Workcentre® 6400
Multifunction Printer

Sample
Fault Code Structure:
309.002.00

Workcentre® 6400
Service Manual

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xerox

Service Manual

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WorkCentre® 6400

Multifunction Printer

Warning

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

First Printing: May 2009

Prepared By:

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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.

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.

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.

Warning

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

Product Terms

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

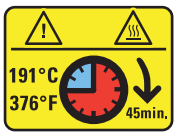
Danger: A personal injury hazard exists in the area where you see the sign.

Symbols Marked on the Product

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

Hot surface on or in the printer. Use caution to avoid personal injury.

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



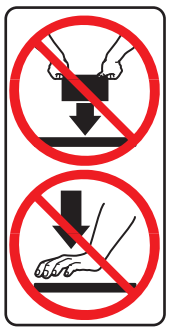
s6400mfp-532

Fuser Temperature

Do not touch the item.

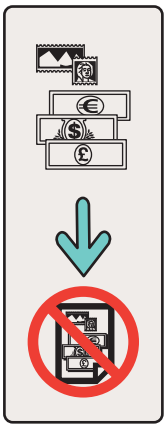
Do not expose the item to light.

Do not burn the item.



s6400mfp-531

Do not apply pressure or place heavy item on the Finisher.



s6400mfp-530

Do not counterfeit.

Recycle the item.

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. This manual assumes that the reader is a qualified service technician.

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 Alternating Current (AC) inlet. Disconnect the power cord by pulling the plug, not the cord.

Disconnect the power cord in the following 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.

Telephone Line Cord

Caution

To reduce the risk of fire, use only No. 26 American Wire Gauge (AWG) or larger telecommunication line cord.

Electrostatic Discharge Precautions

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

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

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

Service Safety Summary

General Guidelines

For qualified service personnel only: Refer also to the preceding “Power Safety Precautions” on page vi.

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 or replacing components.

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

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

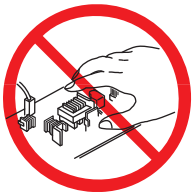
The product is certified to comply with Laser Product Performance Standards set by the U.S. Department of Health and Human Services as a Class 1 Laser Product. This means that this product does not emit hazardous laser radiation; which is possible only because the laser beam is totally enclosed during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

Servicing Electrical Components

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.

Warning

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

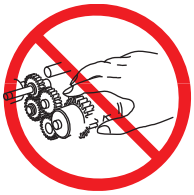


Servicing Mechanical Components

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

Warning

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



Servicing Fuser Components

Warning

This printer uses heat to fuse the toner image to paper. The Fuser is VERY HOT. Turn the printer power Off and wait at least 45 minutes for the Fuser to cool before attempting to service the Fuser or adjacent components.

Moving the Printer

Warning

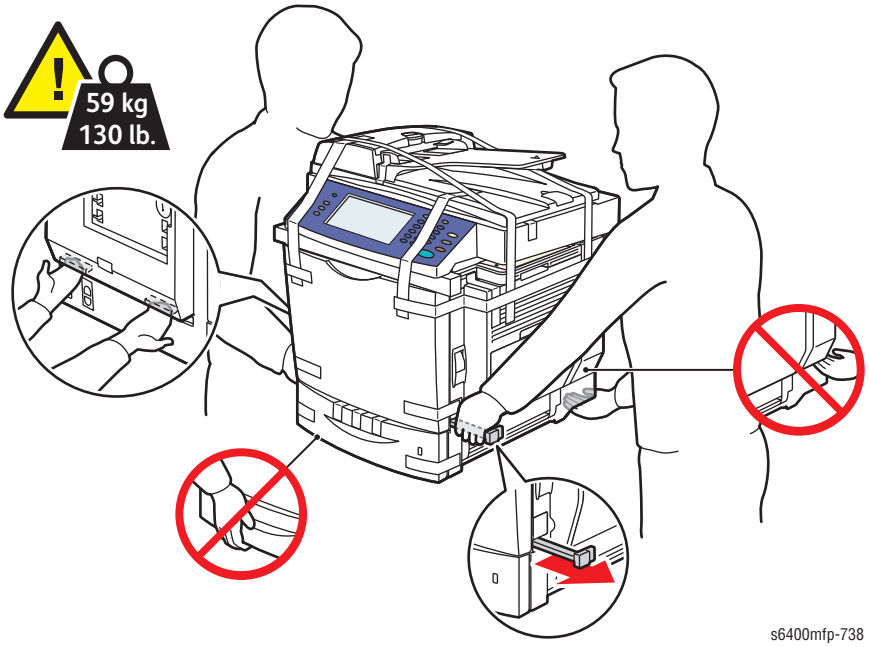
Parts of the printer are hot. Wait at least 30 minutes for the printer to cool before moving or packing the printer.

- Use the power switch to turn Off the printer, and unplug all cables and cords. Do not turn the printer Off by pulling the power cord or using a power-strip with an On/Off switch.

Warning

Back injury could result if you do not lift the printer properly.

- The printer is heavy and must be lifted by two people. Use safety lifting and handling techniques when moving the printer.
- Always move the printer separately from the Optional Tray 3/4.



When shipping the printer, repack the printer using the original packing material and boxes or a Xerox packaging kit. Instructions for repacking the printer are included in the kit. If you do not have all the original packaging, or are unable to repackage the printer, contact your local Xerox service representative.

Caution

Failure to repackage the printer properly for shipment can result in damage to the printer. Damage to the printer caused by improper packaging is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee.

Regulatory Information

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 Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. 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 this 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.

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

- Reorient or relocate the receiver.
- Increase the separation between the 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 Canadian ICES-003.

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

European Union

Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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

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

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

March 9, 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 for the environment.

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

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

Ozone Release

During printing operation, a small quantity of ozone is released. This amount is not large enough to harm anyone adversely. However, be sure the room where the product is being used has adequate ventilation, especially if you are printing a high volume of materials, or if the product is being used continuously over a long period.

Copy Regulations

United States

Congress, by statute, has forbidden the reproduction of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such reproductions.

1. Obligations or Securities of the United States Government, such as:

Certificates of Indebtedness	National Bank Currency
Coupons from Bonds	Federal Reserve Bank Notes
Silver Certificates	Gold Certificates
United States Bonds	Treasure Notes
Federal Reserve Notes	Fractional Notes
Certificates of Deposit	Paper Money
Bonds and Obligations of certain agencies of the government, such as FHA, etc.	
Bonds (U.S. Saving Bonds may be photocopied only for publicity purposes in connection with the campaign for the sale of such bonds.)	
Internal Revenue Stamps. If it is necessary to reproduce a legal document on which there is a canceled revenue stamp, this may be done provided the reproduction of the document is performed for lawful purposes.	
Postage Stamps, canceled or uncanceled. For philatelic purposes, Postage Stamps may be photocopied, provided the reproduction is in black and white and is less than 75% or more than 150% of the linear dimensions of the original.	
Postal Money Orders	
Bills, Checks, or Draft of money drawn by or upon authorized officers of the United States.	
Stamps and other representatives of value, of whatever denomination, which have been or may be issued under any Act of Congress.	

2. Adjusted Compensation Certificates for Veterans of the World Wars.
3. Obligations or Securities of any Foreign Government, Bank, or Corporation.
4. Copyrighted materials, unless permission of the copyright owner has been obtained or the reproduction falls within the “fair use” or library reproduction rights provisions of the copyright law. Further information of these provisions may be obtained from the Copyright Office, Library of Congress, Washington, D.C. 20559. Ask for Circular R21.
5. Certificate of Citizenship or Naturalization. Foreign Naturalization Certificates may be photocopied.
6. Passports. Foreign Passports may be photocopied.
7. Immigration papers.
8. Draft Registration Cards.
9. Selective Service Induction papers that bear any of the following Registrant’s information:
   - Earnings or Income
   - Court Record
   - Physical or mental condition

- Dependency Status
- Previous military service

Exception: United States military discharge certificates may be photocopied.

10. Badges, Identification Cards, Passes, or Insignia carried by military personnel, or by members of the various Federal Departments, such as FBI, Treasure, etc. (Unless photograph is ordered by the head of such department or bureau.)

    Reproducing the following is also prohibited in certain states:

    - Automobile Licenses
    - Driver's Licenses
    - Automobile Certificates of Title

    The above list is not all inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your attorney.

Canada

Parliament, by stature, has forbidden the reproduction of the following subjects under certain circumstances. Penalties of fine or imprisonment may be imposed on those guilty of making such reproduction.

1. Current bank notes or current paper money.
2. Obligations or securities of a government or bank.
3. Exchequer bill paper or revenue paper.
4. The public seal of Canada or of a province, or the seal of a public body or authority in Canada, or of a court of law.
5. Proclamations, orders, regulations or appointments, or notices thereof (with intent to falsely cause same to purport to have been printed by the Queens Printer for Canada, or the equivalent printer for a province).
6. Marks, brands, seals, wrappers or designs used by or on behalf of the Government of Canada or of a province, the government of a state other than Canada or a department, board, Commission or agency established by the Government of Canada or of a province or of a government of a state other than Canada.
7. Impressed or adhesive stamps used for the purpose of revenue by the Government of Canada or of a province or by the government of a state other than Canada.
8. Documents, registers or record kept by public officials charged with the duty of making or issuing certified copies thereof, where the copy falsely purports to be a certified copy thereof.
9. Copyrighted material or trademarks of any manner or kind without the consent of the copyright or trademark owner.

The above list is provided for your convenience and assistance, but it is not all-inclusive, and no liability is assumed for its completeness or accuracy. In case of doubt, consult your solicitor.

Other Countries

Copying certain documents may be illegal in your country. Penalties of fine or imprisonment may be imposed on those found guilty of making such reproductions.

- Currency notes
- Bank notes and cheques
- Bank and government bonds and securities
- Passports and identification cards
- Copyright material or trademarks without the consent of the owner
- Postage stamps and other negotiable instruments

This list is not inclusive and no liability is assumed for either its completeness or accuracy. In case doubts, contact your legal counsel.

Fax Regulations

United States

Fax Send Header Requirements

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including a fax machine, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long distance transmission charges.

In order to program this information into your machine, refer to customer documentation and follow the steps provided.

Data Coupler Information

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the Administrative Council for Terminal Attachments (ACTA). On the cover of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

You may safely connect the machine to the following standard modular jack: USOC RJ-11C using the compliant telephone line cord (with modular plugs) provided with the installation kit. See installation instructions for details.

The Ringer Equivalence Number (REN) is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g, 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

To order the correct service from the local telephone company, please provide the Facility Interface Code (FIC) and Service Order Code (SOC) listed below:

FIC: 02LS2

SOC: 9.0Y

You may also have to provide the USOC Jack code and the Ringer Equivalence Number (REN).

If this Xerox equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your rights to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this Xerox equipment, for repair or warranty information, please contact the appropriate service center; details of which are displayed either on the machine or contained within the User Guide. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

Repairs to the machine should be made only by a Xerox Service Representative or an authorized Xerox Service Provider. This applies at any time during or after the service warranty period. If unauthorized repair is performed, the remainder of the warranty period is null and void. The equipment must not be used on party lines. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

If your office has specially wired alarm equipment connected to the telephone line, make sure that the installation of the Xerox equipment does not disable your alarm equipment.

If you have any question about what will disable alarm equipment, consult your telephone company or a qualified installer.

Canada

Note

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users must make sure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should make sure their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe systems, if present, are connected together. This precaution may be particularly important in rural areas.

Caution

User should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirements that the sum of the Ringer Equivalent Numbers of all of the devices does not exceed 5. For the Canadian REN value, please see the label on the equipment.

Europe

Radio Equipment & Telecommunications Terminal Equipment Directive

The Facsimile has been approved in accordance with the Council Decision 1999/5/EC for pan-European single terminal connection to the public switched telephone network (PSTN). However, due to differences between the individual PSTNs provided in different countries, the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network terminal point.

In the event of a problem you should contact your authorized local dealer in the first instance.

This product has been tested to and is compliant with TBR21, a specification for terminal equipment for use on analogue-switched telephone networks in the European Economic Area. This product provides an user-adjustable setting of the country code. Refer to the customer documentation for this procedure. Country codes should be set prior to connecting this product to the network.

Note

Although this product can use either loop disconnect (pulse) or DTMF (tone) signaling, it is recommended that it is set to use DTMF signaling. DTMF signaling provides reliable and faster call setup. Modification of this product, connection to external control software or to external control apparatus not authorized by Xerox, will invalidate its certification.

New Zealand Telecom Warning Notice

1. The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

   The equipment may not be capable of correct operation at the higher data speeds designated. 33.6 kbps and 56 kbps connections are likely to be restricted to lower bit rates when connected to some PSTN implementations. Telecom will accept no responsibility should difficulties arise in such circumstances.

2. Immediately disconnect this equipment should it become physical damaged, and arrange for its disposal or repair.

3. This modem shall not be used in any manner which could constitute a nuisance to other Telecom customers.

4. This device is equipped with pulse dialing, while the Telecom standard is DTMF tone dialing. There is no guarantee that Telecom lines will always continue to support pulse dialing.

5. Use of pulse dialing, when this equipment is connected to the same line other equipment, may give rise to 'bell tinkle' or noise and may also cause a false answer condition. Should such problems occur, the user should NOT contact the Telecom Fault Service.

6. The preferred method of dialing is to use DTMF tones, as this is faster than pulse (decadic) dialing and is readily available on almost all New Zealand telephone exchanges.

7. Warning Notice: No '111' or other calls can be made from this device during a main power failure.

8. This equipment may not provide for the effective hand-over of a call to another device connected to the same line.

9. Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment (PC) associated with this device. The associated shall be set to operate within the following limits for compliance with Telecom's Specifications:

   For repeat calls to the same number:

   - There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation, and
   - The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.

   For automatic calls to different numbers:

   - The equipment shall be set to ensure that automatic calls to different numbers are spaced such that there is no less than 5 seconds between the end of one call attempt and the beginning of another.

10. For correct operation, total of the RN's of all devices connected to a single line at any time should not exceed 5.

Manual Organization

The WorkCentre 6400 Service Manual is the primary document used for repairing, maintaining, and troubleshooting the printer. Use this manual as your primary resource for understanding the operational characteristics of the printer and all available options. This manual describes specifications, theory, and the diagnosis and repair of problems occurring in the print engine and attached options. Also included are detailed replacement procedures, parts lists, and wiring diagrams.

The WorkCentre 6400 Service Manual contains these sections:

Introductory, Safety, and Regulatory Information: This section contains important safety information and regulatory requirements.

Section 1 - General Information: This section contains an overview of the printer's operation, configuration, specifications, and consumables.

Section 2 - Theory of Operation: This section contains detailed functional information on the print engine components.

Section 3 - Error Codes and Messages: This section provides detailed troubleshooting procedures for error messages and codes generated by resident diagnostics.

Section 4 - General Troubleshooting: This section contains the operation of Power On Self Test (POST) and Service Diagnostics. In addition, this section includes troubleshooting methods for situations where error indicator is not available.

Section 5 - Print-Quality Troubleshooting: This section focuses on techniques to correct image quality problems associated with the printer output.

Section 6 - Adjustments and Calibrations: This section provides procedures for the adjustment of the print engine components.

Section 7 - Cleaning and Maintenance: This section provides periodic cleaning procedures for the printer.

Section 8 - Service Parts Disassembly: This section contains removal procedures for spare parts listed in the Parts List. A replacement procedure is included when necessary.

Section 9 - Parts List: This section contains exploded views of the print engine and optional Field Replaceable Units (FRUs), as well as part numbers for orderable parts.

Section 10 - Plug/Jack and Wiring Diagrams: This section contains the plug/jack locations and the wiring diagrams for the printer.

Appendix A - Reference: This section provides an illustration of the printer's Control Panel menu structure, printer firmware update instructions, a list of printer error chain link codes, and a list of acronyms and abbreviations.

Table of Contents

1 General Information

2 Theory of Operation

3 Error Messages and Codes

4 General Troubleshooting

5 Print-Quality Troubleshooting

6 Adjustments and Calibrations

7 Cleaning and Maintenance

8 Service Parts Disassembly

9 Parts List

10 Plug/Jack and Wiring Diagrams

A Reference

Index

General Information

In this chapter...

- Printer Introduction and Overview
- Printer Configurations
- Parts of the Printer
- Printer Options
- Maintenance and Consumable Items
- Specifications
- Toner Cartridge Life
- Maintenance Function
- Controller Functions
- Information Pages and Reports

Chapter 1

Printer Introduction and Overview

The Xerox WorkCentre 6400 combines a color laser print engine, a Scanner, Copier, and Fax. The WorkCentre 6400 has a single-pass color laser-design architecture, which offers color and mono print speed at 32/37-ppm, copy and scan resolutions at to 600 x 600 dots-per-inch (dpi), while can achieve print resolutions up to 2400 x 2400 dpi. The printer supports Adobe PostScript 3 and PCL6, USB 2.0, and 10/100/1000 Base-TX Ethernet. The Scanner supports Scan to Desktop, Scan to Public Folder, Network Scan to FTP, and Network Scan to E-Mail using touch-screen UI with resolution up to 600 dpi.

The WorkCentre 6400 provides a standard 500-Sheet Tray and a 100-Sheet Fold Down Tray. Tray 1 supports specialty paper, card stock, and envelopes. The standard paper input is 600 sheets and the maximum input with an optional Trays 3 and Tray 4 is 1600 sheets. The Output Tray holds 500 sheets facedown.

The Document Feeder is a 2-pass Duplex Automatic Document Feeder (DADF) with automatic de-skew capability, and supports 50-sheet capacity.

The printer options add paper capacity and functionality.

- Two 500-Sheet Feeders are available as options.
- A Staple Finisher is available as optional or standard configuration.
- Wireless Network Adapter

Technical Support Information

The Xerox WorkCentre 6400 Service Manual is the primary document used for repairing, maintaining, and troubleshooting the printer.

To ensure complete understanding of this product, participation in Xerox WorkCentre 6400 Service Training is strongly recommended. To service this product, Xerox certification for this product is required.

For updates to the Service Manual, Service Bulletins, knowledge base, etc., go to:

- Xerox Global Service Net - https://www.xrxgsn.com/secure/main.pl
- Service Partners: http://www.office.xerox.com/partners

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

To help us improve our service documentation, please complete the survey located at:

http://www.surveymonkey.com/s.aspx?sm=jzeKkEF_2fhVgDRUktu_2brNWQ_3d_3d

Printer Configurations

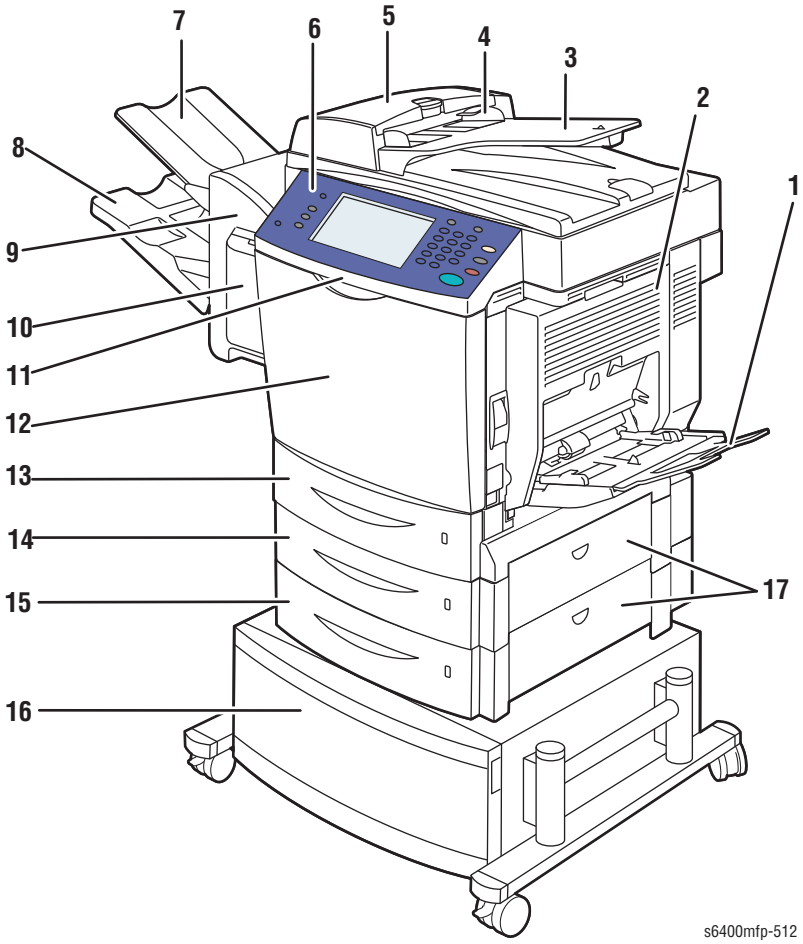
The WorkCentre 6400 is available in three configurations.

Features	Printer Configurations		
	6400 S	**6400 X**	**6400 XF**
Processor and Clock Speed	800 MHz	800 MHz	800 MHz
Memory Configuration*	1 GB	1 GB	1 GB
Print Speed (Color/Mono) (ppm)	32/37	32/37	32/37
Adobe PostScript 3 Fonts	Standard	Standard	Standard
PCL6 Fonts	Standard	Standard	Standard
USB 2.0 Hi-Speed Support	Standard	Standard	Standard
Ethernet Interface	10/100/1000 Base-TX	10/100/1000 Base-TX	10/100/1000 Base-TX
Tray 1 (100 Sheet)	Standard	Standard	Standard
Tray 2 (500 Sheet)	Standard	Standard	Standard
Tray 3 500-Sheet Feeder	Optional	Optional	Standard
Tray 4 500-Sheet Feeder	Optional	Optional	Standard
Duplex Unit	Standard	Standard	Standard
Fax	N/A	Standard	Standard
600-Sheet Finisher	Optional	Optional	Standard
Printer Stand	Optional	Optional	Standard
Foreign Device Interface	Optional	Optional	Optional
Wireless LAN	Optional	Optional	Optional
Printer Resolutions (dpi)			
■ Standard ■ Enhanced	■ 1200 x 600 ■ 2400 x 600	■ 1200 x 600 ■ 2400 x 600	■ 1200 x 600 ■ 2400 x 600
Copy Resolutions (dpi)			
■ Color Resolutions ■ Mono Resolutions	■ 600 x 600 ■ 600 x 600	■ 600 x 600 ■ 600 x 600	■ 600 x 600 ■ 600 x 600
Scan Resolutions (dpi)			
■ From Document Glass ■ From DADF	■ 600 x 600 ■ 600 x 300	■ 600 x 600 ■ 600 x 300	■ 600 x 600 ■ 600 x 300

* All configurations have one memory slot supporting 512 MB/ 1 GB DDR2 DIMMs, to a maximum of 2.0 GB total.

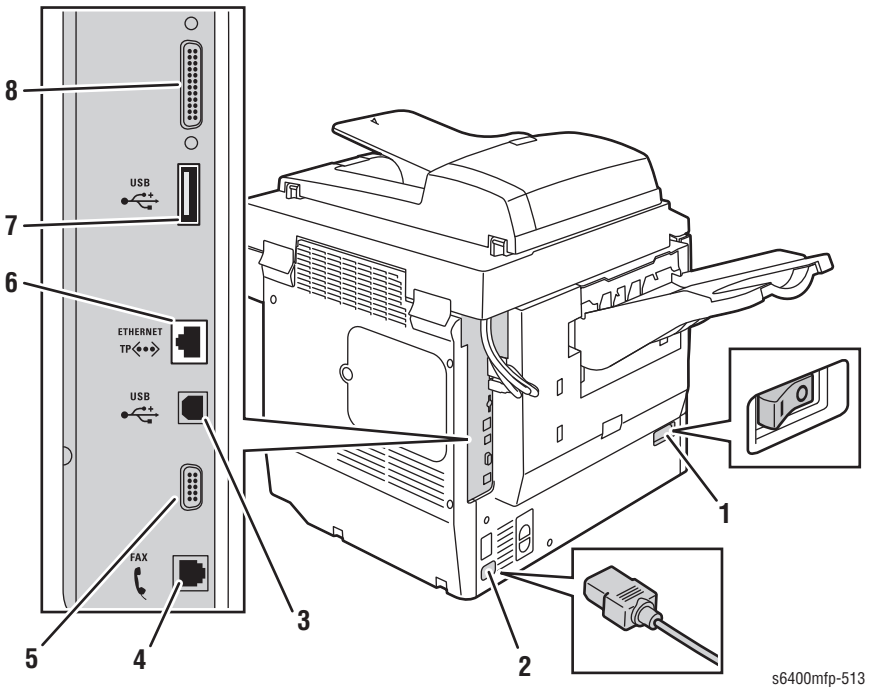
Parts of the Printer

Front and Side Views



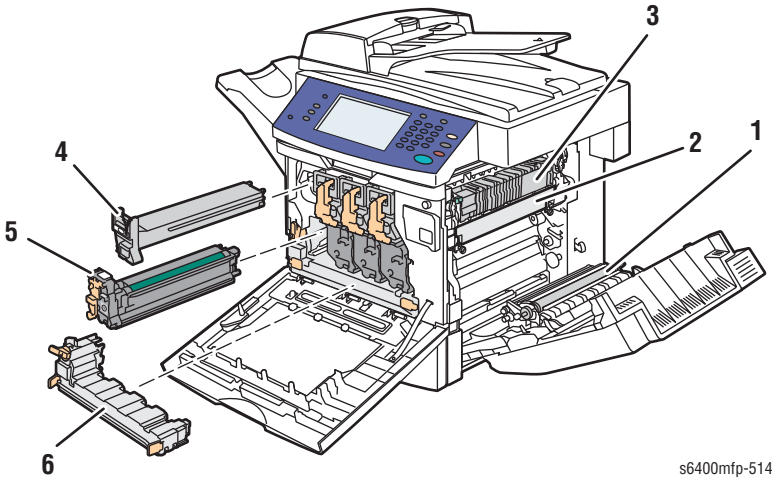
1. Tray 1
2. Duplex Unit
3. Input Tray
4. Paper Guides
5. ADF Cover
6. Control Panel
7. Finisher Top Tray
8. Finisher Main Tray
9. Finisher Assembly (option)
10. Staple Cover (Finisher Front Door)
11. Scanner Latch
12. Front Door
13. Tray 2
14. Tray 3 (optional)
15. Tray 4 (optional)
16. Printer Stand (optional)
17. Optional Sheet Feeder Lower Right Door

Rear View



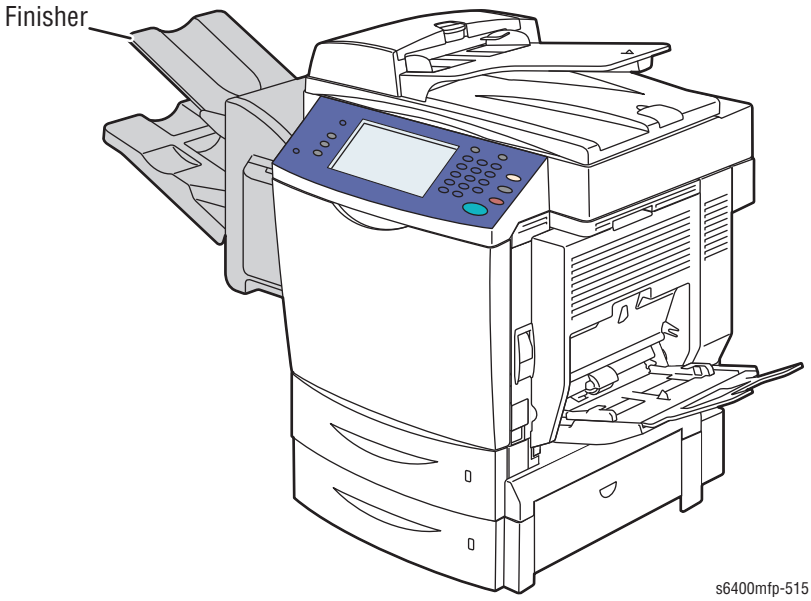
1. Power Switch
2. Power Cord Connection
3. USB Connection
4. Telephone Line
5. Foreign Device Interface Connection
6. Ethernet Connection
7. USB Memory Slot (Service Use Only)
8. Scanner Connection

Internal Components

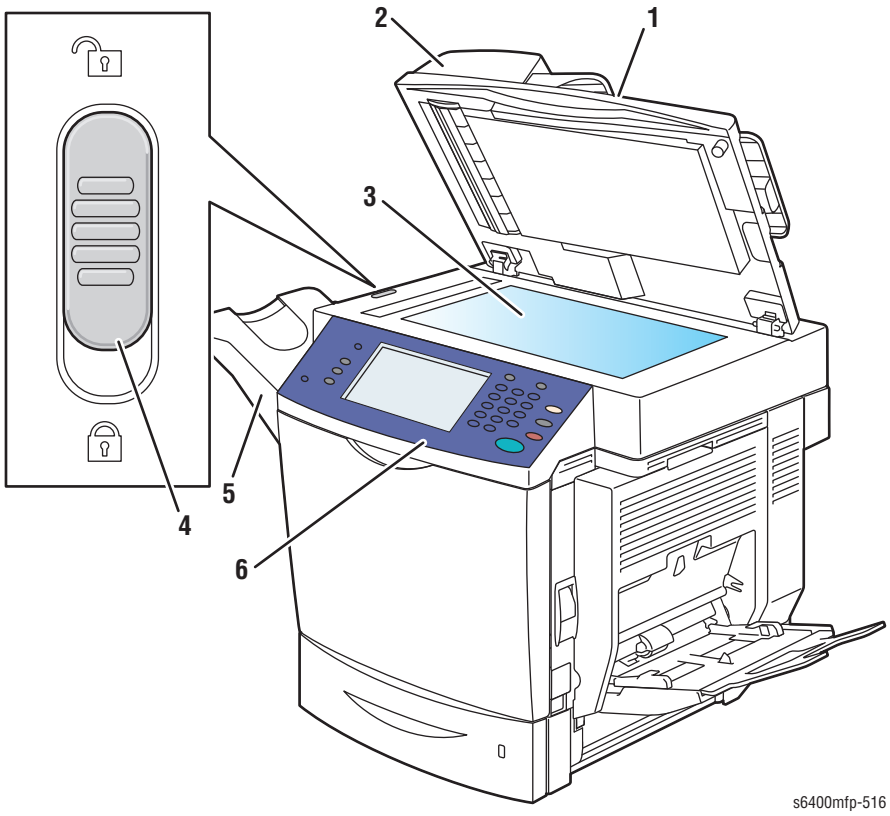


1. Transfer Roller
2. Transfer Belt
3. Fuser
4. Toner Cartridge (x4)
5. Imaging Unit (x4)
6. Waste Cartridge

Finisher



Scanner



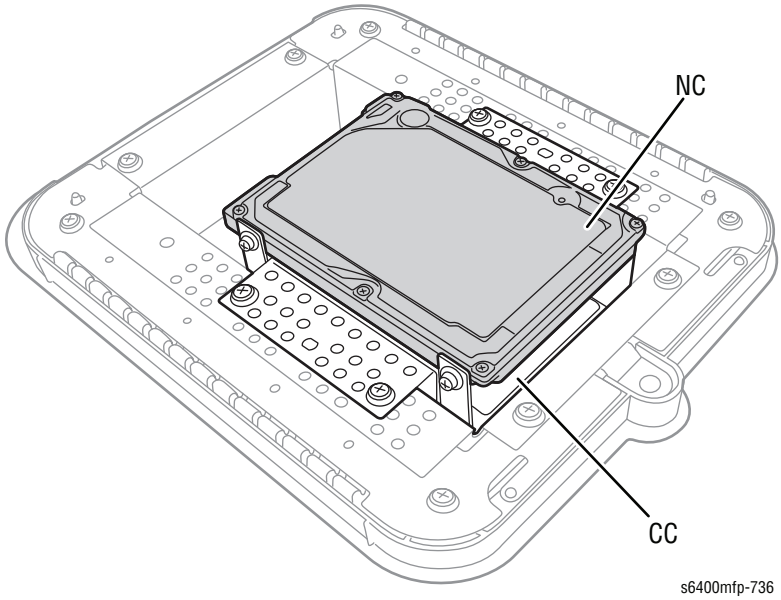
1. Automatic Document Feeder Tray
2. Automatic Document Feeder
3. Document Glass
4. Scanner Lock Lever
5. Output Tray
6. Control Panel

Hard Disk Drives

The WorkCentre 6400 includes two Hard Disk Drives. In addition to storing firmware, space is available for additional features such as fonts/forms/macros. Each Hard Drive has an 80 GB capacity.

Note

The Hard Drives are labeled NC (Network Controller) and CC (Copy Controller). The NC Hard Drive is on top of the stack.



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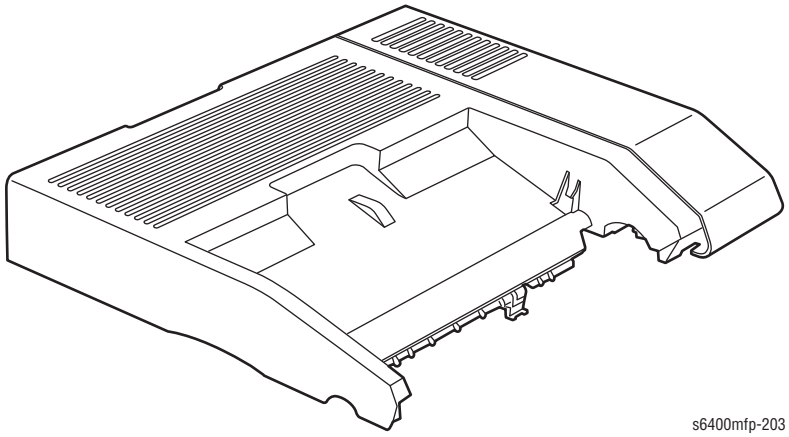
Duplex Unit

The Duplex Unit is a standard feature for the WorkCentre 6400. User can install or remove the Duplex Unit without using any tools.



s6400mfp-203

Control Panel Configurations

The Control Panel consists of one LED, one 8 inch Wide Video Graphics Array (WVGA) touch screen display, and 25 functional buttons. These buttons are used to navigate the menu system, perform functions, and select modes of operation for the printer, scanner, copier, and fax.

Service Control Panel Access

Function	Buttons Pressed
Enter Service Diagnostics	"*****" then + "**#**" then + "**Stop**" buttons
Service Copy Mode	"*****" + "**#**" + "**Stop**" buttons
Control Panel Calibration	"**Dial Pause**" + "*****" + "**#**" buttons

LED Indicators

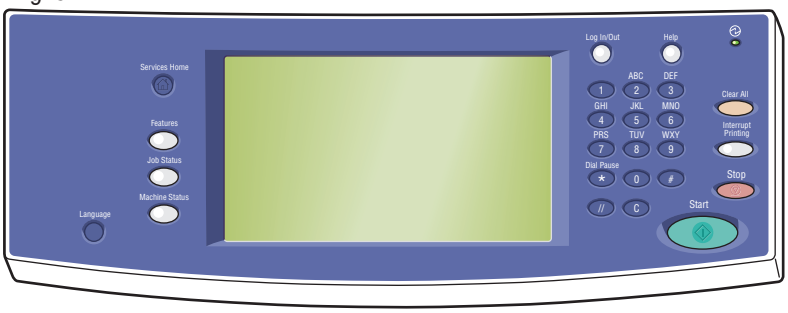
LED State	Printer State
Flashing Green	First Level Power Save mode
Green	Second Level Power Save mode (Deep Sleep)
Note: The LED is not illuminated when processing jobs.	

Control Panel Button Description

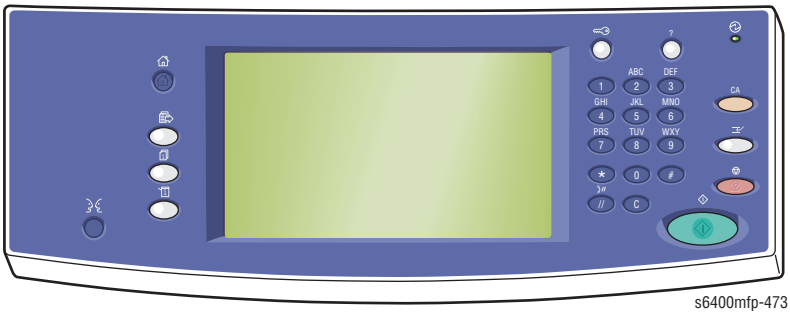
The Control Panel functions are segregated into three sections.

- Center Panel
- Left Side
- Right Side

English



International



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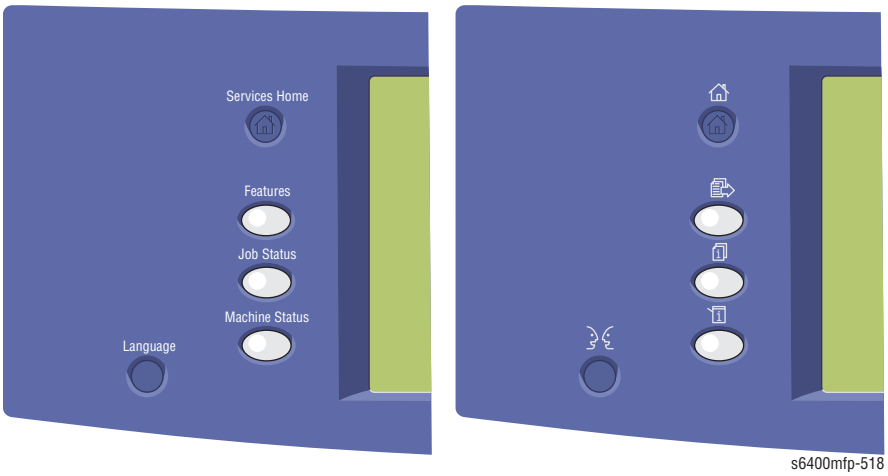
Control Panel - Left Side

The left side of the Control Panel contains the Services Home, Features, Job Status, Machine Status, and Language buttons.



Service Home – Press to return to the home page of the Control Panel display.

Note: Service Home button is programmable.

Features – Press to access the features (such as copy, scan, and fax) on the Control Panel display.

Job Status – Press to view the list of active and completed jobs on the Control Panel display.

Machine Status – Press to view the supplies status, printer information, and access the Menu Map and information pages. The Administrator can change the printer settings using the Machine Status button.

Language – Press to change the Control Panel language and keyboard settings.

Control Panel - Right Side

The right side of the Control Panel contains the Power Save LED, Numeric buttons, Log In/Out, Help, Clear All, Interrupt Printing, Stop, and Start buttons.

Alphanumeric Keys – Use to enter numbers and letters for name and phone numbers.

Log In/Out – To access protected features. Press this button to enter the user name and password using the touch screen. To log out, press this button again.

Help – Press to view a help message about the current selection on the Control Panel display.

Power Save LED– This light is On in Power Save mode and blinks when the printer is receiving a print job.

Clear All – Press once to return to the default main menu. This feature deletes numeric values or the last digit entered.

Interrupt Printing – Press to pause a print job. Press this button again to resume printing. This button does not pause copy, scan, or fax job.

Stop – Press to interrupt a print, copy, scan, or fax job. If more than one type of job is in process, select the job to cancel on the Control Panel display.

Start – Press to start a copy, scan, or fax job.

Printer Options

WorkCentre 6400 Multifunction printer options include:

- Fax
- Printer Stand
- Optional 500-Sheet Feeder (Tray 3 and Tray 4)
- Finisher
- Foreign Device Interface

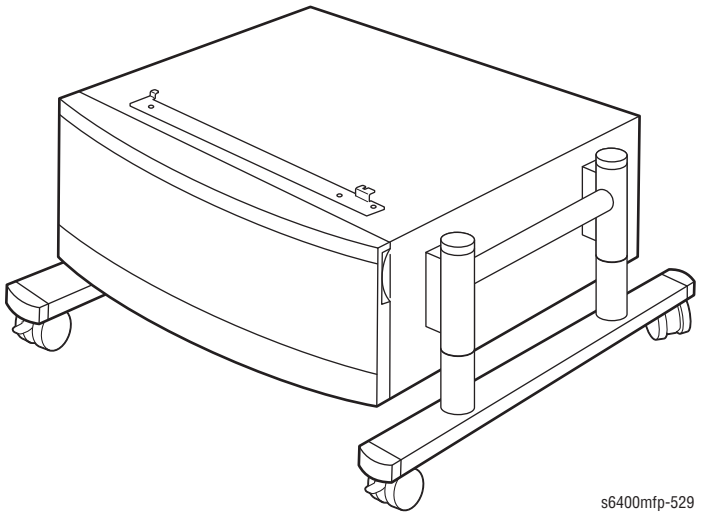
Fax

Fax feature is available for specific WorkCentre 6400 configurations. Available features include:

- Walk-up Fax
- Server Fax Support
- LanFax (Print-to-fax), PCL only

Printer Stand

The Printer Stand is available in the WorkCentre 6400 XF configuration as a standard model. The Print Stand height can be adjusted by the user from 320 mm to 395 mm.

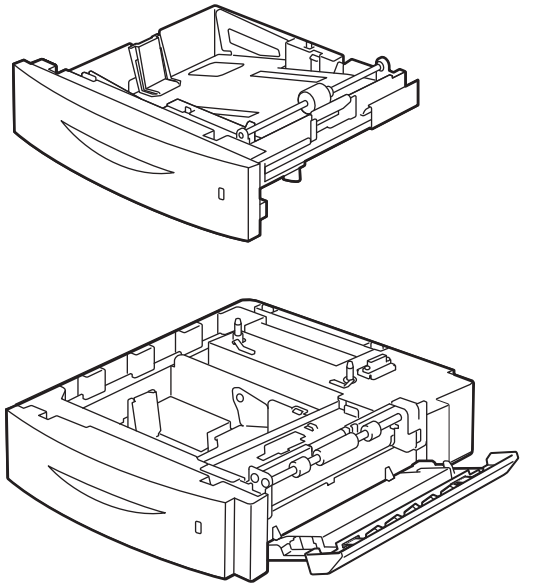


Optional 500-Sheet Feeder Unit (Tray 3 and Tray 4)

The Optional 500-Sheet Feeder increases input capacity of the printer and can be attached to the printer underneath Tray 2. The Optional 500-Sheet Feeder is customer installable.

Note

The WorkCentre 6400 can support up to 2 Optional 500-Sheet Feeder Units.



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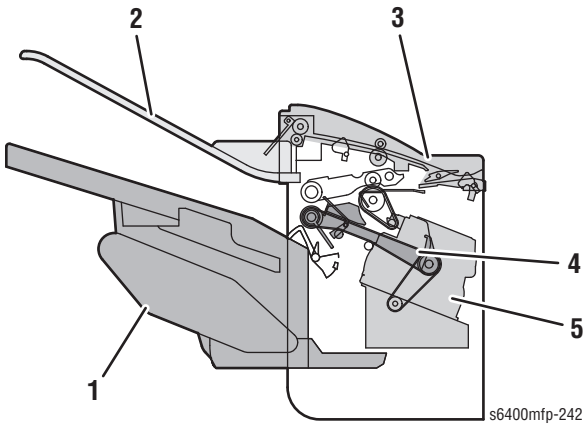
Finisher

The Finisher is a customer install option which includes the following features:

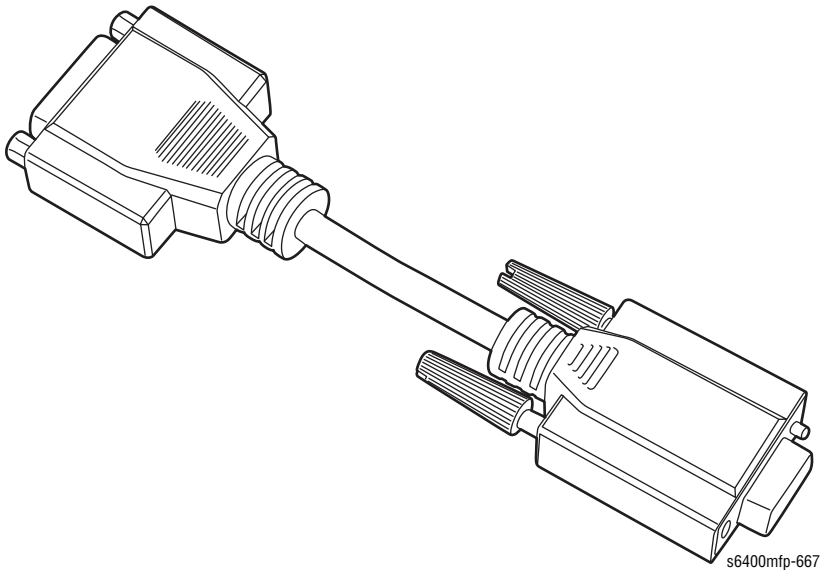
- Set and Offset Stacking
- Paper Capacity:
  - Top Tray (Sub Tray): 100 sheets
  - Bottom Tray (Main Tray): 500 sheets
- Sort-Staple: Maximum 30 sheets, corner staple
  - Normal Mode: 30 sheets
  - Cover Mode: 28 sheets
- Non-Staple: no offset, sort, and set
- Staple Cartridge Capacity: 5,000 staples



1. Main Tray Section
2. Top Tray Section
3. Top Tray Transport Section
4. Storage Section
5. Staple Section

Foreign Device Interface

The Foreign Device Interface (FDI) cable provides the capability to connect an external device such as Coin Operation device to the printer.



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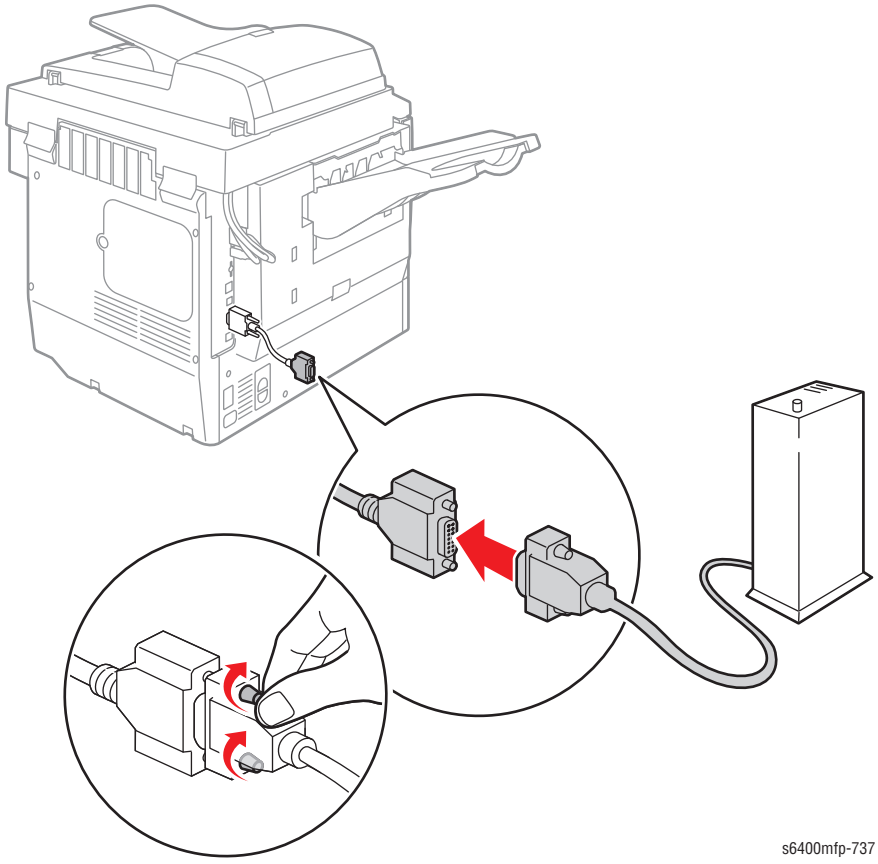

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Maintenance and Consumable Items

A consumable or maintenance item is a Multifunction Printer part or assembly that has a limited life, and requires periodic replacement. Routine maintenance items are typically customer replaceable.

Each Toner Cartridge has a CRUM (Customer Replaceable Unit Meter) to record new or used cartridge and usage information and identifies the type of Toner Cartridge (Standard or High capacity).

Note

Black Toner Cartridge is only available in High capacity.

The CRUM contains a company ID, Region ID, and Xerox company name. A CRUM counts the amount of remaining toner. When toner empty is detected, Life End status will be sent to indicate toner empty.

Internal counters track Consumables and Maintenance Items life usage.

Life ratings are based on A-size sheets at 5% coverage and on “typical” office printing per color on 24 lb. paper.

The following listed items have limited life and require periodic replacement.

Note

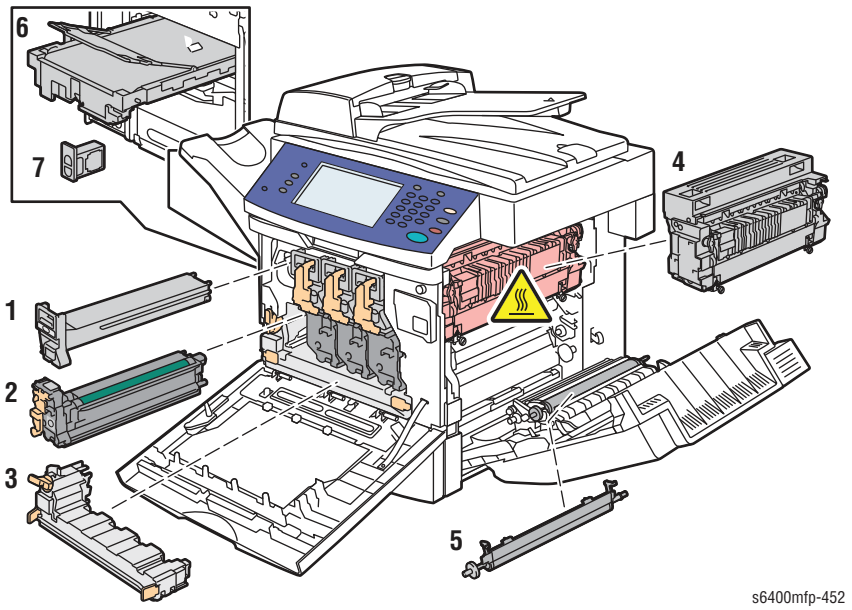
The life rating will be affected by the temperature and humidity by the operating environment (refer to “Environment Specifications” on page 1-24). To meet the life rating as shown in the table below, a stable environment is required.

WorkCentre 6400 Maintenance and Consumable Items

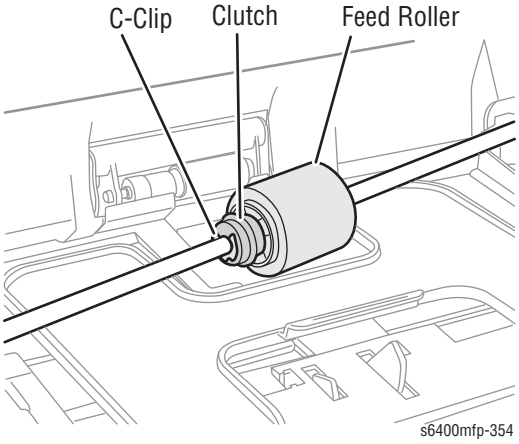
Item	Description	Print Life
1	Toner Cartridge	
	Standard Capacity	■ Color: 6,000 pages ■ Black: 12,000 pages
	High Capacity	■ Color: 12,000 pages ■ Black: 12,000 pages
2	Imaging Unit	Up to 30,000 pages (5-page jobs, or more, simplex, plain paper)
3	Waste Cartridge	■ Color: Up to 9,000 pages at 5% coverage ■ Mono: Up to 36,000 pages at 5% coverage
4	Fuser Unit	■ Up to 150,000 pages (continuous) ■ Up to 130,000 pages (2-page jobs)
5	Transfer Roller	Up to 120,000 pages
6	Transfer Belt	Up to 120,000 pages
7	Ozone Filter	Up to 120,000 pages (bundles with Transfer Roller)
	Tray 1 Feed Roller	Up to 120,000 pages
	Tray 2 Feed Roller	Up to 120,000 pages
	500-Optional Sheet Feeder Feed Roller	240,000 pages

WorkCentre 6400 Maintenance and Consumable Items (continued)

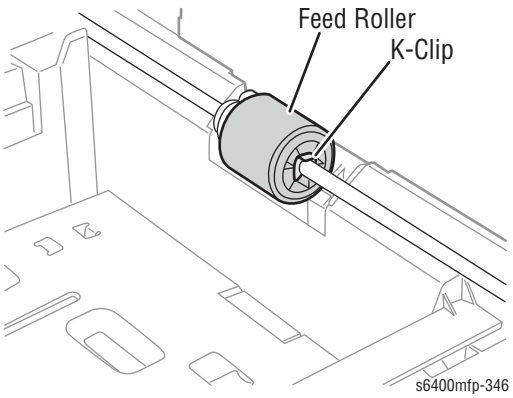
Item	Description	Print Life
	DADF Feed Roller Kit	Up to 100,000 pages



Tray 1 Feed Roller



Tray 2 Feed Roller



Specifications

Printer Specifications

Characteristic	Specifications	
Printing Technology	**Printing System**: Four-Tandem electro-photographic system using Image Transfer Belt (Corona charging system with comb electrode)	
	Development: Non-magnetic, mono-component, Jumping development method	
	Toner: Chemical Toner: Black, Yellow, Magenta, and Cyan	
	Exposure System: 4 LD and 1 Polygon mirror Semiconductor laser beam scanning system	
	Fusing System: Thermal belt fusing with pressure (2 Heating Lamps: 700/300 Watts)	
Printer Life	400,000 pages (Color: Mono = 1:1)	
Print Volume	Average: 4,500 PV/month	
Maximum Duty Cycle	120,000 pages/month*	
Color Medium	Cyan, Magenta, Yellow, and Black Toner Cartridges	
Print-Quality Mode	1200 x 600 (Standard) 2400 x 600 (Enhanced)	
Maximum Image Coverage	240% for all C, M, Y, K combined	
Warm-Up Time	From Power On: 4.5 minutes	
Operating System	Windows	2000/ 2003 Server/XP/ Vista
	Macintosh	OS 10.3 or higher, Intel Mac
	Linux	Redhat, SuSe, and TurboLinux 10 Desktop
* Assumes a 30 day month of printing.		

Scanning Specifications

Characteristic	Specifications
Scanning Technology	**Type**: Flatbed Color CCD Scanner
	Optical Resolution: ■ 600 x 600 dpi (Document Glass) ■ 600 x 300 dpi (DADF)
	Document Size: Max Legal Size
Scanning Mode	■ Document Glass: Document fixed flatbed scanning ■ DADF: Carriage fixed, document feeding scanning (dual pass)
Maximum Scanning Size	■ Document Glass Mode: 215.9 mm x 355.6 mm (8.5 in. x 14 in.) ■ DADF Mode: 215.9 mm x 355.6 mm (8.5 in. x 14 in.)
Paper Size	
■ Minimum	■ Fast Scan Direction: 148 mm (5.8 in.) ■ Slow Scan Direction; 210 mm (8.3 in.)
■ Maximum	■ Fast Scan Direction: 215.9 mm (8.5 in.) ■ Slow Scan Direction: 355.6 mm (14.0 in.)
UI Scan Settings	
Resolution	Up to 600 dpi
Color Mode	Color, Black & White
Original Type	Text, Photo, Mixed
File Format	JPEG, PDF, TIFF, Multipage TIFF, Searchable PDF
Lighter/Darker	7 levels
Sharpness	3 levels
Contrast	3 levels
Auto Exposure	Off, Normal, Higher (1, 2)
Supported Scan Destinations	■ Scan to Mailbox ■ Scan to Email ■ Scan to File ■ Scan to Home

Scan Performance

	Color/Mono	Specifications	
		Letter Speed mm/sec (ipm)	A4 Speed mm/sec (ipm)
Scan Reading Speed from DADF - Simplex (600 x 300 dpi)	Mono	207.4 (35 ipm)	207.4 (33.1 ipm)
	Color	162.2 (30 ipm)	162.2 (28.5 ipm)

Scan Performance (continued)

	Color/Mono	Specifications	
		Letter Speed mm/sec (ipm)	A4 Speed mm/sec (ipm)
Scan Reading Speed from DADF - Duplex (600 x 300 dpi)	Mono	207.4 (16.9 ipm)	207.4 (16.5 ipm)
	Color	162.2 (15.4 ipm)	162.2 (15 ipm)
Scan Reading Speed from Platen (600 x 600 dpi)	Mono	105.83	105.83
	Color	81.88	81.88

Copy Specifications

Characteristic	Specifications
Resolution	■ Scan at: 600 x 600 dpi ■ Output at: 600 x 600 dpi
Quantity	1 to 999
Input/Output	1:1, 1:2, 2:2, 2:1
Document Scanner	DADF with 50-sheet capacity
Copy Features & Options	■ Collation ■ Automatic 2-sided/Duplex ■ Stapling (up to 30 sheets) ■ Large Job Interrupt ■ Auto Paper Select ■ Authentication for Services (i.e., Color Copy) ■ Auto Tray Switching
Image Quality Features	Image Quality ■ Original Type: Photo & Text, Text, Photo, Map, Newspaper, Magazine ■ Image Options: Lighten/Darken, Sharpness, Saturation ■ Image Enhancement: Auto Background Suppression, Auto and Manual Contrast ■ Color Presets: Off, Lively, Bright, Warm, Cool ■ Color Balance: Normal, Basic Color, Advanced Color
Reduce/Enlarge	25%-400% in 1% increment
Lighter/Darker	7 levels
Color Saturation	3 levels
Sharpness	3 levels
Auto Exposure	Off, Normal, Higher (1, 2)
Multiple Up (N to 1)	Off, Auto, Manual
Duplex Copy	On, Off
Auto Fit	On, Off
Cloning	On, Off

Copy Performance

Requirements: Copy mode: default settings, copy output on plain paper, simplex original, simplex copy output, with environmental conditions between 15°C and 32°C and absolute humidity less than 20g/m3.

Rate specified is maximum continuous throughput rate and does not include scanner reading time or image processing time.

Copy Speed

	Color/Mono	Specifications	
		Letter Speed (cpm)	A4 Speed (cpm)
Copy Speed from DADF - Simplex			
Multiple originals - max throughput	Mono	35	33.1
	Color	30	28.5
1-original, N-up copies - max throughput	Mono	37	37
	Color	31.7	31.7
Copy Speed from DADF - Duplex			
Multiple originals - max throughput	Mono	16.9	16.5
	Color	15.4	15
1-original, N-up copies - max throughput	Mono	22.5	22.5
	Color	19.4	19.4
Copy Speed from DADF - Platen (one original, multiple copies)			
1-original, N-up copies - max throughput	Mono	37	37
	Color	31.7	31.7

Fax Specifications

Characteristic	Specifications
Type	ECM/Super G3
Modem Speed	V.34 (up to 33.6k bps)
TX Speed	3 sec./page (at V.34)
Scan Resolution	■ Standard: 200 x 100 dpi ■ Fine: 200 x 200 dpi ■ Superfine: 300 x 300 dpi
Original Type	Text, Photo, Mixed
Compression	MH, MR, MMR
Image Quality Features	Image Quality ■ Image Options: Lighten/Darken, Sharpness ■ Image Enhancement: Background Suppression, Auto and Manual Contrast
Fax Features	■ Secure Fax ■ Mailbox and Polling ■ Delayed Sending (up to 24 hours) ■ Junk Fax Filter ■ Speed Dials (up to 200) ■ Group Dials

Memory Specifications

Characteristic	Specifications	
Memory	Minimum	1.0 GB ■ 512 Copy Controller ■ 512 Network Controller
	Maximum	2.0 GB
Supported RAM	■ Supports up to 2.0 GB of DDR2 DIMM with two slots for 512 MB/ 1 GB ■ Specification: 1GB, 200-PIN SO-DIMM; 128M X 64BIT, PC2-5300, 667MHZ	

Environment Specifications

Characteristic		Specifications	
Temperature			
Operating	10° to 30° C (50° to 86° F)		
Storage	-20° to 40° C (-4° to 104° F)		
Optimal	15° to 25° C (59° to 77° F)		
Humidity (% RH)			
Operating	20 to 85% RH (non-condensing)		
Storage	10% to 95% (non-condensing)		
Optimal	35% to 70%		
Altitude			
Operating	0 to 2,500 meters (8,000 feet)		
Acoustic Noise		**Sound Power Level (Bels)**	**Sound Pressure (Decibels)**
Standard Configuration			
Standby		4.9 LWA(B)	37.99 LWAD (A)
Printing	Full Speed	6.99 LWA (B)	56.78 LWAD (A)
	High Speed	6.77 LWA (B)	55.16 LWAD (A)
Copying	Full Speed	7.14 LWA (B)	58.24 LWAD (A)
	High Speed	7.01 LWA (B)	56.86 LWAD (A)
Full Option with Finisher			
Standby		4.9 LWA(B)	37.99 LWAD (A)
Printing	Full Speed	7.19 LWA (B)	58.96 LWAD (A)
	High Speed	6.99 LWA (B)	56.63 LWAD (A)
Copying	Full Speed	7.22 LWA (B)	59.95 LWAD (A)
	High Speed	7.12 LWA (B)	57.68 LWAD (A)

Electrical Specifications

Characteristic	Specifications	
Power Supply Voltage/ Frequency	**AC 110 V**	**AC 220 V**
Voltage	120 VAC ± 10%	220-240 VAC ± 10%
Frequency	50/60 Hz ± 3 Hz	50/60 Hz ± 3 Hz
Current	13.2A	7.5A
Power Consumption	**AC 110 V**	**AC 220 V**
Running Mode	■ Average: 900 W ■ Max: 1500 W	■ Average: 900 W ■ Max: 1500 W
Ready Mode (Fuser On)	■ Average: 250 W ■ Max: 1400 W	■ Average: 250 W ■ Max: 1400 W
Stand-by Mode (Semi-Sleep) (Fuser Off)	Average: 32 W	Average: 32 W
Sleep Mode (Deep Sleep)	Average: 28 W	Average: 28 W
In-rush Current		
Within 10 msec	■ Less than 50 Amp ± 10% (Cold start) ■ 160 Amp ± 10% (Hot start)	
Leakage Current	**Power**	**Current**
	120 V	< 3.5 mA (UL)
	220-240 V	< 3.5 mA (IEC)

Print Speed

Simplex (ppm)

Requirements: Printing in Standard Mode (1200 x 600) with environmental conditions between 15°C and 32°C and absolute humidity less than 20g/m3. The 1-hour continuous rate is 90% of the maximum rate.

Media Type	Color/ Mono	Specification (ppm)					
		Letter Speed		A4 Speed		Legal Speed	
		Max	1-Hour Continous	Max	1-Hour Continous	Max	1-Hour Continous
Plain	Mono	37	33.3	35	31.5	30	27
	Color	31.7	28.5	30	27	25.5	22.9
Recycled	Mono	37	33.3	35	31.5	30	27
	Color	31.7	28.5	30	27	25.5	22.9
Heavyweight	Mono	16	14.4	12.6	11.3	---	---
	Color	16	14.4	12.6	11.3	---	---
Extra Heavyweight	Mono	12	10.8	10	9	---	---
	Color	12	10.8	10	9	---	---
Gloss Coating	Mono	16	14.4	12.6	11.3	---	---
	Color	16	14.4	12.6	11.3	---	---
Heavyweight Gloss Coating	Mono	10	9.0	10	9	---	---
	Color	10	9.0	10	9	---	---
Transparency	Mono	9	8.1	9	8.1	---	---
	Color	9	8.1	9	8.1	---	---

Duplex (ppm)

Requirements: printing in Standard Mode (1200 x 600) with environmental conditions between 15°C and 32°C and absolute humidity less than 20g/m3. The 1-hour continuous rate is 90% of the maximum rate.

Media Type	Color/ Mono	Specification (ppm)					
		Letter Speed		A4 Speed		Legal Speed	
		Max	1-Hour Continous	Max	1-Hour Continous	Max	1-Hour Continous
Plain	Mono	22.5	20.3	22.5	20.3	15	13.5
	Color	19.4	17.5	19.4	17.5	13	11.7
Recycled	Mono	22.5	20.3	22.5	20.3	15	13.5
	Color	19.4	17.5	19.4	17.5	13	11.7
Heavyweight	Mono	6.2	5.6	6.2	5.6	---	---
	Color	6.2	5.6	6.2	5.6	---	---

Warm-Up Time

Warm-up time is defined as the time from a power-off or a sleep condition, to a ready to print/ copy condition, and is measured in ambient temperature 23°C and at nominal line voltae for both 120V and 240V models.

Warm-Up Time

Description	Time (seconds)
Without process control	Less than 45 sec.
With Color Registration Control	45 sec. (average)
With short process control (simple correction / image stabilization)	45 sec. (average)
With long process control (full correction / image stabilization)	91 sec. (average)

First Print Output Time

From Sleep Mode

The Engine first print out time (FPOT) is defined as the time from initiation of print engine activities (when the system controller sends the Print Command) to the complete exit of the sheet from the machine output rolls of the output tray (without finisher).

The following condition is applied:

- Printing in Standard Mode (1200 x 600), simplex, with environmental conditions between 15°C and 32°C and absolute humidity less than 20g/ m3.

Mode	FPOT (sec.)
From Sleep	62 sec.
Applies to Plain paper, Color S2 process speed = 185 mm/sec, Simplex	

From Ready Mode

The following condition is applied:

- Printing in Standard Mode (1200 x 600), simplex, with environmental conditions between 15°C and 32°C and absolute humidity less than 20g/m3.

Media Type	Color/ Mono	Specification				
Simplex The Engine first print out time (FPOT) is defined as the time from initiation of print engine activities (when the system controller sends the Print Command) to the complete exit of the sheet from the machine output rolls of the output tray (without finisher).						
		A4	**A5**	**B5**	**Leter 8.5 x 11**	**Legal**
Plain	Mono	15	15	15	15	16.5
	Color	16	16	16	16	16.5
Recycled	Mono	15	15	15	15	16.5
	Color	16	16	16	16	16.5
Heavyweight	Mono	22	---	---	22	---
	Color	25	---	---	25	---
Extra Heavyweight	Mono	22	---	---	22	---
	Color	25	---	---	25	---
Gloss Coating	Mono	23	---	---	23	---
	Color	25	---	---	25	---
Heavyweight Gloss Coating	Mono	29	---	---	29	---
	Color	29	---	---	29	---
Transparency	Mono	22	---	---	22	---
	Color	25	---	---	25	---
Duplex The Engine first print out time (FPOT) is defined as the time from initiation of print engine activities (when print engine is in the “Ready” state and the system controller sends the Print Command) to the complete exit of the sheet from the machine output rolls of the output tray (without finisher).						
		A4	**A5**	**B5**	**Leter 8.5 x 11**	**Legal**
Plain	Mono	22	---	22	22	23
	Color	24	---	24	24	25
Recycled	Mono	22	---	22	22	23
	Color	24	---	24	24	25
Heavyweight	Mono	44	---	44	44	45
	Color	48	---	48	48	49

First Copy Output Time

First Copy Output Time (FCOT) is defined when a document is placed on the machine in Ready condition and the Start button is pressed until the trail edge of the first copied output passes the exit rollers.

The following conditionis applied:

- Default Copy settings

FCOT	Color/Mono	Reference	
		With scanner shading correction (sec)	Without scanner shading correction (sec)
DADF – Simplex	Mono	21	17
	Color	22	18
Platen	Mono	21	17
	Color	22	18

Image Specifications

Note

The printer has 4 mm margins on all sides.

- Refer to “Print-Quality Troubleshooting” on page 5-1 for detailed specifications.

Print Quality Specification

Characteristic	Specification
Guaranteed Printable Area	
When using Tray 1	208 mm x 348 mm
When using Tray 2/3/4	The area of paper except the margin area, which is 4 mm inside each edge of the paper.
Skew	
Simplex Printing	■ Vertical Skew: a < ±2.0 mm (0.08 in.) ■ Horizontal Skew: b < ±1.5 mm (0.06 in.)
Duplex Printing (front to back)	■ Vertical Skew: a < 3.0 mm (0.12 in.) ■ Horizontal Skew: b < ±2.5 mm (0.10 in.)
Margins	
Simplex Printing	■ Side Print Position Accuracy ± 2.0 mm (±0.08 in.) ■ Lead Print Position ± 2.5 mm (±0.01 in.)
Duplex Printing (front to back)	■ Side Print Position Accuracy ± 3.0 mm (±0.12 in.) ■ Lead Print Position ± 2.5 mm (±0.01 in.)
Magnification	
Printing	■ Vertical (applied to 270.9 mm length): < ±2.0 mm (±0.08 in.) (0.74%) ■ Horizontal (applied to 184.2 mm length): < ±1.2 mm (±0.05 in.) (0.65%)
Bowing	
Simplex Printing	■ Vertical (applied to 200 mm length): < ±0.35 mm ■ Horizontal (applied to 184.2 mm length): < ±0.50 mm
Duplex Printing (front to back)	■ Side Print Position Accuracy ± 3.0 mm (±0.12 in.) ■ Lead Print Position ± 2.5 mm (±0.01 in.)
Color Registration	■ Vertical: Plain paper at all zones; average 0.15 mm ■ Horizontal: Plain paper at all zones; average 0.10 mm
Scattering (output paper)	■ Feeding Direction: ± 20 mm ■ Side Direction: + 20 mm

DADF Image Scan Quality Specification

Characteristic	Specification
Guaranteed Scannable Area	208 x 348 mm The area of paper except the margin area, which is 4 mm inside each edge of the paper.
Page Lead Edge Registration Allocation	■ 1st Page: Less than and equal ±1.5 mm ■ 2nd Page: Less than and equal ±2.0 mm
Page Side Edge Registration Allocation	■ 1st Page: Less than and equal ±1.5 mm ■ 2nd Page: Less than and equal ±2.0 mm
Page Magnification (Fast Scan Direction)	Less than and equal ±1%
Page Magnification (Slow Scan Direction)	Less than and equal ±1.5%
Pitch Accuracy	■ Mono: Less than 2.5% at 100 dpi ■ Color: Less than 2.0% at 100 dpi

Document Glass Image Scan Image Quality Specification

Characteristic	Specification
Guaranteed Scannable Area	208 x 348mm The area of paper except the margin area, which is 4 mm inside each edge of the paper.
Page Lead Edge Registration Allocation)	< 1.0 mm
Page Side Edge Registration Allocation)	< 1.0 mm
Page Magnification (Fast Scan Direction)	Less than and equal ±1.0%
Page Magnification (Slow Scan Direction)	Less than and equal ±1.0%
Pitch Accuracy	■ Black: Less than 2.5% at 100 dpi ■ Color: Less than 2.0% at 100 dpi

Copy Quality Specification

Characteristic	Specification
Guaranteed Scannable Area	208 x 348mm The area of paper except the margin area, which is 4 mm inside each edge of the paper.
Registration Scanning Direction	Simplex ■ Document Glass Scan: 0 ± 2.5 mm ■ DADH: 0 ± 2.5 mm Duplex ■ Document Glass Scan: 0 ±3.5 mm ■ DADH: 0 ± 4.0 mm
Registration Feeding Direction	Simplex ■ Document Glass Scan: 0 ± 3.0 mm ■ DADH: 0 ± 3.0 mm Duplex ■ Document Glass Scan: 0 ± 3.0 mm ■ DADH: 0 ±3.5 mm
Skew	Simplex ■ Document Glass Scan: ± 1.0% ■ DADH: ± 1.5% Duplex ■ Document Glass Scan: ± 1.5% ■ DADH: ± 2.5%
Linearity	Scanning Direction Line ■ Document Glass Scan: 0.5 mm or less ■ DADH: 0.5 mm or less

Physical Dimensions and Clearances

Printer Dimensions

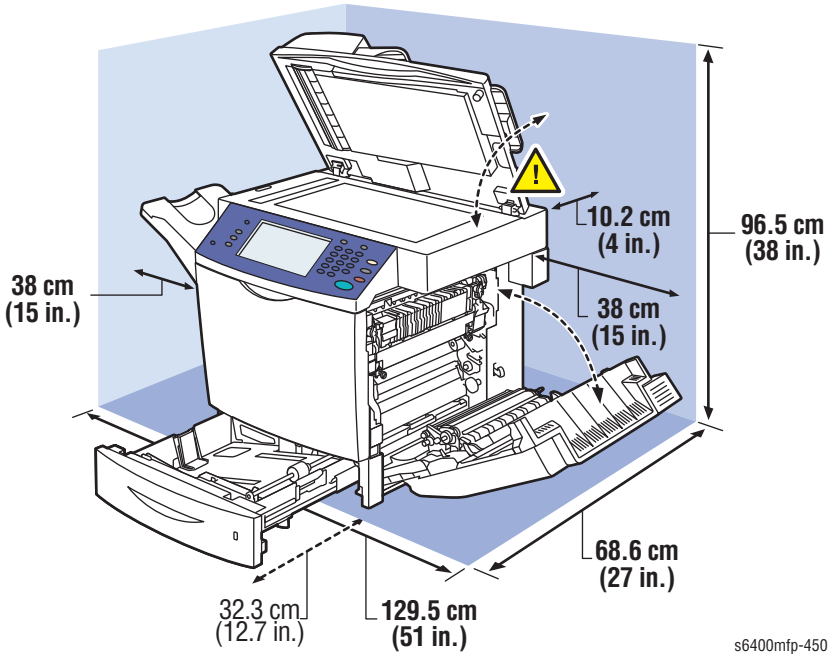
Print Engine	6400 S	6400 X	6400 SX
Width	32.0 in. (812 mm)	32.0 in. (812 mm)	39.7 in. (1008 mm)
Depth	23.1 in. (588 mm)	23.1 in. (588 mm)	23.1 in. (588 mm)
Height	24.7 in. (627 mm)	24.7 in. (627 mm)	44.9 in. (1166 mm)
Weight	130.0 lb. (59.0 kg)	130.0 lb. (59.0 kg)	181.0 lb. (82.0 kg)

Options	
500-Sheet Feeder (Optional)	
Width	17.6 in. (448.0 mm)
Depth	20.5 in. (520.7 mm)
Height	4.3 in. (109.9 mm)
Weight	13.4 lb. (6.1 kg)
Finisher (Optional)	
Width	18.8 in. (478.0 mm)
Depth	18.1 in. (461.0 mm)
Height	14.0 in. (355.6 mm)
Weight	21.6 lb. (9.8 kg)
Print Cart (Optional)	
Width	22.8 in. (578.0 mm)
Depth	20.8 in. (529.0 mm)
Height	15.3 in. (389.0 mm)
Weight	64.0 lb. (29.0 kg)

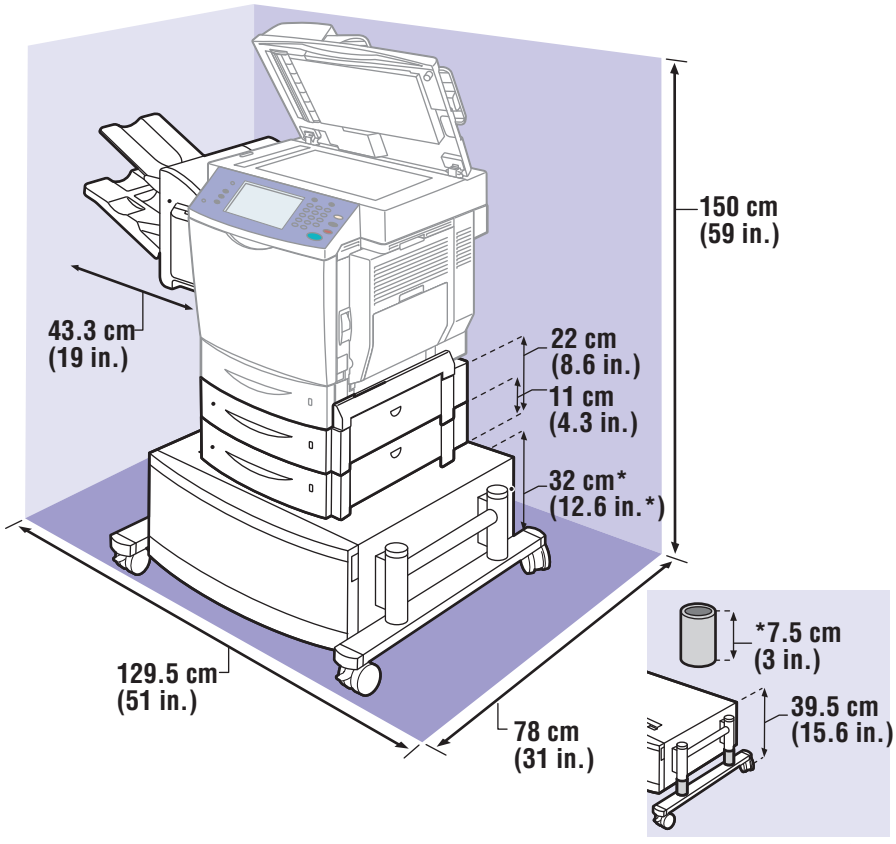
Mounting Surface Specifications

These specifications apply to any printer used as a table-top printer.

1. In order to function properly, the printer must be placed on a surface with the following minimum dimensions.

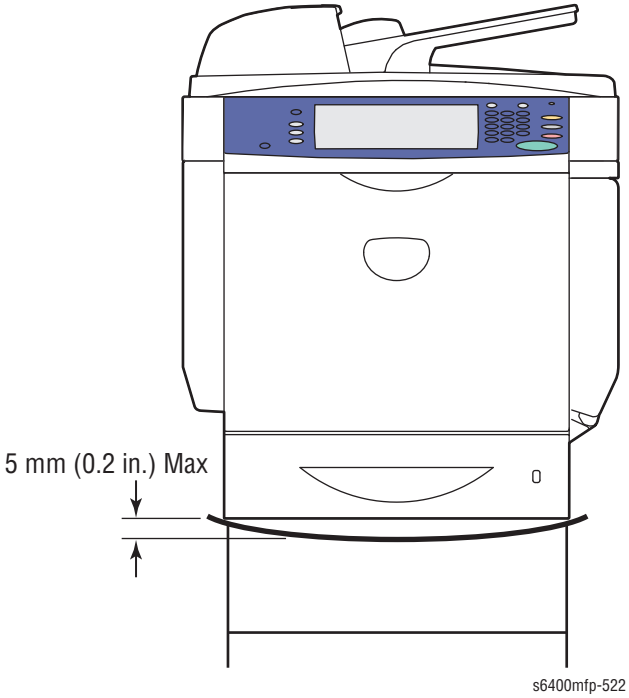


s6400mfp-450

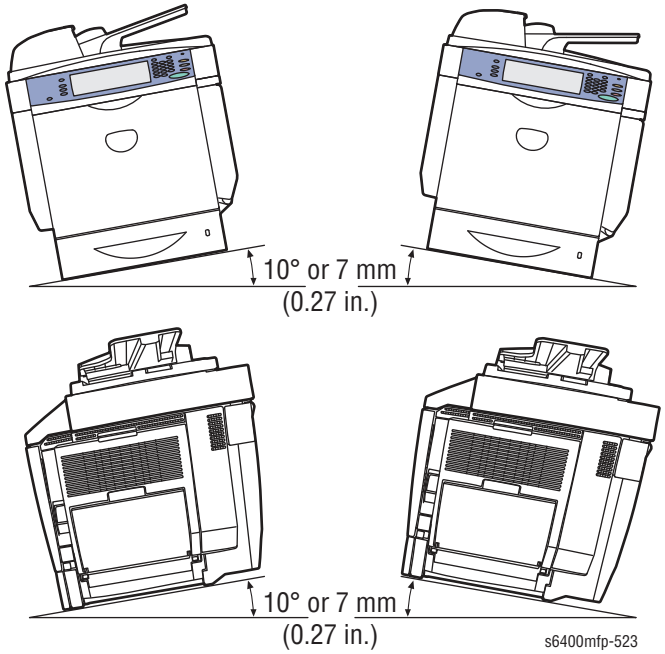


s6400mfp-451

2. Mounting surface flatness must be within the specified range.



3. The printer must not be tipped or tilted more than 7 mm.



Failure to adhere to the specified mounting specifications will void all guarantees of print-quality and/or performance. Known problems that can occur as a result of exceeding the mounting surface specifications are:

- Color-to-Color mis-registration, primarily in the horizontal (laser scan) direction.
- A smear or line of toner approximately 40 mm from the trailing edge of the print.

Paper and Tray Specifications

The following tables list the recommended Xerox paper for the WorkCentre 6400.

Supported Paper Size

Paper Type	Dimension	Tray 1	Tray 2	Tray 3, 4
Letter	8.5 x 11 in.	Yes	Yes	Yes
Legal	8.5 x 14 in.	Yes	No	Yes
Statement	5.5 x 8.5 in	Yes	No	No
Executive	7.25 x 10.5 in.	Yes	No	Yes
A4	210 x 297 mm	Yes	Yes	Yes
A5	148 x 210 mm	Yes	No	No
B5	182 x 257 mm	Yes	No	No
Custom	92 x 148 mm	Yes	No	No

Supported Paper Types and Weights

Paper Type	Paper Weight	Tray 1	Tray 2	Tray 3, 4
Plain	60-90 g/m² (16-24 lb. Bond)	Yes	Yes	Yes
Hole Punched	60-90 g/m² (16-24 lb. Bond)	Yes	Yes	Yes
Pre-Printed	60-90 g/m² (16-24 lb. Bond)	Yes	Yes	Yes
Recycled	60-90 g/m² (16-24 lb. Bond)	Yes	Yes	Yes
Letter Head	60-90 g/m² (16-24 lb. Bond)	Yes	Yes	Yes
Heavy Weight	91-150 g/m² (24-40 lb. Bond)	Yes	No	No
Extra Heavy Weight	151-210 g/m² (41-78 lb. Bond)	Yes	No	No
Gloss	100-128 g/m² (68-86 lb. Text)	Yes	No	No
Heavyweight Gloss	128-210 g/m² (58-78 lb. Cover)	Yes	No	No
Transparency *	-----	Yes	No	No
Label **	-----	Yes	No	No

* Use only recommended Xerox transparencies. Other transparencies may damage the printer.
** Do no print on both sides of label media.

Supported Envelopes

Type	Dimension	Tray 1	Tray 2	Tray 3, 4
C5 Envelope	162 x 229 mm	Yes	No	No
C6 Envelope	114 x 162 mm	Yes	No	No
DL Envelope	110 x 220 mm	Yes	No	No
Monarch Envelope	3.87 x 7.5 in.	Yes	No	No
#10 Commercial Envelope	4.12 x 9.5 in.	Yes	No	No

Note:

- Do not use envelopes with hot melt glue, windows, or metal clasps. Some wrinkling and embossing may occur.
- The Paper Tips embedded page lists the most commonly used papers.
- To minimize wrinkling and embossing, be sure to se the Gray dials on the Fuser to the Envelope position.
- Be sure to set the Grey dial at the Fuser area to Envelope setting.

Toner Cartridge Life

Toner Cartridge Life Information

Toner Cartridge	Control Panel Display		Functionality
	Life Warning Error	End of Life Error	
Xerox	Re-order Toner Cartridge, but do not replace until prompted.	Toner is empty. Replace it now.	Prints with full functionality.
Xerox (refill Toner Cartridge)			Will not print.
Non-Xerox (3rd Party)			If the printer is configured as 3rd Party, two options are available at the Control Panel. Printer displays options “Use It” or “Do not use it.” A non-Xerox Toner Cartridge warning message is displayed if “Use It” option is selected.

Maintenance Function

Firmware Update

The WorkCentre 6400 updates engine, Scanner, Copy Controller, Network Controller (contained on the Hard Drives) and Finisher software.

Refer to “Firmware Update” on page A-2 in Appendix A.

Diagnostics

Two types of diagnostic functions are available:

1. Power-On Self Test (POST) performed during power up. Refer to “Power On Self Test (POST)” on page 4-4 for a detailed description of components checked.
2. Manual Diagnostics: Only qualified service personnel can perform manual diagnostics using the Service Mode in the Control Panel.

Controller Functions

Capture, Print, Save, and Reprint

The Capture, Print, Save, and Reprint (CPSR) feature allows the user to scan hard-copy documents as an electronic file and place the file into a folder located on the printer.

The Capture Print Save Reprint (CPSR) feature provides the capability to extend Print, Copy, and Scan Export features, such as that those jobs submission will result in the file or job being stored locally on the printer.

The stored jobs can be retrieved at a later date for output as many times as the user needs. If required, the user can specify that the job only be stored, and no printed output will be created at the time the job is stored.

Contention Management

The Contention Management feature allows the System Administrator to set the two different methods: First In First Out (FIFO) or Priority. These methods determine the order in which jobs contending for a printer resource can obtain the resource.

- **FIFO**: When FIFO management is specified, a printer resource is acquired on a first-come-first-served basis. When a new job requires the resource, it is added to the bottom of the resource's job queue.
- **Priority**: When Priority management is specified, a printer resource is acquired on a job priority basis. Jobs are categorized by job type.

Interrupt Printing

Interrupt Printing feature suspends printing, which allows the user at the printer to submit a copy job. The user will be able to submit a copy job that will take precedence over other jobs in the queue, including suspended job. Once the Interrupt button is pressed again, the suspended job will continue, along with other queue jobs.

- **Interrupt Page Boundaries**: The printer will stop interrupted job(s) per items listed:
  - Marking/Finishing: Next available page of the printer controller to halt.
  - Scanning: After scanning is completed.
  - Image Processing: At the next convenient boundary determined by the printer controller.
- **Interrupt Mode**: Current job in the queue will be halted at the next available page once the Interrupt button is pressed. The printer stays in this mode when an Interrupt button is pressed or the Job Programming Time Out timer expires. Copy jobs that are submitted when Interrupt Mode is selected will have priority over all queued jobs including halted jobs.

- **Normal Operation**: There are no immediate impacts on any ongoing scanning or image processing. Any ongoing scanning job must be completed before an interrupt job can be started. There is only one level of interrupt; interrupt job cannot be interrupted by another job.
- **Exiting Interrupt Mode**: Interrupt Mode can be exited by pressing the Interrupt button, or the Job Programming Time Out timer expires. When the Interrupt Mode is exited, any marking/finishing that was interrupted will automatically resume.
- **Interrupt and Platform Resynchronization**: The printer will not remember the current Interrupt Mode across shutdowns or resets.

Job Priority Setup

The priority of jobs can be assigned from 1 (highest priority) to 16 (lowest priority). Multiple job types can have the same priority. The job priority setup must be saved across system resets.

The printer always accepts the local input (scanning) of a job as soon as possible regardless of the assigned priority of the job type. Possible delays of scan include:

- Adequate space is not available in EPC memory
- Scanner calibration is in progress
- A single print job is in progress
- The printer is in Service Diagnostics mode

Secure Print

The Secure Print option is available within the Client Print Driver and the web UI. The Secure Print feature protects sensitive or private data by only allowing the print job to be printed when the user releases the job.

When the print job is submitted, it remains in the print queue. The user must enter the valid password which is validated against the password that was entered when the job was submitted. Refer to the User Guide for additional information.

Workflow Scanning

Workflow Scanning allows the user to scan an original document, convert the document to an electronic file, distribute, and archive the file in a variety of ways. The final destination of the electronic file depends on the template chosen by the user at the printer's User Interface. The template may reside on the printer, or may be cached on the printer from a pool of templates pulled from a remote server. The scanned file will be stored on a pre-determined network server and then, with the help of the server or desktop software:

- Routed to a user's PC desktop for viewing or editing.
- Integrated with a variety of popular document management and workflow applications.
- Sent to a network directory or filing location for later retrieval.
- Sent to an e-mail distribution list.

Information Pages and Reports

The following Information Pages and Reports are available in the WorkCentre 6400 printer. Various Information Pages can be accessed through Customer login or Service Diagnostics.

Information Pages

- Configuration Report
- Connection Setup Page
- Paper Tips Page
- Supplies Usage Page
- Usage Profile
- Copying Guide
- Scanning Guide
- Faxing Guide
- Office Demo Page
- Graphics Demo Page
- 2-Sided Demo Page
- CMYK Sampler Pages
- RGB Sampler Pages
- Spot Color Sampler Pages
- PCL Font List
- PostScript Font List

Configuration Report

The Configuration Report is a two-sided page which contains the configuration settings and information.

Connection Setup Page

The Connection Setup Page is a multiple page document. The pages contain information on connection types (i.e., USB and Ethernet), procedures for setting up connection for various operating systems, and an overview of hardware connections.

Paper Tips Page

The Paper Tips Page contains general guidelines on the type of media, description of tray setup,

Reports

- Copy Activity Report
- Fax Confirmation Report
- Fax Acknowledgement Report
- Broadcast & Multipoll Report
- Fax Activity Report
- Fax Protocol Report
- Fax Dial Directory Report
- Fax Group Directory Report
- Fax Options Report
- Fax Pending Jobs Report

Copy Activity Report

The Copy Activity Report contains a summary report per copy session. Once enabled, the report will count the successful images marked by the system for the pertaining copy session. Sessions will be confirmed completed via a GUI popup, asking the user to confirm a continued or complete session. Once the user has confirmed a completed session, the system will submit the report for all images successfully marked and finished by the system (DC or ST).

Fax Confirmation Report

The Fax Confirmation Report provides information on the success or failure of the fax jobs.

Fax Acknowledgement Report

The Fax Acknowledgement Report contains the recipient's acknowledgement information after a fax job is completed.

Broadcast & Multipoll Report

The Broadcast and Multipoll Report is the transmission report generated when the send list has multiple recipients

Fax Activity Report

The Fax Activity Report contains information including sent to transmissions and received from transmissions. Auto Print feature can be set up for the Fax Activity Report, which prints a Fax Activity Report after 50 fax jobs.

Fax Protocol Report

The Fax Protocol Report contains the protocol information about the last fax whether it was a send or receive job.

Refer to “Internal Page Samples” on page A-139 for Fax Protocol Report example.

Fax Dial Directory Report

The Fax Dial Directory Report contains the individual directory telephone numbers which are programmed in to the Individual Directory. The Fax Dial Directory Report is printed in groups of 50.

Fax Group Directory Report

The Fax Group Directory Report contains the group fax numbers which are programmed to a single location for serial broadcast transmission of documents. This feature is also known as Group ID.

Fax Options Report

The Options Report contains parameters and settings information.

Fax Pending Job Report

The Fax Pending Job Report contains all communication jobs reserved in memory.

Support Pages

The Support Pages provide accessible hardcopy material for setting up and diagnosing purposes. Refer to Chapter 5 - Print-Quality Troubleshooting Pages and Test Patterns.

- Cyan 50% Fill
- Magenta 50% Fill
- Yellow 50% Fill
- Black 50% Fill
- Registration Print
- Delta-E Print
- Ghosting Print

Theory of Operation

In this chapter...

Chapter 2

Table of Contents

WorkCentre 6400 Operational Overview

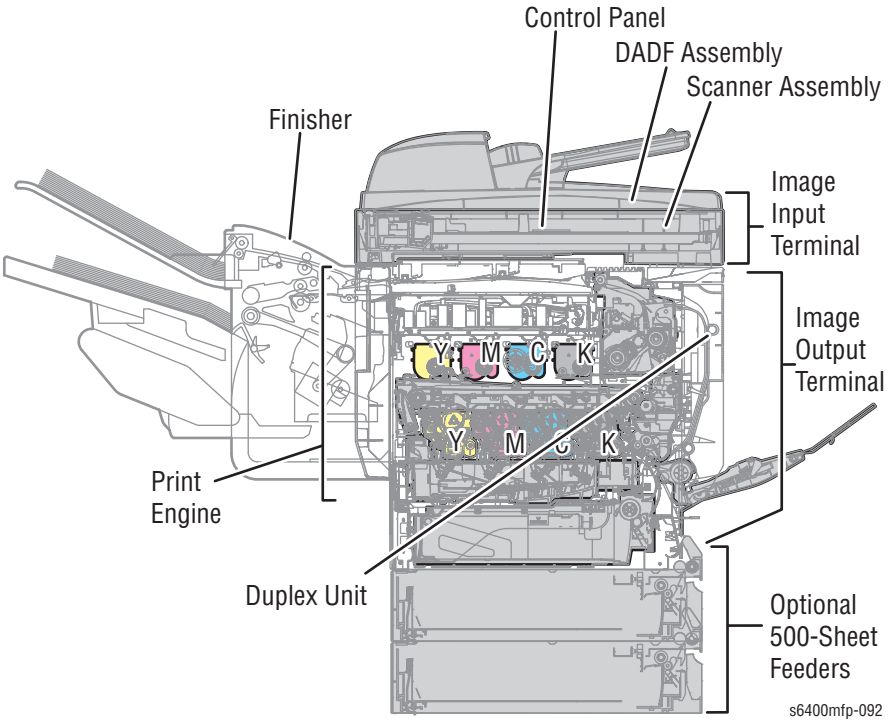
The WorkCentre 6400 is a single-pass color laser Multifunction Printer that uses Raster Output Scanner (ROS) lasers with an electrophotographic four-color CMYK process.

The tandem system consists of four color toner cartridges (C, M, Y, and K) which creates the toner image. The WorkCentre 6400 offers Print, Scan, Copy, and Fax functionalities.

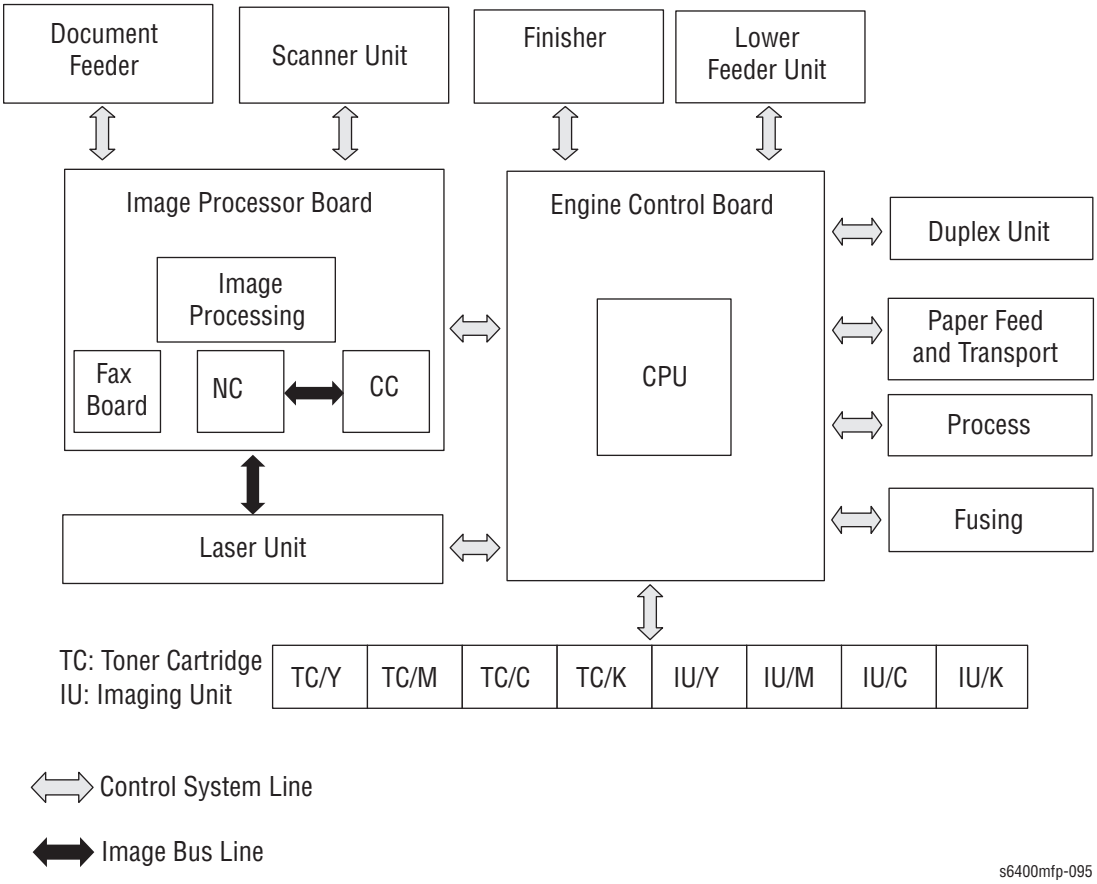
System Overview

The WorkCentre 6400 is divided into two main components: the Image Input Terminal (IIT - Scanner) and the Image Output Terminal (IOT - Print Engine).

The WorkCentre 6400 consists of the DADF Assembly, Scanner Assembly, Control Panel, Print Engine, Duplex Unit, Optional 500-Sheet Feeders, and Finisher.



The following diagram contains the major operating components and their basic connection.

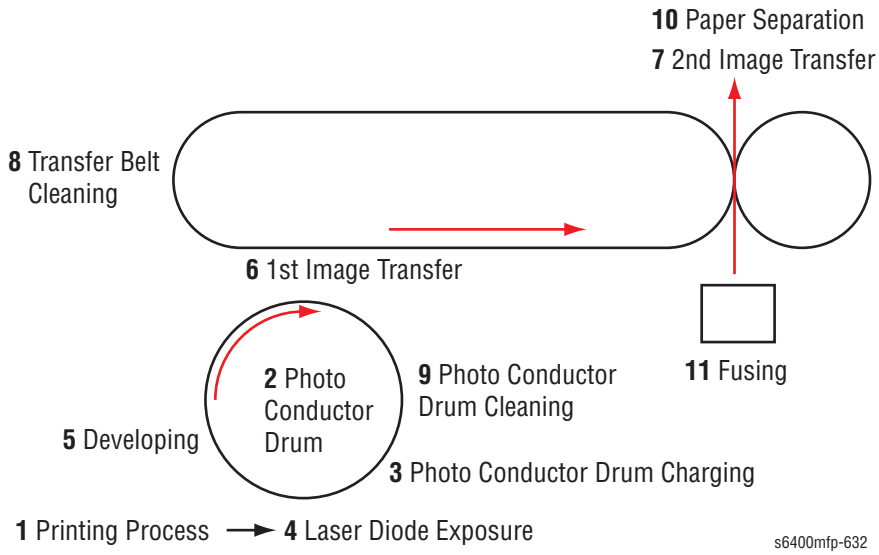


Major Assemblies and Functions

Major functional components for the printer are classified into the following categories based on the printer configuration.

Image Creation, Transfer, and Fixing

The following diagram provides the sequence of events for the xerographic process of the WorkCentre 6400.



The WorkCentre 6400 print process consists of the following steps:

1. **Printing Process**: The intensity of the laser light is controlled based on the image signal transmitted from the host computer or Scanner Assembly.
2. **Photo Conductor (PC) Drum**: The image of the original projected on to the surface of the PC Drum is changed to a corresponding electrostatic latent image.
3. **Photo Conductor Drum Charging:** Applies negative DC charge to the Photo Conductor.
4. **Laser Diode (LD) Exposure:** Laser beams are emitted from the Laser Diode to form an electrostatic latent image on the paper.
5. **Developing**: Toner, agitated and negatively charged in the toner chamber, is attracted onto the electrostatic latent image formed on the surface of the PC Drum, which then changed to a visible, developed image.
6. **1st Image Transfer:** A positive DC voltage is applied to the backside of the Transfer Belt, which allows the visible, developed image on the surface of each of the PC Drums (Y, M, C, and K) to be transferred onto the Transfer Belt.
7. **2nd Image Transfer:** A positive DC voltage is applied to the backside of the paper, which allows the visible, developed image on the surface of the Transfer Belt to be transferred onto the paper.
8. **Transfer Belt Cleaning:** The residual toner left on the surface of the Transfer Belt is scraped off.
9. **Photo Conductor Drum Cleaning:** The residual toner left on the surface of the PC Drum is scraped off.
10. **Paper Separation:** Paper, which has went through the 2nd Image Transfer process, is neutralized so that it can be properly separated from the Transfer Belt.
11. **Fusing:** The Fuser affixes toner onto paper using heat and pressure.

Paper Path of the Printer

Paper Path Route

The paper is supplied from Tray 1, Tray 2, or optional Tray 3/4 and is transported upward into the printer along the paper path through the Vertical Transport section.

After passing through the image transfer and fusing process, the paper is fed through the Horizontal Transport section, then to the output tray or Finisher.

In Duplex mode, data is first printed on the back side of the paper.

After fusing process, the paper is reversed and fed into the Duplex Unit. It is then fed back into the main paper path from the Duplex Unit and goes through the print process for the front side.

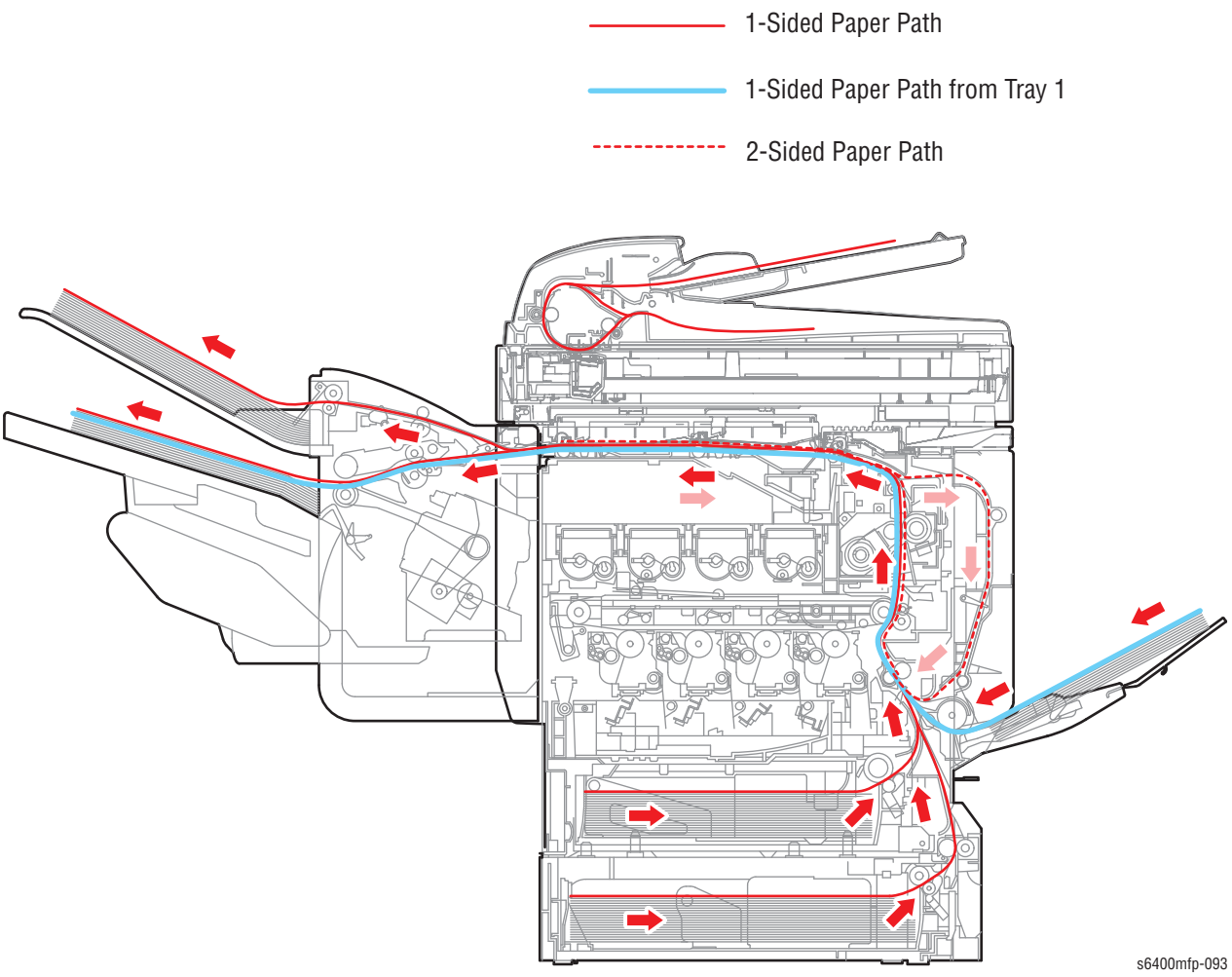


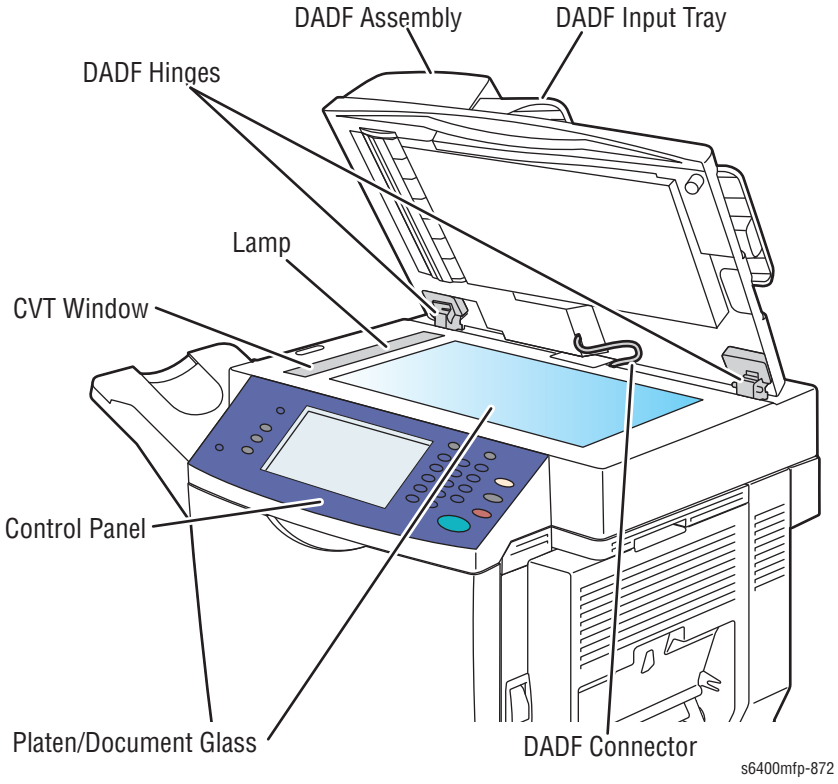
Image Input Terminal

The IIT generates the image data for copies and scans and is made up of two major subsystems:

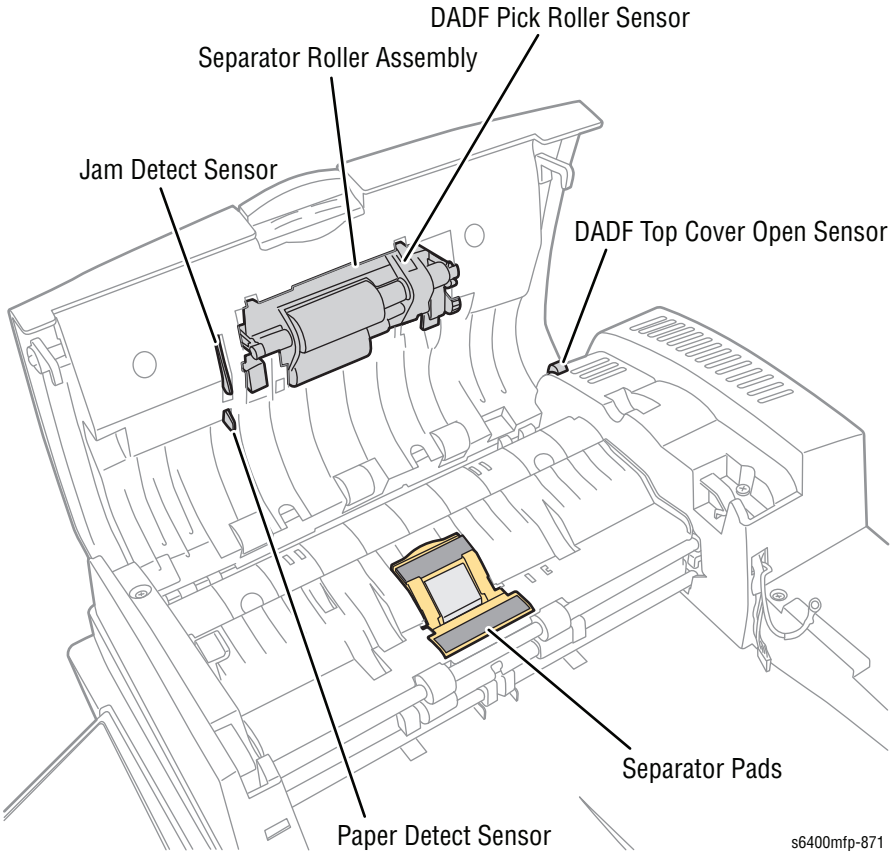
- Duplex Automatic Document Feeder (DADF)
- Scanner Assembly with the Control Panel

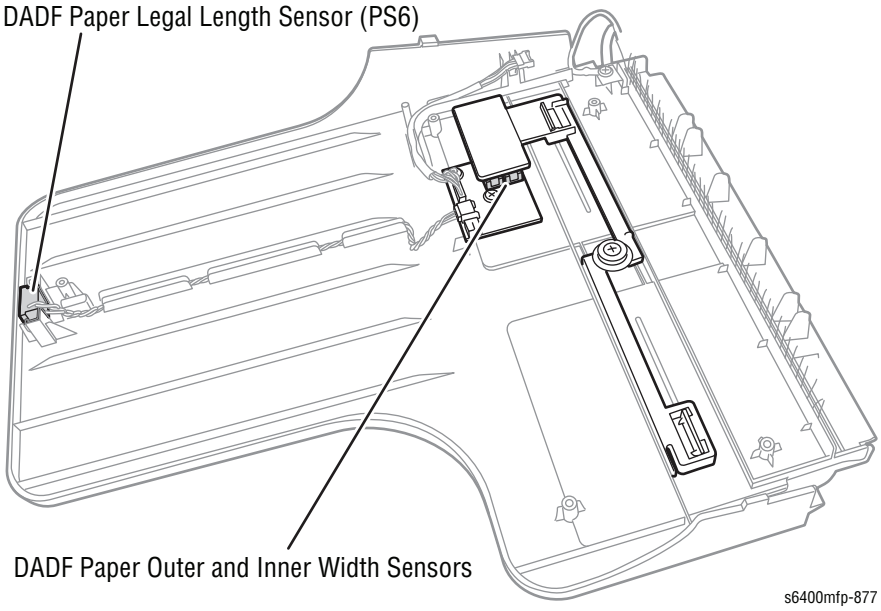
Duplex Automatic Document Feeder

The DADF is capable of automatically feeding original documents from the input tray.



DADF Sensors, Roller, and Pads





Document Feeder Functions

DADF Components

Components	Description
Input Tray	The input tray feeds document originals into the DADF for simplex (single-sided) or duplex (double-sided) scanning. Tray capacity is 50 sheets of paper (20 lb. bond).
Output Tray	Original documents fed through the DADF exit to the output tray.
Paper In Sensor	The Paper In Sensor detects the presence of documents in the input tray. After a delay to allow for adjusting the feed guides, the paper is drawn to the Paper Staged Sensor.
DADF Cover Open Sensor	This optical sensor detects the status of the DADF access cover. When the cover is open, DADF operation is inhibited; given sufficient time, an error message appears on the Control Panel display instructing the user to close the access cover.
Pick Roller, Separator Pad Feed, and Idler Rollers	The Pick Roller is the first of several Feed Rollers. It is designed to work with the Separator Pad to ensure that only one sheet of paper is fed at a time. Three additional Feed Rollers in the DADF are responsible for paper transport through the paper path. They include the Idler Rollers to maintain proper paper tension. This ensures proper imaging alignment while providing the minimal chance for damage to the original document(s).
Drive Motor	A stepper motor is housed in the DADF to drive the pick and Feed Roller, and moves the calibration shutter into position. The connection is through a toothed belt and gear drive. This connection and the vibration mounts that the motor is attached to help reduce vibrations introduced into the printer.
DADF Connector	An electrical connector on the rear of the DADF connects to a receptacle on the rear of the flatbed portion of the IIT. The DADF connector communicates with the Scanner Board and that communication is passed to the IOT. There is no direct communication from the DADF to the IOT.
DADF Hinges	Mechanical connection between the DADF and the Scanner portion of the IIT consists of a set of hinges. These hinges allow for the DADF to lift from the document glass to facilitate book copying. The hinges are designed to lock when the IIT is opened. In order to unlock the hinges, the IIT must be closed.

Document Feeder Paper Path and Imaging

The Pick Roller feeds paper from the input tray to the document feeder. The paper then passes between the DADF Cover and the flatbed scan head. Mylar strips guide the original document back out of the document feeder and into the output tray.

This design compensates for differences in the operating speed of any of the drive rollers, thereby reducing the chance of damage to the original or of varying the distance between the imaging device and the target document.

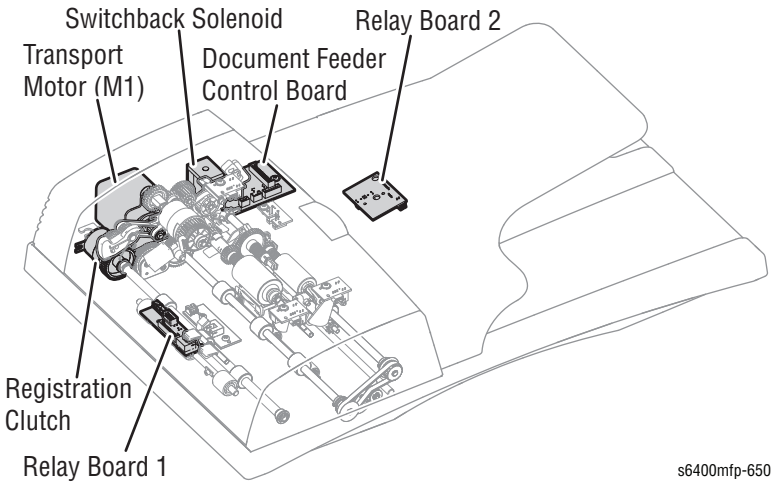
Copy/ Scan Imaging

When using the document feeder for a copy or a scan, the DADF moves the original over the stationary flatbed scan head and scans the first side. The original in the document feeder is then re-enters the DADF; the second side is positioned then fed back over the stationary scan head a second time to scan the second side of the image.

The scan head uses a fluorescent light to reflect images off the scanned documents and towards an array of photoelectric cells called Charged Coupled Devices (CCD's). These images are then captured as electric signals and is transferred from the IIT to the IOT through the electrical connections to the Image Processor Board (I/P). The Image Processor Board receives the RGB channel data and translates it into a data stream that the print engine controller can understand.

Mechanical Operations

Drive Mechanism

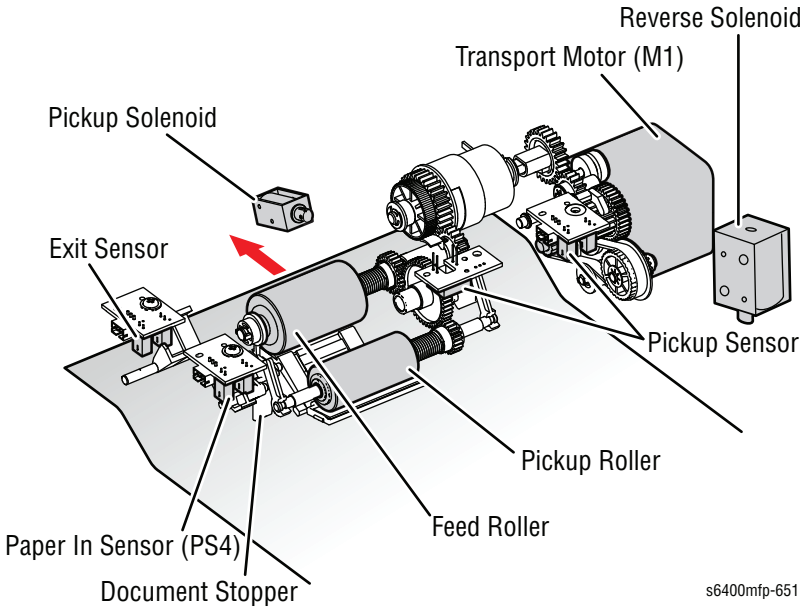


Paper Pick Mechanism

The Paper In Sensor (PS4) detects originals that have been properly loaded in the Document Feeder. The Document Stopper establishes the leading edge position of the document loaded in the Document Feeder. The Stopper is lowered in Standby state and raised when the document is picked up and fed in.

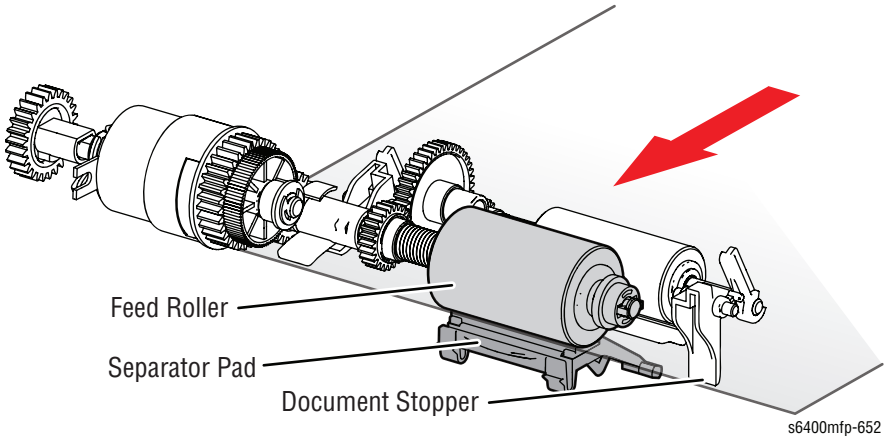
The Document Stopper is raised and lowered in synchronization with the raising and lowering motion of the Pick-Up Roller. The Pick-Up Roller and Feed Roller turn to pick up and feed the original properly.

The Pick-Up Roller transports the original up to the Feed Roller. The Transport Motor drives the Pick-Up Roller and Feed Roller through a gear train, the Pick-Up Solenoid (SL1), and the Pick-Up Clutch.



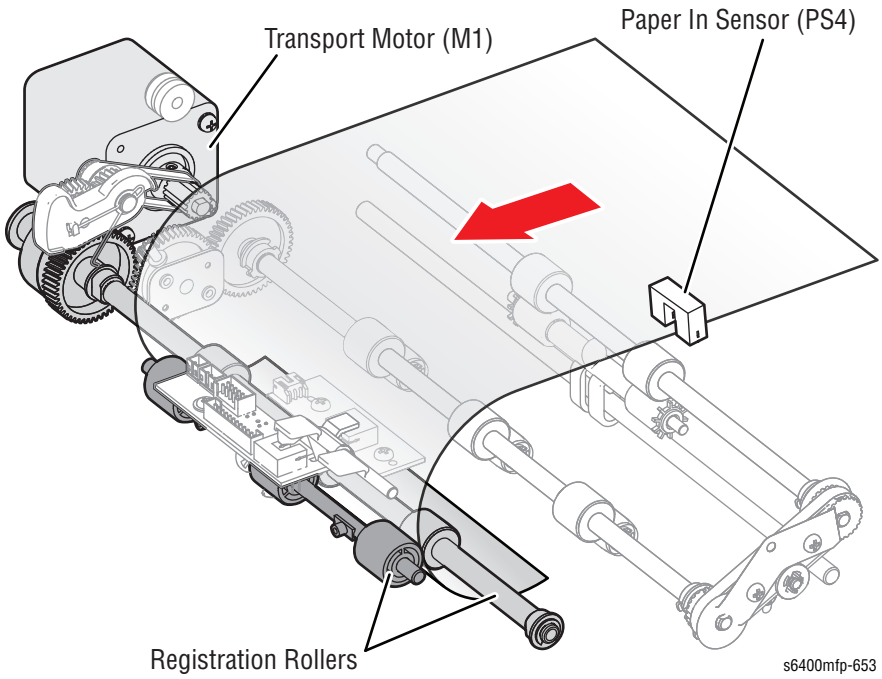
Document Separation Mechanism

Multi-picks of paper is prevented using friction between the Feed Roller and Separator Pad.



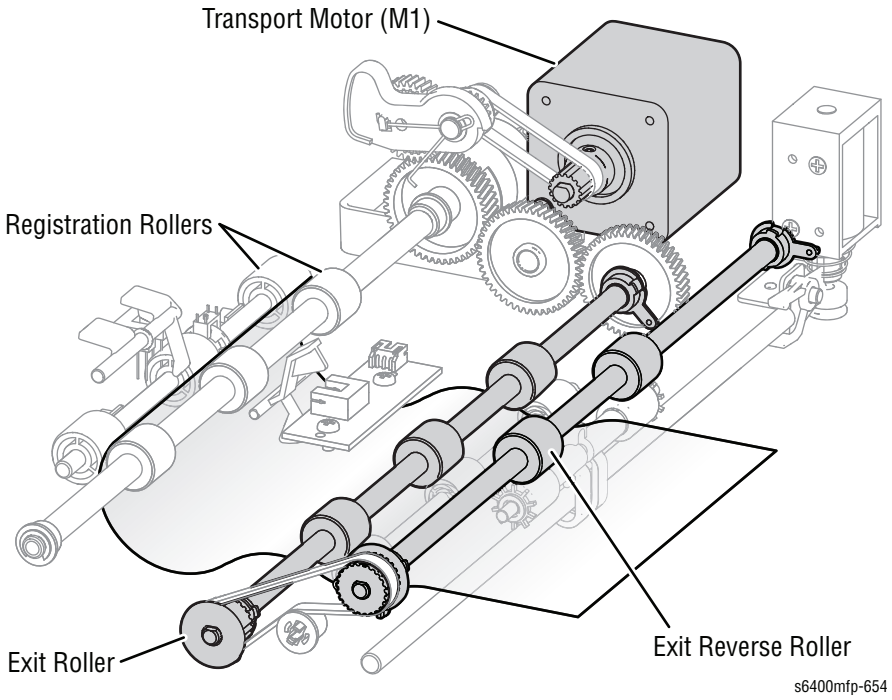
Document Transport Mechanism

The original that has been picked up blocks the Paper Feed Sensor (PS4). The Transport Roller turns to transport the original up to the document scanning position of the IIT. The Transport Motor (M1) drives the Transport Roller through a gear train.



Transfer Mechanism for 2nd Side Scan/Paper Exit

The original transferred from the Transport section will be re-fed or exit by the Exit Roller and the Exit Reverse Roller. The Exit Reverse Roller is driven by the Transport Motor.



Calibration

Automatic DADF Calibration

Note

Refer to “dc608 - Document Feeder Registration” on page 6-11 to check the registration of the Document Feeder.

Scanner Assembly

Scanner Assembly Functions

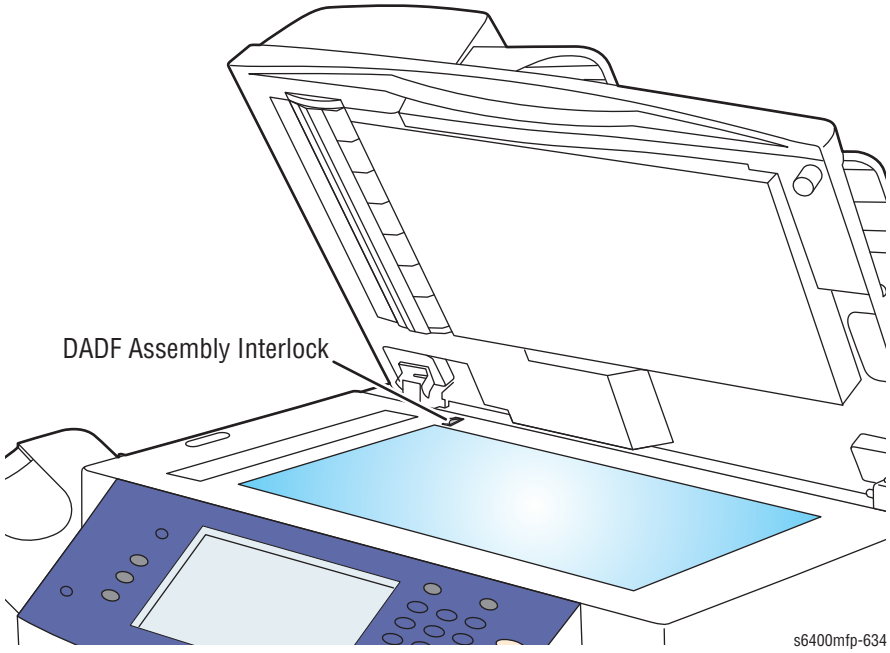
Scanner Assembly Components

Components	Description
Document Glass or Platen	The document glass is used for copying or scanning original documents and images.
Scan Head and Lamp	The flatbed portion of the IIT contains a moveable scan head that includes the CCD imaging board, main control board, drive motor, and lamp assembly. The lamps are Cold Cathode Fluorescent lamps.
CVT Window	This portion of the document glass is a part of the DADF paper path. The principal function of this window is to allow the scan head to image an original being fed through the DADF.
IIT Connector	An electrical connection on the rear of the flatbed portion of the IIT connects to a receptacle on the IOT completing the signal path for image data from the IIT, power to the IIT, and system communications between the three components.
Control Panel	The Control Panel is the user interface with the printer.

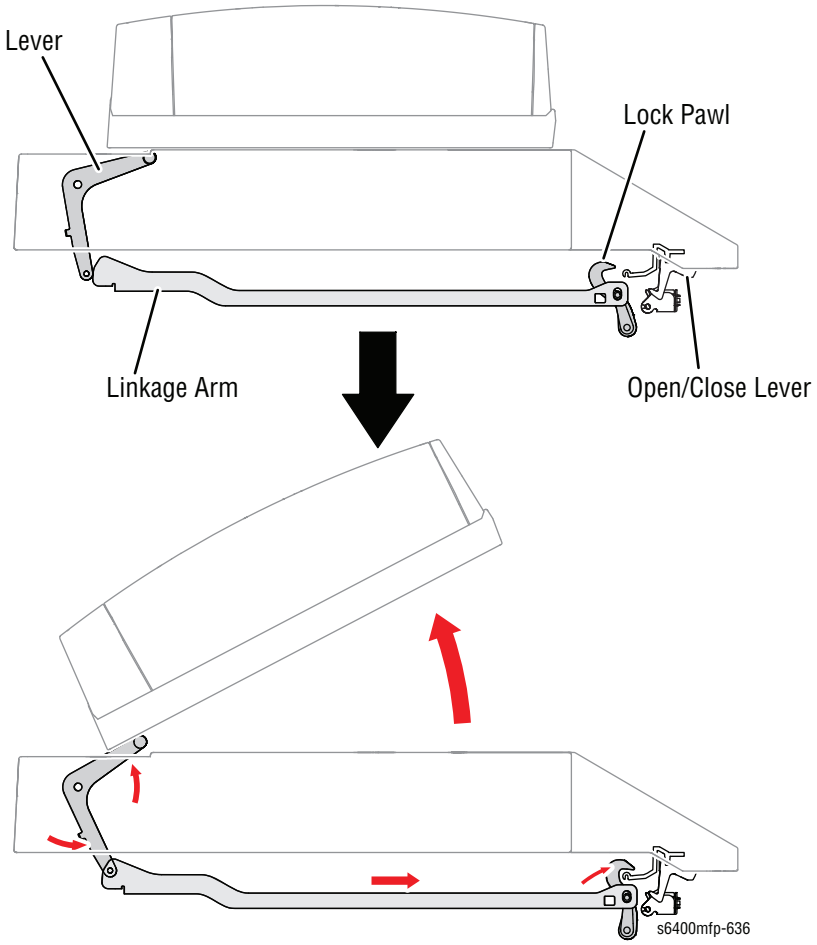
Open/Close Mechanism

The Scanner Unit Open/Close mechanism prevents the Scanner Unit from being opened or closed with the DADF Assembly in its raised position.

The Scanner Unit can be opened only if the DADF Assembly is in its lowered position.

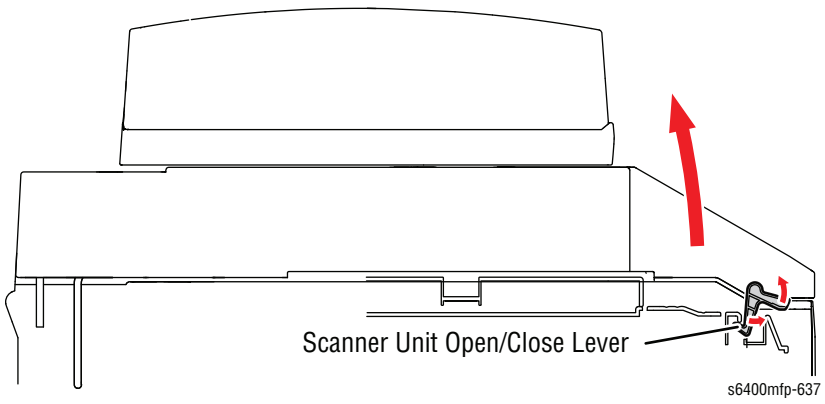


Lowering the DADF Assembly pushes the lever on the backside of the Scanner Assembly down. This causes the lever on the inside of the printer to slide to the front side, which disengages the Lock Pawl.

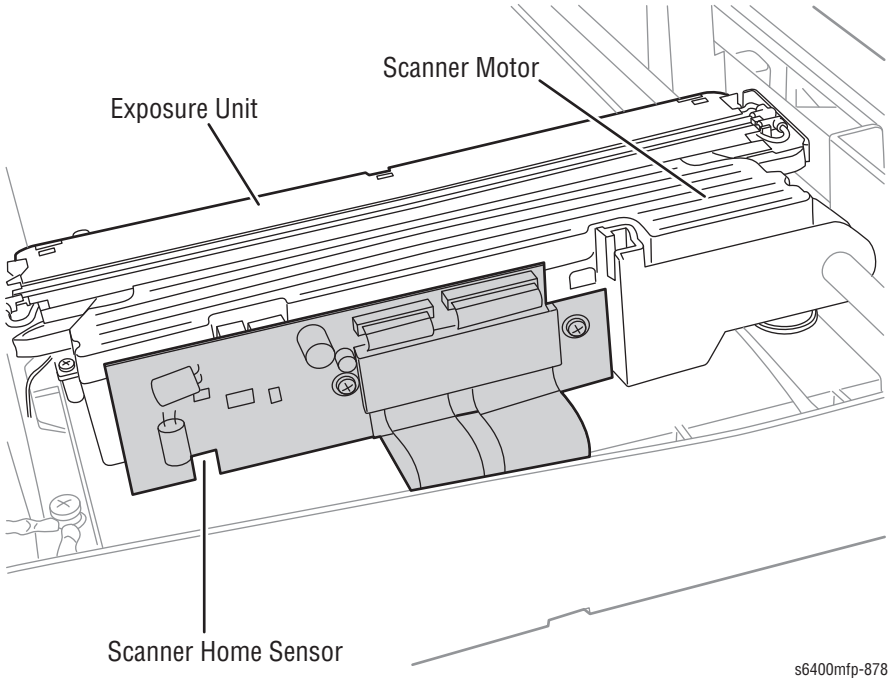


Opening and Closing the Scanner Assembly

The Scanner Assembly Open/Close Lever on the front of the main body is used to open or close the Scanner Assembly in order to access the Horizontal Transport section on the paper path.



Interior Parts of the Scanner Assembly



Scanner Calibration

Automatic Scanner Calibration

1. The lamps turn On.
2. The scan head drives toward the automatic calibration target to ensure that the head lock is released.
3. The scan head moves back to the home position flag, out, and back to confirm the operation.
4. The scan head moves under the calibration target until the CCD achieves a specified image quality and stability.
5. The scan head moves toward the document glass to confirm motion control.
6. The scan head moves back to the home position under the CVT window.

Manual Scanner Calibration

Manual calibration is a maintenance procedure accessed through the Control Panel. Scanner calibration requires the calibration sheet provided with a replacement Scanner Assembly or DADF Assembly. It is designed to ensure the DADF and scan heads are aligned to the system (motion control), the scan heads are aligned to one another (duplex scanning alignment), and that certain white, black, and gray scale calibrations are performed. This calibration is performed:

- At the factory during initial system setup.
- Whenever the DADF or Scanner Assembly, or both, are replaced (refer “Scanner Calibration” on page 6-23).
- If troubleshooting determines that the paper being fed into the DADF is skewed.

Note

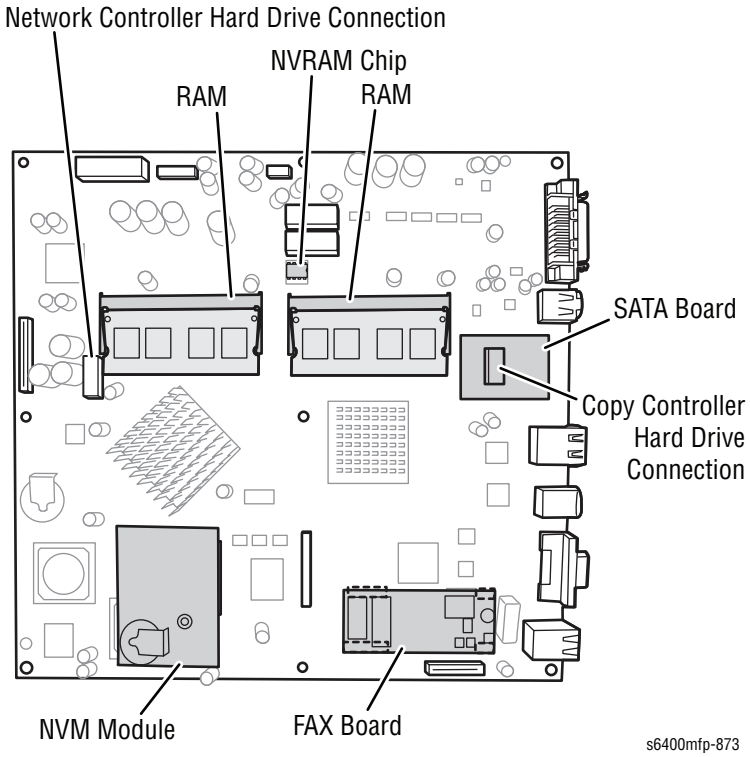
Refer to “dc609 - Document Glass Registration” on page 6-11 to check the registration of the Document Glass and correct any misalignments or skew.

Image Output Terminal

Electrical Components

Image Processor Board

The Image Processor Board (I/P) utilizes 2 processors each with it's own dedicated hard drive, one for the Copy Controller (CC) and one for the Network Controller (NC). The I/P Board interfaces directly with the Engine Controller, Control Panel, Fax, and Scanner.



Copy Controller

The Copy Controller (CC) software manages the system and establishes communications with the other platforms. Software compatibility checks are performed to confirm that all platforms are running compatible software, and, if not, the software upgrade process will be started. The steps that the CC software performs include:

1. At power-on, the CC performs its boot initialization routines.
2. After the CC operating system has been loaded, communications between the CC and other components begin.
   a. The CC to IOT interface is implemented using full-duplex UART communication over an RS422 connection.
   b. The scanner communicates to the CC via a serial interface using AVCDI proxy. There is no direct communication between the CC and the DADF. The scanner reports whether the DADF is present.
   c. The CC communicates to the NC. At power-on, the CC and NC boot separately and synchronize with each other when both are ready.
   d. The CC communicates to the Fax and detects the presence or absence of Fax at power-on.
   e. The CC communicates to the User Interface (UI). The UI cannot display reliably until the XML User Interface (XUI) application software is finished loading the NC processor.
3. Power-on initialization begins when communications have been established between the core modules (Copy Controller, Network Controller, IOT, and IIT). The CC verifies communication with the printer's configuration and capabilities, which includes the following detections:
   - Finisher presence, identification, and capabilities
   - Foreign Interface Device (FID) presence
   - Hard Drives presence
   - Any additional memory installed
4. The CC requests initialization to other components during power-on following platform synchronization with the CC.
   a. **IOT** - The CC requests the IOT to provide its configuration and capabilities information.
   b. **UI** - There are no new CC controlled initialization requirements for the UI touch screen display.
   c. **Image Input Terminal (IIT)** - Scanner calibration is available in both Customer mode and Service mode. There is a limited mechanical initialization. The scan head moves away from Home position and back during power-up.

      The CC initially raise a status (03-557) during boot to indicate that the Scanner is not ready. The status will be removed when the Scanner is ready.
   d. **NC** - There are no NC controlled initialization requirements for the NC. The real time clock resides on the NC, and upon power-up, the CC gets its time from the NC.
   e. **Fax** - At power-on, the CC determines if fax is installed or not. If fax is installed, checks are performed to determine the version of the fax service.
   f. **Finisher** - The Finisher informs a check of its capabilities upon request from the CC.

Miscellaneous Copy Controller Power-On Tasks

When all installation and software upgrade tasks are completed, the printer reboots and completes its power-on sequence. The CC declares the printer state as ready to scan, copy, print, and fax (depending on the printer's configuration).

Note

The software upgrade only happens when "Auto Upgrade" is turned On in CWIS.

Image Output Terminal

a. The IOT power-on comprises a Power-on Self Test (POST), which ensures that hardware resources are available to run the operating system.

- The appropriate LED blinks on the I/P Board.

When the IOT boots successfully and is ready for communications, it raises the engine Ready signal. This signal indicates that the engine has initialized properly.

b. The IOT communicates to the CC. Once the IOT has acknowledged the CC initialization request, the update of capability and configuration information can begin. If the IOT detects a communication error to the CC, it will wait until requested to reset by the CC.

User Interface

The User Interface (UI) does not contain a microprocessor to generate the UI screen. The screen images are generated by the I/P Board and sent to the UI display using four Low-Voltage Differential Signalings (LVDS) differential pair video signals.

1. **UI Initialization and POST** - There is no power-on self test for the UI. On system power-on, the UI indicates the system is powering by turning On the Control Panel power LED. When initialization has completed, the system displays the static splash screen at the earliest opportunity.
2. **UI Power On Tasks** - Once the NC operating system has loaded:
   a. The dynamic splash screen displays within 30 seconds.
   b. The UI screen indicates via dynamic splash screen activity whether the UI has synchronized with the CC or not.
   c. The feature pathway LEDs will be switched Off.

   During that time that the dynamic splash screen is displayed, the GUI displays a Copyright Notice for a minimum of 5 seconds.

   The GUI displays an Energy Star logo for a minimum of 5 seconds.

   After communications are fully established between the UI and NC application software, the UI removes the **Power-on sequence in Progress** message and begin accepting status display requests.

Image Input Terminal

The Image Input Terminal (IIT) comprises the Scanner and DADF. The CC interfaces to the Scanner via a full duplex Low-Voltage Transistor Transistor Level (LVTTL) serial interface.

1. **ADF Initialization and POST** - There is no initialization or POST.
2. **Scanner Initialization POST and Calibration** - The IIT is held in reset until the CC communicates with the CC. Once the reset state is lifted, the Scanner reboots, initializes, and performs a POST check.

Network Controller

Both the Network Controller (NC) and Copy Controller software reside on the NC and CC Hard Drives, and loaded into the NC DDR memory and CC DDR memory during system startup, and as necessary during machine operation.

1. **Initialization and POST** - At power-on, the NC performs its boot initialization routines, which include hardware initialization tasks such as CPU, FPGA, System RAM, and disk controller initialization.

   The NC then load its operating system and attempts to synchronize with the CC when it has finished booting successfully.
2. **NC communicates to CC** - If the NC has not established communications with the CC within 5 minutes, the NC declares a fault.
3. **NC communicates to UI** - The controller sends commands to the UI to set backlight brightness and turn the LED's On or Off. The controller can request the UI system status.

   The UI panel sends data to the NC when a button is pressed, the touch screen is touched, or when the controller requests the UI's status. The UI establishes communications with the UI application within 2 minutes.

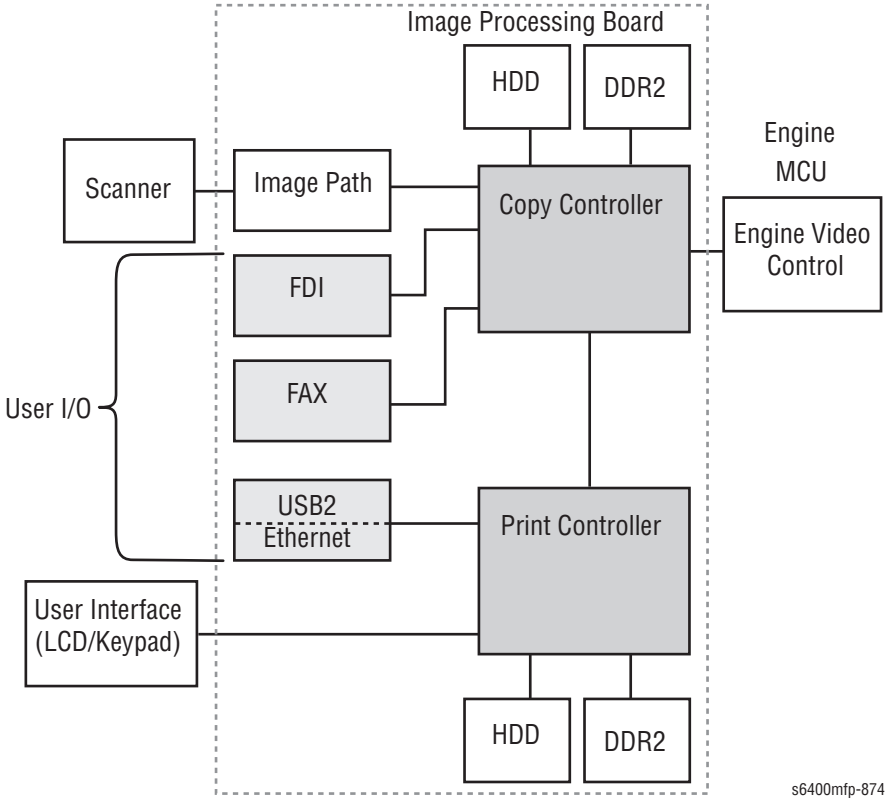
Fax

1. **Initialization** - At power-on, the fax service performs its initialization activities. On completion of its initialization, the fax service enters a Wait state until a synchronization request is made by the CC.
2. **POST** - There is no POST activity for fax.
3. **Other Fax Power-On Tasks** - The fax service only goes online to accept incoming fax jobs when requested by the CC. This process occurs sometime during the CC boot power-on phase.

   When synchronization with the CC is completed and any fax job recovery tasks are completed, a **ready to fax message** is displayed on the UI.

   After CC - Fax communications have been established, if the CC determines that the fax software is incompatible with the system, a fault and status message are displayed.

Block Diagram

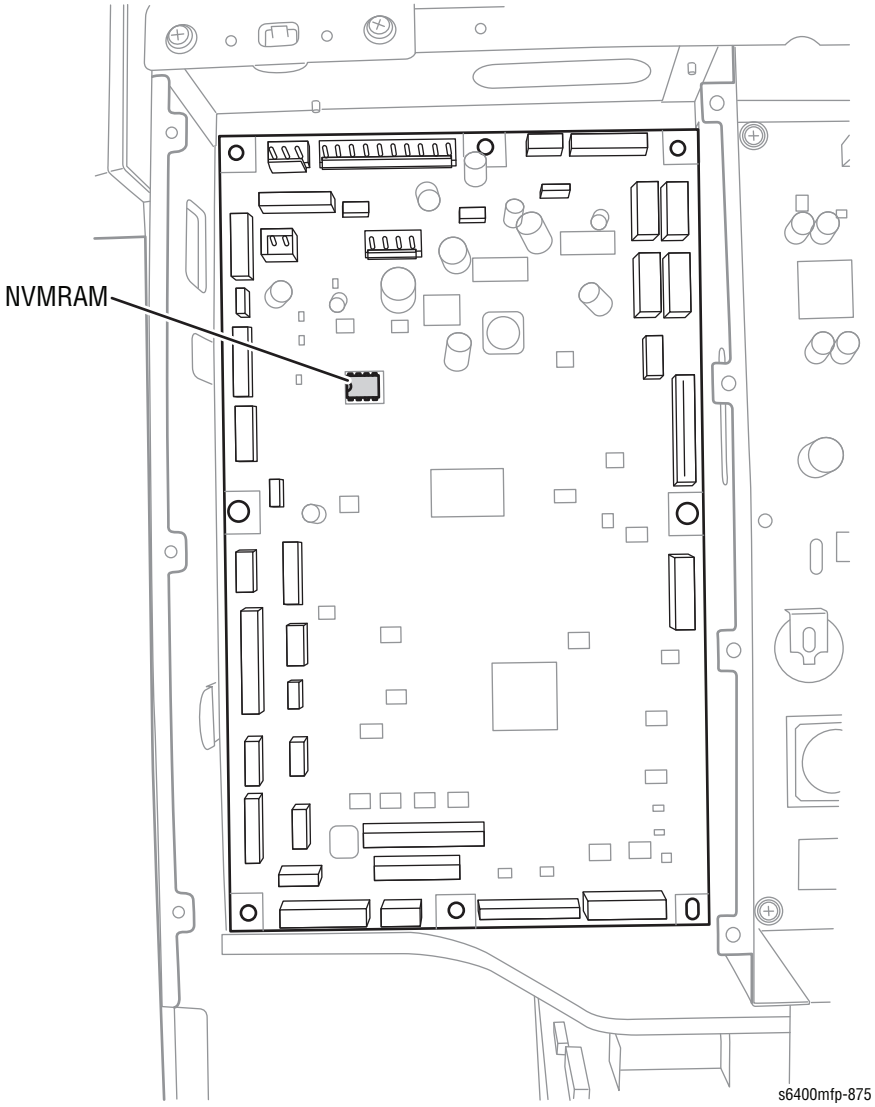


MCU Board (Engine Control Board)

The MCU Board controls all engine functions such as printing, diagnosis, and supplies life tracking. The MCU Board is located on the rear side of the printer. The IOT firmware is located on the FLASH ROM, and the code can be updated through the Main Controller via engine video interface.

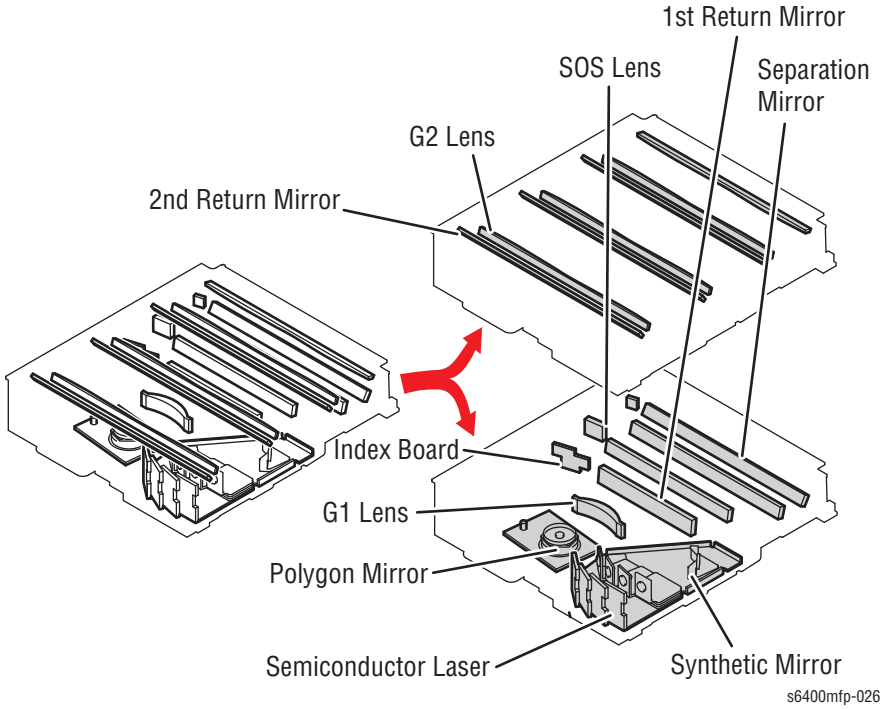
Note

When replacing the MCU Board, be sure to remove the NVRAM (IC4) from the old MCU Board and install it on the new MCU Board.



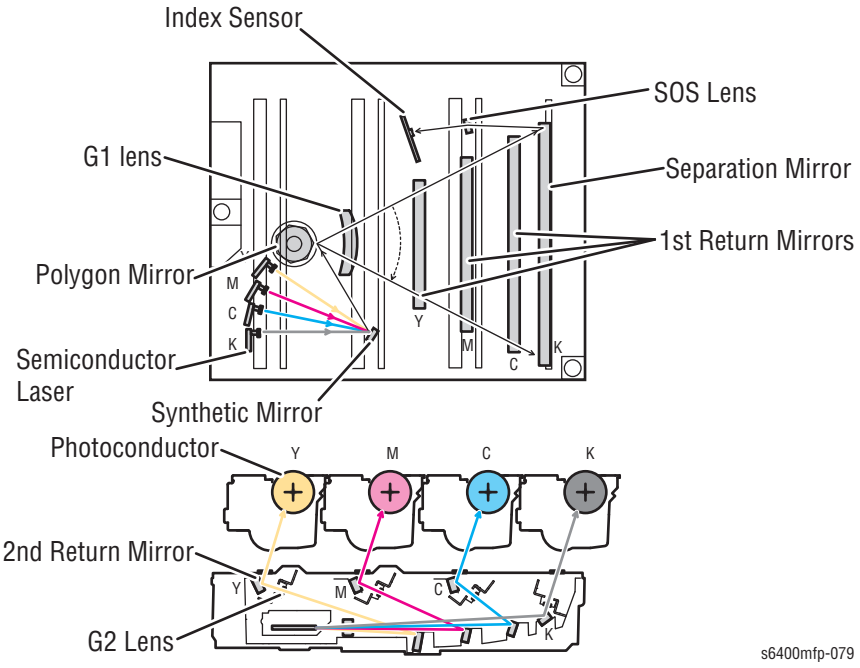
Laser Unit

The WorkCentre 6400 contains four semiconductor lasers within the Laser Unit, one for each of the four colors (Y, M, C, and K). A single Polygon Mirror is used to make a scan. Each Photo Conductor is irradiated with a laser light, creating an electrostatic latent image.



Laser Exposure Process

1. The laser light emitted by each of the semiconductor laser (Y, M, C, and K) is reflected onto the Polygon Mirror via a Synthetic Mirror.
2. The laser light reflected by the Polygon Mirror is reflected at a different angle for each color.
3. The condensing angle of each color of laser light is corrected by the G1 lens before reaching each Return Mirror.
4. The K laser light is condensed on the surface of the Photo Conductor through the Separation Mirror and G2 lens.
5. The Y, M, or C laser light is condensed on the Photo Conductor through the Separation Mirror, G2 lens, and Return Mirror.



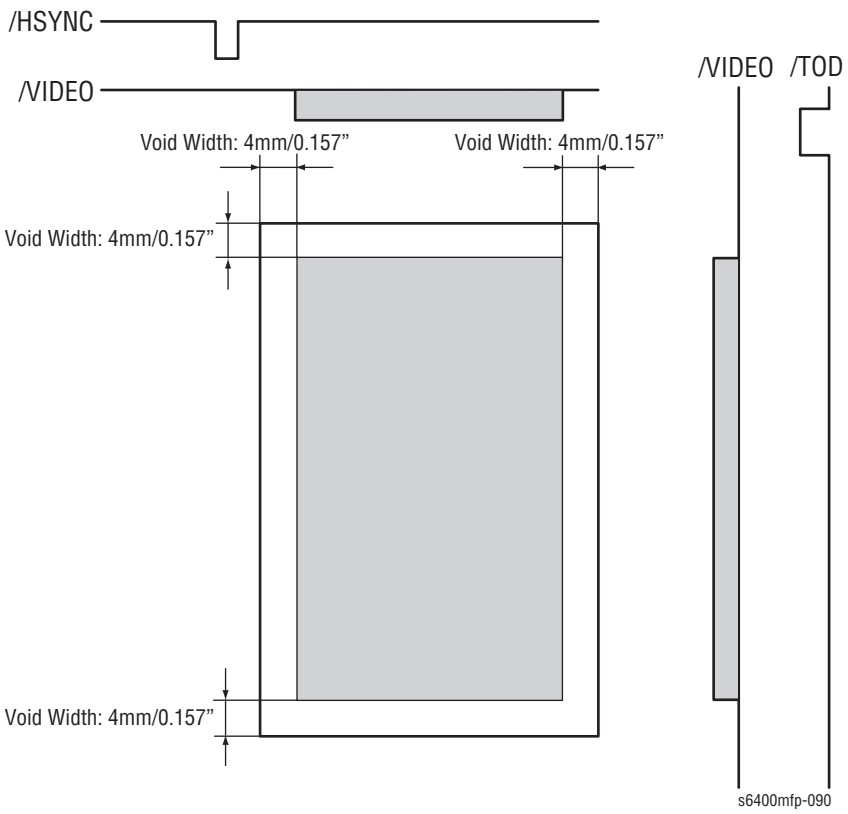
Laser Emission Timing

The Engine Control Board generates the Laser On signal when a ready signal is detected, after the print cycle has been started after a given period.

The Laser On signal triggers the firing of each laser light, which illuminates the Index Board via the Polygon Mirror, G1 lens, Separation Mirror (K), and Start of Scan (SOS) lens. This process generates an SOS signal.

- The SOS signal synchronizes the timing at which the laser lights are irradiated for each scan line.
- The SOS signal is generated only from the K laser light. For the other colors, the emission timing is determined with reference to K.

Laser Emission (Printable) Area



Main Scan Direction (FD)

The print start position in the Feed Direction (FD) is determined by the Feed Direction print start signal (HSYNC) from the Engine Control Board (MCU Board) and the width of the paper. The laser emission area is determined by the paper size. There is a 4 mm/0.157” wide void area on both edges of the paper.

Sub Scan Direction (CD)

The print start position in the Cross Direction (CD) is determined by the Cross Direction print start signal (TOD) that is output from the Engine Control Board (MCU Board) and the length of the paper. However, there is a 4 mm/0.157” wide void area on both edges of the paper. The laser image is determined by the paper size. There is a 4 mm/0.157 wide void area margin on both the leading and trailing edges of the paper.

Laser Light Intensity

The laser light intensity control corrects the target level of fluctuations in fine line reproduction and reverse image (white on black) reproduction that occur due to variations in photo conductor electrostatic characteristics, developing characteristics, and transfer characteristics (part-to-part variations, environment, durability).

Laser Intensity is controlled integrally with other control items by the image quality control.

The laser light intensity control is performed when an image quality (image stabilization) sequence is requested.

Registration Correction

In a tandem engine that has an image forming process for each color of toner, incorrect color registration tends to occur due to variations in parts of the main body used for regulating the image writing positions. The registration correction control automatically detects and corrects any incorrect color registration.

Registration is controlled integrally with other control items by the image quality control.

The registration correction control is performed when an image stabilization sequence is requested.

Note

The image quality (image stabilization) control is performed automatically by the engine as mentioned above or can be initiated manually using the Image Quality Calibration routine (refer to “Image Quality Calibration” on page 6-21).

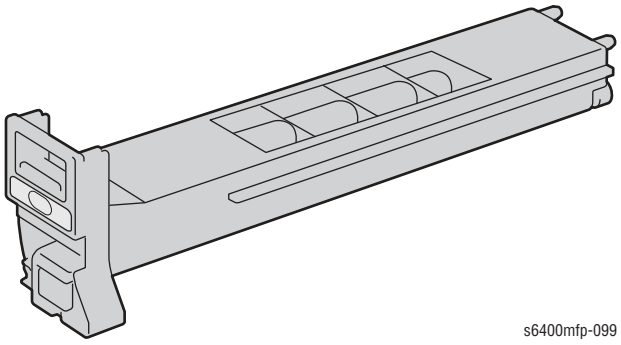
Toner Cartridge and Level Detection

There are two different types of Toner Cartridge.

- Standard Capacity Toner Cartridge (Y/M/C): Up to 6,000 pages.
- High Capacity Toner Cartridge (Y/M/C/K): Up to 12,000 pages.

Note

Black Toner Cartridge is only available in High Capacity.

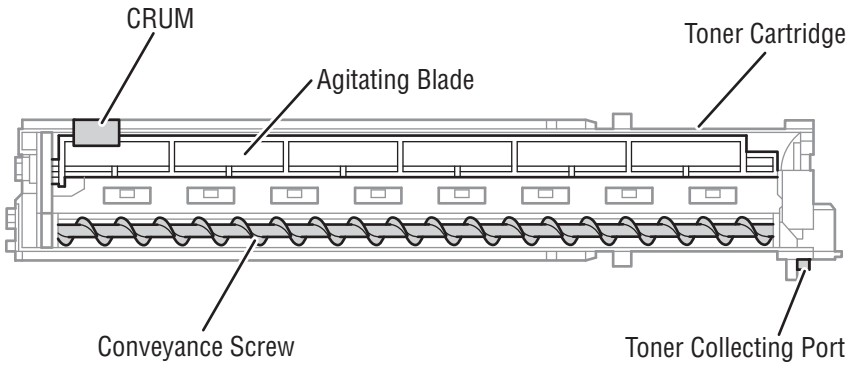


s6400mfp-099

Toner Feed Mechanism

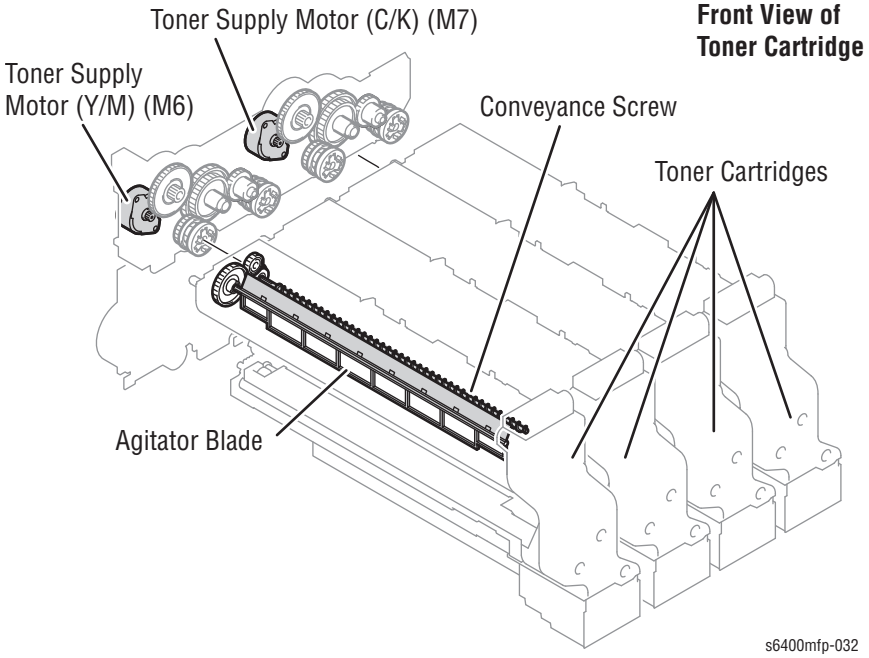
The Toner Supply Motor is turned either forward or backward to drive the Agitating Blade or the Conveyance screw. The Agitating Blade in each cartridge agitates and transfers toner to the Conveyance screw.

Toner transferred by the Agitating Blade is transferred to the Toner Collecting Port located on the front side of the printer by the Conveyance screw.

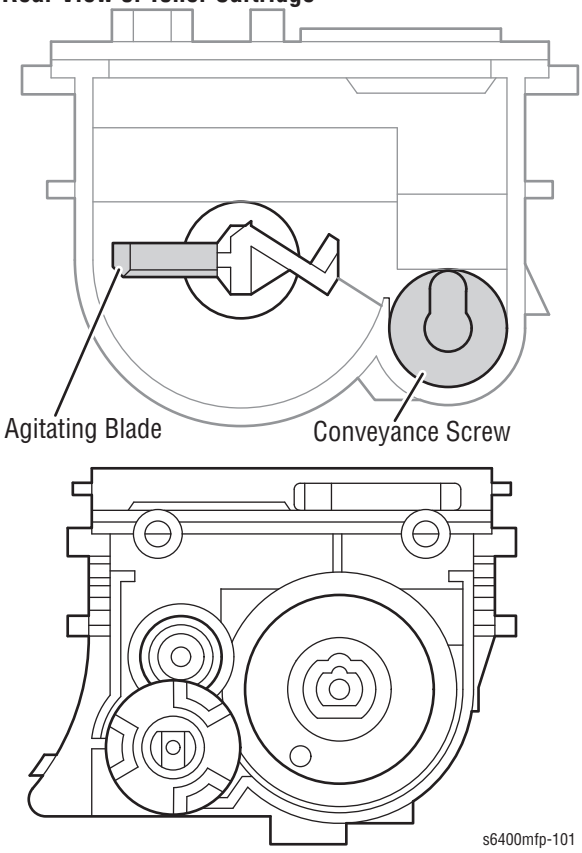


s6400mfp-100

Front View of Toner Cartridge



Rear View of Toner Cartridge

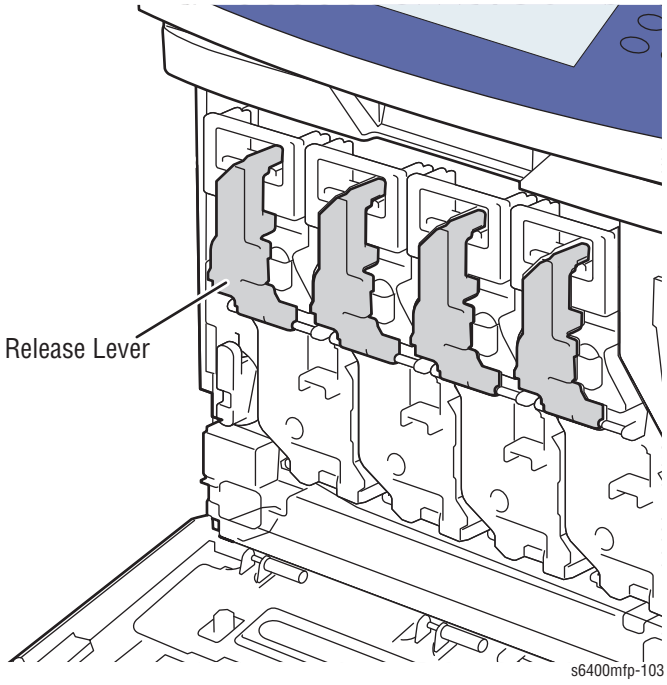


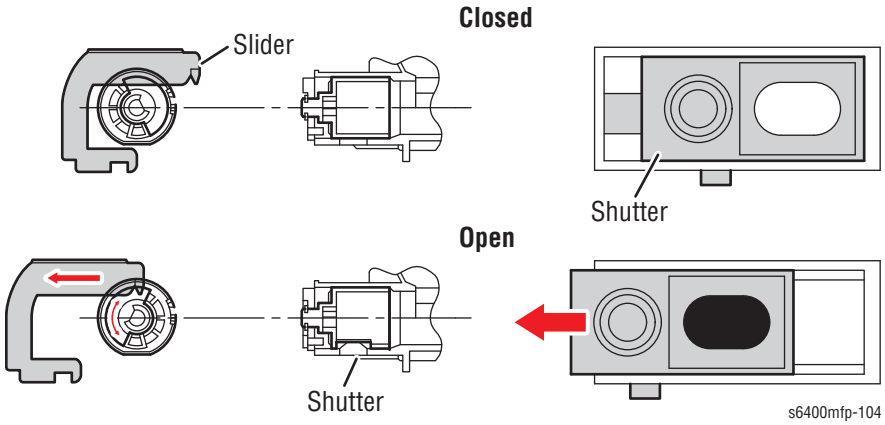
Toner Collecting Port Shutter Mechanism

The Toner Collecting Port is equipped with a shutter mechanism that prevents toner from being spilled when the Toner Cartridge is removed from the printer.

After installing the Toner Cartridge in the printer, placing the Imaging Unit Release Lever in its locked position opens the shutter of the Toner Collecting Port, which allows toner to transfer to the Imaging Unit. Moving the Imaging Unit Release Lever to the right or left allows the Shutter to open or close.

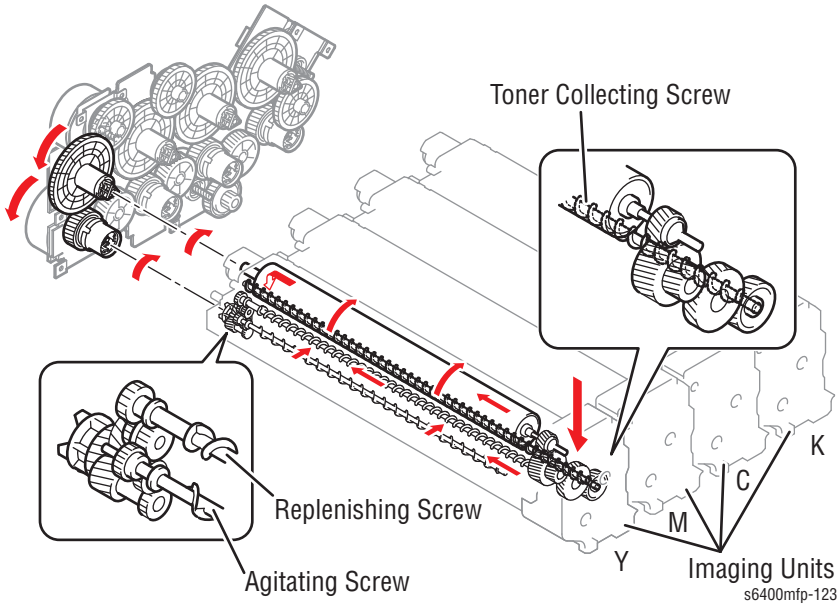
When the Release Lever is in the “Locked” position, the Shutter is open, which allows the Front Door to close.





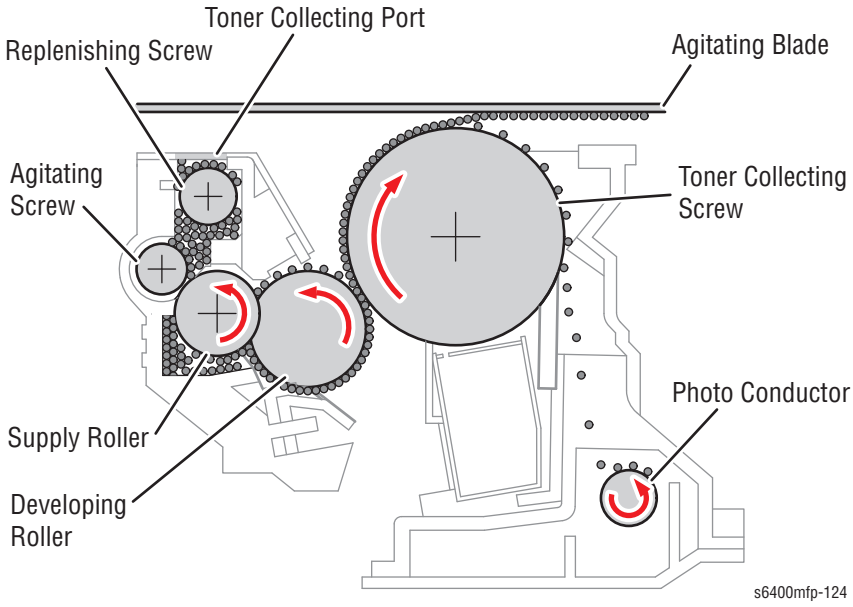
Toner Flow

1. Toner transferred onto the front side of the Toner Cartridge by the Conveyance screw is transferred through the Toner Collecting Port and then into the Imaging Unit Collecting Port.
2. Toner transferred to the Collecting Port is transferred into the Imaging Unit's toner chamber by the Replenishing screw.



3. The toner level detection system on the front side of the Imaging Unit (the sensor is mounted on the printer side) detects the level of toner available in the toner chamber.
4. Toner transferred to the toner chamber is agitated (charged) by the Replenishing screw and Agitating screw.
5. Toner transferred onto the rear side of the toner chamber is fed to the Supply Roller.
6. Toner fed to the Supply Roller is transported onto the Developer Roller. At this time, the 1st and 2nd Regulator Blade regulate the height of toner on the surface of the Developer Roller.
7. Toner on the Developer Roller is fed to the electrostatic latent image formed on the surface of the Photo Conductor.
8. The biasing charge of any toner left on the Developer Roller is neutralized returned to the Supply Roller.
9. Toner on the surface of the Photo Conductor is transferred onto the Transfer Belt, scraped off by the Cleaning Blade, and is transported to the Waste Toner conveyance section by the Toner Collecting screw.

10. Toner transported by the Toner Collecting screw is stored as waste toner in the Waste Cartridge.



Toner Replenishing Mechanism

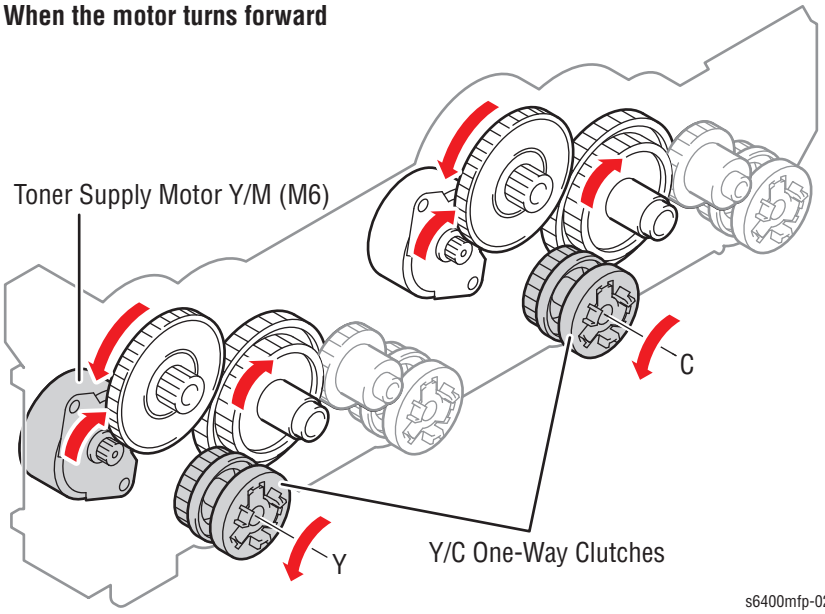
The Toner Supply Motor is energized according to the condition of the Toner Level Sensor for each color of toner. Toner is then supplied from the Toner Cartridge to the Imaging Unit as necessary.

A single Toner Supply Motor is turned either forward or backward to accomplish supply of toner of two different colors (one motor is for Yellow and Magenta, and the other for Cyan and Black). Magenta or Black toner cannot be supplied while Yellow or Cyan toner is being supplied.

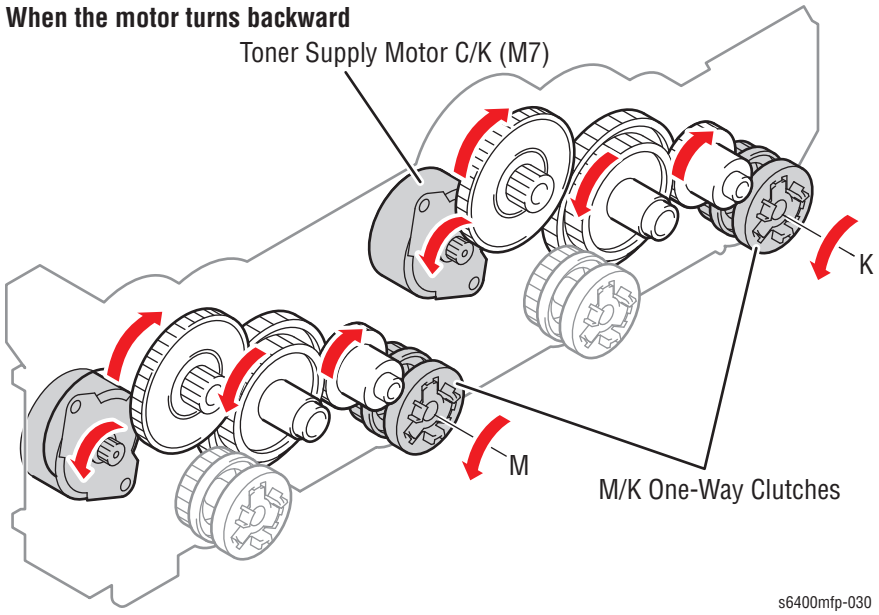
Toner is supplied only while the Imaging Unit is being driven. If toner is supplied from the Toner Cartridge while the Imaging Unit remains stationary, toner builds up at the Imaging Unit.

Toner Supply Motor	Direction of Rotation (as viewed from above of Motor Shaft)	Toner Supply (Agitating Blade/Conveyance Screw)			
		Y	M	C	K
Y, M (M6)	Forward (clockwise)	Turned	Stationary	Stationary	Stationary
	Backward (counterclockwise)	Stationary	Turned	Stationary	Stationary
C, K (M7)	Forward (clockwise)	Stationary	Stationary	Turned	Stationary
	Backward (counterclockwise)	Stationary	Stationary	Stationary	Turned

When the motor turns forward



When the motor turns backward



Toner Level Detection

The toner level is determined by the accumulated time of rotation of the Toner Supply Motor and the Toner Low Sensor Board (TLSB) that tracks the amount of toner in each Imaging Unit. Cartridge presence and life tracking is accomplished by the use of a CRUM within each Toner Cartridge.

Toner Near-Empty Condition Detection

Toner near-empty condition is determined when the toner level remaining in the Toner Cartridge contains approximately **5** percent.

Toner Cartridge	Toner Level (targeted percent)	Pages that can be printed after toner near-empty detection (targeted number of pages)*
Standard Toner Cartridge: ■ Color: 6,000 pages ■ Black/White: 12,000 pages	5%	Approximately 2,400 sheets
High-Capacity Toner Cartridge: ■ Color: 12,000 pages ■ Black/White: 12,000 pages	5%	Approximately 4,800 sheets
(*) for a standard original of a 5% coverage		

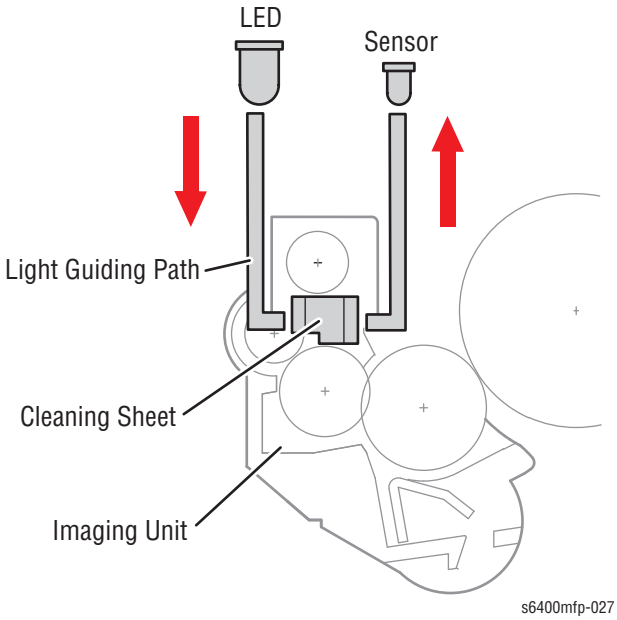
Toner Empty Condition Detection

Toner Empty Condition Detection Mechanism

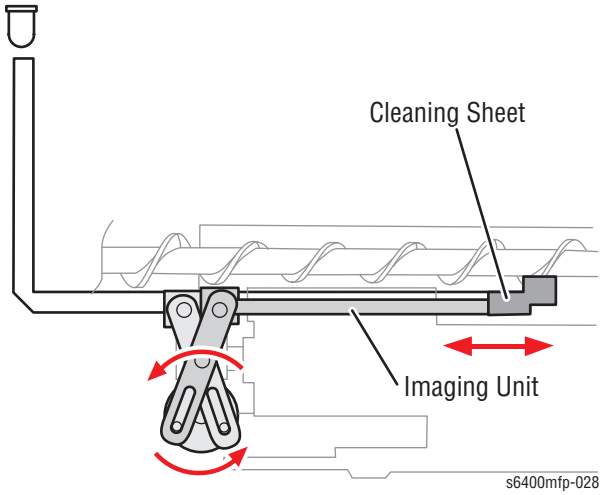
The Imaging Unit has a toner empty condition detecting mechanism that detects toner empty condition based on the amount of toner transported from the Toner Cartridge to the Imaging Unit.

