



# Phaser 5500/5550 Service Documentation



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Phaser® 5500/5550 Printer

Service Manual

Phaser 5500/5550 Printer

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Xerox Corporation

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# Introduction

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## About this Manual

The Phaser 5500/5550 Printer Service Manual is the primary document used for diagnosing, repairing, maintaining, and troubleshooting the printer. It is the controlling publication for a service call. Information on its use is found in the introduction of the Service Manual.

To ensure complete understanding of this product, participation in Xerox Phaser 5500/5550 Service Training is strongly recommended. To service this product, Xerox certification for this product is required.

### Service Manual Revision

Updates are issued as the system changes or as corrections are identified.

For updates to the Service Manual, Service Bulletins, Knowledge Base, etc., go to:

- Xerox Global Service Net - <https://www.xrsgn.com>
- Service Partners - <http://www.office.xerox.com/partners>

For further technical support, contact your assigned Xerox Technical Support for this product.

## Organization

The titles of the sections and a description of the information contained in each section are contained in the following paragraphs:

### Introduction and General Information

This section contains documentation organization, symbology and nomenclature, translated warnings, safety symbols, regulatory specifications, and general information.

### Section 1 - Service Call Procedures

This section contains procedures to be taken during a service call on the machine and in what sequence they are to be completed. This is the entry level for all service calls.

### Section 2 - Status Indicator RAPs

This section contains the diagnostic aids for troubleshooting the Fault Code and non-Fault Code related faults (with the exception of image quality problems).

### Section 3 - Image Quality

This section contains the diagnostic aids for troubleshooting any image quality problems, as well as image quality specifications and image defect samples.

### Section 4 - Repairs and Adjustments

This section contains all the removal, replacement, and adjustment procedures.

### Repairs

Repairs include procedures for removal and replacement of spare parts listed in the Parts List. Use the repair procedures for the correct order of removal and replacement, for warning, cautions, and notes.

### Adjustments

Adjustments include procedures for adjusting the parts that must be within specification for the correct operation of the system. Use the adjustment procedures for the correct sequence of operation for specifications, warnings, cautions, and notes.

### Section 5 - Parts List

This section contains the illustrated Parts List.

### Section 6 - General Troubleshooting

This section contains details of embedded Service Diagnostics tests, as well as troubleshooting procedures for system problems not related to a specific fault code.

### Section 7 - Wiring Data

This section contains drawings, lists of Plug/Jack locations, and diagrams of the power distribution wire networks in the machine. This section also contains the Block Schematic Diagrams.

### Section 8 - Theory of Operation

This section contains detailed functional information on the print engine components.

## How to Use this Documentation

The Service Call Procedures in section 1 describe the sequence of activities used during the service call. The call must be entered using these procedures.

### Use of the Circuit Diagrams

Circuit Diagrams (CDs) are included in Section 7 of the Service Manual. All wirenets, with the exception of power distribution wirenets, are shown on the CDs. The power distribution wirenets on the CDs will end at the terminal board for the power being distributed. Find the wirenet for that power and locate the terminal board on the wirenet. Use the wirenet to troubleshoot any power distribution wiring not shown on the CD.

### Use of the Block Schematic Diagrams

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

The BSDs do not contain an Input Power Block referring to Chain 1. It will be necessary to refer to the Wirenets in order to trace a wire back to its source.

### Notations Used in Wiring Diagrams

The symbols in the interconnection wiring diagrams are described below. Note that the description of general symbols is omitted.

Table 1 Symbols Used in Wiring Diagrams




Symbol	Description
	Represents an interconnection between parts using wiring harness or wire, and indicates its signal name/contents. The arrow ">" or "<" on the line represents the direction of signal flow.
<b>Figure 1 Interconnection</b> 	Represents an interconnection between parts using wiring harness or wire, which differs according to the specifications, and indicates its signal name/contents. The arrow ">" or "<" on the line represents the direction of signal flow.
<b>Figure 2 Interconnection Difference</b> 	Represents a connection between parts using a conductive member such as a plate spring, and indicates its signal name/contents. The arrow ">" or "<" on the line represents the direction of signal flow.

Table 1 Symbols Used in Wiring Diagrams




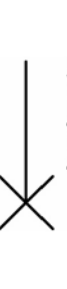


Symbol	Description
	Represents a function and a logical value (High (H) or Low (L)) of a signal when the function is activated. The voltage indicates a value when the signal is High. The arrow indicates the direction of signal flow.
<b>Figure 4 Function Activated</b> 	Represents a function and a logical value (High (H) or Low (L)) of a signal when the function is in a detectable state. The voltage indicates a value when the signal is High. The arrow indicates the direction of signal flow.
<b>Figure 5 Function Detectable</b> 	Represents a connection between lead wires.
<b>Figure 6 Lead Wires Connection</b> 	Represents a connection between parts by tightening of a screw.
<b>Figure 7 Screw Connection</b> 	Represents a connection between "A" and "A."
<b>Figure 8 Point Connection</b> 24 VDC	The DC voltage indicates an approximate value measured when the negative side is connected to a signal ground (SG).
<b>Figure 9 Signal Ground</b> 	Indicates a signal ground (SG).

Table 1 Symbols Used in Wiring Diagrams

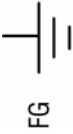
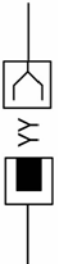

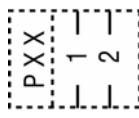
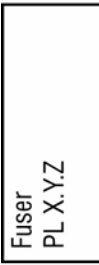


Symbol	Description
 FG Frame Ground <b>Figure 10 Frame Ground</b> RTN	Indicates a frame ground (FG).  Indicates a return.
 P/JXX Plug and Jack <b>Figure 11 Plug and Jack</b>	Represents a connector. The connector and PIN Nos. are shown at the upper and lower parts respectively. "P," indicates the plug side of the connector. "J," indicates the jack side of the connector.
 JPXX Plate Connection <b>Figure 12 Connection Terminal</b>	Represents a connection terminal with a plate spring on the printed circuit board. The connector No. is indicated inside the box.
 PXX 1 2 <b>Figure 13 PCB Connection</b>	Represents a connector directly connected to the printed circuit board. The connector No. is indicated inside the box.
 Fuser PL X.Y.Z Subassembly 1 <b>Figure 14 Part</b>	Represents a part. "PL X.Y.Z" indicates the item "Z" of the plate (PL) "X.Y" described in section 5 "Parts List".
 Heater Subassembly 2 <b>Figure 15 Functional Part</b>	Represents a functional part within a part, and indicates the name of the functional part.

Table 1 Symbols Used in Wiring Diagrams

Symbol	Description
 Reference Mark <b>Figure 16 Reference Mark</b>	Indicates a reference item associated with the section.

## Voltage Measurement and Specifications

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

**Table 2 Voltage Measurement and Specifications**

Voltage	Specification
INPUT POWER 220 V	198 VAC TO 242 VAC
INPUT POWER 100 V	90 VAC TO 135 VAC
INPUT POWER 120 V	90 VAC TO 135 VAC
+5 VDC	+4.75 VDC TO +5.25 VDC
+24 VDC	+23.37 VDC TO +27.06 VDC

## Logic Voltage Levels

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

**Table 3 Logic Levels**

Voltage	H/L Specification
+5 VDC	H= +3.00 TO +5.25 VDC L= 0.0 TO 0.8 VDC
+24 VDC	H= +23.37 TO +27.06 VDC L= 0.0 TO 0.8 VDC

## DC Voltage Measurement in RAPs

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

**There is +5 VDC from TP7 to TP68.**

In this example, the red meter lead would be placed on TP7 and the black meter lead on TP68.

**There is -15 VDC from TP21 to TP33.**

In this example, the red meter lead would be placed on TP21 and the black meter lead would be placed on TP33.

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

## Power Safety Precautions

### Power Source

For 115 VAC printers, DO NOT apply more than 127 volts RMS between the supply conductors or between either supply conductor and ground. For 230 VAC printers, DO NOT apply more than 254 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. Only qualified service technician should be using this Service Manual to perform the service.

Plug the three-wire power cord (with grounding prong) into a grounded AC outlet only. If necessary, contact a licensed electrician to install a properly grounded outlet. If the product loses its ground connection, contact with conductive parts may cause an electrical shock. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

## Disconnecting Power

### WARNING

Turning the power Off using the power switch does not completely de-energize the printer. You must also disconnect the power cord from the printer's AC inlet. Disconnect the power cord by pulling the plug, not the cord.

It is also important that sufficient time is allowed for printer shutdown prior to unplugging the power cord from the printer or power source. This can be determined by checking the Control Panel display, after turning the printer power Off, and waiting until the LCD display shuts down.

Disconnect the power cord from the wall first, then the printer in these cases:

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

## Service Safety Summary

### General Safety

The printer and recommended supplies have been designed and tested to meet strict safety requirements. Attention to the following information will ensure the continued safe operation of the printer.

#### Electrical Safety

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

#### WARNING

**Avoid the potential of electrical shock by ensuring that the system is properly grounded. Electrical products may be hazardous if misused. The power cord is attached to the printer as a plug-in device on the side of the printer. If it is necessary to disconnect all electrical power from the printer, disconnect the power cord from the electrical outlet.**

#### WARNING

**Do not remove the covers or guards that are fastened with screws unless you are installing optional equipment and are specifically instructed to do so. Power should be Off when performing these installations. Disconnect the power cord when removing the covers and guards for installing optional equipment. Except for user-installed options, there are no parts that you can maintain or service behind these covers.**

#### WARNING

The following are hazards to your safety:

- Damaged or frayed Power Cord
  - Liquid spilled into the printer
  - Exposure to water or excessive moisture
- If any of these conditions occur, perform the following:
1. Turn the Power Switch Off.
  2. Disconnect the Power Cord from the electrical outlet.
  3. Call an authorized service representative.

#### Maintenance Safety

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

### Operational Safety

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

Pay attention to these safety guidelines to ensure the continued, safe operation of the printer.

- Use the supplies specifically designed for your printer. The use of unsuitable materials may cause poor performance and a possible safety hazard.
- Follow all warnings and instructions marked on, or supplied with, the printer, options, and supplies.

#### Laser Safety

With specific regard to lasers, this printer complies with laser product performance standards set by governmental, national, and international agencies and is certified as a Class 1 Laser Product.

### General Guidelines

- For qualified service personnel only: Refer also the preceding Power Safety Precautions.
- Avoid servicing alone: Do not perform internal service or adjustment of this product unless another person capable of rendering first aid or resuscitation is present.
- Use care when servicing with power: 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 supply shield of 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.

#### Warning Labels

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

#### Safety Interlocks

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

#### Class 1 Laser Product

The Phaser 5500/5550 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 product does not emit hazardous laser radiation; which is possible only because the laser beam is totally enclosed during all modes of customer operation. When servicing the printer or laser unit, follow the procedures specified in this manual and there will be no hazards from the laser.



**WARNING**

Do not touch any electrical component unless you are instructed to do so by a service procedure.



Figure 1 Electrical Components Warning

Before starting any service procedure, switch the printer power Off 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.

**Servicing Mechanical Components**

**WARNING**

Do not try to manually rotate or stop the drive assemblies while any printer motor is running.



Figure 2 Mechanical Components Warning

When servicing mechanical components within the printer, manually rotate the Drive Assemblies, Rollers, and Gears.

**Servicing Fuser Components**

**WARNING**

This printer uses heat to fuse the toner image to the media. The Fuser is very hot. Turn the printer power Off and wait at least 5 minutes for the Fuser to cool before attempting to service the Fuser or adjacent components.

**Electrostatic Discharge Precautions**

Some semiconductor components, and the respective sub-assemblies that contains them, are vulnerable to damage by ESD. These components include Integrated Circuits (ICs), Large-Scale Integrated Circuits (LSIs), field-effect transistors and other semiconductor chip components. The following techniques will reduce the occurrence of component damage caused by static electricity.

Be sure the power is Off to the chassis or circuit board, and observe all other safety precautions.

- Immediately before handling any semiconductor components assemblies, drain the electrostatic charge from your body. This can be accomplished by touching an earth ground source or by wearing a wrist strap device connected to an earth ground source. Wearing a wrist strap will also prevent accumulation of additional bodily static charges. Be sure to remove the wrist strap before applying power to the unit under test to avoid potential shock.
- After removing a static sensitivity assembly from its anti-static bag, place it on a grounded conductive surface. If the anti-static bag is conductive, you may ground the bag and use as a conductive surface.
- Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage some devices.
- Do not remove a replacement component or electrical sub-assembly from its protective package until you are ready to install it.
- Immediately before removing the protective material from the leads of a replacement device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- Minimize body motions when handling unpacked replacement device. Motion such as your clothes brushing together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an electro-statically sensitive device.
- Use tools specifically designed to remove or install IC's and EPROM's to avoid bending pins.
- Pay attention to the direction of parts when mounting or inserting them on the PCBs.

## Electrostatic Discharge Field Service Kit

The purpose of the Electrostatic Discharge (ESD) Program is to preserve the inherent reliability and quality of electronic components that are handled by the Field Service Personnel. This program is being implemented now as a direct result of advances in microcircuitry technology, as well as a new acknowledgement of the magnitude of the ESD problem in the electronics industry today.

This program will reduce Field Service costs that are charged to Printed Wiring Board (PWB) failures. Ninety percent of all PWB failures that are ESD related do not occur immediately. Using the ESD Field Service Kit will eliminate these delayed failures and intermittent problems caused by ESD. This will improve product reliability and reduce callbacks.

The ESD Field Service Kit should be used whenever PWBs or ESD sensitive components are being handled. This includes activities like replacing or reseating circuit boards or connectors. The kit should also be used in order to prevent additional damage when the circuit boards are returned for repair.

The instructions for using the ESD Field Service Kit can be found in ESD Field Service Kit Usage in the General Procedures section of the Service Manual.

## Service Terms

### Manual Terms

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

- **Consumables:** Ink, toner, or print cartridge that is consumed. Customer is expected to replace once consumed.
- **Routine Maintenance Item:** Supply item or kit that has a finite life. Customer is expected to replace at end-of-life.
- **Accessory:** A single component or assembly that may be added to a printer; however, it is NOT an option to the product.

### Common Acronyms

- **FRU:** Field Replaceable Unit
- **PL:** Corresponds to the FRU Parts List.
- **CRU:** Customer Replaceable Unit
- **ESD:** Electrostatic Discharge

## Symbology and Nomenclature

The following reference symbols are used throughout the documentation.

### Warnings, Cautions, and Notes

Various terms are used throughout this manual to either provide additional information on a specific topic or to warn of possible danger present during a procedure or action. Be aware of all symbols and terms when they are used, and always read Note, Caution, and Warning statements.

Warnings, Cautions, and Notes will be found throughout the Service Manual. The words WARNING or CAUTION may be listed on an illustration when the specific component associated with the potential hazard is pointed out; however, the message of the WARNING or CAUTION is always located in the text. The WARNING and CAUTION definitions are as follows:

#### WARNING

**A warning indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, results in injury or loss of life.**

#### CAUTION

*A caution indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, results in damage to, or destruction of, equipment.*

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

## Common Warnings Machine Safety Symbols

The following common warnings are used throughout the documentation and the safety icons are displayed on the machine. Additional specific warnings are included for the listed sections.

### Common Warnings

#### WARNING

**To avoid personal injury or shock, do not perform repair or adjustment activities with the power switch On or electrical power applied to the machine.**

**DANGER:** *Afin d'éviter des blessures ou des chocs électriques, ne pas effectuer des activités de maintenance ou de réglage avec l'équipement sur Marche ou avec le cordon d'alimentation branché.*

#### WARNING

**A Warning is used whenever an operating or maintenance procedure, a practice, condition, or statement, if not strictly observed, could result in personal injury.**

**DANGER:** *Une note DANGER est utilisée à chaque fois qu'une procédure de maintenance ou qu'une manipulation présente un risque de blessure si elle n'a pas été strictement observée.*

#### WARNING

**Personal injury may result from grasping hot areas of the Fuser Unit. If a hot Fuser must be removed, grasp the Fuser by the black plastic frame component.**

**DANGER:** *Des blessures peuvent résulter si les zones chaudes du module de four sont touchées. Si un module de four chaud doit être enlevé, le saisir par l'élément en plastique noir du bâti.*

#### WARNING

**This machine contains an invisible laser. There is no visual indication that the laser beam is present. During servicing, the machine is a Class 3B product, because of the invisible laser beam could cause eye damage if looked at directly. Service procedures must be followed exactly as written without change. The service representative must observe the established local laser safety precautions when servicing the machine. Do not place tools with a reflective surface in the area of the ROS opening. Do not look in the area of the ROS window if the power is On and the laser is energized.**

**DANGER:** *L'équipement contient un faisceau laser invisible et aucune indication visible signale la présence du faisceau laser. De ce fait le produit est classé 3B pour tout ce qui concerne la maintenance. L'exposition directe des yeux au faisceau laser peut entraîner des lésions visuelles. Les procédures de maintenance doivent être réalisées sans aucun changement comme indiqué dans la documentation. Le représentant Xerox lors d'interventions sur l'équipement doit respecter les consignes de sécurité locales concernant les faisceaux laser. Ne pas placer d'objet réfléchissant dans la zone du ROS quand il est ouvert. Ne pas regarder dans la zone du ROS lorsque la machine est sous tension et que le laser est en fonctionnement.*

## WARNING

The following symbol and statement appear on a label in the machine. The symbol by itself, or the symbol and the statement may also appear in the Service Manual and in the Training program. When this symbol appears, the service representative is warned that conditions exist that could result in exposure to the laser beam.

**DANGER:** Les symboles et instructions suivants sont indiqués sur des étiquettes dans la machine et sont identifiés dans la documentation technique et dans le manuel de formation. Quand ces symboles s'affichent le représentant Xerox est prévenu des risques encourus concernant une exposition au rayon laser.

## WARNING

Do not try to bypass any laser interlocks for any reason. Permanent eye damage could result if the laser is accidentally directed into your eyes.

**DANGER:** Ne pas essayer de shunter les contacts laser pour quelques raisons que ce soit. Si le faisceau laser est dirigé accidentellement vers les yeux il peut en résulter des lésions oculaires permanentes.

## WARNING

**HIGH VOLTAGE!**

**DANGER: HAUTE TENSION!**

Exercise with care when making the voltage check in the following steps.

**DANGER:** Soyez extrêmement vigilant lorsque vous effectuez les tests de tension au cours des étapes qui suivent.

### Machine Safety Icons

Danger invisible laser radiation when open. Avoid direct exposure to beam.



Figure 1 Laser Hazard Symbol

This symbol indicates Danger High Voltage.



Figure 2 Danger High Voltage Symbol

Protective ground (earth) symbol.



Figure 3 Protective Ground (earth) Symbol

These symbols indicate hot surface on or in the printer. Use caution to avoid personal injury.



Figure 4 Hot Surface On Printer Symbol



Figure 5 Hot Surface Symbol

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



Figure 6 Caution 30 Minutes Symbol

It may take 30 minutes for the Fuser to cool down.



Figure 7 30 Minutes for Fuser to Cool Down Symbol

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



**Figure 8 Pinching Fingers Caution Symbol**

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



**Figure 9 Use Caution Symbol**

Do not touch the item.



**Figure 10 Do Not Touch Item Symbol**

Do not expose the item to sunlight.



**Figure 11 Do Not Expose Item to Sunlight Symbol**

Do not expose the item to light.



**Figure 12 Do Not Expose Item to Sunlight Symbol**

Do not burn the Printer Cartridge.



**Figure 13 Do Not Burn Print Cartridge Symbol**

Do not expose the Print Cartridge to sunlight.



**Figure 14 Do Not Expose Print Cartridge to Sunlight Symbol**

## Regulatory Specifications

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

### United States (FCC Regulations)

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with these instructions, it may cause harmful interference to radio communications. Operation of Class A equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment Off and On, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

### Canada (Regulations)

This Class A digital apparatus complies with Canada ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

## European Union

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



**Figure 1 CE Marking**

12 December 2006: Low Voltage Directive 2006/95/EC

15 December 2004: Electromagnetic Compatibility Directive 2004/108/EC

9 March 1999: Radio & Telecommunications Terminal Equipment Directive 1999/5/EC

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

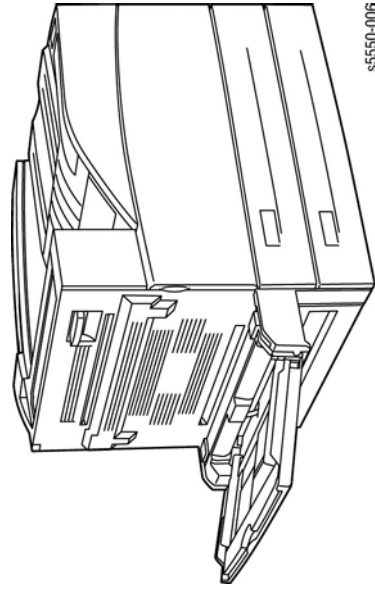
To ensure compliance with European Union regulations, use shielded interface cables.

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

## Phaser 5500/5550 Printer Overview

The Phaser 5500/5550 printer combines a dual-pass, monochrome laser print engine with an image processor supporting Adobe's PostScript 3 description language. The PCL5e, PCL6 and Oak PCL 5.0 printer languages are also supported. Print speed is 50 pages per minute at either 600 x 600 or True 1200 x 1200 dpi in 1-sided or 2-sided modes. The printer features a bidirectional parallel interface and a USB port. The Phaser 5500/5550 printer provides a 100-sheet Tray 1/MPT from which specialty media, card stock, larger format paper, and envelopes are fed. Tray 1 also supports manual feeding. Two additional trays, Tray 2 and 3, each provide 500 sheets of capacity. The Standard Output Tray holds 500 sheets face down.

Phaser 5500/5550 printer options add memory, paper capacity and functionality. For models not originally equipped, an internal Hard Drive is available for font storage, storing print files, job collation, proof print and secure print support. A selection of RAM memory upgrades are available to raise the installed quantity to the 1 GB maximum. A 1000-Sheet Feeder is available with two, 500-sheet universal media trays (Trays 4 and 5). A 2000-Sheet Feeder (Tray 6) brings the maximum input capacity to 4,100 sheets. An Envelope Tray, replacing Tray 2, is available to feed envelopes. On the output side, a 3,500-sheet, high-capacity stapler/punch/stacker is available raising the output total to 4000 sheets. A Configuration Card option adds Ethernet 10/100/Gigabit base Tx networking to base models.



s5550-006

Figure 1 Phaser 5500/5550 Printer

## Phaser 5500/5550 Differences

New for the 5550 model is a revised Image Processor Board that increases RAM memory capacity, processor speed, and is redesigned to permit customer replacement. Added to the Rear Panel is an Engine Test Print button that bypasses Image Processor Board logic to quickly isolate some printer malfunctions. Access to error reports is improved with the addition of a Printer Status page that lists the last 30 errors recorded.

The adoption of current controller functionality puts 5550 behavior into alignment with other recently released products. The 5550 offers the same input and output options as the 5500. Supplies and consumables are compatible between models.

## Phaser 5500/5550 Printer Configurations

Table 1 lists Phaser 5500/5550 printer configurations.

**NOTE:** For the 5550 model, base memory is increased from 128 MB to 256MB, with a new maximum of 1 GB. The DX model has been dropped for the 5550.

Table 1 Phaser 5500/5550 Configurations

Features	Printer Configurations 5500/5550					
	B	N	DN	DT	DX (5500)	
Maximum Print Speed (Letter-size Paper)	50 ppm	50 ppm	50 ppm	50 ppm	50 ppm	
Memory	128/256 MB	128/256 MB	128/256 MB	128/256 MB	128 MB	
PostScript Fonts	137	137	137	137	137	
Oak PCL 5.0	Yes	Yes	Yes	Yes	Yes	
PCL5e/PCL6	Yes	Yes	Yes	Yes	Yes	
Job Pipelining	Yes	Yes	Yes	Yes	Yes	
PDF Direct Print	Yes	Yes	Yes	Yes	Yes	
Resolutions (dpi)	600 or True 1200 dpi	600 or True 1200 dpi	600 or True 1200 dpi	600 or True 1200 dpi	600 or True 1200 dpi	
USB, Parallel	Yes	Yes	Yes	Yes	Yes	
Ethernet Capabilities	Optional	Standard	Standard	Standard	Standard	
1000-Sheet Feeder	Optional	Optional	Optional	Standard	Standard	
Automatic 2-Sided Printing (Requires Duplex Unit)	Optional	Optional	Standard	Standard	Standard	
Hard Drive	Optional	Optional	Optional	Optional	Standard	
Job Collation (Hard Drive Required)	Optional	Optional	Optional	Optional	Standard	
Proof Print, Personal Print, Secure Print, Saved Jobs (Hard Drive Required)	Optional	Optional	Optional	Optional	Standard	
2,000-Sheet Feeder (Requires 1000-Sheet Feeder)	Optional	Optional	Optional	Optional	Standard	
3,500-Sheet Feeder (Requires 1000-Sheet Feeder)	Optional	Optional	Optional	Optional	Standard	

## Parts of the Printer

### Front View

1. Standard Output Tray
2. Front Door
3. Trays 2 and 3
4. Optional Duplex Unit
5. Tray 1/MPT
6. 2000-Sheet Feeder (Tray 6)
7. 1000-Sheet Feeder (Trays 4 & 5)
8. Finisher
9. Stacker Lower Tray
10. Stacker Upper Tray

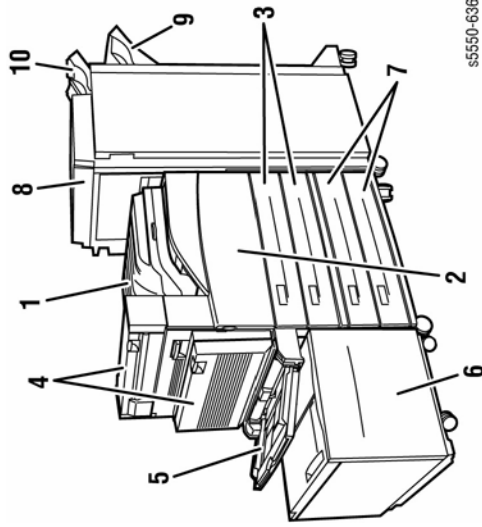


Figure 1 Front View

### Rear View

1. Parallel Connection
2. Test Print Button
3. USB Connection
4. Ethernet Connection
5. Mode Select Port
6. Serial Debug Port
7. Configuration Card
8. Ground Fault Interrupt Reset
9. Printer Power Connection
10. Finisher Connection
11. 1000-Sheet Feeder Connection
12. Duplex Unit Connector

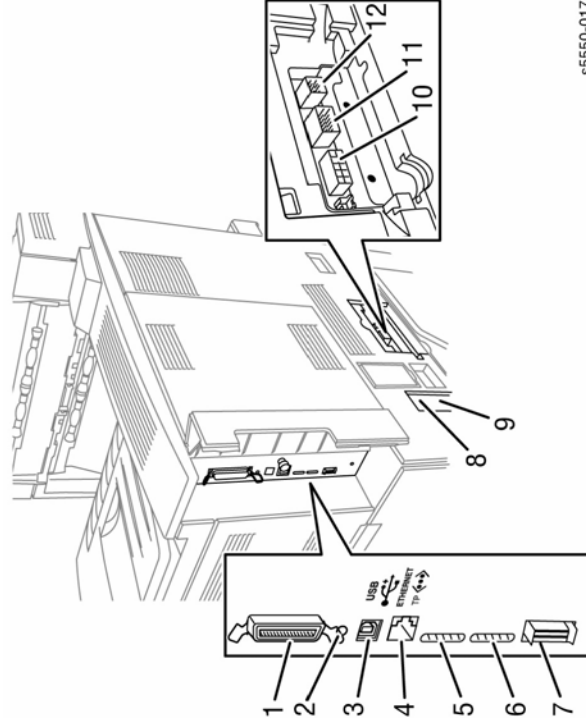


Figure 2 Rear View



## Control Panel

The Control Panel consists of one tricolor LED, a display, and six functional buttons. Listed below are the functions of each Control Panel control and indicator.

1. **LED**
2. **Control Panel Display**
3. **Toner Gauge**
4. **Cancel button**
5. **Back button**
6. **Up Arrow button** - scrolls up the menu system
7. **Down Arrow button** - scrolls down the menu system
8. **OK (select) button**
9. **Information button** - for additional explanation or help

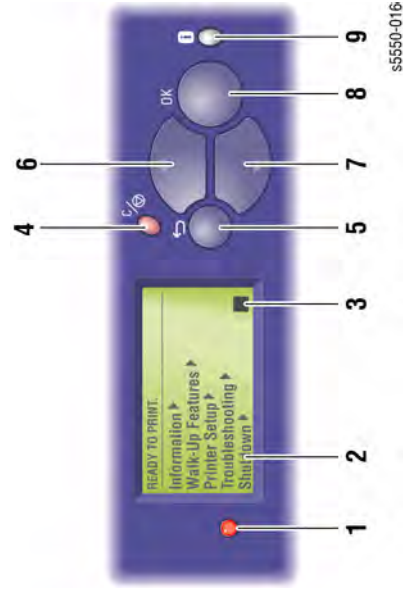


Figure 3 Control Panel

## LED States

Table 1 LED States

LED State	Print State
Green	Ready to print
Flashing Yellow	Warning (but can still print)
Flashing Green	In Power Saver mode or busy (receiving or processing data)
Flashing Red	Error; cannot print

## Printer Options

Phaser 5500/5550 printer options include:

- Hard Drive
- Additional RAM and NVRAM
- Exit 2
- 1000-Sheet Feeder (Trays 4 & 5)
- Duplex Unit
- 3,500-Sheet Stacker (with offset)
- 3,500-Sheet Finisher (with hole punch, staple, offset)
- 2,000-Sheet Feeder (Tray 6)
- Envelope Tray (replaces Tray 2)

## Hard Drive

A hard drive is available to enable the Job Collation, Saved Jobs, Proof, Personal, and Secure Print options. The hard drive installs on the Image Processor Board with stand-offs and connects to the board with a single data/power connector.

## Additional Memory

Options provide additional RAM in 256 MB and 512 MB increments. Also available is 32 MB of Flash Memory for fonts, forms, and macros. Both RAM and NVRAM options install to the Image Processing board. The Startup Page and Configuration Page list the amount of installed RAM. Refer to Memory Specifications.

## Exit 2

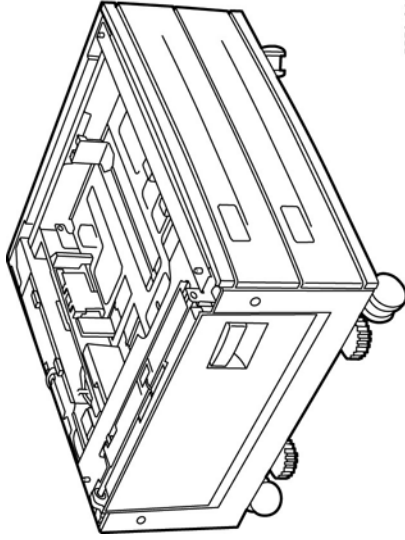
Exit 2 is required when either the Duplex Unit or Stacker/Finisher is installed. When used in conjunction with the Duplex Unit, Exit 2 performs as a paper inverter. With the Stacker/Finisher, Exit 2 serves as the replacement face-down exit to the top tray. Exit 2 mounts directly above Exit 1 with spring loaded latches and guide pins.

## Networking

A Configuration Card is used to enable or disable networking capabilities. This option provides a replacement card to enable Ethernet on the base model (Phaser 5500/5550B printer).

### 1000-Sheet Feeder

The 1000-Sheet Feeder forms a base for the printer and adds two, 500-sheet trays (Tray 4 and Tray 5). Control signals reach the sheet feeder by a single connection. The sheet feeder is secured to the print engine with two screws located under the front edge of Tray 3.

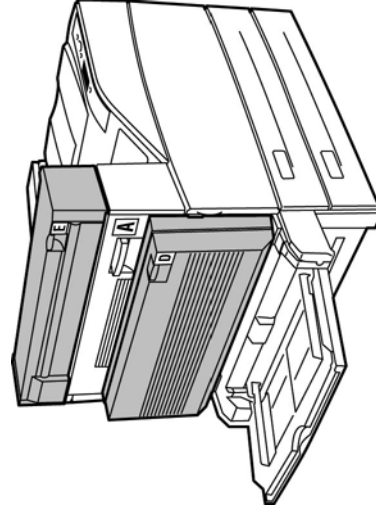


s5550-012

Figure 1 1000-Sheet Feeder

### Duplex Unit

The Duplex Unit adds two-sided printing. The Duplex Unit attaches to the left side above Tray 1 using two twist locks. Installation of the Duplex Unit requires that the Exit 2 Module also be added to provide reverse drive. Electrical connection to the printer is made by an interface cable.

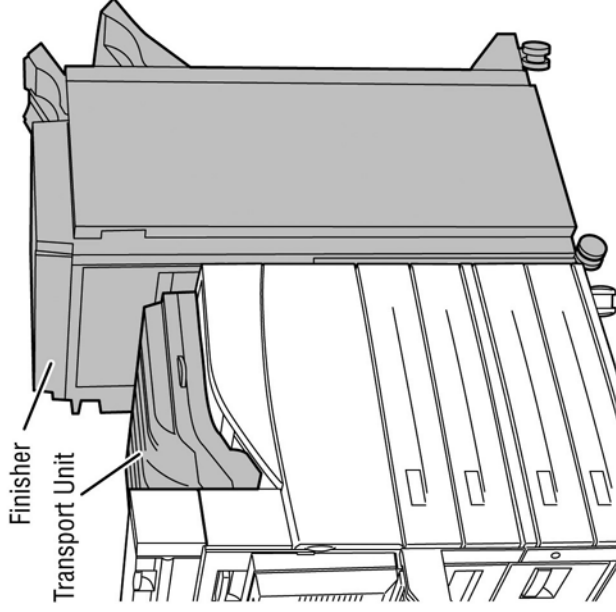


s5550-008

Figure 2 Duplex Unit

### Stacker / Finisher

The Stacker/Finisher increases the output capacity of the printer by 3,500 sheets. Printer output is directed to the Stacker/Finisher by way of Exit 1 and the Horizontal Transport. With Exit 2 installed, the top surface of the Horizontal Transport serves as the top tray and paper output capacity remains at 500 sheets. Depending on the level of Stacker/Finisher options and job specifications, as paper enters the Stacker/Finisher it is punched, stapled, offset and stacked. Control signals reach the Stacker/Finisher through a single connector. Power is supplied from the printer's AC Accessory Panel.



s5550-009

Figure 3 Stacker / Finisher

## 2000-Sheet Feeder

The 2000-Sheet Feeder (Tray 6) nearly doubles the input capacity of the printer. The feeder attaches to the left side of printers equipped with the 1000-Sheet Feeder option just below Tray 1/MPT using the supplied docking bracket. Electrical connection to the printer is made by an interface cable.

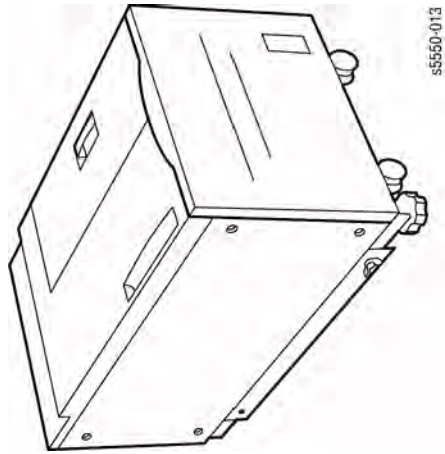


Figure 4 2000-Sheet Feeder

## Envelope Tray

The Envelope Tray replaces Tray 2 to feed envelopes.

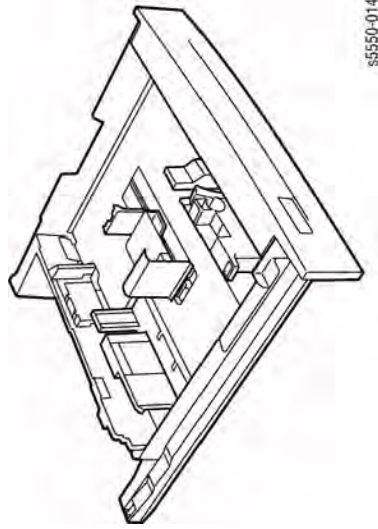


Figure 5 Envelope Tray

### CAUTION

To avoid damage to the Envelope Tray, insert in the Tray 2 position only.

## Consumables and Routine Maintenance Items

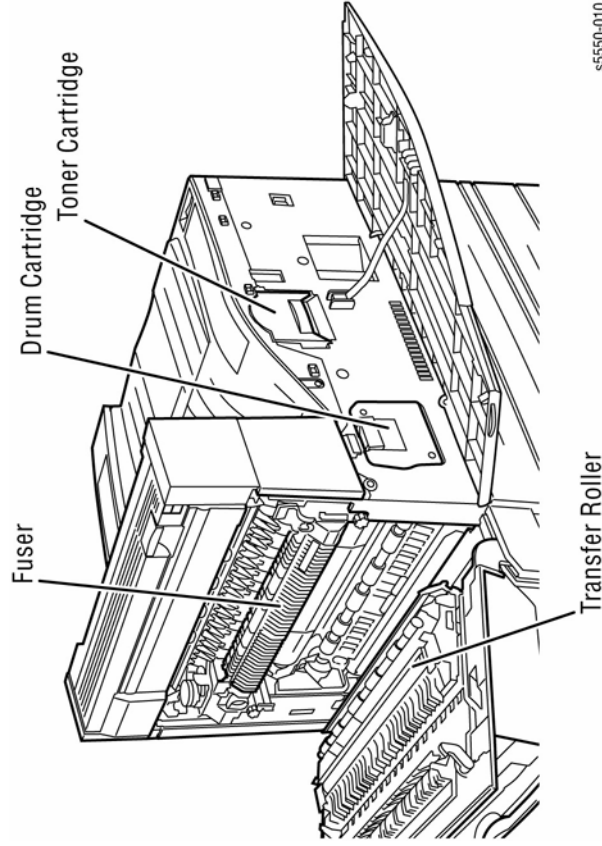


Figure 1 Consumables and Routine Maintenance Items

## Supply Life Counters

Counters track the usage of the consumables and routine maintenance items and store the values in NVRAM. Access the current status of these counters from the Supplies Info menu. In addition to the counters, a Toner Gauge is provided on the Control Panel that approximates the Toner Cartridge counter value. As counters near their minimums, warning messages appear on the Control Panel.

Print life ratings are based on 5% average coverage and an average job length of 6 pages.

Table 1 Consumables and Routine Maintenance Items Life Expectancy

Consumables	Print Life (Number of Images)
Toner Cartridge	30,000 (5500) 35,000 (5550)
Routine Maintenance Items	
Fuser	300,000
Drum Cartridge	Up to 60,000 dependent on job size
Maintenance Kit (consists of Fuser, Transfer Roller and 15 Feed Rollers)	300,000

## Printer Specifications

### Physical Dimensions

Table 1 Physical Dimensions

Device	Height	Width	Depth	Weight
Print Engine	498 mm (19.6 in.)	640 mm (25.2 in.)	525 mm (20.7 in.)	41 kg (90 lbs.)
Duplex Unit	211 mm (8.3 in.)	64 mm (2.52 in.)	458 mm (18.0 in.)	1.8 kg (4 lbs.)
1000-Sheet Feeder	280 mm (11.0 in.)	540 mm (21.2 in.)	520 mm (21.1 in.)	23 kg (50 lbs.)
Stacker / Finisher	1050 mm (41.3 in.)	740 mm (29.1 in.)	650 mm (25.6 in.)	49 kg (108 lbs.)
Exit 2	142 mm (5.6 in.)	130 mm (5.1 in.)	460 mm (18.1 in.)	2 kg (4.4 lbs.)
Envelope Tray	76 mm (3.0 in.)	538 mm (21.2 in.)	521 mm (20.5 in.)	3.2 kg (7 lbs.)
2000-Sheet Feeder	363 mm (14.3 in.)	385.5 mm (15.1 in.)	600 mm (23.6 in.)	50 kg (110 lbs.)

## Memory Specifications

Table 2 Memory Specifications

Characteristic	Specification
Minimum RAM	128 MB (5500), 256 MB (5550)
Maximum RAM	512 MB (5500), 1 GB (5550)
Supported RAM	SO-DIMM 144-pin module of 128, 256, or 512 MB. All combinations are allowed for configurations to the maximum allowable.
NVRAM	Single chip either PPROM or StrataFlash 16 or 32 MB

## Functional Specifications

Table 3 Functional Specifications

Characteristic	Specification
Printing Process	Recording System: Electrophotography (roller charging, magnetic dual component toner and DRUM Cartridge) Exposure System: Semiconductor laser beam scanning Transfer System: Roller transfer system Fusing System: Thermal fixing using a heat roller
Resolution / Addressability	600/ True 1200 dpi
Print-Quality Modes	Two choices: <ul style="list-style-type: none"> <li>• 600 x 600 dpi</li> <li>• True 1200 x 1200 dpi</li> </ul>
Continuous Operating Printing Speed	50 pages per minute for plain Letter paper, simplex or duplex 50 pages per minute for A4 paper, simplex or duplex
Warm-Up Time: Sleep Mode Stand By	45 sec. 6 sec.

## Electrical Specifications

Table 4 Electrical Specifications

Characteristic	Specification
Primary Line Voltages	120 VAC nominal, min. 99 V, max. 135 V 220/240 VAC nominal, min. 198 V, max. 254 V
Primary Line Voltage Frequency Range	50/60 Hz +/-3 Hz
Input Current: Operating	12 A max. @ 120 V 8 A max. @ 240 V
Rush	100 A max.
Power Consumption: Operating (5500/5550DX) Sleep Mode	1150 W max. @ 120 V, 1300 W max. @ 240 V 10 W max @ 120/240 V
BTU's at 120V:	Operating 3924 Power Saver 34
BTU's at 240V:	Operating 4436 Power Saver 34

## Environmental Specifications

Table 5 Environmental Specifications

Characteristic	Specification	
Temperature Operating Transportation	5 to 32° C (41 to 95° F) -20 to 40° C (-4 to 104° F)	
Humidity (%RH) Operating Transportation	15 to 85 5 to 85	
Altitude Operating Transportation*	0 to 2,500 meters (8,200 feet) 0 to 15,000 meters (49,200 feet)	
Print Engine Acoustic Noise LWA(B) Standby Printing	Engine Only 4.0 B 7.1 B	Bystander Position 22 db 54 db
Options Acoustic Noise LWA(B) Idle Printing	Engine Only 4.00 B 6.80 B	With Options --- 7.00 B

\* Air transportation in pressurized cargo space

## Tray and Media Specifications

Table 6 Tray Specifications

Characteristic	Trays	Specification
Printable Area	All	Within 4 mm of paper edge guaranteed. Edge-to-edge printing supported.
Supported Envelopes	Tray 1 or Tray 2 (with Envelope Tray installed)	COM-10 (4.1 x 9.5 in.) Monarch (3.8 x 7.5 in.) DL (110 x 220 mm) C5 (162 x 229 mm)
Supported Media Weights	Tray 1,3,4,5,6 Tray 2 Duplex	60-216 g/m <sup>2</sup> (16 lb. bond to 133 lb. card stock) 60-105 g/m <sup>2</sup> (16 to 28 lb. bond) 60-163 g/m <sup>2</sup>
Tray Capacity	Tray 1 Tray 2 Tray 3 Tray 4 Tray 5 Tray 6 Top (face-down) Stacker/Finisher	100 Sheets / 15 envelopes 500 Sheets or to fill line with Envelope Tray 500 Sheets 500 Sheets 500 Sheets 2000 Sheets 500 Sheets 3000 elevator, 500 in top tray Based on 75 g/m <sup>2</sup> (20 lb. letter-size) paper. Capacity is reduced for heavier/thicker stock.

# Phaser 5500/5550 Printer Menu Map

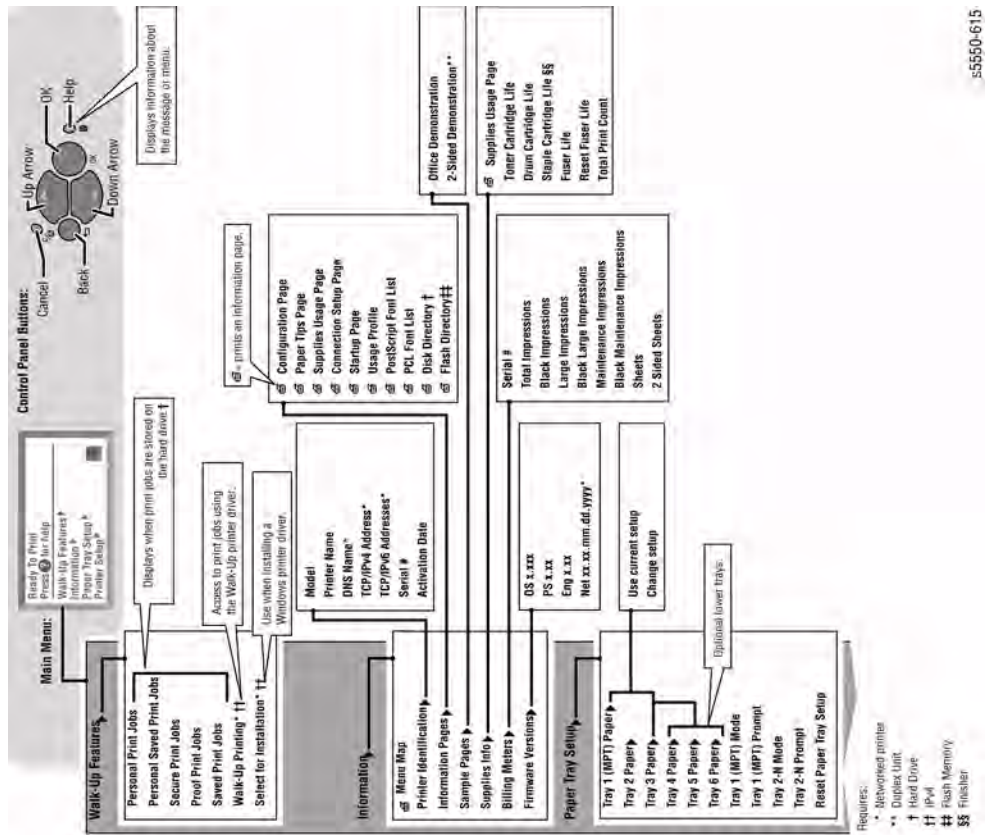


Figure 1 Menu Map (page 1)

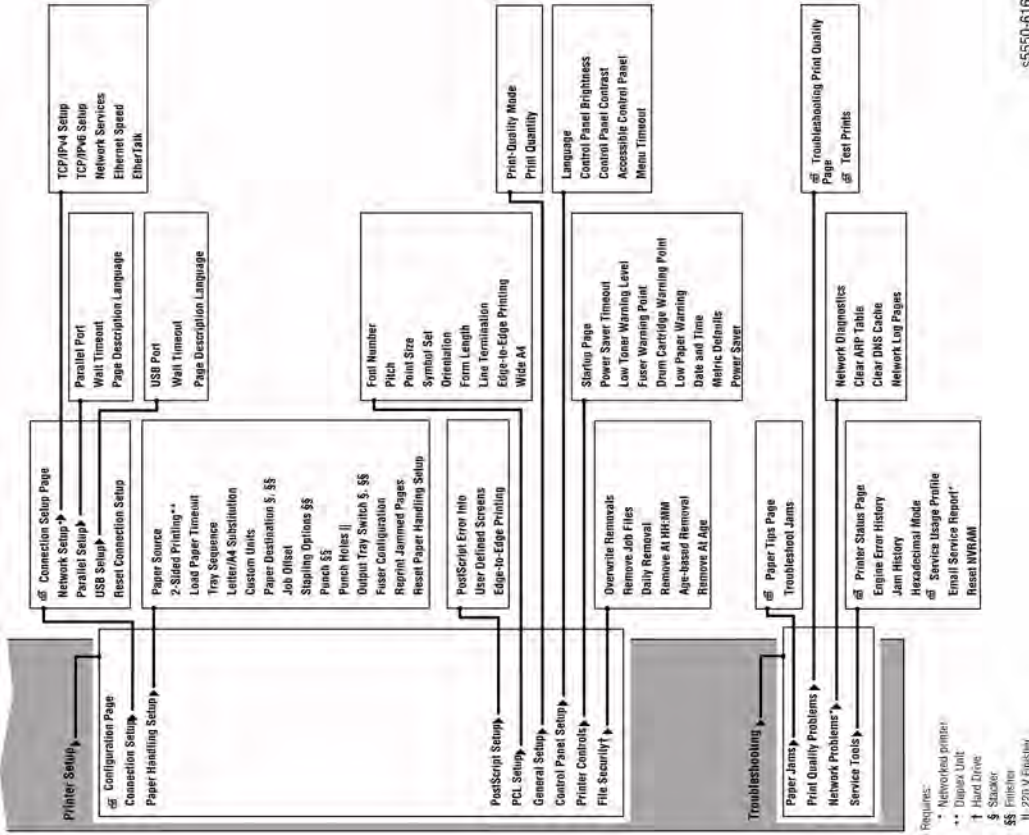


Figure 2 Menu Map (page 2)



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# 1 Service Call Procedures

Service Call Procedures.....	1-3
Servicing Instructions .....	1-4





## Service Call Procedures

Perform the following procedures whenever you check, service, or repair a printer. Cleaning the printer, as outlined in the following steps, assures proper operation of the printer and reduces the probability of having to service the printer in the future.

The frequency of use and the type of paper a customer prints on determines how critical and how often cleaning is necessary.

### Technician's Tool Kit

Table 1 lists common tools used to service this and other similar products.

**Table 1 Service Tools**

Description	Detail	Part Number
Phillips Drivers	#2 and #1 5.0 x 75mm, 3.0 x 75mm, 6.0 x 100mm	
Screw Driver	(-) 3 x 50	600T40205
Screw Driver	(+) 6 x 100	600T1989
Screw Driver	(+) NO. 1	499T356
Screw Driver	(=) 100MM	499T355
Spanner and Wrench	5.5 x 5.5	600T40501
Spanner and Wrench	7 x 7	600T40502
Hex Key Set		600T02002
Box Driver	5.5 mm	600T1988
Box Driver	1/4 inch	
Side Cutting Nipper		600T40903
Round Nose Pliers		600T40901
Lubricant/Grease	Reolube	070E00890
Cleaners	Multipurpose surface cleaner and Alcohol	
ESD Strap		
Nut Driver	5.5mm (magnetic)	600T2123
Serial Adaptor Cable		600T80374
Network Cross-over cable	Tech	
Multimeter	Volts, Ohms, Current	600T2020
Interlock Cheater		600T91616
Silver Scale	150MM	600T41503
CE Tool Case		600T1901
Magnetic Screw Pick-up		600T41911
Scribe Tool		600T41913
Eye Loop		600T42008
Flashlight		600T1824
Brush		600T41901
Test Lead Red		600T9583
Test Lead Black		600T2030
IC Chip Puller		

## Cleaning

### CAUTION

Never apply alcohol to any parts in the printer. If you remove the Drum Cartridge, place it in a light protective bag.

**NOTE:** Never use a damp cloth to clean up toner.

- Record number of sheets printed.
- Print several sheets of paper to check for problems or defects. Print to all output trays and staple or punch if Finisher is installed.
- Print the fault history. Diagnose and repair to correct listed faults.
- Turn Off the printer and disconnect the Power Cord.
- Remove the I/P Board and Upper Rear covers and clean the Fuser Fan with a brush or dry cloth to remove excess dust and toner.
- Remove any debris or foreign objects from the Transfer Roller, Fuser, Laser Assembly, and paper path.
- Vacuum out any loose toner with a Type II toner vacuum only.
- Remove and clean all paper trays.
- Clean feed rollers with a lint-free cloth lightly dampened with water.
- Inspect the interior of the printer for damaged wires, loose connections, toner leakage, and damaged or obviously worn parts.
- If the Drum or Toner Cartridges appear damaged, replace with a new one.

## Service Call Procedures

These instructions are an overview of the Steps a service technician should take, using this manual, to service the print engine and options. If you choose not to use these Steps, it is recommended that you start at the appropriate troubleshooting procedure and proceed from there. When servicing the printer, always follow the safety measures detailed in Service Safety Summary in Introduction section.

**Table 1 Servicing Instructions**

Description
<p><b>Step 1: Identify the Problem</b></p> <ul style="list-style-type: none"> <li>• Verify the reported problem does not exist.</li> <li>• Check for any error codes and write them down.</li> <li>• Print normal customer prints and service test prints.</li> <li>• Make note of any print-quality problems in the test prints.</li> <li>• Make note of any mechanical or electrical abnormalities present.</li> <li>• Make note of any unusual noise or smell coming from the printer.</li> <li>• Print a Service Usage Profile, if the printer is able to print.</li> <li>• View the Engine Error and Jam Histories under the Service Tools menu.</li> <li>• Verify the AC input from the wall outlet is within specifications.</li> </ul>
<p><b>Step 2: Inspect and Clean the Printer</b></p> <ul style="list-style-type: none"> <li>• Follow the Cleaning instructions in section 1, Service Call Procedures.</li> <li>• Verify that the power cord is in serviceable condition.</li> <li>• Restart the printer to check if the error reoccurs.</li> </ul>
<p><b>Step 3: Find the Cause of the Problem</b></p> <ul style="list-style-type: none"> <li>• Use the troubleshooting procedures to find the root cause of the problem.</li> <li>• Use Service Diagnostics to check the printer and optional components.</li> <li>• Use the Wiring Diagrams and Plug/Jack Locator to locate test points.</li> <li>• Take voltage readings as instructed in the appropriate troubleshooting procedure.</li> </ul>
<p><b>Step 4: Correct the Problem</b></p> <ul style="list-style-type: none"> <li>• Use the Parts List to locate a part number.</li> <li>• Use the FRU Disassembly procedures to replace the part.</li> </ul>
<p><b>Step 5: Final Checkout</b></p> <ul style="list-style-type: none"> <li>• Test the printer to verify the problem is corrected and no new problems arose.</li> </ul>

## 2 Status Indicator RAPs

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Jam at Tray 6 - C8-5 HCF F/0 Sensor Static Jam .....	2-40	Tray 4-5 Control Board Failure - H7-7 Comm Failure .....	2-103
Jam at D - C8-6 Duplex .....	2-42	Incorrect Tray 4-5 Installed - H7-8 Type Error .....	2-104
Jam at Tray 1/MPT - C9-3 Tray 1/MPT .....	2-43	Tray N Failure - H8-1, Tray 2-3 Size Sensor Broken .....	2-105
Jam at A - F4-12 H-Transport Entrance Sensor ON .....	2-43	Tray N Failure - H8-3, 4-5 Tray Size Sensor Broken .....	2-106
Jam at A or F - F4-n H-Transport Entrance Sensor Static .....	2-45	Toner Empty - J1-2 Toner Empty .....	2-107
Jam at A or F - F4-n H-Transport Exit Sensor ON .....	2-46	No Drum Cartridge - J3-1 Drum Not Installed .....	2-108
Jam at F - F4-26 H-Transport Exit Sensor Static .....	2-47	Drum Cartridge Failure - J4-1 ATC Sensor Detect .....	2-109
Jam at F - F4-32 Transport Entrance Sensor ON .....	2-48	Replace Drum Cartridge - J6-1 Drum End of Life .....	2-109
Jam at F - F4-36 Transport Entrance Sensor Static .....	2-50	Drum Cartridge Failure - J7-n Comm/NVRAM/Type Error .....	2-110
Jam at G - F4-4n Buffer Path Sensor ON .....	2-51	Replace Incorrect Drum Cartridge - J7-3 DRUM Type Mismatch .....	2-110
Jam at G - F4-4n Buffer Path Sensor Static .....	2-54	Toner Cartridge Failure - J8-n Toner Comm/Read/Write .....	2-111
		Replace Incorrect Toner Cartridge - J8-3 Toner Cartridge Type Mismatch .....	2-111

Toner Is Low - Toner Low .....	2-112
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Tray Empty - No Paper in Tray 2 or 3 .....	2-114
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Paper Size Jam - Paper Size in Tray 4 or 5 .....	2-118
Paper Size Jam - Paper Size in Tray 6 .....	2-120
Drum Cartridge Failure - Drum ATC Value Out of Range .....	2-121
Temp/Humidity Sensor Failure - Value Out of Range .....	2-121
Face Down Tray Paper Full - Face Down Tray Full .....	2-122
Stacker Upper Tray Full - Finisher Tray Paper Full .....	2-123
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Stapler is Empty - Staple Pin Warning .....	2-125
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Stapler Failure - Staple Failure .....	2-127
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Punch Waste Box is Missing .....	2-129
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Printer Front Door is Open - Front Cover is Open .....	2-131
Slide In Tray 6 Feeder - Tray 6 Undocked .....	2-132
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Close Door B - Door B is Open .....	2-133
Close Door C - Door C is Open .....	2-134
Close Door D - Door D is Open .....	2-135
Close Door E - Door E is Open .....	2-136
Close Door F - Door F is Open .....	2-136
Close Door G - Door G is Open .....	2-137
Close Door H - Door H is Open .....	2-138
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Invalid or Missing Configuration Card .....	2-141
Duplicate IP Address Detected .....	2-141

## Overview

This chapter describes the printer's self-diagnostic capabilities and includes methods to identify and remedy reported printer problems. The diagnostic routines report problems using error messages and fault codes displayed on the Front Panel, logged in the Service Usage Profile, listed on the Startup Page or by flashing LEDs. These error indications serve as the entry point into the troubleshooting process. Printer problems not directly indicated by or associated with an error message or fault code are covered in Section 6, "General Troubleshooting." Printer quality problems are covered in Section 3, "Image Quality."

## Introduction

The error messages and codes generated by the printer's operating system, the Service Usage Profile, and Service Diagnostics are the lead-in to the troubleshooting procedures that follow in subsequent pages. This section correlates the output of these three diagnostic aids and provides the troubleshooting procedure to locate and correct reported errors.

## Error Message Abbreviations

Due to limited display space, some error messages include abbreviations. The most common abbreviations used throughout this section are listed here.

**Table 1 Error Message Abbreviations**

Term	Definition	Comment
Reg or REGI	Registration	Used in designators such as Reg SNR.
SNR	Sensor	Often seen as SNR1 or Reg SNR.
DUP or DM	Duplex Unit	Optional for 2-sided printing.
F/O	Feed Out	Used as sensor designators F/O3 or F/O #4.
T/A	Take Away	Function designator for roller or motor.
H-Xport	Horizontal Transport	Horizontal Transport section of the Finisher.
MCU	Main Control Unit	Engine Control Board
I/P Board	Image Processor	Image Processor Board
OCT	Offset Catch Tray	Offset Rollers at Exit
HCF	High-Capacity Feeder	Option Tray 6 or 2000-Sheet Feeder
MSI or MPT	Multi-Sheet Input	Used to describe Tray 1/MPT.
IOT	Image Output Terminal	Used instead of printer.
2TM	Two-tray Module	Option Trays 4 and 5 or 1000-Sheet Feeder
P/J	Plug/Jack	Plug (P) and or Jack (J) designators
EM	Exit Module	Used for either Exit (1 or optional Exit 2).
SW	Switch	Appears as a designator.
NVM	Non-volatile Memory	Used instead of NVRAM.
CRUM	Customer-Replaceable Unit Monitor	Device used to store usage information on the Drum and Toner Cartridges.
Comm	Communication	As in MCU-DM Comm Error.
LVPS	Low-Voltage Power Supply	Primary power supply.
PWB	Printed Wire Board	Used to describe a circuit board (Tray 6 PWB).

## Error Message Summary

The Error Message Summary below lists possible error messages, along with, the corresponding Service Diagnostic message and Service Usage Profile fault code. The Control Panel Message column shows the message as it appears on the printer's display when the error occurs during normal operation. The Service Diagnostics' error message appears when errors occur during testing. The Engine and Jam Errors columns list fault codes logged by the Service Usage Profile, located in the Service Tools menu. The Go to Page column references the troubleshooting procedure related to the error.

In cases where an error message or fault code is generated, use this table to identify the proper procedure to clear the error. To assist you further, the troubleshooting procedures that follow this table are named for the associated Control Panel message.

**Table 2 Error Message Summary**

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Main Motor Failure	U0-1 Main Motor Stop	19		Main Motor Failure
Main Motor Failure	U1-1 Main Motor Rotation	19		Main Motor Failure
Drum Motor Failure	U1-4 Drum Motor Rotation	20		Drum Motor Failure - U1-4 Drum Motor Failure
Laser Unit Failure	U3-3 Laser Power	23		Laser Unit Failure - U3-3 Laser Power
Laser Motor Failure	U3-5 Polygon Motor Rotation	22		Laser Motor Failure - U3-5 Polygon Motor Rotation
Fuser Failure	U4-1 On Time	24		Fuser Failure - U4-1 On Time
Fuser Failure	U4-2 Over Heat Temp	24		Fuser Failure - U4-n Over Heat / Thermistor
Fuser Failure	U4-3 FS1 Thermistor	24		Fuser Failure - U4-n Over Heat / Thermistor
Fuser Failure	U4-4 FS2 Thermistor	24		Fuser Failure - U4-n Over Heat / Thermistor
Fuser Failure	U4-5 PR Thermistor	24		Fuser Failure - U4-n Over Heat / Thermistor
Fuser Failure	U4-7 Cold-Sagging	24		Fuser Failure - U4-7 Cold Sagging
Fan Failure	U4-9 Fan Defect	25		Fan Failure - U4-9 Fan Defect
Toner Motor Failure	U5-1 Motor Rotation	21		Toner Motor Failure - U5-1 Motor Rotation
Fan Failure	U5-9 Fan Failure	25		Fan Failure - U5-9 Fan Fail- ure
Engine Control Board Failure	U6-2 RAM Read/Write	26		Engine Control Board Fail- ure - U6-2, 3, 4, 5, 6, 7

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Engine Control Board Failure	U6-3 NVM Data Defect	26		Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Engine Control Board Failure	U6-4 NVM Read/Write	26		Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Engine Control Board Failure	U6-5 CPU/Power NVM	26		Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Engine Control Board Failure	U6-6 ASIC/CRUM	26		Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Engine Control Board Failure	U6-7 PPM Data	26		Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Paper Size Jam	E1-1 Regi Area Jam		18	Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7
Jam at A	E1-2 Regi Area Jam		7	Jam at A - E1-2 Regi Area Jam
Jam at A	E1-6 Regi Area Jam		7	Jam at A - E1-6 Regi Area Jam
Jam at A	E3-1 Fuser Area Jam		7	Jam at A - Fuser Area Jam
Jam at A	E3-2 Fuser Area Jam		7	Jam at A - Fuser Area Jam
Jam at A	E3-6 Fuser Area Jam		7	Jam at A - E3-6 Fuser Area Jam
Jam at A	E4-1 Exit 2 Area Jam		7	Jam at A - E4-1 Exit 2 Area Jam
Jam at E	E4-3 Exit 2 Area Jam		11	Jam at E - E4-3 Exit 2 Area Jam
Jam at A	E4-5 Exit 2 Area Jam		7	Jam at E - E4-3 Exit 2 Area Jam
Jam at E	E4-6 Exit 2 Area Jam		11	Jam at E - E4-6 Exit 2 Area Jam
Jam at E	E8-2 Duplex Area Jam		11	Jam at E - E8-2 Duplex Area Jam
Jam at Tray 2	C1-2 Tray 2		2	Jam at Tray n - Pre-Feed
Jam at Tray 2	C1-3 Tray 3		2	Jam at Tray n - Registration
Jam at Tray 3	C2-1 Tray 3		3	Jam at Tray n - Pre-Feed
Jam at Tray 3	C2-2 Tray 3		3	Jam at Tray n - Feed Out #3
Jam at B	C2-3 Tray 3		8	Jam at Tray n - Registration
Jam at Tray 4	C3-0 Tray 4		4	Jam at Tray n - Pre-Feed
Jam at Tray 4	C3-1 Tray 4		4	Jam at Tray n - Feed Out #4
Jam at B and C	C3-2 Tray 4		16	Jam at Tray n - Feed Out #3
Jam at B	C3-3 Tray 4		8	Jam at Tray n - Registration
Jam at Tray 5	C4-0 Tray 5		5	Jam at Tray 5 - C4-0 Tray 5
Jam at Tray 5	C4-1 Tray 5		5	Jam at Tray n - Feed Out #4
Jam at B and C	C4-2 Tray 5		16	Jam at Tray n - Feed Out #3

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Jam at B	C4-5 Tray 5		8	Jam at Tray n - Registration
Jam at Tray 5	C4-4 Tray 5		5	Jam at Tray n - Pre-Feed
Jam at Tray 6	C5-1 Tray 6		6	Jam at Tray 6 - C5-1 Tray 6
Jam at Tray 6	C5-2 Tray 6		6	Jam at Tray 6 - C5-2 Tray 6
Jam at B	C5-3 Tray 6		8	Jam at B - C5-3 Tray 6
Jam at D and A	C6-1 Duplex Area Jam		15	Jam at D and A - C6-1 Duplex Area Jam
Jam at D and A	C6-2 Duplex Area Jam		15	Jam at D and A - C6-2 Duplex Area Jam
Jam at B	C8-2 F/O2 SNR Static Jam		8	Jam at B - C8-2 F/O3 SNR Static Jam
Jam at C	C8-3 F/O3 SNR Static Jam		9	Jam at C - C8-3 F/O4 SNR Static Jam
Jam at C	C8-4 F/O3 SNR Static Jam		9	Jam at C - C8-4 F/O5 SNR Static Jam
Jam at Tray 6	C8-5 HCF F/O SNR Static Jam		6	Jam at Tray 6 - C8-5 HCF F/O Sensor Static Jam
Jam at D	C8-6 Duplex		10	Jam at D - C8-6 Duplex
Jam at Tray 1 (MPT)	C9-3 Tray 1/MPT		1	Jam at Tray 1/MPT
Jam at A	F4-12 H-Xport Ent SNR ON		7	Jam at A - F4-12 H-Xport Entrance Sensor ON
Jam at A	F4-16 H-Xport Ent SNR Static Jam A		7	Jam at A or F - F4-n H-Transport Entrance Sensor Static
Jam at F	F4-17 H-Xport Ent SNR Static Jam B		12	Jam at A or F - F4-n H-Transport Entrance Sensor Static
Jam at A	F4-22 H-Xport Exit SNR ON Jam A		7	Jam at A or F - F4-n H-Transport Exit Sensor ON
Jam at F	F4-23 H-Xport Exit SNR ON Jam B		12	Jam at A or F - F4-n H-Transport Exit Sensor ON
Jam at F	F4-24 H-Xport Exit SNR ON Jam C		12	Jam at A or F - F4-n H-Transport Exit Sensor ON
Jam at F	F4-26 H-Xport Exit SNR Static		12	Jam at F - F4-26 H-Transport Exit Sensor Static
Jam at F	F4-32 X'port Ent SNR ON		12	Jam at F - F4-32 Transport Entrance Sensor ON
Jam at F	F4-36 X'port Ent SNR Static		12	Jam at F - F4-36 Transport Entrance Sensor Static
Jam at G	F4-42 Buffer Path SNR ON Jam A		13	Jam at G - F4-4n Buffer Path Sensor ON

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Jam at G	F4-43 Buffer Path SNR ON Jam B		13	Jam at G - F4-4n Buffer Path Sensor ON
Jam at G	F4-46 Buffer Path SNR Static Jam A		13	Jam at G - F4-4n Buffer Path Sensor Static
Jam at G	F4-47 Buffer Path SNR Static Jam B		13	Jam at G - F4-4n Buffer Path Sensor Static
Jam at G	F4-48 Buffer Path SNR Static Jam C		13	Jam at G - F4-4n Buffer Path Sensor Static
Jam at F	F4-51 Compile SNR OFF Jam A		12	Jam at F or H - F4-5n Compile Exit Sensor OFF
Jam at F	F4-52 Compile SNR ON Jam A		12	Jam at F or G - F4-5n Compile Exit Sensor ON
Jam at G	F4-53 Compile SNR ON Jam B		13	Jam at F or G - F4-5n Compile Exit Sensor ON
Jam at G	F4-54 Compile SNR ON Jam C		13	Jam at F or G - F4-5n Compile Exit Sensor ON
Jam at H	F4-55 Compile SNR OFF Jam B		14	Jam at F or H - F4-5n Compile Exit Sensor OFF
Jam at H	F4-56 Compile SNR Static		14	Jam at H - F4-56 Compile Exit Sensor Static
Jam at H	F4-61 Set Eject Jam		14	Jam at H - F4-61 Set Eject Jam
Jam at H	F4-66 Compile Paper SNR Static		14	Jam at H - F4-66 Compile Paper Sensor Static
Jam at F	F4-71 Top Tray Exit SNR ON Jam A		12	Jam at F or G - F4-7n Top Tray Exit Sensor ON
Jam at F	F4-72 Top Tray Exit SNR OFF Jam A		12	Jam at F or Stacker Upper Tray - F4-7n Top Tray Sensor OFF
Jam at G	F4-73 Top Tray Exit SNR ON Jam B		13	Jam at F or G - F4-7n Top Tray Exit Sensor ON
Jam at G	F4-74 Top Tray Exit SNR ON Jam C		13	Jam at F or G - F4-7n Top Tray Exit Sensor ON
Jam at Stacker Upper Tray	F4-75 Top Tray Exit SNR OFF Jam B		17	Jam at F or Stacker Upper Tray - F4-7n Top Tray Sensor OFF
Jam at F	F4-76 Top Tray Exit SNR Static Jam A		12	Jam at F or G - F4-7n Top Tray Exit Sensor Static
Jam at G	F4-77 Top Tray Exit SNR Static Jam B		13	Jam at F or G - F4-7n Top Tray Exit Sensor Static
Jam at G	F4-88 Gate Sensor Static Jam C		13	Jam at F or G - F4-7n Top Tray Exit Sensor Static
Jam at F	F4-82 Gate Sensor ON		12	Jam at F - F4-82 Gate Sensor ON

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Jam at F	F4-83 Gate Sensor Static Jam A		12	Jam at F or G - Gate Sensor Static Jam (Upper Tray)
Jam at G	F4-84 Gate Sensor Static Jam B		13	Jam at F or G - Gate Sensor Static Jam (Upper Tray)
Jam at G	F4-85 Gate Sensor Static Jam C		13	Jam at F or G - Gate Sensor Static Jam (Upper Tray)
Jam at F	F4-86 Gate Sensor Static Jam A		12	Jam at F or G - Gate Sensor Static Jam (Lower Tray)
Jam at G	F4-87 Gate Sensor Static Jam B		13	Jam at F or G - Gate Sensor Static Jam (Lower Tray)
Jam at G	F4-88 Gate Sensor Static Jam C		13	Jam at F or G - Gate Sensor Static Jam (Lower Tray)
Tray 2 Failure	H1-1 Tray 2 Fail	11		Tray n Failure - H1 -1/2/3/4 Tray n Fail
Tray 3 Failure	H1-2 Tray 3 Fail	10		Tray n Failure - H1 -1/2/3/4 Tray n Fail
Tray 4 Failure	H1-3 Tray 4 Fail	9		Tray n Failure - H1 -1/2/3/4 Tray n Fail
Tray 5 Failure	H1-4 Tray 5 Fail	8		Tray n Failure - H1 -1/2/3/4 Tray n Fail
Tray 6 Failure	H1-5 Tray 6 Fail	7		Tray 6 Failure - H1-5 Tray 6 Fail
Duplex Unit Failure	H2-7 Duplex Comm Failure	1		Duplex Unit Failure - H2-7 Duplex Comm Failure
Incorrect Duplex Unit Installed	H2-8 Duplex Type Error	27		Incorrect Duplex Unit Installed - H2-8 Duplex Type Error
Exit Unit Failure	H3-1 Offset Error	2		Exit Unit Failure - H3-n Offset Error
Exit Unit Failure	H3-2 Offset Error	2		Exit Unit Failure - H3-n Offset Error
Exit Unit Failure	H3-7 Exit Board Comm Failure	2		Exit Unit Failure - H3-7 Exit Board Comm Failure
Tray 1 /MPT Paper Guide Does Not Match Size Menu	--	--		Tray 1/MPT Paper Guide Does Not Match Size Menu
Tray Paper Guide Does Not Match Size Menu	H4-1 Tray 2 Paper Size Error	--		Tray Paper Guide Does Not Match Size Menu -H4-1/2
Tray Paper Guide Does Not Match Size Menu	H4-2 Tray 3 Paper Size Error	--		Tray Paper Guide Does Not Match Size Menu -H4-1/2



Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Tray Paper Guide Does Not Match Menu	H4-3 Tray 4 Paper Size Error	--		Tray Paper Guide Does Not Match Size Menu -H4-3/4
Tray Paper Guide Does Not Match Size Menu	H4-4 Tray 5 Paper Size Error	--		Tray Paper Guide Does Not Match Size Menu -H4-3/4
Finisher Board Failure	H5-4 NVM R/W Error	14		Finisher Board Failure - H5-4, 7, 8 NVM/Comm/Type Error
Finisher Failure	H5-7 Finisher Comm Failure	6		Finisher Board Failure - H5-4, 7, 8 NVM/Comm/Type Error
Incorrect Finisher Installed	H5-8 Type Error	29		Finisher Board Failure - H5-4, 7, 8 NVM/Comm/Type Error
Stacker Lower Tray Failure	H5-11 Low Tray Fail	3		Stacker Lower Tray Failure
Stacker Lower Tray Failure	H5-12 Low Tray Upper Limit	3		Stacker Lower Tray Failure - H5-12 Low Tray Upper Limit
Stacker Lower Tray Failure	H5-13 Low Tray Lower Limit	3		Stacker Lower Tray Failure - H5-13 Lower Tray Limit
Stacker Lower Tray Failure	H5-21 Front Home SNR ON	3		Stacker Lower Tray Failure - H5-2n Front Home Sensor
Stacker Lower Tray Failure	H5-22 Rear Home SNR ON	3		Stacker Lower Tray Failure - H5-2n Rear Home Sensor
Stacker Lower Tray Failure	H5-23 Front Home SNR OFF	3		Stacker Lower Tray Failure - H5-2n Front Home Sensor
Stacker Lower Tray Failure	H5-24 Rear Home SNR OFF	3		Stacker Lower Tray Failure - H5-2n Rear Home Sensor
Punch Failure	H5-31 SNR ON	5		Punch Failure - H5-3n Sensor
Punch Failure	H5-32 SNR OFF	5		Punch Failure - H5-3n Sensor
Punch Failure	H5-33 Home SNR ON	5		Punch Failure - H5-3n Home Sensor
Punch Failure	H5-34 Home SNR OFF	5		Punch Failure - H5-3n Home Sensor
Stacker Lower Tray Failure	H5-81 Eject Clamp SNR ON	3		Stacker Lower Tray Failure - H5-8n Eject Clamp Sensor
Stacker Lower Tray Failure	H5-82 Eject Clamp SNR OFF	3		Stacker Lower Tray Failure - H5-8n Eject Clamp Sensor
Stacker Lower Tray Failure	H5-83 Set Clamp SNR ON	3		Stacker Lower Tray Failure - H5-8n Set Clamp Sensor

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Stacker Lower Tray Failure	H5-84 Set Clamp SNR OFF	3		Stacker Lower Tray Failure - H5-8n Set Clamp Sensor
Stacker Lower Tray Failure	H5-86 Side Reg SNR OFF	3		Stacker Lower Tray Failure - H5-86 Side Regi Sensor OFF
Stapler Failure	H5-91 Staple Fail	4		Stapler Failure - H5-91 Staple Fail
Stapler Failure	H5-95 Move SNR ON	4		Stapler Failure - H5-9n Move Sensor
Stapler Failure	H5-96 Move SNR OFF	4		Stapler Failure - H5-9n Move Sensor
Tray 6 Control Board Failure	H6-4 NVM R/W Error	13		Tray 6 Control Board Failure - H6-4 NVM R/W Error
Tray 6 Control Board Failure	H6-7 HCF Comm Failure	13		Tray 6 Control Board Failure - H6-7 HCF Comm Failure
Tray 4-5 Control Board Failure	H7-3 NVM out-of-order	12		Tray 4-5 Control Board Failure - NVM
Tray 4-5 Control Board Failure	H7-4 NVM R/W Error	12		Tray 4-5 Control Board Failure - NVM
Tray 4-5 Control Board Failure	H7-7 Comm Failure	12		Tray 4-5 Control Board Failure - H7-7 Comm Failure
Incorrect Tray 4-5 Unit Installed	H7-8 Type Error	28		Incorrect Tray 4-5 Installed - H7-8 Type Error
Tray 2 Failure	H8-1 Tray 2 Size Sensor Broken	11		Tray N Failure - H8-1, Tray 2-3 Size Sensor Broken
Tray 3 Failure	H8-2 Tray 3 Size Sensor Broken	10		Tray N Failure - H8-1, Tray 2-3 Size Sensor Broken
Tray 4 Failure	H8-3 Tray 4 Size Sensor Broken	9		Tray N Failure - H8-3, 4-5 Tray Size Sensor Broken
Tray 5 Failure	H8-4 Tray 5 Size Sensor Broken	8		Tray N Failure - H8-3, 4-5 Tray Size Sensor Broken
Replace Toner Cartridge	J1-2 Toner Empty	--	--	Toner Empty - J1-2 Toner Empty
Install or Reseat Drum Cartridge	J3-1 Drum Not Installed	--	--	No Drum Cartridge - J3-1 Drum Not Installed
Drum Cartridge Failure	J4-1 ATC SNR Defect	16		Drum Cartridge Failure - J4-1 ATC Sensor Defect
Replace Drum Cartridge	J6-1 DRUM End of Life	--	--	Replace Drum Cartridge - J6-1 Drum End of Life
Drum Cartridge Failure	J7-1 DRUM Comm Error	16		Drum Cartridge Failure - J7-1 Comm/NVRAM/Type Error
Drum Cartridge Failure	J7-2 DRUM NVRAM Error	16		Replace Drum Cartridge - J6-1 Drum End of Life

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Non-Xerox Drum Cartridge	J7-3 DRUM Type Mismatch	--		Replace Drum Cartridge - J6-1 Drum End of Life
Install or Reset Toner Cartridge	J8-1 Toner Comm Error	15		Toner Cartridge Failure - J8-Toner Comm/Read/Write
Toner Cartridge Failure	J8-2 Toner Cartridge Read/Write Error	15		Toner Cartridge Failure - J8-Toner Comm/Read/Write
Replace Incorrect Toner Cartridge	J8-3 Toner Cartridge Type Mismatch	--		Replace Incorrect Toner Cartridge - J8-3 Toner Cartridge Type Mismatch
Non-Xerox Toner Cartridge		--	--	Replace Incorrect Toner Cartridge - J8-3 Toner Cartridge Type Mismatch
Toner is Low	Toner Low	--	--	Toner is Low - Toner Low
Drum Cartridge Near End of Life	DRUM Life Near End.	--	--	Drum Cartridge Near End of Life - DRUM Life Near End
No Paper in Tray	No Paper in Tray 2 or 3	--	--	Tray Empty - No Paper in Tray 2 or 3
No Paper in Tray	No Paper in Tray 4 or 5	--	--	Tray Empty - No Paper in Tray 4 or 5
No Paper in Tray	Paper Size in Tray 6	--	--	Tray Empty - No Paper in Tray 6
Paper Size Jam	Paper Size in Tray 2 or 3	--	--	Paper Size Jam - Paper Size in Tray 2 or 3
Paper Size Jam	Paper Size in Tray 4 or 5	--	--	Paper Size Jam - Paper Size in Tray 4 or 5
Paper Size Jam	Paper Size in Tray 6	--	--	Paper Size Jam - Paper Size in Tray 6
Drum Cartridge Failure	DRUM ATC Value Out of Range	--		Drum Cartridge Failure - Drum ATC Value Out of Range
Temperature Sensor Failure	Temperature Value Out of Range	17		Temp/Humidity Sensor Failure - Value Out of Range
Humidity Sensor Failure	Humidity Value Out of Range	18		Temp/Humidity Sensor Failure - Value Out of Range
Standard Output Tray is Full	Face down Tray 1 full	--	--	Face Down Tray Paper Full - Face Down Tray Full
Standard Output Tray is Full	Face down Tray 2 full	--		Face Down Tray Paper Full - Face Down Tray Full
Stacker Upper Tray is Full	Finisher Tray Paper Full	--	--	Stacker Upper Tray Full - Finisher Tray Paper Full
Stacker Lower Tray is Full	Finisher Mix Full Stack	--	--	Stacker Lower Tray Full - Finisher Mix Full Stack
Stapler is Empty	Staple Pin Warning	--	--	Stapler is Empty - Staple Pin Warning

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Stapler Cartridge is Low	Staple Pin Mismatch	--	--	Staple Cartridge is Low or Missing - Staple Pin Mismatch
Staple Failure	Staple Failure	--	--	Stapler Failure - Staple Failure
Finisher Stacker Set Over Count	Staple Set Over Count	--	--	Staple Set Over Count
Punch Waste Box is Full	Punch Waste Box Full	--	--	Punch Waste Box is Full
Punch Waste Box is Missing	Punch Waste Box Missing	--	--	Punch Waste Box is Missing
Stacker Lower Tray Failure	Stacker Lower Safety Fail	--	--	Stacker Lower Tray Failure
Close Door A	Door A is Open	--	--	Close Door A - Door A is Open
Close Printer Front Door	Front Cover is Open	--	--	Printer Front Door is Open - Front Cover is Open
Close Door B	Door B is Open	--	--	Close Door B - Door B is Open
Close Door C	Door C is Open	--	--	Close Door C - Door C is Open
Close Door J	Door J is Open	--	--	Close Door J - Door J is Open
Slide in Tray 6 Feeder	Tray 6 Undocked	--	--	Slide In Tray 6 Feeder - Tray 6 Undocked
Close Door E	Door E is Open	--	--	Close Door E - Door E is Open
Close Door D	Door D is Open	--	--	Close Door D - Door D is Open
Close Door G	Door G is Open	--	--	Close Door G - Door G is Open
Close Door F	Door F is Open	--	--	Close Door F - Door F is Open
Close Door H	Door H is Open	--	--	Close Door H - Door H is Open
Maintenance Kit Near End of Life		--	--	Replace Maintenance Kit
Replace Maintenance Kit		--	--	Replace Maintenance Kit
Invalid Configuration Card		--	--	Replace Maintenance Kit
Configuration Card Missing		--	--	Invalid or Missing Configuration Card

Table 2 Error Message Summary

Control Panel Message	Service Diagnostics Message	Engine Error	Jam Error	Go to RAP
Duplicate IP Address Detected		--	--	Duplicate IP Address Detected

### Using the Troubleshooting Procedures

- Applicable Error Code(s)** lists the error message(s) addressed by each troubleshooting procedure.
- Applicable Parts and References** assist you in locating all the information available for a particular part or procedure. Remember that disassembly procedures, parts lists, and wiring diagrams for printer options appear in the Phaser 5550 Printer Options Service Manual.
- Follow each **Step** in a troubleshooting procedure sequentially in the order given until the problem is fixed or resolved.
- The **Actions and Questions** box instructs you to perform a certain action or procedure. Also included are precautions and/or additional procedures you must follow to isolate the problem.
- When a procedure instructs you to test a component using Service Diagnostics, see Service Diagnostics in section 6 for the detailed steps and functions for testing parts of the printer.
- Each action is followed by a question. If your response to the question is **"Yes"**, then follow the instructions for a **"Yes"** reply. If your response to the question is **"No"**, then follow the instructions for a **"No"** reply.
- Note that two types of photo sensors are used: photo-reflective and photo-receptive. Photo-reflective sensors use light reflected back from an object to detect its presence or absence. Photo-receptive sensors use an actuator or the object itself to block the light path to detect an object or condition.
- Troubleshooting procedures frequently ask you to take voltage readings or test for continuity or resistance at certain test points. The **Reference** table provides pointers to the diagrams that provide this information.
- Troubleshooting Procedures often ask you to replace a printer component. When instructed to replace a non-spared component and that component is part of a parent assembly, replace the entire parent assembly.

### Measurement Techniques

- Unless indicated otherwise, the instruction "switch On printer main power" means for you to switch On printer power and let the printer proceed through POST to a 'Ready' condition.
- When instructed to take voltage, continuity or resistance readings on wiring harness, proceed as follows: Check P/J 232-1 to P/J 210-5 by placing the red probe (+) of your meter on pin 1 of P/J 232, and place the black probe (-) of your meter on pin 5 of P/J 210.
- When instructed to take resistance readings between "P/J 232 <=> P/J 210" (without specified pin numbers), check all pins. See "Wiring Diagrams" for the location of all wiring harnesses and pins.
- Before measuring voltages make sure the printer is switched On, the Drum Cartridge and the paper trays are in place, and the interlock switches are actuated, unless instructed otherwise.
- All voltages given in the troubleshooting procedures are approximate values. The purpose of voltage readings is to determine whether or not a component is receiving the correct voltage and if gating (a voltage drop) occurs during component actuation. Gating signals may be nothing more than a pulse, resulting in a momentary drop in voltage that may be difficult or impossible to read on the average multi-meter.  
Unless otherwise specified, these voltage tolerances are used within this section:

Table 3 Voltage Values

Stated	Measured
+3.3 VDC	+3.135 to +3.465 VDC
+5.0 VDC	+4.75 to +5.25 VDC
+24.0 VDC	+21.6 to +26.4 VDC
0.0 VDC	Less than +0.5 VDC

## Entry Level Fault Isolation Procedure

Use this procedure to quickly locate the general area of the problem.

### Troubleshooting Procedure

Table 1 Entry Level Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Cycle printer power. Does READY TO PRINT appear on the Control Panel within 1 minute?	Go to step 4.	Go to step 2.
2	Does the printer display an error message or code?	Go to the procedure for that error or code.	Go to Step 3.
3	Is the Control Panel LCD/LED Display defective, or the buttons inoperable?	Go to Control Panel Display Error/ Inoperable Buttons procedure in section 6.	Go to Step 4.
4	Run Test Prints from all input trays: 1. In the Main Menu, select <b>Troubleshooting</b> and press <b>OK</b> . 2. Select <b>Print Quality Problems</b> and press <b>OK</b> . 3. Select <b>Test Prints</b> and press <b>OK</b> . Does the printer display an error message or code while printing?	Go to the procedure for that error message or code.	Go to Step 5.
5	Do the Test Prints print?	Go to Step 6.	Go to Step 7.
6	Evaluate the test prints. Does the print quality meet the print quality specifications?	Go to Step 8.	Go to Print-Quality Defect Definitions in section 3.
7	Enter Service Diagnostics and generate Test Prints from all input trays. Do the Test Prints print?	Go to Image Processor Board Isolation in section 6.	Go to Inoperative Printer in section 6.
8	Request the customer send a print job from their application. Did the job print successfully?	Problem solved; return to Final Checkout in the Service Flowchart.	Go to Network Problems in section 6.

## Main Motor Failure

The Main Motor stopped or did not start on time.

### Applicable Error Codes

- Main Motor Failure - U0-1 Main Motor Stop
- Main Motor Failure - U1-1 Main Motor Rotation

### Troubleshooting Reference

Table 1 Main Motor Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Motor Assembly</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Electrical (Figure 7)</li> <li>Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>PL 7.1 Print Engine Drive</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Main Motor Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Motor Assembly installation. Remove the Upper Rear Cover (REP 1.11). Is the Motor Assembly installed correctly?	Go to Step 2.	Correct the installation.
2	Test Motor Assembly operation. Run the Service Diagnostics Main Motor test. Does the motor run?	Go to Step 6.	Go to Step 3.
3	Check the Motor Assembly connection. Are P/J214 and P/J408 connected?	Go to Step 4.	Connect P/J214 and P/J408.
4	Check continuity between the Motor Assembly and Engine Control Board. Does each wire conduct between P/J214 <=> P/J408?	Go to Step 5.	Repair the wiring.
5	Check for +24 V to the Motor Assembly. Is there +24 V across P/J214-1/-2 (+) <=> ground?	Replace the Motor Assembly (REP 7.2).	Replace the Engine Control Board (REP 8.4).

## Drum Motor Failure - U1-4 Drum Motor Failure

The Drum Cartridge drive motor failed.

### Applicable Error Code

- Drum Motor Failure - U1-4 Drum Motor Rotation

### Troubleshooting Reference

Table 1 Drum Motor Troubleshooting Reference

Applicable Parts	References
• Drum Cartridge	• Section 7, Print Engine P/J Electrical (Figure 7)
• Fuser	• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)
• Motor Assembly	• PL 5.1 Laser, CRU and Toner Dispense
• Engine Control Board	• PL 6.1 Fuser and Exit 1
	• PL 7.1 Print Engine Drive
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Drum Motor Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Fuser installation. Is the Fuser installed properly?	Go to Step 2.	Correct the Fuser (REP 6.1).
2	Check the Drum Cartridge installation. Is the Drum Cartridge installed properly?	Go to Step 3.	Correct the installation.
3	Test the Drum Motor. Run the Service Diagnostics Drum Motor test. Does the motor run?	Go to Step 4.	Verify motor installation. Go to Step 5.
4	Check the Motor Assembly installation. Remove the Upper Rear Cover. Is the Motor installed properly?	Replace the Engine Control Board (REP 8.4).	Correct the installation.
5	Check Drum Motor rotation. Can the rotor be rotated by hand without excessive load?	Go to Step 6.	Verify installation.
6	Check the Motor Assembly connection. Are P/J214 and P/J408 connected?	Go to Step 7.	Connect the Motor.
7	Check continuity between the Motor Assembly and Engine Control Board. Is there continuity on each wire between P/J214 <=> P/J408?	Go to Step 8.	Repair the wiring.
8	Check for +24 V to the Motor. Is there +24 V across P/J214-1/-2 (+) <=> ground?	Replace the Motor Assembly (REP 7.2).	Replace the Engine Control Board (REP 8.4).

## Laser Unit Failure - U3-3 Laser Power

The Laser Assembly has failed.

### Applicable Error Code

- Laser Assembly Failure - U3-3 Laser Power

### Troubleshooting Reference

Table 1 Laser Assembly Troubleshooting Reference

Applicable Parts	References
• Drum Cartridge	• Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)
• Laser Assembly	• Section 7, Print Engine Laser Assembly Wiring (Figure 13)
• Engine Control Board	• PL 5.1 Laser, CRU and Toner Dispense
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Laser Assembly Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Is the Drum Cartridge installed properly?	Go to Step 2.	Correct the installation.
2	Check the Laser Assembly installation. Is the Laser Assembly installed properly?	Go to Step 3.	Correct the Laser Assembly (REP 5.10).
3	Check the Laser Assembly connection. Are P/J140 and P/J406 connected?	Go to Step 4.	Connect the Laser.
4	Check the Laser Assembly connections. Are P/J130, P/J620 and P/J406 connected?	Go to Step 5.	Connect P/J130, P/J620 and P/J406.
5	Check continuity between the Laser Assembly and the Engine Control Board. Is there continuity on each wire between P/J140 <=> P/J406?	Go to Step 6.	Repair the wiring.
6	Check continuity between the Laser Assembly and the Engine Control Board. Is there continuity on each wire between P/J130 <=> P/J406?	Go to Step 7.	Repair the wiring.
7	Check for +5 V to the Laser Assembly. Is there +5 V across P/J140-8 (+) <=> ground?	Go to Step 8.	Replace the Engine Control Board (REP 8.4).
8	Check for +24 V to the Laser. Is there +24 V across P/J130-5 (+) <=> ground?	Replace the Laser Assembly (REP 5.10).	Replace the Engine Control Board (REP 8.4).

## Laser Motor Failure - U3-5 Polygon Motor Rotation

The Scanner Motor, located in the Laser Assembly, failed.

### Applicable Error Code

- Laser Failure - U3-5 Polygon Motor Rotation

### Troubleshooting Reference

Table 1 Scanner Motor Troubleshooting Reference

Applicable Parts	References
• Drum Cartridge	• Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)
• Laser Assembly	• Section 7, Print Engine Laser Assembly Wiring (Figure 13)
• Engine Control Board	• PL 5.1 Laser, CRU and Toner Dispense
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Scanner Motor Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Is the Drum Cartridge installed properly?	Go to Step 2.	Correct the installation.
2	Test the Scanner Motor. Run the Service Diagnostics Laser Scan Motor test. Does the motor run?	Replace Laser Assembly or Engine Control Board.	Go to Step 4.
3	Check the Laser connection. Are P/J140 and P/J406 connected?	Go to Step 4.	Connect the Laser Assembly.
4	Check the Laser connections. Are P/J130, P/J620 and P/J406 connected?	Go to Step 5.	Connect P/J130, P/J620 and P/J406.
5	Check continuity between the Laser and the Engine Control Board. Is there continuity on each wire between P/J140 <=> P/J406?	Go to Step 6.	Repair the wiring.
6	Check continuity between the Laser and the Engine Control Board. Is there continuity on each wire between P/J130 <=> P/J406?	Go to Step 7.	Repair the wiring.
7	Check for +5 V to the Laser. Is there +5 V across P/J140-8 (+) <=> ground?	Go to Step 8.	Replace the Engine Control Board (REP 8.4).
8	Check for +24 V to the Laser. Is there +24 V across P/J130-5 (+) <=> ground?	Replace the Laser Assembly (REP 5.10).	Replace the Engine Control Board (REP 8.4).

## Fuser Failure - U4-1 On Time

**NOTE:** Following display of this error, leave power applied for 7 minutes, then cycle printer power. If the error reoccurs, proceed with troubleshooting procedure.

The Fuser failed to reach temperature within the warm-up period. Possible faults are:

- During the Warm-Up period, the Control Thermistor does not detect the Ready temperature even when the specified time has passed.
- During the Standby period, the Control Thermistor does not detect the required temperature even when the specified time has passed.
- During idling after power-on, the Control Thermistor does not detect the idling stop temperature even after the specified time has passed.
- During print, the Control Thermistor does not detect the required temperature even when the specified time has passed.

### Applicable Error Code

- Fuser Failure - U4-1 On Time

### Troubleshooting Reference

Table 1 Fuser On Time Troubleshooting Reference

Applicable Parts	References
• Fuser	• Section 7, Print Engine P/J Fuser and Exit 1 (Figure 3)
• LVPS	• Section 7, Print Engine Fuser Wiring (Figure 6)
	• PL 6.1 Fuser and Exit 1 Unit
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Fuser On Time Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Fuser for a paper jam. Open Door A. Is there a paper jam in the Fuser?	Remove the paper.	Go to Step 2.
2	Check the Fuser installation. Is the Fuser installed properly?	Go to Step 3.	Correct the installation. If the error persists, replace the Fuser and go to Step 10.
3	Check continuity on the junction connector. <b>WARNING</b> Allow the Fuser to cool. Remove the Fuser. Is there continuity on the pins?	Go to Step 4.	Replace the Fuser (REP 6.1).
4	Check Fuser resistance. Is the resistance across P/J600-1 and P/J600-11 less than or equal to 100 ohms?	Go to Step 5.	Replace the Fuser (REP 6.1).

Table 2 Fuser On Time Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check Fuser resistance. Is the resistance across P/J600-4 and P/J600-11 less than or equal to 100 ohm?	Go to Step 6.	Replace the Fuser (REP 6.1).
6	Check Fuser resistance. Is the resistance across P/J600-7 and P/J600-11 less than or equal to 100 ohm?	Go to Step 7.	Replace the Fuser (REP 6.1).
7	Check Fuser resistance. Is the resistance across P/J131-1 and P/J131-2 more than or equal to 3 k-ohm?	Go to Step 8.	Replace the Fuser (REP 6.1).
8	Check Fuser resistance. Is the resistance between P/J132-1 and P/J132-2 greater than or equal to 3 k-ohm?	Go to Step 9.	Replace the Fuser (REP 6.1).
9	Check Fuser resistance. Is the resistance across P/J133-1 and P/J133-2 greater than or equal to 3 k-ohm?	Go to Step 10.	Replace the Fuser (REP 6.1).
10	Check Fuser connection. Is P/J6 connected?	Go to Step 11.	Connect P/J6.
11	Check continuity between the Fuser and LVPS. Is there continuity on each wire between P/J600 <=> P/J6?	Go to Step 12.	Repair the wiring.
12	Check for +5 V to the Fuser. Is there +5 V between these pins? • P/J6-1 <=> P6-2 • P/J6-1 <=> P6-3 • P/J6-1 <=> P6-4	Replace the Fuser (REP 6.1).	Replace the LVPS (REP 6.1).
13	Check the LVPS and the Engine Control Board connection. Are P/J401 and P/J525 connected?	Replace the Engine Control Board (REP 8.4).	Connect P/J401 and P/J525.

## Fuser Failure - U4-n Over Heat / Thermistor

The Fuser failed to reach temperature within the warm-up period. The control thermistors has detected a temperature higher than the specified value, or one of the thermistors has failed.

### Applicable Error Codes

- Fuser Failure - U4-2 Over Heat Temp
- Fuser Failure - U4-3 FS1 Thermistor
- Fuser Failure - U4-4 FS2 Thermistor
- Fuser Failure - U4-5 Pressure Roller Thermistor

### Troubleshooting Reference

Table 1 Fuser Thermistor Troubleshooting Reference

Applicable Parts	References
Fuser	Section 7, Print Engine P/J Fuser and Exit 1 (Figure 3)
LVPS	Section 7, Print Engine Fuser Wiring (Figure 6) PL 6.1 Fuser and Exit 1 Unit PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Fuser Thermistor Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Fuser installation. Is the Fuser installed properly?	Go to Step 2.	Correct the installation.
2	For FS1 Thermistor Only. Is the resistance across P/J131-1 and P/J131-2 more than or equal to 3 k-ohm?	Go to Step 3.	Replace the Fuser (REP 6.1).
3	For FS2 Thermistor Only. Is the resistance between P/J132-1 and P/J132-2 greater than or equal to 3 k-ohm?	Go to Step 4.	Replace the Fuser (REP 6.1).
4	For Pressure Roller Thermistor Only. Is the resistance across P/J133-1 and P/J133-2 greater than or equal to 3 k-ohm?	Go to Step 5.	Replace the Fuser (REP 6.1).
5	Check the Fuser connection. Is P/J6 connected?	Go to Step 6.	Connect P/J6.
6	Check continuity between the Fuser and LVPS. Is there continuity on each wire between P/J600 <=> P/J6?	Go to Step 7.	Repair the wiring.
7	Check power to the Fuser. Is there +XX V across P/JXXX (+) <=> ground?	Replace the Fuser (REP 6.1).	Replace the LVPS (REP 8.6).

## Fuser Failure - U4-7 Cold Sagging

The Fuser temperature regulation failed.

**NOTE:** Following display of this error, leave power applied for 7 minutes, then cycle printer power. If the error reoccurs, proceed with troubleshooting procedure.

### Applicable Error Code

- Fuser Failure - U4-7 Cold Sagging

### Troubleshooting Reference

Table 1 Fuser Cold Sagging Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Fuser</li> <li>LVPS</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Fuser and Exit 1 (Figure 3)</li> <li>Section 7, Print Engine Fuser Wiring (Figure 6)</li> <li>PL 6.1 Fuser and Exit 1 Unit</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

## Troubleshooting Procedure

Table 2 Fuser Cold Sagging Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Fuser for a paper jam. Open Door A. Is there a paper jam in the Fuser?	Go to Step 2.	Remove the paper.
2	Check the Fuser installation. Open Door A. Is the Fuser installed correctly?	Go to Step 3.	Install the Fuser correctly.
3	Test the Fuser Exit Sensor operation. 1. Open Door A. 2. Run the Service Diagnostics Fuser Exit Sensor test. Does sensor state change each time the Fuser is installed or removed?	Go to Step 5.	Go to Step 4.
4	Check the resistance of the Fuser. Is there an open circuit in the Center Thermistor between J131-1 and J131-2? Is the resistance of the Rear STS across J131-1 and J131-2 equal or greater than 3 k-ohm?	Go to Step 7.	Replace the Fuser (REP 6.1).

Table 2 Fuser Cold Sagging Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check the Pressure Roller Thermistor resistance. Is there an open circuit in the Pressure Roller Thermistor between J133-1 and J133-2? Is the resistance of the Pressure Roller Thermistor across J133-1 and J133-2 more than or equal to 3 k-ohm?	Go to Step 6.	Replace the Fuser (REP 6.1).
6	Check the Fuser for connection. Is LVPS P/J6 connected?	Go to Step 7.	Connect P/J6.
7	Check the Fuser connections. Are P/J410, P/J607, P/J600, P131 and P133 connected?	Replace Engine Control Board (REP 8.4).	Connect P/J410, P/J607, P/J600, P131 and P133.



## Fan Failure - U4-9 Fan Defect

The Fuser Fan failed.

### Applicable Error Code

- Fuser Failure - U4-9 Fan Defect

### Troubleshooting Reference

Table 1 Fuser Fan Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Fuser Fan</li> <li>Motor Assembly</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Electrical (Figure 7)</li> <li>Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 7.1 Print Engine Drive</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Fuser Fan Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Fuser Fan installation. 1. Remove the I/P Board Cover. 2. Remove the Upper Rear Cover. Does the Fuser Fan rotate?	Go to Step 2.	Correct the installation.
2	Check if the Fuser Fan rotates. Does the Fan rotate?	Go to step 6.	Go to step 3.
3	Test the Fuser Fan. Run the Service Diagnostic Fuser Fan test. Does the Fuser Fan operate properly?	Go to step 6.	Go to step 4.
4	Check the Fuser Fan connection (CN102). Is the Fan connected?	Go to Step 5.	Connect the Fan.
5	Check continuity between the Fan and Motor Assembly (CN102). Is there continuity on each wire?	Go to Step 6.	Replace the Fan (REP 5.3).
6	Check for +24 V to the Fuser Fan. Is there +24 V across CN102-3(+) <=> ground?	Replace the Fan (REP 5.3).	Replace the Fan (REP 5.3). If the error persists, replace the Engine Control Board (REP 8.4), then replace the Motor Assembly.

## Toner Motor Failure - U5-1 Motor Rotation

The Toner Dispense Motor failed to rotate.

### Applicable Error Code

- Toner Motor Failure - U5-1 Motor Rotation

### Troubleshooting Reference

Table 1 Toner Motor Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Toner Cartridge</li> <li>Toner Dispense Assembly</li> <li>Toner Dispense Motor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner Cartridge (Figure 1)</li> <li>Section 7, Print Engine Xerographics Wiring (Figure 8)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Toner Motor Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Toner Cartridge installation. Reinstall the Toner Cartridge. Does it operate properly?	Problem solved.	Go to Step 2.
2	Check Toner Dispense Assembly rotation. Does the gear located at the lower part of the Toner Dispense Assembly rotate?	Go to Step 3.	Restore proper operation.
3	Check Toner Dispense Assembly clogging. Is the pipe located at the lower part of the Toner Dispense Assembly clogged?	Go to Step 4.	Clean the pipe.
4	Test Dispense Motor operation. Run the Service Diagnostics Dispense Motor test. Does the motor operate?	Replace the Engine Control Board (page 8-89).	Go to Step 5.
5	Check the Dispense Motor for connection. Are P/J216 and P/J420 connected?	Go to Step 6.	Connect P/J216 and P/J420.
6	Check continuity between the Dispense Motor and Engine Control Board. Is there continuity on each wire between P/J216 <=> P/J420?	Go to Step 7.	Repair the wiring.
7	Check for +24 V at the Dispense Motor. Is there +24 V across P/J216-1 (+) <=> ground?	Replace the Dispense Motor (REP 5.9).	Replace the Engine Control Board (REP 8.4).

## Fan Failure - U5-9 Fan Failure

The Drum Cartridge Fan failed.

### Applicable Error Code

- Fan Failure - U5-9 Fan Defect

### Troubleshooting Reference

Table 1 Drum Cartridge Fan Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Drum Cartridge Fan</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner Cartridge (Figure 1)</li> <li>Section 7, Print Engine Xerographics Wiring (Figure 8)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Drum Cartridge Fan Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Fan installation. 1. Remove the I/P Board Cover. 2. Remove the Top Cover. Is the Fan installed properly (label out)?	Go to Step 2.	Correct the installation.
2	Check if the Drum Cartridge Fan rotates. Does the Fan rotate?	Go to Step 7.	Go to Step 3.
3	Test the Drum Cartridge Fan. Run the Service Diagnostic Drum Cartridge Fan test. Does the Fan operate properly?	Go to Step 7.	Go to Step 4.
4	Check the Fan connection. Is P/J221 connected?	Go to Step 5.	Connect the Fan.
5	Check continuity between the Fan and Engine Control Board. Is there continuity on each wire?	Go to Step 6.	Replace the Fan (REP 5.2).
6	Check for +24 V at the Drum Cartridge Fan. Is there +24 V across P/J221 (+) <=> ground?	Go to Step 7.	Replace the Engine Control Board (page 8-89).
7	Test the Drum Cartridge Fan. Run the Service Diagnostic Drum Cartridge Fan test. Does the Fan receive the voltage from the test?	Replace the Fan (REP 5.2).	Replace the Engine Control Board (REP 8.4).

## Engine Control Board Failure - U6-2, 3, 4, 5, 6, 7

Engine Control Board components have failed.

### Applicable Error Codes

- Engine Control Board Failure - U6-2 RAM Read/Write
- Engine Control Board Failure - U6-3 NVM Data Defect
- Engine Control Board Failure - U6-4 NVM Read/Write
- Engine Control Board Failure - U6-5 CP/U Power NVM
- Engine Control Board Failure - U6-6 ASIC/CRUM
- Engine Control Board Failure - U6-7 PPM Data

### Troubleshooting Reference

Table 1 Engine Control Board Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Engine Control Board Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Does the error occur when the power is cycled?	Go to Step 2.	Problem solved.
2	Check the Engine Control Board connections. Are all the connectors connected?	Go to Step 3.	Connect all connectors. Go to Step 3.
3	Does the error reoccur when power is applied?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Paper Size Jam - E1-1 Regi Area Jam

Paper did not pass the Registration Sensor located behind Door A, within the specified time.

### Applicable Error Code

- Paper Size Jam - E1-1 Regi Area Jam

### Troubleshooting Reference

Table 1 Paper Size Jam (Registration Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Registration Sensor</li> <li>Registration Clutch</li> <li>Take Away Roller</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Registration Transport (Figure 5)</li> <li>Section 7, Print Engine Registration Transport Wiring (Figure 7)</li> <li>PL 4.1 Transportation and Registration</li> <li>PL 4.5 Registration</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Paper Size Jam (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position at Door A or B. Does the paper touch the Registration Sensor or Feeder's Pre-Feed Sensor?	Remove the paper.	Go to Step 2.
2	Check the Take Away Roller. Open Door A. Is the Take Away Roller worn or contaminated with paper dust?	Clean or replace the Take Away Roller.	Go to Step 3.
3	Test the Registration Sensor. 1. Open Door A. 2. Run the Service Diagnostics Registration Sensor test. Does the sensor change state?	Go to Step 7.	Go to Step 4.
4	Check the Registration Sensor connection. Are P/J104 and P/J403B connected?	Go to Step 5.	Connect the sensor.
5	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J403?	Go to Step 6.	Repair the wiring.
6	Check for +5 V at the Registration Sensor. Is there +5 V across the sensor connector's P/J104-1 <=> ground?	Replace the Registration Sensor (REP 4.11).	Replace the Registration Sensor Board (REP 8.4).

Table 2 Paper Size Jam (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Test the Registration Clutch operation. Run the Service Diagnostics Registration Clutch test. Does the clutch operate properly?	Replace the Engine Control Board (page 8-89).	Go to Step 8.
8	Check the Registration Clutch connection. Are P/J215 and P/J403B connected?	Go to Step 9.	Connect P/J215 and P/J403B.
9	Check continuity between the Registration Clutch and Engine Control Board. Is there continuity on each wire between P/J215 <=> P/J403?	Go to Step 10.	Repair the wiring.
10	Check for +24 V to the Registration Clutch. Is there +24 V across P215-2 (+) <=> ground?	Go to Step 11.	Replace the Engine Control Board (REP 8.4).
11	Check Registration Clutch resistance.	Replace the Engine Control Board (REP 8.4).	Replace Registration Clutch (REP 4.10).

## Jam at A - E1-2 Regi Area Jam

Paper did not activate the Fuser Exit Sensor, located behind Door A, within the specified time following activation of the Registration Clutch.

**NOTE:** If the printer exhibits first sheet jams following power On or Power Saver mode and reports Jam Code E1-2, check actuator motion on the Fuser Exit Sensor Assembly. Accumulations of toner, when cool, can bind the actuator on earlier versions of the assembly.

### Applicable Error Code

- Jam at A - E1-2 Regi Area Jam

### Troubleshooting Reference

Table 1 E1-2 Regi Area Jam (Fuser Exit Sensor) Troubleshooting Reference

Applicable Parts	References
Fuser Exit Sensor	Section 7, Print Engine P/J Drum and Toner Cartridge (Figure 1)
Registration Clutch	Section 7, Print Engine Exit 1 Wiring (Figure 14)
Take Away Roller	PL 4.1 Transportation and Registration
Exit PWB	PL 4.5 Registration
Engine Control Board	PL 6.1 Laser, CRU, and Toner Dispense
	PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 E1-2 Regi Area Jam (Fuser Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position behind Door A. Does the paper touch the Fuser Exit Sensor?	Remove the paper.	Go to Step 2.
2	Check the Take Away Roller. Is the Take Away Roller worn or contaminated with paper dust?	Clean or replace the Take Away Roller.	Go to Step 3.
3	Test the Fuser Exit Sensor. 1. Open Door A. 2. Run the Service Diagnostics Fuser Exit Sensor test. Does the sensor change state?	Go to Step 7.	Go to Step 4.
4	Check the Fuser Exit Sensor connection. Are P/J125 and P/J410 connected?	Go to Step 5.	Connect the sensor.
5	Check continuity between the Fuser Exit Sensor and Engine Control Board. Is there continuity on each wire between P/J125 <=> P/J410?	Go to Step 6.	Repair the wiring.
6	Check for +5 V at the Fuser Exit Sensor. Is there +5 V across the sensor connector's P/J125-3 <=> ground?	Replace the Fuser Exit Sensor (REP 6.2).	Replace the Engine Control Board (REP 8.4)

Table 2 E1-2 Regi Area Jam (Fuser Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Test the Registration Clutch operation. Run the Service Diagnostics Registration Clutch test. Does the clutch operate properly?	Replace the Engine Control Board (REP 8.4).	Go to Step 8.
8	Check the Registration Clutch connection. Are P/J215 and P/J403B connected?	Go to Step 9.	Connect P/J215 and P/J403B.
9	Check continuity between the Registration Clutch and Engine Control Board. Is there continuity on each wire between P/J215 <=> P/J403B?	Go to Step 10.	Repair the wiring.
10	Check for +24 V to the Registration Clutch. Is there +24 V across P215-2 (+) <=> ground?	Go to Step 11.	Replace the Engine Control Board (REP 8.4).
11	Check Registration Clutch resistance. Is the resistance between J215-1 and J215-2 approximately 240 ohms?	Replace the Engine Control Board (REP 8.4).	Replace Registration Clutch (REP 4.10).

## Jam at A - E1-6 Regi Area Jam

Paper remains at the Registration Sensor located behind Door A.

### Applicable Error Code

- Jam at A - E1-6 Regi Area Jam

### Troubleshooting Reference

Table 1 E1-6 Regi Area Jam (Registration Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Registration Sensor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Registration Transport (Figure 5)</li> <li>Section 7, Print Engine Registration Transport Wiring (Figure 7)</li> <li>PL 4.5 Registration</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 E1-6 Regi Area Jam (Registration Sensor) Troubleshooting Reference

Step	Actions and Questions	Yes	No
1	Check paper position at Door A. Is paper touching the Registration Sensor?	Remove the paper.	Go to Step 2.
2	Test the Registration Sensor. 1. Open Door A. 2. Run the Service Diagnostics Registration Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Registration Sensor connection. Are P/J104 and P/J403 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J403?	Go to Step 5.	Repair the wiring.
5	Check for +5 V at the Registration Sensor. Is there +5 V across the sensor connector's P/J104-1 <=> ground?	Replace the Registration Sensor (REP 4.11).	Replace the Engine Control Board (REP 8.4).

## Jam at A - Fuser Area Jam

Paper did not actuate the Fuser Exit Sensor, located behind Door A, within the specified time.

### Applicable Error Codes

- Jam at A - E3-1 Fuser Area Jam
- Jam at A - E3-2 Fuser Area Jam

### Troubleshooting Reference

Table 1 Jam at A (Fuser Exit Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Fuser Exit Sensor</li> <li>Take Away Roller</li> <li>Engine Control Board</li> <li>Fuser</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner Cartridge (Figure 1)</li> <li>Section 7, Print Engine Fuser Wiring (Figure 6)</li> <li>PL 4.1 Transportation and Registration</li> <li>PL 6.1 Fuser and Exit 1</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Jam at A (Fuser Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position. Open Door A. Does the paper touch the Fuser Exit Sensor?	Remove the paper.	Go to step 2.
2	Check the Fuser for a paper jam. Open Door A. Is there a paper jam in the Fuser?	Go to Step 3.	Remove the paper.
3	Check the Fuser installation. Open Door A. Is the Fuser installed correctly?	Go to Step 4.	Correct the installation.
4	Check the Take Away Roller. Open Door A. Is the Take Away Roller worn or contaminated with paper dust?	Go to Step 5.	Clean or replace Take Away Roller (REP 4.3).
5	Test the Fuser Exit Sensor operation. 1. Open Door A. 2. Run the Service Diagnostic Fuser Exit Sensor test. Does the sensor state change each time paper touches the sensor?	Reconnect the connector of the Engine Control Board.	Go to Step 6.
6	Check the Fuser Exit Sensor connection. Are P/J125 and P/J410 connected?	Go to Step 7.	Connect P/J125 and P/J410.

Table 2 Jam at A (Fuser Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check continuity between the Fuser Exit Sensor and Engine Control Board. Is there continuity on each wire between P/J125 <=> P/J410?	Go to Step 8.	Repair the wiring.
8	Check for +5 V to the Fuser Exit Sensor. Is there +5 V across J125-3 (+) <=> ground?	Replace the Fuser Exit Sensor (REP 6.2).	Replace Engine Control Board (REP 8.4)

## Jam at A - E3-6 Fuser Area Jam

Paper remains at the Fuser Exit Sensor located behind Door A.

### Applicable Error Code

- Jam at A - E3-6 Fuser Area Jam

### Troubleshooting Reference

Table 1 E3-6 Fuser Area Jam Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Fuser Exit Sensor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner Cartridge (Figure 1)</li> <li>Section 7, Print Engine Fuser Wiring (Figure 6)</li> <li>PL 6.1 Fuser and Exit 1</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 E3-6 Fuser Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position at Door A. Is paper touching the Fuser Exit Sensor?	Remove the paper.	Go to Step 2.
2	Test the Fuser Exit Sensor. 1. Open Door A. 2. Run the Service Diagnostics Fuser Exit Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Fuser Exit Sensor connection. Are P/J125 and P/J410 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Fuser Exit Sensor and Engine Control Board. Is there continuity on each wire between P/J125 <=> P/J410?	Go to Step 5.	Repair the wiring.
5	Check for +5 V at the Fuser Exit Sensor. Is there +5 V across the sensor connector's P/J125-3 <=> ground?	Replace the Fuser Exit Sensor (REP 6.2).	Replace the Engine Control Board (REP 8.4).

## Jam at A - E4-1 Exit 2 Area Jam

Paper did not reach the Exit 2 Exit Sensor located behind Door E on time.

### Applicable Error Code

- Jam at A - E4-1 Exit 2 Area Jam

### Troubleshooting Reference

Table 1 Exit 2 Area Jam Troubleshooting Reference

Applicable Parts	References
Fuser Exit Sensor	Section 7, Print Engine P/J Fuser and Exit 1 (Figure 3)
Exit 2 Exit Sensor	Section 7, Print Engine Fuser Wiring (Figure 6)
Exit 1 OCT Roller	Section 7, Exit 2 Plug/Jack Locator (Figure 1)
Exit 1 Motor	Section 7, Exit 2 Sensor/Fan Wiring (Figure 3)
Exit PWB	PL 6.1 Fuser and Exit 1
Engine Control Board	PL 8.1 Print Engine Electrical
LVPS	PL 24.2 Exit 2 Tray Guide Assembly

### Troubleshooting Procedure

Table 2 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position at Door A. Is paper touching the Fuser Exit Sensor?	Remove the paper.	Go to Step 2.
2	Check paper position at Door E. Is paper touching the Exit Sensor?	Remove the paper.	Go to Step 3.
3	Check the OCT Roller. Is the OCT Roller worn or contaminated with paper dust?	Clean or replace the OCT Roller.	Go to Step 4.
4	Check the drive transmission. Does the OCT Roller and gears rotate smoothly?	Go to Step 5.	Restore proper operation.
5	Test the Fuser Exit Sensor. 1. Open Door A. 2. Run the Service Diagnostics Fuser Exit Sensor test. Does the sensor change state?	Go to Step 9.	Go to Step 6.
6	Check the Fuser Exit Sensor connection. Are P/J125 and P/J410 connected?	Go to Step 7.	Connect the sensor.
7	Check continuity between the Fuser Exit Sensor and Engine Control Board. Is there continuity on each wire between P/J125 <=> P/J410?	Go to Step 8.	Repair the wiring.
8	Check for +5V at the Fuser Exit Sensor. Is there +5V across the sensor connector's P/J125-3 <=> ground?	Replace the Fuser Exit Sensor (REP 6.2).	Replace the Engine Control Board (REP 8.4).

Table 2 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
9	Test the Exit 1 Motor operation. Run the Service Diagnostics Exit 1 Motor tests. Does the motor operate properly?	Go to Step 18.	Go to Step 10.
10	Check the Exit 1 Motor connection. Are P/J206 and P/J432 connected?	Go to Step 11.	Connect P/J206 and P/J432.
11	Check continuity between the Exit 2 Motor and Engine Control Board. Is there continuity on each wire between P/J206 <=> P/J432?	Go to Step 12.	Repair the wiring.
12	Check for +24V to the Exit 1 Motor. Is there +24V across P206-5 (+) <=> ground?	Replace the Exit 1 Offset Motor (REP 6.4).	Go to Step 13.
13	Check the connection between the Exit PWB and Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 14.	Connect P/J431 and P/J421.
14	Check continuity between the Exit PWB and the Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 15.	Repair the wiring.
15	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 16.	Connect P/J430 and P/J526.
16	Check continuity between the Exit PWB and the LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 17.	Repair the wiring.
17	Check for +24V to the Exit PWB. Is there +24V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).
18	Test the Exit 2 Exit Sensor. 1. Open Door E. 2. Run the Service Diagnostics Exit Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 19.
19	Check the Exit 2 Exit Sensor connection. Are P/J112, P/J606B, and P/J434 connected?	Go to Step 20.	Connect the sensor.
20	Check continuity between the Exit 2 Exit Sensor and Exit PWB. Is there continuity on each wire between P/J112 <=> P/J434?	Go to Step 21.	Repair the wiring.
21	Check for +5V at the Exit 2 Exit Sensor. Is there +5V across the sensor connector's P/J112-3 <=> ground?	Replace the Exit Sensor (REP 24.15).	Go to Step 22.

**Table 2 Exit 2 Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
22	Check the connection between the Exit PWB and Engine Control Board.	Go to Step 23.	Connect P/J431 and P/J421.
23	Check continuity between the Exit PWB and Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 24.	Repair the wiring.
24	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 25.	Connect P/J430 and P/J526.
25	Check continuity between the Exit PWB and the LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 26.	Repair the wiring.
26	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).

## Jam at E - E4-3 Exit 2 Area Jam

Paper did not pass the Exit 2 Exit Sensor located behind Door E on time.

### Applicable Error Codes

- Jam at E - E4-3 Exit 2 Area Jam
- Jam at A - E4-5 Exit 2 Area Jam

### Troubleshooting Reference

**Table 1 E4-3 Exit 2 Area Jam Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Exit 2 Exit Sensor</li> <li>Exit 2 Motor</li> <li>Exit 2 OCT Roller</li> <li>Exit 2 FU Roller</li> <li>Exit 2 Inv Roller</li> <li>Exit PWB</li> <li>Engine Control Board</li> <li>LVPS</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Print Engine Exit 1 Wiring (Figure 14)</li> <li>Section 7, Exit 2 Plug/Jack Locator (Figure 1)</li> <li>Section 7, Exit 2 General Wiring (Figure 1)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 24.1 Exit 2 L/H Upper Chute</li> <li>PL 24.2 Exit 2 Tray Guide Assembly</li> </ul>

### Troubleshooting Procedure

**Table 2 E4-3 Exit 2 Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check paper position at Door E. Is paper touching the Exit 2 Sensor?	Remove the paper.	Go to Step 2.
2	Check the FU Roller. Is the FU Roller worn or contaminated with paper dust?	Clean or replace the FU Roller.	Go to Step 3.
3	Check the drive transmission. Does the FU Roller and gears rotate smoothly?	Go to Step 4.	Restore proper operation.
4	Check the Inv Roller. Is the INV Roller worn or contaminated with paper dust?	Clean or replace the INV Roller.	Go to Step 5.
5	Check the drive transmission. Does the INV Roller and gears rotate smoothly?	Go to Step 6.	Restore proper operation.
6	Check the OCT Roller. Is the OCT Roller worn or contaminated with paper dust?	Clean or replace the OCT Roller.	Go to Step 7.
7	Check the drive transmission. Does the OCT Roller and gears rotate smoothly?	For E4-5: Go to Step 8. For E4-3: Go to Step 9.	Restore proper operation.



Table 2 E4-3 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
8	For E4-5 Only: Test Exit 2 Gate Solenoid. Run the Service Diagnostics Exit 2 Gate Solenoid test. Does the Solenoid operate the Gate?	Go to Step 9.	Go to Step 10.
9	Test the Exit 2 Sensor. 1. Open Door E. 2. Run the Service Diagnostics Exit Sensor test. Does the sensor change state?	For E4-5: Go to Step 10. For E4-3: Go to Step 12.	Go to Step 12.
10	For E4-5 Only: Check Exit 2 Solenoid. Check continuity on each wire between P/J209 to P/J433. Is there continuity on each wire between P/J209 to P/J433?	Go to Step 11.	Repair the wiring.
11	For E4-5 Only: Check for +24 V to the Exit 2 Gate Solenoid. Is there +24 V across P/J433-11 (+) <=> ground?	Replace the Exit 2 Gate Solenoid (REP 24.13).	Replace the Exit PWB (REP 8.3).
12	Check the Exit Sensor connection. Are P/J112, P/J606B, and P/J434 connected?	Go to Step 13.	Connect the sensor.
13	Check continuity between the Exit Sensor and Exit PWB. Is there continuity on each wire between P/J112 <=> P/J434?	Go to Step 14.	Repair the wiring.
14	Check for +5 V at the Exit Sensor. Is there +5 V across the sensor connector's P/J112-3 <=> ground?	Replace the Exit 2 Sensor (REP 24.15).	Go to Step 15.
15	Check the connection between the Exit PWB and Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 16.	Connect P/J431 and P/J421.
16	Check continuity between the Exit PWB and the Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 17.	Repair the wiring.
17	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 18.	Connect P/J430 and P/J526.
18	Check continuity between the Exit PWB and the LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 19.	Repair the wiring.

Table 2 E4-3 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
19	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).
20	Test the Exit 2 Motor operation. Run the Service Diagnostics Exit 2 Output Motor tests. Does the Exit 2 Motor operate properly?	Replace the Engine Control Board (REP 8.4).	Go to Step 21.
21	Check the Exit 2 Motor connection. Are P/J208, P/J606A and P/J433 connected?	Go to Step 22.	Connect P/J208, P/J606A and P/J433.
22	Check continuity between the Exit 2 Motor and Exit PWB. Is there continuity on each wire between P/J208 <=> P/J433?	Go to Step 23.	Repair the wiring.
23	Check for +24 V to the Exit 2 Motor. Is there +24 V across P208-5 (+) <=> ground?	Replace the Exit 2 Motor (REP 24.17).	Go to Step 24.
24	Check the connection between the Exit PWB and Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 25.	Connect P/J431 and P/J421.
25	Check continuity between the Exit PWB and Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 26.	Repair the wiring.
26	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 27.	Connect P/J430 and P/J526.
27	Check continuity between the Exit PWB and the LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 28.	Repair the wiring.
28	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).

## Jam at E - E4-6 Exit 2 Area Jam

Paper remains at the Exit 2 Exit Sensor located behind Door E.

### Applicable Error Code

- Jam at E - E4-6 Exit 2 Area Jam

### Troubleshooting Reference

Table 1 E4-6 Exit 2 Area Jam Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Exit 2 Exit Sensor</li> <li>Exit PWB</li> <li>Engine Control Board</li> <li>LVPS</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)</li> <li>Section 7, Print Engine Exit 1 Wiring (Figure 14)</li> <li>Section 7, Exit 2 Plug/Jack Locator (Figure 1)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 24.2 Exit 2 Tray Guide Assembly</li> </ul>

### Troubleshooting Procedure

Table 2 E4-6 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position at Door A. Is paper touching the Fuser Exit Sensor?	Remove the paper.	Go to Step 2.
2	Test the Exit Sensor. Run the Service Diagnostics Exit Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Exit Sensor connection. Are P/J112, P/J606B and P/J434 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Exit Sensor and Exit PWB. Is there continuity on each wire between P/J112<=> P/J434?	Go to Step 5.	Repair the wiring.
5	Check for +5 V at the Exit Sensor. Is there +5 V across the sensor connector's P/J112-3 <=> ground?	Replace the Exit Sensor (REP 24.15).	Go to Step 6.
6	Check the connection between the Exit PWB and Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 7.	Connect P/J431 and P/J421.
7	Check continuity between the Exit PWB and Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 8.	Repair the wiring.

Table 2 E4-6 Exit 2 Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
8	Check the connection between Exit PWB and LVPS. Are P/J430 and P/J526 connected?	Go to Step 9.	Connect P/J430 and P/J526.
9	Check continuity between the Exit PWB and LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 10.	Repair the wiring.
10	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).

# Jam at E - E8-2 Duplex Area Jam

Paper being fed into the Duplex Unit did not reach the Wait Sensor on time.

## Applicable Error Codes

- Jam at E - E8-2 Duplex Area Jam

## Troubleshooting Reference

Table 1 E8-2 Duplex Area Jam Troubleshooting Reference

Applicable Parts	References
Duplex Wait Sensor	Section 7, Engine Control Board P/J Locator (Figure 8)
Exit 2 Motor	Section 7, Print Engine Exit 1 Wiring (Figure 14)
Exit 2 OCT Roller	Section 7, Exit 2 Plug/Jack Locator (Figure 1)
Exit 2 FU Roller	Section 7, Exit 2 General Wiring (Figure 1)
Exit 2 Inv Roller	Section 7, Duplex Unit Plug/Jack Locator (Figure 1)
Exit PWB	Section 7, Duplex Unit Wiring (Figure 1, Figure 2)
Duplex Unit PWB	PL 8.1 Print Engine Electrical
Engine Control Board	PL 23.1 Duplex Unit
LVPS	PL 24.1 Exit 2 L/H Upper Chute
	PL 24.2 Exit 2 Tray Guide Assembly

## Troubleshooting Procedure

Table 2 E8-2 Duplex Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper position at Door E. Does paper remain in Exit 2?	Remove the paper.	Go to Step 2.
2	Check the FU Roller. Is the FU Roller worn or contaminated with paper dust?	Clean or replace the FU Roller.	Go to Step 3.
3	Check the drive transmission. Does the FU Roller and gears rotate smoothly?	Go to Step 4.	Restore proper operation.
4	Check the Inv Roller. Is the INV Roller worn or contaminated with paper dust?	Clean or replace the INV Roller.	Go to Step 5.
5	Check the drive transmission. Does the INV Roller and gears rotate smoothly?	Go to Step 6.	Restore proper operation.
6	Check the OCT Roller. Is the OCT Roller worn or contaminated with paper dust?	Clean or replace the OCT Roller.	Go to Step 7.
7	Check the drive transmission. Does the OCT Roller and gears rotate smoothly?	Go to Step 8.	Restore proper operation.

Table 2 E8-2 Duplex Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
8	Test the Exit 2 Motor. Run the Service Diagnostics Exit 2 Motor tests. Does the Exit 2 Motor operate properly?	Go to Step 17.	Go to Step 9.
9	Check the Exit 2 Motor connections. Are P/J208, P/J606A and P/J433 connected?	Go to Step 10.	Connect P/J208, P/J606A and P/J433.
10	Check continuity between the Exit Motor and Exit PWB. Is there continuity on each wire between P/J208 <=> P/J433?	Go to Step 11.	Repair the wiring.
11	Check for +24 V to the Exit 2 Motor. Is there +24 V across P208-5 (+) <=> ground?	Replace the Exit 2 Motor (REP 24.17).	Go to Step 12.
12	Check the connection between the Exit PWB and Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 13.	Connect P/J431 and P/J421.
13	Check continuity between the Exit PWB and the Engine Control Board. Is there continuity on each wire between P/J431 <=> P/J421?	Go to Step 14.	Repair the wiring.
14	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 15.	Connect P/J430 and P/J526.
15	Check continuity between the Exit PWB and the LVPS. Is there continuity on each wire between P/J430 <=> P/J526?	Go to Step 16.	Repair the wiring.
16	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).
17	Test the Wait Sensor. Run the Service Diagnostics Duplex Wait Sensor test. Does the Wait Sensor operate properly?	Replace the Engine Control Board (REP 8.4).	Go to Step 18.
18	Check the Wait Sensor connection. Are P/J123 and P/J541 connected?	Go to Step 19.	Connect P/J123 and P/J541.
19	Check continuity between the Wait Sensor and Duplex PWB. Is there continuity on each wire between P/J123 <=> P/J541?	Go to Step 20.	Repair the wiring.
20	Check for +5 V to the Wait Sensor. Is there +5 V across P123-3 (+) <=> ground?	Replace the Wait Sensor (REP 23.8).	Go to Step 21.
21	Check the Duplex PWB connection. Are P/J540 and P/J417 connected?	Go to Step 22.	Connect P/J540 and P/J417 surely.

**Table 2 E8-2 Duplex Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
22	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 23.	Repair the wiring.
23	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Jam at D and A - C6-1 Duplex Area Jam

Paper being fed from the Duplex Unit did not reach the Registration Sensor, located behind Door A, on time.

### Applicable Error Code

- Jam at D and A - C6-1 Duplex Area Jam

### Troubleshooting Reference

**Table 1 C6-1 Duplex Area Jam Troubleshooting Reference**

Applicable Parts	References
Duplex A3L Rollers	Section 7, Engine Control Board P/J Locator (Figure 8)
Duplex Roller	Section 7, Print Engine Registration Transport Wiring (Figure 7)
Duplex Motor	Section 7, Duplex Unit Plug/Jack Locator (Figure 1)
Duplex PWB	Section 7, Duplex Unit Wiring (Figure 1, Figure 2)
Engine Control Board	PL 4.5 Registration
Registration Sensor	PL 8.1 Print Engine Electrical
	PL 23.1 Duplex Unit
	PL 23.2 Inner Chute Duplex Unit

### Troubleshooting Procedure

**Table 2 C6-1 Duplex Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check paper position. Open Door A. Does the paper touch the Registration Sensor?	Remove the paper.	Go to Step 2.
2	Check Duplex Unit installation. 1. Reinstall the Duplex Unit. 2. Print a 2-sided Test Print. Does the error reoccur?	Go to Step 3.	Problem solved.
3	Check the A3L Rollers. Open Door D. Are the A3L Rollers worn or contaminated with paper dust?	Clean or replace the defective roller.	Go to Step 4.
4	Check the roller drive. Do the A3L Rollers and gears rotate smoothly?	Go to Step 5.	Restore proper operation.
5	Check the Duplex Roller. Is the Duplex Roller worn or contaminated with paper dust?	Clean or replace the roller.	Go to Step 6.
6	Check the roller drive. Do the Duplex Roller and gears rotate smoothly?	Go to Step 7.	Restore proper operation.

**Table 2 C6-1 Duplex Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Test the Duplex Motor. Run the Service Diagnostics Duplex Motor test. Does the Duplex Motor operate properly?	Go to Step 15.	Go to Step 8.
8	Check the Duplex Motor for connection. Are P/J212 and P/J542 connected?	Go to Step 9.	Connect P/J212 and P/J542.
9	Check the Duplex Motor for continuity. Is there continuity on each wire between P/J212 <=> P/J542?	Go to Step 10.	Repair the wiring.
10	Check for +24 V to the Duplex Motor. Is the +24 V across P/J212-5 (+) <=> ground?	Go to Step 14.	Go to Step 11.
11	Check the Duplex PWB connection. Are P/J540 and P/J417 connected?	Go to Step 12.	Connect P/J540 and P/J417.
12	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 13.	Repair the wiring.
13	Check for +24 V to the Duplex PWB. Is there +24 V across P/J540-2 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).
14	Test the Registration Sensor. Run the Service Diagnostics Registration Sensor test. Does the sensor status change?	Replace the Engine Control Board (REP 8.4).	Go to Step 15.
15	Check the Registration Sensor connection. Are P/J104 and P/J403B connected?	Go to Step 16.	Connect P/J104 and P/J403B.
16	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J409B?	Go to Step 17.	Repair the wiring.
17	Check for +5 V to the Registration Sensor. Is there +5 V across P/J104-1 (+) <=> ground?	Replace the Registration Sensor (REP 4.11).	Go to Step 18.
18	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 19.	Repair the wiring.
19	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Jam at D and A - C6-2 Duplex Area Jam

Paper being fed from the Duplex Unit did not reach the Registration Sensor, located on behind Door A, on time. Paper didn't stop at the Wait Sensor.

### Applicable Error Code

- Jam at D and A - C6-2 Duplex Area Jam

### Troubleshooting Reference

**Table 1 C6-2 Duplex Area Jam Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Duplex A3L Rollers</li> <li>Duplex Roller</li> <li>Duplex Motor</li> <li>Duplex Wait Sensor</li> <li>Duplex PWB</li> <li>Engine Control Board</li> <li>Registration Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Print Engine Registration Transport Wiring (Figure 7)</li> <li>Section 7, Duplex Unit Plug/Jack Locator (Figure 1)</li> <li>Section 7, Duplex Unit Wiring (Figure 1, Figure 2)</li> <li>PL 4.5 Registration</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 23.1 Duplex Unit</li> <li>PL 23.2 Inner Chute Duplex Unit</li> </ul>

### Troubleshooting Procedure

**Table 2 C6-2 Duplex Area Jam Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper position. Open Door A. Does the paper touch the Registration Sensor?	Remove the paper.	Go to step 2.
2	Check the paper position. Open Door D. Does the paper touch the Wait Sensor?	Remove the paper.	Go to Step 3.
3	Check the Duplex Unit installation. 1. Reinstall the Duplex Unit. 2. Print a 2-sided Test Print. Does the error reoccur?	Go to Step 4.	Problem solved.
4	Check the A3L Rollers. Are the A3L rollers worn or contaminated with paper dust?	Clean or replace the defective roller.	Go to Step 5.
5	Check the roller drive. Do the A3L rollers and gears rotate smoothly?	Go to Step 6.	Restore proper operation.
6	Check the Duplex Roller. Is the Duplex Roller worn or contaminated with paper dust?	Clean or replace the roller.	Go to Step 7.

Table 2 C6-2 Duplex Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check the roller drive. Do the Duplex Roller and gears rotate smoothly?	Go to Step 8.	Restore proper operation.
8	Test the Wait Sensor. Run the Service Diagnostics Duplex Wait Sensor test. Does the Wait Sensor operate properly?	Go to Step 14.	Go to Step 9.
9	Check the Wait Sensor connection. Are P/J123 and P/J541 connected?	Go to Step 10.	Connect P/J123 and P/J541.
10	Check continuity between the Wait Sensor and Duplex PWB. Is there continuity on each wire between P/J123 <=> P/J541?	Go to Step 11.	Repair the wiring.
11	Check for +5 V to the Wait Sensor. Is there +5 V across P123-3 (+) <=> ground?	Replace the Wait Sensor (REP 23.8).	Go to Step 12.
12	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 13.	Repair the wiring.
13	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).
14	Test the Duplex Motor. Run the Service Diagnostics Duplex Motor test. Does the Duplex Motor operate properly?	Go to Step 21.	Go to Step 15.
15	Check the Duplex Motor for connection. Are P/J212 and P/J542 connected?	Go to Step 16.	Connect P/J212 and P/J542.
16	Check the Duplex Motor for continuity. Is there continuity on each wire between P/J212 <=> P/J542?	Go to Step 17.	Repair the wiring.
17	Check for +24 V to the Duplex Motor. Is the +24 V across P/J212-5 (+) <=> ground?	Replace the Duplex Motor (REP 23.6).	Go to Step 18.
18	Check the Duplex PWB connection. Are P/J540 and P/J417 connected?	Go to Step 19.	Connect P/J540 and P/J417.
19	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 20.	Repair the wiring.
20	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

Table 2 C6-2 Duplex Area Jam Troubleshooting Procedure

Step	Actions and Questions	Yes	No
21	Check Registration Sensor operation. Run the Service Diagnostics Registration Sensor test. Does the sensor status change?	Replace the Engine Control Board (REP 8.4).	Go to Step 22.
22	Check the Registration Sensor connection. Are P/J104 and P/J403 connected?	Go to Step 23.	Connect P/J104 and P/J403B.
23	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J403?	Go to Step 24.	Repair the wiring.
24	Check for +5 V to the Registration Sensor. Is there +5 V across P/J104-1 (+) <=> ground?	Replace the Registration Sensor (REP 4.11).	Go to Step 25.
25	Check continuity between the Duplex PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 26.	Repair the wiring.
26	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray n - Pre-Feed

Paper fed from a universal tray did not reach the Pre-Feed Sensor, located on the tray's Feeder, on time.

### Applicable Error Codes

- Jam at Tray 2 - C1-2 Tray 2
- Jam at Tray 3 - C2-1 Tray 3
- Jam at Tray 4 - C3-0 Tray 4
- Jam at Tray 5 - C4-4 Tray 5

### Troubleshooting Reference

Table 1 Jam at Tray n (Pre-Feed) Troubleshooting Reference

Applicable Parts	References
• Feed Roller	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Retard Roller	• Section 7, Print Engine Tray 2 & 3 Wiring (Figure 10)
• Nudger Roller	• Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
• Pre-Feed Sensor	• Section 7, 1000-Sheet Tray 4 & 5 Wiring (Figure 3)
• Feed/Lift Motor	• PL 2.3 Feeder (2/2)
• Engine Control Board	• PL 8.1 Print Engine Electrical
• Tray 4-5 PWB	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper in the tray damaged?	Replace the paper.	Go to Step 2.
2	Check the paper size settings. Does the paper size in use match the setting for the tray?	Go to Step 3.	Correct paper size settings.
3	Remove the tray and check the rollers. Is the Feed, Retard, or Nudger Roller worn or contaminated with paper dust?	Clean or replace the Rollers.	Go to Step 4.
4	Check paper position at Door A, B, or C. Does the paper touch the Feeder's Registration or Pre-Feed Sensor?	Remove the paper.	Go to Step 5.
5	Test the Feeder's Pre-Feed Sensor. <ol style="list-style-type: none"> <li>1. Open Door A, B, or C.</li> <li>2. Run the Service Diagnostics Pre-Feed Sensor test for the appropriate tray.</li> </ol> Does the sensor change state?	Go to Step 9.	Go to step 6.
6	Check the Pre-Feed Sensor connection. Is the sensor's connected?	Go to Step 7.	Connect the sensor.

Table 2 Jam at Tray n (Pre-Feed) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check continuity between the Pre-Feed sensor and the Engine Control Board.	Go to Step 8.	Repair the wiring.
8	Check for +5 V at the Pre-Feed Sensor. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace the sensor. If the error persists, go to Step 12 for Tray 2 or 3, or Step 9 for Tray 4 or 5.	Replace the Engine Control Board (REP 8.4). If the error persists, go to Step 12 for Tray 2 or 3, or Step 9 for Tray 4 or 5.
9	<b>For Trays 4 &amp; 5 Only:</b> Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 10.	Connect P/J541 and P/J413.
10	<b>For Trays 4 &amp; 5 Only:</b> Check continuity between the Tray 4-5 PWB and Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 11.	Repair the wiring.
11	<b>For Trays 4 &amp; 5 Only:</b> Check for +24 V at the Tray 4-5 PWB. Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB.	Replace the Engine Control Board (REP 8.4).
12	Test the Feed/Lift Motor. Run the Service Diagnostics Lift/Feed motor test for the appropriate tray. Does the motor operate?	Replace the Engine Control Board (REP 8.4).	Go to Step 13.
13	Check the Feed/Lift Motor connections. Is the Feed/Lift motor connected?	Go to Step 14.	Connect the motor.
14	Test the Feed/Lift Motor. <ol style="list-style-type: none"> <li>1. Exchange the Feed/Lift motor with one from a different feeder.</li> <li>2. Run the Service Diagnostics Lift/Feed motor test for the appropriate tray.</li> </ol> Does the replaced motor operate?	Replace the Feed/Lift motor.	Go to Step 15.
15	Check the Feed/Lift Motor for continuity. Reinstall the Feed/Lift motors as they previously were. Is there continuity on each wire between the sensor and P/J409A?	Go to Step 16.	Repair the wiring.
16	Check +24 V power supply to the Feed/Lift Motor. Is there +24 V across the motor connector's Pin 4 <=> ground?	Replace the Feed/Lift Motor	Replace the Engine Control Board (REP 8.4).

## Jam at Tray n - Registration

Paper fed from a universal tray did not reach the Registration Sensor on time.

### Applicable Error Codes

- Jam at Tray 2 - C1-3 Tray 2
- Jam at Tray 3 - C2-3 Tray 3
- Jam at Tray 4 - C3-3 Tray 4
- Jam at Tray 5 - C4-3 Tray 5

### Troubleshooting Reference

Table 1 Jam Tray n (Registration Sensor) Troubleshooting Reference

Applicable Parts	References
• Feed Roller	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Retard Roller	• Section 7, Print Engine Tray 2 & 3 Wiring (Figure 10)
• Nudger Roller	• Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
• Registration Sensor	• Section 7, 1000-Sheet Tray 4 & 5 Wiring (Figure 3)
• Tray 2 Pre-Feed Sensor	• PL 2.3 Feeder (2/2)
• Tray 3 Pre-Feed Sensor	• PL 8.1 Print Engine Electrical
• Engine Control Board	• PL 20.4 Tray 4-5 Feeders (2/2)
• Tray 4-5 PWB	• PL 20.6 Tray 4-5 Drive and Electrical
• Tray 4 Feed Out Sensor	
• Tray 5 Feed Out Sensor	

### Troubleshooting Procedure

Table 2 Jam Tray n (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. Is the paper in the tray damaged?	Replace the paper.	Go to Step 2.
2	Check paper size settings. Does the paper size in use match the setting for the tray?	Go to Step 3.	Correct paper size settings.
3	Remove the tray and check the rollers. Is the Feed, Retard, or Nudger Roller worn or contaminated with paper dust?	Clean or replace the Rollers.	Go to Step 4.
4	Check paper position at Door A or B. Does the paper touch the Registration Sensor or Feeder's Pre-Feed Sensor?	Remove the paper.	Go to Step 5.
5	Test the Registration Sensor. 1. Open Door A. 2. Run the Service Diagnostics Registration Sensor test. Does the sensor change state?	Go to Step 9.	Go to Step 6.

Table 2 Jam Tray n (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Registration Sensor connection. Are P/J104 and P/J403 connected?	Go to Step 7.	Connect the sensor.
7	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J403?	Go to Step 8.	Repair the wiring.
8	Check for +5 V at the Registration Sensor. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace the Registration Sensor (REP 4.11). If the error persists, go to Step 9 for Tray 2 or 3, or Step 13 for Tray 4 or 5.	Replace the Engine Control Board (REP 8.4). If the error persists, go to Step 9 for Tray 2 or 3, or Step 13 for Tray 4 or 5.
9	<b>For Trays 2 and 3 Only:</b> Test the Feeder's Pre-Feed Sensor. 1. Open Door A or B. 2. Run the Service Diagnostics Pre-Feed Sensor test for the appropriate tray. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 10.
10	<b>For Trays 2 and 3 Only:</b> Check the Pre-Feed Sensor connection. Is the sensor connected?	Go to Step 11.	Connect the sensor.
11	<b>For Trays 2 and 3 Only:</b> Check continuity between the Pre-Feed Sensor and the Engine Control Board. Is there continuity on each wire between the sensor and board?	Go to Step 12.	Repair the wiring.
12	<b>For Trays 2 and 3 Only:</b> Check for +5 V at the Pre-Feed Sensor. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace the sensor.	Replace the Engine Control Board (REP 8.4).
13	<b>For Trays 4 and 5 Only:</b> Test the appropriate Feed Out Sensor. 1. Open Door C. 2. Run the Service Diagnostics Feed Out Sensor test for the appropriate tray. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 14.
14	<b>For Trays 4 and 5 Only:</b> Check the appropriate Feed Out Sensor connection. Is the sensor's connected?	Go to Step 15.	Connect the sensor.



**Table 2 Jam Tray n (Registration Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
15	<b>For Trays 4 and 5 Only:</b> Check continuity between the Feed Out Sensor and the Tray 4-5 PWB. Is there continuity on each wire between the sensor and board?	Go to Step 16.	Repair the wiring.
16	<b>For Trays 4 and 5 Only:</b> Check for +5 V at the Feed Out Sensor. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace the sensor.	Go to Step 17.
17	<b>For Trays 4 &amp; 5 Only:</b> Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 18.	Connect P/J541 and P/J413.
18	<b>For Trays 4 &amp; 5 Only:</b> Check continuity between the Tray 4-5 PWB and the Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 19.	Repair the wiring.
19	<b>For Trays 4 &amp; 5 Only:</b> Check for +24 V at the Tray 4-5 PWB, Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray n - Feed Out #3

Paper fed from a universal tray did not reach Feed Out Sensor #3, located behind Door B on the Print Engine Take Away Chute, on time.

### Applicable Error Codes

- Jam at Tray 3 - C2-2 Tray 3
- Jam at Tray 4 - C3-2 Tray 4
- Jam at Tray 5 - C4-2 Tray 5

### Troubleshooting Reference

**Table 1 Jam at Tray n (Feed Out Sensor #3) Troubleshooting Reference**

Applicable Parts	References
• Feed Roller	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Retard Roller	• Section 7, Print Engine Tray 2 & 3 Wiring (Figure 10)
• Nudger Roller	• Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
• Feed Out Sensor #3	• Section 7, 1000-Sheet Tray 4 & 5 Wiring (Figure 3)
• Engine Control Board	• PL 2.3 Feeder (2/2)
• Tray 4-5 PWB	• PL 8.1 Print Engine Electrical
• Tray 4 Feed Out Sensor	• PL 20.4 Tray 4-5 Feeder (2/2)
• Tray 5 Feed Out Sensor	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

**Table 2 Jam at Tray n (Feed Out Sensor #3) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper in the tray damaged?	Replace the paper.	Go to Step 2.
2	Check the paper size settings. Does the paper size match the setting?	Go to Step 3.	Correct paper size settings.
3	Remove the tray and check the rollers. Is the Feed, Retard, or Nudger Roller worn or contaminated with paper dust?	Clean or replace the Rollers.	Go to Step 4.
4	Check the paper position at Door B or C. Does the paper block the Feed Out Sensor?	Remove the paper. If the error persists, go to Step 5 for Tray 2 or 3, or Step 9 for Tray 4 or 5.	Go to Step 5 for Tray 2 or 3, or Step 9 for Tray 4 or 5.
5	Test Feed Out Sensor #3. 1. Open Door B. 2. Run the Service Diagnostics Tray 3 Feed Out Sensor test. Does the sensor change state?	Go to Step 9.	Go to Step 6.
6	Check the Feed Out Sensor #3 connection. Are P/J105, P/J608 and P/J410 connected?	Go to Step 7.	Connect the sensor.

**Table 2 Jam at Tray n (Feed Out Sensor #3) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check continuity between the Feed Out Sensor #3 and Engine Control Board. Is there continuity on each wire between P/J105 <=> P/J410?	Go to Step 8.	Repair the wiring.
8	Check for +5 V at the Feed Out Sensor #3. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace Feed Out Sensor #3	Replace the Engine Control Board (REP 8.4).
9	For Trays 4 and 5 Only: Test the tray's Feed Out Sensor. 1. Open Door C. 2. Run the Service Diagnostics Feed Out Sensor test for the appropriate tray. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 10.
10	For Trays 4 and 5 Only: Check the Feed Out Sensor connection. Is the sensor connected?	Go to Step 11.	Connect the sensor.
11	For Trays 4 and 5 Only: Check continuity between the Feed Out Sensor and the Tray 4-5 PWB. Is there continuity on each wire between the sensor and board?	Go to Step 12.	Repair the wiring.
12	For Trays 4 and 5 Only: Check for +5 V at the Feed Out Sensor. Is there +5 V across the sensor connector's Pin 3 <=> ground?	Replace the sensor.	Go to Step 13.
13	For Trays 4 & 5 Only: Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 14.	Connect P/J541 and P/J413.
14	For Trays 4 & 5 Only: Check continuity between the Tray 4-5 PWB and the Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 15.	Repair the wiring.
15	For Trays 4 & 5 Only: Check for +24 V at the Tray 4-5 PWB. Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray n - Feed Out #4

Paper fed from a universal tray did not reach the Tray 4 Feed Out Sensor #4, located behind Door C on the 1000-Sheet Feeder, on time.

### Applicable Error Codes

- Jam at Tray 4 - C3-1 Tray 4
- Jam at Tray 5 - C4-1 Tray 5

### Troubleshooting Reference

**Table 1 Jam at Tray n (Feed Out Sensor #4) Troubleshooting Reference**

Applicable Parts	References
Feed Roller	Section 7, Engine Control Board P/J Locator (Figure 8)
Retard Roller	Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
Nudger Roller	Section 7, 1000-Sheet Tray 4 & 5 Wiring (Figure 3)
Engine Control Board	PL 8.1 Print Engine Electrical
Tray 4-5 PWB	PL 20.4 Tray 4-5 Feeder (2/2)
Tray 4 Feed Out Sensor #4	PL 20.6 Tray 4-5 Drive and Electrical
Tray 5 Feed Out Sensor #5	

### Troubleshooting Procedure

**Table 2 Jam at Tray n (Feed Out Sensor #4) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper in the tray damaged?	Replace the paper.	Go to Step 2.
2	Check paper size settings. Does the paper size match the setting?	Go to Step 3.	Correct paper size settings.
3	Remove the tray and check the rollers. Is the Feed, Retard, or Nudger Roller worn or contaminated with paper dust?	Clean or replace the Rollers.	Go to Step 4.
4	Check paper position at Door C. Does the paper touch the Feed Out Sensor?	Remove the paper.	Go to Step 5.
5	Test Feed Out Sensor #4. 1. Open Door C. 2. Run the Service Diagnostics Tray 4 Feed Out Sensor test. Does the sensor change state?	Go to Step 12.	Go to Step 6.
6	Check the Feed Out Sensor #4 connection. Are P/J825, P/J842 and P/J548 connected?	Go to Step 7.	Connect the sensor.
7	Check continuity between the Feed Out Sensor #4 and Tray 4-5 PWB. Is there continuity on each wire between P/J825 <=> P/J548?	Go to Step 8.	Repair the wiring.

**Table 2 Jam at Tray n (Feed Out Sensor #4) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Check for +5 V at Feed Out Sensor #4. Is there +5 V across the sensor connector's Pin 3 <=> ground?	Replace Feed Out Sensor #4 (REP 20.17).	Go to Step 9.
9	Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 10.	Connect P/J541 and P/J413.
10	Check continuity between the Tray 4-5 and the Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 11.	Repair the wiring.
11	Check for +24 V at the Tray 4-5 PWB. Is there continuity on each wire between P/J541 <=> P/J413?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).
12	Test the Feed Out Sensor #5. 1. Open Door C. 2. Run the Service Diagnostics Tray 5 Feed Out Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 13.
13	Check the Feed Out Sensor #5 connection. Are P/J825, P/J842 and P/J548 connected?	Go to Step 14.	Connect the sensor.
14	Check continuity between the Feed Out Sensor #5 and the Tray 4-5 PWB. Is there continuity on each wire between P/J825 <=> P/J548?	Go to Step 15.	Repair the wiring.
15	Check for +5 V at the Feed Out Sensor #5. Is there +5 V across the sensor connector's Pin 3 <=> ground?	Replace Feed Out Sensor #5 (REP 20.18).	Go to Step 16.
16	Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 17.	Connect P/J541 and P/J413.
17	Check continuity between the Tray 4-5 PWB and the Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 18.	Repair the wiring.
18	Check for +24 V at the Tray 4-5 PWB. Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray 5 - C4-0 Tray 5

Paper did not reach the Tray 5 Feed Out Sensor #5 on time.

### Applicable Error Code

- Jam at Tray 5 - C4-0 Tray 5

### Troubleshooting Reference

**Table 1 Jam at Tray 5 (Feed Out Sensor #5) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Feed Roller</li> <li>Retard Roller</li> <li>Nudger Roller</li> <li>Engine Control Board</li> <li>Tray 4-5 PWB</li> <li>Tray 5 Pre-Feed Sensor</li> <li>Feed Out Sensor #5</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)</li> <li>Section 7, 1000-Sheet Tray 4 &amp; 5 Wiring (Figure 3)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 20.4 Tray 4-5 Feeder (2/2)</li> <li>PL 20.6 Tray 4-5 Drive and Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Jam at Tray 5 (Feed Out Sensor #5) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper in the tray damaged?	Replace the paper.	Go to Step 2.
2	Check paper size settings. Does the paper size match the setting?	Go to Step 3.	Correct paper size settings.
3	Remove the tray and check the rollers. Is the Feed, Retard, or Nudger Roller worn or contaminated with paper dust?	Clean or replace the Rollers.	Go to Step 4.
4	Check paper position at Door C. Does the paper touch the Tray 5 Pre-Feed or Feed Out Sensor #5?	Remove the paper.	Go to Step 5.
5	Test the Tray 5 Pre-Feed Sensor. 1. Open Door C. 2. Run the Service Diagnostics Tray 5 Pre-Feed Sensor test. Does the sensor change state?	Go to Step 12.	Go to Step 6.
6	Check the Tray 5 Pre-Feed Sensor connection. Are P/J103A, P/J661A and P/J549A connected?	Go to Step 7.	Connect the sensor.
7	Check continuity between the Tray 5 Pre-Feed Sensor and Tray 4-5 PWB. Is there continuity on each wire between P/J103A <=> P/J549A?	Go to Step 8.	Repair the wiring.

**Table 2 Jam at Tray 5 (Feed Out Sensor #5) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Check for +5 V at Tray 5 Pre-Feed Sensor. Is there +5 V across the sensor connector's Pin 1 <=> ground?	Replace the sensor.	Go to Step 9.
9	Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 10.	Connect P/J541 and P/J413.
10	Check continuity between the Tray 4-5 PWB and the Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 11.	Repair the wiring.
11	Check for +24 V at the Tray 4-5 PWB. Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).
12	Test Feed Out Sensor #5. 1. Open Door C. 2. Run the Service Diagnostics Tray 5 Feed Out Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 13.
13	Check the Feed Out Sensor #5 connection. Are P/J825, P/J842 and P/J548 connected?	Go to Step 14.	Connect the sensor.
14	Check continuity between the Feed Out Sensor #5 and the Tray 4-5 PWB. Is there continuity on each wire between P/J825 <=> P/J548?	Go to Step 15.	Repair the wiring.
15	Check for +5 V at the Feed Out Sensor #5. Is there +5 V across the sensor connector's Pin 3 <=> ground?	Replace the Sensor (REP 20.18).	Go to Step 16.
16	Check connections between the Tray 4-5 PWB and Engine Control Board. Are P/J541 and P/J413 connected?	Go to Step 17.	Connect P/J541 and P/J413.
17	Check continuity between the Tray 4-5 PWB and the Engine Control Board.	Go to Step 18.	Repair the wiring.
18	Check for +24 V at the Tray 4-5 PWB. Is their +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray 6 - C5-1 Tray 6

Paper fed from the 2000-Sheet Feeder did not reach Feed Out Sensor #6, located in the Lower Feeder Assembly under Door J, on time.

### Applicable Error Code

- Jam at Tray 6 - C5-1 Tray 6

### Troubleshooting Reference

**Table 1 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Feed Roller</li> <li>Nudger Roller</li> <li>Retard Roller</li> <li>Feeder Harness</li> <li>Main Harness</li> <li>Tray 6 PWB</li> <li>Pre-Feed Sensor</li> <li>Feeder Motor</li> <li>Nudger Solenoid</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)</li> <li>Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)</li> <li>Section 7, 2000-Sheet Tray 6 Sensors Wiring (Figure 3)</li> <li>Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 22.4 Tray 6 Feeder (1/3)</li> <li>PL 22.5 Tray 6 Feeder (2/3)</li> <li>PL 22.6 Tray 6 Feeder (3/3)</li> <li>PL 22.8 Tray 6 Electrical Board</li> </ul>

### Troubleshooting Procedure

**Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door J. 2. Open the Upper Feeder Assembly. Are the Rollers installed correctly, clean, and turn freely?	Go to Step 2.	Clean or replace the Rollers.
2	Test the Tray 6 Pre-Feed Sensor 1. Open Door J. 2. Open the Upper Feeder Assembly. 3. Run the Service Diagnostics Tray 6 Pre-Feed Sensor test. Does the sensor change state?	Go to Step 10.	Go to Step 3.
3	Check the Feeder Harness for connection. Are PF61 and PF56B connected?	Go to Step 4.	Connect and go to Step 4.
4	Check the Main Harness for connection. Are PF56B and JF02 connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Feeder Harness for continuity. 1. Disconnect PF61 and PF56B. 2. Check for continuity of the following: <ul style="list-style-type: none"> <li>PF61-1 &lt;=&gt; JF56B-3</li> <li>PF61-2 &lt;=&gt; JF56B-2</li> <li>PF61-3 &lt;=&gt; JF56B-1</li> </ul> Are these three conductive?	Go to Step 7.	Repair the Feeder Harness.
7	Check the Main Harness for continuity. 1. Disconnect PF56B and JF02. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>JF56B-4 &lt;=&gt; JF02-6</li> <li>JF56B-5 &lt;=&gt; JF02-5</li> <li>JF56B-6 &lt;=&gt; JF02-4</li> </ul> Are these three conductive?	Go to Step 8.	Repair the Main Harness.
8	Check for +5 V at the Pre-Feed Sensor. Is the voltage across PF02-6 <=> PF04-2 on the PWB +5 V?	Go to Step 9.	Replace the Tray 6 PWB (REP 22.34).
9	Check the Pre-Feed Sensor function. Does the voltage across JF02-5 <=> PF04-2 on the PWB change, when white paper is placed over the sensing area?	Go to Step 27.	Replace the Pre-Feed Sensor (REP 22.19).
10	Test the Feed/Lift Motor. Run the Service Diagnostics Tray 6 Motor Feed test. Does the Feed/Lift Motor rotate normally?	Go to Step 18.	Go to Step 11.
11	Check the Harness connections. Are the connectors PF58, PF56, and JF06 on the PWB connected?	Go to Step 13.	Connect and go to Step 12.
12	Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Check the Feeder Harness for continuity. 1. Disconnect PF58 and JF56B. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF58-1 &lt;=&gt; JF56-1</li> <li>PF58-2 &lt;=&gt; JF56-2</li> <li>PF58-3 &lt;=&gt; JF56-3</li> <li>PF58-4 &lt;=&gt; JF56-4</li> <li>PF58-5 &lt;=&gt; JF56-5</li> <li>PF58-6 &lt;=&gt; JF56-6</li> </ul> Are these conductive?	Go to Step 14.	Repair the Feeder harness.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
14	Check the Main Harness for continuity. 1. Disconnect PF56 and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF56-1 &lt;=&gt; JF06-1</li> <li>PF56-2 &lt;=&gt; JF06-3</li> <li>PF56-3 &lt;=&gt; JF06-2</li> <li>PF56-4 &lt;=&gt; JF06-6</li> <li>PF56-5 &lt;=&gt; JF06-4</li> <li>PF56-6 &lt;=&gt; JF06-5</li> </ul> Are these conductive?	Go to Step 15.	Repair the Main Harness.
15	Check resistance of the Feed/Lift Motor. Is there some amount of resistance across PF58-2/5(COM) and PF58-1/3/4/6?	Go to Step 16.	Replace the Feed/Lift Motor (REP 22.16).
16	Check for +24 V at the Feed/Lift Motor. Is there +24 V across PF06-3 <=> PF04-3 and PF06-4 <=> PF04-3 on the PWB?	Go to Step 17.	Replace the Tray 6 PWB (REP 22.34).
17	Replace the Feed/Lift Motor. Print a Test Print. Does the error still occur?	Go to Step 27.	Problem solved.
18	Test the Nudger Solenoid. Run the Service Diagnostics Tray 6 Nudger Solenoid Test at High Power. Does the Nudger Solenoid activate?	Go to Step 27.	Go to Step 19.
19	Check the harness connections. Are the connectors PF59, PF56A, and P/JF06 on the PWB connected?	Go to Step 21.	Connect and go to Step 20.
20	Print a Test Print. Does the error still occur?	Go to Step 21.	Problem solved.
21	Check the Feeder Harness for continuity. 1. Disconnect PF59 and JF56A. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF59-2 &lt;=&gt; JF56A-1</li> <li>PF59-1 &lt;=&gt; JF56A-2</li> </ul> Are these conductive?	Go to Step 22.	Repair the Feeder Harness.
22	Check the Main Harness for continuity. 1. Disconnect PF56A and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF56A-6 &lt;=&gt; JF06-13</li> <li>PF56A-5 &lt;=&gt; JF06-14</li> </ul> Are these conductive?	Go to Step 23.	Repair the Main Harness.
23	Check Nudger Solenoid resistance. Is there some amount of resistance across PF59-1 and PF59-2?	Go to Step 24.	Replace the Nudger Solenoid (REP 22.18).

**Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
24	Test for +24 V at the Nudger Solenoid. Run the Service Diagnostics Tray 6 Nudger Solenoid Test at High Power. Is the voltage across PF06-13 <=> P?JF04-3 on the PWB, +24 V?	Go to Step 25.	Replace the Tray 6 PWB (REP 22.34).
25	Test for +14.7 V at the Nudger Solenoid. Run the Service Diagnostics Tray 6 Nudger Solenoid Test at Low Power. Is the voltage across PF06-13 <=> P?JF04-3 on the PWB, +14.7V?	Go to Step 26.	Replace the Tray 6 PWB (REP 22.34).
26	Replace the Nudger Solenoid. Print a Test Print. Does the error still occur?	Go to Step 27.	Problem solved.
27	Replace the Tray 6 PWB. Print a Test Print. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Jam at Tray 6 - C5-2 Tray 6

Paper fed from the 2000-Sheet Feeder did not reach the Tray 3 Feed Out Sensor #3, located behind Door B, on time.

### Applicable Error Code

- Jam at Tray 6 - C5-2 Tray 6

### Troubleshooting Reference

**Table 1 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Reference**

Applicable Parts	References
Feed Roller	Section 7, Engine Control Board P/J Locator (Figure 8)
Nudger Roller	Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)
Retard Roller	Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)
Take Away Roller	Section 7, 2000-Sheet Tray 6 Sensors Wiring (Figure 3)
Door J	Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)
Feed Out Sensor	PL 8.1 Print Engine Electrical
Feeder Harness	PL 22.5 Tray 6 Feeder (2/3)
Main Harness	PL 22.6 Tray 6 Feeder (3/3)
Tray 6 PWB	PL 22.7 Drive and Transportation
Take Away Motor	PL 22.8 Tray 6 Electrical
Engine Control Board	

### Troubleshooting Procedure

**Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door J. 2. Open the Upper Feeder Assembly. Are the Rollers installed correctly, clean, and turn freely?	Go to Step 2.	Clean or replace the Rollers.
2	Test the Tray 6 Feed Out Sensor #6. Run the Service Diagnostics Tray 6 Feed Out Sensor test. Does the sensor change state?	Go to Step 10.	Go to Step 3.
3	Check the sensor connections. Are P/JF67 and JF54 connected?	Go to Step 4.	Connect and go to Step 4.
4	Check the Main Harness connections. Are PF54 and P/JF01 connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Feeder Harness for continuity. 1. Disconnect P/JF67 and PF54. 2. Check for continuity of the following: <ul style="list-style-type: none"> <li>• P/JF67-1 &lt;=&gt; JF54-3</li> <li>• P/JF67-2 &lt;=&gt; JF54-2</li> <li>• P/JF67-3 &lt;=&gt; JF54-1</li> </ul> Are these three conductive?	Go to Step 7.	Repair the Feeder Harness.
7	Check the Main Harness for continuity. 1. Disconnect PF56B and JF02. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• JF56B-4 &lt;=&gt; JF02-6</li> <li>• JF56B-5 &lt;=&gt; JF02-5</li> <li>• JF56B-6 &lt;=&gt; JF02-4</li> </ul> Are these three conductive?	Go to Step 8.	Repair the Main Harness.
8	Check for +5 V at the Pre-Feed Sensor. Is the voltage across PF02-6 <=> PF04-2 on the PWB +5 V?	Go to Step 9.	Replace the Tray 6 PWB (REP 22.34).
9	Check the Feed Out Sensor #6 signal. Does the voltage across P/JF01-2 <=> P/JF04-2 on the Tray 6 PWB change, when sensor is actuated?	Go to Step 17.	Replace the Feed Out Sensor #6 (REP 22.30).
10	Test the Take Away Motor. Run the Service Diagnostics Tray 6 Take Away Motor Slow test. Does the motor rotate normally?	Go to Step 17.	Go to Step 11.
11	Check the Main Harness connections. Are the connectors PF57 and P/JF06 on the Main Harness connected?	Go to Step 12.	Connect and go to Step 12.
12	Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Check the Feeder Harness for continuity. 1. Disconnect PF57 and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• PF57-7 &lt;=&gt; P/JF06-11</li> <li>• PF57-6 &lt;=&gt; P/JF06-8</li> <li>• PF57-5 &lt;=&gt; P/JF06-9</li> <li>• PF57-4 &lt;=&gt; P/JF06-10</li> <li>• PF57-3 &lt;=&gt; P/JF06-12</li> <li>• PF57-2 &lt;=&gt; P/JF06-7</li> </ul>	Go to Step 14.	Repair the Tray 6 Main harness.
14	Check Take Away Motor resistance. Is there some amount of resistance across F57-3/4(COM) and JF57-1/2/5/6?	Go to Step 15.	Replace the Take Away Motor (REP 22.31).

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
15	Check for +24 V at the Take Away Motor. Is there +24 V across PF06-9 <=> PF04-2, and PF06-10 <=> PF04-2 on the Tray 6 PWB?	Go to Step 16.	Replace the Tray 6 PWB (REP 22.34).
16	Replace the Take Away Motor. Print a Test Print. Does the error still occur?	Go to Step 17.	Problem solved.
17	Replace the Tray 6 PWB. Print a Test Print. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Jam at B - C5-3 Tray 6

Paper fed from the 2000-Sheet Feeder did not reach the Print Engine's Registration Sensor on time.

### Applicable Error Code

- Jam at B - C5-3 Tray 6

### Troubleshooting Reference

Table 1 Jam at B (Registration Sensor) Troubleshooting Reference

Applicable Parts	References
Take Away Roller	Section 7, Engine Control Board P/J Locator (Figure 8)
Door J	Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)
Registration Sensor	Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)
Front Harness A	Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)
Engine Control Board	PL 4.5 Print Engine Registration
Take Away Motor	PL 5.1 Laser, CRU and Toner Dispense
Main Harness	PL 8.1 Print Engine Electrical
Tray 6 PWB	PL 22.7 Drive and Transportation PL 22.8 Tray 6 Electrical

### Troubleshooting Procedure

Table 2 Jam at B (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door J. Are all the rollers installed correctly, clean, and turn freely?	Go to Step 2.	Clean or replace the Rollers.
2	Check the printer paper path. Open Door A. Is the paper path clean?	Go to Step 3.	Clean the paper path.
3	Test the Registration Sensor. 1. Open Door A. 2. Run the Service Diagnostics Registration Sensor test. Does the sensor change state?	Go to Step 9.	Go to Step 4.
4	Check the Registration Sensor connection to the printer's Front Harness. Are P/J104 and P/J403 connected to the Registration Sensor?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Jam at B (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Harness for continuity. 1. Disconnect P/J104 and P/J403. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J104-3 &lt;=&gt; J403B-3</li> <li>J104-2 &lt;=&gt; J403B-8</li> <li>J104-1 &lt;=&gt; J403B-13</li> </ul> Are these conductive?	Go to Step 7.	Repair the printer's Front Harness A.
7	Check for +5 V to the Registration Sensor. Is there +5 V across P403-13 <=> P403-3 on the Engine Control Board?	Go to Step 8.	Replace the Engine Control Board (REP 8.4).
8	Check the Registration Sensor. Does the voltage across P403-8 <=> P403-3 on the Engine Control Board change when the sensor actuator is operated?	Go to Step 16.	Replace the Registration Sensor (REP 4.11).
9	Test the Tray 6 Take Away Motor. Run the Service Diagnostics Tray 6 Take Away Motor high speed test. Does the motor rotate normally?	Go to Step 16.	Go to Step 10.
10	Check the Main Harness connections. Are PF57 and P/JF06 connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check the Main Harness continuity. 1. Disconnect PF57 and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF57-7 &lt;=&gt; P/JF06-11</li> <li>PF57-6 &lt;=&gt; P/JF06-8</li> <li>PF57-5 &lt;=&gt; P/JF06-9</li> <li>PF57-4 &lt;=&gt; P/JF06-10</li> <li>PF57-3 &lt;=&gt; P/JF06-12</li> <li>PF57-2 &lt;=&gt; P/JF06-7</li> </ul> Are these conductive?	Go to Step 13.	Repair the Main Harness.
13	Check the Take Away Motor resistance. Are the resistances across JF57-3/4(COM) and JF57-1/2/5/6, XXXX ohm?	Go to Step 14.	Replace the Take Away Motor (REP 22.31).
14	Check for +24 V to the Take Away Motor. Is there +24 V across PF06-9 <=> PF04-2, and PF06-10 <=> PF04-2 on the Tray 6 PWB?	Go to Step 15.	Replace the Tray 6 PWB (REP 22.34).
15	Replace the Take Away Motor. Print a Test Print. Does the error still occur?	Go to Step 16.	Problem solved.



Table 2 Jam at B (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
16	Replace the Tray 6 PWB. Print a Test Print. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Jam at B - C8-2 F/03 SNR Static Jam

Paper remains at Feed Out Sensor #3 located behind Door B.

### Applicable Error Code

- Jam at B - C8-2 F/03 SNR Static Jam

### Troubleshooting Reference

Table 1 Jam at B (Feed Out #3 Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Feed Out Sensor #3</li> <li>Tray 3 Feed/Lift Motor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Tray 2 &amp; 3 Feeder (Figure 6)</li> <li>Section 7, Print Engine Registration Transport Wiring (Figure 7)</li> <li>PL 2.3 Feeder (2/2)</li> <li>PL 4.5 Registration</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Jam at B (Feed Out #3 Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open door B. Does the paper touch the Tray 3 Feed Out Sensor?	Remove the paper.	Go to Step 2.
2	Test the Feed Out Sensor #3. 1. Open Door B. 2. Run the Service Diagnostics Tray 3 Feed Out Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the sensor connection. Are P/J105, P/J608, and P/J410 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the sensor and Engine Control Board. Is there continuity on each wire between P/J105 <=> P/J410?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Feed Out Sensor #3. Is there +5 V across P105-1(+)<=> ground?	Replace the Feed Out Sensor #3 (REP 4.13).	Replace the Engine Control Board (REP 8.4).

## Jam at C - C8-3 F/04 SNR Static Jam

Paper remains at Feed Out Sensor #4 located behind Door C.

### Applicable Error Code

- Jam at C - C8-3 F/04 SNR Static Jam

### Troubleshooting Reference

Table 1 Jam at C (Feed Out Sensor #4) Troubleshooting Reference

Applicable Parts	References
• Feed Out Sensor #4	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Tray 4-5 PWB	• Section 7, 1000-Sheet P/J Tray 4 & 5 Feeders (Figure 1)
• Engine Control Board	• Section 7, 1000-Sheet P/J Tray 4 & 5 Electrical (Figure 2)
	• Section 7, 1000-Sheet Tray 4 Wiring (Figure 3)
	• PL 8.1 Print Engine Electrical
	• PL 20.5 Tray 4-5 Transportation
	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Table 2 Jam at C (Feed Out Sensor #4) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open door C. Does the paper touch Feed Out Sensor #4?	Remove the paper.	Go to Step 2.
2	Test Feed Out Sensor #4. Run the Service Diagnostics Tray 4 Feed Out Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Feed Out Sensor #4 connection. Are P/J821, P/J841 and P/J548 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Feed Out Sensor #4 and Tray 4-5 PWB. Is there continuity on each wire between P/J821 <=> P/J548?	Go to Step 5.	Repair the wiring.
5	Check continuity between the 1000-Sheet Feeder and Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 6.	Repair the wiring.
6	Check for +5 V to the Feed Out Sensor #4. Is there +5 V across P/J821-3 (+) <=> ground?	Replace Feed Out Sensor #4 (REP 20.17).	Go to Step 7.
7	Check +5 V to the Tray 4-5 PWB. Is there +5 V across P/J541-8 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at C - C8-4 F/05 SNR Static Jam

Paper remains at Feed Out Sensor (F/O#5) located behind Door C.

### Applicable Error Code

- Jam at C - C8-4 F/05 SNR Static Jam

### Troubleshooting Reference

Table 1 Jam at C (Feed Out Sensor #5) Troubleshooting Reference

Applicable Parts	References
• Feed Out Sensor #5	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Tray 4-5 PWB	• Section 7, 1000-Sheet P/J Tray 4 & 5 Feeders (Figure 1)
• Engine Control Board	• Section 7, 1000-Sheet P/J Tray 4 & 5 Electrical (Figure 2)
	• Section 7, 1000-Sheet Tray 4 Wiring (Figure 3)
	• PL 8.1 Print Engine Electrical
	• PL 20.5 Tray 4-5 Transportation
	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Table 2 Jam at C (Feed Out Sensor #5) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door C. Does the paper touch Feed Out Sensor #5?	Remove the paper.	Go to Step 2.
2	Test Feed Out Sensor #5. Run the Service Diagnostics Tray 5 Feed Out Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Feed Out Sensor #5 connection. Are P/J825, P/J842, and P/J548 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Feed Out Sensor #5 and Tray 4-5 PWB. Is there continuity on each wire between P/J825 <=> P/J548?	Go to Step 5.	Repair the wiring.
5	Check continuity between 1000-Sheet Feeder and Engine Control Board. Is there continuity on each wire between P/J541 <=> P/J413?	Go to Step 6.	Repair the wiring.
6	Check for +5 V to the Feed Out Sensor #5. Is there +5 V across P/J825-3 (+) <=> ground?	Replace the Feed Out Sensor #5 (REP 20.18).	Go to Step 7.
7	Check +5 V to the Tray 4-5 PWB. Is there +5 V across P/J548-1 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray 6 - C8-5 HCF F/0 Sensor Static Jam

Remaining paper in the Tray 6 Feed Out Sensor #6, located in the Lower Feeder Assembly under Door J.

### Applicable Error Code

- Jam at Tray 6 - C8-5 HCF F/0 SNR Static Jam

### Troubleshooting Reference

Table 1 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Reference

Applicable Parts	References
• Feeder Roller	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Retard Roller	• Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)
• Take Away Roller	• Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)
• Door J	• Section 7, 2000-Sheet Tray 6 Sensors Wiring (Figure 3)
• Pre-Feed Sensor	• Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)
• Feed Out Sensor #6	• PL 8.1 Print Engine Electrical
• Feeder Harness	• PL 22.4 Tray 6 Feeder (1/3)
• Main Harness	• PL 22.5 Tray 6 Feeder (2/3)
• Take Away Motor	• PL 22.6 Tray 6 Feeder (3/3)
• Feeder Motor	• PL 22.7 Drive and Transportation
• Tray 6 PWB	• PL 22.8 Tray 6 Electrical
• Engine Control Board	

### Troubleshooting Procedure

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door J. 2. Open the Upper Feeder Assembly. Are the Rollers installed correctly, clean, and turn freely?	Go to Step 2.	Clean or replace the rollers.
2	Test the Tray 6 Pre-Feed Sensor. 1. Open Door J. 2. Open the Upper Feeder Assembly. 3. Run the Service Diagnostics Tray 6 Pre-Feed Sensor test. Does the sensor change state?	Go to Step 10.	Go to Step 3.
3	Check the Feeder Harness for connection. Are PF61 and PF56B connected?	Go to Step 4.	Connect and go to Step 4.
4	Check the Main Harness for connection. Are PF56B and JF02 connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Feeder Harness for continuity. 1. Disconnect PF61 and PF56B. 2. Check for continuity of the following: • PF61-1 <=> JF56B-3 • PF61-2 <=> JF56B-2 • PF61-3 <=> JF56B-1 Are these three conductive?	Go to Step 7.	Repair the Feeder Harness.
7	Check the Main Harness for continuity. 1. Disconnect PF56B and JF02. 2. Check for continuity at the following: • JF56B-4 <=> JF02-6 • JF56B-5 <=> JF02-5 • JF56B-6 <=> JF02-4 Are these three conductive?	Go to Step 8.	Repair the Main Harness.
8	Check for +5 V at the Pre-Feed Sensor. Is there +5 V across PF02-6 <=> PF04-2 on the Tray 6 PWB?	Go to Step 9.	Replace the Tray 6 PWB (REP 22.34).
9	Check the Pre-Feed Sensor signal. Does the voltage across JF02-5 <=> PF04-2 on the Tray 6 PWB change, when the sensor is blocked?	Go to Step 33.	Replace the Pre-Feed Sensor (REP 22.19).
10	Test the Feed Out Sensor #6. 1. Open Door J. 2. Run the Service Diagnostics Tray 6 Feed Out Sensor test. Does the sensor change state?	Go to Step 18.	Go to Step 11.
11	Check the Feed Out Sensor #6 connections. Is PF67 and JF54 connected?	Go to Step 12.	Connect and go to Step 12.
12	Check the Main Harness connections. Is PF54 and JF01 connected?	Go to Step 14.	Connect and go to Step 13.
13	Print a Test Print. Does the error still occur?	Go to Step 14.	Problem solved.
14	Check the Harness for continuity 1. Disconnect PF67 and JF54. 2. Check for continuity at the following: • PF67-1 <=> JF54-3 • PF67-2 <=> JF54-2 • PF67-3 <=> JF54-1 Are these three conductive?	Go to Step 15.	Repair the Harness.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
15	Check the Main Harness continuity. 1. Disconnect PF54 and JF01. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• JF54-1 &lt;=&gt; JF01-3</li> <li>• JF54-2 &lt;=&gt; JF01-2</li> <li>• JF54-3 &lt;=&gt; JF01-1</li> </ul> Are these three conductive?	Go to Step 16.	Repair the Main Harness.
16	Check for +5 V to the Feed Out Sensor #6. Is there +5 V across PF01-3 <=> PF04-2 on the Tray 6 PWB?	Go to Step 17.	Replace the Tray 6 PWB (REP 22.34).
17	Check the Feed Out Sensor #6 signal. Does the voltage across JF01-2 <=> PF04-2 on the Tray 6 PWB change when the Feed Out Sensor is actuated?	Go to Step 33.	Replace the Feed Out Sensor #6 (REP 22.30).
18	Test the Tray 6 Feed/Lift Motor.Run the Service Diagnostics Feed Motor test. Does the Feed Motor rotate normally?	Go to Step 26.	Go to Step 19.
19	Check the harness connections. Are PF58 and PF56 on the Feeder and Main Harnesses, and JF06 on the PWB connected?	Go to Step 21.	Connect and go to Step 20.
20	Print a Test Print. Does the error still occur?	Go to Step 21.	Problem solved.
21	Check the Feeder Harness for continuity. 1. Disconnect PF58 and JF56B. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• PF58-1 &lt;=&gt; JF56-1</li> <li>• PF58-2 &lt;=&gt; JF56-2</li> <li>• PF58-3 &lt;=&gt; JF56-3</li> <li>• PF58-4 &lt;=&gt; JF56-4</li> <li>• PF58-5 &lt;=&gt; JF56-5</li> <li>• PF58-6 &lt;=&gt; JF56-6</li> </ul> Are these conductive?	Go to Step 22.	Repair the Feeder harness.
22	Check the Main Harness for continuity. 1. Disconnect PF56 and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• PF56-1 &lt;=&gt; JF06-1</li> <li>• PF56-2 &lt;=&gt; JF06-3</li> <li>• PF56-3 &lt;=&gt; JF06-2</li> <li>• PF56-4 &lt;=&gt; JF06-6</li> <li>• PF56-5 &lt;=&gt; JF06-4</li> <li>• PF56-6 &lt;=&gt; JF06-5</li> </ul> Are these conductive?	Go to Step 23.	Repair the Main Harness.

Table 2 Jam at Tray 6 (Feed Out Sensor #6) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
23	Check resistance of the Feed/Lift Motor. Is there some amount of resistance across PF58-2/5 (COM) and PF58-1/3/4/6?	Go to Step 24.	Replace the Feed/Lift Motor (REP 22.16).
24	Check for +24 V at the Feed/Lift Motor. Is there +24 V across PF06-3 <=> PF04-3 and PF06-4 <=> PF04-3 on the Tray 6 PWB?	Go to Step 25.	Replace the Tray 6 PWB (REP 22.34).
25	Replace the Feed/Lift Motor. Print a Test Print. Does the error still occur?	Go to Step 33.	Problem solved.
26	Test the Take Away Motor. Run the Service Diagnostics Tray 6 Take Away Motor test at high speed. Does the motor rotate normally?	Go to Step 33.	Go to Step 27.
27	Check the Main Harness connection. Are PF57 and JF06 connected?	Go to Step 29.	Connect and go to Step 28.
28	Print a Test Print. Does the error still occur?	Go to Step 29.	Problem solved.
29	Check the Main Harness for continuity. 1. Disconnect PF57 and JF06. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• PF57-7 &lt;=&gt; JF06-11</li> <li>• PF57-6 &lt;=&gt; JF06-8</li> <li>• PF57-5 &lt;=&gt; JF06-9</li> <li>• PF57-4 &lt;=&gt; JF06-10</li> <li>• PF57-3 &lt;=&gt; JF06-12</li> <li>• PF57-2 &lt;=&gt; JF06-7</li> </ul> Are these conductive?	Go to Step 30.	Repair the Main Harness.
30	Check the Take Away Motor resistance. Is there some amount of resistance across JF57-3/4(COM) and JF57-1/2/5/6?	Go to Step 31.	Replace the Take Away Motor (REP 22.31).
31	Check for +24 V to the Take Away Motor. Is there +24 V across PF06-9 <=> PF04-3, and PF06-10 <=> PF04-3 on the PWB?	Go to Step 32.	Replace the Tray 6 PWB (REP 22.34).
32	Replace the Take Away Motor. Print a Test Print. Does the error still occur?	Go to Step 33.	Problem solved.
33	Replace the Tray 6 PWB. Print a Test Print. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Jam at D - C8-6 Duplex

Paper remains at Duplex Unit's Wait Sensor located behind Door D.

### Applicable Error Code

- Jam at D - C8-6 Duplex

### Troubleshooting Reference

Table 1 Jam at D (Wait Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Wait Sensor</li> <li>Duplex Unit PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Duplex Unit Plug/Jack Locator (Figure 1)</li> <li>Section 7, Duplex Unit Wiring (Figure 1, Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 23.1 Duplex Unit</li> </ul>

### Troubleshooting Procedure

Table 2 Jam at D (Wait Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door D. Does the paper touch the sensor?	Remove the paper.	Go to Step 2.
2	Test the Wait Sensor. Run the Service Diagnostics Duplex Unit Wait Sensor test. Does the sensor change state?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Wait Sensor connection. Are P/J123 and P/J541 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Wait Sensor and Duplex Unit PWB. Is there continuity on each wire between P/J123 <=> P/J541?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Wait Sensor. Is there +5 V across P/J123-3 (+) <=> ground?	Replace the Wait Sensor (REP 23.8).	Go to Step 6.
6	Check continuity between the Duplex Unit PWB and Engine Control Board. Is there continuity on each wire between P/J540 <=> P/J417?	Go to Step 7.	Repair the wiring.
7	Check for +5 V to the Duplex Unit PWB. Is there +5 V across P/J541-1 (+) <=> ground?	Replace the Duplex Unit PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Jam at Tray 1/MPT - C9-3 Tray 1/MPT

Paper fed from Tray 1/MPT did not reach the Registration Sensor, located behind Door A, on time.

### Applicable Error Code

- Jam at Tray 1/MPT - C9-3 Tray 1/MPT

### Troubleshooting Reference

Table 1 Jam at Tray 1/MPT (Registration Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Feed Roller</li> <li>Drive Roller</li> <li>Registration Sensor</li> <li>Pick Up Solenoid</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Tray 1/MPT (Figure 4)</li> <li>Section 7, Print Engine P/J Registration Transport (Figure 5)</li> <li>Section 7, Print Engine Tray 1/MPT Wiring (Figure 12)</li> <li>PL 3.2 Tray 1/MPT Lower Frame</li> <li>PL 4.5 Registration</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Jam at Tray 1/MPT (Registration Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. Is the paper in Tray 1 damaged?	Replace the paper.	Go to Step 2.
2	Check paper size setup. Does the paper size in use match the Tray 1 size setting?	Go to Step 3.	Correct the setting.
3	Check paper position. Open Door A. Does the paper touch the Registration Sensor?	Remove the paper.	Go to Step 4.
4	Check the size guides. Do the size guides operate smoothly?	Go to Step 5.	Repair or replace the guides.
5	Check the Tray 1 Feeder installation. 1. Reinstall the Tray 1 Feeder. 2. Print a Test Print from Tray 1. Does the error occur?	Go to Step 6.	Problem solved.
6	Check the Feed Roller. Remove the Tray 1 Feeder. Is the Feed Roller worn or contaminated with paper dust?	Go to Step 7.	Clean or replace the Feed Roller.
7	Check the Drive Roller. Remove the Tray 1 Feeder. Is the Drive Roller worn or contaminated with paper dust?	Go to Step 8.	Clean or replace the Drive Roller.

**Table 2 Jam at Tray 1/MPT (Registration Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Test the Registration Sensor. 1. Open Door A. 2. Run the Service Diagnostics Registration Sensor test. Does the sensor state change?	Go to Step 12.	Go to Step 9.
9	Check the Registration Sensor connection. Are P/J104 and P/J403 connected?	Go to Step 10.	Connect P/J104 and P/J403.
10	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between P/J104 <=> P/J403?	Go to Step 11.	Repair the wiring.
11	Check for +5 V to the Registration Sensor. Is there +5 V across P/J104-1 (+) <=> ground?	Replace the Registration Sensor (REP 4.11).	Replace the Engine Control Board (REP 8.4).
12	Test the Pick Up Solenoid operation. Run the Service Diagnostics Tray 1 Feed Solenoid test. Does the Pick Up Solenoid operate properly?	Replace the Engine Control Board (REP 8.4).	Go to Step 13.
13	Check the Pick Up Solenoid connection. Are P/J205, P/J605 and P/J411 connected?	Go to Step 14.	Connect P/J205, P/J605 and P/J411.
14	Check the Pick Up Solenoid continuity. Is there continuity on each wire between P/J205 <=> P/J411?	Go to Step 15.	Repair the wiring.
15	Check the Pick Up Solenoid resistance. Is the resistance across J205-1 and J205-2 approximately 90 ohm?	Go to Step 16.	Replace the Pick Up Solenoid (REP 3.5).
16	Check for +24 V to the Pick Up Solenoid. Is there +24 V across P205-1 (+) <=> ground?	Replace the Pick Up Solenoid (REP 3.5).	Replace the Engine Control Board (REP 8.4).

## Jam at A - F4-12 H-Transport Entrance Sensor ON

Paper leaving the printer activated the printer's Fuser Exit Sensor but did not reach the Horizontal Transport Entrance Sensor on time.

### Applicable Error Code

- Jam at A - F4-12 H-X'port Ent. SNR ON

### Troubleshooting Reference

**Table 1 Jam at A (H-Transport Entrance Sensor) Troubleshooting Reference**

Applicable Parts	References
H-X'port Belts	Section 7, Engine Control Board P/J Locator (Figure 8)
H-X'port Pinch Rollers	Section 7, Horizontal Transport P/J Locator (Figure 1)
H-X'port Motor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
H-X'port Harness	Section 7, Horizontal Transport Wiring (Figure 4)
H-X'port Entrance Sensor	PL 8.1 Print Engine Electrical
Finisher H-X'port PWB	PL 25.2 Horizontal Transport (1/2)
Finisher Main PWB	PL 25.3 Horizontal Transport (2/2)
Engine Control Board	PL 25.14 Finisher Electrical

### Troubleshooting Procedure

**Table 2 Jam at A (H-Transport Entrance Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door F. Are the Belts and Pinch Rollers clean, operate freely, and correctly installed?	Go to Step 2.	Clean or replace affected components.
2	Test the H-X'port Entrance Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-X'port Entrance Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 3.
3	Check the H-X'port Harness connections. Is the harness connected to the H-X'port Entrance Sensor and Finisher correctly?	Go to Step 5.	Reconnect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Jam at A (H-Transport Entrance Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check the H-Xport Harness continuity. 1. Disconnect the Entrance Sensor (J8380) and P8372 on the H-Xport PWB. 2. Check for continuity at the following: • P8372-7 <=> J8380-3 • P8372-8 <=> J8380-2 • P8372-9 <=> J8380-1 Are these conductive?	Go to Step 6.	Repair the harness.
6	Check for +5 V to the Entrance Sensor. Is there +5 V across J8372-9 <=> J8372-7 on the H-Xport PWB?	Go to Step 7.	Replace the H-Xport PWB (REP 25.94).
7	Check the Entrance Sensor signal. Does the voltage across J8372-8 <=> J8372-7 on the H-Xport PWB change when the sensor actuator is operated?	Replace the H-Xport PWB (REP 25.94).	Replace the sensor.
8	Check the H-Xport Motor. Run the Service Diagnostics H-Xport Motor test. Does the motor rotate normally?	Replace the H-Xport PWB (REP 25.94).	Go to Step 9.
9	Check the H-Xport Motor connections. Is the H-Xport Motor correctly connected to the harness?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check the harness for continuity. 1. Disconnect P/J8379 of the H-Xport Motor, and P8372 on the H-Xport PWB. 2. Check for continuity at the following: • P8372-13 <=> J8379-6 • P8372-12 <=> J8379-4 • P8372-11 <=> J8379-1 • P8372-10 <=> J8379-3 • P8372-15 <=> J8379-2 • P8372-3 <=> J8379-5 Are these conductive?	Go to Step 12.	Repair the harness.
12	Check the H-Xport Motor resistance. Is there some amount of resistance across P8379-2/5(COM) and P8379-1/3/4/6?	Go to Step 13.	Replace the H-Xport Motor (REP 25.9).
13	Check for +24 V to the H-Xport Motor. Is there +24 V across J8372-15 <=> J8372-7, and J8372-14 <=> J8372-7 on the H-Xport PWB?	Go to Step 14.	Replace the H-Xport PWB (REP 25.94).

Table 2 Jam at A (H-Transport Entrance Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
14	Replace the H-Xport Motor. Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Replace the H-Xport PWB. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

# Jam at A or F - F4-n H-Transport Entrance Sensor Static

The paper did not exit the Horizontal Transport on time.

## Applicable Error Codes

- Jam at A - F4-16 H-X'port Ent. SNR Static Jam A
- Jam at F - F4-17 H-X'port Ent. SNR Static Jam B

## Troubleshooting Reference

Table 1 Jam at A or F (H-Transport Entrance Sensor) Troubleshooting Reference

Applicable Parts	References
H-X'port Motor	• Section 7, Horizontal Transport P/J Locator (Figure 1)
H-X'port Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
H-X'port Entrance Sensor	• Section 7, Horizontal Transport Wiring (Figure 4)
Finisher H-X'port PWB	• PL 25.2 Horizontal Transport (1/2)
	• PL 25.3 Horizontal Transport (2/2)
	• PL 25.14 Finisher Electrical

## Troubleshooting Procedure

Table 2 Jam at A or F (H-Transport Entrance Sensor) Troubleshooting

Step	Actions and Questions	Yes	No
1	Test the H-X'port Entrance Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-X'port Entrance Sensor test. Does the sensor change state?	Go to Step 7.	Go to Step 2.
2	Check the H-X'port Harness connections. Is the harness connected to the H-X'port Entrance Sensor and Finisher correctly?	Go to Step 4.	Reconnect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check the H-X'port Harness continuity. 1. Disconnect the H-X'port Entrance Sensor (J8380) and P8372 on the H-X'port PWB. 2. Check for continuity at the following: • P8372-7 <=> J8380-3 • P8372-8 <=> J8380-2 • P8372-9 <=> J8380-1 Are these conductive?	Go to Step 5.	Repair the harness.
5	Check for +5 V to the Entrance Sensor. Is there +5 V across J8372-9 <=> J8372-7 on the H-X'port PWB?	Go to Step 6.	Replace the H-X'port PWB (REP 25.94).

Table 2 Jam at A or F (H-Transport Entrance Sensor) Troubleshooting

Step	Actions and Questions	Yes	No
6	Check the H-X'port Entrance Sensor signal. Does the voltage across J8372-8 <=> J8372-7 on the H-X'port PWB change when the sensor actuator is operated?	Replace the H-X'port PWB (REP 25.94).	Replace the sensor (REP 25.12).
7	Test the H-X'port Motor. Run the Service Diagnostics H-X'port Motor test. Does the motor rotate normally?	Replace the H-X'port PWB (REP 25.94).	Go to Step 8.
8	Check the H-X'port Motor connections. Is the H-X'port Motor correctly connected to the harness?	Go to Step 10.	Problem solved.
9	Print a Test Print. Does the error still occur?	Go to Step 10.	Problem solved.
10	Check the harness for continuity. 1. Disconnect P/J8379 of the H-X'port Motor, and P8372 on the H-X'port PWB. 2. Check for continuity at the following: • P8372-13 <=> J8379-6 • P8372-12 <=> J8379-4 • P8372-11 <=> J8379-1 • P8372-10 <=> J8379-3 • P8372-15 <=> J8379-2 • P8372-3 <=> J8379-5 Are these conductive?	Go to Step 11.	Repair the harness.
11	Check the H-X'port Motor resistance. Is there some amount of resistance across P8379-2/5(COM) and P8379-1/3/4/6?	Go to Step 12.	Replace the H-X'port Motor (REP 25.9).
12	Check for +24 V to the H-X'port Motor. Is there +24 V across J8372-15 <=> J8372-7, and J8372-14 <=> J8372-7 on the H-X'port PWB?	Go to Step 13.	Replace the H-X'port PWB (REP 25.94).
13	Replace the H-X'port Motor. Print a Test Print. Does the error still occur?	Replace the H-X'port PWB (REP 25.94).	Problem solved.



## Jam at A or F - F4-n H-Transport Exit Sensor ON

Paper activated the Horizontal Transport Entrance Sensor but did not reach the Horizontal Transport Exit Sensor on time.

Intermittent "Jam At A" (F4-22) errors that occur on printers with a Finisher/Stacker installed, that are characterized by the leading edge of the jammed sheet being in contact with the Horizontal Transport Belts may occur as a result of electrostatic discharges being generated as paper passes through the Horizontal Transport. This sudden discharge interrupts the Horizontal Transport Motor drive logic causing the motor to stall resulting in the jam.

For these special cases, a gasket kit has been developed to provide a ground path from the Horizontal Transport to the Finisher. This ground path eliminates static build up in the Horizontal Transport. Order part 604K28950, installation instructions are included in the kit

### Applicable Error Codes

- Jam at A - F4-22 H-X'port Exit SNR ON Jam A
- Jam at F - F4-23 H-X'port Exit SNR ON Jam B
- Jam at F - F4-24 H-X'port Exit SNR ON Jam C

### Troubleshooting Reference

Table 1 Jam at A or F (H-Transport Exit Sensor) Troubleshooting Reference

Applicable Parts	References
H-X'port Belts	Section 7, Engine Control Board P/J Locator (Figure 8)
H-X'port Pinch Rollers	Section 7, Horizontal Transport P/J Locator (Figure 1)
H-X'port Motor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
H-X'port Harness	Section 7, Horizontal Transport Wiring (Figure 4)
H-X'port Exit Sensor	PL 8.1 Print Engine Electrical
Finisher H-X'port PWB	PL 25.2 Horizontal Transport (1/2)
Finisher Main PWB	PL 25.3 Horizontal Transport (2/2)
Engine Control Board	PL 25.14 Finisher Electrical

### Troubleshooting Procedure

Table 2 Jam at A or F (H-Transport Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door F. Are the Belts and Pinch Rollers clean, operate freely, and correctly installed?	Go to Step 2.	Clean or replace affected components.
2	Test the H-X'port Exit Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-X'port Exit Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 3.

Table 2 Jam at A or F (H-Transport Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the H-X'port Harness connections. Is the harness connected to the Exit Sensor and Finisher correctly?	Go to Step 5.	Reconnect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check the H-X'port Harness continuity. 1. Disconnect the Exit Sensor (J8381) and P8372 on the H-X'port PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P8372-4 &lt;=&gt; J8381-3</li> <li>P8372-5 &lt;=&gt; J8381-2</li> <li>P8372-6 &lt;=&gt; J8381-1</li> </ul> Are these conductive?	Go to Step 6.	Repair the harness.
6	Check for +5 V to the Exit Sensor. Is there +5 V across J8372-6 <=> J8372-4 on the H-X'port PWB?	Go to Step 7.	Replace the H-X'port PWB (REP 25.94).
7	Check the Exit Sensor signal. Does the voltage across J8372-5 <=> J8372-4 on the H-X'port PWB change when the sensor actuator is operated?	Replace the H-X'port PWB (REP 25.94).	Replace the sensor (REP 25.13).
8	Test the H-X'port Motor. Run the Service Diagnostics H-X'port Motor test. Does the motor rotate normally?	Replace the H-X'port PWB (REP 25.94).	Go to Step 9.
9	Check the H-X'port Motor connections. Is the H-X'port Motor correctly connected to the harness?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check the harness for continuity. 1. Disconnect P/J8379 of the H-X'port Motor, and P8372 on the H-X'port PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P8372-13 &lt;=&gt; J8379-6</li> <li>P8372-12 &lt;=&gt; J8379-4</li> <li>P8372-11 &lt;=&gt; J8379-1</li> <li>P8372-10 &lt;=&gt; J8379-3</li> <li>P8372-15 &lt;=&gt; J8379-2</li> <li>P8372-3 &lt;=&gt; J8379-5</li> </ul> Are these conductive?	Go to Step 12.	Repair the harness.
12	Check the H-X'port Motor resistance. Is there some amount of resistance across P8379-2/5(COM) and P8379-1/3/4/6?	Go to Step 13.	Replace the H-X'port Motor (REP 25.9).

**Table 2 Jam at A or F (H-Transport Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
13	Check for +24 V to the H-'Xport Motor. Is there +24 V across J8372-15 <=> J8372-7, and J8372-14 <=> J8372-7 on the H-'Xport PWB?	Go to Step 14.	Replace the H-'Xport PWB (REP 25.94).
14	Replace the H-'Xport Motor. Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Replace the H-'Xport PWB. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at F - F4-26 H-Transport Exit Sensor Static

Remaining paper is detected by the Horizontal Transport Exit Sensor.

### Applicable Error Code

- Jam at F - F4-26 H-'X'port Exit SNR Static

### Troubleshooting Reference

**Table 1 Jam at F (H-Transport Exit Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>H-'X'port Motor</li> <li>H-'X'port Harness</li> <li>H-'X'port Exit Sensor</li> <li>Finisher H-'X'port PWB</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Horizontal Transport P/J Locator (Figure 1)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Horizontal Transport Wiring (Figure 4)</li> <li>PL 25.3 Horizontal Transport (2/2)</li> <li>PL 25.14 Finisher Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Jam at F (H-Transport Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the H-'Xport Exit Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-'Xport Exit Sensor test. Does the sensor change state?	Go to Step 7.	Go to Step 2.
2	Check the H-'Xport Harness connections. Is the harness connected to the Exit Sensor and Finisher correctly?	Go to Step 4.	Reconnect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check the H-'Xport Harness continuity. 1. Disconnect the Exit Sensor (J8381) and P8372 on the H-'Xport PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P8372-4 &lt;=&gt; J8381-3</li> <li>P8372-5 &lt;=&gt; J8381-2</li> <li>P8372-6 &lt;=&gt; J8381-1</li> </ul> Are these conductive?	Go to Step 5.	Repair the harness.
5	Check for +5 V to the H-'Xport Exit Sensor. Is there +5 V across J8372-6 <=> J8372-4 on the H-'Xport PWB?	Go to Step 6.	Replace the H-'Xport PWB (REP 25.94).
6	Check the H-'Xport Exit Sensor signal. Does the voltage across J8372-5 <=> J8372-4 on the H-'Xport PWB change when the sensor actuator is operated?	Replace the H-'Xport PWB (REP 25.94).	Replace the H-'Xport Exit Sensor (REP 25.13).

**Table 2 Jam at F (H-Transport Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check the H-'Xport Motor. Run the Service Diagnostics H-'Xport Motor test. Does the motor rotate normally?	Replace the H-'Xport PWB (REP 25.94).	Go to Step 8.
8	Test the H-'Xport Motor connections. Is the H-'Xport Motor correctly connected to the harness?	Go to Step 10.	Connect and go to Step 9.
9	Print a Test Print. Does the error still occur?	Go to Step 10.	Problem solved.
10	Check the harness for continuity. 1. Disconnect P/J8379 of the H-'Xport Motor, and P8372 on the H-'Xport PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P8372-13 &lt;=&gt; J8379-6</li> <li>• P8372-12 &lt;=&gt; J8379-4</li> <li>• P8372-11 &lt;=&gt; J8379-1</li> <li>• P8372-10 &lt;=&gt; J8379-3</li> <li>• P8372-15 &lt;=&gt; J8379-2</li> <li>• P8372-3 &lt;=&gt; J8379-5</li> </ul> Are these conductive?	Go to Step 11.	Repair the harness.
11	Check the H-'Xport Motor resistance. Is there some amount of resistance across P8379-2/5(COM) and P8379-1/3/4/6?	Go to Step 12.	Replace the H-'Xport Motor (REP 25.9).
12	Check for +24 V to the H-'Xport Motor. Is there +24 V across J8372-15 <=> J8372-7, and J8372-14 <=> J8372-7 on the H-'Xport PWB?	Go to Step 13.	Replace the H-'Xport PWB (REP 25.94).
13	Replace the H-'Xport Motor. Print a Test Print. Does the error still occur?	Replace the H-'Xport PWB (REP 25.94).	Problem solved.

## Jam at F - F4-32 Transport Entrance Sensor ON

Paper does not reach the Finisher's Transport Entrance Sensor following the paper's leading edge activating the Horizontal Transport Exit Sensor.

### Applicable Error Code

- Jam at F - F4-32 'Xport Ent. SNR ON

### Troubleshooting Reference

**Table 1 Jam at F (Transport Entrance Sensor) Troubleshooting Reference**

Applicable Parts	References
• H-'Xport Belts	• Section 7, Horizontal Transport P/J Locator (Figure 1)
• H-'Xport Pinch Rollers	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• H-'Xport Motor	• Section 7, Horizontal Transport Wiring (Figure 4)
• H-'Xport Harness	• Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
• H-'Xport Exit Sensor	• PL 25.2 Horizontal Transport (1/2)
• Finisher Entrance Sensor	• PL 25.3 Horizontal Transport (2/2)
• Harness Main SNR	• PL 25.12 Finisher Transport (1/2)
• Harness Ent. Sensor	• PL 25.14 Finisher Electrical
• Finisher H-'Xport PWB	• PL 25.15 Finisher Harness
• Finisher Main PWB	

### Troubleshooting Procedure

**Table 2 Jam at F (Transport Entrance Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door F. Are the Belts and Pinch Rollers clean, operate freely, and correctly installed?	Go to Step 2.	Clean or replace the affected components.
2	Test the H-'Xport Exit Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-'Xport Exit Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 3.
3	Check the H-'Xport Harness connections. Is the harness connected to the Exit Sensor and Finisher correctly?	Go to Step 5.	Reconnect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Jam at F (Transport Entrance Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check the H-Xport Harness continuity. 1. Disconnect the Exit Sensor (J8381) and P8372 on the H-Xport PWB. 2. Check for continuity at the following: • P8372-4 <=> J8381-3 • P8372-5 <=> J8381-2 • P8372-6 <=> J8381-1 Are these conductive?	Go to Step 6.	Repair the harness.
6	Check for +5 V to the H-Xport Exit Sensor. Is there +5 V across J8372-6 <=> J8372-4 on the H-Xport PWB?	Go to Step 7.	Replace the H-Xport PWB (REP 25.94).
7	Check the H-Xport Exit Sensor signal. Does the voltage across J8372-5 <=> J8372-4 on the H-Xport PWB change when the sensor actuator is operated?	Replace the H-Xport PWB (REP 25.94).	Replace the H-Xport Exit Sensor (REP 25.13).
8	Test the H-Xport Motor. Run the Service Diagnostics H-Xport Motor test. Does the motor rotate normally?	Go to Step 16.	Go to Step 9.
9	Check the H-Xport Motor connections. Is the H-Xport Motor correctly connected to the harness?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check the harness for continuity. 1. Disconnect P/J8379 of the H-Xport Motor, and P8372 on the H-Xport PWB. 2. Check for continuity at the following: • P8372-13 <=> J8379-6 • P8372-12 <=> J8379-4 • P8372-11 <=> J8379-1 • P8372-10 <=> J8379-3 • P8372-15 <=> J8379-2 • P8372-3 <=> J8379-5 Are these conductive?	Go to Step 12.	Repair the harness.
12	Check the H-Xport Motor resistance. Is there some amount of resistance across P8379-2/5(COM) and P8379-1/3/4/6?	Go to Step 13.	Replace the H-Xport Motor (REP 25.9).
13	Check for +24 V to the H-Xport Motor. Is there +24 V across J8372-15 <=> J8372-7, and J8372-14 <=> J8372-7 on the H-Xport PWB?	Go to Step 14.	Replace the H-Xport PWB (REP 25.94).

Table 2 Jam at F (Transport Entrance Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
14	Replace the H-Xport Motor. Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Replace the H-Xport PWB. Print a Test Print. Does the error still occur?	Go to Step 16.	Problem solved.
16	Test the X'port Entrance Sensor. Run the Service Diagnostics Finisher Transport Entrance Sensor test. Does the sensor state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 17.
17	Check the harness connections. Are P/J8319 and P/J8303 of the X'port Entrance Sensor, and P/J8302A on the Main SNR harness connected?	Go to Step 19.	Reconnect and go to Step 18.
18	Print a Test Print. Does the error still occur?	Go to Step 19.	Problem solved.
19	Check the sensor harness continuity. 1. Disconnect P/J8319 and P/J8303B on the X'port Entrance Sensor Harness. 2. Check for continuity at the following: • J8319-3 <=> J8303B-1 • J8319-2 <=> J8303B-2 • J8319-1 <=> J8303B-3 Are these conductive?	Go to Step 20.	Repair the X'port Entrance Sensor Harness.
20	Check Main Sensor Harness continuity. Disconnect P/J8303 on the Main Sensor Harness, and P/J8302A on the Finisher Main PWB. Check for continuity at the following: • J8303A-3 <=> J8302A-1 • J8303A-2 <=> J8302A-2 • J8303A-1 <=> J8302A-3 Are these conductive?	Go to Step 21.	Repair the Main Sensor Harness.
21	Check for +5 V to the X'port Entrance Sensor. Is there +5 V across J8302A-3 <=> J8302A-1 on the Finisher Main PWB?	Go to Step 22.	Replace the Finisher Main PWB (REP 25.95).
22	Check the X'port Entrance Sensor signal. Does the voltage across P8302A-2 <=> P8302A-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace X'port Entrance Sensor (REP 25.12).

# Jam at F - F4-36 Transport Entrance Sensor Static

Remaining paper is detected in the Finisher Transport Entrance Sensor.

## Applicable Error Code

- Jam at F - F4-36 X'port Ent. SNR Static

## Troubleshooting Reference

Table 1 Static Jam at F (Transport Entrance Sensor0 Troubleshooting Reference

Applicable Parts	References
X'port Entrance Sensor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Harness Main SNR	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
Harness Ent. Sensor	Section 7, Finisher Motors Wiring (Figure 7)
Harness Main Drive	PL 25.12 Finisher Transport (1/2)
Finisher Main PWB	PL 25.14 Finisher Electrical
Transport Motor	PL 25.15 Finisher Harness

## Troubleshooting Procedure

Table 2 Static Jam at F (Transport Entrance Sensor0 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the H-Xport Entrance Sensor. 1. Open Door F. 2. Run the Service Diagnostic H-Xport Entrance Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 2.
2	Check the Sensor Harness connections. Is the harness connected to the sensor and Finisher correctly?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Sensor Harness continuity. 1. Disconnect P/J8319 and P/J8303B. 2. Check for continuity at the following: • J8319-3 <=> J8303B-1 • J8319-2 <=> J8303B-2 • J8319-1 <=> J8303B-3 Are these conductive?	Go to Step 5.	Repair the Sensor Harness.

Table 2 Static Jam at F (Transport Entrance Sensor0 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check Main Sensor Harness continuity. 1. Disconnect P/J8303A on the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: • J8303A-3 <=> J8302A-1 • J8303A-2 <=> J8302A-2 • J8303A-1 <=> J8302A-3 Are these conductive?	Go to Step 6.	Repair the Main Sensor Harness.
6	Check for +5 V to the Entrance Sensor. Is there +5 V across J8302A-3 <=> J8302A-1 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Entrance Sensor signal. Does the voltage across P8302A-2 <=> P8302A-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Entrance Sensor (REP 25.79).
8	Check the Transport Motor. Run the Service Diagnostics Transport Motor test. Does the motor rotate normally?	Go to Step 9.	Go to Step 10.
9	Test the Entrance Roller Drive. Run the Service Diagnostics Transport Motor test. Do the Entrance Rollers rotate?	Replace the Finisher Main PWB (REP 25.95).	Restore the Roller operation.
10	Check the Main Drive Harness connections. Are P/J8342 and P/J8304 connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: • J8342-1 <=> J8304-23 • J8342-2 <=> J8304-16 • J8342-3 <=> J8304-25 • J8342-4 <=> J8304-27 • J8342-5 <=> J8304-18 • J8342-6 <=> J8304-29 Are these conductive?	Go to Step 13.	Repair the Main Drive Harness.
13	Check Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 14.	Replace the Transport Motor (REP 25.81).

**Table 2 Static Jam at F (Transport Entrance Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
14	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground, and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 15.	Replace the Finisher Main PWB (REP 25.95).
15	Replace the Transport Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at G - F4-4n Buffer Path Sensor ON

Paper does not reach the Buffer Path Sensor in time following the paper's leading edge reaching the Finisher's Transport Entrance Sensor.

### Applicable Error Codes

- Jam at G - F4-42 Buffer Path SNR ON Jam A
- Jam at G - F4-43 Buffer Path SNR ON Jam B

### Troubleshooting Reference

**Table 1 Jam at G (Buffer Path Sensor ON) Troubleshooting Reference**

Applicable Parts	References
Entrance Roller	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Entrance Pinch Roller	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
Buffer Roller	Section 7, Finisher Motors Wiring (Figure 7)
Pinch Roller	Section 7, Finisher Clutch and Solenoids (Figure 8)
Entrance Sensor Harness	PL 25.12 Finisher Transport (1/2)
Main Sensor Harness	PL 25.13 Finisher Transport (2/2)
Finisher Main PWB	PL 25.14 Finisher Electrical
X'port Entrance Sensor	PL 25.15 Finisher Harness
Main Drive Harness	
Transport Motor	
X'port Gate Sensor	
Sensor Harness	
Buffer Gate Solenoid	
Registration Motor	
Buffer Sensor Harness	
Buffer Path Sensor	

### Troubleshooting Procedure

**Table 2 Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door G. 2. Remove the Top Cover. 3. Remove the Top L/H Cover. 4. Open the Upper Entrance Chute. Are the Rollers attached to the Chute clean, roll freely, and correctly installed? Does the media cover the sensor?	Go to Step 2.	Clean or replace the appropriate Roller or correct the mechanical problem preventing the paper from activating the sensor.
2	Check the Upper Exit Chute path. Are the Buffer and Pinch Rollers clean, roll freely, and installed correctly?	Go to Step 3.	Go to Step 4.

Table 2. Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Test the X'port Entrance Sensor. Run the Service Diagnostics Finisher Transport Entrance Sensor test. Does the state change when white paper is placed over the sensing area?	Go to Step 10.	Go to Step 4.
4	Check the harness connections. Are P/J8319 and P/J8303B of the X'port Entrance Sensor, and P/J8302A on the Main SNR harness connected?	Go to Step 6.	Reconnect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.
6	Check the sensor harness continuity. 1. Disconnect P/J8319 and P/J8303B on the X'port Entrance Sensor Harness. 2. Check for continuity at the following: • J8319-3 <=> J8303B-1 • J8319-2 <=> J8303B-2 • J8319-1 <=> J8303B-3	Go to Step 7.	Reconnect and go to Step 5.
7	Check Main Sensor Harness continuity. Disconnect P/J8303A on the Main Sensor Harness, and P/J8302A on the Finisher Main PWB. Check for continuity at the following: • J8303A-3 <=> J8302A-1 • J8303A-2 <=> J8302A-2 • J8303A-1 <=> J8302A-3 Are these conductive?	Go to Step 8.	Repair the Main Sensor Harness.
8	Check for +5 V to the Entrance Sensor. Is there +5 V across J8302A-3 <=> J8302A-1 on the Finisher Main PWB?	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	Check the Entrance Sensor signal. Does the voltage across P8302A-2 <=> P8302A-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace X'port Entrance Sensor (REP 25.79).
10	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 11.	Go to Step 13.
11	Test the Entrance Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 19.	After exiting diagnostics, go to Step 12.
12	Print a Test Print. Does the error still occur?	Go to Step 19.	Problem solved.

Table 2. Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
13	Check the Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 15.	Connect and go to Step 14.
14	Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Check the Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: • J8342-1 <=> J8304-23 • J8342-2 <=> J8304-16 • J8342-3 <=> J8304-25 • J8342-4 <=> J8304-27 • J8342-5 <=> J8304-18 • J8342-6 <=> J8304-29	Go to Step 16.	Repair the Main Drive Harness.
16	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 17.	Replace the Transport Motor (REP 25.81).
17	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 18.	Replace the Finisher Main PWB (REP 25.95).
18	Replace the Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
19	Test the Gate Sensor. Run the Service Diagnostics Gate Sensor test. Does the state change when the sensor is blocked?	Go to Step 25.	Go to Step 20.
20	Check the Sensor Harness connections. Is the Sensor Harness connected correctly?	Go to Step 22.	Connect and go to Step 21.
21	Print a Test Print. Does the error still occur?	Go to Step 22.	Problem solved.
22	Check the Sensor Harness continuity. 1. Disconnect P/J8432 and P/J8376. 2. Check for continuity at the following: • J8432-3 <=> J8376-1 • J8432-2 <=> J8376-2 • J8432-1 <=> J8376-3 Are these conductive?	Go to Step 23.	Repair the Sensor Harness.
23	Check +5 V to the Gate Sensor. Is there +5 V across P8376-3 <=> P8376-1 on the Finisher Main PWB?	Go to Step 24.	Replace the Finisher Main PWB (REP 25.95).

Table 2 Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
24	Check the Gate Sensor. Does the voltage across P8376-2 <=> P8376-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Gate Sensor (REP 25.90).
25	Test the Buffer Gate Solenoid. Run both Service Diagnostics Buffer Gate tests. Does the Buffer Gate operate?	Go to Step 31.	Go to Step 26.
26	Check Main Drive Harness connections. Are P/J8394 and P/J8304 connected?	Go to Step 28.	Connect and go to Step 27.
27	Print a Test Print. Does the error still occur?	Go to Step 28.	Problem solved.
28	Check Main Drive Harness continuity. 1. Disconnect P/J8394 and P/J8304. 2. Check for continuity at the following: • J8394-1 <=> J8304-35 • J8394-2 <=> J8304-34 • J8394-3 <=> J8304-36	Go to Step 29.	Repair the Main Drive Harness.
29	Check for +24 V to the Buffer Gate Solenoid. Is there +24 V across J8304-34 <=> J8304-36 on the Finisher Main PWB?	Go to Step 30.	Replace the Finisher Main PWB (REP 25.95).
30	Replace the Buffer Gate Solenoid. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
31	Test the Registration Motor Run the Service Diagnostics Finisher Registration Motor Test. Does the motor rotate normally?	Go to Step 32.	Go to Step 34.
32	Test the Buffer Roller Drive. Run the Service Diagnostics Finisher Registration Motor Ccw test. Does the Buffer Roller rotate?	Go to Step 40.	Exit diagnostics and go to Step 33.
33	Print a Test Print. Does the error still occur?	Go to Step 40.	Problem solved.
34	Check Main Drive harness connections. Are P/J8335 and P/J8304 connected?	Go to Step 36.	Connect and go to Step 35.
35	Print a Test Print. Does the error still occur?	Go to Step 36.	Problem solved.

Table 2 Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
36	Check Main Drive Harness continuity. 1. Disconnect P/J8335 and P/J8304. 2. Check for continuity at the following: • J8335-1 <=> J8304-7 • J8335-2 <=> J8304-8 • J8335-3 <=> J8304-9 • J8335-4 <=> J8304-11 • J8335-5 <=> J8304-10 • J8335-6 <=> J8304-13 Are these conductive?	Go to Step 37.	Repair the Main Drive Harness.
37	Check Registration Motor resistance. Is there some amount of resistance across P8335-2/5(COM) and P8335-1/3/4/6?	Go to Step 38.	Replace the Registration Motor (REP 25.93).
38	Check for +24 V to the Registration Motor. Is there +24 V across J8304-8 <=> ground and J8304-10 <=> ground on the Finisher Main PWB?	Go to Step 39.	Replace the Finisher Main PWB (REP 25.95).
39	Replace the Registration Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
40	Test the Buffer Path Sensor. Run the Service Diagnostics Buffer Path Sensor test. Does the sensor state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 41.
41	Check the Buffer Path Sensor connection. Are P/J8392 and P/J8318B connected?	Go to Step 43.	Connect and go to Step 42.
42	Print a Test Print. Does the error still occur?	Go to Step 43.	Problem solved.
43	Check Main Sensor Harness connections. Are P/J8318B and P/J8302A connected?	Go to Step 45.	Connect and go to Step 44.
44	Print a Test Print. Does the error still occur?	Go to Step 45.	Problem solved.
45	Check Buffer Sensor Harness continuity. 1. Disconnect P/J8392 and P/J8318B. 2. Check for continuity at the following: • J8392-3 <=> J8318B-1 • J8392-2 <=> J8318B-2 • J8392-1 <=> J8318B-3	Go to Step 46.	Repair the Buffer Sensor Harness.



**Table 2 Jam at G (Buffer Path Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
46	Check Main Sensor Harness continuity. 1. Disconnect P/J8318A from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8318A-3 &lt;=&gt; J8302A-13</li> <li>J8318A-2 &lt;=&gt; J8302A-14</li> <li>J8318A-1 &lt;=&gt; J8302A-15</li> </ul> Are these conductive?	Go to Step 47.	Repair the Main Sensor Harness.
47	Check for +5 V to the Buffer Path Sensor. Is there +5 V across J8302A-15 <=> J8302A-13 on the Finisher Main PWB?	Go to Step 48.	Replace the Finisher Main PWB (REP 25.95).
48	Check Buffer Path Sensor signal. Does the voltage across P8302A-14 <=> P8302A-13 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Buffer Path Sensor (REP 25.73).

## Jam at G - F4-4n Buffer Path Sensor Static

Remaining paper is detected in the Buffer Path by the Buffer Path Sensor.

### Applicable Error Codes

- Jam at G - F4-46 Buffer Path SNR Static Jam A
- Jam at G - F4-47 Buffer Path SNR Static Jam B
- Jam at G - F4-48 Buffer Path SNR Static Jam C

### Troubleshooting Reference

**Table 1 Jam at G (Buffer Path Sensor Static) Troubleshooting Reference**

Applicable Parts	References
• Buffer Path Sensor	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Buffer Sensor Harness	• Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
• Main Sensor Harness	• Section 7, Finisher Motors Wiring (Figure 7)
• Finisher Main PWB	• PL 25.12 Finisher Transport (1/2)
• Main Drive Harness	• PL 25.13 Finisher Transport (2/2)
• Registration Motor	• PL 25.14 Finisher Electrical
	• PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Jam at G (Buffer Path Sensor Static) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Buffer Path Sensor. Run the Service Diagnostics Buffer Path Sensor test. Does the sensor state change?	Go to Step 10.	Go to Step 2.
2	Check the Buffer Path Sensor connection. Are P/J8392 and P/J8318 connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Main Sensor Harness connections. Are P/J8318A and P/J8302 connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem resolved.
6	Check Buffer Sensor Harness continuity. 1. Disconnect P/J8392 and P/J8318. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8392-3 &lt;=&gt; J8318B-1</li> <li>P/J8392-2 &lt;=&gt; J8318B-2</li> <li>P/J8392-1 &lt;=&gt; J8318B-3</li> </ul> Are these conductive?	Go to Step 7.	Repair the Buffer Sensor Harness.

Table 2 Jam at G (Buffer Path Sensor Static) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check Main Sensor Harness continuity. 1. Disconnect P/J8318 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• J8318A-3 &lt;=&gt; P/J8302A-13</li> <li>• J8318A-2 &lt;=&gt; P/J8302A-14</li> <li>• J8318A-1 &lt;=&gt; P/J8302A-15</li> </ul> Are these conductive?	Go to Step 8.	Repair the Main Sensor Harness.
8	Check for +5 V to the Buffer Path Sensor. Is there +5 V across J8302A-15 <=> J8302A-13 on the Finisher Main PWB?	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	Check Buffer Path Sensor signal. Does the voltage across P8302A-14 <=> P8302A-13 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Buffer Path Sensor (REP 25.73).
10	Test the Registration Motor. Run the Service Diagnostics Finisher Registration Motor Test. Does the motor rotate normally?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 11.
11	Test the Buffer Roller Drive. Run the Service Diagnostics Finisher Registration Motor CCW test. Does the Buffer Roller rotate?	Go to Step 13.	Exit diagnostics and go to Step 12.
12	Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Check the Main Drive harness connections. Are P/J8335 and P/J8304 connected?	Go to Step 15.	Connect and go to Step 14.
14	Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Check Main Drive Harness continuity. 1. Disconnect P/J8335 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8335-1 &lt;=&gt; P/J8304-7</li> <li>• P/J8335-2 &lt;=&gt; P/J8304-8</li> <li>• P/J8335-3 &lt;=&gt; P/J8304-9</li> <li>• P/J8335-4 &lt;=&gt; P/J8304-11</li> <li>• P/J8335-5 &lt;=&gt; P/J8304-10</li> <li>• P/J8335-6 &lt;=&gt; P/J8304-13</li> </ul> Are these conductive?	Go to Step 16.	Repair the Main Drive Harness.
16	Check Registration Motor resistance. Is there some amount of resistance across P8335-2/5(COM) and P8335-1/3/4/6?	Go to Step 17.	Replace the Registration Motor (REP 25.93).

Table 2 Jam at G (Buffer Path Sensor Static) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
17	Check for +24 V to the Registration Motor. Is there +24 V across J8304-8 <=> ground and J8304-10 <=> ground on the Finisher Main PWB?	Go to Step 18.	Replace the Finisher Main PWB (REP 25.95).
18	Replace the Registration Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

# Jam at F or H - F4-5n Compile Exit Sensor OFF

Paper did not clear the Compile Exit Sensor on time.

## Applicable Error Codes

- Jam at F - F4-51 Compile Exit SNR OFF Jam A
- Jam at F - F4-55 Compile Exit SNR OFF Jam B

## Troubleshooting Reference

Table 1 Jam at F or H (Compile Exit Sensor OFF) Troubleshooting Reference

Applicable Parts	References
Lower Exit Roller	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Compile Exit Sensor	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
Compiler Harness	Section 7, Finisher Motors Wiring (Figure 7)
Main Sensor Harness	PL 25.10 Finisher Eject (2/3)
Finisher Main PWB	PL 25.11 Finisher Eject (3/3)
Main Drive Harness	PL 25.13 Finisher Transport (2/2)
Exit Motor	PL 25.14 Finisher Electrical
	PL 25.15 Finisher Harness

## Troubleshooting Procedure

Table 2 Jam at F or H (Compile Exit Sensor OFF) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door G. Is the Lower Exit Roller clean, installed correctly and roll freely?	Go to Step 2.	Clean or replace the Lower Exit Roller.
2	Test the Compile Exit Sensor. Run the Service Diagnostics Compile Exit Sensor test. Does the sensor state change?	Go to Step 11.	Go to Step 3.
3	Check the Compile Exit Sensor connection. Are P/J8320 and P/J8391 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Main Sensor Harness connections. Are P/J8391 and P/J8302A connected?	Go to Step 7.	Connect and go to Step 6.
6	Print a Test Print. Does the error still occur?	Go to Step 7.	Problem solved.

Table 2 Jam at F or H (Compile Exit Sensor OFF) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check Compiler Harness continuity. 1. Disconnect P/J8320 and P/J8391. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8320-3 &lt;=&gt; J8391B-1</li> <li>P/J8320-2 &lt;=&gt; J8391B-2</li> <li>P/J8320-1 &lt;=&gt; J8391B-3</li> </ul> Are these conductive?	Go to Step 8.	Repair the Compiler Harness.
8	Check Main Sensor Harness continuity. 1. Disconnect P/J8391 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8391A-3 &lt;=&gt; J8302A-4</li> <li>J8391A-2 &lt;=&gt; J8302A-5</li> <li>J8391A-1 &lt;=&gt; J8302A-6</li> </ul> Are these conductive?	Go to Step 9.	Repair the Main Sensor Harness.
9	Check for +5 V to the Compile Exit Sensor. Is there +5 V across J8302A-6 <=> J8302A-4 on the Finisher Main PWB?	Go to Step 10.	Replace the Finisher Main PWB (REP 25.95).
10	Check the Compile Exit Sensor signal. Does the voltage across P8302A-5 <=> P8302A-4 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Compile Exit Sensor (REP 25.64).
11	Test the Exit Motor. Run the Service Diagnostics Finisher Exit Motor Test. Does the motor rotate normally?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 12.
12	Test the Lower Exit Roller Drive. Run the Service Diagnostics Finisher Exit Motor CCW test. Do the Exit Rollers rotate?	Go to Step 14.	Exit diagnostics and go to Step 13.
13	Print a Test Print. Does the error still occur?	Go to Step 14.	Problem solved.
14	Check the Exit Motor harness connections. Are P/J8334 and P/J8304 connected?	Go to Step 16.	Connect and go to Step 15.
15	Print a Test Print. Does the error still occur?	Go to Step 16.	Problem solved.

**Table 2 Jam at F or H (Compile Exit Sensor OFF) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
16	Check Exit Motor Harness continuity. 1. Disconnect P/J8334 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8334-1 &lt;=&gt; P/J8304-2</li> <li>P/J8334-2 &lt;=&gt; P/J8304-4</li> <li>P/J8334-3 &lt;=&gt; P/J8304-1</li> <li>P/J8334-4 &lt;=&gt; P/J8304-3</li> <li>P/J8334-5 &lt;=&gt; P/J8304-6</li> <li>P/J8334-6 &lt;=&gt; P/J8304-5</li> </ul> Are these conductive?	Go to Step 17.	Repair the Main Drive Harness.
17	Check Exit Motor resistance. Is there some amount of resistance across P8334-2/5(COM) and P8334-1/3/4/6?	Go to Step 18.	Replace the Exit Motor (REP 25.92).
18	Check for +24 V to the Exit Motor. Is there +24 V across J8304-4 <=> ground and J8304-6 <=> ground on the Finisher Main PWB?	Go to Step 19.	Replace the Finisher Main PWB (REP 25.95).
19	Replace the Exit Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at F or G - F4-5n Compile Exit Sensor ON

Paper does not reach the Compile Exit Sensor on time.

### Applicable Error Codes

- Jam at F - F4-52 Compile Exit SNR ON Jam A
- Jam at G - F4-53 Compile Exit SNR ON Jam B
- Jam at G - F4-54 Compile Exit SNR ON Jam C

### Troubleshooting Reference

**Table 1 Jam at F or G (Compile Exit Sensor ON) Troubleshooting Reference**

Applicable Parts	References
Buffer Roller	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Pinch Roller	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
Exit Pinch Roller	Section 7, Finisher Motors Wiring (Figure 7)
Buffer Sensor Harness	PL 25.10 Finisher Eject (2/3)
Main Sensor Harness	PL 25.11 Finisher Eject (3/3)
Finisher Main PWB	PL 25.12 Finisher Transport (1/2)
Buffer Path Sensor	PL 25.13 Finisher Transport (2/2)
Main Drive Harness	PL 25.14 Finisher Electrical
Registration Motor	PL 25.15 Finisher Harness
Compiler Harness	
Compile Exit Sensor	

### Troubleshooting Procedure

**Table 2 Jam at F or G (Compile Exit Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door G. 2. Open the Upper Exit Chute (2A). 3. Open the Bottom Buffer Chute (3). Are the Buffer and Pinch Rollers attached to the chutes clean, roll freely, and correctly installed?	Go to Step 3.	Clean or replace the appropriate roller.
2	Test the Buffer Path Sensor. Run the Service Diagnostics Buffer Path Sensor test. Does the sensor state change?	Go to Step 11.	Go to step 3.
3	Check the Buffer Path Sensor connection. Are P/J8392 and P/J8318 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Main Sensor Harness connections. Are P/J8318 and P/J8302A connected?	Go to Step 7.	Connect and go to Step 5.

Table 2. Jam at F or G (Compile Exit Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Print a Test Print. Does the error still occur?	Go to Step 7.	Problem solved.
7	Check Buffer Sensor Harness continuity. 1. Disconnect P/J8392 and P/J8318. 2. Check for continuity at the following: • P/J8392-3 <=> J8318B-1 • P/J8392-2 <=> J8318B-2 • P/J8392-1 <=> J8318B-3 Are these conductive?	Go to Step 8.	Repair the Buffer Sensor Harness.
8	Check Main Sensor Harness continuity. 1. Disconnect P/J8318 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: • J8318A-3 <=> P/J8302A-13 • J8318A-2 <=> P/J8302A-14 • J8318A-1 <=> P/J8302A-15 Are these conductive?	Go to Step 9.	Repair the Main Sensor Harness.
9	Check for +5 V to the Buffer Path Sensor. Is there +5 V across J8302A-15 <=> J8302A-13 on the Finisher Main PWB?	Go to Step 10.	Replace the Finisher Main PWB (REP 25.95).
10	Check the Buffer Path Sensor signal. Does the voltage across P8302A-14 <=> P8302A-13 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Buffer Path Sensor (REP 25.73).
11	Test the Registration Motor. Run the Service Diagnostics Registration Motor CCW Test. Does the motor rotate normally?	Go to Step 20.	Go to Step 12.
12	Test the Buffer Roller Drive. Run the Service Diagnostics Registration Motor CCW test. Does the Buffer Roller rotate?	Go to Step 14.	Exit diagnostics and go to Step 13.
13	Print a Test Print. Does the error still occur?	Go to Step 14.	Problem solved.
14	Check the Registration Motor harness connections. Are P/J8335 and P/J8304 connected?	Go to Step 16.	Connect and go to Step 15.
15	Print a Test Print. Does the error still occur?	Go to Step 16.	Problem solved.

Table 2 Jam at F or G (Compile Exit Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
16	Check Main Drive Harness continuity. 1. Disconnect P/J8335 and P/J8304. 2. Check for continuity at the following: • P/J8335-1 <=> P/J8304-7 • P/J8335-2 <=> P/J8304-8 • P/J8335-3 <=> P/J8304-9 • P/J8335-4 <=> P/J8304-11 • P/J8335-5 <=> P/J8304-10 • P/J8335-6 <=> P/J8304-13	Go to Step 17.	Repair the Main Drive Harness.
17	Check Registration Motor resistance. Is there some amount of resistance across P8335-2/5(COM) and P8335-1/3/4/6?	Go to Step 18.	Replace the Registration Motor (REP 25.93).
18	Check for +24 V to the Registration Motor. Is there +24 V across J8304-8 <=> ground and J8304-10 <=> ground on the Finisher Main PWB?	Go to Step 19.	Replace the Finisher Main PWB (REP 25.95).
19	Replace the Registration Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
20	Test the Compile Exit Sensor. Run the Service Diagnostics Compile Exit Sensor test. Does the sensor state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 21.
21	Check the Compile Exit Sensor connection. Are P/J8320 and P/J8391 connected?	Go to Step 23.	Connect and go to Step 22.
22	Print a Test Print. Does the error still occur?	Go to Step 23.	Problem solved.
23	Check Main Sensor Harness connections. Are P/J8391 and P/J8302A connected?	Go to Step 25.	Connect and go to Step 24.
24	Print a Test Print. Does the error still occur?	Go to Step 25.	Problem solved.
25	Check Compiler Harness continuity. 1. Disconnect P/J8320 and P/J8391. 2. Check for continuity at the following: • P/J8320-3 <=> J8391B-1 • P/J8320-2 <=> J8391B-2 • P/J8320-1 <=> J8391B-3 Are these conductive?	Go to Step 26.	Repair the Compiler Harness.

**Table 2 Jam at F or G (Compile Exit Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
26	Check Main Sensor Harness continuity. 1. Disconnect P/J8391 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8391A-3 &lt;=&gt; P/J8302A-4</li> <li>J8391A-2 &lt;=&gt; P/J8302A-5</li> <li>J8391A-1 &lt;=&gt; P/J8302A-6</li> </ul> Are these conductive?	Go to Step 27.	Repair the Main Sensor Harness.
27	Check for +5 V to the Compile Exit Sensor. Is there +5 V across J8302A-6 <=> J8302A-4 on the Finisher Main PWB?	Go to Step 28.	Replace the Finisher Main PWB (REP 25.95).
28	Check Compile Exit Sensor signal. Does the voltage across P8302A-5 <=> P8302A-4 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Compile Exit Sensor (REP 25.64).

## Jam at H - F4-56 Compile Exit Sensor Static

Remaining paper is detected by the Compile Exit Sensor.

### Applicable Error Code

- Jam at H - F4-56 Compile Exit SNR Static

### Troubleshooting Reference

**Table 1 Static Jam at H (Compile Exit Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Compile Exit Sensor</li> <li>Compile Harness</li> <li>Main Sensor Harness</li> <li>Finisher Main PWB</li> <li>Main Drive Harness</li> <li>Exit Motor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (1/2) Wiring (Figure 5)</li> <li>Section 7, Finisher Motors Wiring (Figure 7)</li> <li>PL 25.10 Finisher Eject (2/3)</li> <li>PL 25.11 Finisher Eject (3/3)</li> <li>PL 25.13 Finisher Transport (2/2)</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Static Jam at H (Compile Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Compile Exit Sensor. Run the Service Diagnostics Compile Exit Sensor test. Does the sensor state change?	Go to Step 10.	Go to Step 2.
2	Check the Compile Exit Sensor connection. Are P/J8320 and P/J8391 connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Main Sensor Harness connections. Are P/J8391 and P/J8302A connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.
6	Check Compiler Harness continuity. 1. Disconnect P/J8320 and P/J8391. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8320A-3 &lt;=&gt; J8391B-1</li> <li>P/J8320A-2 &lt;=&gt; J8391B-2</li> <li>P/J8320A-1 &lt;=&gt; J8391B-3</li> </ul> Are these conductive?	Go to Step 7.	Repair the Compiler Harness.

Table 2 Static Jam at H (Compile Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check Main Sensor Harness continuity. 1. Disconnect P/J8391 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: • J8391A-3 <=> P/J8302A-4 • J8391A-2 <=> P/J8302A-5 • J8391A-1 <=> P/J8302A-6 Are these conductive?	Go to Step 8.	Repair the Main Sensor Harness.
8	Check for +5 V to the Compile Exit Sensor. Is there +5 V across J8302A-6 <=> J8302A-4 on the Finisher Main PWB?	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	Check Compile Exit Sensor signal. Does the voltage across P8302A-5 <=> P8302A-4 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Buffer Path Sensor (REP 25.73).
10	Test the Exit Motor. Run the Service Diagnostics Finisher Exit Motor Test. Does the motor rotate normally?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 11.
11	Test the Lower Exit Roller Drive. Run the Service Diagnostics Finisher Exit Motor CCW test. Do the Exit Rollers rotate?	Go to Step 13.	Exit diagnostics and go to Step 12.
12	Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Check Exit Motor Main Drive harness connections. Are P/J8334 and P/J8304 connected?	Go to Step 15.	Connect and go to Step 14.
14	Print a Test Print. Does the error still occur?	Go to Step 15.	Problem solved.
15	Check Main Drive Harness continuity. 1. Disconnect P/J8334 and P/J8304. 2. Check for continuity at the following: • P/J8334-1 <=> P/J8304-2 • P/J8334-2 <=> P/J8304-4 • P/J8334-3 <=> P/J8304-1 • P/J8334-4 <=> P/J8304-3 • P/J8334-5 <=> P/J8304-6 • P/J8334-6 <=> P/J8304-5	Go to Step 16.	Repair the Main Drive Harness.
16	Check Exit Motor resistance. Is there some amount of resistance across P8334-2/5(COM) and P8334-1/3/4/6?	Go to Step 17.	Replace the Exit Motor (REP 25.92).

Table 2 Static Jam at H (Compile Exit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
17	Check for +24 V to the Exit Motor. Is there +24 V across J8304-4 <=> ground and J8304-6 <=> ground on the Finisher Main PWB?	Go to Step 18.	Replace the Finisher Main PWB (REP 25.95).
18	Replace the Exit Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at H - F4-61 Set Eject Jam

Paper failed to clear the Compile Tray No Paper Sensor on time. Set Eject failed.

### Applicable Error Code

- Jam a H - F4-61 Set Eject Jam

### Troubleshooting Reference

Table 1 Jam at H (Compile Tray No Paper Sensor) Troubleshooting Reference

Applicable Parts	References
• Eject Roller Shaft	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Main Drive Harness	• Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
• Eject Clamp Motor	• Section 7, Finisher Motors Wiring (Figure 7)
• Eject Motor	• Section 7, Finisher Clutch and Solenoids (Figure 8)
• Finisher Main PWB	• Section 7, Finisher Compiler Tray Wiring (Figure 9)
• Compiler Harness	• PL 25.9 Finisher Eject (1/3)
• Main Sensor Harness	• PL 25.10 Finisher Eject (2/3)
• Compile Exit Sensor	• PL 25.11 Finisher Eject (3/3)
• Compile No Paper Sensor	• PL 25.14 Finisher Electrical
	• PL 25.15 Finisher Harness

### Troubleshooting Procedure

Table 2 Jam at H (Compile Tray No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. Is the Eject Roller clean, rotate smoothly, and installed correctly?	Go to Step 2.	Clean or replace the Eject Roller.
2	Test the Eject Clamp Motor. Run the Service Diagnostics Eject Clamp Motor Up and Down tests. Does the motor rotate properly?	Go to Step 7.	Go to Step 3.
3	Check Main Drive Harness connections. Are P/J8339 and P/J 8304 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Main Drive Harness continuity. 1. Disconnect P/J8339 and P/J 8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8339-1 &lt;=&gt; J8304-33</li> <li>J8339-2 &lt;=&gt; J8304-31</li> </ul> Are these conductive?	Go to Step 6.	Repair the Main Drive Harness.
6	Replace the Eject Clamp Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

Table 2 Jam at H (Compile Tray No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Test the Eject Motor. Run the Service Diagnostics Eject Motor Low Speed Forward and Reverse tests. Does the Eject Motor rotate properly?	Go to Step 14.	Go to Step 8.
8	Check Main Drive Harness connections. Are P/J8336 and P/J 8304 connected?	Go to Step 10.	Connect and go to Step 9.
9	Print a Test Print. Does the error still occur?	Go to Step 10.	Problem solved.
10	Check Eject Motor Main Drive Harness continuity. 1. Disconnect P/J8336 and P/J 8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8336-1 &lt;=&gt; P/J8304-15</li> <li>P/J8336-2 &lt;=&gt; P/J8304-12</li> <li>P/J8336-3 &lt;=&gt; P/J8304-17</li> <li>P/J8336-4 &lt;=&gt; P/J8304-19</li> <li>P/J8336-5 &lt;=&gt; P/J8304-14</li> <li>P/J8336-6 &lt;=&gt; P/J8304-21</li> </ul> Are these conductive?	Go to Step 11.	Repair the Main Drive Harness.
11	Check Eject Motor resistance. Is there some amount of resistance across P8336-2/5(COM) <=> P8336-1/3/4/6?	Go to Step 12.	Replace the Eject Bracket Assembly (REP 25.62).
12	Check for +24 V to the Eject Motor. Is there +24 V across P/J8304-12 <=> ground, and P/J8304-14 <=> ground on the Finisher Main PWB?	Go to Step 13.	Replace the Finisher Main PWB (REP 25.95).
13	Replace the Eject Bracket Assembly. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
14	Test the Compile Exit Sensor. Run the Service Diagnostics Compile Exit Sensor test. Does the sensor state change?	Go to Step 23.	Go to Step 15.
15	Check the Compile Exit Sensor connection. Are P/J8320 and P/J8391 connected?	Go to Step 17.	Connect and go to Step 16.
16	Print a Test Print. Does the error still occur?	Go to Step 17.	Problem solved.
17	Check Main Sensor Harness connections. Are P/J8391 and P/J8302A connected?	Go to Step 18.	Connect and go to Step 18.
18	Print a Test Print. Does the error still occur?	Go to Step 19.	Problem solved.



**Table 2 Jam at H (Compile Tray No Paper Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
19	Check the Compiler Harness continuity. 1. Disconnect P/J8320 and P/J8391. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8320-3 &lt;=&gt; J8391B-1</li> <li>P/J8320-2 &lt;=&gt; J8391B-2</li> <li>P/J8320-1 &lt;=&gt; J8391B-3</li> </ul> Are these conductive?	Go to Step 20.	Repair the Compiler Harness.
20	Check Main Sensor Harness continuity. 1. Disconnect P/J8391 on the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8391A-3 &lt;=&gt; P/J8302A-4</li> <li>J8391A-2 &lt;=&gt; P/J8302A-5</li> <li>J8391A-1 &lt;=&gt; P/J8302A-6</li> </ul> Are these conductive?	Go to Step 21.	Repair the Main Sensor Harness.
21	Check for +5 V to the Compile Exit Sensor. Is there +5 V across J8302A-6 <=> J8302A-4 on the Finisher Main PWB?	Go to Step 22.	Replace the Finisher Main PWB (REP 25.95).
22	Check the Compile Exit Sensor signal. Does the voltage across P8302A-5 <=> P8302A-4 on the Finisher Main PWB change when the actuator is operated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Compiler Exit Sensor (REP 25.64).
23	Test the Compile Tray No Paper Sensor. Run the Service Diagnostics Compile Tray No Paper Sensor test. Does the sensor's state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 24.
24	Check the Compiler Harness connection. Are P/J8359 and P/J8309 connected?	Go to Step 26.	Connect and go to Step 25.
25	Print a Test Print. Does the error still occur?	Go to Step 26.	Problem solved.
26	Check Compiler Harness continuity. 1. Disconnect P/J8359 and P/J8309. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8359-3 &lt;=&gt; P/J8309-1</li> <li>P/J8359-2 &lt;=&gt; P/J8309-2</li> <li>P/J8359-1 &lt;=&gt; P/J8309-3</li> </ul>	Go to Step 27.	Repair the Compiler Harness.
27	Check for +5 V to the No Paper Sensor. Is there +5 V across J8309-3 <=> J8309-1 on the Finisher Main PWB?	Go to Step 28.	Replace the Finisher Main PWB (REP 25.95).
28	Check the No Paper Sensor signal. Does the voltage across P8309-2 <=> P8309-1 on the Finisher Main PWB change when the actuator is moved?	Replace the Finisher Main PWB (REP 25.95).	Replace the Compiler Tray No Paper Sensor (REP 25.59)

## Jam at H - F4-66 Compile Paper Sensor Static

Paper is detected by the Compile Tray No Paper Sensor following an eject operation.

### Applicable Error Code

- Jam at H - F4-66 Compile Paper SNR Static

### Troubleshooting Reference

**Table 1 Static Jam at H (No Paper Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Eject Clamp Motor</li> <li>Main Drive Harness</li> <li>Eject Motor</li> <li>Finisher Main PWB</li> <li>No Paper Sensor</li> <li>Compiler Harness</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Motors Wiring (Figure 7)</li> <li>Section 7, Finisher Clutch and Solenoids (Figure 8)</li> <li>Section 7, Finisher Compiler Tray Wiring (Figure 9)</li> <li>PL 25.9 Finisher Eject (1/3)</li> <li>PL 25.10 Finisher Eject (2/3)</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Static Jam at H (No Paper Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Eject Clamp Motor. Run the Service Diagnostics Eject Clamp Motor Up and Down tests. Does the motor rotate properly?	Go to Step 6.	Go to Step 2.
2	Check the Eject Clamp Motor Main Drive Harness connections. Are P/J8339 and P/J8304 connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check the Eject Clamp Motor Main Drive Harness continuity. 1. Disconnect P/J8339 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8339-1 &lt;=&gt; P/J8304-33</li> <li>P/J8339-2 &lt;=&gt; P/J8304-31</li> </ul> Are these conductive?	Go to Step 5.	Repair the Main Drive Harness.
5	Replace the Eject Clamp Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
6	Test the Eject Motor. Run the Service Diagnostics Eject Motor Low Speed Forward test. Does the Eject Motor rotate forward?	Go to Step 13.	Go to Step 7.

Table 2 Static Jam at H (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check the Eject Motor Main Drive Harness connections. Are P/J8336 and P/J8304 connected?	Go to Step 9.	Connect and go to Step 8.
8	Print a Test Print. Does the error still occur?	Go to Step 9.	Problem solved.
9	Check Eject Motor Main Drive Harness continuity. 1. Disconnect P/J8336 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8336-1 &lt;=&gt; P/J8304-15</li> <li>• P/J8336-2 &lt;=&gt; P/J8304-12</li> <li>• P/J8336-3 &lt;=&gt; P/J8304-17</li> <li>• P/J8336-4 &lt;=&gt; P/J8304-19</li> <li>• P/J8336-5 &lt;=&gt; P/J8304-14</li> <li>• P/J8336-6 &lt;=&gt; P/J8304-21</li> </ul> Are these conductive?	Go to Step 10.	Repair the Main Drive Harness.
10	Check Eject Motor resistance. Is there some amount of resistance across P8336-2/5(COM) <=> P8336-1/3/4/6?	Go to Step 11.	Replace the Eject Bracket Assembly (REP 25.62).
11	Check for +24 V to the Eject Motor. Is there +24 V across J8304-12 <=> ground, and J8304-14 <=> ground on the Finisher Main PWB?	Go to Step 12.	Replace the Finisher Main PWB (REP 25.95).
12	Replace the Eject Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
13	Test the Compile Tray No Paper Sensor. Run the Service Diagnostics Compile Tray No Paper Sensor test. Does the sensor's state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 14.
14	Check the Compiler Harness connection. Are P/J8359 and P/J8309 connected?	Go to Step 16.	Connect and go to Step 15.
15	Print a Test Print. Does the error still occur?	Go to Step 16.	Problem solved.
16	Check Compiler Harness continuity. 1. Disconnect P/J8359 and P/J8309. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8359-3 &lt;=&gt; P/J8309-1</li> <li>• P/J8359-2 &lt;=&gt; P/J8309-2</li> <li>• P/J8359-1 &lt;=&gt; P/J8309-3</li> </ul> Are these conductive?	Go to Step 17.	Repair the Compiler Harness.

