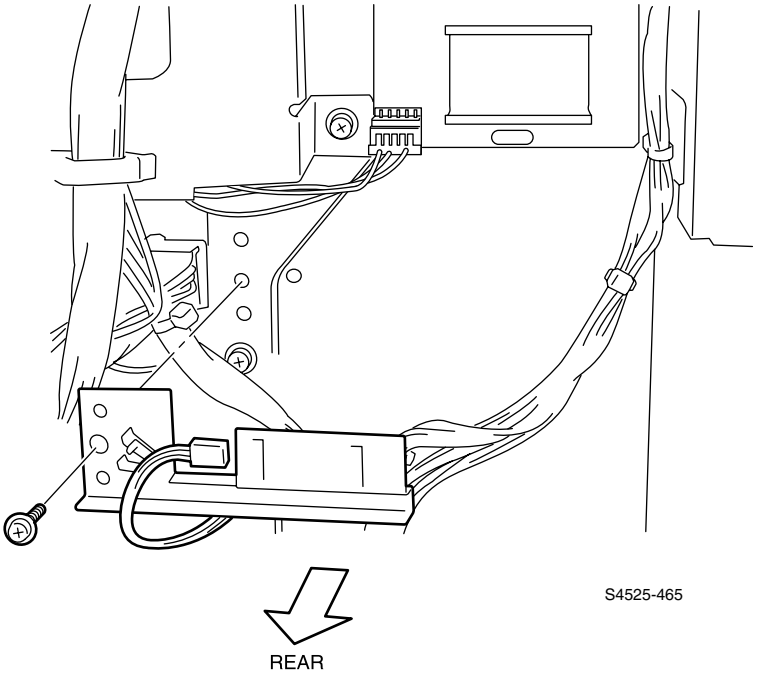


Fig 6-35 Dust Sensor Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Unplug the connector (P/J 18) of the Horizontal Transport Harness (PL 20.16.6) from the Sensor Dust Assembly (PL 20.8.8).
5. Remove the screw that secures to the Finisher from the Sensor Dust Assembly, and remove the Sensor Dust Assembly.

Replacement

1. Align the Sensor Dust Assembly (PL 20.8.8) with the mounting position, and secure it with a screw.
2. Plug the connector (P/J 18) of the Horizontal Transport Harness (PL 20.16.6) to the Sensor Dust Assembly.
3. Mount the Rear Cover (RRP 6-21).
4. Mount the Front and Rear Top Cover (RRP 6-16).
5. Mount the Jogging Cover (RRP 6-14).

RRP 6-45 Inner Cover (PL 20.8)

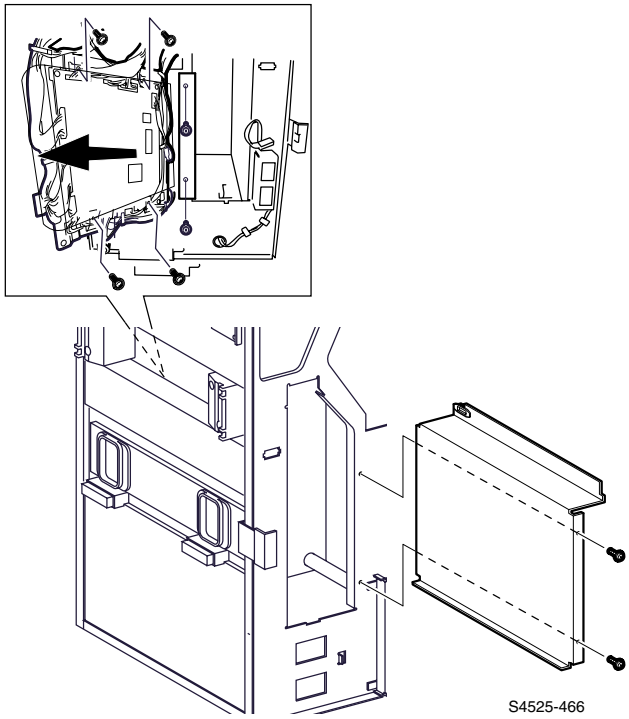


Fig 6-36 Inner Cover

Removal

1. Open the Front Cover-Open (PL 20.4.5).
2. Remove the Bottle Assembly-Dust.
3. Remove the Jogging Cover (RRP 6-14).
4. Remove the Front and Rear Top Cover (RRP 6-16).
5. Remove the Rear Cover (RRP 6-21).
6. Remove two screws on the front side that secure to the Finisher from the Inner Cover.
7. Remove four screws that secure the Main Board Assembly to the Board Chassis, and shift aside the Board to gain access to the Chassis (PL 20.15).
8. Remove the four screws that secure the Board Chassis and move toward the right to access the two screws for the Inner Cover.
9. Remove two screws on the rear side that secure to the Finisher from the Inner Cover.
10. Release the harness of the stapler, etc. from the clamp of the Inner Cover, and remove the Inner Cover from the Finisher.

Replacement

1. Reverse the above procedure.

RRP 6-46 Bottle Sensor Kit (PL 20.8)

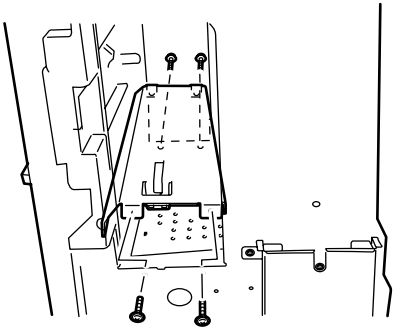


Figure 1

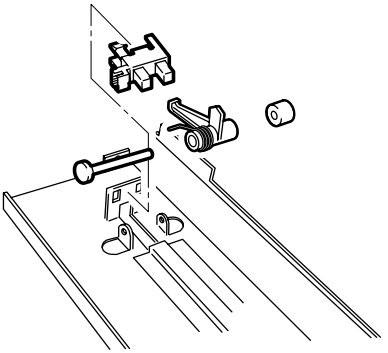


Figure 2

S4525-467

Fig 6-37 Bottle Sensor Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Rear (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Open the Front Cover-Open (PL 20.4.5).
5. Remove the Bottle Assembly-Dust (RRP 6-43).

Note *In the following steps, do not detach the frame metal (provisional) far away because the connector (P/J 14) of the Photo Sensor (*PL 20.8.*10) is still connected to the frame metal (provisional).*

6. Remove four screws that secure Dust Bottle Support Bracket to the Finisher and lift Bracket together with the Bottle Kit Sensor. (Figure 1)
7. Unplug the connector (P/J 14) of the Photo Sensor on the back of the Bracket. (Figure 2)
8. Invert the frame metal (provisional), and pull off the Actuator Cap (PL 20.8.14) that secures the Spring (PL 20.8.12) and the Actuator (PL 20.8.13).
9. Pull off the Shaft (PL 20.8.11), and remove the Spring and Actuator.
10. Unhook the Photo Sensor (PL 20.8.10) at three places, and remove the Photo Sensor (PL 20.8.10).

Replacement

1. Reverse the above procedure.

RRP 6-47 Motor Jogging Kit (PL 20.8)

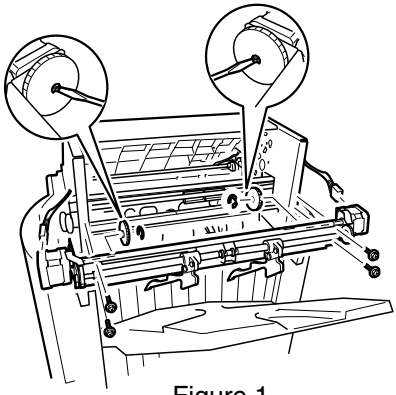


Figure 1

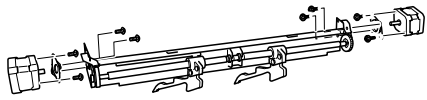


Figure 2

S4525-468

Fig 6-38 Motor Jogging Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Left Cover.
4. Unplug the connector (CN 7) of the Motor Harness (PL 20.16.13) from the Stepping Motor (PL 20.9.3) (Front).
5. Unplug the connector (CN 8) of the Motor Harness (PL 20.16.13) from the Stepping Motor (PL 20.9.3) (Rear).
6. Remove four screws that secure to the Finisher from the Jogging Assembly (PL 20.9.11), and remove the Jogging Assembly. (Figure 2)
7. Disconnect (P/J 9) and (P/J 8) from the Jogger Home Position Sensors (PL 20.9.3) on the Front and Rear of the Assembly.

Note *In the following steps, the procedure for removing the Damper (PL 20.9.2) and Stepping Motor (PL 20.9.3) on the front side is the same as for removing the ones on the rear side, and therefore the procedure on the front side only is described. Apply the same procedure to the rear side, too.*

8. Remove the E-ring that secures the Gear (PL 20.9.6) (Front) to the shaft of the Stepping Motor (Front), and remove the Gear (Front).
9. Remove two screws that secure the Damper (Front) to the Jogger Frame Assembly (PL 20.9.1), and remove the Damper (Front) together with the Stepping Motor (Front).

Replacement

1. Reverse the above procedure.

RRP 6-48 Jogger Home Position Sensors, Front & Rear (PL 20.9)

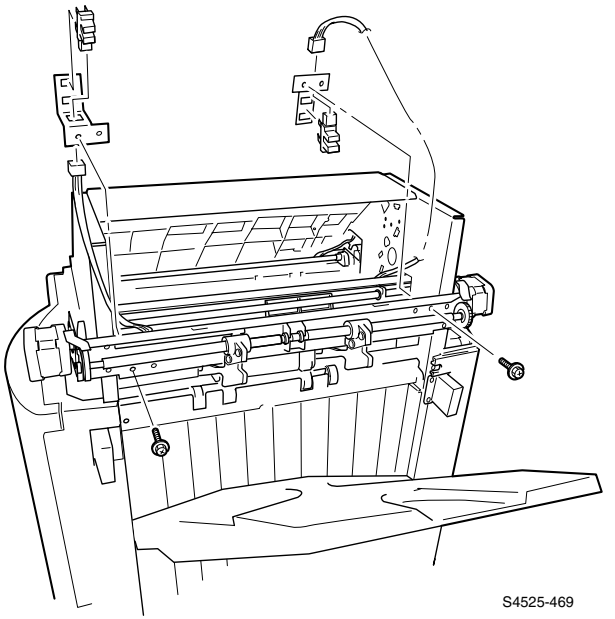


Fig 6-39 Sensor: Jogger Home Position

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Left-Cover.

Note *In the following steps, do not detach the Bracket (PL 20.9.5) far away because the connector (P/J 8) of the Sensor (PL 20.9.4) (Front) is still connected.*

4. Remove the screw that secures the Bracket (Front) to the Finisher, and lift up the Bracket (Front) together with the Sensor (Front).
5. Unplug the connector (P/J 8) of the Harness Sensor (PL 20.16.4) from the Sensor (Front).
6. Unhook the Sensor (Front) at three places, and remove the Sensor (Front) from the Bracket (Front).
7. Unplug the connector (P/J 9) of the Harness Sensor (PL 20.16.4) from the Sensor (PL 20.9.4) (Rear).
8. Remove the screw that secures the Bracket (PL 20.9.5) (Rear) to the Finisher, and remove the Bracket (Rear) together with the Sensor (Rear).
9. Unhook the Sensor (Rear) at three places, and remove the Sensor (Rear) from the Bracket (PL 20.9.5) (Rear).

Replacement

1. Reverse the above procedure.

RRP 6-49 Jogger Plate (PL 20.9)

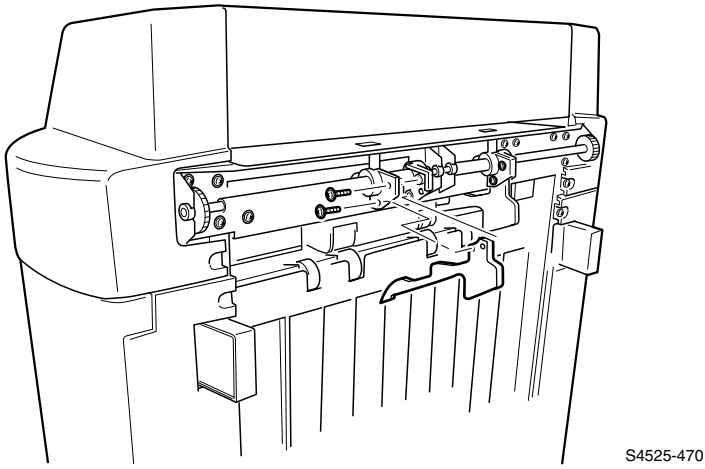


Fig 6-40 Jogger Plate

Removal

1. Remove the Lower-Tray.
2. Remove the Jogging Cover (RRP 6-14).
3. Remove the two screws that secure the Jogger-Plate (PL 20.9.9) (Front) to the Frame Assembly-Jogger (PL 20.9.1), and separate two brackets of the Jogger Frame Assembly that sandwich the Jogger-Plate (Front), then remove the Jogger-Plate (Front).
4. For the Jogger-Plate (PL 20.9.9) (Rear), perform the above step in the same manner.

Replacement

1. Reverse the above procedure.

RRP 6-50 Shift Assembly Kit (PL 20.10)

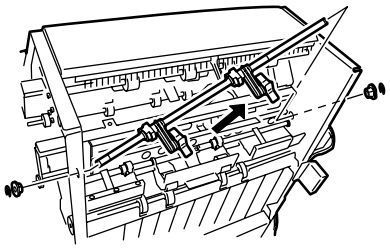


Figure 1

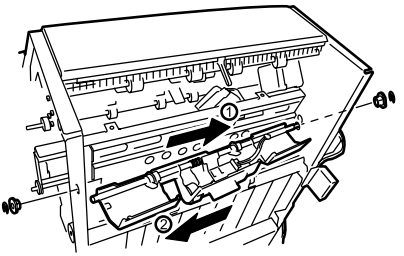


Figure 2

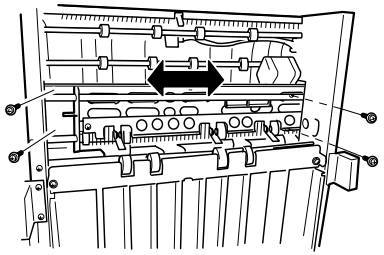


Figure 3

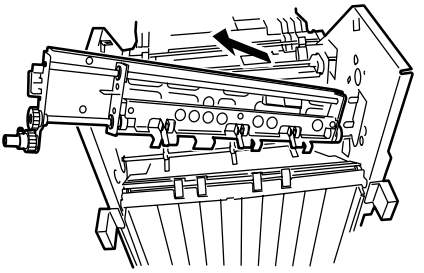


Figure 4

S4525-471

Fig 6-41 Shift Assembly Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Door and Cover Stud Kit (RRP 6-17).
5. Remove the Kit Motor Jogging (RRP 6-47).
6. Remove the Motor Assembly-MP4 (RRP 6-61).
7. Remove the Kit Gear Front (RRP 6-58).
8. Remove the Kit Gear Rear (RRP 6-60).
9. Remove the front and rear E-rings that secure to the Finisher from the Paddle Shaft Assembly (PL 20.11.40), and remove the front and rear Bearing (PL 20.11.15) (Figure 1).
10. Sliding the Paddle Shaft Assembly toward the front until the rear shaft of the Paddle Shaft Assembly enters the rear frame of the Finisher, pull it off in the rear diagonal upward direction (Figure 1).
11. Remove two E-rings that secure the front and rear sides of the Compiler Guide Shaft (PL 20.11.12), and remove the front and rear Bearing. (Figure 2)
12. Unplug the connector (P/J 5) of the Harness Exit (PL 20.16.9) from the Sensor : Exit Path (PL 20.11.7).
13. Unplug the connector (CN 43) of the Harness Motor (PL 20.16.13) from the Safety Switch Assembly (PL 20.11.50).
14. Sliding the Shaft toward the rear, until the front shaft of the Compiler Guide Shaft enters the front frame of the Finisher, rotate the Guide counter-clockwise and pull off the Compile Guide (PL 20.11.96) in the front diagonal upward direction. (Figure 2)
15. Remove the four screws that securing the Shift Assembly to the Finisher. (PL 20.10.1) (Figure 3)

Note *In the above step, when removing four screws, slide the L Cover (PL 20.5.6) of the Kit Shift Assembly to the front or rear where the screws can be seen. (Figure 6)*

16. Slide the Kit Shift Assembly toward the front until the end of the Shift Assembly enters the Finisher, and lifting up the rear side, remove it in a diagonal upward direction. (Figure 7)

Replacement

1. Reverse the above procedure.

RRP 6-52 Shift Motor Kit (PL 20.10)

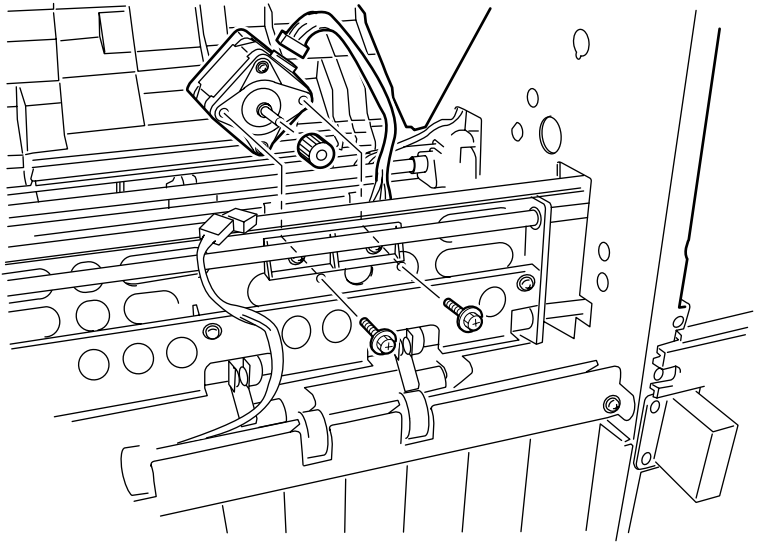


Fig 6-42 Shift Motor Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Kit Motor Jogging (RRP 6-47).
4. Remove Rear Cover.
5. Remove Front Cover-Open, Front Cover and Cover Stud.
6. Remove Paddle Shaft Assembly.
7. Unplug the connector (P/J 5) of the Harness Exit (PL 20.16.9) from the Sensor : Exit Path (PL 20.11.7).
8. Unplug the connector (CN 43) of the Harness Motor (PL 20.16.13) from the Safety Switch Assembly (PL 20.11.50).
9. Sliding the Shaft toward the rear, until the front shaft of the Compiler Guide Shaft enters the front frame of the Finisher, rotate the Guide counter-clockwise and pull off the Compile Guide (PL 20.11.96) in the front diagonal upward direction.
10. Remove the four screws that securing the Shift Assembly to the Finisher. (PL 20.10.1)
11. Slide the Kit Shift Assembly toward the front until the end of the Shift Assembly enters the Finisher, and lifting up the rear side, remove it in a diagonal upward direction.
12. Unplug the connector (CN 5) of the Harness Motor (PL 20.16.13) from the Motor-MP5 (PL 20.10.4).
13. Remove two screws that secure to the Damper (PL 20.10.3) from the Finisher, and remove the Damper together with the Gear and Motor-MP5.
14. Remove the E-ring that secures the Gear (PL 20.10.2) to the shaft of the Motor-MP5 (PL 20.10.4), and remove the Gear.
15. Remove three screws securing the Pinch Roller Guide (PL 20.10).
16. Remove two screws that secure the Motor-MP5 to the Damper, and remove the Motor-MP5.

Replacement

1. Reverse the above procedure.

RRP 6-53 Compiler Tray Motor - MP2 (PL 20.10)

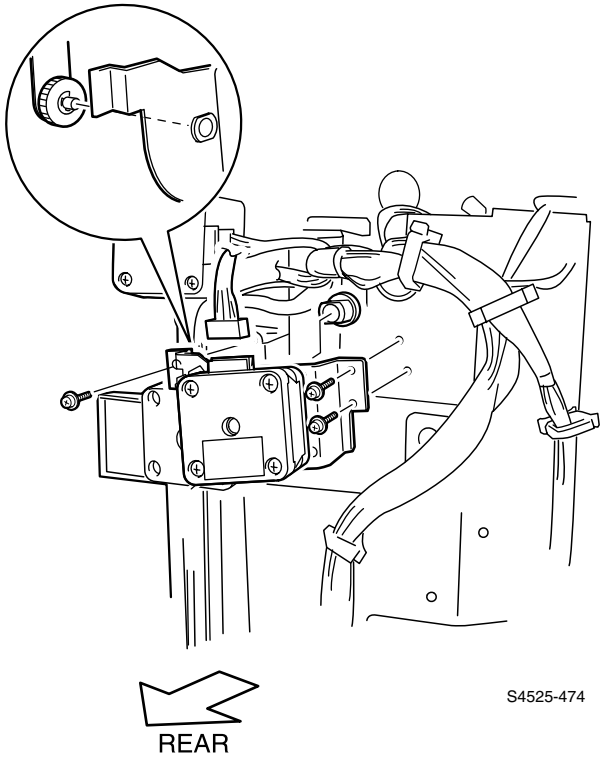


Fig 6-43 Motor Assembly - MP2

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Rear (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Unclamp the harness of the Clamp in two places from the Motor Assembly (PL 20.10.17).
5. Unplug the connector (CN 2) of the Harness Motor (PL 20.16.13) from the Motor Assembly-MP2 (PL 20.10.5).
6. Remove the screw that secures to the Motor Assembly-MP4 (PL 20.11.29) from the Motor Assembly-MP2.

Note *In the following steps, the Bearing (PL 20.10.6) is not secured and easily removed. Accordingly, take care not to drop or damage it.*

7. Remove two screws that secure to the Finisher from the Motor Assembly-MP2, and remove the Motor Assembly-MP2 together with the Bearing, noting the orientation of the Drive Belt.

Replacement

1. Insert the Bearing (PL 20.10.6) into the Motor Assembly-MP2 (PL 20.10.5).
2. Align the Motor Assembly-MP2, together with the Bearing, with the mounting position in the Finisher so that the hole in the Bearing enters the shaft of the Frame Assembly-Roll,Shift (PL 20.10.1), while re-attaching the Drive Belt, and secure them with two screws.
3. Secure the Motor Assembly-MP2 to the Motor Assembly-MP4 (PL 20.11.29) with a screw.
4. Plug the connector (CN 2) of the Harness Motor (PL 20.16.13) to the Motor Assembly-MP2.
5. Clamp the harness in two places (PL 20.10.17).
6. Mount the Rear Cover (RRP 6-21).
7. Mount the Top Cover, Rear (RRP 6-16).
8. Mount the Jogging Cover (RRP 6-14).

RRP 6-54 Compiler Exit Path Sensor (PL 20.11)

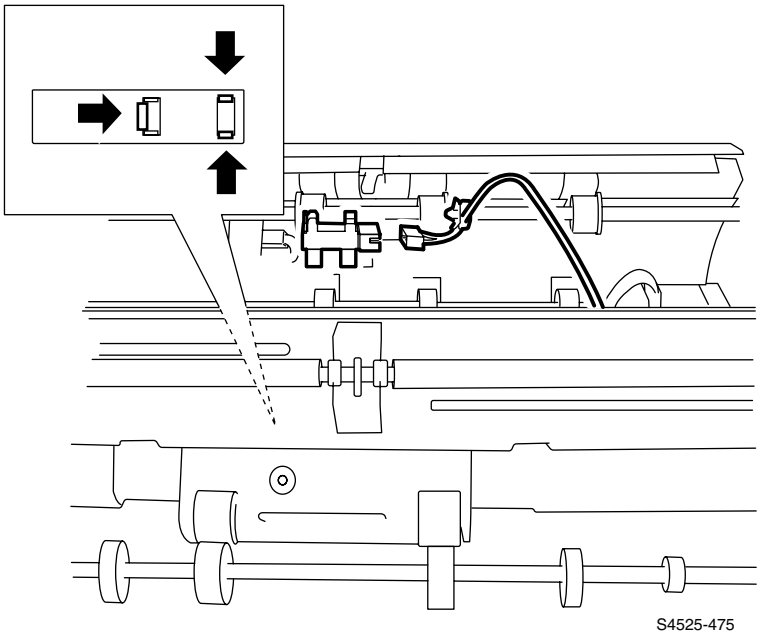


Fig 6-44 Exit Path Sensor

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the two shoulder screws and four screws securing the Left Cover and remove the Cover (PL 20.5.6)
4. Tilt the Compiler Guide upward to access the Compiler Exit Path Sensor Bracket, remove the securing screw and Bracket.
5. Unplug the connector (P/J 5) of the Harness Exit (PL 20.16.9) from the Sensor (PL 20.11.7).
6. Unhook the Sensor at three places, and remove the Sensor.