The toner level in the Imaging Unit is detected by the Toner Level Sensor on the Toner Low Sensor Board (TLSB). Light emitted from the LED travels through the light guiding path into the Imaging Unit.

The Toner Level Sensor detects the intensity of the transmitted light through the light guiding path from the inside of the Toner Cartridge. The toner level is thereby estimated.



To ensure correct detection of the intensity of transmitted light by the Toner Level Sensor, a Cleaning Sheet cleans the window in the light guiding path periodically.



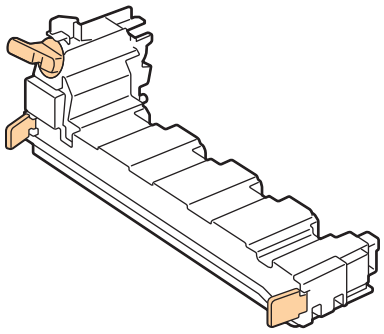
Toner Empty Condition Detection Control

The printer determines that there is a toner empty condition when the Toner Level Sensor output value remains below a specified value for a given period of time.

Toner level information is retained even when power is turned Off. A toner empty condition is reset when a new Toner Cartridge is detected.

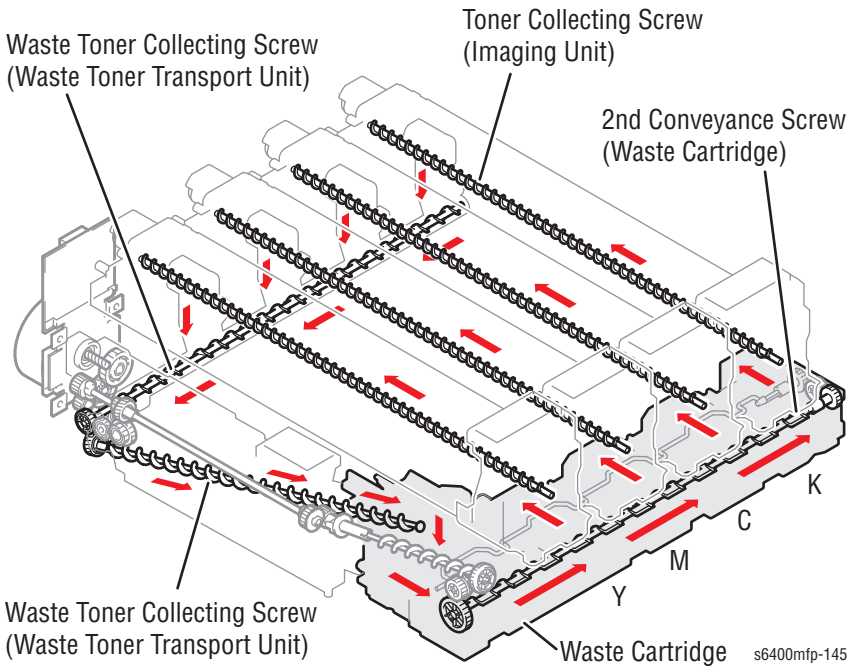
Waste Toner Collection

The Waste Toner Cartridge collects waste toner from the Imaging Unit and the Transfer Belt.



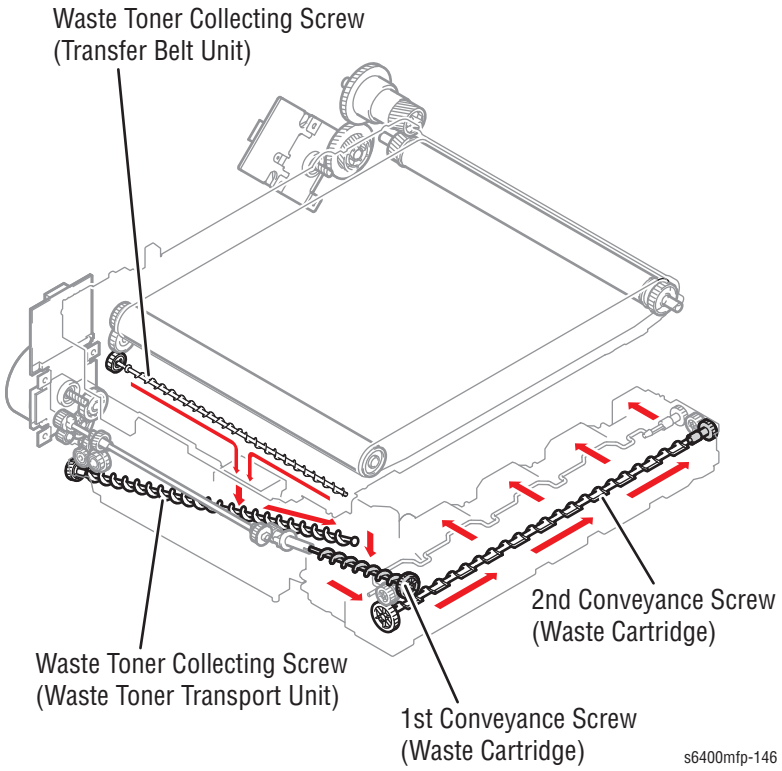
Toner Flow at the 1st Transfer Section

1. Toner scraped off by the Cleaning Blade in each Imaging Unit is transported to the Toner Collecting Port by the Toner Collecting screw.
2. The waste toner transported to the Toner Collecting Port is transported to the Waste Toner Transport Unit.
3. Transported toner is carried to the Suction Transport Unit by the Transport Roller in the Waste Toner Transport Unit.
4. Transported toner is carried to the Toner Collecting Port of the Waste Cartridge by the Conveyance screw located in the Waste Toner Transport Unit.
5. Transported toner is stored in the Waste Cartridge by the Conveyance screw.



Waste Toner Flow at the 2nd Transfer Section

1. Toner scraped off by the Cleaning Blade is collected onto the middle of the Transfer Belt by the Toner Collecting screw.
2. Collected toner is transported to the Waste Toner Transport Unit through the Toner Collecting Port located in the middle of the Transfer Belt.
3. Transported toner is carried to the Toner Collecting Port of the Waste Toner Box by the Conveyance screw located in the Waste Toner Transport Unit.
4. Transported toner is stored in the Waste Cartridge by the Conveyance screw.



Waste Toner Collecting Port Shutter Mechanism

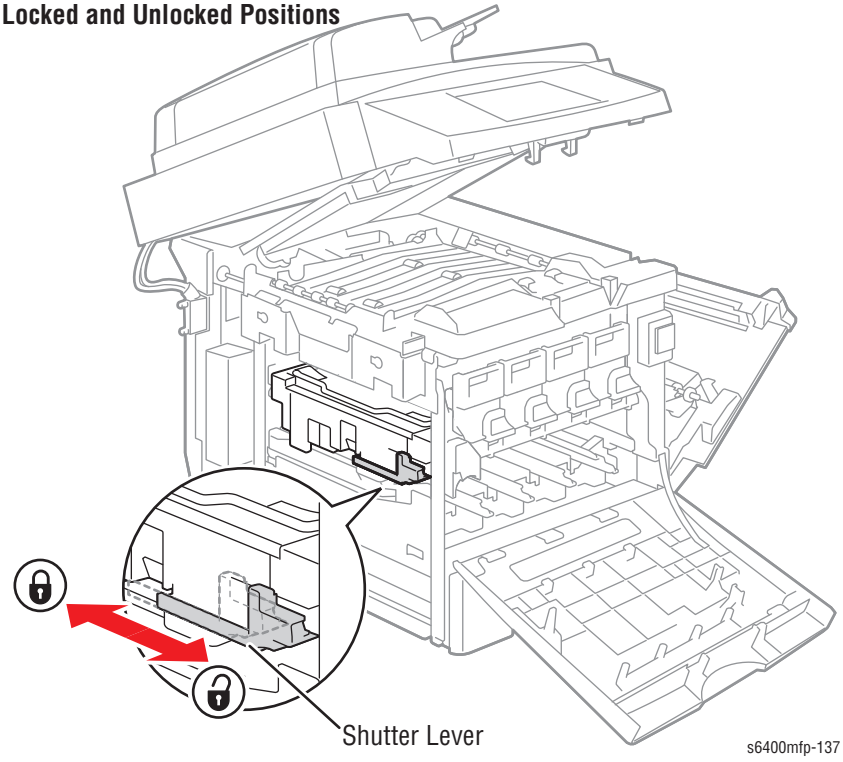
A shutter mechanism is used to prevent waste toner from being spilled from the Toner Collecting Port when the Waste Cartridge is removed and reinstalled. The Toner Collecting Port is closed when the Shutter Lever is in the “Locked” position (to the rear side of the printer).

The Transfer Belt cannot be removed when the Toner Collecting Port is opened, due to the Shutter Lever interference with the Waste Toner Transport Unit. The Shutter Lever must be in the “Locked” position in order to remove the Transfer Belt.

When installing the Transfer Belt, the Shutter Lever must be in the “Locked” position so that the Shutter Lever will not interfere with the Waste Toner Transport Unit.

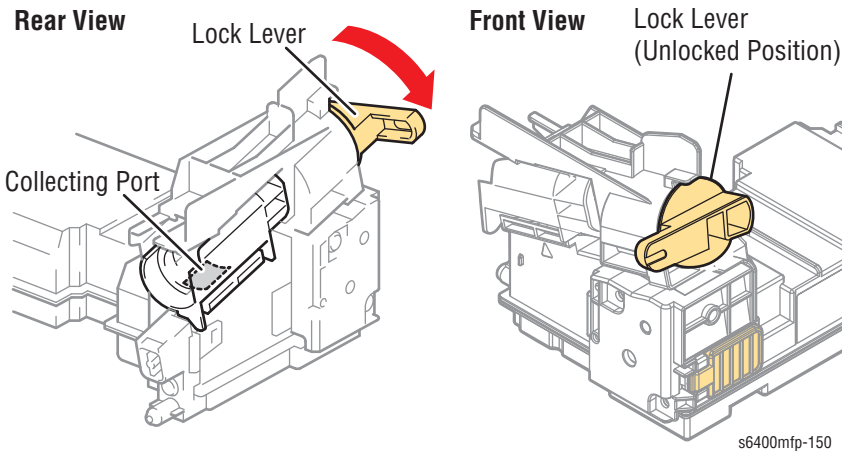
To prevent the Toner Collecting Port Shutter from remaining unopened after the Transfer Belt is installed, the Waste Cartridge must be installed, which pushes the Shutter Lever of the Toner Collecting Port and opens the Collecting Port.

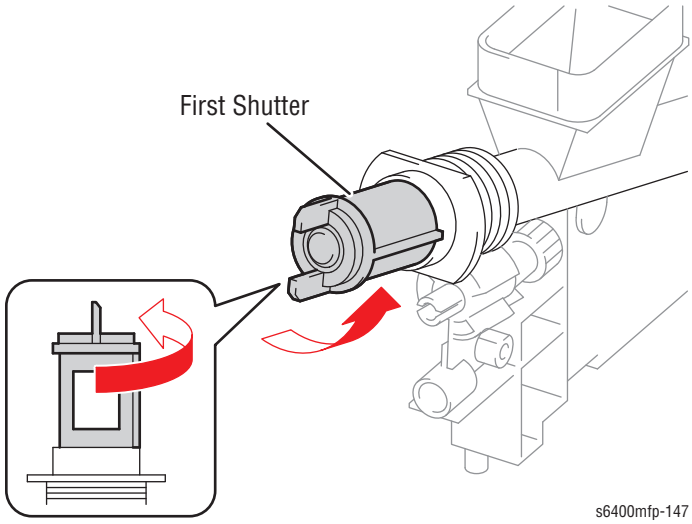
Locked and Unlocked Positions



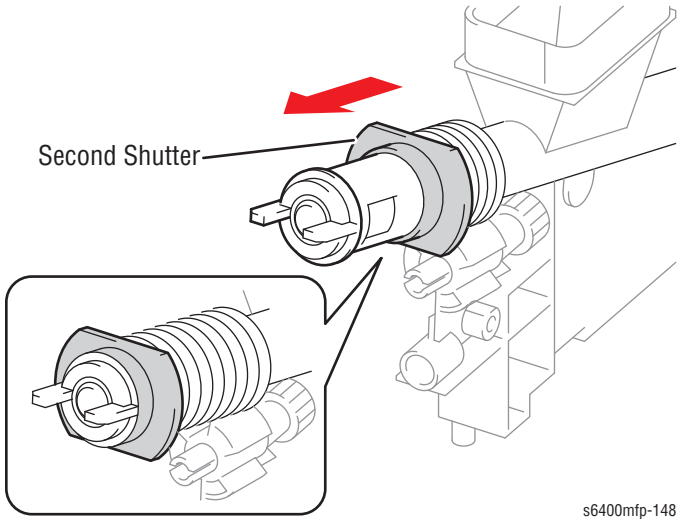
A dual-shutter is used to prevent waste toner from being spilled from the Toner Collecting Port when the Waste Cartridge is removed and reinstalled.

The first Shutter of the Toner Collecting Port closes when the Lock Lever of the Waste Cartridge is at the “Unlocked” position (9 o’clock position).





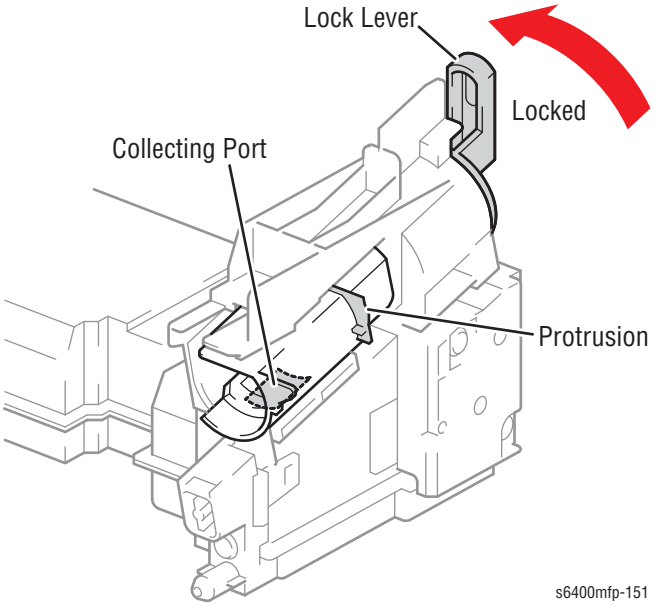
The second Shutter closes when the Waste Cartridge is removed.



Waste Cartridge Locking Mechanism

When the Lock Lever is in the “Locked” position (12 o’clock position), the protrusion located in the Toner Collecting Port interferes with the printer frame, thus preventing the Waste Cartridge from being removed.

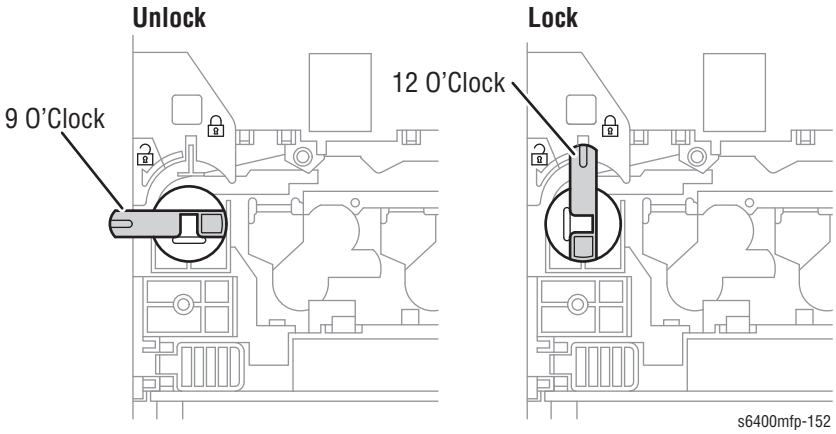
When the Lock Lever is in the “Unlocked” position (9 o’clock position), the Waste Cartridge can be removed.



Waste Cartridge Locked and Position Detection Mechanisms

When the Lock Lever is in the “Unlocked” position (9 o’clock position), a protrusion in the Front Door interferes with the Lock Lever, and prevents the Front Door from closing.

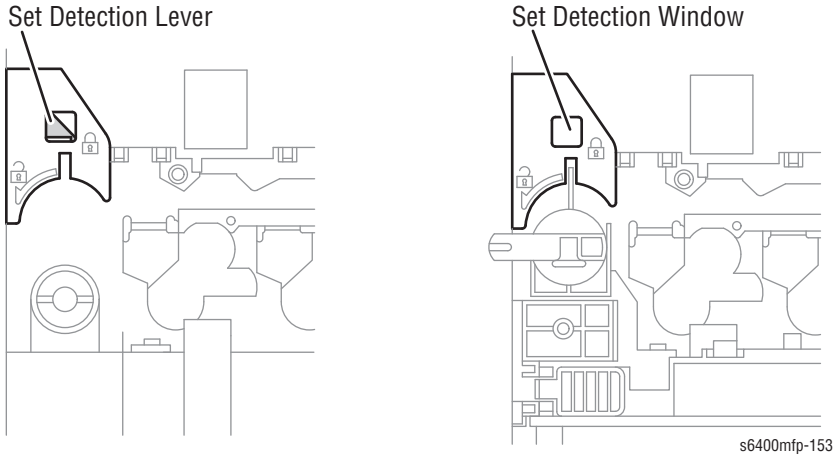
When the Box Lock Lever is in the “Locked” position (12 o’clock position), the Front Door can be closed.



The Waste Cartridge Set Detection Lever detects a Waste Cartridge installed in position. When the Waste Cartridge is not installed, the Set Detection Lever lowers on its own weight to cover the set detection window.

The Set Detection Lever interfere with the protrusion on the Front Door, preventing the Door from closing.

When the Waste Cartridge is installed in position, it pushes the Set Detection Lever up, which uncovers the set detection window, allowing the Front Door to close.

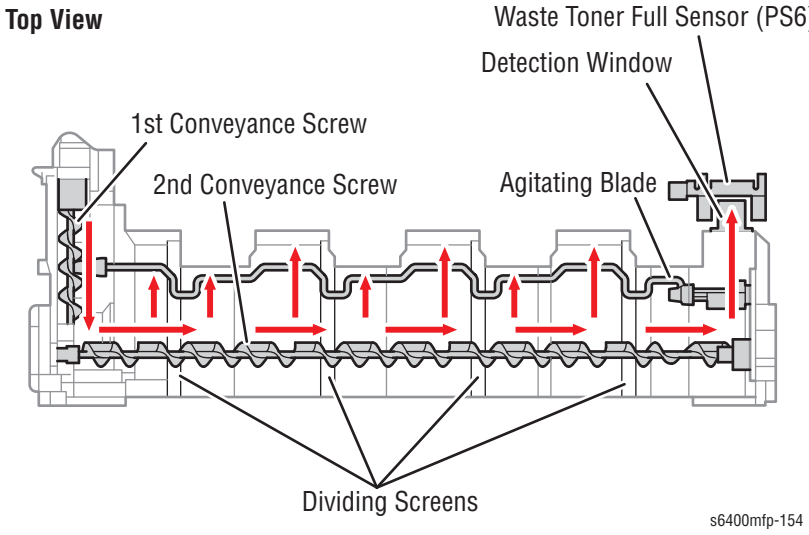


Waste Toner Flow in the Waste Cartridge

The 1st Conveyance screw transports toner from the Toner Collecting Port to the 2nd Conveyance screw.

The Waste Cartridge has dividing screens which allow waste toner to accumulate from the left side.

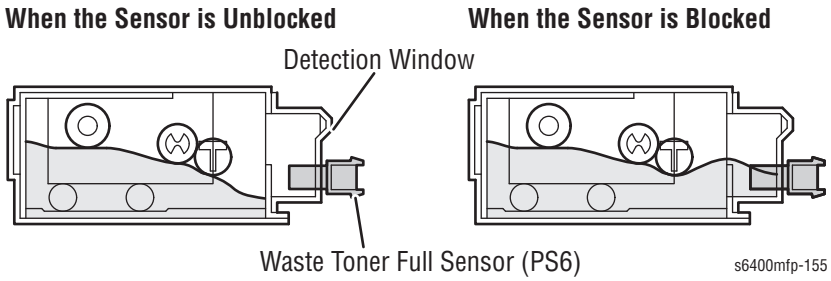
The Agitating Blade transports waste toner from the rear end of the Toner Cartridge up to the detection window. When waste toner blocks the Waste Toner Full Sensor, the waste toner full condition is detected.



Waste Toner Near-Full Condition Detection

A waste toner near-full condition is detected when the waste toner full sensor is continuously blocked for a specified period of time. At this time, a waste toner near-full condition warning is displayed on the Control Panel.

Approximately 1,000 pages can be printed with use of standard originals between a near end-of-life condition is detected and when an end of life condition is detected.



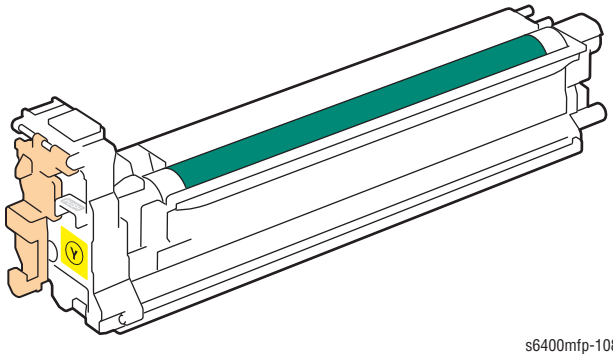
Waste Toner Full Condition Detection

A waste toner full condition is detected when the cumulative total number of pixels (waste toner detection dot count) exceeds a specified value after a Waste Cartridge near-full condition has been detected. At this time, a waste toner full fault is displayed on the Control Panel.

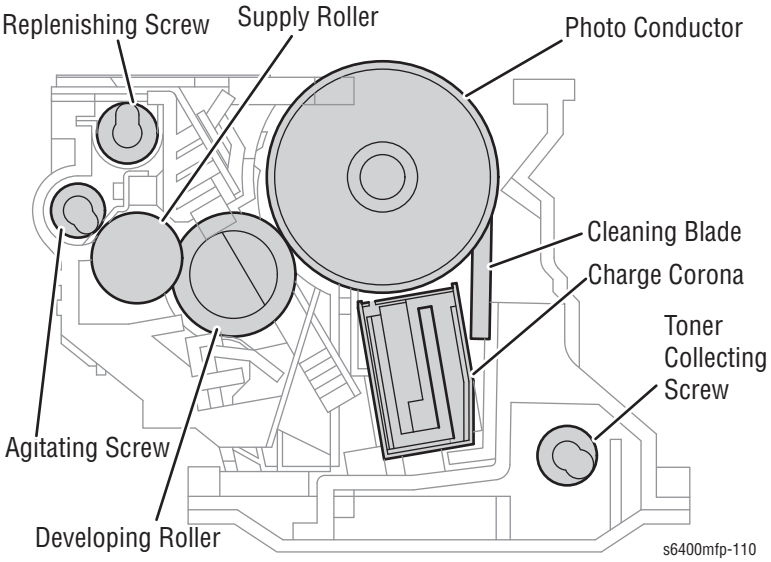
The printer does not accept print jobs after this message. The waste toner full fault indication disappears when a new Waste Cartridge is installed.

Imaging Unit

The Imaging Unit contains a Photo Conductor, Cleaning Blade, and Charge Corona, is driven by a drive mechanism within the engine. The Imaging Unit is a customer replaceable and has print life of up to 60,000 pages (continuous) and up to 20,000 page (2 page jobs).



s6400mfp-108



s6400mfp-110

Imaging Unit Life Detection

The Imaging Unit life is determined based on the Photo Conductor rotating time. Warning message appears on the Control Panel for different statuses:

- **Near Life** - The Photo Conductor driving time reaches its near life run time.
- **End of Life** - The Photo Conductor driving time reaches its end of life time.
- **Past End of Life** - The Photo Conductor runs more than its life.

When the Past End of Life Fault message appears, the printer stops printing. The message clears when the Imaging Unit is replaced.

Imaging Unit Life Control

The Imaging Unit has a CRUM that allows the engine to track Imaging Unit life or when a new Imaging Unit is installed. When a new Imaging Unit is detected, the engine performs an image stabilization sequence.

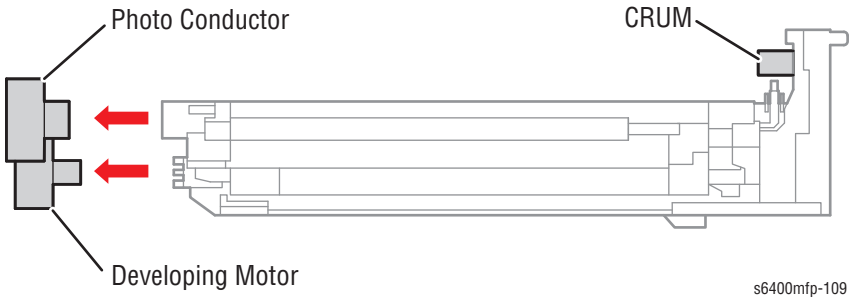


Photo Conductor

The Photo Conductor Drum captures the latent image drawn by the laser. The aluminum base supports the charge generating layer. The photo-conductive material on the outside of the Drum acts as the charge transport layer.

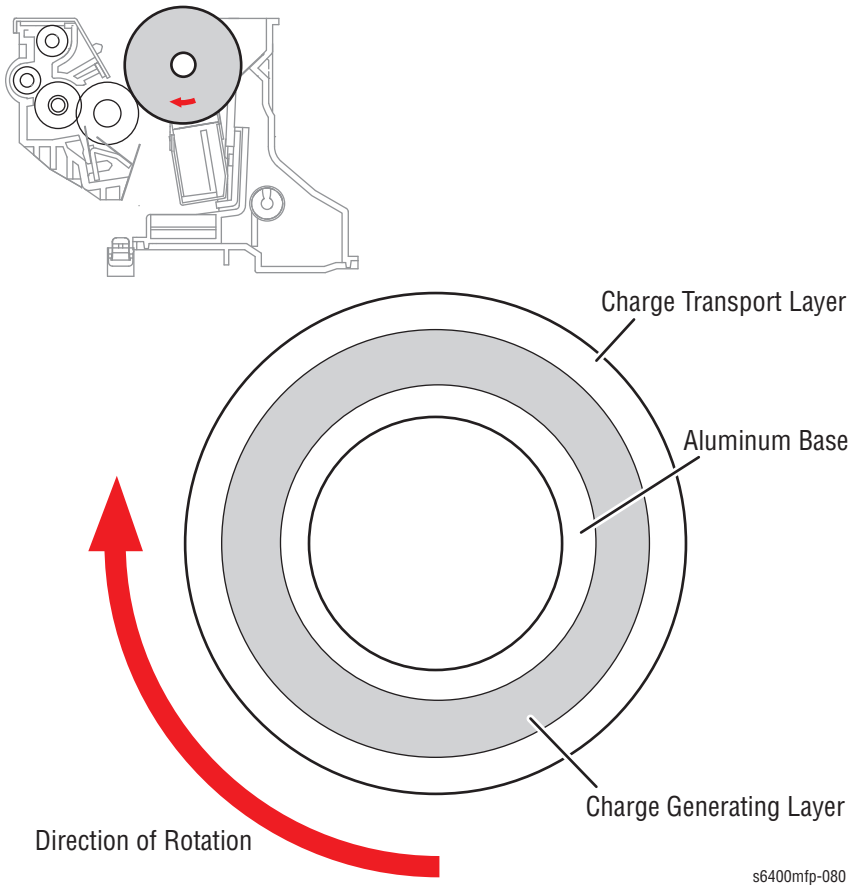
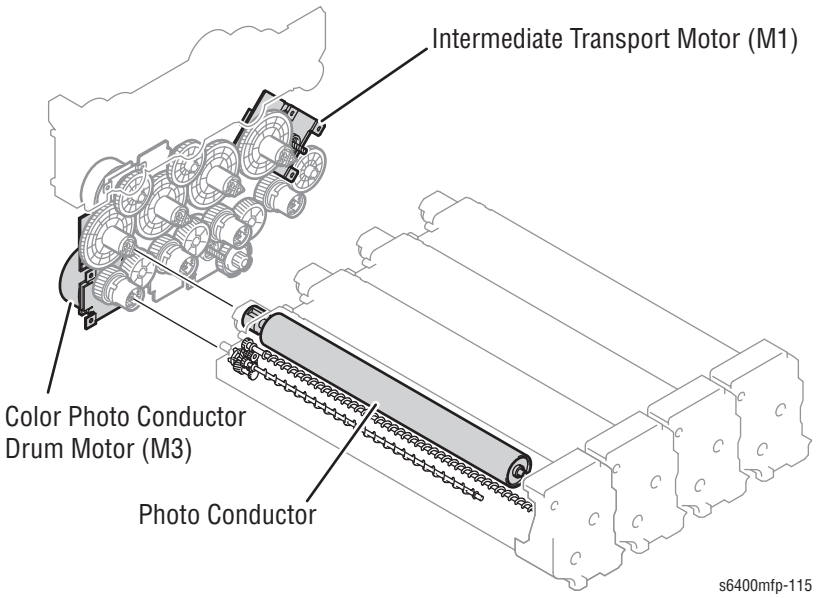


Photo Conductor Drive Mechanism

The Motors are used for the drive mechanism independently of the developing system to suppress incorrect color registration and uneven pitch.

Different motors are used to drive the color Photo Conductors and black Photo Conductor to stop the drive for the color Toner Cartridges in monochrome mode.

The color PC Drum Motor drives the Photo Conductor Y, M and C, while the Intermediate Transport Motor (M1) drives the Photo Conductor K. In addition to the Photo Conductor K, the Transport Motor (M1) also drives the Transfer System, Paper Feed System, and Synchronizing Drive System.



The large diameter gears, which contain a large number of gear teeth, are used to enhance rotating accuracy of the Photo Conductors, and suppresses uneven pitch and pattern.

Drive energy is transmitted to each of the Photo Conductors when the coupling on the drive end is engaged with that on the driven end.

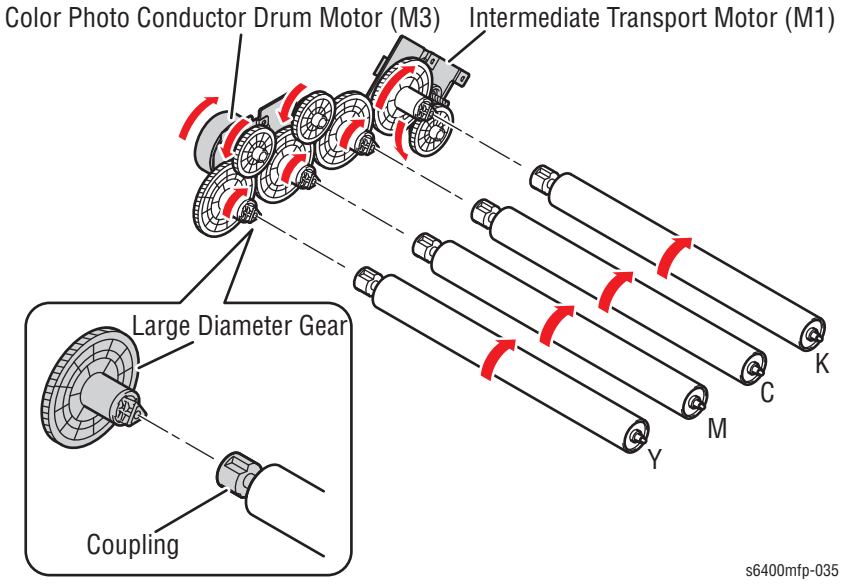


Photo Conductor Post-Exposure Control and Recovery

Ozone stagnant in areas near the Charge Corona is absorbed on the surface of the Photo Conductor. This reduces sensitivity of the Photo Conductor, causing white bands to occur on the image.

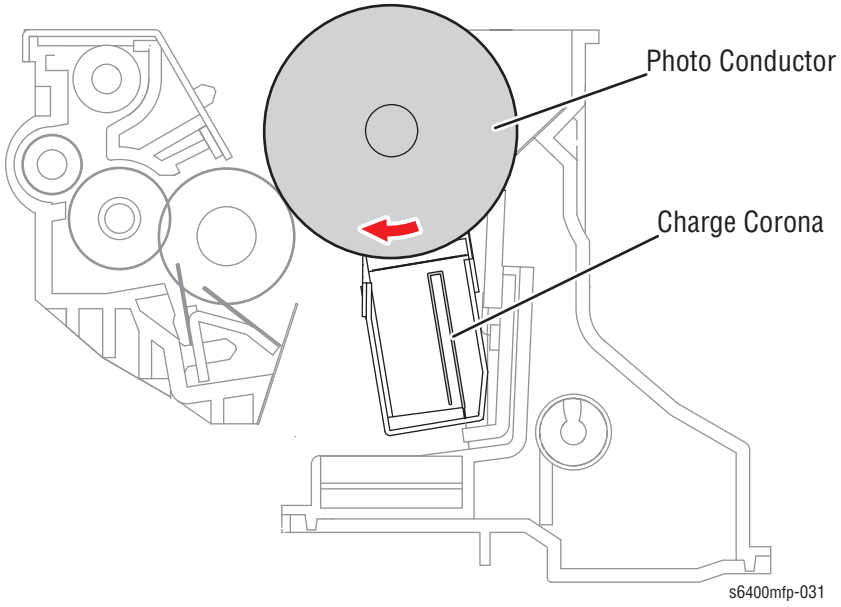
To prevent this image failure from occurring, the entire surface of the Photo Conductor is exposed to light and thus neutralized. This process prevents the surface of the Photo Conductor from absorbing ozone.

If the “Photo Conductor post-exposure control” is not performed due to a paper misfeed, the entire surface of the Photo Conductor is exposed to light at the same time that the “2nd Transfer Roller cleaning control” is performed during the recovery procedure from the paper misfeed.

Photo Conductor Small Amount Rotation Control and Timing

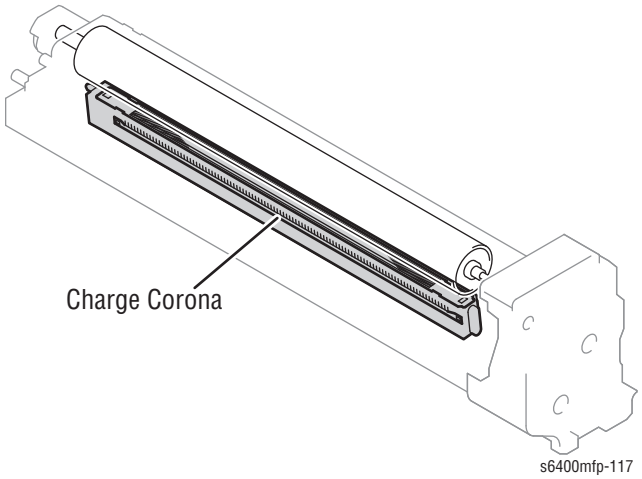
The number of execution sequences is determined when the post process following a print cycle is completed. The control is executed while the color PC Drum Motor or Intermediate Transport Motor (M1) is at Standby state.

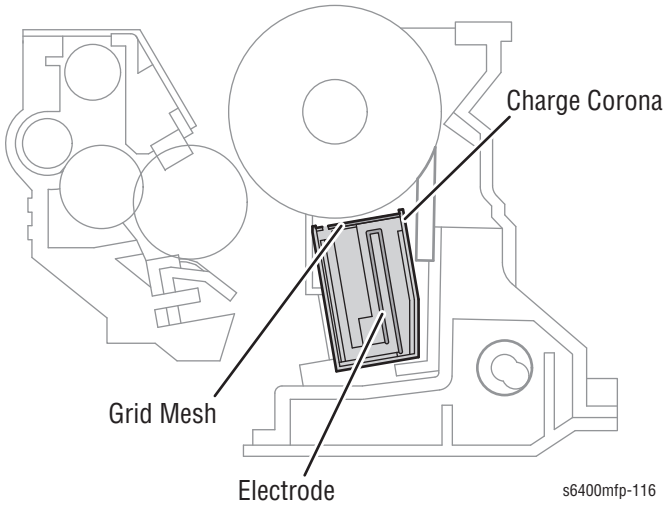
If the color Photo Conductors need to be turned slightly during monochrome mode, the control is also executed for the color Photo Conductors.



Charge Corona

The Charge Corona deposits a charge to the surface of the Photo Conductor.





Output During Pre-Process

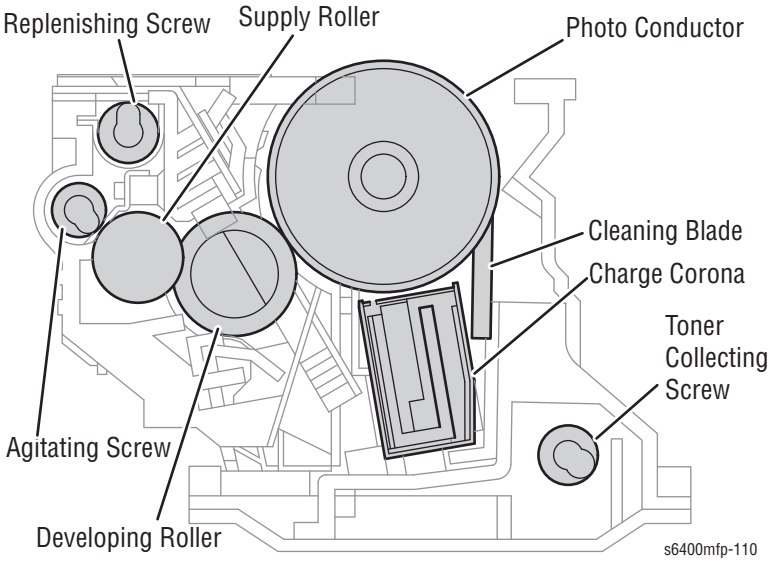
- **Color Mode -** The Charge Corona voltage for all colors of toner is applied after rotation of the color PC Drum Motor has stabilized.
- **Monochrome Mode -** The Charge Corona voltage for K is applied after rotation of the Intermediate Transport Motor (M1) has stabilized.

Output During Post-Process

The output of the Charge Corona voltage is shut down when the entire exposed area of the Photo Conductor moves past the Charge Corona section after the 1st Transfer process has been completed.

Developer

A Developer within each Imaging Unit contains a magnetic roll, which carries a thin layer of toner, is covered by a thin semi-conductive sleeve over the surface. The Developing Roller applies toner to the latent image formed on the surface of the Imaging Unit.

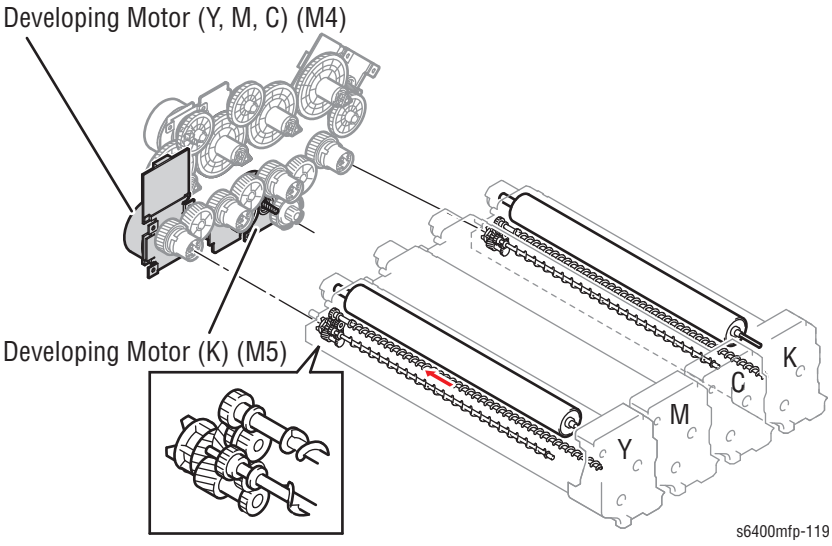


Developer Drive Mechanism

The Developer drive mechanism consists of 2 motors: The M4 Motor drives the Y, M, C Developers and the M5 Motor drives the K Developer. Both motors are housed within the Main Drive Assembly.

Caution

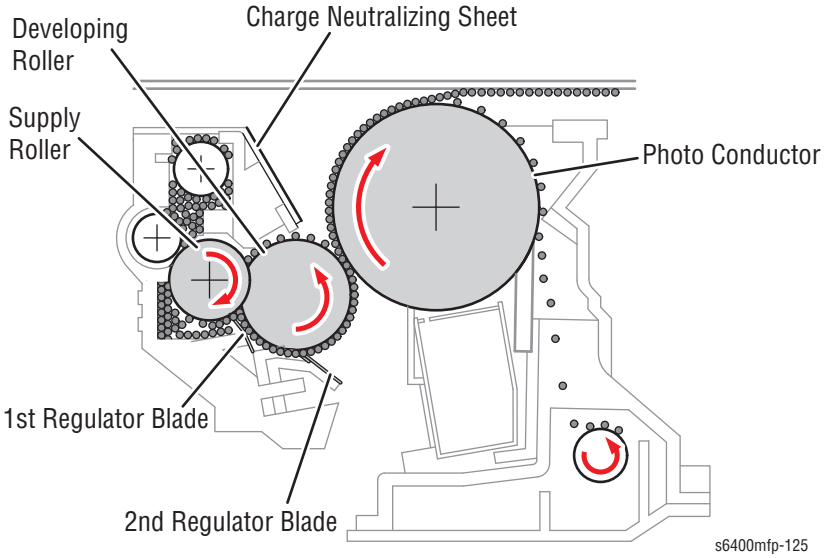
The Developer Drive Motor M4 is aligned at the factory and must NOT be removed from the Main Drive Assembly in the field.



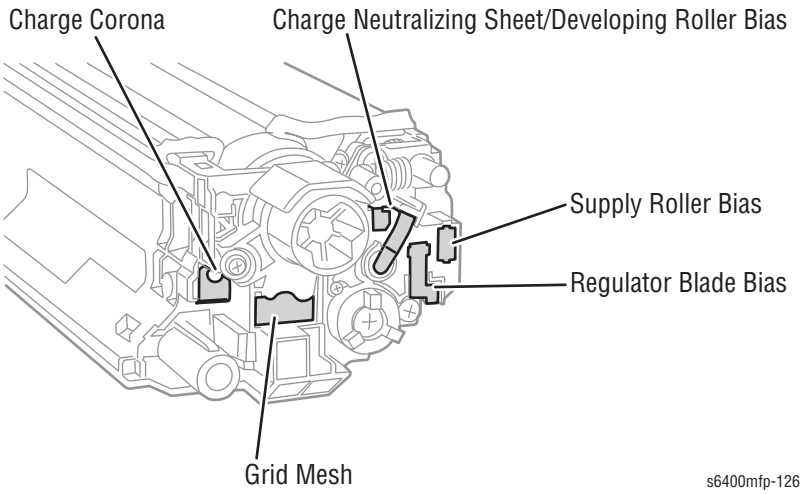
Developer System

Two types of Developer systems are used: A non-contact Developer System and an Alternating Current Application System (ACAS).

1. A negative charge (supply bias voltage Vr) is applied to the Supply Roller to regulate the amount of toner sticking to the Developer Roller.
2. A negative charge (blade bias voltage Vb1) is applied to the 1st Regulator Blade to negatively charge the toner and form a thin layer of toner.
3. Toner on the surface of the Developer Roller is evened out by the 2nd Regulator Blade.

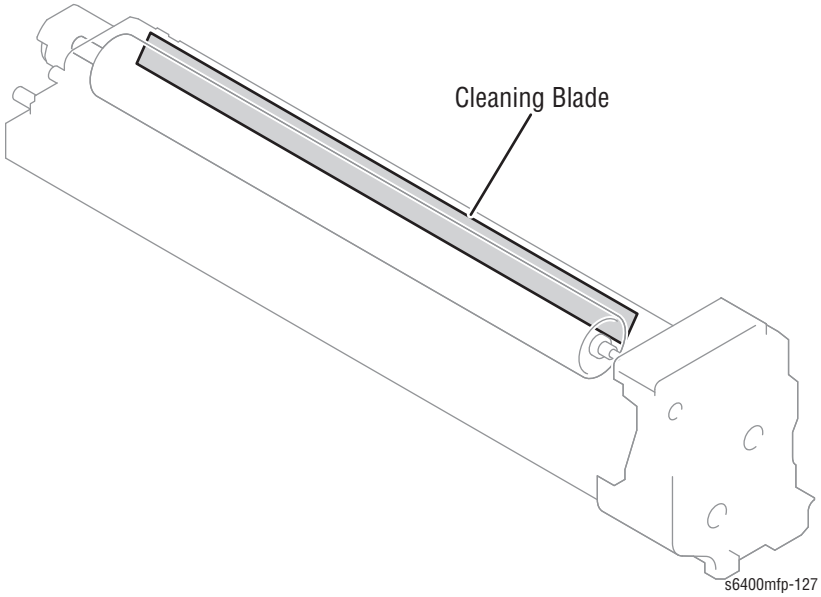


4. During development, DC + AC developer bias voltage (Vb) is applied to the Developer Roller. The AC component of the developer bias voltage is applied only during development. At any time other than development, only the DC component of the developer bias voltage is applied.
5. Toner sticks to the Photo Conductor when the AC component of the developer bias voltage (Vpp) is negative. The voltage and time length of the negative component (Vpp) determines the image density.
6. A negative charge (charge neutralizing bias voltage: same potential as the developing bias) is applied to the charge neutralizing sheet to neutralize any toner left on the surface of the Developer Roller. Neutralized toner is returned to the Supply Roller.

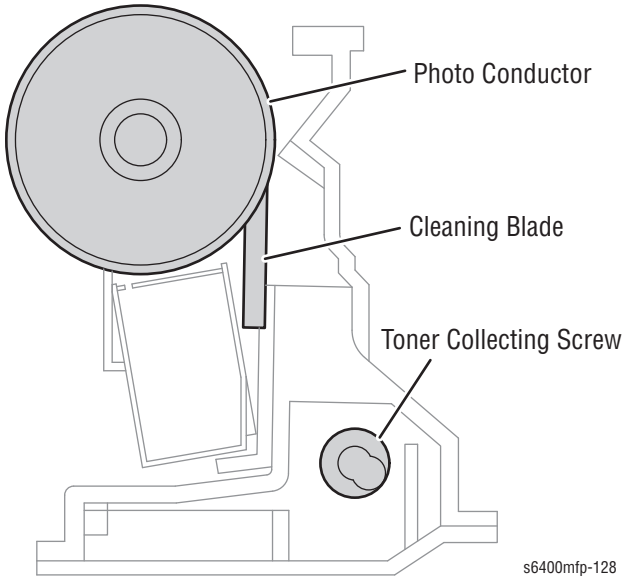


Cleaning Mechanism

The Cleaning Blade is pressed against the surface of the Photo Conductor to remove toner left on the surface (fixed blade system).

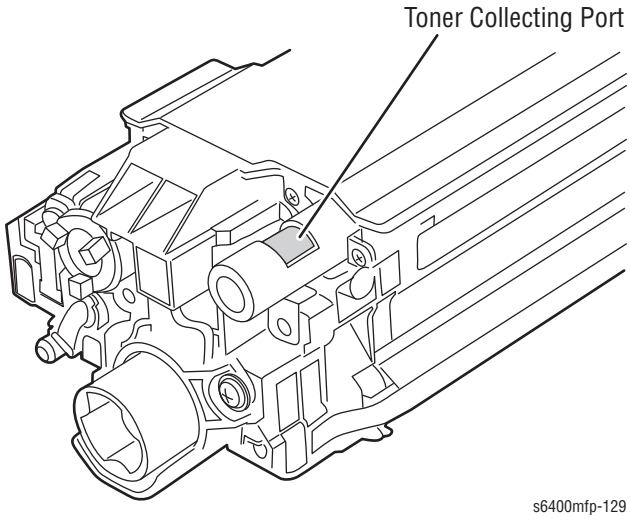


Toner that has been scraped off by the Cleaning Blade, is transported by the Toner Collecting screw and collected in the waste transport section.

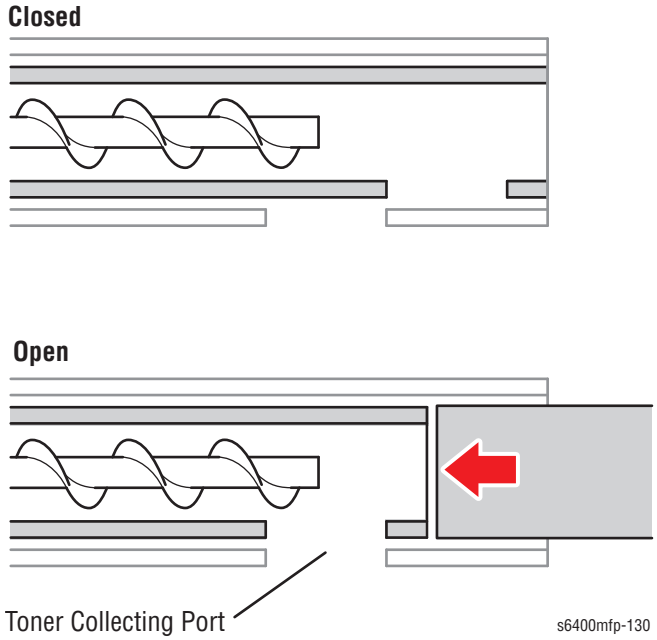


Toner Collecting Port Shutter Mechanism

The Toner Collecting Port within each Imaging Unit is equipped with a shutter mechanism that prevents toner from being spilled when the Imaging Unit is removed from the printer.



When the Imaging Unit is installed into the printer, the Shutter of the Toner Collecting Port is opened and toner can be discharged from the Imaging Unit.



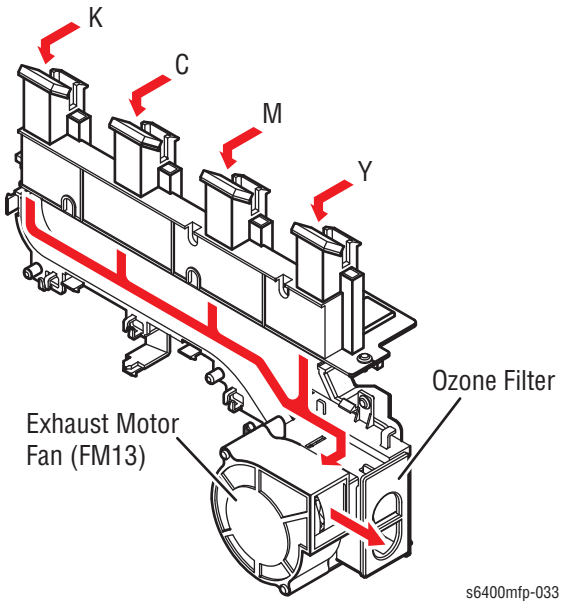
Ozone Ventilation Mechanism

Ozone stagnant in areas near the Charge Corona Unit within each Imaging Unit reduces sensitivity of the Photo Conductors, causing white bands to occur in the image.

To prevent this image quality problem, the Photo Conductor, which changes the location of the Drum relative to the Charge Corona, thereby preventing the surface sensitivity from being reduced.

The Ozone Filter is used to remove ozone produced by the Charge Corona Unit. Outside air is drawn in by the Exhaust Fan Motor through the opening at the front end of the Charge Corona Unit and is discharged together with collected ozone through rear Imaging Unit Holder (PL9.11) and Ozone Filter.

The Exhaust Motor Fan (FM13) is kept energized for 3 minutes, after the print cycle has been completed. The Exhaust Motor Fan also cools down the Imaging Units.

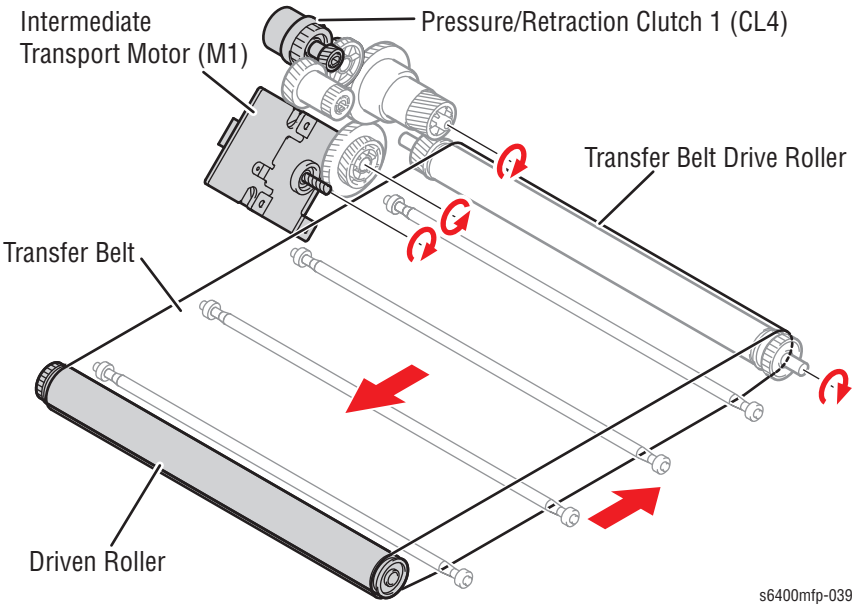


Transfer Belt (1st Image Transfer)

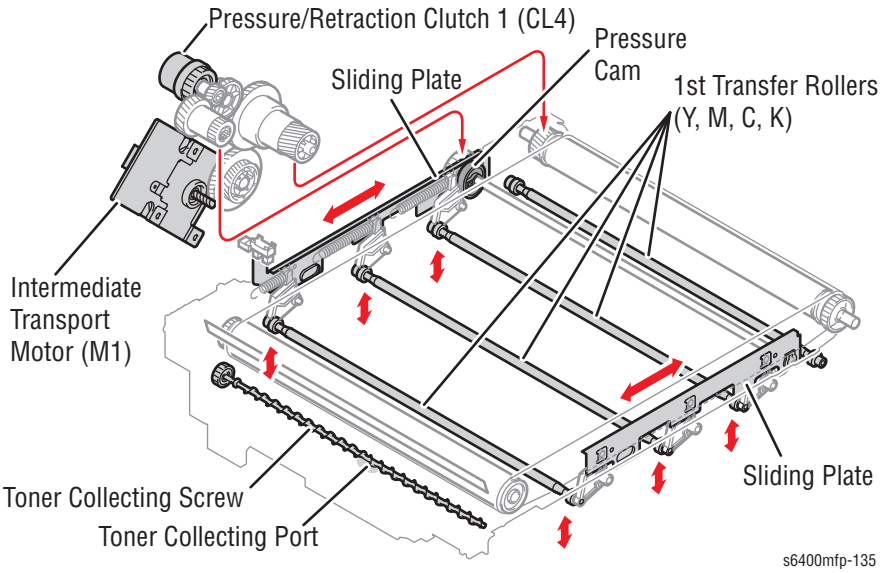
The Transfer Belt accumulates the images produced by the four Developer Rollers prior to transferring the composite image to the paper. The Transfer Belt is conductive and receives a high positive charge from the High Voltage Power Supply.

Pressure/Retraction Mechanism

Mechanism for driving the belt



Mechanism for driving the pressure/retraction motion



1st Transfer Roller Pressure and Retraction

To extend the service life of the Photo Conductor Y, M, C, the pressure position of the 1st Transfer Roller is changed between the monochrome mode and the color mode. The 1st Transfer Roller K does not have a retraction mechanism and is pressed against the Photo Conductor K at all times.

The Transport Motor provides drive energy for pressure/retraction operation of the 1st Transfer Roller Y, M, C.

Monochrome Mode

The 1st Transfer Roller Y, M, C is retracted and the Photo Conductor Y, M, C is stopped at the ordinary Standby state

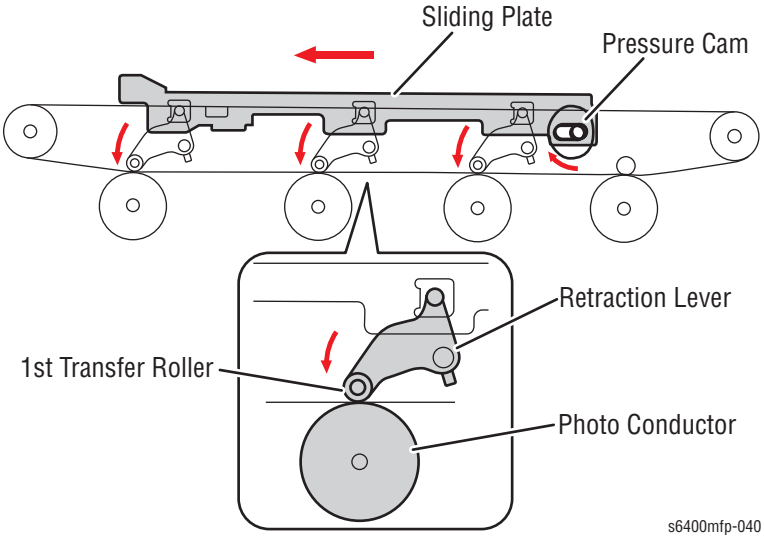
Color Mode

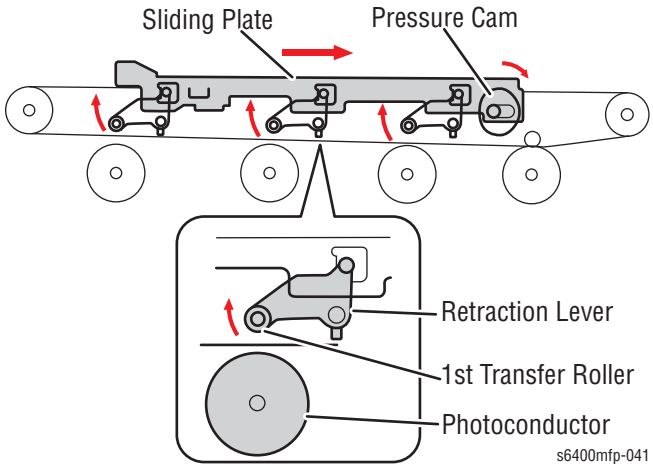
During the 1st Transfer in the color mode, the 1st Transfer Roller Y, M, C is moved toward the Photo Conductor (pressed) so that the Transfer Belt is pressed against the Photo Conductor.

Standby Mode

The Transfer Roller is moved (retracted) and the Photo Conductor is stopped at the Standby state.

1. The Transport Motor and gear train drives the Pressure/Retraction Clutch 1 (CL4).
2. Rotation of the Pressure/Retraction Clutch 1 (CL4) turns the Pressure Cam, which moves the Sliding Plate and the Retraction Lever.
3. When the Retraction Lever is lowered, the 1st Transfer Roller is pressed against the Transfer Belt.





1st Transfer Roller Pressure/Retraction Position

Pressure Position

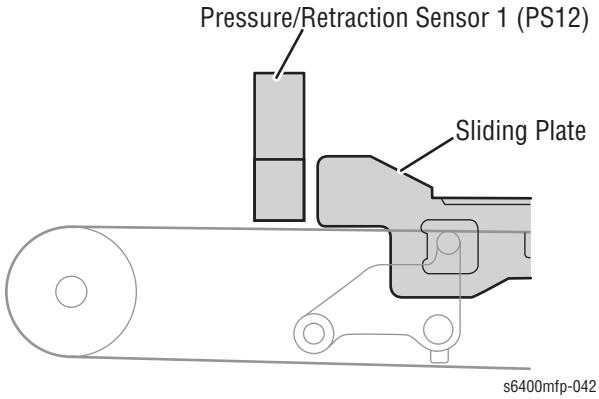
The pressure operation of the 1st Transfer Roller is controlled as the Pressure/Retraction Sensor 1 (PS12) detects the movement of the Sliding Plate.

1. The Pressure/Retraction Clutch 1 (CL4) is energized.
2. The Sliding Plate is moved to press the 1st Transfer Rollers up against the Transfer Belt, blocking the Pressure/Retraction Sensor 1 (PS12).
3. With the Pressure/Retraction Sensor 1 (PS12) has been blocked, the Pressure/Retraction Clutch 1 (CL4) is de-energized.

Retraction Position

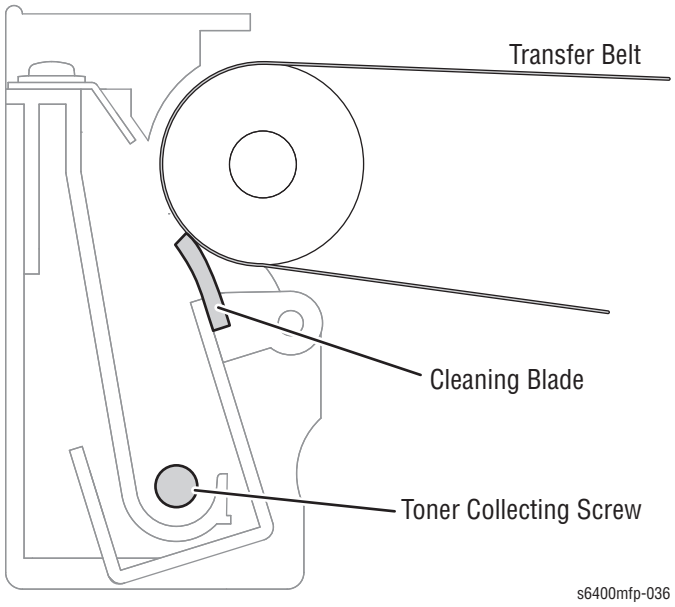
The retraction operation of the 1st Transfer Roller is controlled as the Pressure/Retraction Sensor 1 (PS12) detects the movement of the Sliding Plate.

1. The Pressure/Retraction Clutch 1 (CL4) is energized.
2. The Sliding Plate is moved to retract the 1st Transfer Rollers from the Transfer Belt, unblocking the Pressure/Retraction Sensor 1 (PS12), which has been blocked.
3. With the Pressure/Retraction Sensor 1 (PS12) has been unblocked, the Pressure/Retraction Clutch 1 (CL4) is de-energized.

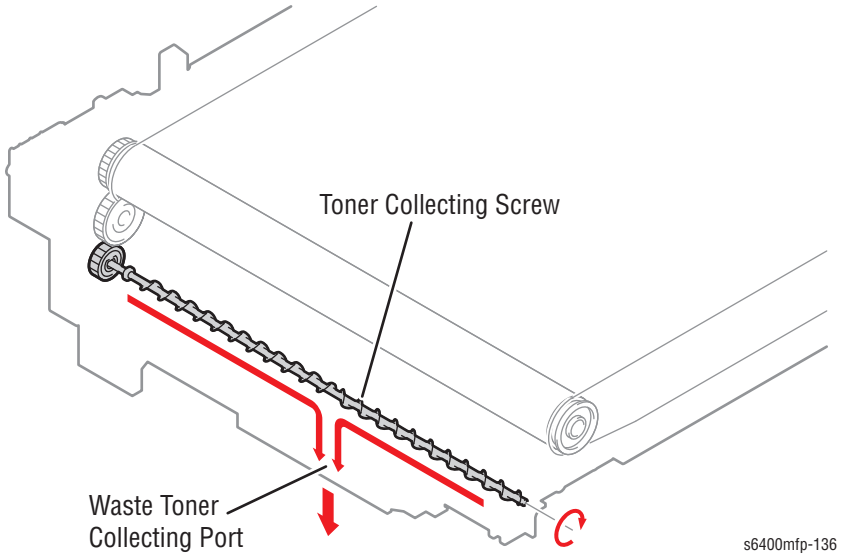


Transfer Belt Cleaning Mechanism

The Cleaning Blade, part of the Transfer Belt, is used to scrape residual toner off the surface of the Transfer Belt. The Cleaning Blade is in pressed contact with the Transfer Belt at all times. The Cleaning Blade cleans the surface of the Transfer Belt as long as the belt turns. Toner scraped off by the Cleaning Blade is collected in the middle of the Transfer Belt by the Toner Collecting screw.



The collected waste toner is transported through the Waste Toner Collecting Port located in the middle of the Transfer Belt Unit and the Waste Toner Transport Unit, and moved to the Waste Cartridge.

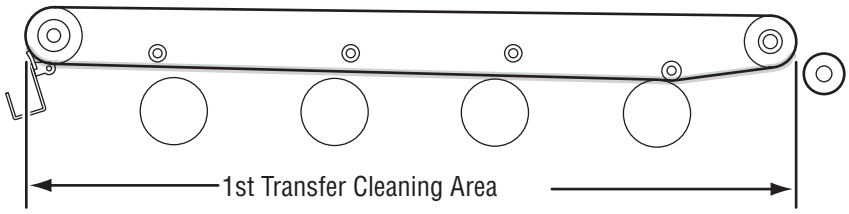


1st Transfer Belt Cleaning

The Intermediate Transport Motor (M1) is energized to turn the Transfer Belt due to that there is a possibility of the printer being stopped with toner left on the surface of the Transfer Belt between the Cleaning Blade position and the 2nd Transfer position (due to paper misfeed or printer malfunction). Residual toner is thereby removed from the Transfer Belt.

Operation Timing

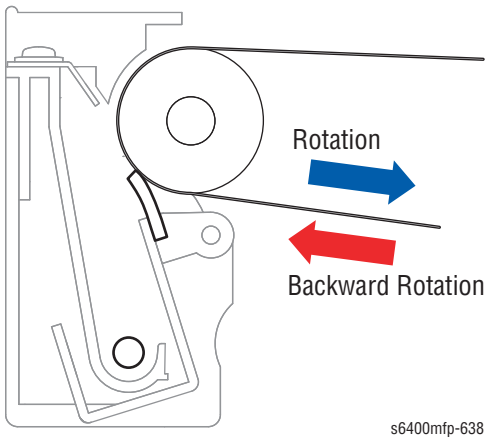
The Auto Transfer Voltage Control (ATVC) System performs the 1st Transfer cleaning and then the 2nd Transfer cleaning operation.



1st Transfer Belt Backward Rotation

To prevent dust, toner, and debris from being wedged in the Cleaning Blade while the Transfer Belt remains stationary, the Transfer Belt is turned backward so that debris can be removed by the Cleaning Paddle.

Once the Transfer Belt starts turning backward, this operation takes precedence over any other request to energize the Intermediate Transport Motor (M1).



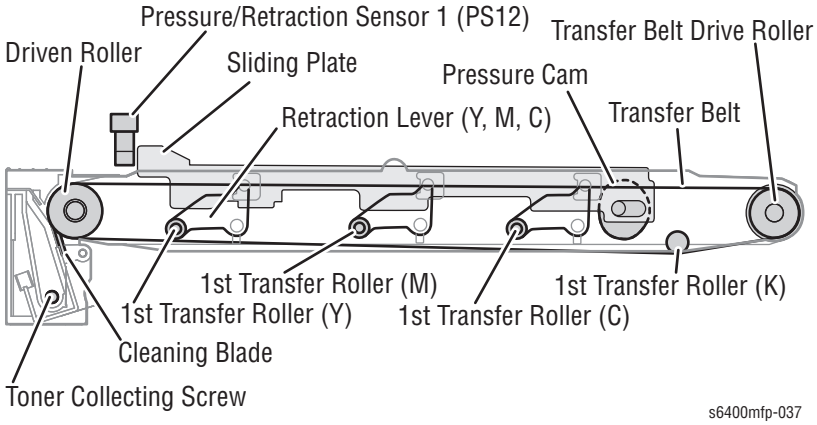
Operation Timing

The 1st Transfer Belt backward rotation is performed after a specified number of printed pages are produced since the last backward rotation control.

1st Transfer Output

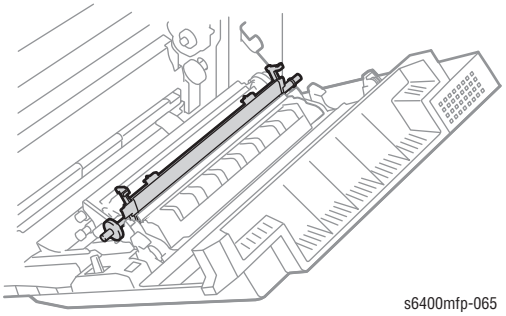
To transfer the toner image from the Photo Conductor to the Transfer Belt, the transfer voltage is applied to the 1st Transfer Roller. A charge of the same potential is applied to each of the 1st Transfer Rollers. The transfer voltage is applied after the 1st Transfer Roller (Y, M, C) is pressed against the Transfer Belt for color mode.

The transfer output is turned Off after the last image moves past the 2nd Transfer section.



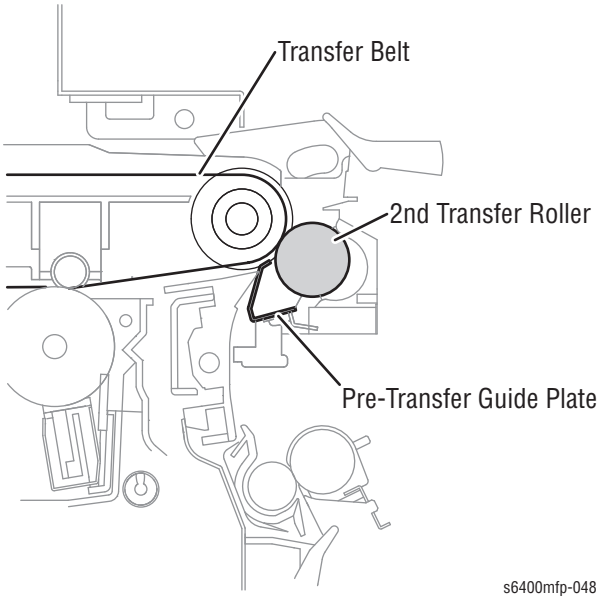
Transfer Roller (2nd Image Transfer Roller)

The Transfer Roller, made of a conductive sponge, presses the paper against the surface of the belt, and transfers the composite image to the paper for fusing.



2nd Image Transfer Roller Pressure Mechanism

The 2nd Transfer Roller is pressed against the Transfer Belt and then retracts from the Transfer Belt. This process prevents the 2nd Transfer Roller from getting dirty due to patterns produced for purposes other than an actual printing operation. Such patterns may be produced during the image stabilization sequence or other functions.



2nd Transfer Roller Pressure

The 2nd Transfer Roller moves to position which allows the toner image on the Transfer Belt to be transferred onto the paper. The 2nd Transfer Roller is pressed against the Transfer Belt to allow the Roller to be cleaned.

2nd Transfer Roller Retraction

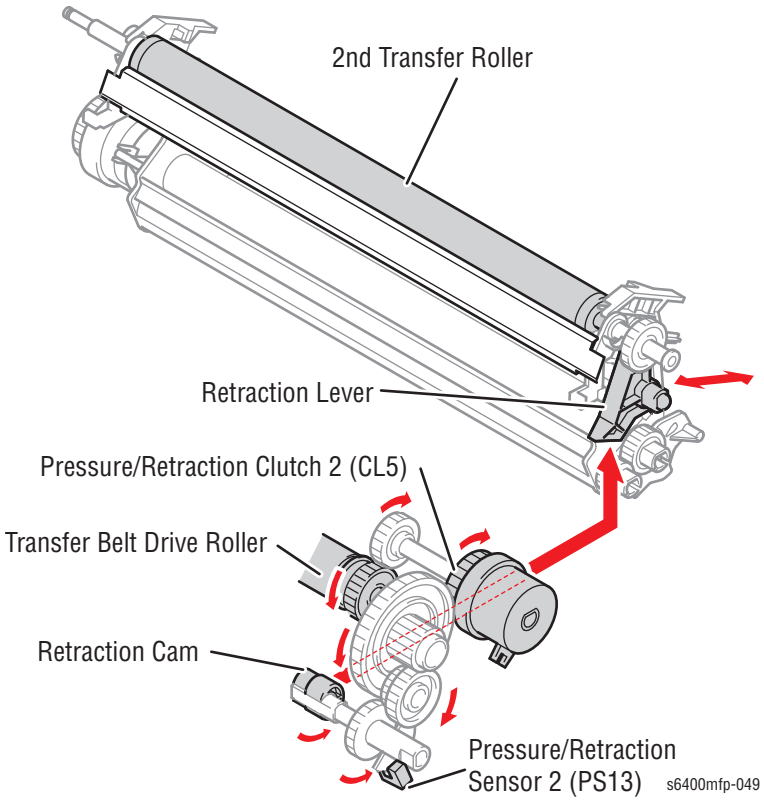
The 2nd Transfer Roller is retracted from the Transfer Belt when a calibration pattern is produced on the Transfer Belt for registration correction control, image quality control, or other control.

The 2nd Transfer Roller is retracted from the Transfer Belt when the toner image on the Transfer Belt cannot be transferred to the paper due to a paper empty condition occur during printing.

The 2nd Transfer Roller is retracted from the Transfer Belt after the 2nd Transfer of the last image is completed during a multi-print cycle.

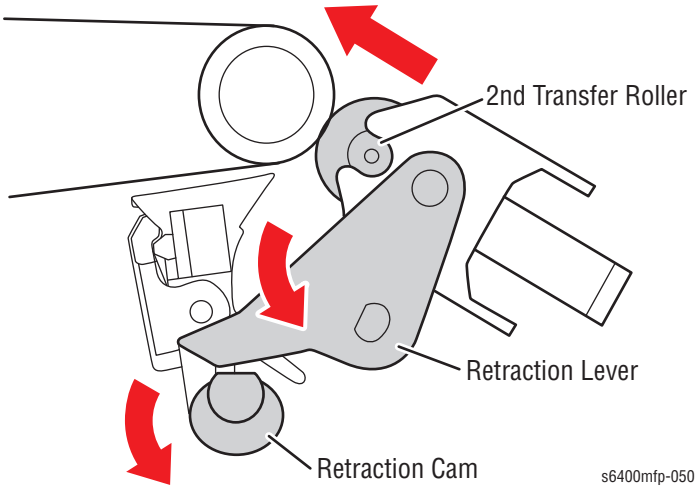
Pressure/Retraction

1. The Intermediate Transport Motor (M1) rotates the Drive Roller of the Intermediate Transfer Belt which then rotates the Pressure/Retraction Clutch 2 (CL5).
2. When the Pressure/Retraction Clutch 2 (CL5) is energized, the rotation is transmitted to the Pressure Cam via a coupling gear.
3. When the Pressure Cam turns a half turn to push up the Pressure Lever, the 2nd Transfer Roller is pressed against the Transfer Belt.
4. At the same time, the IDC Sensor Level is pushed up to open the IDC Sensor Cover.
5. The Cam Flag on the shaft of the Pressure Cam blocks the Pressure/ Retraction Sensor 2 (PS13) and a pressed position of the 2nd Transfer Roller is detected.



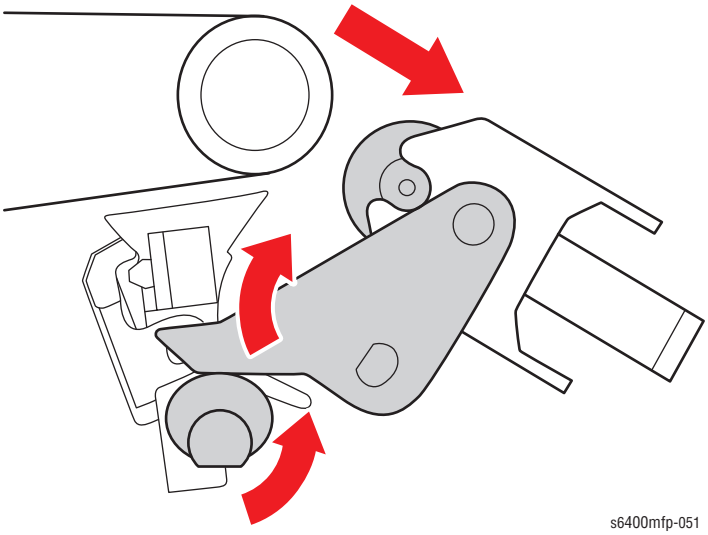
6. When the Pressure/Retraction Clutch 2 (CL5) is energized a second time, the Pressure Cam is turned another half turn. This process releases the Pressure Lever, causing the 2nd Transfer Roller to be retracted from the Transfer Belt. At the same time, the IDC Sensor Lever is released, which closes the IDC Sensor Cover.

When Pressed

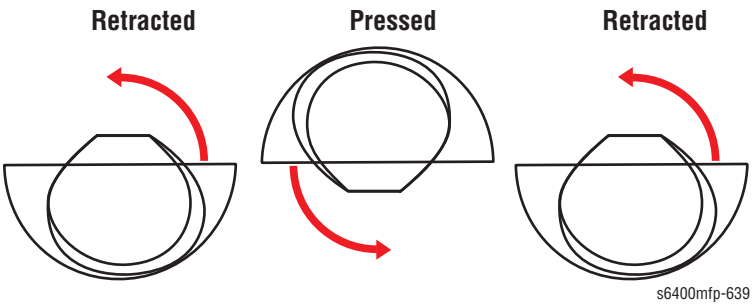


7. The Cam Flag unblocks the Pressure/Retraction Sensor 2 (PS13) and a retracted position of the 2nd Transfer Roller is detected.

When Retracted



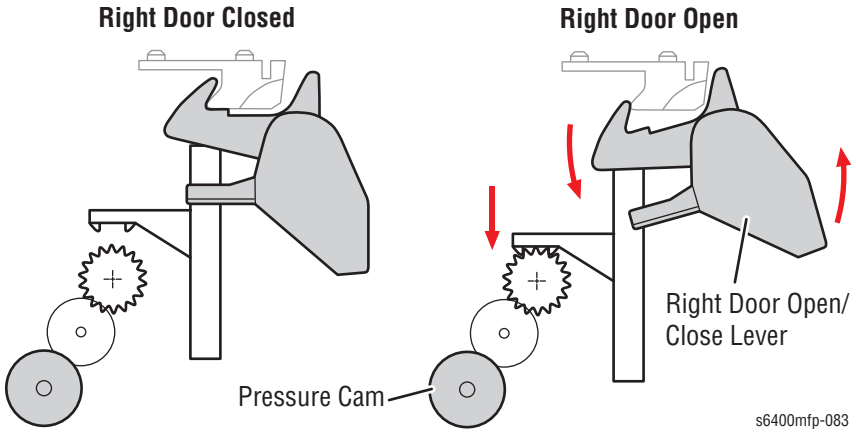
Pressure Cam Angle



2nd Transfer Roller Pressure Position Deviation Preventive Mechanism

When the Right Door is opened and closed, the Pressure Cam is rotated to prevent the 2nd Transfer Roller from moving from the pressure position.

The lever moves up or down as the Right Door is opened or closed, which locks the coupling gear that drives the Pressure Cam.



2nd Transfer Voltage

Transfer voltage is applied to the 2nd Transfer Roller, after the 2nd Transfer Roller has been pressed against the Transfer Belt in order to transfer the toner image from the Transfer Belt to the paper.

2nd Transfer Voltage Setting Control (ATVC: Auto Transfer Voltage Control)

The ATVC control is used to reduce the effect from changes in resistance of the Transfer Belt, Transfer Roller, and environmental changes of toner.

ATVC Timing

- A print request is accepted.
- The temperature inside the printer changes beyond the specified range during a multi-print cycle.
- Image stabilization control is performed.
- 1,000 to 2,000 printed pages have been produced after the last 2nd transfer voltage control was performed.
- The Transfer Roller is replaced.
- The temperature and humidity inside the printer change beyond the specified range after the last 2nd transfer voltage control was performed.

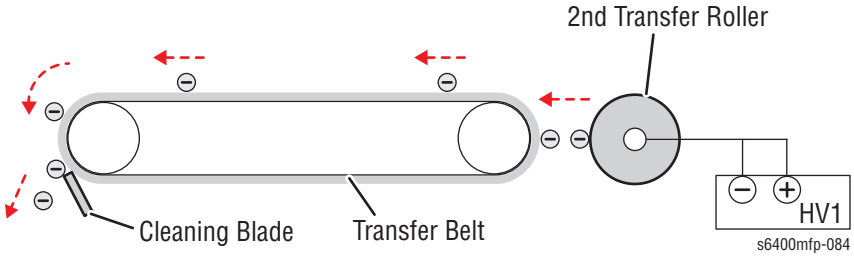
ATVC Control

1. The 2nd Transfer Roller is pressed against the Transfer Belt.
2. A constant current is applied to the 2nd Transfer Roller.
3. The voltage of the 2nd Transfer Roller surface is detected by the belt.
4. Using a conversion formula, the output value of the transfer voltage is determined and the current temperature inside the printer is detected.
5. Based on the determined output value and current temperature, the 2nd Transfer Roller Bias voltage is adjusted accordingly.

2nd Transfer Roller Cleaning

DC positive and negative bias voltages are sent from the HVPS-1 alternatively applied to the 2nd Transfer Roller. This process allows toner residue on the surface of the 2nd Transfer Roller to be transferred back to the Transfer Belt, which cleans the 2nd Transfer Roller.

Any voltage for other control purposes is not applied during the cleaning process. Toner transferred back to the Transfer Belt is collected by the Transfer Belt Cleaning Blade.



Cleaning Operation Timing

The 2nd Transfer Roller cleaning sequence is carried out after the Intermediate Transfer Belt has been cleaned during recovery from a paper misfeed.

The cleaning sequence is performed if 100 printed pages are produced after the last cleaning sequence or when a paper size error occurs.

Cleaning Operation Control

1. The 2nd Transfer Roller is pressed or moved forward.
2. The 2nd transfer bias voltage of reverse polarity is applied for the period of time corresponding to one revolution of the 2nd Transfer Roller.
3. The 2nd transfer bias voltage of forward polarity is applied for the period of time corresponding to one revolution of the 2nd Transfer Roller.
4. Steps 2 and 3 are repeated for five times.
5. The 2nd Transfer Roller is retracted.

Paper Feed (Tray 1)

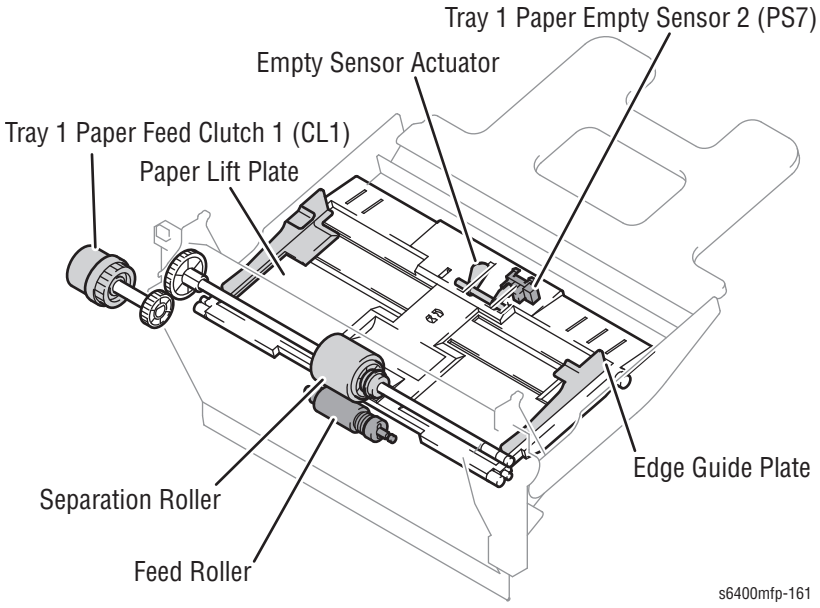
The Intermediate Transport Motor (M1) transmits drive energy through the Paper Feed Clutch 1 (CL1) to turn the Feed Roller, thereby picking up and feeding the paper. The paper is picked up, moved into position, then transported onto the Registration Roller.

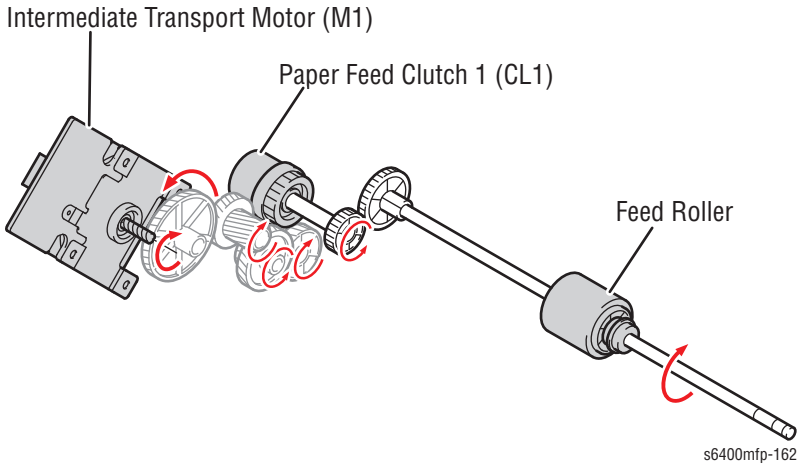
The paper is pressed against the stationary Registration Roller so that a buckle is formed in the paper. The Feed Roller is then stopped, and the buckle thus formed in the paper correcting any mechanical skew that may have occurred.

Next, the Registration Roller Clutch engages the Registration Roller to transport the paper.

At the same time that the Registration Roller is started, the Feed Roller is started again so that the paper is transported further. This process reduces load otherwise placed on the paper feed section.

As the trailing edge of the paper reaches a point immediately after the Feed Roller, the Feed Roller is stopped.





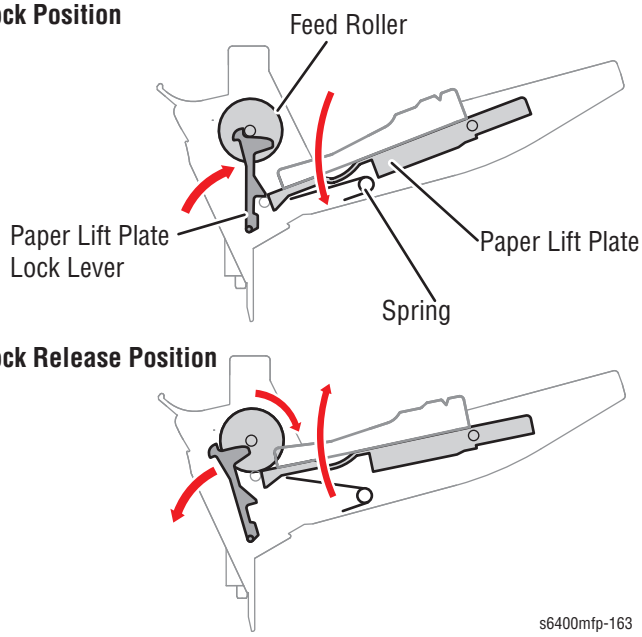
Paper Lift Plate Mechanism

The Paper Lift Plate is locked under the Paper Lift Plate Lock Lever by pressing it down and is pressed toward the Feed Roller.

The Paper Feed Clutch rotates the Feed Roller to activate the Lift Plate Lock Release Lever, and unlocks the Paper Lift Plate.

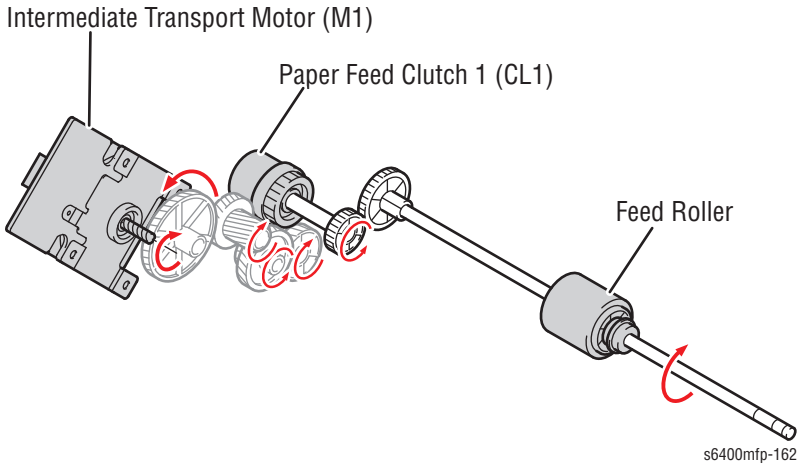
The Paper Lift Plate presses the paper against the Feed Roller as upward pressure is applied by the springs.

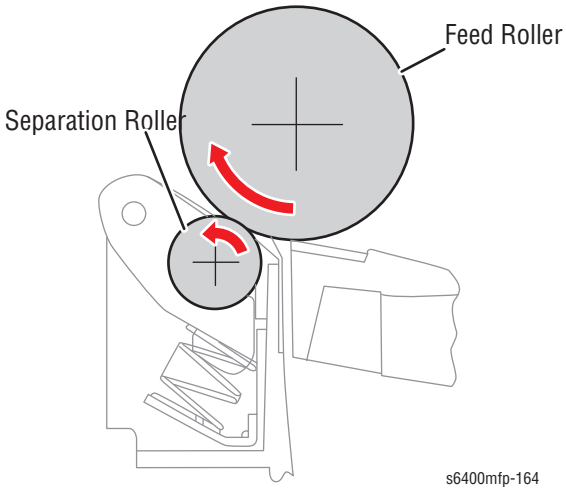
Lock Position



Paper Separation Mechanism

The Intermediate Transport Motor (M1) transmits drive energy through the Tray 1 Paper Feed Clutch (CL1) to turn the Feed Roller. The Feed Roller rotates to pick up and feed the paper into the printer. Double-feeding of the paper is prevented by the Separation Roller with a torque limiter.

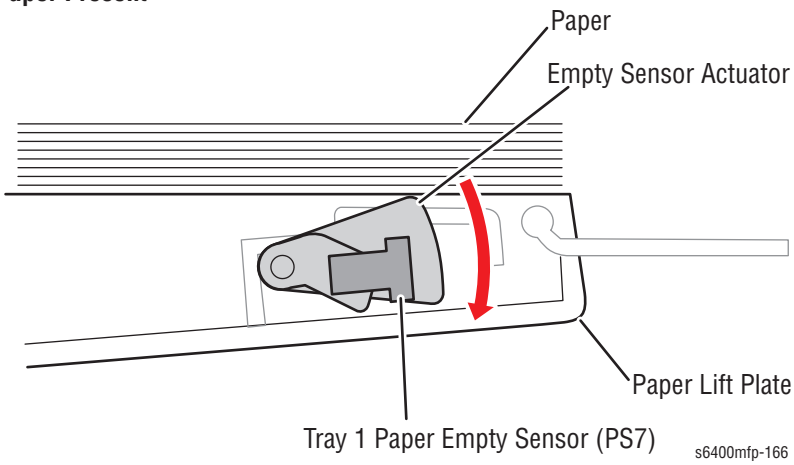




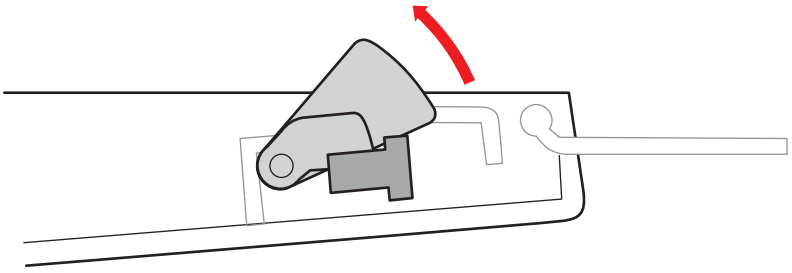
Paper Empty Condition Detection

A paper empty condition is detected when the Empty Sensor Actuator unblocks the Tray 1 Paper Empty Sensor (PS7). Paper near-empty condition cannot be detected by any mechanism.

Paper Present

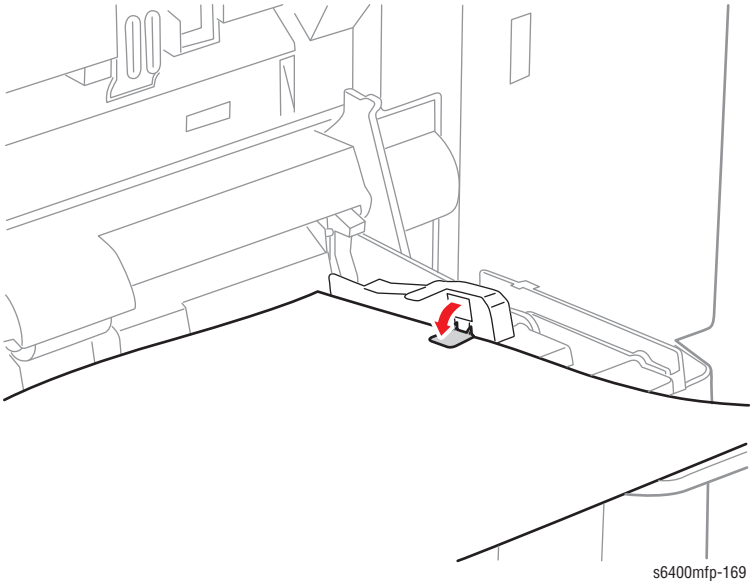


Paper Empty

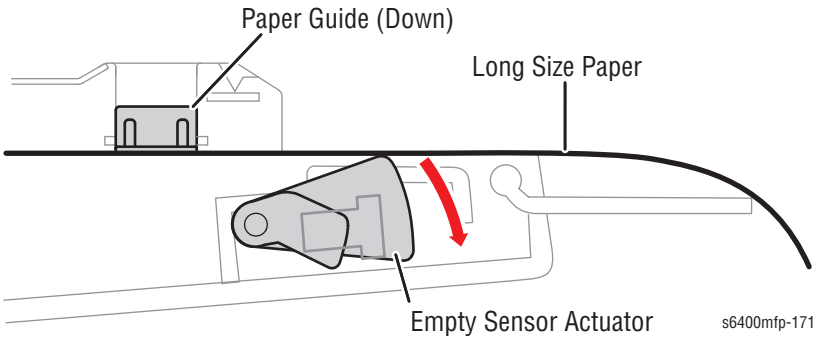


Long Paper Guide Mechanism

The Paper Guide is used to hold a stack of long paper in place in Tray 1.

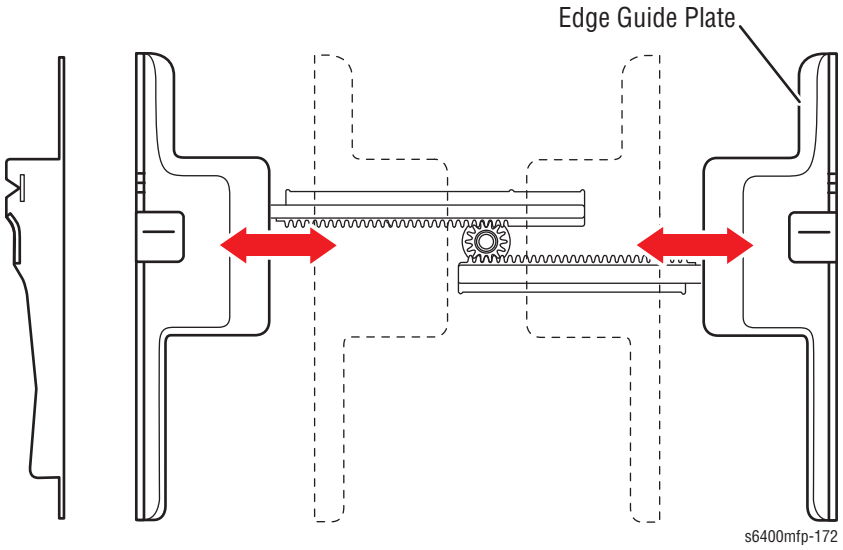


Using the Paper Guide removes an unwanted gap between the Paper Empty Sensor Actuator and a stack of long paper, and prevents the printer from making an incorrect paper empty detection.



Edge Guide Plate

The Edge Guide Plate can be adjusted to the exact size in the width direction of the paper. The paper size cannot be detected by any other mechanism.



Paper Misfeed Detection

If the Registration Sensor is not activated within a specified period of time after a paper feed sequence has been started, the printer determines that there is a paper misfeed. A paper jam error message is displayed on the Control Panel. This error can be reset by opening the Right Side Door, clearing the misfeed, then closing the Door.

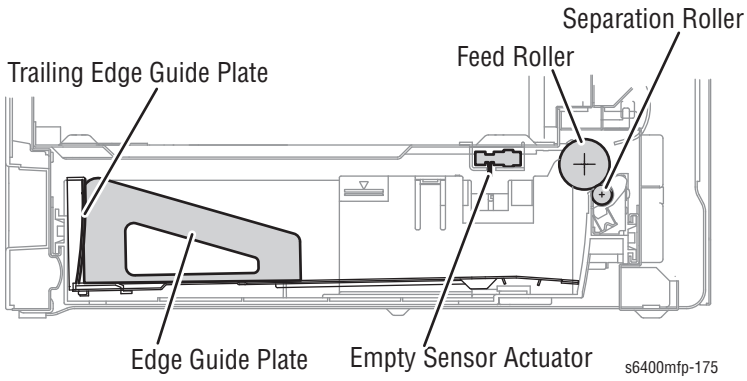
Paper Feed (Tray 2)

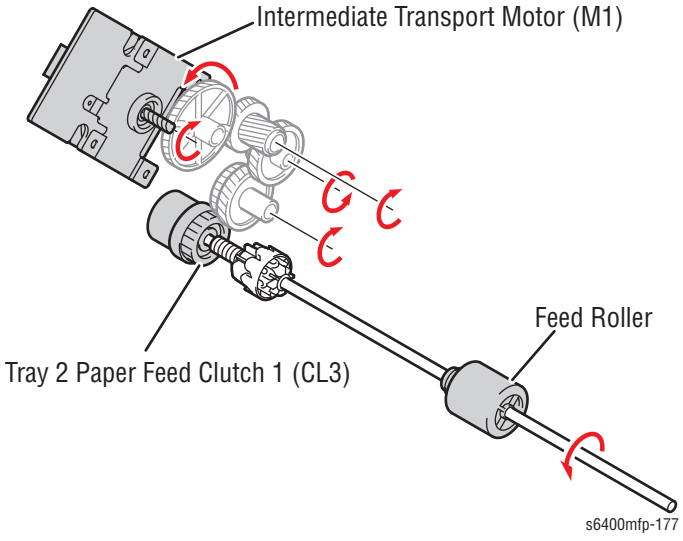
The Intermediate Transport Motor (M1) transmits drive energy through the Tray 2 Paper Feed Clutch (CL3) to turn the Feed Roller, thereby picking up and feeding the paper. The paper is picked up, fed in, and transferred onto the Registration Roller in the printer. Double-feeding of the paper is prevented by the Separation Roller with a torque limiter.

The paper is pressed against the stationary Registration Roller so that a buckle is formed in the paper. The Feed Roller is then stopped. The buckle thus formed in the paper corrects any mechanical skew in the paper.

Next, the Registration Roller Clutch (CL2) engages the Registration Roller to transport the paper. At the same time that the Registration Roller is started, the Feed Roller is started again so that the paper is transferred further. This process reduces the load otherwise placed on the paper feed section.

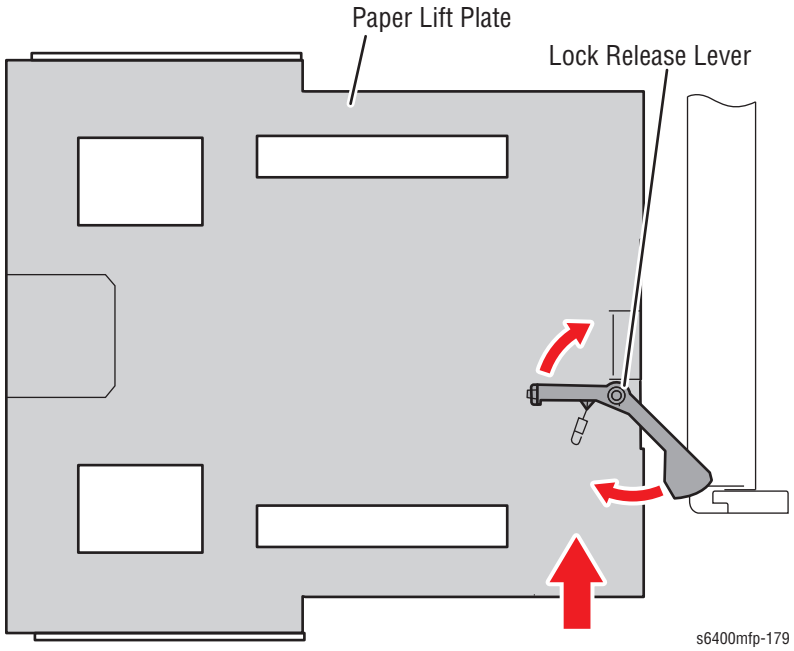
As the trailing edge of the paper reaches a point immediately after the Feed Roller, the Feed Roller is stopped.



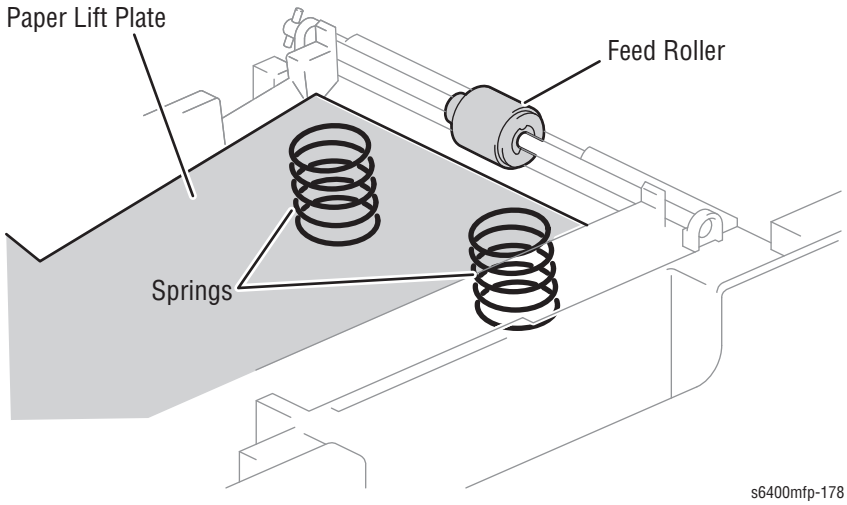


Paper Lift Plate Mechanism

The Paper Lift Plate is pressed down into the “Locked” position. When a paper stack is loaded and the tray is pushed into the printer, the Lock Release Lever unlocks the Paper Lift Plate.

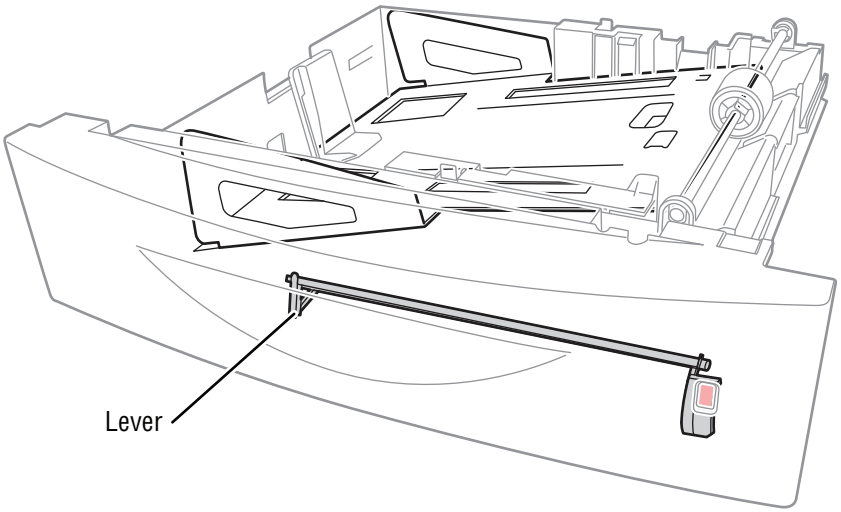


The Paper Lift Plate presses the paper against the Feed Roller, and the Paper Lift Plate is pressed upward by the springs.

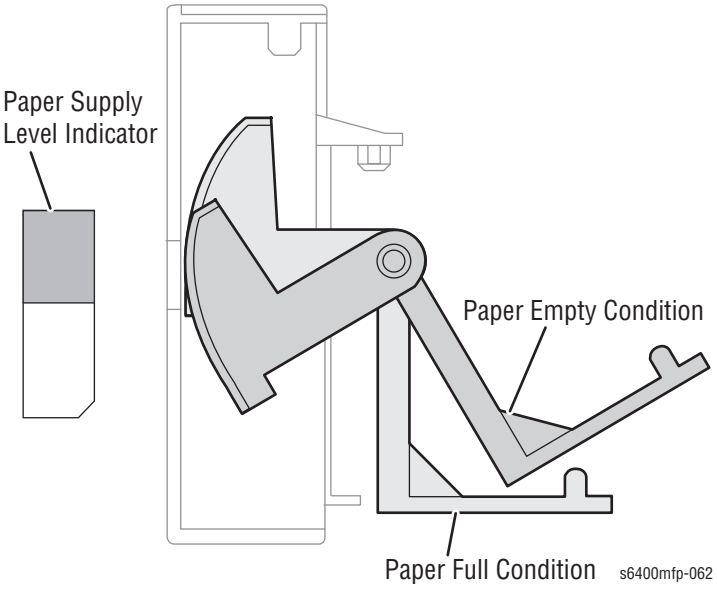


Paper Supply Level Detection

A window in the Front Cover of the tray indicates the paper supply level. When the Paper Lift Plate goes up, a red lever appears in the window. The lower the level of the paper stack, the more the red portion is visible.



s6400mfp-180

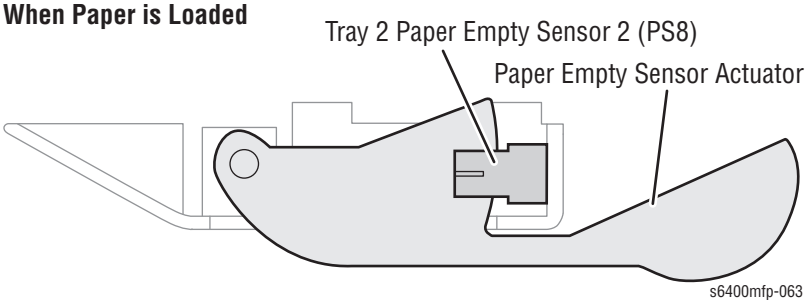


s6400mfp-062

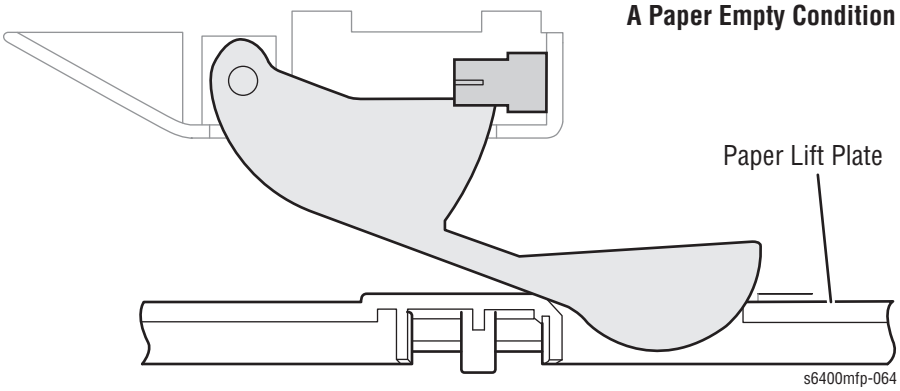
Paper Empty Condition Detection

The paper empty message is displayed on the Control Panel when the Empty Sensor Actuator unblocks the Paper Empty Sensor 2. Paper near-empty condition cannot be detected mechanically. The paper supply level indicator located at the front of the tray provides a visual indication of the amount of paper present.

When Paper is Loaded

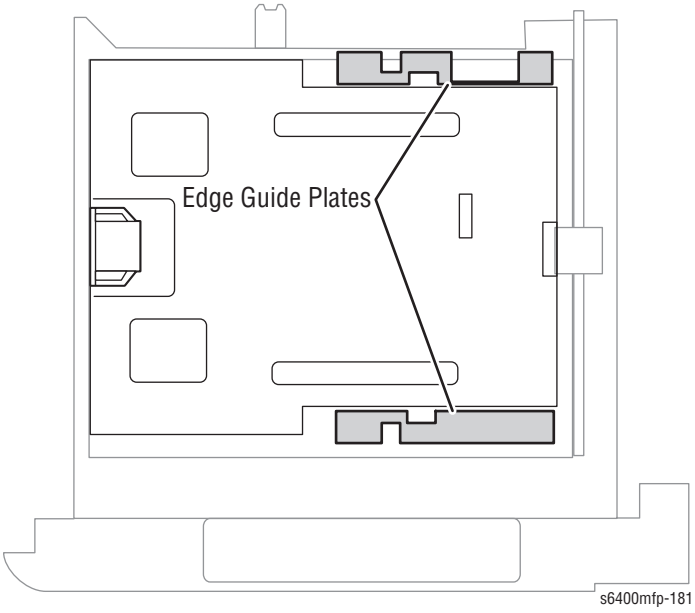


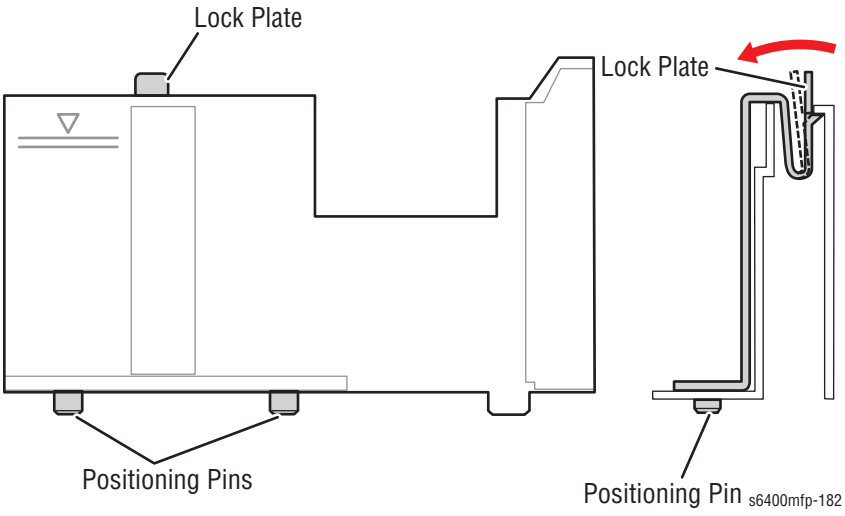
A Paper Empty Condition



Edge Guide Plate

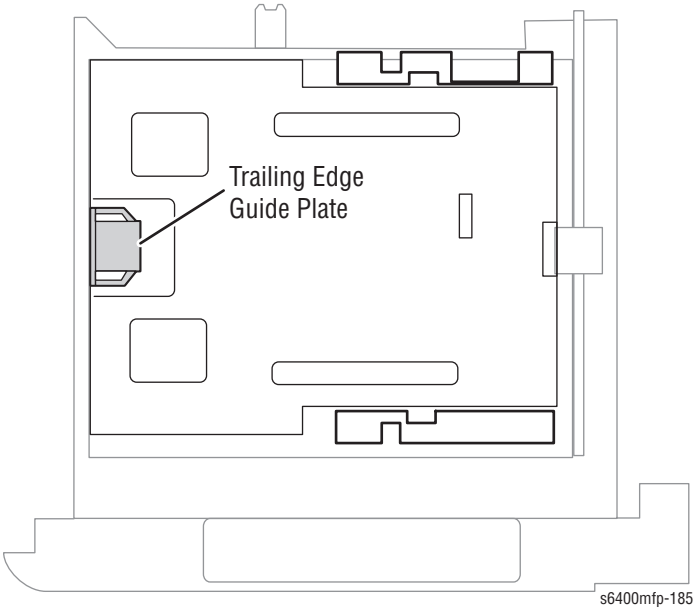
The Edge Guide Plate is used for setting the appropriate paper position in the Tray which corresponds to the width of the paper to be loaded (A4 or Letter). Paper size cannot be detected by any other mechanism.

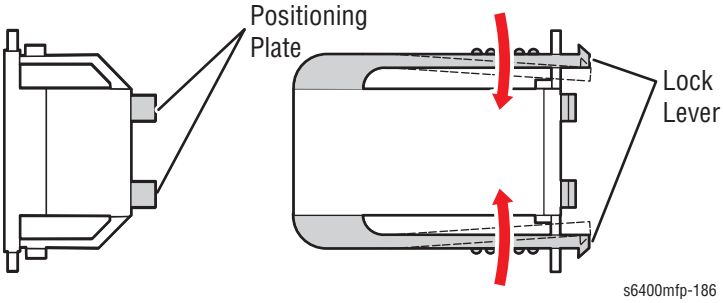


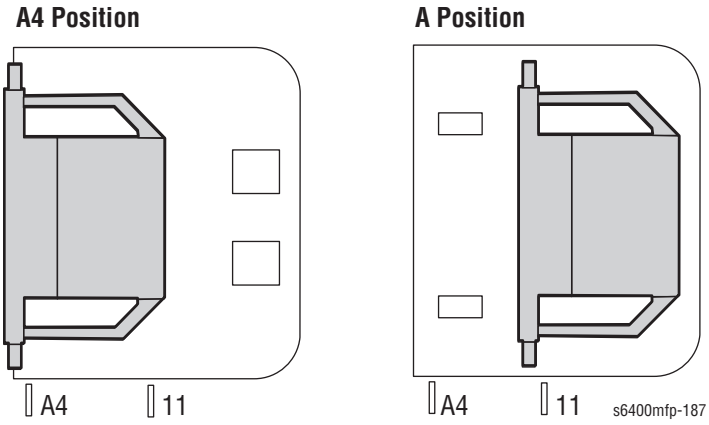


Trailing Edge Guide Plate

The Trailing Edge Guide Plate is used for setting the appropriate paper position which corresponds to the length of the paper (A4 or Letter).



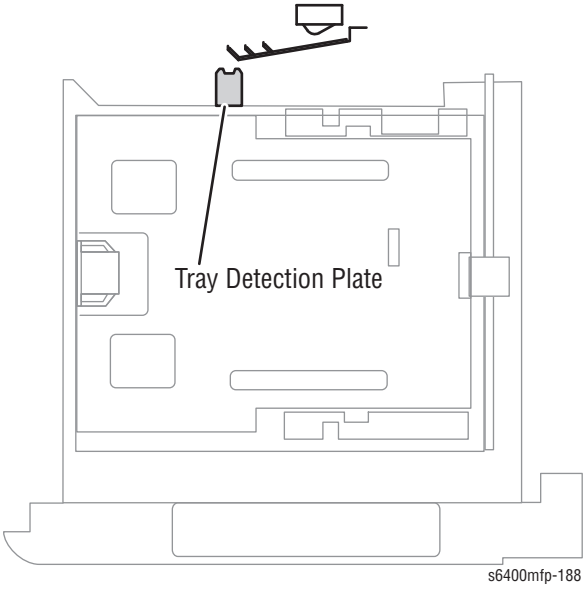


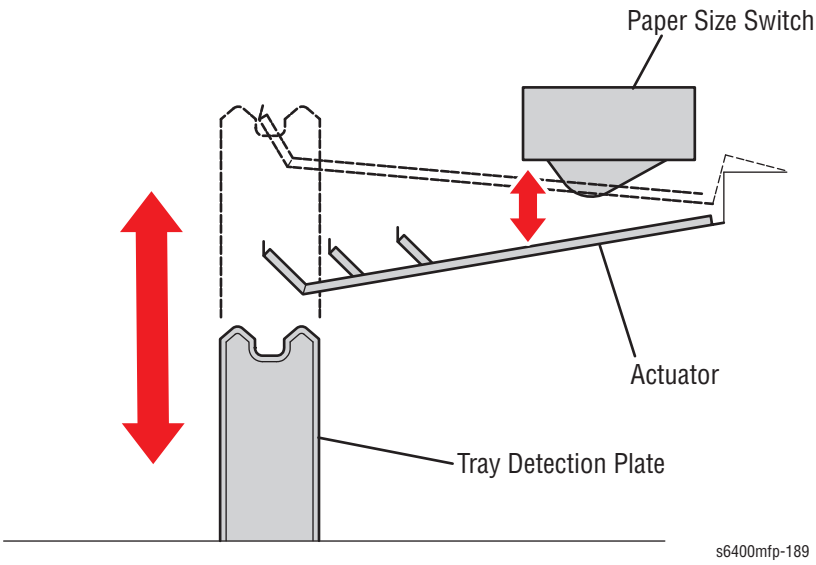


Tray Open/ Close Detection

The Tray 2 Switch detects the tray when it is opened or closed. Closing the tray makes the Tray Detection Plate turn On the Actuator for the Tray 2 Switch on the printer frame.

The Switch turns Off when the tray is pulled out. A tray open message appears on the Control Panel.





Paper Misfeed Detection

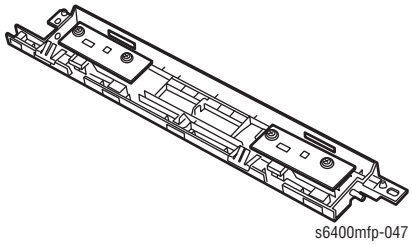
If the Registration Sensor is not activated within a specified period of time after a paper feed sequence has been started, the printer determines that there is a paper misfeed. A paper jam error appears on the Control Panel.

The paper misfeed display can be reset by opening or closing any door.

IDC Sensor (Density Control)

Two IDC Sensors are contained within the IDC Sensor Guide (as shown in “Parts List 14.0 Transfer Belt Unit” on page 9-34).

A Reflective Sensor is used for each IDC Sensor. These Sensors detect the amount of toner sticking to the front and rear surface of the Transfer Belt. Image stabilization is performed based on the value detected.



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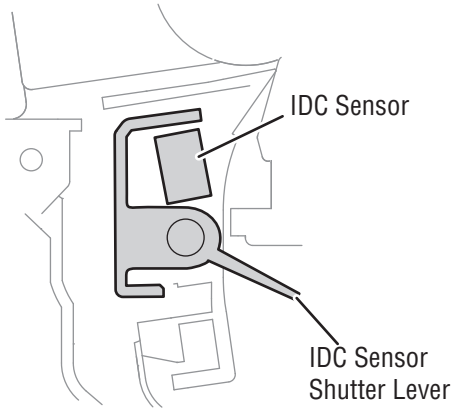
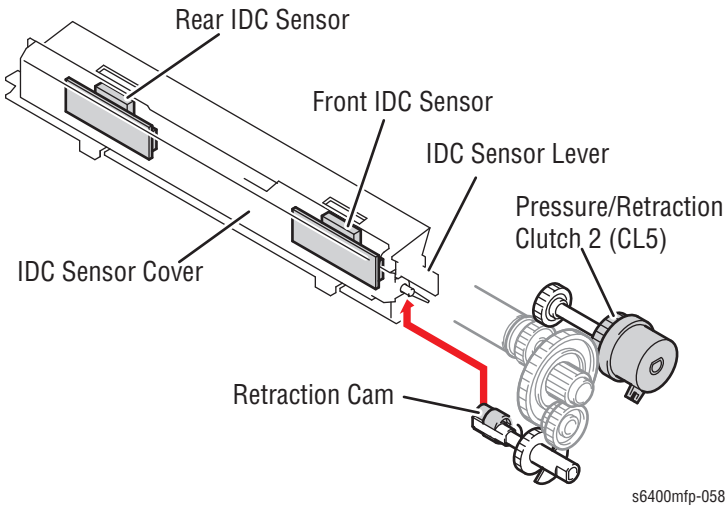


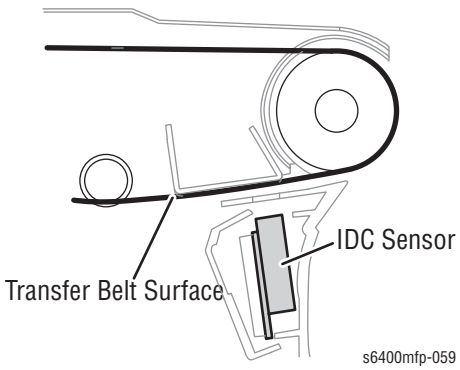
s6400mfp-057

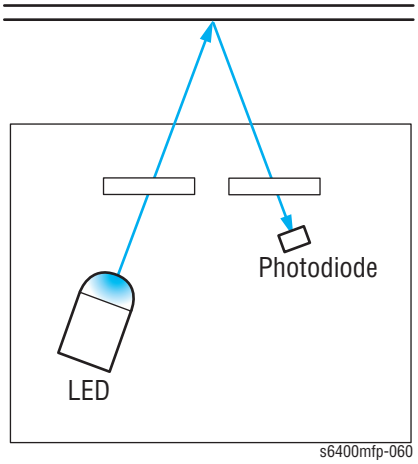


s6400mfp-058

Toner Density Detection

The IDC Sensor measures the density of the calibration patch on the Transfer Belt. The photodiode of the sensor detects the light reflected off the toner pattern on the surface of the Transfer Belt.





A voltage corresponding to the intensity of the light reflected off the toner pattern is output to the Engine Control Board (MCU Board).

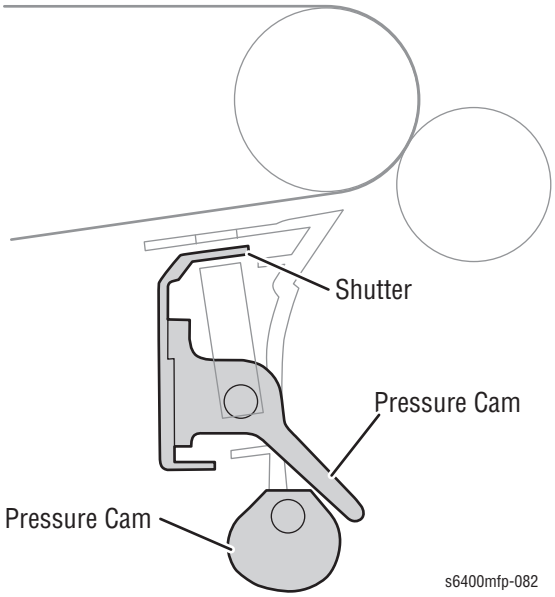
IDC Sensor Calibration Control

Changes in various types of characteristics due to change with time of the IDC Sensor (deteriorated LED, dirty sensor surface), part-to-part variations in the sensors, and change of environment affect the IDC Sensor output corresponding to the clear Transfer Belt surface. To correct fluctuations in the output, the sensor LED intensity is adjusted to keep the output value of the IDC Sensor constant.

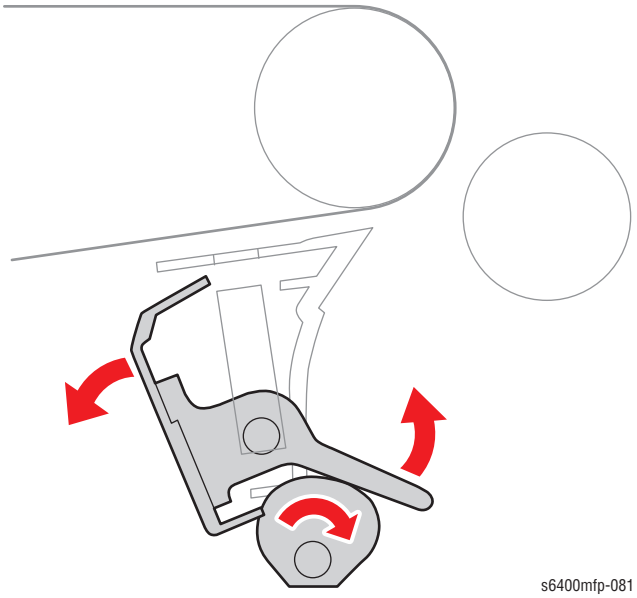
IDC Sensor Shutter Mechanism

The IDC Sensor is located below the Transfer Belt, which could get dirty from toner or debris. A shutter mechanism located above the IDC Sensor prevents the IDC Sensor from getting dirty.

The Shutter is opened or closed synchronizing with the pressure or retraction motion of the 2nd Transfer Roller. When the 2nd Transfer Roller moves forward, the Pressure Cam pushes the sensor lever up, which opens the Shutter and exposes the IDC Sensors to the belt surface.



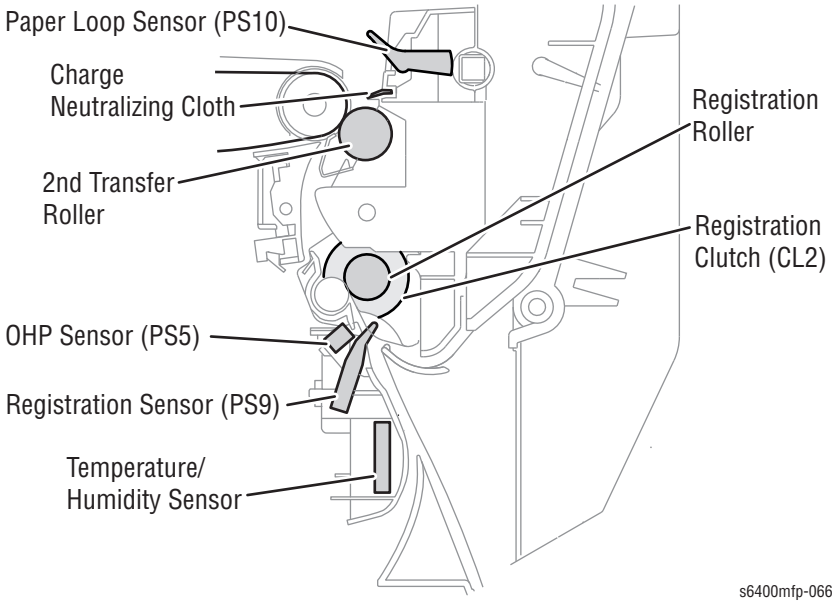
When the 2nd Transfer Roller is released, the Shutter above the IDC Sensor is closed by tension of a spring.

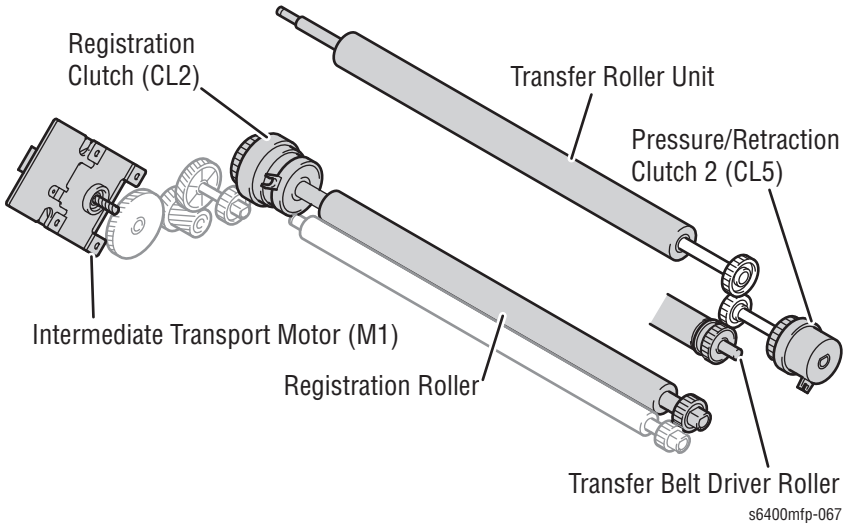


Registration Roller

When the paper is picked up and fed (by the Feed Roller within the paper tray to the Registration Roller), a buckle is formed in the paper and the paper transport is temporarily stopped. The buckle in the paper corrects skew in the paper.

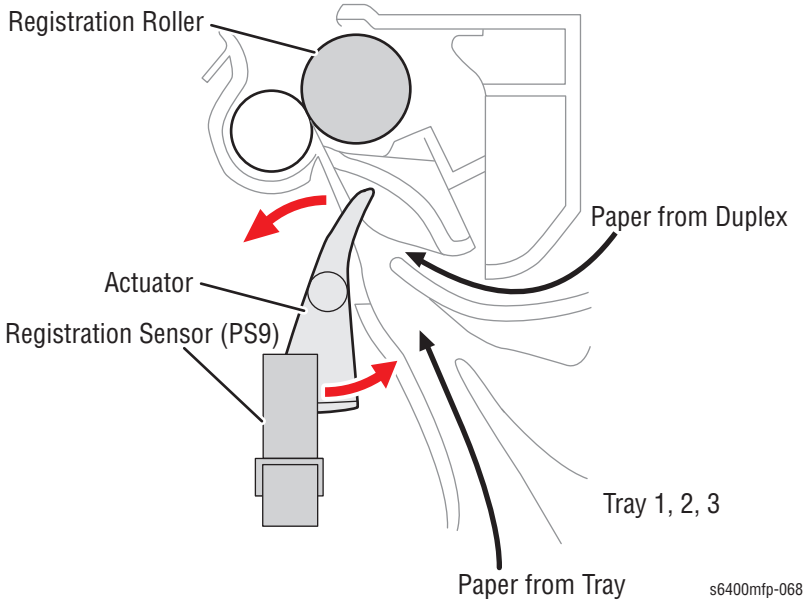
The Registration Sensor (PS9) detects whether or not the paper has reached the Registration Roller. The paper fed in is synchronized with the image before paper transport is restarted.





Paper Detection

When the paper fed from the Feed Roller pushes the Actuator of the Registration Sensor (PS9) upward, the sensor is unblocked. When this occurs, the printer determines that the paper has reached the position before the Registration Roller.



Paper Transport Speed

The Duplex Transport Motor (M8) provides drive energy to the transport section. The transport speed varies in four steps and the appropriate one is selected according to the paper type and print mode as listed in the table.

Paper Type/Print Mode	Paper Transport Speed	Reason
Plain paper (monochrome print)	216 mm/s (8.5 in/s)	
Plain paper (color print)	185 mm/s (7.3 in/s)	
■ Heavy Weight ■ Extra Heavy Weight ■ Thick Card Stock ■ Gloss Coating ■ Heavy Gloss Coating ■ Postcard ■ Label ■ Transparency ■ Envelope ■ Other Type	76 mm/s (3.0 in/s)	To ensure good fusing performance
Heavy Gloss Coating	61.7 mm/s (2.4 in/s)	To ensure good glossy performance

For the 1st print, based on the paper type/print mode, the printer determines the appropriate speed starting a print/paper feed sequence, starts the print/paper feed sequence.

Paper Transport Temporary Stop

Paper Transport Stop

After the Registration Sensor (PS9) has detected the leading edge of the paper in a specified period of time, paper conveyance in the paper feed/transport section is stopped.

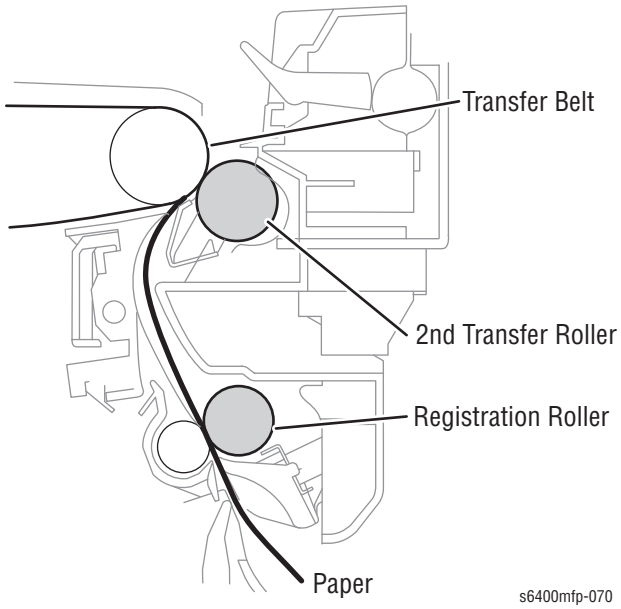
Registration Clutch

In synchronization with the leading edge of the image (the sub scan print start signal of the controller) after the leading edge of the paper has reached the Registration Roller and a loop has been formed in the paper, the Registration Clutch (CL2) is energized to start turning the Registration Roller.

After the trailing edge of the paper deactivates, the Registration Clutch (CL2) is deactivated to stop the Registration Roller.

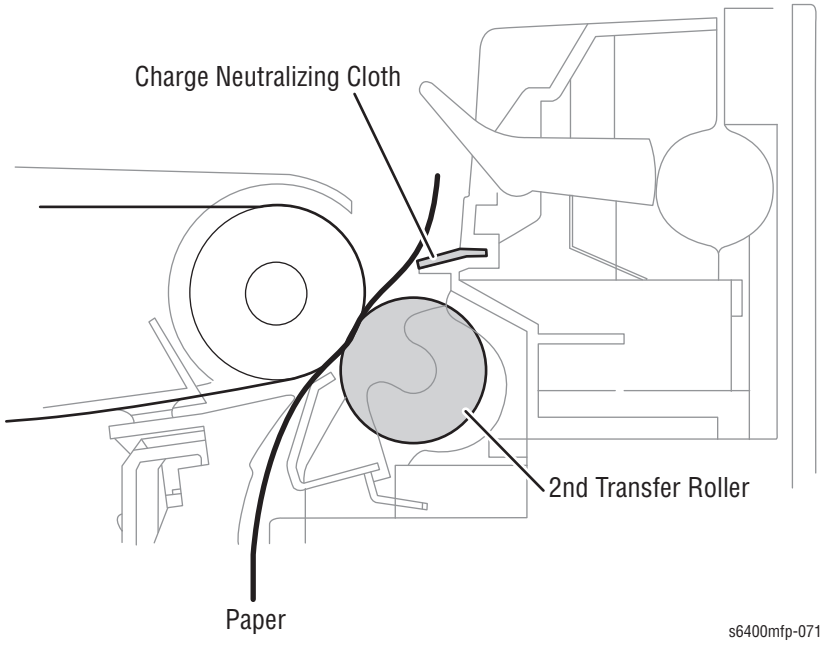
Control Loop Formed Before 2nd Transfer

A loop is formed in the paper by the difference between the 2nd Transfer Roller paper transport speed. The loop formed in the paper realigns the front edge as necessary to minimize skew.



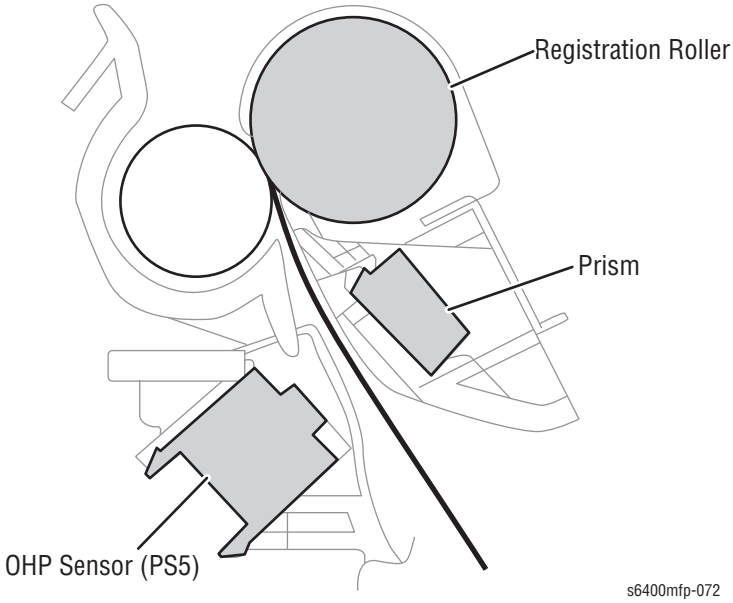
Paper Neutralization

The Charge Neutralizing Cloth neutralizes any charge left the in the paper after the 2nd Transfer process. Any residual charge is grounded through the Charge Neutralizing Cloth to the printer frame.

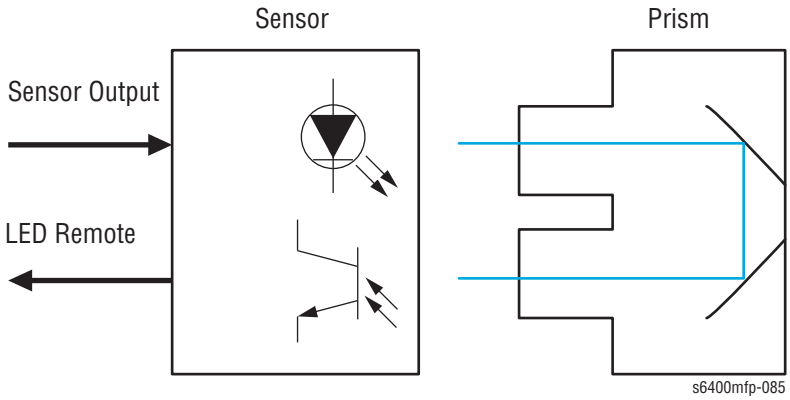


Transparencies Detection

Transparencies are detected by the OHP Sensor (PS5). The OHP detection is made after the loop has been formed in the media before the Registration Roller.



If the output voltage of the OHP Sensor is less than a specified value, the printer determines that the paper is a type other than transparency. If the output voltage is the specified value or higher, the printer determines that the paper is transparency.



Paper Size Error Detection

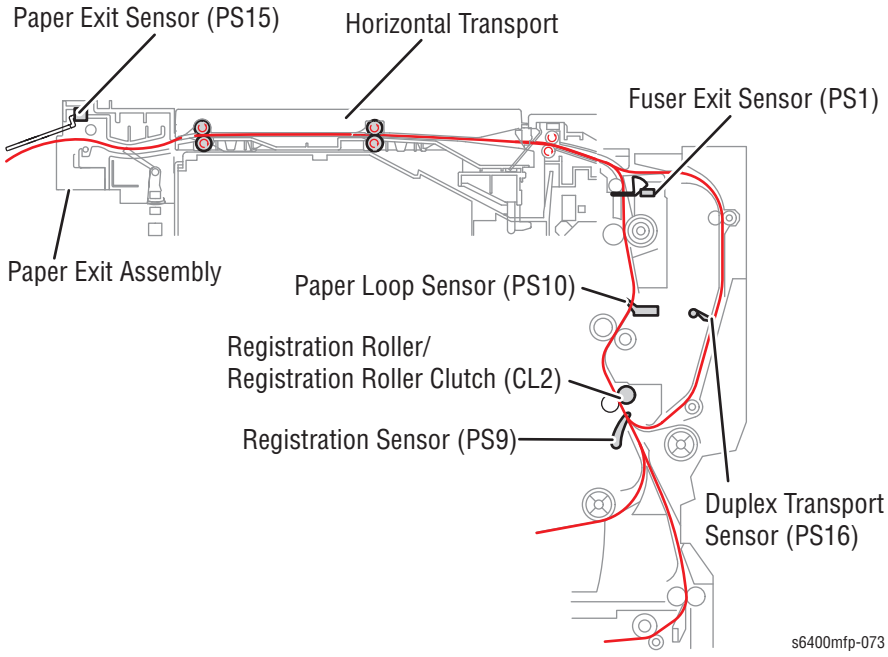
The Registration Sensor and Paper Feed Sensor detect the size of the paper. The length detection starts when the Registration Sensor is activated and ends when it is deactivated for each paper source.

For the Optional 500-Sheet Feeder, even if the Paper Feed Sensor does not detect a paper size error, the Registration Sensor makes an error check again.

Paper Source	Paper Length Detection Sensor	Starting Point	Ending Point
Tray 1	Registration Sensor (PS9)	Registration Clutch (CL2): ON	Registration Sensor (PS9): OFF
Tray 2	Registration Sensor (PS9)	Registration Clutch (CL2): ON	Registration Sensor (PS9): OFF
Tray 3/4 (Optional 500-Sheet Feeder)	Paper Feed Sensor Tray 3 (PS23)	Paper Feed Sensor (PS9) ON	Paper Feed Sensor (PS23): OFF
	Registration Sensor (PS9)	Registration Clutch (CL2): ON	Paper Feed Sensor (PS23): OFF
Duplex Unit	No paper length is detected.		

Paper Path Transport System Paper Misfeed Detection

In the feeding section, a specific sensor is assigned for each section of the paper transport system to detect a paper misfeed that could occur along the path.



Misfeed Type		Misfeed Detection Starting Point	Misfeed Detection Condition
Misfeed at Feeding Section	Tray 1	Paper Feed Clutch 1 (CL1) ON	Registration Sensor (PS9) not activated within a specified time
	Tray 2	Paper Feed Clutch 2 (CL3) ON	
	Tray 3	Paper Feed Clutch (CL1: Tray 3) ON	Paper Feed Sensor (Tray 3) not activated within a specified time
	Tray 4	Paper Feed Clutch (CL1: Tray 4) ON	Paper Feed Sensor (Tray 4) not activated within a specified time
	2nd Side in Duplex Printing	Transfer Motor (Duplex Unit) ON	Registration Sensor (PS9) not activated within a specified time
	All Trays	Registration Roller Clutch (CL2) ON	When the Registration Roller Clutch (CL2) is activated, the Feed Clutch 1 (CL1), Feed Clutch 2 (CL3), and Feed Clutch (Tray 3, Tray 4) also are activated.
Misfeed at vertical paper transport section		Paper Feed Sensor (PS23: Tray 3) ON	Registration Sensor (PS9) not activated.
			Paper Feed Sensor (Tray 3) not deactivated.
		Paper Feed Sensor (PS23: Tray 4) ON	Registration Sensor (PS9) not activated.
			Paper Feed Sensor (Tray 4) not deactivated.
Misfeed at 2nd Transfer Section	Paper other than long size paper	Registration Sensor (PS9) activated	Registration Sensor (PS9) not activated
			Exit Sensor (PS1) not deactivated
		Registration Roller Clutch (CL2) activated	Registration Sensor (PS9) not deactivated
	Long size paper	Registration Sensor (PS9) ON	After long size Paper Registration Sensor and Registration Sensor (PS9) activated, they are not deactivated in two seconds.
Misfeed at Fusing Exit Section		Exit Sensor (PS1) activated	Registration Sensor (PS9) not deactivated
		Exit Sensor (PS1) deactivated	Duplex Control Board not activated

Misfeed Type	Misfeed Detection Starting Point	Misfeed Detection Condition
Misfeed at Duplex Unit	Duplex Unit Feed Sensor activated	Registration Sensor (PS9) not activated
		Duplex Control Board not deactivated
Misfeed at Paper Exit	Horizontal Transport deactivated	Paper Exit Sensor (PS15) not activated

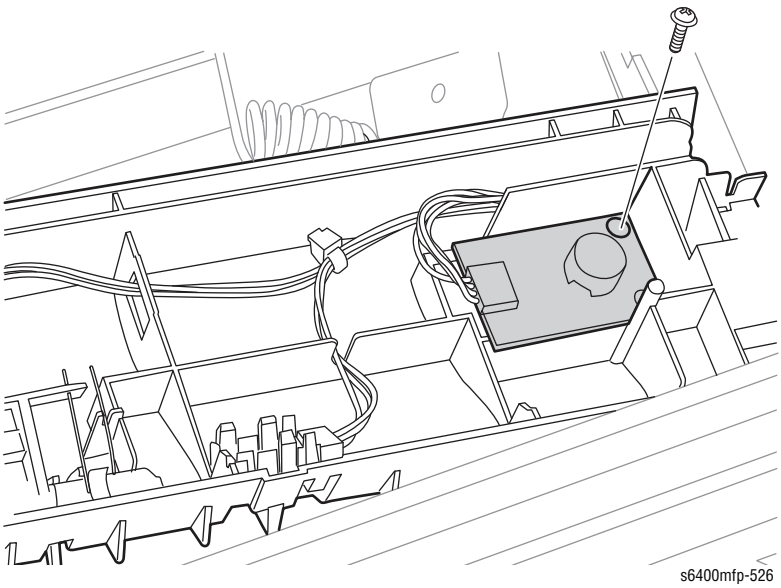
The paper misfeed display can be reset when all doors are closed. Then the printer attempts to detect any sheet of paper left inside the paper path.

Remaining Paper Detection Control When the Main Power Switch is Turned On

The printer checks the sensors sequentially, and if a sensor is found to be activated, it determines that there is a sheet of paper left inside the printer. This detection control is also performed when a Cover is closed.

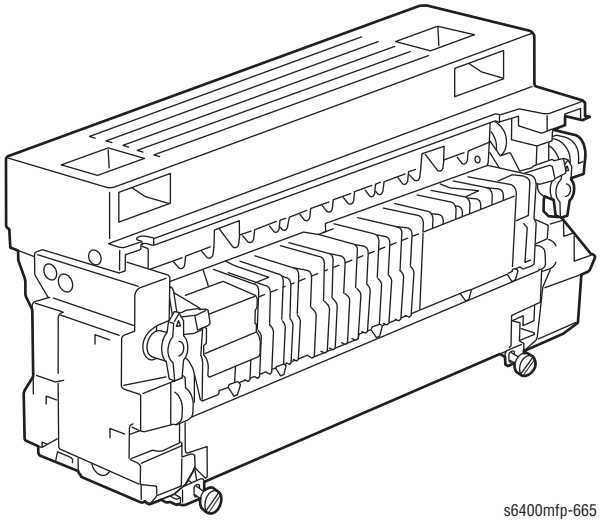
Temperature/ Humidity Sensor

The Temperature/ Humidity Sensor (PL11.1) detects temperature and humidity inside the printer. Detected data is used for image quality control, ATVC control, and transfer output control.



Fusing

The Fuser applies toner onto paper using heat and pressure.



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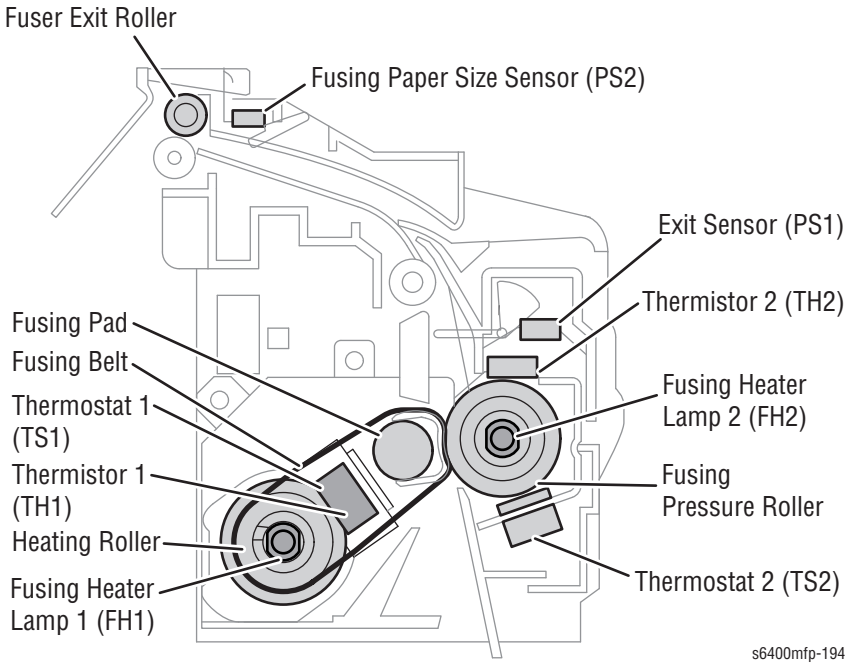

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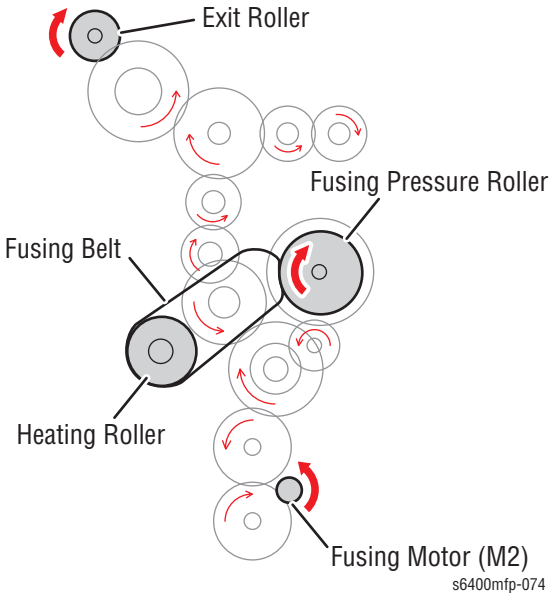
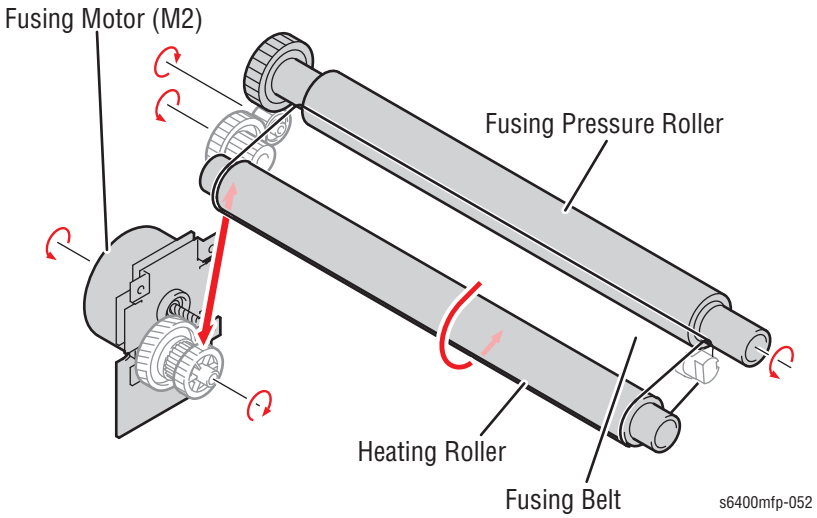
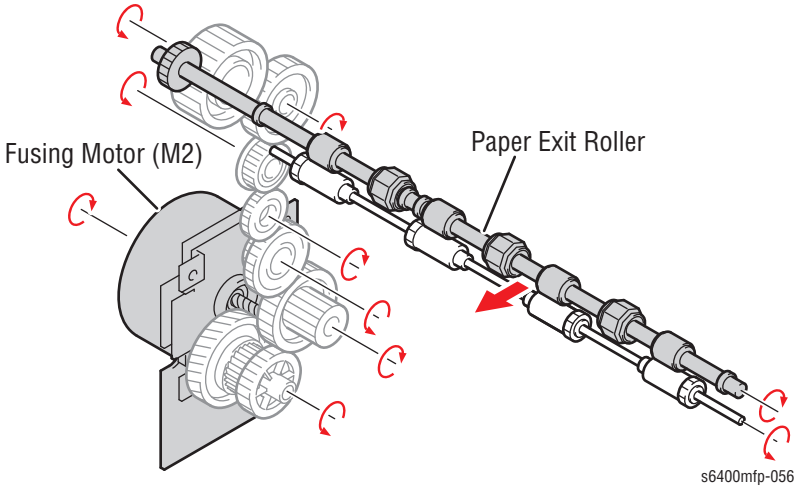
Fusing Pressure Roller Pressure Selection Mechanism







Fusing Pressure Roller Drive

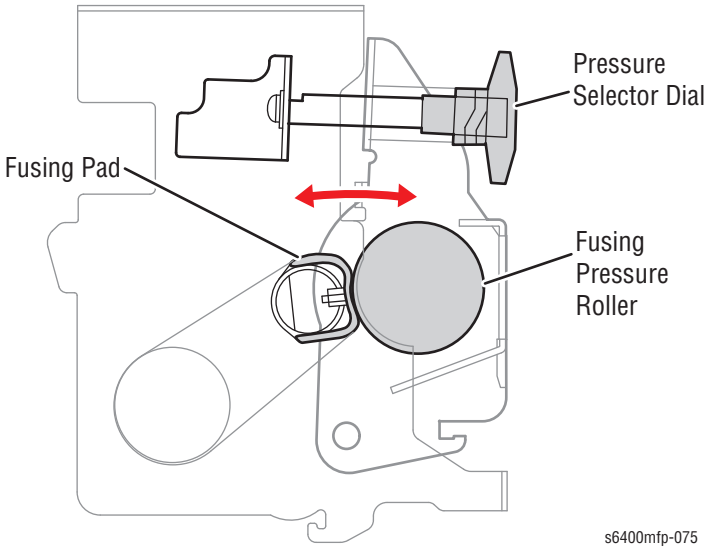
To minimize wrinkling and embossing when printing envelopes, pressure applied by the Fusing Pressure can be changed (or reduced). A pressure selection mechanism varies pressure in two steps. The pressure is selected by placing the pressure selector dial in either of the two positions that are 180° apart from each other.

Setting the dial in the appropriate position selects the corresponding pressure applied by the Fusing Pressure Roller to the Fusing Pad.

When printing envelopes, the dial should be set in the bottom position.

When the print cycle using envelopes is completed, be sure to set the dial back in the original position.

If the print cycle is started without first selecting the appropriate position of the dial, envelopes are very likely to wrinkle, or the image could be poorly fused on plain paper and similar paper.



Fusing Speed Selection Control

The Fusing Motor ((M2) provides energy for the fusing section. The appropriate fusing speed is selected according to the paper type and print mode to prevent fusing failure.

In the Glossy Paper mode, the appropriate fusing speed is selected according to the paper type.

Fusing Speed Control (Control of Loop Before Fusing)

To prevent double transferred images and streaking from occurring, the difference between the fusing speed and the paper transport speed during image transfer is corrected.

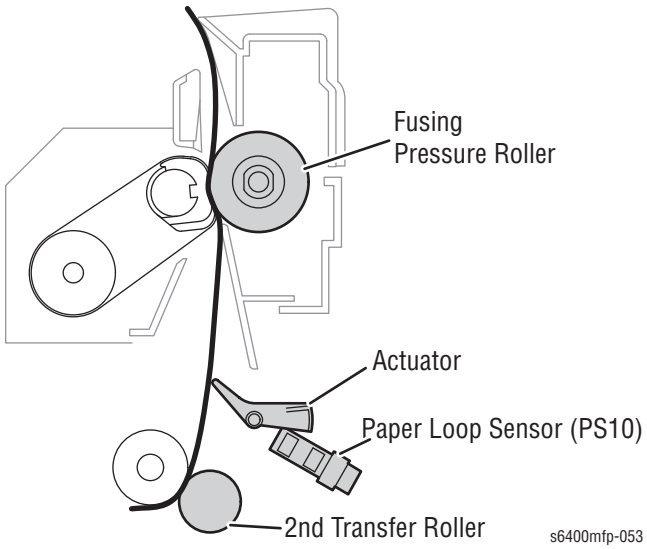
The Paper Loop Sensor (PS10) detects the length of the loop formed in the paper between the 2nd Transfer Roller and the Fusing Pressure Roller. The fusing speed is then varied according to the length of the loop detected. By varying the fusing speed, any effects from the Fusing Pressure Roller side (part-to-part variations, change of parts over time) are prevented from being transferred to the 2nd Transfer section.

No loop control is provided to perform the fusing speed process when envelopes are used (to prevent wrinkles).

Fusing Deceleration (Low Speed)

When the paper loop length is small, the Actuator of the Paper Loop Sensor (PS10) is pushed up a small amount and the sensor is unblocked. When the sensor is unblocked, the fusing speed is decelerated (-3%).

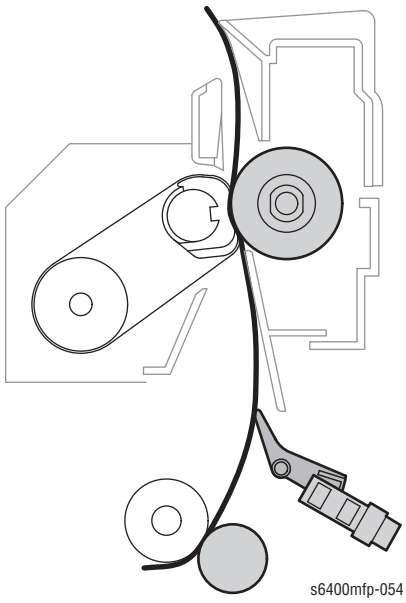
For the second side in the Duplex mode, the speed decreases by 1.0%.



Fusing Acceleration (High Speed)

When the paper loop length is large, the Actuator of the Paper Loop Sensor (PS10) is pushed up a large amount and the sensor is blocked. When the sensor is blocked, the fusing speed is accelerated (+3%).

For the second side in the Duplex mode, the speed increases by +1.5%.



Fusing Pressure Roller Deformation Prevention

The Fusing Pressure Roller is automatically turned if it is left idle for a specified period of time to prevent from being deformed.

If the printer remains in the Standby state for a specified period of time, the Fusing Motor is energized for a specified period of time.

If the printer remains in the power save mode for a specified period of time, the temperature control is started. After the temperature goes up to a specified value or higher, the Fusing Motor is energized for a specified period of time.

Fuser Paper Exit Detection

The Fuser Exit Sensor (PS1) is placed right after the paper is transferred from the Fusing Belt and Pressure Roller in order to detect any paper jams and prevent from possibly damaging the Fuser Pressure Roller.

Fusing Temperature Control

To fuse the toner image on the paper, the Heater Lamps are turned On and Off as necessary to bring the fusing temperature to an appropriate level.

The Thermistors are used to detect the surface temperatures of the Heating Roller and Fusing Pressure Roller.

Fusing temperature includes two types of temperature:

- **Standby Temperature**: The control temperature in the print command Wait state.
- **Print Temperature**: The temperature that is required for the toner image to be applied permanently onto paper.

Warm-Up Control

Warm-up control occurs when the temperature of the Heating Roller reaches a specified level. The Power Save mode is not activated during a warm-up cycle. Warm-Up control starts when the power switch is turned On, a malfunction or paper misfeed is reset, the printer leaves Power Save mode, or a door is closed.

Warm-Up control ends when the Heating Roller reaches a specified temperature, a malfunction or paper misfeed is reset, or a door is opened.

Post Warm-Up Control

After warm-up cycle has been completed, the Fusing Pressure Roller and Fusing Belt are rotated while heating to a required temperature as the printer terminates the post-warm-up control sequence. Post-warm-up control sequence are not performed if a print request is received.

The post warm-up control is ended when a specified period of time elapses after the post-warm-up control has been started, when a Power Save Mode signal is received, or the temperature of the Heating Roller and Fusing Pressure Roller reach a specified temperature or higher.

Wait Control

At the end of the post-warm-up control, the end of the post-print cycle control (print start control), or the end of the proactive control, Wait control is provided to ensure that the temperature at different parts of the Fusing Unit reach a constant level during the Wait state.

Wait control ends when a print request is received, a malfunction or paper misfeed occurs, or a Power Save mode signal is received.

Proactive Control

The rotation of the Fusing Motor is controlled to shorten the time from when a print request is accepted and when a page is printed. Proactive control ends after the lapse of a specified time, at the start of a print cycle, when a malfunction occurs, or at the start of the Power Save mode.

Print Control

The fusing speed, Fusing Pressure Roller temperature, and Fusing Belt temperature are controlled to ensure a good fixing level and light transmission performance of the transparency. Print control occurs when a print request is received and ends when a malfunction or paper misfeed occurs.

Post-Print Control

An intermediate temperature between the Print temperature and the Wait temperature is provided to prevent fusing temperature from rising after the print cycle has been completed.

When the trailing edge of the last sheet of paper has cleared the Exit Sensor, the Post printer temperature control starts after a specified amount of time. Post-print control ends when a print request is received, a door is opened, or an error condition occurs.

Heater Off Control

Heater Off control is suspended when a malfunction or paper misfeed occurs or a Power Save mode signal is received. Heater Off control occurs when a door is opened, an error or malfunction occurs, or a Power Save mode signal is received. When Heater Off control ends, the following activities are reset: an open door, an error or malfunction that has occurred, and a Power Save mode signal that has been received.

Pages Per Minute (PPM) Control

The PPM control is performed to prevent the Fusing Pressure Roller and Fusing Belt temperatures from going down during a multi-print cycle as well as to prevent the temperatures of the Roller and belt edges from increasing.

When a multi-print cycle is running, the temperature of the Fusing Pressure Roller and Fusing Belt decrease, resulting in the fusing performance of the printed image being degraded. To prevent this problem, fusing performance is estimated based on the surface temperature of the Fusing Pressure Roller; the distance between sheets of the paper is widened according to the paper length and fusing speed, thereby allowing the Fusing Pressure Roller and Fusing Belt to recover the required temperature; the fusing performance of the printed toner image is thus guaranteed.

If a multi-print cycle is running using a paper of a small size, the difference is produced in temperature between the center portion of the Roller/Belt (the surface over which the paper moves past) and the edges of the Roller/Belt (where no part of the paper moves past). Since the Thermistor is located at the center portion, the printer determines that there is a drop in roller temperature and turns On the Heater to increase the roller temperature. This also heats the edges of the roller, at which a high temperature is still maintained. This process increases the overall temperature.

To prevent this situation from occurring, the distance between sheets of paper is widened and the temperature of the Fusing Pressure Roller and Fusing Belt is thereby made uniform.

PPM control occurs based on low temperature and low humidity, high temperature and high humidity, when a small size of paper is detected through paper width detection control, or the Heating Roller temperature becomes lower than a specified level.

PPM control ends when the control proceeds to “Wait Control” or “Heater Off Control” during the PPM control or the paper that requires no PPM control is fed through during PPM control.

Protection Against Abnormally High Temperature

The printer provides protection at three different stages to prevent abnormally high temperatures within the Fuser.

1st Stage: Soft Protection

If the Thermistor 1 or Thermistor 2 detects a temperature exceeding a specified value, the error code representing abnormally high temperature is displayed. At this time, the Heater Lamps are turned Off and the initiation of any new print cycle is prohibited (abnormally high temperature detection control).

2nd Stage: Hard Protection

The following hard protections occur when the CPU within the Engine Control Board (MCU Board) is unable to detect an abnormally high temperature.

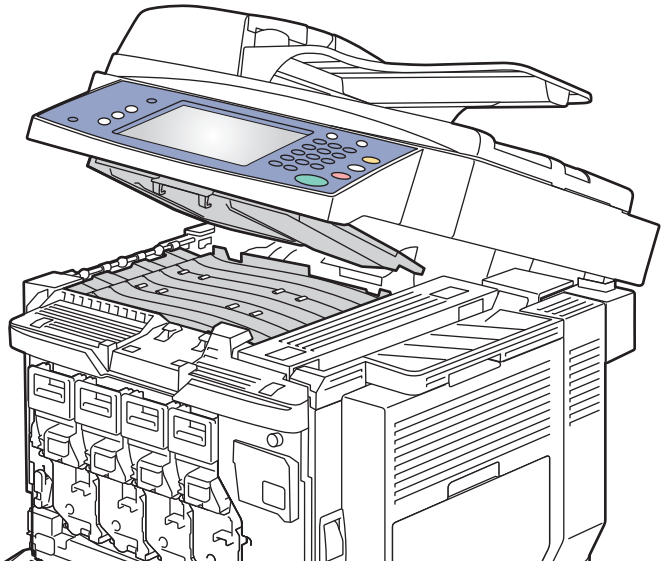
1. The Thermistor 1 or Thermistor 2 detects temperature exceeding the specified value.
2. The remote signal for the corresponding Heater Lamp of the DC Power Supply is automatically turned Off through the Engine Control Board (MCU Board).
3. The triac on the DC Power Supply is turned Off in which turns Off the Heater Lamp.
4. The temperature detected by the Thermistor 1 or Thermistor 2 is decreased to a level below the specified value indicating a malfunction.
5. The remote signal of the corresponding Heater Lamp is reset to turn it back on. This process is repeated until the CPU recovers in order to detect the high temperature condition. This control allows the power supply to the corresponding Heater Lamp to be shut down before the Thermostat operates, preventing the Fuser Unit from getting damaged.

3rd Stage: Thermostat Protection

If neither the Soft Protection nor Hard Protection can prevent abnormally high temperature, the Thermostat 1 and Thermostat 2 activate once the temperature has been reduced; it resets the Heater Lamp 1/2 automatically. This shuts down the power supply to the Fusing Heater Lamp 1 and Fusing Heater Lamp 2, thus automatically turning them Off.

Horizontal Transport

The Transport Unit controls paper fed out from the Fuser, reverse operations for paper during 2-sided printing, and drives for feeding paper out into the Finisher section.



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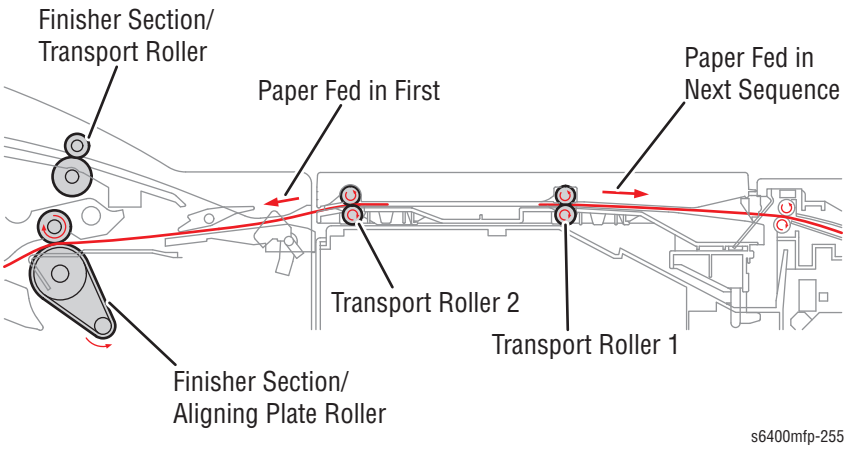
Transport Roller Drive and Slip Mechanisms

For 1-sided or 2-sided printing, the Drive Motor rotates the Transport Rollers 1 and 2 in the forward direction via a Torque Limiter, thereby transporting the paper in the forward direction.

When fusing of the first print process is completed, the motor starts rotating in the backward direction, turning the Transport Rollers 1 and 2 backward. The paper is thereby subjected to the reverse operation, which is fed backward into the main body.



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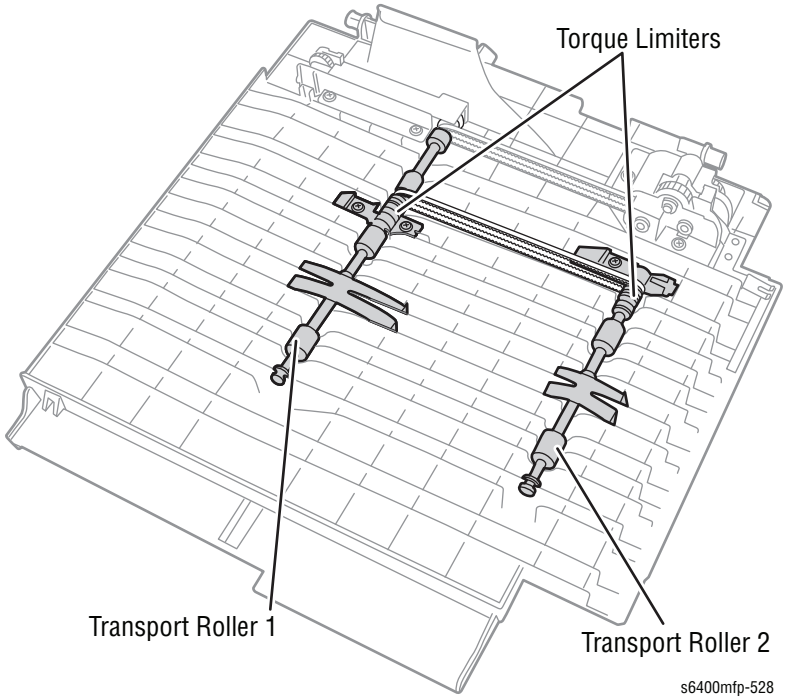
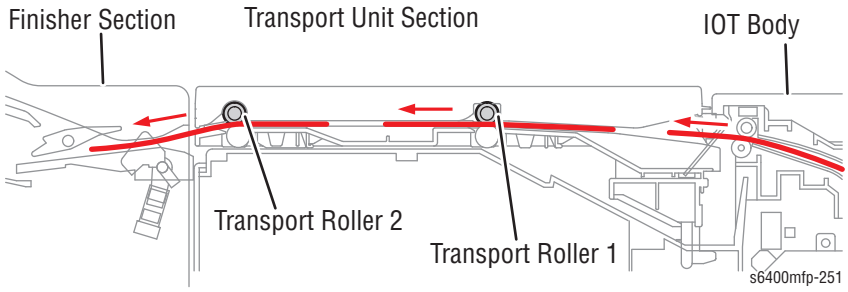
The Torque Limiter provides drive energy to the Transport Rollers 1 and 2.



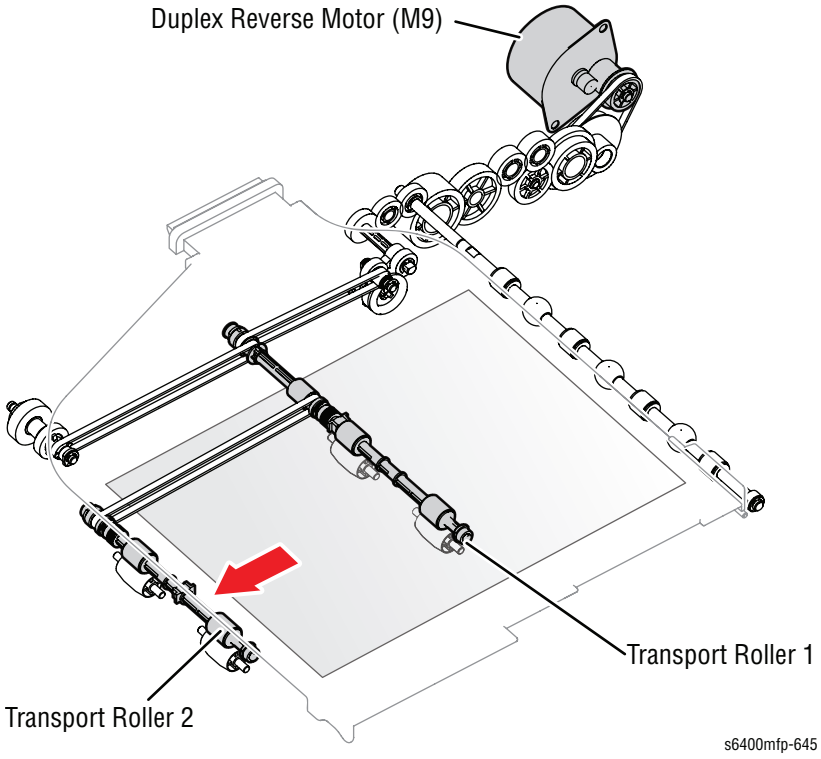
Paper Transport

The Transport Rollers 1 and 2 transport paper to the Paper Exit and Finisher sections.

After 1 side of the paper has been printed, the paper is reversed back into the main body of the printer.

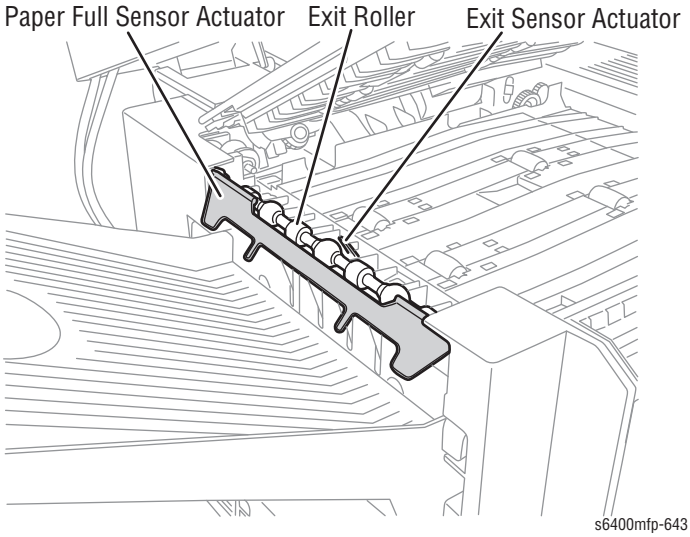


The Fusing Motor (M2) and the Duplex Reverse Motor (M9) provide drive energy to transport the paper from the printer, control the reverse operations for the paper during 2-sided printing, and transport the paper out into the Finisher section.



Paper Exit

The Transport Unit takes paper fed out of the printer and transports it to the Exit Tray.



Detection of Paper Full in the Exit Tray

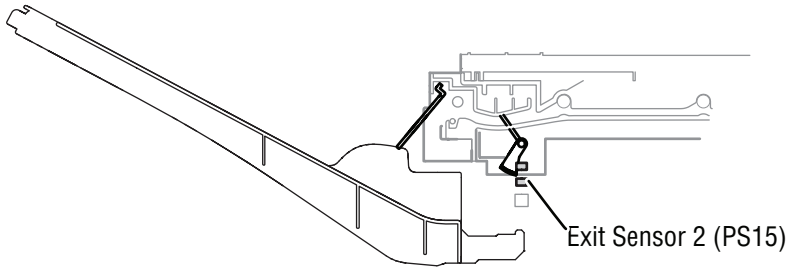
The Paper Full Sensor (PS14) detects the load capacity of output paper in the Exit Tray. When the Paper Full Sensor Actuator is low, the edge of the Paper Full Sensor Actuator covers the Paper Full Sensor.

As the tray gets full, the output paper pushes the Paper Full Sensor Actuator up and the edge of the actuator activates the Paper Full Sensor.

When the output tray is emptied, the Paper Full Sensor Actuator goes down and the edge of the actuator covers the Paper Full Sensor. If the sensor is covered, the printed paper has not reached the maximum load capacity.

The Paper Full Sensor (PS14) becomes inactive when a Finisher is attached to the printer.