Table 2 Static Jam at H (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
17	Check for +5 V to the Compile Tray No Paper Sensor. Is there +5 V across J8309-3 <=> J8309-1 on the Finisher Main PWB?	Go to Step 18.	Replace the Finisher Main PWB (REP 25.95).
18	Check the Compile Tray No Paper Sensor signal. Does the voltage across P8309-2 <=> P8309-1 on the Finisher Main PWB change when the sensor actuator is moved?	Replace the Finisher Main PWB (REP 25.95).	Replace the Compile Tray No Paper Sensor (REP 25.59).

## Jam at F or G - F4-7n Top Tray Exit Sensor ON

Paper does not reach the Stacker Upper Tray Exit Sensor on time.

### Applicable Error Codes

- Jam at F - F4-71 Top Tray Exit SNR ON Jam A
- Jam at G - F4-73 Top Tray Exit SNR ON Jam B
- Jam at G - F4-74 Top Tray Exit SNR ON Jam C

### Troubleshooting Reference

Table 1 Jam at F or G (Stacker Upper Tray Exit Sensor ON) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Entrance Roller</li> <li>Entrance Pinch Roller</li> <li>Transport Roller</li> <li>Pinch Roller</li> <li>Transport Motor</li> <li>Main Drive Harness</li> <li>Finisher Main PWB</li> <li>Top Exit Sensor Harness</li> <li>Main Sensor Harness</li> <li>Top Exit Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (1/2) Wiring (Figure 5)</li> <li>Section 7, Finisher Motors Wiring (Figure 7)</li> <li>PL 25.12 Finisher Transport (1/2)</li> <li>PL 25.13 Finisher Transport (2/2)</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

Table 2 Jam at F or G (Stacker Upper Tray Exit Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper path. 1. Open Door G. 2. Remove the Top Cover. 3. Remove the Top L/H Cover. 4. Remove the Knob and open the Upper Entrance Chute. Are the Rollers attached to the chute clean, roll freely, and correctly installed?	Go to Step 2.	Clean or replace the appropriate Roller.
2	Check the paper path. Open the Lower Top Exit Chute (2b). Are the Pinch Rollers attached to the chute and the two Transport Rollers clean, roll freely, and correctly installed?	Go to Step 3.	Clean or replace the appropriate roller.
3	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 4.	Go to Step 5.

Table 2 Jam at F or G (Stacker Upper Tray Exit Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Does the Entrance and Transport Rollers rotate?	Go to Step 11.	Exit diagnostics and go to Step 5.
5	Check the Transport Motor Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 7.	Connect and go to Step 6.
6	Print a Test Print. Does the error still occur?	Go to Step 7.	Problem solved.
7	Check Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> Are these conductive?	Go to Step 8.	Repair the Main Drive Harness.
8	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 9.	Replace the Transport Motor (REP 25.81).
9	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 10.	Replace the Finisher Main PWB (REP 25.95).
10	Replace the Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
11	Test the Upper Tray Exit Sensor. Run the Service Diagnostics Upper Tray Exit Sensor test. Does the sensor state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 12.
12	Check the Sensor Harness connections. Are P/J8321 and P/J8312 on the sensor harness, and P/J8312 and P/J8302 on the Main Sensor Harness connected?	Go to Step 14.	Connect and go to Step 13.
13	Print a Test Print. Does the error still occur?	Go to Step 14.	Problem solved.

**Table 2 Jam at F or G (Stacker Upper Tray Exit Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
14	Check Exit Sensor Harness continuity. 1. Disconnect P/J8321 and P/J8312. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8321-3 &lt;=&gt; J8312B-1</li> <li>P/J8321-2 &lt;=&gt; J8312B-2</li> <li>P/J8321-1 &lt;=&gt; J8312B-3</li> </ul> Are these conductive?	Go to Step 15.	Repair the Upper Tray Exit Sensor Harness.
15	Check Main Sensor Harness continuity. 1. Disconnect P/J8312 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8312A-3 &lt;=&gt; P/J8302A-7</li> <li>J8312A-2 &lt;=&gt; P/J8302A-8</li> <li>J8312A-1 &lt;=&gt; P/J8302A-9</li> </ul> Are these conductive?	Go to Step 16.	Repair the Main Sensor Harness.
16	Check for +5 V to the Upper Tray Exit Sensor. Is there +5 V across J8302A-9 <=> J8302A-7 on the Finisher Main PWB?	Go to Step 48.	Replace the Finisher Main PWB (REP 25.95).
17	Check the Upper Tray Exit Sensor signal. Does the voltage across P8302A-8 <=> P8302A-7 on the Finisher Main PWB change when sensor is actuated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Upper Tray Exit Sensor (REP 25.84).

## Jam at F or Stacker Upper Tray - F4-7n Top Tray Sensor OFF

Paper does not leave the Stacker Upper Tray Exit Sensor on time.

### Applicable Error Codes

- Jam at F - F4-72 Top Tray Exit SNR OFF Jam A
- Jam at Stacker Upper Tray - F4-75 Top Tray Exit SNR OFF Jam B

### Troubleshooting Reference

**Table 1 Jam at F or Upper Tray (Exit Sensor OFF) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Transport Roller</li> <li>Pinch Roller</li> <li>Transport Motor</li> <li>Main Drive Harness</li> <li>Finisher Main PWB</li> <li>Top Exit Sensor Harness</li> <li>Main Sensor Harness</li> <li>Top Exit Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (1/2) Wiring (Figure 5)</li> <li>Section 7, Finisher Motors Wiring (Figure 7)</li> <li>PL 25.12 Finisher Transport (1/2)</li> <li>PL 25.13 Finisher Transport (2/2)</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Jam at F or Upper Tray (Exit Sensor OFF) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. Open the Lower Top Exit Chute (2a). Are the Pinch Rollers attached to the chute and the two Transport Rollers clean, roll freely, and correctly installed?	Go to Step 2.	Clean or replace the appropriate Roller.
2	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 3.	Go to Step 4.
3	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Do the Entrance and Transport Rollers rotate?	Go to Step 10.	Restore roller operation.
4	Check the Transport Motor Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Jam at F or Upper Tray (Exit Sensor OFF) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	<p>Check Transport Motor Main Drive Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8342 and P/J8304.</li> <li>Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 7.	Repair the Main Drive Harness.
7	<p>Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?</p>	Go to Step 8.	Replace the Transport Motor (REP 25.81).
8	<p>Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 &lt;=&gt; ground and J8304-18 &lt;=&gt; ground on the Finisher Main PWB?</p>	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	<p>Replace the Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the error still occur?</p>	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
10	<p>Test the Upper Tray Exit Sensor. Run the Service Diagnostics Upper Tray Exit Sensor test. Does the sensor state change?</p>	Replace the Finisher Main PWB (REP 25.95).	Go to Step 11.
11	<p>Check the Upper Tray Exit Sensor Harness connections. Are P/J8321 and P/J8312 on the sensor harness, and P/J8312 and P/J8302 on the Main Sensor Harness connected?</p>	Go to Step 13.	Connect and go to Step 12.
12	<p>Print a Test Print. Does the error still occur?</p>	Go to Step 13.	Problem solved.
13	<p>Check Exit Sensor Harness continuity. 1. Disconnect P/J8321 and P/J8312. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8321-3 &lt;=&gt; J8312B-1</li> <li>P/J8321-2 &lt;=&gt; J8312B-2</li> <li>P/J8321-1 &lt;=&gt; J8312B-3</li> </ul> </p> <p>Are these conductive?</p>	Go to Step 14.	Repair the Upper Tray Exit Sensor Harness.

Table 2 Jam at F or Upper Tray (Exit Sensor OFF) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
14	<p>Check Main Exit Sensor Harness continuity. 1. Disconnect P/J8312 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8312A-3 &lt;=&gt; P/J8302A-7</li> <li>J8312A-2 &lt;=&gt; P/J8302A-8</li> <li>J8312A-1 &lt;=&gt; P/J8302A-9</li> </ul> </p> <p>Are these conductive?</p>	Go to Step 15.	Repair the Main Sensor Harness.
15	<p>Check for +5 V to the Upper Tray Exit Sensor. Is there +5 V across J8302A-9 &lt;=&gt; J8302A-7 on the Finisher Main PWB?</p>	Go to Step 16.	Replace the Finisher Main PWB (REP 25.95).
16	<p>Check the Upper Tray Exit Sensor signal. Does the voltage across P8302A-8 &lt;=&gt; P8302A-7 on the Finisher Main PWB change when the sensor is actuated?</p>	Replace the Finisher Main PWB (REP 25.95).	Replace the Upper Tray Exit Sensor (REP 25.84).

# Jam at F or G - F4-7n Top Tray Exit Sensor Static

Paper is detected by the Stacker Upper Tray Exit Sensor.

## Applicable Error Codes

- Jam at F - F4-76 Top Tray Exit SNR Static
- Jam at G - F4-77 Top Tray Exit SNR Static
- Jam at G - F4-78 Top Tray Exit SNR Static

## Troubleshooting Reference

**Table 1 Static Jam at F or G (Stacker Upper Tray Exit Sensor) Troubleshooting Reference**

Applicable Parts	References
Transport Motor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Main Drive Harness	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
Finisher Main PWB	Section 7, Finisher Motors Wiring (Figure 7)
Top Exit Sensor Harness	PL 25.12 Finisher Transport (1/2)
Main Sensor Harness	PL 25.13 Finisher Transport
Upper Tray Exit Sensor	PL 25.14 Finisher Electrical
	PL 25.15 Finisher Harness

## Troubleshooting Procedure

**Table 2 Static Jam at F or G (Stacker Upper Tray Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Upper Tray Exit Sensor. Run the Service Diagnostics Upper Tray Exit Sensor test. Does the sensor state change?	Go to Step 8.	Go to Step 2.
2	Check the Upper Tray Exit Sensor Harness connections. Are P/J8321 and P/J8312 on the sensor harness, and P/J8312 and P/J8302 on the Main Sensor Harness connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Upper Tray Exit Sensor Harness continuity. 1. Disconnect P/J8321 and P/J8312. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8321-3 &lt;=&gt; J8312B-1</li> <li>P/J8321-2 &lt;=&gt; J8312B-2</li> <li>P/J8321-1 &lt;=&gt; J8312B-3</li> </ul> Are these conductive?	Go to Step 5.	Repair the Top Tray Exit Sensor Harness.

**Table 2 Static Jam at F or G (Stacker Upper Tray Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check Main Upper Exit Sensor Harness continuity. 1. Disconnect P/J8312 from the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8312A-3 &lt;=&gt; P/J8302A-7</li> <li>J8312A-2 &lt;=&gt; P/J8302A-8</li> <li>J8312A-1 &lt;=&gt; P/J8302A-9</li> </ul> Are these conductive?	Go to Step 6.	Repair the Main Sensor Harness.
6	Check for +5 V to the Upper Tray Exit Sensor. Is there +5 V across J8302A-9 <=> J8302A-7 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Upper Tray Exit Sensor signal. Does the voltage across P8302A-8 <=> P8302A-7 on the Finisher Main PWB change when the sensor is actuated?	Replace the Finisher Main PWB (REP 25.95).	Replace the Upper Tray Exit Sensor (REP 25.84).
8	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 9.	Go to Step 10.
9	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Do the Entrance and Transport Rollers rotate?	Replace the Finisher Main PWB (REP 25.95).	Exit diagnostics.
10	Check the Finisher Transport Motor Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> Are these conductive?	Go to Step 13.	Repair the Main Drive Harness.

**Table 2 Static Jam at F or G (Stacker Upper Tray Exit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
13	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 14.	Replace the Transport Motor (REP 25.81).
14	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 15.	Replace the Finisher Main PWB (REP 25.95).
15	Replace the Transport Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at F - F4-82 Gate Sensor ON

Paper does not reach the Gate Sensor within the specified time.

### Applicable Error Code

- Jam at F - F4-82 Gate SNR ON

### Troubleshooting Reference

**Table 1 Jam at F (Transport Sensor ON) Troubleshooting Reference**

Applicable Parts	References
H-X'port Belts	Section 7, Horizontal Transport P/J Locator (Figure 1)
H-X'port Pinch Rollers	Section 7, Horizontal Transport Wiring (Figure 4)
Entrance Rollers	Section 7, Finisher Main PWB P/J Locator (Figure 7)
H-X'port Exit Sensor	Section 7, Finisher Sensors (1/2) Wiring (Figure 5)
H-X'port Harness	Section 7, Finisher Motors Wiring (Figure 7)
Finisher H-X'port PWB	PL 25.2 Horizontal Transport (1/2)
Finisher Entrance Sensor	PL 25.3 Horizontal Transport (2/2)
Main Sensor Harness	PL 25.12 Finisher Transport (1/2)
Finisher Main PWB	PL 25.13 Finisher Transport (2/2)
Transport Motor	PL 25.14 Finisher Electrical
Main Drive Harness	PL 25.15 Finisher Harness
Transport Gate Sensor	
Gate Sensor Harness	

### Troubleshooting Procedure

**Table 2 Jam at F (Transport Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper path. Open Door F. Are the Belts and Pinch Rollers clean, roll freely, and installed correctly?	Go to Step 2.	Clean or replace the affected parts.
2	Check the paper path. 1. Open Door G. 2. Remove the Top and Top L/H Covers. 3. Remove the Knob and open the Upper Entrance Chute. Are the Pinch Rollers and Entrance Roller clean, installed correctly, and operate freely?	Go to Step 3.	Clean or replace the affected parts.
3	Test the H-X'port Exit Sensor. Run the Service Diagnostics H-X'port Exit Sensor test. Does the sensor change state?	Go to Step 9.	Go to Step 4.

Table 2 Jam at F (Transport Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check the H-X'port Exit Sensor Harness connections. Is the H-X'port Exit Sensor Harness connected to the Exit Sensor and H-X'port PWB?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.
6	Check the H-X'port Exit Sensor Harness continuity. 1. Disconnect J8381 on the Exit Sensor, and P/J8372 on the H-X'port PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8372-4 &lt;=&gt; P/J8381-3</li> <li>• P/J8372-5 &lt;=&gt; P/J8381-2</li> <li>• P/J8372-6 &lt;=&gt; P/J8381-1</li> </ul> Are these conductive?	Go to Step 7.	Repair the H-X'port Harness.
7	Check for +5 V to the H-X'port Exit Sensor. Is there +5 V across J8372-6 <=> J8372-4 on the H-X'port PWB?	Go to Step 8.	Replace the H-X'port PWB (REP 25.94).
8	Check H-X'port Exit Sensor signal. Does the voltage across J8372-5 <=> J8372-4 on the H-X'port PWB change when the actuator is operated?	Replace the H-X'port PWB (REP 25.94).	Replace the H-X'port Exit Sensor (REP 25.13)
9	Test the X'port Entrance Sensor. Run the Service Diagnostics Transport Entrance Sensor test. Does the sensor change state when the sensor is blocked?	Go to Step 16.	Go to Step 10.
10	Check harness connections. Are P/J8319 and P/J8303 on the Entrance Sensor Harness and P/J8302A on the Main Sensor Harness connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check X'port Entrance Sensor Harness continuity. 1. Disconnect P/J8319 and P/J8303. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8319-3 &lt;=&gt; J8303B-1</li> <li>• P/J8319-2 &lt;=&gt; J8303B-2</li> <li>• P/J8319-1 &lt;=&gt; J8303B-3</li> </ul> Are these conductive?	Go to Step 13.	Repair the Entrance Sensor Harness.

Table 2 Jam at F (Transport Sensor ON) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
13	Check Main X'port Entrance Sensor Harness continuity. 1. Disconnect P/J8303 on the harness, and P/J8302A on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• J8303A-3 &lt;=&gt; P/J8302A-1</li> <li>• J8303A-2 &lt;=&gt; P/J8302A-2</li> <li>• J8303A-1 &lt;=&gt; P/J8302A-3</li> </ul> Are these conductive?	Go to Step 14.	Repair the Main Sensor Harness.
14	Check for +5 V to X'port Entrance Sensor. Is there +5 V across J8302A-3 <=> J8302A-1 on the Finisher Main PWB?	Go to Step 15.	Replace the Finisher Main PWB (REP 25.95).
15	Check the X'port Entrance Sensor signal. Does the voltage across P8302A-2 <=> P8302A-1 on the Finisher Main PWB change, when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Entrance Sensor (REP 25.79).
16	Check the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 25.	Go to Step 17.
17	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Do the Entrance and Transport Rollers rotate?	Go to Step 19.	Exit diagnostics and go to Step 18.
18	Print a Test Print. Does the error still occur?	Go to Step 19.	Problem solved.
19	Check the Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 21.	Connect and go to Step 20.
20	Print a Test Print. Does the error still occur?	Go to Step 21.	Problem solved.
21	Check Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>• P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>• P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>• P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>• P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>• P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> Are these conductive?	Go to Step 22.	Repair the Main Drive Harness.



**Table 2 Jam at F (Transport Sensor ON) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
22	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 23.	Replace the Transport Motor (REP 25.81).
23	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 24.	Replace the Finisher Main PWB (REP 25.95).
24	Replace the Transport Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
25	Test the Gate Sensor. Run the Service Diagnostics Gate Sensor test. Does the sensor state change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 26.
26	Check the Gate Sensor Harness. Is the harness connected?	Go to Step 28.	Connect and go to Step 27.
27	Print a Test Print. Does the error still occur?	Go to Step 28.	Problem solved.
28	Check Gate Sensor Harness continuity. 1. Disconnect P/J8432 and P/J8376. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8432-3 &lt;=&gt; J8376-1</li> <li>J8432-2 &lt;=&gt; J8376-2</li> <li>J8432-1 &lt;=&gt; J8376-3</li> </ul> Are these conductive?	Go to Step 29.	Repair the Gate Sensor Harness.
29	Check for +5 V to the Gate Sensor. Is there +5 V across P8376-3 <=> P8376-1 on the Finisher Main PWB?	Go to Step 30.	Replace the Finisher Main PWB (REP 25.95).
30	Check Gate Sensor signal. Does the voltage across P8376-2 <=> P8376-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Gate Sensor (REP 25.90).

## Jam at F or G - Gate Sensor Static Jam (Upper Tray)

Paper remains at the Gate Sensor with Finisher in the Stacker Upper Tray exit mode.

### Applicable Error Codes

- Jam at F - F4-83 Gate SNR Static Jam A
- Jam at G - F4-84 Gate SNR Static Jam B
- Jam at G - F4-85 Gate SNR Static Jam C

### Troubleshooting Reference

**Table 1 Static Jam at F or G (Gate Sensor) Troubleshooting Reference**

Applicable Parts	References
Transport Motor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Main Drive Harness	Section 7, Finisher Motors Wiring (Figure 7)
Finisher Main PWB	Section 7, Finisher Clutch and Solenoids (Figure 8)
Top Exit Sensor Harness	PL 25.12 Finisher Transport (1/2)
Gate Sensor	PL 25.13 Finisher Transport (2/2)
Gate Sensor Harness	PL 25.14 Finisher Electrical
Transport Gate Solenoid	PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 2.	Go to Step 3.
2	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Do the Entrance and Transport Rollers rotate?	Go to Step 9.	Exit diagnostics and go to Step 4.
3	Check the Transport Motor Main Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check Transport Motor Main Drive Harness continuity. 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>• P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>• P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>• P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>• P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>• P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> Are these conductive?	Go to Step 6.	Repair the Transport Motor Main Drive Harness.
6	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 7.	Replace the Transport Motor (REP 25.81).
7	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Replace the Transport Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
9	Test the Gate Sensor. Run the Service Diagnostics Gate Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 15.	Go to Step 10.
10	Check the Gate Sensor Harness. Are P/J8432 and P/J8376 connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Gate Sensor Harness continuity. 1. Disconnect P/J8432 and P/J8376. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8432-3 &lt;=&gt; P/J8376-1</li> <li>• P/J8432-2 &lt;=&gt; P/J8376-2</li> <li>• P/J8432-1 &lt;=&gt; P/J8376-3</li> </ul> Are these conductive?	Go to Step 13.	Repair the Gate Sensor Harness.
13	Check for +5 V to the Gate Sensor. Is there +5 V across P8376-3 <=> P8376-1 on the Finisher Main PWB?	Go to Step 14.	Replace the Finisher Main PWB (REP 25.95).
14	Check the Gate Sensor signal. Does the voltage across P8376-2 <=> P8376-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Gate Sensor (REP 25.90).

Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
15	Test the Buffer Gate Solenoid. Run both Service Diagnostics Buffer Gate Solenoid tests. Does the Buffer Gate open for Path-in and close for Path-out?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 16.
16	Check Buffer Gate Solenoid Harness connections. Are P/J8394 and P/J8304 connected?	Go to Step 18.	Connect and go to Step 17.
17	Print a Test Print. Does the error still occur?	Go to Step 18.	Problem solved.
18	Check Buffer Gate Solenoid Harness continuity. 1. Disconnect P/J8394 and P/J8304. 2. Disconnect P/J8394 and P/J8304. <ul style="list-style-type: none"> <li>• P/J8394-1 &lt;=&gt; P/J8304-35</li> <li>• P/J8394-2 &lt;=&gt; P/J8304-34</li> <li>• P/J8394-3 &lt;=&gt; P/J8304-36</li> </ul> Are these conductive?	Go to Step 19.	Repair the Buffer Gate Solenoid Harness.
19	Check for +24 V to the Buffer Gate Solenoid. Is there +24 V across J8304-34 <=> J8304-36 on the Finisher Main PWB?	Go to Step 20.	Replace the Finisher Main PWB (REP 25.95).
20	Replace the Buffer Gate Solenoid. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Jam at F or G - Gate Sensor Static Jam (Lower Tray)

Paper remains at the Gate Sensor when the Finisher is in the Stacker Lower Tray exit mode.

### Applicable Error Codes

- Jam at F - F4-86 Gate SNR Static Jam A
- Jam at G - F4-87 Gate SNR Static Jam B
- Jam at G - F4-88 Gate SNR Static Jam C

### Troubleshooting Reference

Table 1 Static Jam at F or G (Gate Sensor) Troubleshooting Reference

Applicable Parts	References
Transport Motor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Main Drive Harness	Section 7, Finisher Motors Wiring (Figure 7)
Finisher Main PWB	Section 7, Finisher Clutch and Solenoids (Figure 8)
Top Exit Sensor Harness	PL 25.12 Finisher Transport (1/2)
Gate Sensor	PL 25.13 Finisher Transport (2/2)
Gate Sensor Harness	PL 25.14 Finisher Electrical
Transport Gate Solenoid	PL 25.15 Finisher Harness

### Troubleshooting Procedure

Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the Finisher Transport Motor. Run the Service Diagnostics Finisher Transport Motor Test. Does the motor rotate normally?	Go to Step 2.	Go to Step 3.
2	Test Entrance and Transport Roller drive. Run the Service Diagnostics Finisher Transport Motor Test. Do the Entrance and Transport Rollers rotate?	Go to Step 9.	Exit diagnostics and go to Step 4.
3	Check the Transport Motor Drive Harness. Are P/J8342 and P/J8304 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check Transport Motor Drive Harness continuity 1. Disconnect P/J8342 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8342-1 &lt;=&gt; P/J8304-23</li> <li>P/J8342-2 &lt;=&gt; P/J8304-16</li> <li>P/J8342-3 &lt;=&gt; P/J8304-25</li> <li>P/J8342-4 &lt;=&gt; P/J8304-27</li> <li>P/J8342-5 &lt;=&gt; P/J8304-18</li> <li>P/J8342-6 &lt;=&gt; P/J8304-29</li> </ul> Are these conductive?	Go to Step 6.	Repair the Transport Motor Drive Harness.
6	Check the Transport Motor resistance. Is there some amount of resistance across P8342-2/5(COM) and P8342-1/3/4/6?	Go to Step 7.	Replace the Transport Motor (REP 25.81).
7	Check for +24 V to the Transport Motor. Is there +24 V across J8304-16 <=> ground and J8304-18 <=> ground on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Replace the Transport Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
9	Test the Gate Sensor. Run the Service Diagnostics Gate Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 15.	Go to Step 10.
10	Check the Gate Sensor Harness. Are P/J8432 and P/J8376 connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Gate Sensor Harness continuity. 1. Disconnect P/J8432 and P/J8376. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8432-3 &lt;=&gt; P/J8376-1</li> <li>P/J8432-2 &lt;=&gt; P/J8376-2</li> <li>P/J8432-1 &lt;=&gt; P/J8376-3</li> </ul> Are these conductive?	Go to Step 13.	Repair the Gate Sensor Harness.
13	Check for +5 V to the Gate Sensor. Is there +5 V across P8376-3 <=> P8376-1 on the Finisher Main PWB?	Go to Step 14.	Replace the Finisher Main PWB (REP 25.95).
14	Check the Gate Sensor signal. Does the voltage across P8376-2 <=> P8376-1 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Gate Sensor (REP 25.90).

**Table 2 Static Jam at F or G (Gate Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
15	Test the Buffer Gate Solenoid. Run both Service Diagnostics Buffer Gate Solenoid tests. Does the Buffer Gate open for Path-in and close for Path-out?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 16.
16	Check the Buffer Gate Solenoid Harness connections. Are P/J8394 and P/J8304 connected?	Go to Step 18.	Connect and go to Step 17.
17	Print a Test Print. Does the error still occur?	Go to Step 18.	Problem solved.
18	Check Buffer Gate Solenoid Harness continuity. 1. Disconnect P/J8394 and P/J8304. 2. Check for continuity at the following: • P/J8394-1 <=> P/J8304-35 • P/J8394-2 <=> P/J8304-34 • P/J8394-3 <=> P/J8304-36 Are these conductive?	Go to Step 19.	Repair the Main Drive Harness.
19	Check for +24 V to the Buffer Gate Solenoid. Is there +24 V across J8304-34 <=> J8304-36 on the Finisher Main PWB?	Go to Step 20.	Replace the Finisher Main PWB (REP 25.95).
20	Replace the Buffer Gate Solenoid. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Tray n Failure - H1 -1/2/3/4 Tray n Fail

Detected lift failure. Paper size detection inoperative.

### Applicable Error Codes

- Tray 2 Failure - H1-1 Tray 2 Fail
- Tray 3 Failure - H1-2 Tray 3 Fail
- Tray 4 Failure - H1-3 Tray 4 Fail
- Tray 5 Failure - H1-4 Tray 5 Fail

### Troubleshooting Reference

**Table 1 Universal Tray Failure Troubleshooting Reference**

Applicable Parts	References
• Tray	• Section 7, Print Engine P/J Tray 2 & 3 Feeders (Figure 6)
• Feeder	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Feed/Lift Motor	• Section 7, Print Engine Tray 2 & 3 Wiring (Figure 10)
• Level Sensor	• Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
• Paper Size Switch	• Section 7, 1000-Sheet Feeder Tray 4 & 5 Wiring (Figure 3)
• Tray 4-5 PWB	• PL 2.1 Tray (1/2) and Feeder (1/2)
• Engine Control Board	• PL 2.2 Tray (2/2)
	• PL 2.3 Feeder (2/2)
	• PL 8.1 Print Engine Electrical
	• PL 20.2 Tray 4-5 Tray (1/2) Feeder (1/2)
	• PL 20.3 Tray 4-5 Tray (2/2)
	• PL 20.4 Tray 4-5 Feeder (2/2)
	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

**Table 2 Universal Tray Failure Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check paper supply. Is paper loaded in the affected tray?	Go to Step 2.	Load paper and go to Step 2.
2	Check the tray. Replace the tray with one from another position. Does the replaced tray lift?	Go to Step 3.	Go to Step 4.
3	Check lift components. Is the Sector Gear or surrounding parts damaged?	Replace the tray.	Go to Step 4.
4	Test the Feed/Lift Motor. Run the Service Diagnostics Lift Motor test for the affected tray. Does the motor operate properly?	Go to Step 9.	Go to Step 5.

Table 2 Universal Tray Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check the Feed/Lift Motor connections. Is the affected Feed/Lift motor properly connected to the harness?	Go to Step 6.	Connect the motor. If error continues, go to Step 6.
6	Test the Feed/Lift Motor. 1. Exchange the Feed/Lift Motor with one from an operational feeder. 2. Run the Service Diagnostics Lift Motor test on the replacement motor. Does the motor operate properly?	Replace the Feed/Lift motor.	Go to Step 7.
7	Check for continuity on the connections. Reinstall the motors in the original feeders. Is there continuity on each wire between P/J409 (Trays 2-3) or P/J549 (Trays 4-5) and the Feeder Harness?	Go to Step 8.	Repair the wiring.
8	Check for +24 V to the affected Feed/Lift Motor. Is there +24 V across the motor connector's Pin 4(+) <=> ground?	Replace the motor.	Replace the Engine Control Board (REP 8.4). If the error persists, replace the Tray 4-5 PWB (REP 20.25).
9	Test the affected Level Sensor. Run the Service Diagnostics Level Sensor test for the affected tray. Does the sensor state change?	Go to Step 13.	Go to Step 10.
10	Check the Level Sensor connection. Is the sensor connected to the harness?	Go to Step 11.	Connect the sensor. If error persists, go to Step 11.
11	Check harness continuity between the Level Sensor and Engine Control Board. Is there continuity on each wire between the Level Sensor <=> P/J409 (Trays 2-3) or P/J549 (Trays 4-5)?	Go to Step 12.	Repair the wiring.
12	Check for +5 V to the affected Level Sensor. Is there +5 V across Pin-3 (+) <=> ground?	Replace the sensor.	Replace the Engine Control Board (REP 8.4). If the error persists, replace the Tray 4-5 PWB (REP 20.25).
13	Test the affected Paper Size Switch. Run the Service Diagnostics Paper Size Sensor test for the affected tray. Is the paper size detected correctly when the tray, loaded with paper, is moved in and out?	Replace the Engine Control Board (REP 8.4). If the error persists replace Tray 4-5 PWB (REP 20.25).	Go to Step 14.

Table 2 Universal Tray Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
14	Check the affected Paper Size Switch connection. Is the switch connected to the harness?	Go to Step 15.	Connect the switch. If problem persists, go to Step 15.
15	Check continuity between the Paper Size Switch and the Engine Control Board (Tray 2-3) or Tray 4-5 PWB (Tray 4-5). Is there continuity on each wire between the switch <=> P/J412 (Tray 2-3) or P/J548 (Tray 4-5)?	Go to Step 16.	Repair the wiring.
16	Check for +3.3 V to the Paper Size Switch. Is there +5 V across P/J412-1 (+) <=> ground? for Tray 2-3 or 3.3 V across P/J548-1 for Tray 4-5.	Replace the switch.	Replace the Engine Control Board (REP 8.4). If the error persists, replace the Tray 4-5 PWB (REP 20.25).

## Tray 6 Failure - H1-5 Tray 6 Fail

Detected lift failure or paper size detection inoperative.

### Applicable Error Code

- Tray 6 Failure - H1-5 Tray 6 Fail

### Troubleshooting Reference

Table 1 Tray 6 Failure Troubleshooting Reference

Applicable Parts	References
Tray In Sensor	Section 7, Engine Control Board P/J Locator (Figure 8)
Tray 6 Main Harness	Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)
Tray 6 Feeder Harness	Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)
Tray 6 PWB	Section 7, 2000-Sheet Tray 6 Sensors Wiring (Figure 3)
Lift Cables	Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)
Feed/Lift Motor	PL 2.1 Tray (1/2) and Feeder (1/2)
Nudger Solenoid	PL 2.2 Tray (2/2)
Level Sensor	PL 2.3 Feeder (2/2)
Engine Control Board	PL 8.1 Print Engine Electrical
	PL 22.1 Tray 6
	PL 22.3 Tray (2/2)
	PL 22.4 Tray 6 Feeder
	PL 22.5 Tray 6 Feeder
	PL 22.8 Tray 6 Electrical

### Troubleshooting Procedure

Table 2 Tray 6 Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Tray In Sensor alignment. Pull the Tray out. Does the actuator enter the sensing area of the Tray Set Sensor, or is it deformed or damaged?	Go to Step 2.	Repair the damage and go to Step 2.
2	Check the Tray installation. Is the Tray installed correctly?	Go to Step 3.	Correct and go to Step 3.
3	Check the repairs. Does the error reoccur?	Go to Step 4.	Problem solved.
4	Test the Tray In Sensor. Run the Service Diagnostics Tray In Sensor test. Does the sensor status change when the tray is moved in and out?	Go to Step 10.	Go to Step 5.

Table 2 Tray 6 Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check the Tray In Sensor Main Harness connection. Are PF53 and JF01 connected?	Go to Step 7.	Connect and go to Step 6.
6	Check the repairs. Does the error reoccur?	Go to Step 7.	Problem solved.
7	Check Tray In Sensor Main Harness continuity. 1. Disconnect PF53 and JF01. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF53-1 &lt;=&gt; JF01-6</li> <li>PF53-2 &lt;=&gt; JF01-5</li> <li>PF53-3 &lt;=&gt; JF01-4</li> </ul> Are these conductive?	Go to Step 8.	Repair the Tray 6 Tray Set Sensor harness.
8	Check for +5 V to the Tray In Sensor. Is there +5 V across PF01-6 <=> PF04-2 on the Tray 6 PWB?	Go to Step 9.	Replace the Tray 6 PWB (REP 22.34).
9	Check Tray In Sensor signal. Does the voltage across JF01-5 <=> PF04-2 on the Tray 6 PWB change when the sensor is blocked?	Go to Step 36.	Replace the sensor (REP 22.10).
10	Check the Tray cables. Remove the Tray from the HCF. Are the two cables installed correctly?	Go to Step 11.	Correct and go to Step 11.
11	Test the Level Sensor. Run the Service Diagnostics Tray 6 Level Sensor test. Does the sensor state change?	Go to Step 19.	Go to Step 12.
12	Check the Level Sensor Harness connections. Are PF62 and PF56B connected?	Go to Step 13.	Connect and go to Step 13.
13	Check the Level Sensor Harness connections. Are PF56B and JF02 connected?	Go to Step 15.	Connect and go to Step 14.
14	Check the repair. Does the error still occur?	Go to Step 15.	Problem solved.
15	Check Level Sensor Harness continuity. 1. Disconnect PF62 and JF56B. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>PF62-1 &lt;=&gt; JF56B-6</li> <li>PF62-2 &lt;=&gt; JF56B-5</li> <li>PF62-3 &lt;=&gt; JF56B-4</li> </ul> Are these conductive?	Go to Step 16.	Repair the Tray 6 Feeder Harness.

Table 2 Tray 6 Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
16	Check Main Harness continuity. 1. Disconnect PF56B and JF02. 2. Check for continuity at the following: • JF56B-1 <=> JF02-3 • JF56B-2 <=> JF02-2 • JF56B-3 <=> JF02-1 Are these conductive?	Go to Step 17.	Repair the Tray 6 Main Harness.
17	Check for +5 V to the Level Sensor. Is there +5 V across PF02-3 <=> P/JF04-2 on the Tray 6 PWB?	Go to Step 18.	Replace the Tray 6 PWB (REP 22.34).
18	Check Level Sensor signal. 1. Open Door J. 2. Open the Upper Feeder Assembly. Does the voltage across PF02-2 <=> PF04-2 on the Tray 6 PWB change when the sensor is blocked?	Go to Step 36.	Replace the Level Sensor (REP 22.22).
19	Test the Nudger Solenoid. Run the Service Diagnostics Tray 6 Nudger Solenoid test. Does the solenoid activate?	Go to Step 28.	Go to Step 20.
20	Check Nudger Solenoid harness connections. Are PF59 and PF56 on the Feeder and Main Harnesses, and JF06 on the Tray 6 PWB connected?	Go to Step 22.	Connect and go to Step 21.
21	Check the repair. Does the error still occur?	Go to Step 22.	Problem solved.
22	Check Nudger Solenoid Harness continuity. 1. Disconnect PF59 and JF56A. 2. Check for continuity at the following: • PF59-2 <=> JF56A-1 • PF59-1 <=> JF56A-2 Are these conductive?	Go to Step 23.	Repair the Feeder Harness.
23	Check Nudger Solenoid Main Harness continuity. 1. Disconnect PF56A and P/JF06. 2. Check for continuity at the following: • PF56A-6 <=> P/JF06-13 • PF56A-5 <=> P/JF06-14 Are these conductive?	Go to Step 24.	Repair the Nudger Solenoid Main Harness.
24	Check Nudger Solenoid resistance. Is there some amount of resistance across PF59-1 and PF59-2?	Go to Step 25.	Replace the Solenoid (REP 22.18).

Table 2 Tray 6 Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
25	Test for +24.5 V to the Nudger Solenoid. Run the Service Diagnostics Nudger Solenoid High Power test. Is there +24.5 V across PF06-13 <=> P/JF04-2 on the Tray 6 PWB?	Go to Step 26.	Replace the Tray 6 PWB (REP 22.34).
26	Test for +14.7 V Nudger Solenoid. Run the Service Diagnostics Nudger Solenoid Low Power test. Is there +14.7V across PF06-13 <=> P/JF04-2 on the Tray 6 PWB?	Go to Step 27.	Replace the Tray 6 PWB (REP 22.34).
27	Replace the Nudger Solenoid. Does the error still occur?	Go to Step 36.	Problem solved.
28	Test the Feed/Lift Motor. Run the Service Diagnostics Tray 6 Lift Motor test. Does the Tray raise?	Go to Step 36.	Go to Step 29.
29	Check the harness connections. Are PF58 and PF56 on the Feeder and Main Harness, and JF06 on the Tray 6 PWB connected?	Go to Step 31.	Connect and go to Step 30.
30	Check the repair. Does the error still occur?	Go to Step 31.	Problem solved.
31	Check Feeder Harness continuity. 1. Disconnect PF58 and JF56. 2. Check for continuity at the following: • PF58-1 <=> JF56-1 • PF58-2 <=> JF56-2 • PF58-3 <=> JF56-3 • PF58-4 <=> JF56-4 • PF58-5 <=> JF56-5 • PF58-6 <=> JF56-6 Are these conductive?	Go to Step 32.	Repair the Feeder Harness.
32	Check Main Harness continuity. 1. Disconnect PF56 and JF06. 2. Check for continuity at the following: • PF56-1 <=> JF06-1 • PF56-2 <=> JF06-3 • PF56-3 <=> JF06-2 • PF56-4 <=> JF06-6 • PF56-5 <=> JF06-4 • PF56-6 <=> JF06-5 Are these conductive?	Go to Step 33.	Repair the Main Harness.

**Table 2 Tray 6 Failure Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
33	Check Feed/Lift Motor resistance. Is there some amount of resistance across PF58-2/5(COM) and PF58-1/3/4/6?	Go to Step 34.	Replace the Feed/Lift Motor (REP 22.16).
34	Check for +24 V to the Feed/Lift Motor. Are the voltages across PF06-3 <=> PF04-3, and PF06-4 <=> PF04-3 on the Tray 6 PWB +24 V?	Go to Step 35.	Replace the Tray 6 PWB (REP 22.34).
35	Replace the Feed/Lift Motor. Print a Test Print. Does the error still occur?	Go to Step 36.	Problem solved.
36	Replace the Tray 6 PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Duplex Unit Failure - H2-7 Duplex Comm Failure

Communications failure between the Engine Control Board and the Duplex Unit.

### Applicable Error Code

- Duplex Unit Failure - H2-7 Duplex Comm Failure

### Troubleshooting Reference

**Table 1 Duplex Comm Failure Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Duplex Unit PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Duplex Unit Plug/Jack Locator (Figure 1)</li> <li>Section 7, Duplex Unit Wiring (Figure 1, Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 23.1 Duplex Unit</li> </ul>

### Troubleshooting Procedure

**Table 2 Duplex Comm Failure Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check Duplex Unit installation. Reinstall the Duplex Unit. Does the error still occur?	Go to Step 2.	Problem solved.
2	Check the Duplex PWB connection. Are P/J540 and P/J417 connected?	Go to Step 3.	Connect P/J540 and P/J417.
3	Check Duplex Harness continuity between the Duplex PWB and the Engine Control Board. 1. Disconnect P/J540 and P/J417. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J540-1 &lt;=&gt; P/J417-A1</li> <li>P/J540-2 &lt;=&gt; P/J417-B1</li> <li>P/J540-3 &lt;=&gt; P/J417-A2</li> <li>P/J540-4 &lt;=&gt; P/J417-B2</li> <li>P/J540-5 &lt;=&gt; P/J417-A3</li> <li>P/J540-6 &lt;=&gt; P/J417-B3</li> <li>P/J540-7 &lt;=&gt; P/J417-A4</li> <li>P/J540-8 &lt;=&gt; P/J417-B4</li> </ul> Are these conductive?	Go to Step 4.	Repair the wiring.
4	Check for +24 V to the Duplex PWB. Is there +24 V across P/J540-2 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).



## Incorrect Duplex Unit Installed - H2-8 Duplex Type Error

Incorrect Duplex Unit installed.

### Applicable Error Code

- Duplex Unit Failure - H2-8 Duplex Type Error

### Troubleshooting Reference

Table 1 Incorrect Duplex Unit Installed Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Duplex Unit PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Duplex Unit Plug/Jack Locator (Figure 1)</li> <li>Section 7, Duplex Unit Wiring (Figure 1, Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 23.1 Duplex Unit</li> </ul>

### Troubleshooting Procedure

Table 2 Incorrect Duplex Unit Installed Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Duplex Unit installation. Reinstall the Duplex Unit. Does the error still occur?	Go to Step 2.	Problem solved.
2	Check for +24 V to the Duplex PWB. Is there +24 V across P/J540-2 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Exit Unit Failure - H3-n Offset Error

Failure to establish Offset Home Position on Exit1 (H3-1) or Exit 2 (H3-2).

### Applicable Error Codes

- Exit Unit Failure - H3-1 Offset Error
- Exit Unit Failure - H3-2 Offset Error

### Troubleshooting Reference

Table 1 Exit Offset Error (OCT Position Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>OCT Position Sensor</li> <li>Offset Motor</li> <li>Exit PWB</li> <li>LVPS</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)</li> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>Section 7, Print Engine Exit 1 Wiring (Figure 14)</li> <li>Section 7, Exit 2 General Wiring (Figure 1)</li> <li>Section 7, Exit 2 Plug/Jack Locator (Figure 1)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 24.2 Exit 2 Tray Guide Assembly</li> </ul>

### Troubleshooting Procedure

Table 2 Exit Offset Error (OCT Position Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the affected OCT Position Sensor. Run the Service Diagnostics Exit 1 or 2 Offset Home Position Sensor test. Does the sensor state change?	Go to Step 10.	Go to Step 2.
2	Check the sensor connection. Is P/J117 (Exit 1) or P/J111 (Exit 2) connected?	Go to Step 3.	Connect the sensor.
3	Check continuity between the affected OCT Position Sensor and the Exit PWB P/J111 <=> P/J434 and SJ1 (Exit2) P/J117 <=> P/J423 (Exit 1).	Go to Step 4.	Repair the wiring.
4	Check for +5 V to the OCT Position Sensor. Is there +5 V across P/J434-1 (Exit 2) or P/J432-1 (Exit 1) (+) <=> ground?	Replace the affected OCT Position Sensor.	Go to Step 5.
5	Check the connection between the Exit PWB and the Engine Control Board. Are P/J431 and P/J421 connected?	Go to Step 6.	Connect P/J431 and P/J421. If problem persists, go to Step 6.

Table 2 Exit Offset Error (OCT Position Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	<p>Check continuity between the Exit PWB and the Engine Control Board.</p> <ol style="list-style-type: none"> <li>Disconnect P/J431 and P/J421.</li> <li>Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J431-1 &lt;=&gt; P/J421-8</li> <li>P/J431-2 &lt;=&gt; P/J421-7</li> <li>P/J431-3 &lt;=&gt; P/J421-6</li> <li>P/J431-4 &lt;=&gt; P/J421-5</li> <li>P/J431-5 &lt;=&gt; P/J421-4</li> <li>P/J431-6 &lt;=&gt; P/J421-3</li> <li>P/J431-7 &lt;=&gt; P/J421-2</li> <li>P/J431-8 &lt;=&gt; P/J421-1</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 7.	Repair the wiring.
7	<p>Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?</p>	Go to Step 8.	Connect P/J430 and P/J526. If problem persists, go to Step 8.
8	<p>Check continuity between the Exit PWB and the LVPS.</p> <ol style="list-style-type: none"> <li>Disconnect P/J430 and P/J526.</li> <li>Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J430-3 &lt;=&gt; P/J526-6</li> <li>P/J430-4 &lt;=&gt; P/J526-5</li> <li>P/J430-1 &lt;=&gt; P/J526-8</li> <li>P/J430-2 &lt;=&gt; P/J526-7</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 9.	Repair the wiring.
9	<p>Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) &lt;=&gt; ground?</p>	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).
10	<p>Test the Offset Motor. Run the Service Diagnostics Offset Output Motor tests for the appropriate Exit. Does the Offset Motor operate properly?</p>	Replace the Exit PWB (REP 8.3). If problem persists, replace the Engine Control Board (REP 8.4).	Go to Step 11.
11	<p>Check the affected Offset Motor connection. Exit 1 P/J432 &lt;=&gt; J206 or Exit 2 P/J433 &lt;=&gt; J207. Is the motor connected?</p>	Go to Step 12.	Connect the motor. If problem persists go to Step 12.

Table 2 Exit Offset Error (OCT Position Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
12	<p>Check continuity between the affected Offset Motor and Exit PWB.</p> <p>For Exit 1:</p> <ol style="list-style-type: none"> <li>Disconnect P/J432 and J206.</li> <li>Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J432-7 &lt;=&gt; J206-1</li> <li>P/J432-8 &lt;=&gt; J206-2</li> <li>P/J432-9 &lt;=&gt; J206-3</li> <li>P/J432-10 &lt;=&gt; J206-4</li> <li>P/J432-11 &lt;=&gt; J206-5</li> </ul> </li> </ol> <p>For Exit 2:</p> <ol style="list-style-type: none"> <li>Disconnect P/J433 and J207.</li> <li>Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J433-1 &lt;=&gt; J207-1</li> <li>P/J433-2 &lt;=&gt; J207-2</li> <li>P/J433-3 &lt;=&gt; J207-3</li> <li>P/J433-4 &lt;=&gt; J207-4</li> <li>P/J433-5 &lt;=&gt; J207-5</li> </ul> </li> </ol> <p>Is there continuity on each wire?</p>	Go to Step 13.	Repair the wiring.
13	<p>Check for +24 V to the affected Offset Motor. Is there +24 V across (Exit 2) P/J433-1 or (Exit 1) P/J432-7(+) &lt;=&gt; ground?</p>	Replace the Offset Motor.	Replace the Exit PWB (REP 8.3).

## Exit Unit Failure - H3-7 Exit Board Comm Failure

Communications failure between the Engine Control Board and Exit PWB.

### Applicable Error Code

- Exit Unit Failure - H3-7 Exit Board Comm Failure

### Troubleshooting Reference

Table 1 Exit Comm Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Exit PWB</li> <li>LVPS</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)</li> <li>Section 7, Engine Control Board P/J Locator (Figure 8)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>Section 7, Print Engine Exit 1 Wiring (Figure 14)</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Exit Comm Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Exit PWB connection. Are P/J431 and P/J421 connected?	Go to Step 2.	Connect P/J431 and P/J421.
2	Check continuity between the Exit PWB and the Engine Control Board. 1. Disconnect P/J431 and P/J421. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J431-1 &lt;=&gt; P/J421-8</li> <li>P/J431-2 &lt;=&gt; P/J421-7</li> <li>P/J431-3 &lt;=&gt; P/J421-6</li> <li>P/J431-4 &lt;=&gt; P/J421-5</li> <li>P/J431-5 &lt;=&gt; P/J421-4</li> <li>P/J431-6 &lt;=&gt; P/J421-3</li> <li>P/J431-7 &lt;=&gt; P/J421-2</li> <li>P/J431-8 &lt;=&gt; P/J421-1</li> </ul> Are these conductive?	Go to Step 3.	Repair the wiring.
3	Check the connection between the Exit PWB and the LVPS. Are P/J430 and P/J526 connected?	Go to Step 4.	Connect P/J430 and P/J526.

Table 2 Exit Comm Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check continuity between the Exit PWB and the LVPS. 1. Disconnect P/J430 and P/J526. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J430-3 &lt;=&gt; P/J526-6</li> <li>P/J430-4 &lt;=&gt; P/J526-5</li> <li>P/J430-1 &lt;=&gt; P/J526-8</li> <li>P/J430-2 &lt;=&gt; P/J526-7</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check for +24 V to the Exit PWB. Is there +24 V across P/J430-1 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the LVPS (REP 8.6).

## Tray 1/MPT Paper Guide Does Not Match Size Menu

The Tray 1/MPT paper guides do no match the paper size stored in NVRAM for Tray 1/MPT.

### Troubleshooting Reference

Table 1 Tray 1/MPT Paper Guides (Paper Size Sensor) Troubleshooting Reference

Applicable Parts	References
• Paper Size Sensor	• Section 7, Print Engine Tray 1/MPT P/J Locator (Figure 1)
• Paper Guides	• Section 7, Print Engine P/J Locator Electrical (Figure 7)
• Size Sensor Harness	• Section 7, Print Engine Tray 1/MPT Wiring (Figure 12)
• Engine Control Board	• PL 3.3 Tray 1/MPT Assembly
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Tray 1/MPT Paper Guides (Paper Size Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper in Tray 1/MPT. Is paper loaded in the tray properly?	Go to Step 2.	Reload the paper.
2	Check the paper guides. Are the paper guides set correctly?	Go to Step 3.	Reset the guides.
3	Test the Paper Size Sensor for Tray 1/MPT. Run the Service Diagnostics Tray 1 Size Sensor test. Does the size displayed change as the size guides are moved in and out?	Replace the Engine Control Board (REP 8.4).	Go to Step 4.
4	Check the Paper Size Switch connection. Are J107, P/J609, P/J605 and J411 connected?	Go to Step 5.	Connect the Paper Size Sensor.
5	Check continuity between the Tray 1/MPT Paper Size Sensor and the Engine Control Board. 1. Disconnect J107 and J411. 2. Check for continuity at the following: • J107-1 <=> J411-1 • J107-2 <=> J411-2 • J107-3 <=> J411-3 Are these conductive?	Go to Step 6.	Repair the wiring.
6	Check for +5 V to the Paper Size Sensor. Is there +5 V across J107-1 (+) <=> ground?	Replace the Tray 1 Feeder (REP 3.1).	Replace the Engine Control Board (REP 8.4).

## Tray Paper Guide Does Not Match Size Menu -H4-1/2

### Applicable Error Codes

- Tray Paper Guide Does Not Match Size Menu- H4-1 Tray 2 Paper Size Error
- Tray Paper Guide Does Not Match Size Menu- H4-2 Tray 3 Paper Size Error

### Troubleshooting References

Table 1 Paper Size Failure (Tray 2-3 Paper Size Switch) Troubleshooting Reference

Applicable Parts	References
• Paper Size Switch	• Section 7, Print Engine P/J Locator Electrical (Figure 7)
• Tray Paper Guides	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Engine Control Board	• PL 2.1 Tray (1/2) Feeder (1/2)
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Paper Size Failure (Tray 2-3 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper in the affected tray. Is paper loaded in the tray properly?	Go to Step 2.	Reload the paper.
2	Check the tray paper guides. Are the paper guides set correctly?	Go to Step 3.	Reset the guides.
3	Check the Paper Size Switch for the affected tray. Is the switch installed correctly?	Go to Step 4.	Correct the installation.
4	Test the Paper Size Switch for the affected tray. Run the Service Diagnostics Size Sensor test for the affected tray. Does the sensor state change each time the loaded tray is moved in or out?	Reconnect the connector of the Engine Control Board.	Go to Step 5.
5	Check the Paper Size Switch connection. For Tray 2: Are P/J109 and P/J412 connected? For Tray 3: Are P/J110 and P/J412 connected?	Go to Step 6.	Connect the Paper Size Switch.

Table 2 Paper Size Failure (Tray 2-3 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	<p>Check continuity between the affected Paper Size Switch and the Engine Control Board.</p> <p>For Tray 2:</p> <ol style="list-style-type: none"> <li>1. Disconnect P/J109 and P/J412.</li> <li>2. Check for continuity at the following:                             <ul style="list-style-type: none"> <li>• P/J109-1 &lt;=&gt; P/J412-4</li> <li>• P/J109-2 &lt;=&gt; P/J412-3</li> <li>• P/J109-3 &lt;=&gt; P/J412-2</li> <li>• P/J109-4 &lt;=&gt; P/J412-1</li> </ul> </li> </ol> <p>For Tray 3:</p> <ol style="list-style-type: none"> <li>1. Disconnect P/J110 and P/J412.</li> <li>2. Check for continuity at the following:                             <ul style="list-style-type: none"> <li>• P/J110-1 &lt;=&gt; P/J412-9</li> <li>• P/J110-2 &lt;=&gt; P/J412-8</li> <li>• P/J110-3 &lt;=&gt; P/J412-7</li> <li>• P/J110-4 &lt;=&gt; P/J412-6</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 7.	Repair the wiring.
7	<p>Check for +5 V to the Paper Size Switch.</p> <p>For Tray 2:</p> <p>Is there +5 V across J109-1 (+) &lt;=&gt; ground?</p> <p>For Tray 3:</p> <p>Is there +5 V across J110-1 (+) &lt;=&gt; ground?</p>	Replace the paper Size Switch for the affected tray.	Replace the Engine Control Board (REP 8.4).

## Tray Paper Guide Does Not Match Size Menu -H4-3/4

### Applicable Error Codes

- Tray Paper Guide Does Not Match Size Menu- H4-3 Tray 4 Paper Size Error
- Tray Paper Guide Does Not Match Size Menu- H4-4 Tray 5 Paper Size Error

### Troubleshooting Reference

Table 1 Paper Size Failure (Tray 4-5 Paper Size Switch) Troubleshooting Reference

Applicable Parts	References
• Paper Size Switch	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Tray Paper Guides	• Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)
• Tray 4-5 PWB	• Section 7, 1000-Sheet Feeder P/J Electrical (Figure 2)
• Engine Control Board	• Section 7, 1000-Sheet Tray 4 & 5 Wiring (Figure 3)
	• PL 8.1 Print Engine Electrical
	• PL 20.2 Tray (1/2) Feeder (1/2)
	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Table 2 Paper Size Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Paper in the affected tray. Is paper loaded in the tray properly?	Go to Step 2.	Reload the paper.
2	Check the tray paper guides. Are the paper guides set correctly?	Go to Step 3.	Set the guides properly.
3	Check the Paper Size Switch for the affected tray. Is the switch installed correctly?	Go to Step 4.	Correct the installation.
4	Test the Paper Size Switch for the affected tray. Run the Service Diagnostics Size Sensor test for the affected tray. Does the sensor state change each time the loaded tray is moved in or out?	Reconnect the connector of the Engine Control Board.	Go to Step 5.
5	Check the Paper Size Switch connection. For Tray 4: Are P/J820 and P/J548 connected? For Tray 5: Are P/J824 and P/J548 connected?	Go to Step 6.	Connect the Paper Size Switch.

Table 2 Paper Size Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	<p>Check continuity between the affected Paper Size Switch and the Engine Control Board.</p> <p>For Tray 4:</p> <ol style="list-style-type: none"> <li>1. Disconnect P/J820 and P/J548.</li> <li>2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J820-1 &lt;=&gt; P/J548-14</li> <li>• P/J820-2 &lt;=&gt; P/J548-13</li> <li>• P/J820-3 &lt;=&gt; P/J548-12</li> <li>• P/J820-4 &lt;=&gt; P/J548-11</li> </ul> </li> </ol> <p>For Tray 5:</p> <ol style="list-style-type: none"> <li>1. Disconnect P/J824 and P/J548.</li> <li>2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J824-1 &lt;=&gt; P/J548-7</li> <li>• P/J824-2 &lt;=&gt; P/J548-6</li> <li>• P/J824-3 &lt;=&gt; P/J548-5</li> <li>• P/J824-4 &lt;=&gt; P/J548-4</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 7.	Repair the wiring.
7	<p>Check for +3.3 V to the Paper Size Switch.</p> <p>For Tray 4:</p> <p>Is there +3.3 V across P/J820-1 (+) &lt;=&gt; ground?</p> <p>For Tray 5:</p> <p>Is there +3.3 V across P/J824-1 (+) &lt;=&gt; ground?</p>	Replace the Paper Size Switch for the affected tray.	Replace the Engine Control Board (REP 8.4).
8	<p>Check the Tray 4-5 PWB connection.</p> <p>Are P/J413 and P/J541 connected?</p>	Go to Step 9.	Connect P/J413 and P/541.
9	<p>Check continuity between the Tray 4-5 PWB and the Engine Control Board.</p> <ol style="list-style-type: none"> <li>1. Disconnect P/J541 and P/J413.</li> <li>2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J541-1 &lt;=&gt; P/J413-A1</li> <li>• P/J541-2 &lt;=&gt; P/J413-A2</li> <li>• P/J541-3 &lt;=&gt; P/J413-A3</li> <li>• P/J541-4 &lt;=&gt; P/J413-A4</li> <li>• P/J541-5 &lt;=&gt; P/J413-A5</li> <li>• P/J541-6 &lt;=&gt; P/J413-A6</li> <li>• P/J541-7 &lt;=&gt; P/J413-B1</li> <li>• P/J541-8 &lt;=&gt; P/J413-B2</li> <li>• P/J541-9 &lt;=&gt; P/J413-B3</li> <li>• P/J541-10 &lt;=&gt; P/J413-B4</li> <li>• P/J541-11 &lt;=&gt; P/J413-B5</li> <li>• P/J541-12 &lt;=&gt; P/J413-B6</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 10.	Repair the wiring.

Table 2 Paper Size Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
10	<p>Check for +5 V to the Tray 4-5 PWB.</p> <p>Is there +5 V across P/J413-A5 (+) &lt;=&gt; ground?</p>	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Finisher Board Failure - H5-4, 7, 8 NVM/Comm/Type Error

### Applicable Error Codes

- Finisher Board Failure - H5-4 NVM R/W Error
- Finisher Failure - H5-7 MCU-Finisher Comm Error
- Incorrect Finisher Installed - H5-8 Finisher Type Error

### Troubleshooting Reference

Table 1 Finisher Board Error (NVM R/W Error) Troubleshooting Reference

Applicable Parts	References
• Finisher Main PWB	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Engine Control Board	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
	• PL 8.1 Print Engine Electrical
	• PL 25.14 Finisher Electrical

### Troubleshooting Procedure

Table 2 Finisher Board Error (NVM R/W Error) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Finisher installation. Are the interface cables connected correctly?	Go to Step 2.	Reconnect the cables and go to Step 2.
2	Does the error occur when the power is cycled?	Go to Step 3.	Problem solved.
3	Check Finisher Main PWB connections. Are P/J8300 and P416 connected?	Go to Step 4.	Connect all connectors. Go to Step 4.
4	Check continuity between the Finisher Main PWB and the Engine Control Board. 1. Disconnect P/J8300 and P/J416. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8300-11 &lt;=&gt; P/J416-1</li> <li>• P/J8300-10 &lt;=&gt; P/J416-2</li> <li>• P/J8300-9 &lt;=&gt; P/J416-3</li> <li>• P/J8300-8 &lt;=&gt; P/J416-4</li> <li>• P/J8300-7 &lt;=&gt; P/J416-5</li> <li>• P/J8300-6 &lt;=&gt; P/J416-6</li> <li>• P/J8300-4 &lt;=&gt; P/J416-7</li> <li>• P/J8300-3 &lt;=&gt; P/J416-8</li> <li>• P/J8300-2 &lt;=&gt; P/J416-9</li> <li>• P/J8300-1 &lt;=&gt; P/J416-10</li> <li>• P/J8300-4 &lt;=&gt; P/J416-11</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.

Table 2 Finisher Board Error (NVM R/W Error) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check for +24 V to the Finisher Main PWB. Is there	Replace the Finisher Main PWB (REP 25.95).	Replace the Engine Control Board (REP 8.4).

## Stacker Lower Tray Failure - H5-11 Low Tray Fail

The Lower Tray No Paper Sensor is not turned Off or On within the specified time following the Stacker Tray beginning to move.

### Applicable Error Code

- Stacker Lower Tray Failure - H5-11 Low Tray Fail

### Troubleshooting Reference

**Table 1 Stacker Lower Tray Failure (Stack Height Sensors) Troubleshooting Reference**

Applicable Parts	References
Lower Tray No Paper Sensor	Section 7, Engine Control Board P/J Locator (Figure 8)
Upper Limit Actuator	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Finisher Main PWB	Section 7, Finisher Sensors (2/2) Wiring (Figure 6)
Main Sensor Harness	Section 7, Finisher Clutch and Solenoids (Figure 8)
Elevator Motor	PL 8.1 Print Engine Electrical
Engine Control Board	PL 25.6 Finisher Stack PL 25.14 Finisher Electrical PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Stacker Lower Tray Failure (Stack Height Sensors) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Stacker Lower Tray vertical transport and belts for obstacles and deformation. Are there obstacles or belt wear in the vertical transport mechanism?	Remove obstacles/replace deformed part.	Go to Step 2.
2	Check the Actuator installation. Does the Actuator enter the Upper Limit sensor sensing area?	Go to Step 3.	Repair the Actuator.
3	Test the Lower Tray No Paper Sensor. Run the Service Diagnostics Lower Tray No Paper Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 9.	Go to Step 4.
4	Check the Lower Tray No Paper Sensor Harness connection. Are P/J8326 and P/J8302B connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

**Table 2 Stacker Lower Tray Failure (Stack Height Sensors) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check the Lower Tray No Paper Sensor Harness continuity. 1. Disconnect P/J8326 on the Lower Tray No Paper Sensor Harness, and P/J8302B on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8326-3 &lt;=&gt; P/J8302B-15</li> <li>P/J8326-2 &lt;=&gt; P/J8302B-16</li> <li>P/J8326-1 &lt;=&gt; P/J8302B-17</li> </ul> Are these conductive?	Go to Step 7.	Repair the Lower Tray No Paper Sensor Harness. If problem persists, go to Step 7
7	Check for +5 V to the Lower Tray No Paper Sensor. Is there +5 V across J8302B-17 <=> J8302B-15 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check Stacker Lower Tray No Paper Sensor. Does the voltage across P8302B-16 <=> P8302B-15 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Lower Tray No Paper Sensor (REP 25.34).
9	Test the Elevator Motor. Run the Service Diagnostics Stacker Motor Up and Down tests alternately. Does the Elevator Motor operate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 10.
10	Check the Elevator Motor connection. Is P/J8305 connected to the Finisher Main PWB?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Replace the Elevator Motor. Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.



# Stacker Lower Tray Failure - H5-12 Low Tray Upper Limit

The Stacker Lower Tray rose beyond the upper limit position.

## Applicable Error Code

Table 1 Stacker Lower Tray Failure (Upper Limit Sensor) Troubleshooting Reference

Applicable Parts	References
• Lower Tray No Paper Sensor	• Section 7, Engine Control Board P/J Locator (Figure 8)
• Lower Tray Upper Limit Sensor	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Upper Limit Actuator	• Section 7, Finisher Sensors (2/2) Wiring (Figure 6)
• Finisher Main PWB	• Section 7, Finisher Clutch and Solenoids (Figure 8)
• Main Sensor Harness	• PL 8.1 Print Engine Electrical
• Elevator Harness	• PL 25.6 Finisher Stack
• Engine Control Board	• PL 25.14 Finisher Electrical
	• PL 25.15 Finisher Harness

## Troubleshooting Procedure

Table 2 Stacker Lower Tray Failure (Upper Limit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Stacker Lower Tray vertical transport and belts for obstacles and deformation. Are there obstacles or belt wear in the vertical transport mechanism?	Remove any obstacles.	Go to Step 2.
2	Check the Actuator installation. Does the Actuator enter the Upper Limit sensor sensing area?	Go to Step 3.	Replace the Actuator.
3	Test the Lower Tray No Paper Sensor. Run the Service Diagnostics Lower Tray No Paper Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 9.	Go to Step 4.
4	Check the Lower Tray No Paper Sensor Harness connection. Are P/J8326 and P/J8302B connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

Table 2 Stacker Lower Tray Failure (Upper Limit Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check Main Sensor Harness continuity. 1. Disconnect P/J8326 on the Main Sensor Harness, and P/J8302B on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8326-3 &lt;=&gt; P/J8302B-15</li> <li>• P/J8326-2 &lt;=&gt; P/J8302B-16</li> <li>• P/J8326-1 &lt;=&gt; P/J8302B-17</li> </ul> Are these conductive?	Go to Step 7.	Repair the Main Sensor Harness.
7	Check for +5 V to the Lower Tray No Paper Sensor. Is there +5 V across J8302B-17 <=> J8302B-15 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check the Lower Tray No Paper Sensor. Does the voltage across P8302B-16 <=> P8302B-15 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Lower Tray No Paper Sensor (REP 25.34).
9	Test the Lower Tray Upper Limit Sensor. Run the Service Diagnostics Lower Tray Upper Limit Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 15.	Go to Step 10.
10	Check Lower Tray Upper Limit Sensor Harness connection. Are P/J8327 and P/J8302B connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Lower Tray Upper Limit Sensor Sensor Harness continuity. 1. Disconnect P/J8327 on the harness, and P/J8302B on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8327-3 &lt;=&gt; P/J8302B-18</li> <li>• P/J8327-2 &lt;=&gt; P/J8302B-19</li> <li>• P/J8327-1 &lt;=&gt; P/J8302B-20</li> </ul> Are these conductive?	Go to Step 13.	Repair the Lower Tray Upper Limit Sensor Harness.
13	Check for +5 V to the Lower Tray Upper Limit Sensor. Is there +5 V across J8302B-20 <=> J8302B-18 on the Finisher Main PWB?	Go to Step 14.	Replace the Finisher Main PWB (REP 25.95).
14	Check Lower Tray Upper Limit Sensor signal. Does the voltage across P8302B-19 <=> P8302B-18 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Lower Tray Upper Limit Sensor (REP 25.34).

**Table 2 Stacker Lower Tray Failure (Upper Limit Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
15	Test the Elevator Motor. Run the Service Diagnostics Stacker Motor Up and Down tests alternately. Does the Elevator Motor operate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 16.
16	Check the Elevator Motor connection. Is P/J8305 connected to the Finisher Main PWB?	Go to Step 18.	Connect and go to Step 17.
17	Print a Test Print. Does the error still occur?	Go to Step 18.	Problem solved.
18	Replace the Elevator Motor. Print a Test Print. Does the error still occur?	Go to Step 19.	Problem solved.
19	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Stacker Lower Tray Failure - H5-13 Lower Tray Limit

The Stacker Lower Tray descends beyond the specified lower limit position.

### Applicable Error Code

- Stacker Lower Tray Failure - H5-13 Low Tray Lower Limit

### Troubleshooting Reference

**Table 1 Stacker Lower Tray Failure (Stacker Encoder Sensor) Troubleshooting Reference**

Applicable Parts	References
Stack Height Sensor 1	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Stack Height Sensor 2	Section 7, Finisher Sensors (2/2) Wiring (Figure 6)
Stacker Encoder Sensor	Section 7, Finisher Clutch and Solenoids (Figure 8)
Finisher Main PWB	PL 25.6 Finisher Stack
Main Sensor Harness	PL 25.14 Finisher Electrical
Elevator Motor	PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Stacker Lower Tray Failure (Stacker Encoder Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Stacker Lower Tray vertical transport and belts for obstacles and deformation. Are there obstacles or belt wear in the vertical transport mechanism?	Remove any obstacles.	Go to Step 2.
2	Test the Stack Height Sensor 1 (top). Run the Service Diagnostics Stack Height 1 test. Does the sensor state change when the sensor is blocked? <b>NOTE:</b> Sensor requires a 10 second timeout between sensing events.	Go to Step 8.	Go to Step 3.
3	Check Stack Height Sensor 1 Sensor Harness connection. Are P/J8331 and P/J8302B connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Stacker Lower Tray Failure (Stacker Encoder Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	<p>Check Stack Height Sensor 1 Sensor Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8331 on the Main Sensor Harness, and P/J8302B on the Finisher Main PWB.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8331-5 &lt;=&gt; P/J8302B-1</li> <li>P/J8331-4 &lt;=&gt; P/J8302B-2</li> <li>P/J8331-3 &lt;=&gt; P/J8302B-3</li> <li>P/J8331-2 &lt;=&gt; P/J8302B-4</li> <li>P/J8331-1 &lt;=&gt; P/J8302B-5</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 6.	Repair the Stack Height Sensor 1 Sensor Harness.
6	<p>Check for +5 V to Stack Height Sensor 1. Is there +5 V across J8302B-3 &lt;=&gt; J8302B-1 on the Finisher Main PWB?</p>	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	<p>Check Stack Height Sensor 1 signal. Does the voltage across P8302B-2 &lt;=&gt; P8302B-1 on the Finisher Main PWB change when the sensor is blocked?</p>	Replace the Finisher Main PWB (REP 25.95).	Replace Stack Height Sensor 1 (REP 25.31).
8	<p>Test the Stack Height Sensor 2 (bottom). Run the Service Diagnostics Stack Height Sensor 2 test. <b>NOTE: Sensor requires a 10 second timeout between sensing events.</b></p> <p>Does the sensor state change when the sensor is blocked?</p>	Go to Step 14.	Go to Step 9.
9	<p>Check Stack Height Sensor 2 Sensor Harness connections. Are P/J8330 and P/J8302A connected?</p>	Go to Step 11.	Connect and go to Step 10.
10	<p>Print a Test Print. Does the error still occur?</p>	Go to Step 11.	Problem solved.

Table 2 Stacker Lower Tray Failure (Stacker Encoder Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
11	<p>Check Stack Height Sensor 2 Sensor Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8330 on the harness, and P/J8302A on the Finisher Main PWB.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8330-5 &lt;=&gt; P/J8302A-16</li> <li>P/J8330-4 &lt;=&gt; P/J8302A-17</li> <li>P/J8330-3 &lt;=&gt; P/J8302A-18</li> <li>P/J8330-2 &lt;=&gt; P/J8302A-19</li> <li>P/J8330-1 &lt;=&gt; P/J8302A-20</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 12.	Repair the Stack Height Sensor 2 Harness.
12	<p>Check for +5 V to Stack Height Sensor 2. Is there +5 V across J8302A-18 &lt;=&gt; J8302A-16 on the Finisher Main PWB?</p>	Go to Step 13.	Replace the Finisher Main PWB (REP 25.95).
13	<p>Check Stack Height Sensor 2 signal. Does the voltage across P8302A-17 &lt;=&gt; P8302A-16 on the Finisher Main PWB change when the sensor is blocked?</p>	Replace the Finisher Main PWB (REP 25.95).	Replace Stack Height Sensor 2 (REP 25.32).
14	<p>Test the Stack Encoder Sensor. Run the Service Diagnostics Stacker Encoder Sensor test. Does the sensor state change when the Elevator Motor Belt is moved by hand rotating the Encoder Wheel?</p>	Go to Step 20.	Go to Step 15.
15	<p>Check Stacker Encoder Sensor Harness connections. Are P/J8328 and P/J8302B connected?</p>	Go to Step 17.	Connect and go to Step 16.
16	<p>Print a Test Print. Does the error still occur?</p>	Go to Step 17.	Problem solved.
17	<p>Check Stacker Encoder Sensor Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8328 on the harness, and P/J8302B on the Finisher Main PWB.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8328-3 &lt;=&gt; P/J8302B-12</li> <li>P/J8328-2 &lt;=&gt; P/J8302B-13</li> <li>P/J8328-1 &lt;=&gt; P/J8302B-14</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 18.	Repair the Stacker Encoder Sensor Harness.
18	<p>Check for +5 V to Stacker Encoder Sensor. Is the voltage across J8302B-14 &lt;=&gt; J8302B-12 on the Finisher Main PWB?</p>	Go to Step 19.	Replace the Finisher Main PWB (REP 25.95).

**Table 2 Stacker Lower Tray Failure (Stacker Encoder Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
19	Check Stacker Encoder Sensor signal. Does the voltage across P8302B-13 and P8302B-12 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace Stacker Encoder Sensor (REP 25.33).
20	Test the Elevator Motor. Run the Service Diagnostics Stacker Motor Up and Down tests alternately. Does the Elevator Motor operate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 21.
21	Check the Elevator Motor connection. Is P/J8305 connected to the Finisher Main PWB?	Go to Step 22.	Connect and go to Step 22.
22	Print a Test Print. Does the error still occur?	Go to Step 23.	Problem solved.
23	Replace the Elevator Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Stacker Lower Tray Failure - H5-2n Front Home Sensor

For H5-21, the Front Tamper Home Sensor is not turned On within 800 ms following the Front Tamper beginning to move to the Front Tamper Home position. For H5-23, the Front Tamper Home Sensor is not turned Off in the time specified following the Front Tamper leaving the home position, or the Front Tamper Home Sensor is turned On again after the Front Tamper Home Sensor is turned Off and the Front Tamper stops moving.

### Applicable Error Codes

- Stacker Lower Tray Failure - H5-21 Front Home SNR ON
- Stacker Lower Tray Failure - H5-23 Front Home SNR OFF

### Troubleshooting Reference

**Table 1 Tamper (Front Tamper Home Sensor) Troubleshooting Reference**

Applicable Parts	References
Front Tamper Home Sensor	Section 7, Finisher Compiler P/J Locator (Figure 5)
Compiler Tray Assembly	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Compiler Harness	Section 7, Finisher Compiler Tray Wiring (Figure 9)
Finisher Main PWB	PL 25.10 Finisher Eject (2/3)
Front Tamper Motor	PL 25.14 Finisher Electrical

### Troubleshooting Procedure

**Table 2 Tamper (Front Tamper Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Tamper mechanism. Move the Front Tamper mechanism. Does the Tamper mechanism operate smoothly?	Go to Step 2.	Repair or replace the Compiler Tray (REP 25.57).
2	Test the Front Tamper Home Sensor. Run the Service Diagnostics Front Tamper Home Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 8.	Go to Step 3.
3	Check the Compiler harness connections. Are P/J8360 and P/J8309 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Tamper (Front Tamper Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	<p>Check Compiler Front Tamper Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8360 on the harness and P/J8309 on the Finisher Main PWB.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8360-3 &lt;=&gt; P/J8309-4</li> <li>P/J8360-2 &lt;=&gt; P/J8309-5</li> <li>P/J8360-1 &lt;=&gt; P/J8309-6</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 6.	Repair the Compiler Front Tamper Harness.
6	<p>Check for +5 V to the Front Tamper Home Sensor.</p> <p>Is there +5 V across J8309-6 &lt;=&gt; J8309-4 on the Finisher Main PWB?</p>	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	<p>Check Front Tamper Home Sensor signal.</p> <p>Does the voltage across P8309-5 &lt;=&gt; P8309-4 on the Finisher Main PWB change when the sensor is blocked?</p>	Replace the Finisher Main PWB (REP 25.95).	Replace the Front Tamper Home Sensor (REP 25.58).
8	<p>Test the Front Tamper Motor.</p> <p>Run the Service Diagnostics Front Tamper Motor Low Speed Inboard and Outboard tests alternately.</p> <p>Does the Front Tamper Motor rotate, and the Tamper move front to rear?</p>	Replace the Finisher Main PWB (REP 25.95).	Go to Step 9.
9	<p>Check Compiler Front Tamper Motor Harness connections.</p> <p>Are P/J8363B and P/J8309 connected?</p>	Go to Step 11.	Connect and go to Step 10.
10	<p>Print a Test Print.</p> <p>Does the error still occur?</p>	Go to Step 11.	Problem solved.
11	<p>Check Compiler Front Tamper Motor Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8363B and P/J8309.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8363B-6 &lt;=&gt; P/J8309-10</li> <li>P/J8363B-5 &lt;=&gt; P/J8309-11</li> <li>P/J8363B-4 &lt;=&gt; P/J8309-12</li> <li>P/J8363B-3 &lt;=&gt; P/J8309-13</li> <li>P/J8363B-2 &lt;=&gt; No connection</li> <li>P/J8363B-1 &lt;=&gt; P/J8309-14</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 12.	Repair the Compiler Front Tamper Motor Harness.
12	<p>Check for +24 V to the Front Tamper Motor.</p> <p>Is there +24 V across J8309-11 &lt;=&gt; ground on the Finisher Main PWB?</p>	Go to Step 13.	Replace the Finisher Main PWB (REP 25.95).

Table 2 Tamper (Front Tamper Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
13	<p>Replace the Front Tamper Motor.</p> <p>Print a Test Print.</p> <p>Does the error still occur?</p>	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Stacker Lower Tray Failure - H5-2n Rear Home Sensor

For H-22, the Rear Tamper Home Sensor is not turned On within 800 ms following the Rear Tamper beginning to move to the Rear Tamper Home position. For H5-24, the Rear Tamper Home Sensor is not turned Off in the time specified following the Rear Tamper leaving the home position, or the Rear Tamper Home Sensor is turned On again after the Rear Tamper Home Sensor is turned Off and the Rear Tamper stops moving.

### Applicable Error Codes

- Stacker Lower Tray Failure - H5-22 Rear Home SNR ON
- Stacker Lower Tray Failure - H5-24 Rear Home SNR OFF

### Troubleshooting Reference

Table 1 Tamper (Rear Tamper Home Sensor) Troubleshooting Reference

Applicable Parts	References
Rear Tamper Home Sensor	Section 7, Finisher Compiler P/J Locator (Figure 5)
Compiler Tray Assembly	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Compiler Harness	Section 7, Finisher Compiler Tray Wiring (Figure 9)
Finisher Main PWB	PL 25.10 Finisher Eject (2/3)
Rear Tamper Motor	PL 25.14 Finisher Electrical

### Troubleshooting Procedure

Table 2 Tamper (Rear Tamper Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Tamper mechanism. Move the Rear Tamper mechanism. Does the Tamper mechanism operate smoothly?	Go to Step 2.	Repair or replace the Compiler Tray (REP 25.57).
2	Test the Rear Tamper Home Sensor. Run the Service Diagnostics Rear Tamper Home Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 8.	Go to Step 3.
3	Check the Compiler harness connections. Are P/J8361 and P/J8309 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Tamper (Rear Tamper Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check Compiler Rear Tamper Harness continuity 1. Disconnect P/J8361 on the harness and P/J8309 on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8361-3 &lt;=&gt; P/J8309-7</li> <li>P/J8361-2 &lt;=&gt; P/J8309-8</li> <li>P/J8361-1 &lt;=&gt; P/J8309-9</li> </ul> Are these conductive?	Go to Step 6.	Repair the Compiler Rear Tamper Harness.
6	Check for +5 V to the Rear Tamper Home Sensor. Is there +5 V across J8309-9 <=> J8309-7 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check Rear Tamper Home Sensor signal. Does the voltage across P8309-8 <=> P8309-7 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Rear Tamper Home Sensor (REP 25.58).
8	Test the Rear Tamper Motor. Run the Service Diagnostics Rear Tamper Motor Low Speed Inboard and Outboard tests alternately. Does the Rear Tamper Motor rotate, and the Tamper move front to rear?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 9.
9	Check Compiler Rear Tamper Motor Harness connections. Are P/J8362 and P/J8309 connected?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check Compiler Rear Tamper Motor Harness continuity. 1. Disconnect P/J8362 and P/J8309. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8362B-6 &lt;=&gt; P/J8309-15</li> <li>J8362B-5 &lt;=&gt; P/J8309-16</li> <li>J8362B-4 &lt;=&gt; P/J8309-17</li> <li>J8362B-3 &lt;=&gt; P/J8309-18</li> <li>J8362B-2 &lt;=&gt; Non connection</li> <li>J8362B-1 &lt;=&gt; P/J8309-19</li> </ul> Are these conductive?	Go to Step 12.	Repair the Compiler Harness.
12	Check for +24 V to the Rear Tamper Motor. Is there +24 V across J8309-16 <=> ground on the Finisher Main PWB?	Go to Step 13.	Replace the Finisher Main PWB (REP 25.95).

**Table 2 Tamper (Rear Tamper Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
13	Replace the Front Tamper Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Punch Failure - H5-3n Sensor

The Punch Home Sensor is not turned On (H5-31) or Off (H5-32) within the specified time after Punch Motor activation.

### Applicable Error Codes

- Punch Failure - H5-31 SNR ON
- Punch Failure - H5-32 SNR OFF

### Troubleshooting Reference

**Table 1 Punch Failure (Punch Home Sensor) Troubleshooting Reference**

Applicable Parts	References
• Punch Home Sensor	• Section 7, Finisher Punch P/J Locator (Figure 5)
• Punch Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Punch Sensor Harness	• Section 7, Finisher Punch (2/2) Wiring (Figure 12)
• Finisher Main PWB	• PL 25.7 Finisher Punch
• Punch Motor	• PL 25.14 Finisher Electrical
• Punch Drive Harness	• PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Punch Failure (Punch Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Punch operation. Does the punch move smoothly?	Go to Step 2.	Correct the installation.
2	Test the Punch Home Sensor. Run the Service Diagnostics Punch Home Sensor test. Does the sensor change state when the sensor is blocked?	Go to Step 9.	Go to Step 3.
3	Check Punch Home Sensor harness connections. Are P/J8348 and P/J8333 on the Punch Harness, and P/J8333 and P/J8307 on the Punch Sensor Harness connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Punch Home Sensor Harness continuity. 1. Disconnect P/J8348 and P/J8333. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8348-3 &lt;=&gt; P/J8333-7</li> <li>• P/J8348-2 &lt;=&gt; P/J8333-8</li> <li>• P/J8348-1 &lt;=&gt; P/J8333-9</li> </ul> Are these conductive?	Go to Step 6.	Repair the Punch Home Sensor Harness.

**Table 2 Punch Failure (Punch Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check Punch Home Sensor Harness continuity. 1. Disconnect P/J8333 and P/J8307. 2. Check for continuity at the following: • P/J8333-7 <=> P/J8307-B6 • P/J8333-8 <=> P/J8307-B5 • P/J8333-9 <=> P/J8307-B4 Are these conductive?	Go to Step 7.	Repair the Punch Home Sensor Harness.
7	Check for +5 V to the Punch Home Sensor. Is there +5 V across J8307-B6 <=> J8307-B5 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check the Punch Home Sensor signal. Does the voltage across P8307-B4 <=> P8307-B5 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Punch Home Sensor (REP 25.41).
9	Test the Punch Motor. Run the Service Diagnostics Punch Unit Motor Front and Rear tests. Does the Punch Motor rotate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 10.
10	Check the harness connections. Are P/J8345 and P/J8332 on the Punch Harness, and P/J8332 and P/J8306 on the Punch Drive Harness connected?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Check Punch Motor Harness continuity. 1. Disconnect P/J8345 and P/J8332. 2. Check for continuity at the following: • P/J8345-2 <=> P/J8332-2 • P/J8345-1 <=> P/J8332-1 Are these conductive?	Go to Step 13.	Repair the Punch Harness.
13	Check Punch Motor Drive Harness continuity. 1. Disconnect P/J8332 and P/J8306. 2. Check for continuity at the following: • P/J8332-2 <=> P/J8306-8 • P/J8332-1 <=> P/J8306-7 Are these conductive?	Go to Step 14.	Repair the Punch Motor Drive Harness.
14	Replace the Punch Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Punch Failure - H5-3n Home Sensor

The Punch Unit Move Home Sensor does not change state within the specified time following activation of the Punch Move Motor or the Move Home sensor changes state after the Punch Move Motor has stopped.

### Applicable Error Codes

- Punch Failure - H5-33 Home SNR ON
- Punch Failure - H5-34 Home SNR OFF

### Troubleshooting Reference

**Table 1 Punch Failure (Punch Move Home Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Punch Unit Move Home Sensor</li> <li>Punch Sensor Harness</li> <li>Finisher Main PWB</li> <li>Punch Motor Bracket</li> <li>Punch Drive Harness</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Punch P/J Locator (Figure 5)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Punch (1/2) Wiring (Figure 11)</li> <li>PL 25.7 Finisher Punch</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Punch Failure (Punch Move Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Punch Unit operation. Slide the Punch Unit in and out. Does the Punch Unit move smoothly?	Go to Step 2.	Correct the installation.
2	Test the Punch Unit Move Home Sensor. Run the Service Diagnostics Punch Unit Move Home Sensor test. Does the sensor state when the sensor is blocked?	Go to Step 8.	Go to Step 3.
3	Check Punch Unit Move Home Sensor Harness connection. Are P/J8352 and P/J8307 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Punch Unit Move Home Sensor Harness continuity. 1. Disconnect P/J8352 and P/J8307. 2. Check for continuity at the following: • P/J8352-3 <=> P/J8307-A6 • P/J8352-2 <=> P/J8307-A5 • P/J8352-1 <=> P/J8307-A4 Are these conductive?	Go to Step 6.	Repair the Punch Unit Move Home Sensor Harness.



**Table 2 Punch Failure (Punch Move Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check for +5 V to the Punch Unit Move Home Sensor. Is there +5 V across J8307-A4 <=> J8307-A6 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Punch Home Sensor signal. Does the voltage across P8307-A5 <=> P8307-A6 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Punch Unit Move Home Sensor (REP 25.42).
8	Test the Punch Move Motor. Run the Service Diagnostics Front and Rear Punch Move Motor tests. Does the Punch Move Motor rotate and the Punch frame move?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 9.
9	Check Punch Motor Harness connections. Are P/J8344 and P/J8306 connected?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check Punch Motor Harness continuity. 1. Disconnect P/J8344 and P/J8306. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8344-1 &lt;=&gt; P/J8306-7</li> <li>• P/J8344-2 &lt;=&gt; P/J8306-3</li> <li>• P/J8344-3 &lt;=&gt; P/J8306-6</li> <li>• P/J8344-4 &lt;=&gt; P/J8306-5</li> <li>• P/J8344-5 &lt;=&gt; P/J8306-2</li> <li>• P/J8344-6 &lt;=&gt; P/J8306-1</li> </ul> Are these conductive?	Go to Step 12.	Repair the Punch Motor Harness.
12	Replace the Punch Move Motor. Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Replace the Finisher Main PWB. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	

## Stacker Lower Tray Failure - H5-8n Eject Clamp Sensor

The Eject Clamp Home Sensor does not change state within the time interval specified following the activation of the Eject Clamp.

### Applicable Error Codes

- Stacker Lower Tray Failure - H5-81 Eject Clamp SNR ON
- Stacker Lower Tray Failure - H5-82 Eject Clamp SNR OFF

### Troubleshooting Reference

**Table 1 Eject Clamp Failure (Eject Clamp Home Sensor) Troubleshooting Reference**

Applicable Parts	References
• Eject Clamp Home Sensor	• Section 7, Finisher Input Drive P/J Locator (Figure 4)
• Eject Clamp Sensor Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Finisher Main PWB	• Section 7, Finisher Punch (2/2) Wiring (Figure 12)
• Eject Clamp Motor	• Section 7, Finisher Clutch and Solenoids Wiring (Figure 8)
• Eject Clamp Motor Harness	• PL 25.9 Finisher Eject (1/3)
	• PL 25.14 Finisher Electrical
	• PL 25.15 Finisher Harness

### Troubleshooting Procedure

**Table 2 Eject Clamp Failure (Eject Clamp Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Eject Clamp operation. Rotate the Eject Clamp Motor. Does the Eject Clamp move smoothly?	Go to Step 2.	Correct the installation.
2	Test the Eject Clamp Home Sensor. Run the Service Diagnostics Eject Clamp Home Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 3.
3	Check Eject Clamp Sensor Harness connection. Are P/J8324 and P/J8302B connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Eject Clamp Sensor Harness continuity. 1. Disconnect P/J8324 and P/J8302B. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8324-3 &lt;=&gt; P/J8302B-6</li> <li>• P/J8324-2 &lt;=&gt; P/J8302B-7</li> <li>• P/J8324-1 &lt;=&gt; P/J8302B-8</li> </ul> Are these conductive?	Go to Step 6.	Repair the Eject Clamp Sensor Harness.

**Table 2 Eject Clamp Failure (Eject Clamp Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check for +5 V to the Eject Clamp Home Sensor. Is there +5 V across J8302B-8 <=> J8302B-6 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Eject Clamp Home Sensor signal. Does the voltage across P8302B-7 <=> P8302B-6 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Eject Clamp Home Sensor (REP 25.55).
8	Test the Eject Clamp Motor. Run the Service Diagnostics Up and Down Eject Clamp Motor tests. Does the Eject Clamp Motor rotate normally?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 9.
9	Check Eject Clamp Motor Harness connections. Are P/J8339 and P/J8304 connected?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check Eject Clamp Motor Harness continuity. 1. Disconnect P/J8339 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8339-1 &lt;=&gt; P/J8304-33</li> <li>• P/J8339-2 &lt;=&gt; P/J8304-31</li> </ul> Are these conductive?	Go to Step 12.	Repair the Eject Clamp Motor Harness.
12	Check Eject Clamp Motor voltage. Is there +24 V across P/J8304-31 and -33 <=> P/J8302A-1?	Go to Step 13.	Replace the Finisher Main PWB (REP 25.95).
13	Replace the Eject Clamp Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Stacker Lower Tray Failure - H5-8n Set Clamp Sensor

The Set Clamp Home Sensor does not change state within the time interval specified following the start or stop of the Set Clamp.

When printing jobs to the Stacker Lower Tray the failure occurs when paper is entering the Compiler Tray and the eject pinch roller assembly completes a clamp cycle. The printer will declare the Stacker Lower Tray Failure and continue to run in a degraded mode sending pages remaining in the paper path to the Stacker Upper Tray then the remainder of the job to the Standard Output Tray.

### Applicable Error Codes

- Stacker Lower Tray Failure - H5-83 Set Clamp SNR ON
- Stacker Lower Tray Failure - H5-84 Set Clamp SNR OFF

## Troubleshooting Reference

Table 1 Eject Clamp (Set Clamp Home Sensor) Troubleshooting Reference

Applicable Parts	References
• Set Clamp Home Sensor	• Section 7, Finisher Compiler P/J Locator (Figure 5)
• Main Sensor Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Finisher Main PWB	• Section 7, Finisher Punch (2/2) Wiring (Figure 12)
• Eject Bracket Assembly	• Section 7, Finisher Clutch and Solenoids Wiring (Figure 8)
• Main Drive Harness	• PL 25.10 Finisher Eject (2/3)
• Set Clamp Clutch	• PL 25.14 Finisher Electrical
	• PL 25.15 Finisher Harness

## Troubleshooting Procedure

**NOTE:** Stackers that are exhibiting intermittent Stacker Lower Tray Failure H5-83 Set Clamp SNR On failures may need to be updated with the latest Finisher/Stacker Main Board. This new board contains Finisher Version 5.01.00; printing a Configuration Page can identify the board version

Table 2 Eject Clamp (Set Clamp Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Eject Clamp operation. Rotate the Eject Clamp Motor. Does the Eject Clamp move smoothly?	Go to Step 2.	Correct the installation.
2	Test the Set Clamp Home Sensor. Run the Service Diagnostics Set Clamp Home Sensor test. Does the sensor change state?	Go to Step 8.	Go to Step 3.
3	Check the Set Clamp Home Sensor Harness connection. Are P/J8325 and P/J8302B connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check the Set Clamp Home Sensor Harness continuity. 1. Disconnect P/J8325 and P/J8302B. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8325-3 &lt;=&gt; P/J8302B-4</li> <li>• P/J8325-2 &lt;=&gt; P/J8302B-9</li> <li>• P/J8325-1 &lt;=&gt; P/J8302B-11</li> </ul> Are these conductive?	Go to Step 6.	Repair the Set Clamp Home Sensor Harness.

Table 2 Eject Clamp (Set Clamp Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check for +5 V to the Set Clamp Home Sensor. Is there +5 V across J8302B-11 <=> J8302B-9 on the Finisher Main PWB for H5-83? Is there +5 V across J8302B-4 <=> J8302B-9 on the Finisher Main PWB for H5-84?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Set Clamp Home Sensor signal. Does the voltage across P8302B-11 <=> P8302B-9 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the Set Clamp Home Sensor (REP 25.63).
8	Test the Eject Motor. Run the Service Diagnostics Low Speed Forward and Reverse Eject Motor tests. Does the Eject Motor rotate normally?	Go to Step 15.	Go to Step 9.
9	Check Eject Motor Harness connections. Are P/J8336 and P/J8304 connected?	Go to Step 11.	Connect and go to Step 10.
10	Print a Test Print. Does the error still occur?	Go to Step 11.	Problem solved.
11	Check Eject Motor Harness continuity. 1. Disconnect P/J8336 and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8336-1 &lt;=&gt; P/J8304-15</li> <li>• P/J8336-2 &lt;=&gt; P/J8304-12</li> <li>• P/J8336-3 &lt;=&gt; P/J8304-17</li> <li>• P/J8336-4 &lt;=&gt; P/J8304-19</li> <li>• P/J8336-5 &lt;=&gt; P/J8304-14</li> <li>• P/J8336-6 &lt;=&gt; P/J8304-21</li> </ul> Are these conductive?	Go to Step 12.	Repair the Eject Motor Harness.
12	Check Eject Motor resistance. Is there resistance across P8336-2/5(COM) and P8336-1/3/4/6?	Go to Step 13.	Replace the Eject Bracket Assembly (REP 25.62).
13	Check for +24 V to the Eject Motor. Is there +24 V across J8304-12 <=> ground, and J8304-14 <=> ground on the Finisher Main PWB?	Go to Step 14.	Replace the Finisher Main PWB (REP 25.95).
14	Replace the Eject Clamp Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
15	Test the Set Clamp Clutch (Clutch Z34). Run the Service Diagnostics Set Clamp Clutch test. Does the Set Clamp Clutch operate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 16.

**Table 2 Eject Clamp (Set Clamp Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
16	Check the Set Clamp Clutch Harness connection. Are P/J8338B and P/J8304 connected?	Go to Step 18.	Connect and go to Step 17.
17	Print a test Print. Does the error still occur?	Go to Step 18.	Problem solved.
18	Check Set Clamp Clutch Harness continuity. 1. Disconnect P/J8338B and P/J8304. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8338B-1 &lt;=&gt; P/J8304-20</li> <li>J8338B-2 &lt;=&gt; P/J8304-22</li> </ul>	Go to Step 19.	Repair the Set Clamp Clutch Harness.
19	Check for +24 V to the Set Clamp Clutch. Is there +24 V across J8304-22 <=> ground on the Finisher Main PWB?	Go to Step 20.	Replace the Finisher Main PWB (REP 25.95). Problem solved.
20	Replace the Set Clamp Clutch. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	

## Stacker Lower Tray Failure - H5-86 Side Regi Sensor OFF

Either or both Side Registration Sensors do not transition within the time interval specified (500 ms) following activation of the Punch Move Motor or the state changes to On after the Punch Move Motor stops.

### Applicable Error Code

- Stacker Lower Tray Failure - H5-86 Side Regi SNR OFF

### Troubleshooting Reference

**Table 1 Punch Failure (Side Registration Sensors) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Punch Move Motor</li> <li>Punch Drive Harness</li> <li>Finisher Main PWB</li> <li>Engine Control Board</li> <li>Side Registration Sensors</li> <li>Punch Sensor Harness</li> <li>Punch Unit Harness</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Punch P/J Locator (Figure 5)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Punch (1/2) Wiring (Figure 11)</li> <li>Section 7, Finisher Punch (2/2) Wiring (Figure 12)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.7 Finisher Punch</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Punch Failure (Side Registration Sensors) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Punch operation. Move the Punch Unit in and out. Does the punch move smoothly?	Go to Step 2.	Correct the installation.
2	Test the Punch Move Motor. Run the Service Diagnostics Front and Rear Punch Move Motor tests. Does the Punch Move Motor rotate and the Punch frame move?	Go to Step 8.	Go to Step 3.
3	Check Punch Move Motor Harness connections. Are P/J8344 and P/J8306 connected?	Go to Step 5.	Connect and go to Step 4.
4	Print a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

Table 2 Punch Failure (Side Registration Sensors) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	<p>Check Punch Move Motor Harness continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8344 and P/J8306.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8344-1 &lt;=&gt; P/J8306-7</li> <li>P/J8344-2 &lt;=&gt; P/J8306-3</li> <li>P/J8344-3 &lt;=&gt; P/J8306-6</li> <li>P/J8344-4 &lt;=&gt; P/J8306-5</li> <li>P/J8344-5 &lt;=&gt; P/J8306-2</li> <li>P/J8344-6 &lt;=&gt; P/J8306-1</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 6.	Repair the Punch Move Motor Harness.
6	<p>Replace the Bracket Assy-Motor, Punch. Print a Test Print.</p> <p>Does the error still occur?</p>	Go to Step 7.	Problem solved.
7	<p>Replace the Finisher Main PWB.</p> <p>Does the error still occur?</p>	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
8	<p>Test the Side Regi Sensor 1 and 2.</p> <p>Run the Service Diagnostics Side Registration Sensor 1 test.</p> <p>Does the state change when each sensor is blocked?</p>	Replace the Finisher Main PWB (REP 25.95).	Go to Step 9.
9	<p>Check the harness connections.</p> <p>Are P/J8307, P/J8333 and P/J8350 (for Side Regi Sensor 1), and P/J8351 (for Side Regi Sensor 2) connected?</p>	Go to Step 12.	Connect and go to Step 10.
10	<p>Print a Test Print.</p> <p>Does the error still occur?</p>	Go to Step 11.	Problem solved.
11	<p>Check Main Punch Sensor continuity</p> <p>Disconnect P/J8307 and P/J8333.</p> <p>Is there continuity on each wire between J8307 &lt;=&gt; J8333?</p>	Go to Step 12.	Repair the Main Punch Sensor Harness.
12	<p>Check Side Regi Sensor continuity.</p> <ol style="list-style-type: none"> <li>Disconnect P/J8333, P/J8350 (Side Regi Sensor 1), and P/J8351 (Side Regi Sensor 2).</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J8333-13 &lt;=&gt; P/J8350-3</li> <li>P8333-14 &lt;=&gt; P/J8350-2</li> <li>P8333-15 &lt;=&gt; P/J8350-1</li> <li>P8333-16 &lt;=&gt; P/J8351-3</li> <li>P8333-17 &lt;=&gt; P/J8351-2</li> <li>P8333-18 &lt;=&gt; P/J8351-1</li> </ul> </li> </ol> <p>Are these conductive?</p>	Go to Step 13.	Repair the Punch Unit Harness.

Table 2 Punch Failure (Side Registration Sensors) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
13	<p>Check for +5 V at Side Regi Sensor 1.</p> <p>Is there +5 V between P/J8307-A10 &lt;=&gt; P/J8307-A12?</p>	Go to Step 15.	Go to Step 17.
14	<p>Check for +5 V at Side Regi Sensor 2.</p> <p>Is there +5 V between P/J8307-A7 &lt;=&gt; P/J8307-A9?</p>	Go to Step 16.	Go to Step 17.
15	<p>Replace the Side Registration Sensor 1.</p> <p>Does P/J8307-A11 change from 0 to 5V when the sensor is blocked?</p>	Complete.	Go to Step 17.
16	<p>Replace the Side Registration Sensor 2.</p> <p>Does P/J8307-A8 change from 0 to 5V when the sensor is blocked.</p>	Complete.	Go to Step 17.
17	<p>Replace the Finisher Main PWB.</p> <p>Does the error still occur?</p>	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Stapler Failure - H5-91 Staple Fail

The Stapler Home Sensor state is not detected within the specified time after a Stapler Move Motor forward operation, or the Stapler Home Sensor is not turned ON within the specified time following a Stapler Move Motor reverse operation.

### Applicable Error Code

- Stapling Failure - H5-91 Staple Fail

### Troubleshooting Reference

Table 1 Stapler Failure (Stapler Home Sensor) Troubleshooting Reference

Applicable Parts	References
Stapler Assembly	Section 7, Finisher Staple P/J Locator (Figure 2)
Staple Home Position Sensor	Section 7, Finisher Main PWB P/J Locator (Figure 7)
Staple Motor	Section 7, Finisher Stapler Wiring (Figure 10)
Stapler Harness	PL 8.1 Print Engine Electrical
Finisher Main PWB	PL 25.8 Finisher Staple PL 25.14 Finisher Electrical

### Troubleshooting Procedure

Table 2 Stapler Failure (Stapler Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the Stapler Assembly. Run the Service Diagnostics Staple Motor Forward and Reverse tests. Does the Stapler Motor rotate normally?	Go to Step 5.	Go to Step 2.
2	Check the Staple Motor Harness connections. Are P/J8357 and P/J8308 connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check the Staple Motor Harness continuity. 1. Disconnect P/J8357 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8357-1 &lt;=&gt; P/J8308-10</li> <li>P/J8357-2 &lt;=&gt; P/J8308-9</li> <li>P/J8357-3 &lt;=&gt; P/J8308-8</li> <li>P/J8357-4 &lt;=&gt; P/J8308-7</li> </ul> Are these conductive?	Go to Step 9.	Repair the Staple Motor Harness.
5	Test the Staple Head Home Sensor. Run the Service Diagnostics Staple Head Home Sensor test. Does the sensor state change when the staple gear is rotated?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 6.

Table 2 Stapler Failure (Stapler Home Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check the Staple Harness connections. Are P/J8356 and P/J8308 connected?	Go to Step 8.	Connect and go to Step 7.
7	Staple a Test Print. Does the error still occur?	Go to Step 8.	Problem solved.
8	Check Staple Harness continuity. 1. Disconnect P/J8356 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8356-1 &lt;=&gt; P/J8308-15</li> <li>P/J8356-2 &lt;=&gt; P/J8308-14</li> <li>P/J8356-3 &lt;=&gt; P/J8308-13</li> <li>P/J8356-4 &lt;=&gt; P/J8308-12</li> <li>P/J8356-5 &lt;=&gt; P/J8308-11</li> </ul> Are these conductive?	Go to Step 9.	Repair the Staple Harness.
9	Replace the Stapler Assembly. Staple a Test Print. Does the error still occur?	Go to Step 10.	Problem solved.
10	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Stapler Failure - H5-9n Move Sensor

The Staple Move Position Sensor does not change state in the specified time interval after the Stapler Head starts moving toward or reaching the staple position. This error also occurs if the Stapler Move Position Sensor is turned OFF again after being ON and the Stapler Head is stopped.

### Applicable Error Codes

- Stapling Failure - H5-95 Move SNR ON
- Stapling Failure - H5-96 Move SNR OFF

### Troubleshooting Reference

**Table 1 Stapler Failure (Staple Move Position Sensor) Troubleshooting Reference**

Applicable Parts	References
• Stapler Lower Carriage	• Section 7, Finisher Staple P/J Locator (Figure 2)
• Move Home Position Sensor	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Stapler Harness	• Section 7, Finisher Stapler Wiring (Figure 10)
• Finisher Main PWB	• PL 25.8 Finisher Staple
	• PL 25.14 Finisher Electrical

### Troubleshooting Procedure

**Table 2 Stapler Failure (Staple Move Position Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check Staple Head motion. Slide the Staple Head across the rails. Does the Staple Head move smoothly?	Go to Step 2.	Remove obstacles or repair motion.
2	Test the Staple Move Motor. Run the Service Diagnostics Staple Move Motor mid speed Front and Rear tests. Does the Staple Head Jog?	Go to Step 7.	Go to Step 3.
3	Check the Staple Move Motor Harness connections. Are P/J8358 and P/J8308 connected?	Go to Step 5.	Connect and go to Step 4.
4	Staple a Test Print. Does the error still occur?	Go to Step 5.	Problem solved.

**Table 2 Stapler Failure (Staple Move Position Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check Staple Move Motor Harness continuity. 1. Disconnect P/J8358 and P/J8308. 2. Check for continuity at the following: • P/J8358-1 <=> P/J8308-3 • P/J8358-2 <=> P/J8308-6 • P/J8358-3 <=> P/J8308-5 • P/J8358-4 <=> P/J8308-1 • P/J8358-5 <=> P/J8308-4 • P/J8358-6 <=> P/J8308-2 Are these conductive?	Go to Step 6.	Repair the Staple Move Motor Harness.
6	Replace the Stapler Lower Carriage. Staple a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.
7	Test the Staple Move Position Sensor. Run the Service Diagnostics Staple Move Position Sensor test. Does the sensor state change?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 8.
8	Check the Staple Move Position Sensor Harness connections. Are P/J8354 and P/J8308 connected?	Go to Step 10.	Connect and go to Step 9.
9	Staple a Test Print. Does the error still occur?	Go to Step 10.	Problem solved.
10	Check Staple Move Position Sensor Harness continuity. 1. Disconnect P/J8354 and P/J8308. 2. Check for continuity at the following: • P/J8354-1 <=> P/J8308-18 • P/J8354-2 <=> P/J8308-17 • P/J8354-3 <=> P/J8308-16 Are these conductive?	Go to Step 11.	Repair the Staple Move Position Sensor Harness.
11	Check for +5 V to the Stapler Move Position Sensor. Is there +5 V across J8308-18 <=> J8308-16 on the Finisher Main PWB?	Go to Step 12.	Replace the Finisher Main PWB (REP 25.95).
12	Check the Stapler Move Home Position Sensor signal. Does the voltage across J8308-17 <=> J8308-16 on the Finisher Main PWB change when the sensor is blocked by moving the Stapler Head.	Replace the Finisher Main PWB (REP 25.95).	Replace the Staple Move Position Sensor (REP 25.48).

## Tray 6 Control Board Failure - H6-4 NVM R/W Error

A read/write error has occurred in the NVRAM located on the Tray 6 PWB.

### Applicable Error Code

- Tray 6 Control Board Failure - H6-4 NVM R/W Error

### Troubleshooting Reference

Table 1 Tray 6 NVRAM Error Troubleshooting Reference

Applicable Parts	References
Tray 6 PWB	<ul style="list-style-type: none"> <li>Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)</li> <li>Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)</li> <li>PL 22.8 Tray 6 Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Tray 6 NVRAM Error Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Cycle printer power. Does the error still occur?	Go to Step 2.	Problem solved.
2	Check the Tray 6 PWB connections. Are the connectors connected to the PWB?	Go to Step 4.	Connect and go to Step 3.
3	Cycle printer power. Does the error still occur?	Go to Step 4.	Problem solved.
4	Disconnect all the connectors connected to the Tray 6 PWB and reconnect them. Cycle printer power. Does the error still occur?	Replace the Tray 6 PWB (REP 22.34).	Problem solved.

## Tray 6 Control Board Failure - H6-7 HFC Comm Failure

A communications error occurred between Tray 6 and the Engine Control Board.

### Applicable Error Code

Table 1 Tray 6 Comm Error Troubleshooting Reference

Applicable Parts	References
Tray 6 PWB	Section 7, Print Engine P/J Engine Control Board (Figure 8)
Engine Control Board	Section 7, 2000-Sheet Tray 6 Drive P/J Locator (Figure 2)
	Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 1)
	PL 8.1 Print Engine Electrical
	PL 22.8 Tray 6 Electrical

### Troubleshooting Procedure

Table 2 Tray 6 Comm Error Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Tray 6 installation. Is Tray 6 installed correctly?	Go to Step 2.	Correct the installation. If problem persists, go to Step 2.
2	Cycle printer power. Does the error still occur?	Go to Step 3.	Problem solved.
3	Check the Tray 6 PWB connections. Are P/J800A, P/J800B, P/J800 and P/J414 connected?	Go to Step 4.	Connect and go to Step 4.
4	Check continuity between the Tray 6 PWB and Engine Control Board. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J800A &lt;=&gt; P/J415</li> <li>P/J800B &lt;=&gt; P/J415</li> <li>P/J800 &lt;=&gt; P/J414</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Disconnect all the connectors connected to the Tray 6 PWB and reconnect them. Cycle printer power. Does the error still occur?	Replace the Tray 6 PWB (REP 22.34).	Replace the Engine Control Board (REP 8.4).



## Tray 4-5 Control Board Failure - NVM

A read/write error has occurred in the NVRAM located on the Tray 4-5 PWB.

### Applicable Error Codes

- Tray 4-5 Control Board Failure - H7-3 NVM Out-of-order
- Tray 4-5 Control Board Failure - H7-4 NVM R/W Error

### Troubleshooting Reference

Table 1 Tray 4-5 NVRAM Error Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Tray 4-5 PWB</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>• Section 7, 1000-Sheet Electrical P/J Locator (Figure 2)</li> <li>• Section 7, 1000-Sheet Drive Wiring (Figure 2)</li> <li>• PL 8.1 Print Engine Electrical</li> <li>• PL 20.6 Tray 4-5 Drive and Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Tray 4-5 NVRAM Error Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Cycle the printer power. Does the error reoccur?	Go to Step 3.	Problem solved.
2	Check the Tray 4-5 PWB connection. Are P/J413 and P/J541 connected?	Go to Step 3.	Connect P/J413 and P/541.
3	Check continuity between the Tray 4-5 PWB and the Engine Control Board. 1. Disconnect P/J413 and P/J541. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J413-A1 &lt;=&gt; P/J541-1</li> <li>• P/J413-A2 &lt;=&gt; P/J541-2</li> <li>• P/J413-A3 &lt;=&gt; P/J541-3</li> <li>• P/J413-A4 &lt;=&gt; P/J541-4</li> <li>• P/J413-A5 &lt;=&gt; P/J541-5</li> <li>• P/J413-A6 &lt;=&gt; P/J541-6</li> <li>• P/J413-B1 &lt;=&gt; P/J541-7</li> <li>• P/J413-B2 &lt;=&gt; P/J541-8</li> <li>• P/J413-B3 &lt;=&gt; P/J541-9</li> <li>• P/J413-B4 &lt;=&gt; P/J541-10</li> <li>• P/J413-B5 &lt;=&gt; P/J541-11</li> <li>• P/J413-B6 &lt;=&gt; P/J541-12</li> </ul> Are these conductive?	Go to Step 4.	Repair the wiring.

Table 2 Tray 4-5 NVRAM Error Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J413-A5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Tray 4-5 Control Board Failure - H7-7 Comm Failure

Communications error between 1000-Sheet Feeder and the Engine Control Board.

### Applicable Error Code

- Tray 4-5 Control Board Failure - H7-7 Comm Failure

### Troubleshooting Reference

Table 1 Tray 4-5 Comm Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Tray 4-5 PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, 1000-Sheet Electrical P/J Locator (Figure 2)</li> <li>Section 7, 1000-Sheet Drive Wiring (Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 20.6 Tray 4-5 Drive and Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Tray 4-5 Comm Failure Troubleshooting Procedure

Step	Action and Questions	Yes	No
1	Check the 1000-Sheet Feeder installation. Disconnect P/J413 from the Printer and reconnect it. Does the 1000-Sheet Feeder operate?	Problem solved.	Go to Step 2.
2	Check the Tray 4-5 PWB connection. Is P/J541 connected?	Go to Step 3.	Connect P/J413.
3	Check continuity between the Tray 4-5 PWB and the Engine Control Board. 1. Disconnect P/J413 and P/J541. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J413-A1 &lt;=&gt; P/J541-1</li> <li>P/J413-A2 &lt;=&gt; P/J541-2</li> <li>P/J413-A3 &lt;=&gt; P/J541-3</li> <li>P/J413-A4 &lt;=&gt; P/J541-4</li> <li>P/J413-A5 &lt;=&gt; P/J541-5</li> <li>P/J413-A6 &lt;=&gt; P/J541-6</li> <li>P/J413-B1 &lt;=&gt; P/J541-7</li> <li>P/J413-B2 &lt;=&gt; P/J541-8</li> <li>P/J413-B3 &lt;=&gt; P/J541-9</li> <li>P/J413-B4 &lt;=&gt; P/J541-10</li> <li>P/J413-B5 &lt;=&gt; P/J541-11</li> <li>P/J413-B6 &lt;=&gt; P/J541-12</li> </ul> Are these conductive?	Go to Step 4.	Repair the wiring.

Table 2 Tray 4-5 Comm Failure Troubleshooting Procedure

Step	Action and Questions	Yes	No
4	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J541-5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Incorrect Tray 4-5 Installed - H7-8 Type Error

The 1000-Sheet Feeder is not recognized as the proper type for the printer.

### Applicable Error Code

- Incorrect Tray 4-5 Installed - H7-8 Type Error

### Troubleshooting Reference

Table 1 Incorrect Tray 4-5 Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Tray 4-5 PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, 1000-Sheet Electrical P/J Locator (Figure 2)</li> <li>Section 7, 1000-Sheet Drive Wiring (Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 20.6 Tray 4-5 Drive and Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Incorrect Tray 4-5 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Tray 4-5 installation. Disconnect the 1000-Sheet Feeder from the Printer and reconnect it. Does the error still occur?	Go to Step 2.	Problem solved.
2	Check the settings of the Dip Switch SW1 on the Tray 4-5 PWB. <ul style="list-style-type: none"> <li>SW1-1 is in the Left position</li> <li>SW1-2 is in the Right position</li> <li>SW1-3 is in the Right position</li> <li>SW1-4 is in the Left position</li> </ul> Are the switches set correctly?	Go to Step 3.	Correct the Switch settings. If problem persists, go to Step 3.
3	Check Tray 4-5 PWB connections. Is P/J541 connected?	Go to Step 4.	Connect P/J541.

Table 2 Incorrect Tray 4-5 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check continuity between the Tray 4-5 PWB and the Engine Control Board. <ol style="list-style-type: none"> <li>Disconnect P/J413 and P/J541.</li> <li>Check for continuity at the following:               <ul style="list-style-type: none"> <li>P/J413-A1 &lt;=&gt; P/J541-1</li> <li>P/J413-A2 &lt;=&gt; P/J541-2</li> <li>P/J413-A3 &lt;=&gt; P/J541-3</li> <li>P/J413-A4 &lt;=&gt; P/J541-4</li> <li>P/J413-A5 &lt;=&gt; P/J541-5</li> <li>P/J413-A6 &lt;=&gt; P/J541-6</li> <li>P/J413-B1 &lt;=&gt; P/J541-7</li> <li>P/J413-B2 &lt;=&gt; P/J541-8</li> <li>P/J413-B3 &lt;=&gt; P/J541-9</li> <li>P/J413-B4 &lt;=&gt; P/J541-10</li> <li>P/J413-B5 &lt;=&gt; P/J541-11</li> <li>P/J413-B6 &lt;=&gt; P/J541-12</li> </ul> </li> </ol> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J541-5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Tray N Failure - H8-1, Tray 2-3 Size Sensor Broken

Paper size detection has failed in Tray 2 or Tray 3.

**NOTE:** In cases where a Tray 2 Missing error occurs with Tray 2 inserted, verify the condition of the switches by first removing Tray 3, then testing the Tray 2 Paper Size Switches.

### Applicable Error Codes

- Tray 2 Failure - H8-1 Tray 2 Size Sensor Broken
- Tray 3 Failure - H8-2 Tray 3 Size Sensor Broken

### Troubleshooting Reference

**Table 1 Tray Failure (Tray 2-3 Paper Size Switch) Troubleshooting Reference**

Applicable Parts	References
• Paper Size Switch	• Section 7, Print Engine P/J Locator Electrical (Figure 7)
• Engine Control Board	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
	• PL 2.1 Tray (1/2) Feeder (1/2)
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

**Table 2 Tray Failure (Tray 2-3 Paper Size Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Paper in the affected tray. Is paper loaded in the tray properly?	Go to Step 2.	Reload the paper.
2	Check the Paper Size Switch for the affected tray. Is the switch installed correctly?	Go to Step 3.	Correct the installation.
3	Test the Paper Size Switch for the affected tray. Run the Service Diagnostics Size Sensor test for the affected tray. Does the sensor state change each time the loaded tray is moved in or out?	Reconnect the connector of the Engine Control Board.	Go to Step 4.
4	Check the Paper Size Switch connection. For Tray 2: Are P/J109 and P/J412 connected? For Tray 3: Are P/J110 and P/J412 connected?	Go to Step 5.	Connect the Paper Size Switch.

**Table 2 Tray Failure (Tray 2-3 Paper Size Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check continuity between the affected Paper Size Switch and the Engine Control Board. <b>For Tray 2:</b> <ol style="list-style-type: none"> <li>1. Disconnect P/J109 and P/J412.</li> <li>2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J109-1 &lt;=&gt; P/J412-4</li> <li>• P/J109-2 &lt;=&gt; P/J412-3</li> <li>• P/J109-3 &lt;=&gt; P/J412-2</li> <li>• P/J109-4 &lt;=&gt; P/J412-1</li> </ul> </li> </ol> <b>For Tray 3:</b> <ol style="list-style-type: none"> <li>1. Disconnect P/J110 and P/J412.</li> <li>2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J110-1 &lt;=&gt; P/J412-9</li> <li>• P/J110-2 &lt;=&gt; P/J412-8</li> <li>• P/J110-3 &lt;=&gt; P/J412-7</li> <li>• P/J110-4 &lt;=&gt; P/J412-6</li> </ul> </li> </ol> Are these conductive?	Go to Step 6.	Repair the wiring.
6	Check for +5 V to the Paper Size Switch. <b>For Tray 2:</b> Is there +5 V across J109-1 (+) <=> ground? <b>For Tray 3:</b> Is there +5 V across J110-1 (+) <=> ground?	Replace the Paper Size Switch for the affected tray (REP 2.1).	Replace the Engine Control Board (REP 8.4).

## Tray N Failure - H8-3, 4-5 Tray Size Sensor Broken

Paper size detection has failed in Tray 4 or Tray 5.

### Applicable Error Codes

- Tray 4 Failure - H8-3 Tray 4 Size Sensor Broken
- Tray 5 Failure - H8-4 Tray 5 Size Sensor Broken

### Troubleshooting Reference

Table 1 Tray Failure (Tray 4-5 Paper Size Switch) Troubleshooting Reference

Applicable Parts	References
Paper Size Switch	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> </ul>
Tray 4-5 PWB	<ul style="list-style-type: none"> <li>Section 7, 1000-Sheet Feeder P/J Locator (Figure 1)</li> </ul>
Engine Control Board	<ul style="list-style-type: none"> <li>Section 7, 1000-Sheet Feeder P/J Electrical (Figure 2)</li> <li>Section 7, 1000-Sheet Tray 4 &amp; 5 Wiring (Figure 3)</li> </ul>
	<ul style="list-style-type: none"> <li>PL 8.1 Print Engine Electrical</li> <li>PL 20.2 Tray (1/2) Feeder (1/2)</li> <li>PL 20.6 Tray 4-5 Drive and Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Tray Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Paper in the affected tray. Is paper loaded in the tray properly?	Go to Step 2.	Reload the paper.
2	Check the Paper Size Switch for the affected tray. Is the switch installed correctly?	Go to Step 3.	Correct the installation.
3	Test the Paper Size Switch for the affected tray. Run the Service Diagnostics Size Sensor test for the affected tray. Does the sensor state change each time an individual switch is activated?	Replace the Engine Control Board (REP 8.4).	Go to Step 4.
4	Check the Paper Size Switch connection. For Tray 4: Are P/J820 and P/J548 connected? For Tray 5: Are P/J824 and P/J548 connected?	Go to Step 6.	Connect the Paper Size Switch.

Table 2 Tray Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check continuity between the affected Paper Size Switch and the Engine Control Board. <b>For Tray 4:</b> 1. Disconnect P/J820 and P/J548. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J820-1 &lt;=&gt; P/J548-14</li> <li>P/J820-2 &lt;=&gt; P/J548-13</li> <li>P/J820-3 &lt;=&gt; P/J548-12</li> <li>P/J820-4 &lt;=&gt; P/J548-11</li> </ul> <b>For Tray 5:</b> 1. Disconnect P/J824 and P/J548. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J824-1 &lt;=&gt; P/J548-7</li> <li>P/J824-2 &lt;=&gt; P/J548-6</li> <li>P/J824-3 &lt;=&gt; P/J548-5</li> <li>P/J824-4 &lt;=&gt; P/J548-4</li> </ul> Are these conductive?	Go to Step 7.	Repair the wiring.
6	Check for +3.3 V to the Paper Size Switch. <b>For Tray 4:</b> Is there +3.3 V across P/J820-1 (+) <=> ground? <b>For Tray 5:</b> Is there +3.3 V across P/J824-1 (+) <=> ground?	Replace the Paper Size Switch for the affected tray.	Replace the Engine Control Board (REP 8.4).
7	Check the Tray 4-5 PWB connection. Are P/J413 and P/J541 connected?	Go to Step 9.	Connect P/J413 and P/541.
8	Check continuity between the Tray 4-5 PWB and the Engine Control Board. 1. Disconnect P/J541 and P/J413. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J541-1 &lt;=&gt; P/J413-A1</li> <li>P/J541-2 &lt;=&gt; P/J413-A2</li> <li>P/J541-3 &lt;=&gt; P/J413-A3</li> <li>P/J541-4 &lt;=&gt; P/J413-A4</li> <li>P/J541-5 &lt;=&gt; P/J413-A5</li> <li>P/J541-6 &lt;=&gt; P/J413-A6</li> <li>P/J541-7 &lt;=&gt; P/J413-B1</li> <li>P/J541-8 &lt;=&gt; P/J413-B2</li> <li>P/J541-9 &lt;=&gt; P/J413-B3</li> <li>P/J541-10 &lt;=&gt; P/J413-B4</li> <li>P/J541-11 &lt;=&gt; P/J413-B5</li> <li>P/J541-12 &lt;=&gt; P/J413-B6</li> </ul> Are these conductive?	Go to Step 10.	Repair the wiring.

**Table 2 Tray Failure (Tray 4-5 Paper Size Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
9	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J413-A5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).
10	Check the Paper Size Switch connection. For Tray 4: Are P/J820 and P/J548 connected? For Tray 5: Are P/J824 and P/J548 connected?	Go to Step 6.	Connect the Paper Size Switch.

## Toner Empty - J1-2 Toner Empty

The Toner Cartridge is empty.

### Applicable Error Code

- Toner Empty - J1-2 Toner Empty

### Troubleshooting Reference

**Table 1 Toner Empty Troubleshooting Reference**

Applicable Parts	References
• Toner Cartridge	• Section 7, Print Engine P/J Drum and Toner (Figure 1)
• Toner Dispense Assembly	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Toner Dispense Motor	• Section 7, Print Engine Xerographics Wiring (Figure 8)
• Toner CRUM PWB	• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)
• Engine Control Board	• PL 5.1 Laser, CRU and Toner Dispense
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

**Table 2 Toner Empty Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check remaining toner. Does the Toner Cartridge contain sufficient toner?	Go to Step 2.	Replace the Toner Cartridge.
2	Check the Toner Cartridge installation. Remove the Toner Cartridge and reinstall. Does it operate properly?	Problem solved.	Go to Step 3.
3	Check the gear of the Toner Dispense Assembly. Does the gear of the Toner Dispense Assembly rotate smoothly?	Go to Step 4.	Restore proper operation.
4	Check the Toner Dispense Assembly for clogging. Is the tube located at the lower part of the Toner Dispense Assembly clogged?	Check the tube.	Go to Step 5.
5	Check the Toner CRUM PWB installation. Is the Toner CRUM PWB installed correctly?	Go to Step 6.	Correct the installation.
6	Check the Toner CRUM PWB connections. Are P127 and P/J419 connected?	Go to Step 7.	Connect P127 and P/J419.

**Table 2 Toner Empty Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check continuity between the Toner CRUM PWB and Engine Control Board. 1. Disconnect P/J27 and P/J419. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P127-6 &lt;=&gt; P/J419-6</li> <li>P127-5 &lt;=&gt; P/J419-7</li> <li>P127-4 &lt;=&gt; P/J419-8</li> <li>P127-3 &lt;=&gt; P/J419-9</li> <li>P127-2 &lt;=&gt; P/J419-10</li> <li>P127-1 &lt;=&gt; Not connected</li> </ul> Are these conductive?	Go to Step 8.	Repair the wiring.
8	Check for +5 V to the Toner CRUM PWB. Is there +5 V across P127-6 (+) <=> ground?	Go to Step 9.	Replace the Engine Control Board (REP 8.4).
9	Test the Toner Dispense Motor. Run the Service Diagnostics Toner Dispense Motor test. Does the motor rotate?	Replace the Engine Control Board (REP 8.4).	Go to Step 10.
10	Check Toner Dispense Motor connections. Are P/J216 and P/J420 connected?	Go to Step 11.	Connect P/J216 and P/J420.
11	Check continuity between the Toner Dispense Motor and Engine Control Board. 1. Disconnect P/J420 and P/J216. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J420-1 &lt;=&gt; P/J216-2</li> <li>P/J420-2 &lt;=&gt; P/J216-1</li> </ul> Are these conductive?	Go to Step 12.	Repair the wiring.
12	Check for +24 V to the Toner Dispense Motor. Is there +24 V across P/J216-1 (+) <=> ground?	Replace the Toner Dispense Motor (REP 5.9).	Replace the Engine Control Board (REP 8.4).

## No Drum Cartridge - J3-1 Drum Not Installed

The Drum Cartridge is not detected by the Drum Cartridge Detect Switch.

### Applicable Error Code

- DRUM not installed - J3-1

### Troubleshooting Reference

**Table 1 Drum Cartridge (Drum Cartridge Detect SW) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Drum Cartridge</li> <li>Drum Cartridge Detect Switch</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Drum Cartridge (Drum Cartridge Detect SW) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, go to Step 2.
2	Test the Drum Cartridge Detect Switch. Run the Service Diagnostics Detect DRUM Cartridge Switch test. Does the switch status change when the Drum Cartridge is moved in and out?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Drum Cartridge Detect Switch connection. Is P/J404 connected?	Go to Step 4.	Connect P/J404.
4	Check Drum Cartridge Detect Switch continuity. Is there continuity between P/J404-1 <=> P/J404-3 when the Drum Cartridge is installed?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Drum Cartridge Detect Switch. Is there +5 V across P/J404-3 (+) <=> ground?	Replace the Drum Cartridge Detect Switch (REP 5.4).	Replace the Engine Control Board (REP 8.4).

## Drum Cartridge Failure - J4-1 ATC Sensor Detect

The ATC Sensor is defective.

### Applicable Error Code

- Drum Cartridge Failure - J4-1 ATC SNR Detect

### Troubleshooting Reference

Table 1 Drum Cartridge Failure (ATC Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Drum Cartridge</li> <li>• Front Harness A</li> <li>• Drum Cartridge Detect Switch</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>• Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>• Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>• PL 5.1 Laser, CRU and Toner Dispense</li> <li>• PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Drum Cartridge Failure (ATC Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Replace the Drum Cartridge. Does the error reoccur?	Go to Step 2.	Problem solved.
2	Test the Front Harness A. Run the Service Diagnostics DRUM Cartridge Detect Switch test. Does the switch status change when the Drum Cartridge is moved in and out?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the DRUM Cartridge Detect Switch connection. Is P/J404 connected?	Go to Step 4.	Connect P/J404.
4	Check DRUM Cartridge Detect Switch continuity. Is there continuity between P/J404-1 <=> P/J404-3 when the Drum Cartridge is installed?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the DRUM Cartridge Detect Switch. Is there +5 V across P/J404-3 (+) <=> ground?	Replace the Drum Cartridge Detect Switch (REP 5.4).	Replace the Engine Control Board (REP 8.4).

## Replace Drum Cartridge - J6-1 Drum End of Life

The Drum Cartridge has reached its end of life count.

### Applicable Error Code

- DRUM end of life - J6-1

### Troubleshooting Reference

Table 1 Drum Cartridge End of Life (CRUM PWB) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Drum Cartridge</li> <li>• Drum Cartridge CRUM PWB</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>• Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>• PL 5.1 Laser, CRU and Toner Dispense</li> <li>• PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Drum Cartridge End of Life (CRUM PWB) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, go to Step 2.
2	Check the Drum Cartridge CRUM PWB installation. Is the Drum Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Drum Cartridge CRUM PWB connection. Are P126 and P/J419 connected?	Go to Step 4.	Connect P/126 and P/J419.
4	Check continuity between the Drum Cartridge CRUM PWB and Engine Control Board. <ol style="list-style-type: none"> <li>Disconnect P/126 and P/J419.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>• P126-6 &lt;=&gt; P/J419-1</li> <li>• P126-5 &lt;=&gt; P/J419-2</li> <li>• P126-4 &lt;=&gt; P/J419-3</li> <li>• P126-3 &lt;=&gt; P/J419-4</li> <li>• P126-2 &lt;=&gt; P/J419-5</li> </ul> </li> </ol> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check +5 V to the Drum Cartridge CRUM PWB. Is there +5 V across P126-6 (+) <=> ground?	Replace the Drum Cartridge CRUM PWB (REP 5.6).	Replace the Engine Control Board (REP 8.4).



## Drum Cartridge Failure - J7-n Comm/NVRAM/Type Error

The Drum Cartridge CRUM failed to communicate with the Engine Control Board.

### Applicable Error Codes

- Drum Cartridge Failure - J7-1 DRUM Comm Error
- Drum Cartridge Failure - J7-2 DRUM NVRAM Error

### Troubleshooting Reference

Table 1 Drum Cartridge Comm Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Drum Cartridge</li> <li>• Drum Cartridge CRUM PWB</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>• Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>• PL 5.1 Laser, CRU and Toner Dispense</li> <li>• PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Drum Cartridge Comm Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, go to Step 2.
2	Check the Drum Cartridge CRUM PWB. Is the Drum Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Drum Cartridge CRUM PWB connection. Are P126 and P/J419 connected?	Go to Step 4.	Connect P/126 and P/J419.
4	Check continuity between the Drum Cartridge CRUM PWB and Engine Control Board. 1. Disconnect P/126 and P/J419. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P126-6 &lt;=&gt; P/J419-1</li> <li>• P126-5 &lt;=&gt; P/J419-2</li> <li>• P126-4 &lt;=&gt; P/J419-3</li> <li>• P126-3 &lt;=&gt; P/J419-4</li> <li>• P126-2 &lt;=&gt; P/J419-5</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check +5 V to Drum Cartridge CRUM PWB. Is there +5 V across P126-6 (+) <=> ground?	Replace the Drum Cartridge CRUM PWB (REP 5.6).	Replace the Engine Control Board (REP 8.4).

## Replace Incorrect Drum Cartridge - J7-3 DRUM Type Mismatch

The Drum Cartridge CRUM PWB indicates a non-Xerox Drum Cartridge is installed.

### Applicable Error Code

- Non-Xerox Drum Cartridge - J7-3 DRUM Type Mismatch

### Troubleshooting Reference

Table 1 Non-Xerox Drum Cartridge (CRUM PWB) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Drum Cartridge</li> <li>• Drum CRUM PWB</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>• Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>• PL 5.1 Laser, CRU and Toner Dispense</li> <li>• PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Non-Xerox Drum Cartridge (CRUM PWB) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, go to Step 2.
2	Check the Drum Cartridge CRUM PWB. Is the Drum Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Drum Cartridge CRUM PWB connection. Are P126 and P/J419 connected?	Go to Step 4.	Connect P/126 and P/J419.
4	Check continuity between the Drum Cartridge CRUM and Engine Control Board. 1. Disconnect P/126 and P/J419. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P126-6 &lt;=&gt; P/J419-1</li> <li>• P126-5 &lt;=&gt; P/J419-2</li> <li>• P126-4 &lt;=&gt; P/J419-3</li> <li>• P126-3 &lt;=&gt; P/J419-4</li> <li>• P126-2 &lt;=&gt; P/J419-5</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check +5 V to the Drum Cartridge CRUM PWB. Is there +5 V across P126-6 (+) <=> ground?	Replace the Drum Cartridge CRUM PWB (REP 5.6).	Replace the Engine Control Board (REP 8.4).

## Toner Cartridge Failure - J8-n Toner Comm/Read/Write

The Toner CRUM PWB failed to communicate with the Engine Control Board.

### Applicable Error Codes

- Toner Cartridge Failure - J8-1 Toner Comm Error - J8-1
- Toner Cartridge Failure - J8-2 Toner Cart. Read/Write Error

### Troubleshooting Reference

Table 1 Toner Cartridge Comm Failure Troubleshooting Reference

Applicable Parts	References
• Toner Cartridge	• Section 7, Print Engine P/J Drum and Toner (Figure 1)
• Toner Cartridge CRUM PWB	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Engine Control Board	• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)
	• PL 5.1 Laser, CRU and Toner Dispense
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Toner Cartridge Comm Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Toner Cartridge installation. Was the Toner Cartridge replaced?	Go to Step 2.	Replace the Toner Cartridge. If the error persists, go to Step 2.
2	Check the Toner Cartridge CRUM PWB. Is the Toner Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Toner Cartridge CRUM PWB connection. Are P127 and P/J419 connected?	Go to Step 4.	Connect P127 and P/J419.
4	Check continuity between the Toner CRUM PWB and Engine Control Board. 1. Disconnect P127 and P/J419. 2. Check for continuity at the following: • P127-6 <=> P/J419-6 • P127-5 <=> P/J419-7 • P127-4 <=> P/J419-8 • P127-3 <=> P/J419-9 • P127-2 <=> P/J419-10 Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check +5 V to the Toner Cartridge CRUM PWB. Is there +5 V across P127-6 (+) <=> ground?	Replace the Toner Cartridge CRUM PWB (REP 5.7).	Replace the Engine Control Board (REP 8.4).

## Replace Incorrect Toner Cartridge - J8-3 Toner Cartridge Type Mismatch

### Applicable Error Codes

- Replace Incorrect Toner Cartridge - J8-3 Toner Cart. type mismatch
- Non-Xerox Toner Cartridge

### Troubleshooting Reference

Table 1 Non-Xerox Toner Cartridge Troubleshooting Reference

Applicable Parts	References
• Toner Cartridge	• Section 7, Print Engine P/J Drum and Toner (Figure 1)
• Toner Cartridge CRUM PWB	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Engine Control Board	• Section 7, Print Engine Drive/CRUM Wiring (Figure 9)
	• PL 5.1 Laser, CRU and Toner Dispense
	• PL 8.1 Print Engine Electrical

### Troubleshooting Procedure

Table 2 Non-Xerox Toner Cartridge Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Toner Cartridge installation. Was a Xerox Toner Cartridge replaced?	Go to Step 2.	Replace with a Xerox Toner Cartridge. If the error persists, go to Step 2.
2	Check the Toner Cartridge CRUM PWB installation. Is the Toner Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Toner Cartridge CRUM PWB connection. Are P127 and P/J419 connected?	Go to Step 4.	Connect P127 and P/J419.
4	Check continuity between the Toner CRUM PWB and Engine Control Board. 1. Disconnect P127 and P/J419. 2. Check for continuity at the following: • P127-6 <=> P/J419-6 • P127-5 <=> P/J419-7 • P127-4 <=> P/J419-8 • P127-3 <=> P/J419-9 • P127-2 <=> P/J419-10 Are these conductive?	Go to Step 5.	Repair the wiring.

**Table 2 Non-Xerox Toner Cartridge Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check +5 V to the Toner Cartridge CRUM PWB. Is there +5 V across P127-6 (+) <=> ground?	Replace the Toner Cartridge CRUM PWB (REP 5.7).	Replace the Engine Control Board (REP 8.4).

## Toner Is Low - Toner Low

The Toner CRUM PWB indicates a Low Toner condition.

### Troubleshooting Reference

**Table 1 Low Toner Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Toner Cartridge</li> <li>Toner Dispense Assembly</li> <li>Toner Dispense Motor</li> <li>Toner CRUM PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Xerographics Wiring (Figure 8)</li> <li>Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Low Toner Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Toner Cartridge installation. Was the Toner Cartridge replaced?	Go to Step 2.	Replace the Toner Cartridge. If the error persists, to go Step 2.
2	Check the Toner Cartridge installation. Remove the Toner Cartridge and reinstall. Does it operate properly?	Problem solved.	Go to Step 3.
3	Check the gear of the Toner Dispense Assembly. Does the gear located on the Toner Dispense Assembly rotate smoothly?	Go to Step 4.	Restore proper operation.
4	Check the Toner Dispense Assembly Tube for clogging. Is the tube located at the lower part of the Toner Dispense Assembly clogged?	Go to Step 5.	Clean the tube.
5	Test the Toner Dispense Motor. Run the Service Diagnostics Toner Dispense Motor test. Does the motor rotate?	Replace the Engine Control Board (REP 8.4).	Go to Step 6.
6	Check Toner Dispense Motor connections. Are P/J216 and P/J420 connected?	Go to Step 7.	Connect P/J216 and P/J420.
7	Check continuity between the Toner Dispense Motor and Engine Control Board. Is there continuity on each wire between P/J216 <=> P/J420?	Go to Step 8.	Repair the wiring.

**Table 2 Low Toner Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Check for +24 V to Toner Dispense Motor. Is there +24 V across P/J420-2 (+) <=> ground?	Replace the Toner Dispense Motor (REP 5.9).	Replace Engine Control Board (REP 8.4).

## Drum Cartridge Near End of Life - DRUM Life Near End

The Drum Cartridge is near its end of life count or the Drum Cartridge CRUM PWB has failed to communicate with the Engine Control Board.

### Troubleshooting Reference

**Table 1 Drum End of Life (Drum CRUM) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Drum Cartridge</li> <li>Drum Cartridge CRUM PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Drive/CRUM Wiring (Figure 9)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Drum End of Life (Drum CRUM) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, to go Step 2.
2	Check the Drum Cartridge CRUM PWB installation. Is the Drum Cartridge CRUM PWB installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Drum Cartridge CRUM PWB connection. Are P126 and P/J419 connected?	Go to Step 4.	Connect P126 and P/J419.
4	Check continuity between the Drum Cartridge CRUM PWB and Engine Control Board. 1. Disconnect P126 and P/J419. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P126-6 &lt;=&gt; P/J419-1</li> <li>P126-5 &lt;=&gt; P/J419-2</li> <li>P126-4 &lt;=&gt; P/J419-3</li> <li>P126-3 &lt;=&gt; P/J419-4</li> <li>P126-2 &lt;=&gt; P/J419-5</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check +5 V to the Drum Cartridge CRUM PWB. Is there +5 V across P126-6 (+) <=> ground?	Replace the Drum Cartridge CRUM PWB (REP 5.6).	Replace the Engine Control Board (REP 8.4).

## Tray Empty - No Paper in Tray 2 or 3

No paper is detected in either Tray 2 or 3.

### Troubleshooting Reference

Table 1 No Paper in Tray 2 or 3 (No Paper Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>No Paper Sensor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Tray 2 &amp; 3 Wiring (Figure 10)</li> <li>PL 2.3 Feeder (2/2)</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 No Paper in Tray 2 or 3 (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check for paper. Is paper loaded in the selected tray?	Go to Step 2.	Load paper.
2	Test the No Paper Sensor. Run the Service Diagnostics No Paper Sensor test for the affected tray. Does the sensor state change when the sensor is blocked?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the No Paper Sensor connection. <b>For Tray 2:</b> Are P/J101 and P/J409 connected? <b>For Tray 3:</b> Are P/J103 and P/J409 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the No Paper Sensor and Engine Control Board. <b>For Tray 2:</b> 1. Disconnect P/J101 and P/J409. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J101-3 &lt;=&gt; P/J409-A10</li> <li>P/J101-2 &lt;=&gt; P/J409-A11</li> <li>P/J101-1 &lt;=&gt; P/J409-A12</li> </ul> <b>For Tray 3:</b> 1. Disconnect P/J103 and P/J409. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J103-3 &lt;=&gt; P/J409-B10</li> <li>P/J103-2 &lt;=&gt; P/J409-B11</li> <li>P/J103-1 &lt;=&gt; P/J409-B12</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.

Table 2 No Paper in Tray 2 or 3 (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check for +5 V to the No Paper Sensor. <b>For Tray 2:</b> Is there +5 V across P/J101-3 (+) <=> ground? <b>For Tray 3:</b> Is there +5 V across P/J103-3 (+) <=> ground?	Replace the No Paper Sensor (REP 2.5).	Replace the Engine Control Board (REP 8.4).

## Tray Empty - No Paper in Tray 4 or 5

No paper is detected in either Tray 4 or 5.

### Troubleshooting Reference

Table 1 No Paper in Tray 4 or 5 (No Paper Sensor) Troubleshooting Reference

Applicable Parts	References
• No Paper Sensor	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Tray 4-5 PWB	• Section 7, 1000-Sheet P/J Tray 4 & 5 Feeders (Figure 1)
• Engine Control Board	• Section 7, 1000-Sheet P/J Tray 4 & 5 Electrical (Figure 2)
	• Section 7, 1000-Sheet Tray 4 Wiring (Figure 3)
	• PL 8.1 Print Engine Electrical
	• PL 20.4 Tray 4-5 Feeders
	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Table 2 No Paper in Tray 4 or 5 (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check for paper. Is paper loaded in the selected tray?	Go to Step 2.	Load paper.
2	Test the No Paper Sensor. Run the Service Diagnostics No Paper Sensor test for the selected tray. Does the sensor state change when the sensor is blocked?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the No Paper Sensor connection. <b>For Tray 4:</b> Are P/J102B, P/J661B and P/J549 connected? <b>For Tray 5:</b> Are P/J102A, P/J661A and P/J549 connected?	Go to Step 4.	Connect the sensor.

Table 2 No Paper in Tray 4 or 5 (No Paper Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check continuity between the No Paper Sensor and Engine Control Board. <b>For Tray 4:</b> 1. Disconnect P/J101 and P/J409. 2. Check for continuity at the following: • P/J102B-3 <=> P/J549-B10 • P/J102B-2 <=> P/J549-B11 • P/J102B-1 <=> P/J549-B12 <b>For Tray 5:</b> 1. Disconnect P/J103 and P/J409. 2. Check for continuity at the following: • P/J102A-3 <=> P/J549-A10 • P/J102A-2 <=> P/J549-A11 • P/J102A-1 <=> P/J549-A12 Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the No Paper Sensor. <b>For Tray 4:</b> Is there +5 V across P/J102B-3 (+) <=> ground? <b>For Tray 5:</b> Is there +5 V across P/J102A-3 (+) <=> ground?	Replace the No Paper Sensor.	Go to Step 6.
6	Check the Tray 4-5 PWB connections. Are P/J413 and P/J541 connected?	Go to Step 7.	Connect P/J413 and P/541.
7	Check continuity between the Tray 4-5 PWB and the Engine Control Board. 1. Disconnect P/J541 and P/J413. 2. Check for continuity at the following: • P/J541-1 <=> P/J413-A1 • P/J541-2 <=> P/J413-A2 • P/J541-3 <=> P/J413-A3 • P/J541-4 <=> P/J413-A4 • P/J541-5 <=> P/J413-A5 • P/J541-6 <=> P/J413-A6 • P/J541-7 <=> P/J413-B1 • P/J541-8 <=> P/J413-B2 • P/J541-9 <=> P/J413-B3 • P/J541-10 <=> P/J413-B4 • P/J541-11 <=> P/J413-B5 • P/J541-12 <=> P/J413-B6 Are these conductive?	Go to Step 8.	Repair the wiring.

**Table 2 No Paper in Tray 4 or 5 (No Paper Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J541-5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Tray Empty - No Paper in Tray 6

The Tray 6 No Paper Sensor indicates that the tray is empty.

### Troubleshooting Reference

**Table 1 No Paper in Tray 6 (No Paper Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>No Paper Sensor</li> <li>Tray 6 PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)</li> <li>Section 7, 2000-Sheet Tray 6 Drive Wiring (Figure 4)</li> <li>PL 22.5 Tray 6 Feeder (2/3)</li> <li>PL 22.8 Tray 6 Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 No Paper in Tray 6 (No Paper Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check Tray 6 harness connections. Are P/JF60, JF56A, PF56A, and P/JF02 connected?	Go to Step 2.	Connect and if error persists, go to Step 2.
2	Test the No Paper Sensor. 1. Open Door J. 2. Run the Service Diagnostics No Paper Sensor test for the selected tray. Does the sensor state change when the actuator moves and blocks the sensor?	Replace the Tray 6 PWB (REP 22.34).	Go to Step 3.
3	Check the Tray 6 No Paper Sensor harness continuity. Is there continuity between P/JF60, JF56A, PF56A, and P/JF02?	Go to Step 4.	Repair the wiring.
4	Check for +5 V to the No Paper Sensor. Is there +5 V across P/JF02-9 <=> P/JF02-7?	Go to Step 5.	Replace the Tray 6 PWB (REP 22.34).
5	Check the Tray 6 No Paper Sensor signal. Does the voltage across P/JF02-8 <=> P/JF02-7? change when the sensor is blocked?	Replace the Tray 6 PWB (REP 22.34).	Replace the No Paper Sensor (REP 22.21).

## Paper Size Jam - Paper Size in Tray 2 or 3

Paper size mismatch in either Tray 2 or 3.

**NOTE:** Custom size papers loaded in the tray must match the custom size paper selected at the Control Panel or from the print driver.

### Troubleshooting Reference

Table 1 Paper Size Mismatch in Tray 2 or 3 Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Paper Size Switch</li> <li>Front Side Guide</li> <li>Rear Side Guide</li> <li>End Side Guide</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Tray 2 &amp; 3 Wiring (Figure 10)</li> <li>PL 2.1 Tray (1/2) and Feeder (1/2)</li> <li>PL 2.3 Feeder (2/2)</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Paper Size Mismatch in Tray 2 or 3 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check for paper. Is paper loaded in the selected tray?	Go to Step 2.	Load paper.
2	Check the tray's paper size guides. Are the tray's paper size guides set correctly?	Go to Step 3.	Set the guides properly.
3	Check Paper Size Switch installation. Is the Paper Size Switch installed correctly?	Go to Step 4.	Correct the installation.
4	Test the Paper Size Switch. Run the Service Diagnostics Paper Size Switch test for the affected tray. Does the display change when each individual switch is activated?	Replace the Engine Control Board (REP 8.4).	Go to Step 5.
5	Check the Paper Size Switch connections. <b>For Tray 2:</b> Are P/J109 and P/J412 connected? <b>For Tray 3:</b> Are P/J110 and P/J412 connected?	Go to Step 6.	Connect the switch.

Table 2 Paper Size Mismatch in Tray 2 or 3 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check continuity between the Paper Size Switch and Engine Control Board. <b>For Tray 2:</b> 1. Disconnect P/J109 and P/J412. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J109-1 &lt;=&gt; P/J412-4</li> <li>P/J109-2 &lt;=&gt; P/J412-3</li> <li>P/J109-3 &lt;=&gt; P/J412-2</li> <li>P/J109-4 &lt;=&gt; P/J412-1</li> </ul> <b>For Tray 3:</b> 1. Disconnect P/J110 and P/J412. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J110-1 &lt;=&gt; P/J412-9</li> <li>P/J110-2 &lt;=&gt; P/J412-8</li> <li>P/J110-3 &lt;=&gt; P/J412-7</li> <li>P/J110-4 &lt;=&gt; P/J412-6</li> </ul> Are these conductive?	Go to Step 7.	Repair the wiring.
7	Check for +5 V to the Paper Size Switch. <b>For Tray 2:</b> Is there +5 V across P/J109-1 (+) <=> ground? <b>For Tray 3:</b> Is there +5 V across P/J110-1 (+) <=> ground?	Replace the Paper Size Switch (REP 2.1).	Replace the Engine Control Board (REP 8.4).



## Paper Size Jam - Paper Size in Tray 4 or 5

Paper size mismatch in either Tray 4 or 5.

**NOTE:** Custom size papers loaded in the tray must match the custom size paper selected at the Control Panel or from the print driver.

### Troubleshooting Reference

Table 1 Paper Size Mismatch in Tray 4 or 5 Troubleshooting Reference

Applicable Parts	References
• Paper Size Switch	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Front Side Guide	• Section 7, Print Engine P/J Registration Transport (Figure 5)
• Rear Side Guide	• Section 7, Print Engine Registration Transport Wiring (Figure 7)
• Registration Sensor	• Section 7, 1000-Sheet P/J Tray 4 & 5 Electrical (Figure 2)
• Tray 4-5 PWB	• PL 8.1 Print Engine Electrical
• Engine Control Board	• PL 20.6 Tray 4-5 Drive and Electrical

### Troubleshooting Procedure

Table 2 Paper Size Mismatch in Tray 4 or 5 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper. Is paper loaded in the selected tray?	Go to Step 2.	Load paper.
2	Check the tray's paper size guides. Are the paper size guides set correctly?	Go to Step 3.	Set the guides properly.
3	Check Paper Size Switch installation. Is the Paper Size Switch installed correctly?	Go to Step 4.	Correct the installation.
4	Test the Paper Size Switch. Run the Service Diagnostics Paper Size Switch test for the affected tray. Does the display change when each individual switch is activated?	Go to Step 11.	Go to Step 5.
5	Check the Paper Size Switch connections. <b>For Tray 3:</b> Are P/J820 and P/J548 connected? <b>For Tray 4:</b> Are P/J824 and P/J548 connected?	Go to Step 6.	Connect the switch.

Table 2 Paper Size Mismatch in Tray 4 or 5 Troubleshooting Procedure

Step	Actions and Questions	Yes	No
6	Check continuity between the Paper Size Switch and Tray 4-5 PWB. <b>For Tray 4:</b> 1. Disconnect P/J820 and P/J548. 2. Check for continuity at the following: • P/J820-1 <=> P/J548-14 • P/J820-2 <=> P/J548-13 • P/J820-3 <=> P/J548-12 • P/J820-4 <=> P/J548-11 <b>For Tray 5:</b> 1. Disconnect P/J824 and P/J548. 2. Check for continuity at the following: • P/J824-1 <=> P/J548-7 • P/J824-2 <=> P/J548-6 • P/J824-3 <=> P/J548-5 • P/J824-4 <=> P/J548-4 Are these conductive?	Go to Step 7.	Repair the wiring.
7	Check for +3.3 V to the Paper Size Switch. <b>For Tray 4:</b> Is there +3.3 V across P/J820-1 (+) <=> ground? <b>For Tray 5:</b> Is there +3.3 V across P/J824-1 (+) <=> ground?	Replace the Paper Size Switch (REP 20.7).	Go to Step 8.
8	Check the Tray 4-5 PWB connections. Are P/J413 and P/J541 connected?	Go to Step 9.	Connect P/J413 and P/J541.
9	Check continuity between the Tray 4-5 PWB and Engine Control Board. 1. Disconnect P/J541 and P/J413. 2. Check for continuity at the following: • P/J541-1 <=> P/J413-A1 • P/J541-2 <=> P/J413-A2 • P/J541-3 <=> P/J413-A3 • P/J541-4 <=> P/J413-A4 • P/J541-5 <=> P/J413-A5 • P/J541-6 <=> P/J413-A6 • P/J541-7 <=> P/J413-B1 • P/J541-8 <=> P/J413-B2 • P/J541-9 <=> P/J413-B3 • P/J541-10 <=> P/J413-B4 • P/J541-11 <=> P/J413-B5 • P/J541-12 <=> P/J413-B6	Go to Step 10.	Repair the wiring.

**Table 2 Paper Size Mismatch in Tray 4 or 5 Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
10	Check for +5 V to the Tray 4-5 PWB. Is there +5 V across P/J541-5 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).
11	Check the tray's rollers. Remove the tray. Is the Feed, Retard or Nudger Roller worn or contaminated?	Clean or replace the affected roller.	Go to Step 12.
12	Check paper jam position. Open Door A. Does the paper touch the Registration Sensor?	Remove the paper and go to Step 15.	Go to Step 13.
13	Check the Take Away Roller. Open Door C. Is the Take Away Roller worn or contaminated?	Clean or replace the Take Away Roller.	Go to Step 14.
14	Check the Registration Roller. Open Door A. Is the Registration Roller worn or contaminated?	Clean or replace the rolls.	Go to Step 15.
15	Test the Registration Sensor. 1. Run the Service Diagnostics Registration Sensor test. 2. Open Door A. Does the sensor status change when the actuator is moved?	Go to Step 19.	Go to Step 16.
16	Check the Registration Sensor connection. Are J104 and J403B connected?	Go to Step 17.	Connect J104 and J403.
17	Check continuity between the Registration Sensor and Engine Control Board. Is there continuity on each wire between J104 <=> J403?	Go to Step 18.	Repair the wiring.
18	Check for +5 V to the Registration Sensor. Is there +5 V across J403-B13 (+) <=> ground?	Replace the Registration Sensor (REP 4.11).	Replace the Engine Control Board (REP 8.4).
19	Test the Registration Clutch. Run the Service Diagnostics Registration Clutch test. Does the Registration Clutch operate?	If the jam is intermittent, replace the clutch. If continuous, replace the Engine Control Board (REP 8.4).	Go to Step 20.
20	Check Registration Clutch connections. Are P215 and P/J403 connected?	Go to Step 21.	Connect P215 and P/J403.
21	Check continuity between the Registration Clutch and Engine Control Board. Is there continuity on each wire between P215 <=> P/J403?	Go to Step 22.	Repair the wiring.

**Table 2 Paper Size Mismatch in Tray 4 or 5 Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
22	Check for +24 V to the Registration Clutch. Is there +24 V across P/J403-B9 (+) <=> ground?	Go to Step 23.	Replace the Engine Control Board (REP 8.4).
23	Check the Registration Clutch resistance. Is the resistance across J215-1 and J215-2 approximately 240 ohm?	Replace the Engine Control Board (REP 8.4).	Replace the Registration Clutch (REP 4.10).

## Paper Size Jam - Paper Size in Tray 6

Paper size mismatch in Tray 6.

### Troubleshooting Reference

Table 1 Paper Size Jam in Tray 6 (Paper Size Sensors) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Paper Size Sensors A and B</li> <li>Rear Side Guide</li> <li>Tray 6 PWB</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, 2000-Sheet Tray 6 Feeder P/J Locator (Figure 1)</li> <li>Section 7, 2000-Sheet Tray 6 Sensors Wiring (Figure 3)</li> <li>PL 22.1 Tray 6 Covers</li> <li>PL 22.8 Tray 6 Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Paper Size Jam in Tray 6 (Paper Size Sensors) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the installation of Tray 6 Paper Size Sensors. Remove the Rear and Top Covers. Are the Paper Size Sensors installed correctly?	Go to Step 2.	Correct the installation. If the error persists, go to Step 2.
2	Test the Tray 6 Paper Size Sensors. Run the Service Diagnostics Paper Size Sensor tests for sensors A and B. Does the displayed state change when the sensors are blocked?	Replace the Tray 6 PWB (REP 22.34).	Go to Step 4.
3	Check the Paper Size Switch connections. <b>For Paper Size Sensor A:</b> Are P/JF01 and P/JF52 connected? <b>For Paper Size Sensor B:</b> Are P/JF01 and P/JF53 connected?	Go to Step 4.	Connect the sensor.

Table 2 Paper Size Jam in Tray 6 (Paper Size Sensors) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check continuity between the Paper Size Sensors and the Tray 6 PWB. <b>For Paper Size Sensor A:</b> 1. Disconnect P/JF01 and P/JF52. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/JF01-9 &lt;=&gt; PF52-1</li> <li>P/JF01-8 &lt;=&gt; PF52-2</li> <li>P/JF01-7 &lt;=&gt; PF52-3</li> </ul> <b>For Paper Size Sensor B:</b> 1. Disconnect P/JF01 and P/JF53. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/JF01-12 &lt;=&gt; PF53-1</li> <li>P/JF01-11 &lt;=&gt; PF53-2</li> <li>P/JF01-10 &lt;=&gt; PF53-3</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Paper Size Sensors. <b>For Paper Size Sensor A:</b> Is there +5 V across PF52-1 (+) <=> ground? <b>For Paper Size Sensor B:</b> Is there +5 V across PF53-1 (+) <=> ground?	Replace the Paper Size Sensors (REP 22.11).	Replace the Tray 6 PWB (REP 22.34).

## Drum Cartridge Failure - Drum ATC Value Out of Range

The ATC Sensor in the Drum Cartridge has failed.

### Troubleshooting Reference

Table 1 Drum Cartridge Failure Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Drum Cartridge</li> <li>Front Harness A</li> <li>Drum Cartridge Detect</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Drum and Toner (Figure 1)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>PL 5.1 Laser, CRU and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Drum Cartridge Failure Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Drum Cartridge installation. Was the Drum Cartridge replaced?	Go to Step 2.	Replace the Drum Cartridge. If the error persists, to go Step 2.
2	Test the Front Harness A. Run the Service Diagnostics DRUM Detect Cartridge Switch test. Does the switch status change when the Drum Cartridge is moved in and out?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Drum Cartridge Detect Switch connection. Is P/J404 connected?	Go to Step 4.	Connect P/J404.
4	Check the Drum Cartridge Detect Switch continuity. Is there continuity between P/J404-1 <=> P/J404-3 when the Drum Cartridge is installed?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the Drum Cartridge Detect Switch. Is there +5 V across P/J404-3 (+) <=> ground?	Replace the Drum Cartridge Detect Switch (REP 5.4).	Replace the Engine Control Board (REP 8.4).

## Temp/Humidity Sensor Failure - Value Out of Range

The Temperature Sensor or Humidity Sensor has failed.

### Troubleshooting Reference

Table 1 Temp/Humidity Sensor Failure (Environmental PWB) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Environmental Sensor PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Registration Transport (Figure 5)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Xerographics Wiring (Figure 8)</li> <li>PL 5.1 Laser, CRU, and Toner Dispense</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Temp/Humidity Sensor Failure (Environmental PWB) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the harness connections. Are P/J403 and P/J150 connected?	Go to Step 2.	Connect P/J403 and P/J150. If the error persists, go to Step 2.
2	Check continuity between the sensor and the Engine Control Board. <ol style="list-style-type: none"> <li>Disconnect P/J403 and P/J150.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J403-B15 &lt;=&gt; P/J150-1</li> <li>P/J403-B7 &lt;=&gt; P/J150-2</li> <li>P/J403-B4 &lt;=&gt; P/J150-3</li> <li>P/J403-B6 &lt;=&gt; P/J150-4</li> </ul> </li> </ol> Are these conductive?	Go to Step 3.	Repair the wiring.
3	Check for +5 V to the sensor. Is there +5 V across P/J403-15 <=> and P/J403-4?	Replace the Environmental PWB (REP 5.5). If the error persists, replace the Engine Control Board (REP 8.4).	Replace the Engine Control Board (REP 8.4).

## Face Down Tray Paper Full - Face Down Tray Full

The Full Stack Sensor on Exit 1 or Exit 2 indicates a Stack Full condition for the Standard Output Tray.

### Troubleshooting Reference

Table 1 Standard Output Tray Full (Exit Full Stack Sensor) Troubleshooting Reference

Applicable Parts	References
• Exit PWB	• Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)
• Engine Control Board	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Full Stack Actuator Link	• Section 7, Print Engine Exit 1 Wiring (Figure 14)
• Full Stack Actuator	• Section 7, Exit 2 P/J Locator (Figure 1)
• Full Stack Sensor	• Section 7, Exit 2 Sensor/Fan Wiring (Figure 3)
	• PL 6.2 Exit 1
	• PL 8.1 Print Engine Electrical (1/2)
	• PL 24.2 Exit 2

### Troubleshooting Procedure

Table 2 Standard Output Tray Full (Exit Full Stack Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the actuator installation on the affected Exit. Does the Actuator move normally and pass through the sensing area?	Go to Step 2.	Correct the installation.
2	Test the Stack Full Sensor. Run the Service Diagnostics Output Tray Full test for the appropriate Exit. Does the sensor state change when the actuator is moved and sensor is blocked?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the Stack Full Sensor connections. <b>For Exit 1:</b> Are P/J118, P/J613 and P/J432 connected? <b>For Exit 2:</b> Are P/J113, P/J606B and P/J434 connected?	Go to Step 4.	Connect the sensor.
4	Check continuity between the Stack Full Sensor and the Exit PWB. <b>For Exit 1:</b> Is there continuity on each wire between P/J118 <=> P/J432? <b>For Exit 2:</b> Is there continuity on each wire between P/J113 <=> P/J434?	Go to Step 5.	Repair the wiring.

Table 2 Standard Output Tray Full (Exit Full Stack Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Check for +5 V to the Stack Full Sensor. <b>For Exit 1:</b> Is there +5 V across P/J118-3 (+) <=> ground? <b>For Exit 2:</b> Is there +5 V across P/J113-3 (+) <=> ground?	Replace the Full Stack Sensor.	Go to Step 6.
6	Check the Exit PWB connections. Are P/J421 and P/J431 connected?	Go to Step 7.	Connect P/J421 and P/J431.
7	Check continuity between the Exit PWB and Engine Control Board. 1. Disconnect P/J431 and P/J421. 2. Check for continuity at the following: • P/J431-1 <=> P/J421-8 • P/J431-2 <=> P/J421-7 • P/J431-3 <=> P/J421-6 • P/J431-4 <=> P/J421-5 • P/J431-5 <=> P/J421-4 • P/J431-6 <=> P/J421-3 • P/J431-7 <=> P/J421-2 • P/J431-8 <=> P/J421-1	Go to Step 8.	Repair the wiring.
8	Are these conductive? Check for +5 V to the Exit PWB. Is there +5 V across P/J421-3 (+) <=> ground?	Replace the Exit PWB (REP 8.3).	Replace the Engine Control Board (REP 8.4).

## Stacker Upper Tray Full - Finisher Tray Paper Full

The Full Stack Sensor on the Stacker Upper Tray indicates a Stack Full condition.

### Troubleshooting Reference

Table 1 Upper Tray Full (Upper Tray Full Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Top Sensor Harness</li> <li>Main Sensor Harness</li> <li>Full Stack Sensor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (1/2) Wiring (Figure 5)</li> <li>PL 25.13 Finisher Transport (2/2)</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

Table 2 Upper Tray Full (Upper Tray Full Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the Upper Tray Full Sensor. Run the Service Diagnostics Upper Tray Full Sensor test. Does the sensor state change when the sensor area is covered?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 2.
2	Check the Top Tray Sensor and Main Sensor Harness connections. Are P/J8322, P/J8393 and P/J8302A of the Top Tray Sensor Harness connected?	Go to Step 4.	Connect and go to Step 3.
3	Print a Test Print. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Top Sensor Harness continuity. 1. Disconnect P/J8322 and P/J8393. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8322-3 &lt;=&gt; J8393B-1</li> <li>P/J8322-2 &lt;=&gt; J8393B-2</li> <li>P/J8322-1 &lt;=&gt; J8393B-3</li> </ul> Are these conductive?	Go to Step 5.	Repair the Top Sensor Harness.
5	Check Top Tray Sensor Harness continuity. 1. Disconnect P/J8393 and P/J8302A. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8393A-3 &lt;=&gt; P/J8302A-10</li> <li>J8393A-2 &lt;=&gt; P/J8302A-11</li> <li>J8393A-1 &lt;=&gt; P/J8302A-12</li> </ul> Are these conductive?	Go to Step 6.	Repair the Top Tray Sensor Harness.
6	Check for +5 V to the Top Tray Full Sensor. Is there +5 V across J8302A-12 <=> J8302A-10 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).

Table 2 Upper Tray Full (Upper Tray Full Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check the Top Tray Full Sensor signal. Does the voltage across P8302A-11 <=> P8302A-10 on the Finisher Main PWB change when the sensor is covered?	Replace the Finisher Main PWB (REP 25.95).	Replace the Upper Tray Full Sensor (REP 25.87).

## Stacker Lower Tray Full - Finisher Mix Full Stack

The Stacker Encoder Sensor for the Stacker Lower Tray indicates a Stack Full condition.

**NOTE:** Due to an anomaly in firmware, this error reports as *Stacker Lower Tray Failure while the printer is in Customer Mode*. When examined in *Diagnostic Mode*, this error reports correctly.

### Troubleshooting Reference

**Table 1 Lower Tray Full (Stack Encoder Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Main Sensor Harness</li> <li>Stacker Encoder Sensor</li> <li>Elevator Motor</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (2/2) Wiring (Figure 6)</li> <li>Section 7, Finisher Clutch and Solenoids Wiring (Figure 8)</li> <li>PL 25.6 Finisher Stack</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Lower Tray Full (Stack Encoder Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Stacker Lower Tray for obstructions. Are there any obstacles in the path of the Stacker Lower Tray?	Remove the obstacles.	Go to Step 2.
2	Check the Encoder wheel installation. Does the Encoder rotate and enter the sensing area of the Stacker Encode Sensor?	Go to Step 3.	Correct and go to Step 3.
3	Test the Stacker Encoder Sensor. Run the Service Diagnostics Stacker Encode Sensor test. Does the sensor state change when the Elevator Motor Belt is moved by hand rotating the Encoder Wheel?	Go to Step 9.	Go to Step 4.
4	Check Stacker Encoder Sensor Harness connections. Are P/J8328 and P/J8302B connected?	Go to Step 6.	Connect and go to Step 5
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

**Table 2 Lower Tray Full (Stack Encoder Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check Stacker Encoder Sensor Harness continuity. <ol style="list-style-type: none"> <li>Disconnect the sensor P/J8328, and P/J8302B on the Finisher Main PWB.</li> <li>Check for continuity at the following:               <ul style="list-style-type: none"> <li>P/J8328-3 &lt;=&gt; P/J8302B-12</li> <li>P/J8328-2 &lt;=&gt; P/J8302B-13</li> <li>P/J8328-1 &lt;=&gt; P/J8302B-14</li> </ul>               Are these conductive?             </li> </ol>	Go to Step 7.	Repair the Stacker Encoder Sensor Harness.
7	Check for +5 V to the Stacker Encode Sensor. Is the voltage across J8302B-14 <=> J8302B-12 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check Stacker Encode Sensor signal. Does the voltage across P8302B-13 and P8302B-12 on the Finisher Main PWB change when the sensing area is blocked or opened?	Replace the Finisher Main PWB (REP 25.95).	Replace Stacker Encode Sensor (REP 25.33).
9	Check the Elevator Motor. Run the Service Diagnostics Stacker Motor Up and Down tests alternately. Does the Elevator Motor operate?	Replace the Finisher Main PWB (REP 25.95).	Go to Step 10.
10	Check the Elevator Motor connection. Is P/J8305 connected to the Finisher Main PWB?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Replace the Elevator Motor. Print a Test Print. Does the error still occur?	Replace the Finisher Main PWB (REP 25.95).	Problem solved.

## Stapler is Empty - Staple Pin Warning

The Low Staple Sensor in the Staple Cartridge indicates less than 25 staples remain.

### Troubleshooting Reference

Table 1 Stapler is Empty (Low Staple Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Staple Harness</li> <li>Stapler Assembly</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Staple P/J Locator (Figure 2)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Stapler Wiring (Figure 10)</li> <li>PL 25.8 Finisher Staple</li> <li>PL 25.14 Finisher Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Stapler is Empty (Low Staple Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Test the Low Staple Sensor. Run the Service Diagnostics Staple Head Low Staple Sensor test. Does the sensor state change when the Staple Cartridge is removed or replaced?	Go to Step 9.	Go to Step 2.
2	Check the Staple Cartridge for faulty parts and foreign particles. Are there damaged parts or foreign particles?	Replace faulty parts or clean as needed.	Go to Step 3.
3	Check the Staple Harness connections. Are P/J8356 and P/J8308 connected?	Go to Step 5.	Connect and go to Step 4.
4	Cycle the printer power. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Staple Harness continuity. 1. Disconnect P/J8356 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8356-1 &lt;=&gt; P/J8308-15</li> <li>P/J8356-2 &lt;=&gt; P/J8308-14</li> <li>P/J8356-3 &lt;=&gt; P/J8308-13</li> <li>P/J8356-4 &lt;=&gt; P/J8308-12</li> <li>P/J8356-5 &lt;=&gt; P/J8308-11</li> </ul> Are these conductive?	Go to Step 6.	Repair the Staple Harness.
6	Check for +5 V to the Low Staple Sensor. Is there +5 V across J8308-11 <=> J8308-15 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).

Table 2 Stapler is Empty (Low Staple Sensor) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check the Low Staple Sensor signal. Does the voltage across P8308-14 <=> P8308-15 on the Finisher Main PWB change when the Staple Cartridge is removed or replaced?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Replace the Stapler Assembly. Does the error still occur?	Go to Step 9.	Problem solved.
9	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.



## Staple Cartridge is Low or Missing - Staple Pin Misfeed

The Self Priming Sensor in the Staple Cartridge indicates not ready.

### Troubleshooting Reference

**Table 1 Staple Cartridge Low or Missing (Self-Priming Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Staple Harness</li> <li>Stapler Assembly</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Staple P/J Locator (Figure 2)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Stapler Wiring (Figure 10)</li> <li>PL 25.8 Finisher Staple</li> <li>PL 25.14 Finisher Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Staple Cartridge Low or Missing (Self-Priming Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Self Priming Sensor. Run the Service Diagnostics Staple Head Self Priming Sensor test. Does the sensor state change when the Staple Cartridge is removed or replaced?	Go to Step 11.	Go to Step 2.
2	Check the Staple Cartridge for a staple jam. Is there a staple jam?	After removal, go to Step 3.	Go to Step 4.
3	Cycle the printer power. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check the Staple Cartridge for faulty parts and foreign particles. Are there damaged parts or foreign particles?	Replace faulty parts or clean as needed.	Go to Step 5.
5	Check the Staple Harness connections. Are P/J8356 and P/J8308 connected?	Go to Step 7.	Connect and go to Step 6.
6	Cycle the printer power. Does the error still occur?	Go to Step 7.	Problem solved.
7	Check Staple Harness continuity. 1. Disconnect P/J8356 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>P/J8356-1 &lt;=&gt; P/J8308-15</li> <li>P/J8356-2 &lt;=&gt; P/J8308-14</li> <li>P/J8356-3 &lt;=&gt; P/J8308-13</li> <li>P/J8356-4 &lt;=&gt; P/J8308-12</li> <li>P/J8356-5 &lt;=&gt; P/J8308-11</li> </ul>	Go to Step 8.	Repair the Staple Harness.

**Table 2 Staple Cartridge Low or Missing (Self-Priming Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
8	Check for +5 V to the Self Priming Sensor. Is there +5 V across J8308-11 <=> J8308-15 on the Finisher Main PWB?	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	Check the Self Priming Sensor signal. Does the voltage across P8308-14 <=> P8308-15 on the Finisher Main PWB change when the Staple Cartridge is removed or replaced?	Go to Step 10.	Replace the Finisher Main PWB (REP 25.95).
10	Replace the Stapler Assembly. Does the error still occur?	Go to Step 11.	Problem solved.
11	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Stapler Failure - Staple Failure

The status of the Staple Home Sensor is not determined within the time specified following a Stapler Move Motor forward operation. For Staple Move Motor reverse, the Staple Home Sensor is not turned On in the time specified.

### Troubleshooting Reference

**Table 1 Stapler Failure (Staple Head Home Sensor) Troubleshooting Reference**

Applicable Parts	References
• Finisher Main PWB	• Section 7, Finisher Staple P/J Locator (Figure 2)
• Staple Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Stapler Assembly	• Section 7, Finisher Stapler Wiring (Figure 10)
• Engine Control Board	• PL 25.8 Finisher Staple
	• PL 25.14 Finisher Electrical

### Troubleshooting Procedure

**Table 2 Stapler Failure (Staple Head Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Compiler Tray for obstructions. Are there any obstructions in the Compiler Tray?	Remove the obstacles.	Go to Step 2.
2	Test the Staple Motor in the Staple Head. Run the Service Diagnostics Staple Motor Forward and Reverse tests alternately. Does the Staple Motor operate?	Go to Step 6.	Go to Step 3.
3	Check the Staple Motor Harness connections. Are P/J8357 and P/J8308 connected?	Go to Step 5.	Connect and go to Step 4.
4	Cycle the printer power. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Staple Motor Harness continuity. 1. Disconnect P/J8357 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• J8357-1 &lt;=&gt; J8308-10</li> <li>• J8357-2 &lt;=&gt; J8308-9</li> <li>• J8357-3 &lt;=&gt; J8308-8</li> <li>• J8357-4 &lt;=&gt; J8308-7</li> </ul> Are these conductive?	Go to Step 11.	Repair the Staple Harness.
6	Test the Staple Head Home Sensor. Run the Service Diagnostics Staple Head Home Sensor test. Does the sensor state change when the Staple gear is rotated?	Go to Step 12.	Go to Step 7.

**Table 2 Stapler Failure (Staple Head Home Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check Staple Harness connections. Are P/J8356 and P/J8308 connected?	Go to Step 9.	Connect and go to Step 8.
8	Cycle the printer power. Does the error still occur?	Go to Step 9.	Problem solved.
9	Check Staple Harness continuity 1. Disconnect P/J8356 and P/J8308. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8356-1 &lt;=&gt; P/J8308-15</li> <li>• P/J8356-2 &lt;=&gt; P/J8308-14</li> <li>• P/J8356-3 &lt;=&gt; P/J8308-13</li> <li>• P/J8356-4 &lt;=&gt; P/J8308-12</li> <li>• P/J8356-5 &lt;=&gt; P/J8308-11</li> </ul> Are these conductive?	Go to Step 10.	Repair the Staple Harness.
10	Check for +5 V to the Staple Assembly. Is there +5 V across J8308-11 <=> J8308-15 on the Finisher Main PWB?	Go to Step 11.	Replace the Finisher Main PWB (REP 25.95).
11	Replace the Stapler Assembly. Does the error still occur?	Go to Step 12.	Problem solved.
12	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Staple Set Over Count

The Stacker Lower Tray set count has reached its limit.

### Troubleshooting Reference

Table 1 Staple Set Over Count Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Print Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.14 Finisher Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Staple Set Over Count Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Finisher Main PWB. Are all the connectors connected to the Finisher Main PWB?	Go to Step 3.	Connect and go to Step 2.
2	Cycle the printer power. Does the error still occur?	Go to Step 3.	Problem solved.
3	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Stacker Lower Tray Failure

The Stacker No Paper Sensor does not change state within the time specified following the Stacker Lower Tray beginning to lower.

### Troubleshooting Reference

Table 1 Lower Tray Failure (No Paper Sensor) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Main PWB</li> <li>Sensor Actuator</li> <li>Stacker No Paper Sensor</li> <li>Main Sensor Harness</li> <li>Elevator Motor</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Sensors (2/2) Wiring (Figure 6)</li> <li>Section 7, Finisher Clutch and Solenoids (Figure 8)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.6 Finisher Stack</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

Table 2 Lower Tray Failure (No Paper Sensor) Troubleshooting Procedure

Step	Action s and Questions	Yes	No
1	Check the lower part of the Stacker for obstacles. Are there any obstacles on the lower part of the Stacker Tray?	Remove any obstacles.	Go to Step 2.
2	Check the Actuator installation. Does the Actuator enter the Upper Limit sensor sensing area?	Repair the Actuator.	Go to Step 3.
3	Check the Stacker No Paper Sensor. Run the Service Diagnostics Stacker No Paper Sensor test. Does the sensor state change when the sensor is blocked?	Go to Step 9.	Go to Step 4.
4	Check No Paper Sensor Harness connection. Are P/J8326 and P/J8302B connected?	Go to Step 6.	Connect and go to Step 5.
5	Print a Test Print. Does the error still occur?	Go to Step 6.	Problem solved.

**Table 2 Lower Tray Failure (No Paper Sensor) Troubleshooting Procedure**

Step	Action s and Questions	Yes	No
6	Check No Paper Sensor Harness continuity. 1. Disconnect P/J8326 and P/J8302B on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8326-3 &lt;=&gt; P/J8302B-15</li> <li>• P/J8326-2 &lt;=&gt; P/J8302B-16</li> <li>• P/J8326-1 &lt;=&gt; P/J8302B-17</li> </ul> Are these conductive?	Go to Step 7.	Repair the Main Sensor Harness.
7	Check for +5 V to the Stacker No Paper Sensor. Is there +5 V across P8302B-17 <=> P8302B-15 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check the Stacker No Paper Sensor signal. Does the voltage across P8302B-16 <=> P8302B-15 on the Finisher Main PWB change when the sensor is blocked?	Replace the Finisher Main PWB (REP 25.95).	Replace the sensor (REP 25.34).
9	Test the Elevator Motor. Run the Service Diagnostics Stacker Motor Up and Down tests alternately. Does the Elevator Motor operate?	Go to Step 13.	Go to Step 10.
10	Check the Elevator Motor connection. Is P/J8305 connected to the Finisher Main PWB?	Go to Step 12.	Connect and go to Step 11.
11	Print a Test Print. Does the error still occur?	Go to Step 12.	Problem solved.
12	Replace the Elevator Motor. Print a Test Print. Does the error still occur?	Go to Step 13.	Problem solved.
13	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Punch Waste Box is Missing

The Punch Box Set Sensor indicates the Punch Box is not installed in the Finisher.

### Troubleshooting Reference

**Table 1 Punch Box Missing (Punch Box Set Sensor) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>• Punch Box Set Sensor</li> <li>• Punch Box Sensor Harness</li> <li>• Punch Sensor Harness</li> <li>• Finisher Main PWB</li> <li>• Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>• Section 7, Finisher Punch P/J Locator (Figure 3)</li> <li>• Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>• Section 7, Finisher Punch (1/2) Wiring (Figure 11)</li> <li>• PL 8.1 Print Engine Electrical</li> <li>• PL 25.7 Finisher Punch</li> <li>• PL 25.14 Finisher Electrical</li> <li>• PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Punch Box Missing (Punch Box Set Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Test the Punch Box Set Sensor. 1. Open Door G. 2. Remove the Punch Box. 3. Run the Service Diagnostics Punch Box Set Sensor test. Does the sensor state change when the Punch Box is removed and replaced?	Go to Step 8.	Go to Step 2.
2	Check the harness connections. Are P/J8353 and P/J8355 of the Punch Box Sensor Harness, and P/J8355 and P/J8307 of the Punch Sensor Harness connected?	Go to Step 4.	Connect and go to Step 3.
3	Cycle the printer power. Does the error still occur?	Go to Step 4.	Problem solved.
4	Check Punch Box Sensor Harness continuity. 1. Disconnect P/J8353 and P/J8355. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• J8353-3 &lt;=&gt; P8355-3</li> <li>• J8353-2 &lt;=&gt; P8355-2</li> <li>• J8353-1 &lt;=&gt; P8355-1</li> </ul> Are these conductive?	Go to Step 5.	Repair the wiring.

**Table 2 Punch Box Missing (Punch Box Set Sensor) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check Punch Sensor Harness continuity. 1. Disconnect P/J8355 and P/J8307. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8355-3 &lt;=&gt; J8307-A3</li> <li>J8355-2 &lt;=&gt; J8307-A2</li> <li>J8355-1 &lt;=&gt; J8307-A1</li> </ul> Are these conductive?	Go to Step 6.	Repair the Punch Sensor Harness.
6	Check for +5 V to the Punch Box Set Sensor. Is there +5 V across J8307-A1 <=> J8307-A3 on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Punch Box Set Sensor signal. Does the voltage across P/J8307-A2 <=> P/J8307-A3 on the Finisher Main PWB change when the Punch Box is removed or replaced?	Go to Step 8.	Replace the Punch Box Set Sensor (REP 25.43).
8	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Punch Waste Box is Full

The Punch Box counter has reached its maximum count.

### Troubleshooting Reference

**Table 1 Punch Box Full (Punch Box Counter) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Punch Box Set Sensor</li> <li>Punch Box Sensor Harness</li> <li>Punch Sensor Harness</li> <li>Finisher Main PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher Punch P/J Locator (Figure 3)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Punch (1/2) Wiring (Figure 11)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.7 Finisher Punch</li> <li>PL 25.14 Finisher Electrical</li> <li>PL 25.15 Finisher Harness</li> </ul>

### Troubleshooting Procedure

**Table 2 Punch Box Full (Punch Box Counter) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Reset the Punch Box Full Counter. 1. Open Door G. 2. Remove the Punch Box for a minimum of four seconds, then replace the Punch Box. 3. Close Door G. Does the error still occur?	Go to Step 2.	Problem solved.
2	Test the Punch Box Set Sensor. 1. Open Door G. 2. Remove the Punch Box. 3. Run the Service Diagnostics Punch Box Set Sensor test. Does the sensor state change when the Punch Box is removed and replaced?	Go to Step 8.	Go to Step 3.
3	Check the harness connections. Are P/J8353 and P/J8355 of the Punch Box Sensor Harness, and P/J8355 and P/J8307 of the Punch Sensor Harness connected?	Go to Step 5.	Connect and go to Step 4.
4	Cycle the printer power. Does the error still occur?	Go to Step 5.	Problem solved.

**Table 2 Punch Box Full (Punch Box Counter) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check Punch Box Sensor Harness continuity. 1. Disconnect P/J8353 and P/J8355. 2. Check for continuity at the following: • J8353-3 <=> P8355-3 • J8353-2 <=> P8355-2 • J8353-1 <=> P8355-1 Are these conductive?	Go to Step 6.	Repair the wiring.
6	Check Punch Sensor Harness continuity. 1. Disconnect P/J8355 and P/J8307. 2. Check for continuity at the following: • J8355-3 <=> J8307-A3 • J8355-2 <=> J8307-A2 • J8355-1 <=> J8307-A1 Are these conductive?	Go to Step 7.	Repair the Punch Sensor Harness.
7	Check for +5 V to the Punch Box Set Sensor. Is there +5 V across J8307-A1 <=> J8307-A3 on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check the Punch Box Set Sensor signal. Does the voltage across P/J8307-A2 <=> P/J8307-A3 on the Finisher Main PWB change when the Punch Box is removed or replaced?	Go to Step 9.	Replace the Punch Box Set Sensor (REP 25.43).
9	Replace the Finisher Main PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Printer Front Door is Open - Front Cover is Open

The Printer's Front Door Interlock Switch indicates that the Front Door is open.

### Troubleshooting Reference

**Table 1 Front Door Open (Front Door Interlock) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Front Cover Interlock Switch</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine P/J Locator LVPS (Figure 12)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>PL 1.1 Covers (2/2)</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Front Door Open (Front Door Interlock) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Front Door operation. Does the Front Door open and close normally?	Go to Step 2.	Correct the installation.
2	Test the Front Door Interlock Switch. Run the Service Diagnostics Front Cover Switch test. Does the sensor status change when the Front Door is opened and closed?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the switch connections. Are P/J121 and P/J405 connected?	Go to Step 4.	Connect P/J121 and P/J405.
4	Check continuity between the switch and the Engine Control Board. Is there continuity on each wire between P/J121 and P/J405?	Go to Step 5.	Repair the wiring.
5	Check for +24 V to the switch. Is there +24 V across P/J121-B1 (+) <=> ground?	Replace the Switch.	Replace the Engine Control Board (REP 8.4).

## Slide In Tray 6 Feeder - Tray 6 Undocked

The Tray 6 Docking Switch indicates that Tray 6 is separated from the printer.

### Troubleshooting Reference

**Table 1 Tray 6 Undocked (Docking Interlock Switch) Troubleshooting Reference**

Applicable Parts	References
• Tray 6 PWB	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Tray 6 Main Harness	• Section 7, 2000-Sheet Feeder P/J Locator (Figure 1)
• Tray 6 Docking Switch	• Section 7, 2000-Sheet Feeder Interface Wiring (Figure 2)
• Engine Control Board	• PL 8.1 Print Engine Electrical
	• PL 22.7 Tray 6 Drive and Transportation
	• PL 22.8 Tray 6 Electrical

### Troubleshooting Procedure

**Table 2 Tray 6 Undocked (Docking Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Tray 6 installation. Is Tray 6 installed correctly?	Go to Step 2.	Correct and go to Step 2.
2	Check the Docking Switch condition. Is the Docking Switch damaged?	Replace the Docking Switch (REP 22.33).	Go to Step 3.
3	Test the Docking Switch. 1. Pull Tray 6 away from the printer. 2. Run the Service Diagnostics Tray 6 Interlock Switch test. Does the sensor status change when the switch plunger is repeatedly pushed?	Go to Step 10.	Go to Step 4.
4	Check Tray 6 Docking Switch Harness connections. Are FS003, FS004, and P/JF08 connected?	Go to Step 6.	Connect and go to Step 5.
5	Cycle printer power. Does the error still occur?	Go to Step 6.	Problem solved.
6	Check Tray 6 Docking Switch Harness continuity. 1. Disconnect FS003, FS004 and P/JF08. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• FS003 &lt;=&gt; P/JF08-1</li> <li>• FS004 &lt;=&gt; P/JF08-2</li> </ul> Are these conductive?	Go to Step 7.	Repair the Tray 6 Docking Switch Harness.

**Table 2 Tray 6 Undocked (Docking Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check for +5 V to the Docking Switch. Is there +5 V across P/JF08-2 <=> P/JF04-2 on the Tray 6 PWB?	Go to Step 8.	Replace the Tray 6 PWB (REP 22.34).
8	Check the Docking Switch signal. Does the voltage across P/JF08-1 <=> P/JF04-3 on the Tray 6 PWB change when the switch plunger is pushed?	Go to Step 9.	Replace the Docking Switch (REP 22.33).
9	Replace the Tray 6 PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Close Door A - Door A is Open

The Door A Interlock Switch indicates that Door A is open.

### Troubleshooting Reference

Table 1 Door A Open (Door A Interlock Switch) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Door A Interlock Switch</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Locator Electrical (Figure 7)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine LVPS Wiring (Figure 5)</li> <li>PL 4.2 L/H Upper Assembly</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Door A Open (Door A Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door A operation. Is the Door A actuator broken?	Replace Door A. If the error persists, go to Step 2.	Correct the installation.
2	Test the Door A Interlock Switch. Run the Service Diagnostics Door A Interlock Switch test. Does the sensor states change when Door A is opened and closed?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the switch connections. Are P/J120 and P/J405 connected?	Go to Step 4.	Connect P/J120 and P/J405.
4	Check continuity between the switch and the Engine Control Board. Is there continuity on each wire between P/J120 <=> P/J405?	Go to Step 5.	Repair the wiring.
5	Check for +24 V to the switch. Is there +24 V across P/J120-B1 (+) <=> ground?	Replace the Door A Interlock Switch (REP 4.6).	Replace the Engine Control Board (REP 8.4).

## Close Door B - Door B is Open

The Door B Interlock Switch indicates that Door B is open.

### Troubleshooting Reference

Table 1 Door B Open (Door B Interlock Switch) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Door B Interlock Switch</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Tray 2 &amp; 3 Feeder (Figure 6)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Print Engine Registration Transport Wiring (Figure 7)</li> <li>PL 4.1 L/H Upper Assembly</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Door B Open (Door B Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door B operation. Does Door B open and close normally?	Go to Step 2.	Correct the installation.
2	Test the Door B Interlock Switch. Run the Service Diagnostics Door B Interlock Switch test. Does the sensor status change when Door B is opened and closed?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the switch connections. Are P/J106 and P/J410 connected?	Go to Step 4.	Connect P/J106 and P/J410.
4	Check continuity between the switch and the Engine Control Board. Is there continuity on each wire between P/J106 <=> P/J410?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the switch. Is there +5 V across P/J106-2 (+) <=> ground?	Replace the Switch (REP 4.2).	Replace the Engine Control Board (REP 8.4).



## Close Door C - Door C is Open

The Door C Interlock Switch on the 1000-Sheet Feeder indicates that Door C is open.

### Troubleshooting Reference

Table 1 Door C Open (Door C Interlock Switch) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Door C Interlock Switch</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, 1000-Sheet Feeder P/J Tray 4 &amp; 5 Feeders (Figure 1)</li> <li>Section 7, 1000-Sheet Feeder Drive Wiring (Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 20.5 Transportation</li> </ul>

### Troubleshooting Procedure

Table 2 Door C Open (Door C Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door C operation. Does Door C open and close normally?	Go to Step 2.	Correct the installation.
2	Test the Door C Interlock Switch. Run the Service Diagnostics Door C Interlock Switch test. Does the sensor state change each time the switch is pressed?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the switch connections. Are FS812, FS813, and P/J554 connected?	Go to Step 4.	Connect FS812, FS813 and P/J554.
4	Check continuity between the switch and the Tray 4-5 PWB. Is there continuity on each wire between FS812 <=> P/J554? Is there continuity on each wire between FS813 <=> P/J554?	Go to Step 5.	Repair the wiring.
5	Check for +24 V to the switch. Is there +24 V across FS813 <=> ground?	Replace the switch (REP 20.24).	Go to Step 6.
6	Check the Tray 4-5 PWB connection. Are P/J541 and P/J413 connected?	Go to Step 7.	Connect P/J541 and P/J413.

Table 2 Door C Open (Door C Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check continuity between the Tray 4-5 PWB and the Engine Control Board. <ol style="list-style-type: none"> <li>Disconnect P/J541 and P/J413.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J541-1 &lt;=&gt; P/J413-A1</li> <li>P/J541-2 &lt;=&gt; P/J413-A2</li> <li>P/J541-3 &lt;=&gt; P/J413-A3</li> <li>P/J541-4 &lt;=&gt; P/J413-A4</li> <li>P/J541-5 &lt;=&gt; P/J413-A5</li> <li>P/J541-6 &lt;=&gt; P/J413-A6</li> <li>P/J541-7 &lt;=&gt; P/J413-B1</li> <li>P/J541-8 &lt;=&gt; P/J413-B2</li> <li>P/J541-9 &lt;=&gt; P/J413-B3</li> <li>P/J541-10 &lt;=&gt; P/J413-B4</li> <li>P/J541-11 &lt;=&gt; P/J413-B5</li> <li>P/J541-12 &lt;=&gt; P/J413-B6</li> </ul> </li> </ol> Are these conductive?	Go to Step 8.	Repair the wiring.
8	Check for +24 V to the Tray 4-5 PWB. Is there +24 V across P/J541-7 (+) <=> ground?	Replace the Tray 4-5 PWB (REP 20.25).	Replace the Engine Control Board (REP 8.4).

## Close Door D - Door D is Open

The Door D Interlock Switch in the Duplex Unit indicates that Door D is open.

### Troubleshooting Reference

Table 1 Door D Open (Door D Interlock Switch) Troubleshooting Reference

Applicable Parts	References
• Door D Interlock SW	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Duplex PWB	• Section 7, Duplex Unit P/J Locator (Figure 1)
• Engine Control Board	• Section 7, Duplex Unit Wiring (Figure 1, Figure 2)
	• PL 8.1 Print Engine Electrical
	• PL 23.1 Transportation

### Troubleshooting Procedure

Table 2 Door D Open (Door D Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door D operation. Does Door D open and close normally?	Go to Step 2.	Correct the installation.
2	Test the Door D Interlock Switch. Run the Service Diagnostics Door D Interlock Switch test. Does the sensor state change each time the switch is pressed?	Replace the Engine Control Board (REP 8.4).	Go to Step 3.
3	Check the switch connections. Are J124 and F/J541 connected?	Go to Step 4.	Connect P/J124 and P/J541.
4	Check continuity between the switch and the Duplex PWB. Is there continuity on each wire between J124 <=> P/J541?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the switch. Is there +5 V across J124-2 <=> ground?	Replace the switch (REP 23.4).	Go to Step 6.
6	Check the Duplex PWB connection. Are P/J540 and P/J417 connected?	Go to Step 7.	Connect P/J540 and P/J417.

Table 2 Door D Open (Door D Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check continuity between the Duplex PWB and the Engine Control Board. 1. Disconnect P/J540 and P/J417. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J540-1 &lt;=&gt; P/J417-A1</li> <li>• P/J540-2 &lt;=&gt; P/J417-B1</li> <li>• P/J540-3 &lt;=&gt; P/J417-A2</li> <li>• P/J540-4 &lt;=&gt; P/J417-B2</li> <li>• P/J540-5 &lt;=&gt; P/J417-A3</li> <li>• P/J540-6 &lt;=&gt; P/J417-B3</li> <li>• P/J540-7 &lt;=&gt; P/J417-A4</li> <li>• P/J540-8 &lt;=&gt; P/J417-B4</li> </ul> Are these conductive?	Go to Step 8.	
8	Check for +5 V to the Duplex PWB. Is there +5 V across P/J540-1 (+) <=> ground?	Replace the Duplex PWB (REP 23.7).	Replace the Engine Control Board (REP 8.4).

## Close Door E - Door E is Open

The Door E Interlock Switch in Exit 2 indicates that Door E is open.

### Troubleshooting Reference

Table 1 Door E Open (Door E Interlock Switch) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>Door E Interlock Switch</li> <li>Exit PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Laser and Exit PWB (Figure 2)</li> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Exit 2 P/J Locator (Figure 1)</li> <li>Section 7, Exit 2 Sensor/Fan Wiring (Figure 3)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 24.2 Exit 2 Tray Guide Assembly</li> </ul>

### Troubleshooting Procedure

Table 2 Door E Open (Door E Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door E operation. Does Door E open and close normally?	Go to Step 2.	Correct the installation.
2	Test the Door E Interlock Switch. Run the Service Diagnostics Door E Interlock Switch test. Does the sensor state change each time the switch is pressed?	Reconnect the Engine Control Board connector.	Go to Step 3.
3	Check the switch connections. Are P/J116, P/J606B, and P/J434 connected?	Go to Step 4.	Connect P/J116, P/J606B and P/J434.
4	Check continuity between the switch and the Exit PWB. Is there continuity on each wire between P/J116 and P/J434?	Go to Step 5.	Repair the wiring.
5	Check for +5 V to the switch. Is there +5 V across P/J116-2 (+) <=> ground?	Replace the Door E Interlock switch (REP 24.11).	Replace the Exit PWB (REP 8.3).

## Close Door F - Door F is Open

The Door F Interlock Sensor in the Horizontal Transport indicates Door F is open.

### Troubleshooting Reference

Table 1 Door F (Door F Interlock Switch) Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"> <li>H-X'port Top Cover</li> <li>Door F Interlock Sensor</li> <li>H-X'port Harness</li> <li>H-X'port PWB</li> <li>Finisher Main PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Horizontal Transport P/J Locator (Figure 1)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Horizontal Transport Wiring (Figure 4)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.2 Horizontal Transport (1/2)</li> <li>PL 25.3 Horizontal Transport (2/2)</li> <li>PL 25.14 Finisher Electrical (1/2)</li> </ul>

### Troubleshooting Procedure

Table 2 Door F (Door F Interlock Switch) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check Door F operation. Does Door F open and close normally?	Go to Step 2.	Correct the installation.
2	Check the Door F Interlock Sensor Actuator. Is the actuator damaged?	Replace the Top Cover (REP 25.3).	Go to Step 3.
3	Check the Door F Interlock Sensor installation. Is the sensor installed correctly?	Go to Step 4.	Correct the installation.
4	Test the sensor. Run the Service Diagnostics Door F Interlock Sensor test. Does the sensor state change when Door F opened and closed?	Go to Step 11.	Go to Step 5.
5	Check the Door F Interlock Sensor Harness connections. Are P/J8382 of the harness, and P/J8372 on the H-X'port PWB connected?	Go to Step 7.	Connect and go to Step 6.
6	Cycle printer power. Does the error still occur?	Go to Step 7.	Problem solved.

**Table 2 Door F (Door F Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check H-X'port Interlock Harness continuity. 1. Disconnect P/J8382 on the harness, and P/J8372 on the H-X'port PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>• P/J8382-3 &lt;=&gt; P/J8372-1</li> <li>• P/J8382-2 &lt;=&gt; P/J8372-2</li> <li>• P/J8382-1 &lt;=&gt; P/J8372-3</li> </ul> Are these conductive?	Go to Step 8.	Repair the H-X'port Harness.
8	Check for +5 V to the Door F Interlock sensor. Is there +5 V across P/J8372-3 <=> P/J8372-1 on the H-X'port PWB?	Go to Step 9.	Replace the Finisher Main PWB (REP 25.95).
9	Check the Door F Interlock Sensor signal. Does the voltage across P/J8372-2 <=> P/J8372-1 on the H-X'port PWB change when the sensor is blocked?	Go to Step 10.	Replace the Door F Interlock Sensor (REP 25.11).
10	Replace the Door F Interlock Sensor. Cycle the printer power. Does the error still occur?	Go to Step 11.	Problem solved.
11	Replace the Finisher Main PWB. Cycle the printer power. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Close Door G - Door G is Open

The Door G Interlock Switch behind the Finisher Front Door indicates Door G is open.

### Troubleshooting Reference

**Table 1 Door G Open (Door G Interlock Switch) Troubleshooting Reference**

Applicable Parts	References
• Finisher Front Cover	• Section 7, Print Engine P/J Engine Control Board (Figure 8)
• Door G Interlock Switch	• Section 7, Finisher P/J Locator Door G Interlock (Figure 2)
• Interlock Harness	• Section 7, Finisher Main PWB P/J Locator (Figure 7)
• Eject Cover Sensor	• Section 7, Finisher Power Wiring (Figure 3)
• Finisher Main PWB	• PL 8.1 Print Engine Electrical
• Engine Control Board	• PL 25.5 Finisher Covers (2/2)
	• PL 25.9 Finisher Eject (1/3)
	• PL 25.14 Finisher Electrical (1/2)
	• PL 25.15 Finisher Electrical (2/2)

### Troubleshooting Procedure

**Table 2 Door G Open (Door G Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check Door G operation. Does Door G open and close smoothly?	Go to Step 2.	Correct the installation.
2	Check the Door G Interlock Switch installation. Is the sensor installed correctly?	Go to Step 3.	Correct the installation.
3	Test the Door G Interlock Switch. Run the Service Diagnostics Door G Interlock Switch test. Does the sensor state change when Door G is opened and closed?	Go to Step 9.	Go to Step 4.
4	Check the Door G Interlock Harness connections. Are J8365 on the harness, J8364 on the Eject Cover SW, and J8388 and J8314 on the Finisher Main PWB connected?	Go to Step 6.	Connect and go to Step 5.
5	Cycle printer power. Does the error still occur?	Go to Step 6.	Problem solved.

**Table 2 Door G Open (Door G Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	Check Door G Interlock Harness continuity. 1. Disconnect J8365 on the harness, J8364 on the Eject Cover SW, and J8388 and J8314 on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8365-1A &lt;=&gt; J8388-2</li> <li>J8365-1B &lt;=&gt; J8364-2</li> <li>J8365-2A &lt;=&gt; J8314-3</li> <li>J8365-2B &lt;=&gt; J8314-2</li> <li>J8364-1 &lt;=&gt; J8388-1</li> <li>J8364-3 &lt;=&gt; J8314-1</li> </ul> Are these conductive? Check +5/+24 V to the Door G Interlock Switch. Is there +5 V across J8314-2 <=> ground on the Finisher Main PWB? Is there +24 V across FJ8388-1 <=> ground on the Finisher Main PWB?	Go to Step 7.	Repair the Interlock Harness.
7	Replace the Door G Interlock Switch. Is there +5 V across J8314-2 <=> ground on the Finisher Main PWB? Is there +24 V across FJ8388-1 <=> ground on the Finisher Main PWB?	Go to Step 8.	Replace the Finisher Main PWB (REP 25.95).
8	Check the Door G Interlock Switch signal. Does the voltage across J8314-2 <=> J8314-3 on the Finisher Main PWB change when the switch is pressed?	Replace the Finisher Main PWB (REP 25.95).	Replace the Switch (REP 25.22).
9	Check the Eject Cover Switch. Does the voltage across J8365-1B <=> ground on the Door G Interlock Harness change when the Eject Cover Switch is actuated?	Go to Step 10.	Replace the Door H Interlock Switch (REP 25.56).
10	Check the Door G Interlock signal. Does the voltage across FJ8388-2 <=> Ground on the Finisher Main PWB change when the Eject Cover SW and Door G Interlock Switch are actuated simultaneously?	Go to Step 11.	Replace the Door G Interlock Switch.
11	Replace the Finisher Main PWB. Cycle printer power. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Close Door H - Door H is Open

The Door H (Finisher Eject Cover) Interlock Switch indicates Door H is open.

### Troubleshooting Reference

**Table 1 Door H Open (Door H Interlock Switch) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Finisher Front Cover</li> <li>Door G Interlock Switch</li> <li>Door H Interlock Switch</li> <li>Interlock Harness</li> <li>Finisher Main PWB</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, Finisher P/J Locator Door G Interlock (Figure 2)</li> <li>Section 7, Finisher P/J Locator Input Drive (Figure 4)</li> <li>Section 7, Finisher Main PWB P/J Locator (Figure 7)</li> <li>Section 7, Finisher Power Wiring (Figure 3)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 25.5 Finisher Covers (2/2)</li> <li>PL 25.9 Finisher Eject (1/3)</li> <li>PL 25.14 Finisher Electrical (1/2)</li> <li>PL 25.15 Finisher Electrical (2/2)</li> </ul>

### Troubleshooting Procedure

**Table 2 Door H Open (Door H Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check Door G operation. Does Door G open and close correctly?	Go to Step 2.	Correct the installation.
2	Check the Door H Interlock Sensor installation. Is the sensor installed correctly?	Go to Step 3.	Correct the installation.
3	Check the Door H Interlock Harness connections. Are J8365 on the harness, J8364 on the Eject Cover SW, and J8388 and J8314 on the Finisher Main PWB connected?	Go to Step 5.	Connect and go to Step 5.
4	Cycle printer power. Does the error still occur?	Go to Step 5.	Problem solved.

**Table 2 Door H Open (Door H Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
5	Check Door H Interlock Harness continuity. 1. Disconnect J8365 on the harness, J8364 on the Eject Cover SW, and J8388 and J8314 on the Finisher Main PWB. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>J8365-1A &lt;=&gt; J8388-2</li> <li>J8365-1B &lt;=&gt; J8364-2</li> <li>J8365-2A &lt;=&gt; J8314-3</li> <li>J8365-2B &lt;=&gt; J8314-2</li> <li>J8364-1 &lt;=&gt; J8388-1</li> <li>J8364-3 &lt;=&gt; J8314-1</li> </ul> Are these conductive?	Go to Step 6.	Repair the Interlock Harness.
6	Check +5/+24 V to the Door G switch. Is there +5 V across FJ8314-2 <=> ground on the Finisher Main PWB? Is there +24 V across FJ8314-1 <=> ground on the Finisher Main PWB?	Go to Step 7.	Replace the Finisher Main PWB (REP 25.95).
7	Check the Door G Interlock signal. Does the voltage across J8314-2 <=> J8314-3 on the Finisher Main PWB change when the switch is pressed?	Go to Step 8.	Replace the Door G Interlock Switch (REP 25.22).
8	Check the Door H Interlock Sensor. Does the voltage across J8365-1B <=> ground on the Door H Interlock Harness change when the Eject Cover Switch is actuated?	Go to Step 9.	Replace the Door H Interlock Sensor (REP 25.56).
9	Check the Door G Interlock signal. Does the voltage across J8388-2 <=> ground on the Finisher Main PWB change when the Eject Cover SW and Door G Interlock Switch are actuated simultaneously?	Go to Step 10.	Replace the Door G Interlock Switch (REP 25.22).
10	Replace the Finisher Main PWB. Cycle printer power. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Close Door J - Door J is Open

The Door J Interlock Switch on the 2000-Sheet Feeder indicates that Door J is open.

### Troubleshooting Reference

**Table 1 Door J Open (Door J Interlock Switch) Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Tray 6 PWB</li> <li>Door J Interlock Switch</li> <li>Tray 6 Main Harness</li> <li>Door J</li> <li>Engine Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Print Engine P/J Engine Control Board (Figure 8)</li> <li>Section 7, 2000-Sheet Feeder P/J Locator (Figure 1)</li> <li>Section 7, 2000-Sheet Feeder Interface Wiring (Figure 2)</li> <li>PL 8.1 Print Engine Electrical</li> <li>PL 22.7 Tray 6 Drive and Transportation</li> <li>PL 22.8 Tray 6 Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Door J Open (Door J Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the condition of Door J. Is the Door J Interlock Switch actuator damaged?	Replace Door J.	Go to Step 2.
2	Test the Door J Interlock Switch. Run the Service Diagnostics Door J Interlock Switch test. Does the sensor state change when Door J is opened and closed?	Go to Step 9.	Go to Step 3.
3	Check Door J Interlock Harness connections. Are FS001, FS002, and P/JF05 connected?	Go to Step 5.	Connect and go to Step 4.
4	Cycle the printer power. Does the error still occur?	Go to Step 5.	Problem solved.
5	Check Door J Interlock Harness continuity. 1. Disconnect FS001, FS002 and P/JF05. 2. Check for continuity at the following: <ul style="list-style-type: none"> <li>FS002 &lt;=&gt; P/JF05-2</li> <li>FS001 &lt;=&gt; P/JF05-1</li> </ul> Are these conductive?	Go to Step 6.	Repair the Door J Interlock Harness.
6	Check for +24 V to the Door J Interlock Switch. Is there +24 V across PF05-2 <=> PF04-3 on the Tray 6 PWB?	Go to Step 7.	Replace the Tray 6 PWB (REP 22.34).

**Table 2 Door J Open (Door J Interlock Switch) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
7	Check the Door J Interlock Switch signal. Does the voltage across PF05-1 <=> PF04-3 on the Tray 6 PWB change when Door J is opened and closed?	Go to Step 8.	Replace the Door J Interlock Switch (REP 22.29).
8	Cycle printer power. Does the error still occur?	Go to Step 9.	Problem solved.
9	Replace the Tray 6 PWB. Does the error still occur?	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Replace Maintenance Kit

The Fuser Life Counter has reached its maximum count.

### Troubleshooting Reference

**Table 1 Replace Maintenance Kit Troubleshooting Reference**

Applicable Parts	References
<ul style="list-style-type: none"> <li>Fuser</li> </ul>	<ul style="list-style-type: none"> <li>Section 5, Parts List Routine Maintenance Items</li> <li>PL 6.1 Fuser and Exit 1 Unit</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

**Table 2 Replace Maintenance Kit Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	<p><b>WARNING</b></p> <p>Allow the Fuser to cool.</p> <ol style="list-style-type: none"> <li>Install a new Maintenance Kit.</li> <li>Reset the Fuser Life counter (ADJ 6.2).</li> </ol>	Replace the Engine Control Board (REP 8.4).	Problem solved.

## Invalid or Missing Configuration Card

The printer's Configuration Card is missing or defective.

### Troubleshooting Reference

Table 1 Invalid or Missing Configuration Card Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"><li>Configuration Card</li><li>I/P Board</li></ul>	<ul style="list-style-type: none"><li>Section 5, Parts List Upgrade Kits and Options</li><li>PL 8.1 Print Engine Electrical</li></ul>

### Troubleshooting Procedure

Table 2 Invalid or Missing Configuration Card Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Configuration Card installation. Remove and reinsert the Configuration Card. Does the error still occur? <b>Does the error still occur?</b>	Replace the Configuration Card. If the problem persists, replace the I/P Board (REP 8.5).	Problem solved.

## Duplicate IP Address Detected

Another device on the network is using the IP address assigned to this printer.

### Troubleshooting Reference

Table 1 Duplicate IP Address Detected Troubleshooting Reference

Applicable Parts	References
<ul style="list-style-type: none"><li>I/P Board</li></ul>	<ul style="list-style-type: none"><li>Section 4, Repairs and Adjustments Resetting Connection Setup Values</li><li>PL 8.1 Print Engine Electrical</li></ul>

### Troubleshooting Procedure

Table 2 Duplicate IP Address Detected Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the TCP/IP Address stored in the printer's NVRAM. <b>Is the address correct for the printer?</b>	Advise the customer of the address conflict.	Enter the correct IP address.





# 3 Image Quality

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## Print-Quality Problems Overview

Print-quality defects can be attributed to printer components, consumables, media, internal software, external software applications, and environmental conditions. To successfully troubleshoot print-quality problems, eliminate as many variables as possible. The first step is to generate test prints using information pages embedded in the printer on laser paper from the approved media list. The paper should be from an unopened ream that has been acclimated to room temperature.

If the print-quality defect is still present after printing on approved media from an unopened ream of paper, then media, software applications, and environmental conditions need to be researched.

Print a Configuration Page to determine the temperature and humidity under which the printer has been operating. Compare this to the environmental specifications for the printer found in Environmental Specifications in the Introduction Section. Temperature and humidity extremes can adversely affect the Xerographic and fusing characteristics of the printer.

When analyzing a print-quality defect, first determine if the defect is repeating or random. Continuous defects in the process direction, such as voids and lines, are the most difficult to diagnose. The visible surfaces of all rollers should be inspected for obvious defects.

## Analyzing Test Prints

The Test Print analysis procedures explain each of the areas and the print-quality parameters. Further assistance in evaluating image-quality problems is available in the Troubleshooting Print Quality Page in the Print-Quality Problems section of the Troubleshooting menu. These pages contain detailed explanations of print-quality and image-quality problems along with possible causes and solutions for the problems.

The Print Quality Test Print is used to evaluate that the printed image meets specifications.

**NOTE:** The printer prints the test print using the job defaults established in the Printer Setup menu. Insure that Edge-to-Edge Printing, located under the PCL Setup menu, is set to Off before printing the test print; otherwise, the image will be shifted left.

To print the Print Quality test print:

1. From the Main menu, scroll to **Troubleshooting**, then press the **OK** button.
2. Scroll to **Print Quality Problems**, then press the **OK** button.
3. Scroll to **Test Prints**, then press the **OK** button.

### Print-Quality Defect Definitions

The following table lists the print-quality defect corrective procedures, their definition, and the IQ number where each procedure is presented.

Table 1 Print-Quality Defect Definitions

Defect	Definition	Go To
Deletions (Line, Band, Spots)	There are areas that are missing entirely.	IQ1
Unfused Image	Part or all of the image is infused. Refer to the specification.	IQ2
Resolution	At 600 dpi, the two pixel lines and halftone patches cannot be reproduced clearly on the print.	IQ3
Registration	Displacement of the image, in the process or scan direction, from its intended position on the print.	IQ4
Registration (Side to Side)	Displacement of the image, in the process or scan direction, from side to side.	IQ5
Skips and Smears	<b>Skip</b> - Loss or stretching of the image in bands across the process direction. <b>Smear</b> - The distortion of the image in bands across the process direction that appears to be blurred or compressed.	IQ6
Spots	There are spots of toner on the page.	IQ7, IQ17
Skewed Image	Angular displacement of the image from its intended position on the print. See the specification.	IQ8
Light Prints	The overall image density is too light.	IQ9
Blank Prints	Prints with no visible image.	IQ10
Black Prints	The print is completely covered with toner with no visible image.	IQ11
Process Deletions	There are areas of the image that are extremely light or missing entirely. These areas run vertically along the page in the direction of paper movement.	IQ12

Table 1 Print-Quality Defect Definitions

Defect	Definition	Go To
Scan Deletions	There are areas of the image that are extremely light or missing entirely. These areas run horizontally across the page in the direction of scanning.	IQ13
Process Streaks	Extraneous dark lines/bands in the process direction.	IQ14
Scan Streaks	Extraneous dark lines/bands in the direction of scan.	IQ15
Damaged Prints	Creases, wrinkles, excessive curl, cuts, folds or embossed marks.	IQ16
Spot Deletions	Solid areas are marked with irregular white areas.	IQ17
Repeating Defects	Recurring marks, spots, lines, or voids.	IQ18
Residual Image	The image from a previous print appears on the current print.	IQ19
Background	Uniform toner contamination in non image areas. See Background specification.	IQ20
Uneven Density	The text/line darkness and solid area density image varies across the print.	IQ21

Print Quality Test Print

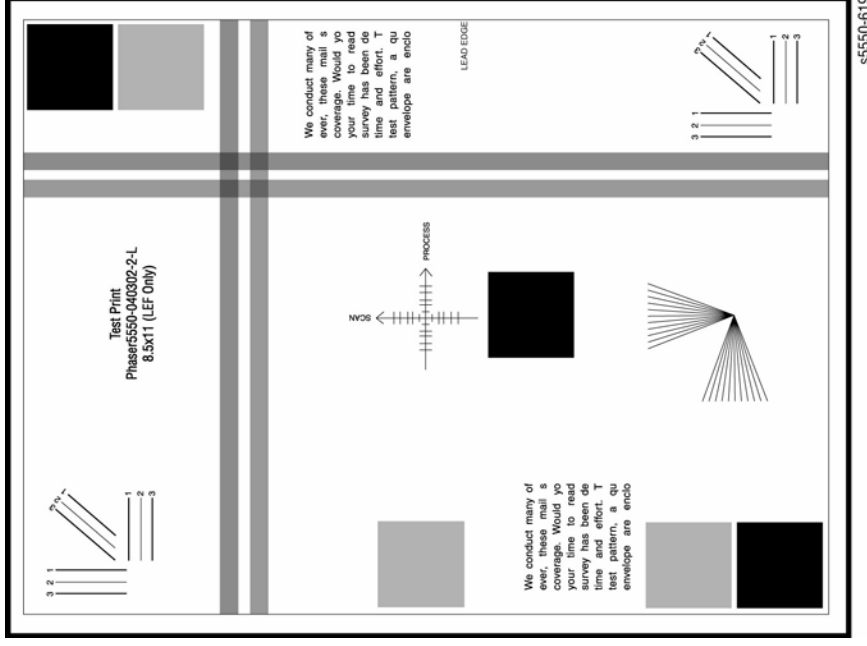


Figure 1 Print-Quality Test Print

Other Print Defects

Table 2 Other Print Defects Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Inspect the Test Patterns for other Print Defects. Are the test prints free of defects?	Return to Analyzing Test Prints.	Go to step 2.
2	Are there dark streaks present on the test prints?	Go to IQ14 or IQ15.	Go to step 3.
3	Is there a residual image (ghost) on the test print?	Go to IQ19.	Go to step 4.
4	Is the paper damaged: wrinkles, creases, tears, etc.?	Go to IQ16.	Problem solved.

## IQ1 Deletions (Line, Band, Spots)

There are areas that are missing entirely.

### Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.
- Check the Transfer Roller for contamination or wear.
- Check that rollers and other paper path components are clean and unobstructed.

### Troubleshooting Reference

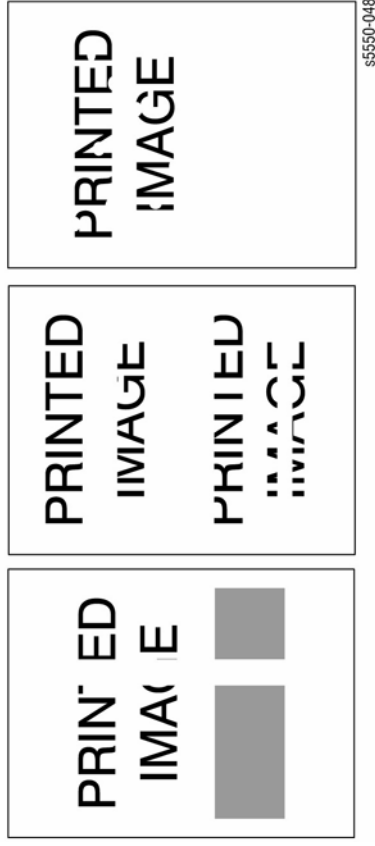


Figure 1 Line, Band, or Spot Deletions Test Print

## Troubleshooting Procedure

Table 1 Line, Band, or Spot Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Inspect the test print for the presence of deletions (missing image). There should be no deletions with a diameter larger than 0.5 mm visible on test prints. Are there deletions on the test prints?	Go to step 2.	Go to IQ2.
2	Are there vertical (in process direction) Line/Band Deletions present?	Go to IQ12.	Go to step 3.
3	Are there Horizontal (in direction of scanning) Line/Band Deletions present?	Go to IQ13.	Go to step 4.
4	Are there Spot Deletion present?	Go to IQ17.	Go to IQ2.

**NOTE:** The specified operating environment for the printer ranges from 41 degrees F (5 degrees C) at 15% relative humidity to 95 degrees F (32 degrees C) at 85% relative humidity. Fusing performance varies according to the environment.

## IQ2 Unfused Image

The printed image is not fully fused to the paper. The image rubs off easily.

- A cold environment affects the warm-up time, while high humidity has an adverse effect on the fusing of prints.
- The paper weight or composition or transparency affects the fusing of prints.

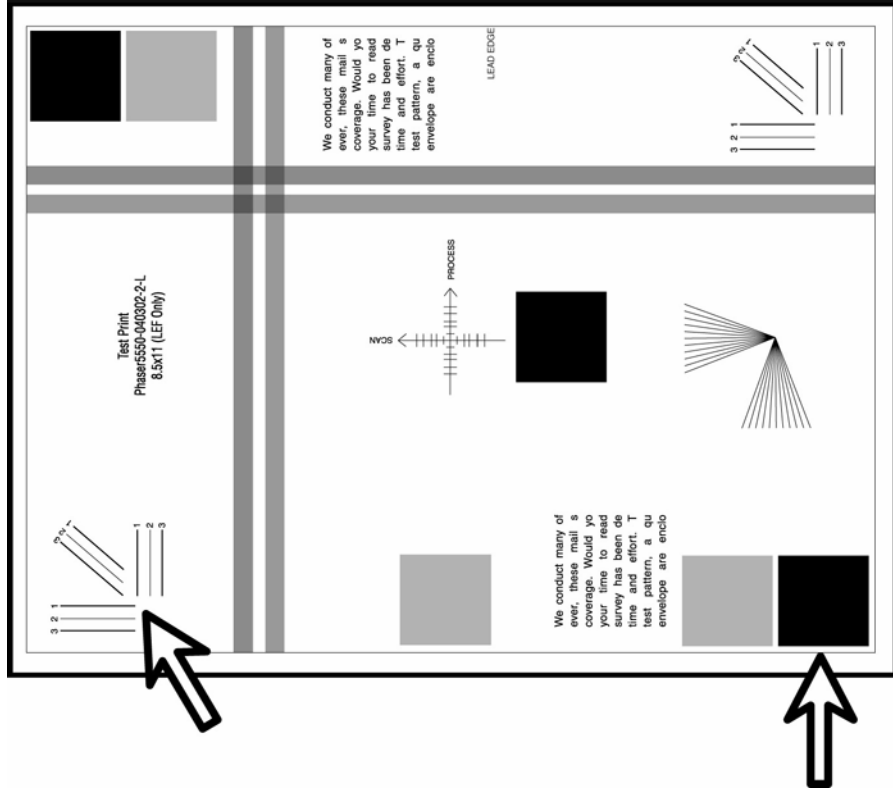


Figure 1 Fusing Test Print

## Initial Actions

- Check to ensure that the printer installation meets environmental specifications. A location that's too cold or too humid reduces fusing performance.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check to ensure that the paper is dry and within specifications.
- Verify that the paper type is set correctly for the Fuser temperature configuration.

## Fuser Temperature

Table 1 Fuser Temperature Defaults

Paper Type	Fuser Temperature Setting
Plain	Medium
Letterhead	Medium
Transparency	Low
Labels	High
Colored Paper	Medium
Card Stock	High
Envelope	High
Special	Medium

## Troubleshooting Reference

Table 2 Unfused Image Troubleshooting Reference

Applicable Parts	Example Print
Fuser, PL 6.1 Item 7	<p>Unfused Image</p> <p>Figure 2 Unfused Image</p>
High-Voltage Power Supply, PL 8.1 Item 1	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

## Troubleshooting Procedure

Table 3 Unfused Image Troubleshooting Procedure

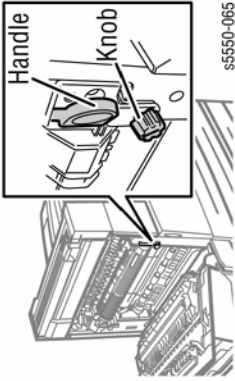
Step	Actions and Questions	Yes	No
1	Rub the image three times at the marked check points with a soft cloth or tissue. The image should not lift off of the surface.	Go to IQ3.	To go IQ2.
2	1. Replace the paper with new, dry paper from an unopened ream. 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 3.
3	1. Check that the thumbscrews on the Fuser Assembly are tight.   <p><b>Figure 3 Checking Thumbscrews</b></p>	Problem solved.	Go to step 4.
4	2. Print a Test Print. Is the Test Print normal?  Check the Heat and Pressure Roller. <b>WARNING</b> Remove the Fuser. Is there contamination or cracks on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 5.
5	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 6.	Go to step 8.
6	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 7.	Go to step 8.

Table 3 Unfused Image Troubleshooting Procedure

Step	Actions and Questions	Yes	No
7	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 8.
8	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).



## IQ3 Resolution

The two pixel lines and halftone patches cannot be reproduced clearly on the test print.

### Initial Actions

Ensure the NVRAM Laser Power adjustment is set to the default, which is 4.

### Troubleshooting Procedure

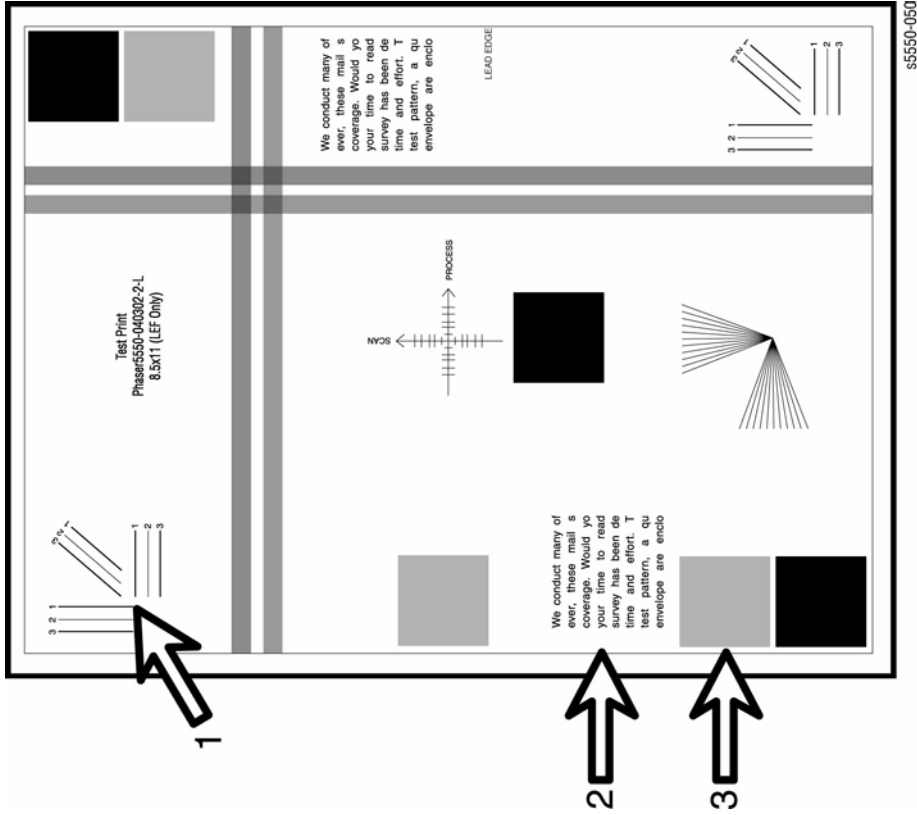


Figure 1 Resolution Test Print

Table 1 Resolution Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Observe the three resolution check points on several test prints. Check the image resolution in each of these areas:</p> <ul style="list-style-type: none"> <li><b>Arrow 1:</b> The two pixel vertical, horizontal, and diagonal lines should be clear and continuous. The diagonal lines might appear to be narrower than the others.</li> <li><b>Arrow 2:</b> The text paragraphs should be roughly equal in density.</li> <li><b>Arrow 3:</b> The half-tone patches adjacent to the solid blocks in the corners should be uniform in appearance.</li> </ul> <p>Are the check points (arrows 1, 2, and 3) within specification?</p>	The printed test patterns meet the Resolution Specification, to go IQ4.	Go to step 2.
2	<ol style="list-style-type: none"> <li>Install a new Drum Cartridge.</li> <li>Print a Test Print.</li> </ol> <p>Is the test print output resolution good?</p>	Problem solved.	Go to step 3.
3	<p>Replace the following, in order until the defective component is found:</p> <ul style="list-style-type: none"> <li>Laser Assembly (REP 5.10)</li> <li>Engine Control Board (REP 8.4)</li> </ul>		

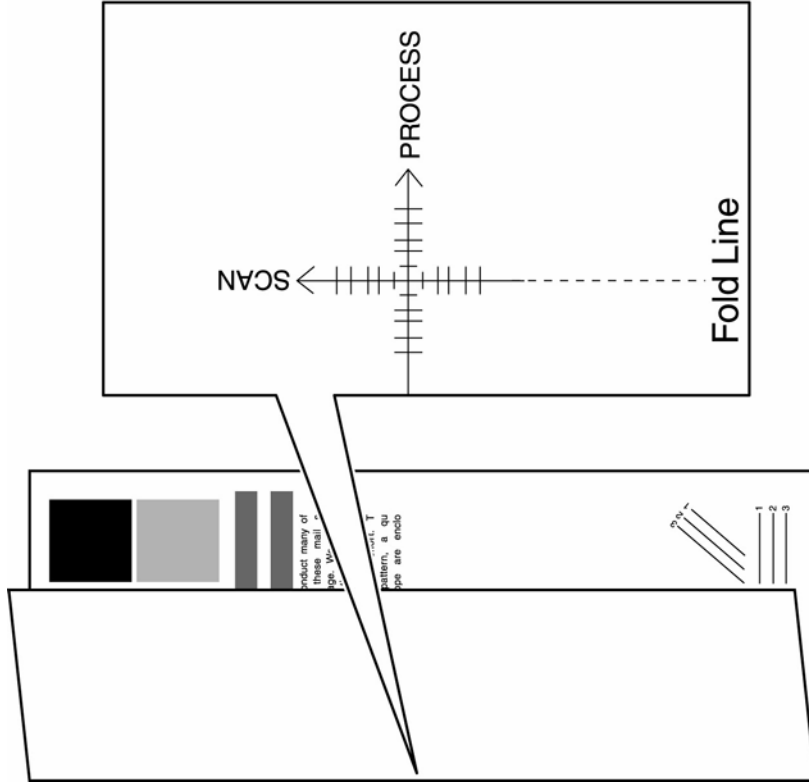
## IQ4 Registration

The image is positioned incorrectly in either the process or scan direction.

### Initial Actions

- Check to ensure that the paper is within specification.
- Check that the paper supply is new, dry, and loaded correctly.
- Check that the paper tray guides are set correctly.
- Check that components in the paper path are clean and unobstructed.

### Troubleshooting Reference



s5550-051

Figure 1 Registration Test Print

Table 1 Registration Troubleshooting Reference

Applicable Parts	Example Print
<p>If Duplex only, replace the Duplex Unit.</p> <p>Attempt to correct the position using Service Diagnostics.</p> <p>From all trays in the process direction, replace the Registration Transport Assembly.</p> <p>From a specific tray in the process direction, replace in sequence as necessary:</p> <ul style="list-style-type: none"> <li>• Feeder, Nudger, Retard Rollers</li> <li>• Take Away Clutch</li> <li>• Feeder Assembly</li> <li>• Registration Transport Assembly</li> </ul> <p>In the scan direction, replace in sequence as necessary:</p> <ul style="list-style-type: none"> <li>• Laser Assembly</li> <li>• Image Processor Board</li> <li>• Drum Cartridge</li> <li>• Tray</li> </ul>	<p style="text-align: right;">s5550-072</p> <p style="text-align: center;"><b>Figure 2 Registration</b></p>

### Troubleshooting Procedure

Table 2 Registration Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Measure the registration on two consecutive test prints. Fold the paper in half (leading edge to trailing edge). Observe the fold line of the paper with reference to the cross hairs of the target. Is the fold within +/- 2.5 mm of the target cross hairs (each line on the target is 1 mm).	The test prints meet the Leading Edge to Trailing Edge Registration specification. Go to IQ5.	Go to step 2.
2	Print Test Prints from all paper trays. Print duplex prints if a duplex option is installed. Is the image registration within specifications?	Go to step 4.	Go to step 3.

Table 2 Registration Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Perform the registration adjustment procedure. Is the image registration correct after the adjustment?	Problem solved.	Replace the Engine Control Board (REP 8.4). If the problem persists, replace the I/P Board (REP 8.5).
4	Have the customer run a print job. Are the customer's prints correctly registered?	Problem solved.	Problem may be application related. Have the customer contact Xerox Customer Support.

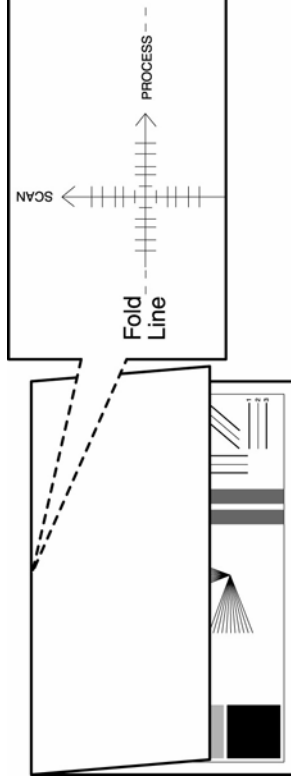
## IQ5 Registration (Side to Side)

The image is positioned incorrectly in side to side process or scan direction.

### Initial Actions

- Check to ensure that the paper is within specification.
- Check that the paper supply is new, dry, and loaded correctly.
- Check that the paper tray guides are set correctly.
- Check that components in the paper path are clean and unobstructed.

### Troubleshooting Reference



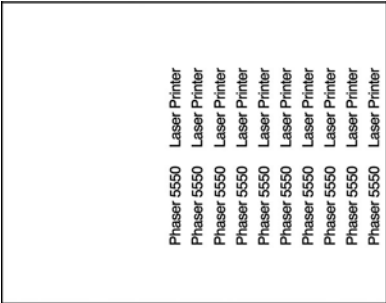
s5550-052

Figure 1 Registration (Side to Side) Test Print

Table 2 Registration (Side to Side) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Have the customer run a print job. Are the customer's prints correctly registered?	Problem solved.	Problem may be application related. Have the customer contact Xerox Customer Support.

Table 1 Registration (Side to Side) Troubleshooting Reference

Applicable Parts	Example Print
<p>If Duplex only, replace the Duplex Unit.</p> <p>From all trays in the process direction, replace the Registration Transport Assembly.</p> <p>From a specific tray in the process direction, replace in sequence as necessary:</p> <ul style="list-style-type: none"> <li>• Feed, Nudger, Retard Rollers</li> <li>• Take Away Clutch</li> <li>• Feeder Assembly</li> <li>• Registration Transport Assembly</li> </ul> <p>In the scan direction, replace in sequence as necessary:</p> <ul style="list-style-type: none"> <li>• Laser Assembly</li> <li>• Image Processor Board</li> <li>• Drum Cartridge</li> <li>• Tray</li> </ul>	 <p>Figure 2 Registration (Side to Side)</p>

**Troubleshooting Procedure**

Table 2 Registration (Side to Side) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Measure the registration on two consecutive test prints:</p> <ol style="list-style-type: none"> <li>1. Fold the paper in half (side to side).</li> <li>2. Observe the fold line of the paper path with reference to the cross hairs of the target.</li> </ol> <p>Is the fold within +/- 2.0 mm of the target cross hairs (each line on the target is 1 mm).</p>	<p>The printed test patterns meet the Side to Side Registration specification. Go to IQ8.</p>	Go to step 2.
2	<p>Print Test Prints from all paper trays.</p> <p>Print duplex prints if a duplex option is installed.</p> <p>Is the image registration within specifications?</p>	Go to step 4.	Go to step 3.
3	<p>Perform the registration adjustment procedure.</p> <p>Is the image registration correct after the adjustment?</p>	<p>Problem solved.</p>	<p>Replace the Engine Control Board (REP 8.4). If the problem persists, replace the I/P Board (REP 8.5).</p>

## IQ6 Skips and Smears

### Initial Actions

- Check to ensure that the paper is within specification.
- Check that the paper supply is new, dry, and loaded correctly.
- Check the paper path for any obstructions or debris.

### Troubleshooting Reference

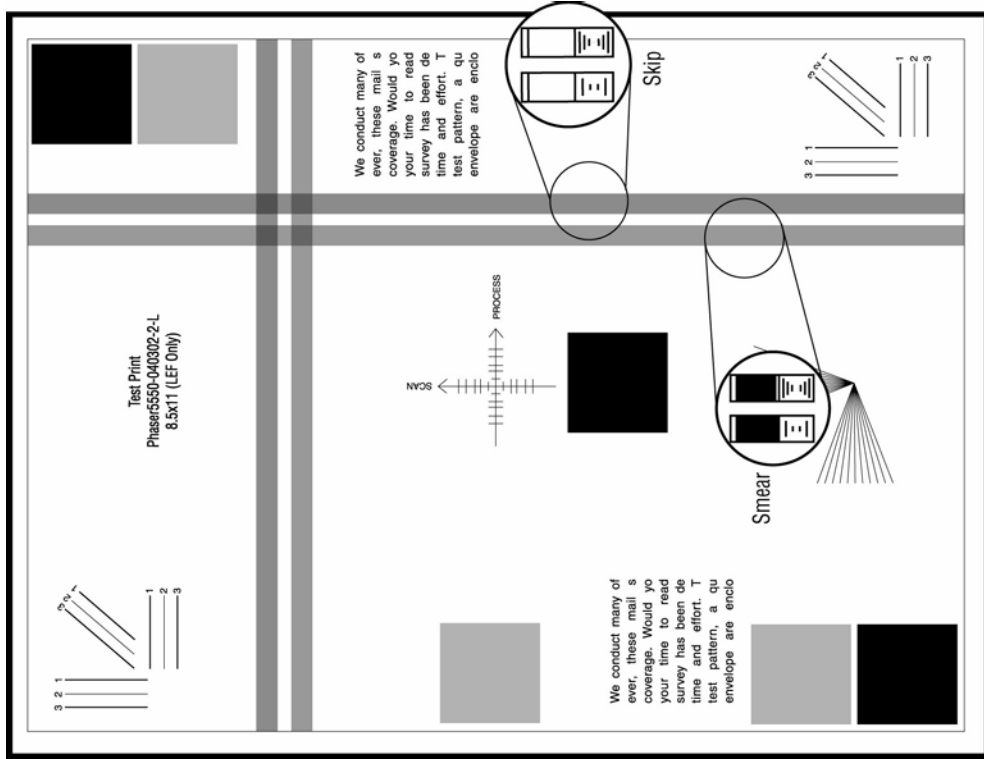


Figure 1 Skips and Smears Test Print

Table 1 Skips and Smears Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	
Transfer Roller, PL 4.2 Item 1	
Fuser, PL 6.1 Item 7	

Figure 2 Skips and Smears

### Troubleshooting Procedure

Table 2 Skips and Smears Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Inspect the ladder chart test as shown in Figure 1. Is the pattern free from skips and smears?	Go to IQ7.	Go to step 2.
2	Replace the Drum Cartridge. Does the printed image still have skips/smears?	Go to step 3.	Problem solved.
3	Replace the Transfer Roller. Does the printed image still have skips/smears?	Go to step 4.	Problem solved.
4	Replace the Fuser. Does the printed image still have skips/smears?	Go to step 5.	Problem solved.

Table 2 Skips and Smears Troubleshooting Procedure

Step	Actions and Questions	Yes	No
5	Replace in sequence as necessary: <ul style="list-style-type: none"> <li>Registration Transport Assembly (REP 4.9)</li> <li>Motor Assembly (REP 7.2)</li> <li>Take Away Bracket (REP 4.1)</li> </ul>		

## IQ7 Spots

There are spots of toner randomly scattered on the page.

### Initial Actions


- Check that the paper is clean, dry, and meets specifications.
- If using recycled paper, it may have spots.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check if the defects repeat at regular intervals. If so, see IQ18 .
- Check the installation of the Drum Cartridge.
- Check Drum surface for spots or contamination.
- Check the Fuser for wear or contamination.
- Check that the Drum Cartridge ground contacts are clean.

### Troubleshooting Reference



Figure 1 Spots Test Print

Table 1 Spots Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p>Figure 2 Spots</p>
Transfer Roller, PL 4.2 Item 1	
Fuser, PL 6.1 Item 7	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

Troubleshooting Procedure

Table 2 Spots Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<ol style="list-style-type: none"> <li>From the <b>Main Menu</b>, select <b>Information</b>, then press the <b>OK</b> button.</li> <li>Scroll to <b>Information Pages</b>, then press the <b>OK</b> button.</li> <li>Scroll to <b>Configuration Page</b>, then press the <b>OK</b> button.</li> <li>Inspect the print for spots. Within 289 x 95 mm square:                             <ul style="list-style-type: none"> <li>There should be no spots larger than or equal to 0.5 mm visible on the prints.</li> <li>There should be no more than 1 spot measuring between 0.4 mm and 0.5 mm visible on the print.</li> <li>There should be no more than 16 spots measuring between 0.25 mm and 0.4 mm visible on the print.</li> <li>Any spots measuring less than 0.25 mm is acceptable.</li> </ul> </li> </ol>	Go to IQ9.	Go to step 2.

Table 2 Spots Troubleshooting Procedure

Step	Actions and Questions	Yes	No
2	Check paper condition. <ol style="list-style-type: none"> <li>Load new, dry paper.</li> <li>Print a Test Print.</li> </ol> Does the problem still occur?	Go to step 3.	Problem solved.
3	Check the paper path. Is the paper path clear?	Go to step 4.	Remove obstacles or contamination. Go to step 5.
4	Check the Drum Cartridge. <ol style="list-style-type: none"> <li>Install a new Drum Cartridge.</li> <li>Print a Test Print.</li> </ol> Is the image density normal?	Problem solved.	
5	Check the Transfer Roller. <ol style="list-style-type: none"> <li>Remove the Transfer Roller.</li> <li>Check for contamination or wear.                              Is there contamination or wear?                         </li> </ol>	Go to step 6.	Replace the Transfer Roller (REP 4.5).
6	Check the Heat and Pressure Roller. <b>WARNING</b> Allow the Fuser to cool before removing it. Remove the Fuser. Is there contamination or defects on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 7.
7	Replace the Engine Control Board (REP 8.4). Print a Test Print. Is the Test P rint normal?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ8 Skewed Image

The image is not parallel to the edge of the print sheet.

### Initial Actions

- Check that the paper guides are set correctly.
- Load new, dry paper that meets specifications.
- Check the rollers in the paper path for any obstructions, damage, or debris.
- Ensure the Drum Cartridge is properly installed.

### Troubleshooting Reference

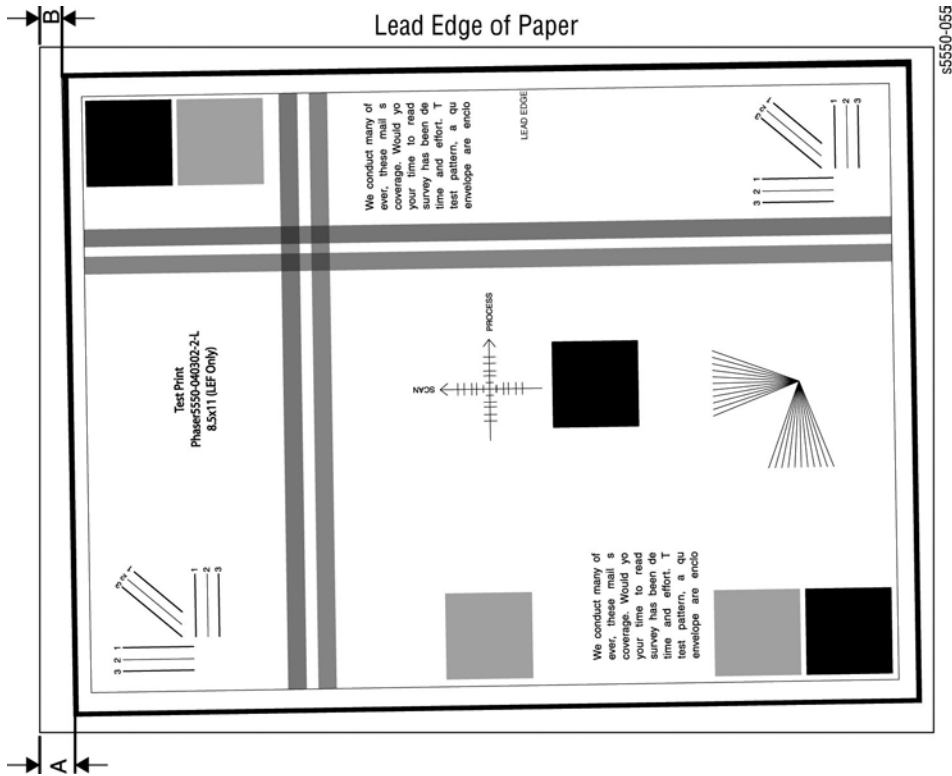


Figure 1 Skewed Test Print

Table 1 Skewed Image Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	
Engine Control Board, PL 8.1 Item 5	
Image Processor Board, PL 8.1 Item 25	
Tray PL 2.1 Item 3	

### Troubleshooting Procedure

Table 2 Skewed Image Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<ol style="list-style-type: none"> <li>1. Select <b>Troubleshooting</b>, then press the <b>OK</b> button.</li> <li>2. Scroll to <b>Print Quality Problems</b>, then press the <b>OK</b> button.</li> <li>3. Select <b>Test Prints</b>, then press the <b>OK</b> button.</li> <li>4. Measure the dimensions 'A' and 'B' on two consecutive test patterns. Is the difference between "A" and "B" 1.25 mm or less?</li> </ol>	The printed test patterns meet the Skew specifications. Go to IQ6.	Go to step 2.
2	<p>Check the installation site. Is the printer installed on a level surface?</p>	Go to step 3.	Correct the installation. If problem persists, go to step 3.
3	<p>Check the paper.</p> <ol style="list-style-type: none"> <li>1. Reload new, dry paper in the source tray.</li> <li>2. Print a Test Print.</li> </ol> <p>Does the problem still occur?</p>	Go to step 4.	Problem solved.



**Table 2 Skewed Image Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
4	Check the paper path. Is the paper path clear?	Go to step 5.	Remove obstacles or contamination. Go to Step 6.
5	Check if the skew is limited to a particular tray. Does the skewing occur from only one tray?	Inspect the rollers and guides in the affected tray. Replace as needed.	
6	Check rollers in the paper path. 1. Check the rollers in the paper path for contamination, wear, or damage. 2. Check whether pinch rollers rotate freely and spring pressure is applied evenly. Is there any contaminations, wear, or damage to the rollers?	Replace the defective rollers.	Problem solved.

## IQ9 Light (Undertoned) Print

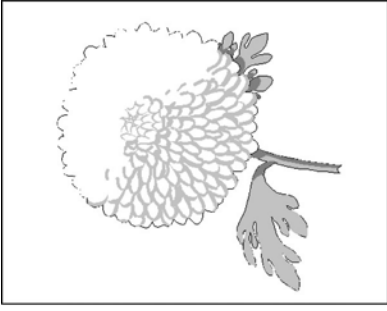
The overall image density is too light.

### Initial Actions

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contact points are clean.
- Ensure that there are no obstructions in the Laser path.
- Ensure that draft mode is turned Off.

### Troubleshooting Reference

**Table 1 Light (Undertoned Print) Troubleshooting Reference**

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p>Figure 1 Light (Undertoned) Print</p>
Toner Cartridge, PL 5.1 Item 16	
Transfer Roller, PL 4.2 Item 1	
High-Voltage Power Supply, PL 8.1 Item 1	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

### Troubleshooting Procedure

**Table 2 Light (Undertoned Print) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the paper condition. Load new, dry recommended paper, and perform Test Print. Is the image density normal?	Problem solved.	Go to step 2.
2	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print a Test Print. Is the image density normal?	Problem solved.	Go to step 3.

**Table 2 Light (Undertoned Print) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
3	Checking the Transfer Roller. 1. Remove the Transfer Roller (page). 2. Check for contamination or wear on the Transfer Roller? Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 4.
4	Check Drum Cartridge installation. Remove the Drum Cartridge and check the Drum Cartridge High-Voltage contacts. Are the contacts clean?	Go to step 5.	Clean the High-Voltage Contacts.
5	Check the Drum Cartridge ground. Remove the Drum Cartridge and check the Earth Plate located behind the Drum Cartridge. Is the Earth Plate contaminated or deformed?	Correct and clean the Earth Plate or replace the Drum Cartridge.	Go to step 6.
6	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 7.	Go to step 9.
7	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 9.	Go to step 6.
8	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ10 Blank Print (No Image)


No visible image anywhere on the output print as shown here.

### Initial Actions

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contact points are clean.
- Ensure there are no obstructions in the Laser path.
- Ensure the blank prints are not the result of multi-sheet feeds.

### Troubleshooting Reference

**Table 1 Blank Print (No Image) Troubleshooting Reference**

Applicable Parts	Example Print
Laser Assembly, PL 5.1 Item 14	 <p>Figure 1 Blank Print (No Image)</p>
Drum Cartridge, PL 5.1 Item 15	
Transfer Roller, PL 4.2 Item 1	
High-Voltage Power Supply, PL 8.1 Item 1	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

### Troubleshooting Procedure

**Table 2 Blank Print (No Image) Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
1	Check the Print Engine. Print a Test Print. Is the Test Print normal?	Print a Configuration Page. Go to step 2.	Go to step 4.
2	Check the Configuration Page. Print the Configuration Page. Is the Configuration Page normal?	Verify the Customer's print job. Go to step 3.	Go to step 4.

Table 2 Blank Print (No Image) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the Customer's Print Job. Is the Customer's Print Job blank?	Verify printer connections. If problem persists, Replace the I/P Board (REP 8.5).	Go to step 4.
4	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Run a Test Print. Is the image density normal?	Problem solved.	Go to step 5.
5	Check the Transfer Roller. 1. Remove the Transfer Roller. 2. Check for contamination or wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 6.
6	Check Drum Cartridge installation. Remove the Drum Cartridge and check the Drum Cartridge High Voltage contacts. Are the contacts clean?	Go to step 7.	Clean the contacts.
7	Check the Drum Cartridge ground. Remove the Drum Cartridge and check the Earth Plate located behind the Drum Cartridge. Is the Earth Plate contaminated or deformed?	Correct and clean the Earth Plate or replace the Drum Cartridge.	Go to step 5.
8	Check the laser beam path. 1. Check that there are no obstacles between the Laser Assembly and Drum. 2. Check the Laser Assembly window for contamination. Is there any obstacle in the laser beam path or in the window?	Remove obstacles or clean the Laser Assembly window.	Go to step 9.
9	Check Laser Assembly installation. Is the Laser Assembly installed securely with four screws?	Go to step 11.	Go to step 10.
10	Check Laser Assembly installation. 1. Install the Laser Assembly. 2. Print a Test Print. Is the trouble rectified?	Problem solved.	Go to step 11.
11	Check Laser Assembly connections. Are P/J130, P/J140, P/J160, P/J170, P/J406, and P/J620 connected? <b>CAUTION</b> <i>Excessive force applied to the board can cause a Laser misalignment.</i>	Go to step 12.	Connect P/J130, P/J140, P/J160, P/J170 P/J406, and P/J620.

Table 2 Blank Print (No Image) Troubleshooting Procedure

Step	Actions and Questions	Yes	No
12	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 13.	Go to step 14.
13	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 14.	Go to step 15.
14	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 15.
15	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ11 Black Prints

A totally black output print. There is toner on the paper with no visible image.

### Initial Actions

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check that the Drum Cartridge ground contacts are clean.
- Check the installation of the Drum Cartridge.
- Ensure the covers are in place and no outside light enters the printer.

### Troubleshooting Reference

Table 1 Black Prints Troubleshooting Reference


Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p style="text-align: right;">s5550-058</p> <p style="text-align: center;"><b>Figure 1 Black Prints</b></p>
High-Voltage Power Supply, PL 8.1 Item 1	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

Table 2 Black Prints Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Run a Test Print. Is the image density normal?	Problem solved.	Go to step 5.
5	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 6.
6	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).

### Troubleshooting Procedure

Table 2 Black Prints Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the Print Engine. Print a Test Print. Is the Test Print normal?	Print a Configuration Page. Go to step 2.	Go to step 4.
2	Check the Configuration Page. Print the Configuration Page. Is the Configuration Page normal?	Verify the Customer's print job. Go to step 3.	Go to step 4.
3	Check the Customer's Print Job. Is the Customer's Print Job blank?	Verify printer connections. If the problem persists, replace the I/P Board (REP 8.5).	Go to step 4.

## IQ12 Process Deletions

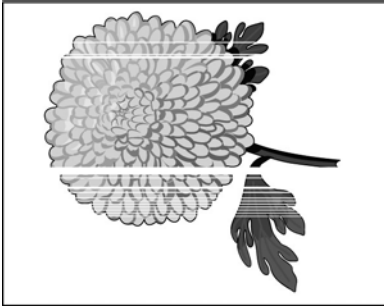
A vertical band in the scan direction where the image is missing or extremely light.

### Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check installation of the Drum Cartridge.
- Check the Transfer Roller for wear or contamination.
- Check that the Drum Cartridge ground contacts are clean.
- Ensure there are no obstructions in the laser path.
- Check that rollers and other paper path components are clean and unobstructed.

## Troubleshooting Reference

Table 1 Vertical Deletions Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p style="text-align: right;">s5550-059</p> <p style="text-align: center;"><b>Figure 1 Vertical Deletions</b></p>
Transfer Roller, PL 4.2 Item 1	
Laser Assembly, PL 5.1 Item 14	
Fuser, PL 6.1 Item 7	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

## Troubleshooting Procedure

Table 2 Vertical Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.
2	Check the paper path. Is the paper path clear?	Go to step 3.	Remove obstacles or contamination.