Replacement

1. Align the Sensor (PL 20.11.7) with the mounting position in the Compile Guide (PL 20.11.11) to secure it
2. Plug the connector (P/J 5) of the Harness Exit (PL 20.16.9) to the Sensor.
3. Secure the Compiler Exit Path Sensor Bracket to the Compiler Guide with one screw.
4. Mount the Left Cover with two shoulder screws and four screws (PL 20.5.6)
5. Mount the Front and Rear Top Cover (RRP 6-16).
6. Mount the Jogging Cover (RRP 6-14).

RRP 6-55 Compiler Roller and Shaft (PL 20.11)

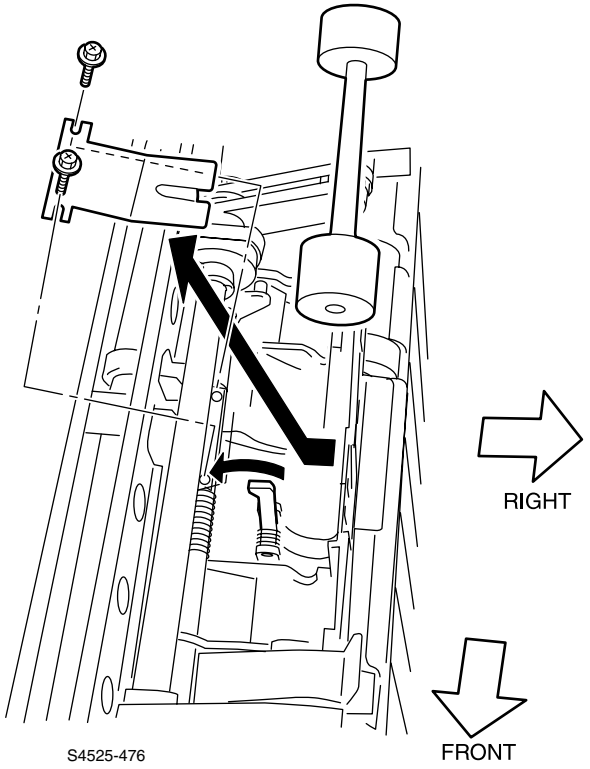


Fig 6-45 Compiler Roller and Roller Shaft

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Left Cover.
4. Remove the Exit Sensor (RRP 6-54).
5. Remove the Safety Switch (RRP 6-57).
6. Remove two screws that secure to the Shaft (PL 20.11.12) from the Support (PL 20.11.36), and remove the Support.
7. Avoiding the Actuator (PL 20.11.8), release the Roller Shaft (PL 20.11.39) from two bearings of Compiler Guide (PL 20.11.11) and remove the Roller Shaft together with two Compiler Roller (PL 20.11.38).

Replacement

1. Avoiding the Actuator (PL 20.11.8) with your Finisherger, mount the Roller Shaft (PL 20.11.39) together with two Compiler Roller (PL 20.11.38) on two bearings of Compiler Guide (PL 20.11.11).
2. Insert two bosses of Support (PL 20.11.36) into the holes in the Compile Guide, and align the Shaft (PL 20.11.12) to its mounting position so that it pushes the hook of the Spring (PL 20.11.51), then secure with two screws.
3. Mount the Safety Switch (RRP 6-57).
4. Mount the Exit Sensor (RRP 6-54).
5. Mount the Left Cover.
6. Mount the Front and Rear Top Cover (RRP 6-16).
7. Mount the Jogging Cover (RRP 6-14).

RRP 6-56 Exit Roller Open/Close Home Position Sensor (PL 20.11)

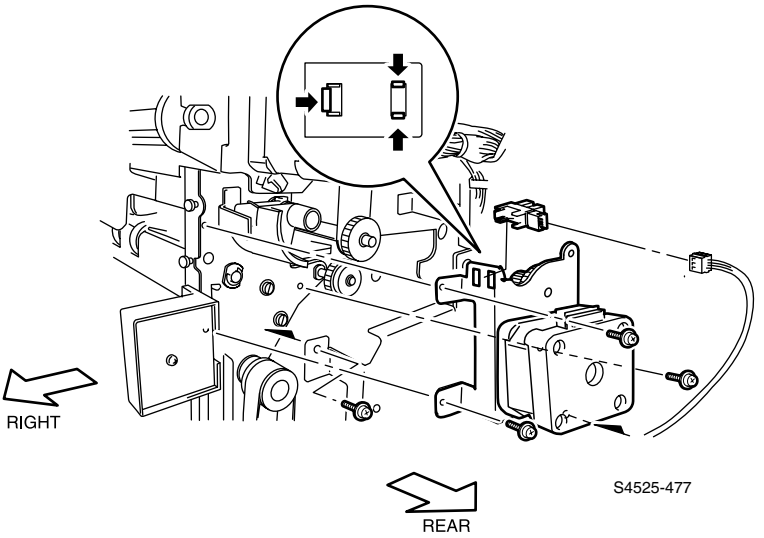


Fig 6-46 Exit Roller Open/Close Home Position Sensor

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Rear (RRP 6-16).
3. Remove the Motor Assembly-MP2 (RRP 6-53).
4. Unplug the connector (CN 4) of the Harness Motor (PL 20.16.13) from the Motor Assembly-MP4 (PL 20.11.29).
5. Unplug the connector (P/J 6) of the Harness Sensor (PL 20.16.4) from the Sensor : Exit Roller Open/Close Home Position (PL 20.11.7).
6. Remove three screws that secure to the Finisher from the Motor Assembly-MP4, and remove the Motor Assembly-MP4.
7. Unhook the Sensor : Exit Roller Open/Close Home Position at three places, and remove the Sensor : Exit Roller Open/Close Home Position from the Motor Assembly-MP4.

Replacement

1. Align the Sensor : Exit Roller Open/Close Home Position (PL 20.11.7) with the mounting position in the Motor Assembly-MP4 (PL 20.11.29) to secure it
2. Align the Motor Assembly-MP4, together with the Sensor : Exit Roller Open/Close Home Position, with the mounting position in the Finisher, and secure them with three screws.
3. Plug the connector (P/J 6) of the Harness Sensor (PL 20.16.4) to the Sensor : Exit Roller Open/Close Home Position.
4. Plug the connector (CN 4) of the Harness Motor (PL 20.16.13) to the Motor Assembly-MP4.
5. Mount the Motor Assembly-MP2 (RRP 6-53).
6. Mount the Top Cover, Rear (RRP 6-16).
7. Mount the Jogging Cover (RRP 6-14).

RRP 6-57 Exit Roller Safety Interlock Switch Assembly (PL 20.11)

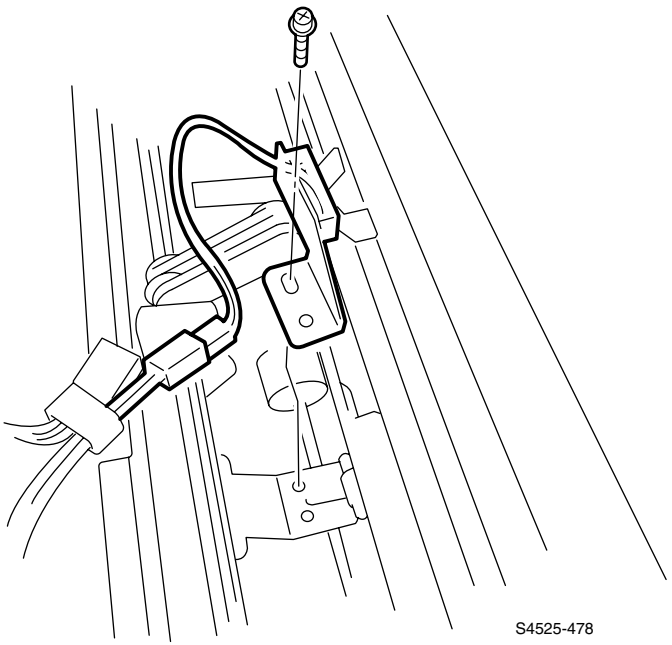


Fig 6-47 Exit Roller Safety Interlock Switch Assembly

Removal

1. Remove the Front and Rear Top Cover (RRP 6-16).
2. Remove the Switch Assembly.
3. Unplug the connector (CN 43) of the Harness Motor (PL 20.16.13) from the Safety Switch Assembly.
4. Remove the screw that secures to the Safety Switch Assembly from the Safety Switch Assembly, and remove the Safety Switch Assembly.

Replacement

1. Align the Safety Switch Assembly with the mounting position in the Compile Guide (PL 20.11.11) to secure it
2. Plug the connector (CN 43) of the Harness Motor PL 20.16.13) to the Safety Switch Assembly.
3. Mount the Sensor Assembly.
4. Mount the Front and Rear Top Cover (RRP 6-16).

RRP 6-58 Front Gear Kit (PL 20.11)

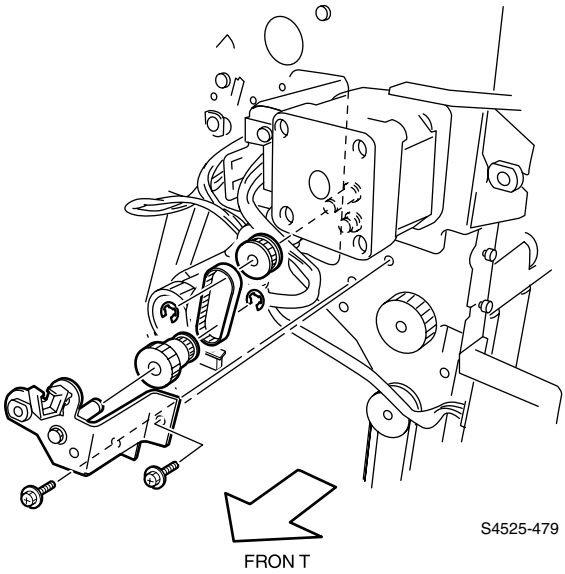


Fig 6-48 Front Gear Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Front (RRP 6-16).
3. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
4. Unclamp the harness of the Clamp (PL 20.11.35).

Note *In the following procedure the bearing is not secure. Use care not to lose the bearing.*

5. Remove two screws that secure to the Finisher from the Bracket (PL 20.11.34), and pull off the Bracket together with the Bearing (PL 20.11.33), Clamp (PL 20.11.35) and Kit Gear Front toward the front.
6. Remove the E-ring that secures the Pully/Gear (PL 20.11.32) to the Bracket (PL 20.11.34), and remove the Pully/Gear.

Replacement

1. Reverse the above procedure.

RRP 6-59 Exit Motor (PL 20.12)

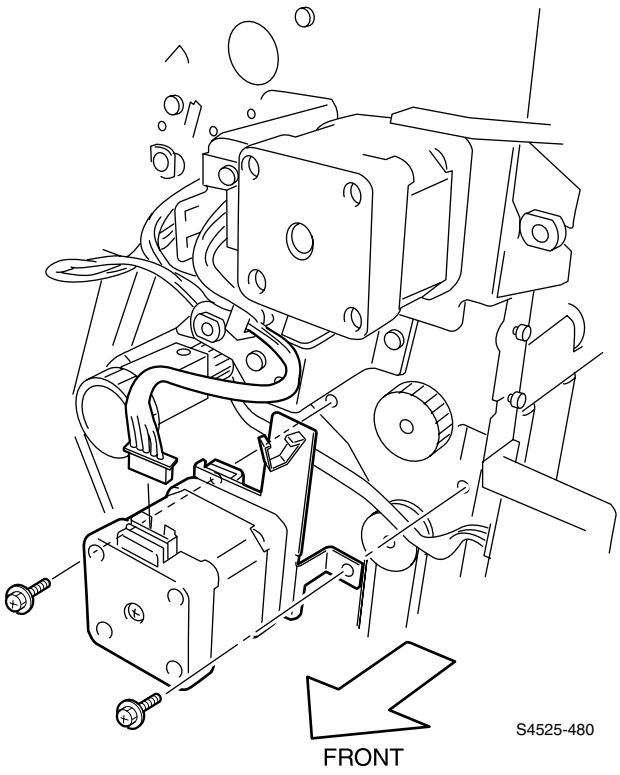


Fig 6-49 Exit Motor

Removal

1. Remove the Top Cover, Front (RRP 6-16).
2. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
3. Unplug the connector (CN 3) of the Harness (PL 20.16.13) from the Motor.
4. Unclamp the Harness from the Harness Clamp.
5. Remove three screws that secure to the Motor to the Finisher, and remove the Motor.

Replacement

1. Align the Motor with the mounting position, and secure it with three screws.
2. Plug the connector (CN 3) of the Harness Motor (PL 20.16.13) to the Motor.
3. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
4. Mount Harness to Harness Clamp.
5. Mount the Top Cover, Front (RRP 6-16).

RRP 6-60 Rear Gear Kit (PL 20.11)

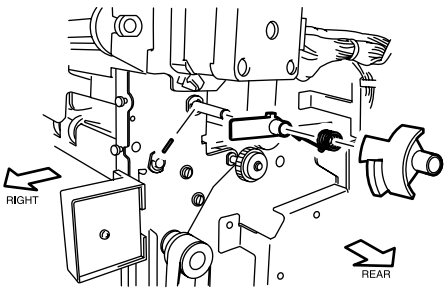


Figure 1

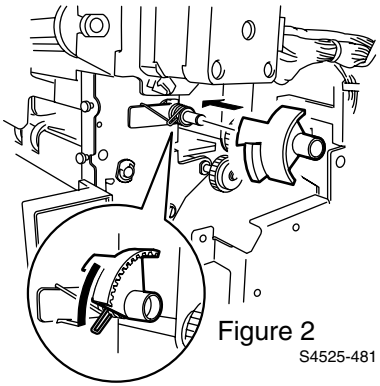


Figure 2

S4525-481

Fig 6-50 Rear Gear Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Front (RRP 6-16).
3. Remove MP-4 Motor Assembly RRP 6-61).

Note *In the following steps, removing the Lever (PL 20.11.26), Spring (PL 20.11.27) and Sector Gear (PL 20.11.28) allows the Pin (PL 20.11.25) inserted into the hole in the Shaft (PL 20.11.12) to be unsecured. Accordingly, take care not to drop or lose it.*

4. Removing the lower screw securing the Motor MP-2 Bracket, loosen the Top screw and move MP-2 Bracket for clearance needed for step 5.
5. Remove the E-ring that secures the Lever, Spring and Sector Gear to the Shaft, and pull off the Lever, Spring and Sector Gear.
6. Remove the Pin from the Shaft.

Replacement

1. Insert the Pin (PL 20.11.25) into the hole in the Shaft (PL 20.11.12), and then the Lever (PL 20.11.26) into the Shaft.
2. Engage the shorter hook of the spring with the lower side of the Sector Gear (PL 20.11.28)
3. Insert the Sector Gear, with spring, onto the Compiler Shaft as shown in Figure 2.
4. Under this condition, turn the Sector Gear counterclockwise to hook it to the lower side of the Lever . (Figure 2)
5. Secure the Lever, Spring and Sector Gear to the Shaft with an E-ring.
6. Install Gear, Bearing and MP-2 Bracket with two screws.
7. Install Motor MP-4 Assembly (RRP 6-61).
8. Mount the Top Cover, Front (RRP 6-16).
9. Mount the Jogging Cover (RRP 6-14).

RRP 6-61 Clamp Motor - MP4 (PL 20.11)

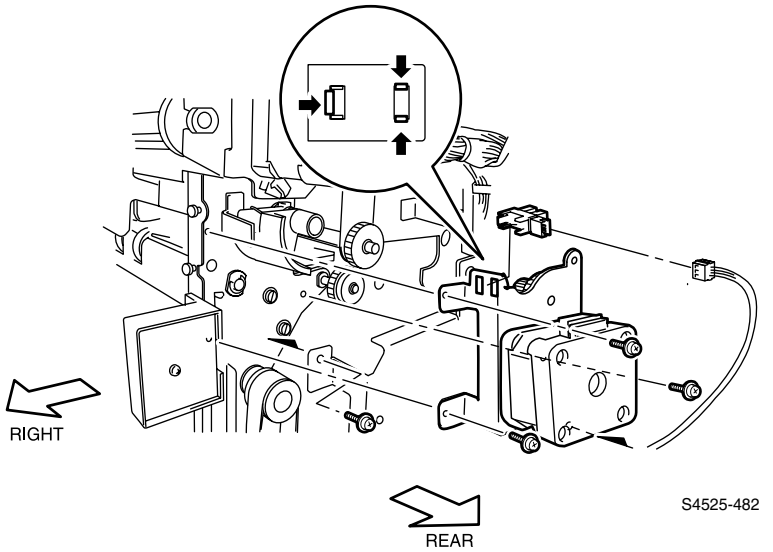


Fig 6-51 Clamp Motor - MP4

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Front (RRP 6-16).
3. Unplug the connector (CN 4) of the Harness Motor (PL 20.16.13) from the Clamp Motor - MP4.
4. Remove five screws that secure the Motor Assembly-MP4 to the Finisher, and remove the Motor Assembly-MP4 with the Sensor : Exit Roller Open/Close Home Position (PL 20.11.7).
5. Unhook the Sensor : Exit Roller Open/Close Home Position at three places, and remove the Sensor : Exit Roller Open/Close Home Position from the Motor Assembly-MP4.

Replacement

1. Align the Sensor : Exit Roller Open/Close Home Position (PL 20.11.7) with the mounting positions in the Motor Assembly-MP4, and secure it .
2. Align the Clamp Motor - MP4 with the mounting position in the Finisher, and secure it with five screws.
3. Plug the connector (CN 4) of the Harness Motor (PL 20.16.13) to the Clamp Motor - MP4.
4. Mount the Top Cover, Front (RRP 6-16).
5. Mount the Jogging Cover (RRP 6-14).

RRP 6-62 Staple Stage, Stack Roller & Stapler No Paper Sensor (PL 20.12)

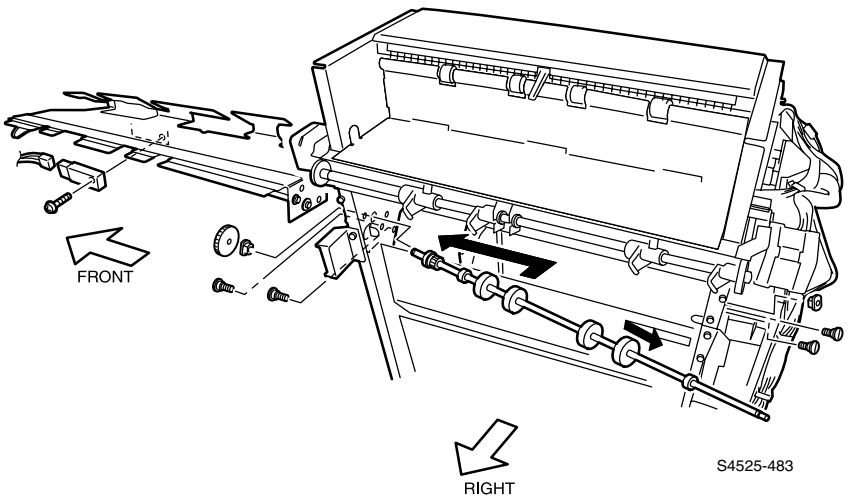


Fig 6-52 Staple Stage Assembly, Stack Roller Shaft and Stapler No Paper Sensor

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Front Door and Stud Cover Kit (RRP 6-17).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Motor (RRP 6-59).
6. Remove the Motor Assembly-MP2 (RRP 6-53).
7. Remove the Punch Dust Bottle.
8. Remove the Stapler Assembly (RRP 6-64).
9. Remove the Right Cover (RRP 6-81).
10. Remove the E-ring that secure the Bearing (PL 20.12.5) and Gear (PL 20.12.6) to the front side of the Stack Roller Shaft, and remove the Bearing and Gear.
11. Remove the E-ring that secures the Bearing to the rear side of the Stack Roller Shaft, and remove the Bearing.
12. Remove two Shoulder Screw (PL 20.12.14) on the front side that secure the Staple Stage Assembly (PL 20.12.8), together with Spacer (PL 20.12.15), to the Finisher, and remove two Spacer.

Note *In the following steps, do not detach the Bracket (PL 20.9.5) far away because the connector (P/J 13) of the No Paper Sensor Stapler is still connected.*

13. Remove two Shoulder Screw on the rear side that secure the Staple Stage Assembly to the Finisher.
14. Release the belt of the Staple Stage Assembly from the gear of the Stack Roller Shaft, and remove the Stack Roller Shaft from the Finisher
15. Disconnect the connector (P/J 13) connector of the No Paper Sensor Stapler attached to the Staple Stage Assembly .
16. Remove the Staple Stage Assembly together with the No Paper Sensor Stapler from the cavity on the front side of the Finisher.
17. Remove the screw that secures to the Staple Stage Assembly from the No Paper Sensor Stapler, and remove the No Paper Sensor Stapler.

Replacement

1. Align the No Paper Sensor Stapler with the mounting position in the Staple Stage Assembly PL 20.12.8), and secure it with a screw.
2. Insert the Staple Stage Assembly together with the No Paper Sensor Stapler into the cavity on the front side of the Finisher, insert the gear of the Stack Roller Shaft from the right side so that it meshes with the belt of the Staple Stage Assembly, and insert the front side of the Stack Roller Shaft into the mounting hole on the front side of the Finisher.
3. Connect the connector (P/J 13) of the No Paper Sensor Stapler.
4. Insert the rear side of the Stack Roller Shaft into the mounting hole on the rear side of the Finisher.
5. Insert the Bearing (PL 20.12.5) into the front and rear sides of the Stack Roller Shaft, and align it with the mounting position.
6. Insert the Gear (PL 20.12.6) into the front side of the Stack Roller Shaft, and secure the front and rear sides of the Stack Roller Shaft (PL 20.12.9) with an E-ring.
7. Check that the gear of the Stack Roller Shaft meshes with the belt of the Staple Stage Assembly (PL 20.12.8), and secure the front side of the Staple Stage Assembly, together with two Spacer (PL 20.12.15), with two Shoulder Screw (PL 20.12.14).
8. Secure the rear side of the Staple Stage Assembly with two Shoulder Screw.
9. Mount the Right Cover (RRP 6-81).
10. Mount the Stapler Assembly (RRP 6-64).
11. Mount the Dust Collection Bottle.
12. Mount the Motor Assembly-MP2 (RRP 6-53).
13. Mount the Motor (RRP 6-59).
14. Mount the Rear Cover (RRP 6-21).
15. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
16. Mount the Front and Rear Top Cover (RRP 6-16).
17. Mount the Jogging Cover (RRP 6-14).