When Tray is Empty



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When the tray is full

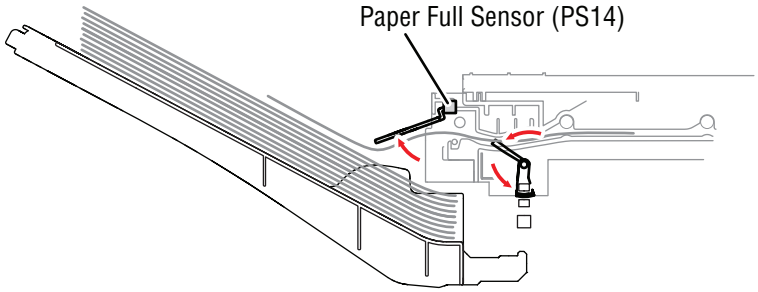

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Image Quality Control (Image Stabilization)

To ensure that a quality image is produced at all times, a comprehensive control is provided for the developing bias voltage, laser light intensity, registration correction, gamma characteristics detection, and other parameters.

Image quality control may be divided into three types:

- Complete Correction Control
- Simplified Correction Control
- Individual Registration Control

The following information provides specific details of each type of control.

Complete Correction Control

	Control Name	Purpose
1	IDC Sensor Calibration Control	Changes in various types of characteristics due to change with time of the IDC Sensor (deteriorated LED, dirty sensor surface), part-to-part variations in the sensors, and change of environment affect the IDC Sensor output corresponding to the clear Transfer Belt surface. To correct fluctuations in the output, the sensor LED intensity is adjusted so as to keep the IDC Sensor output constant.
2	Developing Bias Vpp Control	If the developing bias voltage (Vpp) is too high for the Ds distance in each Toner Cartridge, a leak image (background leak, image area leak) results. If Vpp is excessively low, halftone reproducibility becomes poor. This control detects a Vpp range, in which no image failure occurs, to set the optimum Vpp.
3	Developing Bias Duty Control (control of the maximum amount of toner sticking to the Transfer Belt)	Corrects the target amount of toner sticking to the Transfer Belt to form the solid image.
4	Laser Light Intensity Control	Corrects the target level of fluctuations in fine line reproduction and reverse image (white on black) reproduction that occur due to variations in photo conductor characteristics (part-to-part variations, environment, durability).
5	Gamma Characteristics Detection Control	Corrects the tone by using the IDC Sensor to measure the density of a gradation pattern produced on the Transfer Belt and sends the results of the measurement to the controller.
6	Registration Correction Control	Corrects color mis-registration that occurs due to variations in parts of the printer used for regulating CMYK color alignment.

Simplified Correction Control

	Control Name	Purpose
1	IDC Sensor Offset Value Check	Checks the low gain output value and other offset voltage value of the IDC Sensor when the shutter is closed.
2	IDC Sensor Reflection Output	Checks the low gain output value of the IDC Sensor using the intensity value set for the Clear Transfer Belt surface on which no toner sticks.
3	Developing Bias Control (simplified Vpp check)	Determines whether there is a leak based on the measurement value taken last.
4	Developing Bias Duty Control (control of the maximum amount of toner sticking to the Transfer Belt)	Corrects the amount of toner based on the measurement value taken last.
5	Laser Light Intensity Control (simplified correction control)	Performs correction based on the measurement value taken last.
6	Registration Correction Control (simplified control)	Corrects color mis-registration that occurs due to variations in parts of the printer used for regulating CMYK alignment. The simplified control uses a simplified registration pattern to make the correction.

Note

If the Simplified Correction Control is not effective, the Complete Correction Control is performed.

Individual Registration Control

	Control Name	Purpose
1	IDC Sensor Reflection Output	Checks the low gain output value of the IDC Sensor using the intensity value set last for the Clear Transfer Belt surface on which no toner sticks.
2	Registration Correction Control (simplified control)	Corrects color mis-registration that occurs due to variations in parts of the printer used for regulating CMYK alignment.

Image Quality Control (Image Stabilization) Execution Request

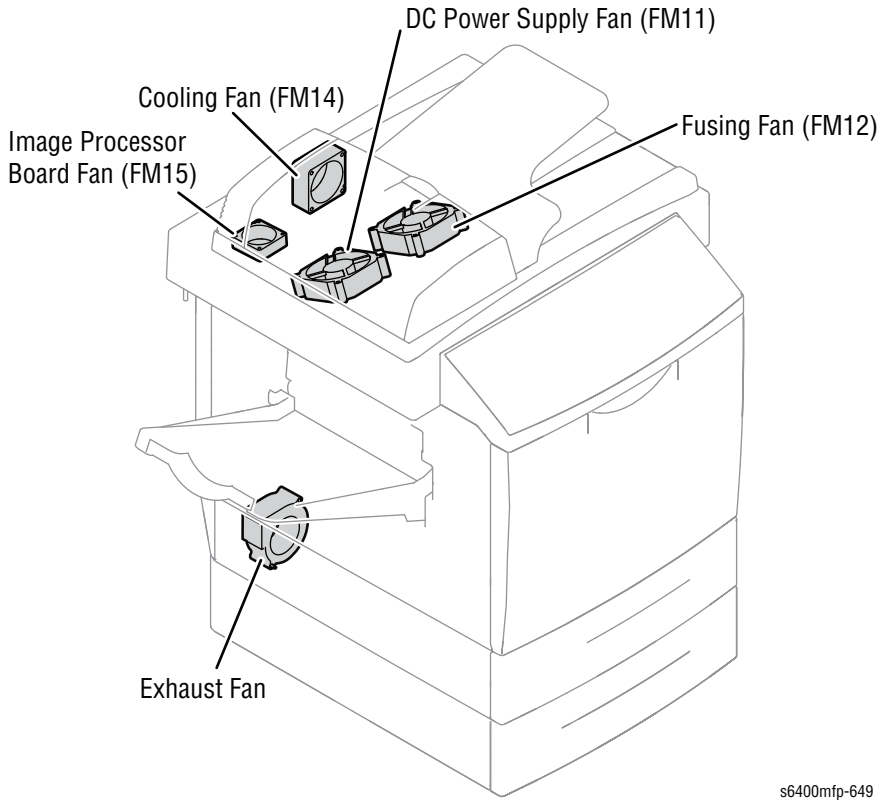
A request to perform the Complete Correction Control, Simplified Correction Control, or Individual Registration Control is made at the following timing.

Stabilization Request Timing		Stabilization Request Initialization	Type of Stabilization Executed
Upon replacement of the Imaging Unit or Transfer Belt	■ When a new Imaging Unit is detected ■ When a used Imaging Unit is detected	When the power switch is turned On	Complete Correction Control
	When the Transfer Belt is replaced	When the Front/Right Door is closed	Complete Correction Control
By a status or condition within the engine	When the power switch is turned On	When the power switch is turned On	Depending on each condition
	When there is a significant change in environmental conditions from those when the last stabilization sequence was executed	The power switch is turned On ■ When the Front/ Right Door is closed at the end of a job ■ When the Sleep mode is deactivated	Complete Correction Control
	When there is a temperature change inside of the Laser Unit	When the Front/Right Door is closed ■ At the end of a job ■ During a job ■ When the Sleep mode is deactivated	Individual Registration Control
	At the end of a print cycle	At the end of a job, when the Front/Right Door is closed	Simplified Correction Control
	When fault is reset	When the power switch is turned On	Completed Correction Control
Special Situation	When all trays get empty	The power switch is turned On	Complete Correction Control
User Selection	When image quality is poor	When Image Quality Calibration is selected	Complete correction control

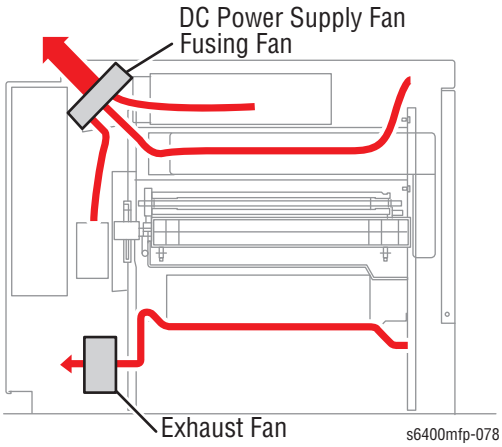
Fan Assemblies

There are 5 fans in the printer that help to control the internal temperature or provide air circulation.

- DC Power Supply Fan
- Cooling Fan (Horizontal Transport)
- Fusing Fan
- Ozone Ventilation Fan (Exhaust Fan)
- I/P Board Cooling Fan



Function



DC Power Supply Fan

The DC Power Supply Fan discharges heat generated from the internal parts (including the DC Power Supply, Intermediate Transfer Belt section, Toner Cartridges C, M, Y, and Motor Drives) within the printer to prevent excessive temperature increases.

Cooling Fan (Horizontal Transport)

The Cooling Fan discharges heat accumulated between the Scanner section and Horizontal Transport section of the printer.

Fusing Fan

The Fusing Fan discharges heat generated from the interior parts (including the DC Power Supply, Fuser Unit, Toner Cartridge K, and Motor Drives) out of the printer to prevent the interior temperature from rising.

Exhaust Fan

The Exhaust Fan discharges heat generated from the Laser Unit to prevent the Laser Unit temperature from becoming high. The Exhaust Fan removes ozone produced from the charging section of each Imaging Unit.

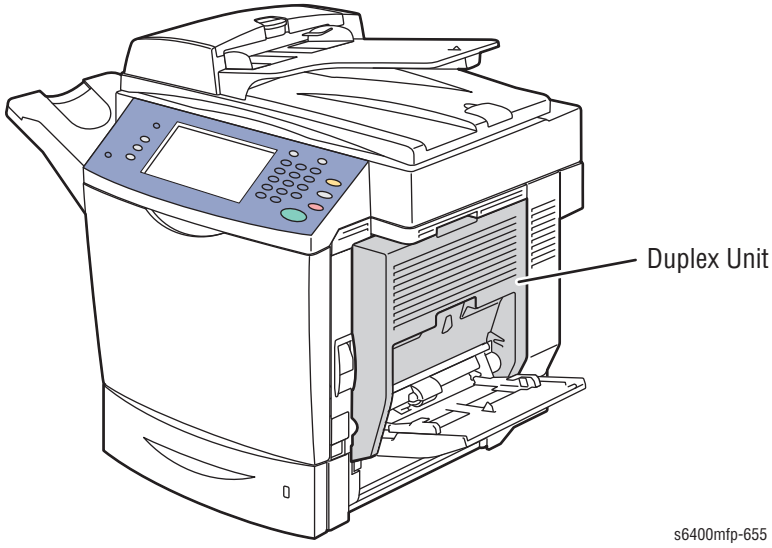
There is no air flow through areas around the Toner Cartridges. This prevents toner from scattering inside the printer.

I/P Board Cooling Fan

The I/P Board Cooling Fan discharges heat generated from the I/P Board.

Duplex Unit

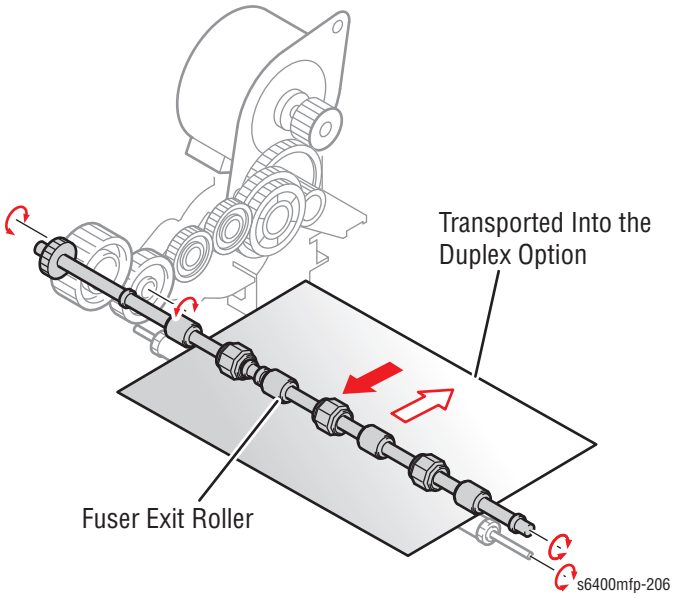
The Duplex Unit provides 2-sided print capability to the printer.



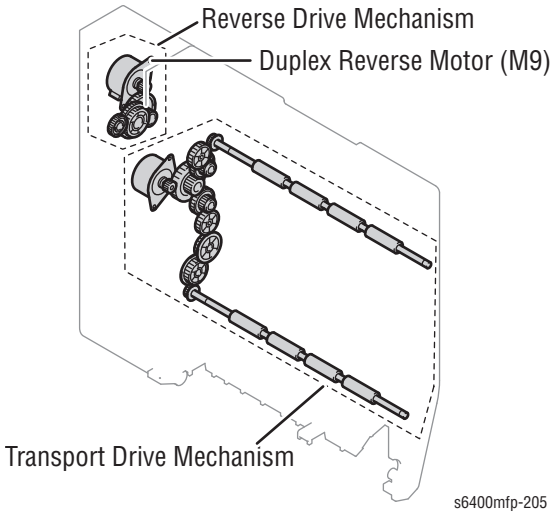
Duplex Reverse Mechanism

Reverse Operation

The Duplex Reverse Motor (M9) provides drive energy to the Transport Unit. When the motor is energized, drive energy is transmitted via a gear train to rotate the Transport Rollers 1 and 2.



The Exit Rollers in the Duplex Unit transport the 1-sided printed page into the Duplex Unit in a reverse direction.

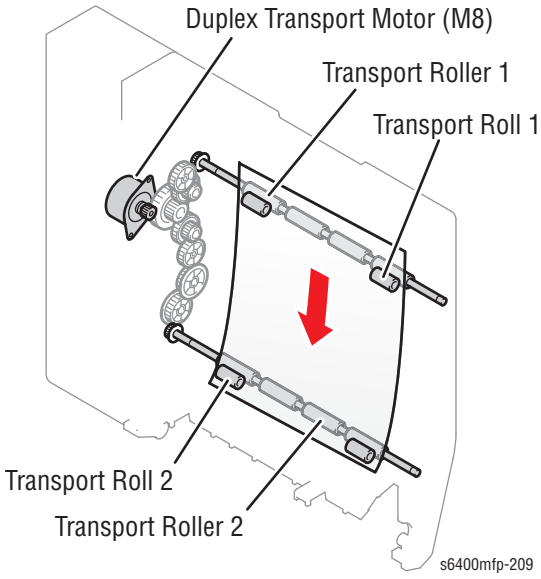


Reverse Motor Control

The signal output from the AD Control Board is used to control rotation of the Duplex Reverse Motor (M9).

Paper Transport and Duplex Paper Feed

The Duplex Transport Motor (M8) receives signal from the AD Control Board and provides drive energy for the Duplex Unit.



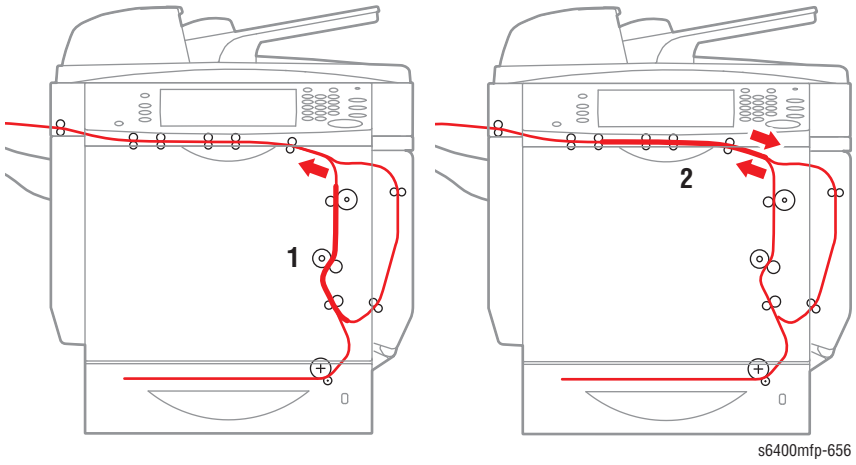
Duplex 2-Sided Printing Method

Two types of 2-sided printing are available.

- 2-sided printing with a single sheet of paper (Legal)
- 2-sided printing with two sheets of paper (for letter and smaller sizes)

2-Sided Printing (Single Sheet) Process

1. A sheet of paper is fed and the second image of the print job is printed.
2. Just before the printed page moves past the Exit Roller, the direction of the Exit Roller is reversed and the printed page is transported into the Duplex Unit.



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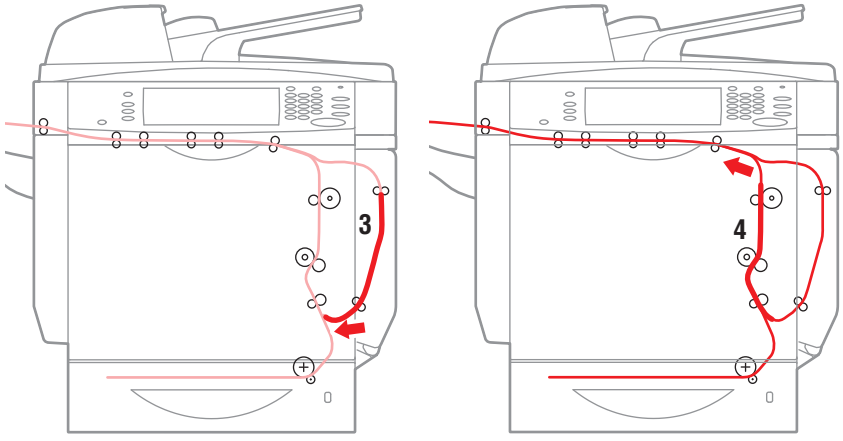
3. The printed page is transported through the Duplex Unit and is stopped briefly and then fed into the printer.
4. The first image of the print job is then printed on the page fed out of the Duplex Unit.



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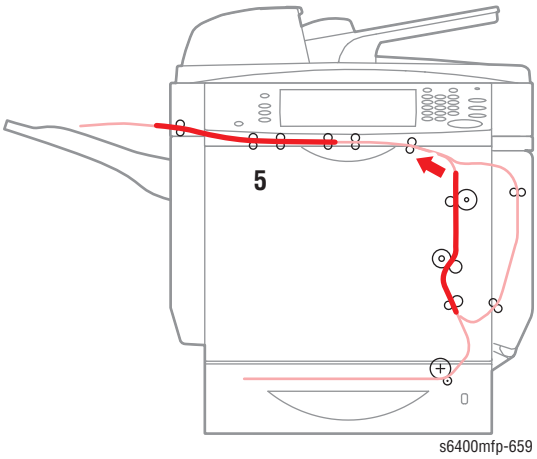
5. As the 2-sided printed page is being fed out of the printer, the fourth image of the print job is printed on the second sheet of the paper.

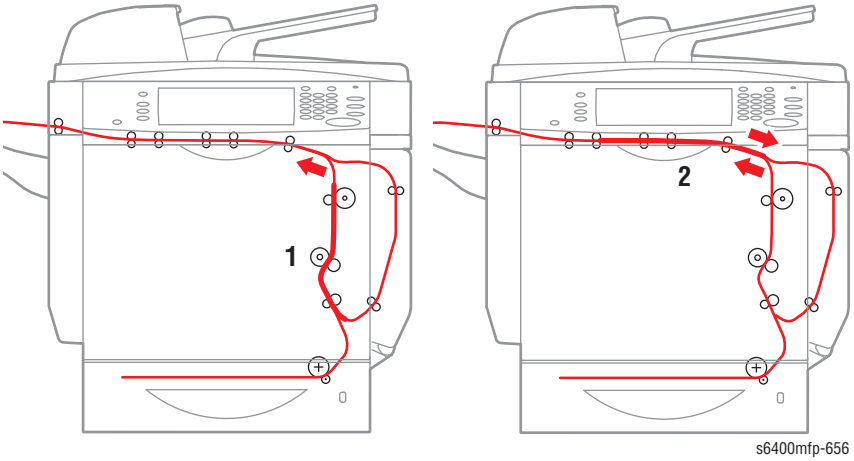


Note

Steps 2 through 5 are repeated until all pages of the job are printed.

2-Sided Printing (Two Sheets) Process

1. The first sheet of paper is fed in and the second image of the print job is printed.
2. Just before the printed page moves past the Exit Roller, the direction of the Exit Roller is reversed and the printed page is transported into the Duplex Unit. The second sheet of paper is fed simultaneously from the tray.



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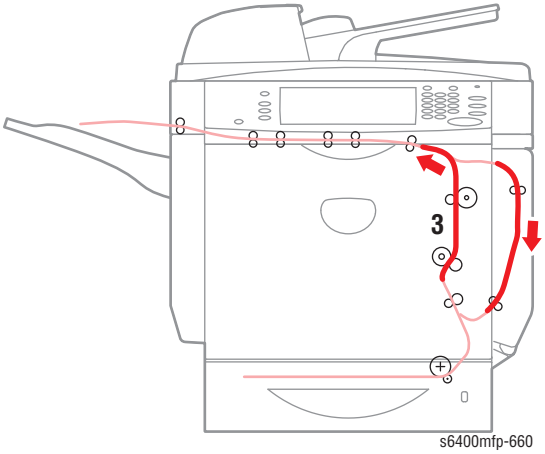
3. The printed page is transported through the Duplex Unit. The fourth image of the print job is printed on the second sheet of paper.



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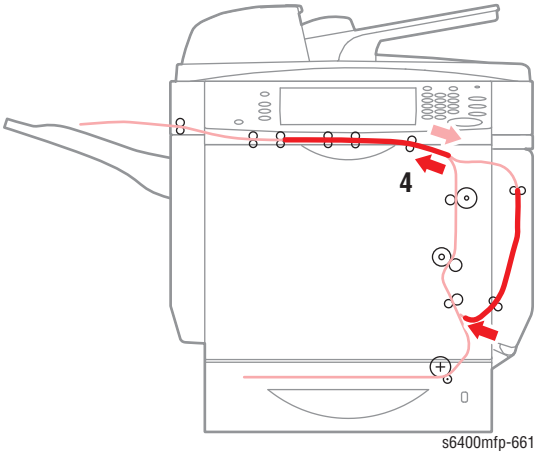
4. Immediately before the second sheet of paper exits the Feed Roller, the Feed Roller is reversed and the second sheet of paper is transported into the Duplex Unit. The first sheet of paper is fed simultaneously into the printer.



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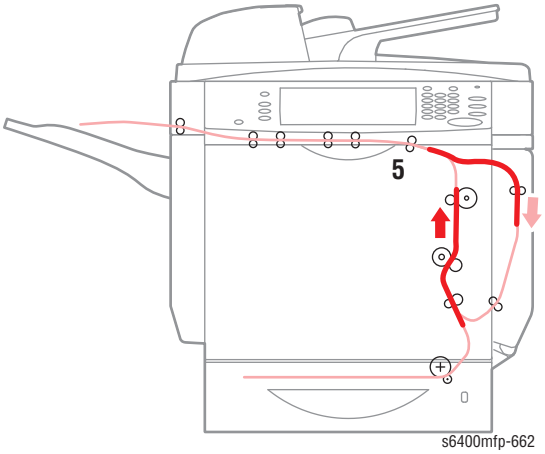
5. The first of the print job is printed on the first sheet of paper as it is fed again.



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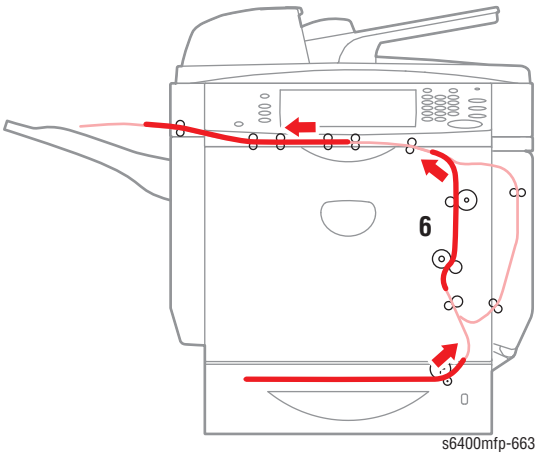
6. The third image of the print job is printed on the second sheet of paper as the first sheet of paper is discharged. The third sheet of paper is fed simultaneously into the printer.



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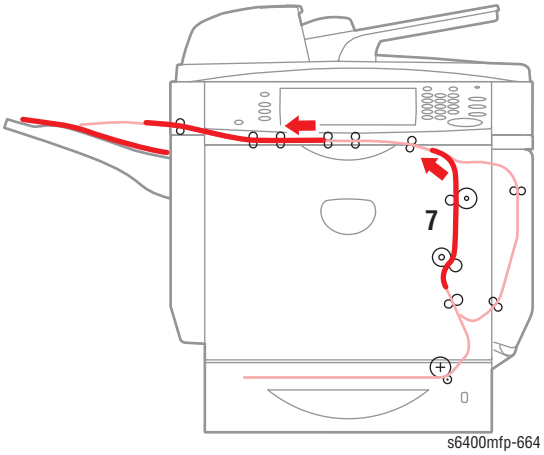
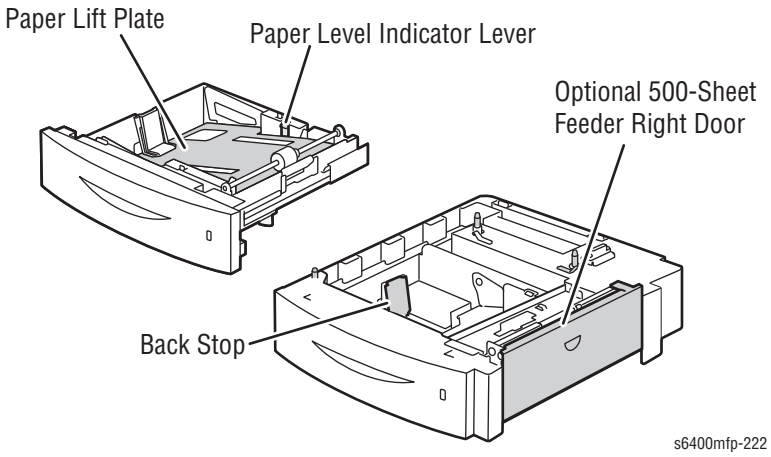
7. As the second sheet of paper is fed out of the printer, the sixth image of the print job is printed on the third sheet of paper. Steps 6 through 7 are repeated until all pages of the job are printed.

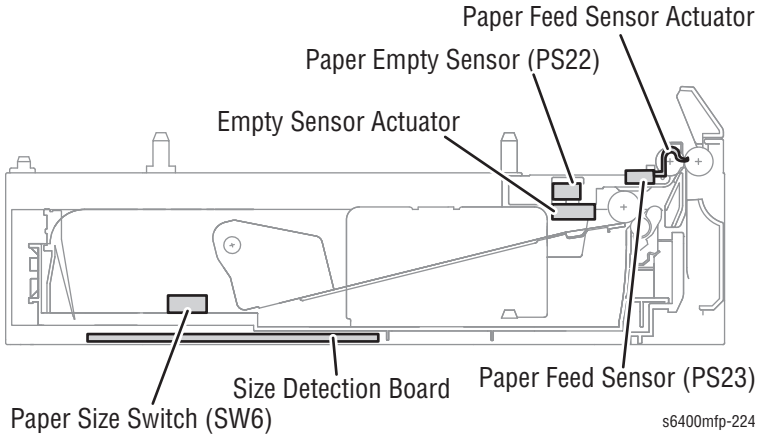


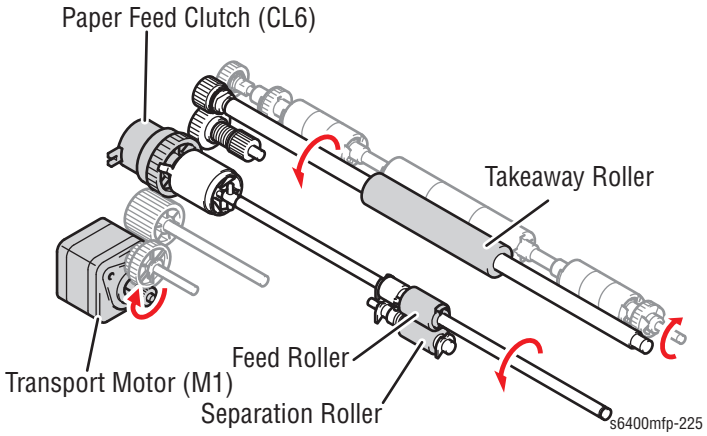
Optional 500-Sheet Feeder

The Optional 500-Sheet Feeder increases the input capacity of the printer. Up to two 500-Sheet Feeders can be installed on a WorkCentre 6400.

Drive Mechanism

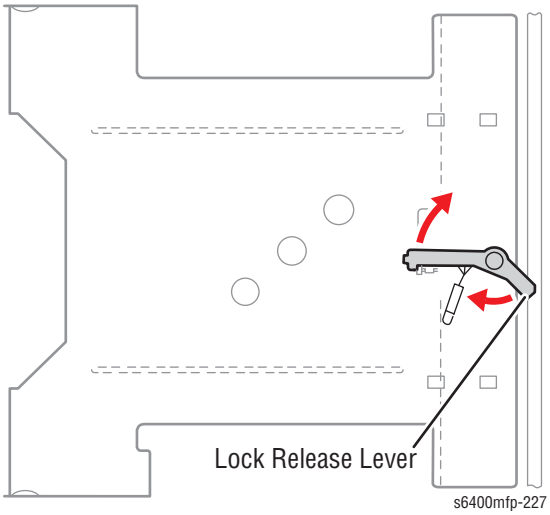






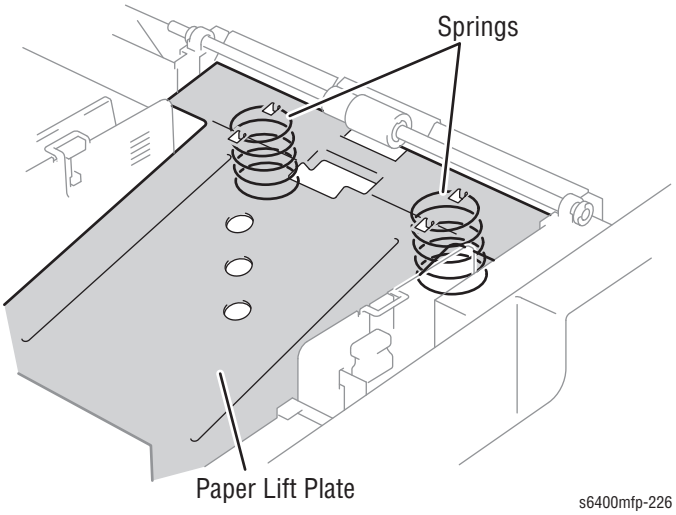
Paper Feed Control

Paper Lift Plate Mechanism



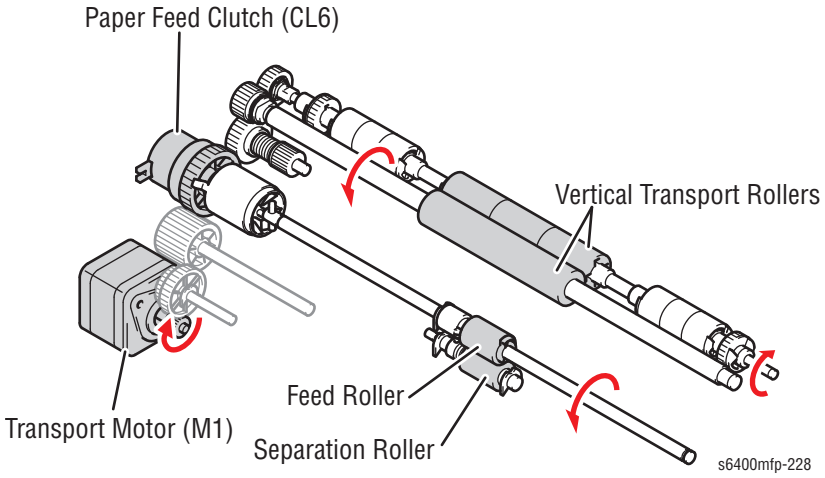
The Paper Lift Plate is pressed down into the locked position.

Load paper into the tray, then slide the tray into the printer. This process unlocks the Paper Lift Plate. The Paper Lift Plate and paper are pressed against the Feed Roller. The Paper Lift Plate is pushed upward by the springs at all times.

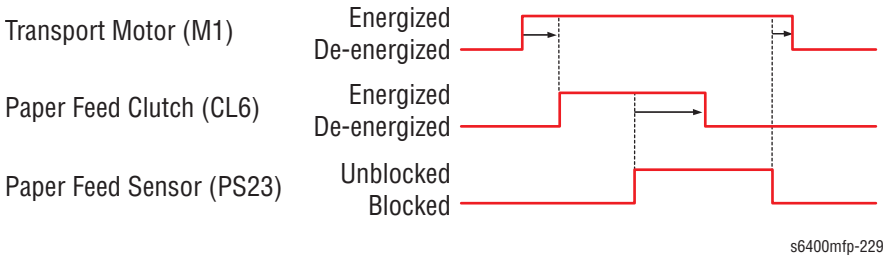


Feed Roller/Separation Roller

1. The Transport Motor is energized to turn the Separation Roller.
2. The Paper Feed Clutch is energized to turn the Feed Roller.
3. The paper is fed in by the Feed Roller.
4. The paper fed in by the Feed Roller is transported onto the Vertical Transport Roller of the printer by the Separation Roller.
5. When the Paper Feed Sensor is activated and then the paper is transported onto a specified point in the paper path, the Paper Feed Clutch is de-energized, thus bringing the Feed Roller to a stop. The Separation Roller thereafter takes charge of transporting paper further.

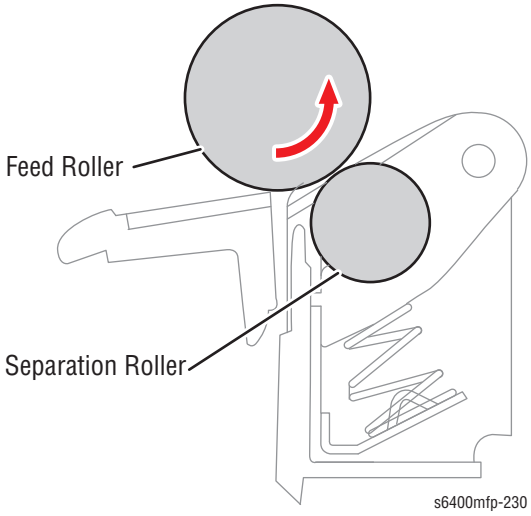


6. When the trailing edge of the last sheet of paper moves past the Registration Sensor, the Transport Motor is de-energized to bring the Separation Roller to a stop.



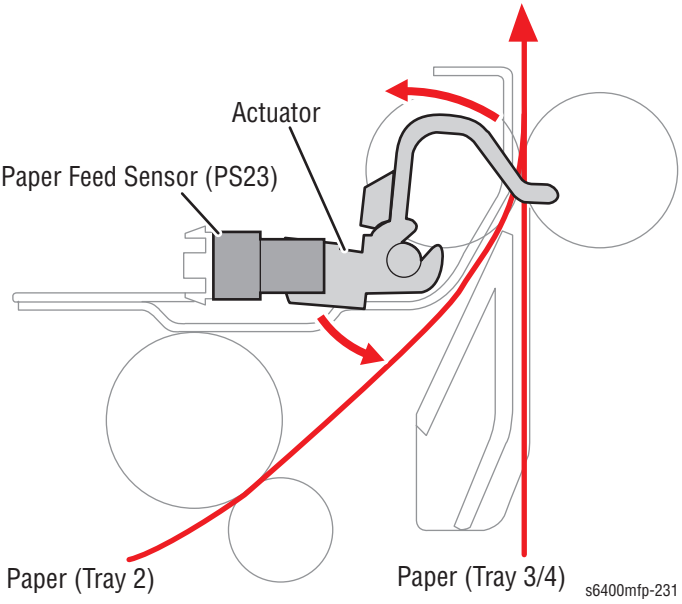
Paper Separation Mechanism

A Separation Roller with a torque limiter is used to prevent multi-picking of paper.



Paper Detection Mechanism

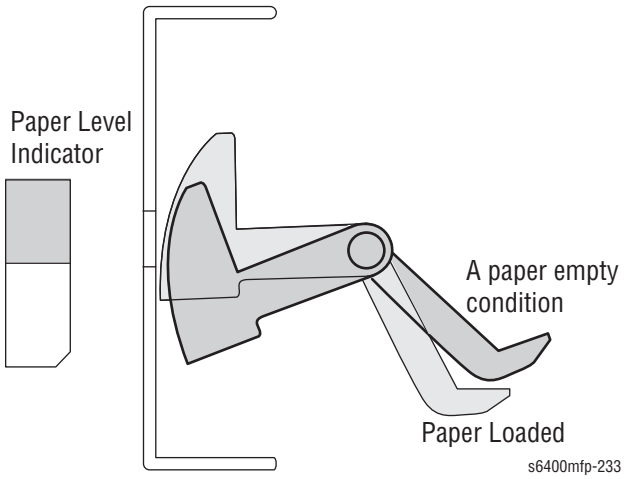
The Paper Feed Sensor (PS23) detects the paper fed by the Feed Roller. When two Optional 500-Sheet Feeders are installed, the sensor detects the paper fed from Tray 3 as the Paper Feed Sensor Actuator unblocks the Paper Feed Sensor.

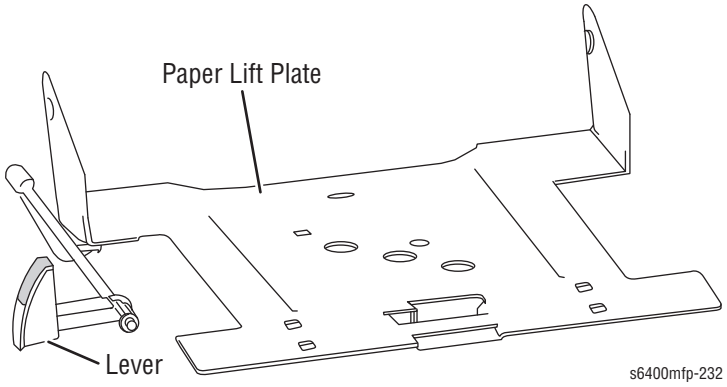


Paper Supply Level Detection

The Front Cover of the tray contains a window indicating the paper supply level.

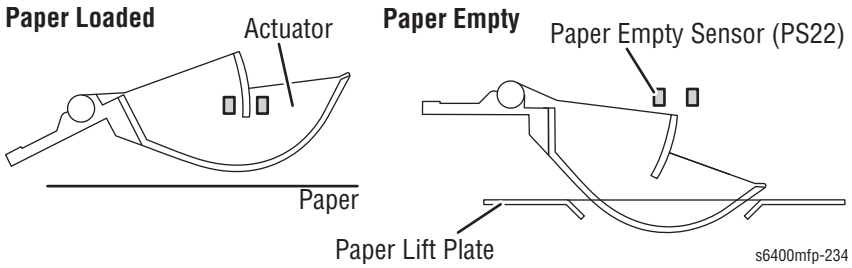
When the Paper Lift Plate goes up, a red lever appears in the window. The lower the level of the paper stack in the tray, the more red lever is visible.





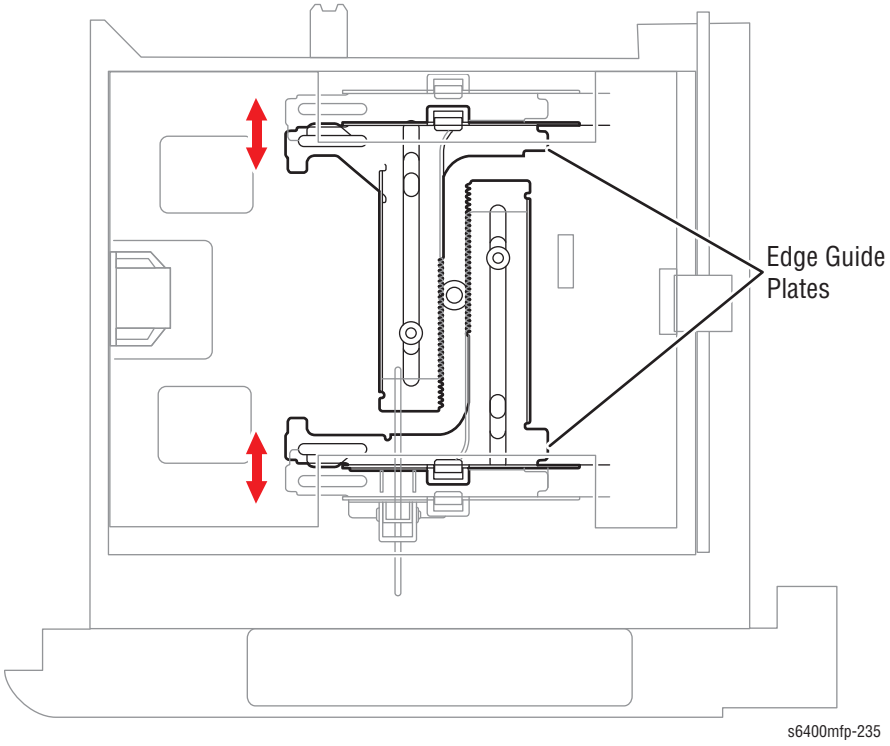
Paper Empty Condition Detection

The paper empty message is displayed on the Control Panel when the Empty Sensor Actuator unblocks the Paper Empty Sensor (PS22). Paper near empty condition is not detected. The Paper Supply Level Indicator serves this purpose.



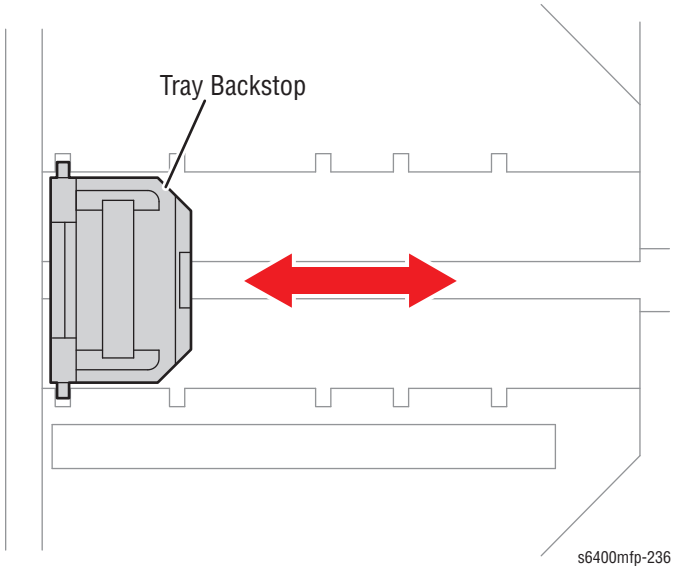
Edge Guide Plate

The Edge Guide Plate can be adjusted to the exact size in the width direction of the paper to be loaded.



Tray Backstop

The Tray Backstop can be adjusted to the exact length of the paper to be loaded.

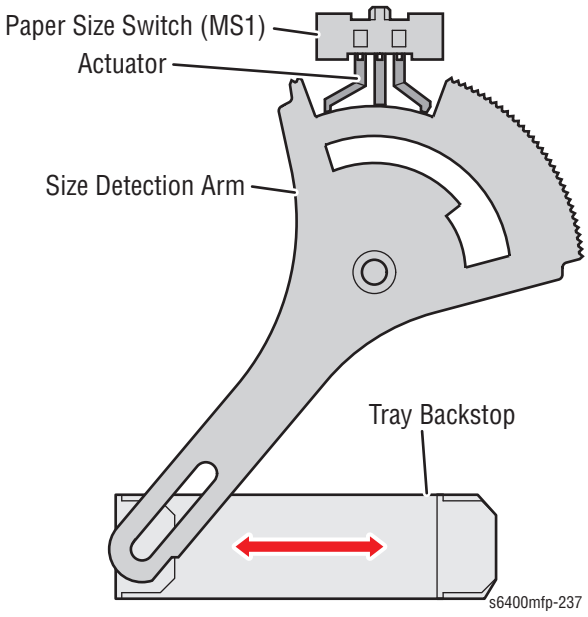


Paper Size Detection

The Paper Size Switch detects the length of the paper.

1. The Size Detection Board turns as the Tray Back Stop is moved.
2. When the tray is inserted, the Tray Size Actuators press the Size Switches in the printer.
3. The combination of On/Off positions of the sub-switches of the Paper Size Switch determines the specific paper size. There are two different sizes allowed.
4. If the tray is not pushed into position, all of the sub-switches are Off and the insert tray message appears.

Paper Size	Lower Feeder Paper Size Switch		
	SW1	SW2	SW3
Legal (8.5” x 14”)	OFF	ON	ON
Government Legal Letter Plus	ON	ON	ON
A4	ON	ON	OFF
Letter (8.5” x 11”)	ON	OFF	OFF
B5	OFF	OFF	ON
Optional 500-Sheet Feeder Tray not installed	OFF	OFF	OFF



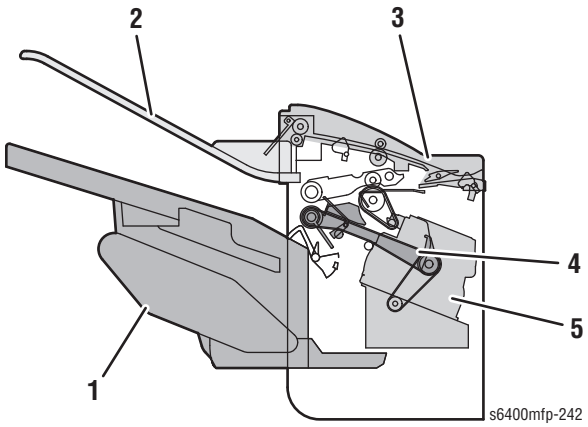
Paper Misfeed Detection

If the Paper Feed Sensor is not activated within a specified period of time after a paper feed sequence has been started, the printer determines that there is a paper misfeed. It then displays a paper misfeed message on the Control Panel.

The paper misfeed display can be reset by opening or closing any door.

Finisher

The Finisher is a customer install option that adds stapling (up to 400 sheets), and job stacking with offset (up to 500 sheets).

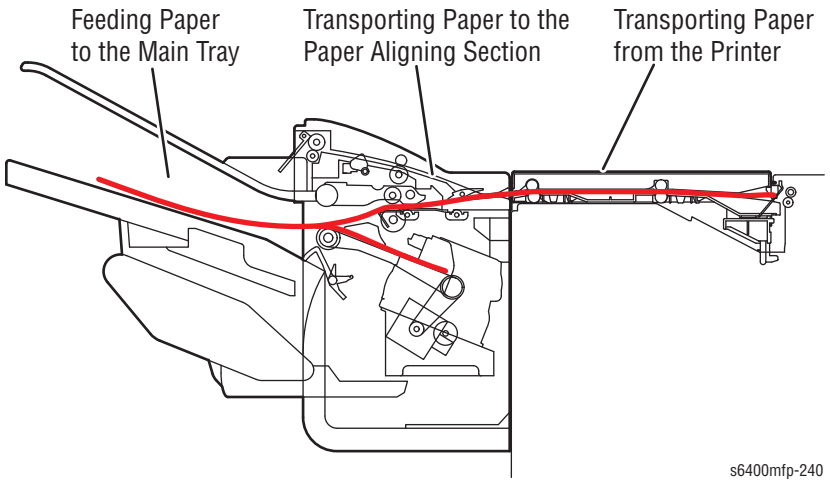


1. Main Tray Section
2. Top Tray Section
3. Top Tray Transport Section
4. Storage Section
5. Staple Section

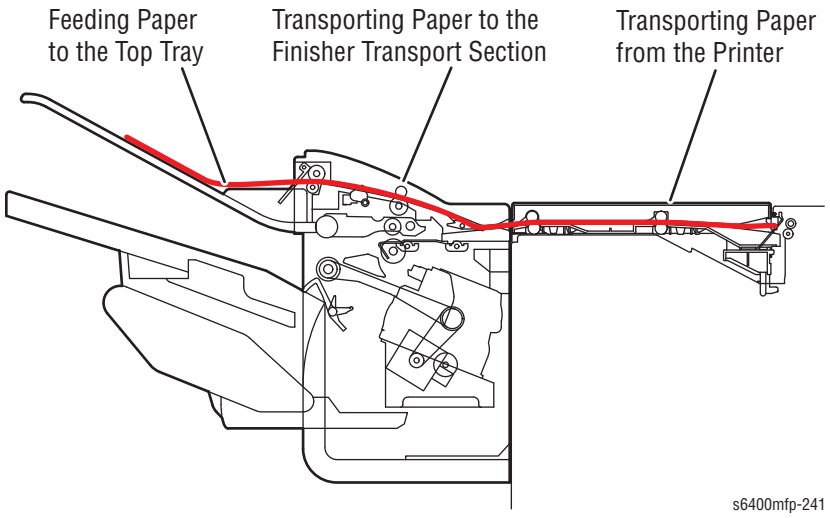
Paper Path

The paper path for feeding paper to the Main Tray and Top Tray are shown in the illustrations below.

Paper Feed to the Main Tray



Paper Feed to the Top Tray

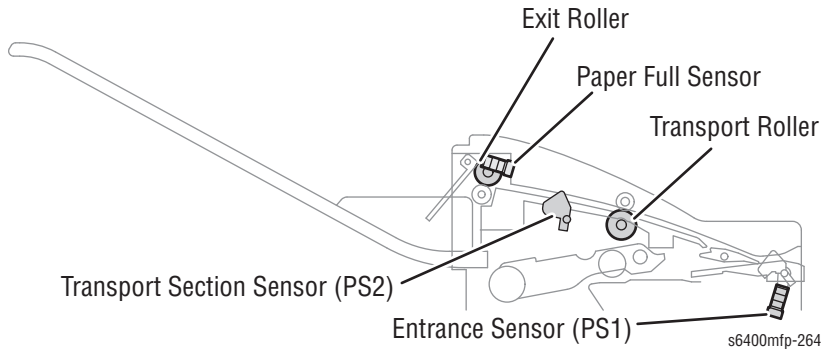


Paper Transport

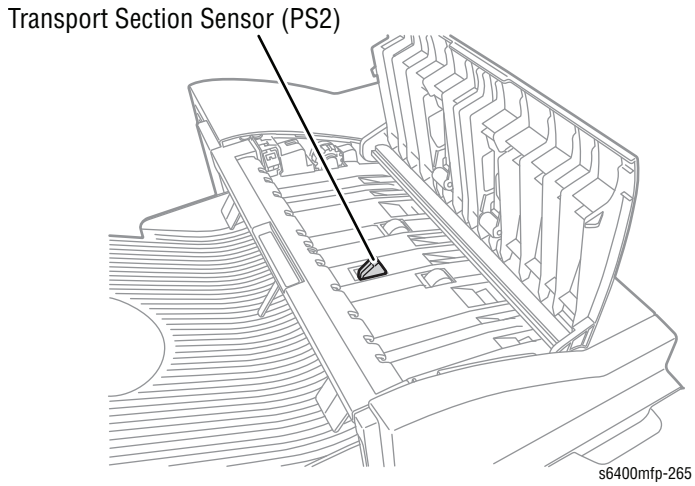
Top Tray

Paper is transported from the Transport Unit to the Top Tray. The Transport Motor provides drive energy to transport the paper.

The Transport Roller and Exit Roller rotated when the Transport Motor is energized.



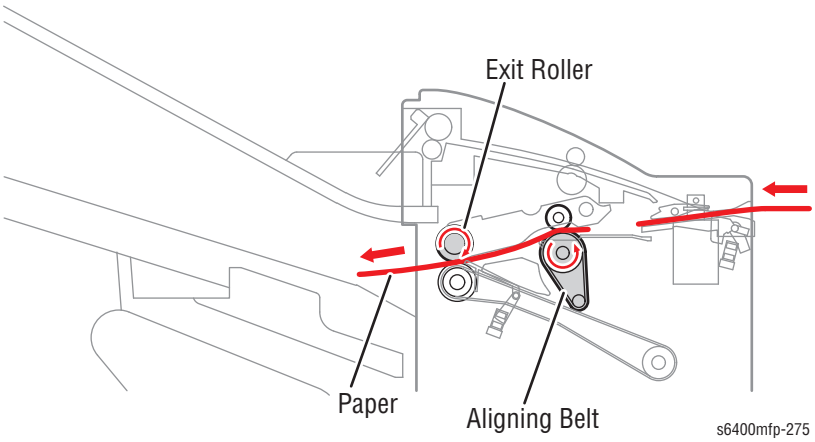
The Entrance Sensor and the Transport Section Sensor detect paper in the Top Tray Transport section.



Main Tray

The paper fed from the Transport Unit is transported to the Main Tray. The Transport Motor and Exit Motor provide drive energy for paper transport. The Entrance Sensor (PS1) and Storage Section Sensor (PS7) detect the paper.

1. The Transport Motor (M3) drives the Aligning Belt to transport the paper to the Exit Roller.
2. The Exit Roller Up/Down Motor (M5) is energized to lower the Exit Roller.
3. The Transport Motor drives the Exit Roller. The Exit Roller and the Aligning Belt then feed the paper to the Main Tray.

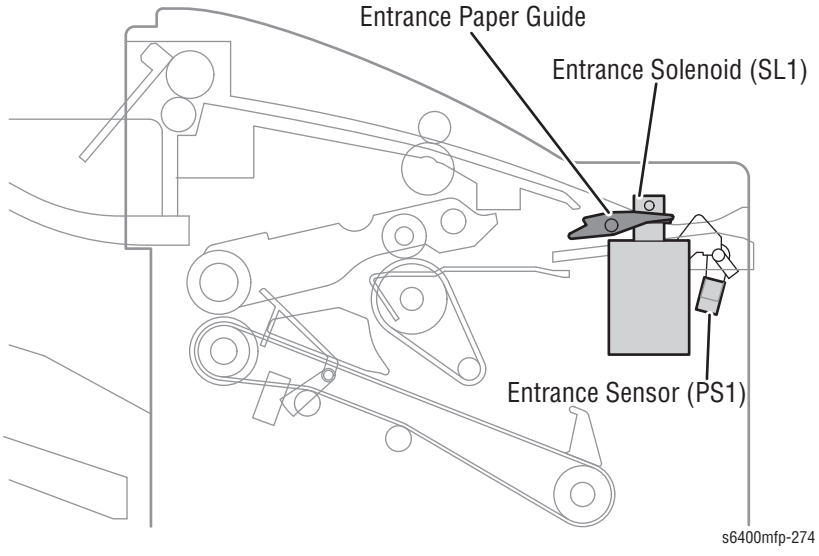


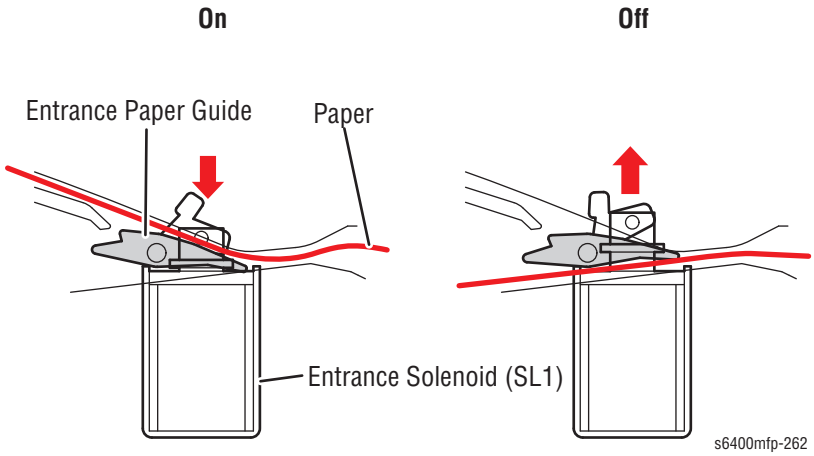
Entrance Switch

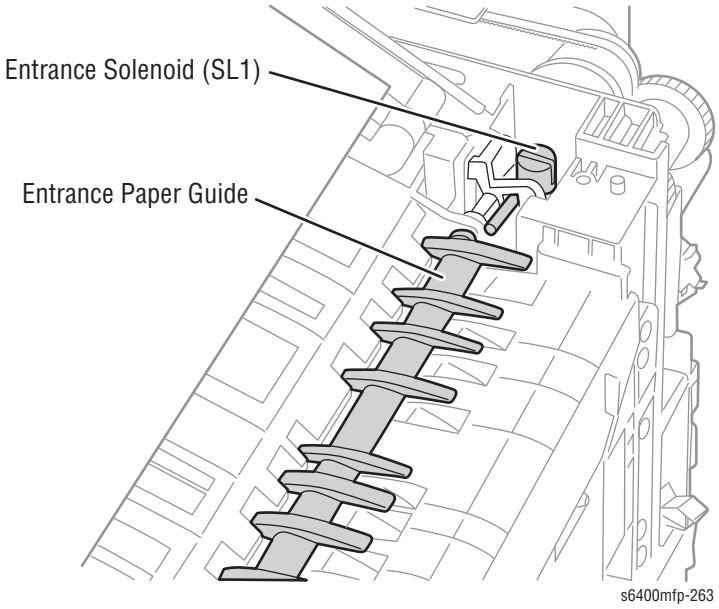
The paper path for the paper transported from the Transport Unit is changed so that the paper may be fed into the Top Tray Transport or Storage section.

The Transport Motor (M3) provides drive energy to the Paper Transport.

When the Entrance Solenoid (SL1) is energized, the Entrance Paper Guide is swung down so that the paper path leading to the Top Tray Transport or storage section is established.

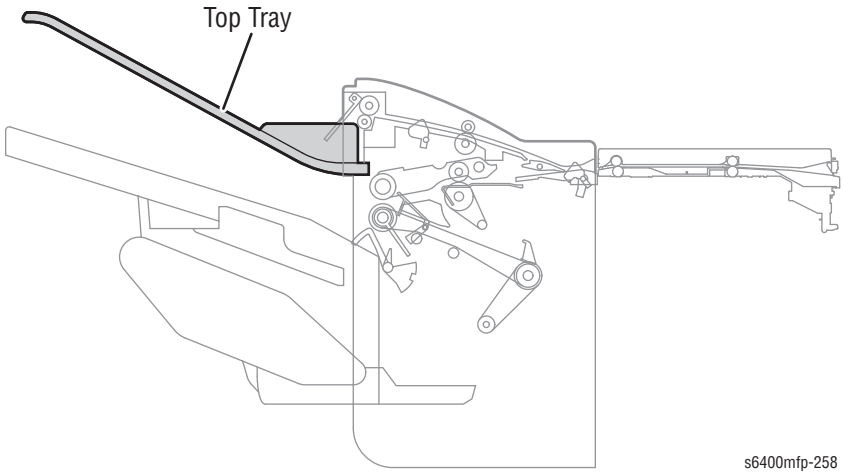


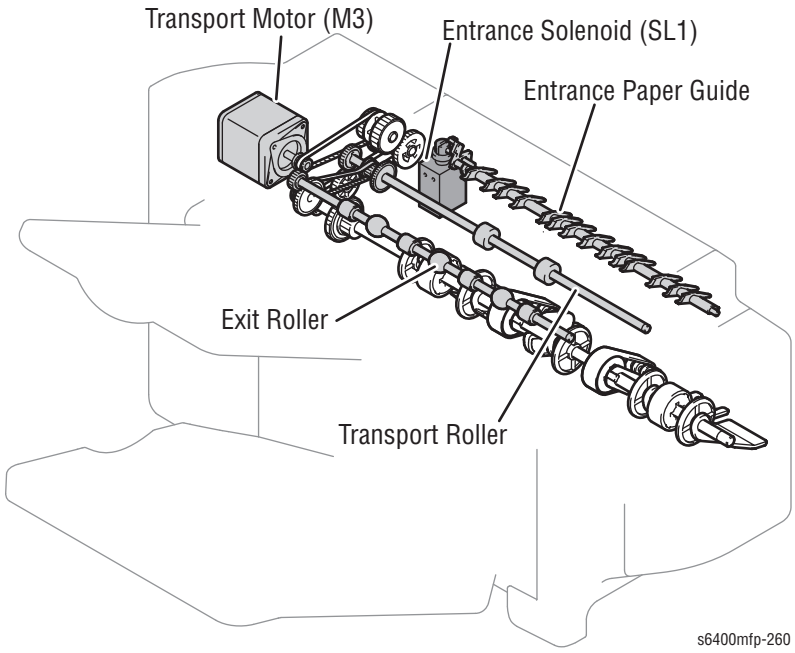

On
Off
Entrance Paper Guide
Paper
Entrance Solenoid (SL1)
s6400mfp-262


Entrance Solenoid (SL1)
Entrance Paper Guide
s6400mfp-263

Top Tray Transport

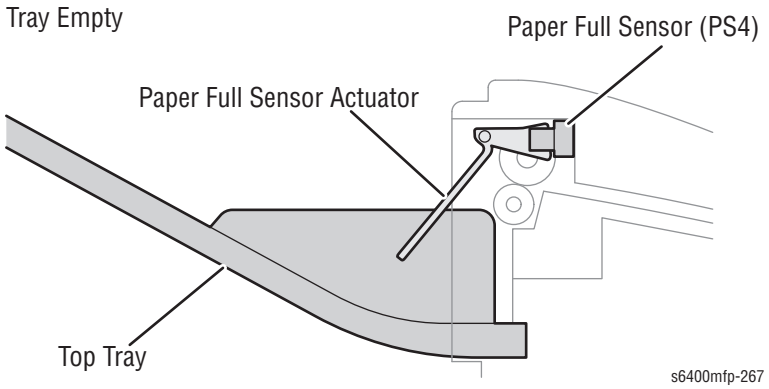
The Top Tray Transport section controls drive for transporting paper from the Transport Unit to the Top Tray. The paper fed on the Top Tray does not go through the shift or stapling process.





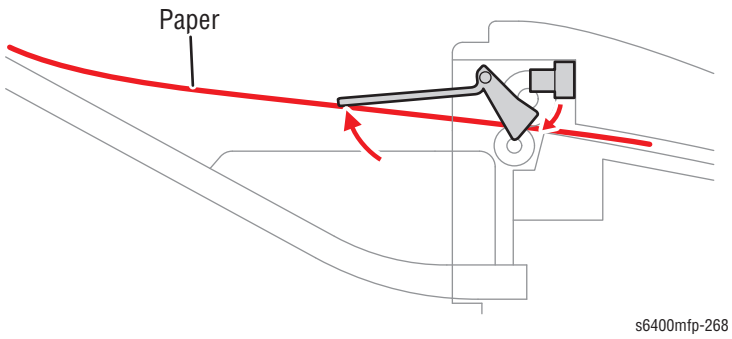
Paper Full Detection

The Paper Full Sensor detects the paper level in the Top Tray. When the Paper Full Sensor Actuator is low, the edge of the Paper Full Sensor Actuator covers the Paper Full Sensor (PS4).



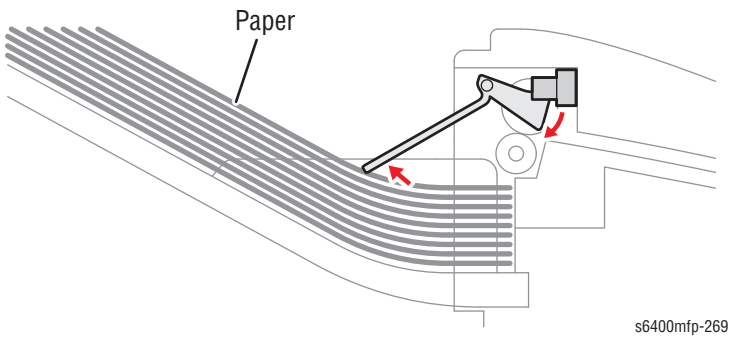
When printing starts, the output paper pushes the Paper Full Sensor Actuator upward and the edge of the actuator activates the Paper Full Sensor (PS4). When the paper is removed, the Paper Full Sensor Actuator goes down and the edge of the actuator covers the Paper Full Sensor. If the sensor is covered, the printed paper has not reached the maximum load capacity.

Paper Processing



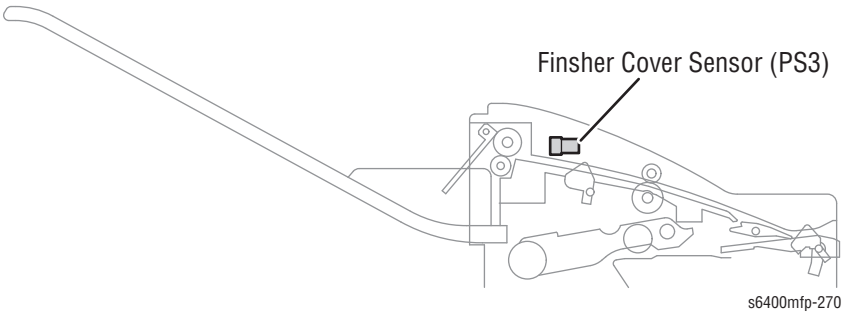
If the sensor detects the Exit Tray is full, printing is stopped. The message on the Control Panel is cleared when the output paper is removed from the Top Tray, which again covers the Paper Full Sensor.

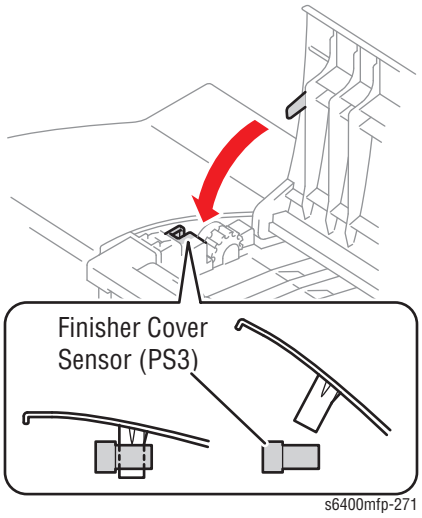
Tray Full



Finisher Cover Open/ Close Detection

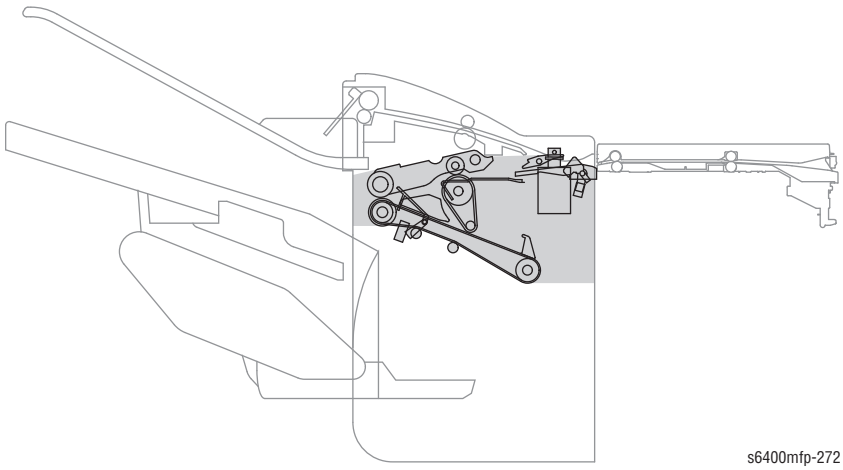
The Finisher Cover Sensor (PS3) detects the open or closed position of the Finisher Cover. Opening the Finisher Cover unblocks the Finisher Cover Sensor.



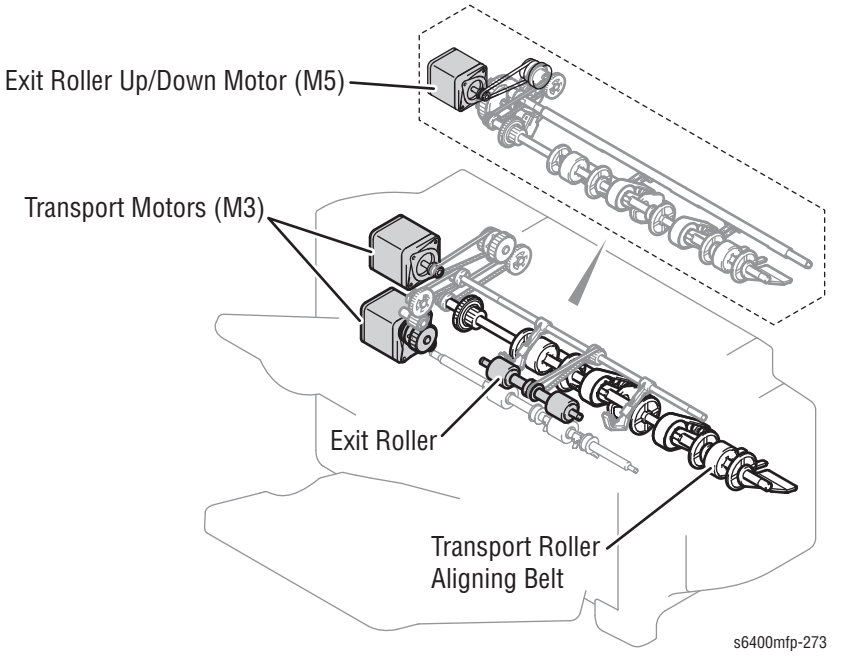


Main Tray Transport

The Main Tray Transport controls drive for transporting the paper from the Transport Unit to the Main Tray and for offsetting and stapling operations performed on the paper from the Transport Unit.



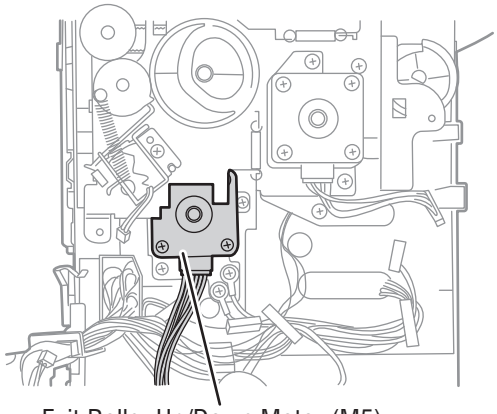
s6400mfp-272



s6400mfp-273

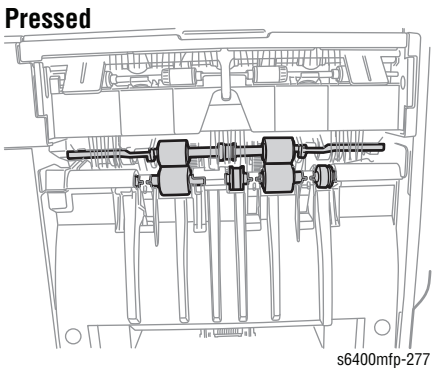
Upper Exit Roller Up/ Down Motion Mechanism

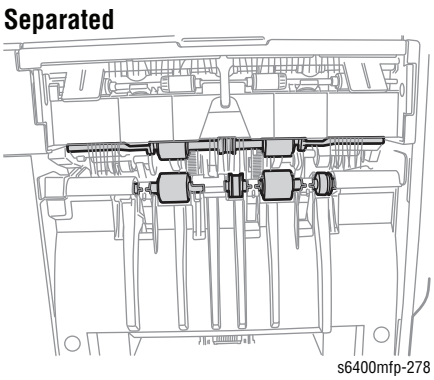
The Upper Exit Roller is lowered when the paper is fed to the Main Tray or the Top Tray.



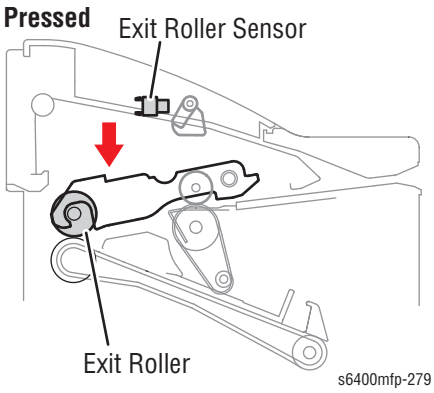
When a printed stack/set is fed out, the Upper Exit Roller is raised away from the Lower Exit Roller, so that there is an unblocked paper path between the Upper and Lower Exit Rollers.

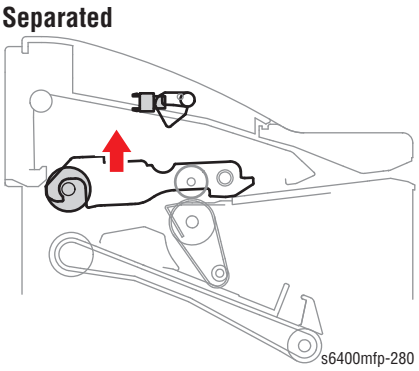
The Upper Exit Roller is pressed against, or separated from the Lower Exit Roller by drive energy provided the Exit Roller Up/Down Motor.





The Exit Roller Sensor detects the position of the Exit Roller.

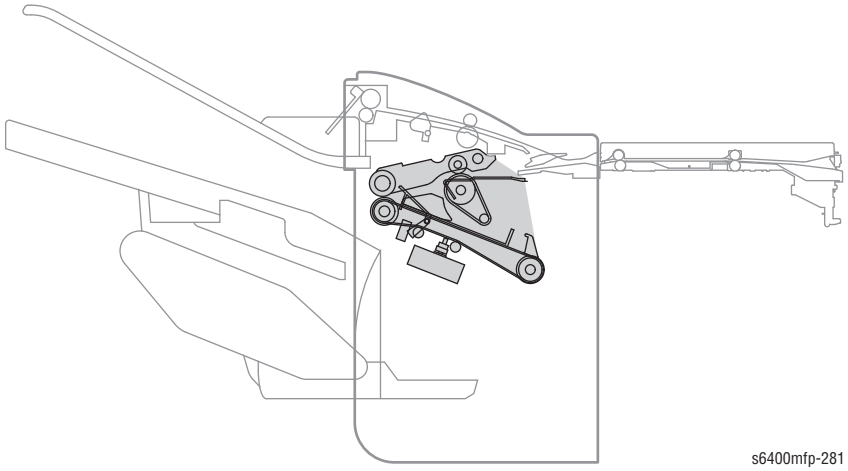




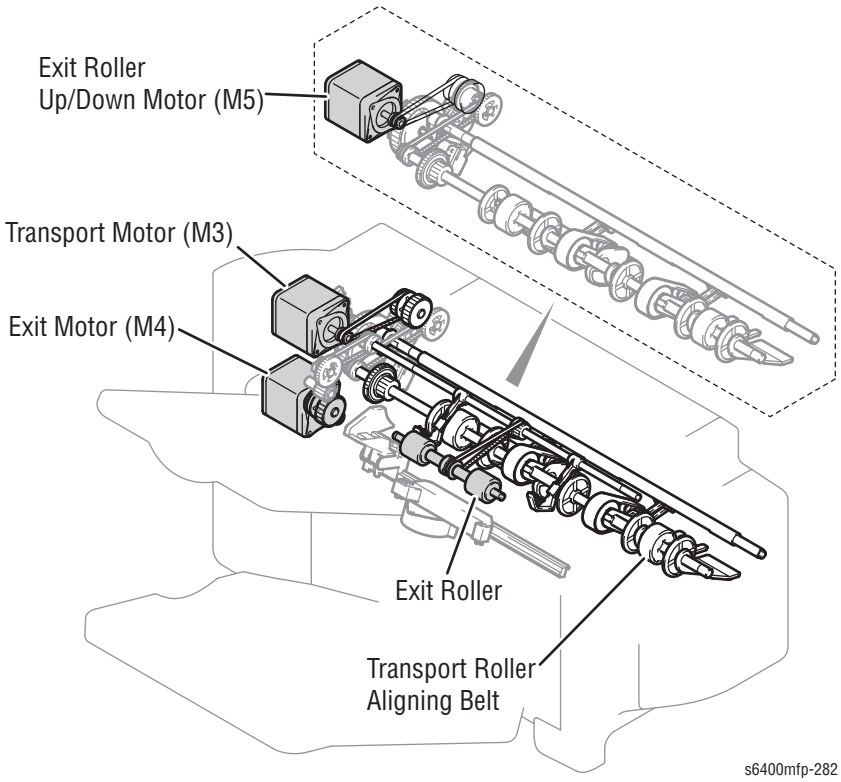
Storage

Paper Aligning Mechanism

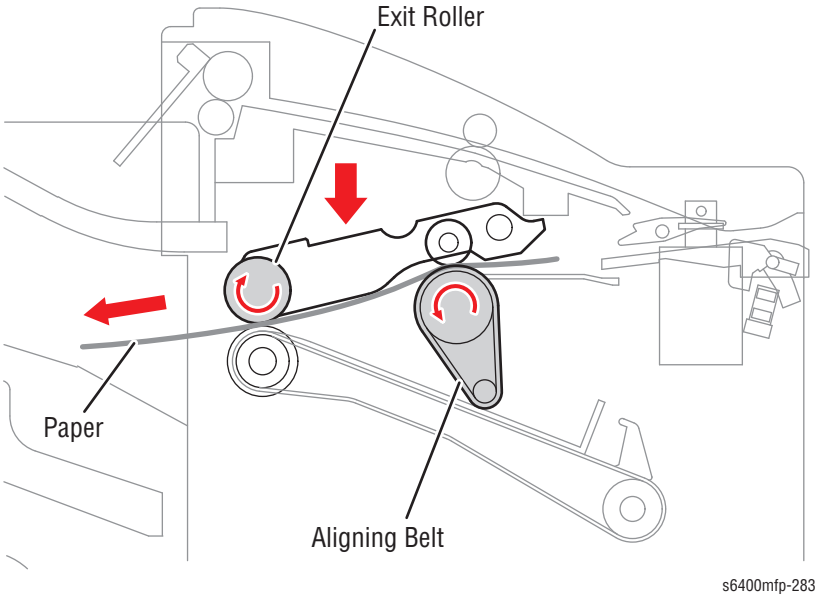
The printed paper stack/set is aligned and stapled together in the Storage section before being fed out of the Main Tray. The Storage Sensor detects the paper in the Storage Section.



1. The Transport Motor (M3) drives the Aligning Belt, so that the paper is transported up to the position of the Exit Roller.



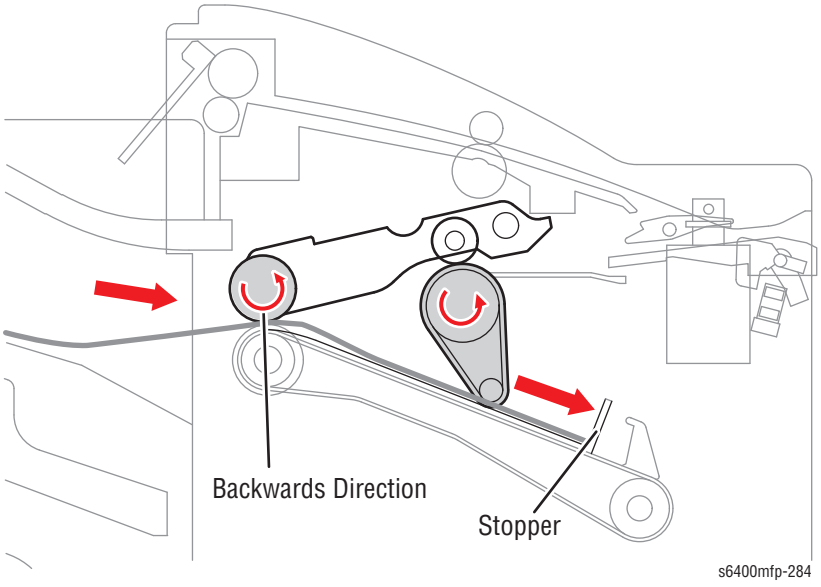
2. When the trailing edge of the paper moves past the Aligning Belt, the Exit Roller Up/Down Motor starts rotating to lower the Upper Exit Roller. The Aligning Plate is driven by the Align Motor (M2).



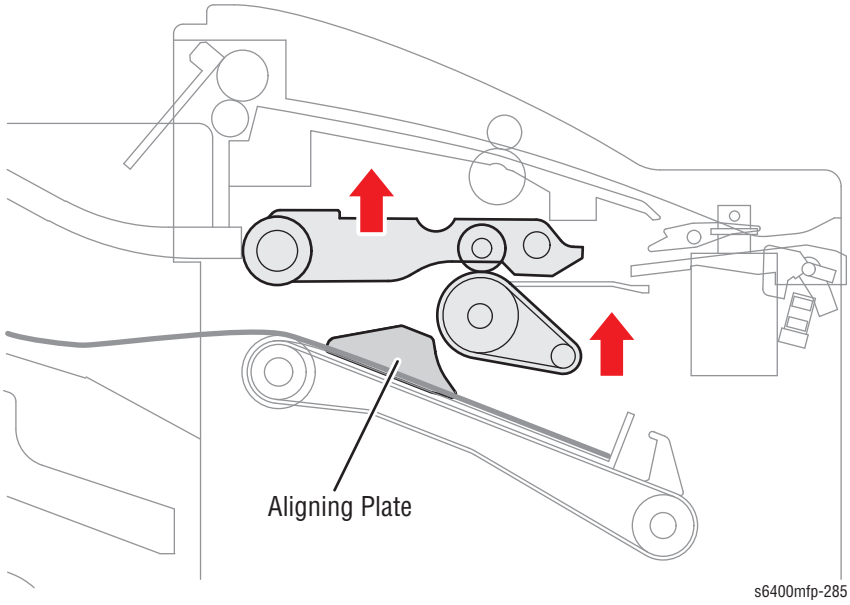
3. The Exit Motor (M4) rotates in the direction of the storing paper, causing the Exit Roller to rotate in the direction of the storing paper.

   The Exit Roller and Aligning Belt make the paper perform a switchback operation, so that the paper is stored in the Finishing Tray.

   The paper is pressed up against the Stopper to be aligned properly (in the feeding direction).



4. When the paper is stored in place, the Exit Roller Up/Down Motor (M5) starts rotating to raise the Upper Exit Roller.
5. The Aligning Belt Up/Down Solenoid is energized so that the Aligning Belt is raised.
6. The Align Motor (M2) starts rotating to press the Aligning Plate up against the paper. This aligns the paper properly (in the crosswise direction).
7. The Aligning Belt Up/Down Solenoid (SL3) is energized to lower the Aligning Belt.
8. In Staple mode, the printed paper Stack/Set is stapled together after the paper aligning sequence.



Finishing Tray Paper Full Detection On Staple Mode

The number of printed pages that can be stored in the Finishing Tray on Staple mode varies depending on the length of the paper.

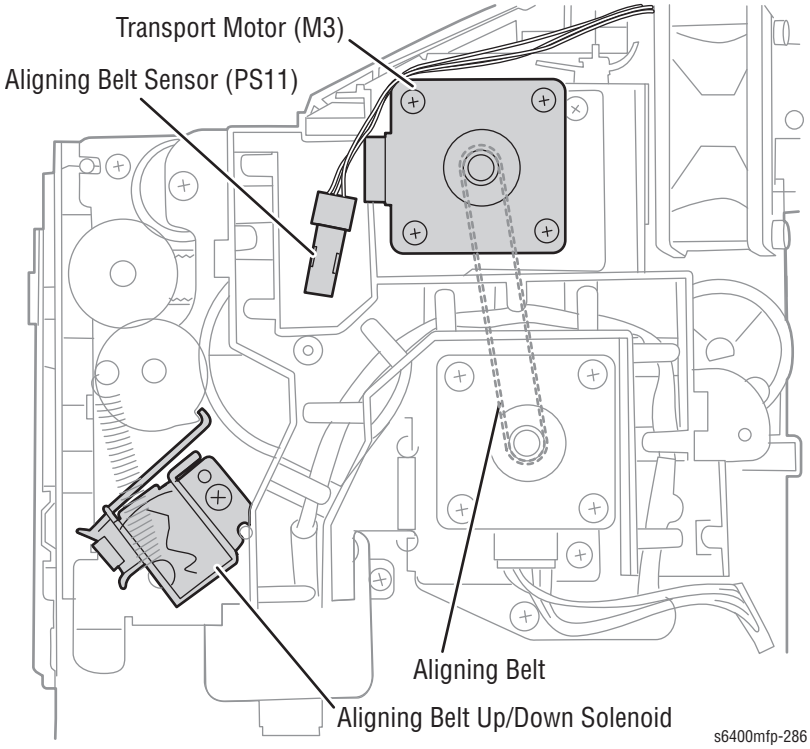
Paper Length	Plain Paper
300 mm or under	30 sheets
Over 300 mm	20 sheets

If the paper length is 300 mm or less, the count is taken when a job is received from the printer. It is determined that the Finisher Tray capacity has been reached when the count reaches 30.

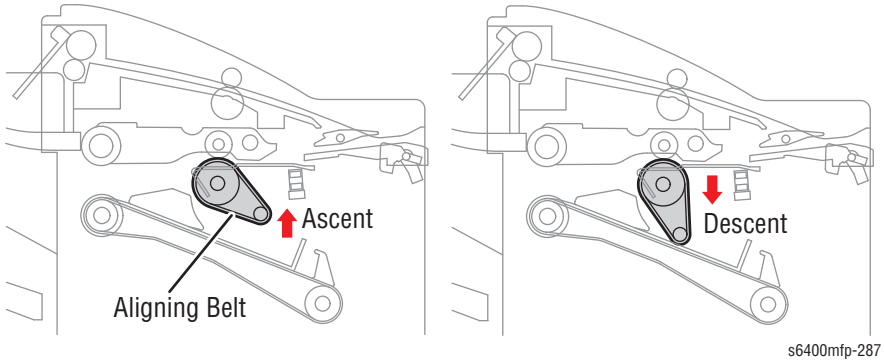
If the paper length exceeds 300 mm, the count is taken when a job is received from the printer. It is determined that the Finishing Tray capacity has been reached when the count reaches 20.

If the maximum Finishing Tray capacity is reached in the middle of a print job, the Staple Finisher forces the remaining sheets of paper out of the printer.

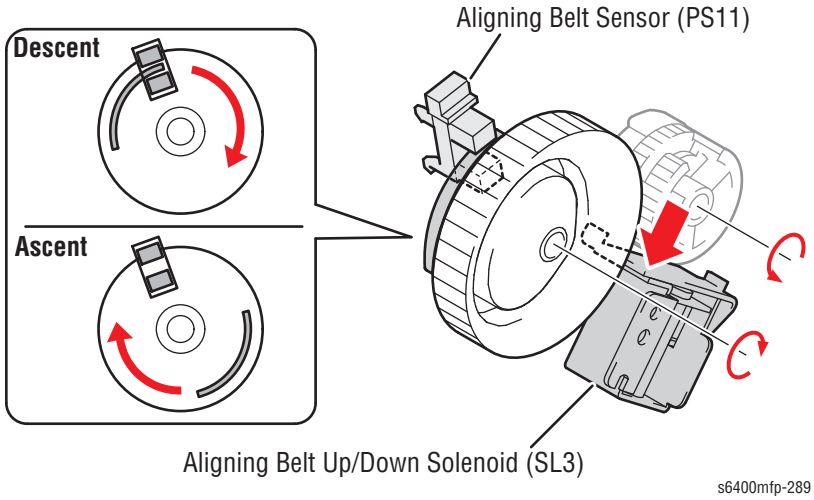
Aligning Belt Up/ Down Mechanism



When the Aligning Plate and Paper Ejector are operated, the paper leaves the Aligning Belt. The Aligning Belt is moved up or down through drive energy from the Transport Motor (M3).



The Aligning Belt Sensor (PS11) detects the movement of the Aligning Belt. Descent tracks downward movement. Ascent tracks upward movement.

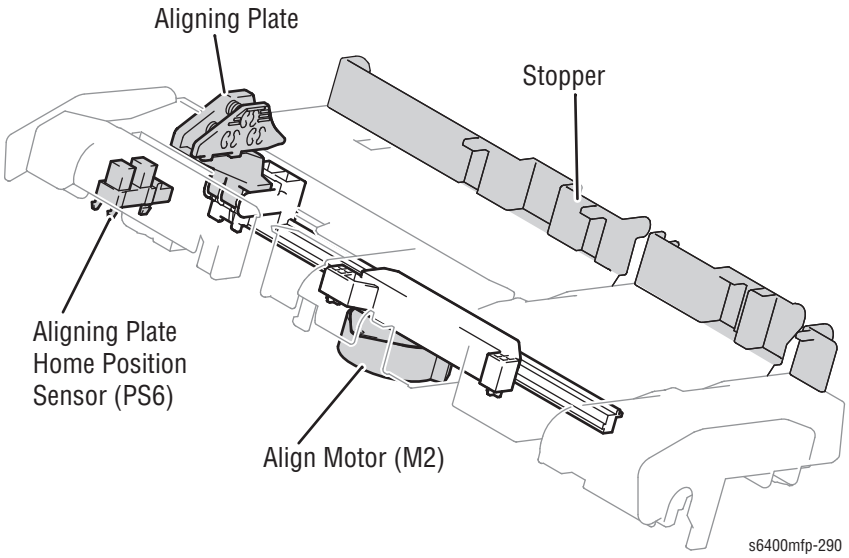


Aligning Plate Mechanism

The Aligning Plate is moved across to align the paper. Paper aligning is completed by the Align Motor (M2) and the Aligning Plate.

Aligning Plates

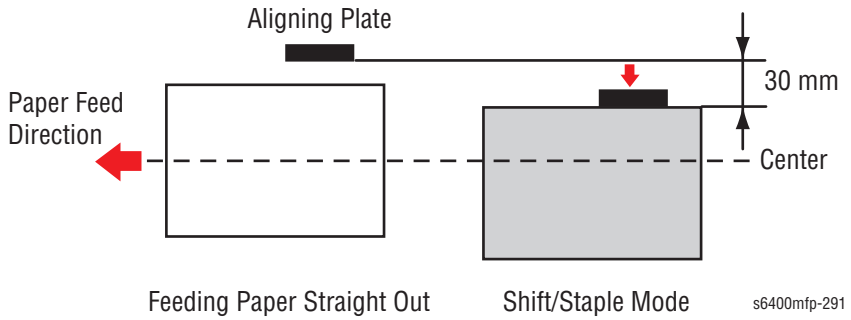
The Aligning Plates are moved to the front or rear in accordance with the paper size. The Aligning Plate Home Position Sensor (PS6) controls the position of the Aligning Plate.



Paper Aligning Sequence

In a mode in which the paper is fed straight out (without involving shift or stapling operation), the paper is fed out centrally.

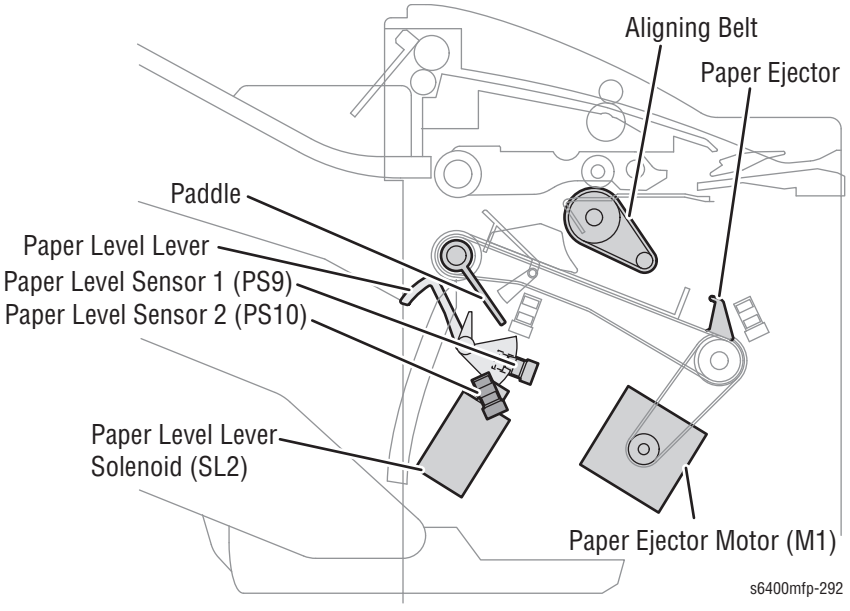
In the Shift/Stapling mode, the Aligning Plate pushes the paper about 30 mm toward the front.



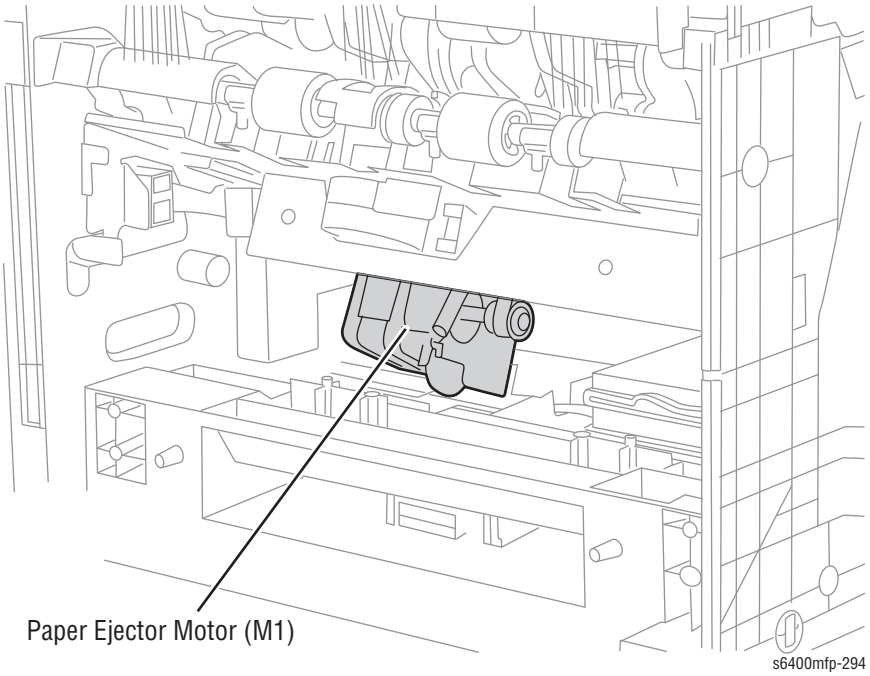
Exit Mechanism

The printed paper stack/set aligned in the storage section is fed out into the Main Tray by the Paper Ejector. The Align Belt is moved up providing cleaning for the Paper Ejector to move the media to the Main Tray. Once the paper is on the Main Tray, the Paper Level Lever Solenoid activates the Paper Level Lever determining the Main Tray is Full.

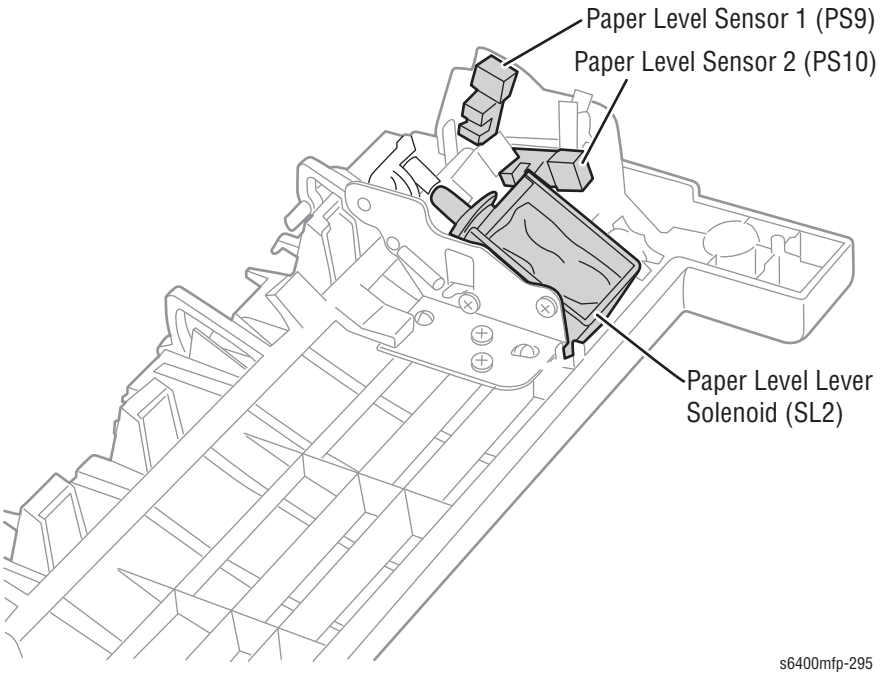
After the paper exits, the paddle rotates and tampered the paper into the tray.



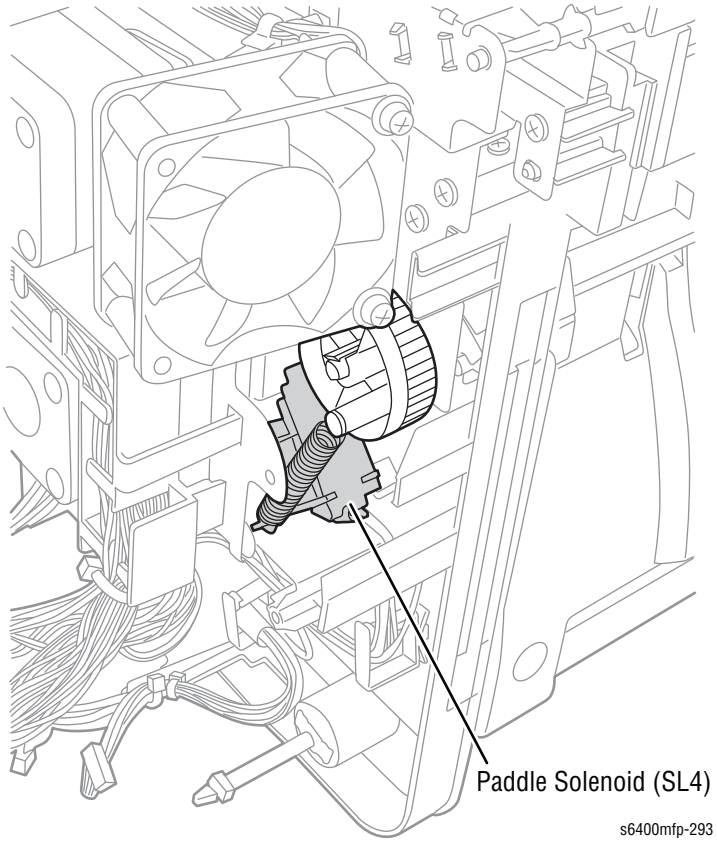
The Paper Ejector Belt is driven by the Paper Eject Motor (M1).



The Paper Level Lever is driven by the Paper Level Lever Solenoid (SL2).

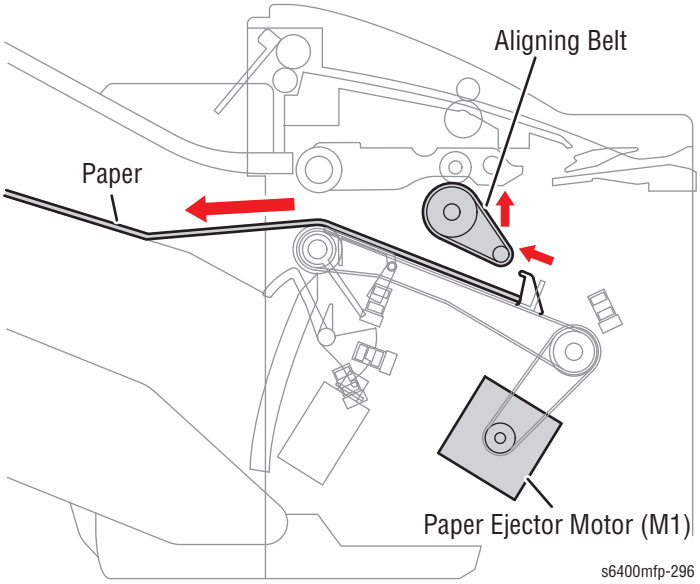


The paddle is driven the Paddle Solenoid (SL4) and Exit Motor (M4).

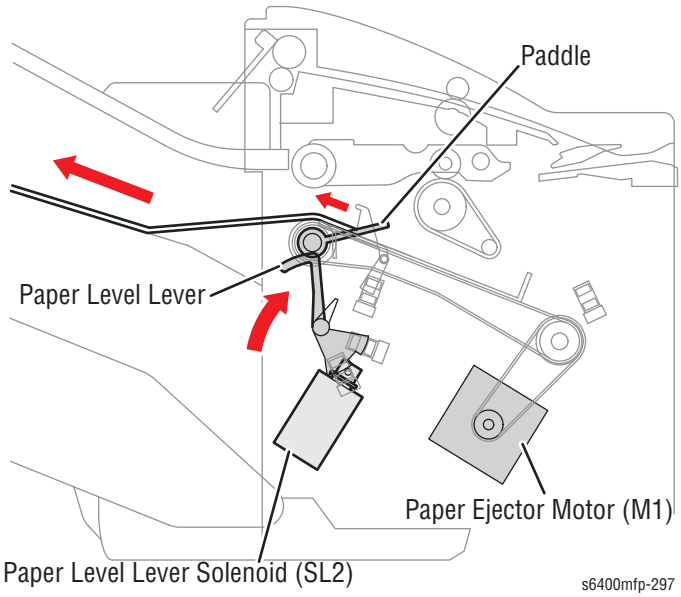


The following steps describe the operation in the Shift mode. The operation for the Stapling mode follows the same steps with some performed in different orders.

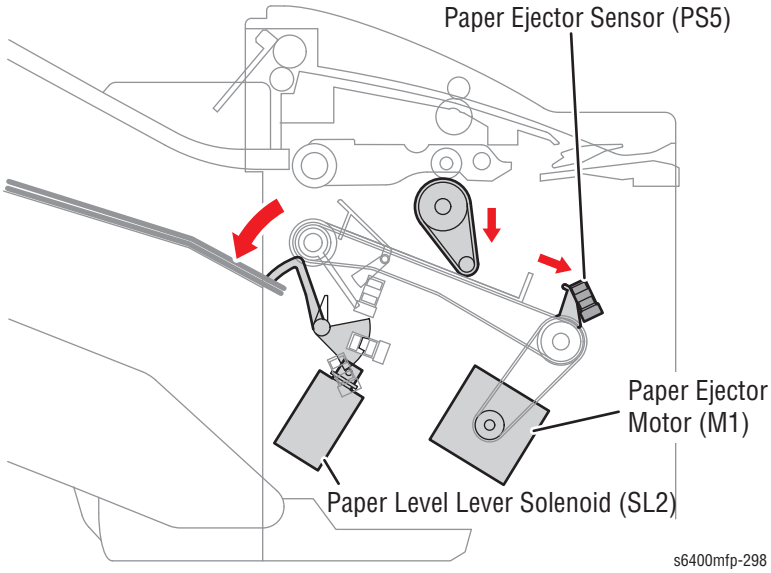
1. When the paper aligning sequence is completed, the Aligning Belt Up/Down Solenoid (SL3) is energized so that the Aligning Belt is raised.
2. The Paper Ejector Motor (M1) starts rotating so that the Paper Ejector transports the paper up the Exit Roller.



3. The Paper Level Lever Solenoid (SL2) is energized to retract the Paper Level Lever.
4. The Paddle Solenoid (SL4) is energized to rotate the Paddle. The Paddle feeds the paper out to the Main Tray.
5. The Paper Ejector Motor (M1) is rotated backward to move the Paper Ejector toward its home position.

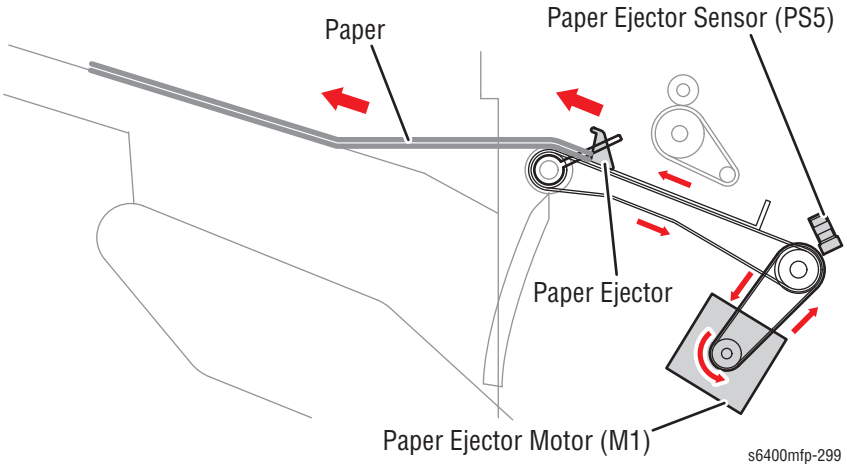


6. The Paper Level Lever Solenoid (SL2) is energized to advance the Paper Level Lever to a position above the paper.
7. When the Paper Ejector blocks the Paper Ejector Sensor (PS5), the Paper Eject Motor (M1) is de-energized.
8. The Aligning Belt Up/Down Solenoid (SL3) is energized to lower the Aligning Belt.

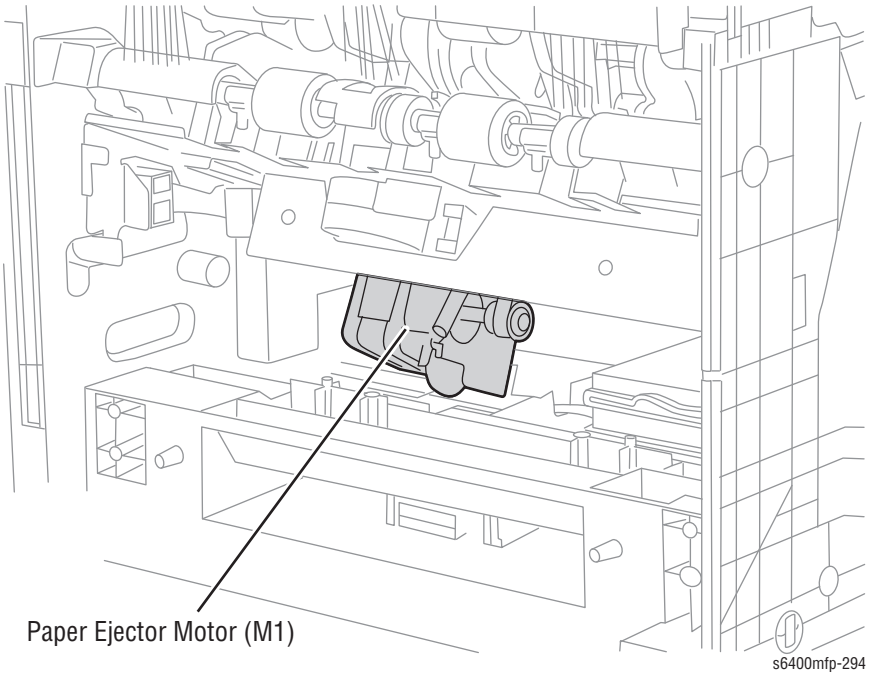


Paper Ejector Mechanism

The printed paper stack/set stored in the Finishing Tray is fed out to the Main Tray.

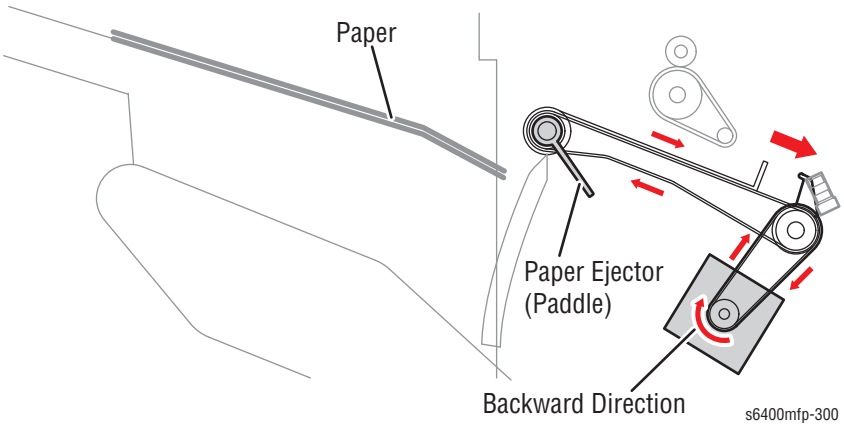


The Paper Ejector is advanced or retracted by drive energy from the Paper Ejector Motor (M1).

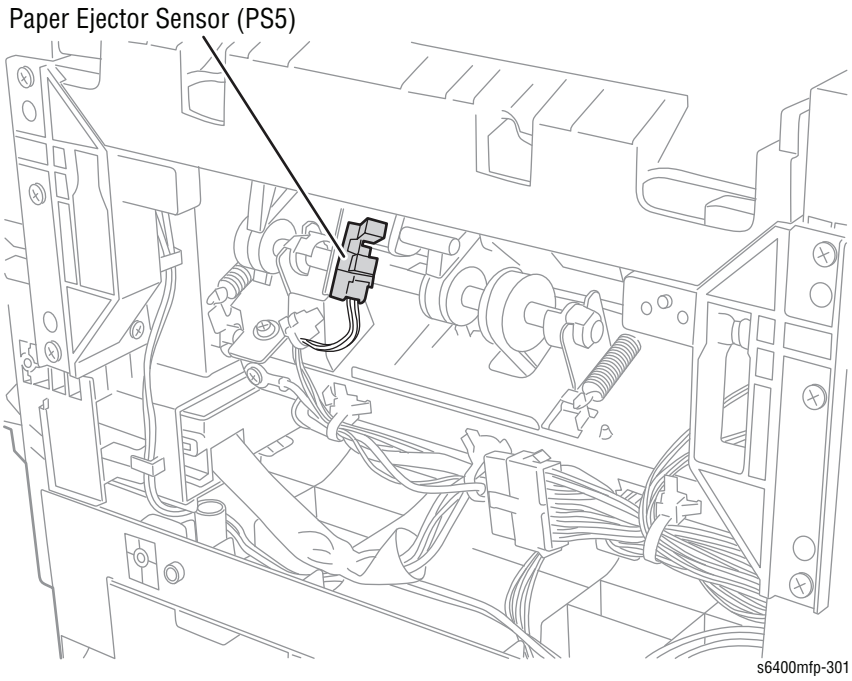


Rotation of the Paper Ejector Motor (M1) in the forward direction causes the Paper Ejector Belt to rotate in the forward direction. This causes the Paper Ejector to advance (or move in the direction of feeding the paper stack/set out).

Rotation of the Paper Ejector Motor (M1) in the backward direction causes the Paper Ejector Belt to rotate backward. This causes the Paper Ejector to retract (or move toward the home position).

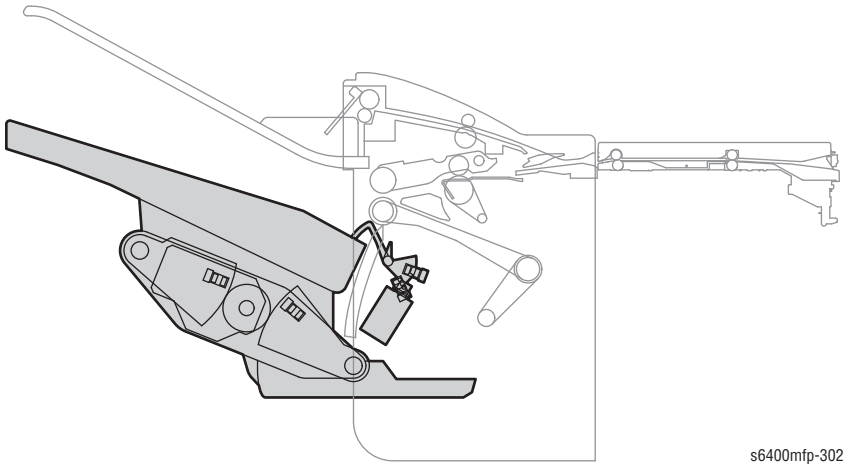


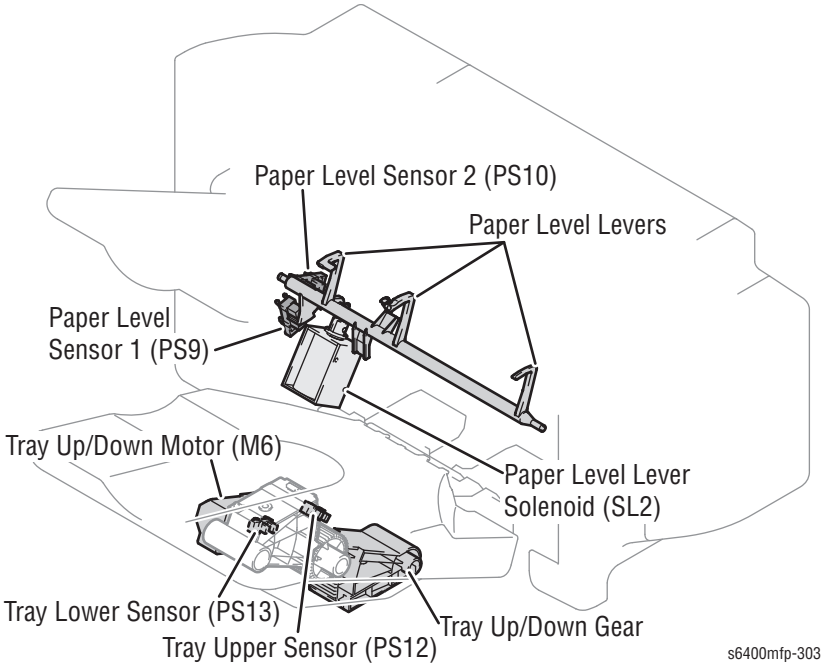
The Paper Ejector Sensor (PS5) detects the Paper Ejector at its home position.



Main Tray

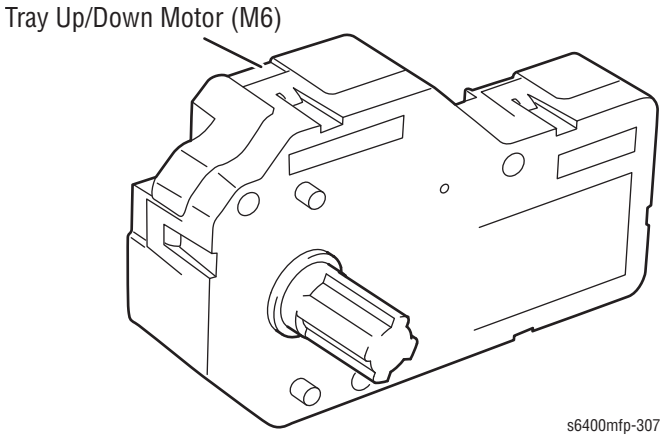
The Tray Full Sensor (PS4) controls the paper level and detection of a paper full condition in order to accommodate properly paper fed out of the Finisher.

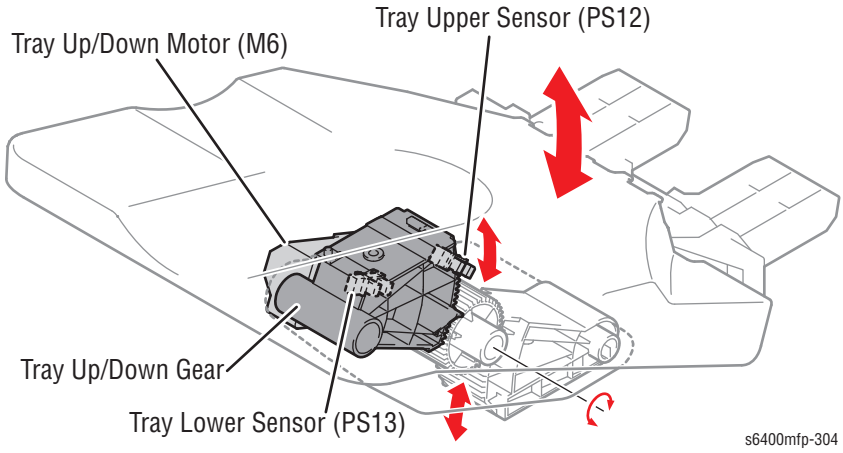




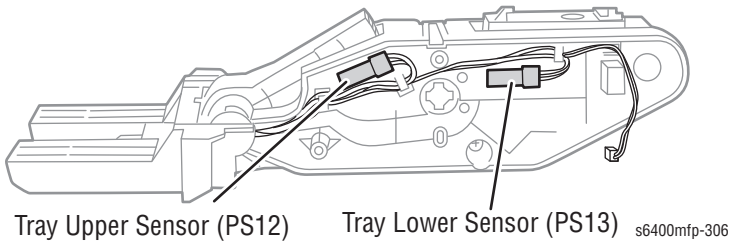
Main Tray Ascent/ Descent

Rotation of the Tray Up/ Down Motor (M6) in either forward or backward direction drives the Tray Up/ Down Gear to move the Main Tray up or down.





The Tray Upper Sensor (PS12) detects the Main Tray at the upper limit position. The Tray Lower Sensor (PS13) detects the Main Tray at its lower limit position.



Paper Level Detection Mechanism

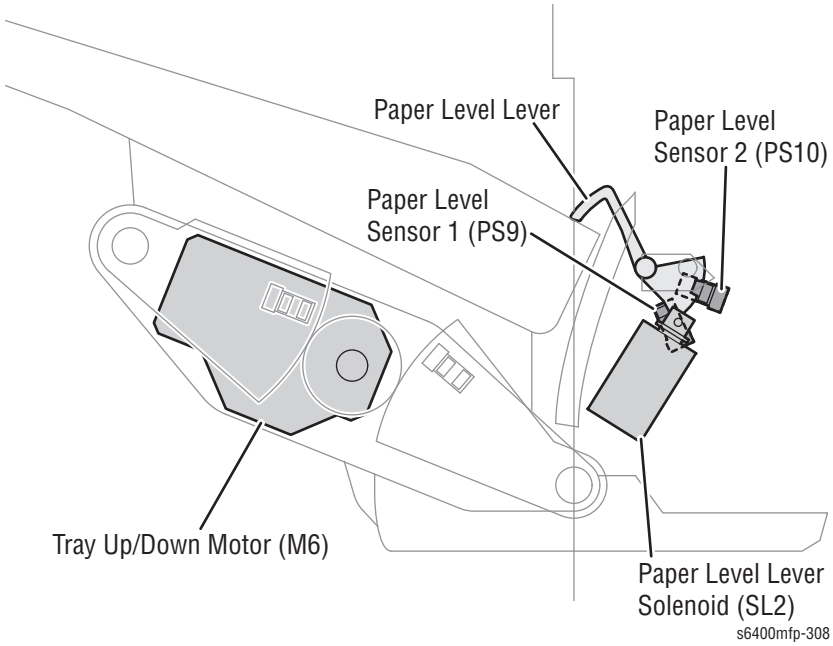
The Main Tray moves up or down according to the amount of paper fed onto it. The Paper Level Sensor 1 (PS9) and Paper Level Sensor 2 (PS10) detect the paper level each time a sheet of paper is fed out, so that the level of the paper fed to the tray remains constant at all times.

When the Paper Level Lever Solenoid (SL2) is energized, the Paper Level Lever moves to above the Main Tray. When the Paper Level Lever Solenoid is de-energized, the Paper Level Lever is retracted.

The angle of the Paper Level Lever is changed according to the height of the Main Tray. When the Paper Level Lever has reached a specific location, the Paper Level Sensor 1 or 2 is blocked/unblocked,

The height of the Main Tray is determined according the combination of different states detection of the Paper Level Sensor 1 and Paper Level Sensor 2.

If the paper level is lower or higher than the specified range, the Tray Up/Down Motor (M6) is energized to lower or raise the tray until the specified tray height is reached.

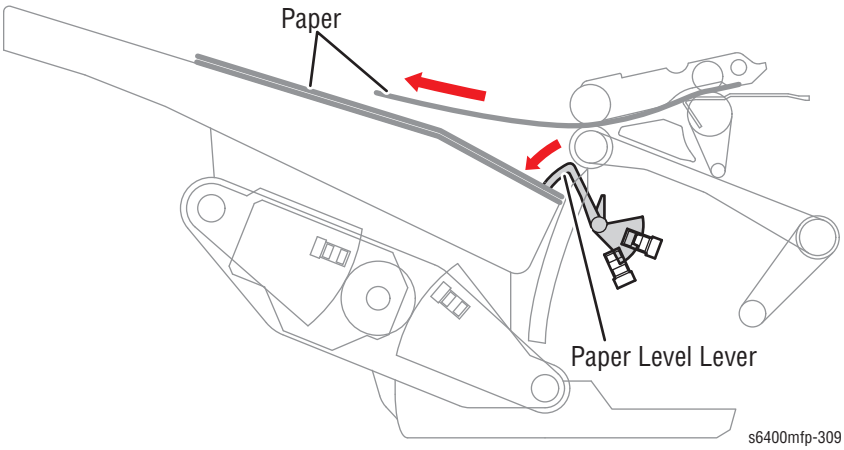


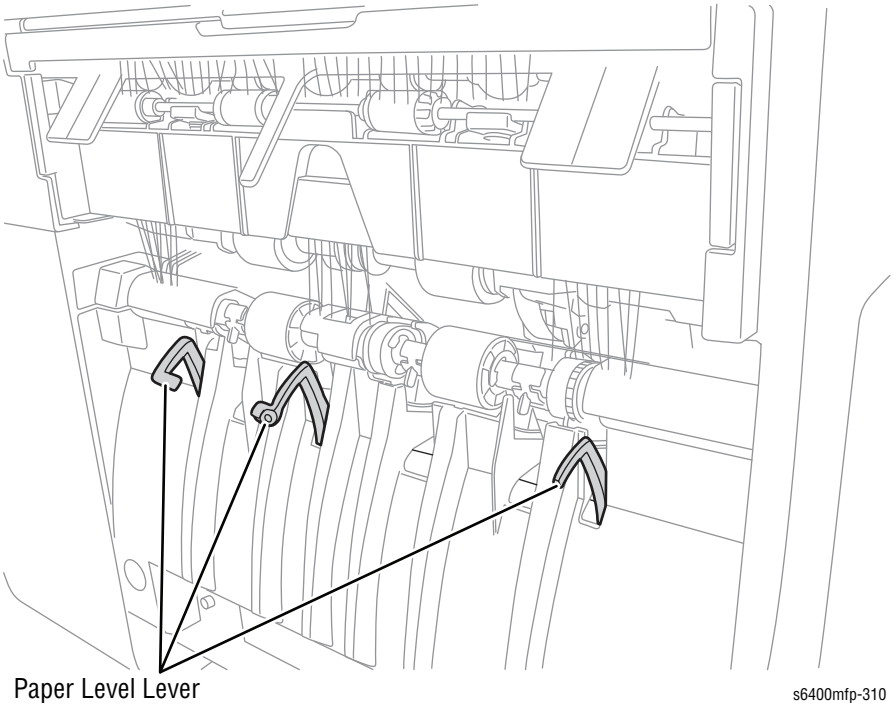
Paper Level Sensor 1	Paper Level Sensor 2	Evaluation	Tray Up/Down Motor
Unblocked	Blocked	Failing within the specified range	De-energized
Unblocked	Unblocked	Higher than the specified range	Energized for lowering
Blocked	Blocked	Lower than the specified range	Energized for raising

Paper Holding Mechanism

The Paper Level Lever holds the paper down on the Main Tray while printed paper stacks/sets are fed out (except for the Stapling mode), thereby preventing the paper stacks/sets which have previously been fed onto the printer from being pushed out and dropped by a new paper stack/set being fed out.

The subsequent stack/set of printed paper is fed out with the preceding stack/set of printed paper held down by the Paper Level Lever.





Paper Full Detection

The Paper Level Sensor 1 (PS9), Paper Level Sensor 2 (PS10), and the Tray 4 Sensor (PS13) detect the amount of paper transport to the Main Tray.

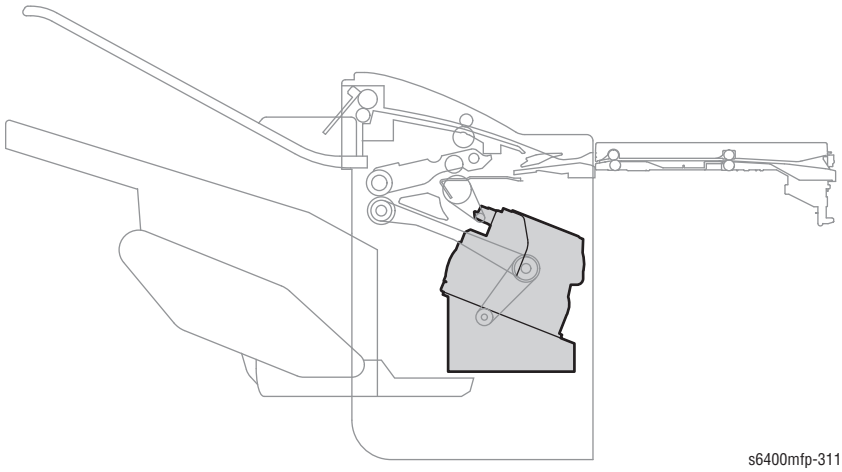
When the corresponding sensor detects either condition 1 or 2 described in the provided table, the Finisher determines that the maximum capacity of the printed paper on the Main Tray has been reached and display the message on the Control Panel.

Conditions	Paper Level Sensor 1	Paper Level Sensor 2	Lower Tray Sensor	Evaluation
1	Unblocked	Blocked	Blocked	Paper full
2	Unblocked	Unblocked	Blocked	

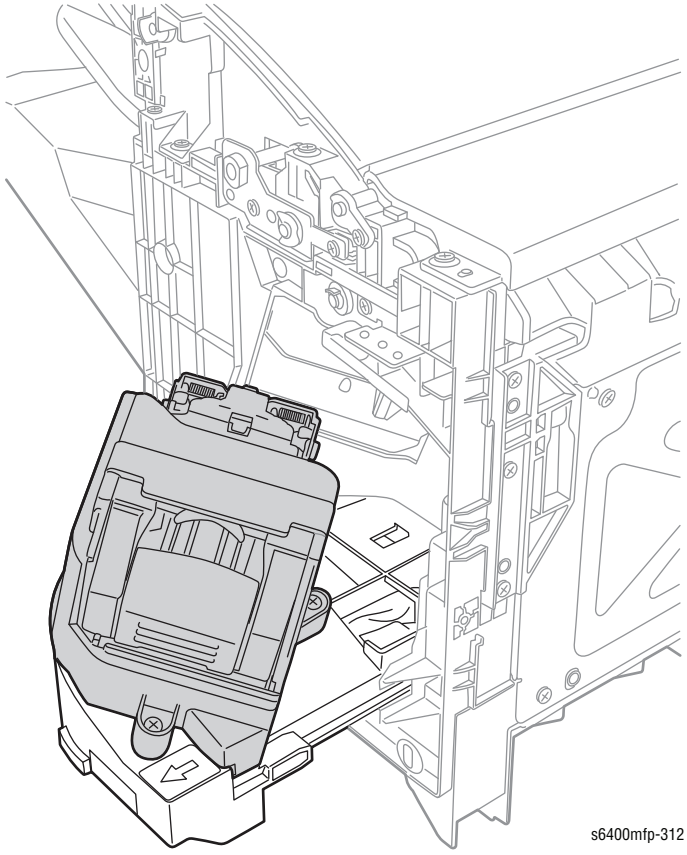
If the sensor detects that the Main Tray is full, printing is stopped. The error message is cleared when the paper is removed from the Main Tray.

Stapling Unit

The Stapling Unit is accessed by opening the Finisher Front Door.



s6400mfp-311

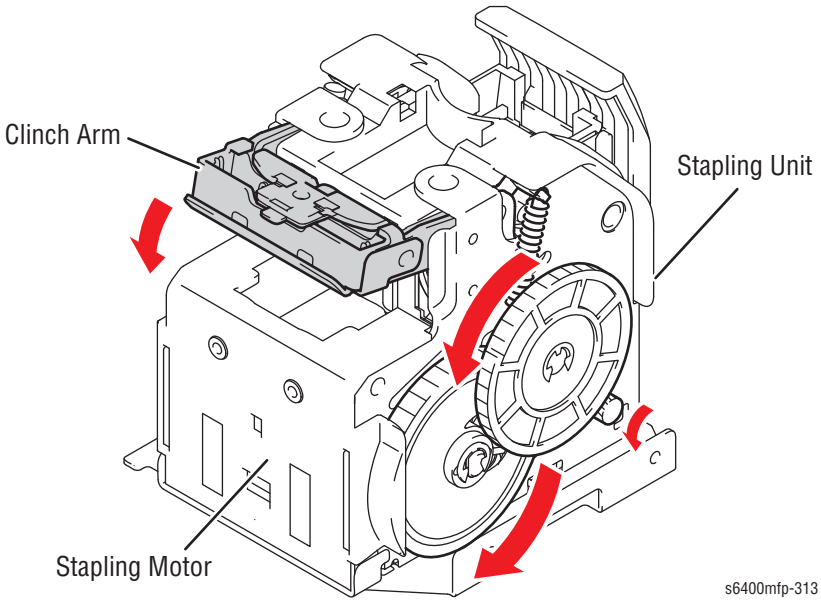


s6400mfp-312

Stapling Mechanism

Stapling is performed by the Stapling Unit. When the Stapling Motor is rotated, the clinch arm lowers. The Stapler goes up to drive a staple in the paper.

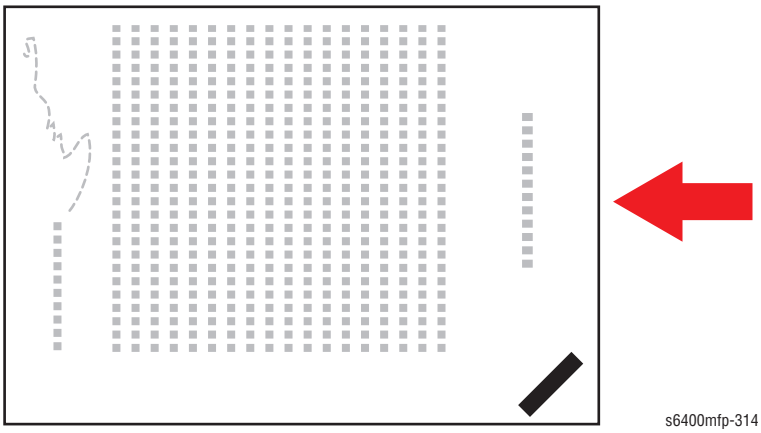
Stapling is performed at one point at the rear corner of the paper stack/set.



Stapling Position

When the Finisher is mounted on the printer, the printed paper is fed out face down with its trailing edge first. The staple is driven into the paper stacker/set at an angle of 49° relative to the printed surface at the rear corner.

Typical Staple Position

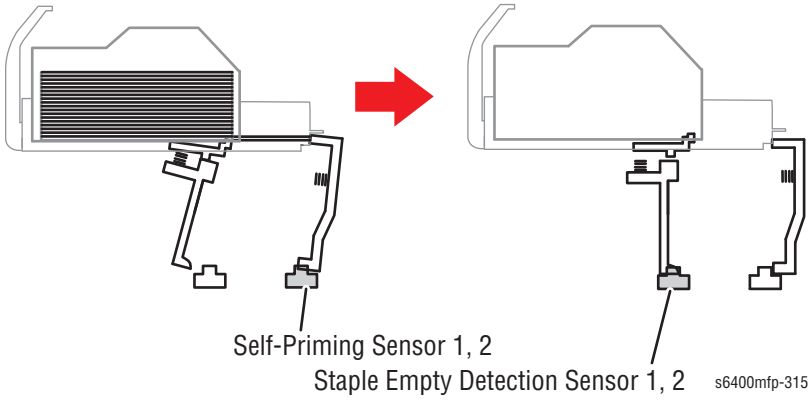


Staple Sheet Empty Detection

Staple Empty Detection Sensor 1, 2 detect whether or not there is a staple sheet still left. When there are about 20 staples left in the Staple Cartridge, a staple cartridge empty condition occurs, causing a corresponding empty message to appear on the Control Panel.

When the empty condition is detected, the corresponding empty indication is displayed on the Control Panel. At the same time, the Stapling unit moves to the front.

When a new Staple Cartridge is loaded, the Stapling Motor is energized until the priming sensor detects a staple, which results in the staple to be fed up to the stapling position.



Error Messages and Codes

In this chapter…

Press the **Machine Status** button.

1. Select the **Faults** tab.
2. Select **Current Faults**, or **Fault History**.

Chapter 3

Introduction

This chapter describes error message and fault codes displayed in fault history on the control panel. These error indications serve as the entry point into the troubleshooting process.

Troubleshooting of problems not directly indicated by or associated with an error message or fault code is covered in “General Troubleshooting” on page 4-1. Print quality problems are covered in “Print-Quality Troubleshooting” on page 5-1.

The printer tracks and reports errors in a number of ways. The two types of error reporting discussed in this section include:

- Error messages displayed on the control panel or in current messages and current faults.
- Fatal printer errors and jam errors listed within machine status in fault history on the control panel.

System Status Embedded Page

The System Status/ Fault History page is a multiple page document. Page one includes counters, current temperature and humidity, and some test patterns for color registration. Page two is a list of the most recent faults that have occurred giving the error code, date, time, and page count at the time they happened.

Note

The Image Count (**Machine Status** -> **Faults** -> **Fault History**) is the Total images between service calls, not total impressions.

Accessing System Status/ Fault History Report

Customer Menu

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. On the Control Panel, press the **Machine Status** button.
7. On the UI screen, touch the **Tools** tab.
8. Touch the **Troubleshooting** button.
9. Under the **Features** screen, select **Support Pages**.
10. On the **Support Pages** screen, select **System Status Page**.
11. Touch the Print button to print the **System Status Page** report.
12. The **System Status Page** report includes:
    - System Status
    - Fault History

13. Touch the **Close** button to exit the **Support Pages** screen.

Status Messages and Faults

The current status and fault history of the printer can be viewed using the faults tab in machine status.

Accessing Fault and Status Messages on the UI

1. From the printer's Control Panel, press the **Machine Status** button.
2. Touch the **Faults** tab.
3. Choose the appropriate button to access the current faults, current messages or fault history.

Current Faults

The current faults lists the displayed status messages on the control panel.

Current Messages

The current messages lists the displayed status messages on the control panel that have an associated pop up window. To view the pop up window, highlight a status message then touch the instruction button.

Fault History

The Fault History lists the most recent printer fault codes with a time and date stamp. Use the fault code to determine the appropriate trouble shooting procedure to correct printer problems.

Servicing Instructions

The service checklist below is an overview of the path a service technician should take when servicing the printer and printer optional equipment.

Step 1: Identify the Problem

1. Verify the reported problem does exist.
2. Check for any error codes and write them down.
3. Print normal customer prints and service test prints.
4. Make note of any print-quality problems in the test prints.
5. Make note of any mechanical or electrical abnormalities present.
6. Make note of any unusual noise or smell coming from the printer.
7. Print the system status embedded page to view the printer parameters and fault history (last 40 faults).
8. Verify the AC input power supply is within proper specifications by measuring the voltage at the electric outlet while the printer is running.

Step 2: Inspect and Clean the Printer

1. Turn the printer power Off.
2. Disconnect the AC power cord from the wall outlet.
3. Verify the power cord is free from damage or short circuit and is connected properly.
4. Remove the Toner Cartridge.
5. Remove the Imaging Units and protect them from light.
6. Remove the Transfer Belt.
7. Inspect the printer interior and remove any debris such as pieces of paper, dust, or loose toner.
8. Clean each laser lens.
9. Do not use solvents or chemical cleaners to clean the printer interior.
10. Do not use any type of oil or lubricant on printer parts.
11. Use only an approved toner vacuum.
12. Clean all rubber rollers with a lint-free cloth, dampened slightly with cold water and mild detergent.
13. Inspect the interior of the printer for damaged wires, loose connections, toner leakage, and damaged or obviously worn parts.
14. If the Toner Cartridges appear obviously damaged, replace with new ones.

Step 3: Find the Cause of the Problem

1. Use the Error Messages and Codes and troubleshooting procedures to find the cause of the problem.
2. Use Service Diagnostics to check the printer and optional components.
3. Use the Wiring Diagrams and Plug/Jack Locator to locate test points.
4. Take voltage readings as instructed in the appropriate troubleshooting procedure.

Step 4: Correct the Problem

1. Use the Parts List to locate a part number.
2. Use the FRU Disassembly procedures to replace the part.

Step 5: Final Checkout

1. Test the printer to be sure you have corrected the initial problem and there are no additional problems present.

Messages, Chain Link Codes, and Procedures

The error messages and chain link codes generated by the printer's operating system are the lead-in to the troubleshooting procedures that follow in subsequent pages. This section correlates the output of the printer's diagnostic aids and provides the troubleshooting procedures to locate and correct the reported errors.

Fault Codes Summary

Soft Faults

Soft faults are events that occur within the system and, in most cases cause no disruption to the operation of the printer. The system automatically recovers from these events and no action is required by service. Soft fault events are viewable in Diagnostics dc120 fault counters only.

Hard Faults

Hard faults are events that occur within the system that shut down one or more functions within the printer and require service for corrective action. Hard faults are logged in the Machine Status/ Faults Tab and Diagnostics dc122 Fault History. A printable version of the fault log is available in the System Status Embedded Page.

The Fault Codes Summary table lists possible errors, along with the corresponding code, and page reference for the corrective procedure.

- The fault codes column lists the codes displayed in fault history.
- The Fault Description column shows the message as it appears on the printer's Control Panel.
- The Page column references the procedure related to the error.

Use this table to identify the proper procedure to correct the reported error.

Fault Code	Fault Description	Page
Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
301 - Main Power/ Standby Power/ Interlocks **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
301.510.00	The Front Door is Open	page 3-13
302 - System Controller/ UI **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
302.302.00	All LED's are Blinking	page 3-15
302.306.00	All LED's are Blinking	page 3-15

Fault Code	Fault Description	Page
302.308.00	All LED's are Blinking	page 3-15
302.315.00	Invalid Service Registry	page 3-17
302.316.00	Invalid Service Registry	page 3-17
302.317.00	Invalid Service Registry	page 3-17
302.320.00	Invalid Service Registry	page 3-17
302.321.00	Extensible Services are not available	page 3-18
302.390.00	Invalid Service Registry	page 3-17
303 - Machine Run Control **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
303.301.00	System Fault	page 3-19
303.302.00	System Fault	page 3-19
303.303.00	System Fault	page 3-20
303.304.00	Image Disk is Offline	page 3-21
303.305.00	System Fault	page 3-23
303.308.00	System Fault	page 3-23
303.310.00	Unknown Printer Error	page 3-24
303.316.00	System Fault	page 3-25
303.317.00	IOT NVM Error	page 3-26
303.318.00	IOT NVM Error	page 3-26
303.319.00	IOT NVM Error	page 3-26
303.325.00	System Fault	page 3-27
303.330.00	Upgrade Failure	page 3-28
303.338.00	Software Reset	page 3-29
303.355.00	System Fault	page 3-30
303.401.00	Fax Service Error	page 3-31
303.789.00	NVM Autosave Error	page 3-32
304 - Machine Main Drive/ Start Print Power **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
304.001.00	System Fault	page 3-33
304.002.00	System Fault	page 3-35
304.003.00	Finisher Error	page 3-36
304.486.00	Paper Jam at the Output Tray	page 3-37
305 - Document Transport **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
305.161.00	Paper Jam in the Document Feeder	page 3-39

Fault Code	Fault Description	Page
305.162.00	Paper Jam in the Document Feeder	page 3-39
305.163.00	Paper Jam in the Document Feeder	page 3-39
305.164.00	Paper Jam in the Document Feeder	page 3-39
305.165.00	Scanner Fault	page 3-41
305.166.00	Scanner Fault	page 3-41
305.167.00	Scanner Fault	page 3-43
305.168.00	Scanner Fault	page 3-41
305.169.00	System Fault	page 3-44
305.194.00	Document Feeder is not Available	page 3-45
305.196.00	Document Feeder is not Available	page 3-45
305.197.00	Document Feeder is not Available	page 3-45
305.274.00	Document Feeder is not Available	page 3-45
308 - Paper Feed & Transport **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
308.001.00	System Fault	page 3-46
308.002.00	System Fault	page 3-49
308.101.00	Misfeed in Tray 1	page 3-51
308.102.00	Misfeed in Tray 2	page 3-53
308.103.00	Misfeed in Tray 2	page 3-53
308.104.00	Misfeed in Tray 3/4	page 3-56
308.105.00	Paper Jam Behind the Duplex Door/Feed Area	page 3-59
309 - Xerographics/ Markings **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
309.001.00	Xerographic System Error	page 3-61
309.002.00	Xerographic System Error	page 3-61
309.003.00	Xerographic System Error	page 3-63
309.004.00	Xerographic System Error	page 3-65
309.005.00	Xerographic System Error	page 3-68
309.006.00	Xerographic System Error	page 3-70
309.007.00	Xerographic System Error	page 3-72
309.008.00	Xerographic System Error	page 3-72
309.009.00	Xerographic System Error	page 3-72
309.010.00	Xerographic System Error	page 3-72
309.011.00	Auto Calibration Failed	page 3-73
309.012.00	Auto Calibration Failed	page 3-73

Fault Code	Fault Description	Page
309.013.00	Auto Calibration Failed	page 3-73
309.014.00	Auto Calibration Failed	page 3-73
310 - IOT (Fuser/ Fixing and Post Fix Transport) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
310.102.00	Paper Jam Under the Control Panel	page 3-75
310.103.00	Paper Jam Behind the Right Side Door	page 3-78
310.104.00	Paper Jam Behind the Duplex Door/Feed Area	page 3-59
310.105.00	Paper Jam Behind the Right Side Door	page 3-78
310.106.00	Paper Jam Behind the Right Side Door	page 3-81
310.301.00	Fuser System Error	page 3-84
310.302.00	Fuser System Error	page 3-84
310.303.00	Fuser System Error	page 3-84
310.304.00	Fuser System Error	page 3-84
310.305.00	Fuser System Error	page 3-84
310.306.00	Fuser System Error	page 3-84
310.307.00	Fuser System Error	page 3-86
310.308.00	Fuser System Error	page 3-87
312 - Finisher **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
312.098.00	Finisher Error	page 3-90
312.099.00	Finisher Error	page 3-92
312.480.00	Finisher Error	page 3-94
312.481.00	Finisher Error	page 3-96
312.482.00	Finisher Error	page 3-98
312.483.00	Finisher Error	page 3-100
312.484.00	Finisher Error	page 3-102
312.485.00	Finisher Error	page 3-104
312.487.00	Paper Jam in the Finisher Transport Area	page 3-106
312.488.00	Paper Jam at Finisher Top Output Tray	page 3-108
312.489.00	Paper Jam at Finisher Main Output Tray	page 3-110
312.491.00	Staple Jam in the Finisher	page 3-112
314 - Raster Input Scanner (RIS) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
314.001.00	Scanner Fault	page 3-41
314-002.00	Scanner Fault	page 3-114

Fault Code	Fault Description	Page
314.003.00	Scanner Fault	page 3-43
314.004.00	Paper Jam in the Document Feeder	page 3-39
314.005.00	Document Feeder (DADF) Disconnected	page 3-116
315 - Image Processing Subsystem (IPS) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
315.007.00	Scanner Fault	page 3-41
315.008.00	Scanner Fault	page 3-41
315.009.00	Scanner Fault	page 3-117
315.010.00	Scanner Fault	page 3-117
315.011.00	Scanner Fault	page 3-117
315.012.00	Scanner Fault	page 3-117
316 - Network Controller (for Back End) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
316.xxx.xx	Internal Communication Error	page 3-119
316.xxx.xx	Network Controller Internal Error	page 3-121
319 - Video Image Manipulation **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
319.300.00	Image Disk is Offline	page 3-21
319.301.00	Image Disk is Offline	page 3-21
319.302.00	Image Disk is Offline	page 3-21
319.303.00	Image Disk is Offline	page 3-21
319.310.00	Image Disk is Offline	page 3-21
319.403.00	Out of Memory	page 3-123
320 - Fax **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
320.302.00	Fax Services Cannot Register/ Unregister	page 3-124
320.303.00	Fax Services Cannot Register/ Unregister	page 3-124
320.305.00	Fax Services Cannot Register/ Unregister	page 3-124
320.320.00	A Fax Memory Error has Occurred	page 3-125
320.322.00	A Fax Memory Error has Occurred	page 3-125
320.323.00	A Fax Memory Error has Occurred	page 3-125
320.324.00	A Fax Memory Error has Occurred	page 3-125
320.327.00	A Fax Memory Error has Occurred	page 3-125
320.331.00	Fax Line 1 Unavailable or No Dial Tone Detected	page 3-127

Fault Code	Fault Description	Page
320.338.00	Fax Line 1 Unavailable or No Dial Tone Detected	page 3-127
320.339.00	A Fax Memory Error has Occurred	page 3-125
320.341.00	A Fax Memory Error has Occurred	page 3-125
320.342.00	A Fax Memory Error has Occurred	page 3-125
320.350.00	Fax Line 1 Unavailable or No Dial Tone Detected	page 3-127
320.351.00	Fax Line 1 Unavailable or No Dial Tone Detected	page 3-127
320.701.00	Fax Services Cannot Register/ Unregister	page 3-124
322 - System Controller (DC Software) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
322.370.00	Network Controller Error	page 3-129
322.371.00	Fax Services Cannot Register/ Unregister	page 3-124
322.372.00	Fax Services Cannot Register/ Unregister	page 3-124
322.750.00	Output Device Configuration Mismatch	page 3-130
342 - IOT **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
342.045.00	System Fault	page 3-131
362 - IIT **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
362.310.00	Scanner Fault	page 3-114
377 - IOT (Paper Trays) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
377.305.00	Tray 3 or Tray 4 Right Side Door is Open	page 3-132
377.306.00	Tray 3 or Tray 4 Right Side Door is Open	page 3-132
377.307.00	Close Duplex Door	page 3-134
377.308.00	Close Finisher Top Cover	page 3-136
377.309.00	Lower the Control Panel Door	page 3-138
377.310.00	The Finisher Front Door is Open	page 3-139
377.311.00	Document Feeder Cover is Open	page 3-141
377.312.00	The Right Side Door is Open	page 3-142
377.313.00	Duplex Unit Error	page 3-144
377.314.00	Tray 1 Assembly Error	page 3-146
391 - IOT (Marking) **Note:** Only hard fault codes are listed here. Reference the comprehensive fault code list in Appendix A (page A-1) for any fault code not found in this section.		
391-313-00	Xerographic System Error	page 3-148

Fault Code	Fault Description	Page
391-320-00	Xerographic System Error	page 3-150

Status Message Summary

The Status Message Summary table lists possible errors and page references for the corrective procedure.

- The Status message column shows the message that is displayed in the current faults tab, fault history report, and control panel.
- The Page column references the procedure related to the fault.

Use this table to identify the proper procedure to correct the reported error.

Fault Message Display

Status Message	Page
Note: Only status messages that require a procedure to troubleshoot are contained in chapter 3. Reference Appendix A on page A-64 for a complete list of all status messages and their corrective action.	
Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly	page 3-152
Finisher Main Tray is Full	page 3-154
Finisher Top Tray is Full	page 3-156
Fuser is Missing or Not Installed Correctly	page 3-158
Install or Reseat Imaging Unit	page 3-160
Non-Xerox Imaging Unit in Use	page 3-162
Output Tray is Full (No Finisher)	page 3-164
Tray 2 is Empty - Add Paper	page 3-166
Tray 2 is Open	page 3-168
Tray 3 or 4 is Empty - Add Paper	page 3-170
Tray 3 or Tray 4 is Open	page 3-172

Fault Codes

The Front Door is Open

The printer has reported that "The Front Door is Open". This message is triggered when the front door Sensor (PS4) logic indicates the door is open.

Applicable Chain-Link Code

301.510.00: Front Door is Open

Initial Actions

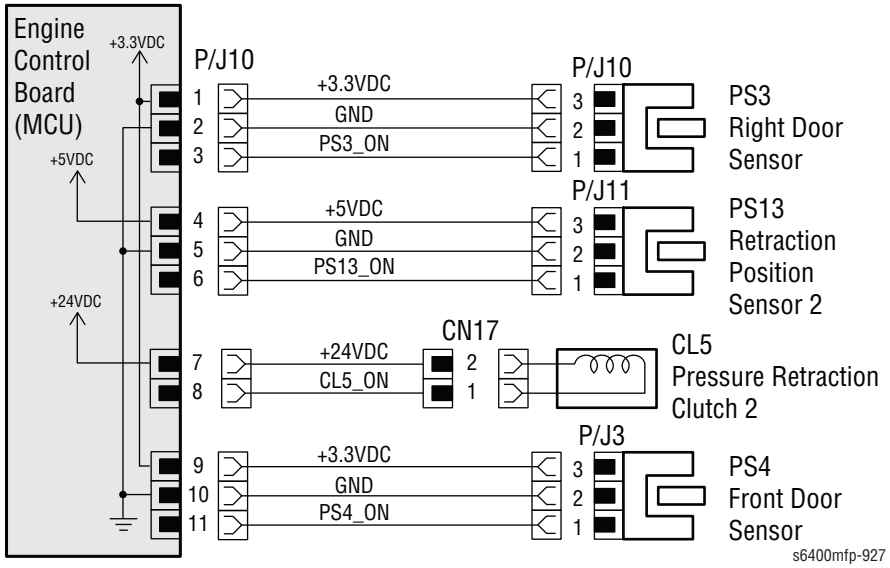
- Open the Front Door and check for obstructions or physical damage.
- Confirm the Toner Cartridges, Imaging Units, and Waste Cartridge are installed and locked in place.
- Inspect the Front Door for correct open/ close movement
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Front Cover Assy (Front Door), PL3.10 ■ Front Door Sensor (PS4), PL6.10 ■ MCU Board, PL20.09 ■ Wire Harness, PL25.02	077-303

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Front Door Sensor in Diagnostics. Does the sensor state change?	Go to step 2.	Go to step 3.
2	Check the sensor flag on the Front Cover Assy (Front Door) for damage. Is there damage noted?	Replace the Front Door Assembly (page 8-51).	Go to step 3.
3	Replace the Front Door Sensor PS4. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between PJ10MCU and PJ3 (PS4)?	Replace the MCU Board (page 8-101).	Replace the wiring harness, PL25.02.


Engine
Control
Board
(MCU)
+3.3VDC
+5VDC
+24VDC
P/J10
1
2
3
4
5
6
7
8
9
10
11
+3.3VDC
GND
PS3_ON
+5VDC
GND
PS13_ON
+24VDC
CL5_ON
+3.3VDC
GND
PS4_ON
P/J10
3
2
1
PS3
Right Door
Sensor
P/J11
3
2
1
PS13
Retraction
Position
Sensor 2
CN17
2
1
CL5
Pressure Retraction
Clutch 2
P/J3
3
2
1
PS4
Front Door
Sensor
s6400mfp-927

All LED's are Blinking

Applicable Chain-Link Codes

- **302.302.00**: Rewrite Failure
- **302.306.00**: Erase Failure
- **302.308.00**: Download Invalid

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the Image Processor Board with the 2 standoff screws.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Control Panel, PL2.12 ■ UI Main PWB, PL2.14 ■ Color LCD Module, PL2.16 ■ Flat Cable, Video, PL2.17 ■ Image Processor Board, PL20.07	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the problem still occur?	Go to step 2.	Troubleshooting complete.
2	Does the features button flash 6 times in a row?	Go to step 3.	Replace the color LCD Module (page 8-75).
3	Is the Interface Cable connected to JX301 on the Main Board?	Go to step 4.	Reseat the connector.
4	Is the Flat Cable, Video connected to JX701 on the main board and CN1 on the LCD module?	Go to step 5.	Reseat the connector.
5	Replace the Flat Cable, Video (page 8-75). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Replace the Main PWB (page 8-75). Does the error still occur?	Go to step 7.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
7	Replace the LCD Module (page 8-75). Does the error still occur?	Go to step 8.	Troubleshooting complete.
8	Replace the Control Panel (page 8-46). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Invalid Service Registry

There is error with Service Registry.

Applicable Chain-Link Codes

- **302.315.00**: Service Registry bad or corrupted data
- **302.316.00**: SRS returns invalid or missing data
- **302.317.00**: LUI gets no response from SRS
- **302.320.00**: UI Data Time Out Error
- **302.390.00**: Config Services not stable

Initial Action

None

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Step	Actions and Questions	Yes	No
1	Are any of the error codes in the customer accessible fault history recent?	Confirm the error has been resolved.	Go to step 2.
2	Turn printer power off, wait one minute, turn printer power on. Does the problem still occur?	Proceed to “Internal Communication Error” on page 3-119 in Chapter 3.	Troubleshooting complete.

Extensible Services are not available

The XEIP browser is no longer communicating to the User Interface.

Applicable Chain-Link Code

302.321.00: XEIP browser does not respond or is dead.

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Does the system boot to the ready state?	Follow the standard software upgrade procedure.	Follow the USB Altboot procedure in Appendix A on page A-4.

System Fault

An error occurred during writing or erasing of the flash ROM.

Applicable Chain-Link Codes

- **303.301.00**: Engine Flash ROM (Write) Failure
- **303.302.00**: Engine Flash ROM (Erase) Failure

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Image Processor Board, PL20.07 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board connector (PJ24MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	Is the Image Processor Board connector (PJ401IP) properly connected?	Go to step 3.	Properly seat the connector.
3	Replace the MCU Board (page 8-101). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

System Fault

An internal communication error occurred within the MCU board.

Applicable Chain-Link Code

303.303.00: Engine Board Failure

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are all the connectors to the MCU Board properly connected?	Replace the MCU Board (page 8-101).	Properly seat all the connectors.

Image Disk is Offline

The printer has detected a Disk Drive access failure. The image disks (Copy Controller or Network Controller Hard Drive) cannot read or write.

Applicable Chain-Link Codes

- **303.304.00**: Disk Failure
- **319.300.00**: Unable to read from Image Disk
- **319.301.00**: Unable to write to Image Disk
- **319.302.00**: Bad data received from Disk
- **319.303.00**: Unable to format Image Disk
- **319.310.00**: Disk system capacity fault

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Copy Controller (CC) Hard Drive, PL20.03 ■ Network Controller (NC) Hard Drive, PL20.03 ■ Hard Drive Cable, PL20.46	

Note

For assistance performing the Power On Self Test, refer to “POST LED’s” on page 4-5 of the General Troubleshooting in Chapter 4.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are the NC and CC Hard Drive cables correctly seated and undamaged?	Go to step 2.	Reseat or replace the affected cable.
2	Test the functionality of the NC and CC Hard Drives by running the Power On Self Test (POST) Diagnostics. Do the POST Diagnostics results identify a defective component?	Replace the affected part.	Troubleshooting complete.

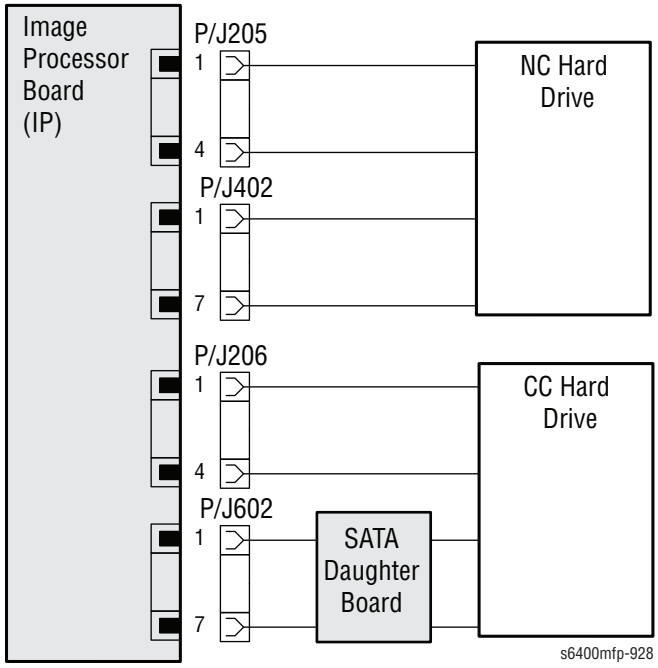


Image
Processor
Board
(IP)
P/J205
1
4
NC Hard
Drive
P/J402
1
7
P/J206
1
4
CC Hard
Drive
P/J602
1
7
SATA
Daughter
Board
s6400mfp-928

System Fault

The printer has detected an engine NVRAM failure within the MCU Board.

Applicable Chain-Link Codes

- **303.305.00**: Engine NVRAM Failure 1
- **303.308.00**: Engine NVRAM Failure 2

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board installed correctly and are all connector s properly seated?	Go to step 2.	Reinstall the MCU Board or reseat the connectors.
2	Is the Engine NVRAM chip (IC4) installed correctly and fully seated on the MCU Board?	Replace the MCU Board (page 8-101).	Reseat the NVRAM chip.

Unknown Printer Error

There is error on the printer.

Applicable Chain-Link Code

303.310.00: Error, Cause Unknown

Initial Action

None

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are any of the error codes in the customer accessible fault history recent?	Confirm the error has been resolved.	Go to step 2.
2	Turn printer power off, wait one minute, turn printer power on. Does the problem still occur?	Proceed to “Internal Communication Error” on page 3-119 in Chapter 3.	Troubleshooting complete.

System Fault

The Copy Controller Module (CCM) cannot communicate with the Image Output Terminal (IOT).

Applicable Chain-Link Code

303.316.00: Communication Fault

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Image Processor Board, PL20.07 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Is the ribbon cable from the MCU board (PJ24MCU) to the Image Processor Board (PJ401IP) seated with the connector locks in place?	Go to step 3.	Properly seat the ribbon cable and connector locks.
3	Replace the MCU Board (page 8-101). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

IOT NVM Error

An error occurred while the IOT NVM was initializing, saving, or restoring.

Applicable Chain-Link Codes

- **303.317.00**: Error saving critical IOT NVM
- **303.318.00**: Error initializing IOT NVM
- **303.319.00**: Error restoring critical IOT NVM

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Restore the NVM values using dc361 (page 6-8) with the auto save file from yesterday. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Upgrade the printer using a standard method. Did the upgrade procedure complete successfully?	Troubleshooting complete.	Go to step 3.
3	Replace the MCU Board (page 8-101). Does the error still occur?	Upgrade the printer using the AltBoot method (page A-4) in Appendix A.	Troubleshooting complete.

System Fault

The system has detected that the Image Processor Board internal clock has not incremented within 1.5 seconds during Power On.

Applicable Chain-Link Code

303.325.00: Wall Clock Fault

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
Image Processor Board, PL20.07	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Upgrade Failure

An upgrade request was received while a security function was active.

Applicable Chain-Link Code

303.330.00: Upgrade failed. Security Feature Active

Initial Actions

- Wait until the Security function (Image Overwrite) is complete.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Upgrade the printer using a standard method. Did the upgrade procedure complete successfully?	Troubleshooting complete.	Upgrade the printer using the AltBoot method (page A-4) in Appendix A.

Software Reset

System detects that the Main Controller on CCM has been reset because either the watch dog timer timed out or because the application SW wrote to an illegal address.

Applicable Chain-Link Code

303.338.00: CCM Reset

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Do any other devices on the network have the same IP address?	Setup the printer so it has a unique IP address.	Properly seat the connector.
2	In Diagnostic function dc361 (page 6-8), restore the most current NVM values to the NVM module. Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Does the system boot to the Ready state?	Follow the standard software upgrade procedure.	Follow the USB AltBoot procedure (page A-4) in Appendix A.

System Fault

Copy Controller Module POST failure detected during the NVM Integrity Test.

Applicable Chain-Link Code

303.355.00: CCM POST failure. NVM battery may be dead.

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
NVM Module, PL20.43	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Is the Job Status LED blinking 7 times in a row?	Replace the NVM Module (page 8-116).	Go to step 3.
3	Perform dc361 (page 6-8) to restore the NVM values from a current auto save file. Does the error still occur?	Replace the NVM Module (page 8-116).	Troubleshooting complete.

Fax Service Error

The Fax hardware is not detected.

Applicable Chain-Link Code

303.401.00: Basic FAX not detected/ confirmed

Initial Actions

- Power cycle the printer.
- Confirm the printer configuration supports the fax feature (X or XF only).
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Image Processor Board, PL20.07 ■ Fax Board, PL20.42	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	During power up sequence, does a frame appear noting the Fax Board is not detected?	Go to step 4.	Go to step 2.
2	Print a Configuration Report. In the upper right hand corner, is it a model 6400S?	Troubleshooting complete.	Go to step 3.
3	On the Configuration Report, verify the following: ■ **Machine Hardware**, Fax Card: present ■ **Software Versions**, Fax: Has Version ■ **Embedded Fax**: installed/enabled	Follow the "Fax Troubleshooting" on page 4-65 in Chapter 4.	Go to step 4.
4	Are all 4 connections on the Fax Board properly aligned and installed on the Image Processor Board?	Go to step 5.	Properly align and install the Fax Board (page 8-115).
5	Replace the Fax Board (page 8-115). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

NVM Autosave Error

The NVM auto save function encountered an error.

Applicable Chain-Link Code

303.789.00: Error Autosaving Copy Controller NVM

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ CC HDD, PL20.03 ■ NVM Module, PL20.43	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	In diagnostic function dc361 (page 6-8), use Machine NVM to store the current NVM values to the CC HDD. Did the values store successfully?	Go to step 2.	Go to step 3.
2	In dc 361 (page 6-8), restore the most recent NVM values. Did the values restore successfully?	Troubleshooting complete.	Go to step 3.
3	In dc361 (page 6-8), restore the NVM values from yesterday. Did the values restore successfully?	Go to step 4.	Go to step 5.
4	In dc361 (page 6-8), store the NVM values to the CC HDD. Did the values store successfully?	Troubleshooting complete.	Go to step 5.
5	Replace the CC HDD (page 8-91). Does the error still occur?	Replace the NVM Module (page 8-116).	Troubleshooting complete.

System Fault

The Ozone Ventilation Fan (FM13) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the Ozone Ventilation fan is being rotated.

Applicable Chain-Link Code

304.001.00: Ozone Fan Failure

Initial Actions

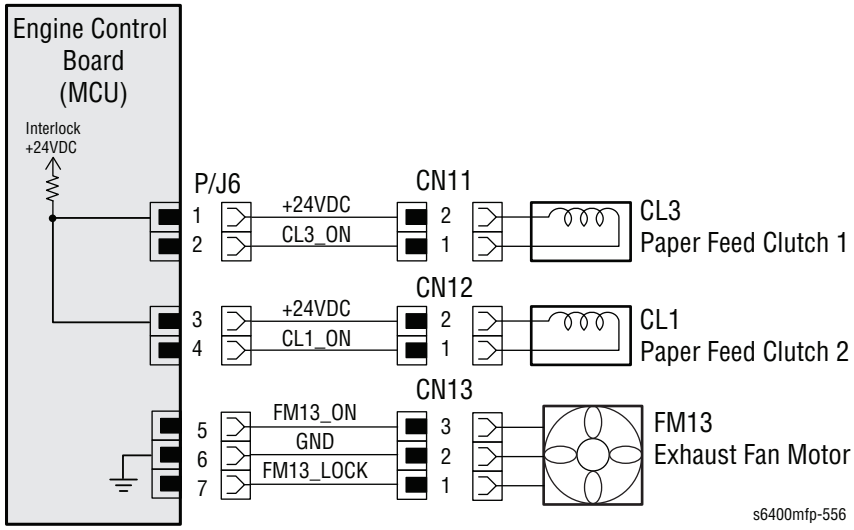
- Check the Ozone Filter for build-up.
- Check the Ozone Ventilation Fan Motor for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Ozone Ventilation Fan, PL7.20 ■ MCU Board, PL20.09	042-043

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the fan work in Diagnostics?	Replace the Ozone Ventilation Fan (page 8-146).	Go to step 2.
2	Is the MCU Board connector (PJ6MCU) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the Ozone Ventilation Fan connector (CN13) properly connected?	Go to step 4.	Properly seat the connector.
4	With the Fan turned On in Diagnostics, is the following voltage present? ■ PJ6MCU-5 = 24Vdc	Replace the Ozone Ventilation Fan (page 8-146).	Replace the MCU Board (page 8-101).


Engine Control Board (MCU)
Interlock +24VDC
P/J6
CN11
1
2
+24VDC
CL3_ON
2
1
CL3
Paper Feed Clutch 1
CN12
3
4
+24VDC
CL1_ON
2
1
CL1
Paper Feed Clutch 2
CN13
5
6
7
FM13_ON
GND
FM13_LOCK
3
2
1
FM13
Exhaust Fan Motor
s6400mfp-556

System Fault

The DC Power Supply Fan (FM11) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the LVPS Cooling Fan is being rotated.

Applicable Chain-Link Code

304.002.00: Power Supply (LVPS) Fan Failure

Initial Actions

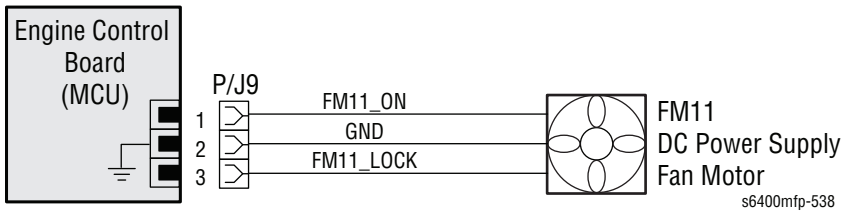
- Check the LVPS Cooling Fan for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LVPS Cooling Fan, PL13.02 ■ MCU Board, PL20.09	042-051

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board connector (PJ9MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	With the Fan turned On in Diagnostics, is the following voltage present? ■ PJ9MCU-1 = 24Vdc	Replace the DC Power Supply Fan (page 8-148).	Replace the MCU Board (page 8-101).



Finisher Error

The Fan Motor (FM1) lock signal remains HIGH for a given period of time while the fan is energized.

Applicable Chain-Link Code

304.003.00: Finisher Fan Failure

Initial Actions

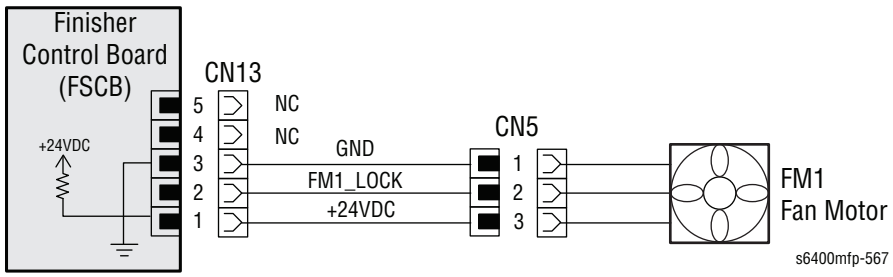
- Check the Fan Motor for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Finisher Control Board, PL46.16 ■ Fan Motor, PL46.24	012-120

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the FSC Board connector (CN13FSCB) properly connected?	Go to step 2.	Properly seat the connector.
2	Is the Fan Motor connector (CN5) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the following voltage present? ■ CN13FSCB-1 = 24Vdc	Replace the Fan Motor (page 8-212).	Replace the Finisher Control Board (page 8-205).



Paper Jam at the Output Tray

The Exit Sensor (PS15) was not unblocked after a given amount of time after the paper has blocked the Exit Sensor (PS15).

Applicable Chain-Link Code

304.486.00: Jam at Output Tray (No Finisher)

Initial Actions

- Open the Front Door and lift the Control Panel to check the Horizontal Transport area for any obstructions, paper, damage, or debris.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Check the Exit Sensor Actuator for proper function and obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

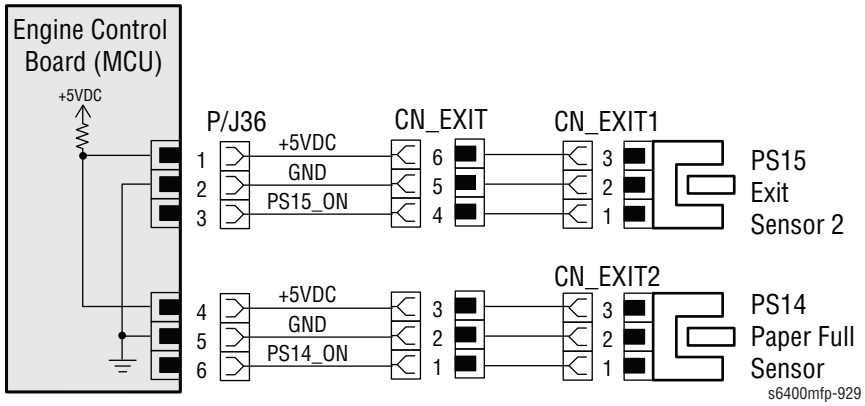
Applicable Parts	Component Control Code
■ Horizontal Transport - Upper, PL17.37 ■ Horizontal Transport - Lower, PL17.48 ■ Exit Sensor, PL19.13 ■ MCU Board, PL20.09	010-205
■ Duplex Reverse Motor, PL22.13	077-020

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Guide Assembly, PL17.37 ■ Guide Assembly, PL17.48 ■ Actuator, PL19.09	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Exit Sensor work properly in Diagnostics?	Go to step 6.	Go to step 3.
3	Are the Exit Sensor connectors (CN_Exit & CN_Exit1) properly connected?	Go to step 4.	Properly seat the connectors.
4	Is the MCU Board connector (PJ36MCU) properly connected?	Go to step 5.	Properly seat the connectors.
5	Is the following voltage present? ■ PJ36MCU-1 = 5Vdc	Replace the Exit Sensor.	Replace the MCU Board (page 8-101).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Does the Duplex Reverse Motor work properly in Diagnostics?	Replace the MCU Board (page 8-101).	Replace the Duplex Reverse Motor (page 8-174).



Paper Jam in the Document Feeder

A jam has occurred while scanning paper through the Document Feeder.

Applicable Chain-Link Codes

- **305.161.00**: Jam at Document Feeder
- **305.162.00**: Jam at Document Feeder (Output)
- **305.163.00**: Jam at Document Feeder (Duplex)
- **305.164.00**: Jam at Document Feeder (Misfeed)
- **314.004.00**: Pick Up Roller Error

Initial Actions

- Verify the media size and type is supported for use with the Document Feeder.
- Verify the media is not wrinkled, the corners are not curled, and is free of staples and paper clips.
- Check the DADF Separator Roller and Pads for damage and clean as necessary.
- Remove any obstructions or debris in the paper path and cycle printer power.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ DADF Roller Kit Assembly, PL1.03 ■ DADF Top Cover Assembly, PL1.05 ■ DADF Assembly, PL1.06	005-103, 005-104, 005-105, 005-108

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Separator Pad Assembly, PL1.01 ■ Separator Roller Assembly, PL1.02 ■ Holder Assembly, PL1.07 ■ Holder Assembly, PL1.08	Replace any damaged or excessively worn parts.	Go to step 2.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	Do the following sensors work properly in Diagnostics? ■ Paper In Sensor, 005-103 ■ Paper Out Sensor, 005-104 ■ Paper Detect Sensor, 005-105 ■ Jam Detect Sensor, 005-108	Go to step 4.	Go to step 3.
3	Are the connectors on the Document Feeder Control Board (ADCB) properly connected?	Go to step 4.	Properly seat the connectors.
4	Replace the DADF Top Cover Assembly (page 8-35). Does the error still occur?	Replace the DADF Assembly (page 8-38).	Troubleshooting complete.

Scanner Fault

The Scanner has reported a failure or is not performing as expected.

Applicable Chain-Link Codes

- **305.165.00**: Scanner DRAM Test Failure
- **305.166.00**: Home Position Test Failure
- **305.168.00**: Optical Test Failure
- **314.001.00**: IIT Home Position Error
- **315.007.00**: Internal Target Error
- **315.008.00**: IIT Optical Error

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the Image Processor Board with the 2 standoff screws.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Scanner, PL2.01 ■ LVPS, PL10.07 ■ Image Processor Board, PL20.07 ■ MCU Board, PL20.09	

Note

To access the CN_SCANNER connector, secure the DADF to the Scanner Flat Bed, remove the two hinge plates from the Scanner Hinges, and raise the Control Panel (Scanner Assembly) to 90°. The CN_SCANNER connector is located on the bottom right corner of the Scanner Flat Bed.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Perform the Scanner Test Function checks (dc575) in Diagnostics (page 4-39). Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Does the CN_SCANNER connector have all the appropriate voltages (see the “Voltage Chart” on page 3-42)?	Go to step 4.	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Does PJ38MCU have 11v on pins 1 & 3?	Replace the LVPS (page 8-82).	Replace the MCU Board (page 8-101).
4	Replace the Scanner (page 8-42). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Voltage Chart

GND (Green)	**3.3v** (Yellow)	**GND** (Green)	**5.0v** (Red)
GND (Green)	**11.0v** (Pink)	**GND** (Green)	**24.0v** (Yellow)

Scanner Fault

The Scanner has reported the Scan Head is locked or the Lock Check diagnostic test routine failed.

Applicable Chain-Link Codes

- **305.167.00**: Lock Check Failure
- **314.003.00**: Scan Head Locked (Unlock Scan Head)

Initial Actions

- Slide the Scanner Lock back and forth to confirm it moves freely.
- Check the Scanner Lock is in the "Unlocked" position.
- Inspect the Scanner for physical damage.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Scan Drive Belt, PL2.0.7 ■ Scanner Assy, PL2.0.1	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Scanner interface cable connector correctly seated and secured to the Image Processor Board with the 2 standoff screws?	Go to step 2.	Remove and reseat the cable.
2	Perform the Scan Head Lock test in Diagnostics. Does the test report the correct lock position (locked or unlocked)?	Go to step 3.	Go to step 4.
3	Does the scanner now function normally in Customer Mode?	Troubleshooting complete.	Go to step 4.
4	Perform “dc575 - Scanner Test” on page 4-39 for functions check in Diagnostics. Does the error still occur?	Replace the Scanner Assembly (page 8-42).	Troubleshooting complete.

System Fault

The printer has reported that the Horizontal Transport Cooling Fan has failed. This message is triggered when the feedback signal from the Cooling Fan FM14 indicates a failure.

Applicable Chain-Link Code

305.169.00: Scanner Cooling Fan is malfunctioning.

Initial Actions

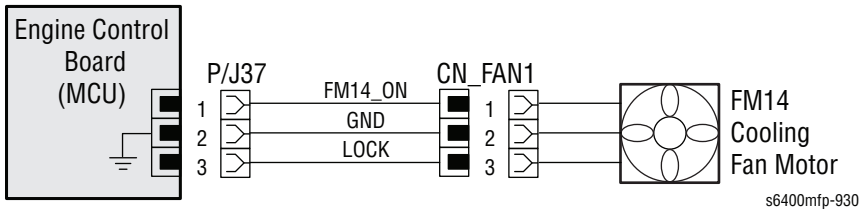
- Check the Horizontal Transport Cooling Fan for obstructions or physical damage.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Horizontal Transport Cooling Fan, PL20.05 ■ MCU Board, PL20.09 ■ Wire Harness, PL25.03	042-052, 042-053

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Horizontal Transport Fan FM14 in Diagnostics. Does the Fan rotate?	Exit Diagnostics and confirm the error has cleared.	Go to step 2.
2	Are connectors PJ37MCU and CN_FAN1 properly connected?	Go to step 3.	Properly seat the connectors.
3	Replace the Horizontal Transport Fan FM14. Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.



Document Feeder is not Available

Document Feeder error. One or more of the sensors within the DADF Paper Tray indicates a sensor failure or unsupported Job Type was initiated.