Table 2 Vertical Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check laser beam path. 1. Check that there are no obstacles between the Laser Assembly and Drum. 2. Check the Laser Assembly window for contamination. Is there obstacles in the laser beam path or window?	Go to step 4.	Remove obstacles or clean the Laser Assembly window.
4	Check Laser Assembly installation. Is the Laser Assembly installed securely with four screws?	Go to step 6.	Go to step 5.
5	Check the Laser Assembly installation. 1. Install the Laser Assembly. 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 6.
6	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print a Test Print. Is the image density normal?	Problem solved.	Go to step 7.
7	Checking the Transfer Roller. 1. Remove the Transfer Roller. 2. Check for contamination or wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 8.
8	Check the Heat and Pressure Rollers. <b>WARNING</b> <b>Allow the Fuser to cool before removing it.</b> Remove the Fuser. Is there contamination or defects on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 10.
10	Check Laser Assembly connections. Are P/J130, P/J140, P/J160, P/J170, P/J406, and P/J620 connected? <b>CAUTION</b> <i>Excessive force applied to the board can cause a Laser misalignment.</i>	Replace the I/P Board (REP 8.5).	Connect P/J130, P/J140, P/J160, P/J170 P/J620, and P/J406.

## IQ13 Scan Deletions

A deletion is an area of the print where the image is missing or extremely light. Horizontal deletions extend across the page.

### Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.
- Check the Transfer Roller for contamination or wear.
- Check that the rollers and other paper path components are clean and unobstructed.

### Troubleshooting Reference

Table 1 Horizontal Deletions Troubleshooting Reference

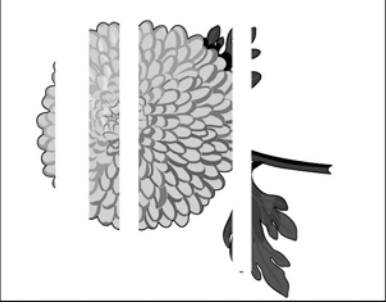
Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p style="text-align: right;">s5550-060</p>
Transfer Roller, PL 4.2 Item 1	
Laser Assembly, PL 5.1 Item 14	
Fuser, PL 6.1 Item 7	
Image Processor Board, PL 8.1 Item 25 Engine Control Board, PL 8.1 Item 5	

Figure 1 Horizontal Deletions

### Troubleshooting Procedure

Table 2 Horizontal Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.
2	Check the paper path. Is the paper path clear?	Go to step 3.	Remove obstacles or contamination.

Table 2 Horizontal Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print a Test Print. Is the image density normal?	Problem resolved.	Go to step 4.
4	Check the Transfer Roller. 1. Remove the Transfer Roller (REP 4.5). 2. Check the Transfer Roller for contamination and wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 5.
5	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before attempting to remove it.</b> Remove the Fuser. Is there any contamination or cracks on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 6.
6	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 7.	Go to step 8.
7	Check the image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 9.	Go to step 8.
8	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ14 Process Streaks

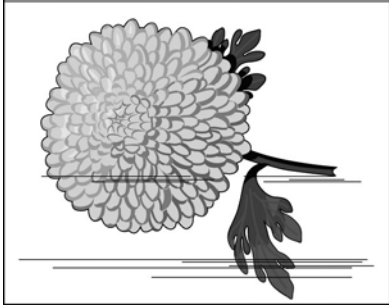
Extraneous dark lines/bands in the scan direction.

### Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check that the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.
- Inspect the paper path for contamination or obstruction.

## Troubleshooting Reference

Table 1 Vertical Streaks Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p style="text-align: right;">s5550-061</p> <p style="text-align: center;"><b>Figure 1 Vertical Streaks</b></p>
Transfer Roller, PL 4.2 Item 1	
Laser Assembly, PL 5.1 Item 14	
Fuser, PL 6.1 Item 7	
Image Processor Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

## Troubleshooting Procedure

Table 2 Vertical Streaks Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.
2	Check the paper path. Is the paper path clear?	Go to step 3.	Remove obstacles or contamination.

Table 2 Vertical Streaks Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print a Test Print. Is the image density normal?	Problem solved.	Go to step 4.
4	Check the Transfer Roller. 1. Remove the Transfer Roller. 2. Check the Transfer Roller for contamination and wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 5.
5	Check the Drum Cartridge installation. Remove the Drum Cartridge and check the Drum Cartridge High-Voltage contacts. Are the contacts clean?	Go to step 6.	Clean the contacts.
6	Check the Drum Cartridge ground. Remove the Drum Cartridge and check the Earth Plate located behind the Drum Cartridge. Is the Earth Plate contaminated or deformed?	Correct and clean the Earth Plate or replace the Drum Cartridge.	Go to step 7.
7	Check the laser beam path. 1. Check that there are no obstacles between the Laser Assembly and Drum. 2. Check the Laser Assembly window for contamination. Is there obstacles in the laser beam path or window?	Remove obstacles or clean the Laser Assembly window.	Go to step 8.
8	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before removing it.</b> Remove the Fuser. Is there contamination or defects on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ15 Scan Streaks

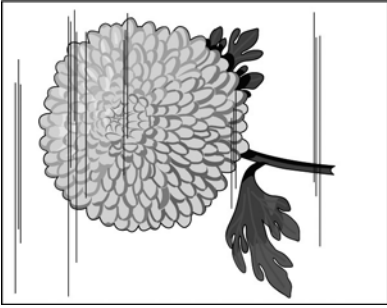
There are black lines running horizontally across the page in the process directions.

### Initial Actions

- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check the Drum Cartridge Drum surface for scratches.
- Check that the Drum Cartridge ground contacts are clean.

### Troubleshooting Reference

Table 1 Horizontal Streaks Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p>Figure 1 Horizontal Streaks</p>
Transfer Roller, PL 4.2 Item 1	
Laser Assembly, PL 5.1 Item 14	
Fuser, PL 6.1 Item 7	
Image Process Board, PL 8.1 Item 25	
Engine Control Board, PL 8.1 Item 5	

### Troubleshooting Procedure

Table 2 Horizontal Streaks Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.
2	Check the paper path. Is the paper path clear?	Go to step 3.	Remove obstacles or contamination.

Table 2 Horizontal Streaks Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print a Test Print. Is the image density normal?	Problem solved.	Go to step 4.
4	Checking the Transfer Roller. 1. Remove the Transfer Roller. 2. Check the Transfer Roller for contamination and wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 5.
5	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before removing it.</b> Remove the Fuser. Is there any contamination or crack on Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 6.
6	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 7.	Go to step 8.
7	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 9.	Go to step 8.
8	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the Test Print normal?	Problem solved.	Go to step 10.



Table 2 Horizontal Streaks Troubleshooting Procedure

Step	Actions and Questions	Yes	No
10	<p>Check Laser Assembly connections. Are P/J130, P/J140, P/J160, P/J170, P/J620, and P/J406 connected?</p> <p><b>CAUTION</b> Excessive force applied to the board can cause a Laser misalignment.</p>	Replace the I/P Board (REP 8.5).	Connect P/J130, P/J140, P/J160, P/J170 P/J620 and P/J406.

## IQ16 Damaged Print

The page comes out of the Standard Output Tray either wrinkled, creased, or torn.


**NOTE:** If paper damage occurs within an installed option, determine the location where the damage occurs an correct as necessary to eliminate the problem.

### Initial Actions

- Verify that the Drum Shutter operates properly when Door A is opened or closed.
- Check that the paper supply is dry and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check that rollers and other paper path components are clean and unobstructed.

## Troubleshooting Reference

Table 1 Damaged Print Troubleshooting Reference

Applicable Parts	Example Print
Fuser, PL 6.1 Item 7	 <p style="text-align: right;">s5550-066</p> <p style="text-align: right;"><b>Figure 1 Damaged Print</b></p>
Feed Rollers, PL 3.2 Item 20	
Tray, PL 2.1 Item 3	

## Troubleshooting Procedure

Table 2 Damaged Print Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check the installation location. Check that the printer is level, has its feet, and is in alignment. Is the installation adequate?</p>	Go to step 2.	Correct the installation. If the problem persists, go to step 2.

Table 2 Damaged Print Troubleshooting Procedure

Step	Actions and Questions	Yes	No
2	Check paper feeding. 1. Remove the source Tray. 2. Reload paper in the tray. 3. Print a Test Print. Does the problem still occur?	Go to step 3.	Problem solved.
3	Check the paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 4.	Problem solved.
4	Check the paper path. Is the paper path clear?	Go to step 5.	Problem solved.
5	Check rollers in the paper path. 1. Check Feed and paper path rollers for contamination, wear, or damage. 2. Check whether the pinch rollers rotate freely and spring pressure is applied evenly. Is there any contamination, wear, or damage to the rollers?	Replace the defective rollers.	Go to step 6.
6	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before removing it.</b> Remove the Fuser. Is there contamination or defects on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 7.
7	Replace the following, in order, until the defective component is found. • Paper Feed Rollers • Fuser (REP 6.1) • Transfer Roller (REP 4.5) • Exit Assembly (REP 6.3)		

## IQ17 Spot Deletions


Solid areas are marked with irregular white areas.

### Initial Actions

- Check that the paper is clean, dry, and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.

### Troubleshooting Reference

Table 1 Spot Deletions Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p style="text-align: right;">s5550-067 Figure 1 Spot Deletions</p>
Transfer Roller, PL 4.2 Item 1	
Fuser, PL 6.1 Item 7	
Engine Control Board, PL 8.1 Item 5	
Image Processor Board, PL 8.1 Item 25	

### Troubleshooting Procedure

Table 2 Spot Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. 1. Load fresh, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.
2	Check the paper path. Check the paper path for contamination or obstacles. Is the paper path clear?	Go to step 3.	Remove obstacles or contamination.

Table 2 Spot Deletions Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Re-print the defective image. Is the image density normal?	Problem solved.	Go to step 4.
4	Check the Transfer Roller. 1. Remove the Transfer Roller. 2. Check the Transfer Roller for contamination and wear. Is there any contamination or wear on the Transfer Roller?	Replace the Transfer Roller (REP 4.5).	Go to step 5.
5	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before removing it.</b> Remove the Fuser. Is there contamination or defects on the Heat or Pressure Roller?	Replace the Fuser (REP 6.1).	Go to step 6.
6	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the trouble rectified?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ18 Repeating Defects

Recurring marks, spots, lines, or voids.

### Initial Actions

- Check that the paper is clean, dry, and meets specifications.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.

## Troubleshooting Procedure

Table 1 Repeating Defects Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	1. Replace paper with new paper. 2. Print a Test Print. <b>Do the repeating defects still appear?</b>	Go to step 2.	Problem solved.
2	Do the defects occur every: • 44 mm (1.7 in.) • 56.5 mm (2.2 in.) • 94.2 mm (3.7 in.)	Install a new Drum Cartridge.	Go to step 3.
3	Do the defects occur every 58.7 mm (2.3 in.)?	Replace the Transfer Roller (REP 4.5).	Go to step 4.
4	Do the defects occur every 78.5 mm (3.1 in.)?	Replace the Fuser (REP 6.1).	

## Xerographic Component Specifications

The following table lists measurements of critical printer components. Refer to these measurements when diagnosing a repeating print-quality problem.

Table 2 Xerographic Component Specifications

Component	Circumference
Charge Roller	44.0 mm (1.7 in.)
Developer Roller (Drum Cartridge)	56.5 mm (2.2 in.)
Photoreceptor (Drum Cartridge)	94.2 mm (3.7 in.)
Transfer Roller (Door A)	58.7 mm (2.3 in.)
Fuser Heat Roller (Fuser)	78.5 mm (3.1 in.)

## IQ19 Residual Image

The image from a previous print appears on the current print.

### Initial Actions

- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contact points are clean.
- Verify the paper is within the specifications on the Paper Tips Page.

### Troubleshooting Reference

Table 1 Residual Image Troubleshooting Reference


Applicable Parts	Example Print
Fuser, PL 6.1 Item 7	 <p style="text-align: right;">s5550-068</p>
Engine Control Board, PL 8.1 Item 5	
Image Processor Board, PL 8.1 Item 25	
HVPS, PL 8.1 Item 1	

Figure 1 Residual Image

### Troubleshooting Procedure

Table 2 Residual Image Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check image quality. Is the customer printing the same image in large quantity?	Go to step 2.	Go to step 3.
2	Print 30 Test Prints. Does the residual image appear?	Go to step 3.	Print 30 customer prints and go to step 3. Problem solved.
3	Check paper condition. 1. Load new, dry paper. 2. Print 30 Test Prints. Does the problem still occur?	Go to step 4.	

Table 2 Residual Image Troubleshooting Procedure

Step	Actions and Questions	Yes	No
4	Check Drum Cartridge installation. Remove the Drum Cartridge and check the Drum Cartridge High Voltage contacts. Are the contacts clean?	Go to step 5.	Clean the contacts.
5	Check the Drum Cartridge ground. Remove the Drum Cartridge and check the Earth Plate located behind the Drum Cartridge. Is the Earth Plate contaminated or deformed?	Correct and clean the Earth Plate or replace the Drum Cartridge.	Go to step 6.
6	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Print 30 Test Prints. Does the residual image appear?	Go to step 7.	Problem solved.
7	Check the Heat and Pressure Roller. <b>WARNING</b> <b>Allow the Fuser to cool before attempting to remove it.</b>	Replace the Fuser (REP 6.1).	Go to step 8.
8	Check that the HVPS is installed correctly. Is the HVPS installed correctly?	Replace the HVPS (REP 8.1).	Go to step 9.
9	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the trouble rectified?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ20 Background

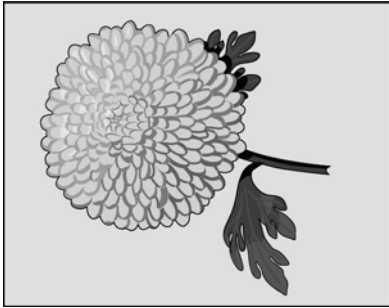
There is toner contamination on all or part of the page. The contamination appears as a very light gray dusting.

### Initial Actions

- Check that the paper is clean, dry, and meets specifications.
- Verify the Toner Cartridge is a Xerox manufactured part. If a non-Xerox Toner Cartridge is being used, this could be the problem.
- Check that the Laser Window is clean.
- Inspect the paper path for items, such as staples, paper clips, and paper scraps.
- Check the installation of the Drum Cartridge.
- Check that the Drum Cartridge ground contacts are clean.
- Ensure the covers are in place and no outside light enters the printer.

### Troubleshooting Reference

Table 1 Background Troubleshooting Reference

Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15	 <p>Figure 1 Background</p>
Transfer Roller, PL 4.2 Item 1	
High-Voltage Power Supply, PL 8.1 Item 1	
Engine Control Board, PL 8.1 Item 5	
Image Processor Board, PL 8.1 Item 25	

### Troubleshooting Procedure

Table 2 Background Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check paper condition. 1. Load new, dry paper. 2. Print a Test Print. Does the problem still occur?	Go to step 2.	Problem solved.

Table 2 Background Troubleshooting Procedure

Step	Actions and Questions	Yes	No
2	Check the paper path. <b>Is the paper path clear?</b>	Go to step 3.	Remove obstacles or contamination. Go to step 4.
3	Check the Drum Cartridge. 1. Install a new Drum Cartridge. 2. Re-print the defective image. <b>Is the image density normal?</b>	Problem solved.	
4	Check the Transfer Roller. 1. Remove the Transfer Roller (REP 4.5). 2. Check the Transfer Roller for contamination and wear. <b>Is there any contamination or wear on the Transfer Roller?</b>	Replace the Transfer Roller (REP 4.5).	Go to step 5.
5	Check image development. 1. Print a Test Print. 2. Turn Off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 6.	Go to step 7.
6	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 8.	Go to step 7.
7	Check the HVPS. 1. Replace the HVPS (REP 8.1). 2. Print a Test Print. Is the trouble rectified?	Problem solved.	Go to step 8.
8	Check the Engine Control Board. 1. Replace the Engine Control Board (REP 8.4). 2. Print a Test Print. Is the trouble rectified?	Problem solved.	Replace the I/P Board (REP 8.5).

## IQ21 Uneven Density

Image density varies across the page in either direction.

### Initial Actions

- Load new, dry paper that meets specifications.
- Check that the Toner Cartridge is properly installed and not empty.
- Ensure that the printer is reasonably level.
- Check to make sure the Laser path is clean and unobstructed.
- Remove the Drum Cartridge and check for wear, contamination, or obstructions.

### Troubleshooting Reference

Table 1 Uneven Density Troubleshooting Reference

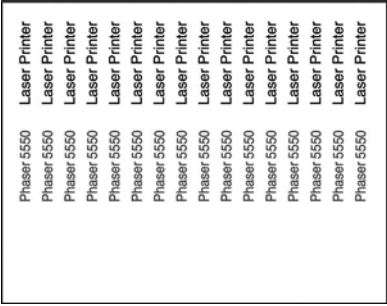
Applicable Parts	Example Print
Drum Cartridge, PL 5.1 Item 15 Transfer Roller, PL 4.2 Item 1 Fuser, PL 6.1 Item 7	 <p>Figure 1 Uneven Density</p>

Table 2 Uneven Density Troubleshooting Procedure

Step	Actions and Questions	Yes	No
2	Check image development. 1. Print a Test Print. 2. Turn off the power while printing. 3. Carefully remove the Drum Cartridge and check the image formed on the drum right before the Transfer Roller. Is the image completely formed on the Drum? Is it clear, black, and easy to read?	Go to step 3.	Repair or replace the Transfer Roller (REP 4.5).
3	Check image transfer. Check the image formed on the drum, right after the Transfer Roller. Is the image completely transferred on the paper?	Go to step 4.	Repair or replace the Transfer Roller (REP 4.5).
4	Look at the print on the paper before the Fuser. Does the print on the paper have even density?	Replace the Fuser Assembly (REP 6.1).	Replace the Transfer Roller (REP 4.5).

### Troubleshooting Procedure

Table 2 Uneven Density Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	1. Install a new Drum Cartridge. 2. Print a Test Print. Does the test print output image contain uneven print?	Go to step 2.	Problem solved.



# 4 Repairs and Adjustments

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## Overview

This section contains the removal and replacement procedures for spared parts according to the Field Replaceable Units (FRUs) Parts List. Replacement procedures are not provided for most of the FRUs because in most cases, re-installing a part only requires reversing the removal procedure. Where the replacement process is not a simple reversal of the removal, a replacement procedure is included. Replacement Notes provide tips and suggestions that can aid in reassembling the part.

### Standard Orientation of the Printer

Locations given in the repairs, such as left, right, front, or rear, assume you are facing the printer Control Panel. When needed the orientation of the printer is called out in the procedure for locating printer parts, refer to the printer orientation graphic for locating the right, left, front and back sides of the printer.

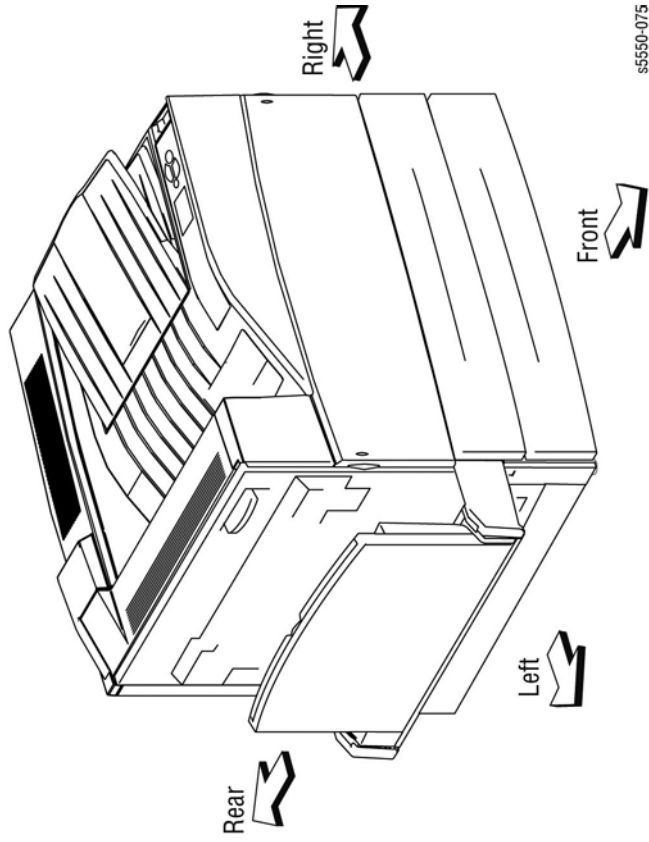


Figure 1 Orientation of the Printer

## General Notes on Disassembly

Removal and replacement procedures are organized in categories that roughly correspond to classification of FRU parts list in Section 5. When servicing parts for which no procedures are described, observe their assembled condition before disassembly.

### Preparation

Before you begin and Removal and Replacement Procedure:

1. Switch Off the printer power and disconnect the power cord from the wall outlet.
2. Remove the Drum Cartridge and protect it from exposure to light by covering it with a light proof bag or by placing it in a light-tight container.
3. Wear an electrostatic discharge strap when removing or installing circuit boards to help prevent damage to the sensitive electronics.

#### CAUTION

Many parts are secured by plastic tabs or hooks. **DO NOT** over Flex or force these parts. Do not over torque the screws threaded into plastic parts.

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

#### 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.

#### CAUTION

Do not remove red screws. Frame mis-alignment will result.

#### WARNING

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

### Notations in the Disassembly Text

- The notation "PLX.X.X" at the top of each Figure references the FRU parts list containing this part or assembly.
- Procedure number references are given in-line for procedural steps previously described.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- Numbered arrows indicate manipulation steps for removal of the part.

## REP 1.1 Front Left Cover

### Parts List on PL 1.1 Item 2

#### Removal

1. Remove Exit 2 if installed (REP 24.1).
2. Open the Front Door.
3. Remove the one screw securing the Front Left Cover.
4. Remove the Front Left Cover.

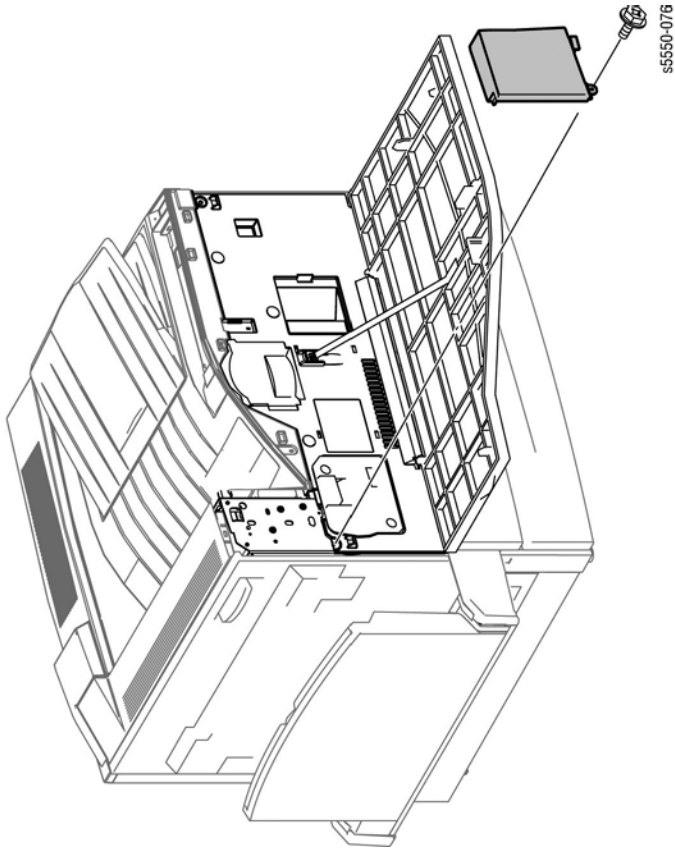


Figure 1 Removing the Front Left Cover

## REP 1.2 Top Rear Cover

### Parts List on PL 1.1 Item 3

#### Removal

1. Remove the Rear Panel Cover (REP 1.8).
2. Remove the Upper Rear Cover (REP 1.11).
3. Remove Exit 2 if installed (REP 24.1).
4. Remove the screw securing the Top Rear Cover.
5. Remove the Top Rear Cover by sliding it left then lifting as shown in Figure 1.

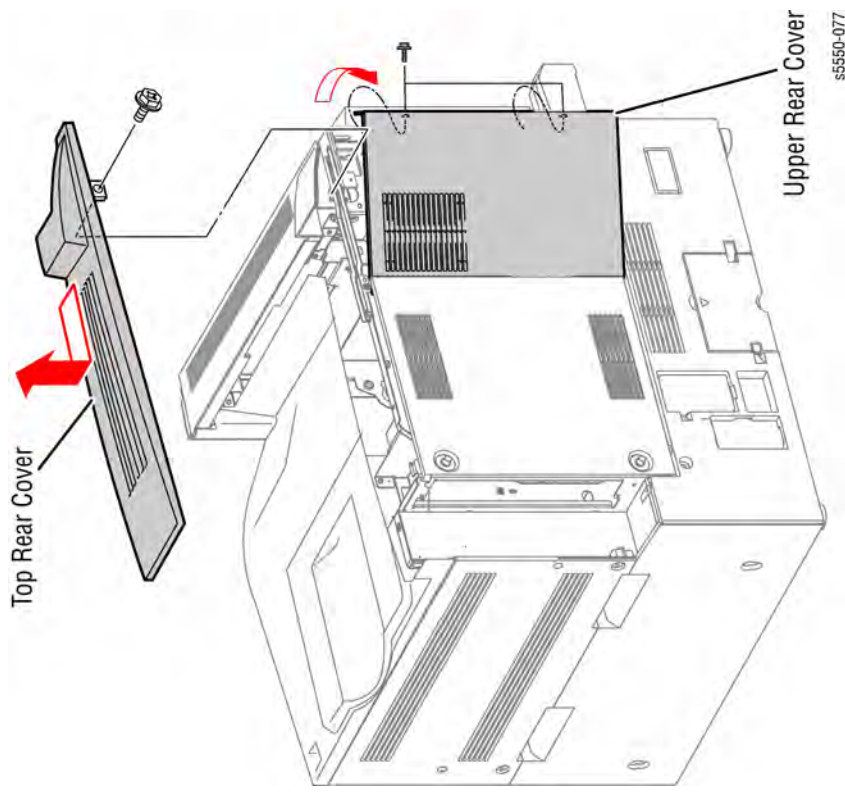


Figure 1 Removing the Top Rear Cover

## REP 1.3 Top Cover

### Parts List on PL 1.1 Item 8

#### Removal

#### CAUTION

Use care not to damage the Stack Full sensor flag while removing the cover.

1. Open the Front Door.
2. Remove the Front Left Cover (REP 1.1).
3. Remove the two screws securing the Top Cover.
4. Remove the Top Rear Cover (REP 1.2).
5. Disconnect the Control Panel connector from the Top Cover.

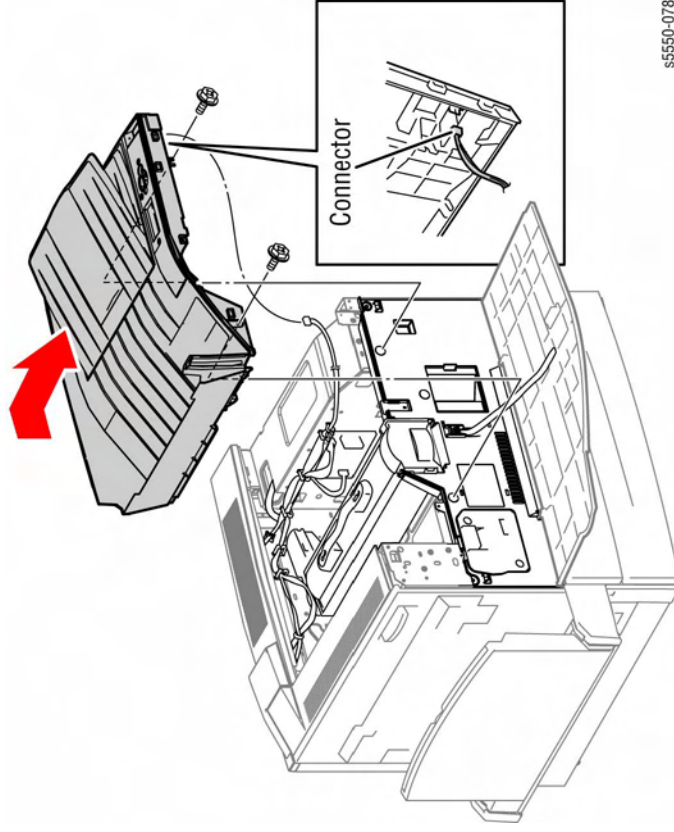


Figure 1 Removing the Top Cover

#### Replacement

Make sure the spur and tab on the rear side of the cover engage the frame.

## REP 1.4 Front Door

### Parts List on PL 1.1 Item 9

#### Removal

1. Open the Front Door.
2. Release the Stopper from the Inner Main Cover.
3. Open Tray 2 halfway.
4. Lower the Front Door perpendicular to the printer and slide the Front Door to the right to release the lower right holder from the boss on the right of the printer.
5. With the lower right holder released, hold the cover at a slight angle to the printer and slide it to the left to release the lower left holder from the boss.

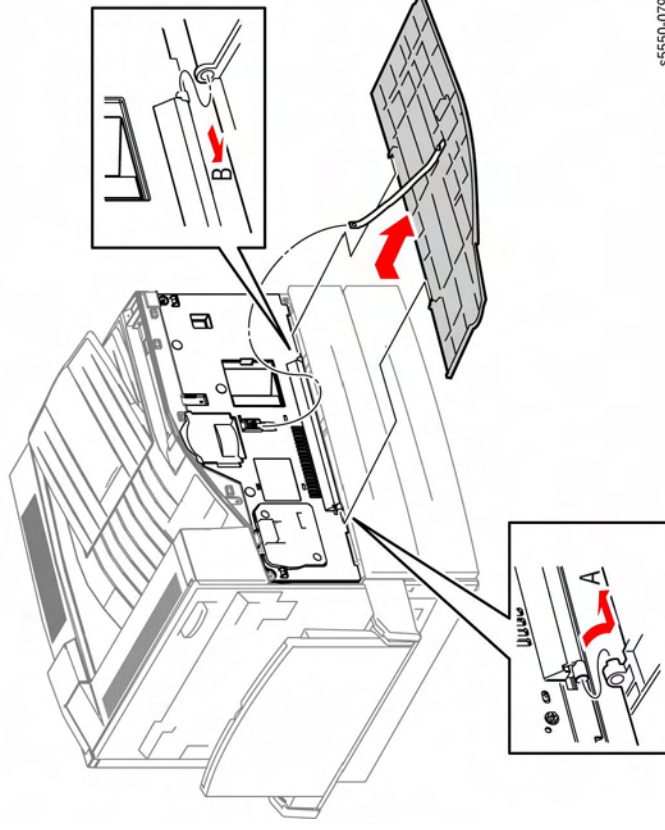


Figure 1 Removing the Front Door

## REP 1.5 Inner Main Cover

### Parts List on PL 1.1 Item 13

#### Removal

1. Remove the Top Cover (REP 1.3)
2. Remove the Front Door (REP 1.4).
3. Open Door A.
4. Remove the Drum Cartridge.
5. Remove the three screws securing the Inner Main Cover to the frame.
6. Remove the Inner Main Cover by tilting the cover outwards and lifting to release the hooks.

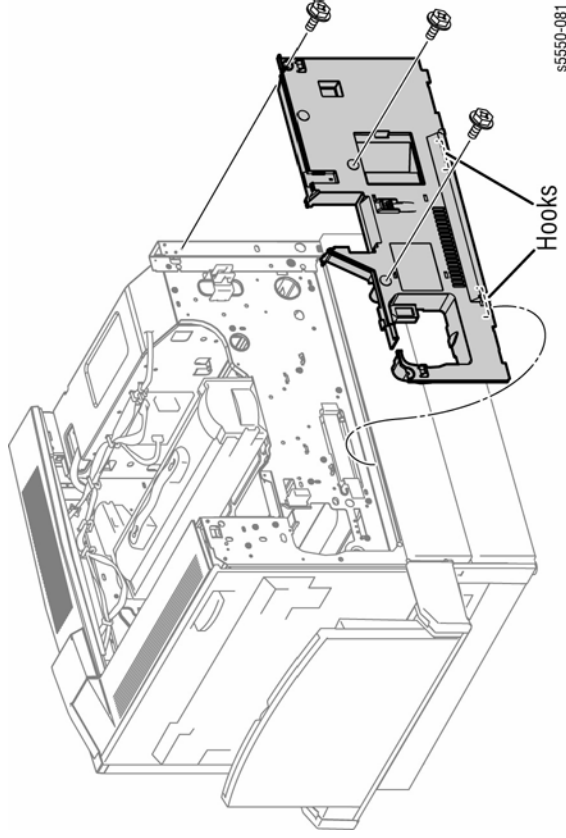


Figure 1 Removing the Inner Main Cover

#### Replacement

When installing, put the four lower hooks on the Inner Main Cover inside the rolled edge of the printer frame.

## REP 1.6 Front Door Interlock Switch

### Parts List on PL 1.1 Item 5

#### Removal

1. Remove the Inner Main Cover (REP 1.5).
2. Remove the screw securing the Interlock Switch Bracket.
3. Remove the switch together with the bracket.
4. Disconnect the connector from the switch.
5. Release the switch by pressing the hooks.
6. Remove the switch.

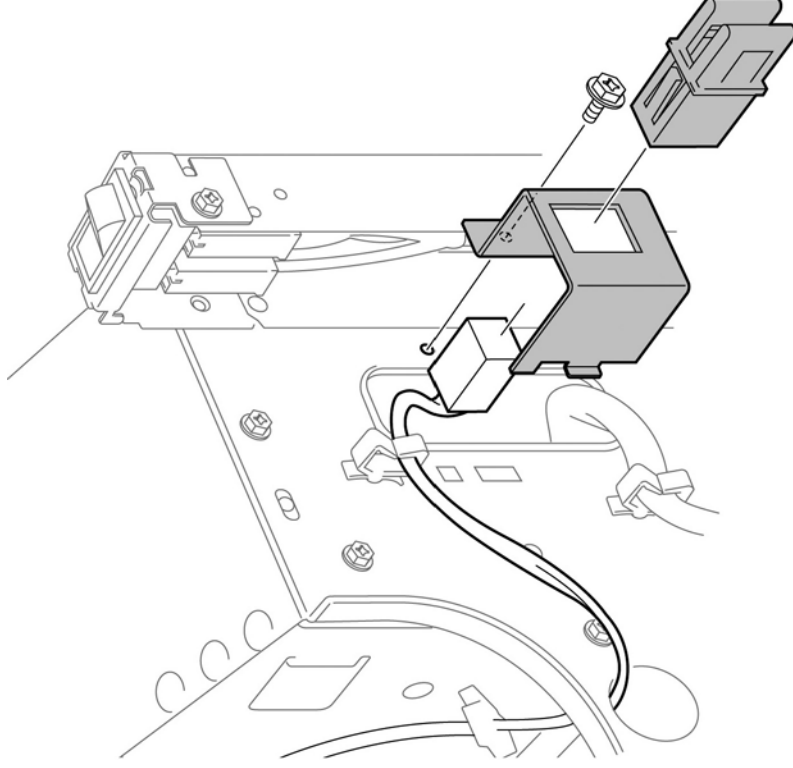


Figure 1 Removing the Front Door Interlock Switch

## REP 1.7 Upper Right Cover

### Parts List on PL 1.2 Item 1

#### Removal

1. Remove the two screws securing the Upper Right Cover.
2. Lower the Upper Right Cover to release the upper rib.
3. Remove the Upper Right Cover.

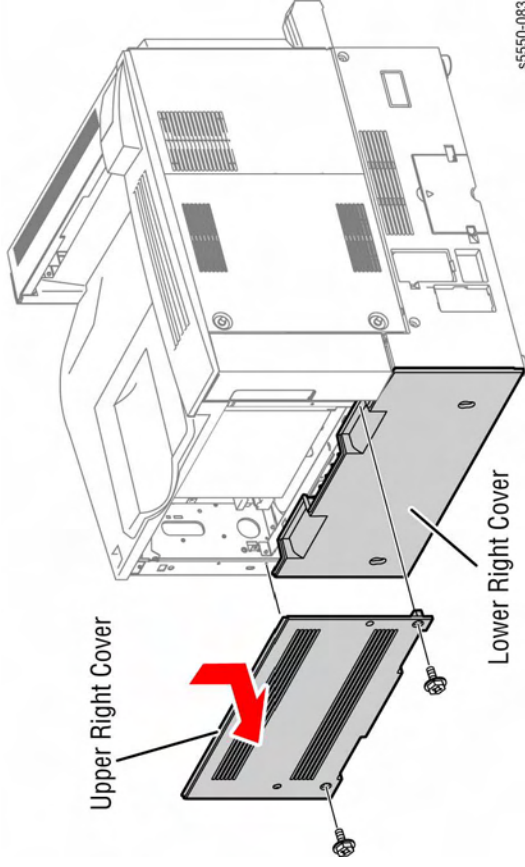


Figure 1 Removing the Upper Right Cover

#### Replacement

Be sure to secure the lower rib on the Upper Right Cover to the upper part of the Lower Right Cover.

## REP 1.8 Rear Panel Cover

### Parts List on PL 1.2 Item 4

#### Removal

1. Open the Rear Panel Cover.
2. Remove the lower boss securing the Rear Panel Cover to the printer. It is easier to remove by pushing down the retainer of the boss.

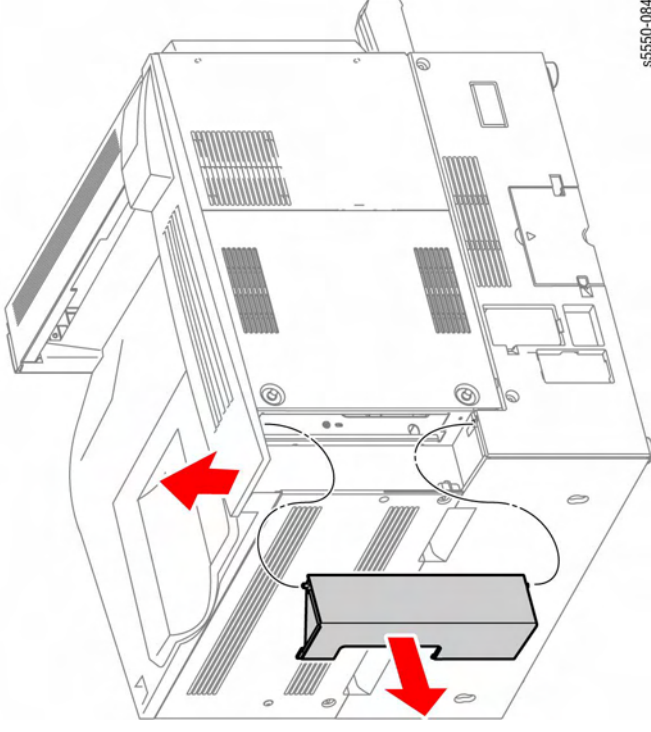


Figure 1 Removing the Rear Panel Cover



## REP 1.9 Lower Right Cover

Parts List on PL 1.2 Item 2

### Removal

1. Remove the Upper Right Cover (REP 1.7).
2. Pull out Trays 2 and 3 at least partially.
3. Remove the Lower Right Cover by lifting upwards to release the hooks, then outward.

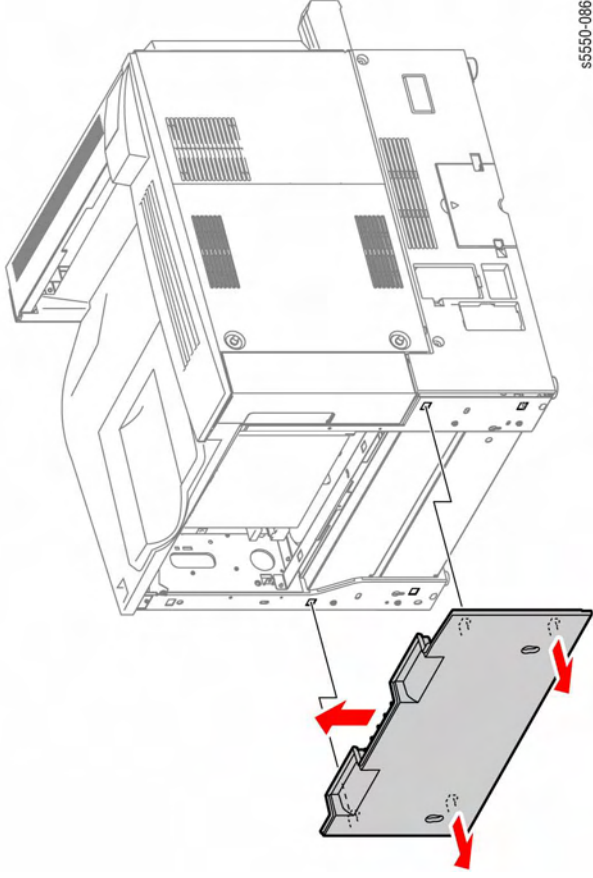


Figure 1 Removing the Lower Right Cover

## REP 1.10 I/P Board Cover

Parts List on PL 8.1 Item 20

### Removal

1. Loosen the two captive thumbscrews securing the I/P Board Cover.
2. Remove the I/P Board Cover by moving it in the direction of the arrow.

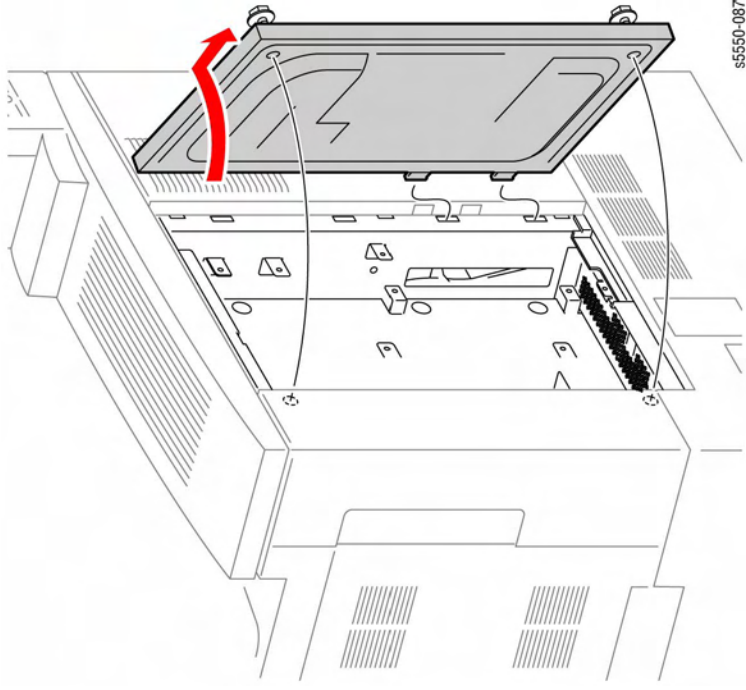


Figure 1 Removing the I/P Board Cover

## REP 1.11 Upper Rear Cover

Parts List on PL 1.2 Item 5

### Removal

1. Remove the I/P Board Cover (REP 1.10).
2. Remove the two screws securing the Upper Rear Cover to the printer.
3. Remove the Upper Rear Cover by moving it in the direction of the arrow.

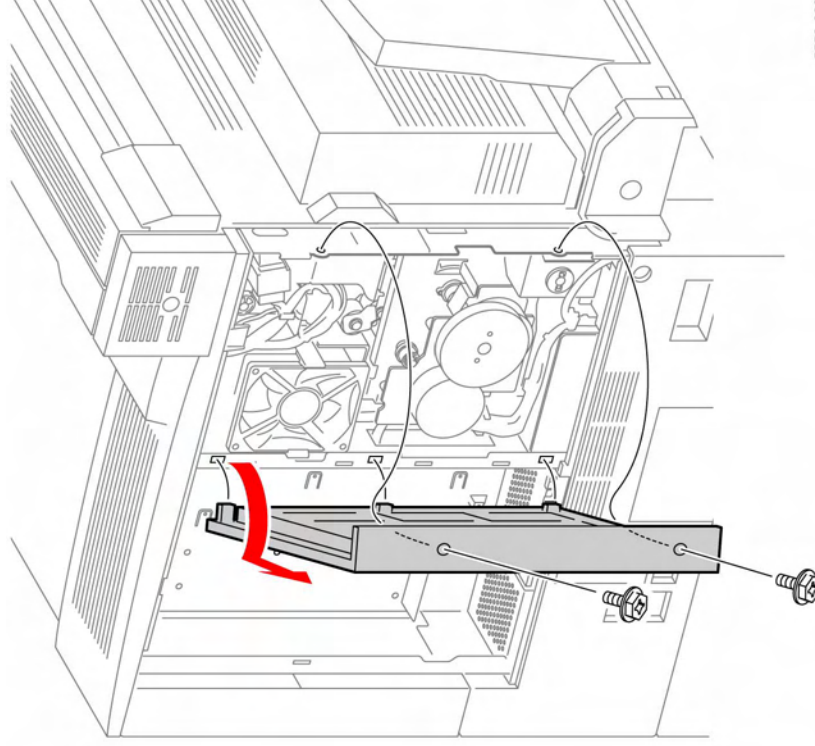


Figure 1 Removing the Upper Rear Cover

## REP 1.12 Tray 1/MPT Rear Cover

Parts List on PL 3.1 Item 14

### Removal

1. Remove the one screw securing the Tray 1/MPT Rear Cover to the frame.

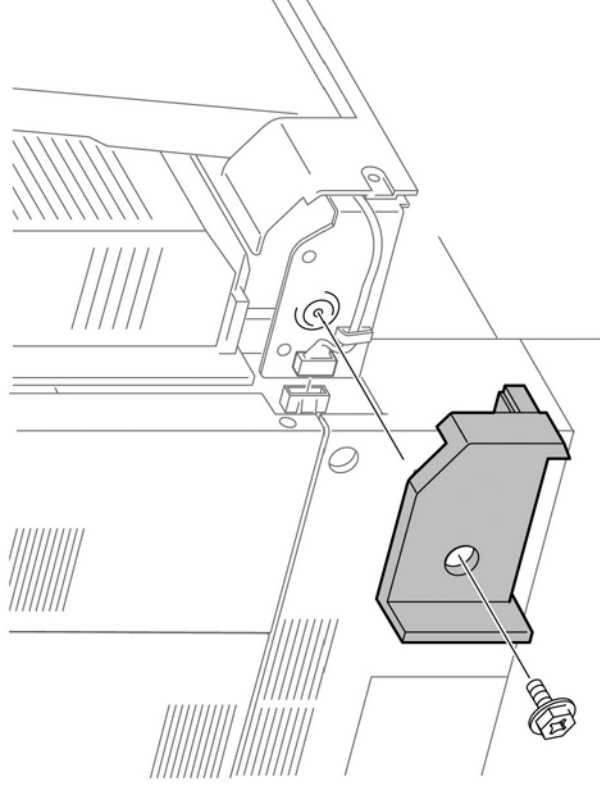


Figure 1 Removing the Tray 1/MPT Rear Cover

## REP 1.13 Lower Rear Cover

### Parts List on PL 1.2 Item 6

#### Removal

1. Disconnect any option cables.
2. Remove the I/P Board Cover (REP 1.10).
3. Remove the Upper Rear Cover (REP 1.11).
4. Remove the two screws securing the Lower Rear Cover to the frame.
5. Remove the Lower Rear Cover by tilting the top outwards slightly then lifting the cover up and out.

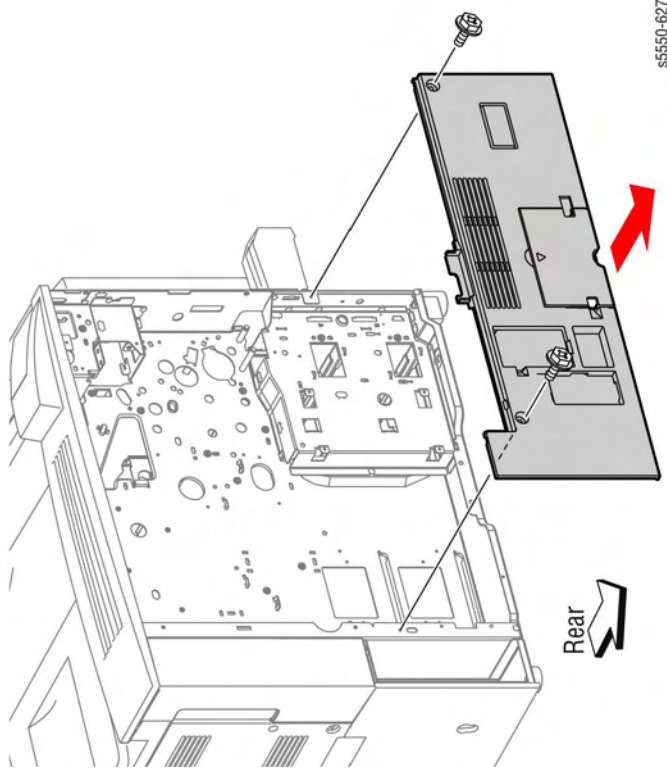


Figure 1 Removing the Lower Rear Cover

#### Replacement

Attach the four lower hooks on the Lower Rear Cover to the bracket on the printer.

## REP 1.14 Option Interface Cover

### Parts List on PL 1.2 Item 7

#### Removal

1. Remove the Option Interface Cover from the Lower Rear Cover by moving the Option Interface Cover in the direction of the arrow.

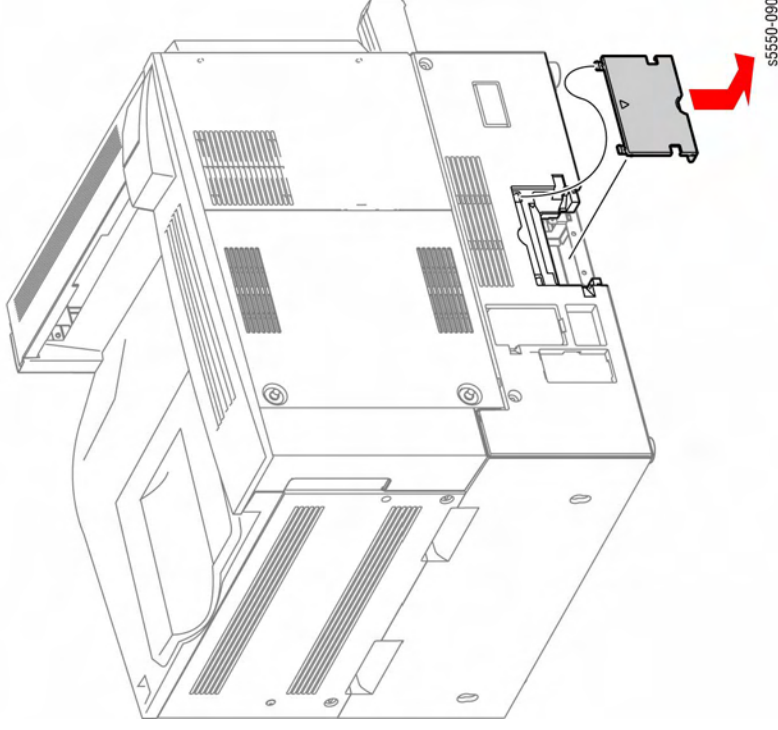


Figure 1 Removing the Option Interface Cover

## REP 1.15 Exit 1 Top Cover

Parts List on PL 6.2 Item 22

### Removal

1. Remove the Exit 1 Top Cover by moving it in the direction of the arrow.

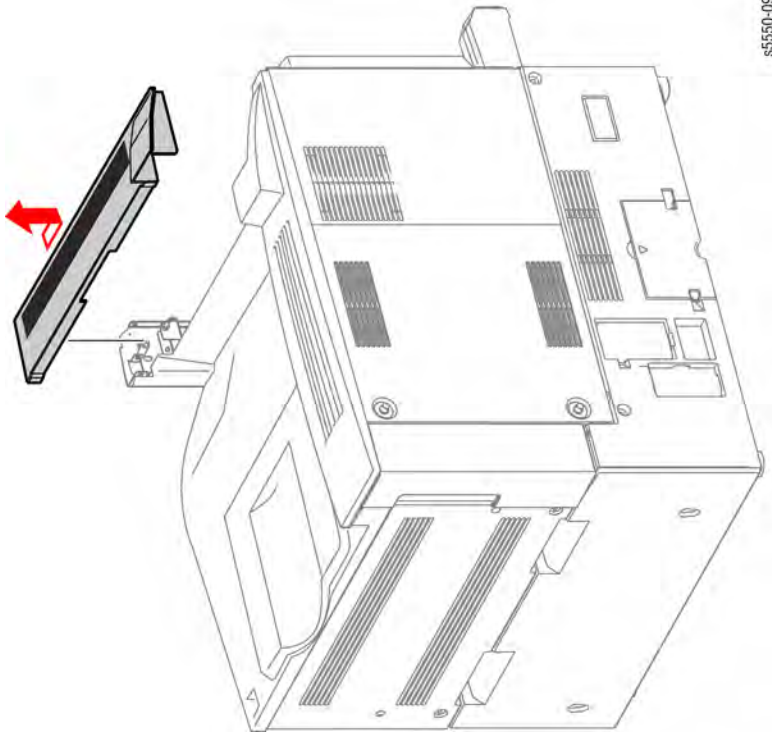


Figure 1 Removing the Exit 1 Top Cover

## REP 1.16 Control Panel

Parts List on PL 1.1 Item 6

### Removal

1. Remove the Control Panel Cover by releasing the front, right hooks securing the Cover to the Top Cover.
2. Lift the right end of the Control Panel slightly and release the front, left hooks.
3. Move the Control Panel Cover in the arrow direction (right side) to remove.

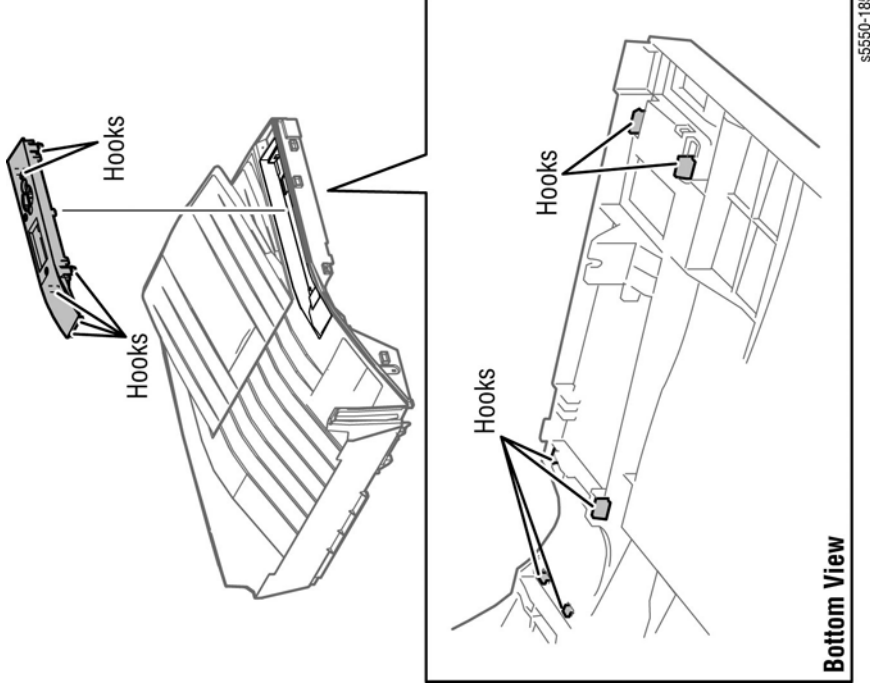


Figure 1 Removing the Control Panel



## REP 2.1 Paper Size Switches

### Parts List on PL 2.1 Item 4

#### Removal

Both paper size sensing switch arrays are located behind the AC Accessory Panel. Use this procedure to replace either the Tray 2 or Tray 3 Paper Size switches.

**NOTE:** To remove the Tray 2 switch, remove the Engine Control Board (page 8-89), and loosen the Engine Control Board Bracket.

1. Remove the A/C Accessory panel (REP 8.7).
2. Remove the two screws securing the switch bracket.
3. Remove the switch together with the bracket.
4. Disconnect the connector from the switch.
5. Remove the one screw securing the switch to the bracket.

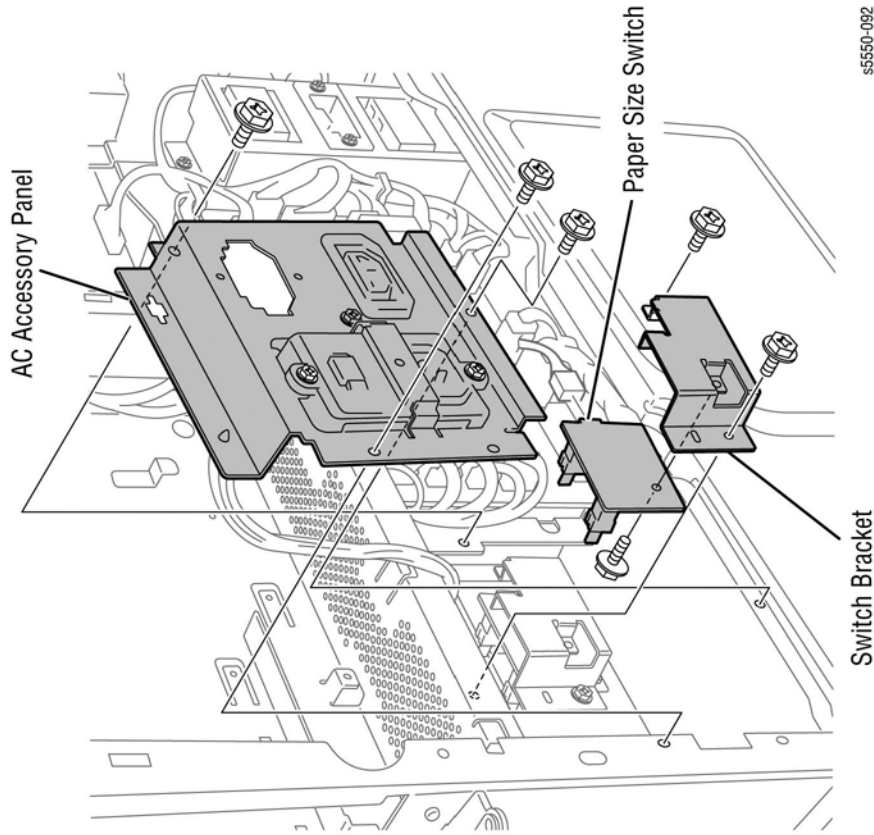


Figure 1 Removing the Paper Size Switches

## REP 2.2 Tray 2 Feeder

### Parts List on PL 2.1 Item 7

#### Removal

1. Open Door A.
2. Remove the Take Away Bracket (REP 4.1).
3. Remove Tray 2.
4. Release the harness from the two clamps on the frame.
5. Disconnect the connector.
6. Remove the two screws securing the Feeder to the frame.
7. Remove the Feeder by moving it in the direction of the arrow.

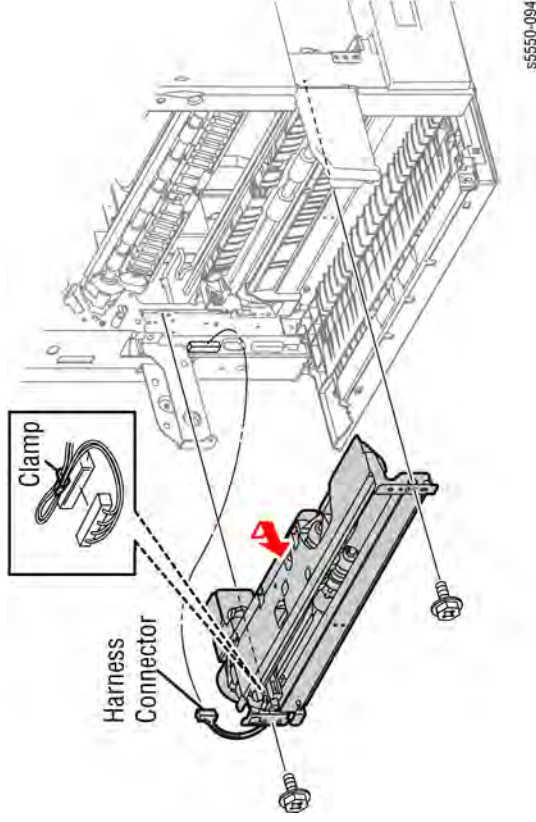


Figure 1 Removing the Tray 2 Feeder

#### Replacement

When installing the Feeder, fit the two bosses on the frame into the holes on the Feeder, and transfer the Feed Out Chute to the new Feeder.

## REP 2.3 Tray 3 Feeder

### Parts List on PL 2.1 Item 7

#### Removal

1. Open Door A.
2. Open Door B.
3. Remove the Take Away Bracket (REP 4.1).
4. Pull out Tray 3.
5. Release the boss on the both ends on the Feed Out Chute securing it to the frame.  
Release the right side first and remove the chute.

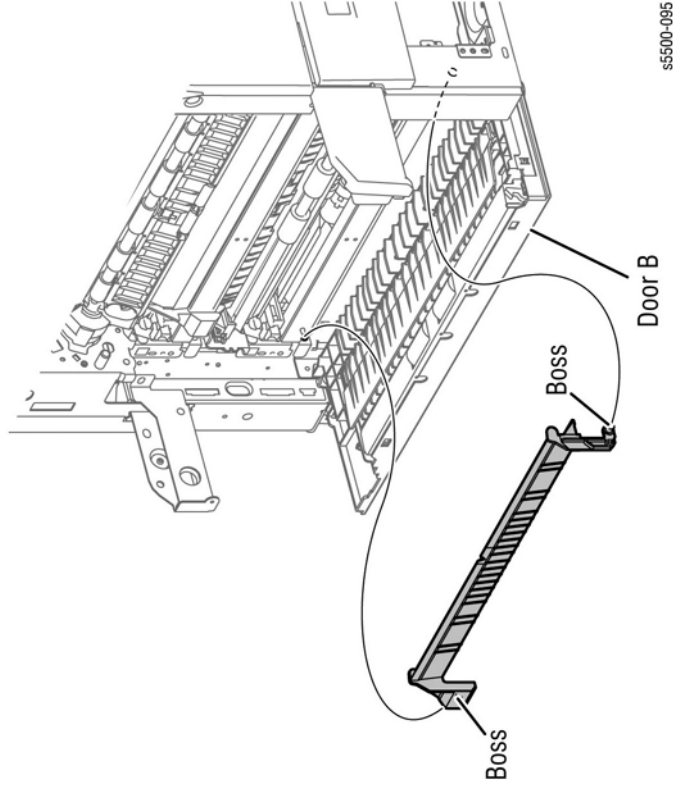


Figure 1 Removing the Chute

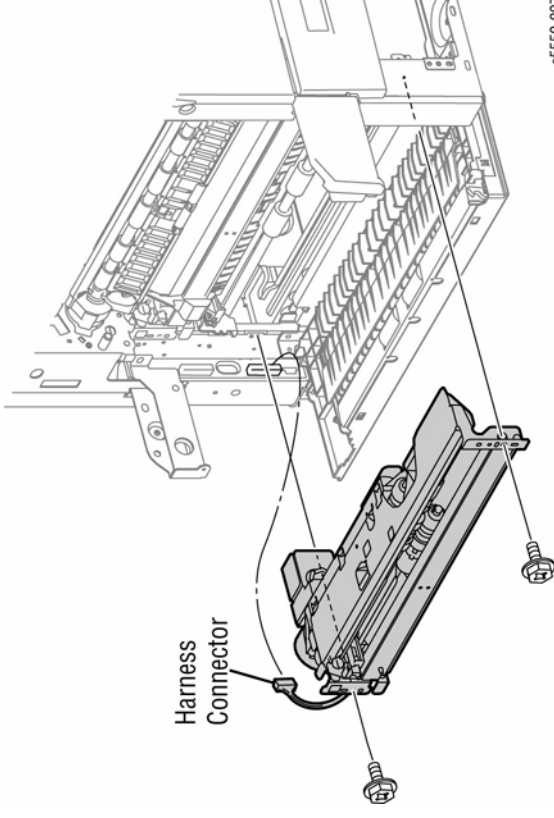


Figure 2 Removing the Feeder

#### Replacement

When installing the Feeder, fit the two bosses on the frame into the holes on the Feeder. When installing the Take Away Chute, fit the bosses on the Take Away Chute into the holes on the frame.

## REP 2.4 Feed/Lift Motor

### Parts List on PL 2.3 Item 2

#### Removal

1. Remove the Tray 2 Feeder (REP 2.2) or Tray 3 Feeder (REP 2.3).
2. Disconnect the connector from the Feed/Lift Motor.
3. Disconnect the connector from the Feed/Lift Motor.
4. Remove the Feed/Lift Motor.

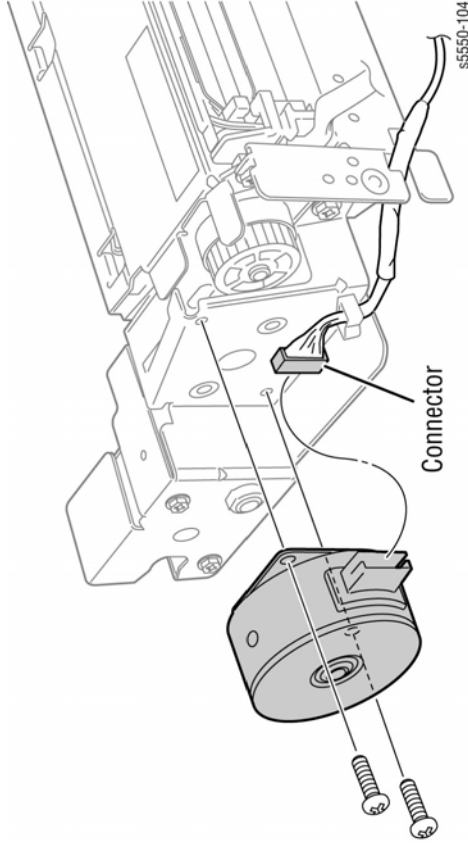


Figure 1 Removing the Feed/Lift Motor

## REP 2.5 Tray 2 and 3 No Paper Sensor

### Parts List on PL 2.3 Item 14

#### Removal

1. Remove the Tray 2 Feeder (REP 2.2) or Tray 3 Feeder (REP 2.3).
2. Release the hooks securing the Sensor to the Upper Frame as shown in the Figure 1.
3. Disconnect the connector from the No Paper Sensor.
4. Remove the No Paper Sensor.

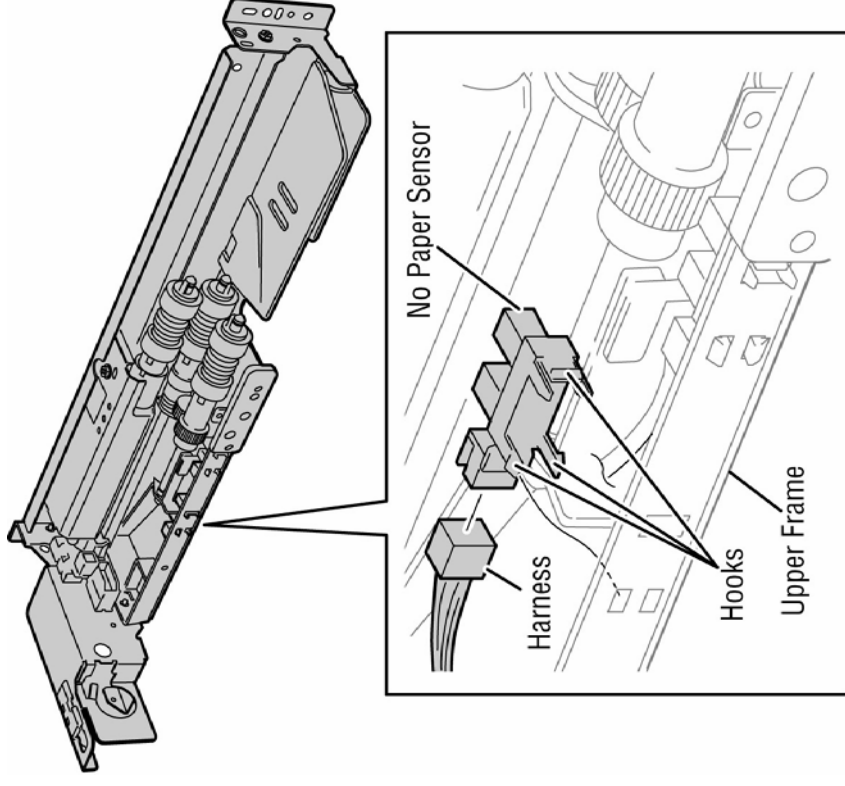


Figure 1 Removing the Tray 2 and 3 No Paper Sensor

## REP 2.6 Tray 2 and 3 Level Sensor Actuator

### Parts List on PL 2.3 Item 13

#### Removal

1. Remove the Tray 2 Feeder (REP 2.2) or Tray 3 Feeder (REP 2.3).
2. Release the two bosses on the Actuator securing the Actuator to the Upper Frame.
3. Remove the Actuator.

**NOTE:** As an alternate procedure, remove Trays 2 and 3, then reach in and release the actuator bosses from the feeder assembly.

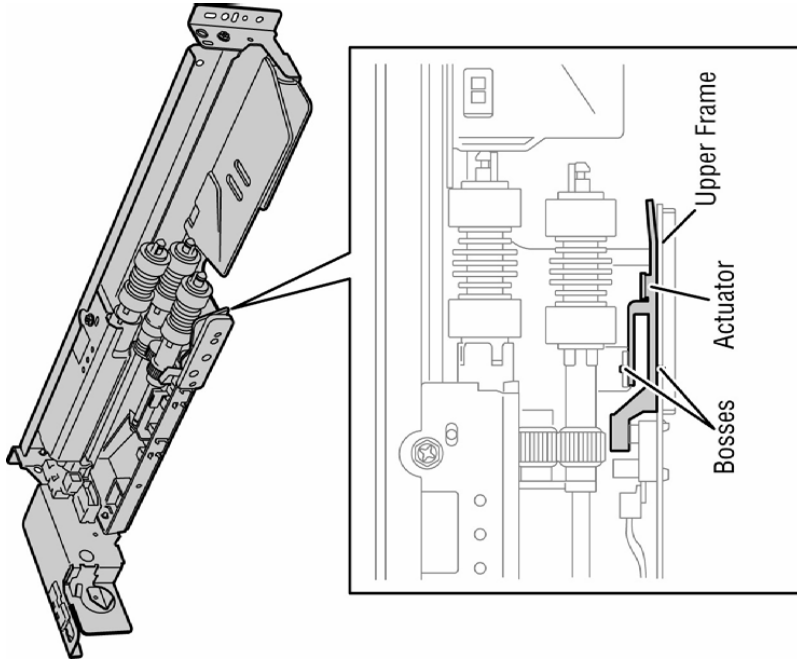


Figure 1 Removing the Tray 2 and 3 Level Sensor Actuator

## REP 2.7 Tray 2 and 3 Level Sensor

### Parts List on PL 2.3 Item 14

#### Removal

1. Remove the Tray 2 Feeder (REP 2.2) or Tray 3 Feeder (REP 2.3).
2. Remove the Level Sensor Actuator (REP 2.6).
3. Release the hooks securing the Level Sensor to the Upper Frame as shown in Figure 1.
4. Disconnect the connector from the Level Sensor and remove the sensor.

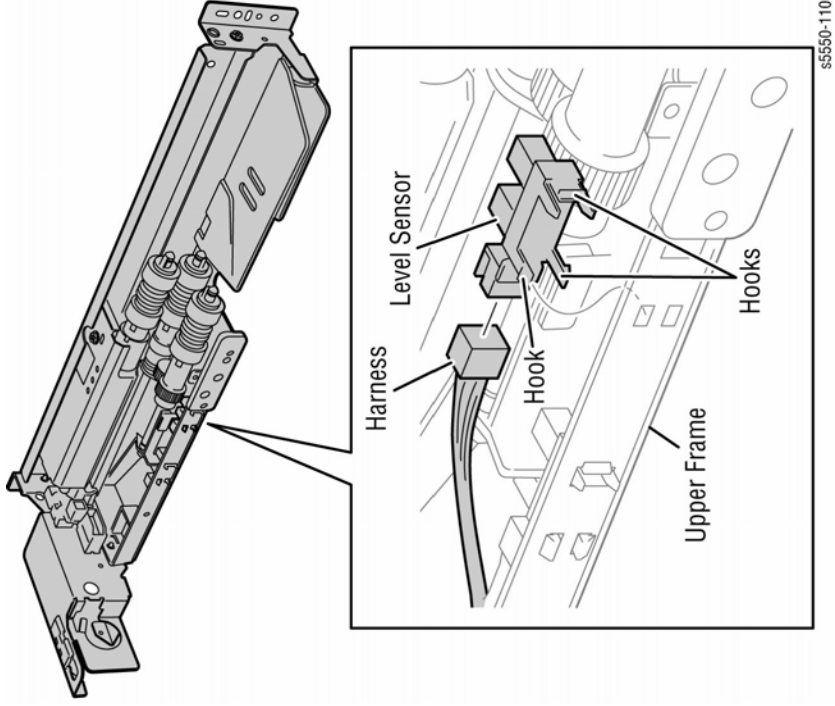


Figure 1 Removing the Tray 2 and 3 Level Sensor



## REP 2.8 Tray 2 and 3 Pre-Feed Sensor

### Parts List on PL 2.3 Item 15

#### Removal

1. Remove the Tray 2 Feeder (REP 2.2) or Tray 3 Feeder (REP 2.3).
2. Remove the Pre-Feed Sensor from the Front Chute as shown in Figure 1.
3. Disconnect the connector from the Pre-Feed Sensor.

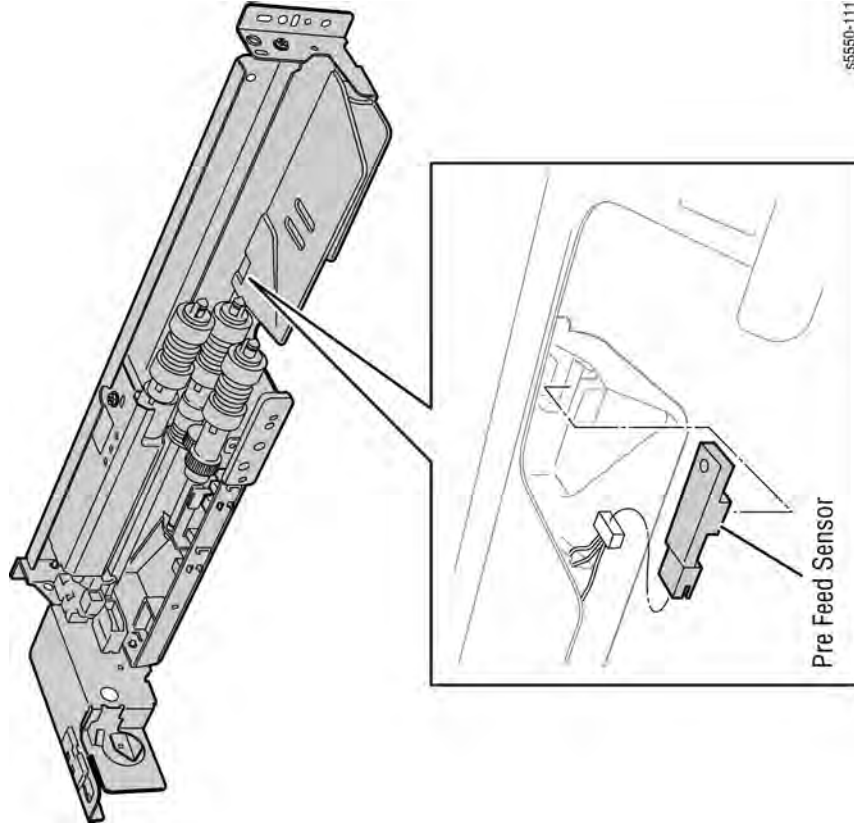


Figure 1 Removing the Tray 2 and 3 Pre-Feed Sensor

## REP 2.9 Feed Roller

### Parts List on PL 2.3 Item 20

#### Removal

1. Remove the tray.
2. Move the Front Chute in the direction of the arrow.
3. Release the hook securing the Feed Roller to the Shaft and remove the Feed Roller.

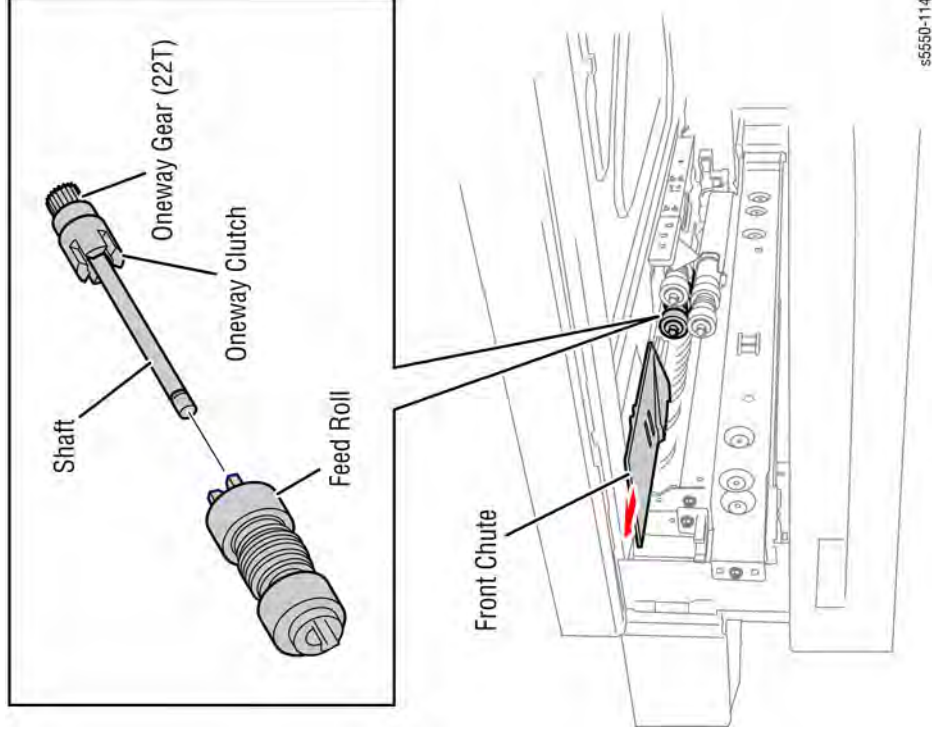


Figure 1 Removing the Feed Roller

## REP 2.10 Retard Roller

### Parts List on PL 2.3 Item 20

#### Removal

1. Remove the tray.
2. Move the Front Chute in the direction of the arrow.
3. Release the hook securing the Feed Roller to the Shaft and remove the Feed Roller.

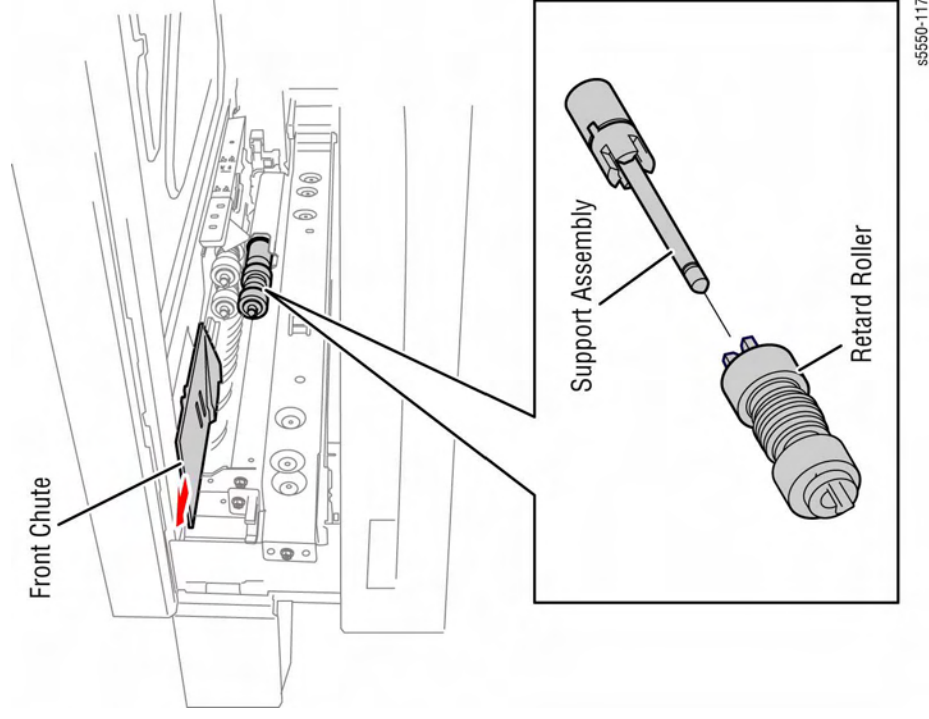


Figure 1 Removing the Retard Roller

## REP 2.11 Nudger Roller

### Parts List on PL 2.3 Item 20

#### Removal

1. Remove the tray.
2. Move the Front Chute in the direction of the arrow.
3. Release the hook securing the Nudger Roller to the Shaft as shown in Figure 1.
4. Remove the Nudger Roller.

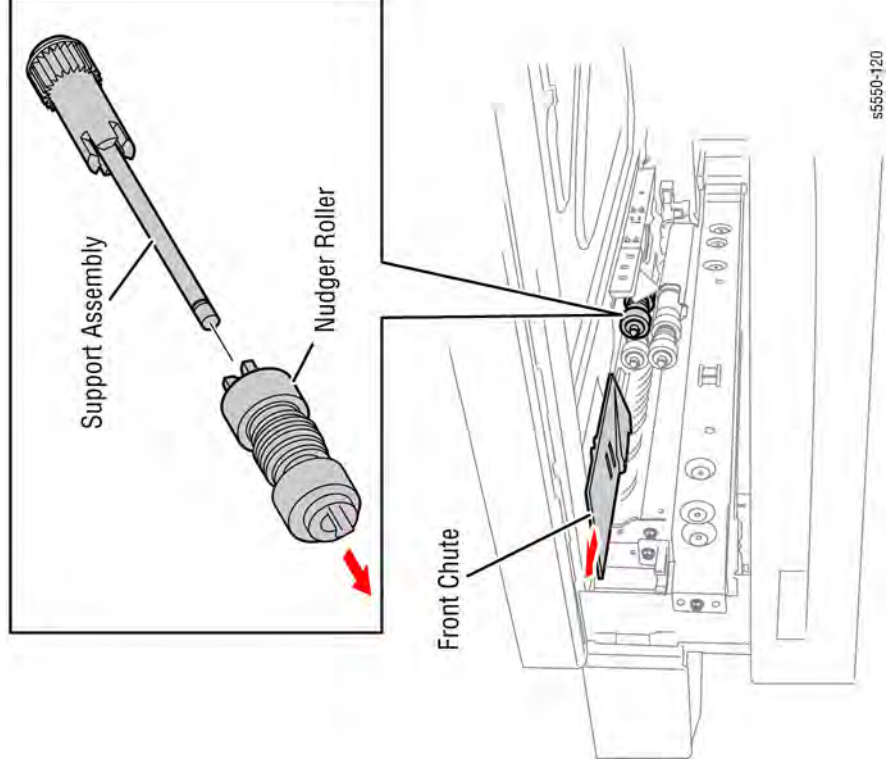


Figure 1 Removing the Nudger Roller



## REP 3.1 Tray 1 Feeder

### Parts List on PL 3.1 Item 1

#### Removal

1. Remove the Tray 1/MPT Rear Cover (REP 1.13).
2. Disconnect the connector from the printer.
3. Release the harness from the clamp.
4. Remove the two screws securing the Tray 1/MPT Feeder to the frame.
5. Remove the Tray 1 Feeder.

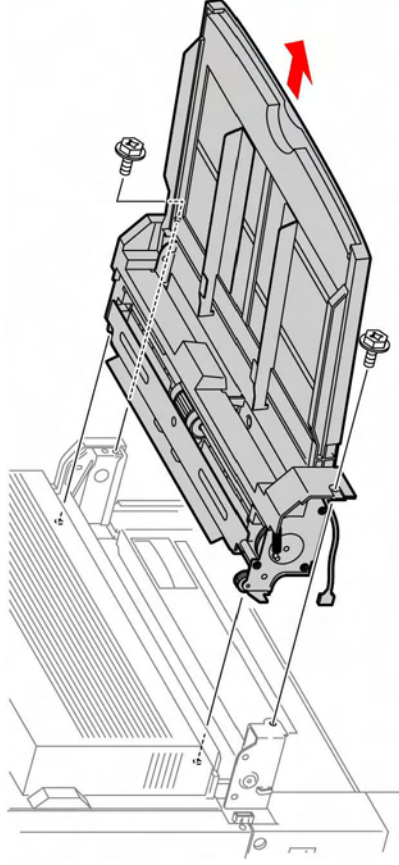


Figure 1 Removing the Tray 1 Feeder

#### Replacement

Place the harness along the slot on the left of the Feeder to avoid pinching the harness between the Feeder and the Frame.

## REP 3.2 Tray 1/MPT No Paper Sensor Actuator

### Parts List on PL 3.1 Item 3

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove the two hooks securing the upper frame to Tray 1/MPT.
3. Remove the upper frame by moving it in the direction of the arrow.
4. Pull the right side of the Actuator toward you, then pull it out of the hole in the upper frame.

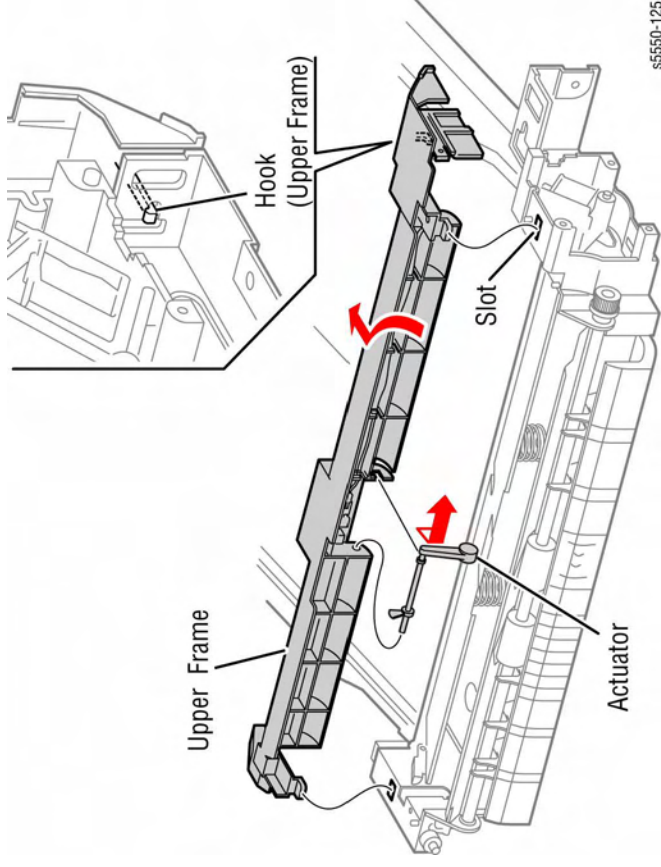


Figure 1 Removing the Tray 1/MPT No Paper Sensor Actuator

#### Replacement

When installing the actuator into the Upper Frame, press on both sides of the actuator pivot point to avoid breaking the part.

## REP 3.3 Tray 1/MPT No Paper Sensor

### Parts List on PL 3.1 Item 4

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Release the two hooks securing the Upper Frame to the Tray 1 Feeder, and move the Upper Frame in the direction of the arrow to remove.
3. Disconnect the connector from the sensor.
4. Release the hooks securing the sensor to the Tray 1 upper frame.
5. Remove the sensor.

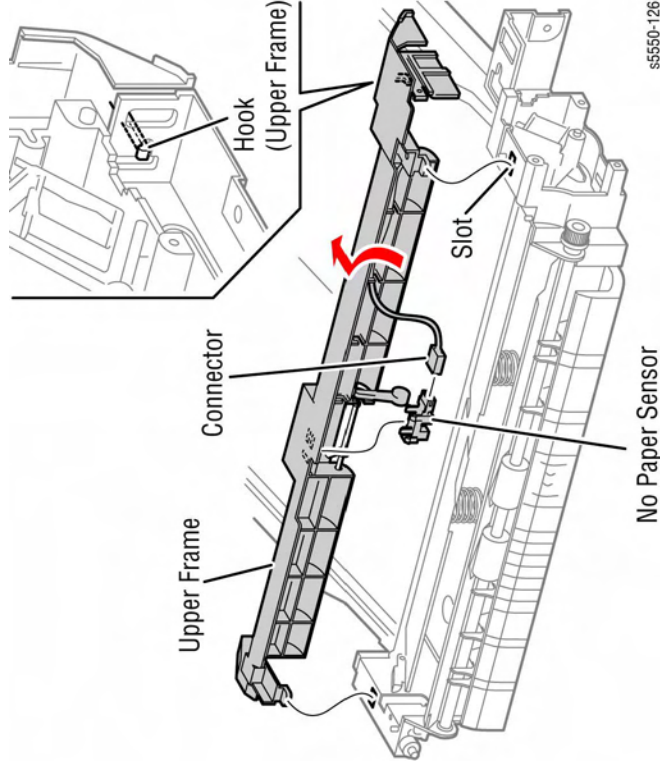


Figure 1 Removing the Tray 1/MPT No Paper Sensor

## REP 3.4 Pick Up Gear

### Parts List on PL 3.2 Item 6

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove the Spring from the Gear Bracket and Pick Up Gear.
3. Remove the Gear Bracket.
4. Remove the Pick Up Gear.

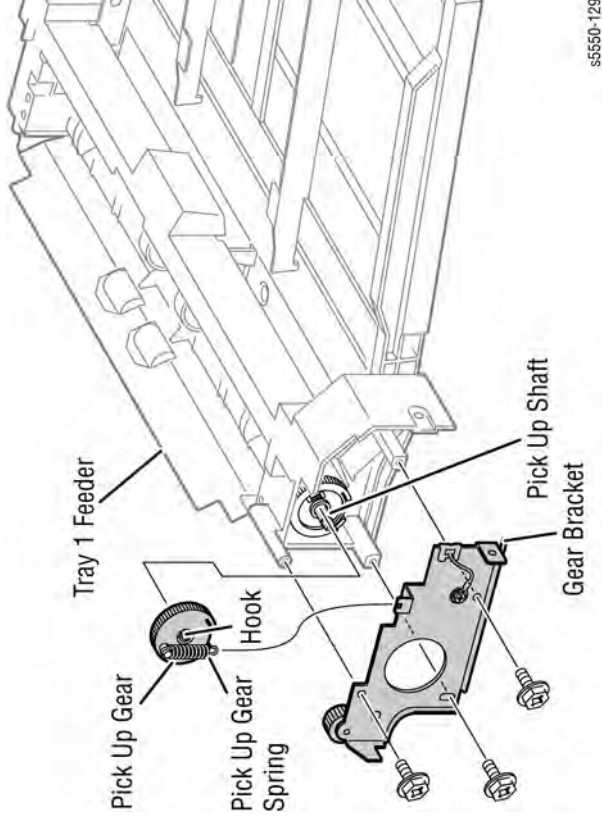


Figure 1 Removing the Pick Up Gear Spring

#### Replacement

Slide the Pick Up Gear until it locks on the Stopper Lever.



## REP 3.5 Pick Up Solenoid

### Parts List on PL 3.2 Item 15

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove the Pick Up Gear (REP 3.4).
3. Remove the one screw securing the Pick Up Solenoid to the Gear Bracket.
4. Disconnect the connector from the Pick Up Solenoid.
5. Lower the Gear Lever in the direction of the arrow and remove the Pick Up Solenoid.

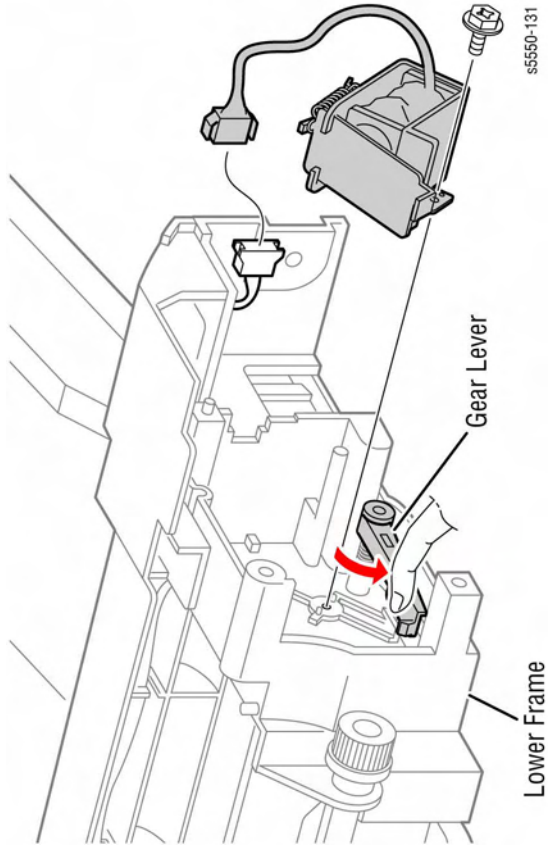


Figure 1 Removing the Pick Up Solenoid

## REP 3.6 Cam Gear Spring

### Parts List on PL 3.2 Item 16

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove the Pick Up Gear (REP 3.4).
3. Remove the Cam Gear Spring securing the Pick Up Gear to the Cam Gear.

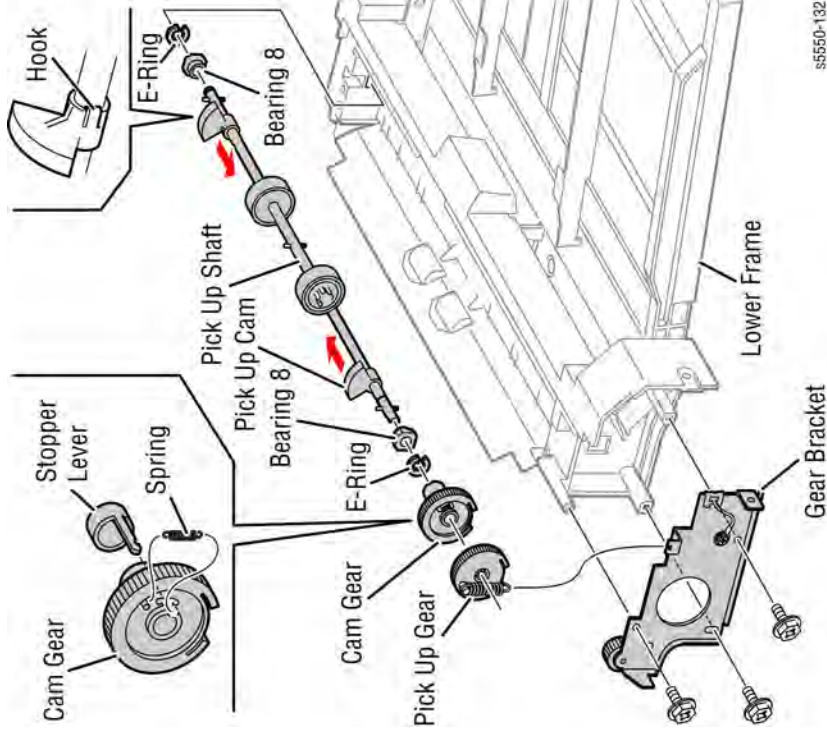


Figure 1 Removing the Cam Gear Spring

## REP 3.7 Feed Roller Assembly

### Parts List on PL 3.2 Item 20

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove the two screws securing the Pinch Chute to the Tray 1/MPT Lower Frame. Note the orientation of the roller and remove the Pinch Chute.
3. While releasing the two hooks of the Roller Core left and right securing the Feed Roller to the Pick Up Shaft as shown in Figure 1, and slide the Feed Roller outward.
4. Remove the Feed Roller from the Pick Up Shaft by moving it in the direction of the arrow (to the front).

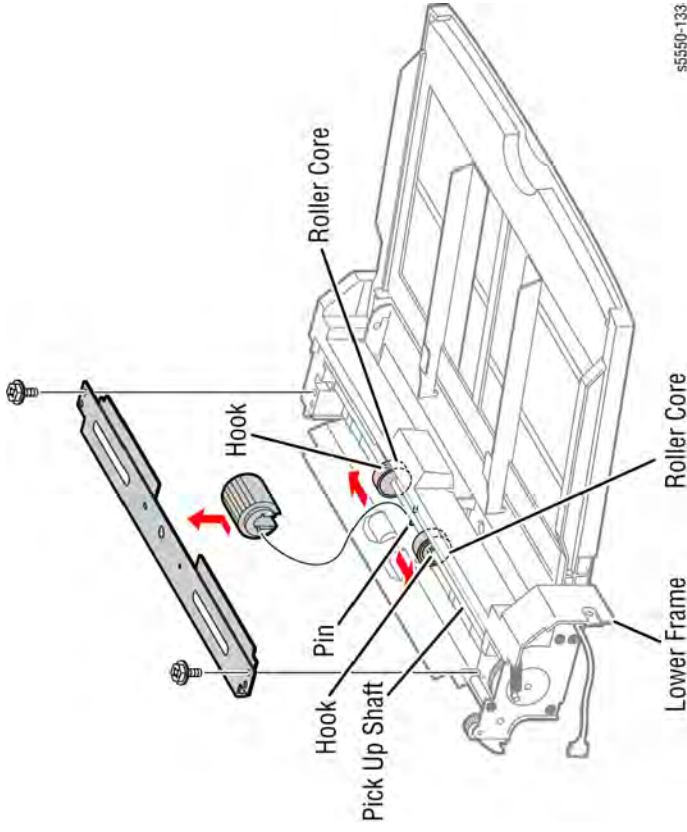


Figure 1 Removing the Feed Roller Assembly

## REP 3.8 Retard Pad

### Parts List on PL 3.2 Item 12

#### Removal

#### CAUTION

The Retard Pad Springs are easily lost. Grip each spring firmly when removing them. The Retard pad is held down by the force of the Feed Roller.

1. Remove the Feed Roller (REP 3.7).
2. Remove the two Pad Springs under the Retard pad.
3. Remove the Retard Pad and the Retard Shaft by moving it in the direction of the arrow, from the backside.

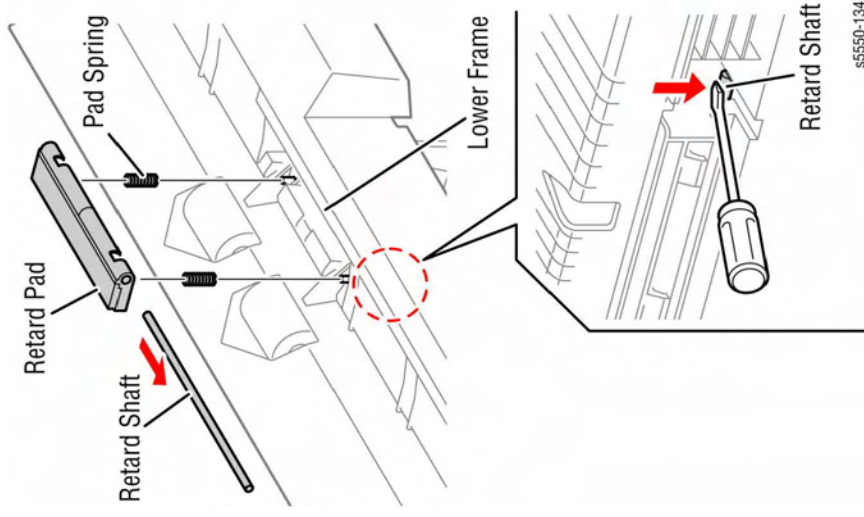


Figure 1 Removing the Retard Pad

## REP 4.1 Take Away Bracket

### Parts List on PL 4.1 Item 1

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Open Door B.
3. Remove the two screws securing the Take Away Bracket to the printer.
4. Disconnect the harness and release the harness from the clamp on the Take Away Bracket.
5. Disconnect the Door B Interlock Switch from the harness and remove the Take Away Bracket.

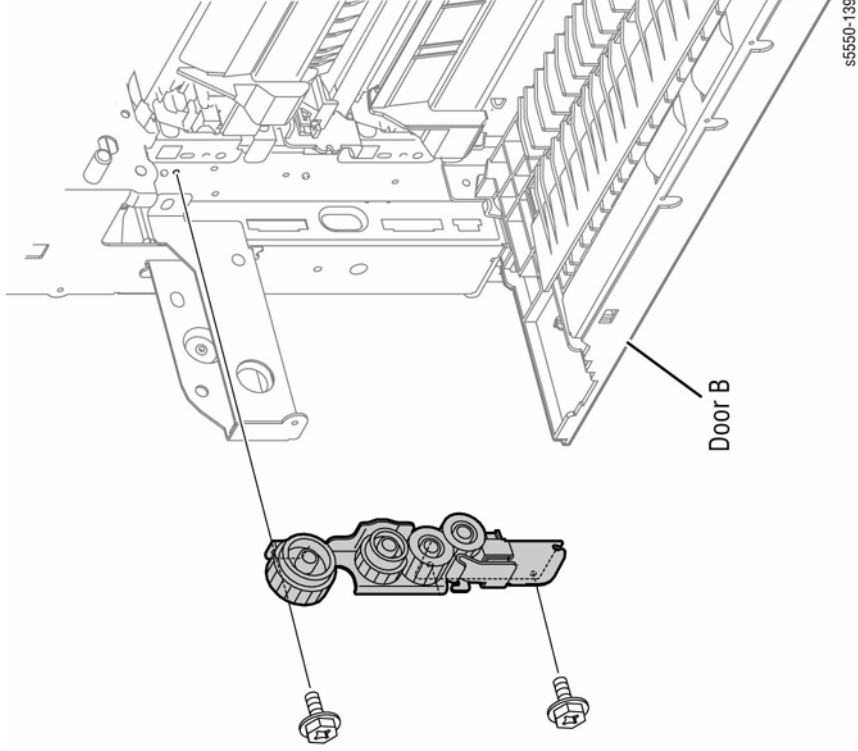


Figure 1 Removing the Take Away Bracket

## REP 4.2 Door B Interlock Switch

### Parts List on PL 4.1 Item 3

#### Removal

1. Open Door B.
2. Release the hooks securing the switch to the Take Away Bracket.
3. Disconnect the connector from the switch.
4. Remove the Door B Interlock Switch.

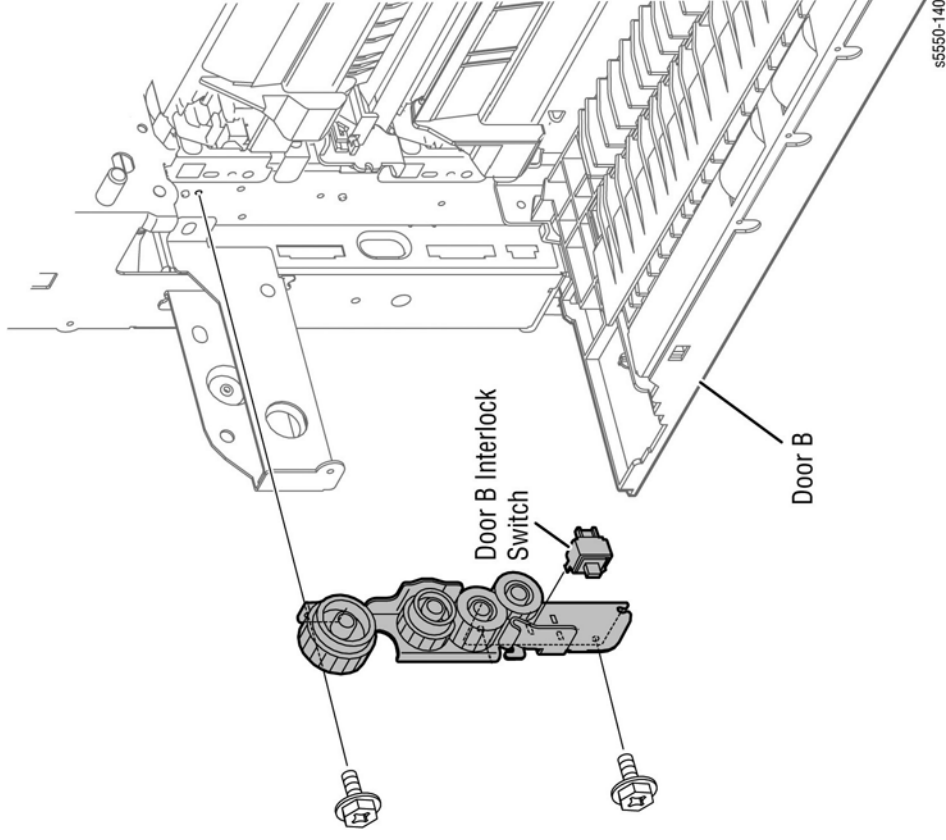


Figure 1 Removing the Door B Interlock Switch



## REP 4.3 Take Away Roller Assembly

### Parts List on PL 4.1 Item 8

#### Removal

1. Remove the Tray 1/MPT Feeder (REP 3.1).
2. Remove Door A (REP 4.7).
3. Open Door B.

#### CAUTION

*The Take Away Chute is easily damaged if the latches located on the backside of the chute are not released before attempting to remove the chute from the frame. Release these latches before attempting to remove the Take Away Chute.*

4. Remove the two screws securing the Take Away Chute to the frame.
5. Reach in and release the latch at the center of the Take Away Chute from behind and remove the chute.
6. Remove the K-clip on the right side, securing the Take Away Roller to the frame.

#### CAUTION

*The Take Away Bearing and Gear 18T are not captive on the shaft. Capture these parts as you remove the shaft.*

7. Remove the Take Away Roller by moving it in the direction of the arrow.

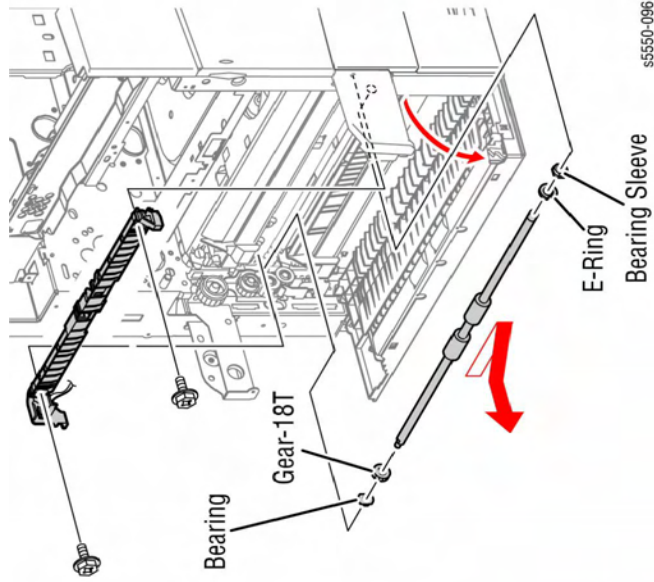


Figure 1 Removing the Take Away Roller Assembly

## REP 4.4 Door B

### Parts List on PL 4.1 Item 10

#### Removal

1. Open Door B.
2. Remove the two screws securing the Lower Chute to the frame.
3. Remove Door B together with the Lower Chute.

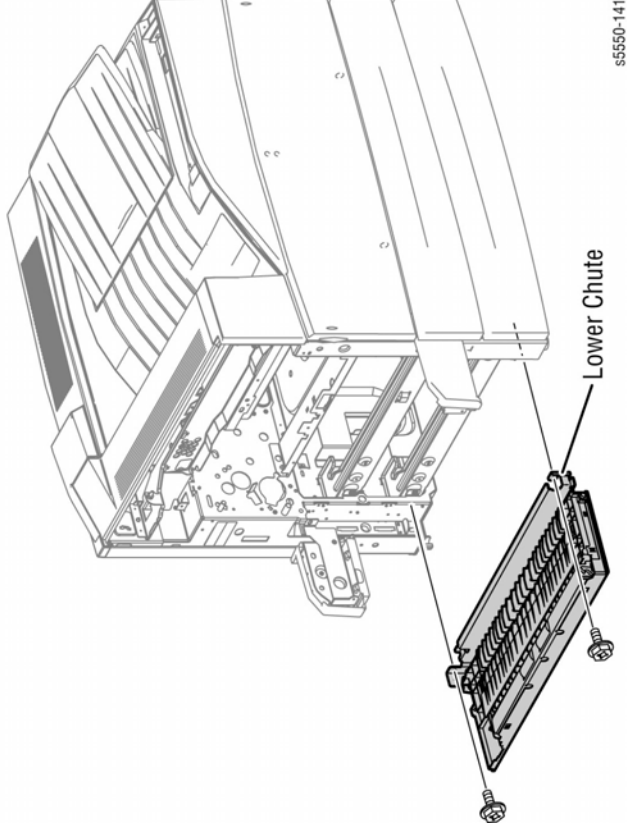


Figure 1 Removing Door B

## REP 4.5 Transfer Roller

### Parts List on PL 4.2 Item 1

#### Removal

1. Open Door A.
2. Pinch the hooks at each end of the Transfer Roller and lift to remove the Transfer Roller from the chute.

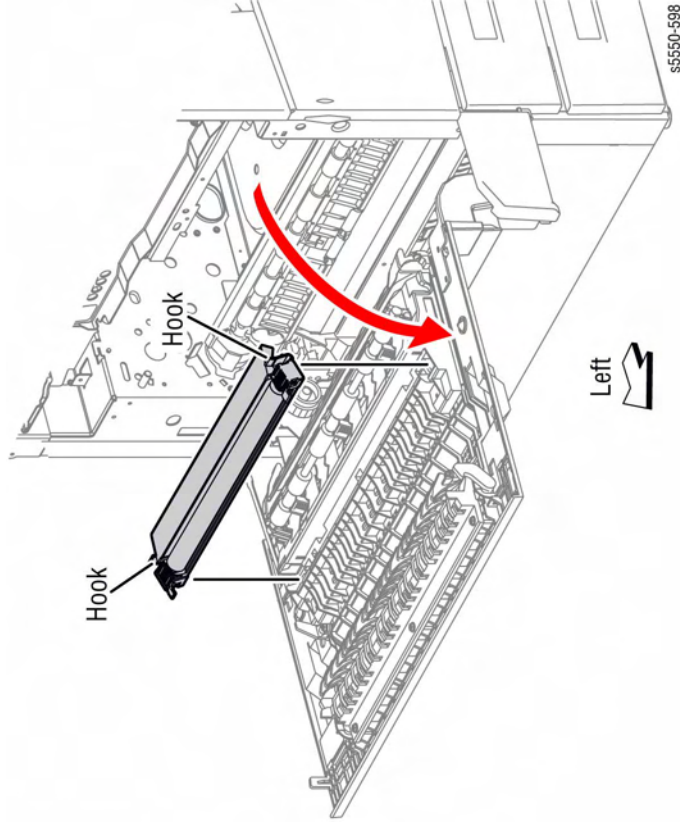


Figure 1 Removing the Transfer Roller

## REP 4.6 Door A Interlock Switch

### Parts List on PL 4.2 Item 4

#### Removal

1. Remove the Upper Rear Cover (REP 1.11).
2. Remove the single screw securing the Door A Interlock Switch to the frame.
3. Disconnect the switch from the harness and remove the switch and bracket from the Printer.
4. Remove the switch from the bracket by compressing the hooks.

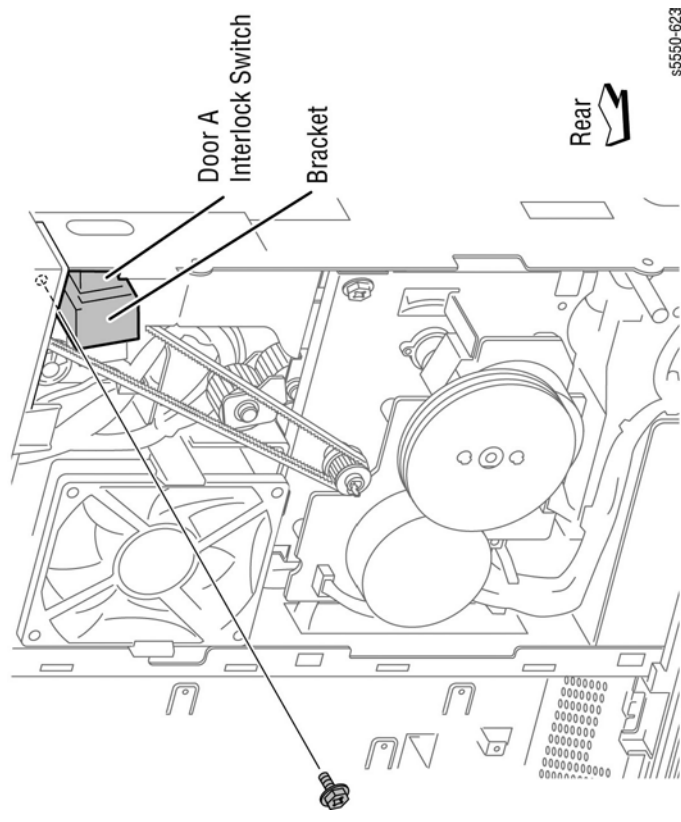


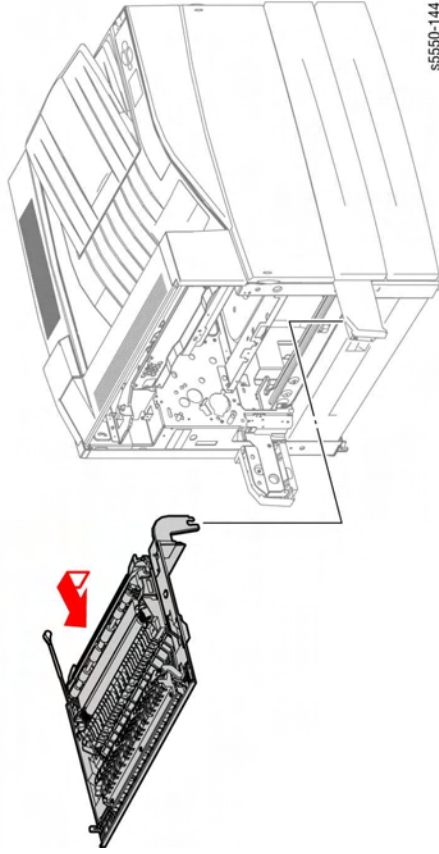
Figure 1 Removing the Door A Interlock Switch

## REP 4.7 Door A

### Parts List on PL 4.2 Item 8

#### Removal

1. Remove the Duplex Unit if installed.
2. Open Door A.
3. Remove the screw securing the Stopper to the Door.
4. Remove Door A by moving it in the direction of the arrow in Figure 1.



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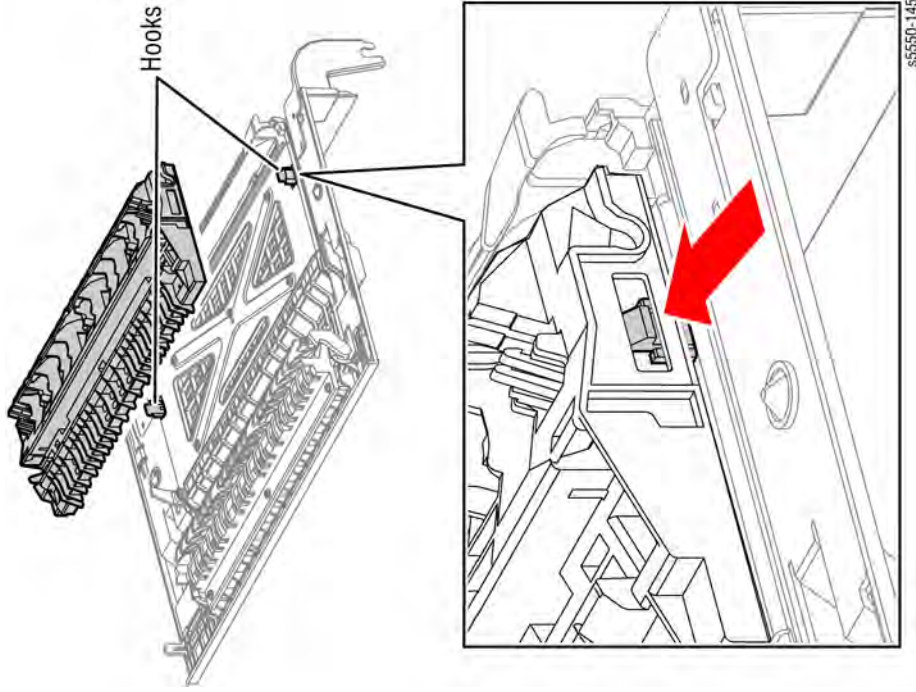
Figure 1 Removing Door A

## REP 4.8 Registration Roller

### Parts List on PL 4.3 Item 3

#### Removal

1. Release the two hooks, one on each side, securing the chute to Door A as shown in Figure 1.



s5550-145

Figure 1 Release the hooks

2. Remove the Transfer Roller (REP 4.5).

- Remove the hooks of the two Pinch Out Bearings on the left and right securing the Registration Rollers to the Chute as shown in Figure 2.
- Remove the Registration Rollers.

## REP 4.9 Registration Transport Assembly

### Parts List on PL 4.5 Item 1

#### Removal

- Remove the Tray 1/MPT Feeder (REP 3.1).
- Remove Door A (REP 4.7).
- Release the bosses on each end of the Feed Out Chute starting with the right end and remove the Feed Out Chute.
- Remove the Pinch Roller in the center of the Registration Transport Assembly to provide access to the locking retaining tab behind the Registration Transport Assembly.
- Remove the two screws securing the Registration Transport Assembly to the frame.
- Using a small screwdriver, or something similar, push on the retaining tab to unlock it from the notch in the frame while pushing the Registration Transport Assembly to the left, and lifting the center upward to release the retaining tab from the frame. Extract the Registration Transport Assembly from the frame by moving it in the direction of the arrow. Use care to avoid damage to the wiring connected on the back.

**NOTE:** It could require significant force to flex the Registration Transport Assembly to clear the retaining tab and remove it from the frame.

- Release the sensor harness from the clamp.
- Disconnect the sensor connector from the Registration Transport Assembly.
- Disconnect the connector from the printer.

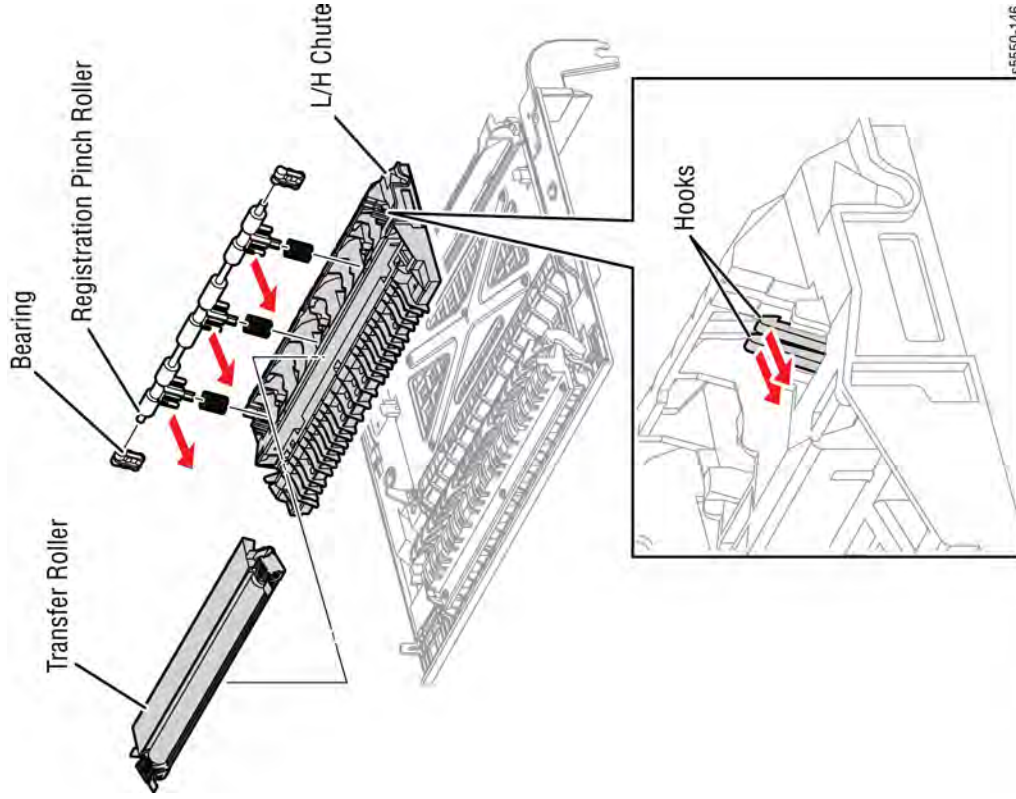


Figure 2 Removing the Registration Rollers



## REP 4.10 Registration Clutch

### Parts List on PL 4.5 Item 2

#### Removal

1. Remove the Registration Transport Assembly (REP 4.9).
2. Remove the E-ring securing the Registration Clutch to the Registration Roller.
3. Remove the Registration Clutch together with the harness.

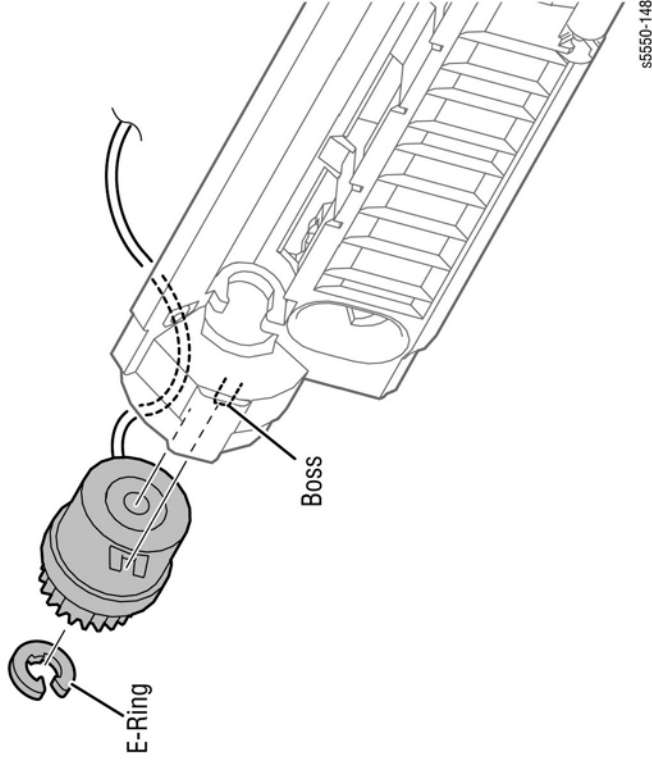


Figure 1 Removing the Registration Clutch

#### Replacement

Route the harness through the hole as shown. Avoid pinching the harness.

**NOTE:** A revised Registration Clutch, P/N 121K37450 is too large (lengthwise along the shaft) to mount correctly on older 5500 Registration Assemblies, P/N 059K41891. When replacing the clutch, determine if the Registration Assembly has the old (P/N121K32660) or revised clutch (P/N121K37450) by examining the clutch through the opening near the end of the shaft. The old clutch is silver in appearance. The revised clutch is bronze with a black plastic hub. If the old clutch is installed, order a new Registration Assembly, P/N 059K45960, rather than just the clutch. If the latest Registration Assembly P/N 121K37450 is installed, only order the clutch P/N 121K37450.

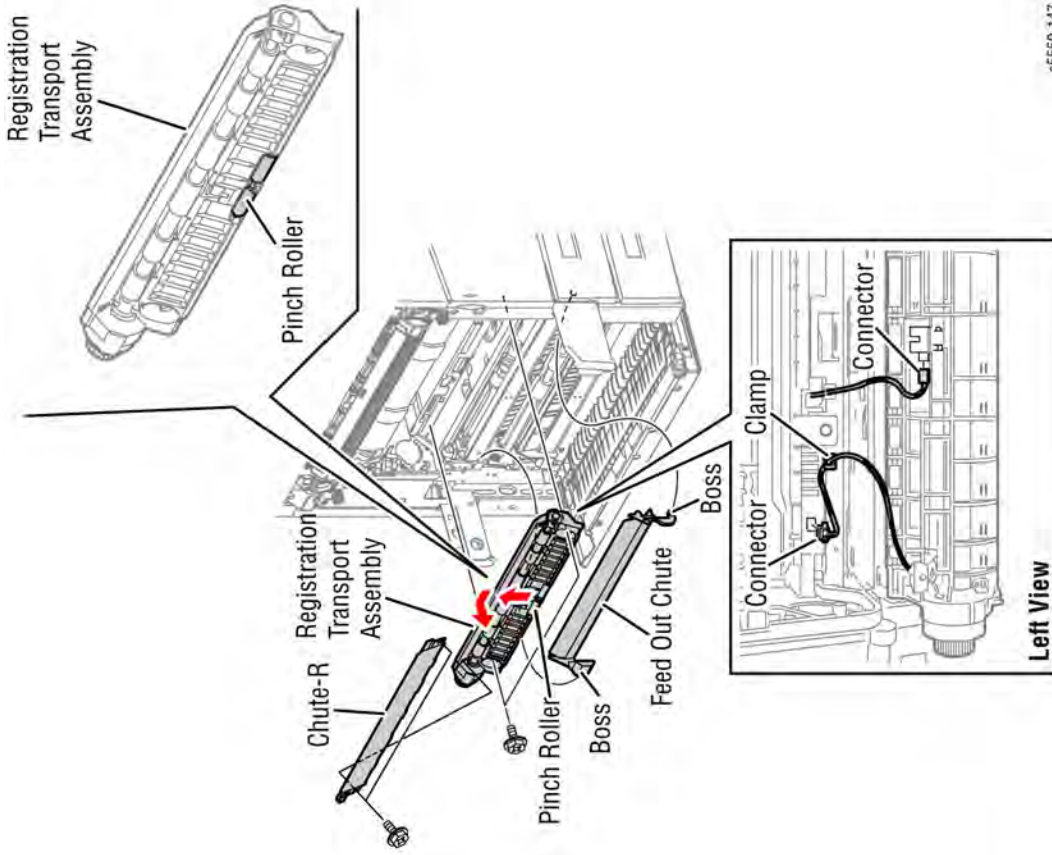


Figure 1 Removing the Registration Transport Assembly

#### Replacement

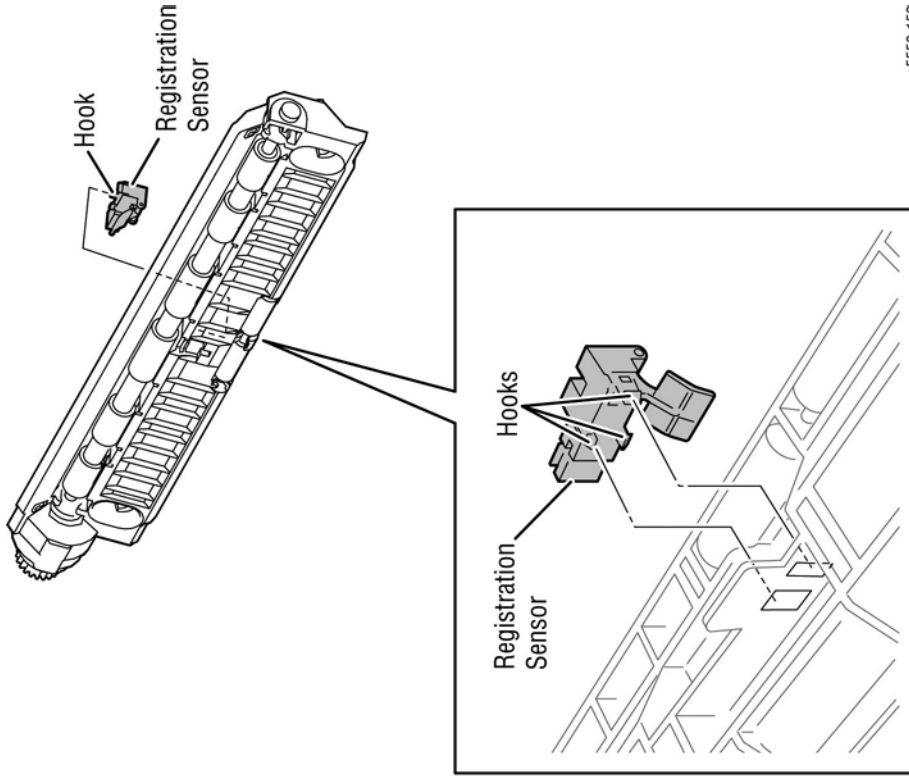
Make sure the retaining tab fits over the frame rather than under it.

## REP 4.11 Registration Sensor

Parts List on PL 4.5 Item 7

### Removal

1. Remove the Registration Transport Assembly (REP 4.9).
2. Release the three hooks securing the sensor to the Registration Transport Assembly and remove.



s5550-150

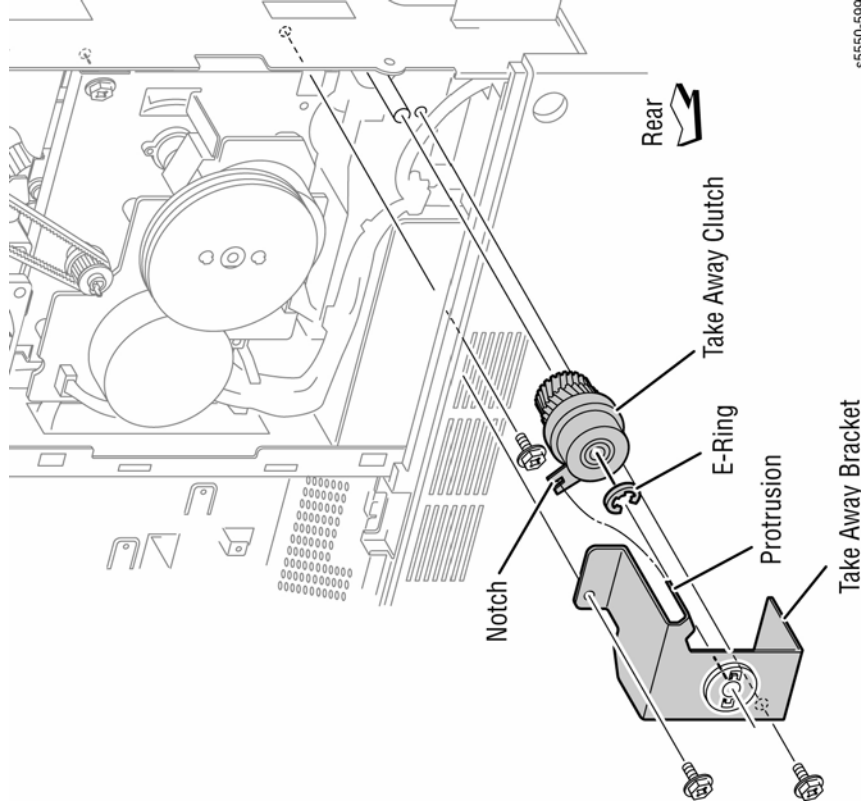
Figure 1 Removing the Registration Sensor

## REP 4.12 Take Away Clutch

Parts List on PL 4.5 Item 14

### Removal

1. Remove the Upper Rear Cover (REP 1.11).
2. Remove the screws securing the Take Away Clutch Bracket to the frame and Motor Assembly and remove the bracket.
3. Disconnect the Take Away Clutch connector from the harness.
4. Remove the E-clip securing the Take Away Clutch and remove the Clutch.



s5550-599

Figure 1 Removing the Take Away Clutch

### Replacement

Make sure the notch in the clutch fits over the protrusion.

## REP 4.13 Feed Out Sensor 3

### Parts List on PL 4.5 Item 18

#### Removal

1. Remove the Tray 1 Feeder (REP 3.1).
2. Open Door B.

#### CAUTION

*The Take Away Chute is easily damaged if the latches located on the backside of the chute are not released before attempting to remove the chute from the frame. Release these latches before attempting to remove the Take Away Chute.*

3. Remove the two screws securing the Take Away Chute to the frame.
4. Reach in and release the latch at the center of the Take Away Chute from behind and remove the chute.
5. Disconnect the connector from the Feed Out Sensor.
6. Release the hook securing the sensor to the Take Away Chute and remove.

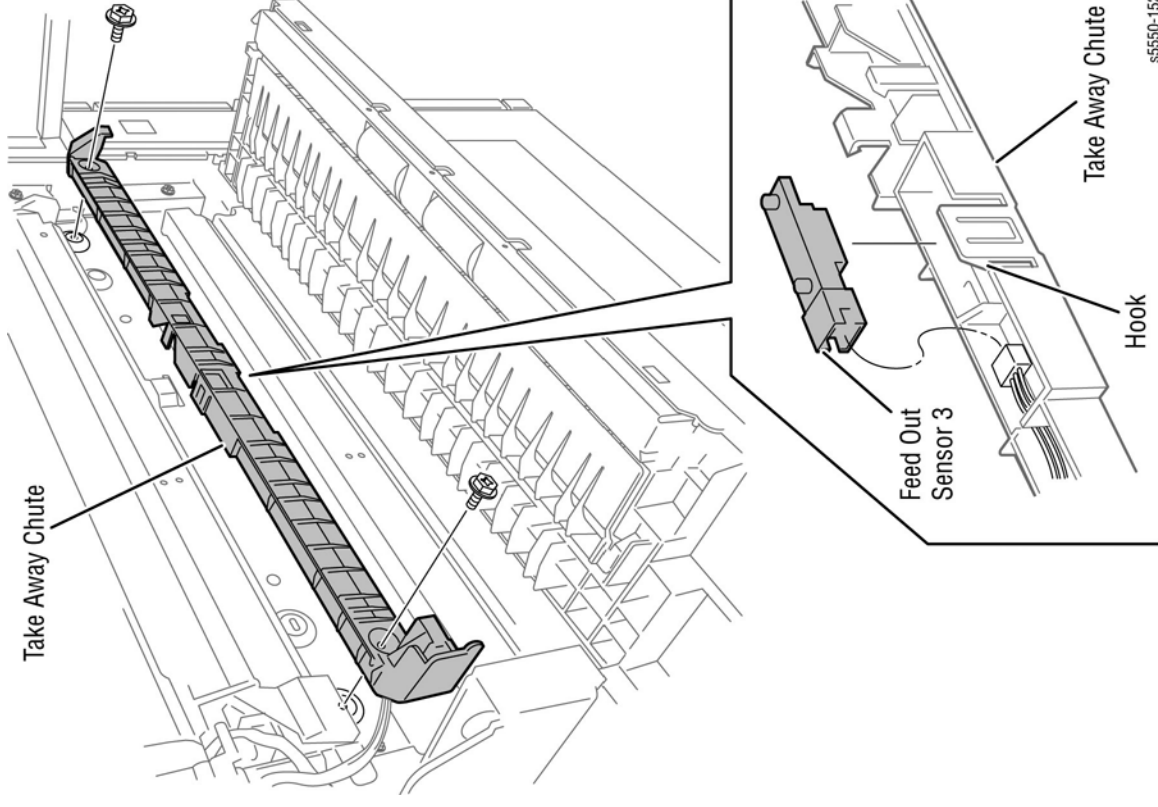


Figure 1 Removing the Feed Out Sensor 3

#### Replacement

When installing, fit the bosses on the Take Away Chute into the holes on the frame.

## REP 5.1 Drum Cartridge Fan Intake Duct

### Parts List on PL 5.1 Item 17

#### Removal

1. Remove the Top Cover (REP 1.3).
2. Disconnect the harness from the junction connector on the Intake Duct.

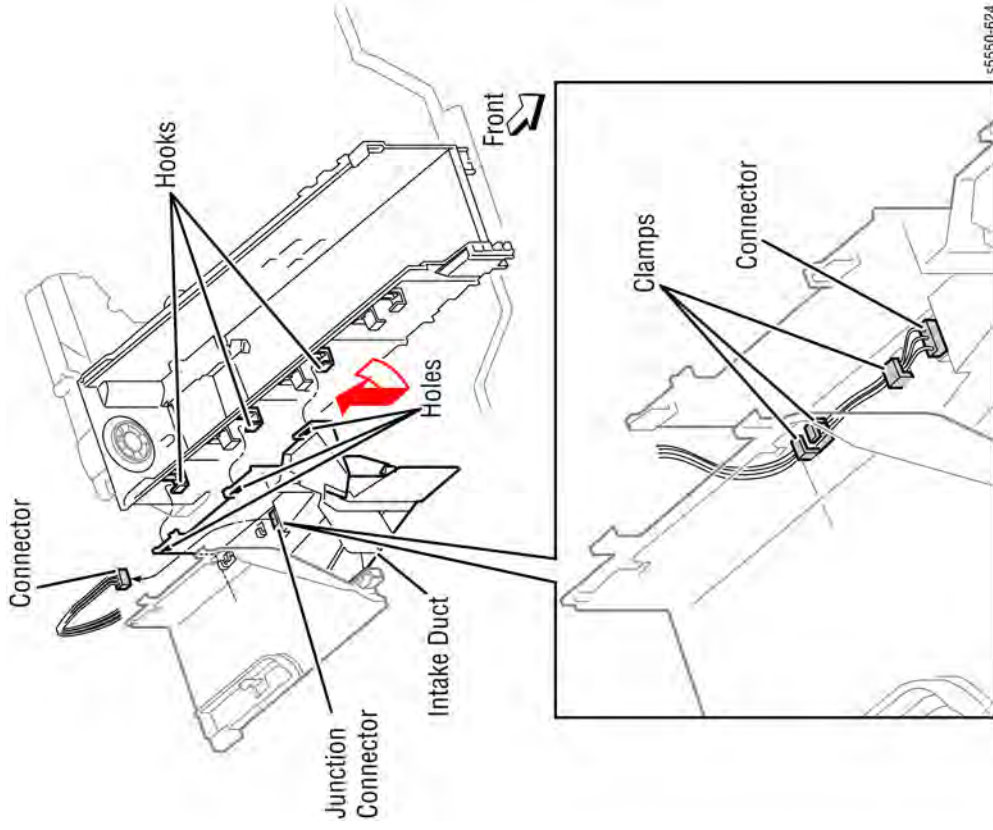


Figure 1 Disconnecting the wiring harness

3. Release the hook holding the Intake Duct to the Toner Dispense Assembly (Figure 2).
4. Move the Intake Duct in the direction of the arrow while lifting the left side.

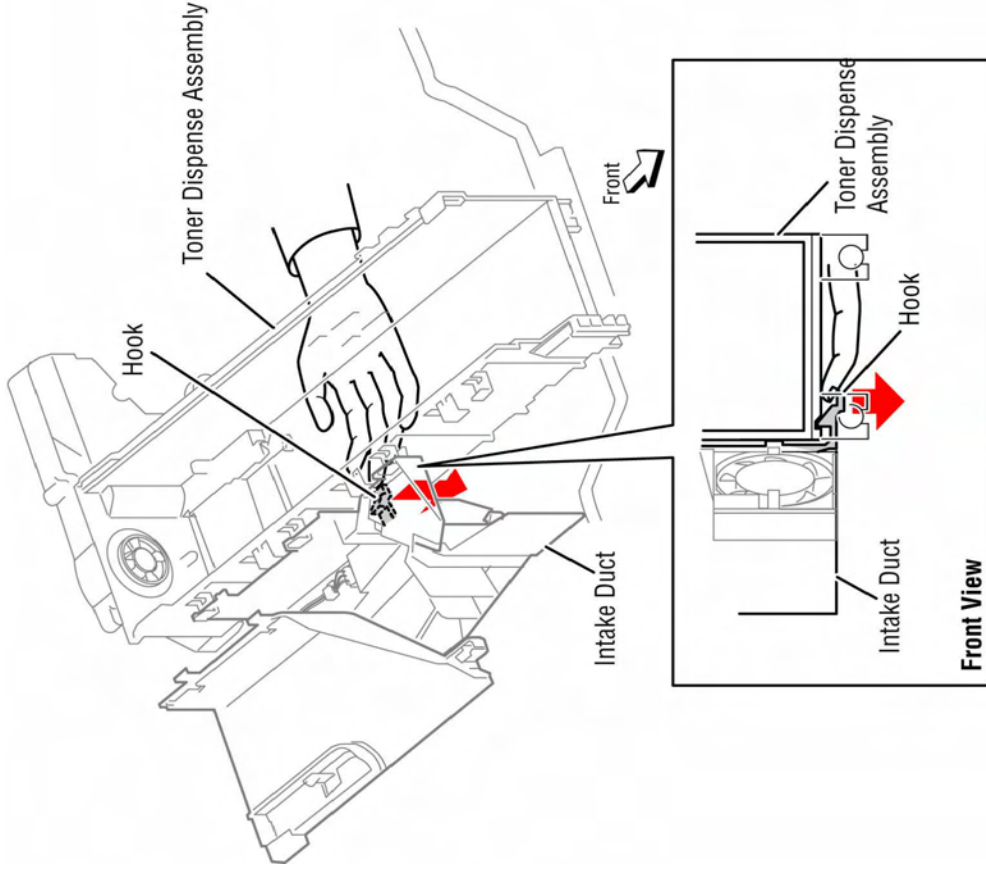


Figure 2 Removing the Intake Duct



## REP 5.2 Drum Cartridge Fan

### Parts List on PL 5.1 Item 18

#### Removal

1. Remove the Drum Cartridge Fan Intake Duct (REP 5.1).
2. Disconnect the Drum Cartridge Fan from the junction connector.
3. Release the two hooks holding the fan to the Intake Duct and remove the fan.

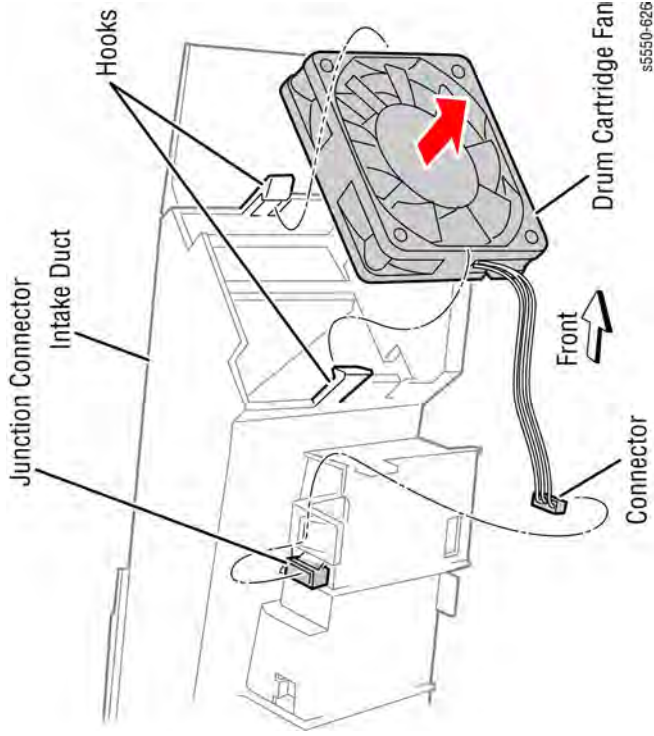


Figure 1 Removing the Drum Cartridge Fan

## REP 5.3 Fuser Fan

### Parts List on PL 5.1 Item 13

#### Removal

1. Remove the Upper Rear Cover (REP 1.11).
2. Disconnect the Fan connector from the Motor Assembly.
3. Release the hooks left and right securing the Fan to the duct as shown and remove the Fan.

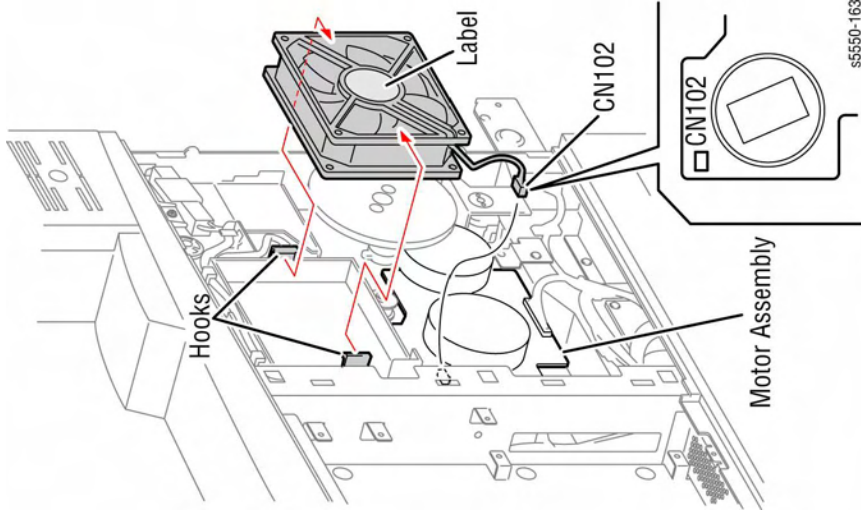


Figure 1 Removing the Fuser Fan

#### Replacement

Install the Fan with the label facing outward. Also, route the Fan harness in the slot as shown in Figure 1.

## REP 5.4 Drum Cartridge Detect Switch

### Parts List on PL 5.1 Item 4

#### Removal

**NOTE:** Replacing this part requires major disassembly of the printer. Be sure this part is defective before beginning this procedure.

1. Remove the Front Left Cover (REP 1.1).
2. Remove the Inner Main Cover (REP 1.5).
3. Remove the HVPS (REP 8.1).
4. Remove the Drum Cartridge Fan Intake Duct (REP 5.1).
5. Remove the Toner Dispense Assembly (REP 5.8).
6. Remove the Lower Rear Cover (REP 1.13).
7. Disconnect the two connectors (P403 and P404) from the Engine Control Board.

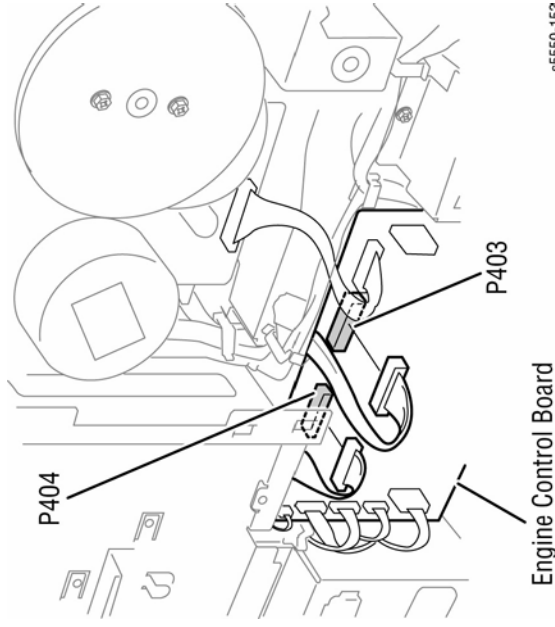


Figure 1 Disconnecting the connectors

8. Remove the Registration Transport Assembly (REP 4.9).
9. Remove the two screws securing the Housing Assembly Laser C to the frame.
10. Release the harness from the clamp on the Housing Assembly Laser C.

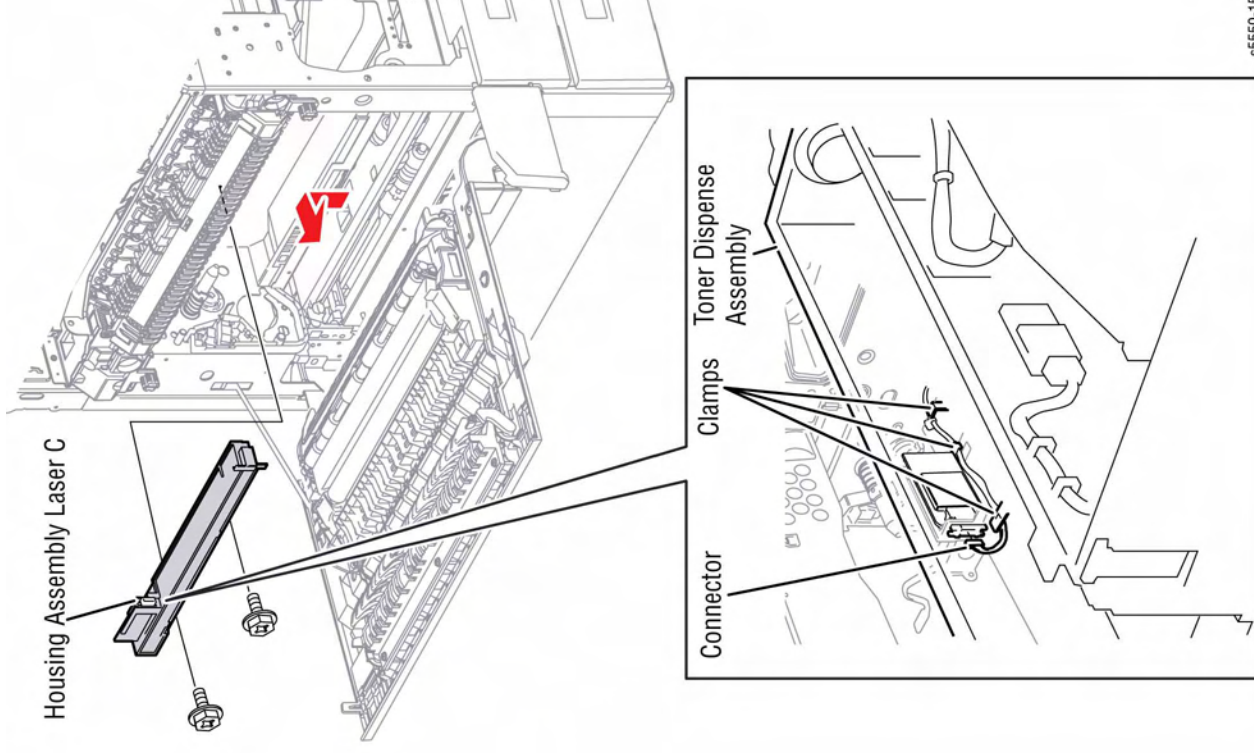


Figure 2 Removing the screws and disconnecting the clamp

11. Disconnect the connector from the Housing Assembly Laser C.
12. Remove the Housing Assembly Laser C by moving it in the direction of the arrow.
13. Loosen the top two screws and remove the lower two screws securing the Sub Guide Assembly to the frame.

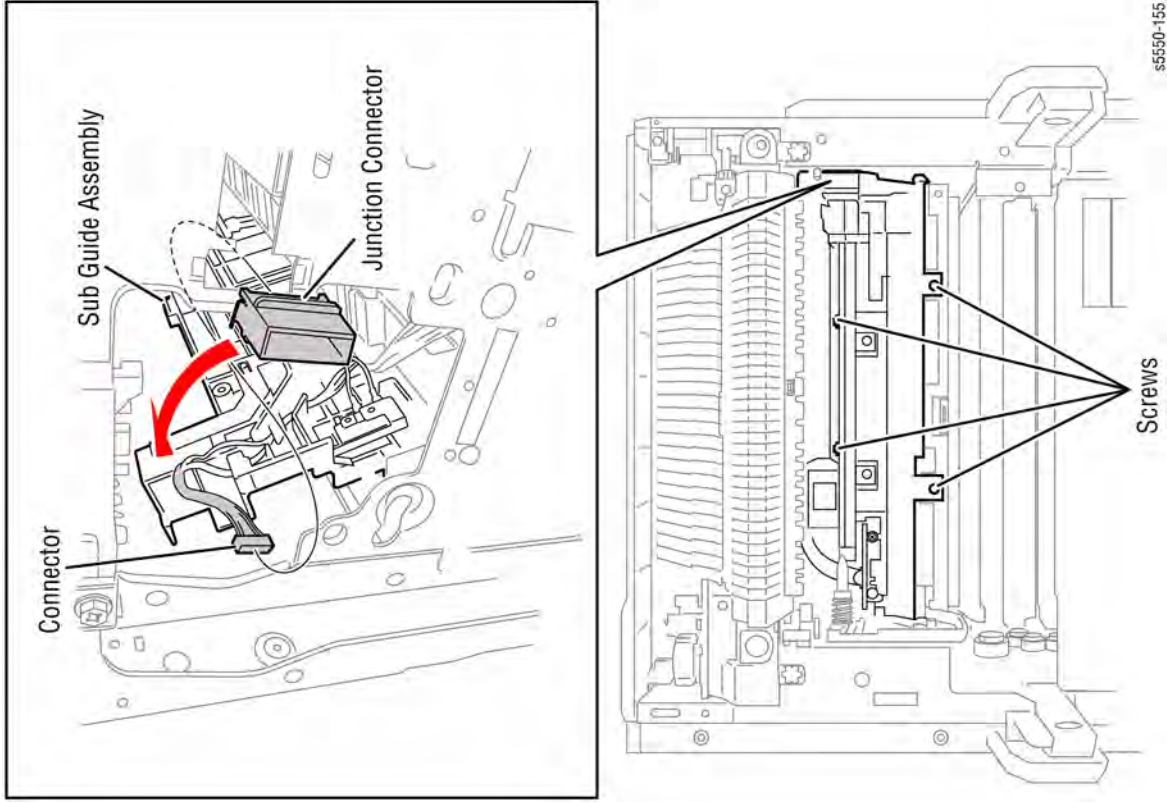


Figure 3 Removing the Sub Guide Assembly

14. Slide the Sub Guide Assembly toward the left side and disconnect the connector from the Front Harness A.
15. Remove the two hooks securing the Contact Cover to the frame.
16. While pressing the Drum Motor gear located on the rear side of the Motor Assembly, lift the rear side of the Sub Guide Assembly upward.
17. Release the harness from the clamp on the rear side of the SUB Guide Assembly.
18. While pressing the Drum Motor gear located on the rear side of Motor Assembly, lower the rear side (rear) of the Sub Guide Assembly.

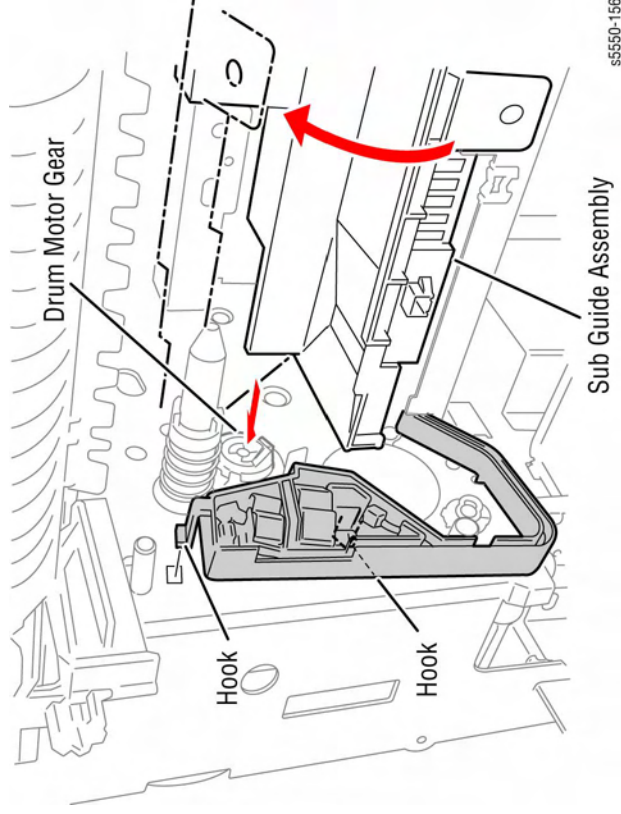


Figure 4 Removing the hooks and harness

19. Lift the front side of the Sub Guide Assembly.



20. Remove the screw securing the Drum Cartridge Detect Switch and the Switch Plate to the Sub Guide Assembly.
21. Remove the Drum Cartridge Detect Switch together with the Switch Plate.

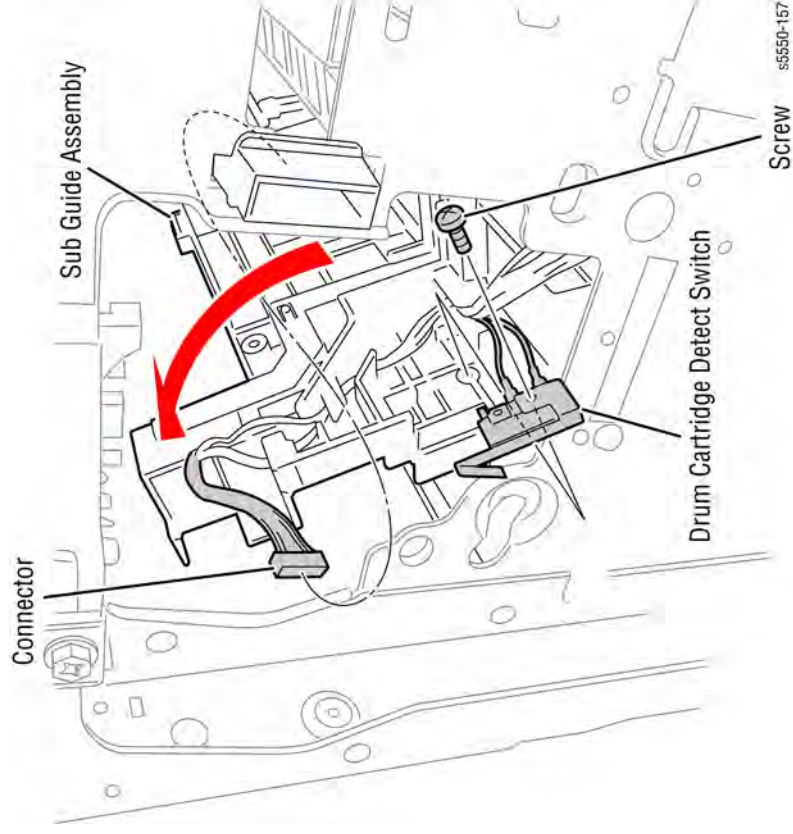


Figure 5 Removing the Drum Cartridge Detect Switch

## REP 5.5 Environmental Sensor PWB

### Parts List on PL 5.1 Item 5

#### Removal

1. Remove the Front Left Cover (REP 1.1).
2. Remove the Inner Main Cover (REP 1.5).
3. Remove the HVPS (REP 8.1).
4. Remove the Drum Cartridge Fan Intake Duct (REP 5.1).
5. Remove the Toner Dispense Assembly (REP 5.8).
6. Remove the Lower Rear Cover (REP 1.13).
7. Disconnect the two connectors (P403 and P404) from the Engine Control Board.
8. Release the harness from the clamp on the printer.

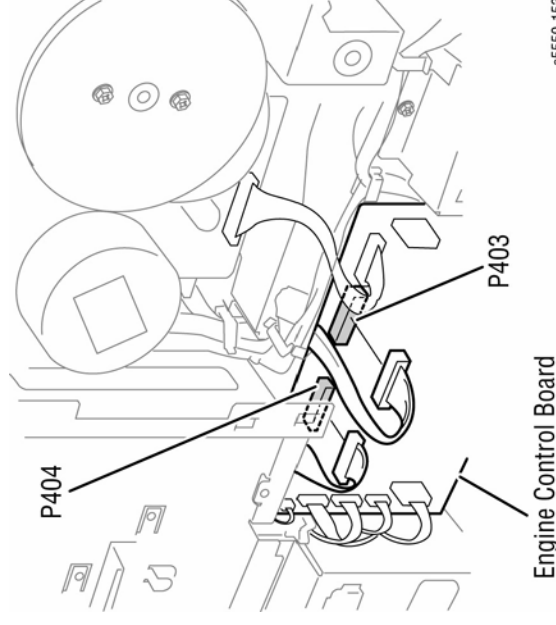
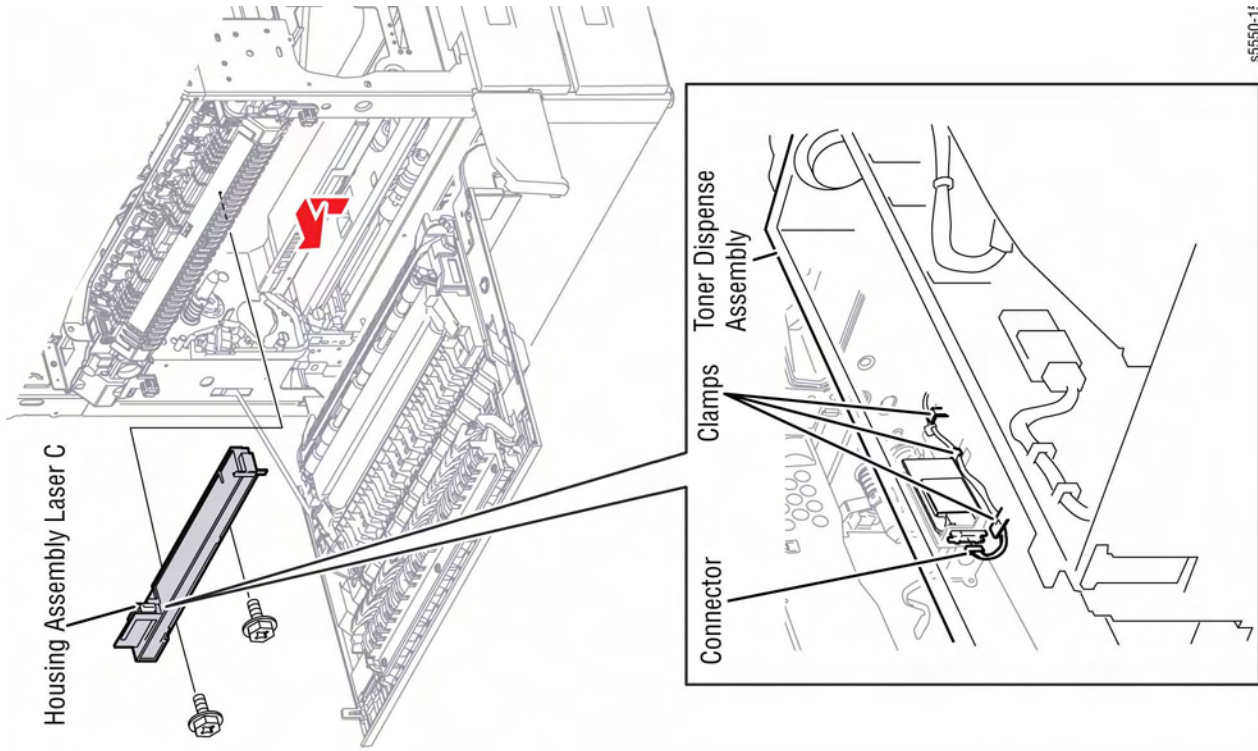


Figure 1 Disconnecting the connectors

9. Remove the Registration Transport Assembly (REP 4.9).

10. Remove the two screws securing the Housing Assembly Laser C to the frame.



11. Release the harness from the clamp on the Housing Assembly Laser C.
12. Remove the Housing Assembly Laser C by moving it in the direction of the arrow.
13. Loosen the top two screws and remove the lower two screws securing the Sub Guide Assembly to the frame.

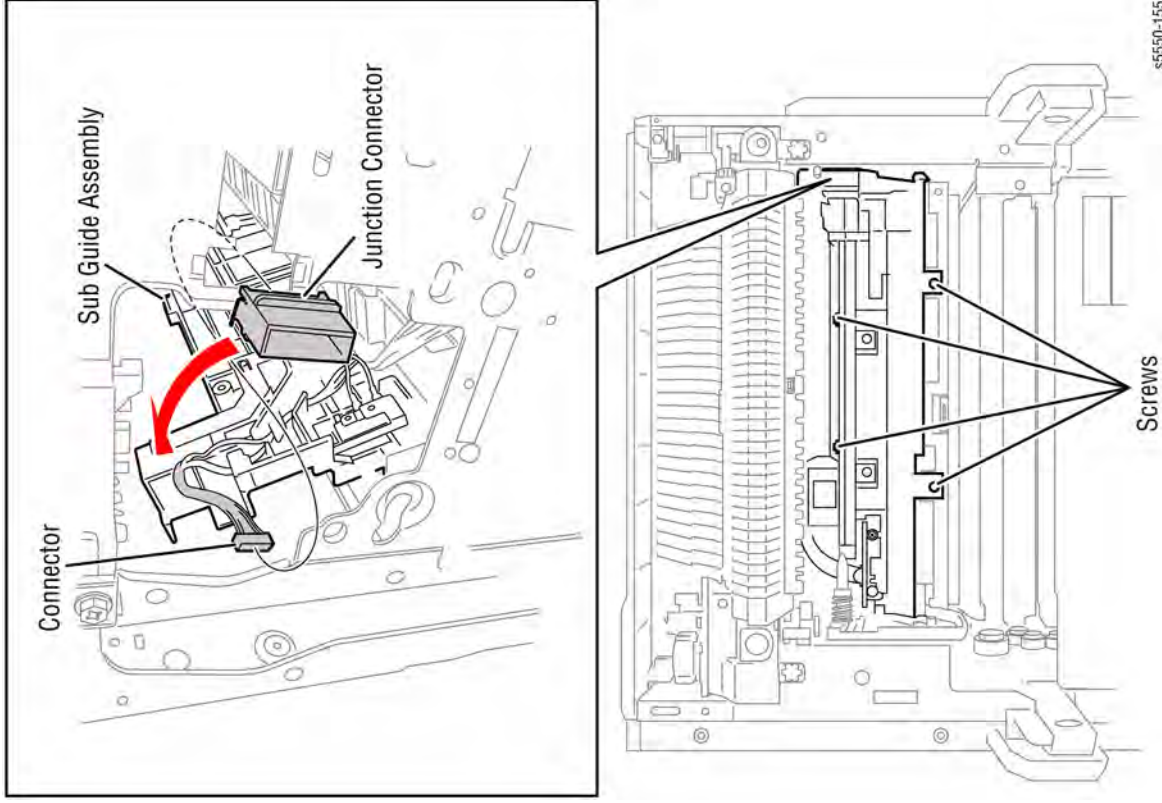
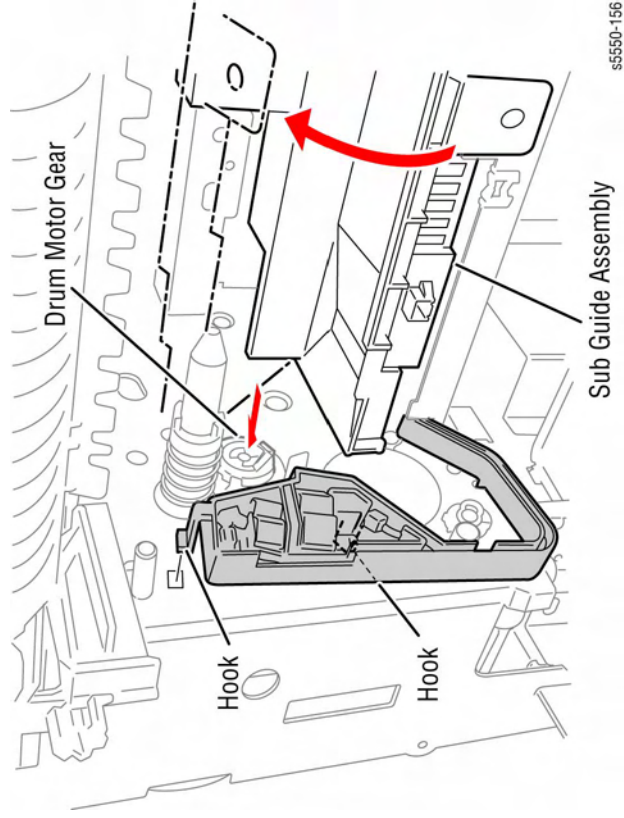


Figure 3 Removing the Laser C and screws

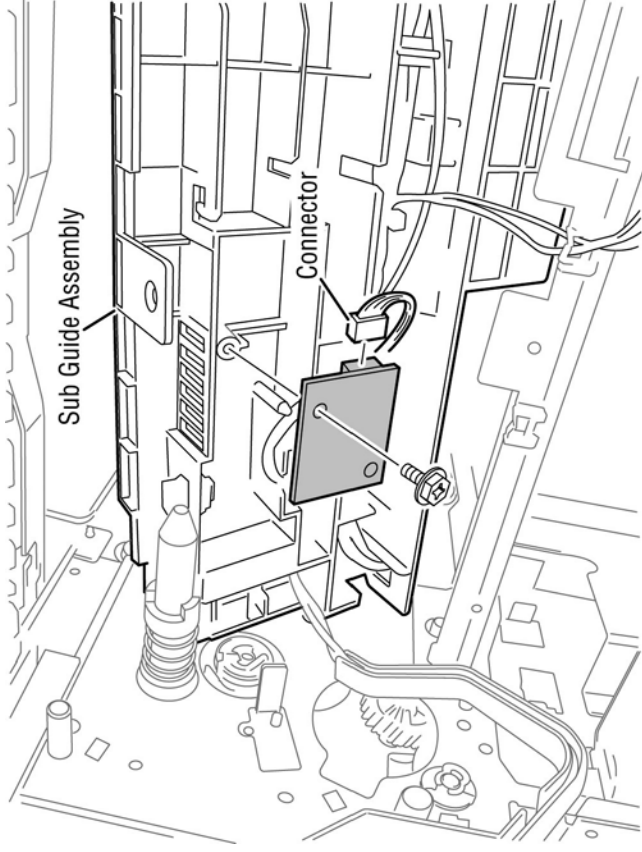
14. Slide the Sub Guide Assembly toward the left side and disconnect the connector from the Front Harness A.
15. Remove the two hooks securing the Contact Cover to the frame.



**Figure 4 Releasing the Sub Guide Assembly**

16. While pressing the Drum Motor gear located on the rear side of the Motor Assembly, lift the left side of the Sub Guide Assembly upward.
17. Disconnect the connector from the Environmental Sensor PWB.

18. Remove the screw securing the Environmental Sensor PWB to the Sub Guide Assembly.
19. Remove the Environmental Sensor PWB.



**Figure 5 Removing the Environmental Sensor**



## REP 5.6 Drum Cartridge CRUM PWB

### Parts List on PL 5.1 Item 8

#### Removal

1. Remove the Top Cover (REP 1.3).
2. Disconnect the connector from the Drum Cartridge CRUM PWB.
3. Remove the Drum Cartridge CRUM PWB by moving it in the direction of the arrow.

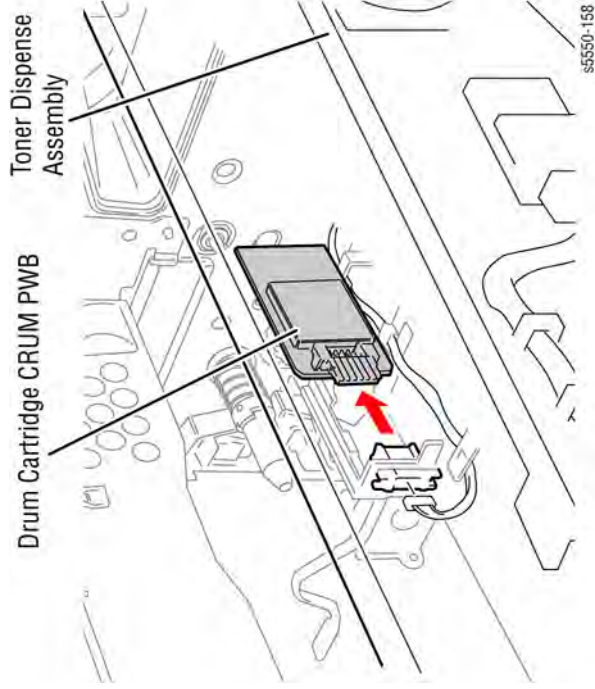


Figure 1 Removing the Drum Cartridge CRUM PWB

## REP 5.7 Toner Cartridge CRUM PWB

### Parts List on PL 5.1 Item 8

#### Removal

1. Remove the Top Cover (REP 1.3).
2. Disconnect the connector from the Toner Cartridge CRUM PWB.
3. Release two hooks.
4. Move the Toner Cartridge CRUM PWB to the rear to remove.

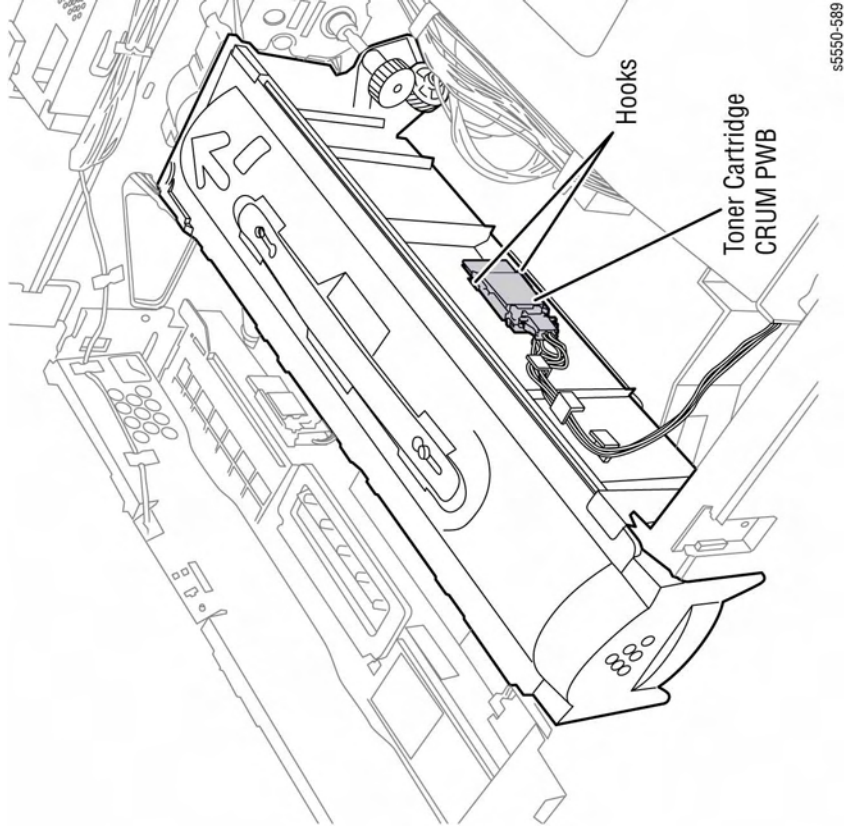


Figure 1 Removing the Toner Cartridge CRUM PWB

## REP 5.8 Toner Dispense Assembly

### Parts List on PL 5.1 Item 10

#### Removal

1. Remove the Front Left Cover (REP 1.1).
2. Remove the Drum Cartridge Fan Intake Duct (REP 5.1).
3. Remove the Duplex Unit if installed (REP 23.1).
4. Remove Door A (REP 4.7).
5. Remove the Inner Main Cover (REP 1.5).
6. Release the harness from the clamps on the left side of the Toner Dispense Assembly.
7. Disconnect the harness Toner Cartridge CRUM PWB on the right side.
8. Remove the two screws securing the Toner Dispense Assembly to the frame.

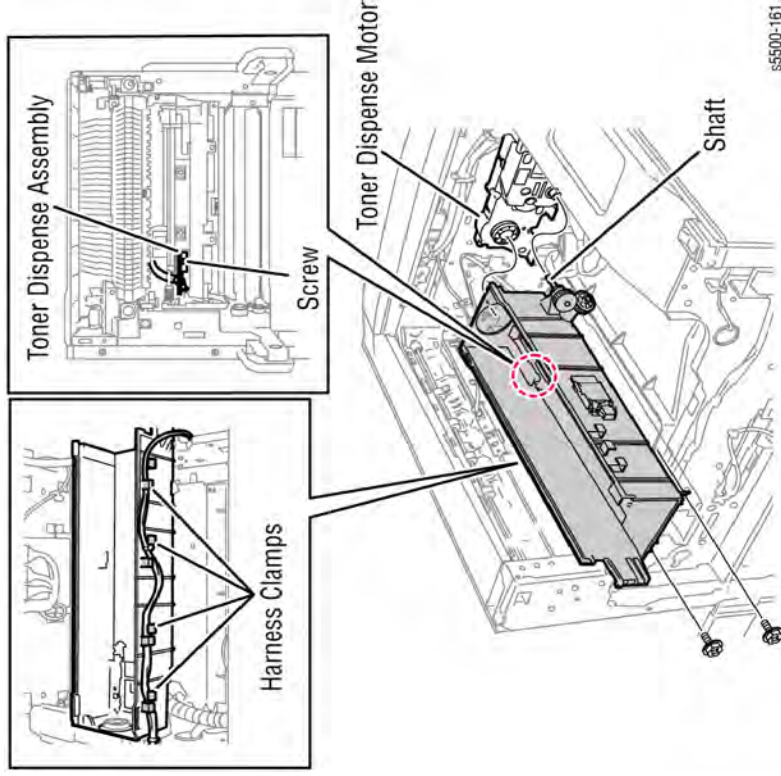


Figure 1 Toner Dispense Fasteners

9. While pushing the Toner Dispense Assembly toward the left side, reach in from the Left end and remove the screw securing the Dispense Tube to the frame.

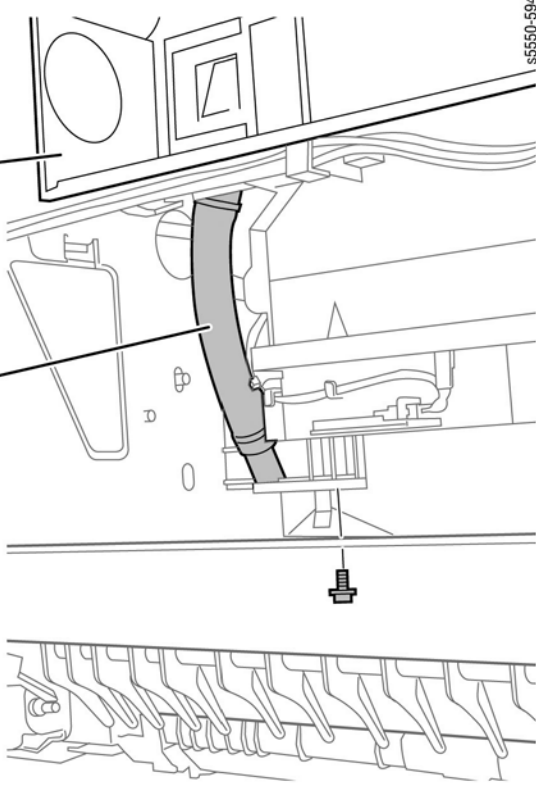


Figure 2 Removing the Toner Dispense Assembly

#### Replacement

Fit the hole on the Toner Dispense Assembly to the Toner Dispense Motor. Also, fit the shaft into the hole on the Toner Dispense Motor.



## REP 5.9 Toner Dispense Motor

Parts List on PL 5.1 Item 11

### Removal

1. Remove the Toner Dispense Assembly (REP 5.8).
2. Disconnect the connector from the Toner Dispense Motor.
3. Remove the four screws securing the Toner Dispense Motor to the frame and remove.

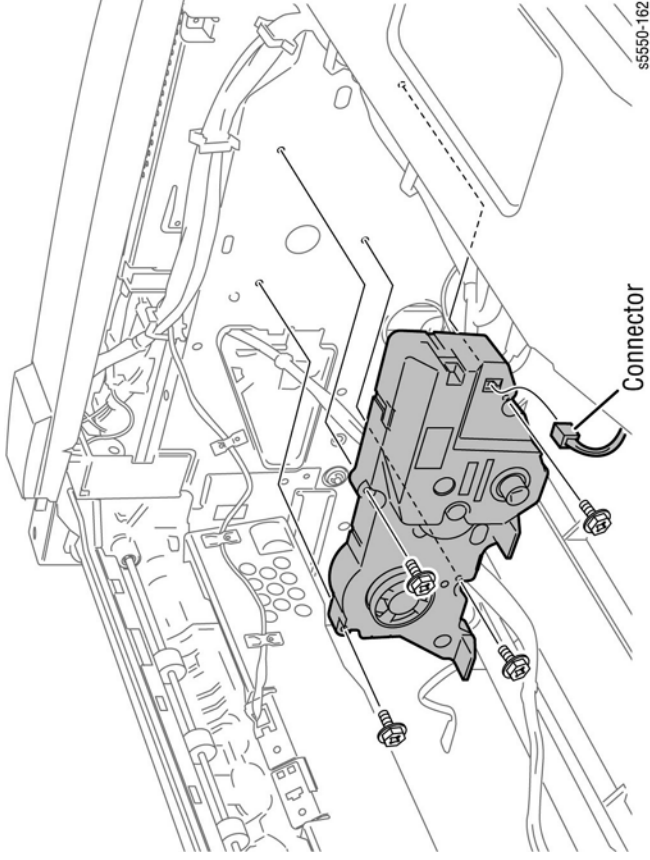


Figure 1 Removing the Toner Dispense Motor

## REP 5.10 Laser Assembly

Parts List on PL 5.1 Item 14

### Removal

1. Remove the Toner Dispense Assembly (REP 5.8).
2. Disconnect the three connectors from the Laser Assembly.
3. Disconnect the connector from the junction connector.
4. Remove the four screws securing the Laser Assembly to the frame.
5. Lift the Laser Assembly from the frame.

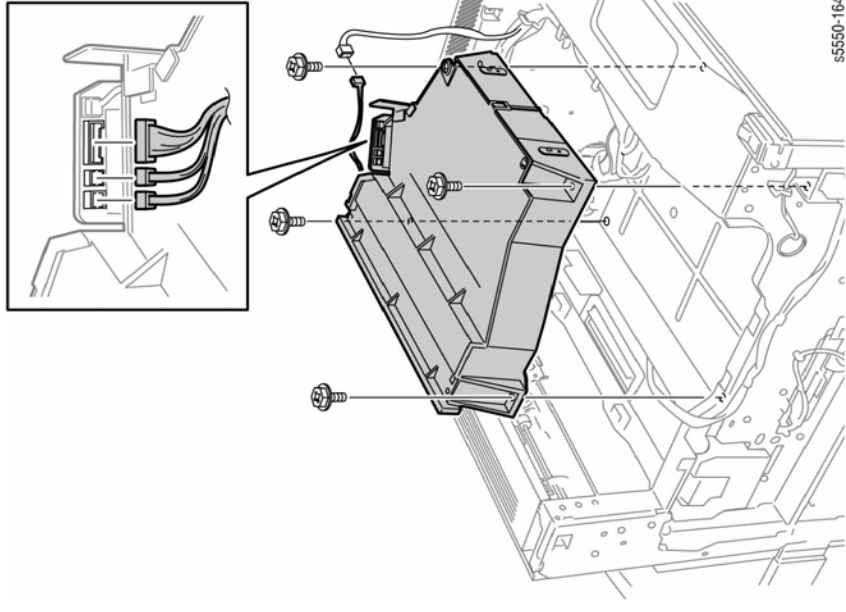


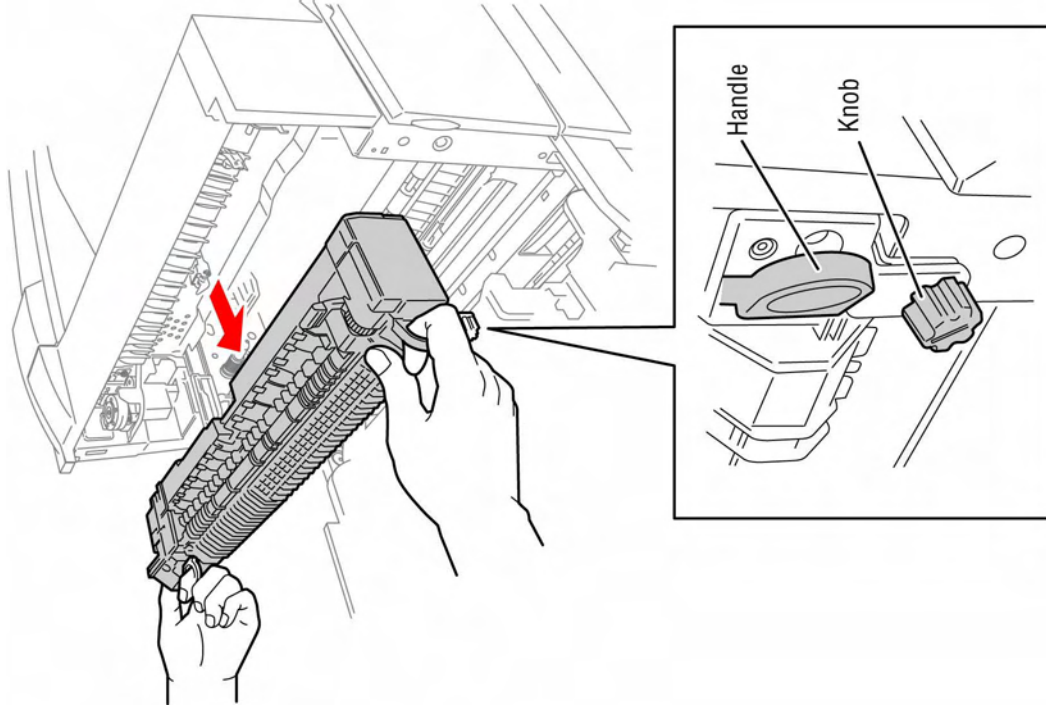
Figure 1 Removing the Laser Assembly

## REP 6.1 Fuser Assembly

Parts List on PL 6.1 Item 7

### Removal

1. Open Door A.
2. Loosen the two knobs securing the Fuser to the frame.
3. Pull the Fuser toward you by holding the two handles.



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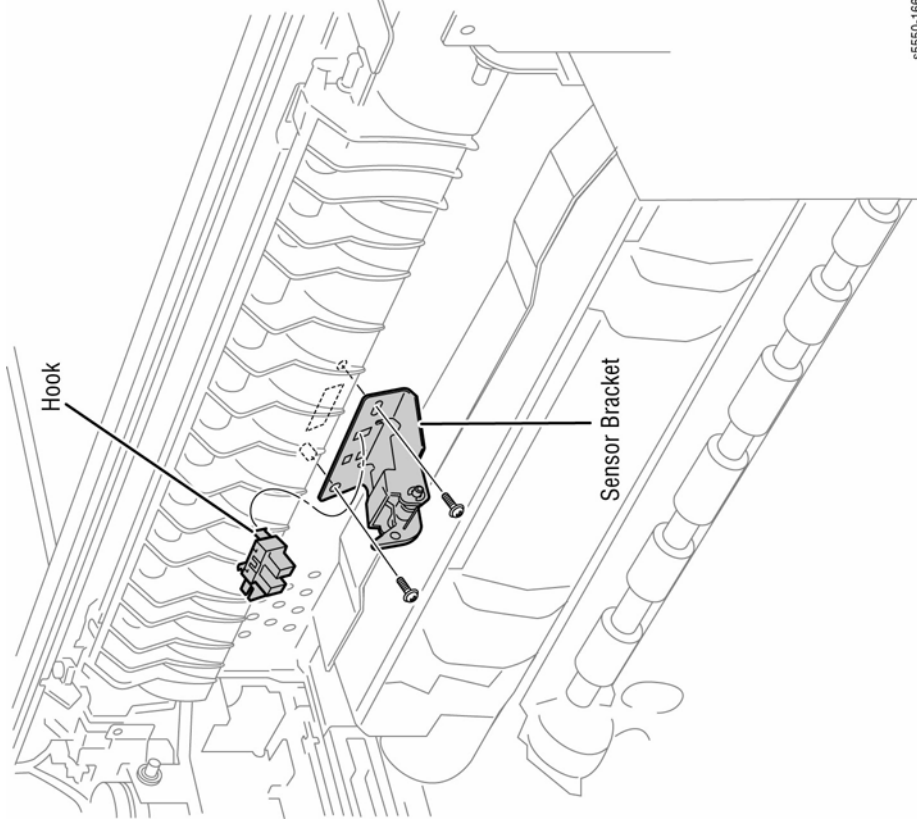
Figure 1 Removing the Fuser Assembly

## REP 6.2 Fuser Exit Sensor

Parts List on PL 6.1 Item 4

### Removal

1. Remove the Fuser (REP 6.1).
2. Remove the screw securing the bracket to the frame.
3. Disconnect the connector from the sensor.
4. Release the three hooks securing the sensor to the bracket.



s5550-166

Figure 1 Removing the Fuser Exit Sensor

## REP 6.3 Exit Transport Assembly

### Parts List on PL 6.2 Item 1

#### Removal

1. Remove the Upper Rear Cover (REP 1.11).
2. Remove the Tor Rear Cover (REP 1.2).
3. Remove the Exit 1 Top Cover (REP 1.15).
4. Remove the Front Left Cover (REP 1.1).
5. Remove the two screws securing the Exit Bracket to the frame.
6. Remove the Exit bracket.

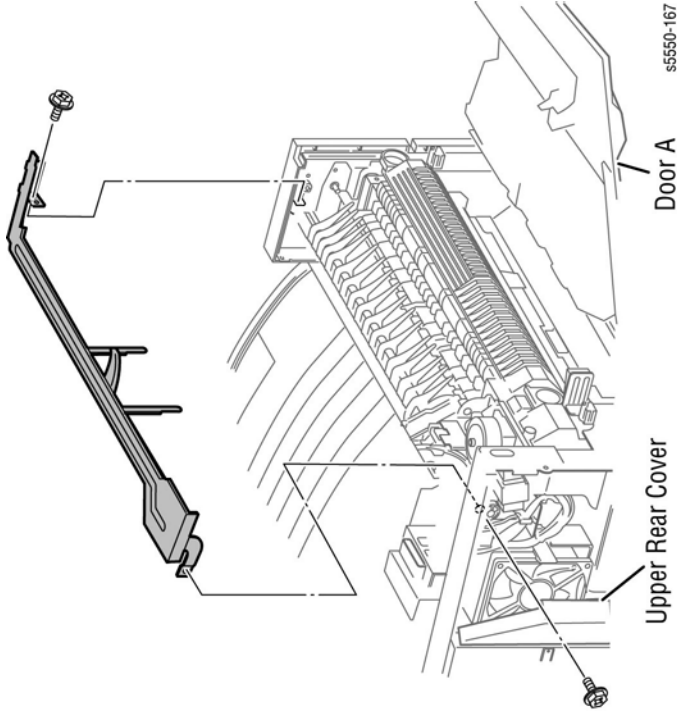


Figure 1 Removing the screws

7. Remove the Main Drive Belt (REP 7.1).
8. Disconnect the connector from the Offset Motor.
9. Disconnect the connector from the two sensors.
10. Remove the two screws securing the Exit Transport Assembly to the frame.
11. Remove the Exit Transport Assembly by lifting upward.

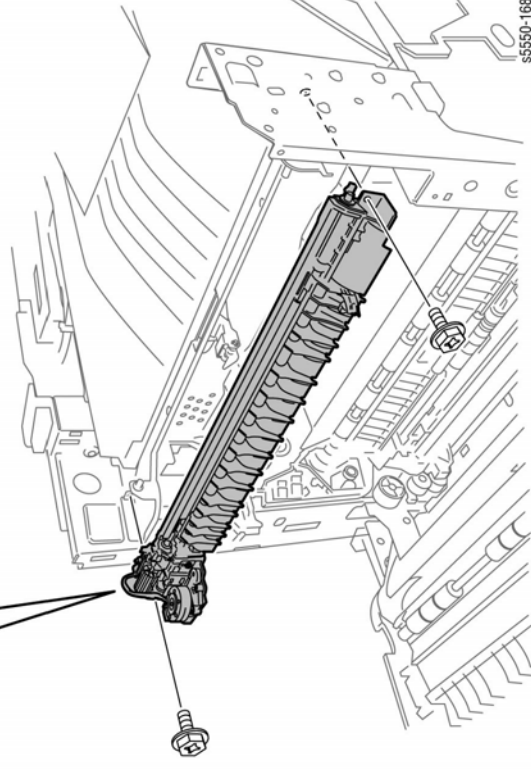
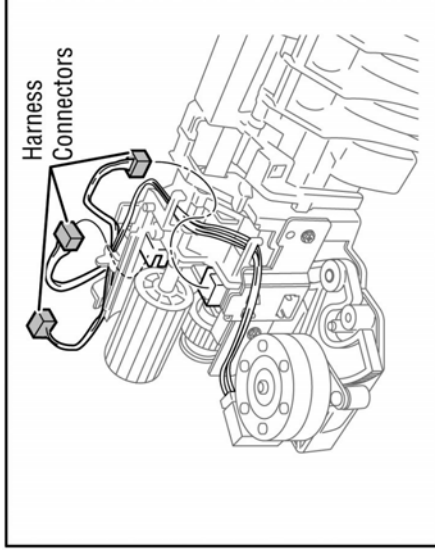


Figure 2 Removing the Exit Transport Assembly

#### Replacement

Make sure the Stack Full Actuator rotates freely.

1. With the Exit Bracket out of the printer, release the 5 hooks that secure the plastic cover to the bracket and remove.
2. Install the Exit bracket on the printer.
3. Replace the plastic cover on the Exit bracket and verify Exit Actuator operation.

## REP 6.4 Exit 1 Offset Motor

### Parts List on PL 6.2 Item 3

#### Removal

1. Remove the Exit Transport Assembly (REP 6.3).
2. Remove the two standard, Phillips-head screws securing the Offset Motor to the Exit.

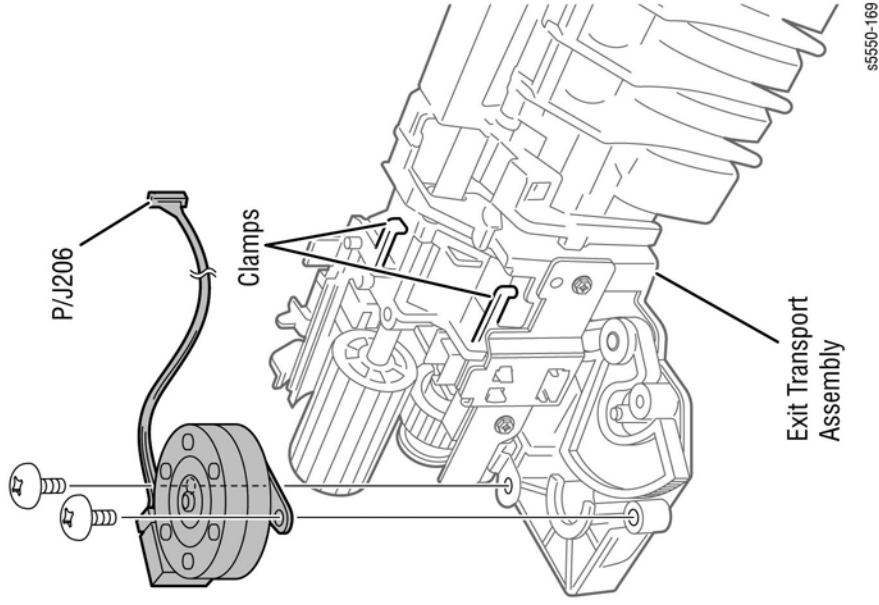


Figure 1 Removing the Exit 1 Offset Motor

## REP 6.5 Offset Home Position Sensor

### Parts List on PL 6.2 Item 5

#### Removal

1. Remove the Exit Transport Assembly (REP 6.3).
2. Remove the Exit 1 Offset Motor.
3. Remove the two screws securing the sensor bracket to the Exit Transport Assembly.
4. Release the three hooks securing the Offset Home Position Sensor to the sensor bracket.
5. Remove the Offset Home Position Sensor.

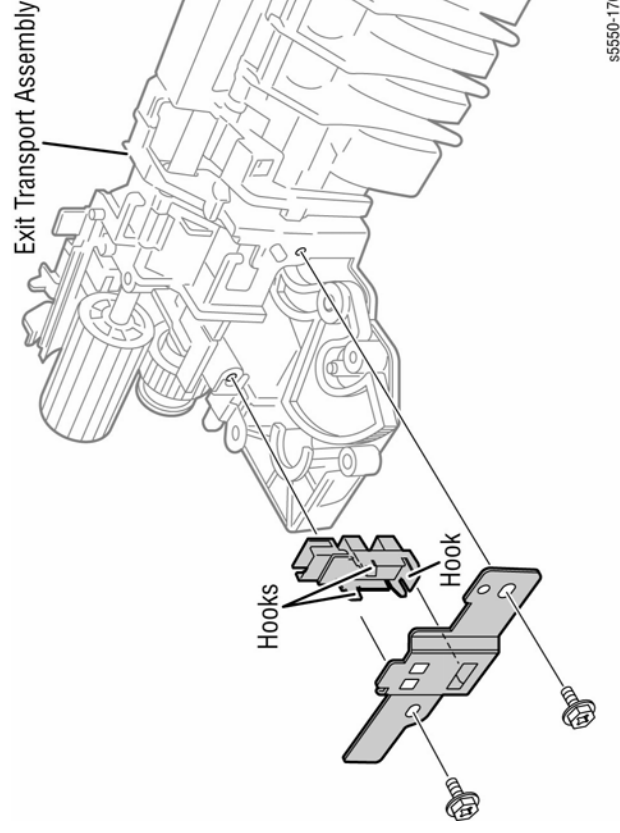


Figure 1 Removing the Offset Home Position Sensor

## REP 6.6 Full Stack Sensor

### Parts List on PL 6.2 Item 5

#### Removal

1. Remove the Exit Transport Assembly (REP 6.3)
2. Release the three hooks securing the sensor to the bracket.
3. Remove the sensor.

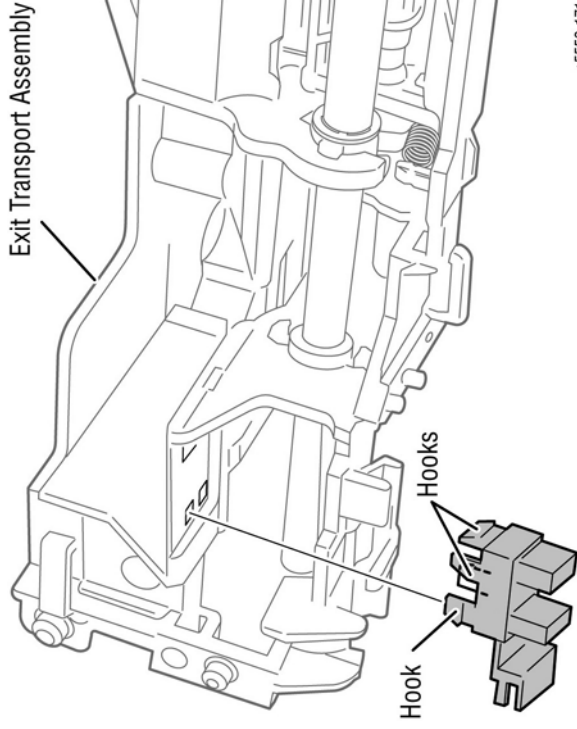


Figure 1 Removing the Full Stack Sensor

## REP 7.1 Main Drive Belt

### Parts List on PL 7.1 Item 5

#### Removal

1. Remove the Upper Rear Cover (REP 1.11).
2. Remove the Exit 1 Top Cover (REP 1.15).
3. Release the hook on the Exit Flange securing the belt to the Motor Assembly and remove.

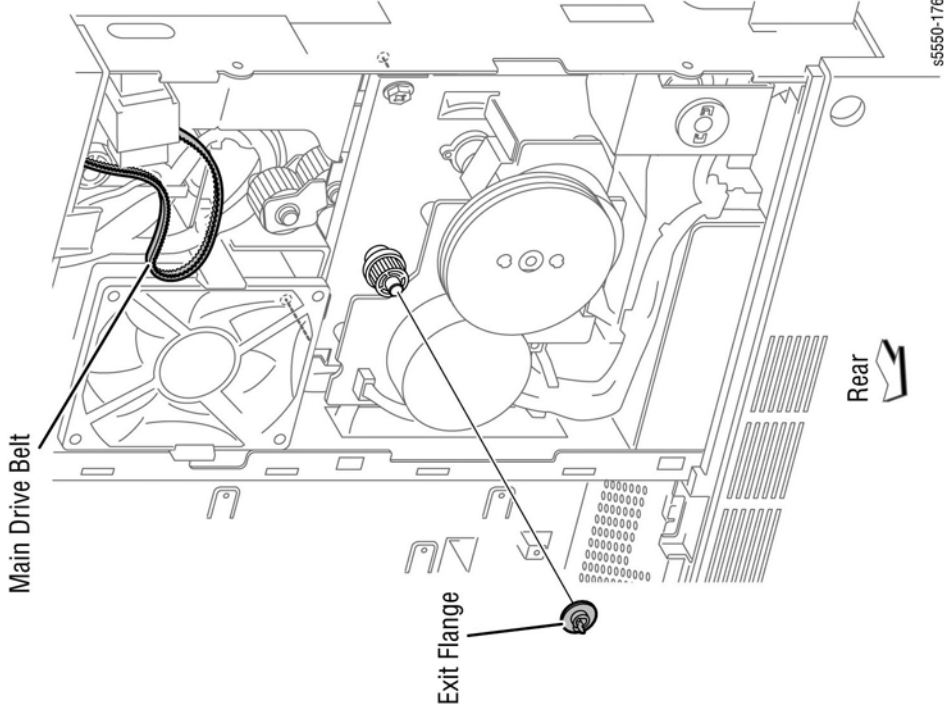


Figure 1 Removing the Main Drive Belt

#### Replacement

It's easier to install the Belt if the Motor is rotated slowly by hand. Fit the flange to the D-shaped shaft and install the flange until the hook locks.

## REP 7.2 Motor Assembly

### Parts List on PL 7.1 Item 7

#### Removal

1. Open the Front Door.
2. Pull out the Drum Cartridge.
3. Remove the Main Drive Belt (REP 7.1).

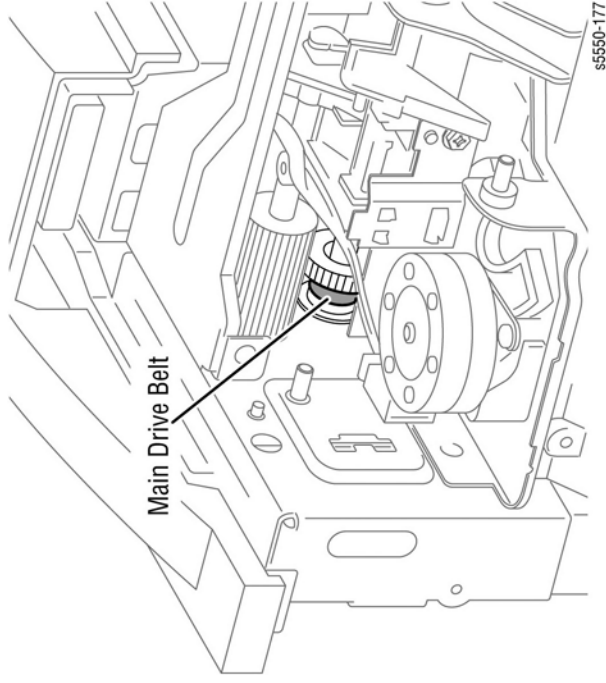


Figure 1 Removing the Main Drive Belt

4. Disconnect the two connectors from the Motor Assembly.
5. Remove the two screws securing the Take Away Clutch bracket to the frame and to the Motor Assembly to remove the bracket.
6. Remove the wire clamp from the bracket.
7. Remove the four screws securing the Motor Assembly to the frame.

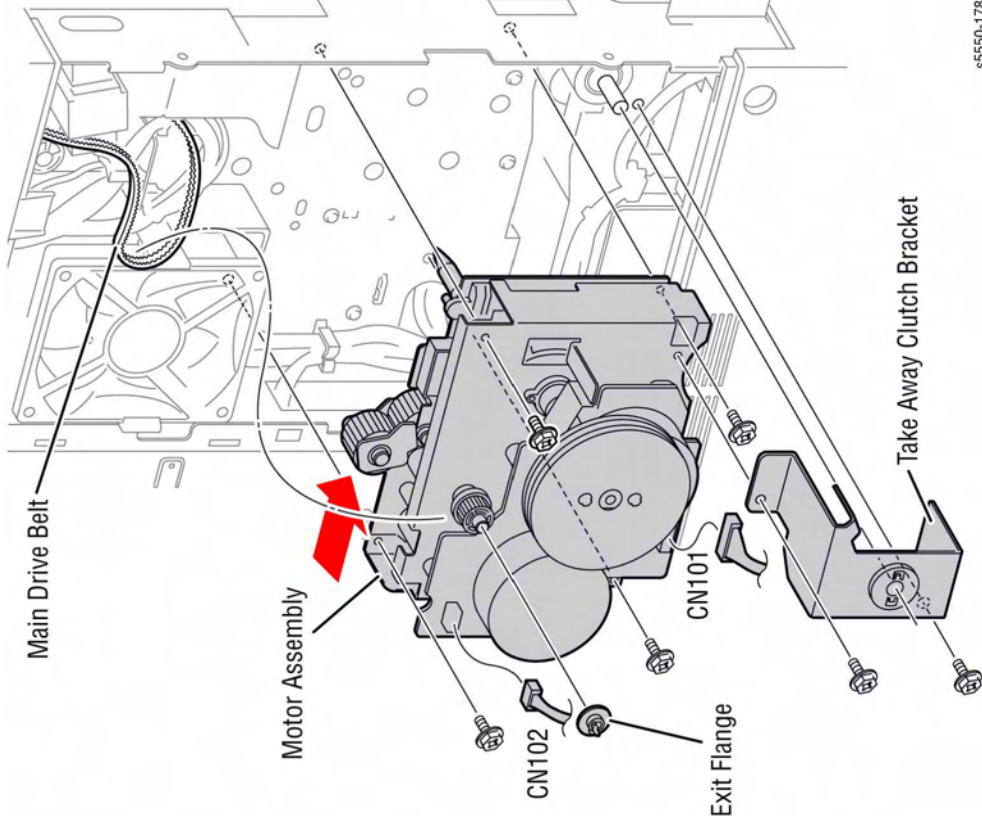


Figure 2 Removing the Motor Assembly

#### Replacement

Install the Motor Assembly by pushing the Gear on the upper part of the Motor in the direction of the arrow (Figure 2).



## REP 8.1 High Voltage Power Supply

### Parts List on PL 8.1 Item 1

#### Removal

1. Remove the Inner Main Cover (REP 1.5).
2. Disconnect the connector from the HVPS.
3. Release the harness from the clamps.
4. Remove the two screws securing the HVPS to the frame.
5. Carefully remove the HVPS by moving it in the direction of the arrow.

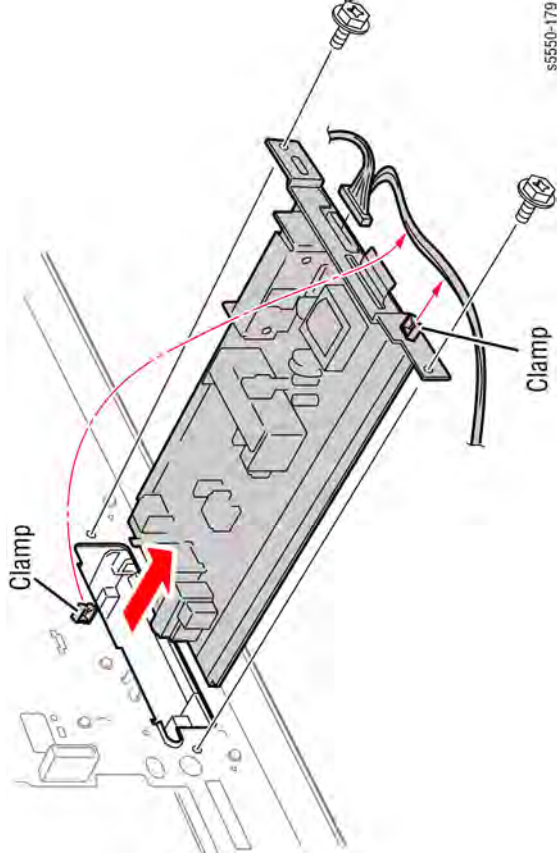


Figure 1 Removing the High Voltage Power Supply

#### Replacement

Insert the board into the guides on both sides.

## REP 8.2 Power Switch

### Parts List on PL 8.1 Item 2

#### Removal

1. Remove the Top Cover (REP 1.3).
2. Remove the screw securing the bracket to the frame.
3. Remove the bracket and switch to the left to remove from the frame.
4. Disconnect the four connectors from the Power Switch.
5. Release the hooks securing the Power Switch to the bracket as shown in Figure 1.

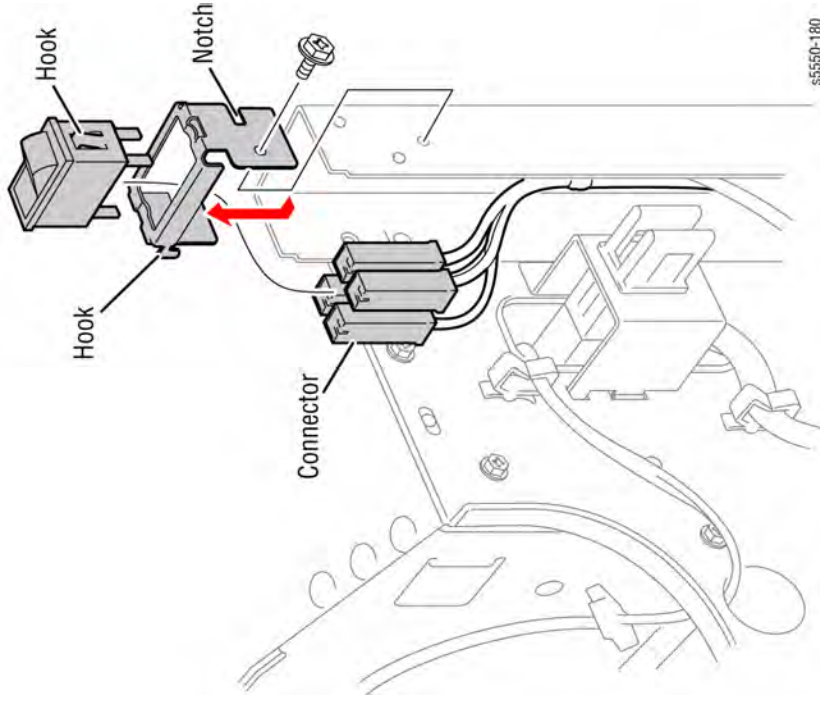


Figure 1 Removing the Power Switch

#### Replacement

Fit the notch on the Power Switch to the boss on the frame.

## REP 8.3 Exit PWB

### Parts List on PL 8.1 Item 4

#### Removal

1. Remove the Top Cover (REP 1.3).
2. Disconnect all connectors from the Exit PWB. Connector P/J430 has a hook. Disconnect it by pushing the hook.
3. Remove the two screws securing the Lower Bracket to the frame.
4. Release the locks of the supports holding the Exit PWB to the frame as shown in Figure 1.
5. Remove the Exit PWB together with Lower Bracket from the frame.
6. Remove the two screws securing the Exit PWB to the Lower Bracket.
7. Remove the Exit PWB.

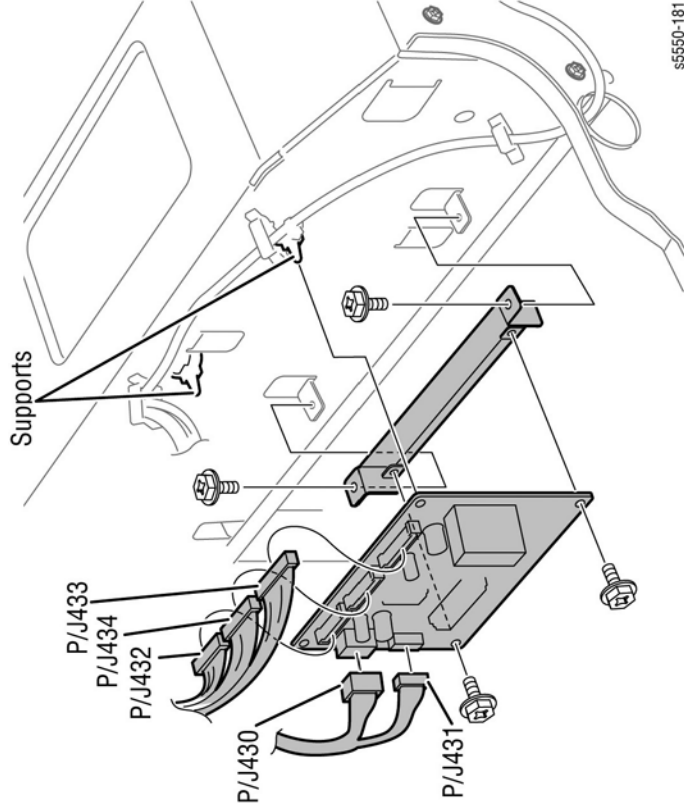


Figure 1 Removing the Exit PWB

#### Replacement

Fit the tips of the supports into the holes on the Exit PWB.

## REP 8.4 Engine Control Board

### Parts List on PL 8.1 Item 5

#### Removal

1. Store the contents of Engine Control Board NVRAM before replacing the board.
2. Remove the Upper Rear Cover (REP 1.11).
3. Remove the Lower Rear Cover (REP 1.13).
4. Disconnect all connectors from the Engine Control Board. Connectors P/J400, P/J401, and TTM/2TM have a hook. Disconnect by pushing the hook.
5. Remove the six screws securing the Engine Control Board to the frame.
6. Remove the Engine Control Board.

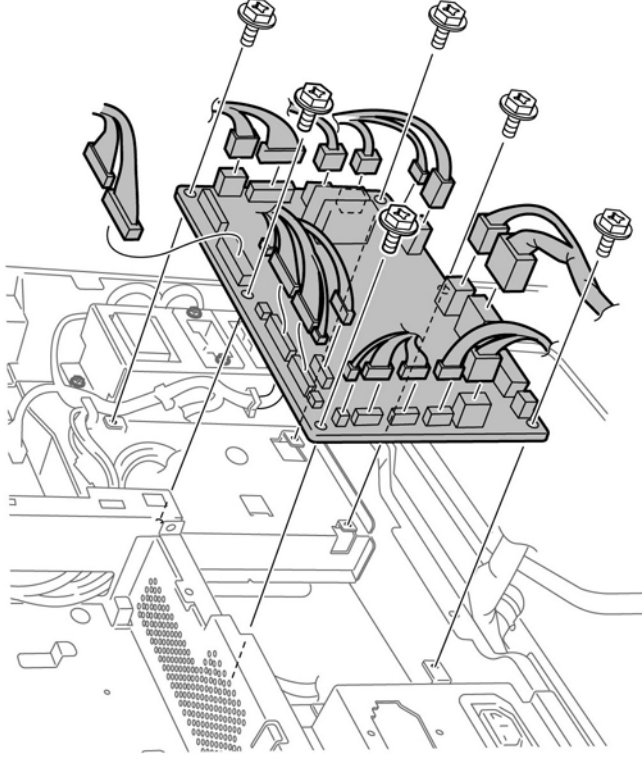


Figure 1 Removing the Engine Control Board

#### Replacement

Do not remove the NVRAM chip from the defective Engine Control Board. The replacement should include an NVRAM chip. Transfer the saved NVRAM contents to the replacement board following installation.



## REP 8.5 Image Processor Board

Parts List on PL 8.1 Item 25

### Removal

#### CAUTION

Avoid damage to the Hard Drive data cable, if installed, by carefully feeding the cable through the Rear Panel opening as you remove the I/P Board.

1. Remove the I/P Board Cover (REP 1.10).
2. Disconnect all connections to the I/P Board.

**NOTE:** For 5550 models, the I/P Board is secured with thumbscrews to facilitate Customer replacement. When installing the I/P Board, "finger" tighten (no more than 1 in-lb) these thumbscrews.

3. Remove the three fasteners securing the I/P Board to the frame.
4. Remove the I/P Board and its carrier using the knob provided on the rear panel.

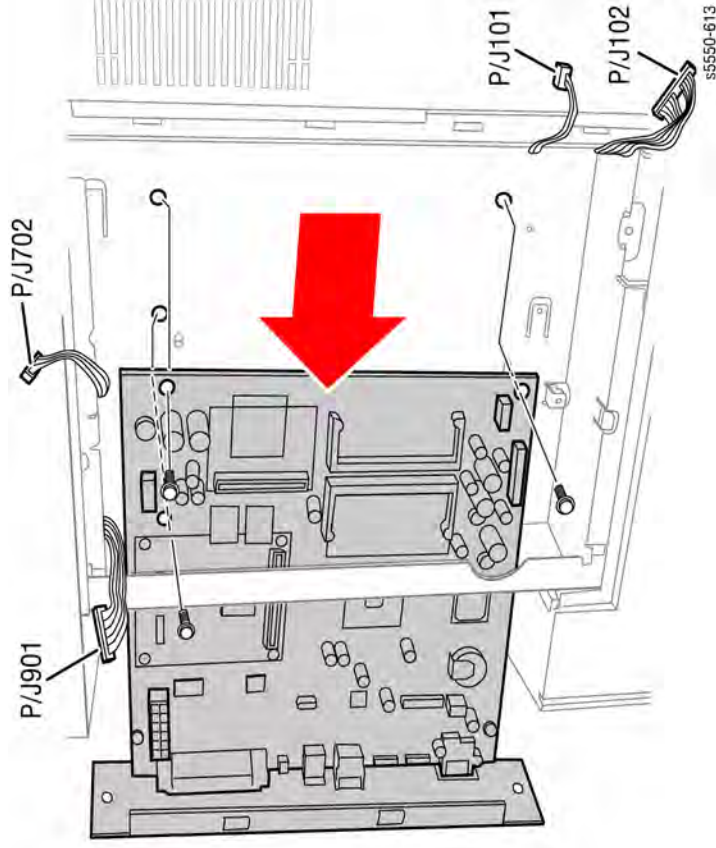


Figure 1 Removing the Image Processor Board

### Replacement

Tighten the back panel screw before tightening the board mounting screws. If installing a new board, transfer components (Configuration Card, Hard Drive etc.) to the new board.

## REP 8.6 Low Voltage Power Supply

Parts List on PL 8.1 Item 8

### Removal

1. Remove the Upper Right Cover (REP 1.7).
2. Disconnect all connectors from the LVPS. Connectors P1, P2, P6, P521 and P526 have a hook. Disconnect by pushing the hook.
3. Remove the nine screws securing the LVPS to the frame.
4. Remove the LVPS.

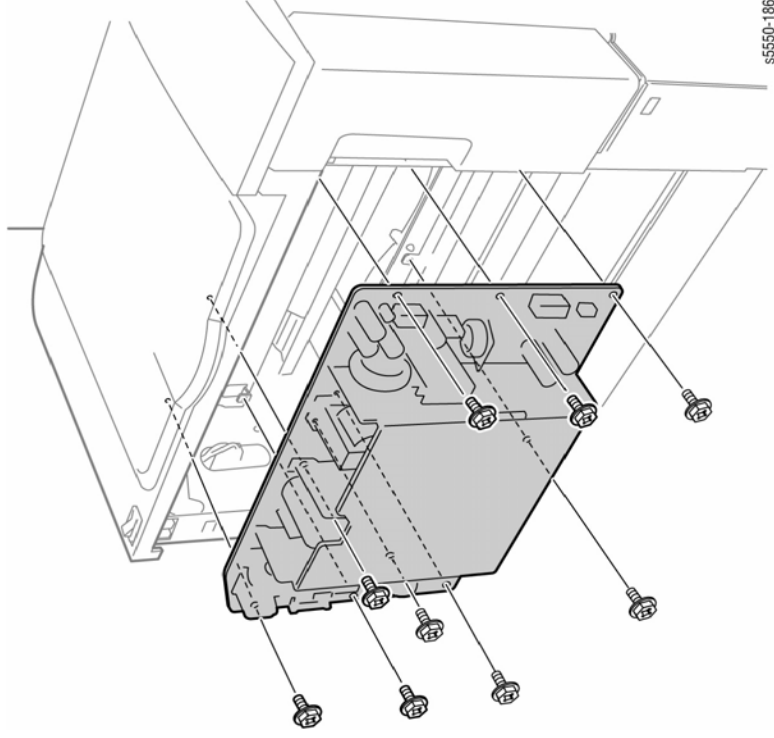


Figure 1 Removing the Low Voltage Power Supply

### Replacement

Fit the holes on the board to the two bosses on the frame. P7 is unused.

#### CAUTION

J11 (Black wire), J12 (White wire) are interchangeable. Use the designators printed on the board to identify the proper connection.

## REP 8.7 AC Accessory Panel

### Parts List on PL 8.1 Item 10

#### Removal

1. Remove the Lower Rear Cover (REP 1.13).
2. Disconnect the three connectors (P2, J11 (Black wire), J12 (White wire) from the LVPS.
3. Release the four harnesses from the three clamps.
4. Remove the three screws securing the AC Accessory Panel to the printer.
5. Release the harness from the clamp.
6. Remove the AC Accessory Panel.

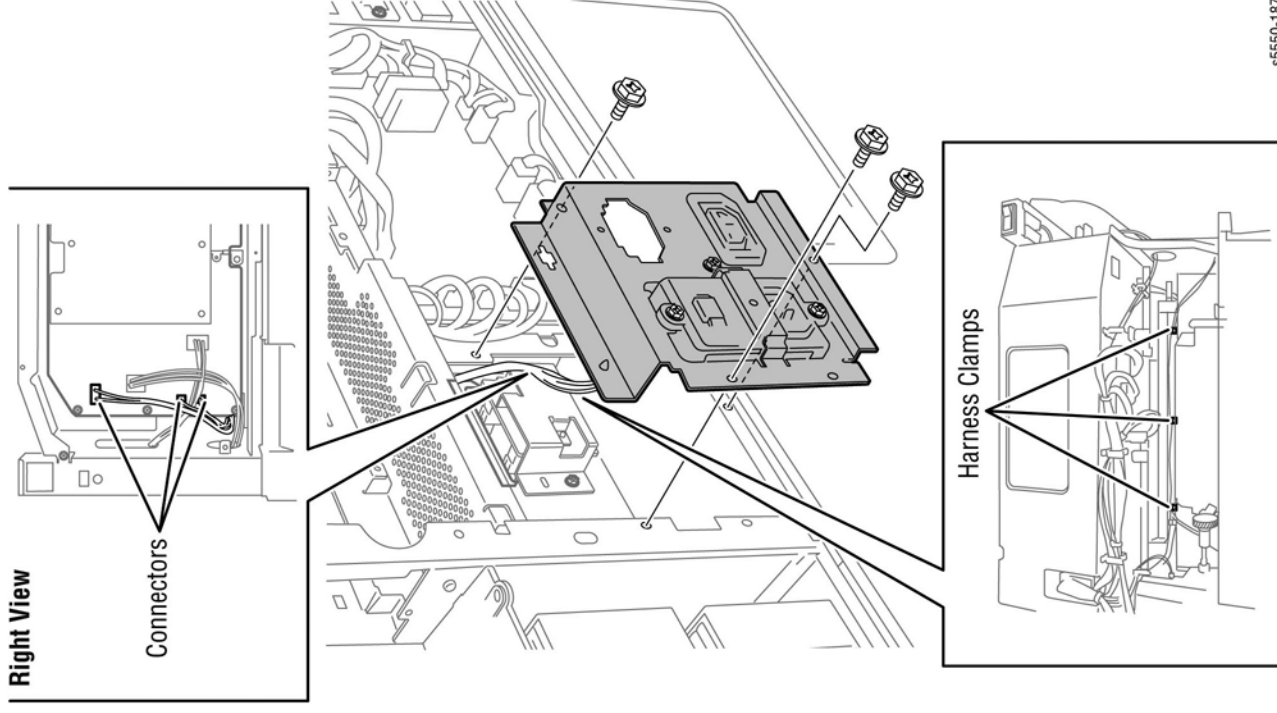


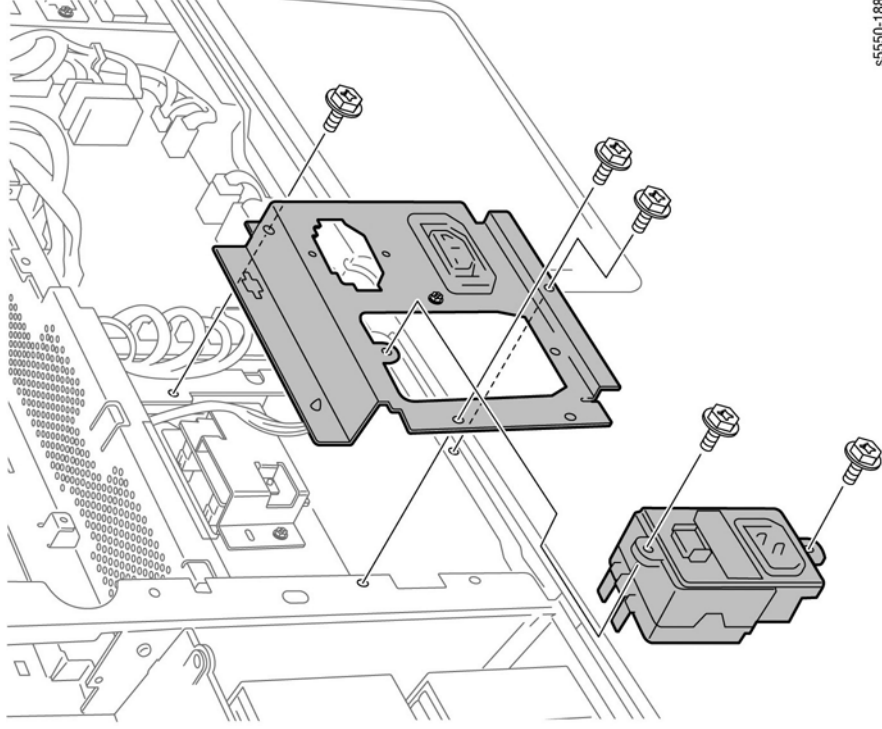
Figure 1 Removing the AC Accessory Panel

## REP 8.8 GFI Breaker

### Parts List on PL 8.1 Item 13

#### Removal

1. Remove the Lower Rear Cover (REP 1.13).
2. Remove the three screws securing the AC Accessory Panel to the frame.
3. Disconnect the two connectors from the GFI Breaker.
4. Remove the two screws securing the GFI Breaker to the AC Accessory Panel.



s5550-188

Figure 1 Removing the GFI Breaker

## 1000-Sheet Feeder Assembly

The 1000-Sheet Feeder consists of two identical, universal trays, two feeders, and associated sensors incorporated into a common frame. 1000-Sheet Feeder FRUs include:

- Covers
- Casters
- Trays
- Feeders
- Sensors
- Rollers

Most repair procedures are possible with the 1000-Sheet Feeder docked to the print engine. However, if separation is necessary, remove the interface cable, Tray 3 and the two large screws securing the 1000-Sheet Feeder to the Print Engine.

### WARNING

**Two people are required to remove the Print Engine from atop the 1000-Sheet Feeder. Remove the trays and use the lift points provided on the left and right-hand sides of the Print Engine to lift it from the 1000-Sheet Feeder.**

As most parts are common among all four universal trays and feeders, many of the procedures presented here describe the process for Tray 4 but apply equally to Tray 5.

## REP 20.1 Top Cover Parts List on PL 20.1 Item 1 Removal

1. Pull out Tray 4.
2. Remove the one screw securing the Top Cover to the frame.
3. Slide to the left and remove the Top Cover.

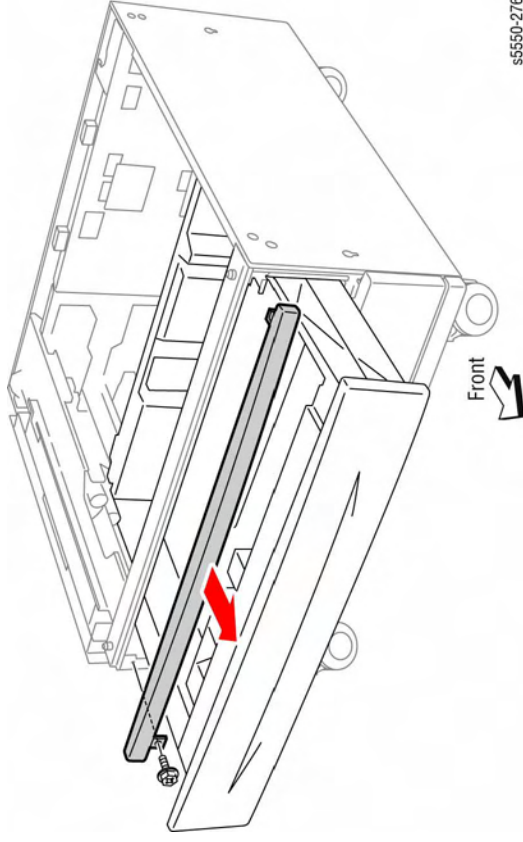


Figure 1 Removing the Top Cover

## REP 20.2 Right Cover

### Parts List on PL 20.1 Item 3

#### Removal

1. Remove the three screws securing the Right Cover to the frame.
2. Move the Right Cover in the direction of the arrow to remove.

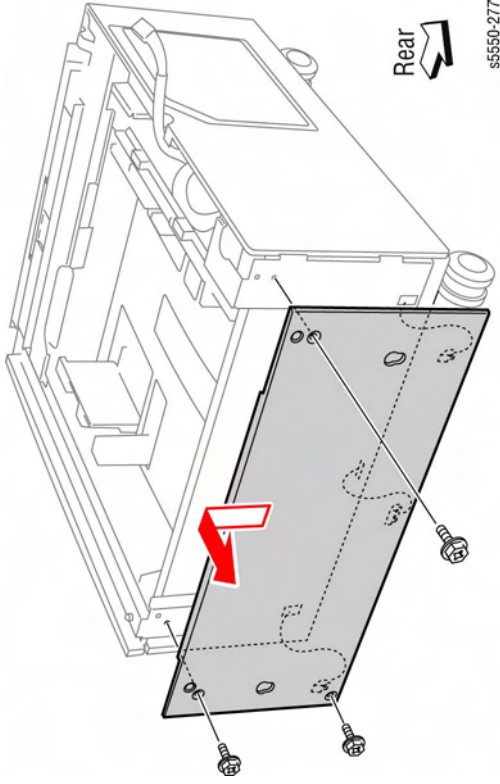


Figure 1 Removing the Right Cover

#### Replacement

Put the three hooks on the lower part of the Right Cover into the holes on the frame.

## REP 20.3 Foot Cover

### Parts List on PL 20.1 Item 2

#### Removal

1. Remove the Tray 5.
2. Remove the Right Cover (REP 20.2).
3. Remove the screw securing the Foot Cover to the frame.
4. Remove the Foot Cover by sliding the cover downward.

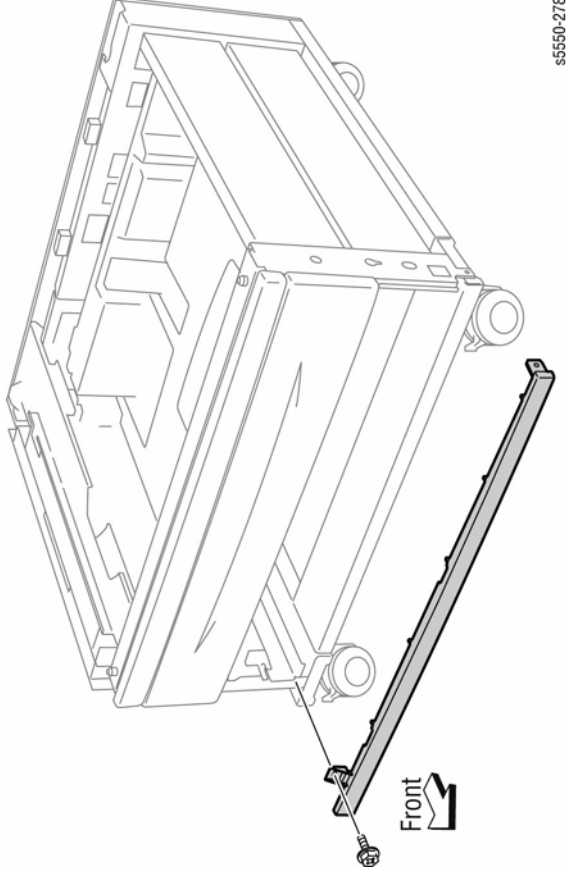


Figure 1 Removing the Foot Cover

## REP 20.4 Left Cover

### Parts List on PL 20.1 Item 4

#### Removal

1. Remove the Tray 6 docking bracket if present.
2. Remove the two screws securing the Left Cover to the frame.
3. Lift the Left Cover to release it from the frame.

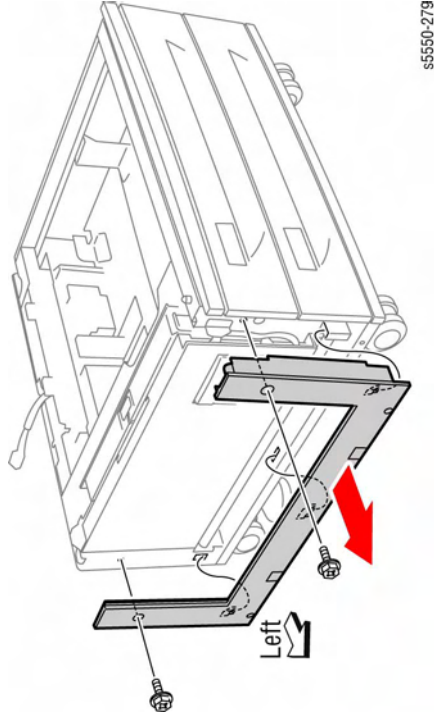


Figure 1 Removing the Left Cover

#### Replacement

Put the three hooks on the lower part of the Left Cover into the holes on the frame.

## REP 20.5 Rear Cover

### Parts List on PL 20.1 Item 5

#### Removal

1. Remove the four screws securing the Rear Cover to the frame.
2. Remove the Rear Cover.

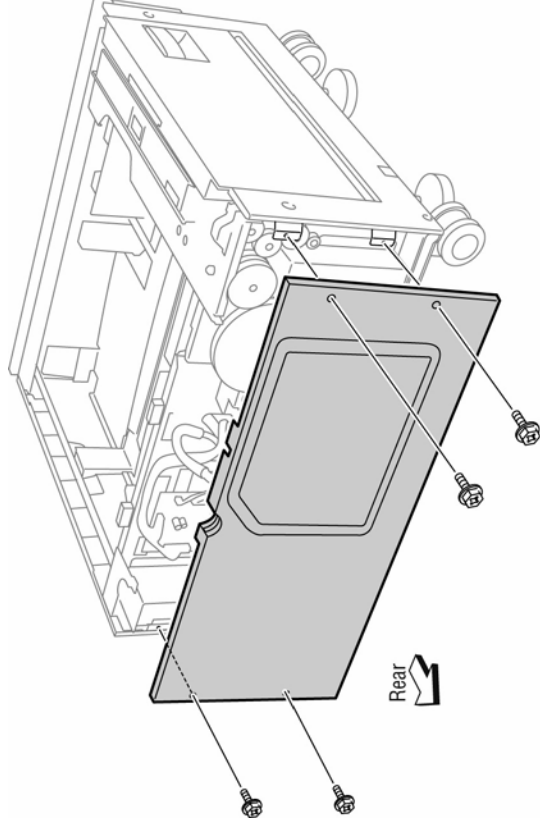


Figure 1 Removing the Rear Cover

## REP 20.6 Casters

Parts List on PL 20.1 Item 6, PL 20.1 Item 7

### Removal

1. Remove Trays 4 and 5.
2. Place two reams of paper under the front or rear of the printer depending on which caster needs replacement.
3. Remove the three(metal, 7mm) screws securing the Caster to the frame.
4. Remove the Caster.

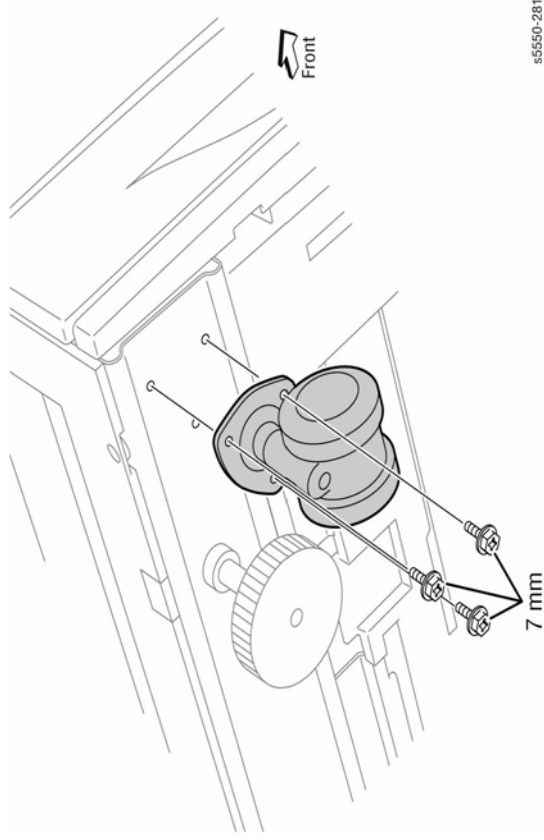


Figure 1 Removing the Casters

## REP 20.7 Paper Size Switch

Parts List on PL 20.2 Item 4

### Removal

This procedure describes Tray 4 Size Switch removal. Removal of the Tray 5 switch is essentially the same.

1. Remove Trays 4 and 5.
2. Disconnect the defective Paper Size Switch from the wire harness.
3. Remove the screw securing the switch to the frame.
4. Remove the switch.

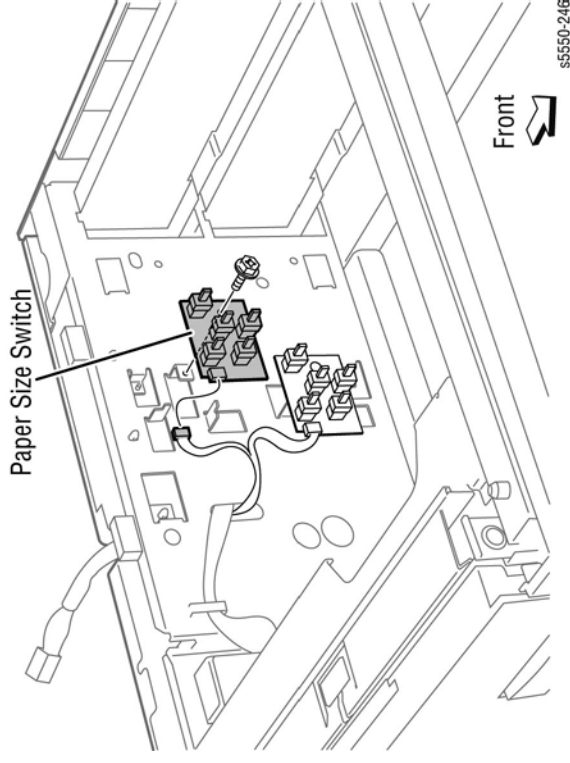


Figure 1 Removing the Paper Size Switch

### Replacement

When installing the Paper Size Switch, fit the boss on the frame into the hole on the switch.



## REP 20.8 Tray Feeder

### Parts List on PL 20.2 Item 7

#### Removal

This procedure describes Tray 4 Feeder removal. Removal of the Tray 5 feeder is essentially identical.

1. Remove the tray.
2. Remove the Left Cover (REP 20.4).
3. Open Door C.
4. Remove the screw securing the Support to the frame.
5. Remove the bosses left and right securing the Feed Out Chute to the frame and remove the Feed Out Chute.

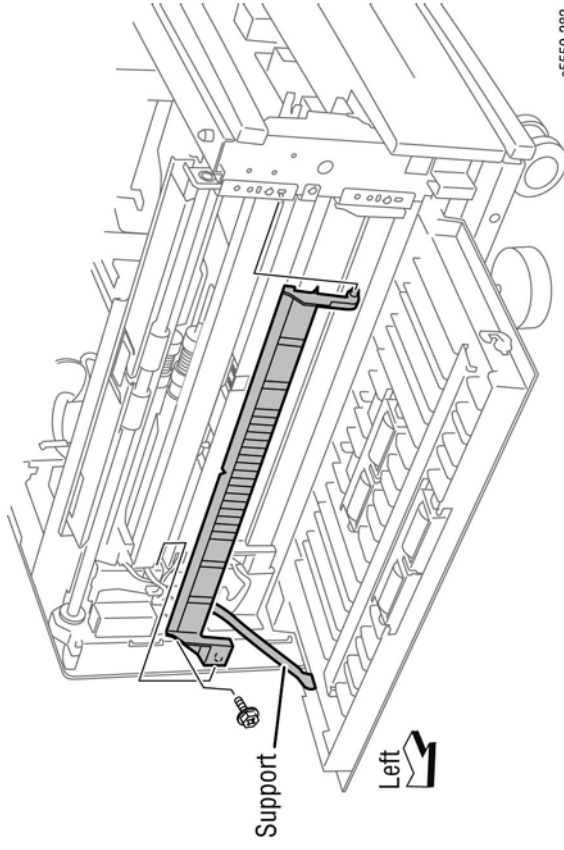


Figure 1 Removing screws and bosses

6. Remove the screw securing the bracket to the frame and remove the bracket.
7. Release the harness from the clamp.
8. Disconnect the connector from the feeder.
9. Remove the two screws securing the feeder to the frame.
10. Pull the front out first, then move the feeder in the direction of the arrow to remove.



Figure 2 Removing the Tray Feeder

#### Replacement

When installing the feeder, fit the two bosses on the frame into the two holes on the feeder.



## REP 20.9 Feed/Lift Motor

### Parts List on PL 2.3 Item 2

#### Removal

1. Remove the Feeder (REP 20.8).
2. Disconnect the connector from the Feed/Lift Motor.
3. Remove the two Phillips screws securing the Feed/Lift Motor to the Feeder.
4. Remove the Feed/Lift Motor.

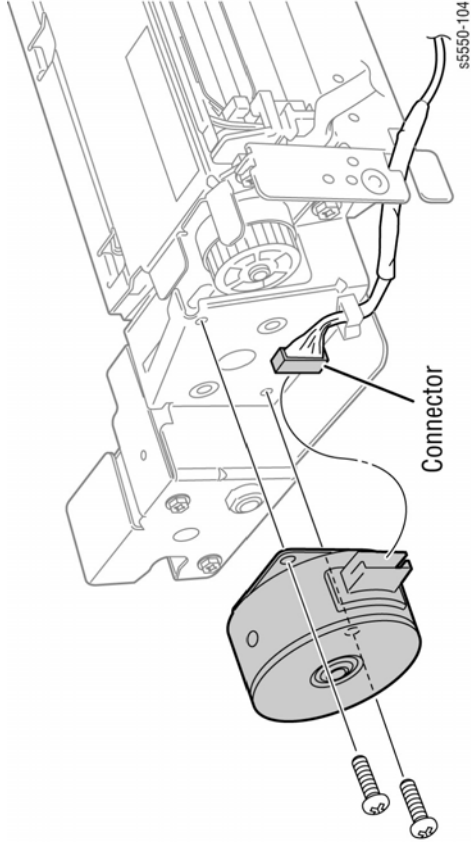


Figure 1 Removing the Feed/Lift Motor

## REP 20.10 Tray 4 and 5 No Paper Sensor

### Parts List on PL 2.3 Item 14

#### Removal

1. Remove the Feeder (REP 20.8).
2. Release the hooks securing the Sensor to the Upper Frame as shown in the Figure 1.
3. Disconnect the connector from the No Paper Sensor.
4. Remove the No Paper Sensor.

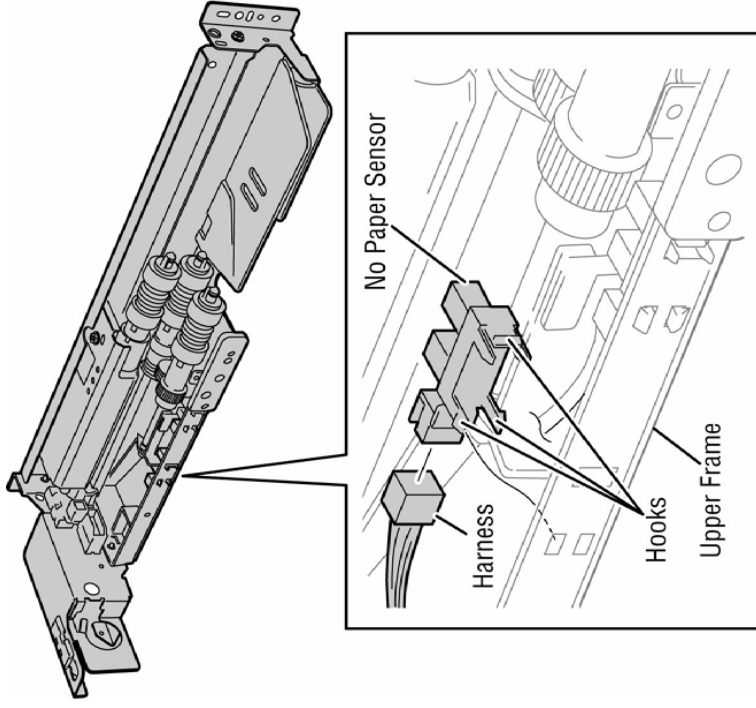


Figure 1 Removing the Tray 4 and 5 No Paper Sensor

## REP 20.11 Tray 4 and 5 Level Sensor Actuator

Parts List on PL 2.3 Item 13

### Removal

1. Remove the Feeder (REP 20.8).
2. Release the two bosses on the Actuator securing the Actuator to the Upper Frame.
3. Remove the Actuator.

**NOTE:** As an alternate procedure, remove Trays 4 and 5, then reach in and release the actuator bosses from the feeder assembly.

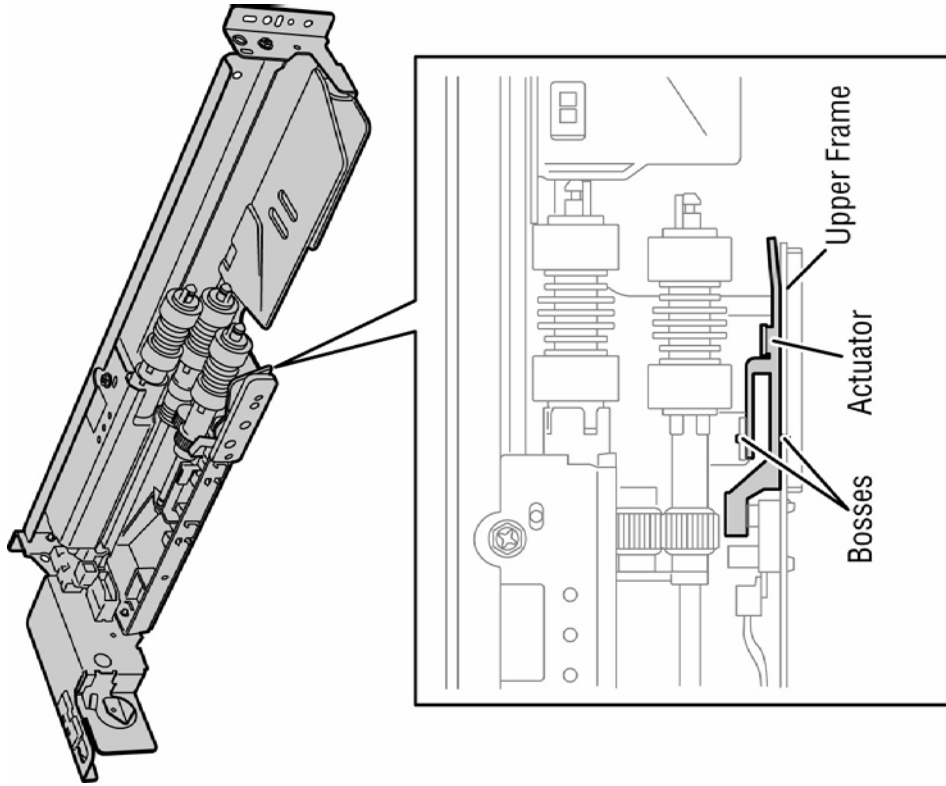


Figure 1 Removing the Tray 4 and 5 Level Sensor Actuator

## REP 20.12 Tray 4 and 5 Level Sensor

Parts List on PL 2.3 Item 14

### Removal

1. Remove the Feeder (REP 20.8).
2. Release the hooks securing the Level Sensor to the Upper Frame as shown in Figure 1.
3. Disconnect the connector from the Level Sensor and remove the sensor.