RRP 6-63 Stack Arm Assy and Stacker No Paper Sensor Lower (PL 20.12)

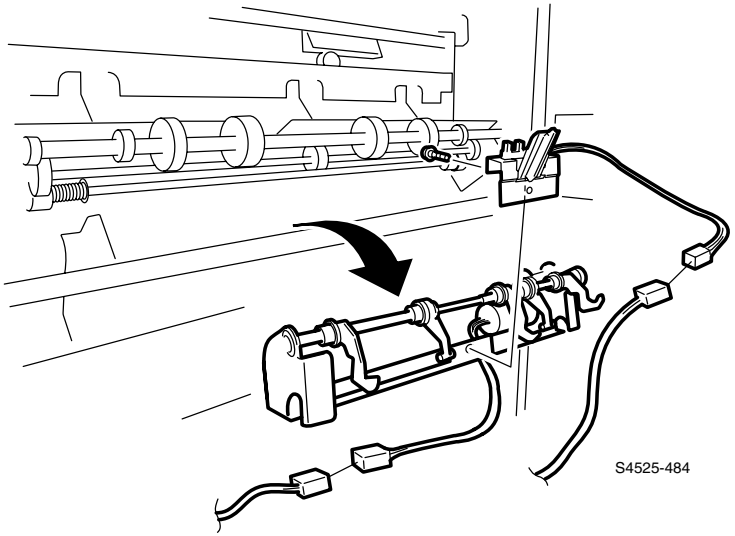


Fig 6-53 Stack Arm Assembly and Stacker No Paper Sensor Lower

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Stacker Bin.
3. Remove the Front and Rear Top Cover (RRP 6-16).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
6. Remove the Right Cover (RRP 6-81).
7. Unplug the connector (CN 41) of the Motor Harness (PL 20.16.13) from the Stack Arm Assembly.
8. Unplug the connector (P/J 14) of the (PL) from the Tray No Paper Sensor and Unplug the connector (P/J 13) from the Stapler No Paper Sensor.
9. Remove the Stack Arm Assembly and Tray No Paper Sensor from the Finisher.
10. Remove the screw that secures the Stack Arm Assembly to theTray No Paper Sensor , and Remove the Tray No Paper Sensor.

Replacement

1. Secure the Tray No Paper Sensor Lower to the Stack Arm Assembly with screw.
2. Align the Stack Arm Assembly and Tray No Paper Sensor with the mounting position in the Finisher.
3. Plug the connector (P/J 13) to the Stapler No Paper Sensor.
4. Plug the connector (P/J 14) of the (PL) to the Tray No Paper Sensor.
5. Plug the connector (CN 41) of the Motor Harness (PL 20.16.13) to the Stack Arm Assembly.
6. Reverse steps 1 - 6 above to complete replacement.

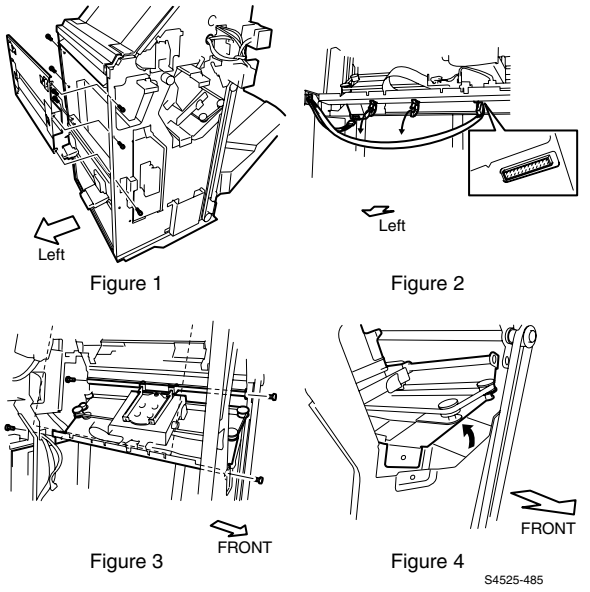


Figure 1 Figure 2

Figure 3 Figure 4

Fig 6-54 Stapler Assembly

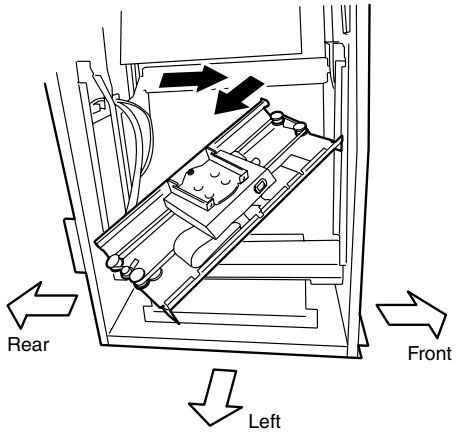


Figure 5

Fig 6-55 Stapler Assembly (Cont'd)

Removal

1. Remove the Laser Print (EP) Cartridge.
2. Remove the Punch Dust Collection Bottle.
3. Remove the Jogging Cover (RRP 6-14).
4. Remove the Front and Rear Top Cover (RRP 6-16).
5. Remove the Rear Cover (RRP 6-21).
6. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
7. Remove the Stapler Assembly (RRP 6-65)
8. Remove the Inner Cover (RRP 6-45).
9. Remove the Latch Assembly and Switch Docking (RRP 6-19).
10. Unplug the connector (CN 8) of the Harness Motor (PL 20.16.13) from the Motor Assembly-MP8 (PL 20.13.5). (Figure 1)
11. Unplug the connector (P/J 1D) of the Harness Middle Stapler (PL 20.16.3) from the Cable-Flat (PL 20.13.9). (Figure 1)
12. Unclamp the harness at two places on the rear side of the larger frame of the stapler. (Figure 1)
13. Remove two screws on the lower side of the Stapler Assembly, which secure to the Finisher frame, from the Stapler Assembly. (Figure 2)

Note *In the following steps, the Stapler Assembly are not secured. Support them from the lower side with your hand so that they do not drop.*

14. Remove two Screw (PL 20.5.7) that secure to the Finisher from the Stapler Assembly. (Figure 2)
15. Lift up the front side of the Stapler Assembly a little, and shift them a little toward the front.
16. Remove the Stapler Base Assembly out to the front of the Finisher. (Figure 3)
17. Moving the rear side of the Stapler Assembly to the left side of the Finisher, remove the Stapler Assembly.

Replacement

1. Insert the Stapler Assembly with the front side facing the Finisher into the Finisher. (Figure 3)
2. Align the rear side of the Stapler Assembly with the mounting position on the rear side of the Finisher.
3. Align the front side of the Stapler Assembly with the mounting position on the front side of the Finisher. (Figure 4)
4. Secure the Stapler Assembly to the Finisher frame with two screws. (Figure 3)
5. Plug the connector (P/J 1D) of the Middle Stapler Harness(PL 20.16.3) to the Flat Cable (PL 20.13.9). (Figure 2)
6. Plug the connector (CN 8) of the Harness Motor (PL 20.16.13) to the Motor Assembly-MP8 (PL 20.13.5). (Figure 2)
7. Mount the Inner Cover (RRP 6-45).
8. Mount the Stapler Assembly (RRP 6-65)
9. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
10. Mount the Rear Cover (RRP 6-21).
11. Mount the Front and Rear Top Cover (RRP 6-16).
12. Mount the Jogging Cover (RRP 6-14).
13. Mount the Punch Dust Bottle.
14. Mount the Laser Print (EP) Cartridge.

RRP 6-65 Stapler Head Assembly (PL 20.13)

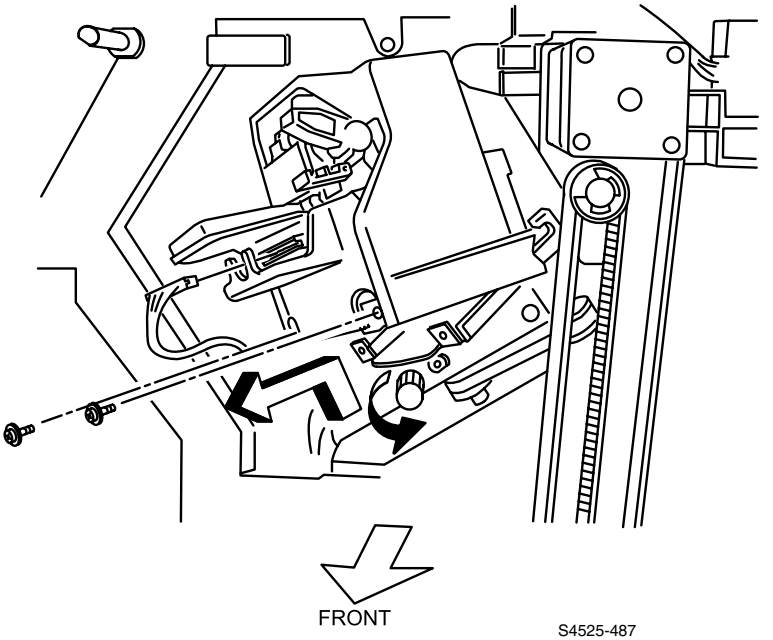


Fig 6-56 Stapler Head Assembly

Removal

1. Open the Cover-Open, Front (PL 20.4.5).
2. Unplug the connector (CN 10) of the Stapler Harness Assembly (PL 20.13.15) from the Stapler Assembly.
3. Turn the knob of the stapler counterclockwise to face the stapler toward the front.
4. Remove two screws that secure to the Stapler Assembly from the Stapler Holder (PL 20.13.29).
5. Lifting up the front side of the Stapler Assembly, pull it off.

Replacement

1. Holding the shaft on the front side of the Stapler Assembly to the hook of the Stapler Holder (PL 20.13.29), align the hole on the front side of the Stapler Assembly with the screw hole in the Stapler Holder.
2. Secure the Stapler Holder to the Stapler Assembly with two screws.
3. Plug the connector (CN 10) of the Stapler Harness Assembly (PL 20.13.15) to the Stapler Assembly.
4. Close the Cover-Open, Front (PL 20.4.5).

RRP 6-68 Traverse Motor Assembly (PL 20.13)

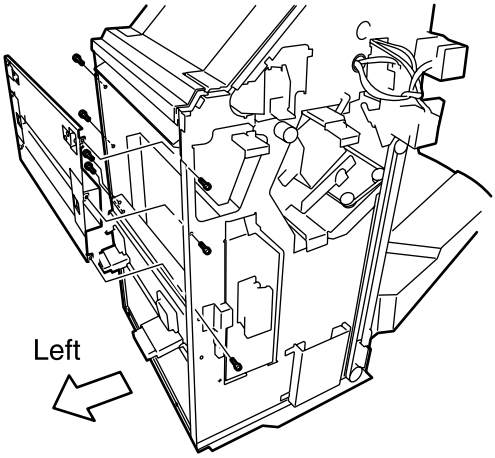


Figure 1

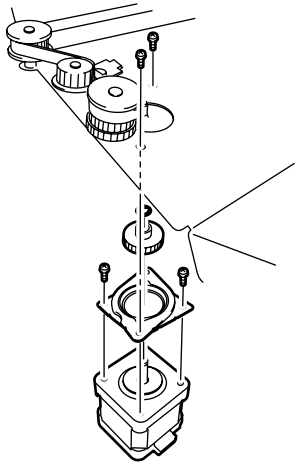


Figure 2

S4525-490

Fig 6-57 Traverse Motor Assembly

Removal

1. Remove the Stapler Base Assembly (RRP 6-64).
2. Remove two screws that secure the Damper (PL 20.13.3) to the large frame of the stapler, and remove the Damper together with the Gear (PL 20.13.4) and Motor Assembly-MP8 (PL 20.13.5).

Replacement

1. Align the Damper, together with the Gear and Motor Assembly-MP8, with the large frame of the stapler, and secure them with two screws.
2. Mount the Stapler Base Assembly (RRP 6-64).

RRP 6-69 Swing Motor Assembly (PL 20.13)

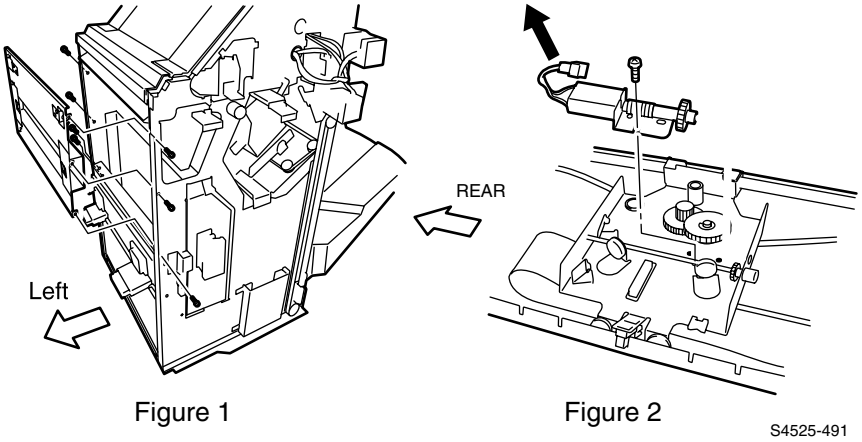


Fig 6-58 Motor Assembly-Swing

Removal

1. Remove the Stapler Base Assembly (RRP 6-64).
2. Remove two screws and remove the Stapler Bottom Cover (PL 20.13.24).
3. Unplug the connector (CN 9) of the Stapler Harness Assembly (PL 20.13.15) from theAssembly Swing Motor.
4. Remove the screw that secures the Assembly Swing Motor and remove the Assembly Swing Motor.

Replacement

1. Mount the Assembly Swing Motor.
2. Plug the connector (CN 9) of the Stapler Harness Assembly (PL 20.13.15) to the Motor Assembly-Swing.
3. Mount the Stapler Bottom Cover.
4. Mount the Stapler Base Assembly (RRP 6-64).

RRP 6-70 Stapler Swing Assembly Sensor (PL 20.13)

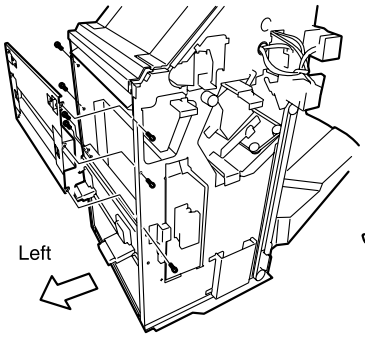


Figure 1

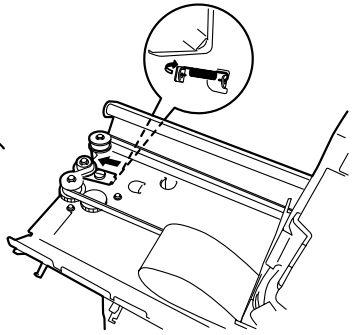


Figure 2

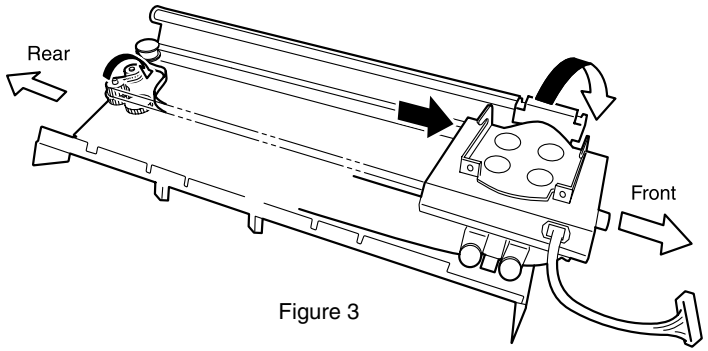


Figure 3

S4525-492

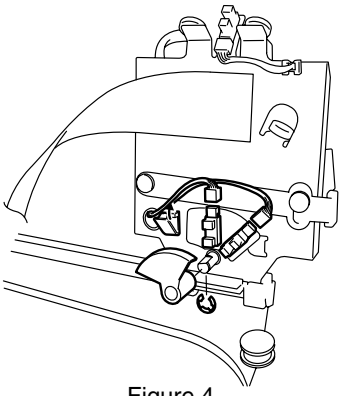


Figure 4

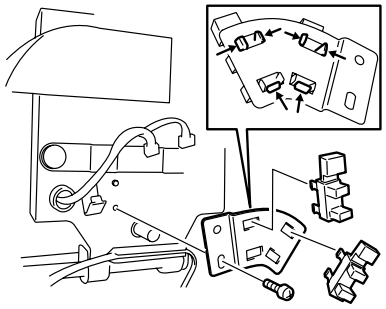


Figure 5

S4525-493

Fig 6-59 Sensor Swing Assembly

Removal

1. Remove the Stapler Base Assembly (RRP 6-64).
2. Remove the Punch Dust Collection.
3. Remove the Jogging Cover (RRP 6-14).
4. Remove the Front and Rear Top Cover (RRP 6-16).
5. Remove the Rear Cover (RRP 6-21).
6. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
7. Remove the Stapler Assembly (RRP 6-65)
8. Remove the Inner Cover (RRP 6-45).
9. Remove six screws that secure the Cover Upper Left Assembly (PL 20.4.16) to the Finisher frame, and remove the Cover Upper Left Assembly (Figure 1).
10. Remove the Latch Assembly and Switch Docking (RRP 6-19).
11. Remove the E-ring that secures the Sector Gear (PL 20.13.30) to the shaft of the stapler, and pull off the Sector Gear (Figure 3).
12. Remove the screw that secures the Sensor Assembly-Swing, and remove the Sensor Assembly-Swing (Figure 4).
13. Unhook Tension Spring (PL 20.13.23) on back of Stapler Base. (Figure 1)
14. Loosen the screw to remove the Belt Tension (Figure 2).
15. Rotate Stapler Bottom upwards.

Replacement

1. Mount the screw that secures the Assembly-Swing Sensor, and mount the Assembly-Swing Sensor (Figure 4).
2. Insert the Sector Gear (PL 20.13.30) into the shaft of the stapler, and secure it with an E-ring. (Figure 3)
3. Install Belt onto the tension Pulley and secure with screw (Figure 2).
4. Install spring on bottom of Stapler Assembly (Figure 1).
5. Mount the Stapler Assembly (RRP 6-64).
6. Reverse steps 1 - 8 above to complete.

RRP 6-73 Stapler Home Position Sensor (PL 20.13)

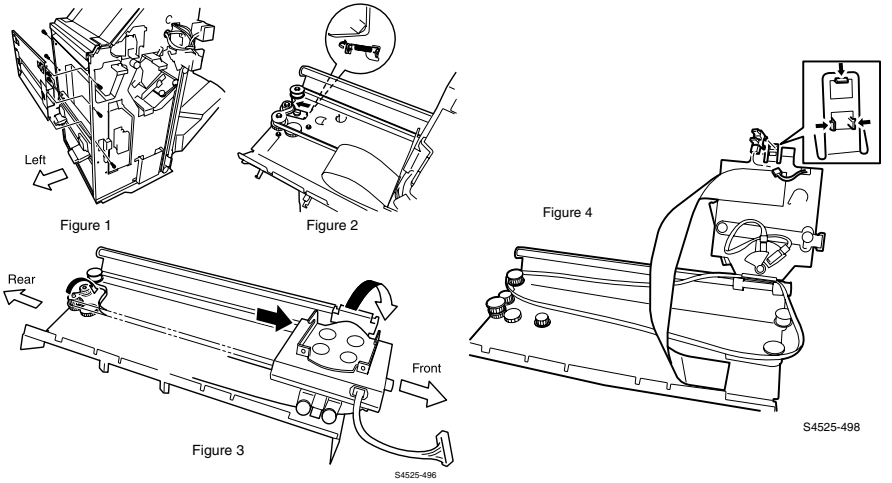


Fig 6-60 Stapler Home Postion Sensor

Removal

1. Remove the Stapler Assembly (RRP 6-65)
2. Move the Stapler Bottom toward front of unit and slide the small plate toward the front.
3. Lift the Stapler Bottom up toward the left of Finisher and unhook the Sensor (PL 20.13.16) in three places.
4. Disconnect (P/J 10).
5. Disengage the Belt (PL 20.13.8) from the gear to which a driving force is transmitted directly from the Motor Assembly-MP8 (PL 20.13.5) on the large frame of the stapler.
6. Turn down the Stapler Assembly together with the small frame of the stapler toward the right. (Figure 3)
7. Unplug the connector (P/J 10) of the Stapler Harness Assembly (PL 20.13.15) from the Snesor (PL 20.13.16).
8. Unhook the Snesor at three places, and remove it.(Figure 4)

Replacement

1. Reverse the above procedure.

RRP 6-74 Elevator Bearing Kit (PL 20.14)

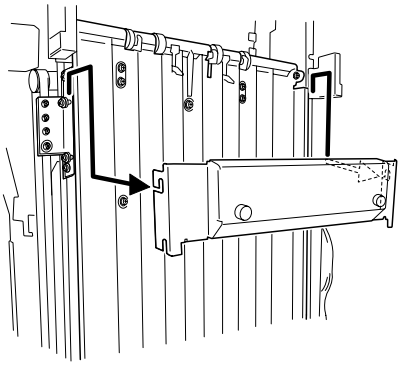


Figure 1

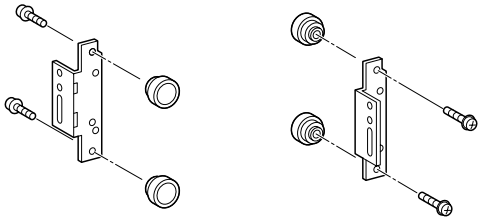


Figure 2

S4525-499

Fig 6-61 Elevator Bearing Kit

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the Stacker Bin.
6. On the Front side of the Finisher, loosen the two screws that secures the Bracket Tray (PL 20.14.30).
7. On the Rear side of the Finisher, Loosen the two screws that secures the Bracket Tray (PL 20.14.30), and Remove the Bracket Tray.
8. Remove the Holder Assembly (PL 20.14.98).
9. Remove the screw that secures the Bearing Assembly to the Bracket Front (PL 20.14.3), and remove the Bearing Assembly. (Figure 2)
10. Repeat the above steps until you have removed all the Bearing Assemblies.

Replacement

1. Reverse the Removal procedure above.

RRP 6-75 Elevator Belt Holder Assembly (PL 20.14)

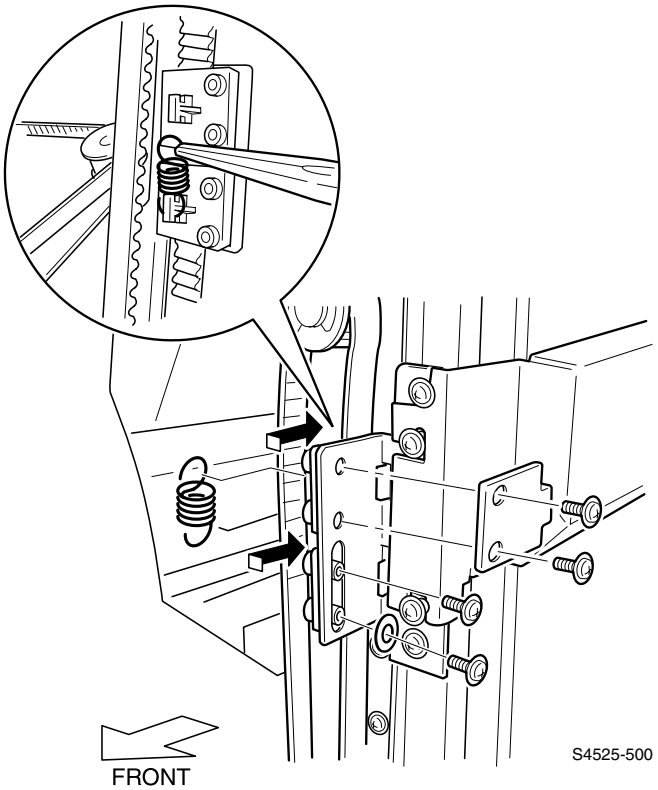


Fig 6-62 Elevator Belt Holder Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).

Note *In the following steps, the procedure on the front side is the same as on the rear side, and therefore the procedure on the front side only is described. Apply the same procedure to the rear side, too.*

5. Remove two screws that secure the lower Holder (PL 20.14.5) to the Bracket Front (PL 20.14.3).
6. Disengage the Spring (PL 20.14.6) from the upper and lower Holder and remove the Spring.
7. Remove two screws that secure the upper Holder to the Bracket.
8. Disengage the screw hole in the upper Holder from the hole in the Bracket Front, and push the upper Holder inside to remove it.
9. Disengage the screw hole in the lower Holder from the hole in the Bracket Front, and push the lower Holder inside to remove it.
10. Release the Belt (PL 20.14.4) from the upper and lower Pulley (PL 20.14.12), and remove it.

Replacement

Note *In the following steps, the procedure on the front side is the same as on the rear side, and therefore the procedure on the front side only is described. Apply the same procedure to the rear side, too.*

1. Engage the Belt (PL 20.14.4) with the upper and lower Pulley (PL 20.14.12).
2. Engage the Belt with the lower Holder (PL 20.14.5), and align the lower Holder, together with the Belt, with the mounting position.
3. Engage the Belt with the upper Holder so as not to slacken the Pulley, and align the upper Holder, together with the Belt, with the mounting position.
4. Secure the upper Holder to the Bracket Front (PL 20.14.3) with two screws.
5. Engage the Spring (PL 20.14.6) with the upper and lower Holder.
6. Secure the lower Holder to the Bracket Front with two screws.
7. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
8. Mount the Rear Cover (RRP 6-21).
9. Mount the Front and Rear Top Cover (RRP 6-16).
10. Mount the Jogging Cover (RRP 6-14).