Applicable Chain-Link Codes

- **305.194.00**: Size mismatch Jam using “slow scan mixed signals.”
- **305.196.00**: Size mismatch Jam using “no mixed sized signals.”
- **305.197.00**: Unsupported original size detected.
- **305.274.00**: ADF Original Size detection sensor failure.

Initial Actions

- Verify the attempted copy/ scan job type is supported.
- Verify whether any scraps of paper or debris are caught around the Original Size Sensor.
- Check the DADF Paper Tray width guides for correct operation.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ DADF Paper Tray, PL1.04 Includes: Length Sensor (PS6) Width Sensor 1 Width Sensor 2 ■ DADF Assy, PL1.06	 005-229 005-227 005-228

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the wire harness connector CN2 (located on the underside of the DADF Paper Tray) that connects the DFCB Board and Relay Board 2. Is the connector seated correctly and undamaged?	Go to step 2.	Reseat connector CN2.
2	Replace the DADF Paper Tray (page 8-33). Does the error still occur?	Replace the DADF Assembly (page 8-38).	Troubleshooting complete.

System Fault

The printer has detected the Transfer Belt is not positioned correctly in respect to the Imaging Units within an appropriate time frame. Therefore, the Retraction Position Sensor 1 (PS12) is not activated (retract position) or deactivated (press position) within a given period of time.

Applicable Chain-Link Code

308.001.00: 1st Feeder Transfer Roller Contact Failure

Initial Actions

- Check the couplings on the Transfer Belt, Main Drive Assembly, and Intermediate Transport Motor for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

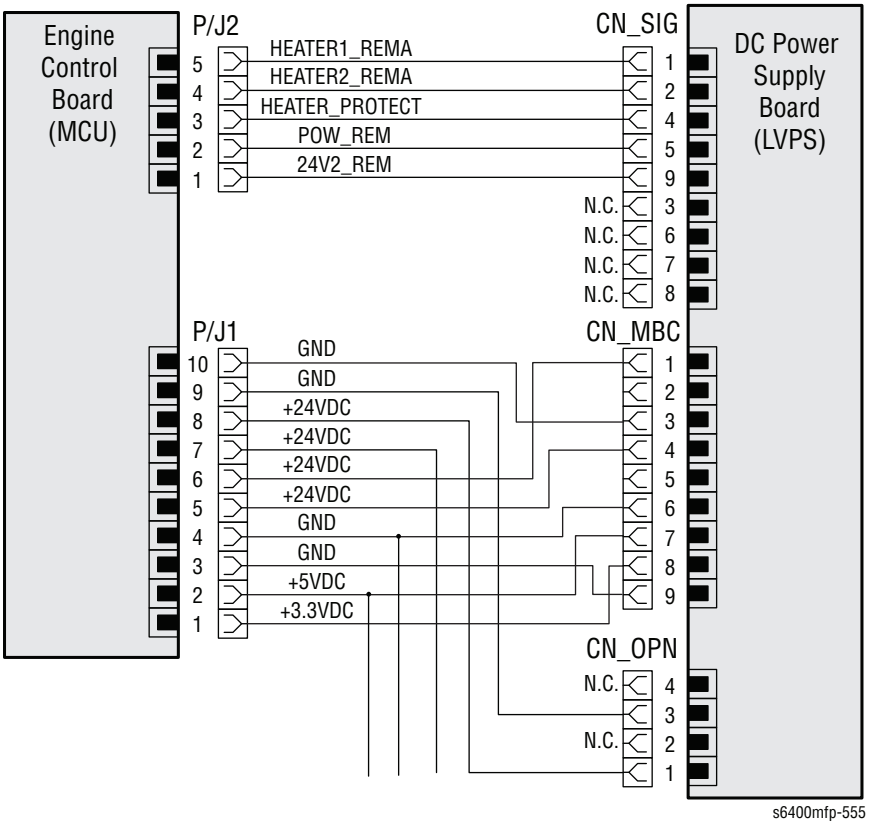
Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Intermediate Transport Motor, PL12.02 ■ Pressure Retraction Clutch, PL12.06 ■ Retraction Position Sensor, PL14.20 ■ MCU Board, PL20.09	 094-002 094-200

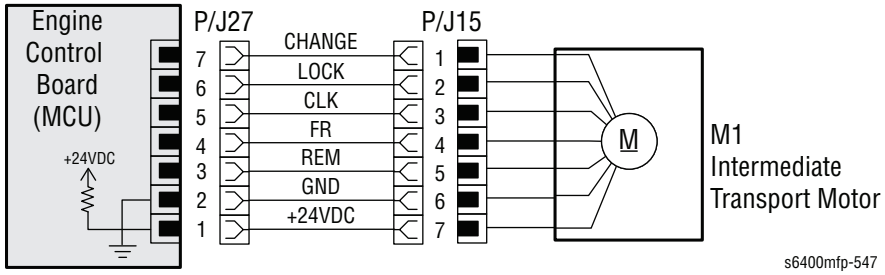
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Retraction Position 1 Sensor (PS12) function properly in Diagnostics?	Go to step 4.	Go to step 2.
2	Is the MCU Board connector (PJ7MCU) properly connected?	Go to step 3.	Properly seat the connector.
3	Are the Sensor connections (CN27 and PJ13) properly connected?	Replace the Retraction Position Sensor 1 (page 8-136).	Properly seat the connector.
4	Does the Pressure/ Retraction Clutch 1 function properly in Diagnostics?	Go to step 7.	Go to step 5.
5	Is the Clutch connector (CN26) properly connected?	Go to step 6.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Is the MCU Board connector (PJ7MCU) properly connected?	Replace the Pressure/ Retraction Clutch 1 (page 8-59).	Properly seat the connector.
7	With nothing running in Diagnostics, are the following voltages present? ■ PJ27MCU-1 = 24Vdc ■ PJ27MCU-3 = 5Vdc	Go to step 8.	Go to step 10.
8	Does wiring harness PJ27MCU to CN1M1 have continuity?	Go to step 9.	Replace the wiring harness
9	Replace the Intermediate Transport Motor (page 8-157). Does the printer function properly?	Troubleshooting complete.	Go to step 10.
10	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS (page 8-82).




Engine
Control
Board
(MCU)
+24VDC
P/J27
7
6
5
4
3
2
1
CHANGE
LOCK
CLK
FR
REM
GND
+24VDC
P/J15
1
2
3
4
5
6
7
M
M1
Intermediate
Transport Motor
s6400mfp-547

System Fault

The printer has detected the Transfer Belt is not positioned correctly in respect to the Transfer Roller within an appropriate time frame. The Retraction Position Sensor 2 (PS13) is not activated (retract position) or deactivated (press position) within a given period of time.

Applicable Chain-Link Code

308.002.00: 2nd Transfer Roller Contact Failure

Initial Actions

- Check the couplings on the Transfer Belt, Main Drive Assembly, and Intermediate Transport Motor for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

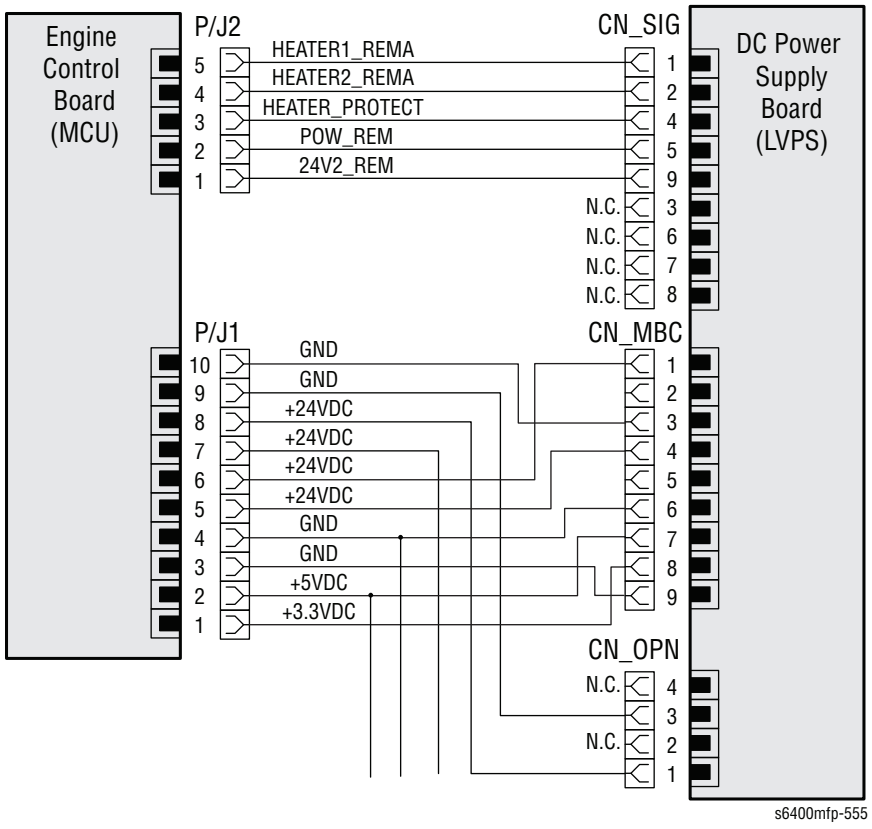
Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Retraction Position Sensor 2, PL11.04 ■ Pressure Retraction Clutch 2, PL11.10 ■ Intermediate Transport Motor, PL12.02 ■ MCU Board, PL20.09	 094-201 094-005

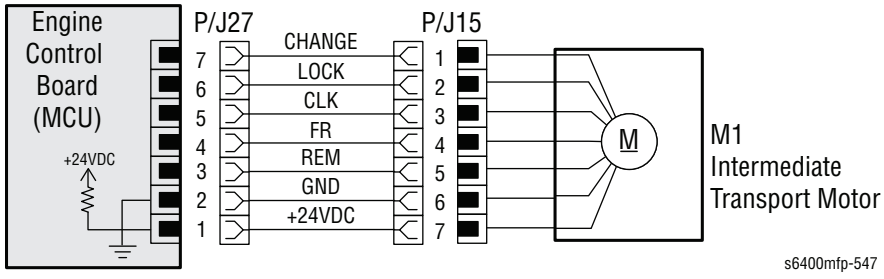
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Retraction Position Sensor 2 function properly in Diagnostics?	Go to step 4.	Go to step 2.
2	Is the MCU Board connector (PJ10MCU) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the Sensor connection (PJ11) properly connected?	Replace the Retraction Position Sensor 2 (page 8-136)	Properly seat the connector.
4	Does the Pressure/ Retraction Clutch 2 function properly in Diagnostics?	Go to step 7.	Go to step 5.
5	Is the Clutch connector (CN17) properly connected?	Go to step 6.	Properly seat the connector.
6	Is the MCU Board connector (PJ10MCU) properly connected?	Replace the Pressure/ Retraction Clutch 2 (page 8-142).	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
7	With nothing running in Diagnostics, are the following voltages present? ■ PJ27MCU-1 = 24Vdc ■ PJ27MCU-3 = 5Vdc	Go to step 8.	Go to step 10.
8	Does wiring harness PJ27MCU to CN1M1 have continuity?	Go to step 9.	Replace the wiring harness.
9	Replace the Intermediate Transport Motor (page 8-157). Does the printer function properly?	Troubleshooting complete.	Go to step 10.
10	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).





Misfeed in Tray 1

Paper fed from Tray 1 (MPT) did not unblock the Registration Sensor (PS9) within a given period of time after the Tray 1 Paper Feed Clutch (CL1) is turned On.

Applicable Chain-Link Code

308.101.00: Jam at Tray 1 (MPT)

Initial Actions

- Try picking paper from a different tray.
- Ensure the paper is loaded correctly in the tray by removing any misfeed sheets, pressing down the Lift Plate, Fan and reload the paper, and set the width guides appropriately.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Feed Roller and surrounding area, as needed.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

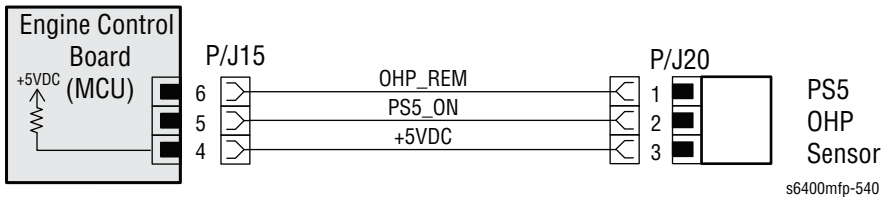
Applicable Parts	Component Control Code
■ Separation Roller Assembly, PL5.25 ■ Feed Roller, PL5.29 ■ Registration Sensor, PL11.04 ■ Intermediate Transport Motor, PL12.02 ■ Tray 1 Paper Feed Clutch, PL12.15 ■ MCU Board, PL20.09	010-204 072-003

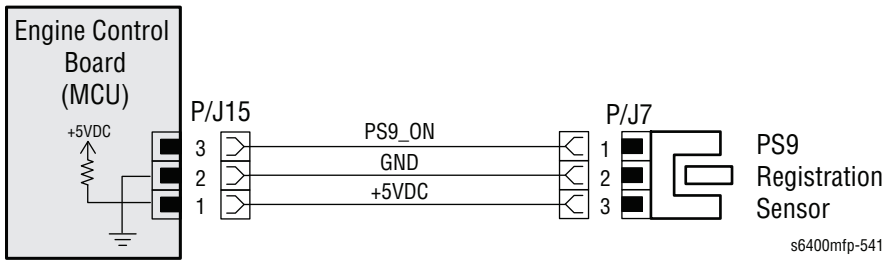
Troubleshooting Procedure Table

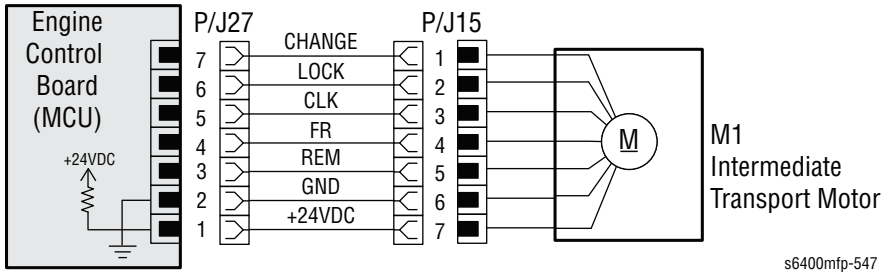
Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Separation Roller Assembly, PL5.25 ■ Feed Roller, PL5.29 ■ Registration Sensor, PL11.04	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Registration Sensor work properly in Diagnostics?	Go to step 4.	Go to step 3.
3	Is the following voltage present? ■ PJ15MCU-1 = 5Vdc	Replace the Registration Sensor (page 8-85).	Replace the MCU Board (page 8-101).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the Tray 1 Paper Feed Clutch work properly in Diagnostics?	Go to step 6.	Go to step 5.
5	Is the following voltage present? ■ PJ6MCU-4 = 24Vdc	Replace the Paper Feed Clutch (page 8-139).	Replace the MCU Board (page 8-101).
6	Is the Motor connector (PJ15) properly connected?	Go to step 7.	Properly seat the connector.
7	Is the MCU Board connector (PJ27MCU) properly connected?	Go to step 8.	Properly seat the connector.
8	With the Motor not rotating, are the following voltages present? ■ PJ27MCU-1 = 24Vdc ■ PJ27MCU-3 = 5Vdc	Replace the Intermediate Transport Motor (page 8-157).	Replace the MCU Board (page 8-101).







Misfeed in Tray 2

Paper fed from Tray 2 did not unblock the Registration Sensor (PS9) within a given period of time after the Tray 2 Paper Feed Clutch (CL3) is turned On.

Applicable Chain-Link Code

308.102.00: Jam at Right Door/ Feed Cassette (Tray 2)

Initial Actions

- Try picking paper from a different tray.
- Ensure the paper is loaded correctly in the tray by removing any misfeed sheets, pressing down the Lift Plate, Fan and reload the paper, and set the width guides appropriately.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Feed Roller and surrounding area, as needed.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

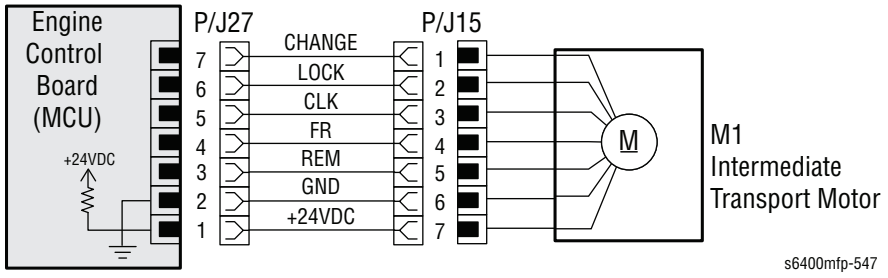
Applicable Parts	Component Control Code
■ Registration Sensor, PL11.04 ■ Intermediate Transport Motor, PL12.02	010-204
■ Tray 2 Paper Feed Clutch PL12.15 ■ MCU Board, PL20.09 ■ Separation Roller Assembly PL21.07 ■ Feed Roller PL21.27	072-003

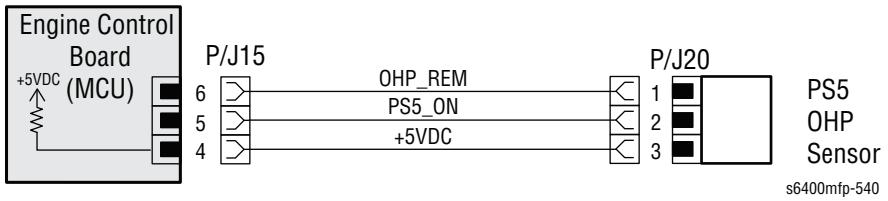
Troubleshooting Procedure Table

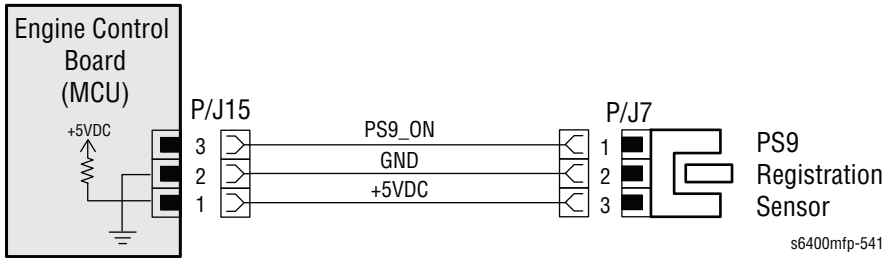
Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Registration Sensor, PL11.04 ■ Separation Roller Assembly, PL21.07 ■ Feed Roller, PL21.27 ■ Tray 2, PL21.28	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Registration Sensor work properly in Diagnostics?	Go to step 5.	Go to step 3.
3	Are the Registration Sensor (PJ7) and MCU Board (PJ15MCU) connectors properly connected?	Go to step 4.	Properly seat the connector.

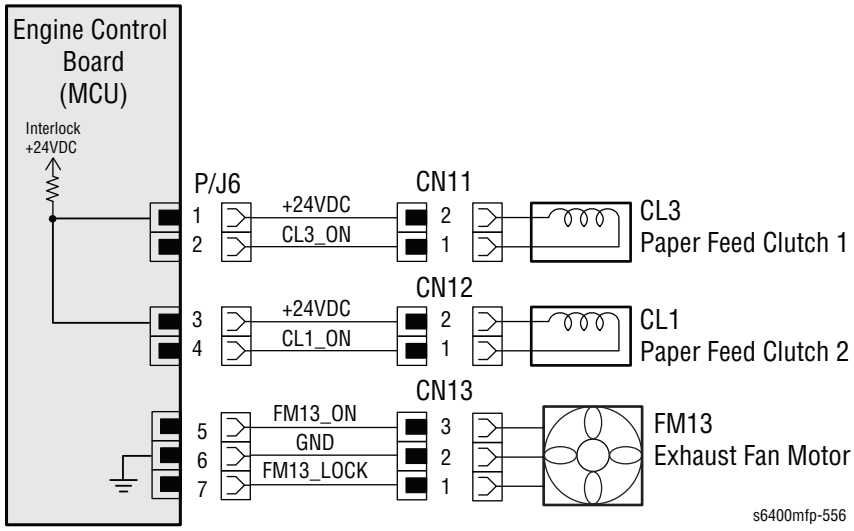
Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the following voltage present? ■ PJ15MCU-1 = 5Vdc	Replace the Registration Sensor (page 8-85).	Replace the MCU Board (page 8-101).
5	Does the Tray 2 Paper Feed Clutch work properly in Diagnostics?	Go to step 8.	Go to step 6.
6	Are the Tray 2 Paper Feed Clutch (CN11) and MCU Board (PJ6MCU) connectors properly connected?	Go to step 7.	Properly seat the connector.
7	Is the following voltage present? ■ PJ6MCU-1 = 24Vdc	Replace the Paper Feed Clutch (page 8-139).	Replace the MCU Board (page 8-101).
8	Is the Motor connector (PJ15) properly connected?	Go to step 9.	Properly seat the connector.
9	Is the MCU Board connector (PJ27MCU) properly connected?	Go to step 10.	Properly seat the connector.
10	With the Motor not rotating, are the following voltages present? ■ PJ27MCU-1 = 24Vdc ■ PJ27MCU-3 = 5Vdc	Replace the Intermediate Transport Motor (page 8-157).	Replace the MCU Board (page 8-101).






Engine Control Board (MCU)
+5VDC
P/J15
3
2
1
PS9_ON
GND
+5VDC
P/J7
1
2
3
PS9
Registration Sensor
s6400mfp-541


Engine Control Board (MCU)
Interlock
+24VDC
P/J6
1
2
3
4
5
6
7
+24VDC
CL3_ON
+24VDC
CL1_ON
FM13_ON
GND
FM13_LOCK
CN11
2
1
CN12
2
1
CN13
3
2
1
CL3
Paper Feed Clutch 1
CL1
Paper Feed Clutch 2
FM13
Exhaust Fan Motor
s6400mfp-556

Misfeed in Tray 3/4

Paper fed from Tray 3/4 did not reach the Paper Feed Sensor (PS23) within a given period of time after the Paper Feed Clutch 1 (CL6) is turned On. The paper does not block the Registration Sensor (PS9) after a given period of time after it has blocked the Paper Feed Sensor (PS23).The paper does not unblock the Paper Feed Sensor (PS23) after a given period of after it has blocked the Registration Sensor (PS9).

Applicable Chain-Link Codes

- **308.103.00**: Jam at Paper Transport/ Feed Cassette (Tray 3)
- **308.104.00**: Jam at Paper Transport/ Feed Cassette (Tray 4)

Initial Actions

- Open the Tray 3/4 Vertical Transport Cover (PL28.03) and remove any misfed or jammed paper.
- Ensure the Tray 3/4 Vertical Transport Cover Extension (PL34.01) is properly installed.
- Try picking paper from a different tray.
- Ensure the paper is loaded correctly in the tray by removing any misfeed sheets, pressing down the Lift Plate, Fan and reload the paper, and set the width guides appropriately.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Feed Roller and surrounding area, as needed.
- If the problem persists, follow the procedure below.

Caution

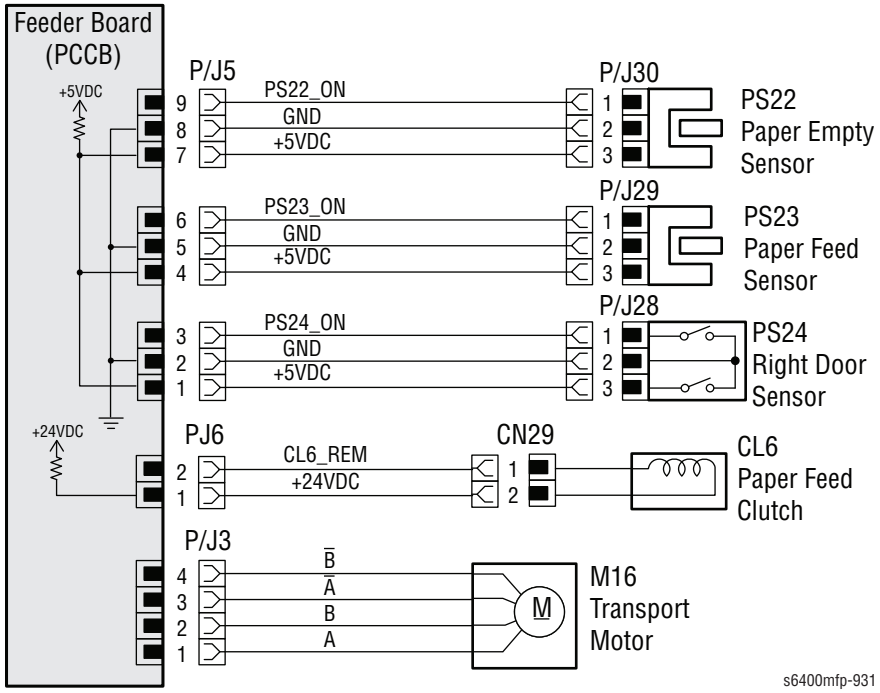
Paper jammed in the vertical transport section (behind the Tray 3/4 Right Door) must be removed before opening the tray or damage may occur.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Registration Sensor, PL11.04 ■ MCU Board, PL20.09 ■ LTA Circuit (PCCB) Board, PL28.11	010-204
■ Paper Feed Sensor, PL29.11	073-202
■ Paper Feed Clutch, PL30.03 ■ Transport Motor, PL30.12 ■ Feed Roller, PL32.05 ■ Separation Roller Assembly, PL32.22	073-004

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Open the Vertical Transport Door of Tray 3/4 and remove any jammed paper, then check the following for evidence of fault or damage: ■ Registration Sensor, PL11.04 ■ Paper Feed Sensor, PL29.11 ■ Tray 3/4, PL31.24 ■ Paper Take-Up Roller, PL32.05 ■ Separation Roller Assembly, PL32.22	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Paper Feed Sensor work properly in Diagnostics?	Go to step 5.	Go to step 3.
3	Are the Paper Feed Sensor (PJ29) and PCC Board (PJ5PCCB) connectors properly connected?	Go to step 4.	Properly seat the connector.
4	Is the following voltage present? ■ PJ5PCC-4 = 5Vdc	Replace the Paper Feed Sensor.	Replace the PCC Board (page 8-161).
5	Does the Registration Sensor work properly in Diagnostics?	Go to step 8.	Go to step 6.
6	Are the Registration Sensor (PJ7) and MCU Board (PJ15MCU) connectors properly connected?	Go to step 7.	Properly seat the connector.
7	Is the following voltage present? ■ PJ15MCU-1 = 5Vdc	Replace the Registration Sensor (page 8-85).	Replace the MCU Board (page 8-101).
8	Does the Paper Feed Clutch work properly in Diagnostics?	Go to step 11.	Go to step 9.
9	Are the Paper Feed Clutch (CN29) and PCC Board (PJ6PCCB) connectors properly connected?	Go to step 10.	Properly seat the connector.
10	Is the following voltage present? ■ PJ6MCU-1 = 24Vdc	Replace the Paper Feed Clutch (page 8-169).	Replace the MCU Board (page 8-101).
11	Is the PCC Board connector (PJ3PCCB) properly connected?	Go to step 12.	Properly seat the connector.
12	Replace the Transport Motor (page 8-171). Does the error still occur?	Replace the PCC Board (page 8-161).	Troubleshooting complete.


Feeder Board
(PCCB)
+5VDC
+24VDC
P/J5
9
8
7
6
5
4
3
2
1
PS22_ON
GND
+5VDC
PS23_ON
GND
+5VDC
PS24_ON
GND
+5VDC
P/J30
P/J29
P/J28
PS22
Paper Empty
Sensor
PS23
Paper Feed
Sensor
PS24
Right Door
Sensor
PJ6
2
1
CL6_REM
+24VDC
CN29
CL6
Paper Feed
Clutch
P/J3
4
3
2
1
B
A
B
A
M
M16
Transport
Motor
s6400mfp-931

Paper Jam Behind the Duplex Door/Feed Area

The paper has jammed during the duplex process. The Duplex Jam Sensor (part of the duplex control ADC Board) is not blocked, by the following paper, after a given period of time after the Duplex Jam Sensor is unblocked, by the previous paper. The paper does not unblock the Registration Sensor (PS9) after a given period of time after the Duplex Jam Sensor has been unblocked. The paper does not unblock the Registration Sensor (PS9) after a given period of time after the paper feed sequence has started.

Applicable Chain-Link Codes

- **308.105.00**: Jam at Duplex
- **310.104.00**: Jam at Re-feeding Area

Initial Actions

- Verify the type of media causing the jam is supported for duplex jobs.
- Ensure the Duplex Unit and Right Side Cover are properly installed.
- Inspect the Duplex Transport Rollers for dirt and clean with a soft cloth dampened in warm water as necessary.
- Remove any obstructions or debris in the paper path and cycle printer power.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Registration Sensor, PL11.04 ■ MCU Board, PL20.09	010-204
■ Reverse Motor, PL22.13 ■ Duplex Transport Rollers, PL23.01	077-020
■ Duplex Control (ADCB) Board (Duplex Sensor), PL23.12	077-109
■ Transport Motor, PL23.13	077-018

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following parts for evidence of obstructions or damage: ■ Registration Sensor, PL11.04 ■ ADCB Actuator, PL22.09 ■ Duplex Transport Rollers, PL23.01	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Registration Sensor work properly in Diagnostics?	Go to step 4.	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Is the following voltage present? ■ PJ15MCU-1 = 5Vdc	Replace the Registration Sensor (page 8-85).	Replace the MCU Board (page 8-101).
4	Does the Duplex Transport Sensor work properly in Diagnostics?	Go to step 5.	Replace the ADC Board (page 8-177).
5	Does the Transport Motor work properly in Diagnostics?	Go to step 7.	Go to step 6.
6	Replace the ADC Board (page 8-177). Does the error still occur?	Replace the Transport Motor (page 8-178).	Troubleshooting complete.
7	Does the Reverse Motor work properly in Diagnostics?	Go to step 9.	Go to step 8.
8	Replace the ADC Board (page 8-177). Does the error still occur?	Replace the Reverse Motor (page 8-174).	Troubleshooting complete.
9	Replace the ADC Board (page 8-177). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.

Xerographic System Error

There is a problem with the Xerographic system. The start of scan signal is not detected within a given period of time after the output of the laser has been started.

The Polygon Motor does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the Polygon Motor is being rotated.

Applicable Chain-Link Code

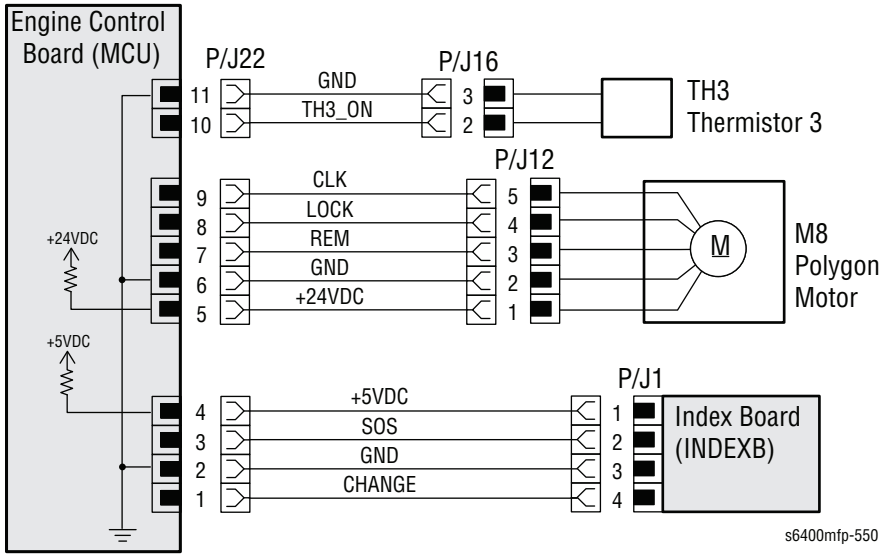
- **309.001.00**: Laser Unit Failure
- **309.002.00**: Laser Unit Polygon Motor Failure

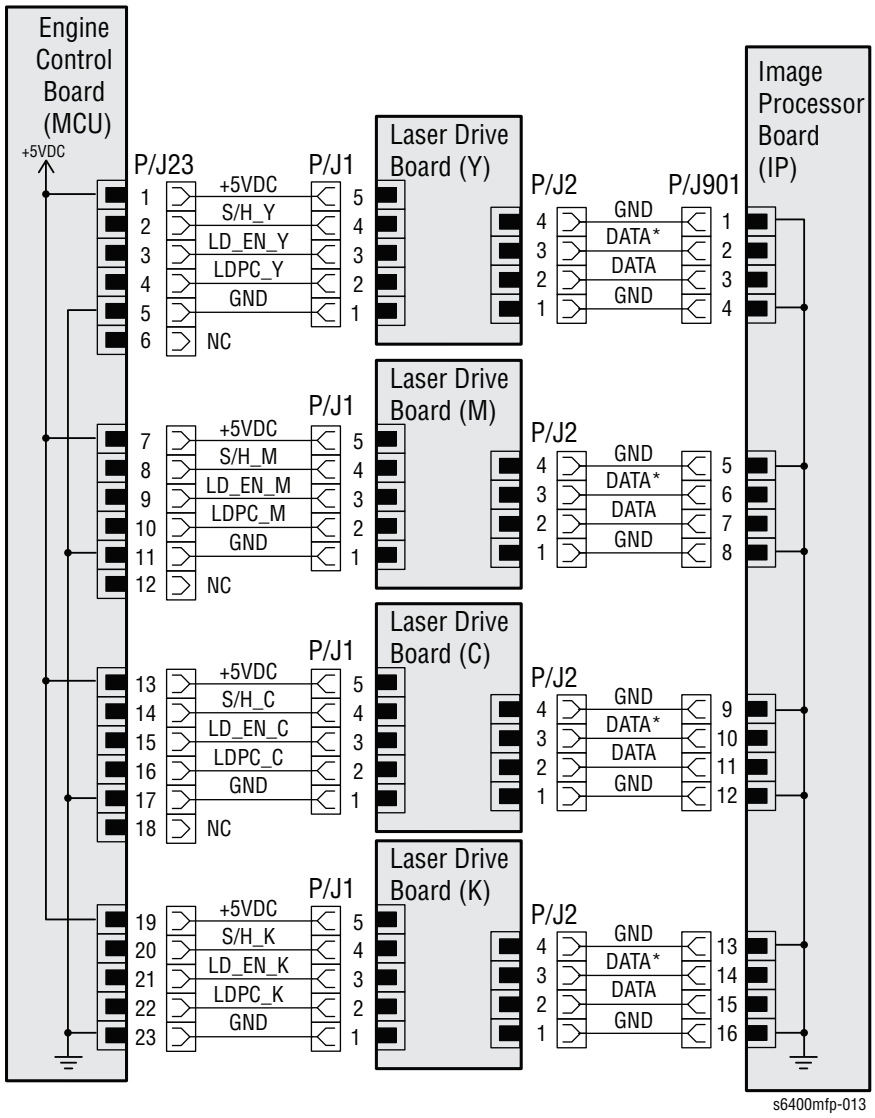
Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Laser Assembly, PL10.11 ■ MCU Board, PL20.09	061-001

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Laser Unit Motor function in Diagnostics?	Go to step 5.	Go to step 2.
2	Is the MCU Board connector (PJ23MCU) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the MCU Board connector (PJ22MCU) properly connected?	Go to step 4.	Properly seat the connector.
4	Is the Image Processor Board connector (PJ901IP) properly connected?	Go to step 5.	Properly seat the connector.
5	Replace the MCU Board (page 8-101). Does the error still occur?	Replace the Laser Unit (page 8-126).	Troubleshooting complete.


Engine Control Board (MCU)
P/J22
P/J16
GND
TH3_ON
TH3 Thermistor 3
P/J12
CLK
LOCK
REM
GND
+24VDC
M
M8 Polygon Motor
+24VDC
+5VDC
P/J1
+5VDC
SOS
GND
CHANGE
Index Board (INDEXB)
s6400mfp-550


Engine Control Board (MCU)
+5VDC
Image Processor Board (IP)
P/J23
P/J1
+5VDC
S/H_Y
LD_EN_Y
LDPC_Y
GND
NC
Laser Drive Board (Y)
P/J2
P/J901
GND
DATA*
DATA
GND
Laser Drive Board (M)
S/H_M
LD_EN_M
LDPC_M
Laser Drive Board (C)
S/H_C
LD_EN_C
LDPC_C
Laser Drive Board (K)
S/H_K
LD_EN_K
LDPC_K
s6400mfp-013

Xerographic System Error

There is a problem with the Xerographic system. The Developer Motor K (M5) does not rotate evenly after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the Developer Motor K is being rotated.

Applicable Chain-Link Code

309.003.00: Black Developer Motor Failure

Initial Actions

- Remove the K Imaging Unit and inspect the coupling for any obstructions or damage. Be sure to check the coupling on the Imaging Unit and the Main Drive Assembly.
- Check the alignment rail and make sure it is properly mounted to the frame so the couplings seat correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LVPS, PL10.17 ■ Developer Motor K, PL12.02 ■ MCU Board, PL20.09	093-023

Caution

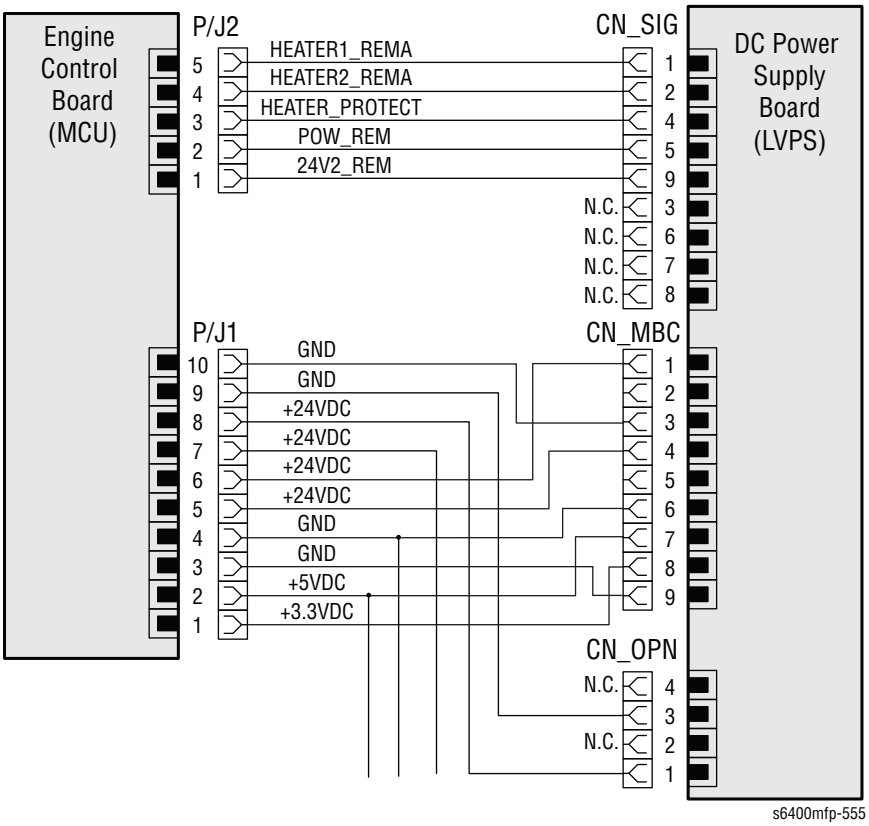
The Waste Cartridge must be installed when performing the Developer Motor K in Diagnostics to prevent toner leakage.

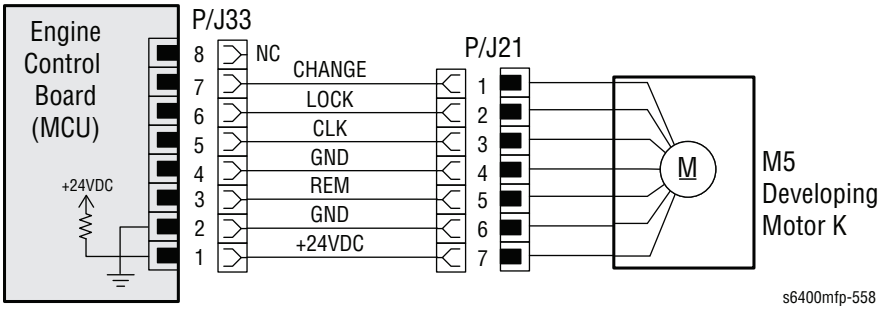
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	With the K Imaging Unit removed, does the motor function properly in Diagnostics?	Replace the Developer Motor K (page 8-156).	Go to step 2.
2	Is the Motor connector (PJ21) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the MCU Board connector (PJ33MCU) properly connected?	Go to step 4.	Properly seat the connector.
4	With the Motor turned On in Diagnostics, are the following voltages present? ■ PJ33MCU-1 = 24Vdc ■ PJ33MCU-3 = 5Vdc	Go to step 5.	Go to step 7.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Does the wiring harness (PJ33MCU to P/J21) have continuity for all wires?	Go to step 6.	Replace the wiring harness.
6	Replace the Developer Motor K (M5) (page 8-156)? Does it function in Diagnostics, with all the Imaging Units removed?	Troubleshooting complete.	Go to step 7.
7	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).





Xerographic System Error

There is a problem with the Xerographic system. The Developer YMC Motor (M4) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the color PC Drum Motor is being rotated.

Applicable Chain-Link Code

309.004.00: Color Developer Motor Failure

Initial Actions

- Remove the Y, M, and C Imaging Units and inspect the couplings for any obstructions or damage. Be sure to check the coupling on the Imaging Units and the Main Drive Assembly.
- Check the alignment rails, for each Imaging Unit, and make sure they are properly mounted to the frame so the couplings seat correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Main Drive Assembly, PL12.22 ■ MCU Board, PL20.09 ■ Wiring Harness, PL24.06	093-024

Caution

The Waste Cartridge must be installed during manual operation to prevent toner leakage.

Caution

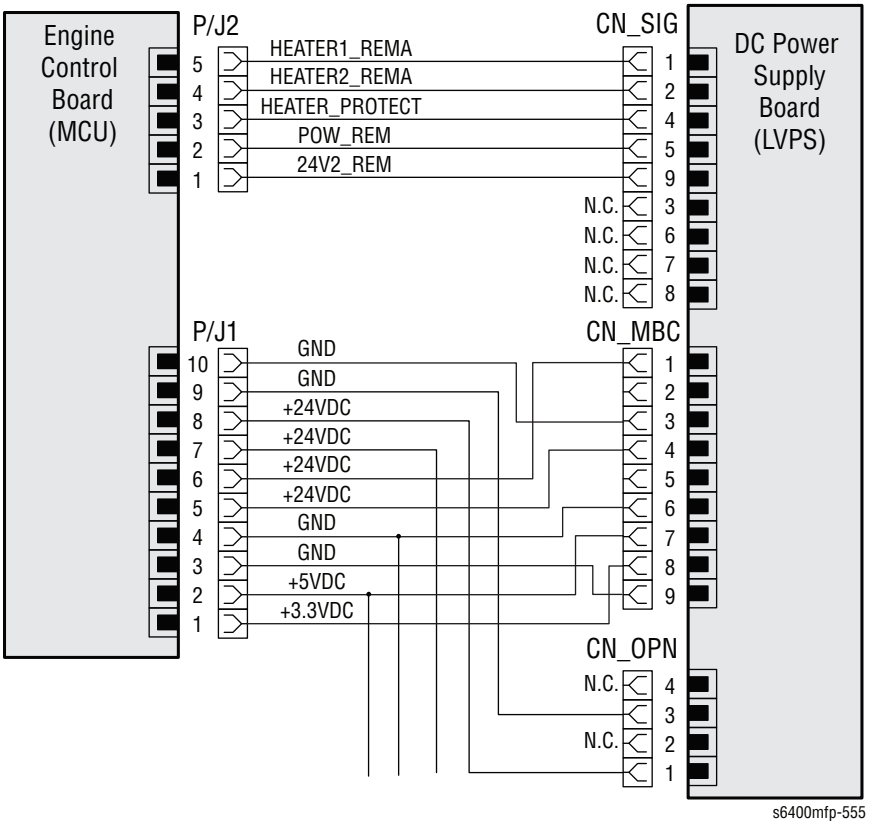
The Developer YMC Motor is part of the Main Drive Assembly and is aligned at the factory. Do not remove it from the assembly.

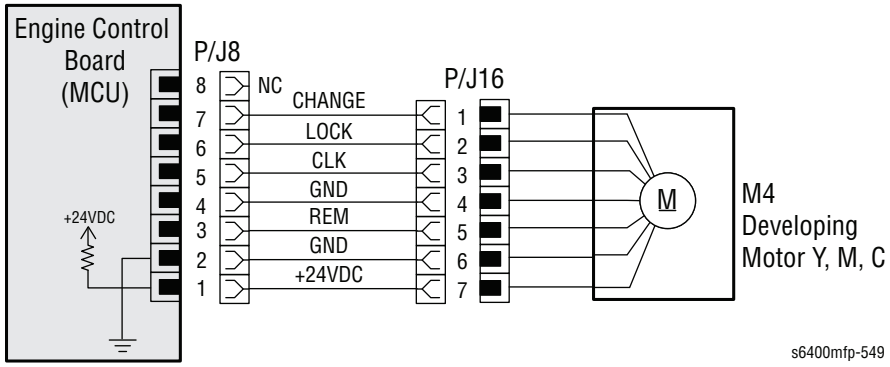
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	With the Imaging Units removed, does the Motor function properly in Diagnostics?	Replace the Main Drive Assembly (page 8-142).	Go to step 2.
2	Is the Motor connector (P/J16) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the MCU Board connector (PJ8MCU) properly connected?	Go to step 4.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	With nothing running in Diagnostics, are the following voltages present? ■ PJ8MCU-1 = 24Vdc ■ PJ8MCU-3 = 5Vdc	Go to step 5.	Go to step 7.
5	Does the wiring harness PJ8MCU to P/J16 have continuity?	Go to step 6.	Replace the wiring harness.
6	Replace the Main Drive Assembly (page 8-142). Does the Motor function in Diagnostics, with the Imaging Units removed?	Troubleshooting complete.	Go to step 7.
7	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).




Engine Control Board (MCU)
+24VDC
P/J8
8
7
6
5
4
3
2
1
NC
CHANGE
LOCK
CLK
GND
REM
GND
+24VDC
P/J16
1
2
3
4
5
6
7
M
M4 Developing Motor Y, M, C
s6400mfp-549

Xerographic System Error

There is a problem with the Xerographic system. The Color PC Drum Motor (M3) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the color PC Drum Motor is being rotated.

Applicable Chain-Link Code

309.005.00: Color Print Cartridge (IU) Motor Failure

Initial Actions

- Remove the Y, M, and C Imaging Units and inspect the couplings for any obstructions or damage. Be sure to check the coupling on the Imaging Units and the Main Drive Assembly.
- Check the alignment rails, for each Imaging Unit, and make sure it is they are properly mounted to the frame so the couplings seat correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

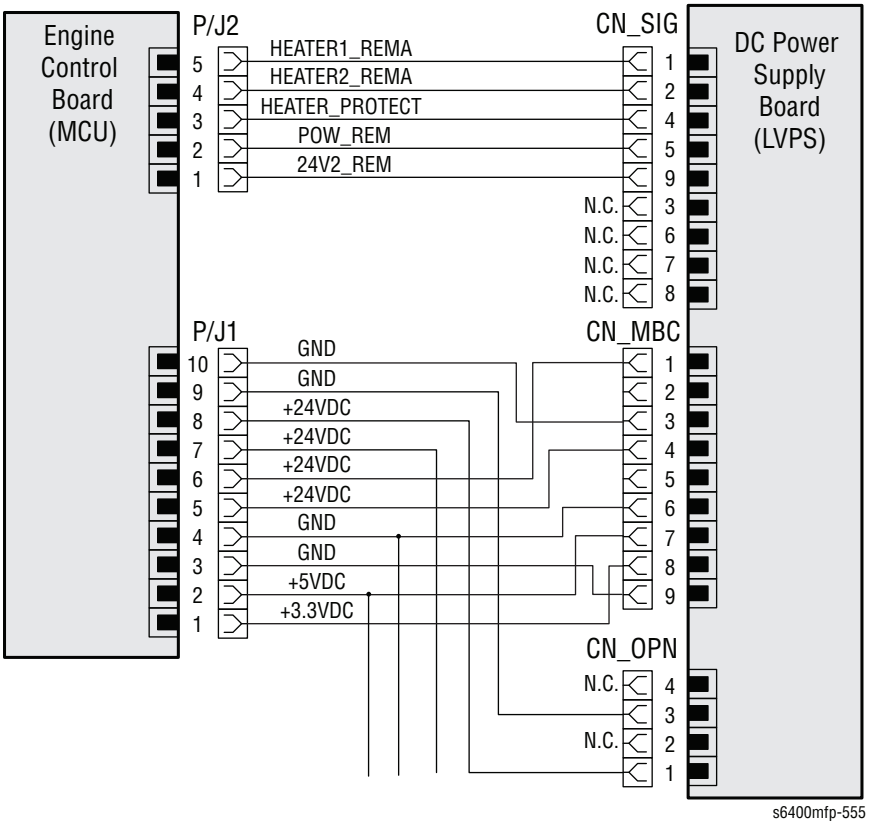
Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Color PC Drum Motor (M3), PL12.01 ■ MCU Board, PL20.09 ■ Wiring Harness, PL24.06	093-082

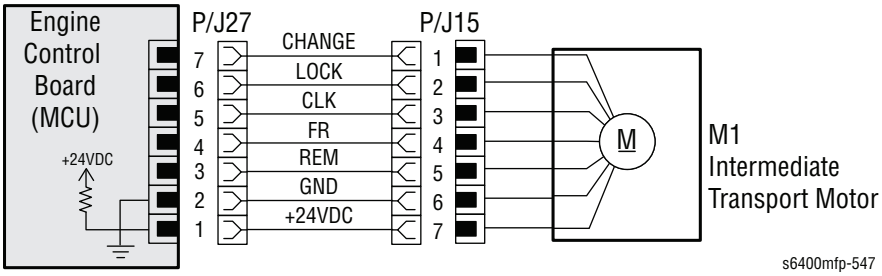
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	With the Imaging Units removed, does the Motor function properly in Diagnostics?	Replace the Color PC Drum Motor (M3) (page 8-155).	Go to step 2.
2	Is the Motor connector (P/J14) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the MCU Board connector (PJ14MCU) properly connected?	Go to step 4.	Properly seat the connector.
4	With the Motor turned On in Diagnostics, are the following voltages present? ■ PJ14MCU-1 = 24Vdc ■ PJ14MCU-3 = 5Vdc	Go to step 5.	Go to step 7.
5	Does the wiring harness PJ14MCU to P/J14 have continuity?	Go to step 6.	Replace the wiring harness.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Replace the Color PC Drum Motor (M3) (page 8-155). Does the Motor function in Diagnostics with the Imaging Unit installed?	Troubleshooting complete.	Go to step 7.
7	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).





Xerographic System Error

There is a problem with the Xerographic system. The Intermediate Transport Motor (M1) does not rotate evenly after it has been started or the motor lock signal remains high for a period of time while it is being used.

Applicable Chain-Link Code

309.006.00: Black Print Cartridge (IU) Motor Failure

Initial Actions

- Remove any paper from Tray 1 and clear any obstructions from the Feed Roller.
- Remove the K Imaging Unit and Transfer Belt; inspect the couplings for any obstructions or damage. Be sure to check the couplings on the Imaging Unit, Transfer Belt, and Main Drive Assembly.
- Check the alignment rails, for the K Imaging Unit, and make sure they are properly mounted to the frame so the couplings seat correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Intermediate Transport Motor, PL12.02 ■ Transfer Belt, PL14.16 ■ MCU Board, PL20.09	093-023

Caution

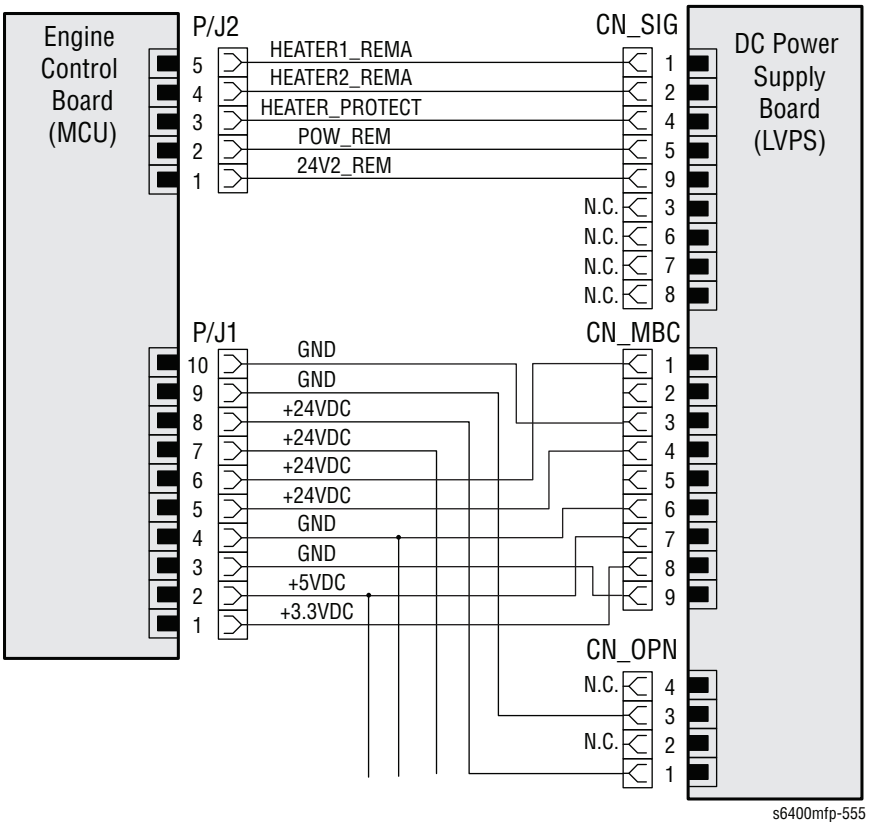
The K Imaging Unit, Toner Cartridges, and Transfer Belt must be removed but the Waste Cartridge must be installed when running the Motor in Diagnostics.

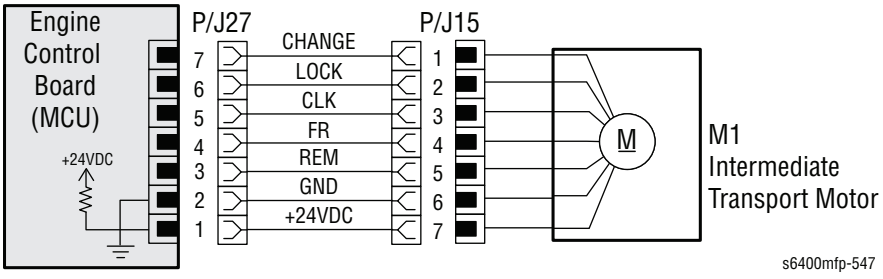
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	With the K Imaging Unit, Toner Cartridges, and Transfer Belt removed, does the Motor function properly in Diagnostics?	Replace the Intermediate Transport Motor (page 8-157).	Go to step 2.
2	Is the Motor connector (PJ15) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the MCU Board connector (PJ27MCU) properly connected?	Go to step 4.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	With the Motor not rotating, are the following voltages present? ■ PJ27MCU-1 = 24Vdc ■ PJ27MCU-3 = 5Vdc	Go to step 5.	Go to step 7.
5	Does the wiring harness (PJ27MCU to PJ15) have continuity?	Go to step 6.	Replace the wiring harness.
6	Replace the Intermediate Transport Motor (page 8-157). Does the error still occur?	Go to step 7.	Troubleshooting complete.
7	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).





Xerographic System Error

Communications between the Toner Low Sensor Board (TLSB) and the corresponding Imaging Unit has been interrupted.

Applicable Chain-Link Codes

- **309.007.00**: Cyan Imaging Unit Failure
- **309.008.00**: Magenta Imaging Unit Failure
- **309.009.00**: Yellow Imaging Unit Failure
- **309.010.00**: Black Imaging Unit Failure

Initial Actions

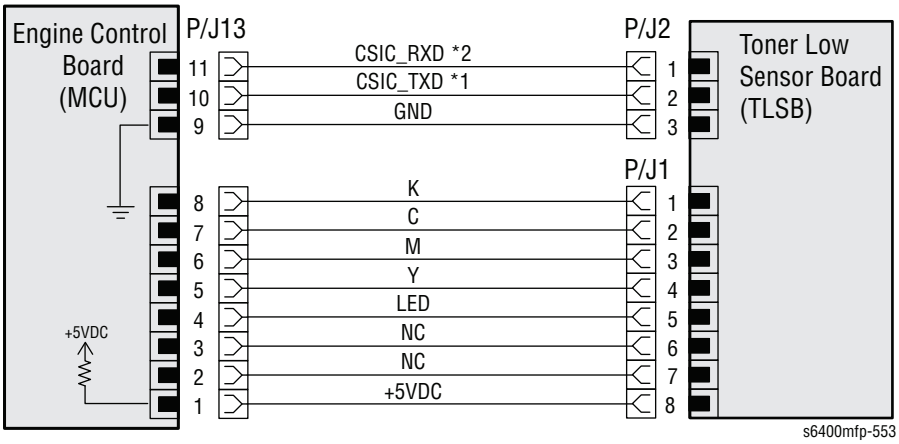
- Check the corresponding Imaging Unit for proper installation.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Toner Low Sensor Board, PL6.18 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board connector (PJ13MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	With nothing running in Diagnostics, are the following voltages present? ■ PJ13MCU-1 = 5Vdc ■ PJ13MCU-4 = 5Vdc	Replace the Toner Low Sensor Board (page 8-79).	Replace the MCU Board (page 8-101).



Auto Calibration Failed

The printer detected an Automatic Image Quality calibration error. The Automatic Image Quality (Image stabilization) routine, initiated periodically by the IOT, failed after 3 attempts.

Applicable Chain-Link Codes

- **309.011.00**: IDC Sensor Board Error (Front)
- **309.012.00**: IDC Sensor Board Error (Rear)
- **309.013.00**: Color Registration Error Correction - Internal Test Pattern
- **309.014.00**: Color Registration Error Correction - Correction Amount

Initial Actions

- Power cycle the printer.
- Perform the manual Image Quality Calibration (Machine Status --> Tools --> Calibration menu).
- Print the System Status embedded page to check for image quality defects.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

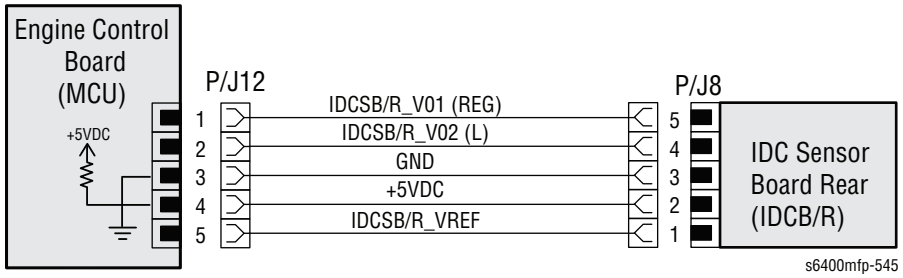
Applicable Parts	Component Control Code
■ IDCSB Cover (Shutter), PL14.11 ■ Image Density Control Sensor Board (IDCSB F/R), PL14.13 ■ Transfer Belt Unit, PL14.16 ■ MCU Board, PL20.09 ■ Wire Harness, PL24.05	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Clean the Front and Rear Image Density Control Boards. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Check the IDCSB Cover (shutter) for correct operation or damage. Is there damage noted?	Replace the IDCSB Cover.	Go to step 3.
3	Replace the appropriate Sensor (IDCSB F/R) (page 8-87). Does the error still occur?	Go to step 4.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Replace the MCU Board (page 8-101). Does the error still occur?	Replace the Transfer Belt (page 8-20).	Troubleshooting complete.



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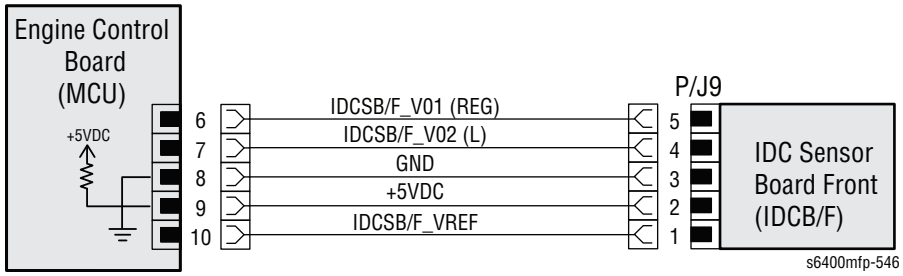

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Paper Jam Under the Control Panel

The printer has detected a paper jam while transporting the paper from the Fuser to the exit area. If a Finisher is not installed, the Exit Sensor (PS15) is not blocked after a given period of time after the Fuser Exit Sensor was unblocked. If a Finisher is installed, the Finisher Entrance Sensor (PS1) is not blocked after a given period of time after the Fuser Exit Sensor was unblocked.

Applicable Chain-Link Code

310.102.00: Jam at Horizontal Transfer Door

Initial Actions

- Open the Front Door and lift the Control Panel to check the Horizontal Transport area for any obstructions, paper, damage, or debris.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Upper and Lower Horizontal Transport Rollers, as needed.
- Check the Sensor Actuators for proper function and obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

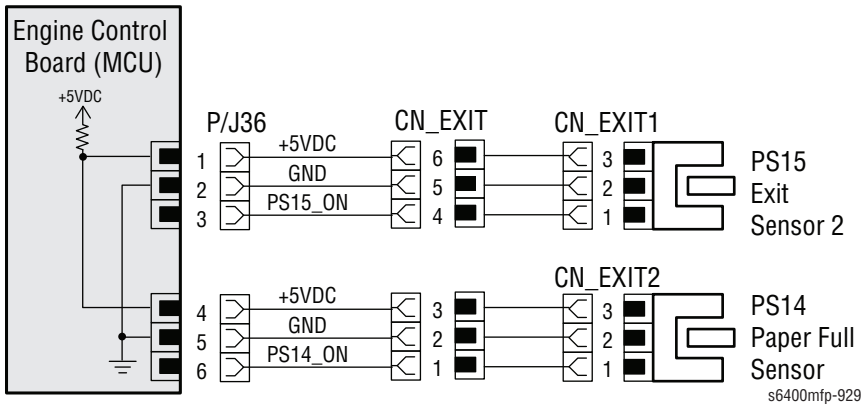
Applicable Parts	Component Control Code
■ Horizontal Transport - Upper, PL17.37 ■ Horizontal Transport - Lower, PL17.48 ■ Fuser (Exit Sensor), PL18.01 ■ Exit Sensor 2, PL19.13 ■ MCU Board, PL20.09 ■ Duplex Reverse Motor, PL22.13 ■ Entrance Sensor, PL38.10 ■ Finisher Control Board, PL46.16	010-208 010-205 077-020

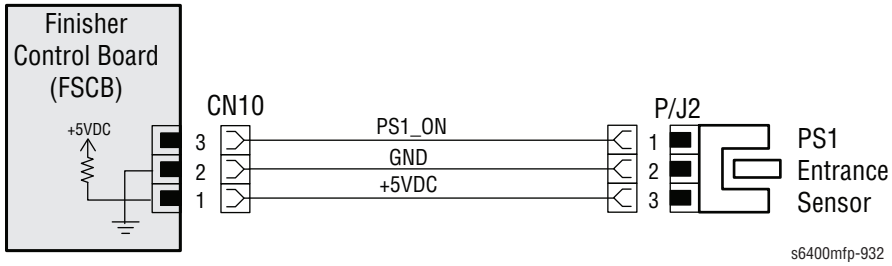
Troubleshooting Procedure Table

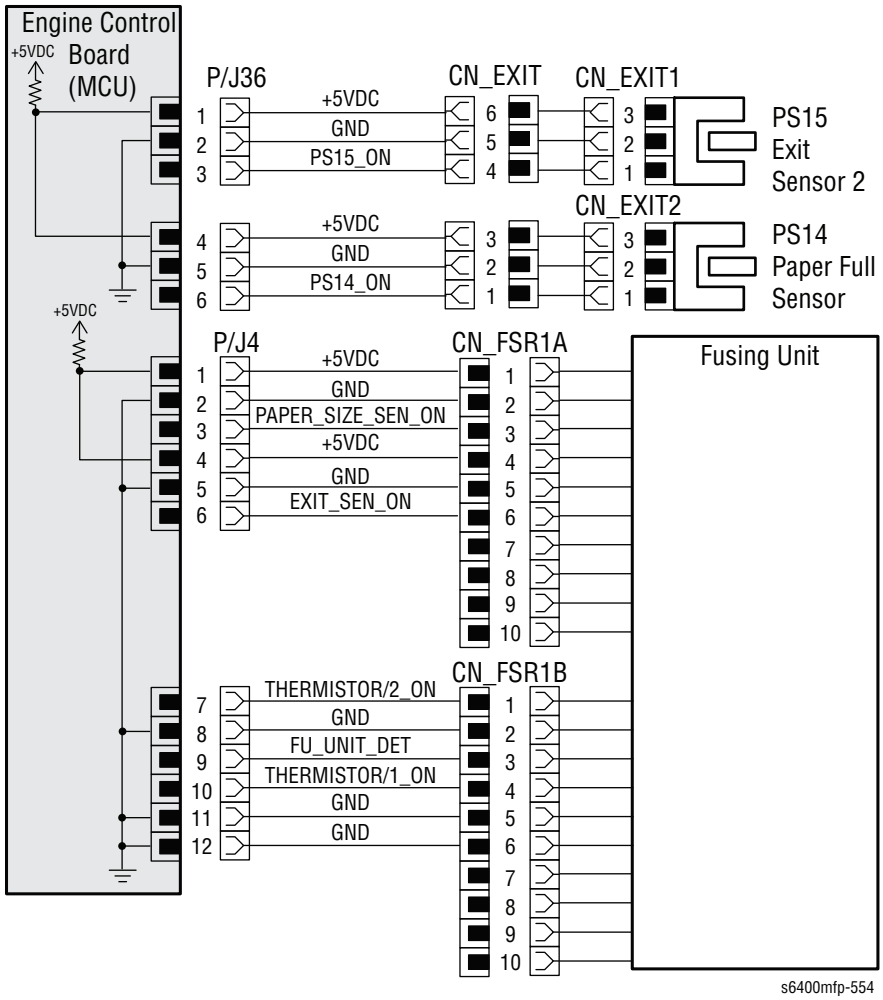
Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Horizontal Transport - Upper, PL17.37 ■ Horizontal Transport - Lower, PL17.48 ■ Actuator, PL19.09	Replace any damaged or excessively worn parts.	Go to step 2.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	If Finisher is not installed, does the Exit Sensor 2 work properly in Diagnostics? If a Finisher is installed, go to step 6.	Go to step 10.	Go to step 3.
3	Are the Exit Sensor 2 connectors (CN_Exit & CN_Exit1) properly connected?	Go to step 4.	Properly seat the connectors.
4	Is the MCU Board connector (PJ36MCU) properly connected?	Go to step 5.	Properly seat the connectors.
5	Is the following voltage present? ■ PJ36MCU-1 = 5Vdc	Replace the Exit Sensor 2.	Replace the MCU Board (page 8-101).
6	If a Finisher is installed, does the Entrance Sensor work properly in Diagnostics?	Go to step 9.	Go to step 7.
7	Is the Entrance Sensor connector (PJ2) and the MCU Board connector (CN10MCU) properly connected?	Go to step 8.	Properly seat the connectors.
8	Is the following voltage present? ■ PJ10MCU-1 = 5Vdc	Replace the Entrance Sensor (page 8-189).	Replace the FSC Board (page 8-205).
9	Does the Duplex Reverse Motor work properly in Diagnostics?	Go to step 10.	Replace the Duplex Reverse Motor (page 8-174).
10	Does the Fuser Exit Sensor work properly in Diagnostics?	Replace the MCU Board (page 8-101).	Go to step 11.
11	Is the following voltage present? ■ PJ4MCU-4 = 5Vdc	Replace the Fuser (page 8-24).	Replace the MCU Board (page 8-101).




Finisher
Control Board
(FSCB)
+5VDC
CN10
3
2
1
PS1_ON
GND
+5VDC
P/J2
1
2
3
PS1
Entrance
Sensor
s6400mfp-932


Engine Control
Board
(MCU)
+5VDC
P/J36
1
2
3
+5VDC
GND
PS15_ON
CN_EXIT
6
5
4
CN_EXIT1
3
2
1
PS15
Exit
Sensor 2
4
5
6
+5VDC
GND
PS14_ON
3
2
1
CN_EXIT2
3
2
1
PS14
Paper Full
Sensor
+5VDC
P/J4
1
2
3
4
5
6
+5VDC
GND
PAPER_SIZE_SEN_ON
+5VDC
GND
EXIT_SEN_ON
CN_FSR1A
1
2
3
4
5
6
7
8
9
10
Fusing Unit
CN_FSR1B
7
8
9
10
11
12
THERMISTOR/2_ON
GND
FU_UNIT_DET
THERMISTOR/1_ON
GND
GND
1
2
3
4
5
6
7
8
9
10
s6400mfp-554

Paper Jam Behind the Right Side Door

The Registration Sensor (PS9) was not blocked after a given amount of time after the previous paper unblocked the Sensor during a multiple page job. The Fuser Exit Sensor was not blocked after a given amount of time after the Registration Sensor (PS9) was unblocked. The pressure sequence of the 2nd Transfer Section has not started while the paper is blocking the Registration Sensor (PS9) during transport.

Applicable Chain-Link Codes

- **310.103.00**: Jam at 2nd Image Transfer Roller
- **310.105.00**: Jam at Vertical Transport Area

Initial Actions

- Remove the Fuser and check for any obstructions, paper, damage, or debris.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Check the Registration Sensor for obstructions or damage.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

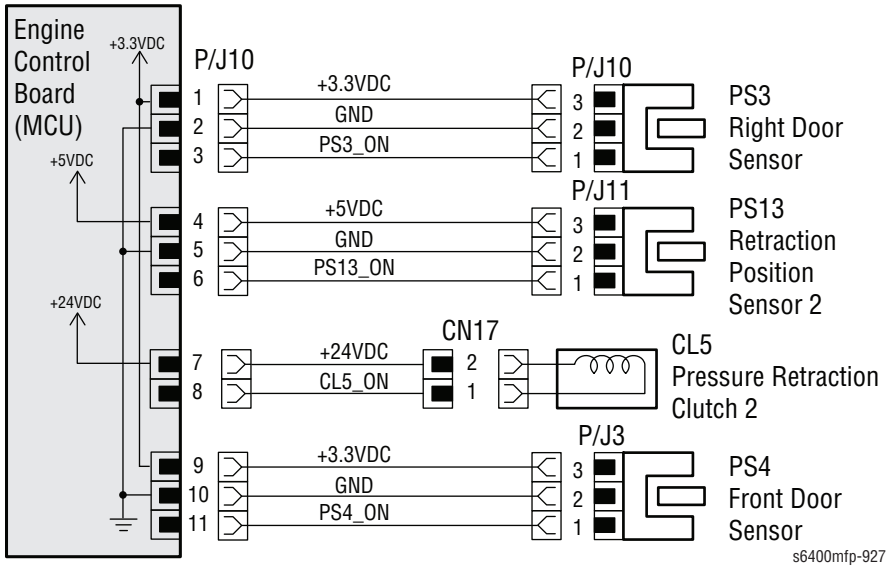
Applicable Parts	Component Control Code
■ Registration Sensor, PL11.04 ■ Pressure Retraction Clutch 2, PL11.10 ■ Drive Assembly, PL12.22	010-204 094-005
■ Fuser (Exit Sensor), PL18.01 ■ MCU Board, PL20.09	010-208

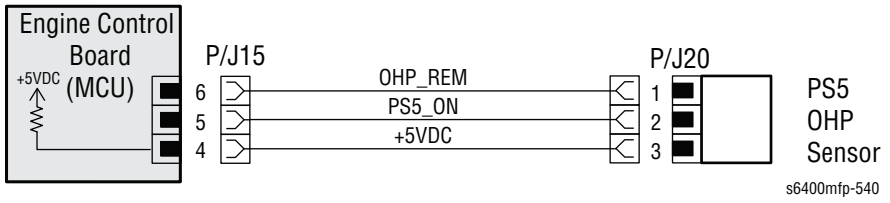
Troubleshooting Procedure Table

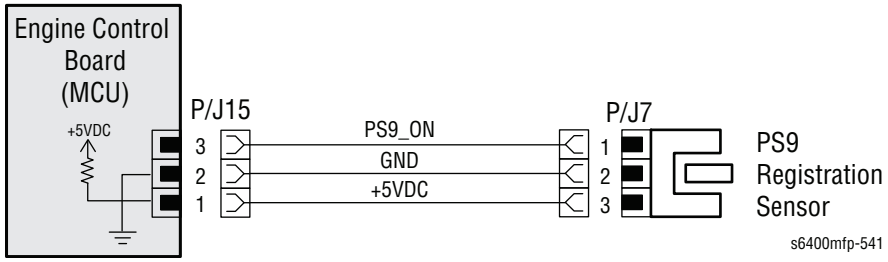
Step	Actions and Questions	Yes	No
1	Does the Registration Sensor work properly in Diagnostics?	Go to step 3.	Go to step 2.
2	Is the following voltage present? ■ PJ15MCU-1 = 5Vdc	Replace the Registration Sensor (page 8-85).	Replace the MCU Board (page 8-101).
3	Does the Fuser Exit Sensor work properly in Diagnostics?	Go to step 5.	Go to step 4.

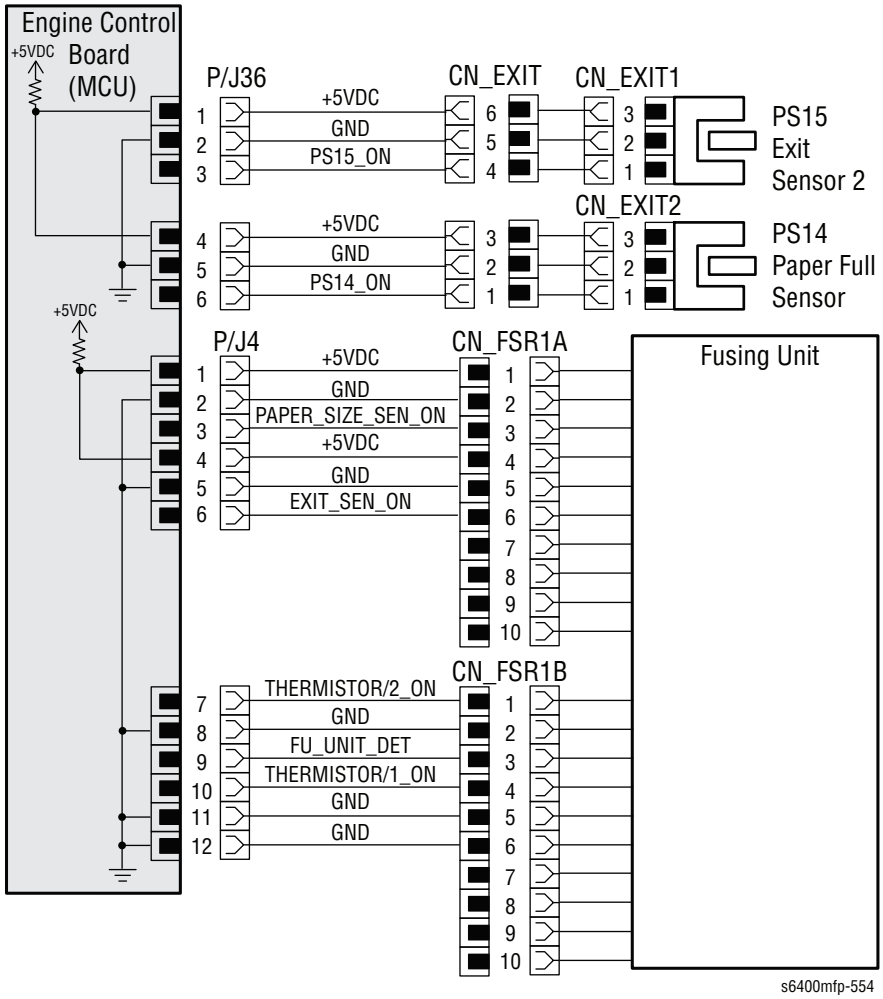
Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the following voltage present? ■ PJ4MCU-4 = 5Vdc	Replace the Fuser Unit (page 8-24).	Replace the MCU Board (page 8-101).
5	Does the Pressure Retraction Clutch 2 work properly in Diagnostics?	Replace the MCU Board (page 8-101).	Go to step 6.
6	Is the MCU Board connector (PJ10MCU) properly connected?	Go to step 7.	Properly seat the connector.
7	Is the Pressure Retraction Clutch 2 connector (CN17) properly connected?	Go to step 8.	Properly seat the connector.
8	Is the following voltage present? ■ PJ10MCU-7 = 24Vdc	Replace the Drive Assembly (page 8-142).	Replace the MCU Board (page 8-101).






Engine Control Board (MCU)
+5VDC
P/J15
3
2
1
PS9_ON
GND
+5VDC
P/J7
1
2
3
PS9 Registration Sensor
s6400mfp-541


Engine Control Board (MCU)
+5VDC
P/J36
1
2
3
+5VDC
GND
PS15_ON
CN_EXIT
6
5
4
CN_EXIT1
3
2
1
PS15 Exit Sensor 2
4
5
6
+5VDC
GND
PS14_ON
3
2
1
CN_EXIT2
3
2
1
PS14 Paper Full Sensor
+5VDC
P/J4
1
2
3
4
5
6
+5VDC
GND
PAPER_SIZE_SEN_ON
+5VDC
GND
EXIT_SEN_ON
CN_FSR1A
1
2
3
4
5
6
7
8
9
10
Fusing Unit
CN_FSR1B
7
8
9
10
11
12
THERMISTOR/2_ON
GND
FU_UNIT_DET
THERMISTOR/1_ON
GND
GND
1
2
3
4
5
6
7
8
9
10
s6400mfp-554

Paper Jam Behind the Right Side Door

The Fuser Exit Sensor was blocked for too long a period of time during paper feeding.

The paper does not unblock the ADC Board Sensor after a given period of time once the Fuser Exit Sensor is blocked during duplex operation.

Applicable Chain-Link Code

- **310.106.00**: Jam at Fuser

Initial Actions

- Remove any obstructions or debris in the paper path and cycle printer power.
- Remove the Fuser and check for any obstructions, paper, damage, or debris.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Fusing Motor, PL12.04	010-005
■ Fuser (Exit Sensor), PL18.01	010-208
■ MCU Board, PL20.09	
■ Duplex Reverse Motor, PL22.13	077-020
■ ADC Board (Duplex Sensor), PL23.12	077-109

Note

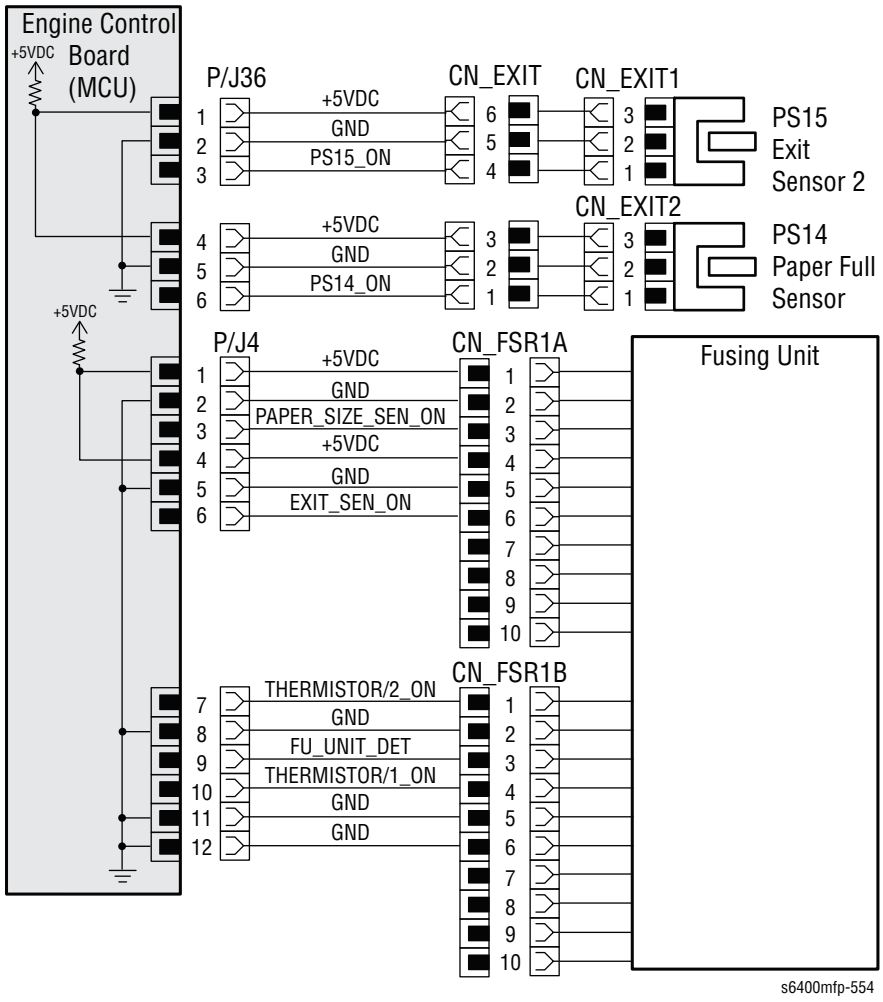
The Fuser Unit must be removed prior to testing the Fuser Motor (M2).

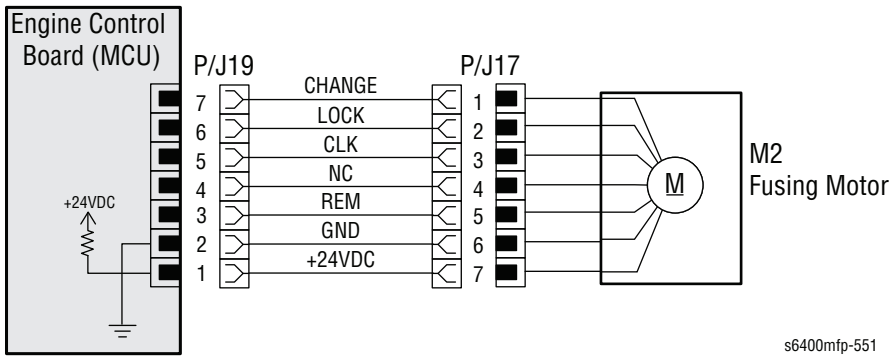
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Horizontal Transport Upper, PL17.37 ■ Horizontal Transport Lower, PL17.48 ■ Fuser Unit, PL18.01 ■ ADCB Actuator, PL22.09	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Fuser Exit Sensor work properly in Diagnostics?	Go to step 4.	Go to step 3.
3	Is the following voltage present? ■ PJ4MCU-4 = 5Vdc	Replace the Fuser (page 8-24).	Replace the MCU Board (page 8-101).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the Fuser Motor work properly in Diagnostics?	Go to step 6.	Replace the Fuser Motor (page 8-158).
5	Is the following voltage present? ■ PJ19MCU-1 = 24Vdc	Replace the Fuser Motor (page 8-158).	Replace the MCU Board (page 8-101).
6	Does the Duplex Reverse Motor work properly in Diagnostics?	Go to step 7.	Replace the Duplex Reverse Motor (page 8-174).
7	Does the Duplex Sensor work properly in Diagnostics?	Replace the MCU Board (page 8-101).	Replace the ADC Board (page 8-177).




Engine Control Board (MCU)
P/J19
P/J17
CHANGE
LOCK
CLK
NC
REM
GND
+24VDC
7
6
5
4
3
2
1
+24VDC
M
M2
Fusing Motor
s6400mfp-551

Fuser System Error

The printer detected the Fuser temperature is not within the specified range for the selected media type or is taking too long to warm up. The Fuser Thermistor 1 or Fuser Thermistor 2 does not detect the specified temperature and the warm-up cycle is not completed even after the lapse of a given period of time. The temperature detected by the Fuser Thermistor 1 or Fuser Thermistor 2 remains lower or higher than the specified value for a given period of time.

Applicable Chain-Link Codes

- **310.301.00**: Fuser Warm-Up Time Failure (Thermal Heater)
- **310.302.00**: Fuser Warm-Up Time Failure (Pressure Roller)
- **310.303.00**: Fuser Temperature Too Low (Thermal Heater)
- **310.304.00**: Fuser Temperature Too Low (Pressure Roller)
- **310.305.00**: Fuser Temperature Too High (Thermal Heater)
- **310.306.00**: Fuser Temperature Too High (Pressure Roller)

Initial Actions

- Check the Fuser for proper installation.
- Check the Fuser electrical connector for damage.
- Replace the Fuser (page 8-24).
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LVPS Board, PL10.17 ■ Fuser, PL18.01 ■ MCU Board, PL20.09	

Warning

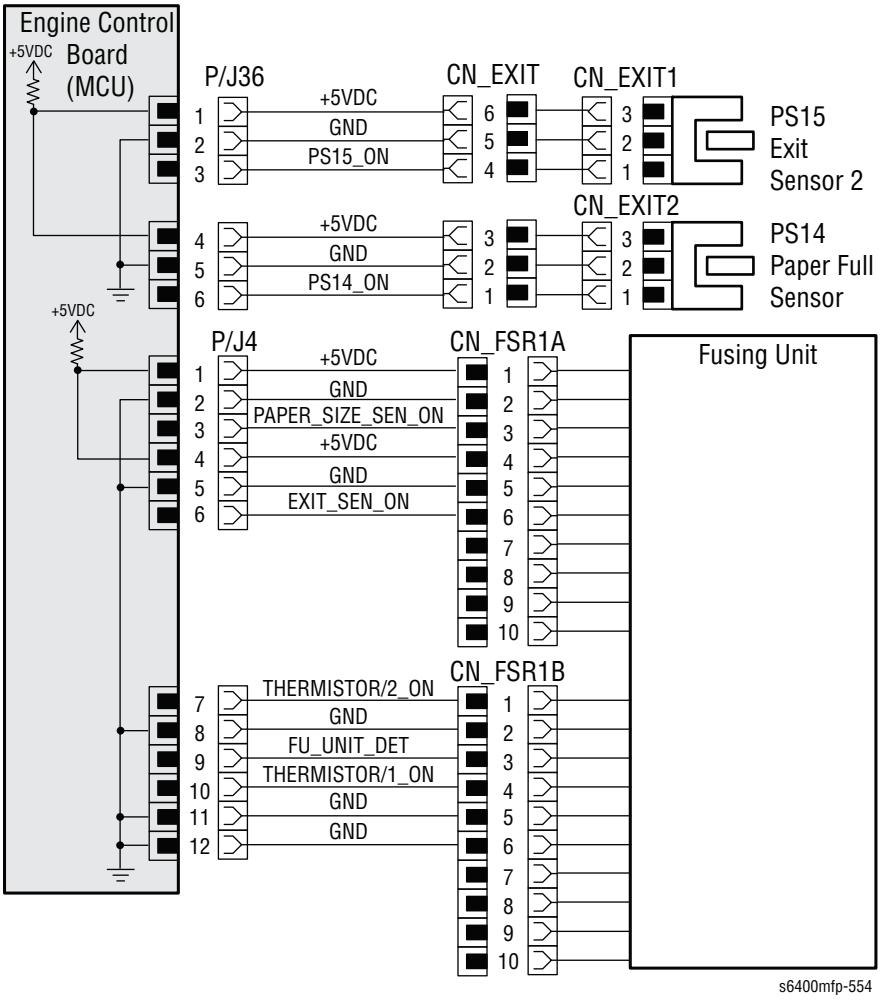
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

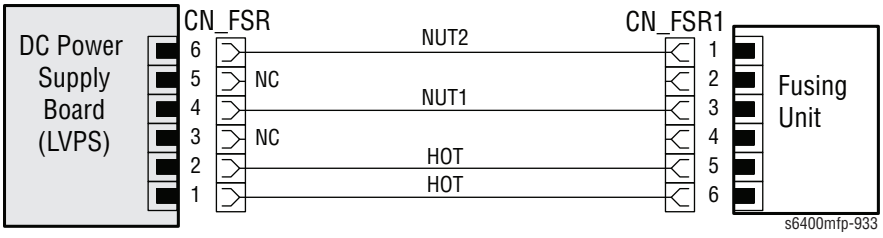
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board connector (PJ4MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	Is the LVPS Board connector (CN_FSRDCPU) properly connected?	Go to step 3.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Are the connections to the Fuser bulkhead properly connected (CN_FSR1, CN_FSR1A, & CN_FSR1B)?	Go to step 4.	Properly seat the connector.
4	Replace the LVPS Board (page 8-82). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.





Fuser System Error

The Fuser Cooling Fan (FM12) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the Fuser Cooling Fan is being rotated.

Applicable Chain-Link Code

310.307.00: Fuser Fan Failure

Initial Actions

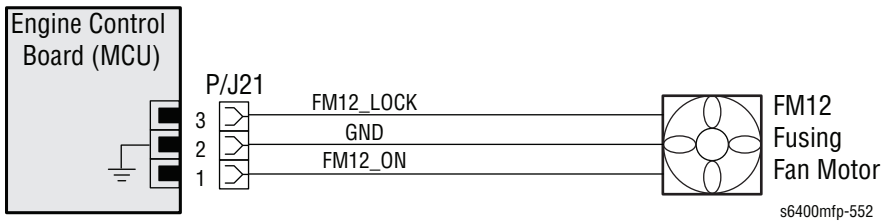
- Check the Fusing Fan Motor for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Fuser Cooling Fan, PL13.02 ■ MCU Board, PL20.09	042-019/ 042-020

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the MCU Board connector (PJ21MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	Does the Fan work in Diagnostics?	Replace the Fuser Cooling Fan (page 8-150).	Replace the MCU Board (page 8-101).



Fuser System Error

The Fuser Motor (M2) does not rotate consistently after a given period of time while it is being started or the motor lock signal remains high for a given period of time while the Fuser Motor is being rotated.

Applicable Chain-Link Code

310.308.00: Fuser Motor Failure

Initial Actions

- Check the Fuser Motor and drive mechanism for damage or obstructions.
- Check to make sure the Fuser is properly seated and locked in place.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

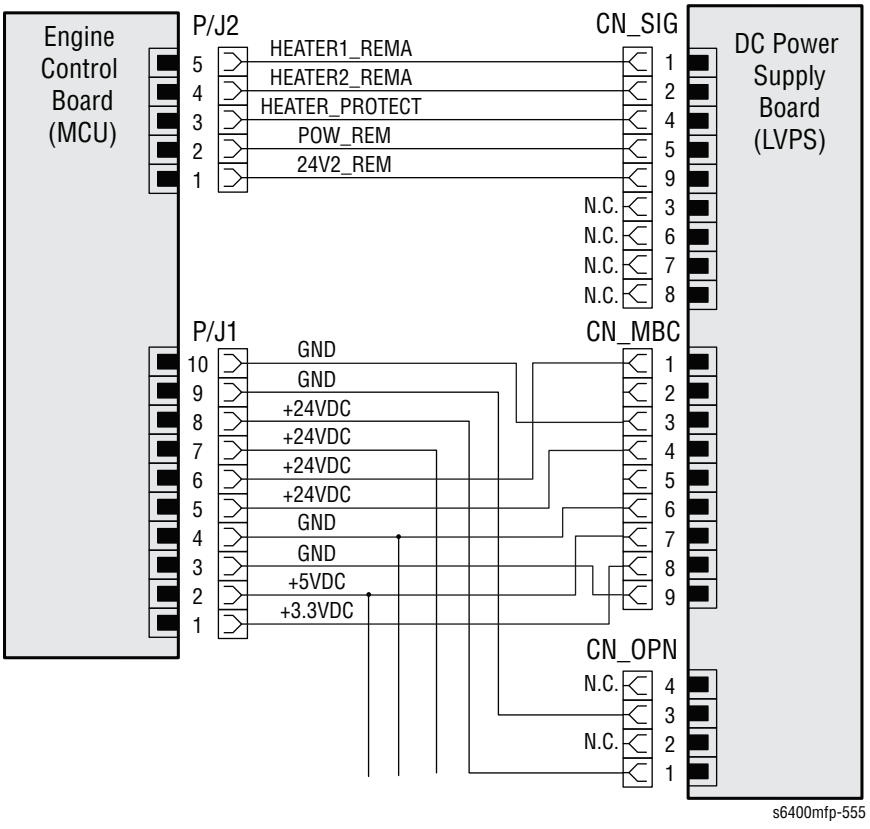
Applicable Parts	Component Control Code
■ Micro Switch, PL11.13 ■ Fuser Motor, PL12.04 ■ Fuser Unit, PL18.01 ■ MCU Board, PL20.09	010-005

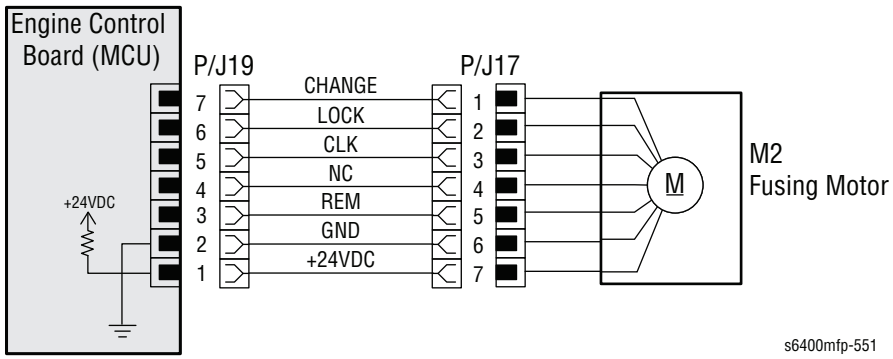
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove the Fuser and manually rotate the large white gear on the bottom. Does the gear turn?	Go to step 2.	Replace the Fuser (page 8-24).
2	With the Fuser installed and the Right and Front Doors closed, do pins PJ3MCU-1 and PJ3MCU-3 have continuity?	Go to step 5.	Go to step 3.
3	Does MS3 have continuity when it is closed?	Go to step 4.	Replace the Micro Switch MS3.
4	Does MS4 have continuity when it is closed?	Replace the MicroSwitch MS2.	Replace the Micro Switch MS4.
5	With the Fuser removed, does the Motor function properly in Diagnostics?	Replace the Fuser Motor (page 8-158).	Go to step 6.
6	Is the Motor connector (PJ17) properly connected?	Go to step 7.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
7	Is the MCU Board connector (PJ19MCU) properly connected?	Go to step 8.	Properly seat the connector.
8	With the Motor turned On in Diagnostics, are the following voltages present? ■ PJ19MCU-1 = 24Vdc ■ PJ19MCU-3 = 5Vdc	Go to step 10.	Go to step 9.
9	Does the wiring harness PJ19MCU to PJ17 have continuity?	Go to step 10.	Replace the wiring harness.
10	Replace the Fuser Motor (page 8-158). Does the Motor function in Diagnostics?	Troubleshooting complete.	Go to step 11.
11	Are the following voltages present? ■ PJ1MCU-2 = 5Vdc ■ PJ1MCU-5 to 8 = 24Vdc	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).




Engine Control Board (MCU)
P/J19
P/J17
CHANGE
LOCK
CLK
NC
REM
GND
+24VDC
7
6
5
4
3
2
1
+24VDC
M
M2
Fusing Motor
s6400mfp-551

Finisher Error

An error occurred during writing or erasing of the Finisher flash ROM.

Applicable Chain-Link Code

312.098.00: Finisher Flash ROM Failure

Initial Actions

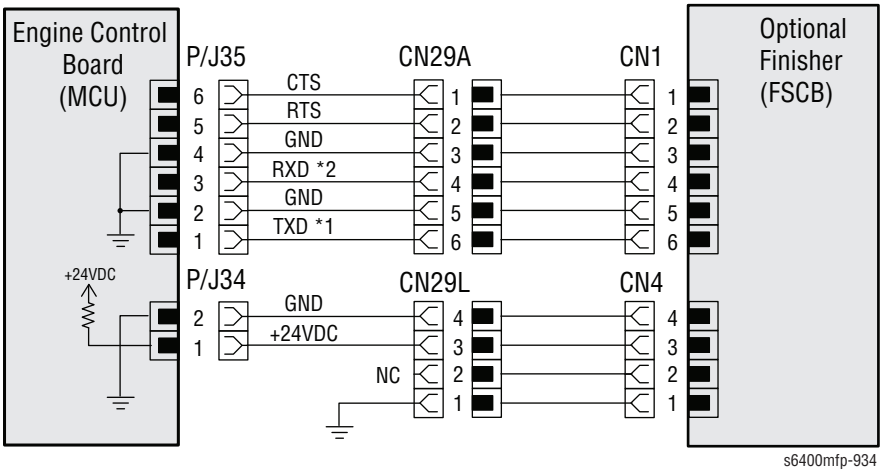
- Power cycle the printer.
- Check the Finisher connector for proper connection.
- If the problem persists, follow the procedure below.

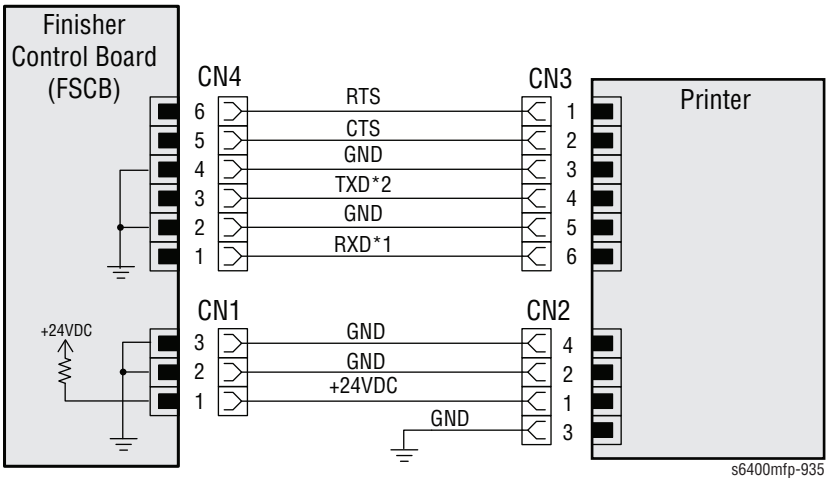
Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Finisher Control Board, PL46.16	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are the MCU Board connectors (PJ34MCU & PJ35MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	Are the Finisher Control Board connectors (CN1FSCB & CN4FSCB) properly connected?	Go to step 3.	Properly seat the connector.
3	Reload firmware. Does the error still occur?	Replace the Finisher Control Board (page 8-205).	Troubleshooting complete.


Engine Control Board (MCU)
P/J35
CN29A
CN1
Optional Finisher (FSCB)
6 CTS 1
5 RTS 2
4 GND 3
3 RXD *2 4
2 GND 5
1 TXD *1 6
+24VDC
P/J34
CN29L
CN4
2 GND 4
1 +24VDC 3
NC 2
1
s6400mfp-934


Finisher Control Board (FSCB)
CN4
CN3
Printer
6 RTS 1
5 CTS 2
4 GND 3
3 TXD*2 4
2 GND 5
1 RXD*1 6
+24VDC
CN1
CN2
3 GND 4
2 GND 2
1 +24VDC 1
GND 3
s6400mfp-935

Finisher Error

A communication error occurred between the Finisher and engine main body.

Applicable Chain-Link Code

312.099.00: Finisher Communication Failure

Initial Actions

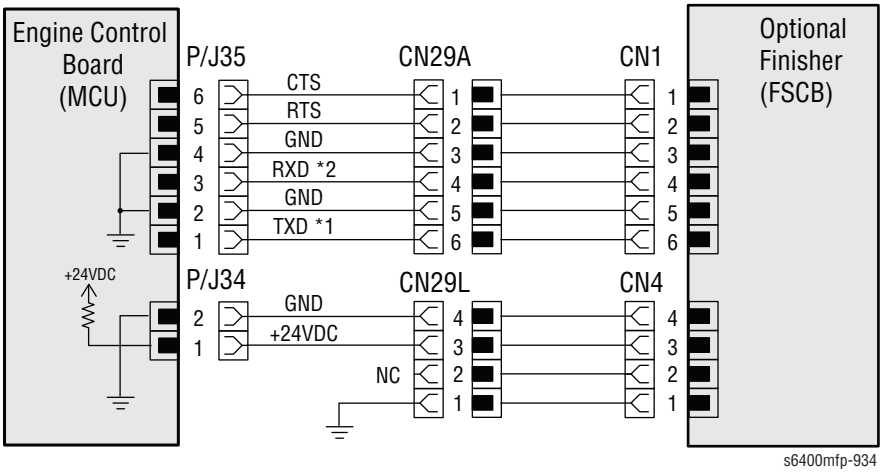
- Power cycle the printer.
- Check the Finisher to main body connector for proper connection.
- If the problem persists, follow the procedure below.

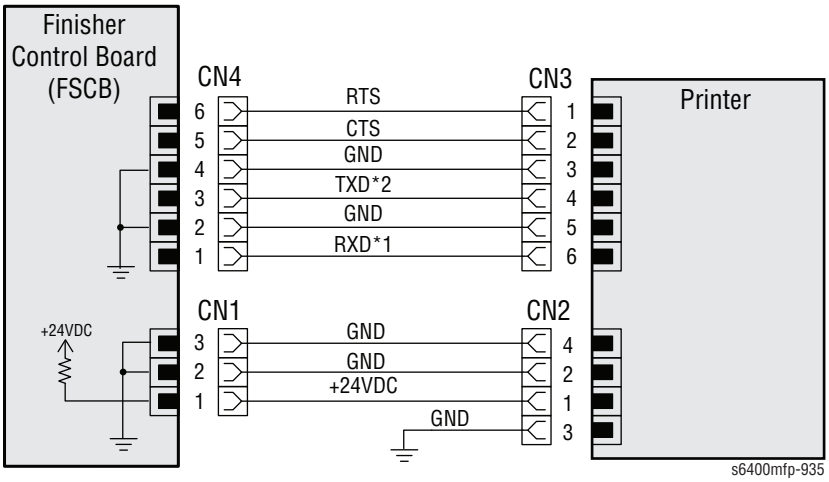
Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ MCU Board, PL20.09 ■ Finisher Control Board, PL46.16	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are the MCU Board connectors (PJ34MCU & PJ35MCU) properly connected?	Go to step 2.	Properly seat the connector.
2	Are the Finisher Control Board connectors (CN1FSCB & CN4FSCB) properly connected?	Go to step 3.	Properly seat the connector.
3	Replace the Finisher Control Board (page 8-205). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.


Engine Control Board (MCU)
P/J35
CN29A
CN1
Optional Finisher (FSCB)
6 CTS 1
5 RTS 2
4 GND 3
3 RXD *2 4
2 GND 5
1 TXD *1 6
+24VDC
P/J34
CN29L
CN4
2 GND 4
1 +24VDC 3
NC 2
1
s6400mfp-934


Finisher Control Board (FSCB)
CN4
CN3
Printer
6 RTS 1
5 CTS 2
4 GND 3
3 TXD*2 4
2 GND 5
1 RXD*1 6
+24VDC
CN1
CN2
3 GND 4
2 GND 2
1 +24VDC 1
GND 3
s6400mfp-935

Finisher Error

The Finisher was adjusting the Main Tray position and detected a problem with the movement or location of the Main Tray. The Paper Level Sensor 1 (PS9) is not activated and the Paper Level Sensor 2 (PS10) is not deactivated within a given period of time after the Tray Up/ Down Motor (M6) is energized.

The Tray Upper Sensor (PS12) is not activated and the Tray Lower Sensor (PS13) is not deactivated within a given period of time after the Tray Up/ Down Motor (M6) is turned On.

Applicable Chain-Link Code

312.480.00: Finisher Elevation Drive Failure

Initial Actions

- Check the Tray Up/ Down Motor and drive coupling for damage or obstructions.
- Check the Paper Level Sensor 1, Paper Level Sensor 2, Tray Upper Sensor, and Tray Lower Sensor Actuators for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

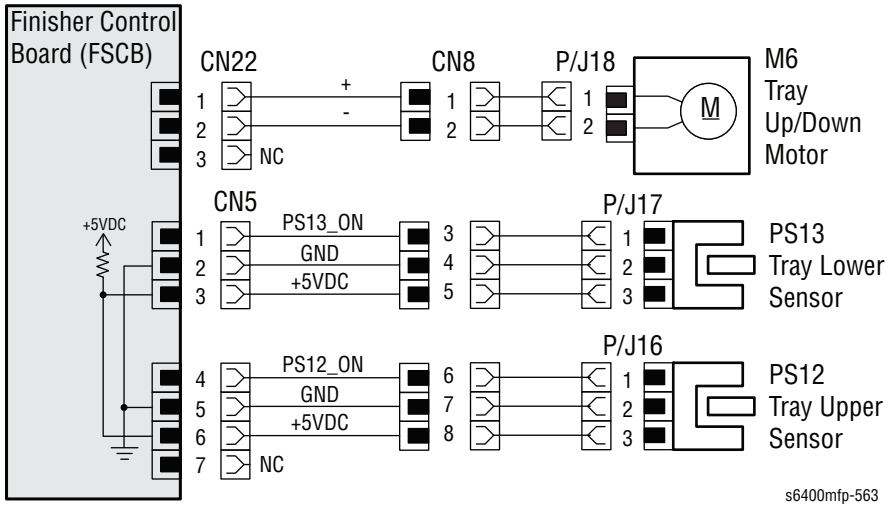
Applicable Parts	Component Control Code
■ Paper Level Sensor 1, PL36.14	012-309
■ Paper Level Sensor 2, PL36.14	012-310
■ Finisher Control Board, PL46.16	
■ Tray Up/Down Motor, PL48.02	012-057
■ Tray Upper Sensor, PL48.03	012-312
■ Tray Lower Sensor, PL48.03	012-313
■ Main Tray Assembly, PL48.18	

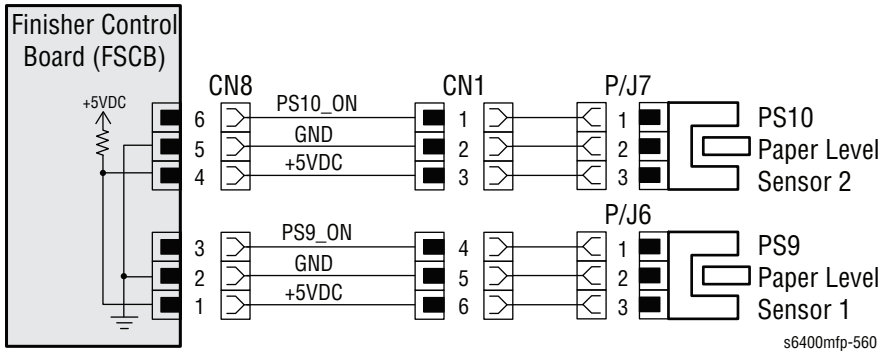
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Paper Level Sensor connector (CN1) and CN8FSCB properly connected?	Go to step 2.	Reseat the connectors.
2	Does the Paper Level Sensor 1 function properly in Diagnostics?	Go to step 3.	Replace the Paper Level Sensor 1 (page 8-185).
3	Does the Paper Level Sensor 2 function properly in Diagnostics?	Go to step 4.	Replace the Paper Level Sensor 2 (page 8-185).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the Tray Upper Sensor function properly in Diagnostics?	Go to step 5.	Go to step 7.
5	Does the Tray Lower Sensor function properly in Diagnostics?	Go to step 6.	Go to step 7.
6	Does the Tray Up/ Down Motor function properly in Diagnostics?	Replace the Finisher Control Board (page 8-205).	Go to step 7.
7	Replace the Finisher Main Tray Assembly (page 8-216). Does the error still occur?	Replace the Finisher Control Board (page 8-205).	Troubleshooting complete.





Finisher Error

The Finisher adjusts the Main Tray to detect the ejected paper. The Finisher has detected a problem because no paper was detected. The Paper Level Sensor 1 (PS9) is not activated within a given period of time after the Tray up/ Down Motor (M6) is energized and the Tray Upper Sensor (PS12) is activated.

Applicable Chain-Link Code

312.481.00: Finisher Paper Press Drive Failure

Initial Actions

- Check the Tray Up/ Down Motor and drive coupling for damage or obstructions.
- Check the Tray Upper Sensor and Paper Level Sensor 1 Actuators for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

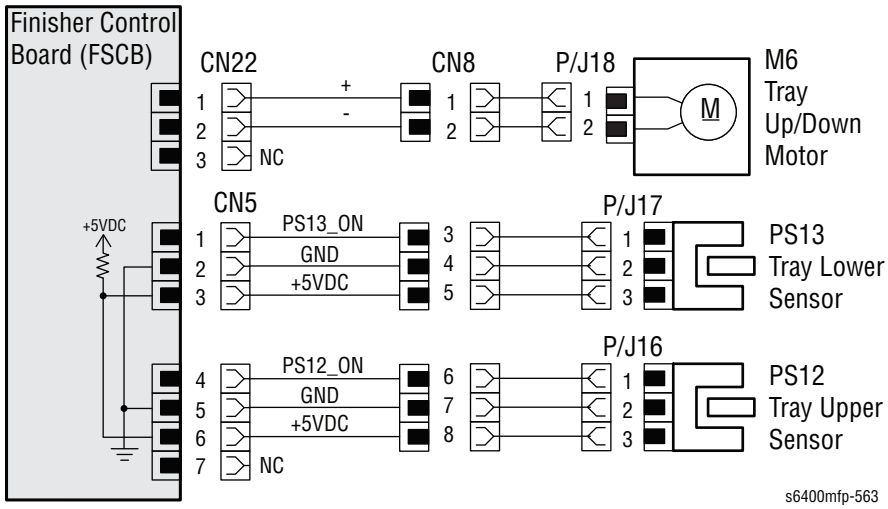
Applicable Parts	Component Control Code
■ Paper Level Sensor 1, PL36.14 ■ Finisher Control Board, PL46.16	012-309
■ Tray Up/ Down Motor, PL48.02	012-057
■ Tray Upper Sensor, PL48.03	012-312
■ Main Tray Assembly, PL48.18	

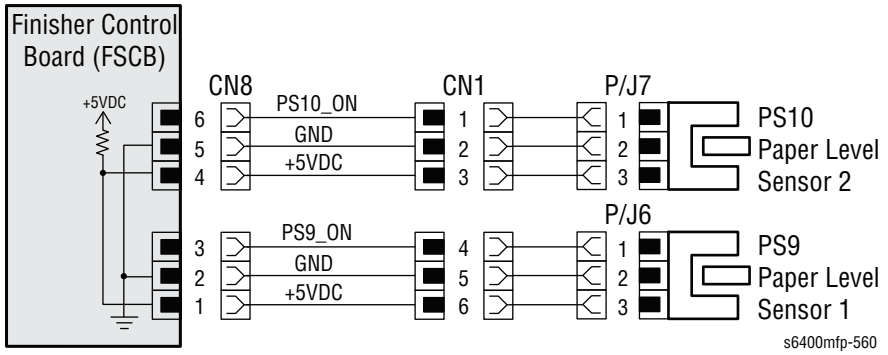
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Paper Level Sensor 1 work properly in Diagnostics?	Go to step 3.	Go to step 2.
2	Is the following voltage present? ■ CN8FSCB-1 = 5Vdc	Replace the Paper Level Sensor 1 (page 8-185).	Replace the Finisher Control Board (page 8-205).
3	Does the Tray Up/ Down Motor function properly in Diagnostics?	Go to step 5.	Go to step 4.
4	Is the Motor connector (PJ18) properly connected?	Go to step 7.	Properly seat the connector.
5	Does the Tray Upper Sensor work properly in Diagnostics?	Go to step 7.	Go to step 4.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Is the following voltage present? ■ CN5FSCB-6 = 5Vdc	Replace the Tray Upper Sensor.	Replace the Finisher Control Board (page 8-205).
7	Replace the Finisher Main Tray Assembly (page 8-216). Does the error still occur?	Replace the Finisher Control Board (page 8-205).	Troubleshooting complete.





Finisher Error

The Finisher Aligning Plate causes multiple sheets of paper exiting the Main Tray to be properly aligned for stacking and stapling. The Finisher has detected a problem with the movement or location of the Aligning Plate.

The Aligning Plate Home Position Sensor (PS6) is not activated or deactivated within a given period of time after the printer is turned On or the Align Motor (M2) is energized.

Applicable Chain-Link Code

312.482.00: Finisher Alignment Plate Drive Failure

Initial Actions

- Check the Align Motor and drive coupling for damage or obstructions.
- Check the Aligning Plate Home Sensor Actuator for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Align Motor, PL41.M2 ■ Align Plate Home Sensor, PL41.PS6 ■ Finisher Control Board, PL46.16	012-017 012-306

Note

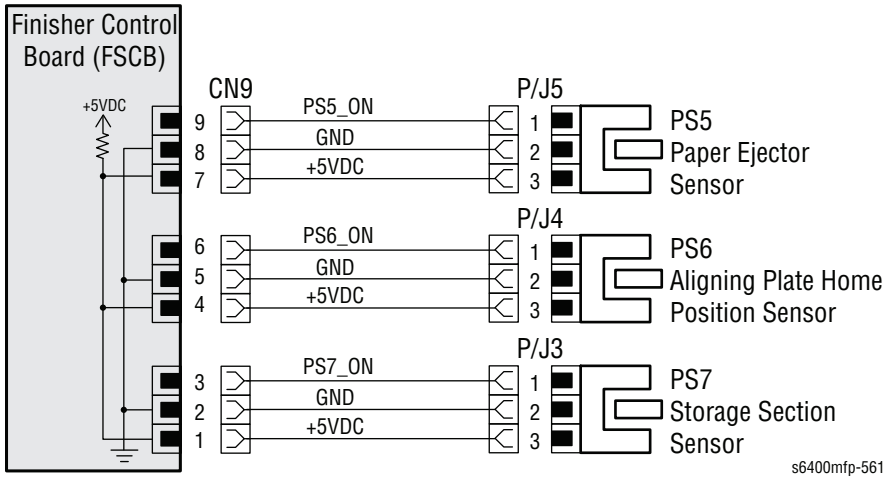
The Exit Roller Up/ Down Motor (012-018) must be activated prior to operating the Align Motor (012-017) to prevent potential damage.

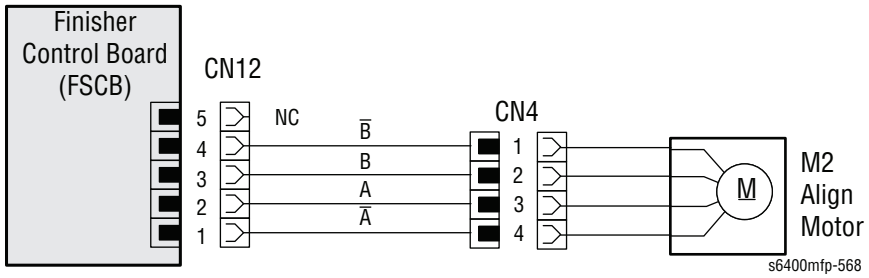
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Aligning Plate Home Position Sensor work properly in Diagnostics?	Go to step 3.	Go to step 2.
2	Is the following voltage present? ■ CN9FSCB-4 = 5Vdc	Replace the Finisher Assembly (page 8-182).	Replace the Finisher Control Board (page 8-205).
3	Does the Align Motor function properly in Diagnostics?	Replace the Finisher Control Board (page 8-205).	Go to step 4.
4	Is the Motor connector (CN4) properly connected?	Go to step 5.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Is the Finisher Control Board connector (CN12FSCB) properly connected?	Replace the Finisher Assembly (page 8-182).	Properly seat the connector.





Finisher Error

The Finisher lowers the Paper Exit Roller mechanism into position to eject the paper to the Main Tray. The Finisher has detected a problem with the movement or location of the Exit Roller mechanism.

The Exit Roller Sensor (PS8) is not activated or deactivated within a given period of time after the Exit Roller Up/ Down Motor (M5) is energized.

Applicable Chain-Link Code

312.483.00: Finisher Eject Roller Contact Failure

Initial Actions

- Check the Exit Roller Up/ Down Motor and drive coupling for damage or obstructions.
- Check the Exit Roller sensor actuator for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

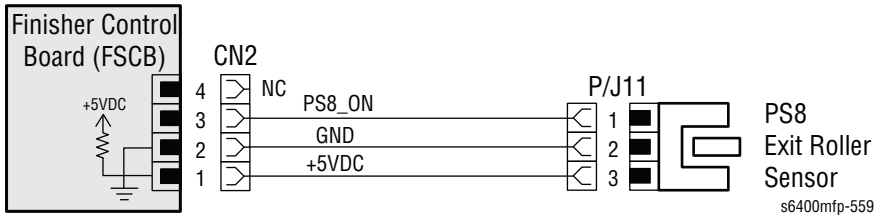
Applicable Parts	Component Control Code
■ Exit Roller Up/Down Motor, PL47.05 ■ Exit Roller Sensor, PL47.PS8 ■ Finisher Control Board, PL46.16	012-018 012-308

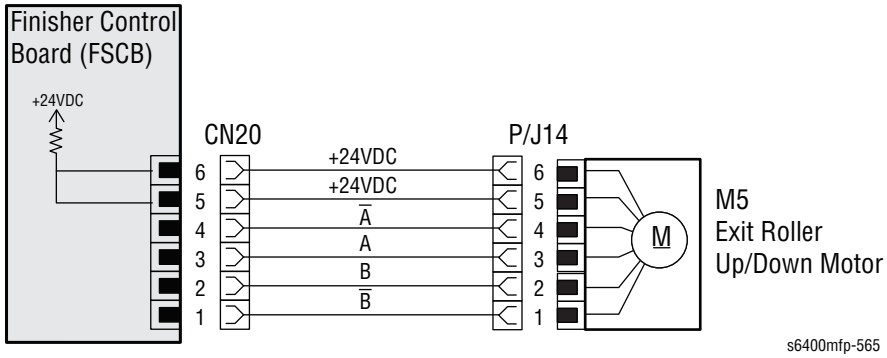
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Exit Roller Up/ Down motor function properly in Diagnostics?	Go to step 4.	Go to step 2.
2	Is the Motor connector (PJ14) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the Finisher Control Board connector (CN20FSCB) properly connected?	Go to step 6.	Properly seat the connector.
4	Does the Exit Roller Sensor work properly in Diagnostics?	Go to step 6.	Go to step 5.
5	Is the following voltage present? ■ CN2FSCB-1 = 5Vdc	Replace the Exit Roller Sensor.	Replace the Finisher Control Board (page 8-205).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Replace the Finisher Control Board (page 8-205). Does the error still occur?	Replace the Exit Roller Up/ Down Motor (page 8-213).	Troubleshooting complete.





Finisher Error

The Finisher Aligning Belt causes multiple sheets of paper exiting the Main Tray to be properly aligned for stacking and stapling. The Finisher has detected a problem with the movement or location of the Aligning Belt.

The Aligning Belt Sensor (PS11) is not activated or deactivated within a given period of time after the Aligning Belt Up/ Down Solenoid (SL3) is energized.

Applicable Chain-Link Code

312.484.00: Finisher Storage Belt Contact Failure

Initial Actions

- Check the Exit Roller Up/ Down Motor and drive coupling for damage or obstructions.
- Check the Exit Roller Sensor Actuator for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

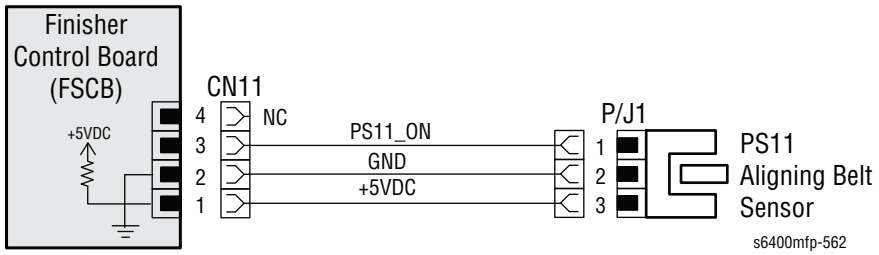
Applicable Parts	Component Control Code
■ Aligning Belt Sensor, PL46.02 ■ Align Belt Up/Down Solenoid, PL46.04 ■ Finisher Control Board, PL46.16	012-311 012-157

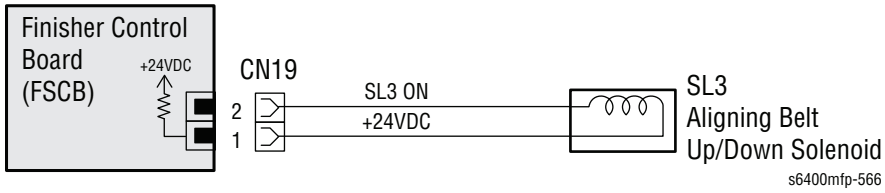
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Aligning Belt Up/ Down Solenoid function properly in Diagnostics?	Go to step 3.	Go to step 2.
2	Is the Finisher Control Board connector (CN19FSCB) properly connected?	Go to step 7.	Properly seat the connector.
3	Does the Aligning Belt Sensor work properly in Diagnostics?	Go to step 7.	Go to step 4.
4	Is the Finisher Control Board connector (CN11FSCB) properly connected?	Go to step 5.	Properly seat the connector.
5	Is the Aligning Belt Sensor connector (PJ1) properly connected?	Go to step 6.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Is the following voltage present? ■ CN11FSCB-1 = 5Vdc	Replace the Aligning Belt Sensor.	Replace the Finisher Control Board (page 8-205).
7	Replace the Finisher Control Board (page 8-205). Does the error still occur?	Replace the Aligning Belt Up/ Down Solenoid (.page 8-204).	Troubleshooting complete.





Finisher Error

The Finisher has completed stacking or stapling multiple sheets of paper and has detected a problem while ejecting the paper to the Main Tray. The Paper Ejector Sensor (PS5) is not activated within a given period of time after the Paper Ejector Motor (M1) is energized.

Applicable Chain-Link Code

312.485.00: Finisher Bundle Eject Motor Failure

Initial Actions

- Check the Paper Ejector Motor and drive coupling for damage or obstructions.
- Check the Paper Ejector Sensor Actuator for damage or obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Finisher Assembly, PL35.09 ■ Paper Ejector Motor, PL41.M1 ■ Paper Ejector Sensor, PL41.02 ■ Finisher Control Board, PL46.16	 012-016 012-305

Note

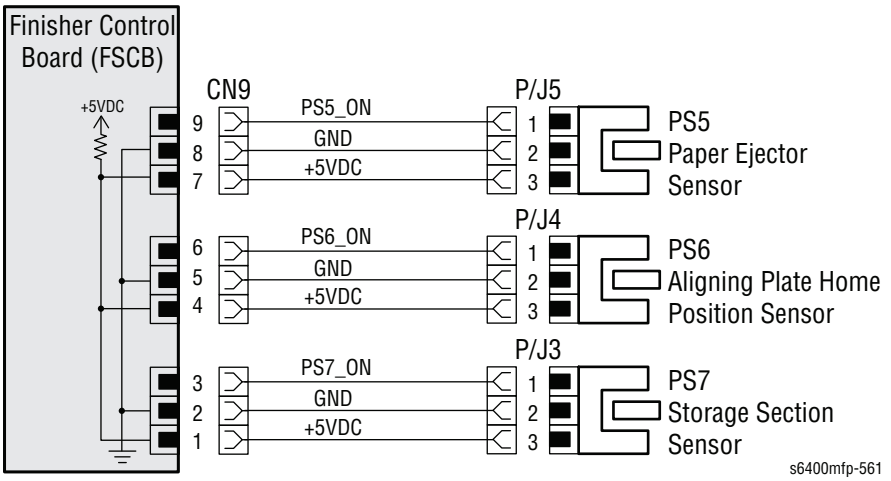
The Exit Roller Up/ Down Motor (M5) must be activated prior to operating the Paper Ejector Motor (M1) to prevent potential damage.

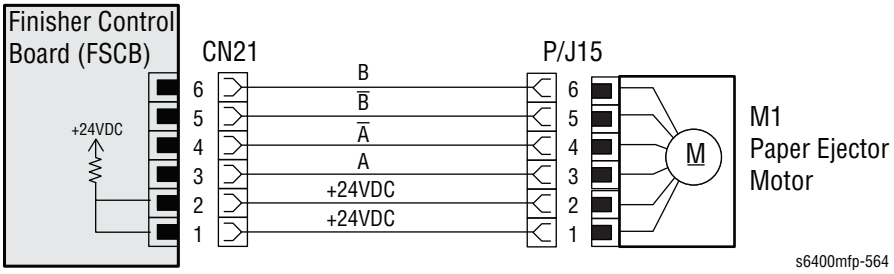
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Paper Ejector Motor function properly in Diagnostics?	Go to step 4.	Go to step 2.
2	Is the Motor connector (PJ15) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the Finisher Control Board connector (CN21FSCB) properly connected?	Go to step 7.	Properly seat the connector.
4	Does the Paper Ejector Sensor function properly in Diagnostics?	Go to step 7.	Go to step 5.
5	Is the Finisher Control Board connector (CN9FSCB) properly connected?	Go to step 6.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Is the following voltage present? CN9FSCB-7 = 5Vdc	Replace the Paper Ejector Sensor (page 8-199).	Replace the Finisher Control Board (page 8-205).
7	Replace the Finisher Control Board (page 8-205). Does the error still occur?	Replace the Finisher Assembly (page 8-182).	Troubleshooting complete.





Paper Jam in the Finisher Transport Area

The Finisher has detected a paper jam while transporting the paper to the Main or Sub Tray. The Finisher Entrance Sensor (PS1) was not unblocked after a given amount of time after the paper has blocked the Finisher Entrance Sensor (PS1).

Applicable Chain-Link Code

312.487.00: Jam at Finisher Transport Area

Initial Actions

- Open the Front Door and lift the Control Panel to check the Horizontal Transport area for any obstructions, paper, damage, or debris.
- Lift the Finisher Top Cover and check for any obstructions, paper, damage, or debris.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Upper and Lower Horizontal Transport Rollers, as needed.
- Check the Sensor Actuators for proper function and obstructions.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

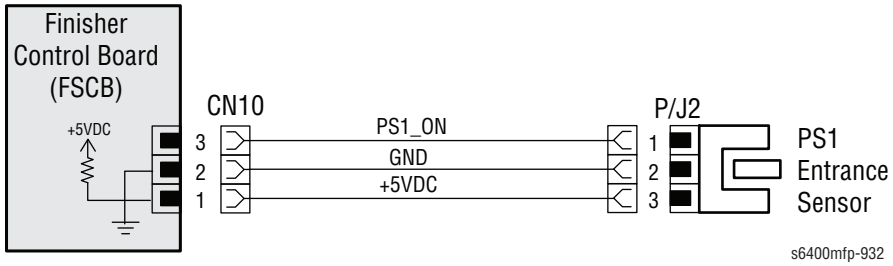
Applicable Parts	Component Control Code
■ Finisher Entrance Sensor, PL38.10 ■ Finisher Control Board, PL46.16	012-301
■ Transport Motor, PL46.20	012-003

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Actuator, PL19.09 ■ Horizontal Transport - Upper, PL17.37 ■ Transport Rollers, PL39.16	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Entrance Sensor work properly in Diagnostics?	Go to step 5.	Go to step 3.
3	Is the Entrance Sensor connector (PJ2) and the FSC Board connector (CN10FSCB) properly connected?	Go to step 4.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the following voltage present? ■ CN10FSCB - 1 = 5Vdc	Replace the Entrance Sensor (page 8-189).	Replace the FSC Board (page 8-205).
5	Does the Finisher Transport Motor work properly in Diagnostics?	Replace the Finisher Transport Motor (page 8-206).	Replace the FSC Board (page 8-205).



Paper Jam at Finisher Top Output Tray

The Finisher has detected a paper jam at the Sub Tray. The Finisher Entrance Sensor (PS1) is not unblocked after a given period of time after the Finisher Transport Section Sensor (PS2) is blocked. The Finisher Transport Section Sensor (PS2) is not unblocked after a given period of time after the Finisher Entrance Sensor (PS1) is unblocked.

Applicable Chain-Link Code

312.488.00: Jam at Finisher Upper Output Tray

Initial Actions

- Ensure the Finisher is installed properly and the connector is properly seated.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Clean the Upper and Lower Finisher Transport Rollers, as needed.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

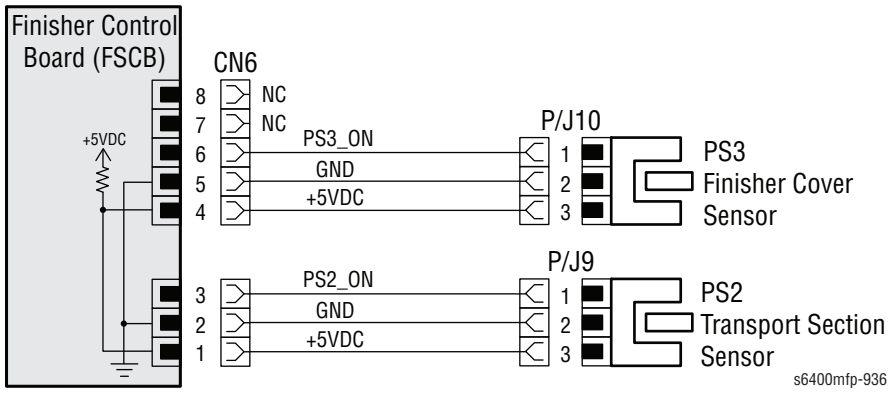
Applicable Parts	Component Control Code
■ Finisher Entrance Sensor, PL38.10 ■ Finisher Transport Section Sensor, PL39.14 ■ Finisher Control Board, PL46.16	012-301 012-302
■ Transport Motor, PL46.20	012-003

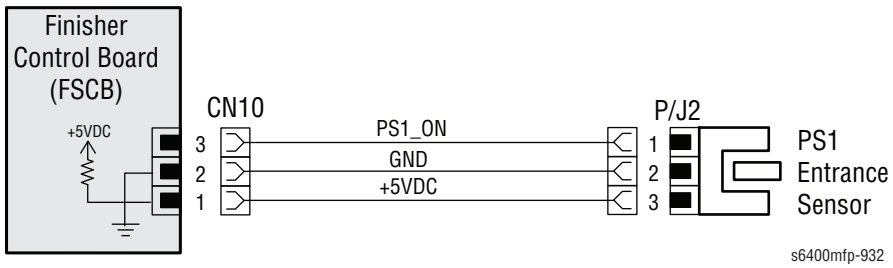
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Finisher Entrance Sensor Actuator, PL38.12 ■ Transport Roller Assy, PL38.21 ■ Finisher Transport Section Sensor Actuator, PL39.13 ■ Transport Rollers, PL39.16	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Finisher Entrance Sensor work properly in Diagnostics?	Go to step 5.	Go to step 3.
3	Is the Entrance Sensor connector (PJ2) and the FSC Board connector (CN10FSCB) properly connected?	Go to step 4.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the following voltage present? ■ CN10FSCB-1 = 5Vdc	Replace the Finisher Entrance Sensor (page 8-189).	Replace the FSC Board (page 8-205).
5	Does the Finisher Transport Section Sensor work properly in Diagnostics?	Go to step 8.	Go to step 6.
6	Is the Transport Sensor connector (PJ9) and the FSC Board connector (CN6FSCB) properly connected?	Go to step 7.	Properly seat the connector.
7	Is the following voltage present? ■ CN6FSCB-1 = 5Vdc	Replace the Finisher Transport Section Sensor.	Replace the FSC Board (page 8-205).
8	Does the Finisher Transport Motor work properly in Diagnostics?	Replace the Finisher Transport Motor (page 8-206).	Replace the FSC Board (page 8-205).





Paper Jam at Finisher Main Output Tray

The Finisher has detected a paper jam at the Main Tray. The Finisher Entrance Sensor (PS1) is not unblocked after a given period of time after the Finisher Storage Section Sensor (PS7) is blocked. The Finisher Storage Section Sensor (PS7) is not unblocked after a given period of time after the Finisher Entrance Sensor (PS1) is unblocked.

Applicable Chain-Link Code

312.489.00: Jam at Finisher Stacker Output Tray

Initial Actions

- Ensure the Finisher is installed properly and the connector is properly seated.
- Remove any obstructions or debris in the paper path and cycle printer power.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

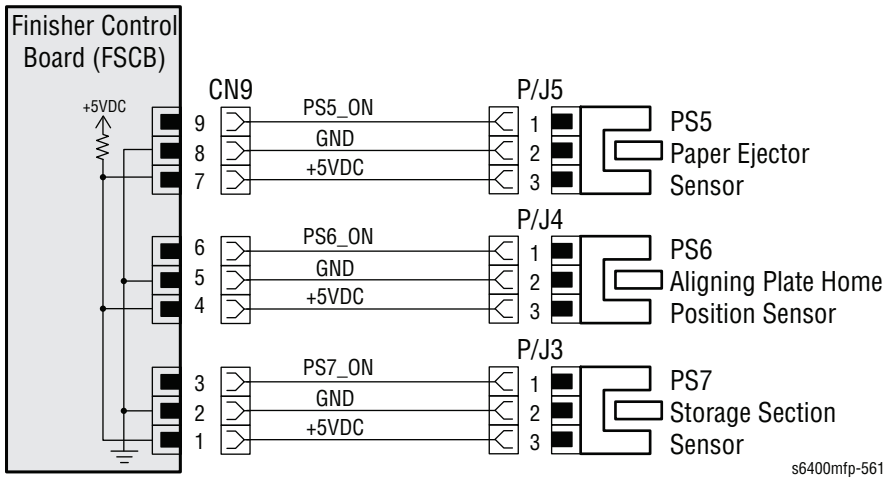
Applicable Parts	Component Control Code
■ Finisher Entrance Sensor, PL38.10 ■ Storage Section Sensor, PL41.02 ■ Finisher Control Board, PL46.16	012-301 012-307
■ Exit Motor, PL46.20	012-004

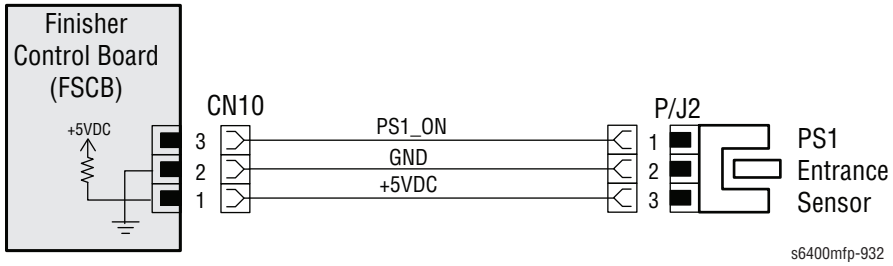
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: ■ Finisher Entrance Sensor, PL38.10 ■ Finisher Storage Section Sensor, PL41.02 ■ Roller Assembly, PL44.15	Replace any damaged or excessively worn parts.	Go to step 2.
2	Does the Finisher Entrance Sensor work properly in Diagnostics?	Go to step 5.	Go to step 3.
3	Is the Entrance Sensor connector (PJ2) and the FSC Board connector (CN10FSCB) properly connected?	Go to step 4.	Properly seat the connector.
4	Is the following voltage present? ■ CN10FSCB-1 = 5Vdc	Replace the Finisher Entrance Sensor (page 8-189).	Replace the FSC Board (page 8-205).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Does the Finisher Storage Section Sensor work properly in Diagnostics?	Go to step 8.	Go to step 6.
6	Is the Storage Section Sensor connector (PJ3) and the FSC Board connector (CN9FSCB) properly connected?	Go to step 7.	Properly seat the connector.
7	Is the following voltage present? ■ CN9FSCBU-1 = 5Vdc	Replace the Finisher Storage Section Sensor.	Replace the FSC Board (page 8-205).
8	Does the Finisher Exit Motor work properly in Diagnostics?	Replace the Exit Transport Motor (page 8-209).	Replace the FSC Board (page 8-205).





Staple Jam in the Finisher

The Stapler does not return to the Home position after a given period of time after the Staple Motor starts to drive.

Applicable Chain-Link Code

312.491.00: Stapler Jam

Initial Actions

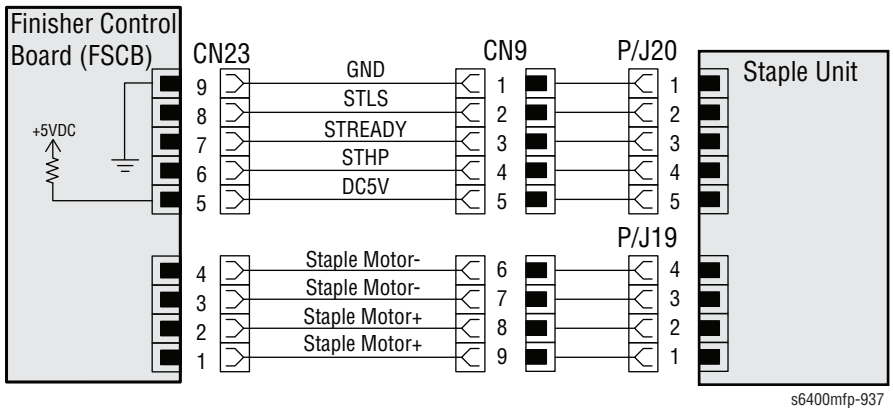
- Remove the Staple Cartridge and check for any obstructions, damage, or debris.
- Remove any obstructions or debris in the paper path and cycle printer power.
- Replace the Staple Cartridge with a new one.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Staple Assembly, PL45.11 ■ Finisher Control Board, PL46.16	012-129

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Staple Motor work properly in diagnostics?	Replace the Staple Assembly (page 8-201).	Go to step 2.
2	Are the Staple Unit connectors (PJ19 & PJ20) properly connected?	Go to step 3.	Properly seat the connector.
3	Is the Staple Assembly connector (CN9) and the FSC Board connector (CN23FSCB) properly connected?	Go to step 4.	Properly seat the connector.
4	Is the following voltage present? ■ CN23FSCB-1 = 5Vdc	Replace the Staple Assembly (page 8-201).	Replace the FSC Board (page 8-205).


Finisher Control Board (FSCB)
CN23
CN9
P/J20
Staple Unit
+5VDC
9
8
7
6
5
GND
STLS
STREADY
STHP
DC5V
1
2
3
4
5
P/J19
4
3
2
1
Staple Motor-
Staple Motor-
Staple Motor+
Staple Motor+
6
7
8
9
4
3
2
1
s6400mfp-937

Scanner Fault

The Scanner has reported a failure or is not performing as expected.

Applicable Chain-Link Codes

- **314.002.00**: Scanner Missing
- **362.310.00**: IISS/ Scanner - Controller Communication Fail

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the Image Processor Board with the 2 standoff screws.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Scanner, PL2.01 ■ LVPS, PL10.07 ■ Image Processor Board, PL20.07	

Note

To access the CN_SCANNER connector, secure the DADF to the Scanner Flat Bed, remove the two hinge plates from the Scanner Hinges, and raise the Control Panel (Scanner Assembly) to 90°. The CN_SCANNER connector is located on the bottom right corner of the Scanner Flat Bed.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Image Processor Board (J401) to MCU Board (PJ24) ribbon cable properly connected?	Go to step 2.	Properly seat the connector.
2	Does the CN_SCANNER connector have 24Vdc (see “Voltage Chart” on page 3-115)?	Go to step 3.	Go to step 4.
3	Replace the Scanner (page 8-42). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is CN_SCN2 properly connected to the LVPS Board?	Follow the "DC Power Supply Troubleshooting" on page 4-59 in Chapter 4.	Properly seat the connector.

Voltage Chart

GND (Green)	**3.3v** (Yellow)	**GND** (Green)	**5.0v** (Red)
GND (Green)	**11.0v** (Pink)	**GND** (Green)	**24.0v** (Yellow)

Document Feeder (DADF) Disconnected

The Document Feeder (DADF) to Scanner Interface cable is disconnected.

Applicable Chain-Link Code

314.005.00: Document Feeder Disconnected

Initial Actions

- Turn off the printer power switch and raise the Document Feeder to access the DADF to Scanner interface cable.
- Remove the connector cover (Scanner side) then completely remove and reseat interface cable.
- Turn On the printer power switch.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ DADF Assy, PL1.06	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the external interface cable between the DADF (J1DFCB) and the Scanner main body (PJ3IPB) seated correctly and undamaged?	Replace the DADF Assembly (page 8-38).	Reseat the interface connector.

Scanner Fault

The Document Feeder (DADF) or Document Glass registration manual calibration routine failed.

Applicable Chain-Link Codes

- **315.009.00**: IIT Manual Calibration Fail
- **315.010.00**: IIT Manual Calibration Fail - Lead Edge Fail
- **315.011.00**: IIT Manual Calibration Fail - Side Edge Fail
- **315.012.00**: IIT Manual Calibration Fail - Shading Target Fail

Initial Actions

- Check the DADF Assy for correct installation.
- Check the DADF paper path for obstructions or debris.
- Make sure the calibration target is undamaged (no creases or tears).
- Ensure the calibration target sheet is loaded correctly and rerun the calibration routine.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ DADF Roller Kit, PL1.03 ■ Scanner Assy, PL2.01 ■ Calibration Target Sheet, P/N 109K02300	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the registration calibration routine pass when performed from the Document Glass (Flatbed)?	Go to step 2.	Go to step 6.
2	Does the registration calibration routine pass when performed from the Document Feeder (DADF)?	Troubleshooting complete.	Go to step 3.
3	Is the Separation Pad (PL1.01) and Separation Roller (PL1.02) clean and free of defects?	Go to step 4.	Clean or replace the affected parts.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the calibration target and 3 sheets of media feed correctly into the DADF Assembly once the calibration routine is initiated?	Go to step 5.	Replace the DADF Roller Kit (page 8-31, page 8-40).
5	Check the CVT window for debris, obstructions, and cleanliness. Does the calibration routine pass?	Troubleshooting complete.	Replace the Scanner Assembly (page 8-42).
6	Run the Registration Calibration through the DADF (page 6-15). Does the routine pass?	Go to step 7.	Replace the Scanner Assembly (page 8-42).
7	Is the Scanner interface cable connector correctly seated and secured to the Image Processor Board with the 2 standoff screws?	Go to the "Scanner Fault Troubleshooting" on page 4-63 and troubleshoot the Scanner.	Remove and reseat the cable.

Internal Communication Error

One of the printer circuit boards has encountered a communication problem internally or with another internal printer component.

Note

In most cases, these events are recovered automatically by the system software and do not degrade system performance in any noticeable way. Before following this procedure check to confirm no messages are in Machine Status -> Tools -> Faults -> Current Faults -> Current Messages. If the only indication of this fault is from dc120 (Fault Counters) in Diagnostics and all printer functions perform normally do not proceed.

Applicable Chain-Link Code

316.xxx.xx: Various internal communication errors (Reference Appendix A (page A-1) to determine which 316-xxx-xx fault codes follow this troubleshooting procedure).

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ NC HDD, PL20.03 ■ Image Processor Board, PL20.07 ■ NC RAM, PL20.44 ■ Hard Drive Cable, PL20.46	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Send a different job to the printer from the same computer. Does the error still occur?	Reload the printer driver on the computer.	Go to step 2.
2	Send the original job from a different computer. Does the error still occur?	Go to step 3.	Reload the printer driver on the original computer.
3	Reload the printer software. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Replace the NC RAM (page 8-117). Does the error still occur?	Go to step 5.	Troubleshooting complete.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
5	Replace the NC Hard Drive and cable (page 8-91). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Network Controller Internal Error

The Network Controller (embedded within the Image Processor Board) has detected an internal communication error with another component within the Image Processor Board.

Note

In most cases, these events are recovered automatically by the system software and do not degrade system performance in any noticeable way. Before following this procedure check to confirm no messages are in **Machine Status** -> **Tools** -> **Faults** -> **Current Faults** -> **Current Messages**. If the only indication of this fault is from dc120 (Fault Counters) in Diagnostics and all printer functions perform normally do not proceed.

Applicable Chain-Link Code

316.xxx.xx: Various Network Controller Internal Errors (Reference Appendix A (page A-1) to determine which 316-xxx-xx fault codes follow this troubleshooting procedure).

Initial Actions

- Power cycle the printer.
- If the printer has multiple network protocols enabled and the issue is specific to only one, confirm the settings for the protocol.
- Confirm the printer is in online mode.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	On the Configuration Report, verify the following: **Image Overwrite**, Immediate: Installed/Enabled	Go to step 2.	In Machine Status -> Tools -> Security Settings -> Image Overwrite Security -> Immediate Overwrite, select **Enable**.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	Did the problem occur while performing a scan job?	Go to step 3.	Go to step 4.
3	Compare the templates on the printer to the ones on the WebUI. Are the template lists identical?	Go to step 4.	Replace the missing template on the PC and update so the printer will receive it.
4	Is the network cable properly connected to the printer?	Go to step 5.	Properly seat the connector.
5	In Diagnostics, perform the dc312 Network Echo Test (page 4-26). Does the test complete successfully?	Proceed to "Internal Communication Error" on page 3-119 in Chapter 3.	Check network connections and configuration.

Out of Memory

Out of Memory with greater than one job in EPC.

Applicable Chain-Link Code

- **319.403.00**: Out of Memory - Job in EPC

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
RAM, PL20.44	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Rerun the scan job. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Power cycle the printer. Does the job status button flash two times in a row?	Replace the CC RAM (page 8-117).	Break the scan job into smaller jobs and run them individually.

Fax Services Cannot Register/ Unregister

The printer has reported a Fax hardware or software error.

Applicable Chain-Link Codes

- **320.302.00**: Fax Card Hardware or Software Error
- **320.303.00**: Fax Card Hardware or Software Error
- **320.305.00**: Fax Card Hardware or Software Error
- **320.701.00**: Phone Book Download Failed
- **322.371.00**: Fax Application Registration Error
- **322.372.00**: Fax application Un-registration Error

Initial Actions

- Power cycle the printer.
- Confirm the printer powers up to the "ready" state.
- Print a Configuration report and ensure Embedded Fax is Installed/ Enabled.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
Fax Board, PL20.42	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Is the Fax Feature enabled?	Go to step 3.	Enable the Fax Feature.
3	Go to the “Fax Troubleshooting” on page 4-65 and check the Fax Transmit/ Receive menu settings are correct. Are the settings correct?	Replace the FAX Board (page 8-115).	Modify settings.

A Fax Memory Error has Occurred

The printer has reported a Fax Memory error, a Fax Memory is Low condition, or another unrecoverable fax error.

Applicable Chain-Link Codes

- **320.320.00**: Unrecoverable Fax Fault not cleared by Card Reset
- **320.322.00**: NV Device not fitted to Basic Fax Card
- **320.323.00**: Fax System Memory is Low
- **320.324.00**: Not Enough Memory to use Fax Service
- **320.327.00**: Registers cannot be accessed on the Extended Card
- **320.339.00**: Basic Card Problem
- **320.341.00**: Miscellaneous Basic Card Problem
- **320.342.00**: Error Accessing File on NVM Device

Initial Actions

- Power cycle the printer.
- Confirm the printer powers up to the "ready" state.
- Print a Configuration report and ensure Embedded Fax is Installed/ Enabled.
- For a "Memory Low" or "Not Enough Memory" condition; delete unnecessary mailbox files or fax jobs stored for polling.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Fax Board, PL20.42	

Note

The CC HDD has a dedicated partition where fax images are stored explicitly for polling, mailboxes, or waiting for resources. The partition can store up to 2KB of compressed images before a memory low message will occur.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Fax Feature enabled?	Go to step 2.	Enable the Fax Feature.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	Check the printer receiving the fax. Is the appropriate paper loaded in the designated paper tray?	Go to step 3.	Load paper.
3	Is the error related to a "low" or "not enough" memory condition?	Go to step 4.	Go to step 5.
4	Check the “Received” and “Stored” Document settings in the Mailbox and Polling policies folder. Is the “Keep Forever” radial button selected?	* Change the setting to "Keep 1-72 Hours” or “Delete on Print".	Go to step 5.
5	Go to the “Fax Troubleshooting” on page 4-65 and check the Fax Transmit/ Receive menu settings are correct. Are the settings correct?	Replace the FAX Board (page 8-115).	Modify settings.

* Be sure to notify the customer that keeping all faxes forever may eventually contribute to memory problems and the setting has been changed.

Fax Line 1 Unavailable or No Dial Tone Detected

The printer has reported Fax line 1 is unavailable or no dial tone is detected.

Applicable Chain-Link Codes

- **320.331.00**: No Communication via PSTN1 port
- **320.338.00**: Fax Communication Error at Power Up or Re-boot
- **320.350.00**: No Dial Tone Warning
- **320.351.00**: No Dial Tone Error

Initial Actions

- Power cycle the printer.
- Check the Fax phone line is undamaged and securely in place.
- Confirm the printer powers up to the "ready" state.
- Print a Configuration report and ensure Embedded Fax is Installed/ Enabled.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Fax Board, PL20.42	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Fax Feature enabled?	Go to step 2.	Enable the Fax Feature.
2	Enable **Audio Line Monitor** in the Tools -> Service Settings -> Embedded Fax Settings -> TransmissionDefaults menu. Do you hear a dial tone prior to the phone number dialing?	Go to step 4.	Go to step 3.
3	Check the Fax line using a phone connected to the same line. Do you hear a dial tone?	Go to step 4.	Inform the customer the phone line requires service.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Go to the “Fax Troubleshooting” on page 4-65 and check the Fax Transmit/ Receive menu settings are correct. Are the settings correct?	Replace the FAX Board (page 8-115).	Modify settings.

Network Controller Error

The printer is unable to communicate with Xerox Standard Accounting (XSA) database.

Applicable Chain-Link Code

322.370.00: Unable to communicate with XSA Database

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the network cable properly installed?	Use the System Administrators Guide (SAG) to setup the XSA configuration.	Properly seat the connector.

Output Device Configuration Mismatch

The printer has detected that an Output Device (Finisher, OCT, one or more Mailboxes or no output device configured) has changed during the Power On sequence.

Applicable Chain-Link Code

322.750.00: Output Device Configuration Mismatch

Initial Actions

- Check all output devices for correct configuration.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are the output device connections properly configured and connected.	Power cycle the printer.	Properly configure and seat the connector.

System Fault

The Imaging Processor Board has detected the Cooling Fan is not operating.

Applicable Chain-Link Codes

- **342.045.00**: Print Board Control Fan has an error and is Off.

Initial Actions

- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Image Processor Board, PL20.07 ■ Cooling Fan, PL20.11	042-045

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Replace the Cooling Fan (page 8-153). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Tray 3 or Tray 4 Right Side Door is Open

The printer has reported the Tray 3 or Tray 4 Right Side Door is open. The Right Side Door is Open Message is triggered when the Right Door Sensor (PS24) logic indicates the door is open.

Applicable Chain-Link Codes

- **377.305.00**: Tray 3 Right Side Door is Open
- **377.306.00**: Tray 4 Right Side Door is Open

Initial Actions

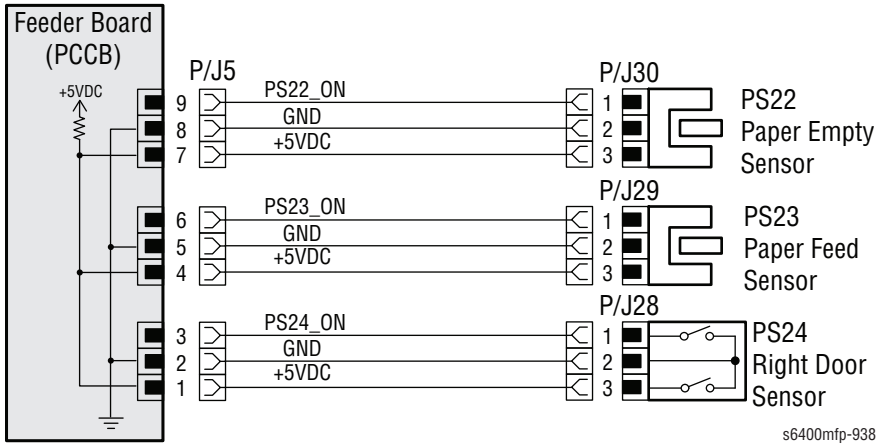
- Open the appropriate Tray's Right Side Door and check for obstructions or physical damage.
- Check the affected Tray's Right Side Door for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ LTA Control (PCCB) Board, PL28.11 ■ Optional Feeder, PL28.25 (tray not included) ■ Right Door Sensor (PS24), PL29.11 ■ Wire Harness, PL29.25	073-203/ 074-203

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the affected Tray's Right Door Sensor in Diagnostics. Does the Sensor state change?	Go to step 2.	Go to step 3.
2	Check the Sensor Flag on the Right Door for damage. Is there damage noted?	Replace the Optional Feeder (page 8-166).	Go to step 3.
3	Is there continuity between PJ5PCCB and PJ28 (PS24)?	Go to step 4.	Replace the wiring harness.
4	Replace the Right Door Sensor PS24. Does the error still occur?	Replace the LTA Control (PCCB) Board (page 8-161).	Troubleshooting complete.


Feeder Board
(PCCB)
+5VDC
P/J5
9
8
7
6
5
4
3
2
1
PS22_ON
GND
+5VDC
PS23_ON
GND
+5VDC
PS24_ON
GND
+5VDC
P/J30
1
2
3
PS22
Paper Empty
Sensor
P/J29
1
2
3
PS23
Paper Feed
Sensor
P/J28
1
2
3
PS24
Right Door
Sensor
s6400mfp-938

Close Duplex Door

The printer has reported that the Duplex Door is open. This message is triggered when the Duplex Door Sensor (PS16) logic indicates the door is open.

Applicable Chain-Link Code

377.307.00: Duplex Door is Open

Initial Actions

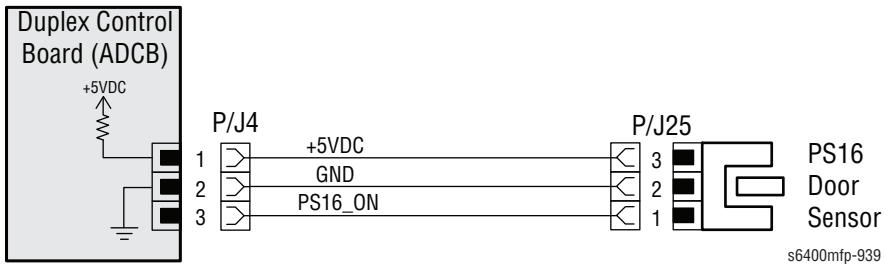
- Open the Duplex Door and check for obstructions or physical damage.
- Check the Duplex Door for correct open/ close movement.
- Completely remove and reinstall the Duplex unit.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Duplex Door Sensor (PS16), PL22.16 ■ Duplex Unit (complete Assy), PL22.23 ■ Duplex Control Board (ADCB), PL23.12 ■ Wire Harness, PL23.21	077-305

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Duplex Door (Duplex Cover) Sensor in Diagnostics. Does the Sensor state change?	Go to step 2.	Go to step 3.
2	Check the flag on the Duplex Door (PL22.1) for damage. Is there damage noted?	Replace the Duplex Unit (page 8-175).	Go to step 3.
3	Replace the Duplex Door Sensor (PS16). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between PJ4ADCB and the Duplex Door Sensor (PS16)?	Replace the Duplex Control Board (ADCB) (page 8-177).	Replace the Duplex Unit (page 8-175).


Duplex Control Board (ADCB)
+5VDC
P/J4
1
2
3
+5VDC
GND
PS16_ON
P/J25
3
2
1
PS16 Door Sensor
s6400mfp-939

Close Finisher Top Cover

The printer has reported that the Finisher Top Cover is open. This message is triggered when the Top Cover Sensor (PS3) logic indicates the cover is open.

Applicable Chain-Link Code

377.308.00: Finisher Top Door is Open

Initial Actions

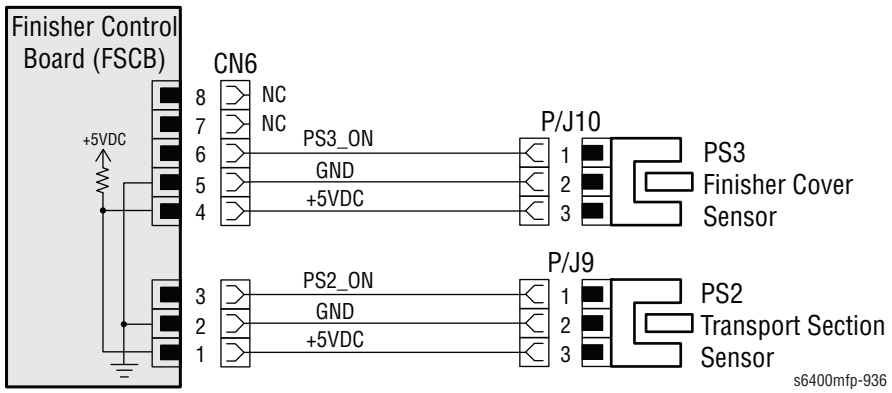
- Open the Finisher Top Cover and check for obstructions or physical damage.
- Check the Top Cover for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Finisher Top Cover Assy, PL38.03 ■ Finisher Cover Sensor (PS3), PL39.14 ■ Wire Harness, PL39.15 ■ Finisher Control Board (FSCB), PL46.16	012-283

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Finisher Cover Sensor (PS3) in Diagnostics. Does the sensor state change?	Go to step 2.	Go to step 3.
2	Check the sensor flag on the Finisher Top Cover Assembly for damage. Is there damage noted?	Replace the Finisher Top Cover.	Go to step 3.
3	Replace the Finisher Cover Sensor (PS3). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between CN6FSCB and PJ10 (PS3)?	Replace the Finisher Control Board (FSCB) (page 8-205).	Replace the wiring harness.


Finisher Control Board (FSCB)
CN6
8
7
6
5
4
3
2
1
NC
NC
PS3_ON
GND
+5VDC
PS2_ON
GND
+5VDC
+5VDC
P/J10
P/J9
1
2
3
PS3
Finisher Cover Sensor
PS2
Transport Section Sensor
s6400mfp-936

Lower the Control Panel Door

The printer has reported that the Control Panel Door is open. This message is triggered when the Scanner Unit Open Sensor (PS11) logic indicates the Control Panel Door (used to access the Horizontal Transport area under the Scanner) is open.

Applicable Chain-Link Code

377.309.00: Control Panel Door Open

Initial Actions

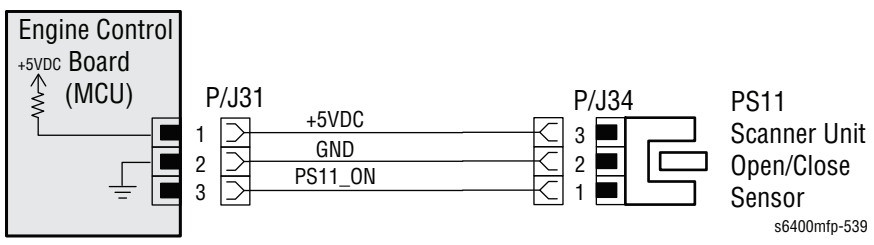
- Open the Control Panel Door and check for obstructions or physical damage.
- Check the Control Panel Door for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Scanner Lock Latch, PL2.05 ■ Scanner Unit Open Sensor (PS11) Kit, PL4.23 ■ MCU Board, PL20.09	077-309

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Inspect the Scanner Lock Latch (PL2.05) for correct installation or damage. Is any damage noted?	Replace the Scanner Lock Latch.	Go to step 2.
2	Test the Scanner Unit Open Sensor (PS11) in Diagnostics. Does the Sensor state change?	Go to step 3.	Replace the Scanner Unit Open Sensor Kit.
3	Are the MCU connector PJ31MCU and Sensor connector PJ21 properly connected?	Replace the MCU Board (page 8-101).	Properly seat the connectors.



The Finisher Front Door is Open

The printer has reported that the Finisher Front Door is open. This message is triggered when the Front Door (Stapler Cover) Switch (MS1) logic indicates the cover is open.

Applicable Chain-Link Code

377.310.00: Finisher Front Door Open

Initial Actions

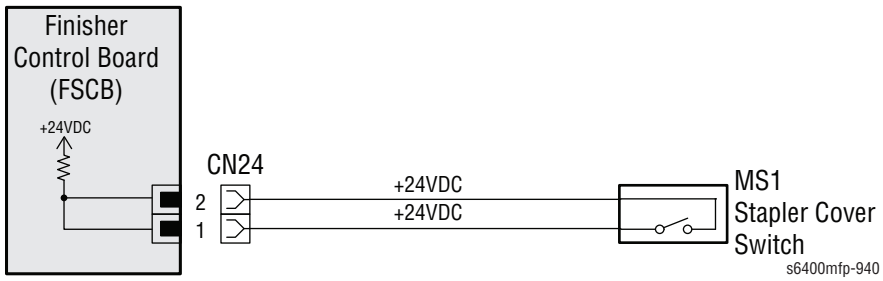
- Open the Finisher Front Door and check for obstructions or physical damage.
- Check the Front Door for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Finisher (complete Assy), PL35.09 ■ Wire Harness, PL37.05 ■ Finisher Front Door (Stapler Cover) Switch (MS1), PL37.08 ■ Finisher Control Board (FSCB), PL46.16	012-284

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Finisher Front Door Switch (MS1) in Diagnostics. Does the Switch state change?	Go to step 2.	Go to step 3.
2	Check the flag on the Finisher Front Door (PL35.06) for damage. Is there damage noted?	Replace the Finisher Assembly (page 8-182).	Go to step 3.
3	Replace the Finisher Front Door Switch (MS1). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between CN24FSCB and the Front Door Switch (MS1)?	Replace the Finisher Control Board (FSCB) (page 8-205).	Replace the Finisher Assembly (page 8-182).


Finisher
Control Board
(FSCB)
+24VDC
CN24
2
1
+24VDC
+24VDC
MS1
Stapler Cover
Switch
s6400mfp-940

Document Feeder Cover is Open

The printer has reported that the DADF Document Feeder Cover is open. This message is triggered when the Document Feeder Cover Open Sensor (PS1) logic indicates the cover is open.

Applicable Chain-Link Code

377.311.00: Document Feeder Cover Open

Initial Actions

- Open the Document Feeder Cover and check for obstructions or physical damage.
- Check the Document Feeder Cover for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ DADF Top Cover Assy, PL1.05 ■ DADF Assy, PL1.06 ■ Document Feeder Cover Open Sensor (PS1), PL39.14	005-106

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Document Feeder Sensor (PS1) in Diagnostics. Does the Sensor state change?	Replace the DADF Top Cover Assembly (page 8-35).	Replace the DADF Assembly (page 8-38).

The Right Side Door is Open

The printer has reported that The Right Side Door is open. This message is triggered when the Right Door Sensor (PS3) logic indicates the door is open.

Applicable Chain-Link Code

377.312.00: Right Side Door Open

Initial Actions

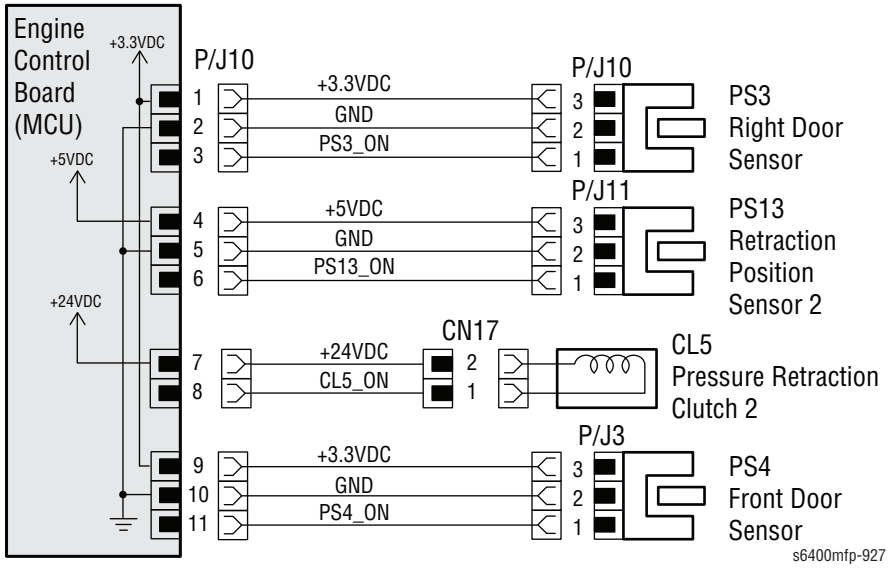
- Open the Right Side Door and check for obstructions or physical damage.
- Check the Right Side Door for correct open/ close movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Right Door Sensor (PS3) PL11.04 ■ Vertical Transport Assy (Right Door), PL15.01 ■ MCU Board, PL20.09 ■ Wire Harness, PL25.02	077-301

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Test the Right Door Sensor (PS3) in Diagnostics. Does the Sensor state change?	Go to step 2.	Go to step 3.
2	Check the Sensor Flag on the Vertical Transport Assy (Right Door) for damage. Is there damage noted?	Replace the Vertical Transport Assembly (page 8-61).	Go to step 3.
3	Replace the Right Door Sensor PS3. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between PJ10MCU and PJ10 (PS3)?	Replace the MCU Board (page 8-101).	Replace the wiring harness.


Engine
Control
Board
(MCU)
+3.3VDC
+5VDC
+24VDC
P/J10
1
2
3
4
5
6
7
8
9
10
11
+3.3VDC
GND
PS3_ON
+5VDC
GND
PS13_ON
+24VDC
CL5_ON
+3.3VDC
GND
PS4_ON
P/J10
3
2
1
PS3
Right Door
Sensor
P/J11
3
2
1
PS13
Retraction
Position
Sensor 2
CN17
2
1
CL5
Pressure Retraction
Clutch 2
P/J3
3
2
1
PS4
Front Door
Sensor
s6400mfp-927

Duplex Unit Error

The IOT has lost communication with the Duplex Unit. The Dup_Set_Detect (PJ11MCU pin 14) signal indicates the Duplex Unit is missing or incorrectly installed.

Applicable Chain-Link Code

377.313.00: Communication error with Duplex Unit, may be disconnected or not installed

Initial Actions

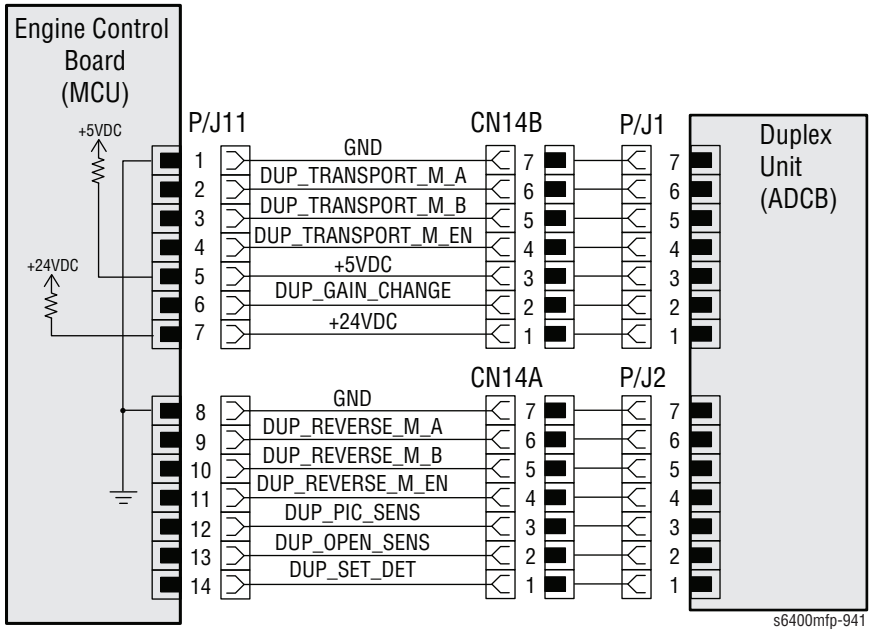
- Completely remove and reinstall the Duplex Unit.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Wire Harness Assy (CN14A/B-PJ11), PL15.21 ■ MCU Board, PL20.09 ■ Duplex Control Board (ADCB), PL23.12 ■ Wire Harness Assy ((CN14A/CN14B-PJ1ADCB), PL23.23	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check The Bulkhead connectors on PL15.21 and PL23.23 for damage. Is any damage noted?	Replace the affected wiring harness.	Go to step 2.
2	Is there continuity between PJ1ADCB and CN14A/B?	Go to step 3.	Replace the wiring harness.
3	Replace the Duplex Control Board (ADCB) (page 8-177). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is there continuity between PJ11MCU and CN14A/B?	Replace the MCU Board (page 8-101).	Replace the wiring harness.


Engine Control Board (MCU)
+5VDC
+24VDC
P/J11
CN14B
P/J1
Duplex Unit (ADCB)
1 GND
2 DUP_TRANSPORT_M_A
3 DUP_TRANSPORT_M_B
4 DUP_TRANSPORT_M_EN
5 +5VDC
6 DUP_GAIN_CHANGE
7 +24VDC
CN14A
P/J2
8 GND
9 DUP_REVERSE_M_A
10 DUP_REVERSE_M_B
11 DUP_REVERSE_M_EN
12 DUP_PIC_SENS
13 DUP_OPEN_SENS
14 DUP_SET_DET
s6400mfp-941

Tray 1 Assembly Error

Tray 1 is missing or incorrectly installed.

Applicable Chain-Link Code

377.314.00: Communication Error with Tray 1 Assembly

Initial Actions

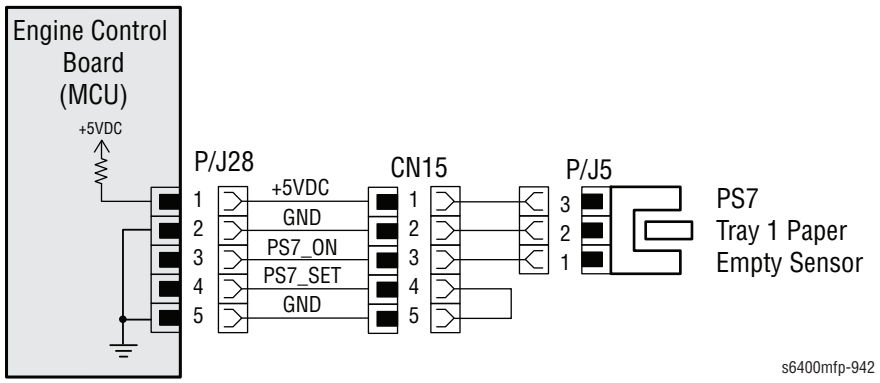
- Confirm the Tray 1 interface cable connector is correctly seated to the main engine body and is free of damage.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Tray 1 Assy, PL5.12 ■ Wire Harness Assy, PL15.21 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the Tray 1 interface connector (CN15) have continuity between pin 4 and pin 5?	Go to step 2.	Replace the Tray 1 Assembly (page 8-53).
2	With Tray 1 properly installed, disconnect the MCU Board connector (PJ28MCU). Does it have continuity between pin 4 and pin 5?	Replace the MCU Board (page 8-101).	Replace the Wire Harness Assembly, PL 15.21.


Engine Control Board (MCU)
+5VDC
P/J28
1
2
3
4
5
+5VDC
GND
PS7_ON
PS7_SET
GND
CN15
1
2
3
4
5
P/J5
3
2
1
PS7
Tray 1 Paper Empty Sensor
s6400mfp-942

Xerographic System Error

The printer has reported a CRUM ASIC Communication Failure. One or more of the Imaging Unit CRUMS cannot communicate with the IOT.

Applicable Chain-Link Code

391.313.00: CRUM ASIC Comm Fail

Initial Actions

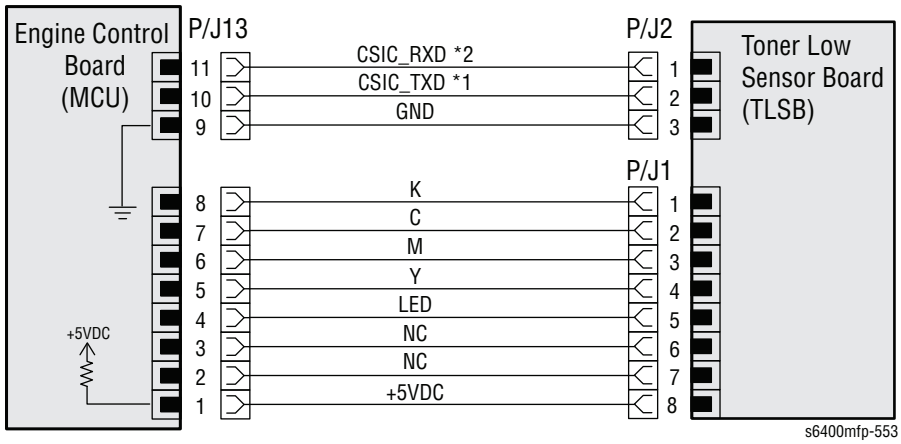
- Remove each Imaging Unit and check for correct installation and physical damage.
- Ensure the Imaging Units are genuine Xerox supplies.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Toner Low Sensor Board (TLSB), PL6.18 ■ Imaging Unit, PL6.23-26 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Inspect the affected color Toner Low Sensor (TLSB) CRUM Reader Board contacts (set of copper contacts at the front of the cavity). Is there damage noted?	Repair or replace the Toner Low Sensor Board (TLSB) (page 8-79).	Go to step 2.
2	Replace the affected Imaging Unit (page 8-17). Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Is the MCU Board connector (PJ13MCU) properly connected?	Go to step 4.	Properly seat the connector.
4	Replace the Toner Low Sensor Board (TLSB) (page 8-79). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.


Engine Control Board (MCU)
P/J13
11
10
9
8
7
6
5
4
3
2
1
+5VDC
CSIC_RXD *2
CSIC_TXD *1
GND
K
C
M
Y
LED
NC
NC
+5VDC
P/J2
1
2
3
P/J1
1
2
3
4
5
6
7
8
Toner Low Sensor Board (TLSB)
s6400mfp-553

Xerographic System Error

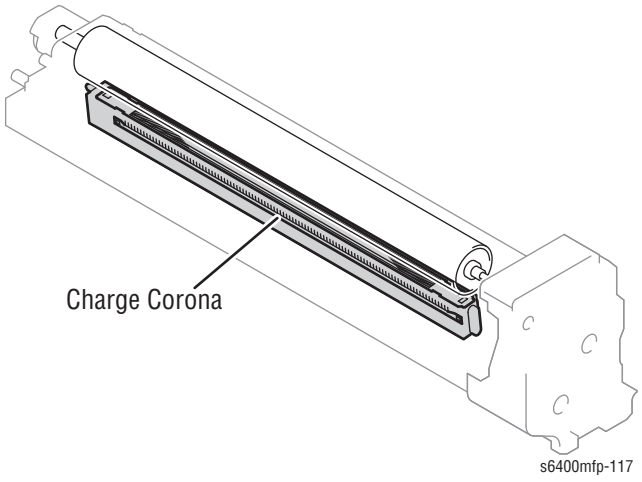
There is a problem with the Xerographic System. The Charge Corona wire within one of the Imaging Units has failed.