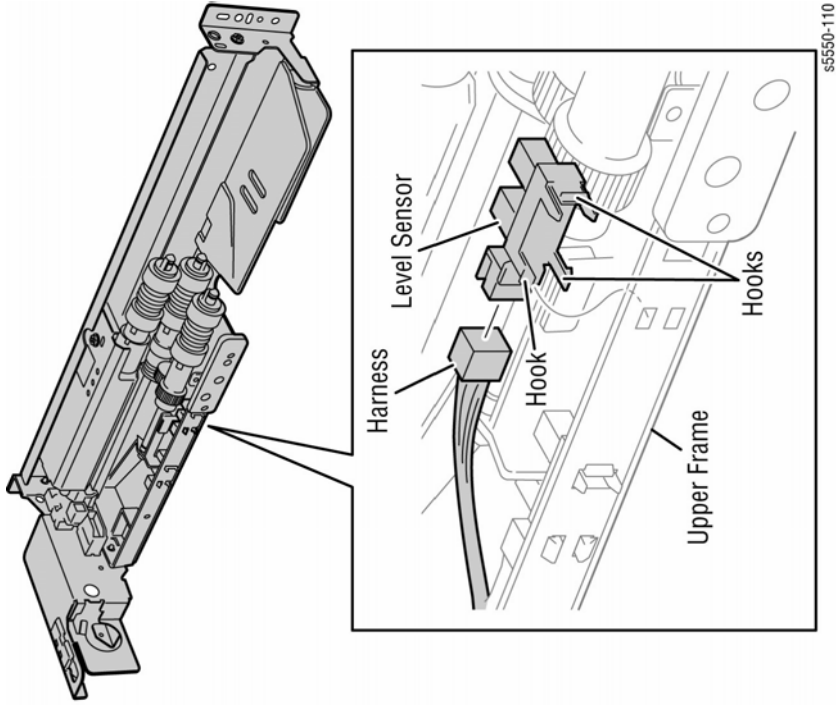


Figure 1 Removing the Tray 4 and 5 Level Sensor

## REP 20.13 Tray 4 and 5 Pre-Feed Sensor

Parts List on PL 2.3 Item 15

### Removal

1. Remove the Feeder (REP 20.8).
2. Remove the Pre-Feed Sensor from the Front Chute as shown in Figure 1.
3. Disconnect the connector from the Pre-Feed Sensor.

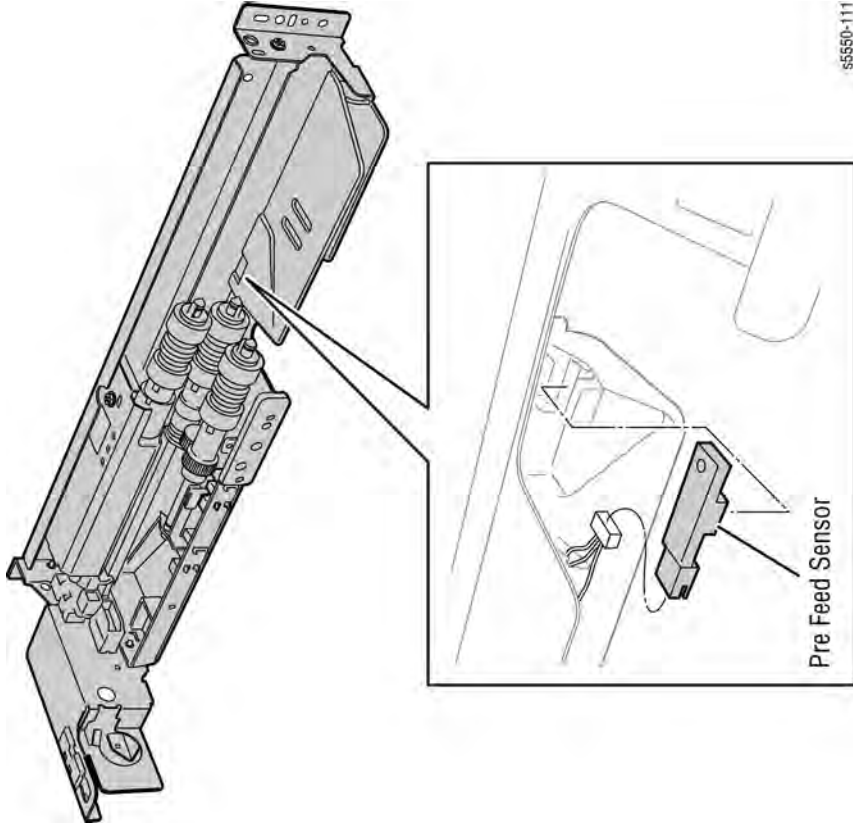


Figure 1 Removing the Tray 4 and 5 Pre-Feed Sensor

## REP 20.14 Feed Roller

Parts List on PL 2.3 Item 20

### Removal

1. Remove the tray.
2. Move the Front Chute in the direction of the arrow.
3. Release the hook securing the Feed Roller to the shaft and remove the Feed Roller.

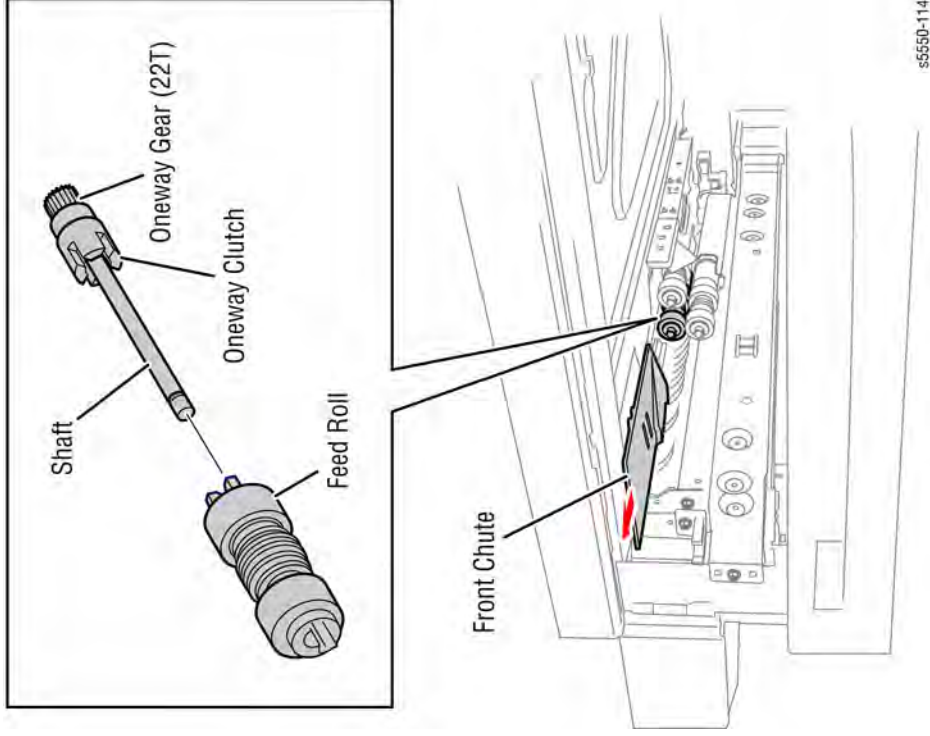


Figure 1 Removing the Feed Roller

## REP 20.15 Retard Roller

### Parts List on PL 2.3 Item 20

#### Removal

1. Remove the tray.
2. Release the hook securing the Retard Roller to the shaft as shown in Figure 1.
3. Remove the Retard Roller.

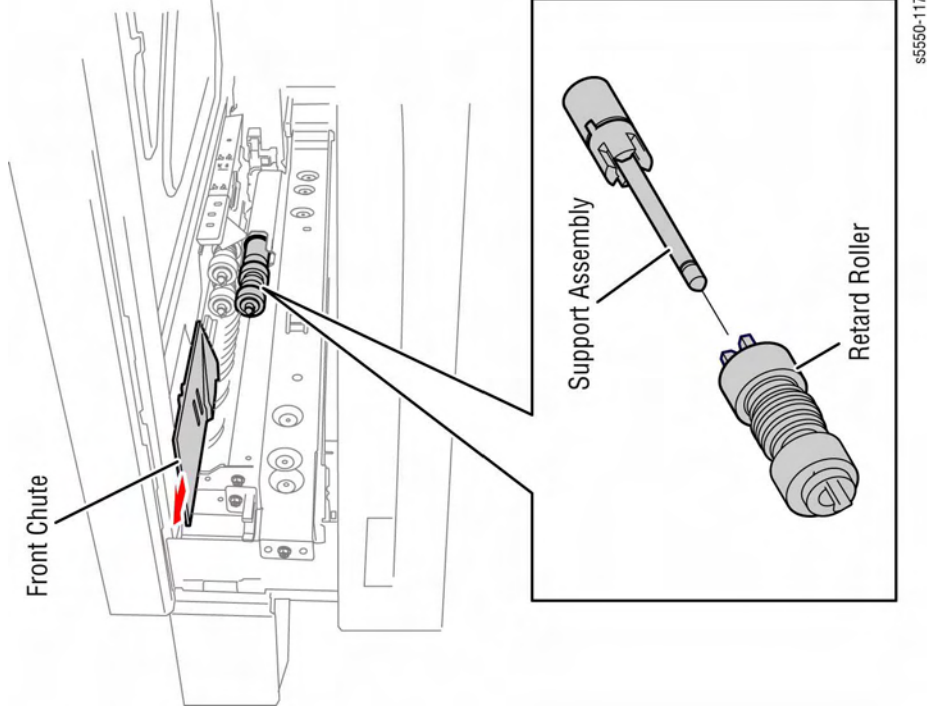


Figure 1 Removing the Retard Roller

## REP 20.16 Nudger Roller

### Parts List on PL 2.3 Item 20

#### Removal

1. Remove the tray.
2. Move the Front Chute in the direction of the arrow.
3. Release the hook securing the Nudger Roller to the Shaft as shown in Figure 1.
4. Remove the Nudger Roller.

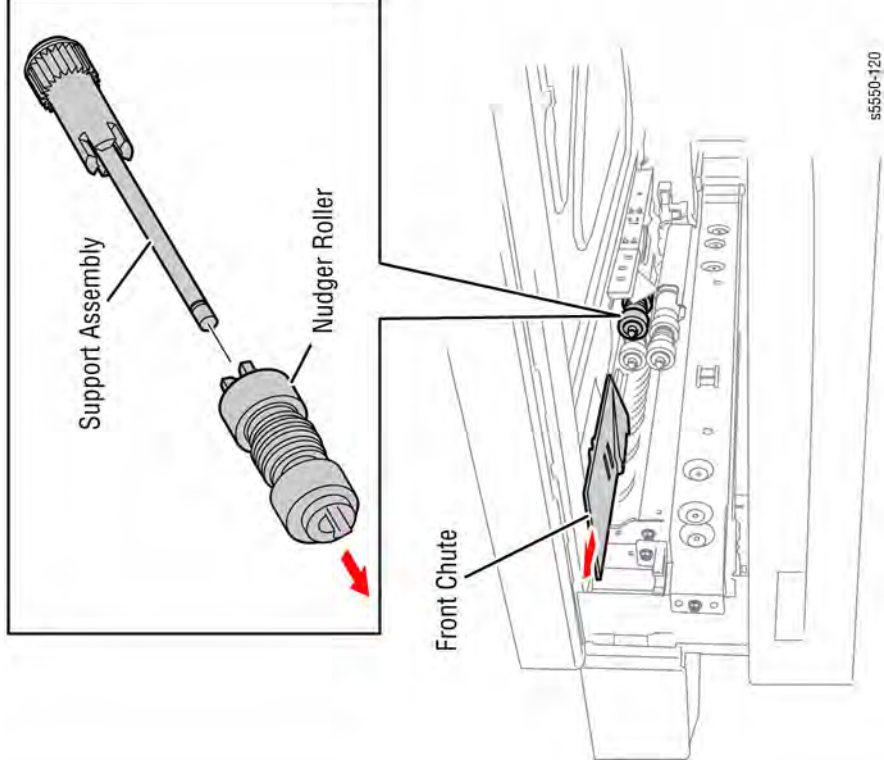


Figure 1 Removing the Nudger Roller

## REP 20.17 Tray 4 Feed Out Sensor #4

### Parts List on PL 20.5 Item 3

#### Removal

1. Remove the Upper Take Away Roller (REP 20.19).
2. Open Door C.
3. Remove the two screws securing the Chute to the frame.
4. Disconnect the Feed Out Sensor #4 from the harness.
5. Release the hooks securing the Feed Out Sensor #4 to the Chute as shown in Figure 1.

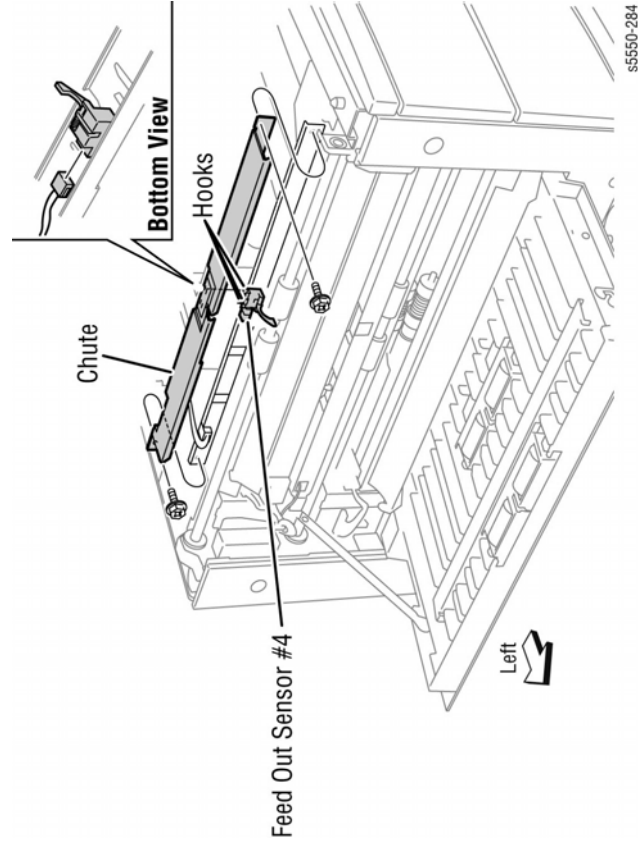


Figure 1 Removing the Tray 4 Feed Out Sensor #4

#### Replacement

Put the Actuator attached to the Feed Out Sensor #4 into the hole on the Chute.

## REP 20.18 Tray 5 Feed Out Sensor #5

### Parts List on PL 20.5 Item 6

#### Removal

1. Open Door C.
2. Remove the two screws securing the Chute to the frame.
3. Disconnect the Feed Out Sensor #5 from the harness.
4. Release the hooks securing the Feed Out Sensor #5 to the Chute as shown in Figure 1.

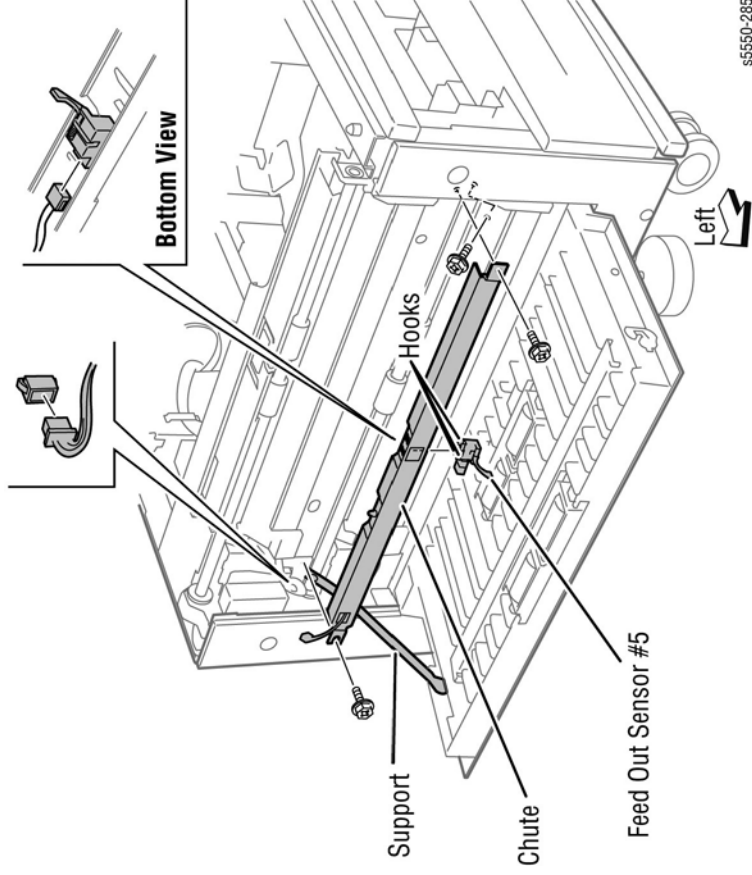


Figure 1 Removing the Tray 5 Feed Out Sensor #5

#### Replacement

Be sure to put the Feed Out Sensor #5 actuator into the hole on the Chute.



## REP 20.19 Upper Take Away Roller

Parts List on PL 20.5 Item 8

### Removal

1. Open Door C.
2. Remove the EL-Clip securing the upper Take Away Roller.
3. Remove the Bearing from the frame.
4. Move the upper Take Away Roller in the direction of the arrow to remove.

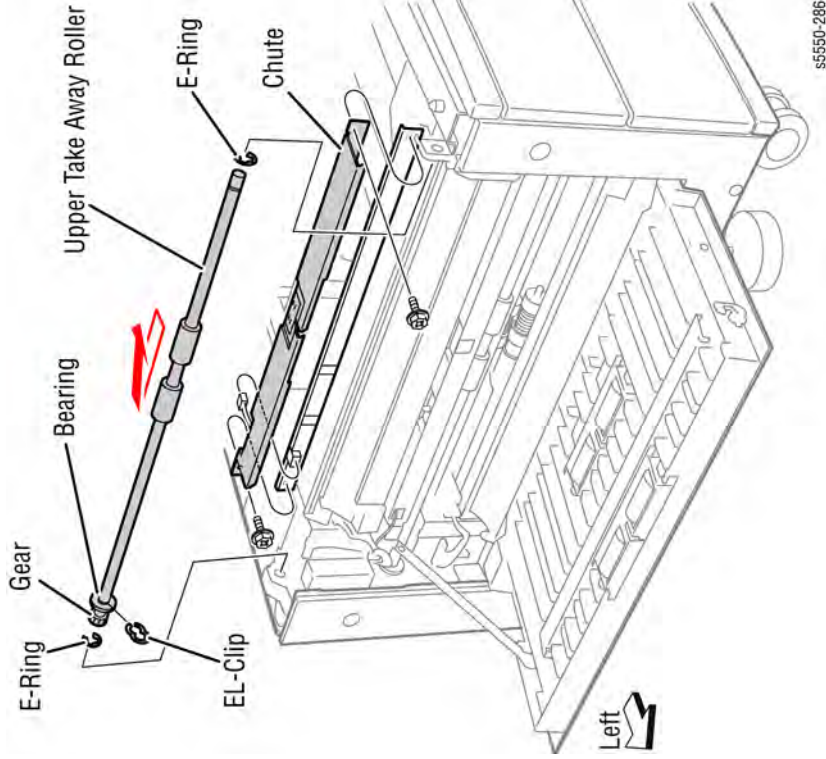


Figure 1 Removing the Upper Take Away Roller

## REP 20.20 Lower Take Away Roller

Parts List on PL 20.5 Item 8

### Removal

1. Open Door C.
2. Remove the two screws securing the Chute.
3. Disconnect the Chute from the harness to remove the Chute.
4. Remove the EL-Clip securing the lower Take Away Roller.
5. Remove the bearing from the frame.
6. Move the lower Take Away Roller in the direction of the arrow to remove.

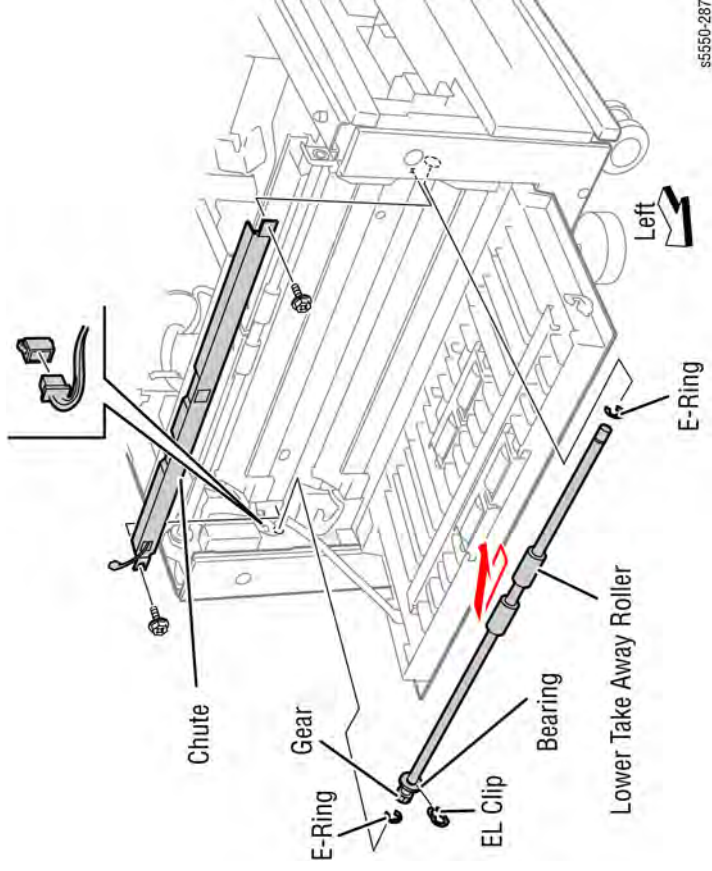


Figure 1 Removing the Lower Take Away Roller

### Replacement

Install the gear by aligning it with the D-shaped shaft end. Also, be careful not to install the bearing in a wrong direction.

## REP 20.21 Upper Pinch Roller Assembly

Parts List on PL 20.5 Item 11

### Removal

1. Open Door C.
2. Remove the four screws securing the Chute to the door and remove the Chute.
3. Remove the two screws securing the Upper Pinch Roller Assembly to the door.
4. Remove the Upper Pinch Roller Assembly.

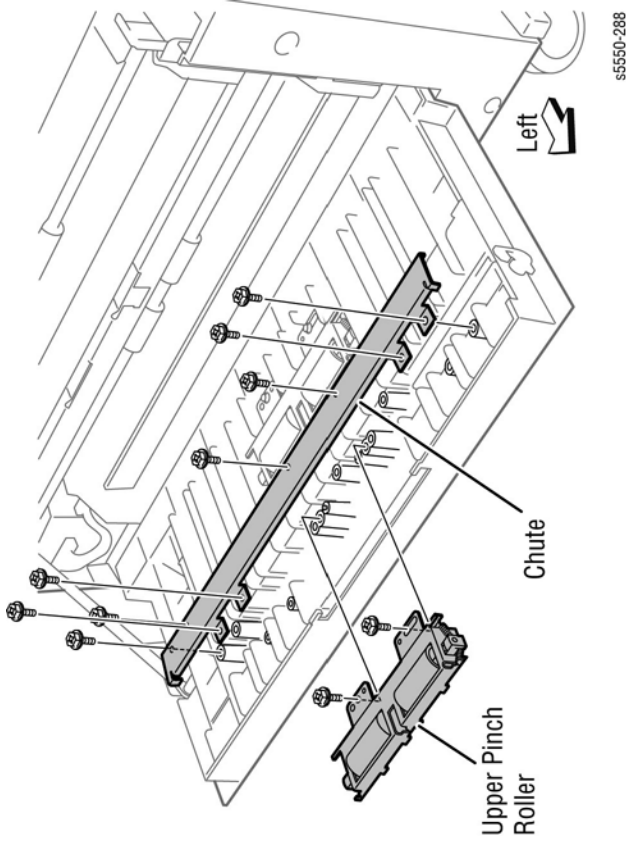


Figure 1 Removing the Upper Pinch Roller Assembly

## REP 20.22 Lower Pinch Roller Assembly

Parts List on PL 20.5 Item 11

### Removal

1. Open Door C.
2. Remove the two screws securing the Lower Pinch Roller Assembly to the door.
3. Remove the Lower Pinch Roller Assembly.

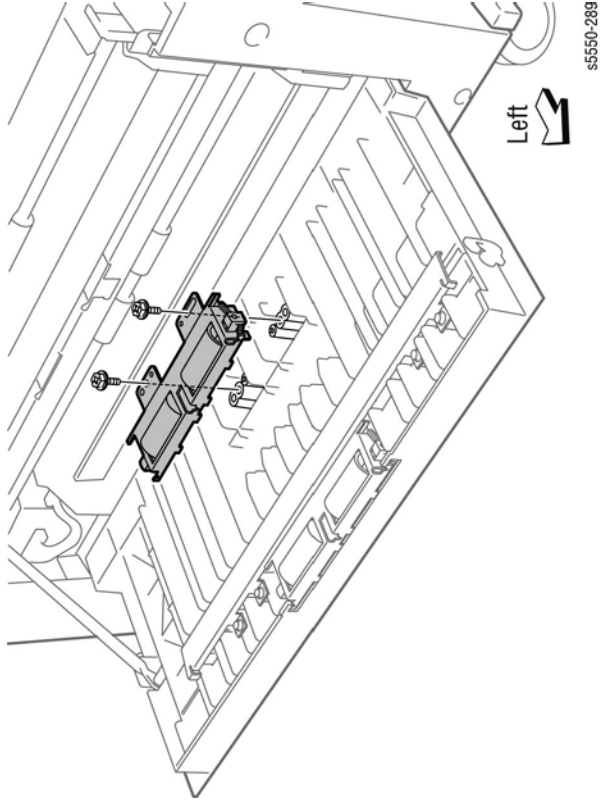


Figure 1 Removing the Lower Pinch Roller Assembly

## REP 20.23 Pinch Roller

Parts List on PL 20.5 Item 15

### Removal

1. Open Door C.
2. Remove the defective Pinch Roller (REP 20.21 or REP 20.22).
3. Place the Pinch Roller upside down.
4. Remove the three Springs that secure the bearings from the bracket.
5. Remove the Pinch Roller.

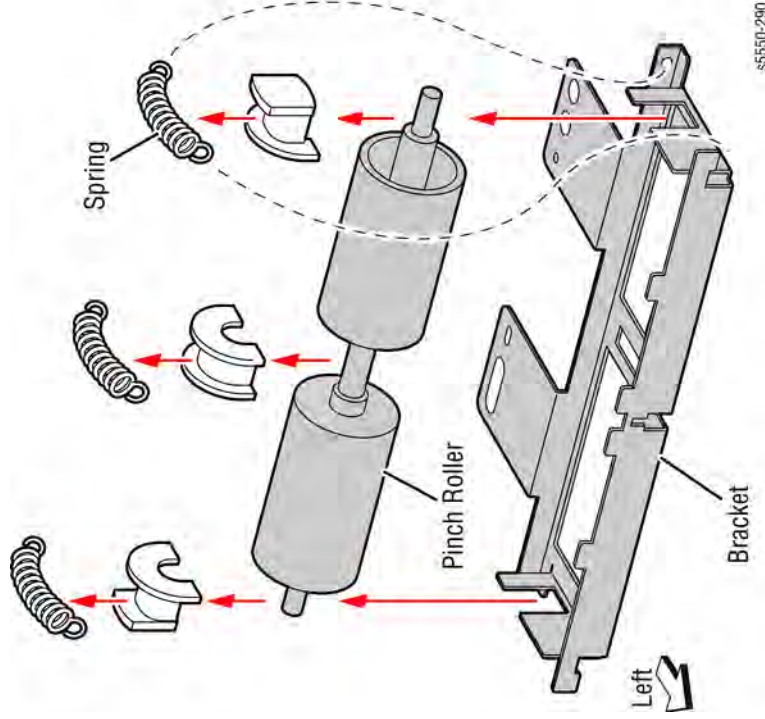


Figure 1 Removing the Pinch Roller

### Replacement

Install the bearings to the center shaft of the Pinch Roller in the direction shown in Figure 1, secure them with the three springs.

## REP 20.24 Door C Interlock Switch

Parts List on PL 20.5 Item 27

### Removal

1. Open Door C.
2. Remove the screw securing the bracket to the frame.
3. Disconnect the Door C Interlock Switch from the harness to remove the bracket.
4. Release the hooks securing the switch to the bracket.
5. Remove the switch.

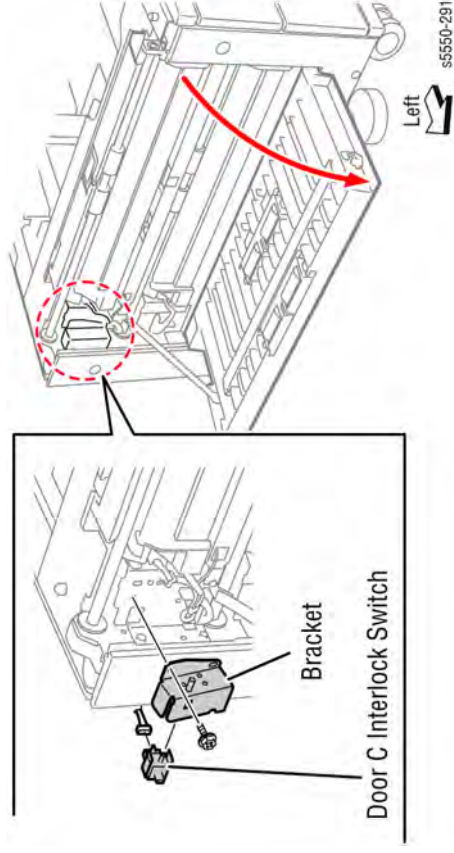


Figure 1 Removing the Door C Interlock Switch



## REP 20.25 Tray 4-5 PWB

### Parts List on PL 20.6 Item 1

#### Removal

1. Remove the Rear Cover (REP 20.5).
2. Disconnect the five connectors and harness from the PWB.
3. Remove the four screws securing the PWB to the frame.
4. Remove the PWB.

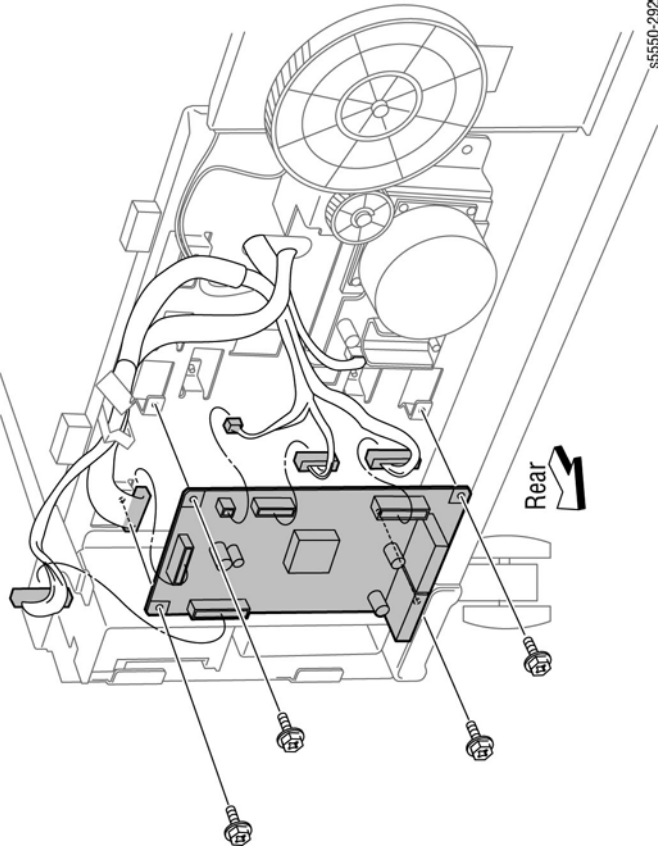


Figure 1 Removing the Tray 4-5 PWB

## REP 20.26 Take Away Clutch

### Parts List on PL 20.6 Item 2

#### Removal

1. Remove the Rear Cover (REP 20.5).
2. Disconnect the Take Away Clutch connector from the bracket.
3. Remove the two screws securing the bracket to the frame.

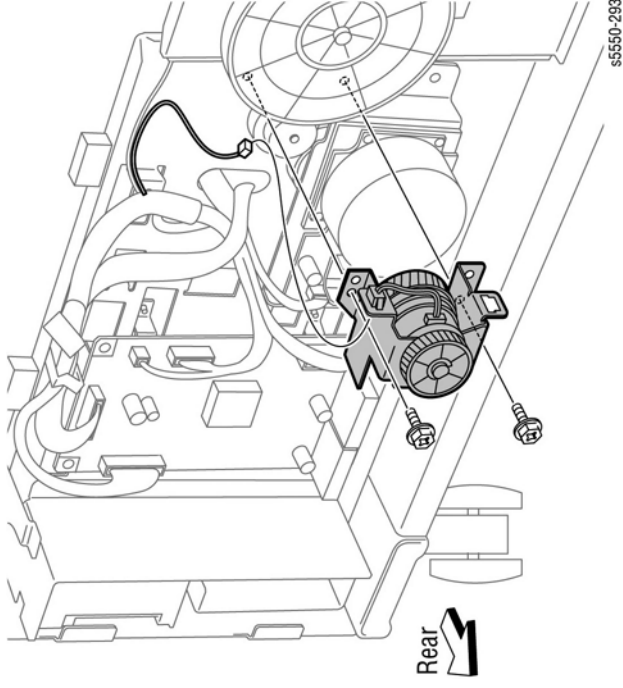


Figure 1 Removing the screws

4. Remove the E-ring securing the Gear 38T to the bracket and remove the Gear 38T.
5. Disconnect the Take Away Clutch connector from the Bracket by releasing the hook.
6. Remove the Take Away Clutch.

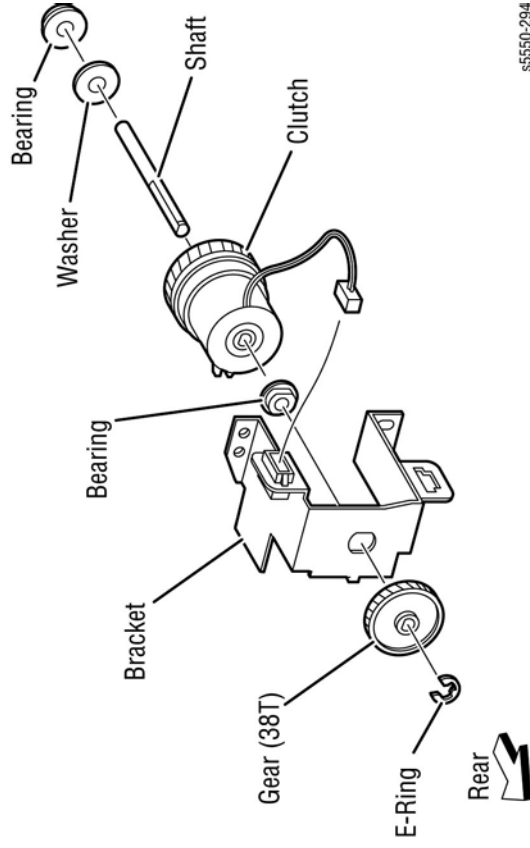


Figure 2 Removing the Take Away Clutch

### Replacement

Fit the Gear 38T to the D-shaped end of the Shaft. Install the Bracket with its boss fit into the notch on the Clutch. Also, verify that the Clutch harness does not contact the gears.

## REP 20.27 Take Away Motor Parts List on PL 20.6 Item 7

### Removal

1. Remove the Rear Cover (REP 20.5).
2. Disconnect the harness from the Take Away Motor.
3. Remove the two screws securing the Take Away Motor to the frame.
4. Remove the Take Away Motor.

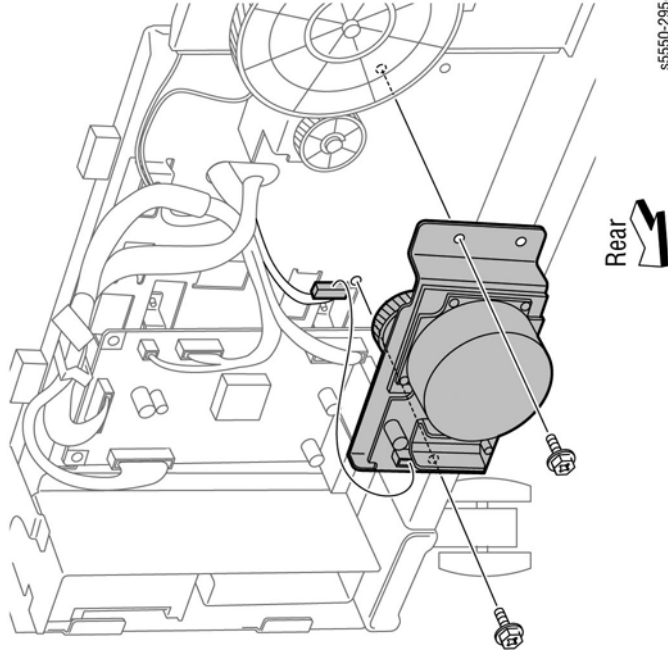


Figure 1 Removing the Take Away Motor



## 2000-Sheet Feeder Disassembly

When servicing the 2000-Sheet Feeder, empty the tray's contents, disconnect the data/power cable from the printer and slide the Tray Module away from the optional trays. This slide capability allows you, in most cases, to service the Tray Module without having to completely separate it from the optional trays.

To avoid confusion, these procedures refer to the entire 2000-Sheet Feeder as the Tray Module. The Tray itself is referred to as the tray.

## REP 22.1 Docking the 2000-Sheet Feeder

### Removal

For servicing procedures that require removal of the Tray Module, disconnected it from the printer using this procedure.

1. Disconnect the interface cable from the printer.
2. Slide the feeder out from the printer.
3. Release the docking bracket, located at the lower right by pressing the latch toward the rear.

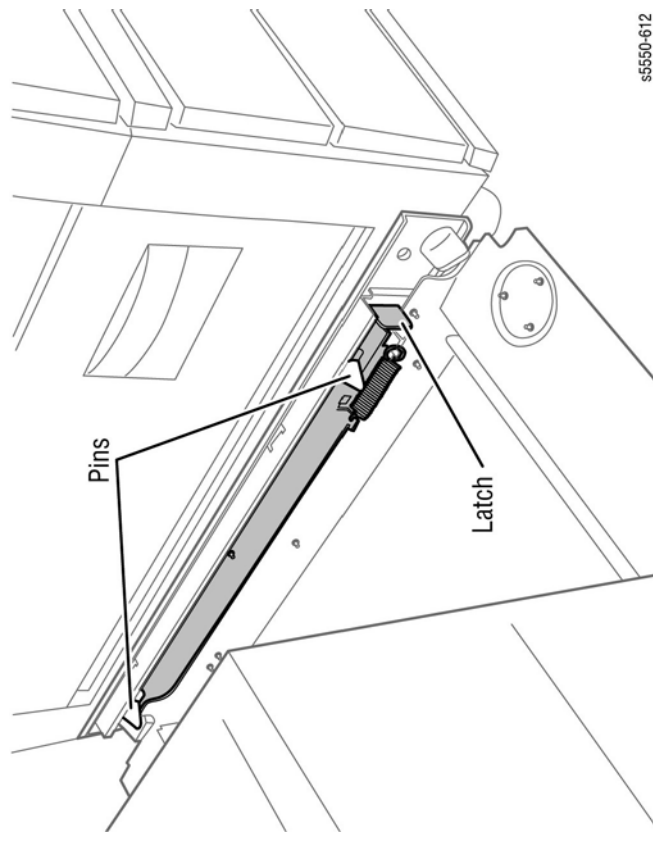


Figure 1 Docking the 2000-Sheet Feeder

### Replacement

Align the pins on the docking bracket with the holes in the feeder frame and push the two together. The latch is self-locking.

## REP 22.2 Tray 6 Rear Cover

Parts List on PL 22.1 Item 14

### Removal

1. Slide the Tray Module away from the printer.
2. Remove the four screws securing the Rear Cover to the frame.
3. Remove the interface cable from the cover.
4. Remove the Rear Cover.

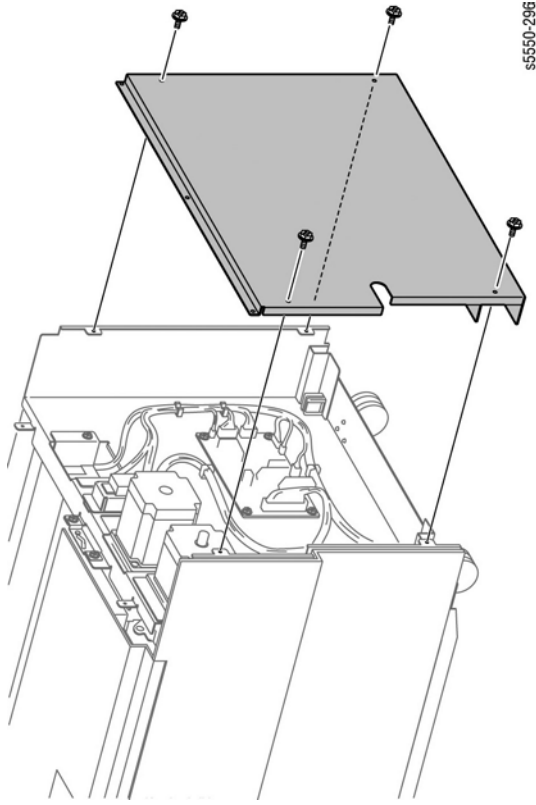


Figure 1 Removing the Rear Cover

## REP 22.3 Tray 6 Top Cover

Parts List on PL 22.1 Item 1

### Removal

5. Pull out the tray.
6. Remove the Rear Cover (REP 22.2).
7. Remove the two screws on each end securing the Top Cover to the frame.
8. Remove the Top Cover.

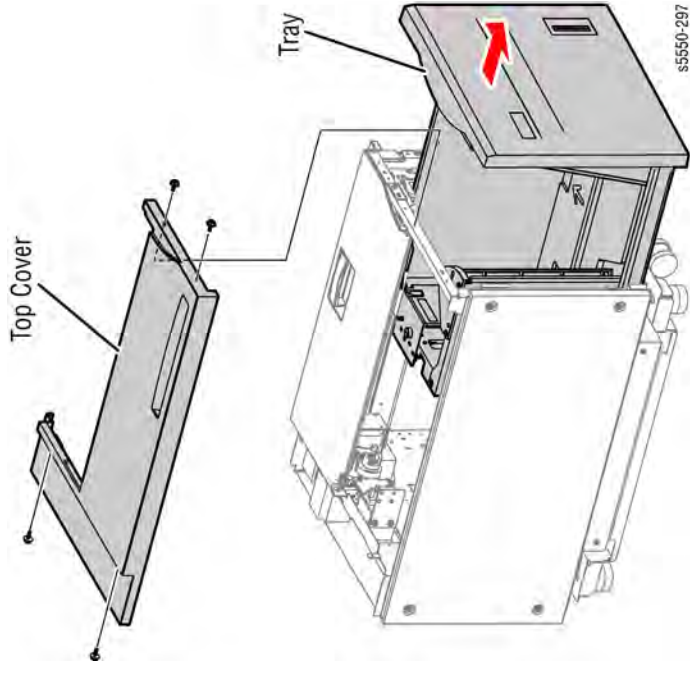


Figure 1 Removing the Top Cover

## REP 22.4 Tray 6 Right Cover

Parts List on PL 22.1 Item 2

### Removal

1. Slide the Tray Module away from the printer.
2. Remove the four screws securing the Right Cover to the frame.
3. Remove the Right Cover.

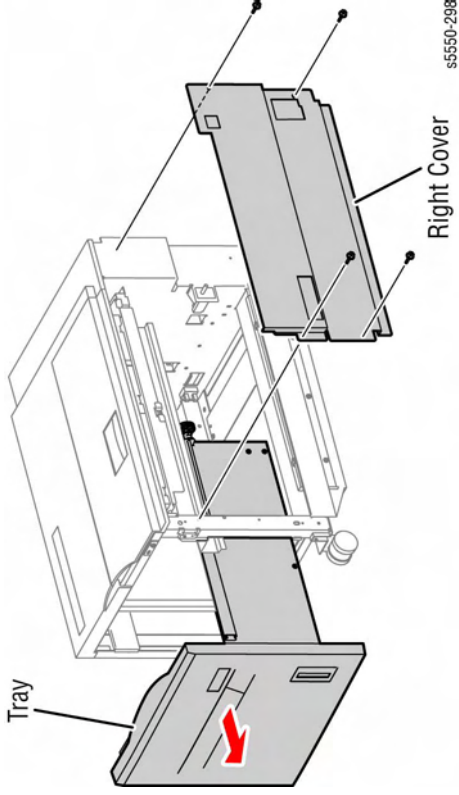


Figure 1 Removing the Right Cover

## REP 22.5 Tray 6 Left Cover

Parts List on PL 22.2 Item 11

### Removal

1. Remove the four screws securing the Left Cover to the frame.
2. Remove the Left Cover.

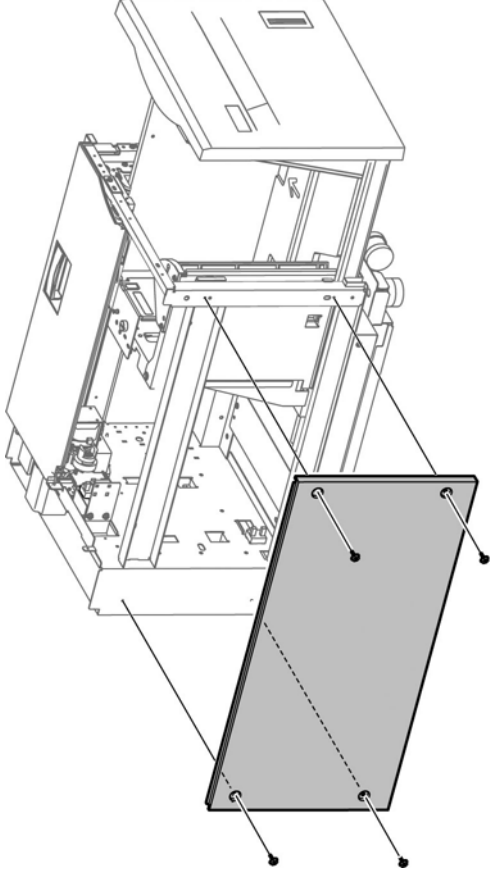


Figure 1 Removing the Left Cover

## REP 22.6 Tray 6 Front Cover

### Parts List on PL 22.2 Item 1

#### Removal

1. Pull out the tray.
2. Remove the screws, two on the upper portion, one on the right side, and two on the left side, securing the Front Cover to the tray.
3. Remove the Front Cover.

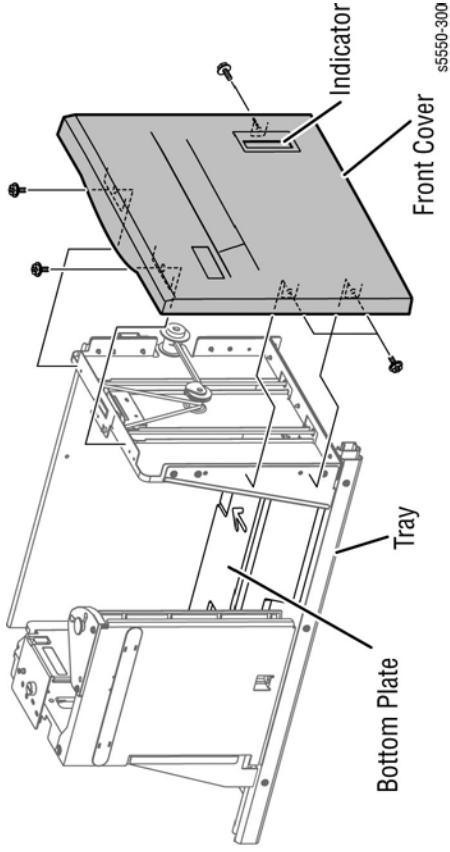


Figure 1 Removing the Front Cover

#### Replacement

Make sure that the Front Cover indicator moves up-and-down smoothly when the Bottom Plate is raised by rotating the Lift Shaft by hand.

## REP 22.7 Door J

### Parts List on PL 22.7 Item 1

#### Removal

1. Slide the Tray Module out from the printer.
2. Remove the Rear Cover (REP 22.2).
3. Remove the Top Cover (REP 22.3).
4. Open Door J.
5. Remove the two screws securing the Rear Hinge Bracket to the frame.
6. Remove the Rear Hinge Bracket leaving the Top Pivot Shaft and the Torsion Spring R attached to Door J.
7. Lift Door J from the rear while holding the Rear Hinge Bracket and Pivot Shaft in place. Move the door assembly to the rear to remove the Pivot Shaft and Torsion Spring from the Front Hinge Bracket.

## REP 22.8 Tray Removal

### Removal

1. Slide the Tray Module out from the printer.
2. Unload the contents of the tray.
3. Insert the tip of a screwdriver, perpendicular to the drawer track, into the round hole located at the end of each track to release the drawer rails from the tracks.
4. Pull the drawer out evenly from the frame.

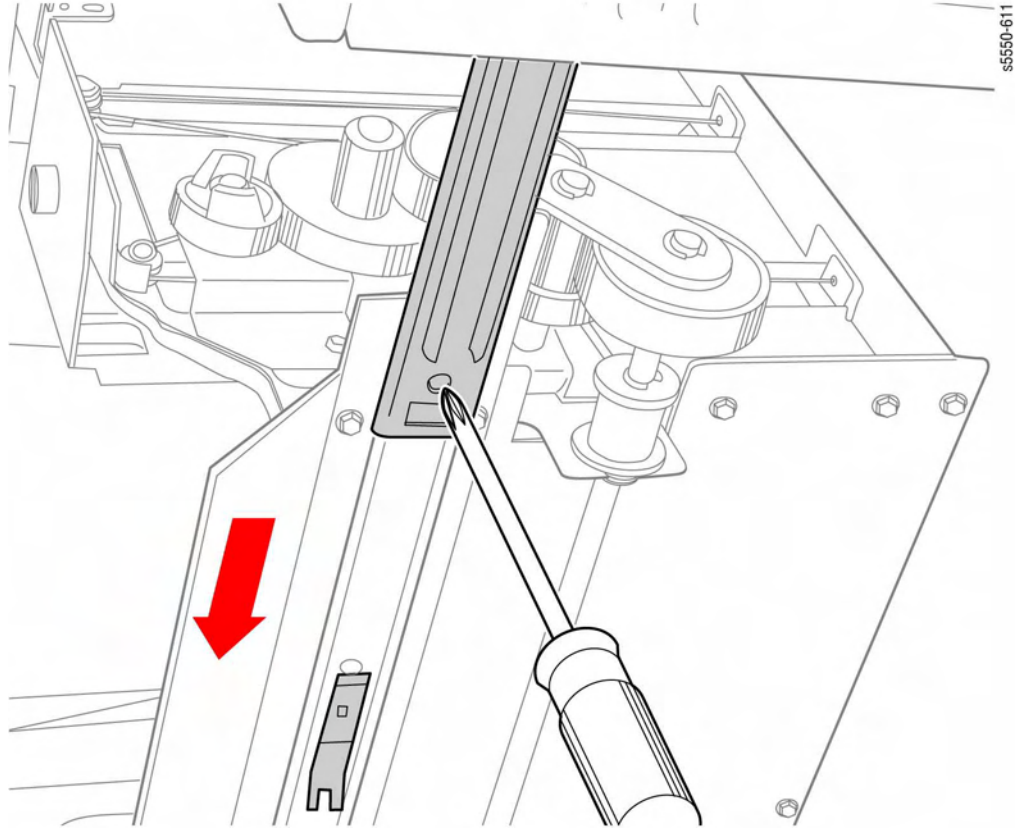


Figure 1 Removing the Tray

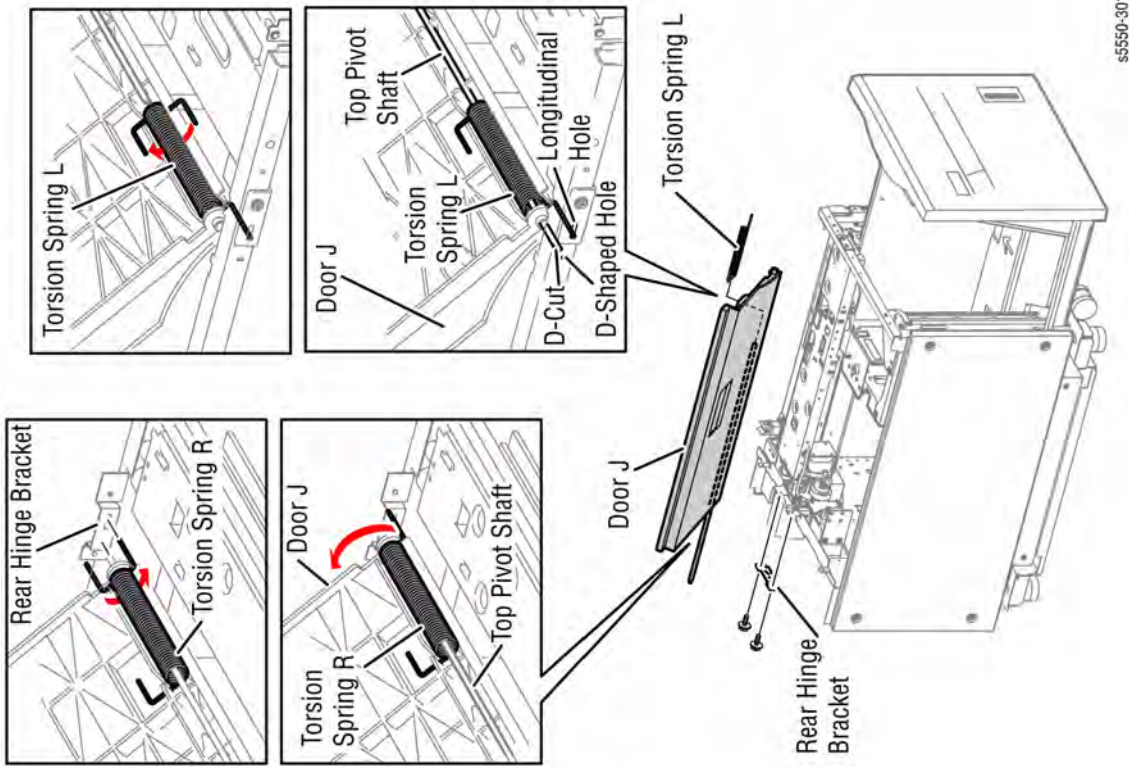


Figure 1 Removing Door J

### Replacement

Install the captured side of the Top Pivot Shaft so that its D-cut is positioned at the front side of Door J first. Make sure the cover properly rests against the stop before replacing the Rear hinge Bracket.



## REP 22.9 Tray 6 Casters

Parts List on PL 22.1 Item 8

### Removal

1. Unload and completely disconnect the Tray Module from the Printer.
2. Place the Tray Module on its left side being careful not to damage the cover.
3. Remove the three screws securing the Caster to the frame.
4. Remove the Caster.

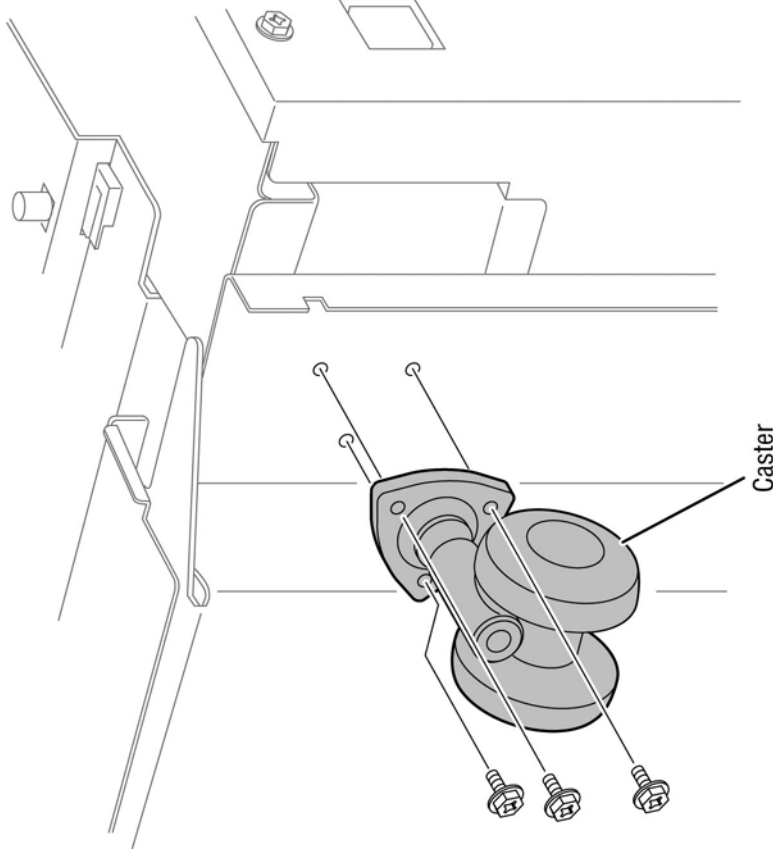


Figure 1 Removing the Caster

## REP 22.10 Tray 6 Tray In Sensor

Parts List on PL 22.1 Item 4

### Removal

1. Slide the Tray Module away from the printer.
2. Pull out the tray.
3. Remove the Left Cover (REP 22.5).
4. Disconnect the connector (JF53) from the Tray In Sensor.
5. Release the hooks securing the sensor to the frame to remove the Tray In Sensor.

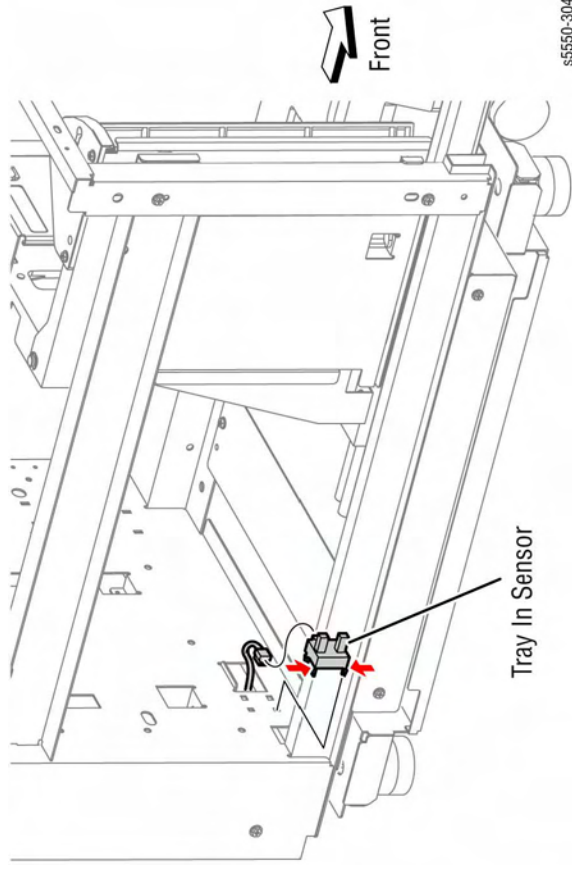


Figure 1 Removing the Tray In Sensor

### Replacement

Push the tray into the Tray Module to check that the sensor properly aligns with the tray shutter.

## REP 22.11 Tray 6 Paper Size Sensors A/B

Parts List on PL 22.1 Item 4

### Removal

1. Slide the Tray Module away from the printer.
2. Pull out the tray.
3. Remove the Rear Cover (REP 22.2).
4. Remove the Top Cover (REP 22.3).
5. Disconnect the connector (JF51 for B) or (JF52 for A) from the defective sensor.
6. Release the hooks securing the sensor to the bracket and remove the Paper Size Sensor.

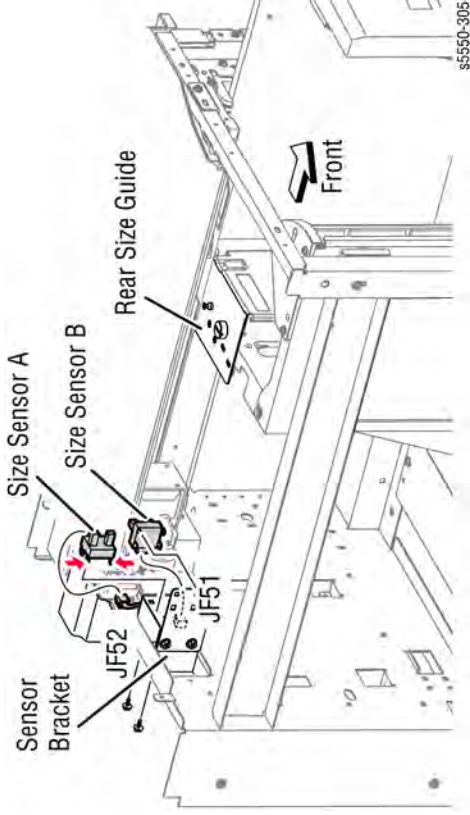


Figure 1 Removing the Paper Size Sensors A/B

### Replacement

Push the tray into the Tray Module to check that the Rear Size Guide properly aligns with the Paper Size Sensors.

## REP 22.12 Tray 6 End Guide Assembly

Parts List on PL 22.2 Item 14

### Removal

1. Remove the E-ring securing the End Guide to the tray.
- NOTE:** To lift the End Guide from the shafts, position the guide close to its closed position.
2. Lift the End Guide upward to release the shafts on the top and bottom of the tray from the holes on the End Guide.

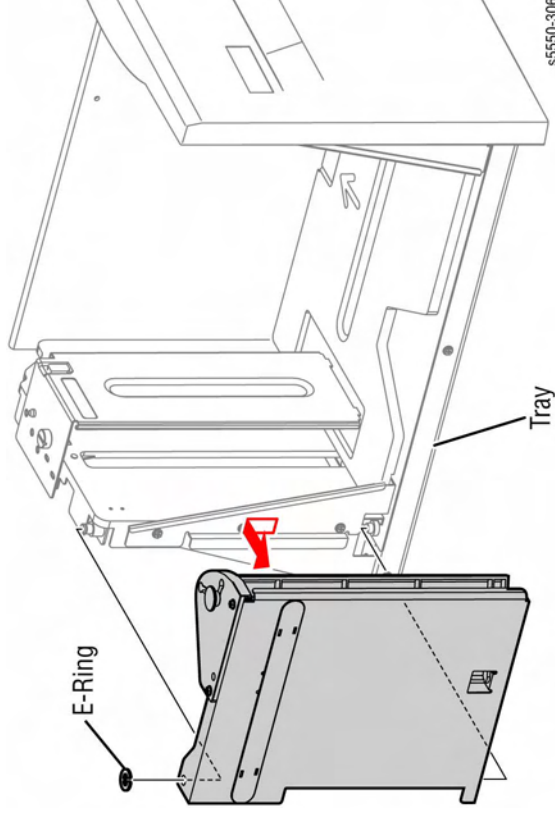


Figure 1 Removing the End Guide Assembly

## REP 22.13 Tray 6 Gear Assembly

### Parts List on PL 22.3 Item 8

#### Removal

1. Remove the tray (REP 22.8).
2. Remove the two E-rings securing the Lift Shaft support and remove the support.
3. Remove the Lift Shaft Drive gear and Transfer gear.
4. Remove the three screws securing the Gear Assembly.
5. Remove the Gear Assembly by slipping it out from underneath the cable.

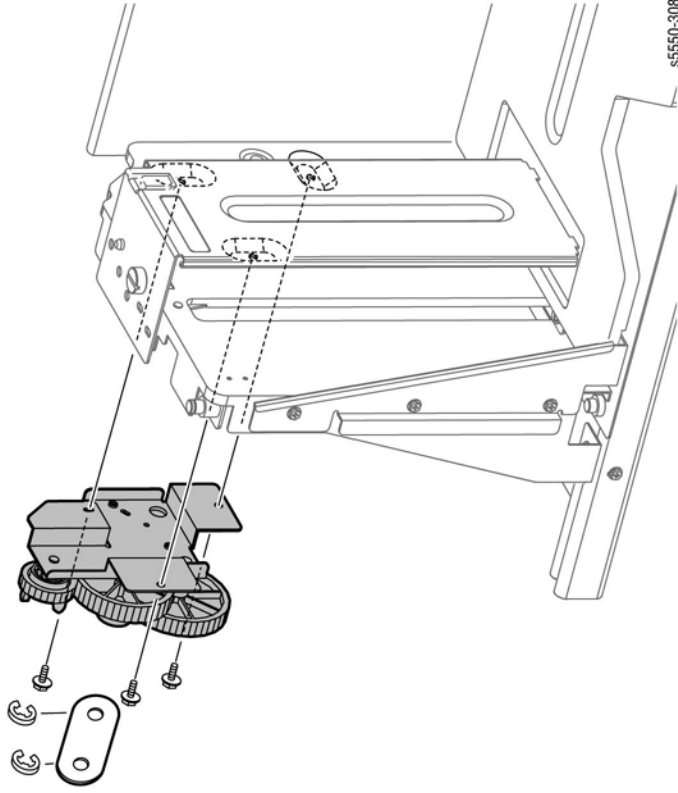


Figure 1 Removing the Gear Assembly

#### Replacement

When installing the Gear Assembly, engage the gears with the tray.

## REP 22.14 Tray 6 Cables

### Parts List on PL 22.3 Item 6

#### Removal

1. Remove the Front Cover (REP 22.6).
2. Remove the Gear Assembly Bracket R PF2 (REP 22.13).
3. Remove the E-ring securing the Powered Bearing to the Lift Shaft at the rear, right side of the tray.
4. Move the Powered Bearing in the direction of arrow (1) to remove it from the frame.
5. Move the Lift Shaft in the direction of arrow (2) to remove it from the frame.
6. Move the Pulley in the direction of arrow (3).

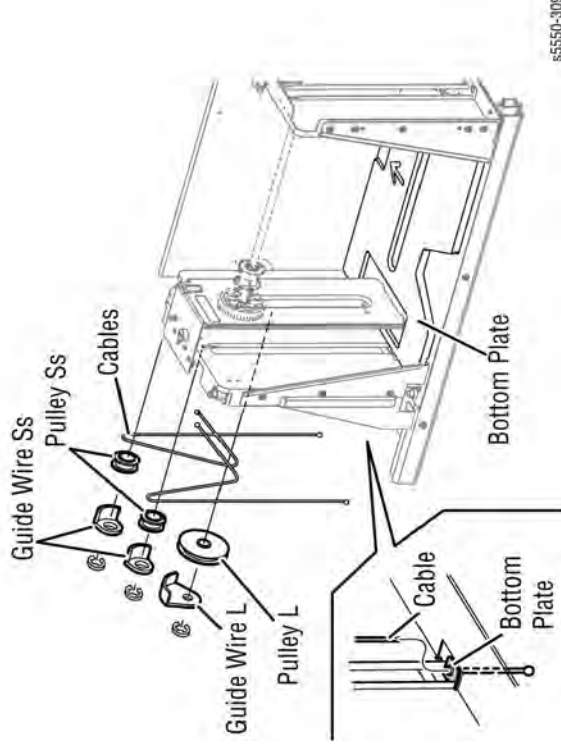
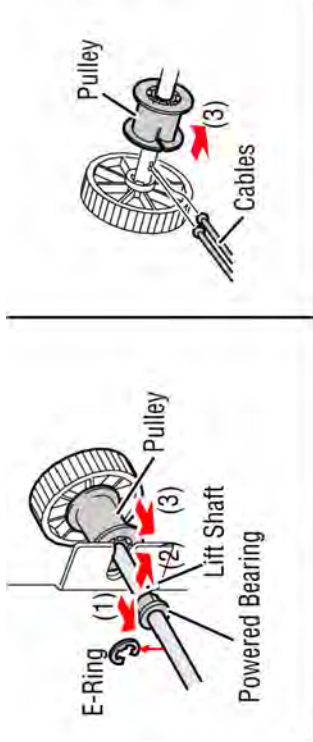


Figure 1 Removing the E-ring, moving the Lift Shaft and the Pulley

7. Detach the ends of the two cables from the Lift Shaft.

8. Remove the two E-rings securing the two Pulley Ss to remove the two Wire Guides and two Pulleys.
9. Remove the E-ring securing the Pulley L and remove the Wire Guide L and Pulley L.
10. Remove the two Cables from the Bottom Plate.
11. Remove the E-ring securing the Powered Bearing to the Lift Shaft at the front, right side of the tray.
12. Move the Powered Bearing in the direction of arrow (4) to remove it from the frame.
13. Move the Lift Shaft in the direction of arrow (5) to remove it from the frame.
14. Move the Pulley in the direction of the arrow (6).
15. Detach the two Cables from the Lift Shaft.
16. Remove the two E-rings securing the two Pulley Ss and remove the two Wire Guides Ss and two Pulley Ss.
17. Remove the E-ring securing the Pulley L to remove the Wire Guide L and Pulley L.
18. Remove the two Cables from the Bottom Plate.

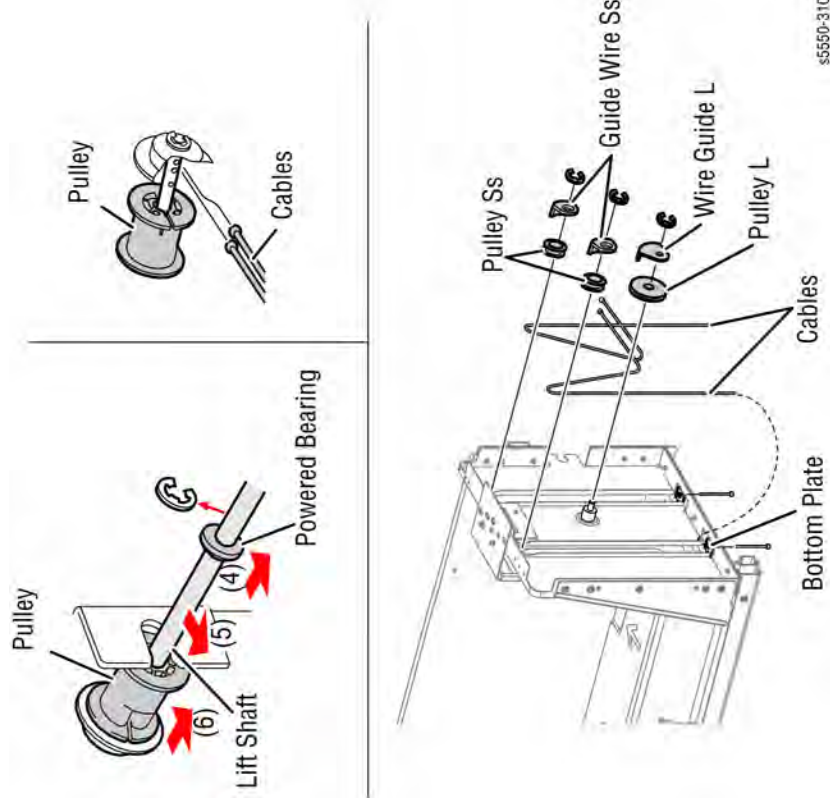


Figure 2 Removing the Cables

## Replacement

The following summarizes the Cable replacement procedure. Refer to Figure 1 and Figure 2 as a reference while reinstalling the cables.

**NOTE:** When replacing the Cables, use the Tray Cable Kit (604K19980) to replace all cables. Begin with the Cable on the front of the Tray.

1. Orient the Bottom Plate so the arrow points in the direction shown in Figure 2.
2. Fit the tips of the two Cables into the holes on the front of the Bottom Plate.
3. Hang the Cable onto the Pulley S, and install the Pulley S and the Guide Wire S to the upper shaft. Fix them with two E-rings.
4. Hang the Cable onto the Pulley L and install the Pulley L and the Guide Wire L to the lower shaft. Fix them with E-ring.
5. Fit the tips of the two Cables into the two holes on the Lift Shaft.
6. Press the Pulley in the opposite direction of the arrow (6) so that the tips of the Cables are not detached from the Lift Shaft.
7. Fix the Pulley to the Lift Shaft using the E-ring.
8. Move the Lift Shaft in the opposite direction of the arrow (5) to fit it to the notch on the frame.
9. Move the Powered Bearing in the opposite direction of the arrow (4) to install it to the frame.
10. Fix the Powered Bearing to the Lift Shaft using the E-ring.
11. Fit the tips of the two Cables into the holes at the rear of the Bottom Plate.
12. Hang the Cable onto the Pulley S, and install the Pulley S and the Wire Guide S to the upper shaft. Fix them with the two E-rings.
13. Hang the Cable onto the Pulley L, and install the Pulley L and the Wire Guide L to the lower shaft. Fix them with the E-ring.
14. Fit the tips of the two Cables into the two holes on the Lift Shaft.
15. Press the Pulley in the opposite direction of the arrow (3) so that the tips of the Cables are not detached from the Lift Shaft.
16. Move the Lift Shaft in the opposite direction of the arrow (2) to fit it to the notch on the frame.
17. Move the Powered Bearing in the opposite direction of the arrow (1) to install it to the frame.
18. Fix the Powered Bearing to the Lift Shaft using the E-ring.
19. Install the Gear Assembly Bracket R PF2 (REP 22.13).
20. Install the Front Cover (REP 2.6).
21. When the Lift Gear is turned by hand, make sure that the Bottom Plate moves up-and-down at the rear and front sides simultaneously.
22. Install the tray.

## REP 22.15 Tray 6 Feeder Assembly

### Parts List on PL 22.4 Item 1

#### Removal

1. Remove the Rear Cover (REP 22.2).
2. Remove the tray (REP 22.8).
3. Open Door J.
4. Remove the front two screws securing the Feeder to the frame.
5. Push the Feeder from the rear to the front until it slides out of the machine.

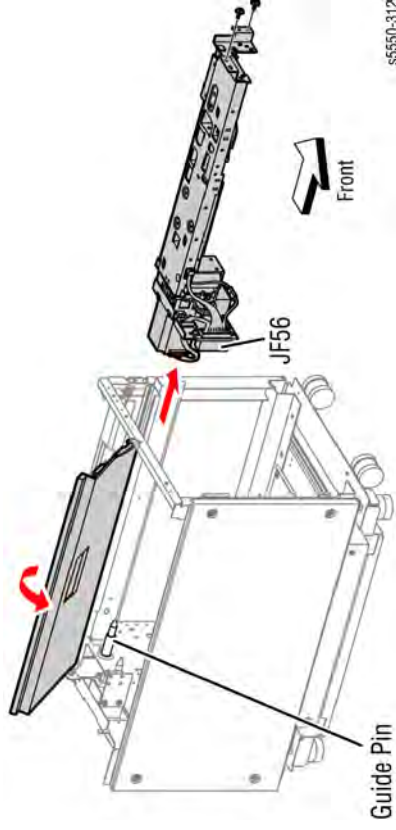


Figure 1 Removing the Feeder Assembly

#### Replacement

Align the feeder guides with the feeder track and rear guide pins.

## REP 22.16 Tray 6 Feed/Lift Motor

### Parts List on PL 22.4 Item 2

#### Removal

1. Remove the Feeder Assembly (REP 22.15).
2. Disconnect the Feed/Lift Motor connector (PF58) from the Feeder.
3. Remove the four Phillips screws securing the Feed/Lift Motor to the Feeder.
4. Remove the Feed/Lift Motor.

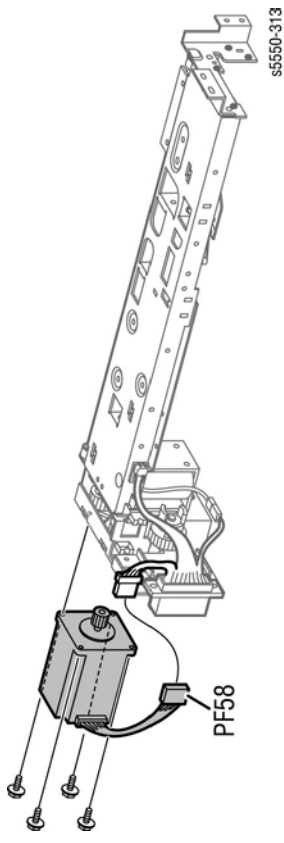


Figure 1 Removing the Feed/Lift Motor



## REP 22.17 Tray 6 Drive Frame Assembly

### Parts List on PL 22.4 Item 3

#### Removal

1. Remove the Feeder Assembly (REP 22.15).
2. Remove the three screws securing the Drive Frame to the Feeder.

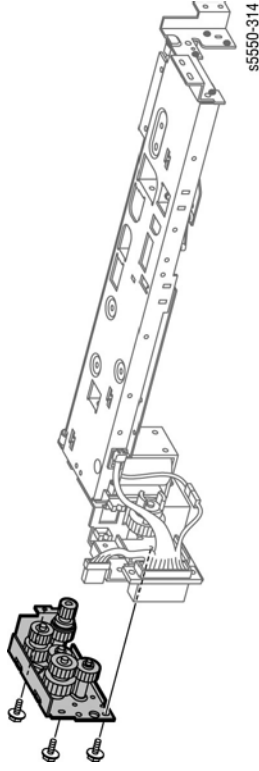


Figure 1 Removing the Drive Frame Assembly

## REP 22.18 Tray 6 Nudger Solenoid

### Parts List on PL 22.4 Item 5

#### Removal

1. Remove the Feed/Lift Motor (REP 22.16).
2. Remove the Drive Frame Assembly (REP 22.17).
3. Disconnect the Feeder harness connector from the Solenoid.
4. Remove the two screws securing the solenoid.

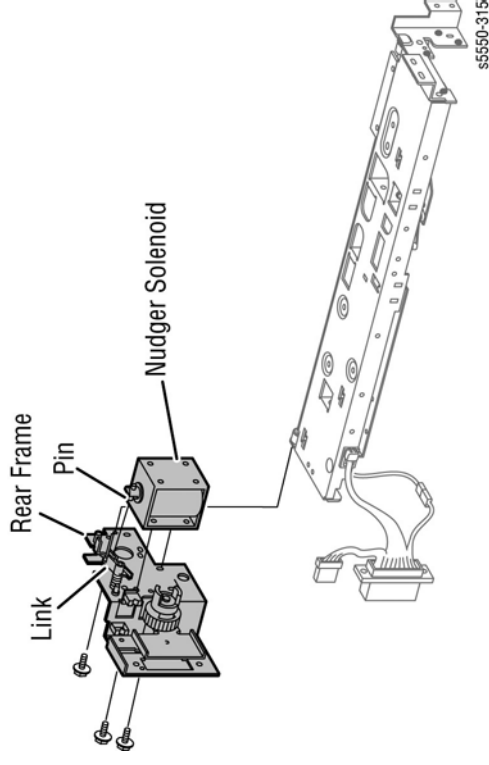


Figure 1 Removing the Nudger Solenoid

#### Replacement

When installing the solenoid, engage the solenoid pin with the Link on the Rear Frame.

## REP 22.19 Tray 6 Pre-Feed Sensor

### Parts List on PL 22.5 Item 9

#### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Remove the three screws securing the Upper Chute to the Upper Feeder.
5. Remove the Upper Chute.
6. Remove the Feeder harness connector (PF61) from the Pre-Feed Sensor.
7. Remove the one screw securing the Pre-Feed Sensor to the Upper Feeder.
8. Remove the Pre-Feed Sensor.

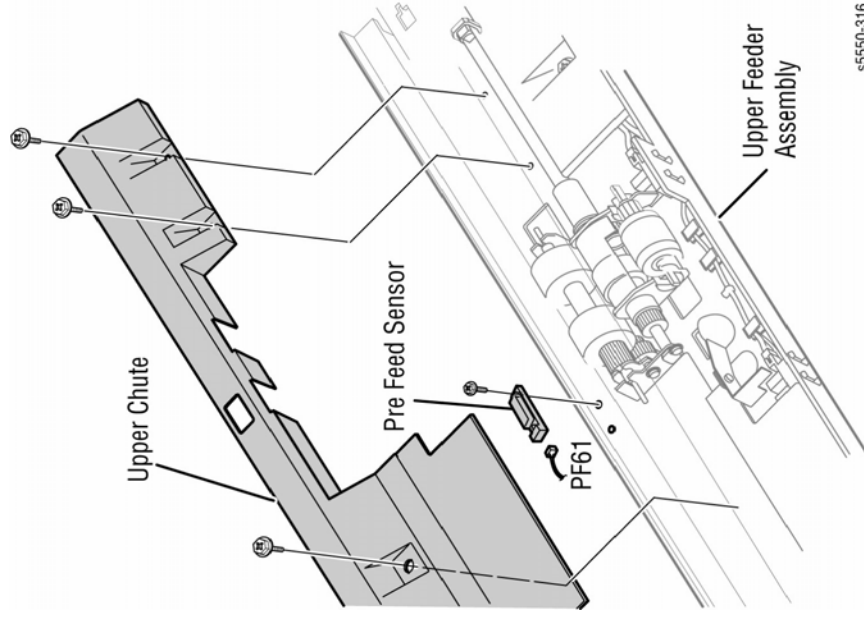


Figure 1 Removing the Pre-Feed Sensor

## REP 22.20 Tray 6 No Paper Sensor Actuator

### Parts List on PL 22.5 Item 15

#### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Remove the E-ring securing the Actuator to the Upper Feeder.
5. Remove the Actuator.

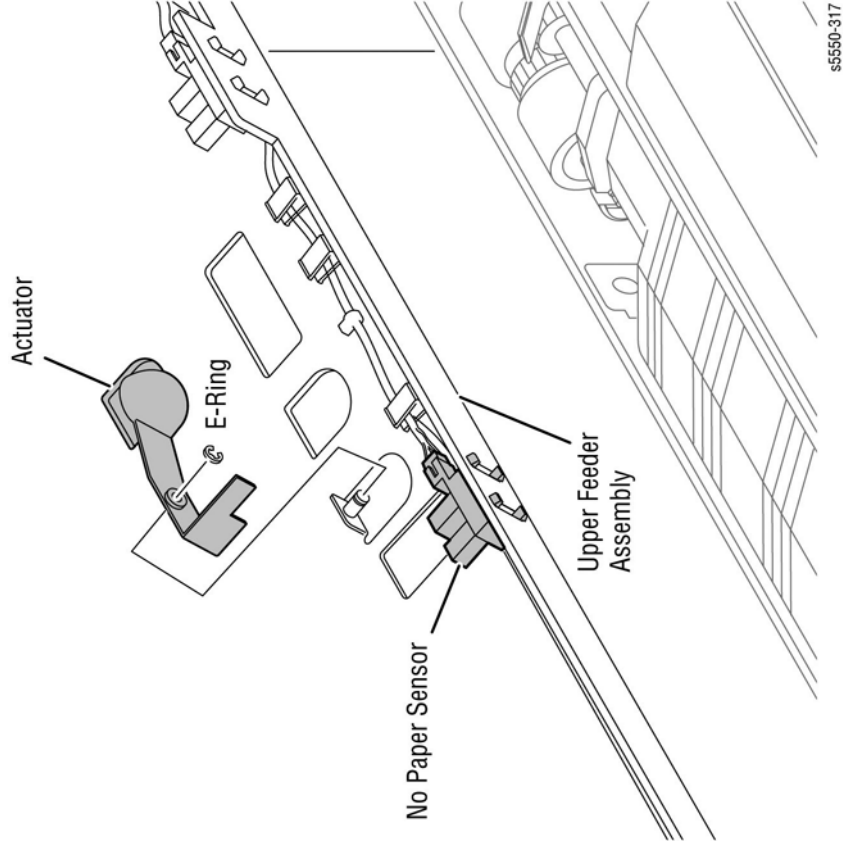


Figure 1 Removing the No Paper Sensor Actuator

#### Replacement

The Actuator must fall smoothly into the recess on the No Paper Sensor.

## REP 22.21 Tray 6 No Paper Sensor

### Parts List on PL 22.5 Item 16

#### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Disconnect the No Paper Sensor from the Upper Feeder harness connector (P/JF60).
5. Release the hooks securing the No Paper Sensor to the Upper Feeder to remove the sensor.

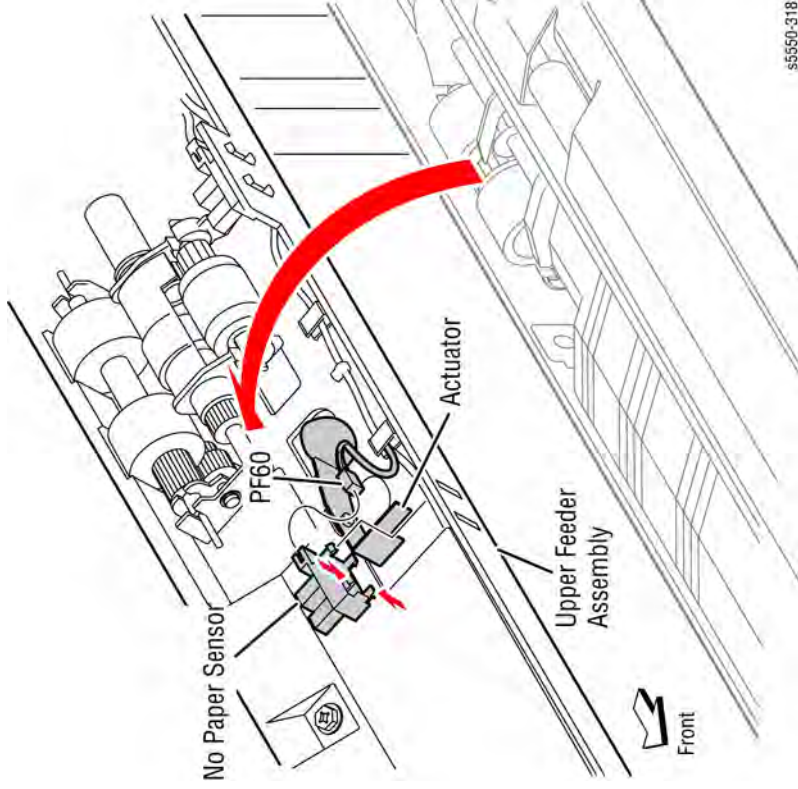


Figure 1 Removing the No Paper Sensor

#### Replacement

After installing the No Paper Sensor, make sure that the actuator falls smoothly into the recess of the sensor.

## REP 22.22 Tray 6 Level Sensor

### Parts List on PL 22.5 Item 16

#### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Release the hooks securing the Level Sensor to the Upper Feeder to remove the Level Sensor.
5. Disconnect the Level Sensor connector (P/JF62) from the harness of the Upper Feeder.

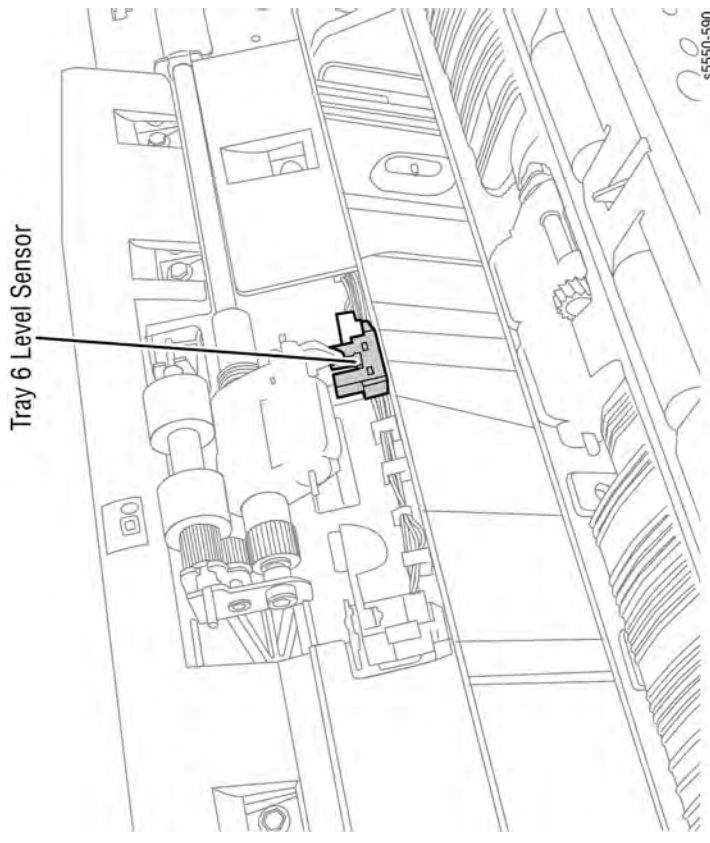


Figure 1 Removing the Level Sensor

#### Replacement

After installing the Level Sensor, make sure that the actuator on the Nudger Roller falls smoothly into the recess of the Level Sensor.



## REP 22.23 Tray 6 Nudger Roller

Parts List on PL 22.5 Item 20

### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Remove the Nudger Roller by compressing the ends of the shaft with your fingers.

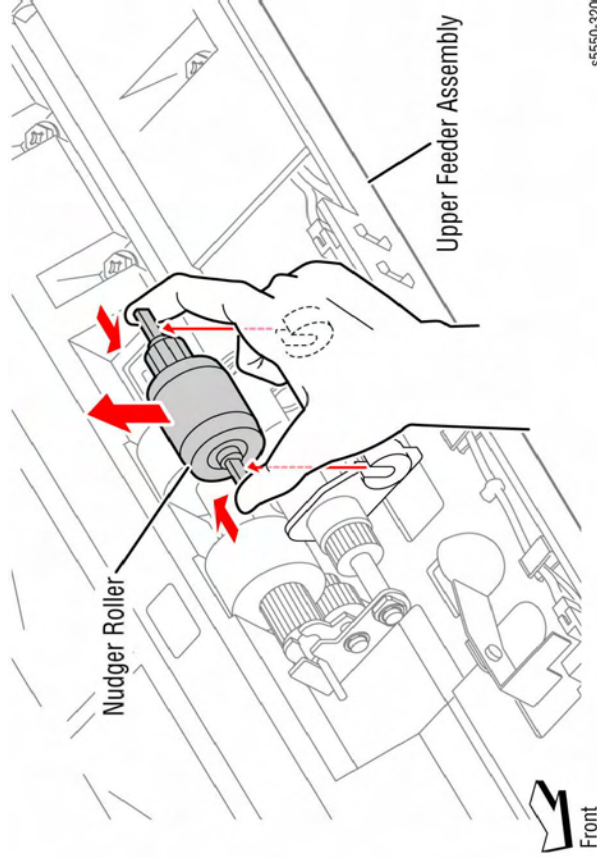


Figure 1 Nudger Roller

## REP 22.24 Tray 6 Feeder Shaft Assembly

Parts List on PL 22.5 Item 19

### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Remove the E-Ring securing the Feeder Shaft to the Upper Feeder.
5. Remove the Bearing.
6. Remove the three Bearings attached to the Feeder Shaft to remove the Feeder Shaft from the Upper Feeder.

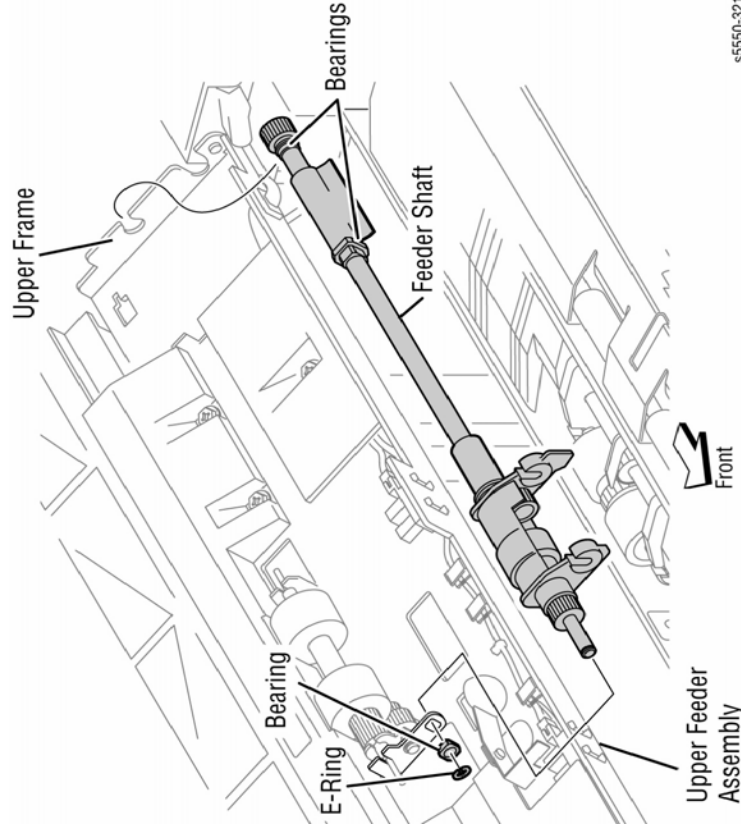


Figure 1 Removing the Feeder Shaft Assembly

### Replacement

Note the orientation of the torsion spring on the Feeder Shaft. The anchor point of the spring is the hole in the plate.

## REP 22.25 Tray 6 Feed Roller

Parts List on PL 22.5 Item 21

### Removal

1. Slide the Tray Module away from the printer.
2. Open Door J.
3. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
4. Remove the Feed Roller by compressing the shaft ends with your fingers.

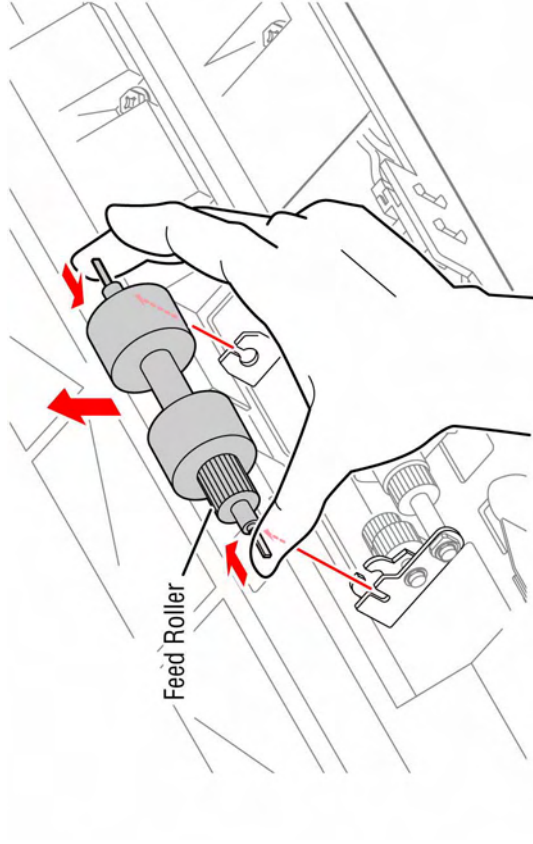


Figure 1 Removing the Feed Roller

## REP 22.26 Tray 6 Retard Roller

Parts List on PL 22.6 Item 17

### Removal

1. Open Door J.
2. Open the Upper Feeder Assembly using the black release lever located towards the front of the feeder.
3. Remove the Retard Roller from the Lower Feeder by compressing the shaft ends with your fingers.

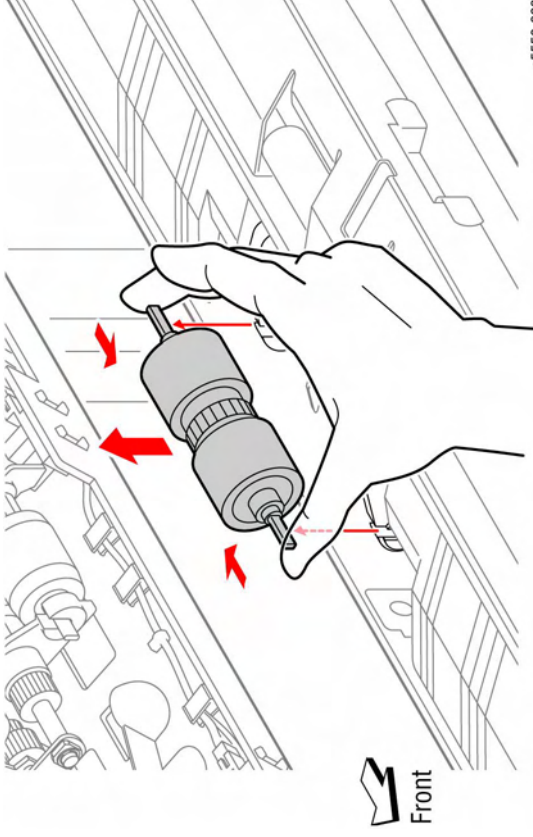


Figure 1 Removing the Retard Roller

## REP 22.27 Tray 6 Lower Feeder Assembly

### Parts List on PL 22.6 Item 1

#### Removal

1. Remove the Feeder Assembly (REP 22.15).
2. Remove the Tray 6 Drive Frame (REP 22.17).
3. Remove the two screws at the rear securing the Lower Feeder Assembly to the Feeder.
4. Remove the Lower Feeder Assembly.

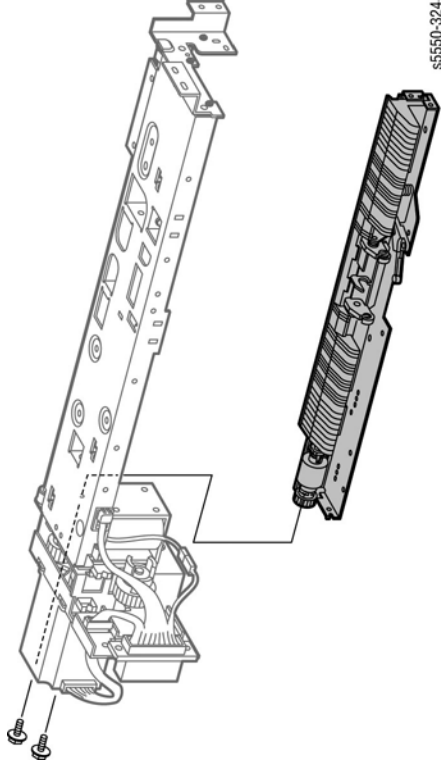


Figure 1 Removing the Lower Feeder Assembly

## REP 22.28 Tray 6 Retard Clutch, Bracket or Spring

### Parts List on PL 22.6 Item 8

#### Removal

1. Remove the Lower Feeder Assembly (REP 22.27).
2. Remove the four self-tapping screws securing the Lower Chute to the Lower Frame.
3. Remove the Lower Chute.
4. Remove the two E-clips securing the two bearings.
5. Remove the Bearings from the two brackets on the Lower Frame.

**NOTE:** *The Retard Spring is compressed and is not a captured spring. Use care not to lose or damage the Retard Spring while removing the Retard Shaft.*

6. Remove the Retard Shaft from the Lower Frame.
7. Remove the Retard Clutch by removing the E-clip and Gear at the Clutch-end of the Retard Shaft.
8. Remove the Retard Bracket by removing the E-clip and Gear at the bracket-end of the Retard Shaft.

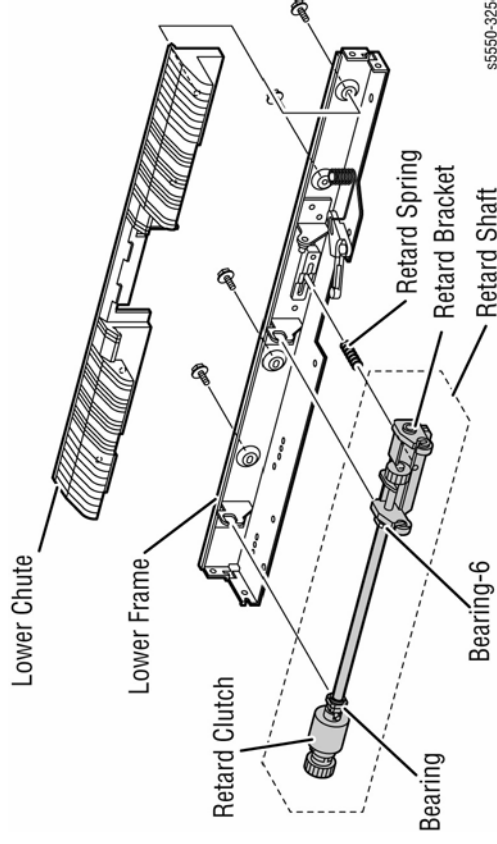


Figure 1 Removing the Retard Clutch, Bracket, or Spring

## REP 22.29 Door J Interlock Switch

### Parts List on PL 22.7 Item 3

#### Removal

9. Open Door J.
10. Remove the two screws securing the switch bracket.
11. Remove the bracket and switch.
12. Disconnect the two connectors from the base of the switch.
13. Release the hooks securing the switch to the bracket and remove the switch.

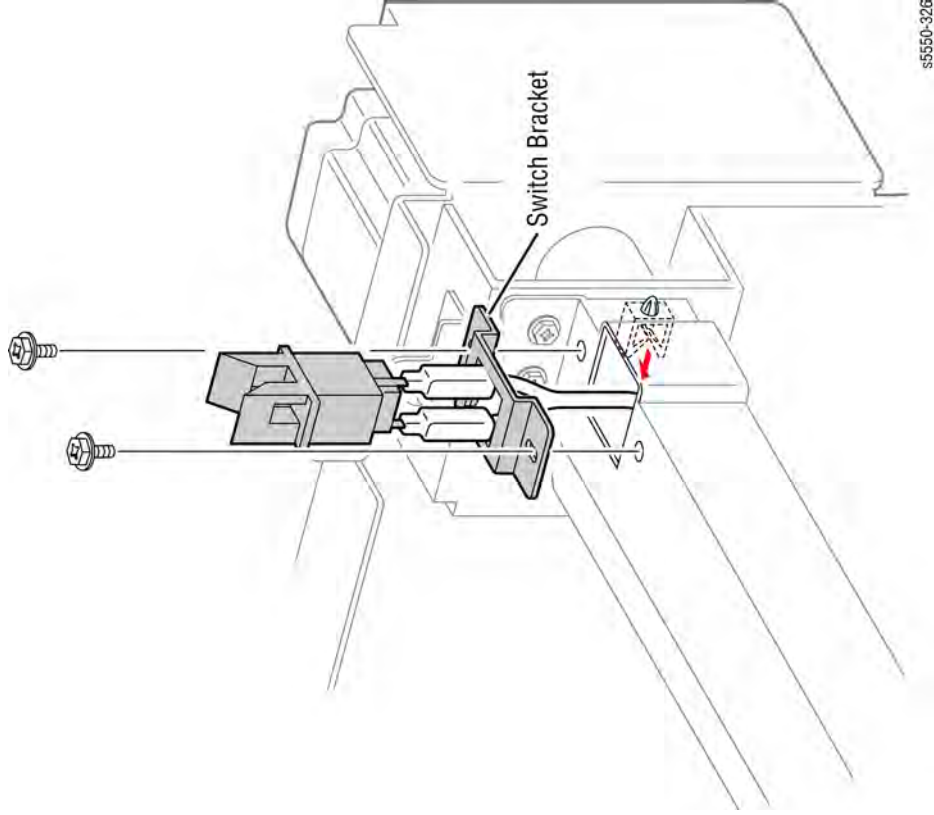


Figure 1 Removing the Door J Interlock Switch

## REP 22.30 Tray 6 Feed Out Sensor #6

### Parts List on PL 22.7 Item 6

#### Removal

1. Remove the Right Cover (REP 22.4).
2. Open Door J.
3. Remove the two screws securing the Feed Out Sensor Bracket to the frame.
4. Disconnect the connector from the Feed Out Sensor #6.
5. Release the hooks securing the sensor to the bracket and remove the sensor.

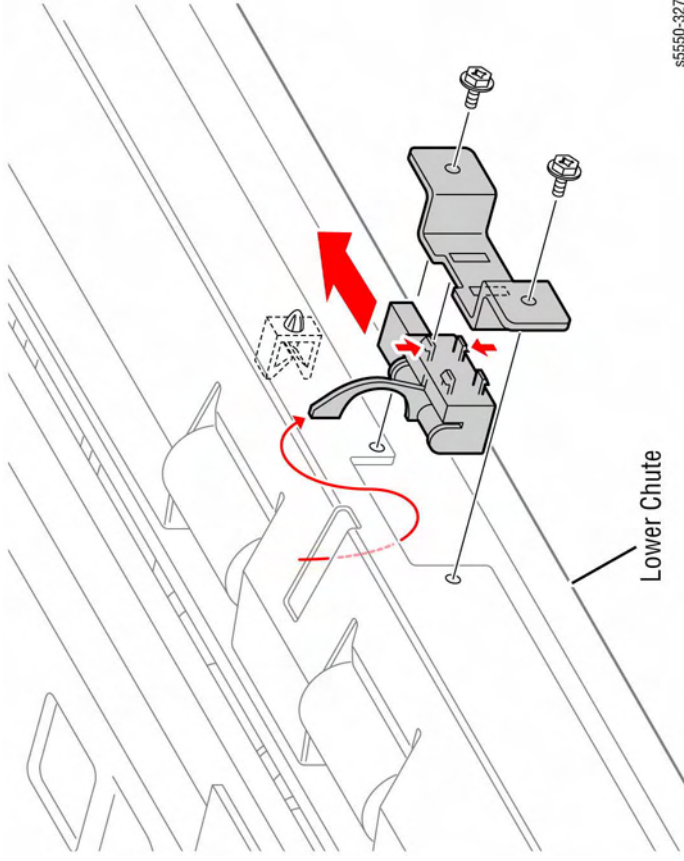


Figure 1 Removing the Feed Out Sensor #6

#### Replacement

When installing the Feed Out Sensor Bracket, put the actuator into the slot of the Lower Chute.



## REP 22.31 Tray 6 Take Away Motor

### Parts List on PL 22.7 Item 12

#### Removal

1. Remove the Rear Cover (REP 22.2).
2. Release the harness from the clamp and leave it detached.
3. Disconnect the connector from the motor.
4. Remove the three screws securing the motor bracket to the frame.
5. Remove the motor assembly.

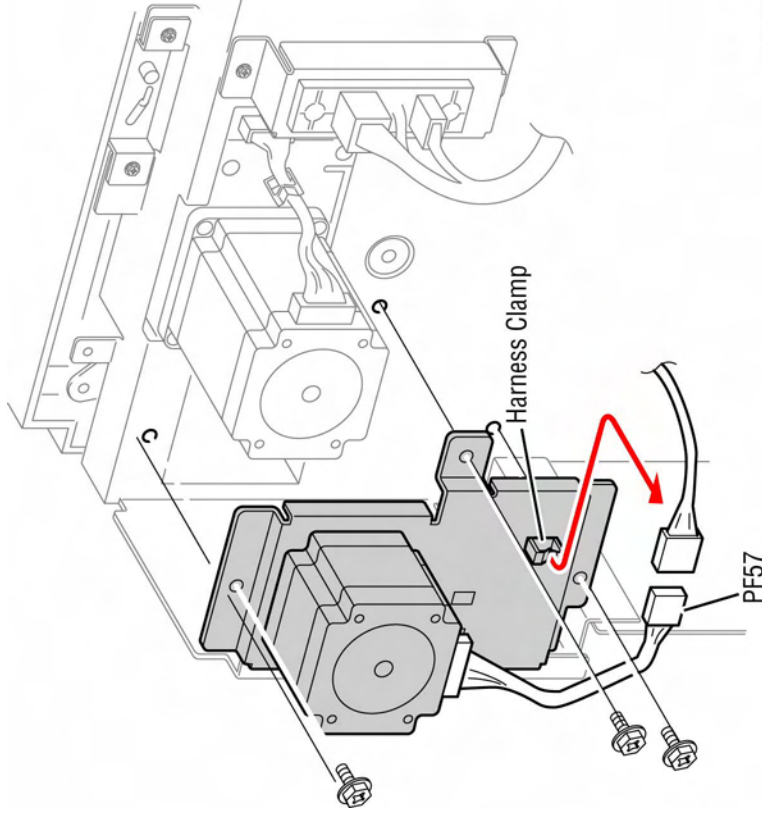


Figure 1 Removing the Take Away Motor

## REP 22.32 Take Away Roller Assembly

### Parts List on PL 22.7 Item 9

#### Removal

1. Remove the Right Cover (REP 22.4).
2. Remove the Take Away Motor (REP 22.31).
3. Shift the Take Away Roller shaft towards the rear to remove the front side of the shaft from the Conductive bearing.
4. Transfer the K-clip to the replacement shaft if required.

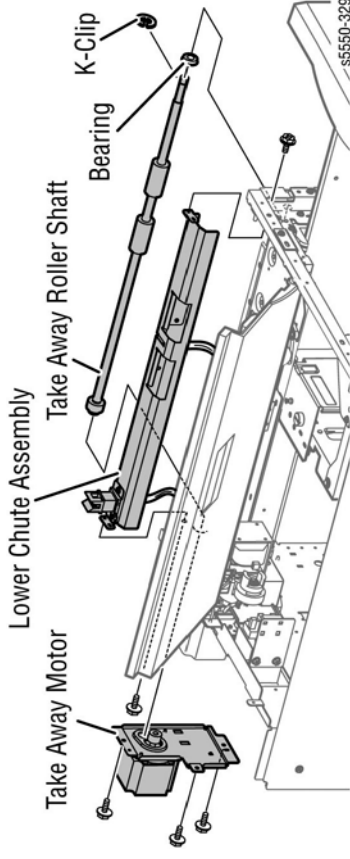


Figure 1 Removing the Take Away Roller Assembly

#### Replacement

When installing the Take Away Motor, remove the motor from the bracket (2 screws) and install the bracket on the frame. Next, install the motor on the bracket.

## REP 22.33 Docking Interlock Switch

### Parts List on PL 22.7 Item 17

#### Removal

1. Slide the Tray Module out from the optional trays.
2. Remove the Right Cover (REP 22.4).
3. Open Door J.
4. Disconnect the connectors attached to the Docking Interlock Switch.
5. Release the hooks securing the switch to the frame and remove the switch.

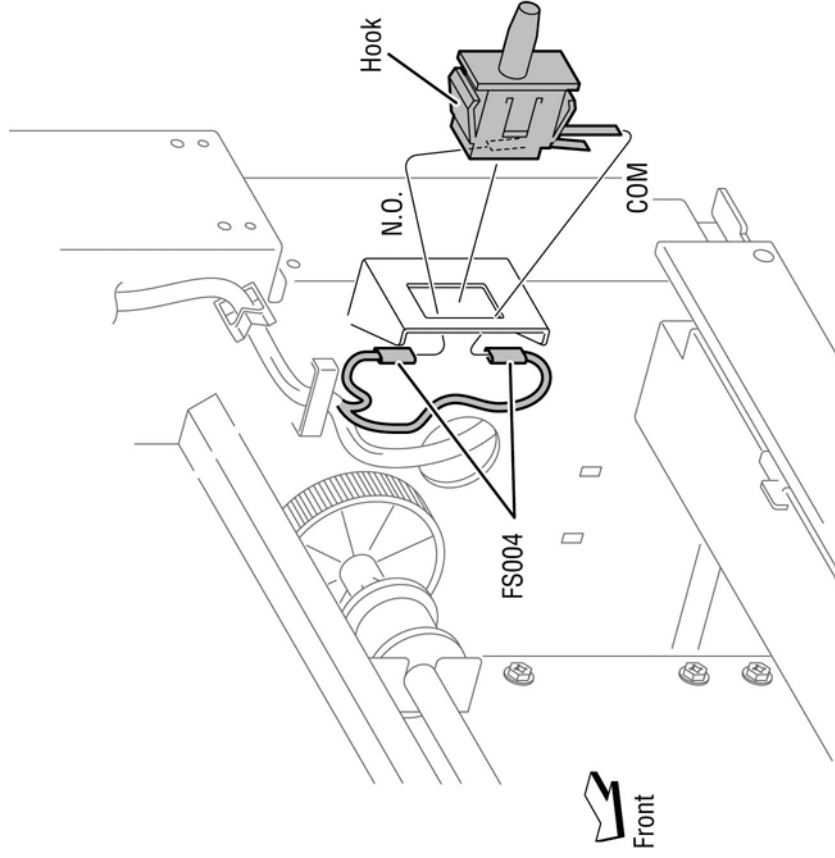


Figure 1 Removing the Docking Interlock Switch

#### Replacement

Connect the FS004 connectors to the COM and N.O. terminals on the switch.

## REP 22.34 Tray 6 PWB

### Parts List on PL 22.8 Item 1

#### Removal

1. Remove the Rear Cover (REP 22.2).
2. Disconnect the seven connectors from the PWB.
3. Remove the four screws securing the PWB to the frame.
4. Remove the PWB.

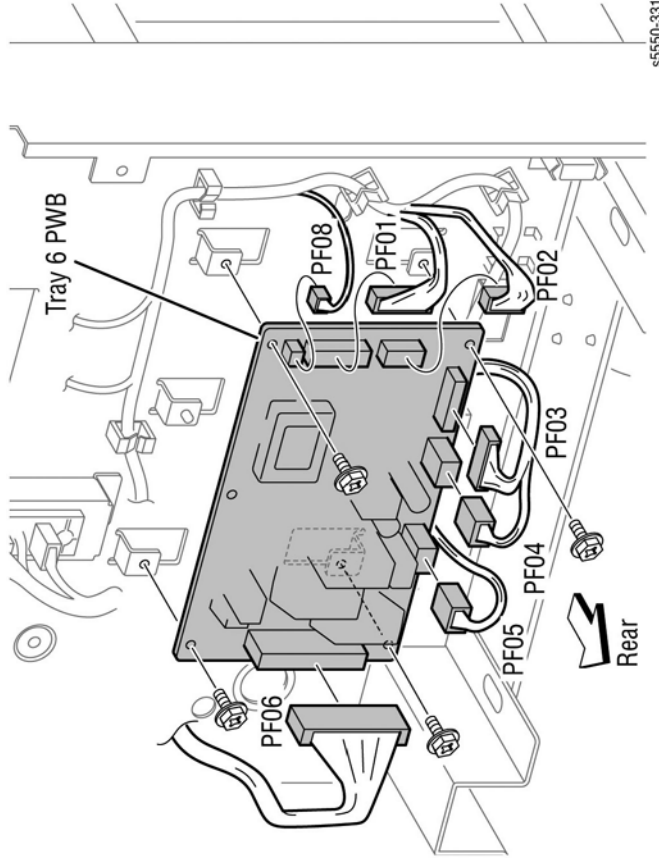


Figure 1 Removing the PWB

## REP 23.1 Duplex Unit

### Parts List on PL 23.1 Item 1

#### Removal

1. Move the Cover Cap in the direction of the arrow to remove it from the Lower Rear Cover.
2. Disconnect the Duplex Unit connector (left).
3. Release the clamp from the frame by pinching the sides of the clamp and pulling the clamp straight out.

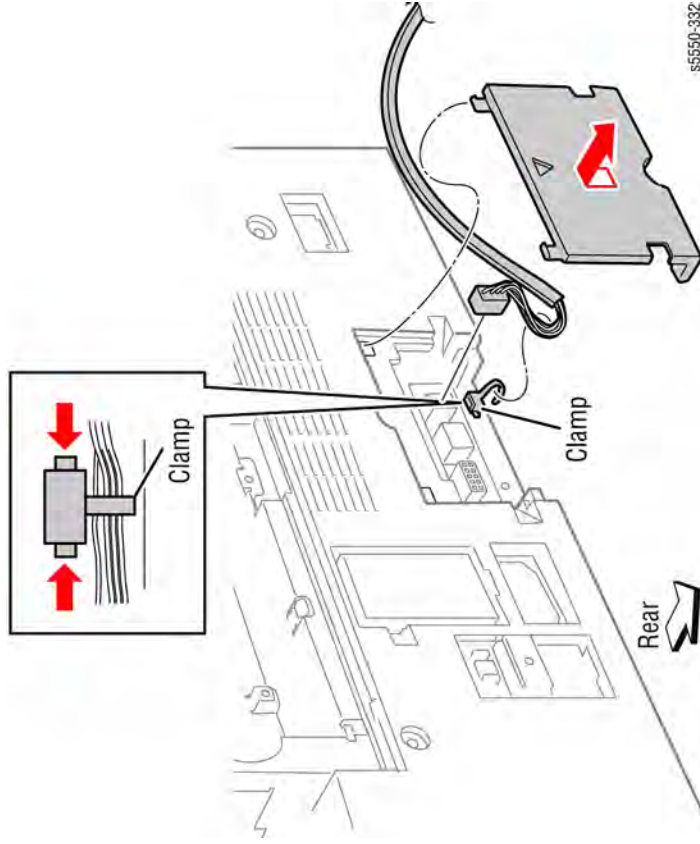


Figure 1 Disconnecting the connector

4. Open Door D.
5. Turn the two locks on the Outer Chute 90 degrees as shown in Figure 2 to release the Duplex Unit from the printer.
6. Remove the Duplex Unit.

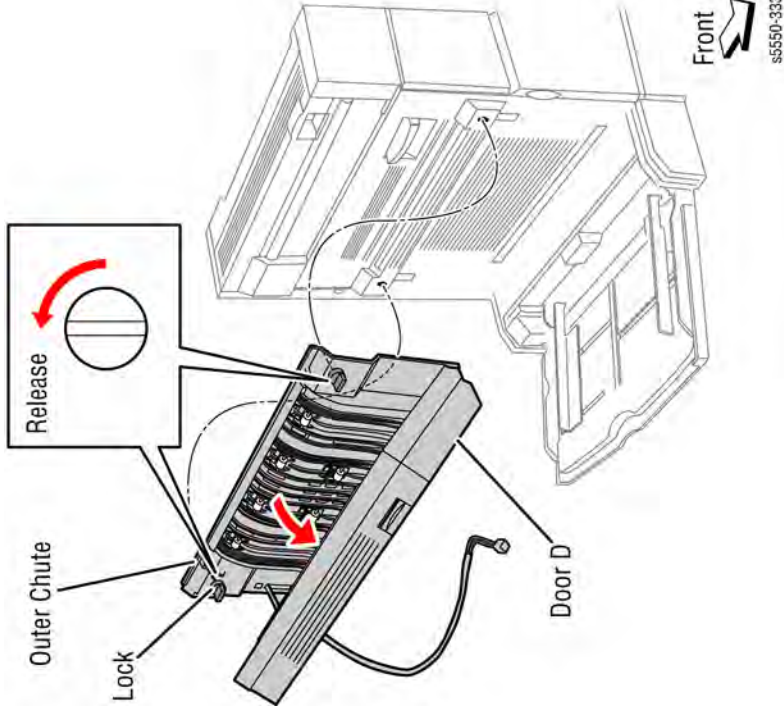


Figure 2 Removing the Duplex Unit

#### Replacement

Rotate the locks until they click while holding the Duplex Unit.

## REP 23.2 Duplex Unit Chutes and Cover

### Parts List on PL 23.1 Item 13

#### Removal

1. Remove the Duplex Unit (REP 23.1).
2. Open the Inner Chute.
3. Release the hook of the Stopper securing the Outer Chute to the Inner Chute.
4. Remove the four screws securing the Outer Chute and the Inner Chute to the Duplex Unit Cover to remove the Chutes.

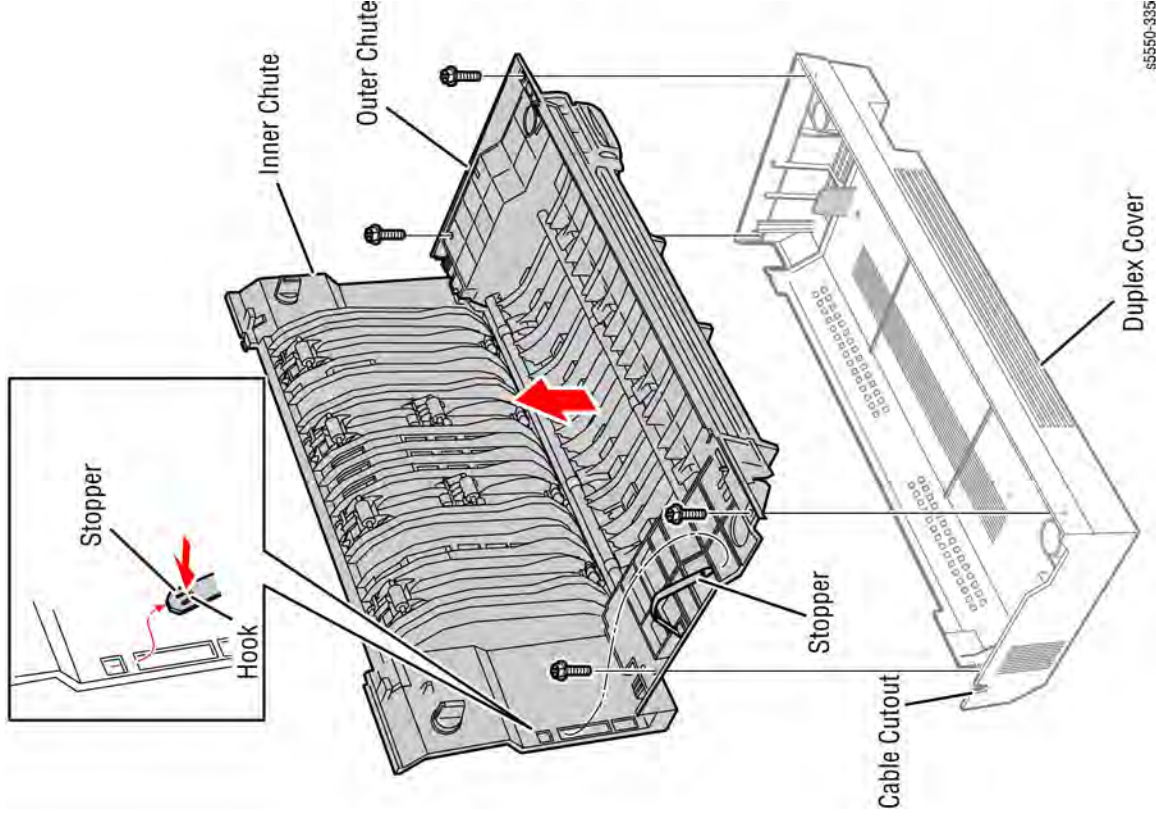


Figure 1 Removing the Duplex Unit Chute and Cover

#### Replacement

Use care when installing the cover to the chutes. Make sure the cable is in the cable cutout in the cover and the wiring remains within the unit.



## REP 23.3 Door D Latch Lever

### Removal

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
  2. Disconnect the connector from the Door D Interlock Switch (REP 23.4).
  3. Remove the three screws securing the motor bracket to the Outer Chute.
5. Rotate the latch shaft so the index tabs on the Front Latch Lever and Rear Latch Lever align with the removal notches on the Outer Chute.
  6. Slide the Front and Rear Latch Levers off the latch shaft.

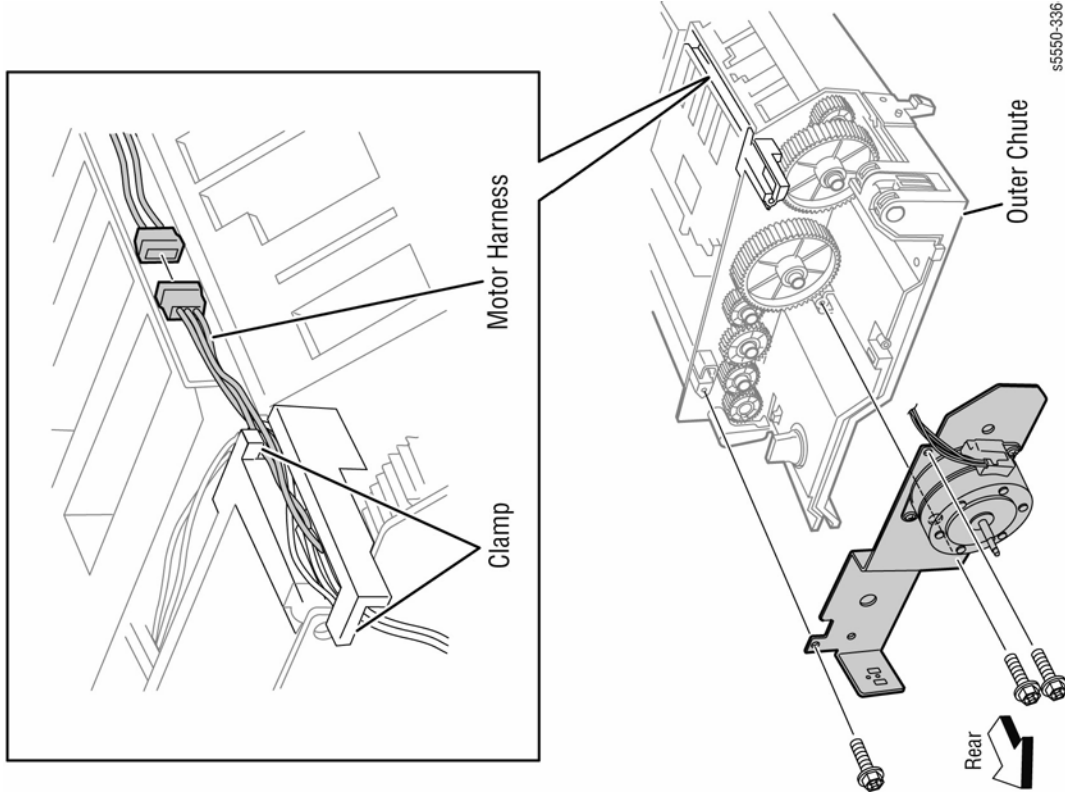


Figure 1 Disconnecting the connector and harness

4. Remove the latch spring between the front Lever Latch and the Outer Chute.

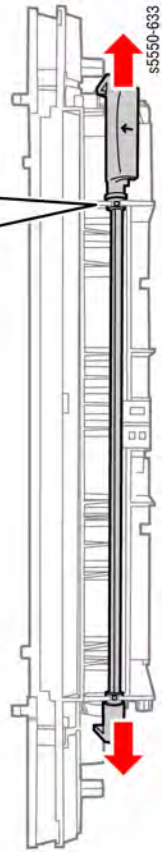
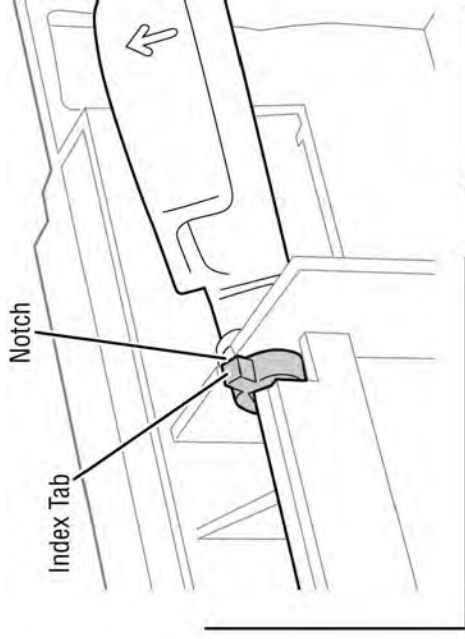


Figure 2 Removing the Door D Latch Lever

## REP 23.4 Door D Interlock Switch

Parts List on PL 23.1 Item 9

### Removal

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
2. Disconnect the connector from the Door D Interlock switch.
3. Release the two hooks securing the switch to the bracket as shown in Figure 1.
4. Remove the Door D Interlock Switch.

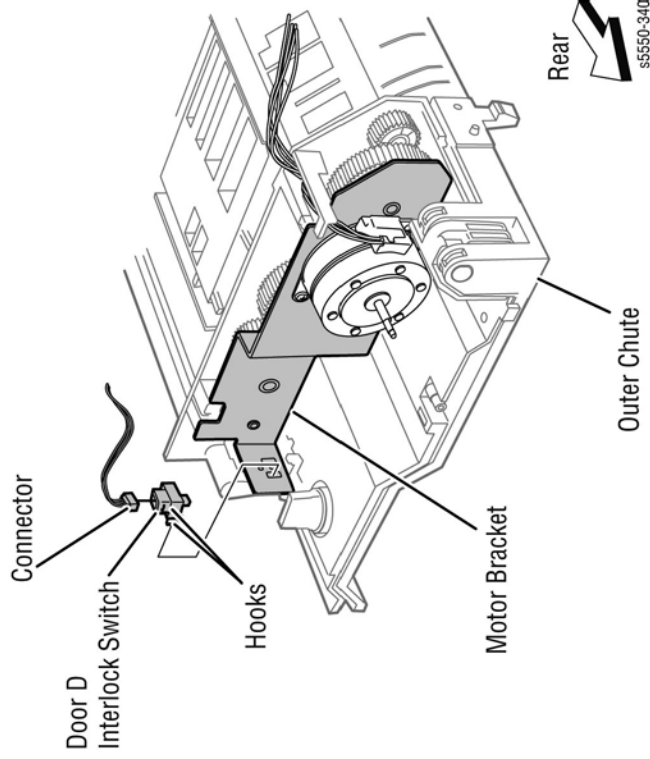


Figure 1 Removing the Door D Interlock Switch

## REP 23.5 Wait Sensor Actuator

Parts List on PL 23.1 Item 10

### Removal

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
2. Remove the spring from the actuator and the Outer Chute as shown in Figure 1.
3. Turn the actuator 180 degrees and move it in the direction of the arrow to remove it as in Figure 1.

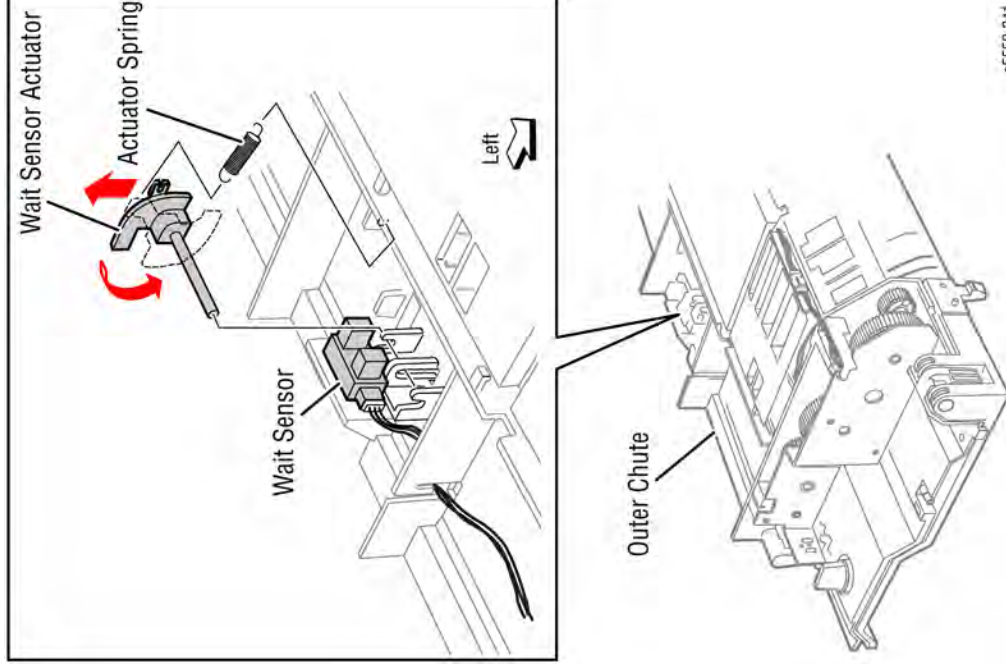


Figure 1 Removing the Wait Sensor Actuator

**REP 23.6 Duplex Motor**  
**Parts List on PL 23.1 Item 11**

**Removal**

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
2. Disconnect the harness connector from the harness.
3. Release the harness from the clamps on the Outer Chute.
4. Remove the two screws securing the Duplex Motor to the bracket.
5. Remove the Duplex Motor.

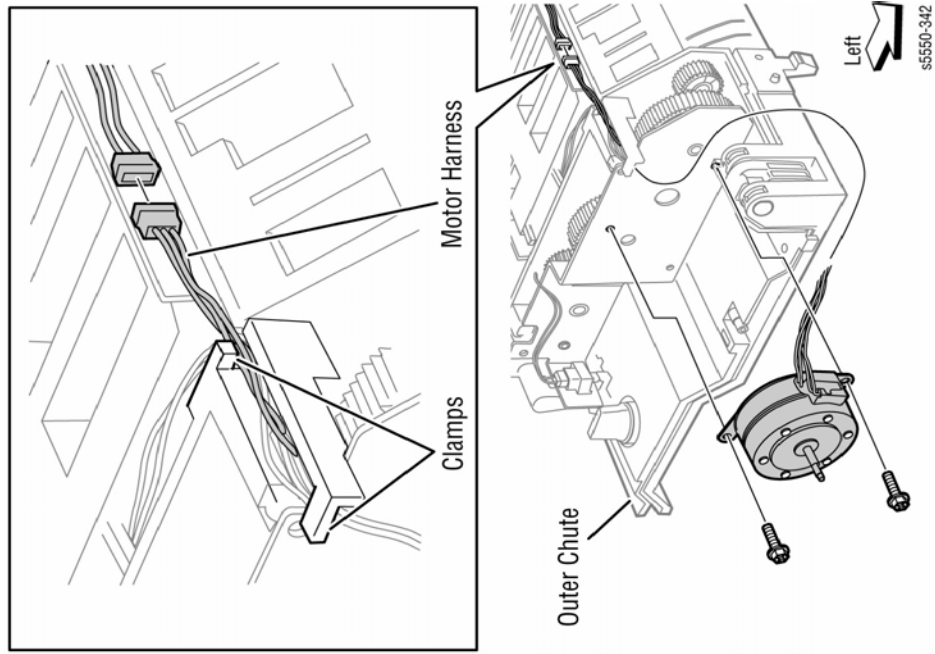


Figure 1 Removing the Duplex Motor

**REP 23.7 Duplex Unit PWB**  
**Parts List on PL 23.1 Item 12**

**Removal**

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
2. Disconnect the three connectors from the Duplex PWB.
3. Remove the two screws securing the Duplex Unit PWB to the Outer Chute.
4. Remove the Duplex PWB.

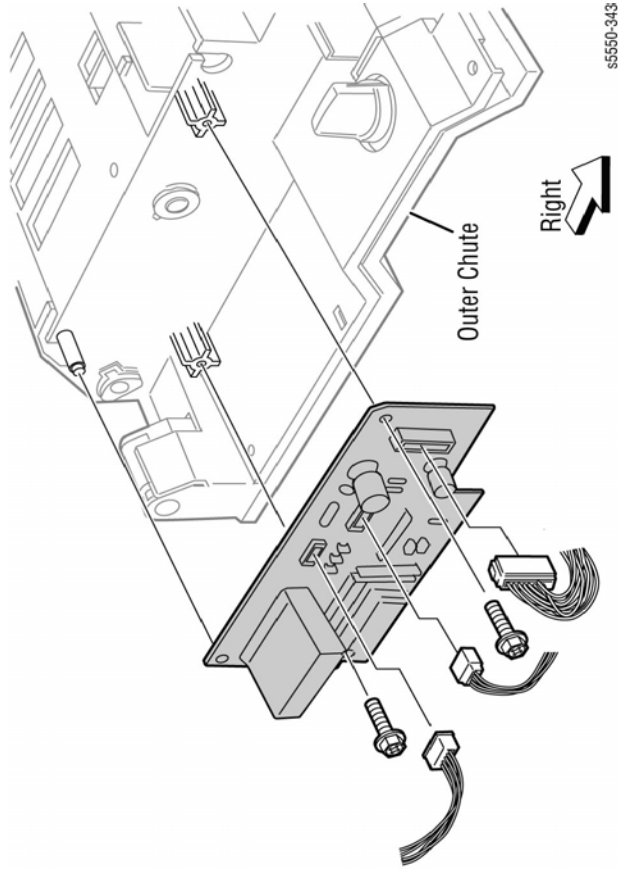


Figure 1 Removing the Duplex Unit PWB

## REP 23.8 Duplex Wait Sensor

### Parts List on PL 23.1 Item 18

#### Removal

1. Remove the Duplex Unit Chutes and Cover (REP 23.2).
2. Disconnect the connector from the sensor.
3. Release the three hooks securing the sensor to the Outer Chute.
4. Rotate the Wait Sensor Actuator.
5. Remove the sensor.

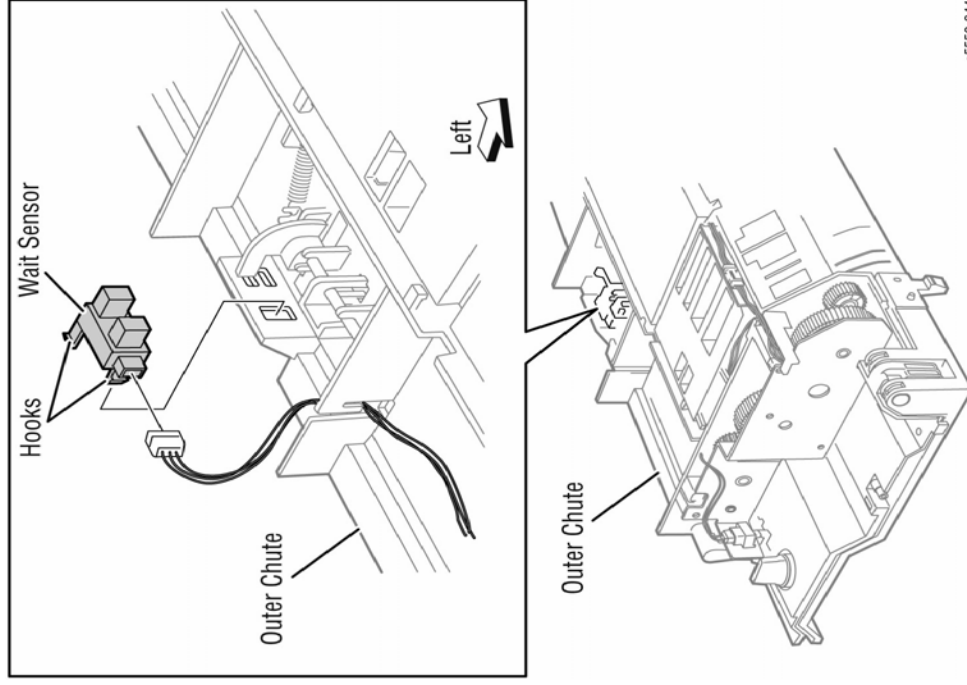


Figure 1 Removing the Duplex Wait Sensor



## REP 24.1 Exit 2 Transport Assembly

Parts List on PL 24.1 Item 1

### Removal

1. Open Door A.
2. While lifting the black levers on both lower sides of the Exit 2 Unit, move it in the direction of the arrow to remove it (Figure 1).

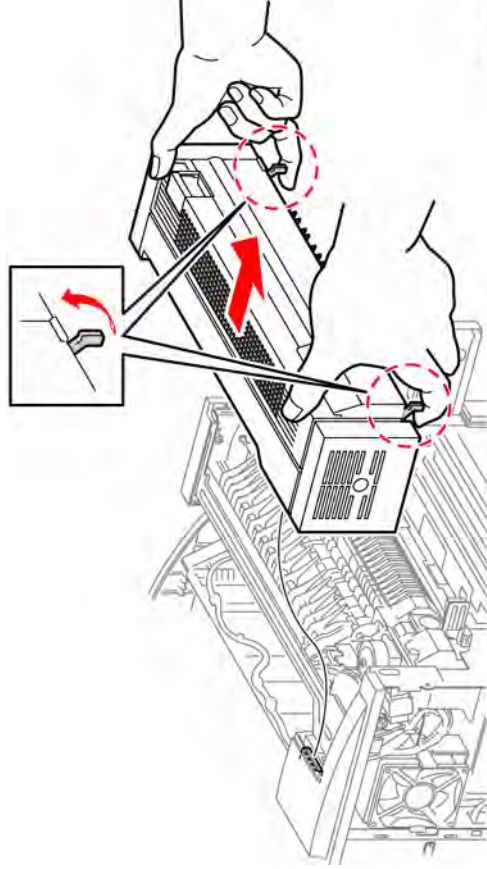


Figure 1 Removing the Exit 2 Transport Assembly

### Replacement

Align the Exit 2 Unit with the guides. Also, be sure that the connector located on the rear side of Exit 2 securely engages the printer.

## REP 24.3 Invert Roller

Parts List on PL 24.1 Item 20

### Removal

1. Remove the Exit 2 Transport Assembly (REP 24.1).
2. Open Exit 2.
3. Remove the screw securing the Rear Cover, then lift to remove the Rear Cover.
4. Remove the hook holding the Stopper.
5. Remove the E-ring securing the Solenoid Link-FU to the L/H Chute High.
6. Release the boss on the right side (front) of the L/H Chute High from the Lower Chute- 2. Remove the right side (front) first, otherwise the Gear may be damaged.
7. Release the boss on the left side (rear) of the L/H Chute High from the Lower Chute-2 and remove the L/H Chute High.

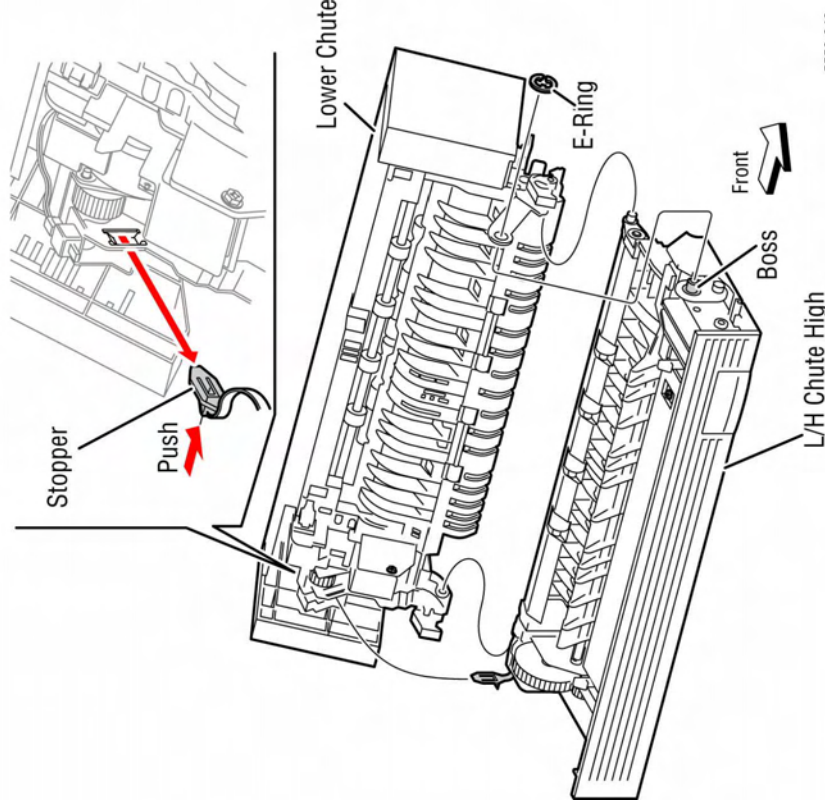


Figure 1 Removing the screw, E-Ring, and releasing the bosses

8. Remove the two screws securing the Gear Cover to the L/H Chute High to remove Gear-

52Z and Gear-19Z.



## REP 24.4 Exit 2 Tray Guide Parts List on PL 24.2 Item 1

### Removal

1. Remove the Exit 2 Transport Assembly (REP 24.1).
2. Open Exit 2.
3. Remove the screw securing the Rear Cover.
4. Remove the four screws securing the Tray Guide to the Lower Chute.
5. Release the left and right (front/rear) hooks of the Tray Guide that secure it to the Lower Chute.

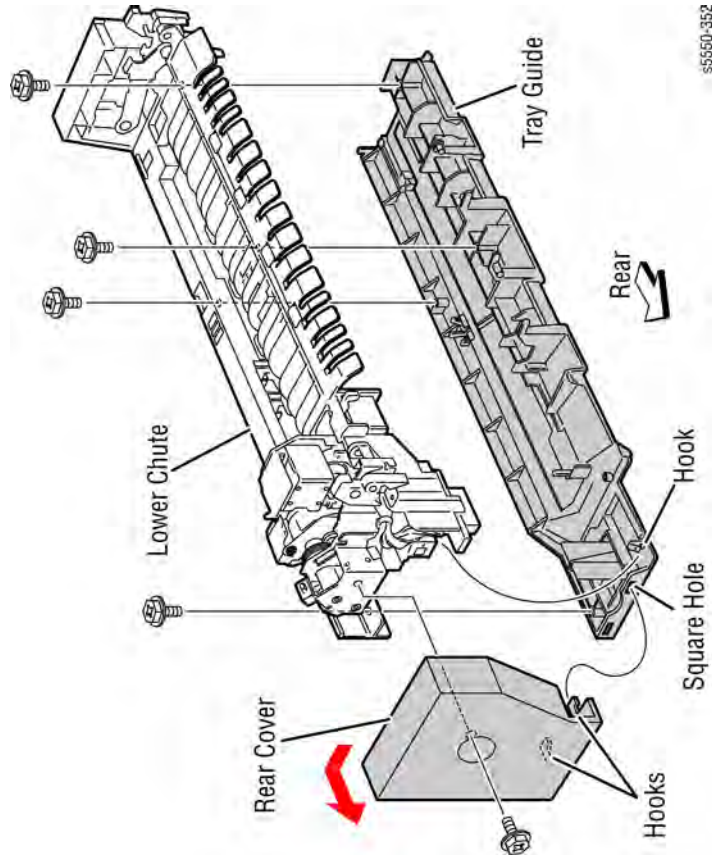


Figure 1 Removing the Exit 2 Tray Guide

9. Remove the E-ring from the shaft.
10. Release the hook of the Bearing securing the Invert Roller to the L/H Chute High in the front. The bearing hook is easily damaged, use care when removing it.
11. Move the Invert Roller in the direction of the arrow to remove.

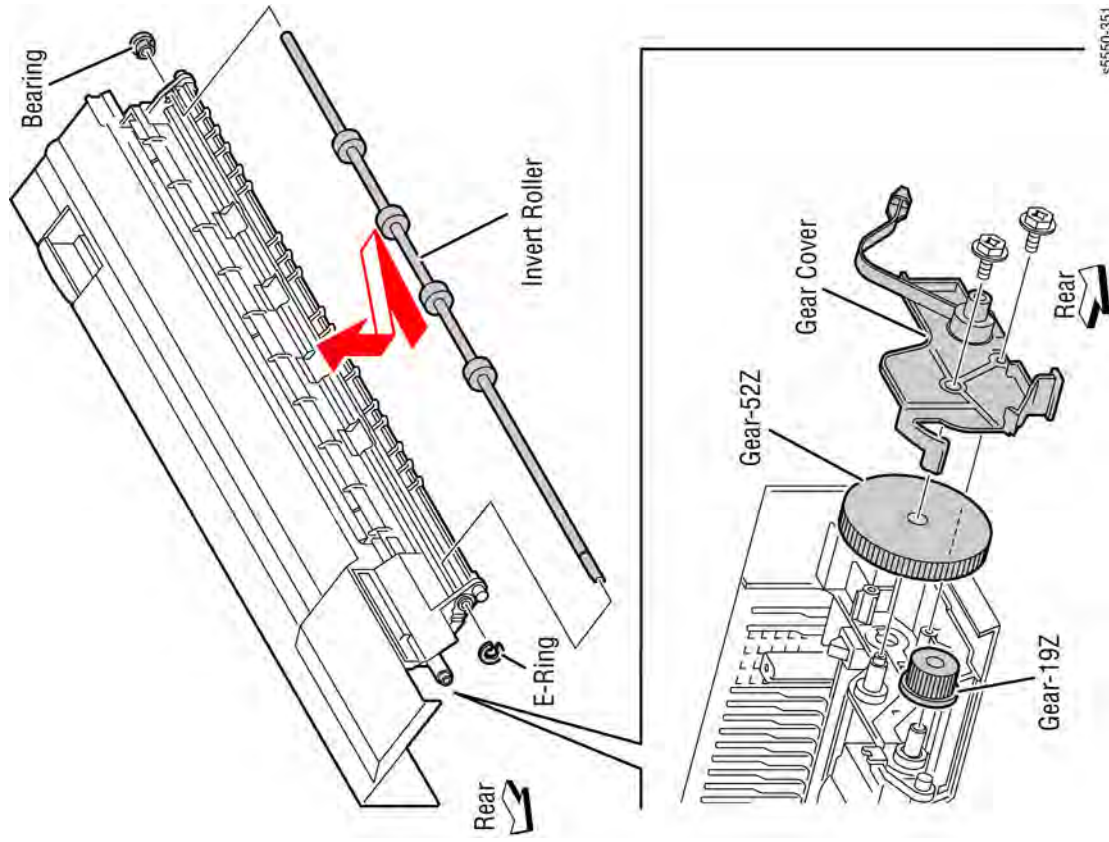


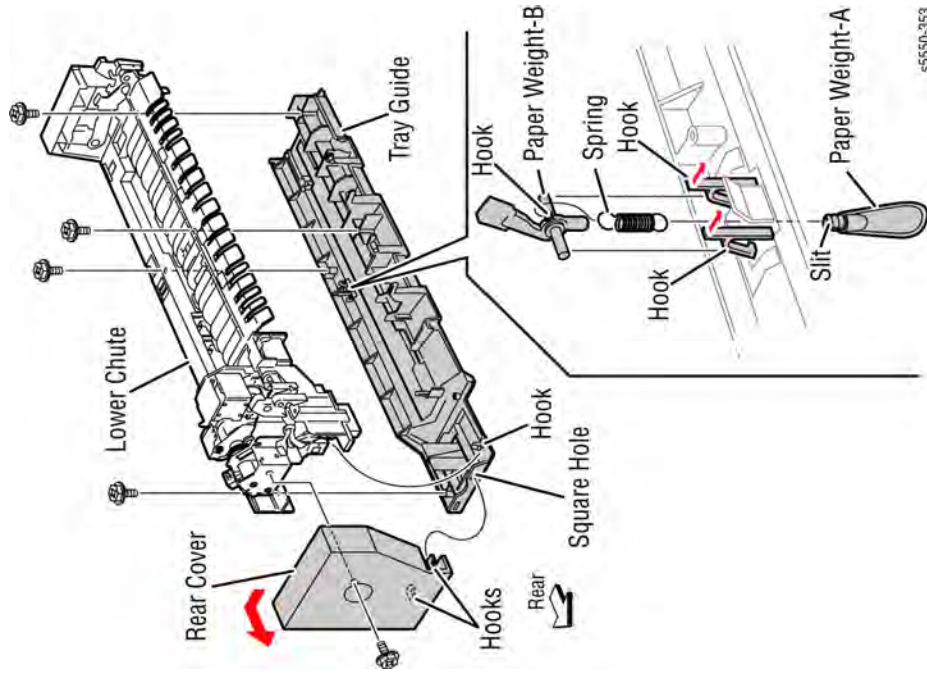
Figure 2 Removing the Invert Roller

## REP 24.5 Stack Full Actuator

### Parts List on PL 24.2 Item 6

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Remove the actuator from the spring.
3. Release the hooks securing the actuator to the Tray Guide, as shown in Figure 1. Use care when releasing the Tray Guide hook.
4. Release the spring from the hook on the actuator.



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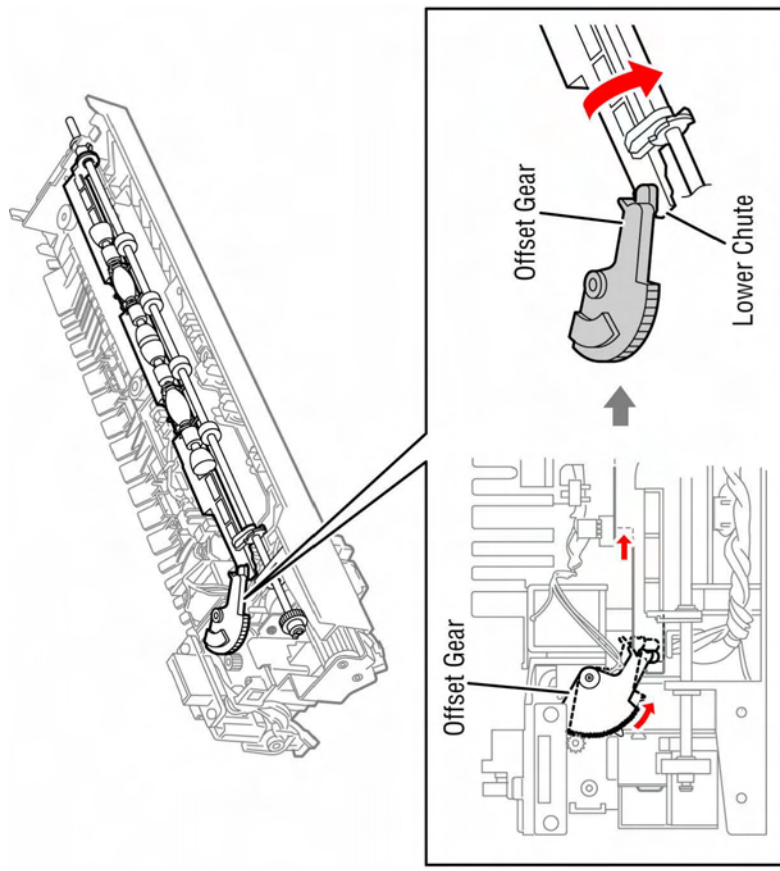
Figure 1 Removing the Stack Full Actuator

## REP 24.6 Offset Gear

### Parts List on PL 24.2 Item 19

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Slide the OCT Roller fully to the right (front).
3. Move the Offset Gear in the direction of the arrow to remove it from the shaft of the Lower Chute.
4. Remove the hook on the shaft end of the Offset Gear from the hole on the OCT Chute to remove the Offset Gear.



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Figure 1 Removing the Offset Gear



## REP 24.7 OCT (Offset) Roller

### Parts List on PL 24.2 Item 7

#### Removal

1. Remove the Offset Gear (REP 24.6).
2. Release the Gear-19Z hook securing the OCT Roller to the Lower Chute as shown in Figure 1. Remove the Gear.
3. Remove the two E-rings securing the OCT Roller to the OCT Chute.
4. Release the bearing hook on the left side securing the OCT Roller to the Lower Chute. Remove the bearing.
5. Move the OCT Roller in the direction of the arrow (to the front) to remove.

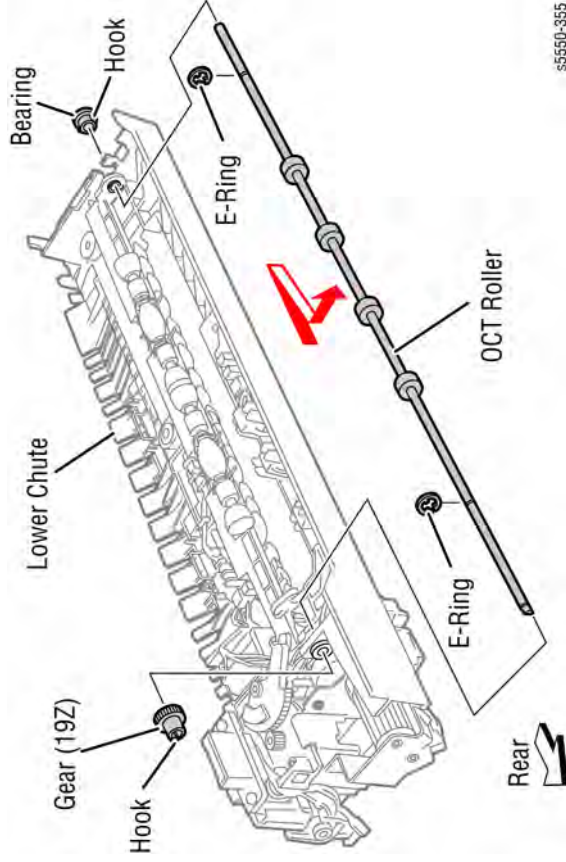


Figure 1 Removing the OCT (Offset) Roller

## REP 24.8 Exit 2 Pinch Roller

### Parts List on PL 24.2 Item 10

#### Removal

1. Remove Offset Gear (REP 24.5).
2. Release the hooks securing the Exit Pinch Roller to the OCT Chute.
3. Move the Exit Pinch Roller in the direction of the arrow to remove it.

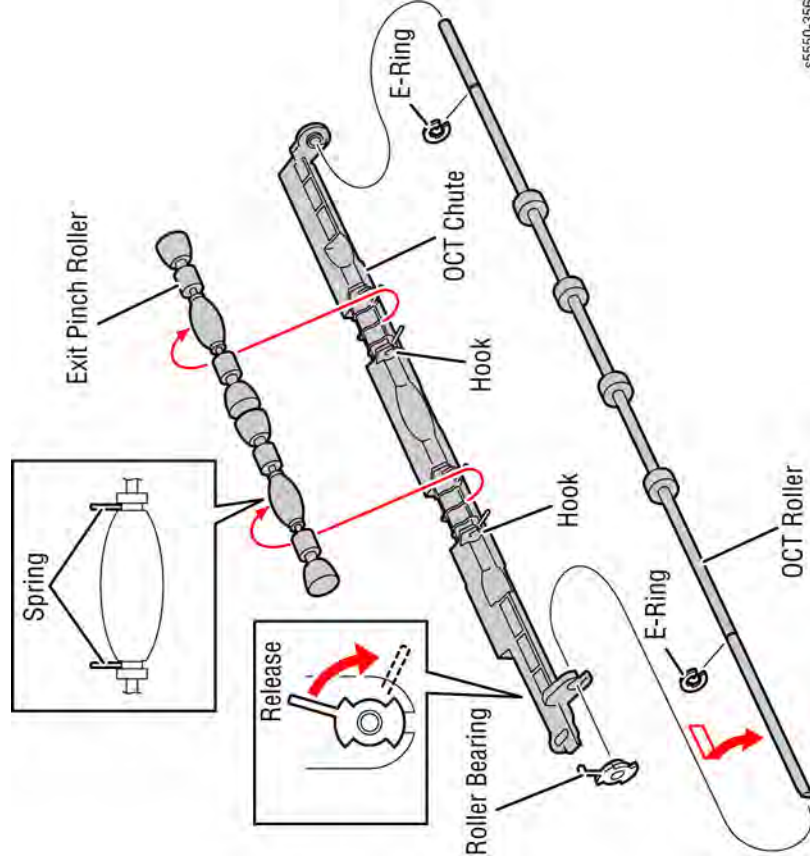


Figure 1 Removing the Exit 2 Pinch Roller

## REP 24.9 Exit Sensor Actuator

### Parts List on PL 24.2 Item 17

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Release the hook of the Exit Sensor Actuator Spring as in Figure 1.
3. Place the actuator in the position shown (Figure 1). Move it in the direction of the arrow to release the hook on the Lower Chute.
4. Remove the Exit Sensor Actuator.
5. Remove the spring attached to the actuator.

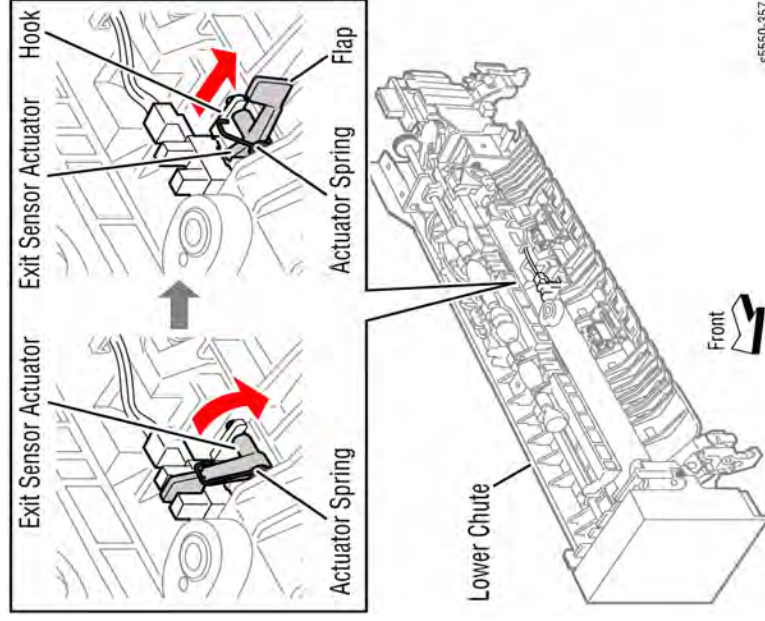


Figure 1 Removing the Exit Sensor Actuator

#### Replacement

Install the actuator spring in the direction shown (Figure 1) and check that the actuator goes into the gap (sensing area) of the Exit Sensor correctly.

## REP 24.10 Exit 2 Fan

### Parts List on PL 24.2 Item 39

#### Removal

1. Open Door A.
2. Remove the Exit 2 Transport Assembly (REP 24.1)
3. Open Exit 2.
4. Remove the Tray Guide (REP 24.4).
5. Release the harness secured to the guide on the backside of the Lower Chute.
6. Disconnect the Fan from the harness.

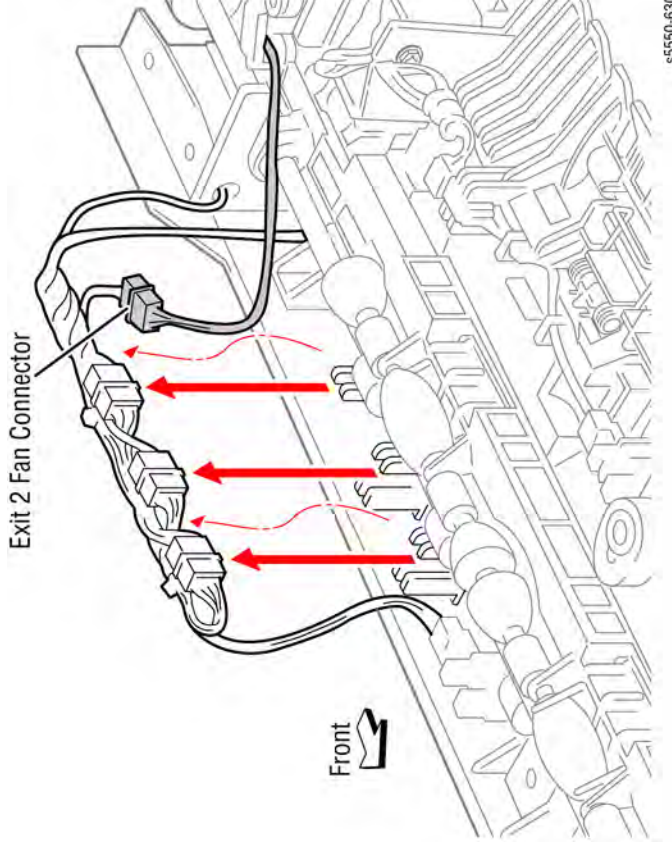


Figure 1 Disconnecting the harness

7. Remove the screw securing the Fan to the Lower Chute.
8. Feed the connector through to the Lower Chute and remove the Fan.

## REP 24.11 Door E Interlock Switch

### Parts List on PL 24.2 Item 18

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Release the harness secured to the guide on the backside of the Lower Chute.

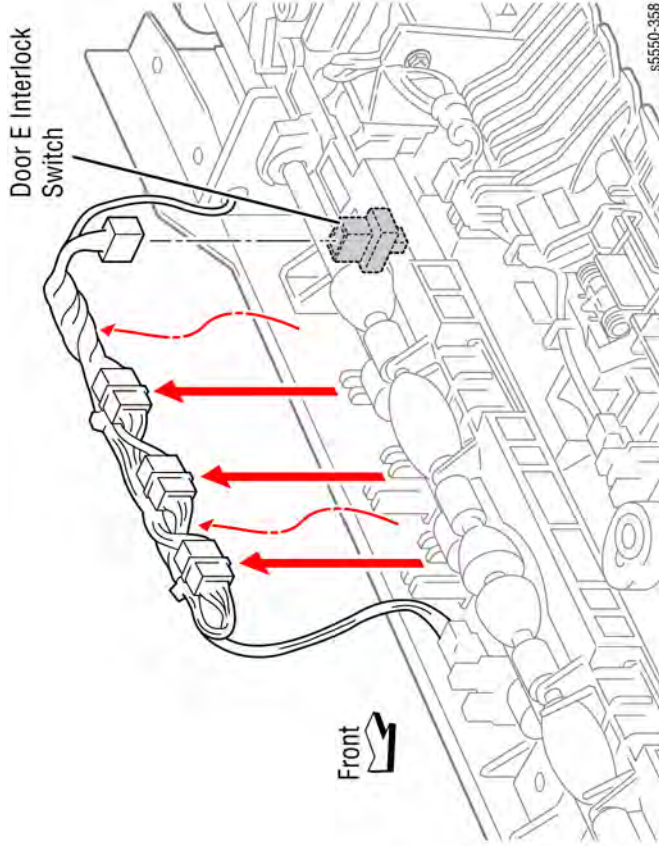


Figure 1 Releasing the harness

3. Disconnect the connector from the Interlock Switch.
4. Release the hooks securing the Interlock Switch to the Lower Chute.
5. Remove the Interlock Switch.

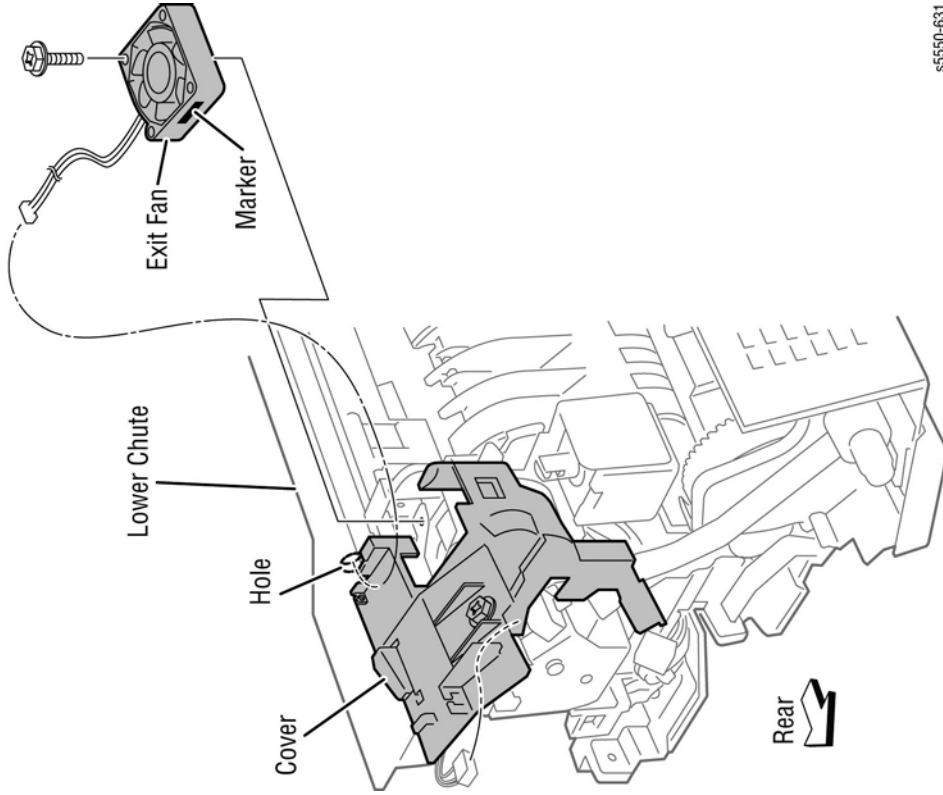


Figure 2 Removing the Exit 2 Fan

#### Replacement

Install the Exit 2 Fan with the Label facing downward and the marker facing to the rear.

## REP 24.12 Face-Up Solenoid

### Parts List on PL 24.2 Item 23

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Lift the connector secured to the guide on the Lower Chute.
3. Disconnect the Face-Up Solenoid from the connector.
4. Remove the screw securing the Face-Up Solenoid to the Lower Chute 2.
5. Remove the Face-Up Solenoid.

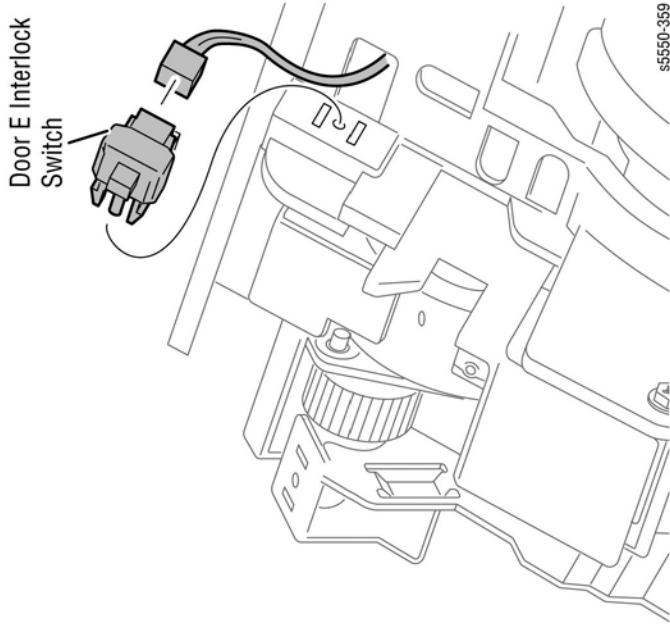


Figure 2 Removing the Door E Interlock Switch

#### Replacement

Return the harness to the guides.



## REP 24.13 Exit Gate Solenoid

### Parts List on PL 24.2 Item 29

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Release the harness of the solenoid from the guide on the Lower Chute.
3. Release harness from the clamp.
4. Disconnect the solenoid from the junction connector.
5. Remove the screw securing the solenoid to the Lower Chute.
6. Remove the iron core of the solenoid from the Link.
7. Remove the Solenoid.

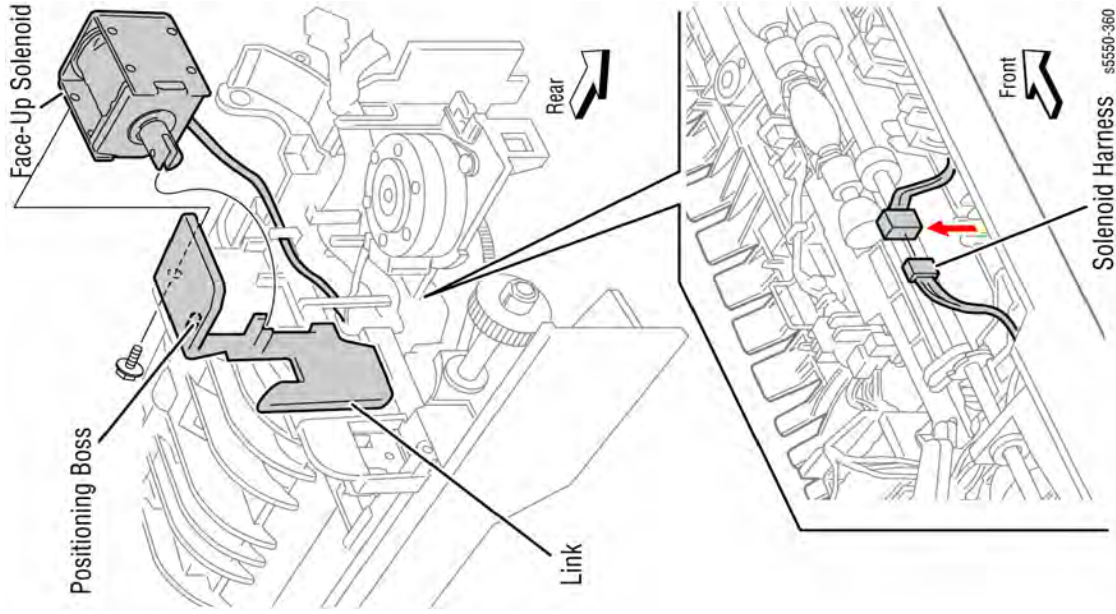


Figure 1 Removing the Face-Up Solenoid

#### Replacement

Fit the iron core of the Face-Up Solenoid to the Rear Latch Spring as in Figure 1. Also, fit the boss on the Lower Chute into the hole on the solenoid.

## REP 24.14 Offset Motor

### Parts List on PL 24.2 Item 30

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Disconnect the Offset Motor from the junction connector.
3. Remove Exit 2 Motor (REP 24.17).
4. Remove the 2 Phillips screws securing the Offset Motor to the Lower Chute.
5. Remove the Offset Motor.

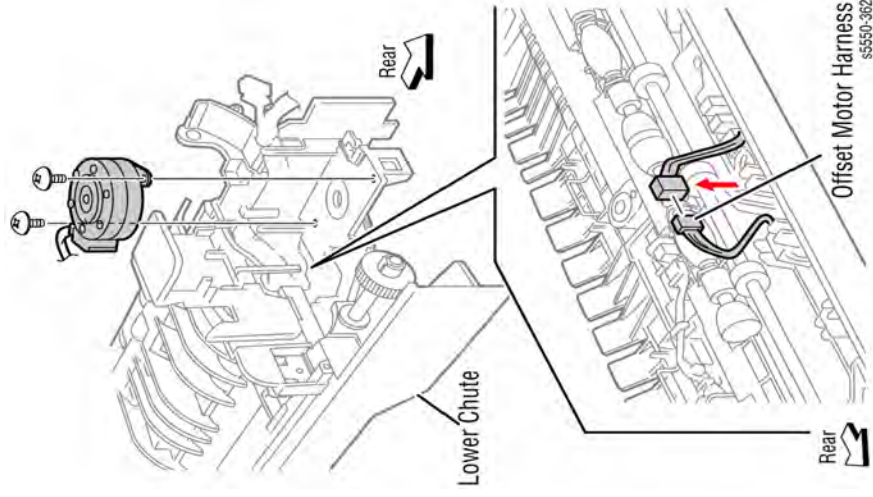


Figure 1 Removing the Offset Motor

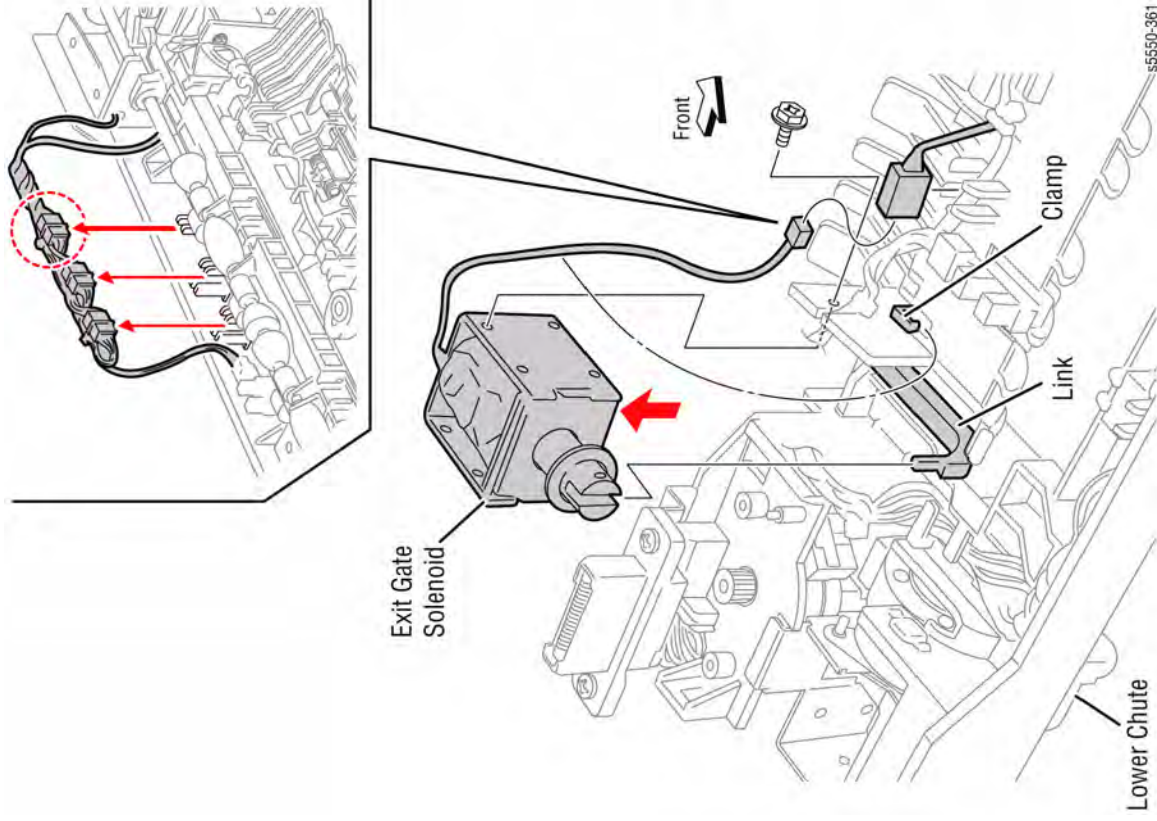


Figure 1 Removing the Exit Gate Solenoid

#### Replacement

Fit the Exit Gate Solenoid to the Link as shown in Figure 1. Also, fit the boss on the Lower Chute into the hole on the solenoid.

## REP 24.15 Exit Sensor

### Parts List on PL 24.2 Item 35

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Disconnect the Exit Sensor from the connector.
3. While moving the actuator in the direction of the arrow, release the hooks securing the sensor to the Lower Chute as in Figure 1.

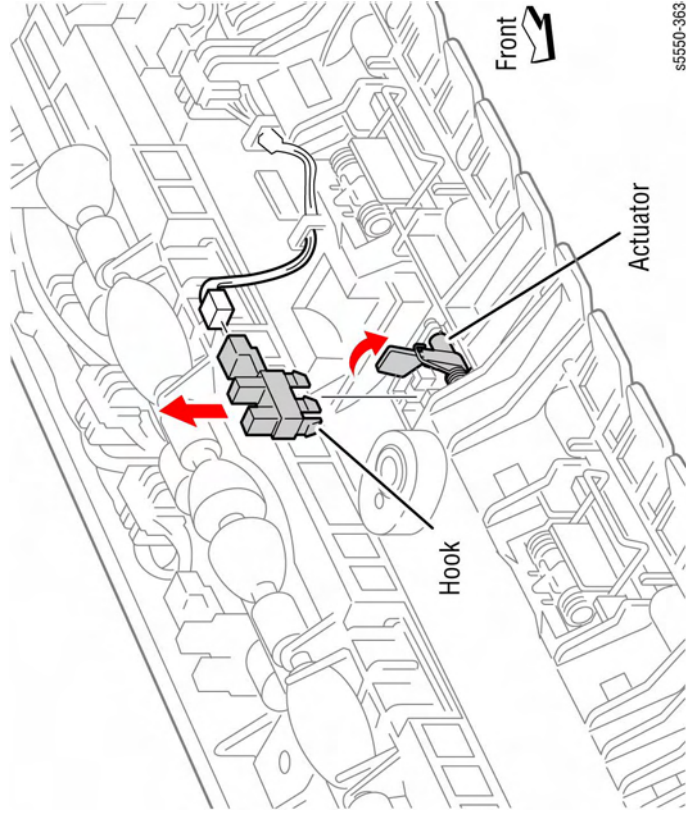


Figure 1 Removing the Exit Sensor

## REP 24.16 OCT Home Position Sensor

### Parts List on PL 24.2 Item 35

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Disconnect the OCT Position Sensor from the connector.
3. Release the hooks securing the sensor to the Lower Chute as shown in Figure 1.
4. Remove the OCT Position Sensor.

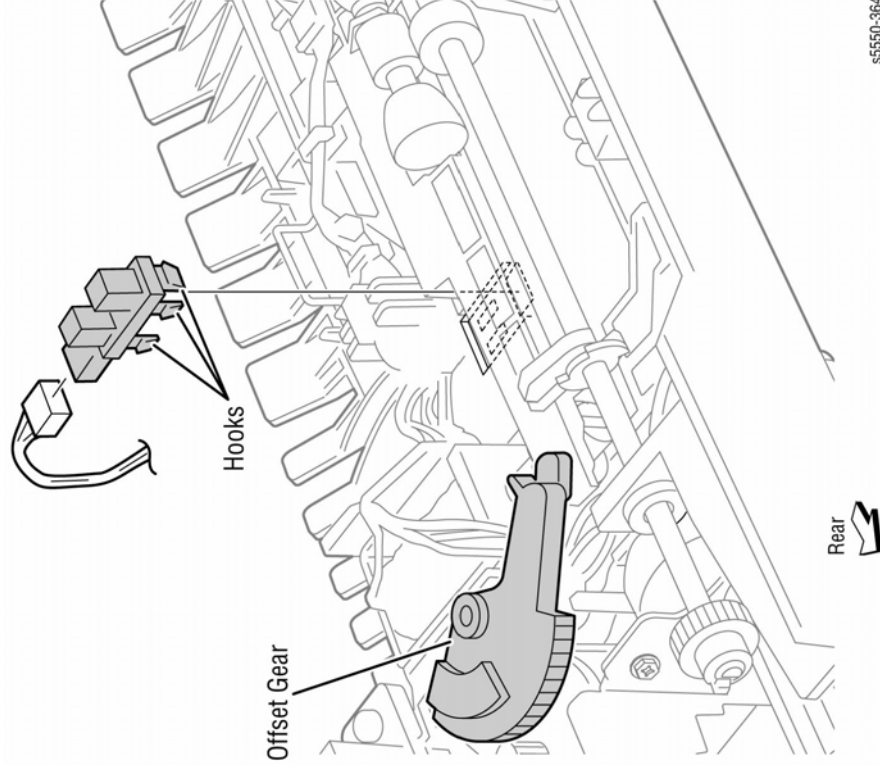


Figure 1 Removing the OCT Home Position Sensor



## REP 24.17 Exit 2 Motor

### Parts List on PL 24.2 Item 37

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Lift the connectors from the guide on the back of the Lower Chute.
3. Disconnect the Exit Motor from the junction connector.
4. Remove the two screws securing the Exit connector to the Rear Plate and remove the connector. Turning the connector perpendicular to its mount makes removing the harness somewhat easier.
5. Remove the black plastic cover.
6. Remove the three screws securing the Rear Plate to the Lower Chute and remove the Rear Plate.
7. Remove the two Phillips screws securing the Exit Motor to the Rear Plate.
8. Remove the Exit 2 Motor.

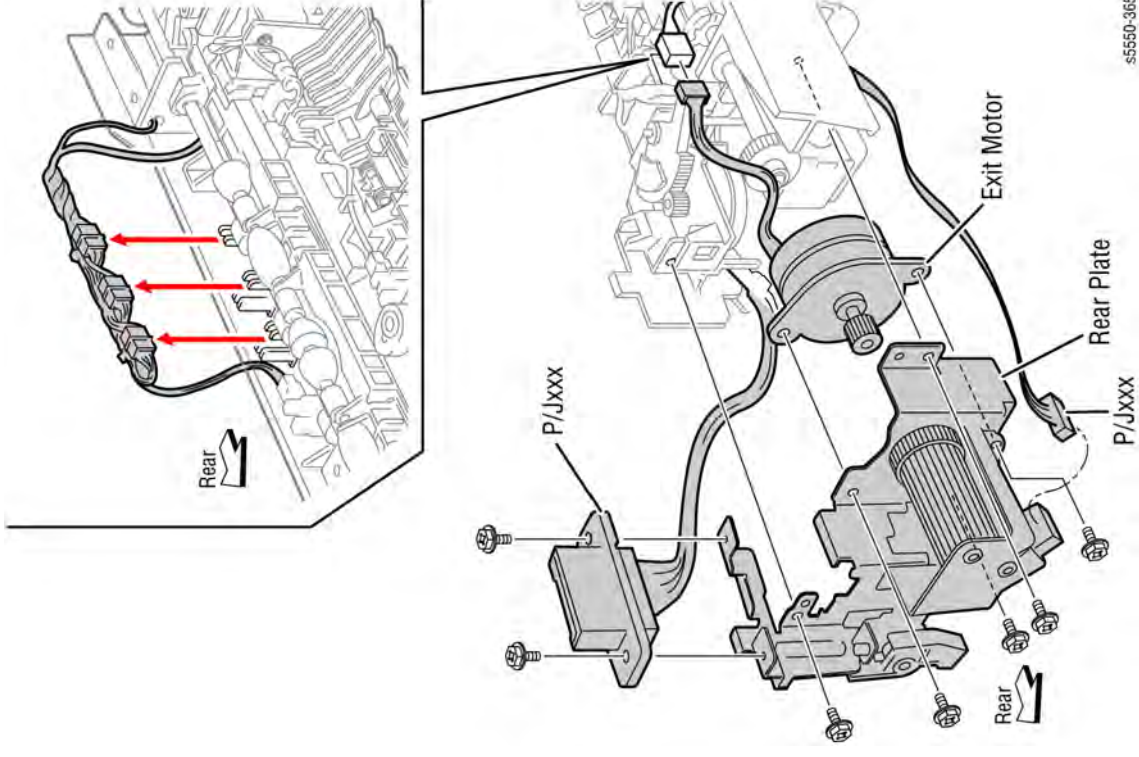


Figure 1 Removing the Exit 2 Motor

#### Replacement

Align the Exit connector so the top side has the most pins.

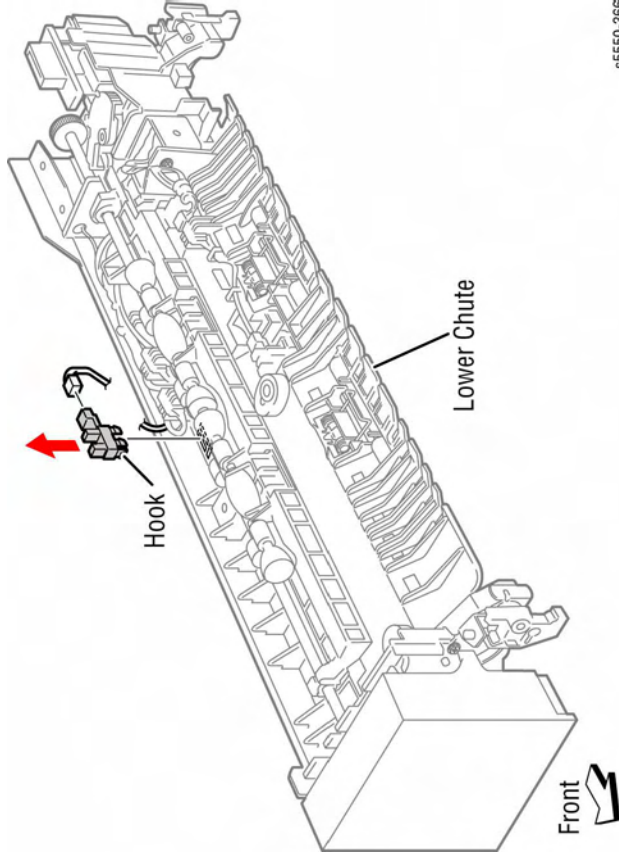


## REP 24.18 Full Stack Sensor

### Parts List on PL 24.2 Item 35

#### Removal

1. Remove the Tray Guide (REP 24.4).
2. Disconnect the sensor from the connector.
3. Release the hooks securing the sensor to the Lower Chute and remove it.



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Figure 1 Removing the Full Stack Sensor

## REP 25.1 Horizontal Transport

### Parts List on PL 25.1 Item 2

#### Removal

1. Press at point A to remove the Connector Cover from the Finisher.

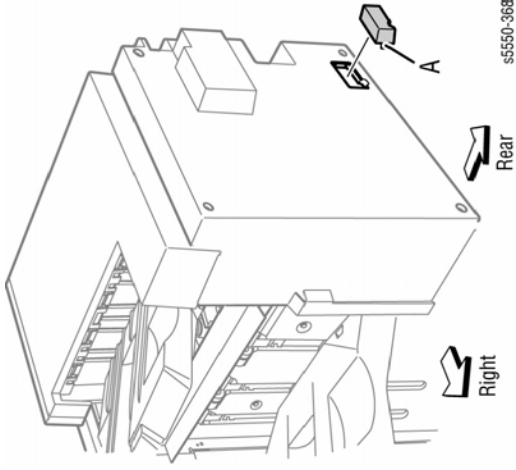


Figure 1 Removing the Connector Cover

2. Disconnect the cable between the Horizontal Transport and the Finisher.
3. Disengage the Finisher from the printer (REP 25.14).
4. Remove the two screws securing the Horizontal Transport to the printer.
5. Remove the Horizontal Transport from the printer.

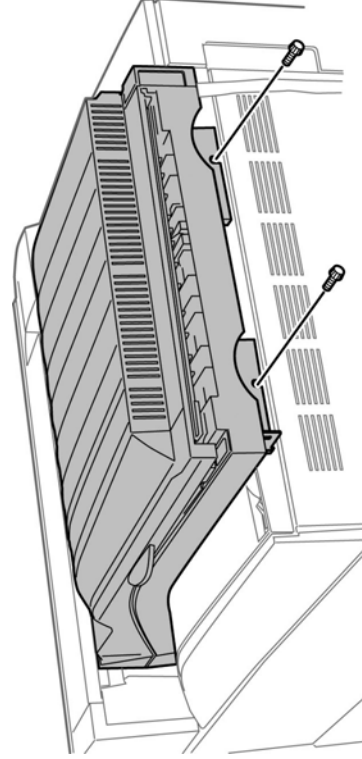


Figure 2 Removing the Horizontal Transport

## REP 25.2 Horizontal Transport Rear Cover

### Parts List on PL 25.3 Item 1

#### Removal

1. Remove the two screws securing the Rear Cover.
2. Remove the Rear Cover in the direction of the arrow.

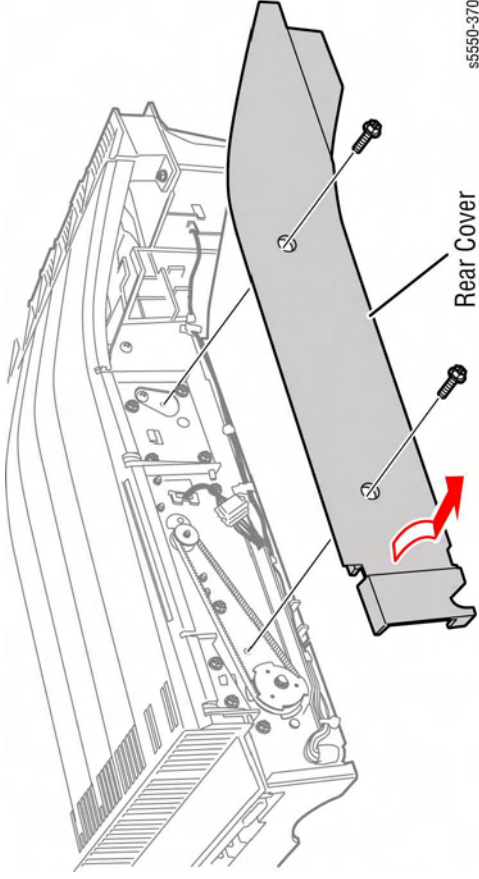


Figure 1 Removing the Horizontal Transport Rear Cover

## REP 25.3 Door F

### Parts List on PL 25.2 Item 9

#### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Remove the Rear Cover (REP 25.2).
3. Open Door F to release the tension on the hinge springs.
4. Remove the six screws securing the left and right hinges to the Drive Bracket on the Lower Chute.
5. Remove Door F in the direction of the arrow.

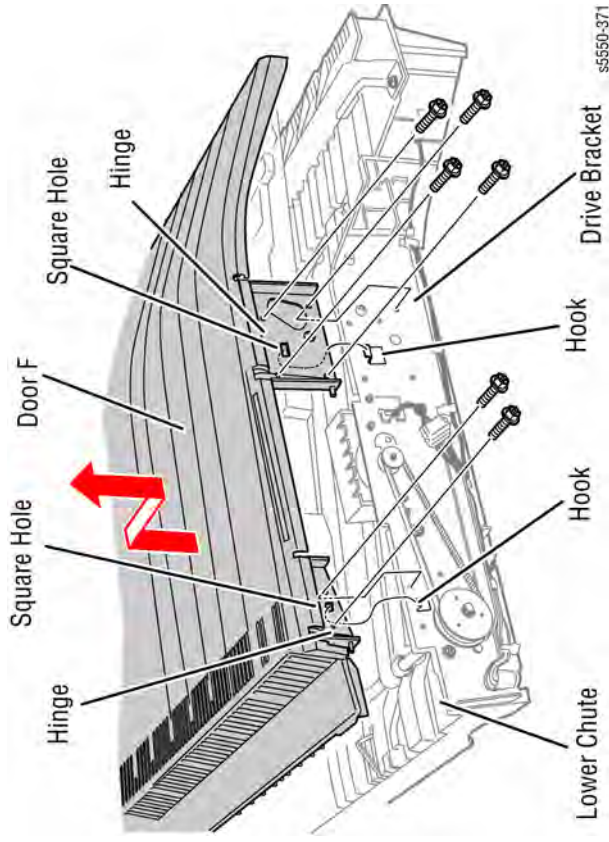


Figure 1 Removing Door F

## REP 25.4 Horizontal Transport Drive Belt

### Parts List on PL 25.3 Item 2

#### Removal

1. Remove the Horizontal Transport (REP 25.1).
  2. Remove the Rear Cover (REP 25.2).
  3. Remove the E-ring securing the pulley.
- NOTE:** Mark the pulley to indicate the outward facing side.
4. Remove the pulley and belt from the shaft.

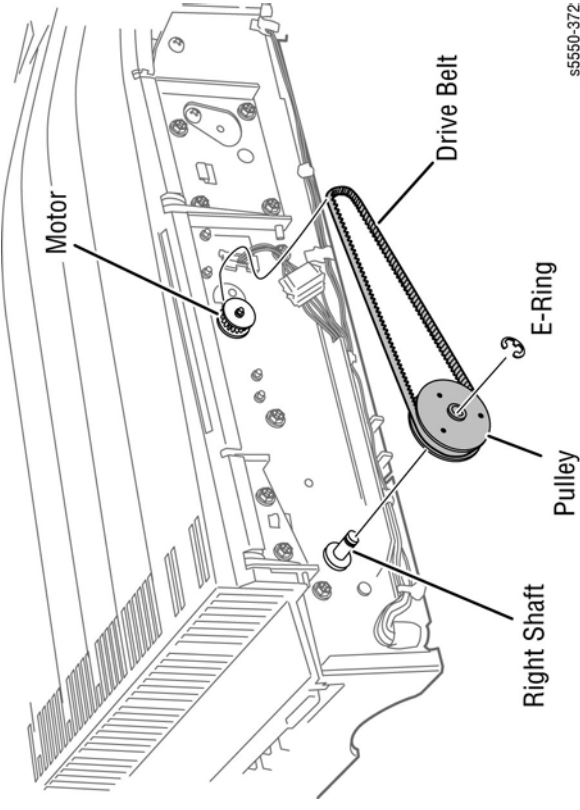


Figure 1 Removing the Horizontal Transport Drive Belt

#### Replacement

Install the Pulley on the shaft in the direction shown. Hold the other end of the shaft while pressing the pulley back on.

## REP 25.5 Horizontal Transport Right Shaft

### Parts List on PL 25.3 Item 14

#### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Remove the Rear Cover (REP 25.2).
3. Remove the Belt Drive and the Pulley (REP 25.4).
4. Remove the Bearing on the rear side.

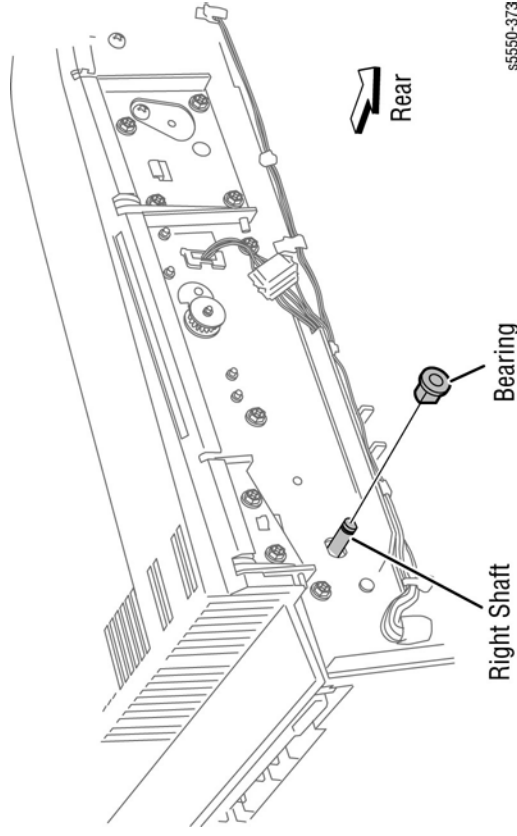


Figure 1 Removing the Bearing

5. Open Door F.
6. Remove the E-ring on the front.
7. Remove the Bearing on the front of the shaft.
8. Move the Right Shaft in the direction of the arrow to remove it from the hole on the Lower Chute, and then remove Right Shaft from the hole on the drive bracket.
9. Remove the Right Shaft from the two belts.

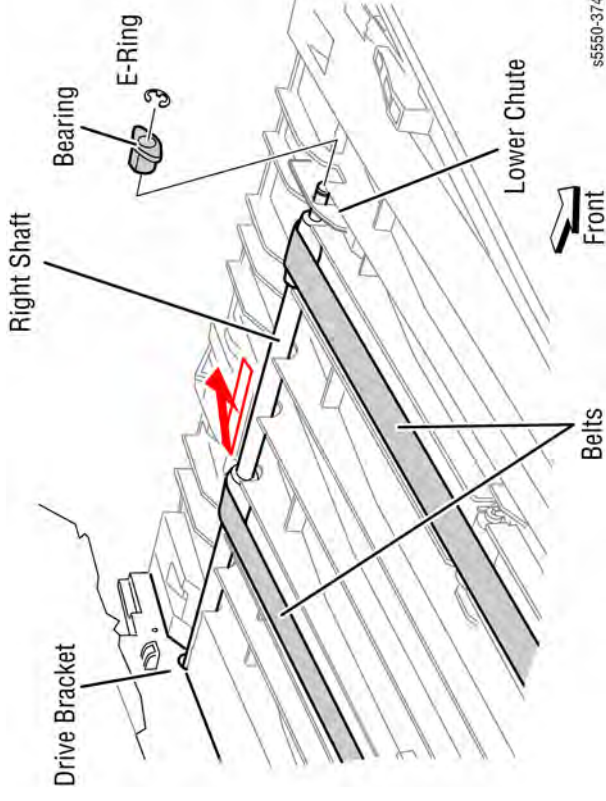


Figure 2 Removing the Horizontal Transport Right Shaft



## REP 25.6 Horizontal Transport Left Shaft

Parts List on PL 25.3 Item 15

### Removal

1. Remove the Rear Cover (REP 25.2).
2. Open Door F.
3. Remove the screw securing the Bearing Bracket on the front of the Left Shaft.
4. Remove the screw securing the Bearing Bracket on the rear of the Left Shaft.
5. Remove the Left Shaft from the two belts.

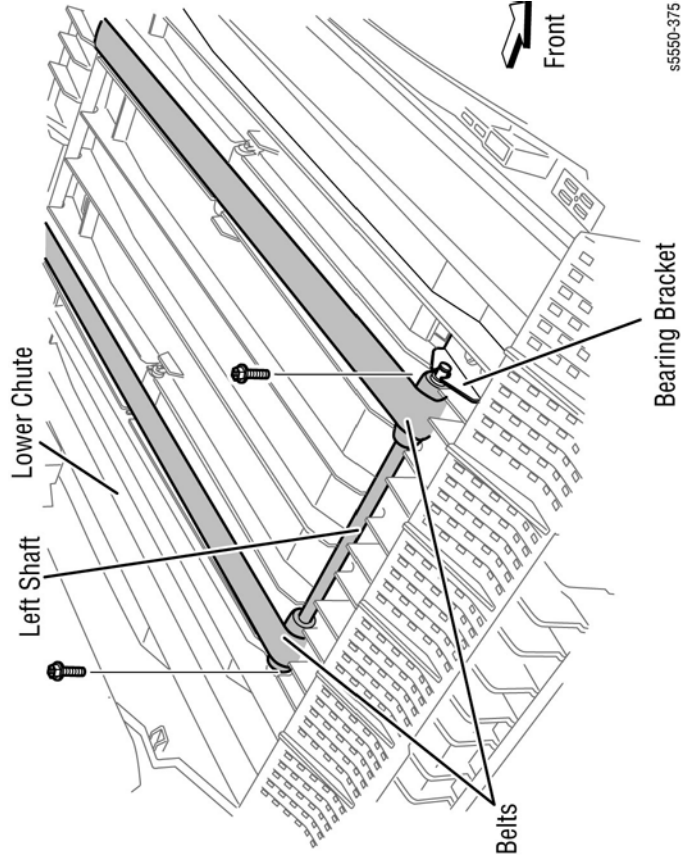


Figure 1 Removing the Horizontal Transport Left Shaft

## REP 25.7 Horizontal Transport Rollers

Parts List on PL 25.3 Item 13

### Removal

1. Remove the Horizontal Transport Left Shaft (REP 25.6).

**NOTE:** Use caution when removing rollers and bearings as these parts are small and easily lost.

2. Lift the Roller up in the direction of the arrow to remove it from the Lower Chute.
3. Remove the Bearings from the both ends of the Roller.

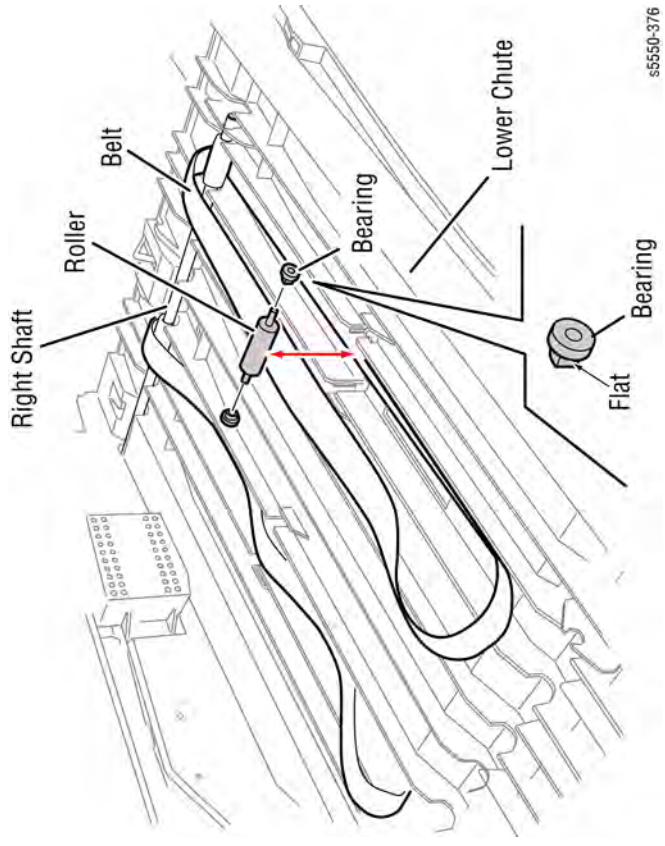


Figure 1 Removing the Horizontal Transport Rollers

### Replacement

Install the Roller to the Lower Chute so that the flat surface of the Bearing faces the direction shown in Figure 1.

## REP 25.8 Horizontal Transport Belts

### Parts List on PL 25.3 Item 12

#### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Remove the Rear Cover (REP 25.2).
3. Open Door F.
4. Remove the Right Shaft (REP 25.5).
5. Remove the Left Shaft (REP 25.6).
6. Remove the Rollers (REP 25.7).
7. Remove the Belts from the Lower Chute.

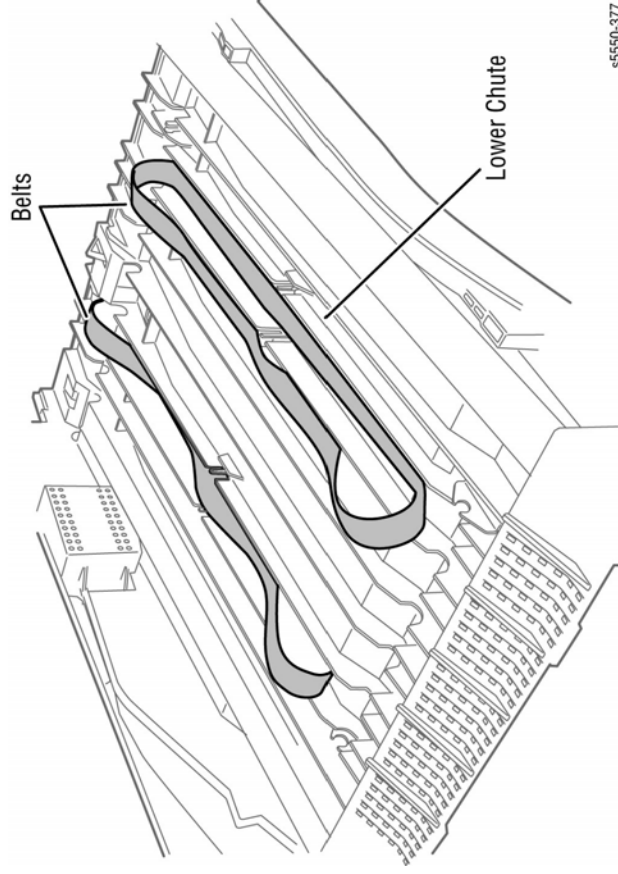


Figure 1 Removing the Horizontal Transport Belts

## REP 25.9 Horizontal Transport Motor

### Parts List on PL 25.3 Item 7

#### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Remove the Rear Cover (REP 25.2).
3. Remove the Belt Drive (REP 25.4).
4. Open Door F.
5. Remove the two screws securing the Motor Cover and remove the Cover.
6. Disconnect the Motor connector from the harness.
7. Release the Motor harness from the clamp.

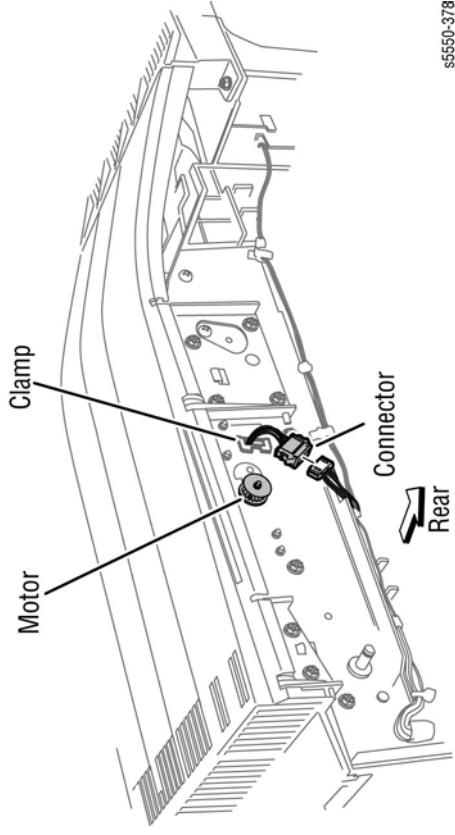


Figure 1 Disconnecting the harness

- Remove the two screws securing the Motor to the Drive Bracket, and remove the Motor in the direction of the arrow as in Figure 2.

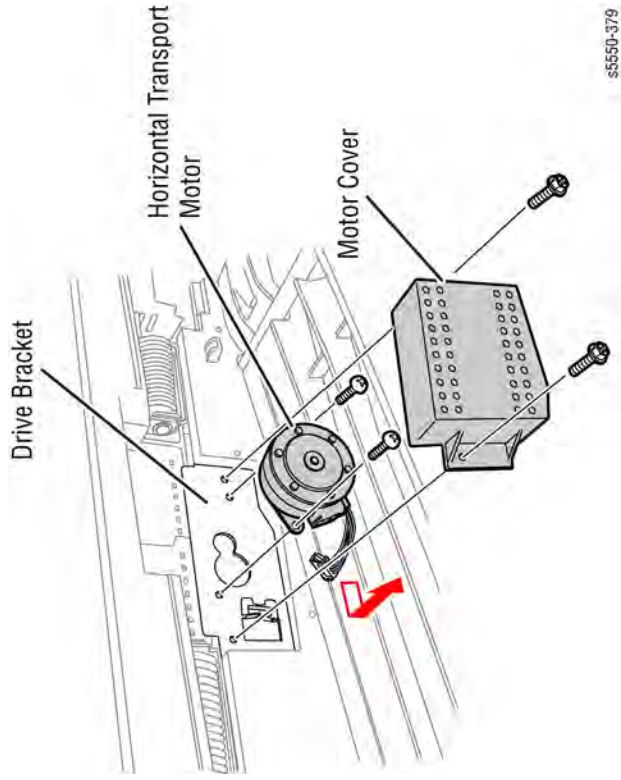


Figure 2 Removing the Horizontal Transport Motor

## REP 25.10 Horizontal Transport Top Cover Parts List on PL 25.3 Item 8

### Removal

- Remove the Rear Cover (REP 25.2).
- Open Door F.
- Remove the two screws securing the Top Cover to the Lower Chute and remove the Top Cover.

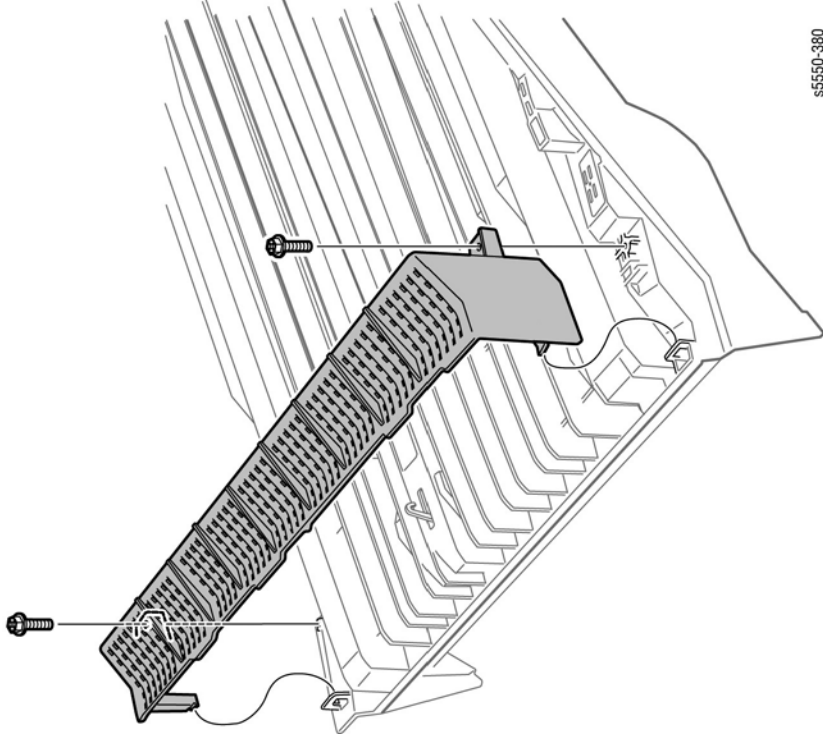


Figure 1 Removing the Horizontal Transport Top Cover

## REP 25.11 Door F Interlock Sensor

Parts List on PL 25.3 Item 19

### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Turn the Horizontal Transport upside down.
3. Remove the one screw securing the bracket to the Lower Chute and remove the bracket.
4. Disconnect the connector from the sensor.
5. Release the hooks securing the sensor to the bracket to remove the sensor.

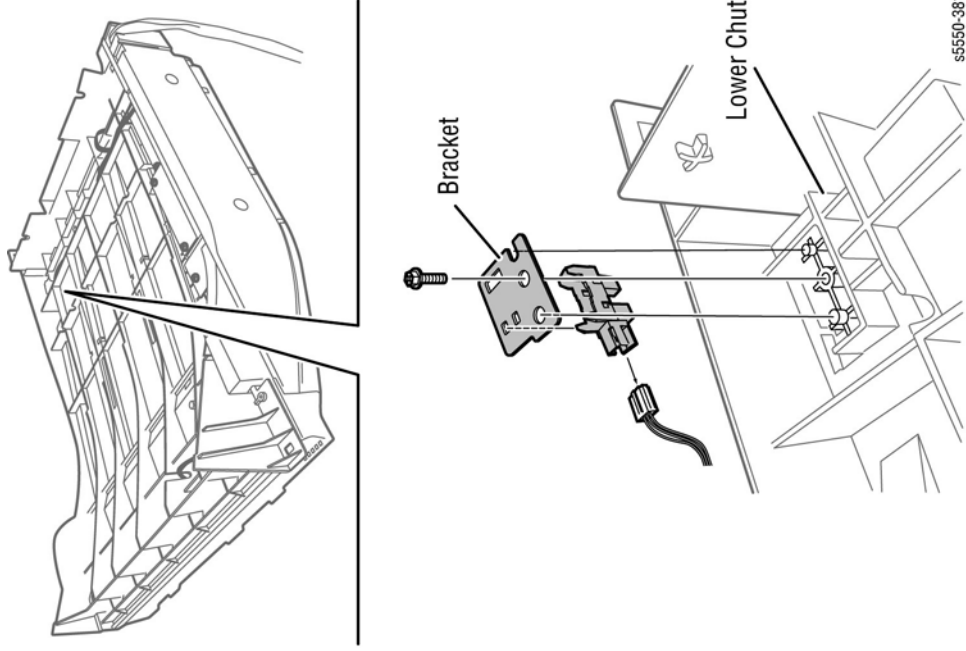


Figure 1 Removing the Door F Interlock Sensor

## REP 25.12 Horizontal Transport Entrance Sensor

Parts List on PL 25.3 Item 23

### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Turn the Horizontal Transport upside down.
3. Remove the screw securing the bracket to the Lower Chute.
4. Disconnect the connector from the Entrance Sensor.
5. Release the hooks securing the sensor to the bracket to remove the sensor.

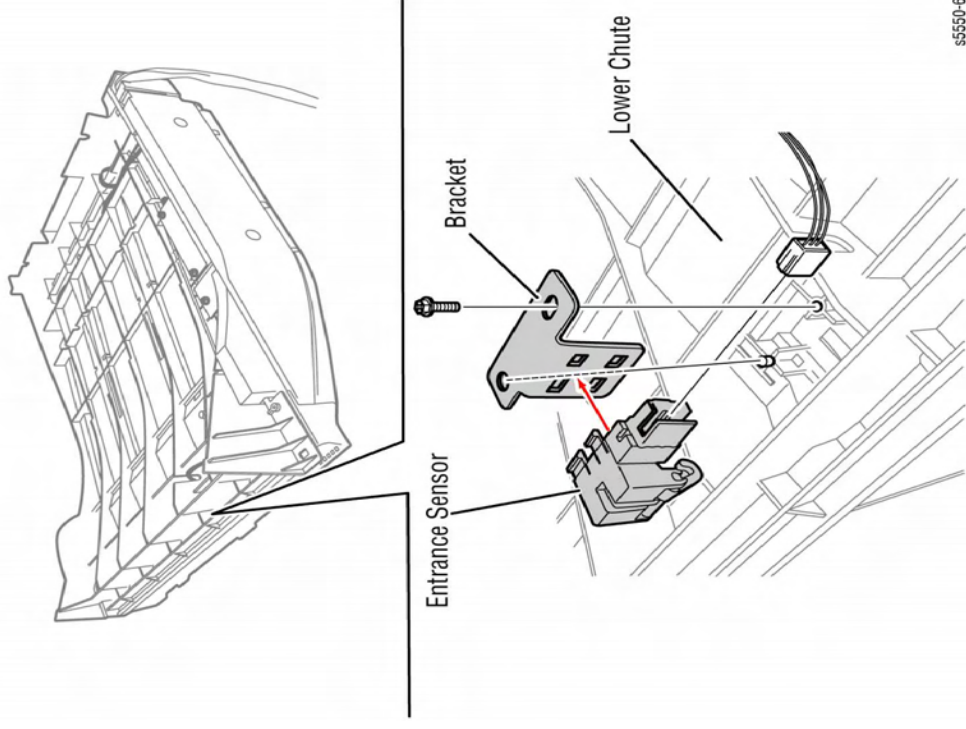


Figure 1 Removing the Horizontal Transport Entrance Sensor



## REP 25.13 Horizontal Transport Exit Sensor

Parts List on PL 25.3 Item 21

### Removal

1. Remove the Horizontal Transport (REP 25.1).
2. Turn the Horizontal Transport upside down.
3. Remove the screw securing the bracket to the Lower Chute.
4. Disconnect the connector from the Exit Sensor.
5. Release the hooks securing the sensor to the bracket to remove the sensor.

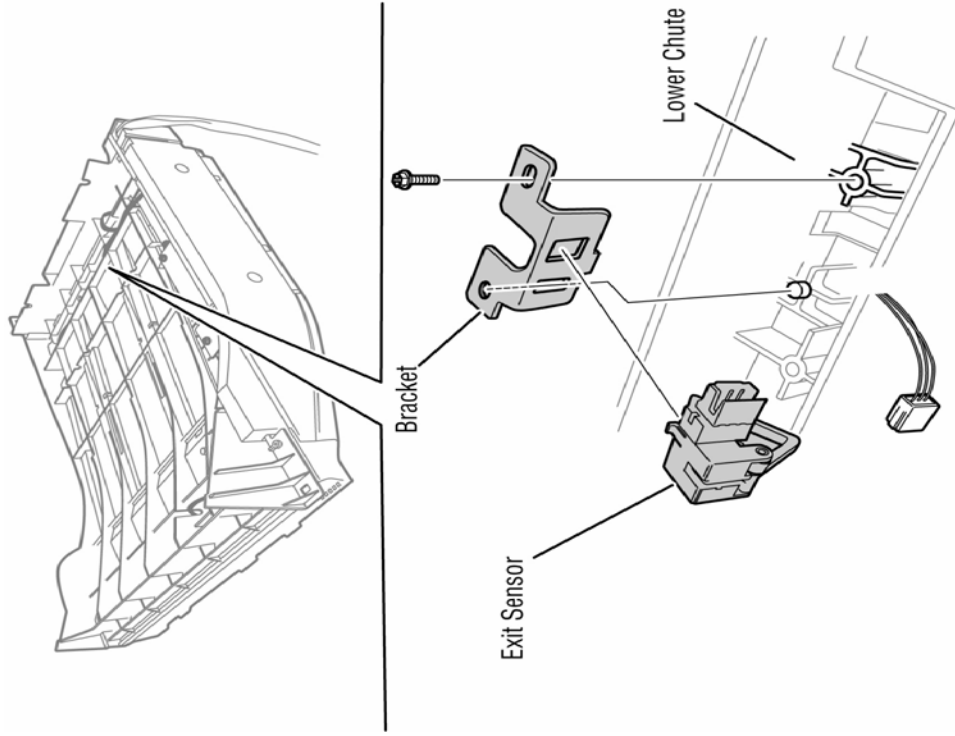


Figure 1 Removing the Horizontal Transport Exit Sensor

## REP 25.14 Finisher Docking

Parts List on PL 25.1 Item 3

### Removal

1. Disconnect the Finisher power cord and connection cable from the printer.
2. Disconnect the Horizontal Transport cable of the from the Finisher.
3. Open Door G.

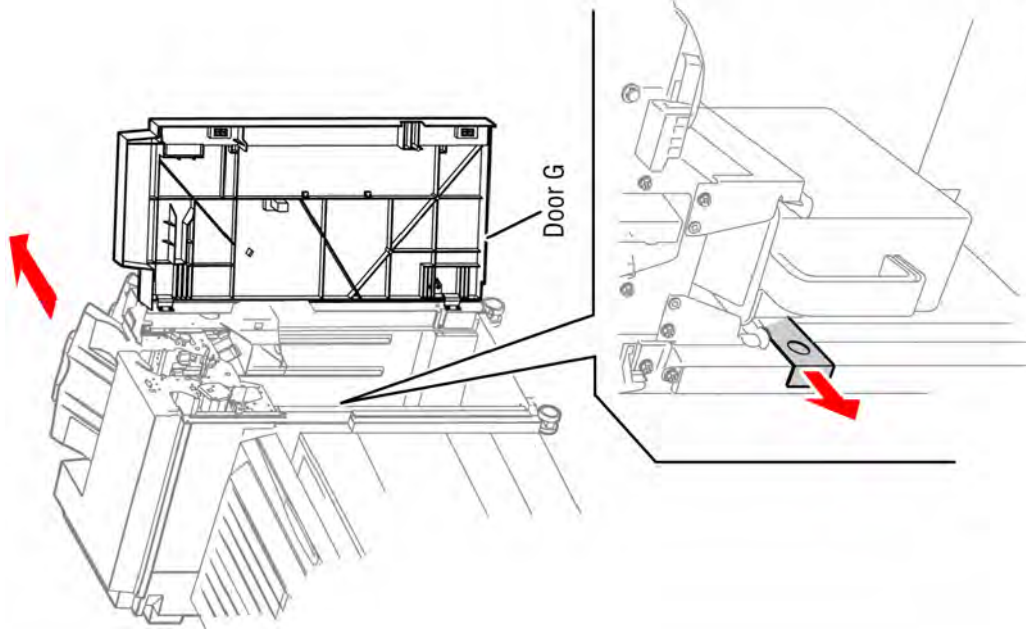


Figure 1 Disconnecting the Horizontal Transport Cable

4. Move the Finisher to the right while pulling the Docking Plate toward you.
5. Close Door G.

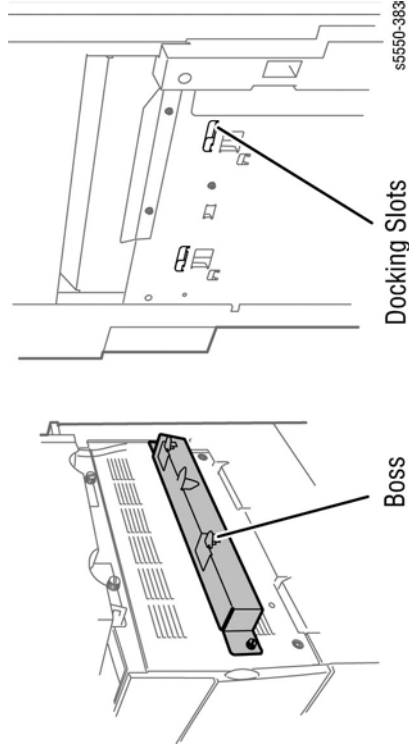


Figure 2 Removing the Finisher Docking

## REP 25.15 Finisher Upper Rear Cover

### Parts List on PL 25.4 Item 11

#### Removal

1. Remove the Connector Cover by pushing at point A to release the lock.
2. Disconnect the Horizontal Transport cable from the Finisher.
3. Remove the four screws securing the Upper Rear Cover to the Finisher and remove the cover.

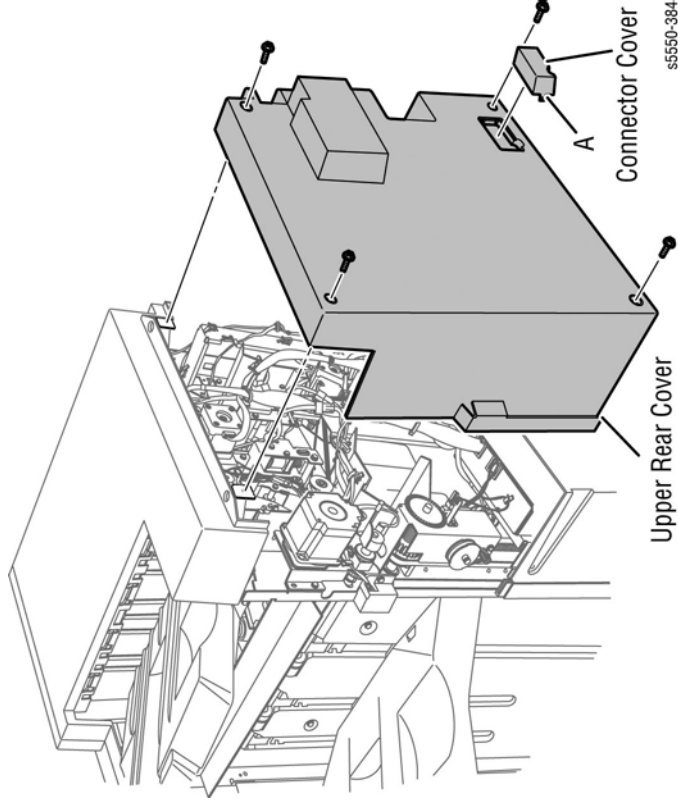


Figure 1 Removing the Finisher Upper Rear Cover

## REP 25.16 Finisher Lower Rear Cover

Parts List on PL 25.4 Item 9

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the four screws securing the Lower Rear Cover to the Finisher and remove the cover.

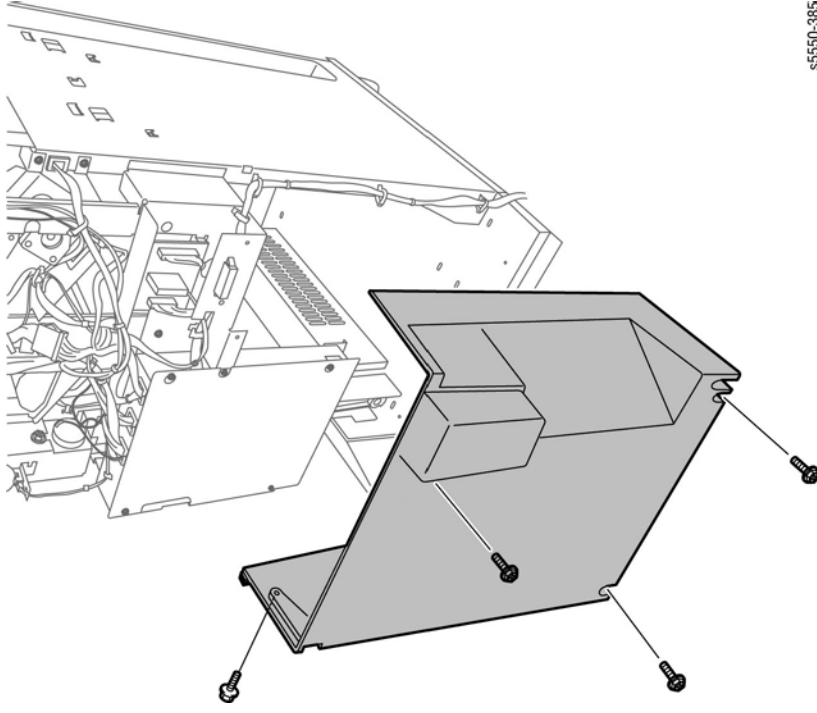


Figure 1 Removing the Finisher Lower Rear Cover

## REP 25.17 Finisher Top Cover

Parts List on PL 25.4 Item 1

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Stacker Upper Tray (REP 25.25).
4. Remove the 4 screws securing the Top Cover to the Finisher and remove the cover.

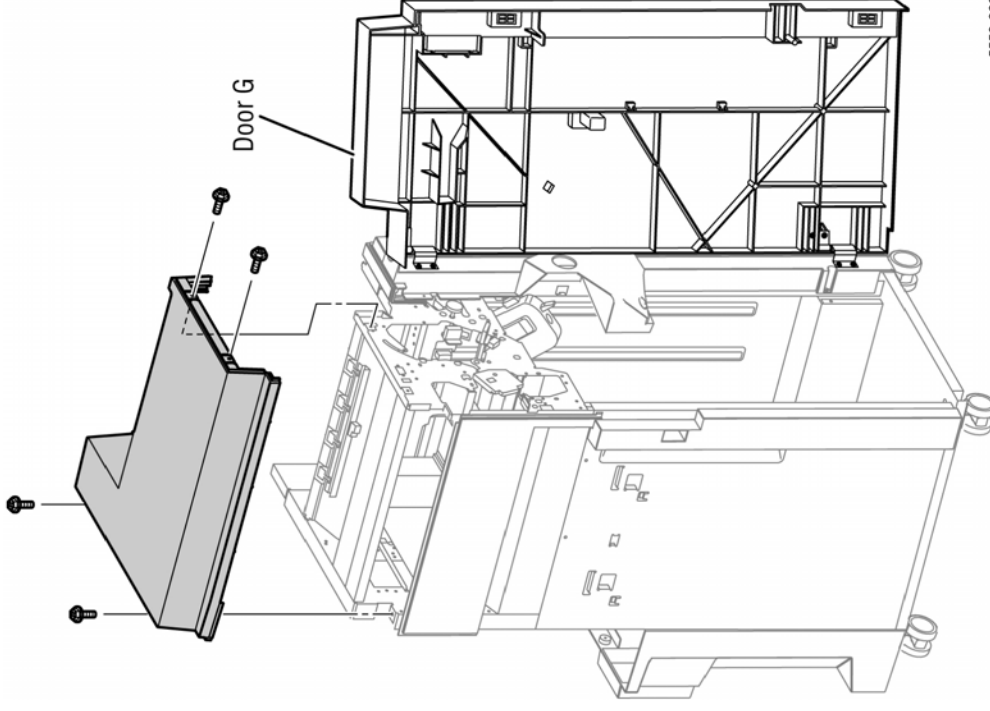


Figure 1 Removing the Finisher Top Cover

## REP 25.18 Finisher Bottom Right Cover

Parts List on PL 25.4 Item 6

### Removal

1. Remove the two screws securing the Bottom Right Cover to the Finisher.
2. Remove the cover.

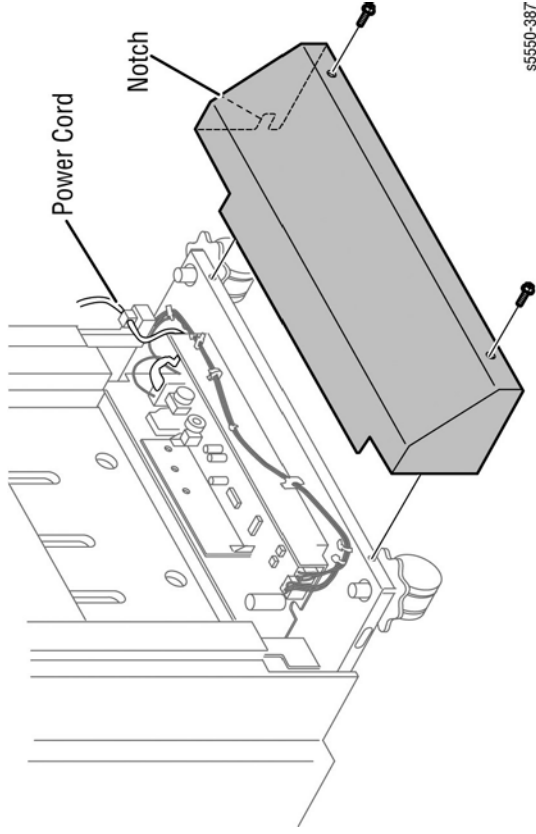


Figure 1 Removing the Finisher Bottom Right Cover

### Replacement

When installing the Bottom Cover, be sure to put the power cord into the notch on the Bottom Right Cover.

## REP 25.19 Finisher Door G

Parts List on PL 25.5 Item 3

### Removal

1. Open Door G.
2. Remove the three screws securing the Inner Cover, move the door to the right, and remove the Door.

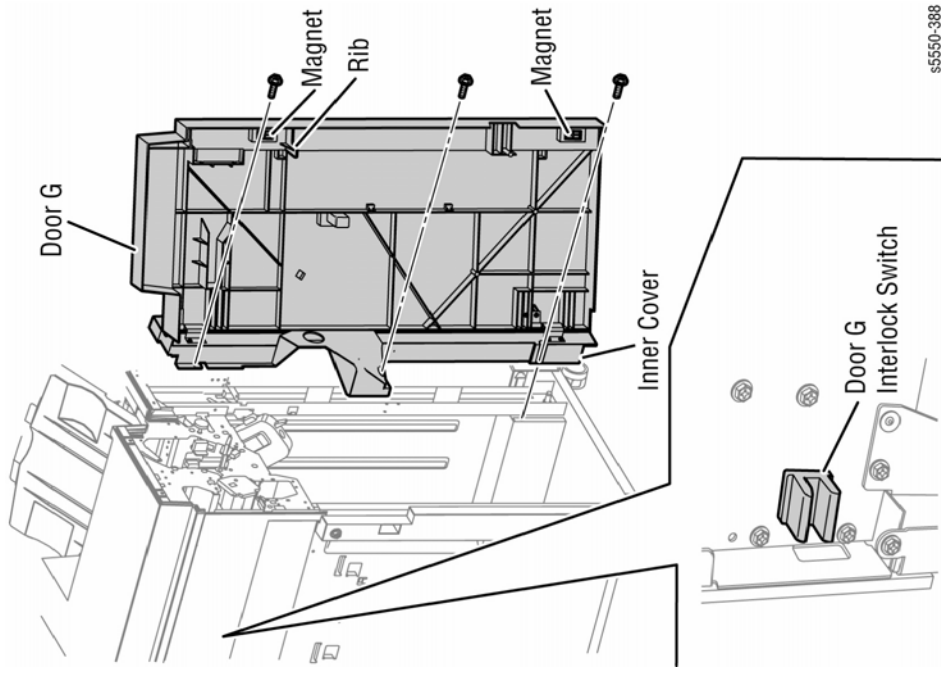


Figure 1 Removing the Finisher Door G

### Replacement

Make sure that the rib of Door G engages the Interlock Switch. Also, verify that the two magnets on Door G contact the Finisher.

## REP 25.20 Finisher Inner Cover

Parts List on PL 25.5 Item 5

### Removal

1. Remove Door G (REP 25.19).
2. Remove the four screws securing the inner cover to Door G and remove the Inner Cover.

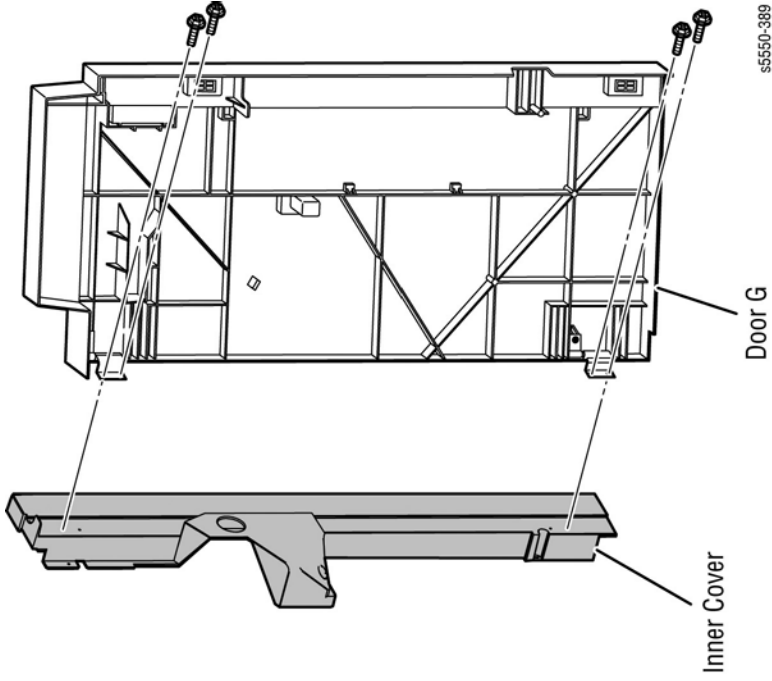


Figure 1 Removing the Finisher Inner Cover

## REP 25.21 Finisher Top Front Cover

Parts List on PL 25.5 Item 1

### Removal

1. Remove Door G (REP 25.19).
2. Remove the Stacker Upper Tray (REP 25.25).
3. Remove the Finisher Top Cover (REP 25.17).
4. Remove the two screws securing the Top Front Cover to the Finisher and remove the cover.

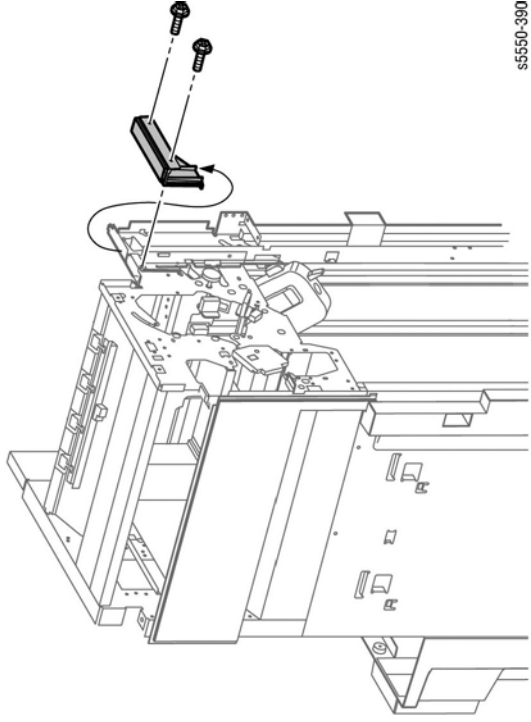


Figure 1 Removing the Finisher Top Front Cover

### Replacement

Make sure that after replacing the Top Front Cover, the Stacker Top Tray moves smoothly when pushed down once and then released by hand.

## REP 25.22 Door G Interlock Switch

Parts List on PL 25.5 Item 2

### Removal

1. Open the Front Door.
2. Pull the Punch Box toward the front and remove it from the Finisher.
3. Remove the three screws on the front side and two screws on the rear securing the Dust Box Chute to the Finisher and remove the chute.
4. Disconnect the connector from the Door G Interlock Switch.
5. Release the hooks of the switch by using two fingers to press down the two hooks on either side of the switch and push the switch towards the front to remove it from the frame.

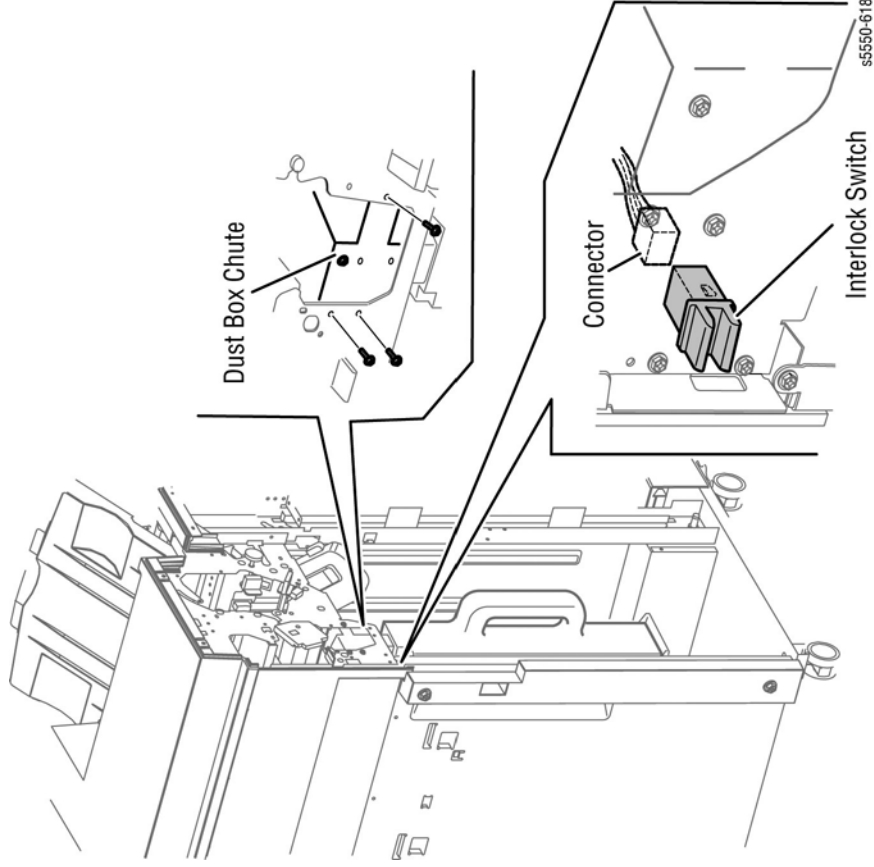


Figure 1 Removing the Door G Interlock Switch

## REP 25.23 Finisher L/H Front Cover

Parts List on PL 25.5 Item 8

### Removal

1. Open Door G.
2. Remove the two screws securing the L/H Front Cover to the Finisher and remove the cover.

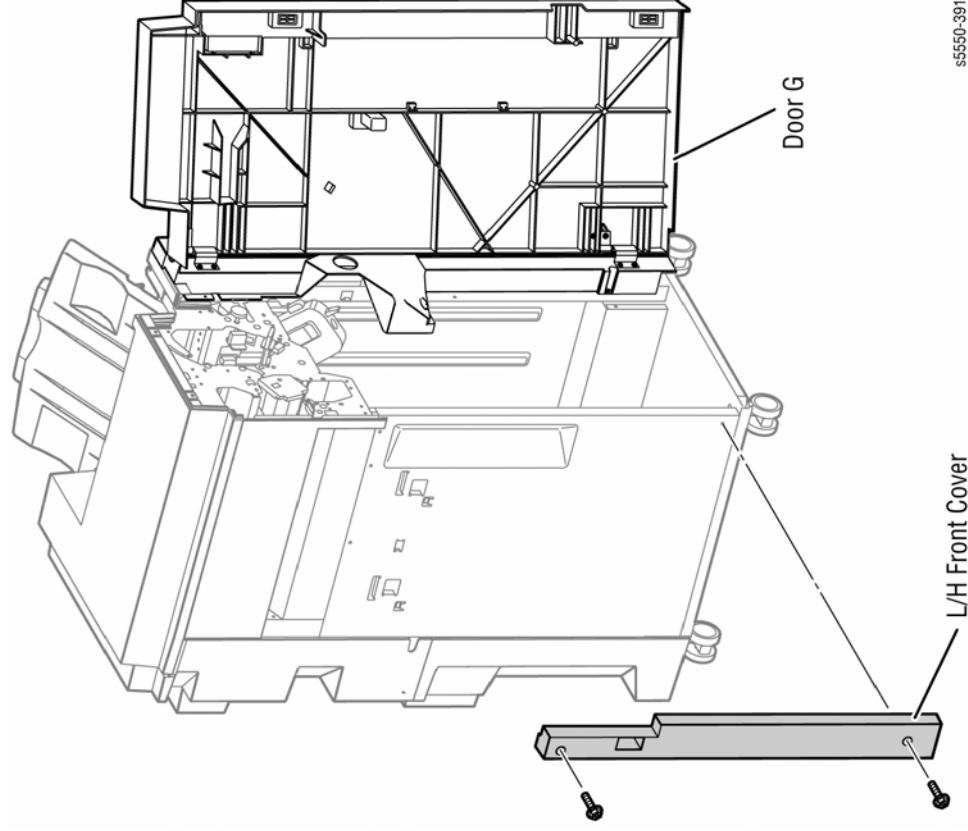


Figure 1 Removing the Finisher L/H Front Cover

## REP 25.24 Finisher Top L/H Cover

Parts List on PL 25.5 Item 9

### Removal

1. Open Door G.
2. Remove the two screws securing the Top L/H Cover to the Finisher.
3. Move the Top L/H Cover to the front to release the tabs from the frame.

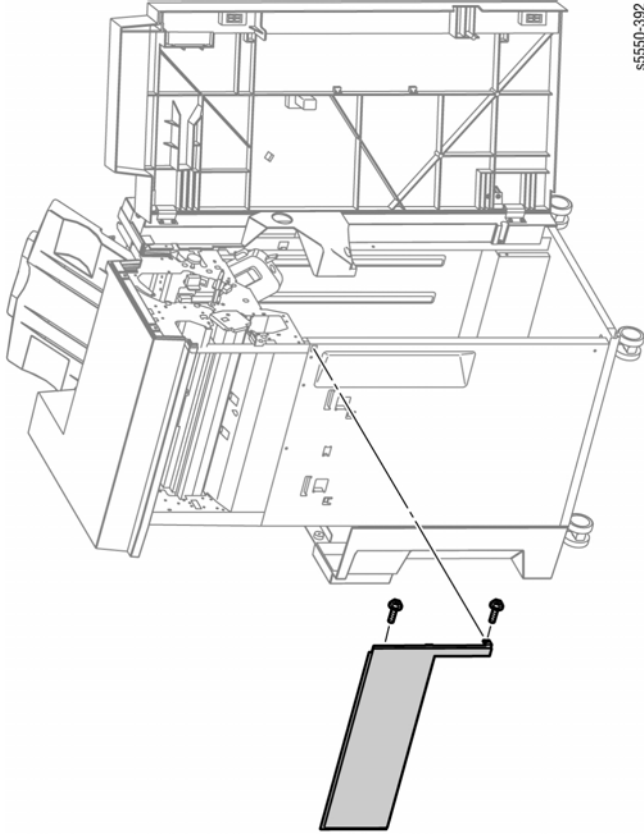


Figure 1 Removing the Finisher Top L/H Cover

## REP 25.25 Stacker Upper Tray

Parts List on PL 25.4 Item 3

### Removal

1. Remove the two screws securing the Stacker Upper Tray to the Finisher.
2. While compressing the tray to collapse the springs, lift the tray in the direction of the arrow to remove it from the Finisher.

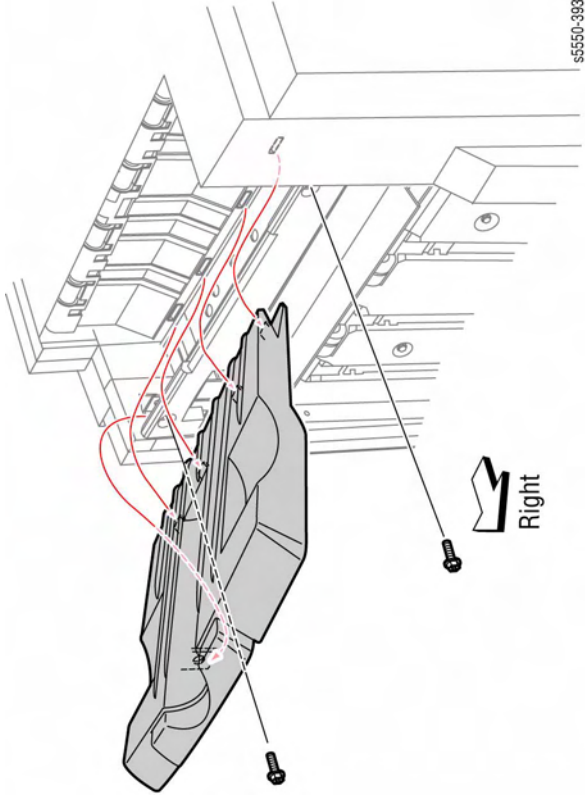


Figure 1 Removing the Stacker Upper Tray

### Replacement

After installation, make sure that the tray moves up and down smoothly.

## REP 25.26 Finisher Eject Cover

### Parts List on PL 25.4 Item 4

#### Removal

1. Remove Door G (REP 25.19).
2. Remove the Stacker Upper Tray (REP 25.25).
3. Remove the Finisher Upper Rear Cover (REP 25.15).
4. Remove the two screws securing the Eject Cover to the Finisher.
5. Remove the Eject Cover.

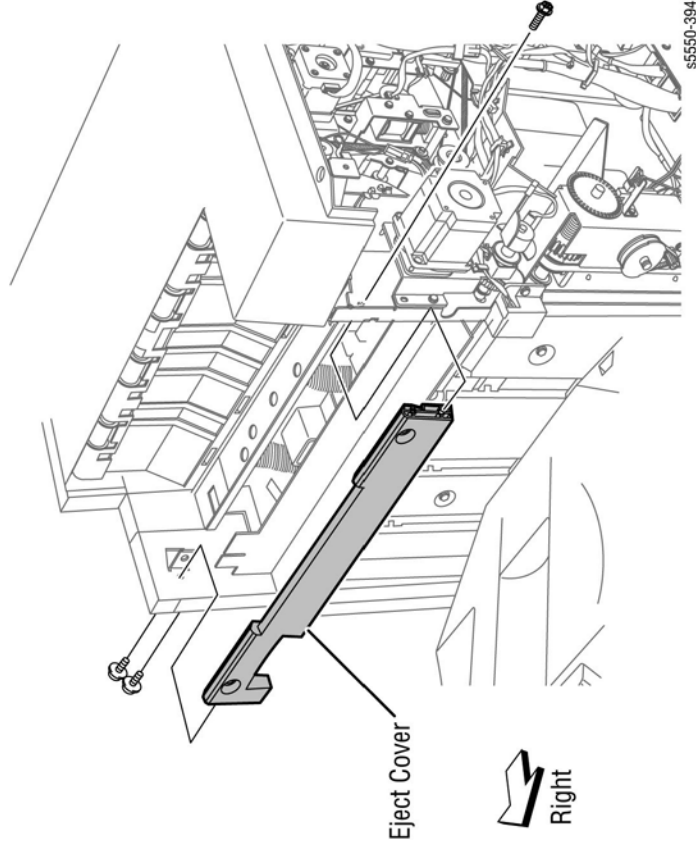


Figure 1 Removing the Finisher Eject Cover

## REP 25.27 Stacker Lower Tray

### Parts List on PL 25.4 Item 5

#### Removal

1. Lower the tray approximately 2 inches using Service Diagnostics or by rotating the drive pulley.
2. Release the hooks left and right on the lower part of the Stacker Lower Tray by gently pulling the tabs and lifting the tray.
3. Lift the Stacker Lower Tray up to remove it from the Tray Carriage.