RRP 6-77 Stacker Bin Height Sensors, Front and Rear (PL 20.14)

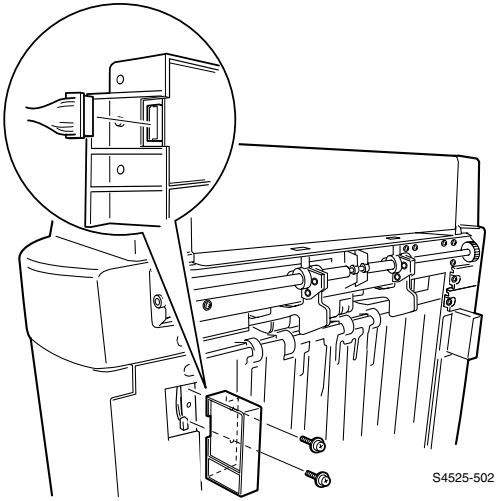


Fig 6-63 Stacker Bin Height Sensors, Front and Rear

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove two screws that secure to the Finisher from the Sensor Tray Height Front (PL 20.14.7), and pull off the Sensor Tray Height Front a little.
3. Unplug the connector (P/J 1C-L) of the Harness Sensor (PL 20.16.4) from the Sensor Tray Height Front.
4. For the rear side, perform the above step in the same manner.

Replacement

1. Plug the connector (P/J 1C-L) of the Harness Sensor (PL 20.16.4) to the Sensor Tray Height Front (PL 20.14.7).
2. Align the Sensor Tray Height Front with the mounting position in the Finisher, and secure it with two screws.
3. For the rear side, perform the above step in the same manner.
4. Mount the Jogging Cover (RRP 6-14).

RRP 6-78 Upper Elevator Shaft Assembly (PL 20.14)

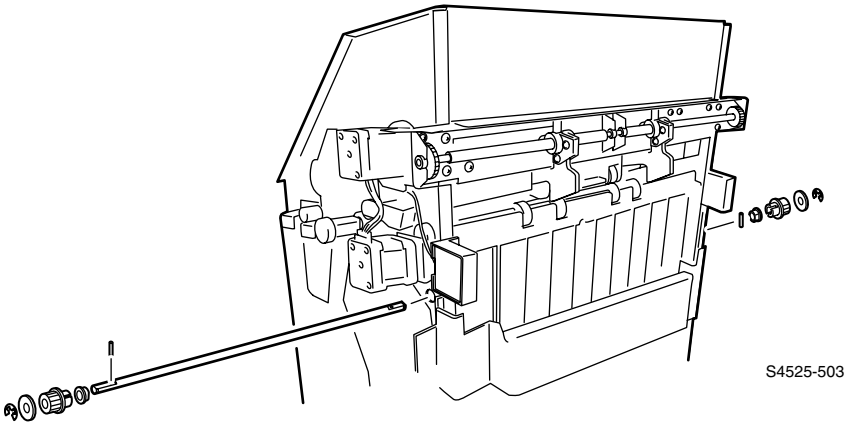


Fig 6-64 Upper Elevator Shaft Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the Holder Assembly (RRP 6-75).

Note *In the following steps, removing the Pulley (PL 20.14.12) allows the Pin (PL 20.14.11) to be unsecured and easily removed from the Shaft ELEV, U (PL 20.14.9). Accordingly, take care not to drop or lose it.*

6. Remove the E-ring that secures the Bearing (PL 20.14.10) and Pulley on the front side to the Shaft ELEV, U, and pull off the Pulley, and then pull the Pin off the hole on the front side of the Shaft ELEV, U.
7. Remove the E-ring that secures the Bearing and Pulley on the rear side to the Shaft ELEV, U, and pull off the Pulley, and then pull the Pin off the hole on the rear side of the Shaft ELEV, U.
8. Remove the front and rear Bearing that secure the Shaft ELEV, U to the Finisher.
9. Pull the Shaft ELEV, U off the Finisher.

Replacement

1. Insert the Shaft ELEV, U (PL 20.14.9) into the Finisher.
2. Mount the Bearing (PL 20.14.10) on the front and rear sides of the Shaft ELEV, U.
3. Insert the Pin (PL 20.14.11) into the hole on the rear side of the Shaft ELEV, U and the Pulley (PL 20.14.12) into the rear side of the Shaft ELEV, U, and secure them with an E-ring.
4. Insert the Pin into the hole on the front side of the Shaft ELEV, U and the Pulley into the front side of the Shaft ELEV, U, and secure them with an E-ring.
5. Mount the Holder Assembly (RRP 6-75).
6. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
7. Mount the Rear Cover (RRP 6-21).
8. Mount the Front and Rear Top Cover (RRP 6-16).
9. Mount the Jogging Cover (RRP 6-14).

RRP 6-79 Lower Elevator Shaft Assembly (PL 20.14)

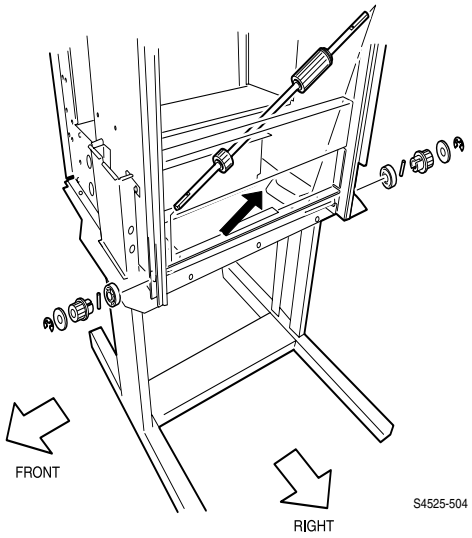


Fig 6-65 Lower Elevator Shaft Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Front and Rear Top Cover (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
5. Remove the Right Cover (RRP 6-81).
6. Remove the Drive Assembly-ELEV and Motor Assembly-MD11 (RRP 6-80).
7. Remove the Encoder Assembly (RRP 6-82).
8. Remove the Holder Assembly (RRP 6-75).

Note In the following steps, removing the Pulley (PL 20.14.12) allows the Pin (PL 20.14.11) to be unsecured and easily removed from the Shaft ELEV,L (PL 20.14.13). Accordingly, take care not to drop or lose it.

9. Remove the E-ring that secures the Gear (PL 20.14.15) to the Shaft ELEV,L, slide the Gear toward the front, and remove the Pin.
10. Remove the E-ring that secures the Encoder Drive Pulley (PL 20.14.28) to the Shaft ELEV,L, slide the Gear (PL 20.14.15) toward the rear, and remove the Encoder Drive Pulley.
11. Remove the E-ring that secures the Bearing (PL 20.14.26) and Pulley on the front side to the Shaft ELEV,L, and pull off the Pulley, and then pull the Pin off the hole on the front side of the Shaft ELEV,L.
12. Remove the E-ring that secures the Bearing and Pulley on the rear side to the Shaft ELEV,L, and pull off the Pulley, and then pull the Pin off the hole on the rear side of the Shaft ELEV,L.
13. Remove the front and rear Bearing that secure the Shaft ELEV,L to the Finisher, and pull off the Shaft ELEV,L.

Replacement

1. Insert the Shaft ELEV,L (PL 20.14.13) a little into the hole on the front side of the Finisher, then at the inside of the Finisher, insert the Gear (PL20.14.15) and Encoder Drive Pulley (PL 20.14.28) up to the hole on the rear side of the Finisher.
2. Insert the Bearing (PL 20.14.26) into the front side of the Shaft ELEV,L.
3. Insert the Pin (PL 20.14.11) into the hole on the front side of Shaft ELEV,L, and then insert the Pulley (PL 20.14.12) into the Shaft ELEV,L so that the slit of the Pulley comes in position.
4. Secure the front side of the Shaft ELEV,L with an E-ring.
5. For the rear side, perform the above steps (STEPS 2-4) in the same manner.
6. At the inside of the Finisher, insert the Pin into the hole on the front side, and then slide the Gear up to its mounting position so that the slit of the Gear comes in position.
7. Secure the front side of the Gear with an E-ring.
8. At the inside of the Finisher, insert the Pin into the hole on the rear side, and then slide the Encoder Drive Pulley up to its mounting position so that the slit of the Encoder Drive Pulley comes in position.
9. Secure the front side of the Encoder Drive Pulley with an E-ring.
10. Mount the Holder Assembly (RRP 6-75).
11. Mount the Encoder Assembly (RRP 6-82).
12. Mount the Drive Assembly-ELEV and Motor Assembly-MD11 (RRP 6-80).
13. Mount the Right Cover (RRP 6-81).
14. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
15. Mount the Rear Cover (RRP 6-21).
16. Mount the Front and Rear Top Cover (RRP 6-16).
17. Mount the Jogging Cover (RRP 6-14).

RRP 6-80 Elevator Drive Assembly and Motor Assembly-MD11 (PL 20.14)

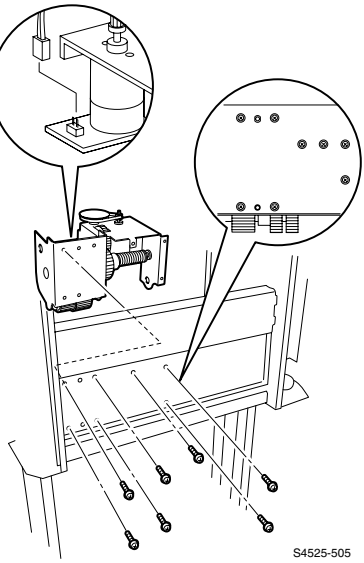


Fig 6-66 Elevator Drive Assembly and Motor Assembly-MD11

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Stacker Bin.
3. Remove the Front and Rear Top Cover (RRP 6-16).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
6. Remove the Right Cover (RRP 6-81).
7. Remove the Latch Assembly and Switch Docking (RRP 6-19).
8. Remove the Inner Cover (RRP 6-45).
9. Unplug the connector (CN 11) of the Harness DC (PL 20.16.12) from the Motor Assembly-MD11.
10. Remove ten screws that secure the Drive Assembly-ELEV, and remove the Drive Assembly-ELEV .
11. Remove two screws that secure the Drive Assembly-ELEV, and remove the Motor Assembly-MD11.

Replacement

1. Reverse the removal procedure above.

RRP 6-81 Finisher Right Cover (PL 20.14)

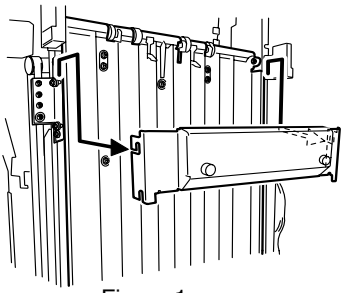


Figure 1

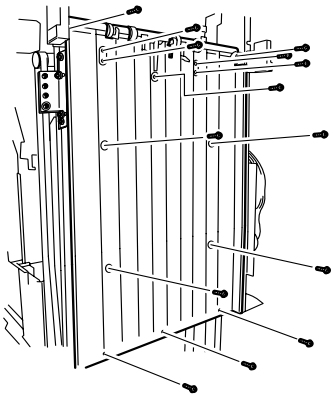


Figure 2 S4525-506

Fig 6-67 Finisher Right Cover

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Stacker Bin.
3. Remove the Front and Rear Top Cover (RRP 6-16).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
6. On the Front side of the Finisher, Loosen the two screws that secures the Bracket Tray Lower (PL 20.14.30).
7. On the Rear side of the Finisher, Loosen the two screws that secures the Bracket Tray Lower (PL 20.14.30), and Remove the Bracket Tray Lower.
8. Remove seven screws that secure the lower Right Cover to the Bracket (PL 20.14.3).
9. Remove two screws that secure the Finisher from the Right Cover.
10. Remove four screws that secure the Stack Arm Assembly (PL 20.12.16) from the Right Cover.
11. Remove the screw that secure the No Paper Sensor (PL 20.13.25) from the Right Cover.
12. Remove the Right Cover from the Finisher.

Replacement

1. Align the Right Cover with the mounting position on the Finisher.
2. Secure the Right Cover to the No Paper Sensor with a screw.
3. Secure the Right Cover to the Stack Arm Assembly with four screws.
4. Secure the Right Cover to the Finisher with two screws.
5. Secure the Right Cover to the Finisher with seven screws.
6. Align the Bracket Tray Lower, with the mounting position, and secure it with four screws.
7. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
8. Mount the Rear Cover (RRP 6-21).
9. Mount the Front and Rear Top Cover (RRP 6-16).
10. Mount the Stacker Bin.
11. Mount the Jogging Cover (RRP 6-14).

RRP 6-82 Encoder Assembly (PL 20.14)

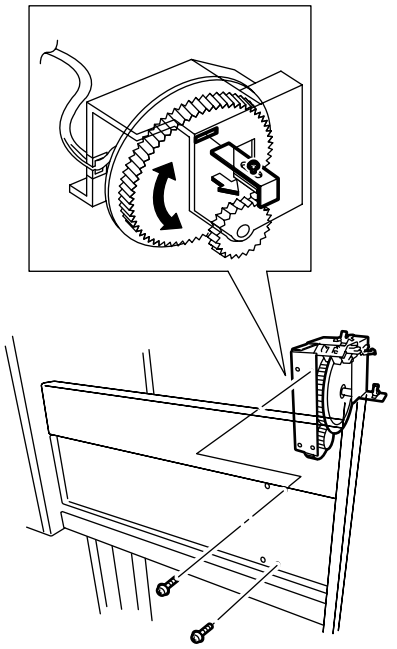


Figure 1

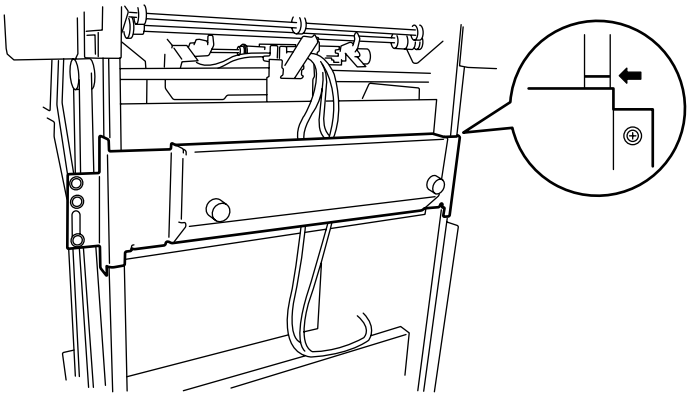


Figure 2

S4525-507

Fig 6-68 Encoder Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Stacker Bin.
3. Remove the Front and Rear Top Cover (RRP 6-16).
4. Remove the Rear Cover (RRP 6-21).
5. Remove the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
6. Remove the Kit Bearing (RRP 6-74).
7. Remove the Right Cover (RRP 6-81).
8. Remove the Punch Dust Bottle.
9. Remove the Inner Cover (RRP 6-45).
10. Remove the Right Cover (RRP 6-81).
11. Remove the Elevator Drive and Motor (MD11) Assemblies (RRP 6-80).
12. Unplug the connector (CN39) from the Encoder Assembly.
13. Remove two screws securing the Encoder Assembly, and remove it.

Replacement

1. Loosen the screw that secures the bracket jig of the Encoder Assembly, align the rectangular hole in large gear with the bracket position, insert the bracket into the rectangular hole, and secure the bracket with the screw.

Note In the following steps, two simultaneous operations may need two persons.

2. With the Top Tray Bracket (PL 20.14.3) aligned with the markings on both sides of Finisher (bottom of the upper stay of the Finisher), align the Encoder Assembly with its mounting position in the Finisher, then secure with two screws.
3. Plug the connector (CN39) to the Encoder Assembly.
4. Loosen the screw that secures the bracket jig of the Encoder Assembly, pull the bracket out of the rectangular hole in large gear, and secure the bracket with the screw.
5. Mount the Elevator Drive and Motor (MD11) Assemblies (RRP 6-80).
6. Mount the Right Cover (RRP 6-81).
7. Mount the Kit Bearing (RRP 6-74).
8. Mount the Inner Cover (RRP 6-45).
9. Mount the Punch Dust Bottle.
10. Mount the Right Cover (RRP 6-81).
11. Mount the Front Cover-Open Front Cover and Kit Stud Cover (RRP 6-17).
12. Mount the Rear Cover (RRP 6-21).
13. Mount the Front and Rear Top Cover (RRP 6-16).
14. Mount the Stacker Bin.
15. Mount the Jogging Cover (RRP 6-14).

RRP 6-83 Power Supply (PL 20.15)

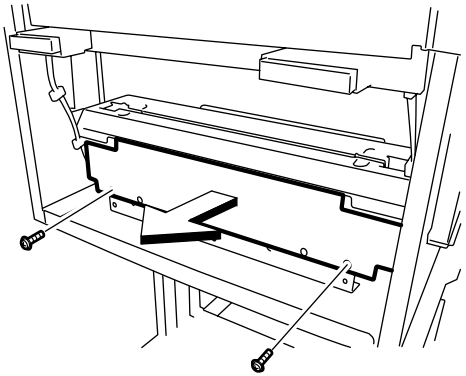


Figure 1

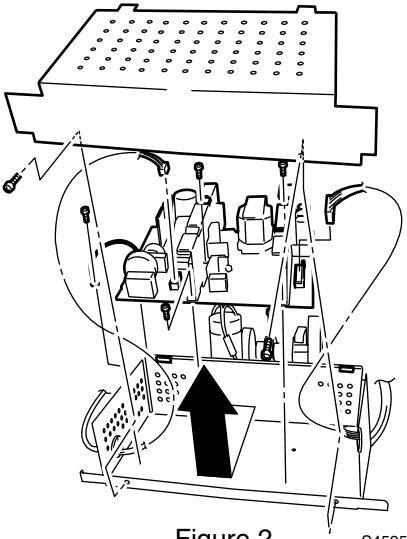


Figure 2 S4525-508

Fig 6-69 Power Supply

Removal

16. Remove two screws that secure to the Finisher from the Cover Lower Left, and remove the Cover Lower Left.
17. Remove two screws that secure the LVPS Cover Upper (PL 20.15.2) to the LVPS Cover Lower.
18. Remove two screws that secure to the LVPS Cover Lower and remove.
19. Remove the screw that secures the grounding wire of the Power Supply to the LVPS Cover Lower (Figure 2).
20. Unplug the connector (P/J CN2) of the Harness Motor (PL 20.15.13) from the Power Supply (Figure 2).
21. Unplug the connector (P/J CN1) of the Harness Motor (PL 20.16.13) from the Power Supply (Figure 2).
22. Remove six screws that secure to the LVPS Cover Lower from the Power Supply, and remove the Power Supply (Figure 2).

Replacement

1. Align the Power Supply (PL 20.15.3) with the mounting position in the LVPS Cover Lower (PL 20.15.2), and secure it with six screws (Figure 2).
2. Secure the grounding wire of the Power Supply to the LVPS Cover Lower with a screw. (Figure 2)
3. Plug the connector (P/J CN1) of the Harness Motor (PL 20.16.13) to the Power Supply. (Figure 2)
4. Plug the connector (P/J CN2) of the Harness Motor (PL 20.16.13) to the Power Supply. (Figure 2)
5. Align the LVPS Cover Lower with mounting position in the Finisher, and with the tabs on the Rear of cover aligned in the slots on the frame, push LVPS Lower Cover with Power Supply toward Rear of Finisher and secure it with two screws.
6. Mount LVPS Upper cover with two screws.
7. Align the Cover Lower Left (PL 20.4.18) with the mounting position in the Finisher, and secure it with two screws.

RRP 6-84 Main Board Assembly (PL 20.15)

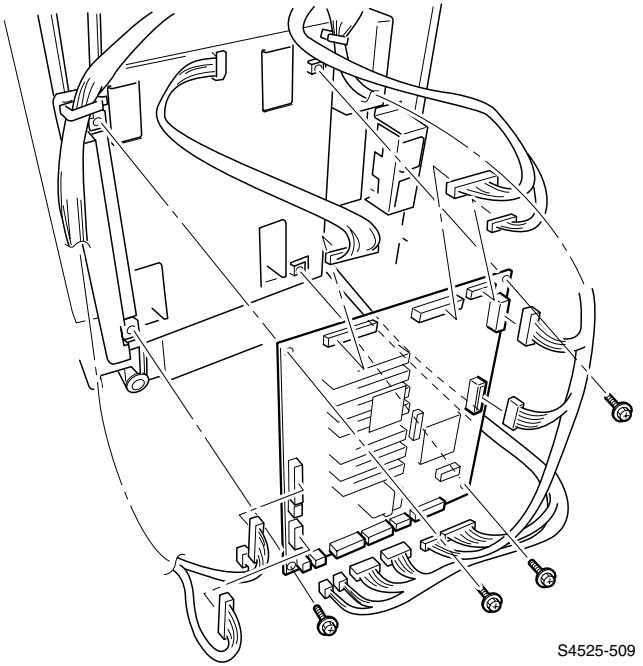


Fig 6-70 Controller Main Board Assembly

Removal

1. Remove the Jogging Cover (RRP 6-14).
2. Remove the Top Cover, Rear (RRP 6-16).
3. Remove the Rear Cover (RRP 6-21).
4. Disconnect 14 connectors from around the perimeter of Main System Board.

Replacement

1. Align the Main Board Assembly and mount on bracket, with the mounting position in the Finisher, and secure them with four screws.
2. Re-attach Transparent Shield.
3. Mount the Rear Cover (RRP 6-21).
4. Mount the Top Cover, Rear (RRP 6-16).
5. Mount the Jogging Cover (RRP 6-14).

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.1.12 means the part is item 12 of parts list 3.1.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following an part name indicates an assembly that is made up of components X through Y. For example, “1 [with 2~4]” means part 1 consists of part 2, part 3, and part 4.
6. An asterisk * following a part name indicates the page contains a note about this part.
7. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.