Applicable Chain-Link Code

391.320.00: CC Wire Cut Fail

Initial Actions

- Remove each Imaging Unit and check for toner build up or physical damage to the Charge Corona wire (see illustration), replace as necessary.
- Reinstall the Imaging Units and power cycle the printer.
- If the problem persists, follow the procedure below.



Troubleshooting Reference Table

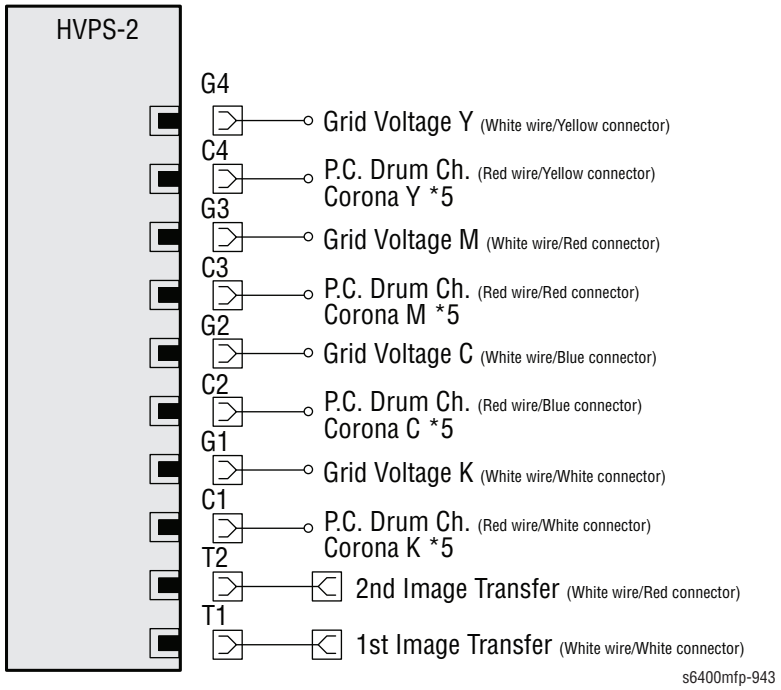
Applicable Parts	Component Control Code
■ Imaging Unit, PL6.23-26 ■ Wire Harness (Charge Voltage 1-4), PL7.10, PL7.13-15 ■ HVPS-2, PL20.21	

Warning

Make sure the power to the printer is turned Off and the power cord is unplugged prior to following the troubleshooting procedures below.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the Charge Corona voltage contact or Photoconductor Ground contact at the end of the affected Imaging Unit clean and connected properly?	Go to step 2.	Clean or correct the appropriate contact.
2	Replace the affected Imaging Unit. Does the error still occur?	Go to step 3.	Troubleshooting complete
3	Check the Charge Voltage wiring harnesses between the affected Imaging Unit and HVPS2. Are the harnesses seated corrected?	Replace the HVPS -2 (page 8-109).	Reseat the affected 2iring harness.



Status Messages

Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly

The printer has reported that the Cyan, Magenta, Yellow or Black Toner Cartridge is missing from the printer or not installed correctly. The CRUM Reader Board does not detect the presence of a Toner Cartridge.

Applicable Status Messages

- Black Toner Cartridge is missing or not seated properly
- Cyan Toner Cartridge is missing or not seated properly
- Magenta Toner Cartridge is missing or not seated properly
- Yellow Toner Cartridge is missing or not seated properly
- Metered Black Toner Cartridge is missing or not seated properly
- Metered Cyan Toner Cartridge is missing or not seated properly
- Metered Magenta Toner Cartridge is missing or not seated properly
- Metered Yellow Toner Cartridge is missing or not seated properly

Initial Actions

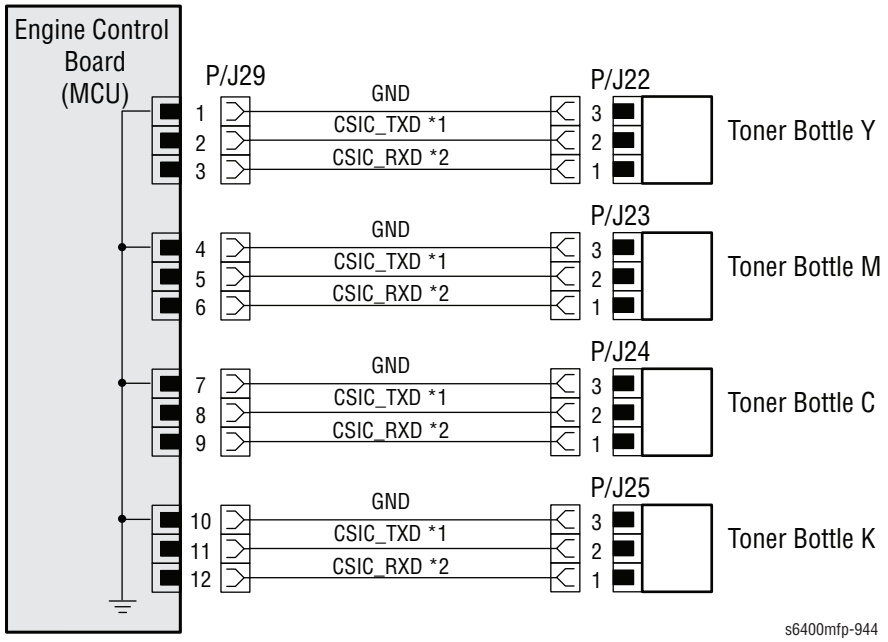
- Confirm the Toner Cartridge is properly installed and securely locked.
- Remove and reinstall the affected Toner Cartridge.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ CRUM Reader Board, PL6.02 ■ CMYK Toner Cartridge, PL6.19~22 ■ MCU Board, PL20.09 ■ Wire Harness, PL24.02	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove the affected color Toner Cartridge and inspect the Rail for damage or obstruction. Is there damage noted?	Replace the Rail (PL6.16 or PL6.17).	Go to step 2.
2	Replace the affected Toner Cartridge Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Inspect the affected color CRUM Reader Board (set of copper contacts at the rear of the cavity). Is there damage noted?	Repair or replace the CRUM Reader Board (page 8-119).	Go to step 4.
4	Is the MCU Board connector (PJ29MCU) properly connected?	Go to step 5.	Properly seat the connector.
5	Is there continuity between PJ29MCU and the affected colors PJ (22, 23, 24, or 25)?	Replace the MCU Board (page 8-101).	Replace the wiring harness.



Finisher Main Tray is Full

The Finisher has reported that the Main Tray is full. The paper level in the Main Tray is detected by the Paper Level Sensor/1 (PS9), Paper Level Sensor/2 (PS10), and the Tray Lower Sensor (PS13). When the corresponding Sensors detect either condition 1 or 2 as shown in the Sensor Logic Table below, the printer determines the Finisher Main Tray is full.

Applicable Status Message

Finisher Main Tray is Full

Initial Actions

- Remove the paper from the Finisher Main Tray.
- Inspect the Main Tray for correct installation or damage.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

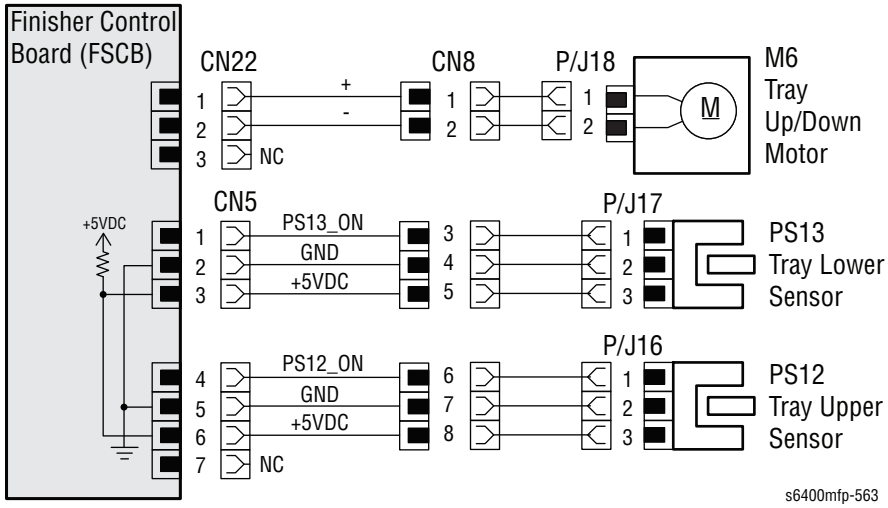
Applicable Parts	Component Control Code
■ Cover Assembly (includes PS9, PS10), PL36.01 ■ Finisher Control Board (FSCB), PL46.16 ■ Finisher Main Tray, (includes PS13), PL48.18	

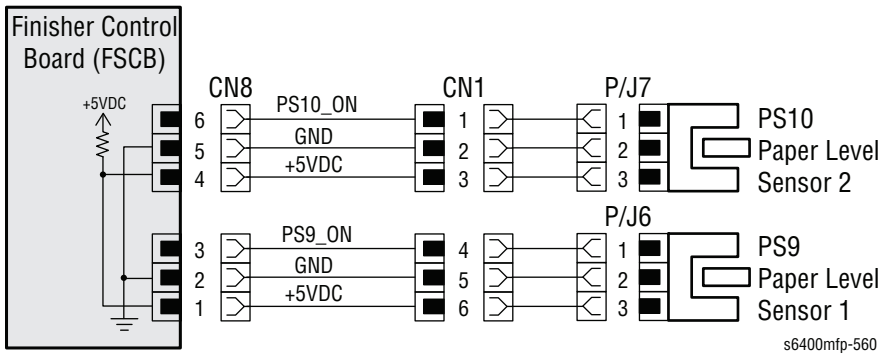
Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Replace the Main Tray (page 8-216). Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Replace the Cover Assembly (page 8-183). Does the error still occur?	Replace the Finisher Control Board (FSCB) (page 8-205).	Troubleshooting complete.

Sensor Logic Table

Condition	Paper Level/1 Sensor PS9	Paper Level/2 Sensor PS10	Tray Lower Sensor PS13	Finisher State
1	Unblocked	Blocked	Blocked	Main Tray is Full
2	Unblocked	Unblocked	Blocked	


Finisher Control Board (FSCB)
CN22
CN8
P/J18
M6 Tray Up/Down Motor
M
+
-
NC
CN5
P/J17
PS13_ON
GND
+5VDC
PS13 Tray Lower Sensor
P/J16
PS12_ON
PS12 Tray Upper Sensor
s6400mfp-563


Finisher Control Board (FSCB)
CN8
CN1
P/J7
PS10_ON
GND
+5VDC
PS10 Paper Level Sensor 2
P/J6
PS9_ON
PS9 Paper Level Sensor 1
s6400mfp-560

Finisher Top Tray is Full

The Finisher has reported that Top Tray is full. After all the paper has exited to the Sub Tray, the Finisher detects the Paper Full Sensor (PS4) is not blocked.

Applicable Status Message

Finisher Top Tray is Full

Initial Actions

- Empty the Finisher Top Tray.
- Inspect the Tray for proper installation or damage.
- Verify the Lever (Actuator) up/ down movement.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

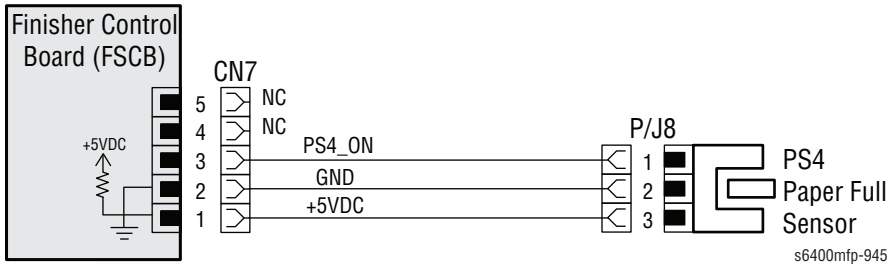
Applicable Parts	Component Control Code
■ Paper Full Sensor (PS4), PL39.14 ■ Paper Full Sensor Lever (Actuator), PL39.20 ■ Finisher Control Board (FSCB), PL46.16	012-304

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Completely remove the Finisher Top Tray from the printer and inspect the Lever. Does the Lever move freely (Up/ Down)?	Go to step 2.	Reinstall or replace the Lever.
2	Test the Finisher Top Tray Paper Full Sensor in Diagnostics. Use the Lever to change the state of the sensor Does the sensor state change?	Go to step 3.	Go to step 4.
3	Reinstall the Finisher Top Tray (page 8-191). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is the Finisher Control Board (FSCB) connector (CN7FSCB) properly connected?	Go to step 5.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Replace the Paper Full Sensor, PL39.14. Does the error still occur?	Replace the Finisher Control (FSCB) Board (page 8-205).	Troubleshooting complete.



Fuser is Missing or Not Installed Correctly

The printer has reported the Fuser is missing or not installed correctly. The FU_Unit_Detect signal on PJ4MCU pin 9 indicates the Fuser is not installed.

Applicable Status Message

Fuser is Missing or Not Installed Correctly

Initial Actions

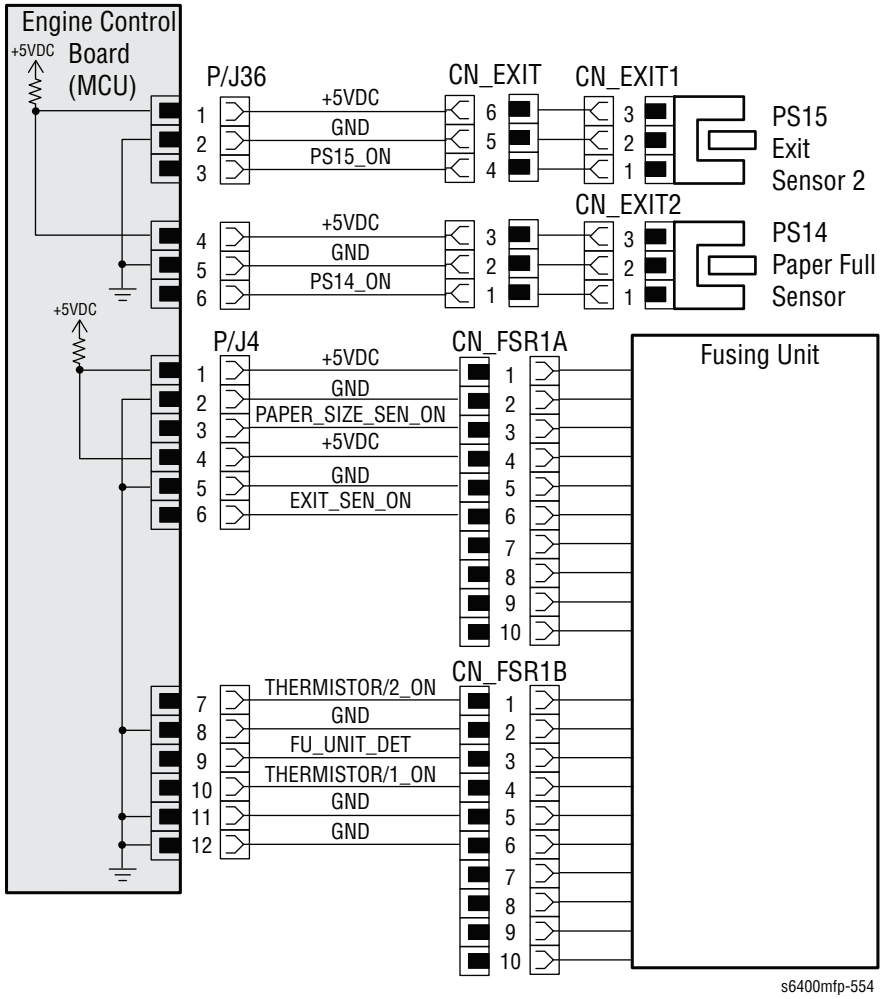
- Check the Fuser is correctly installed in the printer.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Wire Harness Assy, PL10.07 ■ Fuser Unit, PL18.01 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove and reinstall the Fuser making sure the left and right amber gold screws are securely tightened against the brackets. Power cycle the printer. Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Inspect the Fuser bulkhead connector for physical damage. Is there damage noted?	Replace the connector (included with PL10.7).	Go to step 3.
3	Replace the Fuser Unit (page 8-24). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is the MCU Board connector (PJ4MCU) properly connected?	Go to step 5.	Properly seat the connector.
5	Is there continuity between PJ4MCU pin 9 and Fuser bulkhead connector FSR1B pin 8?	Replace the MCU Board (page 8-101).	Replace the wiring harness.


Engine Control Board (MCU)
+5VDC
P/J36
CN_EXIT
CN_EXIT1
+5VDC
GND
PS15_ON
PS15 Exit Sensor 2
CN_EXIT2
PS14_ON
PS14 Paper Full Sensor
P/J4
CN_FSR1A
Fusing Unit
PAPER_SIZE_SEN_ON
EXIT_SEN_ON
CN_FSR1B
THERMISTOR/2_ON
FU_UNIT_DET
THERMISTOR/1_ON
s6400mfp-554

Install or Reseat Imaging Unit

The printer has reported that the Black, Cyan, Magenta or Yellow Imaging Unit is missing from the printer or not installed correctly. The Imaging Unit detection circuitry consists of a CRUM within each Imaging Unit that communicates with the MCU Board via the Toner Low Sensor Board (TLSB).

Applicable Status Messages

- Black Imaging is missing or not installed properly
- Cyan Imaging is missing or not installed properly
- Magenta Imaging is missing or not installed properly
- Yellow Imaging is missing or not installed properly

Initial Actions

- Confirm the Imaging Unit is securely locked in place.
- Remove and reinstall the affected Imaging Unit.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

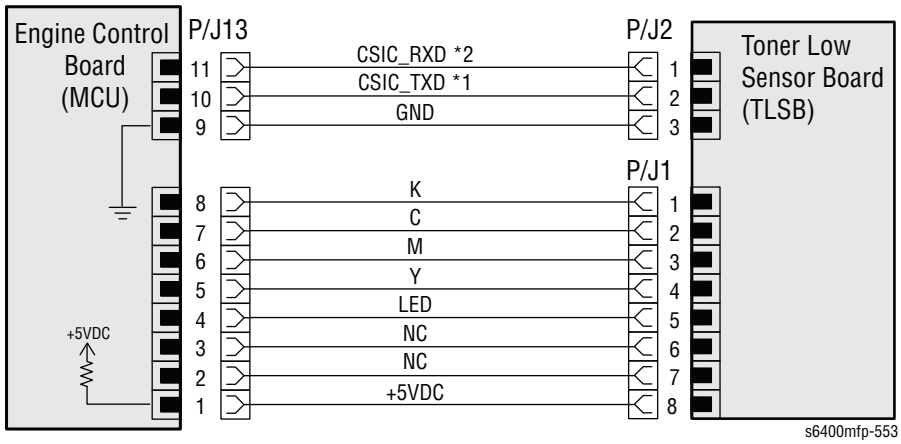
Applicable Parts	Component Control Code
■ Toner Low Sensor Board (TLSB), PL6.18 ■ Imaging Unit, PL6.23-26 ■ Imaging Unit (K) Rail, PL9.06 ■ Imaging Unit (Y, M, C) Rail, PL9.07 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove the affected colors Imaging Unit and inspect the Rail for damage or obstruction. Is there damage noted?	Replace the Rail (page 8-126, steps 1-9) (PL9.06 or PL9.07).	Go to step 2.
2	Replace the affected Imaging Unit (page 8-17). Does the error still occur?	Go to step 3.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Inspect the affected color Toner Low Sensor (TLSB) CRUM Reader Board Contacts (set of copper Contacts at the front of the cavity). Is there damage noted?	Repair or replace the Toner Low Sensor Board (TLSB) (page 8-79).	Go to step 4.
4	Is the MCU Board connector (PJ13MCU) properly connected?	Go to step 5.	Properly seat the connector.
5	Replace the Toner Low Sensor Board (TLSB) (page 8-79). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.



Non-Xerox Imaging Unit in Use

The printer has reported that the Cyan, Magenta, Yellow or Black Imaging Unit is not a genuine Xerox Supply item. Image Quality may vary and cannot be guaranteed. The Imaging Unit manufacturer's identification circuitry consists of a CRUM within each Imaging Unit that communicates data through the Toner Low Sensor Board (TLSB) and ultimately the MCU Board.

Applicable Status Messages

- Non Xerox Black Imaging Unit in Use
- Non Xerox Yellow Imaging Unit in Use
- Non Xerox Cyan Imaging Unit in Use
- Non Xerox Magenta Imaging Unit in Use

Initial Actions

- Confirm the Imaging Unit is securely locked in place.
- Remove the affected Imaging Unit and confirm it is genuine Xerox.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

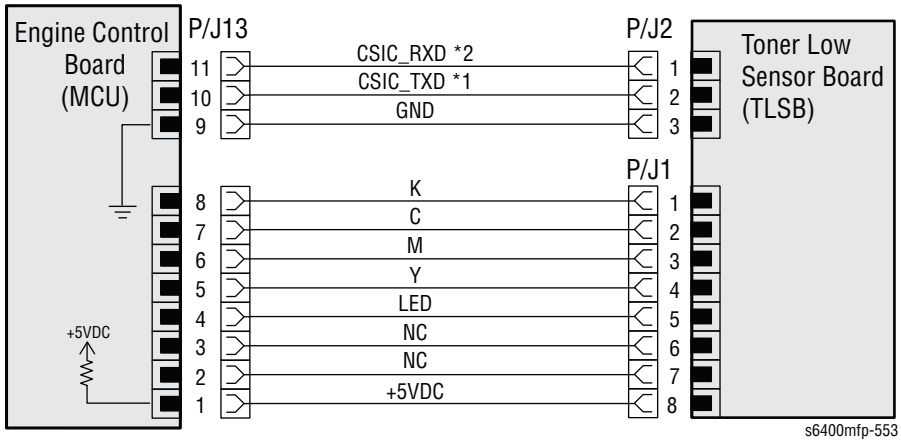
Applicable Parts	Component Control Code
■ Toner Low Sensor Board (TLSB), PL6.18 ■ Imaging Unit, PL6.23-26 ■ MCU Board, PL20.09	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Replace the affected Imaging Unit (page 8-17). Does the error still occur?	Go to step 2.	Troubleshooting complete.
2	Inspect the affected color Toner Low Sensor (TLSB) CRUM Reader Board Contacts (set of copper Contacts at the front of the cavity). Is there damage noted?	Repair or replace the Toner Low Sensor Board (TLSB) (page 8-79).	Go to step 3.
3	Is the MCU Board connector (PJ13MCU) properly connected?	Go to step 4.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Replace the Toner Low Sensor Board (TLSB) (page 8-79). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.



Output Tray is Full (No Finisher)

The printer has reported that the Output Tray is full. The Paper Full Sensor PS14 is blocked indicating paper in the Output Tray has pushed the Actuator (PL19.70) upward.

Applicable Status Message

Output Tray is Full

Initial Actions

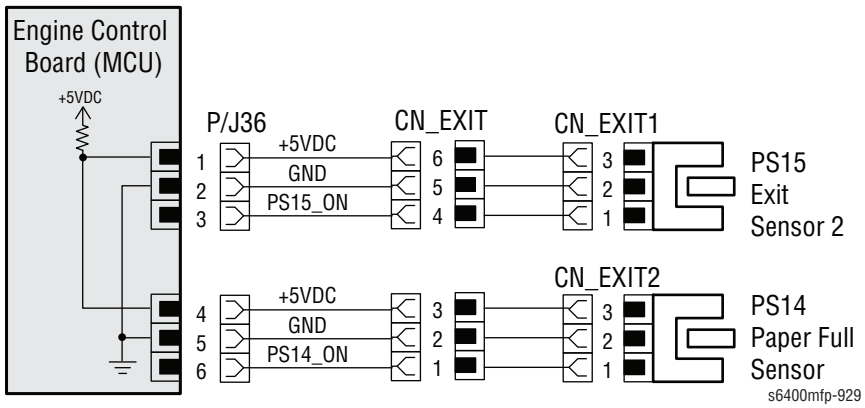
- Remove all paper from the Output Tray.
- Inspect the Output Tray for correct installation or damage.
- Check the Paper Full Sensor Actuator (PL19.07) for proper operation or damage.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Paper Full Sensor Actuator, PL19.07 ■ Paper Full Sensor, PL19.13 ■ Exit Assembly, PL19.25 ■ MCU Board, PL20.09	010-212

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Inspect the Paper Full Sensor Actuator. Is the Actuator securely in place and undamaged?	Go to step 2.	Reinstall or replace the Actuator (PL19.07).
2	Test the Paper Full Sensor in Diagnostics. Use the Actuator to change the Sensors state. Does the Sensor state change?	Go to step 3.	Replace the Paper Full Sensor (PL19.13).
3	Check the Exit Assembly Harness connection to connector CN_Exit. Is the Harness firmly seated?	Go to step 4.	Reseat the Exit Assembly Harness.
4	Replace the Paper Full Sensor (PL19.13). Does the error still occur?	Replace the MCU Board (page 8-101).	Troubleshooting complete.


Engine Control Board (MCU)
+5VDC
P/J36
CN_EXIT
CN_EXIT1
+5VDC
GND
PS15_ON
1
2
3
6
5
4
3
2
1
PS15 Exit Sensor 2
CN_EXIT2
+5VDC
GND
PS14_ON
4
5
6
3
2
1
3
2
1
PS14 Paper Full Sensor
s6400mfp-929

Tray 2 is Empty - Add Paper

The printer detects Tray 2 is empty and needs paper. The "Tray 2 is Empty Message" is displayed when the Tray 2 Paper Empty Sensor (PS8) is unblocked by the Sensor Actuator.

Applicable Status Message

Tray 2 is Empty. Add paper.

Initial Actions

- Remove any paper from Tray 2.
- Inspect the Paper Tray for damage and verify correct Lift Plate operation.
- Reload Tray 2 with fresh paper and confirm the Paper Guides are set correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

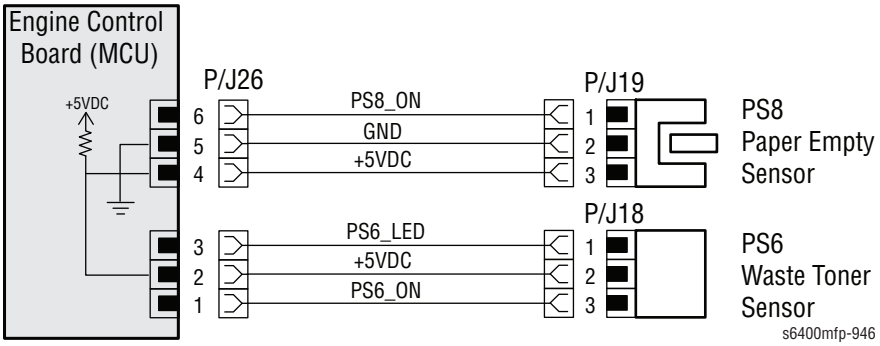
Applicable Parts	Component Control Code
■ Tray 2 Paper Empty Sensor, PL9.04 ■ Tray 2 Paper Empty Sensor Actuator, PL9.05 ■ Tray 2 Paper Tray, PL21.28 ■ Wire Harness Assy, PL24.07 ■ MCU Board, PL20.09	072-201

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Completely remove Tray 2 from the printer and inspect the Paper Empty Sensor Actuator. Is the Actuator securely in place and undamaged?	Go to step 2.	Reinstall or replace the Tray 2 Paper Empty Sensor Actuator (page 8-57).
2	Test the Tray 2 Paper Empty Sensor in Diagnostics. Use the Actuator to change the state of the Sensor. Does the Sensor state change?	Go to step 3.	Go to step 4.
3	Reinstall Tray 2. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is the MCU Board connector (PJ26MCU) properly connected?	Go to step 5.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Replace the Tray 2 Paper Empty Sensor (page 8-56). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Is there continuity between PJ26MCU and PJ19 (PS8)?	Replace the MCU Board (page 8-101).	Replace the wiring harness.



Tray 2 is Open

The printer has reported that Tray 2 is open. The "Tray 2 is Open Message" is triggered when the Tray 2 Paper Size Switch (SW5) logic indicates all 3 Switches within SW5 are Off (refer to the logic table).

Applicable Status Messages

- Dedicated Tray 2 is Open
- Adjustable Tray is Open

Initial Actions

- Remove Tray 2 from the printer and inspect the Tray 2 Size Switch Actuator (PL7.12) for correct installation or physical damage.
- Inspect the rear of the Paper Tray for damage.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

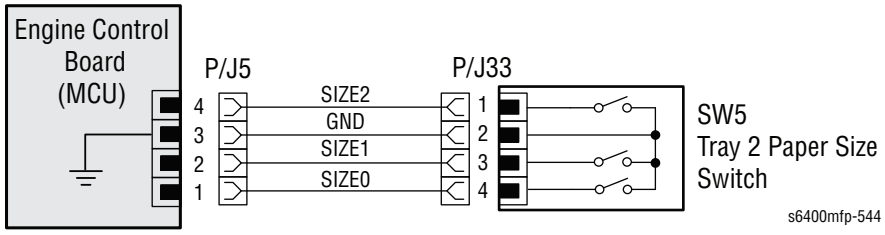
Applicable Parts	Component Control Code
■ Tray 2 Paper Size Switch (SW5), PL7.11 ■ Tray 2 Paper Size Switch Actuator, PL7.12 ■ MCU Board, PL20.09 ■ Tray 2, PL21.28 ■ Wire Harness Assy, PL 24.03	072-204, 072-205, 072-206

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Completely remove Tray 2 from the printer and inspect the Paper Size Switch Actuator. Is the Actuator securely in place and undamaged?	Go to step 2.	Reinstall or replace the Tray 2 Paper Size Switch Actuator (page 8-55).
2	Test the Tray 2 Paper Size Switch (three switches within SW5) in Diagnostics. Use the Actuator to change the state of each Switch. Does the Sensor state of each Switch change?	Go to step 3.	Go to step 4.
3	Reinstall Tray 2. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is the MCU Board connector (PJ5MCU) properly connected?	Go to step 5.	Properly seat the connector.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Replace the Tray 2 Paper Size Switch (page 8-54). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Is there continuity between PJ5MCU and PJ33 (SW5)?	Replace the MCU Board (page 8-101).	Replace the wiring harness.



SW5 Switch Logic Table

Tray 2 Paper Size Switch			
SW1	SW2	SW3	Paper Size
ON	OFF	OFF	A4
OFF	ON	OFF	Letter
ON	OFF	ON	Executive
ON	ON	OFF	B5
OFF	ON	ON	Postcards
ON	ON	ON	Non-standard size
OFF	OFF	OFF	Tray open

Tray 3 or 4 is Empty - Add Paper

The printer has detected that Tray 3 or Tray 4 is empty and needs paper. The "Tray 3 or 4 is Empty Message" is displayed when the Paper Empty Sensor (PS22) is unblocked by the Sensor Actuator.

Applicable Status Messages

- Tray 3 is Empty - Add paper
- Tray 4 is Empty - Add paper

Initial Actions

- Remove any paper from the affected Tray.
- Inspect the Paper Tray for damage and verify correct Lift Plate operation.
- Reload the affected Tray with fresh paper and confirm the Paper Guides are set correctly.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

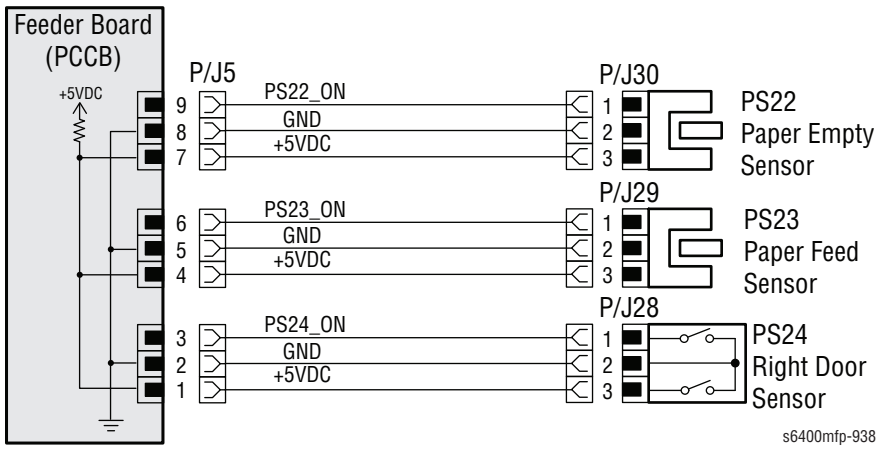
Applicable Parts	Component Control Code
■ LTA Control Board (PCCB), PL28.11 ■ Tray 3/ 4 Paper Empty Sensor (PS22), PL29.11 ■ Tray 3/ 4 Paper Empty Sensor Actuator, PL29.20 ■ Tray 3/4 Paper Tray, PL34.24	073-201, 074-201

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Completely remove the affected Tray from the printer and inspect the Paper Empty Sensor Actuator. Is the Actuator securely in place and undamaged?	Go to step 2.	Reinstall or replace the Actuator.
2	Test the Tray 3 or 4 Paper Empty Sensor. Use the Actuator to change the state of the Sensor. Does the Sensor state change?	Go to step 3.	Go to step 4.
3	Reinstall the affected Tray. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Replace the Tray 3 or 4 Paper Empty Sensor (PS22). Does the error still occur?	Go to step 5.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Is the PCC Board connector (PJ5PCCB) properly connected?	Go to step 6.	Properly seat the connector.
6	Is there continuity between PJ5PCCB and PJ30 (PS22)?	Replace the PCC Board (page 8-161).	Replace the wiring harness.



Tray 3 or Tray 4 is Open

The printer has detected that Tray 3 or Tray 4 is open. The "Tray 3 is Open" message or the "Tray 4 is Open" message is triggered when the Tray 3 or 4 Paper Size Switch (MS1) logic indicates all 3 switches within MS1 are Off (refer to the “MS1 Logic Table” on page 3-173).

Applicable Status Messages

- Dedicated Tray 3 is Open
- Adjustable Tray 3 is Open
- Dedicated Tray 4 is Open
- Adjustable Tray 4 is Open

Initial Actions

- Remove the affected Tray from the printer and inspect the Size Switch Actuator (PL28.12) for correct installation or physical damage.
- Inspect the rear of the affected Paper Tray for damage.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

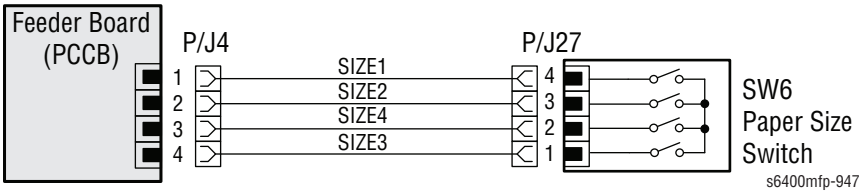
Applicable Parts	Component Control Code
■ LTA Control Board (PCCB), PL28.11 ■ Tray 3/ 4 Paper Size Switch Actuator, PL28.12 ■ Tray 3/4 Paper Size Switch (MS1), PL28.14 ■ Tray 3/4 Paper Tray, PL31.24	073-204~206, 074-204~206

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Completely remove the affected Tray from the printer and inspect the Paper Size Switch Actuator. Is the Actuator securely in place and undamaged?	Go to step 2.	Reinstall or replace the Tray 3/4 Paper Size Switch Actuator (page 8-163).
2	Test the affected Tray Paper Size Switch (three Switches within MS1). Use the Actuator to change the state of each Switch. Does the Sensor state of each Switch change?	Go to step 3.	Go to step 4.
3	Reinstall the affected Tray. Does the error still occur?	Go to step 4.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the PCC Board connector (PJ4PCCB) properly connected?	Go to step 5.	Properly seat the connector.
5	Replace the Tray 3/4 Paper Size Switch (page 8-165). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Is there continuity between PJ4PCCB and PJ27 (MS1)?	Replace the PCC Board (page 8-161).	Replace the wiring harness.



MS1 Logic Table

Tray 3/4 Paper Size Switch			
SW1	SW2	SW3	Paper Size
OFF	ON	ON	Legal
ON	ON	ON	Government Legal/Letter Plus
ON	OFF	OFF	Letter
ON	ON	OFF	A4
OFF	OFF	ON	B5
ON	OFF	ON	Executive
OFF	OFF	OFF	Tray open

General Troubleshooting

In this chapter...

Chapter 4

Introduction

This chapter covers the System Startup, Power On Self Test (POST), Service Diagnostics, and troubleshooting problems that are not associated with a fault code or Control Panel error message.

For troubleshooting problems associated with a fault code or Control Panel error message, refer to “Error Messages and Codes” on page 3-1. Print-quality problems are covered in “Print-Quality Troubleshooting” on page 5-1.

The Appendix contains a complete list of Fault Codes and Status Messages.

System Startup

When the printer is turned On, the system power state is indicated by an LED on the UI.

At power-on, the Copy Controller (CC), Network Controller (NC), and Image Output Terminal (IOT) receive power and perform a Power-On Self Test (POST) of the minimal essential hardware components to enable the operating systems to load and boot into a minimal-power safe state.

The NC and CC’s operating system start the application that manages the creation and initialization of the system’s software services,

1. When the power switch is turned On, 3.3 V power is applied to the printer. The CC and NC perform basic hardware initialization activities. Various activities occur at power-on including:
   - A static Power-on Splash Screen is displayed.
   - The user pathways is displayed.
   - The CC performs its boot initialization activities including hardware initialization tasks such as CPU, FPGA, System RAM, loading the U-boot software and running the Power-On Self Test (POST).
   - The NC performs its boot initialization activities including hardware initialization tasks such as CPU, FPGA, System RAM, and disk controller initialization.
   - The CC and NC boot separately and synchronize with each other when both are ready.
2. Once the CC has successfully communicated with the IOT, the IIT receives 24 V to power the lamp and motors.
3. The CC communicates to the IIT. The Scanner reports whether the Duplex Auto Document Feeder (DADF) is present.
4. The NC load its operating system and attempt to synchronize with the CC when it has finished booting within 5 minutes.
5. The NC communicates to the UI which sets the back light brightness and turns the LED’s On or Off.
6. The CC detects the presence or absence of fax.
7. The User Interface (UI) synchronizes with the CC after the NC has finished loading its application software.

8. After communication has been established between the core modules (CC, NC, IOT, and IIT), the CC determines the printer's configuration and capabilities and detects the following components:
   - Finisher
   - Foreign Interface Device (FID)
9. The printer performs some initialization if this is the first time the printer has ever been powered On.
10. The LED on the Control Panel is lit indicating the printer is powering On.
11. The printer displays a static splash screen when the initialization is completed.

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 methods available to view Post Test results: Use the local UI LED's or the POST LED's on the Image Processor (I/P) Board.

Sequence

The Copy Controller (CC) and Network Controller (NC) have separate and independent UBOOT code; both boot independently from one another and simultaneously. POST NC occurs on the network controller and POST CC occurs on the copy controller side of the I/P Board.

NC POST

1. When power is turned On, both NC and CC Health LED's on the I/P Board are turned On, which indicates power is initiated.
2. The UART for debug serial port is initialized.
3. The NC SDRAM DIMM is tested, which included Data Line, Address Line, Byte Lane via walking 1's. If an error is detected, the boot process halts and the error is indicated by a blink code on the NC Health LED.

   An attempt will be made to write more detailed information to the serial debug port (which should work as the RAM is not being used at this point and the debug serial port has been initialized).
4. The CPU loads its single FPGA. If an error is detected during this step, the system attempts to continue with the Uboot process to allow for recovery and an error is indicated by a blink code on the NC Health LED.
5. The Controller Board health is checked. If there is a failure on the board, the NC Health LED blinks.
6. Software checks the Disk Drive. If the Disk Drive is not accessible or cannot be communicated to, the NC Health LED blinks.
7. The Operating System (OS) is loaded from Hard Drive and the OS is brought up.

CC POST

1. CC SDRAM DIMM is tested, which included Data Line, Address Line, Byte Lane via walking 1's. If an error is detected, the boot process halts and the error is indicated by a blink code on the CC Health LED. An attempt will be made to write more detailed information to the debug serial port.
2. The CPU loads its single FPGA. If an error is detected during this step, the system attempts to continue with the Uboot process to allow for recovery and an error is indicated by a blink code on the CC Health LED.
3. The Controller Board health is checked. If there is a failure on the board, the CC Health LED blinks.
4. The Operating System is loaded from from the HDD, although bootstrap code loaded from ROM.

POST LED's

Two LED's are available on the WorkCentre 6400 I/P Controller Board. The LED's are used to report status and errors if early failures are detected and there is there is not enough functionality to report status with the LUI LED's and display.

- Network Controller (NC) Health
- Copy Controller (CC) Health

LED Blink Patterns

All POST errors blink the LED's a certain number of time at 2 Hz, pause or 2 seconds, and then repeat. There is no single blink error code. The blink patterns between the NC and CC Health LED's are the same. All errors blink the LED's a certain number of times at 2 Hz, pause for 2 seconds, and then repeat. There is no single blink error code.

In addition, the UI panel LED's will blink, if possible. These LED's blink in addition to the on-board LED's.

- Top left UI LED blinks (Feature button): Indicates NC errors
- Middle left LED blinks (Job Status button): Indicates CC errors

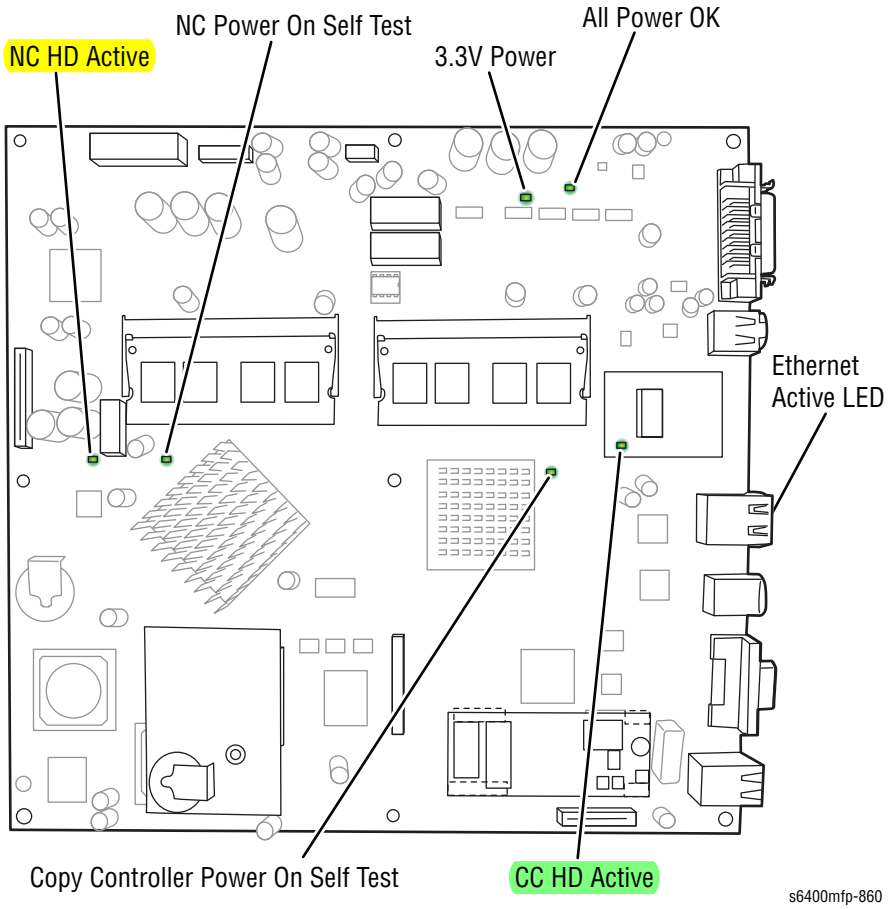
NC Blink Patterns

Number of Time	Error	Replacement Part	PL
2	NC RAM DIMM Error	NC RAM DIMM	20.44
3	NC FPGA Error	I/P Board	20.07
4	EEPROM Error	I/P Board	20.07
5	Disk Failure	NC Hard Drive	20.03
6	UI Failure	Control Panel	2.12
7	Disk Controller Error	I/P Board	20.07

CC Blink Patterns

Number of Time	Error	Replacement	PL
2	CC RAM DIMM Error	CC RAM DIMM	20.44
3	CC FPGA Error	I/P Board	20.07
4	CC Poseidon ASIC Error	I/P Board	20.07
5	CC Galileo ASIC Error	I/P Board	20.07
6	CC - NC Error	I/P Board	20.07
7	CC - NVRAM Error	NVM Module	20.43

I/P Board LED



Errors

Hard faults prevent the boot sequence from continuing; the boot sequence aborts with no further tests attempted. When a hard fault occurs, the error code will be flashed on the local UI LED's and the NC and CC POST LED's on the Image Processor Board.

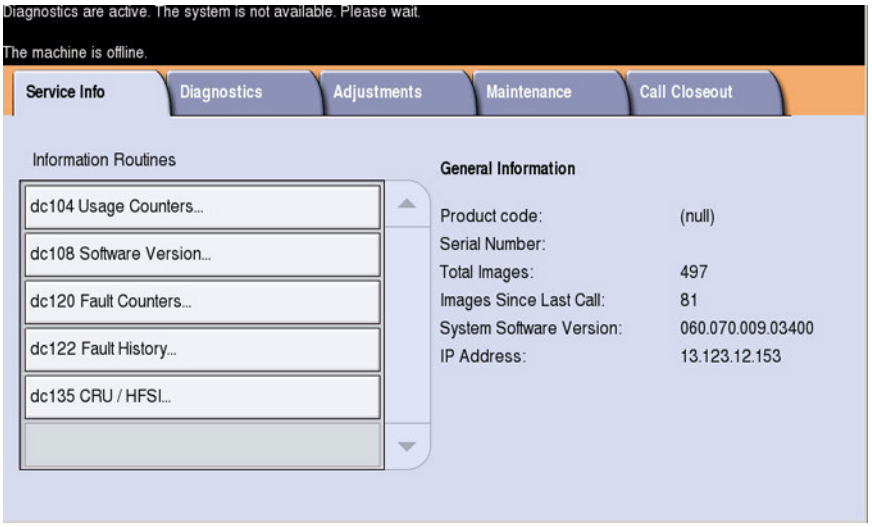
Service Diagnostics

The WorkCentre 6400 has built-in diagnostics that allow access to Sensors, Clutches, Solenoids, printer status, turning the motors On and Off, and some NVRAM access. Using these tests, service technicians should be able to diagnose the problems quickly and isolate which component or sub assembly part needs replacement.

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 selected sub-assemblies or parts in the vicinity of the reported error. Diagnostic tests are controlled from the Control Panel..

Entering Service Diagnostics

1. Press and hold the [*] then + [#] then + [**Stop**] buttons.
2. On the **Login** screen on the Control Panel, enter **6789**.
3. Touch the **Enter** button.
4. The **Service Info** tab is displayed as the default screen upon entering Service Diagnostics.

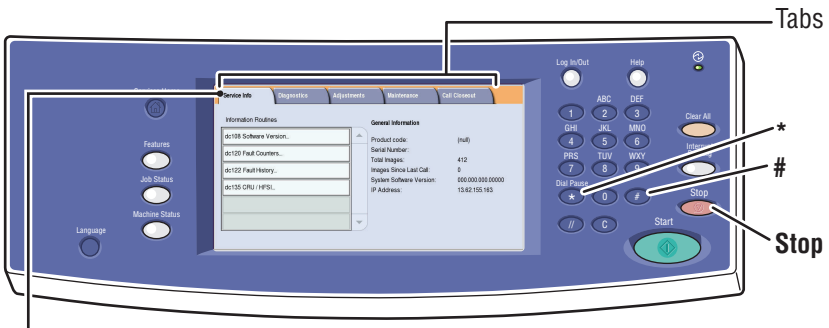


Using Service Diagnostics

Most of the diagnostic tests are straightforward and require no additional explanation, but there are some that require specific conditions be met to achieve meaningful results. These instructions cover each of the test groups, listing special instructions, conditions, or other information necessary to successfully interpret the results of the diagnostic tests.

Service Diagnostics Menu Map

Menu Map (page 1 of 2)



To access the Service Diagnostics Menu:
1. Press and hold the *****, then + **#**, then + **Stop** buttons to get to the Login Screen
2. Enter **6789** and touch the **Enter** button

Service Info
- dc104 Usage Counters
- dc108 Software Version
- dc120 Fault Counters
- dc122 Fault History
- dc135 CRU/HFSI ▸
  - Black Toner Cartridge
  - Cyan Toner Cartridge
  - Magenta Toner Cartridge
  - Yellow Toner Cartridge
  - Black Print Cartridge
  - Cyan Print Cartridge
  - Magenta Print Cartridge
  - Yellow Print Cartridge
  - Fuser Cartridge
  - Waste Container
  - Transfer Belt
  - Transfer Roller

Diagnostics
- dc140 Analog Monitor ▸
  - Fuser Thermistor 1
  - Fuser Thermistor 2
  - Humidity Sensor
  - Temperature Sensor
  - ROS Unit Sensor
- dc312 Network Echo Test
- dc330 Component Control ▸ → Ⓐ
- dc575 Scanner Test ▸
  - ~90 Secs DRAM
  - <5 Secs Home Position
  - <5 Secs Lock Check
  - ~15 Secs Optical
- dc612 Print Test Pattern ▸
  - Cyan 50% Fill
  - Magenta 50% Fill
  - Yellow 50% Fill
  - Black 50% Fill
  - Registration Print
  - Delta-E Print
  - Ghosting Print
- dc640 Video Path Integrity

Adjustments
- dc130 Image Position
- dc131 NVM Read/Write
- dc301 NVM Initialization ▸
  - Copier
  - Fax
  - User
  - System
  - All
- dc361 NVM Save and Restore
- dc608 Document Feeder Registration
- dc609 Document Glass Registration
- dc909 Calibrate for Paper Type
- dc936 Image Quality Calibration
- dc960 Altitude Adjustment ▸
  - Standard Altitude
  - High Altitude

Maintenance
- dc103 Billing Plan
- dc120 Fault Counters
- dc122 Fault History
- dc135 CRU/HFSI Status and Reset ▸
  - Black Toner Cartridge
  - Cyan Toner Cartridge
  - Magenta Toner Cartridge
  - Yellow Toner Cartridge
  - Black Print Cartridge
  - Cyan Print Cartridge
  - Magenta Print Cartridge
  - Yellow Print Cartridge
  - Fuser Cartridge
  - Waste Container
  - Transfer Belt
  - Transfer Roller
- dc137 PagePack ▸
  - Disabled
  - Enabled

Call Closeout
- Reset Counters
- Exit Only
- Exit and Reboot

s6400mfp-754

Menu Map (page 2 of 2)

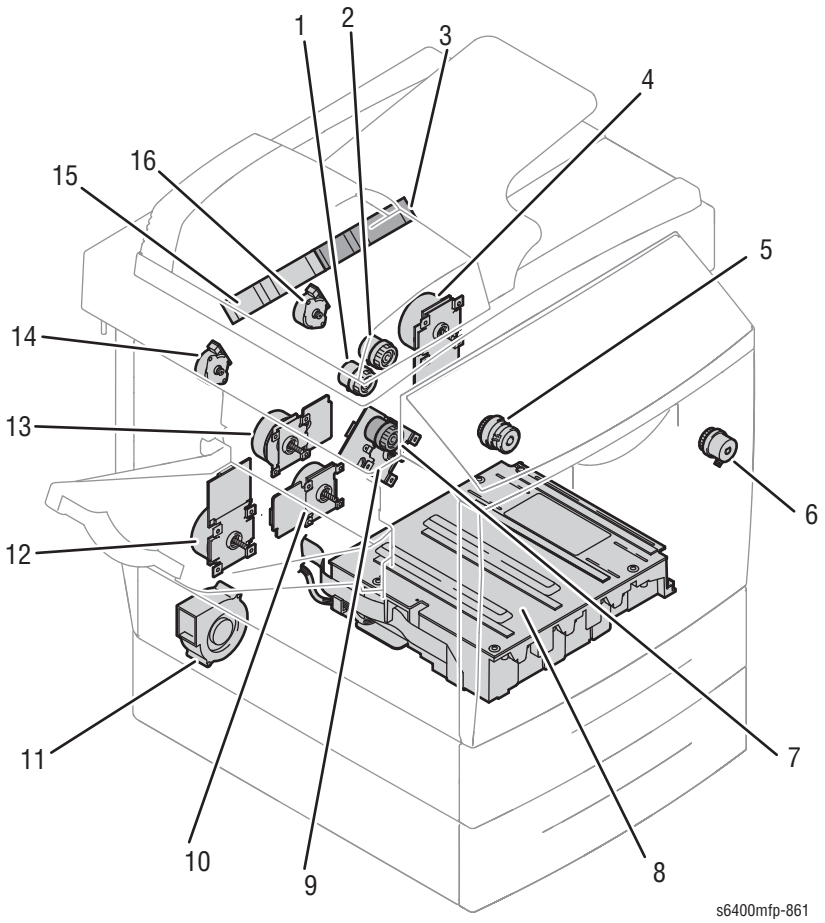
Ⓐ

005.011 DADF Simplex Motor
005.012 DADF De-Skew Clutch
005.040 DADF Duplex Motor
005.055 Pick-Up Roller Clutch
005.062 DADF Feed Clutch
005.100 DADF Duplex Solenoid
005.103 DADF Paper In Sensor
005.104 DADF Paper Out Sensor
005.105 DADF Paper Detect Sensor
005.106 DADF Cover Open Sensor
005.107 DADF Roller Sensor
005.108 DADF Jam Detect Sensor
005.111 FB Home Position Sensor
005.112 FB Cover Open Sensor
005.113 ADF Motor Test 600x300 Color
005.114 ADF Motor Test 600x600 Color
005.115 ADF Motor Test 600x300 Mono
005.116 ADF Motor Test 600x600 Mono
005.227 DADH Media Outer Width Sensor
005.228 DADH Media Inner Width Sensor
005.229 DADH Media Legal Length Sensor
010.005 Fuser Motor
010.032 Registration Roller Clutch
010.204 Registration Roller Sensor
010.205 Horizontal Transport Jam Sensor
010.206 Paper Loop Sensor
010.208 Fuser Exit Sensor
010.212 Fuser Paper Full Sensor
010.215 Fuser Paper Size Sensor
012.003 Finisher Transport Motor
012.004 Finisher Exit Motor
012.016 Finisher Media Eject Motor
012.017 Finisher Align Motor
012.018 Finisher Exit Roller Up/Down Motor
012.057 Finisher Tray Up/Down Motor
012.120 Finisher Fan
012.122 Finisher Entrance Solenoid
012.129 Staple Motor
012.147 Finisher Media Level Lever Solenoid
012.157 Finisher Align Belt Up/Down Solenoid
012.158 Finisher Paddle Solenoid
012.283 Finisher Cover Sensor
012.284 Stapler Cover Switch
012.285 Finisher Self-Priming Sensor
012.286 Staple Empty Sensor
012.287 Staple Home Position Sensor
012.301 Finisher Entrance Sensor
012.302 Finisher Transport Section Sensor
012.304 Finisher Media Full Sensor
012.305 Finisher Media Ejector Sensor
012.306 Finisher Aligning Plate Home Position Sensor
012.307 Finisher Storage Section Sensor
012.308 Finisher Exit Roller Sensor
012.309 Finisher Media Level Sensor1
012.310 Finisher Media Level Sensor2
012.311 Finisher Aligning Belt Sensor
012.312 Finisher Tray Upper Sensor
012.313 Finisher Tray Lower Sensor
042.019 Fuser Cooling Fan Mid Speed
042.020 Fuser Cooling Fan High Speed
042.043 Ozone Fan
042.051 LVPS Cooling Fan High Speed
042.052 Cooling Fan High Speed
042.053 Cooling Fan Mid Speed
061.001 Laser Unit Motor
062.007 Scanner Motor Test
071.003 Tray 1 Paper Feed Clutch
071.201 Tray 1 Paper Empty Sensor
072.003 Tray 2 Paper Feed Clutch
072.201 Tray 2 Paper Empty Sensor
072.204 Tray 2 Paper Size Switch 1
072.205 Tray 2 Paper Size Switch 2
072.206 Tray 2 Paper Size Switch 3
073.001 Tray 3 Feed Motor
073.004 Tray 3 Paper Feed Clutch
073.201 Tray 3 Paper Empty Sensor
073.202 Tray 3 Paper Feed Sensor
073.203 Tray 3 Cover Open Sensor
073.204 Tray 3 Paper Size Switch 1
073.205 Tray 3 Paper Size Switch 2
073.206 Tray 3 Paper Size Switch 3
074.001 Tray 4 Feed Motor
074.004 Tray 4 Paper Feed Clutch
074.201 Tray 4 Paper Empty Sensor
074.202 Tray 4 Paper Feed Sensor
074.203 Tray 4 Right Cover Open Sensor
074.204 Tray 4 Paper Size Switch 1
074.205 Tray 4 Paper Size Switch 2
074.206 Tray 4 Paper Size Switch 3
077.018 Duplex Forward Motor
077.020 Duplex Reverse Motor
077.102 OHP Sensor
077.109 Duplex Sensor
077.301 Right Door Sensor
077.303 Front Door Sensor
077.305 Duplex Cover Sensor
077.309 Scanner Unit Open Sensor
091.201 Waste Toner Full Sensor
093.006 Toner Supply Motor Y
093.007 Toner Supply Motor M
093.008 Toner Supply Motor C
093.009 Toner Supply Motor K
093.023 Developing Motor K
093.024 Developing Motor YMC
093.082 Color UI Motor YMC
094.002 Pressure Retraction 1st Image Transfer Clutch
094.005 Pressure Retraction 2nd Image Transfer Clutch
094.200 Retraction Position Sensor 1st Image
094.201 Retraction Position Sensor 2nd Image

s6400mfp-882

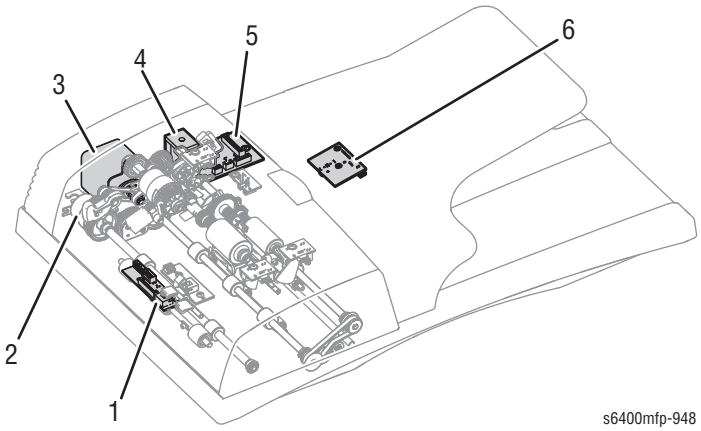
Printer Components

Engine Motors and Clutches



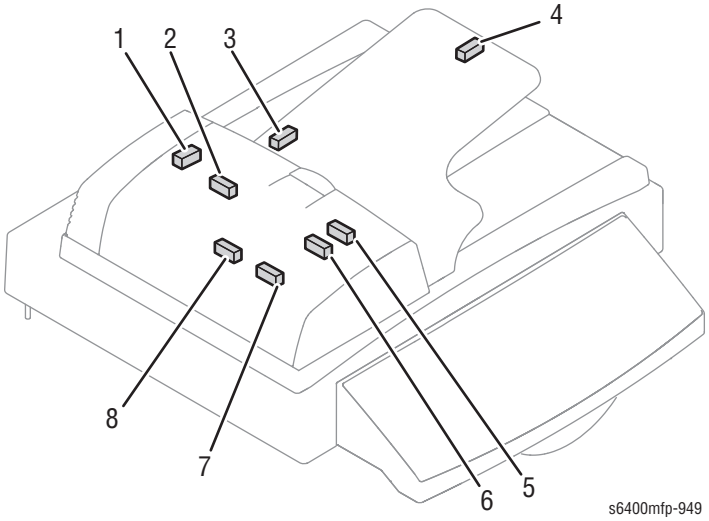
1.	Tray 1 Paper Feed Clutch 1 (CL1)	9.	Intermediate Transport Motor (M1)
2.	Tray 2 Feed Clutch 2 (CL3)	10.	Developer Motor K (M5)
3.	Fusing Fan Motor (FM12)	11.	Ozone Motor Fan (Exhaust Fan) (FM13)
4.	Fusing Motor (M2)	12.	Developer Motor Y/M/C (M4)
5.	Registration Clutch (CL2)	13.	Color PC Drum Motor (M3)
6.	Pressure/Retraction Clutch 2 (CL5)	14.	Toner Supply Motor Y/M (M6)
7.	Pressure/Retraction Clutch 1 (CL4)	15.	DC Power Supply Motor Fan (FM11)
8.	Laser Unit	16.	Toner Supply Motor C/K (M7)

ADF Motors and Clutches



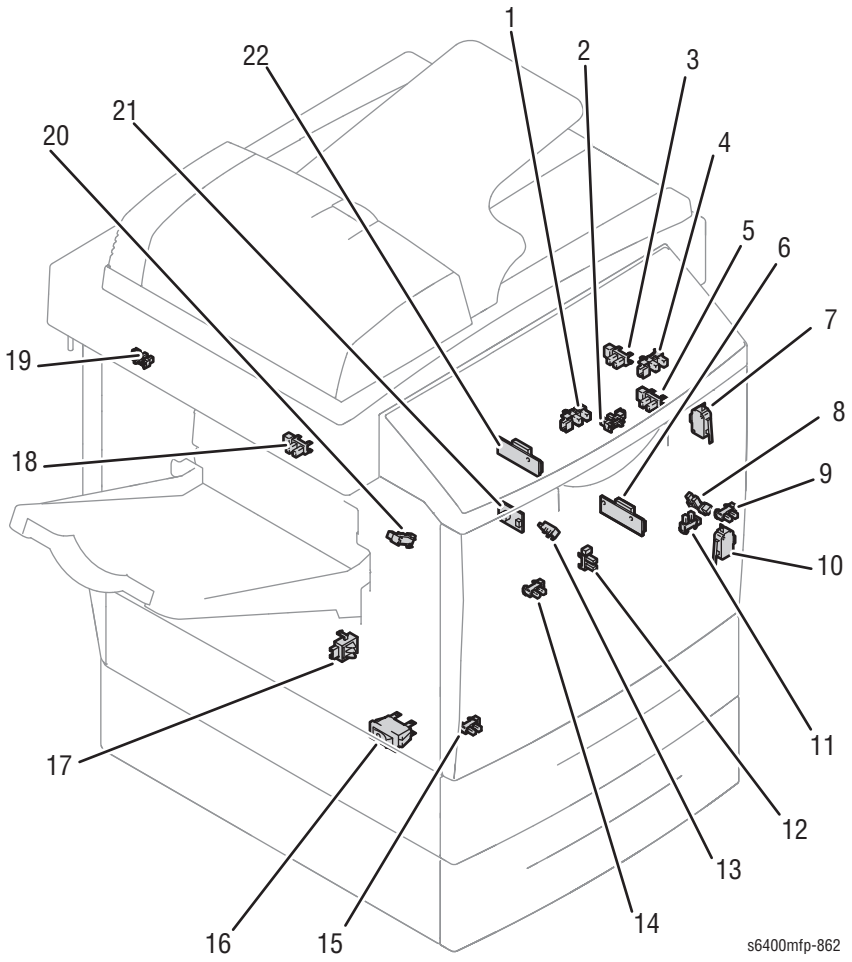
1. Relay Board/1
2. Registration Clutch
3. Transport Motor
4. Switchback Solenoid
5. DF Control Board
6. Relay Board/2

ADF Sensors



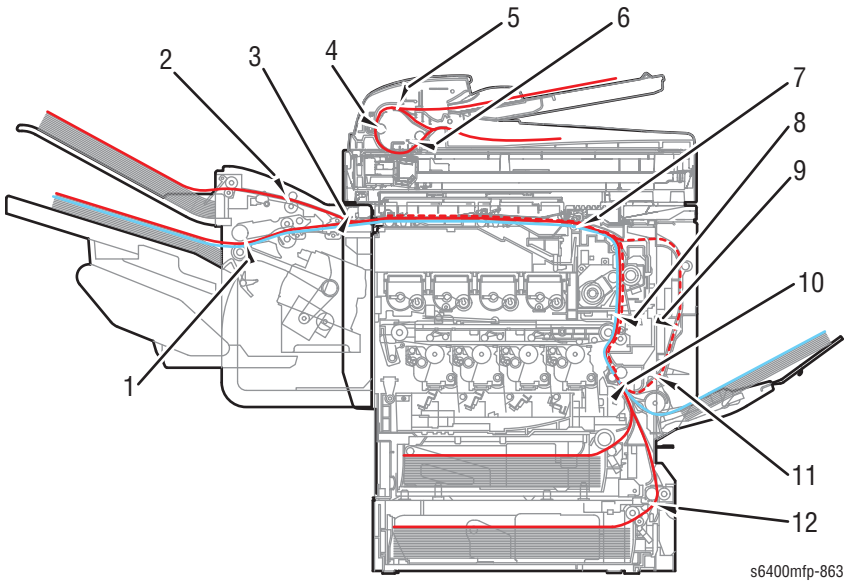
1. DADF Cover Open Sensor (PS1)
2. DADF Roller Sensor (PS2)
3. DADF Media Inner Width Sensor (SS1) & DADF Media Outer Width Sensor (SS2)
4. DADF Media Length Sensor (PS6)
5. DADF Paper Detect Sensor (PS4)
6. DADF Jam Detect Sensor (PS5)
7. DADF Paper In Sensor (IS01)
8. DADF Paper Out Sensor (PS3)

Engine Sensors and Switches



1. Pressure Retraction Position Sensor 2 (PS13)
2. Scanner Unit Open Sensor (PS15)
3. Fusing Media Size Sensor (PS15)
4. Fuser Exit Sensor
5. Paper Loop Sensor (PS10)
6. IDC Sensor Board (Front)
7. Front Safety Switch (MS2)
8. Right Door Sensor (PS3)
9. Front Door Sensor (PS4)
10. Right Sensor Switch (MS3)
11. Registration Sensor (PS9)
12. Paper Empty Sensor (PS8)
13. OHP Sensor (PS5)
14. Waste Toner Sensor (PS6)
15. Paper Empty Sensor 2 (PS8)
16. Power Switch (SW1)
17. Tray 2 Paper Size Switch (SW3)
18. Paper Full Sensor (PS14)
19. Exit Sensor (PS15)
20. Paper/ Retraction Position Sensor 1 (PS12)
21. Temperature/ Humidity Sensor
22. IDC Sensor Board (Rear)

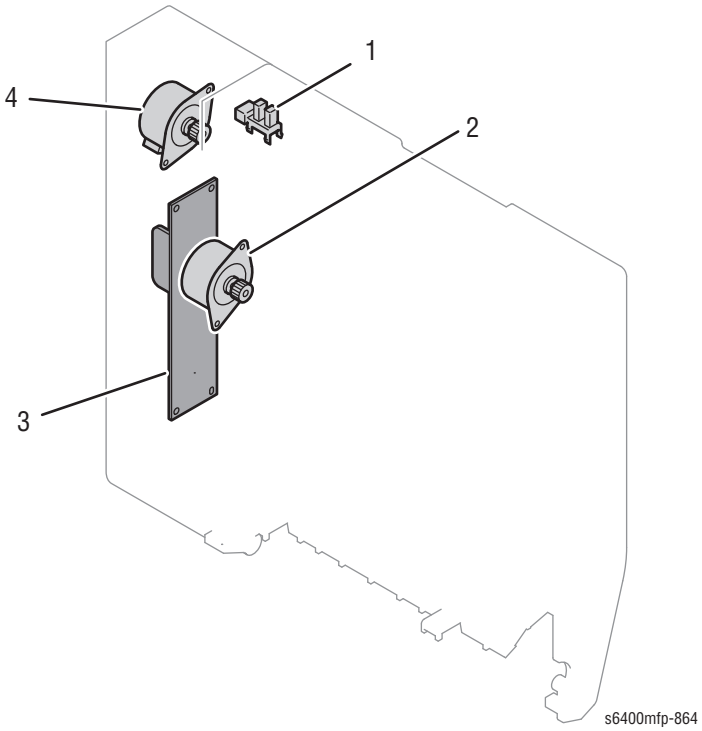
Sensors (Paper Path)



1. Storage Section Sensor (PS7)
2. Transport Section Sensor (P2)
3. Finisher Entrance Sensor (PS1)
4. Paper In Sensor (SS01)
5. DADF Detect Sensor (PS4)
6. Paper Out Sensor (PS3)
7. Fuser Exit Sensor (PS1)
8. Paper Feed Sensor (PS2)
9. Duplex Transport Sensor on Duplex Control Board (ADCB)
10. Registration Sensor (PS9)
11. Paper Loop Sensor (PS10)
12. Paper Feed Sensor (PS23) (Lower Feeder Unit)

Duplex Unit Components

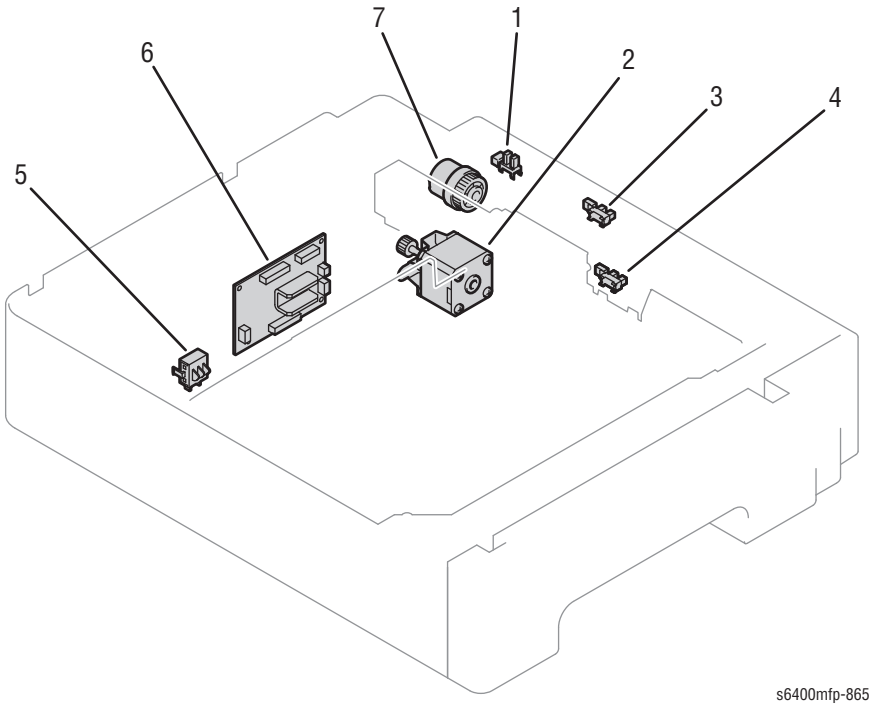
Duplex Unit Sensors and Motors



1. Duplex Door Sensor (PS16)
2. Duplex Transport Motor (M8)
3. Duplex Control Board (ADCB)
4. Duplex Reverse Motor (M9)

Optional 500-Sheet Feeder Components

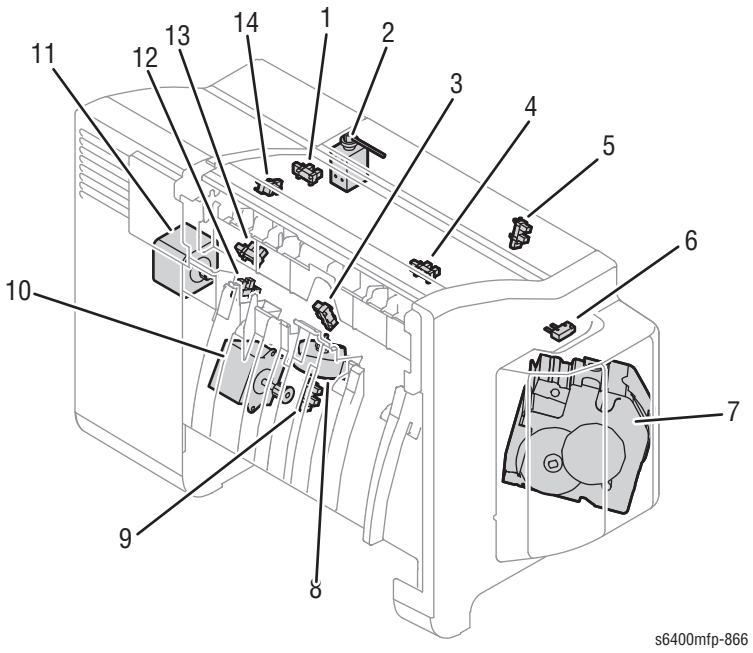
Optional 500-Sheet Feeder Sensors, Switches, Clutch, Motor, and Board



1. Right Door Switch (MS3)
2. Transport Motor (M16)
3. Paper Feed Sensor (PS23)
4. Paper Empty Sensor (PS22)
5. Paper Size Switch (SW6)
6. LTA Circuit Board (PCCB)
7. Paper Feed Clutch (CL6)

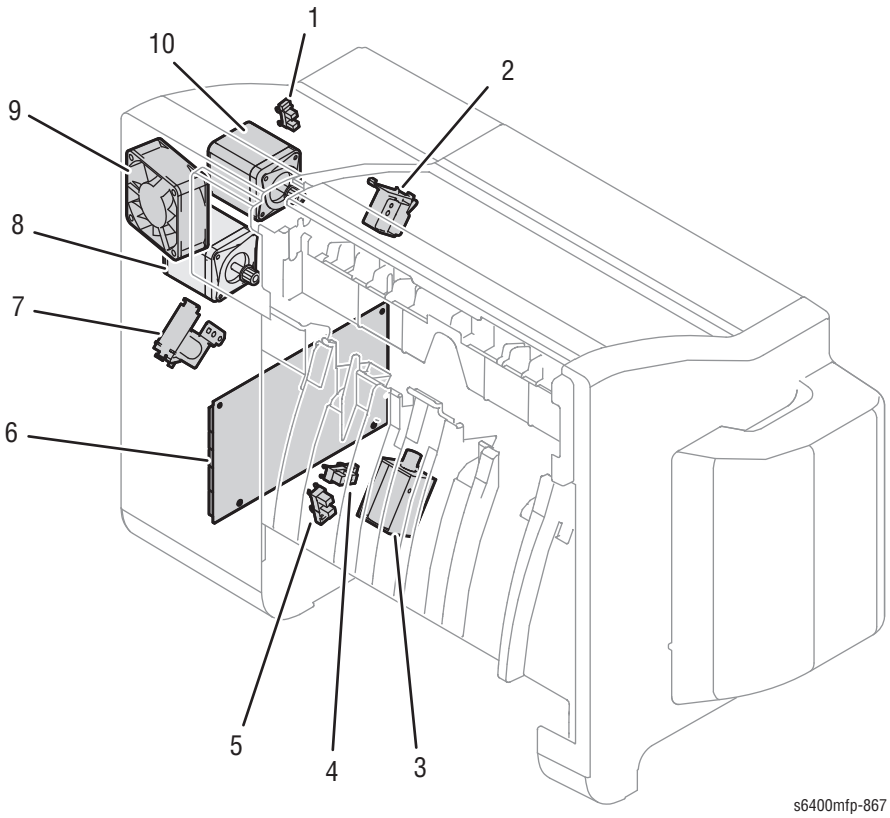
Finisher Components

Finisher Sensors, Solenoids, Motors, and Switch



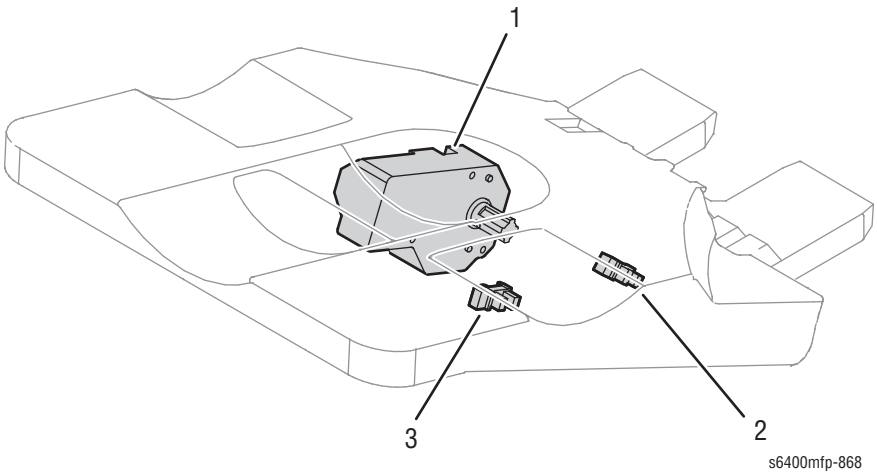
1.	Finisher Cover Sensor (PS3)	8.	Align Motor (M2)
2.	Entrance Solenoid (SD1)	9.	Storage Section Sensor (PS7)
3.	Paper Ejector Sensor (PS5)	10.	Paper Ejector Motor (M1)
4.	Transport Section Sensor (PS2)	11.	Exit Roller Up/Down Motor (M5)
5.	Entrance Sensor (PS1)	12.	Aligning Plate Home Position Sensor (PS6)
6.	Staple Cover Switch (MS1)	13.	Exit Roller Sensor (PS8)
7.	Staple Unit	14.	Paper Full Sensor (PS4)

Finisher Sensors, Solenoids, Motors, and Board



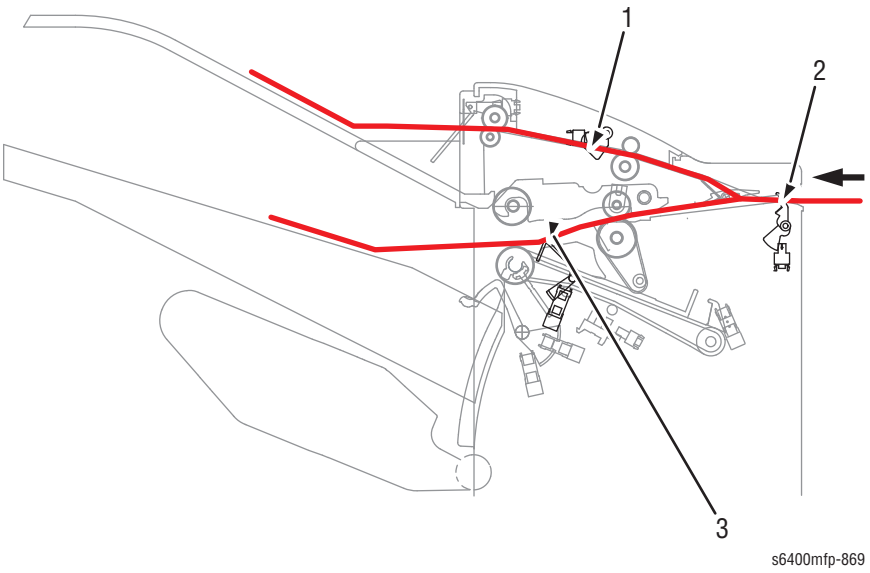
1.	Aligning Belt Sensor (PS11)	6.	Finisher Control Board (FSCB)
2.	Aligning Belt Up/Down Solenoid (SD3)	7.	Paddle Solenoid (SD4)
3.	Paper Level Lever Solenoid (SD2)	8.	Exit Motor (M4)
4.	Paper Level Sensor 2 (PS10)	9.	Motor Fan (FM1)
5.	Paper Level Sensor 1 (PS9)	10.	Transport Motor (M3)

Finisher Tray Sensors and Motor



1. Tray Up/Down Motor (M6)
2. Tray Upper Sensor (PS12)
3. Tray Lower Sensor (PS13)

Finisher Paper Path Sensors



1. Transport Section Sensor (PS2)
2. Entrance Sensor (PS1)
3. Storage Section Sensor (PS7)

Service Diagnostics Tests

Service Diagnostic Routines

The Services Diagnostics menu contains five tabs, which provides users access to individual diagnostic routines.

Service Diagnostic Routine Table

Test	Control Panel Display	Test Description
Service Info	Provides specific information required during the servicing of the system.	
dc104 Usage Counters	■ Total Impressions ■ Black Impressions ■ Black Copied Impressions ■ Black Printed Impressions ■ Color Impressions ■ Color Copied Impressions ■ Color Printed Impressions ■ Stored Image Printed Impressions ■ Black Stored Image Printed Impressions ■ Color Stored Image Printed Impressions ■ Embedded Fax Impressions ■ Server Fax Impressions ■ Internet Fax Impressions	Provides usage information of the printer.
dc108 Software Version	■ Software Upgrade ■ Copy Controller ■ Copy Controller OS ■ Fax ■ Imaging Output Terminal ■ Network Controller ■ Image Input Terminal ■ Finisher ■ User Interface	Provides software information including: ■ System Software Version ■ Software Module Name

Service Diagnostic Routine Table (continued)

Test	Control Panel Display	Test Description
dc120 Fault Counters	■ Sort on Occurrences ■ Include Zero Occurrences ■ Chain ■ Find ■ Chain Link ■ Description ■ Occurrences	Provides Fault information including: ■ Chain Link ■ Description ■ Occurrences
dc122 Fault History	■ Chain Link ■ Description ■ Date & Time	Provides the most recent (last 40) Faults including: ■ Chain Link ■ Description ■ Last Occurrence
dc135 CRU/ HFSI	■ Type ■ Name ■ % Remaining ■ Reset HFSI	Provides read access to each CRU/ HFSI and displays the remaining life information. The non-CRUM supply item life counters can be reset: ■ Fuser ■ Transfer Belt ■ Transfer Roller
Diagnostics	Provides access to specific component controls and test patterns.	
dc140 Analog Monitor	■ ID ■ Component Name ■ Status ■ Range ■ Value	Provides the ability to monitor analog inputs for diagnostic troubleshooting.

dc312 Network Echo Test	■ Protocol
	  ■ TCP/IP
	  ■ Novell or IPX
	  ■ Apple Talk
	■ Start Test
		Verifies the connectivity of the printer on the attached network and test the network drivers on the printer.

dc330 Component Control	■ Chain Link, I/O, Description ■ Chain Link, I/O, Description, State ■ Chain ■ Add	Provides a means of testing the operation of individual machine electrical and mechanical components.
dc575 Scanner Test	■ Duration, Test, Result ■ Start	Verifies operation of the IIT Scanner assembly: ■ DRAM Test ■ Home Position Test ■ Lock Check Test ■ Optical Test
dc612 Print Test Pattern	■ #, Test Patterns ■ Tray ■ Copies ■ Start ■ Stop	Provides test patterns for the service provider to use while troubleshooting print-quality problems.

Service Diagnostic Routine Table (continued)

Test	Control Panel Display	Test Description
dc640 Video Path Integrity	■ Start ■ Close	Validates the integrity of the various ASICs and FPGA's that comprise the video path on the copy controller board.
Adjustments	Contains service diagnostic/mode routines that modify or change a value setting for the printer.	

dc130 Image Position (Margin Calibration)	■ Paper Supply
	■ Print Test Sheet
	■ Advanced
	  ■ Paper Type
	  ■ Paper Trays
	  ■ Reset All
		Aligns the whole ROS image on the Image Transfer Belt for each media group and paper tray.

dc131 NVM Read/Write (refer to "NVM Value" on page A-75 for Copy Controller and Fax NVM Tables)	■ Enter NVM ID (left) ■ Enter NVM ID (right) ■ Read ■ Value Field ■ Write ■ Table (NVM ID, Description, Value, Default, Min., Max.) ■ Clear	Provides the capability to review and modify machine control parameters stored in Non-Volatile Memory (NVM). The Copy Controller and Fax NVM can be accessed using dc131.
dc 301 NVM Initialization	■ Domain ■ NVM Data	Allows the user to reset the Copy Controller or Fax Controller NVM value to default value or all applicable NVM within a specified service or module. Multiple services and/or modules may be initialized by a single request.
dc361 NVM Save and Restore	■ Location ■ Serial Number ■ Date ■ Platform	Backups NVM data or restores the machine's NVM parameters to their previous values following a service action, replacement of CC NVM Module, CC Hard Disk, I/P Board, or any others that would necessitate a full NVM initialization and restoration.
dc608 Document Feeder Registration	■ List of instruction ■ Start	Checks the registration and de-skew of the document glass and DADH and correct any misalignments.
dc609 Document Platen Registration	■ List of instruction ■ Start	Checks the image registration of the Document Glass and corrects any misalignments.
dc909 Calibrate for Paper Type	■ Print Test Sheets ■ View Paper Type Settings (various types of paper)	Provides the ability to adjust the 2nd Image Transfer Power output (ATVC) in order to compensate for the use of thick or specialty media.

Service Diagnostic Routine Table (continued)

Test	Control Panel Display	Test Description
dc936 Image Quality Calibration	■ Start Calibration	Re-calibrate the IOT at any time in order to correct common imaging defects such as color mis-registration and low density.
dc960 Altitude Adjustment	■ Standard Altitude ■ High Altitude ■ Cancel ■ Save	Use to change the altitude when the product is placed in a location where the altitude is equal or greater than 2000 meters (approximately 6500 feet) in elevation.
Maintenance	Provides the ability to perform maintenance routines and access CRU/HFSI usage and Fault logs.	
dc103 Billing Plan	■ Billing Plan Passcode ■ Cancel ■ Save	Allows the user to update the billing plan.
dc120 Fault Counters	■ Table (Chain-Link, Description, Occurrences) ■ Sort on Occurrences ■ Include Zero Occurrences ■ Chain ■ Find	Provides Fault information including: ■ Chain Link ■ Description ■ Occurrences
dc122 Fault History	■ Chain Link ■ Description ■ Date & Time	Provides the most recent (last 40) Faults including: ■ Chain Link ■ Description ■ Last Occurrence
dc135 CRU/ HFSI Status and Reset	■ Type ■ Name ■ % Remaining ■ Reset HFSI	Provides read access to each CRU/ HFSI and displays the remaining life information. The non-CRUM supply item life counters can be reset: ■ Fuser ■ Transfer Belt ■ Transfer Roller
dc137 PagePack	■ Disabled ■ Enabled ■ PagePack Passcode ■ Cancel ■ Save	Enables or disables PagePack feature.
Call Closeout	Provides the ability to exit Diagnostics and clear specific counters.	
Call Closeout	■ Reset Counters ■ Exit Only ■ Exit and Reboot	Exits the Service Diagnostics menu.

Service Info

dc104 - Usage Counters

The User Counters (dc104) routine allows the user to view the usage information of the printer.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Service Info** tab.
3. Select **dc104 Usage Counters**.
4. The **dc104 Usage Counters** screen is displayed. From the pull down menu, select the appropriate counter to view.
   - Impression Counters
   - Sheet Counters
   - Images Sent Counters
   - Fax Impressions Counters
   - All Usage Counters
5. Touch the **Close** button to exit the **Usage Counters** screen.

dc108 - Software Version

Software version numbering enables the user to accurately determine what software is installed on the device.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Service Info** tab.
3. Select **dc108 Software Version**.
4. The **System Software Version** screen is displayed.
5. Touch the Close button to exit the **dc108 Software Versions** screen.

dc120 - Fault Counters

The Fault Counters (dc120) routine provides the faults raised by the machine and the number of occurrences, sort the counters by occurrences, find a specific chain module and include fault counters with zero counts.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Service Info** tab.
3. Select **dc120 Fault Counters**.
4. A **Retrieving fault counters...** progress screen is displayed.
5. Select the appropriate options to find the Fault.
   - Sort on Occurrences
   - Include Zero Occurrences
   - Chain (enter a specific chain number)
6. Touch the **Close** button to exit the **dc120 Fault Counters** screen.

dc122 - Fault History

This Fault History (dc122) routine allows the user to view the most recent (last 40) faults.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Service Info** tab.
3. Select **dc122 Fault History**.
4. A **Fault History** screen is displayed. Information includes:
   - Chain Link
   - Description
   - Date & Time
5. Select the Fault to be reviewed. Select **Details**.
6. A **Details** screen is displayed. Information includes:
   - Chain Link
   - Description
   - Date & Time
   - Copy Count
   - Paper Size
7. Touch the **Close** button to exit the **Details** screen.
8. Touch the **Close** button to exit the **dc122 Fault History** screen.

dc135 - CRU/HFSI

The CRU/HFSI (dc135) routine provides read access to each CRU/HFSI and displays the remaining life information. The non-CRUM supply item life counters can be reset.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Service Info** tab.
3. Select **dc135 CRU/HSFI**.
4. A **dc135 CRU/HFSI** screen is displayed. Information includes:
   - Type
   - Name
   - % Remaining
5. To reset a non-CRUM supply item, select the item. Touch the **Reset HFSI** button to reset the life counter.
   - Fuser
   - Transfer Belt
   - Transfer Roller
6. Touch the **Close** button to exit the **dc135 CRU/HFSI** screen.

Diagnostics

dc140 - Analog Monitor

The Analog Monitor (dc140) routine provides the ability to monitor analog inputs for diagnostic troubleshooting.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc140 Analog Monitor**.
4. A **dc140 Analog Monitor** screen is displayed. Information includes:
   - ID
   - Component Name
   - Status
   - Range
   - Value
5. Select the item to be monitored. Select **Start**.
6. The value is displayed for the selected component.
7. To stop the process, select **Stop** or **Stop All**.
8. Click the **Close** button to exit the **dc140 Analog Monitor** screen.

dc312 - Network Echo Test

The Network Echo Test (dc312) routine tests the network drivers and verifies the connectivity of the printer.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc312 Network Echo Test**.
4. A **dc312 Network Echo Test** screen is displayed.
5. Touch the **Start** button to begin the test.
6. A message is displayed when the test is completed.
7. Click the **Close** button to exit the **Network Echo Test** screen.

dc330 - Component Control

Component Control (dc330) routine can be accessed via the diagnostics tool user interface, Component Control is used to monitor the logic levels of the input devices and to control the state of the output devices independently of the other system components.

All components of the following types may be operated with the Component Control tool:

- Inputs: Sensors, Switches, Thermistors and Motor Encoders
- Outputs: Motors, Fans, Solenoids, Clutches, Indicator Lamps (e.g. LED's) and Heaters.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc330 Component Control**.
4. A **dc330 Component Control** screen is displayed. Information includes:
   - Chain Link
   - I/O
   - Description
5. From the **Chain** pull-down menu, select the **Chain** to be performed.
6. Select the component to be performed.
7. Select **Add**.
8. Select the added component.
9. Select **Start** to perform the test.
10. Select **Stop**/**Stop All** to stop the test.
11. To remove the Component from the list, select **Remove**.
12. Touch the **Close** button to exit the **dc330 Component Control** screen.

Note

All Motor, Clutch, and Solenoid tests display as On/Off states. The test also allow for audible and visual confirmation of operation where applicable. Refer to the following dc330 Component Control Table for specific details of each test.

dc330 Component Control Table

Chain Link	I/O	Description	Detection of State	Note
Chain 005				
005.011	O	DADF Simplex Motor	Visual ■ State: On/Off ■ Paper fed	
005.012	O	DADF De-Skew Clutch	Audible	
005.040	O	DADF Duplex Motor	Visual ■ State: On/Off ■ Paper fed	
005.055	O	DADF Pick-Up Roller Clutch	Audible	
005.062	O	DADF Feed Clutch	Audible	
005.100	O	DADF Duplex Solenoid	Audible	
005.103	I	DADF Paper In Sensor	Visual ■ State: Hi/Low	Place paper at sensor or toggle sensor by hand for state change. ■ Hi = Paper present ■ Low = Paper not present
005.104	I	DADF Paper Out Sensor	Visual ■ State: Hi/Low	Place paper at DADF Paper Out Sensor to detect state change. ■ Hi = Paper present ■ Low = Paper not present
005.105	I	DADF Paper Detect Sensor	Visual ■ State: Hi/Low	Place paper on the DADF Tray and move the paper in and out. ■ Hi = Paper present ■ Low = Paper not present
005.106	I	DADF Cover Open Sensor	Visual ■ State: Hi/Low	Open the DADF Cover Assembly to see state change. ■ Hi = Cover open ■ Low = Cover closed
005.107	I	DADF Roller Sensor	Visual ■ State: Hi/Low	Release position of rollers to see state change. ■ Hi = Up position ■ Low = Down position

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
005.108	I	DADF Jam Detect Sensor	Visual ■ State: Hi/Low	Place paper at DADF Jam Detect Sensor or toggle sensor by hand to see state change. ■ Hi = Paper present ■ Low = Paper not present
005.111	I	FB Home Position Sensor	Visual ■ State: Hi/Low	**Note**: This test is a Status Only test.
005.112	I	FB Cover Open Sensor	Visual ■ State: Hi/Low	Open the Scanner Assembly for state change. ■ Hi = Open ■ Low = Closed
005.113	O	ADF Motor Test 600x300 Color	Audible	
005.114	O	ADF Motor Test 600x600 Color	Audible	
005.115	O	ADF Motor Test 600x300 Mono	Audible	
005.116	O	ADF Motor Test 600x600 Mono	Audible	
005.227	I	DADH Media Outer Width Sensor	Visual ■ State: Hi/Low	Verify state change with width adjustments.
005.228	I	DADH Media Inner Width Sensor	Visual ■ State: Hi/Low	Verify state change with width adjustments.
005.229	I	DADH Media Legal Length Sensor	Visual ■ State: Hi/Low	Insert Legal size media and compare states returned with description given.
Chain 010				
010.005	O	Fuser Motor	Visual ■ State: On/Off	**Remove the Fuser prior to performing the test.** Requirements for running this test: 1. The Fuser is removed. 2. +24 V Fuser Motor Switch is enabled (defeat the Fuser In Switch (MS4) with a piece of paper). 3. All doors and covers are closed. 4. No existing jams. 5. No existing printer faults.

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
010.032	O	Registration Roller Clutch	Audible	
010.204	I	Registration Roller Sensor	Visual ■ State: Hi/Low	Toggle the Sensor Flag on the printer. ■ Hi = Paper present ■ Low = Paper not present
010.205	I	Horizontal Transport Jam Sensor	Visual ■ State: Hi/Low	Toggle the Sensor Flag on the printer and observe a state change. ■ Hi = Paper present ■ Low = Paper not present
010.206	I	Paper Loop Sensor	Visual ■ State: Hi/Low	Open the Right Door and toggle the Sensor Flag above the Transfer Roller Assembly. ■ Hi = Paper present ■ Low = Paper not present
010.208	I	Fuser Exit Sensor	Visual ■ State: Hi/Low	Open the Right Door. Flip the Green Paper Release Lever up and open the Roller Cover. Toggle the Exit Sensor to see state change. ■ Hi = Paper present ■ Low = Paper not present
010.212	I	Fuser Paper Full Sensor	Visual ■ State: Hi/Low	Toggle the Sensor Flag to observe the change. ■ Hi = Paper present ■ Low = Paper not present
010.215	I	Fuser Paper Size Sensor	Visual ■ State: Hi/Low	
Chain 012				
012.003	O	Finisher Transport Motor	Audible	
012.004	O	Finisher Exit Motor	Audible	
012.016	O	Finisher Media Eject Motor	Audible	
012.017	O	Finisher Align Motor	Audible	
012.018	O	Finisher Exit Roller Up/Down Motor	Audible	
012.057	O	Finisher Tray Up/ Down Motor	Audible	

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
012.120	O	Finisher Fan	Audible	
012.122	O	Finisher Entrance Solenoid	Audible	
012.129	O	Staple Motor	Audible	
012.147	O	Finisher Media Level Lever Solenoid	Audible	
012.157	O	Finisher Align Belt Up/Down Solenoid	Audible	
012.158	O	Finisher Paddle Solenoid	Audible	
012.283	I	Finisher Cover Sensor	Visual ■ State: Hi/Low	
012.284	I	Stapler Cover Switch	Visual ■ State: Hi/Low	
012.285	I	Finisher Self-Priming Sensor	Visual ■ State: Hi/Low	Open the Stapler Cover and remove the cartridge to see a state change. ■ Low = Cartridge removed ■ Hi = Cartridge installed
012.286	I	Staple Empty Sensor	Visual ■ State: Hi/Low	Open the Stapler Cover and remove the cartridge to see a state change. ■ Hi = Cartridge removed ■ Low = Cartridge with staples present
012.287	I	Stapler Home Position Sensor	Visual ■ State: Hi/Low	1. Open the Stapler Front Cover. 2. Remove the two screws holding the Top Cover to the Staple Unit. 3. Remove this cover for gear access. 4. Rotate the gear to Home position for reporting the Hi state. 5. Rotate the gear away from Home position for reporting the Low state.
012.301	I	Finisher Entrance Sensor	Visual ■ State: Hi/Low	

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
012.302	I	Finisher Transport Section Sensor	Visual ■ State: Hi/Low	Lift the Top Cover and press the Sensor down to see state change. ■ Low = No paper present ■ Hi = Paper present
012.304	I	Finisher Media Full Sensor	Visual ■ State: Hi/Low	
012.305	I	Finisher Media Ejector Sensor	Visual ■ State: Hi/Low	The Eject Motor must be activated in order to see the sensor state change. Verify the sensor state, activate the finisher media ejector motor (012-016), then confirm the sensor state has changed. 1. Enter dc330 Component test. 2. **Add**, and **Start**, the Finisher Media Ejector Sensor (012-305) test. Touch **Start** and verify the reading is Low. 3. Remove the Finisher Media Ejector Motor (012-016) test. 4. **Stop**, and **Remove**, the Finisher Media Eject Motor (012-016) test. 5. **Add**, and **Start**, the Finisher Media Ejector Sensor (012-305) test. 6. Verify the reading now reports Hi.
012.306	I	Finisher Aligning Plate Home Position Sensor	Visual ■ State: Hi/Low	Move the paddle by hand to invoke a state change. ■ Hi = Home position ■ Low = Away from Home
012.307	I	Finisher Storage Section Sensor	Visual ■ State: Hi/Low	Toggle the flag in middle of the Lower Tray to see state change. ■ Low = No paper present ■ Hi = Paper present
012.308		Finisher Exit Roller Sensor	Visual ■ State: Hi/Low	Move the Exit Roller up and down for state change to occur. ■ Hi = Up ■ Low = Down
012.309	I	Finisher Media Level Sensor1	Visual ■ State: Hi/Low	

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
012.310	I	Finisher Media Level Sensor2	Visual ■ State: Hi/Low	Toggle sensor at lower output tray for state change. Hi until activated Low.
012.311	I	Finisher Aligning Belt Sensor	Visual ■ State: Hi/Low	Rotate the black gear near the Transport Motor. when the gear locks in with the other gears state changes to Hi. ■ Low = Idle or Home position
012.312	I	Finisher Tray Upper Sensor	Visual ■ State: Hi/Low	1. Remove the Tray Cover and Motor Cover. 2. Remove the Motor. 3. Insert tray assembly into printer. 4. Move the tray to the upper limit position by hand while watching this test item change state to Hi. ■ Low = Low Tray position.
012.313	I	Finisher Tray Lower Sensor	Visual ■ State: Hi/Low	Block the Sensor to change the state. ■ Low = Not blocked ■ Hi = Blocked
Chain 042				
042.019	O	Fuser Cooling Fan Mid Speed	Audible	
042.020	O	Fuser Cooling Fan High Speed	Audible	
042.043	O	Ozone Fan	Audible	
042.051	O	LVPS Cooling Fan High Speed	Audible	
042.052	O	Cooling Fan High Speed	Audible	
042.053	O	Cooling Fan Mid Speed	Audible	
Chain 061				
061.001	O	Laser Unit Motor	Audible	
Chain 062				
062.007	O	Scanner Motor Test	Audible	

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
Chain 071				
071.003	O	Tray 1 Paper Feed Clutch	Audible	
071.201	I	Tray 1 Paper Empty Sensor	Visual ■ State: Hi/Low	
Chain 072				
072.003	O	Tray 2 Paper Feed Clutch	Audible	
072.201	I	Tray 2 Paper Empty Sensor	Visual ■ State: Hi/Low	
072.204	I	Tray 2 Paper Size Switch 1	Visual ■ State: Hi/Low	Remove Tray 2. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 2 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
072.205	I	Tray 2 Paper Size Switch 2	Visual ■ State: Hi/Low	Remove Tray 2. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 2 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
072.206	I	Tray 2 Paper Size Switch 3	Visual ■ State: Hi/Low	Remove Tray 2. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 2 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
Chain 073				
073.001	O	Tray 3 Feed Motor	Audible	
073.004	O	Tray 3 Paper Feed Clutch	Audible	
073.201	I	Tray 3 Paper Empty Sensor	Visual ■ State: Hi/Low	

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
073.202	I	Tray 3 Paper Feed Sensor	Visual ■ State: Hi/Low	Open the Cover for Tray 3 on the right side of printer. Manually insert paper into the Feed Sensor and execute this test to see state change to Hi. ■ Lo = No paper present ■ Hi = Paper present
073.203	I	Tray 3 Cover Open Sensor	Visual ■ State: Hi/Low	Open the Cover for Tray 3 on the right side of printer.
073.204	I	Tray 3 Paper Size Switch 1	Visual ■ State: Hi/Low	Remove Tray 3. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
073.205	I	Tray 3 Paper Size Switch 2	Visual ■ State: Hi/Low	Remove Tray 3. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
073.206	I	Tray 3 Paper Size Switch 3	Visual ■ State: Hi/Low	Remove Tray 3. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
Chain 074				
074.001	O	Tray 4 Feed Motor	Audible	
074.004	O	Tray 4 Paper Feed Clutch	Audible	
074.201	I	Tray 4 Paper Empty Sensor	Visual ■ State: Hi/Low	Open the Cover for tray 4 on the right side of printer. Manually insert paper into the Feed Sensor and execute this test to see state change to Hi. ■ Lo = No paper present ■ Hi = Paper present

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
074.202	I	Tray 4 Paper Feed Sensor	Visual ■ State: Hi/Low	Open cover for tray 4 on right side of printer. Manually insert paper into feed sensor and execute this test to see state change to Hi. ■ Lo = No paper present ■ Hi = Paper present
074.203	I	Tray 4 Right Cover Open Sensor	Visual ■ State: Hi/Low	Open the Cover for Tray 4 on the right side of printer.
074.204	I	Tray 4 Paper Size Switch 1	Visual ■ State: Hi/Low	Remove Tray 4. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
074.205	I	Tray 4 Paper Size Switch 2	Visual ■ State: Hi/Low	Remove Tray 4. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
074.206	I	Tray 4 Paper Size Switch 3	Visual ■ State: Hi/Low	Remove Tray 4. Execute the test and press the appropriate Paper Size Switch for a state change. Refer to “Tray 3/4 Switch Logic Table” on page 4-38 for Logic Switch and corresponding media sizes.
Chain 077				
077.018	O	Duplex Forward Motor	Audible	
077.020	O	Duplex Reverse Motor	Audible	
077.102	I	OHP Sensor	Visual ■ State: Hi/Low	Insert paper in the vertical path to block the OHP sensor and verify the state changes.
077.109	I	Duplex Sensor	Visual ■ State: Hi/Low	Open the Duplex Unit Door and toggle the Sensor Flag for a changed state. ■ Hi = Paper present ■ Low = Paper not present

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
077.301	I	Right Door Sensor	Visual ■ State: Hi/Low	Open the Right Door to see state change. ■ Hi = Door Closed ■ Low = Door Open
077.303	I	Front Door Sensor	Visual ■ State: Hi/Low	Open the Front Door to see state change. ■ Hi = Door Closed ■ Low = Door Open
077.305	I	Duplex Cover Sensor	Visual ■ State: Hi/Low	Open the Duplex Door to see state change. ■ Hi = Door Closed ■ Low = Door Open
077.309	I	Scanner Unit Open Sensor	Visual ■ State: Hi/Low	
Chain 091				
091.201	I	Waste Toner Full Sensor	Visual ■ State: Hi/Low	
Chain 093				
093.006	O	Toner Supply Motor Y	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.007	O	Toner Supply Motor M	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.008	O	Toner Supply Motor C	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.009	O	Toner Supply Motor K	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.023	O	Developing Motor K	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.024	O	Developing Motor YMC	Audible	Remove all Toner Cartridges and Imaging Units prior to performing the test.
093.082	O	Color IU Motor YMC	Audible	Remove all Toner Cartridges and all Imaging Units from the printer prior to performing the test.

dc330 Component Control Table (continued)

Chain Link	I/O	Description	Detection of State	Note
Chain 094				
094.002	O	Pressure Retraction 1st Image Transfer Clutch	Audible	
094.005	O	Pressure Retraction 2nd Image Transfer Clutch	Audible	
094.200	I	Retraction Position Sensor 1st Image	Visual ■ State: Hi/Low	Retract the Lever for Position Sensor 1.
094.201	I	Retraction Position Sensor 2nd Image	Visual ■ State: Hi/Low	Retract the Lever for Position Sensor 2.

Tray 2 Switch Logic Table

Tray 2 Paper Size Switch			Paper Size
SW1	SW2	SW3	
ON	OFF	OFF	A4
OFF	ON	OFF	Letter
ON	OFF	ON	Executive
ON	ON	OFF	B5
OFF	ON	ON	Postcards
ON	ON	ON	Non-standard size
OFF	OFF	OFF	Tray open

Tray 3/4 Switch Logic Table

Tray 3/4Paper Size Switch			Paper Size
SW1	SW2	SW3	
OFF	ON	ON	Legal
ON	ON	ON	Government Legal/Letter Plus
ON	ON	OFF	A4
ON	OFF	OFF	Letter
OFF	OFF	ON	B5
ON	OFF	ON	Executive
OFF	OFF	OFF	Tray open

dc575 - Scanner Test

The Scanner Test (dc575) routine provides a method to quickly exercise and test the scanner components.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc575 Scanner Test**.
4. A **dc575 Scanner Test** screen is displayed. Information includes:
   - Duration
   - Test
   - Result
5. Select a test from the list.
   - DRAM
   - Home Position
   - Lock Check
   - Optical
6. Touch the **Start** button to begin the test.
7. An **In Progress** screen is displayed.
8. After the test is complete, the **dc575 Scanner Test** screen is displayed.
9. Touch the **Close** button to exit the **dc575 Scanner Test** screen.

dc612 - Print Test Pattern

The Print Test Pattern (dc612) routine provides a diagnostic tool to assist in identifying image copy/print quality problems.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc612 Print Test Pattern**.
4. A **dc612 Print Test Pattern** screen is displayed.
5. Select a test pattern from the list.
   - Cyan 50% Fill
   - Magenta 50% Fill
   - Yellow 50% Fill
   - Black 50% Fill
   - Registration Print
   - Delta-E Print
   - Ghosting Print
6. Select the appropriate option for the test pattern page. Information includes:
   - Tray
   - Copies
7. Touch the **Start** button to begin the test.
8. A test pattern page is printed.
9. Touch the **Stop** button to stop the test.
10. Touch the **Close** button to exit the **dc612 Print Test Pattern** screen.

Note

The color mode and plex mode options can not be changed from the default selection.

dc640 - Video Path Integrity

The Video Path Integrity (dc640) test validates the Copy Controller Module (CCM) Video path.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Diagnostics** tab.
3. Select **dc640 Video Path Integrity**.
4. A **dc640 Video Path Integrity** screen is displayed.
5. Touch the **Start** button to begin the test.
6. A **Video Path Integrity in Progress** screen is displayed.
7. When the test is complete, touch the **Close** button to exit the **dc640 Video Path Integrity** screen.

Adjustments

Refer to Chapter 6 "Adjustments and Calibrations" for detailed procedures.

Maintenance

dc103 - Billing Plan

Tiered Billing allows the user to update the billing plan.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Maintenance** tab.
3. Select **dc103 Billing Plan**.
4. A **dc103 Billing Plan** screen is displayed.
5. In the **Billing Plan Passcode** menu, enter the passcode.

Note

If an invalid passcode is entered the system will display the Invalid Passcode Fault Window.

6. Touch the **Save** button.

dc120 - Fault Counters

The Fault Counters (dc120) routine provides the faults raised by the machine and the number of occurrences, sort the counters by occurrences, find a specific chain module and include fault counters with zero counts.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Maintenance** tab.
3. Select **dc120 Fault Counters**.
4. A **Retrieving fault counters...** progress screen is displayed.
5. Select the appropriate options to find the Fault.
   - Sort on Occurrences
   - Include Zero Occurrences
   - Chain
6. Touch the **Close** button to exit the **dc120 Fault Counters** screen.

dc122 - Fault History

This Fault History (dc122) routine displays the most recent (last 40) shutdown faults.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Maintenance** tab.
3. Select **dc122 Fault History**.
4. A **Fault History** screen is displayed. Information includes:
   - Chain Link
   - Description
   - Date & Time
5. Select the Fault to be reviewed. Select **Details**.
6. A **Details** screen is displayed. Information includes:
   - Chain Link
   - Description
   - Date & Time
   - Copy Count
   - Paper Size
7. Touch the **Close** button to exit the **Details** screen.
8. Touch the **Close** button to exit the **dc122 Fault History** screen.

dc135 - CRU/HFSI Status and Reset

The CRU/HFSI (dc135) routine provides read access to each CRU/HFSI and displays the remaining life information. The non-CRUM supply item life counters can be reset.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Maintenance** tab.
3. Select **dc135 CRU/HSFI Status and Reset**.
4. A **dc135 CRU/HFSI** screen is displayed. Information includes:
   - Type
   - Name
   - % Remaining
5. To reset a non-CRUM supply item, select the item. Touch the **Reset HFSI** button to reset the life counter.
   - Fuser
   - Transfer Belt
   - Transfer Roller
6. Touch the **Close** button to exit the **dc135 CRU/HFSI** screen.

dc137 - PagePack

The European "PagePack" program allows customers to purchase a device and then pay a fixed amount each month for supplies and service. The devices are sold as PagePack printers; there is no way of converting to/from PagePack in the field.

The North American "PagePack" program has several key differences from the original European program. The printer(s) are managed and monitored by the PagePack Assistant (PPA) software, which is also responsible for sending usage data back to Xerox. A printer can be converted to a PagePack printer in the field. This is not possible in Europe, where the PagePack printers are configured either at the manufacturer or installation's location. (PPA is a client application that runs on the customer's PC).

The "PagePack PIN" is a 4 digit code that is typically entered at the Local UI in order to enable a PagePack printer. The PIN is an absolute requirement in Europe, since it ensures timely registration of the PagePack contracts with Xerox. When a European PagePack machine is powered up for the first time, it can only be used for a limited number of prints until the PIN must be entered. After the "grace" period the machine will not operate until a valid authorization PIN is entered.

Entering a valid PIN allows the printer to be used, and enables the printer to work with metered supplies (e.g. toner cartridges with special "metered" CRUMs, specially shaped ink sticks, etc.).

The printer shall not allow more than 5 attempts at entering the PIN in any 24 hour period. If more than 5 attempts are made, PIN entry is locked out for 24 hours.

1. Enter the Service Diagnostics menu (page 4-7).
2. Touch the **Maintenance** tab.
3. Select **dc1137 PagePack**.
4. A **dc137 PagePack** screen is displayed.
5. Touch the **Enabled** button.
6. In the **PagePack Passcode** field, enter the PagePack 4 digit code.
7. Touch the **OK** button.
8. Touch the **Cancel**/**Close** button to exit the **dc137 PagePack** screen.

Call Closeout

Service Mode Exit

The Service Mode Exit/ Call Closeout feature provides a method to reset counters, exit service mode and reboot the printer.

Resetting Counters/ Exiting Service Diagnostics

1. Touch the **Call Closeout** tab.
2. Select **Reset Counters** as necessary.
3. Touch the **Exit Only** or **Exit and Reboot** button to reset the counters.
4. The main UI screen is displayed.

General Troubleshooting

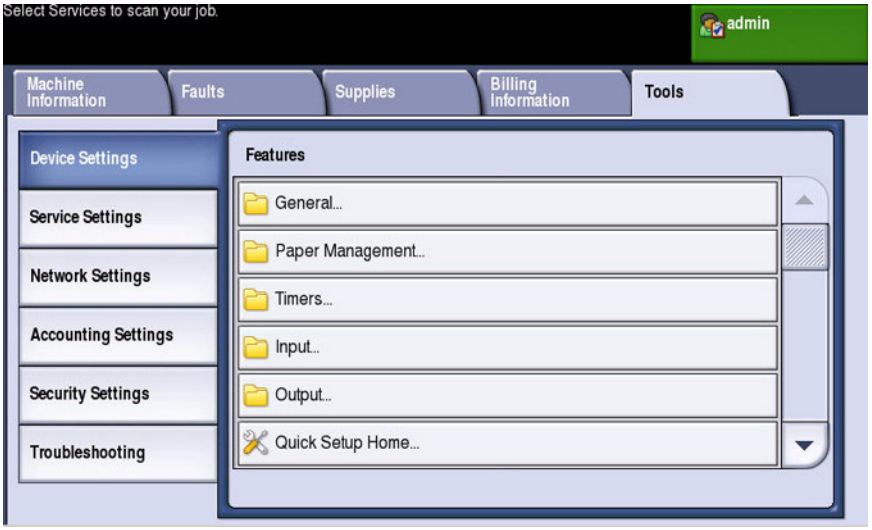
Entering Machine Status/ Tools Menu

The Tools menu provides access to printer settings and calibrations.

Note

In the event the System Administrator login no longer uses the default password and the Tools menu is not accessible, these tools can be accessed by using the Service Copy Mode (CSE Mode).

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the **Password** field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The login button, in the upper right of the screen, now says **admin** and highlighted.



Resetting UI to Factory Settings

The Reset UI to Factory Settings procedure restores the UI features settings in non-volatile memory to their factory default values. All current values set by the customer will be lost.

Caution

Use the Reset UI procedure as a last option when servicing the WorkCentre 6400.

1. Print a Configuration Page.
2. Press the **Machine Status** button to access the UI menu.
3. Touch the **Tools** button.
4. Touch the **Device Settings** button.
5. Under the **Features** screen, scroll down the menu and select **Reset UI to Factory Settings**.
6. Touch the **Reboot** button.
7. A message Please wait for the software to reset is displayed.

Caution

Do not turn Off the printer while Resetting UI process is in progress.

7. The printer reboots after the Resetting UI process is complete.

Software Reset

The Software Reset routine allows the user to reset the printer software for the Copy Controller, Network Controller, or both.

1. Press the **Machine Status** button to access the UI menu.
2. Touch the **Tools** button.
3. Touch the **Troubleshooting** button.

Note

The user needs to be logged in as admin (if security option is enabled) to see the resets option.

4. Under the **Features** screen, select **Resets**.
5. Select **Software Reset**.
6. The Software Reset menu is displayed. Select the appropriate reset option.
   - **All Software** - Resets both Network and Controller software
   - **Network Software** - Resets only Network software
   - **Controller Software** - Resets only Controller software
7. Touch the **Reset** button.
8. A **Software Reset Confirmation** screen is displayed.
9. Touch the **Reset** button to begin the process.
10. A **System Restart** screen is displayed.

Caution

Do not turn Off the printer while Software Reset process is in progress.

11. The system automatically reboots after Software Reset process is complete.

Service Copy Mode

Service Copy Mode routine allows the CSE to access the customer copy screens for the purpose of running test copy jobs. The CSE can use this test to assist with identifying a wide range of problems from paper feed, copy transportation, finishing, document handling and poor copy quality.

Service Copy Mode provides a local login method for the CSE that bypasses the controlled access applications and therefore allow the CSE to run copy jobs for test purposes.

Service Copy Mode also allows the CSE to access settings and calibrations found in the Machine Status/Tools Menu in the event the menu is locked by the customer. Information Pages can not be printed because only copy jobs can be ran when in Service Copy Mode.

While in Service Copy Mode the total impressions counters are incremented to keep an accurate count of the total impressions created by the engine. However, the color copied impressions and black copied impressions are not incremented so the customer will not be charged for these under a billing plan.

1. Press the "*****" + "**#**" + "**Stop**" buttons simultaneously to access the **Service Copy Mode** menu.
2. In the field on the UI screen, enter **2732**.
3. Touch the **Enter** button.
4. The login button, in the upper right of the screen, now says **CSE** and is highlighted.
5. Be sure to log out when troubleshooting is complete.

Cloning

Cloning allows the customer or CSE to clone the configuration data of the printer. The Clone feature will create a .dlm file that can be used to configure other machines or copy the customers configuration data back to the printer after a service procedure (replacement of a hard drive). All machines must have the same version of software for the .dlm file to be accepted. All default information should be selected when performing Cloning.

- Accounting
- Administration
- Audit Log
- Authentication & Authorization Configuration
- Connectivity Settings
- E-Mail
- Fax
- Internet Fax
- Internationalization
- Job Management
- Security
- SMart eSolutions
- System Disk
- Power Saver
- Print Settings
- Workflow Scanning
- Templates
- Device Upgrade
- Web Services

To access the Cloning function:

1. In a web browser, enter the printer IP address.
2. In the upper right corner, click **login**.
3. In the **User ID** field, enter **admin** (default User ID).
4. n the **password** field, enter **1111** (default password).
5. Click the **Login** button.
6. From the top menu, click **Properties**.
7. Under the **Configuration Overview** > **Cloning** page, click **View**,
8. Verify all boxes on the **Cloning** page are checked.
9. Click the **Clone** button.
10. A progress bar is displayed on the bottom of the page.
11. A Cloning Instructions page is displayed when Cloning process is complete.

12. Right-click the **Cloning.dlm** link to save the file to appropriate location.

Note

A crossover cable and laptop computer are required to perform cloning.

Control Panel Troubleshooting

Control Panel LED's Do Not Light

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the Image Processor Board with the 2 standoff screws.
- Power cycle the printer.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Control Panel, PL2.12 ■ UI Main PWB, PL2.14 ■ UI Slave PWB, PL2.15 ■ LVPS, PL10.17 ■ Image Processor Board, PL20.07	■ "Print Engine - Image Processor Board, LVPS, Power Switch" on page 10-41

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the features button flash 6 times in a row?	Go to step 4.	Go to step 2.
2	Check the "All Power OK" indicator LED (refer to the POST LED's illustration on page 4-5) on the Image Processor Board. Is the LED on?	Go to step 4.	Go to step 3.
3	Check the LVPS to Image Processor Board voltages. Is 3.3v (J101 Pins 1~4) present?	Replace the Image Processor Board (page 8-98).	Replace the LVPS (page 8-82).
4	Does the CN_Scanner connector have 3.3v on the appropriate yellow wire (see the "Voltage Chart" on page 4-54)?	Go to step 5.	Replace the LVPS (page 8-82).
5	Is the Interface Cable connected to JX301on the Main Board?	Go to step 6.	Reseat the connector.
6	In the UI Diagnostics LED Test, do all of the UI main board indicators light?	Go to step 7.	Replace the UI Main Board (page 8-75).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
7	In the UI Diagnostics LED Test, do all of the UI slave board indicators light?	Troubleshooting complete.	Go to step 8.
8	Is the Flat Cable, Board connected to JX502 of the UI Main Board and JX301 of the UI Slave Board?	Go to step 9.	Reseat the connector.
9	Replace the UI Slave Board (page 8-75). Does the error still occur?	Replace the Control Panel (page 8-46).	Troubleshooting complete.

Voltage Chart

GND (Green)	**3.3v** (Yellow)	**GND** (Green)	**5.0v** (Red)
GND (Green)	**11.0v** (Pink)	**GND** (Green)	**24.0v** (Yellow)

Control Panel LED's are On, Control Panel Display is Blank

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the Image Processor Board with the 2 standoff screws.
- Power cycle the printer.
- If the problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Component Control Code
■ Control Panel, PL2.12 ■ UI Main PWB, PL2.14 ■ Color LCD Module, PL2.16 ■ Flat Cable, Video, PL2.17 ■ Image Processor Board, PL20.07	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Power cycle the printer. Does the problem still occur?	Go to step 2.	Troubleshooting complete.
2	Does the features button flash 6 times in a row?	Go to step 3.	Replace the color LCD Module (page 8-75).
3	Is the Interface Cable connected to JX301on the Main Board?	Go to step 4.	Reseat the connector.
4	Is the Flat Cable, Video connected to JX701 on the main board and CN1 on the LCD module?	Go to step 5.	Reseat the connector.
5	Replace the Flat Cable, Video (page 8-75). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Replace the Main PWB (page 8-75). Does the error still occur?	Go to step 7.	Troubleshooting complete.
7	Replace the LCD Module (page 8-75). Does the error still occur?	Go to step 8.	Troubleshooting complete.
8	Replace the Control Panel (page 8-46). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Inoperable Printer Troubleshooting

Printer Continually Displays “The Fuser is Warming Up”

Initial Actions

- Verify the correct Fuser (110 V vs. 220 V) is installed in the printer.
- Cycle printer power.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ LVPS, PL10.17 ■ Fuser Unit, PL18.01	■ “Print Engine - Image Processor Board, LVPS, Power Switch” on page 10-41 ■ “Print Engine - Fuser, Paper Full Sensor, Exit Sensor, Switches” on page 10-43

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the AC input voltage. Is the correct AC voltage present on CN1_INP on the LVPS?	Go to step 2.	Check the wiring harness connectors from the power outlet to PG1 to SW1 to CN1_INP. Go to step 2.
2	Are there voltage being applied to CN-FSR on the LVPS?	Replace the Fuser Unit (page 8-24).	Replace the LVPS (page 8-82).

System Does Not Respond

If the system is not responding (hangs, continually resets or fails the boot up sequence) it may be necessary to cycle the power. During the power up sequence wait until it completes the initialization process or a reset the machine message appears. If a reset the machine message appears attempt to cycle the power again. This message may occur more than once before the system is able to come to a ready state. If the printer does not reach a ready state and no reset the machine message appears check the job status and machine status button LED's and reference the POST LED's section on page 4-5. After making several unsuccessful attempts to reboot the system it may be necessary to reload the software using the AltBoot process (refer to page A-4).

Power Cycle the Printer

One of the printer's internal components has encountered a problem which requires turning the printer off then on in order to clear.

Initial Actions

- None

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are any of the error codes in the customer accessible fault history recent?	Confirm the error has been resolved.	Go to step 2.
2	Turn printer power off, wait one minute, turn printer power on. Does the problem still occur?	Proceed to “Internal Communication Error” on page 3-119.	Troubleshooting complete.

AC Power Supply Troubleshooting

Initial Actions

- Ensure the printer is plugged directly in to an AC wall outlet.
- Cycle printer power.
- If problem persists, follow the procedure below.

Applicable Parts	Wiring and Plug/Jack References
■ Switch (SW1), PL10.15 ■ LVPS, PL10.17	■ “Print Engine - Image Processor Board, LVPS, Power Switch” on page 10-41

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the voltage at the AC wall outlet. Is there approximately 110 VAC (or 220 VAC if the printer is a 220 V configuration) at the AC wall outlet?	Go to step 2.	Notify the customer of improper AC output from the outlet.
2	Check the power cord for defects or loose connection. Is the power cord loose or defective?	Replace or reconnect the power cord.	Go to step 3.
3	Is the appropriate voltage (110 VAC or 220 VAC) present at the LVPS CN1_INP pin 2?	Replace the LVPS (page 8-82).	Replace Switch 1.

DC Power Supply Troubleshooting

LVPS

Initial Actions

- Ensure the printer is plugged directly in to an AC wall outlet.
- Cycle printer power.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ LVPS, PL10.17 ■ MCU Board, PL20.09	■ “Print Engine - Image Processor Board, LVPS, Power Switch” on page 10-41

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the AC power. Is 120v (220v if a 220v configuration) being supplied to CN1_INP on the LVPS?	Go to step 2.	Check the wiring harness connectors from the power outlet to PG1 to SW1 to CN1_INP.
2	Check the LVPS Fuses. Do the fuses on the LVPS have continuity?	Go to step 3.	Replace the LVPS Board (page 8-82).
3	Are DC 24 V, DC 5 V, and DC 3.3 V being applied to PJ1 on the MCU Board?	Replace the MCU Board (page 8-101).	Replace the LVPS Board (page 8-82).

Image Processor Board Troubleshooting

Initial Actions

- Check fault history for pertinent chain-link codes. Troubleshoot the specific code if applicable.
- Power cycle the printer.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Image Processor Board, PL20.07	

Note

The ribbon cable connections have a lock. Be sure to unlock the connectors before removing the ribbon cables to prevent damage.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does POST diagnostics indicate a problem with the Image Processor Board or one of its components (refer to POST Fault Code Tables on page 4-5)?	Replace the applicable parts.	Go to step 2.
2	Remove and reseat the Image Processor Board connectors. Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Check the "All Power OK" indicator LED (refer to the I/P Board LED's illustration on page 4-6) on the Image Processor Board. Is the LED on?	Go to step 4.	Go to "DC Power Supply Troubleshooting" on page 4-59.
4	Check the LVPS to Image Processor Board voltages. Is 3.3v (J101 Pins 1~4), 5v (J102 Pins 1 & 3) and 24v (J102 Pin 5) present?	Replace the Image Processor Board (page 8-98).	Go to "DC Power Supply Troubleshooting" on page 4-59.

DADF Troubleshooting

Frequent Paper Jam

Initial Actions

- Check the paper path for debris or obstructions.
- Check the original documents for wrinkles or tears and use the document glass if necessary.
- Ensure the original documents are not above the paper fill line (maximum 50 pages).
- Make sure the original documents are free of staples and paper clips, remove as necessary.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ DADF Roller Kit Assembly, PL1.03 ■ DADF Assy, PL1.06	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the paper correctly loaded in the tray?	Go to step 2.	Reposition the paper in the tray.
2	Check the placement of the paper guides. Are the guides in the correct position?	Go to step 3.	Reposition the guides.
3	Check the following for evidence of fault or damage: ■ Separator Pad Assembly, PL1.01 ■ Separator Roller Assembly, PL1.02 ■ Holder Assembly, PL1.07 ■ Holder Assembly, PL1.08	Replace the DADF Roller Kit Assembly, PL1.03.	Replace the DADF Assembly (page 8-38).

Frequent Double Feed and Skew

Initial Actions

- Check the paper path for debris or obstructions.
- Check the original documents for wrinkles or tears and use the document glass if necessary.
- Ensure the original documents are not above the paper fill line (maximum 50 pages).
- Make sure the original documents are free of staples and paper clips, remove as necessary.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ DADF Roller Kit Assembly, PL1.03 ■ DADF Assy, PL1.06	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the paper correctly set in the paper chute?	Go to step 2.	Reposition the paper in the tray.
2	Check the placement of the paper guides. Are the guides in the correct position?	Go to step 3.	Reposition the guides.
3	Check the following for evidence of fault or damage: ■ Separator Pad Assembly, PL1.01 ■ Separator Roller Assembly, PL1.02 ■ Holder Assembly, PL1.07 ■ Holder Assembly, PL1.08	Replace the DADF Roller Kit Assembly, PL1.03	Go to step 4.
4	Run the ADF Calibration procedure. Is the image still skewed?	Replace the DADF Assembly (page 8-38).	Troubleshooting complete.

Scanner Troubleshooting

Scanner Fault Troubleshooting

The scanner has reported a failure or is not performing as expected.

Initial Actions

- Confirm the Scanner interface cable connector is correctly seated and secured to the IP Board with the 2 standoff screws.
- Power cycle the printer.
- If problem persists, follow the procedure below.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Scanner Assy, PL2.01 ■ LVPS, PL10.17 ■ Image Processor Board, PL20.07 ■ MCU Board, PL20.09	■ “Print Engine - Image Processor Board, LVPS, Power Switch” on page 10-41

Note

To access the CN_SCANNER connector, secure the DADF to the scanner Flat Bed, remove the two hinge plates from the scanner hinges, and raise the Control Panel (Scanner Assembly) to 90°. The CN_SCANNER connector is located on the bottom right corner of the scanner Flat Bed.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the "All Power OK" indicator LED (refer to the I/P Board LED’s illustration on page 4-6) on the IP Board. Is the LED on?	Go to step 4.	Go to step 2.
2	Does the CN_SCANNER connector have all the appropriate voltages (see the “Voltage Chart” on page 4-64)?	Go to step 4.	Go to step 3.
3	Does PJ38MCU have 11v on pins 1 & 3?	Replace the LVPS (page 8-82).	Replace the MCU Board (page 8-101).
4	Perform the Scanner Test Function checks (dc575 - page 4-39) in Diagnostics. Does the error still occur?	Go to step 5.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Replace the Scanner Assembly (page 8-42). Does the error still occur?	Replace the Image Processor Board (page 8-98).	Troubleshooting complete.

Voltage Chart

GND (Green)	**3.3v** (Yellow)	**GND** (Green)	**5.0v** (Red)
GND (Green)	**11.0v** (Pink)	**GND** (Green)	**24.0v** (Yellow)

Fax Troubleshooting

The Control Panel displays one of these errors related to Fax operation:

- "Fax Memory is Low" indicates insufficient room, for Fax images stored on the Copy Controller Hard Drive. The CC Hard Drive has a separate partition dedicated to storing images waiting to be printed, stored for polling or Fax Mailboxes.

  Fax and LAN Fax services are disabled. User intervention is required to delete unnecessary mailbox images or fax jobs stored for polling.

- "No Dial Tone Detected" indicates that the system did not detect a dial tone when attempting to send a Fax. Fax and LAN Fax services are disabled. Fax subsystem parameters are adjustable and jobs received before the dial tone was lost are accessible.

- "Line 1 Unavailable: indicates a communication error has occurred. Fax and LAN Fax are disabled.

In addition to the Control Panel messages, the system provides several built-in tools for troubleshooting Fax problems.

Initial Fax Checks

Check these items first. Use a desk telephone and a second, known-good phone line to test Fax line function.

- Check that Fax is enabled and configured properly for the local phone line.
- Check the target Fax number. If the number is in memory, is it saved correctly?
- Call the target Fax number from a desk phone and confirm a Fax tone response.
- Use a desk phone to confirm a dial tone on the FAX line supporting the system.
- Check Fax cord condition and connections between the system and Fax line.
- Enable Transmission Reports if reports aren't being printed.

If the Fax line, Fax number, and cabling are all functional, use the following tools to isolate the problem.

Fax Troubleshooting Tools

The primary tools for troubleshooting Fax problems are Service Diagnostic tests, The Fax Transmission Report, and the Fax Protocol Report. Diagnostic test results, result codes provided on the Transmission Report, and communication logs from the Protocol Report provide valuable clues to the root cause of Fax errors. A Fax subsystem reset is also available on the Control Panel menu to quickly restore factory default settings.

Fax Reset (dc301 NVM Initialization)

All fax user and system NVM data can be restored to factory default values using the service diagnostic dc301 routine.

Caution

All customer programmed data, such as the Individual and Group Speed Dial directories, are lost when a Reset Fax command is issued.

Fax Protocol Report

The Protocol Report provides transmission results, timing, and communications activity information about each Fax transmission. Accessed from the **Machine Status** -> **Tools** -> **Service Settings** -> **Print Fax Reports** menu, the Protocol Report provides Job Details similar to the Transmission Report, and a detailed log of the communications activity between devices. Use this report to diagnose possible communications errors between machines.

The most common commands exchanged between Fax machines during a typical transfer of data are listed in the following table. When reviewing the Protocol Report, trace the exchange of commands to identify irregularities. Commands in parentheses (_) may or may not appear in the log.

Refer to the Appendix for a complete list of communication commands and associated definitions.

Common Fax Communication Commands

Command	Definition	Appropriate Responses
(NSF) (CSI) DIS	Negotiating capabilities from a manual receiver or an auto answer terminal	(NSC) (CIG) DTC (TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS) (PWD) (SEP) (CIG) DTC (PWD) (SUB) (TSI) DCS
(NSC) (CIG) DTC (PWD) (SEP) (CIG) DTC	Mode setting from calling terminal This is a poll operation	(TSI) DCS (NSF) (CSI) DIS (CRP) (TSI) (NSS)
(TSI) DCS (TSI) (NSS) (PWD) (SUB) (TSI) DCS	Mode setting from manual transmitter or automatic receiver.	CFR FTT (NSC) (CIG) DTC (NSF) (CSI) DIS (CRP)

Common Fax Communication Commands (continued)

Command	Definition	Appropriate Responses
CTC	Mode setting from the transmitter to the receiver.	(CTR) (CRP)
(EOR-NULL)	Indicates the next block transmission from the transmitter to the receiver.	(ERR) (RNR) (CRP)
(EOR-MPS) or (EOR-EOP) or (EOR-EOM) or (EOR-PRI-MPS) or (EOR-PRI-EOP) or (EOR-PRI-EOM)	Indicate the next message transmission from the transmitter to the receiver	(ERR) (RNR) PIN (CRP)
MPS or EOP or EOM or (PRI-MPS) or (PRI-EOP) or (PRI-EOM)	Post-message commands	MCF RTP RTN PIP PIN (CRP)
(PPS-NULL)	Post-message command for a partial page: from the transmitter to the receiver	(PPR) MCF (RNR) (CRP)
(PPS-MPS) or (PPS-EOP) or(PPS-EOM) or (PPS-PRI-MPS) or (PPS-PRI-EOP) or (PPS-PRI-EOM)	Post-message commands for a complete page: from the transmitter to the receiver	(PPR) MCF (RNR) PIP PIN (CRP)
(RR)	Ask for the status of the receiver: from the transmitter to the receiver	(RNR) (ERR) MCF PIP PIN (CRP)
DCN	Phase E command	None

Fax Confirmation Report

The Transmission Report provides transmission status and activity information about each Fax transmission. Generation of this report is optional and is in an Error Only state by default. Use the menus: **Machine Status** -> **Tools** -> **Service Settings** -> **Embedded Fax Settings** -> **Setup Fax Reports** -> **Confirmation Report** to change the Error Only default. Also by default, for the WorkCentre 6400, the Transmission Report includes a reduced image of the document scanned for faxing. Result codes appear in the Results box. The results format is <code><speed>. Where code is one of the codes listed in Table 2. Speed is the transmission baud rate (i.e. 14400). Typically, the results are CP<speed> for a completed Fax. Fax failures (FA) may omit the speed if the system was unable to start the connection. The job termination results (FA, TU, TS) count as errors for the purpose of printing a Transmission Report.

Fax Result Codes

Code	Definition	Description
FA	Fax Failed	The system was unable to connect to the Remote Station.
TU	Terminated by user	The transmission was canceled by the user.
TS	Terminated by system	The system ran out of resources. Typically, memory.
CP	Completed	The system was able to deliver the Fax.

In addition to the Results codes, the Job Details section includes Mode and Job Type codes.

Definitions of all these codes appears on each report.

Fax Troubleshooting Procedures

The following provides procedures and suggestions for correcting some common problems.

1. Disable Junk Fax Prevention. This may prevent a Fax being received because the machine does not recognize the sending phone number as an acceptable source. Junk Fax Prevention compares the incoming caller Fax Machine ID with ones listed in the Dial Directory. When not finding a match, the Fax refuses the transmission.
2. Check the phone line. Especially if problems occur during receive and transmit. Does the provider support Fax protocol? Is there noise on the phone line? Is the phone line connected correctly? Is call forwarding on? Is 'Secure Send or Receive' on? All these effect Fax transmission.

   In the case of DSL, most DSL configurations share the same phone line with analog signals used by standard phones and dial-up (analog) modems. Typically a filter is installed between the DSL equipment and the analog equipment attached to that line. DSL Performance varies based on the quality and configuration of the specific site and equipment.
3. Reduce transmission speed. The WorkCentre 6400 uses 33.6 kbps by default. Some phone lines and older Fax machines do not support these speeds.

Troubleshooting Sending or Receiving a Fax

Embedded fax is unable to consistently transmit or receive.

Initial Actions

- Print a Configuration Report and confirm the model configuration supports Embedded Fax (WC6400X, XF). Also confirm Fax is listed as Installed/ Enabled in the Services section of the report.
- Check the phone line condition and connections.
- Check that Fax is configured properly for the local phone line.
- Call the target Fax number from a desk phone and confirm a Fax tone response.
- Power cycle the Printer and confirm the Printer powers up to the "ready" state.
- If problem persists, follow the procedure below.

Note

WC6400S configuration does not support Fax.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Fax Board, PL20.42	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Confirm the Fax service is setup. Is the Fax feature box on the UI Features screen grayed out?	Perform the Fax setup in the Embedded Fax menu.	Go to step 2.
2	Check the Fax line using a phone. Does the phone ring?	Go to step 3.	Inform the customer the phone line requires.
3	Check the *Line 1 Setup* settings in the Embedded Fax Menu. Are the settings correct?	Go to step 4.	Modify the settings.
4	Check the dialing activity using the system speaker. Enable Audio Line Monitor in the **Tools** -> **Embedded Fax** -> **Transmission** menu. Does the system Fax Dial?	Go to step 5.	Replace the FAX Board (page 8-115).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Is the problem you are troubleshooting related to **receiving** a Fax? **Note**: Auto Delay, Junk Fax prevention, or Secure Receive settings might impede inbound calls.	Go to step 6.	Go to step 11.
6	Check the following settings: ■ Auto Answer Delay ■ Junk Fax Prevention ■ Paper Settings ■ Ring Volume ■ Secure Receive ■ Default Output Options Are the settings correct?	Go to step 7.	Modify the settings.
7	Is the correct phone number being used to fax to the printer?	Go to step 8.	Enter the correct number.
8	Print an Activity Report. Do incoming calls appear on the report?	Go to step 9.	Change configuration settings that could impede inbound calls.
9	Does the remote Fax answer then fail to complete the transmission? **Note**: The system is set to super G3 (33.6kbps) by default. Some phone lines and older Fax machines do not support this speed.	Reduce the transmission speed until the connection is consistent.	Go to step 10.
10	Send a test Fax from a local machine. Does the System answer?	Check the line quality.	Replace the FAX Board (page 8-115).
11	Check the following settings: ■ Automatic Redial Settings ■ Automatic Resend ■ Audio Line Monitor ■ Send Transmission Header Text ■ Batch Send Are the settings correct?	Go to step 12.	Modify the settings.
12	Check the target Fax number. If the number is in memory, is it saved correctly?	Go to step 13.	Enter the correct number.
13	Does the remote Fax answer then fail to complete the transmission? **Note**: The system is set to super G3 (33.6kbps) by default. Some phone lines and older Fax machines do not support this speed.	Reduce the transmission speed until the connection is established	Go to step 14.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
14	Send a test Fax to a local machine. Does the System answer?	Go to step 15.	Replace the FAX Board (page 8-115).
15	Insert a dialing pause following the external access number that precedes the Fax number on many office phone systems. Does the remote machine ring?	Troubleshooting complete.	Select a different access point and retest the connection.

Operating System and Application Problems

Verify Settings

1. Verify the settings on the Configuration Report.
   - **TCP/IPv4** is set to: **Enabled**.
   - **Automatic Addressing** is set to: **DHCP**, **RARP**, **BOOTP**, **STATIC,** or **DISABLED** (depending on your network configuration).
   - If **Automatic Addressing** is set to **DISABLED**, verify that **IP Address** is set correctly. (Note this address.)
   - **Subnet Mask** is set correctly.
   - **Router Gateway** is set correctly.
   - **LPR/ LPD** and **Raw IP Printing** is **Enabled**. Verify that the LPR settings are set as desired and Raw IP Printing Port Number 1 is set to 9100 (a.k.a. AppSocket).
2. Verify that the client is logged on to the network and printing to the correct print queue. The user should also have access to the printer queue.

Windows 2000, Windows XP, Windows Server Troubleshooting

This troubleshooting section assumes you have completed the following tasks.

- Loaded a printer PCL or PostScript printer driver.
- Printed and kept a current copy of the Configuration page.

1. To select **Classic Look**, click **Start**, select **Control Panel**, and select **Taskbar** and **Start** Menu.
2. Select the **Start Menu** tab and then **Classic Start Menu**.
3. Click **OK**.

Verify Driver Installation

The following procedures eliminates cabling, communication, and connection problems. Once you complete these steps, print a test page from your software application.

1. From the desktop, right-click **My Network Places**, and select **Properties**.
2. Right-click **Local Area Connection** and select **Properties**.
3. Click the **General** tab. View the list of installed network protocols to verify that TCP/IP is installed. (For more information, contact your network administrator.)
4. Click **Install** to install any components not listed, and then restart your computer.
5. From the **Start** menu, select **Start** > **Settings** > **Printers and Faxes**.
6. Right-click the printer icon, and select **Properties**.
7. Click the **Advanced** tab. Verify that the correct printer driver is installed.
8. Click the **Ports** tab. Verify that the IP Address in the **Print to the Following Ports** list is identical to the one on the Configuration page. You may need to click the **Configure Port** button to see the IP address. If necessary, re-select the TCP/IP number used for the printer.

Macintosh Troubleshooting (Mac OS 10.3 and Higher)

Macintosh Troubleshooting OS 10.3 Step-by-Step

Perform these steps **only** for Mac OS 10.3 and higher.

1. Open the **Network Utility** and click the **Ping** tab.
2. Enter the printer's IP address.
3. Click **Ping**. If you do not get a response, verify that your TCP/IP settings are correct for your printer and computer.

Note

See also: www.xerox.com/office/WC6400support

UNIX/ Linux

This section includes:

- Quick Install Steps
- Additional Resources

Your printer supports connection to a variety of UNIX platforms. The workstations currently supported by CentreWare for UNIX/Linux to a network-connected printer are:

- Sun Solaris
- IBM AIX
- Hewlett-Packard HP-UX
- Linux (i386) tested on SUSE 10.0, RedHat 9, Fedora Core1

The following procedures enable you to connect your printer using any of the supported versions of UNIX or Linux listed above.

Quick Install Steps

Perform the following procedures to set up the printer and install the appropriate drivers.

From Your Computer

To install the CentreWare for Unix driver:

1. Go to www.xerox.com and click on the Support & Drivers link.
2. Enter **6400** in the Enter product name or number field and click **search**.
3. Click the **Drivers & Downloads** link for the WorkCentre 6400.
4. Select your **Operating System** and **Language** and click **go**.
5. Select the appropriate driver in the list, read the **End-User License Agreement** and click **Accept**.
6. Click **Save** to download the driver package.
7. At root, untar the package.
8. Change directories to the expanded package folder, then follow the instructions in the readme file to install the driver.
9. Print a test page to verify the installation.

Note

If print-quality problem exists, or your job did not print, refer to the User Guide at www.xerox.com/office/WC6400support.

Additional Resources

For users that want to use the CUPS driver instead of CentreWare for Unix, access the Xerox web site for the latest CUPS ppd package at www.xerox.com/office/

Note

The print daemon may need restarting for the print manager to see the new PPD added to the CUPS ppd directory.

Print-Quality Troubleshooting

In this chapter...

Chapter 5

Print-Quality Problems Overview

Print-quality defects can be attributed to printer components, consumables, paper, 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 prints using information pages embedded in the printer on laser paper from the Recommended Media List (RML). Refer to “Paper and Tray Specifications” on page 1-36 for supported and specialty paper that have been tested and approved for use in the WorkCentre 6400. Use paper from a fresh ream that is acclimated to room temperature and humidity.

If the print-quality defect is still present when printing on approved paper from a fresh ream, then investigate software applications and environmental conditions.

Print the Configuration page to determine the temperature and humidity under which the printer is operating. Compare this to the “Environment Specifications” on page 1-24. Extreme temperature and humidity can adversely affect the xerographic and fusing characteristics of the printer.

Print the system status embedded pages to obtain system status information, printable fault history (last 40 faults) and a suite of test pages to aid in print-quality troubleshooting.

When analyzing a print-quality defect, first determine if the defect occurs in all colors or only one color and if it is repeating or random occurrence. Continuous defects in the process direction, such as Voids and Lines, are the most difficult to diagnose. Inspect the visible surfaces of all rollers for obvious defect.

Defects Associated with Printer, DADF, and Scanner Components

Some print-quality problems can be associated with specific assemblies; the most common problems and the associated assemblies are listed in this section. Refer to the specific print-quality troubleshooting procedure for detail information.

If no defects are found, print the repeating defects embedded page to help identify the consumable or Routine Maintenance Item (RMI) responsible for the defect.

Toner Cartridge(s)

- Vertical Bands, Voids, or Streaks in All Colors
- Uneven Pitch
- Defects in One Color (C, M, Y, or K)

Imaging Unit(s)

- Vertical Bands, Voids, or Streaks in All Colors
- Horizontal Bands, Voids, or Streaks
- Uneven Density in the Feed Direction
- Uneven Density in the Scan Direction
- Light Prints
- Gradation Reproduction Failure
- Background Contamination
- Void Areas or White Spots
- Random Spots
- Blurred Image
- Blank Print
- Black Print
- Color Registration

Fuser Unit

- Vertical Bands, Voids, or Streaks in All Colors
- Horizontal Bands, Voids, or Streaks
- Random Spots
- Incomplete Fusing or Cold Offset
- Residual Image, Ghosting, or Hot Offset
- Smudges or Smears
- Smears or Streaks on Back Side of Page
- Uneven Pitch
- Damaged Paper

Transfer Roller

- Vertical Bands, Voids, or Streaks in All Colors
- Horizontal Bands, Voids, or Streaks
- Uneven Density in the Feed Direction
- Uneven Density in the Scan Direction
- Void Areas or White Spots
- Random Spots
- Smears or Streaks on Back Side of Page
- Uneven Pitch

Transfer Belt

- Vertical Bands, Voids, or Streaks in All Colors
- Horizontal Bands, Voids, or Streaks
- Uneven Density in the Feed Direction
- Uneven Density in the Scan Direction
- Light Prints
- Poor Color Reproduction
- Void Areas or White Spots
- Random Spots
- Color Registration
- Smears or Streaks on Back Side of Page
- Uneven Pitch
- Skew
- Damaged Paper

Laser Unit

- Vertical Bands, Voids, or Streaks in All Colors
- Uneven Density in the Feed Direction
- Light Prints
- Gradation Reproduction Failure
- Background Contamination
- Blurred Image
- Blank Print
- Black Print
- Color Registration
- Defects in One Color (C, M, Y, or K)

DADF/Scanner

- Skew
- Damaged Paper
- Wavy Lines
- Spots Present in Copies

Checklist Before Troubleshooting Print-Quality

Checking the Printer Condition

Toner

Low toner can cause print-quality problems, such as Fading, Streaking, White Lines, or Dropouts. Print a small document from different software applications to replicate the problem and check the amount of toner available. Check the toner level using the **Machine Status** -> **Supplies** tab. Print a Supplies Report page.

If the toner is low, replace the affected Toner Cartridge.

Cleaning

Paper, toner, and dust particles can accumulate inside the printer and cause print-quality problems such as Smearing or Toner Specks. Clean the inside of the printer to prevent these problems.

Calibration

Perform the Image Quality Calibration routine (page 6-21) or dc936 (page 6-13) and confirm the defect is still present.

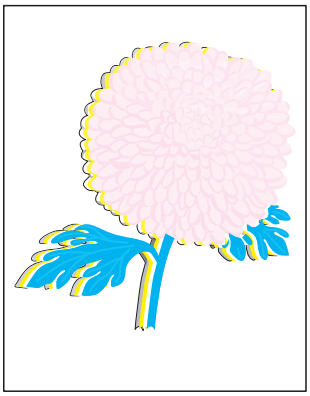
CRU Installation

Fully remove all four Toner Cartridges and Imaging Units from the printer. Re-install the Toner Cartridges and Imaging Units one at a time starting with the Imaging Units, and ensure all are correctly locked in place.

Checklist

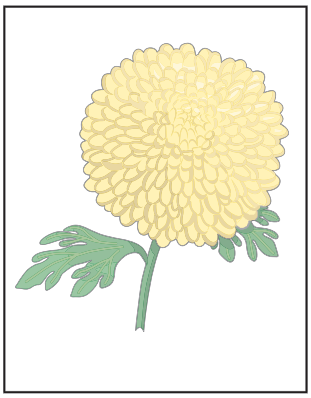
Check the following items prior to performing troubleshooting. These procedures may help to resolve the problems without troubleshooting the printer.

1. **Color is out of alignment.**
   a. Clean the Laser Unit lenses using the Laser Lense Cleaning Tool.
   b. Perform “dc936 - Image Quality Calibration” on page 6-13.
   c. Check the Transfer Belt for damage.



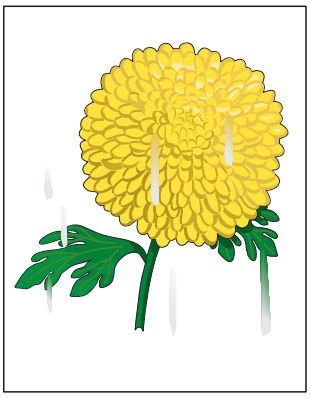
Color Registration

2. **Print is too light.**
   a. The toner level may be too low. Check the amount of toner in each Toner Cartridge and change the Cartridge(s) if necessary.
   b. Confirm the Paper Type settings are correct for the paper being used.
   c. Verify that the paper being used is supported by this product.



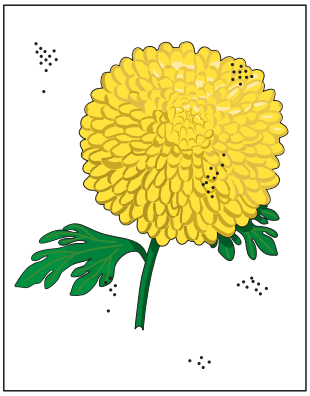
Light or Undertone Print

3. **Toner smears or print comes off page.**
   a. If you are printing on a thick or an rough paper, change the Paper Type settings using the **Machine Status** -> **Tools** -> **Device Settings** -> **Paper Management** -> **Tray Contents**.
   b. Verify that the paper is within the printer specifications (refer to “Paper and Tray Specifications” on page 1-36.
   c. Make sure the Gray dials on the Fuser are set to the correct setting (Paper or Envelope).



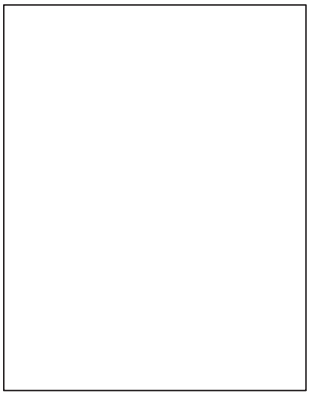
Smudges or Smears

4. **Toner spots appear on the page and printing is blurred.**
   a. Check the Toner Cartridge(s) to make sure that they are installed correctly.
   b. Change the Toner Cartridge(s).



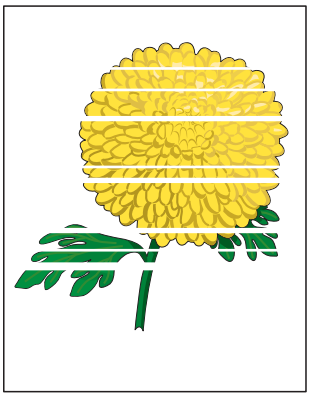
Random Spots

5. **Entire page is white or one color is missing from color image.**
   a. Ensure the shipping restraints have been completely removed from each Toner Cartridge.
   b. Check the Toner Cartridge(s) to make sure that they are installed correctly.
   c. The toner level may be low. Change the affected Toner Cartridge.



Blank Print

6. **Streaks appear on the page.**
   a. The toner may be low. Change the affected Toner Cartridge(s).
   b. If you are using preprinted forms, make sure the toner can withstand the operating temperature of 0° C to 35° C.



Horizontal Band, Void, or Streaks

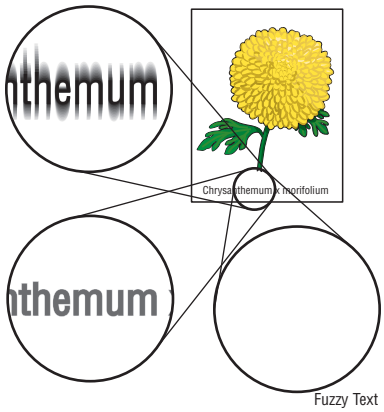
7. Characters have jagged or uneven edges.

a. If you are using downloaded fonts, verify that the fonts are supported by the printer, the host computer, and the software application.

b. From the **Start** menu, go to **Settings** -> **Printers and Faxes**.

c. Select **Xerox WorkCentre 6400X/F**. Right-click on the printer icon and select **Printing Preferences**.

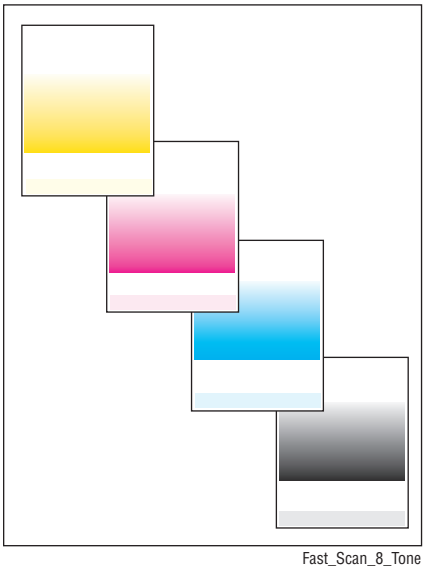
d. Verify that you're at the **Paper/Output** screen. Under **Print Quality**, select **Standard**. Click **OK**.



Fuzzy Text

8. Part or all the page prints in cyan, magenta, yellow, or black.

Check the Toner Cartridges to make sure they are installed correctly.



Fast_Scan_8_Tone

9. **The job prints, but the top and side margins are incorrect.**
   a. Ensure the Paper Size settings in the Tray Settings Menu are correct.
   b. Ensure the margins are set correctly in the software application.
   c. Perform internal test prints (i.e., printer's Demo Page, service diagnostics Test Prints, etc.,) and evaluate the prints.
   d. Perform the Image Position Calibration (page 6-20) to adjust the margins.

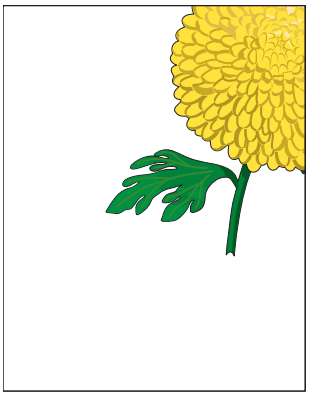


Image Not Centered

10. **Printing on transparencies is faded.**

    This occurs when the printer is operating at a location where relative humidity reaches 85° or more.

Adjust the humidity or relocate the printer to an appropriate environment.

Light Print on Transparency

Print-Quality Troubleshooting Pages and Test Patterns

A variety of test prints are available from the customer menu and service diagnostics to aid in determining the quality of output from the printer to assist in troubleshooting problems.

Accessing Troubleshooting Print-Quality Pages

The Troubleshooting Print-Quality Pages can be access through the Customer Menu.

1. Press the **Machine Status** button.
2. Select **Tools**.
3. Select **Troubleshooting**.
4. Select **Support Pages**.
5. Select the appropriate Test Print page to be printed.

Troubleshooting Print-Quality Pages

Item	Description	Customer Menu	Service Diagnostics
1	Troubleshooting Print Quality Page	X	N/A
2	Repeating Defects Page	X	N/A
3	Service Usage Profile	X	N/A
4	System Status Page/Fault History	X	N/A
5	Cyan 50% Fill Test Page	X	X
6	Magenta 50% Fill Test Page	X	X
7	Yellow 50% Fill Test Page	X	X
8	Black 50% Fill Test Page	X	X
9	Manufacturing Test Page 1	X	X
10	Manufacturing Test Page 2	X	X
11	Manufacturing Test Page 3	X	X

Print Test Patterns (dc612)

The Print Test Patterns can be accessed through the Customer Menu or Service Diagnostics.

Print Test Patterns

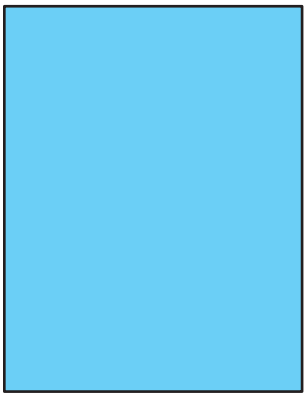
Item	Description	Customer Menu	Service Diagnostics
1	Cyan 50% Fill	X	X
2	Magenta 50% Fill	X	X
3	Yellow 50% Fill	X	X
4	Black 50% Fill	X	X
5	Registration Print (Manufacturing Test Page 1)	X	X
6	Delta-E Print (Manufacturing Test Page 2)	X	X
7	Ghosting Print (Manufacturing Test Page 3)	X	X

Accessing Print Test Patterns through Service Diagnostics

1. Press and hold the "*****" the + "**#**" the + "**Stop**" buttons.
2. On the **Login** screen on the Control Panel, enter "**6789**" and select **Enter**.
3. Select **Diagnostics** tab.
4. From the **Diagnostic Routines** menu, select **dc612 Print Test Pattern**.
5. Select the Test Pattern to be printed.

Cyan 50% Fill

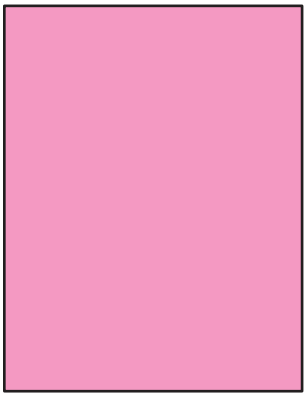
This test print provides 50% cyan fill coverage within printable margins. Use this test print to isolate defects to this specific color. Inspect the Toner Cartridge and Imaging Unit of the affected color. Replace the Toner Cartridge or Imaging Unit as needed.



Cyan 50%

Magenta 50% Fill

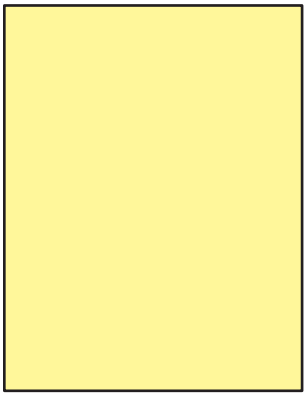
This test print provides 50% magenta fill coverage within printable margins. Use this test print to isolate defects to this specific color. Inspect the Toner Cartridge and Imaging Unit of the affected color. Replace the Toner Cartridge or Imaging Unit as needed.



Magenta 50%

Yellow 50% Fill

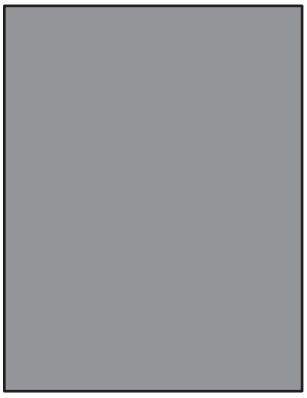
This test print provides 50% yellow fill coverage within printable margins. Use this test print to isolate defects to this specific color. Inspect the Toner Cartridge and Imaging Unit of the affected color. Replace the Toner Cartridge or Imaging Unit as needed.



Yellow 50%

Black 50% Fill

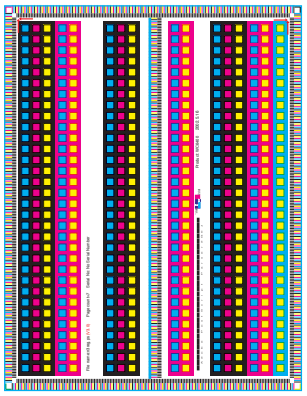
This test print provides 50% black fill coverage within printable margins. Use this test print to isolate defects to this specific color. Inspect the Toner Cartridge and Imaging Unit of the affected color. Replace the Toner Cartridge or Imaging Unit as needed.



Black 50%

Manufacturing Test Page 1/ Registration Print

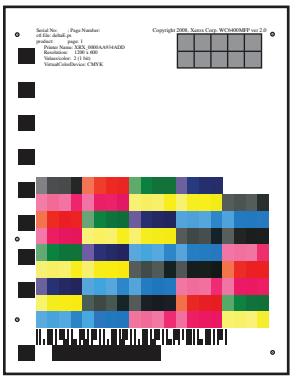
This test print is used to verify image registration.



N3Reg-v3

Manufacturing Test 2/ Delta-E Print

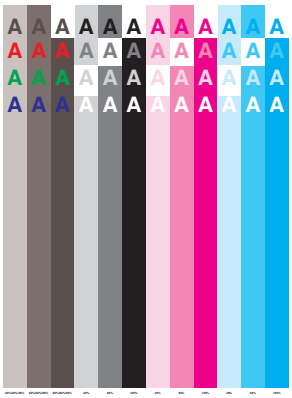
This test print is used to evaluate color reproduction variations.



s6400mfp-859

Manufacturing Test 3/ Ghosting Print

This test print is used to determine the presence of residual images.



Ghosting SEF

Print-Quality Troubleshooting Pages

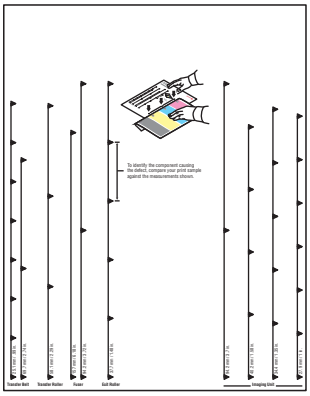
The Print-Quality Troubleshooting pages contain information regarding feature and potential solutions for eliminating the problems.

Troubleshooting Print-Quality

The Print-Quality Troubleshooting pages contain examples of common print defects (i.e., streaks, mis-registration, etc...) and potential solutions for resolving the problems.

Repeating Defects

The Repeating Defects page contains rulers indicating the distance between repeating defects which correspond to a specific device component.



6400mfp Repeating Defects

Service Usage Profile

The Service Usage Profile contains information for tracking usage and reliability data using tokens that are stored on the device.

Note

Line 1 - Values Collected: Represents the date and time the values listed in the report were obtained: The date information appear in this format YYYYMMDDHHMMSS.

Example: 20080620013030 reflects June 20, 2008 01:30:30

Phaser® WC 6400XF
Multifunction Printer

xerox

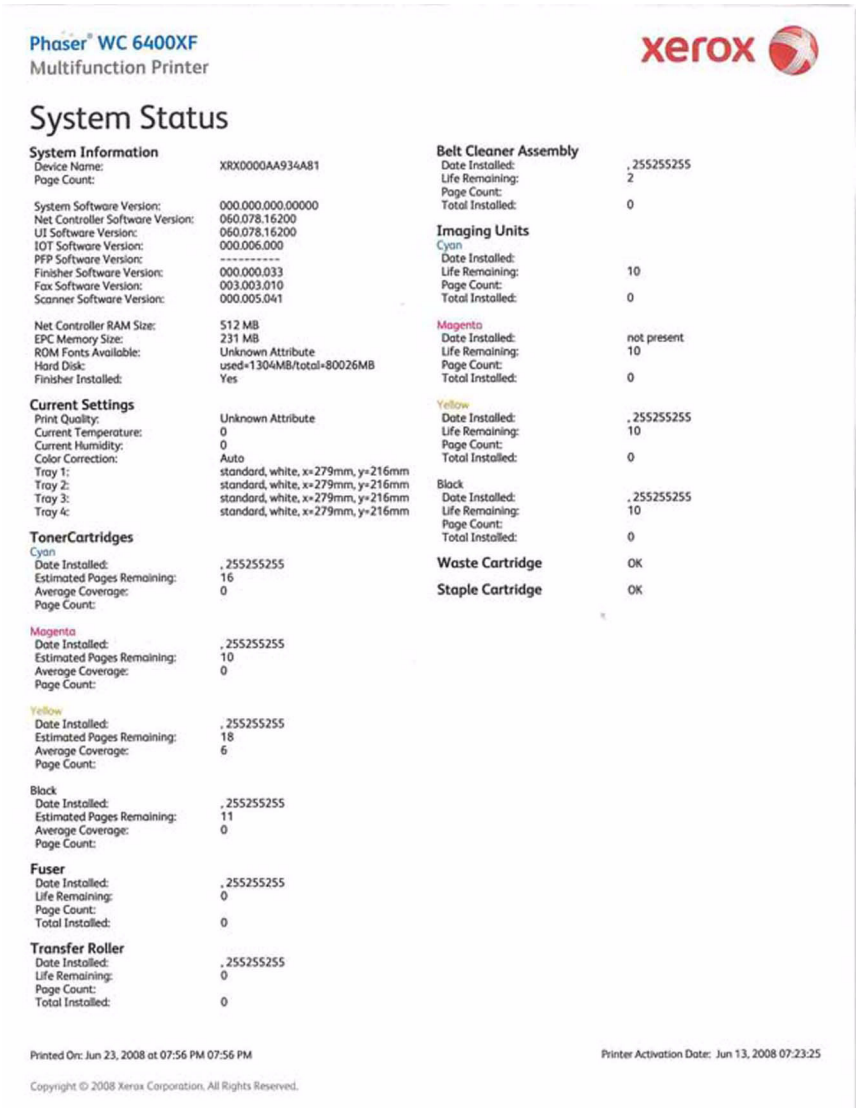
Service Usage Profile

1 ValuesCollectedAt	20080620013030
2 Install Date	20080610031105.0
3 Model	Xerox WorkCentre 6400XF v1 Multifunction System
4 serialNumber	
5 System Software Version	000.000.000.00000
6 Network Controller Software Version	060.078.15100
7 IOT Software Version	000.005.000
8 Scanner Software Version	000.000.079
9 Finisher Software Version	NULL
10 User Interface Software Version	0.060.78.15100
11 Fax Software Version	003.003.010
12 Total Impressions	55
13 Color Impressions	51
14 Black Impressions	4
15 Color Large Impressions	0
16 Black Large Impressions	0
17 Black + Color Level 1 Impressions_T3	9
18 Color Level 2 Impressions_T3	46
19 Color Level 3 Impressions_T3	0
20 Black + Color Level 1 Impressions_T2	9
21 Color Level 2 Impressions_T2	46
22 A4/Letter High Capacity Feeder Installed	no
23 A3/Ledger High Capacity Feeder Installed	no
24 Finisher Installed	no
25 DADF Installed	yes
26 Inserter Installed	no
27 Booklet Maker Installed	no
28 Folder Unit Installed	no
29 Device Service Configuration	MultiFunction
30 Template Management Web Server Service	Not Installed
31 Embedded Fax Service	Installed – Enabled
32 Metadata Validation Web Client Service	Not Installed
33 Job Based Accounting Service	Installed – Disabled
34 On Demand Image Overwrite Service	Installed – Enabled
35 Immediate Image Overwrite Service	Installed – Disabled
36 Network Scan Service	Installed – Enabled
37 Server Fax Service	Installed – Enabled
38 Scan-to-Email Service	Installed – Enabled
39 Internet Fax Service	Installed – Enabled
40 Extensible Interface Platform UI Service	Installed – Disabled

System Status/ Fault History

The System Status/ Fault History page is a 7 page document.

- Page 1 - System Status: Contains usage counters, current temperature and humidity information.



Phaser® WC 6400XF
Multifunction Printer

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System Status

System Information

Device Name:	XRX0000AA934A81
Page Count:	
System Software Version:	000.000.000.00000
Net Controller Software Version:	060.078.16200
UI Software Version:	060.078.16200
IOT Software Version:	000.006.000
PFP Software Version:	----------
Finisher Software Version:	000.000.033
Fax Software Version:	003.003.010
Scanner Software Version:	000.005.041
Net Controller RAM Size:	512 MB
EPC Memory Size:	231 MB
ROM Fonts Available:	Unknown Attribute
Hard Disk:	used=1304MB/total=80026MB
Finisher Installed:	Yes

Current Settings

Print Quality:	Unknown Attribute
Current Temperature:	0
Current Humidity:	0
Color Correction:	Auto
Tray 1:	standard, white, x=279mm, y=216mm
Tray 2:	standard, white, x=279mm, y=216mm
Tray 3:	standard, white, x=279mm, y=216mm
Tray 4:	standard, white, x=279mm, y=216mm

TonerCartridges

Cyan

Date Installed:	,255255255
Estimated Pages Remaining:	16
Average Coverage:	0
Page Count:	

Magenta

Date Installed:	,255255255
Estimated Pages Remaining:	10
Average Coverage:	0
Page Count:	

Yellow

Date Installed:	,255255255
Estimated Pages Remaining:	18
Average Coverage:	6
Page Count:	

Black

Date Installed:	,255255255
Estimated Pages Remaining:	11
Average Coverage:	0
Page Count:	

Fuser

Date Installed:	,255255255
Life Remaining:	0
Page Count:	
Total Installed:	0

Transfer Roller

Date Installed:	,255255255
Life Remaining:	0
Page Count:	
Total Installed:	0

Belt Cleaner Assembly

Date Installed:	,255255255
Life Remaining:	2
Page Count:	
Total Installed:	0

Imaging Units

Cyan

Date Installed:	
Life Remaining:	10
Page Count:	
Total Installed:	0

Magenta

Date Installed:	not present
Life Remaining:	10
Page Count:	
Total Installed:	0

Yellow

Date Installed:	,255255255
Life Remaining:	10
Page Count:	
Total Installed:	0

Black

Date Installed:	,255255255
Life Remaining:	10
Page Count:	
Total Installed:	0

Waste Cartridge	OK
Staple Cartridge	OK

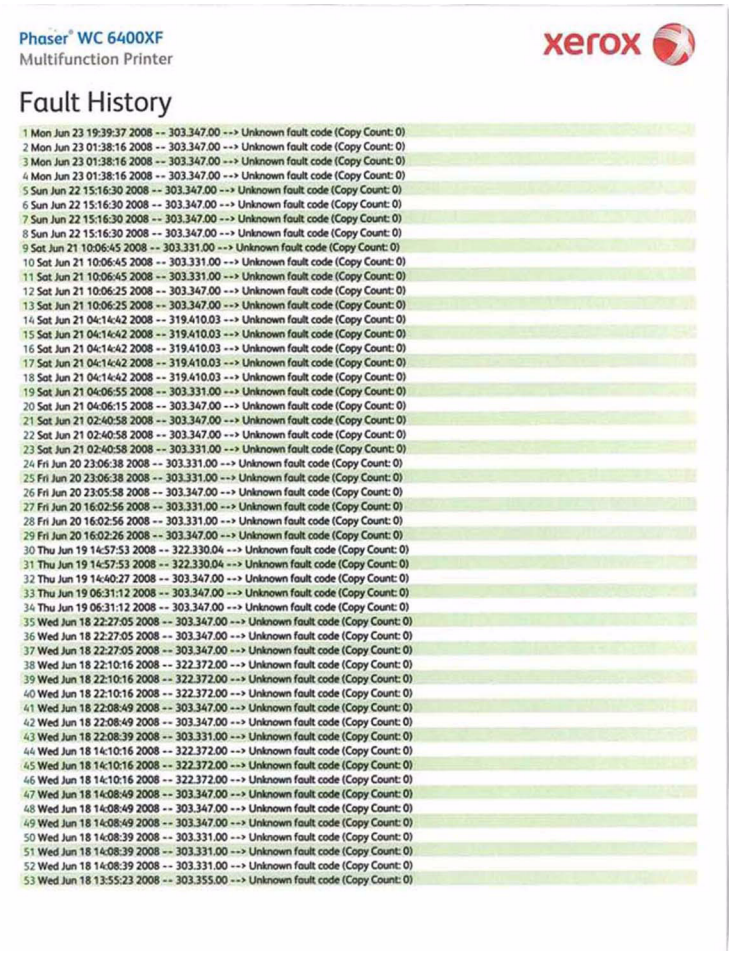
Printed On: Jun 23, 2008 at 07:56 PM 07:56 PM

Printer Activation Date: Jun 13, 2008 07:23:25

- Page 2 - Fault History: Contains the most recent faults that have occurred.

Note

The Image Count (**Machine Status** --> **Faults** --> **Fault History**) is the Total images between service calls, not total impresssions.



Phaser® WC 6400XF
Multifunction Printer

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Fault History

1 Mon Jun 23 19:39:37 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
2 Mon Jun 23 01:38:16 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
3 Mon Jun 23 01:38:16 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
4 Mon Jun 23 01:38:16 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
5 Sun Jun 22 15:16:30 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
6 Sun Jun 22 15:16:30 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
7 Sun Jun 22 15:16:30 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
8 Sun Jun 22 15:16:30 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
9 Sat Jun 21 10:06:45 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
10 Sat Jun 21 10:06:45 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
11 Sat Jun 21 10:06:45 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
12 Sat Jun 21 10:06:25 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
13 Sat Jun 21 10:06:25 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
14 Sat Jun 21 04:14:42 2008 -- 319.410.03 --> Unknown fault code (Copy Count: 0)
15 Sat Jun 21 04:14:42 2008 -- 319.410.03 --> Unknown fault code (Copy Count: 0)
16 Sat Jun 21 04:14:42 2008 -- 319.410.03 --> Unknown fault code (Copy Count: 0)
17 Sat Jun 21 04:14:42 2008 -- 319.410.03 --> Unknown fault code (Copy Count: 0)
18 Sat Jun 21 04:14:42 2008 -- 319.410.03 --> Unknown fault code (Copy Count: 0)
19 Sat Jun 21 04:06:55 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
20 Sat Jun 21 04:06:15 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
21 Sat Jun 21 02:40:58 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
22 Sat Jun 21 02:40:58 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
23 Sat Jun 21 02:40:58 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
24 Fri Jun 20 23:06:38 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
25 Fri Jun 20 23:06:38 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
26 Fri Jun 20 23:05:58 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
27 Fri Jun 20 16:02:56 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
28 Fri Jun 20 16:02:56 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
29 Fri Jun 20 16:02:26 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
30 Thu Jun 19 14:57:53 2008 -- 322.330.04 --> Unknown fault code (Copy Count: 0)
31 Thu Jun 19 14:57:53 2008 -- 322.330.04 --> Unknown fault code (Copy Count: 0)
32 Thu Jun 19 14:40:27 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
33 Thu Jun 19 06:31:12 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
34 Thu Jun 19 06:31:12 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
35 Wed Jun 18 22:27:05 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
36 Wed Jun 18 22:27:05 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
37 Wed Jun 18 22:27:05 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
38 Wed Jun 18 22:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
39 Wed Jun 18 22:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
40 Wed Jun 18 22:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
41 Wed Jun 18 22:08:49 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
42 Wed Jun 18 22:08:49 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
43 Wed Jun 18 22:08:39 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
44 Wed Jun 18 14:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
45 Wed Jun 18 14:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
46 Wed Jun 18 14:10:16 2008 -- 322.372.00 --> Unknown fault code (Copy Count: 0)
47 Wed Jun 18 14:08:49 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
48 Wed Jun 18 14:08:49 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
49 Wed Jun 18 14:08:49 2008 -- 303.347.00 --> Unknown fault code (Copy Count: 0)
50 Wed Jun 18 14:08:39 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
51 Wed Jun 18 14:08:39 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
52 Wed Jun 18 14:08:39 2008 -- 303.331.00 --> Unknown fault code (Copy Count: 0)
53 Wed Jun 18 13:55:23 2008 -- 303.355.00 --> Unknown fault code (Copy Count: 0)

- Page 3 - Cyan 50% Fill Page: Provides 50% cyan fill coverage within printable margins.
- Page 4 - Magenta 50% Fill Page: Provides 50% magenta fill coverage within printable margins.
- Page 5 - Yellow 50% Fill Page: Provides 50% yellow fill coverage within printable margins.
- Page 6 - Black 50% Fill Page: Provides 50% black fill coverage within printable margins.
- Page 7 - Manufacturing Test Page 2: Contains test patterns for evaluating color reproduction variations.
- Page 8 - Manufacturing Test Page 1: Contains test patterns for verifying image registration.
- Page 9 - Manufacturing Test Page 3: Contains test patterns for determining the presence of residue images.