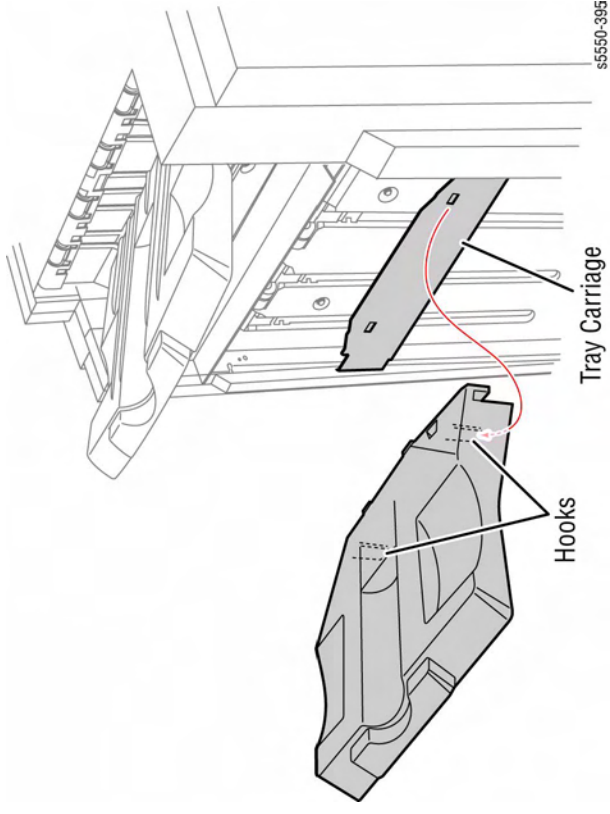


Figure 1 Removing the Stacker Lower Tray

#### Replacement

Make sure that the two hooks on the Stacker Lower engage the square holes on the Tray Carriage.



## REP 25.28 Stacker Bracket Assembly

### Parts List on PL 25.6 Item 24

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Lower Rear Cover (REP 25.16).
3. Perform Steps 1~4 of REP 25.95.
4. Without touching the Encoder, slide the Gear in the direction of the arrow and away from the Pulley Doc Clutch. Move the Stacker Lower Tray to its lowest position.

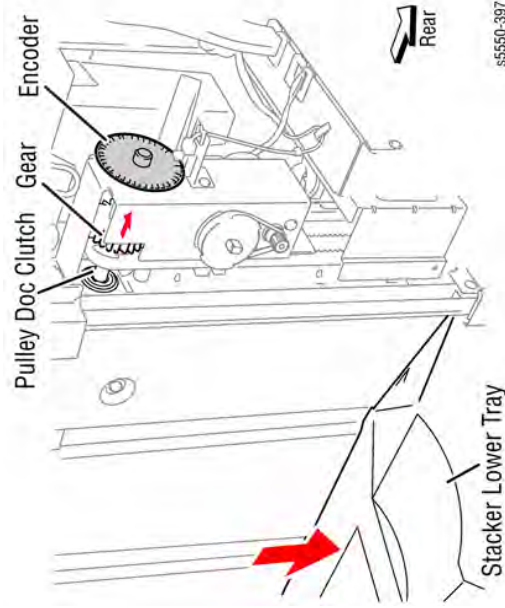


Figure 1 Removing the Gear

5. Release the harness from the cable restraint clamps.
6. Disconnect the connector (J8328) from the Stacker Encoder Sensor.

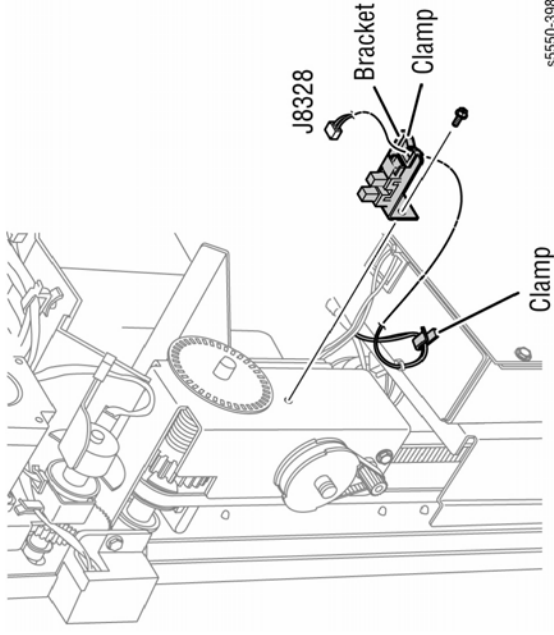


Figure 2 Releasing the harness and disconnecting J8328

7. Disconnect the connector (P8305) on the Finisher Main PWB.

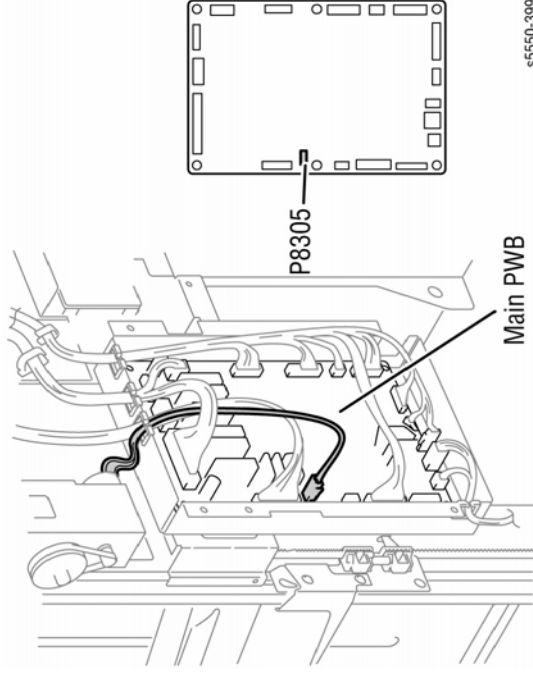


Figure 3 Disconnecting P8305

8. Remove the one screw securing the Sensor Bracket and remove it from the Stacker Bracket.

9. Release the hook of the Encoder to remove.
10. Remove the three screws securing the Stacker Bracket.

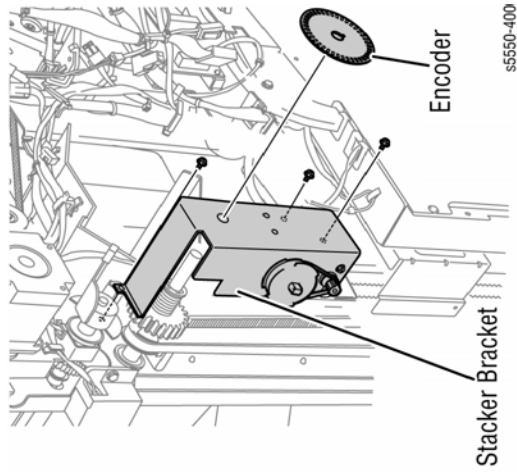


Figure 4 Removing the Stacker Bracket Assembly

## REP 25.29 Stacker Front Belt Parts List on PL 25.6 Item 2

### Removal

Do not to remove both Carriage Assemblies (Front/Rear). When removing them, work on one at a time. After repairing one, work on the other. If both are removed together, a misalignment could occur binding the Stacker Tray.

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Front Door (Door G) (REP 25.19).
3. Without touching the Encoder, slide the Gear in the direction of the arrow and away from the Pulley Doc Clutch. Move the Stacker Lower Tray to its lowest position.

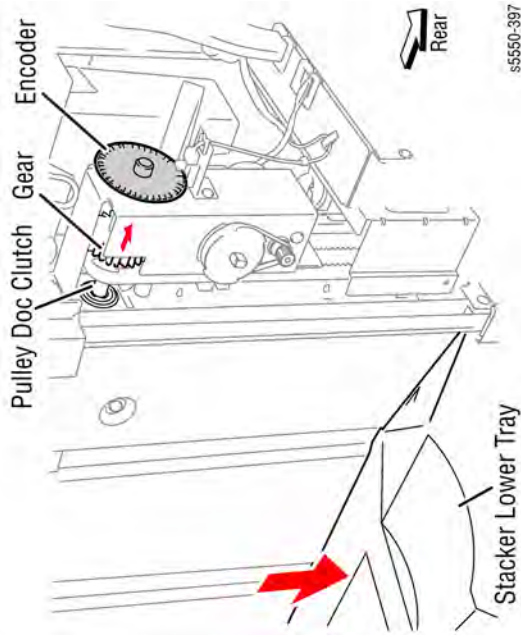


Figure 1 Sliding the Gear

## REP 25.30 Stacker Rear Belt Parts List on PL 25.6 Item 8 Removal

Do not to remove both Carriage Assemblies (Front/Rear). When removing them, work on one at a time. After repairing one, work on the other. If both are removed together, a misalignment could occur binding the Stacker Tray.

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Front Door (Door G) (REP 25.19).
3. Without touching the Encoder, slide the Gear in the direction of the arrow and away from the Pulley Doc Clutch. Move the Stacker Lower Tray to its lowest position.

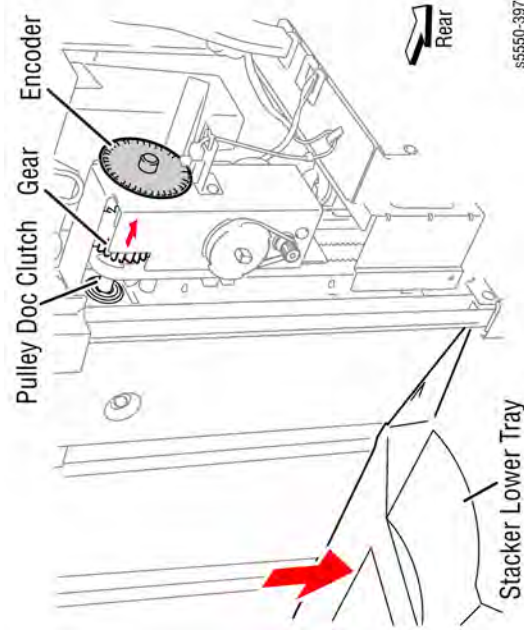


Figure 1 Sliding the Gear

4. Remove the Lower Rear Cover (REP 25.16).
5. Remove the Stacker Bracket (REP 25.28).

4. Remove the two screws securing the Tray Carriage.
5. Remove the Spring.
6. Remove the screw securing the upper side of the Belt Clamp.
7. Remove the upper side of the Belt Clamp.
8. Detach, the Front Carriage with the Stacker Belt from the Finisher.

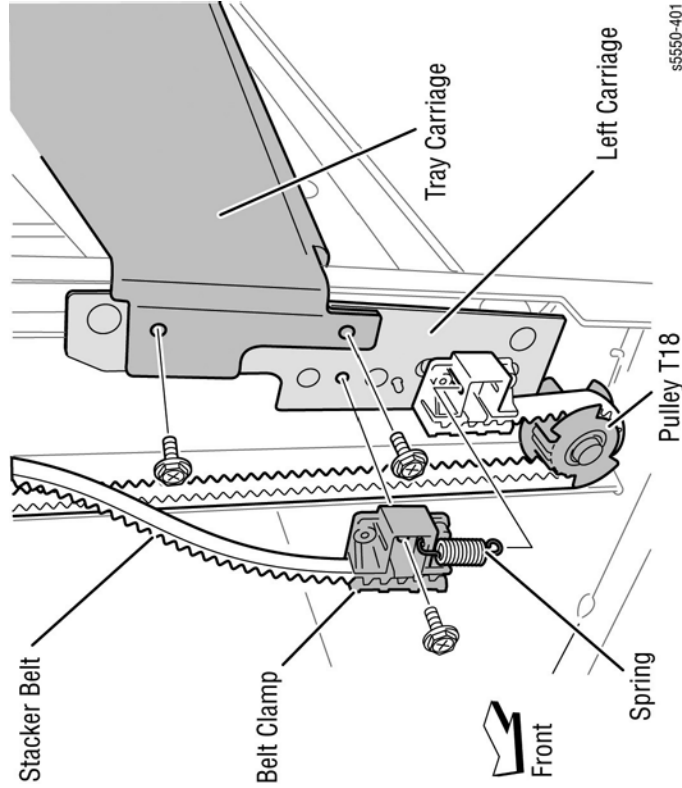


Figure 2 Removing the Stacker Left Belt

## Replacement

Put the boss on the back of the Belt Clamp into the hole on the Carriage. Also check that the Stacker Lower Tray moves smoothly up and down.

## REP 25.31 Stack Height Sensor 1

### Parts List on PL 25.6 Item 13

#### Removal

1. Remove Door G (REP 25.19).
2. Remove the one screw securing the Stack Height Sensor 1 and remove the Sensor.
3. Disconnect the connector (J8331) from the Stack Height Sensor 1.

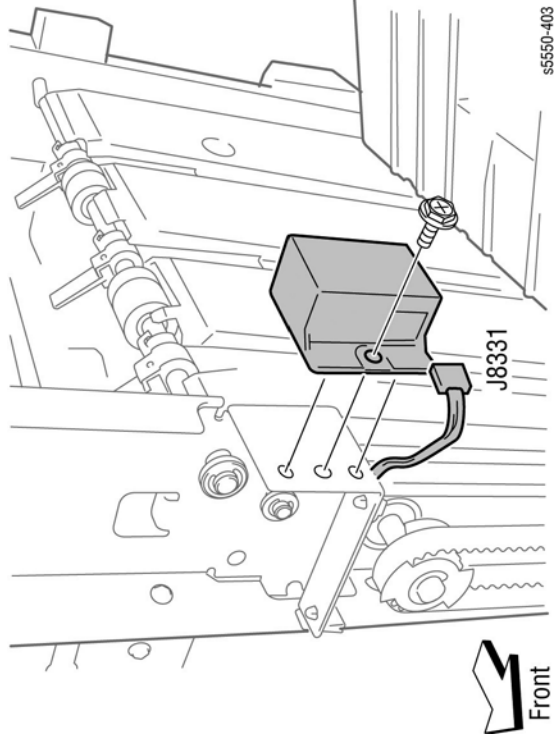


Figure 1 Removing the Stack Height Sensor 1

#### Replacement

Put the two bosses on the Stack Height Sensor 1 into the two holes on the Finisher frame before tightening screw.

6. Remove the two screws securing the Tray Carriage.
7. Remove the Spring on the Carriage.
8. Remove the one screw securing the upper side of the Belt Clamp.
9. Remove the upper belt clamp.
10. Remove the Rear Carriage and Stacker Belt from the Finisher.

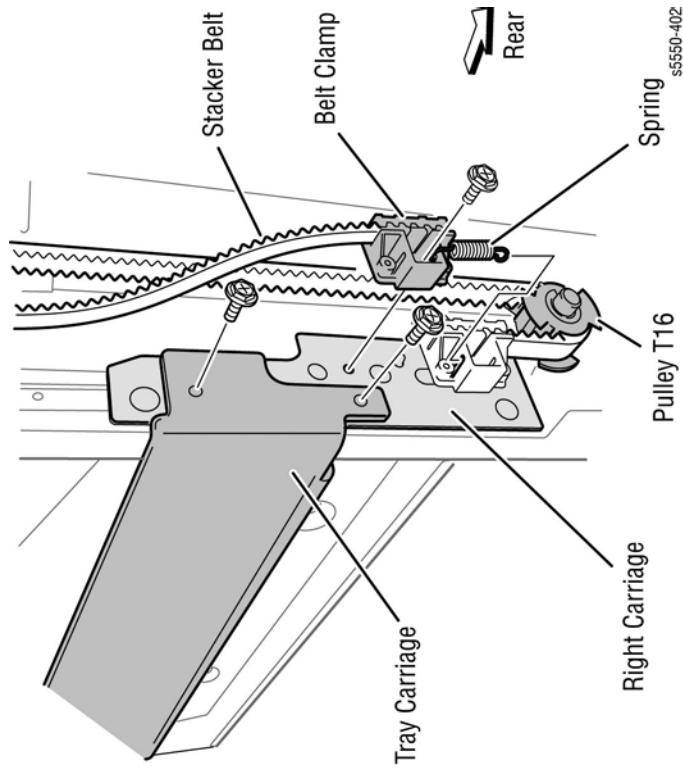


Figure 2 Removing the Stacker Right Belt

#### Replacement

Put the boss on the back of the Belt Clamp into the hole on the Carriage. Also check that the Stacker Lower Tray moves smoothly up and down.

## REP 25.32 Stack Height Sensor 2

Parts List on PL 25.6 Item 13

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the one screw securing the Stack Height Sensor 2 and remove the Sensor.
3. Disconnect the connector (J8330) from the Stack Height Sensor 2.

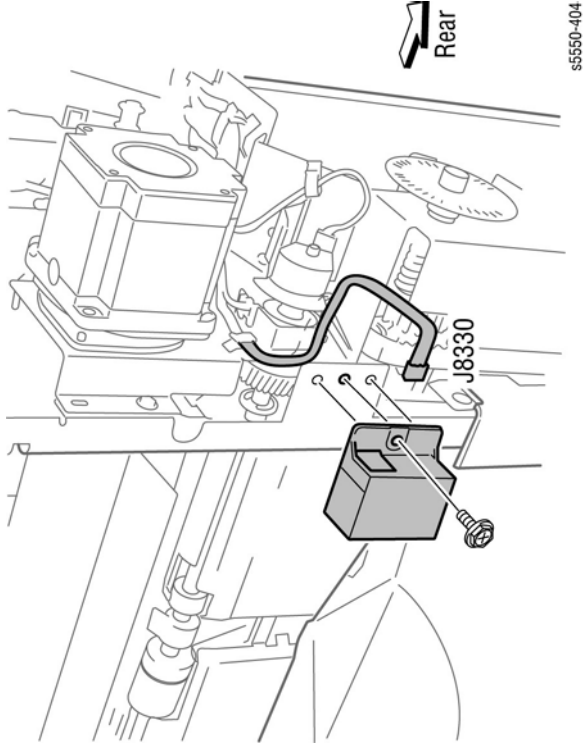


Figure 1 Removing the Stack Height Sensor 2

### Replacement

Put the two bosses on the Stack Height Sensor 2 into the two holes on the Finisher frame before tightening the screw.

## REP 25.33 Stacker Encoder Sensor

Parts List on PL 25.6 Item 17

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the one screw securing the sensor bracket.
3. Release the harness from the harness clamp.
4. Disconnect the connector (J8328) from the Stacker Encoder Sensor.
5. Release the hooks of the sensor to remove it from the sensor bracket.

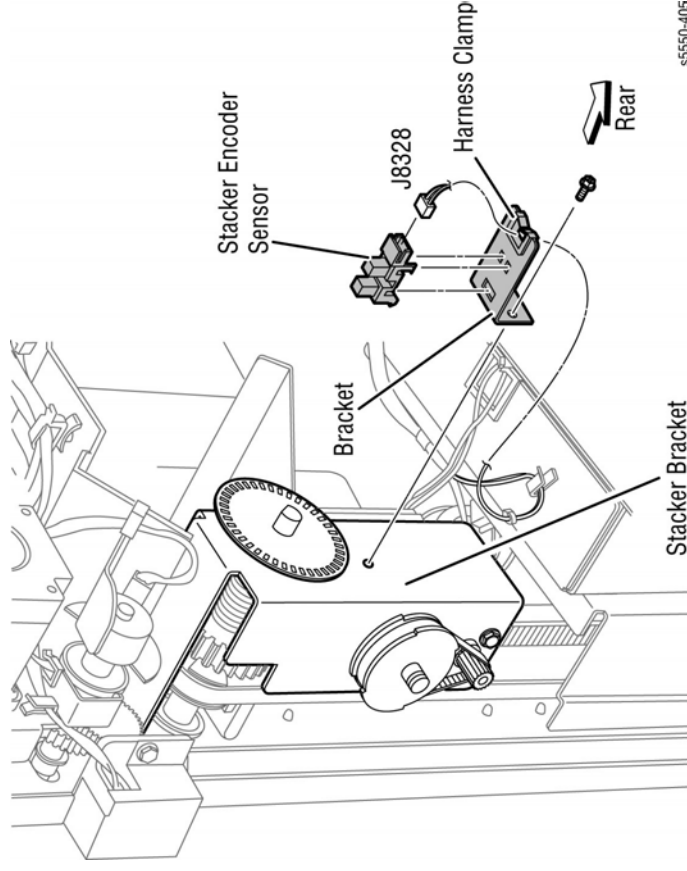


Figure 1 Removing the Stacker Encoder Sensor

## REP 25.34 Lower Tray Upper Limit and No Paper Sensors

Parts List on PL 25.6 Item 17

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Stacker Bracket Assembly (REP 25.28).
3. Disconnect the connector (J8327 or J8326) from the Upper Limit Sensor or No Paper Sensor.
4. Release the hooks of the Sensor to remove.

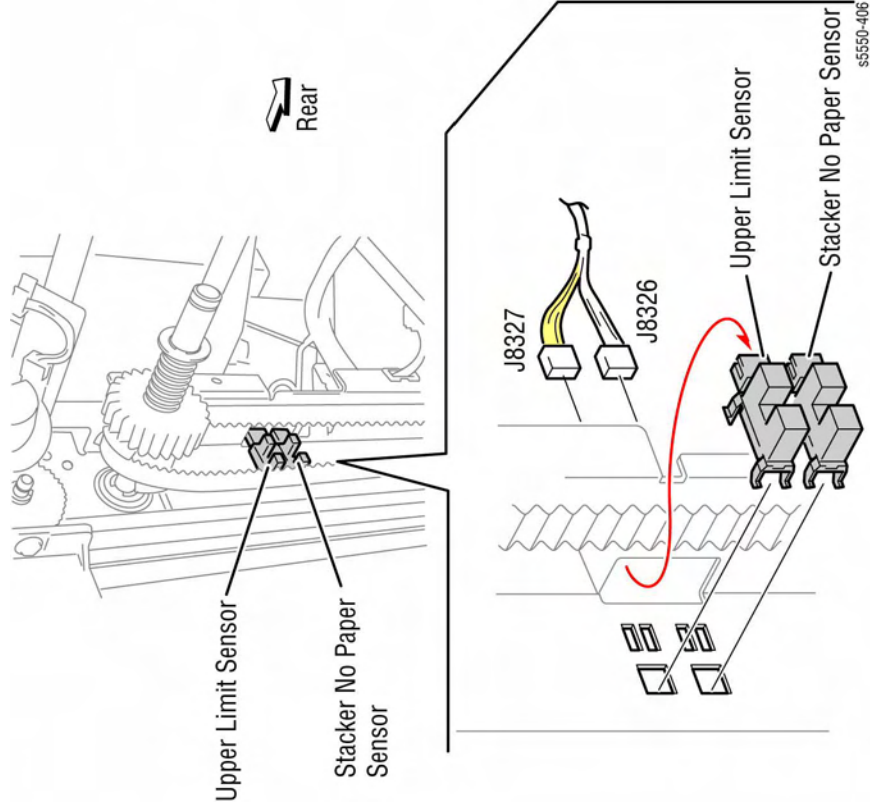


Figure 1 Removing the Lower Tray Upper Limit and No Paper Sensors

### Replacement

Connect the yellow connector (J8327) to the Lower Tray Upper Limit Sensor.

## REP 25.35 Elevator Motor

Parts List on PL 25.6 Item 26

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Lower Rear Cover (REP 25.16).
3. Perform Steps 1~4 in REP 25.95.
4. Disconnect the Elevator Motor from the Finisher PWB.
5. Remove the two screws securing the Elevator Motor to the Stacker Bracket.
6. Remove the Elevator Motor in the direction of the arrow while removing the Belt.

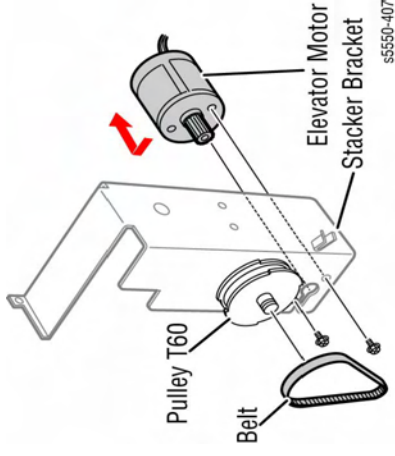


Figure 1 Removing the Elevator Motor



## REP 25.36 Finisher Punch Parts List on PL 25.7 Item 1

### Removal

1. Open the Front Door.
2. Remove the Rear Upper Cover (REP 25.15).
3. Remove the 2 screws securing the Punch Frame Assembly from the front of the Finisher (Figure 1).

**NOTE:** In order to prevent from damaging the Registration Motor Drive Belt during the next step, use caution when removing the Punch Frame Assembly from the Finisher.

4. Remove the three screws securing the Front Punch Bracket and remove it from the frame.

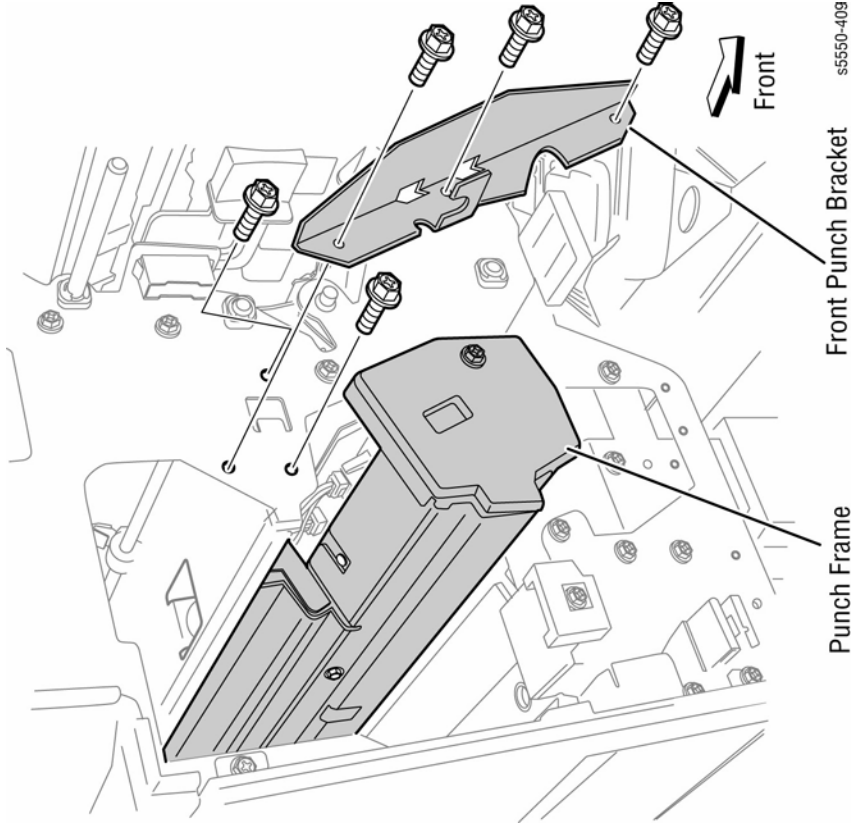


Figure 1 Removing the Finisher Punch

5. Removing the Punch Frame Assembly (Figure 2).
  - a. Disconnect wiring harness J8344. Open the Harness Clip and move the wiring harness to the side.

- b. Disconnect wiring harness P/J8352 and release the cable-tie.
- c. Disconnect the wiring harnesses P/J8332, P/J8333, and J8344.
- d. Open the 3 harness clips and release the cable-tie.
- e. Remove the 2 screws and the Punch Frame Assembly from the rear side of the Finisher.

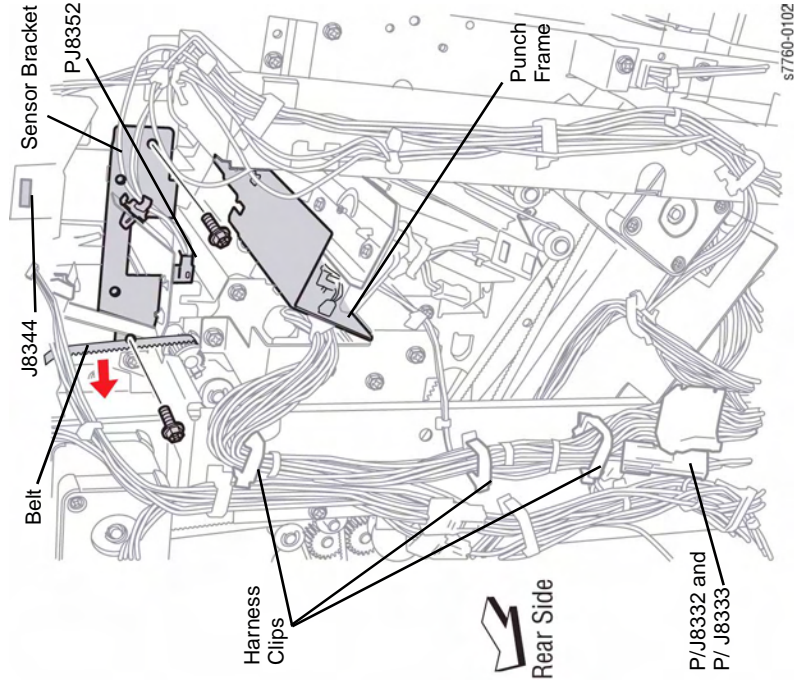


Figure 2 Removing the Punch Frame Assembly (Rear Side of Finisher)

### Replacement

**NOTE:** Dress all cable slack toward the Punch Unit to prevent the Cables from binding.

## REP 25.37 Punch Move Motor

### Parts List on PL 25.7 Item 4

#### Removal

1. Remove the Finisher Top Cover (REP 25.17).
2. Disconnect the connector (J8344) from the Punch Move Motor.
3. Remove the two screws securing the Punch Move Motor Cover to the Punch Frame.
4. Remove the two screws securing the Punch Move Motor Bracket to the Punch Frame to remove the Bracket.

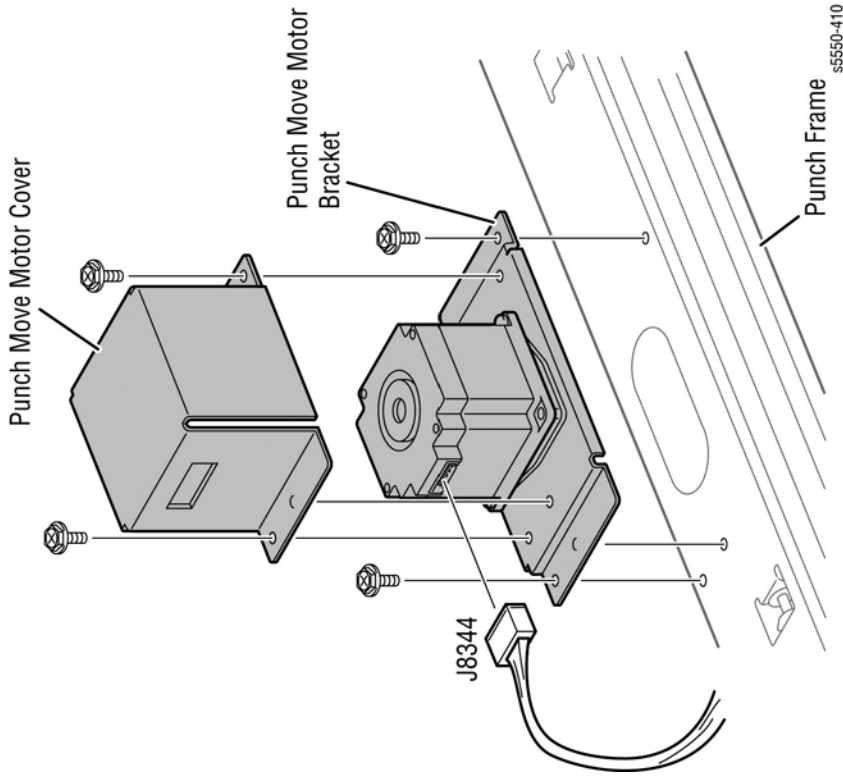


Figure 1 Removing the Punch Move Motor

## REP 25.38 Finisher Punch Side Registration Sensors 1 & 2

### Parts List on PL 25.7 Item 8

#### Removal

1. Remove the Punch (REP 25.36).
2. Remove the one screw securing the Punch Front Cover.
3. Remove the two screws securing the Side Registration Chute, to the Punch Frame. A harness connects the Side Registration Chute and the Punch Frame. The chute does not detach from the Punch Frame.
4. Remove the two screws securing the Sensor Bracket to the Side Registration Chute.
5. Disconnect the connectors from the sensors. Connector (J8350) for the Side Regi Sensor 1 and connector (J8351) for the Side Regi Sensor 2.

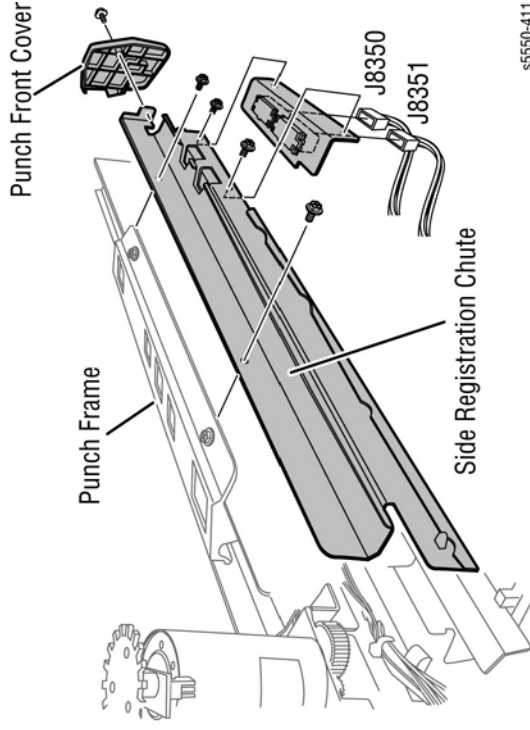


Figure 1 Removing the Finisher Punch Side Registration Sensors 1 & 2



## REP 25.39 Punch Bracket Assembly

Parts List on PL 25.7 Item 9

### Removal

There are five settings for the Finisher Punch: 2-/3-hole, 2-/4-hole, 3-hole, 2-hole and, no punch. Although the following removal procedures are for the 2-/3-hole version, the procedures apply to all punch-equipped Finishers.

1. Remove the Punch (REP 25.36).
2. Remove the one screw securing the Punch Front Cover.
3. Remove the two screws securing the Punch Left Cover.
4. Remove the three screws securing the Holder Frame to the Punch Bracket and remove the Holder Frame.

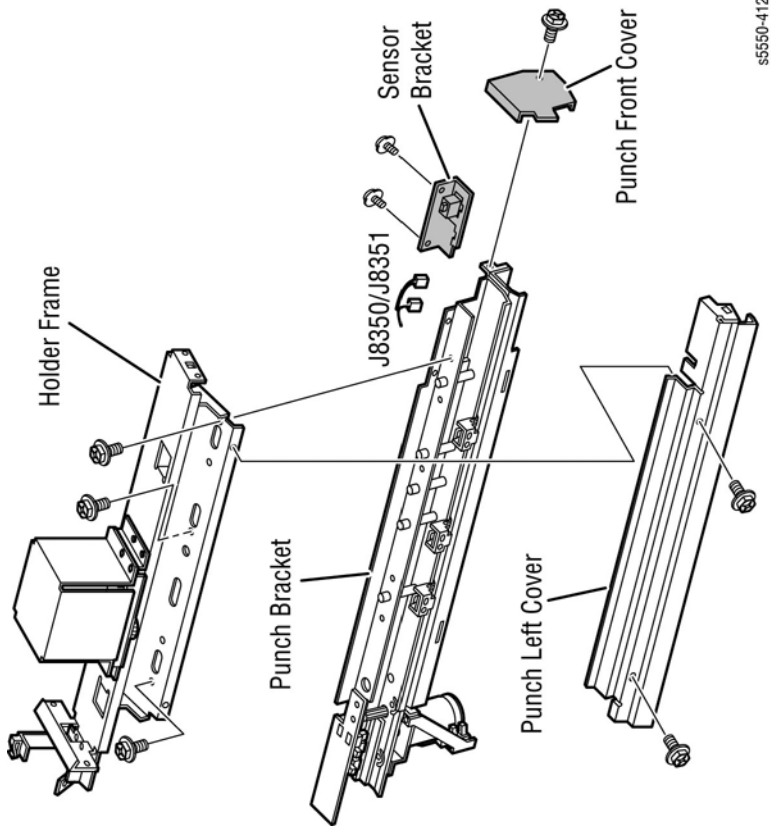


Figure 1 Removing the Punch Bracket Assembly

## REP 25.40 Punch Motor Bracket Assembly

Parts List on PL 25.7 Item 14

### Removal

1. Remove the Punch (REP 25.36).
2. Disconnect the connector (J8345) from the Punch Motor. Use care as two pins are exposed when this connector is removed.
3. Disconnect the connector (J8349) from the Punch Motor Encoder Sensor.
4. Remove the harness connected to the motor and sensor from the clamp.
5. Remove the two Phillips-head screws securing the Punch Motor Assembly to the Punch Frame and remove.

## REP 25.41 Punch Hole Select, Punch Front and Home Sensors

### Parts List on PL 25.7 Item 15

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Slide the Punch to the rear.
3. Remove the Phillips-head screw securing the bracket.

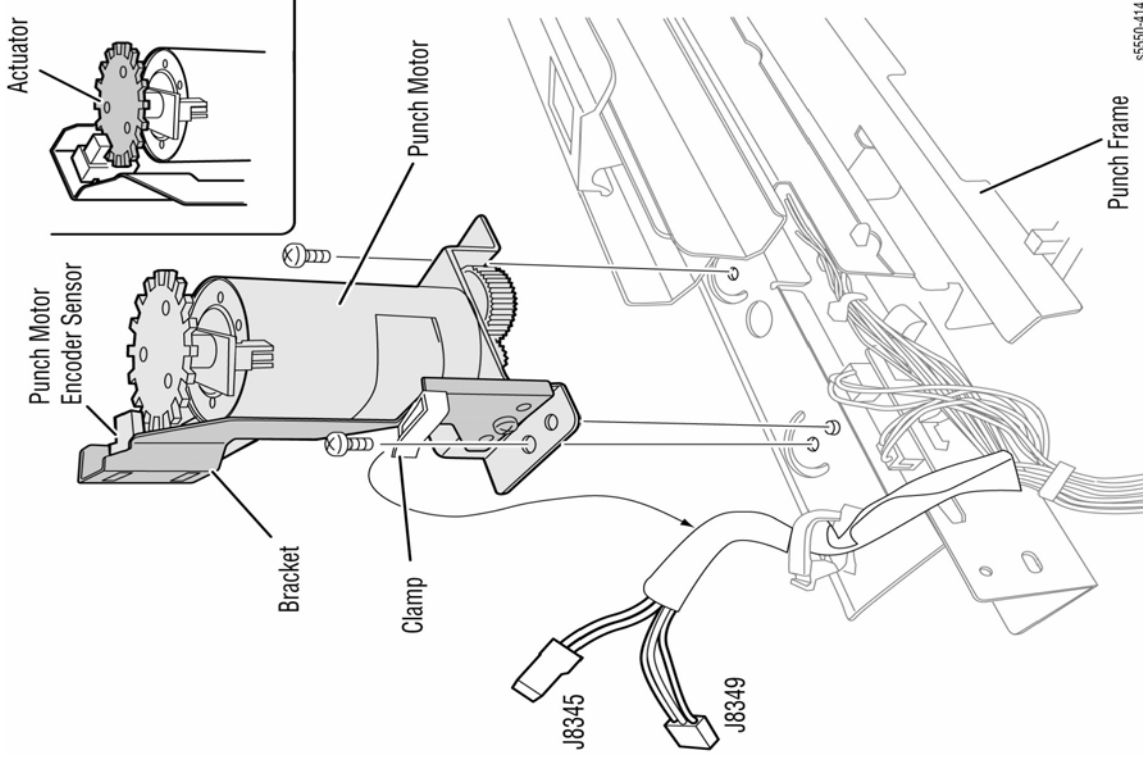


Figure 1 Removing the Punch Motor Bracket Assembly

#### Replacement

Engage the gears of the motor to the Punch Frame.

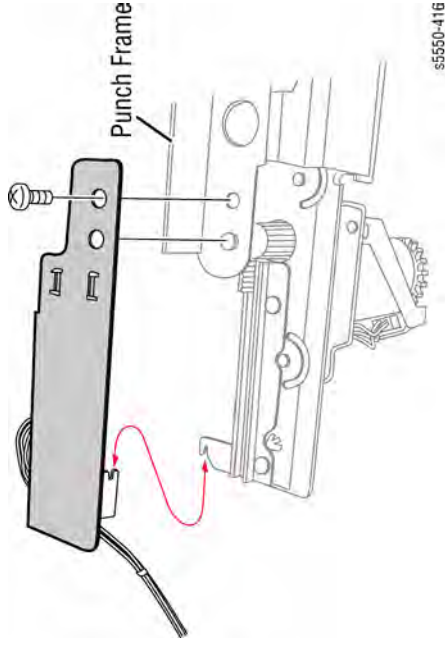
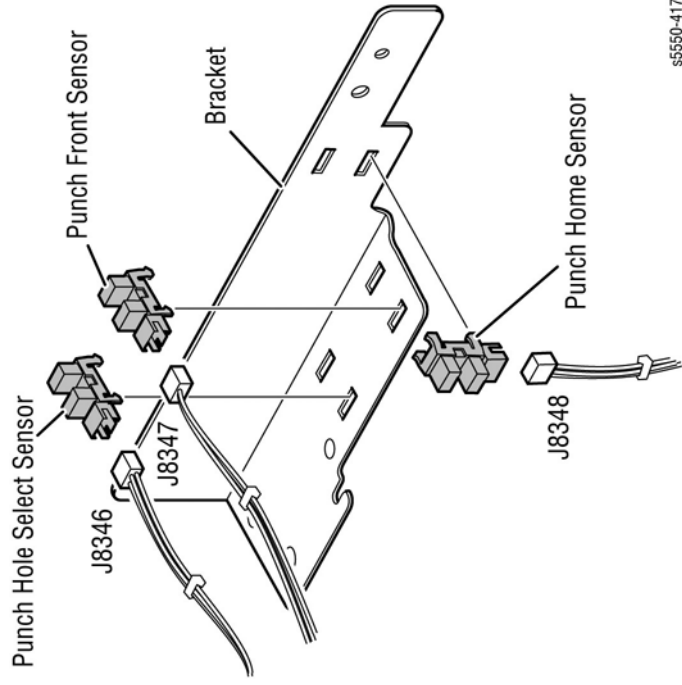


Figure 1 Removing the screw

4. Disconnect the connector (J8346) from the Punch Hole Select Sensor, connector (J8347) from the Puncher Front Sensor, or connector (J8348) from the Puncher Home Sensor.
5. Release the hooks of the sensor to remove the sensor from the bracket.



**Figure 2 Removing the Punch Hole Select, Punch Front and Home Sensors**

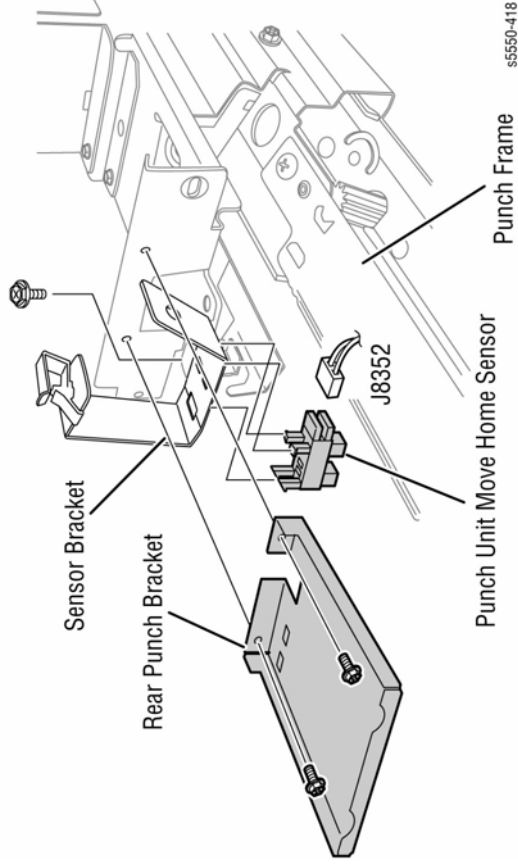
### Replacement

When installing the bracket, engage each notch of the bracket and the Punch Frame. Then tighten the screw while pushing the bracket toward the set screw.

## REP 25.42 Punch Unit Move Home Sensor Parts List on PL 25.7 Item 17

### Removal

1. Remove the Finisher Top Cover (REP 25.17).
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the two screws securing the Rear Punch Bracket and remove the bracket.
4. Remove the one screw securing the Sensor Bracket.
5. Disconnect the connector (J8352) from the Punch Unit Move Home Sensor.
6. Release the hooks of the sensor to remove the sensor from the bracket.



**Figure 1 Removing the Punch Unit Move Home Sensor**

## REP 25.43 Finisher Punch Box Set Sensor

Parts List on PL 25.7 Item 21

### Removal

1. Open Door G.
2. Remove the Punch Waste Box.
3. Reach in through the front and release the hooks to remove the sensor.
4. Disconnect the harness from the sensor and remove it from the Finisher.

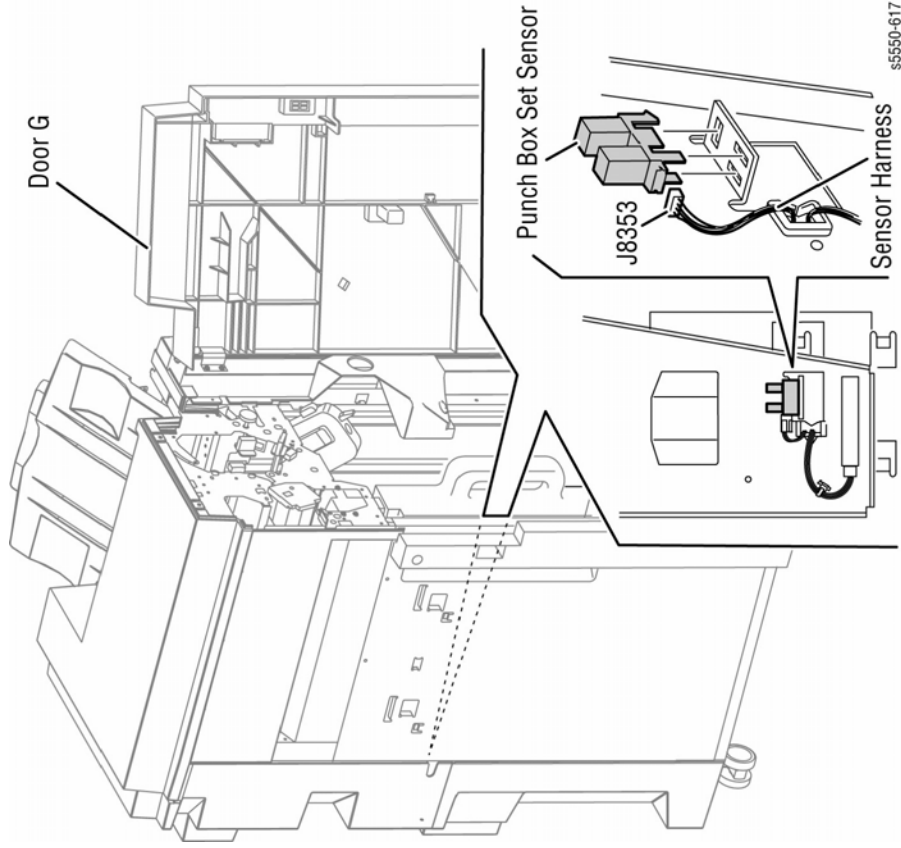


Figure 1 Removing the Finisher Punch Box Set Sensor

## REP 25.44 Finisher Stapler Unit

Parts List on PL 25.8 Item 1

### Removal

1. Remove the Front Door (Door G) (REP 25.19).
2. Remove the Stapler Cartridge.

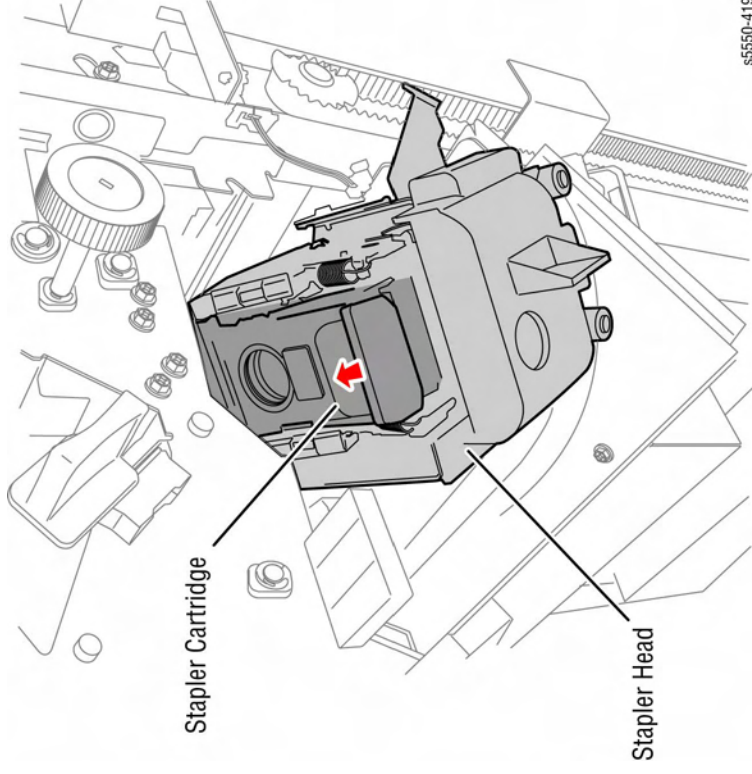


Figure 1 Removing the Stapler Cartridge

3. Remove the Upper Rear Cover (REP 25.15).
4. Remove the Lower Rear Cover (REP 25.16).

- Loosen the four screws securing the Finisher Main PWB Cover and remove it in the direction of the arrow.

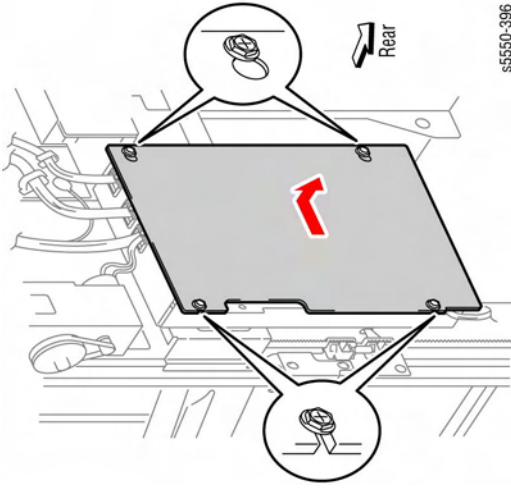
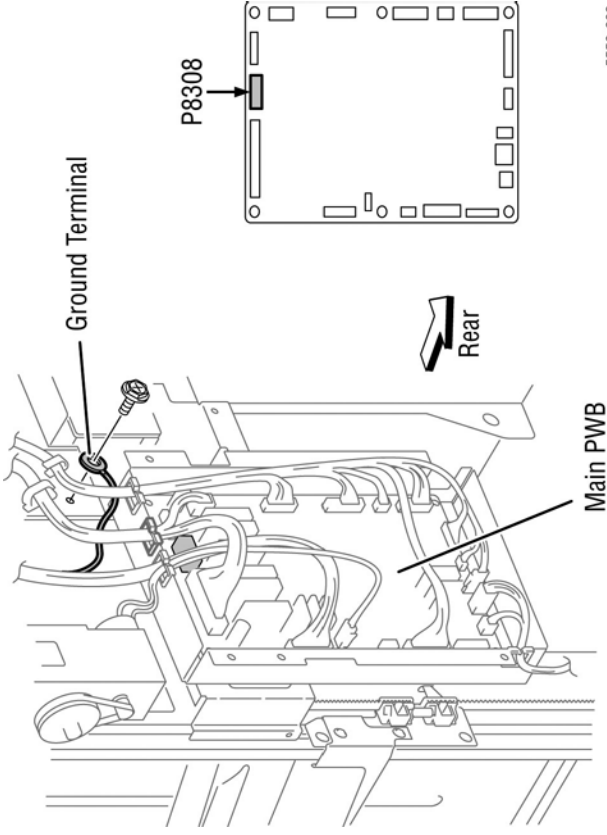


Figure 2 Removing the screws and the Finisher Main PWB Cover

s5550-396

- Disconnect the connector (P8308) from the Finisher Main PWB.
- Remove the one screw securing the ground wire of the Staple Harness.



Main PWB

s5550-603

Figure 3 Disconnecting the connector and removing the screw

8. Release the harness from the clamp.
9. Disconnect J8327 and J8326 from the Upper Limit and No Paper Sensors.
10. Release the harness from the clamp on the underside of the Stapler Unit.
11. Remove the two screws each on the front and rear securing the Stapler Unit.
12. Move the Stapler in the direction of the arrow to disengage the hooks from the frame and remove the Stapler from the front.

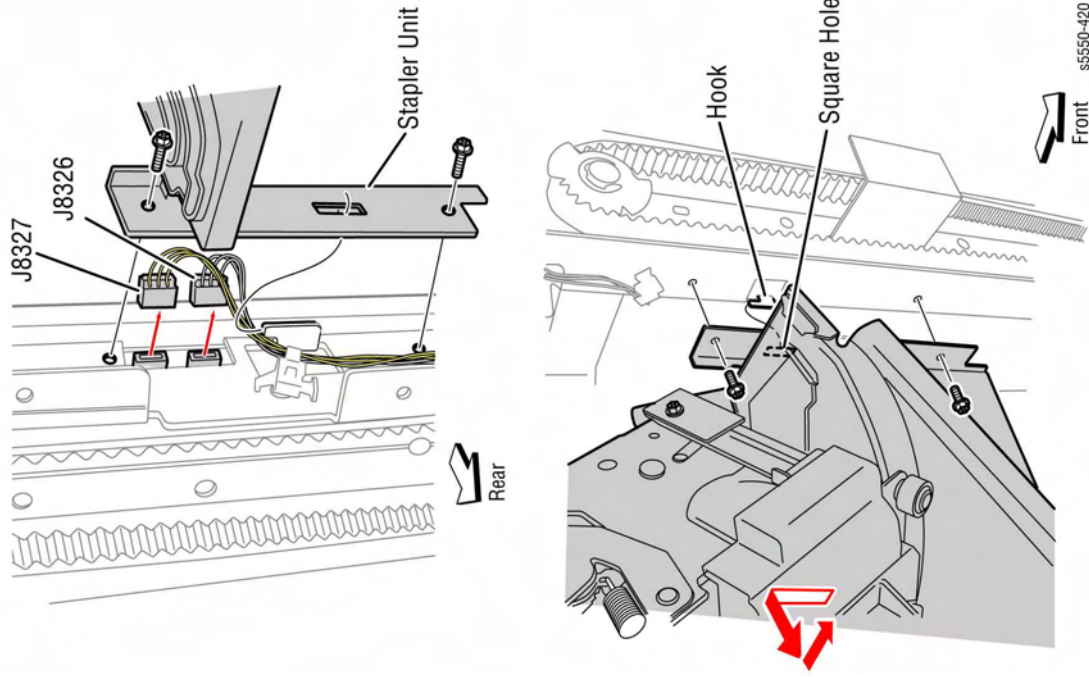


Figure 4 Removing the Finisher Stapler Unit

## REP 25.45 Stapler Assembly

### Parts List on PL 25.8 Item 2

#### Removal

1. Open Door G.
2. Move the Stapler Head to the front.
3. Remove the Staple Cartridge.
4. Remove the one screw securing the Stapler Cover.
5. Disconnect the two connectors (J8356 and J8357) from the Staple Head and the connector (J8354) from the Staple Move Position Sensor.
6. Remove the two screws on the sides of the Staple Head securing the Stapler Holder to the Upper Carriage. At the same time, detach the ground terminal.

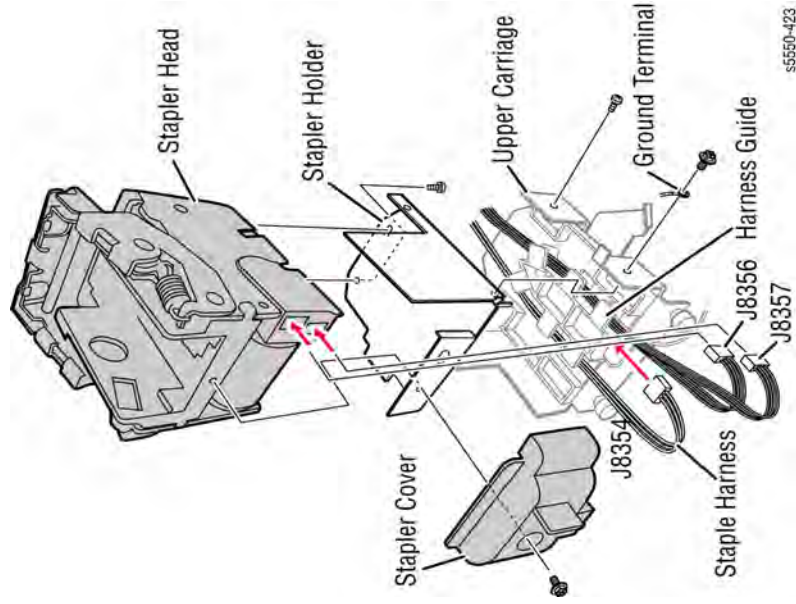


Figure 1 Removing the Stapler Assembly

#### Replacement

Make sure the harness is not pinched between the Carriage and Holder.



## REP 25.46 Stapler Lower Carriage Assembly

### Parts List on PL 25.8 Item 2

#### Removal

1. Remove the Stapler Unit (REP 25.44).
2. Remove the five screws securing the Rail Base to the Stapler Frame.
3. Unplug the harness from the Lower Carriage Motor.
4. Remove the screw securing the staple harness guide to the Lower Carriage Assembly.

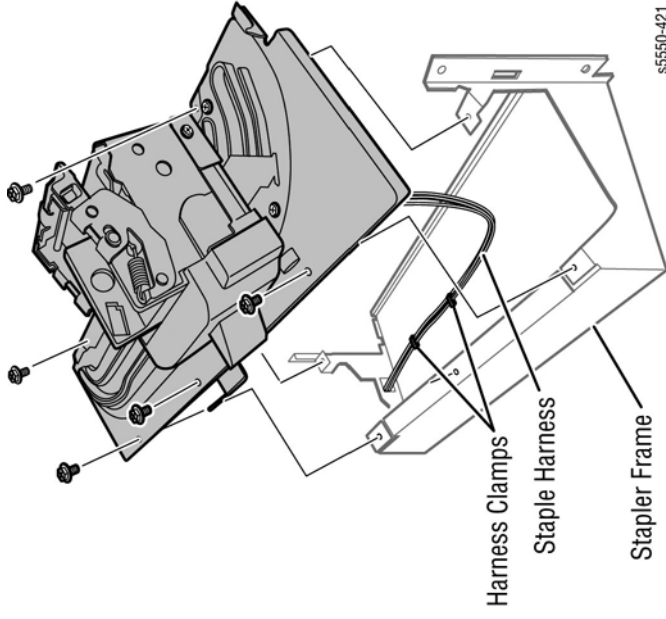


Figure 1 Unplug the harness and remove the screw

5. Disconnect the motor.
6. Release the harness from the Stapler Lower Carriage Assembly.
7. Remove the two screws securing the Lower Carriage.

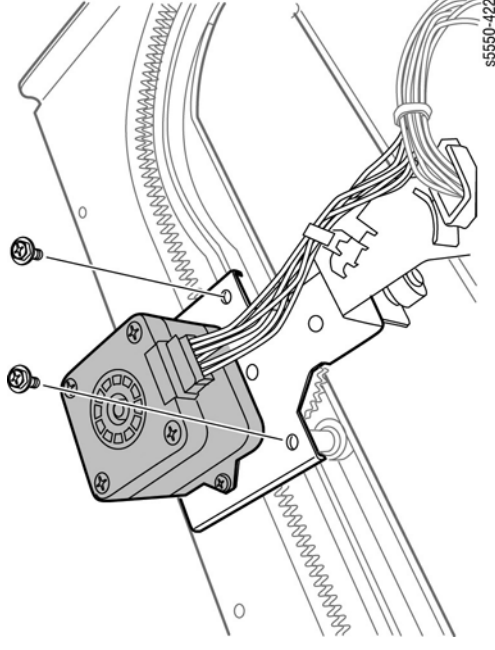


Figure 2 Removing the Stapler Lower Carriage Assembly

## REP 25.47 Stapler Upper Rail

Parts List on PL 25.8 Item 10

### Removal

1. Remove Stapler Unit (REP 25.44).
2. Remove the Lower Carriage Assembly (REP 25.46).
3. Separate the carriage halves and remove from the rail.
4. Remove the six screws securing the Upper Rail to the Rail Base.

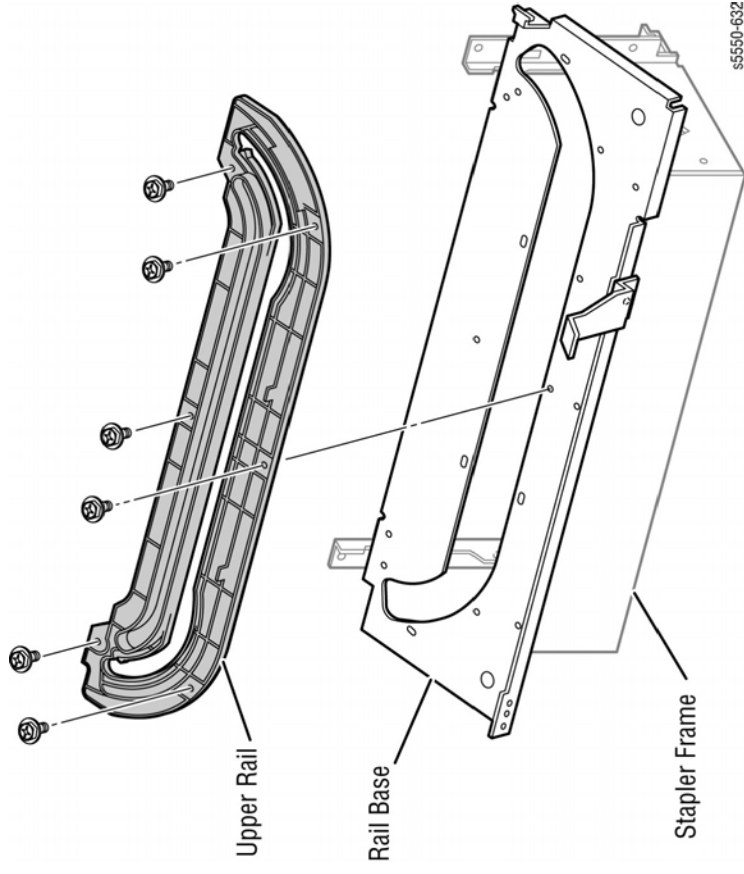


Figure 1 Removing the Stapler Upper Rail

## REP 25.48 Stapler Move Position Sensor

Parts List on PL 25.8 Item 5

### Removal

1. Remove the Stapler Assembly (REP 25.45).
2. Remove two screws holding the stapler harness guide to the carriage assembly.
3. Shift plate to the front approximately 1/8" and remove.
4. Release the hooks of the Stapler Move Position Sensor from the Stapler Harness Guide to remove the Sensor.

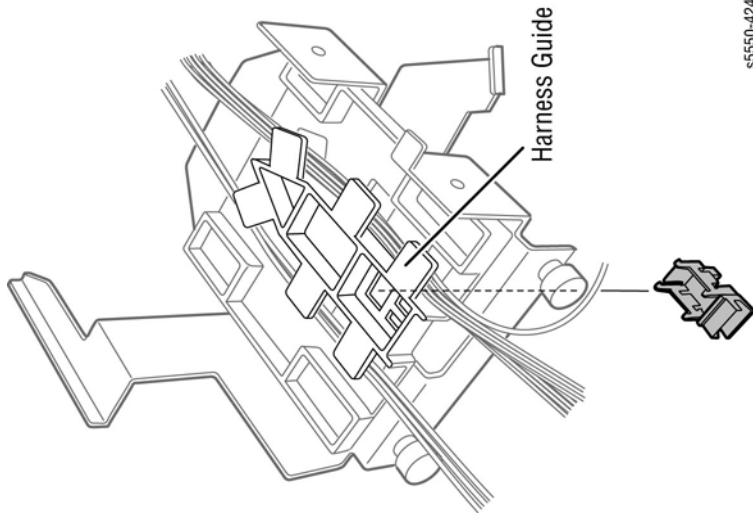


Figure 1 Removing the Stapler Move Position Sensor



# REP 25.49 Finisher Eject Chute Assembly

## Parts List on PL 25.9 Item 1

### Removal

1. Remove the Eject Clamp Bracket (REP 25.53).
2. Disconnect the Sub Paddle Solenoid connector (J8340) from the Main Drive Harness.
3. Release the harness of the Sub Paddle Solenoid from the two clamps.

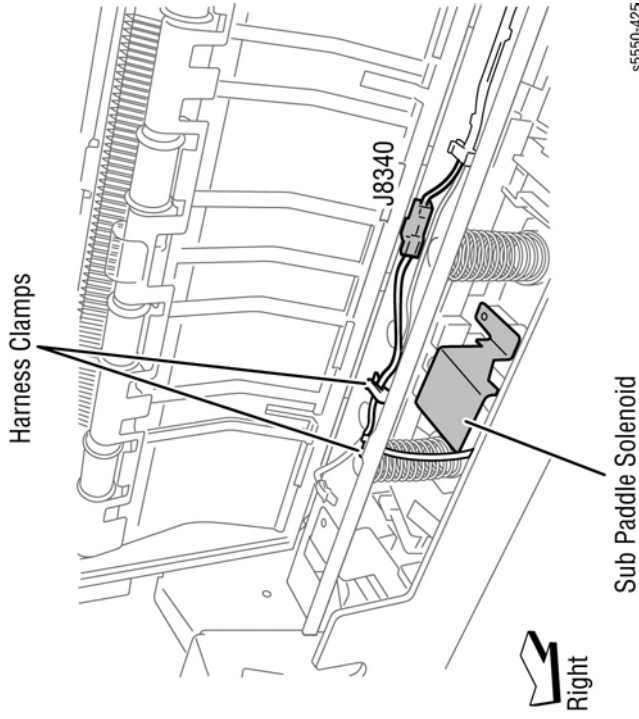


Figure 1 Disconnecting the connector and releasing the harness

4. While pushing the Lever in the direction of the arrow, remove the screw securing the Eject Cam Follower to the Eject Pinch Shaft to remove the Lever.
5. Remove the E-ring securing the Eject Pinch Shaft on the rear of the Finisher.
6. Remove the Bearing on the rear side.

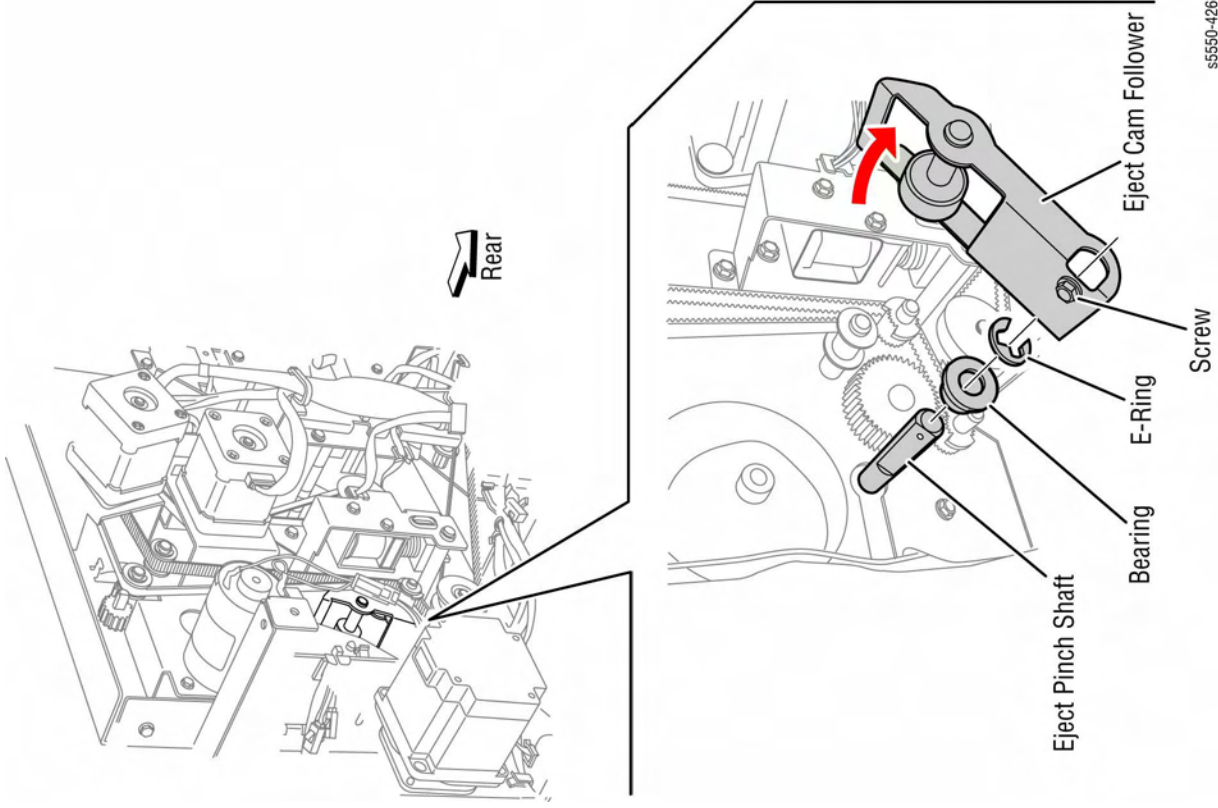
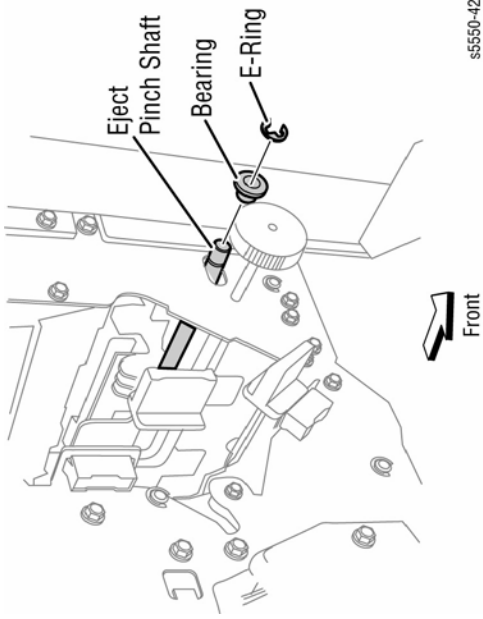


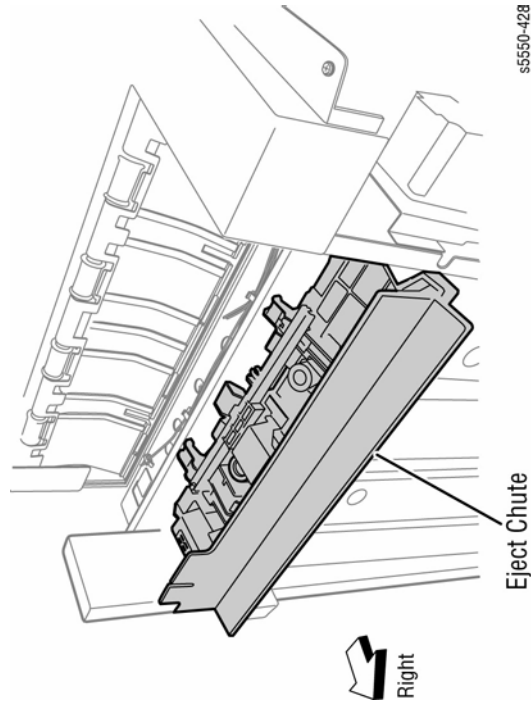
Figure 2 Removing the E-ring and Bearing (Rear Side)

7. Remove the E-ring securing the Eject Pinch Shaft on the front of the Finisher.
8. Remove the Bearing on the front side.



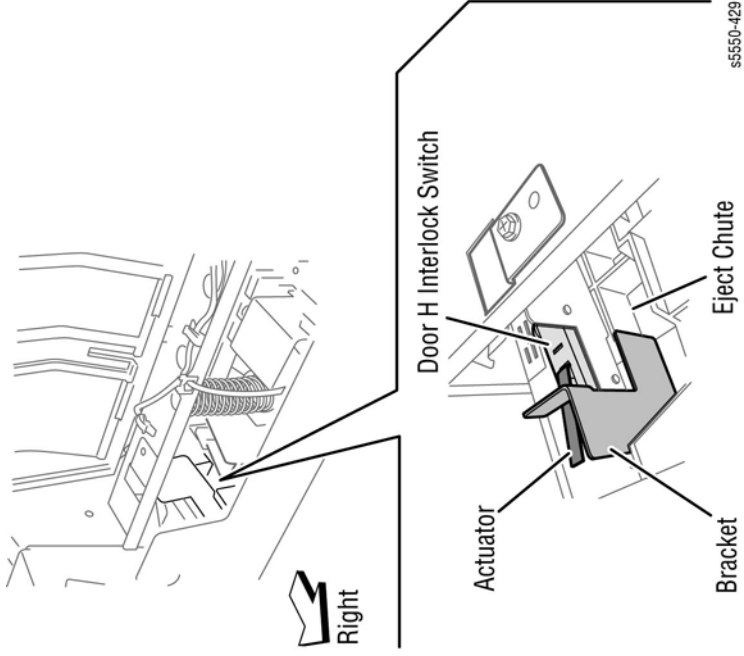
**Figure 3 Removing the E-ring and Bearing (Front Side)**

9. While pulling the Eject Chute toward you from the right side of the Finisher, tilt it slightly to remove the front end of the Eject Pinch Shaft from the hole in the front of the frame. Pull the Eject Pinch Shaft from the rear enough to allow the Eject Chute to clear the frame.
10. Remove the Eject Chute from the Finisher.



**Figure 4 Removing the Eject Chute**

11. Remove the Sub Paddle Solenoid (REP 25.50 steps 4 and 5).
12. Remove the spring.
13. Lift the Eject Pinch Shaft from the Eject Chute.



**Figure 5 Removing the Finisher Eject Chute Assembly**

### Replacement

Make sure the Door H Interlock Switch actuator, pictured above, is placed under the bracket on the Eject Chute.

## REP 25.50 Sub Paddle Solenoid

### Parts List on PL 25.9 Item 3

#### Removal

1. Remove the Stacker Upper Tray (REP 25.25).
2. Disconnect the connector (J8340) of the Sub Paddle Solenoid from the Main Drive harness.
3. Release the harness of the Sub Paddle Solenoid from the two harness clamps.

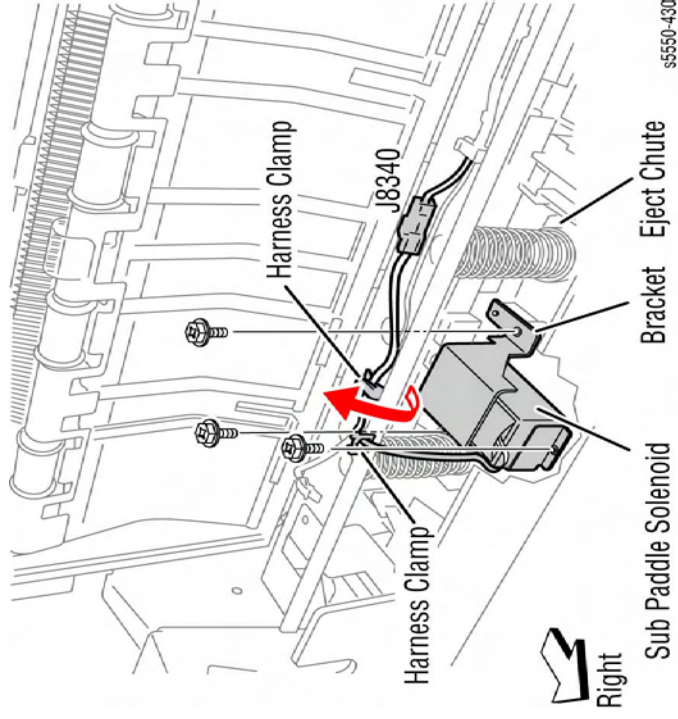


Figure 1 Disconnecting the connector and releasing the harness

4. Remove the three screws securing the Solenoid Bracket to the Eject Chute and remove it in the direction of the arrow.
5. Remove the two screws securing the Solenoid to the Bracket.

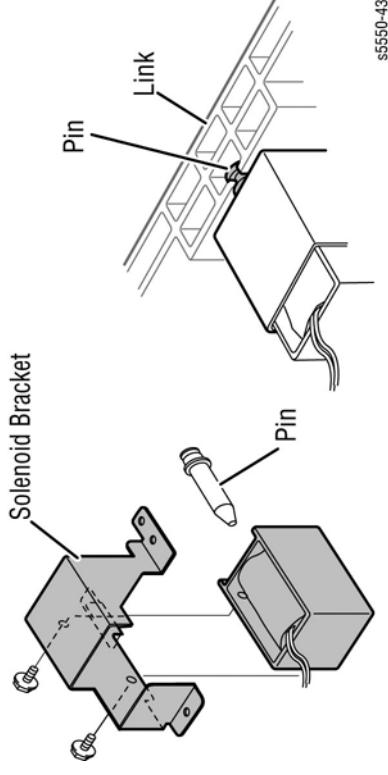


Figure 2 Removing the Sub Paddle Solenoid

## REP 25.51 Cyclone Paddles

### Parts List on PL 25.9 Item 6

#### Removal

The Eject Chute has two Cyclone Paddles. The removal procedures are the same for both.

1. Remove the Stacker Upper Tray (REP 25.25).
2. Remove the Cyclone Paddles from the Pulley T16 shaft on the Eject Chute by hand.

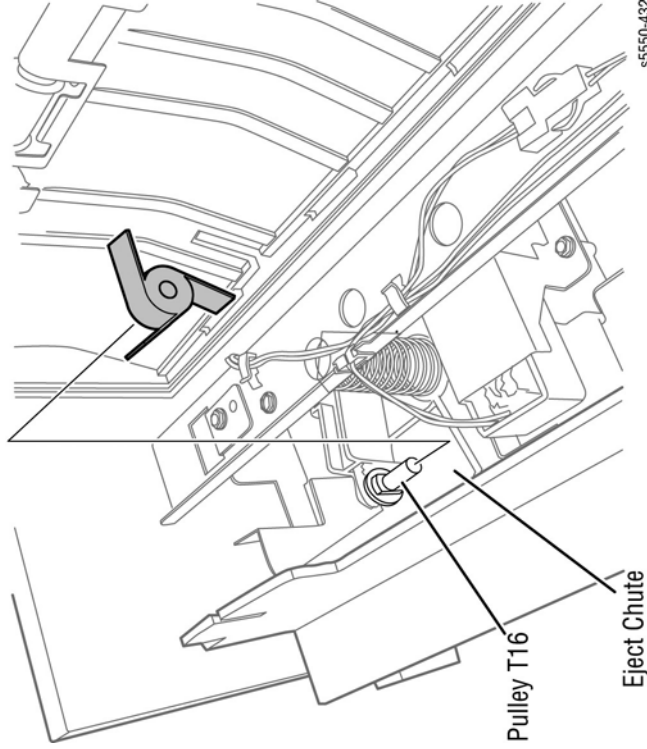


Figure 1 Removing the Cyclone Paddles

#### Replacement

After installation, make sure that the Cyclone Paddles do not contact the Eject Chute when rotated by using Knob 2C.

## REP 25.52 Cyclone Paddle Drive Shaft

### Parts List on PL 25.9 Item 9

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15)
3. Remove the Stacker Upper Tray (REP 25.25).
4. Loosen the set screw securing the Knob 2C on the shaft.
5. Pull the Knob 2C off the Cyclone Paddle Drive Shaft.
6. Remove the two E-rings securing the Cyclone Paddle Drive Shaft on the front.
7. Remove the Bearing.

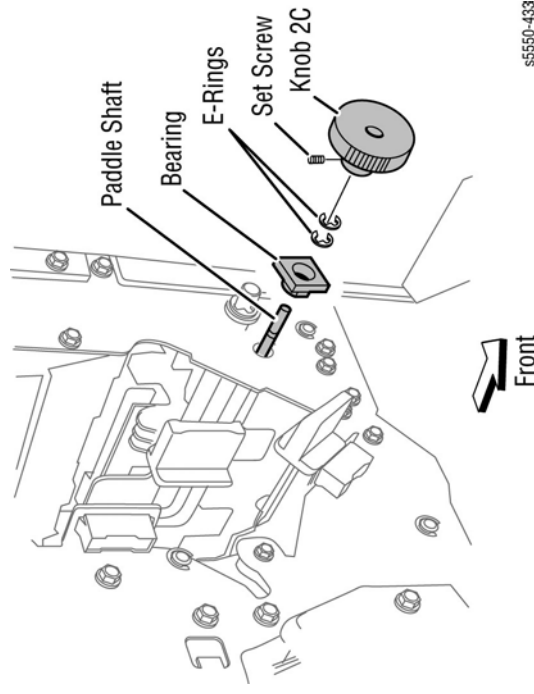
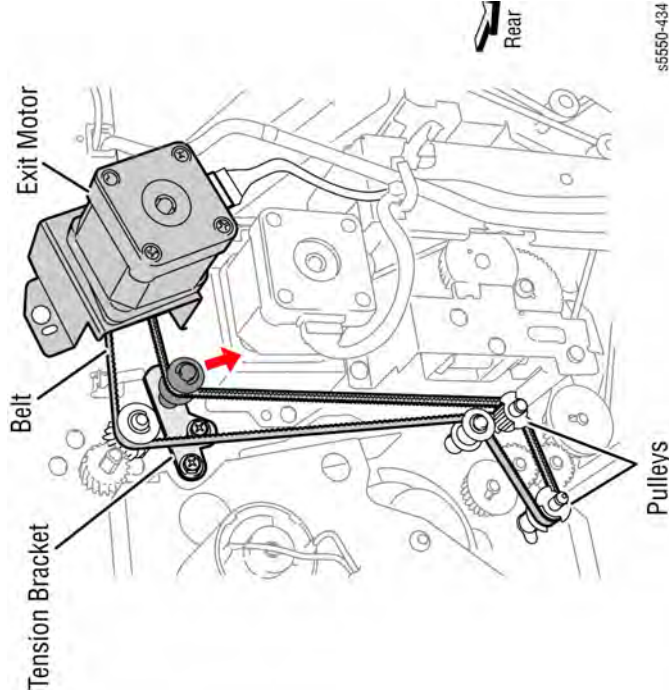


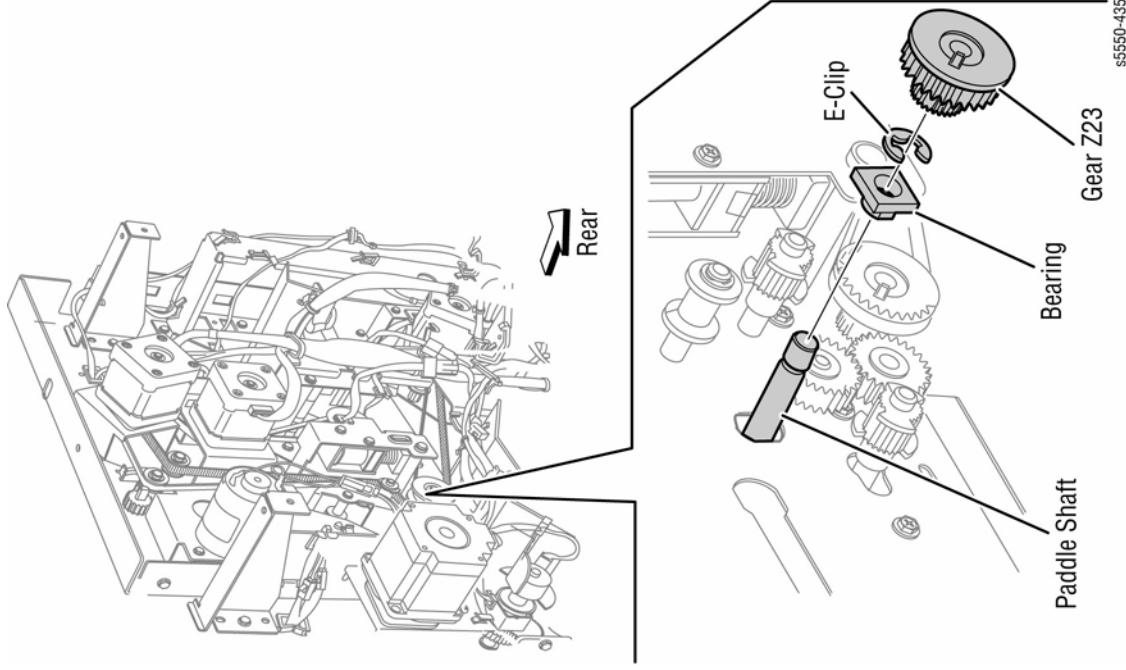
Figure 1 Removing the E-ring and Bearing

8. Loosen the two screws securing the Tension Bracket on the rear.
9. Move the Tension Bracket in the direction of the arrow so the Belt tension decreases and remove the Belt from the pulleys.



**Figure 2 Loosening the screws and moving the Tension Bracket**

10. Release the hook of Gear Z23 attached to the Paddle Shaft and remove.
11. Remove the E-clip.
12. Remove the Bearing.
13. Move the Cyclone Paddle Drive Shaft to the rear to remove the front of the Paddle Shaft from the hole in the frame, then remove the Cyclone Paddle Drive Shaft from the Finisher.



**Figure 3 Removing the Cyclone Paddle Drive Shaft**

### Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, do not move the Tension Bracket.

## REP 25.53 Eject Clamp Bracket

### Parts List on PL 25.9 Item 10

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Disconnect the Eject Clamp Motor connector (J8339) from the harness.
3. Disconnect the Eject Clamp Home Sensor connector (J8324).
4. Remove the three screws securing the Eject Clamp Bracket to the Finisher. If necessary, release the cable clamp from the frame to access the screws.
5. Remove the Eject Clamp Bracket by rotating the Gear-Cam Z70 so the actuator on the Eject Clamp Bracket is retracted from the recess of the Eject Clamp Home Sensor.

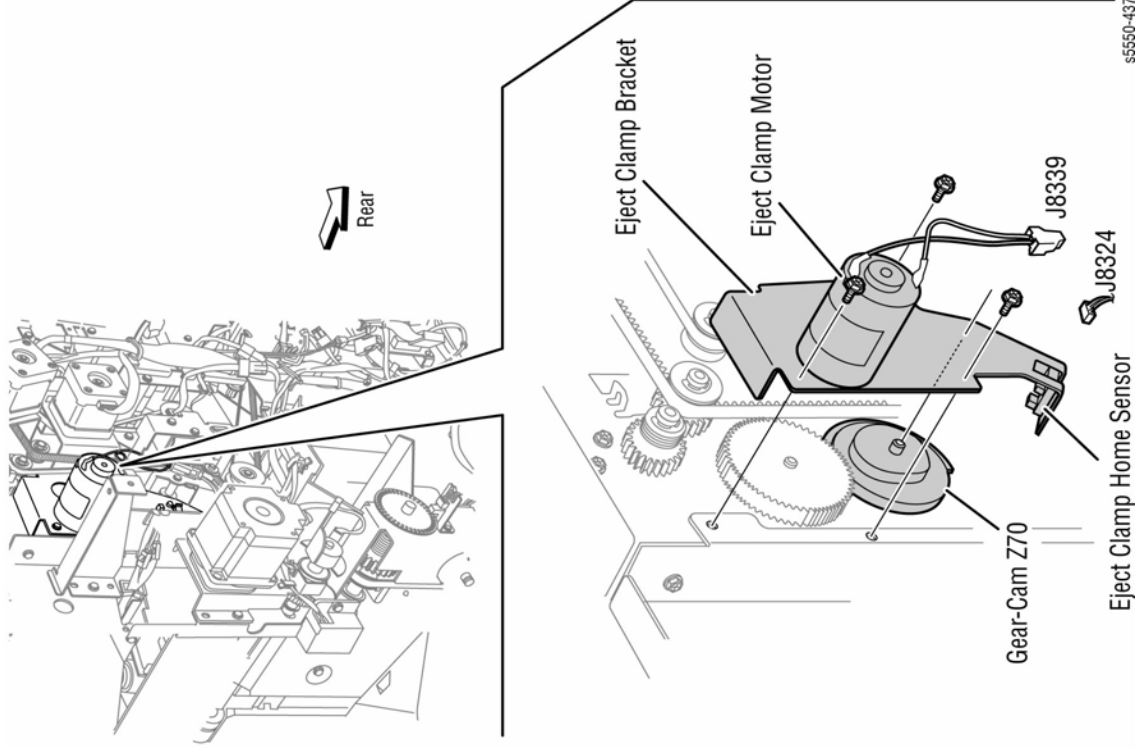


Figure 1 Removing the Eject Clamp Bracket

#### Replacement

When installing the Eject Clamp Bracket, rotate the Gear-Cam Z70 so the actuator on the Eject Clamp Bracket is retracted from the recess of the Eject Clamp Home Sensor.



## REP 25.54 Eject Clamp Motor

Parts List on PL 25.9 Item 11

### Removal

1. Remove the Eject Clamp Bracket (REP 25.53).
2. Remove the two screws securing the Eject Clamp Motor to the Eject Clamp Bracket and remove the motor.

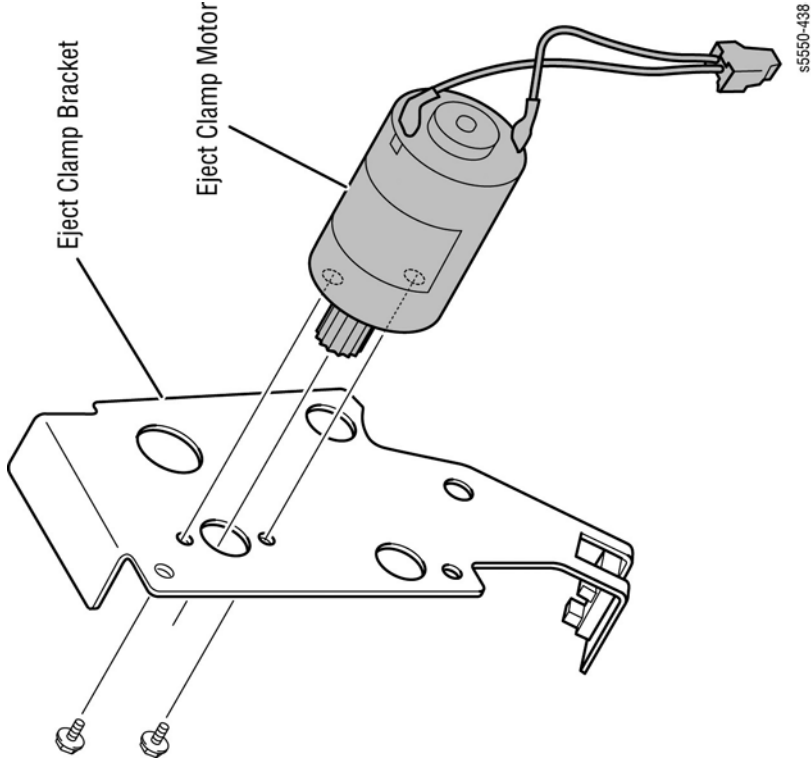


Figure 1 Removing the Eject Clamp Motor

## REP 25.55 Eject Clamp Home Sensor

Parts List on PL 25.9 Item 13

### Removal

1. Remove the Eject Clamp Bracket (REP 25.53).
2. Release the hooks of the Eject Clamp Home Sensor to remove it from the Eject Clamp Bracket.

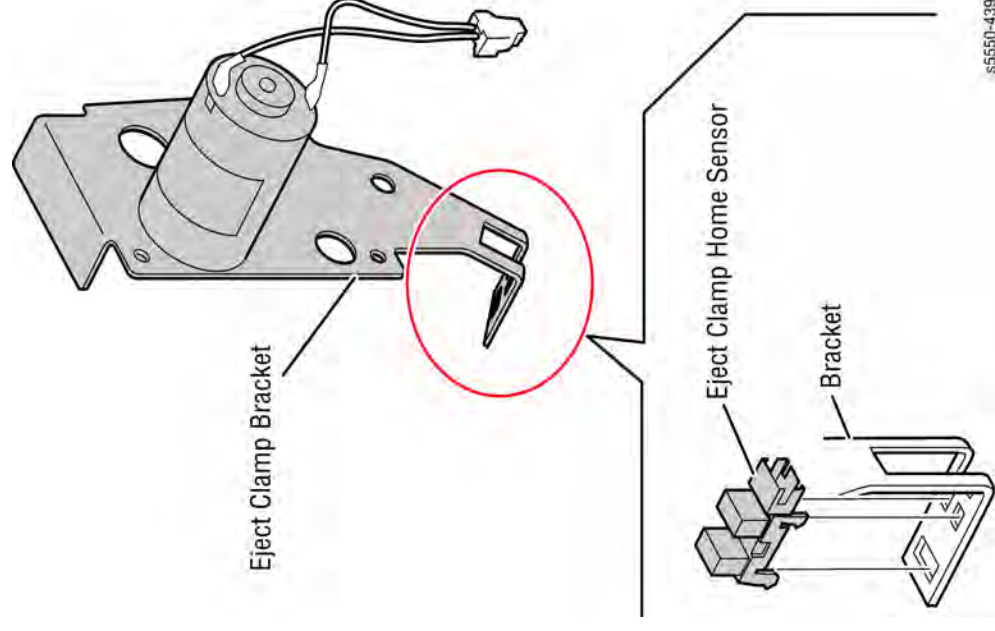


Figure 1 Removing the Eject Clamp Home Sensor

## REP 25.56 Door H Interlock

### Parts List on PL 25.9 Item 23

#### Removal

1. Remove the Stacker Upper Tray (REP 25.25).
2. Disconnect the Door H Interlock connector (J8364) from the harness.
3. Remove the one screw securing the Switch Bracket to the Tie Plate.
4. Remove the Switch Bracket from the square hole on the Tie Plate.
5. Remove the two screws securing the Door H Interlock to the Bracket.

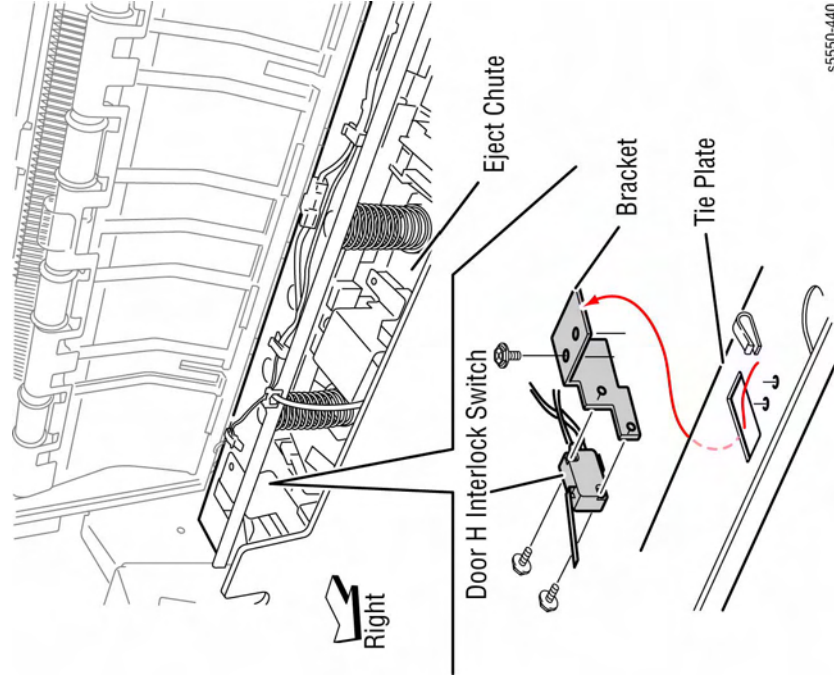


Figure 1 Removing the Door H Interlock

#### Replacement

Install the Door H Interlock so the actuator is placed under the Interlock Bracket on the Eject Chute.

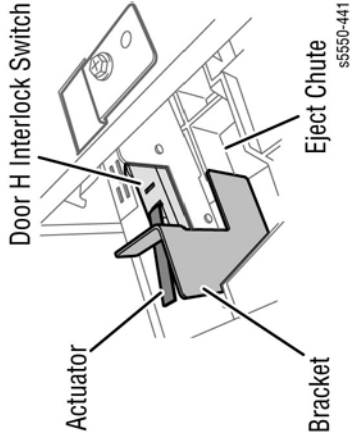


Figure 2 Installing the Door H Interlock



## REP 25.57 Finisher Compiler Tray

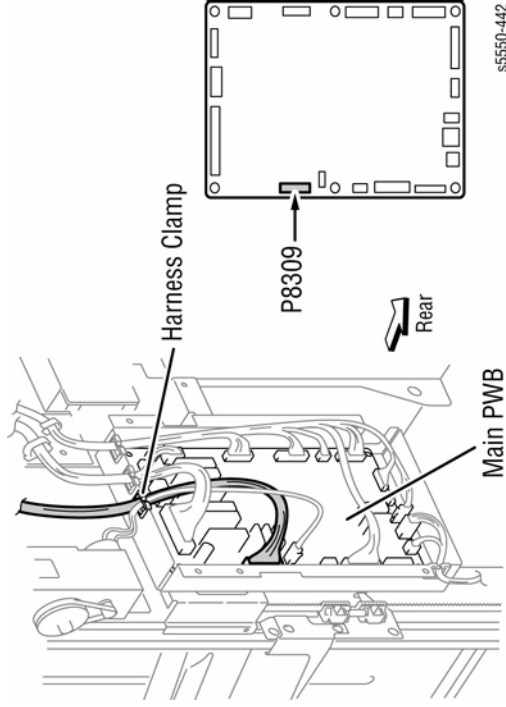
### Parts List on PL 25.10 Item 1

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Stacker Upper Tray (REP 25.25).
4. Remove the Eject Cover (REP 25.26).
5. Remove the Stapler Unit (REP 25.44).
6. Remove the Eject Chute (REP 25.49).
7. Remove the Eject Motor Bracket (REP 25.62).

**NOTE:** There is an inline connector in the Compiler Tray harness located inside the Finisher at the rear. If you disconnect this connector, skip Steps 10 and 11.

8. Remove the Finisher Stacker Cover (REP 25.96).
9. Release the Compiler harness from the clamp and disconnect.



**Figure 1 Disconnecting the connector and releasing the harness**

10. Remove the screw, located inside the Finisher, securing the center of the Compiler Tray to the frame.



**Figure 2 Removing the screw**

11. Remove the Copper ground spring.
12. Release the Compiler Tray locks by pushing the bosses on the front and rear toward the inside of the Finisher and remove the Compiler Tray in the direction of the arrow.

## REP 25.58 Front/Rear Tamper Home Sensors

### Parts List on PL 25.10 Item 2

#### Removal

The removal procedures for both Tamper Home Sensors are identical. The removal procedure for the Front Tamper Home Sensor is described here.

1. Remove the Finisher Stacker Cover (REP 25.96).
2. Disconnect the Front Tamper Home Sensor connector (J8360). For the Rear Tamper Home Sensor, disconnect connector (J8361).
3. Release the hooks of the Sensor from the Compiler Tray.

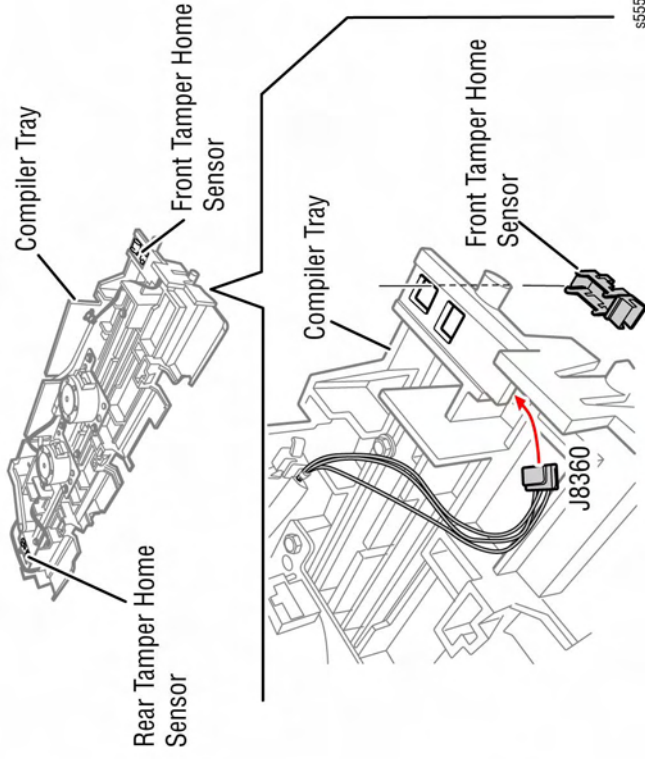


Figure 1 Removing the Front/Rear Tamper Home Sensors

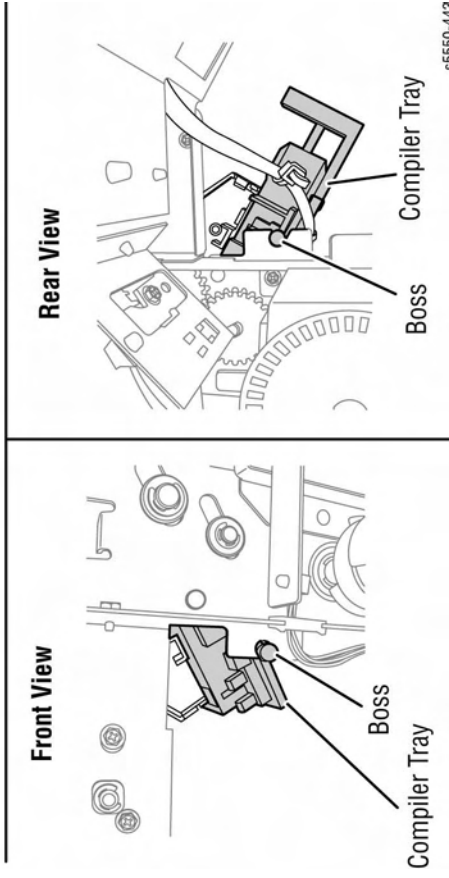
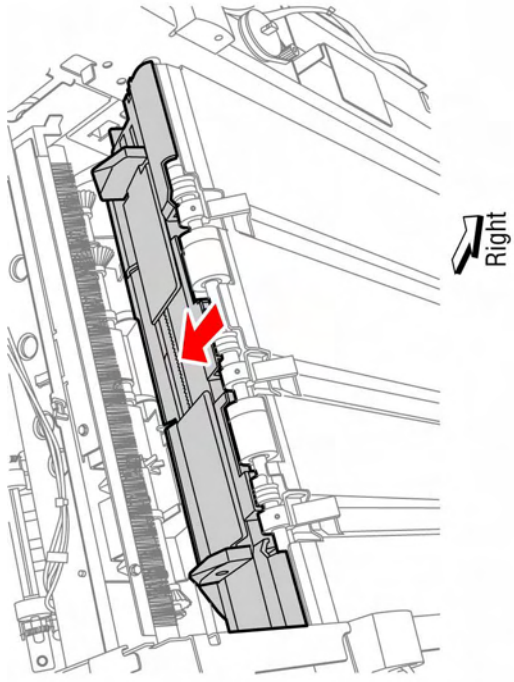


Figure 3 Removing the Finisher Compiler Tray

## REP 25.59 Compiler Tray No Paper Sensor and Actuator

Parts List on PL 25.10 Item 3

### Removal

1. Remove the Compiler Tray (REP 25.57).
2. Disconnect the Compiler Tray No Paper Sensor connector (J8359).
3. Release the hooks of the Compiler Tray No Paper Sensor to remove the Sensor from the Compiler Tray.
4. Remove the Actuator in the direction of the arrow.

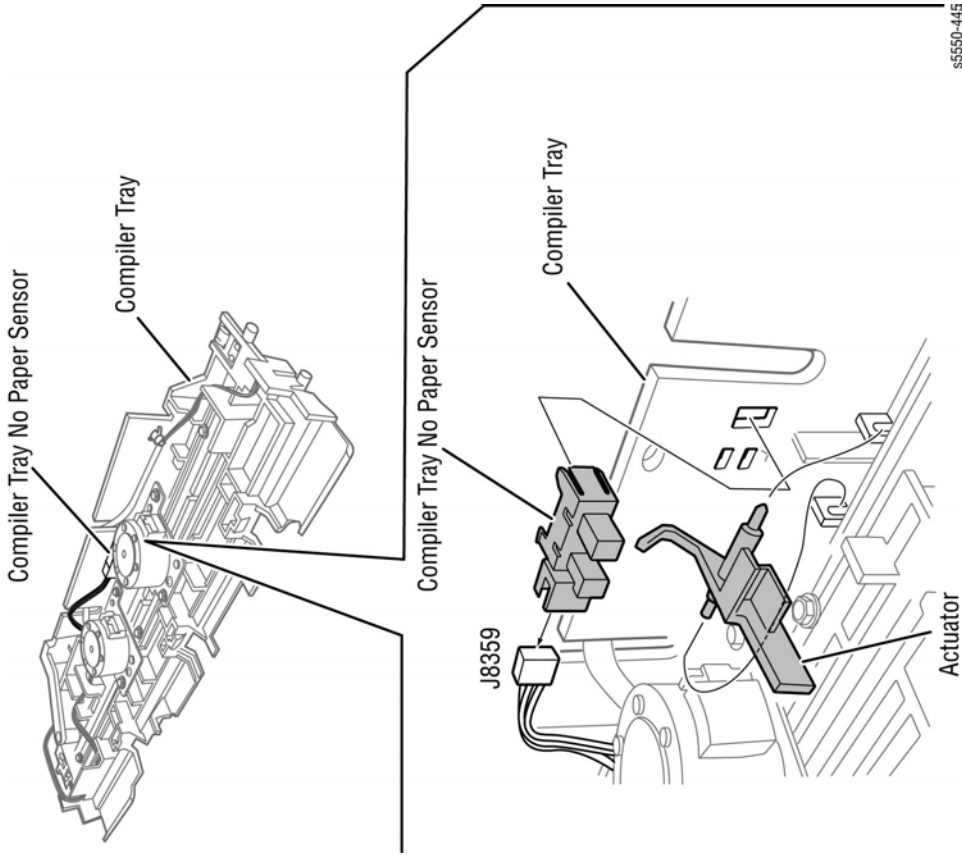


Figure 1 Removing the Compiler Tray No Paper Sensor

## REP 25.60 Eject Roller Shaft

Parts List on PL 25.10 Item 9

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Stacker Upper Tray (REP 25.25).
4. Remove the Eject Clamp Bracket (REP 25.53).
5. Remove the Eject Motor Bracket (REP 25.62).
6. Release the hook of the Gear to remove it from the shaft.
7. Remove the Bearings.
8. Remove the E-ring on the rear.
9. Remove the Bearings.

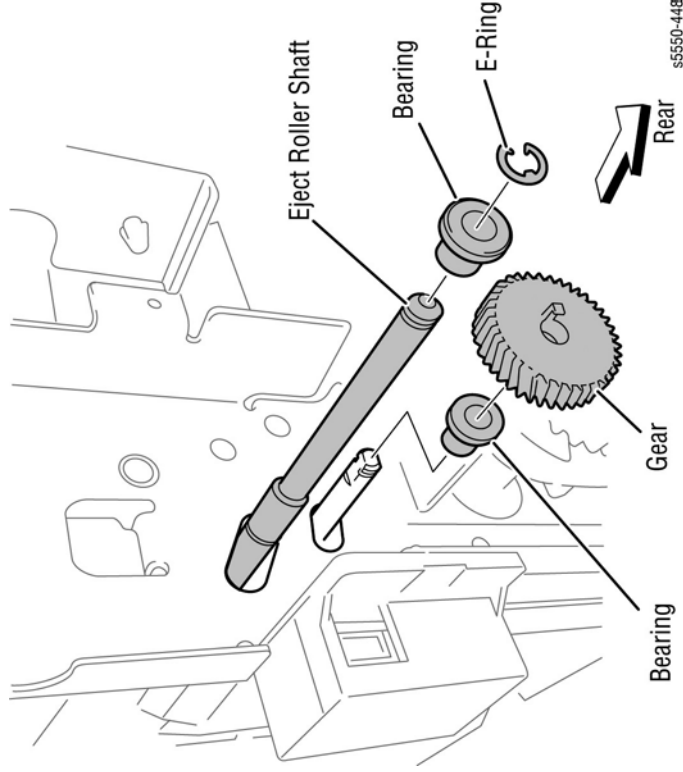


Figure 1 Removing the E-ring and Bearings (Rear Side)

10. Remove the two E-rings on the front securing the Eject Roller Shaft.
11. Remove the two Bearings.

## REP 25.61 Set Clamp Clutch

### Parts List on PL 25.10 Item 15

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Disconnect the Eject Motor connector (J8336).
3. Disconnect the Set Clamp Home Sensor connector (J8325).
4. Release the harness from the clamp.
5. Disconnect the Set Clamp Clutch (Z34) connector (J8338).
6. Release the clutch harness from the clamp.
7. Remove the screw securing the Set Clamp Spring.
8. Turn the Set Clamp Actuator to clear the sensor and remove the actuator from the shaft by releasing the hook.
9. Remove the Clutch Z34.

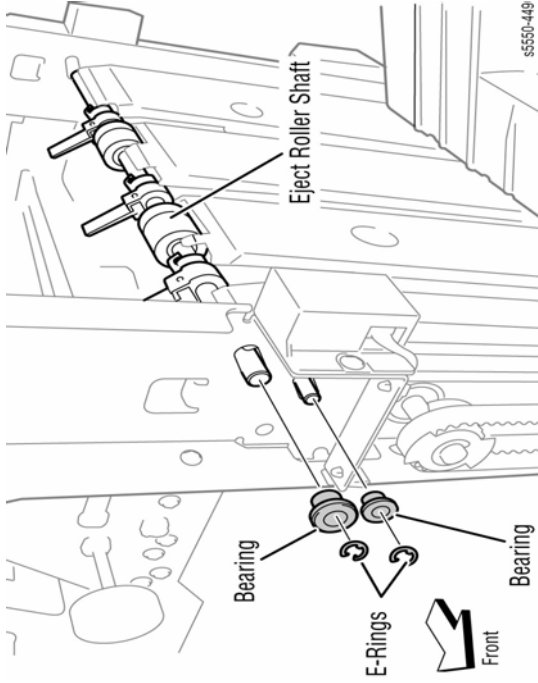


Figure 2 Removing the E-rings and Bearings (Front Side)

12. Remove the Finisher Stack Cover (REP 25.96).
13. Move the Eject Roller Shaft to the rear, then remove the front end of the two shafts from the two holes in the frame. Next, move the Eject Roller Shaft in the direction of the arrow to remove the two shafts from the rear holes and the Finisher.

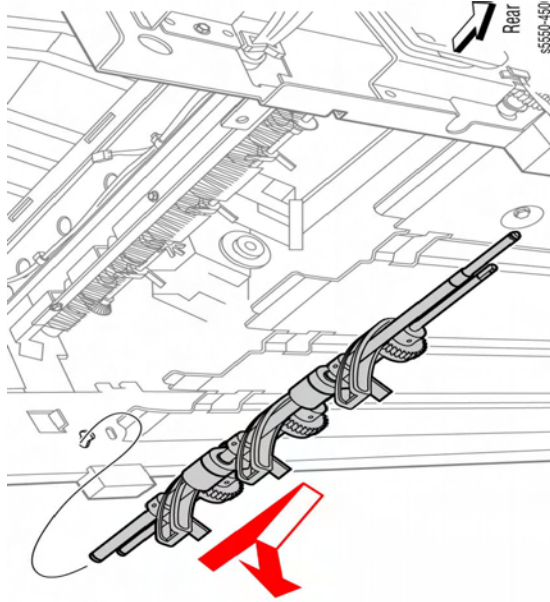


Figure 3 Removing the Eject Roller Shaft

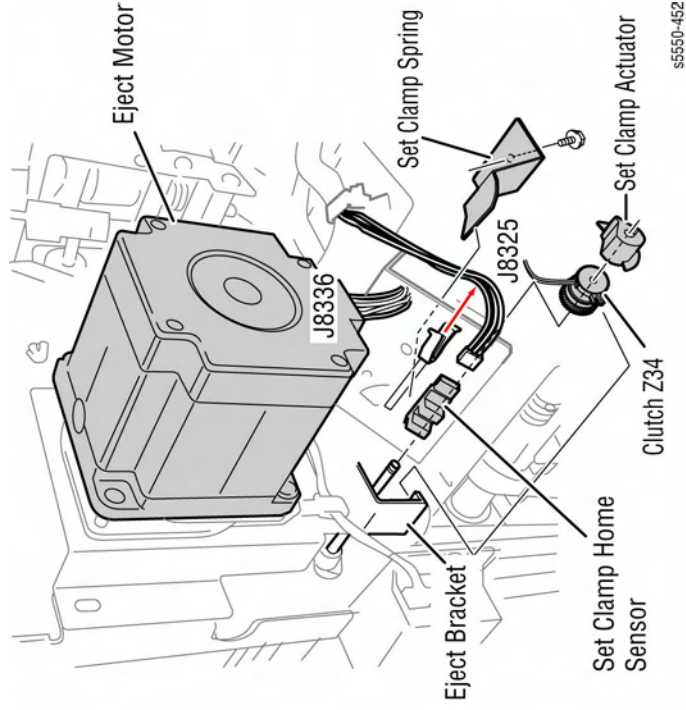


Figure 1 Removing the Set Clamp Clutch

#### Replacement

Fit the clutch stop into the notch of the Eject Bracket at the 12:00 position.

## REP 25.62 Eject Motor Bracket Assembly

Parts List on PL 25.10 Item 17

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Set Clamp Clutch (Clutch Z34) (REP 25.61).
3. Remove, then disconnect the Rear Upper Limit Sensor and remove the harness from the clamps on the Eject Bracket.
4. Remove the three screws securing the Eject Bracket.

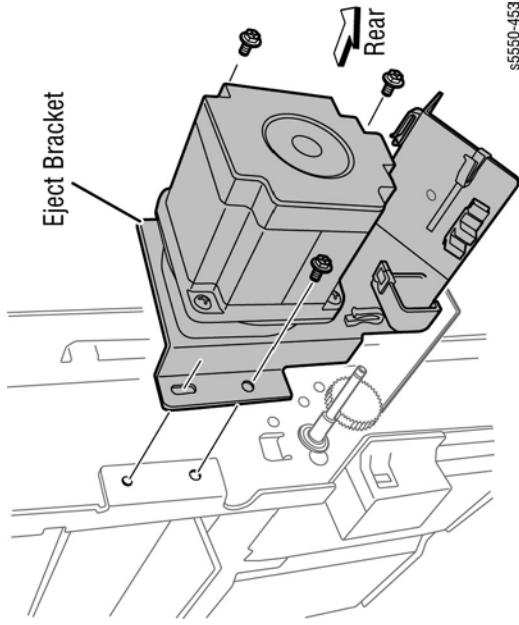


Figure 1 Removing the Eject Motor Bracket Assembly

### Replacement

Fit the notch of the Set Clamp Clutch onto the Eject Bracket.

## REP 25.63 Set Clamp Home Sensor

Parts List on PL 25.10 Item 18

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Disconnect the Set Clamp Home Sensor connector (J8325).
3. Rotate the actuator by hand so the actuator retracts from the recess of the sensor.
4. Release the hooks of the Set Clamp Home Sensor to remove it from the Eject Bracket.

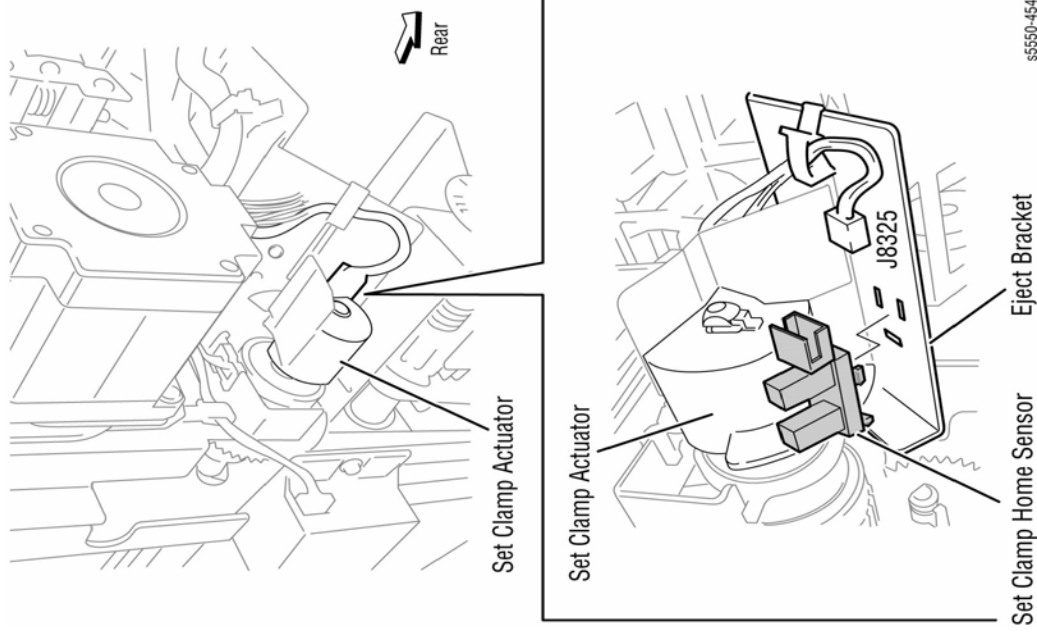


Figure 1 Removing the Set Clamp Home Sensor



## REP 25.64 Compile Exit Sensor

### Parts List on PL 25.11 Item 3

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove Lower Rear Cover (REP 25.16).
4. Remove the Stacker Upper Tray (REP 25.25).
5. Remove the Eject Cover (REP 25.26).
6. Remove the Stapler Unit (REP 25.44).
7. Remove the Eject Clamp Bracket (REP 25.53).
8. Remove the Eject Chute (REP 25.49).
9. Remove the Eject Motor Bracket (REP 25.62).
10. Remove the Compiler Tray (REP 25.57).
11. Remove the Eject Roller Shaft (REP 25.60).
12. Remove the Lower Chute, Exit R (REP 25.66).
13. Loosen the two screws securing the Exit Motor Belt Tension Bracket.

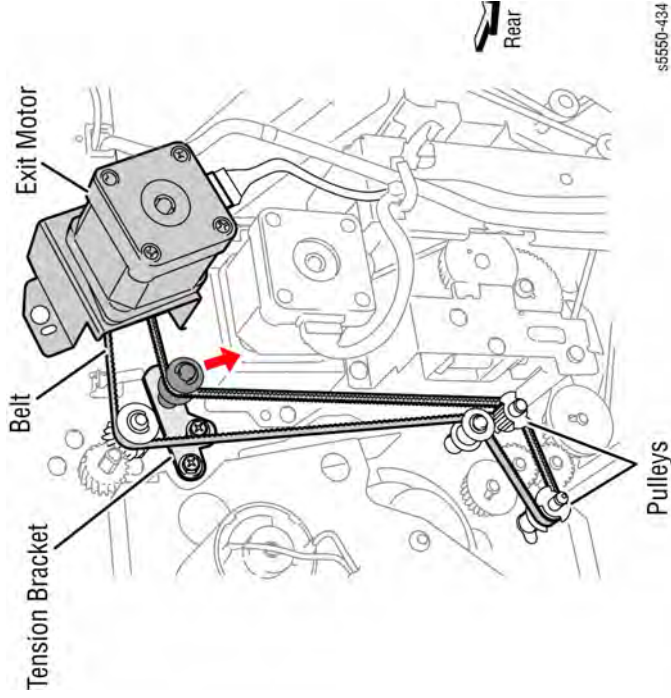


Figure 1 Loosening the screws

14. Move the Tension Bracket in the direction of the arrow to relieve belt tension and remove the Belt from the pulleys.
15. Remove the two screws each on the front and rear securing the Upper Exit Chute.

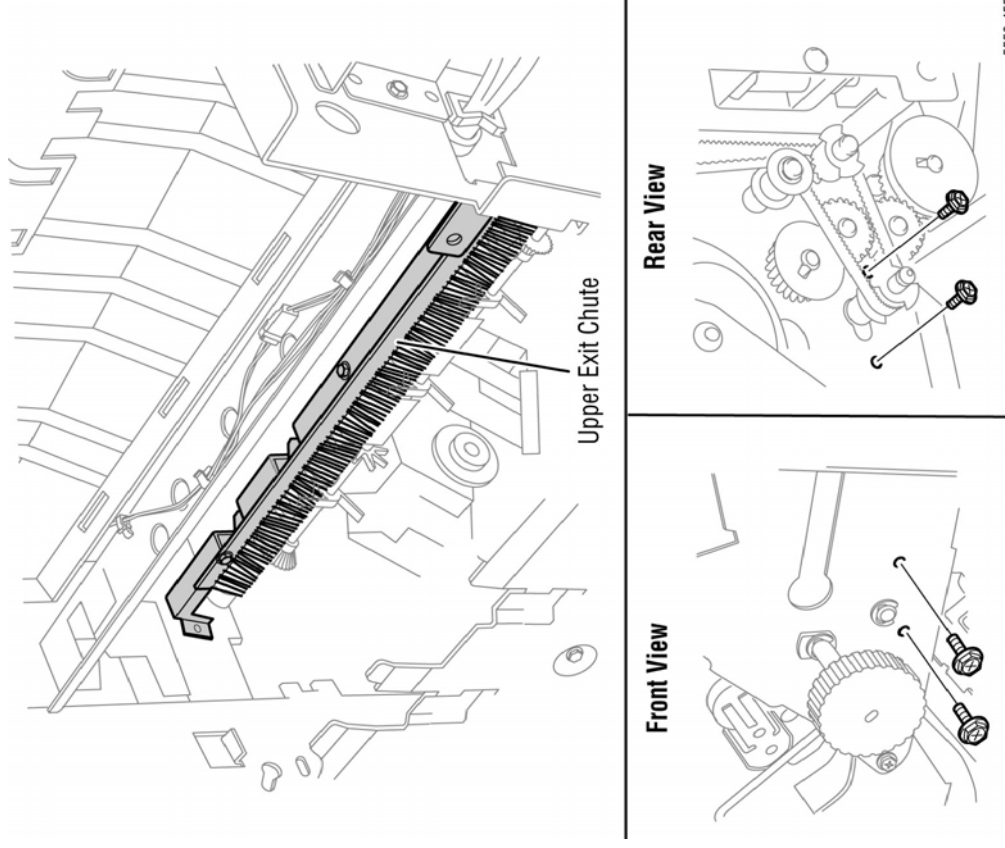


Figure 2 Removing the screws

## REP 25.65 Lower Exit Roller Assembly

### Parts List on PL 25.11 Item 6

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove Lower Rear Cover (REP 25.16).
4. Remove the Stacker Upper Tray (REP 25.25).
5. Remove the Eject Cover (REP 25.26).
6. Remove the Stapler Unit (REP 25.44).
7. Remove the Eject Clamp Bracket (REP 25.53).
8. Remove the Eject Chute (REP 25.49).
9. Remove the Eject Motor Bracket (REP 25.62).
10. Remove the Compiler Tray (REP 25.57).
11. Remove the Eject Roller Shaft (REP 25.60).
12. Remove the Lower Chute, Exit R (REP 25.66).
13. Loosen the two screws securing the Exit Motor Belt Tension Bracket.
14. Move the Belt Tension Bracket in the direction of the arrow to reduce belt tension and remove the belt from each pulley.
15. Disconnect the Compiler Exit Sensor.

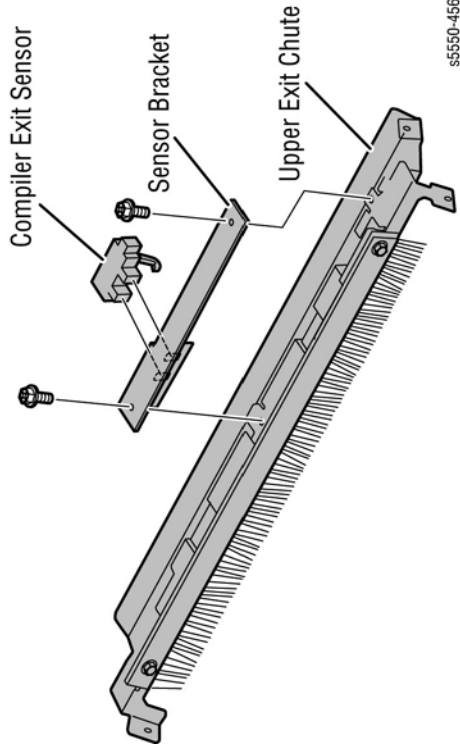


Figure 3 Removing the Compiler Exit Sensor

#### Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

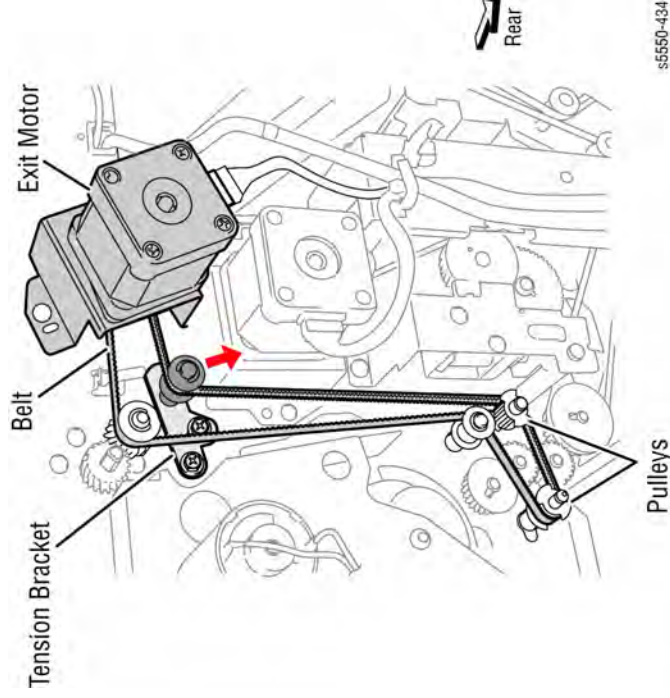


Figure 1 Loosening the screws and moving the Belt Tension Bracket

16. Remove the two screws each on the front and rear securing the Upper Exit Chute.
17. Remove the Upper Exit Chute.

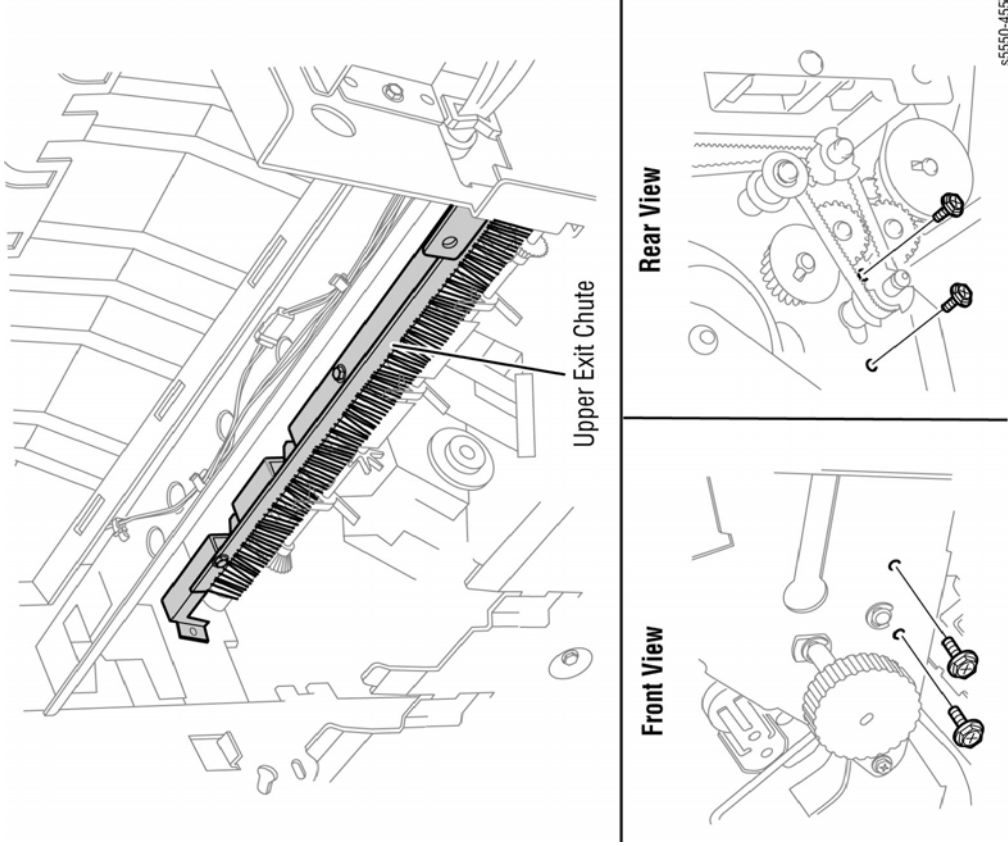


Figure 2 Removing the Upper Exit Chute

18. Release the hook of Pulley T20 attached to the Lower Exit Roller shaft and remove the pulley.
19. Remove the Bearing.

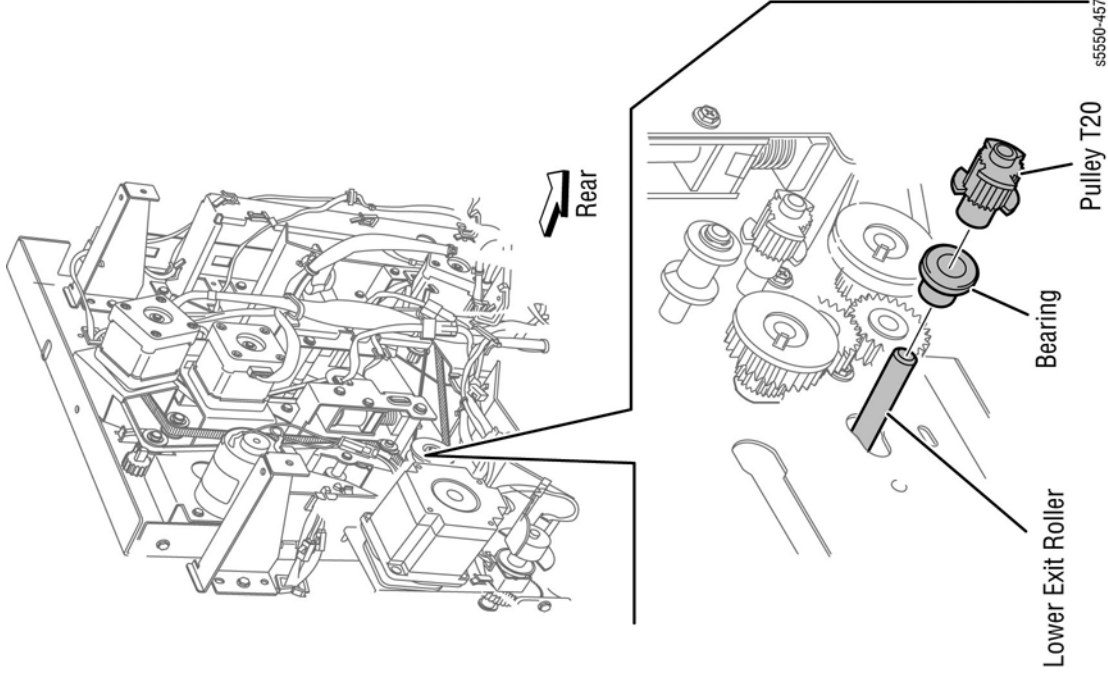


Figure 3 Releasing the hook and removing the Bearing



20. Remove the E-ring securing the Lower Exit Roller shaft on the front.
21. Remove the Bearing.

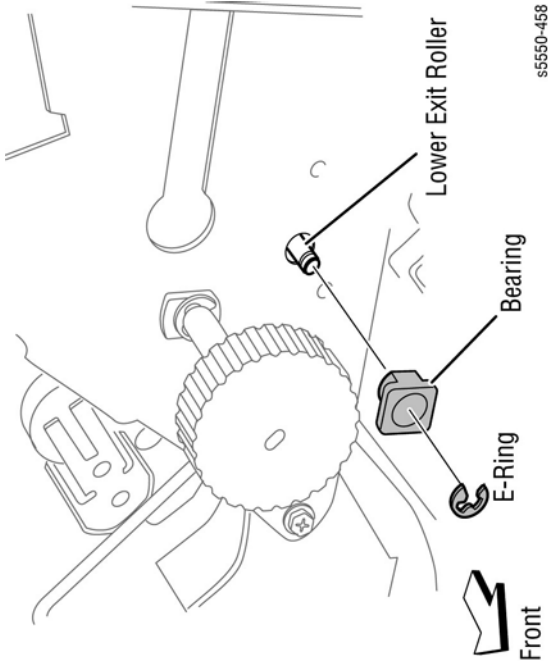


Figure 4 Removing the E-ring and the Bearing

22. Move the Lower Exit Roller shaft to the rear to remove the front end of the shaft from the hole in the frame and remove it from the Finisher.

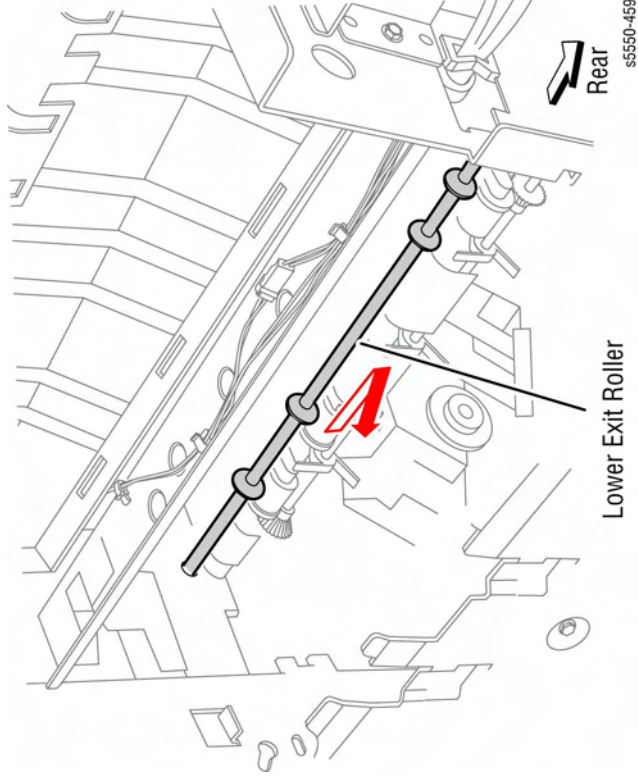


Figure 5 Removing the Lower Exit Roller

### Replacement

Belt tension is automatically adjusted by force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

## REP 25.66 Lower Exit Chute R Parts List on PL 25.11 Item 7

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Stacker Upper Tray (REP 25.25).
4. Remove the Stapler Unit (REP 25.44).
5. Loosen the two screws securing the Exit Motor Belt Tension Bracket.
6. Move the Belt Tension Bracket in the direction of the arrow to reduce Belt tension and remove the Belt from the pulleys.

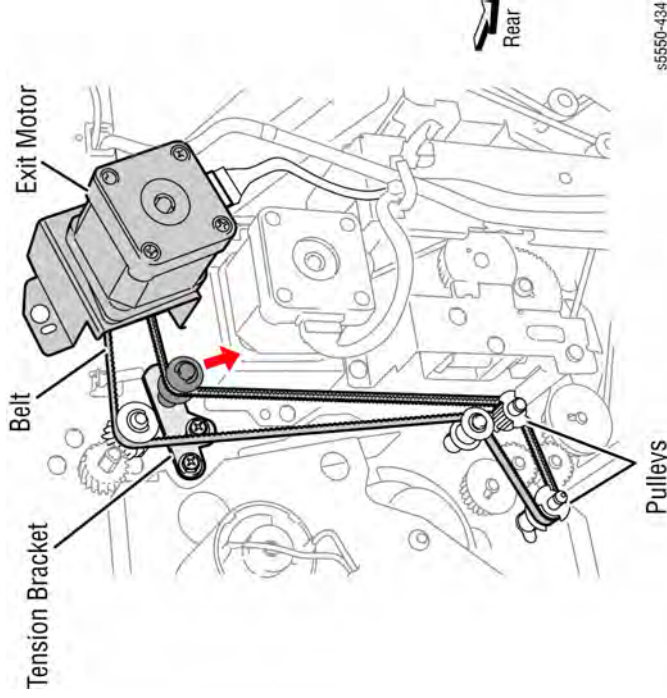


Figure 1 Loosening the screws and moving the Belt Tension Bracket

7. Loosen the two screws securing the Finisher Transport Motor Belt Tension Bracket.
8. Move the Tension Bracket in the direction of the arrow to reduce Belt tension and remove the belt from the pulleys.

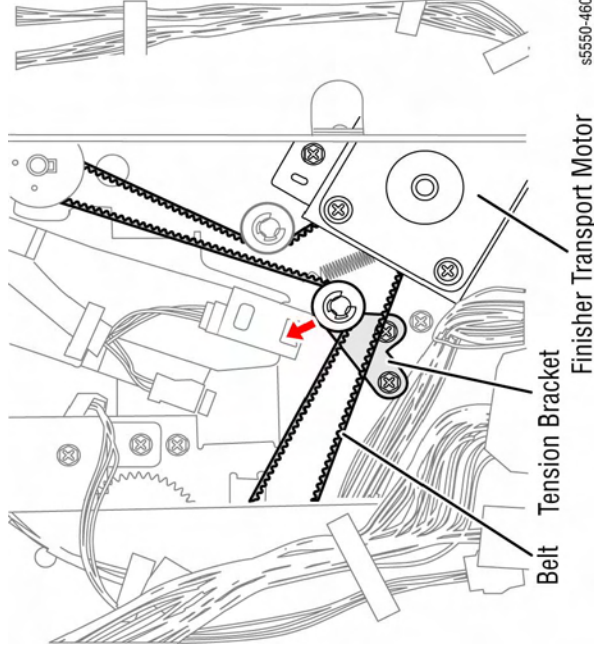


Figure 2 Loosening the screws and moving the Belt Tension Bracket

9. Release the hook of the Pulley T17 and remove the pulley from the Paddle Shaft. This also frees the Paddle Shaft Drive Belt.
10. Remove the Paddle Shaft Drive Belt from the Paddle Shaft.
11. Remove the Paddle Shaft Bearing.

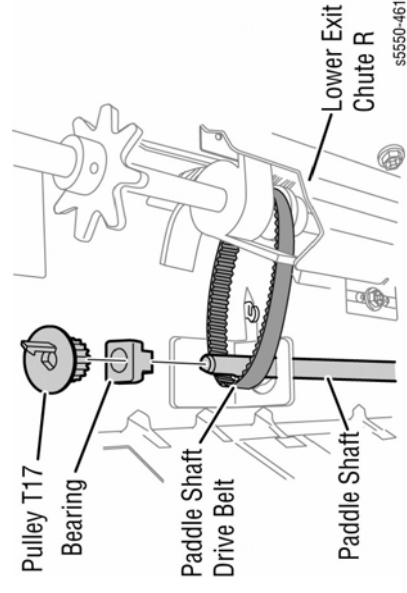
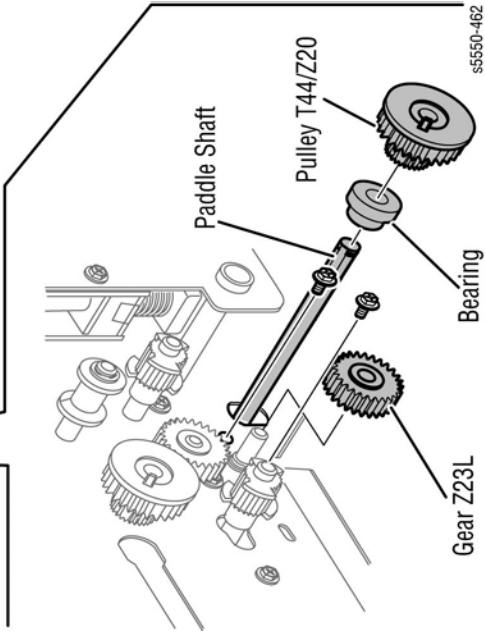
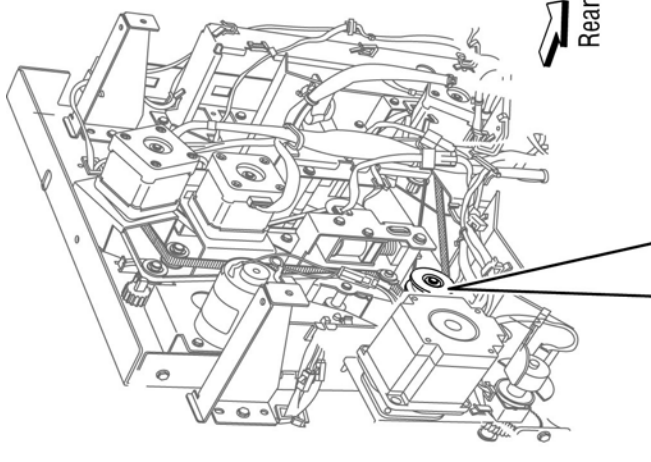


Figure 3 Removing the Paddle Shaft Drive Belt and Paddle Shaft Bearing

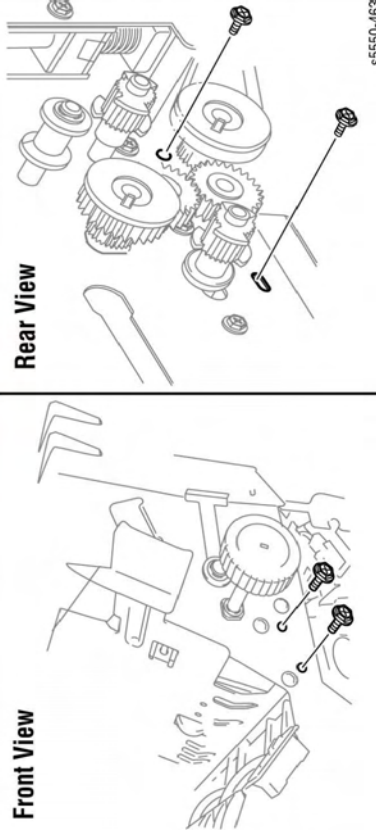
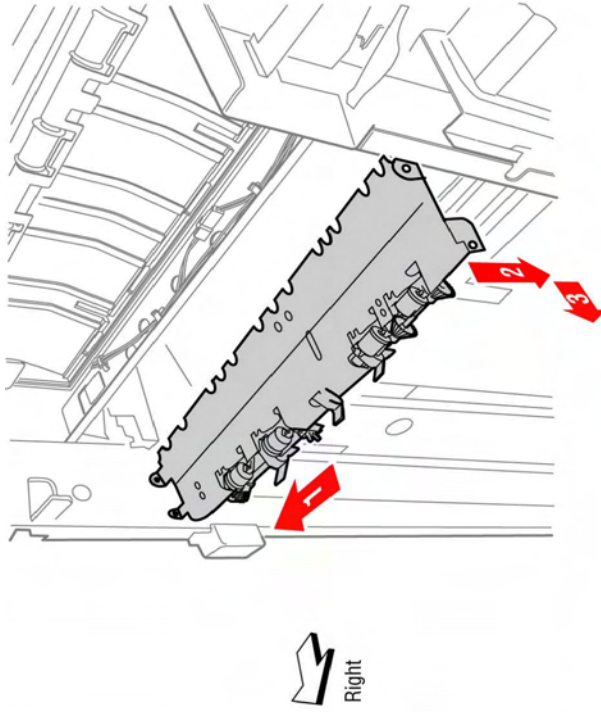
12. Release the hook of the Pulley T44/Z20 and remove from the Paddle Shaft.
13. Pull out the Paddle Shaft.
14. Remove the Bearing from the Paddle Shaft.
15. Remove the Gear Z23L.



**Figure 4 Removing the Bearing and Gear**

16. Remove two screws and springs that secure the metal paper guide to the Compiler Tray.

17. Remove the two screws each on the front and rear securing the Lower Exit Chute R to the Finisher.
18. Move the rear side of the Lower Exit Chute R downward to remove it from the Finisher frame. Push out from the back of the chute and remove from the front as indicated.



**Figure 5 Removing the Lower Exit Chute R**

### Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

## REP 25.67 Paddle Shaft/Belt

Parts List on PL 25.11 Item 12

### Removal

1. Open the Front Door.
2. Manually move the Stapler Assembly towards the rear of the Finisher.
3. Remove the Rear Upper Cover (REP 25.15).
4. Removing the Paddle Shaft (Figure 1).
  - a. Remove 1 E-Clip and 1 Bushing.
  - b. Press the Bracket down and remove the Paddle Shaft. Move the Shaft to the rear until the rear Bushing comes out.
  - c. Disengage the Tab on the Synchronous Belt Pulley and remove the Pulley.



Figure 1 Removing Paddle Shaft

### Replacement

1. Reinstall the components in the reverse order of the removal procedure.

## REP 25.69 Lower Exit Chute (2b)

Parts List on PL 25.12 Item 1

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Open the Lower Exit Chute to the right by hand (Arrow 1).
4. Remove the one screw on the front securing the Lower Exit Chute to the frame.

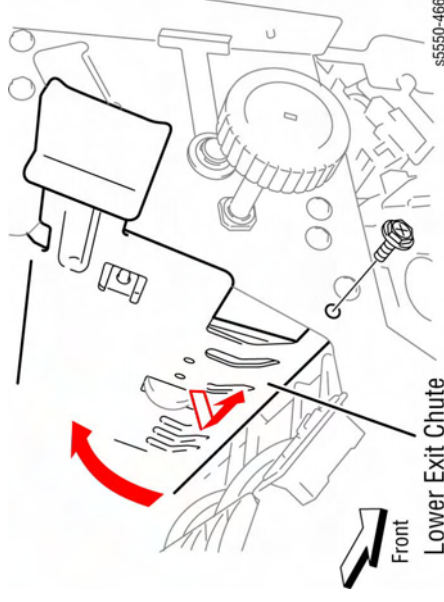


Figure 1 Removing the screw on the front

5. Remove the Lower Exit Chute Open from the front (Arrow 2) as in Figure 1.



## REP 25.70 Lower Exit Chute Pinch Rollers

Parts List on PL 25.12 Item 2

### Removal

1. Remove the Lower Exit Chute (REP 25.69).
2. Remove the Spring 1.9N left and right and remove the Pinch Roller Shaft.
3. Remove the two Pinch Rollers from the Shaft.

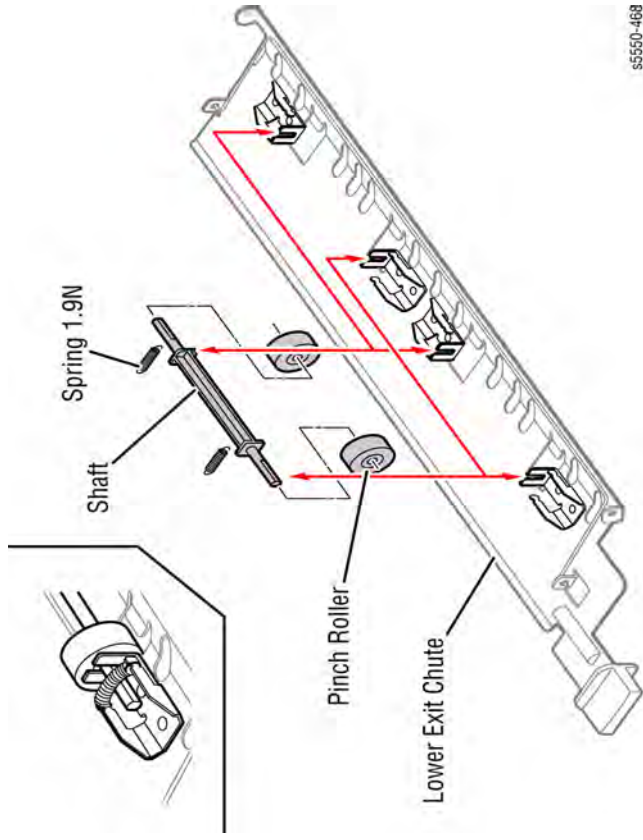


Figure 1 Removing the Lower Exit Chute Pinch Rollers

## REP 25.71 Transfer Gate

Parts List on PL 25.12 Item 6

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Open the Lower Exit Chute (2b) to the right by hand.

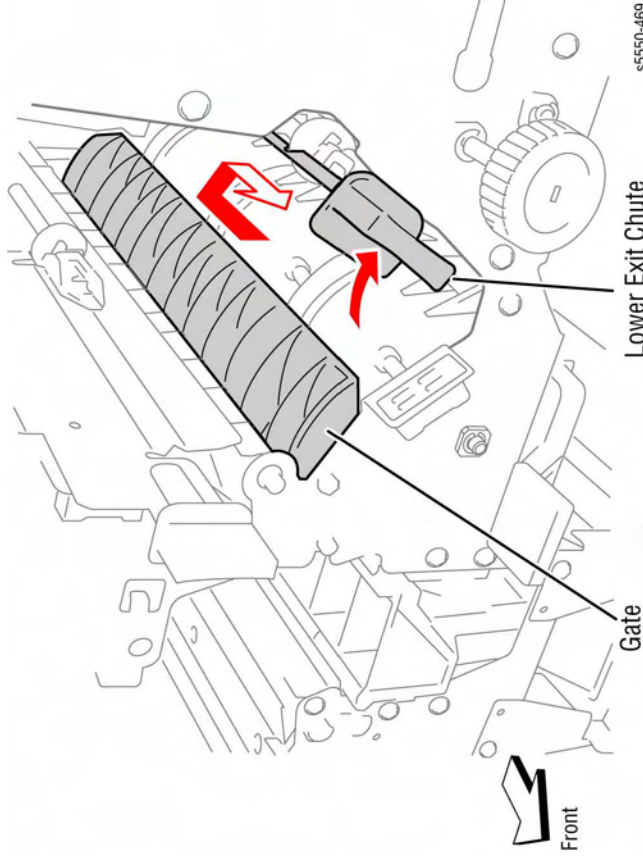


Figure 1 Opening the Lower Chute

4. Remove the Transfer Gate Solenoid Bracket on the rear (REP 25.82).

## REP 25.72 Buffer Gate Parts List on PL 25.12 Item 7

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Buffer Gate Solenoid Bracket on the rear (REP 25.83).
4. Remove the Buffer Link.

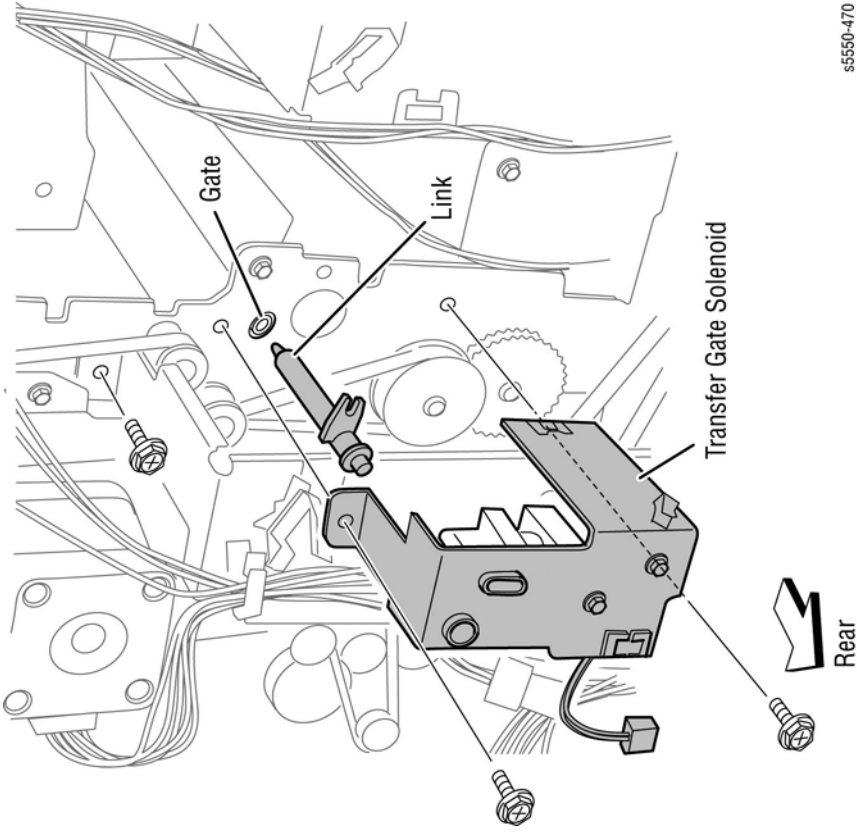


Figure 2 Removing the Transfer Gate

### Replacement

Install the Gate with the hole facing the rear.

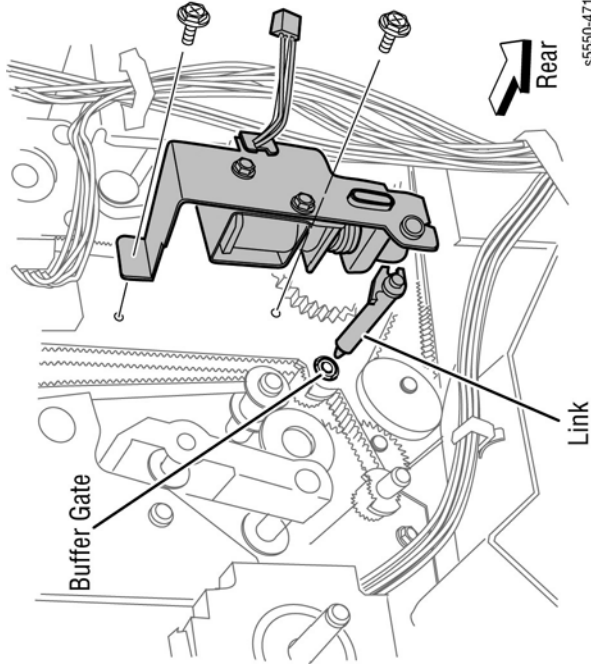


Figure 1 Removing the Buffer Link

## REP 25.73 Buffer Path Sensor Parts List on PL 25.12 Item 12

### Removal

1. Remove the Top Cover (REP 25.17).
2. Remove the L/H Front Cover (REP 25.23).
3. Remove the Top L/H Cover (REP 25.24).
4. Remove the Punch (REP 25.36).
5. Disconnect the Buffer Path Sensor connector (J8392) from the harness.
6. Remove the one screw securing the Sensor Bracket to the Top Buffer Chute.
7. Remove the Sensor Bracket.
8. Release the four hooks securing the Buffer Path Sensor to the Sensor Bracket.

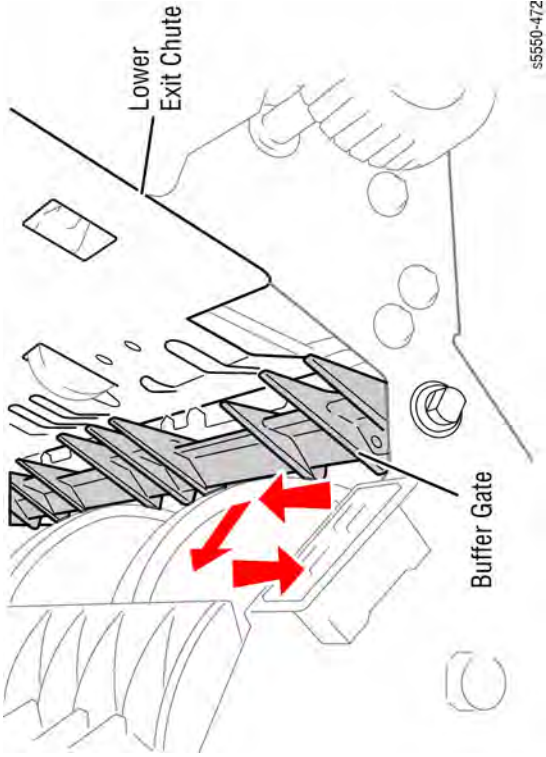


Figure 2 Removing the Buffer Gate

### Replacement

Install the Buffer Gate with the hole facing the rear.

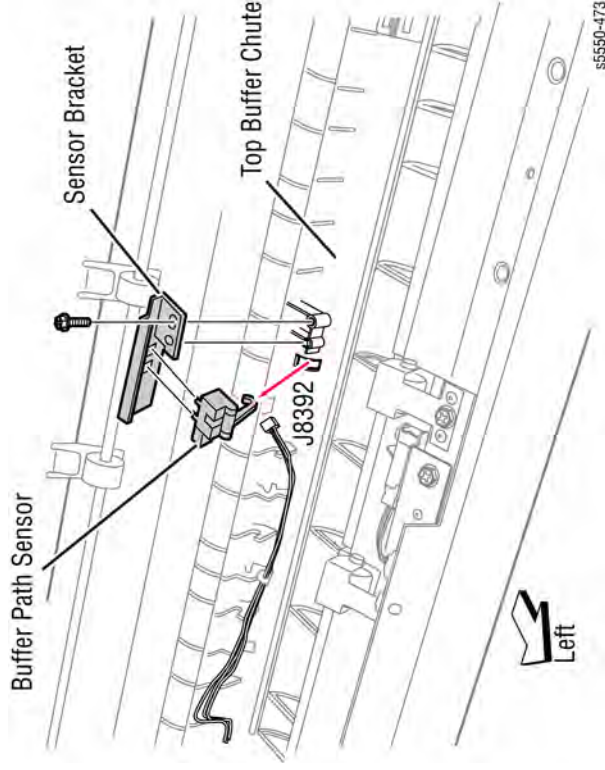


Figure 1 Removing the Buffer Path Sensor

### Replacement

When installing the Sensor Bracket, be sure to put the actuator of the Buffer Path Sensor into the hole of the Top Buffer Chute. Put the boss on the Top Buffer Chute into the hole of the Sensor Bracket.

## REP 25.74 Buffer Roller

### Parts List on PL 25.12 Item 13

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Stapler Cartridge.
4. Move the Staple Head to the rear by hand as far as possible.
5. Open the Lower Exit Chute handle.
6. Lift the Buffer Gate if necessary (as shown).
7. Lower the Bottom Buffer Chute handle downward.

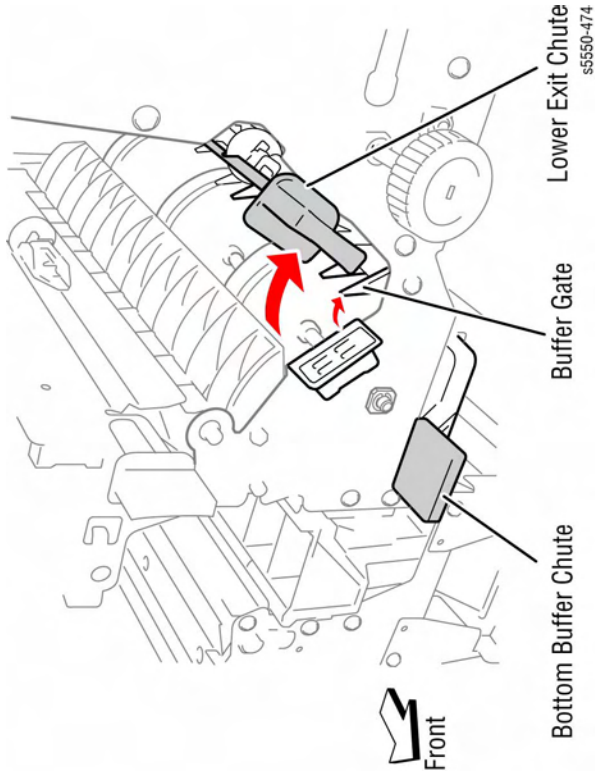


Figure 1 Opening the Lower Exit Chute and the Bottom Buffer Chute

8. Remove the E-ring securing the front of the Buffer Roller Shaft.
9. Remove the Bearing.

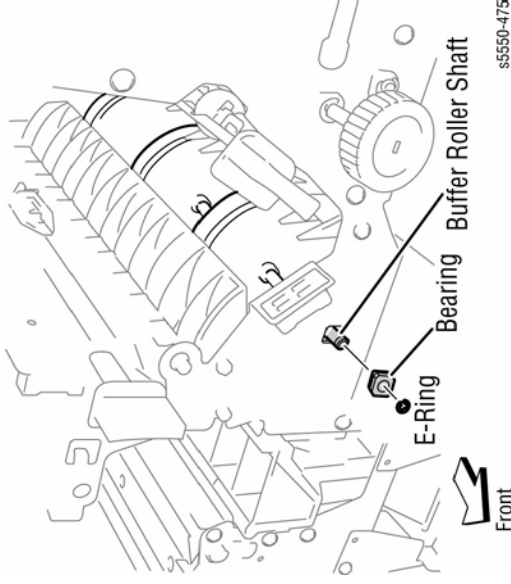


Figure 2 Removing the E-ring

10. Remove the Transport Gate Solenoid Bracket (REP 25.82).
11. Release the hook of the Gear Z46 and slide the shaft toward the front and out of the gear.
12. Remove the Bearing.
13. Move the Buffer Roller Shaft to the rear and remove the front end from the frame.
14. Move the Buffer Roller Shaft downward first, then remove it from the Finisher.



## REP 25.75 Bottom Buffer Chute

### Parts List on PL 25.12 Item 14

#### Removal

1. Remove Door G (REP 25.19).
2. Remove the Buffer Roller (REP 25.74).
3. Disconnect J8327 and J8326 from the Upper Limit and No Paper Sensors.
4. Remove the two screws each on the front and rear securing the Stapler Unit.
5. Move the Stapler in the direction of the arrow to disengage the hooks from the frame and remove the Stapler from the front.

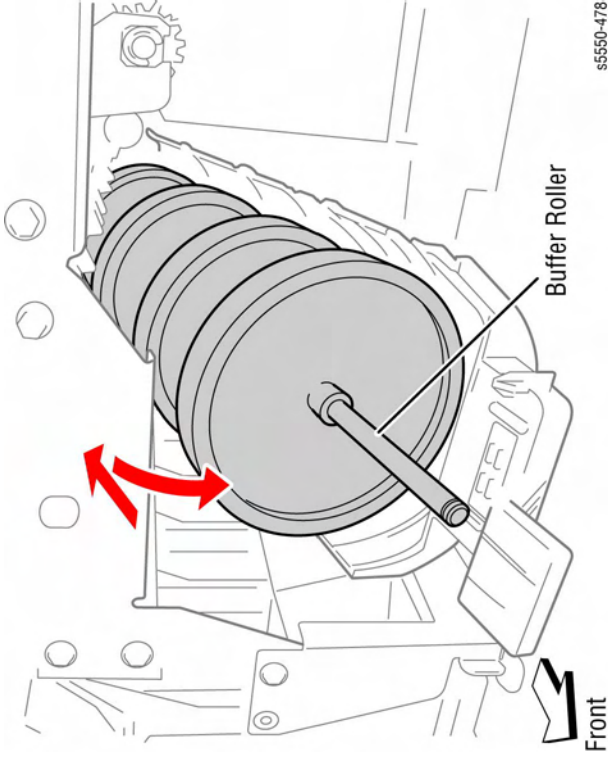
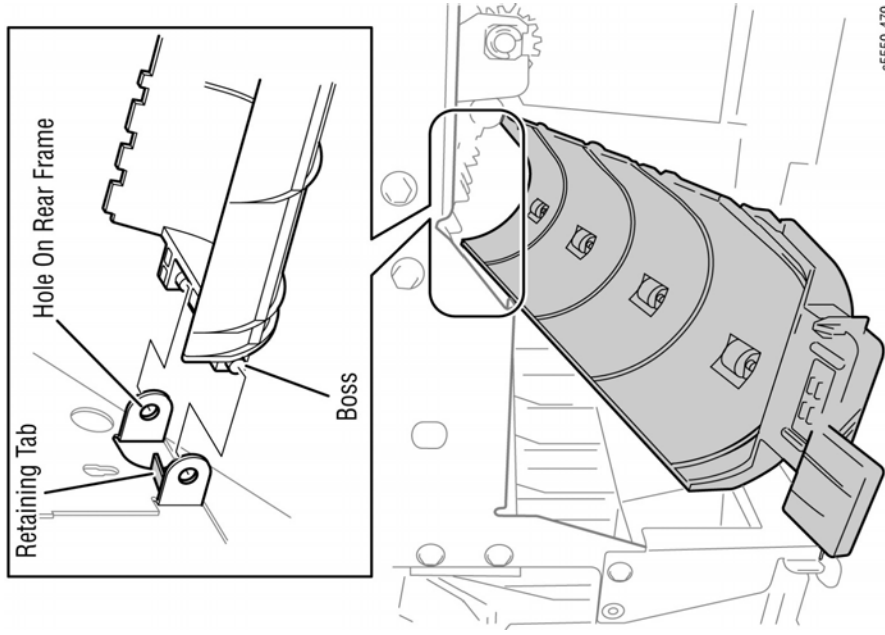


Figure 3 Removing the Buffer Roller

#### Replacement

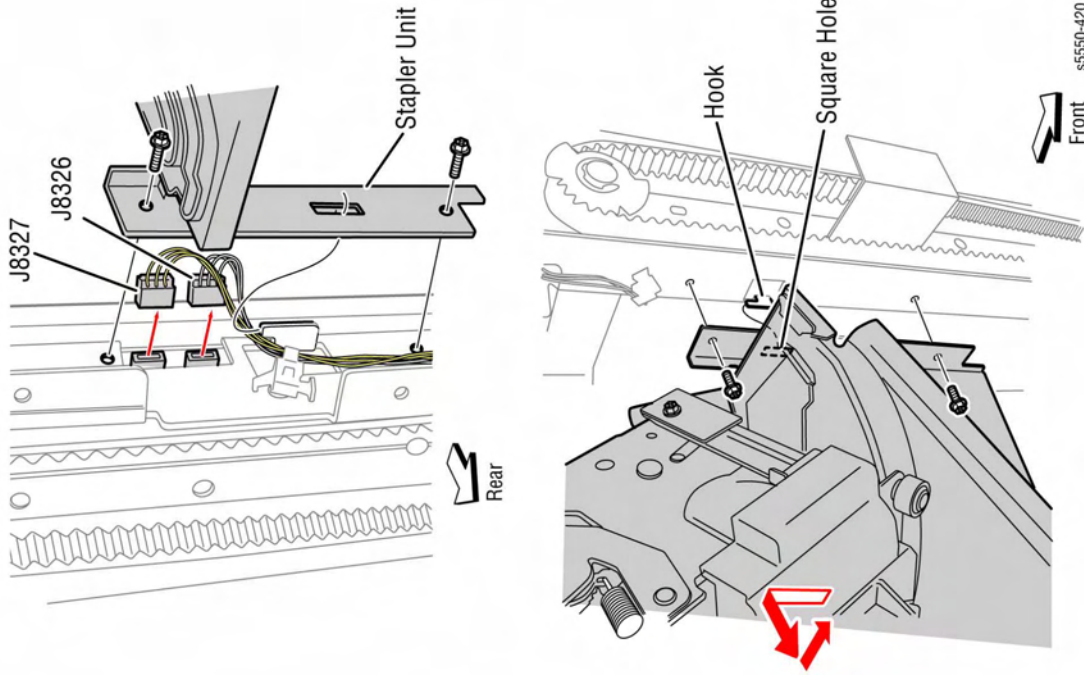
Begin installing the Buffer Roller Shaft with the end having the flat surface towards the rear. Feed the shaft through the rear frame, then slide the bearing over the shaft and work into place. Install the front bearing, followed by the Gear Z46 at the rear. Finish the replacement by installing the E-clip on the front of the shaft.



**Figure 2 Removing the Bottom Buffer Chute (3)**

**Replacement**

When installing the Bottom Buffer Chute, start the bosses into the holes of the retaining tab by applying slight pressure to the left, while raising the Buffer Gate until the bosses fully seat. Close the chute completely to verify correct installation.



**Figure 1 Removing the Finisher Stapler Unit**

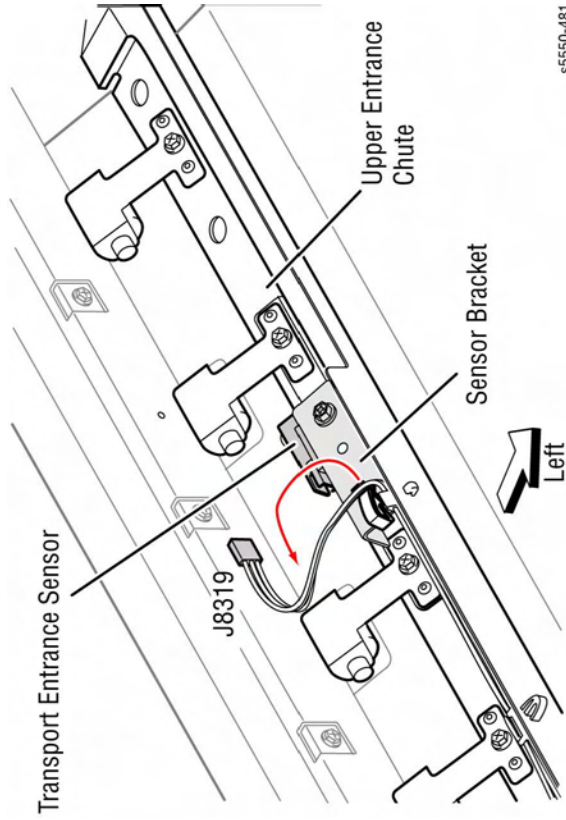
6. Remove the two bosses on the rear of the Bottom Buffer Chute from the two holes on the rear frame. Rotate chute down approximately 70 degrees, then remove to the right.

## REP 25.77 Upper Entrance Chute

### Parts List on PL 25.12 Item 16

#### Removal

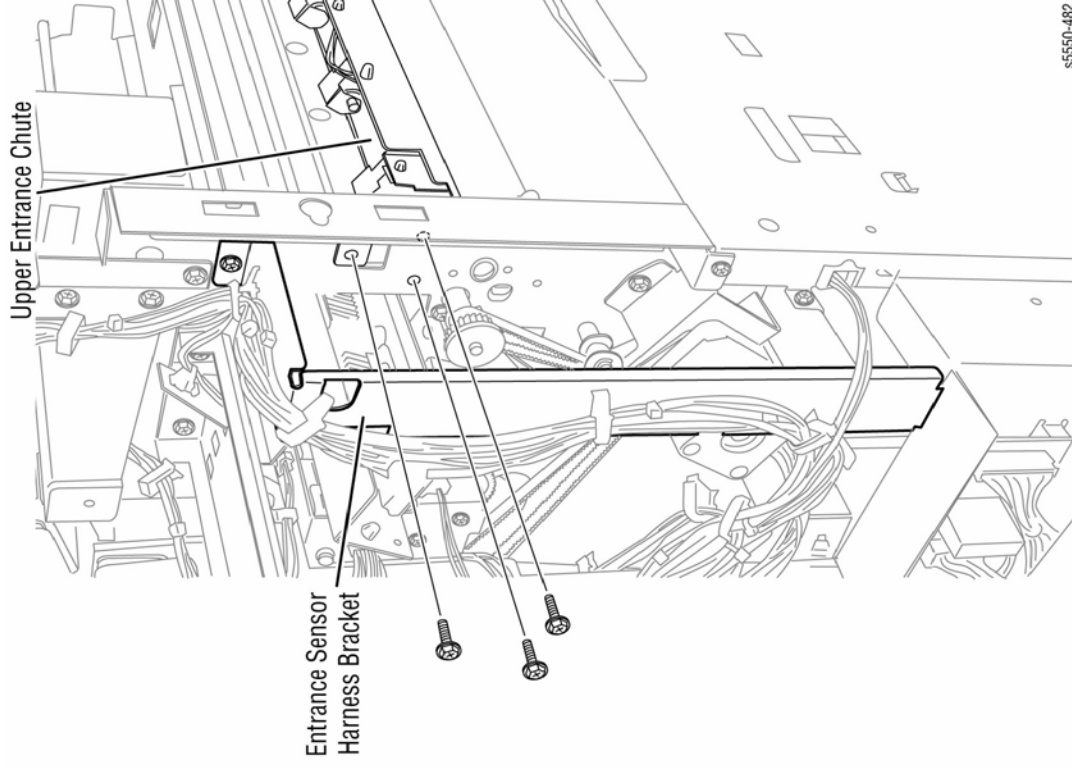
1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the L/H Front Cover (REP 25.23).
3. Remove the Top L/H Cover (REP 25.24).
4. Release the harness from the Sensor Bracket clamp.
5. Disconnect the Transport Entrance Sensor connector (J8319).



s5550-481

Figure 1 Disconnecting the connector

6. Remove the three screws securing the Upper Entrance Chute and remove the hinge from the square hole on the rear frame.
7. Remove the Upper Entrance Chute from the front.



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Figure 2 Removing the Upper Entrance Chute

## REP 25.78 Upper Entrance Chute Pinch Rollers

Parts List on PL 25.12 Item 17

### Removal

The Upper Entrance Chute has four Pinch Rollers. Remove any of these rollers with this procedure.

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the L/H Front Cover (REP 25.23).
3. Remove the Top L/H Cover (REP 25.24).
4. Remove the one screw securing the Pinch Roller to the Upper Entrance Chute.

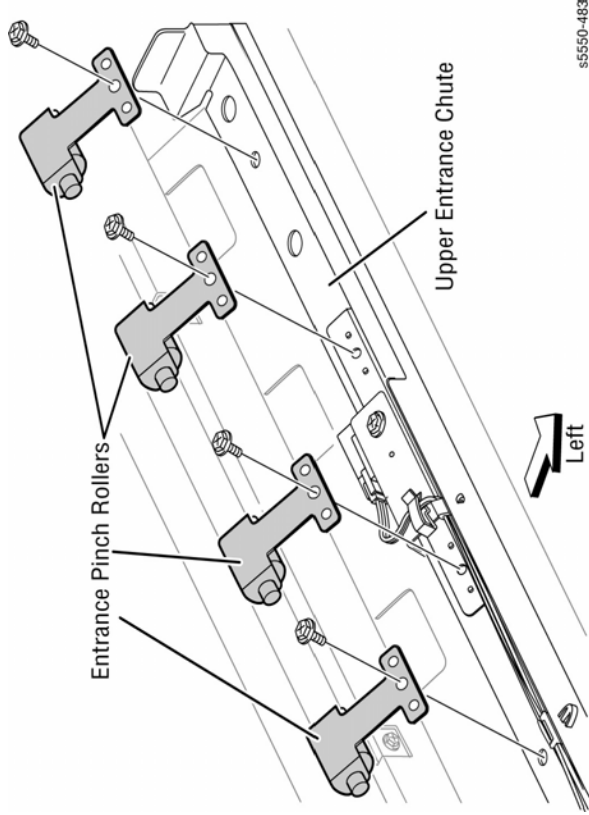


Figure 1 Removing the Upper Entrance Chute Pinch Rollers

### Replacement

Put the Upper Entrance Chute bosses into the Pinch Roller bracket.

## REP 25.79 Transport Entrance Sensor

Parts List on PL 25.12 Item 19

### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the L/H Front Cover (REP 25.23)
3. Remove the Top L/H Cover (REP 25.24).
4. Release the harness from the Sensor Bracket clamp.
5. Disconnect the Transport Entrance Sensor connector (J8319).
6. Remove the one screw securing the Sensor Bracket to the Upper Entrance Chute and remove the bracket.
7. Remove the one screw securing the Transport Entrance Sensor to the Sensor Bracket and remove the sensor.

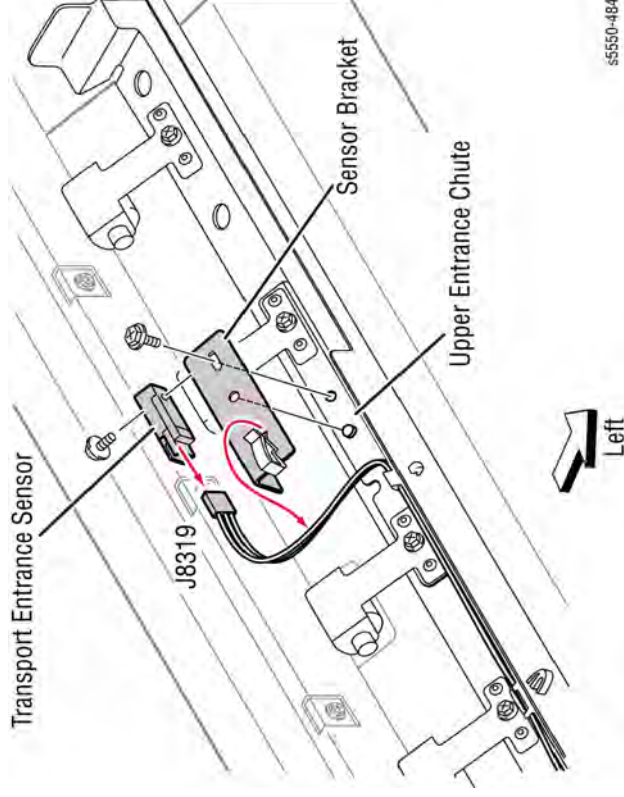


Figure 1 Removing the Transport Entrance Sensor

### Replacement

Install the sensor in the direction as shown in Figure 1.



## REP 25.80 Entrance Roller

### Parts List on PL 25.12 Item 20

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the L/H Front Cover (REP 25.23).
4. Remove the Top L/H Cover (REP 25.24).
5. Remove the screw securing the Knob to the Upper Entrance Chute.
6. Open the Upper Entrance Chute.

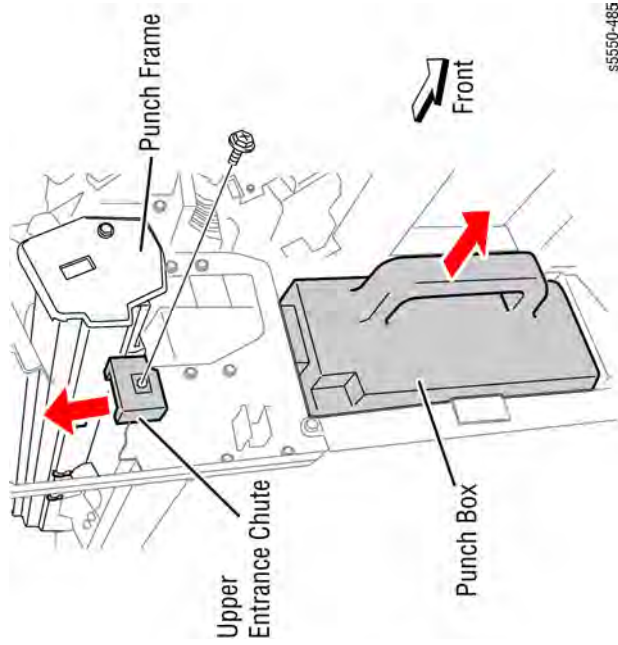


Figure 1 Removing the Punch Box and screw

7. Loosen the two screws securing the Transport Motor Belt Tension Bracket.

8. Move the Tension Bracket in the direction of the arrow to reduce belt tension and remove the belt from the pulleys. This is best accomplished by removing the Belt from the stationary pulley first, then removing the Belt from the tension pulley.

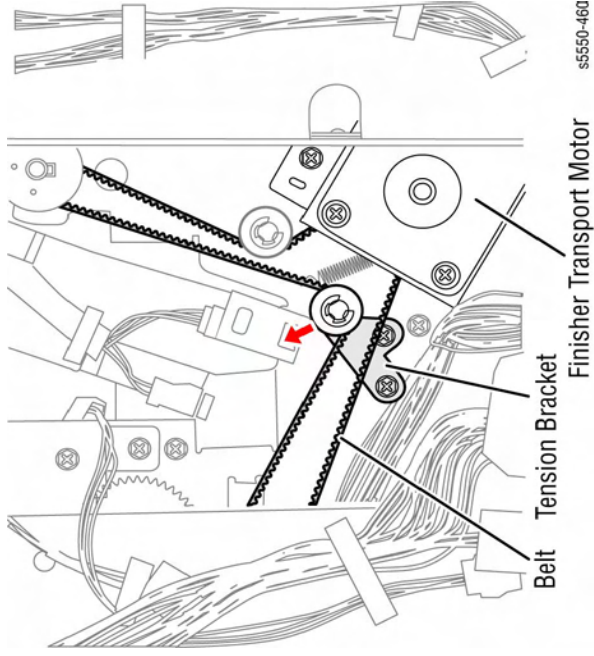


Figure 2 Loosening the screws and moving the Tension Bracket

9. Release the hook of the Gear Z23 on the rear attached to the Entrance Roller Shaft and remove the Gear Z23.
10. Remove the Pulley T20.
11. Remove the Bearing.

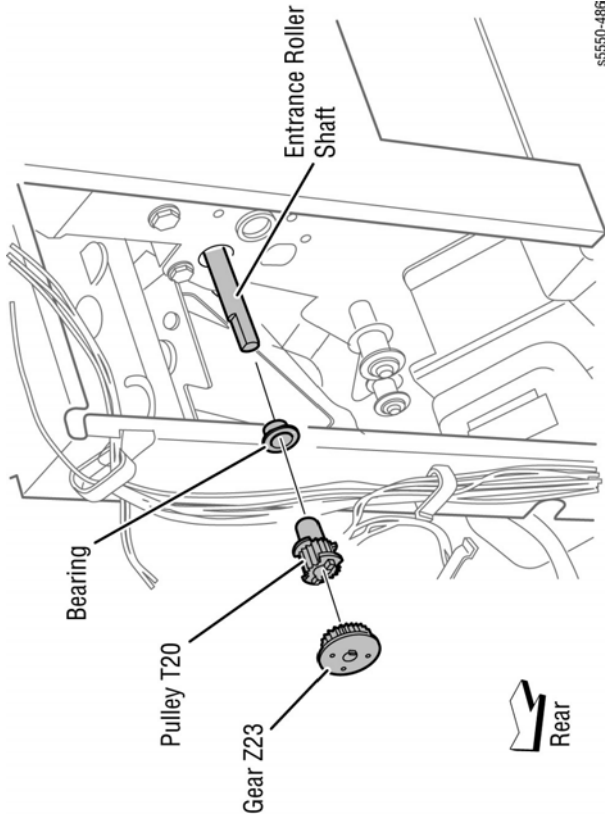


Figure 3 Removing the Pulley and Bearing

12. Remove the E-ring securing the Entrance Roller Shaft on the front.
13. Remove the Bearing.
14. Push the Entrance Roller Shaft to the rear to remove the front end of the Entrance Roller Shaft from the frame first.
15. Move the Entrance Roller Shaft upward to remove it from the front.

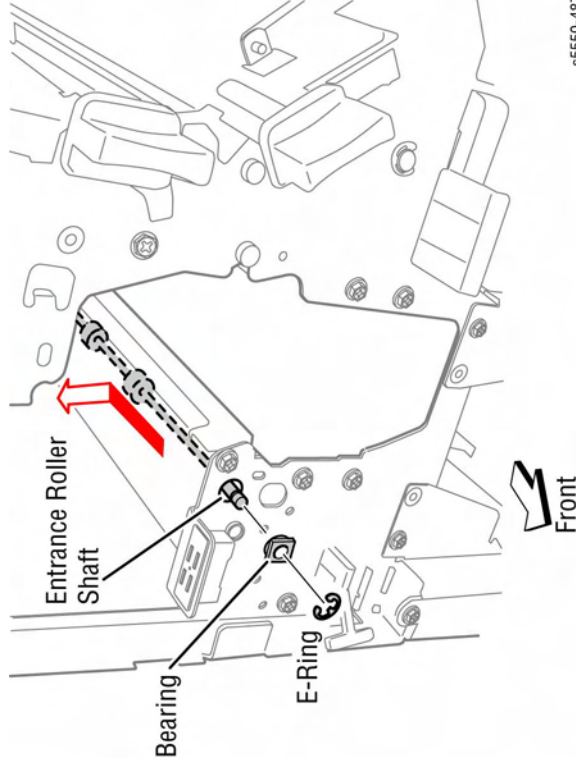


Figure 4 Removing the Entrance Roller

## Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

## REP 25.81 Finisher Transport Motor and Belt

### Parts List on PL 25.12 Item 21

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Loosen the two screws securing the Transport Motor Belt Tension Bracket.
3. Move the Tension Bracket in the direction of the arrow to reduce belt tension and remove the Belt from each pulley.

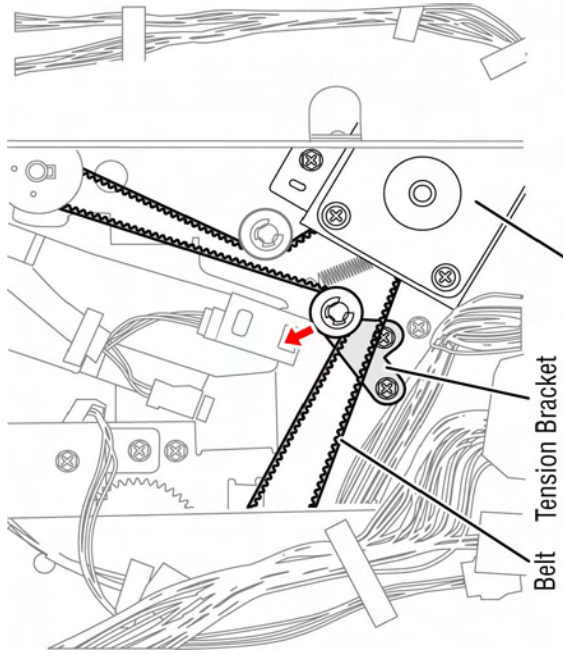


Figure 1 Loosening the screw and moving the Tension Bracket

4. Disconnect the Transport Motor, connector (J8342), from the harness.
5. Remove the two screws securing the Finisher Transport Motor Bracket.
6. Remove the two screws securing the Finisher Transport Motor to the Bracket.

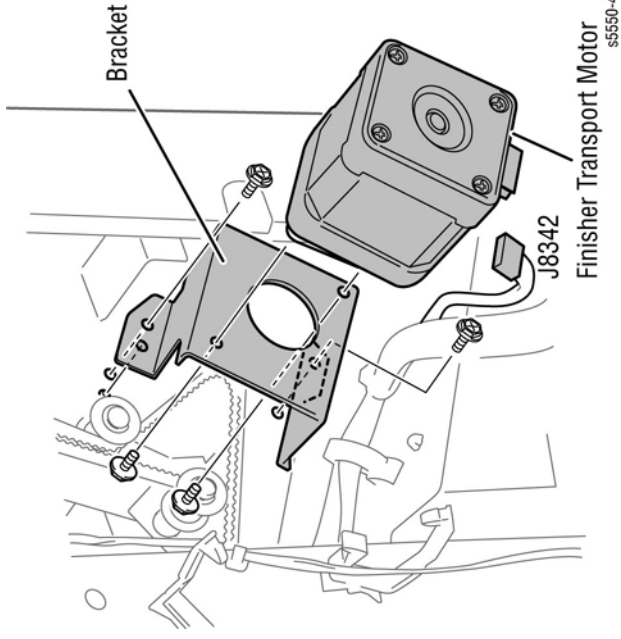


Figure 2 Removing the Transport Motor and Belt

#### Replacement

Align the two holes on the Motor Bracket with the bosses on the Finisher frame. Also note that belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

## REP 25.82 Transfer Gate Solenoid

Parts List on PL 25.12 Item 32

### Removal

In this procedure, do not remove the Harness Bracket from the Finisher. Remove the two screws securing the Harness Bracket to facilitate removal of the Transfer Gate Solenoid. Also, when removing the Transfer Gate Solenoid, remove the Link as well. When the Link is removed, the Transfer Gate might detach inside the Finisher. If the Transfer Gate becomes detached, use the Transfer Gate remove procedure (REP 25.71) to replace it.

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Disconnect the Transfer Gate Solenoid connector (J8341).
4. Release the harness of the Transfer Gate Solenoid from the clamp.
5. Remove the two screws securing the Harness Bracket.
6. Remove the two screws securing the Transfer Gate Solenoid Bracket.

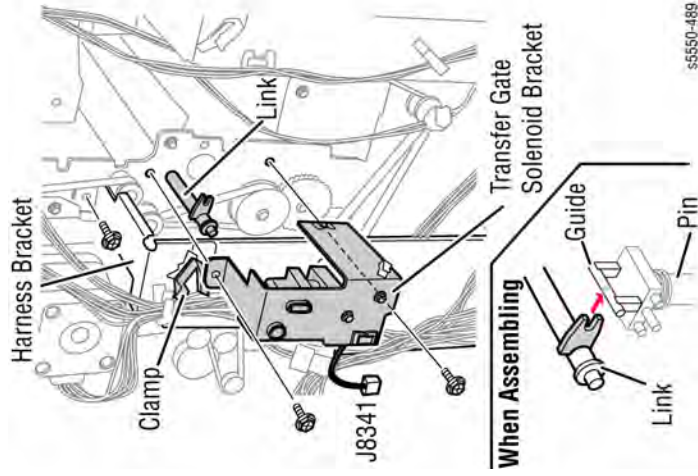


Figure 1 Removing the Transfer Gate Solenoid

### Replacement

Reinsert the Solenoid Guide into the Link Notch. Be sure the Transfer Gate pivot is in place at the front when reinstalling the solenoid.

## REP 25.83 Buffer Gate Solenoid

Parts List on PL 25.12 Item 34

### Removal

When removing the Buffer Gate Solenoid, remove the Link as well. When the Link is removed, the Gate might detach inside the Finisher. If the Gate becomes detached, use the Transfer Gate removal procedure (REP 25.71) to replace it.

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Disconnect the Buffer Gate Solenoid connector (J8394).
4. Disconnect sensor wire (purple and yellow).
5. Remove the two screws securing the Buffer Gate Solenoid Bracket to the Finisher and remove the bracket.

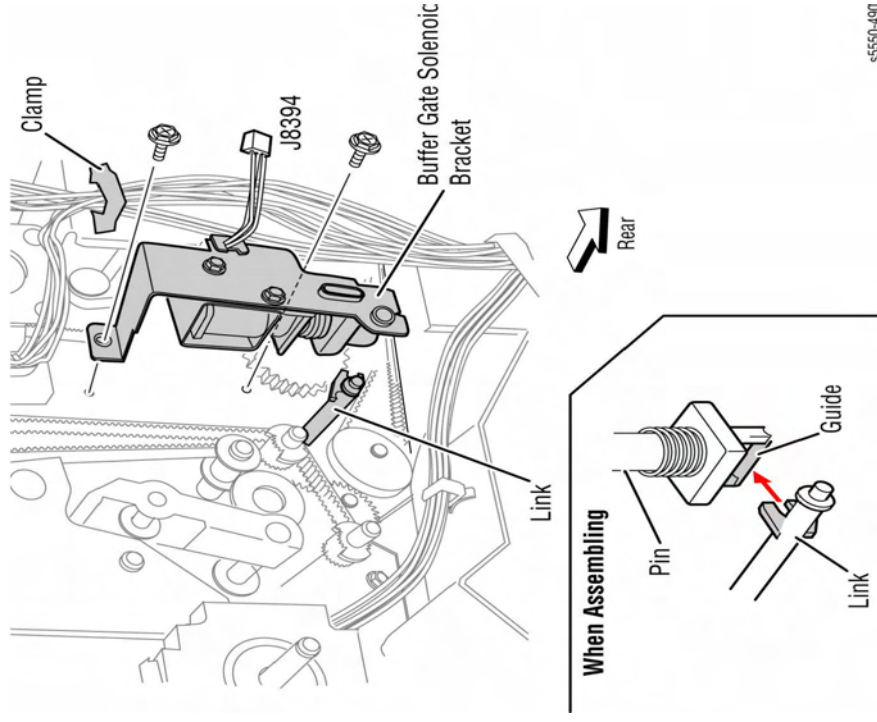


Figure 1 Removing the Buffer Gate Solenoid



## REP 25.84 Stacker Upper Tray Exit Sensor

Parts List on PL 25.13 Item 2

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Top Cover (REP 25.17).
4. Disconnect the Stacker Upper Tray Exit Sensor connector (J8321).
5. Release the sensor hooks to remove the sensor from the Top Exit Upper Chute.

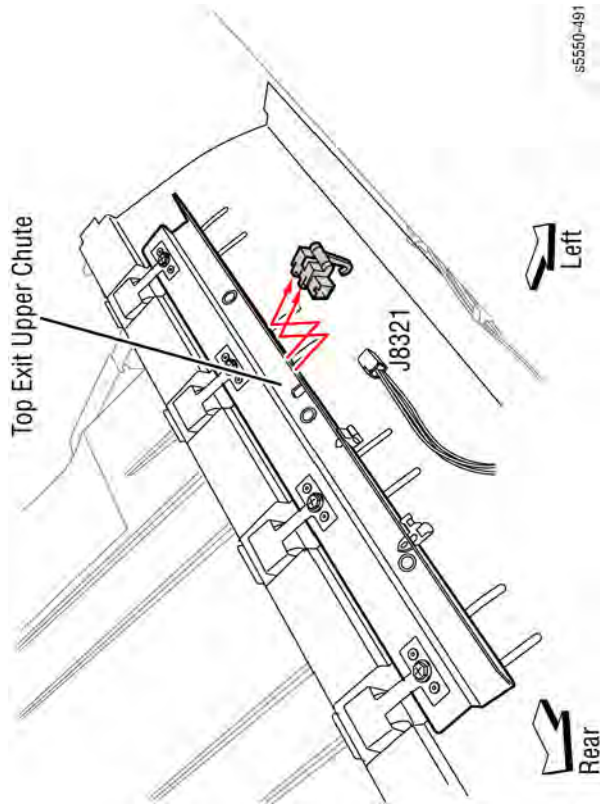


Figure 1 Removing the Stacker Upper Tray Exit Sensor

## REP 25.85 Top Exit Pinch Rollers

Parts List on PL 25.13 Item 3

### Removal

Remove the other three Top Exit Pinch Rollers using this same procedure.

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Top Cover (REP 25.17).
4. Remove the screw securing the Exit Pinch Roller to the Top Exit Upper Chute.

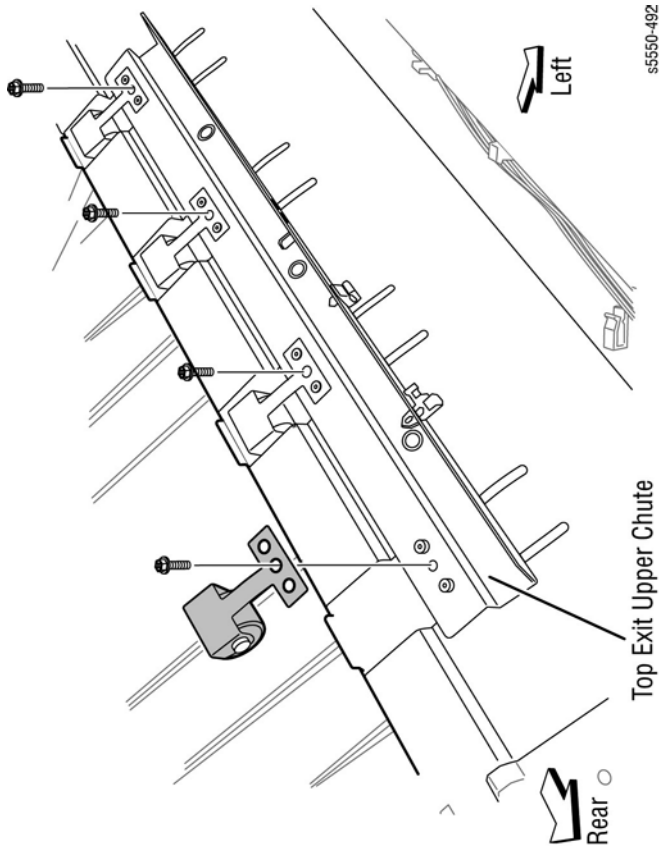


Figure 1 Removing the Top Exit Pinch Rollers

### Replacement

Put the two bosses of the Top Exit Upper Chute into the holes on the Exit Pinch Roller.

## REP 25.86 Top Exit Roller

### Parts List on PL 25.13 Item 5

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Top Cover (REP 25.17).
4. Remove the Exit Motor (REP 25.92).
5. Disconnect the Upper Tray Exit Sensor connector (J8321).
6. Release the harness from the harness clamps.

7. Remove the two screws each on the front and rear securing the Top Exit Upper Chute to the Finisher.

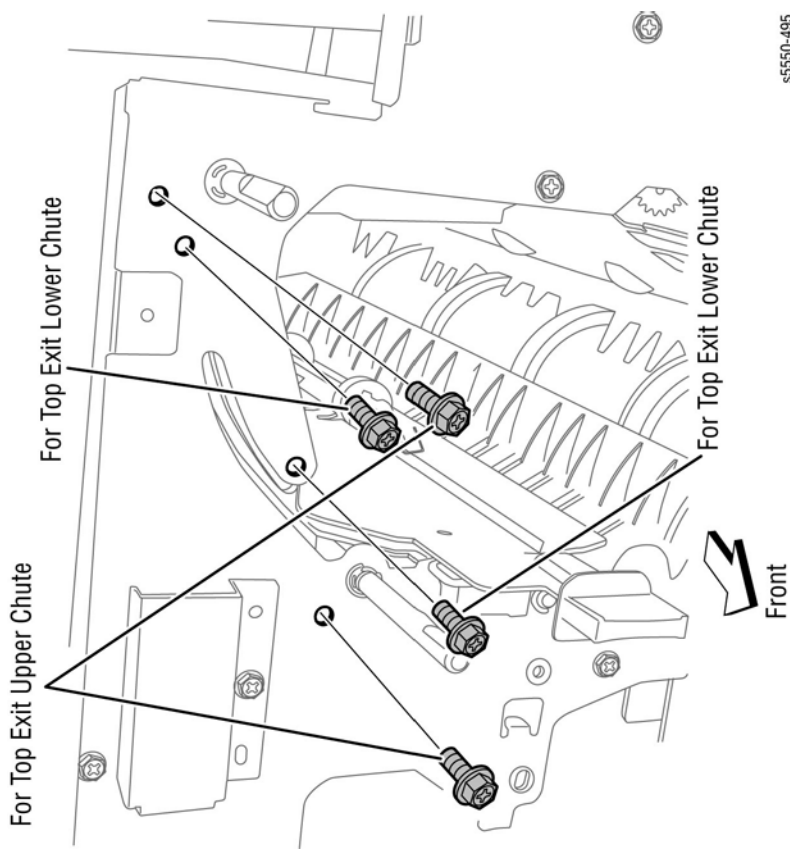


Figure 2 Removing the screws on the Top Exit Upper Chute

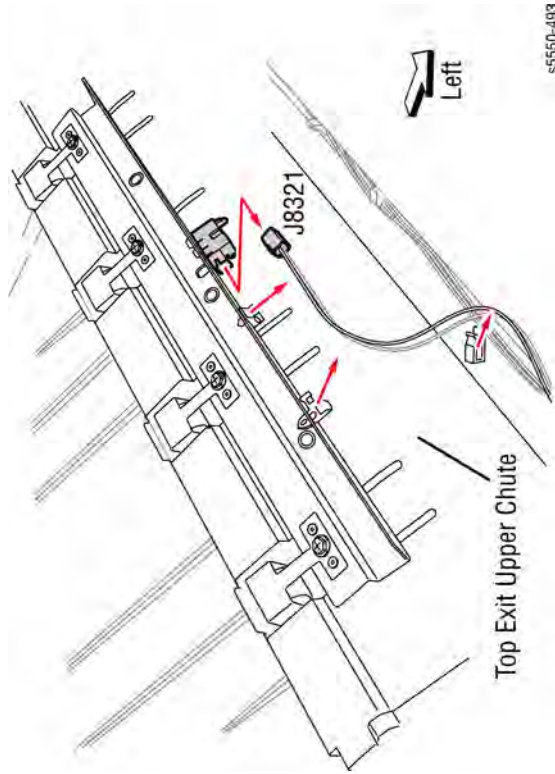


Figure 1 Disconnecting the connector

- Remove the two screws each on the front and rear securing the Top Exit Lower Chute to the Finisher.

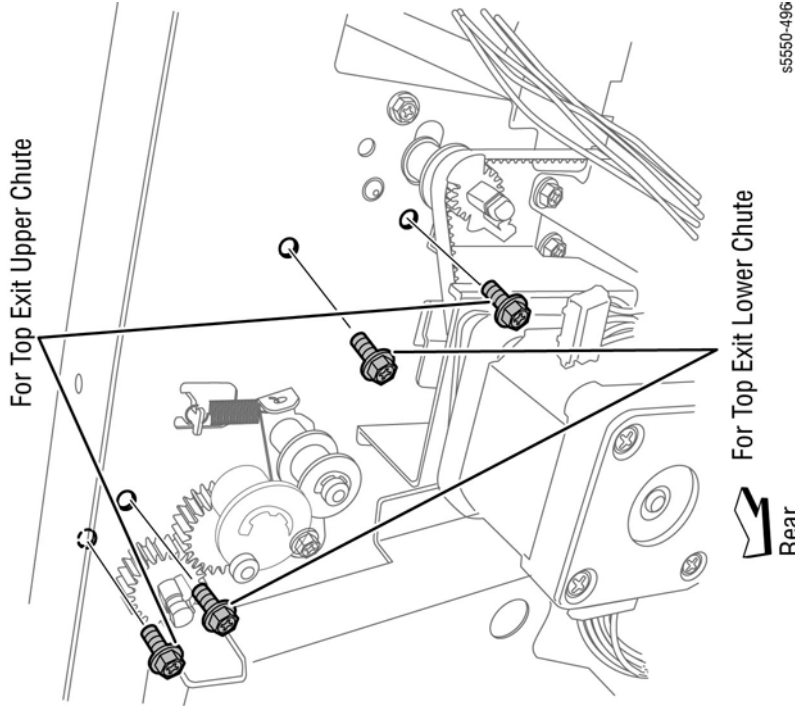


Figure 3 Removing the screws on the Top Exit Lower Chute

- Open the Upper Exit Chute (2a).
- Remove the Top Exit Upper Chute and the Top Exit Lower Chute.

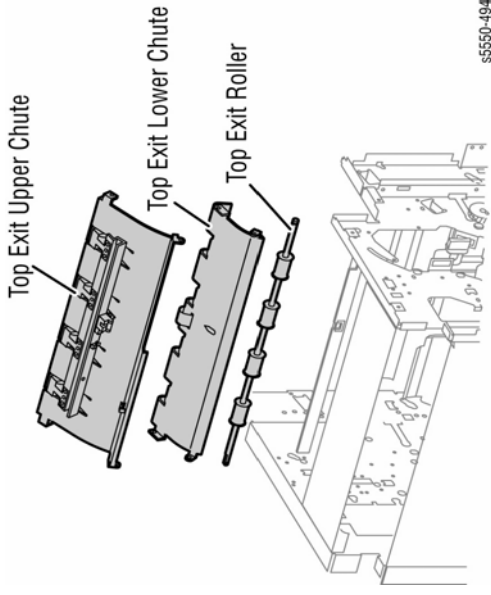


Figure 4 Removing the Top Exit Upper Chute and Top Exit Lower Chute

- Release the hook to remove the Gear from the Top Exit Roller shaft.
- Remove the Bearing.

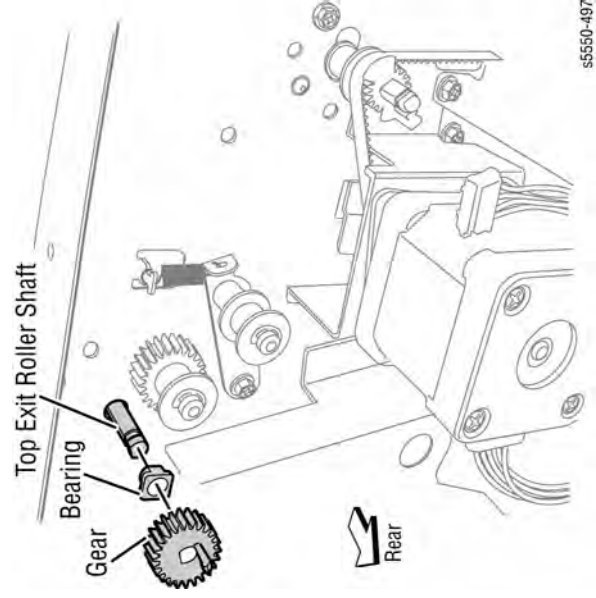


Figure 5 Removing the Bearing

## REP 25.87 Stacker Upper Tray Full Stack Sensor

### Parts List on PL 25.13 Item 7

#### Removal

1. Remove the Top Exit Roller (REP 25.86).
2. Disconnect the Upper Tray Full Sensor connector (J8322).
3. Remove the screw securing the Upper Tray Full Sensor.

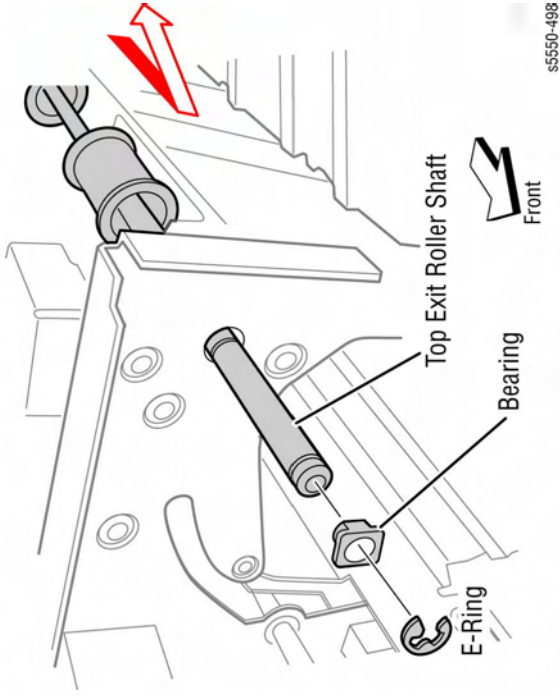
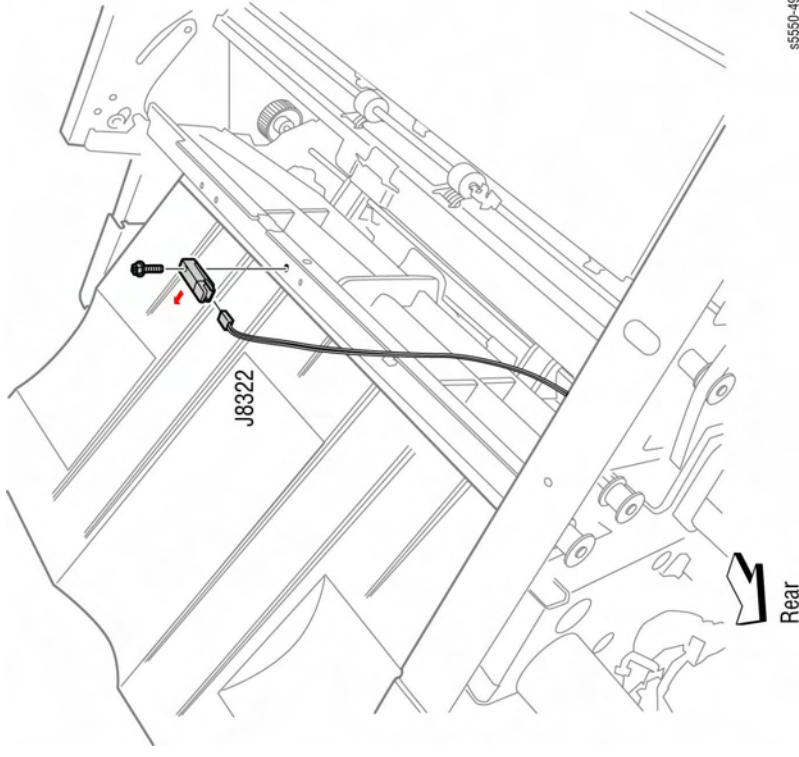


Figure 6 Removing the Top Exit Roller

#### Replacement

Install the Top Exit Roller shaft with its one end with the flat surface facing the rear.



s5550-499

Figure 1 Removing the Stacker Upper Tray Full Stack Sensor

## REP 25.88 Upper Exit Chute (2a)

### Parts List on PL 25.13 Item 10

#### Removal

1. Open the Front Door.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Registration Motor (REP 25.93).
4. Remove the three screws securing the hinge of the Upper Exit Chute on the rear.

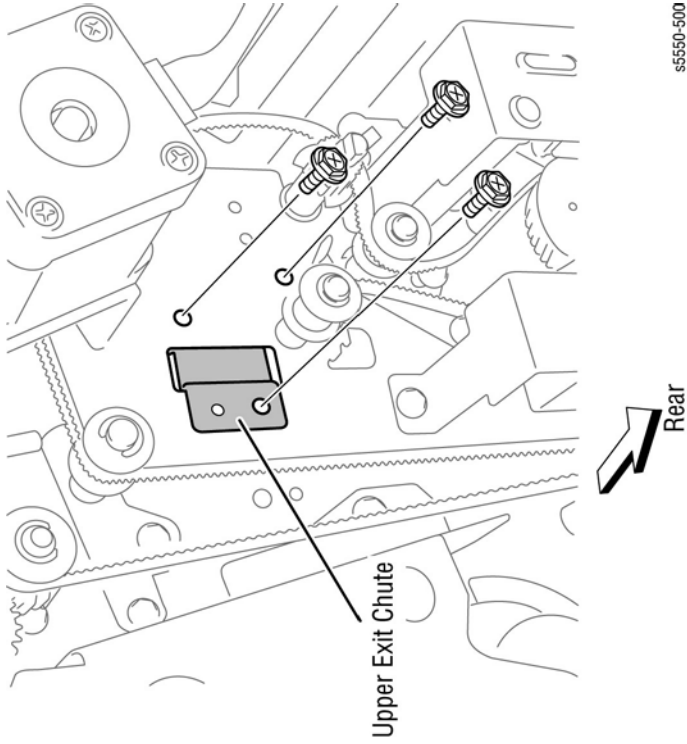


Figure 1 Removing the screws

5. Remove the Upper Exit Chute from the Finisher by removing the hinge from the square hole on the rear frame.

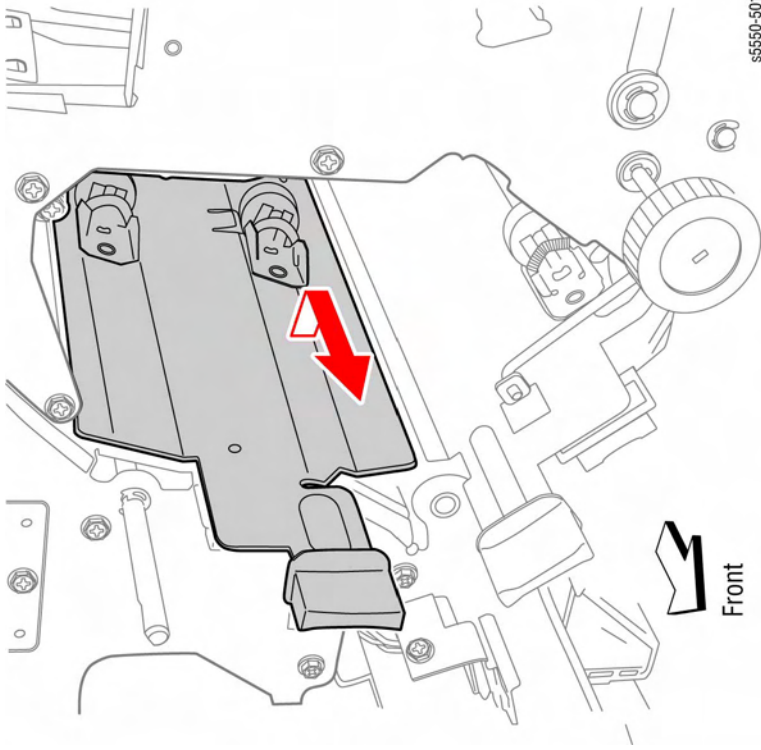


Figure 2 Removing the Upper Exit Chute (2a)



## REP 25.89 Upper Exit Chute Pinch Rollers

Parts List on PL 25.13 Item 11

### Removal

1. Remove the Upper Exit Chute (REP 25.88).
2. Remove the two Springs 1.5N and remove the Pinch Roller shaft.
3. Remove the two Pinch Rollers from the shaft.

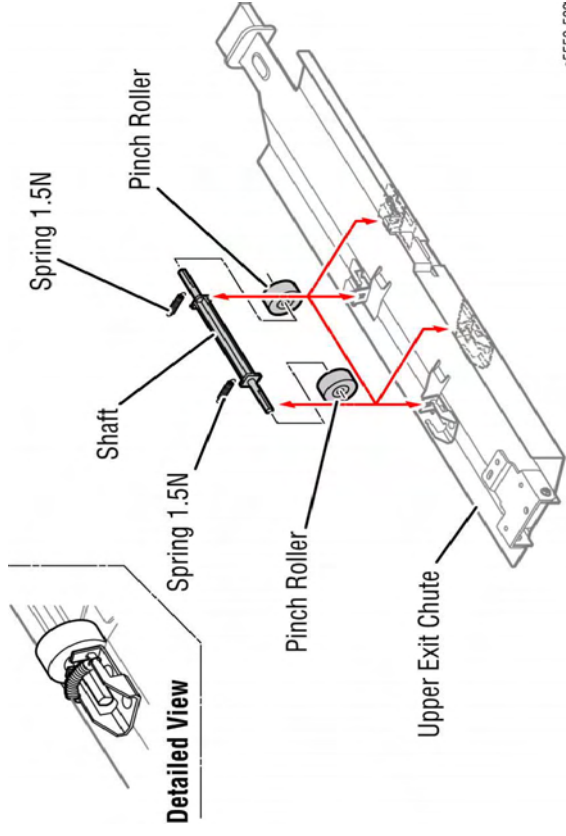


Figure 1 Removing the Upper Exit Chute Pinch Rollers

## REP 25.90 Gate Sensor

Parts List on PL 25.13 Item 15

### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Top Cover (REP 25.17).
4. Remove the L/H Front Cover (REP 25.23).
5. Remove the Top L/H Cover (REP 25.24).
6. Remove the Punch (REP 25.36).
7. Remove the three screws securing the Gate Sensor Bracket to the Upper Top Exit Chute L.
8. Disconnect the Gate Sensor connector.
9. Remove the screw securing the Gate Sensor to the bracket.

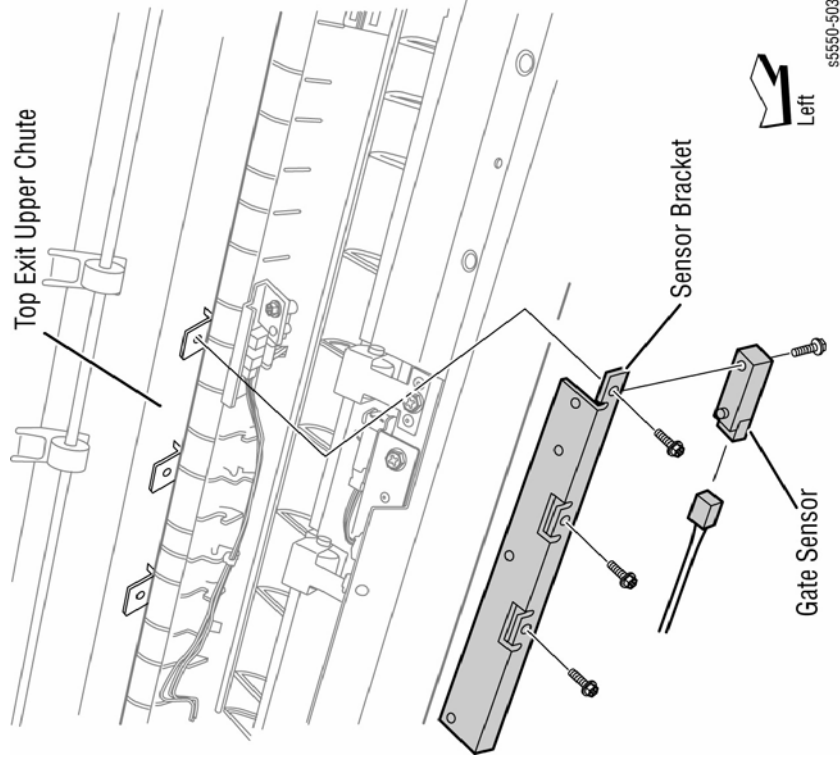


Figure 1 Removing the Gate Sensor

## REP 25.91 Transport Rollers

### Parts List on PL 25.13 Item 18

#### Removal

1. Open Door G.
2. Remove the Upper Rear Cover (REP 25.15).
3. Remove the Top Cover (REP 25.17).
4. Remove the L/H Front Cover (REP 25.23).
5. Remove the Top L/H Cover (REP 25.24).
6. Remove the Punch Motor.
7. Open the Upper Exit Chute.

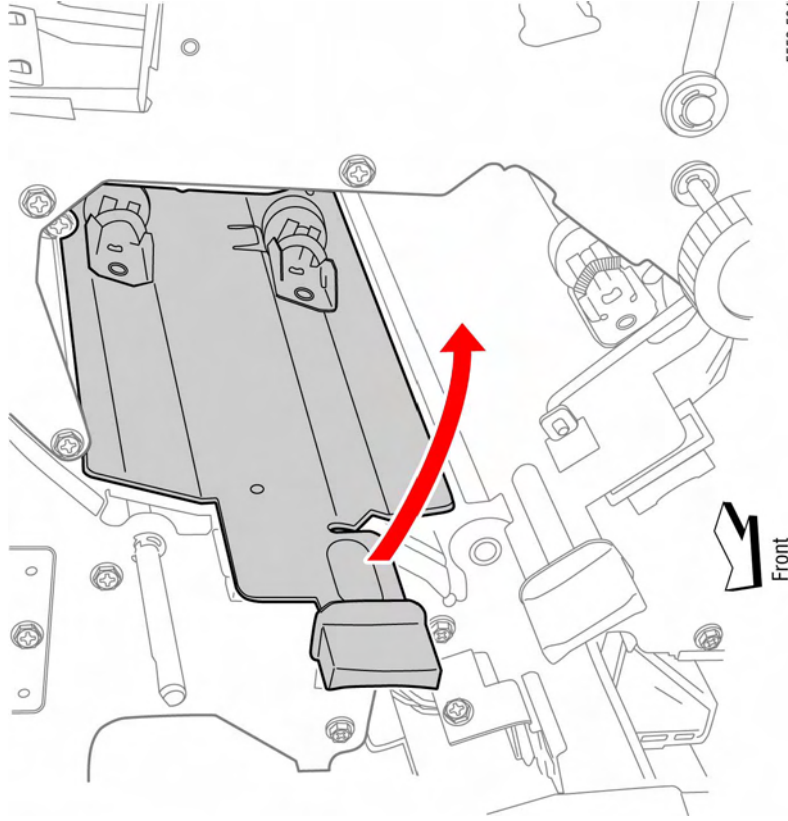


Figure 1 Opening the Upper Exit Chute

8. Loosen the two screws securing the Registration Motor Belt Tension Bracket.
9. Move the Tension Bracket in the direction of the arrow to reduce belt tension and remove the Belt from the pulleys.

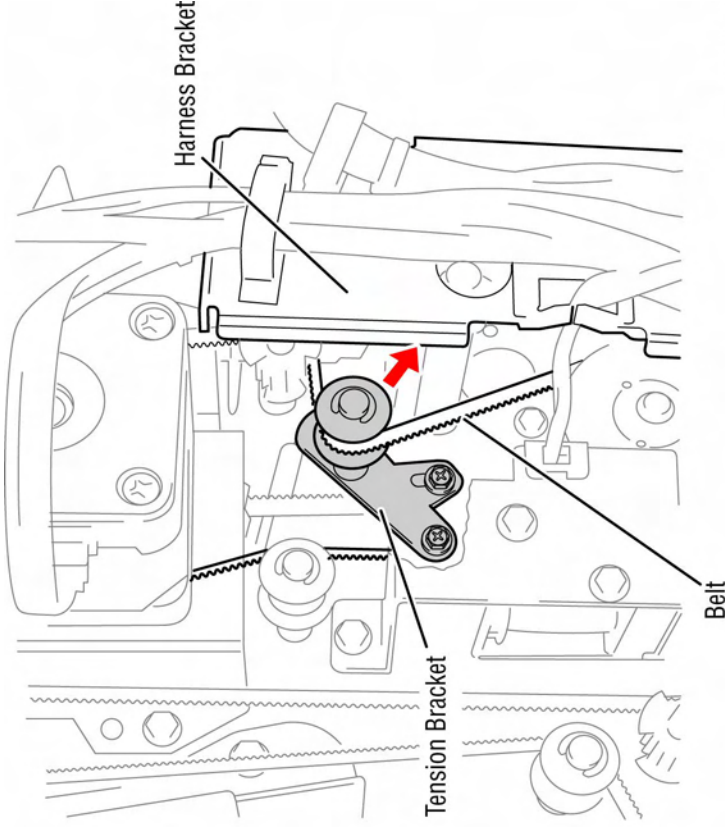


Figure 2 Loosening the screws and moving the Tension Bracket

10. Remove the Gear attached to the Transport Roller shaft on the rear.
11. Remove the Bearing.

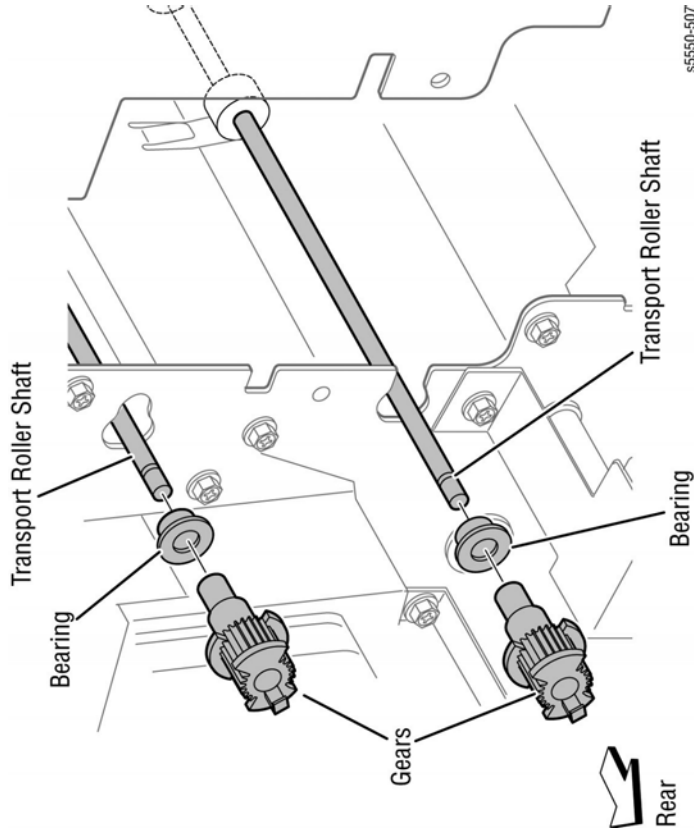


Figure 3 Removing the Gear and Bearing

12. Remove the E-ring securing the Transport Roller shaft on the front.
13. Remove the Bearing.
14. Move the Transport Roller shaft to the front to remove the rear end of the shaft from the hole in the rear frame.
15. Remove the shaft from the Finisher.

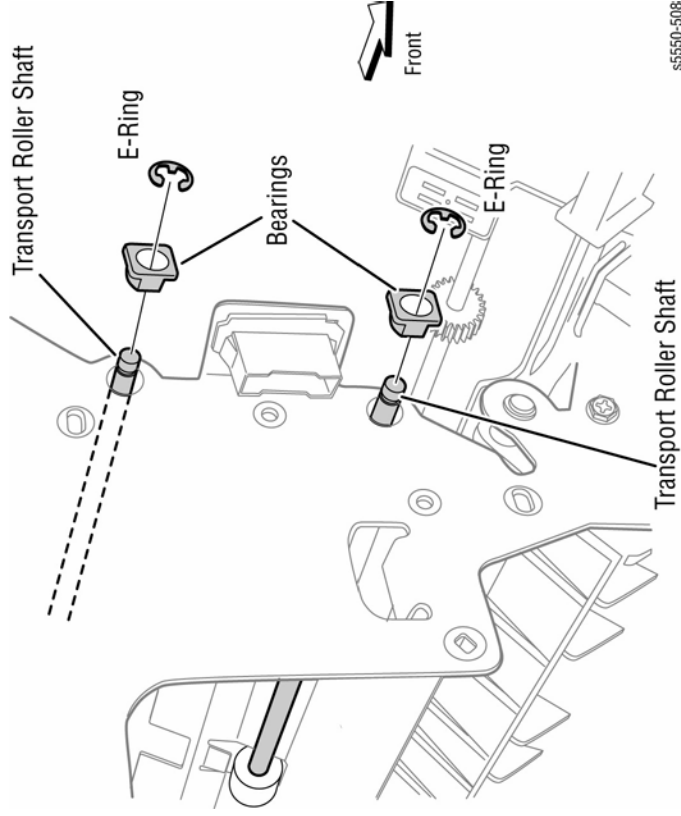


Figure 4 Removing the Transport Rollers

### Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.



## REP 25.92 Finisher Exit Motor and Belt

### Parts List on PL 25.13 Item 30

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Loosen the two screws securing the Exit Motor Belt Tension Bracket.
3. Move the Tension Bracket in the direction of the arrow to reduce belt tension and remove the Belt from the pulleys.

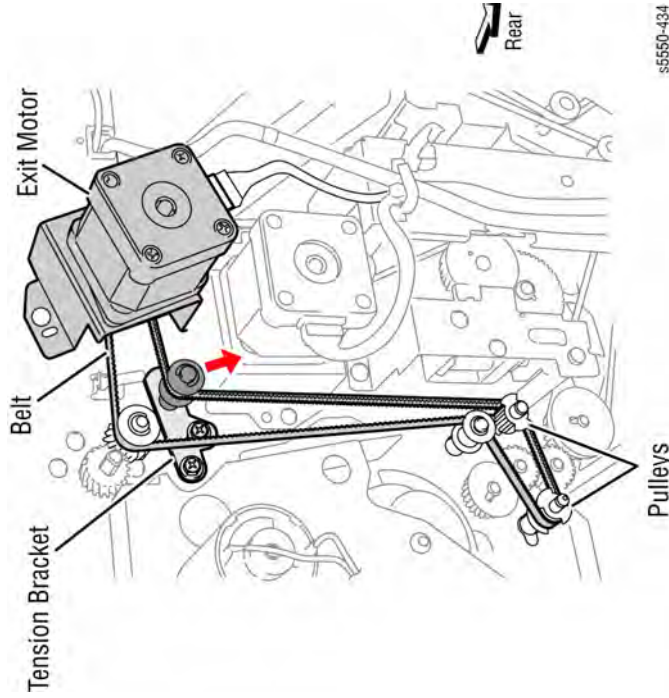


Figure 1 Loosening the screws and moving the Tension Bracket

4. Disconnect the Exit Motor connector (J8334).
5. Remove the two screws securing the Exit Motor Bracket.
6. Remove the two screws securing the Exit Motor to the bracket.

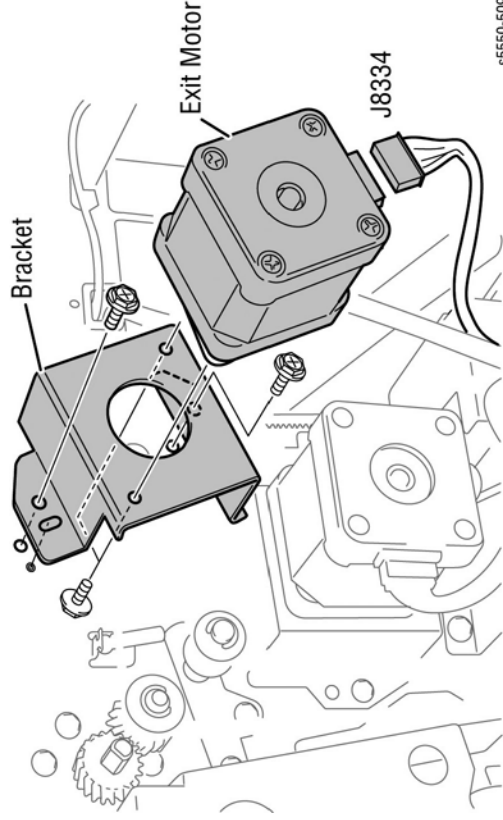


Figure 2 Removing the Finisher Exit Motor and Belt

#### Replacement

Belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

Put the two bosses of chassis into the two holes on the Exit Motor Bracket.

## REP 25.93 Finisher Registration Motor and Belt

### Parts List on PL 25.13 Item 30

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the two screws securing the Harness Bracket. Remove only the two screws to facilitate removal of the gear. Do not to remove the Harness Bracket from the Finisher.
3. Loosen the two screws securing the Registration Motor Belt Tension Bracket.
4. Move the Tension Bracket in the direction of the arrow reduce belt tension and remove the Belt from the pulleys.

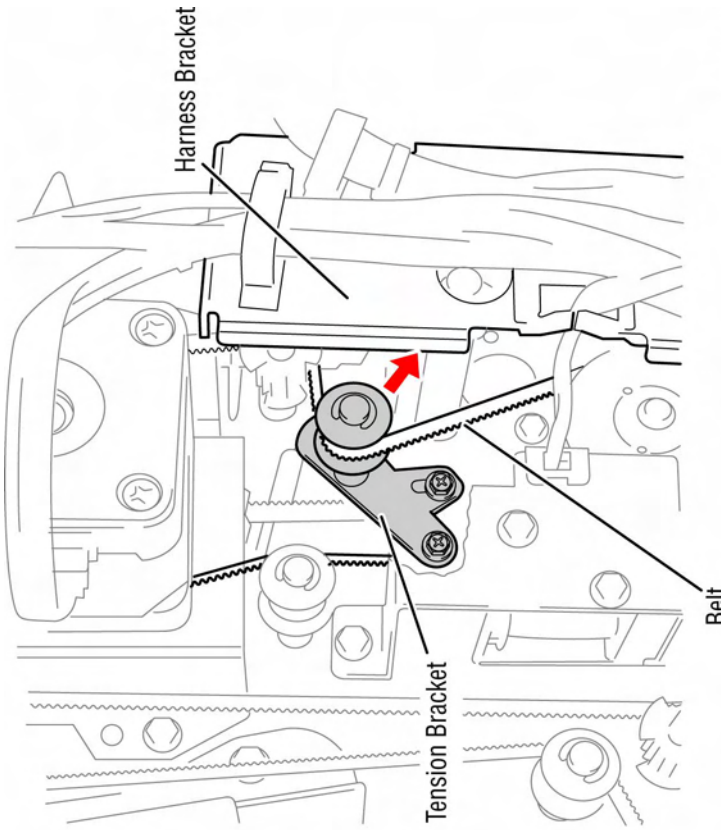


Figure 1 Loosening the screws and moving the Tension Bracket

5. Disconnect the Registration Motor connector (J8335).
6. Remove the two screws securing the Registration Motor Bracket.
7. Remove the two screws securing the Registration Motor to the bracket.

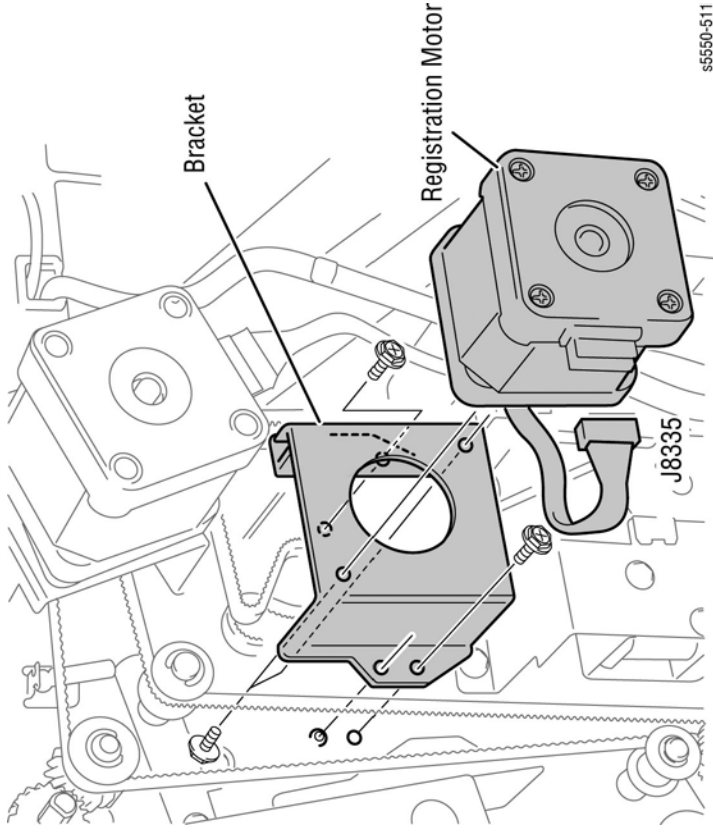


Figure 2 Removing the Registration Motor and Belt

#### Replacement

Put the two bosses into the two holes on the Motor Bracket. Also, belt tension is automatically adjusted by the force of the Tension Spring attached to the Tension Bracket. When tightening the two screws, be careful not to move the Tension Bracket.

## REP 25.94 Horizontal Transport PWB

### Parts List on PL 25.14 Item 3

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the screw securing the Horizontal Transport Connector plate.
3. Disconnect the three connectors on the Horizontal Transport PWB.
4. Remove the two screws securing the PWB to the Finisher and remove.

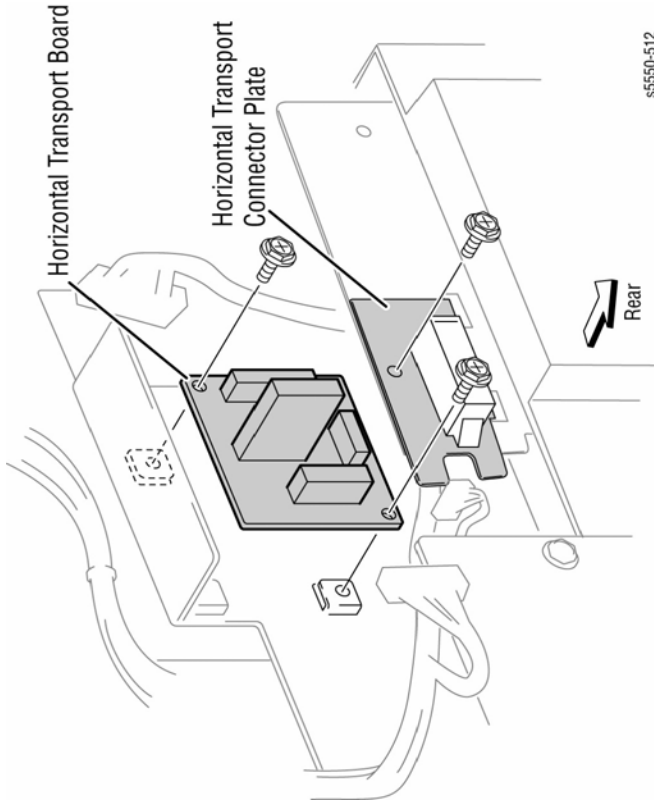


Figure 1 Removing the Horizontal Transport PWB

## REP 25.95 Finisher Main PWB

### Parts List on PL 25.14 Item 5

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Remove the Lower Rear Cover (REP 25.16).
3. Loosen the four screws securing the Finisher Main PWB Cover.
4. Move the Finisher Main PWB Cover in the direction of the arrow to remove.

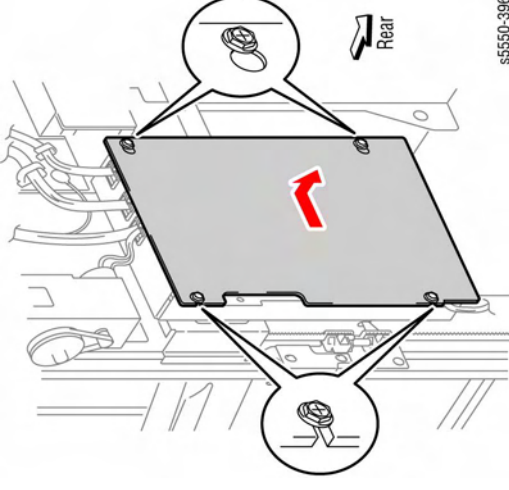


Figure 1 Removing the Main PWB Cover

5. Mark and disconnect all the connectors on the Finisher Main PWB.
6. Remove the six screws securing the Finisher Main PWB.

## REP 25.96 Low Voltage Power Supply

### Parts List on PL 25.14 Item 9

#### Removal

1. Remove the Bottom Cover (REP 25.18).
2. Disconnect the three connectors on the LVPS.
3. Remove the two screws securing the LVPS to the Finisher.

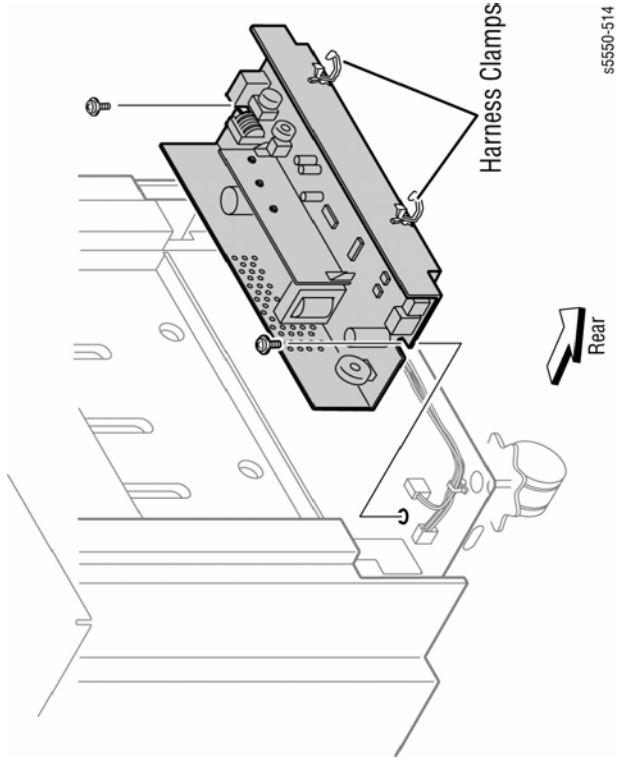


Figure 1 Removing the Low Voltage Power Supply

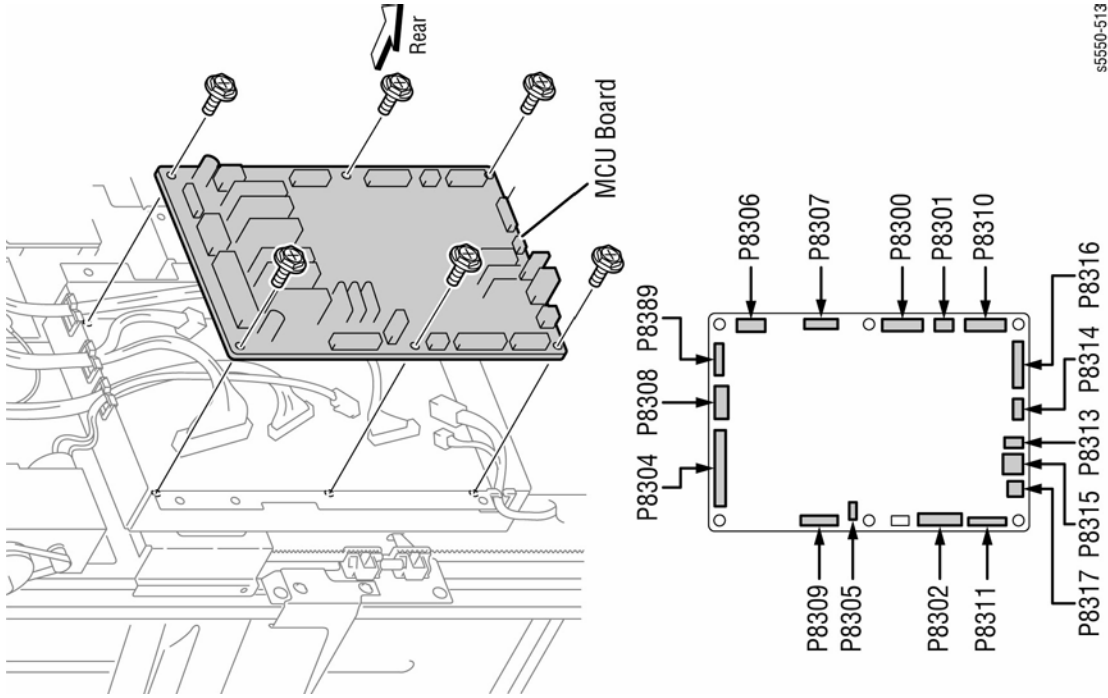


Figure 2 Removing the Main PWB

#### Replacement

When replacing this board, set the Finisher option settings (punch/staple) using Service Diagnostics. Finisher NVRAM is read following a reboot or entry into Service Diagnostics. Failure to reset these settings in the replacement board can result in improper Finisher operation and diagnostic test results.

## REP 25.97 Finisher Stacker Cover

### Parts List on PL 25.10 Item 19

#### Removal

1. Remove the Upper Rear Cover (REP 25.15).
2. Without touching the Encoder, slide the Gear in the direction of the arrow and away from the Pulley Doc Clutch. Move the Stacker Lower Tray to its lowest position.

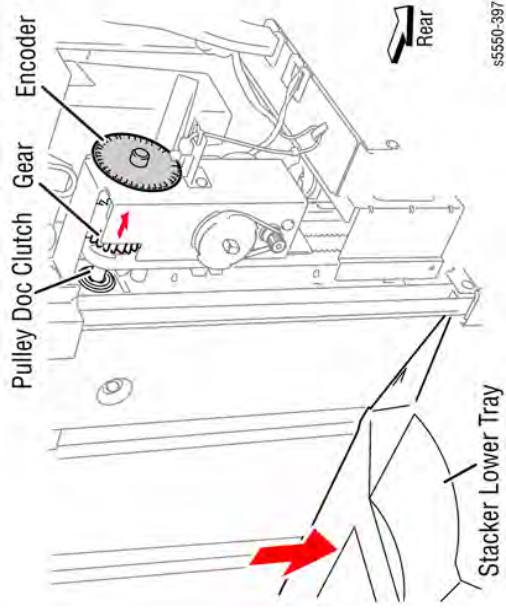


Figure 1 Lowering the Stacker Lower Tray

3. Remove the Stacker Lower Tray (REP 25.27).
4. Remove the four screws that secure the cover to the Finisher.

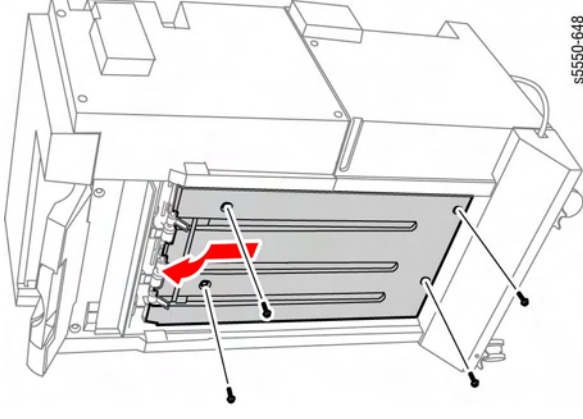


Figure 2 Removing the Finisher Stacker Cover

5. Lift the cover slightly and remove from the Finisher.

## Service Test Prints

### Test Prints

There are five test prints stored in the printer that are primarily intended for service use:

- Print Quality Test Print
- Engine Test Prints (from Service Diagnostics)
  - Grid Pattern
  - Stripe pattern
  - Dark pattern
  - Blank - Laser off

### Print Quality Test Print

The Print Quality test print contains blocks, lines, patterns, and text, as shown in the sample on the following page. The Print Quality test print aids in the evaluation of print quality and in making registration adjustments. For more details about analyzing Test Prints, see Analyzing Test Prints in Section 3.

To print a Print Quality Test Print:

1. From the Main menu, select **Troubleshooting**, then press the **OK** button.
2. Select **Print Quality Problems**, then press the **OK** button.
3. Select **Test Prints**, then press the **OK** button.

The printer automatically doubles the image quality selected. As an example, if one page is selected, the printer prints two images.

**NOTE:** *The printer prints the test print using the job defaults established in the Printer Setup menu. Insure that Edge-to-Edge Printing, located under the PCL Setup menu, is set to Off before printing the test print; otherwise, the image is shifted left. If the default Print Quantity (in the General Setup submenu) is 5, the printer prints 10 pages when duplexing is Off (in the Paper Handling Setup submenu) or five 2-sided prints when duplexing is On.*

To set or change the job defaults:

1. From the Main menu, select **Print Setup**, then press the **OK** button.
2. Select the submenu containing the print parameter that you want to change, then press the **OK** button. For example, to change Edge-to-Edge Printing, select the **PCL Setup** submenu.
3. Select the print parameter that you want to change, then press the **OK** button. In the example, select **Edge-to-Edge Printing**.
4. In most cases, you make a choice from several alternatives, then press the **OK** button. In other cases, you press the **OK** button to toggle the setting between On and Off.
5. When you have finished setting all the parameters, select **Exit** and press the **OK** button to return the printer to the **Ready** state.

## ADJ 4.1 Checking Registration

### Print Quality Test Print

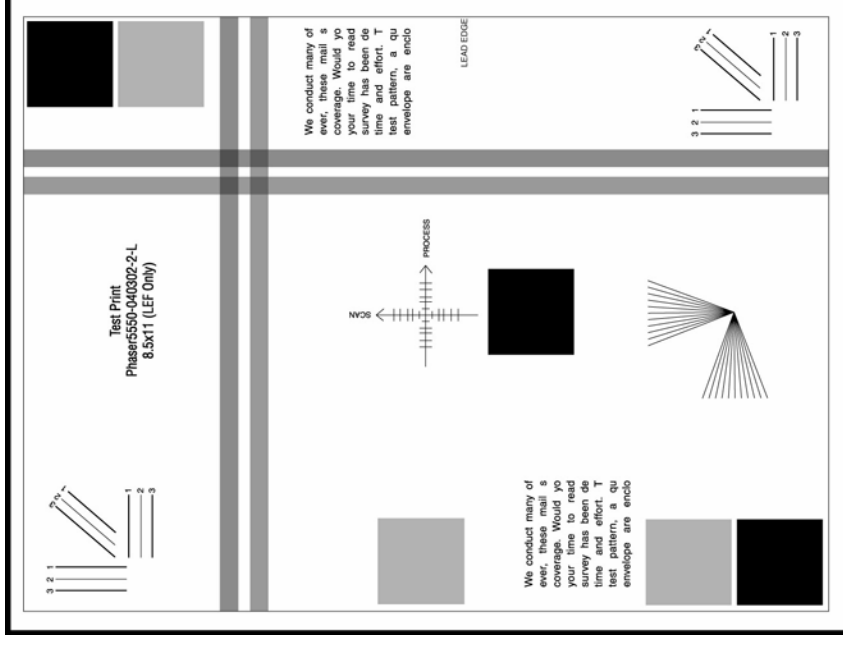


Figure 1 Print Quality Test Print

## Adjustment

This procedure checks the printer registration in the horizontal (scan) direction and the vertical (process) direction for both simplex and duplex printing. If any registration measurement does not meet the specification, use the Printer NVRAM Adjustments utilities found in Service Diagnostics to make the necessary registration adjustments.

Start the registration adjustment procedure by verifying that the current settings in NVRAM are at the factory defaults of 50 for the scan direction and 33 for the process direction. Once set to factory defaults, perform registration testing on all input trays in both simplex and duplex modes. Use the job defaults to change the supply tray and mode to generate Print Quality test prints from each source.