Miscellaneous Finisher Support Parts

FRU List 6-20.1 Misc. Finisher Support Parts

Description	Part Number
600K86720	Kit, Repackaging
600K86740	Kit, E-Clip
600K86730	Kit, Clamp

PL 20.1 Docking Cover Assembly

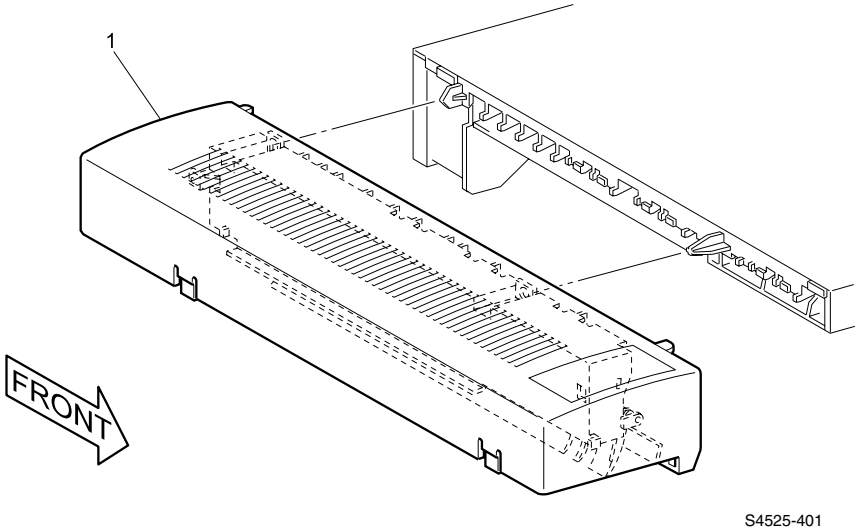


Fig 6-1 Docking Cover Assembly

FRU List 6-20.1 Dock

No.	Part Number	Qty	Description
1	802K18310	1	Cover Assembly, Dock

PL 20.2 Horizontal Transport Frame, Rear

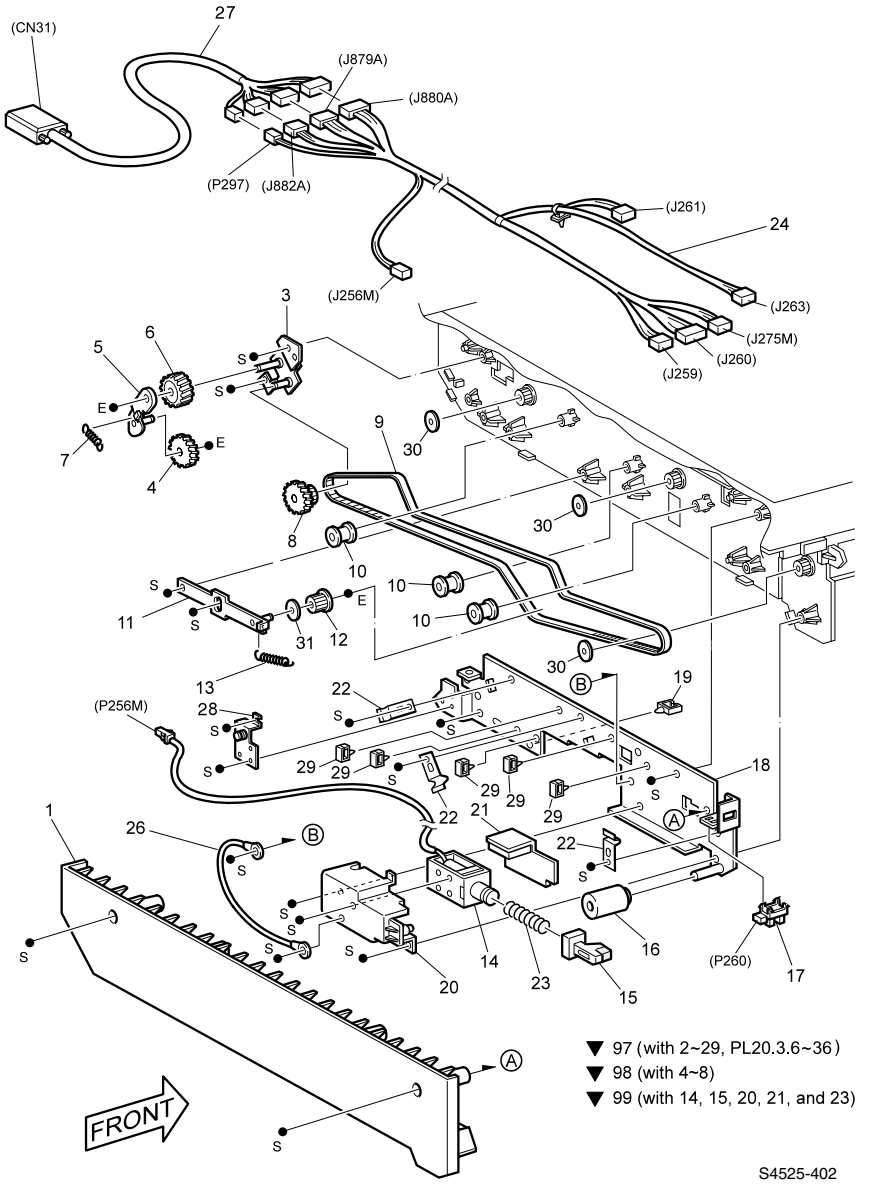


Fig 6-2 Frame Transport, Rear

FRU List 6-20.2 Horizontal Transport Frame, Rear

No.	Part Number	Qty	Description
1		1	Cover, Rear
2			
3		1	Bracket Assembly, Drive
4		1	Gear, Idler
5		1	Support Assembly, Gear Idler HT
6		1	Gear, Idler L
7		1	Spring, Gear
8		1	Gear, Pulley 32/26
9	023E19530	1	Sync-Belt
10		3	Pulley
11		1	Bracket Assembly, Tension
12		1	Pulley 2
13	809E29320	1	Spring, Tension
14		1	Solenoid Assembly
15		1	Link Assembly, Damper
16	059E96100	1	Roller
17	130E84440	1	Sensor
18		1	Bracket Assembly
19			
20		1	Cover Assembly, Solenoid
21		1	Bracket Assembly, Damper
22		3	Spring, Plate
23		1	Spring, Solenoid
24		1	Harness Assembly, Horizontal Transport (P297/J880A/J879A/J882A<>J256M/J259/J260/ J261/J263/J275M]
25			
26		1	Ground Wire
27	162K63580	1	Harness Connection (CN31<>J297/P880A/P879A/P882A)
28		1	Idler Bracket
29		6	Clamp, Saddle
30		3	Flange
31		1	Flange
97	059K19380	1	Transport Assembly , [with 2-29, Pl20.3.6-36]
98	600K86750	1	Kit, Transport Gear [with 4-8]
99	121K24320	1	Solenoid Assembly , In-Gate in [with 14,15,20,21 And 23]

PL 20.3 Horizontal Transport Frame, Open

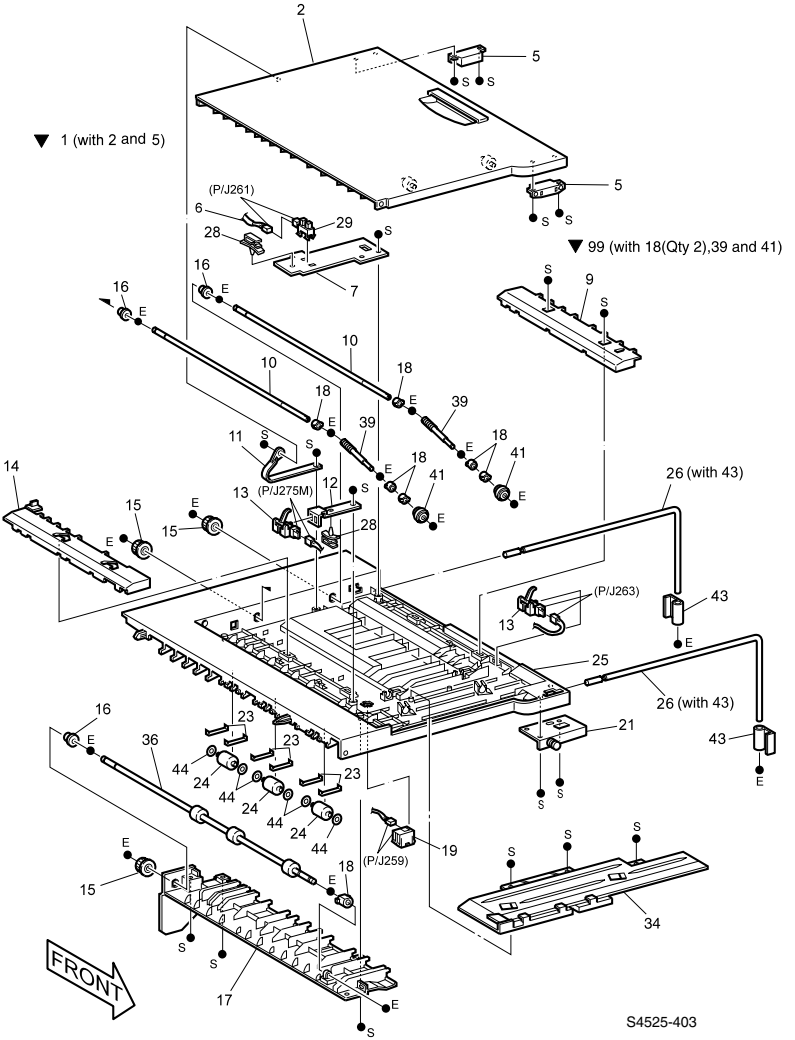


Fig 6-3 Frame Transport, Open

FRU List 6-20.3 Horizontal Transport Frame, Open

No.	Part Number	Qty	Description
1	802E27120		Top Cover, Horizontal Transport Assembly [with 2 & 5]
2			Cover Assembly, Open
3			
4			
5			Magnet 1.5

FRU List 6-20.3 Horizontal Transport Frame, Open

No.	Part Number	Qty	Description
6		1	Harness
7		1	Plate, Photo Sensor
8			
9		1	Cover, Path Sensor
10		2	Roller, Transport
11	830E67790	1	Support, LH Cover
12		1	Bracket, Path Sensor
13	130E84450	2	Sensor
14		1	Sensor, Cover
15		3	Pulley, One-way
16		3	Bearing
17		1	Cover, Chute
18		7	Bearing
19	130E84460	1	Sensor, Face Down Bin Full
20			
21		1	Bracket, Magnet
22			
23		6	Spring, Pinch
24		3	Roller, Pinch
25		1	Frame Assembly
26	006K21740	2	Shaft, Transport [with 43]
27			
28		2	Clamp,
29	130E84440	1	Sensor, Cover Open
30			
31			
32			
33			
34		1	Guide Assembly, Aligner
35			
36		1	Entrance Roller
37			
38			
39		2	Shaft (part of item 99)
40			
41		2	Roller (part of item 99)
42			
43		2	Knob
44		6	Washer
99	059K19360	2	Kit, Aligner Roller [with 18 (qty. . 2), 39 & 41]

PL 20.4 Docking Parts, Front Cover, Top Tray

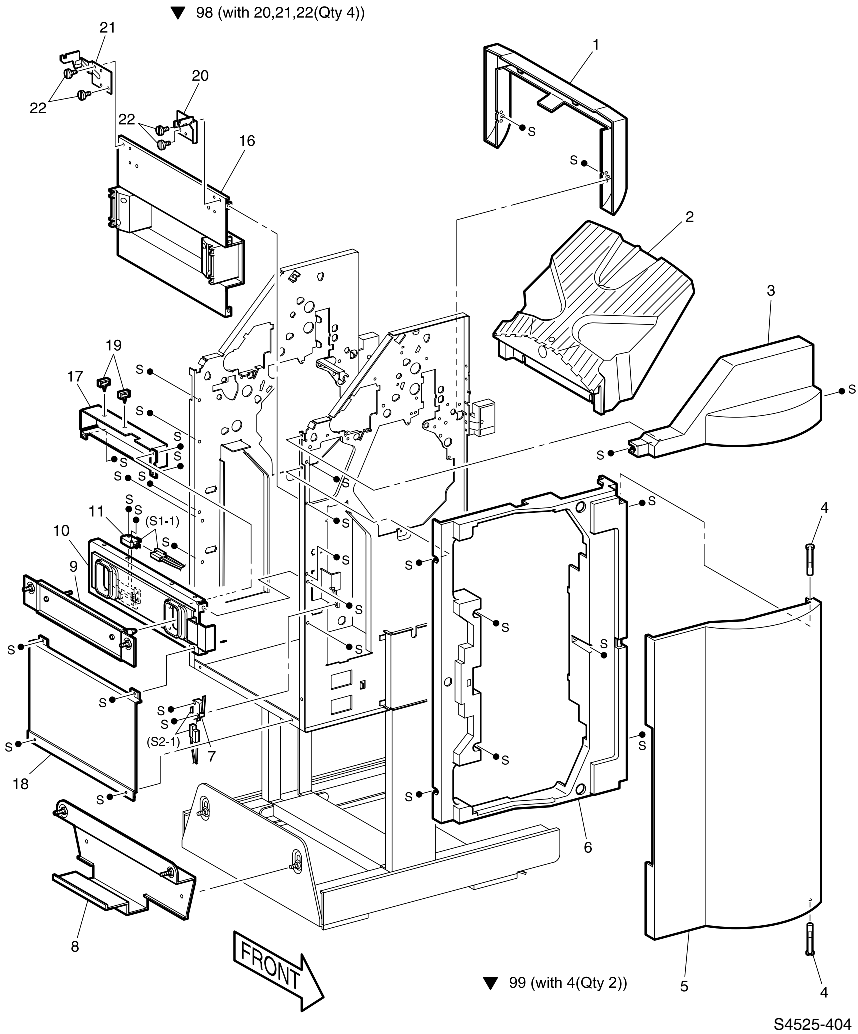


Fig 6-4 Docking Parts, Front Cover, Top Tray

FRU List 6-20.4 Docking Parts, Front Cover & Top Tray

No.	Part Number	Qty	Description
1	802E22380	1	Cover, jogging
2	050E16830	1	Tray, lower
3	802E22360	1	Top Cover, front
4		2	Stud Cover
5	802E17330	1	Cover-open,front
6	802E17320	1	Cover, front
7	110E99070	1	Switch, Cover Front
8	068K20830	1	Bracket Assembly
9	068K20840	1	Pin, Bracket
10	003K11850	1	Latch Assembly
11	110K11030	1	Switch, Docking
12			
13			
14			
15			
16		1	Cover, Upper Left Assembly
17		1	Cover, Switch Docking
18		1	Cover, Lower Left
19		2	Clamp
20		1	Docking Bracket, Front
21		1	Docking Bracket, Rear
22		4	Thumb Screw
98	600K87030	1	Kit, Horizontal Transport Bracket And Screw [with 20, 21 & 22(qty. 4)]
99	600K86830	1	Kit, Stud Cover [with 4 (qty. 2)]

PL 20.5 Top, Rear Covers

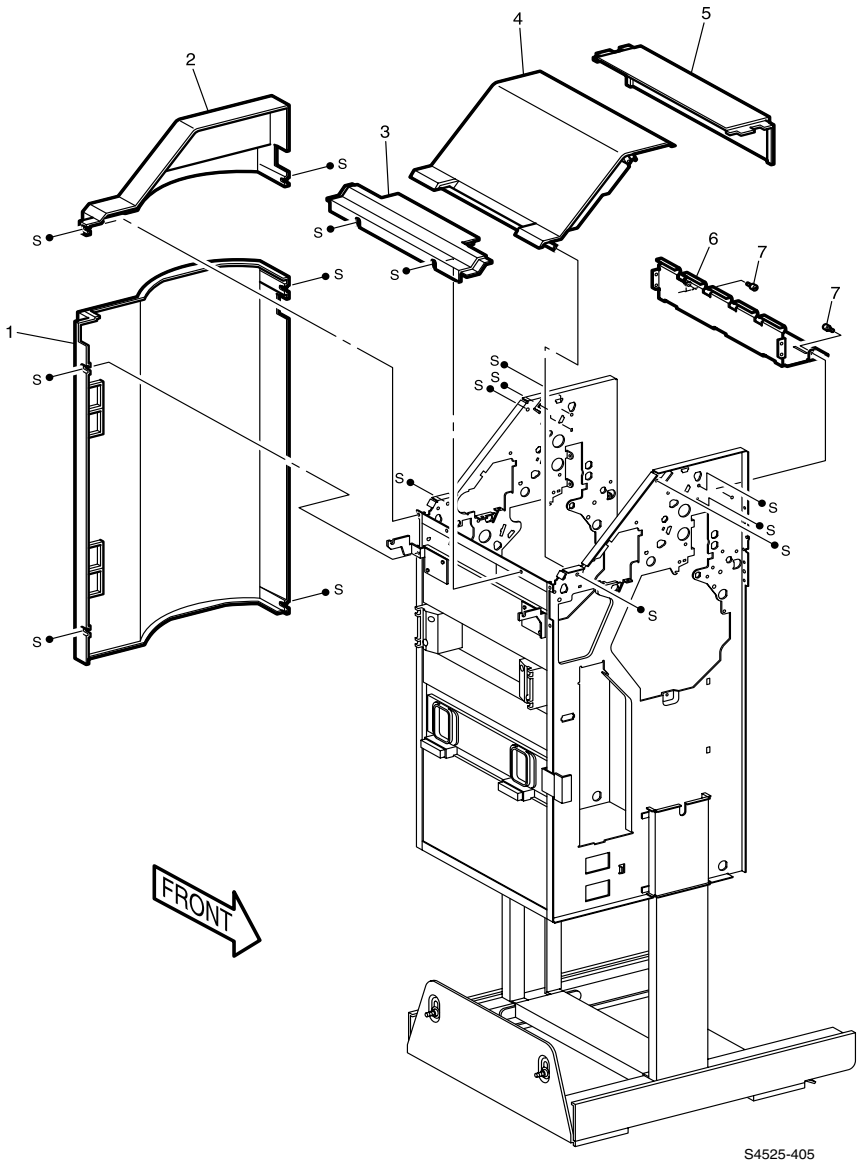


Fig 6-5 Top, Rear Cover

FRU List 6-20.5 Top, Rear Covers

No.	Part Number	Qty	Description
1	802E17310	1	Cover, Rear
2	802E22350	1	Cover Top, Rear
3	802E22390	1	Cover Top, Left
4	802E22370	1	Cover Top, Center
5	802E22400	1	Cover Top, Right
6		1	L-Cover
7		2	Screw

PL 20.6 Frame

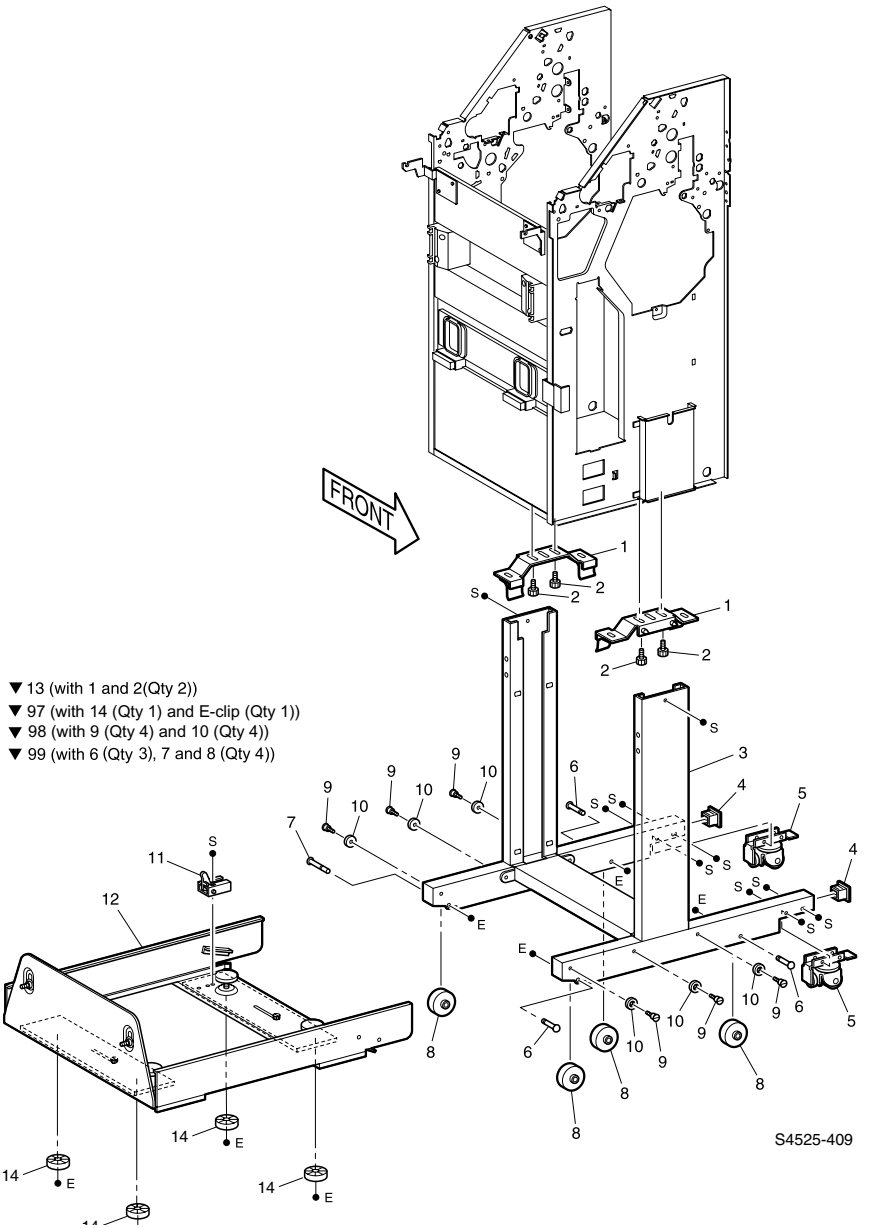


Fig 6-6 Frame

FRU List 6-20.6 Frame

No.	Part Number	Qty	Description
1		2	Bracket
2		4	Screw
3		1	Frame Post
4	021E97410	2	Cap, End
5	017K92730	2	Caster Assembly
6		3	Pin, Right
7		1	Pin, Left
8		4	Roller
9		4	Screw
10		4	Roller, small
11	011K96750	1	Lever Assembly
12	001E58910	1	Rail
13	600K85380	2	Kit, Bracket Assembly and Screw [with 1 & 2 (qty. 2)]
14		4	Foot
97	600K87060	1	Kit, Foot [with 14 (qty. 1) & E-clip (qty. 1)]
98	600K85390	1	Kit Roller S [with 9 [qty. 4] and 10 [qty. 4)]
99	600K85370	1	Kit Roller L [with 6 [qty. 3], 7 & 8 [qty. 4]

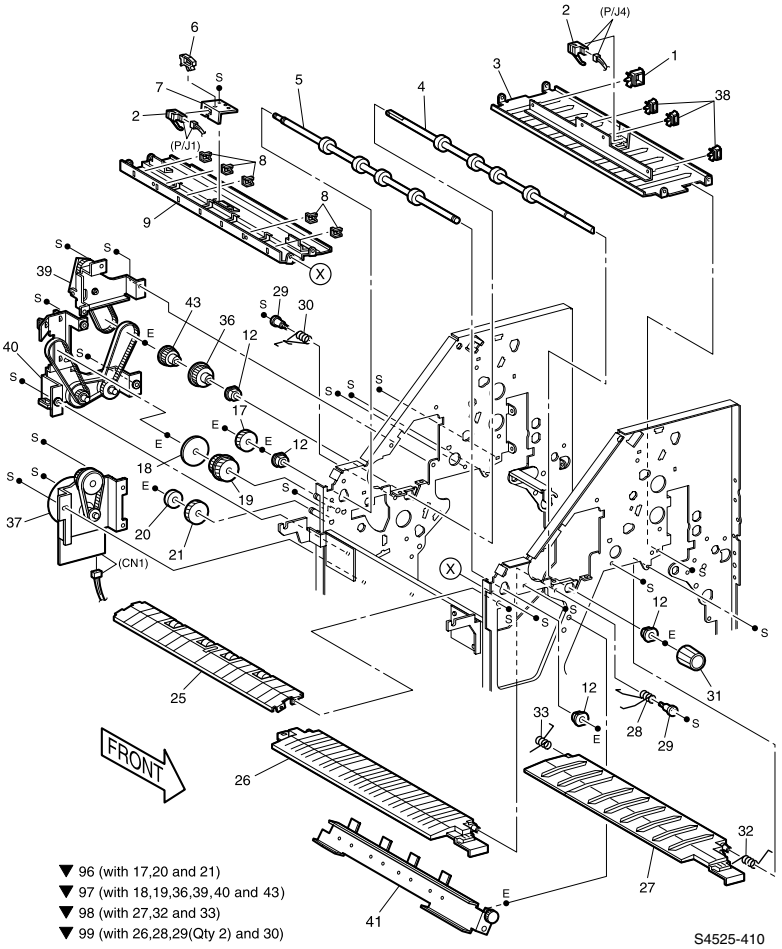


Fig 6-7 Guide

FRU List 6-20.7 Guide

No.	Part Number	Qty	Description
1			Clamp
2	130E84480		Sensor
3			Baffle, right
4	059K18100		Roller Assembly, Regi
5	059K18110		Roller, Transport
6			Clamp

No.	Part Number	Qty	Description
7		1	Bracket, Sensor
8		5	Clamp
9		1	Baffle, left
10			
11			
12	013E19030	4	Bearing
13			
14			
15			
16			
17		1	Gear
18		1	Flange
19		1	Gear
20		1	Spacer
21		1	Gear
22			
23			
24			
25	054K17910	1	Chute Assembly Inlet
26		1	Guide Assembly, Invert
27		1	Buffer Assembly, Chute
28		1	Spring
29		2	Screw
30		1	Spring
31	003E53200	1	Knob
32		1	Spring
33		1	Spring
34			
35			
36		1	Gear
37	127K32160	1	Motor Assembly, Transport
38			
39		1	Gear and Belt Assembly,
40		1	Drive Assembly
41	059K19350	1	Blade Assembly
42			
43		1	Gear
96	600K86650	1	Kit, Gear [with 17, 20 & 21]
97	600K86640	1	Kit, Drive Assembly [with 18, 19, 36, 39, 40, & 43]
98	600K86690	1	Kit, Buffer Chute [with 27, 32 & 33]
99	600K86670	1	Kit, Invert Guide [with 26, 28, 29, [qty. 2] & 30]