Print-Quality Specifications

The Print-Quality specifications are provided as follows.

Note

Print-Quality can only be guaranteed when Geniune Xerox Supplies are used in the printer.

Environmental Condition

- Temperature: 10° C - 32° C (50° F - 90° F)
- Humidity: 15% - 80% Relative Humidity

Note

For optimum product performance, a constant environment with a temperature range between 15° C - 25° C (59° F - 77° F) and a humidity range between 35% - 70% should be maintained.

Defects may occur due to condensation after around 30 minutes if the printer is turned On in a critical environment such as 85% at 10° C (50° F).

Quality Paper

Print-Quality and printer performance is guaranteed when papers listed on the Recommended Media List (RML) are used. Print-Quality and printer performance can vary, and is not guaranteed when other papers are used.

Paper Storage and Condition

Paper used should be fresh and stored in the operating environment for 12 hours before use for printing.

Printer Condition

The specified print-quality is guaranteed with the printer in specified environmental conditions and when installation guidelines are followed. The printer should be installed on a flat, stable, level surface and clearance specification must be adhered to.

Troubleshooting Procedures

Print-Quality and Copy/ Scan Defect Definitions

The following table lists the print-quality defect corrective procedure, their definition, and the page where each procedure is provided.

Defect	Definition	Page
Print-Quality Troubleshooting		
Vertical Bands, Voids, or Streaks in All Colors	There are faded or completely non-printed lines along the page in the direction of the paper travel from the leading edge to the trailing edge.	page 5-26
Horizontal Bands, Voids, or Streaks	There are areas of the image that are extremely light or are missing entirely.	page 5-28
Uneven Density in the Feed Direction	The density of the print along the length of the copy is print is inconsistent.	page 5-30
Uneven Density in the Scan Direction	The density of the print along the width of the print is inconsistent.	page 5-32
Light Prints	The overall image density is too light in all colors.	page 5-34
Gradation Reproduction Failure	The overall image becomes less and less clear with each print.	page 5-36
Background Contamination	There is toner contamination on all or most of the page.	page 5-38
Poor Color Reproduction	The colors in the print is not a good reproduction of the original.	page 5-40
Void Areas or White Spots	Missing spots or areas on the print.	page 5-42
Random Spots	There are spots of toner randomly scattered across the page.	page 5-44
Blurred Image	The overall image density is blurry.	page 5-45
Blank Print	The entire image area is blank.	page 5-46
Black Print	The entire image is black.	page 5-48
Color Registration	A printed yellow or black image is not overlapped on a cyan or magenta image correctly.	page 5-50
Incomplete Fusing or Cold Offset	The toner image is not completely fused to the paper. The image easily rubs off.	page 5-52
Residual Image, Ghosting, or Hot Offset	There are faint, ghostly images appearing on the page. The images may be either from a previous page or from the page currently being printed.	page 5-53
Smudges or Smears	The image on the print appears blurry or smeared.	page 5-55

Defect	Definition	Page
Smears or Streaks on Back Side of Page	The print contains markings on the back side of the image.	page 5-56
Uneven Pitch	The pitch along the scan direction is uneven or inconsistent.	page 5-58
Defects in One Color (C, M, Y, or K)	Only one color (Cyan, Magenta, Yellow, or Black) is too light on the printed image.	page 5-60
Skew	The printed image is not parallel with both sides of the paper.	page 5-62
Damaged Paper	Paper comes out from the printer wrinkled, folded, or worn-out.	page 5-64
Copy/ Scan Troubleshooting		
Lines, Spots, Streaks & Smears	The image on the copy appears blurry or smeared.	page 5-66
Background Color, Text, and Images on Copies are Too Light, Too Dark, or Blurry	The image on the copy appears too light, too dark, or blurry.	page 5-68
Skew	The printed image is not parallel with both sides of the paper.	page 5-69
Damaged Paper	Paper comes out from the printer wrinkled, folded, or worn-out.	page 5-71
Wavy Lines	The printed image has wavy column line in the direction of the paper travel.	page 5-72
Spots Present in Copies	There are spots in copies when scanning document on the Document Glass.	page 5-74
Image Does Not Appear	There is no image on the page.	page 5-75
Large Jitter	The carrier generates jitter while moving from the home position.	page 5-76
Image Mis-registered	The composite color image may be misaligned or present an incorrect color scheme.	page 5-77
Image Unclear	Image on the paper is not clear.	page 5-79

Repeating Defect Measurement

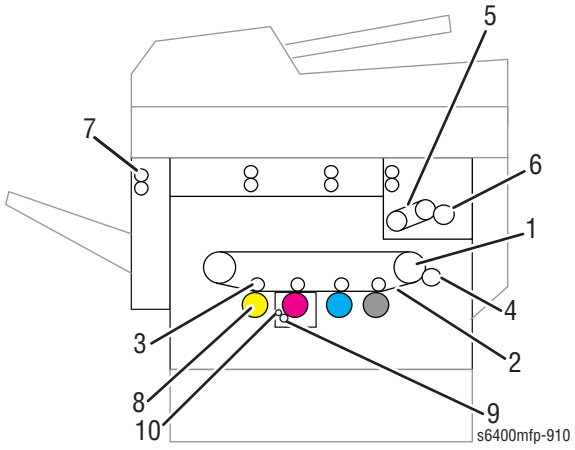
Repeating Defects can be attributed to specific components within the printer. Match a set of repeating defects in the print to the table below in order to identify the source of the defect.

All of the repeating defects should be visible on one piece of paper with the exception of item number 2. Due to the length of the Transfer Belt, this repeating defect may only be visible on every other page.

Horizontal Line and Spot Trouble Measurement

Item	Component	Distance Between Defects	Assembly	Part List Number
1	Drive Roller	69.7 mm (2.74 in.)	Transfer Belt	PL14.16
2	Transfer Belt	696.9 mm (27.4 in.)	Transfer Belt	PL14.16
3	1st Transfer Roller	25.1 mm (.99 in.)	Transfer Belt	PL14.16
4	2nd Transfer Roller	58.1 mm (2.29 in.)	Transfer Roller	PL16.20
5	Fuser Belt	157.0 mm (6.18 in.)	Fuser Unit	PL18.1
6	Fuser Backup Roller	94.2 mm (3.72 in.)	Fuser Unit	PL18.1
7	Exit Roller	37.7 mm (1.48 in.)	Paper Exit Assembly	PL19.25
8	Photo Conductor	94.2 mm (3.7 in.)	Imaging Unit (C/M/Y/K)	PL6.23-6.26
9	Developing Roller	See the “Roller Measurement” on page 5-25	Imaging Unit (C/M/Y/K)	PL6.23-6.26
10	Supply Roller	See the “Roller Measurement” on page 5-25	Imaging Unit (C/M/Y/K)	PL6.23-6.26

Repeating Defect Component Locations



Roller Measurement

The Developing Rollers and Supply Rollers defect are dependent on the engine speed.

Engine Speed	216 mm/s	185 mm/s	76 mm/s	61.7 mm/s
Developing Roller (CMYK)	40.2 mm	34.4 mm	34.4 mm	27.9 mm
Supply Roller (CMYK)	35.6 mm	30.5 mm	30.5 mm	24.8 mm

Print-Quality Troubleshooting

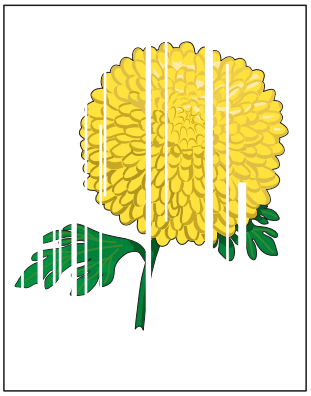
Vertical Bands, Voids, or Streaks in All Colors

There are areas of the Image that are extremely light or missing entirely. These missing areas form bands that run along the paper from the leading edge to the trailing edge, in the direction of paper travel.

Initial Actions

- Print the CMYK 50% Fill Pages and attempt to isolate the defect to a specific color. Troubleshoot the affected color.
- Check the paper path is clean and free of paper dust and debris.
- Carefully inspect and clean each Laser window.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.01	 Vertical Blank Lines

Caution

Make sure the Imaging Units are not exposed to direct light for more than a few minutes to avoid damaging the OPC Drum.

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove each Imaging Unit, one at a time, and inspect the OPC Drums and corresponding area. Remove any debris such as hair, foam or paper.	Remove any obstructions or debris.	Go to step 2.
2	Are there scratches or other damage evident on the OPC Drums?	Replace the Imaging Unit (page 8-17).	Go to step 3.
3	Are the Developer Bias contact terminals (on the rear of each Imaging Unit) bent or out of position?	Reposition the contacts or replace the Imaging unit (page 8-17).	Go to step 4.
4	Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 5.
5	Is the Entrance Guide Plate or the Separator Fingers on the Fuser Unit dirty or damaged?	Clean or replace the Fuser Unit (page 8-24).	Go to step 6.
6	Is the Transfer Belt dirty (finger printers, oil, etc.) or scratched?	Replace the Transfer Belt (page 8-20).	Go to step 7.
7	Are the window surfaces of the Laser Unit dirty?	Thoroughly clean each Laser window.	Replace the Laser Unit (page 8-126).

Horizontal Bands, Voids, or Streaks

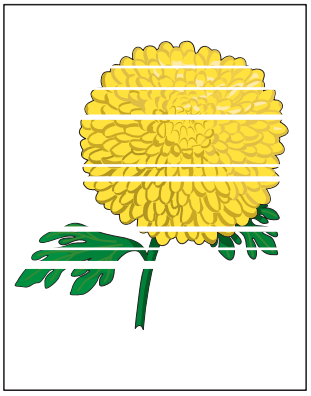
There are areas of the Image that are extremely light or missing entirely.

These missing areas form bands that run along the paper from one side toward the other.

Initial Actions

- Print the CMYK 50% Fill Pages and attempt to isolate the defect to a specific color. Troubleshoot the affected color.
- Confirm that the paper used is supported by this printer.
- Check the paper path is clean and free of paper dust and debris.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ LVPS, PL10.17 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.01	 Horizontal Band, Void, or Streaks

Caution

Make sure the Imaging Units are not exposed to direct light for more than a few minutes to avoid damaging the OPC Drum.

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the paper wrinkled or dimpled? Is the problem resolved by loading fresh, dry paper?	Troubleshooting complete.	Go to step 2.
2	Remove each Imaging Unit, one at a time, and inspect the OPC Drums and corresponding area. Remove any debris such as hair, foam or paper.	Remove any obstructions or debris.	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Are there scratches or other damage evident on the OPC Drums?	Replace the Imaging Unit (page 8-17).	Go to step 4.
4	Are the Developer Bias contact terminals (on the rear of each Imaging Unit) bent or out of position?	Reposition the contacts or replace the Imaging Unit (page 8-17)	Go to step 5.
5	Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 6.
6	Is the Entrance Guide Plate or the Separator Fingers on the Fuser Unit dirty or damaged?	Clean or replace the Fuser Unit (page 8-24).	Go to step 7.
7	Is the Transfer Belt dirty (finger printers, oil, etc.) or scratched?	Replace the Transfer Belt (page 8-20).	Replace the LVPS (page 8-82).

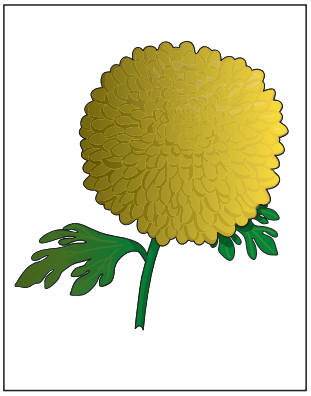
Uneven Density in the Feed Direction

The density of the print image along the length of the page is inconsistent or uneven.

Initial Actions

- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.
- Perform the Image Quality Calibration routine (page 6-21).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Color Uneven or Wrong (Scan Direction)

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the printer being operated at high altitude?	Perform “dc960 - Altitude Adjustment” on page 6-14, then perform “Image Quality Calibration” on page 6-21. Go to step 2.	Go to step 2.
2	Check the Imaging Units and Transfer Roller for correct installation, damage, contamination and life remaining.	Reinstall or replace the affected component.	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Is the Transfer Belt dirty or scratched?	Replace the Transfer Belt (page 8-20).	Go to step 4.
4	Check the Laser Unit. Are the Laser Unit lenses dirty?	Clean the Laser Unit lenses.	Go to step 5.
5	Replace the Laser Unit (page 8-126). Does the error still occur?	Replace the HVPS-1 (page 8-106). Go to step 6.	Troubleshooting complete.
6	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

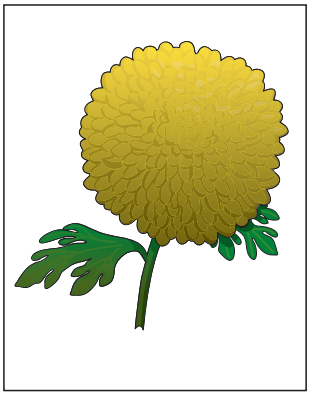
Uneven Density in the Scan Direction

The density of the image along the width of the page is inconsistent or uneven.

Initial Actions

- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.
- Perform the Image Quality Calibration routine (page 6-21).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Color Uneven or Wrong (Process Direction)

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the printer being operated at high altitude?	Perform “dc960 - Altitude Adjustment” on page 6-14, then perform “Image Quality Calibration” on page 6-21. Go to step 2.	Go to step 2.
2	Check the Imaging Units and Transfer Roller for correct installation, damage, contamination and life remaining.	Reinstall or replace the affected component.	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Are the Transfer Belt contacts (PL14.18, 26) and Plate Spring (PL14.28) in good contact with the mating parts on the Transfer Belt?	Go to step 4.	Clean or replace the contacts.
4	Is the Transfer Belt dirty or scratched?	Replace the Transfer Belt (page 8-20).	Replace the HVPS-1 (page 8-106). Go to step 5.
5	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

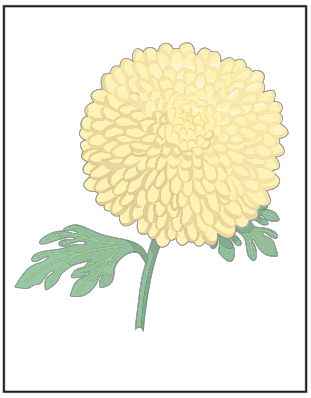
Light Prints

The overall image density is too light in all colors.

Initial Actions

- Check the paper path is clean and free of paper dust and debris.
- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Image Density Control Board, PL14.13 ■ Transfer Belt, PL14.16 ■ Image Processor Board, PL20.07 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Light or Undertone Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the printer being operated in a dry or humid environment?	Perform “dc936 - Image Quality Calibration” on page 6-13. Go to step 2.	Go to step 3.
2	Does the error still occur?	Perform “dc909 - Calibrate for Paper Type” on page 6-12.	Troubleshooting complete.
3	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 4.	Replace or reload the paper.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Check the Imaging Units and Transfer Roller for correct installation, damage, contamination and life remaining.	Reinstall or replace the affected component.	Go to step 5.
5	Is the Transfer Belt dirty or scratched?	Replace the Transfer Belt (page 8-20). If the problem persists, go to step 6.	Go to step 6.
6	Are the Transfer Belt contacts (PL14.18, 26) and Plate Spring (PL14.28) in good contact with the mating parts on the Transfer Belt?	Go to step 7.	Clean or correct the contacts.
7	Check the Laser Unit. Are the Laser Unit lenses dirty?	Clean the Laser Unit lenses. Go to step 9.	Replace the Laser Unit (page 8-126). Go to step 8.
8	Check the Front and Rear IDC Sensors (PL14.13). Are the Sensors dirty?	Clean the Front and Rear Sensors.	Go to step 9.
9	Does the error still occur?	Replace the Image Processor Board (page 8-98). Go to step 10.	Troubleshooting complete.
10	Does the error still occur?	Replace the IDC Sensor (page 8-87). Go to step 11.	Troubleshooting complete.
11	Does the error still occur?	Replace the HVPS-1 (page 8-106). Go to step 12.	Troubleshooting complete.
12	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

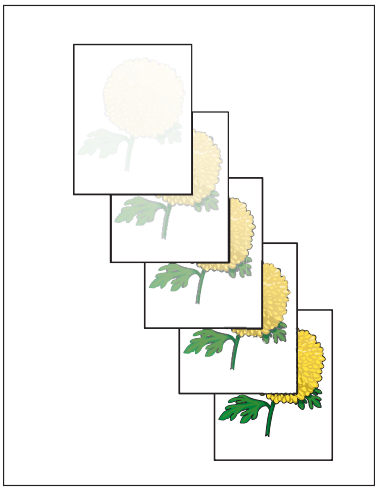
Gradation Reproduction Failure

The overall image becomes less and less clear with each print.

Initial Actions

- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.
- Perform the Image Quality Calibration routine (page 6-21).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Image Density Control Board, PL14.13 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Gradation Reproduction Failure/Fading Copies

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are there scratches on the Photo Conductor's surface? Inspect each Photo Conductor Drum. Are any of the Drums scratched or damaged?	Replace the Imaging Unit (page 8-17).	Go to step 2.
2	Check the Laser Unit. Are the Laser Unit lenses dirty?	Clean the Laser Unit lenses. Go to step 3.	Replace the Laser Unit (page 8-126). Go to step 4.
3	Check the Front and Rear IDC Sensors (PL14.03). Are the Sensors dirty?	Clean the Sensors.	Go to step 4.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the error still occur?	Replace the IDC Sensor Boards (page 8-87). Go to step 5.	Troubleshooting complete.
5	Does the error still occur?	Replace the HVPS-1 (page 8-106). Go to step 6.	Troubleshooting complete.
6	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

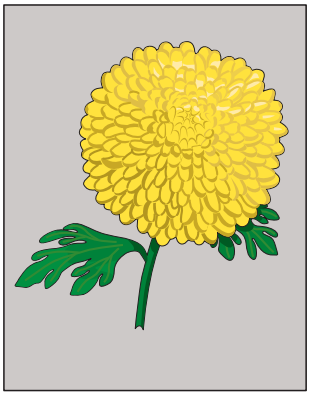
Background Contamination

There is toner contamination on all or most of the page. The contamination appears as a very light gray dusting.

Initial Actions

- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.
- Verify humidity. Optimum printing range is 25~45%.
- Perform the Image Quality Calibration routine (page 6-21).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Image Density Control Board, PL14.13	 Background Contamination

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Is the printer being operated in a dry or humid environment?	Perform “Image Quality Calibration” on page 6-21. Go to step 2.	Go to step 3.
2	Does the error still occur?	Perform “dc909 - Calibrate for Paper Type” on page 6-12.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Are the Developer Bias contact terminals (on the rear of each Imaging Units) bent or out of position?	Reposition the contacts or replace the affected Imaging Unit (page 8-17).	Go to step 4.
4	Inspect each Photo Conductor Drum. Are any of the Drums scratched or damaged?	Replace the Imaging Unit (page 8-17).	Go to step 5.
5	Check the Laser Unit. Are the Laser Unit lenses dirty?	Clean the Laser Unit lenses.	Go to step 6.
6	Check the Front and Rear IDC Sensors. Are the Sensors dirty?	Clean the Front and Rear Sensors.	Replace the IDC Sensor (page 8-87). Go to step 7.
7	Does the error still occur?	Replace the Laser Unit (page 8-126).	Troubleshooting complete.

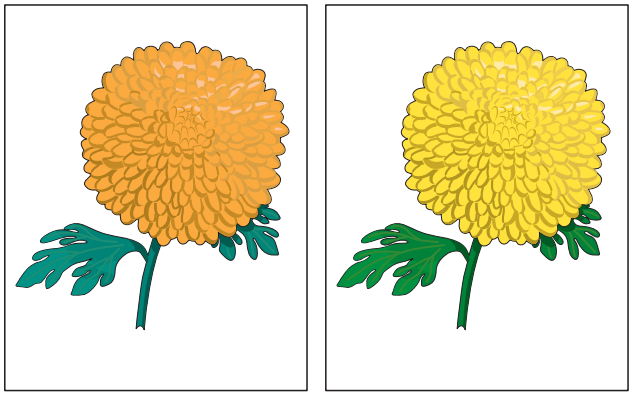
Poor Color Reproduction

The colors in the print is not a good reproduction of the original.

Initial Actions

- Check the paper path is clean and free of paper dust and debris.
- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.
- Perform the Image Quality Calibration routine (page 6-21) prior to troubleshooting.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Image Density Control Board, PL14.13 ■ Transfer Belt, PL14.16 ■ Image Processor Board, PL20.07 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Unexpected Colors

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 2.	Replace the paper.
2	Check the Transfer Belt. Is the Transfer Belt dirty?	Replace the Transfer Belt (page 8-20).	Go to step 3.
3	Check the Front and Rear IDC Sensors. Are the Sensors dirty?	Clean the Sensors. Go to step 4.	Go to step 4.
4	Does the error still occur?	Replace the IDC Sensor (page 8-87). Go to step 5.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Does the error still occur?	Replace the Image Process Board (page 8-98). Go to step 6.	Troubleshooting complete.
6	Does the error still occur?	Replace the HVPS-1 (page 8-106). Go to step 7.	Troubleshooting complete.
7	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

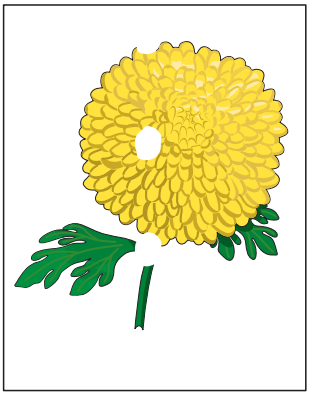
Void Areas or White Spots

Missing spots or areas on the print.

Initial Actions

- Print a Repeating Defects page to help isolate the problem.
- Check the paper path is free of paper dust and debris.
- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20	 Repeating Defects

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the type of paper. Is thick or special paper being used?	Perform “Image Quality Calibration” on page 6-21. Go to step 2.	Go to step 3.
2	Does the error still occur?	Perform “dc909 - Calibrate for Paper Type” on page 6-12.	Troubleshooting complete.
3	Inspect each Photo Conductor Drum. Are any of the Drums scratched or damaged?	Replace the Imaging Unit (page 8-17).	Go to step 4.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 5.
5	Are the Transfer Belt Contacts (PL14.18, PL14.26) and Plate Spring (PL14.28) in good contact with the matting parts on the Transfer Belt)?	Replace the Transfer Belt (page 8-20).	Clean or correct the contacts.

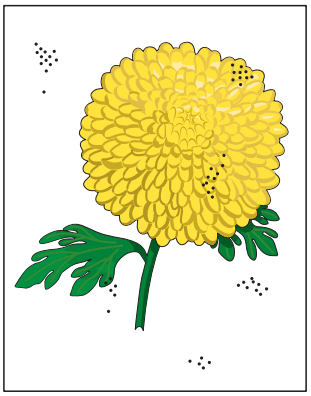
Random Spots

There are spots of toner randomly scattered across the page.

Initial Actions

- Check the paper path is free of paper dust and debris.
- Ensure there is no debris in the transfer path.
- Perform the Image Quality Calibration routine (page 6-21).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.01	 Random Spots

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Are there scratches on the Photo Conductor's surface?	Replace the Imaging Unit (page 8-17).	Go to step 2.
2	Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 3.
3	Check the Fuser Unit. Is the Fusing Roller dirty or damaged?	Replace the Fuser Unit (page 8-24).	Replace the Transfer Belt (page 8-20).

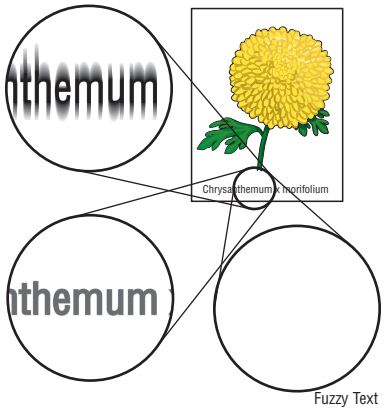
Blurred Image

The image or text appears blurry on the page.

Initial Actions

- Verify the paper used is supported by the printer.
- Verify the paper settings are correct at the Control Panel.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Inspect each Photo Conductor Drum. Are any of the drums scratched or damaged?	Replace the affected Imaging Unit (page 8-17).	Go to step 2.
2	Check the Laser Unit. Are the Laser Unit lenses dirty?	Clean the Laser Unit lenses.	Replace the Laser Unit (page 8-126).

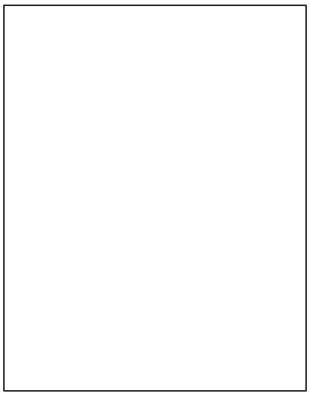
Blank Print

The entire image area is blank.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Image Processor Board, PL20.07 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Blank Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Print an embedded page. Is the print out blank?	Go to step 2.	Check driver settings and software application.
2	Check each Imaging Unit Drive Gear. Is the white Drive Gear in the rear of the Imaging Unit installed correctly and free of damage?	Go to step 3.	Re-align the Drive Gear. If the problem persists, go to step 4.
3	Is the charge corona voltage contact or Photo Conductor ground contact on the rear of each Imaging Unit installed correctly and free of damage?	Go to step 4.	Check, clean, or correct the contacts. If the problem persists, go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Check the Laser Unit wiring harness connectors (PJ22MCU, PJ23MCU, and PJ901IPB). Are the wiring harness connectors securely connected?	Go to step 5.	Reconnect the wiring harness connectors.
5	Check the HVPS-1 wiring harness connectors (PJ17MCU to CN1HV1). Are the wiring harness connectors securely connected?	Replace the HVPS-1 (page 8-106).	Reconnect the wiring harness connectors. If the problem persists, go to step 6.
6	Check the HVPS-2 wiring harness connectors (PJ18MCU to CN1HV2). Are the wiring harness connectors securely connected?	Replace the HVPS-2 (page 8-109).	Reconnect the wiring harness connectors. If the problem persists, go to step 7.
7	Check the Image Processor Board wiring ribbon harness connectors. Are the wiring harness connectors securely connected and locked in place?	Replace the Image Processor Board (page 8-98).	Replace the Laser Unit (page 8-126).

Black Print

The entire image is black.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Image Processor Board, PL20.07 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Black Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Print an embedded page. Is the print out black?	Go to step 2.	Check driver settings and software application.
2	Check each Imaging Unit Drive Gear. Is the white Drive Gear in the rear of the Imaging Unit installed correctly and free of damage?	Go to step 3.	Re-align the Drive Gear. If the problem persists, go to step 4.
3	Is the charge corona voltage contact or Photo Conductor ground contact on the rear of each Imaging Unit installed correctly and free of damage?	Go to step 4.	Check, clean, or correct the contacts. If the problem persists, go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Check the Laser Unit wiring harness connectors (PJ22MCU, PJ23MCU, and PJ901IPB). Are the wiring harness connectors securely connected?	Go to step 5.	Reconnect the wiring harness connectors.
5	Check the HVPS-1 wiring harness connectors (PJ17MCU to CN1HV1). Are the wiring harness connectors securely connected?	Replace the HVPS-1 (page 8-106).	Reconnect the wiring harness connectors. If the problem persists, go to step 6.
6	Check the HVPS-2 wiring harness connectors (PJ18MCU to CN1HV2). Are the wiring harness connectors securely connected?	Replace the HVPS-2 (page 8-109).	Reconnect the wiring harness connectors. If the problem persists, go to step 7.
7	Check the Image Processor Board wiring ribbon harness connectors. Are the wiring harness connectors securely connected and locked in place?	Replace the Image Processor Board (page 8-98).	Replace the Laser Unit (page 8-126).

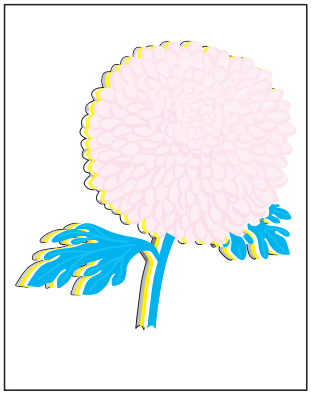
Color Registration

The four colors (Yellow, Black, Cyan, and Magenta) of the image are not registered correctly into one image.

Initial Actions

- Check the paper path is free of dust and debris.
- Ensure there is no debris in the transfer path.
- Perform the Image Quality Calibration routine (page 6-21) prior to troubleshooting.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Imaging Unit, PL6.23-26 ■ Laser Unit, PL10.11 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Image Processor Board, PL20.07	 Color Registration

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check each Imaging Unit for correct installation. Remove and reseat the Imaging Unit (page 8-17). Does the image quality improve?	Troubleshooting complete.	Go to step 2.
2	Check the Photo Conductor Drum of each Imaging Unit. Is the Drum scratched or damaged?	Replace the affected Imaging Unit (page 8-17).	Go to step 3.
3	Check the Transfer Roller. Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 4.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Are there scratches on the Transfer Belt?	Replace the Transfer Belt (page 8-20).	Replace the Image Processor Board (page 8-98). Go to step 5.
5	Does the error still occur?	Replace the Laser Unit (page 8-126).	Troubleshooting complete.

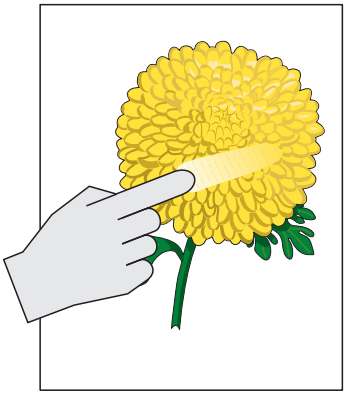
Incomplete Fusing or Cold Offset

The toner image is not completely fused to the paper. The image easily rubs off.

Initial Actions

- Check the paper path is free of paper, dust and debris.
- Ensure the gray dials on the Fuser Unit are set to the correct position (Paper or Envelope).
- Verify the paper is within the printer specifications (refer to “Paper and Tray Specifications” on page 1-36).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ LVPS, PL10.17 ■ Fuser Unit, PL18.01 ■ MCU Board, PL20.09	 Unfused Image

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 2.	Replace the paper.
2	Replace the Fuser Unit (page 8-24). Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Does the error still occur?	Replace the MCU Board (page 8-101). Go to step 4.	Troubleshooting complete.
4	Does the error still occur?	Replace the LVPS (page 8-82)	Troubleshooting complete.

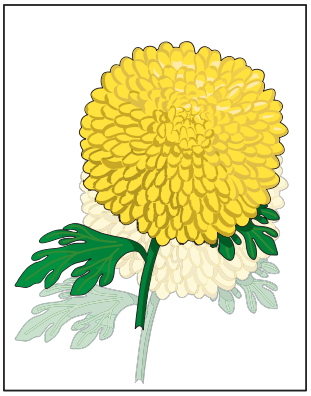
Residual Image, Ghosting, or Hot Offset

There are faint, ghostly images appearing on the page. The images may be either from a previous page or from the page currently being printed.

Initial Actions

- Check the Waste Cartridge is correctly installed
- Check the paper path is free of paper, dust and debris.
- Verify the paper is within the printer specifications (refer to “Paper and Tray Specifications” on page 1-36).
- Try printing with fresh media from a recently opened ream.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ LVPS, PL10.17 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.1 ■ MCU Board, PL20.09	 Residual Image/Ghosting

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 2.	Replace the paper.
2	Replace the Fuser Unit (page 8-24). Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Does the error still occur?	Replace the Transfer Roller (page 8-23). Go to step 4.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	Does the error still occur?	Replace the MCU Board (page 8-101). Go to step 5.	Troubleshooting complete.
5	Does the error still occur?	Replace the LVPS (page 8-82).	Troubleshooting complete.

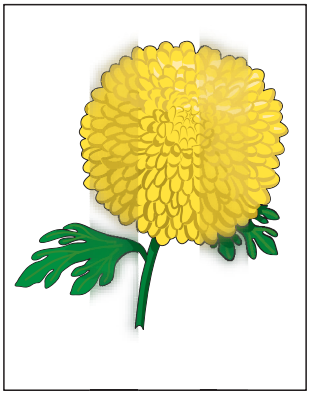
Smudges or Smears

The image on the print appears blurry or smeared.

Initial Actions

- Check the paper path is free of paper, dust and debris.
- Check the Waste Cartridge is correctly installed.
- Ensure the gray dials on the Fuser Unit are set to the correct position (Paper or Envelope).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Fuser Unit, PL18.01	 Ink Smears Duplex

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 2.	Replace the paper.
2	Check the Fuser Unit. Is the Fusing Entrance Guide Plate dirty?	Clean the Guide Plate.	Replace the Fuser Unit (page 8-24).

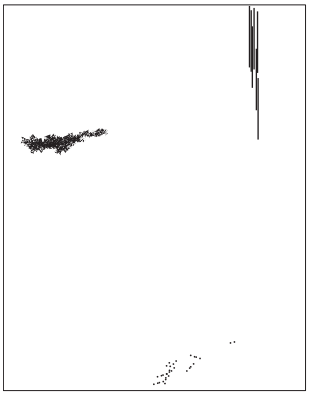
Smears or Streaks on Back Side of Page

The print contains markings on the back side of the image.

Initial Actions

- Check the paper path is free of paper, dust and debris.
- Check the Waste Cartridge is correctly installed

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.01 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Toner on Back of Print

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the Fuser Unit. Is the Fusing Entrance Guide Plate dirty?	Clean the Guide Plate.	Go to step 2.
2	Is the Fusing Roller damaged?	Replace the Fuser Unit (page 8-24). Go to step 3.	Go to step 3.
3	Check the Transfer Roller for proper installation. Is it installed correctly?	Go to step 4.	Properly install the Transfer Roller.
4	Check the Transfer Roller. Is the Transfer Roller damaged?	Replace the Transfer Roller (page 8-23). Go to step 5.	Go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Is the Transfer Belt damaged?	Replace the Transfer Belt (page 8-20). Go to step 6.	Troubleshooting complete.
6	Does the error still occur?	Replace the HVPS-1 (page 8-106). Go to step 7.	Troubleshooting complete.
7	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

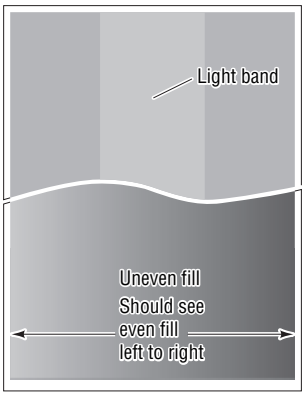
Uneven Pitch

The pitch along the scan direction is uneven or inconsistent.

Initial Action

Check the paper path is free of paper, dust and debris.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Toner Cartridges, PL6.19-22 ■ Main Drive Assy, PL12.22 ■ Transfer Belt, PL14.16 ■ Transfer Roller, PL16.20 ■ Fuser Unit, PL18.01 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 TP6 Grey Fill

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the Toner Cartridges for correct installation. Are the Toner Cartridges correctly installed?	Go to step 2.	Reinstall the Toner Cartridges (page 8-15).
2	Check the Photo Conductor Drum of each Imaging Unit. Is the Drum scratched or damaged?	Replace the affected Imaging Unit (page 8-17).	Go to step 3.
3	Is the Transfer Roller dirty or damaged?	Replace the Transfer Roller (page 8-23).	Go to step 4.
4	Check the Fuser Unit. Is the Fusing Roller damaged?	Replace the Fuser Unit (page 8-24).	Go to step 5.
5	Is the Transfer Belt damaged?	Replace the Transfer Belt (page 8-20).	Go to step 6.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
6	Check the Laser Unit. Is the Laser Unit securely installed with a fixing screw?	Go to step 7.	Reinstall the Laser Unit (page 8-126).
7	Is there high frequency banding (0.5 mm pitch) in the image during color printing?	Replace the Main Drive Assembly (page 8-142).	Troubleshooting complete.

Defects in One Color (C, M, Y, or K)

Only one color (Cyan, Magenta, Yellow, or Black) is too light on the printed image.

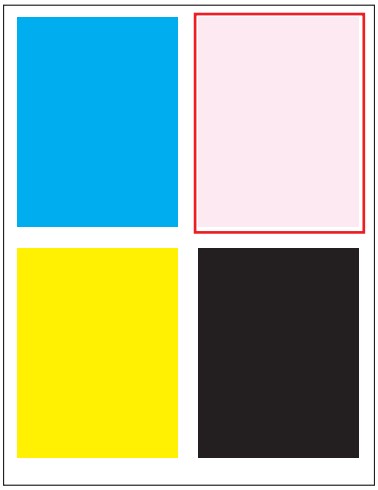
Note

Mottling will occur when printing high coverage of blue color (about 80% and up) on rough/ recycled paper.

Initial Actions

- Check the paper path is free of paper, dust and debris.
- Print the CMYK 50% Fill pages and attempt to isolate the defect to a specific color. Troubleshoot the affected color.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Toner Cartridges, PL6.19-22 ■ Imaging Units, PL6.23-6.26 ■ Laser Unit, PL10.11 ■ HVPS-1, PL20.16 ■ HVPS-2, PL20.21	 Light Print (One Color)

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded correctly in the tray?	Go to step 2.	Replace the paper.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	Perform Test Print (Cyan 50%, Magenta 50%, Yellow 50%, or Black 50%): Enter **Service Diagnostics** -> **Diagnostic Routines** -> **dc612 Test Pattern**. Is the error present in one of these tests prints?	Go to step 3.	Troubleshooting complete.
3	Check the Toner Cartridge. Is there sufficient toner of the affected color?	Go to step 4.	Replace the affected Toner Cartridge (page 8-15).
4	Check the Toner Cartridge for damages. Is the affected color Toner Cartridge damaged?	Replace the Toner Cartridge (page 8-15).	Go to step 5.
5	Replace the affected colors Imaging Unit (page 8-17). Does the print quality defect still occur?	Go to step 6.	Troubleshooting complete.
6	Check the laser window of the affected color. Is there any debris between the Laser Unit and affected color Imaging Unit?	Remove the debris. Clean the Laser Unit window.	Go to step 7.
7	Replace the Laser Unit (page 8-126). Does the image quality improve?	Troubleshooting complete.	Replace the HVPS-1 (page 8-106). Go to step 8.
8	Does the error still occur?	Replace the HVPS-2 (page 8-109).	Troubleshooting complete.

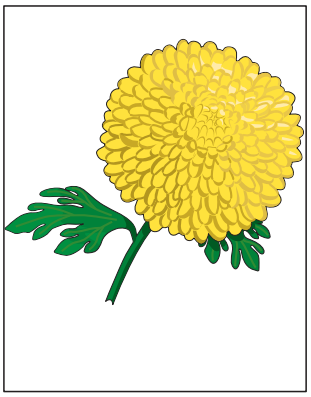
Skew

The printed image is not parallel with both sides of the paper.

Initial Action

Check the paper path is free of paper, dust and debris.

Troubleshooting Reference Table

Applicable Notes	Example Print
■ Tray 1 Separator Roller Assembly, PL5.25 ■ Tray 1 Feed Roller, PL5.29 ■ Transfer Belt, PL14.16 ■ Tray 2 Separation Roller Assembly, PL21.07 ■ Tray 2 Feed Roller, PL21.27 ■ Duplex Unit, PL22.23 ■ Tray 3/4 Feed Roller, PL32.05 ■ Tray 3/4 Separation Roller Assembly, PL32.22	 Skew 2

Troubleshooting Procedure Table

Step	Action and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended type, and loaded in the correct position?	Go to step 2.	Replace the paper.
2	Check the Front Cover Latch. Open and close the Front Cover. Does the error still occur?	Go to step 3.	Troubleshooting complete.
3	Check the Transfer Belt for correct installation. Reseat the Transfer Belt (page 8-20). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Check the skewed tray. Is the skewed paper fed from Tray 1?	Go to step 5.	Go to step 9.
5	Check the paper for correct placement. Reseat the paper. Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Check the Tray 1 Side Guides. Reset the Paper Guides. Does the error still occur?	Go to step 7.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Action and Questions	Yes	No
7	Check the paper path. Are there any debris on the paper path?	Remove the debris.	Go to step 8.
8	Replace the Tray 1 Feed Roller (page 8-12). Does the error still occur?	Replace the Tray 1 Separator Roller Assembly (page 8-9).	Troubleshooting complete.
9	Check the skewed mode through the Duplex Unit. Is the skewed paper fed from the Duplex Unit?	Go to step 10.	Go to step 12.
10	Check the Duplex Unit for correct installation. Reseat the Duplex Unit (page 8-175). Does the error still occur?	Go to step 11.	Troubleshooting complete.
11	Check the paper path. Are there any debris on the paper path?	Remove the debris.	Replace the Duplex Unit (page 8-175).
12	Is the skewed paper fed from Tray 2, 3, or 4?	Go to step 13.	Go to step 18.
13	Check the affected paper tray for correct installation. Reseat the tray. Does the error still occur?	Go to step 14.	Troubleshooting complete.
14	Check the paper for correct placement. Reseat the paper in the tray. Does the error still occur?	Go to step 15.	Troubleshooting complete.
15	Check the paper tray Side Guides. Reset the Side Guides. Does the error still occur?	Go to step 16.	Troubleshooting complete.
16	Check the paper path. Are there any debris on the paper path?	Remove the debris.	Go to step 17.
17	Is the skewed paper fed through Tray 3 or 4?	Perform the Tray Adjustment procedure (page 6-3).	Go to step 18.
18	Does the error still occur?	Go to step 19.	Troubleshooting complete.
19	Replace the Feed Roller. ■ Tray 2 Feed Roller (page 8-27) ■ Tray 3/4 Feed Roller (page 8-29) Does the error still occur?	Replace the Separator Roller Assembly. ■ Tray 2/3/4 (page 8-26)	Troubleshooting complete.

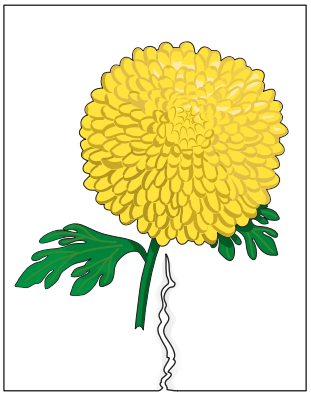
Damaged Paper

Paper comes out from the printer wrinkled, folded, or worn-out.

Initial Actions

- Check the paper path for paper dust or debris.
- Verify the paper used is supported by the product.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Tray 1 Separator Roller Assy, PL5.25 ■ Tray 1 Feed Roller, PL5.29 ■ Transfer Belt, PL14.16 ■ Fuser Unit, PL18.01 ■ Tray 2 Separator Roller Assy, PL21.07 ■ Tray 2 Feed Roller, PL21.27 ■ Duplex Unit, PL22.23 ■ Tray 3/4 Separator Roller Assy, PL32.22	 Damaged Print Media

Warning

Wait for the Fuser to cool before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry and loaded correctly?	Go to step 2.	Replace the paper.
2	Check that the paper is loaded correctly in the tray and the guides are set correctly. Does the document feed correctly?	Troubleshooting complete.	Go to step 3.
3	Check the Front Cover Latch. Open and close the Front Cover. Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Check the Transfer Belt for correct installation. Reseat the Transfer Belt (page 8-20). Does the error still occur?	Go to step 5.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Check the Fuser Unit for correct installation. Reseat the Fuser Unit (page 8-24). Does the error still occur?	Go to step 6.	Troubleshooting complete.
6	Check the paper tray. Did the damaged paper feed from Tray 1?	Go to step 7.	Go to step 11.
7	Check the paper for correct placement. Reseat the paper in Tray 1. Does the error still occur?	Go to step 8.	Troubleshooting complete.
8	Check the Tray 1 Side Guides. Reseat the Side Guides. Does the error still occur?	Go to step 9.	Troubleshooting complete.
9	Check the paper path. Is there any debris in the paper path?	Remove the debris.	Go to step 10.
10	Replace the Tray 1 Feed Roller (page 8-12). Does the error still occur?	Replace the Tray 1 Separator Roller (page 8-9).	Troubleshooting complete.
11	Did the damaged paper feed from the Duplex Unit?	Go to step 12.	Go to step 14.
12	Check the Duplex Unit for correct installation. Reseat the Duplex Unit. Does the error still occur?	Go to step 13.	Troubleshooting complete.
13	Check the paper path. Is there any debris in the paper path?	Remove the debris.	Replace the Duplex Unit (page 8-175).
14	Check Tray 2/3/4 for correct installation. Reseat the tray. Does the error still occur?	Go to step 15.	Troubleshooting complete.
15	Check the paper for correct placement. Reseat the paper. Does the error still occur?	Go to step 16.	Troubleshooting complete.
16	Check the paper tray Paper Guides. Reset the tray Paper Guides. Does the error still occur?	Go to step 17.	Troubleshooting complete.
17	Check the paper path. Is there any debris in the paper path?	Remove the debris.	Go to step 18.
18	Replace the Feed Roller. ■ Tray 2 Feed Roller (page 8-27) ■ Tray 3/4 Feed Roller (page 8-29) Does the error still occur?	Replace the Separation Roller (Tray 2/3/4, page 8-26).	Troubleshooting complete.

Copy/Scan Troubleshooting

When troubleshooting copy or scan problems, it is recommended to print an information page and inspect it for the defect. Copy the embedded page and determine if the defect is present on the copied page. This will help to determine if the cause is in the print engine or scanner.

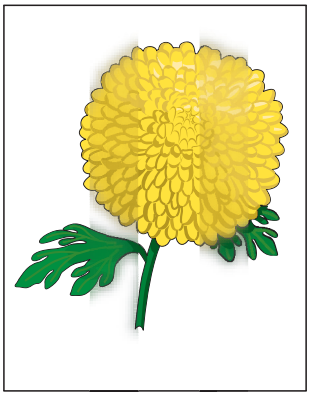
Lines, Spots, Streaks & Smears

Poor overall print-quality from a copy or scan.

Initial Actions

- Print an embedded page to determine if the defect is within the IIT or OIT.
- Check the document glass for debris or paper residue.
- Check the DADF paper path for damage, paper dust and debris.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01	 Ink Smears Duplex

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Print an embedded page to determine if the defect is in the IIT or IOT. Does the defect appear in the embedded page?	Go to pertinent print-quality troubleshooting procedure.	Go to step 2.
2	Clean the Document Glass and CVT window using a soft cloth or cotton swab dampened with isopropyl alcohol (90%). Does the error still occur?	Go to step 3.	Troubleshooting complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	Is the paper being fed through the DADF?	Clean the DADF and Feed Rollers.	Replace the Scanner Assembly (page 8-42).

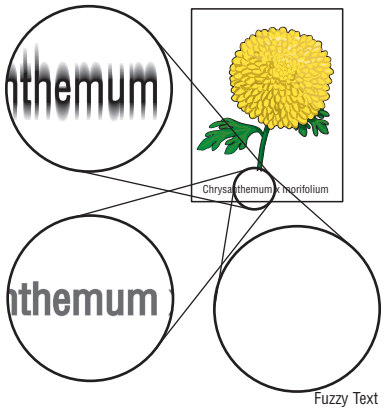
Background Color, Text, and Images on Copies are Too Light, Too Dark, or Blurry

The image on the copy appears too light, too dark, or blurry.

Initial Action

Raise and lower the Document Feeder to ensure proper position during the copy sequence.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01	 Fuzzy Text

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Adjust one or more of the settings in: ■ Copy Image Quality tab ■ Scan Advanced Setting tab	Go to step 2.	Troubleshooting complete.
2	Perform the Image Quality Calibration routine (page 6-21). Does the error still occur?	Replace the Scanner Assembly (page 8-42).	Troubleshooting complete.

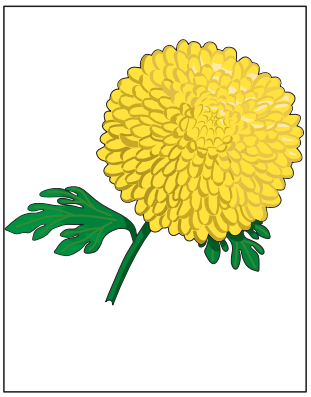
Skew

The printed image is not parallel with both sides of the paper.

Initial Actions

- Check the DADF paper path for paper dust or debris. Clean the paper path as needed.
- Check the original document for a skewed image or other physical damage to the paper.

Troubleshooting Reference Table

Applicable Notes	Example Print
■ Separator Pad Assy, PL1.01 ■ DADF Roller Kit Assy, PL1.03 ■ DADF Assembly, PL1.06 ■ Scanner Assy, PL2.01	 Skew 2

Troubleshooting Procedure Table

Step	Action and Questions	Yes	No
1	Print an embedded page to determine if the defect is in the IIT or IOT. Does the defect occur in the embedded page?	Go to the pertinent print-quality troubleshooting procedure.	Go to step 2.
2	Perform a copy job. Does the error still occur when copying?	Go to step 3.	Troubleshooting complete.
3	Is the paper being fed through the DADF?	Go to step 5.	Go to step 8.

Troubleshooting Procedure Table (continued)

Step	Action and Questions	Yes	No
4	Check the document. Does the document meet the DADF specifications?	Check the paper guide setting to ensure it is adjusted correctly. Reset the side guide of the DADF. Go to step 5.	Use the document glass to make the copy or change the paper type.
5	Perform the Document Feeder Registration Adjustment (page 6-19). This adjustment compensates for image mis-registration (on the page) and skewed paper fed through the DADF. Does the image quality improve?	Troubleshooting complete.	Go to step 6.
6	Check the DADF Feed Roller and Separator Pad. Is the Feed Roller or Separator Pad dirty, worn, or damaged?	Clean or replace the components. ■ DADF Feed Roller (page 8-31) ■ DADF Separator Pad (page 8-40)	Go to step 7.
7	Check the wiring harness connector from the DADF to the Scanner. Is the wiring harness connector securely connected?	Replace the DADF Assembly (page 8-38).	Reconnect the wiring harness connectors.
8	Check the document placement. Is the document placed on the glass correctly?	Replace the Scanner Assembly (page 8-42).	Reseat the document.

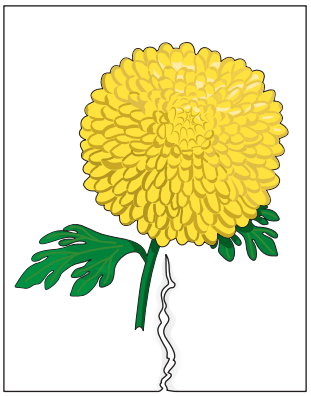
Damaged Paper

Paper comes out of the DADF wrinkled, folded, or worn-out.

Initial Action

Check the DADF paper path for dust or debris. Clean the paper path as needed.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Separator Pad Assy, PL1.01 ■ DADF Roller Kit Assy, PL1.03 ■ DADF Assy, PL1.06	 Damaged Print Media

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Does the document meet the media specifications?	Go to step 2.	Change the paper type or use the document glass mode.
2	Check the side guide setting. Reset the side guide setting. Does the document feed correctly?	Troubleshooting complete.	Go to step 3.
3	Replace the DADF Feed Roller and Separator Pad. ■ DADF Feed Roller (page 8-31) ■ DADF Separator Pad (page 8-40) Does the document feed correctly?	Troubleshooting complete.	Replace the DADF Assembly (page 8-38).

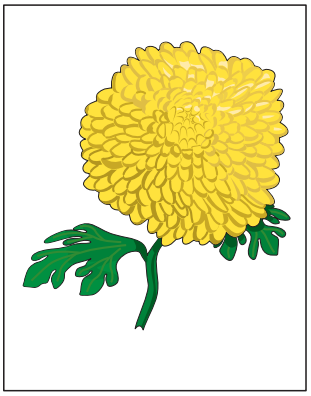
Wavy Lines

The printed image has wavy column line in the direction of the paper travel.

Initial Actions

- Check the DADF paper path for paper dust or debris. Clean the paper path as needed.
- Print an embedded page to determine if the defect is within the IIT or IOT.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ DADF Assy, PL1.06 ■ Scanner Assy, PL2.01	 Hunting

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the paper condition. Is the paper dry, recommended, loaded in the correct position, and meet the media specifications?	Go to step 2.	Replace the paper or use the document glass mode.
2	Is the DADF closed against the document glass completely?	Go to step 3.	Close the DADF.
3	Clean the document glass and CVT window using a soft cloth or cotton swab dampened with isopropyl (90%). Does the error still occur?	Go to step 4.	Troubleshooting complete.
4	Is the paper being fed through the DADF?	Go to step 5.	Replace the Scanner Assembly (page 8-42).

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Use the document glass to make the copy. Does the error still occur?	Replace the Scanner Assembly (page 8-42).	Replace the DADF Assembly (page 8-38).

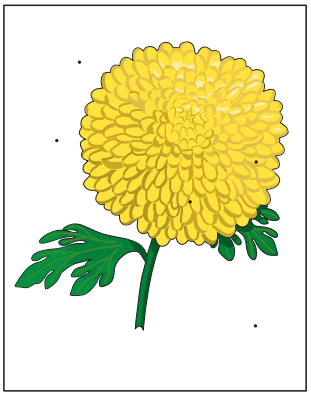
Spots Present in Copies

There are spots in copies when scanning document on the Document Glass.

Initial Action

Check the document glass for paper dust or debris.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01	 Spots on Glass

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Clean the glass surfaces with a lint free cloth. Does the error still occur?	Replace the Scanner Assembly (page 8-42).	Troubleshooting complete.

Image Does Not Appear

There is no image on the page.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01 ■ LVPS, PL10.17	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Open and close the DADF Cover. Check the DADF wiring harness connector. Is the connector securely connected?	Go to step 2.	Reconnect the wiring harness connector.
2	Check the LVPS voltage. Is there +5 V applied to the LVPS?	Replace the Scanner Assembly (page 8-42).	Replace the LVPS (page 8-82).

Large Jitter

The carrier generates jitter while moving from the home position.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01 ■ LVPS, PL10.17	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the DADF wiring harness connector. Is the connector securely connected?	Go to step 2.	Reconnect the wiring harness connector.
2	Check the LVPS voltage. Is there +5 V applied to the LVPS?	Replace the Scanner Assembly (page 8-42).	Replace the LVPS (page 8-82).

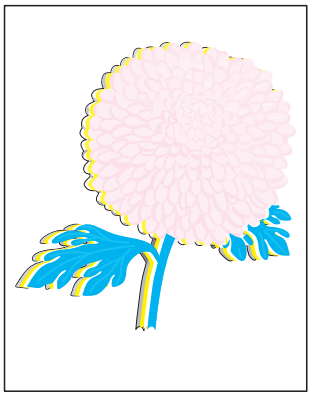
Image Mis-registered

The composite color image may be misaligned or present an incorrect color scheme.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01 ■ LVPS, PL10.17	 Color Registration

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the DADF wiring harness connector. Is the connector securely connected?	Go to step 2.	Reconnect the wiring harness connector.
2	Is the paper fed from the document glass?	Perform “dc609 - Document Glass Registration” on page 6-11. Make sure the paper is placed properly against back left corner of the glass.	Go to step 3.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
3	Is the paper fed from the DADF?	Perform “dc608 - Document Feeder Registration” on page 6-11.	Go to step 4.
4	Check the LVPS voltage. Is there +5 V applied to the LVPS?	Replace the Scanner Assembly (page 8-42).	Replace the LVPS (page 8-82).

Image Unclear

Image on the paper is not clear.

Initial Actions

- Check the paper transfer path.
- Ensure there is no debris in the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Scanner Assy, PL2.01	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check for any debris on the document glass. Is there debris on the document glass?	Remove the debris and clean the document glass using a moistened lint-free cloth.	Replace the Scanner Assembly (page 8-42).

Adjustments and Calibrations

In this chapter…

Adjustments and Calibrations

Chapter 6

Overview

The Adjustments and Calibrations chapter contains procedures for how to adjust and calibrate various components of the printer. The customer can access these routines through Machine Status/Tools Menu. These routines are also accessible through Service Diagnostics.

Note

The menu screens for the routines in Diagnostics and Customer Menu have different color.

- In Diagnostics: Orange color
- In Customer Menu: Blue color

Accessing the Service Diagnostics

1. When the system is idle, press and hold the [*] then + [#] then + [**Stop**] buttons.
2. In the field on the UI screen, enter **6789**.
3. Touch the **Enter** button.
4. The **Service Info** tab is displayed as the default screen upon entering Service Diagnostics.

Accessing the Machine Status/Tools Menu

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.

Adjustments

Tray Adjustment (Tray 3/4 Margins)

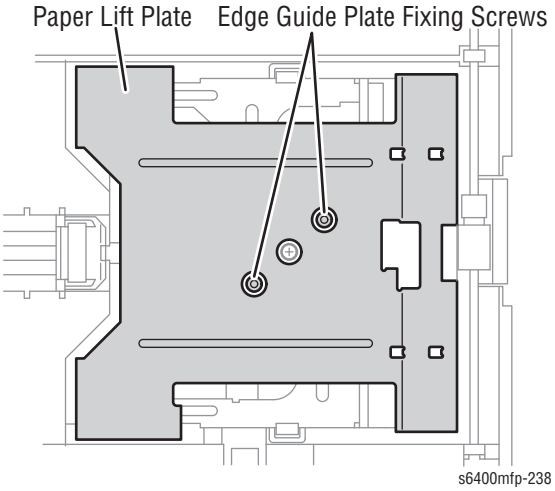
Note

The Edge Guide Plate can be moved to allow the print start reference position for the paper to be adjusted.

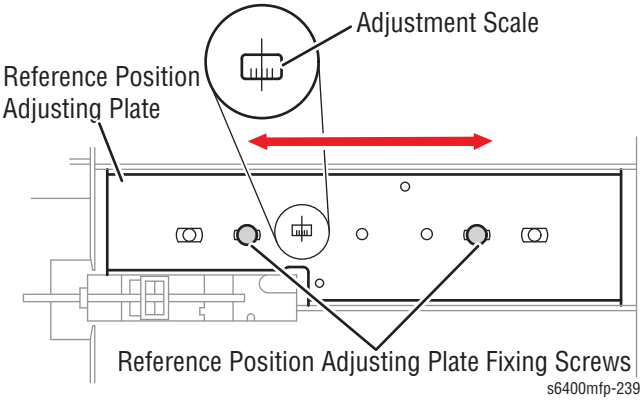
Note

Only perform the Tray Adjustment when the image position adjustment fails to bring Tray 3 and 4 into specification.

1. Remove the paper tray.
2. Through the hole in the Paper Lift Plate from the top side of the tray, loosen two screws that secure the Edge Guide Plate.



3. From the bottom of the tray, loosen two screws that secure the Reference Position Adjusting Plate.
4. Adjust the Reference Position Adjusting Plate as necessary as indicated on the scale.
5. Tighten the two screws that secure the Reference Position Adjusting Plate.
6. Through the hole in the Paper Lift Plate from the top side of the tray, tighten the two screws that secure the Edge Guide Plate.



dc130 - Image Position (Margin Adjustment)

The Image Position (dc130) routine allows the user to align the whole ROS image on the Transfer Belt for each paper group and paper tray.

Initial launch of the Image Position routine includes:

- Defaults to Tray 2
- Displays the media type loaded in the selected tray
- Allows the user to print the test pattern
- Provides a list of current Image Position adjustment values for all media and trays

Image Position adjustments include:

- A printed tutorial page explaining how to perform the adjustment
- The lead edge (process direction) of the image for each supported media grouping
- The side edge (cross-process direction) of the image for the available trays
- Side 2 for the adjustments on supported media types

The range of adjustment is -15 to +15 with each increment or decrement equals to 0.21 mm.

Total amount of adjustment must equals to 30 x 0.21mm = 6.3mm or 3.15mm in each direction.

Procedure

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** button.
3. Select **dc130 Image Position**.
4. Select the appropriate paper size.
5. Touch the **Print Test Sheet** button to print the page.
6. Follow and perform the instructions on the Image Position page.
7. Make necessary adjustment and touch the **Save** button to save the changes.

dc131 - NVM Read/Write

Caution

Be careful when making changes to the NVM value. Always write down the original NVM value (for reference) prior to making any changes. Incorrect changes to an NVM value could make the printer inoperable. For NVM value, refer to “NVM Value” on page A-75.

The NVM Read / Write (dc131) routine provides the capability to review and modify machine control parameters stored in Non-Volatile Memory (NVM).

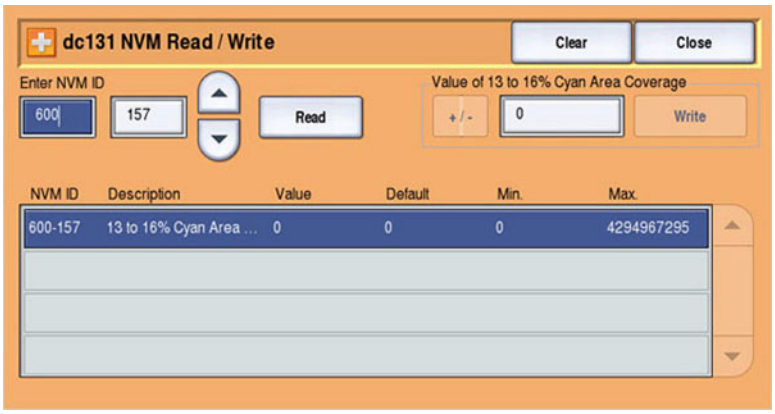
1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc131 NVM Read/Write**.

Note

The NVM ID has two numeric fields; the NVM value range is from 1 to 999. Not all NVM fields can be modified. Reference the comprehensive NVM tables starting on page A-75 for information.

Reading NVM Value

1. In the left **Enter NVM ID** field, enter the **NVM ID**.
2. In the right **Enter NVM ID** field, enter the **NVM INDEX**.
3. Touch the **Read** button to perform the task.
4. A **Read in process...** message is displayed while in progress.
5. The NVM information is displayed in the table.
   - NVMs will be added to the table, if not already in the table.
   - The most recent read NVM will be highlighted in the table.
   - The value of the NVM will be displayed in the **Value** field.
   - The **Value** field will only enable when there is a highlighted row in the table.
6. When the NVM value has been read successfully, a **NVM Read completed successfully** message is displayed for 7 seconds.



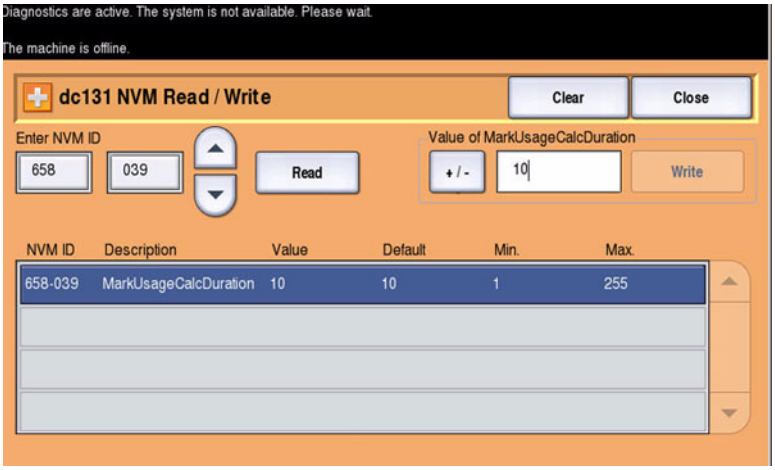
Writing NVM Value

1. Perform the Reading NVM procedure (page 6-5).

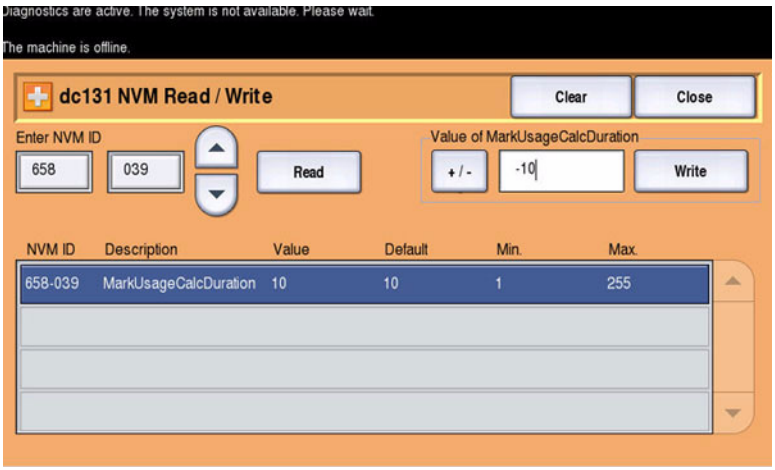
Note

The **Write** button will not be accessible if the Value field is the same as the current value.

Example: Same Value - (10 and 10)



Example: Different Value - (-10 and 10)



2. Touch the **+/-** button to toggle the value to positive or negative.
3. Touch the value field and enter the desired value using the keypad.
4. Touch the **Write** button to perform the NVM Write routine.
5. A **Write in process...** message is displayed.
6. An **NVM ID updated successfully** message is displayed when an NVM value has been updated.

Clearing NVM Display Table

1. On the UI screen, touch the **Clear** button.
2. This process removes all the currently displayed NVM values from the table.

dc301 - NVM Initialization

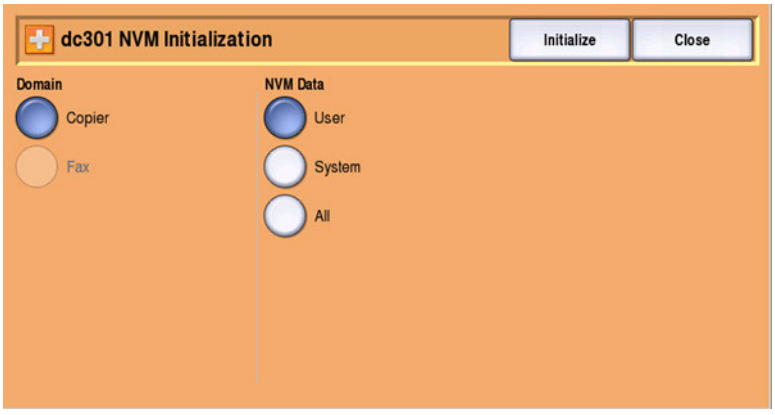
Caution

Use the NVM Initialization procedure as a last option when servicing the WorkCentre 6400.

The NVM Initialization (dc301) routine allows the user to reset the NVM value to default value or all applicable NVM within a specified service or module. Multiple services and/or modules may be initialized by a single request.

The NVM parameters initialized within each domain (copier, network controller, and Fax) are dependent on the initialization type (user data, system data, and all data). Certain groups of NVM parameters are not affected by the NVM Initialization such as billing counters, even in the case of an all data initialization.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc301 NMV Initialization**.
4. Select the appropriate **Domain** and **NVM Data** options.
   - **Domain** - Copier, Fax
   - **NVM Data** - User, System, All
5. Touch the **Initialize** button to perform the procedure.



6. A confirmation screen is displayed “Are you sure you want to initialize NVM?”
7. Touch the **Initialize** button.
8. After the NVM Initialization procedure is complete, an **Initialization successful** message is displayed.
9. Touch the **Close** button to exit the **NVM Initialization** screen.

Note

Resetting all NVM data within the Copier Domain will cause the installation wizard to appear after the next reboot.

dc361 - NVM Save and Restore

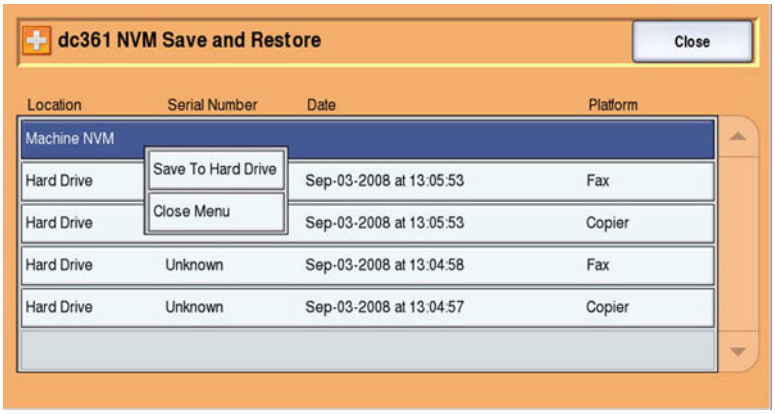
The NVM Save and Restore (dc361) routine allows the user to back-up NVM data and restore the machine's NVM parameters to their previous values following a service action (i.e. NVM module replacement, Copy Controller (CC) Hard Disk Drive replacement, Printed Circuit Board (PCB) replacement, or any others that would necessitate a full NVM initialization).

DC361 routine can be used to recover a machine's NVM values to one of the last 30 auto-saved set of parameters, in the event that a complete NVM failure occurred. The “Auto Save” function automatically store the NVM once each day for the last 30 days.

DC361 routine also includes the capability to copy files between the hard drive and a USB drive.

Saving NVM

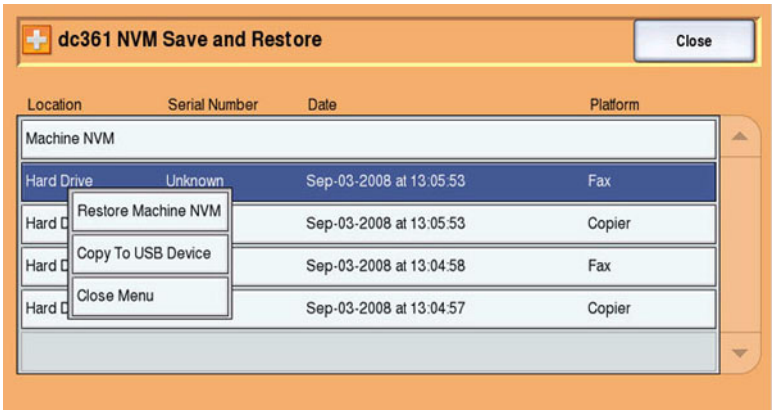
1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc361 NVM Save and Restore**.
4. From the UI screen, select **Machine NVM**.
5. From the pull-down menu, select **Save to Hard Drive**.



6. A progress message **Saving NVM in Progress** is displayed.
7. When NVM Save procedure is complete, the **dc361 NVM Save and Restore** menu is displayed.
8. Touch the **Close** button to exit the **dc361 NVM Save and Restore** screen.

Restoring NVM

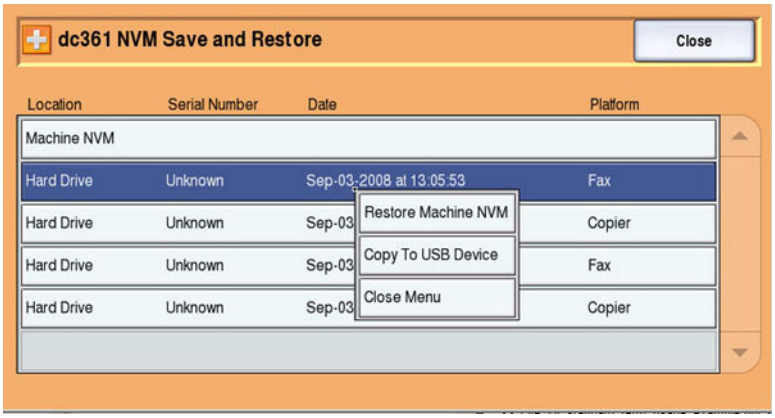
1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc361 NVM Save and Restore**.
4. From the UI screen, select **Hard Drive**.
5. From the pull-down menu, select **Restore Machine NVM**.



6. A progress message **Restoring NVM in Progress** is displayed.
7. When NVM Restore procedure is complete, the **dc361 NVM Save and Restore** menu is displayed.
8. Touch the **Close** button to exit the **dc361 NVM Save and Restore** screen.

Copying NVM from Hard Drive to USB Device

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc361 NVM Save and Restore**.
4. From the UI screen, select **Hard Drive**.
5. From the pull-down menu, select **Copy To USB Device**.



6. A progress message **Copying NVM in Progress** is displayed.
7. When NVM Restore procedure is complete, the **dc361 NVM Save and Restore** menu is displayed.
8. Touch the **Close** button to exit the **dc361 NVM Save and Restore** screen.

Copying NVM from USB Device to Hard Drive

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc361 NVM Save and Restore**.
4. From the UI screen, select **USB**.
5. From the pull-down menu, select **Copy To Hard Drive**.
6. A progress message **Copying NVM in Progress** is displayed.
7. When NVM Restore procedure is complete, the **dc361 NVM Save and Restore** menu is displayed.
8. Touch the **Close** button to exit the **dc361 NVM Save and Restore** screen.

dc608 - Document Feeder Registration

The Document Feeder Registration (dc608) routine checks the image registration (on the page) of the documents fed through the DADF and automatically corrects any misalignments relative to the image being placed on the page. This adjustment also performs a de-skew adjustment and automatically corrects any misalignment.

The process performs automatically and requires the user to place 3 sheets of letter or A4 paper on the DADF and then the target sheet. The printer will report to the user (Pass/Fail) the outcome of the adjustment.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc608 Document Feeder Registration**.
4. On the UI screen, following the instructions and touch the **Start** button.
5. A progress message **Document Feeder Registration in Progress** is displayed.
6. When the procedure is complete, a message **Document Feeder Registration was Successful** is displayed.
7. Touch the **Close** button to exit the completion screen.
8. Touch the **Close** button to exit the **dc608 Document Feeder Registration** screen.

dc609 - Document Glass Registration

The Document Platen Registration (dc609) checks the image registration (on the page) of the documents placed on the document glass and automatically corrects any misalignments relative to the image being placed on the page.

The process performs automatically and requires the user to place the target sheet onto the Document Glass. The printer will report to the user (Pass/Fail) the outcome of the adjustment.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc609 Document Glass Registration**.
4. On the UI screen, following the instructions and touch the **Start** button.
5. A progress message **Document Glass Registration in Progress** is displayed.
6. When the procedure is complete, a complete message **Document Glass Registration was Successful** is displayed.
7. Touch the **Close** button to exit the completion screen.
8. Touch the **Close** button to exit the **dc609 Document Glass Registration** screen.

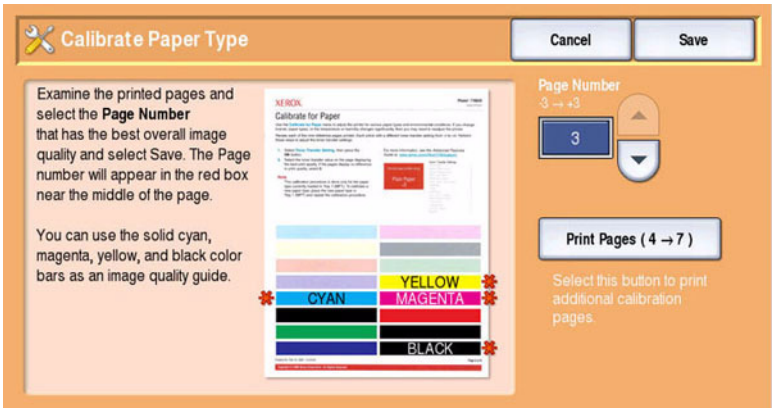
dc909 - Calibrate for Paper Type

The Calibrate for Paper Type (dc909) adjustment routine provides the user the ability to adjust the 2nd Image Transfer Power output (ATVC) in order to compensate for the use of thick or specialty media.

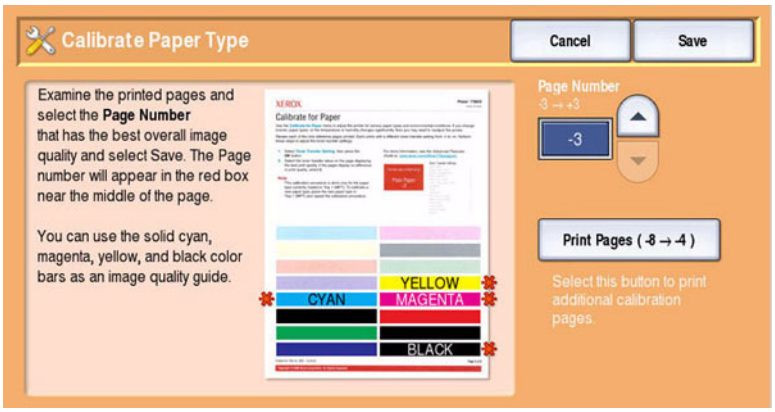
The adjustment is effective in correcting the following types of defects on both simplex and duplex prints.

- Low Density
- Foggy Background
- Voids
- White Spots

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc909 Calibrate for Paper Type**.
4. Load the paper type to calibrate in tray 1.
5. Touch the **Print Test Sheets** button to perform the procedure.
6. A progress message **Printing Test Sheets (-3 -> 3)** is displayed.
7. A set of 7 pages (-3 to +3) are printed.
8. Examine the printed pages to determine which one has the best color density.
9. If adjustment is required, select the page that has the best overall image quality. Touch the **Save** button.
10. If optimal adjustment is outside the range of the initial group of the 7 prints, print the appropriate pages:
    - Print test pages from 4 to 7: From the Page Number menu, select **3**. Touch the **Print Pages (4 -> 7)** button.



- Print the test pages from -8 to -4: From the Page Number pull-down menu, select **-3**. Touch the **Print Pages (-8 -> -4)** button.



11. Repeat the above procedure as necessary for each loaded media type.
12. Touch the **Close** button to exit the completion screen.
13. Touch the **Close** button to exit the **Calibrate Paper Type** screen.

dc936 - Image Quality Calibration

The Image Quality Calibration (dc936) routine allows the user to recalibrate the IOT to correct common imaging defects.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc936 Image Quality Calibration**.
4. Touch the **Start Calibration** button to start the procedure.
5. A progress message **Image Quality Calibration is in progress** is displayed.
6. After the process is complete, a completion message **Image Quality Calibration is complete** is displayed.
7. Touch the **Close** button to exit the **dc936 Image Quality Calibration** screen.

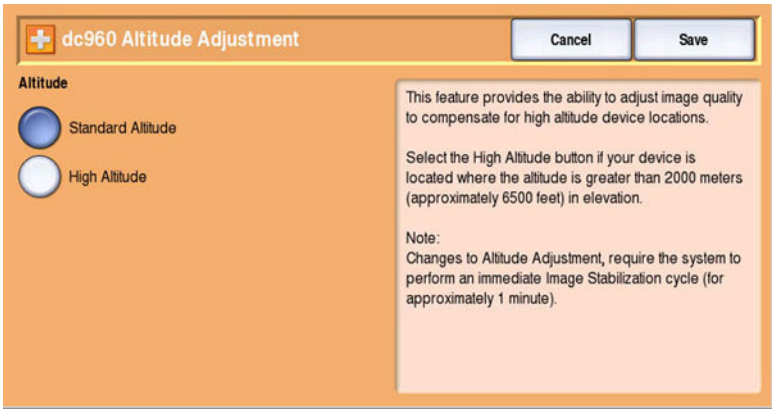
Note

Refer to “Image Quality Control (Image Stabilization)” on page 2-101 for detailed information on image stabilization.

dc960 - Altitude Adjustment

The Altitude Adjustment (dc960) routine is used to adjust the altitude when the product is placed in a location where the altitude is equal or greater than 2000 meters (approximately 6500 feet) in elevation.

1. Access the Service Diagnostics menu (page 4-7).
2. Touch the **Adjustments** tab.
3. Select **dc960 Altitude Adjustment**.
4. Select the appropriate option
   - **High Altitude -** For device located where the altitude is greater than 2000 meters (6500 feet) in elevation.
   - **Standard Altitude -** For device located where the altitude is less than 2000 meters (6500 feet) in elevation.
5. Touch the **Save** button to save the change and exit the **dc960 Altitude Adjustment** screen.



Calibrations

Color Calibration

The Color Calibration routine allows the user to adjust the appearance of printed pages. It is all-encompassing in that it calibrates both the true and composite grays, and also the colors (cyan, magenta, and yellow).

Color Calibration allows the user to:

- Calibrate printed color under normal light.
- Calibrate just once for all print modes.
- Avoid interactions, where one set of adjustments affects another.
- Perform calibration without using a scanner.

Procedure

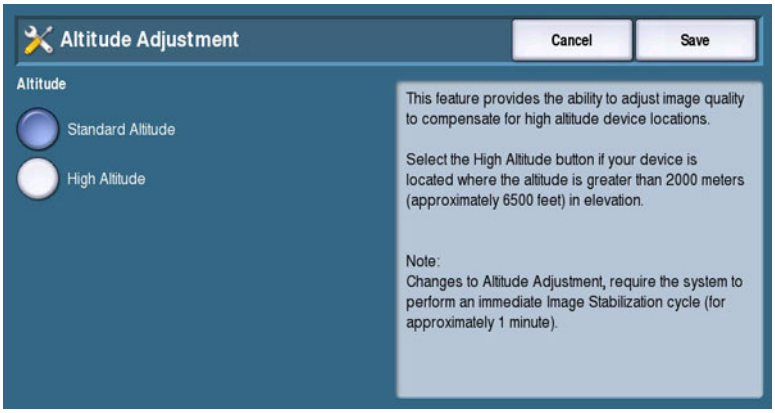
1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Select **Color Calibration**.
12. Select the appropriate option for the environment.
    - **Normal Office Lighting** - use for standard fluorescent lighting.
    - **F50 Calibrated Light** - use for proofing in the graphic arts area.
13. Touch the **Next** button.
14. Touch the **Print Test Sheets** button to print a calibration page.
15. A Printing Calibration Sheet progress screen is displayed and a Cyan/ Magenta Calibration page is printed.
16. Follow and perform the procedure on the Calibration Sheet.
17. Make the appropriate adjustments as necessary.

    Values range:
    - Cyan/Magenta, Black, Green: -5 to +5
    - Light, Medium, and Dark Adjustments: 0 to 54.
18. Touch the **Review/Reprint** button to print the calibration pages.
19. Click the **Next** button.
20. Repeat the process for the other options: Black, Green, Light Adjustment, Medium Adjustment, and Dark Adjustment.
16. Touch the **Done** button when the procedure is complete.

Altitude Adjustment

The Altitude Adjustment routine is used to adjust the altitude when the product is placed in a location where the altitude is equal or greater than 2000 meters (approximately 6500 feet) in elevation.

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Browse through the menu, find and select **Altitude Adjustment**.
12. The **Altitude Adjustment** menu is displayed. Select the appropriate option.
    - **High Altitude -** For device located where the altitude is greater than 2000 meters (6500 feet) in elevation.
    - **Standard Altitude -** For device located where the altitude is less than 2000 meters (6500 feet) in elevation.
13. Touch the **Save** button to save the change and exit the **Altitude Adjustment** screen.



Calibrate Paper Type

The Calibrate for Paper Type Adjustment routine allows the user to adjust the 2nd Image Transfer Power output in order to compensate for the use of thick or speciality media.

The adjustments is effective in correcting the following types of defects on both simplex and duplex prints.

- Low Density
- Foggy Background
- Voids
- White Spots

Procedure

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Browse through the menu, find and select **Calibrate Paper Type**.
12. Touch the **Print Test Sheets** button.
13. A **Printing Test Sheets** in progress screen is displayed and a Calibrate Paper Type page is printed.
14. Review and compare the information.
15. Make necessary adjustments using the **Up and Down** arrows.

Note

The Toner Transfer Setting adjustment values range is -8 to +7.

16. Touch the **Save** button to save the data.
17. Touch the **Print Test Sheets** to reprint the pages if necessary.
18. Touch the **Close** button to exit the **Calibrate Paper Type** screen.

Document Feeder Registration

The Document Feeder Registration routine checks the image registration (on the page) of the documents fed through the DADF and automatically corrects any misalignments relative to the image being placed on the page. This adjustment also performs a de-skew adjustment and automatically corrects any misalignment.

The process performs automatically and requires the user to place 3 sheets of letter or A4 paper on the DADF and then the target sheet. The printer will report to the user (Pass/Fail) the outcome of the adjustment.

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Select **Document Feeder Registration**.
12. On the UI screen, following the instructions and touch the **Start** button.
13. A progress message Document Feeder Registration in Progress is displayed.
14. When the procedure is complete, a message Document Feeder Registration was Successful is displayed.
15. Touch the **Close** button to exit the completion screen.
16. Touch the **Close** button to exit the **Document Feeder Registration** screen.

Document Glass Registration

The Document Glass Registration checks the registration of the Document Glass and corrects any misalignments.

The process performs automatically and requires the user to place the target sheet onto the Document Glass. The printer will report to the user (Pass/Fail) the outcome of the adjustment.

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Select **Document Glass Registration**.
12. On the UI screen, following the instructions and touch the **Start** button.
13. A progress message Document Glass Registration in Progress is displayed.
14. When the procedure is complete, a complete message Document Glass Registration was Successful is displayed.
15. Touch the **Close** button to exit the completion screen.
16. Touch the **Close** button to exit the **Document Glass Registration** screen.

Image Position (Margin Adjustment)

The Image Position routine allows the user to correctly align the whole ROS image on the Transfer Belt for each paper group and paper tray.

Initial launch of the Image Position routine includes:

- Defaults to Tray 2
- Displays the media type loaded in the selected tray
- Allows the user to print the test pattern
- Provides a list of current Image Position adjustment values for all media and trays

Image Position adjustments include:

- A printed tutorial page explaining how to perform the adjustment
- The lead edge (process direction) of the image for each supported media grouping
- The side edge (cross process direction) of the image for the available trays
- Side 2 for the adjustments on supported media types

The range of adjustment is -15 to +15 with each increment or decrement equals to 0.21 mm.

Total amount of adjustment must equals to 30 x 0.21mm = 6.3mm or 3.15mm in each direction.

Procedure

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Select **Image Position**.
12. Select the appropriate paper size.
13. Touch the **Print Test Sheet** button to print the page.
14. Follow and perform the instructions on the Image Position page.
15. Make necessary adjustment and touch the **Save** button to save the changes.

Image Quality Calibration

The Image Quality Calibration routine allows the user to recalibrate the IOT to correct imaging defects.

1. Press the **Log In/Out** button.
2. In the **User Name** field on the UI, enter **admin** (default User Name).
3. Touch the **Next** button.
4. In the password field, enter **1111** (default password).
5. Touch the **Enter** button.
6. The Main UI screen is displayed with the **admin** button highlighted.
7. Press the **Machine Status** button.
8. Touch the **Tools** button.
9. Touch the **Troubleshooting** button.
10. Under the **Features** screen, select **Calibration**.
11. Select **Image Quality Calibration**.
12. Touch the **Start Calibration** button to start the calibration procedure.
13. An Image Quality Calibration is in process message screen is displayed.
14. After the process is complete, a message Image Quality Calibration is complete is displayed.
15. Touch the **Close** button to exit the **Image Quality Calibration** screen.

Note

Refer to “Image Quality Control (Image Stabilization)” on page 2-101 for detailed information on image stabilization.

Control Panel Diagnostics

The control panel diagnostics provides access to various test that help troubleshoot issues with the display or buttons. A touch panel calibration routine is available to align touching the screen to the on screen display. The touch panel calibration should always been performed after an LCD display is replaced.

1. Press the "**Dial Pause**" + "*****" + "**#**" buttons simultaneously to access the Panel Diagnostics menu.
2. A list of tests is displayed on the Panel Diagnostics menu.
   - LCD Pixel Test
   - Touch Panel Calibration
   - Touch Panel Test
   - Button Test
   - Display Vertical Test
   - LED Test
   - Exit
3. Select the test on the UI Panel or press the number on the Control Panel corresponding to the test on the UI Panel to be performed.
4. To exit any test while the test is in progress, press the "**C**" button on the Control Panel.

Note

The LED Test functions properly but will require a power cycle to exit due to the nature of the test.

5. To exit the UI Diagnostics routine, touch **Exit** button on the UI Panel.

User Interface Calibration Menu

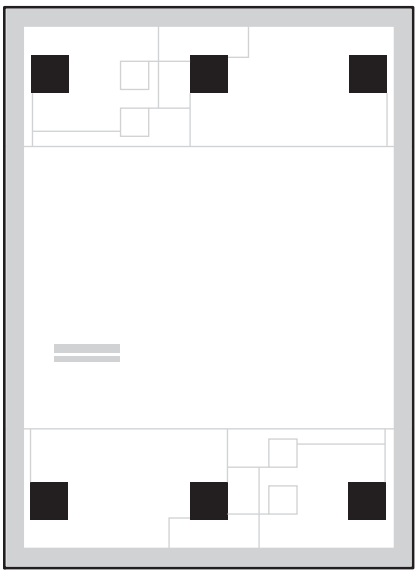
Type of Test	Description
LCD Pixel Test	Allows the user to determine whether the pixels in the display are functioning correctly.
Touch Panel Calibration	Performs a nine point calibration of the UI panel to align the touch sensitive layer with the underlying LCD display.
Touch Panel Test	Allows the user to touch the panel and confirm it is being sensed.
Display Vertical Test	Allows the user to visually detect luminosity defects in the LCD display.
LED Test	Allows the user to verify each of the LED's associated with UI panel are working in relation to the corresponding hard keys.
Exit	Exits the UI Calibration.

Scanner Calibration

Note

You do not need to calibrate the scanner regularly. Only calibrate when you have replaced the scanner or the DADF or if skew occurs when copying from the DADF.

The Scanner must be calibrated using the document glass and the document feeder. This procedure is the same as dc608 and dc609 routines in diagnostics.

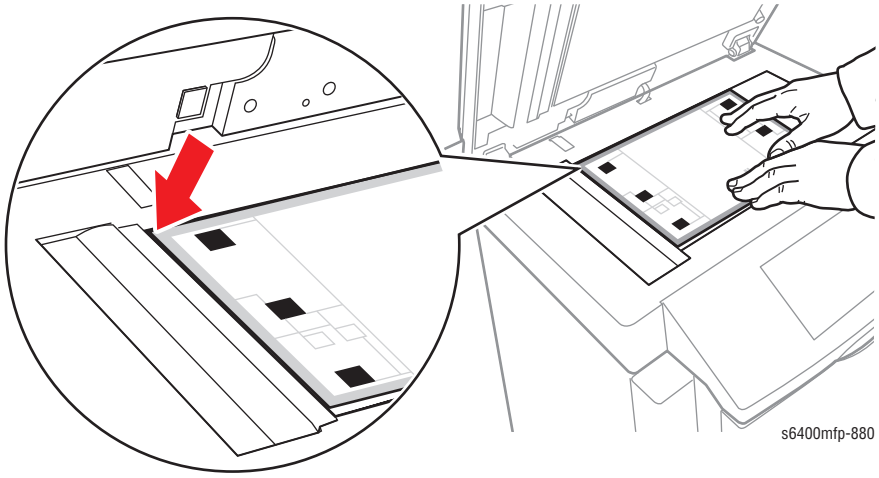


s6400mfp-879

Procedure

1. Start the calibration procedure from the printer's control panel.
2. Log in as a system administrator. Press the **Log In/Out** button (user name:admin, default password:1111).
3. On the control panel, press the **Machine Status** button.
4. Select the **Tools** tab.
5. Select **Troubleshooting**, then **Calibration**.
6. Select **Document Glass Registration**.

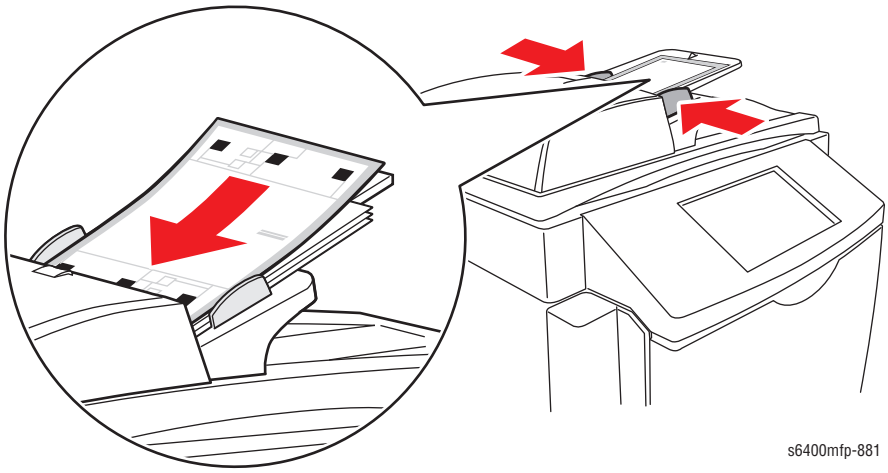
7. Place the scanner calibration page on the document glass. The scanner calibration page is included with your replacement scanner or document feeder.



8. Close the document feeder.
9. On the Control Panel, select **Start** to scan the calibration page.
10. Wait for the scan to be completed, and then select one of the following options:
    - If the Control Panel indicates **Success**, select **Close** and then continue with Step 11.
    - If the Control Panel indicates **Failure**, select **Close**, and then repeat from Step 9.
11. Scanner calibration from the document glass is complete. The scanner must now be calibrated from the document feeder. Remove the Scanner Calibration page from the document glass, and place three blank sheets of paper (letter or A4 size) in the document feeder. Place the calibration page on top of the three sheets. Adjust the paper guides to fit against the calibration page.

Note

The paper guides should be adjusted to fit against the paper. If the page is misaligned, the calibration procedure will fail.



12. On the Control Panel, select **Document Feeder Registration**, then press the **Start** button to scan the calibration page.
13. Wait for the scan to be completed, then select one of the following options:
    - If the control panel indicates **Success**, select **Close**. The calibration procedure is complete.
    - If the control panel indicates **Failure**, select **Close**, then repeat from step 11.

Note

When you are finished calibrating the scanner, please return the calibration page to Xerox with the defective scanner or document feeder.

Cleaning and Maintenance

In this chapter...

Chapter 7

Service Maintenance Procedure

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, Average Monthly Print Volume (AMPV), type of paper printed on, and operating environment are factors in determining how critical cleaning the printer is and how often it is necessary. Record the number of sheets printed.

Recommended Tools

- Toner vacuum cleaner
- Clean water
- Clean, dry, lint-free cloth
- Black, light protective bag

Cleaning

Perform the following general cleaning steps as indicated by the printer's operating environment.

Caution

Never apply alcohol or other chemicals to any parts of the printer. Never use a damp cloth to clean up toner. If you remove the Imaging Units, place them in a light-protective bag or otherwise protect them as exposure to light can quickly degrade performance and result in early failure.

1. Record the total impression counted.
2. Print several sheets of paper to check for Print Quality (PQ) problems or defects.
3. Copy several sheets of paper to check for Image Quality (IQ) problems or defects.
4. Turn the printer power Off and disconnect the power cord.
5. Remove the following components before cleaning.
   - Toner Cartridges (page 8-15)
   - Imaging Units (page 8-17)
   - Waste Cartridge (page 8-19)
6. Using a Toner Vacuum, remove any accumulated toner from around the Laser Unit, then clean each Laser lens with a dry, lint-free cloth.
7. Be sure that all cover vents are clean and free of obstructions.
8. Inspect the entire paper path and remove any debris or foreign objects found.
9. Remove and clean the paper trays.

10. Clean all rubber rollers with a lint-free cloth slightly dampened with cold water.

Cleaning the Control Panel

Caution

Do not use any organic solvent, acid, or alkali solution.

1. Use a dry or soft cloth to wipe the Control Panel. Be sure there are no scratches on the Control Panel surface.

s6400mfp-484

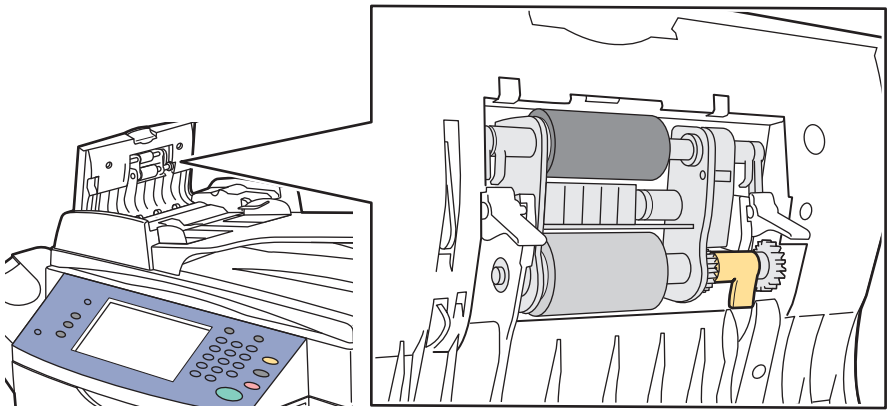
Inspecting and Cleaning the DADF Feed Rollers and Pads

1. Open the DADF Cover.

Caution

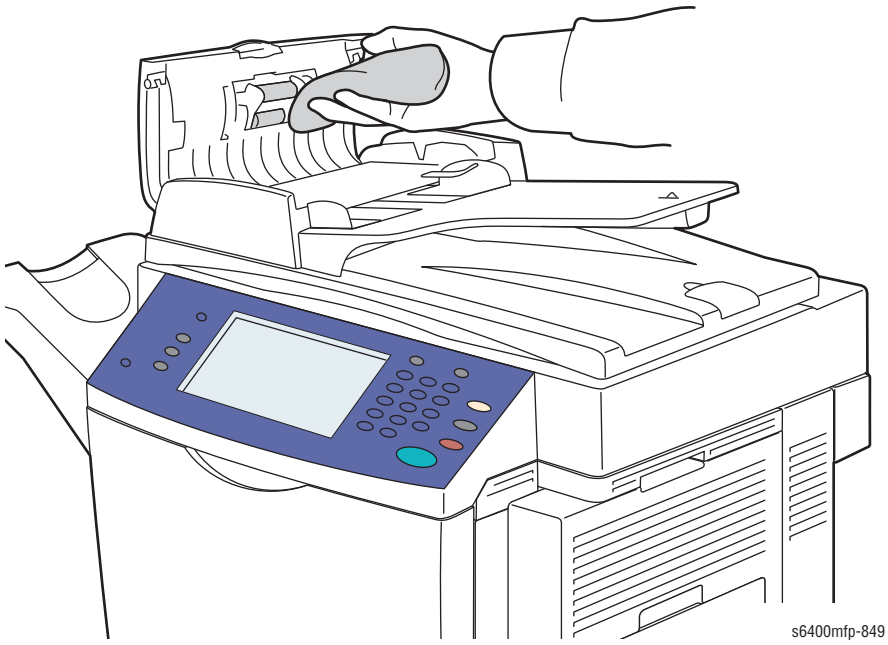
Be careful not to touch the DADF Feed Rollers to prevent getting them dirty.

2. Inspect the DADF Feed Rollers for damage.



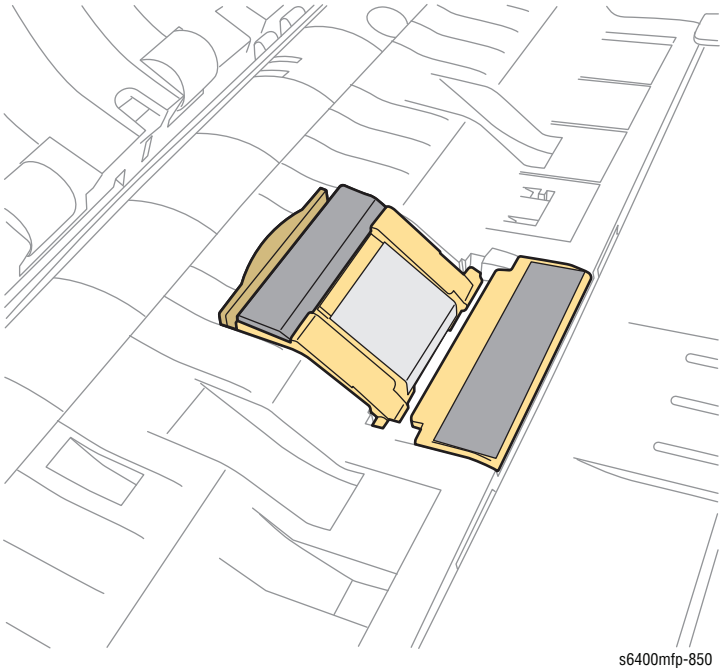
s6400mfp-848

3. Use a moistened lint-free cloth to wipe the Feed Rollers.



s6400mfp-849

4. Inspect the DADF Pads for damage.
5. Use a moistened lint-free cloth to wipe the Pads.



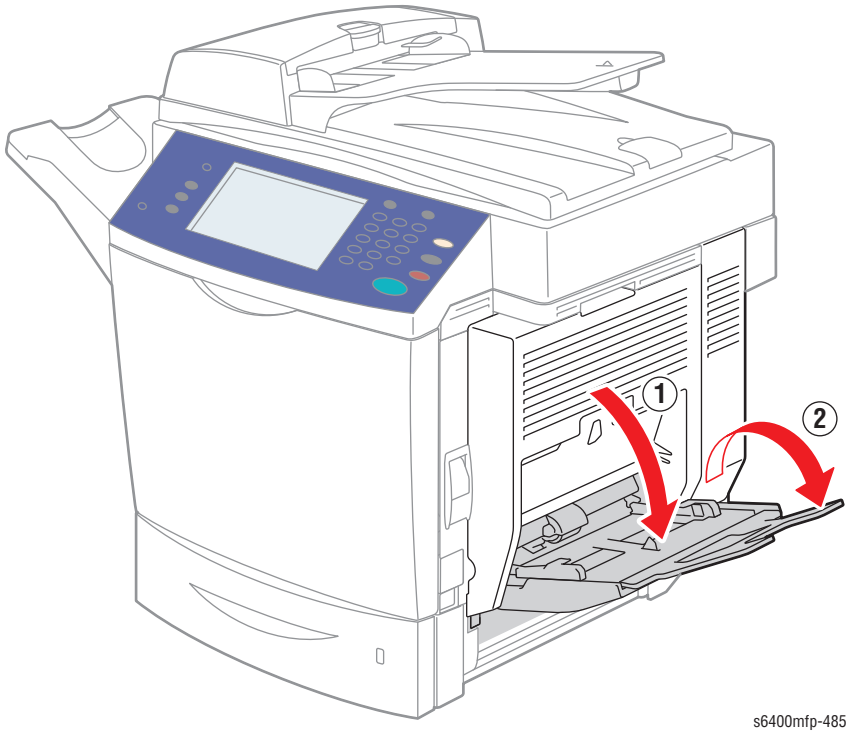
6. Close the DADF Cover.

Cleaning the Tray 1 Feed Roller

Note

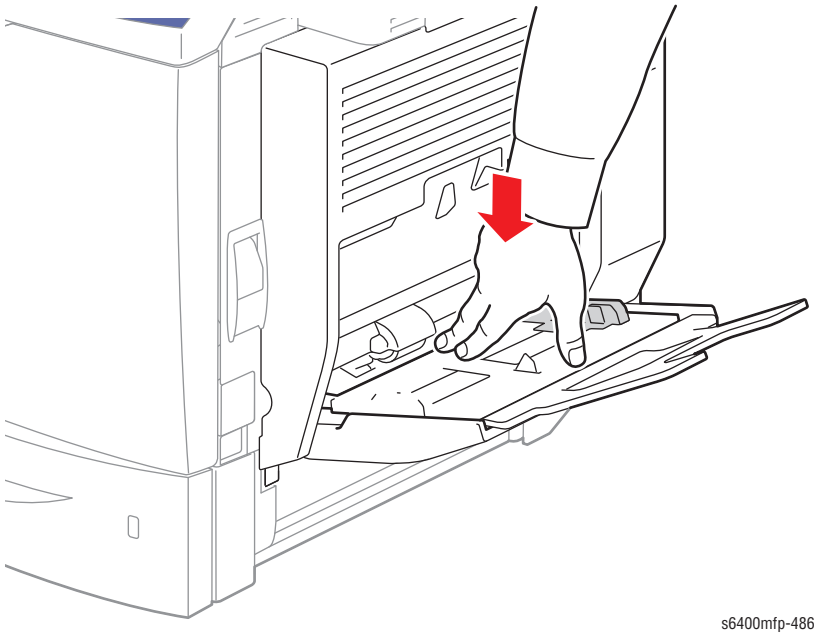
Use only a moistened lint-free cloth to clean the Feed Roller. Do not use any kind of cleaning agent to clean the Feed Roller.

1. Open Tray 1.



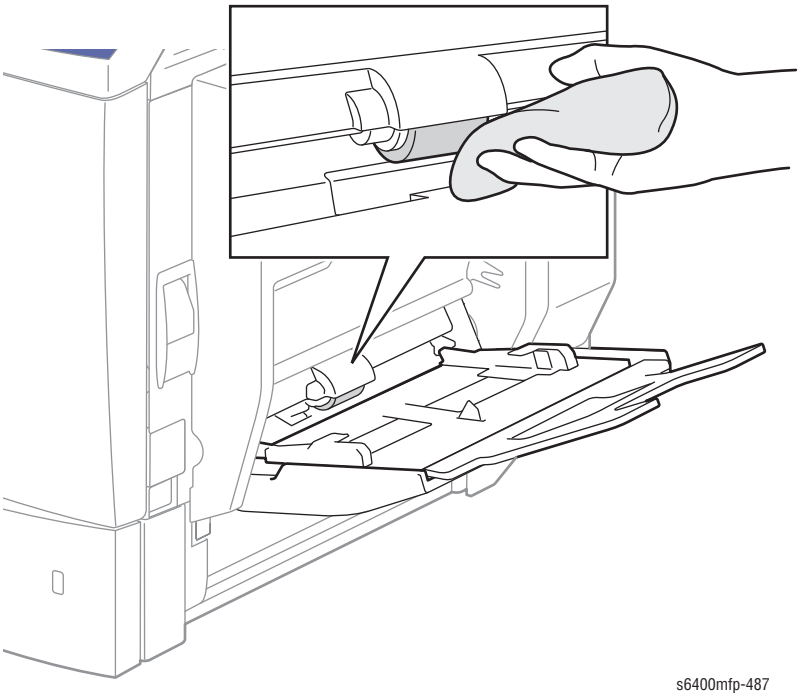
s6400mfp-485

2. Push down on the Lift Plate to lock it in the down position.



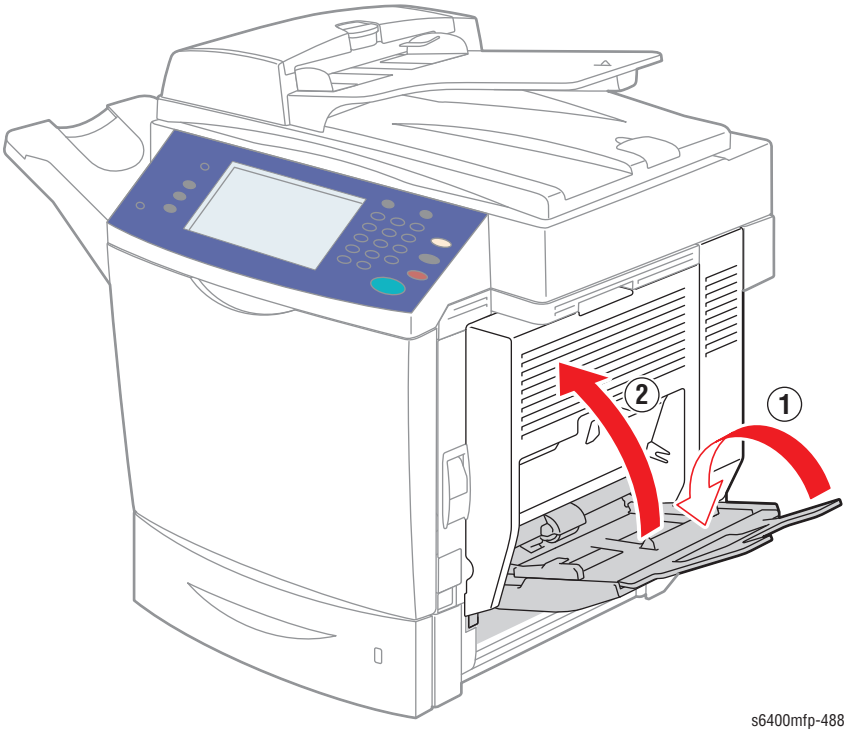
s6400mfp-486

3. Use a moistened lint-free cloth to clean the Feed Roller. Be sure the Feed Roller is not damaged. Replace the Feed Roller (page 8-12) if it appears to be excessively worn or damaged.



s6400mfp-487

4. Close Tray 1.



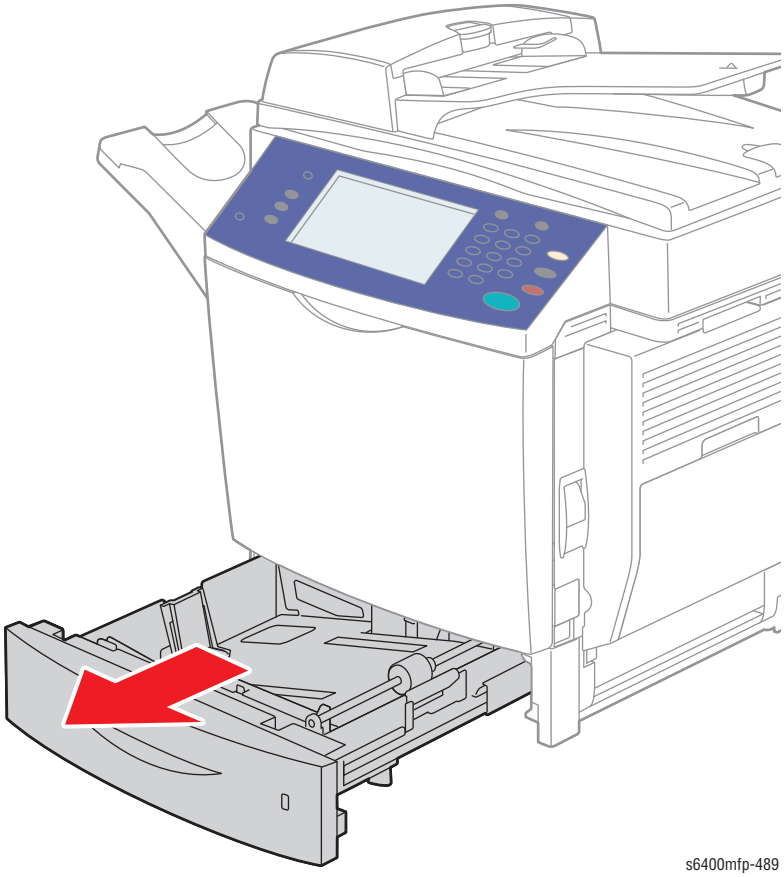
s6400mfp-488

Cleaning the Tray 2/3/4 Feed Roller

Note

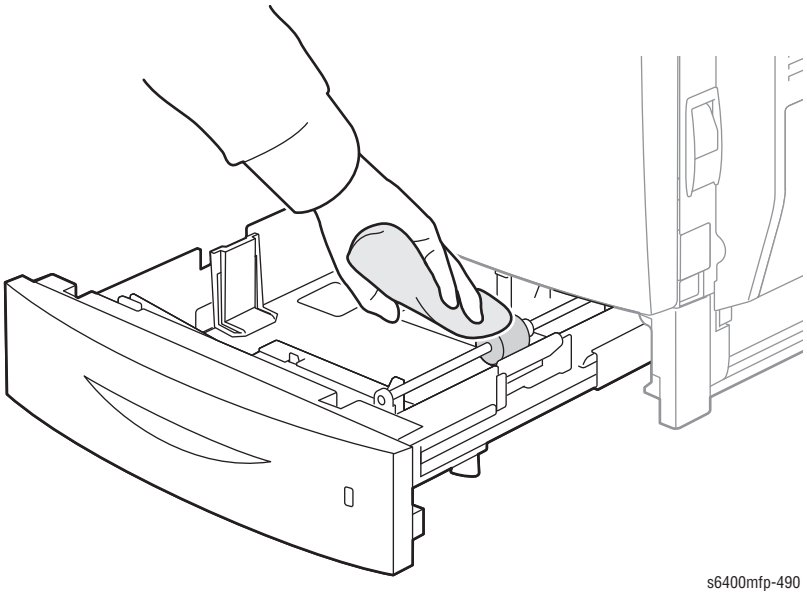
Use only a moistened lint-free cloth to clean the Feed Roller. Do not use any kind of cleaning agent to clean the Feed Roller.

1. Fully open the tray.



s6400mfp-489

2. Use a moistened lint-free cloth to clean the Feed Roller. Be sure the Feed Roller is not damaged. Replace the Feed Roller (Tray 2, page 8-27; Tray 3/4, page 8-29) if it appears to be excessively worn or damaged.



s6400mfp-490

3. Close the tray.

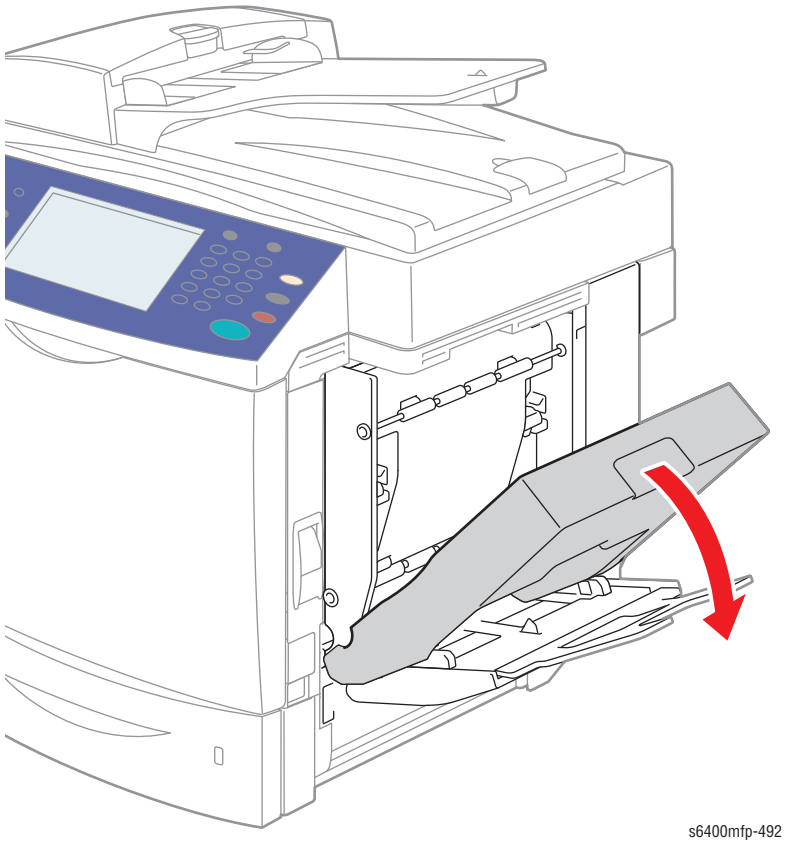
s6400mfp-491

Cleaning the Duplex Unit Feed Rollers

Note

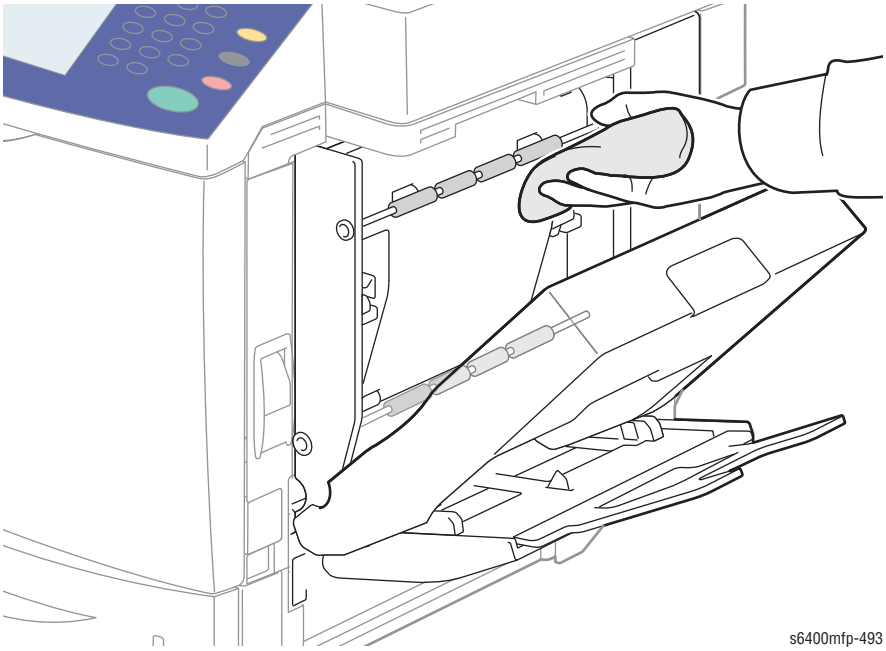
Use only a moistened lint-free cloth to clean the Feed Rollers. Do not use any kind of cleaning agent to clean the Feed Rollers.

1. Open the Duplex Unit.



s6400mfp-492

2. Use a moistened lint-free cloth to clean the Feed Roller. Be sure the Feed Rollers are not damaged. Replace the Duplex Unit (page 8-175) if the Rollers appear to be excessively worn or damaged.



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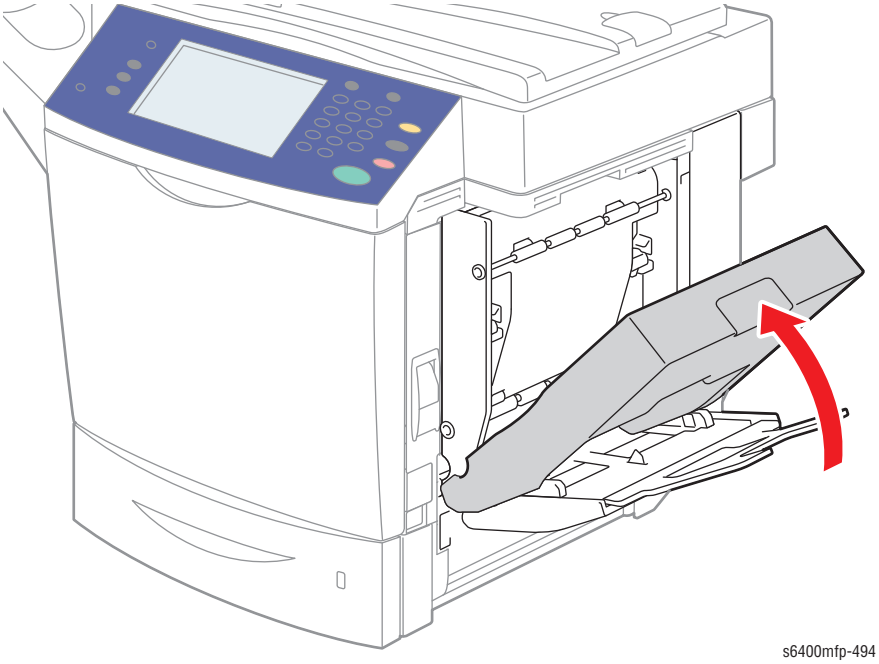
3. Close the Duplex Unit.



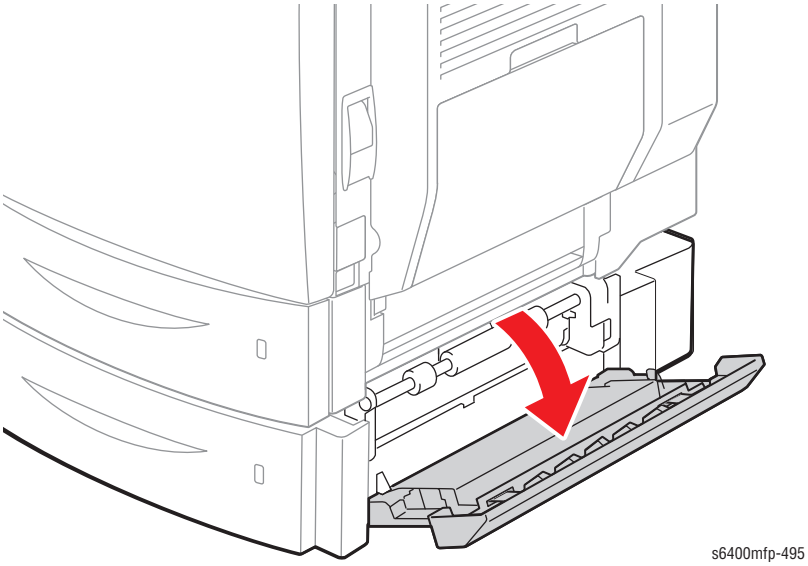
s6400mfp-494

Cleaning the Tray 3/4 Transport Rollers

Note

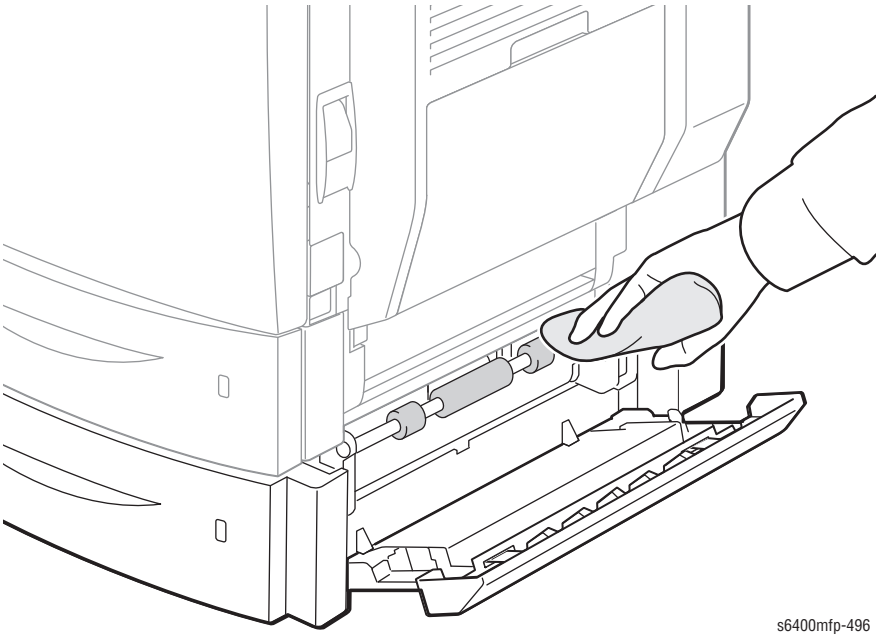
Use only a moistened lint-free cloth to clean the Transport Rollers. Do not use any kind of cleaning agent to clean the Transport Rollers.

1. Open the Tray 3/4 Right Side Cover.



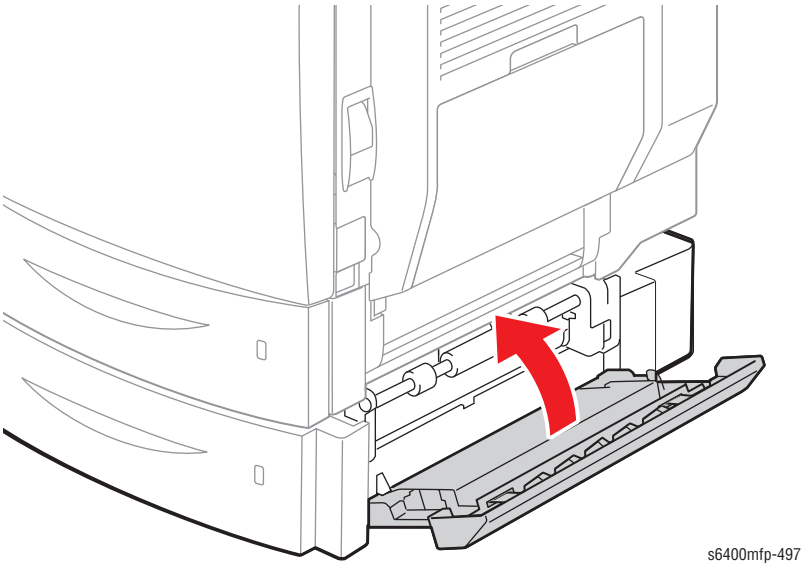
s6400mfp-495

2. Use a moistened lint-free cloth to clean the Transport Rollers. Be sure the Transport Rollers are not damaged. Replace the Optional 500-Sheet Feeder (page 8-166) if the Rollers appear to be excessively worn or damaged.



s6400mfp-496

3. Close the Tray 3/4 Right Side Door.



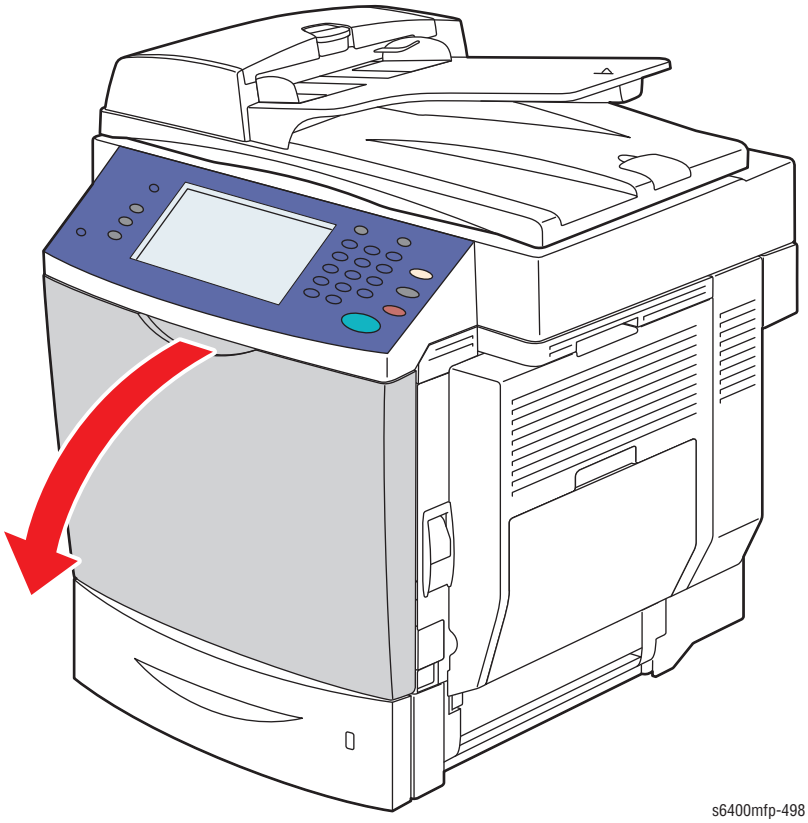
s6400mfp-497

Cleaning the Laser Lens

Note

There are 4 Laser Lenses in the printer. The Laser Lens cleaning tool is attached on the inside of the printer's Front Door.

1. Open the Front Door.
2. Remove the cleaning tool from the Front Door.

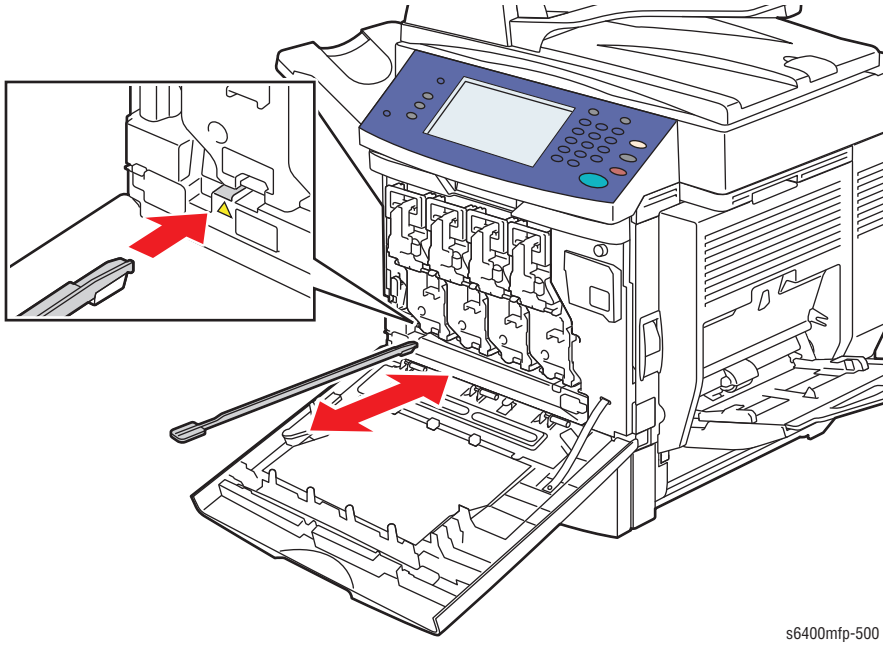


s6400mfp-498

Note

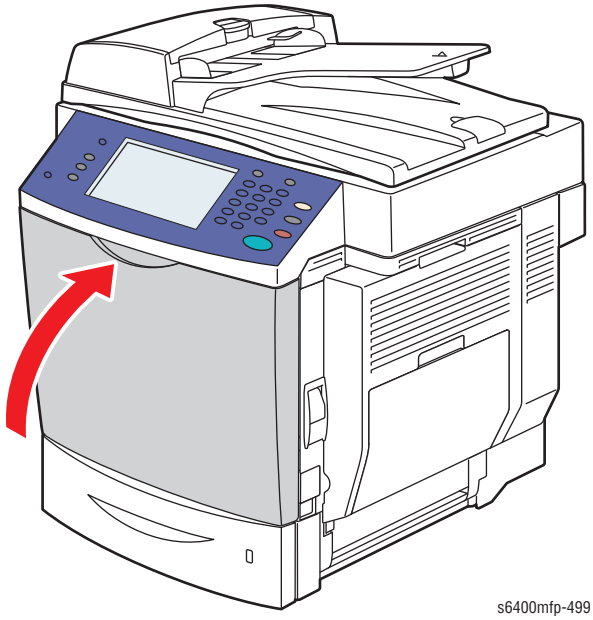
Ensure the foam tip on the cleaning tool is facing down.

3. Align the end of the cleaning tool with the marker of the Waste Cartridge.
4. Insert the Laser Lens cleaning tool into the opening and slide it into the printer until only the handle is left exposed. Then pull the cleaning tool out.
5. Repeat this process 2-3 times.
6. Repeat steps 3-5 for each color.



s6400mfp-500

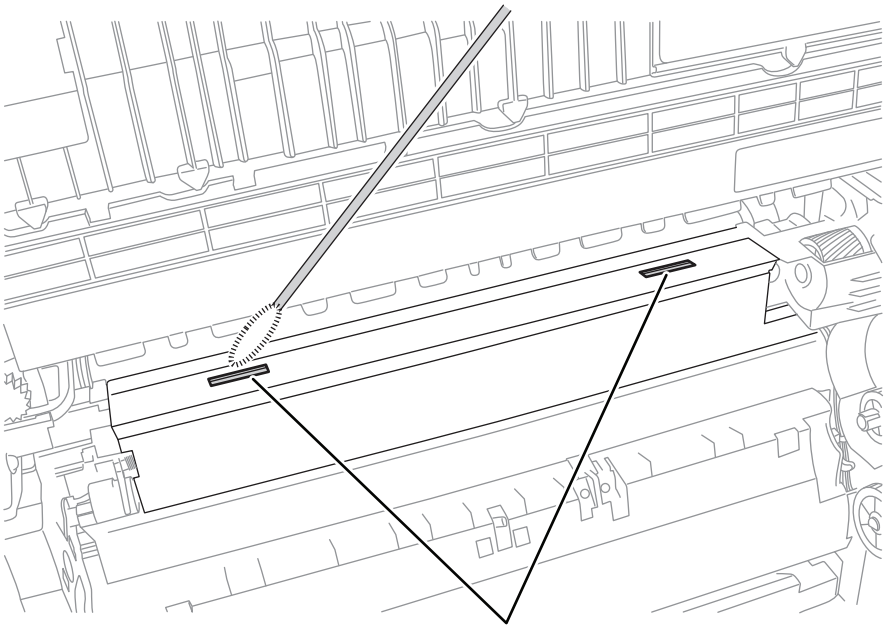
7. Return the Laser Lens cleaning tool to it's holder on the inside of the Front Door.
8. Close the Front Door.



s6400mfp-499

Cleaning the IDC Sensor

1. Remove the Transfer Belt (page 8-20).
2. Insert a Q-tip into the opening on top of the Guide and move the Q-tip side to side to clean the sensor.
3. Repeat step 2 for the sensor on the opposite side of the Guide.



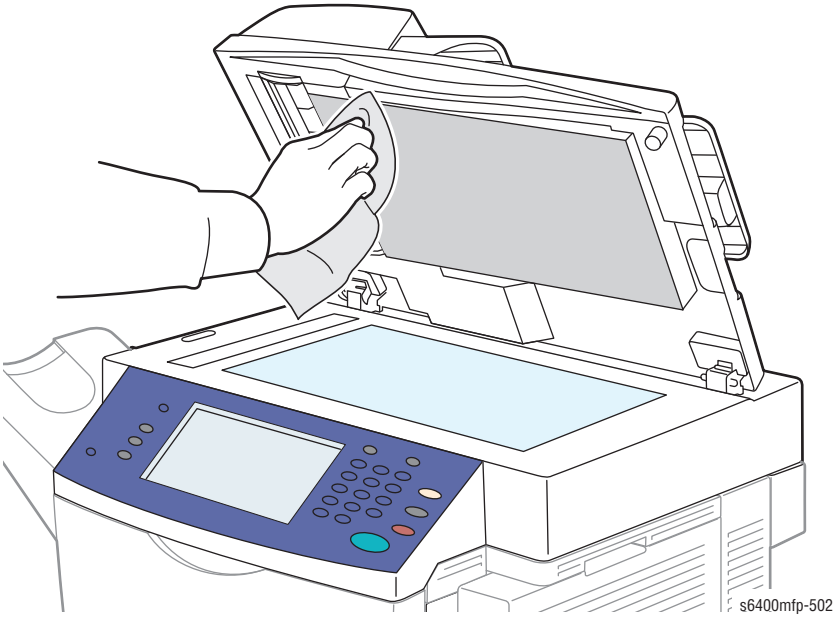
Cleaning the Document Glass

Note

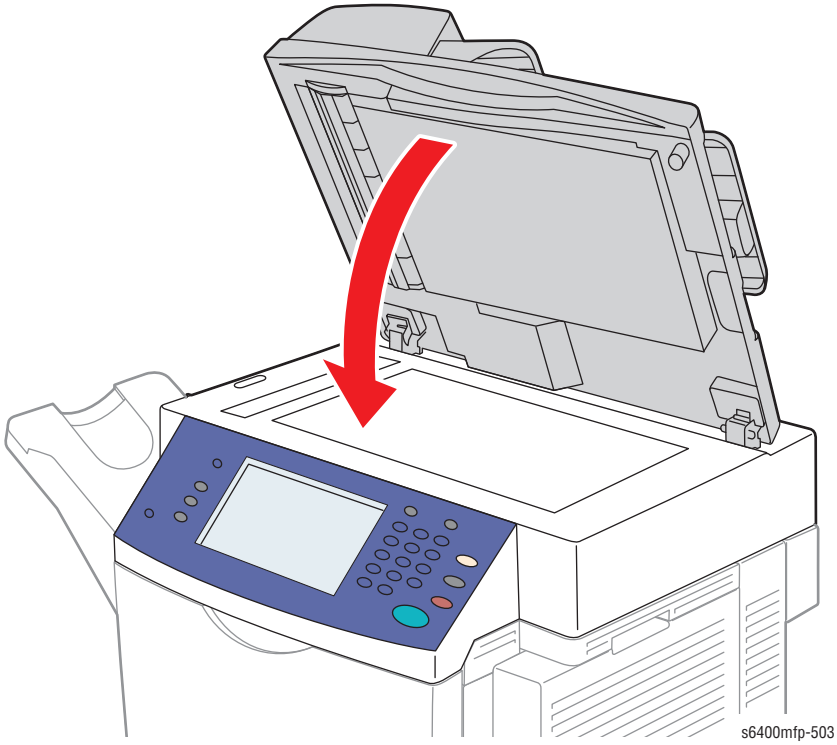
Use only a moistened lint-free cloth to clean the document glass. Do not use any kind of cleaning agent to clean the glass.

1. Open the DADF Assembly.
2. Use a moistened lint-free cloth to clean the document glass. Be sure there are no scratches on the document glass surface.

3. Wipe the surface underneath the Document Feeder.



4. Close the DADF Assembly.



Maintenance

RIP (Repair, Inspect, and Prevent) Procedure

Perform these routine maintenance procedures during the course of servicing the printer.

- Clean all Feed Rollers, Exit Rollers, and Guides within the paper path.
- Fully open and clean the paper trays.
- Clean the 4 Laser Unit windows.
- Clean the Document Glass.
- Print a Configuration Report and System Status Page; diagnose, and repair any problems as indicated.
- Check the System Software versions; as appropriate, update to the latest versions.
- Check the cleanliness of the exterior and interior of the printer; if necessary, clean (dust or vacuum) these areas.
- Check that all cover vents are clean and free of obstructions.
- Review with the customer all work that was performed and discuss proper printer care.

Service Parts Disassembly

In this chapter...

Chapter 8

Table of Contents

Overview

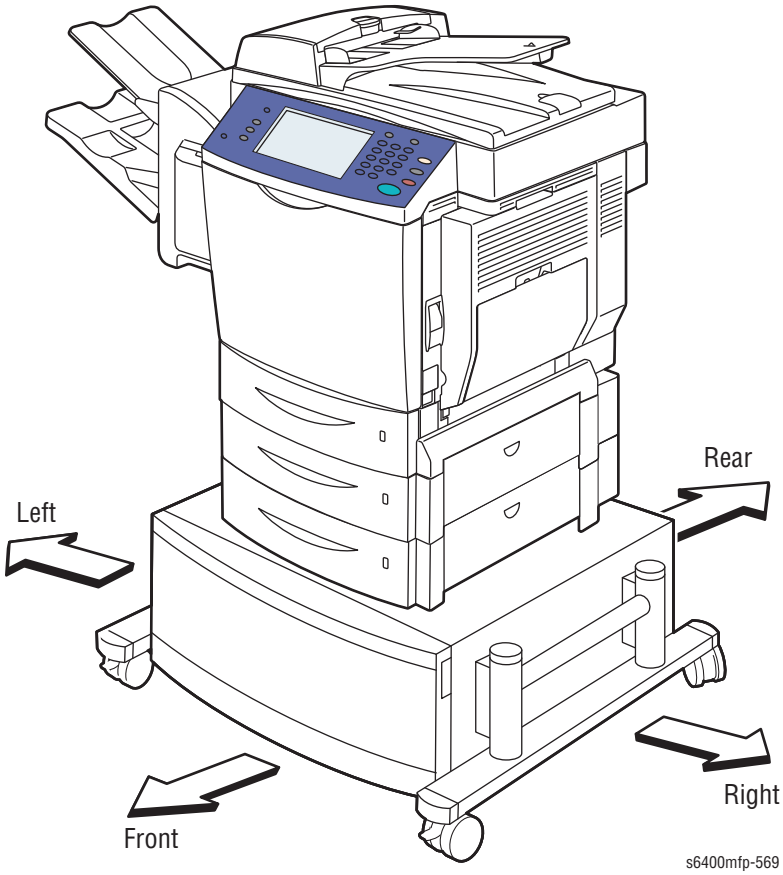
This section contains the removal procedures for field-replaceable parts of the printer listed in the Parts List. In most cases, the replacement procedure is simply the reverse of the removal procedure. In some instances, additional steps are necessary and are provided for replacement of the parts. For specific assemblies and parts, refer to the “Parts List” in Section 9.

Note

Always use the correct type and size screw (page 8-8). Using the wrong screw can damage tapped holes. Do not use excessive force to remove or install either a screw or a printer part.

Standard Orientation of the Printer

When needed, the orientation of the printer is called out in the procedure as an aid for locating the printer parts. The following figure identifies the Front, Rear, Left, and Right sides of the printer.



Notations in the Disassembly Text

- The notation “(item X)” points to a numbered callout in the illustration corresponding to the disassembly procedure being performed.
- The notation “PL*X.X.X*” indicates that this component is listed in the Parts List.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- The notation “(tap, plastic, 10 mm)” or “(metal, 6 mm)” refer to the type of screw being removed.

Note

Provides information specific to the replacement of parts or assemblies.

Preparation

Before you begin any removal and replacement procedure:

1. Wear an Electrostatic Discharge wrist strap to help prevent damaging to the sensitive electronics of the printer circuit boards.
2. Turn the printer power Off and disconnect the power cord from the wall outlet.
3. Disconnect all computer interface cables from the printer.
4. Remove Tray 2.
5. Open the Front Door.
6. Remove the following Maintenance Items and Consumables.

Caution

Do not expose the Imaging Units to light for more than 5 minutes. After removal, cover the Imaging Unis to minimize the amount of light striking the Toner Cartridges. Prolonged exposure to light significantly reduces Imaging Unit performance.

a. Toner Cartridges (page 8-15)
b. Imaging Units (page 8-17)
c. Waste Cartridge (page 8-19)

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

d. Fuser Unit (page 8-24)
e. Transfer Roller (page 8-23)

Caution

Do not touch the Transfer Unit belt area.

f. Transfer Belt (page 8-20)
g. Ozone Filter (page 8-18)
h. Feed Rollers (Tray 1, page 8-12), (Tray 2, page 8-27), (Lower Feeder Unit, page 8-29)

i. Duplex Unit (page 8-175)

Note

Names of parts that appear in the removal and replacement procedures may not match the names that appear in the Parts List. For example, a part called the Registration Chute Assembly in a removal procedure may appear on the Parts List as Assembly, Registration Chute. When working on a removal procedure, ignore any prerequisite procedure for parts already removed.

Caution

Many parts are secured by plastic tabs. Do not over flex or force these parts. Do not over torque the screws threaded into plastic parts.

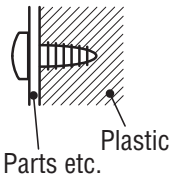
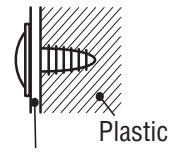
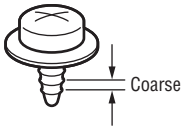
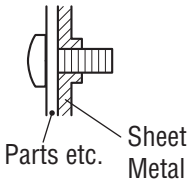
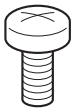
Warning

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

Fastener Types

The following table lists the primary types of Posi-Drive screws used to assemble the printer. The procedures provide dimensional specifications for screws being removed.

Posi-Drive Screw Types used in the Printer

Type	Application	Shape	Characteristics
Self-tapping, plastic			1. Silver colored. 2. Screw thread is coarse compared to metal screw. 3. Screw tip is thin.
Self-tapping, plastic, with flange			1. Silver colored. 2. Screw has a flange. 3. Screw thread is coarse compared to metal screw. 4. Screw tip is thin.
Sheet Metal, silver			1. Silver colored. 2. Diameter is uniform. 3. Typically 6 mm in length.

Caution

Use care when installing self-tapping screws in plastic. To properly start the screw in plastic, turn the screw counter-clockwise in the hole until you feel the screw engage the threads, then tighten as usual. Failure to properly align or over tighten the screw can result in damage to previously tapped threads.

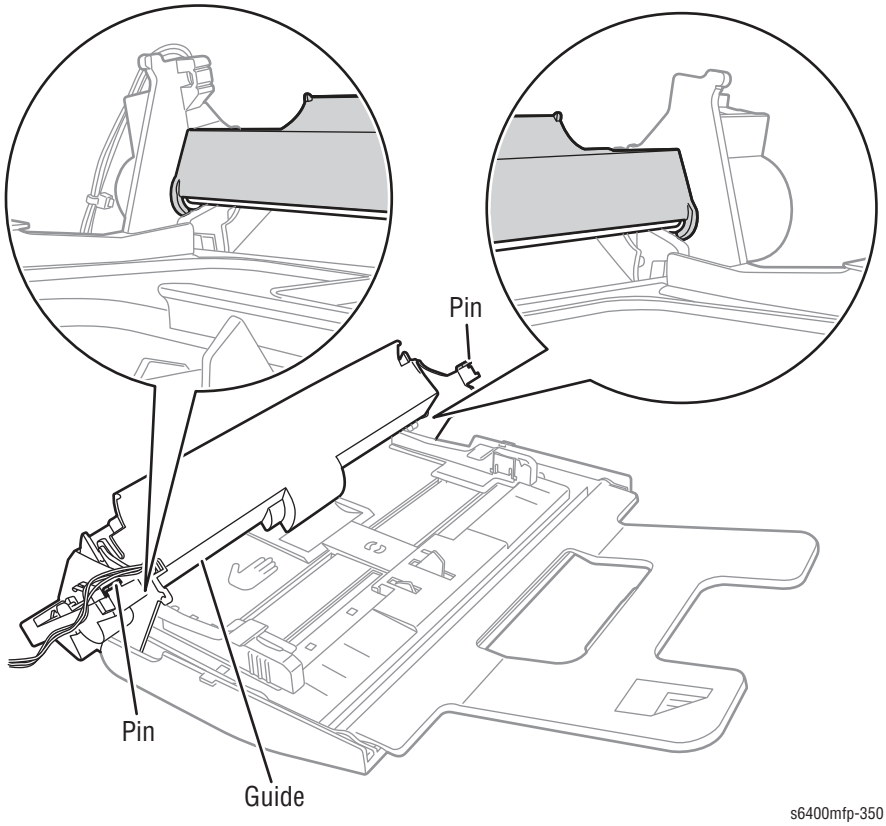
Always use the correct type and size screw. Using the wrong screw can damage tapped holes. Do not use excessive force to remove or install either a screw or a printer part.

Maintenance Items and Consumables

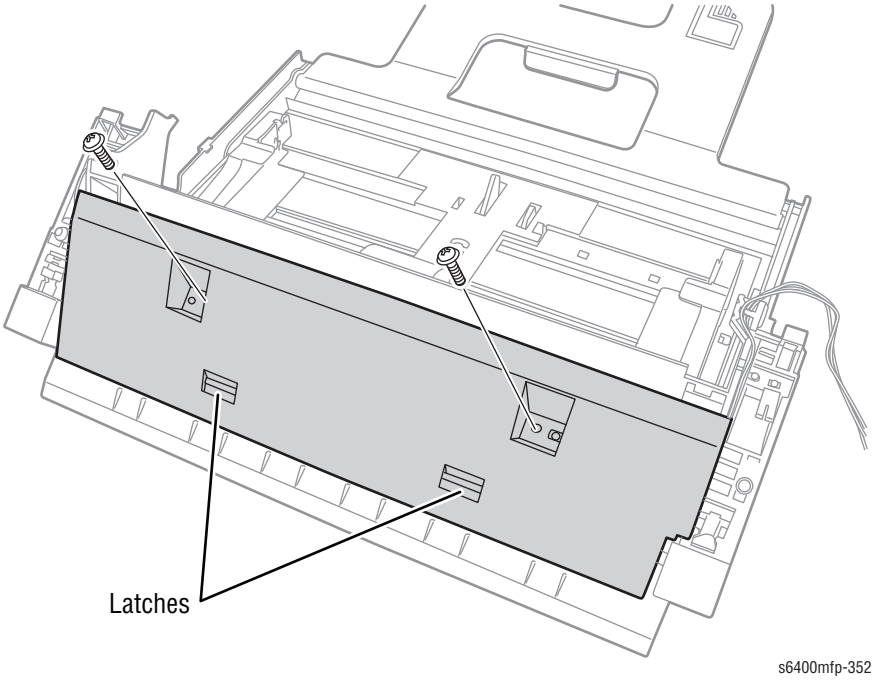
Maintenance and Consumable items include the Toner Cartridges, Imaging Units, Waste Cartridge, Fuser Unit, Transfer Roller, Transfer Belt, Ozone Filter, and Feed Rollers.

Tray 1 Separation Roller Assembly (PL5.25)

1. Remove Tray 1 (page 8-53).
2. Press the two pins inward to release the clips on the bottom of the Guide (PL5.1).
3. Push from the bottom of the Guide to release the Guide.
4. Lift and remove the Guide.

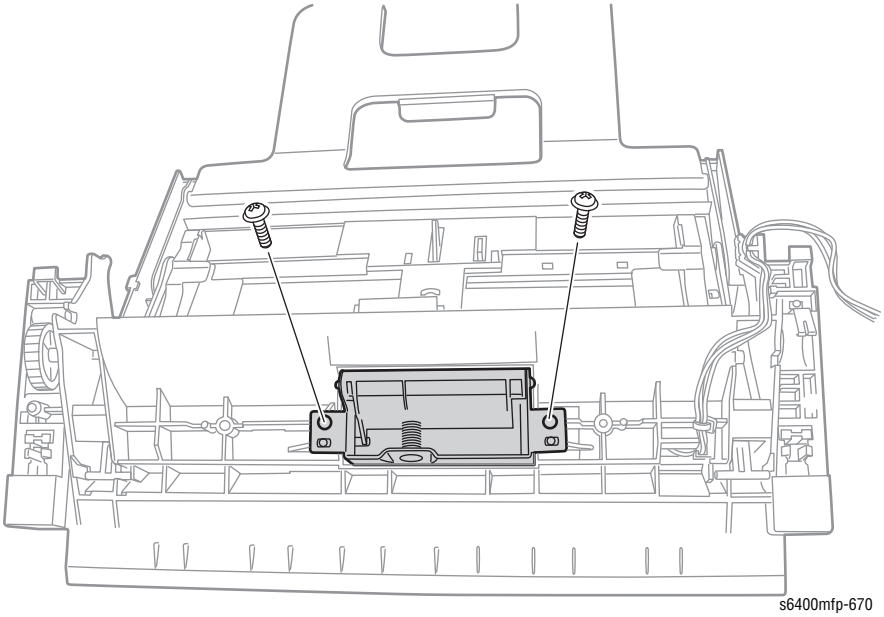


5. Remove 2 screws that secure the Guide (PL5.22).
6. Release the 2 latches to remove the Guide.



s6400mfp-352

7. Remove 2 screws that secure the Separation Roller Assembly.
8. Remove the Separation Roller Assembly from Tray 1.



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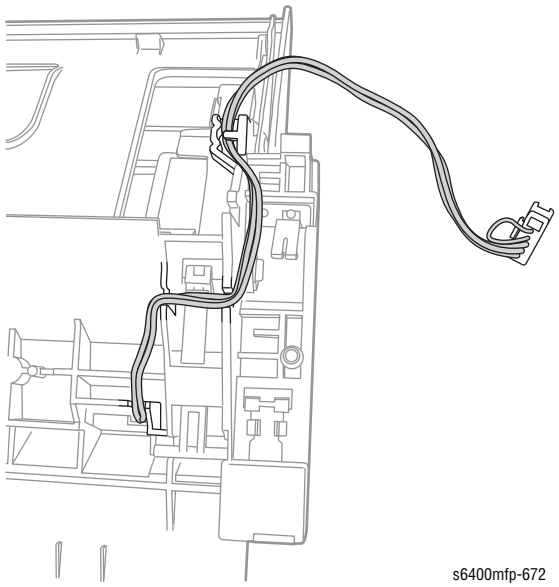
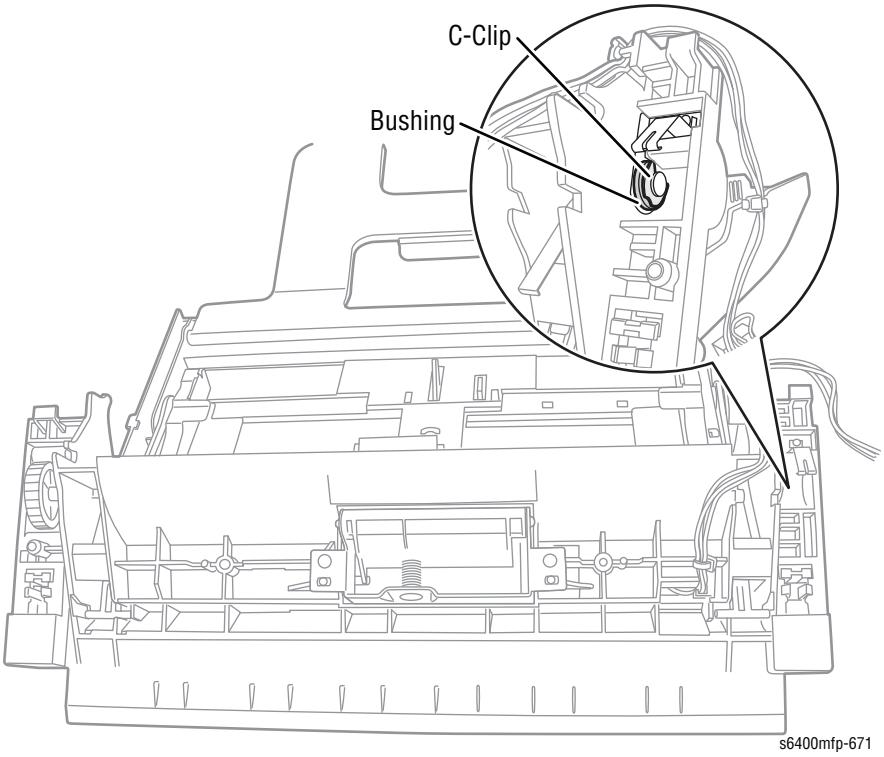
Replacement Note

Be sure to route the wiring harness through the slots next to the Guide as in the illustration.

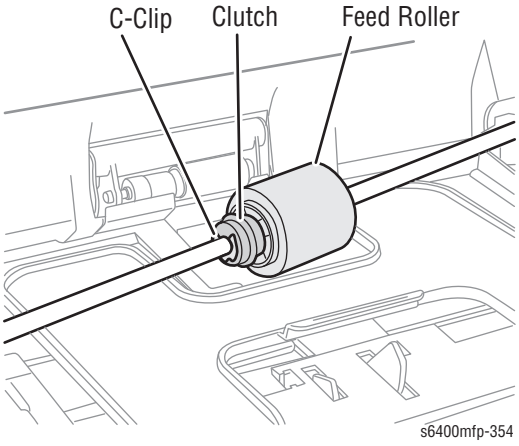


Tray 1 Feed Roller (PL5.29)

1. Follow Tray 1 Separator Roller Assembly (page 8-9) (steps 1-6).
2. Remove the C-Clip (PL5.a) and Bushing (PL5.18).



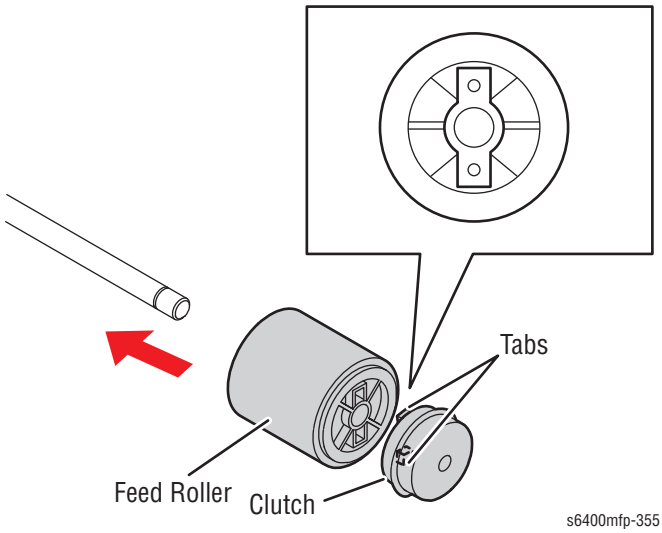
3. Slide the Shaft to the right and lift the Shaft up away from Tray 1.
4. Remove the C-Clip (PL5.a) and Clutch (PL5.30).
5. Remove the Tray 1 Feed Roller.



Replacement Note

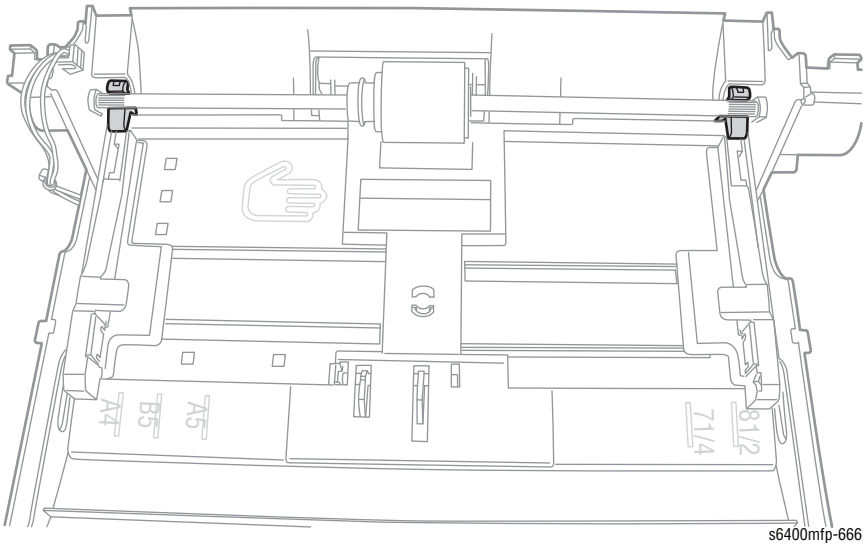
When installing the Feed Roller and the Clutch, make sure that the Feed Roller is mounted in the direction as shown in the illustration.

Be sure to position the notches on the One-way Clutch in the two holes on the Feed Roller.

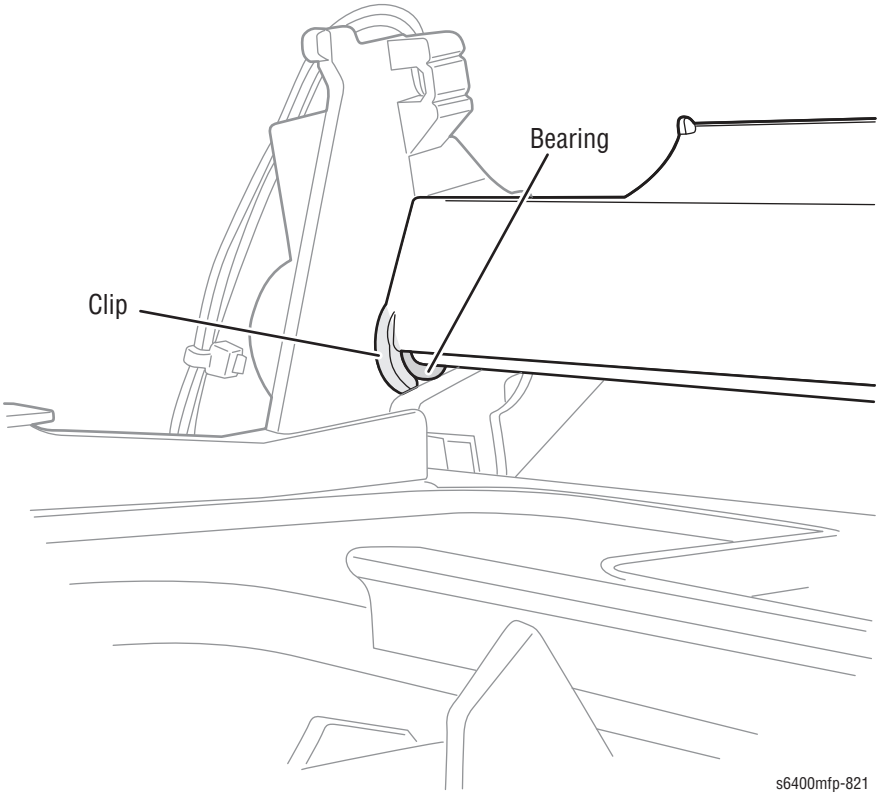


Be sure to align the two white latches over the Shaft before installing the Feed Roller and the Shaft.

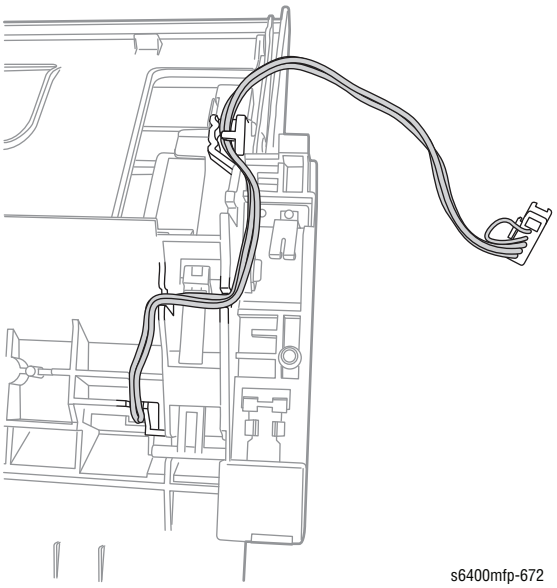
Front Side



Be sure to position the clip evenly on top of the bearing.

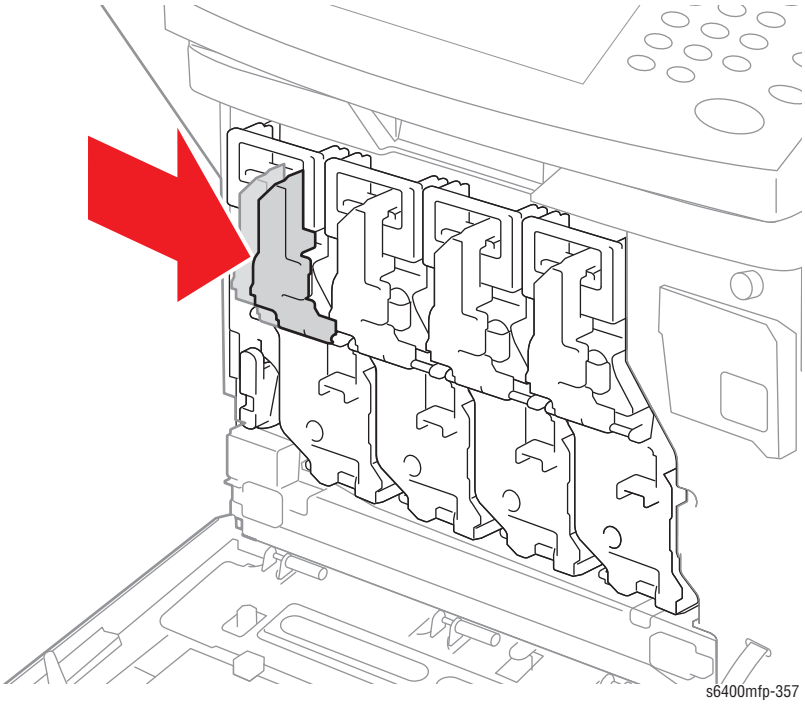


Be sure to route the wiring harness through the slots next to the Guide as in the illustration.

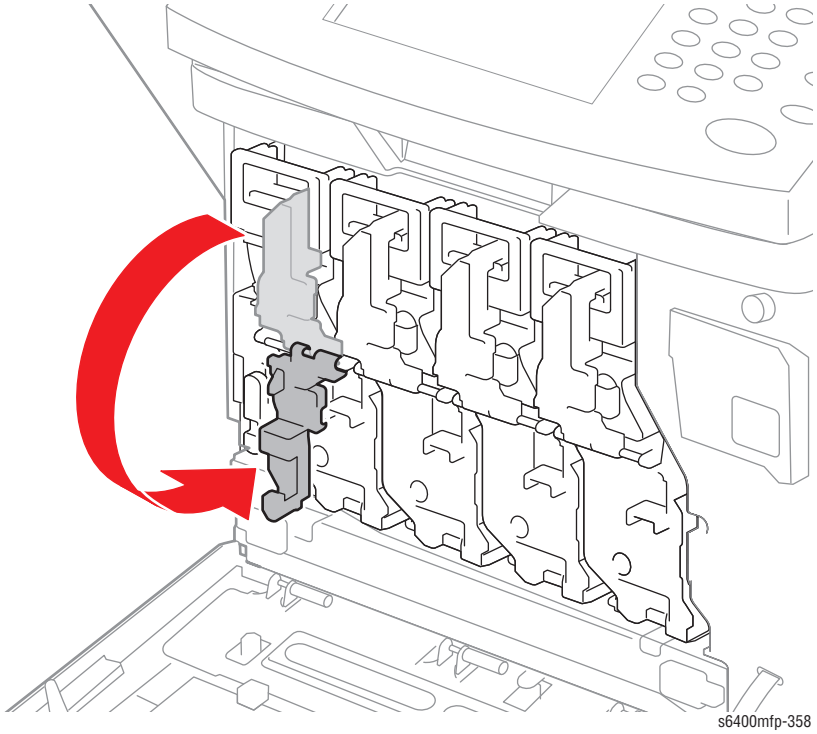


Toner Cartridge (Y/M/C/K) (PL6.19 - 6.22)

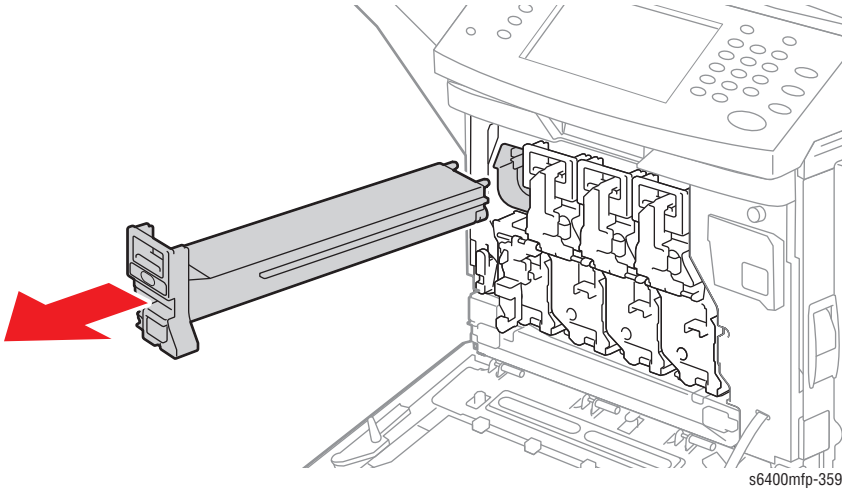
1. Open the Front Door (PL3.10).
2. Slide the Lock Lever to the right.



3. Pull the Lock Lever down to unlock the Toner Cartridge.

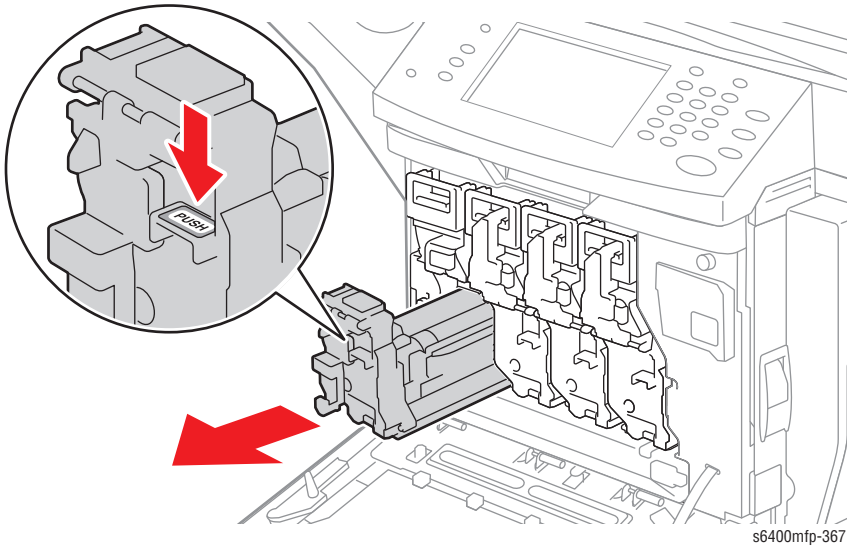


4. Grasp the Toner Cartridge handle and pull the Toner Cartridge out of the printer.



Imaging Unit (Y/M/C/K) (PL6.23 - 6.26)

1. Follow the Toner Cartridge procedure (page 8-15) (steps 1-3).
2. Press the **Push** tab and pull the Imaging Unit out of the printer.

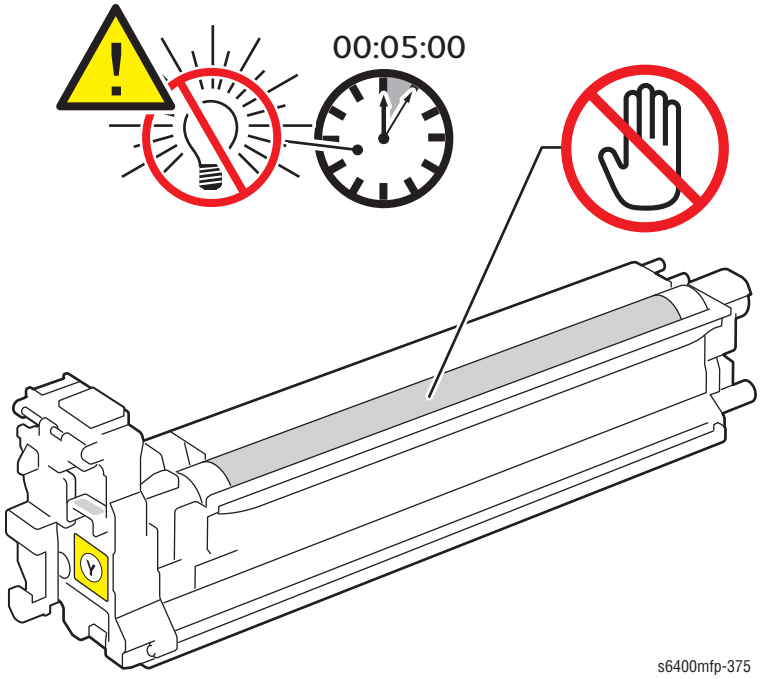


Replacement Note

Do not touch the surface of the Photo Conductor Drum.

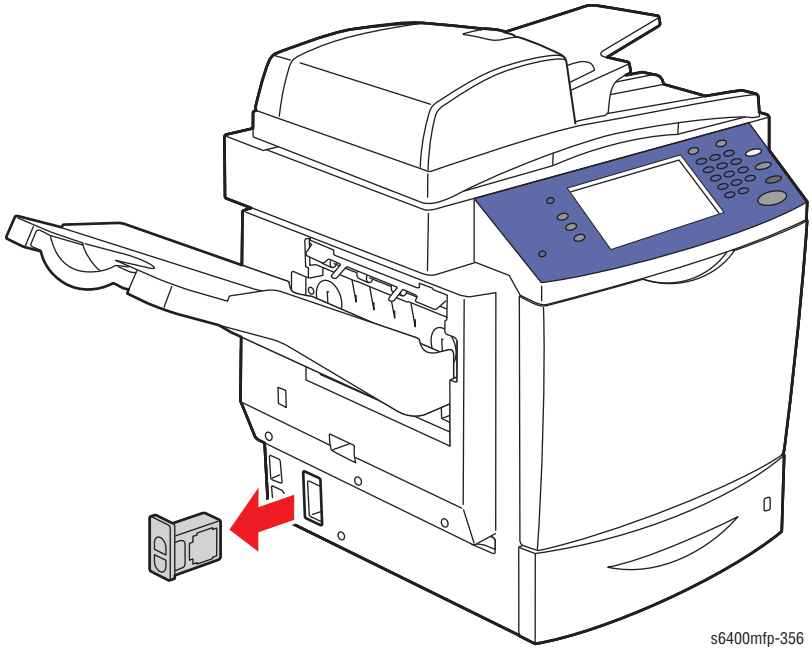
Caution

Do not expose the Imaging Unit to light for more than 5 minutes. Cover the Imaging Unit to avoid damage.



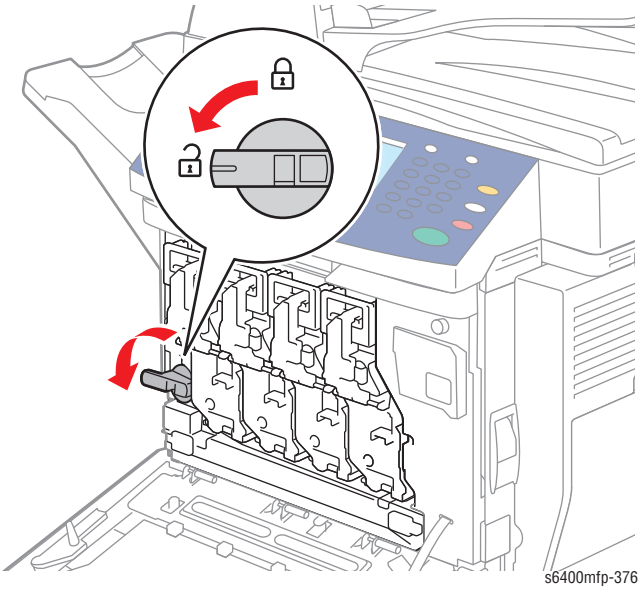
Ozone Filter (PL7.17)

1. Grasp the handle of the Ozone Filter and pull it out of the printer.



Waste Cartridge (PL9.09)

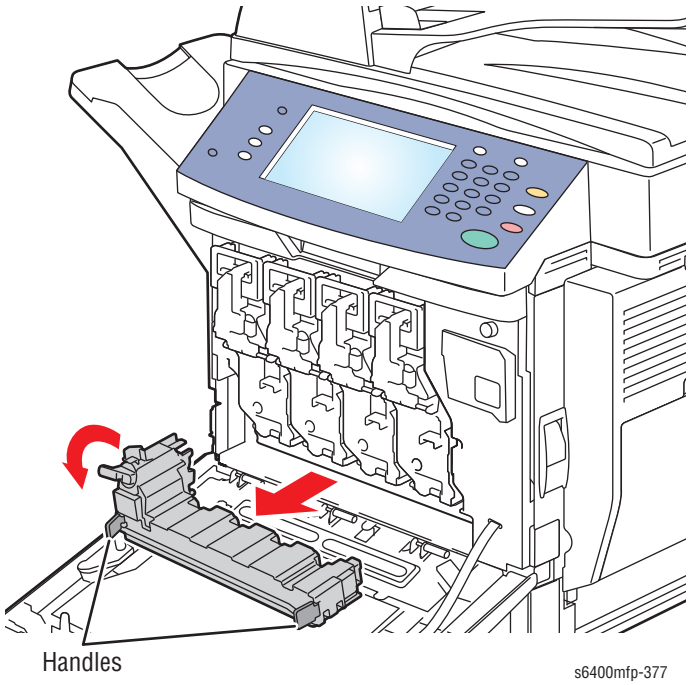
1. Open the Front Door (PL3.10).
2. Turn the lever counter-clockwise to unlock the Waste Cartridge.