1. From the Main menu, select **Troubleshooting**, then press the **OK** button.
2. Select **Print Quality Problems**, then press the **OK** button.
3. Select **Test Prints**, then press the **OK** button. Depending on your job settings, two or more Print Quality Test prints should print.
4. For the scan direction, side-to-side, fold the test print like this:

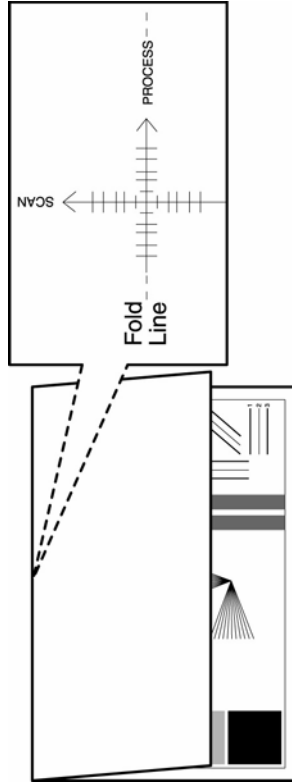


Figure 1 Scan Direction

5. For the Process direction, leading to trailing edge, fold the test print as shown in Figure 2.

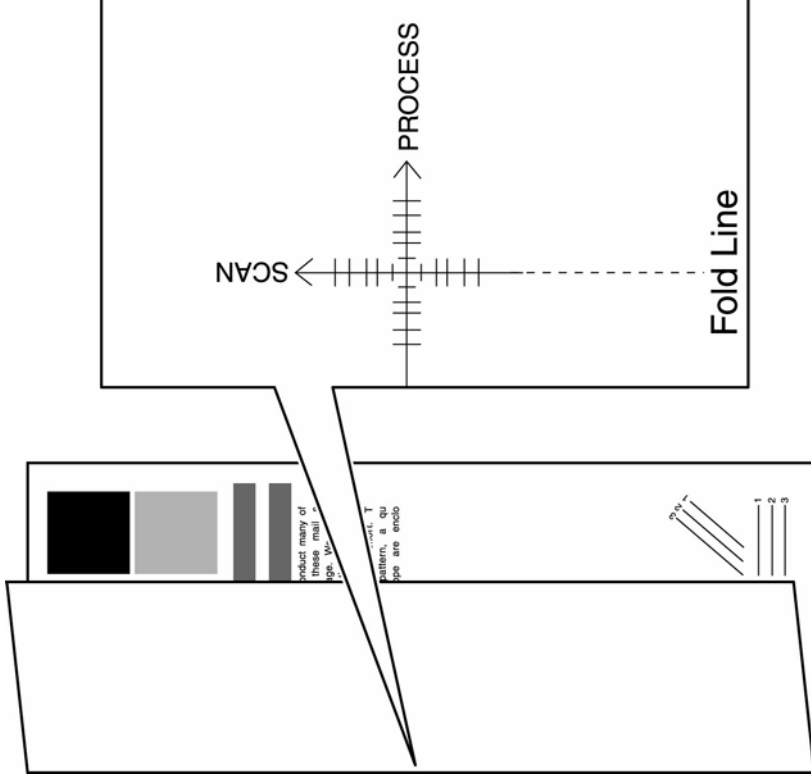


Figure 2 Process Direction

6. Check the point where the fold line intersects the target. Maximum deflection from the centerline is 2.5 mm in either direction. The target lines are graduated in 1 mm. increments.

If the fold line falls more than 2.5 mm from the target, use the following procedure to realign the image on the paper.



## ADJ 4.2 Adjusting Simplex Registration Adjustment

**NOTE:** When making scan direction adjustments, or for all trays in the process direction, adjustment changes are automatically replicated for duplex prints. Following a scan or all tray process direction adjustment, check that duplex registration remains within specification.

In general, it is best to make registration adjustments for individual trays. Limit use of the All Trays utilities to only those instances when testing indicates a general mis-alignment condition exists.

Registration changes are made by increasing or decreasing the stored value that controls the image position on the page. For scan direction adjustments, each variable is set at the factory to a value of 50. The maximum for scan direction adjustments is 99 with a minimum of 1. Increasing or decreasing a scan direction value by one (1) results in a .254 mm change in the image position. For the process direction the factory default is 33. The maximum is 66 and the minimum is zero (0).

Changes to the current value for process direction variables by one (1) moves the leading edge of the image .363mm closer or further from the edge of the paper.

1. Enter Service Diagnostics.
2. Select **Printer NVRAM Adjustments**, then press the **OK** button.
3. Select either the process adjustment (**Tray [#] Proc Dir**) or scan adjustment (**Tray [#] Scan Dir**) for the desired tray, then press the **OK** button.
4. Use the **Up Arrow** and **Down Arrow** buttons to set the new value based on measurements taken from the target area.

**NOTE:** In the scan direction, increasing the value moves the image down and decreasing the value moves the image up.

In the process direction, increasing the value moves the image toward the trail edge and decreasing the value moves the image towards the lead edge.

5. Press the **OK** button to save the setting.
6. Press the **Back** button.
7. Exit Service Diagnostics and reprint the Print Quality test print.
8. Fold as before to verify your adjustments.
9. Repeat steps 1 through 8 until simplex registration is corrected.

## ADJ 4.3 Adjusting Duplex Registration Adjustment

Duplex registration adjustment follows a similar procedure to simplex adjustments. Use the job defaults under the Printer Setup menu to print multiple copies of the Print Quality Test print in two-sided (duplex) mode. Fold these prints as before and measure deflection of the fold line on the target. If deflection of the fold line in either direction exceeds 2.5 mm, use the following procedure to make the necessary duplex registration adjustments.

1. Enter Service Diagnostics.
2. Select **Printer NVRAM Adjustments**, then press the **OK** button.
3. Select either the duplex process adjustment (**Duplex Proc Dir**) or scan adjustment (**Duplex Scan Dir**), then press the **OK** button.
4. Use the **Up Arrow** and **Down Arrow** buttons to set the new value based on measurements taken from the target area.
5. Press the **OK** button to save the setting.
6. Press the **Back** button.
7. Exit Service Diagnostics and reprint the Print Quality test print.
8. Fold as before to verify your adjustments.
9. Repeat steps 1 through 8 until duplex registration is corrected.



## ADJ 6.1 Adjusting Fuser Temperature Adjustment

Four temperature settings, listed in the following table, are available for each paper type supported by the printer. The default fuser temperature setting for each paper type is also noted. See Fuser in Section 8 (Theory of Operation) for additional information on Fuser temperature settings.

Table 1 Control Panel Fuser Temperature Modes by Paper Type

Paper Type	Temperature			
	Low	Medium	High	Extra High
Plain, Letter-head, Colored, Special	Plain Paper Mode 1	Plain Paper Mode 1 (Default)	Thick Paper Mode 1	Thick Paper Mode 2
Transparency	Transparency Paper Mode (Default)	Plain Paper Mode 2	Plain Paper Mode 1	Thick Paper Mode 1
Labels	Plain Paper Mode 1	Thick Paper Mode 1	Thick Paper Mode 4 (Default)	Thick Paper Mode 2
Card Stock, Envelopes	Plain Paper Mode 2	Plain Paper Mode 1	Thick Paper Mode 1 (Default)	Thick Paper Mode 2
Prepunched	Plain Paper Mode 2	Plain Paper Mode 1 and (Default)	Thick Paper Mode 1	Thick Paper Mode 2

To change the Fuser setting for a particular paper type:

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **Paper Handling Setup**, then press the **OK** button.
3. Select **Fuser Configuration**, then press the **OK** button.
4. Select a temperature settings from the four available, then press the **OK** button to place a check mark by that setting.

**NOTE:** You must scroll up to see the *Extra High* setting.

5. Select **Exit**, then press the **OK** button.

## ADJ 6.2 Resetting Fuser Life Adjustment

This procedure restarts the counter that tracks Fuser life. Perform this procedure after you install a new Maintenance Kit.

**NOTE:** Resetting the Fuser Life counter also resets the Transfer Roller counter and all Tray Page counters to zero.

To reset the Fuser:

1. From the Main menu, select **Information**, then press the **OK** button.
2. Select **Supplies Info**, then press the **OK** button.
3. Select **Reset Fuser Life**, then press the **OK** button.
4. Select **Reset Fuser Life NOW**, then press the **OK** button to reset the fuser life.

## Resetting the Printer to Default Values

### Resetting Printer Values

You can reset printer values on the following menus to the factory default settings:

- Connection Setup
- Paper Handling Setup
- PostScript Setup
- PCL Setup
- General Setup
- Control Panel Setup
- Printer Controls
- File Security (available if the printer has a hard drive)

You can reset all of the Image Processor Board NVRAM-stored parameters to their factory default values by resetting the PostScript NVRAM. Instructions for resetting PostScript NVRAM are in Resetting Printer Default Settings (PostScript NVRAM).

**NOTE:** *There is no single reset for the Print Engine NVRAM.*

### Resetting Connection Setup Values

Resetting the connection setup values resets the Printer Name, TCP/IP address, TCP/IP address menu settings (gateway, broadcast, etc.), CentreWare IS, EtherTalk, NetWare, set IPX frame type, IPP, and Ethernet speed to their default values.

#### CAUTION

*Before resetting the connection setup values to factory default values, make note of the current network settings or print a Configuration Page to record the printer's current network settings.*

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **Connection Setup**, then press the **OK** button.
3. Select **Reset Connection Setup**, then press the **OK** button.
4. Select **Reset Connection Setup NOW**, then press the **OK** button.

### Resetting Paper Handling Setup Values

Resetting the paper handling setup values resets the default paper source, 2-sided printing, tray setup (default paper type/size), load paper timeout, tray sequence, tray prompt, custom size paper units, default paper destination, job offset, output tray switch, fuser temperature configuration, and reprint jammed pages settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **Paper Handling Setup**, then press the **OK** button.
3. Select **Reset Paper Handling Setup**, then press the **OK** button.
4. Select **Reset Paper Handling Setup NOW**, then press the **OK** button.

### Resetting PostScript Setup Values

Resetting the PostScript setup values resets the PostScript Error Info, Image Smoothing, and Edge-to-Edge Printing settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **PostScript Setup**, then press the **OK** button.
3. Select **Reset PostScript Setup**, then press the **OK** button.
4. Select **Reset PostScript Setup NOW**, then press the **OK** button.

### Resetting PCL Setup Values

Resetting the PCL Setup values resets the default font number, pitch, point size, symbol set, orientation, form length, line termination character, and Edge-to-Edge Printing settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **PCL Setup**, then press the **OK** button.
3. Select **Reset PCL Setup**, then press the **OK** button.
4. Select **Reset PCL Setup NOW**, then press the **OK** button.

### Resetting General Setup Values

Resetting the General setup values resets the Print-Quality Mode, Print Quantity, and Print with Low Toner settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **General Setup**, then press the **OK** button.
3. Select **Reset General Setup**, then press the **OK** button.
4. Select **Reset General Setup NOW**, then press the **OK** button.

### Resetting Control Panel Setup Values

Resetting the Control Panel values resets the Control Panel Language, Control Panel Brightness, Control Panel Contrast, and Accessible Control Panel settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **Control Panel Setup**, then press the **OK** button.
3. Select **Reset Control Panel Setup**, then press the **OK** button.
4. Select **Reset Control Panel Setup NOW**, then press the **OK** button.

### Resetting Printer Controls Setup Values

Resetting the Printer Controls values resets the Startup Page, Power Saver Timeout, and Power Saver settings.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **Printer Controls**, then press the **OK** button.
3. Select **Reset Printer Controls**, then press the **OK** button.
4. Select **Reset Printer Controls NOW**, then press the **OK** button.

## Resetting File Security Setup Values

The File Security settings are only available when the printer has a hard drive. Resetting the File Security values resets the settings that control making files deleted from the hard drive unrecoverable and control when old Proof and Secure Job Print files are removed from the hard drive.

1. From the Main menu, select **Printer Setup**, then press the **OK** button.
2. Select **File Security Setup**, then press the **OK** button.
3. Select **Reset File Security Setup**, then press the **OK** button.
4. Select **Reset File Security Setup NOW**, then press the **OK** button.

### Resetting Printer Default Settings (PostScript NVRAM)

Resetting the PostScript NVRAM restores all printer values stored in the Image Processor Board (including network, printer setup, job defaults, and margin) to their factory default values. The print counts and the Adobe firmware serial number are not affected by this reset.

### CAUTION

*Before resetting the printer default settings to factory default values, make note of the current network settings or print a Configuration Page to record the customer's current network settings.*

You can reset the PostScript NVRAM by:

- Using the Main menu
- Using the Service Diagnostics menu
- Using the Control Panel Shortcut

#### Using the Main Menu

1. From the Main menu, select **Troubleshooting**, then press the **OK** button.
2. Select **Service Tools**, then press the **OK** button.
3. Select **Reset NVRAM**, then press the **OK** button.
4. Select **Reset NVRAM and Reset Printer NOW**, then press the **OK** button to reset all the settings to their factory default values.

#### Using the Service Diagnostics Menu

1. Enter Service Diagnostics.
2. Select **IP NVRAM Access**, then press the **OK** button.
3. With **PostScript NVRAM Reset** highlighted, press the **OK** button.

The printer then exits Service Diagnostics and reboots. While booting, NVRAM is reset.

#### Using the Control Panel Shortcut

1. At power-on, press the **Back + OK** buttons together.
2. When **Password** appears, press and hold the **Up Arrow + Down Arrow** buttons together within 2 seconds.

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## Parts List Overview

### Introduction

The Parts List section identifies all part numbers and the corresponding location of all spared subsystem components.

### Organization

#### Parts Lists

Each item number in the part number listing corresponds to an item number in the related illustration. All the parts in a given subsystem of the machine will be located in the same illustration or in a series of associated illustrations.

#### Common Hardware

The common hardware is listed in alphabetical order by the letter or letters used to identify each item in the part number listing and in the illustrations. Dimensions are in millimeters unless otherwise identified.

#### Service Procedure Referencing

If a part assembly has an associated repair or adjustment procedure, the procedure number will be listed at the end of the part description in the parts list e.g. (REP5.1, ADJ 5.3).

#### Use of the Term "Assembly"

The term "assembly" is used for items in the parts listing that may include other itemized parts. When the word "assembly" is found in the part number listing, there will be a corresponding item number on the illustrations followed by a bracket and a listing of the contents of the assembly.

## Using the Parts List

- **No.:** The callout number from the exploded part diagram.
- **Name/Description:** The name of the part to be ordered, appearing in UPPERCASE letters, and the number of parts supplied per order.
- **Part Number:** The material part number used to order that specific part.
- Parts identified throughout this manual are referenced **PL#.#.#**. For example, PL3.1.10 means the part is item 10 of Parts List 3.1.
- A black triangle preceding a number followed by a parenthetical statement in an illustrated parts list means the item is a parent assembly, made up of the individual parts called out in parentheses.
- 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.
- An asterisk (\*) following a part name indicates the page contains a note about this part.
- 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 J2 is attached to the other end that is plugged into P2.

**NOTE:** Only parts showing part numbers are available for ordering by support. Parts not showing part numbers are only available as part of a parent assembly.

Table 1 Abbreviations

Abbreviation	Meaning
C	C-ring
E	E-ring
KL	K-clip
S	Screw

## Serial Number Format

Changes to Xerox products are made to accommodate improved components as they become available. It is important when ordering parts to include the following information:

- Component's part number
  - Product type or model number
  - Serial number of the printer
- The serial number is found on a label located on the rear frame of the printer just inside Door A. Open Door A to locate the Serial Number.

The nine-digit serial number has the following format:

- PPP-SSSSS
- **PPP** = product code, as shown in the following table.

**Table 1 Serial Number Format**

Product Code	Product	Configuration
RET	5500	Phaser 5500, 110V
REU	5500	Phaser 5500, 220V
KPA	5550	Phaser 5550, 110V
KNB	5550	Phaser 5550, 220V

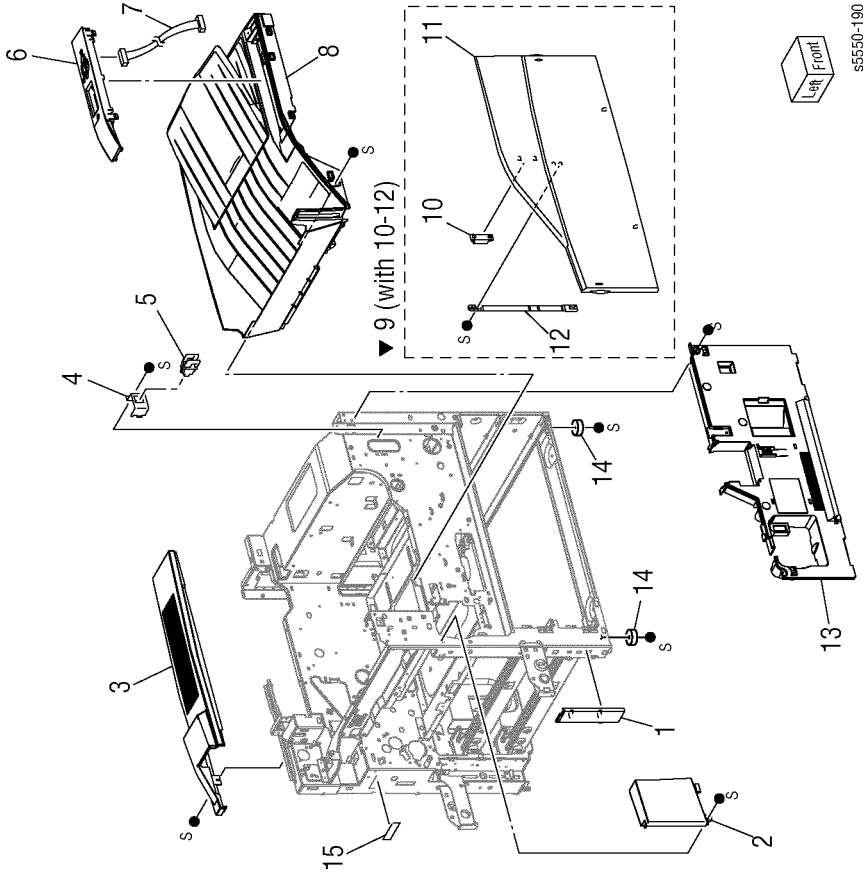
SSSSS = Numeric serial number

For example, a printer having RET219638 as its Serial Number:

- Is a 110 V Phaser 5500 Printer
- Has a 219638 serial number

## PL 1.1 Covers (1/2)

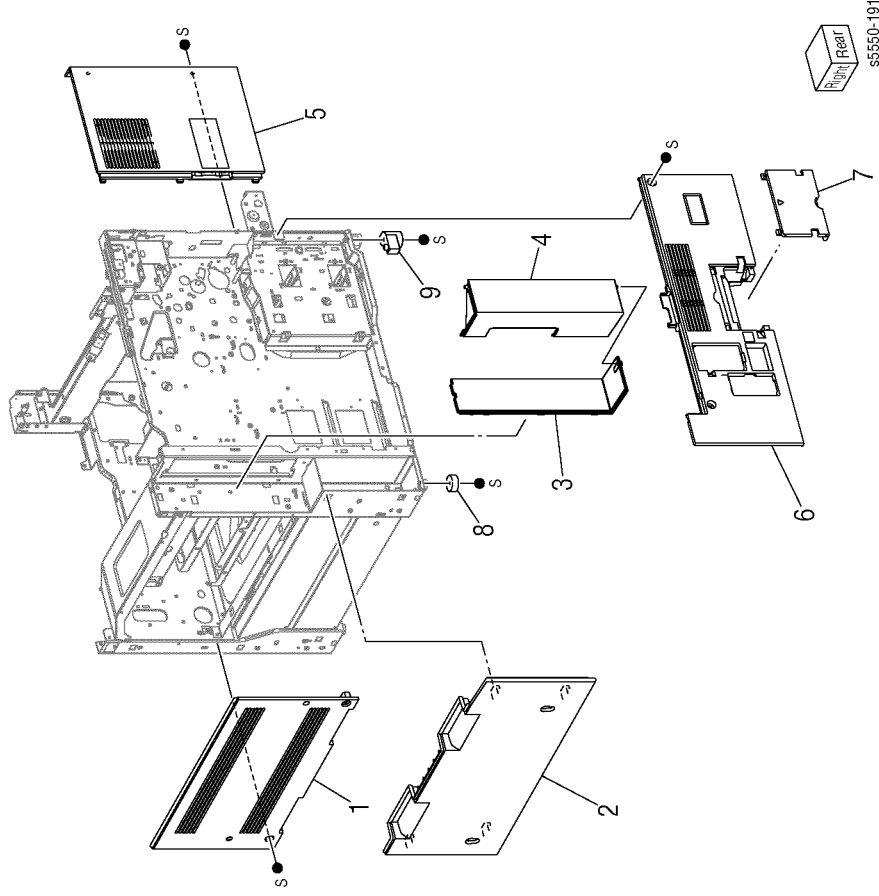
Item	Part	Description
1	802K74110	Cover Left FR, 5500
2	802E55372	Cover-FRS FR, PR (Front Left Cover)
3	802E55362	Cover-Top RR, PR (Top Rear Cover)
4	-	Bracket ILSW
5	110E94770	Switch (Front Door Interlock Switch)
6	802E64160	Control Panel, 5500
-	101K63680	Control Panel, 5550
7	962K24041	Harn Assy Console Panel
8	802K74170	Cover Assy Top PR (Top Cover)
9	802K74080	Cover Assy Front (with 10~12) (Front Door) 5500
-	848K16200	Cover Assy Front (with 10~12) (Front Door) 5550
10	-	Magnet Catch (P/O PL 1.1 Item 9)
11	-	Cover-Front (P/O PL 1.1 Item 9)
12	802E55351	Strip (Stopper) (P/O PL 1.1 Item 9)
13	802K58180	Cover Assy Inner, Main (Inner Main Cover)
14	-	Foot Front
15	-	Plate Ser





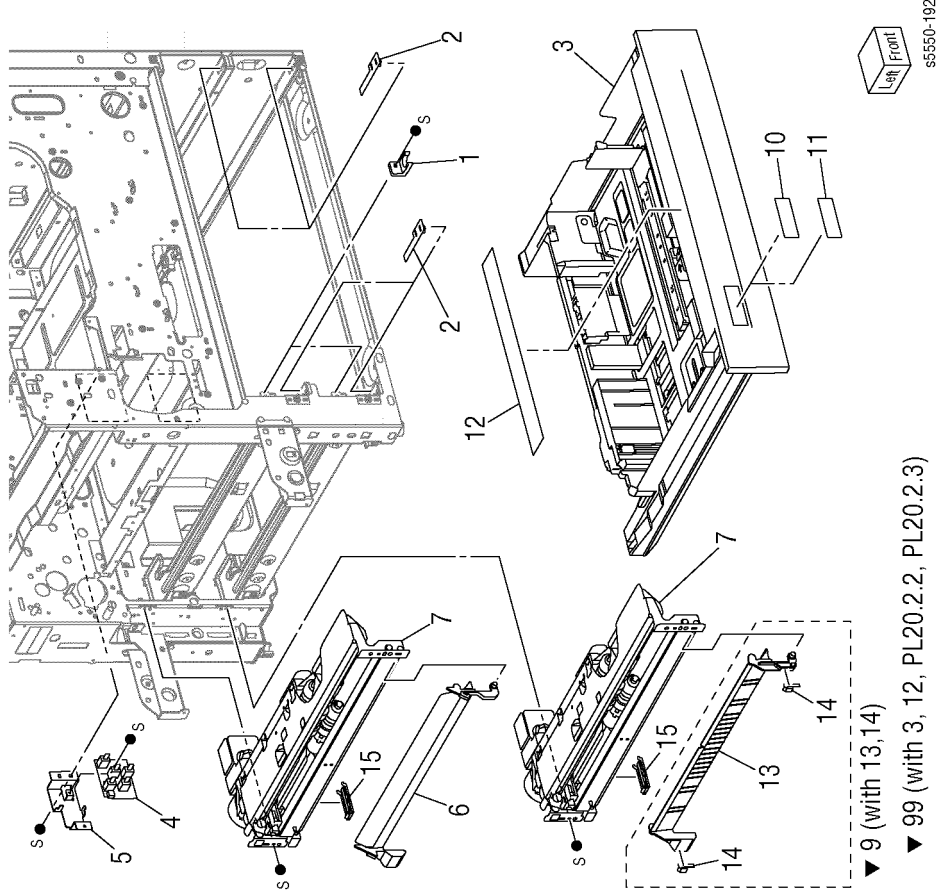
## PL 1.2 Covers (2/2)

Item	Part	Description
1	802E55231	Cover Right UPR (Upper Right Cover)
2	802E55242	Cover Right Low (Lower Right Cover)
3	802E55261	Cover ESS RH
4	802E55382	Cover-Cap ESS, PR (Rear Panel Cover)
5	802E55271	Cover Rear UPR (Upper Rear Cover)
6	802K74120	Cover Rear Low PR (Lower Rear Cover 110V) 5500
-	802K74130	Cover Rear Low PR (Lower Rear Cover 220V) 5500
-	848K16810	Cover Rear Low PR (Lower Rear Cover 110V) 5550
-	848K16820	Cover Rear Low PR (Lower Rear Cover 220V) 5550
7	802E55293	Cover-Cap MCU (Option Interface Cover)
8	-	Foot Front
9	-	Foot Rear Left



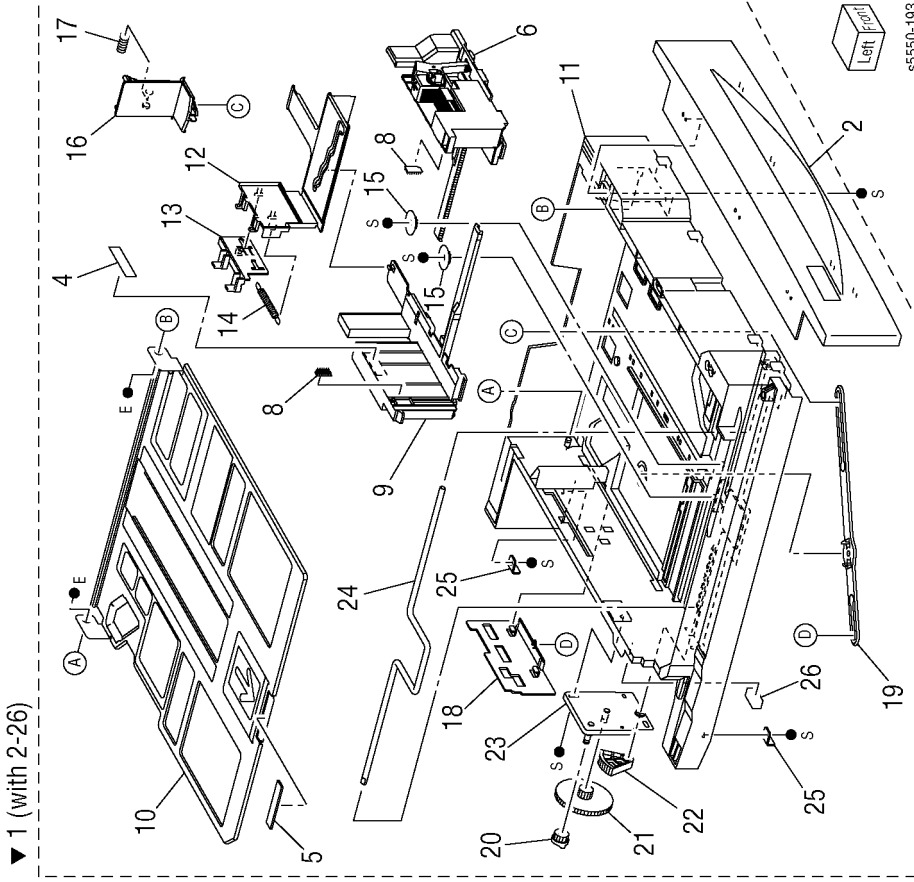
## PL 2.1 Tray (1/2) and Feeder (1/2)

Item	Part	Description
1	003E58700	Stopper-Tray
2	014E44710	Spacer Tray G
3	-	Tray Assy (PL 2.2, included with 99)
4	110K12100	Switch Assy P S (Paper Size Switch)
5	-	Bracket-SW
6	054K24091	Chute Assy Feeder
7	059K26938	Feeder Assy (P/O PL 2.3 Item 1)
8	-	--
9	054K27550	Chute Feed Out (with 13, 14)
10	-	Label, Tray No 1 (included with 97)
11	-	Label, Tray No 2 (included with 97)
12	-	Label INST, MN
13	-	Chute Feed Out (P/O PL 2.1 Item 9)
14	-	Pad Assy LH Low (P/O PL 2.1 Item 9)
15	-	Cover Sensor
97	604K23370	Kit Label (P/O PL 2.1 Item 10, PL 2.1 Item 11, PL 2.0.2 Item 2, PL 2.0.2 Item 3)
98	604K24321	Tray, Envelope (as option, not shown)
99	604K23331	500 Tray (P/O PL 2.1 Item 3, PL 2.1 Item 12, PL 2.0.2 Item 2, PL 2.0.2 Item 3)



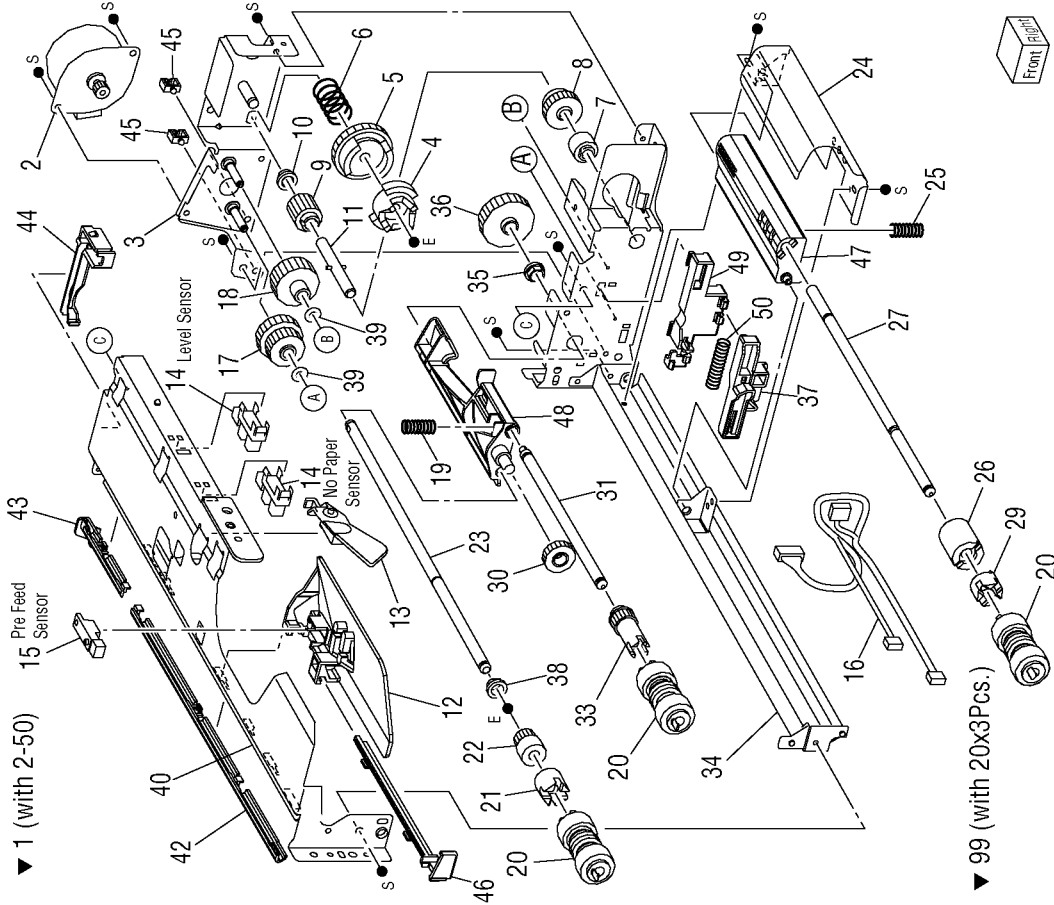
# PL 2.2 Tray (2/2)

Item	Part	Description
1	604K23331	Tray Assembly (with 2-26)
2	-	Tray Cover (P/O PL 2.2 Item 1)
3	-	--
4	-	Label (Max) (P/O PL 2.2 Item 1)
5	-	Bottom Pad (P/O PL 2.2 Item 1)
6	-	Front Side Guide (P/O PL 2.2 Item 1)
7	-	--
8	-	Tray Pad (P/O PL 2.2 Item 1)
9	-	Rear Side Guide (P/O PL 2.2 Item 1)
10	-	Bottom Plate (P/O PL 2.2 Item 1)
11	-	Tray (P/O PL 2.2 Item 1)
12	-	Side Guide Actuator (P/O PL 2.2 Item 1)
13	-	Guide Actuator (P/O PL 2.2 Item 1)
14	-	Spring (P/O PL 2.2 Item 1)
15	-	Pinion Gear (P/O PL 2.2 Item 1)
16	-	End Guide (P/O PL 2.2 Item 1)
17	-	Spring (P/O PL 2.2 Item 1)
18	-	End Guide Actuator (P/O PL 2.2 Item 1)
19	-	Link (P/O PL 2.2 Item 1)
20	-	Coupling Gear (13T) (P/O PL 2.2 Item 1)
21	-	Gear (13T/60T) (P/O PL 2.2 Item 1)
22	-	Sector Gear (60T) (P/O PL 2.2 Item 1)
23	-	Bracket (P/O PL 2.2 Item 1)
24	-	Lift Up Shaft (P/O PL 2.2 Item 1)
25	-	Stopper (P/O PL 2.2 Item 1)
26	-	Seal (P/O PL 2.2 Item 1)
99	-	Kit, Label



## PL 2.3 Feeder (2/2)

Item	Part	Description
1	059K26938	Feeder Assembly (with 2-50)
2	127K38171	Tray Feed Lift Up Motor (P/O PL 2.3 Item 1)
3	-	Bracket (P/O PL 2.3 Item 1)
4	-	Spacer (P/O PL 2.3 Item 1)
5	-	Gear (31T) (P/O PL 2.3 Item 1)
6	-	Spring (P/O PL 2.3 Item 1)
7	-	Oneway Clutch (P/O PL 2.3 Item 1)
8	-	Oneway Gear (P/O PL 2.3 Item 1)
9	-	Gear (13T) (P/O PL 2.3 Item 1)
10	-	Bearing (P/O PL 2.3 Item 1)
11	-	Shaft (P/O PL 2.3 Item 1)
12	-	Front Chute (P/O PL 2.3 Item 1)
13	120E22481	Actuator (No Paper Sensor)
14	930W00113	Actuator (P/O PL 2.3 Item 1)
15	930W00211	Sensor (No Paper or Level Sensor) (P/O PL 2.3 Item 1)
16	-	Sensor (Pre-Feed Sensor) (P/O PL 2.3 Item 1)
17	-	Wire Harness (P/O PL 2.3 Item 1)
18	-	Gear (28T/21T) (P/O PL 2.3 Item 1)
19	809E51070	Gear (29T) (P/O PL 2.3 Item 1)
20	-	Spring (P/O PL 2.3 Item 1)
21	-	Roller Assy -- Periodic replacement part per 300k prints (included with 99) (Feed Roller) (P/O PL 2.3 Item 1)
22	-	Oneway Clutch (P/O PL 2.3 Item 1)
23	-	Oneway Gear (22T) (P/O PL 2.3 Item 1)
24	-	Shaft (P/O PL 2.3 Item 1)
25	-	Chute (P/O PL 2.3 Item 1)
26	-	Spring (P/O PL 2.3 Item 1)
27	-	Friction Clutch (P/O PL 2.3 Item 1)
28	-	Shaft-Retard (P/O PL 2.3 Item 1)
29	-	Spacer (P/O PL 2.3 Item 1)
30	-	Gear (33T) (P/O PL 2.3 Item 1)
31	-	Shaft-Nudger (P/O PL 2.3 Item 1)
32	-	Gear (25T) (P/O PL 2.3 Item 1)
33	-	Lower Frame (P/O PL 2.3 Item 1)
34	-	Bearing (P/O PL 2.3 Item 1)
35	-	Gear (27T) (P/O PL 2.3 Item 1)
36	-	Lever (P/O PL 2.3 Item 1)
37	-	Bearing (P/O PL 2.3 Item 1)
38	-	Washer (P/O PL 2.3 Item 1)
39	-	Upper Frame (P/O PL 2.3 Item 1)
40	-	

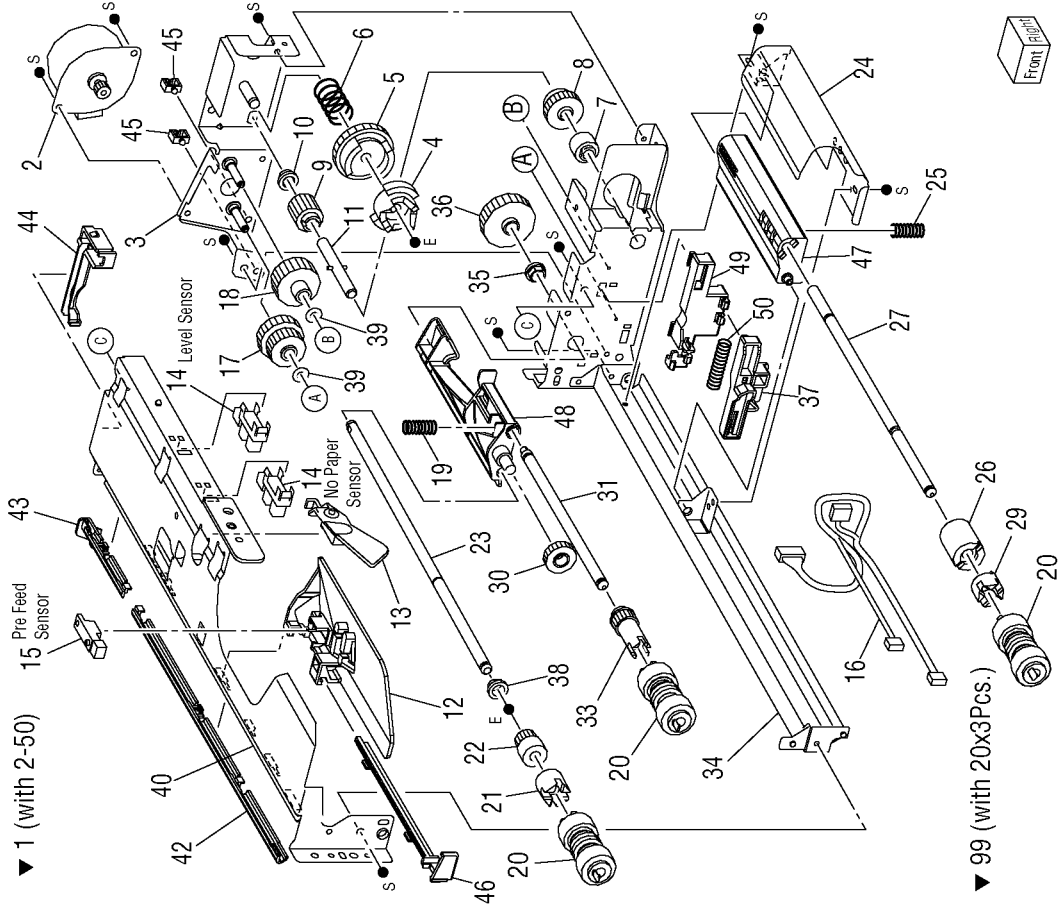


▼ 1 (with 2-50)

▼ 99 (with 20x3Pcs.)

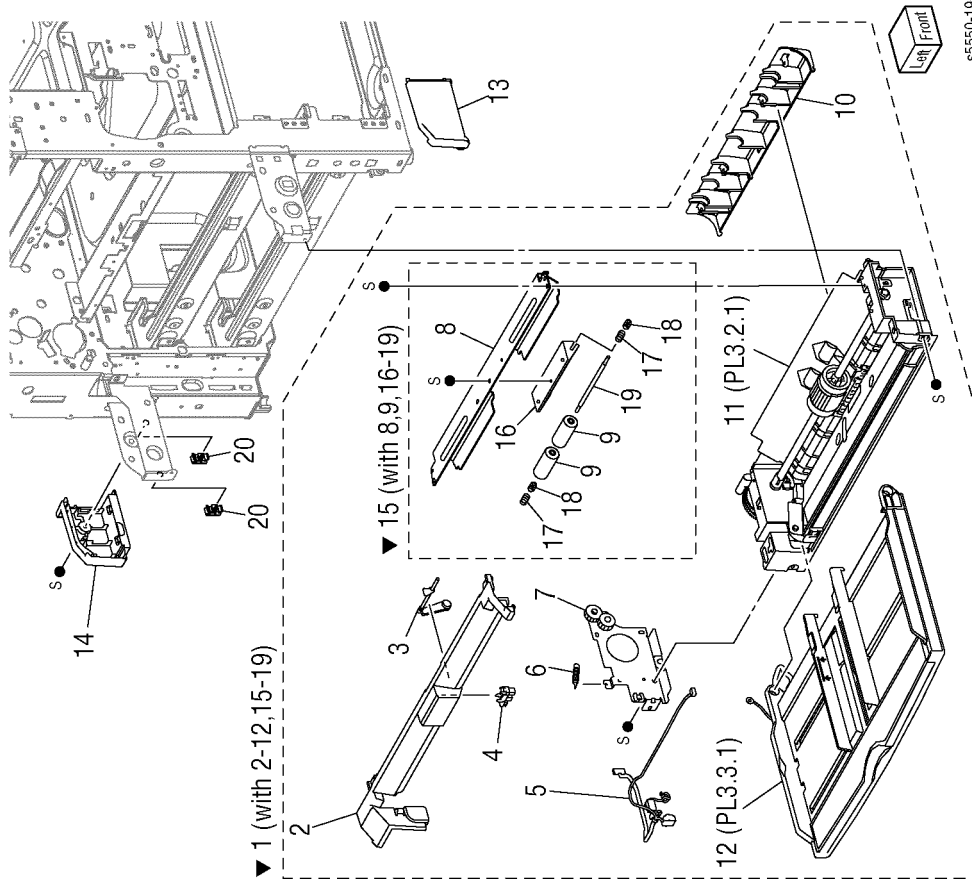
## PL 2.3 Feeder (2/2) (Continued)

Item	Part	Description
41	--	Holder Harness CTR (P/O PL 2.3 Item 1)
42	--	Holder Harness Rear (P/O PL 2.3 Item 1)
43	--	Holder Harness Upper (P/O PL 2.3 Item 1)
44	--	Holder Harness PS1 (ALT) (P/O PL 2.3 Item 1)
45	--	Clamp Mini-Saddle (ALT) (P/O PL 2.3 Item 1)
46	--	Rail
47	--	Support Retard (P/O PL 2.3 Item 1)
48	--	Support Nudger (P/O PL 2.3 Item 1)
49	--	Holder (P/O PL 2.3 Item 1)
50	--	Spring (P/O PL 2.3 Item 1)
99	604K20530	Kit Rolls (with 20 x 3 pcs.) Periodic replacement (per 300k print)



## PL 3.1 Tray 1/MPT Assembly

Item	Part	Description
1	059K31460	Feeder Assembly MSI (with 2-12, 15-19) (Tray 1/MPT Feeder) 5500
-	059K57330	Feeder Assembly MSI (with 2-12, 15-19) (Tray 1/MPT Feeder) 5550
2	-	Frame Upper (P/O PL 3.1 Item 1)
3	120E22231	Actuator (No Paper Sensor) (P/O PL 3.1 Item 1)
4	930W00113	Sensor-Photo IN (No Paper Sensor) (P/O PL 3.1 Item 1)
5	-	Harness Assy MSI (P/O PL 3.1 Item 1)
6	809E38160	Spring MSI (Pick-Up Gear Spring) (P/O PL 3.1 Item 1)
7	-	BRKT Assy-Gear (P/O PL 3.1 Item 1)
8	-	Chute Pinch (P/O PL 3.1 Item 1)
9	-	Roll Assy-Pinch (P/O PL 3.1 Item 1)
10	-	Chute Low (P/O PL 3.1 Item 1)
11	-	Frame Assy Lower (PL 3.2) (P/O PL 3.1 Item 1)
12	-	Tray Assy-MSI (PL 3.3) (P/O PL 3.1 Item 1)
13	802K74140	Cover MSI FR (Tray 1/MPT Front Cover)
14	802E55212	Cover MSI RR (Tray 1/MPT Rear Cover)
15	-	Chute Assy Pinch (P/O PL 3.1 Item 1)
16	-	Guide Pinch (P/O PL 3.1 Item 1)
17	-	Spring Pinch (P/O PL 3.1 Item 1)
18	-	Spacer Spring Pinch (P/O PL 3.1 Item 1)
19	-	Shaft Pinch (P/O PL 3.1 Item 1)
20	-	Wire Saddle

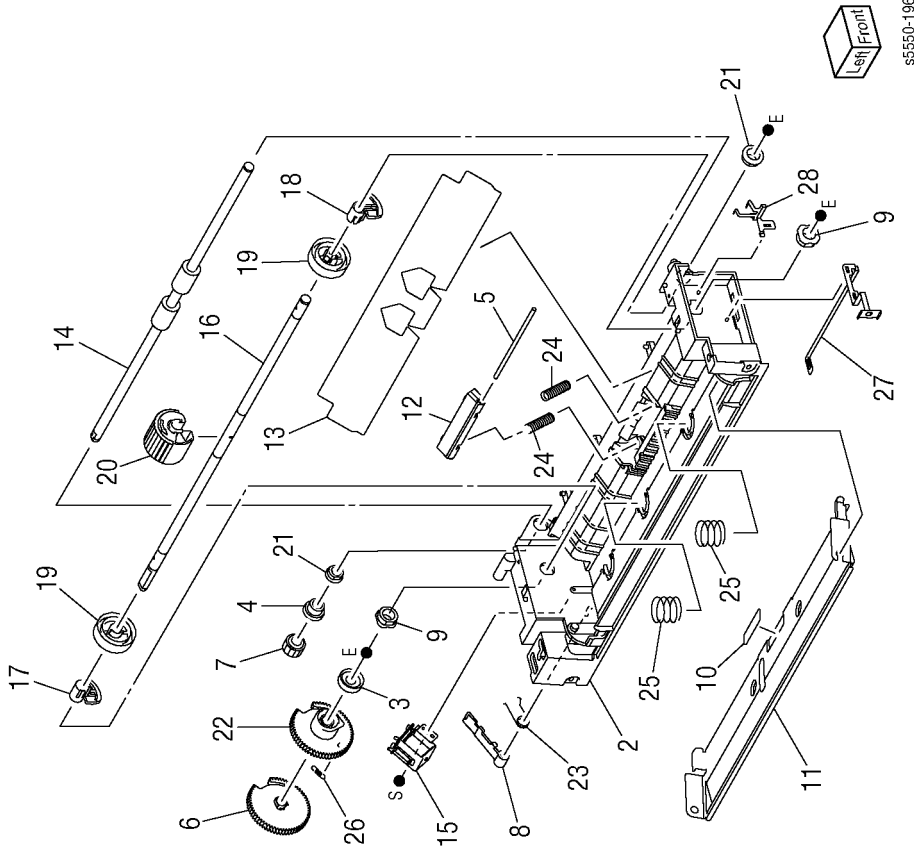


# PL 3.2 Tray 1/MPT Lower Frame

## Assembly

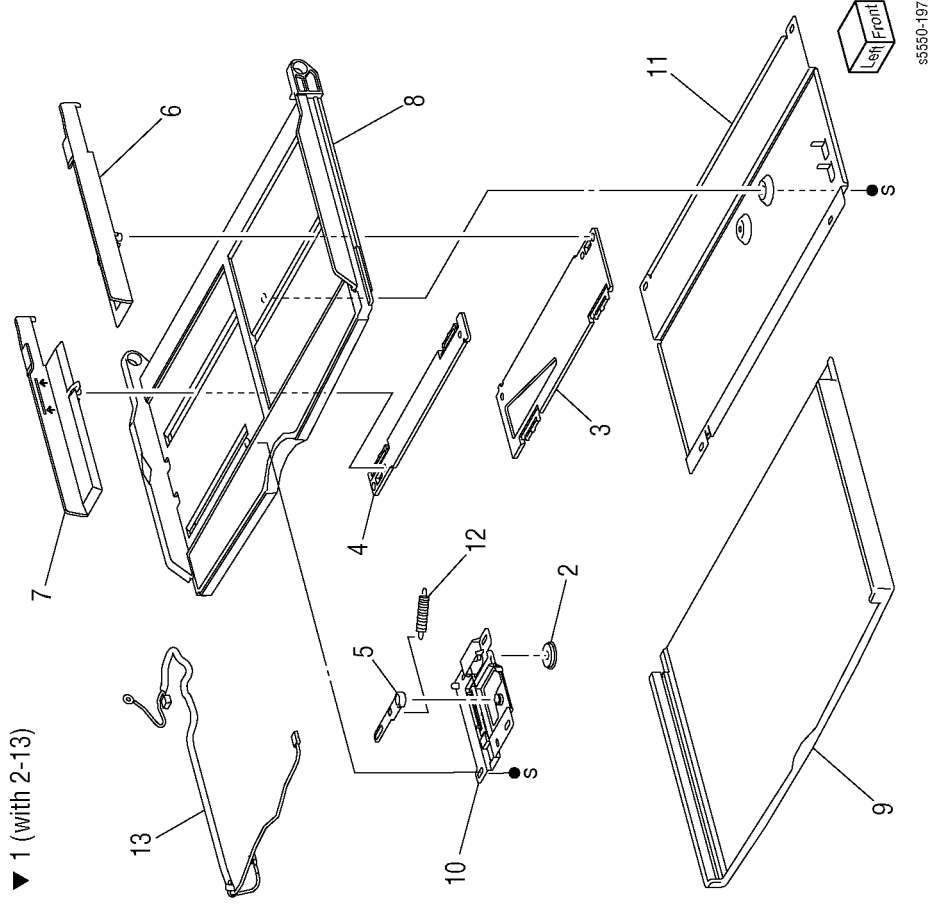
▼ 1 (with 2-28)

Item	Part	Description
1	-	Frame Assy Lower (with 2-28)
2	-	Frame Lower MSI (P/O PL 3.2 Item 1)
3	-	Stopper Lever (P/O PL 3.2 Item 1)
4	-	Collar (P/O PL 3.2 Item 1)
5	-	Shaft-Retard (P/O PL 3.2 Item 1)
6	-	Gear Pick Up (P/O PL 3.2 Item 1)
7	-	Gear 18T (P/O PL 3.2 Item 1)
8	-	Lever-Gear (P/O PL 3.2 Item 1)
9	-	Bearing 8 (P/O PL 3.2 Item 1)
10	019E56651	Pad Bottom (P/O PL 3.2 Item 1)
11	-	Plate Bottom (P/O PL 3.2 Item 1)
12	019K07086	Pad Assy-Retard (P/O PL 3.2 Item 1)
13	-	Guide Paper MSI (P/O PL 3.2 Item 1)
14	-	Roll Assy-Drive (P/O PL 3.2 Item 1)
15	121E92780	Solenoid Pick Up (P/O PL 3.2 Item 1)
16	-	Shaft Assy Pick Up (P/O PL 3.2 Item 1)
17	008E93831	CAM Pick Up 2 (P/O PL 3.2 Item 1)
18	008E94270	CAM Pick Up Front (P/O PL 3.2 Item 1)
19	-	Roll Core (P/O PL 3.2 Item 1)
20	604K23380	Roller Assy-Feed (Feed Roller with installation instructions) (P/O PL 3.2 Item 1)
21	-	Bearing Sleeve (P/O PL 3.2 Item 1)
22	-	Gear CAM (P/O PL 3.2 Item 1)
23	-	Spring Lever GE (P/O PL 3.2 Item 1)
24	809E27650	Spring Pad (Retard Pad Spring) (P/O PL 3.2 Item 1)
25	-	Spring N F (P/O PL 3.2 Item 1)
26	809E54530	Spring-Gear CAM (P/O PL 3.2 Item 1)
27	-	Plate Earth Bottom (P/O PL 3.2 Item 1)
28	-	Plate Earth Front (P/O PL 3.2 Item 1)



# PL 3.3 Tray 1/MPT Assembly

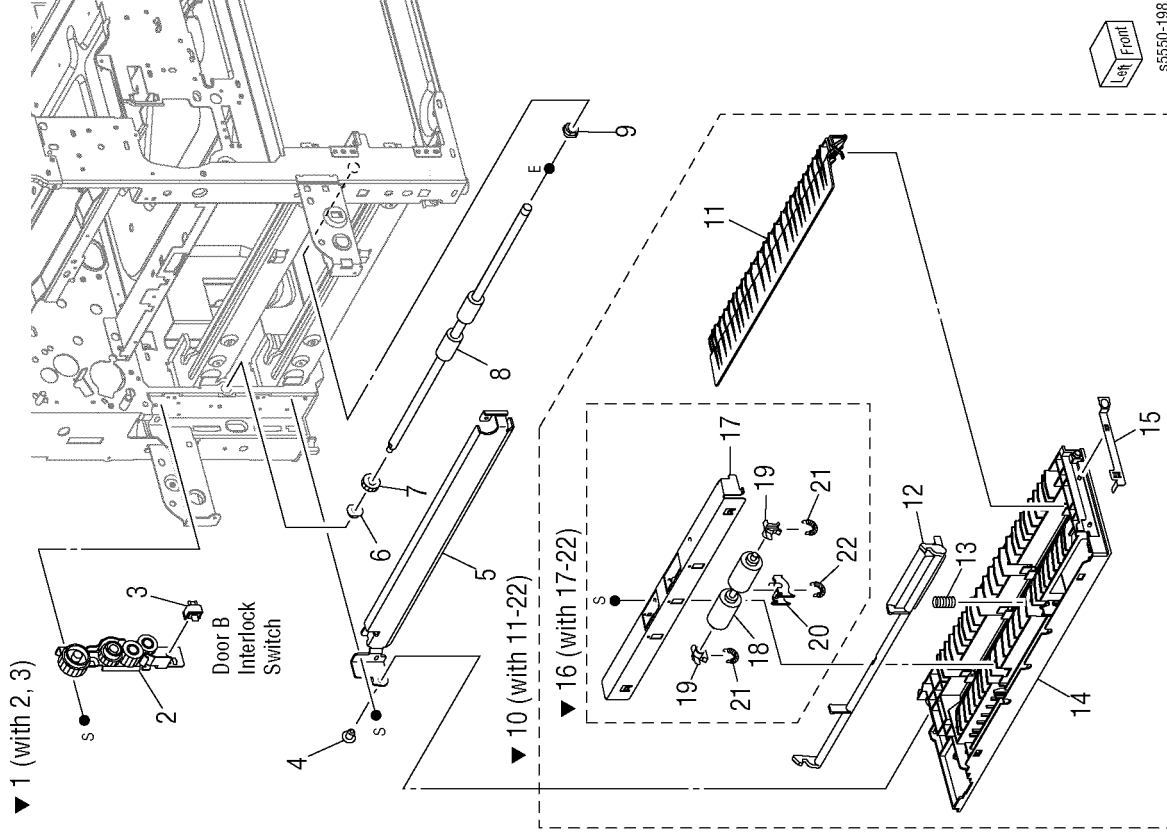
Item	Part	Description
1	050K52470	Tray Assy MSI (with 2-13) 5550
2	050K62670	Tray Assy MSI (with 2-13) 5550
3	-	Gear-Pinion (P/O PL 3.3 Item 1)
4	-	Rack-Front (P/O PL 3.3 Item 1)
5	-	Rack-Rear (P/O PL 3.3 Item 1)
6	-	Link-Sensor (P/O PL 3.3 Item 1)
7	-	Guide-Side Front (P/O PL 3.3 Item 1)
8	-	Guide-Side Rear (P/O PL 3.3 Item 1)
9	-	Tray MSI (P/O PL 3.3 Item 1)
10	-	Tray Ext (P/O PL 3.3 Item 1)
11	-	Sensor Assy-MSI (Paper Size Sensor) (P/O PL 3.3 Item 1)
12	-	Cover Tray (P/O PL 3.3 Item 1)
13	-	Spring-Sensor (P/O PL 3.3 Item 1)
		Harness Assy Size (P/O PL 3.3 Item 1)





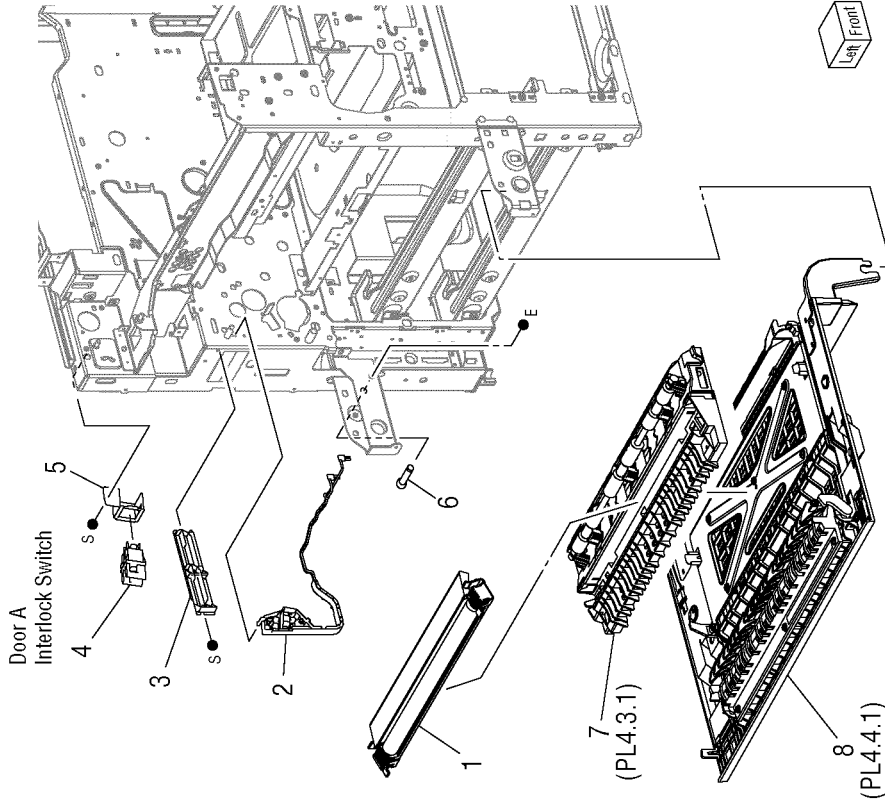
## PL 4.1 Transportation and Registration L/H Lower

Item	Part	Description
1	015K73510	BRKT Assy TA (with 2, 3) (Take Away Bracket)
2	-	Bracket Assy Idler (P/O PL 4.1 Item 1)
3	110E11580	Switch-I/L, Cab (Door B Interlock Switch) (P/O PL 4.1 Item 1)
4	029E31600	Rivet
5	-	Chute-Lower
6	013E29830	Bearing TA
7	007E79270	Gear - 18T
8	059K26840	Roller Assy-TA (Take Away Roller)
9	413W77559	Bearing Sleeve
10	802K58284	Cover Assy LH Low C (with 11~22) (Door B)
11	-	Chute LH Low C (P/O PL 4.1 Item 10)
12	-	Handle LH Low (P/O PL 4.1 Item 10)
13	-	Spring-COMP LH Low (P/O PL 4.1 Item 10)
14	-	Cover LH Low C (P/O PL 4.1 Item 10)
15	-	Plate-Earth (P/O PL 4.1 Item 10)
16	-	BRKT Assy LH Low C (with 17~22) (P/O PL 4.1 Item 10)
17	-	BRKT LH Low (P/O PL 4.1 Item 10, PL 4.1 Item 16)
18	-	Roller-TA Pinch (P/O PL 4.1 Item 10, PL 4.1 Item 16)
19	-	Bearing-Out (P/O PL 4.1 Item 10, PL 4.1 Item 16)
20	-	Bearing-In (P/O PL 4.1 Item 10, PL 4.1 Item 16)
21	-	Spring LH Low (P/O PL 4.1 Item 10, PL 4.1 Item 16)
22	-	Spring (P/O PL 4.1 Item 10, PL 4.1 Item 16)



# PL 4.2 L/H Upper Assembly

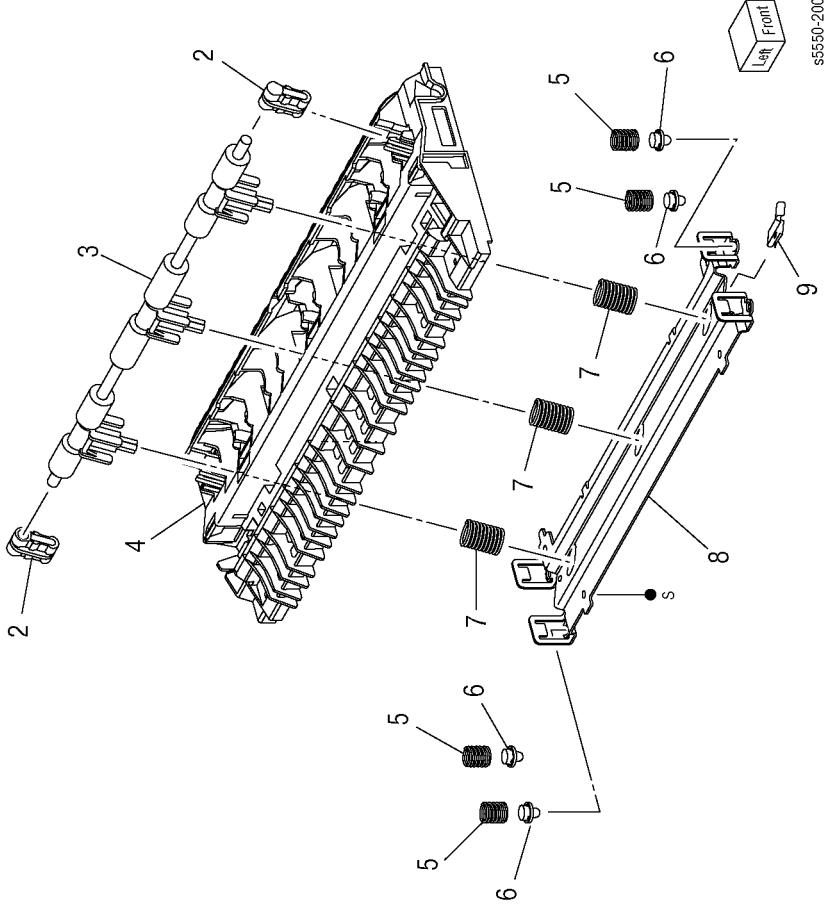
Item	Part	Description
1	802K56095	HSG Assy-BTR -- Periodic replacement part (per 300k prints) (Transfer Roller)
2	802K49240	Cover Assy-Contact
3	012K94341	Link Assy-Shutter
4	110E94770	Switch (Door A Interlock Switch)
5	-	Bracket ILSW
6	826E08440	Stud
7	-	Chute Assy LH (PL 4.3 Item 1)
8	-	Cover Assy-LH (PL 4.4 Item 1)



## PL 4.3 L/H Chute Assembly

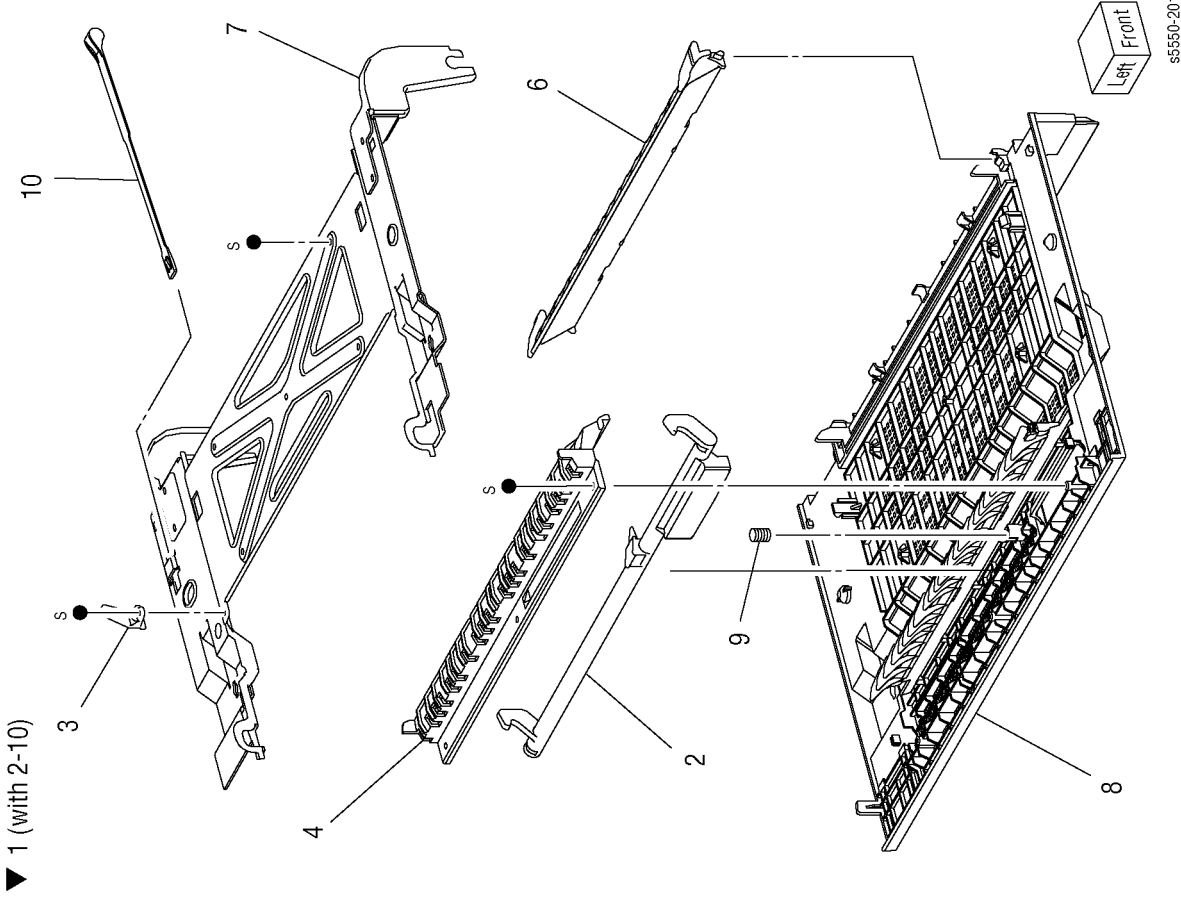
Item	Part	Description
1	054K24055	Chute Assy LH (with 2~9)
2	-	Bearing Pinch Out (P/O PL 4.3 Item 1)
3	-	Roller Assy-Regi-P (P/O PL 4.3 Item 1)
4	-	Chute-Assy (P/O PL 4.3 Item 1)
5	-	Spring COMP FL (P/O PL 4.3 Item 1)
6	-	Guide (P/O PL 4.3 Item 1)
7	-	Spring COMP Pinch (P/O PL 4.3 Item 1)
8	-	Plate-Tie (P/O PL 4.3 Item 1)
9	-	Plate-Earth (P/O PL 4.3 Item 1)

▼ 1 (with 2-9)



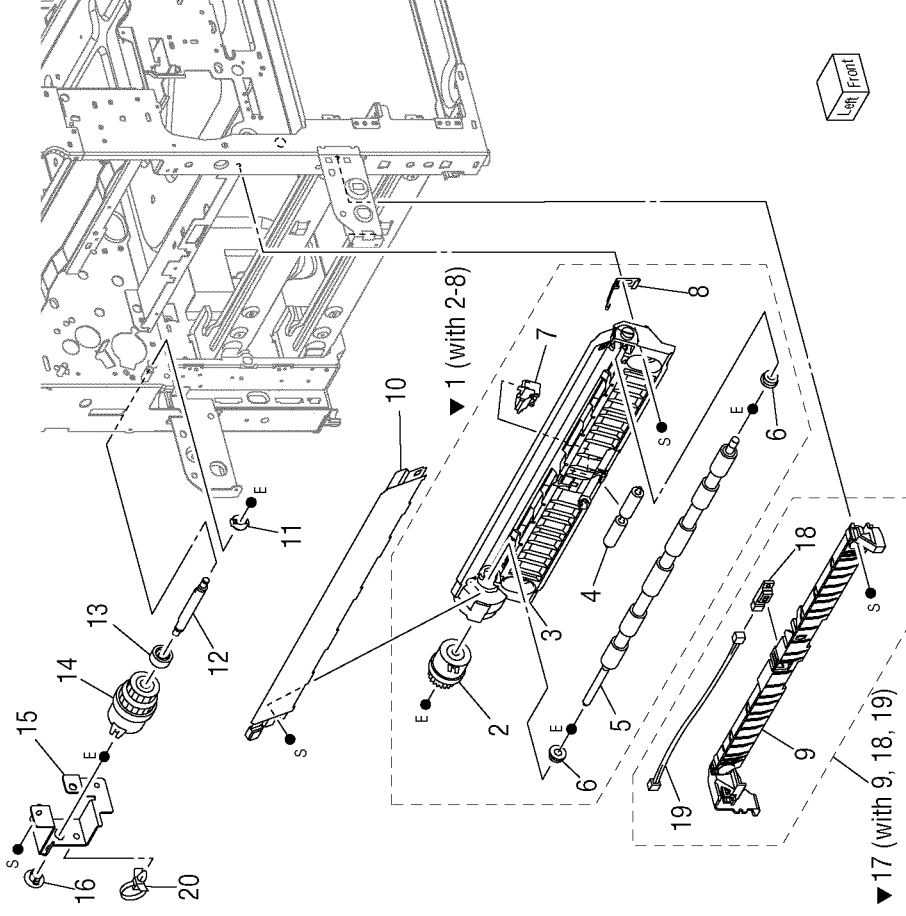
## PL 4.4 L/H Cover Assembly

Item	Part	Description
1	802K79722	Cover Assy-L/H (with 2-10) (Door A)
2	003E59833	Handle L/H (P/O PL 4.4 Item 1)
3	024E03250	Rod CRU Shutter (P/O PL 4.1 Item 1)
4	-	Chute LHCOV (P/O PL 4.4 Item 1)
5	-	..
6	054K24060	Chute Assy-Dup (P/O PL 4.4 Item 1)
7	-	Frame Assy LH (P/O PL 4.4 Item 1)
8	-	Cover-LH (PO PL 4.4 Item 1)
9	809E42460	Spring COMP LH (P/O PL 4.4 Item 1)
10	849E13981	Support - LH Cover (Door A Stopper) (P/O PL 4.4 Item 1)



## PL 4.5 Registration

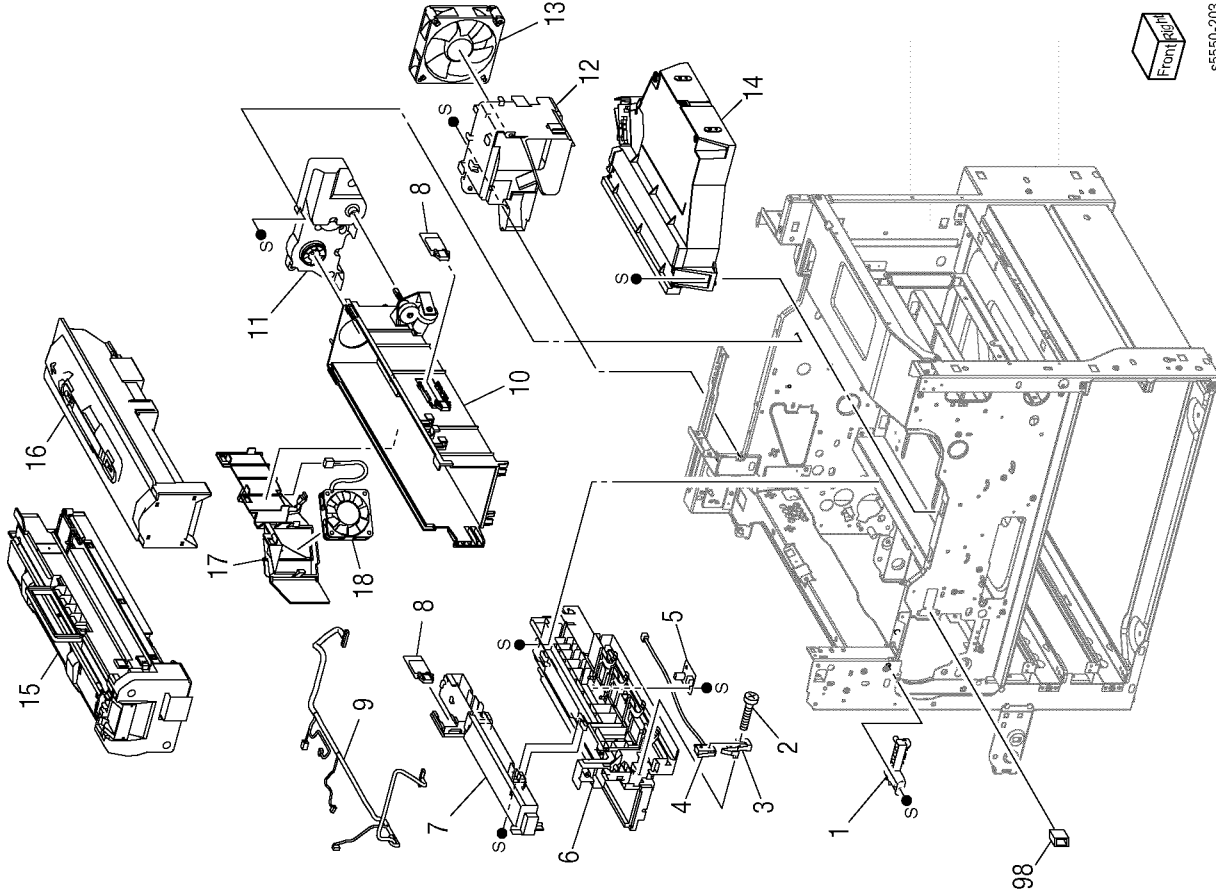
Item	Part	Description
1	059K45960	Trans Assy Regi (with 2-8) (Registration Transport Assembly)
2	121K37450	Clutch Assy Regi H (Registration Clutch) (P/O PL 4.5 Item 1)
3	-	Chute-Regi (P/O PL 4.5 Item 1)
4	-	Roller Regi Idler (P/O PL 4.5 Item 1)
5	-	Roller Assy Regi (P/O PL 4.5 Item 1)
6	-	Bearing Regi E (P/O PL 4.5 Item 1)
7	130K64270	SNR Assy Regi (Registration Sensor) (P/O PL 4.5 Item 1)
8	-	Plate-Earth F G (P/O PL 4.5 Item 1)
9	054E23910	Chute-TA (P/O PL 4.5 Item 17)
10	054K23940	Chute Assy-R
11	013E26091	Bearing
12	-	Shaft TA
13	007E79320	Gear-19T
14	121K32730	Clutch Assy-TA (Take Away Clutch)
15	-	Bracket-TA
16	013E26060	Bearing
17	-	Chute-TA (with 9, 18, 19) (Take Away Chute)
18	930W00211	Sensor (P/O PL 4.5 Item 17)
19	-	Harness (P/O PL 4.5 Item 17)
20	-	Push Tie



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# PL 5.1 Laser, CRU and Toner Dispense

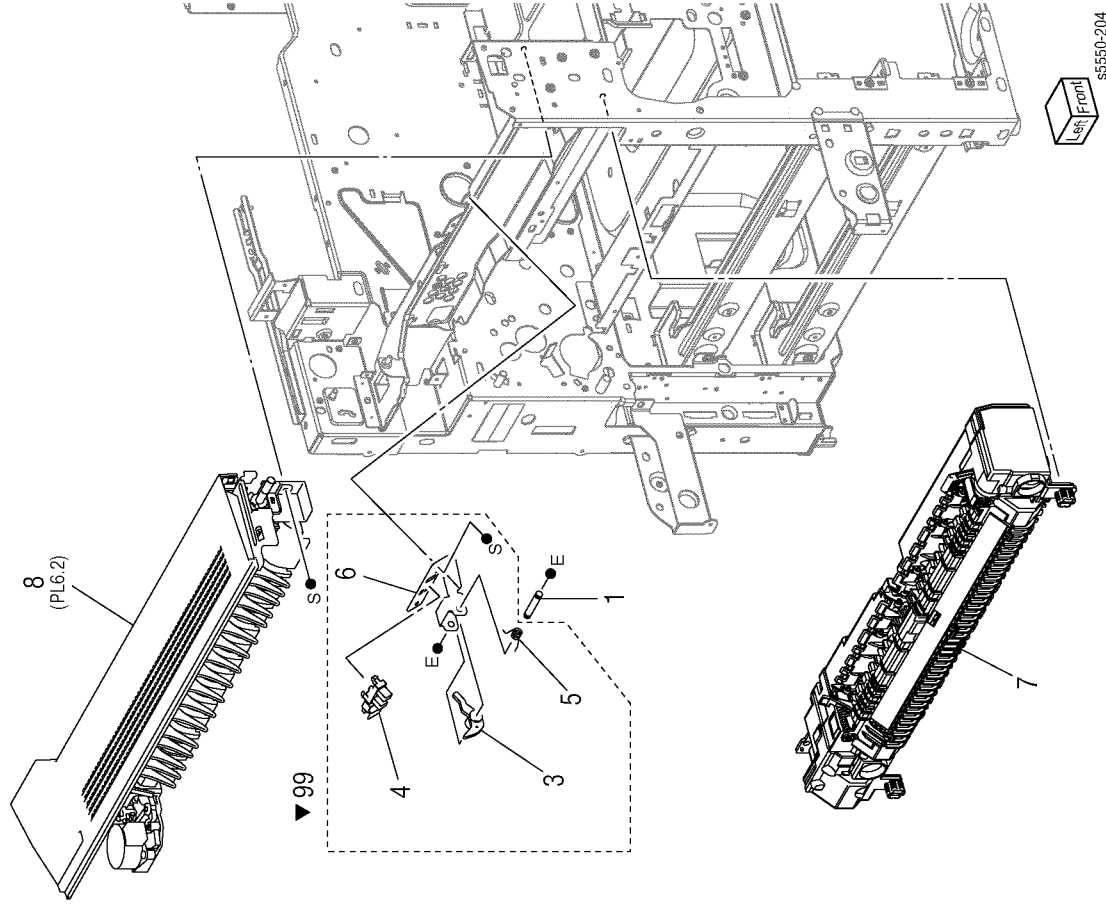
Item	Part	Description
1	014E44733	Block Stopper CRU
2	826E11580	Screw
3	815E05030	Plate-SW-INTLK
4	110K11810	Switch Assy XERO INTLK (Drum Cartridge Detect Switch)
5	130K87980	Sensor HUM & TE (Environmental Sensor Temp/Humidity PWB)
6	032K96910	Guide Assy Sub
7	802K73190	HSG Assy Laser C
8	160K95831	PWBA CRUM CP1 (Drum Cartridge/Toner Cartridge CRUM)
9	962K13060	Harn Assy Front A
10	032K96941	Guide Assy CTG30 Sub (Toner Dispense Assembly)
11	127K38040	Motor Assy-Disp 30K (Toner Dispense Motor)
12	-	Duct Fusor
13	127K37881	Fan Fusor
14	062K13615	ROS Assy-12 (Laser Assembly)
15	113R00670	CRU Drum Cartridge
-	113R00685	Metered Drum Cartridge (Europe)
16	113R00668	Toner Cartridge
-	113R00684	Metered Toner Cartridge (Europe)
17	-	Duct Intake
18	927W00112	CRU Fan (Drum Cartridge Fan)
98	114E14880	Drum Cartridge CONN (Drum Cartridge Connector)



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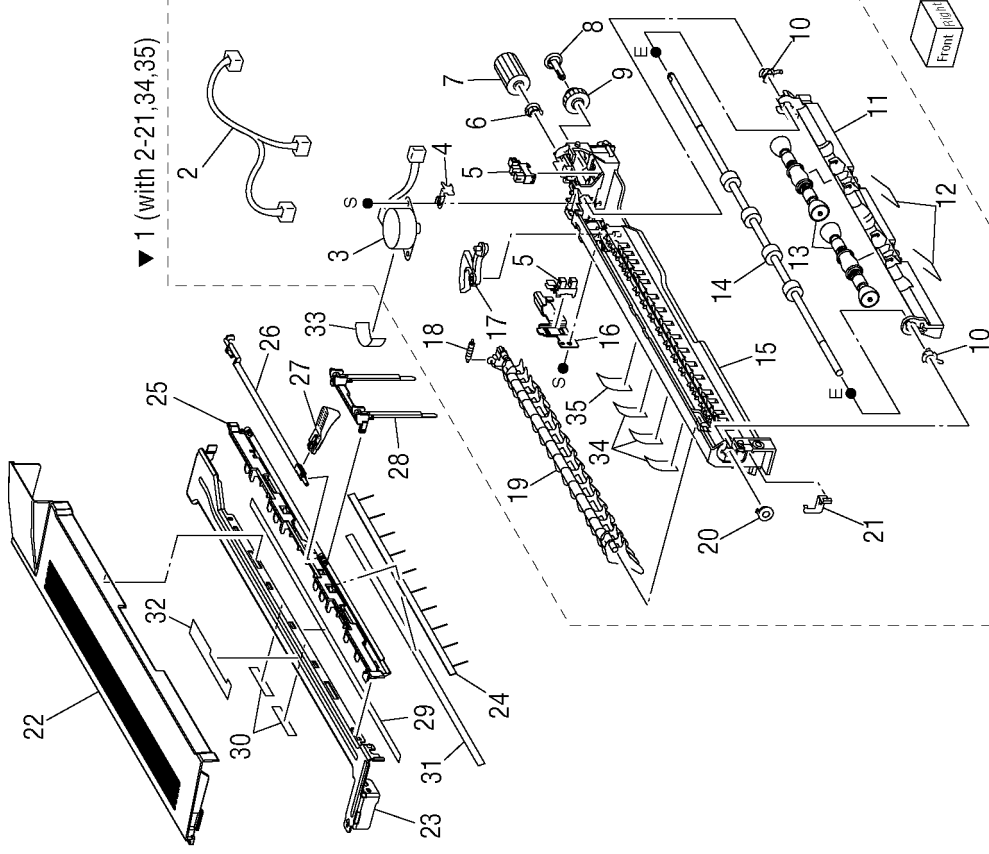
## PL 6.1 Fuser and Exit 1

Item	Part	Description
1	-	Shaft-Actuator
2	-	--
3	-	Actuator-Exit (P/O PL 6.1 Item 99)
4	-	Sensor Photo (Fuser Exit Sensor) (P/O PL 6.1 Item 99)
5	-	Spring-Actuator (P/O PL 6.1 Item 99)
6	-	BRKT-Sensor, Exit (P/O PL 6.1 Item 99)
7	126K18309	Fuser Assy 120V --- Periodic replacement part (per 300k prints)
-	126K18319	Fuser Assy 220V --- Periodic replacement part (per 300k prints)
8	-	Trans Assy Exit (PL 6.2)
99	015K77950	Kit Exit Sensor (with 3-6) (Fuser Exit Sensor Kit)



## PL 6.2 Exit 1

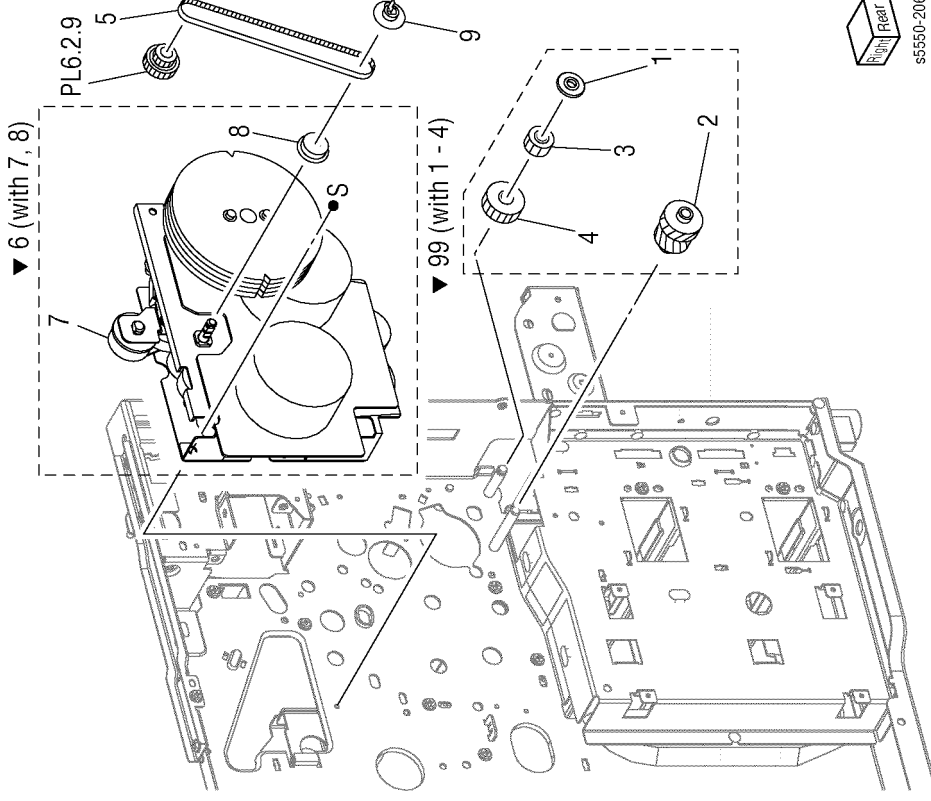
Item	Part	Description
1	059K31554	Trans Assy Exit (with 2-21, 34, 35) (Exit Transport Assembly)
2	-	Harn Assy Exit 1 C (P/O PL 6.2 Item 1)
3	127K37951	Motor Assy-Offset (Offset Motor) (P/O PL 6.2 Item 1)
4	-	Plate-Earth Motor (P/O PL 6.2 Item 1)
5	930W00113	Sensor-Photo IN (Offset Home Position or Full Stack Sensor) (P/O PL 6.2 Item 1)
6	-	Bearing (P/O PL 6.2 Item 1)
7	-	Gear-19T (P/O PL 6.2 Item 1)
8	-	Cap (P/O PL 6.2 Item 1)
9	-	Gear-Exit (P/O PL 6.2 Item 1)
10	-	Bearing Roll (P/O PL 6.2 Item 1)
11	-	Chute-OCT1 (P/O PL 6.2 Item 1)
12	-	Spring-Pinch Exit (P/O PL 6.2 Item 1)
13	604K20390	Kit RLR-Pinch Exit (P/O PL 6.2 Item 1)
14	-	Roll Assy OCT (P/O PL 6.2 Item 1)
15	-	Chute-Low (P/O PL 6.2 Item 1)
16	-	Bracket Sensor (P/O PL 6.2 Item 1)
17	-	Gear-Offset (P/O PL 6.2 Item 1)
18	809E42370	Spring-Gate (P/O PL 6.2 Item 1)
19	050E19804	Gate-Exit 1 (Exit Gate) (P/O PL 6.2 Item 1)
20	-	Bearing (P/O PL 6.2 Item 1)
21	-	Plate-Earth (P/O PL 6.2 Item 1)
22	802E55152	Cover-Top, Exit 1
23	849E13721	BRKT-Exit 2
24	-	Eliminator Exit
25	-	Guide-Tray Exit 1
26	120E22171	Actuator Fullstack
27	120E24671	Actuator
28	036K91600	Weight-Assy Paper
29	-	Pad Exit A
30	-	Pad Exit B
31	-	Pad Exit C
32	-	Label Exit 1 XC
33	-	Label Caution XC
34	-	Seal A (P/O PL 6.2 Item 1)
35	-	Seal B (P/O PL 6.2 Item 1)





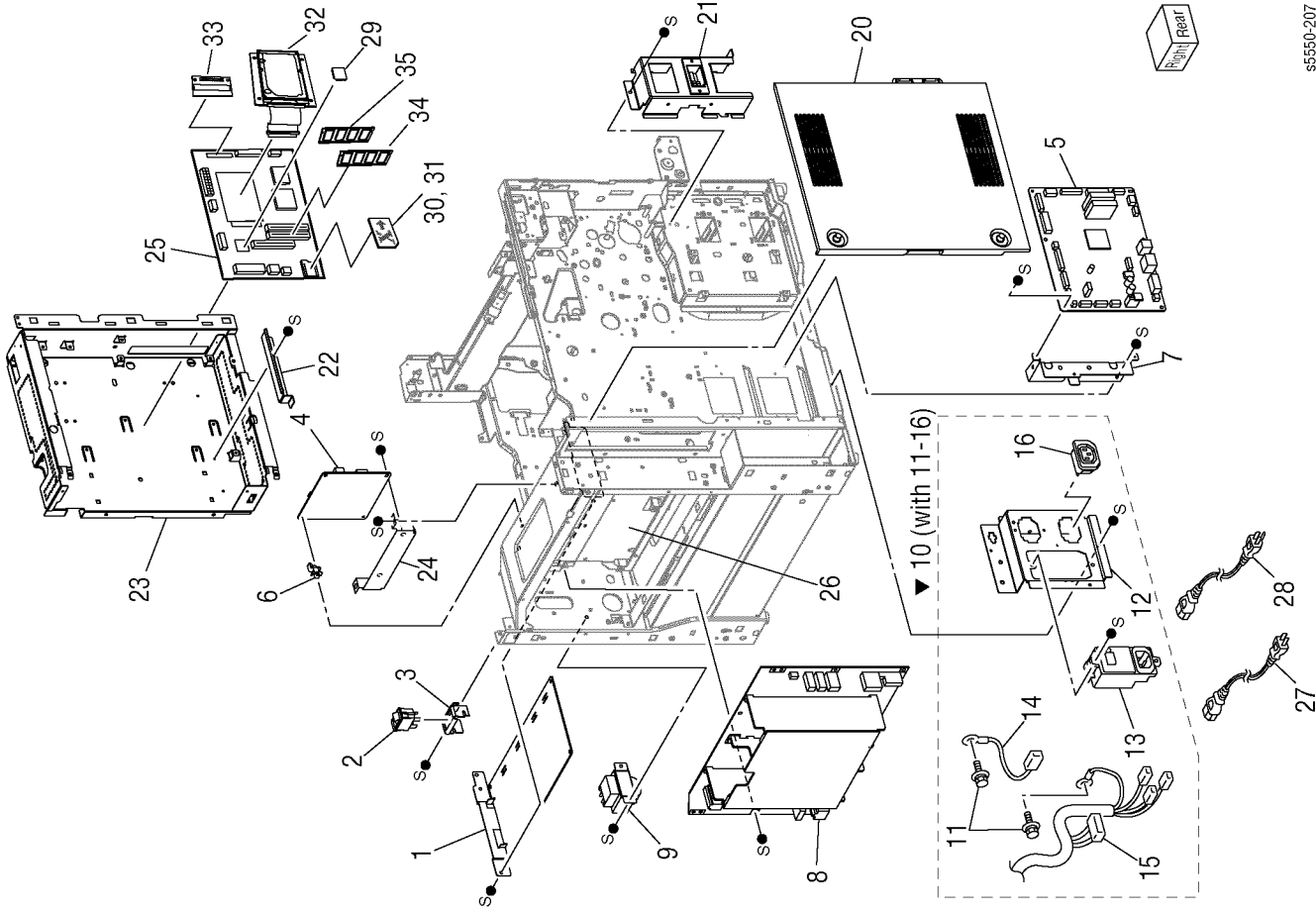
## PL 7.1 Drive

Item	Part	Description
1	-	Collar (P/O PL 7.1 Item 99)
2	-	Gear 21/21T MSI (P/O PL 7.1 Item 99)
3	-	Gear 18T MSI (P/O PL 7.1 Item 99)
4	-	Gear 28T TA (P/O PL 7.1 Item 99)
5	423W13155	Belt-Synchronous BAN (Main Drive Belt)
6	007K88598	Drive Assy 242 (with 7, 8) (Motor Assembly)
7	-	Motor Assy 242 (P/O PL 7.1 Item 6)
8	020E36600	Pulley 25T (P/O PL 7.1 Item 6)
9	005E17860	Flange Exit
99	604K23270	Kit, Gear (with 1, 2, 3, 4)



# PL 8.1 Electrical

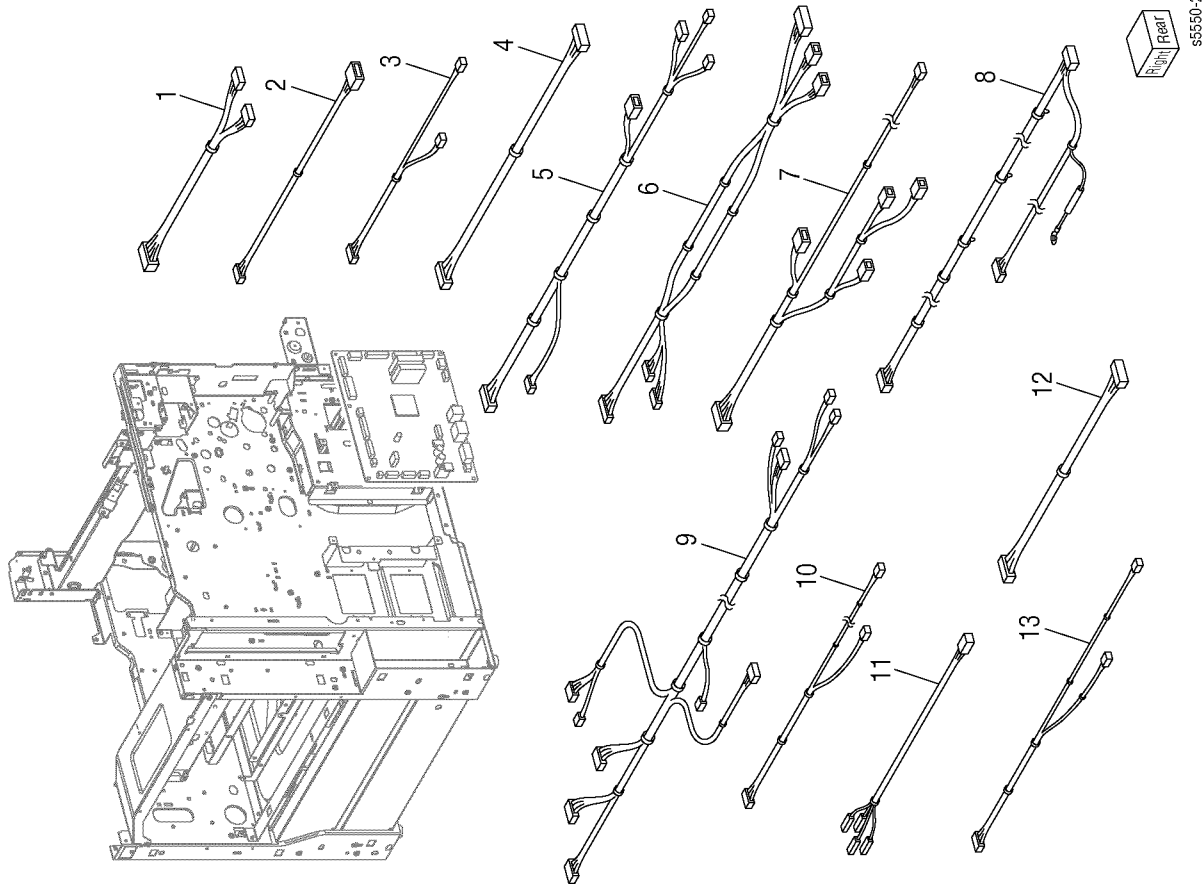
Item	Part	Description
1	105E17590	PSHV-Y2 HVPS
2	110E11320	Switch-Power
3	-	Bracket-SW CPR
4	960K24840	PWB A Exit (Exit PWB)
5	960K06083	PWBA MCU F 110V/220V (Engine Control Board) 5500
-	960K38610	PWBA MCU F 110V/220V (Engine Control Board) 5550
6	-	PWB Supp Edge
7	-	Bracket MCU
8	105E11391	Power Unit-C1 (100/127) LVPS
-	105E11401	Power Unit C1H (200/240) LVPS
9	104E94080	Choke Coil (220/240)
10	-	CHAS Assy AC XC (with 11~16) (AC Accessory Panel)
11	-	Screw (P/O PL 8.1 Item 10)
12	-	Bracket-CONN AC (P/O PL 8.1 Item 10)
13	908W01201	Breaker GF I INL (GFI Breaker)
14	-	Harness Assy F/G,E (P/O PL 8.1 Item 10)
15	-	Harn Assy AC US EU (P/O PL 8.1 Item 10)
16	-	Outlet MN (P/O PL 8.1 Item 10)
17	-	--
18	-	--
19	-	--
20	802K73071	Cover Assy ESS (I/P Board Cover)
21	-	Panel Assy CONN HCF
22	-	BRKT Guide PRX
23	-	Chassis Assy ESS PRX
24	-	BRKT-Exit Low
25	960K35160	I/P Board, with NVRAM (5500)
-	960K51750	I/P Board, with NVRAM (5550)
26	-	Plate Assy LVPS
27	673K44480	PKG Power Cord (110V)
28	673K55640	PKG Power Cord (220V)
29	-	NVRAM Device (I/P Board)
30	163151800	Base Config Card (5500)
31	163151900	Network Config Card (5500)
-	069E00630	Network Config Card (5550)
32	121K45140	Hard Drive (5500)
-	121K50690	Hard Drive (5550)
33	237E24900	Flash RAM
34	156483800	64 MB DIMM (5500)
-	156486000	128 MB DIMM (5500)
-	156466300	256 MB DIMM (5500)
-	133K27860	256 MB DIMM (5550)
35	133K27690	512 MB DIMM (5550)



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## PL 8.2 Harness

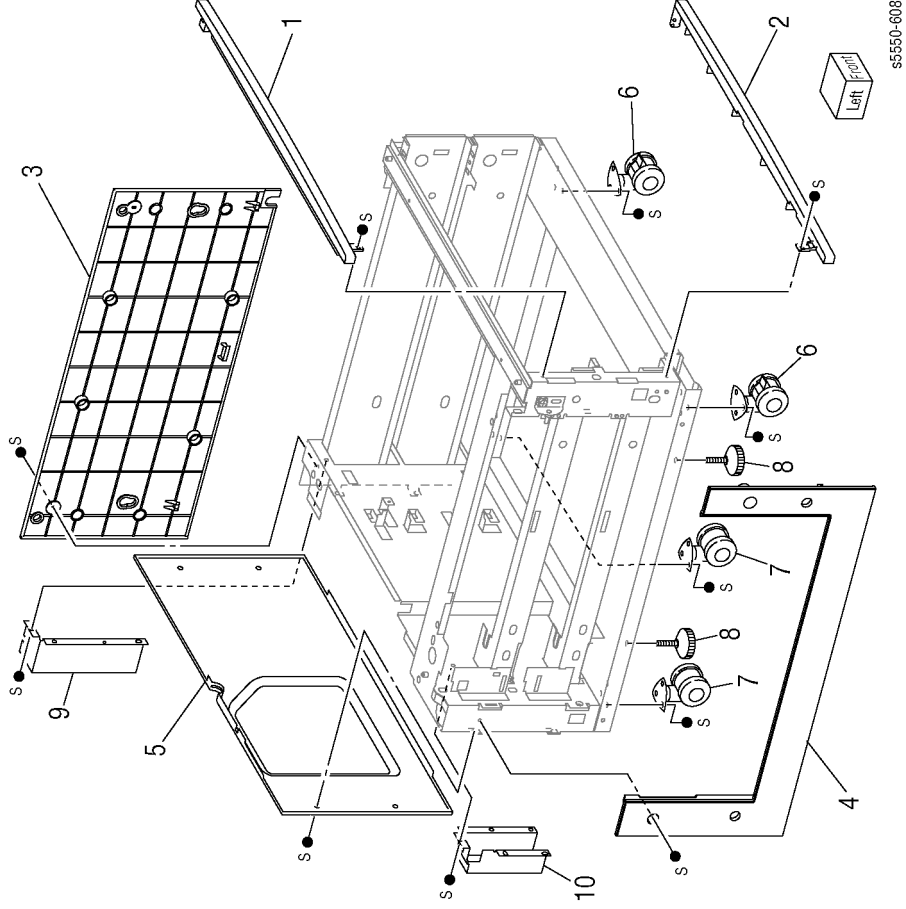
Item	Part	Description
1	962K13240	Harn Assy Feeder C (J409, P601, P602)
2	962K23600	Harn Assy MSIA (J411, P605)
3	962K13140	Harn Assy Size A (J412, J109, J110)
4	962K13191	Harn Assy ESS C (J402, J301)
5	962K13231	Harn Assy ROS C (J406, J302, J140, J160, J170, J620)
6	962K13292	Harn Assy Exit C (J432, J433, J434, J606, P205, P613)
7	962K13131	Harn Assy PH C (J410, J106, J125, P60B, P607, P204)
8	962K18992	Harn Assy Fuser AC C (J6, J600, J607)
9	962K13151	Harn Assy LV PWR C (J400, J401, J420, J421, J216, J300, J430, J431, J521, J525, J526)
10	962K19220	Harn Assy Intlk A (J120, J121, J405)
11	962K13520	Harn Assy Main SW C (J1, J56, J57, J68, J69)
12	962K13090	Harn Assy Drive A (J40B, J214)
13	962K13220	Wire Harness Crum B (J419, P126, P127)



# PL 20.1 1000-Sheet Feeder (Tray 4 &

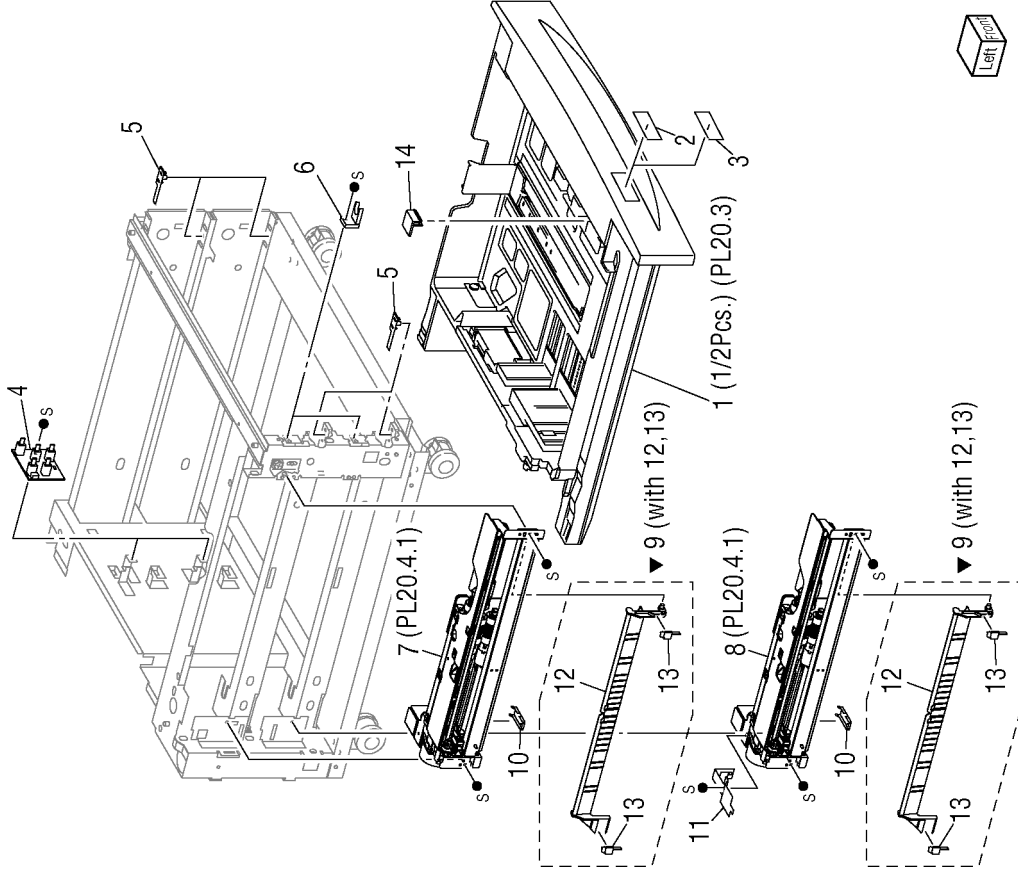
5)

Item	Part	Description
1	802E54731	Top Cover
2	802E54740	Foot Cover
3	802E54750	Right Cover
4	802E80050	Left Cover
5	802E54771	Rear Cover
6	017K93132	Caster (Stopper)
7	017K93121	Caster
8	017K92991	Foot Adjuster
9	-	Bracket Rear RH 2T
10	-	Bracket Rear LH 2T
99	017K92991	Thumbscrew



# PL 20.2 Tray (1/2) and Feeder (1/2) (Trays 4 and 5)

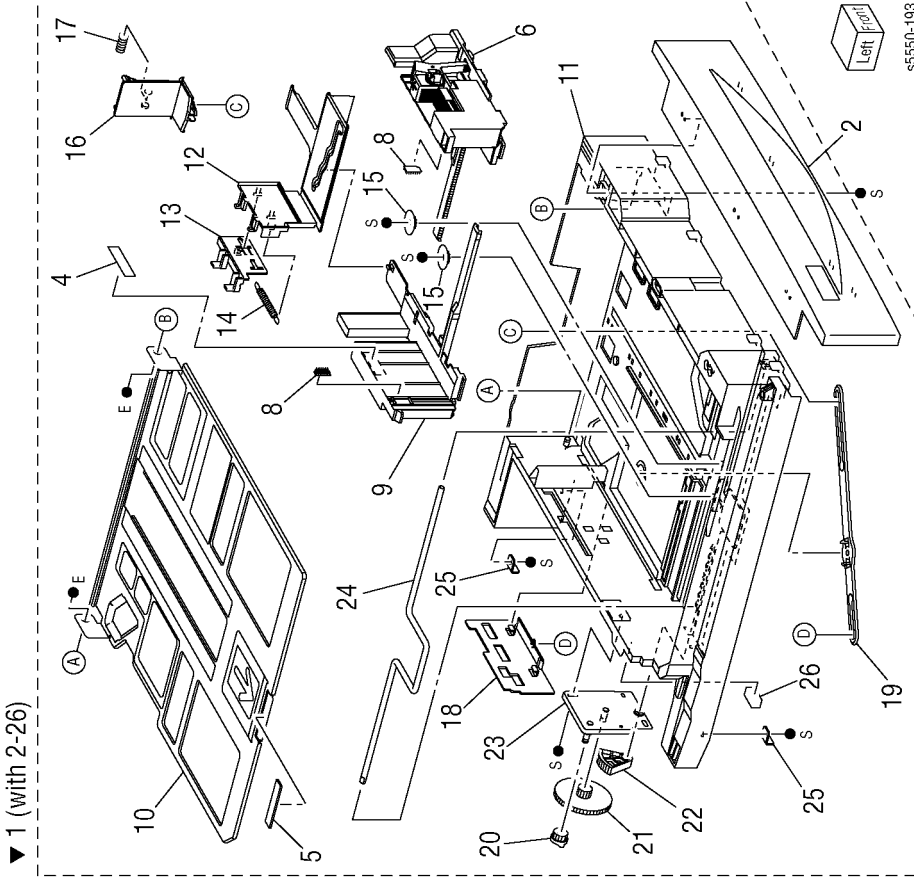
Item	Part	Description
1	-	Tray 4/5 Assembly (PL 20.3 part of 99)
2	-	Label (No. 4)
3	-	Label (No. 5)
4	110K12100	Tray 4/5 Paper Size Switch
5	014E51110	Tray Spacer
6	003E61510	Tray Stopper
7	059K26938	Tray 4 Feeder (P/O PL20.4.1)
8	059K26938	Tray 5 Feeder (PL20.4.1)
9	054K27520	Chute Feed Out (with 12 and 13)
10	-	Cover Sensor
11	-	Cover FDR
12	-	Chute Feed Out (P/O PL 20.2 Item 9)
13	-	Pad Assy LH Low (P/O PL 20.2 Item 9)
14	-	Block Slide Lock
99	604K23331	Kit Tray (with 2, 3, PL 2.1 Item 3, PL 2.1 Item 10, PL 2.1 Item 11, PL 2.1 Item 12)



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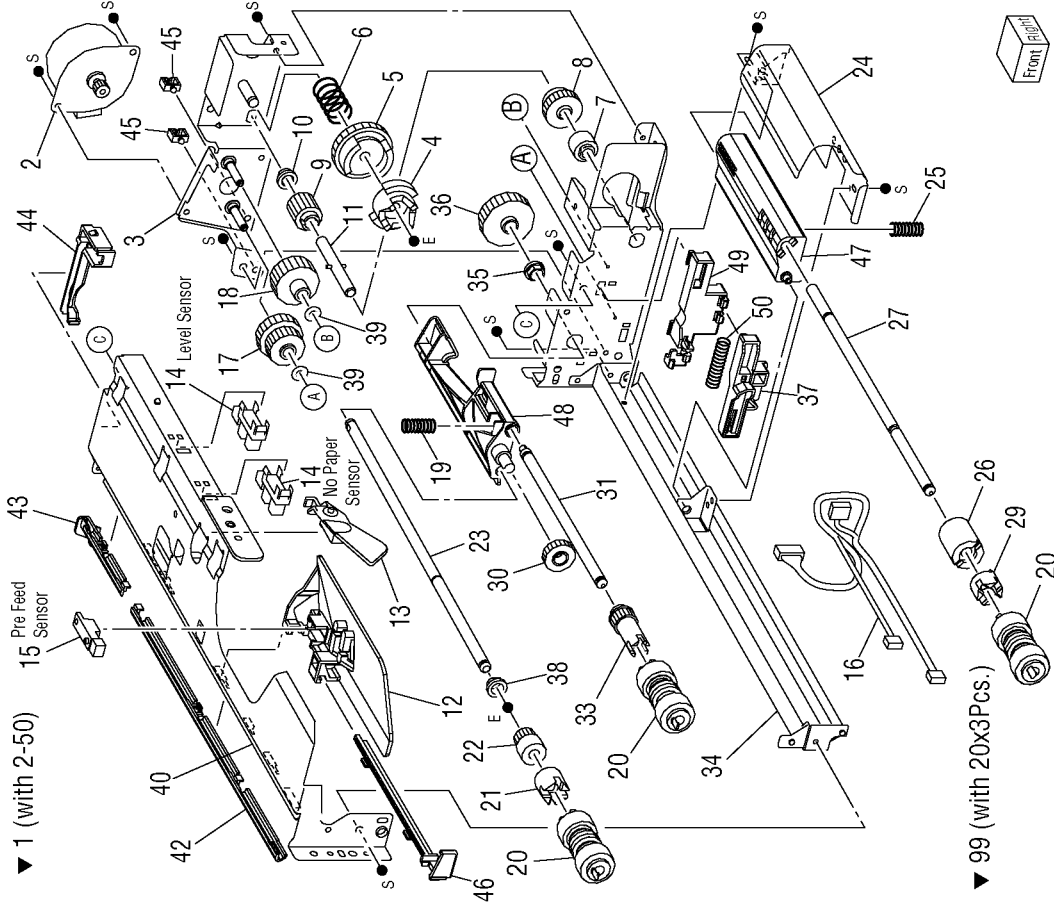
# PL 20.3 Tray (2/2)

Item	Part	Description
1	-	Tray Assembly (with 5-26)
2	-	Tray Cover
3	-	--
4	-	Label (Max)
5	-	Bottom Pad (P/O PL 20.3 Item 1)
6	-	Front Side Guide (P/O PL 20.3 Item 1)
7	-	--
8	-	Tray Pad (P/O PL 20.3 Item 1)
9	-	Rear Side Guide (P/O PL 20.3 Item 1)
10	-	Bottom Plate (P/O PL 20.3 Item 1)
11	-	Tray (P/O PL 20.3 Item 1)
12	-	Side Guide Actuator (P/O PL 20.3 Item 1)
13	-	Guide Actuator (P/O PL 20.3 Item 1)
14	-	Spring (P/O PL 20.3 Item 1)
15	-	Pinion Gear (P/O PL 20.3 Item 1)
16	-	End Guide (P/O PL 20.3 Item 1)
17	-	Spring (P/O PL 20.3 Item 1)
18	-	End Guide Actuator (P/O PL 20.3 Item 1)
19	-	Link (P/O PL 20.3 Item 1)
20	-	Coupling Gear (13T) (P/O PL 20.3 Item 1)
21	-	Gear (13T/60T) (P/O PL 20.3 Item 1)
22	-	Sector Gear (60T) (P/O PL 20.3 Item 1)
23	-	Bracket (P/O PL 20.3 Item 1)
24	-	Lift Up Shaft (P/O PL 20.3 Item 1)
25	-	Stopper (P/O PL 20.3 Item 1)
26	-	Seal (P/O PL 20.3 Item 1)
96	-	Kit, Label (XOG)



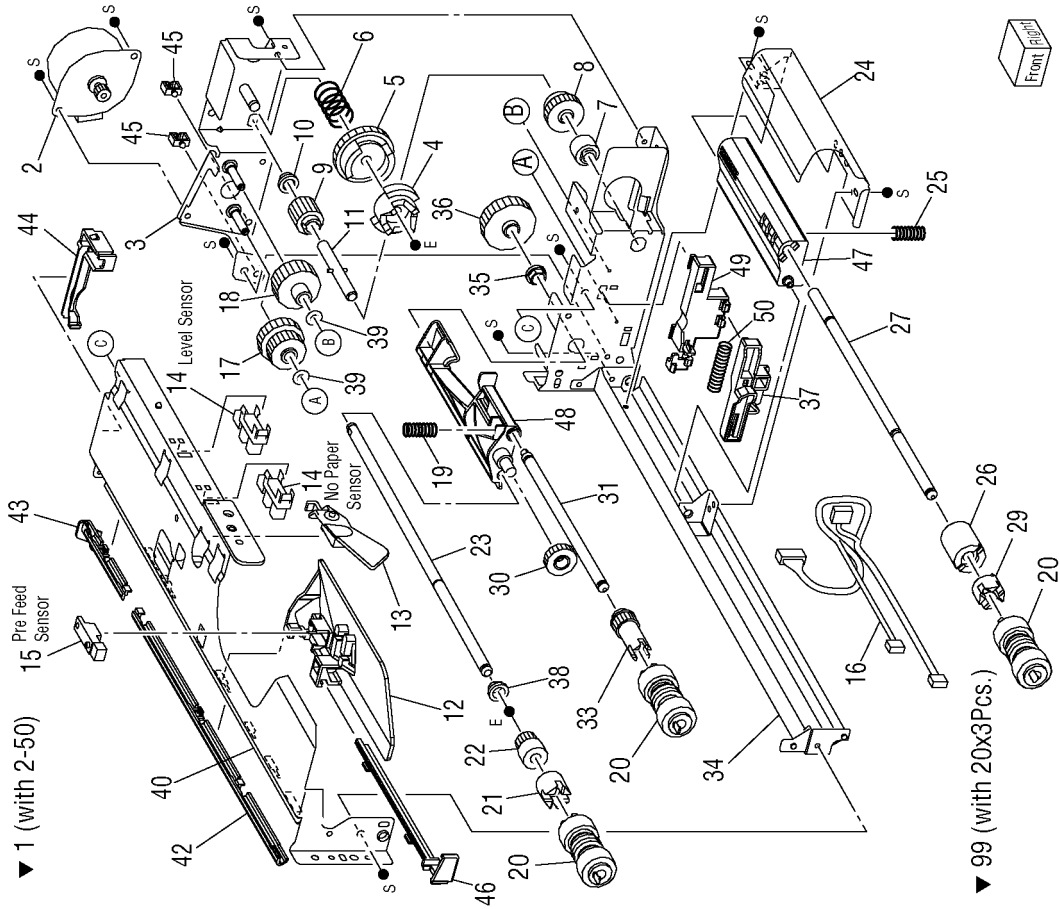
## PL 20.4 Feeder (2/2)

Item	Part	Description
1	059K26934	Feeder Assembly (with 2-50)
2	127K38171	Tray Feeder Lift Up Motor (P/O PL 20.4 Item 1)
3	-	Bracket (P/O PL 20.4 Item 1)
4	-	Spacer (P/O PL 20.4 Item 1)
5	-	Gear (31T) (P/O PL 20.4 Item 1)
6	-	Spring (P/O PL 20.4 Item 1)
7	-	Oneway Clutch (P/O PL 20.4 Item 1)
8	-	Oneway Gear (P/O PL 20.4 Item 1)
9	-	Gear (13T) (P/O PL 20.4 Item 1)
10	-	Bearing (P/O PL 20.4 Item 1)
11	-	Shaft (P/O PL 20.4 Item 1)
12	-	Front Chute (P/O PL 20.4 Item 1)
13	120E22481	Actuator (No Paper Sensor)
14	930W00113	Actuator (P/O PL 20.4 Item 1)
15	930W00211	Sensor (No Paper or Level Sensor) (P/O PL 20.4 Item 1)
16	-	Sensor (Pre-Feed Sensor) (P/O PL 20.4 Item 1)
17	-	Wire Harness (P/O PL 20.4 Item 1)
18	-	Gear (28T/21T) (P/O PL 20.4 Item 1)
19	-	Gear (29T) (P/O PL 20.4 Item 1)
20	809E51070	Spring (P/O PL 20.4 Item 1)
21	-	Roller Assy -- Periodic replacement part per 300k prints (included with 99) (Feed Roller) (P/O PL 20.4 Item 1)
22	-	Oneway Clutch (P/O PL 20.4 Item 1)
23	-	Oneway Gear (22T) (P/O PL 20.4 Item 1)
24	-	Shaft (P/O PL 20.4 Item 1)
25	-	Chute (P/O PL 20.4 Item 1)
26	-	Spring (P/O PL 20.4 Item 1)
27	-	Friction Clutch (P/O PL 20.4 Item 1)
28	-	Shaft-Retard (P/O PL 20.4 Item 1)
29	-	Spacer (P/O PL 20.4 Item 1)
30	-	Gear (33T) (P/O PL 20.4 Item 1)
31	-	Shaft-Nudger (P/O PL 20.4 Item 1)
32	-	Gear (25T) (P/O PL 20.4 Item 1)
33	-	Lower Frame (P/O PL 20.4 Item 1)
34	-	Bearing (P/O PL 20.4 Item 1)



# PL 20.4 Feeder (2/2) (Continued)

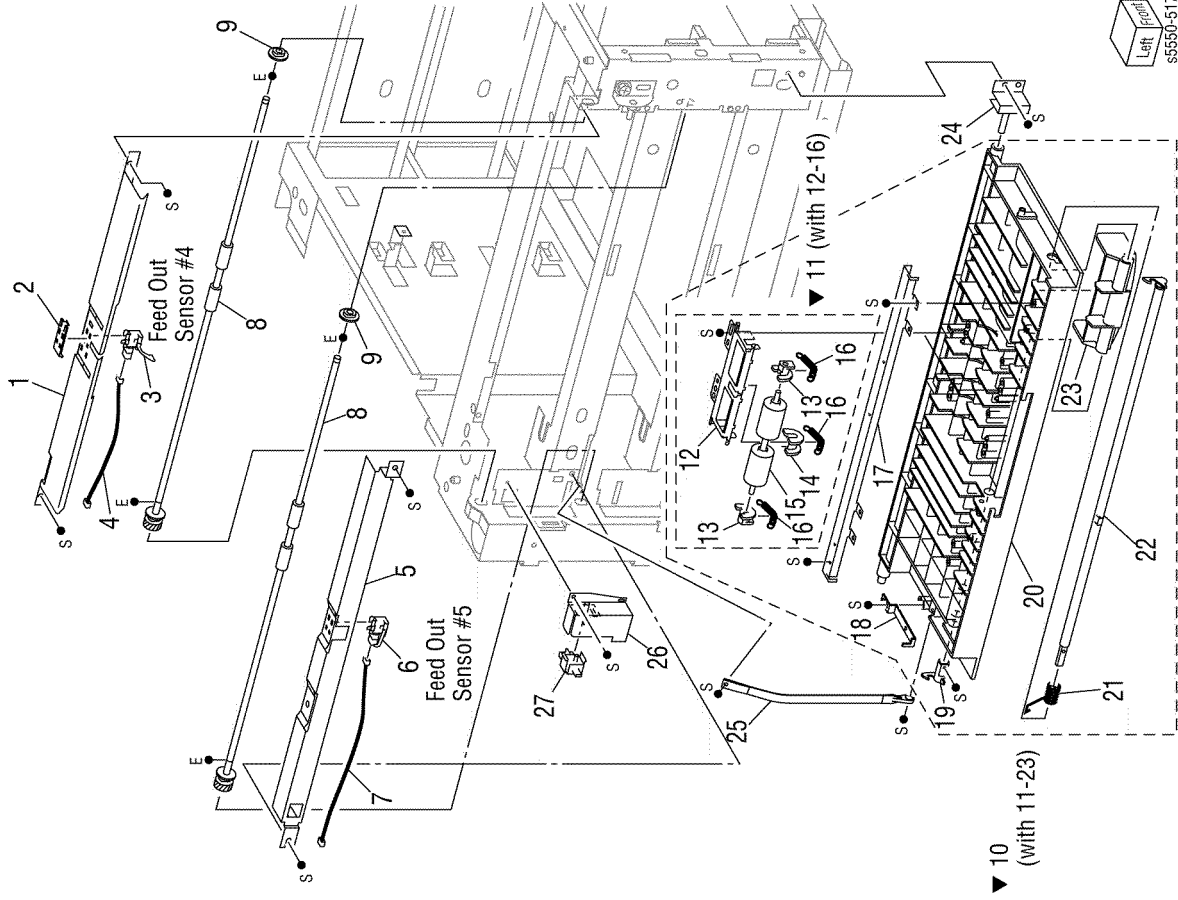
Item	Part	Description
36	-	Gear (27T) (P/O PL 20.4 Item 1)
37	-	Lever (P/O PL 20.4 Item 1)
38	-	Bearing (P/O PL 20.4 Item 1)
39	-	Washer (P/O PL 20.4 Item 1)
40	-	Upper Frame (P/O PL 20.4 Item 1)
41	-	..
42	-	Holder Harness CTR (P/O PL 20.4 Item 1)
43	-	Holder Harness Rear (P/O PL 20.4 Item 1)
44	-	Holder Harness Upper (P/O PL 20.4 Item 1)
45	-	Holder Harness PS1 (ALT) (P/O PL 20.4 Item 1)
-	-	Clamp Mini-Saddle (ALT) (P/O PL 20.4 Item 1)
46	-	Rail (P/O PL 20.4 Item 1)
47	-	Support Retard (P/O PL 20.4 Item 1)
48	-	Support Nudger (P/O PL 20.4 Item 1)
49	-	Holder (P/O PL 20.4 Item 1)
50	-	Spring (P/O PL 20.4 Item 1)
99	604K20530	Kit Rolls (with 20 x 3 pcs.) Periodic replacement (per 300k print)





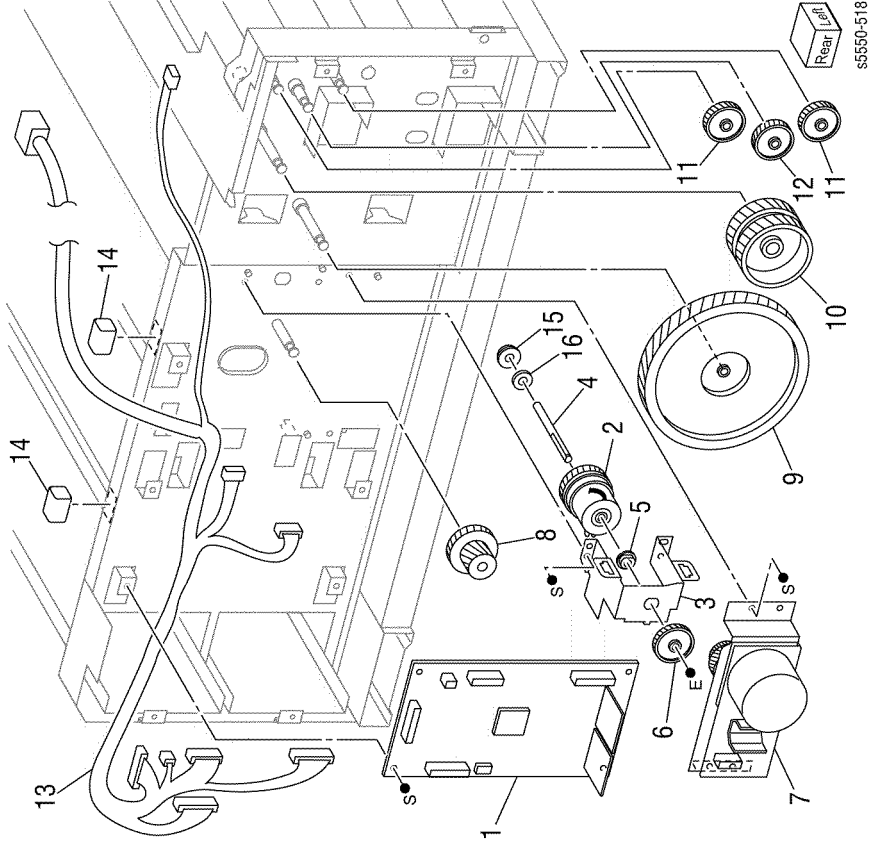
## PL 20.5 Transportation (Trays 4 & 5)

Item	Part	Description
1	-	Chute
2	-	Cover
3	130K64121	Tray 4 Feed Out Sensor (Feed Out Sensor #4)
4	962K18171	Wire Harness
5	-	Chute
6	130K64471	Tray 5 Feed Out Sensor (Feed Out Sensor #5)
7	962W18900	Wire Harness
8	059K26250	Takeaway Roll Assembly (Take Away Roller)
9	-	Bearing
10	802K70854	Left Cover Assembly (11-23)
11	030K75472	Roll Assembly (with 12-16)
12	-	Bracket (P/O PL 20.5 Item 10, PL 20.5 Item 11)
13	-	Bearing (P/O PL 20.5 Item 10, PL 20.5 Item 11)
14	-	Bearing (P/O PL 20.5 Item 10, PL 20.5 Item 11)
15	-	Pinch Roll (P/O PL 20.5 Item 10, PL 20.5 Item 11)
16	-	Spring (P/O PL 20.5 Item 10, PL 20.5 Item 11)
17	-	Chute (P/O PL 20.5 Item 10)
18	-	Actuator (P/O PL 20.5 Item 10)
19	-	Hook (P/O PL 20.5 Item 10)
20	-	Left Cover (P/O PL 20.5 Item 10)
21	-	Spring (P/O PL 20.5 Item 10)
22	-	Latch (P/O PL 20.5 Item 10)
23	-	Handle (P/O PL 20.5 Item 10)
24	-	Bracket
25	830E45710	Support
26	-	Bracket Assembly
27	110E12220	Left Cover Interlock Switch (Door C Interlock)



## PL 20.6 Drive and Electrical (Trays 4 &

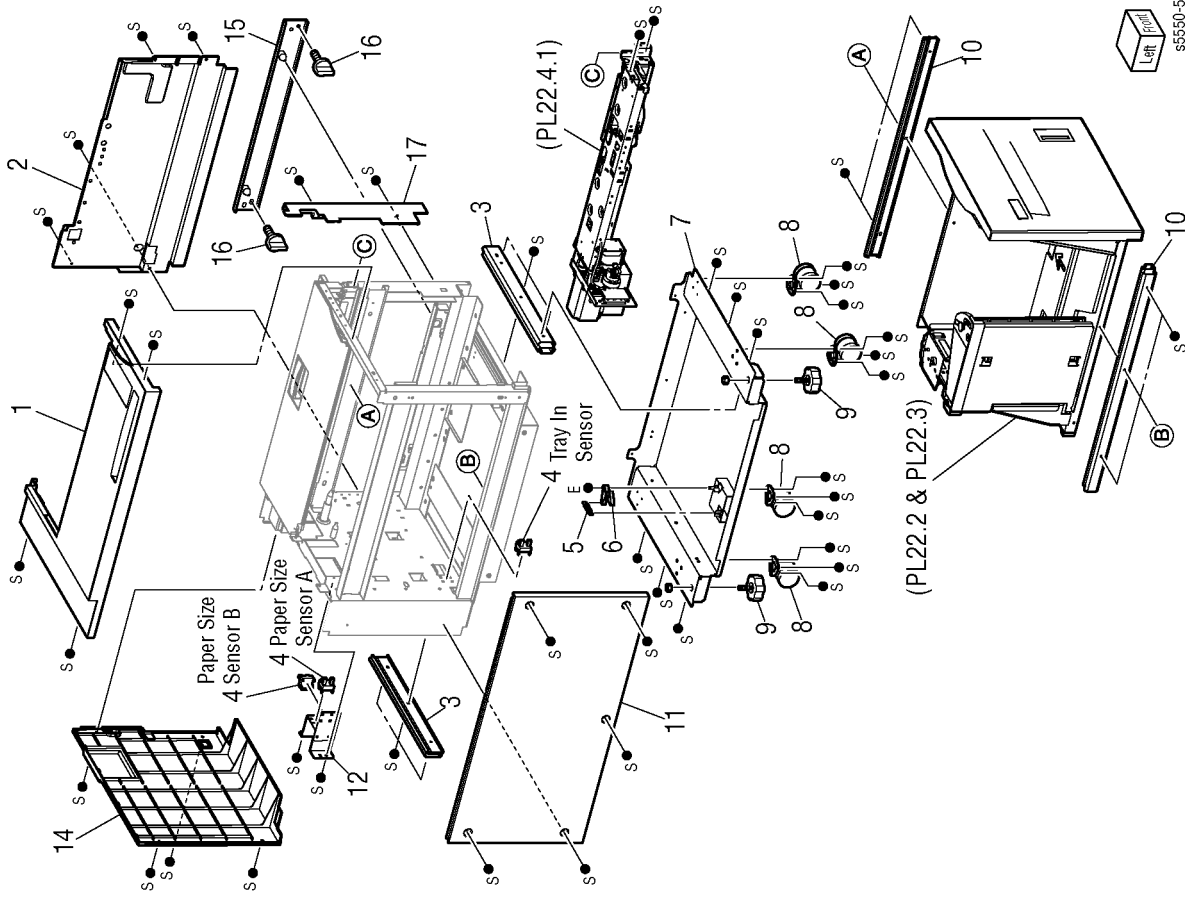
5)



Item	Part	Description
1	960K18271	Tray Module PWB (Tray 4-5 PWB)
2	121K31530	Clutch (Take Away Clutch)
3	-	Bracket
4	-	Shaft
5	-	Bearing
6	-	Gear (38T) (P/O PL 20.6 Item 98)
7	007K88301	Main Motor (Take Away Motor)
8	-	Gear (22T/40T) (P/O PL 20.6 Item 98)
9	-	Gear (126T) (P/O PL 20.6 Item 98)
10	-	Gear (60T) (P/O PL 20.6 Item 98)
11	-	Gear (37T) (P/O PL 20.6 Item 98)
12	-	Gear (32T) (P/O PL 20.6 Item 98)
13	-	Wire Harness
14	-	Gasket
15	-	Bearing
16	-	Washer-Plain, NYN
98	604K23281	Kit Gear (with 6, 8, 9, 10, 11, 12)
99	604K23340	Kit Electrical

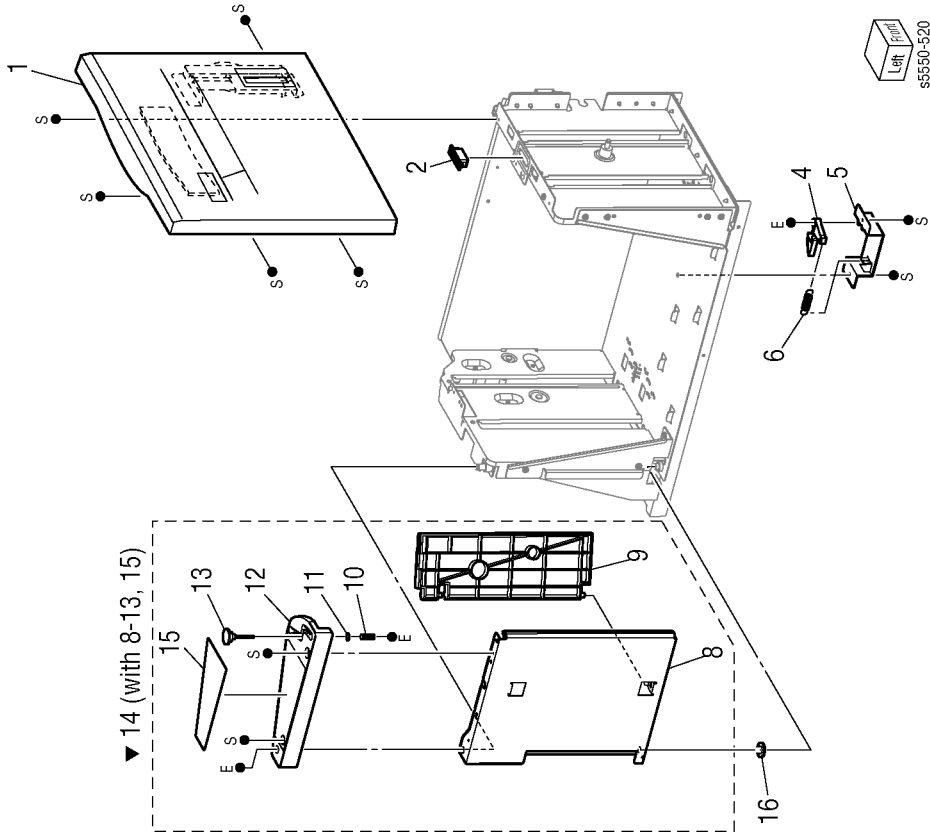
## PL 22.1 Tray 6 (HCF) Covers

Item	Part	Description
1	802K74950	Cover Top HCF (Tray 6 Top Cover)
2	-	Cover RF HCF
3	-	Rail Assy Slide
4	130K55590	Sensor (Tray In and Paper Size Sensors)
5	009E84690	Spring
6	011E16000	Lever Latch
7	-	Plate Assy Caster W
8	017E92820	Caster Rack FR
9	-	Root Adjuster
10	-	Rail Assy Tray
11	802E69460	Cover LH HCF
12	-	BRKT-Assy Sensor
13	-	--
14	802E69470	Cover Rear HCF
15	604K23830	Joint Bracket (includes 16, 2 thumbscrews) (Docking Plate)
16	003K91881	Mounting Bracket Screws (Docking Plate Screw)
17	802E77080	Cover Front Side (Right Front Cover)
96	003K91881	Mounting Bracket Screw Kit
97	604K23830	Mounting Bracket with Screw Kit



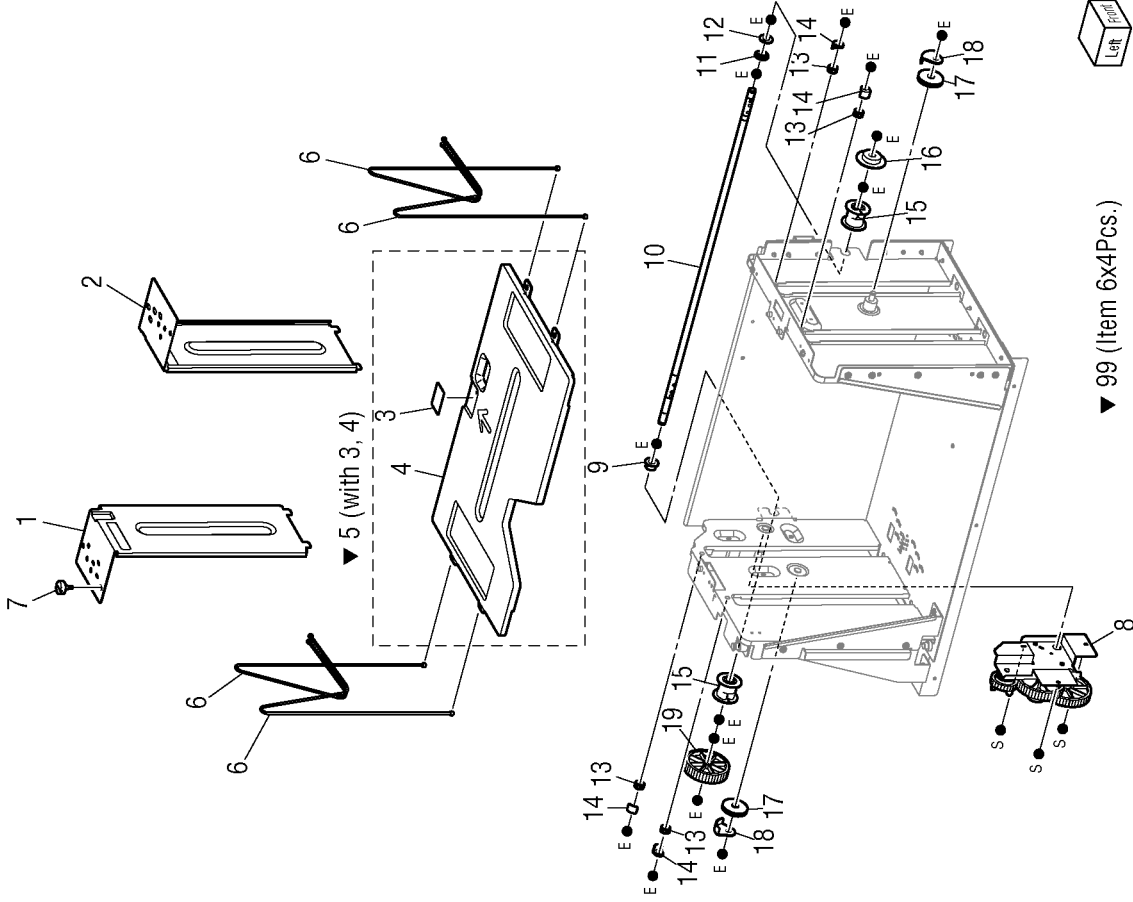
## PL 22.2 Tray (1/2)

Item	Part	Description
1	802K74961	Cover Assy Front
2	-	Magnet Catch Tray (Removed)
3	-	--
4	011E16000	Lever Latch
5	-	Latch Assy Tray STD
6	009E84690	Spring
7	-	--
8	-	BRKT End Frame (P/O PL 22.2 Item 14)
9	-	Plate End (P/O PL 22.2 Item 14)
10	-	Spring Comp (P/O PL 22.2 Item 14)
11	-	Washer (P/O PL 22.2 Item 14)
12	-	Plate End Top (P/O PL 22.2 Item 14)
13	-	Pin Guide (P/O PL 22.2 Item 14)
14	032K97550	Guide Assy End (with 8-13, 15)
15	-	Label End Top (P/O PL 22.2 Item 14)
16	-	Washer Wave



## PL 22.3 Tray (2/2)

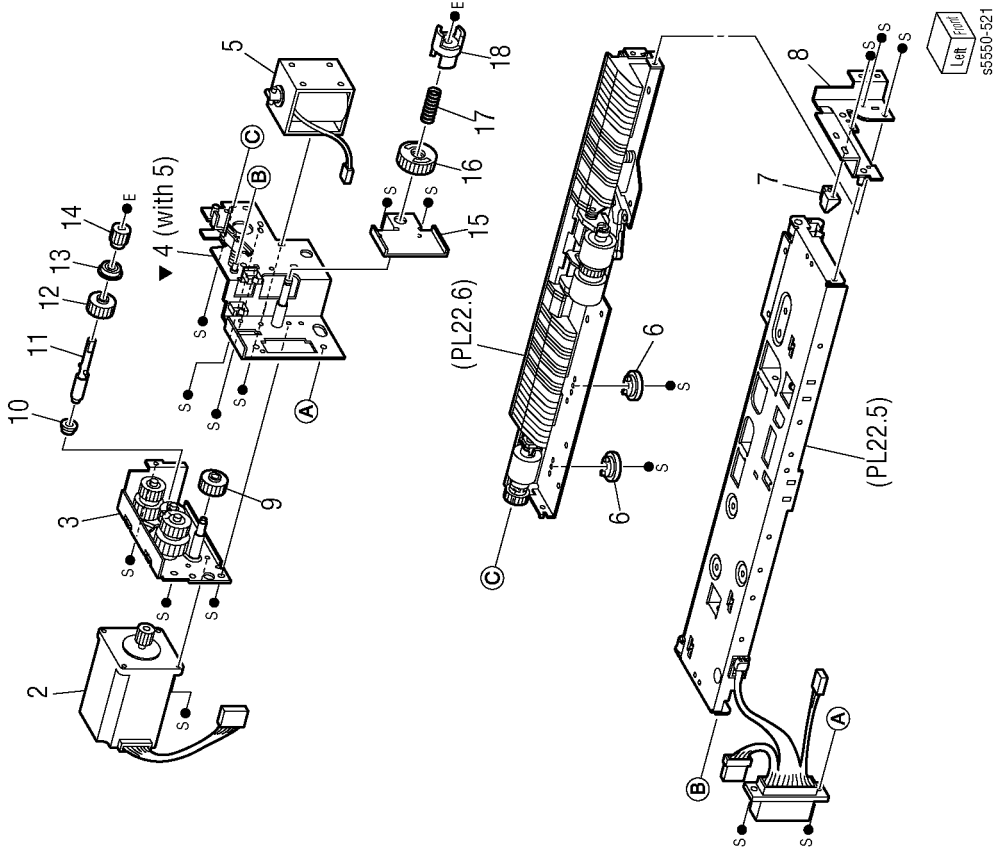
Item	Part	Description
1	-	Guide Assy Side R
2	-	Guide Assy Side F
3	019E58620	Pad Bottom (P/O PL 22.3 Item 5)
4	-	Plate Bottom (P/O PL 22.3 Item 5)
5	-	Plate Assy Bottom (with 3, 4)
6	-	Cable (included with 99)
7	826E11700	Screw Guide Tray
8	015K65531	BRKT Assy Gear R PF2
9	-	Bearing Power D
10	-	Shaft Lift
11	-	Bearing Power D
12	-	Washer
13	020E99571	Pulley S
14	032E99390	Guide Wire S
15	-	Pulley Tray
16	-	Gear Front Tray
17	020E37630	Pulley L
18	032E22410	Guide Wire L
19	-	Gear Lift
99	604K19981	Kit Cable Tray (item 6x4 pcs.)



# PL 22.4 Tray 6 Feeder (1/3)

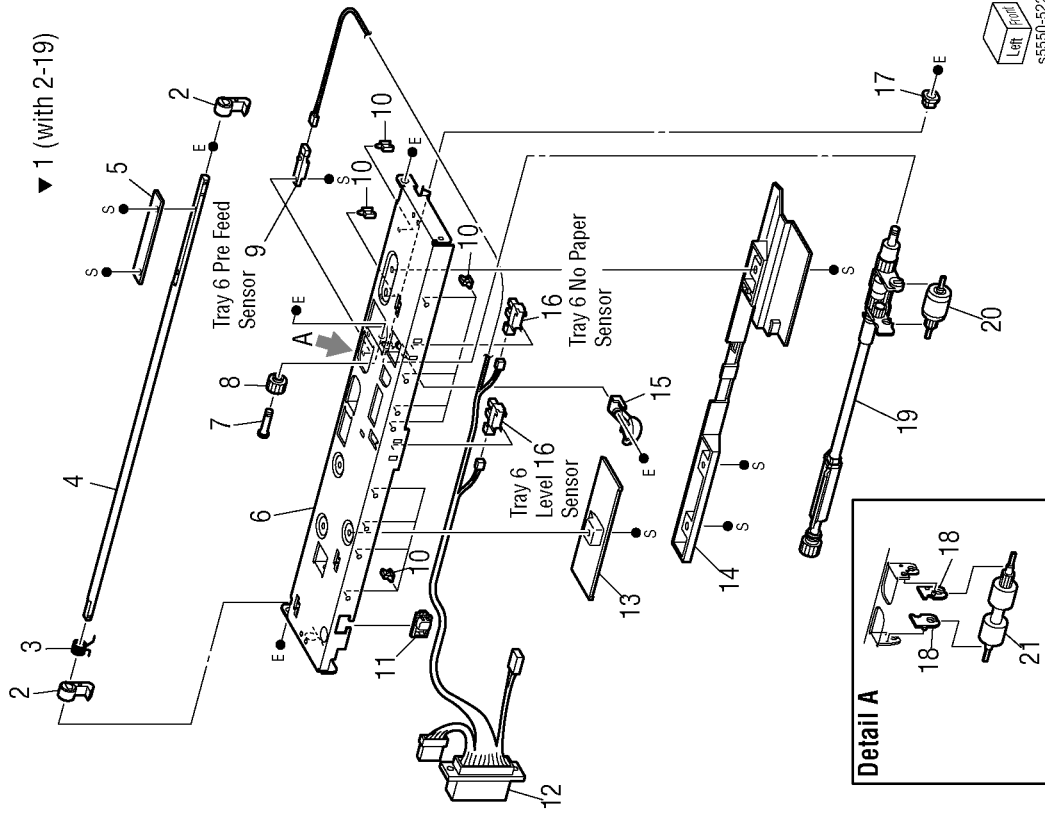
Item	Part	Description
1	059K41253	Feeder Assembly HCF (with 2-8, PL 22.5, PL 22.6)
2	127K37901	Motor Assembly HCF (Tray 6 Feed/Lift Motor) (P/O PL 22.4 Item 1)
3	-	Frame Assembly Drive (P/O PL 22.4 Item 1)
4	801K04745	Frame Assembly Rear (with 5) (P/O PL 22.4 Item 1)
5	-	Solenoid Assy (Nudger Solenoid) (P/O PL 22.4 Item 1, PL 22.4 Item 4)
6	-	Holder (P/O PL 22.4 Item 1)
7	-	Block (P/O PL 22.4 Item 1)
8	-	Frame Assy Front (P/O PL 22.4 Item 1)
9	-	Gear-25T
10	-	Bearing
11	-	Shaft Assy
12	-	Gear-25T
13	-	Bearing
14	-	Gear-19T
15	-	Bracket
16	-	Gear-40T
17	-	Spring Spacer
18	-	Spacer

▼ 1 (with 2-18, PL22.5, PL22.6)

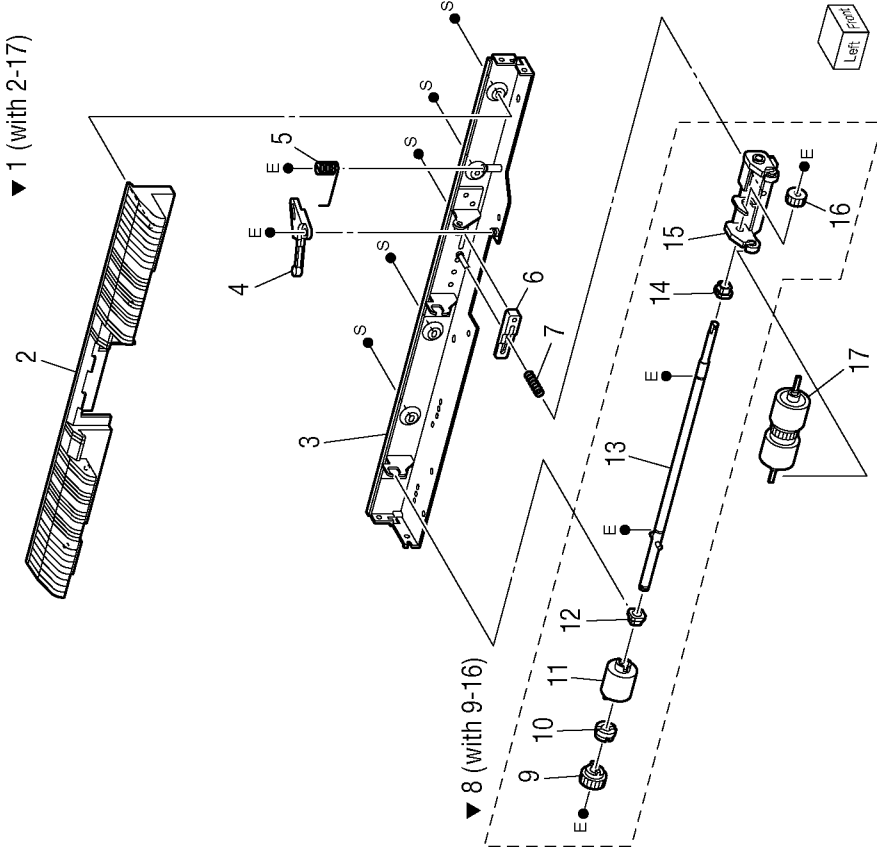


## PL 22.5 Tray 6 Feeder (2/3)

Item	Part	Description
1	-	Feeder Assy Upper (with 2-19)
2	003E59570	Latch (P/O PL 22.5 Item 1)
3	809E41180	Spring Latch (P/O PL 22.5 Item 1)
4	-	Shaft Latch (P/O PL 22.5 Item 1)
5	011K97840	Lever (P/O PL 22.5 Item 1)
6	-	Frame Assy Upper (P/O PL 22.5 Item 1)
7	-	Pin Drive (P/O PL 22.5 Item 1)
8	-	Gear 25T Feed (P/O PL 22.5 Item 1)
9	930W00211	Sensor Assy (Pre-Feed Sensor) (P/O PL 22.5 Item 1)
10	-	Clamp Mini-Saddle (P/O PL 22.5 Item 1)
11	-	Guide (P/O PL 22.5 Item 1)
12	-	Horn Assy Feeder (J560-P59, P62, P60, P61) (P/O PL 22.5 Item 1)
13	-	Chute Upper Rear (P/O PL 22.5 Item 1)
14	-	Chute Upper (P/O PL 22.5 Item 1)
15	120E21900	Actuator (P/O PL 22.5 Item 1)
16	930W00112	Sensor-Photo In (No Paper and Level Sensor) (P/O PL 22.5 Item 1)
17	-	Bearing (P/O PL 22.5 Item 1)
18	-	Spacer (P/O PL 22.5 Item 1)
19	006K23123	Shaft Assy Feeder (P/O PL 22.5 Item 1)
20	-	Roll Assy Nud (Nudget Roller P/O PL 22.5 Item 99)
21	-	Roll Assy Feed (Feed Roller P/O PL 22.5 Item 99)
99	604K23660	Kit Feed Roll (P/O PL 22.6 Item 17)



## PL 22.6 Tray 6 Feeder (3/3)

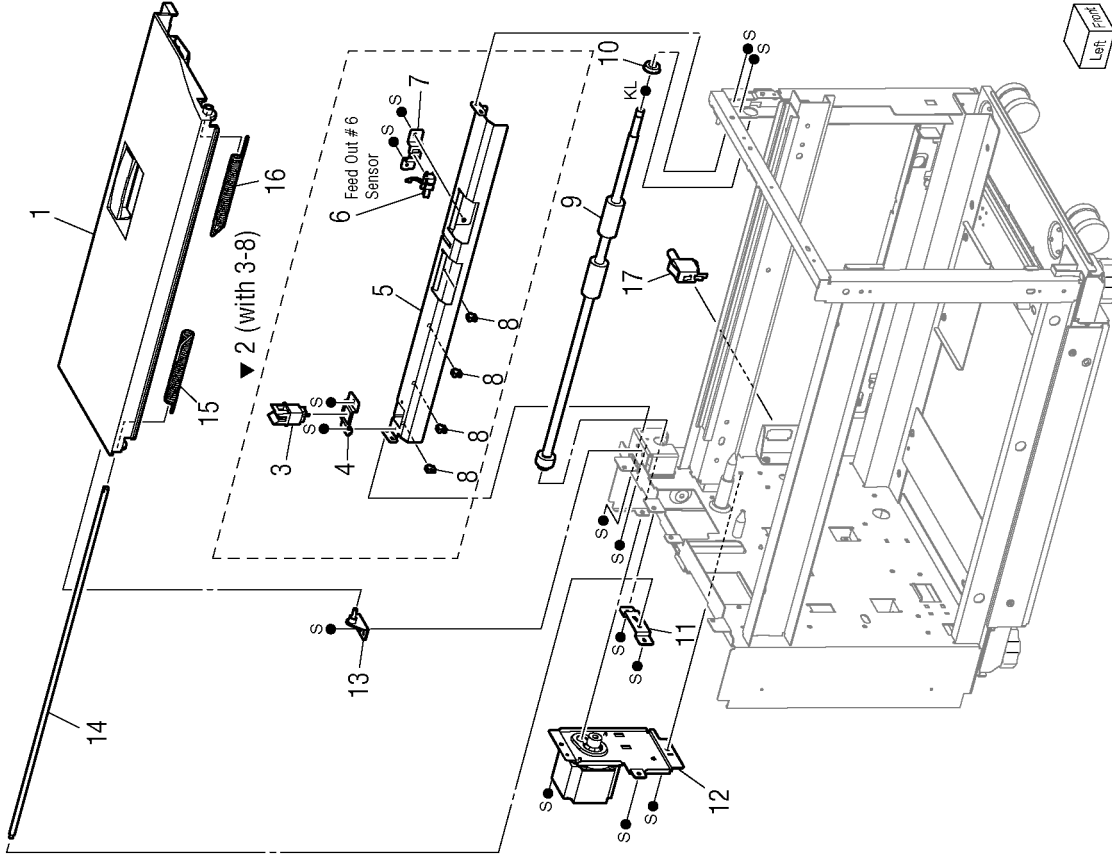


Item	Part	Description
1	-	Feeder Assy Lower (with 2-17)
2	-	Chute Lower (P/O PL 22.6 Item 1)
3	-	Frame Assy-Lower HCF (P/O PL 22.6 Item 1)
4	-	Lever Retard (P/O PL 22.6 Item 1)
5	-	Spring RET Down (P/O PL 22.6 Item 1)
6	-	Side Retard (P/O PL 22.6 Item 1)
7	809E41221	Spring Retard (P/O PL 22.6 Item 1)
8	-	Shaft Assy Retard (P/O PL 22.6 Item 1) (with 9-16)
9	-	Gear 22T (P/O PL 22.6 Item 1, PL 22.6 Item 8)
10	-	Collar (P/O PL 22.6 Item 1, PL 22.6 Item 8)
11	005K06701	Clutch Assy Friction (Retard Clutch) (P/O PL 22.6 Item 1, PL 22.6 Item 8)
12	-	Bearing (P/O PL 22.6 Item 1, PL 22.6 Item 8)
13	-	Shaft Assy-RET (P/O PL 22.6 Item 1, PL 22.6 Item 8)
14	-	Bearing-6 (P/O PL 22.6 Item 1, PL 22.6 Item 8)
15	068K24821	Bracket Assy Retard (with Bracket and Pad) (P/O PL 22.6 Item 1, PL 22.6 Item 8)
16	-	Gear 15T (P/O PL 22.6 Item 1, PL 22.6 Item 8)
17	-	Roller Assy Retard (P/O PL 22.6 Item 1, PL 22.5 Item 9)



## PL 22.7 Tray 6 Drive and Transportation

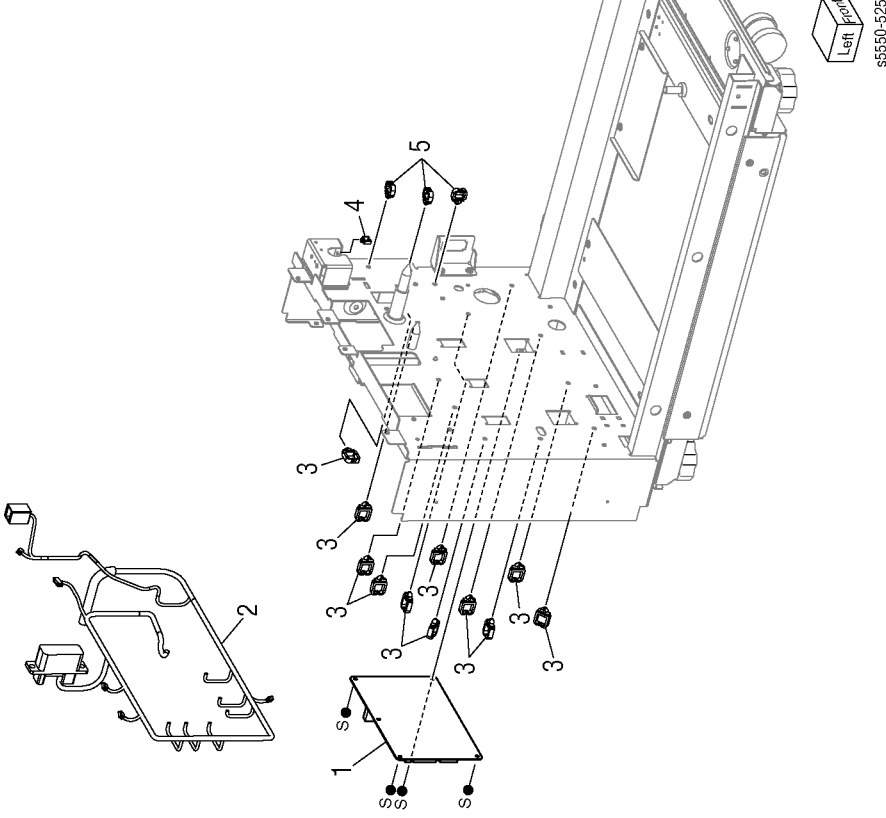
Item	Part	Description
1	802K74970	Cover Assy Top S (Door J)
2	-	Chute Assy Low (with 3-8)
3	110E94770	Switch (Door J Interlock Switch) (P/O PL 22.7 Item 2)
4	-	Bracket Switch (P/O PL 22.7 Item 2)
5	-	Chute Low (P/O PL 22.7 Item 2)
6	130K88150	Sensor Assy TA (Feed Out Sensor #6) (P/O PL 22.7 Item 2)
7	-	Bracket Sensor TA (P/O PL 22.7 Item 2)
8	-	Clamp (P/O PL 22.7 Item 2)
9	059K36260	Roller Assy TA P (Take Away Roller Assembly)
10	-	Bearing Conductive
11	-	Bracket Hinge Rear New
12	127K47151	Motor Assy (Take Away Motor)
13	-	Bracket Assy Pivot
14	-	Shaft Pivot Top
15	-	Spring Torsion R
16	-	Spring Torsion L
17	110E10380	SW IL Assy Docking (Docking Interlock Switch)



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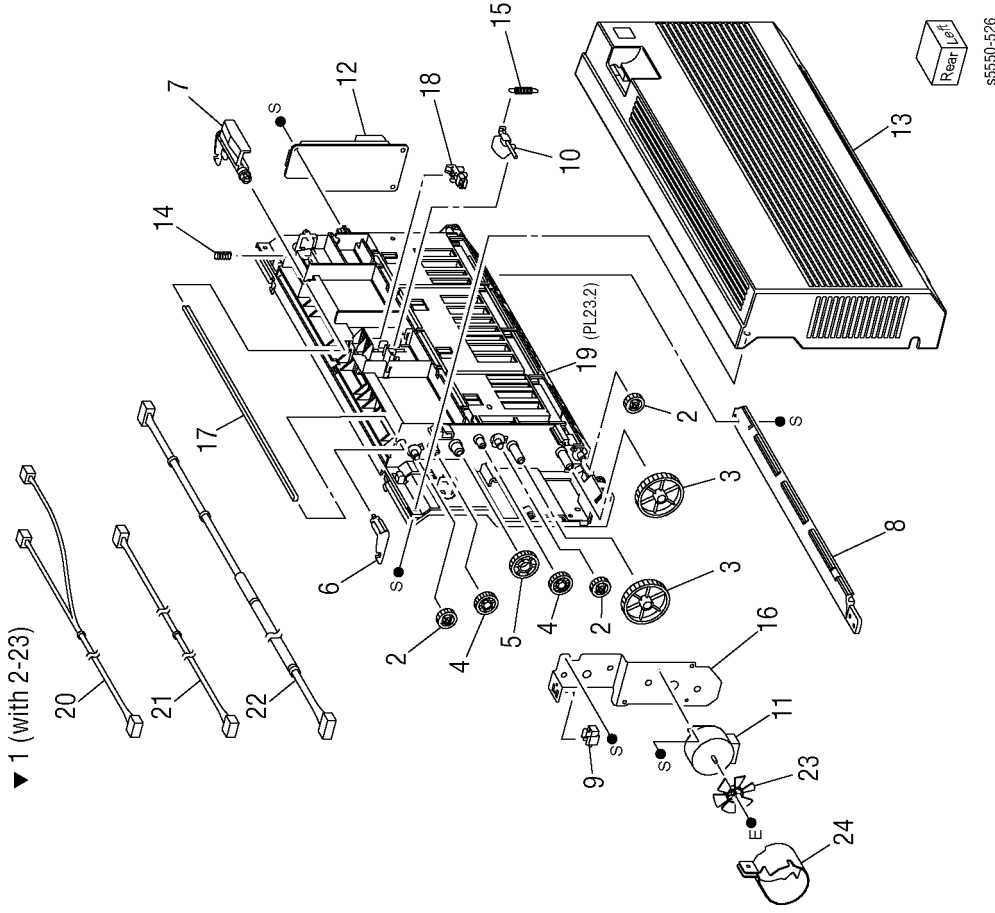
# PL 22.8 Tray 6 Electrical

Item	Part	Description
1	960K08930	PWB Assy (Tray 6 PWB)
2	962K27490	Harness Assy Main
3	-	Clamp WS-2N
4	-	Clamp
5	-	WS-1N



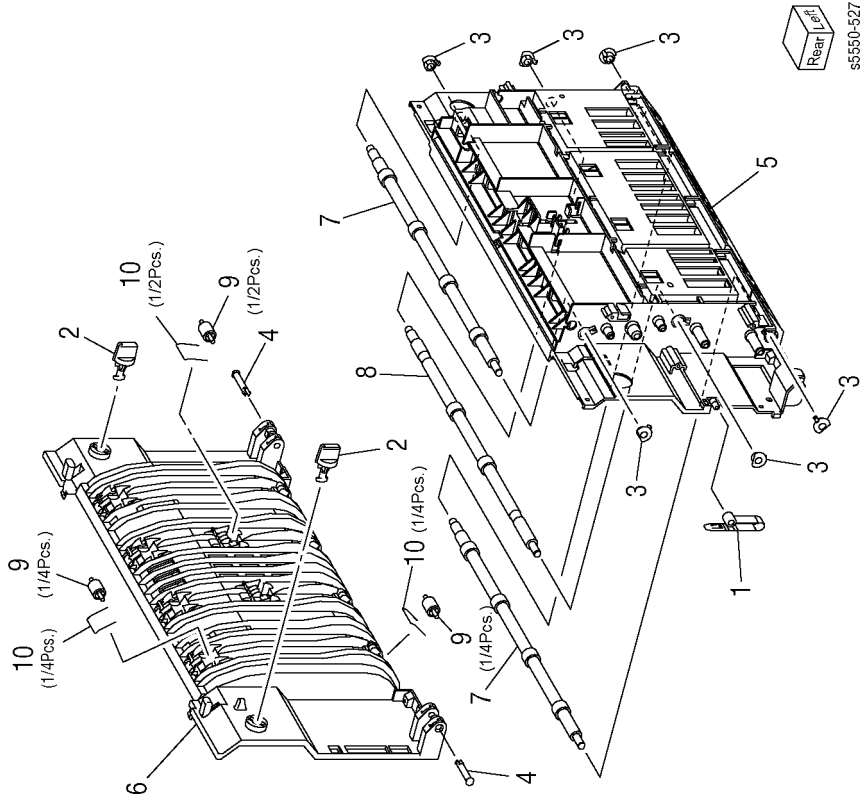
# PL 23.1 Duplex Unit

Item	Part	Description
1	059K33845	Trans Assy Dup (with 2-23)
2	-	Gear Roll 28T (P/O PL 23.1 Item 1)
3	-	Gear Idle 33/74T (P/O PL 23.1 Item 1)
4	-	Gear Idle 33T (P/O PL 23.1 Item 1)
5	-	Gear Idle 42T (P/O PL 23.1 Item 1)
6	011E14582	Lever Latch RR (Rear Latch Lever) (P/O PL 23.1 Item 1)
7	011E14590	Lever Latch FR (Front Latch Lever) (P/O PL 23.1 Item 1)
8	-	Chute Lower (P/O PL 23.1 Item 1)
9	110E11580	Switch-I/L, Cab (Door D Interlock Switch) (P/O PL 23.1 Item 1)
10	120E21261	Actuator Dup (Wait Sensor Actuator) (P/O PL 23.1 Item 1)
11	127K48381	Motor Assy Dup (Duplex Motor) (P/O PL 23.1 Item 1)
12	960K01426	PWBA Duplex (Duplex Unit PWB) (P/O PL 22.3 Item 1)
13	802E55173	Cover Dup (Door D) (P/O PL 23.1 Item 1)
14	809E37170	Spring Latch (Latch Spring) (P/O PL 23.1 Item 1)
15	809E37280	Spring Actuator Dup (Wait Sensor Actuator Spring) (P/O PL 23.1 Item 1)
16	-	Bracket Motor (P/O PL 23.1 Item 1)
17	-	Plate Latch (Latch Plate) (P/O PL 23.1 Item 1)
18	930W00113	Sensor-Photo In (Wait Sensor) (P/O PL 23.1 Item 1)
19	-	Inner Chute Assembly (P/O PL 23.1 Item 1, PL 23.2)
20	-	Harn Assy Dup Snr (P/O PL 23.1 Item 1)
21	-	Harn Assy Dup Mot (P/O PL 23.1 Item 1)
22	-	Harn Assy Dup A (P/O PL 23.1 Item 1)
23	-	Fan-Dup (P/O PL 23.1 Item 1)
24	-	Duct-Dup



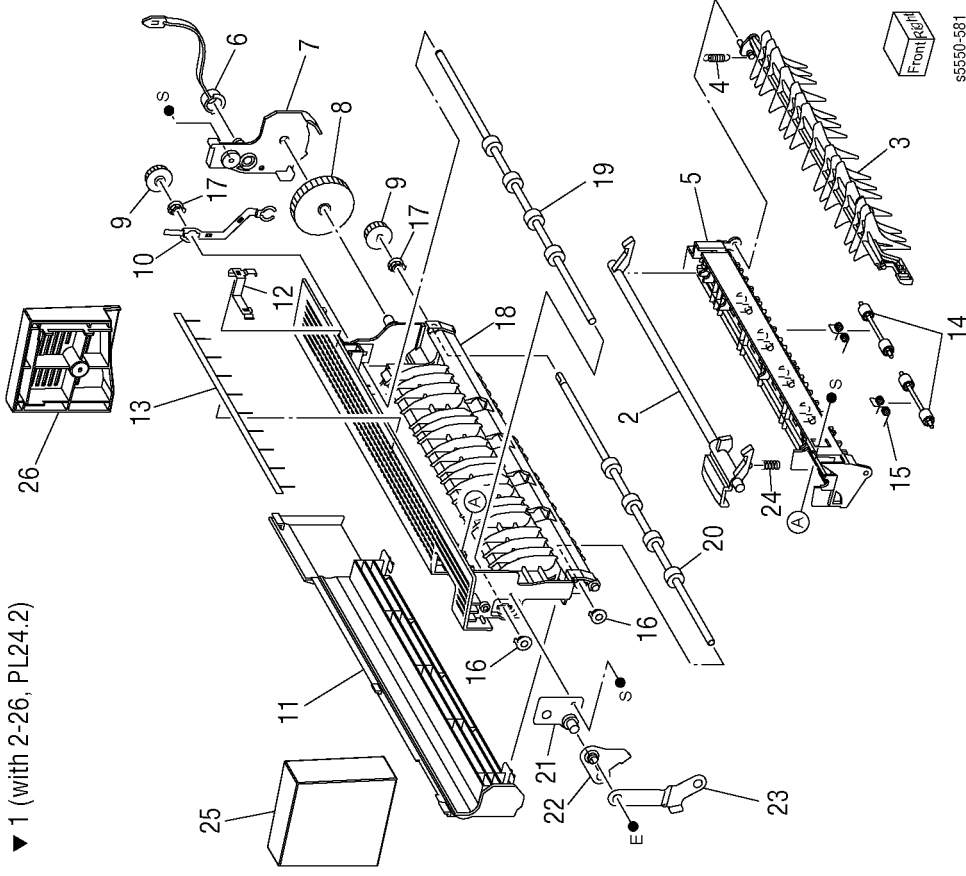
# PL 23.2 Inner Chute Assembly Duplex Module

Item	Part	Description
1	003E59810	Stopper Dup
2	-	Lock Dup
3	-	Bearing Dup
4	-	Pin Dup
5	-	Chute Outer
6	-	Chute Inner
7	-	Roller Dup A3L
8	-	Roller Assy Dup
9	-	Roller Pinch Up (included with 99)
10	-	Spring Pinch Up (included with 99)
99	604K23300	Kit, Pinch Roller (10 each, PL 23.2 Item 9, PL 23.2 Item 10)



# PL 24.1 Exit 2 L/H Upper Chute Assembly

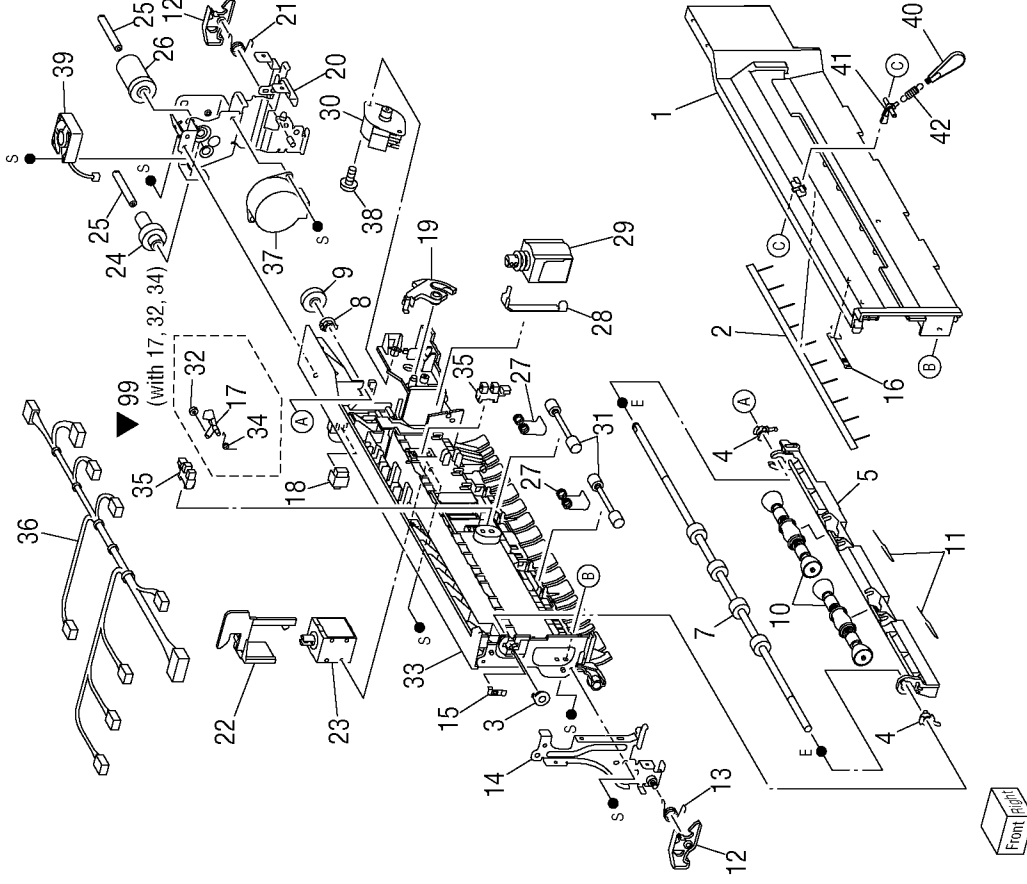
▼ 1 (with 2-26, PL24.2)



Item	Part	Description
1	059K31628	Trans Assy Exit 2 (with 2-26, from PL 24.2)
2	003E60160	Handle Latch (P/O PL 24.1 Item 1)
3	-	Gate-Exit, 2 (P/O PL 24.1 Item 1)
4	809E50480	Spring-Gate 2 (P/O PL 24.1 Item 1)
5	-	Chute-Upper, FU (P/O PL 24.1 Item 1)
6	003E60180	Stopper Exit 2 (P/O PL 24.1 Item 1)
7	-	Cover Gear (P/O PL 24.1 Item 1)
8	-	Gear-52Z (P/O PL 24.1 Item 1)
9	-	Gear-19Z (P/O PL 24.1 Item 1)
10	-	Plate-Earth Inv (P/O PL 24.1 Item 1)
11	802E57020	Cover Fup Exit (P/O PL 24.1 Item 1)
12	-	Plate-Earth FU (P/O PL 24.1 Item 1)
13	-	Eliminator Exit (P/O PL 24.1 Item 1)
14	-	Roll Pinch (P/O PL 24.1 Item 1)
15	-	Spring-Pinch Fup (P/O PL 24.1 Item 1)
16	-	Bearing (P/O PL 24.1 Item 1)
17	-	Bearing (P/O PL 24.1 Item 1)
18	-	Chute LH High (P/O PL 24.1 Item 1)
19	-	Roll Assy-Inv (P/O PL 24.1 Item 1)
20	-	BRKT Assy Tray (P/O PL 24.1 Item 1)
21	-	BRKT Assy Link (P/O PL 24.1 Item 1)
22	-	Link-FU (P/O PL 24.1 Item 1)
23	809E37170	Spring Latch (P/O PL 24.1 Item 1)
24	-	Front Exit 2 Cover (P/O PL 24.1 Item 1)
25	-	Rear Exit 2 Cover (P/O PL 24.1 Item 1)
26	-	

# PL 24.2 Exit 2 Tray Guide Assembly

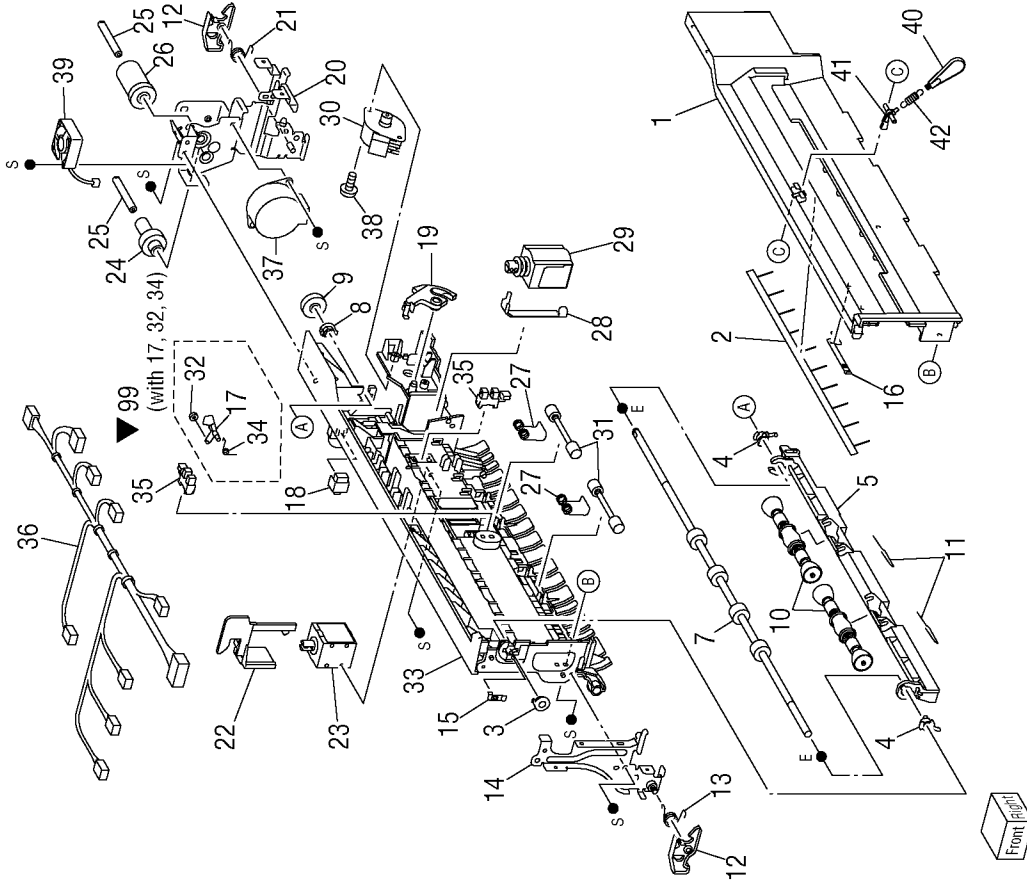
Item	Part	Description
1		Guide-Tray, 2
2		Eliminator Exit
3		Bearing
4		Bearing Roll
5		Chute-Oct 2
6		--
7	059K26760	Roll Assy OCT (OCT Roller)
8		Bearing
9		Gear-19Z
10	059E99342	Roller Pinch Exit (Exit 2 Pinch Roller)
11	809E55001	Spring Pinch Exit
12	003E60171	Latch
13		Spring Latch Front
14		Plate Assy-Front
15		Plate-Earth 2
16		Plate-Earth 3
17		Actuator Exit (P/O PL 24.2 Item 99)
18	110E11580	Switch-I/L, Cab (Door E Interlock Switch)
19	807E00211	Gear-Offset 2 (Offset Gear)
20		Plate Assy-Rear
21		Spring Latch Rear
22	012E11680	Link-SOL FU
23		Solenoid Assy FU
24		Gear-20Z
25		Shaft-Gear
26		Gear-19Z/44Z
27	604K20430	Kit Spring Pinch INV
28	012E11390	Link-Gate Exit
29	121K31810	Solenoid Assy (Exit Gate Solenoid)
30	127K37951	Motor Assy



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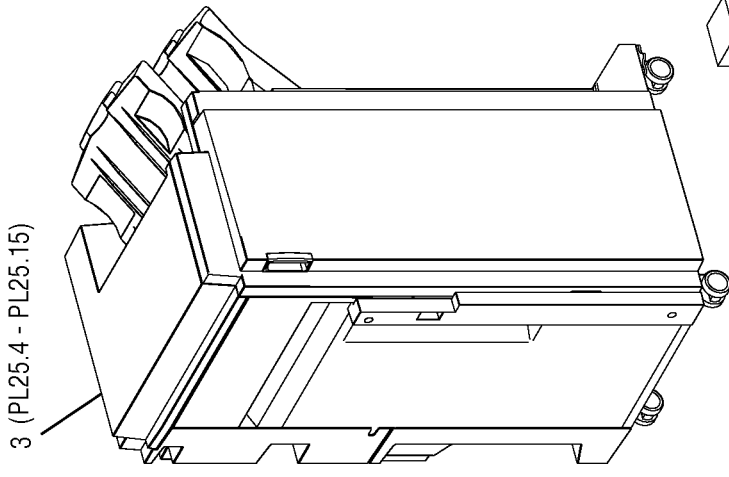
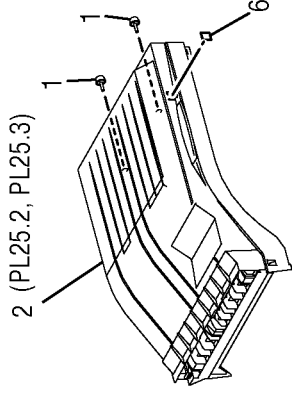
# PL 24.2 Exit 2 Tray Guide Assembly (Continued)

Item	Part	Description
31	604K20400	Kit Roll-Pinch INV
32	-	Roller Actuator (P/O PL 24.2 Item 99)
33	-	Chute Low
34	-	Spring Actuator (P/O PL 24.2 Item 99)
35	930W00113	Sensor-Photo IN (Exit, Full Stack, and OCT Home Position Sensor) Harn Assy Exit 2 C
36	-	Motor Assy Exit 2
37	127K38262	Screw
38	-	Exit 2 Fan
39	127K39420	Actuator Full-A (Full Stack Actuator A)
40	120E24660	Actuator Full-B (Full Stack Actuator B)
41	120E24680	Spring ACT (Full Stack Actuator Spring)
42	809E60520	Kit Actuator (Exit Sensor Actuator Kit) (with 17, 32, 34)
99	604K23310	Kit Actuator (Exit Sensor Actuator Kit) (with 17, 32, 34)



## PL 25.1 Finisher/Stacker Unit

Item	Part	Description
1	026E93560	Screw
2	022K67724	H-Transport Assy (with PL 25.2, PL 25.3)
3	-	Staple Finisher (with PL 25.4-PL 25.15)
4	-	--
5	-	--
6	893E41630	Label

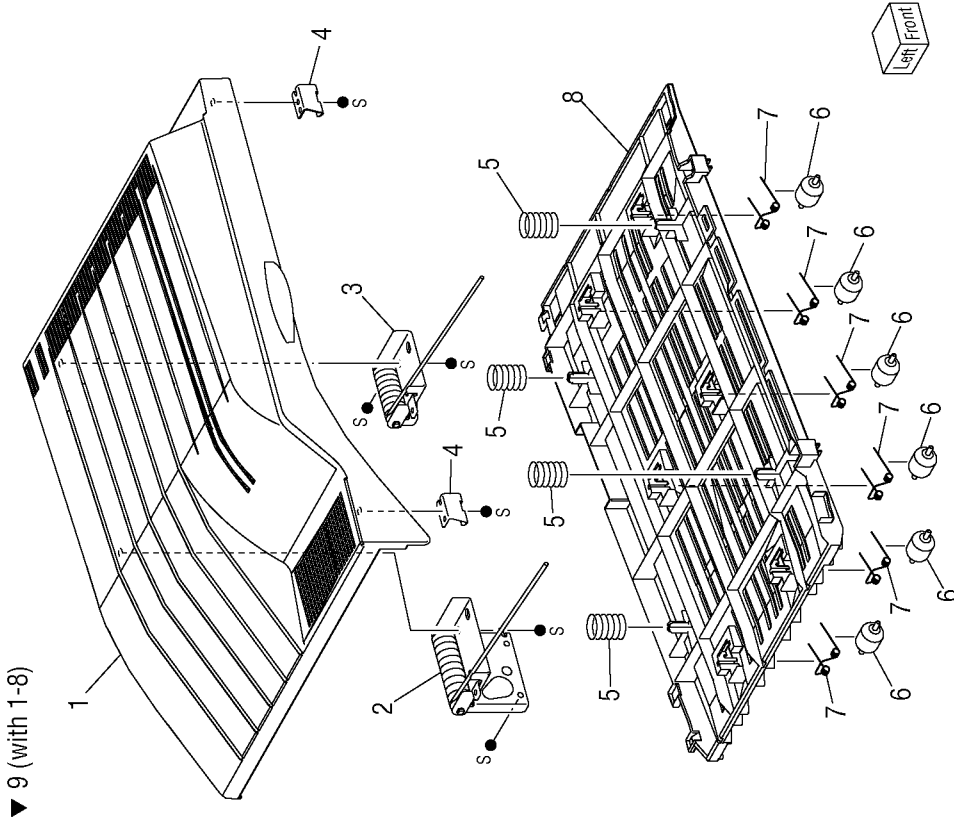


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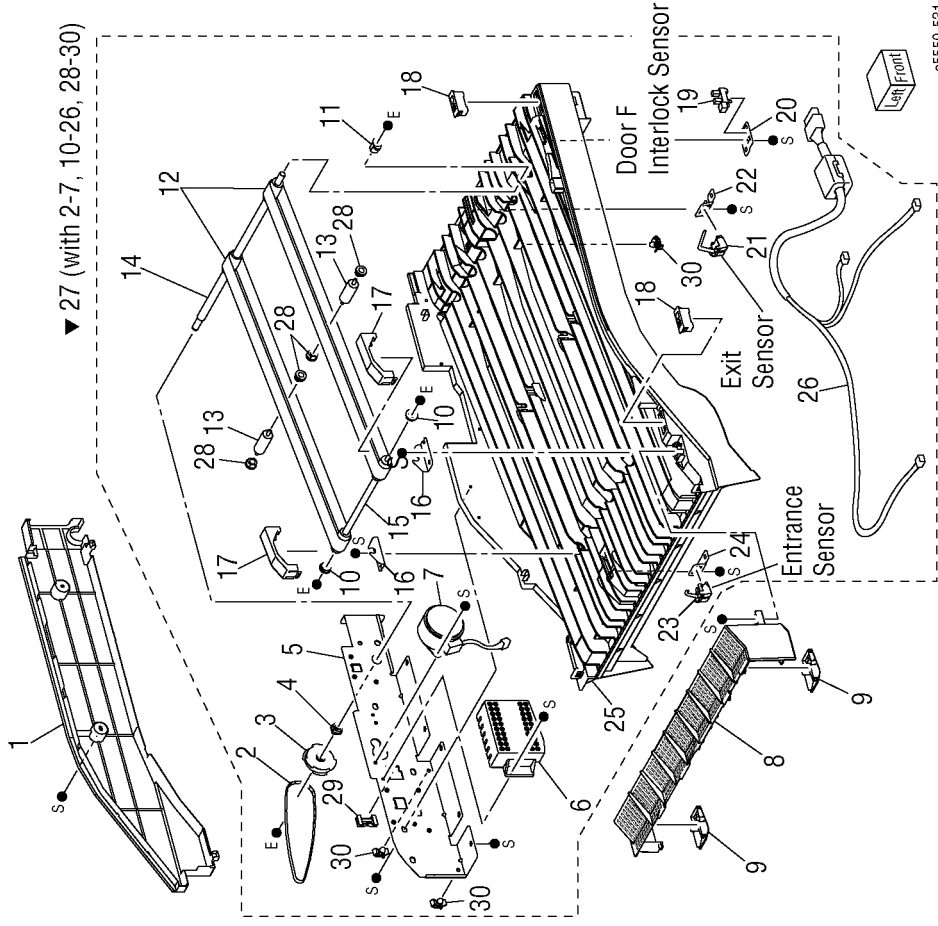


# PL 25.2 Horizontal Transport Assembly (1/2)

Item	Part	Description
1	-	Cover Top, C (P/O PL 25.2 Item 9)
2	-	Hinge Assembly (Left) (P/O PL 25.2 Item 9)
3	-	Hinge Assembly (Right) (P/O PL 25.2 Item 9)
4	-	Bracket-Magnet (P/O PL 25.2 Item 9)
5	-	Spring-Chute (P/O PL 25.2 Item 9)
6	022E27660	Pinch-Roll (P/O PL 25.2 Item 9)
7	809E55330	Spring-Pinch (P/O PL 25.2 Item 9)
8	-	Upper Chute (P/O PL 25.2 Item 9)
9	802E77031	Cover Assembly Top (Door F) (with 1-8)



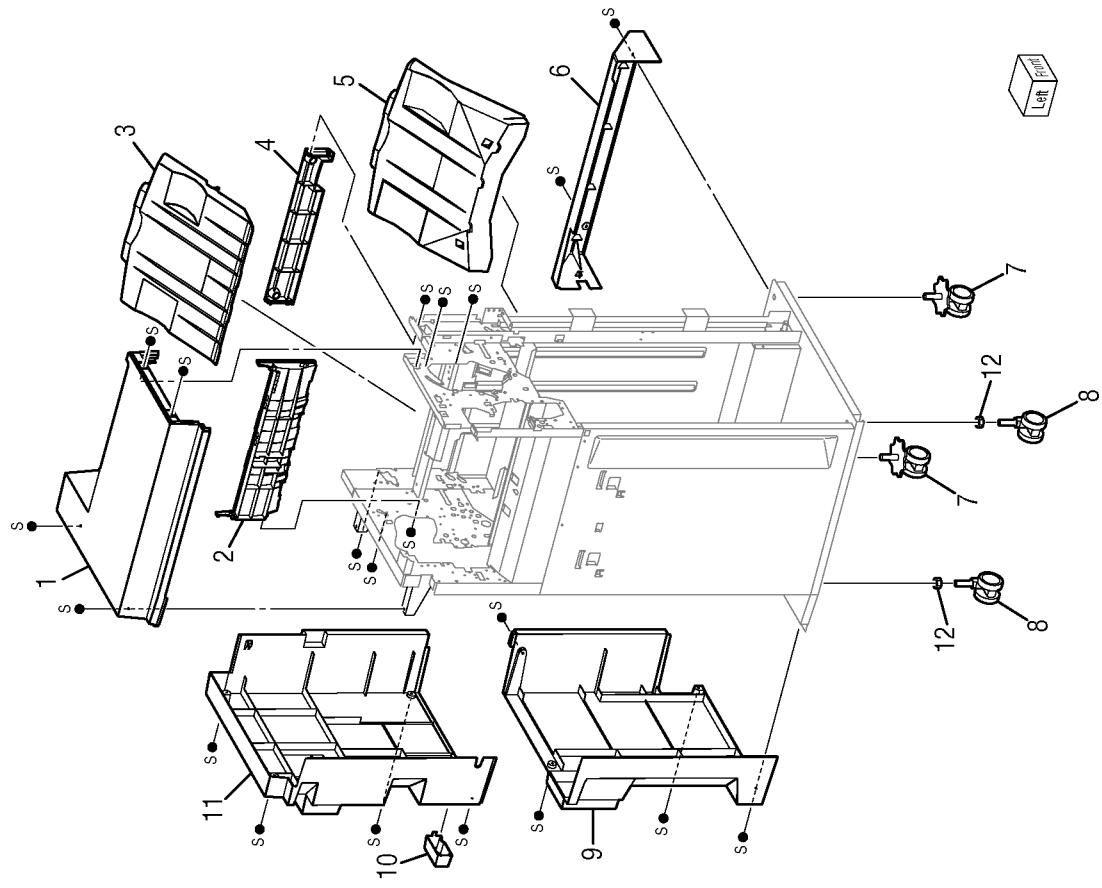
## PL 25.3 Horizontal Transport Assembly (2/2)



Item	Part	Description
1	-	Rear Cover
2	023E21480	Belt Drive (P/O PL 25.3 Item 27)
3	-	Pulley (P/O PL 25.3 Item 27)
4	-	Bearing (P/O PL 25.3 Item 27)
5	-	Bracket-Drive (P/O PL 25.3 Item 27)
6	-	Cover-Motor (P/O PL 25.3 Item 27)
7	127K39900	H-Transport Motor (P/O PL 25.3 Item 27)
8	802E64430	Top Cover
9	038E31190	Paper Guide
10	-	Bearing (P/O PL 25.3 Item 27)
11	-	Bearing (P/O PL 25.3 Item 27)
12	023E20021	Belt (P/O PL 25.3 Item 27)
13	-	Roll (P/O PL 25.3 Item 27)
14	022K67730	Shaft Assy Right (P/O PL 25.3 Item 27)
15	022K67740	Shaft Assy Left (P/O PL 25.3 Item 27)
16	-	Bracket-Bearing (P/O PL 25.3 Item 27)
17	-	Cover-Bearing (P/O PL 25.3 Item 27)
18	121E92720	Magnet (P/O PL 25.3 Item 27)
19	130E88780	H-Transport Interlock Sensor (Door F Interlock) (P/O PL 25.3 Item 27)
20	-	Bracket (P/O PL 25.3 Item 27)
21	130K63281	H-Transport Exit Sensor (P/O PL 25.3 Item 27)
22	-	Bracket (P/O PL 25.3 Item 27)
23	130K88790	H-Transport Entrance Sensor (P/O PL 25.3 Item 27)
24	-	Bracket (P/O PL 25.3 Item 27)
25	-	Lower Chute (P/O PL 25.3 Item 27)
26	-	Wire Harness (P/O PL 25.3 Item 27)
27	-	Chute Assy Low (with 2-7, 10-26, 28-30)
28	-	Bearing Roller Support (P/O PL 25.3 Item 27)
29	-	Bush Saddle (P/O PL 25.3 Item 27)
30	-	Clamp Mini-Clamp (P/O PL 25.3 Item 27)

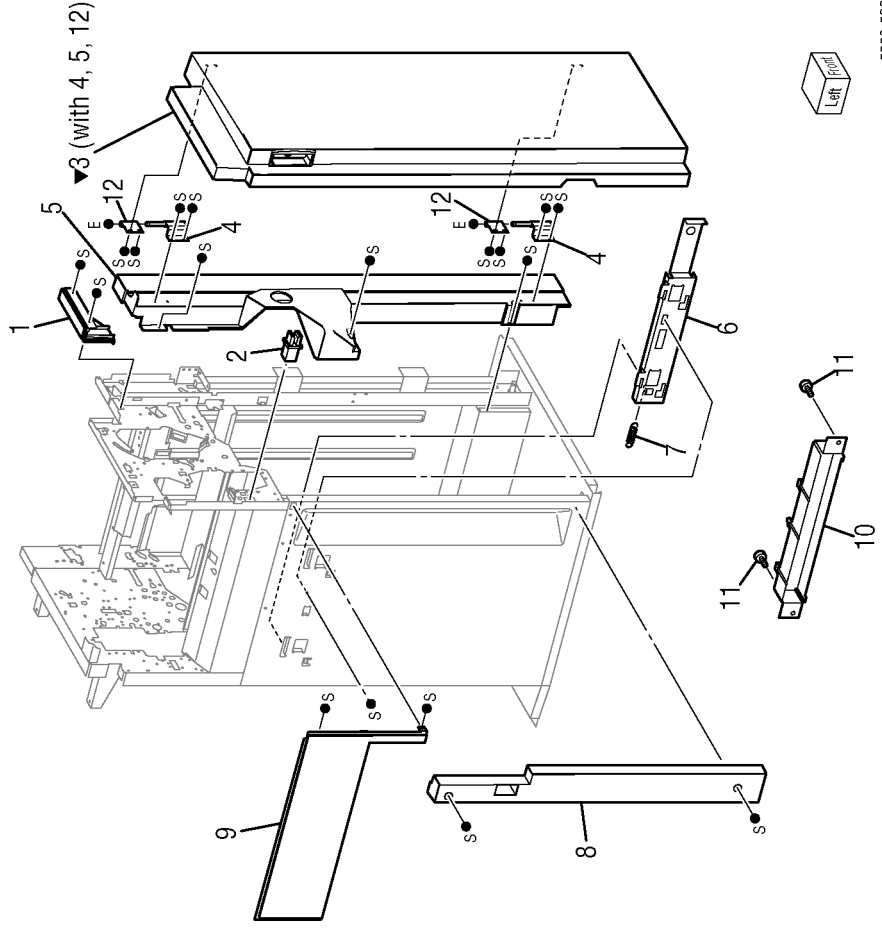
# PL 25.4 Finisher/Stacker Covers (1/2)

Item	Part	Description
1	802E78730	Cover Top
2	038E31290	Guide Tray Spring
3	050K51270	Tray Assy SCT (Stacker Upper Tray)
4	802E69790	Cover Eject
5	050K51280	Tray Assy Stacker (Stacker Lower Tray)
6	802E69810	Cover Bottom
7	017E97220	Caster
8	017E97230	Caster
9	802E69830	Cover Rear Lower
10	802E69870	Cover-Connector H-TRA
11	802E69820	Cover Rear Upper
12	-	Nut M12x1.25



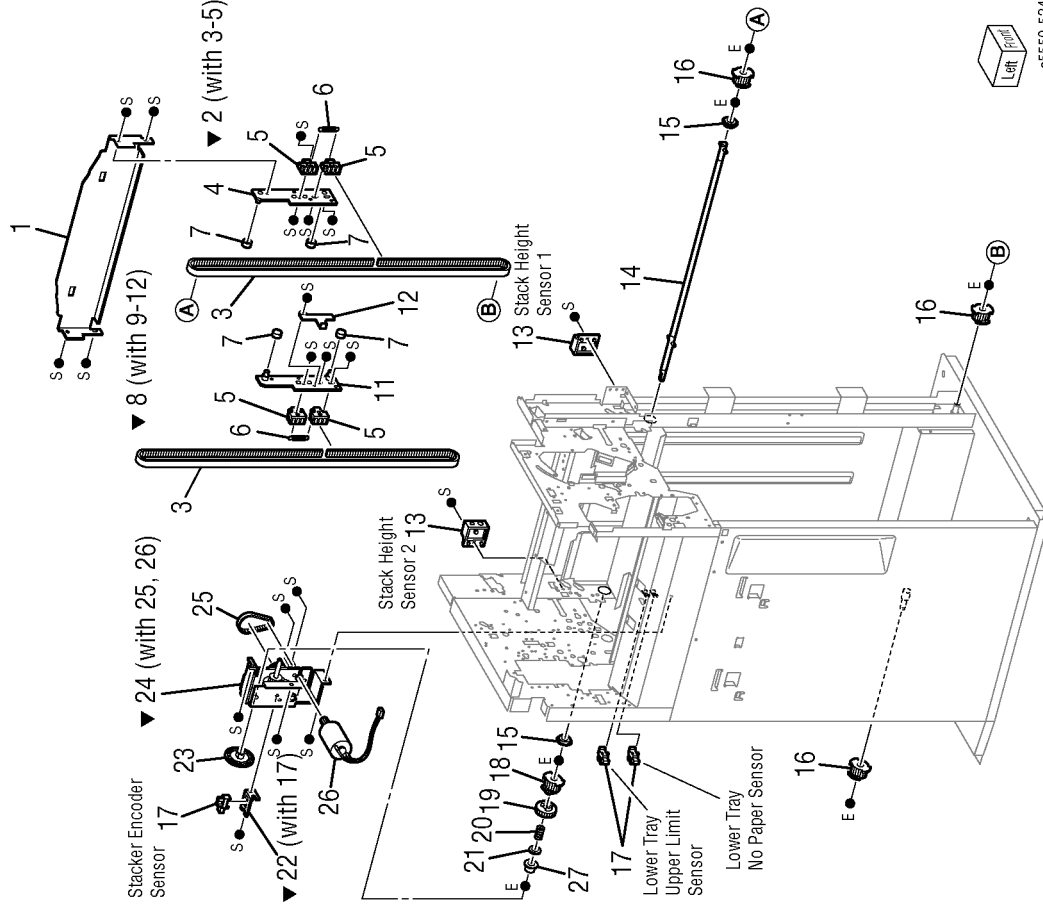
## PL 25.5 Finisher/Stacker Covers (2/2)

Item	Part	Description
1	802E69880	Cover Front Top
2	110E97990	Interlock Switch (Door G Interlock Switch)
3	802K67130	Cover Assy Front (with 4, 5, 12) (Door G)
4	-	Bracket Assy Hinge (P/O PL 25.5 Item 3)
5	-	Cover Inner (P/O PL 25.5 Item 3)
6	-	Plate Docking
7	009E94910	Spring
8	802E69860	Cover Front L/H
9	802E69850	Cover L/H Top
10	015K72940	Plate Assy Docking IOT
11	026E93560	Screw
12	-	Bracket-Cover (P/O PL 25.5 Item 3)



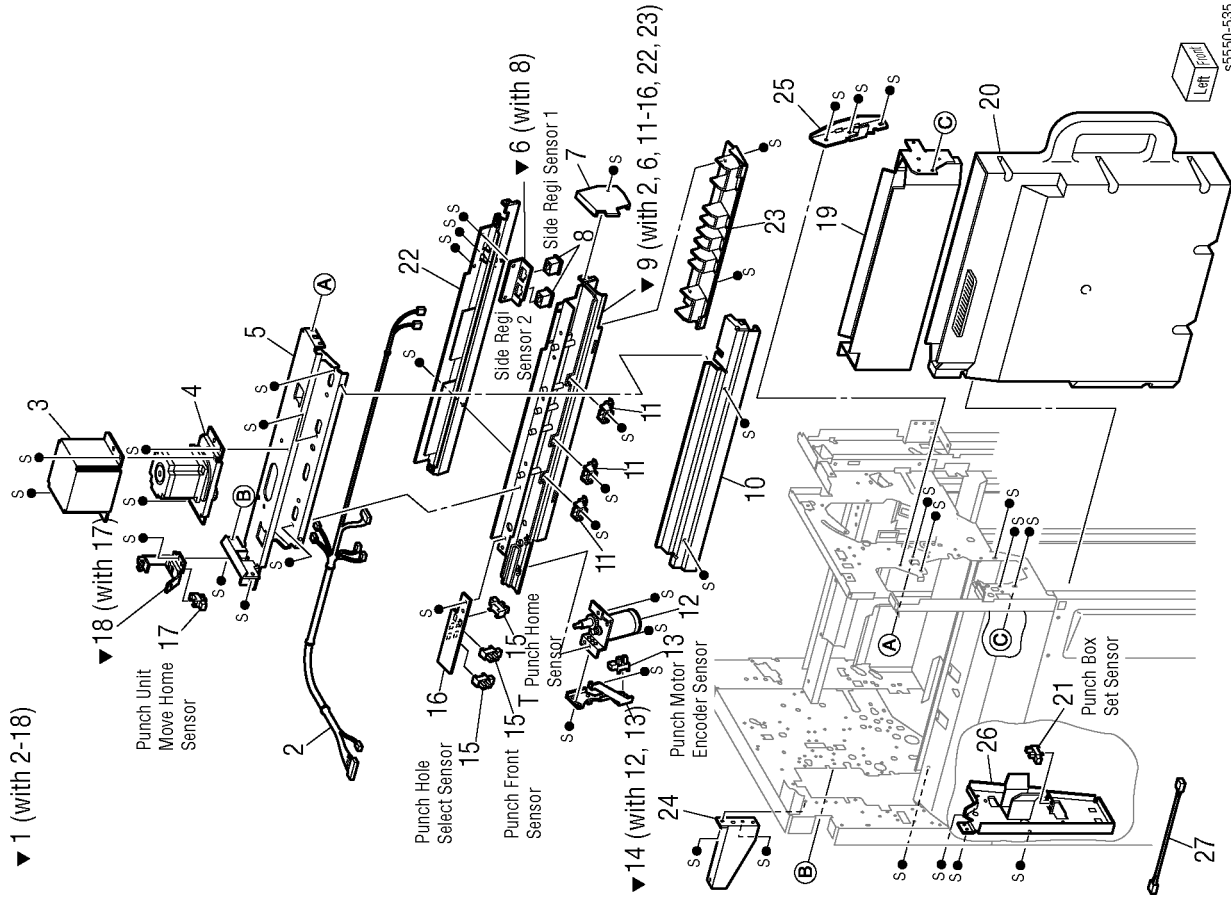
# PL 25.6 Finisher Stack

Item	Part	Description
1	-	Carriage Tray PL 25.6 Item 2
2	-	Carriage Tray L (with 3-5)
3	023E21520	Belt Stacker (P/O PL 25.6 Item 2)
4	-	Carriage Assy L (P/O PL 25.6 Item 2)
5	019E58660	Clamp Belt (P/O PL 25.6 Item 2)
6	809E56850	Spring
7	-	Bearing Carriage
8	-	Carriage Assy R (with 9-12)
9	-	Belt Stacker (P/O PL 25.6 Item 8)
10	-	-
11	-	Carriage Assy R (P/O PL 25.6 Item 8)
12	-	Actuator (P/O PL 25.6 Item 8)
13	802K67140	Cover Assy Sensor (Stack Height Sensor 1 & 2)
14	-	Shaft-Elev
15	-	Bearing
16	-	Pulley T18
17	130E88770	Sensor (Stacker Encoder, Upper Limit, and No Paper Sensor)
18	-	Pulley DOC, Clutch
19	-	Gear DOC, Clutch
20	-	Spring DOC
21	-	Washer
22	-	Bracket Assy (P/O PL 25.6 Item 17)
23	146E01770	Encoder
24	-	Bracket Assy Stacker (with 25, 26)
25	423W27654	Belt (Elevator Motor Belt) (P/O PL 25.6 Item 24)
26	127K40300	Motor Assy DC (Elevator Motor) (P/O PL 25.6 Item 24)
27	-	Bearing 10x6



# PL 25.7 Finisher Punch

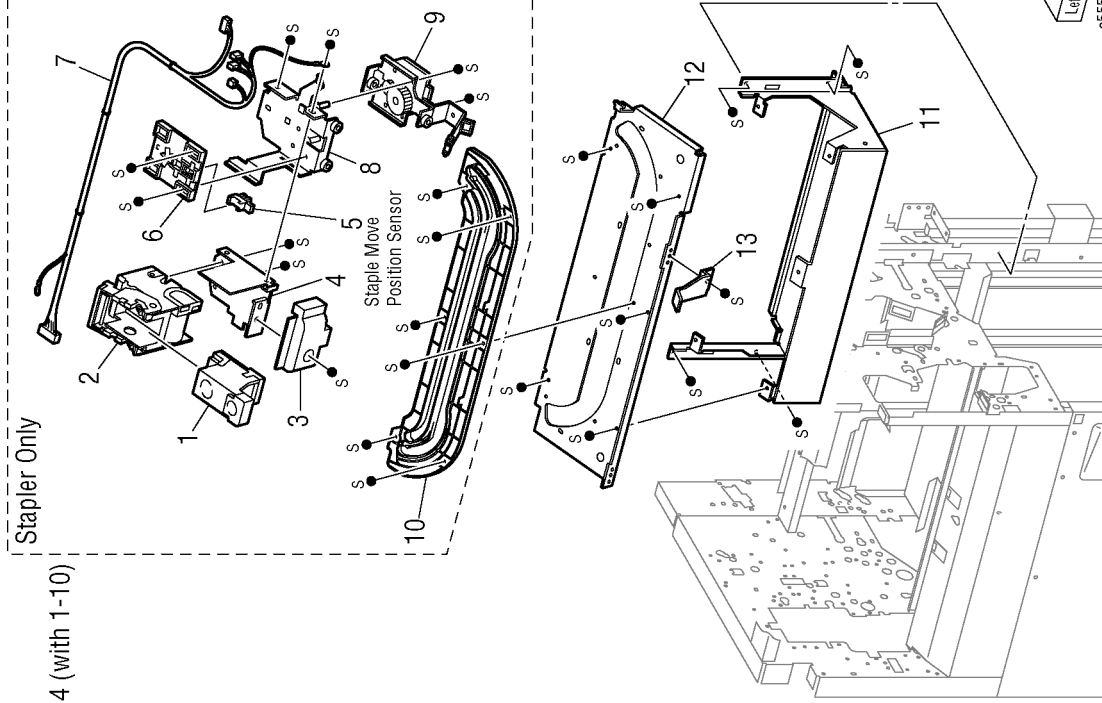
Item	Part	Description
1	801K16761	Frame Assy Punch, 3-Hole (with 2-18)
-	801K16771	Frame Assy Punch, All 2-4 Hole
2	962K27650	Harness Assy Punch Unit (P/O PL 25.7 Item 9)
3	-	Cover Motor Punch (P/O PL 25.7 Item 1)
4	015K65880	Bracket Assy Motor Punch
5	-	Holder-Frame Assy (P/O PL 25.7 Item 1)
6	015K65840	Bracket Assy Sensor HOL (with 8) (P/O PL 25.7 Item 9)
7	-	Cover-Front, Punch (P/O PL 25.7 Item 1)
8	-	Sensor (Side Registration Sensors 1 & 2) (P/O PL 25.7 Item 1, PL 25.7 Item 6)
9	015K65871	Bracket Assy-Punch 2&3 (with 2, 6, 11-16, 22, 23)
-	030K76631	Bracket Assy Punch 3-Hole (with 2, 6, 11-16, 22, 23)
-	030K76641	Bracket Assy Punch 2-Hole (with 2, 6, 11-16, 22, 23)
10	-	Cover-Left, Punch
11	-	Guide Assy (P/O PL 25.7 Item 9)
12	-	Motor Assy (Punch Motor) (P/O PL 25.7 Item 9, PL 25.7 Item 14)
13	-	Sensor (P/O PL 25.7 Item 9, PL 25.7 Item 14)
14	015K65921	Bracket Assy (with 12, 13) (P/O PL 25.7 Item 9)
15	130E87380	Sensor (Punch Hole Select, Home, and Front Sensors) (P/O PL 25.7 Item 9)
16	-	Bracket 2 & 4 (Ref Only) (P/O PL 25.7 Item 9)
17	130K88770	Sensor (Punch Move Home Sensor) (P/O PL 25.7 Item 18)
18	-	Bracket Assy-Sensor (with 17)
19	-	Chute Dust Box Entrance
20	060K95790	Dust Box
21	130K88770	Sensor (Punch Box Set Sensor)
22	-	Chute Assy-S Regi (P/O PL 25.7 Item 9)
23	-	Guide Box (P/O PL 25.7 Item 9)
24	-	Bracket-OPB Punch
25	-	Bracket-OPB Frame F
26	-	Bracket
27	-	Harness Assy Punch Box Set



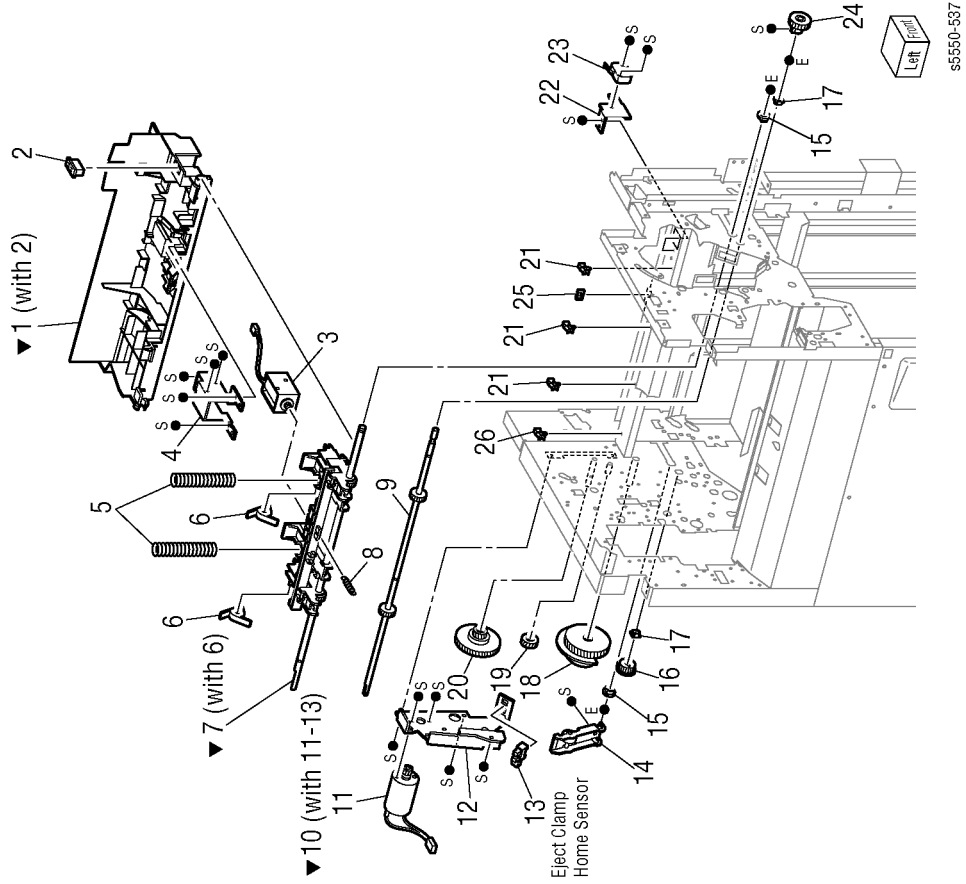
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## PL 25.8 Finisher Staple

Item	Part	Description
1	050K51250	Cartridge Assy Staples (Staple Cartridge) (P/O PL 25.8 Item 14)
2	029K92151	Stapler Assy (Staple Head) (P/O PL 25.8 Item 14)
3	802E69750	Cover Stapler (P/O PL 25.8 Item 14)
4	-	Holder Stapler (Staple Head Cover) (P/O PL 25.8 Item 14)
5	130E82530	Sensor (Stapler Move Position Sensor) (P/O PL 25.8 Item 14)
6	-	Guide Harness, Stapler (P/O PL 25.8 Item 14)
7	962K27661	Harness Assy Staple (P/O PL 25.8 Item 14)
8	-	Carriage Assy Upper, Stapler (P/O PL 25.8 Item 14)
9	-	Carriage Assy Lower, Stapler (P/O PL 25.8 Item 14)
10	001E66640	Rail-Upper (P/O PL 25.8 Item 14)
11	-	Frame Assy Stapler
12	-	Base-Rail (Ref Only)
13	-	Stopper-Chute (Ref Only)
14	-	Stapler Unit (with 1~10) (Ref Only)



# PL 25.9 Finisher Eject (1/3)

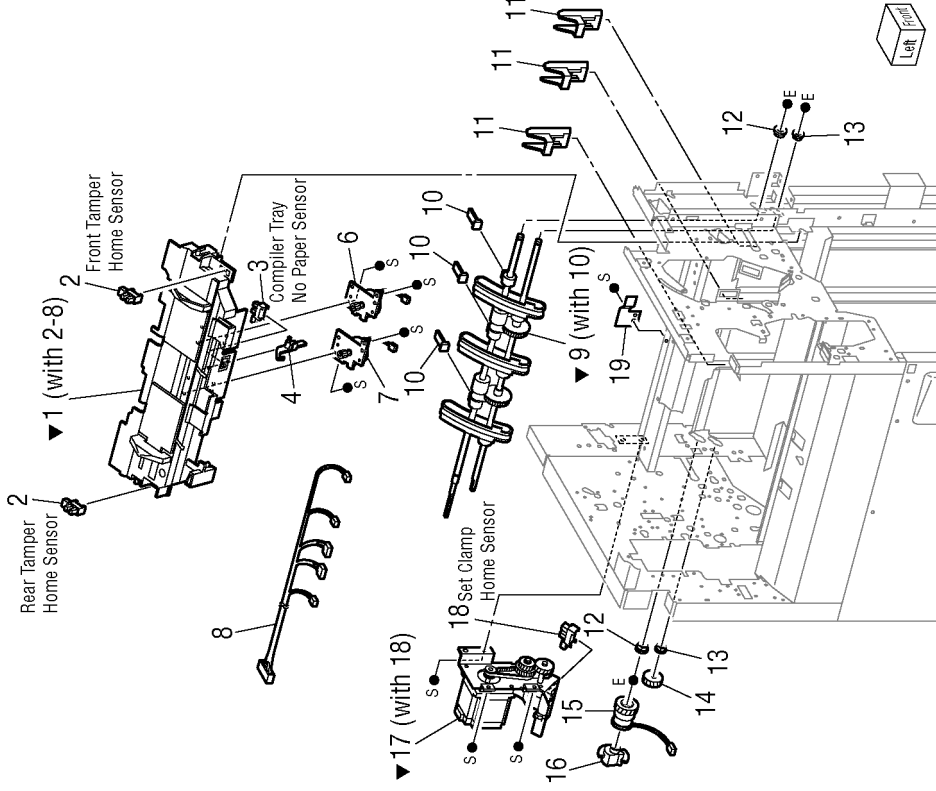


Item	Part	Description
1	054K27171	Chute Assy Eject (Door H) (with 2)
2	121E92890	Magnet 25N (P/O PL 25.9 Item 1)
3	-	Solenoid Assy (Sub Paddle Solenoid)
4	-	Bracket Solenoid
5	-	Spring-Pinch
6	-	Paddle-Cyclone (P/O PL 25.9 Item 7)
7	006K24160	Shaft Assy-Eject Pinch (with 6)
8	809E56880	Spring Solenoid
9	006K23860	Shaft Assy Paddle (Cyclone Paddle Drive Shaft)
10	015K65860	Bracket Assy-Eject Clamp (with 11~13)
11	127K40290	Motor Assy-DC (Eject Clamp Motor) (P/O PL 25.9 Item 10)
12	-	Bracket Eject Clamp (P/O PL 25.9 Item 10)
13	130K88780	Sensor (Eject Clamp Home Sensor) (P/O PL 25.9 Item 10)
14	011K97710	Lever Assy
15	413W77559	Bearing
16	807E04700	Gear Z23
17	413W11660	Bearing
18	-	Gear-CAM Z70
19	-	Gear Z23L
20	-	Gear Z68L/Z20L
21	-	Clamp
22	-	Bracket Switch
23	110E11590	Sensor Assy (Door H Interlock)
24	003K13600	Knob Assy-ENT
25	-	Edge Saddle
26	-	Clamp
27	-	Chute Assy Eject Unit (with 1~7, Ref Only)



## PL 25.10 Finisher Eject (2/3)

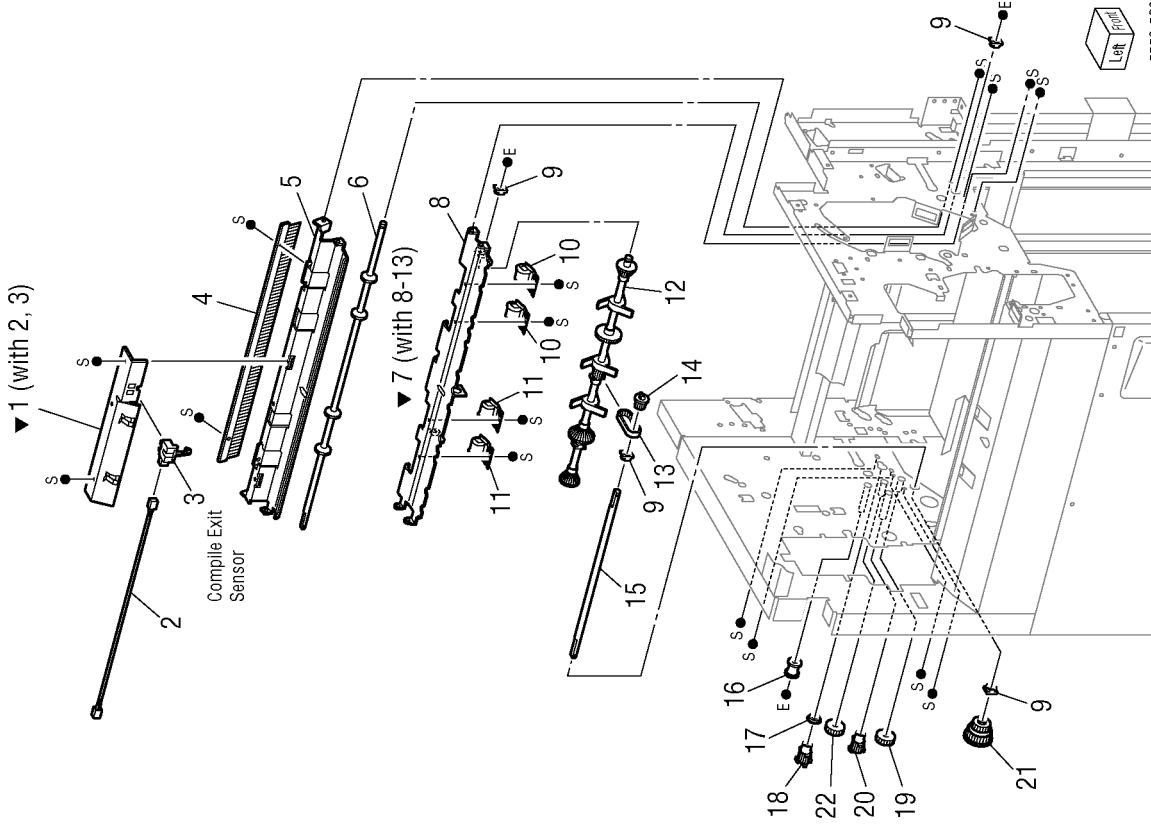
Item	Part	Description
1	050K52151	Tray Assy-Compiler (with 2-8)
2	130K88770	Sensor (Front and Rear Tamper Home Sensors) (P/O PL 25.10 Item 1)
3	130K88780	Sensor (Compiler Tray No Paper Sensor) (P/O PL 25.10 Item 1)
4	-	Actuator-Paper (P/O PL 25.10 Item 1)
5	-	..
6	-	Motor Assy 2 (Front Tamper Motor) (P/O PL 25.10 Item 1)
7	-	Motor Assy (Rear Tamper Motor) (P/O PL 25.10 Item 1)
8	-	Harness Assy Compiler (P/O PL 25.9 Item 1)
9	006K23840	Shaft Assy-Eject Roll (Eject Roller Shaft) (with 10)
10	-	Paddle-Set Clamp (P/O PL 25.10 Item 9)
11	-	Guide-Paddle
12	-	Bearing
13	-	Bearing
14	-	Gear
15	121K34631	Clutch Z24 (Set Clamp Clutch)
16	120E24310	Actuator Set Clamp
17	015K65850	Bracket Assy-Eject (Eject Motor Bracket Assembly) (with 18)
18	130K88780	Sensor (Set Clamp Home Sensor) (P/O PL 25.10 Item 17)
19	-	Finisher Stacker Cover



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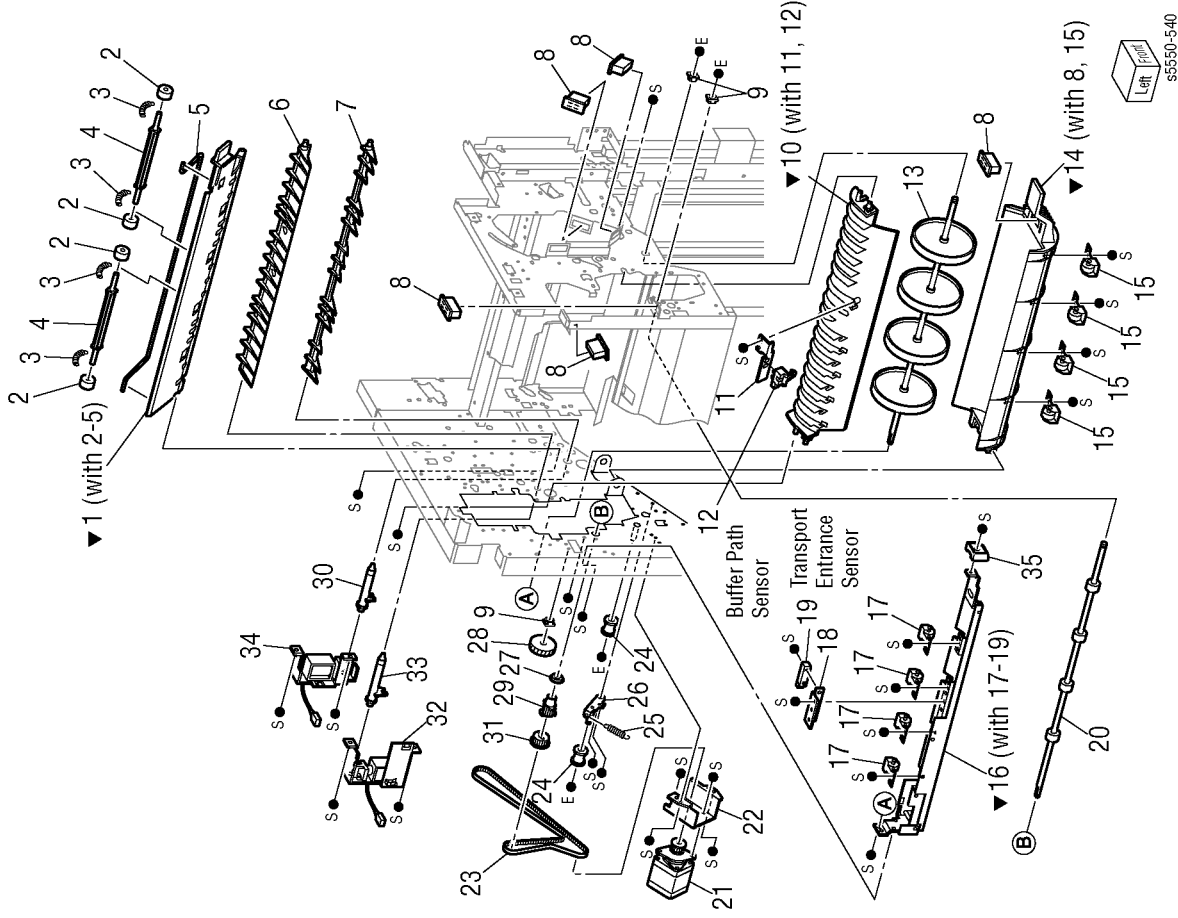
# PL 25.11 Finisher Eject (3/3)

Item	Part	Description
1	015K65801	Bracket Assy-Sensor (with 2, 3)
2	-	Harness Assy Comp SNR (P/O PL 25.11 Item 1)
3	-	Sensor Assy (Compile Exit Sensor) (P/O PL 25.11 Item 1)
4	105E13100	Eliminator
5	-	Chute Upper Exit
6	022K67840	Roll Assy-Exit Low (Lower Exit Roller)
7	-	Chute Assy-Lower, Exit R (with 8-13)
8	-	Chute Assy-Lower, Exit R (P/O PL 25.11 Item 7)
9	-	Bearing (P/O PL 25.11 Item 7)
10	022K67870	Roller Assy-Pinch, Exit 1 (Exit Pinch Rollers) (P/O PL 25.11 Item 7)
11	022K67880	Roller Assy-Pinch, Exit 2 (Exit Pinch Rollers) (P/O PL 25.11 Item 7)
12	006K23850	Shaft Assy-Paddle (Paddle Shaft) (P/O PL 25.11 Item 7)
13	423W25554	Belt-Synchronous Z55 (Paddle Shaft Drive Belt) (P/O PL 25.11 Item 7)
14	020E37730	Pulley T17
15	-	Shaft-Drive Paddle
16	-	Pulley
17	-	Bearing
18	020E37690	Pulley T20
19	-	Gear Z23L
20	020E37660	Pulley T20
21	020E37670	Pulley T44/Z20
22	-	Gear Z23R



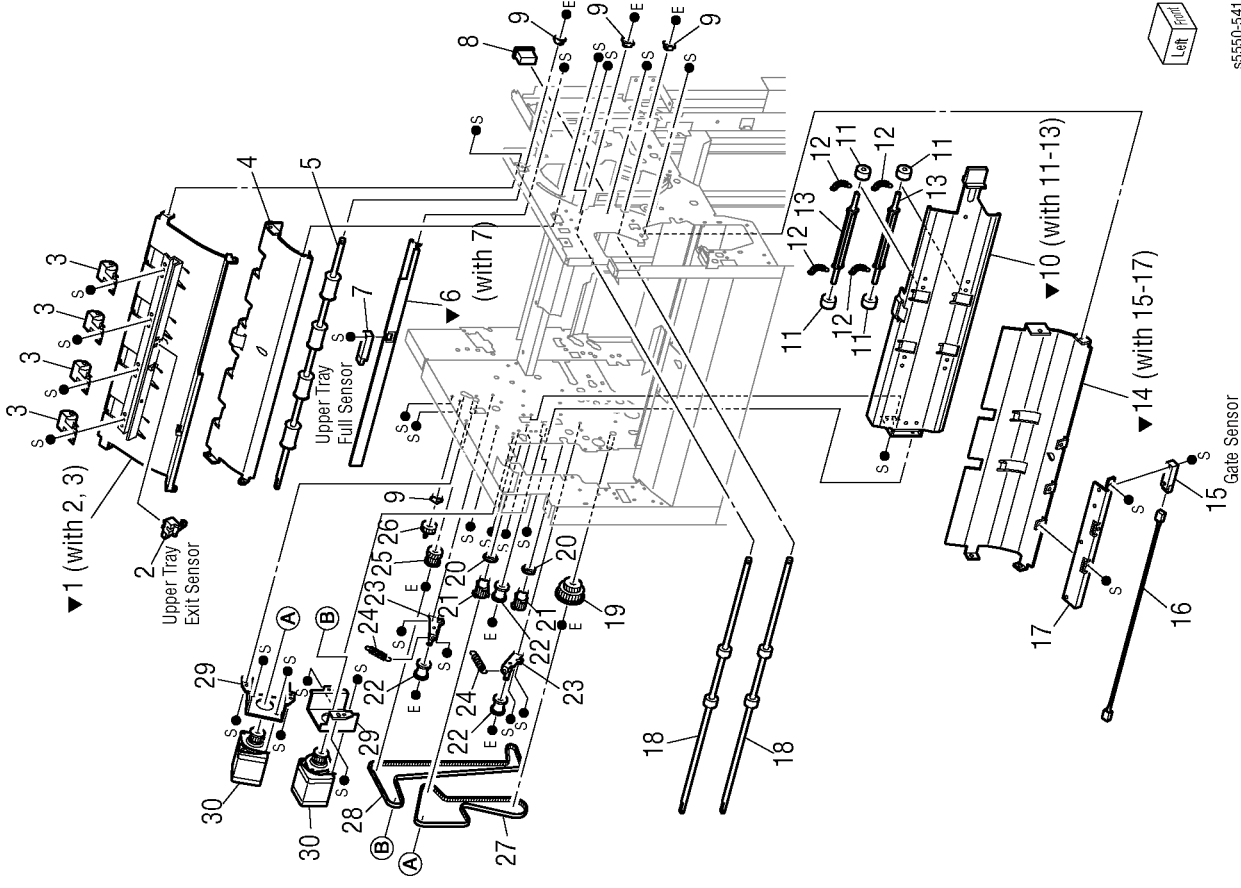
## PL 25.12 Finisher Transport (1/2)

Item	Part	Description
1	-	Chute Assy-Upper Exit Open (with 2-5)
2	-	Roller-Pinch (P/O PL 25.12 Item 1)
3	-	Spring 1.9N (P/O PL 25.12 Item 1)
4	-	Shaft (P/O PL 25.12 Item 1)
5	-	Spring-Torsion (P/O PL 25.12 Item 1)
6	050E89750	Gate (Transfer Gate)
7	050E89760	Gate-Buffer (Buffer Gate)
8	121E92890	Magnet 25N (P/O PL 25.12 Item 14)
9	413W11660	Bearing
10	054K27181	Chute Assy Buffer Top (with 11, 12)
11	-	Bracket-Sensor (P/O PL 25.12 Item 10)
12	130K88780	Sensor Assy (Buffer Path Sensor) (P/O PL 25.12 Item 10)
13	022K67890	Roll Assy-Buffer (Buffer Roller)
14	054K27160	Chute Assy-Buffer Bottom (with 8, 15)
15	-	Chute Assy-Pinch, Exit (P/O PL 25.12 Item 14)
16	054K27111	Chute Assy-Upper, ENT (with 17-19)
17	-	Roller Assy-Pinch, ENT (P/O PL 25.12 Item 16)
18	-	Bracket-Sensor (P/O PL 25.12 Item 16)
19	130E87370	Sensor (Transport {X'port} Entrance Sensor)
20	022K67810	Roll Assy-ENT (Entrance Roller)
21	127K40281	Motor Assy (Transport Motor)
22	-	Bracket Motor
23	423W87054	Belt (Transport Belt)
24	020E37740	Pulley
25	809E56840	Spring-Tension
26	-	Bracket Assy-Tension
27	-	Bearing
28	-	Gear Z46
29	020E37660	Pulley T20
30	012E11991	Link-Buffer (Buffer Gate Solenoid Link)
31	807E04700	Gear Z23
32	015K65810	Bracket Assy SOL (Transfer Gate Solenoid)
33	012E11980	Link (Transfer Gate Solenoid Link)
34	015K65821	Bracket Assy SOL (Buffer Gate Solenoid)
35	-	Knob



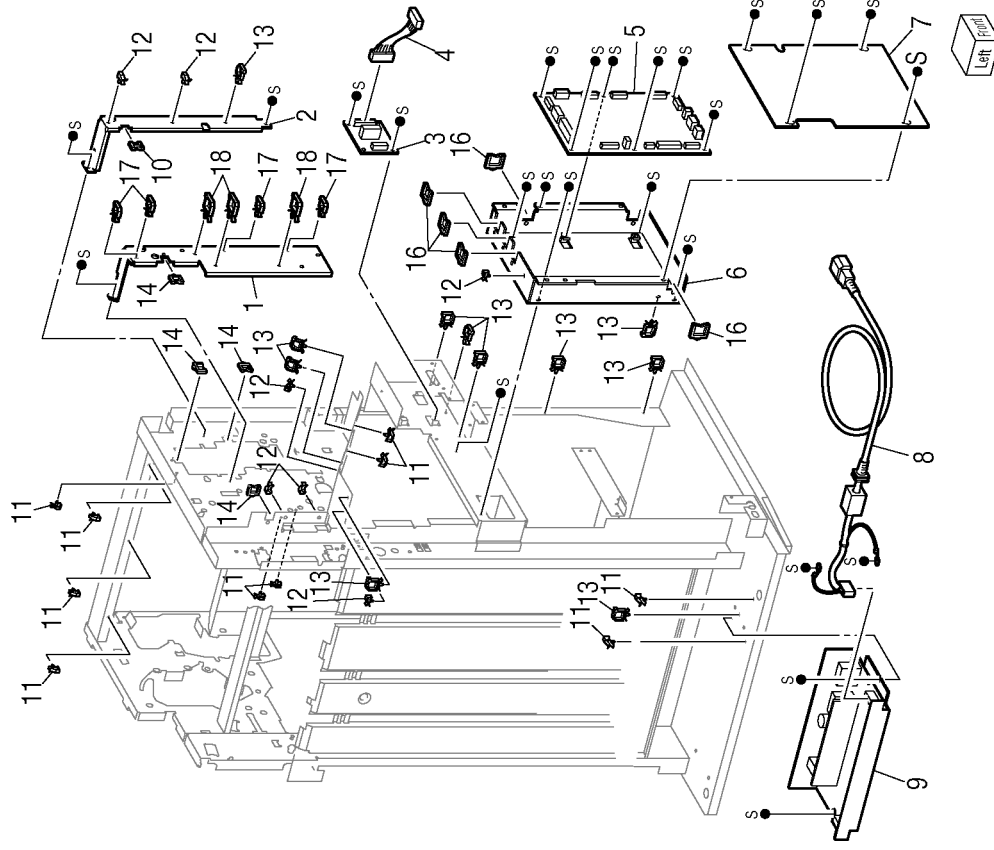
# PL 25.13 Finisher Transport (2/2)

Item	Part	Description
1	-	Chute Assy Upper, Top Exit R (with 2, 3)
2	130K88780	Sensor (Stacker Upper Tray Exit Sensor) (P/O PL 25.13 Item 1)
3	022K67860	Roller Assy-Pinch, Exit (Top Exit Pinch Rollers) (P/O PL 25.13 Item 1)
4	-	Chute Assy Lower, Top Exit R
5	022K67830	Roll Assy-Exit Top (Top Exit Roller)
6	-	Bracket Assy-Sensor (P/O PL 25.13 Item 7)
7	130E87370	Sensor (Stacker Upper Tray Full Stack Sensor) (with 6)
8	121E92890	Magnet 25N
9	-	Bearing
10	054K27120	Chute Assy-Lower, Top Exit L (with 11-13)
11	-	Roller-Pinch (Lower Top Exit Pinch Rollers) (P/O PL 25.13 Item 10)
12	-	Spring 1.5N (P/O PL 25.13 Item 10)
13	-	Shaft (P/O PL 25.13 Item 10)
14	-	Chute Assy-Upper, Top Exit L (with 15-17)
15	130E87410	Sensor (Gate Sensor) (P/O PL 25.13 Item 14)
16	-	Harness Assy-SNR (P/O PL 25.13 Item 14)
17	-	Bracket-Sensor (P/O PL 25.13 Item 14)
18	022K67820	Roll Assy-Transport (Transport Rollers)
19	-	Pulley T53/Z23
20	-	Bearing
21	020E37690	Pulley
22	020E37740	Pulley
23	-	Bracket Assy-Tension
24	809E56840	Spring-Tension
25	020E37700	Pulley T20/Z20
26	807E04720	Gear
27	423W40054	Belt (Registration Belt)
28	423W86454	Belt (Exit Belt)
29	-	Bracket Motor
30	127K40281	Motor Assy (Exit or Registration Motor)



# PL 25.14 Finisher Electrical

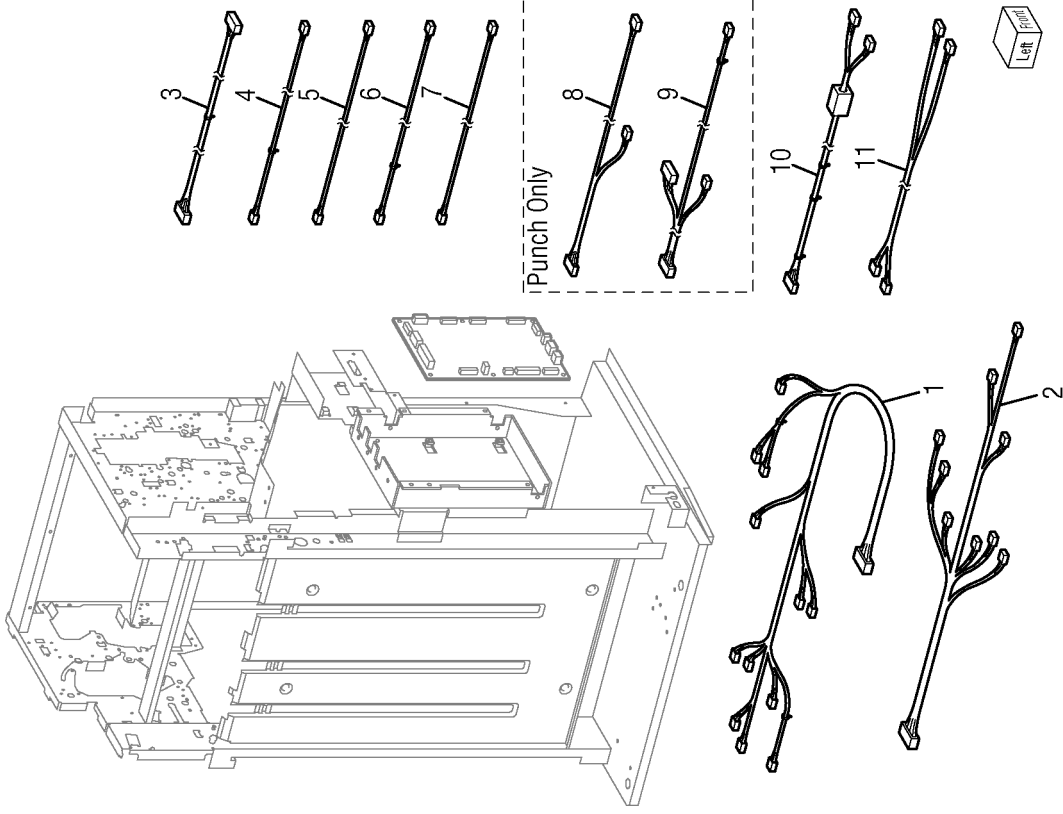
Item	Part	Description
1	-	Bracket Harness
2	-	Bracket Harness L/H
3	960K17130	PWB H-TRA (Horizontal Transport PWB)
4	-	Harness Assy H-TRA I/F
5	960K08852	PWB Main-C (Finisher Main PWB)
6	-	Bracket-PWBA Main
7	-	Plate PWBA Main
8	962K38740	Harness Assy AC Inlet
9	105K21081	LVPSC
10	-	Edge Saddle
11	-	Clamp
12	-	Clamp
13	-	Clamp
14	-	Edge Saddle
15	-	--
16	-	Edge Saddle
17	-	Clamp
18	-	Clamp



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# PL 25.15 Finisher Harness

Item	Part	Description
1	962K27610	Harness Assy Main SNR
2	962K27620	Harness Assy Main Drive
3	962K27550	Harness Assy I/F (Finisher to IOT)
4	962K27700	Harness Assy X'Port ENT SNR
5	962K27710	Harness Assy Buffer SNR
6	962K27690	Harness Assy Top Exit SNR
7	962K27600	Harness Assy Top SNR
8	962K27631	Harness Assy Punch Drive (Punch-equipped only)
9	962K27640	Harness Assy Punch SNR (Punch-equipped only)
10	962K27570	Harness Assy LVPS
11	962K27580	Harness Assy Interlock



## Xerox Supplies and Accessories Documentation and Kit Instructions

Table 1 User Documentation and Kit Instructions

Description	Part Number
1000-Sheet Feeder Instructions	075-0909-02
2,000-Sheet Feeder Instructions	075-0910-01
Duplex Unit Instructions	075-0911-01
Maintenance Kit Instructions	075-0906-01
3,500-Sheet Stacker/Finisher	075-0912-03
Envelope Tray Instructions	604E40200
Printer Repacking Instructions	075-0918-02
User Guide (English only)	001-1581-00
B to N Upgrade Instructions (5500)	075-0917-00
Configuration Card Instructions (5550)	075-1086-00
Tray 1/MPT Feed Roller Replacement	075-0908-01
Adding Memory Instructions (5500)	075-0915-00
Adding Memory Instructions (5550)	075-1083-00
Flash Memory DIMM Instructions (5500)	075-0915-00
Flash Memory DIMM Instructions (5550)	075-1084-00
Hard Drive Instructions (5500)	075-0914-00
Hard Drive Instructions (5550)	075-1085-00
Toner Cartridge Instructions (5500)(box and web)	075-0904-00
Toner Cartridge Instructions (5550)(box and web)	075-1082-00
Drum Cartridge Instructions (box and web)	075-0907-01
Staple Pack Instructions (label and web)	075-1081-00

## Consumables

Table 2 Consumables

Description	Part Number
Toner Cartridge (30K)	113R00668
Staple Pack	008R12941

## Upgrade Kits and Options

Table 3 Upgrade Kits and Options

Description	Part Number
128 MB Memory Option	097S03123
256 MB Memory Option	097S03743
512 MB Memory Option	097S03635
16 MB Flash Memory DIMM	097S03125
Hard Drive Option	097S03227
B to N Upgrade Kit	097S03222
1000-Sheet Feeder (Trays 4 & 5)	097S03218
2000-Sheet Feeder (Tray 6)	097S03219
Duplex Unit	097S03220
3,500-Sheet Stacker	097S03221
3,500-Sheet Finisher (w/ 2 or 4-hole punch)	097S03281
3,500-Sheet Finisher (w/ 3-hole punch)	097S03282
Envelope Tray (replaces Tray 2)	097S03286
Printer Repack Kit	065064000

## Routine Maintenance Items

Table 4 Routine Maintenance Items

Description	Part Number
Maintenance Kit, 110 V	109R00731
Maintenance Kit, 220 V	109R00732
Drum Cartridge (60K)	113R00670
500-Sheet Universal Replacement Tray	109R00733
Hardware Kit	604K25280
Common Clip Kit	604K25270
Electrical Kit (2 ea. interconnects)	604K23340

# 6 General Troubleshooting

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## Introduction

With the exclusion of POST RAM errors, the procedures in this section troubleshoot problems that are not associated with an error code or Control Panel error message.

### System Startup

Listed here is a typical printer startup routine from a cold start.

1. When the main power switch is turned on, the 'Health' LED on the Image Processor board turns on immediately.
2. The boot loader checks for presence and condition of RAM. If an error is detected, "RAM ERROR" appears on the display and the Red Control Panel LED and the Health LED alternately blink at 1/2 second intervals.
3. The boot Loader then loads and runs POST diagnostics.
4. POST turns Off the Health LED.
5. POST checks the Control Panel.
6. If buttons have been pushed, the Control Panel displays "Processing Input". If no buttons have been pushed, POST continues execution.
7. The display is reset (addressable area turns "Gray").
8. The Control Panel LED cycles: Green, Yellow, Red, and then Off.
9. The display backlight turns on (high intensity), with nominal contrast display.
10. The display area is turned on, dark Black for 1 second.
11. The display is cleared.
12. The display backlight turns On with nominal intensity.
13. The POST Vn.nn message appears, and tests are quickly executed.
14. If any tests fail, the display changes to indicate the last test run with line three reading "CALL SERVICE".
15. After the POST tests have successfully finished, the Xerox 'splash screen' appears on the Control Panel and PostScript begins initialization.
16. The Control Panel LED turns Red while the display reads "Warming up - Please wait."
17. The Control Panel LED turns Green and the display reads "Ready to Print."

## Space Requirements Operational Clearances

Table 1 Clearances

Clearance	Specification
Top	890 mm (35.0 in.)
Left	640 mm (25.2 in.)
Right	200 mm (7.9 in.), 1000 mm (39.4 in.) with Finisher
Front	460 mm (18.1 in.)
Rear	200 mm (7.9 in.)
Height Requirement	1190 mm (47.0 in)

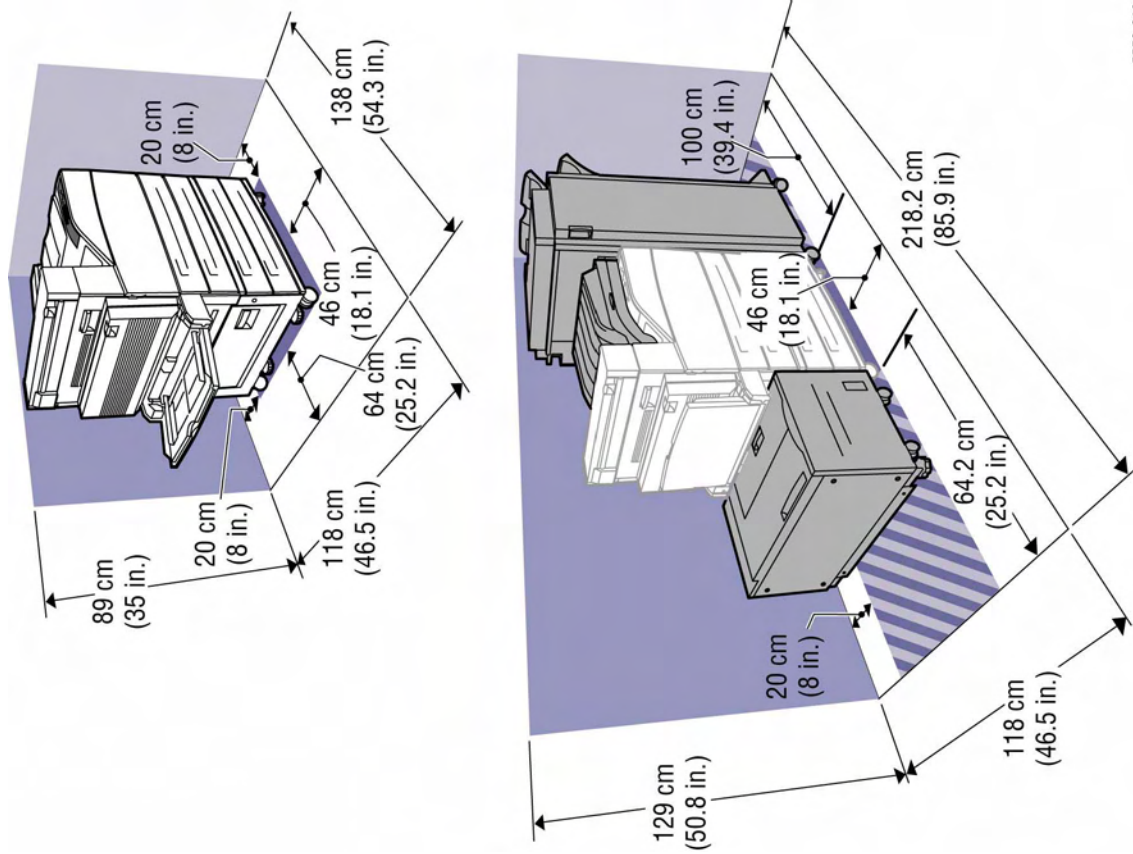
## Power On Self Test (POST)

POST diagnostics provide a quick means of isolating a defective subsystem associated with the Image Processor Board and SDRAM. There are two kinds of POST faults: soft and hard. A soft fault is any fault that allows the operating system to initialize. Soft faults do not stop printer operation and are reported on the Startup Page after the system is running. A hard fault prevents the operating system from initializing stopping further printer operation. Hard faults are indicated with blinking LEDs and the failed test appearing on the display.

The following tests execute when the printer is powered on after the Boot Loader runs, and before the operating system is loaded and initialized. Bypass POST by pressing the **OK** button at power On until the splash screen appears.

**Table 1 POST Test Descriptions**

Test	Fault Code	Fault Type	Description
SDRAM	1	Hard	This test fails if the Boot Loader finds faulty or no RAM.
I/O ASIC	1	Hard	This test checks 64-bit reads and writes to RAM memory.
Memory	4	Hard	This test checks 64-bit reads and writes to RAM memory.
EEPROM	10	Hard	This test checks addressing of the NVRAM.
Ethernet	11	Hard	This test checks the Ethernet core.
CPU Interrupts	12	Hard	This test checks that each CPU interrupt source is functioning.
USB	13	Hard	This test checks that the USB core is functioning properly.
RTC (3 tests)	14	Soft	These tests check the functionality of the Real Time Clock for a number of conditions.
RAM DIMM Presence	15	Soft	This test examines bad or incompatible RAM DIMMs.
RAM Error	16	Soft	Checks that there is at least 64 MB of memory installed and ignores more than 512 MB.
RAM Error	17	Soft	Checks that there is no more than 512 MB of memory installed.
IDE Disk	20	Soft	Checks the disk controller core, and runs a DIAG-NOSE command on the hard drive.
Engine Command	22	Hard	Checks communication between the Image Processor Board and the Engine Control Board.