PL 20.8 Puncher Assembly

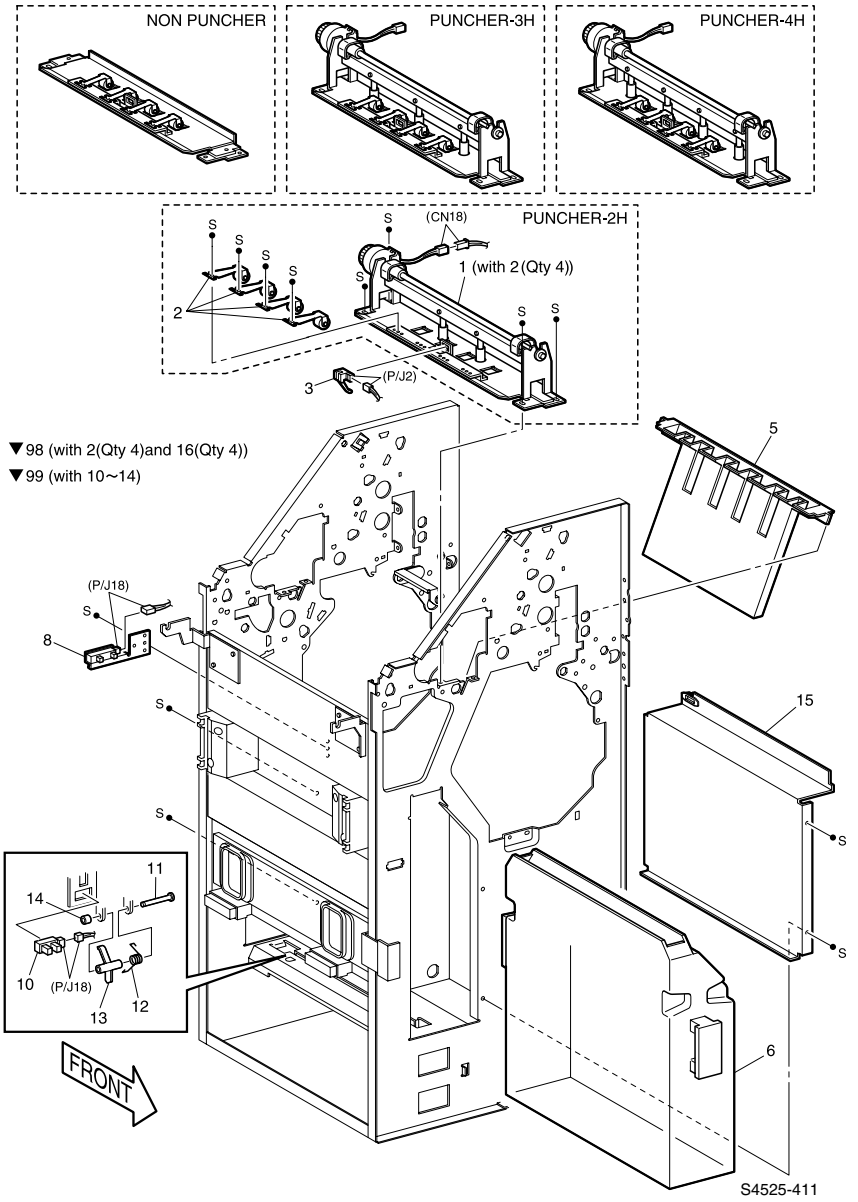


Fig 6-8 Puncher Assembly

FRU List 6-20.8 Puncher Assembly

No.	Part Number	Qty	Description
1	■ 022K61990 ■ 022K62000		■ Non-Punch Assembly [with 2 (qty. 4) and 16 (qty. 4)] ■ Puncher-2H [with 2 [with qty. 4) and 16 (qty. 4) (Option)] ■ Puncher-3H [with 2 (qty. 4) and 16 (qty. 4) (Option)] ■ Puncher-4H [with 2 (qty. 4) and 16 (qty. 4) (Option)]
2		4	Roller, Pinch
3	130E84480	1	Sensor
4			
5	038K85580	1	Guide Assembly, Dust
6	060K93620	1	Bottle Assembly, Dust
7			
8	130K61910	1	Sensor, Dust Assembly
9			
10		1	Sensor, Photo
11		1	Shaft
12		1	Spring
13		1	Actuator
14		1	Cap, Actuator
15		1	Cover, Inner
16			
98	600K87450	1	Kit, Roller Pinch [with 2 (qty. 4)]
99	600K87050	1	Sensor, Bottle Kit [with 10~14]

PL 20.9 Jogging Assembly

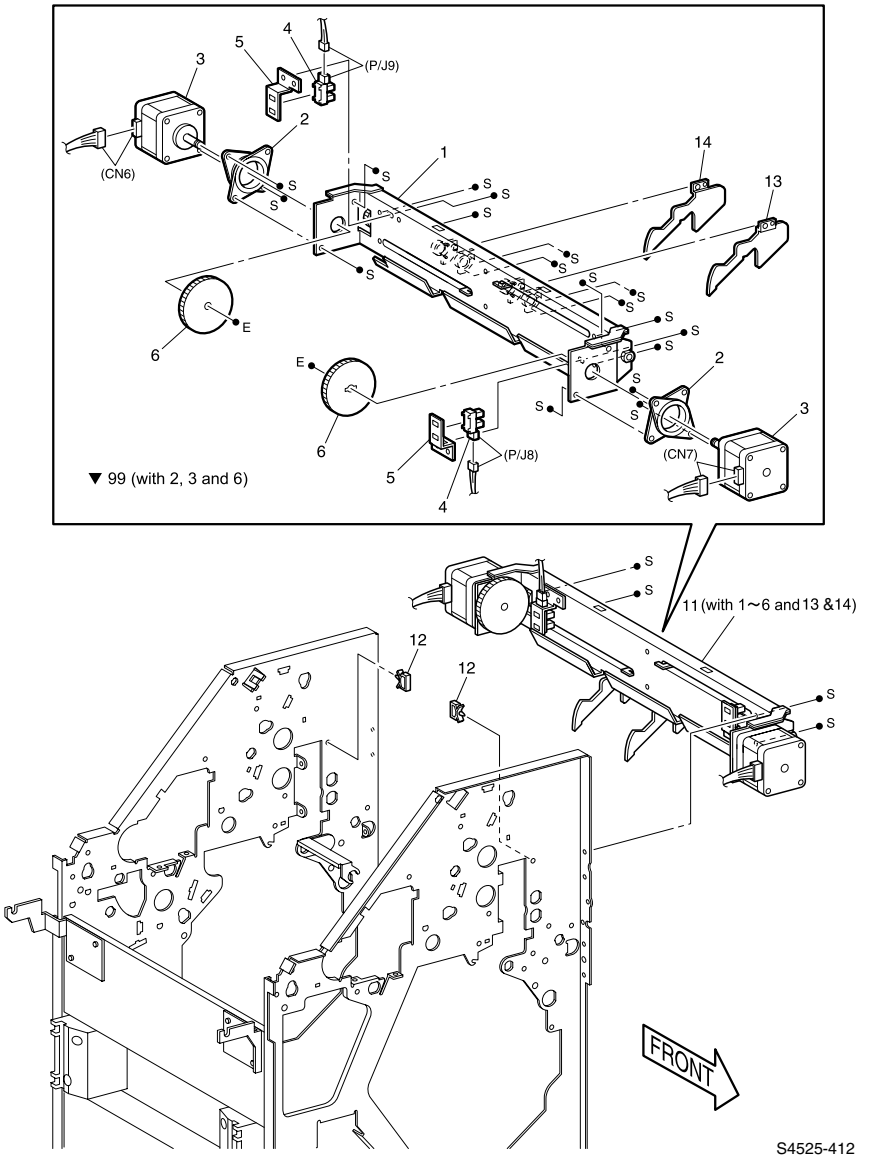


Fig 6-9 Jogging Assembly

FRU List 6-20.9 Jogging Assembly

No.	Part Number	Qty	Description
1		1	Frame Assembly, Jogger
2		2	Damper
3		2	Motor, Stepping
4	130E84470	2	Sensor
5		2	Bracket
6		2	Gear
7			
8			
9			
10			
11	001K73700	1	Jogging Assembly, [with 1~6, 13 & 14]
12		2	Clamp
13	830E66010	1	Plate, Front Jogger
14	830E85410	1	Plate, Rear Jogger
99	600K85340	2	Kit, Jogging Motor [with 2, 3 and 6]

PL 20.10 Shift Assembly

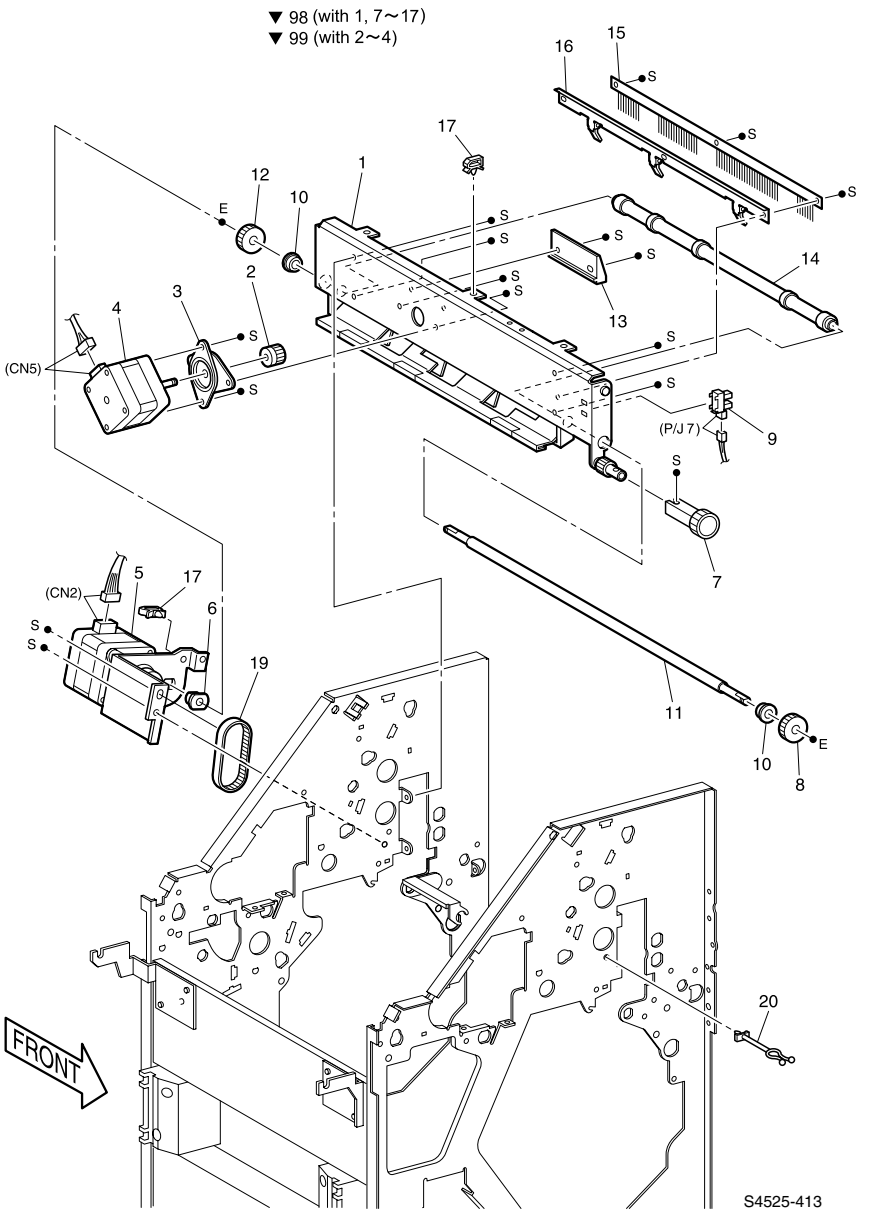


Fig 6-10 Shift Assembly

FRU List 6-20.10 Shift Assembly

No.	Part Number	Qty	Description
1		1	Frame Assembly, Roller Shift
2		1	Gear
3		1	Damper
4		1	Motor, MP5
5	127K31550	1	Motor Assembly, MP2
6	013E19150	1	Bearing
7	003E53190	1	Knob
8		1	Gear
9	130E84470	1	Sensor
10		2	Bearing
11		1	Shaft
12		1	Gear
13	007E66390	1	Gear, Rack
14		1	Shift Roller
15	105K19250	1	Eliminator
16		1	Guide, Pinch Roller
17		2	Clamp
18			
19	023E20190	1	Belt
20		1	Clamp
98	600K86710	1	Kit, Shift Assembly [with 1, 7~17]
99	600K86760	1	Kit, Shift Motor [with 2~4]

PL 20.11 Stacker Unit

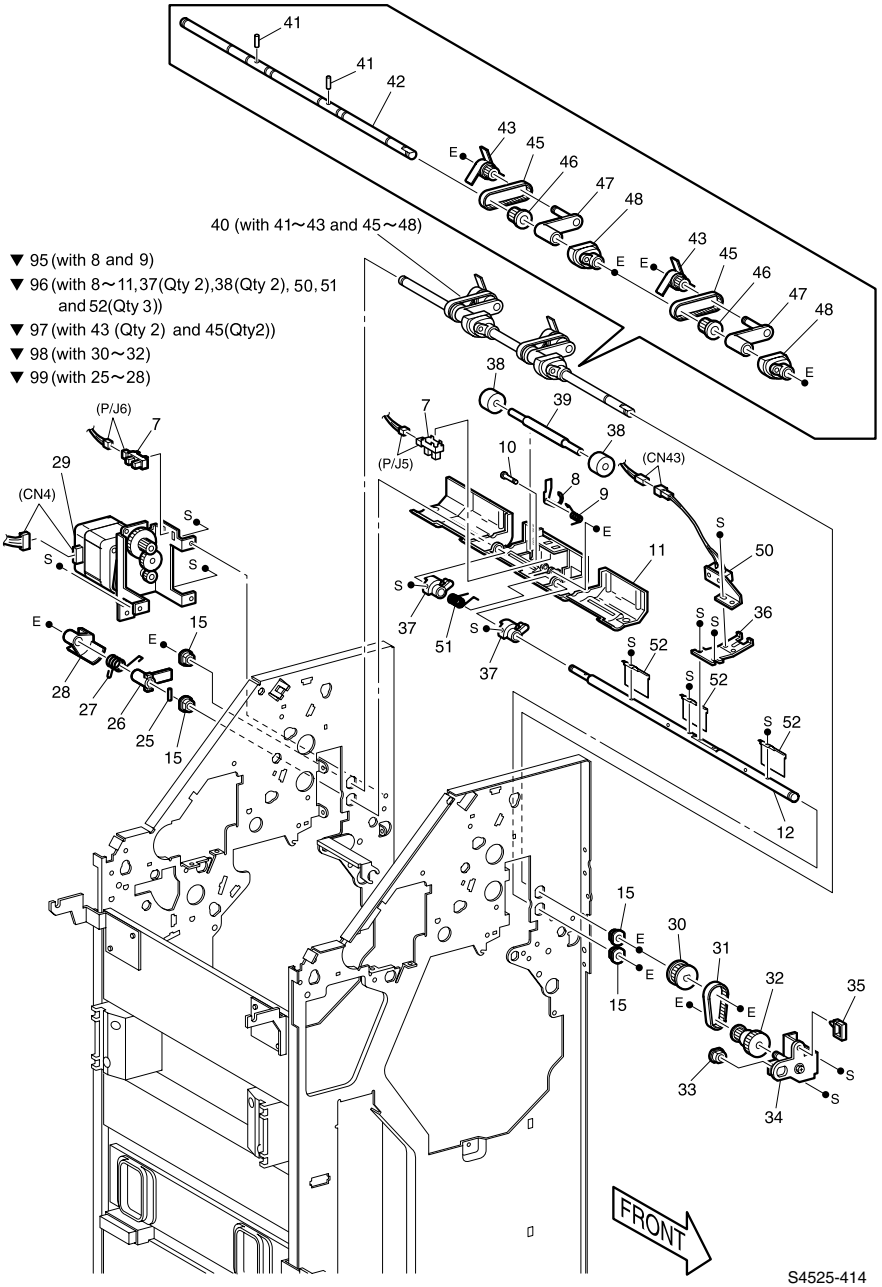


Fig 6-11 Stacker Unit

FRU List 6-20.11 Stacker Unit

No.	Part Number	Qty	Description
1			
2			
3			
4			
5			
6			
7	130E84470	2	Sensor
8		1	Actuator
9		1	Spring
10		1	Pin
11		1	Guide, Compile
12		1	Shaft
13			
14			
15	013E19030	4	Bearing
16			
17			
18			
19			
20			
21			
22			
23			
24			
25		1	Pin
26		1	Lever
27		1	Spring
28		1	Gear, Sector
29	127K31560	1	Clamp Motor Assembly, MP4
30		1	Pulley
31		1	Belt
32		1	Pulley/Gear
33		1	Bearing
34		1	Bracket
35		1	Clamp
36		1	Support
37		2	Guide, Cam
38		2	Roller, Compile
39		1	Shaft, Roller
40	006K21500	1	Assembly, Paddle [with 41-43, 45-48]
41		2	Pin
42		1	Shaft, Paddle

No.	Part Number	Qty	Description
43		2	Paddle Assembly
44			
45		2	Belt
46		2	Pulley
47		2	Bracket, Paddle
48		2	Cam, Left Paddle
49			
50		1	Safety Switch Assembly
51		1	Spring
52		3	Eliminator
95	600K86840	1	Kit, Exit Actuator [with 8 & 9]
96	600K86780	1	Kit, Compile Guide [with 8~12, 37 (qty. 2), 38 (qty. 2) & 50~52 (qty. 3)]
97	600K86770	1	Kit, Paddle [with 43 (qty. 2) and 45 (qty. 2)]
98	600K86800	1	Kit, Front Gear [with 30~32]
99	600K86790	1	Kit, Rear Gear [with 25~28]

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PL 20.12 Stacker Bin

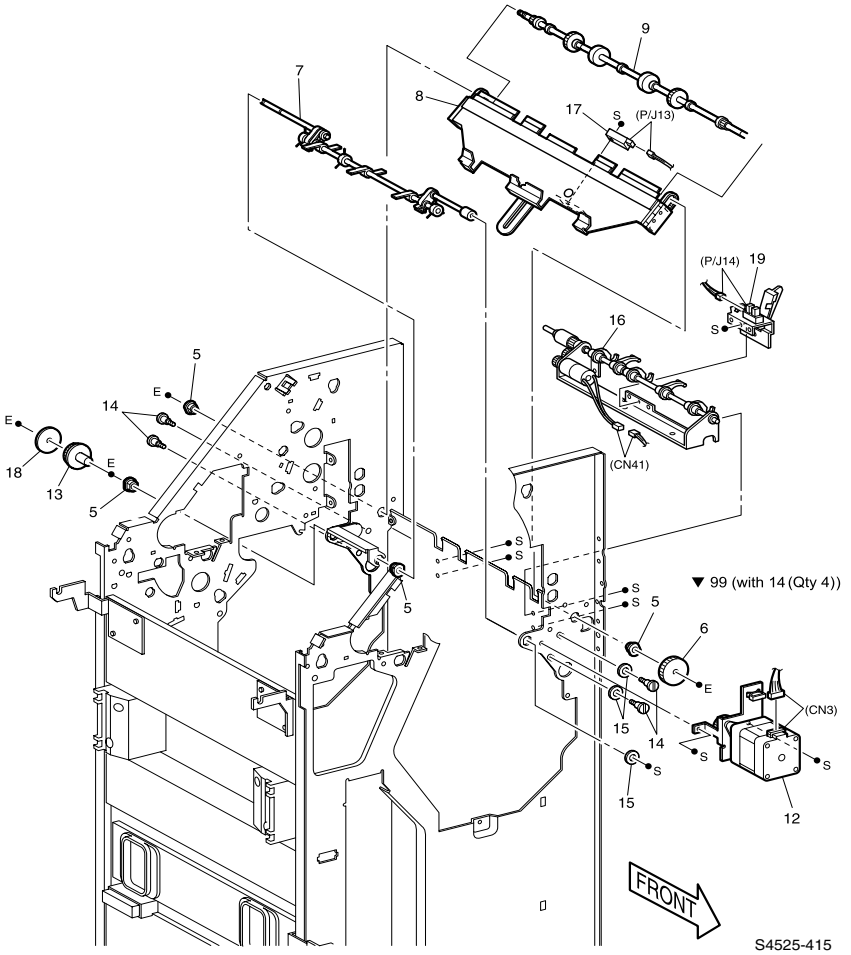


Fig 6-12 Stacker Bin

FRU List 6-20.12 Stacker Bin

No.	Part Number	Qty	Description
1			
2			
3			
4			
5	013E19150	4	Bearing
6	007E66860	1	Gear
7	059K19390	1	Roller Assembly, Paddle
8	059K18120	1	Compiler Tray
9	006K21760	1	Roller Shaft, Stack
10			
11			
12	127K32890	1	Motor
13	020E34820	1	Pulley
14		4	Shoulder Screw
15		3	Spacer
16	031K92880	1	Arm Assembly, Stack
17	130K61700	1	Sensor , Stapler No Paper
18		1	Flange
19	130K61710	1	Tray, Lower No Paper Sensor
99	600K86810	1	Kit, Shoulder Screw [with 14 [qty. 4]