3. Release the left and right handles and pull the Waste Cartridge out from the printer.

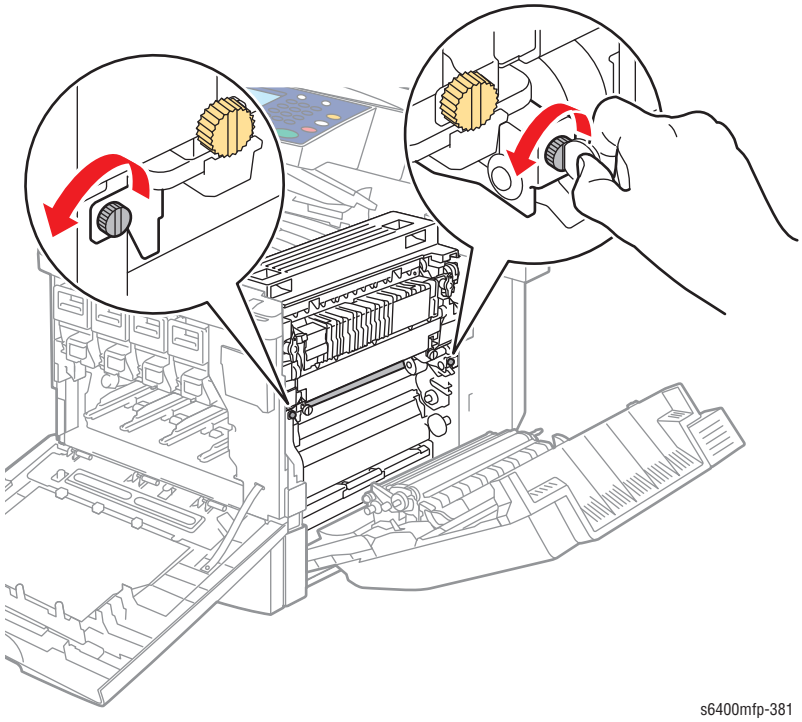
Note

To prevent spilling waste toner, leave the dial in the Unlocked position while the Waste Cartridge is removed from the printer.



Transfer Belt (PL14.16)

1. Open the Front Door (PL3.10).
2. Remove the Toner Cartridges (page 8-15).
3. Remove the Imaging Units (page 8-17).
4. Remove the Waste Cartridge (page 8-19).
5. If a Finisher is installed with the printer, continue to step 5a. If the printer does not have a Finisher, go to step 6.
   a. Remove the Finisher Assembly (page 8-182), if installed.
   b. Remove the Finisher Hooks (PL37.16).
6. Remove the Left Side Cover (page 8-52).
7. Open the Right Door (PL15.01).
8. Loosen the 2 metal screws to unlock the Transfer Belt.



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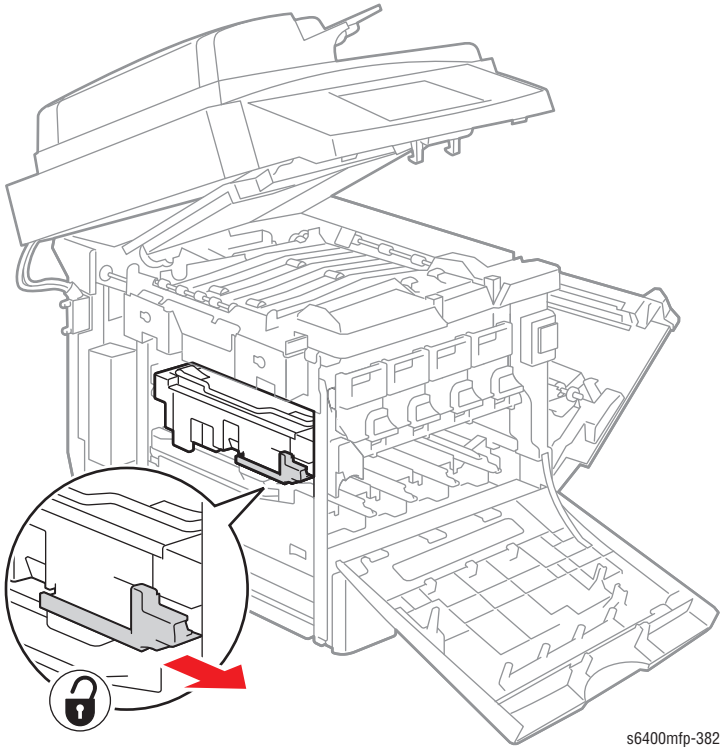
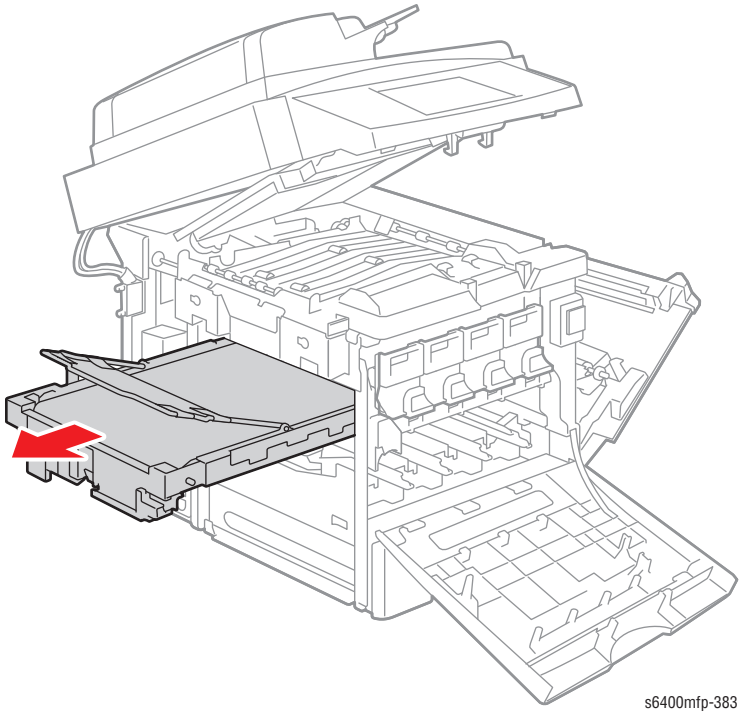
9. Slide the Shutter Lever toward the front of the printer to unlock the Transfer Belt.



Caution

Do not touch the Transfer Unit belt.

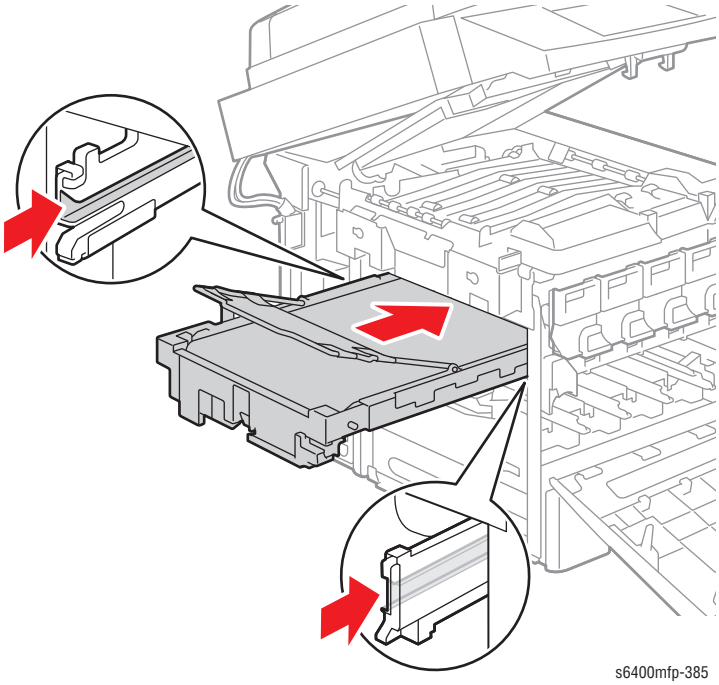
10. Grasp the Transfer Belt handle and pull the it out of the printer.



Replacement Note

Be sure to remove the packaging material from the new Transfer Belt prior to installation.

Be careful not to hit the Docking Gear against the rail or other mechanisms to prevent damaging the Transfer Belt.



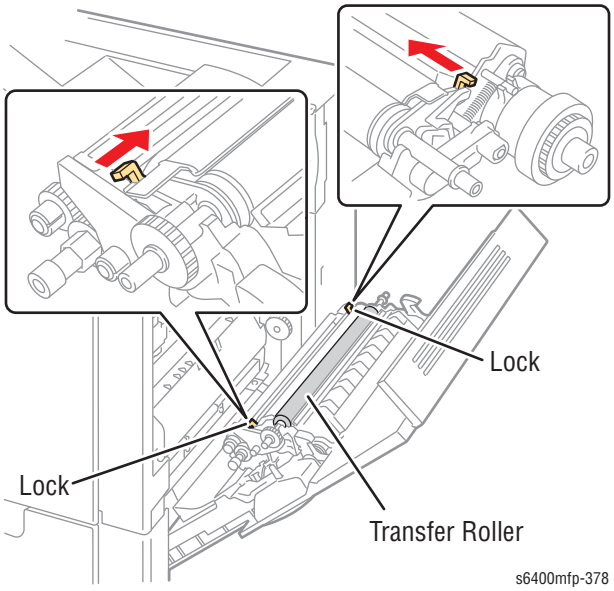
Be sure to run the Image Quality Calibration routine (**Tools** -> **Troubleshooting** -> **Calibration**) after replacing the Transfer Belt. It may be necessary to run the Image Quality Calibration routine several times to ensure acceptable print quality.

Transfer Roller (PL16.20)

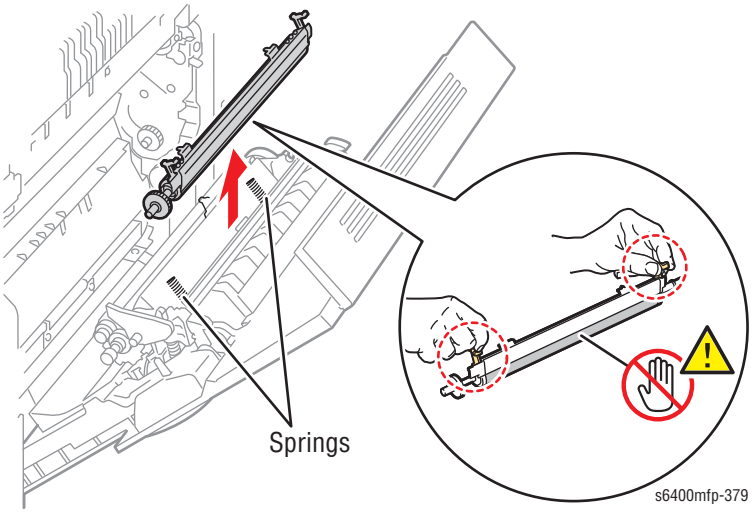
Caution

Do not touch the foam roller to avoid print defects.

1. Open the Right Door (PL15.01).
2. Press the amber gold tabs located at the front and rear ends of the Transfer Roller inward to unlock the Transfer Roller.



3. While holding the levers, rotate and lift the Transfer Roller up to remove it.



Replacement Note

Be sure to run the Image Quality Calibration routine (**Tools** -> **Troubleshooting** -> **Calibration**) after replacing the Transfer Roller. It may be necessary to run the Image Quality Calibration routine several times to ensure acceptable print quality.

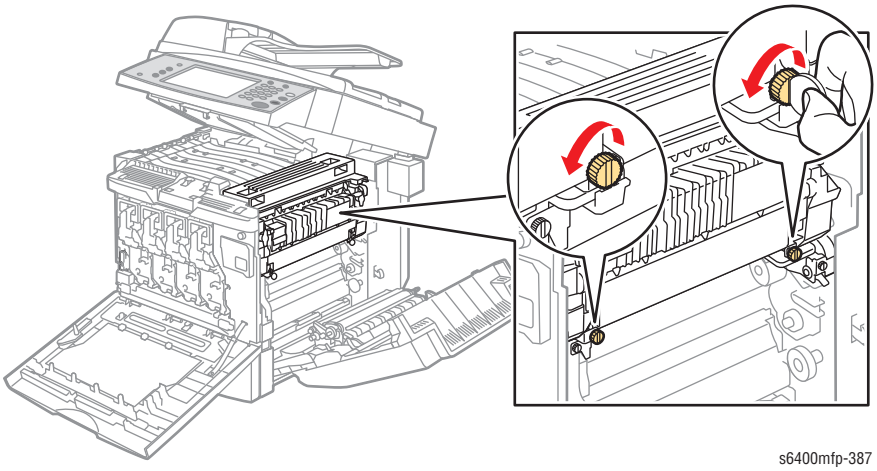
Verify both springs are in place when reinstalling the Transfer Roller.

Fuser Unit (PL18.01)

Warning

The Fuser may be hot. Turn the printer power Off and allow adequate time for the Fuser to cool before removing the Fuser.

1. Open the Front Door (PL3.10).
2. Lift the Control Panel.
3. Open the Right Door (PL15.01).
4. Loosen the 2 amber gold plastic screws that secure the Fuser Unit.



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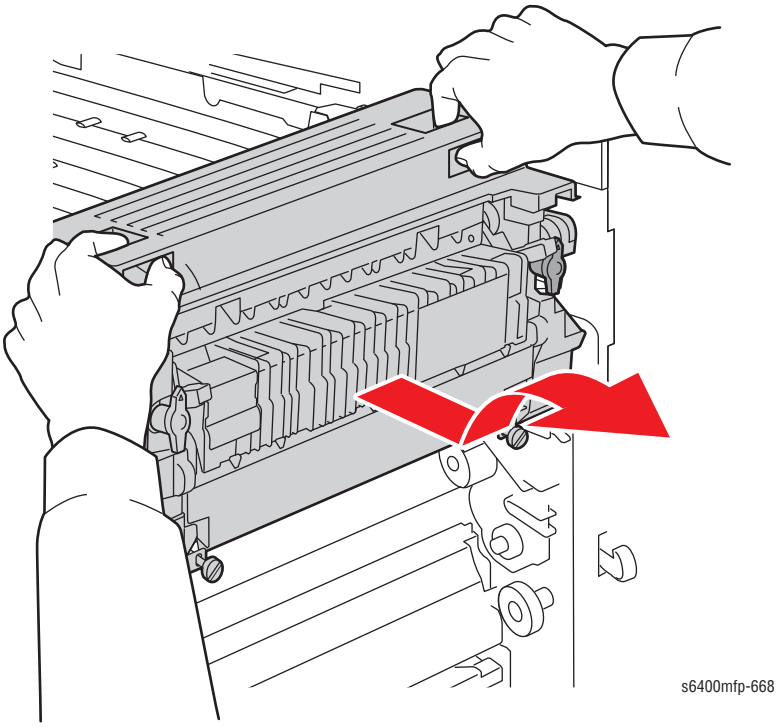
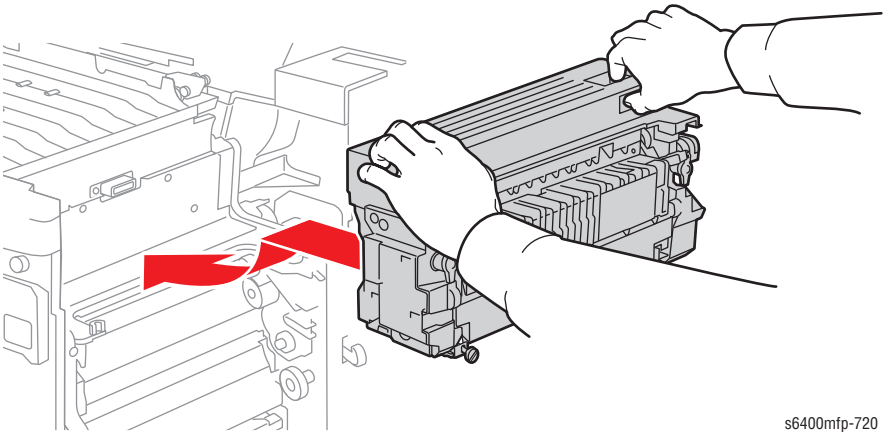
5. Grasp the amber gold Fuser handles, tilt and slide the Fuser Unit out to remove it.



s6400mfp-668

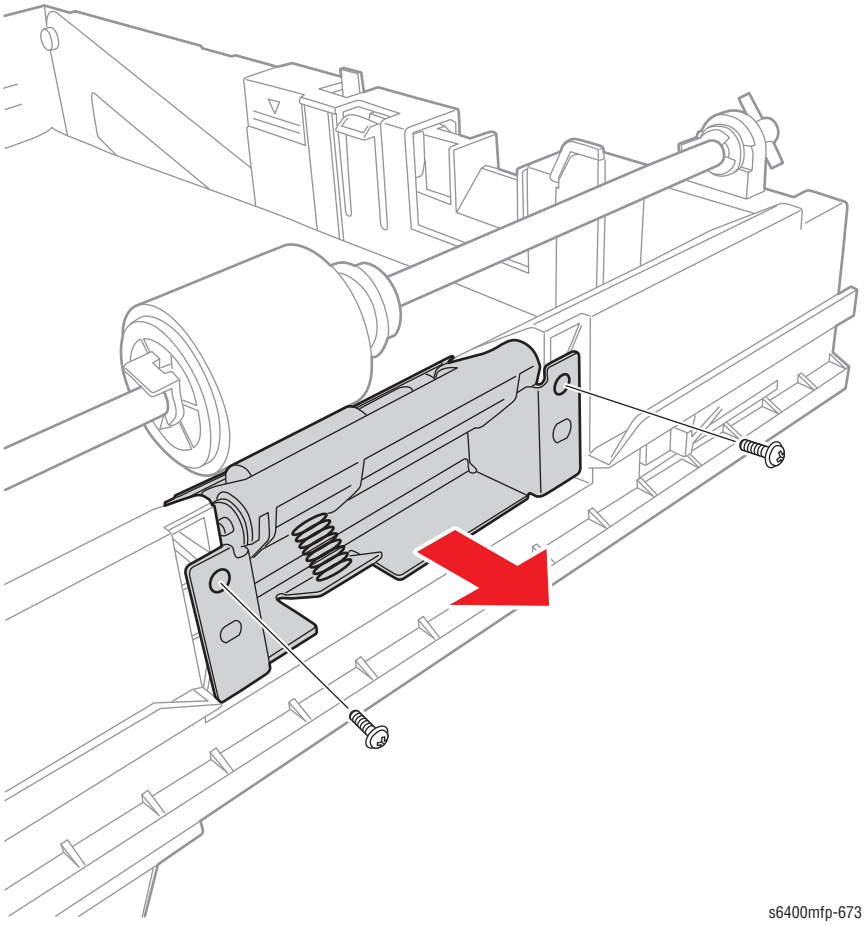
Replacement Note

Be sure to tilt the Fuser Unit at an angle when installing the Fuser Unit.



Tray 2/3/4 Separation Roller Assembly (PL21.7, PL32.22)

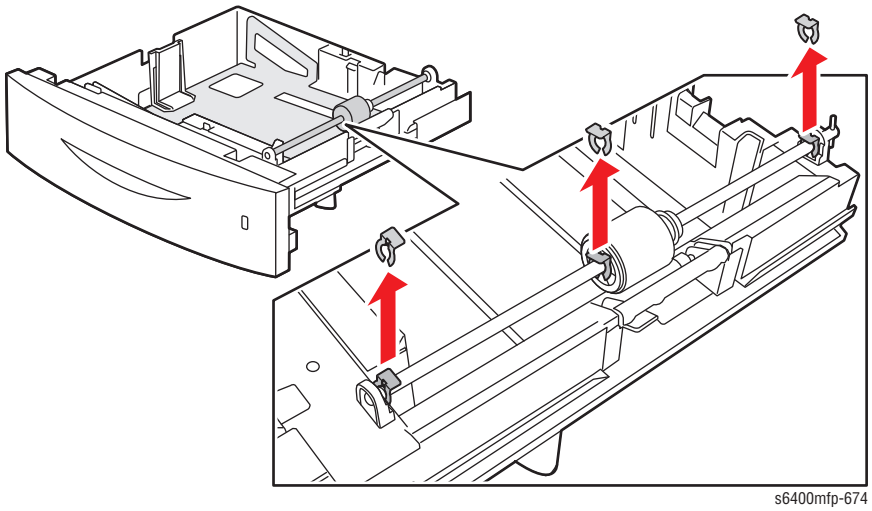
1. Slide Tray 2 (PL21.28) or Tray 3/4 (PL31.24) out.
2. Remove 2 screws that secure the Separation Roller Assembly.
3. Slide the Separation Roller Assembly from Tray 2 and remove the Separation Roller Assembly.



s6400mfp-673

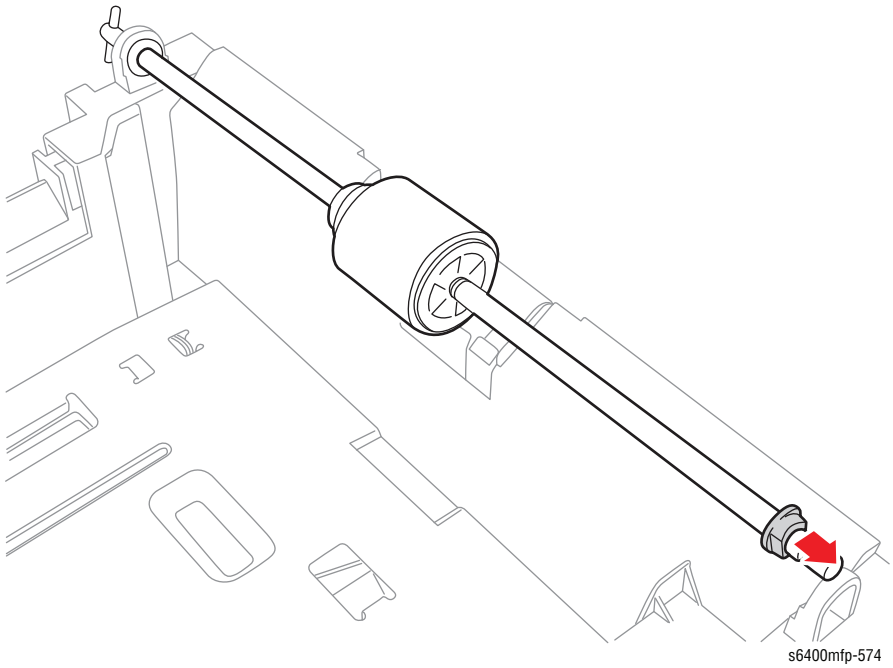
Tray 2 Feed Roller (PL21.27)

1. Fully open Tray 2 (PL21.28).
2. Press the Lifting Plate (PL21.23) down to lock it in place.
3. Remove the three K-Clips (PL21.29).



s6400mfp-674

4. Lift and slide the Shaft (PL21.24) toward the rear of the Tray.
5. Remove the Bushing (PL21.10).



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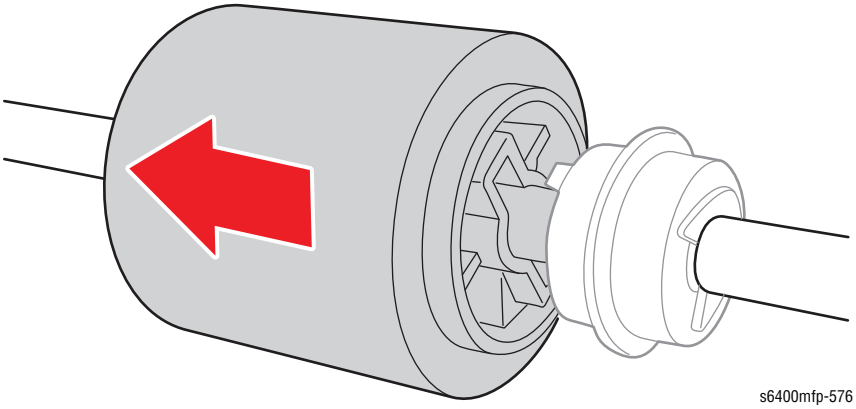
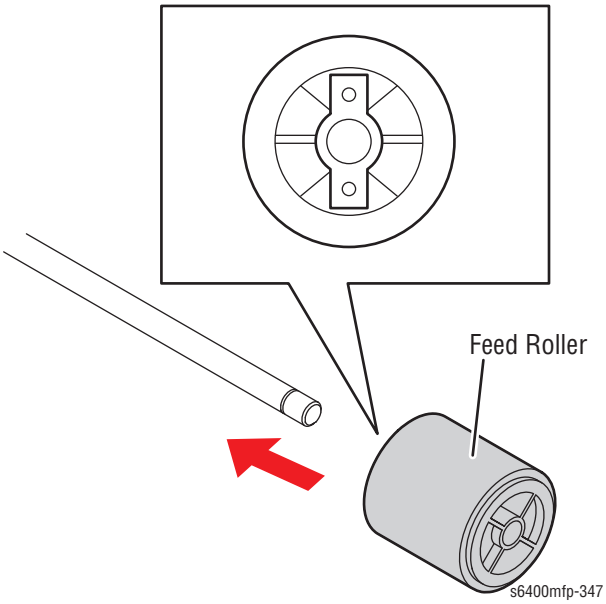
6. Slide the Feed Roller out from the Shaft and remove the Feed Roller.

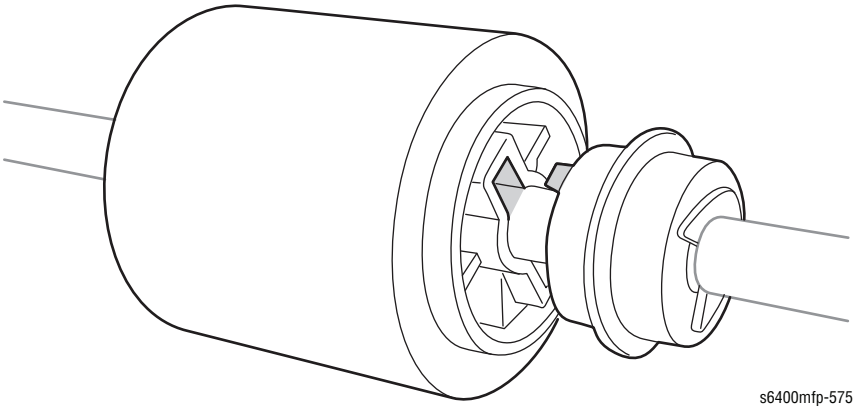


Replacement Note

When installing the Feed Roller, be sure that the Feed Roller is mounted in the direction as shown in the illustration.



Be sure the notch on the Clutch fits into the Feed Roller properly.

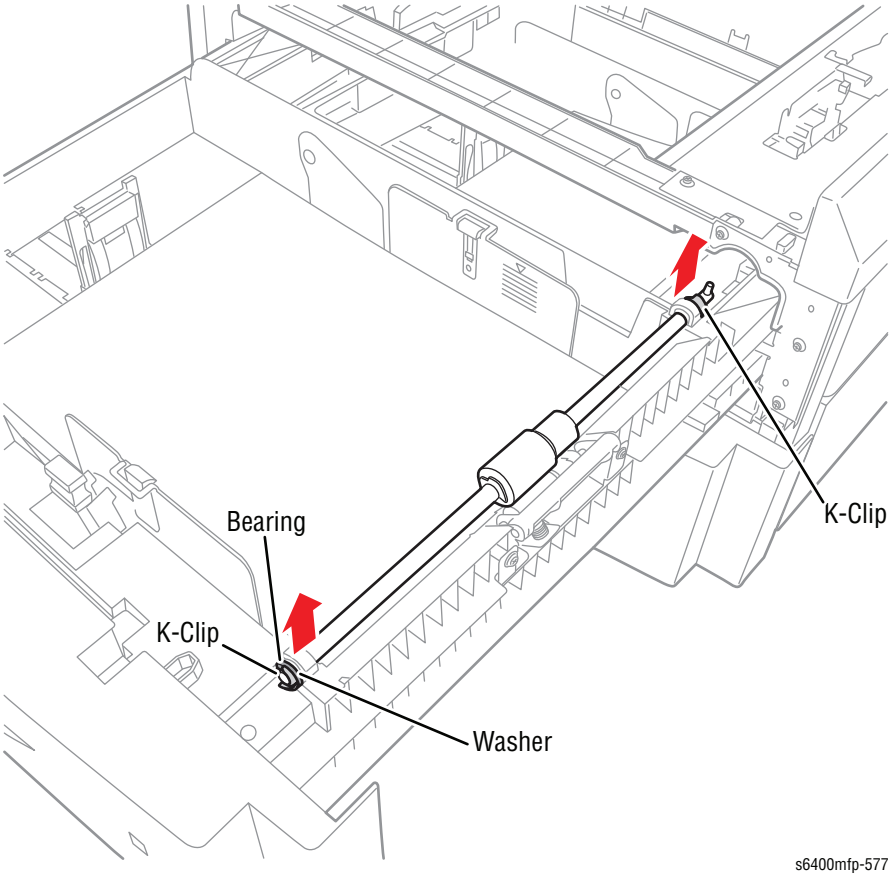


Tray 3/4 Feed Roller (PL32.05)

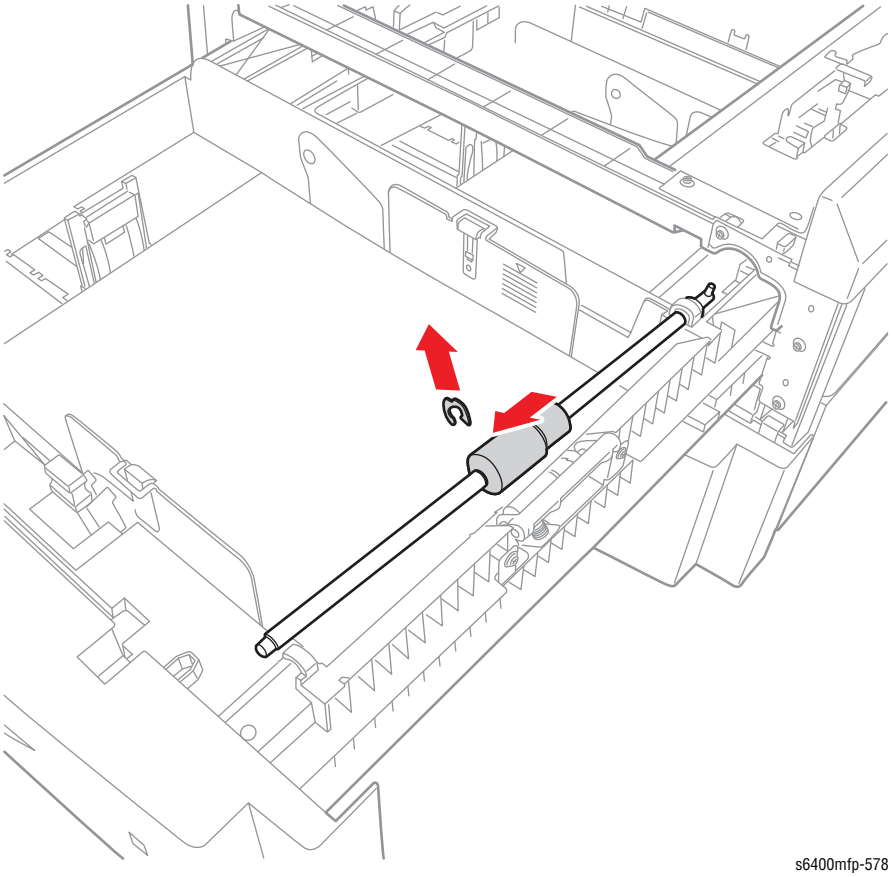
1. Slide the paper Tray out.
2. Press the Lifting Plate (PL31.01) down to lock it in place.
3. Remove the 2 K-Clips, Spacer, and Bearing from the Shaft (PL32.17).

Note

Tray 3/4 K-Clips are not interchangeable with Tray 2 K-Clips.



4. Remove the K-Clip.
5. Slide the Feed Roller out from the Shaft and remove the Feed Roller.



s6400mfp-578

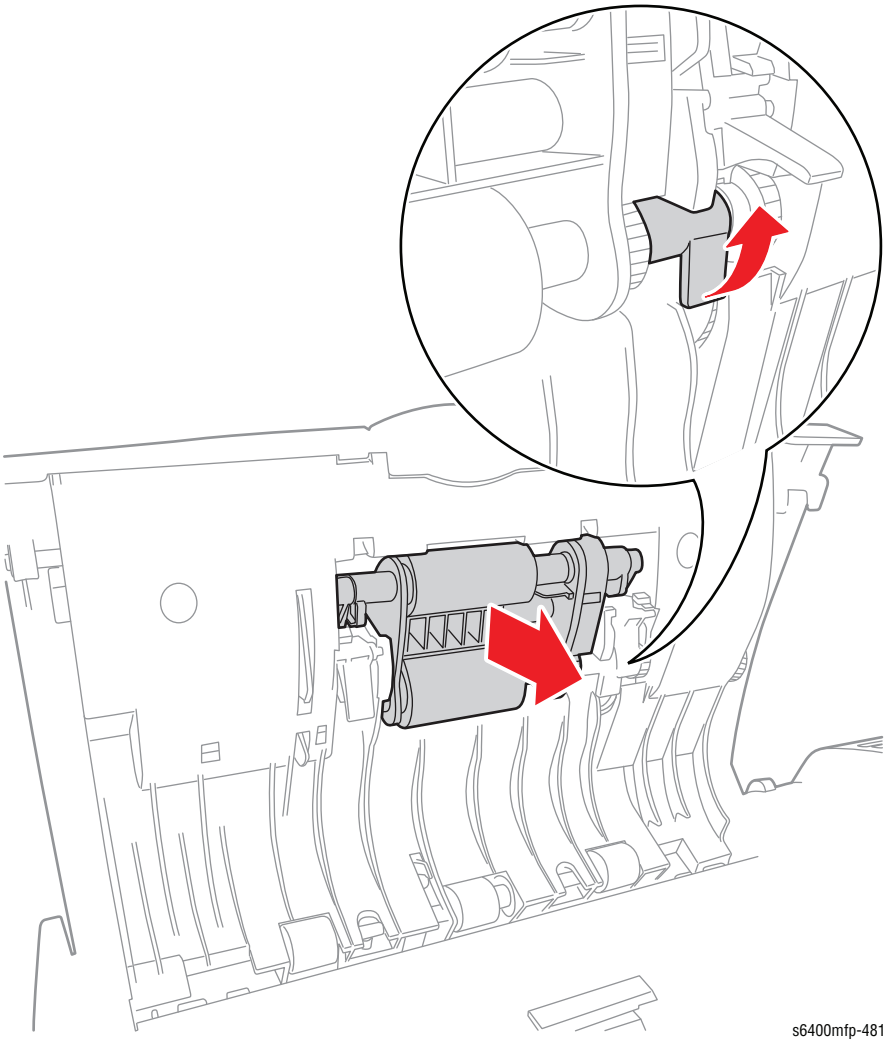
Duplex Automatic Document Feeder (DADF)

DADF Separator (Feed) Roller Assembly (PL1.02)

1. Open the DADF Top Cover Assembly (PL1.05).
2. Pull the Lock Lever upward to unlock the DADF Separator Roller Assembly.
3. Hold the DADF Separator Roller Assembly and slightly move it forward to detach the Assembly.

Note

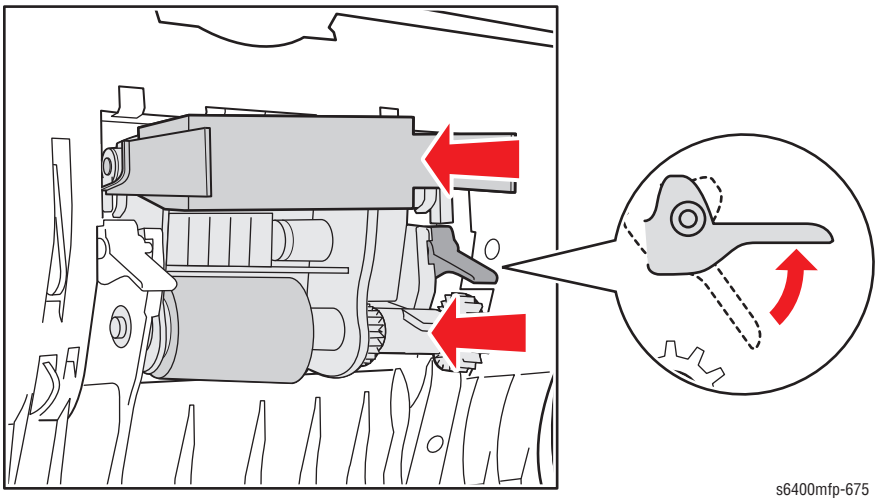
Do not lose the left and right yellow clips.



Replacement Note

Be sure to place the Separator Roller Assembly in the correct position to prevent the it from misaligning.

Be sure to place the Orange levers on the DADF Separator Roller Assembly behind the Roller.



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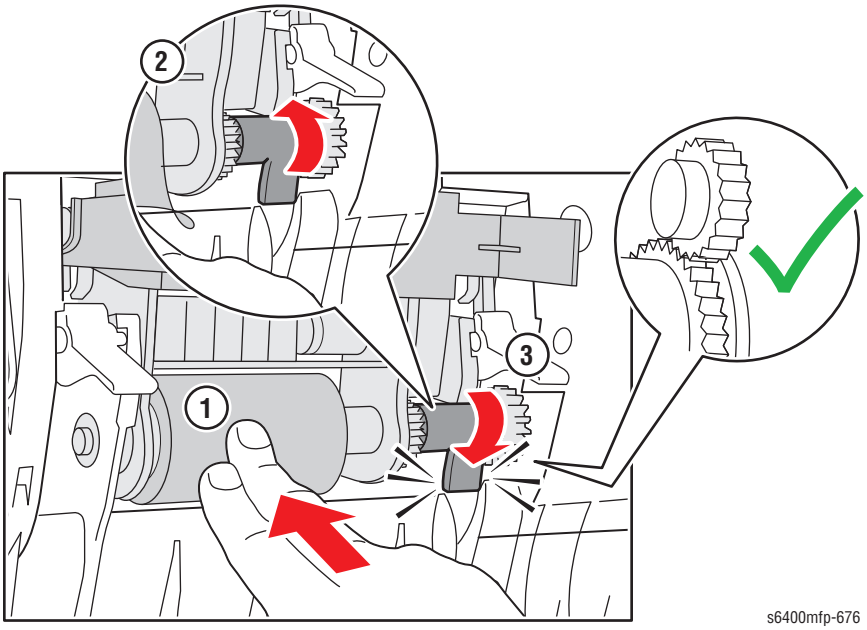
Be sure to push the Lock Lever in to lock the Separator Roller Assembly in place.



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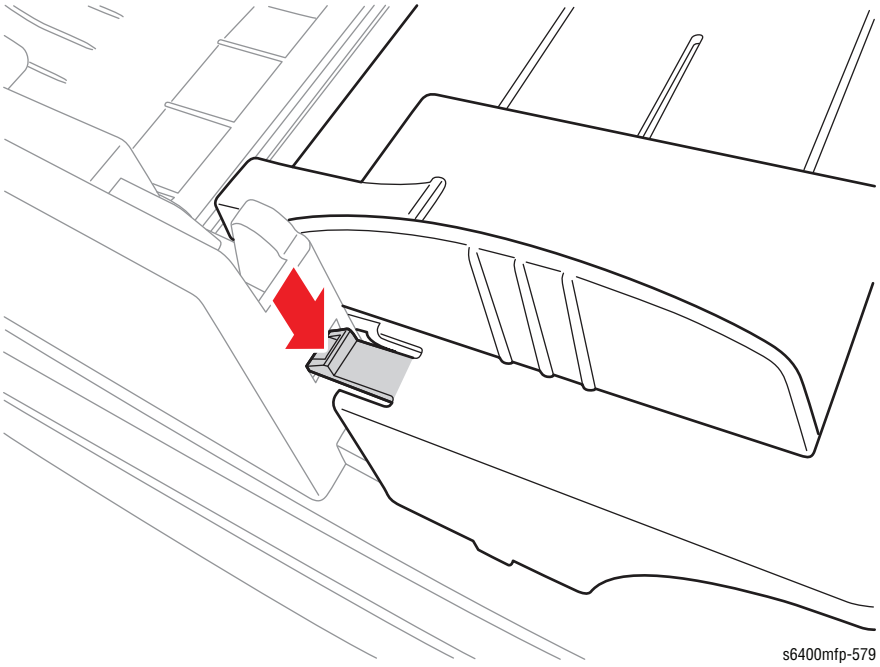
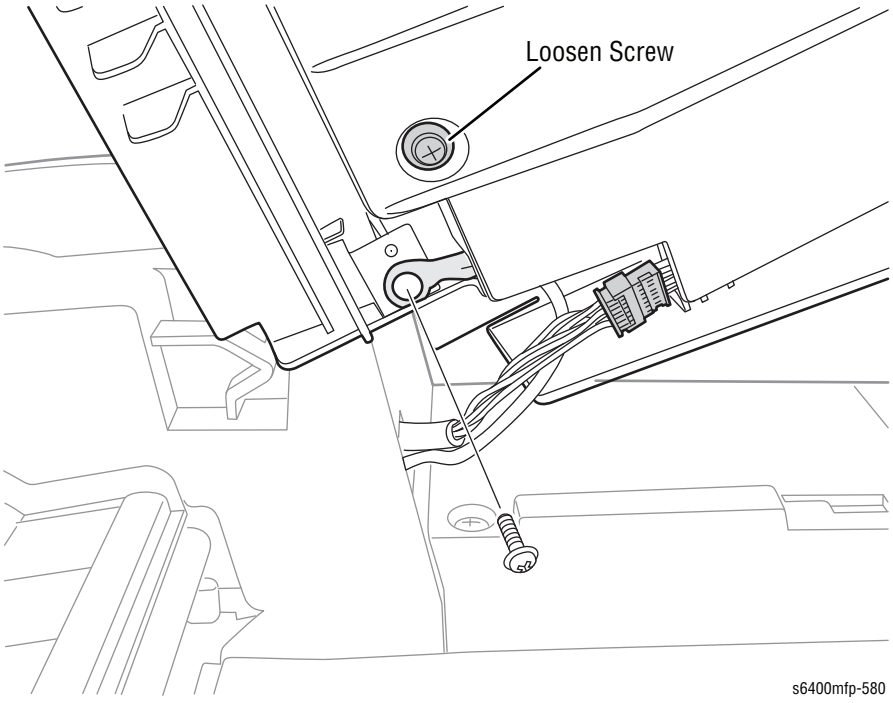
DADF Paper Tray Assembly (PL1.04)

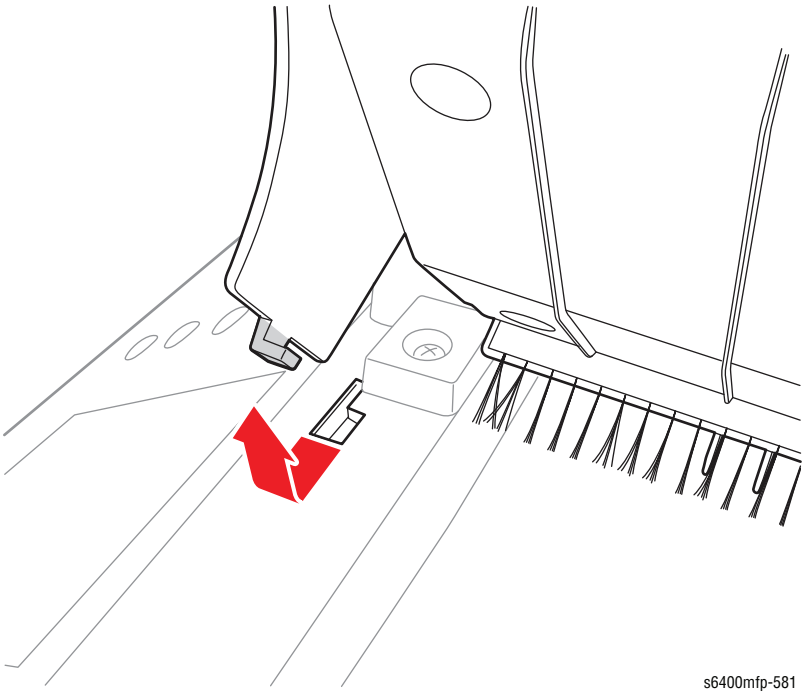
1. Press the left and right clip-joints of the DADF Paper Tray to release it from the DADF Assembly.



2. Disconnect the wiring harness cable underneath the DADF Paper Tray.
3. Loosen 1 screw that secures the Cover.
4. Remove 1 screw with washer that secure the Ground Cable.
5. Route the Ground wire out from underneath the cover.



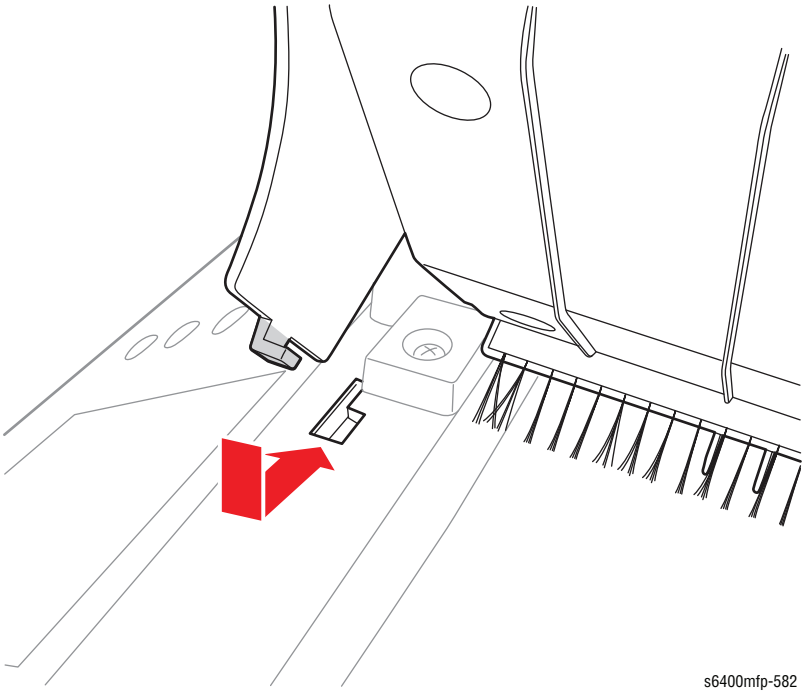
6. Release the latches on the left and right side of the DADF Paper Tray and remove the Tray.



Replacement Note

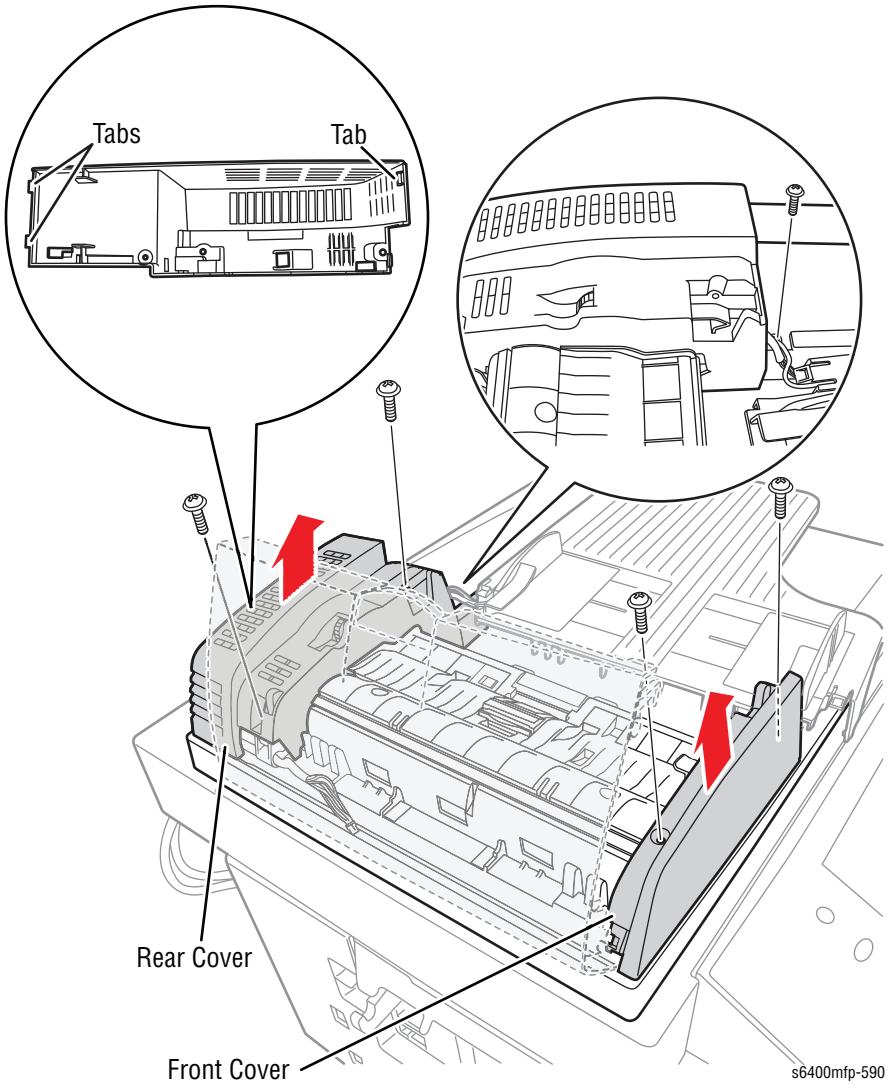
Be sure to secure the left and right latches on the bottom of the DADF Paper Tray in place and push the Tray forward to lock it in place.

Be careful not to trap the brush to prevent it from damage.

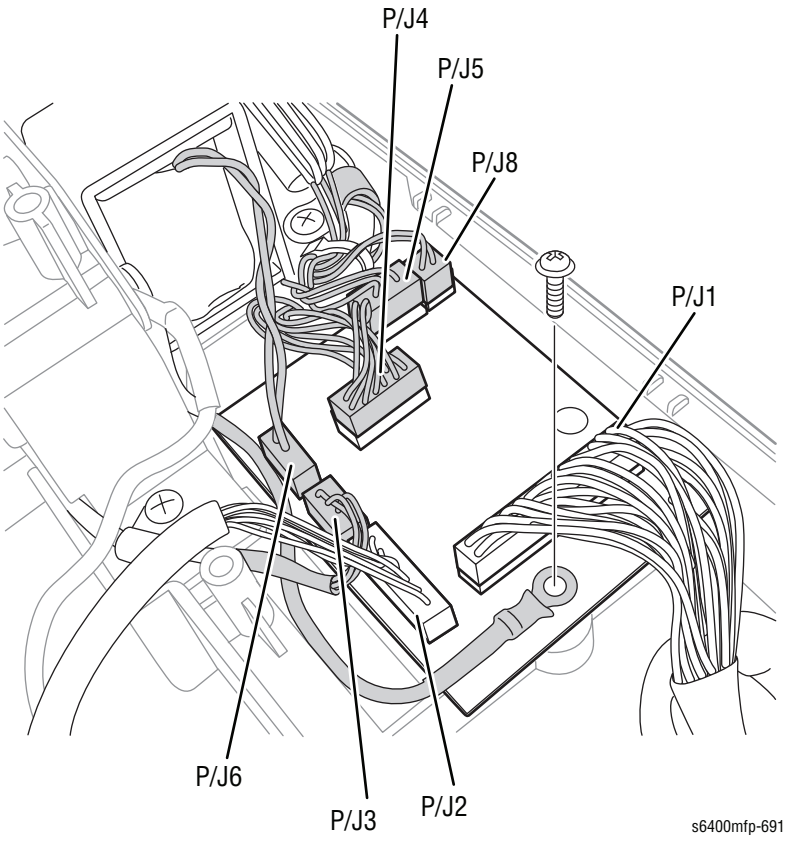


DADF Top Cover Assembly (PL1.05)

1. Remove the DADF Paper Tray (page 8-33).
2. Open the DADF Top Cover.
3. Remove 2 screws that secure the Front Cover.
4. Remove the Front Cover.
5. Remove 3 screws that secure the Rear Cover.
6. Press the Rear Cover inward and push it toward the left side to release the 3 tabs to remove the Rear Cover.

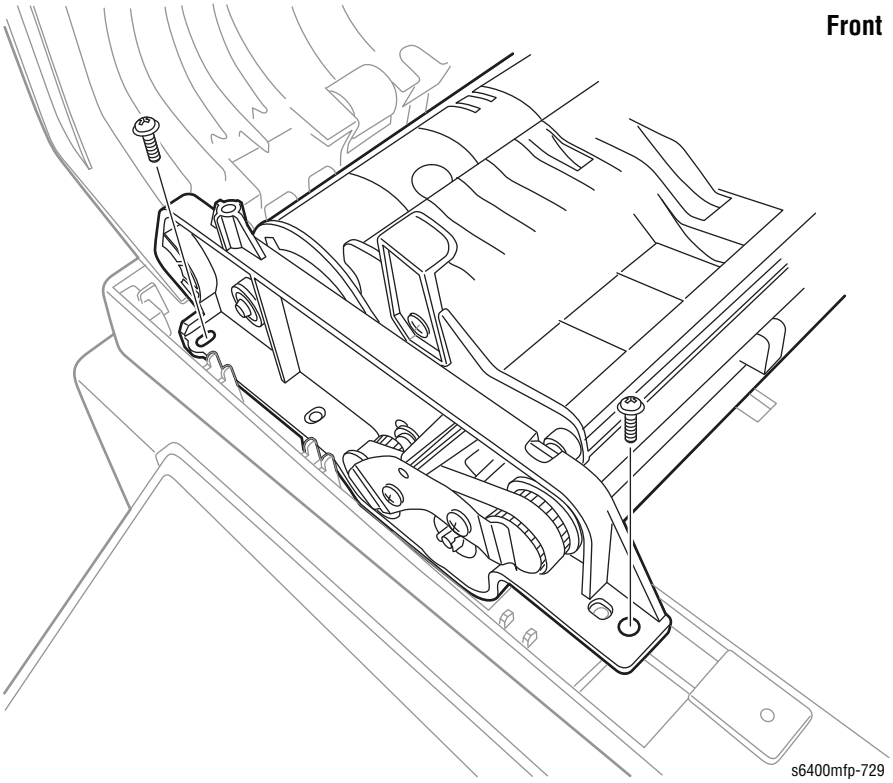


7. Disconnect the 5 wiring harness connectors P/J3, P/J4, P/J5/ P/J6, and P/J8.
8. Remove 1 screw that secures the Ground Wire and remove the Ground Wire.

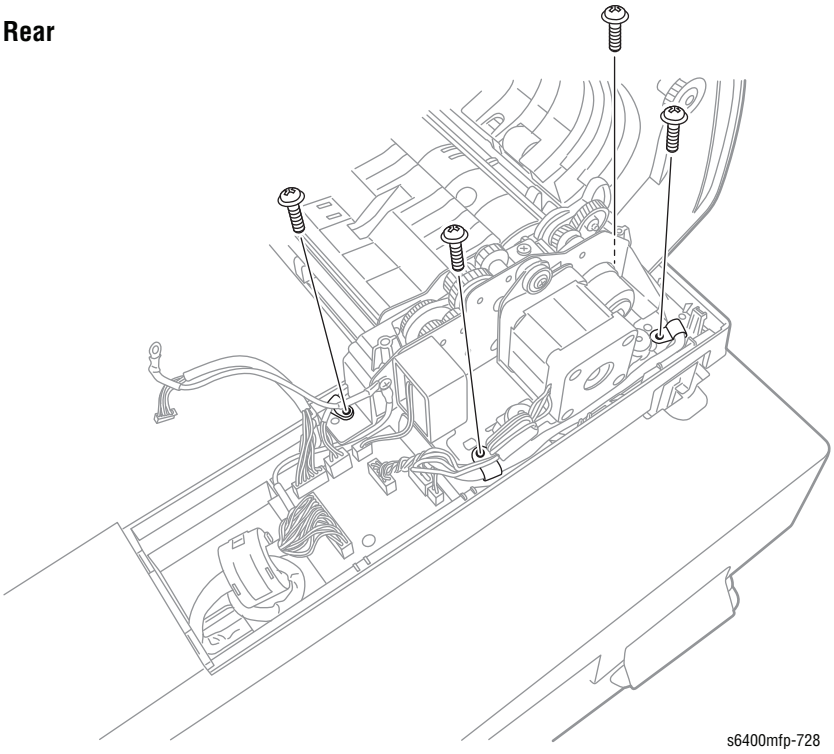


9. Remove 2 screws (from the front) and 4 screws (from the rear) that secure the DADF Top Cover Assembly.
10. Lift and remove the DADF Top Cover Assembly.

Front

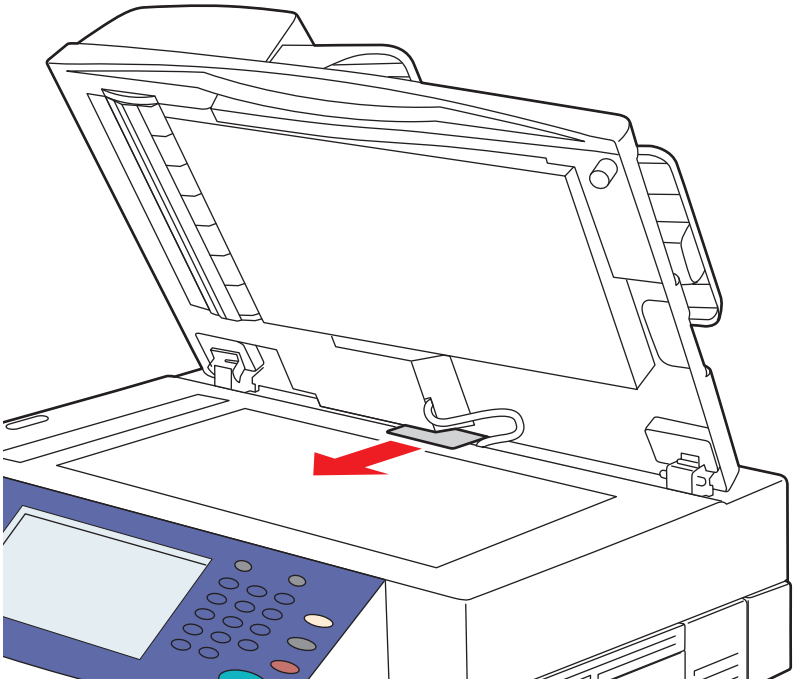


Rear



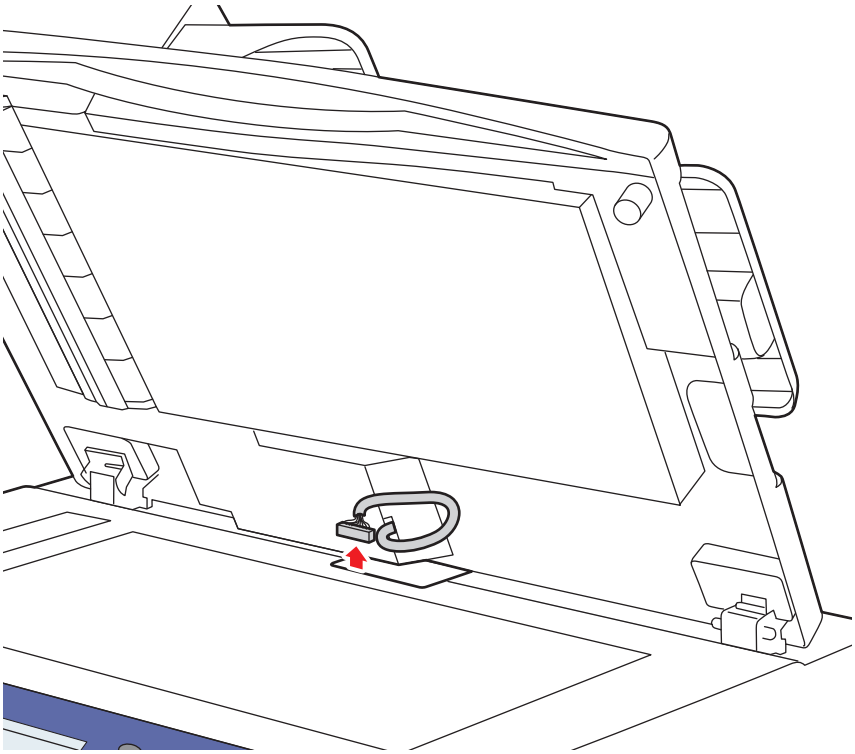
Duplex Automatic Document Feeder Assembly (PL1.06)

1. Open the Duplex Automatic Document Feeder (DADF) Assembly.
2. Remove the DADF Assembly Cable Cover.



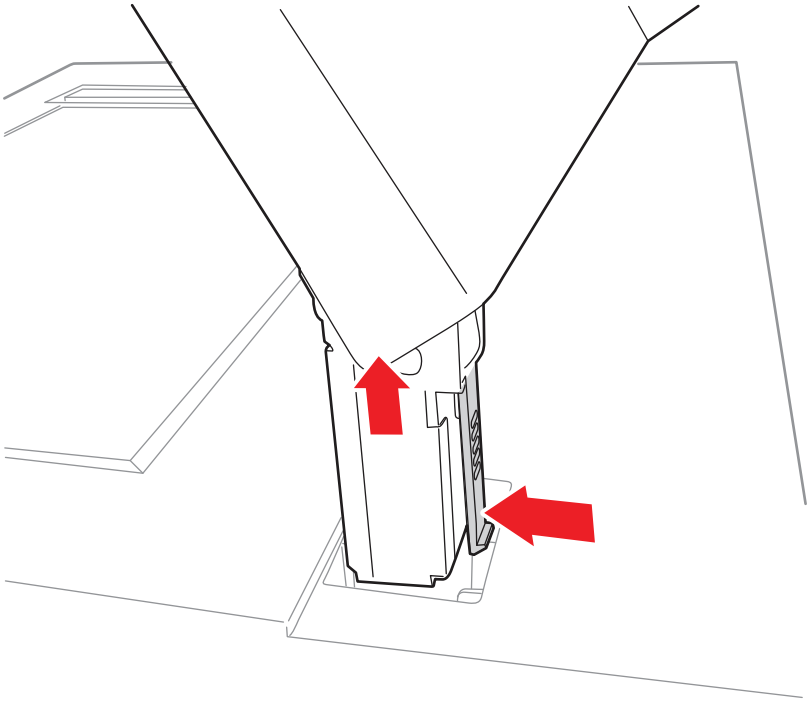
s6400mfp-455

3. Disconnect the DADF Assembly Cable.



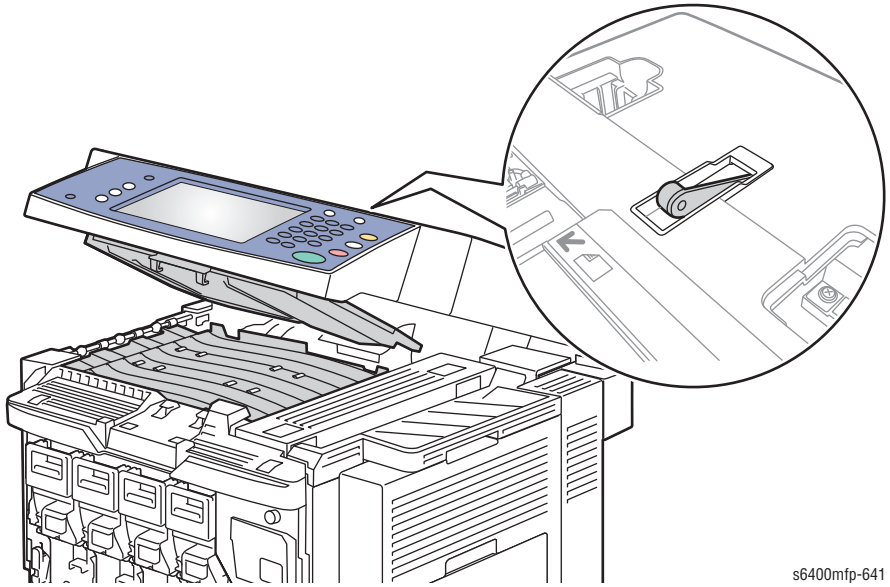
s6400mfp-456

4. From the front of the printer, while lifting the DADF Assembly upward, press the latches on the rear left and right sides of the DADF Assembly frame toward the front to release the DADF Assembly from the Scanner Assembly.



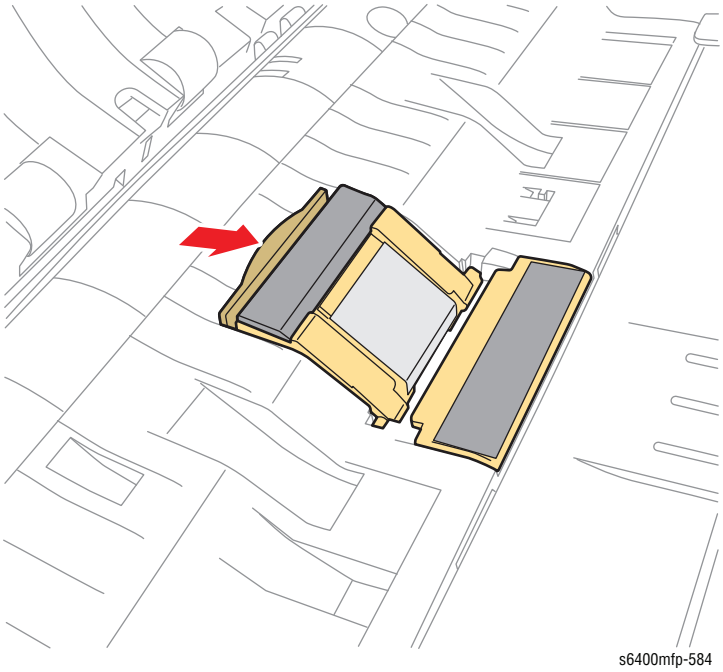
Note

With the DADF Assembly removed, the Safety Interlock must be manually engaged to raise the Scanner Assembly.



DADF Separator Pad Assembly (PL1.01), Holder Assemblies (PL1.07, PL1.08), Pressure Spring (PL1.09)

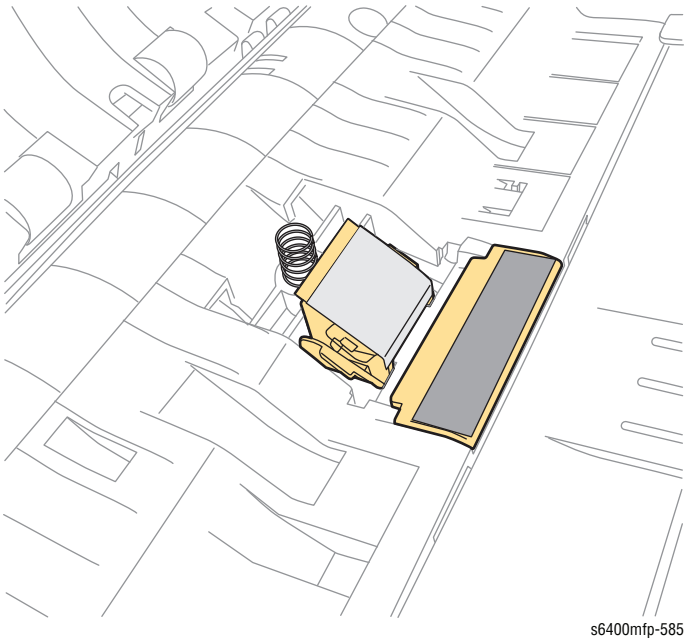
1. Press the DADF release button to open the DADF Top Cover Assembly.
2. Press the top of the DADF Separator Pad inward.



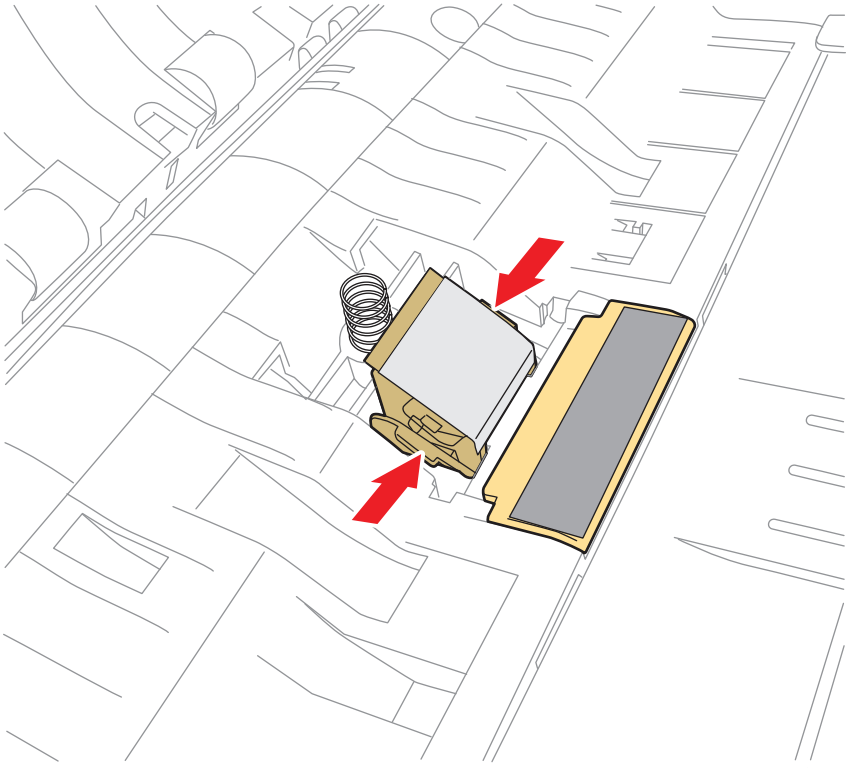
3. Slide the DADF Separator Pad Assembly out and remove the DADF Separator Assembly.

Note

Be careful not to lose the Pressure Spring (PL1.09).

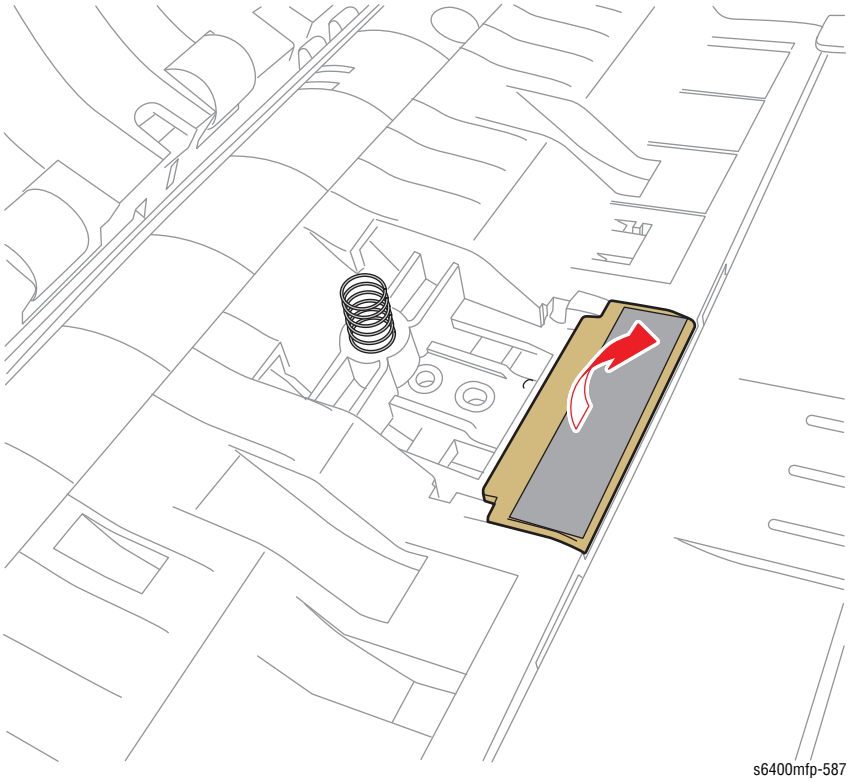


4. Press on the left and right tabs of the DADF Pad inward and remove the Pad.



s6400mfp-586

5. Gently pry the DADF Pad from one side upward to release it from the DADF Assembly.



s6400mfp-587

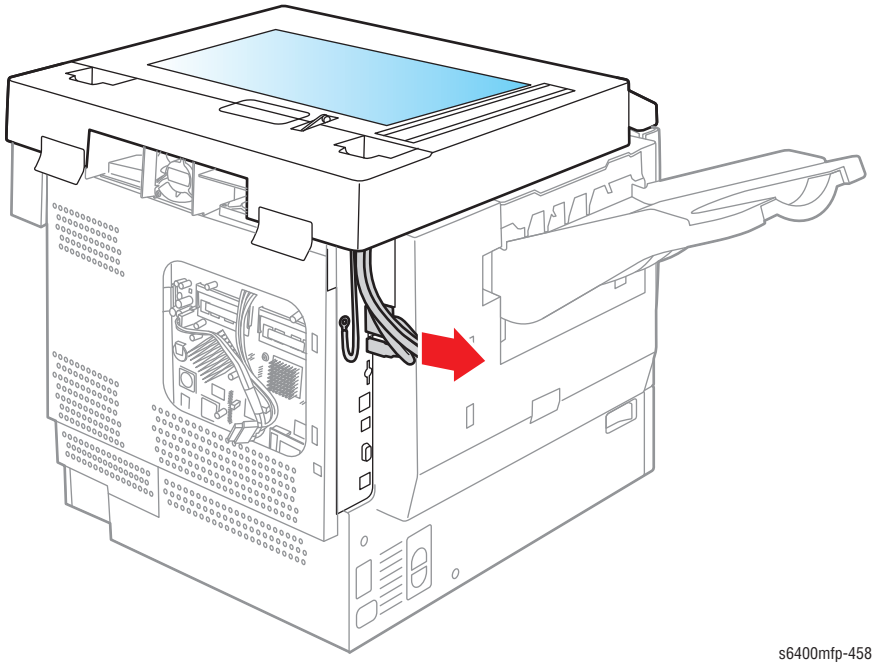
Scanner Assembly

Scanner Assembly (PL2.01)

Caution

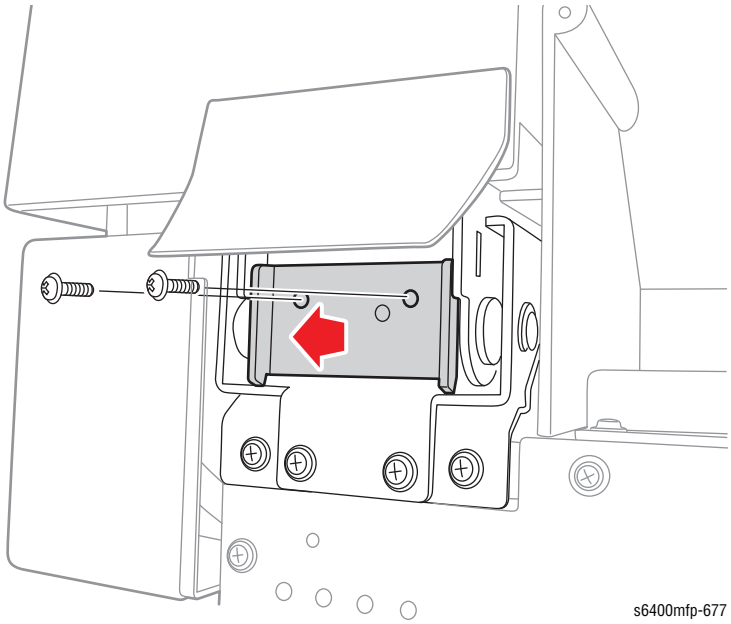
Use care when handling the DADF Assembly and Scanner Assembly to prevent damaging the document glass.

1. Remove the DADF Assembly (page 8-38).
2. Remove the Rear Cover (page 8-47).
3. Disconnect the Scanner Assembly Cable.
4. Remove 1 screw that secures the Ground Wire.



s6400mfp-458

5. Lift the rubber flap and remove 2 screws per side that secure the scanner unit Left and Right Stoppers.
6. Remove the Stoppers.



7. Open the Front Door (PL3.10).

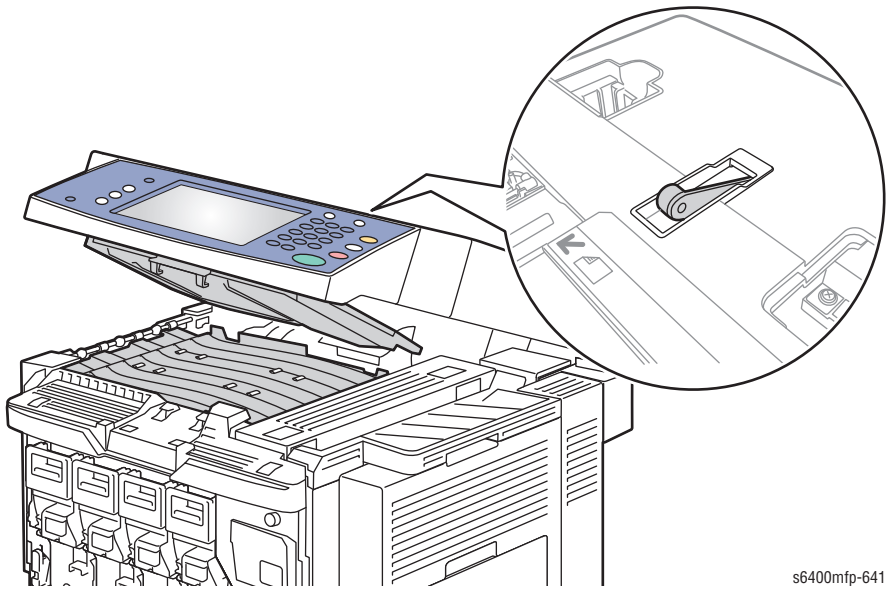
Caution

Be sure to hold the Scanner Assembly while opening it to prevent the Scanner Assembly from tilting and falling from the printer.

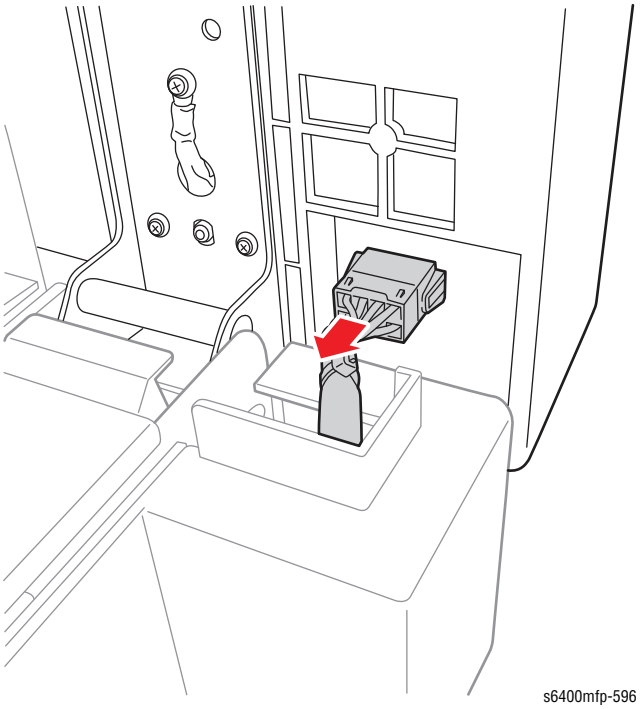
8. Press the DADF Interlock and lift the Control Panel to a vertical position.

Caution

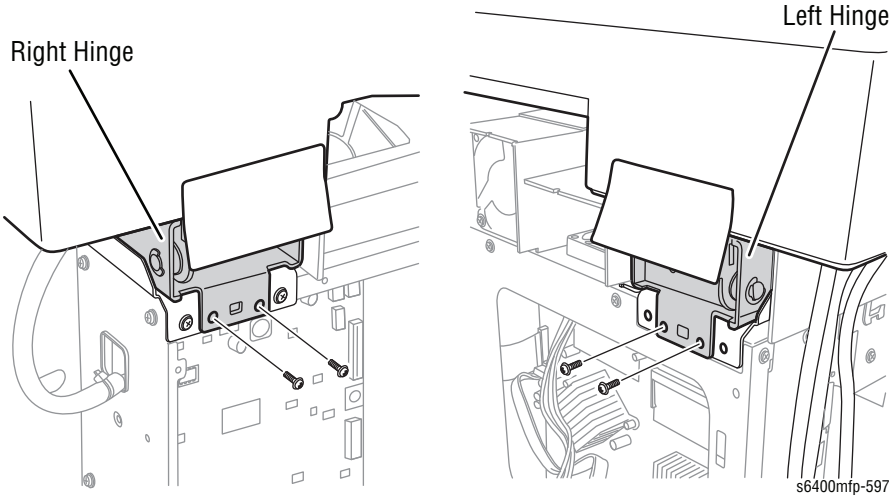
Be careful not to drop the Upper Transport Assembly (PL17.37) while opening the Scanner Assembly.



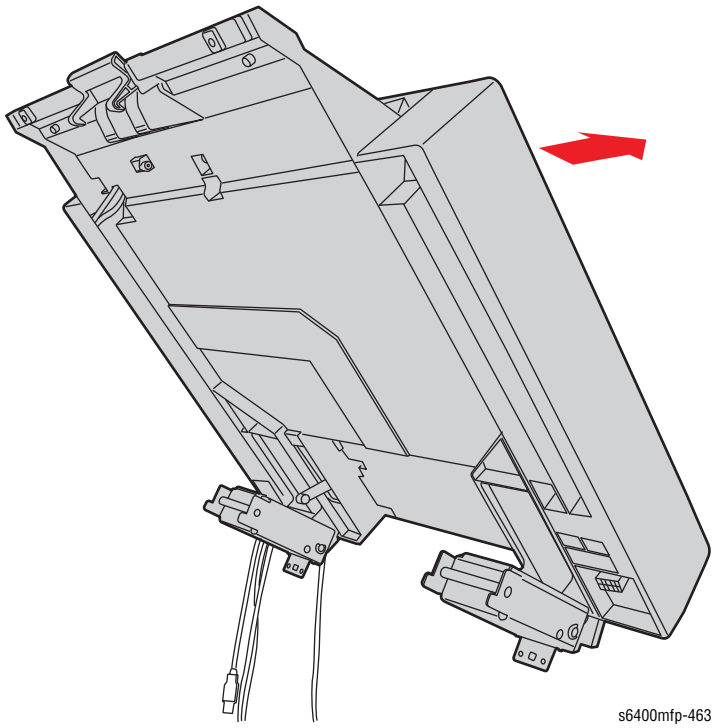
9. Disconnect the Scanner Power Cable.



10. Remove the Upper Horizontal Transport Assembly (page 8-68).
11. Remove 4 screws that secure the Left and Right Hinges.



12. Slide the Scanner Assembly toward the rear of the printer and remove the Scanner Assembly.



Replacement Note

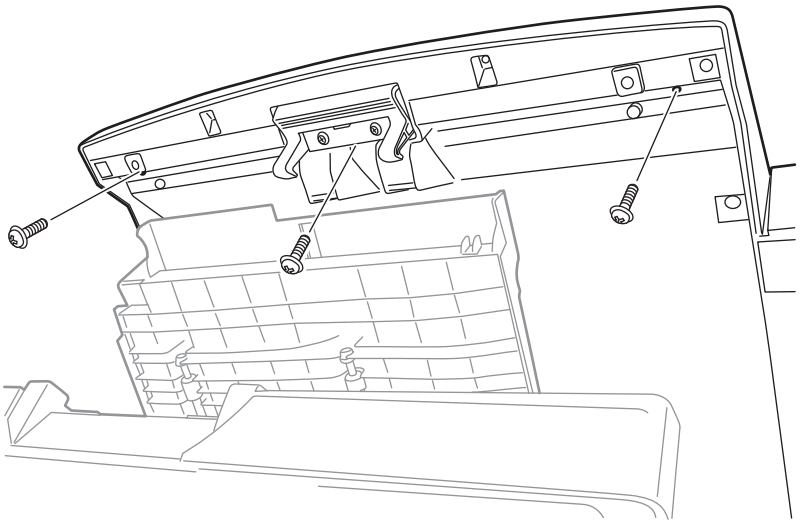
Be sure not to trap the wiring harness under the Scanner Assembly.

1. Slide the Scanner Assembly into the printer frame.
2. Install the Left and Right Hinges.
3. Install the 4 screws.
4. Lift the Control Panel.
5. Connect the Scanner Power Cable.
6. Push the Upper Transport Assembly upward and lock to the Scanner Assembly.
7. Install the Left and Right Stoppers.
8. Install the 4 screws.

Covers

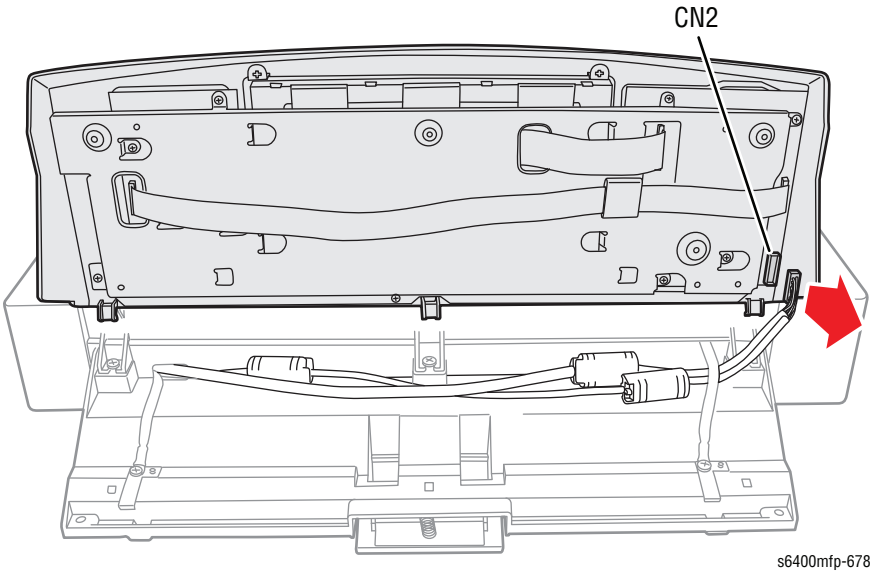
Control Panel (PL2.12)

1. Open the DADF Assembly (page 8-38).
2. Remove 3 screws that secure the Control Panel.



s6400mfp-471

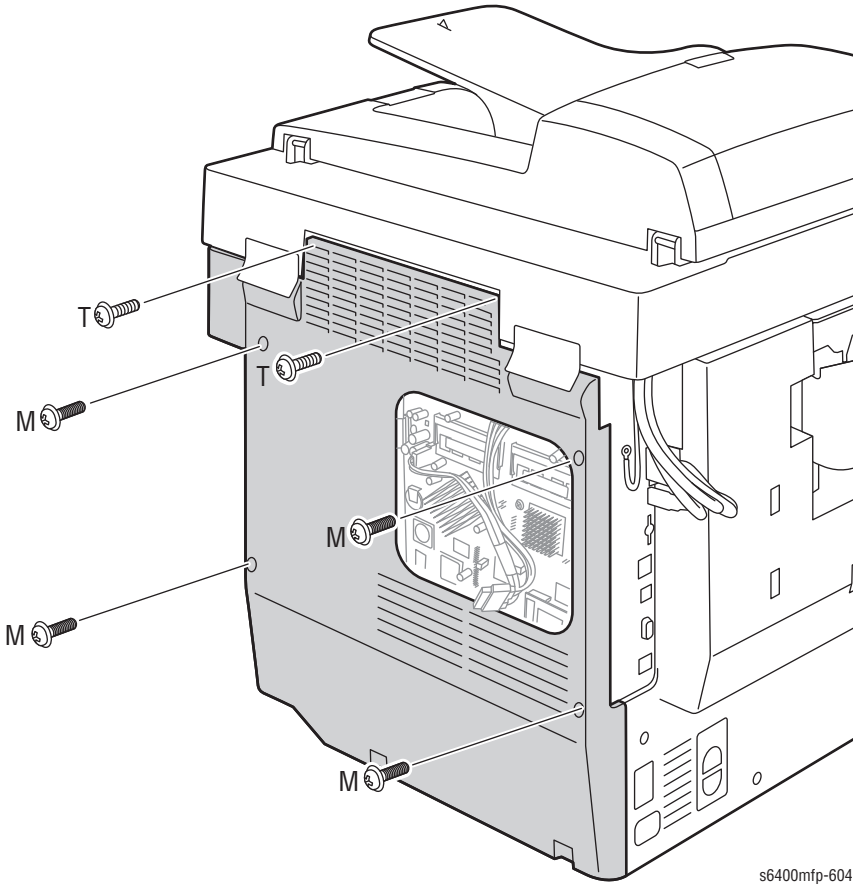
3. Disconnect the wiring harness connector.
4. Remove the Control Panel.



s6400mfp-678

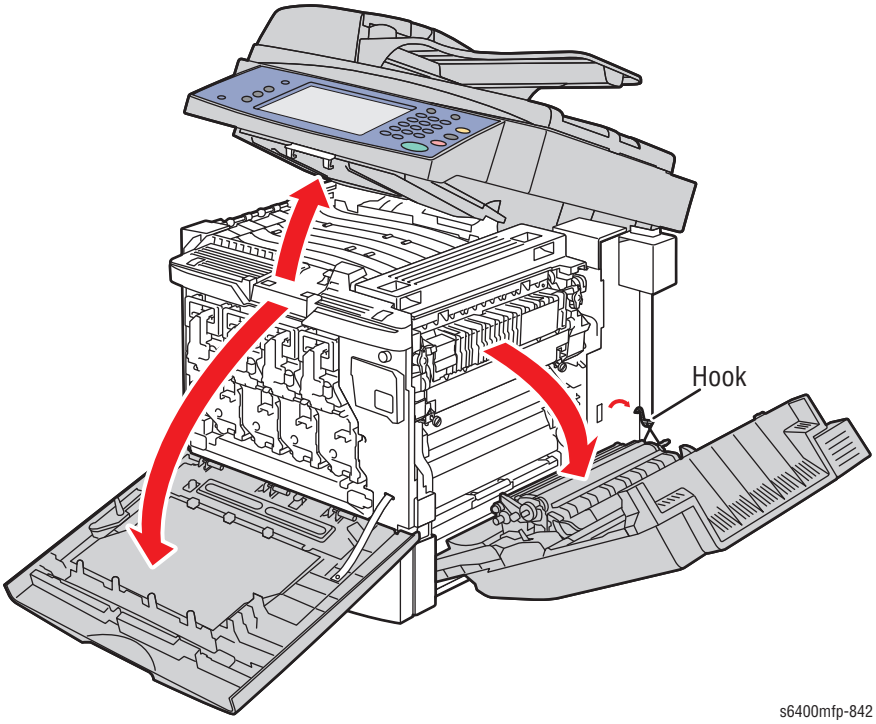
Rear Cover (PL3.02)

1. Remove the Hard Disk Drive (page 8-91), (steps 1 through 3).
2. Remove the 2 plastic screws (top) and 4 metal screws that secure the Rear Cover.
3. Lift the Rear Cover up to release the latches and remove the Rear Cover.

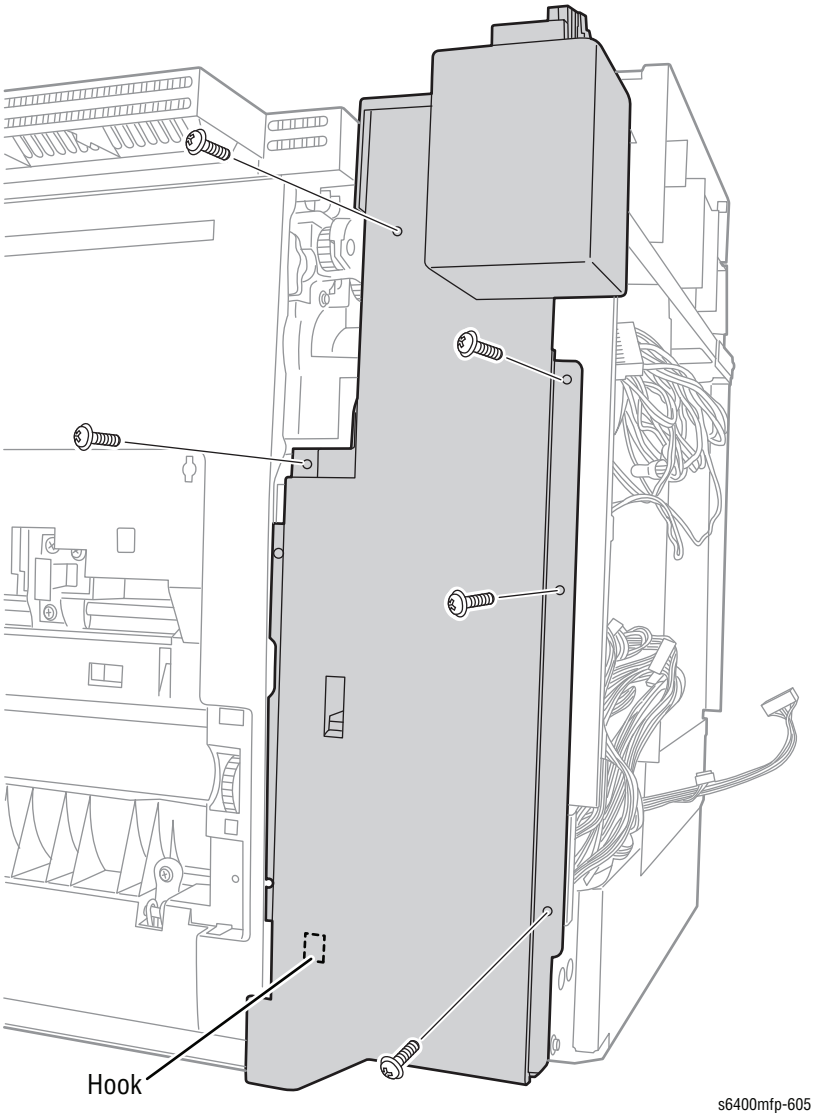


Right Rear Cover (PL3.03)

1. Open the Front Door (PL3.10).
2. Lift the Control Panel.
3. Open the Right Door (PL15.01).
4. Release the hook that secures the Right Door to the printer and lower the Right Door.

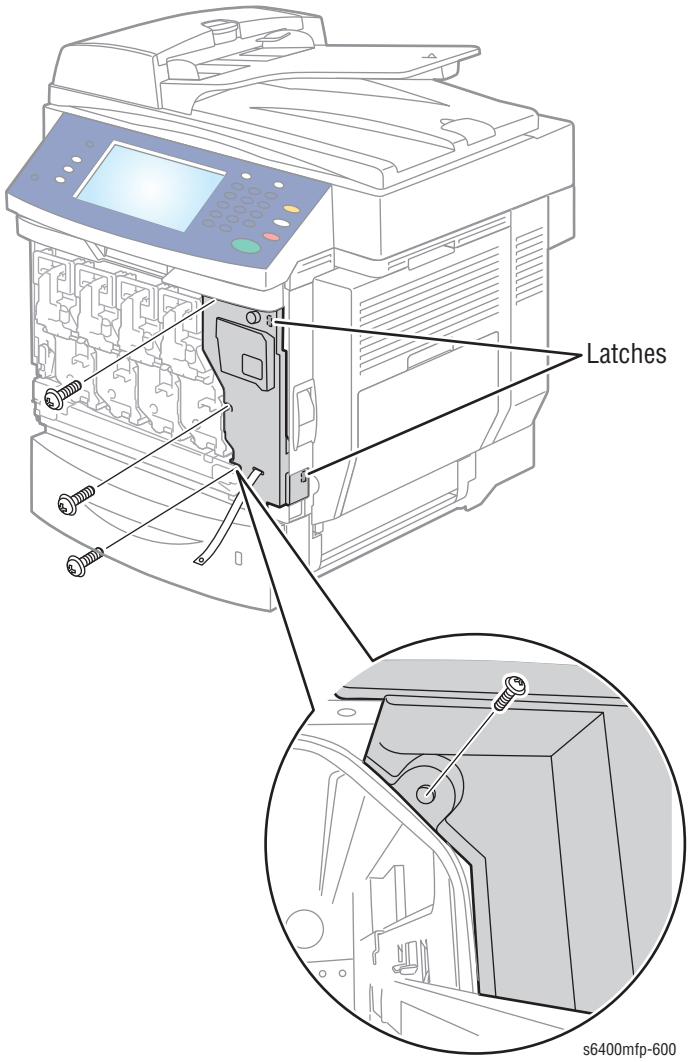


5. Remove the Rear Cover (page 8-47).
6. Remove 5 screw that secure the Right Rear Cover.
7. Lift the Right Rear Cover to release the hook from the printer frame and remove the Right Cover.



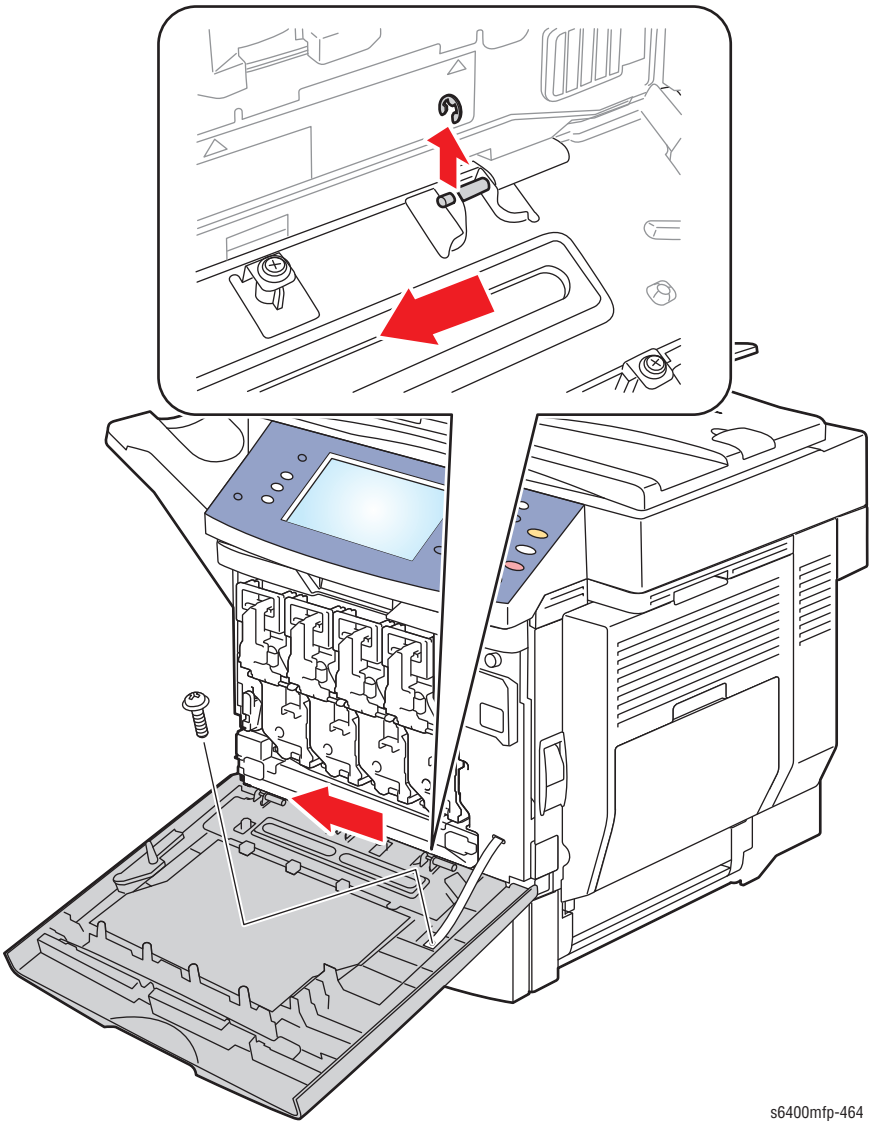
Right Front Cover (PL3.05)

1. Remove Tray 2 (page 8-58).
2. Remove the Front Door Assembly (page 8-51).
3. Remove 3 screw that secure the Right Front Cover.
4. Release the 2 latches to remove the Right Front Cover.



Front Door Assembly (PL3.10)

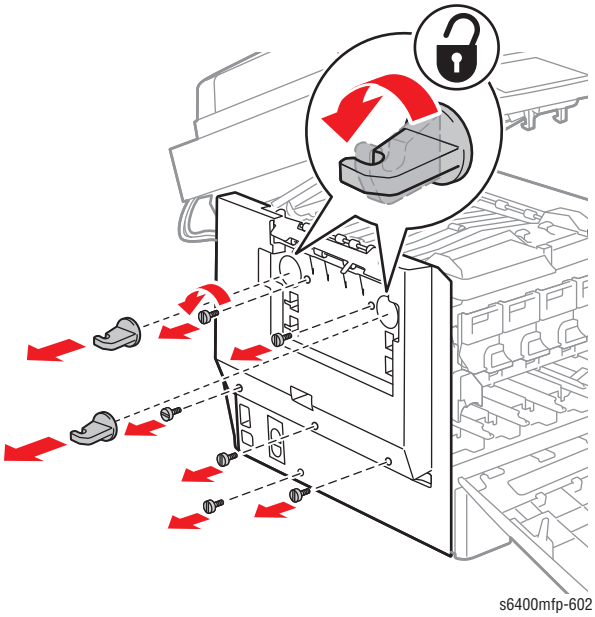
1. Open the Front Door.
2. Remove 1 screw that secures the Front Door and the Strap.
3. Remove the E-ring.
4. Slide the Front Door toward the left side and remove the Front Door.



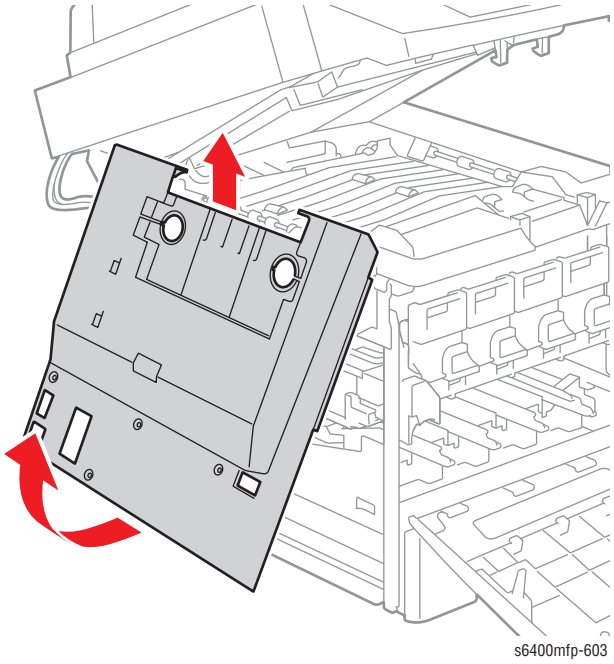
s6400mfp-464

Left Side Cover (PL3.26)

1. Open the Front Door (PL3.10).
2. Lift the Control Panel.
3. Remove the Finisher Assembly (page 8-182) (or the Standard Output Tray).
4. Remove the Finisher Hooks (PL37.16).
5. Remove 6 screws that secure the Left Side Cover.



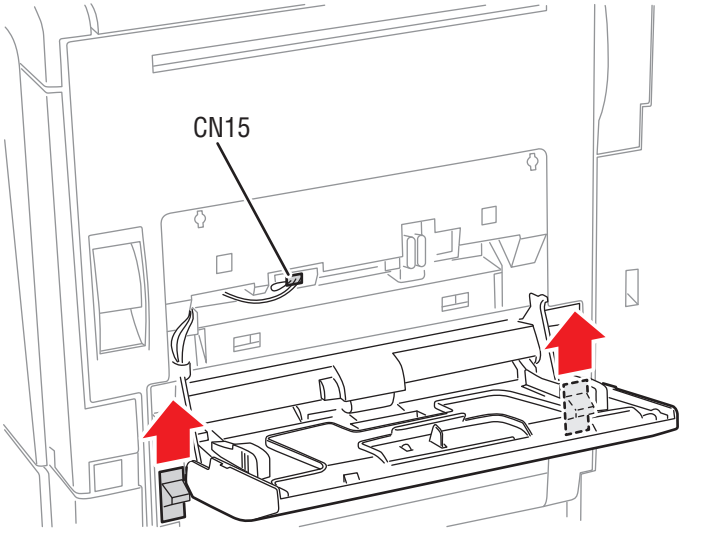
6. Lift the bottom of the Left Side Cover and slide it outward and remove the Left Side Cover.



Paper Trays

Tray 1 (PL5.12)

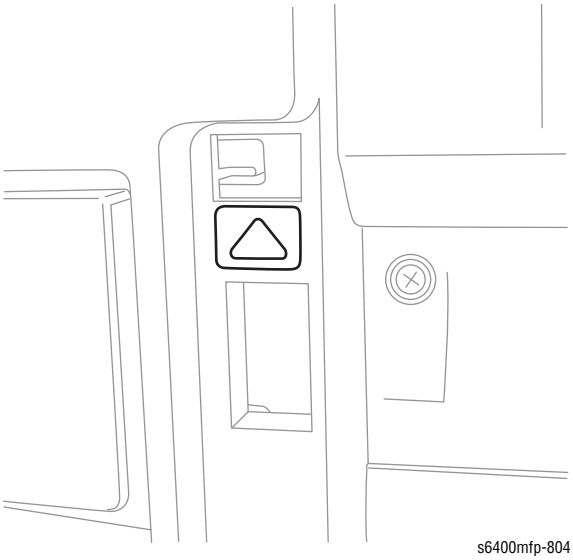
1. Open Tray 1.
2. Remove the Duplex Unit (page 8-175).
3. Disconnect the wiring harness connector.
5. Move the 2 Lock Levers upward to release Tray 1.
6. Remove Tray 1.



s6400mfp-348

Replacement Note

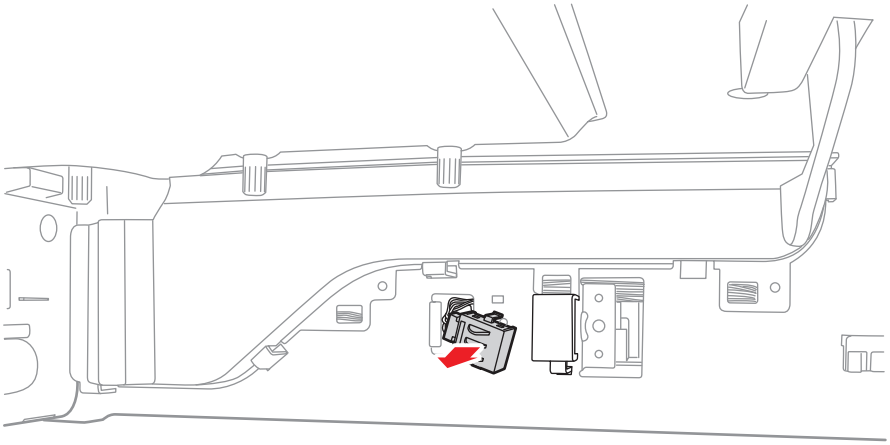
Be sure to insert the latches and align them with the arrows. Be careful with the wiring harness to prevent damaging them.



s6400mfp-804

Tray 2 Paper Size Switch (PL7.11)

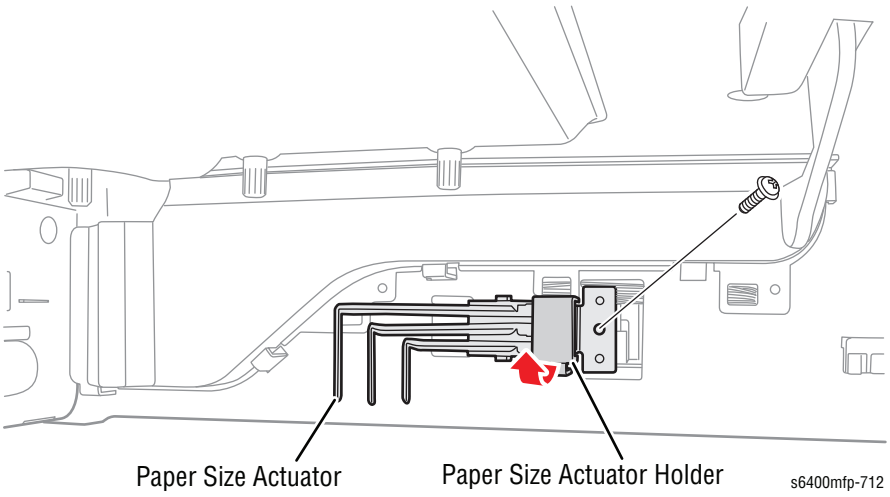
1. Follow the Tray 2 Paper Size Actuator (page 8-55).
2. Disconnect wiring harness connector P/J33 from the Switch.
3. Remove the Tray 2 Paper Size Switch.



s6400mfp-713

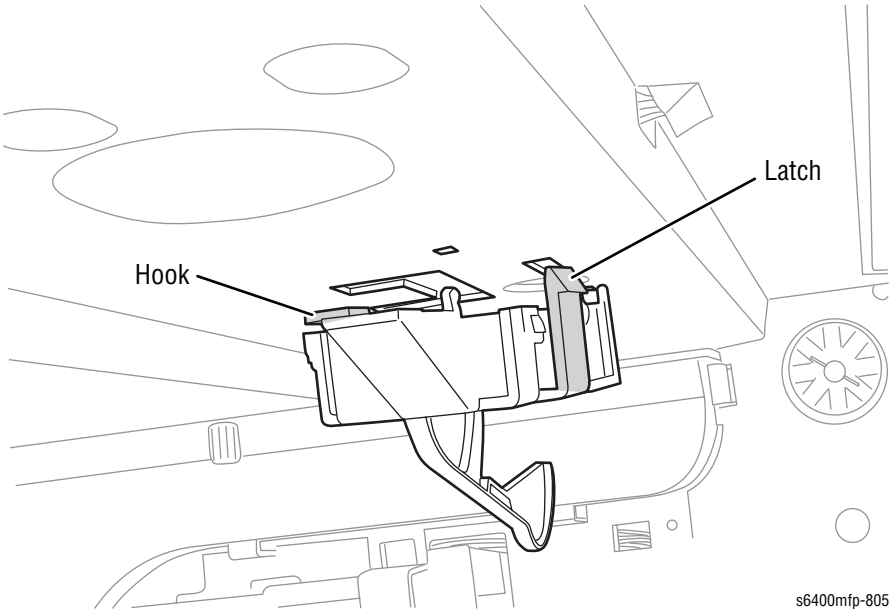
Tray 2 Paper Size Switch Actuator (PL7.12)

1. Remove Tray 2 (page 8-58).
2. Loosen 1 screw that secures the Tray 2 Paper Size Actuator.
3. Slightly pull out the Paper Size Actuator holder to release the Actuator.
4. Remove the Tray 2 Paper Size Switch Actuator.

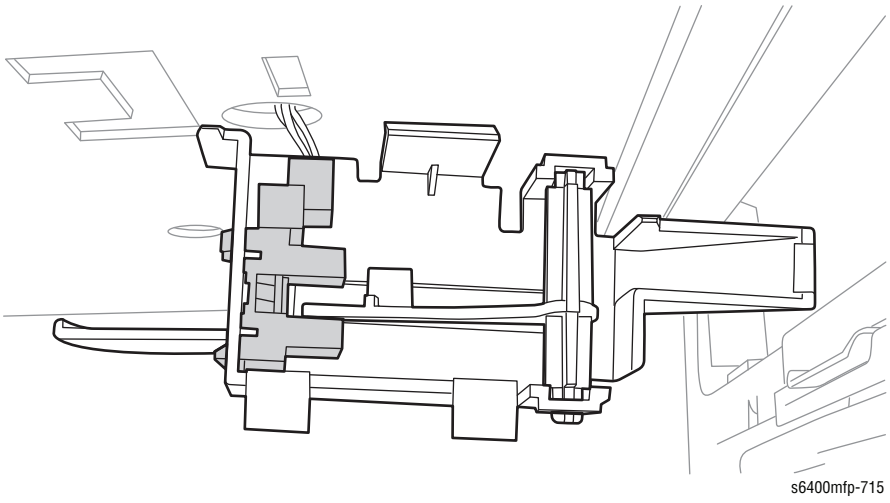


Tray 2 Paper Empty Sensor (PS8) (PL9.04)

1. Remove Tray 2 (page 8-58).
2. Press the latches, push the Sensor toward the right side to release the hook, and remove the Sensor Bracket (PL9.14) from the printer frame.



3. Disconnect the wiring harness connector.
4. Remove the Tray 2 Paper Empty Sensor.

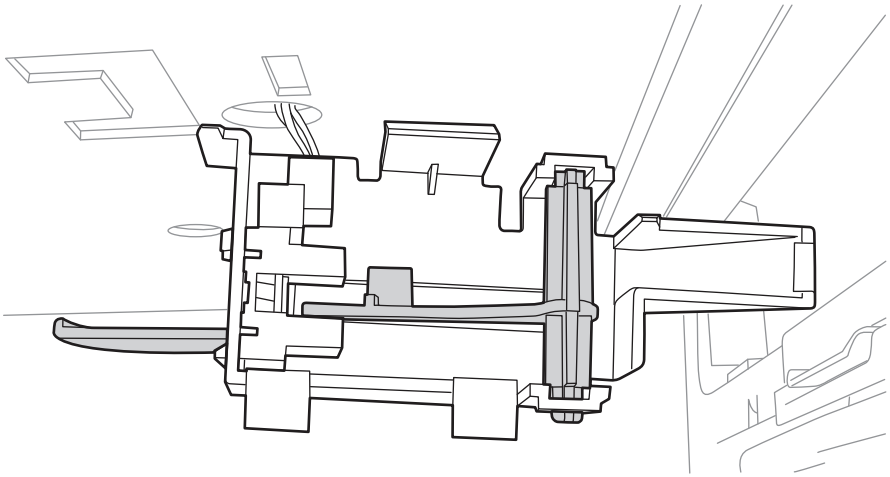


Replacement Note

Be sure to align the latches with the holes on the printer frame in order to secure the Sensor Bracket in place.

Tray 2 Paper Empty Sensor Actuator (PL9.05)

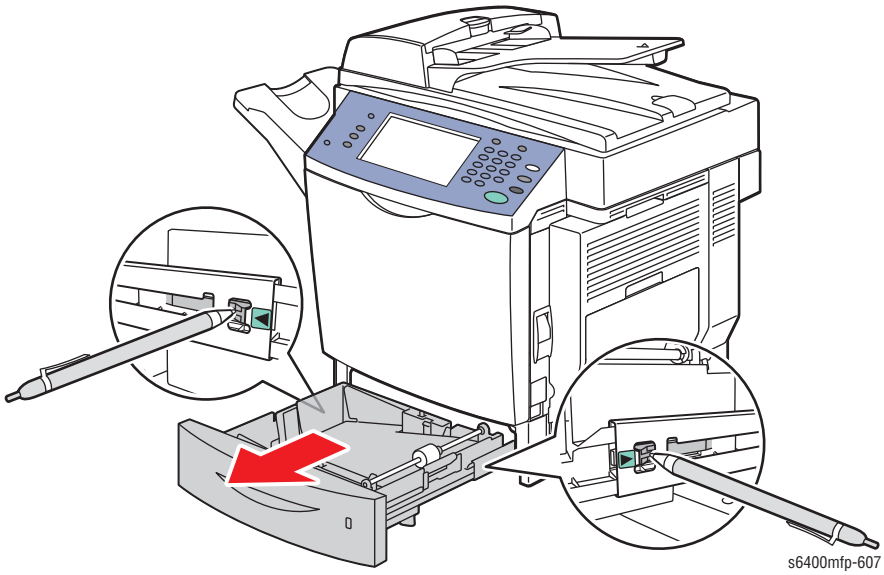
1. Remove the Tray 2 Paper Empty Sensor (page 8-56).
2. Release one side of the Actuator from the Bracket and remove the Tray 2 Paper Empty Sensor Actuator.



s6400mfp-716

Tray 2 (PL21.28)

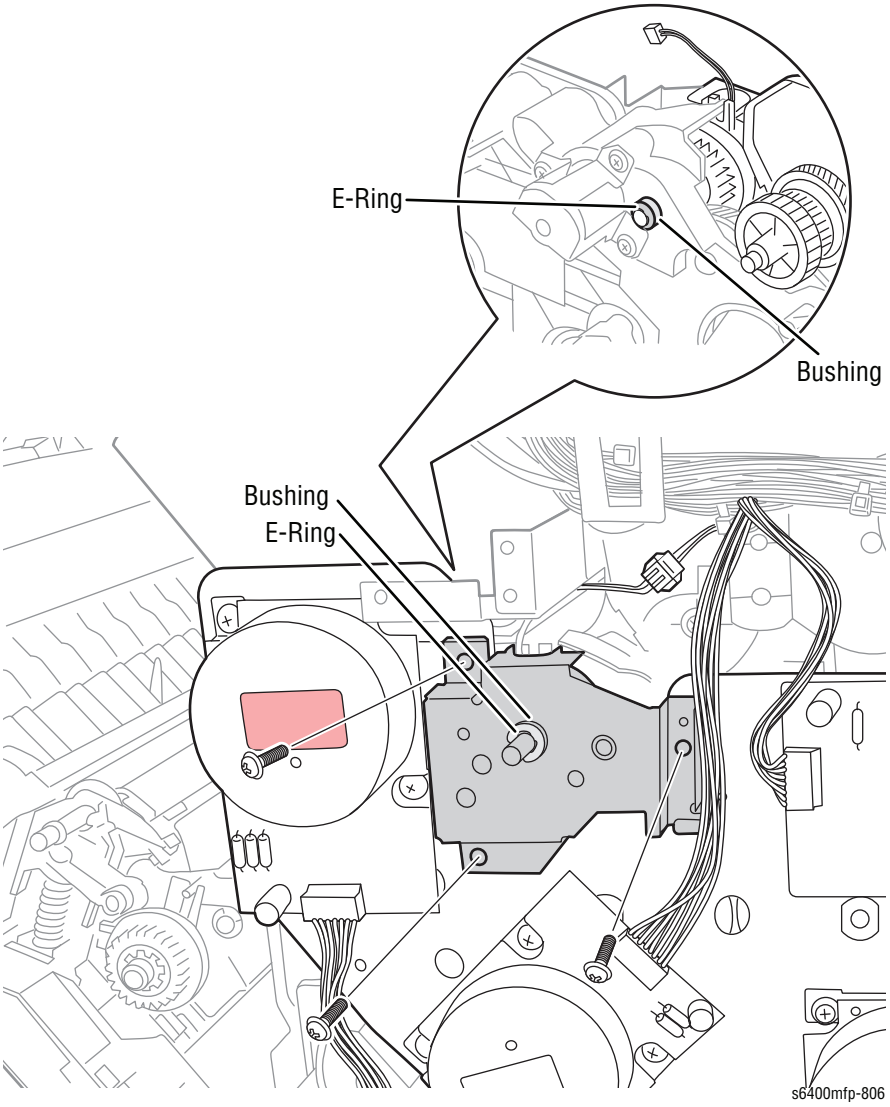
1. Pull Tray 2 out away from the printer.
2. Press the left and right tabs on the sides to release Tray 2.
3. Remove Tray 2.



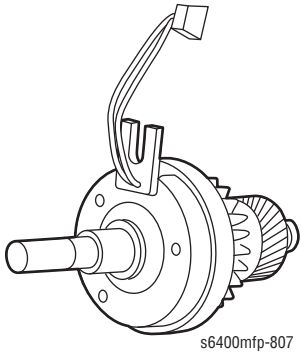
Paper Feed and Registration

Pressure/ Retraction Clutch-1 (CL4) (PL12.06)

1. Remove the Main Drive Assembly (page 8-142).
2. Remove 3 screws that secure the Bracket.
3. Remove the two E-Rings and two Bushings (PL12.05).
4. Remove the Pressure/ Retraction Clutch-1 Assembly.



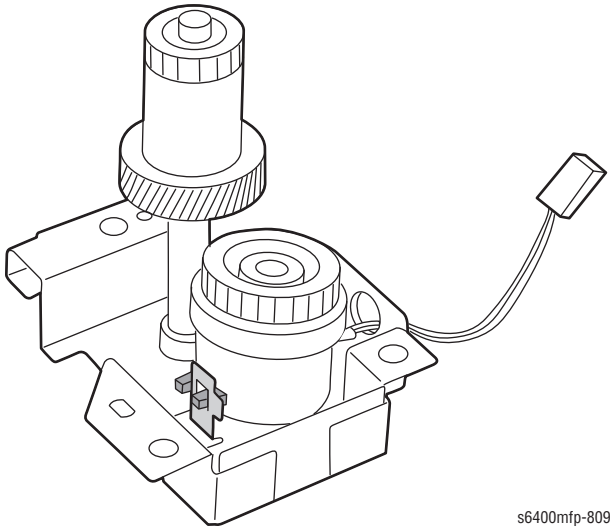
5. Remove the Gear.
6. Remove the Pressure/ Retraction Clutch-1.



s6400mfp-807

Replacement Note

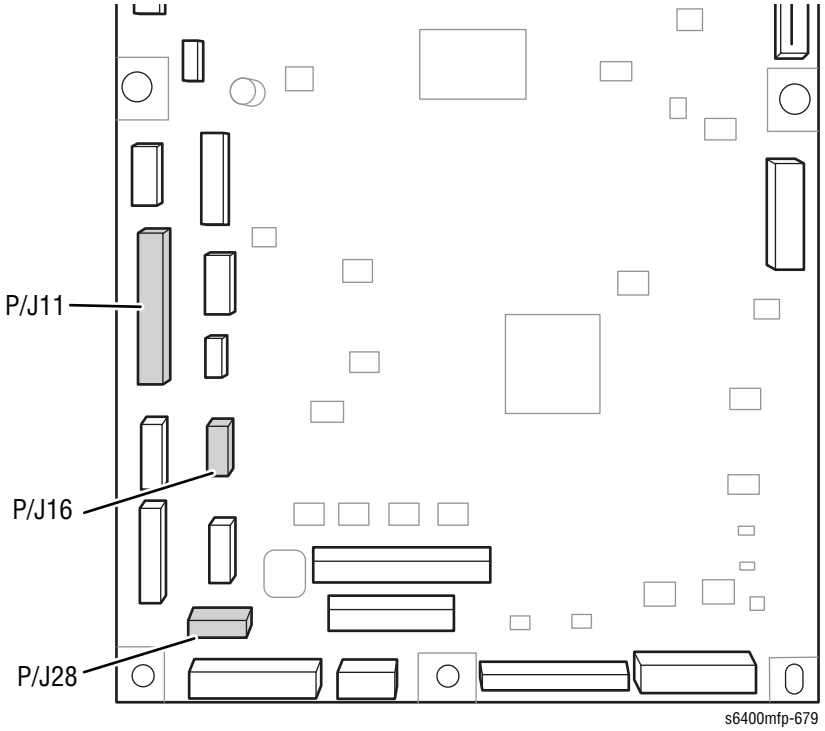
When installing the Bearing and the Pressure/ Retraction Clutch-1, be sure to fit the protrusion on the Pressure/ Retraction Clutch-1 into the locking position slot.



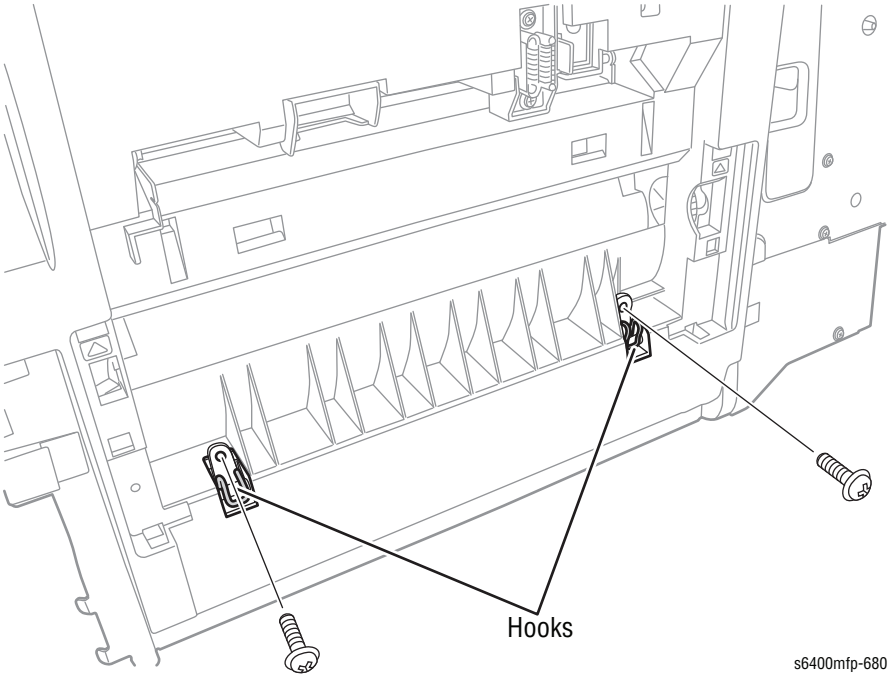
s6400mfp-809

Vertical Transport Assembly (Right Door) (PL15.01)

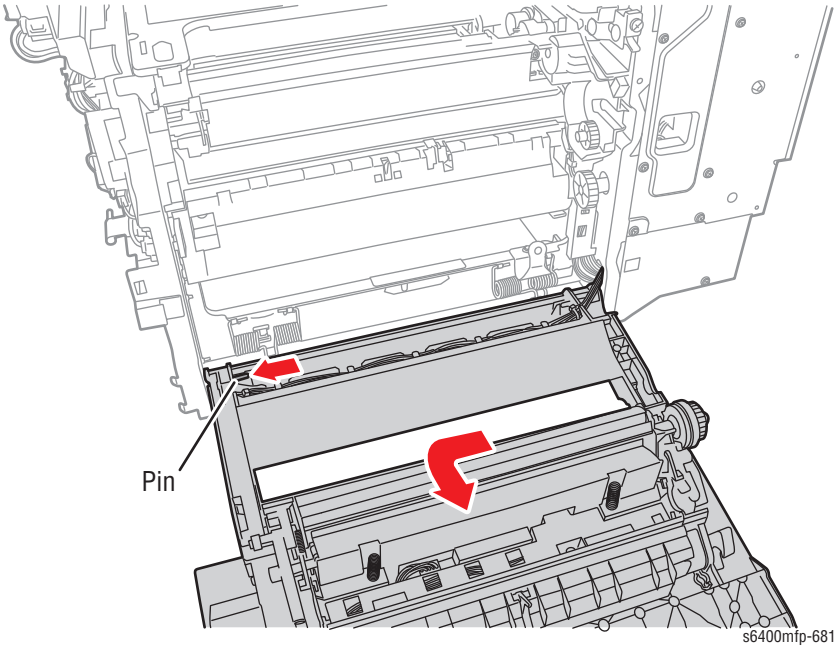
1. Remove Tray 1 (page 8-53).
2. Remove the Transfer Roller (page 8-23).
3. Remove the Right Rear Cover (page 8-48).
4. Remove the Front Door (page 8-51).
5. Remove the Right Front Cover (page 8-50).
6. Remove the RF Protective Shield (page 8-97).
7. Release the wiring harnesses from the clamps and disconnect the wiring harness connectors P/J11, P/J16, and P/J28 from the MCU Board (PL20.09).



8. Remove the 2 screws that secure the Vertical Transport Assembly.
9. Use a screwdriver to release the left and right hooks.



10. Push the pin on the left side of the Vertical Transport Assembly toward the left side.
11. Slide the Vertical Transport Assembly to the left and remove the Vertical Transport Assembly.

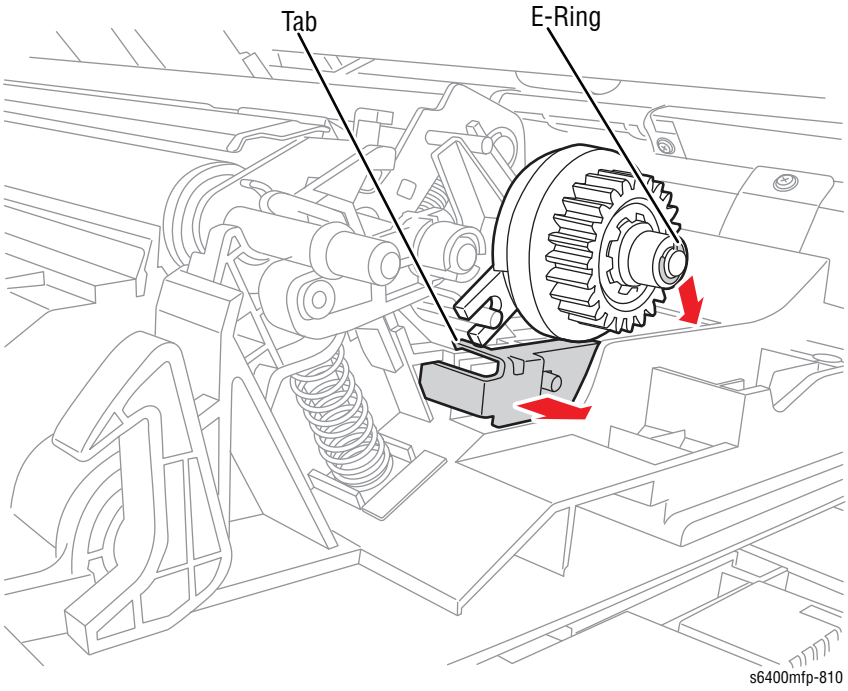


Replacement Note

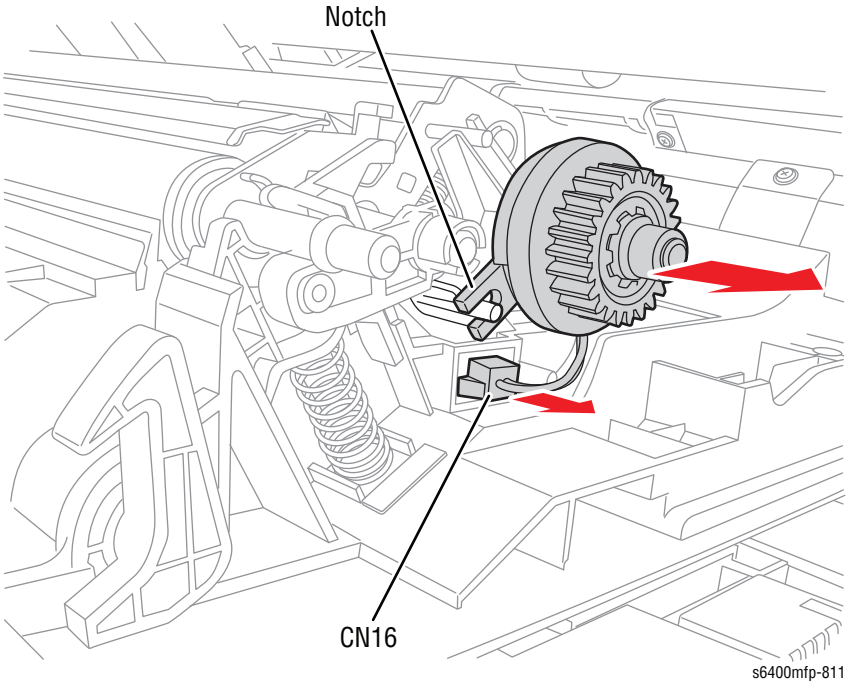
Be sure to insert the pin on the right side of the Vertical Transport Assembly and lock it in place prior to aligning the Vertical Transport Assembly with the printer frame.

Registration Clutch (CL2) (PL16.18)

1. Open the Right Door (Vertical Transport Assembly) (PL15.01).
2. Unhook the tab on the top side of the Set Plate (PL16.04) and remove the Plate.
3. Remove the E-ring and the Roll (PL16.12).

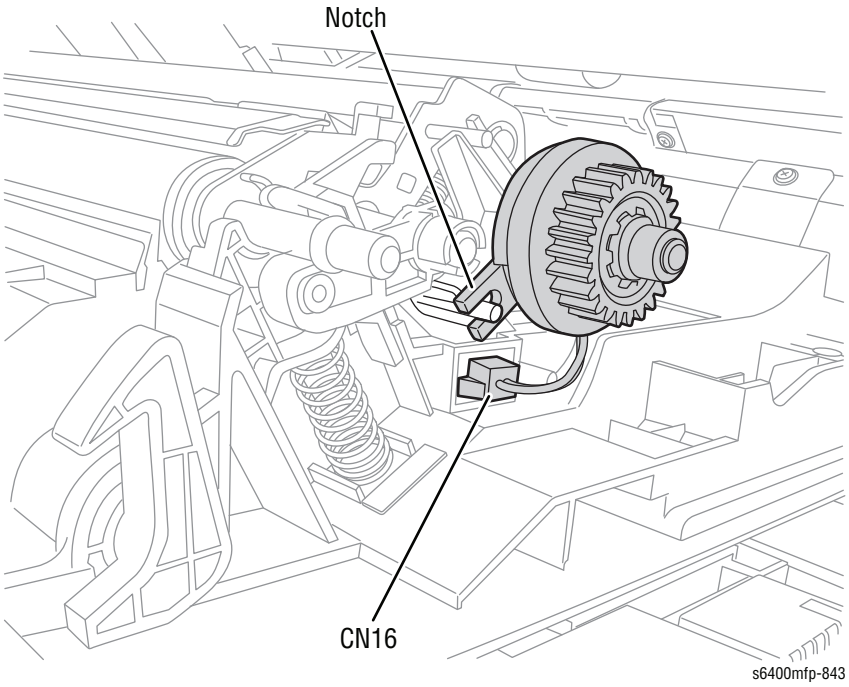


4. Disconnect the wiring harness connector.
5. Remove the Registration Clutch.



Replacement Note

When installing the bearing, make sure to position the notch on the Registration Clutch in place as in the illustration.



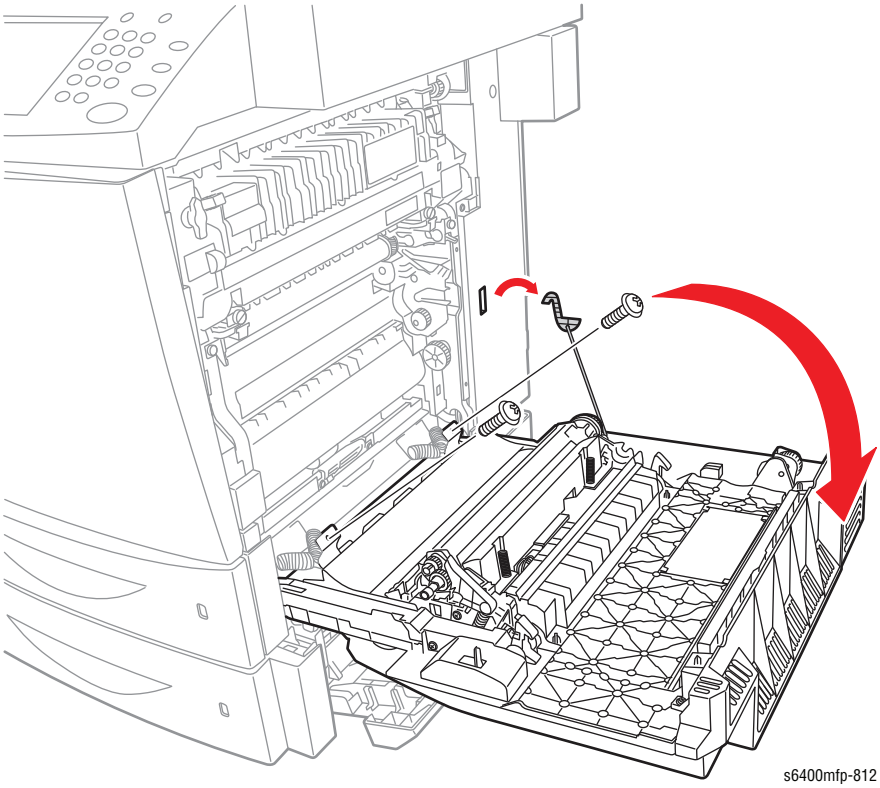
Registration Roller Assembly (PL16.22)

1. Open the Tray 3 Lower Right Door (if the 500-Sheet Feeder is installed).
2. Open the Right Door (PL15.01).

Caution

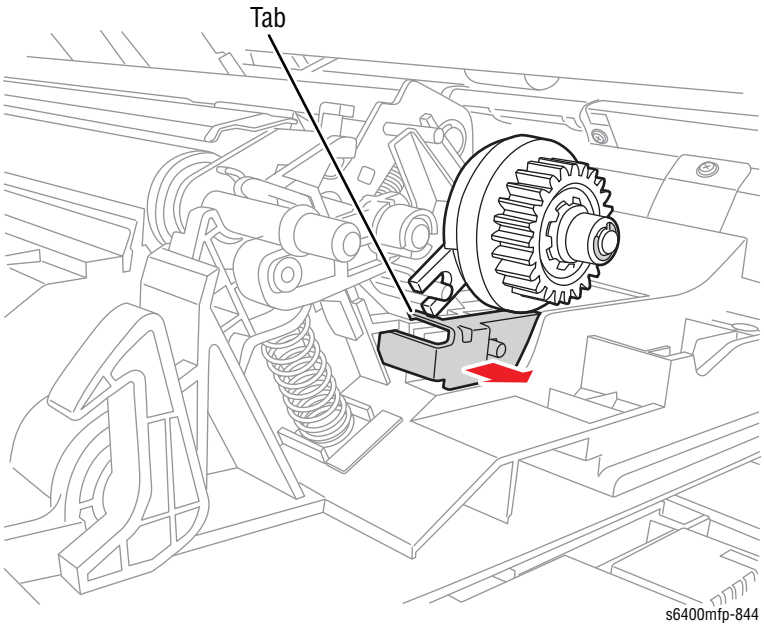
Do not touch the foam rubber of the Transfer Roller to prevent print defects.

3. Remove the Transfer Roller (page 8-23).
4. Release the hook that secures the Right Door to the printer and lower the Right Door.
5. Remove 2 screws that secure the Right Door.



s6400mfp-812

6. Unhook the tab on the top side of the Set Plate (PL16.04) and remove the Plate.
7. Disconnect the wiring harness connector CL2 from CN16.



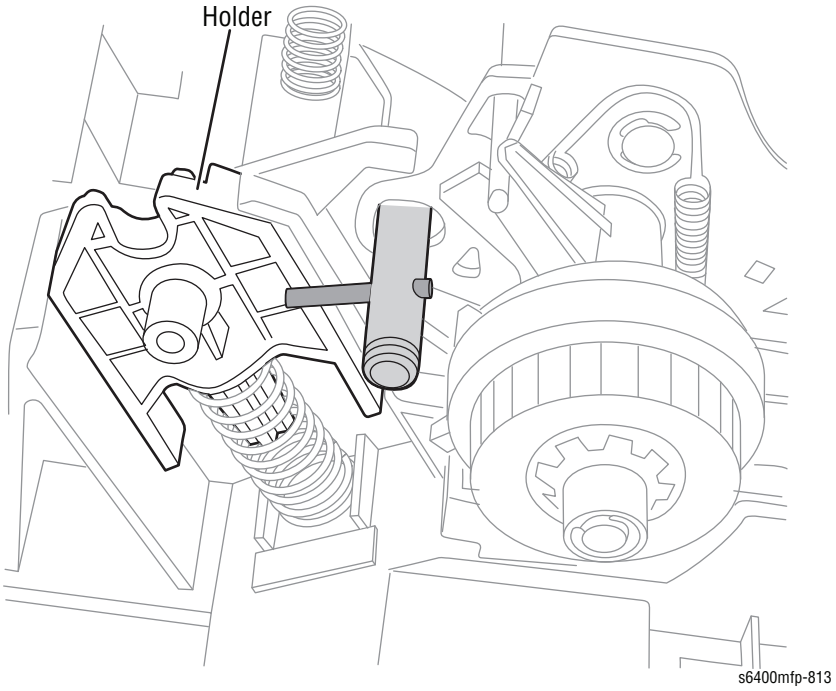
Caution

Be careful not to lose the pin.

8. Remove the pin (one on each side).
9. Rotate the Holder 90° clockwise (vertical position) and slide the Shaft out through the Registration Roller Assembly toward the front.

Caution

Be careful not to lose the springs.



Replacement Note

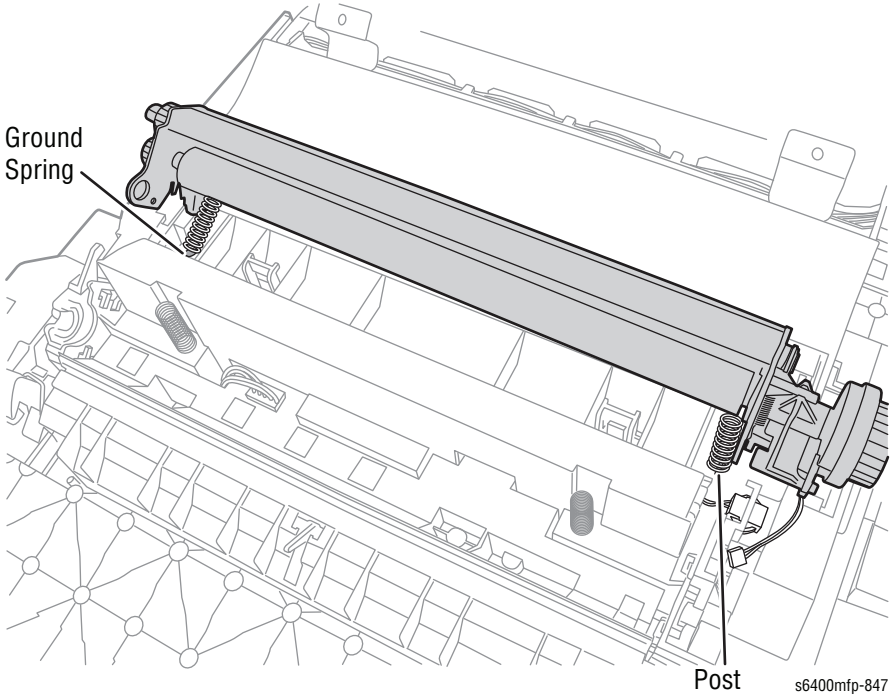
Be sure the springs sit in the correct places. One side has a Ground Spring, one side has flat surface.

Be sure the Ground Plate (on the front side of the printer) sits on the inside.

Push the Registration Roller Assembly downward while aligning the hole and installing the shaft.

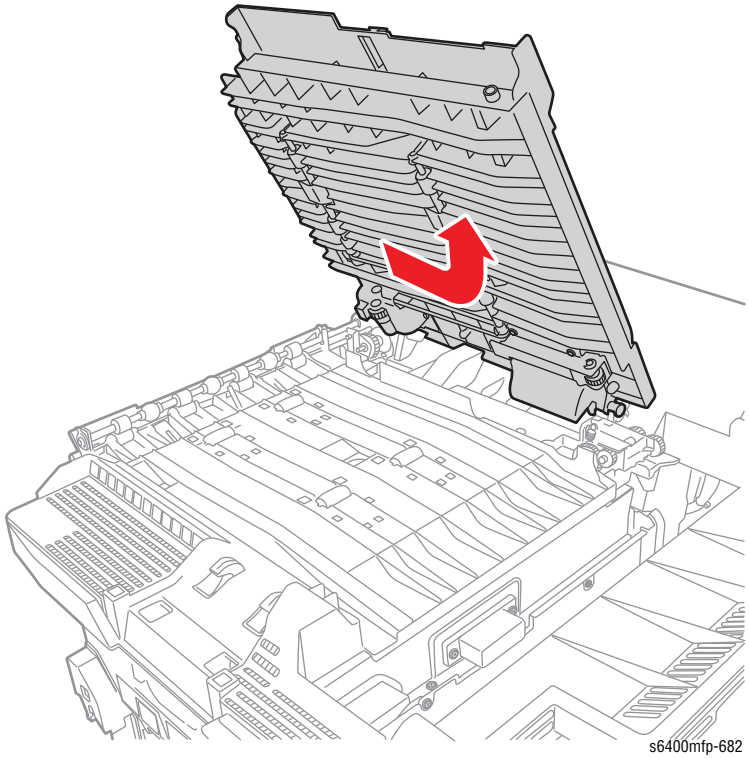
Be sure the plastic Bracket aligns with the boss.

Be sure the Registration Assembly moves up and down.



Upper Horizontal Transport Assembly (PL17.37)

1. Remove the Scanner Assembly (page 8-42).
2. Open the Upper Horizontal Transport upward and remove the Upper Horizontal Transport Assembly.



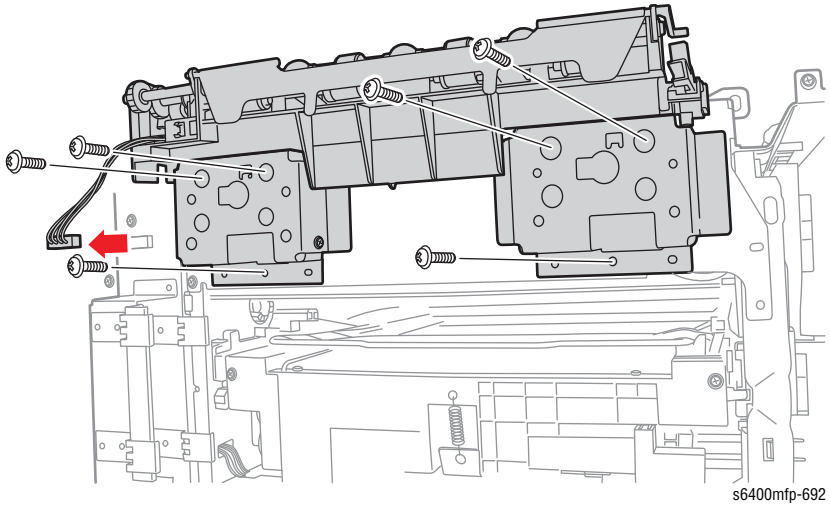
Lower Horizontal Transport Assembly (PL17.48)

1. Remove the Upper Horizontal Transport Assembly (page 8-68).
2. Remove the Fuser Unit (page 8-24).
3. Disconnect the Paper Exit Assembly wiring harness connector.

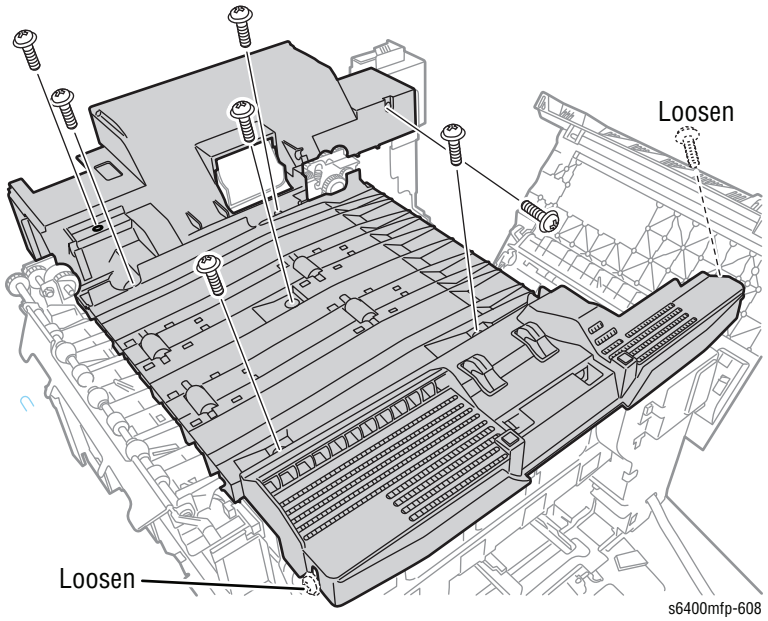
Note

For the following step, be sure to remove the bottom screws first to prevent the Paper Exit Assembly from falling.

4. Remove 6 screws that secure the Brackets (PL10.18) to the Frame.
5. Remove the Paper Exit Assembly.



6. Loosen the 2 front screws.
7. Remove 7 screws that secure the Lower Horizontal Transport Assembly.
8. Lift the Lower Horizontal Transport Assembly and remove the Lower Horizontal Transport Assembly.



Replacement Note

Be sure to position the Ground Spring in the correct position to prevent from damage.

Be sure to properly align the Scanner Latch (PL4.04) when reinstalling the Lower Horizontal Transport Assembly.

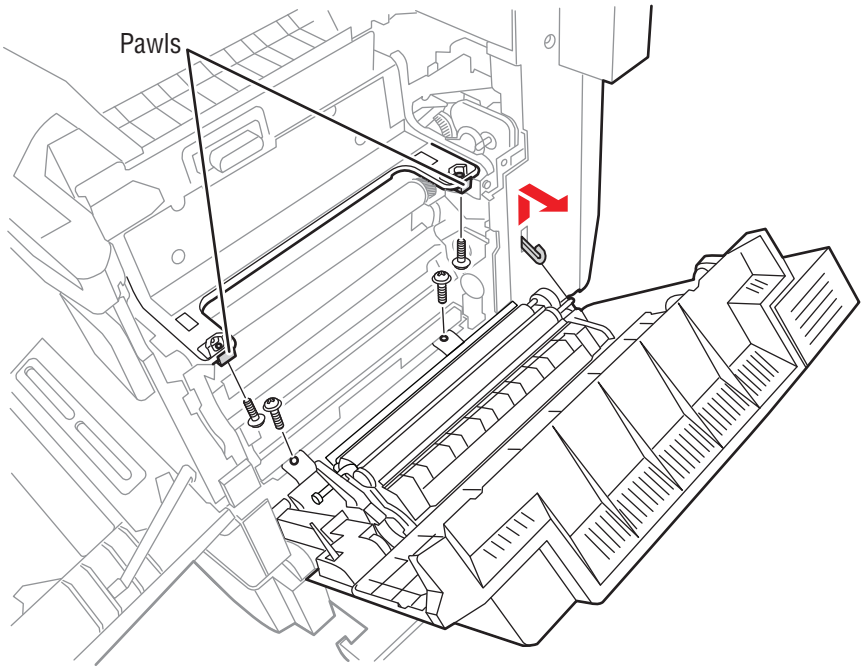
Fuser Pawl (PL18.04)

1. Open the Tray 3 Right Door (if the 500-Sheet Feeder is installed).
2. Remove the Fuser Unit (page 8-24).
3. Push the Duplex Hook upward to release the hook from the printer and lower the Right Door.
4. Remove 2 screws that secure the Right Door.

Note

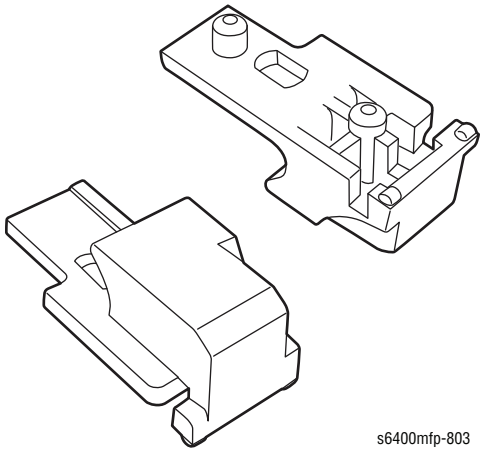
Use a stubby screwdriver for the following step.

5. Remove 1 screw from the bottom of the Fuser Pawl.



s6400mfp-900

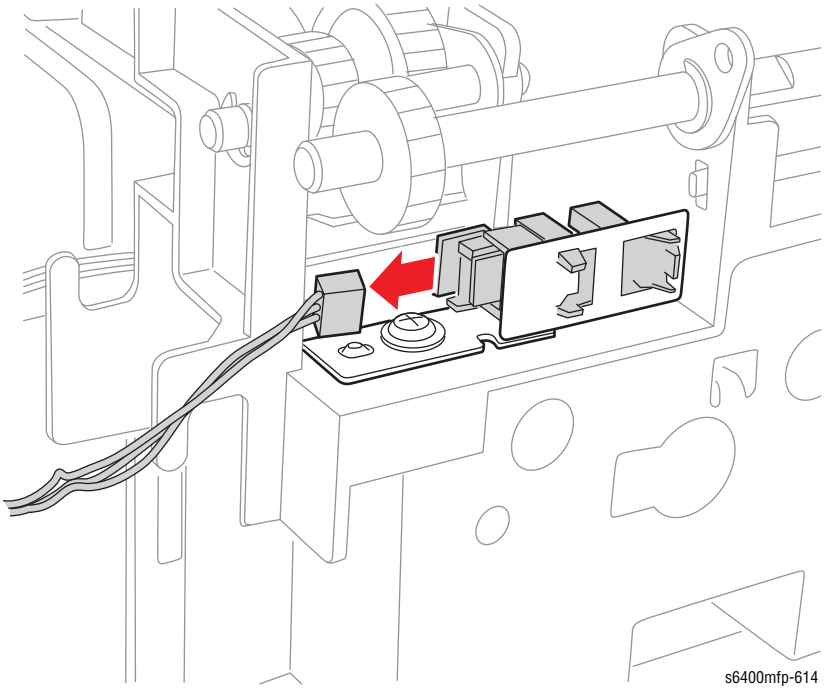
6. Remove the Fuser Pawl.



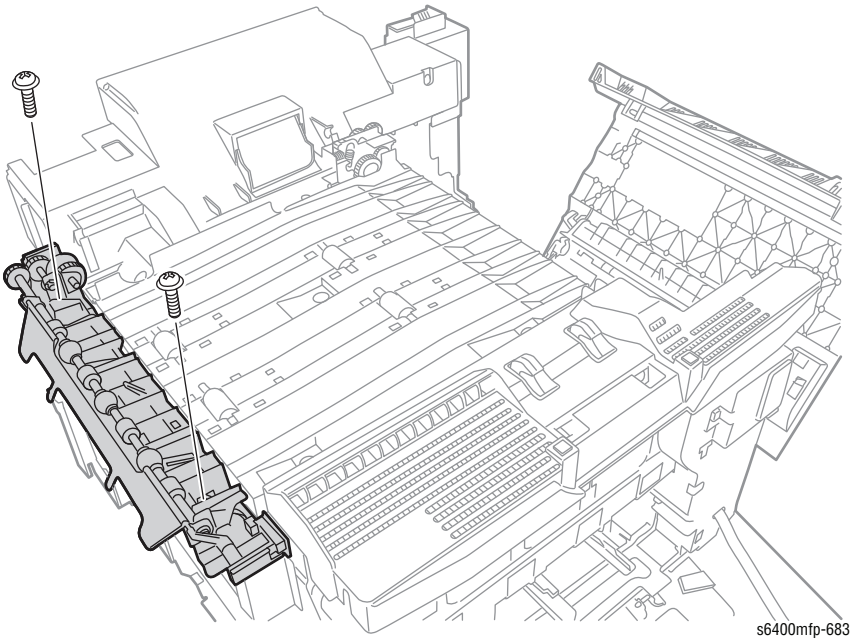
s6400mfp-803

Paper Exit Assembly (PL19.25)

1. Remove the Left Side Cover (page 8-52).
2. Disconnect the Paper Exit Assembly wiring harness connector.



3. Remove 2 screws that secure the Paper Exit Assembly to the Brackets (PL10.18).
4. Remove the Paper Exit Assembly.

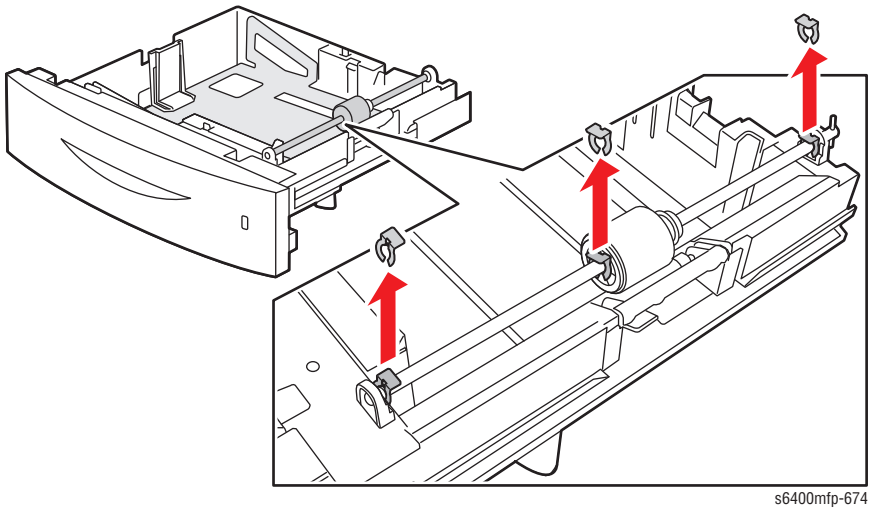


Replacement Note

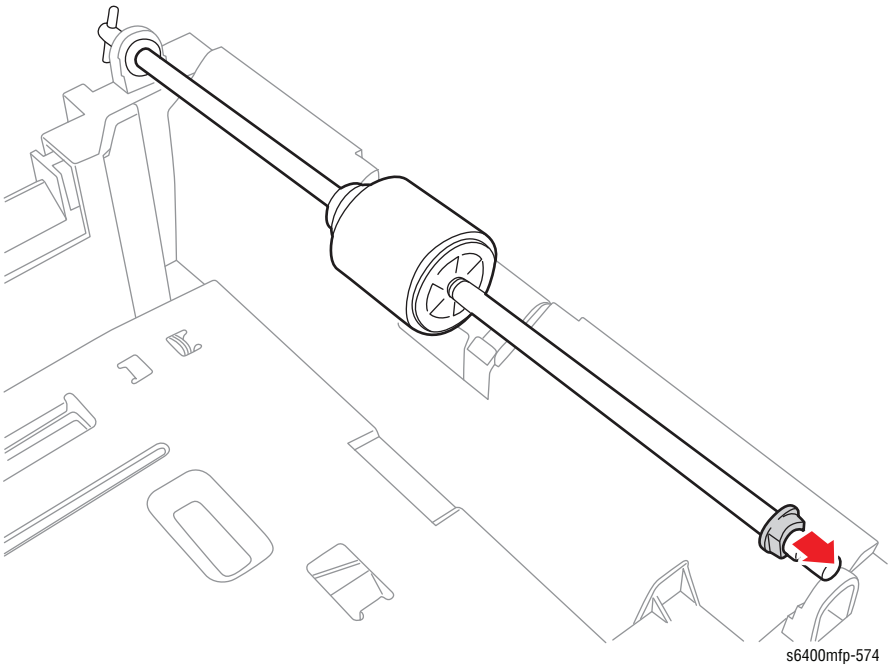
Be sure to connect the Exit Assembly wiring harness connector.

Tray 2 Separation Roller Clutch (PL21.26)

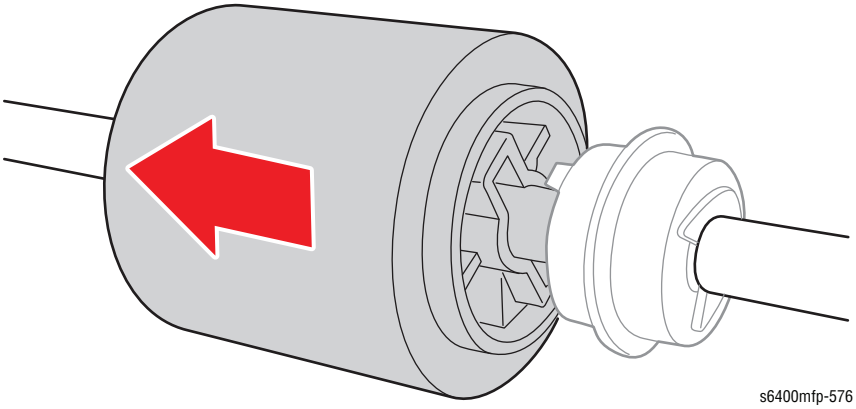
1. Remove Tray 2 (page 8-58).
2. Press the Lifting Plate (PL21.23) down to lock it in place.
3. Remove the three K-Clips (PL21.29).



4. Slide the Shaft (PL21.24) toward the rear of the Tray.
5. Remove the Bushing (PL21.10).

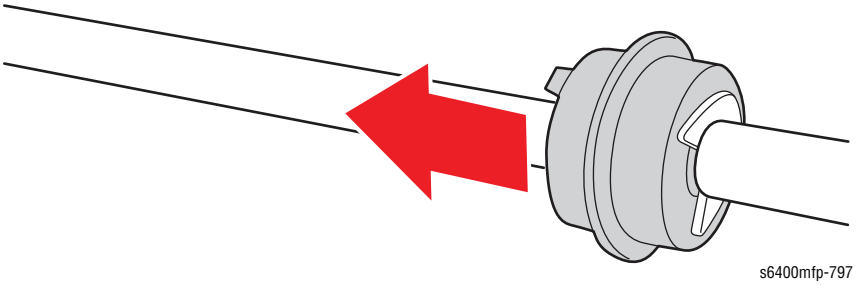


6. Slide the Feed Roller out from the Shaft and remove the Feed Roller.



s6400mfp-576

7. Slide the Tray 2 Separation Roller Clutch out and remove the Tray 2 Separation Roller Clutch.

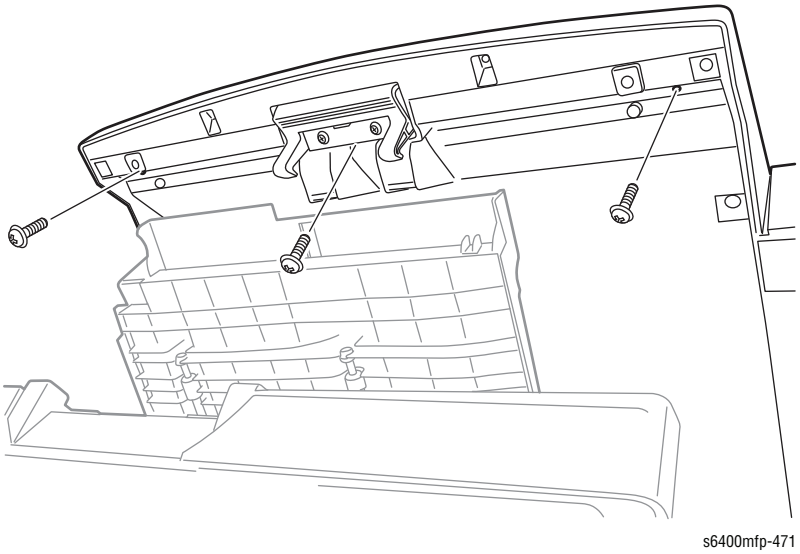


s6400mfp-797

Electrical

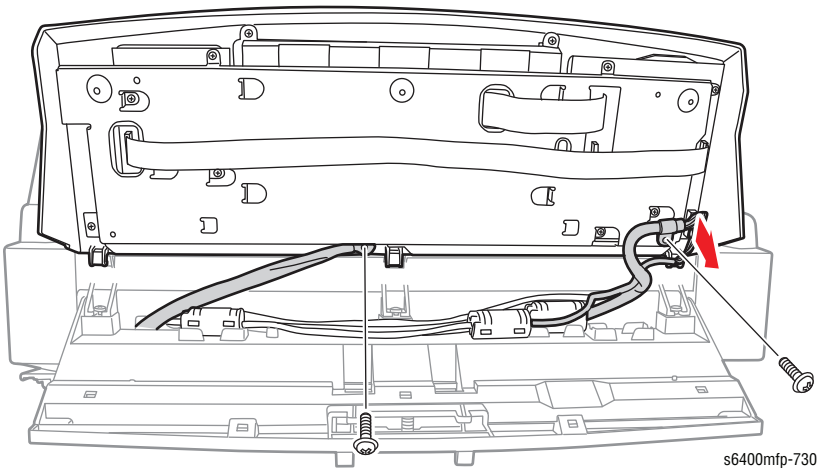
Control Panel PWB (PL2.14-15), Control Panel LCD Assembly (PL2.16), Ribbon Cables (PL2.17-19)

1. Open the Front Door (PL3.10).
2. Lift the Control Panel.
3. Remove 3 metal screws that secure the Control Panel.



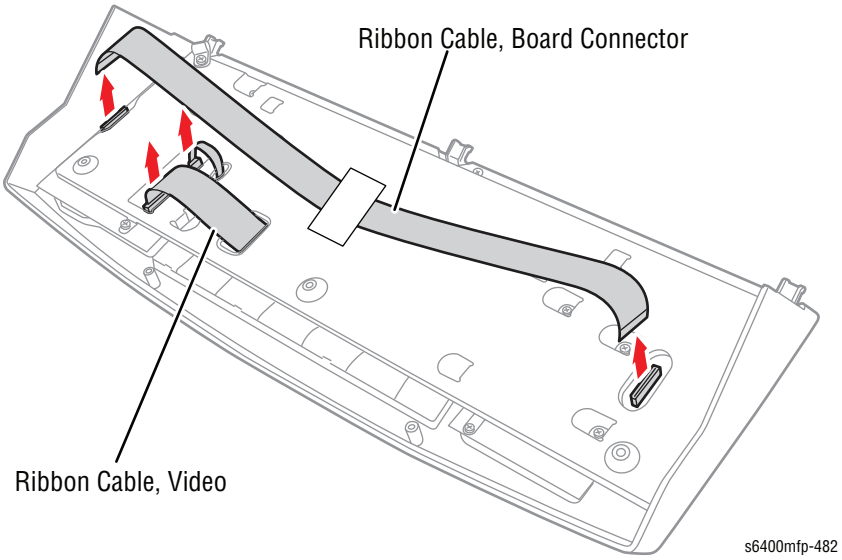
s6400mfp-471

4. Remove 1 plastic screw that secures the Ground Wire and 1 screw that secures the wiring harness.
5. Disconnect the wiring harness connector.

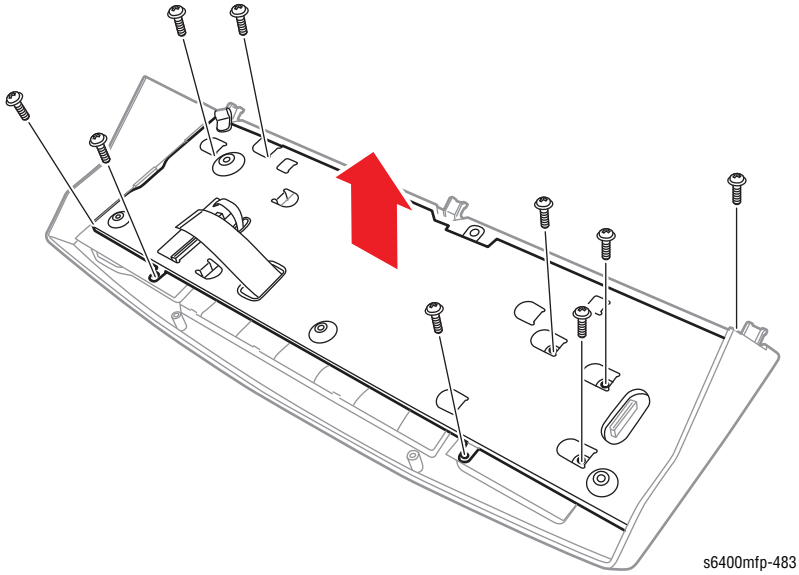


s6400mfp-730

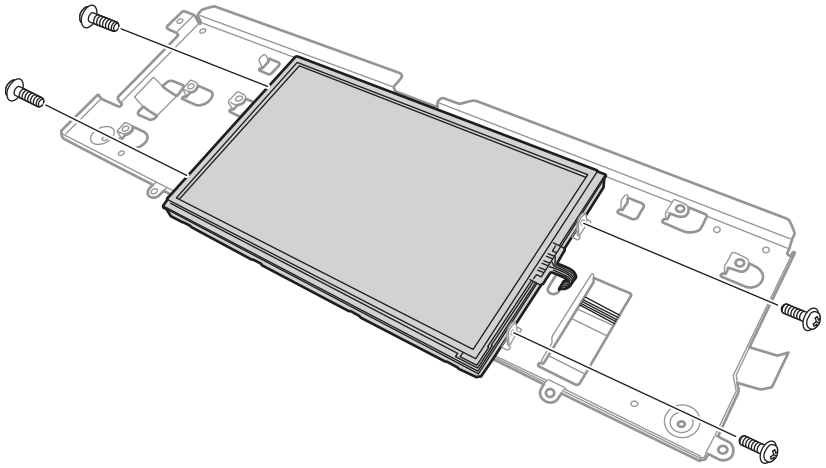
6. Remove the Control Panel.
7. Turn the Control Panel over to its back side.
8. Disconnect the 3 ribbon cables.
   a. Ribbon Cable, Board Connector (PL2.17)
   b. Ribbon Cable, Video (PL2.18)



9. Remove 9 screws that secure the Bracket.



10. Lift the Bracket to remove it and turn the Control Panel over.
    - For LCD Assembly removal, go to step 11.
    - For PWB removal, go to step 13.
11. Remove 4 screws that secure the LCD Assembly.
12. Remove the LCD Assembly.

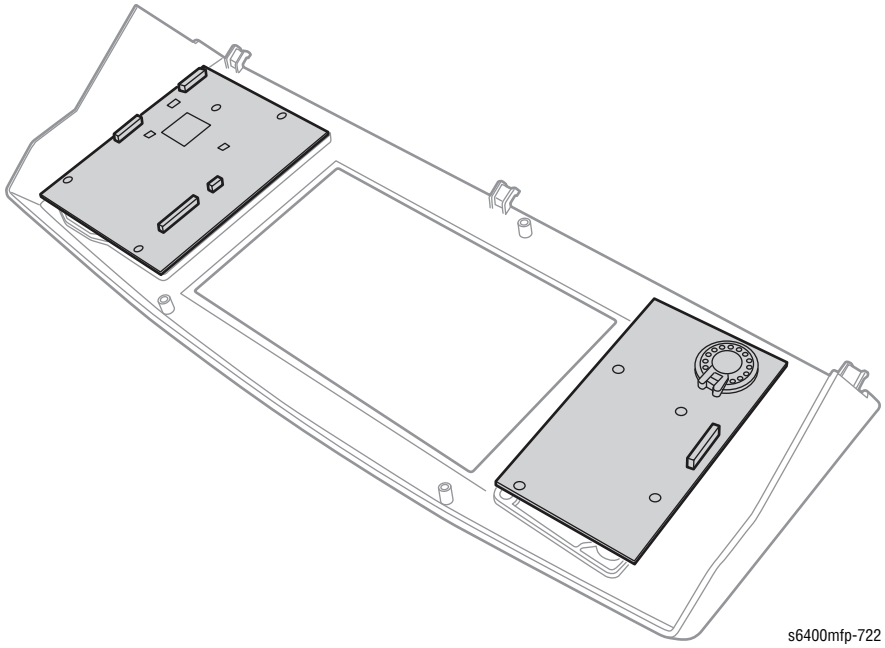


s6400mfp-721

Note

Be sure to perform the Touch Panel Calibration routine (”Control Panel Diagnostics” on page 6-22) after replacing the LCD Assembly.

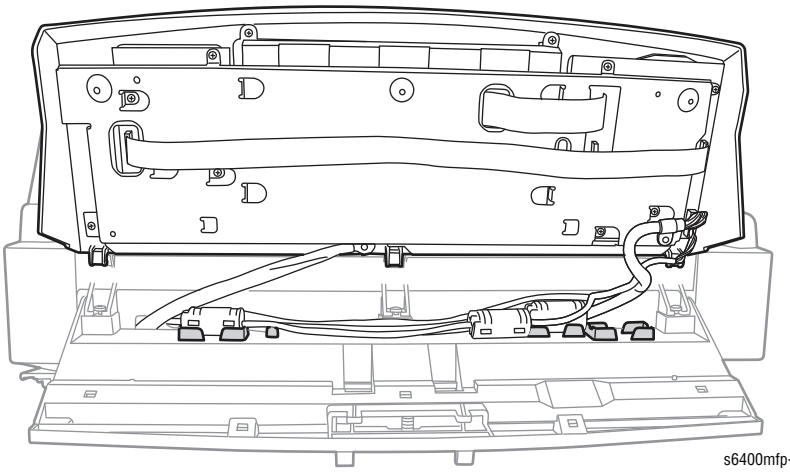
13. Remove the appropriate PWB.



s6400mfp-722

Replacement Note

Be sure to position the cable holder in place to prevent the Control Panel from sitting unevenly.



s6400mfp-798

Toner Low Sensor Board (TLSB) Assembly (PL6.18)

Caution

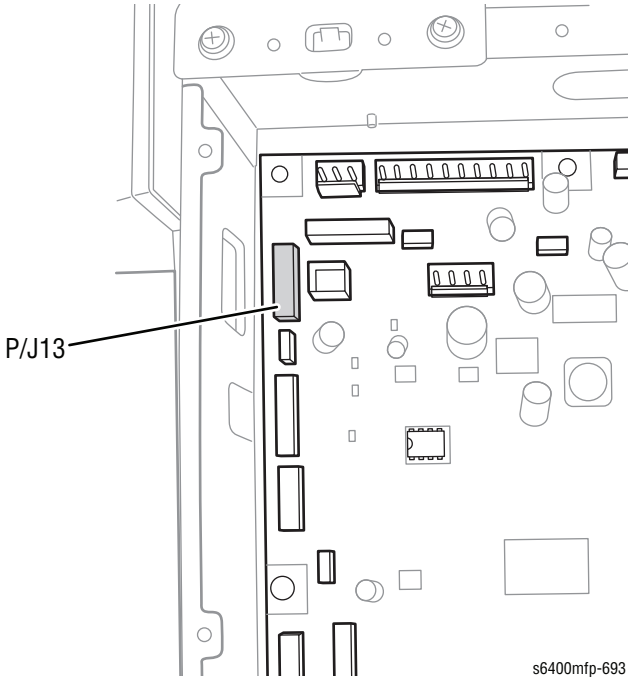
Observe all ESD procedures to avoid component damage.