**Figure 1 Minimum Clearances**

## POST Soft Fault Messages

When POST detects a soft error, the printer continues the startup process. Before the printer reaches its "Ready to Print" state, the Start Page is printed with soft errors appearing in a gray box.

The box contains all soft faults encountered, with the upper left corner of the box in the center of the Start Page, and extending to the right margin, similar to the one shown in Figure 1.



**Figure 1 POST Soft Fault Messages**

These messages are substituted for <device>:

- Real Time Clock
- RAM Memory Slot 1 Checksum
- RAM Memory Slot 2 Checksum
- RAM Memory Slot 1 Rejected
- RAM Memory Slot 2 Rejected
- IDE Disk

For Real Time Clock errors, replace the Image Processor Board. For IDE Disk errors, replace the Hard Drive. For memory errors, see RAM Memory Fault Isolation in section 6, General Troubleshooting.

## POST Hard Fault Messages

POST indicates a hard fault by displaying a message on the Control Panel and blinking the fault code on the health and Control Panel LEDs. There are long and short blinks. A long blink is worth 5 and a short blink is worth 1. As an example, a blink pattern flashed as long, long, short, short, represents fault code 5+5+1+1=12, indicating a failure in the CPU interrupt test. Along with the blinking LEDs, the failed test also appears on the display as:

**POWER ON SELF TEST ERROR**  
**12:CPU INTERRUPTS**  
**CALL SERVICE**

The exception to this reporting scheme is a RAM test error. The Boot Loader executes a RAM test prior to loading POST. If the Boot Loader encounters a RAM error, the Control Panel displays "RAM Error" and the health and Control Panel LEDs alternately blink at 1/2-second intervals. POST does not load.

**Table 2 Hard Error Blink Pattern and Messages**

LED Blink Pattern	Control Panel Message	Action
1	RAM Error	No RAM present, or faulty RAM. Alternate 1/2 second interval blink at Control Panel and health LEDs.
1+1+1	3: I/O ASIC	Image Processor Board ASIC failure. Go to Image Processor Board Isolation in section 6, General Troubleshooting.
1+1+1+1	4: MEMORY	Checks installed memory: walking ones address, walking one and complement data. Tests RAM memory above diagnostics code and data addresses. Go to RAM Memory Fault Isolation in section 6, General Troubleshooting.
5+5	10: EEPROM	<ol style="list-style-type: none"> <li>1. Switch Off the printer power.</li> <li>2. Remove and re-install the NVRAM EEPROM.</li> <li>3. Switch On the printer power.</li> <li>4. If the error message persists, first replace the NVRAM EEPROM, then the Image Processor Board (Image Processor Board Isolation in section 6, General Troubleshooting).</li> </ol>
5+5+1	11: ETHERNET PHY	Image Processor Ethernet Port Failure. Replace the Image Processor Board (REP 8.5).
5+5+1+1	12: CPU INTERRUPTS	Replace the Image Processor Board (REP 8.5).
5+5+1+1+1	13: USB	Image Processor USB port failure. Replace the Image Processor Board (REP 8.5).
5+5+5+5+1+1	22: ENGINE COMMAND	Communication with print engine has failed. Check the connection to the Engine Control Board, then go to Image Processor Board Isolation in section 6, General Troubleshooting.

## Service Usage Profile

The Service Usage Profile tracks printer activity, consumable usage and printer history. This data is stored in NVRAM. Service Usage Profile data includes error logs that retain detail on the type, date, location and frequency of engine and jam errors. While the Service Usage Profile includes data on all aspects of the printer, this section focuses on accessing these error logs to review printer history.

## Printer Status Page

The Printer Status page provides general information about the printer, the consumables, the status of routine maintenance items, and recent error history. The first page includes general information about the printer including firmware versions, page count, feature set, and consumables. The second page provides a log of the last 30 errors with date, page count, Usage Profile Status code, and description. Refer to the Error Message Summary in Table 2 for repair procedures related to these errors.

**NOTE:** Status events that do not prevent printing are not logged.

Table 1 Status Codes Listed on the Printer Status Page

Status Code	Error Description	Status Code	Error Description
1	Door A Open	134	Load Tray 2
2	Door B Open	135	Load Tray 3
3	Door C Open	136	Load Tray 4
4	Door D Open	137	Load Tray 5
5	Door E Open	138	Load Tray 6
6	Door F Open	139	Manual Feed <size>
7	Door G Open	140	Load Tray 1. Wrong Size
8	Door H Open	141	Load Tray 2. Wrong Size
9	Door J Open	142	Load Tray 3. Wrong Size
10	Front Door Open	143	Load Tray 4. Wrong Size
11	Tray 6 Feeder Out	144	Load Tray 5. Wrong Size
12	Jam E1_2	145	Load Tray 6. Wrong Size
13	Jam E1_6	146	Load Tray 1. Wrong Type
14	Jam E3_1	147	Load Tray 2. Wrong Type
15	Jam E3_2	148	Load Tray 3. Wrong Type
16	Jam E3_6	149	Load Tray 4. Wrong Type
17	Jam E4_1	150	Load Tray 5. Wrong Type
18	Jam E4_5	151	Load Tray 6. Wrong Type
19	Jam F4_12	152	Load Tray 1. Paper Not Available
20	Jam F4_16	153	Load Tray 2. Paper Not Available
21	Jam F4_22	154	Load Tray 3. Paper Not Available
22	Jam C2_3	155	Load Tray 4. Paper Not Available
23	Jam C3_3	156	Load Tray 5. Paper Not Available
24	Jam C4_3	157	Load Tray 6. Paper Not Available
25	Jam C5_3	158	ODM requesting media load

Table 1 Status Codes Listed on the Printer Status Page

Status Code	Error Description	Status Code	Error Description
26	Jam C8_2	159	Standard Output Bin Full
27	Jam C3_2	160	Stacker Lower Tray Full
28	Jam C4_2	161	Stacker Upper Tray Full
29	Jam C8_3	162	Standard Output Bin Full
30	Jam C8_4	163	Stacker Lower Tray Full
31	Jam C8_6	164	Stacker Upper Tray Full
32	Jam C6_1	165	Duplex Unit Failure
33	Jam C6_2	166	Exit Unit Failure H3-1
34	Jam E4_3	167	Exit Unit Failure H3-2
35	Jam E4_6	168	Exit Unit Failure H3-7
36	Jam E8_2	169	Exit Unit Failure H3-1 Finisher
37	Jam C9_3	170	Exit Unit Failure H3-2 Finisher
38	Jam C1_2	171	Exit Unit Failure H3-7 Finisher
39	Jam C1_3	172	Stacker Lower Tray Failure H5-11
40	Jam C2_1	173	Stacker Lower Tray Failure H5-12
41	Jam C2_2	174	Stacker Lower Tray Failure H5-13
42	Jam C3_0	175	Stacker Lower Tray Failure H5-21
43	Jam C3_1	176	Stacker Lower Tray Failure H5-22
44	Jam C4_4	177	Stacker Lower Tray Failure H5-23
45	Jam C4_0	178	Stacker Lower Tray Failure H5-24
46	Jam C4_1	179	Stacker Lower Tray Failure H5-81
47	Jam C5_1	180	Stacker Lower Tray Failure H5-82
48	Jam C5_2	181	Stacker Lower Tray Failure H5-83
49	Jam C8_5	182	Stacker Lower Tray Failure H5-84
50	Jam F4_17	183	Stacker Lower Tray Failure H5-86
51	Jam F4_23	184	Stacker Lower Tray Failure
52	Jam F4_24	185	Toner is Low
53	Jam F4_26	186	Toner is Low (PP)
54	Jam F4_32	187	Drum Cartridge is Low
55	Jam F4_36	188	Maintenance Kit Near End of Life
56	Jam F4_51	189	Maintenance Kit Replace
57	Jam F4_52	190	Drum Cartridge Failure
58	Jam F4_71	191	Temperature Sensor Failure
59	Jam F4_72	192	Humidity Sensor Failure
60	Jam F4_76	193	Toner Empty
61	Jam F4_82	194	Toner Empty (PP)
62	Jam F4_83	195	Replace Drum Cartridge
63	Jam F4_86	196	Toner Cartridge Failure
64	Jam F4_42	197	Toner Cartridge Failure (PP)
65	Jam F4_48	198	Drum Cartridge Failure J7-1

Table 1 Status Codes Listed on the Printer Status Page

Status Code	Error Description	Status Code	Error Description
66	Jam F4_43	199	Drum Cartridge Failure J7-2
67	Jam F4_47	200	Drum Cartridge Failure J4-1
68	Jam F4_54	201	Toner Cartridge Missing
69	Jam F4_88	202	Toner Cartridge Missing (PP)
70	Jam F4_46	203	Drum Cartridge Missing
71	Jam F4_53	204	Non-Xerox Toner Cartridge
72	Jam F4_87	205	Non-Xerox Toner Cartridge (PP)
73	Jam F4_73	206	Non-Xerox Toner Cartridge
74	Jam F4_84	207	Non-Xerox Toner Cartridge (PP)
75	Jam F4_74	208	Incorrect Toner Cartridge
76	Jam F4_85	209	Incorrect Toner Cartridge (PP)
77	Jam F4_77	210	Non-Xerox Toner Cartridge
78	Jam F4_78	211	Non-Xerox Toner Cartridge (PP)
79	Jam F4_75	212	Non-Xerox Drum Cartridge
80	Jam F4_55	213	Non-Xerox Drum Cartridge
81	Jam F4_56	214	Incorrect Drum Cartridge
82	Jam F4_61	215	Non-Xerox Drum Cartridge
83	Jam F4_66	216	Force Metered Toner
84	Jam E1_1	217	Metered Toner Disabled
85	Jam PSE_1	218	Incorrect Toner Cartridge
86	Jam E1_1	219	Incorrect Toner Cartridge
87	Jam PSE_1	220	Stapler Empty
88	Insert Tray 2	221	Staple Cartridge Low or Missing
89	Insert Tray 3	222	Punch Waste Box Full
90	Insert Tray 4	223	Punch Waste Box Missing
91	Insert Tray 5	224	Punch Waste Box Full
92	Insert Tray 6	225	Punch Waste Box Missing
93	Tray 2 Missing	226	Stapler Failure H5-91
94	Tray 3 Missing	227	Stapler Failure H5-93
95	Tray 4 Missing	228	Stapler Failure H5-94
96	Tray 5 Missing	229	Stapler Failure H5-95
97	Tray 6 Missing	230	Stapler Failure H5-96
98	Tray 1 Paper Guide	231	Stapler Failure
99	Tray 2 Paper Guide	232	Punch Failure H5-31
100	Tray 3 Paper Guide	233	Punch Failure H5-32
101	Tray 4 Paper Guide	234	Punch Failure H5-33
102	Tray 5 Paper Guide	235	Punch Failure H5-34
103	Tray 1 Paper Guide	236	Finisher Failure
104	Tray 2 Paper Guide	237	Finisher Logic Board Failure
105	Tray 3 Paper Guide	238	Duplicate IP Address

Table 1 Status Codes Listed on the Printer Status Page

Status Code	Error Description	Status Code	Error Description
106	Tray 4 Paper Guide	239	Configuration Card Invalid
107	Tray 5 Paper Guide	240	Configuration Card Missing
108	Tray 2 Failure H1	241	Main Motor Failure U0-1
109	Tray 3 Failure H1	242	Main Motor Failure U1-1
110	Tray 4 Failure H1	243	Drum Motor Failure
111	Tray 5 Failure H1	244	Toner Motor Failure
112	Tray 6 Failure H1	245	Laser Motor Failure
113	Tray 4-5 Logic Board Failure H7-7	246	Laser Unit Failure
114	Tray 6 Logic Board Failure	247	Fuser Failure U4-1
115	Tray 2 Failure H8	248	Fuser Failure U4-7
116	Tray 3 Failure H8	249	Fuser Failure U4-2
117	Tray 4 Failure H8	250	Fuser Failure U4-3
118	Tray 5 Failure H8	251	Fuser Failure U4-4
119	Tray 4-5 Logic Board Failure H7-3	252	Fuser Failure U4-5
120	Tray 4-5 Logic Board Failure H7-4	253	Fuser Failure U4-8
121	Tray 6 Failure H6-4	254	Fuser Failure U4-9
122	Tray 1 Empty	255	Fan Failure U5-9
123	Tray 2 Empty	256	Engine Logic Board Failure U6-2
124	Tray 3 Empty	257	Engine Logic Board Failure U6-6
125	Tray 4 Empty	258	Engine Logic Board Failure U6-7
126	Tray 5 Empty	259	NVM Failure U6-3
127	Tray 6 Empty	260	NVM Failure U6-4
128	Tray 2 Low	261	NVM Failure U6-5
129	Tray 3 Low	262	Incorrect Duplex Unit
130	Tray 4 Low	263	Incorrect Tray 4-5 Unit H7-8
131	Tray 5 Low	264	Incorrect Tray 4 Unit
132	Tray 6 Low	265	Incorrect Tray 4-5 Unit
133	Load Tray 1	266	Incorrect Finisher H5-8

### Accessing Fault Histories

Access Service Usage Profile fault histories by:

Print (if possible) the Printer Status page.

1. At the printer's Control Panel, go to the **Troubleshooting** menu and select **Service Tools**.

2. Select the Printer Status Page from the menu.

**Or...**

View the fault history logs on the Control Panel.

- At the printer's Control Panel, go to the **Troubleshooting** menu and select **Service Tools**.
- From the **Service Tools** menu, select **Engine Error** or **Jam History**.

Or...

If the printer is operational and connected to a network, view the fault history using a browser.

- Open a web browser.
- Enter the printer's IP address as the URL.
- Select the **Troubleshoot** link and the **Fault History** displays.

### Interpreting Fault History Error Codes

Fault histories appear on the Control Panel as a list of semi-colon separated codes. A partial example of the Engine Error Log as it appears on the display:

```
0,0; 0,0; 0,0;13, <pg_count>;13, <pg_count>;13, <pg_count>;...
```

The fault history logs for the engine and jams each contain 30 entries. Log entries move right to left. Each successive error shifts the log left, with the oldest code falling off the left and the latest code added to the right. Note that a value of 0 (zero) or "...;" in a log indicates no data and <pg\_count> indicates the value of the Total Page counter at the point when the error occurred. For display, the Engine Error Log combines the error code and page count (lines 262 and 263 of the printed Service Usage Profile).

A complete log consists of several lines in the Service Usage Profile report (typically 2-5 lines). A log usually has some event code, a corresponding date, a corresponding page, and a total event counter. In the case of engine errors, there are four lines (261-264). In the case of jams, there are five lines (291-295 and 298).

### Engine Errors

This table lists the fault codes used to identify engine errors in the Service Usage Profile. Fault codes are numeric for Engine Errors (Line item 262).

Table 2 Fault History Codes for Engine Errors

Fault Code	Error	Fault Code	Error
0	No Error	15	Toner Cartridge Failure (J8-1 J8-2)
1	Duplex Unit Failure (H2-7)	16	Drum Cartridge Failure (J4-1, J7-1, J7-2)
2	Exit Unit Fail (H3-1, H3-3, H3-7)	17	Temperature Sensor Failure (No error code)
3	Stacker Lower Tray Failure(H5-11~13, 21~24, 81~84, 86)	18	Humidity Sensor Failure (No error code)
4	Stapler Failure (H5-91, 95, 96)	19	Main Motor Failure (U0-1, U1-1)
5	Punch Failure (H5-31 ~ 34)	20	Drum Motor Failure (U1-4)
6	Finisher Failure (H5-7)	21	Toner Motor Failure (U5-1)
7	Tray 6 Failure (H1-5)	22	Laser Motor Failure (U3-5)
8	Tray 5 Failure (H1-4, H8-4)	23	Laser Unit Failure (U3-3)

Table 2 Fault History Codes for Engine Errors

Fault Code	Error	Fault Code	Error
9	Tray 4 Failure (H1-3, H8-3)	24	Fuser Failure (U4-1~5, U4-7, U4-8)
10	Tray 3 Failure (H1-2, H8-2)	25	Fan Failure (U4-9, U5-9)
11	Tray 2 Failure (H1-1, H8-1)	26	Engine Control Board Failure (U6-2, U6-3, U6-4, U6-5, U6-6 U6-7)
12	Tray 4-5 Control Board Failure (H7-3, H7-4, H7-7)	27	Incorrect Duplex Unit (H2-8)
13	Tray 6 Control Board Failure (H6-4, H6-7)	28	Incorrect Tray 4 -5 Unit (H7-8)
14	Finisher Control Board Failure (H5-4)	29	Incorrect Finisher (H5-8)

If Engine Error codes appear in either the Engine Error Log or on the Control Panel, use the Fault Code to find the corresponding troubleshooting procedure in the Error Message Summary table.

## Jam Errors

The following table lists the fault history codes used in the Service Usage Profile to record jam errors. Last Jam Location is recorded on line 291. Last Jam Error Codes appear at line 298, and Last Jam Page number appears on line 294.

A partial example of the Last Jam Error Log as it is displayed on the Control Panel:

```
*****;C4-0,<pg_count>;C4-1,<pg_count>:....
```

Limited to 30 entries, the Last Jam Error Log is a semi-colon separated list of alphanumeric codes that indicate a specific jam location and page number within the printer. For display, line items 294 and 298 are combined to provide the error code and Total Page counter at the time the error occurred.

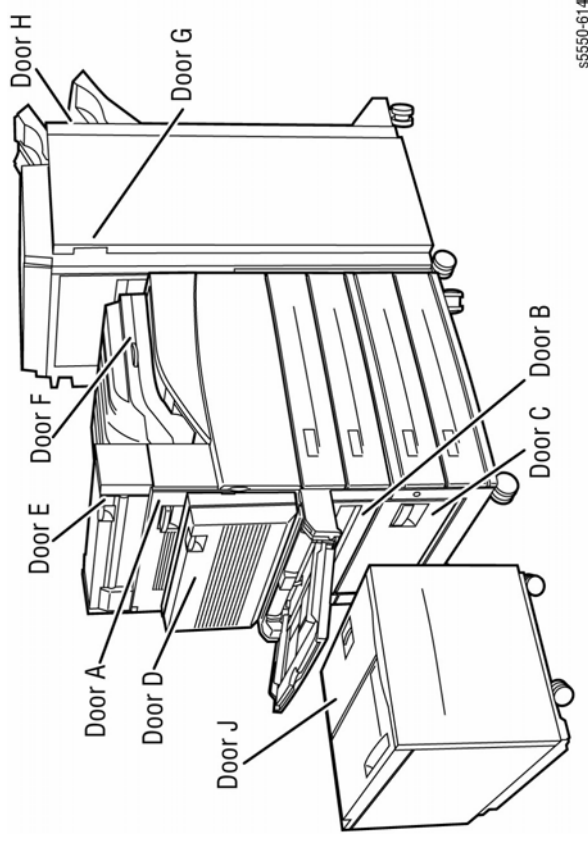
**Table 3 Fault History Codes for Jams**

Last Jam Location (Item 291)	Last Jam Error (Item 298)	Jam History Log
Paper Size Jam	E1-1, PSE-1	18
Jam at Tray 1	C9-3	1
Jam at Tray 2	C1-2, C1-3	2
Jam at Tray 3	C2-1, C2-2	3
Jam at Tray 4	C3-0, C3-1	4
Jam at Tray 5	C4-0, C4-1, C4-4	5
Jam at Tray 6	C5-1, C5-2, C8-5	6
Jam at A	E1-2, E1-6, E3-1, E3-2, E3-6, E4-1, E4-5, F4-12, F4-16, F4-22	7
Jam at B	C2-3, C3-3, C4-3, C5-3, C8-2	8
Jam at B and C	C3-2, C4-2	16
Jam at C	C8-3, C8-4	9
Jam at D	C8-6	10
Jam at D and A	C6-1, C6-2	15
Jam at E	E4-3, E4-6, E8-2	11
Jam at F	F4-17, F4-23, F4-24, F4-26, F4-32, F4-36, F4-51, F4-52, F4-71, F4-72, F4-76, F4-82, F4-83, F4-86	12
Jam at G	F4-42, F4-43, F4-46, F4-47, F4-48, F4-53, F4-54, F4-73, F4-74, F4-77, F4-78, F4-84, F4-85, F4-87, F4-88	13
Jam at H	F4-55, F4-56, F4-61, F4-66	14
Jam at Stacker Upper Tray	F4-75	17

Use the Jam History code to find the corresponding troubleshooting procedure in the Error Message Summary table (Section 2, Status Indicator RAPs) and the Jam Location Map to locate the jam point.

## Jam Location Map

The following illustrates the Door designators that key the jam location error codes and messages. Refer to this diagram when questions arise regarding the area of the jam.



**Figure 1 Jam Location Map**

s5550-614



## Service Diagnostics

Service Diagnostics provide tests for most electro-mechanical components in the printer. Service Diagnostics also contains test prints, printer status and some NVRAM access. Test descriptions appear in the Appendix. The Service Diagnostics Main menu offers the options listed in the following table.

**Table 1 Service Diagnostics Main Menu**

Menu Item	Test Target
Print Service Menu Map	Prints the Service Diagnostics menu map to aid menu navigation.
General Status	Query information about the status, versions, and counts.
Test Prints	Isolate problems with Xerographics and paper handling.
Engine NVRAM Adjustments	Adjust registration in the process or scan direction on each tray.
Motors/Fan Tests	These tests exercise each pint engine motor or fan.
Duplex Unit Motor Tests	Tests the Duplex motor at two speeds.
Exit 2 Motor Tests	Tests the Exit and Offset motors of Exit 2.
Tray 4 & 5 Motor Tests	Tests the Feed/Lift and Take Away motors.
Tray 6 Motor Tests	Tests the Feed/Lift and Take Away motors.
Finisher Motor Tests	Tests the Horizontal Transport, Finisher, Stapler, and Punch.
Engine Sensor/Switch Test	Tests print engine sensor status and operation.
Duplex Sensors/Switch	Tests the Wait sensor and Door D Interlock Switch.
Exit 2 Sensor/Switch	Tests Exit 2 sensors and the Door E Interlock Switch.
Tray 4 & 5 Sensor/Switch	Tests Tray 4 & 5 sensors and the Door C Interlock Switch.
Tray 6 Sensor/Switch	Tests the sensors and switches within Tray 6.
Finisher Sensor/Switch	Tests the Finisher sensors and switches.
Solenoid/Clutch Tests	Tests solenoid and clutch function in the print engine.
Exit 2 Solenoid Test	Tests the functionality the Exit 2 Exit Gate solenoid.
Tray 4 & 5 Clutch Test	Tests the function of the Take Away Clutch.
Tray 6 Solenoid Test	Tests the Tray 6 Nudger solenoid at low and high power.
Finisher Solenoid and Clutch Tests	Tests each Finisher solenoid and the Set Clamp Clutch.
IP NVRAM Access	This allows you to reset the PostScript or all NVRAM.
Engine Control Board Replacement	Save/Restore NVRAM from the Engine Control Board.
Finisher Board Setup	Sets the Finisher/Stacker punch configuration.
Exit	Exits Service Diagnostics and reboots the printer.

## Using Service Diagnostics

The printer's operating system monitors dozens of sensors located throughout the print engine and attached options. Sensor signals are used to monitor paper handling and mechanical activity along the entire paper path. As a sheet travels along the paper path, sensors change state temporarily to indicate the sheet's presence. If the pattern of sensor state changes differs from the expected timing for a particular paper size and path, the sensor location where the timing difference occurs identifies the error to report.

However, having the error message information doesn't necessarily pinpoint the problem. Sensor signals locate where, but often cannot identify why. Motors, belts, gears, solenoids, and dozens of other parts are involved in paper transport. Even the sensors themselves sometimes provide erroneous readings. The Service Diagnostics suite of tests and utilities are the best tools available to pinpoint the root cause behind the reported error.

If confronted with an error that requires more than a cursory investigation to clear or when directed by a troubleshooting procedure, use Service Diagnostics to exercise select parts in the vicinity of the reported error. Tests are controlled from the Control Panel and are described in detail in the Service Diagnostics Menu Map in section 6, General Troubleshooting.

### Starting Service Diagnostics

Access the Service Diagnostics menu one of two ways:

#### Entering without rebooting the printer:

1. From the printer's main menu, scroll to **Troubleshooting** and press the **OK** button, then scroll to **Service Tools** and press the **OK** button.
2. Hold down both the **Up Arrow** and **Down Arrow** buttons for about three seconds. When the Service Diagnostics menu appears, scroll to **Run Service Diagnostics** and press the **OK** button.

#### Entering by rebooting the printer:

1. Turn the printer power Off.
2. Hold down the **Back** and **Information** buttons simultaneously and turn the printer back On.
3. Continue to hold the buttons until the following message appears on the Control Panel: **Entering Service Diagnostics**, and then release the buttons.
4. The Control Panel displays the **Service Diagnostics** menu.

You can print a **Service Diagnostics Menu Map** by highlighting Print Service Menu Map, and pressing the **OK** button. The printer runs through POST and returns to Ready. You will need to re-enter Service Diagnostics. The Service Diagnostics Menu Map also appears in section 6, General Troubleshooting.

## Service Diagnostics Controls

Table 2 Service Diagnostics Controls

Button	Function
<b>BACK</b>	Returns to the prior higher level menu structure, if available. If help text is displayed, pressing <b>BACK</b> restores the current menu item and removes the help text.
<b>CANCEL</b>	Terminates the current test or cancels current INFO display.
<b>INFO</b>	Provides help information, if available. Pressing <b>INFO</b> again restores the current menu item and removes the help text.
<b>UP</b>	Scrolls up one menu item within a menu list. This control does not 'wrap'. Used to increment data in tests requiring user input.
<b>DOWN</b>	Scrolls down one menu item within a menu list. This control does not 'wrap', the end of a menu list is designated by three asterisks. Used to decrement data in tests requiring user input.
<b>OK</b>	Enters the highlighted menu. Executes the current test item. Used to select a data value entered by the user.

## Control Panel Shortcuts

Table 3 Control Panel Shortcuts

<b>Mode</b>	<b>Buttons Pressed at Power On</b>
Skip POST Diagnostics	<b>OK</b>
Print Service Diagnostics Map	<b>Information</b>
Reset PostScript NVRAM	<b>Back + OK</b>
Password Bypass	<b>Up Arrow + Down Arrow</b>
Enter Service Diagnostics	<b>Back + Information</b>
Control Panel Language	<b>Cancel + i</b>

## Network Problems

The Phaser 5500/5550 printer maintains six logs in memory detailing network functions. The logs contain TCP/IP, NetWare, and AppleTalk initialization events. The logs can also be accessed remotely via CentreWare Internet Services.

The logs list events chronologically. The log is limited in length; when the log is full the printer stops recording data to the log. The logs are stored on the Hard Drive so only new data is stored each time the printer's power is cycled.

There is a Connection Setup Page, Configuration Page, and a network reset available for troubleshooting Network problems.

### To Print an Event Log or Runtime Log:

- From the main menu, select the **Troubleshooting Menu**, then select **Network Log Pages**.
- Highlight the appropriate menu item from the list and select the **OK** button.
- The page should now print.

## Operating System and Application Problems

More troubleshooting tips and information are available on the Xerox web site at: [www.xerox.com/office/support](http://www.xerox.com/office/support).

### Macintosh Printing Problems

#### Image Never Prints

Printer acts as if it is receiving data, but will not print or returns to "Ready" mode without printing. The most likely cause is a printer PostScript error.

1. Power cycle the printer and try printing again.
2. Make sure the correct Phaser 5550 printer is selected in the Chooser. Try again.
3. In the Chooser or print dialog, switch background printing off. Try again.
4. If the error persists, turn on the PostScript error handler through the Control Panel PostScript Error Info in the Support menu, or CentreWare IS and print the document again. Take note of the information on the error page that just printed.
5. Select the appropriate Phaser 5550 PPD with the LaserWriter Driver or application. Not selecting the appropriate PPD can cause PostScript errors.
6. Try to print a different document from the application. If the PostScript error does not occur, then the original document may be causing the problem.

#### Image Rotated 90 Degrees

In the application's Page Setup, make sure that the image is selected to print in portrait or landscape orientation to match the document. Also, ensure the selected paper size is correct.

### Windows Printing Problems

#### Image Never Prints

1. Try printing a test page from the printer driver's properties dialog box.
2. Try printing from another application.
3. Try printing to another printer.
4. Try printing from another computer.
5. If the error returns, turn On the PostScript error handler through the Control Panel PostScript Error Info in the Support menu, or CentreWare IS and print the document again. Take note of the information on the error page that just printed.

## Control Panel Display Error/ Inoperable Buttons

The Control Panel either fails to illuminate or the buttons fail to operate after the power switch is turned On.

### Troubleshooting Reference

Table 1 Control Panel Display Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>Control Panel</li> <li>Control Panel Harness</li> <li>Image Processor Board</li> <li>LVPS</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Image Processor Board Plug/Jack Locations - Figure 10</li> <li>Section 7, Image Processor Board Wiring Diagrams - Figure 16</li> <li>PL 1.1 Covers (1 of 2)</li> </ul>

### Troubleshooting Procedure

Table 2 Control Panel Display Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check the Control Panel input DC voltages the Image Processor Board measure the voltages at the following test points.</p> <ul style="list-style-type: none"> <li>J150-5 &lt;=&gt; Ground = +5 V</li> <li>J150-6 &lt;=&gt; Ground = +3.8V</li> <li>J150-7 &lt;=&gt; Ground = +5 V</li> <li>J150-8 &lt;=&gt; Ground = +3.8V</li> <li>J150-9 &lt;=&gt; Ground = +3.8 V</li> <li>J150-10 &lt;=&gt; Ground = +5 V</li> </ul> <p>Are the voltages within specification?</p>	Go to step 2.	Replace the Image Processor Board (REP 8.5).
2	<p>Check Continuity between the Image Processor Board and the Control Panel. Is there continuity on each wire between J150 and the Control Panel connector?</p>	Go to step 3.	Repair or replace the wiring.
3	<p>Replace the Control Panel (REP 1.16). Is the problem resolved?</p>	Problem solved.	Replace the Image Processor Board (REP 8.5).

# Low Voltage Power Supply Troubleshooting

## Print Engine LVPS

### Troubleshooting Reference

Table 1 Print Engine LVPS Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>LVPS</li> <li>Engine Control Board</li> <li>Image Processor Board</li> <li>Power Switch</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, LVPS Wiring Diagram - Figure 5</li> <li>Section 7, Engine Control Board Plug/Jack Locations - Figure 8</li> <li>Section 7, Image Processor Board Plug/Jack Locations - Figure 10</li> <li>Section 7, LVPS Plug/Jack Locations - Figure 12</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

### Troubleshooting Procedure

Table 2 Print Engine Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check AC supply voltage to the LVPS.</p> <ol style="list-style-type: none"> <li>Remove the Upper Right Cover (REP 1.7).</li> <li>Turn the printer power On.</li> <li>Measure AC voltage at the following test points on the LVPS:                             <ul style="list-style-type: none"> <li>P/J1-1 &lt;=&gt; P/J1- 4</li> </ul> </li> </ol> <p>Is the voltage across pins 1 and 4 equal to 120V or 220V (line voltage)?</p>	Go to step 2.	Verify correct power from the AC outlet. Verify the power cord is in good condition and plugged into the Printer and AC outlet. Verify that the GFI Breaker is not tripped. Verify correct operation of the printer power switch and AC harness.
2	<p>Check DC supply voltage to the I/P Board:</p> <ol style="list-style-type: none"> <li>Remove the Upper Right Cover.</li> <li>Turn the printer power On.</li> <li>Measure the voltage at these points:                             <ul style="list-style-type: none"> <li>P/J 521- 1 &lt;=&gt; ground +3.3 V</li> <li>P/J 521- 6 &lt;=&gt; ground +3.3 V</li> <li>P/J 521- 3 &lt;=&gt; ground +5.0 V</li> </ul> </li> </ol> <p>Are the voltage levels correct?</p>	Go to step 3.	Replace the LVPS (REP 8.6). If the problem persists, verify the wire harness to the I/P Board. If the wiring checks out, replace the I/P Board (REP 8.5).

Table 2 Print Engine Troubleshooting Procedure

Step	Actions and Questions	Yes	No
3	<p>Check the DC supply voltage to the Engine Control Board:</p> <ol style="list-style-type: none"> <li>Remove the I/P Board Cover, Upper, and Lower Rear Covers (REP 1.13).</li> <li>Turn the printer power On.</li> <li>Measure the voltage at these points:                             <ul style="list-style-type: none"> <li>P/J526- 2 &lt;=&gt; ground +5.0 V</li> <li>P/J526- 4 &lt;=&gt; ground +24.0 V</li> </ul> </li> </ol> <p>Are the voltage levels correct?</p>	Go to step 4.	Replace the LVPS (REP 8.6). If the problem persists, verify the wire harness to the Engine Control Board. If the wiring checks out, replace the Engine Control Board (REP 8.4).
4	<p>Check DC supply voltage to the Exit PWB:</p> <ol style="list-style-type: none"> <li>Remove the Top Cover (REP 1.3).</li> <li>Turn the printer power On.</li> <li>Measure the voltage at these points:                             <ul style="list-style-type: none"> <li>P/J526- 6 &lt; = &gt; ground +5.0V</li> <li>P/J526- 8 &lt; = &gt; ground +24.0V</li> </ul> </li> </ol> <p>Are the voltage levels correct?</p>	All voltages are present and problem persists, replace the LVPS (REP 8.6).	Replace the LVPS, if problem continues verify the wire harness to the Exit PWB. If the wiring checks out, replace the Exit PWB (REP 8.3).

## Finisher LVPS

### Troubleshooting Reference

Table 3 Finisher LVPS Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>LVPS</li> <li>Power Cord</li> <li>Printer AC Accessory Panel</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Finisher LVPS Plug/Jack Locations - Figure 7</li> <li>Section 7, Finisher Power Wiring Diagram - Figure 3</li> <li>PL 25.14 Finisher Electrical</li> </ul>

### Troubleshooting Procedure

Table 4 Finisher LVPS Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check AC supply voltage to the LVPS.</p> <ol style="list-style-type: none"> <li>Remove the Bottom Cover.</li> <li>Check that the Finisher power cord is connected to the printer's AC Accessory Panel and turn the printer power On.</li> <li>Measure AC voltage at the following test points on the LVPS:                             <ul style="list-style-type: none"> <li>J2- 3 &lt;=&gt; J2- 4 120 V (120 Volt Printer)</li> <li>J2- 3 &lt;=&gt; J2- 4 220 V (220 Volt Printer)</li> </ul> </li> </ol> <p>Are the voltage within specification?</p>	Go to step 2.	Verify the printer's AC Accessory Panel is delivering power.
2	<p>Check DC voltages on the LVPS harness. Measure the voltage at these points:</p> <ul style="list-style-type: none"> <li>P/J505- 3 &lt;=&gt; ground +2.8V</li> <li>P/J505- 4 &lt;=&gt; ground +2.8V</li> </ul> <p>Are the voltage levels correct?</p>	Go to step 3.	Replace the Finisher LVPS (REP 25.96).
3	<p>Check DC voltages on the LVPS harness. Measure the voltage at these points:</p> <ul style="list-style-type: none"> <li>P/J502- 1 &lt;=&gt; ground +24V</li> <li>P/J502- 2 &lt;=&gt; ground +24V</li> </ul> <p>Are the voltage levels correct?</p>	Finisher LVPS is producing the correct voltages. If intermittent operation is suspected, replace the Finisher LVPS (REP 25.96).	Replace the Finisher LVPS (REP 25.96)

## AC Power Supply Troubleshooting

There is a possible problem with AC power.

### WARNING

**Improper connection of the grounding conductor can result in the risk of electrical shock.**

The following must be observed:

- Never use a ground adapter plug to connect the machine to a power source.
- Never attempt any maintenance function that is not specifically called out in the service procedures.
- Never remove any covers that are fastened with screws, unless so instructed in the service procedures.

### CAUTION

*If any of the voltage measurements are not as specified in the following steps, the cause must be corrected. Caution the customer NOT to connect the machine to the wall outlet. Advise the customer that a licensed electrician must correct the wiring. Do not attempt to correct the wiring yourself.*

### Verifying AC Power Troubleshooting Reference

Table 1 AC Power Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>Power Cord</li> <li>AC Accessory Panel</li> <li>Wall Outlet</li> </ul>	<ul style="list-style-type: none"> <li>Introduction, Print Engine Electrical Specifications</li> <li>Section 7, AC Accessory Panel Plug/Jack Locations - Figure 11</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

Table 2 AC Power Troubleshooting Procedure



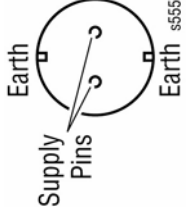
Step	Actions and Questions	Yes	No
1	<p><b>For 115 V:</b></p> <ol style="list-style-type: none"> <li>Disconnect the AC power cord from the wall outlet.</li> </ol> <div style="text-align: center;">  <p><b>Figure 1 Disconnecting Power Cord</b></p> </div> <ol style="list-style-type: none"> <li>Measure the AC voltage between AC Line and Neutral, between AC Line and Ground, and between AC Neutral and Ground.</li> <li>The voltage between Line and Neutral and between Line and Ground should range from 99 to 135 VAC and the voltage between Neutral and Ground should be less than 3 VAC.</li> </ol> <p>Is the AC voltage within specification?</p> <p><b>For 220V:</b></p> <ol style="list-style-type: none"> <li>Disconnect the AC power cord from the wall outlet.</li> </ol> <div style="text-align: center;">  <p><b>Figure 2 Disconnecting Power Cord</b></p> </div> <ol style="list-style-type: none"> <li>Measure the AC voltage between Line and Neutral, between AC Line and Earth/Ground, and between Neutral and Earth/Ground.</li> <li>The voltage between Line and Neutral and between Line and Earth/Ground should range from 198 to 254 VAC and the voltage between Neutral and Ground should be less than 3 VAC.</li> </ol> <p>Is the AC line voltage within specification?</p>	Go to step 2.	Inform customer of insufficient voltage or improper wiring.

Table 2 AC Power Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p><b>For 220 V:</b></p> <ol style="list-style-type: none"> <li>Disconnect the AC power cord from the wall outlet.</li> </ol> <div style="text-align: center;">  <p><b>Figure 3 Disconnecting Power Cord</b></p> </div> <ol style="list-style-type: none"> <li>Measure the AC voltage between Line and Neutral, between AC Line and Earth/Ground, and between Neutral and Earth/Ground.</li> <li>The voltage between Line and Neutral and between Line and Earth/Ground should range from 198 to 254 VAC and the voltage between Neutral and Ground should be less than 3 VAC.</li> </ol> <p>Is the AC line voltage within specification?</p>	Go to step 2.	Inform customer of insufficient voltage or improper wiring.
2	<ol style="list-style-type: none"> <li>Check the continuity through all connections of the power cord.</li> <li>The measurement should be less than 10 ohms for each connection.</li> </ol> <p>Does continuity test per specification?</p>	Test the Print Engine LVPS.	Replace the power cord.

## Print Engine Troubleshooting

### Engine Test Print

Isolate printer hardware problems to either the Engine Control or Image Processor Board by running the Engine Test print. If the print is successfully printed, focus on the Image Processor Board or its components (RAM, Hard Drive, Configuration Card, etc.). If the print fails, refer to procedures in this section for print engine troubleshooting help.

**NOTE:** By default, the Engine Test Print function picks Letter or A4 paper from Tray 2. Load supported media in Tray 2 before pressing the Test Print Button.

1. Press the Test Print button located on the Rear Panel.
2. The printer prints the test print unless an error status from the Engine Control Board is present.

### Inoperative Printer

No response from printer when the main power is switched On.

#### Initial Actions

Eliminate the possibility that an installed option is the cause of the problem.

1. Press the Engine Test print Button on the Rear Panel. If a print is produced, replace the Image Processor Board (REP 8.5).
2. Power the printer Off.
3. Unplug all installed options (Finisher, 1000-Sheet Feeder, 2000-Sheet Feeder, Duplex and Exit 2).
4. Power the printer On. If printer powers up normally, plug in the options one at a time until the defective option is isolated. If the printer remains inoperative, use the following procedure to locate the problem.

#### Troubleshooting Reference

Table 1 Inoperative Printer Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>• Power Cord</li> <li>• GFI Breaker</li> <li>• AC Accessory Panel</li> <li>• Wall Outlet</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction, Print Engine Electrical Specifications</li> <li>• Section 7, AC Accessory Panel Plug/Jack Locations - Figure 11</li> <li>• PL 8.1 Print Engine Electrical</li> </ul>

#### Troubleshooting Procedure

Table 2 Inoperative Printer Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Check the AC Power Cord. Is the AC Power Cord plugged into the printer and the AC outlet? Is the GFI breaker operational?	Go to step 2.	Plug in the AC Power Cord or reset the GFI Breaker.

Table 2 Inoperative Printer Troubleshooting Procedure

Step	Actions and Questions	Yes	No
2	Check the voltage at the AC outlet. Is there approximately 110V (or 220V if a 220V model) at the AC outlet?	Go to step 3.	Notify customer that the power is out of specification.
3	Check the AC input Voltage to the LVPS. 1. Remove the Upper Right Cover (REP 1.7). 2. Power the printer On. 3. Measure AC voltage at the following test points on the LVPS. • T 11 -1 <=> T 12 -1 + 120V or 220 V Are the voltages within specification?	Go to step 4.	Go to step 6.
4	Check AC supply voltage to the LVPS. 1. Remove the Upper Right Cover (REP 1.7). 2. Turn the printer power On. 3. Measure AC voltage at the following test points on the LVPS: • P/J1-1 <=> P/J1-4 Is the voltage across pins 1 and 4 equal to 120V or 220V (line voltage)?	Go to Low Voltage Power Supply Troubleshooting procedure.	Go to step 6.
5	Check AC input continuity. 1. Power the printer Off. 2. Check for continuity between the printer AC power inlet connector and T 11 <=> T12. Are these conductive?	Verify the Power Cord is in good condition and is the correct cord. If necessary, replace the cord.	Verify the GFI breaker is not tripped and is operational. If problem persists, repair the AC inlet connector wiring. If necessary, replace the GFI Breaker (REP 8.8).
6	Check the AC Voltage from the LVPS to the Power Switch. Measure AC voltage at the following test points on the LVPS P/J 1 - 3 < = > P/J 1 - 6 + 120V or 220 V. Are the voltages measured within specification?	Verify or repair the wiring from the LVPS to the Power Switch. If necessary, replace the Power Switch (REP 8.2).	Replace the LVPS (REP 8.5).

## Engine Control Board

Table 3 Engine Control Board Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>Engine Control Board</li> <li>LVPS</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, LVPS Wiring Diagram - Figure 5</li> <li>Section 7, Engine Control Board Plug/Jack Locations - Figure 8</li> <li>Section 7, Print Engine LVPS Plug/Jack Locations - Figure 12</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

Table 4 Engine Control Board Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check AC supply voltage to the LVPS.</p> <ol style="list-style-type: none"> <li>Remove the Upper Right Cover (REP 1.7).</li> <li>Turn the printer power On.</li> <li>Measure AC voltage at the following test points on the LVPS:                             <ul style="list-style-type: none"> <li>P/J1-1 &lt;=&gt; P/J1-4</li> </ul> </li> </ol> <p>Is the voltage across pins 1 and 4 equal to 120V or 220V (line voltage)?</p>	Go to step 2.	Verify the power cord is in good condition and plugged into the Printer and AC outlet. Verify correct operation of the printer power switch and AC harness. Verify correct power from the AC outlet. Go to step 3.
2	<p>Check DC supply voltage to the Engine Control Board:</p> <ol style="list-style-type: none"> <li>Remove the I/P Board Cover, Upper, and Lower Rear Covers.</li> <li>Turn the printer power On.</li> <li>Measure the voltage at the following test points:                             <ul style="list-style-type: none"> <li>P/J400-3 &lt;=&gt; ground +5.0 V</li> <li>P/J400-1 &lt;=&gt; ground +24.0 V</li> </ul> </li> </ol> <p>Are the voltage levels correct?</p>	Replace the Engine Control Board (REP 8.4).	Go to step 3.
3	<p>Check the Engine Control Board harness continuity:</p> <ol style="list-style-type: none"> <li>Disconnect P/J526 from the LVPS and P/J400 from the Engine Control Board.</li> <li>Check for continuity at the following:                             <ul style="list-style-type: none"> <li>P/J526-2 &lt;=&gt; P/J400-3</li> <li>P/J526-1 &lt;=&gt; P/J400-4</li> <li>P/J526-4 &lt;=&gt; P/J400-1</li> <li>P/J526-3 &lt;=&gt; P/J400-2</li> </ul> </li> </ol> <p>Are these conductive?</p>	Replace the LVPS (REP 8.6).	Repair the wiring. If the problem persists, replace the LVPS, and if necessary, the Engine Control Board (REP 8.4).

## Image Processor Board Isolation

This procedure is used to isolate the Image Processor Board, or one of its on-board options as the root cause of the failure.

Table 5 Image Processor Board Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>Image Processor Board</li> <li>Options</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Image Processor Board Plug/Jack Locations - Figure 10</li> <li>Section 7, Image Processor Board Wiring Diagram - Figure 16</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

Table 6 Image Processor Board Isolation Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check option installation.</p> <p><b>NOTE: If no on-board options are installed, (Hard Drive, etc.), go to step 2.</b></p> <ol style="list-style-type: none"> <li>Switch the printer power Off.</li> <li>Disconnect all cables connected to the Rear Panel.</li> <li>Remove all on-board options (Hard Drive, etc.) from the Image Processor Board.</li> <li>Switch the printer power On.</li> </ol> <p>Does the printer boot correctly and is Ready displayed on the Control Panel?</p>	Go to step 3.	Go to step 2.
2	<ol style="list-style-type: none"> <li>Switch the printer power Off.</li> <li>Remove then re-install the cable between P/J590 on the Image Processor Board and P/J402 on the Engine Control Board.</li> <li>Switch the printer power On.</li> </ol> <p>Does the printer boot correctly and is Ready displayed on the Control Panel?</p>	Problem solved.	Go to Image Processor Board troubleshooting procedure.
3	<p>Isolate the faulty on-board option.</p> <ol style="list-style-type: none"> <li>Switch the printer power On.</li> <li>Re-install one of the removed options or cables.</li> <li>Switch the printer power On.</li> </ol> <p>Does the printer boot correctly and is Ready displayed on the Control Panel?</p>	Repeat the last step with the next option or cable until the problem is found.	Replace the option or cable just installed.



## Image Processor Board

Table 7 Image Processor Board Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>Image Processor Board</li> <li>LVPS</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Image Processor Board Plug/Jack Locations - Figure 10</li> <li>Section 7, Image Processor Board Wiring Diagram - Figure 16</li> <li>PL 8.1 Print Engine Electrical</li> </ul>

Table 8 Image Processor Board Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	<p>Check the DC power supplied from the LVPS.</p> <ol style="list-style-type: none"> <li>Disconnect P/J120 on the Image Processor Board.</li> <li>Measure voltages across these points:                             <ul style="list-style-type: none"> <li>P120-1 &lt;=&gt; ground 3.3 V</li> <li>P120-4 &lt;=&gt; ground 5 V</li> <li>P120-6 &lt;=&gt; ground 3.3 V</li> <li>P120-12 &lt;=&gt; ground 3.3 V</li> </ul> </li> </ol> <p>Are the voltages correct?</p>	Replace the I/P Board (REP 8.5).	Go to Print Engine LVPS procedure and verify LVPS operation. If the LVPS is operating correctly, repair the wiring connecting the LVPS and I/P Board.

## RAM Memory Fault Isolation

Image Processor Board RAM memory has failed or is not installed. A minimum of 128 MB of RAM must be installed for proper printer operation. The Phaser 5550 supports PC133 SDRAM in 144-pin SO-DIMM form. The printer accepts modules of 128, or 256 MB in combinations to a total of 512 MB.

### Applicable POST Error Codes

- Hardware Failure: RAM Memory Slot 1 Checksum
- Hardware Failure: RAM Memory Slot 2 Checksum
- Hardware Failure: RAM Memory Slot 1 Rejected
- Hardware Failure: RAM Memory Slot 2 Rejected
- Power On Self Test Error 4: Memory
- Power On Self Test Error 15: RAM DIMM
- Power On Self Test Error RAM ERROR

Table 9 RAM Memory Fault Isolation Troubleshooting Reference

Applicable Parts	Wiring and Plug/Jack References
<ul style="list-style-type: none"> <li>SDRAM Memory</li> <li>Image Processor Board</li> </ul>	<ul style="list-style-type: none"> <li>Section 7, Image Processor Board Plug/Jack Locations - Figure 10</li> <li>PL 8.1 Print Engine</li> </ul>

### Initial Actions

Check that the RAM devices are making positive contact with their connectors.

- Power Off the printer.
- Remove and re-install the RAM memory after verifying it meets Xerox specifications. Refer to Memory Specifications in Introduction section. If the problem persists, use the following procedure to correct it.

Table 10 RAM Memory Fault Isolation Troubleshooting Procedure

Step	Actions and Questions	Yes	No
1	Power On the printer. Is RAM ERROR displayed on the Control Panel?	Go to step 5.	Go to step 2.
2	Is POWER ON SELF TEST ERROR 4: MEMORY displayed on the Control Panel?	Go to step 5.	Go to step 3.
3	Is POWER ON SELF TEST ERROR 15: RAM DIMM displayed on the Control Panel?	Go to step 4.	Problem solved.
4	Print a Startup Page and review the contents. Does the Startup Page identify a failed memory DIMM?	Replace the DIMM and go to step 9.	Go to step 5.
5	Are there two DIMMs installed in the printer?	Go to step 6.	Go to step 8.

**Table 10 RAM Memory Fault Isolation Troubleshooting Procedure**

Step	Actions and Questions	Yes	No
6	<ol style="list-style-type: none"> <li>Power Off the printer and remove one of the DIMMs.</li> <li>Power On the printer.</li> </ol> Is a memory fault message displayed?	Go to step 8.	Go to step 7.
7	<ol style="list-style-type: none"> <li>Power Off the printer and remove the first DIMM.</li> <li>Install the second DIMM and power On the printer.</li> </ol> Is a memory fault message displayed?	Go to step 8.	Go to step 9.
8	<ol style="list-style-type: none"> <li>Power Off the printer and move the suspected defective DIMM to the other memory socket.</li> <li>Power On the printer.</li> </ol> Does the DIMM fail in the new location?	Replace the DIMM and go to step 9.	Replace the I/P Board (REP 8.5).
9	Install all of the DIMMs and power On the printer. Is a memory fault message displayed?	Replace the I/P Board (REP 8.5).	Problem solved.

## Service Diagnostics Menu Map

The Service Diagnostic Menu Map lists all the tests and utilities available within Service Diagnostics. To access a test or utility, select the test type (motor, sensor, solenoid), the specific part (Duplex Unit, Exit 2, Finisher), then the individual test. For example, to access the list of Finisher motor tests, first select Motor/Fans, then select the Finisher.

**Table 1 Service Diagnostics Tests**

Print Service Menu Map	This prints a 3-page Service Diagnostics Menu Map.
<b>General Status</b> Provides current print engine and option firmware version and counter values.	Printer Version Duplex Version Exit Version Trays 4 & 5 Feeder Version Finisher Version Tray 6 Feeder Version Total Print Count Transfer Roller Count Drum Cartridge Count Drum Cartridge Cycles Tray 1/MPT Feed Count Tray 2 Feed Count Tray 3 Feed Count Tray 4 Feed Count Tray 5 Feed Count Tray 6 Feed Count
<b>Test Print</b> Starts the Test Print.	Print Pattern Print Quantity Input Tray Output Tray Duplex Staple Selection Pages Per Set Punch Selection Select Pattern
<b>Printer NVRAM Adjustments</b> Perform NVRAM adjustment essential to the performance of the printer.	Scan Direction All Trays Scan Direction Tray 1/MPT Scan Direction Tray 2 Scan Direction Tray 3 Scan Direction Tray 4 Scan Direction Tray 5 Scan Direction Tray 6/HCF Scan Direction Duplex All Trays Scan Direction Duplex Tray 1/MPT Scan Direction Duplex Tray 2 Scan Direction Duplex Tray 3 Scan Direction Duplex Tray 4 Scan Direction Duplex Tray 5 Scan Direction Duplex Tray 6/HCF

**Table 1 Service Diagnostics Tests**

<p><b>Printer NVRAM Adjustments</b> Perform NVRAM adjustment essential to the performance of the printer.</p>	<p>Process Direction All Trays Process Direction Tray 1/MPT Process Direction Tray 2 Process Direction Trays 3-6 Process Direction Duplex All Trays</p>
<p><b>Motor/Fans Tests Print Engine Motor Tests</b> Tests motor/fans functionality.</p>	<p>Printer Main Motor On Fuser Fan Motor High Drum Fan Motor Laser Scan Motor Tray 2 Lift Motor Tray 2 Feed Motor Tray 3 Lift Motor Tray 3 Feed Motor Drum Cartridge Motor On Offset Output Motor 1 Front Offset Output Motor 1 Rear Toner Dispense Motor</p>
<p><b>Duplex Assembly Motor Test</b></p>	<p>Duplex Motor</p>
<p><b>Exit 2 Assembly Motor Tests</b></p>	<p>Offset Output Motor 2 Front Offset Output Motor 2 Rear Exit Output Motor 2 Forward Exit Output Motor 2 Reverse Exit 2 Fan</p>
<p><b>Trays 4 &amp; 5 Motor Tests</b></p>	<p>Tray 4 Lift Motor Tray 4 Feed Motor Tray 5 Lift Motor Tray 5 Feed Motor Take Away Drive Motor</p>
<p><b>Tray 6 Motor Tests</b></p>	<p>Tray 6 Lift Motor Tray 6 Feed Motor Tray 6 Take Away Motor-Slow Tray 6 Take Away Motor-Fast</p>

**Table 1 Service Diagnostics Tests**

<p><b>Finisher Motor Tests</b></p>	<p>Horizontal Transport Motor-Fast Horizontal Transport Motor-Slow Transport Motor Registration Motor-Fast-CW Registration Motor-Slow-CW Registration Motor- CCW Exit Motor-Fast-CW Exit Motor-Slow-CW Exit Motor-CCW Punch Unit Motor Front Punch Unit Motor Rear Punch Motor - 3 hole Punch Motor - 2 hole Punch Motor - 4 hole Front Tamber Motor  <ul style="list-style-type: none"> <li>• Motor Low Speed Outboard</li> <li>• Motor Mid Speed Outboard</li> <li>• Motor High Speed Outboard</li> <li>• Motor Low Speed Inboard</li> <li>• Motor Mid Speed Inboard</li> <li>• Motor High Speed Inboard</li> </ul> Rear Tamber Motor  <ul style="list-style-type: none"> <li>• Motor Low Speed Outboard</li> <li>• Motor Mid Speed Outboard</li> <li>• Motor High Speed Outboard</li> <li>• Motor Low Speed Inboard</li> <li>• Motor Mid Speed Inboard</li> <li>• Motor High Speed Inboard</li> </ul> Staple Head Move Motor  <ul style="list-style-type: none"> <li>• Motor Low Speed Front</li> <li>• Motor Medium Speed Front</li> <li>• Motor High Speed Front</li> <li>• Motor Low Speed Rear</li> <li>• Motor Medium Speed Rear</li> <li>• Motor High Speed Rear</li> </ul> Stapler Motor Forward  Stapler Motor Reverse  Eject Clamp Motor - Up  Eject Clamp Motor - Down  Eject Motor  <ul style="list-style-type: none"> <li>• Motor Low Speed Forward</li> <li>• Motor High Speed Forward</li> <li>• Motor Low Speed Reverse</li> <li>• Motor High Speed Reverse</li> </ul> Stacker Motor - Up  Stacker Motor - Down</p>
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**Table 1 Service Diagnostics Tests**

<p><b>Printer Sensor/Switch Tests</b>  <b>Print Engine Sensor/Switch Tests</b></p>	<p>Tests the function of sensors/switches by manually toggling each sensor/switch.</p>
<p>Door A Interlock Switch                  Door B Interlock Switch                  Front Cover Interlock Switch                  Tray 1/MPT Size Sensor (displays paper size for tray)                  Tray 2 Size Sensor (displays paper size for tray)                  Tray 3 Size Sensor (displays paper size for tray)                  Tray 1/MPT No Paper Sensor                  Tray 2 No Paper Sensor                  Tray 3 No Paper Sensor                  Tray 2 Level Sensor                  Tray 3 Level Sensor                  Tray 2 Pre-Feed Sensor                  Tray 3 Pre-Feed Sensor                  Tray 3 Feed Out Sensor                  Registration Sensor                  Fuser Exit Sensor                  Standard Output Tray Full Sensor                  Exit Offset 1 Home Position Sensor                  Detect Drum Cartridge Switch</p>	<p>Door A Interlock Switch                  Door B Interlock Switch                  Front Cover Interlock Switch                  Tray 1/MPT Size Sensor (displays paper size for tray)                  Tray 2 Size Sensor (displays paper size for tray)                  Tray 3 Size Sensor (displays paper size for tray)                  Tray 1/MPT No Paper Sensor                  Tray 2 No Paper Sensor                  Tray 3 No Paper Sensor                  Tray 2 Level Sensor                  Tray 3 Level Sensor                  Tray 2 Pre-Feed Sensor                  Tray 3 Pre-Feed Sensor                  Tray 3 Feed Out Sensor                  Registration Sensor                  Fuser Exit Sensor                  Standard Output Tray Full Sensor                  Exit Offset 1 Home Position Sensor                  Detect Drum Cartridge Switch</p>
<p><b>Duplex Sensor/Switch Tests</b></p>	<p>Door D Interlock Switch                  Wait Sensor</p>
<p><b>Exit 2 Sensor/Switch Tests</b></p>	<p>Door E Interlock Switch                  Exit Sensor                  Exit 2 Full Stack Sensor                  Exit Offset 2 Home Position Sensor</p>
<p><b>Tray 4 &amp; 5 Sensor/Switch Tests</b></p>	<p>Door C Interlock Switch                  Tray 4 Size Sensor (displays paper size for tray)                  Tray 5 Size Sensor (displays paper size for tray)                  Tray 4 No Paper Sensor                  Tray 5 No Paper sensor                  Tray 4 Level Sensor                  Tray 5 Level Sensor                  Tray 4 Pre-Feed Sensor                  Tray 5 Pre-Feed Sensor                  Tray 4 Feed Out Sensor                  Tray 5 Feed Out Sensor</p>
<p><b>Tray 6 Sensor/Switch Tests</b></p>	<p>Door J Interlock Switch                  Tray 6 Paper Size Sensor                  Tray 6 No Paper Sensor                  Tray 6 Level Sensor                  Tray 6 Pre-Feed Sensor                  Tray 6 Feed Out Sensor                  Tray 6 Interlock Switch                  Tray 6 Size Sensor A                  Tray 6 Size Sensor B                  Tray 6 Tray In Sensor</p>

**Table 1 Service Diagnostics Tests**

<p><b>Finisher Sensor/Switch Tests</b></p>	<p>Test the sensors and switches for the Finisher/Stacker, punch and stapler.</p>
<p>Door F Interlock Sensor                  Door G Interlock Switch                  Door H Interlock Switch                  Horizontal Transport Entrance Sensor                  Horizontal Transport Exit Sensor                  Transport Entrance Sensor                  Gate Sensor                  Buffer Path Sensor                  Upper Tray Exit Sensor                  Lower Tray Full Sensor                  Compiler Exit Sensor                  Compiler Tray No Paper Sensor                  Side Registration Sensor 1                  Side Registration Sensor 2                  Eject Clamp Home Sensor                  Set Clamp Home Sensor                  Punch Unit Move Home Sensor                  Punch Home Sensor                  Punch Front Sensor                  Punch Hole Select Sensor                  Punch Motor Encoder Sensor                  Punch Box Set Sensor                  Front Tamper Home Sensor                  Rear Tamper Home Sensor                  Staple Move Position Sensor                  Staple Head Low Staple Sensor                  Staple Head Self Priming Sensor                  Staple Head Home Sensor                  Lower Tray No Paper Sensor                  Lower Tray Upper Limit Sensor                  Stacker Encoder Sensor                  Stack Height Sensor 1                  Stack Height Sensor 2</p>	<p>Door F Interlock Sensor                  Door G Interlock Switch                  Door H Interlock Switch                  Horizontal Transport Entrance Sensor                  Horizontal Transport Exit Sensor                  Transport Entrance Sensor                  Gate Sensor                  Buffer Path Sensor                  Upper Tray Exit Sensor                  Lower Tray Full Sensor                  Compiler Exit Sensor                  Compiler Tray No Paper Sensor                  Side Registration Sensor 1                  Side Registration Sensor 2                  Eject Clamp Home Sensor                  Set Clamp Home Sensor                  Punch Unit Move Home Sensor                  Punch Home Sensor                  Punch Front Sensor                  Punch Hole Select Sensor                  Punch Motor Encoder Sensor                  Punch Box Set Sensor                  Front Tamper Home Sensor                  Rear Tamper Home Sensor                  Staple Move Position Sensor                  Staple Head Low Staple Sensor                  Staple Head Self Priming Sensor                  Staple Head Home Sensor                  Lower Tray No Paper Sensor                  Lower Tray Upper Limit Sensor                  Stacker Encoder Sensor                  Stack Height Sensor 1                  Stack Height Sensor 2</p>
<p><b>Solenoid/Clutch Tests</b>  <b>Print Engine Solenoid/Clutch Tests</b></p>	<p>Registration Clutch                  Tray 1/MPT Feed Solenoid                  Take Away Clutch</p>
<p><b>Exit 2 Solenoid/Clutch Test</b>  <b>Tray 4 &amp; 5 Clutch Test</b>  <b>Tray 6 Solenoid Tests</b></p>	<p>Exit 2 Gate Solenoid                  Take Away Clutch                  Tray 6 Nudger Solenoid - High Power                  Tray 6 Nudger Solenoid - Low Power</p>
<p><b>Finisher Solenoid/Clutch Tests</b></p>	<p>Buffer Gate Solenoid (Path Out)                  Buffer Gate Solenoid (Path In)                  Transport Gate Solenoid (Upper Tray)                  Transport Gate Solenoid (Lower Tray)                  Sub Paddle Solenoid                  Set Clamp Clutch</p>

**Table 1 Service Diagnostics Tests**

<b>IP NVRAM Access</b> This menu lets you reset NVRAM locations.	PostScript NVRAM Reset Factory NVRAM Reset
<b>Engine Control Board Replacement</b> Saves/restores NVRAM locations from Engine Control Board when replaced.	Save from Engine Board Restore to Engine Board
<b>Finisher Board Setup</b> Sets the Finisher/Stacker board configuration.	Read Current Status Set 3-Hole Punch & Staple (Finisher) Set 2/4-Hole Punch & Staple (Finisher) Set No Punch & No Staple (Stacker Only)
<b>Exit</b>	Reboots Printer out of Diagnostics.

## Service Diagnostic Tests and Utilities

These descriptions cover each grouping listed in the Service Diagnostics menu. Described within each group are special instructions, conditions, or other information necessary to successfully run individual tests or utilities and interpret the results. Similar tests or utilities are grouped together for convenience. The Service Diagnostics Menu Map lists all the tests and utilities as they appear on the display. When attempting to test a device that is not installed the "Option Not Installed" message appears.

### General Status Menu

The General Status menu provides a number of status queries about the printer and any installed options. These values are read-only and cannot be changed.

**Table 1 General Status Utilities**

Utility	Action / Requirement
Printer Version	Displays code version and release data stored in the Print Engine.
Duplex Version	Displays code version and release data stored in the Duplex Unit.
Exit Version	Displays code version and release data stored in the Exit 2 Module.
Tray 4-5 Feeder Version	Displays code version and release data for the 1000-Sheet Feeder.
Finisher Version	Displays code version and release data stored in the Finisher.
Tray 6 Feeder Version	Displays code version and release data for the 2000-Sheet Feeder.
Total Print Count	Displays the number of prints made since the printer's activation.
Transfer Roller Count	Displays the total count through the Transfer Roller since last reset.
Drum Cartridge Count	Displays the total count of the Drum Cartridge.
Drum Cartridge Cycles	Displays the Drum Cartridge total cycle count (240,000 max.). The value updates each 154 cycles.
Tray 1/MPT Feed Count	Displays the number of sheets fed since the last Fuser reset.
Tray 2 Feed Count	Displays the number of sheets fed since the last Fuser reset.
Tray 3 Feed Count	Displays the number of sheets fed since the last Fuser reset.
Tray 4 Feed Count	Displays the number of sheets fed since the last Fuser reset.
Tray 5 Feed Count	Displays the number of sheets fed since the last Fuser reset.
Tray 6 Feed Count	Displays the number of sheets fed since the last Fuser reset.

## Test Print Menu

Use Test Print options to identify, repair, and validate the operability of xerographics and paper handling from all paper sources, options and outputs. Configure your test using the options provided. Service Diagnostics generates an error for failures that occur during these tests. If multiple faults/jams are detected, only one error message appears at a time. The next message appears when the current fault is cleared.

**Table 2 Test Print Utilities**

Utility	Action / Requirement
Print Pattern	Print one of the stored Engine test pages: Grid, Chart, Dark Dusting or Blank. Start or Stop printing tests.
Print Quantity	Select the number of test prints to run. Select a quantity of two or more when the Stacker Lower Tray is the selected output tray. If Duplex is set to On, the quantity selected indicates the number of two-sided prints.
Input Tray	Sets the input tray. Printing is disabled in Diagnostic mode if Tray 1/MPT is the selected input tray and the output is set anything other than the Standard Output Tray.
Output Tray	Sets the output tray. Test prints fed from Tray 1/MPT output to the Standard Output Tray only.
Duplex	Turns Duplex printing On or Off. Test prints fed from Tray 1/MPT do not Duplex as Tray 1/MPT is set to irregular size in Diagnostic mode.
Staple Selection	Sets staple On or Off and displays the current's staple position setting (Dual, Front, or Rear).
Pages Per Set	Sets the number of pages per stapled set.
Punch Selection	Sets punch On or Off.
Select Pattern	Select the number of holes to be punched.

## Printer NVRAM Adjustments Menu

Registration variables are stored in NVRAM to manage image registration for the scan and process directions on paper supplied from each input tray for simplex or duplex operations. This allows for the correction of minor variations as a result of wear or mis-alignment. When making adjustments for scan direction, or for all trays in the process direction, adjustment changes are automatically replicated for duplex prints. Following a scan or all tray process direction adjustment, check that duplex registration remains within specification. See ADJ 4.1 "Checking Registration" in section 4, Repairs and Adjustments for detailed instructions for using these utilities to adjust image registration.

For convenience, similar registration adjustment utilities have been grouped together in the following table. However, all 19 adjustments appear on the Service Diagnostics Menu Map in section 6, General Troubleshooting.

**Table 3 Printer NVRAM Registration Adjustment Utilities**

Utility	Action / Requirement
Scan Direction All Trays	Sets scan direction image registration on all trays for both simplex and duplex prints.
Scan Direction Tray 1-6	Sets scan direction image registration on the tray selected for both simplex and duplex prints.
Scan Direction Duplex All	Sets scan direction image registration on all trays for duplex prints.
Scan Direction Duplex Trays 1-6	Sets scan direction image registration for duplex prints from the tray selected.
Process Direction All	Sets process direction image registration on all trays for both simplex and duplex prints.
Process Direction Tray 1	Sets process direction image registration on Tray 1 for simplex prints only.
Process Direction Tray 2	Sets process direction image registration on Tray 2 for simplex prints only.
Process Direction Tray 3-6	Sets process direction image registration on Trays 3-6 for simplex prints only.
Process Direction Duplex All Trays	Sets process direction image registration for duplex prints for all trays.

These utilities access Engine Control Board NVRAM to modify the stored value for each variable. Changes are made by increasing or decreasing the stored value changing the image position on the page. For Scan direction adjustments, each variable is set at the factory to a value of 50. The maximum for scan direction adjustments is 99 with a minimum of 1. Any change in the scan direction value by one (1) results in a .254 mm change in the image position.

For the process direction the factory default is 33. The maximum is 66 and the minimum is zero (0). Changes to the current value for process direction variables by one (1) moves the leading edge of the image .363 mm closer or further from the edge of the paper.

Use the Printer NVRAM Adjustment utilities in conjunction with the Print Quality test print, to modify the general (All Trays) or specific (Tray 1-6) values to realign the image. See ADJ 4.2 "Adjusting Simplex Registration" in section 4, Repairs and Adjustments for instructions on using the Print Quality test print to evaluate image registration performance.

## Print Engine Motors/Fan Test Menu

Individually activate each motor or fan. Most motor rotational tests run for two or three seconds then stop. In some cases, the sound of the motor running indicates that the item passed or failed. In other cases, movement of the mechanism is the indicator.

**Table 4 Engine Motor and Fan Tests**

Test	Action / Requirement
Printer Main Motor On	Runs the main motor. Press the <b>Back</b> button to halt the test. This test requires the printer's covers closed and the Drum Cartridge installed.
Fuser Fan	Runs the fan at high speed. Press the <b>Back</b> button to halt the test. The test runs with covers open.
Drum Fan Motor	Runs the Drum Cartridge Fan at high speed.
Laser Scan Motor	Runs the laser scan motor. Press the <b>Back</b> button to halt the test.
Tray 2 Lift Motor	Runs the Feed/Lift motor in a clockwise direction. Press the <b>Back</b> button to halt the test.
Tray 3 Lift Motor	Runs the Feed/Lift motor in a clockwise direction. Press the <b>Back</b> button to halt the test.
Tray 2 Feed Motor	Runs the Feed/Lift motor in a counter clockwise direction for about 2 seconds.
Tray 3 Feed Motor	Runs the Feed/Lift motor in a counter clockwise direction for about 2 seconds.
Drum Cartridge Motor On	Runs the Drum Cartridge Motor.
Offset Output Motor 1 Front	Runs the Front Output Motor shifting the shaft forward.
Offset Output Motor 1 Rear	Runs the Rear Output Motor shifting the shaft rearward.
Toner Dispense Motor	Runs the Toner Dispense Motor.

## Duplex Unit Motor Tests Menu

Run the Duplex Motor.

**Table 5 Duplex Unit Motor Tests**

Test	Action / Requirement
Duplex Motor	Runs the Duplex Unit motor. Press the <b>Back</b> button to halt the test. Test will run with the Duplex Unit open.

## Exit 2 Motor Tests Menu

Test the Exit and Offset Motors in the Exit 2 Module. These tests run with the Exit.2 cover, Door E, open.

**Table 6 Exit 2 Motor Tests**

Test	Action / Requirement
Offset Output Motor 2 Front	Runs the Exit 2 Offset motor shifting the OCT Roller shaft forward.
Offset Output Motor 2 Rear	Runs the Exit 2 Offset motor shifting the OCT Roller shaft rearward.
Exit Output Motor 2 Forward	Runs the Exit 2 Output Motor in the forward direction for two seconds.
Exit Output Motor 2 Reverse	Runs the Exit 2 Output Motor in reverse for two seconds.
Exit 2 Fan	Runs the Exit 2 fan.

## Tray 4 & 5 Motor Tests Menu

Test the Feed and Take Away motors in each tray feeder assembly.

**Table 7 Tray 4 & 5 Motor Tests**

Test	Action / Requirement
Tray 4 Lift Motor	Runs the Feed/Lift motor in the Lift direction for two seconds.
Tray 4 Feed Motor	Runs the Feed/Lift motor in the Feed direction for two seconds.
Tray 5 Lift Motor	Runs the Feed/Lift motor in the Lift direction for two seconds.
Tray 5 Feed Motor	Runs the Feed/Lift motor in the Feed direction for two seconds.
Take Away Drive	Runs the Take Away Drive Motor for five seconds.

## Tray 6 Motor Tests Menu

Test the Feed/Lift and Take Away motors in Tray 6.

**Table 8 Tray 6 Motor Tests**

Test	Action / Requirement
Tray 6 Lift Motor	Runs the Feed/Lift motor in the Lift direction for two seconds.
Tray 6 Feed Motor	Runs the Feed/Lift motor in the Feed direction for two seconds.
Tray 6 Take Away Motor - Slow	Runs the Take Away Motor at low speed for two seconds.
Tray 6 Take Away Motor - Fast	Runs the Take Away Motor at high speed for two seconds.

## Finisher Motor Tests Menu

Individually activate each Finisher motor. Most motor rotational tests run for two or three seconds then stop.

**Table 9 Finisher Motor Tests**

Test	Action / Requirement
Horizontal Transport Motor - Fast	Runs the Horizontal Transport motor at high speed.
Horizontal Transport Motor - Slow	Runs the Horizontal Transport motor at low speed.
Transport Motor	Runs the Transport motor.
Registration Motor-Fast-CW	Runs the Registration motor clockwise at high speed.
Registration Motor-Slow-CW	Runs the Registration motor clockwise at low speed.
Registration Motor-CCW	Runs the Registration motor counter clockwise.
Exit Motor-Fast-CW	Runs the Exit motor at high speed in the clockwise direction.
Exit Motor-Slow-CW	Runs the Exit motor at low speed in the clockwise direction.
Exit Motor-CCW	Runs the Exit motor in the counter clockwise direction.
Punch Unit Motor Front	Moves the Punch forward.
Punch Unit Motor Rear	Moves the Punch to the rear.
Punch Motor- 3 hole	Performs a 3-hole punch.
Punch Motor- 2 hole	Performs a 2-hole punch.
Punch Motor- 4 hole	Performs a 4-hole punch.
Front Tamper Motor	Provides a sub-directory that includes tests to run the Front Tamper motor at the speed and position selected (Low Speed Outboard, Mid Speed Outboard, High Speed Outboard, Low Speed Inboard, Mid Speed Inboard, High Speed Inboard).
Rear Tamper Motor	Provides a sub-directory that includes tests to run the Rear Tamper motor at the speed and position selected (Low Speed Outboard, Mid Speed Outboard, High Speed Outboard, Low Speed Inboard, Mid Speed Inboard, High Speed Inboard).
Staple Head Move Motor	Provides a sub-directory that includes tests to run the Staple Head motor at the speed and position selected (Low Speed Front, Medium Speed Front, High Speed Front, Low Speed Rear, Medium Speed Rear, High Speed Rear).
Stapler Motor Forward	Runs the motor in forward. Place the staple head in its home position prior to testing. A loose staple is generated in the forward direction.
Stapler Motor Reverse	Runs the Staple Motor in reverse, opening the clamp. If the clamp is already open, no movement occurs. To close the clamp, rotate the black gear on the Staple Head until the clamp is closed (down position). The clamp returns to the open position following the test. To repeat the test, re-close the clamp.
Eject Clamp Motor - Up	Opens the Eject Clamp.
Eject Clamp Motor - Down	Closes the Eject Clamp.

**Table 9 Finisher Motor Tests**

Test	Action / Requirement
Eject Motor	Provides a sub-directory that includes tests to run the Eject motor at the speed and direction selected (Low Speed Forward, High Speed Forward, Low Speed Reverse, High Speed Reverse).
Stacker Motor - Up	Lifts the Stacker Lower Tray to its upper limit.
Stacker Motor - Down	Lowers the Stacker Lower Tray to its lower limit.

## Print Engine Sensor/Switch Tests Menu

Tests the functionality of sensors and switches located in the print engine. For the Environmental Sensor, print a Configuration Page and check for the presence of Temperature and Humidity readings. Test each device by manually toggling the sensor or switch and viewing the results on the display.

**Table 10 Sensor / Switch Tests**

Test	Action / Requirement
Door A Interlock SW	Displays the status, Open or Closed, of the Door A Switch.
Door B Interlock SW	Displays the status, Open or Closed, of the Door B Switch.
Front Cover Interlock	Displays the status, Open or Closed, of the Front Door Switch.
Tray 1/MPPT Size Sensor	Displays the paper size indicated by the guides.
Tray 2 Size Sensor	Displays the paper size indicated by the guides.
Tray 3 Size Sensor	Displays the paper size indicated by the guides.
Tray 1/MPPT No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted.
Tray 2 No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted. Test the sensor by removing all paper from the tray and reinserting it.
Tray 3 No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted. You can test the sensor by removing all paper from the cassette in that tray and reinserting it.
Tray 2 Level Sensor	Reports "Not Low" in the resting position, and "Low" when lifted. You can test the sensor by removing all but three or four sheets of paper from the tray and reinserting it.
Tray 3 Level Sensor	Reports "Not Low" in the resting position, and "Low" when lifted. Test the sensor by removing all but three or four sheets of paper from the tray and reinserting it.
Tray 2 Pre-Feed Sensor	Displays the status, "With" or "Without Paper".
Tray 3 Pre-Feed Sensor	Displays the status, "With" or "Without Paper".
Tray 3 Feed Out	Displays the status, "With" or "Without Paper".
Registration Sensor	Displays the status, "With" or "Without Paper".
Fuser Exit Sensor	Displays the status, "With" or "Without Paper," of the Exit sensor.
Standard Output Tray Full Sensor	Reports "Empty" when the actuator is in the resting position, and "Full" when the actuator is raised.



**Table 10 Sensor / Switch Tests**

Test	Action / Requirement
Exit Offset 1 Home Position Sensor	Displays "Home" or "Not Home," when actuated.
Detect Drum Cartridge Switch	Displays, "Installed" or "Not Installed" when actuated.

**Duplex Unit Sensor/Switch Tests Menu**

Test the Duplex Unit sensors by toggling each sensor while viewing the results.

**Table 11 Duplex Unit Sensor/Switch Tests**

Test	Action / Requirement
Door D Interlock Switch	Shows the status, "Open" or "Closed", when manually toggled.
Wait Sensor	Displays "With Paper" or "Without Paper" when manually toggled.

**Exit 2 Sensor/Switch Tests Menu**

Test the Exit 2 sensors by manually toggling each sensor while viewing the results.

**Table 12 Exit 2 Sensor/Switch Tests**

Test	Action / Requirement
Door E Interlock Switch	Shows the status, "Open" or "Closed", when manually toggled.
Exit Sensor	Displays "With Paper" or "Without Paper" when manually toggled.
Exit 2 Full Stack Sensor	Displays the status of the Full Stack sensor on the Standard Output Tray.
Exit Offset 2 Home Position Sensor	Displays the sensor status, "Home" or "Not Home" when toggled.

**Tray 4 & 5 Sensor/Switch Tests Menu**

Tests the functionality of the sensors and switches located in Trays 4 and 5 by displaying the current state while you manually toggle the selected device.

**Table 13 Tray 4 & 5 Sensor/Switch Tests**

Test	Action / Requirement
Door C Interlock	Displays the status, Open or Closed, of the Door C Interlock Switch.
Tray 4 Size Sensor	Displays the size indicated by the guide position.
Tray 5 Size Sensor	Displays the size indicated by the guide position.
Tray 4 No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted. Test the sensor by removing all paper from the tray and reinserting it. Another method is to reach into the tray cavity and operate the actuator manually.

**Table 13 Tray 4 & 5 Sensor/Switch Tests**

Test	Action / Requirement
Tray 5 No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted. Test the sensor by removing all paper from the tray and reinserting it. Another method is to reach into the tray cavity and operate the actuator manually.
Tray 4 Level Sensor	Reports "Up" in the resting position, and "Down" when lifted. Test the sensor by removing all but three or four sheets of paper from the tray and reinserting it. Another method is to reach into the tray cavity and operate the actuator manually.
Tray 5 Level Sensor	Reports "Up" in the resting position, and "Down" when lifted. Test the sensor by removing all but three or four sheets of paper from the tray and reinserting it. Another method is to reach into the tray cavity and operate the actuator manually.
Tray 4 Pre Feed Sensor	Displays the status, "With or "Without Paper" when actuated.
Tray 5 Pre Feed Sensor	Displays the status, "With or "Without Paper" when actuated.
Tray 4 Feed Out Sensor	Displays the status, "With or "Without Paper" when actuated.
Tray 5 Feed Out Sensor	Displays the status, "With or "Without Paper" when actuated.

**Tray 6 Sensor/Switch Tests Menu**

Tests the functionality of Tray 6 sensors and switches by displaying the current state while you manually toggle the selected device.

**Table 14 Tray 6 Sensor/Switch Tests**

Test	Action / Requirement
Door J Interlock Switch	Displays "Open" or "Closed" when actuated.
Tray 6 Paper Size Sensor	Displays the paper size indicated by the guide position.
Tray 6 No Paper Sensor	Reports "Without Paper" in the resting position, and "With Paper" when lifted.
Tray 6 Level Sensor	Reports "Up" in the resting position, and "Down" when lifted.
Tray 6 Pre Feed	Displays the status, "With Paper" or "Without Paper" of the sensor.
Tray 6 Feed Out	Displays the status, "With Paper" or "Without Paper" of the sensor.
Tray 6 Interlock Switch	Display the status, "Docked" or "Undocked" of the Docking Switch.
Tray 6 Paper Size Sensor A	Displays "Guide is on a Sensor" or "Guide is off a sensor."
Tray 6 Paper Size Sensor B	Displays "Guide is on a Sensor" or "Guide is off a sensor."
Tray 6 Tray In Sensor	Displays the status, "In" or "Out" of the Tray-in sensor.

## Finisher Sensor/Switch Tests Menu

Tests the functionality of Finisher sensors and switches by displaying the sensor's current state while you manually toggle the device.

**Table 15 Finisher Sensor/Switch Tests**

Test	Action / Requirement
Door F Interlock Sensor	Displays the status as "Open" or "Closed".
Door G Interlock Switch	Displays the status as "Open" or "Closed".
Door H Interlock Switch	Displays the status as "Open" or "Closed".
Horizontal Transport Entrance Sensor	Displays the status as, "With Paper" or "Without Paper".
Horizontal Transport Exit Sensor	Displays the status as, "With Paper" or "Without Paper".
Transport Entrance Sensor	Displays the Transport Entrance sensor status as, "With Paper" or "Without Paper".
Gate Sensor	Displays status as, "With Paper" or "Without Paper".
Buffer Path Sensor	Displays the status, "With Paper" or "Without Paper" when toggled.
Upper Tray Exit Sensor	Displays the status, "With Paper" or "Without Paper".
Upper Tray Full Sensor	Displays the sensor status, "Empty" or "Full".
Compiler Exit Sensor	Displays the sensor status as, "With Paper" or "Without Paper".
Compiler Tray No Paper Sensor	Displays the sensor state as, "With Paper" or "Without Paper".
Side Registration Sensor 1	Displays the sensor state, "With Paper" or "Without Paper".
Side Registration Sensor 2	Displays the state, "With Paper" or "Without Paper".
Eject Clamp Home Sensor	Displays the sensor status as, "Home" or "Not Home" when toggled.
Set Clamp Home Sensor	Displays the sensor status as, "Home" or "Not Home" when toggled.
Punch Move Home	Displays the sensor status as, "Home" or "Not Home" when toggled.
Punch Unit Move Home Sensor	Displays the sensor status as, "Home" or "Not Home" when toggled.
Punch Home Sensor	Displays the sensor status as, "Home" or "Not Home" when toggled.
Punch Front Sensor	Displays the sensor status as, "Home" or "Not Home" when toggled.
Punch Hole Select Sensor	Displays the sensor status as "Selected" or "Not Selected".
Punch Motor Encoder Sensor	Displays the sensor status as, "Pulse on slit" or "Pulse not on slit".
Punch Box Set Sensor	Displays the sensor status as either "With Box" or "Without Box".
Front Tamper Home Sensor	Displays the sensor status, "Home" or "Not Home" when toggled.

**Table 15 Finisher Sensor/Switch Tests**

Test	Action / Requirement
Rear Tamper Home Sensor	Displays the sensor status, "Home" or "Not Home" when toggled.
Staple Move Position Sensor	Displays sensor status as "Staple Position" or "Non Staple Position".
Staple Head Low Staple Sensor	Displays the sensor state as "Low" or "Not Low".
Staple Head Self Prime Sensor	Displays the sensor state as "ready" or "Not Ready".
Staple Head Home Sensor	Displays the sensor status, "Home" or "Not Home" when toggled.
Lower Tray No Paper Sensor	Displays the sensor output as "Blocked" or "Unblocked".
Lower Tray Upper Limit Sensor	Display the sensor output as "At upper limit" or "Not at upper limit".
Stacker Encoder Sensor	Displays sensor output as "Pulse not past slit" or "Pulse past slit".
Stack Height Sensor 1	Displays the status, "With Paper" or "Without Paper".
Stack Height Sensor 2	Displays the status, "With Paper" or "Without Paper".

## Print Engine Solenoid/Clutch Tests Menu

Activates the selected clutch to test the drive. The clicking made by the clutch when energized is an indication of its condition.

**Table 16 Print Engine Solenoid/Clutch Tests**

Test	Action / Requirement
Registration Clutch	Energize The Registration Clutch to check activity.
Tray 1/MPT Feed Solenoid	Energize the Tray 1/MPT Feed Solenoid.
Take Away Clutch	Energize the Take Away Clutch on Tray 1/MPT.

## Exit 2 Solenoid/Clutch Test Menu

**Table 17 Exit 2 Solenoid Test**

Test	Action / Requirement
Exit Gate Solenoid	Energize the Exit Gate Solenoid. This test runs with Door E open.

## Tray 4 & 5 Solenoid/Clutch Test Menu

Activates the Take Away Clutch. The clicking made by the clutch when energized indicates its condition.

**Table 18 Tray 4 & 5 Clutch Test**

Test	Action / Requirement
Take Away Clutch	Energize the Take Away Clutch on the optional tray module.

## Tray 6 Solenoid/Clutch Test Menu

Tests the functionality of the optional Tray 6 solenoid.

Table 19 Tray 6 Solenoid/Clutch Tests

Test	Action / Requirement
Nudger (High Power)	Energize the Nudger Solenoid at high power.
Nudger (Low Power)	Energize the Nudger Solenoid at low power.

## Finisher Solenoid/Clutch Tests Menu

Activates the selected clutch or solenoid. The clicking made by the part when energized indicates its condition.

Table 20 Finisher Solenoid/Clutch Tests

Test	Action / Requirement
Buffer Gate Solenoid (path out)	Energize the Buffer Gate Solenoid moving the Buffer Gate to direct paper over the Buffer Roller.
Buffer Gate Solenoid (path-in)	Energize the Buffer Gate Solenoid moving the Buffer Gate to direct paper into the Buffer Path.
Transfer Gate Solenoid (Path Out)	Activate the Transfer Gate Solenoid moving the Transfer Gate to direct paper to the Stacker Upper Tray.
Transfer Gate Solenoid (Path In)	Activate the Transfer Gate Solenoid moving the Transfer Gate to direct paper to the Stacker Lower Tray.
Sub Paddle Solenoid	Activate the Sub Paddle Solenoid.
Set Clamp Clutch	Energize the Finisher Set Clamp Clutch.

## Controller NVRAM Access Menu

This menu allows you to reset the PostScript NVRAM locations to factory defaults.

Table 21 Controller NVRAM Access Menu

Utility	Action / Requirement
Reset PostScript NVM	Resets the PS NVRAM. You are prompted to confirm your decision to perform a reset operation.
Factory Reset NVRAM	Reset NVRAM to factory defaults. This utility is password protected. The password to access the reset functions is 4370. Use the Control Panel buttons to enter the password. After you enter the password, you are prompted to confirm your decision to perform a reset.

## Engine Control Board Replacement Menu

These commands transfer the contents of a defected Engine Control Board's NVRAM to the Image Processor Board and return it to the new Engine Control board after installation.

Table 22 Engine Control Board Replacement Utilities

Utility	Action / Requirement
Save from Engine Board	Saves the NVRAM contents of the Engine Control Board to a reserved area of NVRAM on the Image Processor Board.
Restore to Engine Board	Writes the Engine Control Board NVRAM data to the replacement board from the NVRAM of the Image Processor Board.

The following provides instructions for using these utilities during an Engine Control Board replacement.

### Saving Engine Control Board VNRAM

To save the Engine Control Board's NVRAM contents to the I/P Board:

1. Enter Service Diagnostics.
2. Select **Save from Engine Board** from the Engine Control Board Replacement menu and press **OK**.

Data is transferred from the Engine Control Board to a reserved location on the Image Processor Board. During the process the Control Panel will display "Saving NVRAM." Once the routine is completed, the Control Panel will display "Save Complete."

3. Power the printer Off and replace the Engine Control Board.

### Restoring Engine Control Board NVRAM

To restore the Engine Control Board NVRAM to the new board:

1. Re-enter Service Diagnostics.
2. Select **Restore to Engine Board** from Engine Control Board Replacement menu and press **OK**.

Data is transferred from the reserved location on the Image Processor to the replaced Engine Control Board. During the process, the Control Panel will display "Restoring NVRAM." Once the routine is completed, the Control Panel will display "Restore Complete."

3. Exit diagnostics.

## Finisher Board Setup Menu

This menu allows you to reset the Punch configuration of the Finisher/Stacker.

Table 23 Finisher Board Setup Utilities

Utility	Action / Requirement
Read Current Status	Displays the current Punch setting of the Finisher Main PWB.
Set 3-Hole Punch & Staple	Sets the Finisher Main PWB to support a 3-hole Punch and Stapler.
Set 2- /4-Hole Punch & Staple	Sets the Finisher Main PWB to support a 2- /4-hole Punch and Stapler.
Set No Punch & Staple	Sets the Finisher Main PWB to a Stacker configuration with no Punch or Stapler.

## Exit

Reboot the printer out of Service Diagnostics.

## Mode Select Port

The Mode Select Port, accessible from the Rear Panel, is a 6-pin header used to place the printer in one of five operational modes or to reset the Image Processor Board.

These modes are set by connecting one or more pins to ground. The six pins are arranged in numeric order with Pin 1 at the top of the connector. Pins 1 and 6 are tied to a common ground with the Rear Panel. Pins 2 through 5, when grounded, set the printer to the mode indicated in the following table.

### CAUTION

To reset the I/P Board, momentarily ground pin 5, then immediately re-open the connection. Grounding pin 5 for more than a few seconds could damage the processor.

Table 24 Mode Select Port Settings

Mode	1	2	3	4	5	6
Printer Reset	GND				GND	GND
Customer	GND					GND
Service	GND		GND			GND
Disaster Recovery	GND	GND		GND		GND
Developer	GND	GND	GND			GND
Customer Debug	GND			GND		GND

- Reset is a hardware reset of the Image Processor Board.
- Customer Mode is the normal mode for printing. The Serial Debug Port is receiving PostScript back channel information.
- Service Mode inhibits printing of the Startup page and causes POST to treat all errors as Hard Faults. See Power On Self Test (POST) in section 6, General Troubleshooting. Service mode also switches the Serial Debug Port from PostScript back channel information to the printer's operating system console.
- Disaster Recovery mode instructs the printer to load only its operating system bypassing the networking and PostScript code. The Serial Debug Port is receiving PostScript back channel information.
- Developer mode inhibits the execution of POST and allows for the introduction of startup scripts. Not typically used for servicing procedures.
- Customer Debug mode instructs the printer to boot normally but switches the Serial Debug Port from PostScript back channel information to the printer's operating system console.



# 7 Wiring Data

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## How to Use Plug/Jack Locations

The P/J Locator diagrams show the location of primary connections within the system. Use these illustrations to locate connections called out in the procedures presented in Sections 2, 4, and 6. Connectors designated "CN" are listed at the end of the P/J connectors.

To find the location of a Plug or Jack:

1. Locate the P/J connector designator in the first column of the table.
2. With this information, go to the map (Figure Number) listed in the second column.
3. Use the coordinates to quickly locate the connection indicated on the map with its P/J designation number. If coordinates are not given, go to the referenced Wire Routing Diagram.

## Print Engine Plug/Jack Locations

Table 1 Print Engine Plug / Jack Location List

P/J	Map	Coordinates	Remarks
1	Figure 12	D-244	Connects the LVPS and Main Switch Harness.
2	Figure 12	D-243	Connects the LVPS and Finisher Outlet.
3	Figure 12	D-245	Connects the LVPS and Heater Harness.
6	Figure 12	E-245	Connects the LVPS and Fuser AC Harness.
7	Figure 12	E-245	Not connected.
11	Figure 12	D-245	Connects the LVPS and GFI Breaker.
12	Figure 12	D-245	Connects the LVPS and GFI Breaker.
20	Figure 3	J-141	Connects the Fuser Main Lamp (Heat Rod) and Fuser Harness.
21	Figure 3	J-141	Connects the Fuser Sub Lamp 1 and Fuser Harness.
22	Figure 3	J-141	Connects the Fuser Sub Lamp 2 and Fuser Harness.
50	Figure 11	F-229	Connects the GFI Breaker and LVPS.
56	Figure 12	B-238	Connects the Power Switch and Power Switch Harness.
57	Figure 12	B-239	Connects the Power Switch and Power Switch Harness.
68	Figure 12	B-239	Connects the Power Switch and Power Switch Harness.
69	Figure 12	B-239	Connects the Power Switch and Power Switch Harness.
72	Figure 11	F-230	Connects the GFI Breaker and Ground (Earth).
73	Figure 11	G-230	Connects the Finisher Outlet and LVPS.
74	Figure 11	G-230	Connects the Finisher Outlet and LVPS.
75	Figure 11	G-230	Connects the Finisher Outlet and Ground (Earth).
100	Figure 6	G-180	Connects the Tray 2 Level Sensor and the Tray 2 Feeder Harness.
101	Figure 6	G-180	Connects the Tray 2 No Paper Sensor and the Tray 2 Feeder Harness.
101	Figure 10	J-126	Connects the 5550 I/P Board to the Laser Assembly.
102	Figure 6	G-180	Connects the Tray 3 Level Sensor and Tray 3 Feeder Harness.
102	Figure 10	I-126	Connects the 5550 I/P Board to the Engine Control Board.
103	Figure 6	G-180	Connects the Tray 3 No Paper Sensor and Tray 3 Feeder Harness.
104	Figure 5	F-167	Connects the Registration Sensor and Registration Harness.
105	Figure 6	F-186	Connects the Feed Out #3 Sensor and Feed Out #3 Sensor Harness.
106	Figure 6	D-183	Connects the LHL Switch and the PH Harness.
107	Figure 4	D-153	Connects the Tray 1/MPT Size Sensor and Tray 1/MPT Sensor Harness.
108	Figure 4	G-152	Connects the Tray 1/MPT No Paper Sensor and Tray 1/MPT Harness.



Table 1 Print Engine Plug / Jack Location List

P/J	Map	Coordinates	Remarks
109	Figure 7	D-200	Connects the Tray 2 Size Sensor and Size Sensor Harness.
110	Figure 7	D-201	Connects the Tray 3 Size Sensor and Size Sensor Harness.
117	Figure 3	B-134	Connects the OCT Home 1 Sensor and OCT Harness.
118	Figure 3	B-134	Connects the Full Stack Sensor and OCT Harness.
120	Figure 7	H-196	Connects the Door A Interlock Switch and Engine Control Board.
120	Figure 9	C-119	Connects the I/P Board to the LVPS.
121	Figure 12	C-244	Connects the Front Door Interlock Switch and INTLK Harness.
125	Figure 1	C-106	Connects the Fuser Exit Sensor and PH Harness.
126	Figure 2	D-122	Connects the Drum Cartridge and CRUM Harness.
127	Figure 1	F-108	Connects the Toner Cartridge and CRUM Harness.
130	Figure 2	E-124	Connects the Laser (Scanner) and Laser Harness.
131	Figure 3	B-139	Connects the Center STS and Fuser Outlet.
132	Figure 3	B-139	Connects the 2nd STS and Fuser Outlet.
133	Figure 3	B-139	Connects the Rear STS and Fuser Outlet.
133	Figure 6	H-181	Connects the Tray 2 Pre Feed Sensor and Tray 2 Feeder Harness.
134	Figure 6	H-181	Connects the Tray 3 Pre Feed Sensor and Tray 2 Feeder Harness.
140	Figure 2	F-123	Connects the Laser Assembly and Laser Harness.
150	Figure 5	G-166	Connects the Hum & Temp (Environmental) Sensor and Registration Harness.
150	Figure 9	F-119	Connects the 5500 I/P Board to the Control Panel.
160	Figure 2	F-123	Connects the Laser Assembly and Laser Harness.
170	Figure 2	F-123	Connects the Laser Assembly and Laser Harness.
201	Figure 6	E-180	Connects the Tray 2 Feed/Lift Motor and Tray 2 Feeder Harness.
202	Figure 6	E-180	Connects the Tray 3 Feed/Lift Motor and Tray 2 Feeder Harness.
204	Figure 7	H-199	Connects the Takeaway Clutch and PH Harness.
205	Figure 4	D-151	Connects the Tray 1/MPT Feed Solenoid and MSI Harness.
206	Figure 7	G-196	Connects the Exit 1 Offset Motor and EXIT Harness.
214	Figure 7	G-198	Connects the Drive Assembly and Drive Harness.
215	Figure 5	E-166	Connects the Registration Clutch and Registration Harness.
216	Figure 1	H-106	Connects the Toner Dispense Motor and LV PWR Harness.
221	Figure 1	E-107	Connects the Engine Control Board and Drum Cartridge Fan.

Table 1 Print Engine Plug / Jack Location List

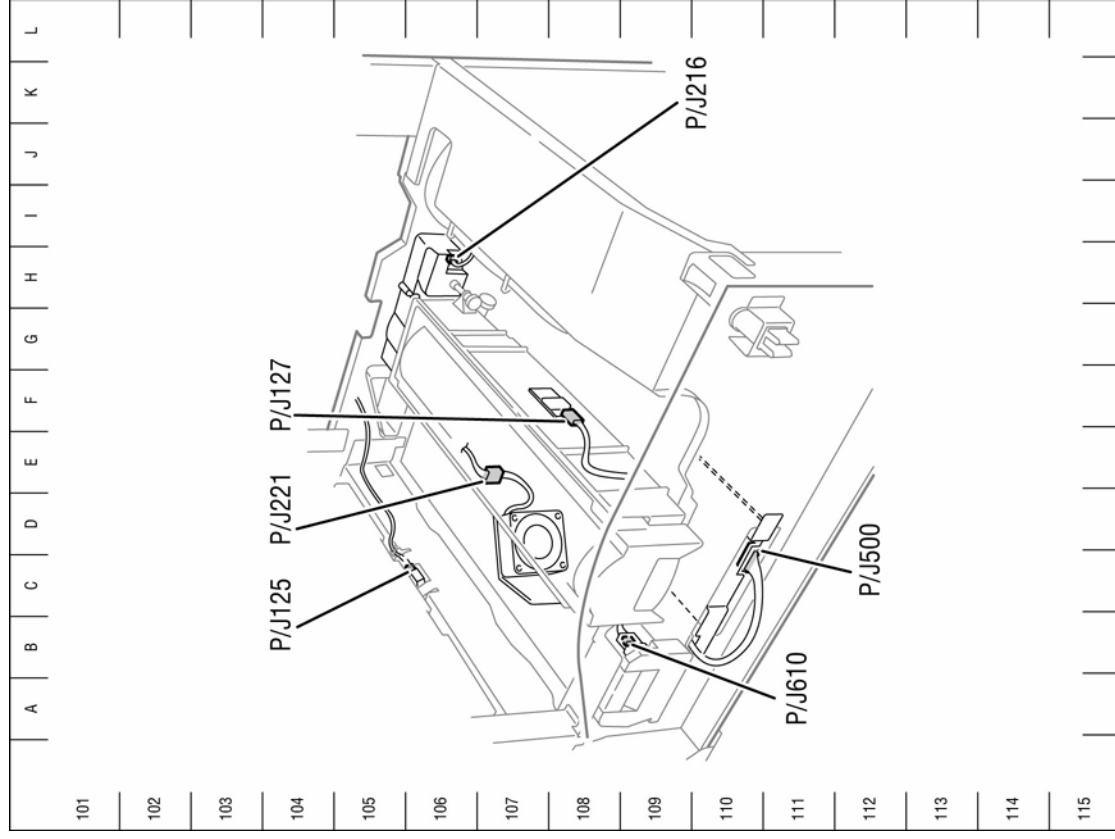
P/J	Map	Coordinates	Remarks
311	Figure 12	B-242	Connects the Control Panel and Control Panel Harness.
400	Figure 8	C-214	Connects the Engine Control Board and LV PWR Harness.
401	Figure 8	C-214	Connects the Engine Control Board and LV PWR Harness.
401	Figure 10	H-124	Connects the RAM DIMM to the 5550 I/P Board.
402	Figure 8	D-212	Connects the Engine Control Board and I/P Board Harness.
403	Figure 8	F-211	Connects the Engine Control Board and Registration Harness.
403	Figure 10	H-124	Connects the RAM DIMM to the 5550 I/P Board.
404	Figure 8	E-212	Connects the Engine Control Board and Xerographics Harness.
405	Figure 8	G-212	Connects the Engine Control Board and Interlink Harness.
406	Figure 8	D-212	Connects the Engine Control Board and Laser Harness.
407	Figure 8	C-212	Connects the Engine Control Board and Laser Harness.
408	Figure 8	G-211	Connects the Engine Control Board and Drive Harness.
409	Figure 8	G-213	Connects the Engine Control Board and Feeder Harness.
410	Figure 8	G-212	Connects the Engine Control Board and PH Harness.
411	Figure 8	G-214	Connects the Engine Control Board and Tray 1/MPT Harness.
412	Figure 8	C-213	Connects the Engine Control Board and Size Harness.
413	Figure 8	D-214	Connects the Engine Control Board and Tray 4-5 Harness.
414	Figure 8	F-214	Connects the Engine Control Board and Tray 6 Harness.
415	Figure 8	F-214	Connects the Engine Control Board and Tray 6 Harness.
416	Figure 8	D-214	Connects the Engine Control Board and Output Unit.
417	Figure 8	E-214	Connects the Engine Control Board and Duplex Unit Harness.
419	Figure 8	D-212	Connects the Engine Control Board and CRUM Harness.
420	Figure 8	C-212	Connects the Engine Control Board and LV PWR Harness.
421	Figure 8	C-213	Connects the Engine Control Board and LV PWR Harness.
430	Figure 2	H-120	Connects the Exit PWB and LV PWR Harness.
431	Figure 2	H-120	Connects the Exit PWB and LV PWR Harness.
432	Figure 2	H-120	Connects the Exit PWB and EXIT Harness.
433	Figure 2	I-120	Connects the Exit PWB and EXIT Harness.
434	Figure 2	I-120	Connects the Exit PWB and EXIT Harness.
490	Figure 9	I-121	Connects the Flash ROM device to the 5500 I/P Board.
500	Figure 1	C-110	Connects the HVPS and Registration Harness.
501	Figure 10	E-122	Connects the Hard Drive to the 5550 I/P Board
521	Figure 12	I-246	Connects the LVPS and LV PWR Harness.

Table 1 Print Engine Plug / Jack Location List

P/J	Map	Coordinates	Remarks
525	Figure 12	I-247	Connects the LVPS and LV PWR Harness.
526	Figure 12	I-245	Connects the LVPS and LV PWR Harness.
540	Figure 9	E-122	Connects the Hard Drive to the 5500 I/P Board.
590	Figure 9	J-123	Connects the I/P Board and Engine Control Board.
600	Figure 3	A-139	Connects the Fuser and Fuser AC Harness.
600	Figure 7	H-196	Connects the Fuser and Fuser Harness.
601	Figure 6	C-183	Connects the Tray 2 Feeder Harness and Feeder Harness.
602	Figure 6	C-184	Connects the Tray 3 Feeder Harness and Feeder Harness.
605	Figure 7	I-199	Connects the Tray 1/MPT and Tray 1/MPT Harness.
606	Figure 7	G-195	Connects the EXIT 2 Harness and EXIT Harness.
607	Figure 7	G-199	Connects the Fuser Harness and PH Harness.
608	Figure 6	C-184	Connects the Take Away Sensor Harness and PH Harness.
609	Figure 4	D-151	Connects the Tray 1/MPT Sensor Harness and Tray 1/MPT Harness.
610	Figure 1	B-109	Connects the ATC Sensor and Registration Harness.
613	Figure 7	G-196	Connects the OCT Harness and EXIT Harness.
620	Figure 2	F-123	Description
701	Figure 10	H-122	Connects the Flash ROM device to the 5550 I/P Board
702	Figure 10	H-119	Connects the 5550 I/P Board to the Control Panel.
800	Figure 7	H-200	Description
830	Figure 9	C-125	Connects the RAM DIMM to the 5500 I/P Board.
831	Figure 9	C-125	Connects the RAM DIMM to the 5500 I/P Board.
890	Figure 9	I-125	Connects the 5500 I/P Board to the Laser Assembly.
901	Figure 10	C-120	Connects the 5550 I/P Board to the LVPS
902	Figure 10	B-121	5550 I/P Board Parallel Port

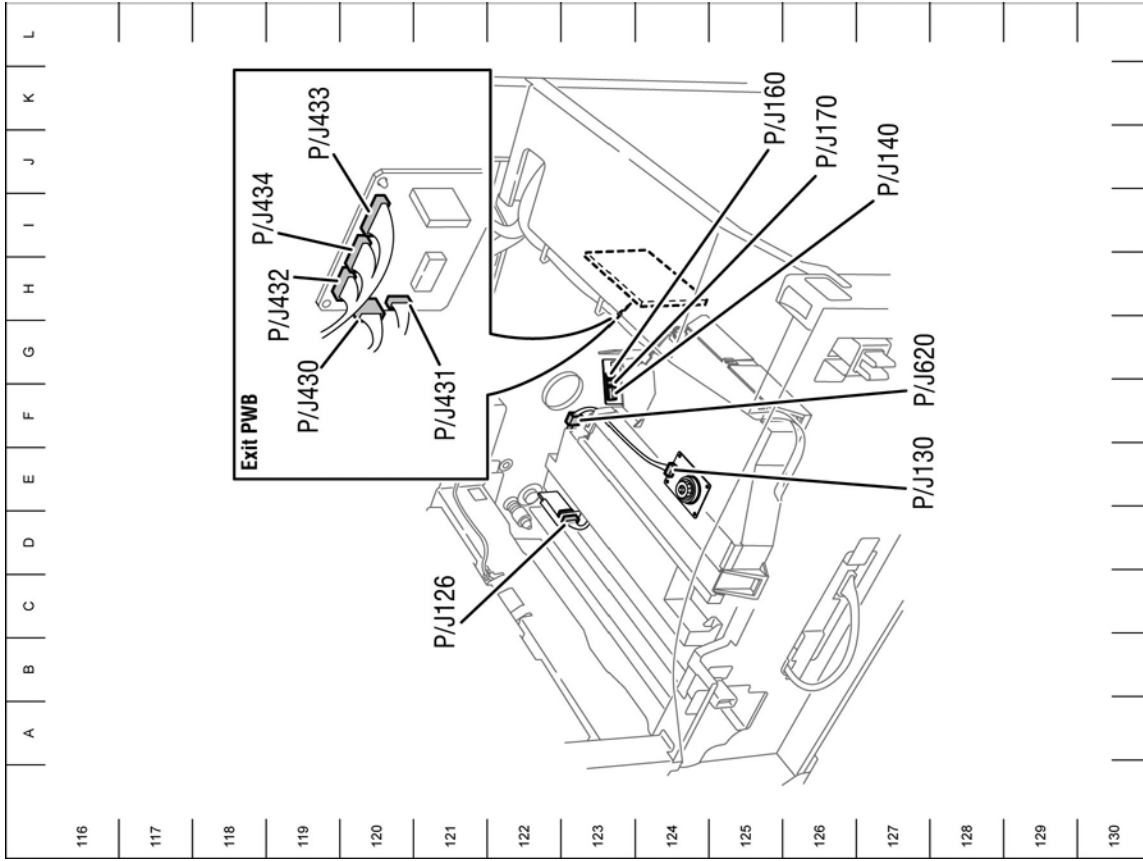
### Print Engine Plug/Jack Locator Diagrams

The Print Engine P/J Locator diagrams show the locations of primary connections within the printer. Use these illustrations to locate connections called out in the troubleshooting procedures presented in sections 2, 3, and 6.



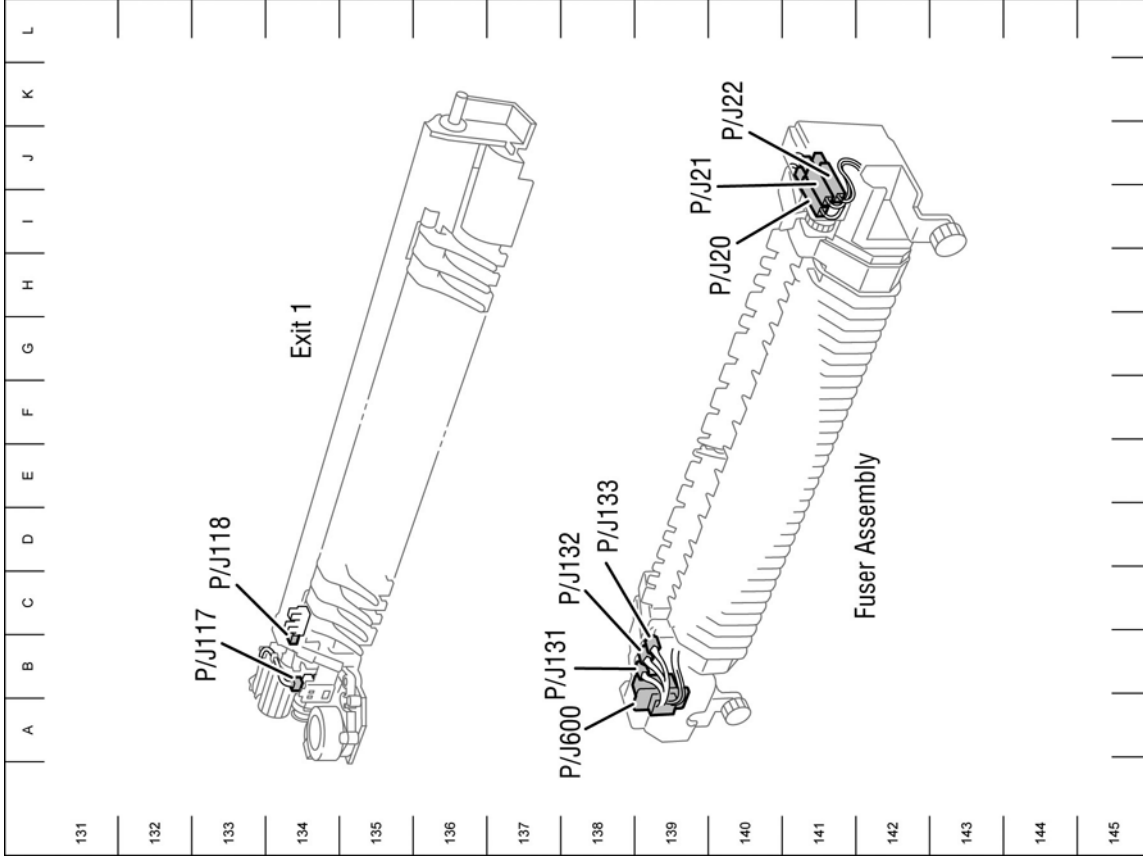
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Figure 1 Drum and Toner Cartridge



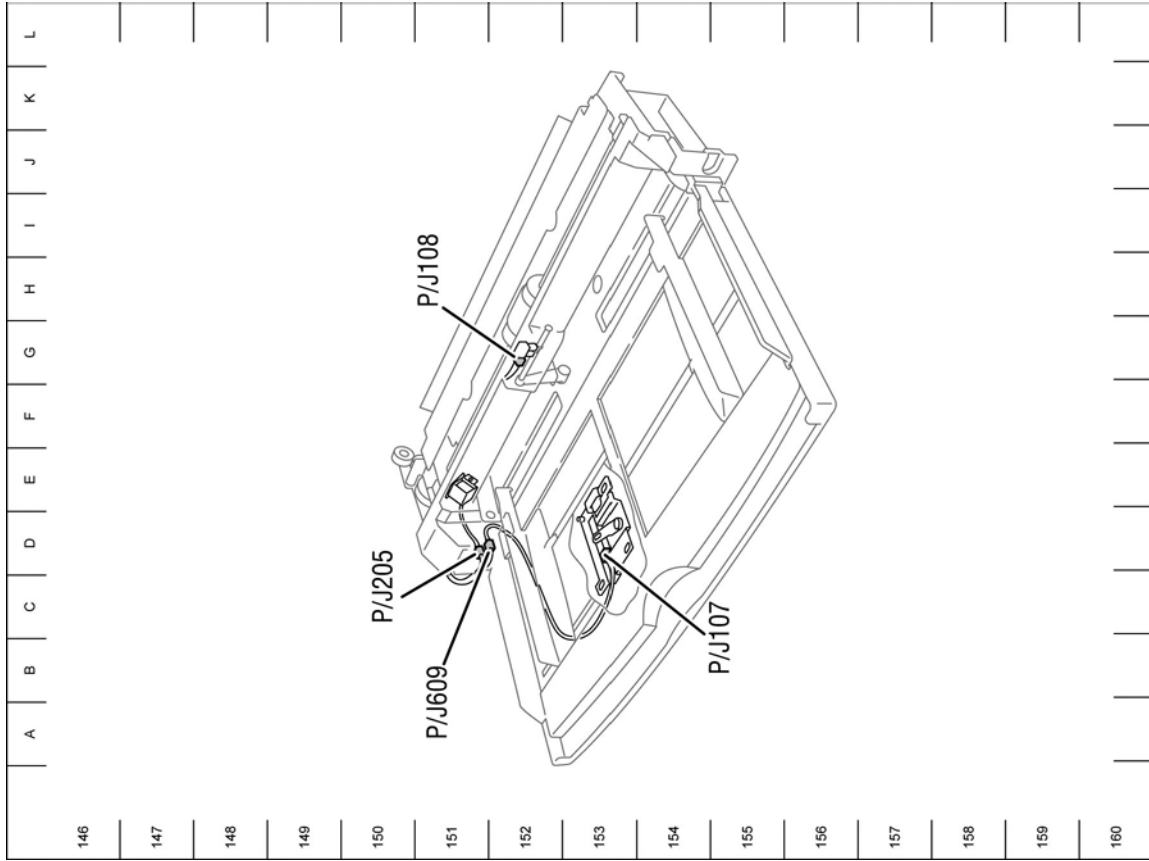
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Figure 2 Laser Assembly and Exit PWB



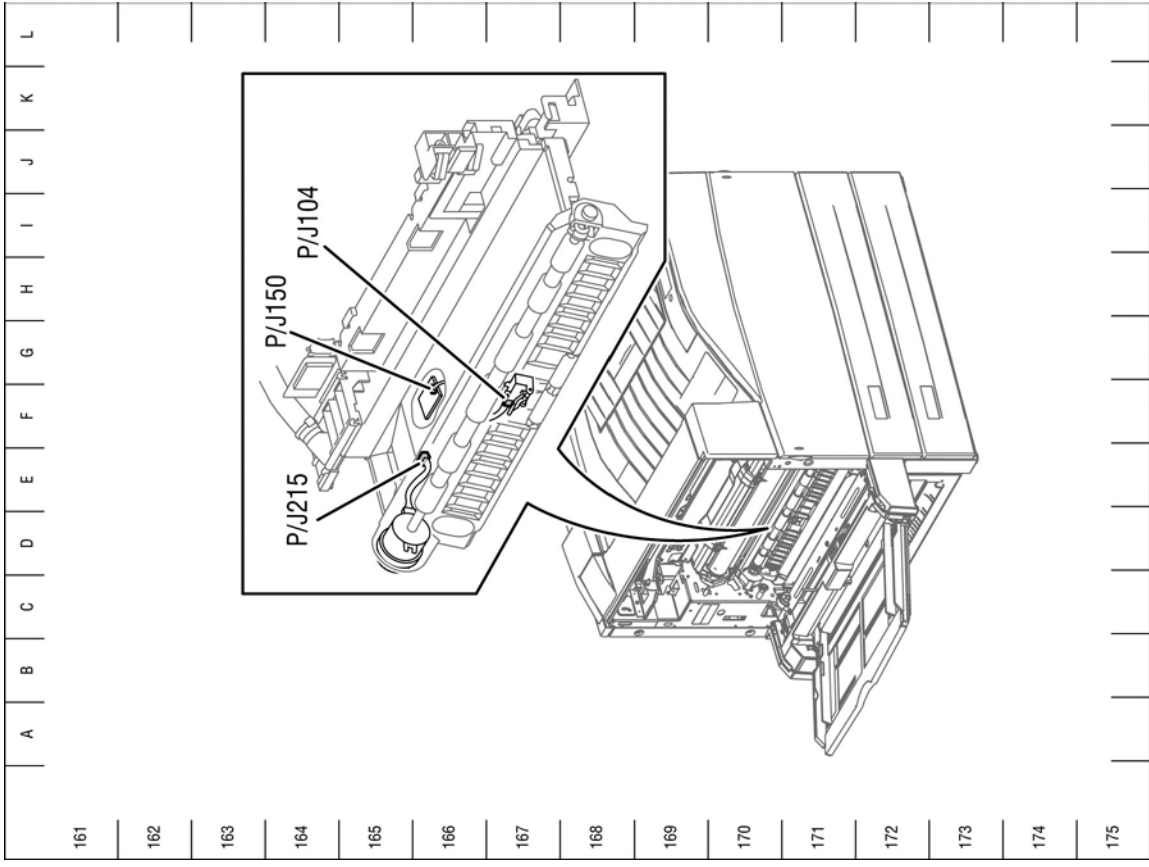
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Figure 3 Fuser and Exit 1



s5550-212

Figure 4 Tray 1/MPT



s5550-213

Figure 5 Registration Transport Assembly

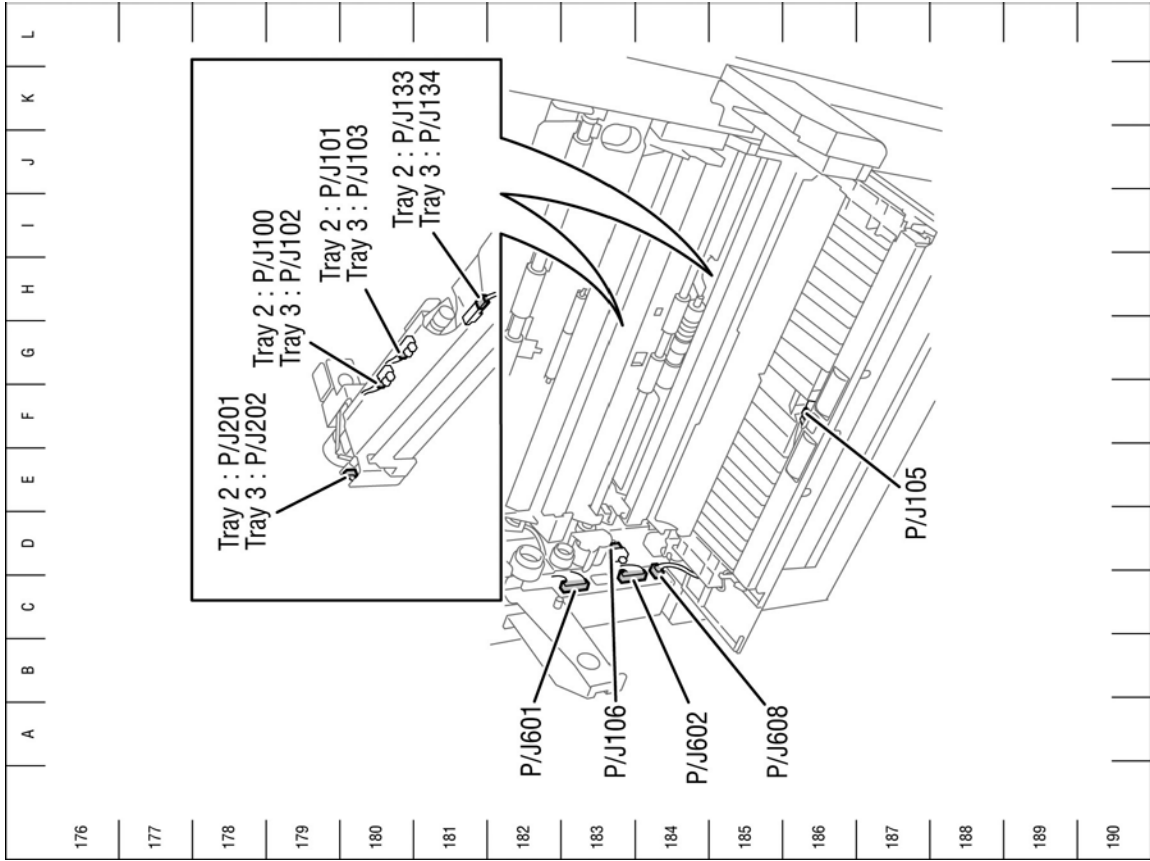


Figure 6 Tray 2 & 3 Feeder Assemblies

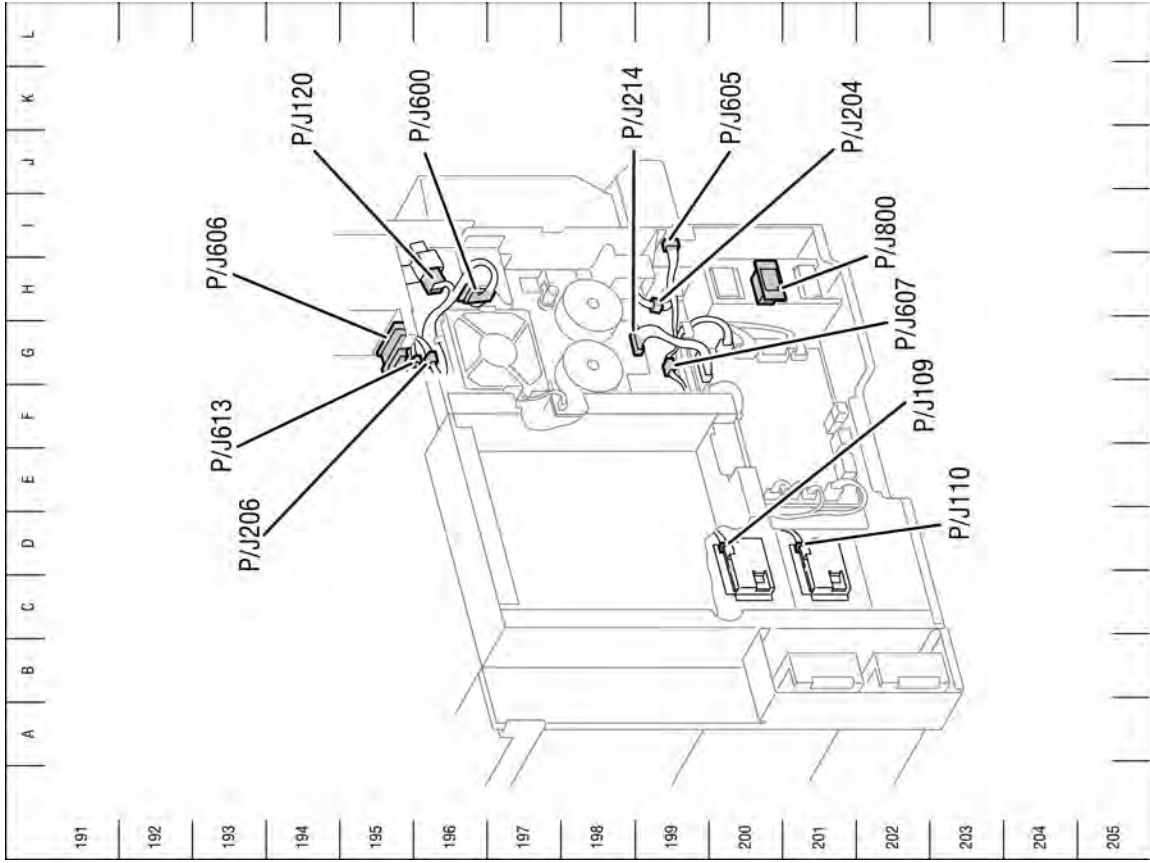
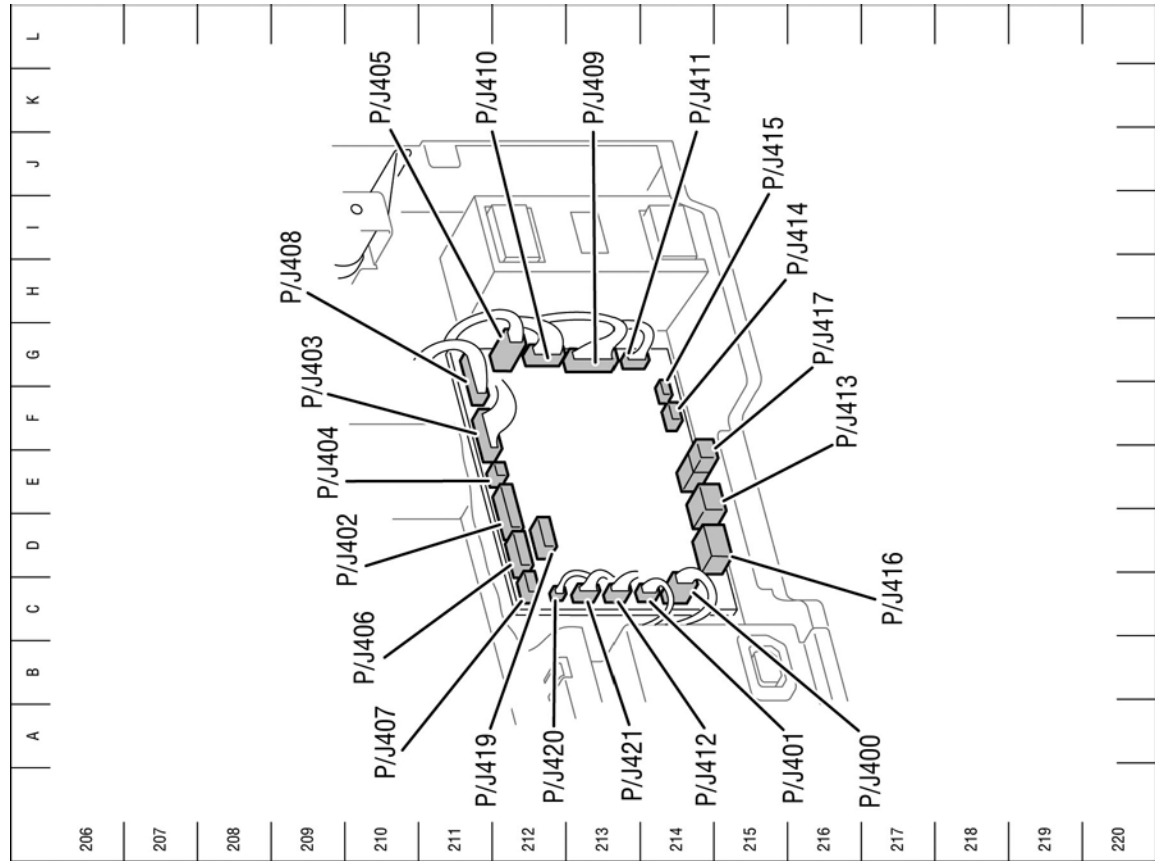
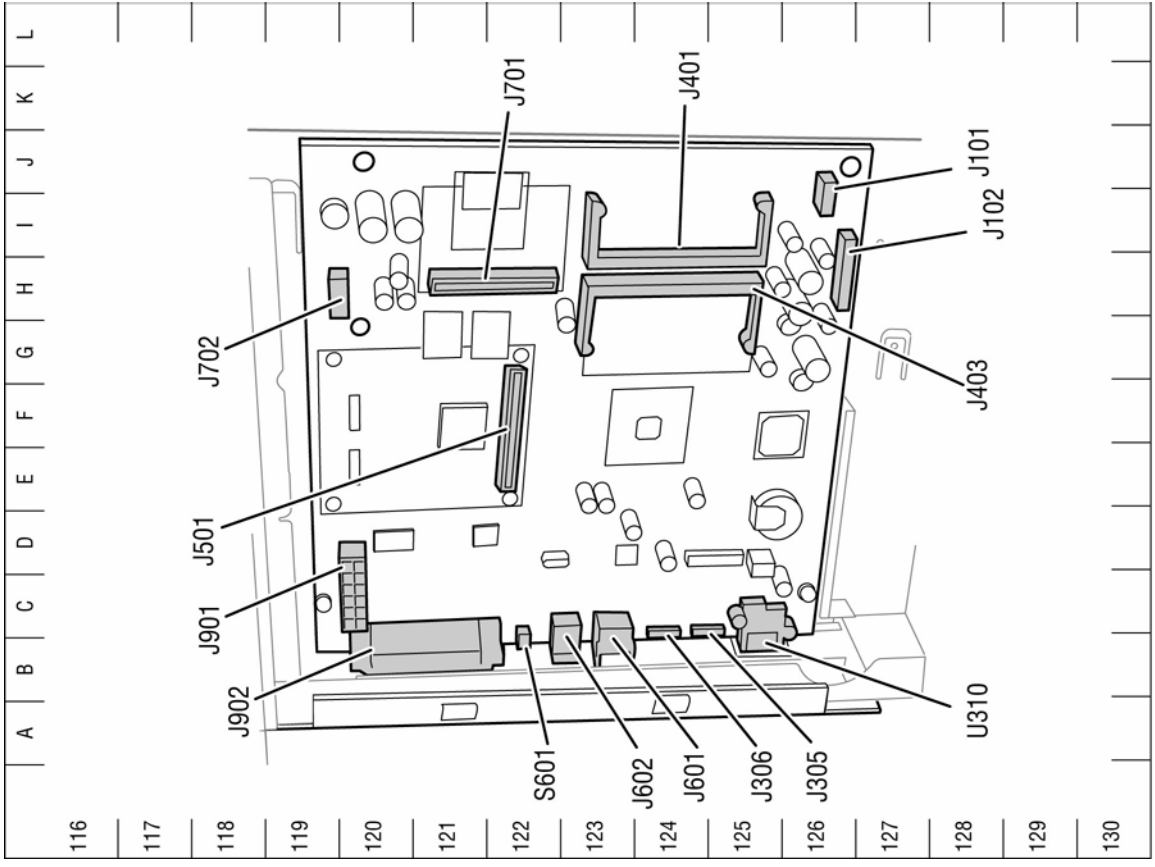


Figure 7 Print Engine Electrical



s5550-216

Figure 8 Engine Control Board



s5550-620

Figure 9 5550 Image Processor Board

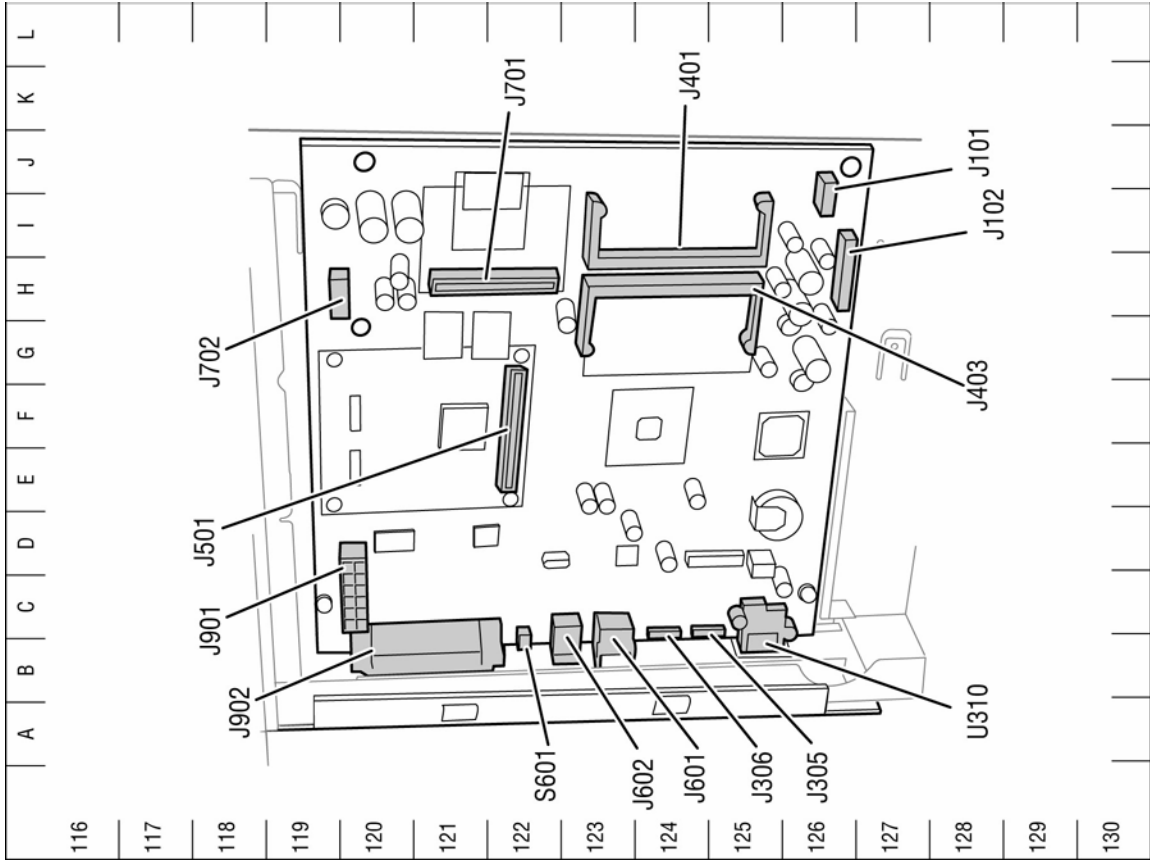


Figure 10 5550 Image Processor Board

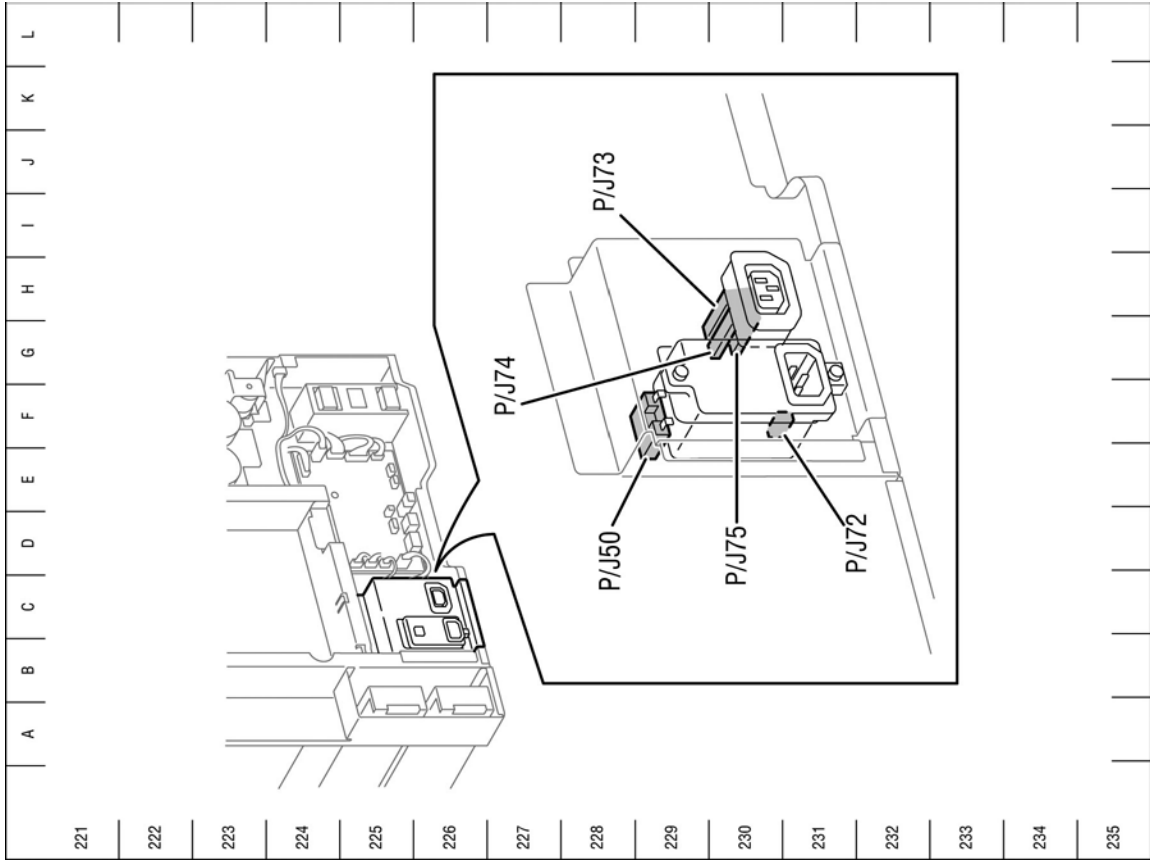
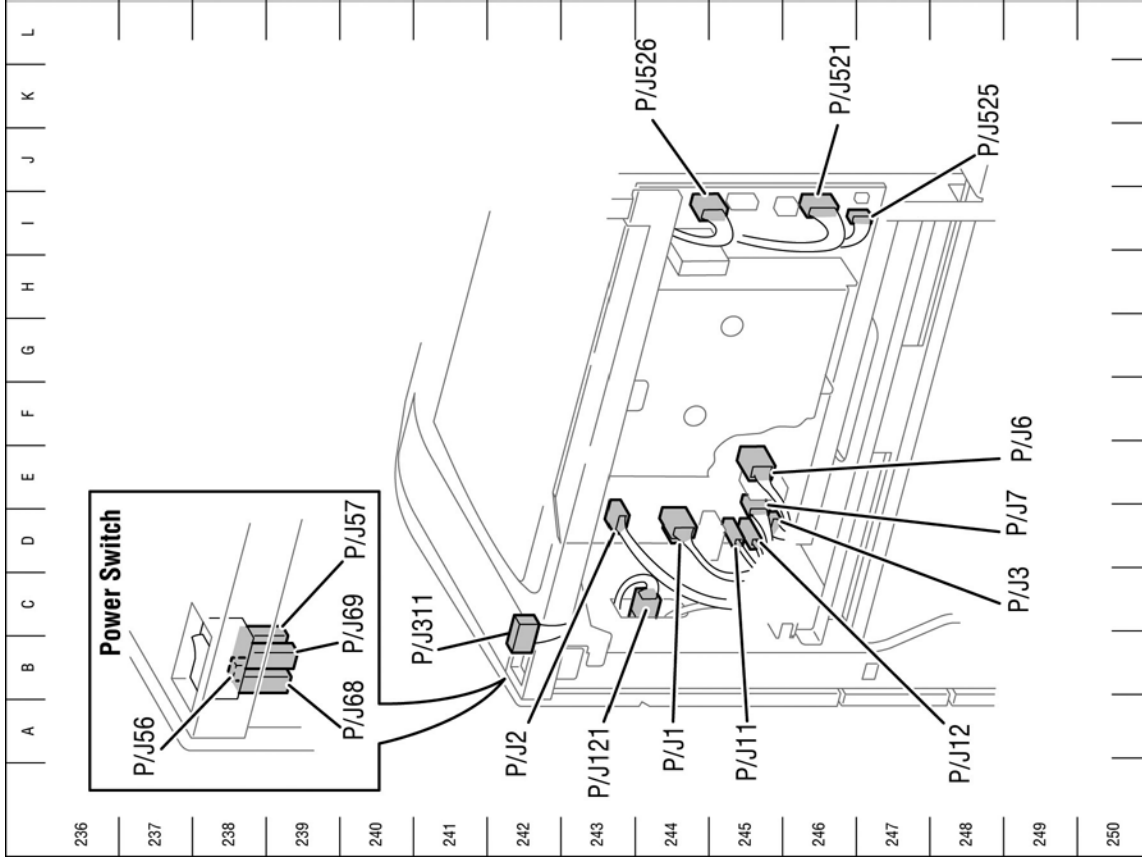


Figure 11 AC Accessory Panel

# 1000-Sheet Feeder Plug/Jack Locations

Table 1 1000-Sheet Feeder Plug/Jack Location List

P/J	Map	Coordinates	Remarks
101A	Figure 1	C-304	Connects the Tray 5 Level Sensor and Tray 5 Harness.
101B	Figure 1	C-304	Connects the Tray 4 Level Sensor and Tray 4 Harness.
102A	Figure 1	D-305	Connects the Tray 5 No Paper Sensor and Tray 5 Harness.
102B	Figure 1	D-305	Connects the Tray 4 No Paper Sensor and Tray 4 Harness.
103A	Figure 1	D-306	Connects the Tray 5 Pre Feed Sensor and Tray 5 Harness.
103B	Figure 1	D-306	Connects the Tray 4 Pre Feed Sensor and Tray 4 Harness.
202A	Figure 1	B-304	Connects the Tray 5 Feed/Lift Motor and Tray 5 Harness.
202B	Figure 1	B-304	Connects the Tray 4 Feed/Lift Motor and Tray 4 Harness.
541	Figure 2	F-323	Connects the Tray 4-5 PWB and Tray Module Harness.
548	Figure 2	E-323	Connects the Tray 4-5 PWB and Size Switch Harness.
549A	Figure 2	F-324	Connects the Tray 4-5 PWB and Feeder Harness.
549B	Figure 2	F-324	Connects the Tray 4-5 PWB and Feeder Harness.
552	Figure 2	F-323	Connects the Tray 4-5 PWB and T/A Harness.
554	Figure 2	F-323	Connects the Tray 4-5 PWB and Interlock Switch Harness.
661A	Figure 1	D-309	Connects the Tray 5 Harness and Feeder Harness.
661B	Figure 1	D-308	Connects the Tray 4 Harness and Feeder Harness.
812	Figure 1	D-308	Connects the Door C Interlock Switch and Interlock Harness.
820	Figure 1	G-307	Connects Tray 5 Paper Size Switch and Size Switch Harness.
821	Figure 1	E-308	Connects Feed Out Sensor #4 and the Sensor Harness.
822	Figure 2	I-322	Connects the Take Away Clutch and Take Away Harness.
824	Figure 1	G-308	Connects Tray 5 Paper Size Switch and Size Switch Harness.
825	Figure 1	E-309	Connects Feed Out Sensor #5 and the Sensor Harness.
826	Figure 2	G-324	Connects the Take Away Motor and Take Away Harness.
841	Figure 2	I-320	Connects the Feed Out Sensor #4 Harness and the Size Switch Harness.
842	Figure 1	D-308	Connects the Feed Out Sensor #5 Harness and the Size Switch Harness.

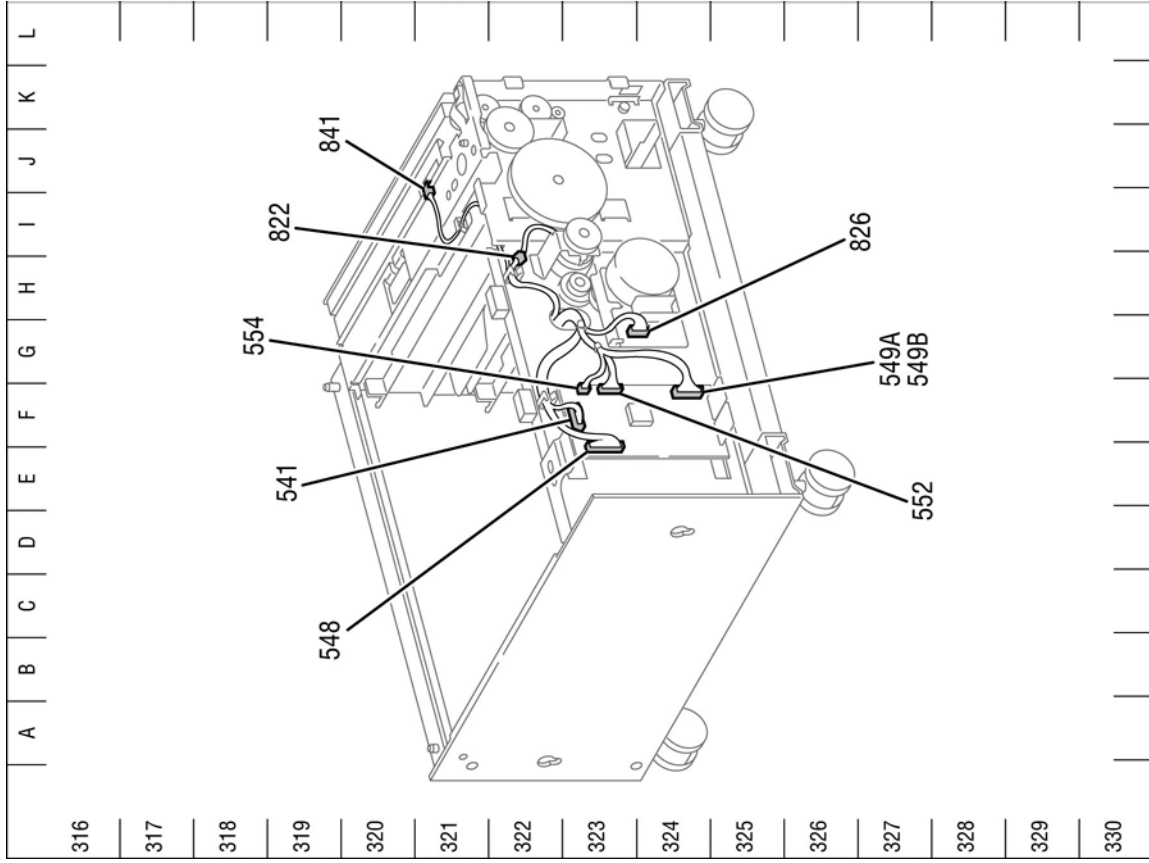


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Figure 12 LVPS

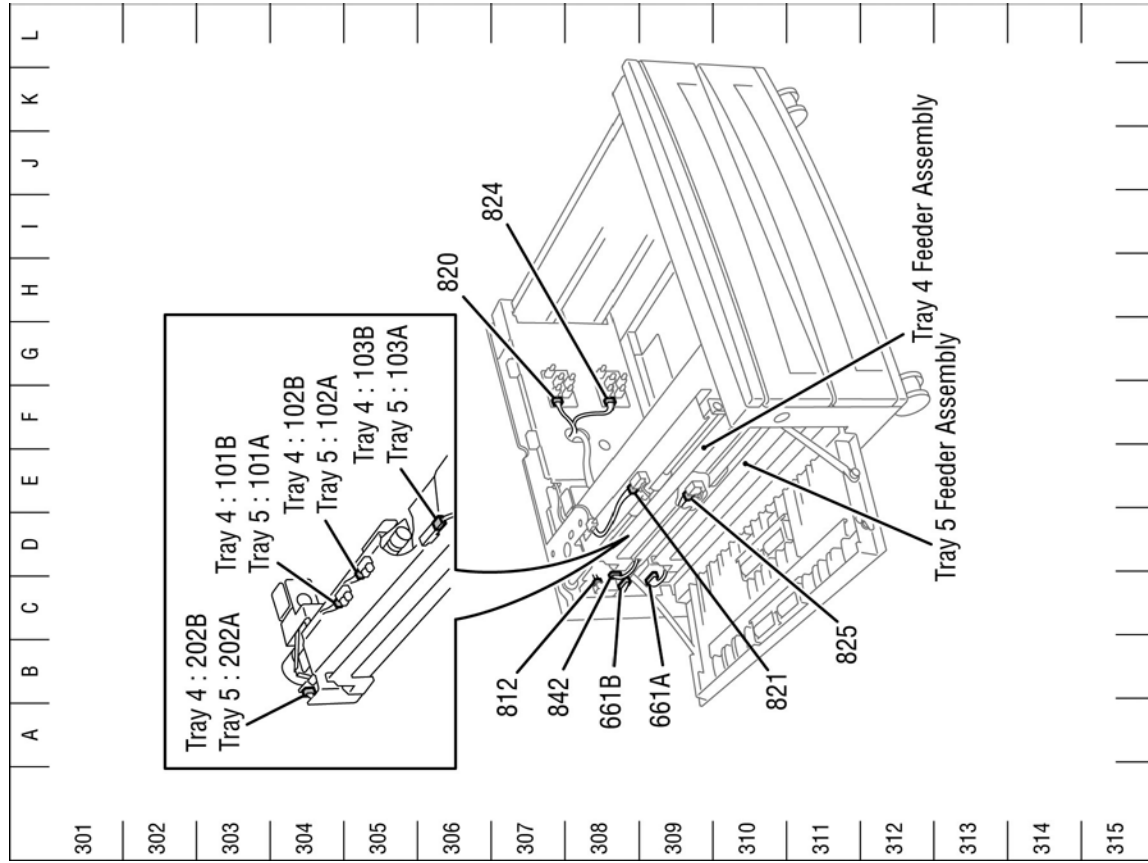


1000-Sheet Feeder Plug/Jack Locator Diagrams



s5550-545

Figure 2 Tray 4 and 5 Electrical



s5550-544

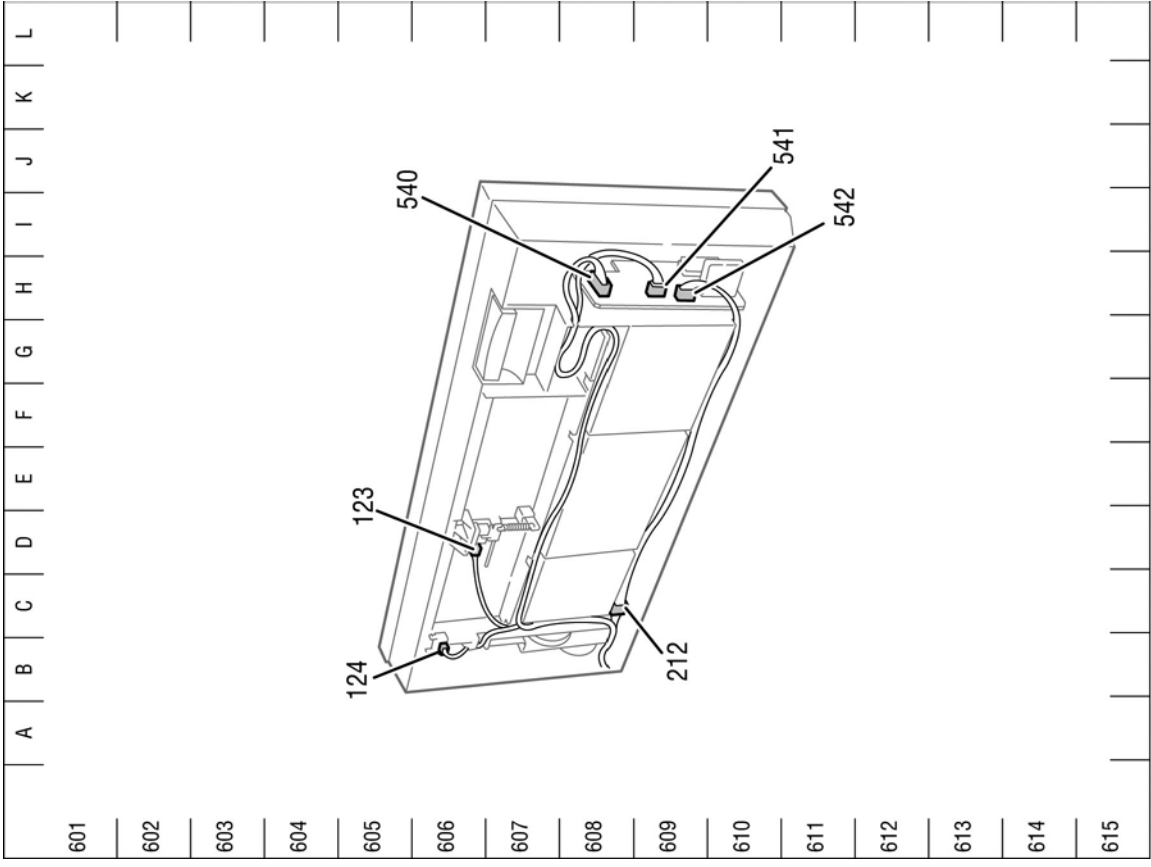
Figure 1 Tray 4 and 5 Feeders

# Duplex Unit Plug/Jack Locations

# Duplex Unit Plug/Jack Locator Diagram

Table 1 Duplex Unit Plug/Jack Location List

P/J	Map	Coordinates	Remarks
123	Figure 1	D-606	Connects the Wait Sensor and Sensor Harness.
124	Figure 1	B-606	Connects the Door D Interlock Switch and Sensor Harness.
212	Figure 1	C-608	Connects the Duplex Motor and Duplex Motor Harness.
540	Figure 1	H-608	Connects the Duplex PWB and Duplex Harness.
541	Figure 1	H-609	Connects the Duplex PWB and Duplex Sensor Harness.
542	Figure 1	H-609	Connects the Duplex PWB and Duplex Motor Harness.



s5550-605

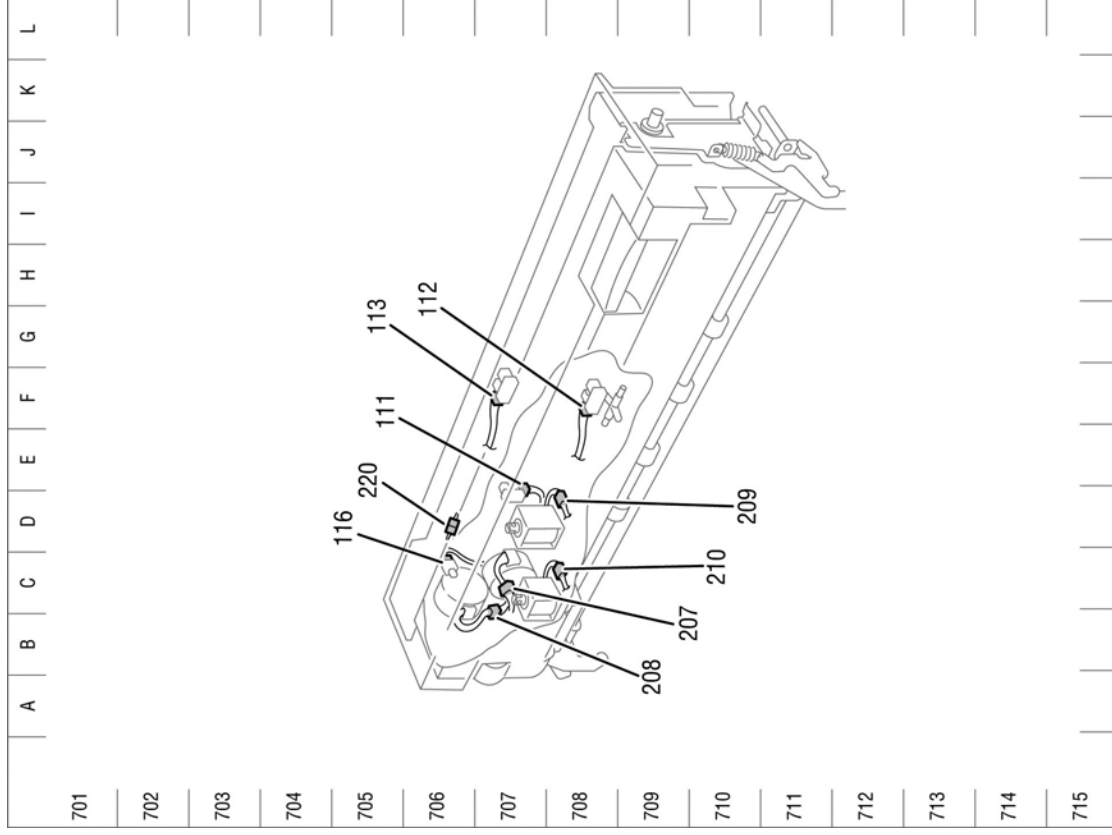
Figure 1 Duplex Unit

## Exit 2 Plug/Jack Locations

Table 1 Exit 2 Plug/Jack Location List

P/J	Map	Coordinates	Remarks
111	Figure 1	D-707	Connects the OCT Home 2 Sensor and Exit 2 Harness.
112	Figure 1	F-708	Connects the Exit 2 Sensor and Exit 2 Harness.
113	Figure 1	F-707	Connects the Full Stack Sensor and Exit 2 Harness.
116	Figure 1	C-706	Connects the Door E Interlock Switch and Exit 2 Harness.
207	Figure 1	C-707	Connects the Offset Motor and Exit 2 Harness.
208	Figure 1	B-707	Connects The Exit Drive Motor and Exit 2 Harness.
209	Figure 1	D-708	Connects the Exit Gate Solenoid and Exit 2 Harness.
210	Figure 1	C-708	Connects Face Up Solenoid and Exit 2 Harness (not used).
220	Figure 1	D-706	Connects the Exit 2 Fan to the Exit 2 Harness.

## Exit 2 Plug/Jack Locator Diagram



s5500-551

Figure 1 Exit 2

# Tray 6 Plug/Jack Locations

Table 1 Tray 6 Plug/Jack Location List

P/J	Map	Coordinates	Remarks
1	Figure 2	G-523	Connects the Tray 6 PWB and Sensor Harness.
2	Figure 2	G-523	Connects the Tray 6 PWB and Tray 6 Feeder 1 Harness.
3	Figure 2	G-524	Connects the Tray 6 PWB and Tray 6 Harness.
4	Figure 2	G-524	Connects the Tray 6 PWB and Tray 6 Harness.
5	Figure 2	F-524	Connects the Tray 6 PWB and Interlock Switch Harness.
6	Figure 2	F-524	Connects the Tray 6 PWB and Tray 6 Feeder 1 Harness.
8	Figure 2	G-523	Connects the Tray 6 PWB and Docking Switch Harness.
51	Figure 2	F-521	Connects the Paper Size Sensor A and Sensor Harness.
52	Figure 2	G-521	Connects the Paper Size Sensor B and Sensor Harness.
53	Figure 2	F-525	Connects the Tray In Sensor and Sensor Harness.
54	Figure 1	E-505	Connects the Feed Out Sensor #6 Harness and Sensor Harness.
56	Figure 1	C-506	Connects the Tray 6 Feeder Harness and Tray 6 Feeder 1 Harness.
57	Figure 2	E-524	Connects the Take Away Motor and Tray 6 Feeder 1 Harness.
58	Figure 1	D-506	Connects the Feed/Lift Motor and Tray 6 Feeder Harness.
59	Figure 1	D-506	Connects the Nudger Solenoid and Tray 6 Feeder Harness.
60	Figure 1	G-506	Connects the No Paper Sensor and Tray 6 Feeder Harness.
61	Figure 1	H-506	Connects the Pre-feed Sensor and Tray 6 Feeder Harness.
62	Figure 1	H-506	Connects the Level Sensor and Tray 6 Feeder Harness.
67	Figure 1	H-506	Connects the Feed Out Sensor #6 and Feed Out Sensor Harness.
FS001	Figure 1	E-505	Connects the Door J Interlock Switch and Interlock Harness.
FS002	Figure 1	E-505	Connects the Door J Interlock Switch and Interlock Harness.
FS003	Figure 1	E-507	Connects Docking Interlock Switch and Docking Switch Harness.
FS004	Figure 1	E-507	Connects Docking Interlock Switch and Docking Switch Harness.

# Tray 6 Plug/Jack Locator Diagrams

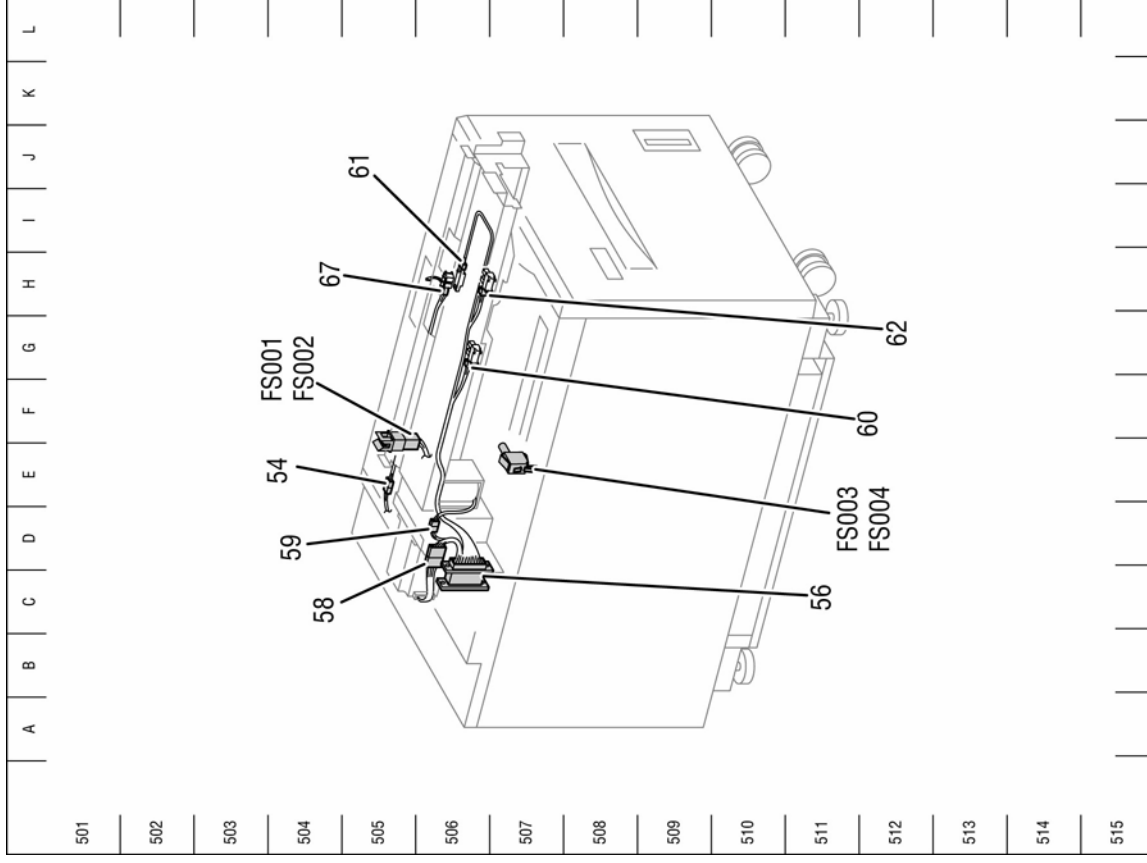


Figure 1 Tray 6 Feeder

s5550-556

# Finisher Plug/Jack Locations

Table 1 Finisher Plug/Jack Location List

P/J	Map	Coordinates	Remarks
2	Figure 7	E-903	Connects the LVPS and AC Inlet Harness.
502	Figure 7	B-902	Connects the LVPS and LVPS Harness.
505	Figure 7	B-902	Connects the LVPS and LVPS Harness.
8300	Figure 7	G-894	Connects the Finisher Main PWB and I/F Harness.
8301	Figure 7	G-894	Not connected.
8302	Figure 7	E-895	Connects the Finisher Main PWB and Main Sensor Harness.
8304	Figure 7	E-892	Connects the Finisher Main PWB and Main Drive Harness.
8305	Figure 7	E-894	Connects the Finisher Main PWB and Elevator Motor.
8306	Figure 7	G-892	Connects the Finisher Main PWB and Punch Drive Harness.
8307	Figure 7	G-893	Connects the Finisher Main PWB and Punch Sensor Harness.
8308	Figure 7	F-892	Connects the Finisher Main PWB and Staple Harness.
8309	Figure 7	E-894	Connects the Finisher Main PWB and Compiler Harness.
8310	Figure 7	G-895	Connects the Finisher Main PWB and Horizontal Transport Harness.
8311	Figure 7	E-896	Not connected.
8313	Figure 7	F-896	Not connected.
8314	Figure 7	F-896	Connects the Finisher Main PWB and Interlock Harness.
8315	Figure 7	E-896	Connects the Finisher Main PWB and LVPS Harness.
8316	Figure 7	G-896	Not connected.
8317	Figure 7	E-896	Not connected.
8319	Figure 6	E-883	Connects the Transport Entrance Sensor and Harness.
8320	Figure 4	F-853	Connects the Compile Exit Sensor and Compile Sensor Harness.
8321	Figure 6	F-881	Connects the Upper Tray Exit Sensor and Upper Tray Exit Sensor Harness.
8322	Figure 6	F-881	Connects the Upper Tray Full Sensor and Upper Tray Full Sensor Harness.
8324	Figure 4	E-852	Connects the Eject Clamp Home Sensor and Main Sensor Harness.
8325	Figure 5	E-868	Connects the Set Clamp Home Sensor and Main Sensor Harness.
8326	Figure 2	E-821	Connects the Stacker No Paper Sensor and Main Sensor Harness.
8327	Figure 2	E-821	Connects the Upper Limit Sensor and Main Sensor Harness.
8328	Figure 2	D-821	Connects the Stack Encoder Sensor and Main Sensor Harness.

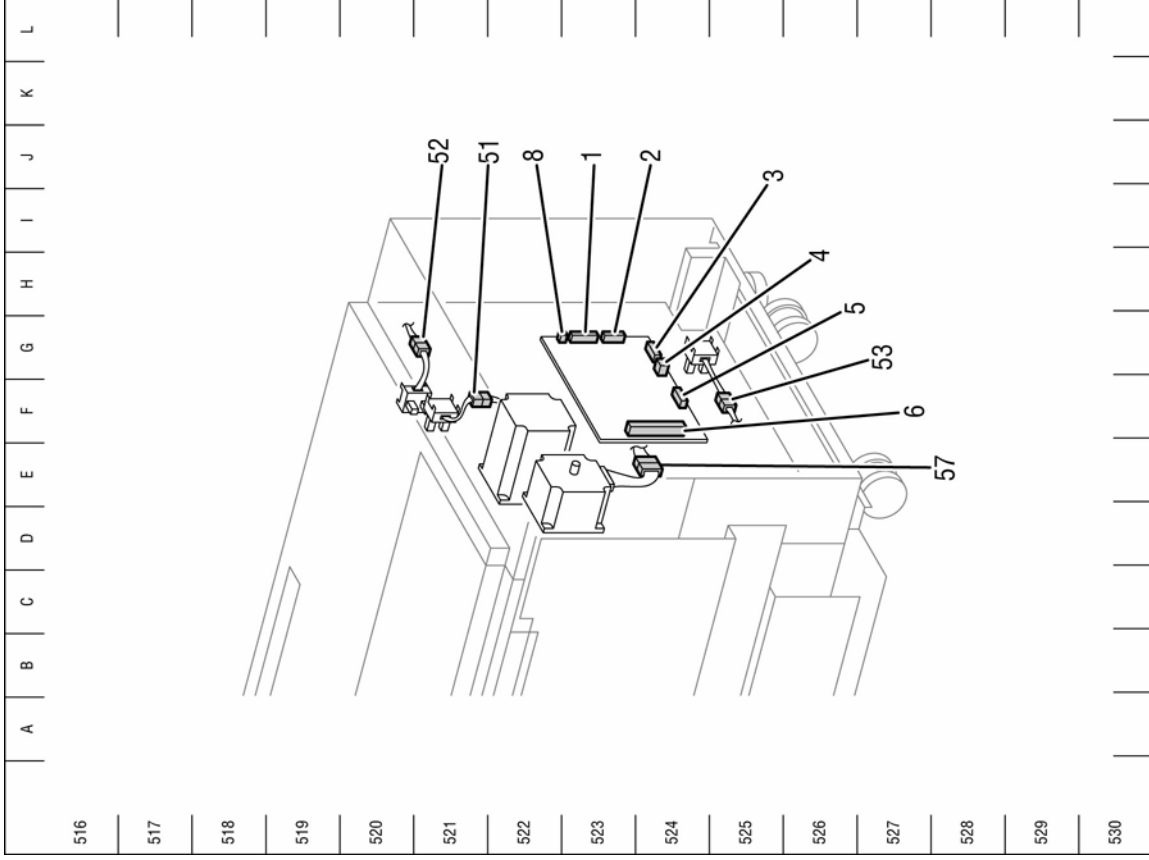


Figure 2 Tray 6 Drive

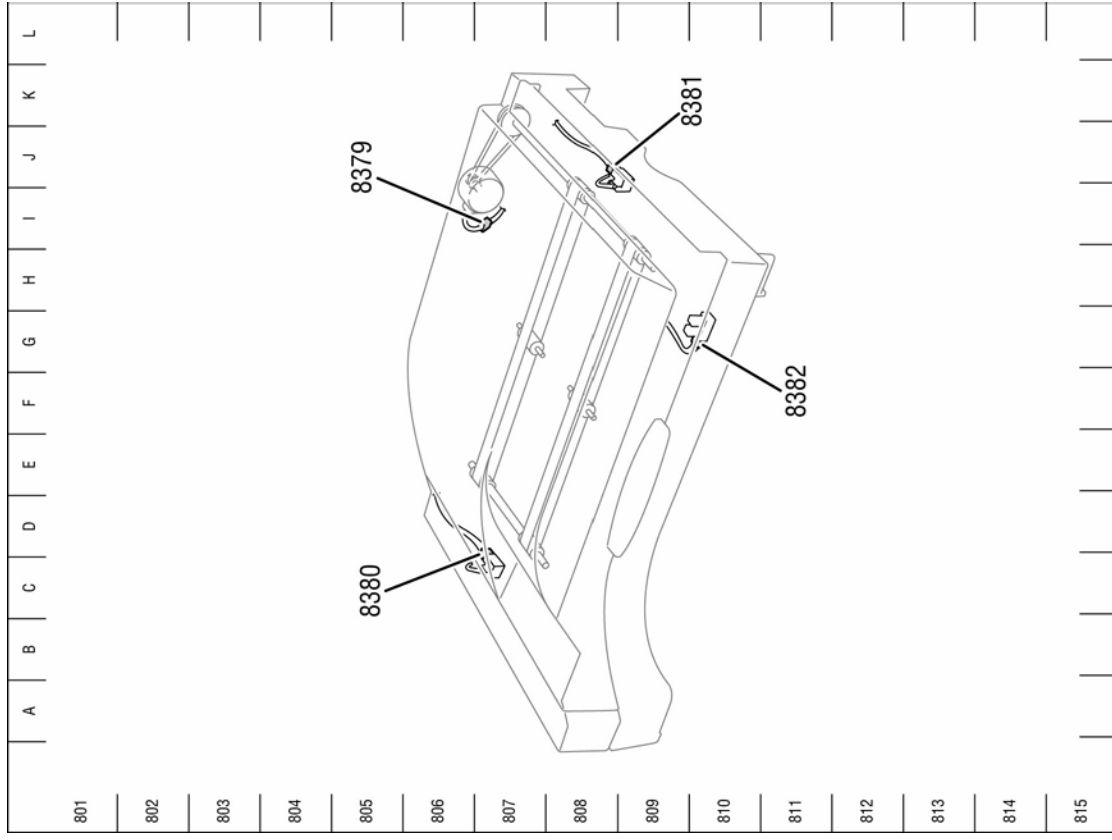
Table 1 Finisher Plug/Jack Location List

P/J	Map	Coordinates	Remarks
8330	Figure 2	J-821	Connects the Stack Height Sensor 2 and Main Sensor Harness.
8331	Figure 2	E-819	Connects the Stack Height Sensor 1 and Main Sensor Harness.
8334	Figure 6	C-880	Connects the Exit Motor and Main Drive Harness.
8335	Figure 6	D-881	Connects the Registration Motor and Main Drive Harness.
8336	Figure 5	D-866	Connects the Eject Motor and Main Drive Harness.
8338	Figure 5	E-868	Connects the Set Clamp Clutch (Z34) and Main Drive Harness.
8339	Figure 4	C-851	Connects the Eject Clamp Motor and Main Drive Harness.
8340	Figure 4	H-852	Connects the Sub Paddle Solenoid and Main Drive Harness.
8341	Figure 4	C-853	Connects the Transfer Gate Solenoid and Main Drive Harness.
8342	Figure 6	B-884	Connects the Transport Motor and Main Drive Harness.
8344	Figure 3	E-835	Connects the Punch Move Motor and Punch Drive Harness.
8345	Figure 3	C-837	Connects the Punch Motor and Punch Unit Harness.
8346	Figure 3	C-836	Connects the Punch Hole Select Sensor and Punch Unit Harness.
8347	Figure 3	C-836	Connects the Punch Front Sensor and Punch Unit Harness.
8348	Figure 3	C-836	Connects the Punch Home Sensor and Punch Unit Harness.
8349	Figure 3	C-837	Connects the Punch Motor Sensor and Punch Unit Harness.
8350	Figure 3	G-837	Connects the Side Regi Sensor 1 and Punch Unit Harness.
8351	Figure 3	G-837	Connects the Side Regi Sensor 2 and Punch Unit Harness.
8352	Figure 3	C-836	Connects the Punch Move Home Sensor and Punch Sensor Harness.
8353	Figure 3	C-838	Connects the Punch Box Set Sensor and Punch Box Set Sensor Harness.
8354	Figure 2	E-826	Connects the Staple Move Position Sensor and Staple Harness.
8356	Figure 2	F-826	Connects the Staple Head and Staple Harness.
8357	Figure 2	F-826	Connects the Staple Head and Staple Harness.
8358	Figure 2	F-826	Connects the Stapler Move Motor and Staple Harness.
8359	Figure 5	G-869	Connects the Compiler Tray No Paper Sensor and Compiler Harness.
8360	Figure 5	I-869	Connects the Front Tamper Home Sensor and Compiler Harness.

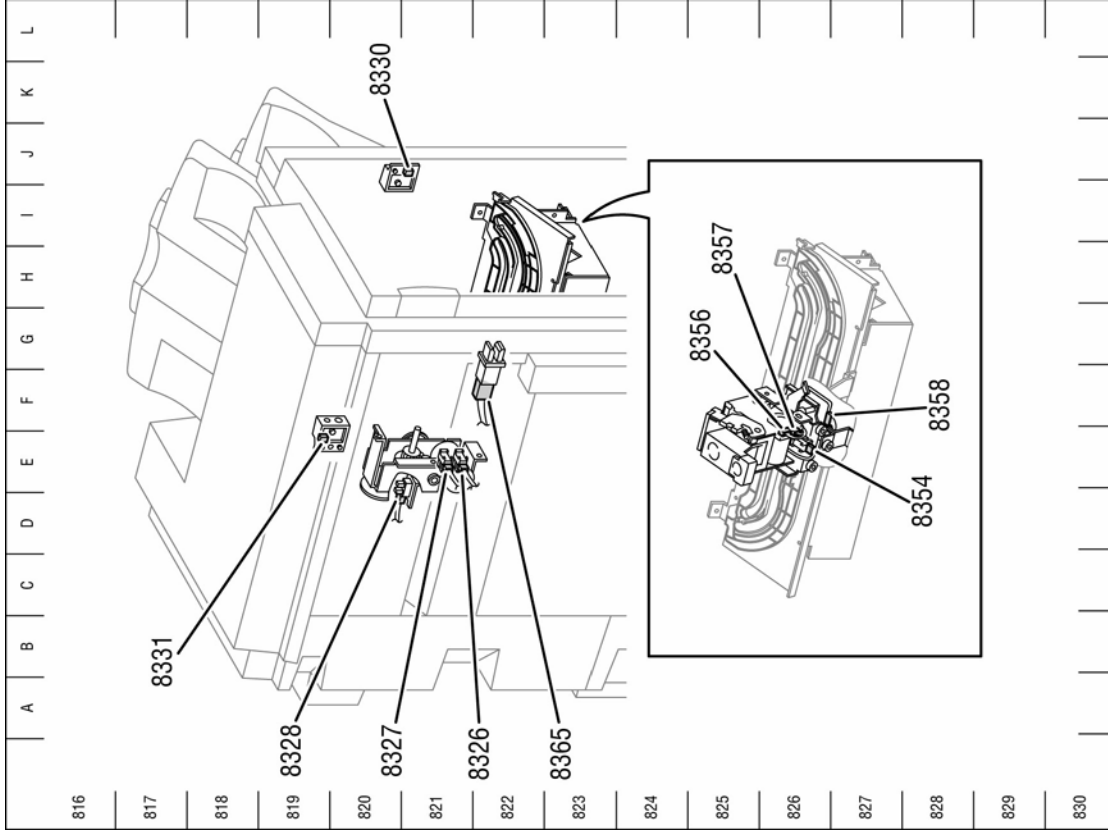
Table 1 Finisher Plug/Jack Location List

P/J	Map	Coordinates	Remarks
8361	Figure 5	E-868	Connects the Rear Tamper Home Sensor and Compiler Harness.
8362	Figure 5	F-868	Connects the Rear Tamper Motor and Compiler Harness.
8363	Figure 5	G-869	Connects the Front Tamper Motor and Compiler Harness.
8364	Figure 4	H-852	Connects the Door H Interlock Switch and Interlock Harness.
8365	Figure 2	F-822	Connects the Door G Interlock Switch and Interlock Harness.
8371	Figure 7	I-898	Connects the Horizontal Transport PWB and Horizontal Transport Harness.
8372	Figure 7	I-898	Connects the Horizontal Transport PWB and Horizontal Transport 1 Harness.
8373	Figure 7	I-898	Not connected.
8376	Figure 7	E-895	Connects the Finisher Main PWB and Gate Sensor 1 Harness.
8379	Figure 1	I-807	Connects the Horizontal Transport Entrance Sensor and Horizontal Transport Harness.
8380	Figure 1	C-807	Connects the Horizontal Transport Motor and Horizontal Transport Harness.
8381	Figure 1	J-809	Connects the Horizontal Transport Exit Sensor and Horizontal Transport Harness.
8382	Figure 1	G-810	Connects the Door F Interlock Sensor and Horizontal Transport Harness.
8389	Figure 7	F-892	Not connected.
8392	Figure 6	F-882	Connects the Buffer Path Sensor and Buffer Path Sensor Harness.
8394	Figure 4	B-853	Connects the Buffer Gate Solenoid and Main Drive Harness.
8394	Figure 7	J-898	Connects the Horizontal Transport PWB and Horizontal Transport.
8432	Figure 6	E-882	Connects the Gate Sensor and Gate Sensor Harness.
8452		C-839	Not connected.
8500	Figure 7	I-898	Not connected.

**Finisher Plug/Jack Locator Diagrams**



**Figure 1 Horizontal Transport**



**Figure 2 Stapler and Door G Interlock**

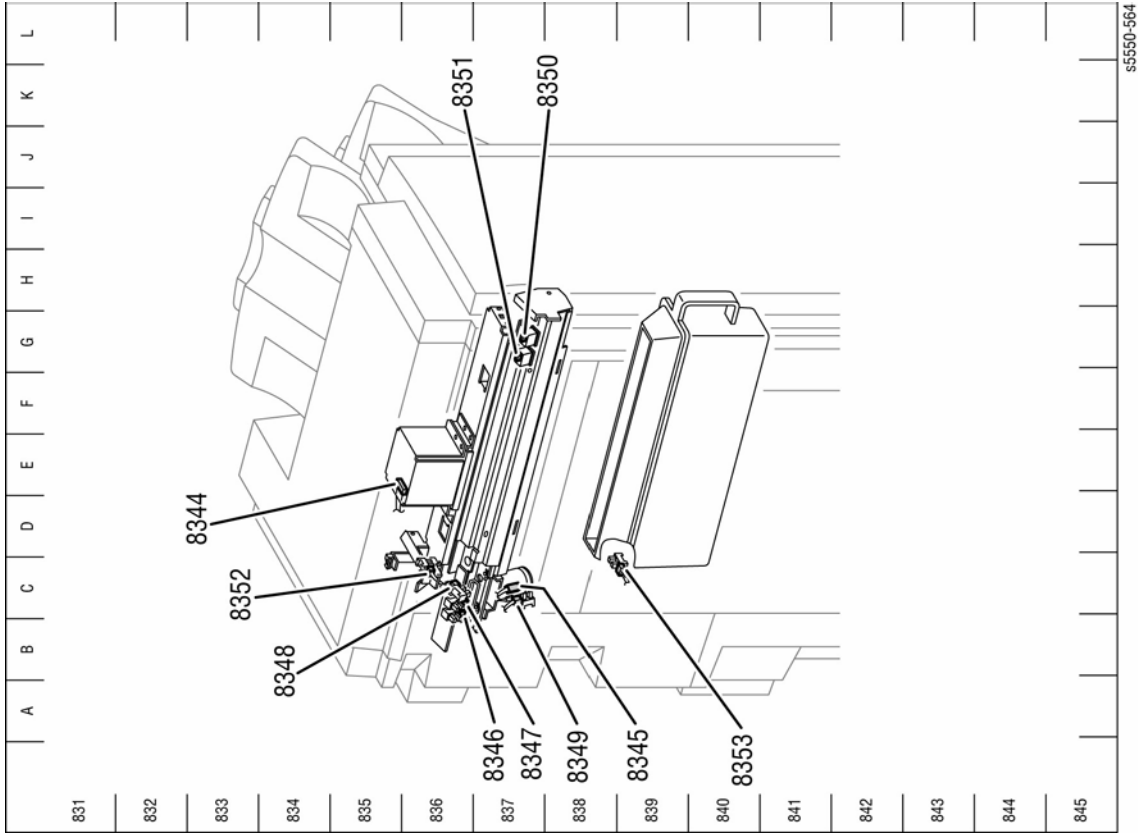


Figure 3 Punch and Punch Box

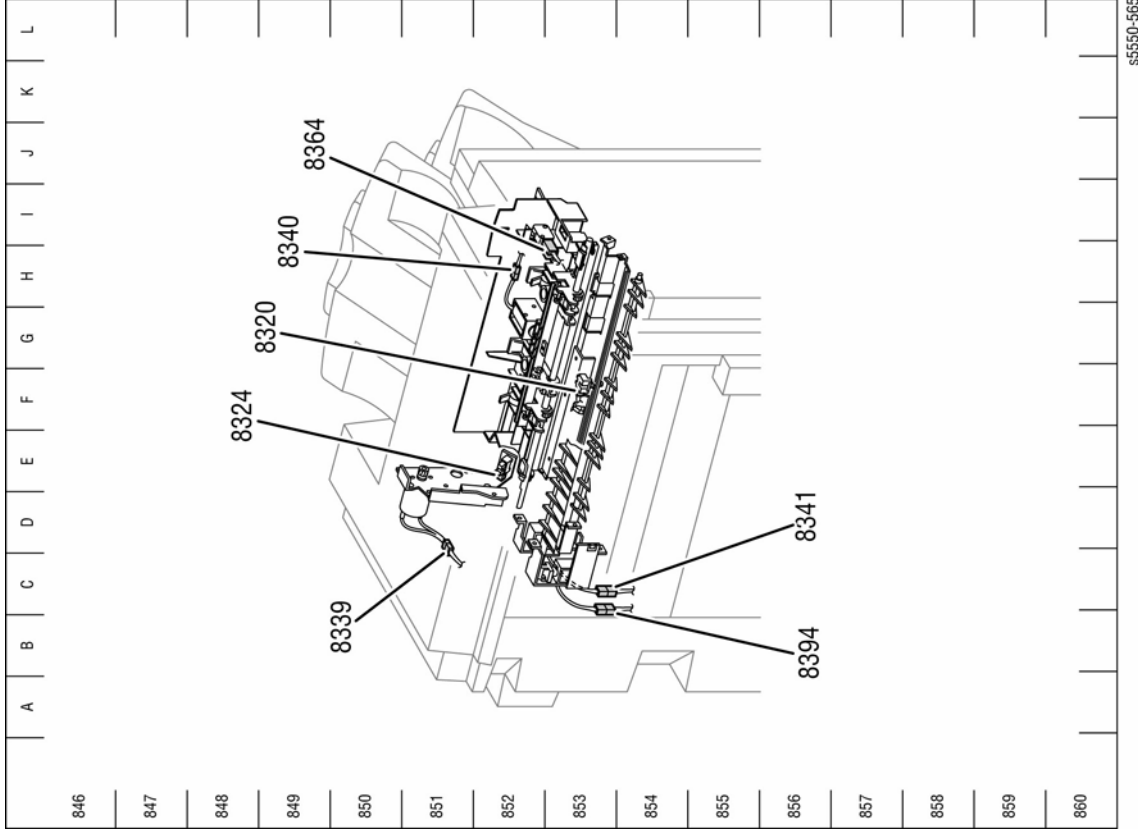


Figure 4 Input Drive



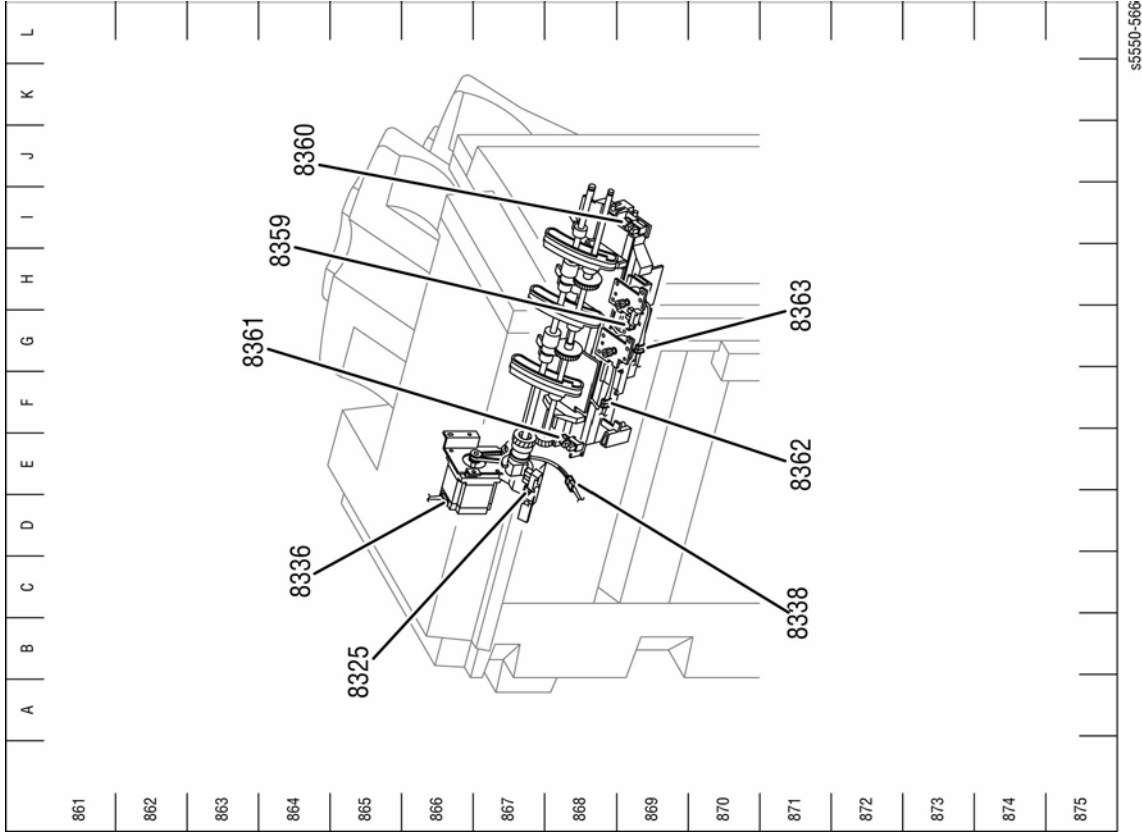


Figure 5 Compiler

s5550-566

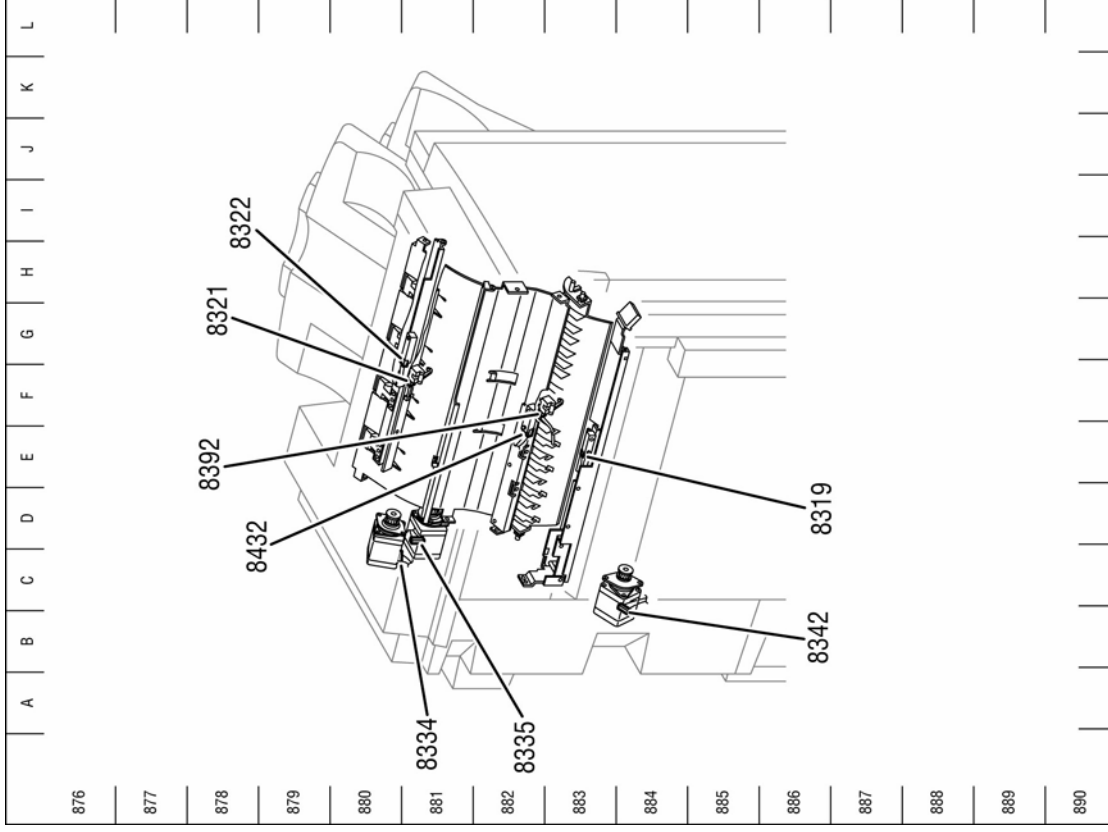


Figure 6 Upper Exit

s5550-567

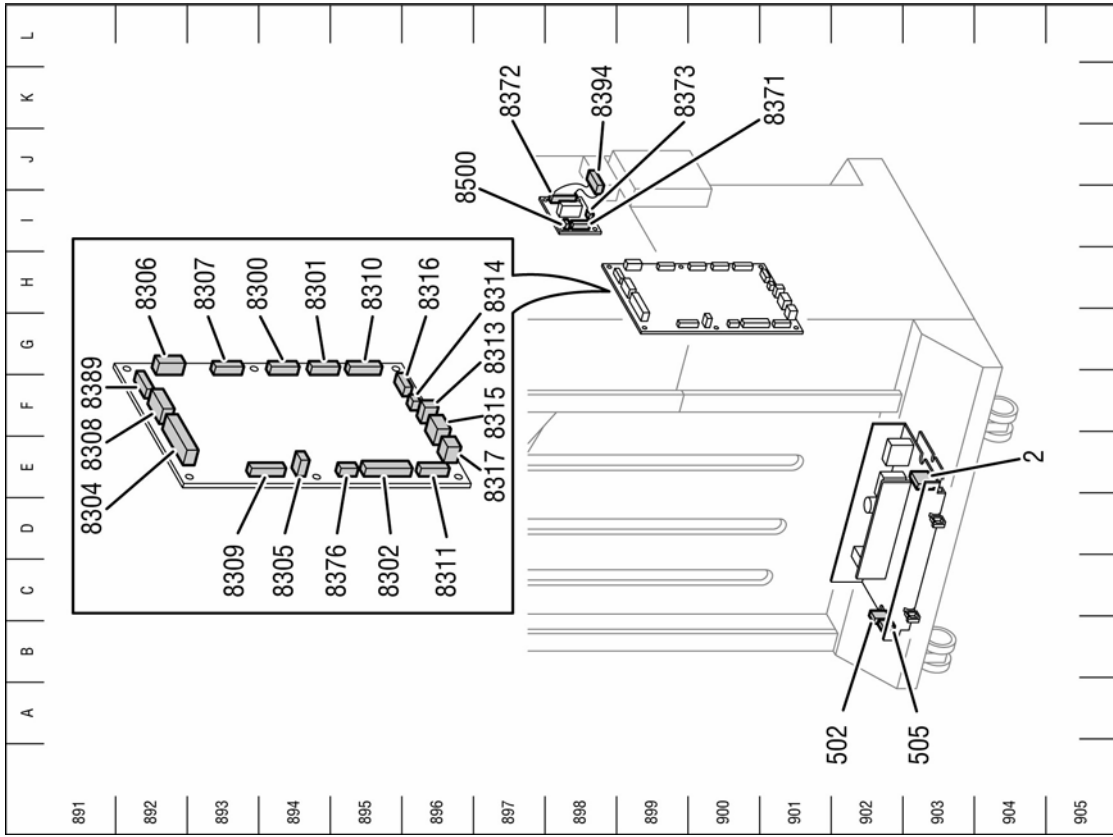


Figure 7 Finisher Main PWB, H-X'Port PWB and LVPS

# Print Engine Wiring Diagrams

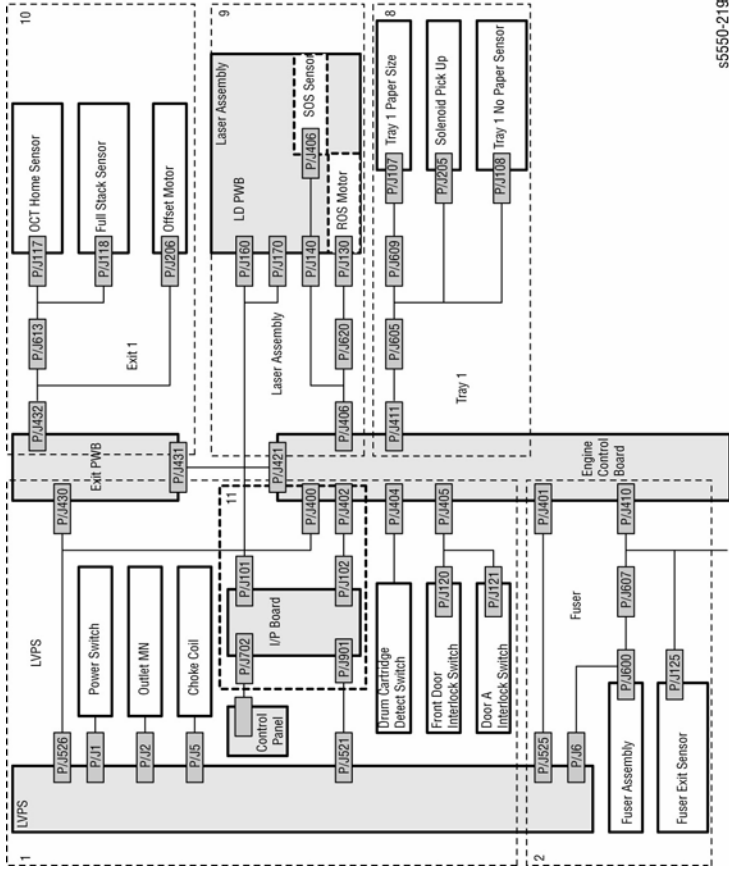


Figure 1 5550 Print Engine General Wiring (1 of 2)

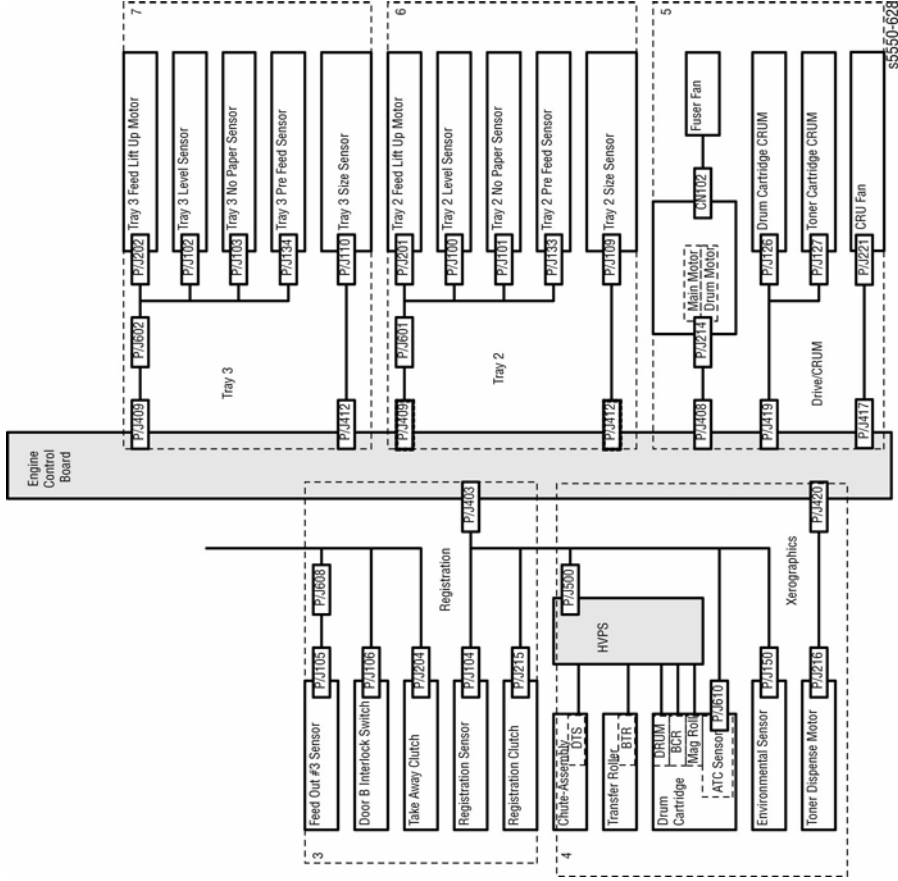


Figure 2 5550 Print Engine General Wiring (2 of 2)

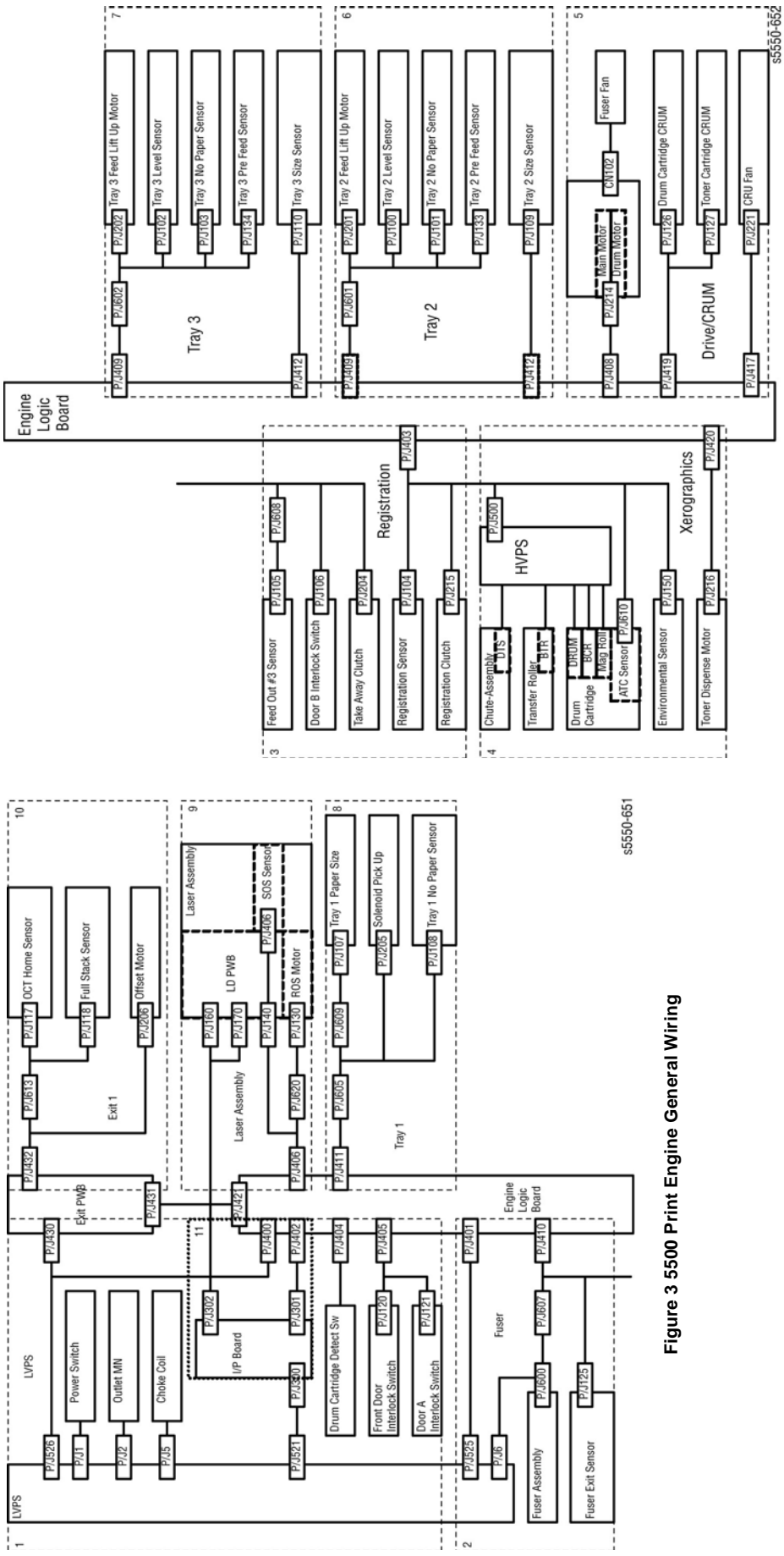
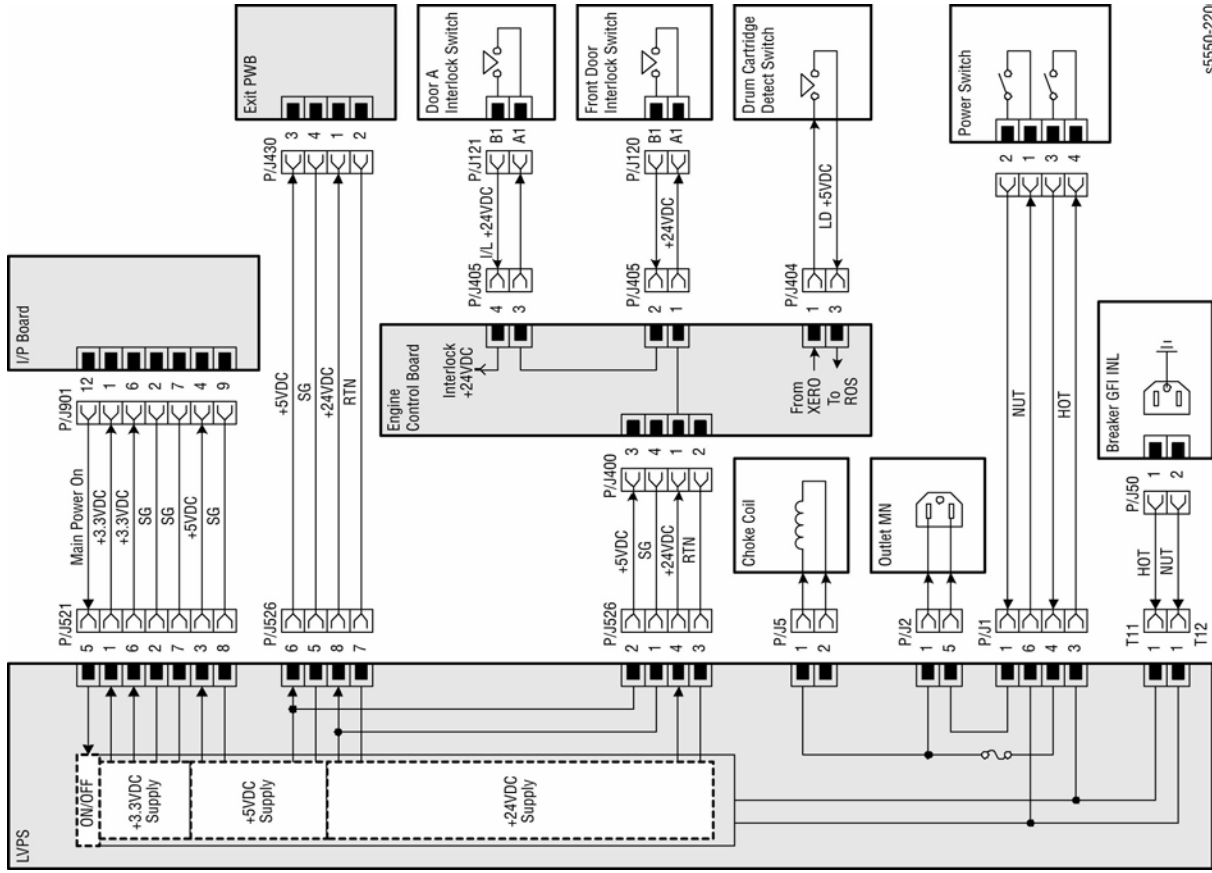


Figure 3 5500 Print Engine General Wiring

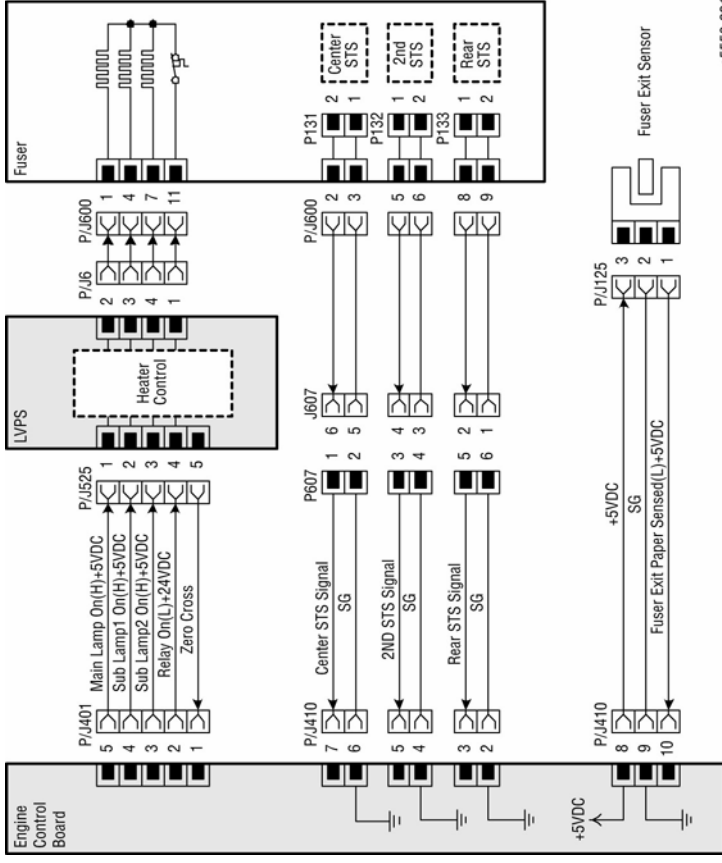
s5550-651

Figure 4 5500 Print Engine General Wiring



s5550-220

Figure 5 LVPS



s5550-221

Figure 6 Fuser

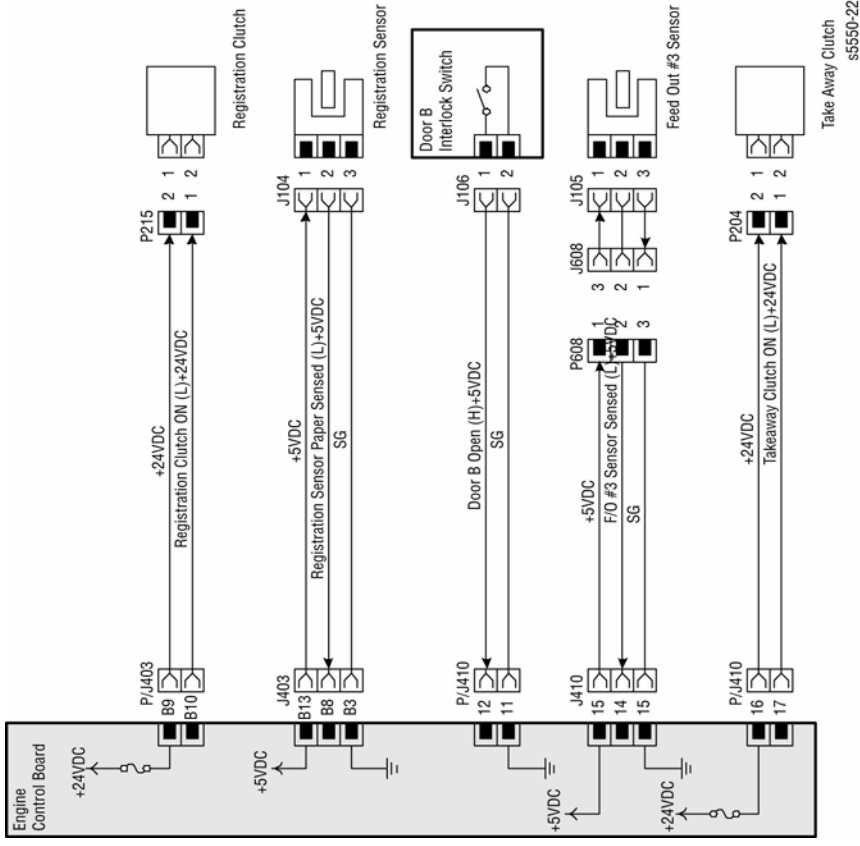


Figure 7 Registration Transport

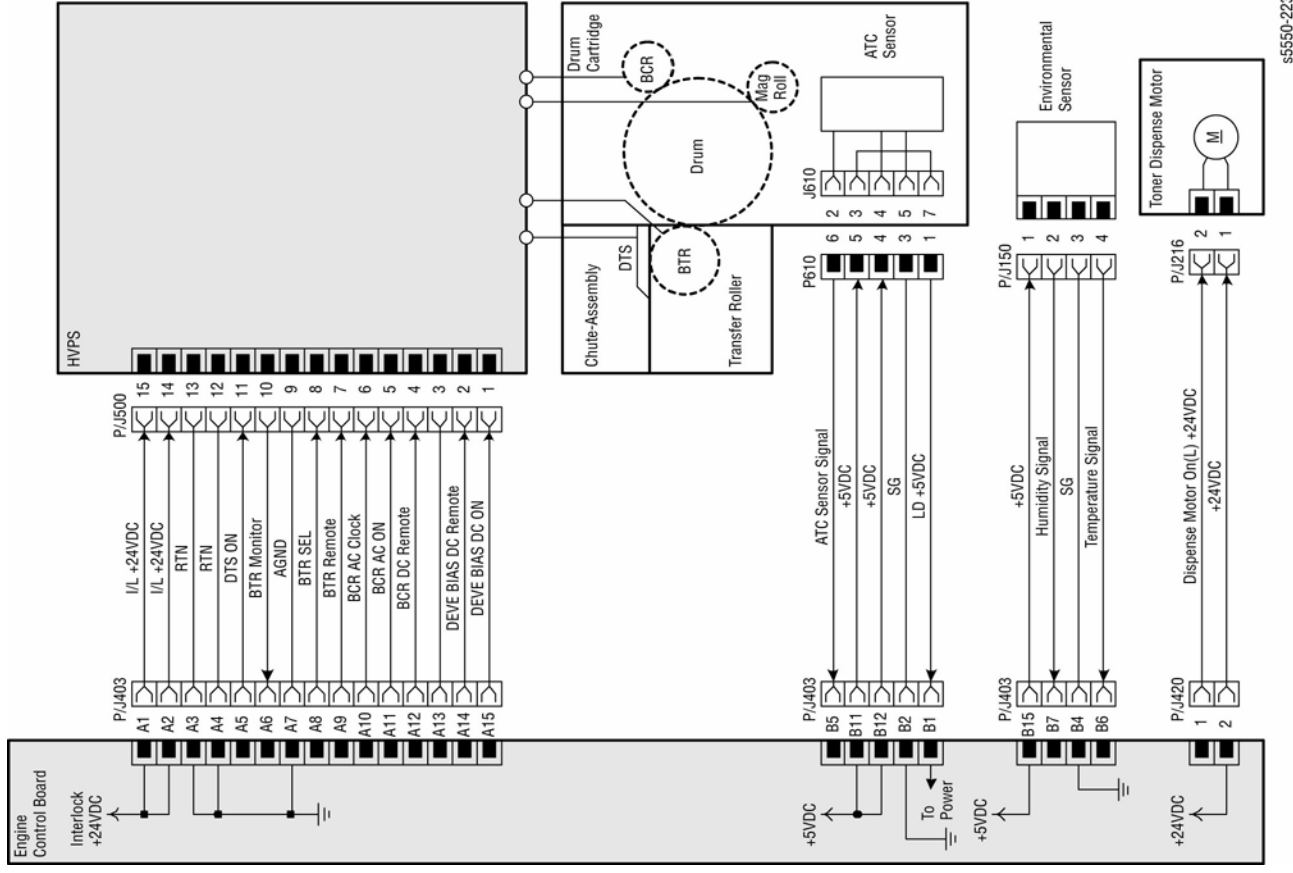


Figure 8 Xerographics

s5550-223

s5550-222

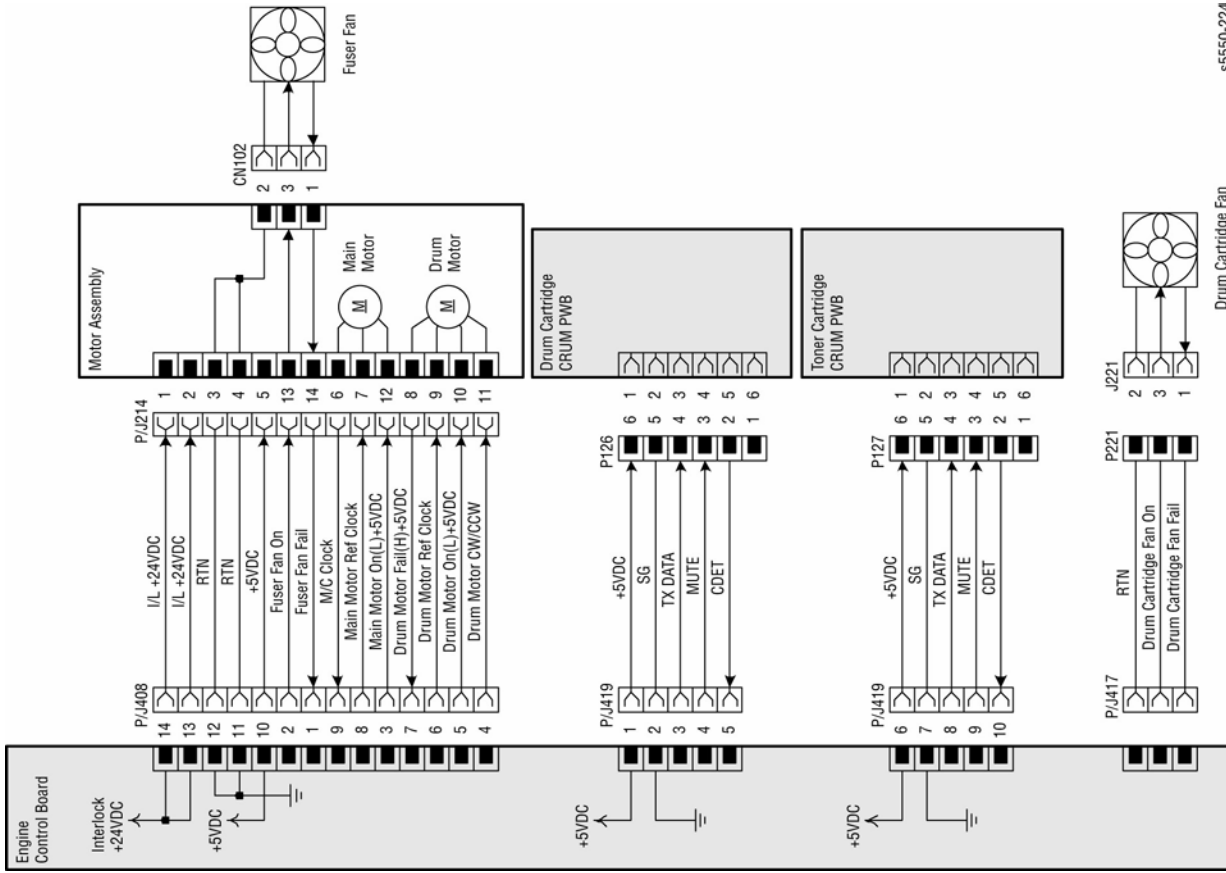


Figure 9 Drive/CRUM

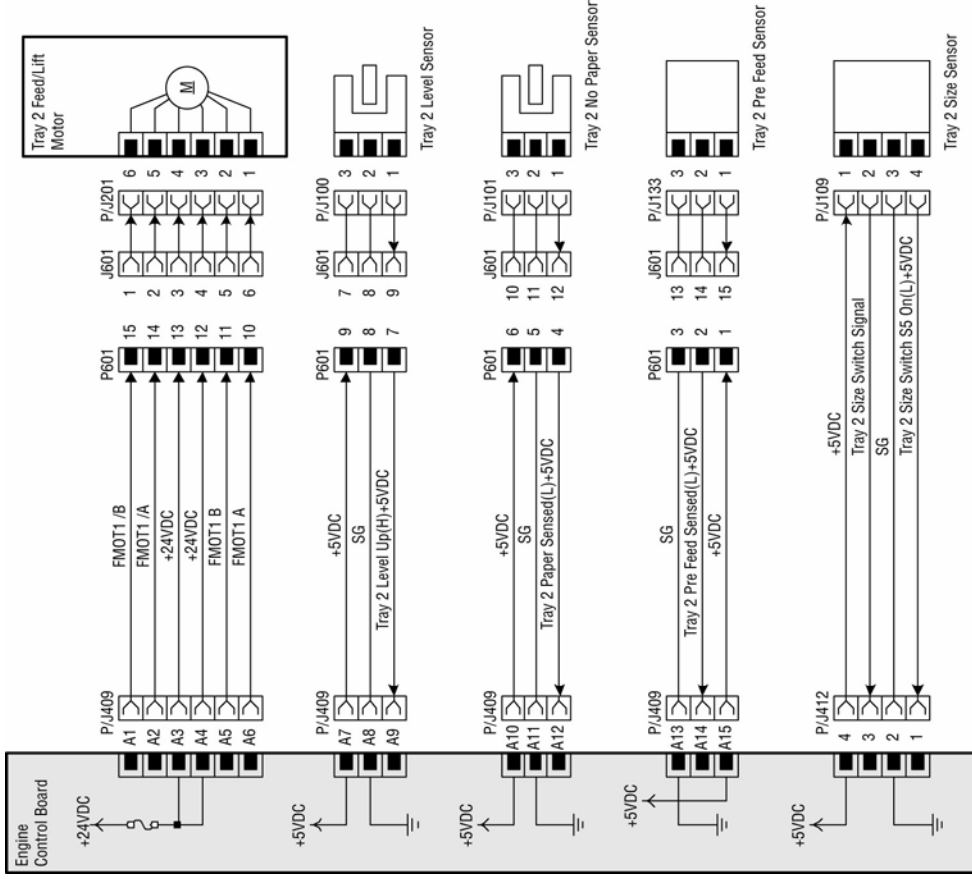


Figure 10 Tray 2

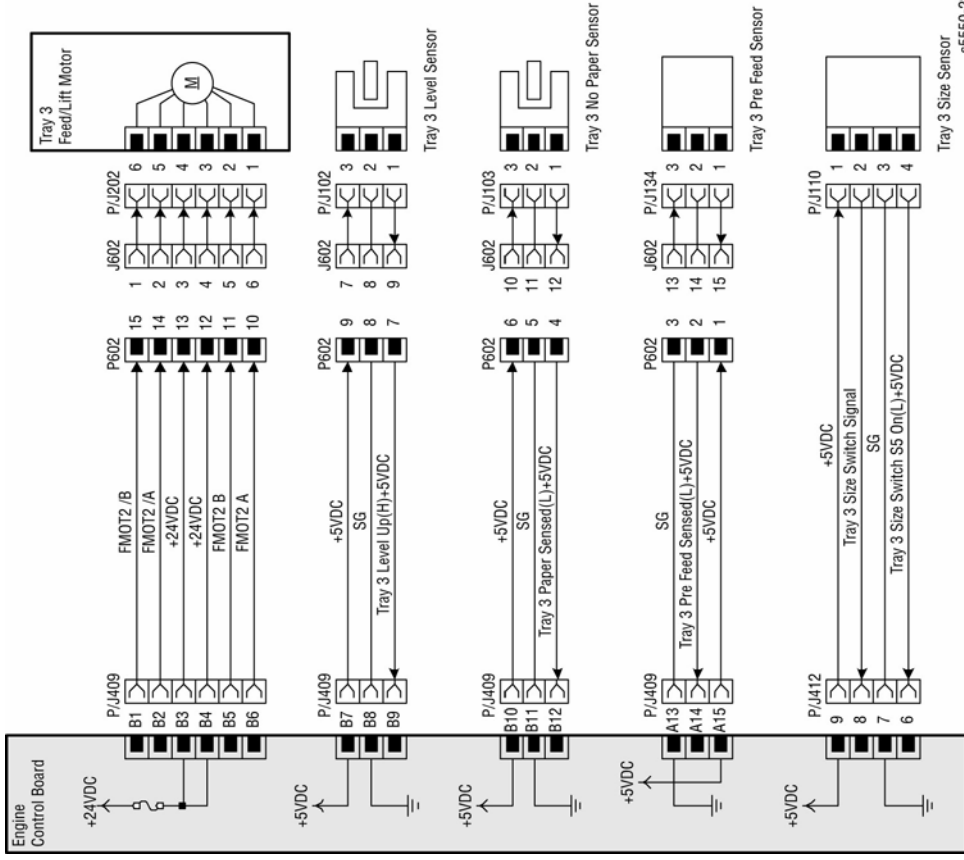


Figure 11 Tray 3

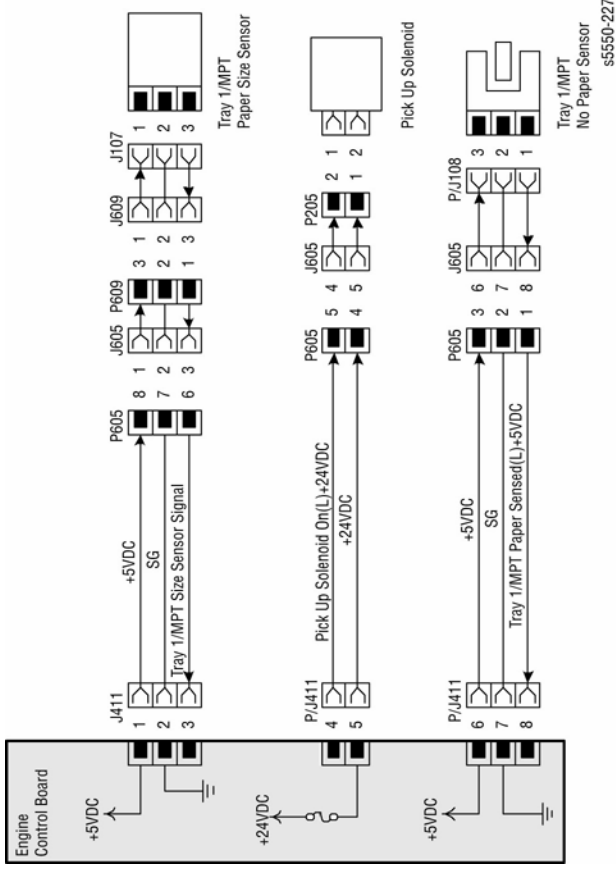


Figure 12 Tray 1/MPT



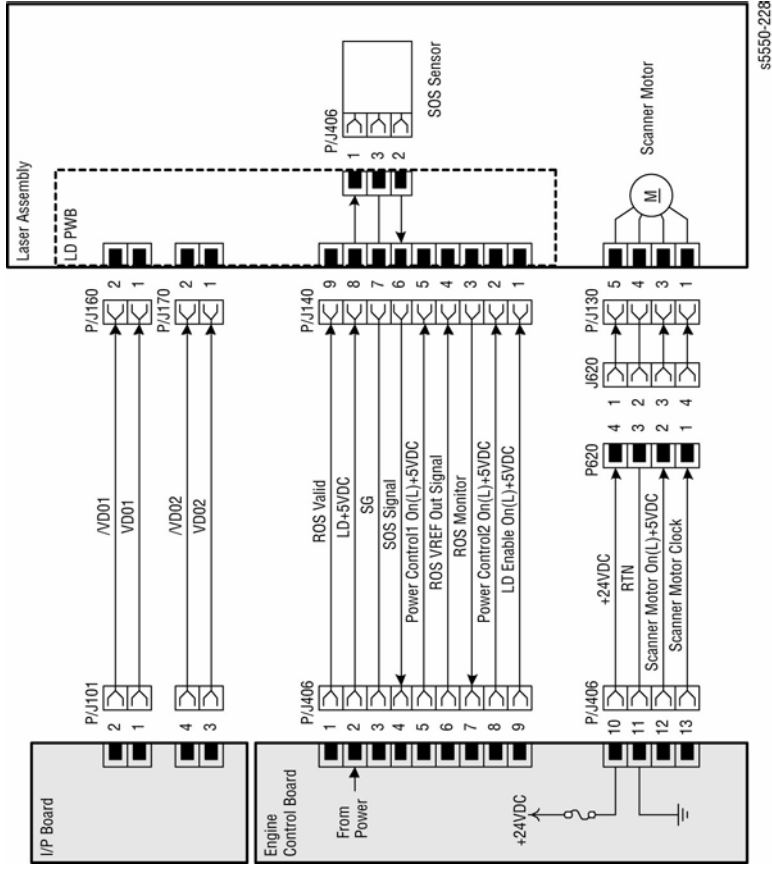


Figure 13 Laser Assembly

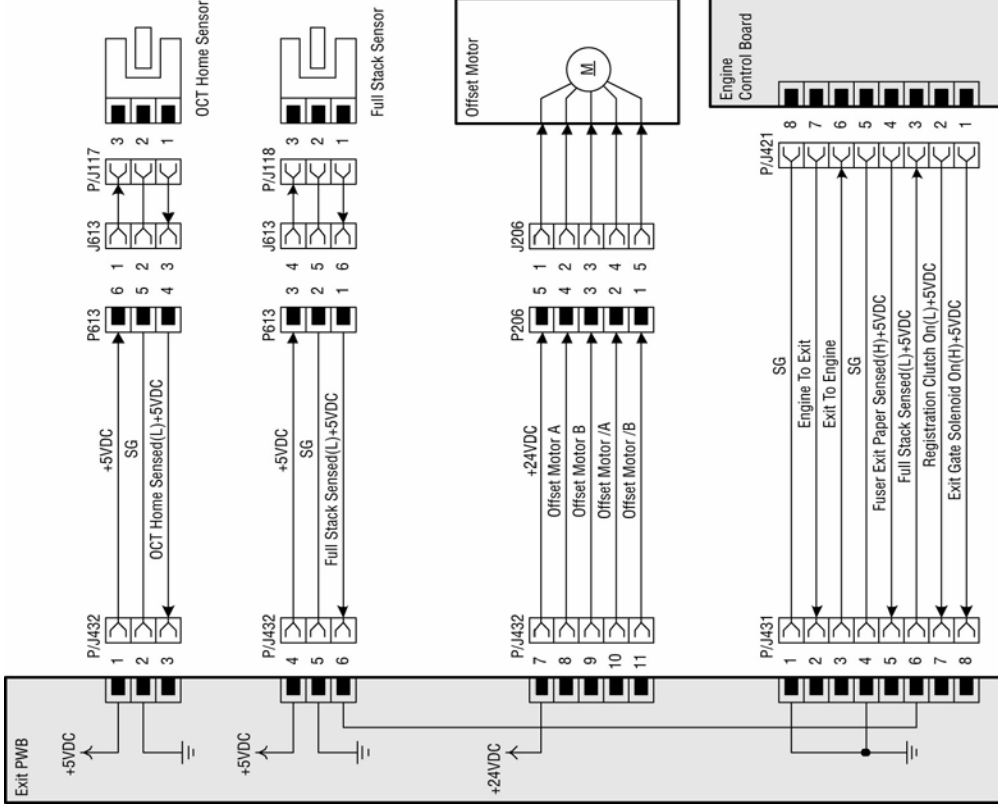


Figure 14 Exit 1

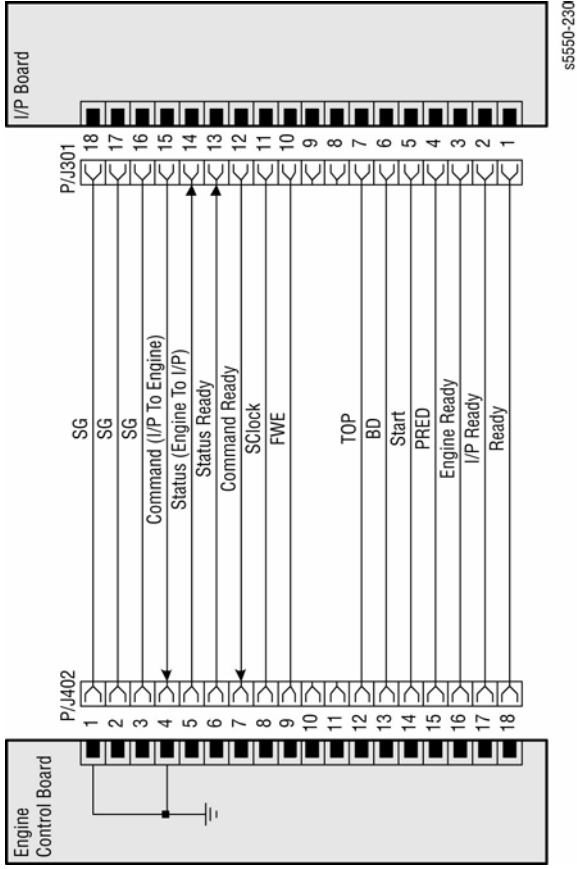


Figure 15 Engine Control and Image Processor Board Interface

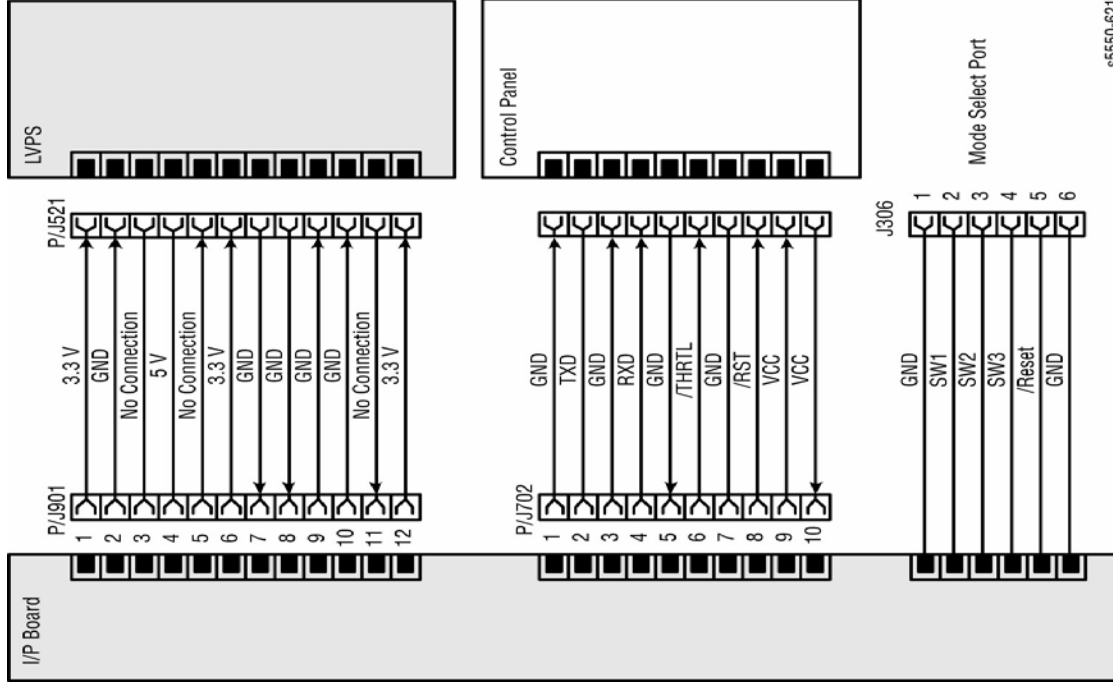


Figure 16 5550 Image Processor Board (1 of 2)

s5550-621

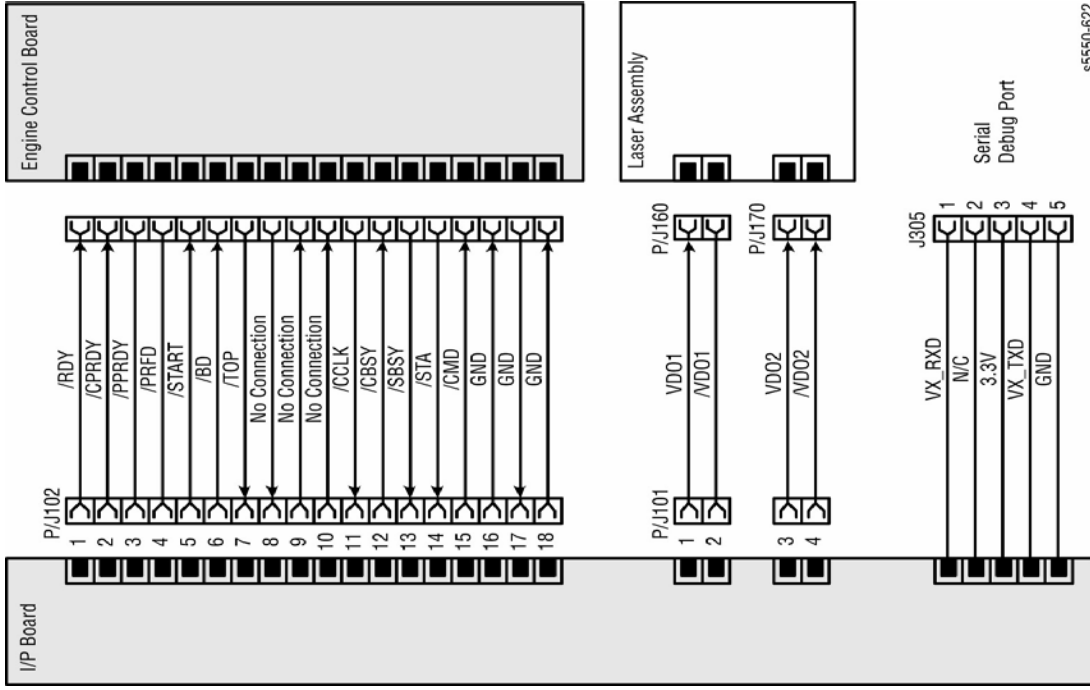


Figure 17 5550 Image Processor Board (2 of 2)