PL 20.13 Stapler Assembly

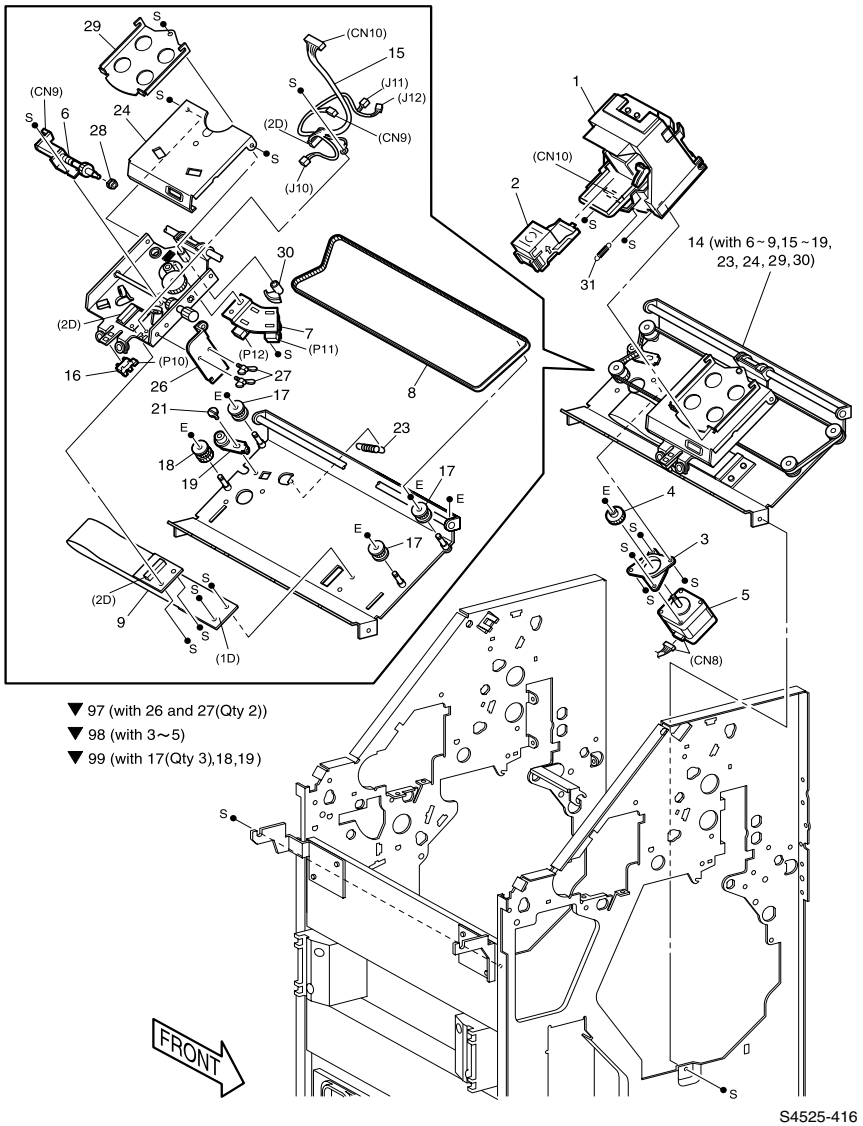
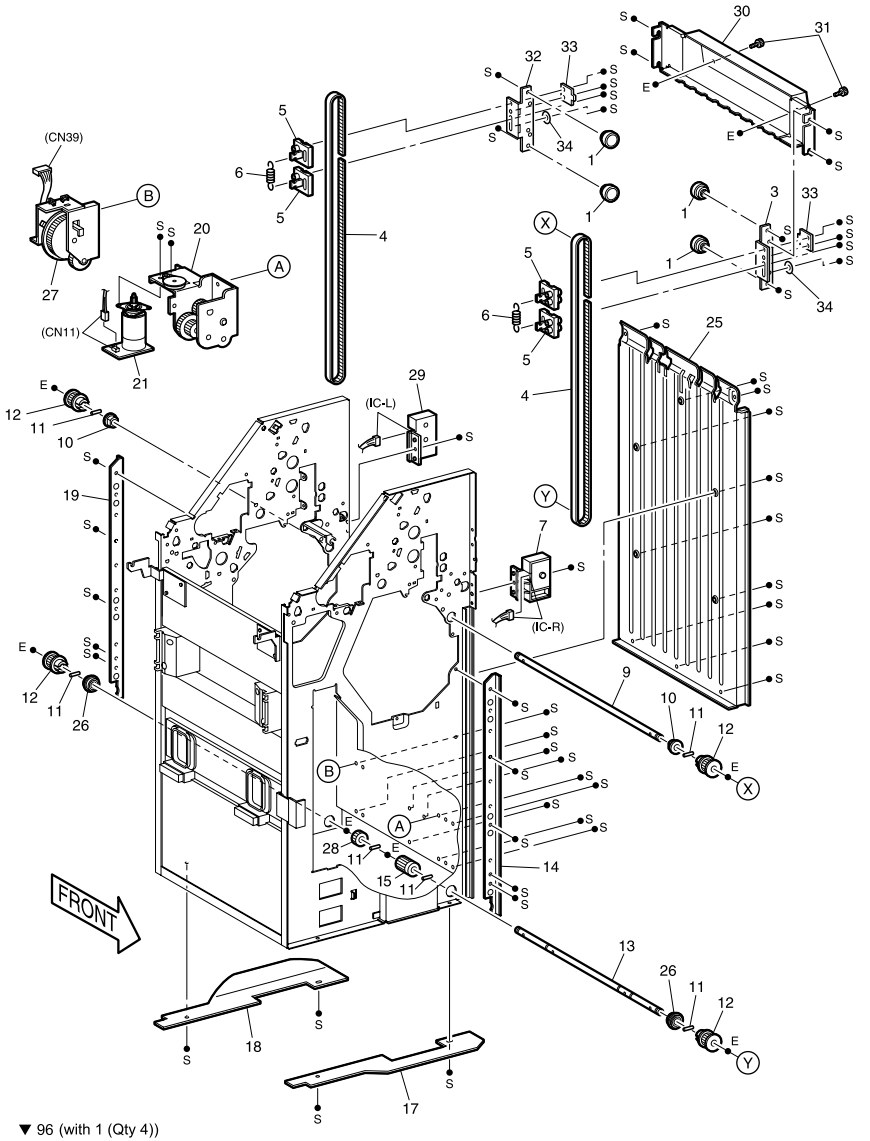


Fig 6-13 Stapler Assembly

FRU List 6-20.13 Stapler Assembly

No.	Part Number	Qty	Description
1	029K91960	1	Stapler Assembly
2	050K30281	1	Cartridge Assembly, Stapler
3		1	Damper
4		1	Gear
5		1	Motor Assembly, MP8
6	127K31570	1	Motor Assembly, Swing
7	130K61410	1	Sensor Assembly, Swing
8		1	Belt
9		1	Cable, Flat [1D<>2D]
10			
11			
12			
13			
14	029K91980	1	Stapler Base Assembly [with 6~9, 15~19, 21, 23, 24 and 28~30]
15		1	Stapler Harness [2D<>J10/J11/J12/CN9]
16	130E84470	1	Sensor
17		3	Pulley
18		1	Pulley, Double
19		1	Tension Bracket
20			
21			
22			
23		1	Spring
24		1	Cover, Stapler Bottom
25			
26		1	Secure Plate
27		2	Wing Bolt
28			
29		1	Holder, Stapler
30		1	Gear, Sector
31		1	Spring
97		1	Plate Kit, secure [with 26 and 27 (qty. 2)]
98	127K32170	1	Motor Assembly, Traverse [with 3, 4 and 5]
99	600K86820	1	Kit, Pulley Stapler [with 17 (qty. 3), 18 & 19]

PL 20.14 Elevator Unit



▼ 96 (with 1 (Qty 4))
▼ 97 (with 11 (Qty 4), 12 (Qty 2), 13, 15, 26 (Qty 2) and 28)
▼ 98 (with 5 (Qty 2) and 6)
▼ 99 (with 9, 10 (QtY 2), 11 (QtY 2) and 12 (QtY 2))

Fig 6-14 Elevator Unit

FRU List 6-20.14 Elevator Unit

No.	Part Number	Qty	Description
1		4	Bearing Assembly
2			
3		1	Bracket, Front
4	023E20200	2	Belt
5		4	Holder
6		2	Spring
7	130K61420	1	Sensor, Tray Height Front
8			
9		1	Shaft, Upper Elevator
10		2	Bearing
11		6	Pin
12		4	Pulley
13		1	Shaft, Lower Elevator
14		1	Guide Bracket, Front
15		1	Gear
16			
17		1	Bottom Cover, Front
18		1	Bottom Cover, Rear
19		1	Guide Bracket, Rear
20	127K32180	1	Drive Assembly, Elevator
21	127K31620	1	Motor Assembly, MD11
22			
23			
24			
25		1	Cover, Right
26		1	Bearing
27	006K21510	1	Encoder Assembly
28		1	Drive Pulley, Encoder
29	130K61720	1	Sensor, Tray Height Rear
30		1	Bracket, Lower Tray
31		2	Thumb Screw
32		1	Bracket, Rear
33		2	Plate
34		2	Washer
96	600K85360	1	Kit, Bearing [with 1 (qty. 4)]
97	006K85760	1	Shaft Assembly, Lower Elevator [with 11 (qty. 4), 12 (qty. 2), 13, 15 and 26 (qty. 2) and 28]
98	019K97310	1	Holder Assembly [with 5 (qty. 2) and 6]
99	006K85750	1	Shaft Assembly, Upper Elevator [with 9, 10 (qty. 2) and 12 (qty. 2)]

PL 20.15 Finisher Main Board and Power Supply

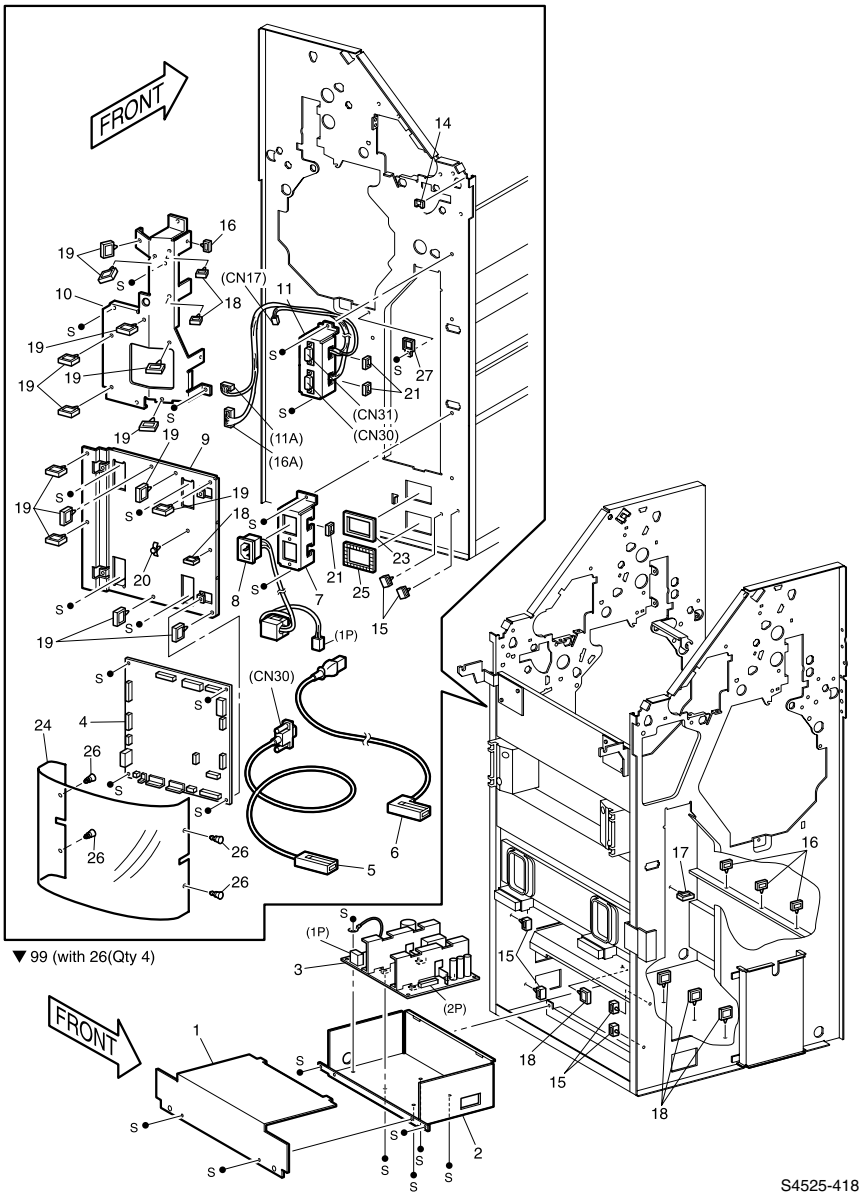


Fig 6-15 Finisher Main Power Board and Power Supply

FRU List 6-20.15 Finisher Main Board and Power Supply

No.	Part Number	Qty	Description
1		1	Cover, Upper LVPS (Low Voltage Power Supply)
2		1	Cover Lower, LVPS
3	105K19010	1	Power Supply
4	160K70400	1	Board Assembly, Main
5	177E91420	1	Cable, I/F
6	177E91410	1	Cord, Power
7		1	Bracket, Inlet
8		1	Inlet
9		1	Board, Chassis
10		1	Wire Support
11		1	Harness Assembly, Port [J11A/CN17<>CN31, 16A<>CN30]
12			
13			
14		2	Clamp
15		6	Clamp
16		5	Clamp
17		2	Clamp
18		8	Clamp
19		12	Clamp
20		1	Support
21		3	Bush
22			
23		1	Bushing, Large
24		1	Cover, Myler
25		1	Grommet
26		4	Rivet
27		1	clamp
99		1	Kit, Rivet [with 26 (qty. 4)]

PL 20.16 Harness

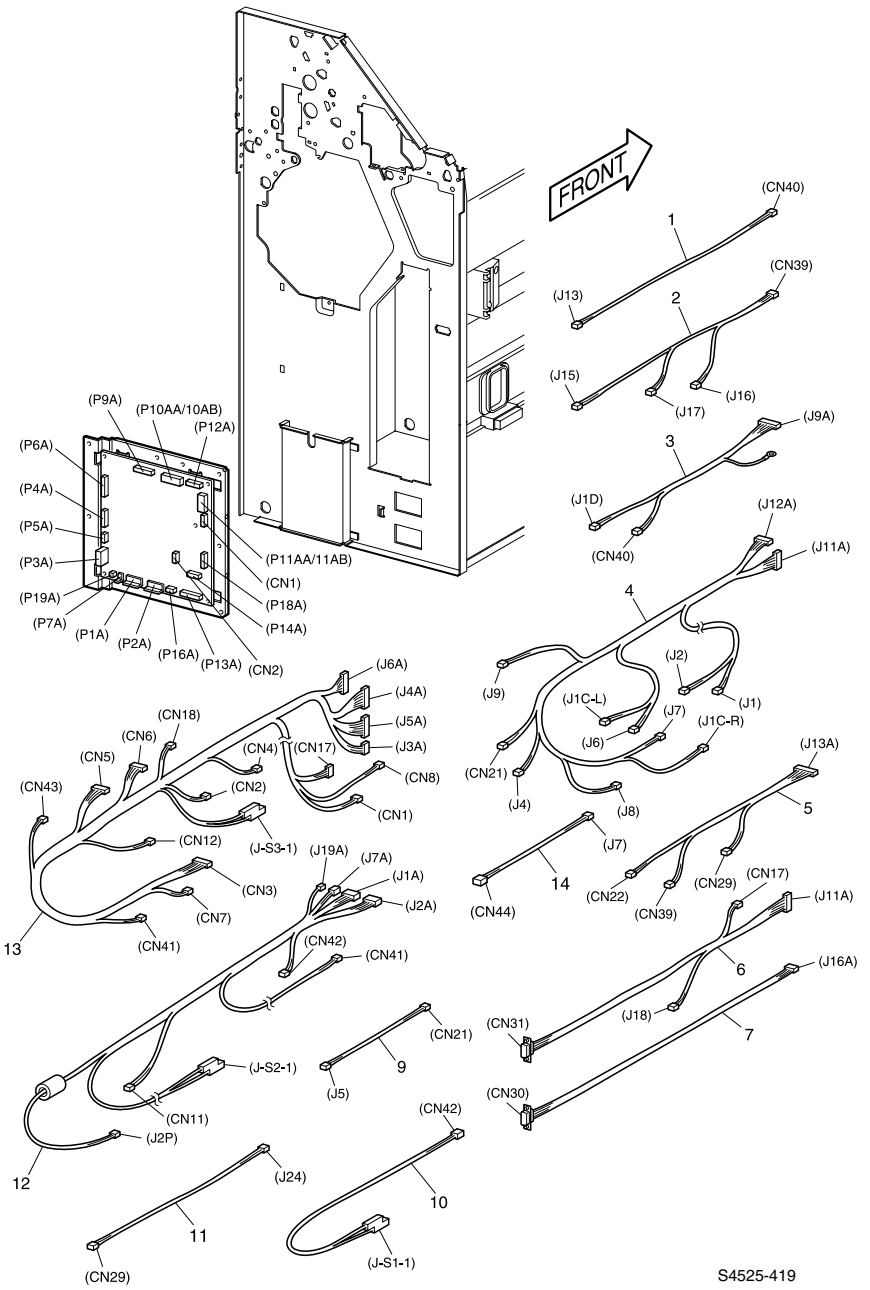


Fig 6-16 Harness

FRU List 6-20.16 Harness

No.	Part Number	Qty	Description
1		1	Harness, No Paper Sensor Stapler (CN40<>J13]
2		1	Harness, Encoder (CN39<>J15/J16/J17]
3		1	Harness, Middle Stapler (9A<>J1D/CN40]
4		1	Harness, Sensor (J10A/J12A<>J1/J2/J4/CN44/J7/J8/J9/J1C-R/CN21]
5		1	Harness, Middle 1 (J11A<>J18/CN17/CN31]
6		1	Harness, Horizontal Transport (J11A<>J18/CN17/CN31]
7		1	Harness, Face Up (J18A<>J29/CN37/CN38] (Option]
8			
9		1	Harness, Exit (CN21<>J5]
10		1	Harness, Docking (CN42<>J-S1-1]
11		1	Harness, Middle 2 (J24<>CN29]
12		1	Harness, DC (J1A/J2A/J7A/J19A<>J2P/J-S2-1/CN11/CN41/CN42]
13		1	Harness, Motor (J3A/J4A/J5A/J6A/<>J-S3-1/CN1/CN2/CN3/CN4/CN5/CN6/CN7/CN8/CN12/CN16/CN17/CN18/CN43]
14		1	Harness, Shift Home Position Sensor (CN44<>J7)

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Plug / Jack Connectors

Use the table and maps in this section to locate specific P/J connectors within the printer.

To Finisher the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M2-5, in the second column.
3. Go to the map (M2) number and locate item number (5).

P/J Location Table

Table 6-1 Plug/Jack Location Table

P/J	Map No.	Connected to...	Other end connected to...
1	M2-5	Sensor (PL 20.7.2)	P/J10AA Main Board Assembly (PL 20.15.4)
1A	M5-15	Main Board Assembly (PL 20.15.4)	2P Power Supply (PL 20.15.3)
1C-R	M4-5	Sensor Tray Height Front (PL 20.14.7)	P/J12A Main Board Assembly (PL 20.15.4)
1C-L	M4-3	Sensor Tray Height Rear (PL 20.14.29)	P/J12A Main Board Assembly (PL 20.15.4)
1D	M4-10	CN9 Motor Assy Swing (PL 20.13.6) CN10 Stapler Assy (PL 20.13.1) P10 Sensor (PL 20.13.16) P12 Sensor Assy Swing (PL 20.13.7) P11 Sensor Assy Swing (PL 20.13.7)	P/J9A Main Board Assembly (PL 20.15.4)
1P	M4-13	Power Supply (PL 20.15.3)	AC Power
2	M2-6	Sensor (PL 20.8.3)	P/J10AA Main Board Assembly (PL 20.15.4)
2A	M5-14	Main Board Assembly (PL 20.15.4)	S1-1 Switch Docking (PL 20.4.11) S2-1 Switch Cover Front (PL 20.4.7)
2D	M4-9	CN9 Motor AssySwing (PL 20.13.6) CN10 Stapler Assy (PL 20.13.1) P10 Sensor (PL 20.13.16) P12 Sensor Assy Swing (PL 20.13.7) P11 Sensor Assy Swing (PL 20.13.7)	P/J9A Main Board Assembly (PL 20.15.4)
2P	M4-12	Power Supply (PL 20.15.3)	P/J1A BMain Board Assembly (PL 20.15.4)
3A	M5-18	Main Board Assembly (PL 20.15.4)	CN43 Safety Switch Assy (PL 20.11.50)
4	M2-10	Sensor (PL 20.7.2)	P/J10AA Main Board Assembly (PL 20.15.4)
4A	M5-20	Main Board Assembly (PL 20.15.4)	CN1 Transport Motor Assy (PL 20.7.37) CN8 Motor Assy MP-8 (PL 20.13.5) CN17 to CN31 CN18 Puncher (PL 20.8.1)

Table 6-1 Plug/Jack Location Table (cont'd.)

P/J	Map No.	Connected to...	Other end connected to...
5	M3-5	Sensor (PL 20.11.7)	P/J10AA Main Board Assembly (PL 20.15.4)
5A	M5-19	Main Board Assembly (PL 20.15.4)	CN6 Stepping Motor (PL 20.9.3) CN7 Stepping Motor (PL 20.9.3)
6	M3-2	Sensor (PL 20.11.7)	P/J10AB Main Board Assembly (PL 20.15.4)
6A	M5-21	Main Board Assembly (PL 20.15.4)	CN2 Motor Assy MP-2 (PL 20.10.5) CN4 Motor Assy MP-4 (PL 20.11.29) CN5 Motor MP-5 (PL 20.10.4) CN3 Motor (PL 20.12.12)
7	M4-4	Sensor (PL 20.10.9)	CN44 Sensor Harness
7A	M5-16	Main Board Assembly (PL 20.15.4)	CN11 Motor Assy MD-1 (PL 20.14.21)
8	M2-11	Sensor (PL 20.9.4)	P/J10AB Main Board Assembly (PL 20.15.4)
9	M2-9	Sensor (PL 20.9.4)	P/J10AB Main Board Assembly (PL 20.15.4)
9A	M5-1	Main Board Assembly (PL 20.15.4)	P/J13 No Paper Sensor Stapler (PL 20.12.17) CN9 Motor Assy Swing (PL 20.13.6) CN10 Stapler Assy (PL 20.13.1) P/J10 Sensor (PL 20.13.16) P/J12 Sensor Assy Swing (PL 20.13.7) P/J11 Sensor Assy Swing (PL 20.13.7)
10	M4-11	Sensor (Pl 20.13.16)	P/J9A Main Board Assembly (PL 20.15.4)
10AA	M5-2	Main Board Assembly (PL 20.15.4)	P/J1 Sensor (PL 20.7.2) P/J2 Sensor (PL 20.8.3) P/J5 Sensor (PL 20.11.7)
10AB	M5-2	Main Board Assembly (PL 20.15.4)	P/J6 Sensor (PL 20.11.7) P/J7 Sensor (PL 20.10.9) P/J8 Sensor (PL 20.9.4) P/J9 Sensor (PL 20.9.4)
11	M4-7	Sensor Assembly, Swing (PL 20.13.7)	P/J9A Main Board Assembly (PL 20.15.4)
11AA	M5-7	Main Board Assembly (PL 20.15.4)	P/J256M Solenoid Assembly (PL 20.2.14) P/J263 Sensor (PL 20.3.13) P/J275M Sensor (PL 20.3.13) P/J259 Sensor (PL 20.3.19) P/J260 Sensor (PL 20.2.17)

Table 6-1 Plug/Jack Location Table (cont'd.)

P/J	Map No.	Connected to...	Other end connected to...
11AB	M5-7	Main Board Assembly (PL 20.15.4)	P/J18 Sensor Dust Assy (PL 20.8.8)
12	M4-8	Sensor Assembly, Swing (20.13.7)	P/J9A Main Board Assembly (PL 20.15.4)
12A	M5-3	Main Board Assembly (PL 20.15.4)	P/J1C-L Sensor Tray Height Front (PL 20.14.7) P/J1C-R Sensor Tray Height Rear (PL 20.14.29)
13	M3-6	No Paper Sensor, Stapler (PL 20.12.17)	P/J9A Main Board Assembly (PL 20.15.4)
13A	M5-12	Main Board Assembly (PL 20.15.4)	P/J15 Encoder Assy (PL 20.14.27) P/J16 Encoder Assy (PL 20.14.27) P/J17 Encoder Assy (PL 20.14.27) P/J24 Photo Sensor (PL 20.8.10) P/J14 No Paper Sensor Tray Lower (PL 20.12.19)
14	M3-7	No Paper Sensor, Stacker Bin (PL 20.12.19)	P/J13A Main Board Assembly (PL 20.15.4)
15	M3-9	Encoder Assembly	P/J13A Main Board Assembly (PL 20.15.4)
16	M3-10	Encoder Assembly	P/J13A Main Board Assembly (PL 20.15.4)
16A	M5-13	Main Board Assembly (PL 20.15.9)	CN30 Port Harness Assy (PL 20.15.11)
17	M3-12	Encoder Assembly (PL 20.14.27)	P/J13A Main Board Assembly (PL.15.4)
18	M2-3	Punch Dust Full Sensor (PL 20.8.8)	P/J11AB Main Board Assembly (PL 20.15.4)
19A	M5-17	Main Board Assembly (PL 20.15.4)	CN41 Stack Arm Assy (PL 20.12.16)
24	M3-14	Photo Sensor (PL 20.8.10)	P/J13A Main Board Assembly (PL 20.15.4)
S1-1	M2-2	Switch Docking (PL 20.4.11)	P/J2A Main Board Assembly (PL 20.15.4)
S2-1	M2-1	Switch Cover Front (PL 20.4.7)	P/J2A Main Board Assembly (PL 20.15.4)
256M	M1-3	Solenoid Assembly (PL 20.2.14)	P/J11AA Main Board Assembly (PL 20.15.4)
259	M1-5	Sensor (PL 20.3.19)	P/J11AA Main Board Assembly (PL 20.15.4)
260	M1-1	Sensor (PL 20.2.17)	P/J11AA Main Board Assembly (PL 20.15.4)
261	M1-2	Sensor (PL 20.3.29)	P/J11AA Main Board Assembly (PL 20.15.4)

Table 6-1 Plug/Jack Location Table (cont'd.)