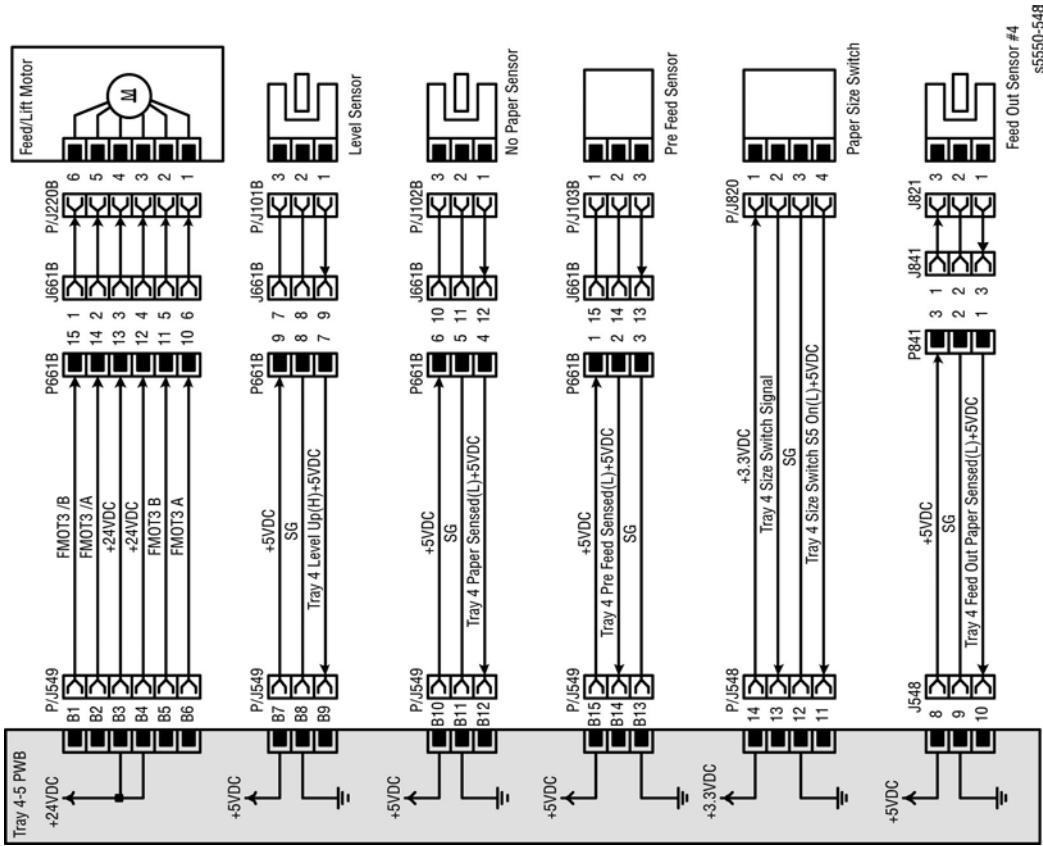


Figure 3 Tray 4

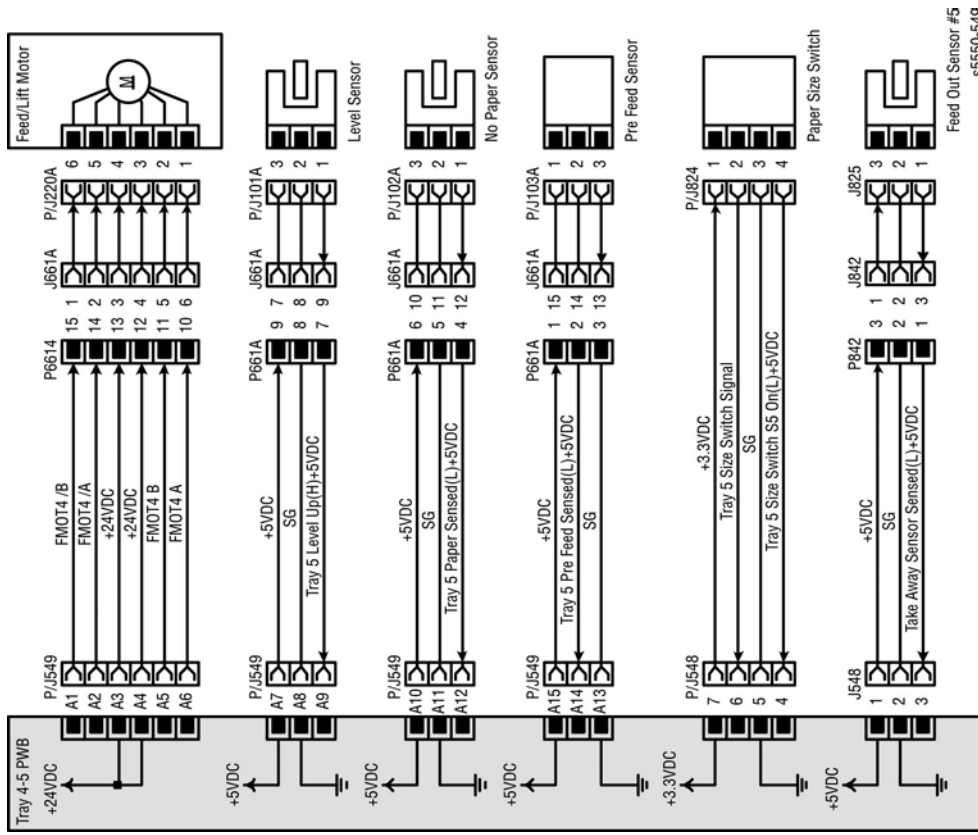


Figure 4 Tray 5

# Duplex Unit Wiring Diagrams

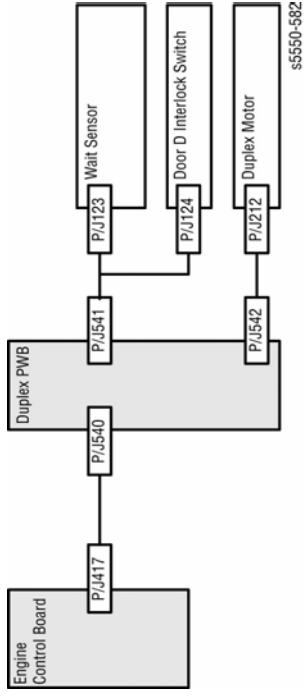


Figure 1 Duplex Unit

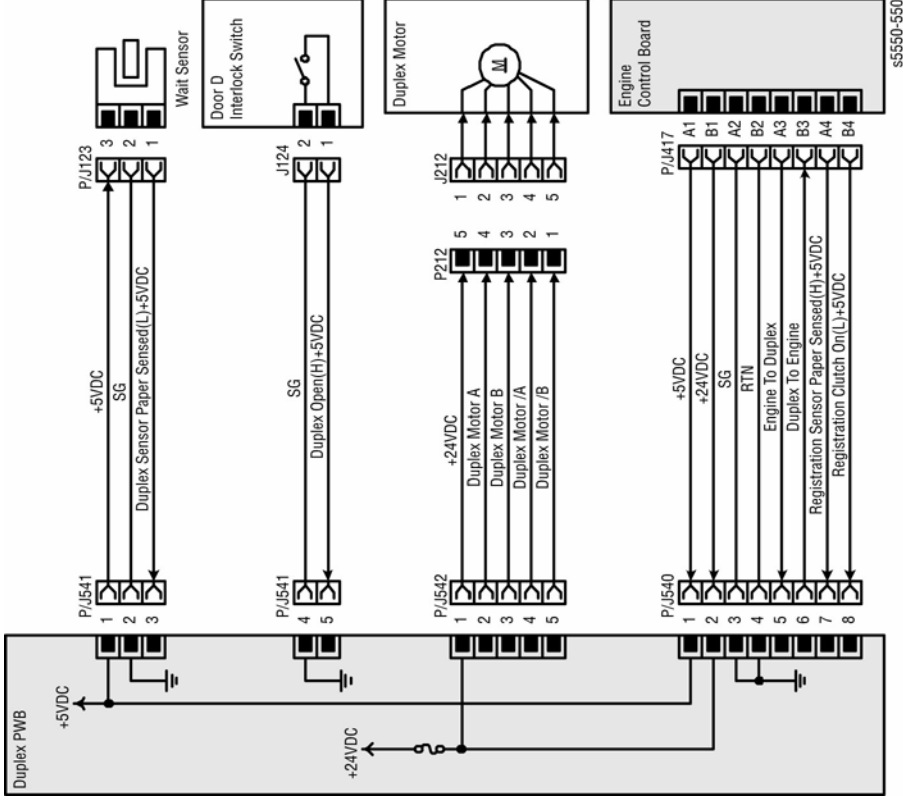


Figure 2 Duplex Unit

# Exit 2 Wiring Diagrams

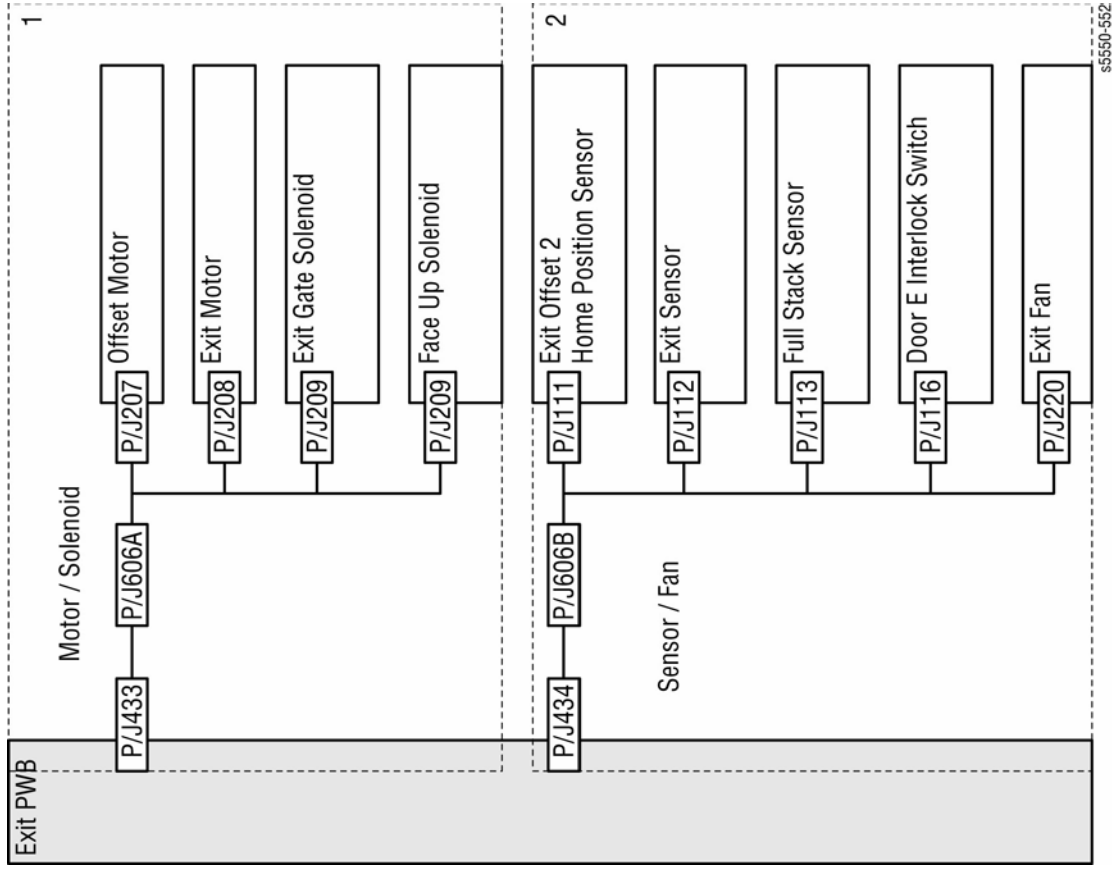


Figure 1 General Wiring

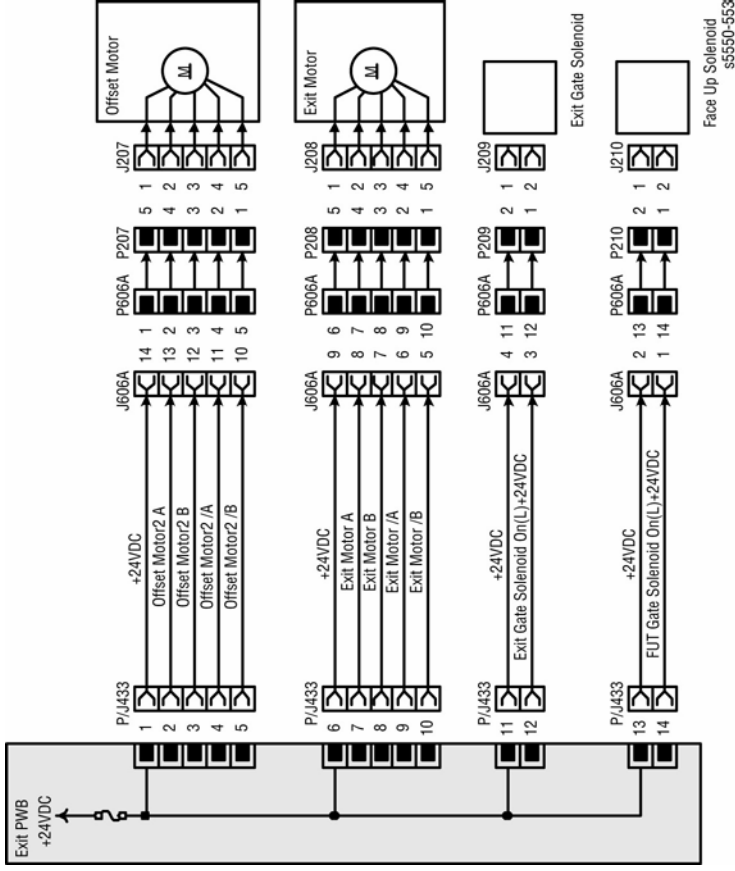


Figure 2 Motor/Solenoid

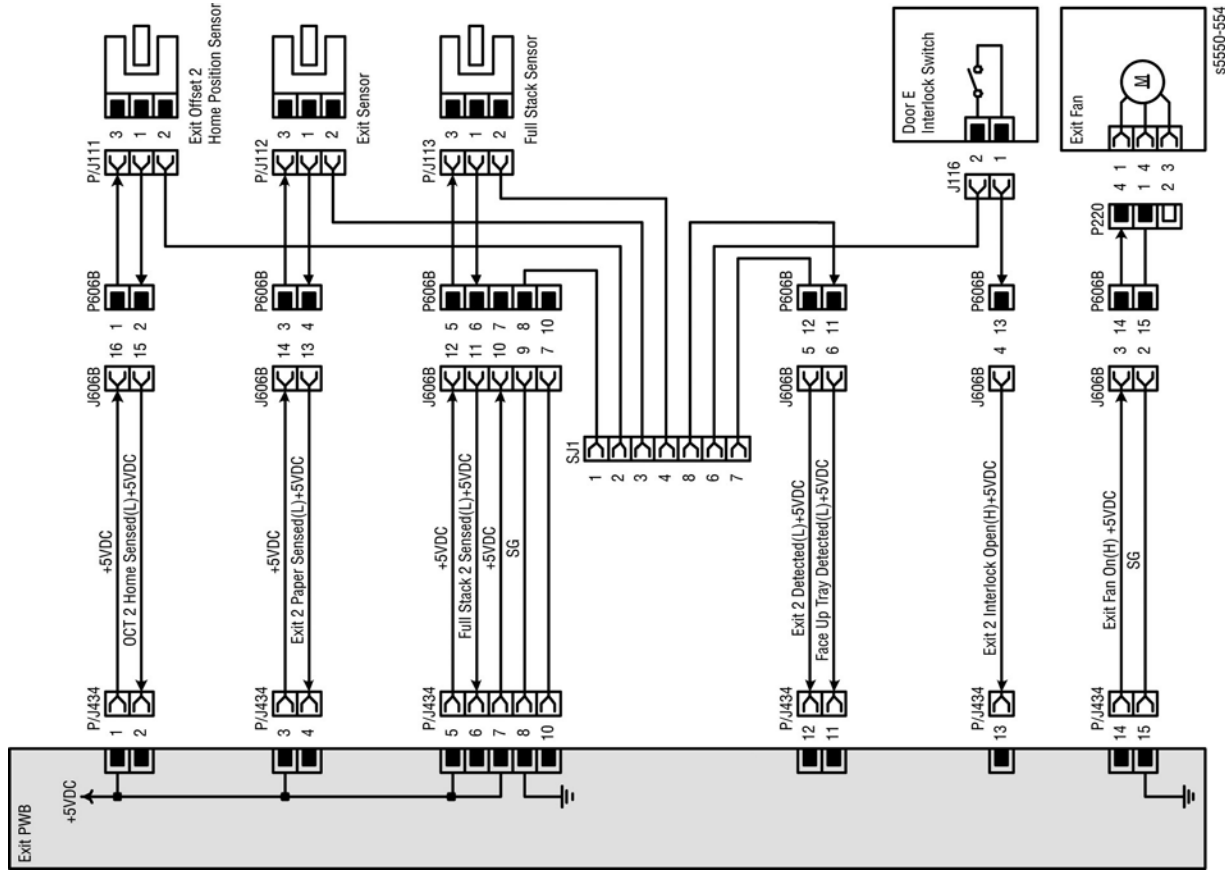


Figure 3 Exit 2 Sensor/Fan



# Tray 6 Wiring Diagrams

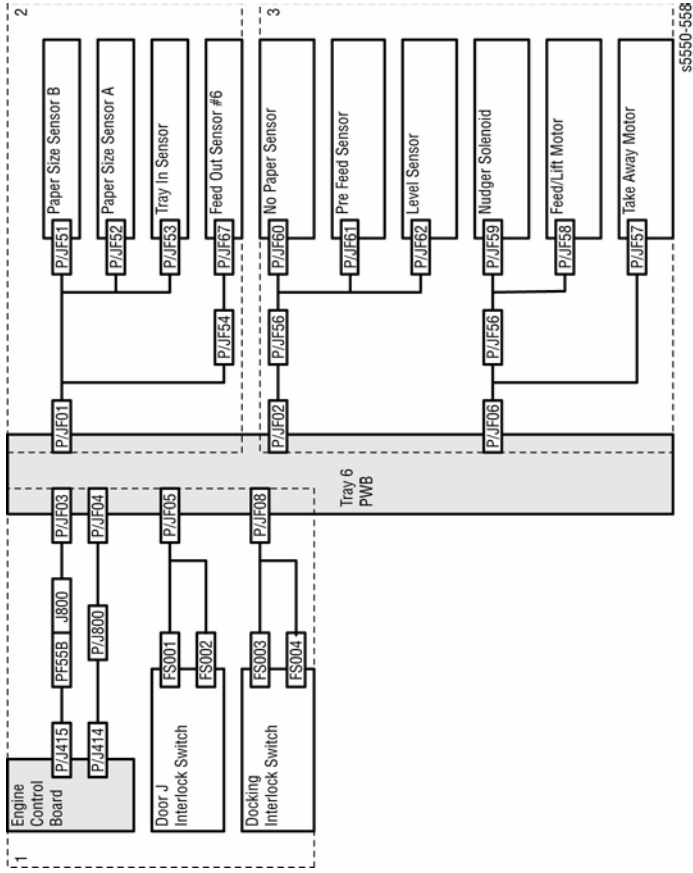


Figure 1 General Wiring

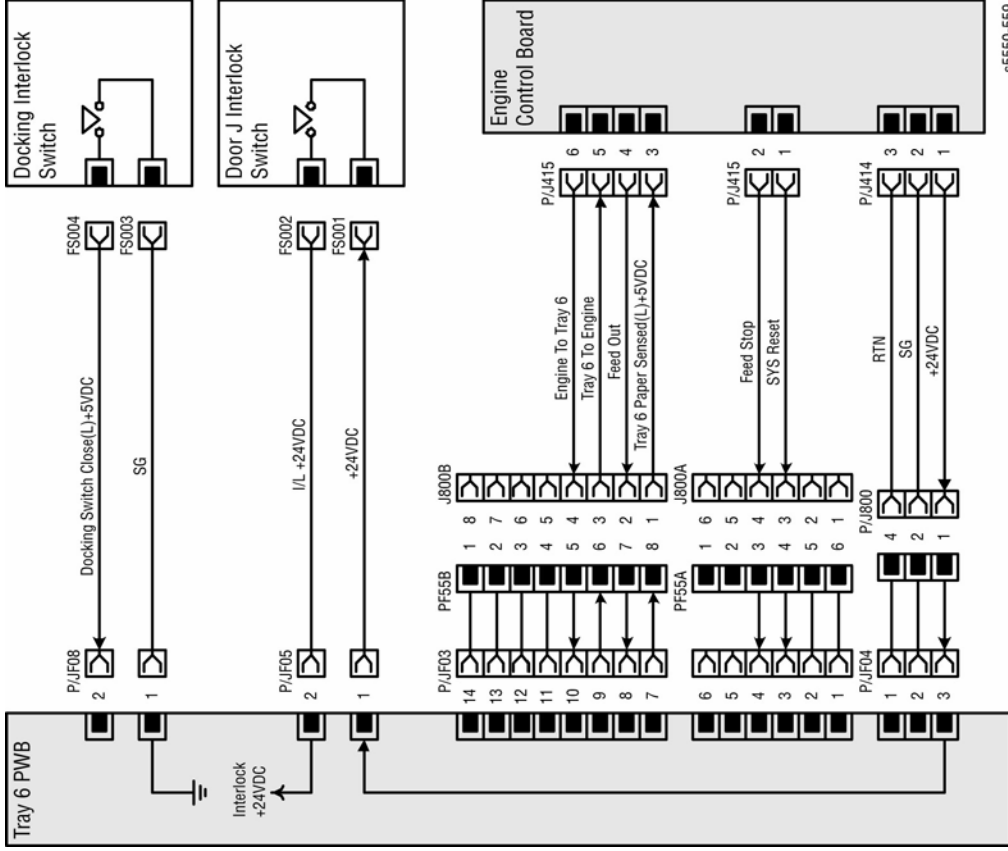


Figure 2 Tray 6 Interface

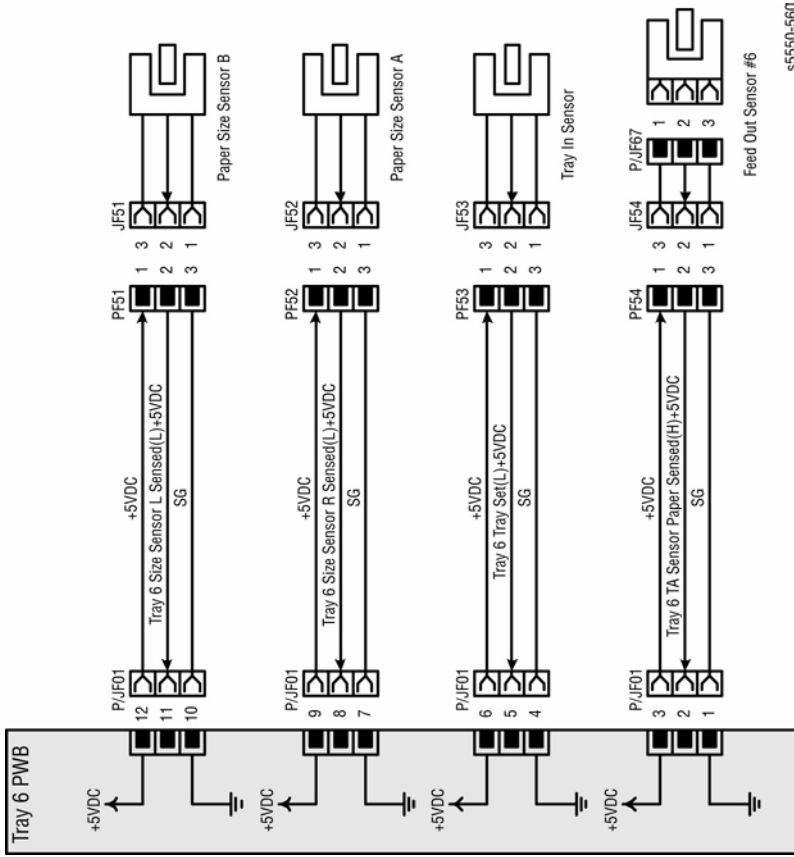


Figure 3 Tray 6 Sensors

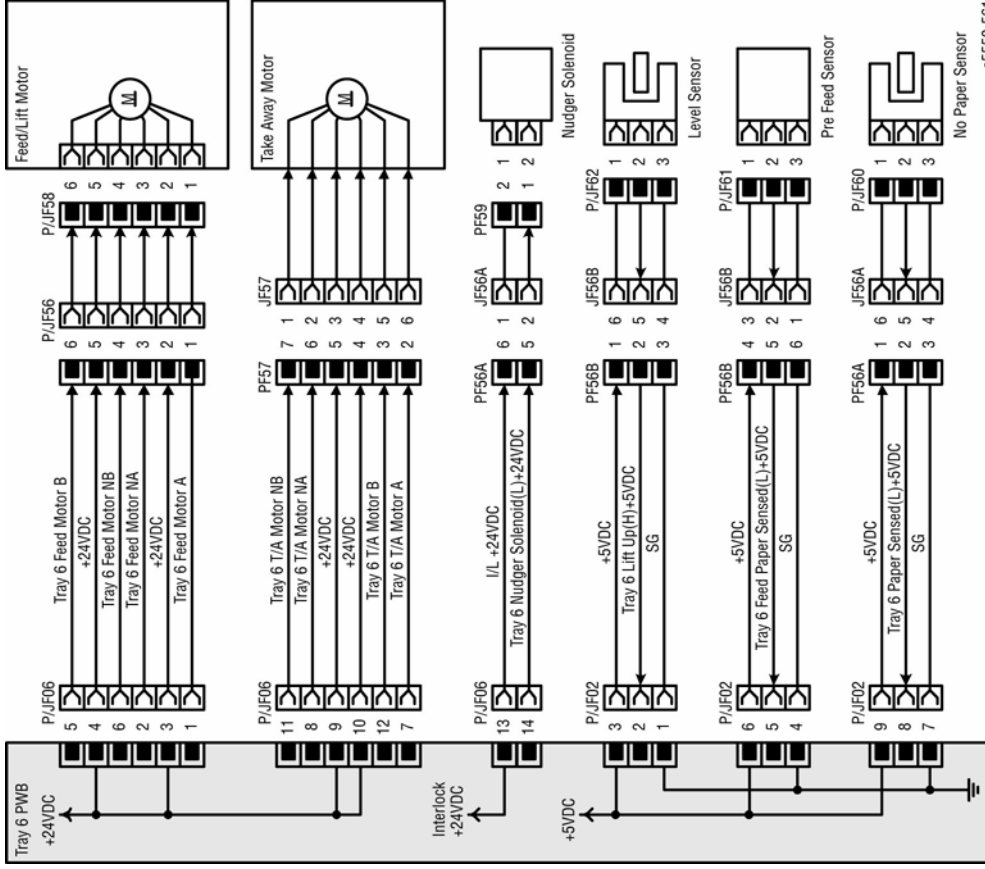


Figure 4 Tray 6 Drive

# Finisher Wiring Diagrams

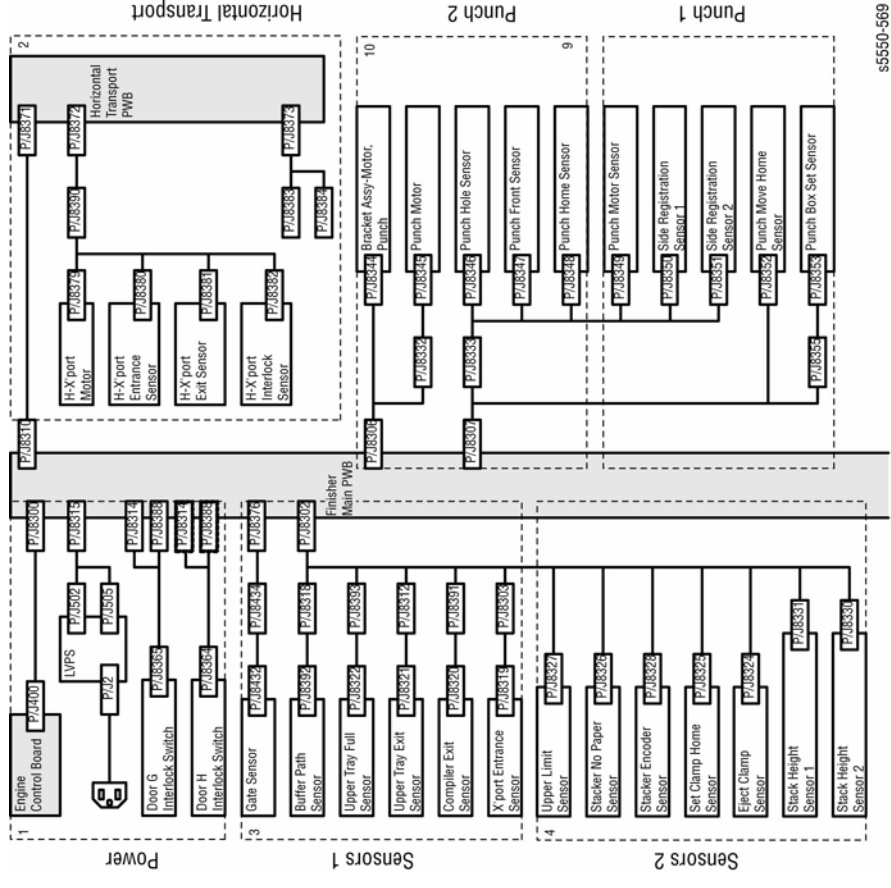


Figure 1 General Wiring (1 of 2)

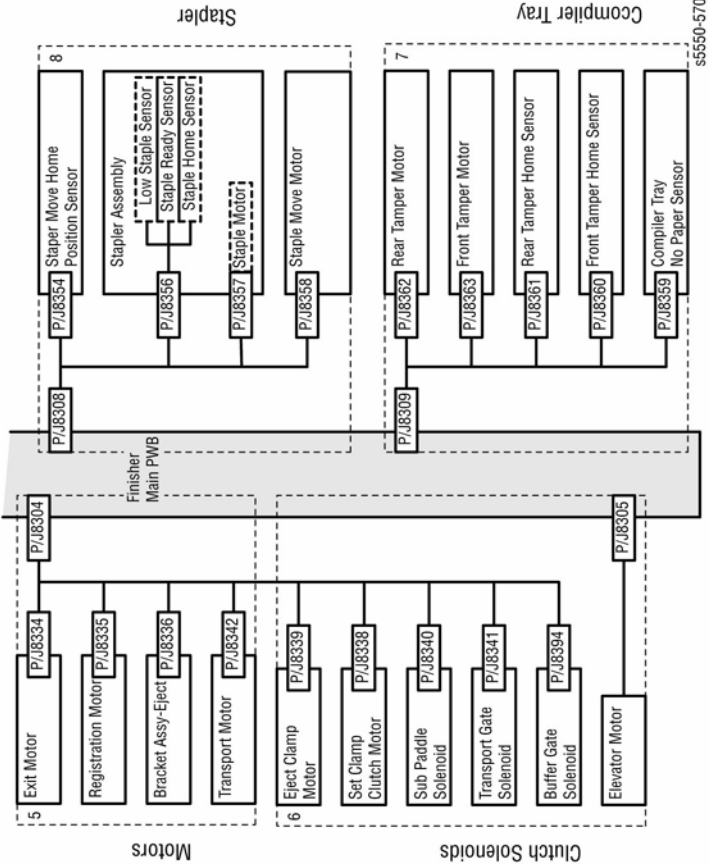


Figure 2 General Wiring (2 of 2)

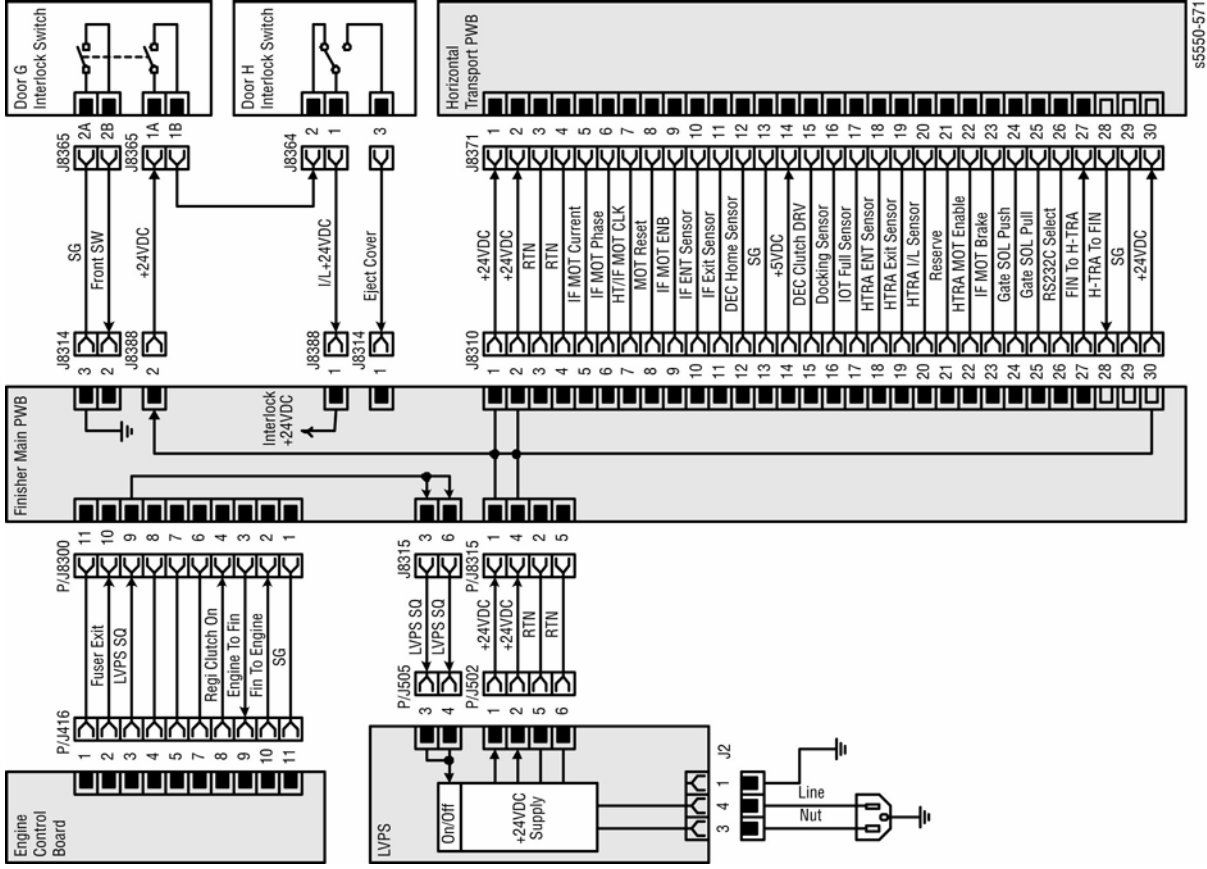


Figure 3 Power

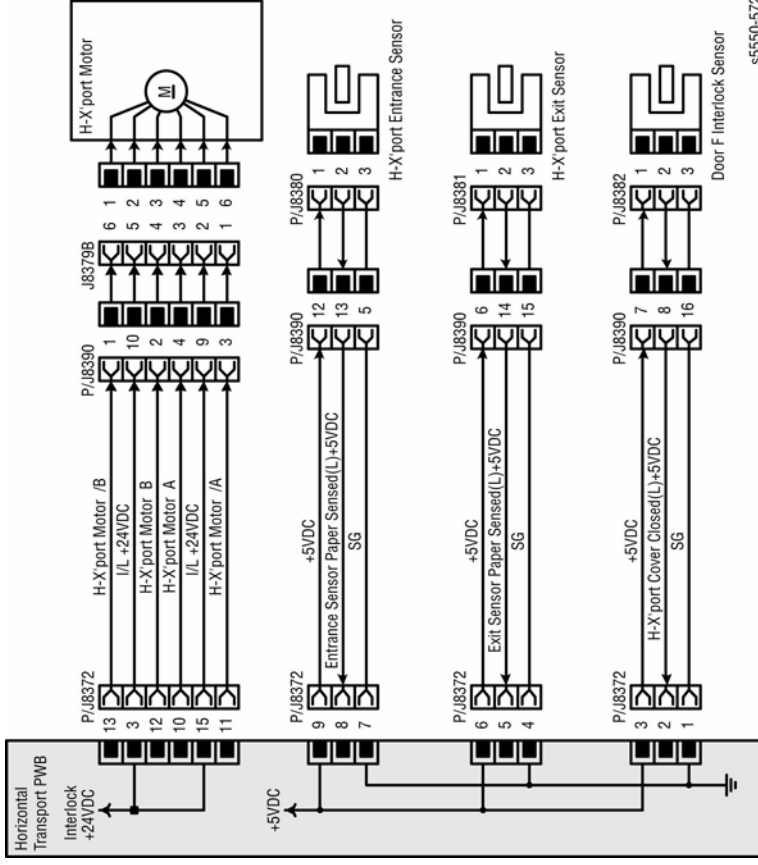


Figure 4 Horizontal Transport

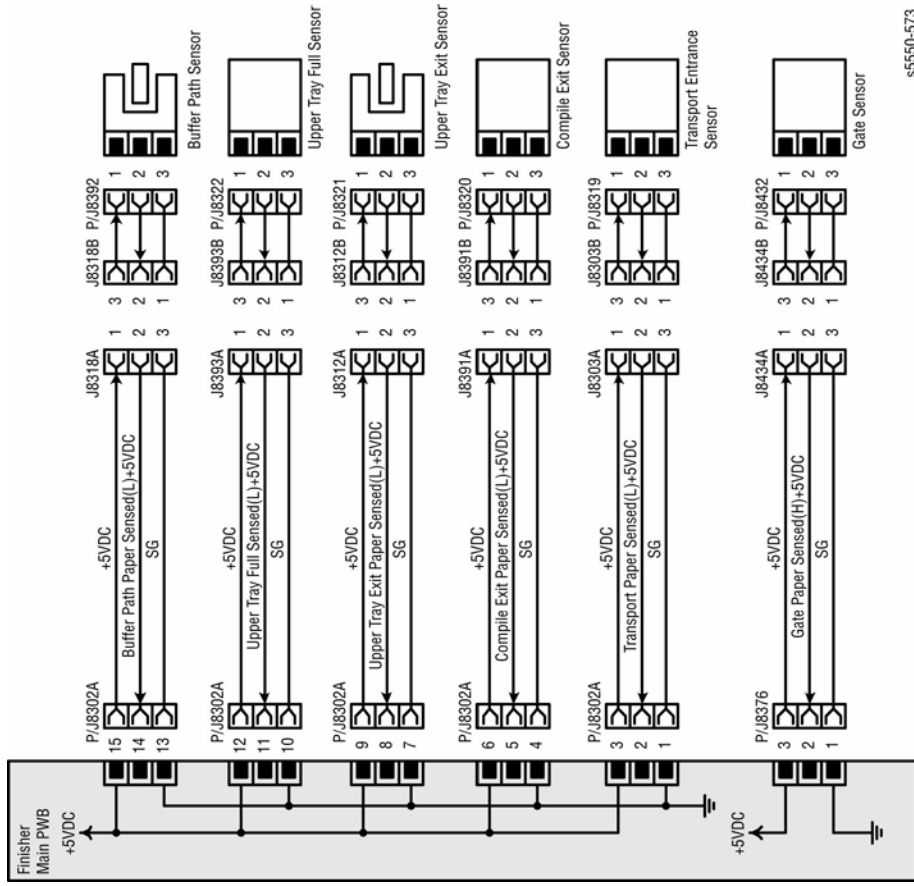


Figure 5 Sensors (1 of 2)

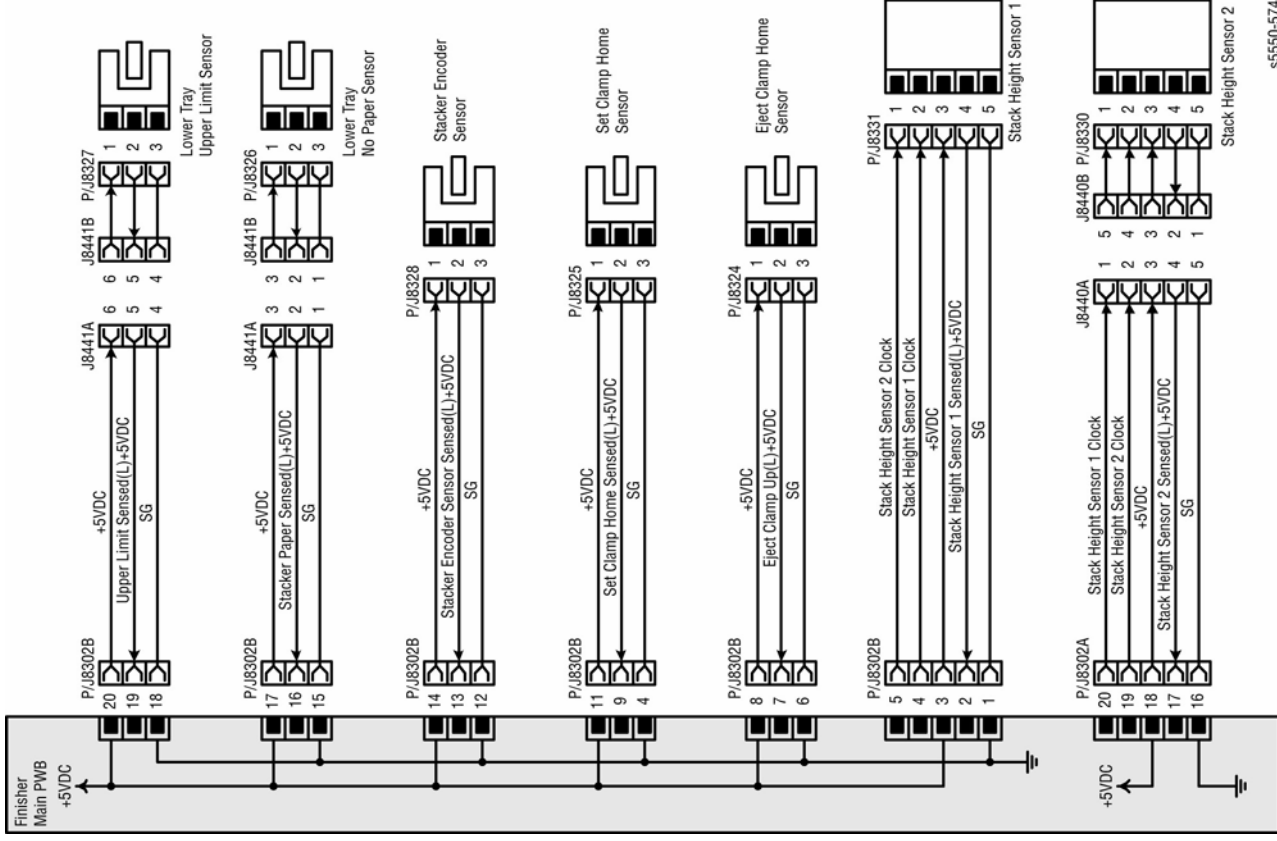


Figure 6 Sensors (2 of 2)

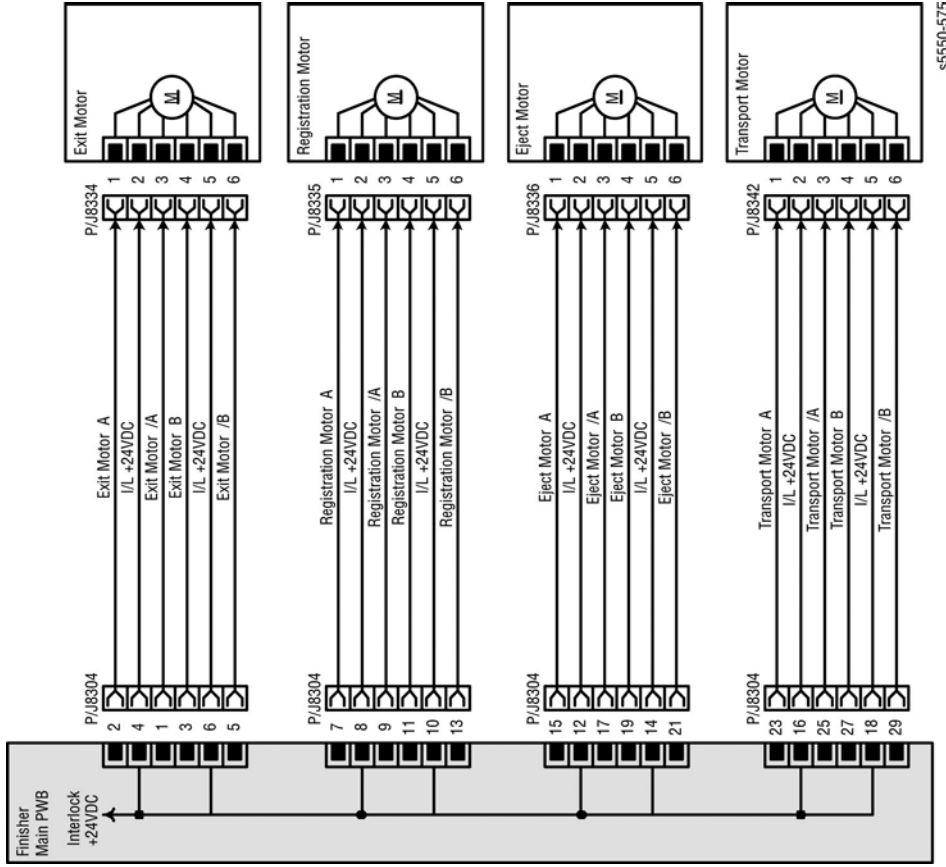


Figure 7 Motors

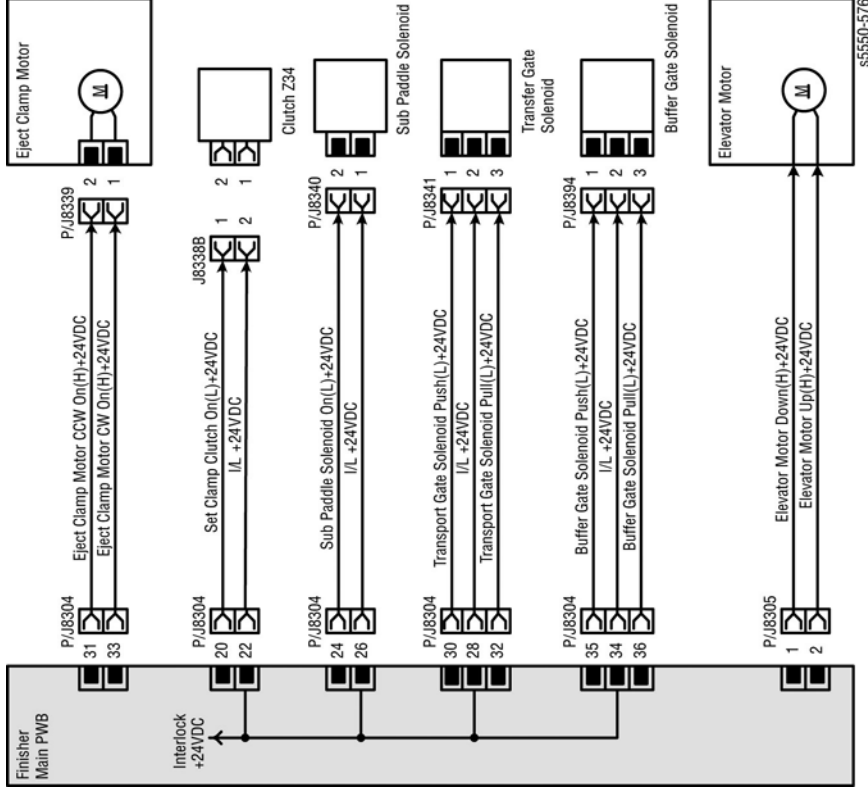


Figure 8 Clutch and Solenoids

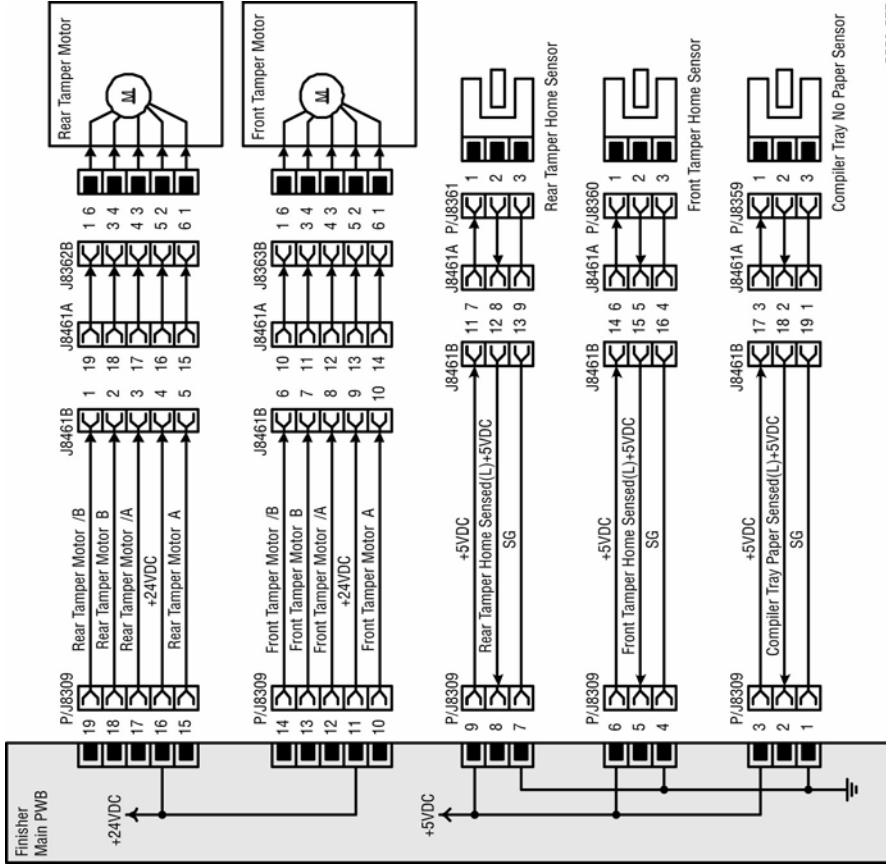


Figure 9 Compiler Tray

s5550-577

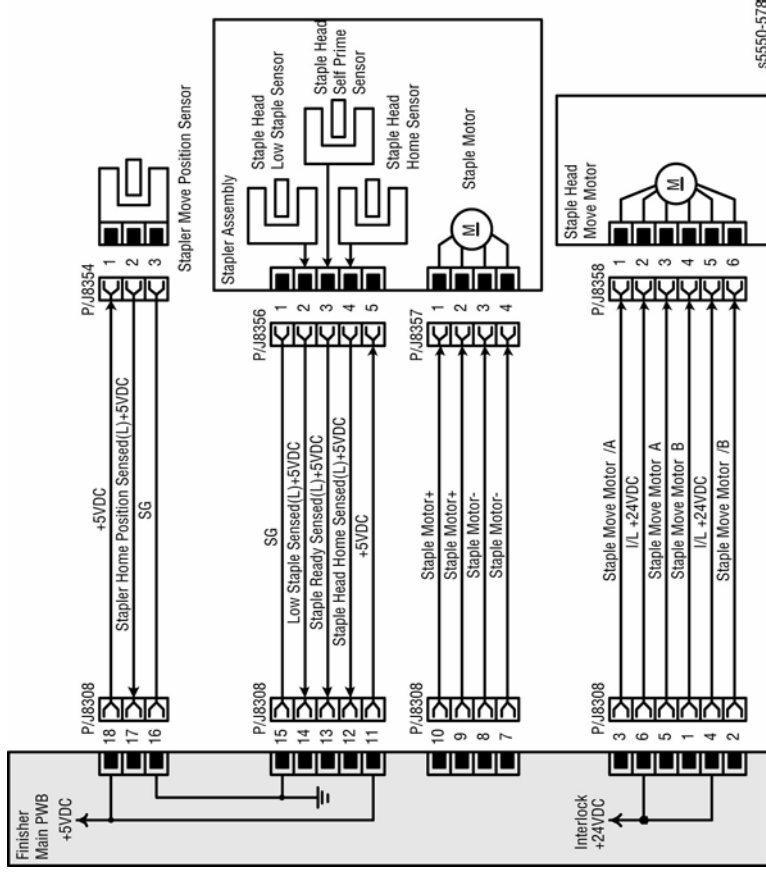


Figure 10 Stapler

s5550-578

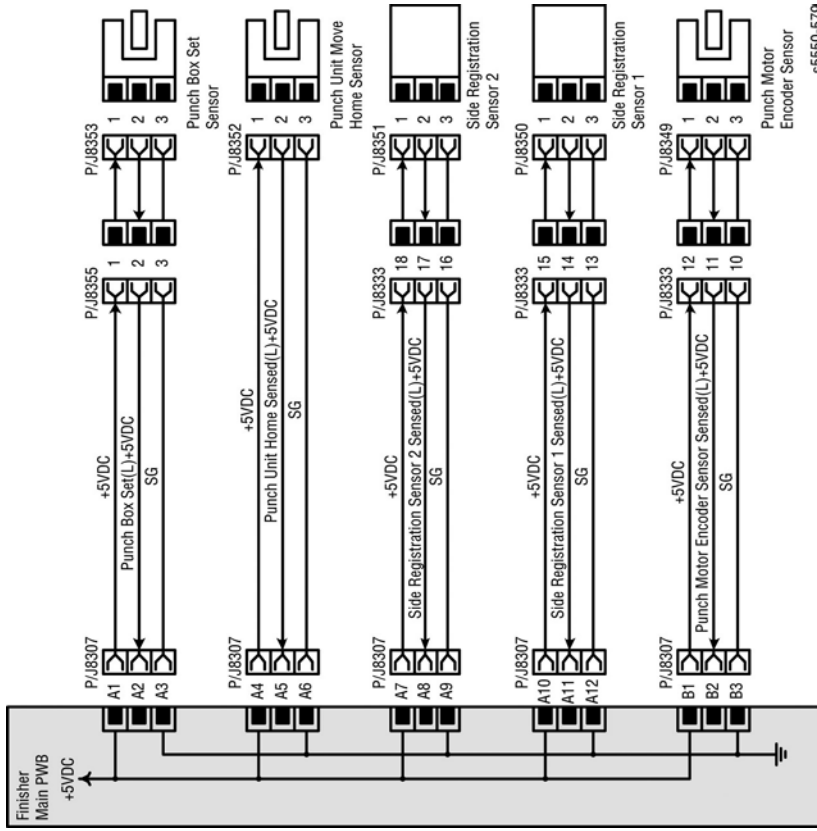


Figure 11 Punch (1 of 2)

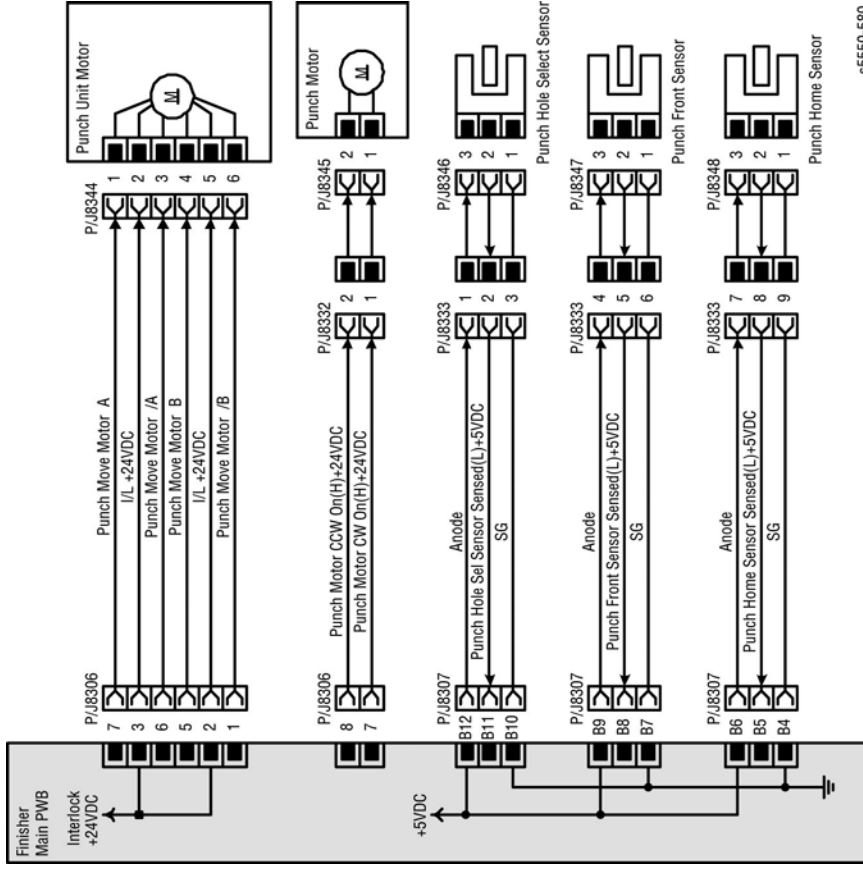


Figure 12 Punch (2 of 2)





# 8 Theory of Operation

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## Phaser 5500/5550 Operational Overview

The Phaser 5500/5550 base configuration combines a dual-pass, monochrome laser print engine with a multi-purpose Tray 1/MPT and two universal media trays, trays 2 and 3. The Standard Output Tray holds 500 sheets facedown. Phaser 5550 options add memory, paper capacity, and functionality. For models not originally equipped, a 20 GB Hard Drive is available. A selection of memory upgrades can raise the installed RAM to the 512 MB maximum. Additional paper capacity is also available. Trays 4 and 5 (1000-Sheet Feeder) when installed, add two 500-sheet universal media trays. An optional high-capacity 2000-Sheet Feeder (Tray 6) brings the maximum paper capacity to 4,100 sheets. An Envelope Tray, replacing Tray 2, holds up to 35 envelopes. On the output side, 3500 sheet stapler/punch/stacker is available.

This section focuses on the printer's operational characteristics providing detailed descriptions of the paper path, sensors, xerographics and major system assemblies. Operational details of the available options appear in Phaser 5500/5550 Options Operational Overview.

### Summary of the Printing Process

The illustration below shows the orientation of the major components associated with the xerographics process as viewed from the front of the printer.

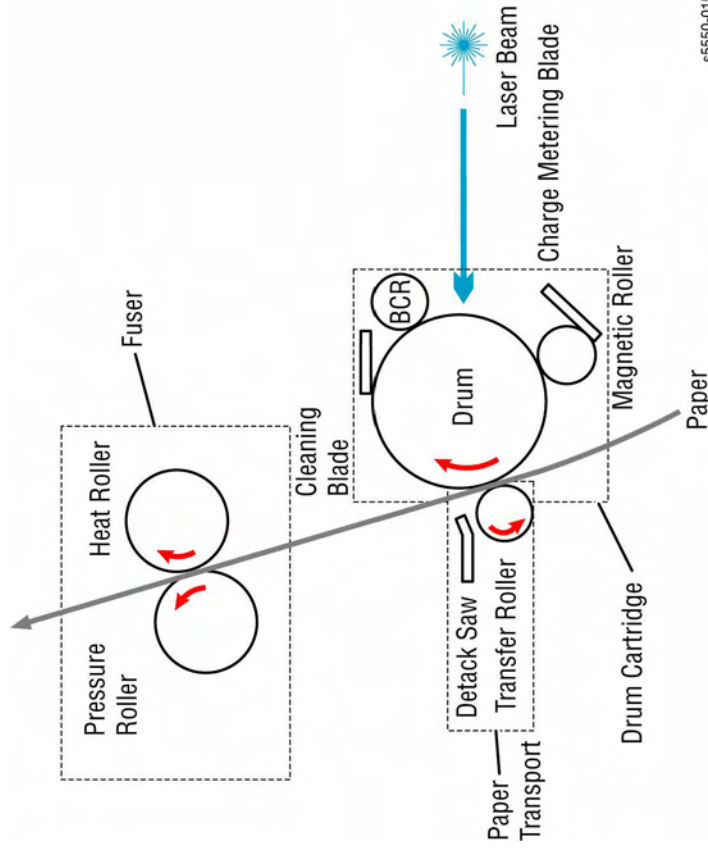


Figure 1 Xerographic

The laser print process consists of these steps:

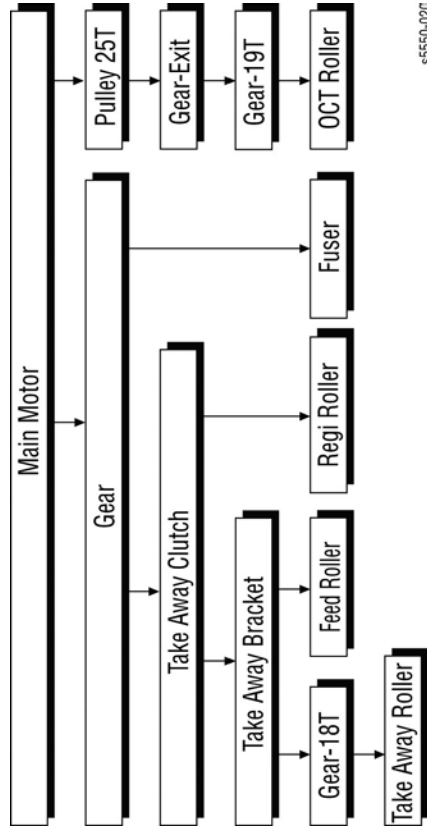
- Charge** – The Drum Cartridge contains a Bias Charge Roller that uniformly distributes a negative electrical charge over the photoconductive drum surface.
- Exposure** – The Laser Assembly scans the surface of the photoconductive drum located inside the Drum Cartridge. The Laser Diode Assembly produces dual laser beams which are turned on and off according to a data signal. A multi-faceted polygonal mirror is rotated at a specified speed. The laser beams are reflected off of the mirror and onto the drum surface through a series of lenses and mirrors. The laser beams scan the drum surface from one end to the other, neutralizing the negative charge to create one line of a latent image on the drum surface. The drum is rotated and the scan process is repeated.
- The Toner Cartridge supplies toner to the Drum Cartridge. Capacity is 30,000 pages at 5% area coverage for the 5500 model. 5550 capacity is 35,000 pages at 5% area coverage.
- Development** – A Magnetic Roller in the Drum Cartridge carries a thin layer of developer and toner supplied by an agitator in the cartridge's toner compartment. The Charging and Metering (CM) Blade inside the cartridge applies a negative charge to the toner and spreads the toner onto the Magnetic Roller. The negatively charged toner is transferred to the Areas of the drum surface that have been discharged.
- Paper Transport** – Paper size sensors determine the length and width of the media. Movable actuators located in the paper tray indicate the location of the guides. The printer uses a three-roller system to pick paper. A DC motor raises the tray's lift plate, along with the paper stack, against the Nudger Roller of the paper feeder assembly. To pick paper, the Nudger Roller advances the top sheet to the Feed Roller and Retard Roller. The Retard Roller prevents multi-picks. The Feed Roller advances the paper to the Take Away Rollers, which feed the paper to the Registration Rollers.
- Transfer** – The pressure of the Transfer Roller against the drum assists in driving the paper through the transfer area. The Transfer Roller applies a positive charge to the rear surface of the paper. The negatively charged toner image on the drum is attracted to the positive charge on the rear surface of the paper, transfers the image from the surface of the drum onto the paper.
- Discharge** – The Detack Saw, located on the Transfer Roller assembly, helps to separate the paper by partially neutralizing the charge holding the paper to the drum.
- Fusing** – The paper is driven into the Fuser, which uses heat and pressure rolls to melt and bond the toner onto the surface of the paper. Heat Roller fingers inside the fuser peel off the leading edge of the paper from the Heat Roller to prevent the paper from becoming wrapped around the drum. The Fuser Exit Sensor detects paper exiting from the fuser.
- Cleaning** – A cleaning blade in the Drum Cartridge scrapes off toner remaining on the drum surface after Transfer has occurred. Then, the latent charge pattern remaining on the photoconductive drum is neutralized to prepare the drum for the next Exposure cycle.
- Exit** – The paper is then advanced upward into the Exit Rollers and into the selected output tray.
- Two-sided printing reverses the direction of the exit rollers to route the paper through the Duplex Unit rollers and back to the Registration Roller. A Wait Sensor in the Duplex Unit detects the presence of paper.

## Paper Handling

Paper is driven along the media path by various drive motors, belts, gear assemblies and rollers. Synchronization of these components is managed by the Engine Control Board. The operating system monitors sensors located along the media path throughout the print engine and attached options. As a sheet travels along the media path, sensors change state temporarily to indicate the sheet's presence. If the pattern of sensor state changes differs from the expected timing for a particular paper size and path, an error is reported.

### Main Motor

The Main Motor, through the gear and pulley, drive the Take Away Roller, Feed Roller, Registration, Fuser, and Exit 1 OCT Roller.

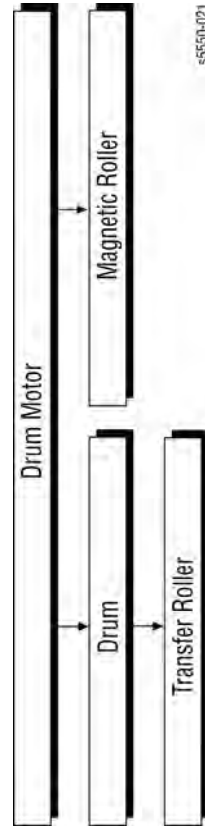


s5550-020

Figure 1 Main Motor Drive

### Drum Motor

The rotating force of the Drum Motor is transmitted through the gears to components that need mechanical driving force as shown in Figure 2.



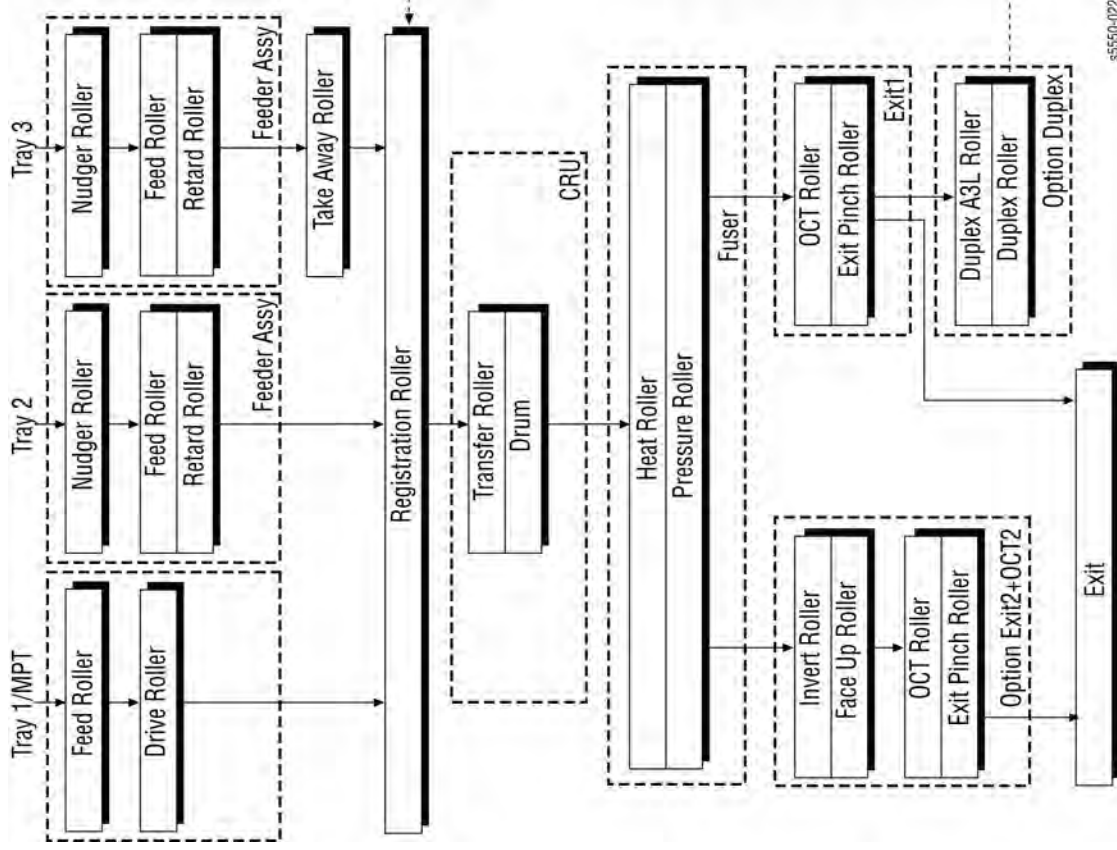
s5550-021

Figure 2 Drum Motor Drive

The driving force transmitted to the Drum Cartridge drives the Drum. The driving force is then transmitted to the Transfer Roller by direct contact with the Drum.

## Input Media Path

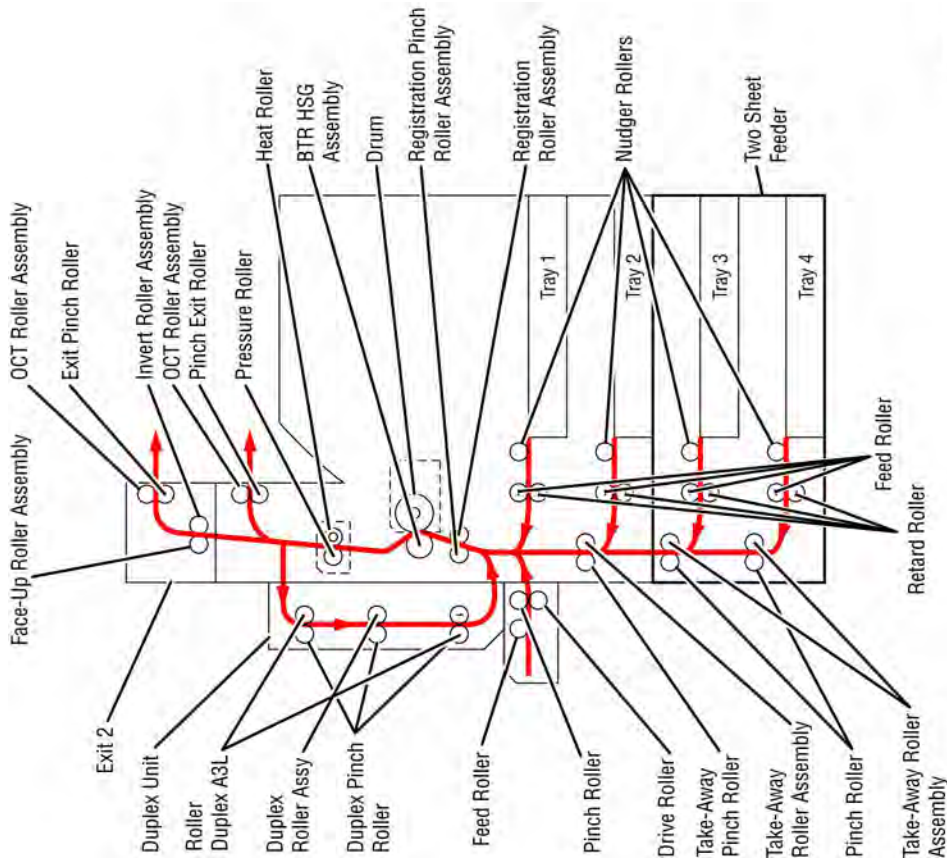
Media supplied from each tray is transported through the printer along the path shown in the flow chart in Figure 3.



s5550-022

Figure 3 Input Media Path

Figure 4 shows the media path for Trays 1 through 5, the Duplex Unit, Exit 1, and Exit 2.



s5550-023

Figure 4 Media Transport Path

#### Tray 1/MPPT

When feeding media from Tray 1/MPPT, the control logic instructs the mechanical drive to activate the Feed Roller. When the control logic calls for paper feed, it sends a feed signal to momentarily energize the Tray 1/MPPT Pick-up Solenoid causing the Feed Roller to rotate. When the Feed Roller contacts the paper, a sheet is fed into the gap between the Feed Roller and the Pinch Rollers.

#### Trays 2 through 5

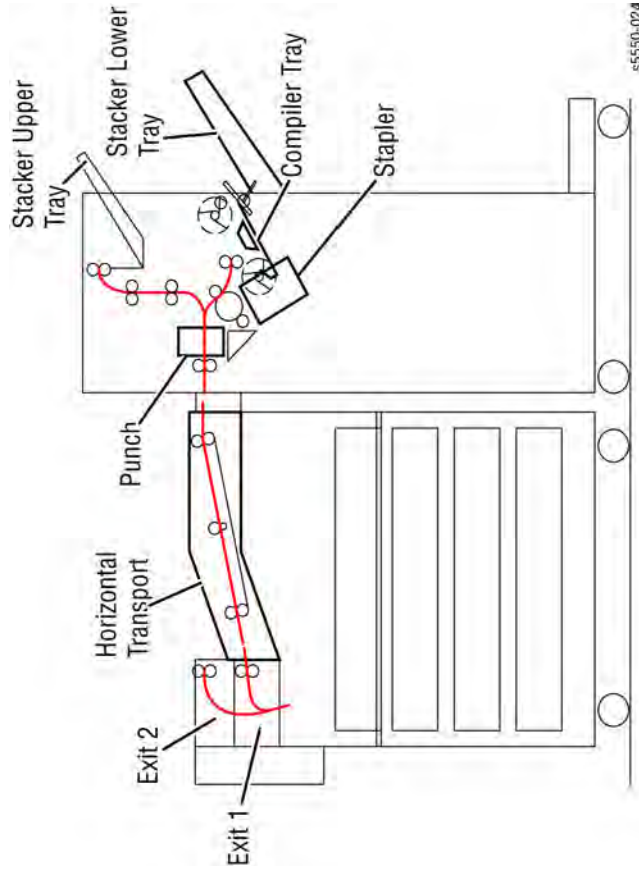
When the control logic calls for paper feed, the Nudger Roller moves a sheet of paper to the Feed Roller. The Feed Roller moves a single sheet of paper out of the tray and toward the tray's Take Away Roller. The Retard Roller ensures only one sheet of paper is fed. The paper then moves past the Pre-Feed Sensor and up the vertical path driven by a sequence of Take Away Rollers. Feed Out Sensors at each feed point notify the Engine Control Board that the paper has arrived at the next Take Away Roller in the path. The paper continues along the path until the sheet of paper arrives at the Registration Roller.

#### Output Media Path

The path for media exiting the Fuser are:

- Direct through Exit 1 to the Output Tray on the Top Cover (facedown).
- Direct through Exit 1, the Horizontal Transport to the Stacker Trays.
- Direct through Exit 2 to the Output Tray on the Horizontal Transport Cover.
- Inverted in Exit 2 back through the Duplex Unit then out Exit 1 or Exit 2.
- Inverted in Exit 2 back through the Duplex Unit then out Exit 1 to either the Stacker Upper or Lower Tray.

Figure 5 illustrates the possible output paths.



s5550-024

Figure 5 Output Media Path

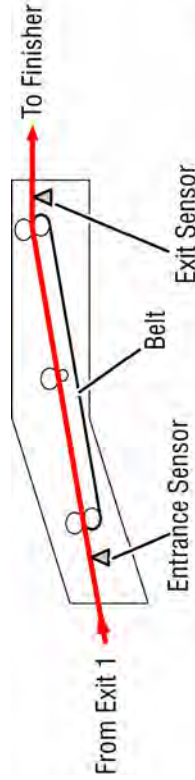


### Standard Output Tray

The Standard Output Tray is a face-down, 500-sheet tray located on the printer's Top Cover. The tray receives paper from Exit 1 if the Horizontal Transport is not installed. The Standard Output Tray becomes the Horizontal Transport's Door F (Top Cover) and receives paper through Exit 2 when the Horizontal Transport is installed.

### Horizontal Transport

When either the Stacker Upper or Lower Trays are designated as the output location, the Exit 1 Exit Gate opens and paper is fed from Exit 1 to the Horizontal Transport. The Horizontal Transport motor is activated by Horizontal Transport PWB to drive the two feed belts running between the Left and Right Shaft assemblies. The paper is held between the belts and pinch rollers located on the inside of Door F.

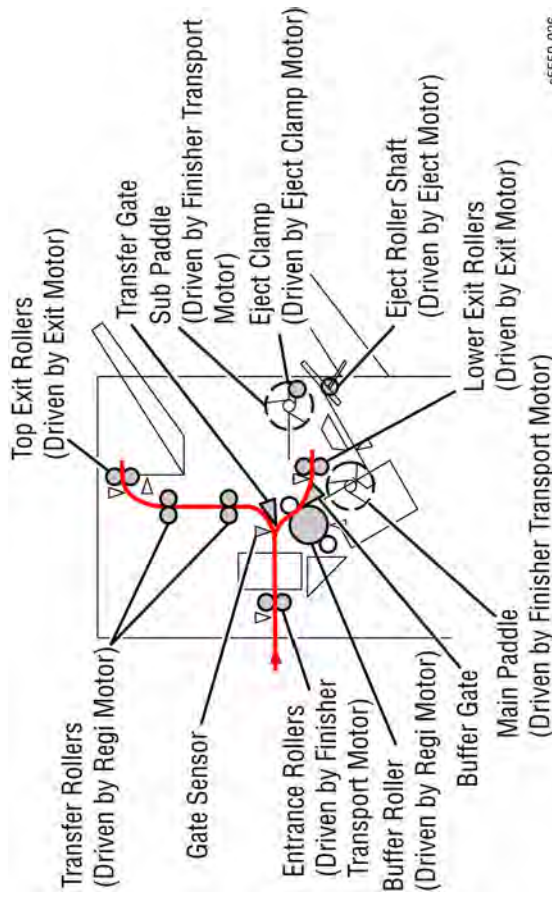


5550-025

Figure 6 Horizontal Transport Path

### Finisher / Stacker

What follows is a summary of the output path through the Finisher. Refer to Finisher/Stacker for detailed description of the Finisher paper path.



5550-026

Figure 7 Finisher Path

Paper fed from the Horizontal Transport is drawn into the Finisher by the Entrance Roller driven by the Finisher Transport Motor. The paper next passes through the Punch, if installed, then is directed either up or down by the Transfer Gate. The Transfer Gate is switched by the Transfer Gate Solenoid controlled by signals received from the Engine Control Board.

Paper output to the Stacker Upper Tray is directed upwards by the Transfer Gate and drawn along the paper path by the two Transfer Rollers. The paper exits the Finisher by being driven into the Stacker Upper Tray by the Top Exit Rollers.

Paper punched, stapled, offset, or sent to the Stacker Lower Tray is directed down by the Transfer Gate. For print jobs not receiving any Finisher processing, paper travels across the Buffer Roller, Buffer Gate, and is drawn out of the Finisher into the Stacker Lower Tray by the Lower Exit Rollers. For Punch operations, the paper is drawn across the Buffer or Transfer Rollers, then reversed to back into the Punch guide. After the sheet is punched, it moves out of the Punch and depending on the job, either moves upward to the Stacker Upper Tray or continues to the Stapler. For compiled, stapled, or offset print jobs, the Buffer Gate is raised by the Buffer Gate Solenoid directing the sheet around the circumference of the Buffer Roller and into the Buffer Path. The first sheet of each set is held in the Buffer Path until the second sheet arrives at the Buffer Gate. When the second sheet arrives, both sheets are drawn towards the Exit Clamp by the lower Exit Rollers and are clamped and either ejected into the Stacker Lower Tray or loaded into the Compiler Tray for tamping and offset.

## Duplex Path

If duplex printing is selected, the Exit 2 Exit Gate Solenoid switches the position of the Exit gate to direct paper out Exit 2. The Exit 2 Motor reverses direction and feeds the paper into the Duplex Unit. The paper pauses briefly, detected by the Wait Sensor, then continues through the Duplex Unit to the Registration Roller for printing on the opposite side. The purpose of the Duplex Unit is to accept a printed sheet of paper from the Fuser exit area, effectively flipping the sheet over, wait a period of time for the second side to develop, then reinsert the sheet back into the printer registration area to receive an image on the reverse side. The Duplex Unit provides duplex printing for paper fed from all available paper trays except the Envelope Tray, which cannot be duplexed.

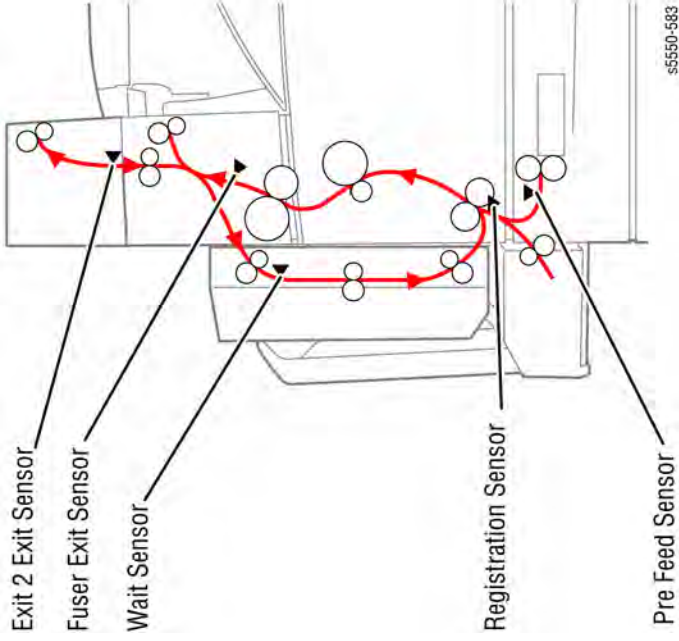


Figure 8 Duplex Path

## Sensors

The printer contains sensors of various types that perform a variety of functions. One group of sensors track the progress of the paper along the paper path, and detect if a paper jam occurs. Other sensors detect the presence of the Drum Cartridge, stop printer activity if a door is open (interlock), and monitor the fusing temperature.

### Sensor Types

The types of sensors used vary with function. In general, there are three types in use.

#### Photo Sensors

Two types of photo sensors are used, photo-reflective and photo-receptive. Photo-reflective sensors use light reflected back from an object to detect its presence. Photo-receptive sensors use an actuator or the object itself to block the light path to detect an object or condition.

Photo-reflective sensors have the light emitter and light receiver aligned on a single surface. Output of the photo-receptor is High (> +4.5 V) when light is being reflected back and Low (< +.3 V) when it is not. Photo-receptive sensors consist of a LED in one arm of a U-shaped holder, and a photo-transistor in the other arm. When the sensing area is vacant, nothing is between the arms of the sensor, light falls on the photo-receptor sending the signal High. If the light is interrupted, the photo-transistor goes Low. Figure 1 shows a typical photo-receptive sensor with the Hooks (catches) used to secure the sensor to its bracket.

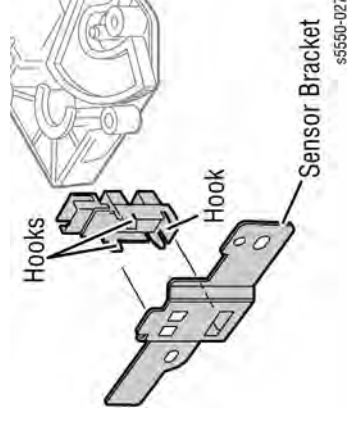
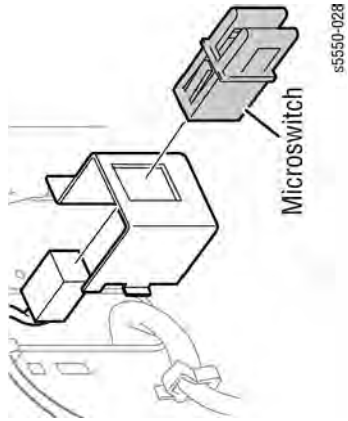


Figure 1 Photo Sensor and Bracket



**Microswitches**

Microswitches are used primarily as cover interlocks in the printer. They are in a normally open state, and close when actuated. A bank of microswitches is used to detect paper size in the universal trays. Microswitches also employ hooks or catches for retention in the bracket or frame. Figure 2 illustrates a typical microswitch.



**Figure 2 Door Interlock Sensors**

**Thermistor**

Thermistors have a known value of resistance whose value varies with temperature. Used primarily in the Fuser for temperature sensing.

A fourth sensor in use is the antenna used to communicate with the Drum and Toner Cartridge CRUMs.

This list briefly describes the type and function of sensors and switches used to determine operational status and detect jams or failures.

**Table 1 List of Sensor and Interlock Functions**

Name	Type	Function
Level Sensor	Photo-receptive	Detects paper stack height in Trays 2-6.
No Paper	Photo-receptive	Detects no paper condition in all trays.
Paper Size	Microswitch array	Detects the tray and the paper size.
Pre-Feed	Photo-reflective	Detects paper jams in the feeder.
Registration	Photo-receptive	Detects paper at the registration rollers.
Feed Out	Photo-reflective	Detects paper leaving the feeder.
Exit	Photo-receptive	Detects paper as it leaves the Exit.
Stack Full	Photo-receptive	Detects when the output tray is full.
Temperature	Thermistor	Monitor temperature of the Heat Roller.
Door Interlocks	Microswitch	Interrupts +24 V to the Main Motor.
Drum Cartridge Detect Switch	Microswitch	Interrupts +5 V to Laser Diode.
Start of Scan	Photo	Detects laser at the start of a scan.
Fuser Thermostats	Thermostatic switches	Interrupts AC power to the Fuser.
Offset	Photo-receptive	Senses the position of the Offset Chute.
Environmental	Integrated circuit PWB	Monitors the printer's Temp and humidity.
CRUM Antenna	Inductive code reader	Communicates with the CRUMs.
OCT Home Position	Photo-receptive	Detects Offset assembly home position.

### Sensors in the Media Path

Figure 3 and Figure 4 show the designations of the various sensors located along the media path. Error reporting is dependent on these designators. Error detection is based on media transport timing through the sensing area.

### Door Interlock Sensors

The Interlock Sensors for Doors A through E and J, as well as selected feed sensors appear in Figure 3.

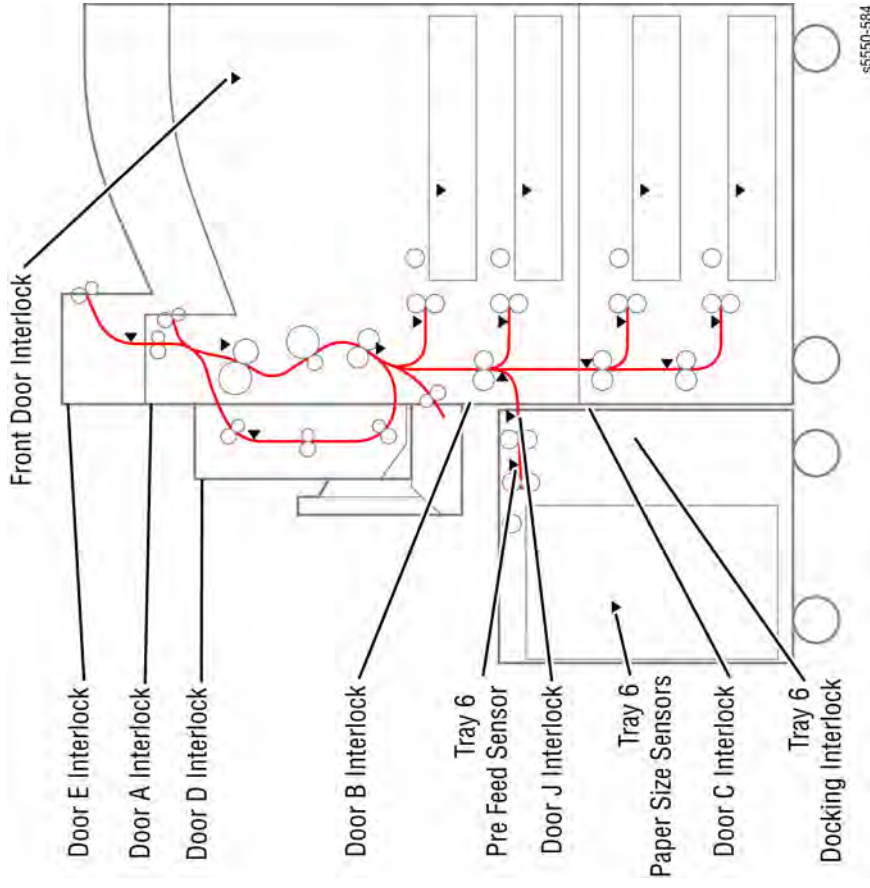


Figure 3 Door Interlock Sensors

### Feed Sensors

Figure 4 identifies the remaining feed sensors in the printer, 1000-Sheet and 2000-Sheet Feeders.

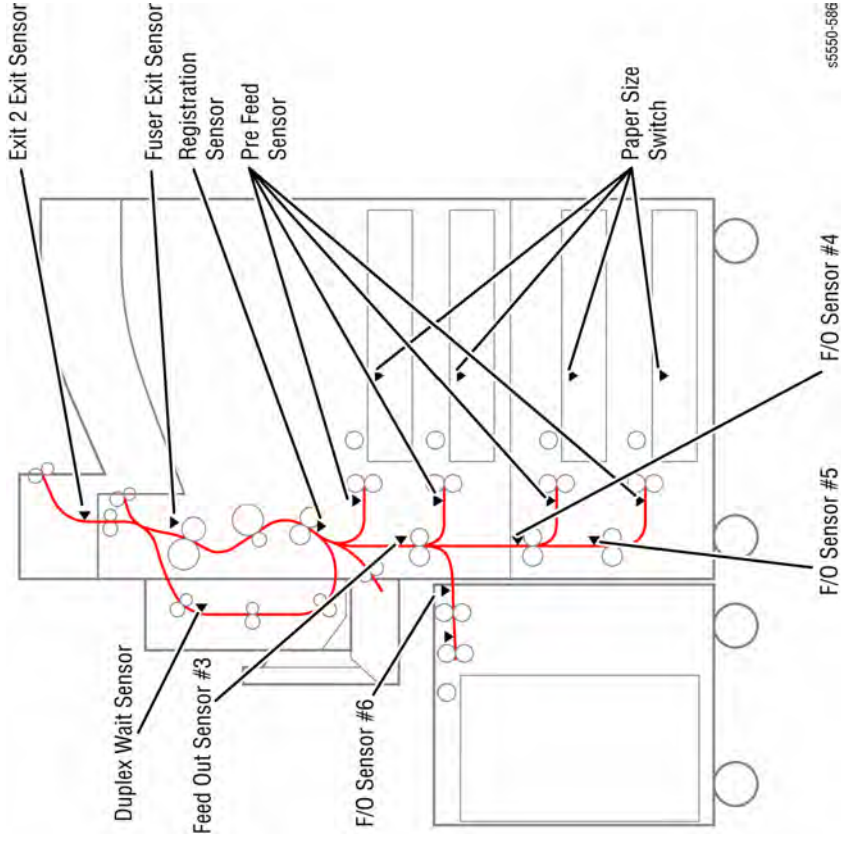


Figure 4 Feed Sensors

## Media Size Sensing

Trays 2 through 5 automatically sense the standard size media loaded in the printer by using the paper size sensors mounted on the back of the tray frame. When media is loaded in the tray and the guides are adjusted, the levers on the bottom of the trays change the size sensor actuator locations.

Actuating different combinations of the paper size sensors produces different combinations of high and low signals. These signals identify what size of paper has been loaded and what to display on the Control Panel. Also, any actuation of the paper size sensor signals the Engine Control Board that the tray is present and closed.

## Media Level Sensing

As paper is fed from the tray, the paper level drops. When the paper level reaches a certain point, an actuator unblocks the Level Sensor signaling the control logic to stop paper feed and raise the tray bottom. Raising the tray bottom pushes the paper up to achieve optimum force against the Feed Roller and blocks the Level Sensor resuming paper feed. This loop continues until the No Paper sensor is activated. Paper level sensing operates the same way for Trays 2 through 6. Tray 1 uses No Paper sensing only.

## Media Present Sensing

When the last sheet is fed from any of the trays, the No Paper Sensor actuator drops into an opening in the paper tray, unblocking the sensor. Feeding is inhibited until paper is loaded into the tray.

## Xerographics Drum Cartridge

The Drum Cartridge is located behind the Front Door and is a customer-replaceable item. The Drum Cartridge has a maximum drum cycle count of 240,000. The number of drum cycles per page and the prints available varies according to the customer's usage patterns. The Drum Cartridge Life specification of 60,000 prints is based on an average job length of six, single-sided pages.

As an example of how job length effects the Drum Cartridge Life count, a continuous print job having a job length of 500 to 1000 pages results in a drum cycle count of 3.2 cycles per page. At 3.2 drum cycles per page, the Drum Cartridge Life count increases to 75,000 prints. However, if the customer were to print mostly single page jobs, the drum cycle count increases to 7.68 drum cycles per page reducing the Drum Cartridge Life count to 31,250 prints.

To better understand how the Drum Cartridge operates, the name and function for each Drum Cartridge component is listed below.

**Table 1 Drum Cartridge Components**

Component	Function
Drum	The Drum is an aluminum cylinder coated with a layer of photoconductive material that retains electrical charges on its surface until exposed to light, when electrical conduction occurs.
Bias Charge Roller (BCR)	The BCR uniformly distributes electrical charges over the drum surface, and erases the previous charge pattern.
Magnetic Roller	A thin layer of developer and toner adheres to the surface of this roller, which transports the toner to the Drum surface.
Charging and Metering (CM) Blade	The CM Blade controls the thickness of developer and toner over the Magnet Roller, and applies negative charges to the toner triboelectrically.
Cleaning Blade	The Cleaning Blade removes toner remaining on the Drum.

## Transfer Roller

The Transfer Roller is driven by being held in direct contact with the Drum Cartridge. When paper moves between the Transfer Roller and Drum, the Transfer Roller applies a positive charge to the rear surface of the paper. The negatively charged, developed image on the drum is attracted by the positive charge on the rear surface of the paper. Thus, the developed image is transferred from the surface of the drum to the surface of the paper. The Detack Saw, located adjacent to the Transfer Roller, helps to separate the paper from the drum surface.

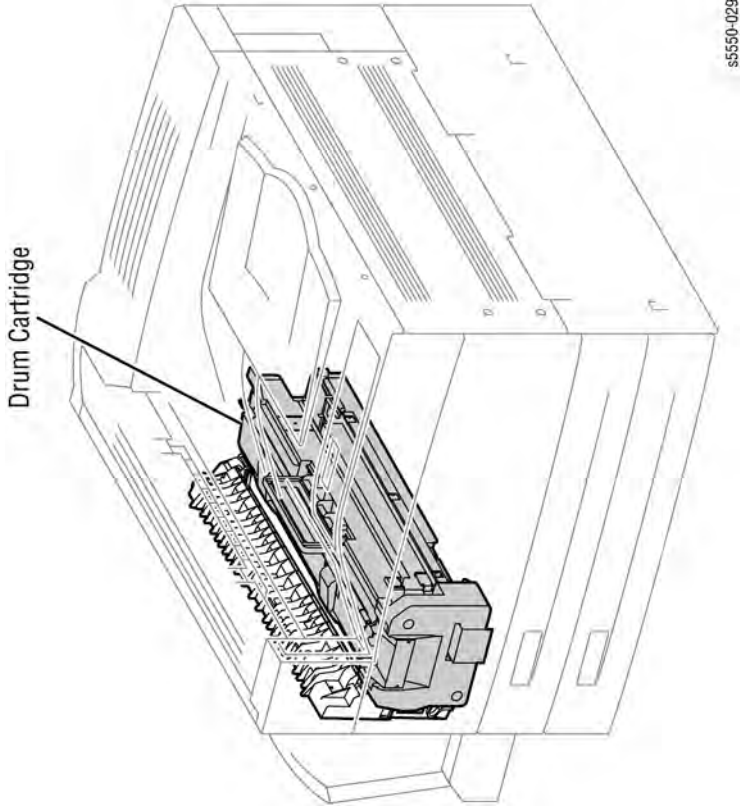


Figure 1 Print Cartridge (Drum)

Additional details on the Drum Cartridge function appears in the Summary of the Printing Process.

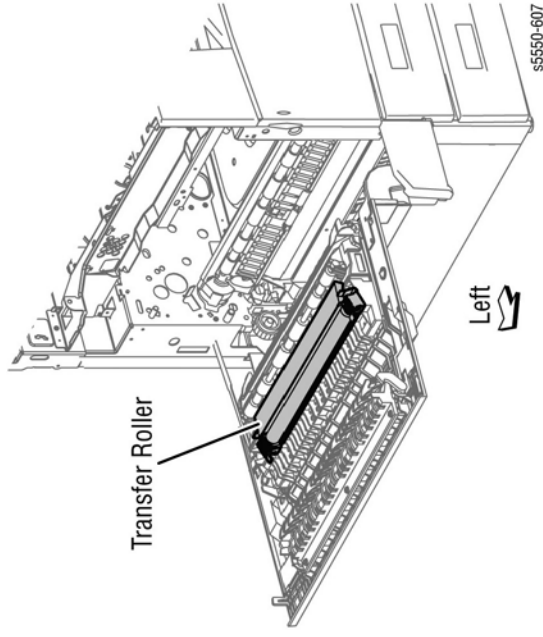


Figure 2 Transfer Roller

### Toner Dispense Assembly

The Toner Dispense Assembly operates the Toner Cartridge dispense door and moves toner from the cartridge through a dispense tube to the Drum Cartridge.

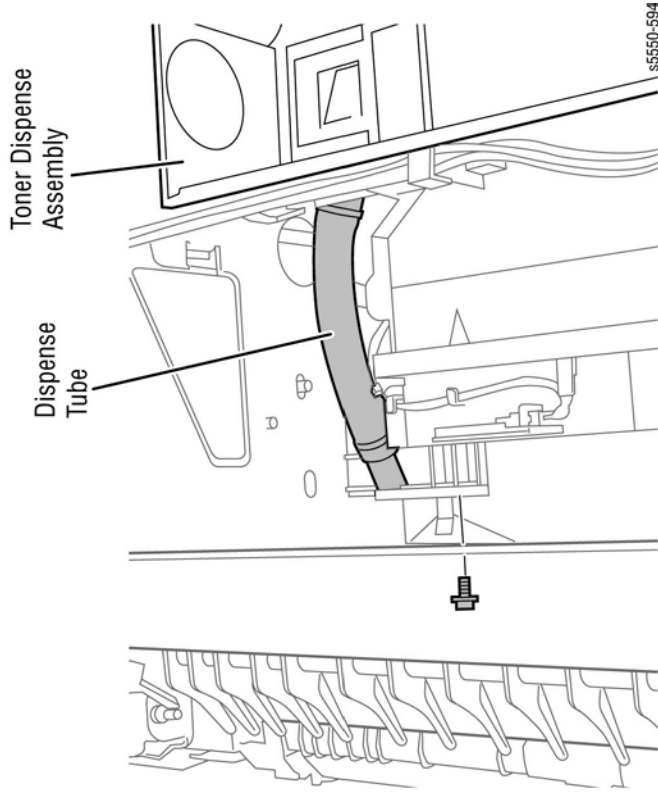


Figure 3 Toner Dispense Assembly

### Toner Dispense Motor

The Toner Dispense Motor drives the Toner Cartridge and dispense tube augers to deliver toner to the Drum Cartridge.

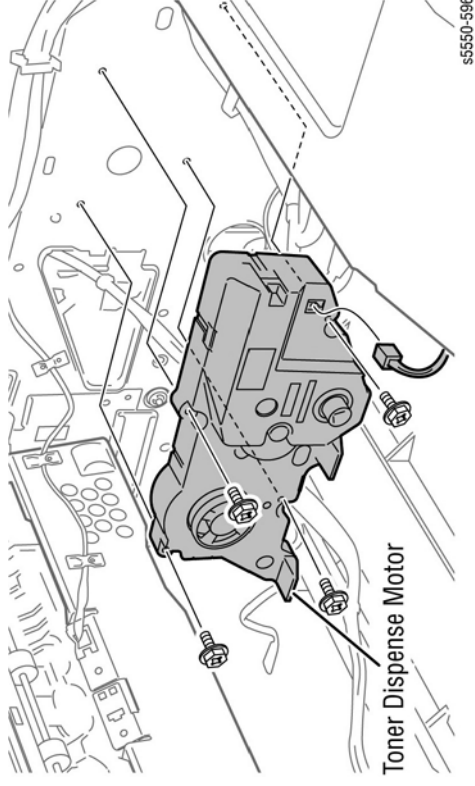
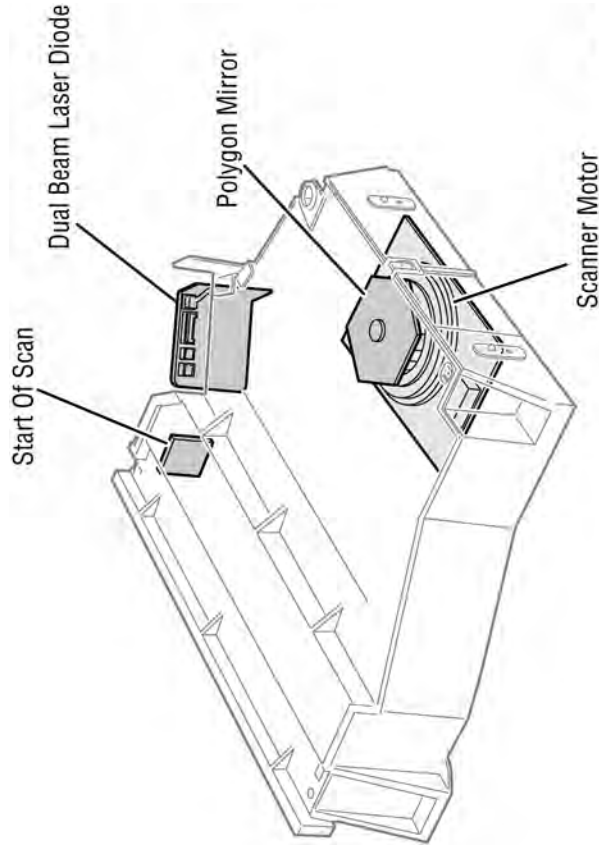


Figure 4 Toner Dispense Motor

## Laser Assembly

The Laser Assembly interprets signals from the Image Processor Board and scans the surface of the drum with a dual-beam laser to create a latent image. The dual-beam laser scans from one end of the drum surface to the other while being turned off and on forming a single line of a latent image. The resolution of the dual-beam laser is either 600 dpi or 1200 dpi and is determined by the customer setting. Both beams are always on. For 600 dpi, both beams receive the same data. For 1200 dpi, the beams receive different data resulting in a smaller pixel size.

The Scanner Motor turns On when it receives a signal, and turns Off after printing ends. The Scanner Motor remains Off in the standby and power-saving states.



**Figure 5 Laser Assembly**

- The Laser Assembly is field replaceable and contains the laser diodes, scanner motor/mirror, and several lenses and mirrors.
- The Laser Assembly “reflects” the laser beam so it strikes the Drum.

## CAUTION

Never remove the cover from a Laser Assembly for any reason - contamination may result. The Laser Assembly consists of four components: the Laser Diode (LD) Assembly, the Scanner Assembly, Lenses and Mirrors, and the Start of Scan (SOS) board.

**Table 2 Laser Assembly Components**

Component	Function
Laser Diode Assembly	Produces two laser beams that are turned on and off according to the print data signal.
Scanner Assembly	Consists of a faceted polygonal mirror mounted on the shaft of the scanner motor that reflects the beams to the drum surface through lenses and mirrors, to scan the beams across the drum.
Start of Scan Board	When the laser beams strike the sensor on the SOS board, the signal generated indicates the initial position of the scan. The initial position where a scan is started on each line is detected.

Scanner Motor control is performed according to the mode of operation as shown below.

**Table 3 Scanner Motor Operational Modes**

Operational Mode	Laser Power On/Off
Standby Mode	Always Off
Print Mode	Turns On upon receiving the signal from the controller, and turns Off after a preset time has passed from the end of printing. Also turns Off if a print command is not received within 30 seconds from the reception of the signal.
Sleep Mode	Always Off

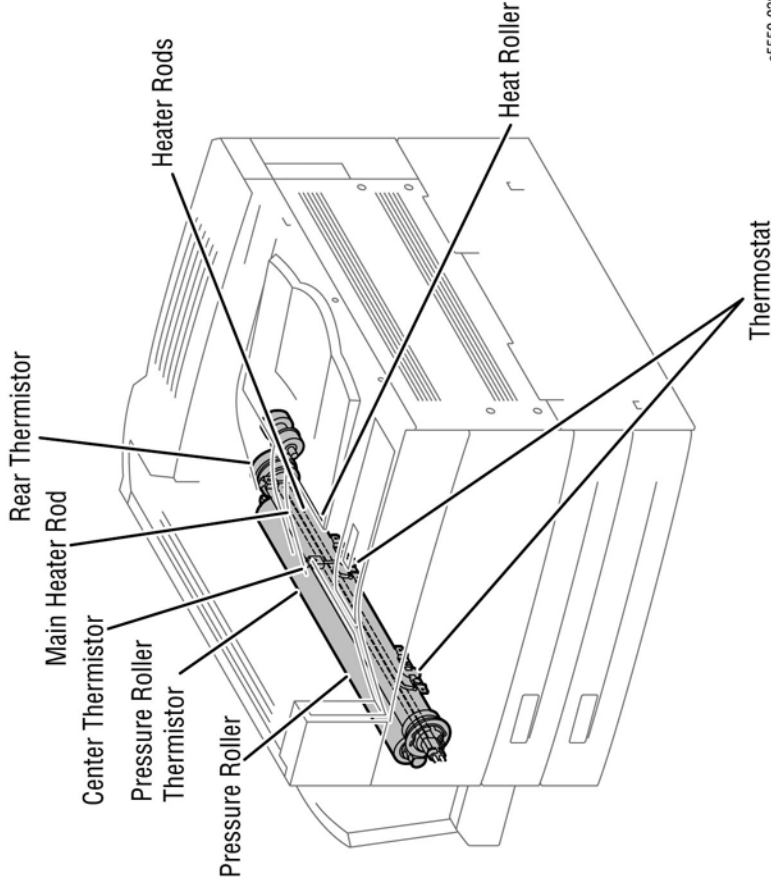
The Scanner Motor starts rotating as the Laser Assembly warms up. The SOS signal is sampled at intervals of 100 ms. If the obtained value is smaller than the Ready reference value three consecutive times, the warm-up of the Laser ends. (The Scanner Motor is rotating at a constant speed.)

**Table 4 Laser Reference Value**

Laser Assembly Reference Value	Description
Ready reference value	SOS signal interval (equivalent to 98% or more of the rated rpm of the Scanner Motor)
Fail reference value	SOS signal interval (equivalent to 90% or less of the rated rpm of the Scanner Motor)

## Fuser

The Fuser, using a combination of heat and pressure, bonds the toner to the paper. As a CRU, the Fuser is replaced as a unit.



s5550-032

**Figure 6 Fuser Unit**

The Fuser receives its drive from the Motor Assembly. After the toner image is transferred to the paper, the paper passes through the Fuser. The Pressure Roller is pressed against the Heat Roller to melt the toner and bond the image to the paper.

To better understand Fuser errors, Fuser components are described below.

**Table 5 Fuser Components**

Component	Function
Heat Roller	The Heat Roller is a metal tube with a coated surface and a Heater Assembly inside. As paper passes between the Heat Roller and Pressure Roller, the heat fuses the toner to the paper.
Pressure Roller	The Pressure Roller is a metal shaft coated with sponge rubber. It maintains pressure on the paper passing between it and the Heat Roller. This pressure bonds the melted toner to the paper.
Heater Rods	The Heater Rods are quartz glass tubes containing heater coils. The Main Heater Rod heats the entire length of the Heat Roller, and the Dual Sub-Heater Rods heat the center portion of the Heat Roller.
Temperature Sensors	These are Thermistors having a known value of resistance that varies with temperature. There are three Temperature Sensors in the Fuser. One is located at the center of Heat Roller, the other is located where the edge of a letter size sheet of paper comes through. The third is located at the center of the Pressure Roller. The sensors monitor the surface temperature of the Heat and Pressure Rollers.
Thermostat	The Thermostat provides a second-level of protection. If the Heat Roll temperature exceeds the preset temperature, the Thermostat cuts off the AC power to the Heater Rods.
Heat-Roller Fingers	The fingers peel the leading edge of the paper from the Heat Roller.
Heat-Roller Diode	This diode discharges negative charge on the Heat Roller that may deteriorate the toner image on the paper during fixing.
Fuser Exit Sensor	This sensor detects the arrival of the paper at the exit area behind the Fuser. When paper is present, the signal /EXIT is Low.

### Fuser Life Expectancy

The life expectancy of the Fuser is 300,000 Letter/A4 size pages. Several factors can reduce Fuser life:

- Greater than 5% coverage
- Paper use larger than letter size
- Printing on heavy media
- Printing short-edge feed
- Printing on transparencies or specialty media

## Power Shutoff to the Fuser

The printer shuts off power to the Fuser for the following reasons:

- Fuser abnormality (U4)
- Paper jam
- Cover Open - Doors A, B, C, D, Front Door
- Laser Assembly abnormality (U3)
- CPU or NVRAM abnormality (U6)
- Motor Assembly abnormality (U0, U1)
- Fuser Fan abnormality (U4)

## Fuser Problems (U4 Error Code)

Causes of Fuser errors include:

- During the Warm-up period, the Control Thermistor does not detect the Ready temperature even when the specified time has passed.
- During the Standby period, the Control Thermistor does not detect the required temperature even when the specified time has passed.
- During idling after power-on, the Control Thermistor does not detect the idling stop temperature even after the specified time has passed.
- During print, the Control Thermistor does not detect the required temperature even when the specified time has passed.

## Fuser Temperature Regulation

Fuser temperature regulation is managed by the Engine Control Board with input from the Fuser's temperature sensors. The Fuser transits between four operating modes, Warm-up, Ready, Print, and Low Power. Transitions between these four modes is dependent on Heat and Pressure Roller surface temperature or printer conditions.

Fuser temperature regulation begins when the Fuser relay on the Low Voltage Power Supply (LVPS) is switched to apply AC power to the Heat Rods. If the Ready temperature is not reached within the Warm-up delay period, an error condition occurs, the Heater Rods are turned Off, the Fuser relay is turned Off, and Fuser temperature control is stopped.

The Warm-up delay begins when printer power is applied, the interlocks are closed, a jam is cleared, or returning from Low Power mode. Warm-up ends when the Ready temperature is attained, when a failure occurs, or when executing diagnostic tests.

The Fuser enters a temperature stabilization process under two circumstances:

- When printing on thick paper:  
After 50 sheets of continuous printing on thick paper (Thick Paper Mode 1), the Fuser lamp turns off, the Main Motor stops, and the fans rotate at full speed until the temperature drops. The process for Thick Paper Mode 2 is the same, except that it occurs after 30 sheets of continuous printing.
- When an abnormally high temperature is detected:  
When an abnormally high temperature is detected, the printer stops the print job and enters the following cool-down process, which continues until the target Control Temperature is reached.

Table 6 Control Panel Fuser Temperature Modes by Paper Type

Paper Type	Temperature		
	Low	Medium	High
Plain, Letterhead, Colored, Special	Plain Paper Mode 1	Plain Paper Mode 1 (Default)	Thick Paper Mode 1
Transparency	Transparency Paper Mode (Default)	Plain Paper Mode 2	Plain Paper Mode 1
Labels	Plain Paper Mode 1	Thick Paper Mode 1	Thick Paper Mode 4 (Default)
Card Stock, Envelopes	Plain Paper Mode 2	Plain Paper Mode 1	Thick Paper Mode 1 (Default)
Prepunched	Plain Paper Mode 2	Plain Paper Mode 1 and (Default)	Thick Paper Mode 1



### Fuser Control Temperatures

The following tables list the control temperatures for the Fuser when different paper types (Modes) are selected.

**Table 7 Fuser Control Temperatures for Plain Paper Modes and Transparency**

Paper Type	Plain Paper		OHP			
	1	2				
Mode	Thin Paper	Normal Paper	Transparency			
	Max (Cold)	Max (Cold)	Max (Cold)			
Start Temp (°C)	Min (Hot)	Min (Hot)	Min (Hot)			
	Max (Cold)	Max (Cold)	Max (Cold)			
Number of Sheets in Print Run	1 ~ 3	208	198	203	188	185
	4 ~ 10	207	197	202	187	185
	11 ~ 30	206	196	201	186	185
	31 ~ 50	205	195	200	185	185
	51 ~ 99	205	195	200	185	185
	100 ~ 150	205	195	200	185	185
> 150	205	195	200	185	185	

**Table 8 Fuser Control Temperature for Thick Paper Modes**

Paper Type	Thick Paper				
	1	2	3	4	
Mode	Letter, COM10				
	Max (Cold)	Max (Cold)	Max (Cold)	Max (Cold)	
Start Temp (°C)	Min (Hot)	Min (Hot)	Min (Hot)	Min (Hot)	
	Max (Cold)	Max (Cold)	Max (Cold)	Max (Cold)	
Number of Sheets in Print Run	1 ~ 3	218	210	215	215
	4 ~ 10	217	210	215	215
	11 ~ 30	216	210	215	215
	31 ~ 50	215	210	215	215
	51 ~ 99	215	210	215	215
	100 ~ 150	215	210	215	215
> 150	215	210	215	215	

### Major Assemblies and Functions

Components of the Phaser 5500/5550 printer described in this section include:

- Trays
- Exit 1 Assembly
- Printer Drive and Electrical

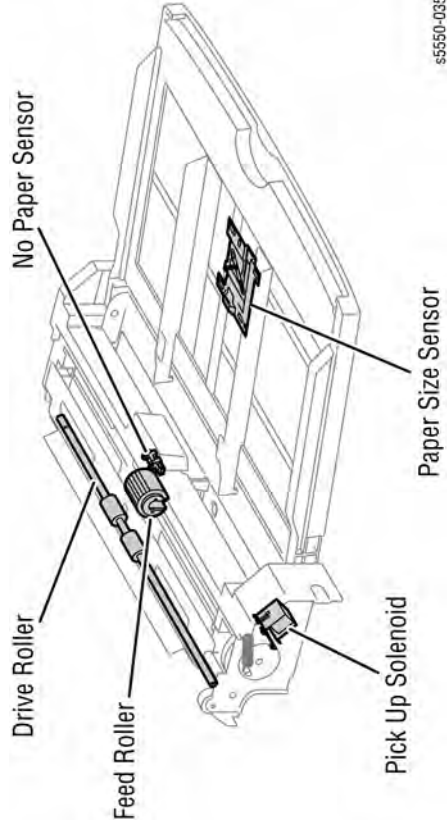
### Trays

Standard trays include the 100-sheet, multi-purpose Tray 1/MPT and two 500-sheet universal trays, Trays 2 and 3. The trays adjust to accept various paper sizes.

### Tray 1/MPT

The Tray 1/MPT Feeder feeds paper into the printer. The Main Motor drives the Tray 1/MPT Feed Roller to feed paper from the tray. Tray 1/MPT components include:

- Feed Roller that feeds paper from Tray 1/MPT.
- Drive Roller that feeds paper into the printer.
- Pick-up Solenoid that engages the Main Motor to the Feed Roller.
- No Paper Sensor that detects whether paper is in Tray 1/MPT.
- Paper Size Sensor detects the position of the Side Guides and reports the width of paper in Tray 1.



**Figure 1 Tray 1/MPT**

Tray 1/MPT incorporates a single set of guides to establish paper width. The time required for the paper to clear the No Paper Sensor identifies the paper's length. When media is placed in Tray 1/MPT, the leading edge strikes the actuator of the No Paper Sensor indicating the presence of paper. As the last sheet of paper is fed from the tray the actuator drops through an opening indicating No Paper remains in the tray.

### Trays 2 and 3

The universal trays 2 and 3 include end and side guides that manually adjust to the paper loaded in the tray. These guides come into contact with the front and rear edges of the paper and hold it in position. Paper size is determined by the position of the switches in the Paper Size Switch assembly. The signal created by these switches indicates the paper size setting of the guides.

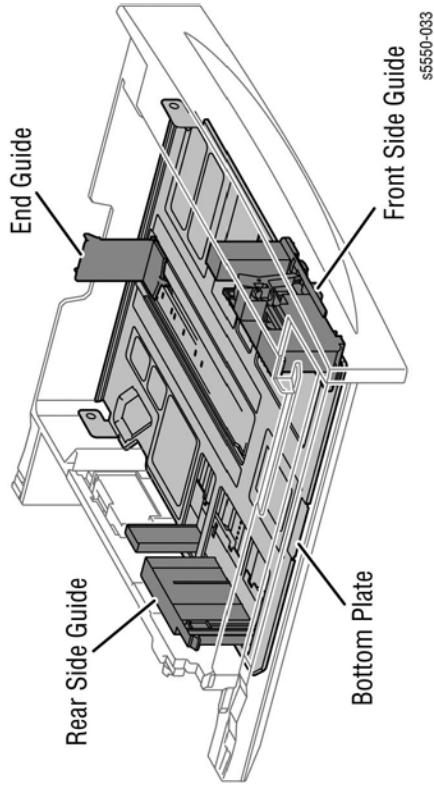


Figure 2 Tray 2 and 3 Assemblies (Guide)

The following table provides the switch states corresponding to the pre-defined paper sizes. The switches are denoted by "SW1", "SW2", "SW3", SW4 and "SW5", respectively, when viewed from the left side.

Paper Size	Paper Size Switch Output				
	SW1	SW2	SW3	SW4	SW5
No Tray	0	0	0	0	0
5.5" x 8.5" / A5 SEF	0	0	1	0	0
B5 SEF	0	0	1	1	1
8.5" x 13" SEF	0	1	0	1	0
8.5" x 14" SEF	0	1	0	1	1
A4 SEF	0	1	1	0	0
8.5" x 11" SEF	0	1	1	0	1
A4 LEF	1	0	1	0	0
A3 SEF	1	0	1	1	0
B5 LEF/Executive LEF	1	1	0	0	1
8K SEF(TFX/GCO)	1	1	0	1	0
B4 SEF	1	1	0	1	1
8.5" x 11"LEF	1	1	1	0	0

Table 1 Universal Tray Paper Size Switch Signal States

Table 1 Universal Tray Paper Size Switch Signal States

Paper Size	Paper Size Switch Output				
	SW1	SW2	SW3	SW4	SW5
16K LEF(TFX/GCO)	1	1	1	0	1
11" x 17"LEF	1	1	1	1	1

Trays 2 and 3 are functionally equivalent in terms of the feeder mechanism that moves paper from the tray into the paper path. The Feeder's Feed/Lift Motor drives the Feed and Nudge Rollers to pick paper from the tray, and also lifts the tray's Bottom Plate to maintain paper contact with the Nudge Roller.

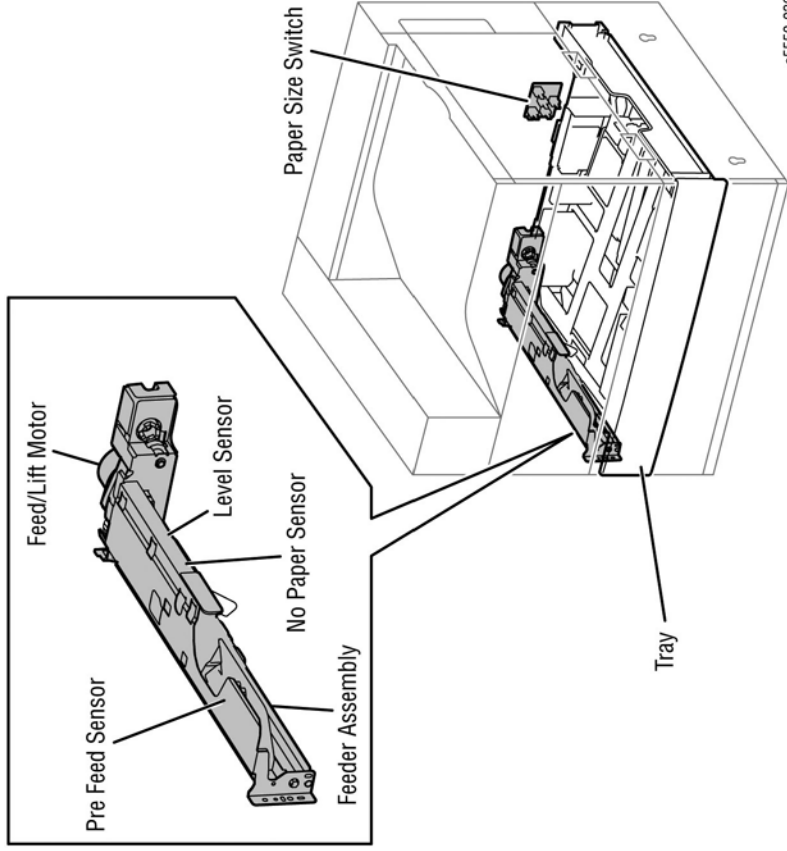


Figure 3 Tray 2 and 3 Feeders

The Feeder's Level Sensor uses an actuator to determine whether paper in the tray is lifted to the feeding position. As the level of paper drops, the flag of the actuator enters the Level Sensor's sensing area, triggering the Feed/Lift Motor to raise the Bottom Plate. The Feeder's Feed/Lift Motor raises the Bottom Plate by rotating the Lift-up Shaft through the Gear (13T/60T) and Sector Gear (60T).

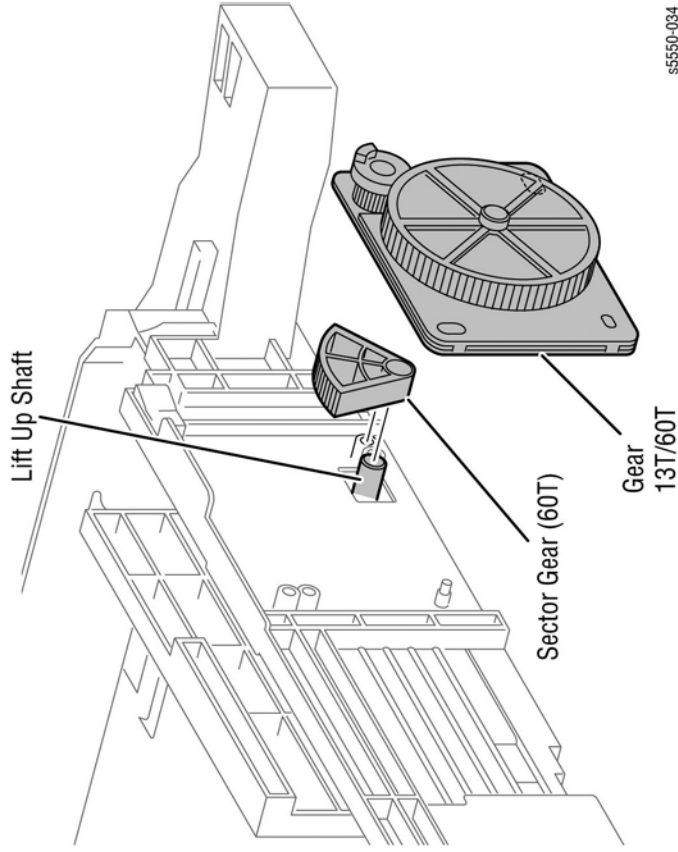


Figure 4 Tray 2 and 3 Lift Gears

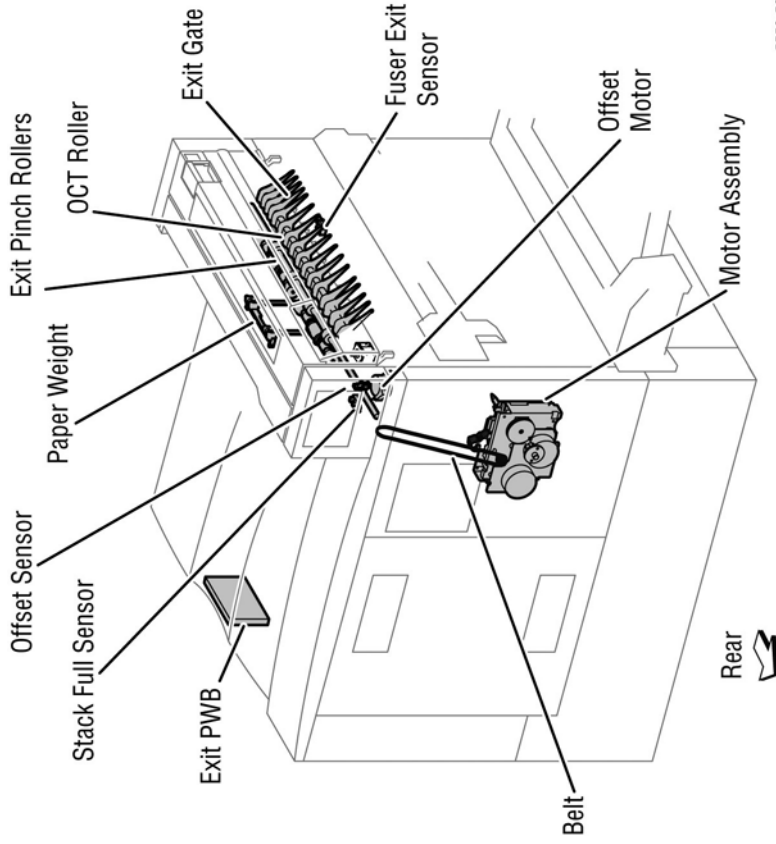
s5550-034

The paper supply and path are monitored by these sensors located on the Tray 2 and Tray 3 Feeders.

- **Level Sensor**  
The Level Sensor uses an actuator to determine whether paper in the tray is lifted to the optimum feeding position. When the flag of the actuator leaves the sensing area, the sensor detects that the paper has been lifted.
- **Pre-Feed Sensor**  
The Pre-Feed Sensor detects a paper jam in the tray by the paper position and sensor transition time.
- **No Paper Sensor**  
The No Paper Sensor uses an actuator to determine whether the tray is empty. When the actuator lowers, the No Paper Sensor signal goes High indicating an empty tray.

## Exit 1 Assembly

Exit 1 discharges the printed paper out of the printer, sending it either to the Standard Output Tray or when installed, the optional Horizontal Transport or Exit 2 Assembly.



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Figure 5 Exit 1 Assembly

Exit 1 components include:

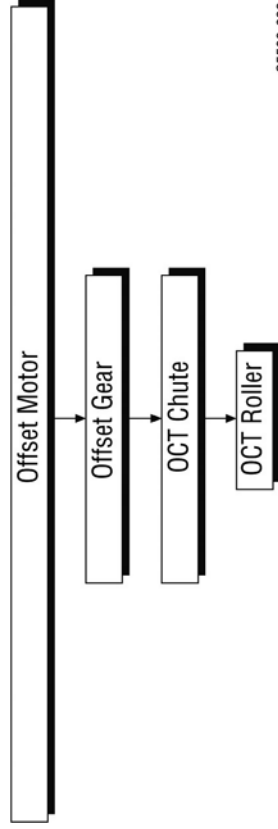
- **Exit Pinch Rollers**  
These rollers work together with the OCT Roller to eject paper to the Standard Output Tray.
- **OCT (offset) Roller**  
This roller transports the printed paper sent out from the Fuser, to the Standard Output Tray.

- **Exit Gate**

The Exit Gate switches the paper path. When the Exit Gate is in its resting position, paper is fed to the Standard Output Tray or Horizontal Transport. When it is lowered by the Exit Gate Solenoid, paper is fed to Exit 2. The Exit Gate is operated by the Exit Gate Solenoid located in the Exit 2 module.

- **Offset Motor**

The Offset Motor acting through the Offset Gear shifts the OCT Roller forward or backward providing paper offset capability. Forward rotation shifts the OCT Roller to the front. Reverse rotation shifts it to the rear. The flow diagram shows the Exit 1 components involved in the Offset process.



**Figure 6 Offset Drive**

- **Offset Home Position Sensor**

The Offset Home Position Sensor detects the OCT Roller position.

- **Exit PWB**

The Exit PWB controls paper feeding and reports sensor/switch information back to the Engine Control Board. The Exit PWB also controls the Exit 2 module when attached.

- **Paper Weight**

Controls paper exiting the Exit module. Removed from printers equipped with a Horizontal Transport.

- **Full Stack Sensor**

This sensor detects that the Standard Output Tray is full, using an Actuator.

- **Fuser Exit Sensor**

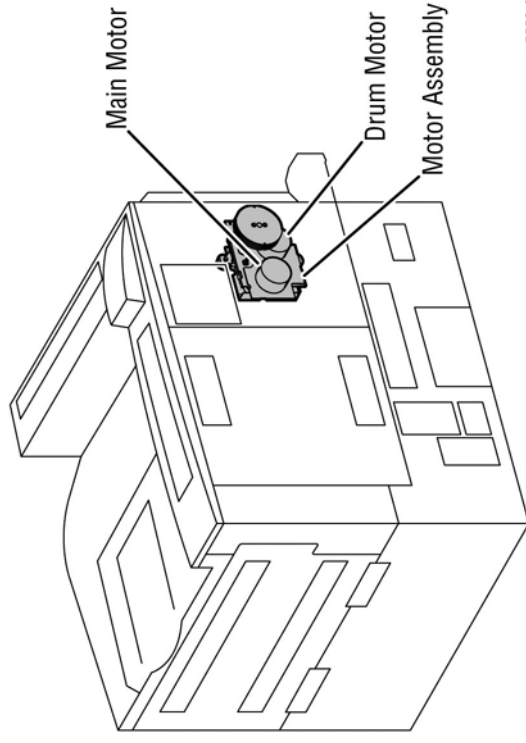
The Fuser Exit Sensor detects whether paper remains in the output rollers.

## Printer Drive and Electrical

The Drive subsystem includes motors and their driven assemblies.

- **Motor Assembly**

This assembly includes two motors. One provides the drive for paper transport and a second drives the Drum Cartridge. The assembly gets +24 VDC power from the LVPS. The motor enable and speed control signals come from the microprocessor on the Engine Control Board



**Figure 7 Motor Assembly**

- **Toner Dispense Motor**

This drives the Toner Cartridge and dispense tube auger to gradually release toner to the Drum Cartridge.

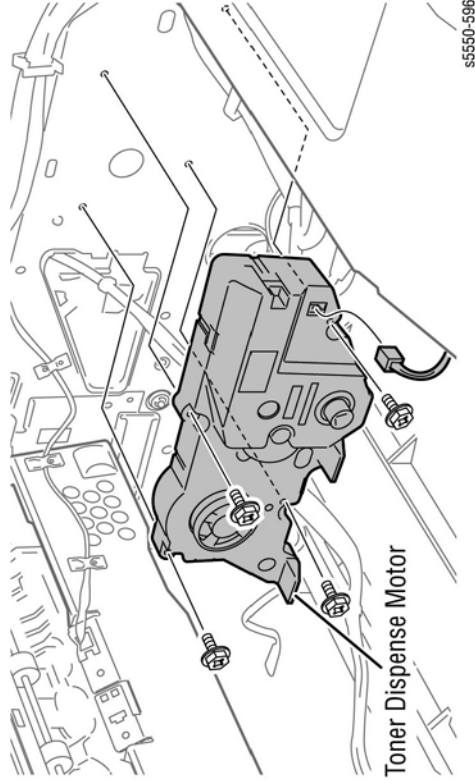


Figure 8 Toner Dispense Motor

**Printer Control**

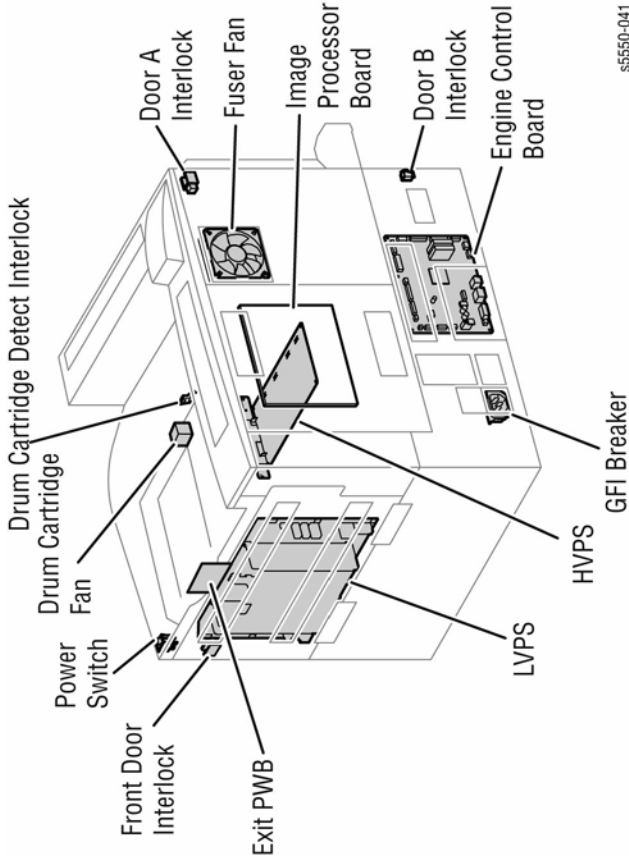


Figure 9 Printer Control

Printer control centers on the following:

- **Power Switch**  
The Power switch controls main power to the printer.
- **Engine Control Board**  
Manages all mechanical functions.
- **Image Processor Board**  
Processes the print data and directs the development of images on the Drum Cartridge.
- **Exit PWB**  
Specialized operational control of both Exit 1 and 2.  
Printer parameters are held by non-volatile memory located in these boards.

## Image Processor Board

The Image Processor Board (I/P Board) is one of the major elements of the Phaser 5500/5550 printer. The primary function of the I/P Board is to receive host data through one of the following available ports (Parallel, USB, or Ethernet). The received host data is buffered and stored and sent to the print engine in a rasterized format. The secondary function of the I/P Board is to provide print control, Control Panel control, configuration setup, error reporting, and job recovery.

Before the I/P Board can receive and process data it must first pass the Power On Self Test (POST). This test process verifies proper operation of the Image Processor and prepares it for processing the host data by putting the Image Processor in a known state.

The Image Processor Board connects to the Engine Control Board directly. The Control Panel is connected to the Image Processor Board and signals pass through the Engine Control Board via the Image Processor Board.

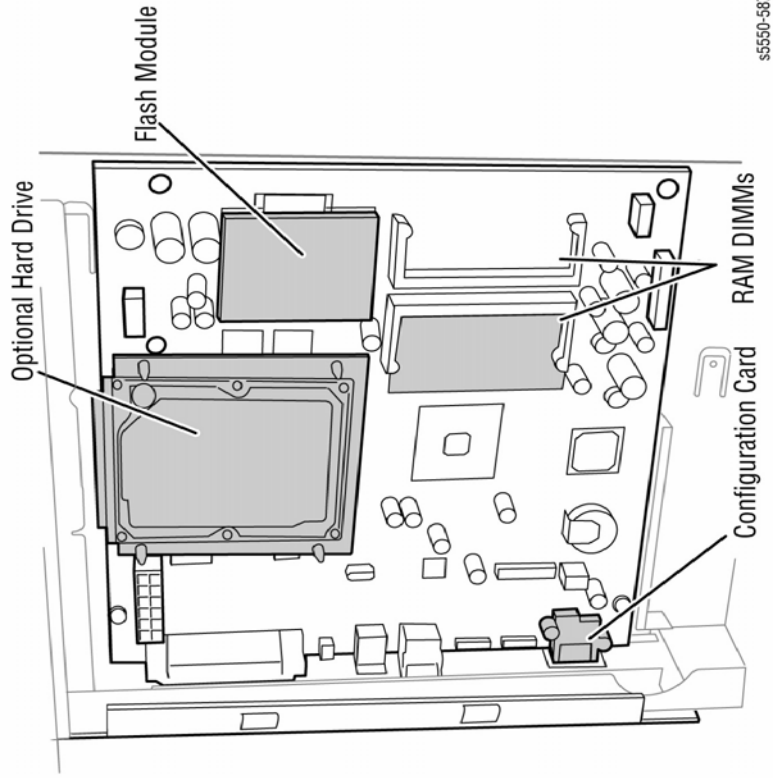


Figure 10 Image Processor Board

## Engine Control Board

The Engine Control Board manages the printing operation according to information obtained through communications with the I/P Board and from sensors and switches located throughout the printer.

The Engine Control Board performs seven main functions:

- Communicates with the Image Processor.
- Controls the print sequence.
- Distributes low DC voltages to various printer components.
- Monitors printer status.
- Maintains a running print count.
- Writes the NVRAM settings.
- Controls printer options.

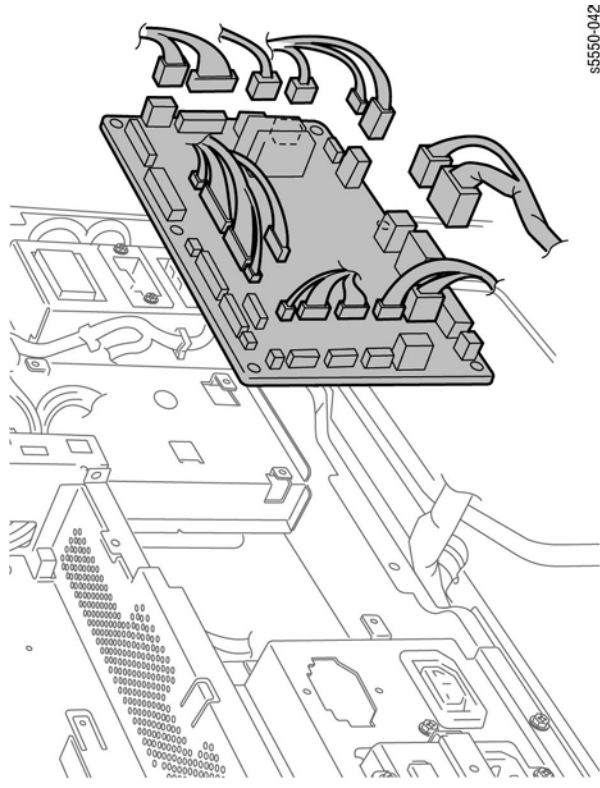


Figure 11 Engine Control Board

### Exit PWB

The Exit PWB controls timing, feed, and motor operation for Exit 1 and the optional Exit 2.

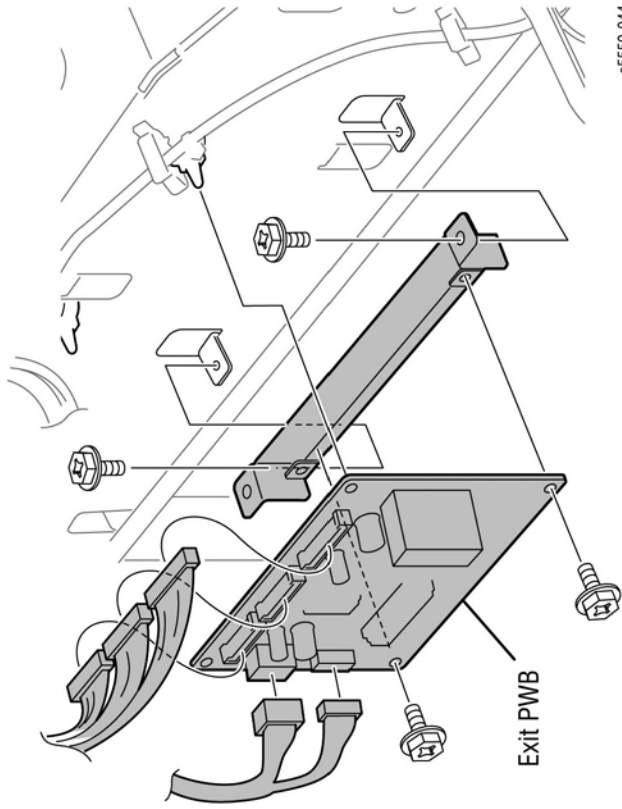


Figure 12 Exit PWB

### HVPS

The HVPS provides high AC and DC voltages to Xerographic components.

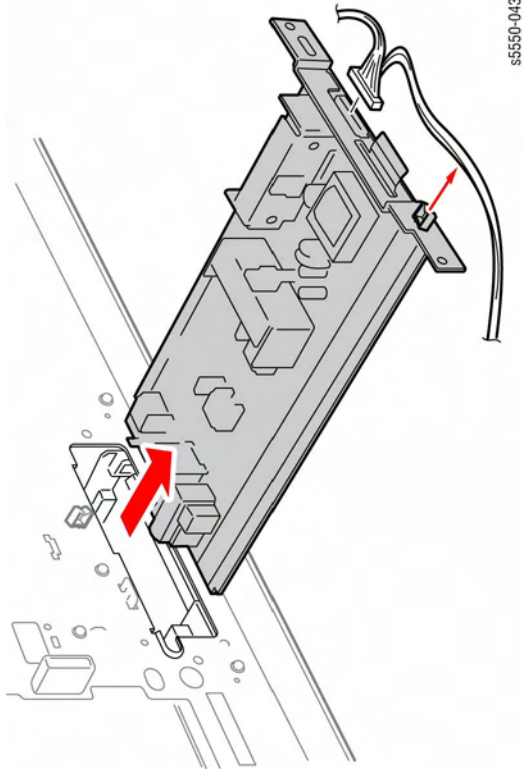


Figure 13 HVPS

Located behind the Inner Main Cover, the High Voltage Power Supply (HVPS) provides power to the Bias Charge Roller, Magnetic Roller, Transfer Roller, and Detack Saw.

### LVPS

The Low-Voltage Power Supply (LVPS) generates low voltages (+5 V and +3.3 V for logic circuits, +5 V for Laser Diodes, and +24 V for motors/clutches) from AC power. It also contains the Fuser Relay to switch AC power to the Heater Rod of the Fuser.

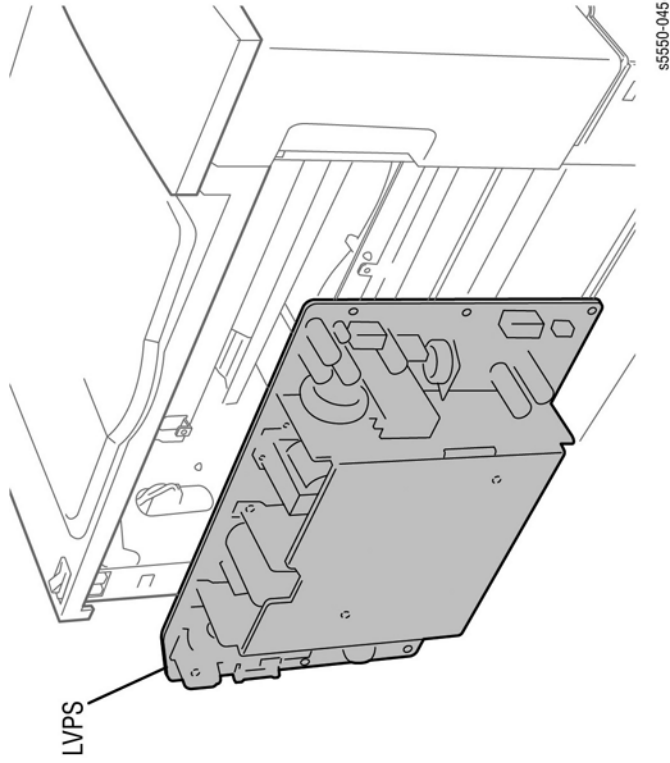


Figure 14 LVPS

### AC Accessory Panel

The AC Accessory Panel provides AC power for the Finisher and accepts the Printer Power Card.

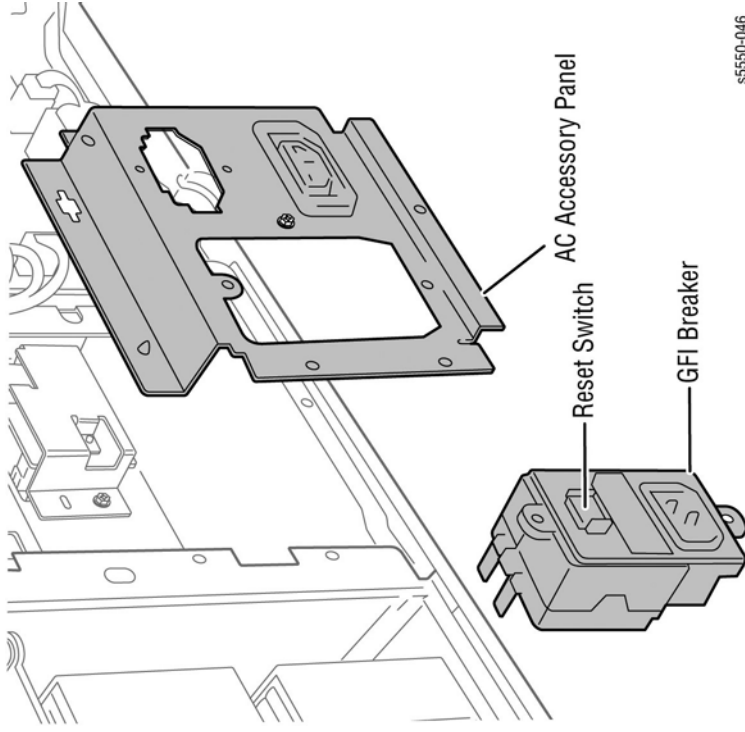


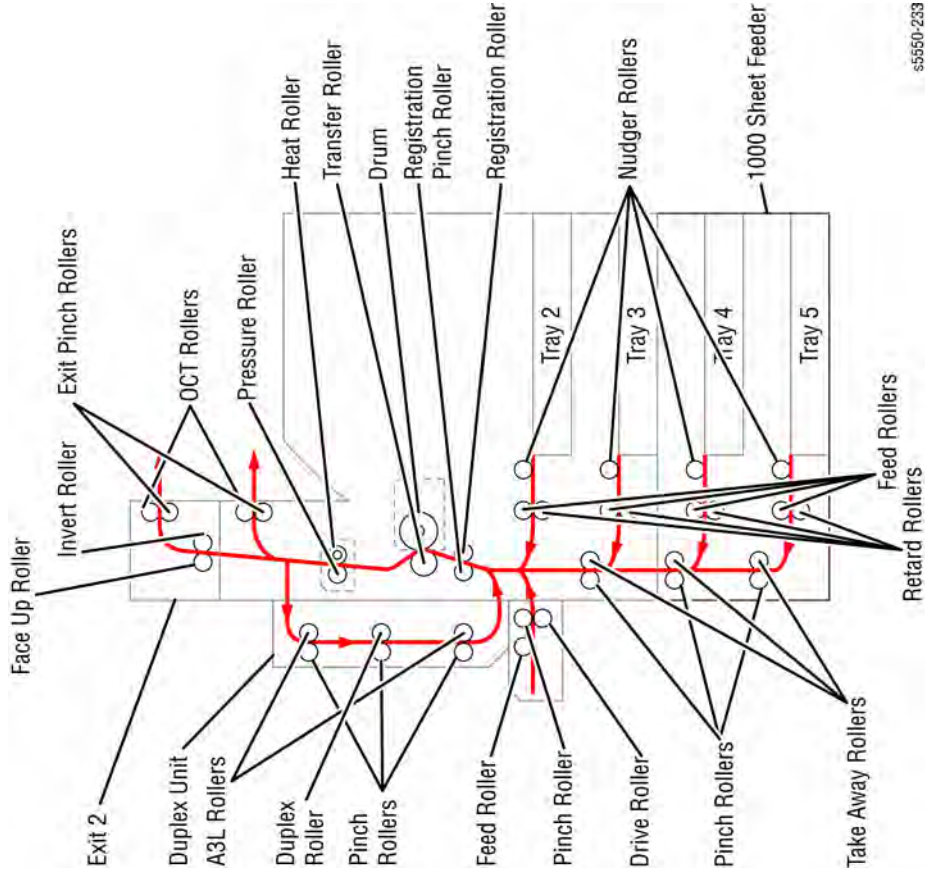
Figure 15 AC Accessory Panel



## Phaser 5500/5550 Options Operational Overview

The Phaser 5500/5550 printer options add memory, paper capacity, and functionality. For models not originally equipped, a 20 GB Hard Drive is available. A selection of memory upgrades can raise the installed quantity to the 512 MB maximum. An optional 1000-Sheet Feeder is available that adds two (Trays 4 and 5), 500-sheet universal media trays. A high-capacity 2000-Sheet Feeder (Tray 6) brings the maximum paper storage capacity to 4,100 sheets. An Envelope Tray, replacing Tray 2, feeds envelopes. On the output side, stapler/punch/stacker is available increasing output capacity by 3,500 sheets.

This section describes in detail the paper path, sensors, major system assemblies, and operational characteristics for each printer option.



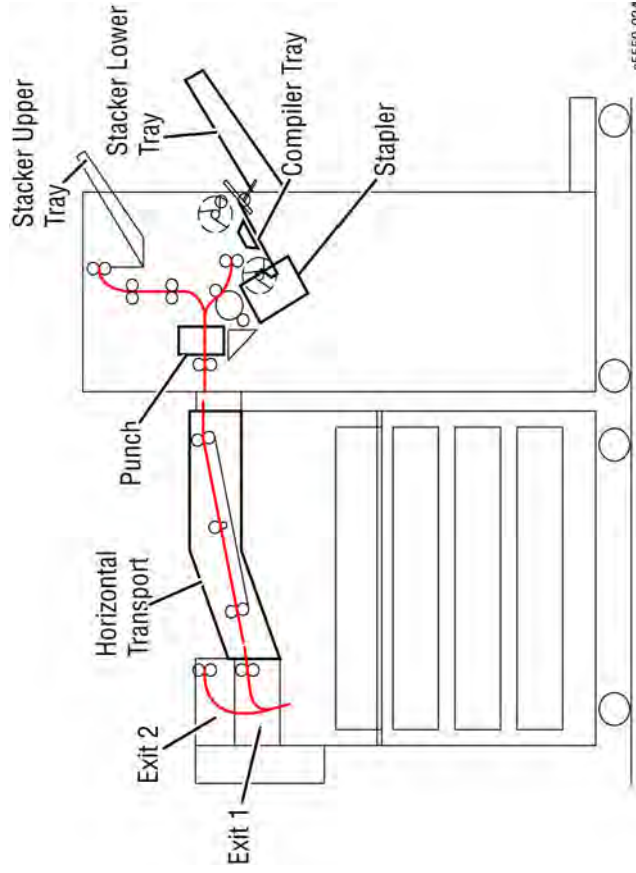
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Figure 1 Media Transport Path

The paths for media exiting the Fuser are:

- Direct through Exit 1 to the Standard Output Tray (facedown).
- Direct through Exit 1, the Horizontal Transport to the Stacker Upper or Lower Trays.
- Direct through Exit 2 to the Standard Output Tray on the Horizontal Transport Cover (facedown).
- Through Exit 2 back into the Duplex Unit then out Exit 2 to the Horizontal Transport Cover (facedown).
- Through Exit 2 back into the Duplex Unit then out Exit 1 to the Horizontal Transport then either the Stacker Upper or Lower Tray.

Figure 2 illustrates the paper path for the Standard Output Tray, the Horizontal Transport, and Finisher/Stacker.



s5550-024

Figure 2 Output Media Path

## Exit 2

Exit 2 discharges the printed paper out of the printer, sending it either to the Standard Output Tray or loading the Duplex Unit for two-sided printing.

Used in conjunction with either the Duplex Unit or the Finisher/Stacker, Exit 2 attaches to the printer directly above Exit 1 and receives power and control signals through a single connector on the lower, left side of the module.

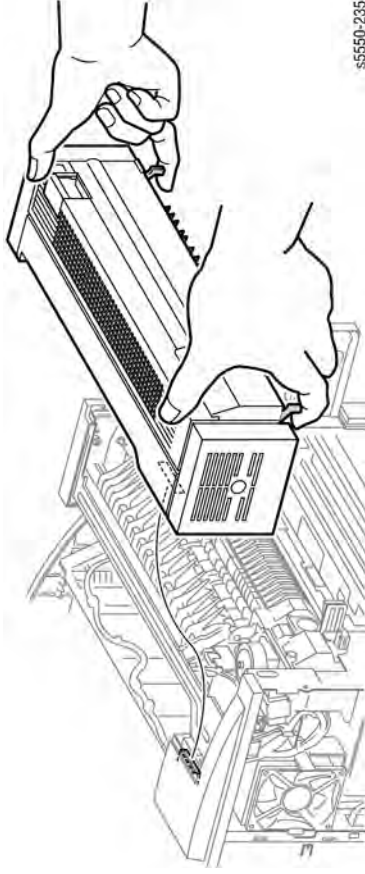


Figure 1 Exit 2

### Exit 2 Paper Path Components

Exit 2 paper transport components include:

- **Exit 2 Pinch Rollers**  
Work together with the OCT Roller to eject paper to the Standard Output Tray.
- **Exit Roller**  
This roller drives the printed paper from Exit 1 to the Horizontal Transport.
- **Face-up Solenoid**  
The Solenoid FU directs paper to the Face-Up Tray (not used in the Phaser 5550).
- **Face-up (FU), OCT (Offset), Invert Pinch and Invert Rollers**  
These rollers eject or reverse paper direction to load the Duplex Unit.
- **Exit Gate Solenoid**  
The Exit Gate Solenoid switches the Exit Gate, located in Exit 1, to eject paper to the Standard Output Tray or load the Duplex Unit.

### Exit 2 Sensors

- **Door E Interlock Switch**  
Detects the state, open or closed, of Door E.
- **Exit 2 Exit Sensor**  
The Exit 2 Exit Sensor detects whether paper remains in the output rollers.
- **OCT (Offset) Home Position Sensor**  
The OCT Position Sensor detects the OCT Roller position.

- **Stack Full Sensor**

This sensor detects whether the Standard Output Tray is full or not using the Stack Full Actuator.

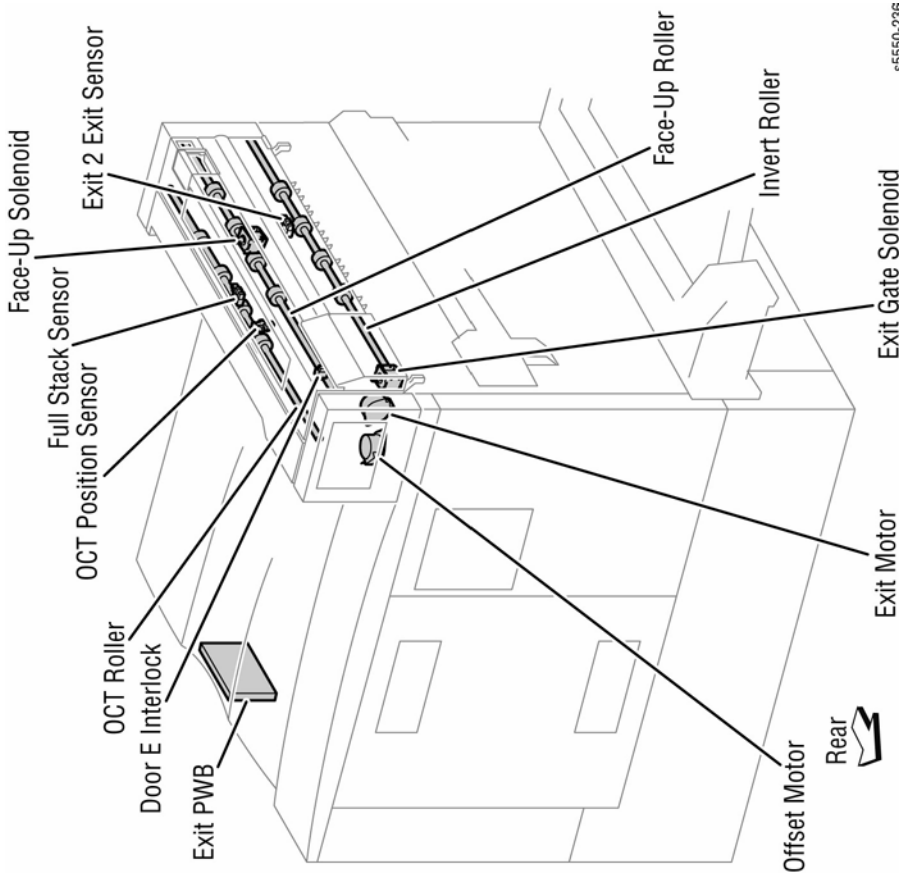


Figure 2 Exit 2 Sensors

### Exit 2 Drive and Electrical

- Exit 2 Motor**

This motor drives the rollers that move paper to the output tray and reverses to insert paper into the Duplex Unit.

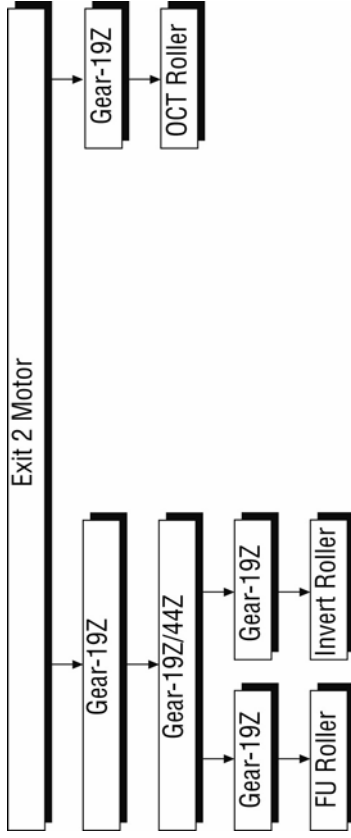


Figure 3 Exit Motor Drive

- Offset Motor**

The Offset Motor is a stepping motor that uses the Offset Gear to move the OCT Roller forward or rearward providing paper offset capability. Forward rotation of this motor moves the OCT Roller to the front side. Reverse rotation of this motor moves it to the rear side.

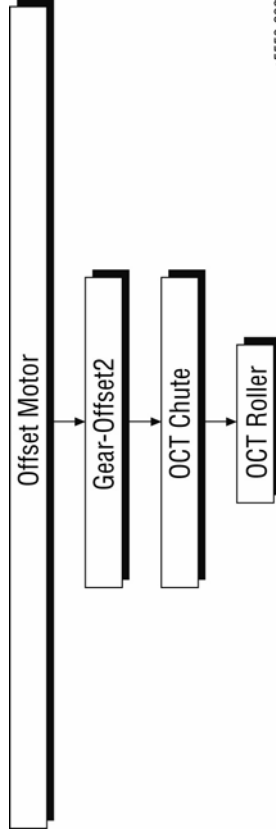


Figure 4 Offset Motor Drive

- Exit PWB**

The Exit PWB controls paper feeding and reports sensor/switch information back to the Engine Control Board.

- Exit 2 Fan**

The Exit 2 Fan cools the Exit 2 motors and solenoids during normal operations.

### Duplex Unit

If 2-sided printing is selected, paper is directed partially out Exit 2. The Exit 2 Motor reverses direction and loads the paper into the Duplex Unit. The paper pauses briefly, then continues through the Duplex Unit to the Registration Roller for printing on the opposite side. Rollers and solenoid-activated gates drive and direct the paper along the duplex path. The purpose of the Duplex Unit is to accept a printed sheet of paper from the Fuser exit area, effectively flipping the sheet over, wait a period of time for the second side to develop, then reinsert the sheet back into the printer registration area to receive an image on the reverse side. The Duplex Unit provides 2-sided printing for paper fed from all available paper trays except envelopes.

### Duplex Paper Handling

Duplex paper handling involves a number of transport rollers and sensors.

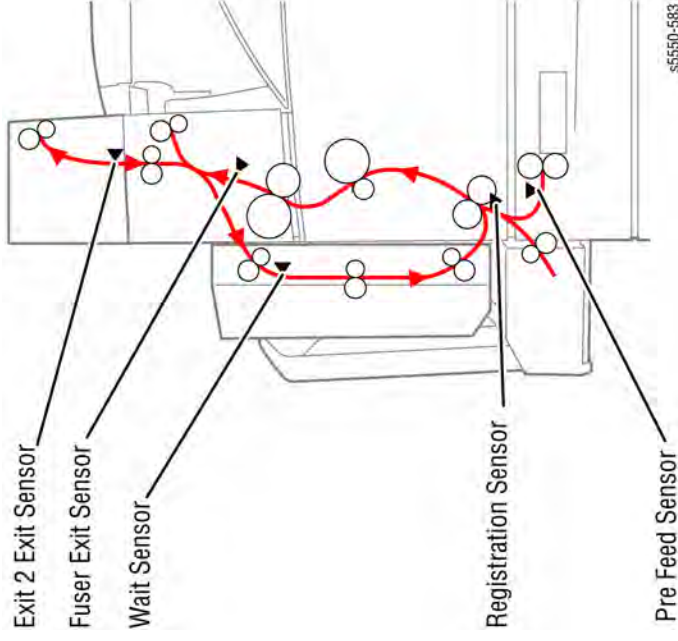


Figure 1 Duplex Path

### Duplex Unit Paper Path Components

- **A3L Roller Upper and Lower**  
These gear-driven rollers feed the paper printed on the back side, through the Duplex to the printer to print on the front side.
- **Duplex Roller**  
Drives the paper through the Duplex Unit.
- **Pinch Rollers**  
Both Chutes have multiple Pinch Rollers to maintain pressure on the paper.

### Duplex Unit Sensors

Two sensors monitor the Duplex Unit.

- **Door D Interlock Switch**  
The Door D Interlock Switch detects the status, open or closed of Door D.
- **Wait Sensor**  
The Wait Sensor detects whether paper is present in the Duplex Unit. Paper pauses at this point until it is time to reinsert the sheet to the Registration Roller.

### Duplex Unit Drive and Electrical

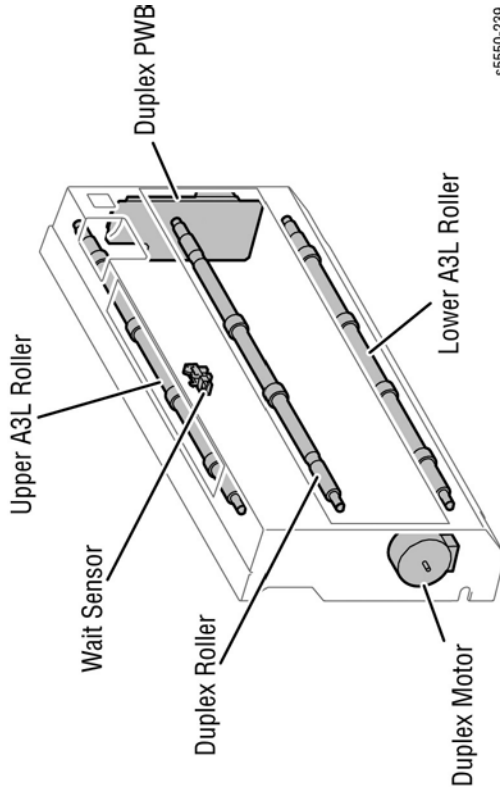


Figure 2 Duplex Unit Drive and Electrical

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- **Duplex PWB**

The Duplex PWB responds to commands, controls paper feed, and reports sensor/switch status to the Engine Control Board.

- **Duplex Motor**

The Duplex Motor drives a gear set to the three rollers that feed paper. This is illustrated in the following flow diagram.

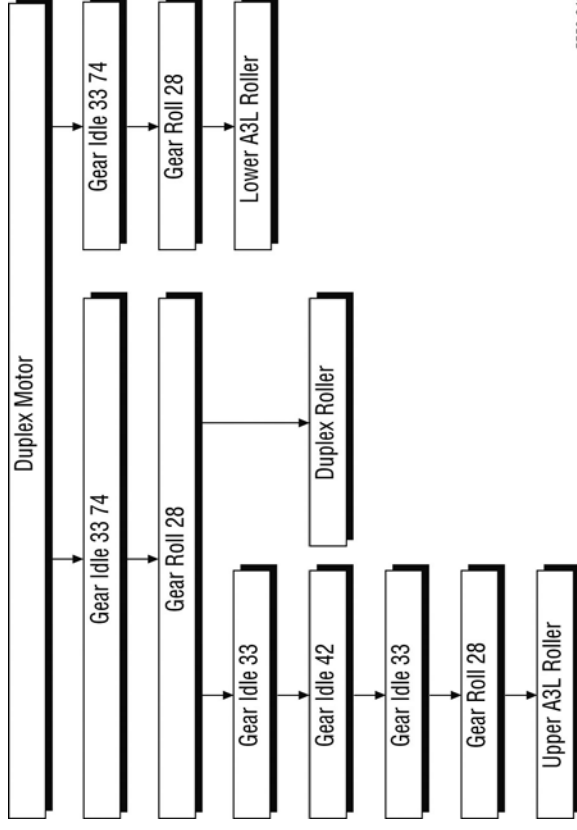


Figure 3 Duplex Motor Drive Chart

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## 1000-Sheet Feeder

Paper, supplied from either Tray 4 or 5, is transported through the printer along the paper path shown in Figure 1.

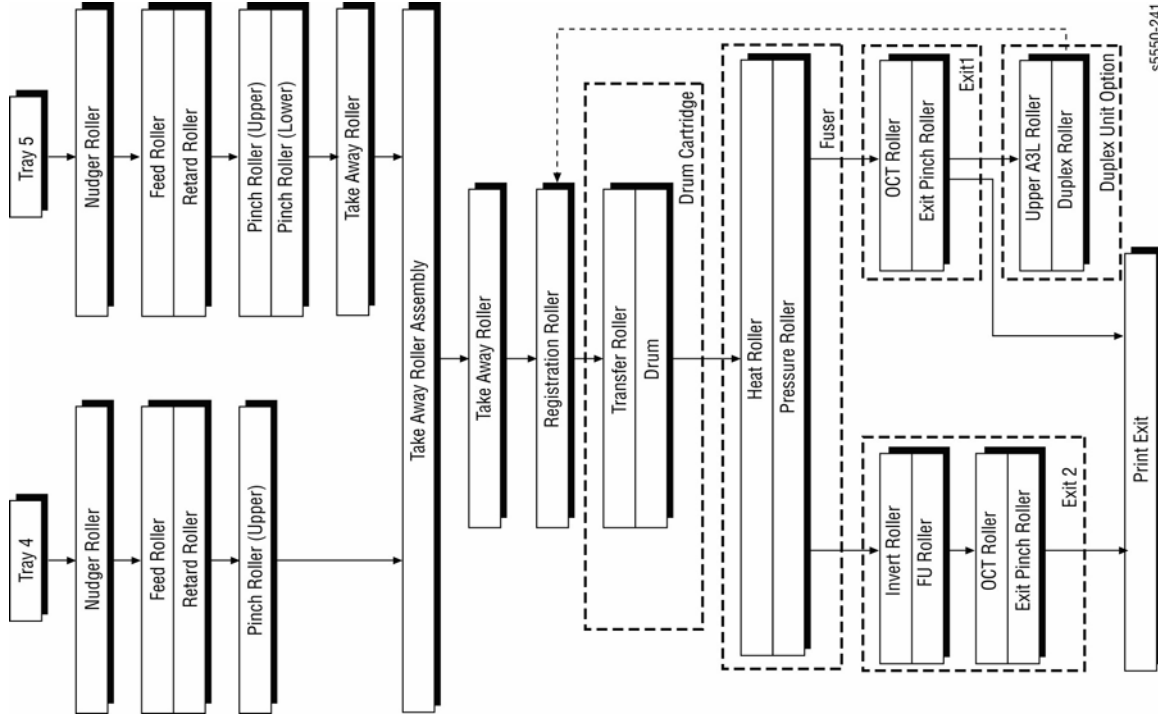


Figure 1 Tray 4 & 5 Paper Path Chart

## 1000-Sheet Feeder Media Path Components

The following is a cross section of the printer and the optional 1000-Sheet Feeder, showing main components directly associated with the media path and transport.

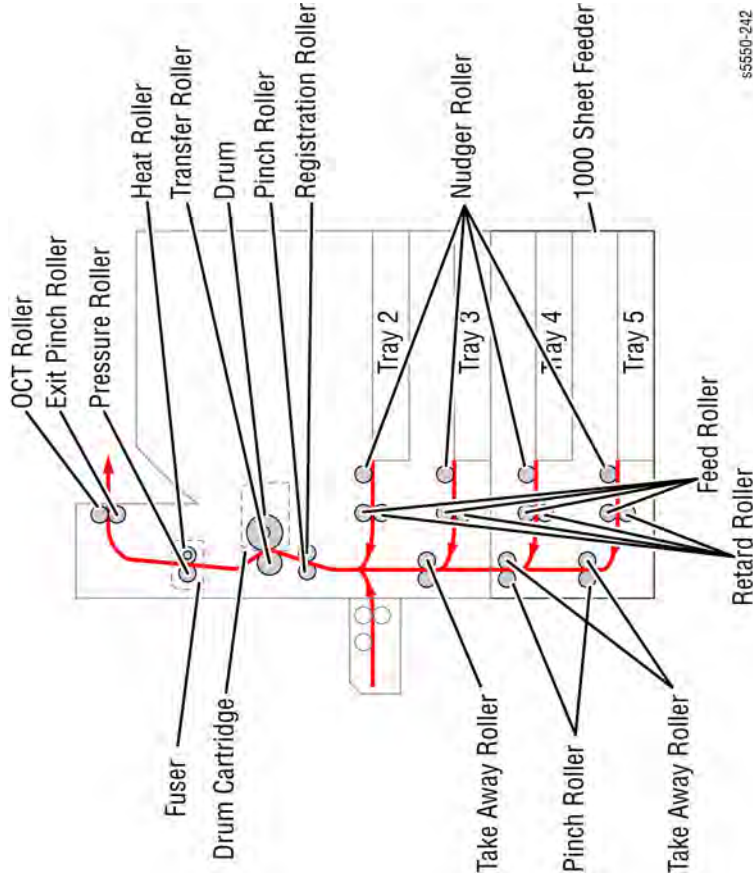


Figure 2 1000-Sheet Feeder Media Path Components

When the optional 1000-Sheet Feeder is installed under the printer, two additional 500-sheet universal trays are available. These two trays are identical to the 500-sheet trays standard with the printer. The Feeder Assemblies are also identical to those used in the printer.

- **Upper and Lower Take Away Rollers**  
The Take Away Roller feeds paper from the feeders into the printer paper path.
- **Upper and Lower Pinch Rollers**  
Upper and Lower Pinch Rollers apply pressure to the paper as it's driven along the paper path.

## Trays

Paper size is set using the size guides in each tray. Adjust the Front, Rear, and End Guides to match the paper size. The Bottom Plate is used to raise the level of the paper stack for feeding. These tray components appear in the following figure.

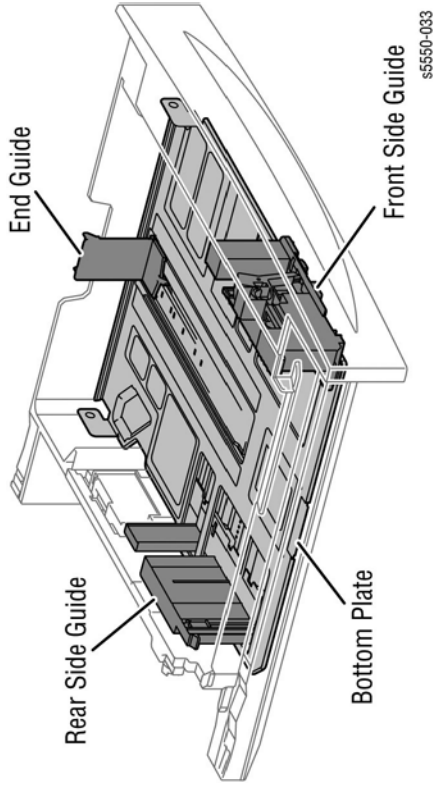


Figure 3 Tray Components

- **Front, Rear and End Side Guides**

The Front, Rear, and End Side Guides adjust to different paper sizes by moving them to contact the paper edges and hold it in position.

- **Bottom Plate**

The Feeder's Feed/Lift Motor through the Gear (13T/60T) and Sector Gear (60T) turn the Lift Shaft raising the Bottom Plate which causes the supplied paper to contact the Nudger Roller.

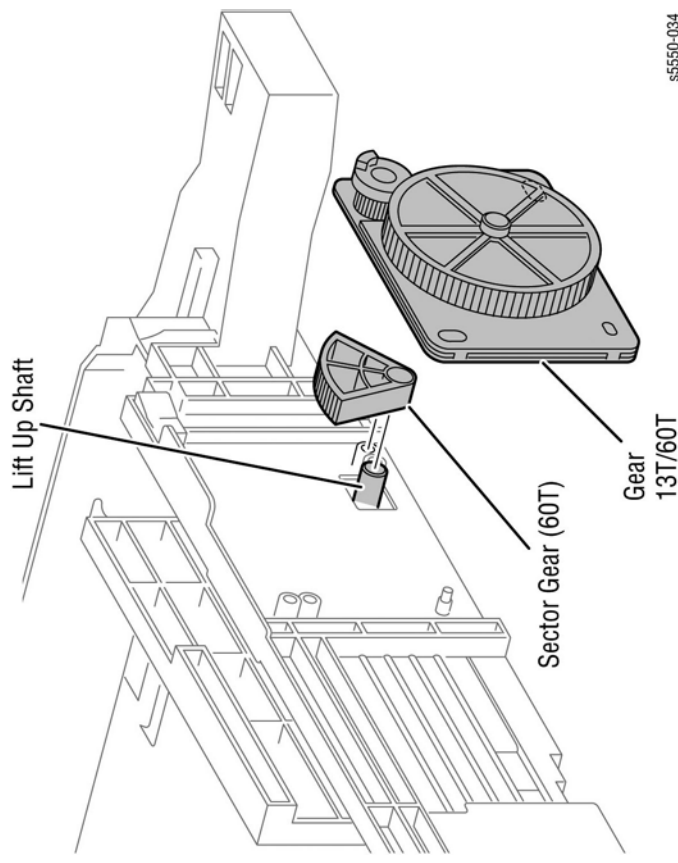


Figure 4 Tray Lift Gears



## Feeders

Trays 4 and 5 are functionally equivalent in terms of the Feeder mechanism that moves paper from the tray into the printer. The driving force from each Feeder's Feed/Lift Motor is transmitted via a gear assembly to the Feed and Nudger Rollers, moving paper from the tray into the printer.

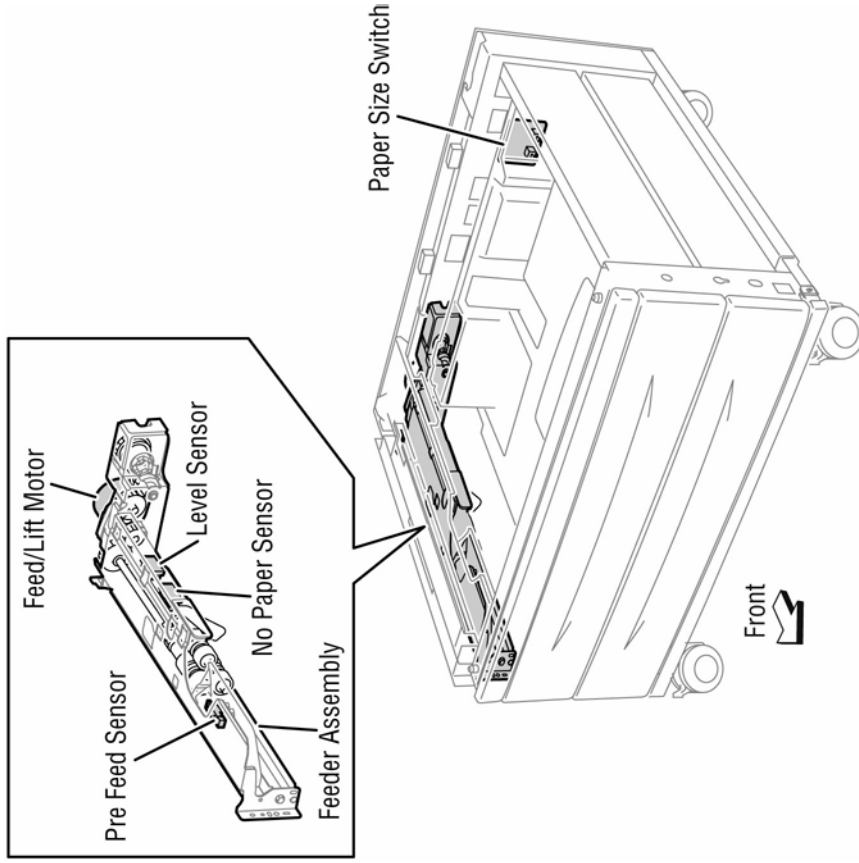


Figure 5 Feeder Assembly

## 1000-Sheet Feeder Sensors

- **Tray 4 Paper Size Switch**  
The Tray 4 Paper Size Switch reports the position of the Front and Rear Side Guides and End Guide to the Engine Control Board.
- **Tray 5 Paper Size Switch**  
The Tray 5 Paper Size Switch reports the position of the Front and Rear Side Guides and End Guide to the Engine Control Board. Both Paper Size Switches appear in Figure 6.

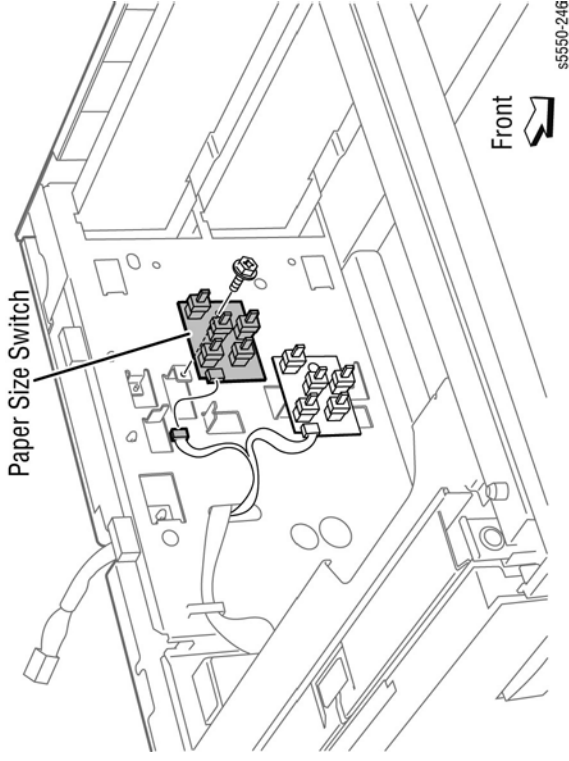


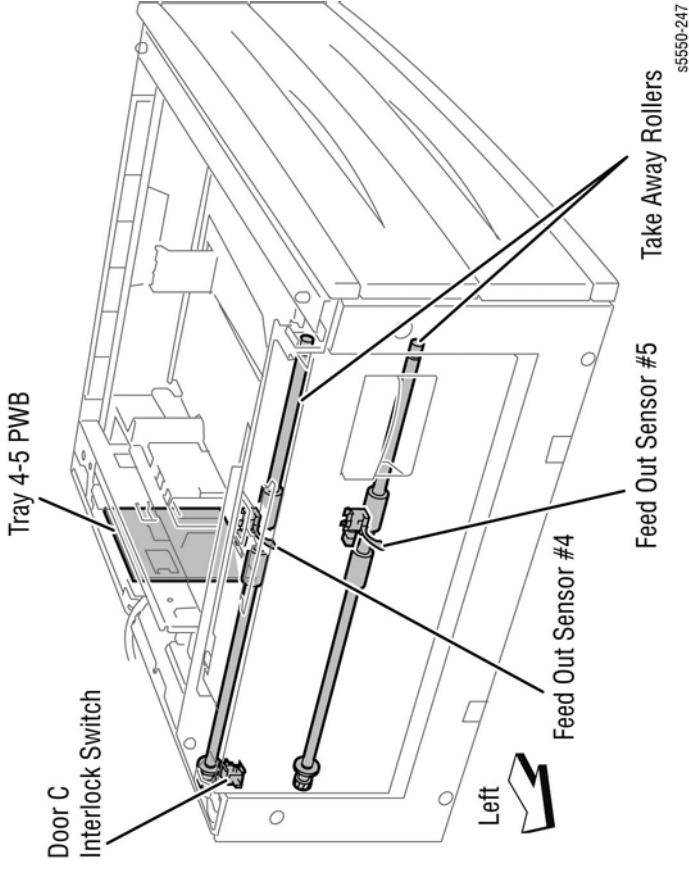
Figure 6 1000-Sheet Feeder Sensors

Levers in the bottom of the tray are positioned by the tray's end guide. Actuators on the side of the tray close or open the switches in a pattern that correspond to one of the pre-defined paper sizes.

The following table provides the switch states corresponding to the pre-defined paper sizes. The switches are denoted by "SW1", "SW2", "SW3", SW4 and "SW5", respectively, when viewed from the front.

**Table 1 1000-Sheet Feeder Pre-Defined Paper Size**

Paper Size	Paper Size Switch Output				
	SW1	SW2	SW3	SW4	SW5
No Tray	0	0	0	0	0
5.5" x 8.5" / A5 SEF	0	0	1	0	0
B5 SEF	0	0	1	1	1
8.5" x 13" SEF	0	1	0	1	0
8.5" x 14" SEF	0	1	0	1	1
A4 SEF	0	1	1	0	0
8.5" x 11" SEF	0	1	1	0	1
A4 LEF	1	0	1	0	0
A3 SEF	1	0	1	1	0
B5 LEF/Executive LEF	1	1	0	0	1
8K SEF (TFX/GCO)	1	1	0	1	0
B4 SEF	1	1	0	1	1
8.5" x 11" LEF	1	1	1	0	0
16K LEF (TFX/GCO)	1	1	1	0	1
11" x 17" LEF	1	1	1	1	1



**Figure 7 Tray 4 & 5 Components**

- No Paper Sensor**  
 This sensor, located on the Feeder, uses an actuator to determine whether the tray is empty. When the actuator lowers, the sensor state changes to High and signals the Engine Control Board.
- Level Sensor**  
 This sensor, located on the Feeder, uses an actuator to determine whether paper in the tray is lifted. When the flag of the actuator leaves the sensing area, the sensor detects that the paper has been lifted.
- Pre-Feed Sensor**  
 This sensor, located on the Feeder, detects a paper jam in the tray by the paper position and sensor transition time.
- Feed Out Sensor #4**  
 This sensor, located on the upper chute in front of the Tray 4 Feeder, uses an actuator to determine whether the paper has moved into the printer from the tray.
- Feed Out Sensor #5**  
 This sensor, located in the chute above the Tray 5 Feeder, uses an actuator to determine whether the paper has moved into the printer from the tray.



## 1000-Sheet Feeder Drive and Electrical

- **Feeder/Feed/Lift Motor**  
This motor, one on each Feeder, is activated by the Level Sensor to feed paper and to lift the Bottom Plate. When feeding paper, it rotates forward to drive the Nudger Roller. When lifting the Bottom Plate, it rotates in reverse to drive the tray gears to turn the Lift Shaft.
- **Door C Interlock Switch**  
The Door C Interlock Switch detects whether Door C is open or closed.
- **Take Away Clutch**  
The Take Away Clutch transmits Take Away Motor force to the gear set driving the Take Away Roller.
- **Tray 4-5 PWB**  
The Tray 4-5 PWB controls paper feeding on command from the Engine Control Board and reports sensor/switch information.
- **Tray 4-5 Take Away Motor**  
The rotating force of the Tray 4-5 Take Away Motor is transmitted through the gears to the Take Away Roller as shown in Figure 8.

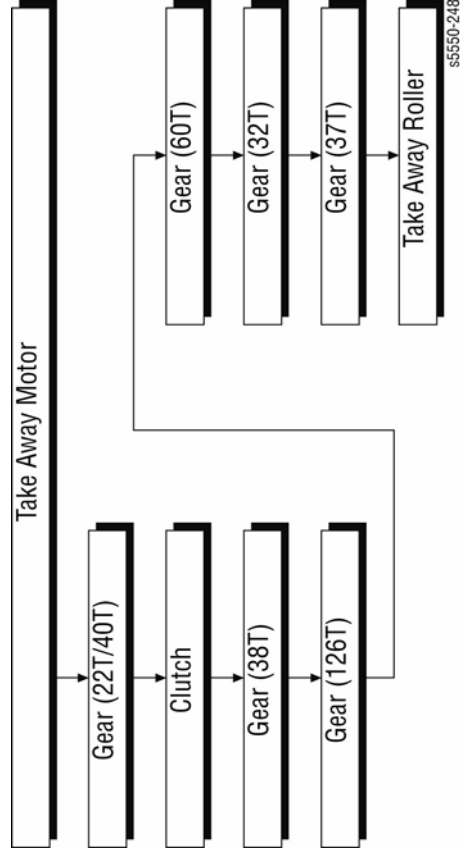


Figure 8 Tray 4-5 Take Away Motor Flow

## 2000-Sheet Feeder

The 2000-Sheet Feeder, when connected to the printer, adds up to 2,000 sheets of paper input capacity. The following describes the major components and operation of the 2000-Sheet Feeder.

### Tray 6 Paper Path Components

Paper path components of the 2000-Sheet Feeder include:

- Nudger Roller
- Feed Roller
- Retard Roller
- Take Away Roller

The Nudger, Feed, and Retard Rollers are driven by the Feed/Lift Motor. The paper fed by the Feed and Retard Rollers passes through the Pre-Feed Sensor. The Pre-Feed Sensor detects the presence of paper fed from the tray and detects paper jams. The Pre-Feed Sensor controls the Feed/Lift Motor speed, and the Nudger Solenoid. The Take Away Roller, located inside Door J, is driven by the Take Away Motor. Paper fed by the Take Away Roller passes through the Tray 6 Feed Out Sensor #6 and into the printer. The Feed Out Sensor #6 signal indicates when the Feed/Lift Motor should stop and the Take Away Motor's speed. The Feed Out Sensor #6 signal is also used to detect jams.

Figure 1 illustrates these components.

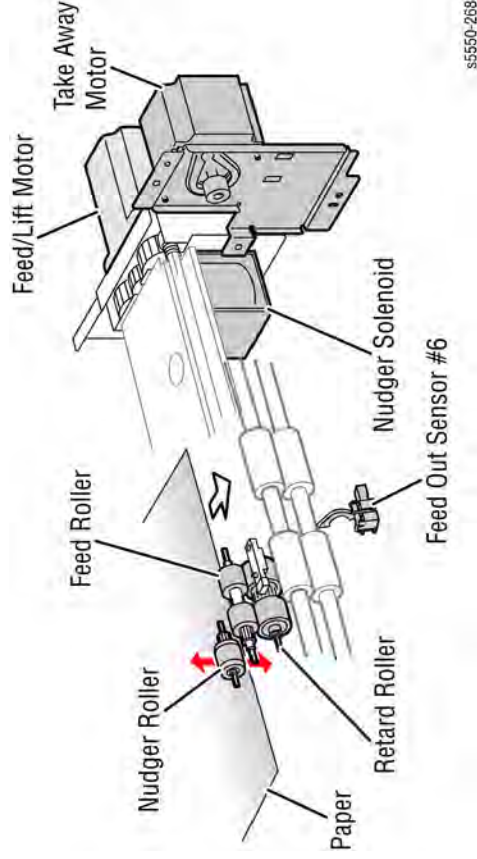


Figure 1 Tray 6 Paper Path Components

The paper feed sequence begins when the Tray 6 PWB receives the feed start signal from the printer's Engine Control Board. The Nudger Solenoid is activated to press the Nudger Roller against the paper in the tray. Next, the Feed/Lift Motor is rotated in the forward direction driving the Nudger Roller to feed paper to the Feed Roller.

The Nudger Solenoid remains activated at 24.5 V (high power) for 80 ms. After that, voltage drops to 14.7 V (low power) until the Nudger Solenoid is deactivated. If another feed start signal arrives while the solenoid is at low power, the solenoid remains at low power while pressing the Nudger Roller against the paper.

As the end of the sheet reaches the Pre-Feed Sensor, the signal goes High. This deactivates the Nudger Solenoid and separates the Nudger Roller from the paper. The Feed/Lift Motor also decelerates. Feed/Lift Motor start/stop timing and speed are controlled by the Feed/Lift Motor Start signal and the Pre-Feed Sensor.

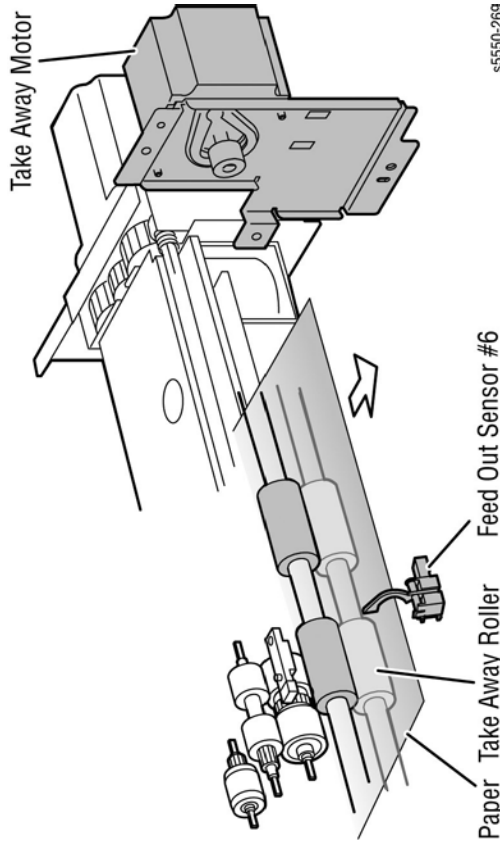


Figure 2 Tray 6 Take Away Components

The feed start signal also starts the delayed activation the Take Away Motor at a high speed after a preset time has passed. The Take Away Motor drives the Take Away Roller, and the paper is transferred to the printer paper path.

When the Feed Out Sensor #6 signal goes High, the Take Away Motor slows to low speed after a preset time has passed. When the printer's Registration Sensor signal goes High, the Take Away Motor stops. If the next feed start signal is received before the Take Away Motor is turned off, the Take Away Motor continues to rotate at low speed. When the paper is transferred to the printer and the Feed Out Sensor #6 signal goes High, the Nudger Solenoid is re-activated for a preset time. The following illustrates the timing relationships between the paper path components.

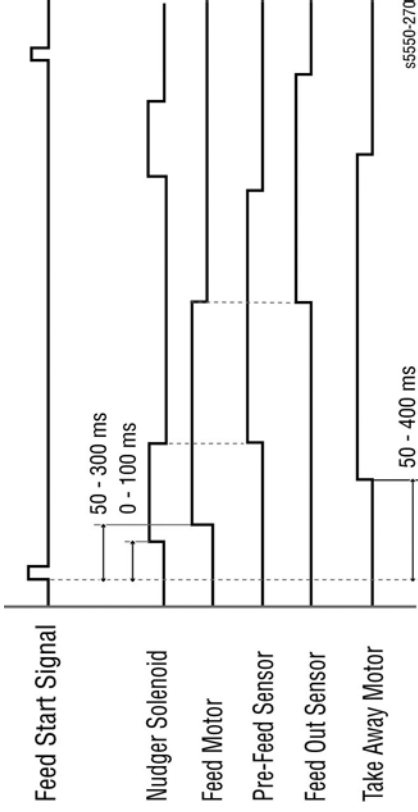


Figure 3 Tray 6 Feed Timing Diagram

### Tray 6 Sensors

- **Door J Interlock**  
When "Open" printing operation is stopped, and the 24 V supply to the Feed/Lift and Take Away Motors is shut off.
- **Docking Interlock Switch**  
When "Open" transfer of paper from the tray is stopped.

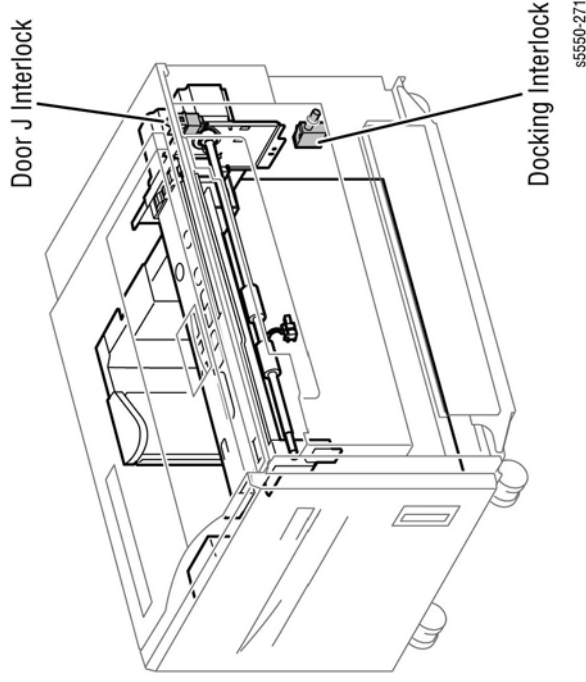


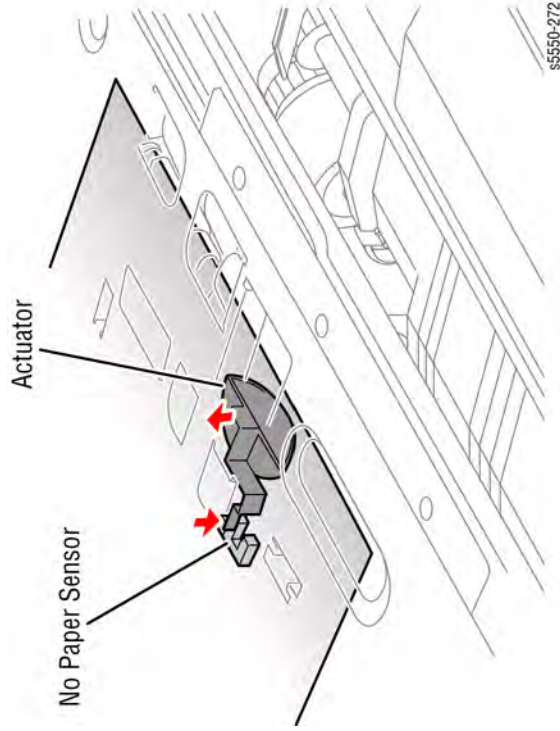
Figure 4 Docking Interlock Switch

- **Paper Size Sensors**

Paper size is automatically detected by two sensors, Size Sensors A and B, that are actuated by the Rear Size Guide attached to the tray. The Rear Size Guide adjusts to accommodate the supported paper sizes and is locked by a thumbscrew.

- **No Paper Sensor**

An actuator is raised by the lifting of paper in the tray. If paper runs out while the tray is at the feeding position, the actuator falls inside the sensing area indicating No Paper. If the Bottom Plate is down, the actuator remains in the sensing area indicating No Paper regardless of the presence of paper in the tray.



**Figure 5 No Paper Sensor**

Polling of the No Paper Sensor occurs every 10 ms after the paper lifting operation has finished. Paper transfer from the tray is inhibited if the No Paper Sensor has detected an empty tray.

- **Level Sensor**

This sensor, located on the Feeder, uses an actuator to determine whether paper in the tray is lifted to feeding position.

- **Pre-Feed Sensor**

The Pre-Feed Sensor detects whether paper has been fed from the Tray and controls the Feed/Lift Motor speed. The sensor also serves as a trigger to deactivate the Nudger Solenoid.

- **Feed Out Sensor #6**

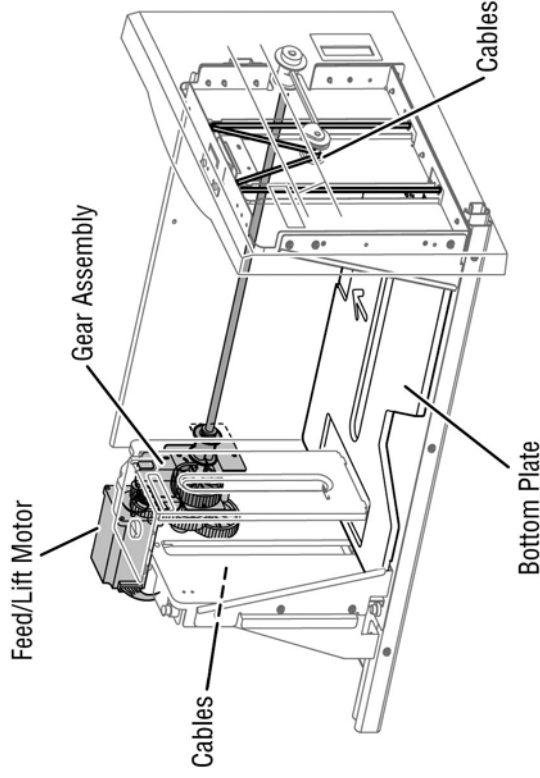
The Feed Out Sensor detects whether paper has been fed from the tray. The Feed Out sensor also serves as a trigger to stop the Feed Motor and controls the Take Away Motor speed. The Feed Out Sensor signal goes High when paper is present.

## Tray Assembly

The following describes the operation and components related to the 2000-Sheet Feeder Tray Assembly.

### Paper Lift

The Paper lift operation starts automatically when the tray is closed. Tray lifting is accomplished by the Feed/Lift Motor acting on a gear assembly that drives a cable/pulley combination at each end of the tray. The Bottom Plate lifts the paper and stops at the feeding position. At the same time, detection of no paper and remaining paper volume is made. The Feed/Lift Motor is attached to the frame behind the Rear Cover. The remainder of the lifting mechanism is attached to the tray.



**Figure 6 Paper Lift**

These steps describe the lift operation when power is turned On or when the tray is inserted.

1. Activate the Nudger Solenoid.
2. Check the Level Sensor status 500 ms after the Nudger Solenoid is activated. If the Level Sensor signal is Low, reverse the Feed/Lift Motor to lift the tray. When the Level Sensor signal is High, stop the Feed/Lift Motor after 90 ms to stop tray lift. If the Level Sensor signal is High at power On, the tray is already at the feed position.

These steps describe the lift operation while paper is being transferred to the printer.

1. The Level Sensor is Off while the Nudger Solenoid is deactivated during paper feeding.

- Reverse the Feed/Lift Motor 50 ms after completion of the paper transfer to the printer, then stop the motor after 120 ms. The quick lifting is carried out while the motor is rotating in reverse. The Nudger Solenoid is deactivated during the quick lift. At this time, the Nudger Roll is off the paper, and therefore no paper is fed.  
The tray does not lift when a paper jam occurs in the 2000-Sheet Feeder or when the Door J Interlock or Docking Interlock Switch detects Interlock Open. Bottom Plate lowering occurs when the Tray is opened. The lift mechanism is disengaged and the Bottom Plate lowers by gravity.

#### Paper Size Settings

Paper size is automatically detected by two sensors, Size Sensors A and B, that are actuated by the Rear Size Guide attached to the tray. The Rear Size Guide adjusts to accommodate the supported paper sizes.

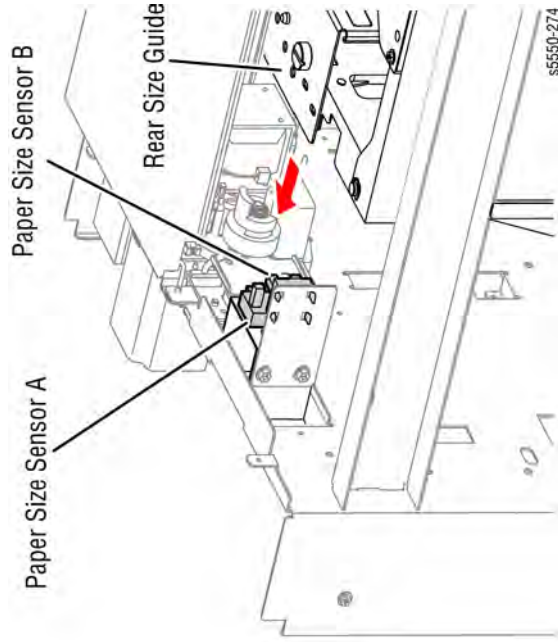


Figure 7 Paper Size Settings

Detectable paper size and sensor logic level patterns are as follows:

Table 1 Paper Size Settings

Paper Size	Size Sensor A	Size Sensor B
B5/Executive 7.25" x 10.5"	0	0
8.5" x 11"	0	1
A4	1	0

Paper size is determined during the printer's startup procedure, and is checked again 500 ms after the Tray In Sensor state transitions from Low to High. Paper size is also monitored every 100 ms. The paper size is established following five consecutive readings of the same paper size. If the size sensor state does not match any known pattern, paper size is indeterminate and paper feeding is inhibited.

#### Paper Volume

This function determines the quantity of paper remaining by using the Feed/Lift Motor rotation time and the Level Sensor timing during the tray lift.

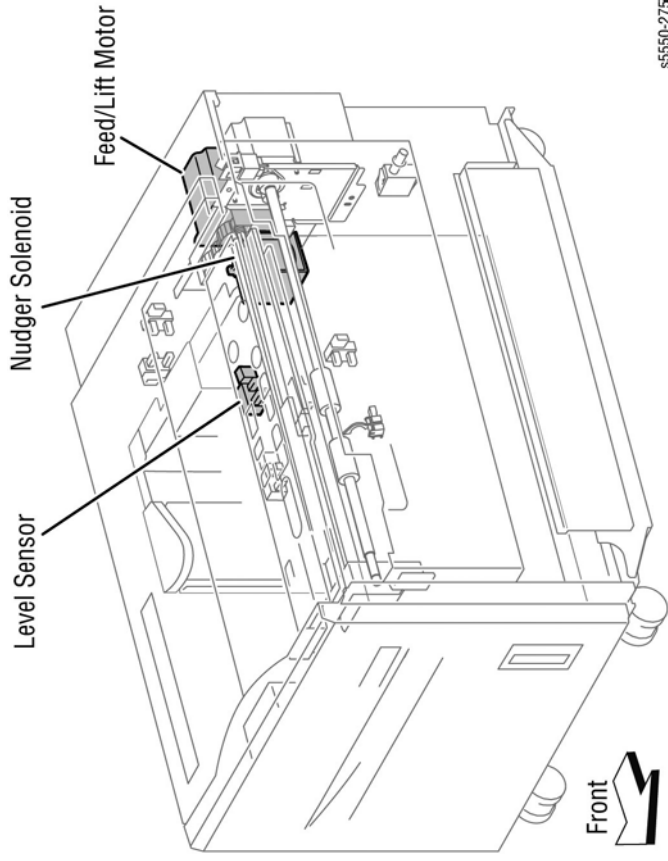


Figure 8 Tray Function

Detection of remaining paper volume is calculated in one of the following ways.

- During startup procedure or when the tray is closed:  
Remaining paper volume is determined based on the time period from Feed/Lift Motor lift until the Tray 6 Level Sensor goes High.
- During quick lifting while feeding:  
Remaining paper volume is determined by totaling the initial lifting time, during startup procedure or when the tray is inserted, and the quick lifting time (120 ms per lift).  
Quick lifting time (120 ms x number of lifting times) + Initial lifting time = Total lifting time
- When the Tray is removed:  
No Tray is detected, and therefore the remaining paper volume is zero.

The following table lists volume indication corresponding to tray lifting timing.

**Table 2 Paper Volume**

Paper Volume Indication	Tray Lift Time (ms)
25%	8798 - 11526
50%	6068 - 8798
75%	3338 - 6067
FULL	0 - 3337

If the remaining paper volume becomes zero before No-Paper is detected, the indication remains at 25%. When the No Paper Sensor detects No-Paper, the indication becomes zero.

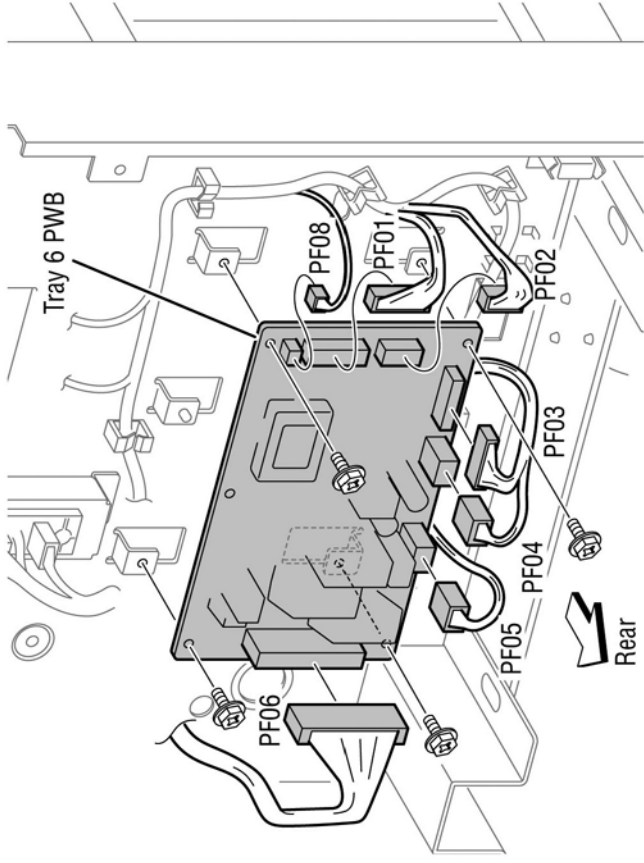
When a fault occurs, remaining paper volume is calculated as follows:

1. When the Interlock opens during a lifting operation:  
Remaining paper volume is based on the total time until Interlock open and the time from the Feed Motor forward/reverse rotation until the Level Sensor goes High.
2. When the power is cycled during a lifting operation:  
Remaining paper volume is determined by the lifting time after power On.
3. When the power is cycled while the tray is at the feeding position:  
If the Level Sensor signal is High when the power is turned On, the remaining paper volume before the previous power Off is regarded as the remaining paper. If the Level Sensor signal is Low when the power is turned On, it is assumed that the tray has been removed, and the remaining paper volume is based on the time from the Feed Motor forward/reverse rotation until the Level Sensor signal goes High.

## 2000-Sheet Feeder Drive and Electrical

Functions of the sensors and motors of the Feeder outlined below.

- **Feed/Lift Motor**  
The Feed Motor is a stepping motor that drives the Nudger and Feed Rollers to feed paper from the tray to the Take Away Roller. When run in reverse, The Feed Motor lifts the tray.
- **Take Away Motor**  
The Take Away Motor drives the Take Away Roller to feed paper to the printer's paper path.
- **Nudger Solenoid**  
The Nudger Solenoid raises or lowers the Nudger Roller. The solenoid remains activated from the beginning of paper feed until the Pre-Feed Sensor signal goes High. The solenoid is also activated when the tray is inserted and the power is turned On to check for the presence of paper in the tray.
- **Tray 6 PWB**  
Located behind the Rear Cover, the Tray 6 PWB manages the 2000-Sheet Feeder based on commands from the Engine Control Board and reports sensor status.



**Figure 9 Tray 6 PWB**

- **Door J Interlock Switch**  
When opened, the Door J Interlock cuts 24 V power to the Feed/Lift and Take Away motors and inhibits printing.
- **Docking Interlock Switch**  
When the Docking Interlock is opened, paper feeding from Tray 6 is stopped.
- **Tray In Sensor**  
When the tray is opened, the Tray In Sensor inhibits feeding from Tray 6.



## Finisher/Stacker

The Finisher is a customer installed option that adds hole punching, stapling (up to 50 sheets) and job stacking with offset (up to 3500 sheets). The Finisher docks with the printer and uses an accessory AC outlet on the printer for power. The Stacker differs from the Finisher by the omission of the paper punch and stapler. The operational descriptions presented in this section cover all the capabilities of the Finisher.

Shown in Figure 1 is the media path for the Finisher through Exit 1, the Horizontal Transport, and the Finisher.

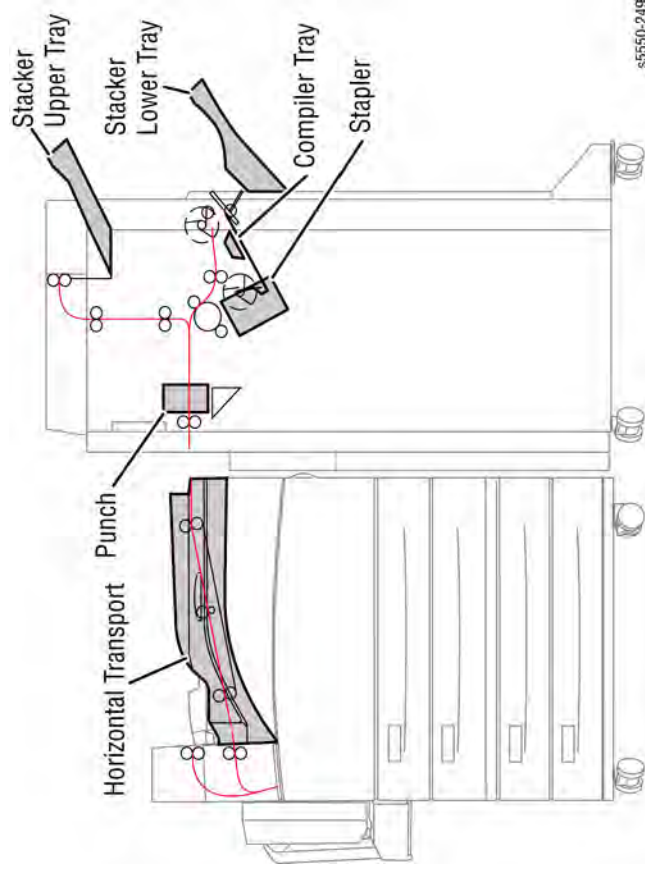


Figure 1 Output Paper Path

## Finisher Media Path Components

The Finisher media path is described below:

- Horizontal Transport transfers paper from the Printer to the Finisher.
- Punch Unit provides 2-1/4- or 3-hole punch capability.
- Buffer Path adds a paper path timing delay to maintain throughput speed.
- Compiler Tray's function is to neatly stack the paper by using Cyclone Paddles and tampers.
- Exit section delivers or transfers paper to and from the Compiler Tray and out to the Finisher trays.

What follows is an overview of the way each of these sections operate and the components involved. Following this overview, detailed descriptions of the Punch, Stapler, Compiler Tray and Stacker provides additional information. The Finisher paper path begins at the Printer's Exit 1.

Paper directed to the Finisher is fed out Exit 1 into the Horizontal Transport. The Horizontal Transport motor, activated by the Printer's registration timing going High, drives the two Transport Belts that move the paper towards the Finisher entrance. Media moving through the Horizontal Transport is monitored by the Entrance and Exit Sensors.

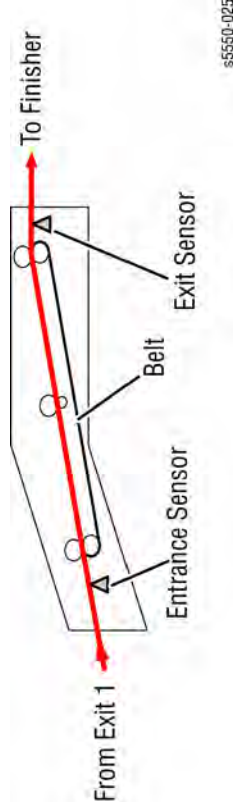
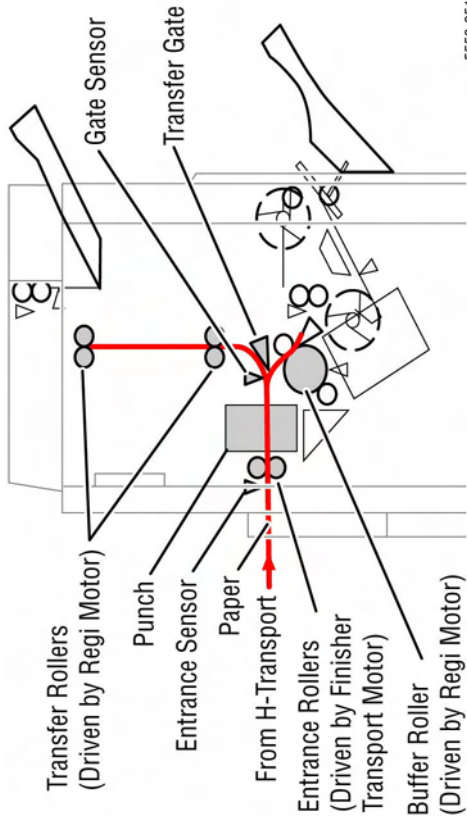


Figure 2 Horizontal Transport Path

As the paper enters the Finisher it is detected by the Transport Entrance Sensor activating the Entrance Roller driven by the Finisher Transport Motor. The paper's path inside the Finisher is determined by the Transfer Gate.

The Transfer Gate switches the paper path between the Stacker Lower Tray or the Stacker Upper Tray. Transfer Gate position is under control of the Printer's Engine Control Board and is switched using the Transfer Gate Solenoid. The Transfer Gate Solenoid, when energized, positions the Transfer Gate to direct paper upward. Figure 3 illustrates the action and position of the Transfer Gate.



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Figure 3 Finisher Input Components

Depending on the position of the Transfer Gate, the paper is further transported into the Finisher by either the Transfer Rollers or the Buffer Roller. The Gate Sensor monitors the arrival of paper to the Transfer Gate. The Transfer Rollers or the Buffer Roller are driven by the Finisher's Registration Motor.

Figure 4 represents the Finisher input as viewed from the front, left-hand corner. The flow arrows indicate the paper entering from below, encountering the Transfer Gate and being directed either up or down. The motors, drive belts, Transfer Gate Solenoid, and Transfer Gate all appear in their actual positions relative to each other.

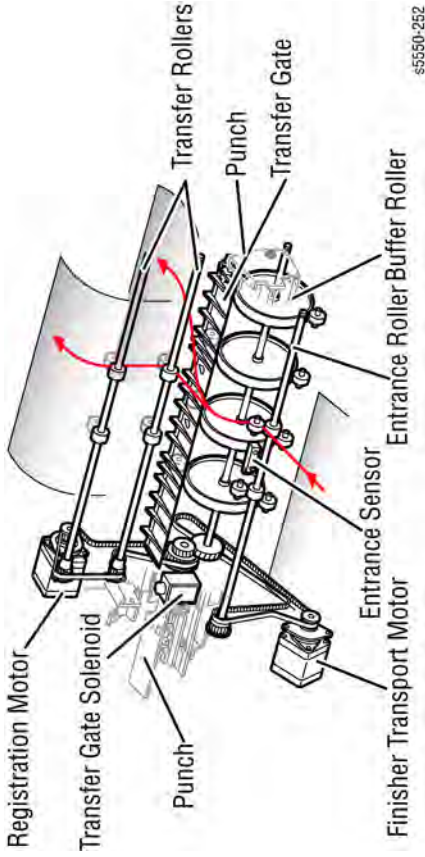


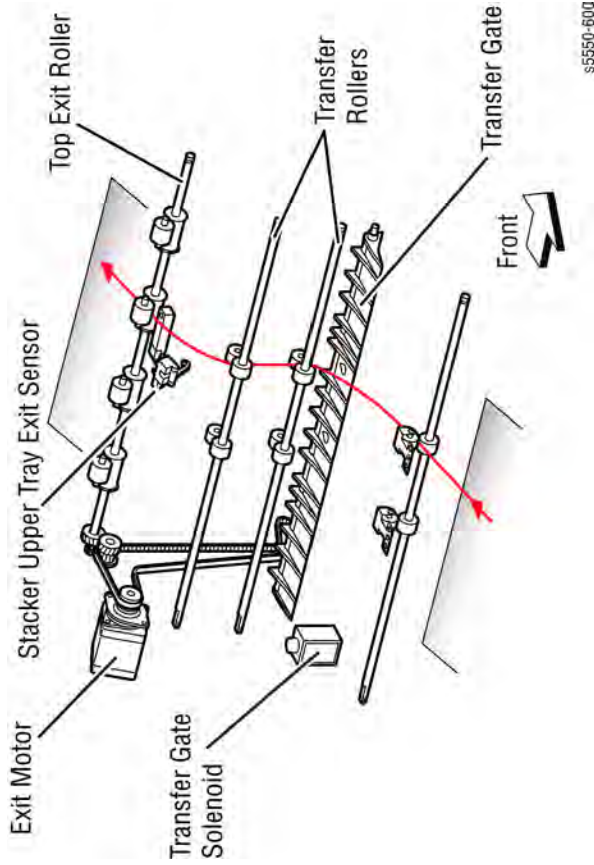
Figure 4 Finisher Input Drive (3D)

For Punch operations, following the Transport Entrance Sensor signal going High, indicating the presence of paper, a timing delay related to the paper size passes and the Registration Motor reverses rotation to back the sheet of paper into the Punch Guide for hole punching. The stopper in the Punch Guide drops while the Registration Motor runs in the forward direction letting paper pass through, but rises when the Registration Motor reverses to stop the paper at the punch position.

Having been punched, paper being output to the Stacker Upper Tray is directed by the Transfer Gate upward to the two Transfer Rollers. The Transfer Rollers, driven by the Registration Motor feed paper to the Top Exit Roller.

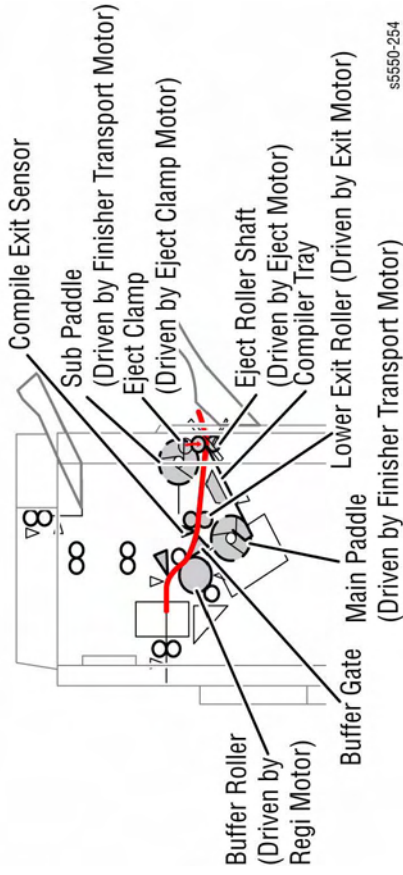
The Top Exit Roller is driven by the Finisher's Exit Motor and ejects the paper into the Stacker Upper Tray. The Exit Motor continues to run at full forward speed until the Upper Tray Exit Sensor signal goes High, indicating the presence of paper, at which point the Exit Motor decelerates.

Figure 5 represents the Finisher output path as viewed from the front, left-hand corner. This time both the Punch and Buffer Path components have been removed for simplicity. The flow arrows indicate the paper entering from below, encountering the Transfer Gate and being directed upward. The Exit Motor, Exit Drive Belt, Transfer Gate Solenoid, Transfer Gate, Transfer Rollers, and Exit Roller all appear in their actual positions relative to each other.



**Figure 5 Finisher Output Drive (3D)**

For staple or stacker operations, the media path changes to include the Buffer Path, Compiler Tray and Eject Clamp. Output is directed to the Stacker Lower Tray. Components included in this lower paper path appear in the Figure 6.



**Figure 6 Finisher Output Components**

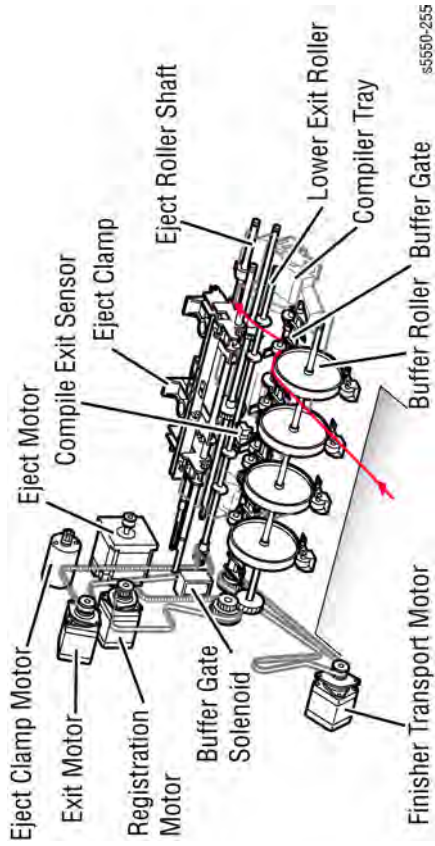
The Buffer Path is a timing mechanism used to compensate for the time required to compile and eject a set to the Stacker Lower Tray and still maintain full-speed processing. The Buffer Path is used when printing multiple sets. As the first set is being compiled and ejected, the first sheet of the next set is redirected to the Buffer Path instead of colliding with the first set in the Compiler Tray.

To accomplish this, the printer's Engine Control Board activates the Buffer Gate Solenoid moving the Buffer Gate to direct the paper to the Buffer Roller. The paper then travels the circumference of the Buffer Roller and pauses temporarily while the second sheet of the set enters the Finisher.

The Transport Entrance Sensor signals the Engine Control Board that the second sheet has entered the Finisher and the Buffer Gate Solenoid is deactivated allowing the second sheet to pass over the Buffer Roller. At this point, the first sheet, in the Buffer path, is aligned with the second and both are driven to the Compiler Tray. Subsequent sheets of the same set are fed directly to the Compiler Tray. This process repeats for each set. The ability to store a sheet in line and move two sheets to the Compiler Tray compensates for the time required to compile and eject the set.



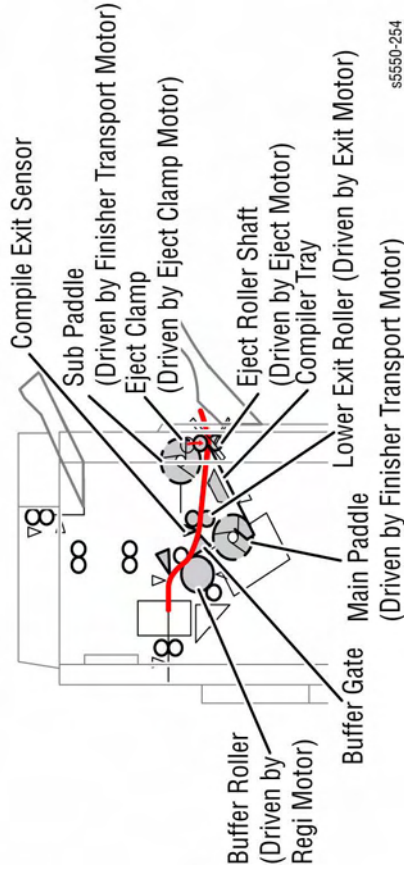
Figure 7 shows the lower output path components as viewed from the front, left-hand corner. With the Punch, Transfer Gate, and Buffer Chutes removed for simplicity. The Buffer Path, Compiler Tray, and Eject Clamp are easily seen. The flow arrow shows the paper entering from below, encountering the Buffer Gate and being directed to the Compiler Tray. If the Buffer Gate Solenoid is energized, the sheet would travel downward at the Buffer Roller and would wrap around the roller and meet the next incoming sheet.



**Figure 7 Lower Tray Output Drive (3D)**

Paper enters the Compiler Tray driven by the Buffer and Lower Exit Rollers. The Buffer Roller is driven by the Registration Motor, while the Lower Exit Roller is driven by the Exit Motor. As the first sheet passes over the Compiler Tray, the Eject Clamp Motor is activated to lower the Eject Clamp to clamp the paper against the Eject Rollers holding it in the Eject Chute at the Finisher exit. As the end of the sheet passes through the Compile Exit Sensor, the Eject Motor reverses direction raising the Eject Clamp and energizing the Sub Paddle Solenoid that engages the Paddles that feed the paper into the Compiler Tray. Paper is aligned against the back of the Compiler Tray by the rotation of the Cyclone Paddles driven by the Finisher Transport Motor.

Figure 8 identifies the components associated with the Compiler Tray and Eject Clamp.



**Figure 8 Finisher Output Components**

Stapled or aligned sets on the Compile Tray are held between the Eject Clamp and the Eject Roller Shaft. The Clamp Paddles attached to the Eject Roller Shaft, driven by the Eject Motor, transfer the compiled sets from the Compiler Tray to the Stacker Lower Tray.

## Finisher Media Path Sensors

Sensors along the Finisher media path. See earlier illustrations for the location of each sensor. Punch, Staple, Stacker, and Compiler Tray sensors are listed separately with each component description.

- **Horizontal Transport Entrance Sensor**  
A photo-interrupter to detect whether paper is fed from printer to the Horizontal Transport. The Horizontal Transport Entrance Sensor signal goes High when paper enters the Horizontal Transport.
- **Horizontal Transport Exit Sensor**  
A photo-interrupter to detect whether paper passes through the Horizontal Transport. The Horizontal Transport Exit Sensor goes High when paper reaches this sensor, and goes Low when paper exits the Horizontal Transport.
- **Transport Entrance Sensor**  
Senses the arrival of paper from the Horizontal Transport.
- **Gate Sensor**  
A reflective photo-sensor to detect the front end of paper as it arrives at the Transfer Gate. The Gate Sensor signal goes Low when paper reaches the sensing area.
- **Buffer Path Sensor**  
A photo-interrupter to detect whether paper is fed toward the Buffer Roller. While paper is present, the actuator is outside the sensing area, and the Buffer Path Sensor signal goes High.
- **Compiler Exit Sensor**  
A photo-interrupter to detect whether paper passes through the Compiler Exit Sensor. The Compiler Exit Sensor signal goes High when the actuator is driven out of the sensing area by the paper. When the Compiler Exit Sensor signal goes High, the Front and Rear Tamper Motors on the Compiler Tray are activated.
- **Compiler Tray No Paper Sensor**  
A photo-interrupter to detect whether paper is present in the Compiler Tray. While paper is present, the actuator is outside the sensing area, and the Compiler Tray No Paper Sensor signal goes High.
- **Upper Tray Exit Sensor**  
A photo-interrupter to detect whether paper is fed to the Top Exit Roller at the exit side of the Upper Tray. When the paper is fed, the actuator leaves from the sensing area, and the Top Tray Exit Sensor signal goes High.
- **Upper Tray Full Sensor**  
A reflective photo-sensor to detect the stack volume of paper in the Stacker Upper Tray.

## Punch Unit

Two types of Punch Units are available: a 2-/4-hole version and a 3-hole version. Both types have similar construction and operate essentially the same. For punch operations, following the Transport Entrance Sensor signal going High, indicating the presence of paper, a timing delay related to the paper size passes and the Registration Motor reverses rotation to back the sheet of paper into the Punch Guide for hole punching. The stopper in the Punch Guide drops while the Registration Motor runs in the forward direction letting paper pass through, but rises when the Registration Motor reverses to stop the paper at the punch position. This position is a fixed distance from the sheet's feed edge.

Punch position in relation to the paper's width is determined for each sheet by the following method.

1. Activate the Punch Move Motor and move the Punch to the front until the Punch Unit Move Home Sensor signal goes Low.
2. Reverse the motor and move the Punch to the rear until the Punch Move Home Sensor signal goes High to determine the home position.
3. Move the Punch forward again until the Side Regi Sensor 1 or Side Regi Sensor 2 detects the paper edge.

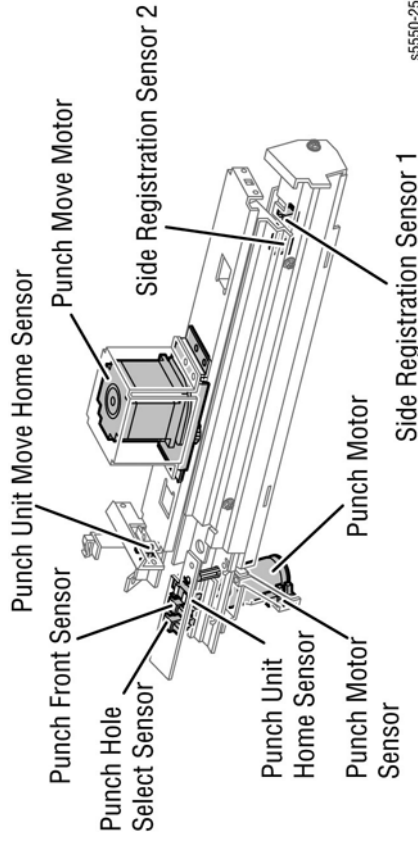


Figure 9 Punch Unit

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4. Activate the Punch Motor to move the Cam Plate. The movement of the Cam Plate lowers the pins along the guide holes to punch the paper. The Cam Plate can lower the pins in either direction of travel.

Figure 10 shows the action of the Cam Plate, Pins, and Punch Motor for a 3-hole punch operation.

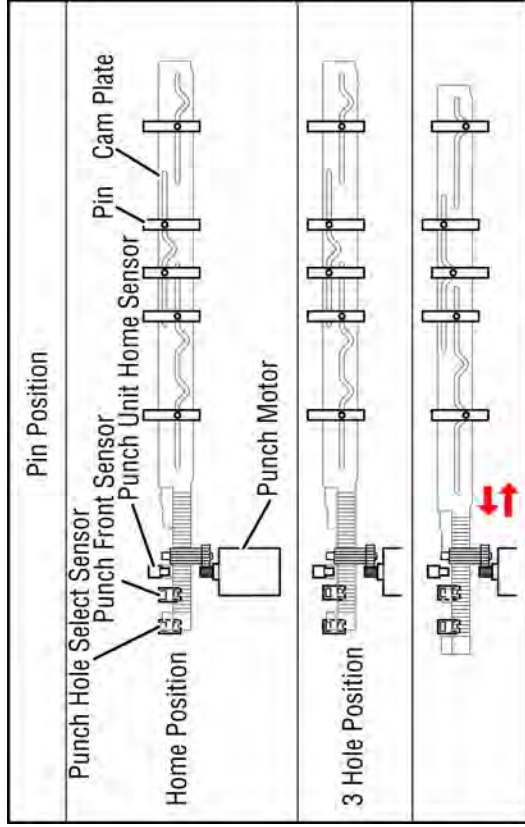


Figure 10 Punch Pin Position

**Punch Sensors/Motors**

- **Side Registration Sensors 1 and 2**

A pair of reflective photo-sensors to detect the side edge of the paper. Paper side edge is detected by the state transition of this sensor while shifting the Punch (containing this sensor) in the direction of paper width. The each Side Registration Sensor signal remains High while paper is present, and goes Low when the paper's side edge is detected. The Side Registration 1 Sensor detects the edge of large-width paper, while the Side Registration 2 Sensor is used to detect the edge of narrow-width paper.

- **Punch Unit Move Home Sensor**

A photo-interrupter to detect the home position of the moving Punch. The Punch Unit Move Home Sensor signal goes High when the home position is detected.

- **Punch Unit Home Sensor**

A photo-interrupter to detect the home position of the Cam Plate that lowers the punching pins. The Punch Unit Home Sensor signal goes Low when the home position is detected.

- **Punch Hole Select Sensor**

A photo-interrupter to detect the rear position of the Cam Plate. The Punch Hole Select Sensor signal goes Low when the rear position is detected. This sensor also detects the Cam position to switch the number of holes to punch.

- **Punch Front Sensor**

A photo-interrupter to detect the front position of the Cam Plate. The Punch Front Sensor signal goes Low when the front position is detected. This sensor is used to determine to which side (front or rear) the Cam Plate should be moved.

- **Punch Motor Encoder Sensor**

A photo-interrupter to detect pulse generated by the encoder disk attached to the Punch Motor. It counts Punch Motor revolutions, and becomes a trigger to stop the motor (by shutting off the current).

- **Punch Box Set Sensor**

A photo-interrupter to detect whether the Punch Box is installed. When the Punch Box is preset, the actuator of the box blocks the light transmission of the sensor, causing the Punch Box Set Sensor signal to go Low.

**NOTE:** When the sensor detects that the box is removed for four seconds, the Punch Box Full count is reset to zero.

- **Punch Box Full**

A counter stored in NVRAM used to track the number of punches. At the counter value set, a notification is sent. The counter is reset if the Punch Box Set Sensor signal goes High for 4 seconds.

- **Punch Move Motor**

A stepping motor to move the Punch in the paper width direction.

- **Punch Motor**

A DC motor to move the Cam Plate that lowers the punching pins. Forward rotation of the motor moves the Cam Plate to the front, and reverse rotation moves it to the rear.

## Compiler Tray

The Compiler Tray assembles sets and aligns the paper edges for stapling. When paper is fed onto the Compiler Tray, a tamping operation is performed to align the paper edge along the paper's width. The Compiler Tray also offsets stapled sets when ejecting to the Stacker Lower Tray.

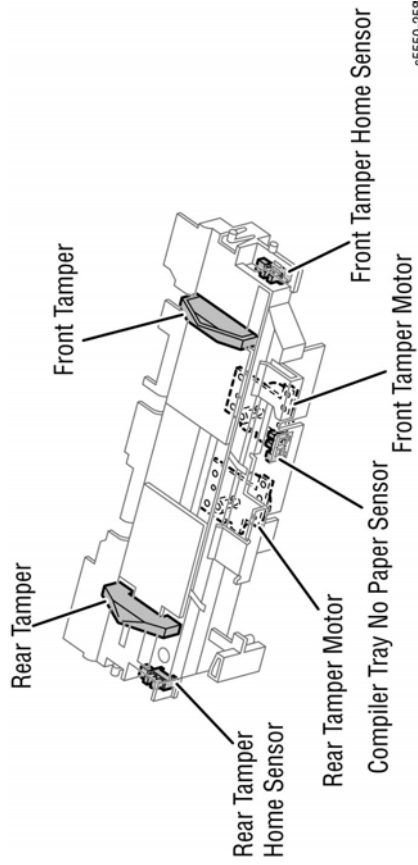


Figure 11 Compiler Tray

Paper capacity depends on whether the paper is being stapled or not, as well as paper size. If the number of sheets of one stapled set exceeds the Compiler Tray limit set in NVRAM, the sheets exceeding this setting are ejected to the Stacker Lower Tray. This avoids damage to the Staple assembly. The default capacity value is 50 sheets.

When two or more paper sizes are used and their widths are identical, (example: A4L and A3S), all the sheets are compiled and stapled as a set on the Compiler Tray, and then ejected to the Stacker Lower Tray. If different widths of paper are used, stapling is stopped and the paper is ejected to the Stacker Lower Tray.

## Tamping

Tamping aligns the paper edges using the Front or Rear Tamper by moving them to the edge of paper by their respective motors. Tamping occurs each time a sheet of paper reaches the Compiler Tray. Additional tamping occurs after tamping the last sheet of a set. The Compiler Tray performs three types of tamping:

- **Front Tamping**

Tamping by the Rear Tamper with the Front Tamper fixed at the home position in either non-staple mode or when executing front corner stapling.

Table 1 Front Tamper Positions

1. Front Tamper home position
2. Front Tamper size position
3. Front Tamper offset position
4. Rear Tamper home position
5. Rear Tamper standby position
6. Rear Tamper tamping position
7. Rear Tamper offset position

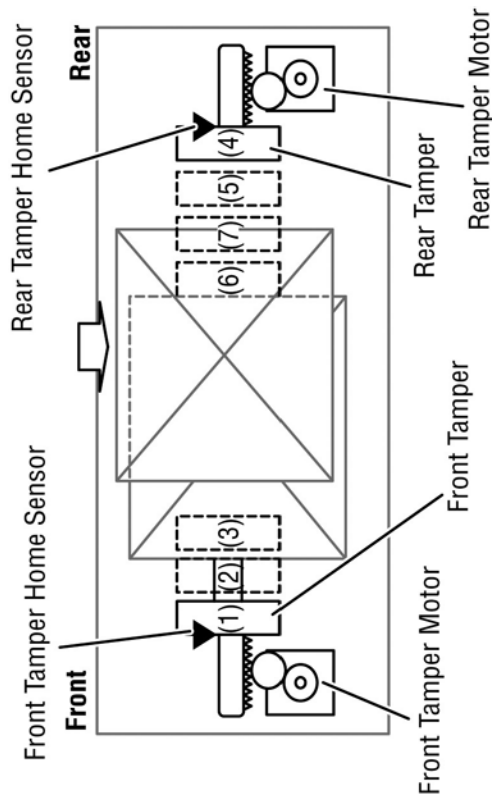


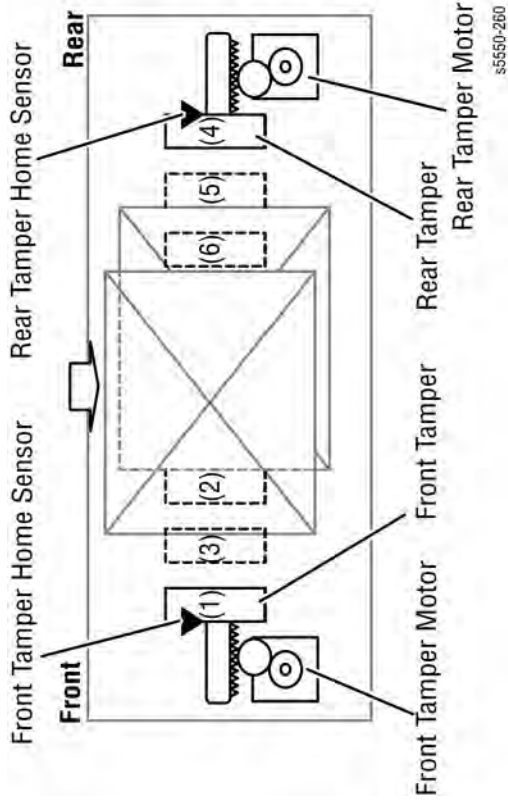
Figure 12 Front Tamping

- **Rear Tamping**

Tampering by the Front Tamper with the Rear Tamper fixed at the home position in either rear corner or dual stapling operations

**Table 2 Rear Tamper Positions**

1. Front Tamper home position
2. Front Tamping tamper position
3. Front Tamper offset position
4. Rear Tamper home position
5. Rear Tamper size position
6. Rear Tamper offset position



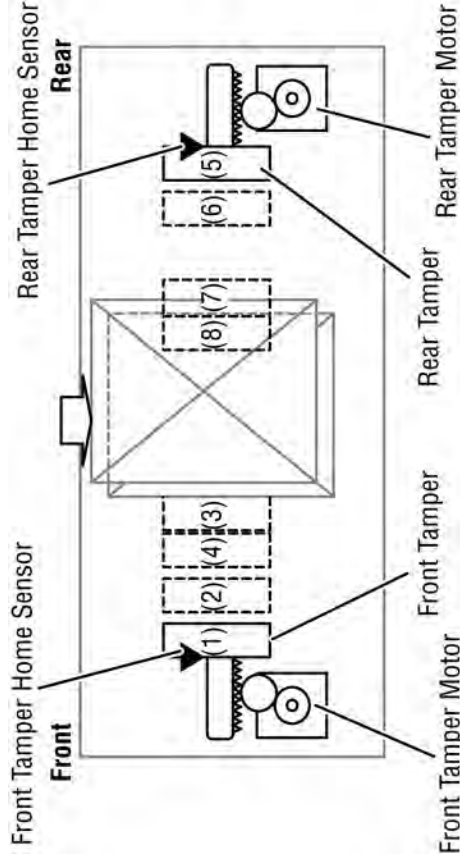
**Figure 13 Rear Tamping**

- **Center Tamping**

Tampering by the Front and Rear Tampers to center the paper in the tray during rear stapling (straight) operations.

**Table 3 Center Tamper Positions**

1. Front Tamper home position
2. Front Tamper standby position
3. Front Tamper tamping position
4. Front Tamper offset position
5. Rear Tamper home position
6. Rear Tamper standby position
7. Rear Tamper size position
8. Rear Tamper offset position



**Figure 14 Center Tamping**

Tamper (center) home position is determined by the Complice Exit Sensor signal going High and both tamper motors activated and moving. The Front Tamper home position is determined when the Front Tamper enters the Front Tamper Home Sensor sensing area. The Rear Tamper home position is determined when the Rear Tamper enters the Rear Tamper Home Sensor sensing area. Center tamping occurs after a preset time following the Complice Tray No Paper Sensor signal going High indicating paper on the Compiler Tray.

## Offset

Offset shifts the paper position as each set is ejected to the Stacker Lower Tray to avoid ejection jams due to the stacking of multiple stapled sets. Offset occurs for these staple positions.

- **Front Stapling (Corner)**  
Shifts stapled sheets using the Front Tamper by .78 inch (20 mm) to the rear side before ejecting them to the tray.
- **Rear Stapling (Corner/Straight)**  
For corner-stapled paper with a width of 8.5 inches (216 mm) or more, the Rear Tamper offsets the set by .78 inch (20 mm) to the front side before ejecting them to the tray.  
For straight-stapled paper with a width of less than 8.5 inches (216 mm), the Front Tamper offsets the set by .35 inch (9 mm) to the rear side before ejecting them to the tray.
- **Dual Stapling**  
Dual-stapled sheets are offset by .35 inch (9 mm) using the Front Tamper to the rear side before ejecting them to the tray.  
Offset is not executed for small paper.

## Compiler Tray Sensors/Motors

- **Compiler Tray No Paper Sensor**  
A photo-interrupter to detect whether paper is present or not on the Compile Tray. When paper is detected, the actuator leaves the sensing area, which turns the Compile Tray No Paper Sensor signal High.
- **Front Tamper Home Sensor**  
A photo-interrupter to detect the Front Tamper home position. When the Front Tamper comes to the home position, it enters the sensor's sensing area, which turns the Front Tamper Home Sensor signal High.
- **Rear Tamper Home Sensor**  
A photo-interrupter to detect the Rear Tamper home position. When the Rear Tamper comes to the home position, it enters the sensor's sensing area, which turns the Rear Tamper Home Sensor signal High.
- **Front Tamper Motor**  
A stepping motor to move the Front Tamper. Clockwise rotation of this motor moves the Front Tamper to the rear side. Counterclockwise rotation moves the tamper to the front.
- **Rear Tamper Motor**  
A stepping motor to move the Rear Tamper. Clockwise rotation of this motor moves the Rear Tamper to the front side. Counterclockwise rotation moves the tamper to the rear.

## Stapler

The Stapler staples a set of edge-aligned paper in the Compiler Tray. When stapling, the Stapler Head moves along rails to the paper staple position. When the Stapler Head moves, the Stapler Move Position Sensor detects the position of the Stapler Head from the presence of a notch on the guide. After the Stapler Head 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 Head swings 45 degrees before the bundle of paper is stapled. After the Stapler staples the bundle of paper, the Exit Roller rotates together with the Cyclone Paddles to deliver the stack of paper to the Stacker Lower Tray via the Eject mechanism.

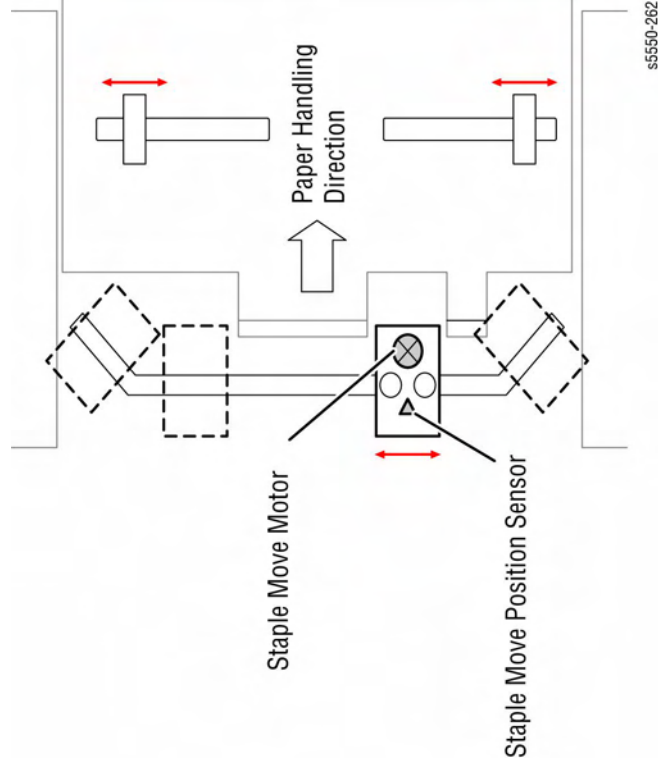
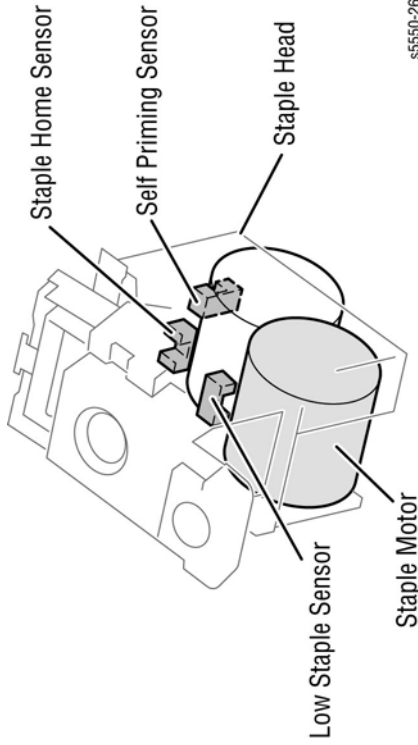


Figure 15 Stapler

## Staple Head

Stapling operation is executed by closing the Staple Head. The Staple Head, containing the Staple Motor, the Staple Head Home Sensor, the Staple Head Self Priming Sensor, and the Low Staple Sensor, is activated by the Staple Motor. Forward (clockwise) rotation of the Staple Motor drives the Staple Head to staple a set of sheets (closed), and returns the Staple Head to the home (open) position. If stapling fails, the Staple Motor rotates reversely (counterclockwise) to return the Stapler Head to the home position.

When staple supply is low, the Staple Head Low Staple Sensor detects it and stapling stops automatically displaying an warning message. The message also appears when the Staple Cartridge isn't installed in the Staple Head.



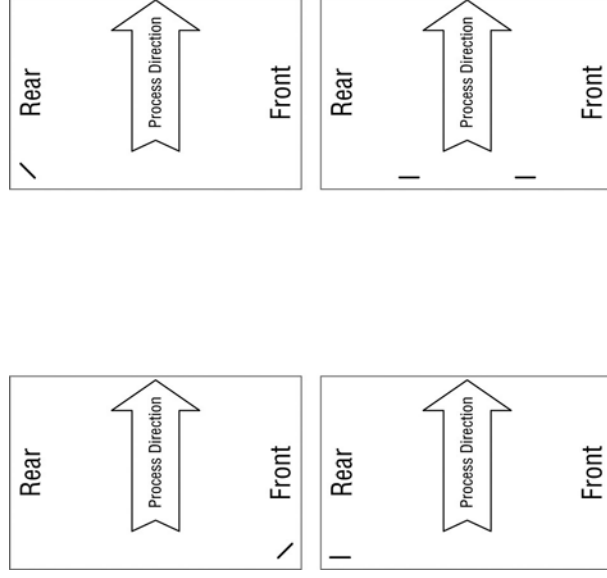
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Figure 16 Staple Head Components

## Staple Position

Sheets of paper are tamped on the Compile Tray, and then stapled at the specified position. These are the four stapling positions.

- **Front Corner Staple**  
This type of stapling is applied for paper with a width of 8.5 inches (210 mm) more. The Staple Head moves to the front corner and staples a set of paper obliquely (45 degrees) after the Front Tamper aligns the paper to the rear side.
- **Rear Corner Staple**  
This type of stapling is applied for paper with a width of 8.5 inches (210 mm) more. The Staple Head moves to the rear corner and staples a set of paper obliquely (45 degrees) after the Front Tamper aligns the paper to the rear side.
- **Rear Straight Staple**  
This type of stapling is applied for paper with a width of less than 8.5 inches (210 mm). The Stapler staples a set of paper in parallel with the paper edge after the Front Tamper aligns the paper to the rear side.
- **Dual Staple**  
The Stapler staples a set of paper at fixed positions (front/rear sides) in parallel with the paper edge, after the Front Tamper aligns the paper to the specified position for each paper size.



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Figure 17 Staple Positions



The number of sheets to be stapled is limited to prevent damage to the Stapler. If the number of sheets per set exceeds the Compile Tray limit set in NVRAM, the sheets exceeding the limit are ejected to the tray without being stapled. A single sheet set is also ejected without being stapled. The upper limit of Compile Tray paper capacity when stapling is set by default to 50 sheets.

When sheets with different sizes and same width (example: A4L and A3S) are present on the Compile Tray, all the sheets are stapled, and then ejected to the Stacker Lower Tray. If sheets with different widths are present on the Compile Tray, stapling is stopped when a different width is detected. These different-width sheets are ejected to the Stacker Lower Tray.

#### Stapler Sensors/Motors

- **Staple Move Position Sensor**  
A photo-interrupter to detect the Stapler home position, Rear Staple (Corner) position, and Rear Staple (Straight) position. The Stapler Move Home Position Sensor signal goes High when the Stapler reaches the home position.
- **Staple Head Low Staple Sensor**  
A photo-interrupter in the Staple Head to detect near end of staples. The Low Staple Sensor signal goes High when the quantity of staples remaining in the cartridge is approximately 20 or less.
- **Staple Head Self Priming Sensor**  
A photo-interrupter in the Staple Head to detect that staples are at the Stapler Head end, and also to detect failure in stapling. The Self Priming Sensor signal goes Low to indicate that the Staple Head is ready to staple.
- **Staple Home Sensor**  
A photo-interrupter in the Staple Head to detect the Stapler Head home position and staple failure. This sensor also functions as a trigger to stop the Staple Motor. The Staple Home Sensor signal goes Low while the Stapler Head is at the home position.
- **Staple Move Motor**  
A DC motor to move the Staple Head. Clockwise rotation of this motor moves the Stapler Head to the rear side, while counterclockwise rotation moves the Stapler Head to the front side.
- **Staple Motor**  
A DC motor in the Staple Head to activate the Staple Head for stapling. Clockwise rotation of this motor staples, while counterclockwise rotation opens the Staple Head.

#### Stacker

The Stacker Upper Tray is a fixed-position, facedown tray with a 500-sheet capacity. Tray content is monitored by a Stack Full Sensor. Once the sensor detects a full stack, exiting of paper to the Stacker Upper Tray is inhibited until the paper is removed or the sensor is cleared.

#### Stacker Upper Tray Sensors

- **Stacker Upper Tray Exit Sensor**  
A photo-interrupter to detect that paper has come to the top Exit Roller. When paper reaches the top Exit Roller, the actuator leaves the sensing area and turns the Upper Tray Exit Sensor signal High.
- **Stacker Upper Tray Full Sensor**  
A reflective photo-sensor to detect the paper stack volume. The Upper Tray Full Sensor signal goes High when it detects a full stack.

#### Stacker Lower Tray

The Stacker Lower Tray adjusts position according to the state of the two Stack Height Sensors. When paper obscures Stack Height Sensor 1, the sensor's signal goes High. This signal is used to control the Elevator Motor. The motor is activated to move the Stacker Lower Tray down until the sensor's signal returns to a Low state. If both sensor signals are Low, the Elevator Motor raises the tray to obscure the Stack Height Sensor 2. If Stack Height Sensor 2 signal remains Low, the tray continues to rise until it reaches the No Paper Sensor. If an obstacle blocks the tray from lowering, the tray stops and a warning is reported. The relationship of Elevator Motor motion, monitored by the Stacker Encoder Sensor, and Stack Height Sensor state is shown in the Figure 18.

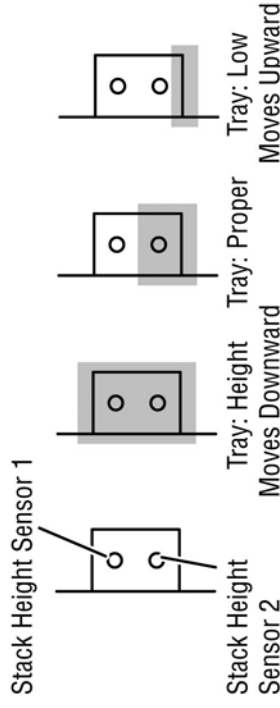


Figure 18 Stacker Lower Tray

The Stacker No Paper Sensor is switched by an actuator attached to the right-hand Carriage assembly. In case the Stacker Lower Tray goes above the Stacker No Paper Sensor, the Upper Limit Sensor is installed directly above the No Paper Sensor as a lift cutoff for abnormal operation.



If paper is removed from the Stacker Lower Tray during printing, it is detected by the Stack Height Sensor 2 which stops the ejection of paper until the tray returns to the Stack Height Sensor 1 sensing area. If paper is removed while printing is stopped, the Elevator Motor will activate in three seconds to move the tray to the Stack Height Sensor 1 sensing area.

Apart from the paper height, paper volume is monitored by the Stacker Encoder Sensor. Paper volume detection is needed to prevent jamming or paper falling on the floor. The Stacker Lower Tray maximum volume is 3000 sheets. Paper volume is detected at every 10% (approx. 300 sheets). The default setting for number of stapled sets is 200. The Stacker Lower Tray can continue to stack paper until paper volume reaches either of the limits above.

In the "mix stacking" mode, all supported paper sizes are allowed until paper volume reaches approximately 300 sheets. Mix stacking occurs in one of the following cases:

- A larger sheet of paper is stacked on a smaller sheet. An exception to this is when B5 (257 mm x 182 mm) paper is stacked on A4 (297 mm x 210 mm) paper.
- A sheet of paper of less than 11 inches in length is stacked in the Stacker Lower Tray with the staple mode changed. As the stacking position shifts due to staple position, sheets are stacked on the rear side of the tray irrespective of offset in the rear staple mode.
- One or more sheets are added when no paper remains in the tray. The size and condition of paper stacked is unknown to the Engine Control Board.
- Paper was present in the Stacker Lower Tray when power was turned On. The size and condition of paper is unknown to the Engine Control Board.
- The Finisher entered Sleep Mode with "mix stacking" and has exited Sleep Mode. The size and condition of paper is unknown to the Engine Control Board.
- The post-processing mode has changed.

Figure 19 illustrates the components associated with Stacker operation.

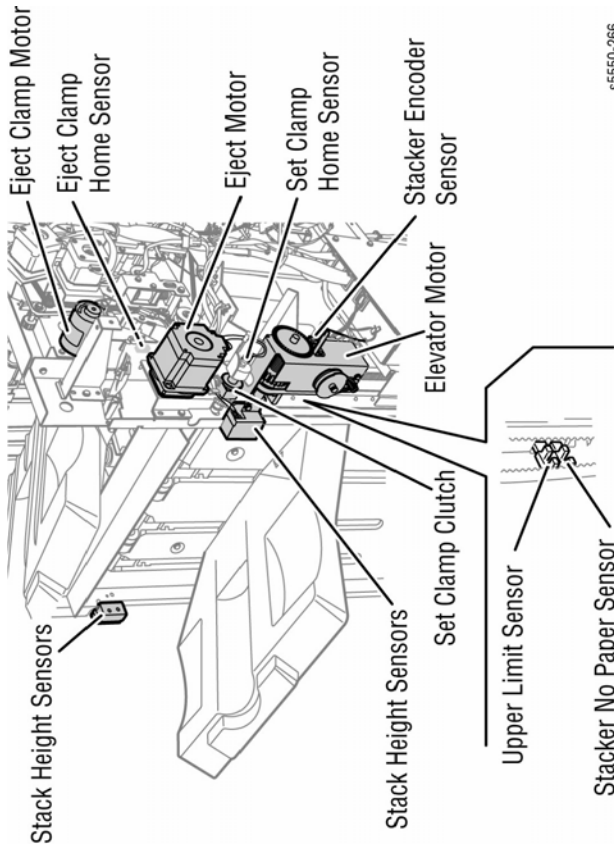


Figure 19 Stacker Components

#### Stacker Lower Tray Sensors/Motors

- **Stack Height Sensors 1 and 2**  
Detects the height of paper in the Stacker Lower Tray and controls the Elevator Motor. When blocked by paper or the tray, these sensor change state to indicate the tray is above or below the reference level. The High to Low transition point is defined as the reference level.
- **Lower Tray No Paper Sensor**  
A photo-interrupter to detect that the tray is at the highest position, and also to detect no paper. When the actuator enters the sensing area, the emitted light is blocked, switching the Stacker No Paper Sensor signal to High.
- **Lower Tray Upper Limit Sensor**  
A photo-interrupter to limit tray height. When the actuator enters the sensing area, the emitted light is blocked, switching the Upper Limit Sensor signal to High.
- **Stacker Encoder Sensor**  
A photo-interrupter to count pulses of the Encoder attached to the Elevator Shaft. The paper volume is based on this count.
- **Set Clamp Home Sensor**  
A photo-interrupter to detect the Set Clamp home position. This sensor functions as a trigger to control the Set Clamp Clutch.
- **Set Clamp Clutch**  
When activated, this clutch engages the Eject Motor to the Eject Roller.

- **Elevator Motor**

A DC motor to raise or lower the Stacker Lower Tray. Clockwise rotation elevates the tray, counterclockwise rotation lowers the tray.

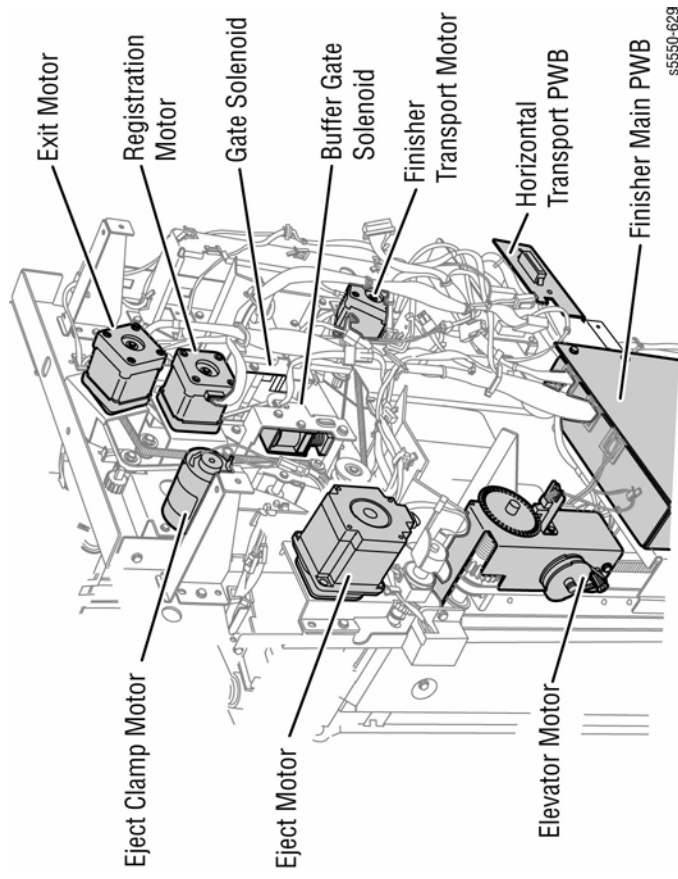
- **Eject Motor**

A DC motor to eject stapled or non-stapled paper to the Stacker Lower Tray. Clockwise rotation ejects paper to the tray, counterclockwise rotation reverses the Eject Roller to feed paper to the Compiler Tray.

- **Eject Clamp Motor**

A DC motor to raise or lower the Eject Clamp when feeding paper from the Punch to the Compiler Tray or from the Compiler Tray to the Stacker Lower Tray.

Figure 20 identifies the location of the primary electro-mechanical components inside the Finisher.

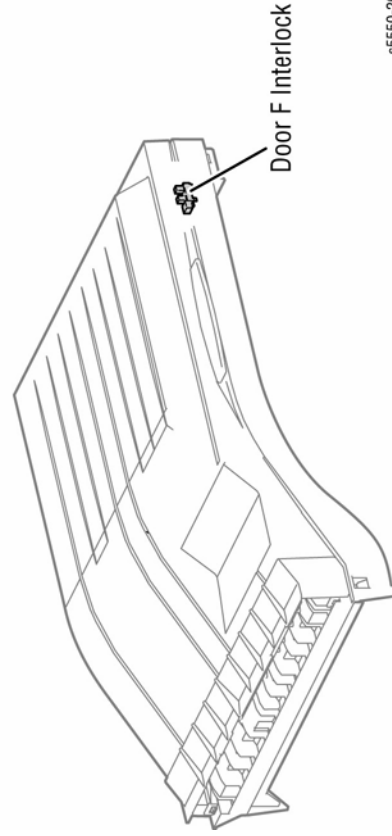
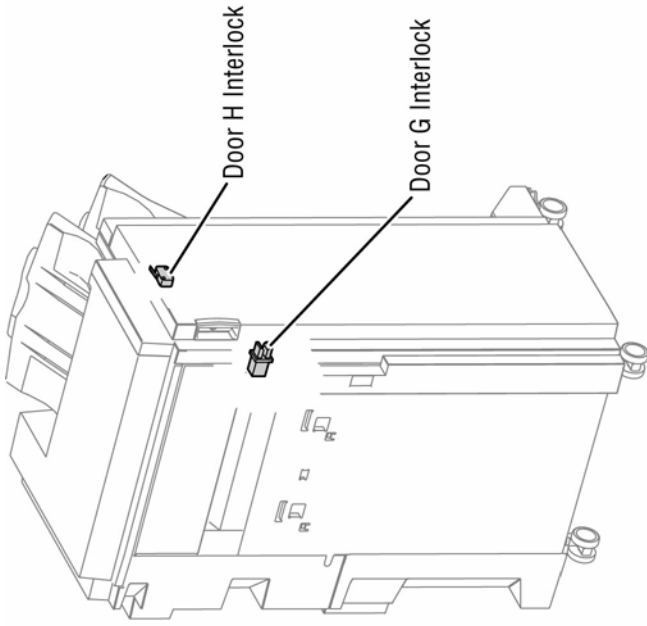


**Figure 20 Stacker Lower Tray Sensors/Motors**

**Finisher Interlock**

The Finisher is equipped with the following Interlock Switches.

- **Door G Interlock Switch**  
Turns Off when Door G opens, shutting off the +24 VDC line in the Finisher.
- **Door H Interlock Switch**  
Turns Off when Door H opens (Eject Cover), shutting off the +24 VDC line in the Finisher.
- **Door F Interlock Sensor**  
Turns On when Door F, Horizontal Transport top cover, is opened.



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Figure 21 Finisher Interlock