P/J	Map No.	Connected to...	Other end connected to...
262	M1-8	P263 Sensor (PL 20.3.13) P275M Sensor (PL 20.3.13)	P/J11AA Main Board Assembly (PL 20.15.4)
263	M1-4	Sensor (PL 20.3.13)	P/J11AA Main Board Assembly (PL 20.15.4)
268	M1-7	P259 Sensor (PL 20.3.19) P260 Sensor (PL 20.2.17)	P/J11AA Main Board Assembly (PL 20.15.4)
275M	M1-6	Sensor (PL 20.3.13)	P/J11AA Main Board Assembly (PL 20.15.4)
279	M1-9	Sensor (PL 20.3.29)	P/J11AA Main Board Assembly (PL 20.15.4)
CN1	M2-4	Transport Motor Assy (PL 20.7.37)	P/J4A Board CHASSIS (PL 20.15.9)
CN2	M4-1	Motor Assy-MP2 (PL 20.10.5)	P/J6A Main Board Assembly (PL 20.15.4)
CN3	M3-8	Motor (PL 20.12.12)	P/J6A Main Board Assembly (PL 20.15.4)
CN4	M3-1	Motor Assy-MP4 (PL 20.11.29)	P/J6A Main Board Assembly (PL 20.15.4)
CN5	M4-2	Motor-MP5 (PL 20.10.4)	P/J6A Main Board Assembly (PL 20.15.4)
CN6	M2-8	Stepping Motor (PL 20.9.3)	P/J5A Main Board Assembly (PL 20.15.4)
CN7	M2-12	Stepping Motor (PL 20.9.3)	P/J5A Main Board Assembly (PL 20.15.4)
CN8	M4-14	Motor Assy-MP8 (PL 20.13.5)	P/J4A Main Board Assembly (PL 20.15.4)
CN9	M4-6	Motor Assy Swing (PL 20.13.6)	P/J9A Main Board Assembly (PL 20.15.4)
CN10	M4-15	Stapler Assy (PL 20.13.1)	P/J9A Main Board Assembly (PL 20.15.4)
CN11	M3-11	Motor Assy-MD11 (PL20.14.21)	P/J7A Main Board Assembly (PL 20.15.4)
CN17	M5-6	P256M Solenoid Assembly (PL 20.2.14)	P/J4A Main Board Assembly (PL 20.15.4)
CN18	M2-7	Puncher (PL 20.8.1)	P/J4A Main Board Assembly (PL 20.15.4)
CN21	M3-3	P5 Sensor (PL 20.11.7)	P/J10AA Board CHASSIS (PL 20.15.9)
CN29	M3-13	P24 Photo Sensor (PL 20.8.10)	P/J13A Board CHASSIS (PL 20.15.9)
CN30	M5-5	Printer	P/J16A Board CHASSIS (PL 20.15.9)

Table 6-1 Plug/Jack Location Table (cont'd.)

P/J	Map No.	Connected to...	Other end connected to...
CN31	M5-4	P256M Solenoid Assembly (PL 20.2.14) P259 Sensor (PL 20.3.19) P260 Sensor (PL 20.2.17) P261 Sensor (PL 20.3.29) P263 Sensor (PL 20.3.13) P275M Sensor (PL 20.3.13) P259 Sensor (PL 20.3.19) P260 Sensor (PL 20.2.17) P279 Sensor (PL 20.3.29)	P/J11AA Board CHASSIS (PL 20.15.9) P/J11AB Board CHASSIS (PL 20.15.9)
CN39	M3-15	Encoder Assy (PL 20.14.27)	P/J13A Board CHASSIS (PL 20.15.9)
CN40	M3-16	P13 No Paper Sensor Stapler (PL 20.12.17)	P/J9A Board CHASSIS (PL 20.15.9)
CN41	M3-17	Stack Arm Assy (PL 20.12.16)	P/J19A Board CHASSIS (PL 20.15.9)
CN43	M3-4	Safety Switch Assy (PL 20.11.50)	P/J3A Board CHASSIS (PL 20.15.9)
CN44	M4-16	CN44 Sensor Harness	P/J10AB Main Board Assembly (PL 20.15.4)

P/J Location Map 1

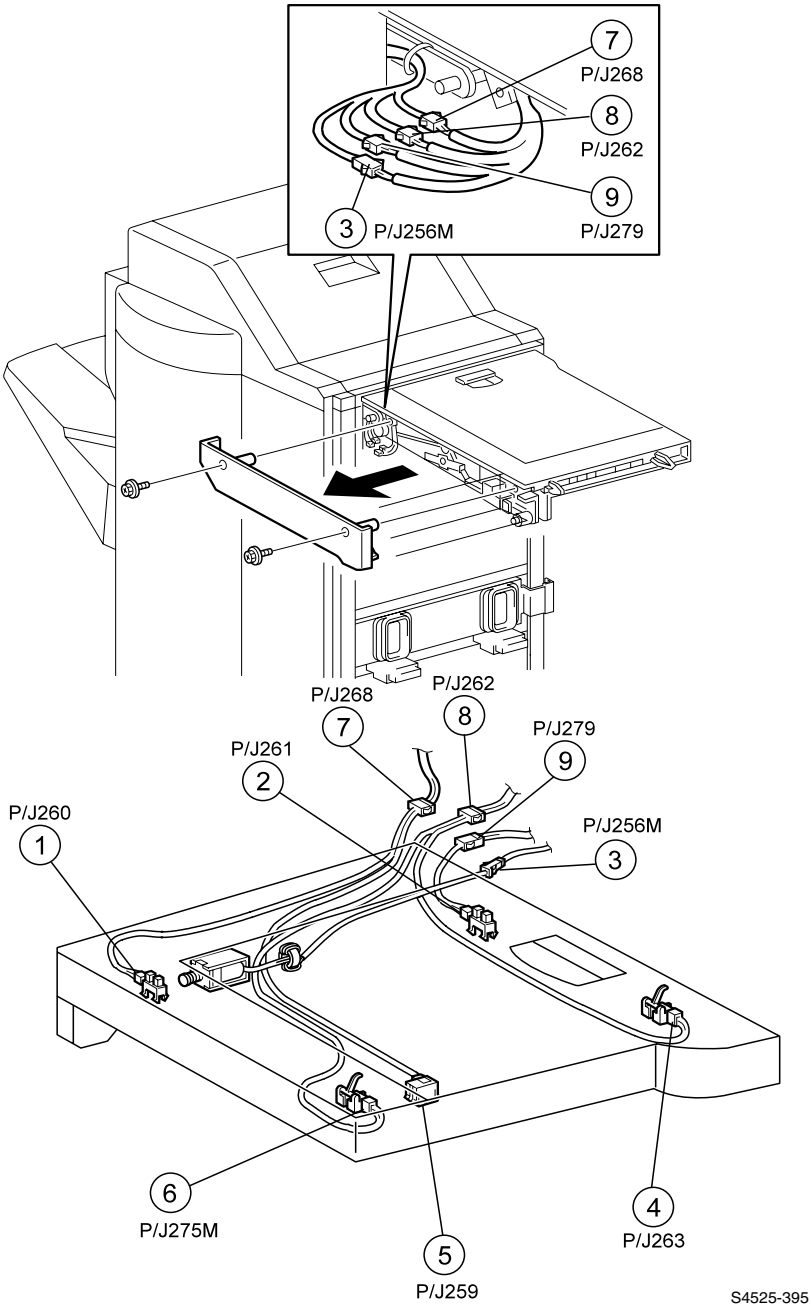

Fig 6-1 P/J Map 1

P/J Location Map 2

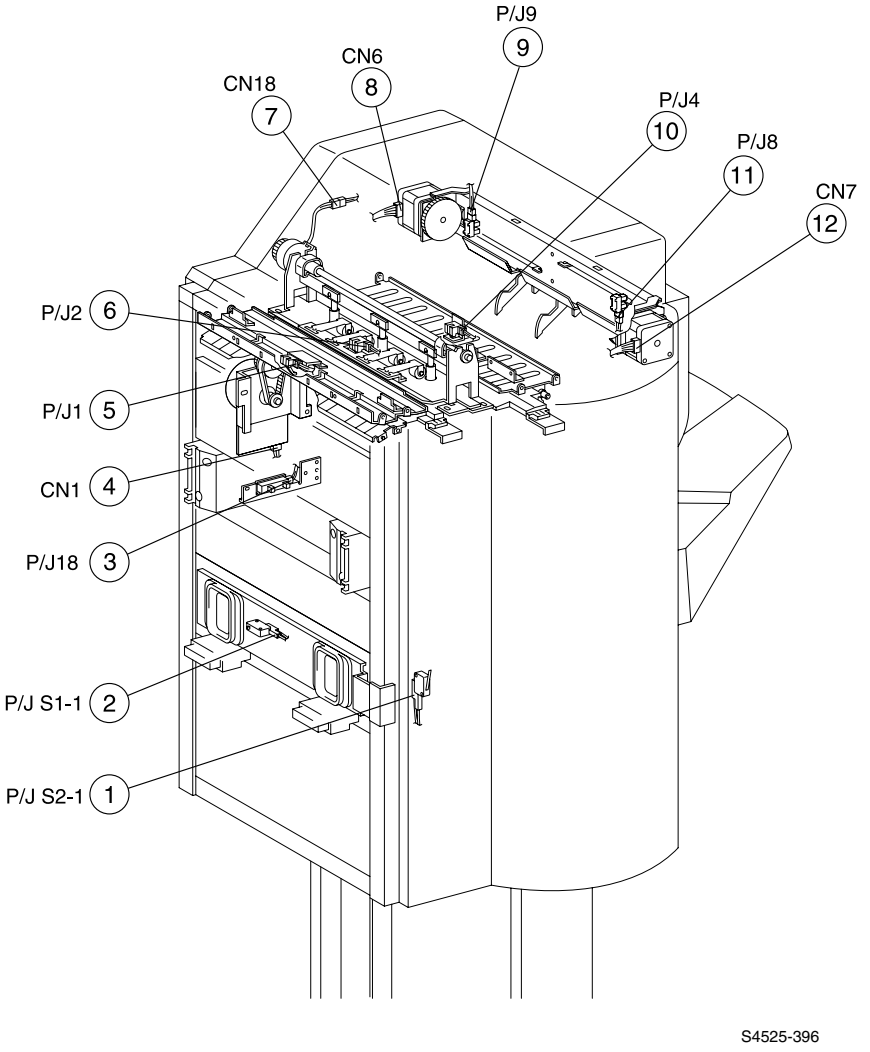

Fig 6-2 P/J Map 2

P/J Location Map 3

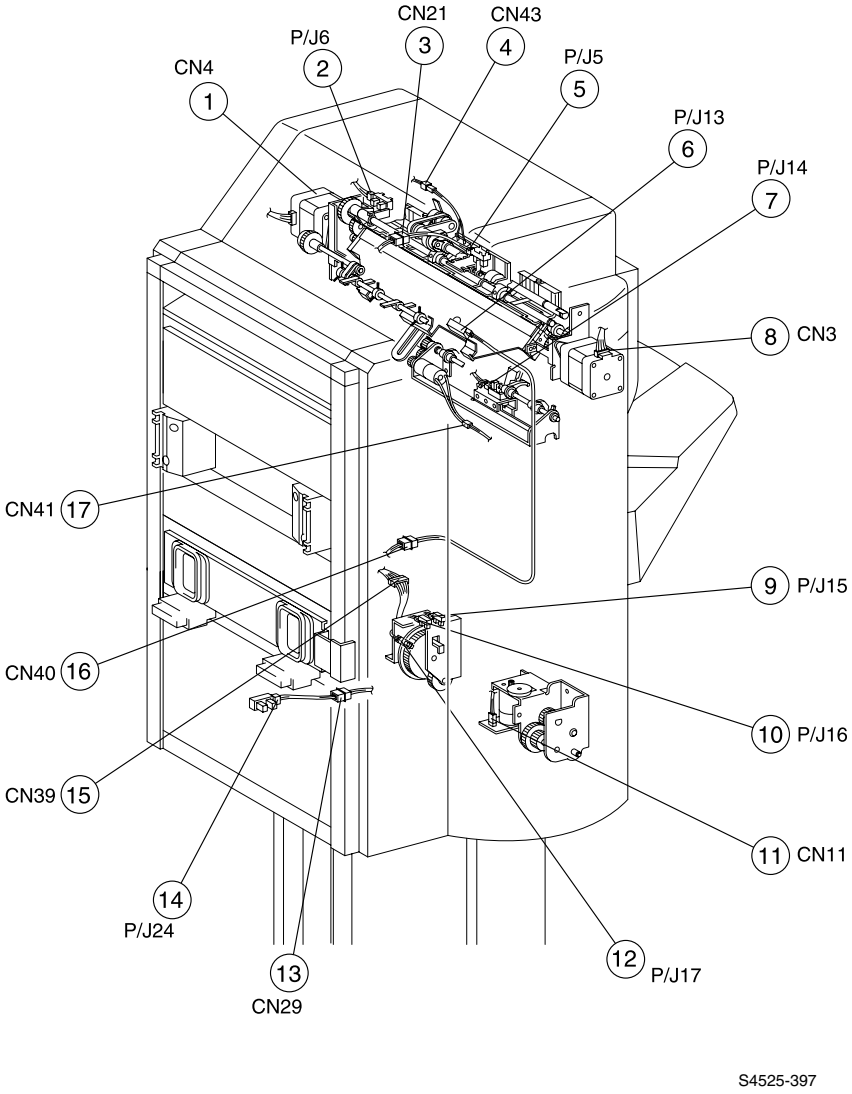

Fig 6-3 P/J Map 3

P/J Location Map 4

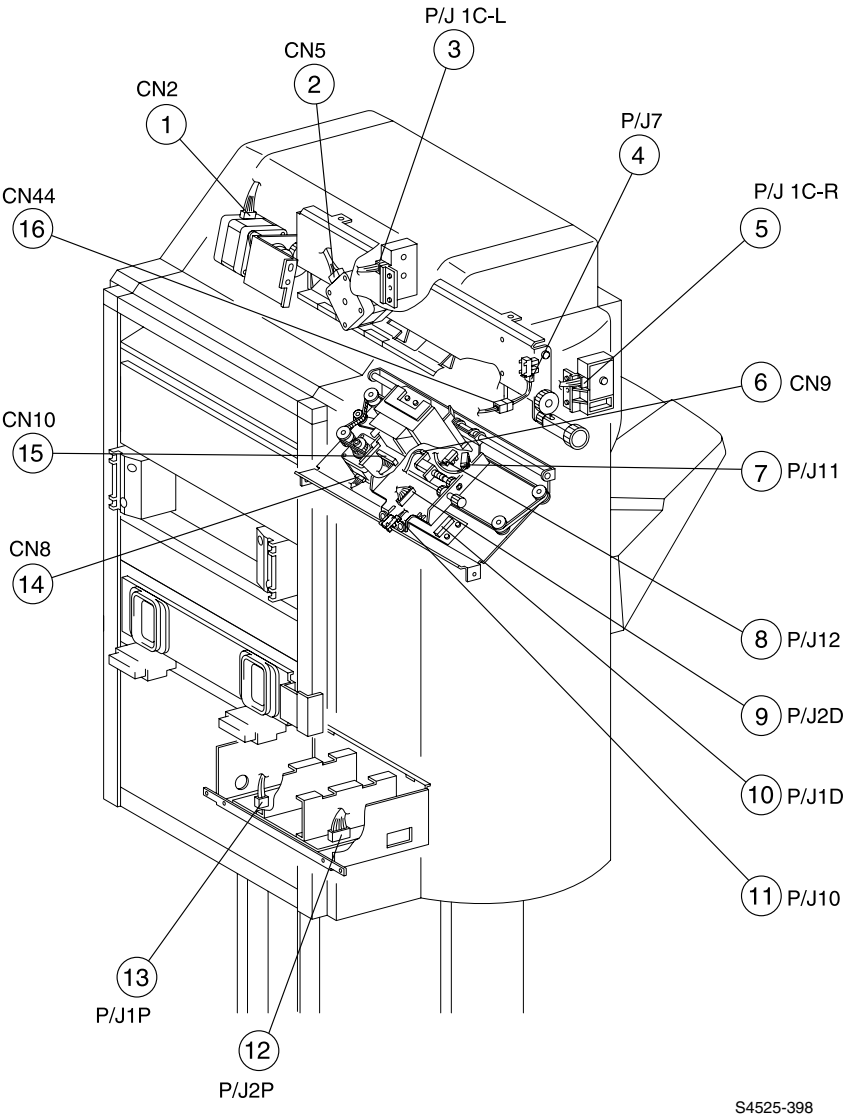

Fig 6-4 P/J Map 4

P/J Location Map 5

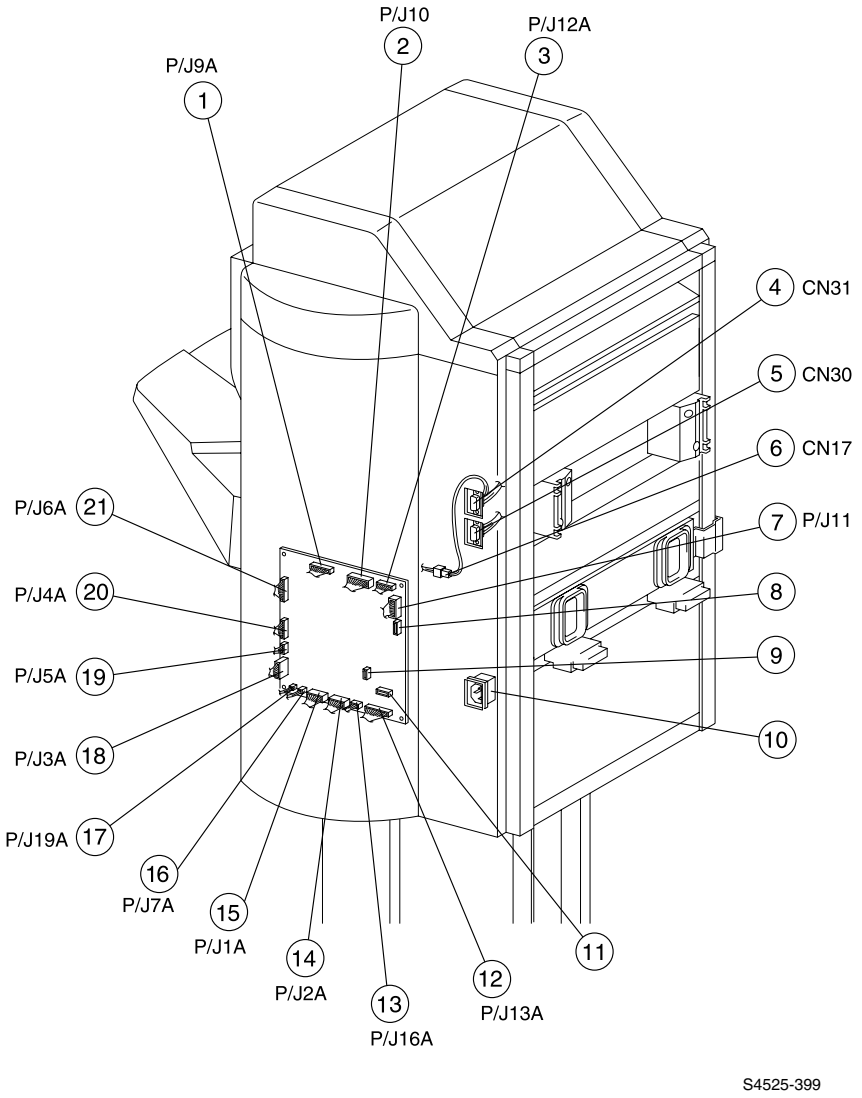

Fig 6-5 P/J Map 5

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Master Wiring Diagram

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

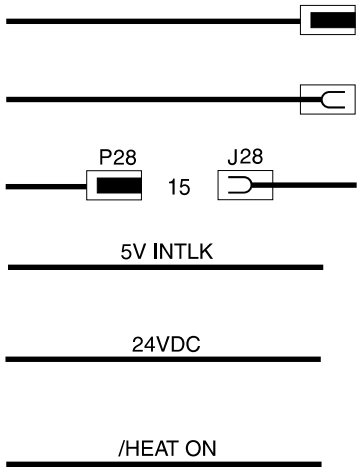

Fig 6-1

Master Wiring Diagram

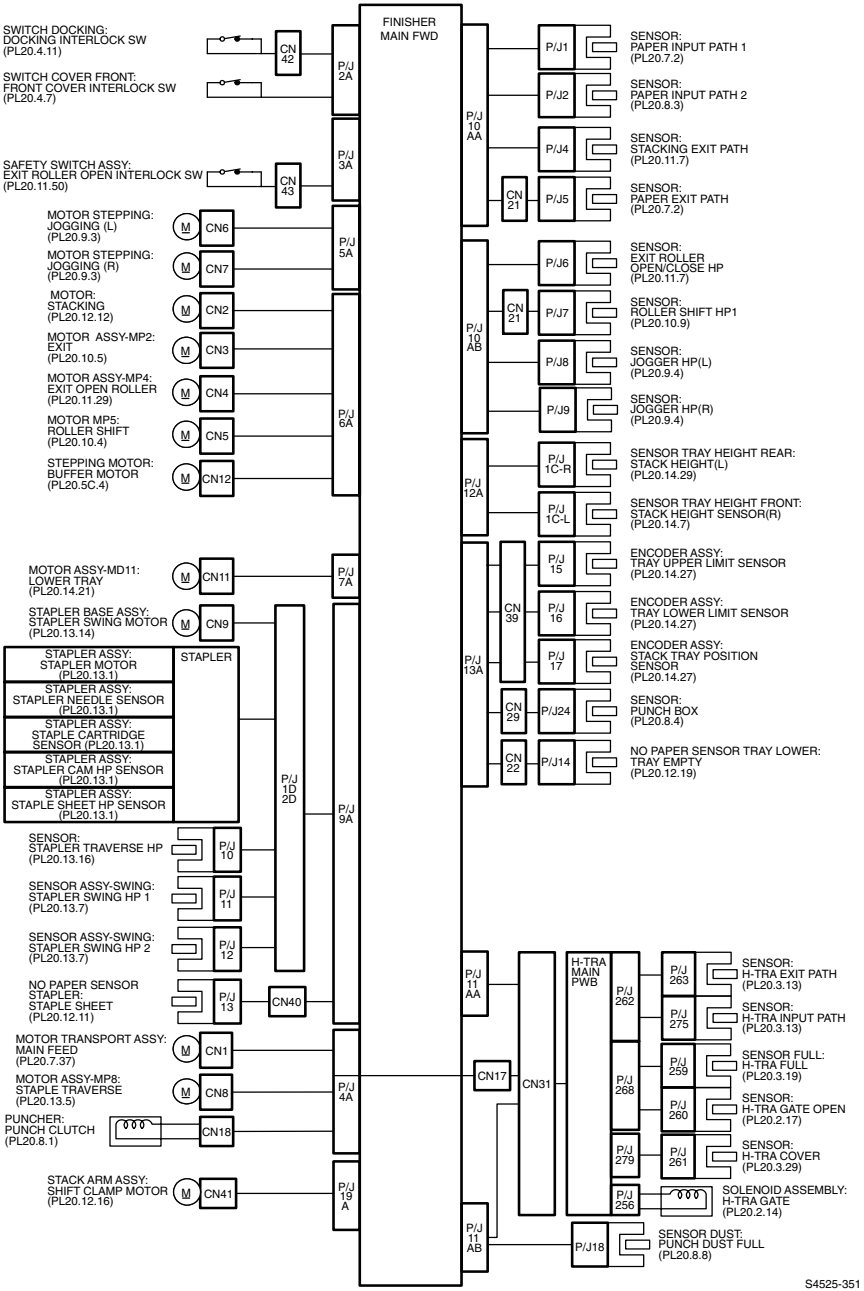

Fig 6-2