1. Open the Front Door (PL3.10).
2. Remove the Toner Cartridges (Y/M/C/K) (page 8-15).

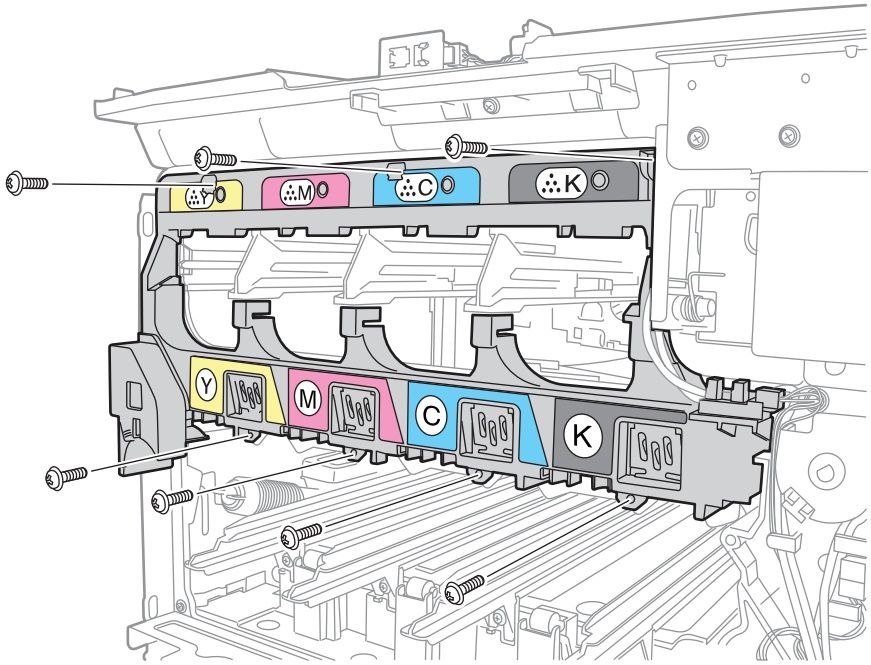
Caution

Be sure to place the Imaging Units in black plastic bags or store them in a dark place. Do not expose the Imaging Unit to light for an extended period of time.

3. Remove the Imaging Units (Y/M/C/K) (page 8-17).
4. Remove the Waste Cartridge (page 8-19).
5. Remove the Rear Cover (page 8-47).
6. Remove the Right Front Cover (page 8-50).
7. Remove the Left Side Cover (page 8-52).
8. Remove the Scanner Assembly (page 8-42).
9. Remove the LVPS Shield (page 8-82, steps 1-8).
10. Disconnect the wiring harness connector P/J13A from the MCU Board (PL20.09).

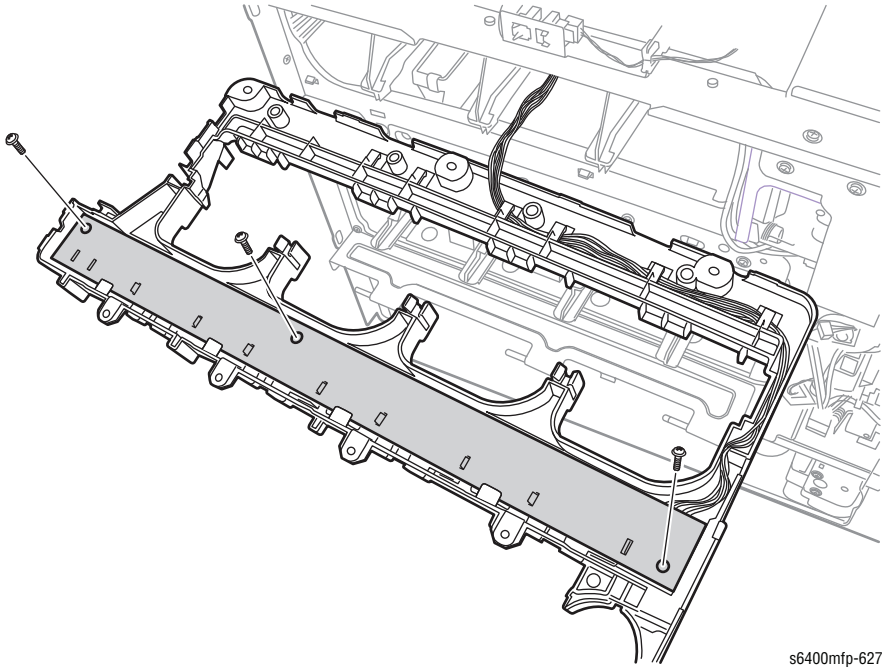


11. Remove 7 screws that secure the Toner Low Sensor Board Assembly.
12. Remove the Toner Low Sensor Board Assembly.



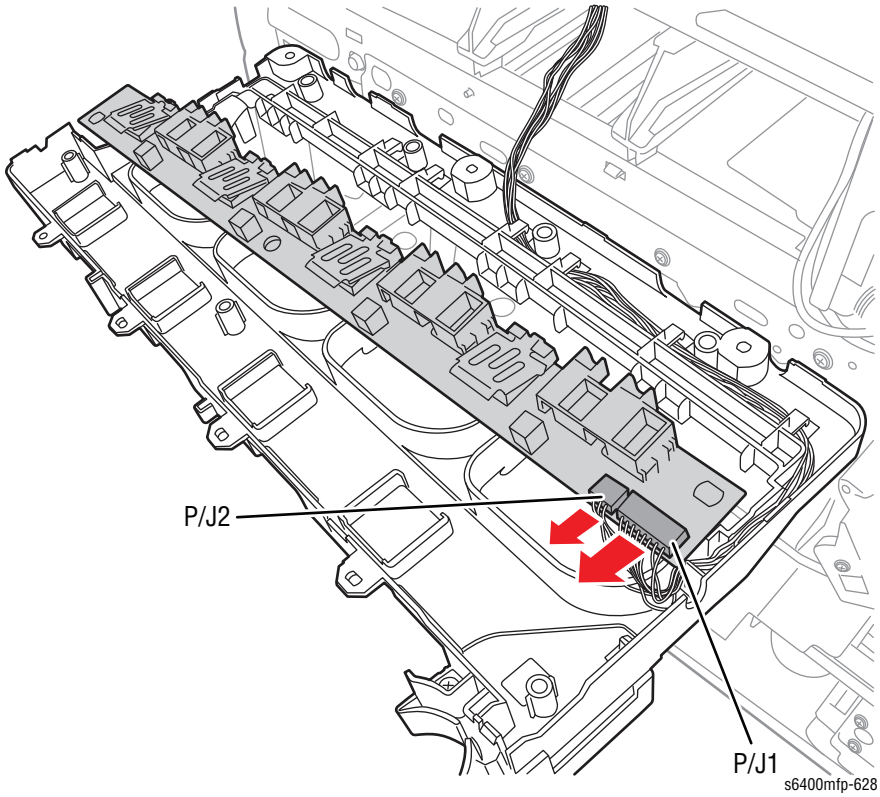
s6400mfp-626

13. Remove 3 screws that secure the Toner Low Sensor Board.



s6400mfp-627

14. Disconnect the 2 wiring harness connectors.
15. Slide the Toner Low Sensor Board out from the Cover (PL6.09) and remove the Toner Low Sensor Board.



Replacement Note

Be sure to move the wiring cables to the right side in order to position the Toner Low Sensor Board in place.

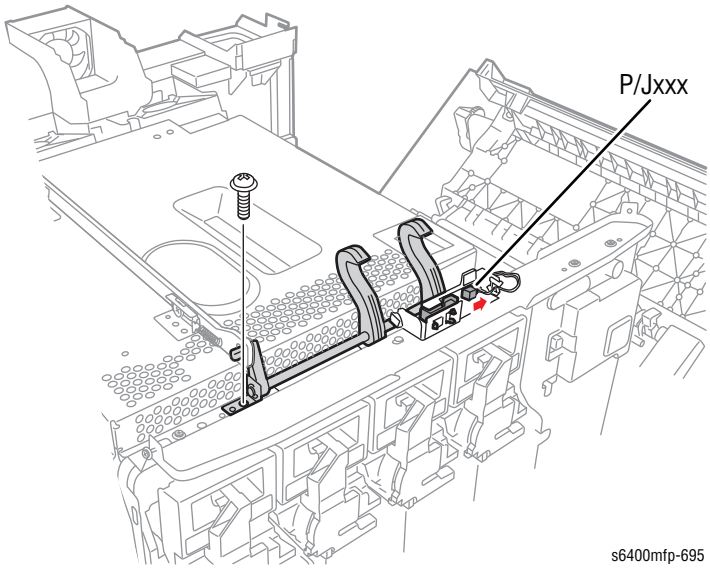
Be sure to attach the label after installing the Toner Low Sensor Board Assembly.

Low Voltage Power Supply (LVPS) (PL10.17)

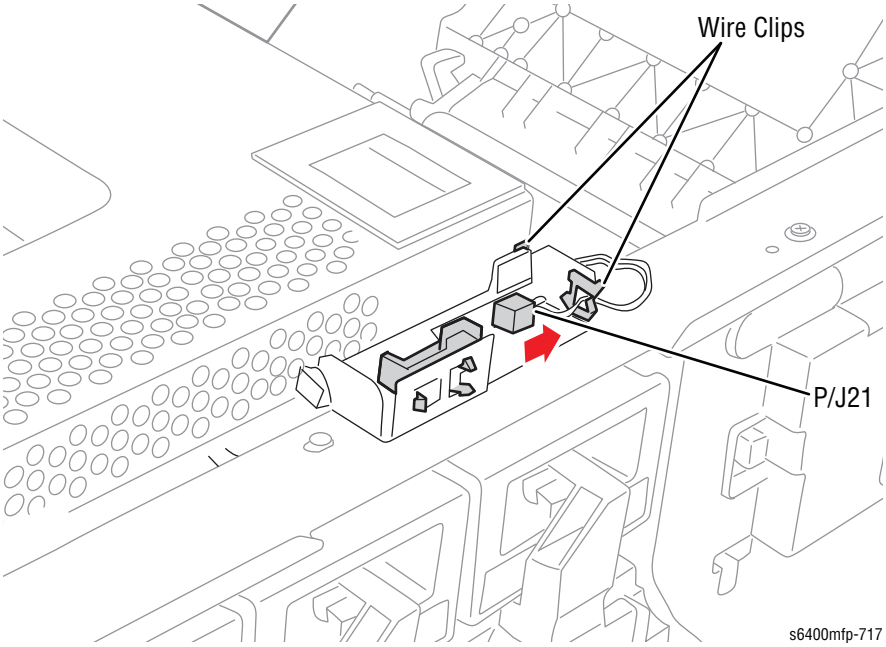
Caution

Observe all ESD procedures to avoid component damage.

1. Remove the Fuser Unit (page 8-24).
2. Remove the Left Side Cover (page 8-52).
3. Remove the Lower Horizontal Transport Assembly (page 8-69).
4. Remove 1 screw that secures the Scanner Lock Latch (PL4.04).
5. Remove the Scanner Lock Latch.



6. Disconnect the Scanner Open Sensor wiring harness connector and release the wiring harness from both clips.

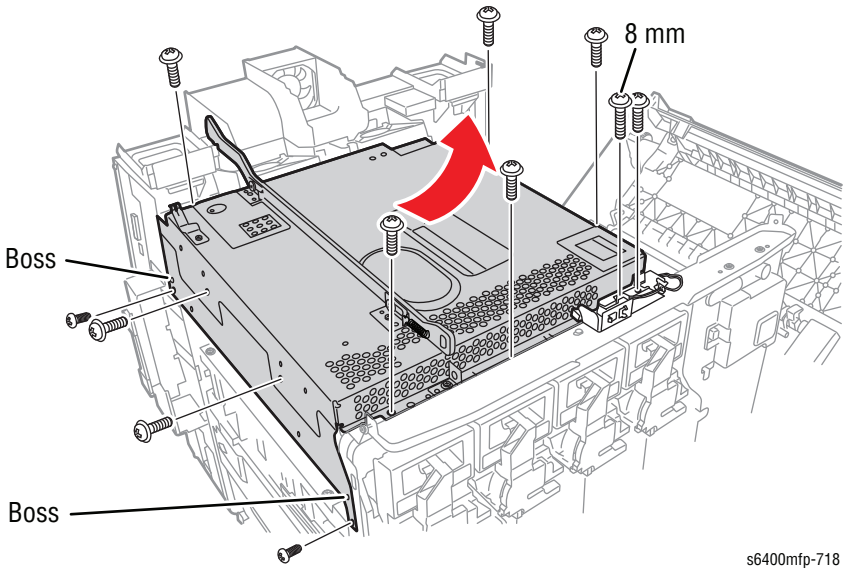


7. Remove 11 screws that secure the LVPS Shield (PL10.02). Note the location of the two panhead screws.

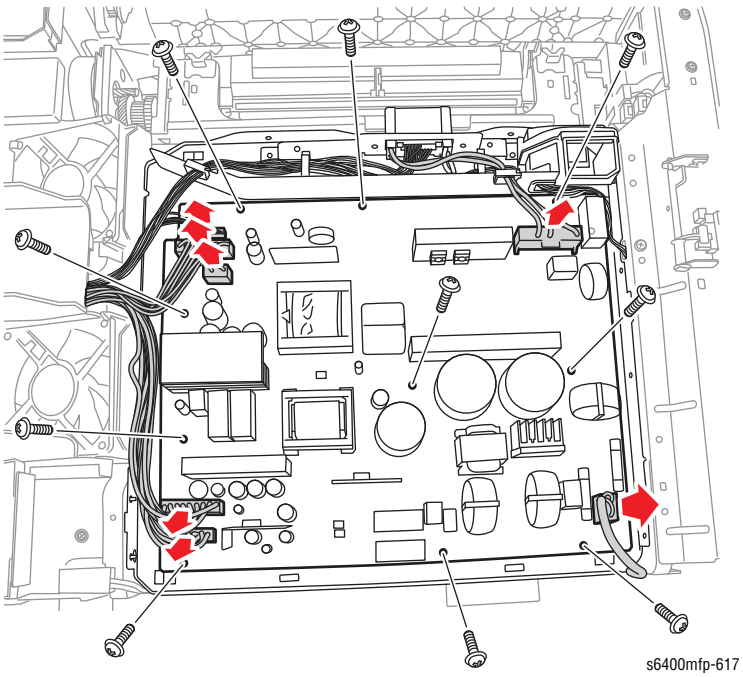
Caution

Be careful when removing the LVPS Shield to prevent damaging the Sensor Flag.

8. From the left of the printer, pry the LVPS Shield to release the 2 bosses on the printer frame. Slide the Arm (PL4.02) towards the front of the printer, lift and remove the LVPS Shield.



9. Disconnect the 7 wiring harness connectors on the LVPS.
10. Disconnect the 7 connectors from the LVPS.
11. Remove 10 screws that secure the LVPS.
12. Lift and remove the LVPS.

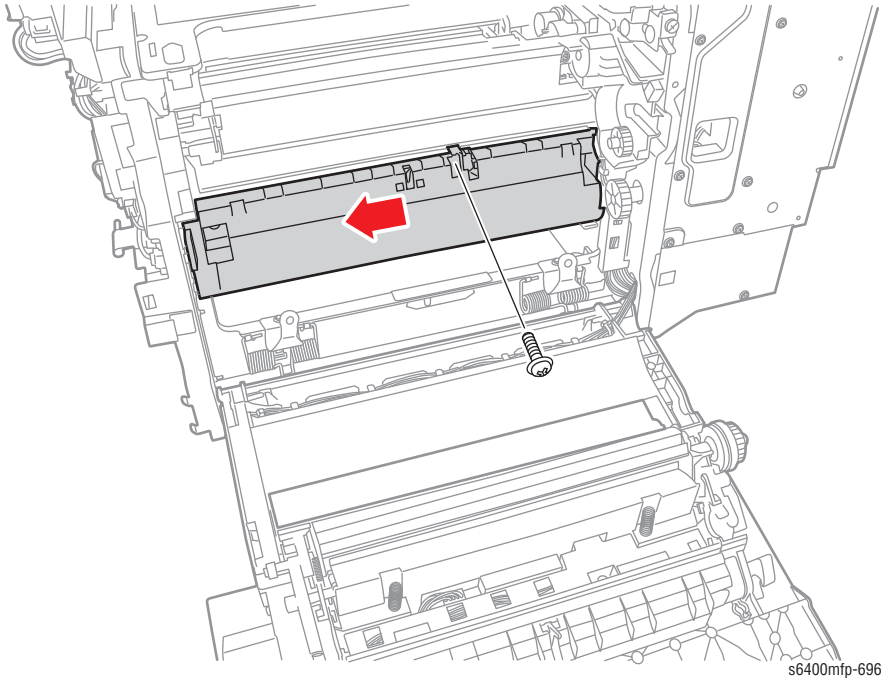


Temperature/ Humidity Sensor (PL11.01)

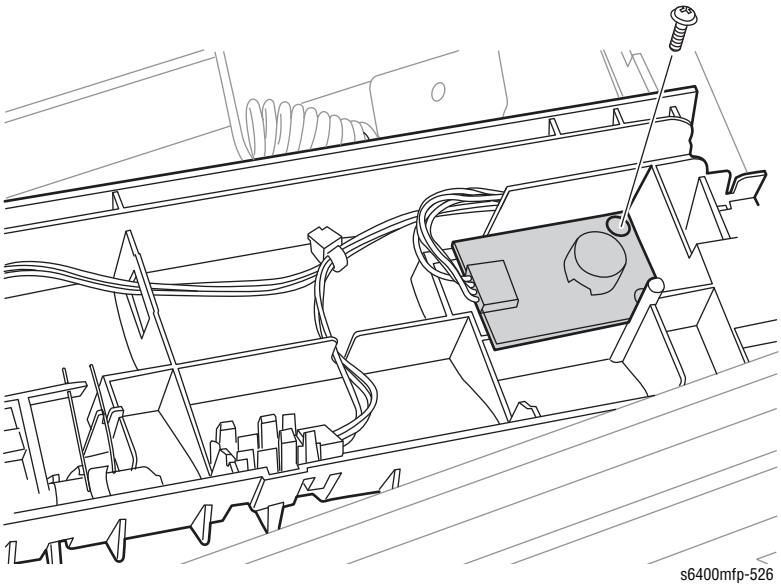
Caution

Observe all ESD procedures to avoid component damage.

1. Open the Right Door (PL15.1).
2. Remove 1 screw that secures the Guide Plate (PL11.7).
3. Shift the Guide Plate toward the left and remove the Guide Plate.

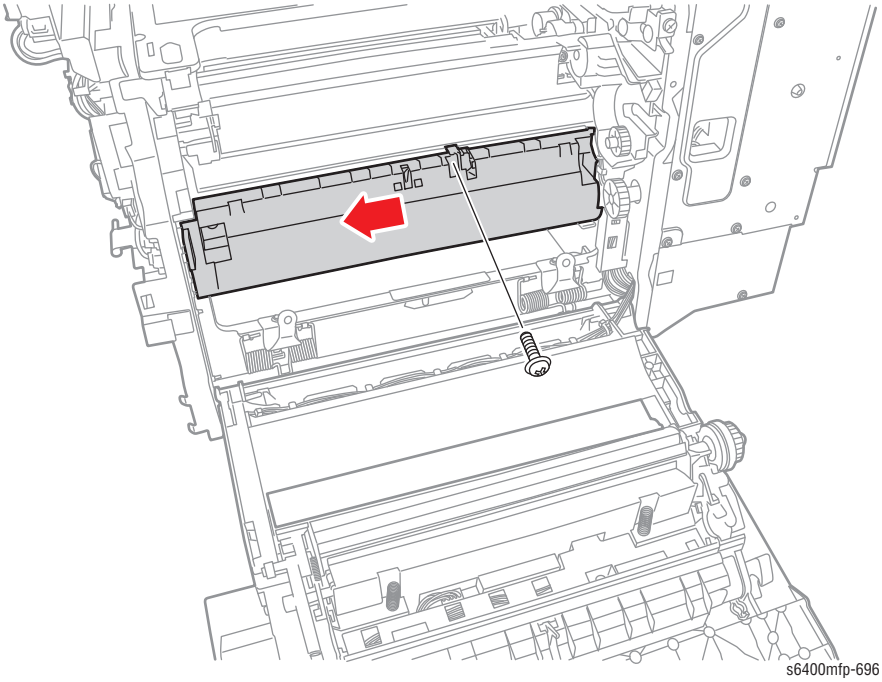


4. Disconnect the wiring harness connector.
5. Remove 1 screw that secures the Temperature/ Humidity Sensor.
6. Remove the Temperature/ Humidity Sensor.



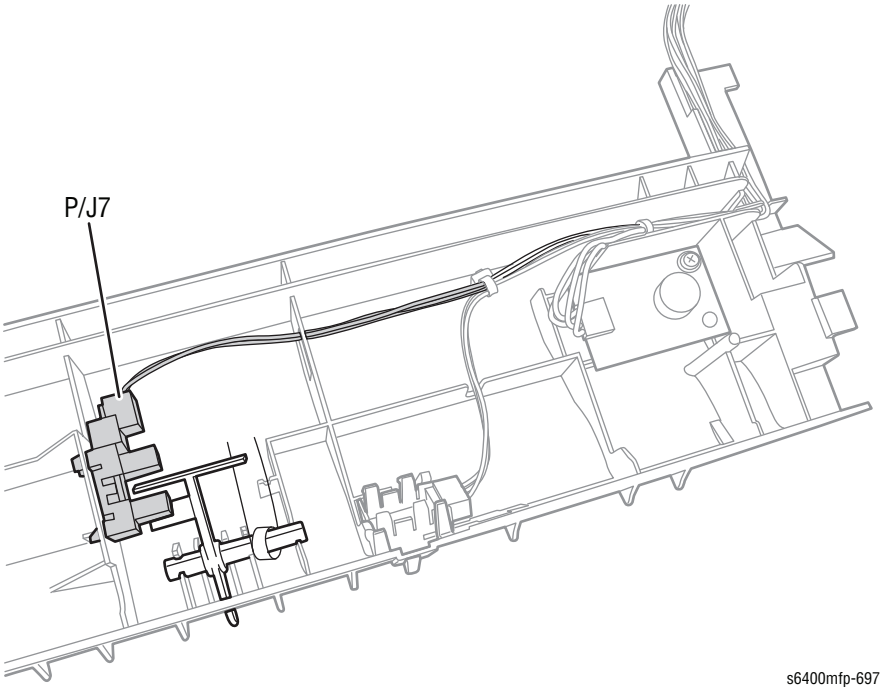
Registration Sensor (PS9) (PL11.04)

1. Open the Right Door (PL15.01).
2. Remove 1 screw that secures the Guide Plate (PL11.07).
3. Shift the Guide Plate toward the left and remove the Guide Plate.



s6400mfp-696

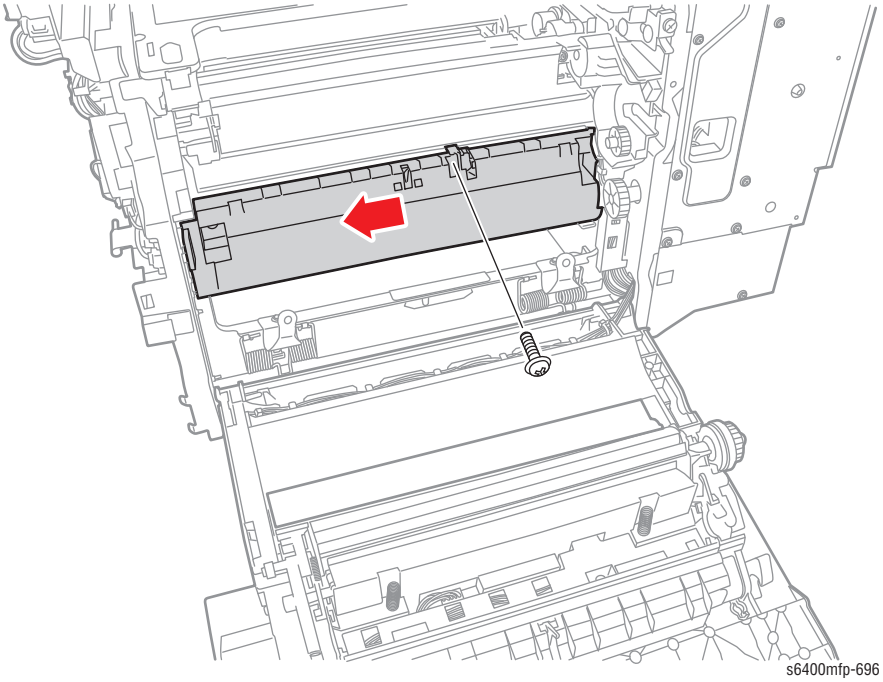
4. Disconnect the wiring harness connector.
5. Release the clips on the Registration Sensor from the Guide Plate and remove the Registration Sensor.



s6400mfp-697

OHP Sensor (PS5) (PL11.28)

1. Open the Right Door (PL15.01).
2. Remove 1 screw that secures the Guide Plate (PL11.07).
3. Shift the Guide Plate toward the left and remove the Guide Plate.



4. Disconnect the wiring harness connector.
5. Release the 3 clips on the OHP Sensor from the Guide Plate and remove the OHP Sensor.

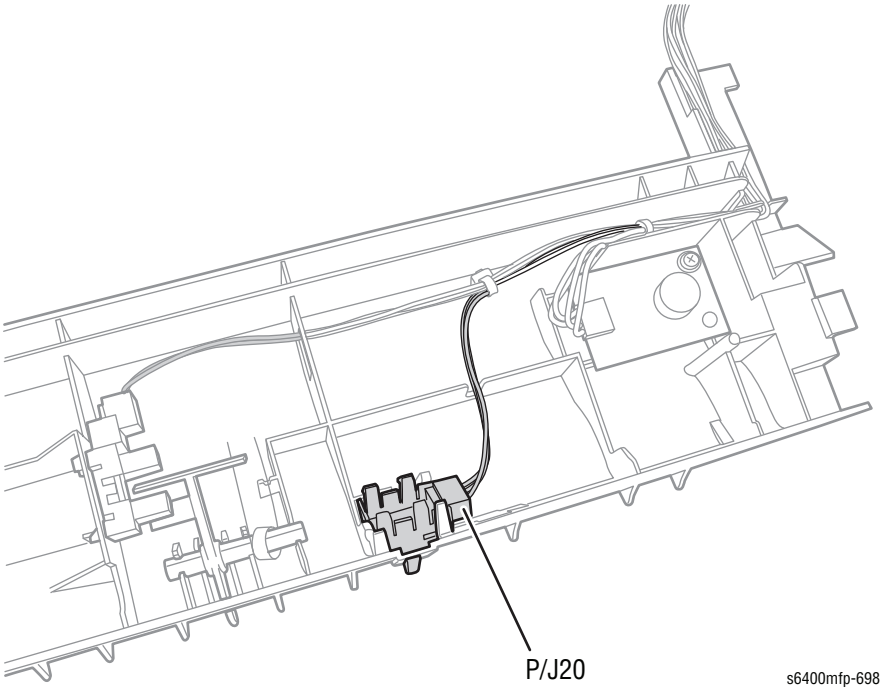
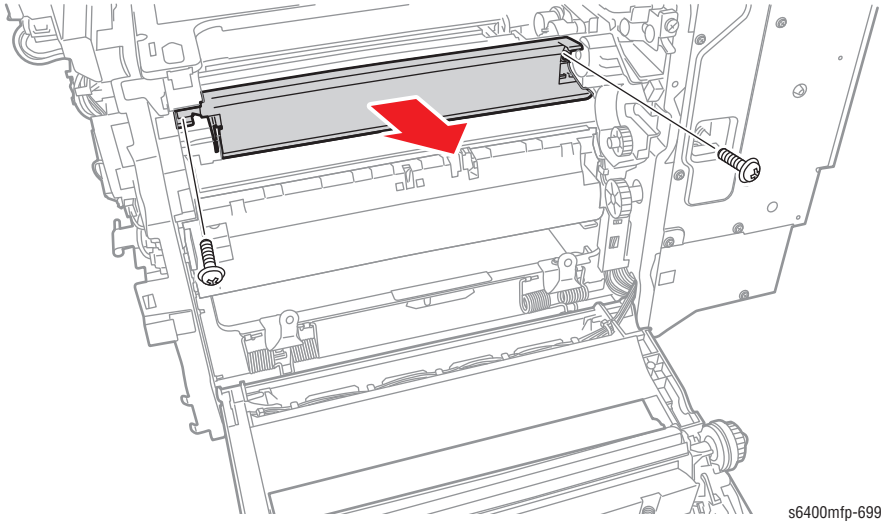


Image Density Control Sensor Board (IDCSB) (Front and Rear) (PL14.13)

Caution

Observe all ESD procedures to avoid component damage.

1. Open the Right Door (PL15.01).
2. Remove the Transfer Belt (page 8-20).
3. Remove 2 screws that secure the Guide (PL14.14).

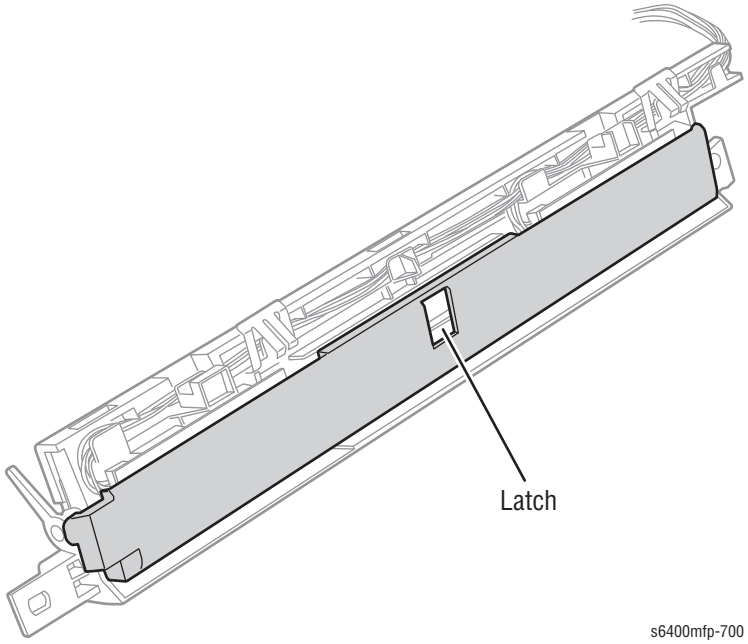


s6400mfp-699

Note

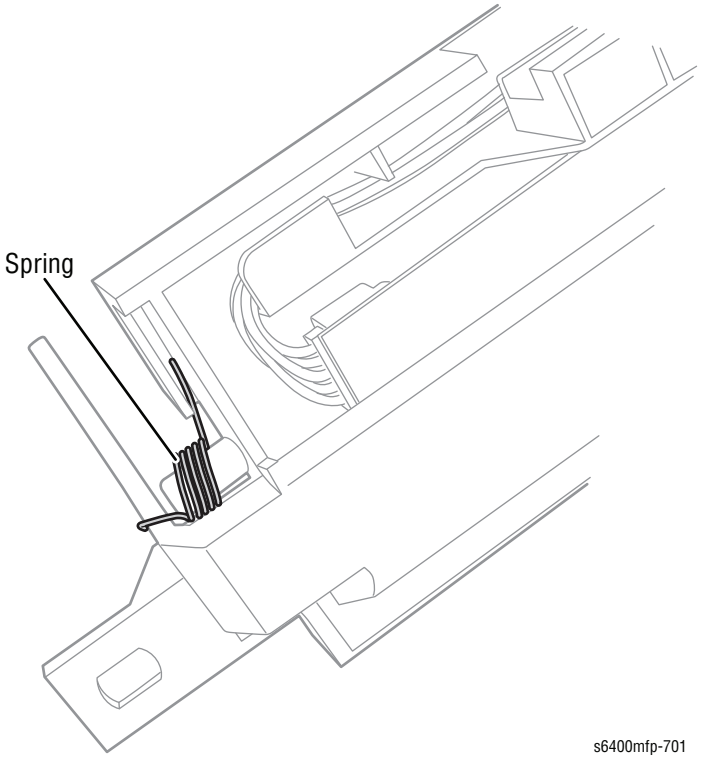
Be careful not to lose the spring.

4. Use pliers to release the latch and remove the Guide.

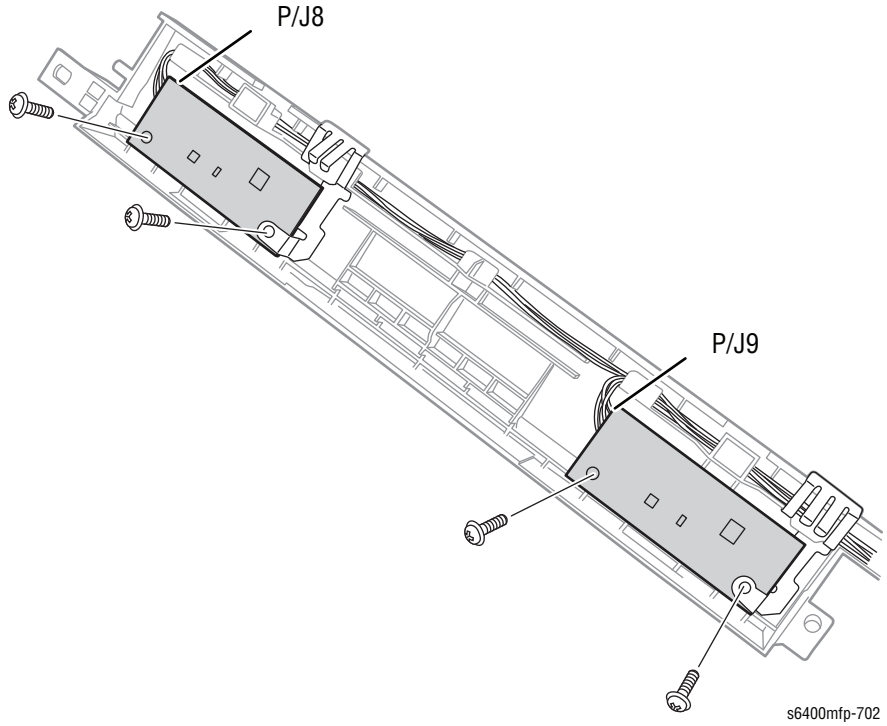


s6400mfp-700

5. Release the IDCSB Shutter Spring (PL14.15) from the Guide.



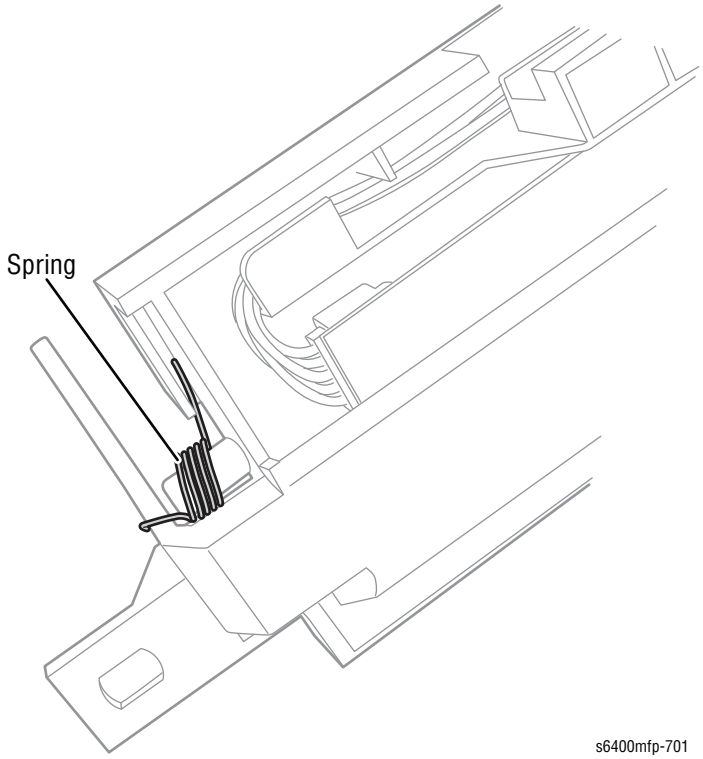
6. Disconnect the wiring harness connector.
7. Remove 2 screws that secure the Image Density Control Sensor Board.
8. Remove the Image Density Control Sensor Board.



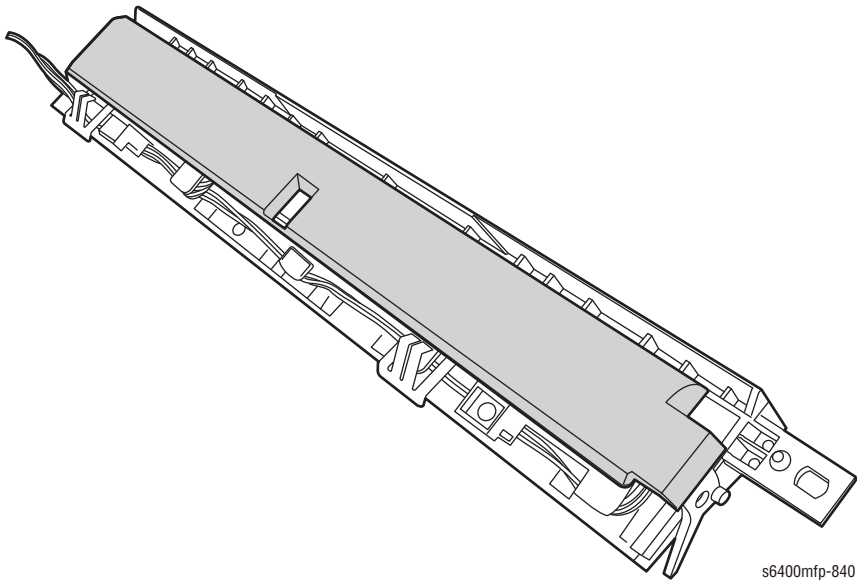
Replacement Note

The Image Density Control Sensor Boards are interchangeable. Be sure to perform installation from the left side toward the right side.

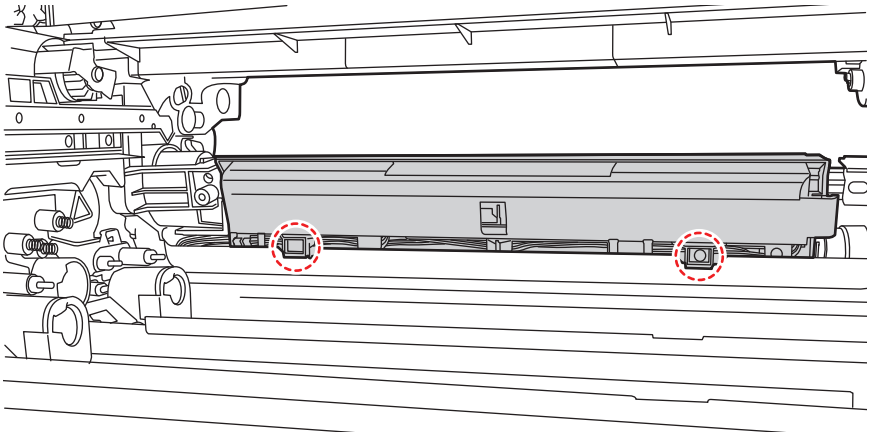
Be sure the Spring's hook faces downward when installing the Guide and rotate the latch toward you.



Be sure the shutter sits inside the Image Density Control Sensor Board Guide flange.



Be sure to secure the 2 hooks on the IDCS Board Holder in the holes.



s6400mfp-839

Hard Disk Drives (PL20.03)

Caution

The Hard Disk Drives are susceptible to ESD damage. Observer proper ESD precautions.

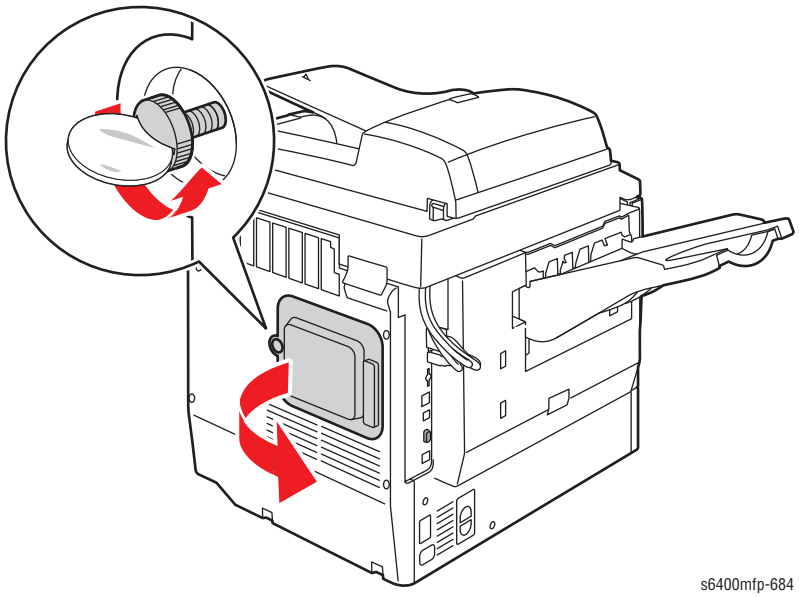
Do not use another Hard Disk Drive from another printer.

1. Loosen 1 screw that secures the Rear Cover Access Door and open the Door.

Note

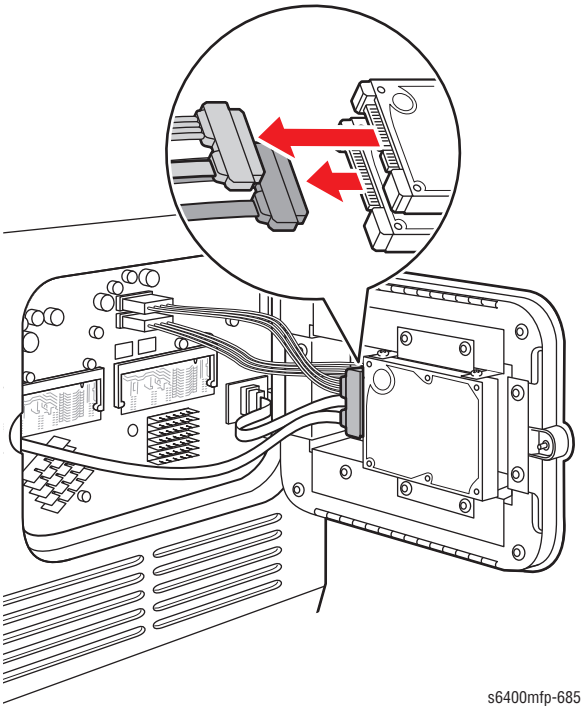
If possible, create a Clone .dlm file (All Features) from CWIS prior to replacing the Hard Drives. If the printer is down, ask the customer if they have a Clone file available.

Download the Clone file to the printer after the Hard Drives have been replaced in order to restore the customer printer settings.



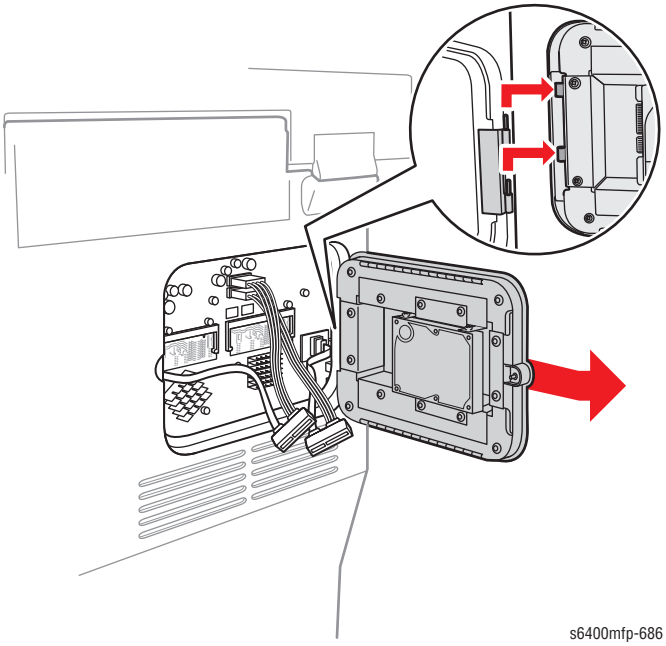
s6400mfp-684

2. Disconnect the wiring harness connectors from the Hard Disk Drives.



s6400mfp-685

3. Shift the Rear Cover Access Door upward and remove the Rear Cover Access Door.



s6400mfp-686

Note

Each Disk Drive is labeled.

- CC = Copy Controller Disk Drive
- NC = Network Controller Disk Drive

These designators are also silk screened on the Image Processor Board.

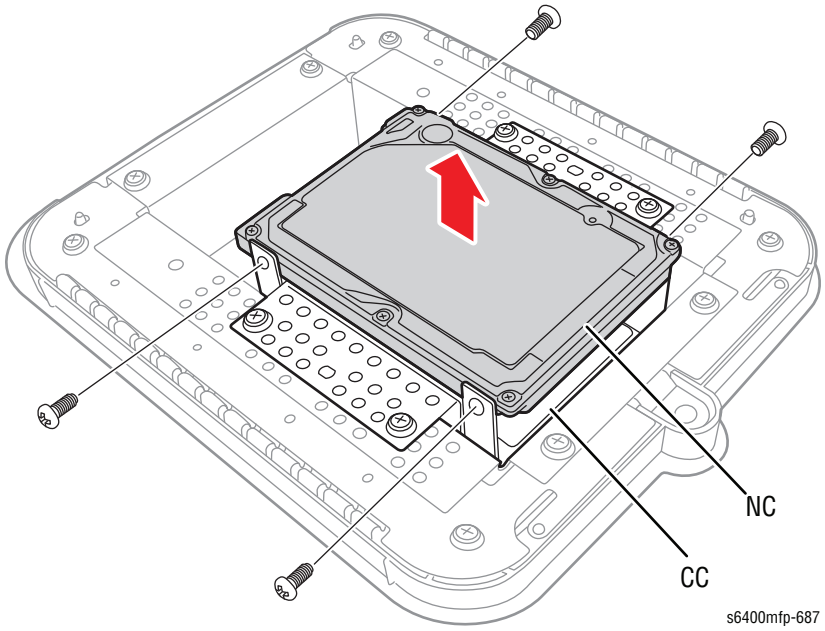
Use the appropriate procedure to remove the Network Controller and/or Copy Controller Hard Disk Drive.

- Network Controller Hard Disk Drive (top), go to step 4.
- Copy Controller Hard Disk Drive (bottom), go to step 6.

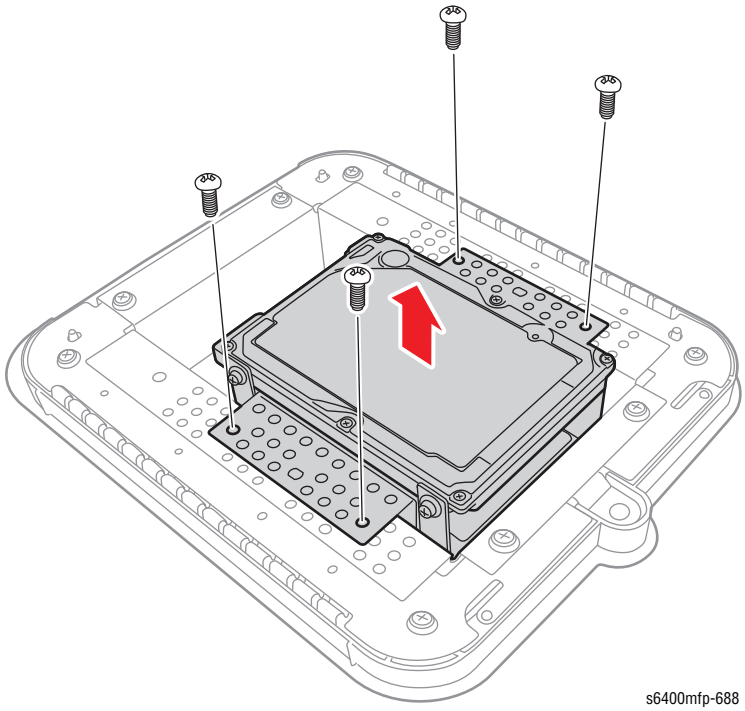
Caution

Be sure to lift the Hard Disk Drive straight up to prevent damaging the Hard Disk Drive.

4. Remove 4 screws that secure the Hard Disk Drive.
5. Lift the Hard Disk Drive straight up and remove the Hard Disk Drive.

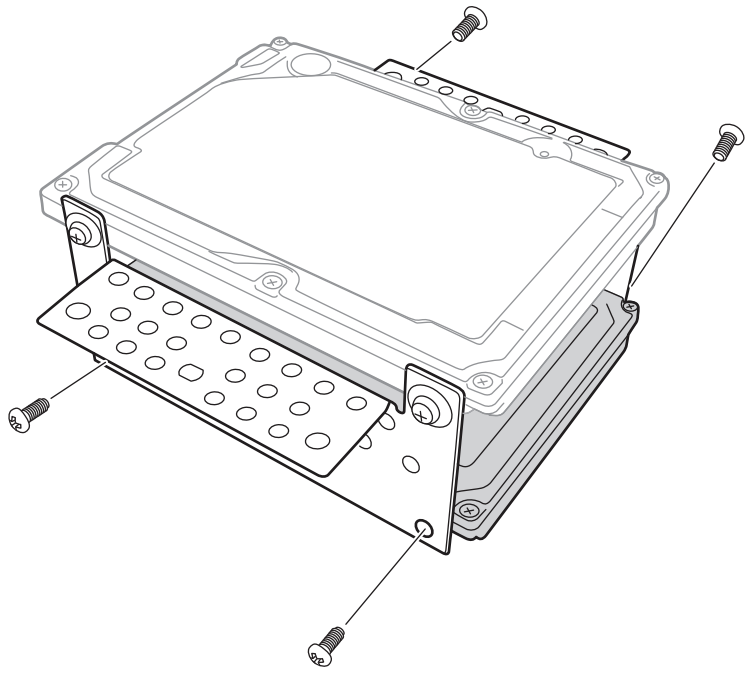


6. Remove 4 screws that secure the Hard Disk Drive Bracket.
7. Lift the Hard Disk Drive Bracket and together with the Hard Disk Drive out from the Rear Cover Access Door.



s6400mfp-688

8. Remove 4 screws that secure the Hard Disk Drive.
9. Lift the Hard Disk Drive straight up and remove the Hard Disk Drive.



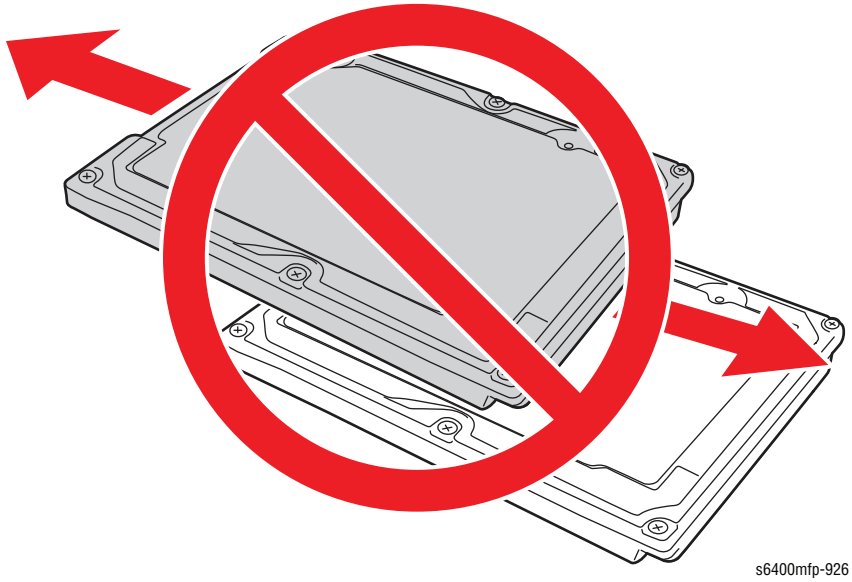
s6400mfp-689

Replacement Note

Be sure to handle the Hard Drives with care. Do not press on the Hard Disk Drive when installing it. Do not cover the breathing hole on the Hard Drive.

s6400mfp-925

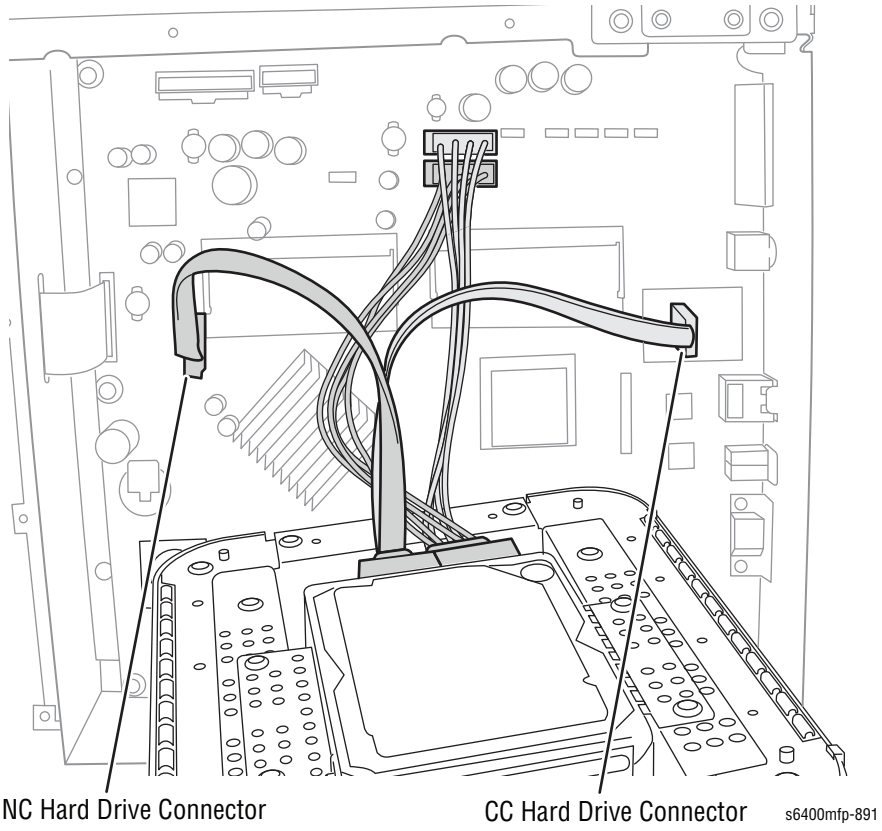
Do not move the Hard Drive next to each other at close proximity to prevent damage.



s6400mfp-926

Be sure to verify the wiring harness connectors for the Network Controller and the Copy Controller Hard Drives prior to installing connecting the connectors.

- Network Controller Hard Drive connector connects to the Network Controller Hard Drive.
- Copy Controller Hard Drive connector connects to the Copy Controller Hard Drive.



Note

If the Copy Controller Hard Drive is replaced, be sure to perform dc361 Store Function (page 6-8) to move critical customer and system parameters stored on the NVM Module to the Hard Drive.

RF Protective Shield (PL20.04)

1. Remove the Left Side Cover (page 8-52).
2. Remove the Rear Cover (page 8-47).
3. Remove 18 screws that secure the RF Protective Shield.
4. Remove the RF Protective Shield.

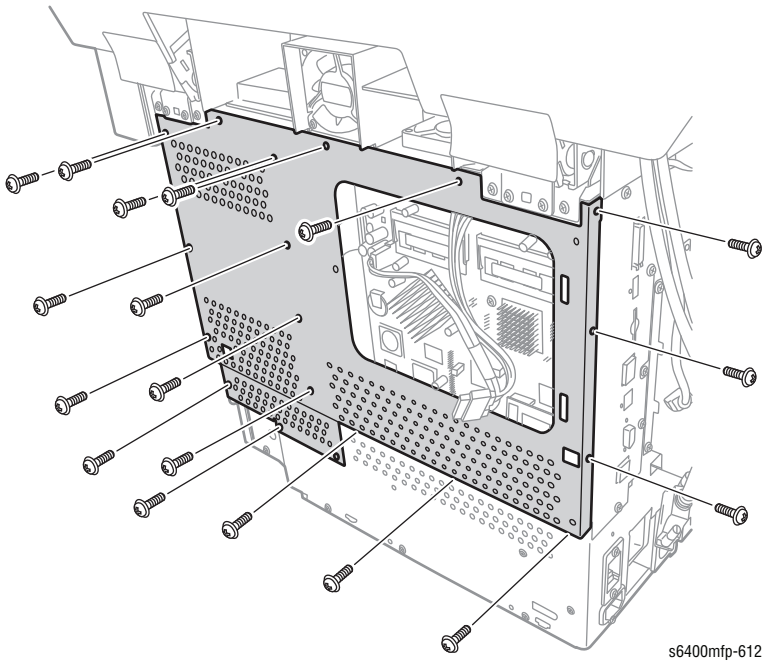


Image Processor Board (PL20.07)

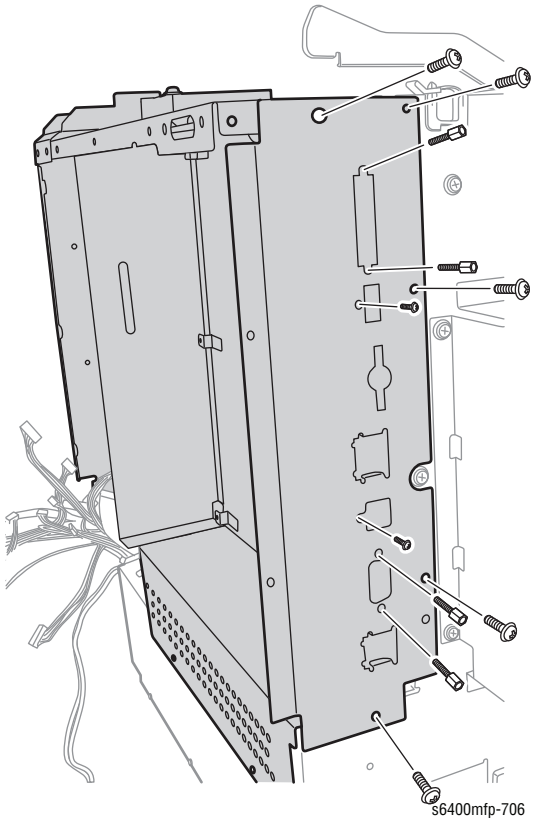
Caution

Observe all ESD procedures to avoid component damage.

Note

Be sure to inspect the I/P Board Cooling Fan (PL20.11) for damage.

1. Remove the Left Side Cover (page 8-52).
2. Remove the Rear Cover (page 8-47).
3. Remove the RF Protective Shield (page 8-97).
4. Disconnect the Scanner Assembly cable from the printer.
5. Remove 4 posts, 2 small screws, and 5 screws that secure the I/P Board Back Panel (PL20.33).
6. Remove the I/P Board Back Panel.



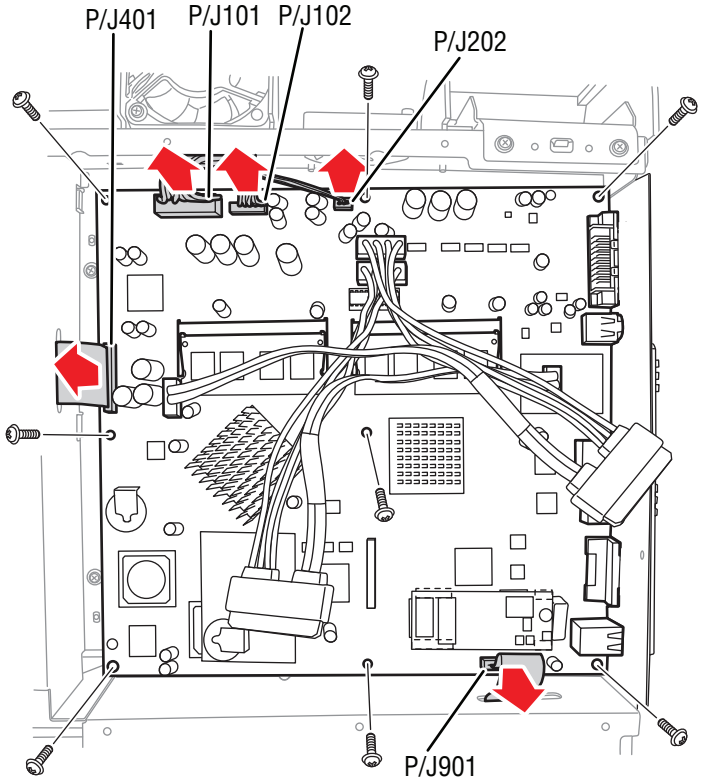
Caution

Be sure to unlock the ZIF connector to release the ribbon cables. Be careful when disconnecting the two ribbon cables to prevent damaging the cables.

Note

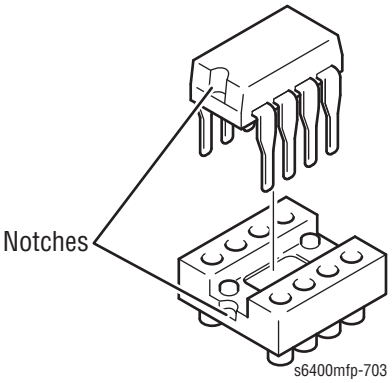
Black ribbon cable connectors are the locking type connectors and require unlocking prior to ribbon cable removal and locking after re-installation of the cable in order to make adequate connection.

7. Gently lift up on the ends of the black connectors to release the locks, then remove the two ribbon cables P/J401 and P/J901 from the I/P Board.
8. Disconnect the three wiring harness connectors P/J101, P/J102, and P/J202 on the Image Processor Board (I/P).
9. Remove 8 screws that secure the I/P Board.
10. Gently slide the I/P Board to the left releasing the connectors from the I/P Board Back Panel.
11. Remove the I/P Board.



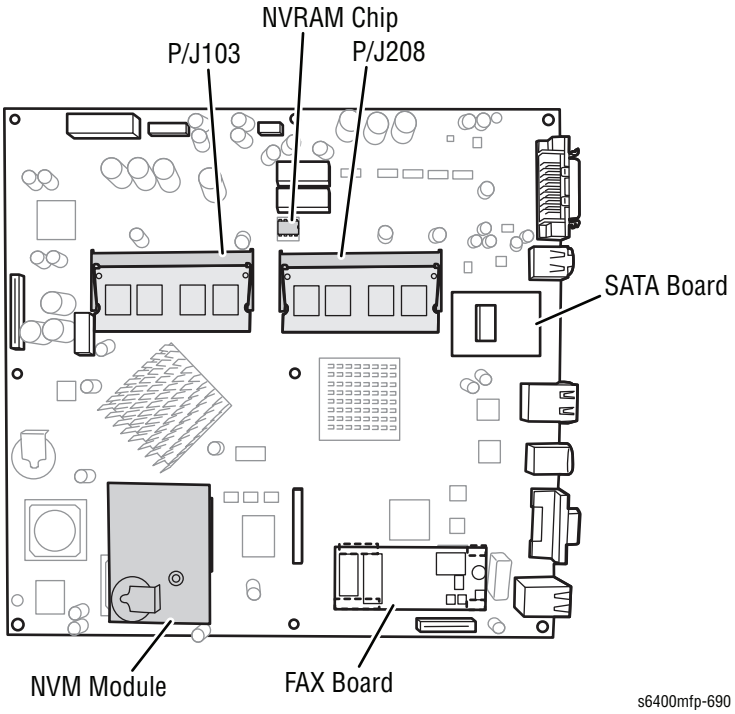
12. Remove the following components from the I/P Board.

- NVM Module (page 8-116)
- RAM DIMM's (page 8-117)
- NVRAM Chip



Note

Do not remove the SATA Board or the Fax Board.



Replacement Note

Be careful when connecting the two ribbon cables to prevent damaging the cables. Be sure to lock the 2 locking connectors when reattaching the ribbon cables to the Board.

MCU Board (Engine Control Board) (PL20.09)

Caution

Observe all ESD procedures to avoid component damage.

Caution

Do not remove the following components at the same time to prevent mis-connecting the wiring harness connectors and misplacing components.

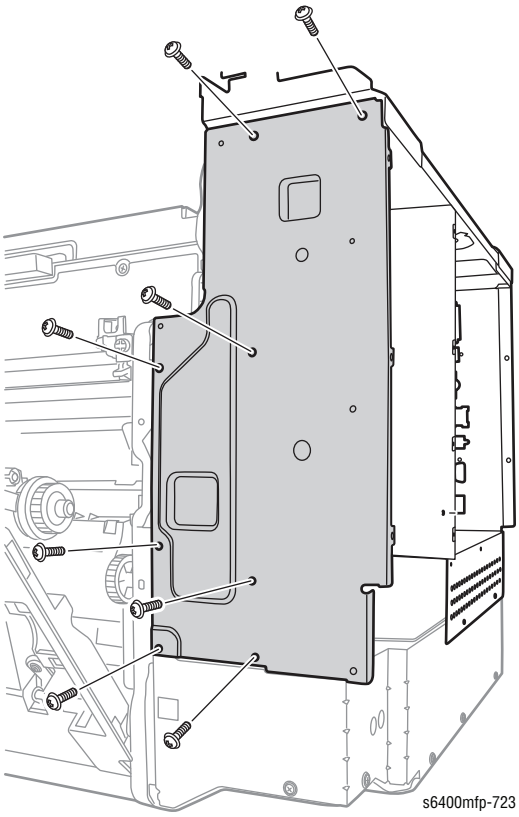
- I/P Board
- MCU Board

1. Remove the Right Rear Cover (page 8-48).
2. Remove the RF Protective Shield (page 8-97).
3. Disconnect the scanner assembly cable from the printer.

Note

You may need to use a short screwdriver to remove the bottom left screw.

4. Remove 8 screws that secure the Panel (PL20.14) and remove the Panel.



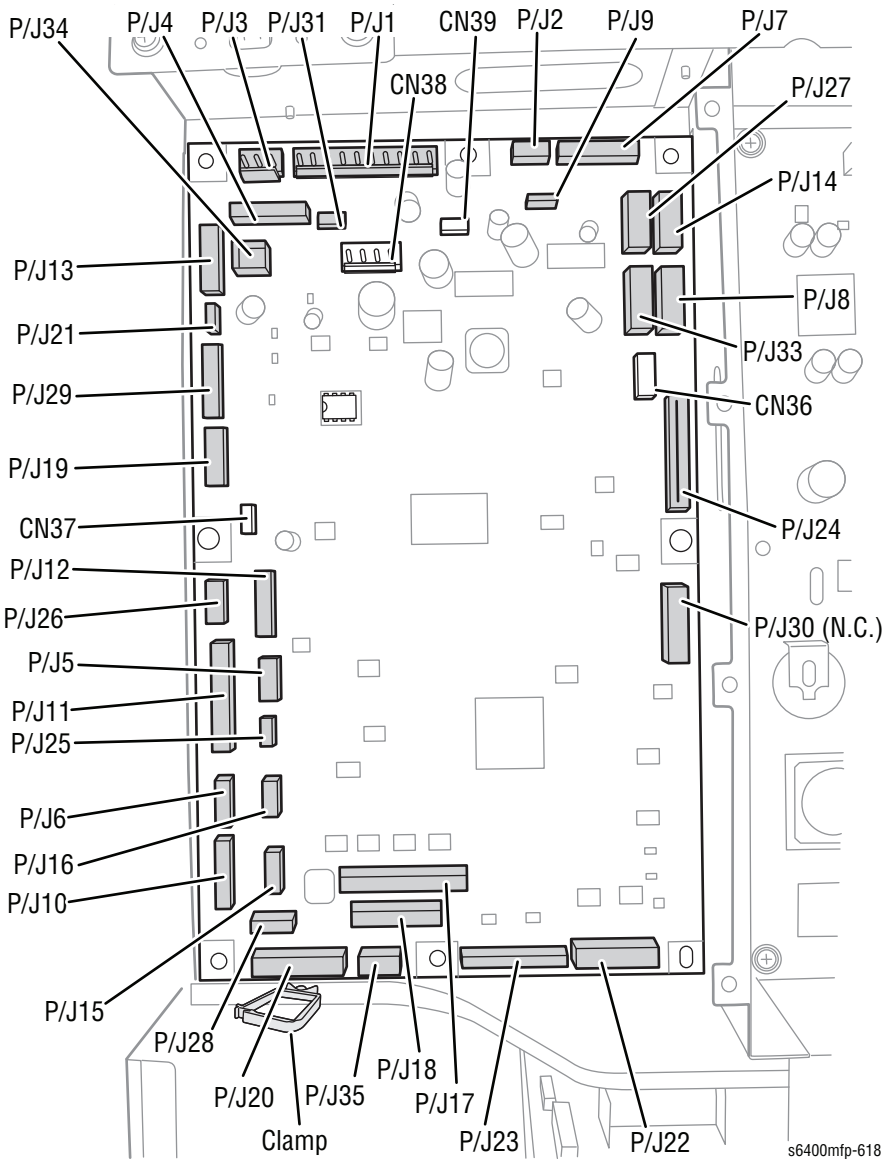
Caution

Be careful when disconnecting the wiring harness connectors to prevent damage.

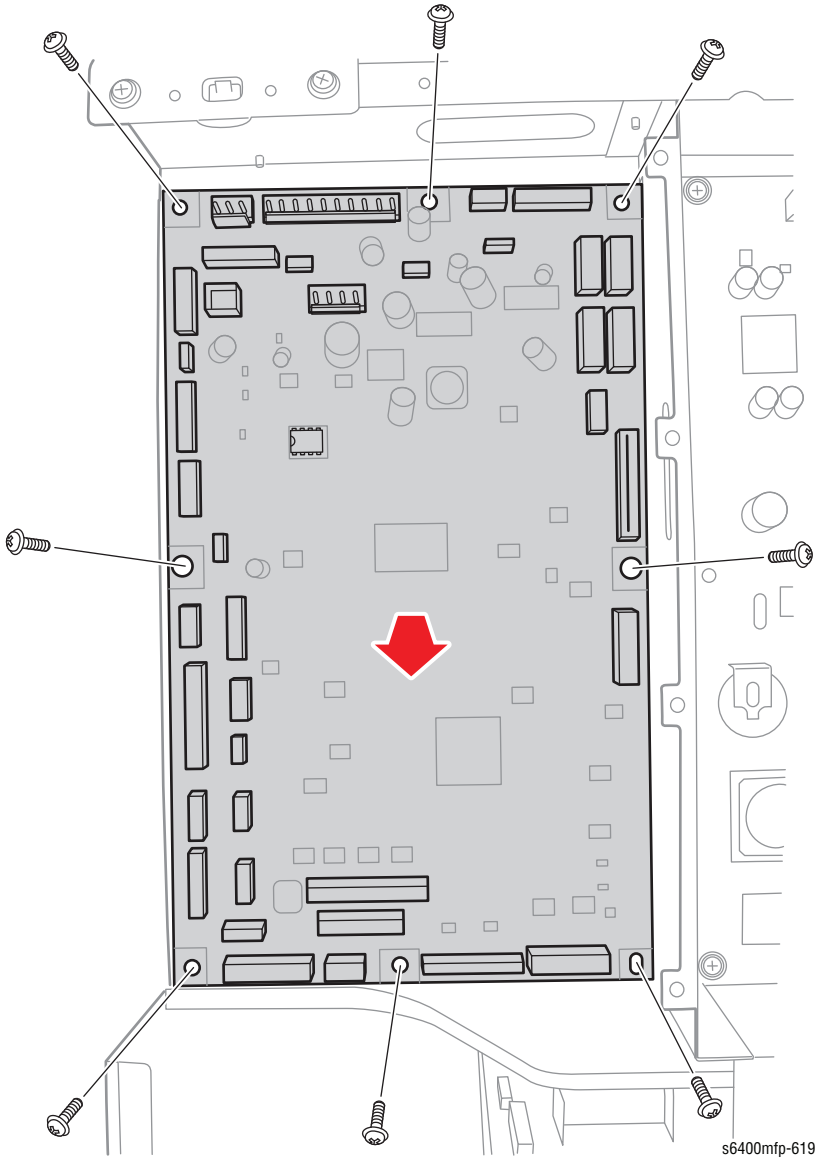
Note

Black ribbon cable connectors are the locking type connectors and require unlocking prior to ribbon cable removal and locking after re-installation of the cable in order to make adequate connection.

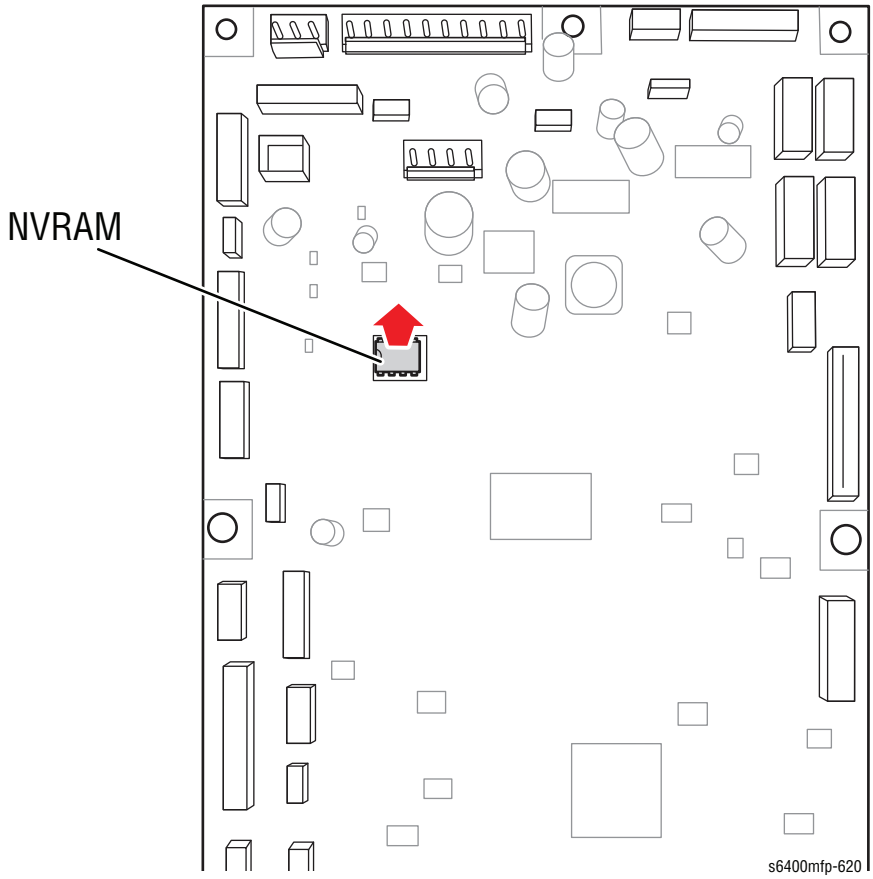
5. Release the wiring harnesses from the clamps.
6. P/J 23 & P/J 24 (Black connectors) need to be unlocked prior to removing the ribbon cables. P/J 17 & P/J 18 (White connectors) are non-locking. Release the lock, as necessary, and disconnect the ribbon cables from the MCU Board.
7. Disconnect all the wiring harness connectors from the MCU Board.



8. Remove 8 screws that secure the MCU Board.
9. Shift the MCU Board at an angle away from the wiring harness clamps and remove the MCU Board.



10. Remove the NVRAM (IC4) from the MCU Board.

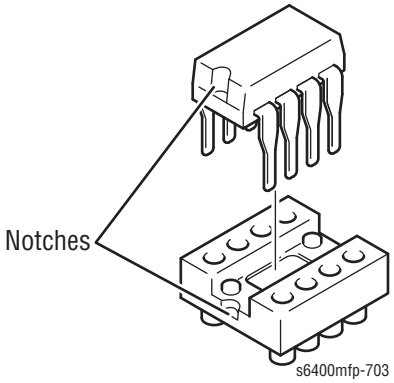


Replacement Note

When replacing the MCU Board, be sure to remount the NVRAM (IC4). Remove the NVRAM (IC4) from the old MCU Board and install it on the new MCU Board.

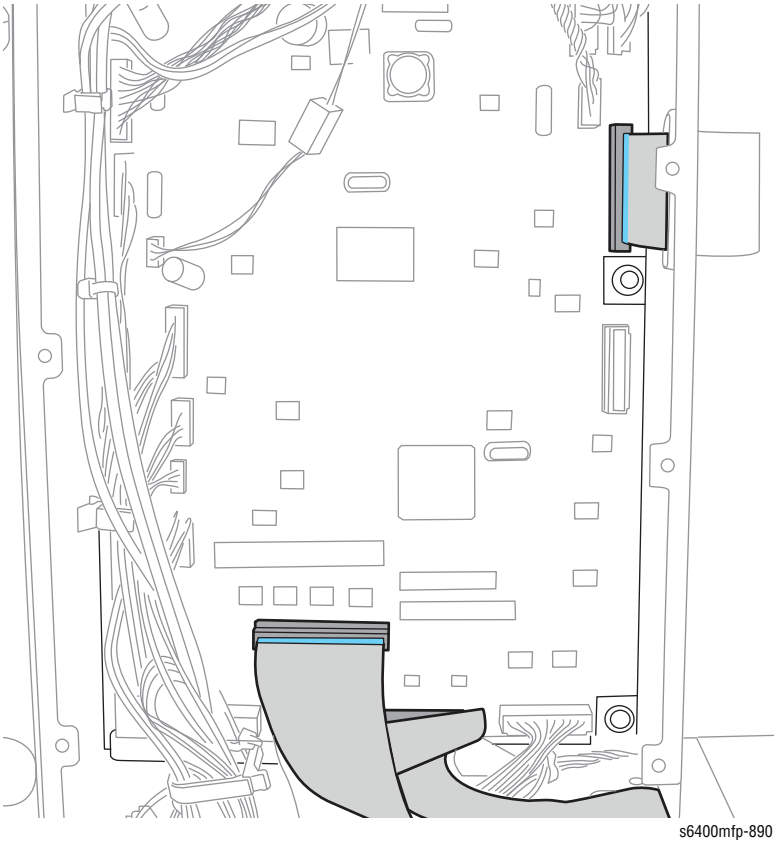
Rotate the chip with the notch side facing left. When installing the NVRAM (IC4), be sure the notches “A” are lined up.

Be sure to verify all the connections.



Be sure to connect the 3 ribbon cables correctly to prevent damaging the cables.

- P/J24 - blue side of the ribbon cable faces left
- P/J17 - blue side of the ribbon cable faces upward
- P/J23 - green side of the ribbon cable faces upward



Replacement Note

Remember to lock P/J23 & P/J24 connectors after re-installing the ribbon cables. P30 does not have a connection.

High Voltage Power Supply-1 (PL20.16)

Caution

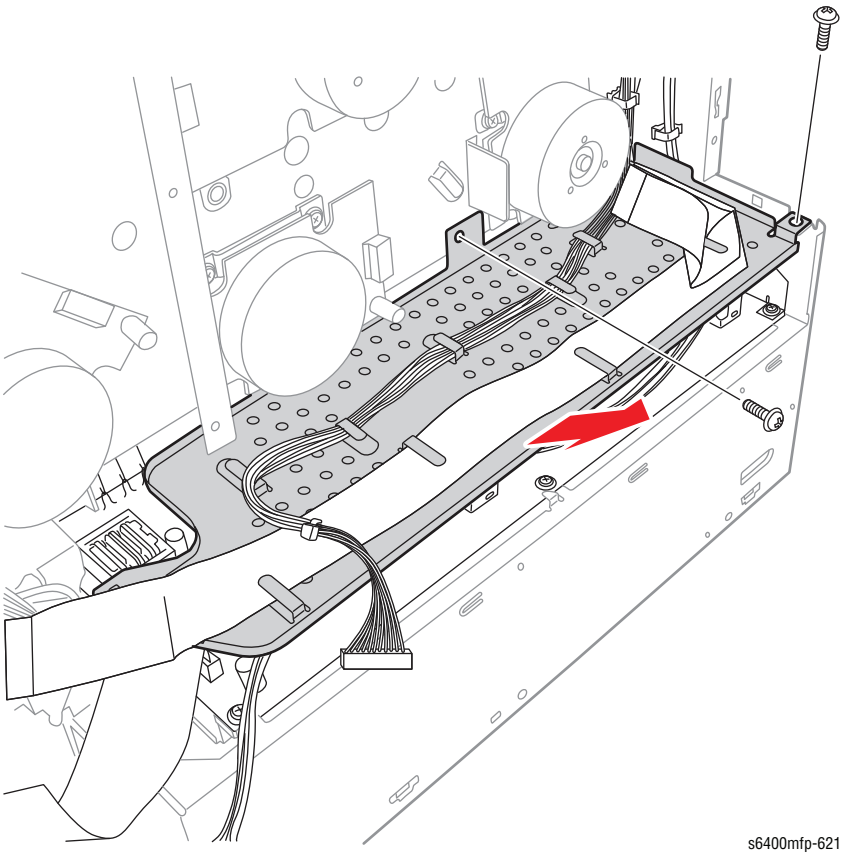
Observe all ESD procedures to avoid component damage.

1. Remove the Card Cage (page 8-111); turn the Card Cage over and lay it on top of the printer.
2. Release the wiring harnesses from the clips.

Note

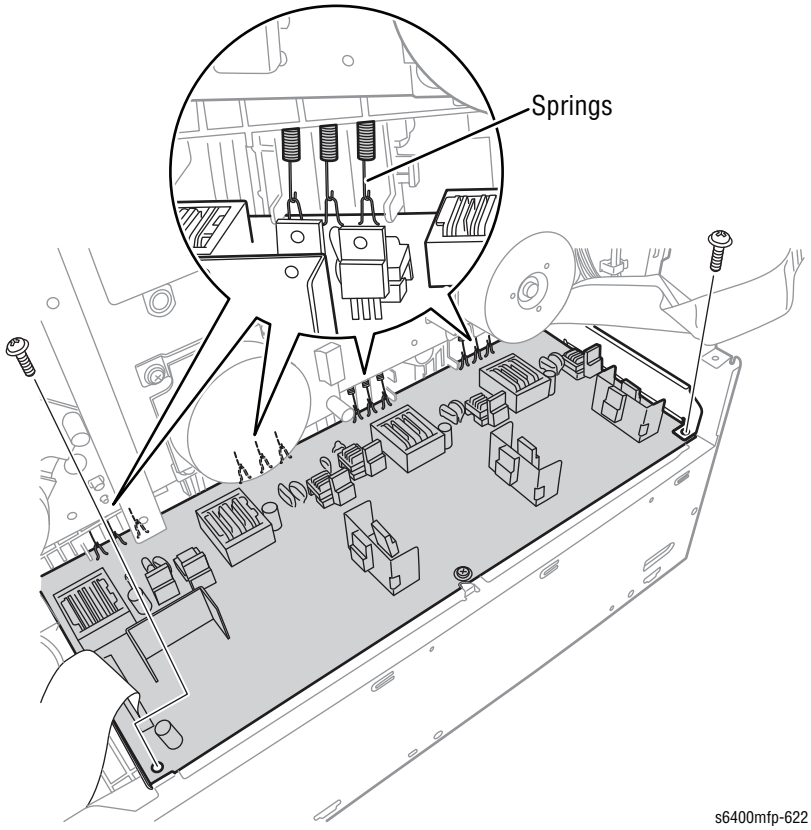
Be sure to keep the tape in the following step for re-installation.

3. Remove the tape from the Laser Unit ribbon cable and remove the cable from the Harness Plate (PL20.41).
4. Remove 2 screws that secure the Harness Plate.
5. Shift the Harness Plate at an angle toward the rear of the printer and remove the Harness Plate.



s6400mfp-621

6. Unhook the 12 Springs.
7. Remove 2 screws that secure the HVPS-1.

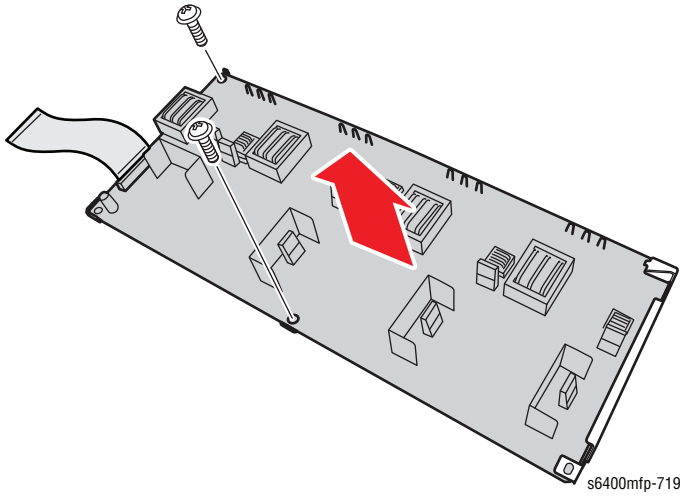


8. Remove the HVPS-1 and the Cover (PL20.22).
9. Disconnect the Ribbon Cable Harness Assembly (PL20.17) from the HVPS-1.

Note

Be sure to move the Ribbon Cable to the new HVPS-1.

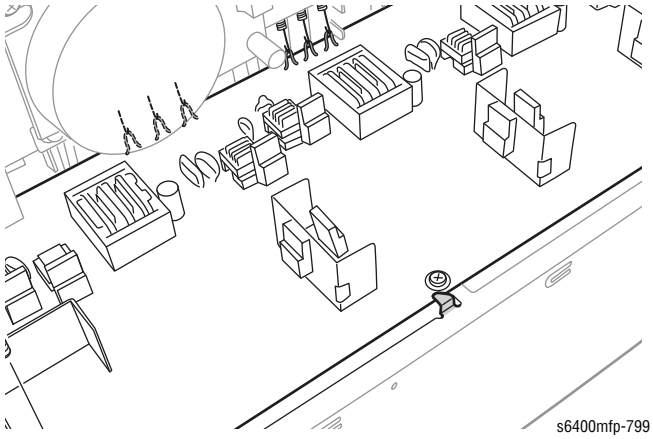
10. Remove 2 screws that secure the HVPS-1 to the Cover (PL20.22).
11. Remove the HVPS-1 from the Cover.



Replacement Note

Be sure to install the ribbon cable with the blue stripes facing toward the left side of the printer (from the rear). Be careful not to touch the resistors when installing the Harness Plate.

Be sure to position the HVPS-1 under the metal tab.

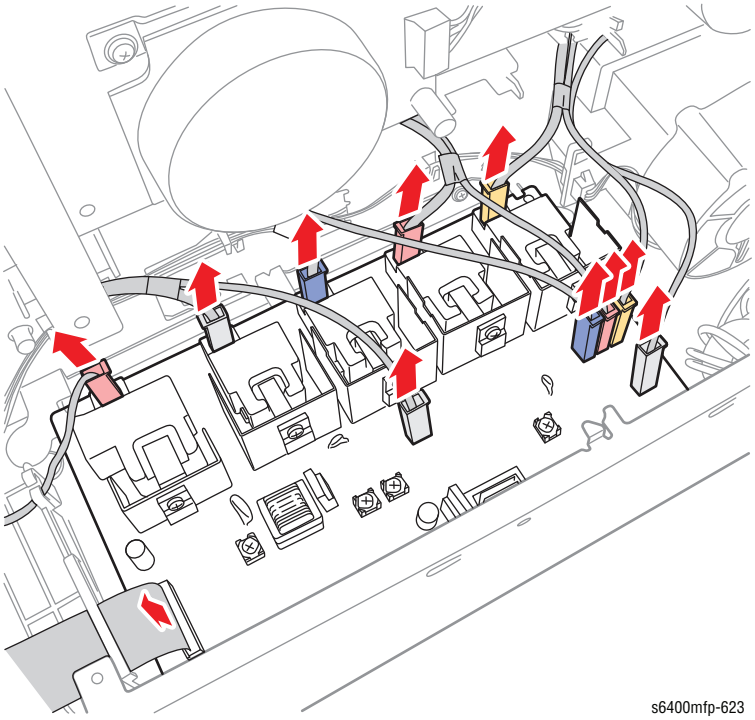


High Voltage Power Supply-2 (PL20.21)

Caution

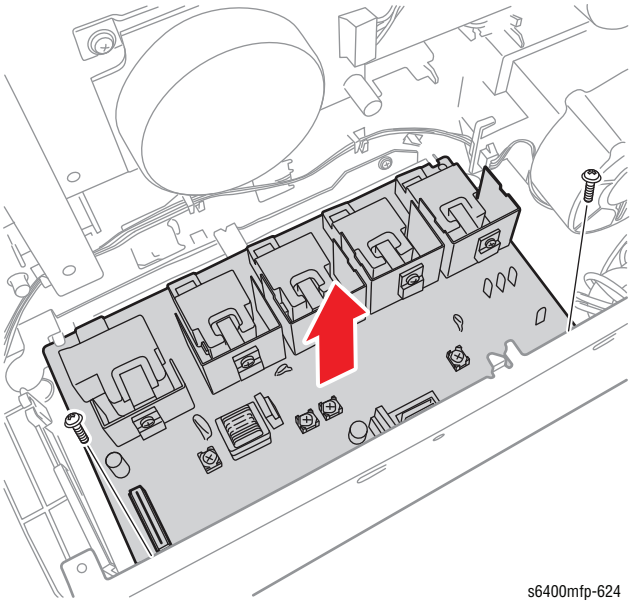
Observe all ESD procedures to avoid component damage.

1. Remove the HVPS-1 (page 8-106).
2. Disconnect all wiring connectors and 1 Ribbon Cable (PL20.18) from the High Voltage Power Supply-2 (HVPS-2).



s6400mfp-623

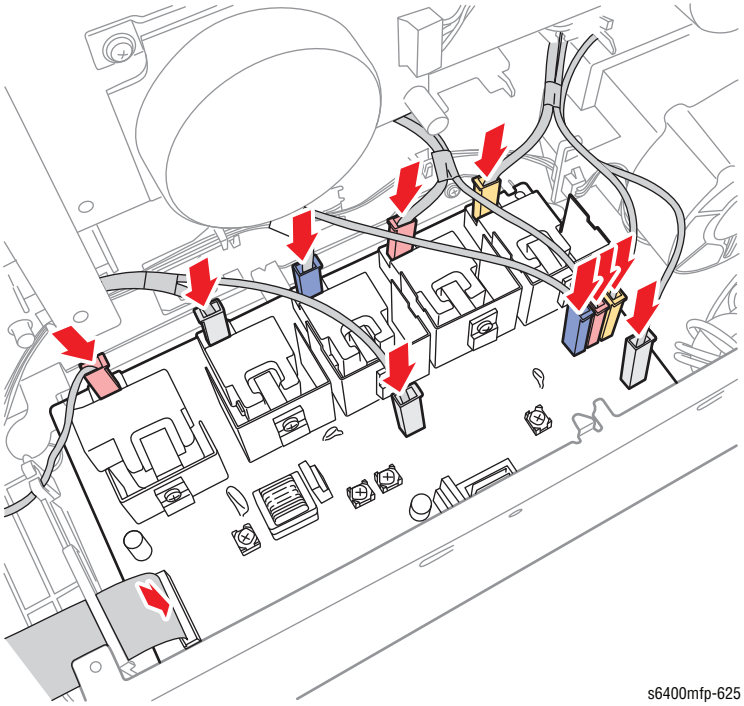
3. Remove 2 screws that secure the HVPS-2.
4. Lift and remove the HVPS-2.



s6400mfp-624

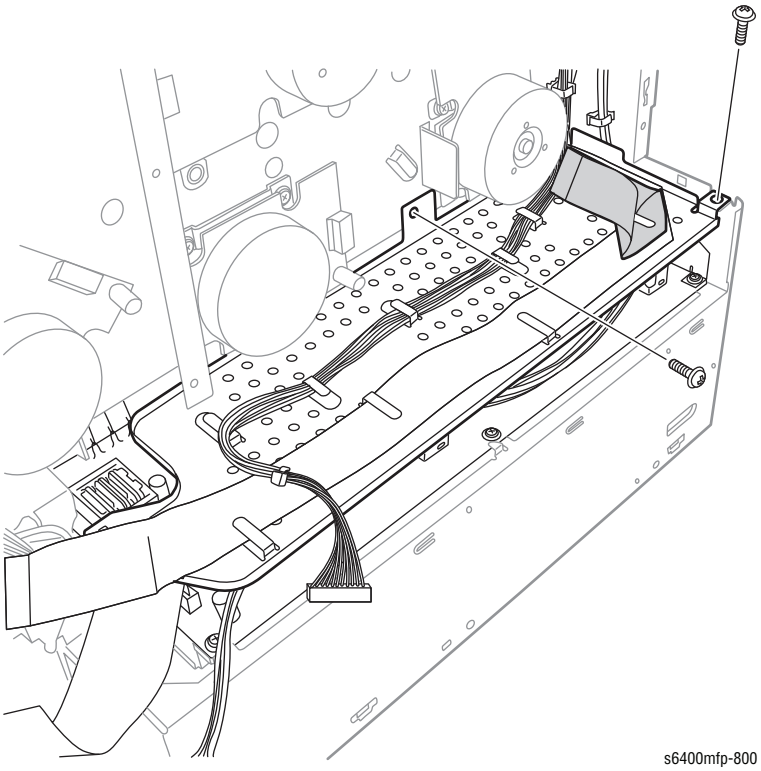
Replacement Note

When reinstalling the HVPS-2, be sure to connect each color-coded wiring connector in the correct place. Refer to ”Map 3 - HVPS-2 (HV2)” on page 10-23.



s6400mfp-625

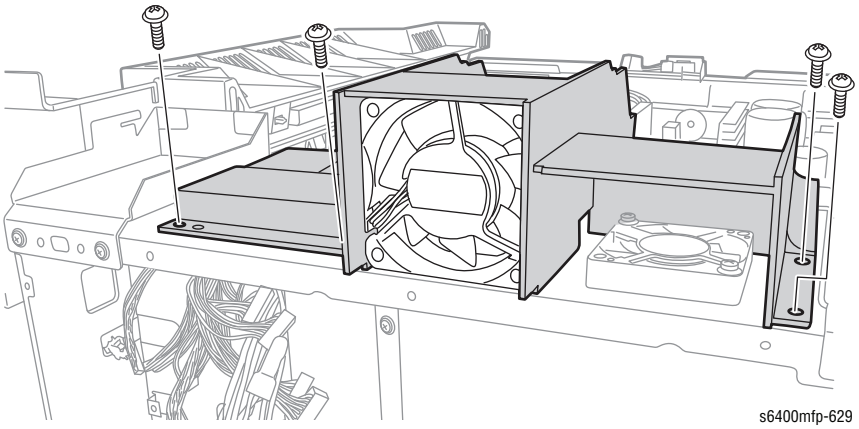
Be sure to place the Laser Unit ribbon cable on top of the Harness Plate (PL20.41).



s6400mfp-800

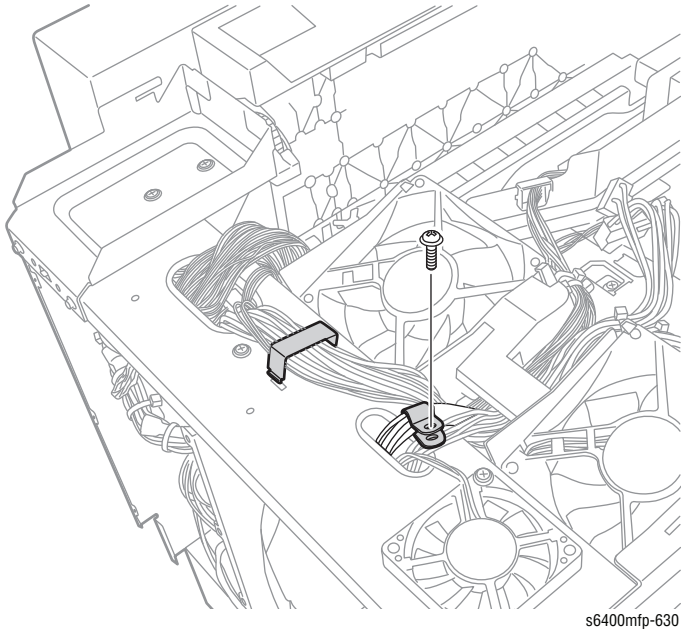
Card Cage (PL20.27)

1. Remove the Left Side Cover (page 8-52).
2. Remove the Scanner Assembly (page 8-42).
3. Remove the Upper Horizontal Transport Assembly (page 8-68).
4. Remove the Lower Horizontal Transport Assembly (page 8-69).
5. Remove the Image Processor Board (page 8-98).
6. Remove the MCU Board (page 8-101).
7. Remove 4 screws that secure the Fan Duct (PL20.10).
8. Release the tab from the Card Cage then route the wiring harness through the hole and remove the Fan Duct.



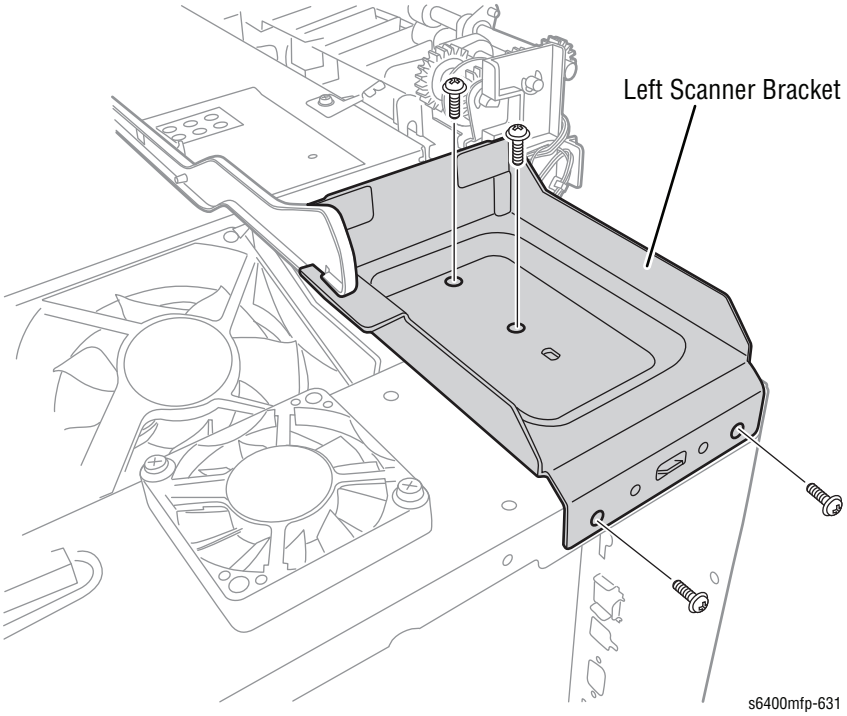
s6400mfp-629

9. Remove 1 screw that secures the wiring harness.
10. Release the black wiring harness clip.

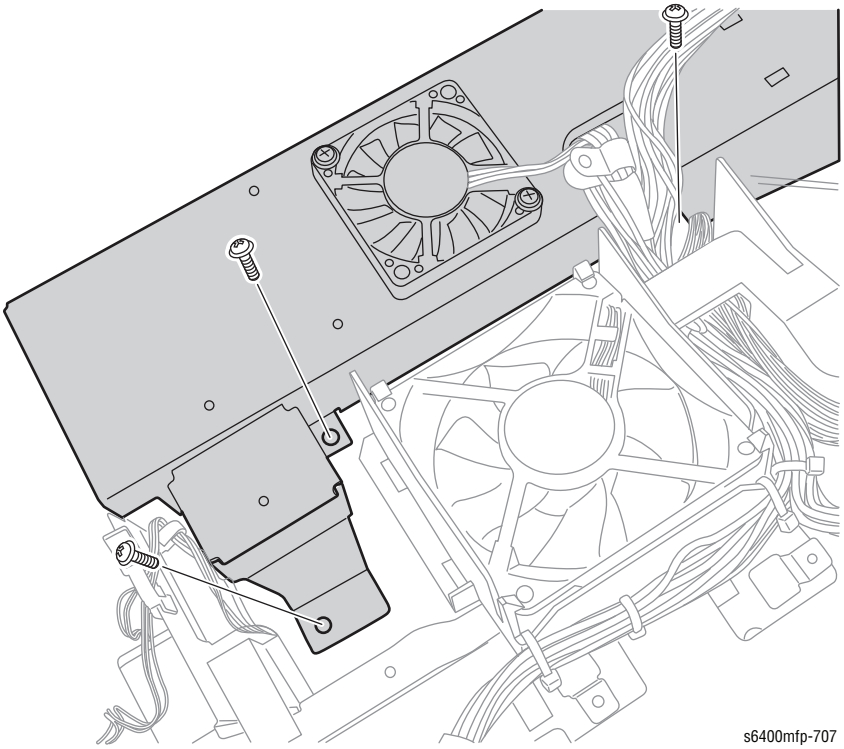


s6400mfp-630

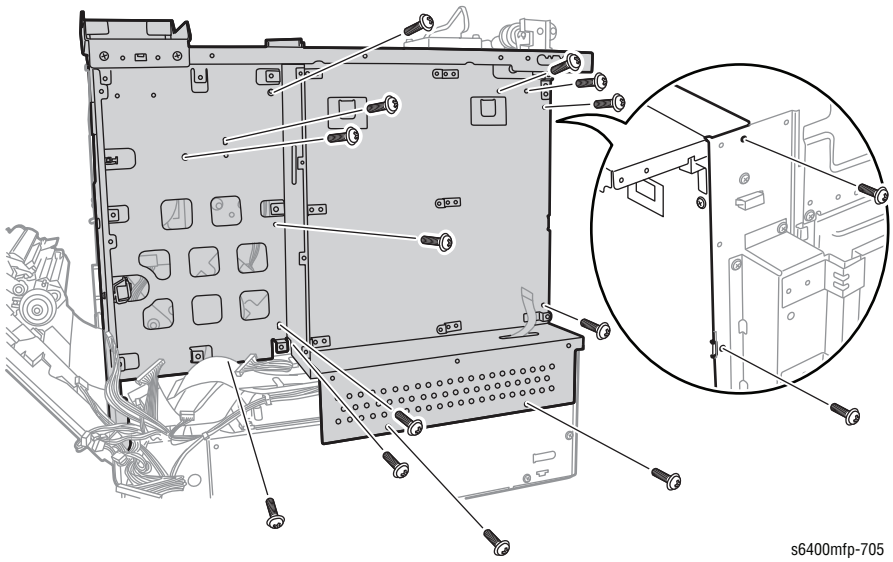
11. Remove 4 screws that secure the Left Scanner Hinge Bracket (PL2.08).
12. Remove the Left Scanner Bracket.



13. Remove 2 screws that secure the Bracket (PL20.26) and 1 screw that secures the Card Cage.

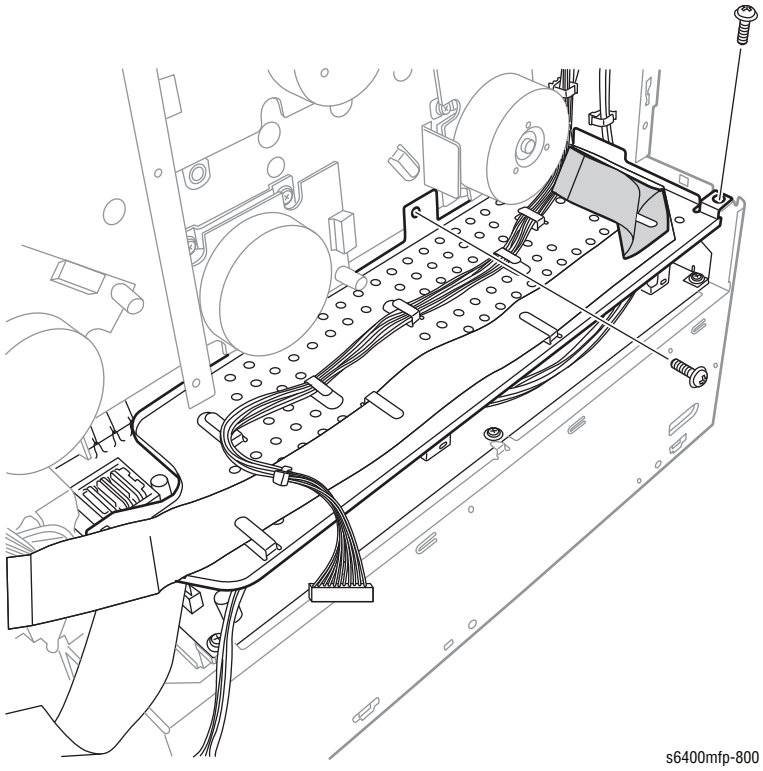


14. Remove 15 screws that secure the Card Cage.
15. Route the wiring harnesses through the hole and remove the Card Cage.

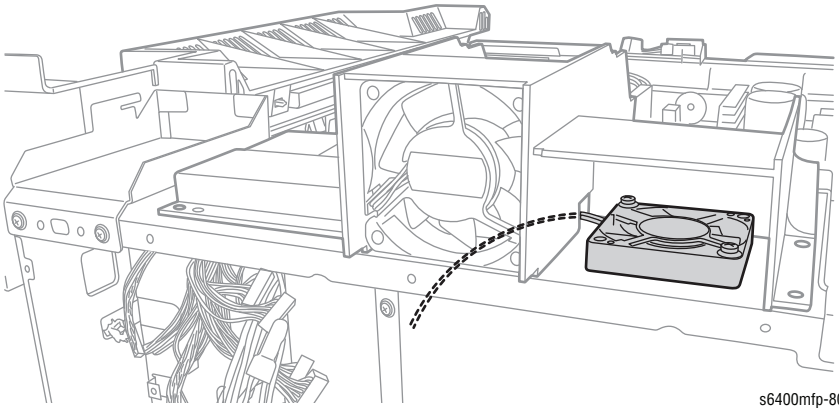


Replacement Note

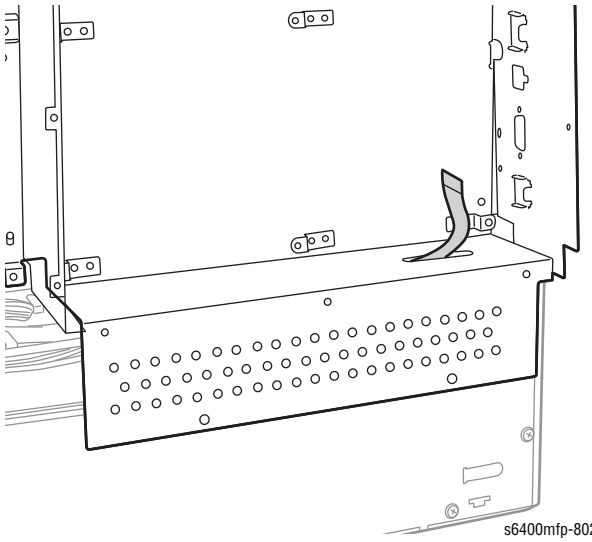
Be sure to secure the Laser Unit ribbon cable on top of the Harness Plate (PL20.41).



Be sure to route the Controller Board Fan wiring harness connector through the hole of the Fan Duct (PL20.10).



Be sure to route the Laser Unit ribbon cable through the hole in the bottom of the Card Cage.

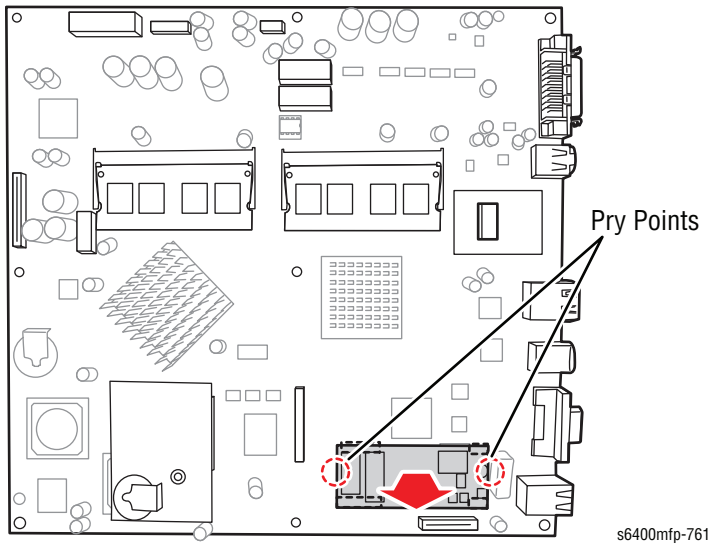


Fax Board (PL20.42)

Caution

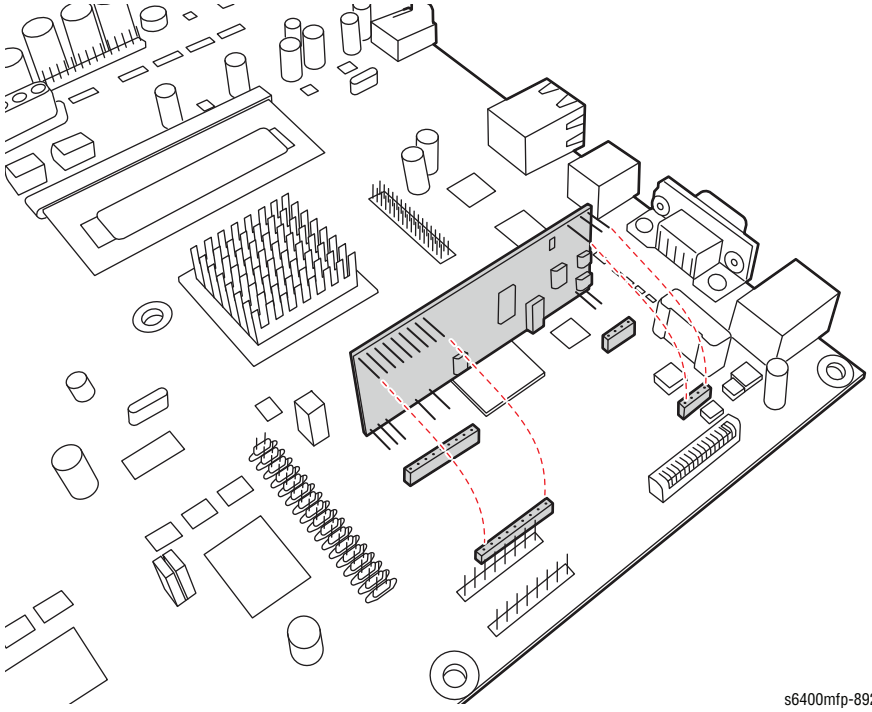
Observe all ESD procedures to avoid component damage.

1. Remove the Rear Cover (page 8-47).
2. Carefully use a non-sharp non-metallic object to pry the Fax Board from the I/P Board and remove the Fax Board.



Replacement Note

Be sure to align the pins on the Fax Board with the holes on the I/P Board to prevent damaging the pins.

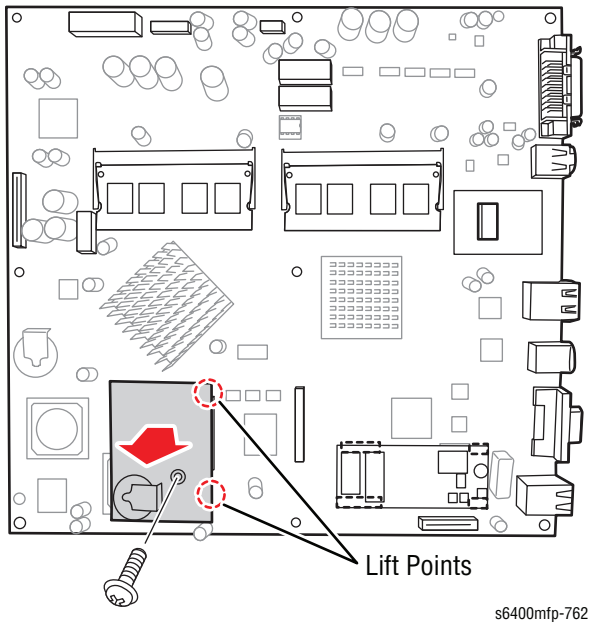


NVM Module (PL20.43)

Caution

Observe all ESD procedures to avoid component damage.

1. Remove the Rear Cover (page 8-47).
2. Remove 1 screw that secures the NVM Module.
3. Carefully use a non-sharp non-metallic object to pry the NVM Module from the I/P Board and remove the NVM Module.



Replacement Note

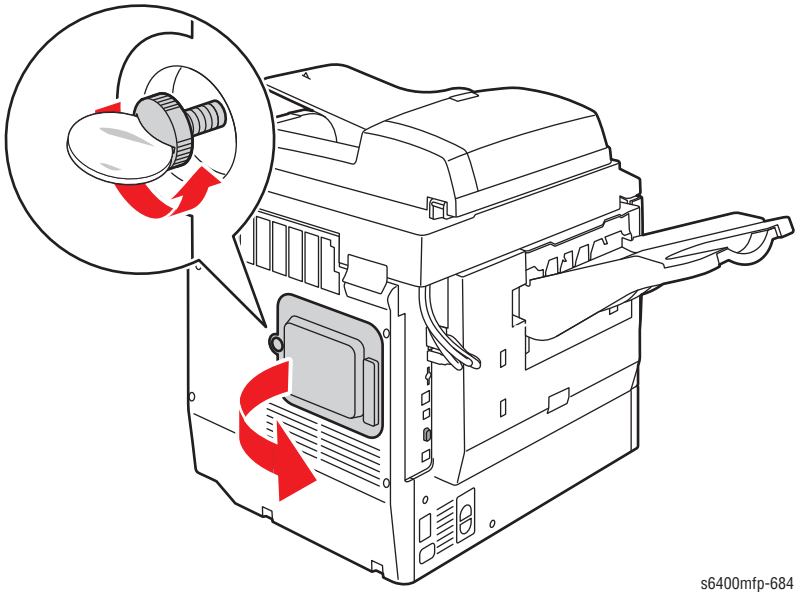
Need to perform a “Restore” function after the NVM Module is replaced in order to retain critical customer and system parameters.

RAM (PL20.44)

Caution

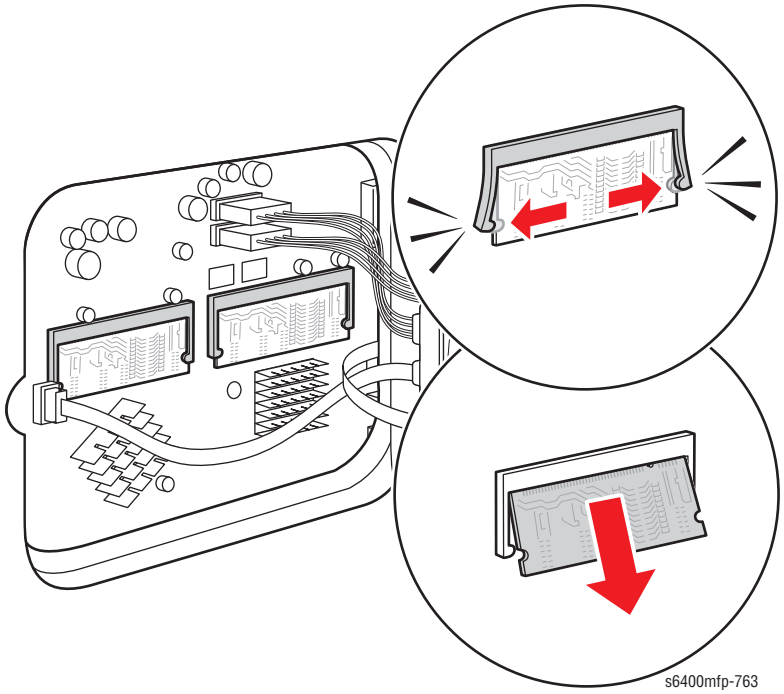
Observe all ESD procedures to avoid component damage.

1. Remove 1 screw that secures the Rear Cover Access Door and open the Door.



s6400mfp-684

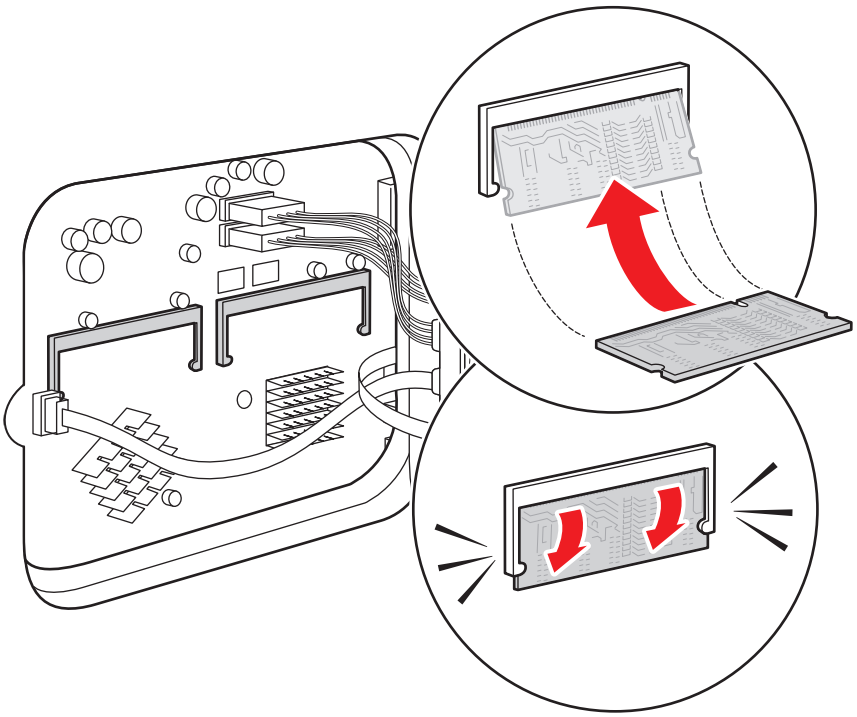
2. Release the clips that secure the RAM.
3. Lift the RAM and slide it downward at angle and remove the RAM.



s6400mfp-763

Replacement Note

Be sure to position the RAM in place and lock the 2 clips.

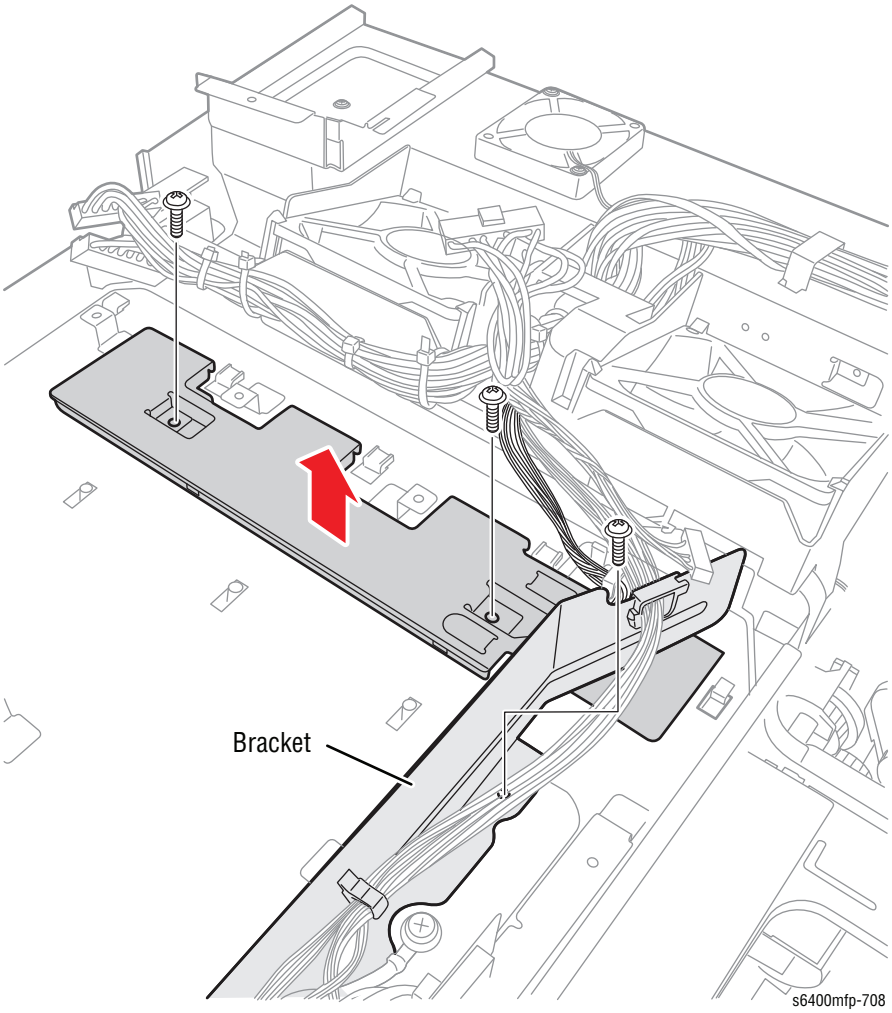


s6400mfp-764

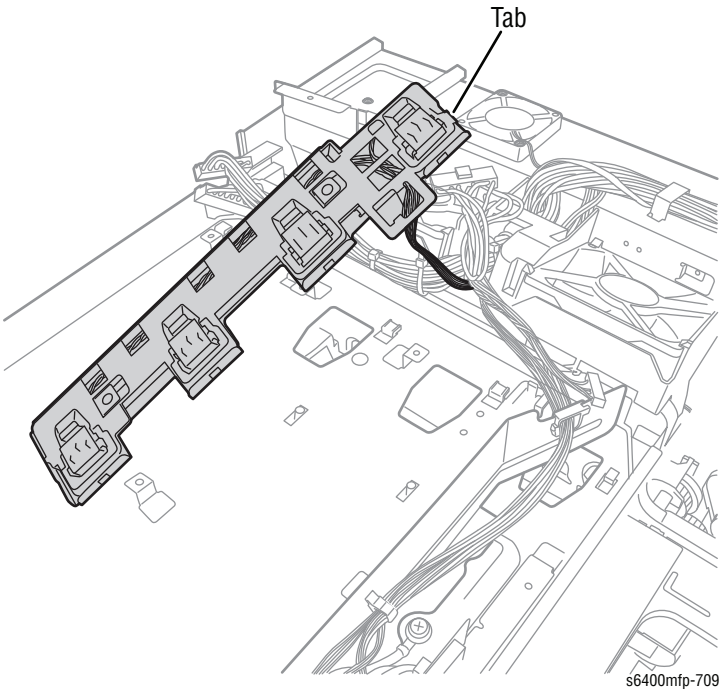
Xerographics

CRUM Reader (PL6.02)

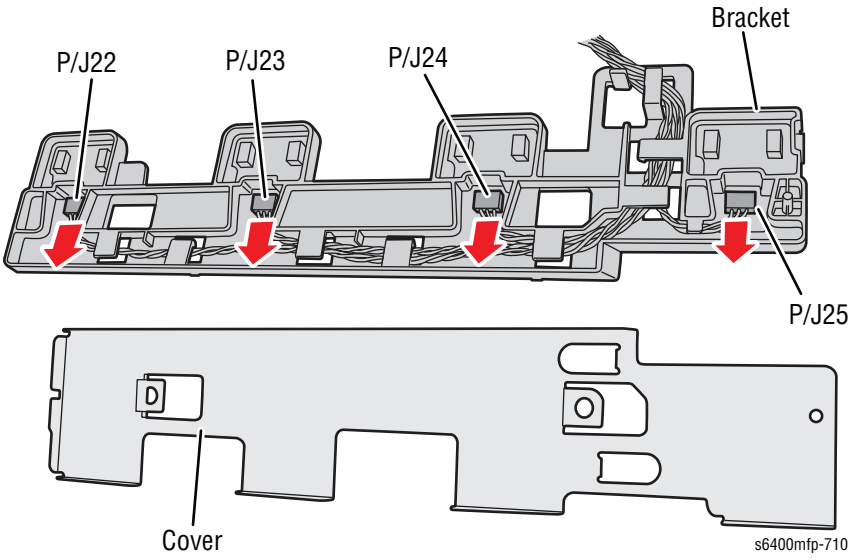
1. Remove the LVPS (page 8-82).
2. Remove 2 screws that secure the CRUM Cover (PL6.03).
3. Remove 1 screw that secures the Bracket (PL10.06).
4. Lift and remove the Bracket.



5. Remove the CRUM Reader Assembly from the LVPS Shield (PL10.02).

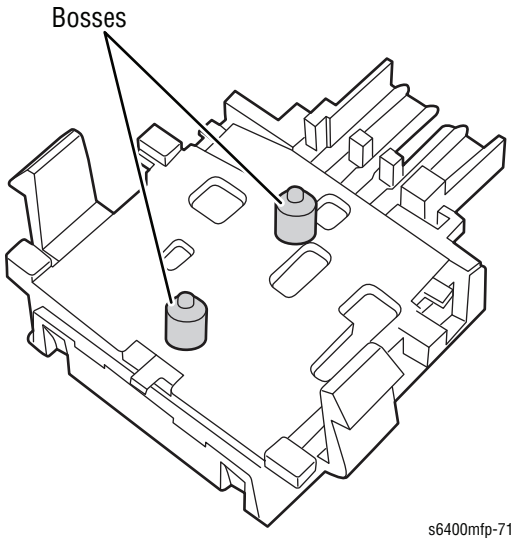


6. Use a screw driver to release the clips from the CRUM Cover (PL6.03).
7. Disconnect the CRUM Reader connector from the Bracket.
8. Carefully press the tabs to release the CRUM Reader from the Bracket.
9. Gently disconnect the CRUM Reader from the connector.



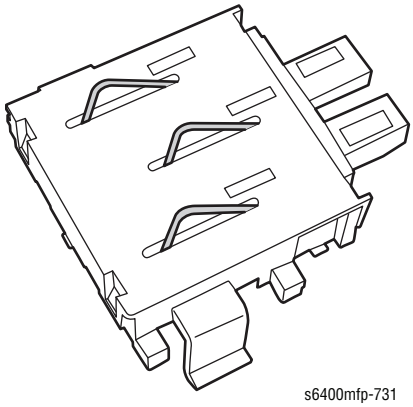
Replacement Note

1. Be sure to align the two bosses when installing the CRUM Reader.



s6400mfp-711

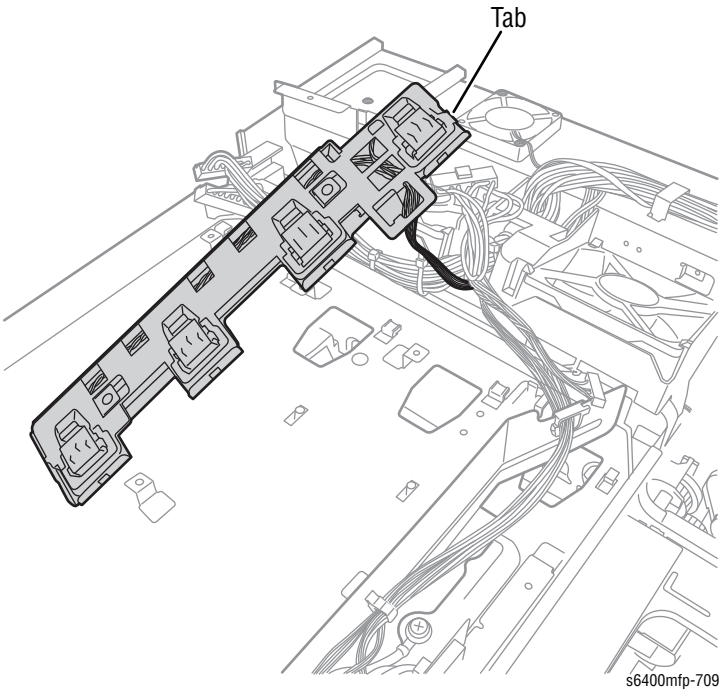
2. Be careful not to bend the 3 pins when installing the CRUM Reader.



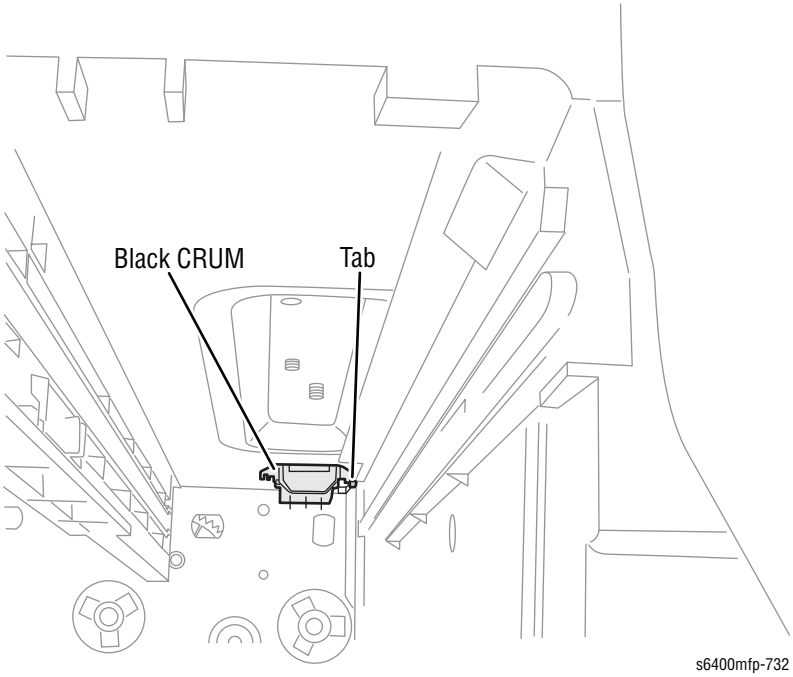
s6400mfp-731

3. Make sure the connector is fully seated to the connector.
4. Reinstall the Cover into the Bracket.

5. Be sure to position the tab on the bottom of the CRUM Reader under the LVPS Housing and verify that the CRUM Reader is secured in place. Be sure the tab on the right side of the CRUM Reader Bracket is properly in place ensuring the Bracket is flush against the housing.



6. Verify that the CRUM Reader is aligned on the inside of the printer (at the Black Toner Cartridge area).



Note

Error message “Install Black Toner Cartridge” may display when the tab does not sit in the correct position.

Waste Toner Auger Assembly (PL8.21)

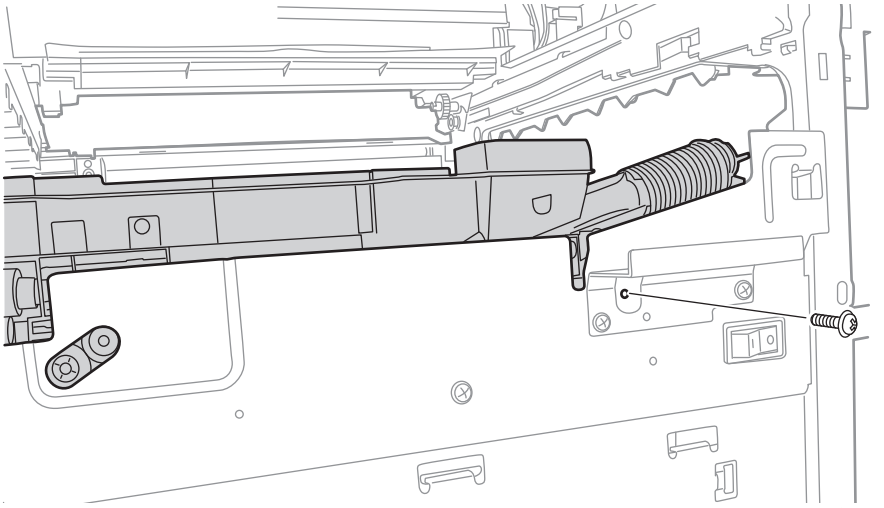
Caution

Be sure to place the Imaging Units in plastic bags or store them in a dark place. Do not expose the Imaging Units to light for an extended period of time.

1. Remove 1 screw that secures the Waste Toner Auger Assembly.
2. Remove the Waster Toner Auger Assembly.

Note

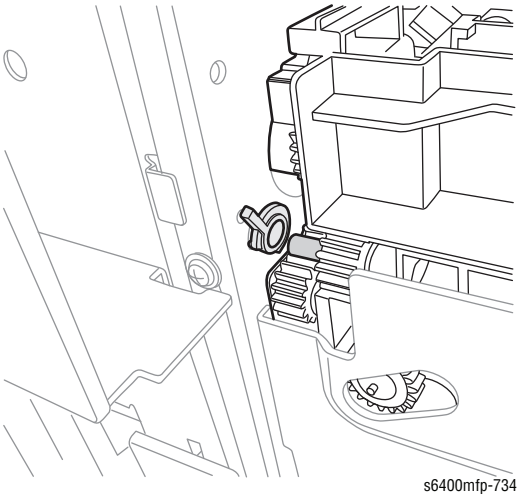
Do not tilt the Waste Cartridge inlet when removing the Waste Toner Auger Assembly. The Waste Toner Auger Assembly should be kept with the port up to prevent toner leakage.



s6400mfp-733

Replacement Note

Be sure to position the pin into the plastic hole in order to align the Gears and confirm the Auger is in the correct position.



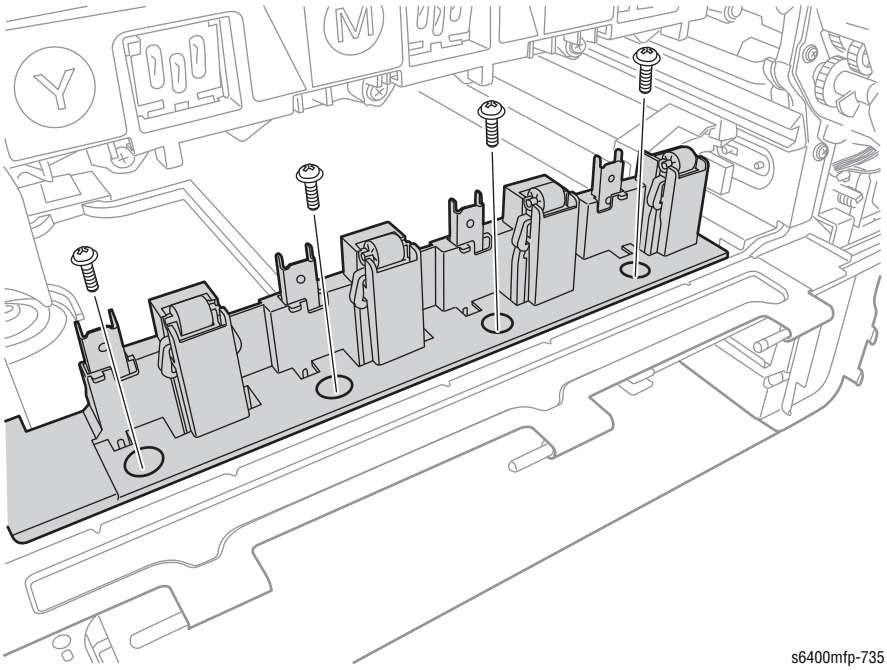
s6400mfp-734

Front Imaging Unit Holder (PL9.10)

Caution

Be sure to place the Imaging Units in plastic bags or store them in a dark place. Do not expose the Imaging Units to light for an extended period of time.

1. Remove the Laser Unit (page 8-126).
2. Remove 4 screws that secure the Front Imaging Unit Holder.
3. Remove the Front Imaging Unit Holder.



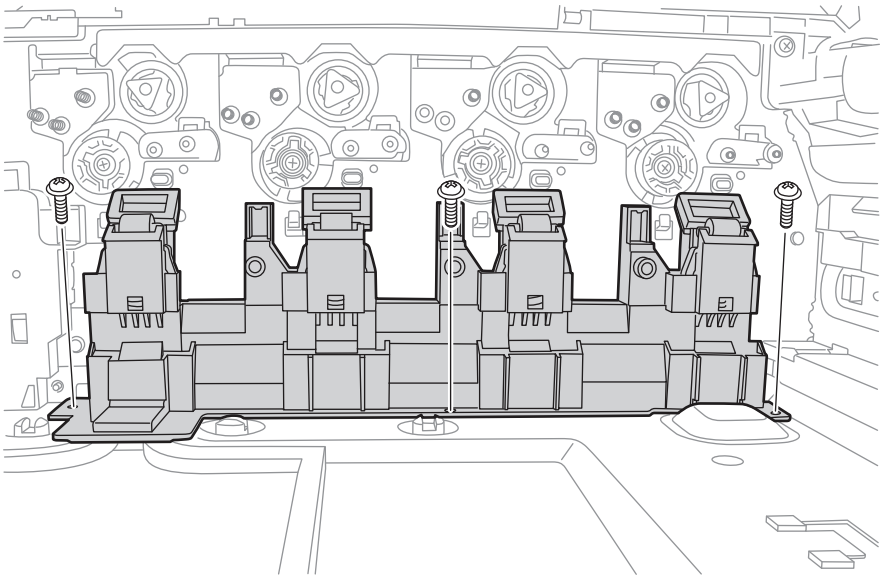
s6400mfp-735

Rear Imaging Unit Holder (PL9.11)

Caution

Be sure to place the Imaging Units in plastic bags or store them in a dark place. Do not expose the Imaging Units to light for an extended period of time.

1. Remove the Laser Unit (page 8-126).
2. Remove 3 screws that secure the Rear Imaging Unit Holder.
3. Remove the Rear Imaging Unit Holder.



s6400mfp-739

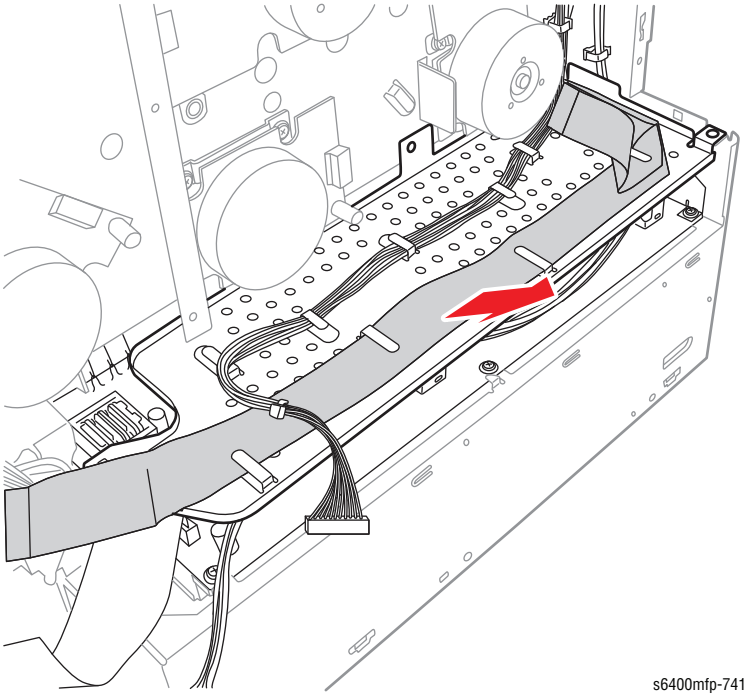
Laser Unit (PL10.11)

1. Open the Front Door (PL3.10).
2. Remove the Fuser Unit (page 8-24).

Caution

Be sure to place the Imaging Units in black plastic bags or store them in a dark place. Do not expose the Imaging Units to light for an extended period of time.

3. Remove the Transfer Belt (page 8-20).
4. Remove the Card Cage (page 8-111).
5. Remove the wiring harness and ribbon cable from the Harness Plate (PL20.41).

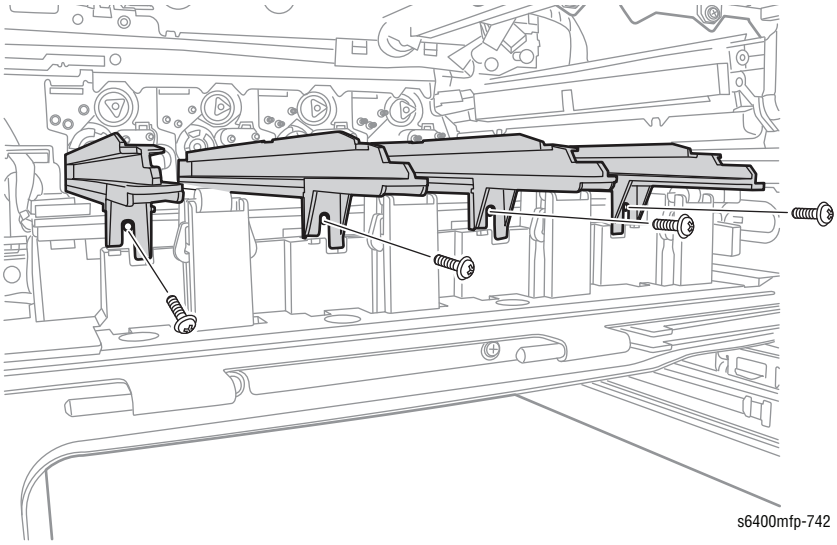


Note

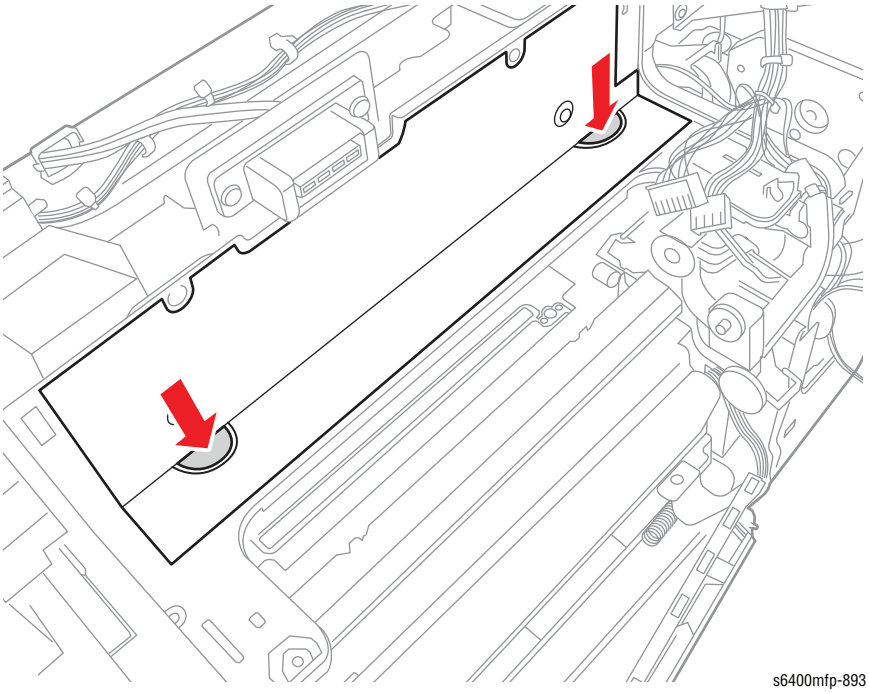
Do not tilt the Waste Cartridge inlet when removing the Waste Toner Auger Assembly. The Waste Toner Auger Assembly should be kept with the port up to prevent toner leakage.

6. Remove the Waste Toner Auger Assembly (page 8-123).
7. Remove 4 screws that secure the Imaging Unit Rails.

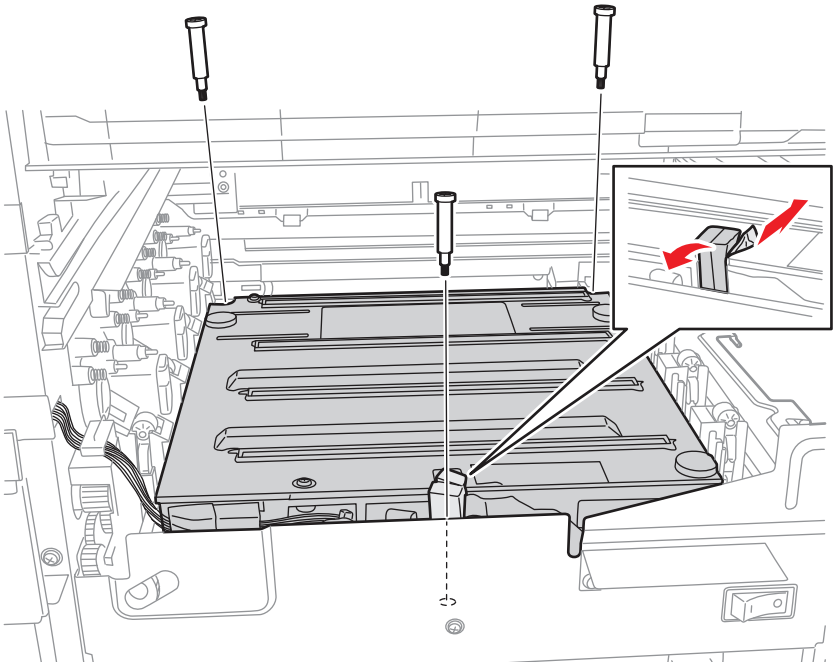
8. Remove the 4 Imaging Unit Rails.
   - Gray Rail (PL9.06): Black (located on the far right side
   - Black Rails (PL9.07): Color



9. On the Heat Shield Cover, locate the perforated access holes and push downward to allow access to the 2 right side Laser screws.



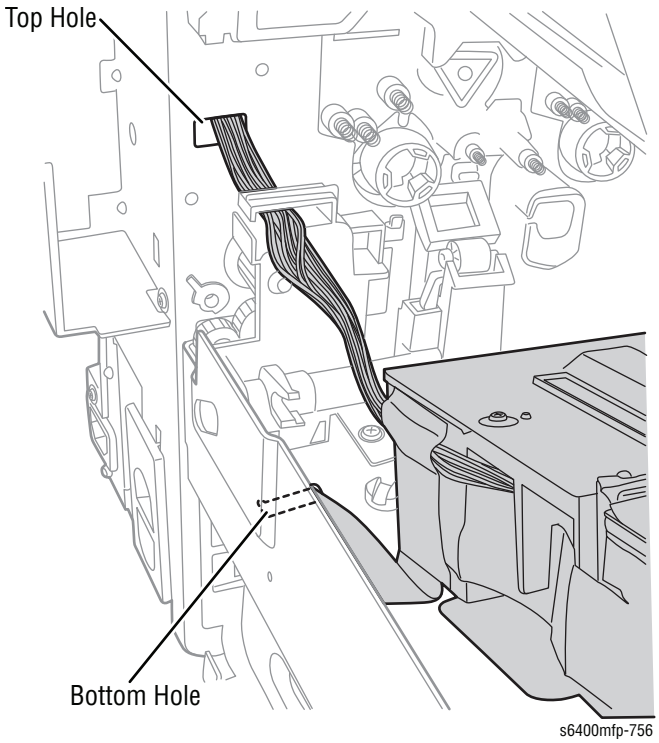
10. Peel the tape with the gasket to access the left side screw.
11. Remove 3 screws (flat head) that secure the Laser Unit.



12. Remove the tape from the ribbon cable.
13. Feed the ribbon cable and wiring harness through the top and bottom holes.

Note

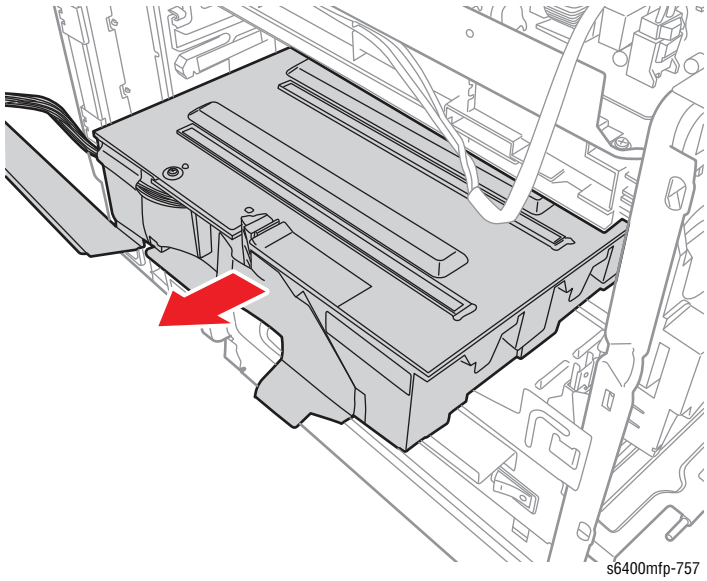
Be sure to save the tape for re-installation.



Caution

Do not touch the lens on the bottom of the Laser Unit to prevent damaging the Laser Unit.

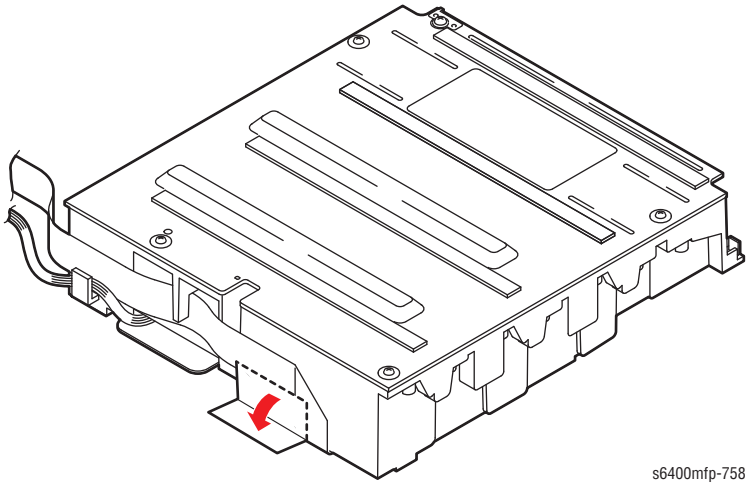
14. Pull the Laser Unit out to remove it from the printer.



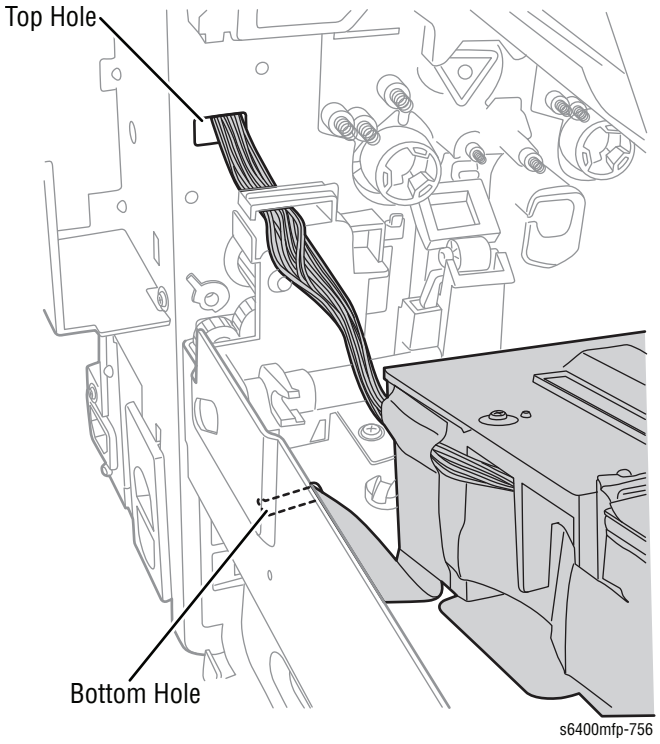
Replacement Note

Perform the following procedures when installing the Laser Unit to prevent damaging it.

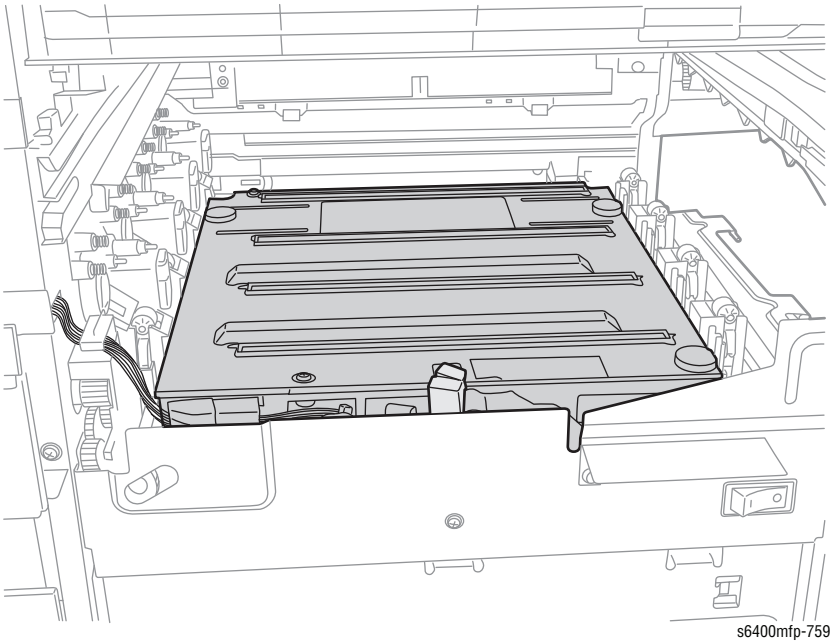
1. Remove the shipping tape on the new Laser Unit Shield Sheet.



2. Unfold the rectangular area of the Shield Sheet so that the part is lying flat.
3. Insert the Laser Unit into the printer at an angle. Place the Laser Unit at an angle in order to feed the ribbon cables through the hole.
4. Insert the ribbon cable through the bottom hole and the wiring harness through the top hole and route the wiring harness and ribbon cable to the rear of the printer.



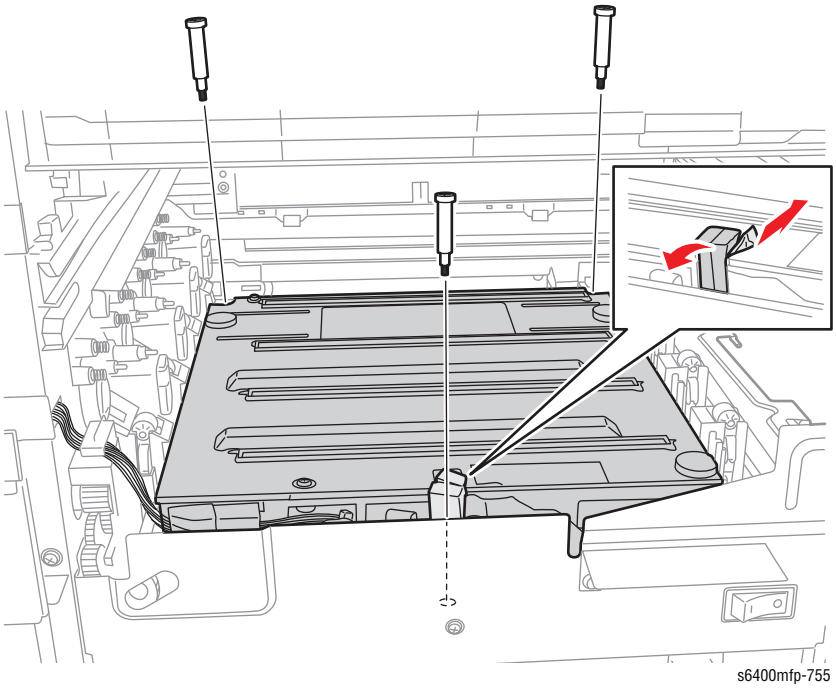
5. Position the Laser Unit in place in side of the printer.



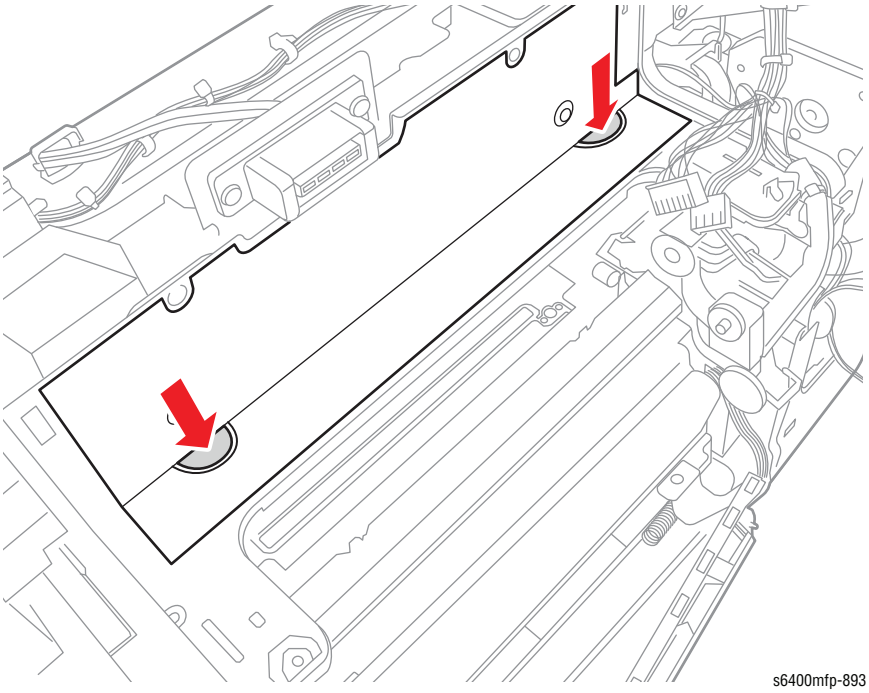
6. Secure the Laser Unit with 3 screws.
7. Secure the tape and gasket to the frame.

Note

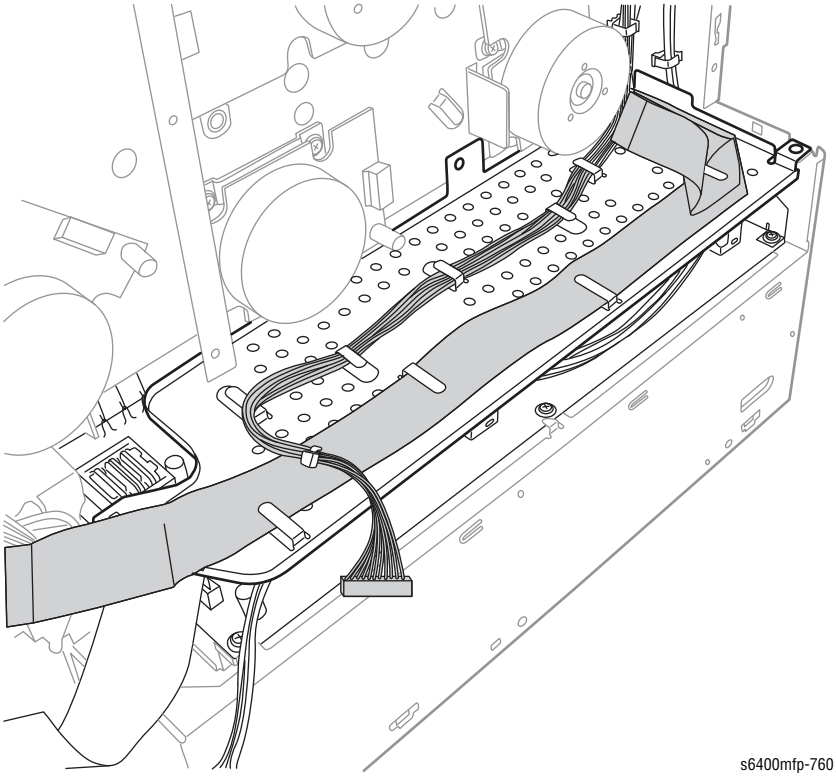
With the screws tightened, the Laser Unit will have same vertical movement.



8. On the Heat Shield Cover, replace the perforations upward to close the access holes.



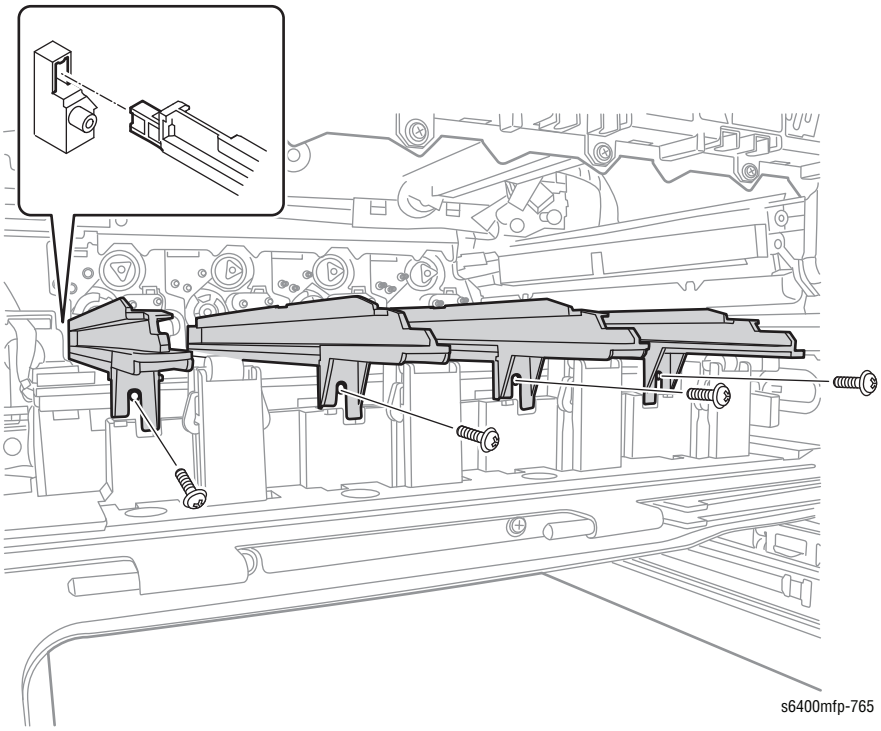
9. Secure the ribbon cable and wiring harness to the Harness Plate (PL20.41).
10. Secure the tape (previously removed from the ribbon cable) to the ribbon cable and the Harness Plate.



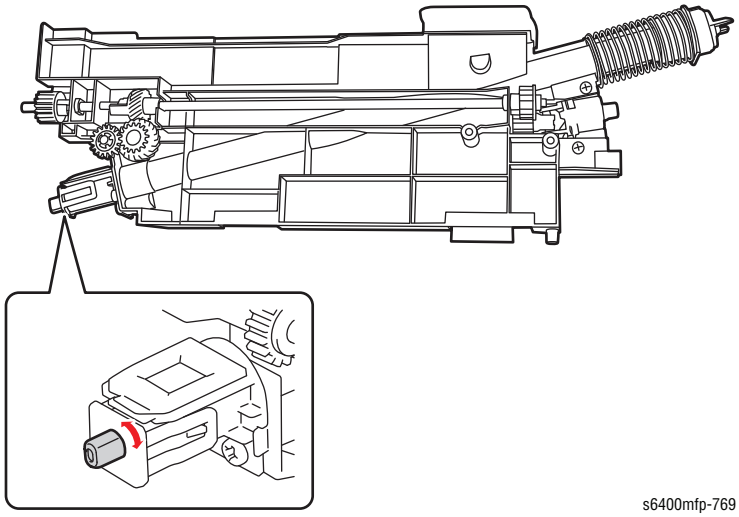
11. Attach the 4 Imaging Unit Rails with 1 screw for each Rail.

Note

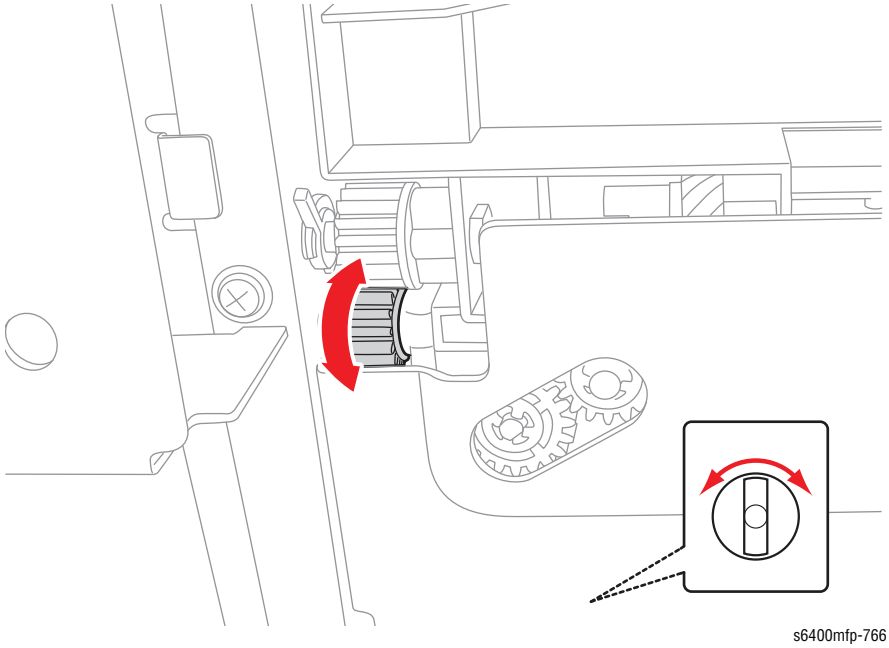
Be sure to properly position the convex parts at the rear end of the rail in the locating hole on the printer frame.



12. Install the Waste Toner Auger Assembly into the main body of the printer.
    a. Turn the connector so that it sits in vertical direction.



b. Be sure to turn the middle Drive Gear so the Rear Gear keeps its own rectangular slot in the proper direction relative to the motor.

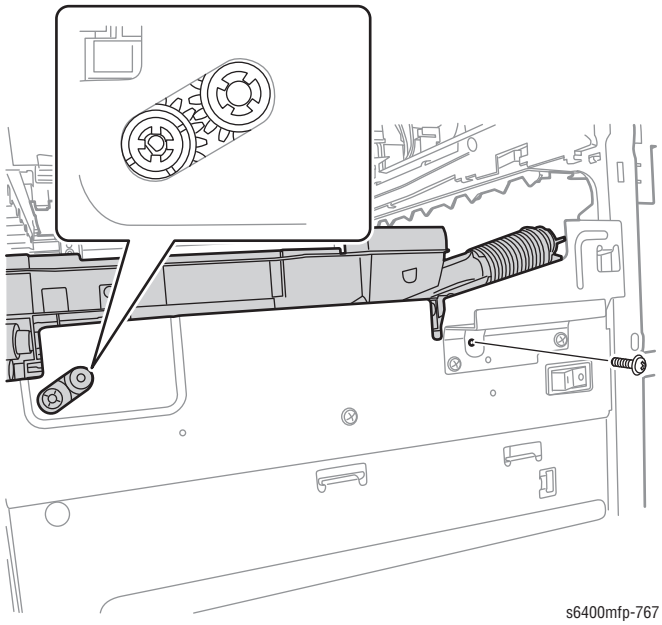


s6400mfp-766

13. While pushing the positioning protrusion of the Waste Toner Auger Assembly against the housing, secure the Waste Toner Auger Assembly with 1 screw.

Note

Verify that the two Drive Gears of the Waste Cartridge Auger Assembly are engaged.



s6400mfp-767

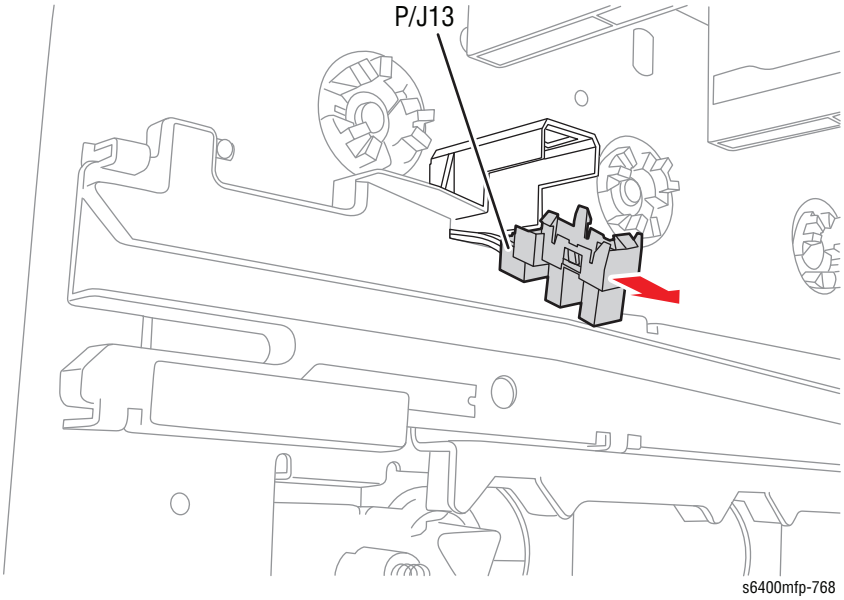
Drive Assembly

Pressure/ Retraction Sensor 2 (PS13) (PL11.4)

Caution

Be sure to place the Imaging Units in plastic bags or store them in a dark place. Do not expose the Imaging Units to light for an extended period of time.

1. Remove the Transfer Belt (page 8-20).
2. Use a small screwdriver to release the latch on the Sensor from the Sensor Holder.
3. Disconnect the wiring harness connector P/J13 and remove the Retraction/Pressure Sensor.



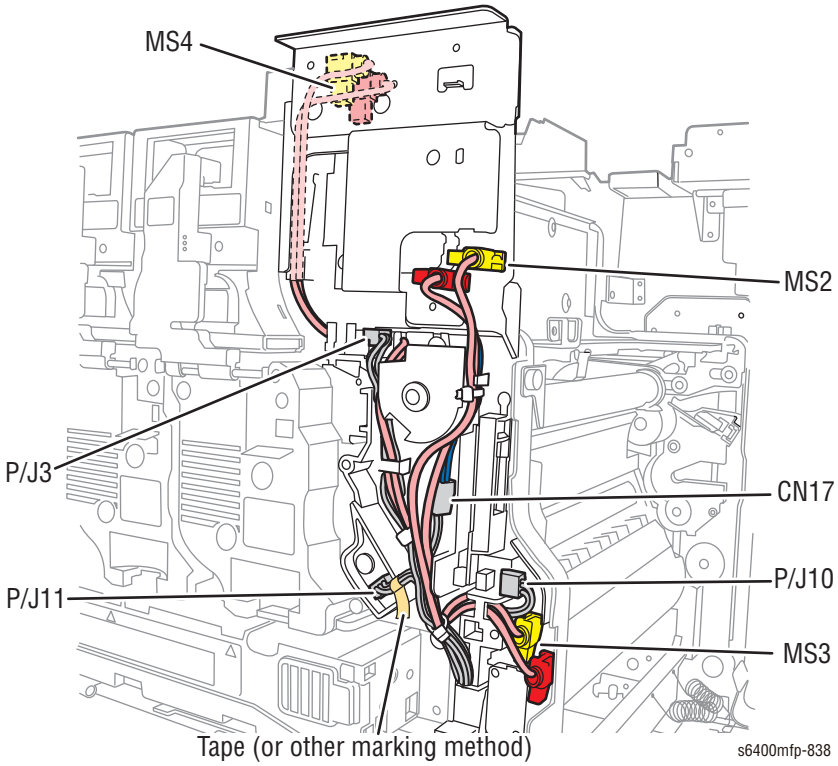
2nd Image Transfer Pressure/ Retraction Drive Assembly (PL11.8)

1. Remove the Right Front Cover (page 8-50).
2. Open the Front Door (PL3.10).
3. Remove the Transfer Belt (page 8-20).

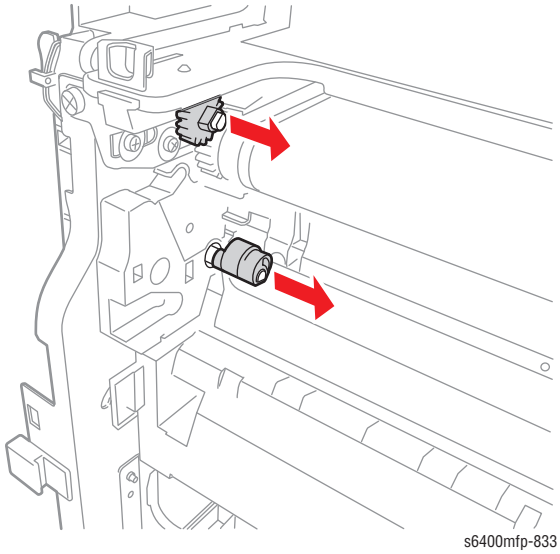
Note

For the following step, be sure to mark the gray wiring harness (bundled on the left side) for re-assembly.

4. Disconnect the 10 wiring harness connectors.
5. Remove the wiring harnesses from the retainers.



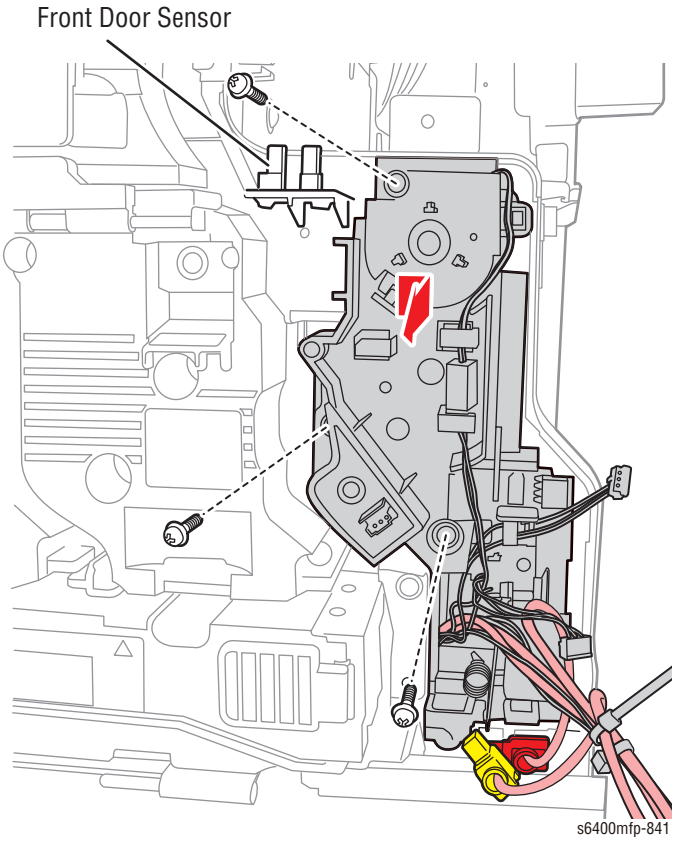
6. Remove the Image Density Control Sensor Board (page 8-87).
7. Remove the Cam and Gear.



8. Remove 3 screws that secure the 2nd Image Transfer Pressure/ Retraction Drive Assembly.
9. Shift the Drive Assembly toward the right and remove the Drive Assembly.

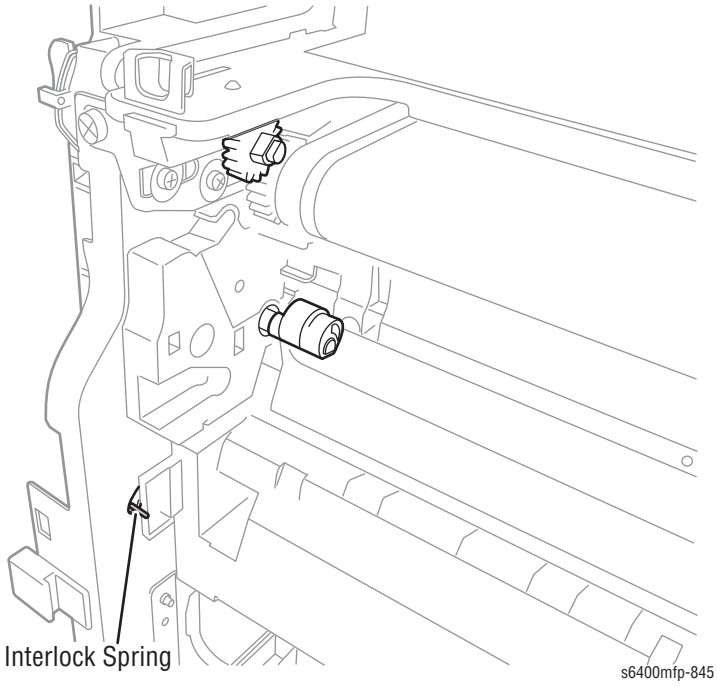
Caution

Be sure to clear the Drive Assembly away from the Front Door Sensor.



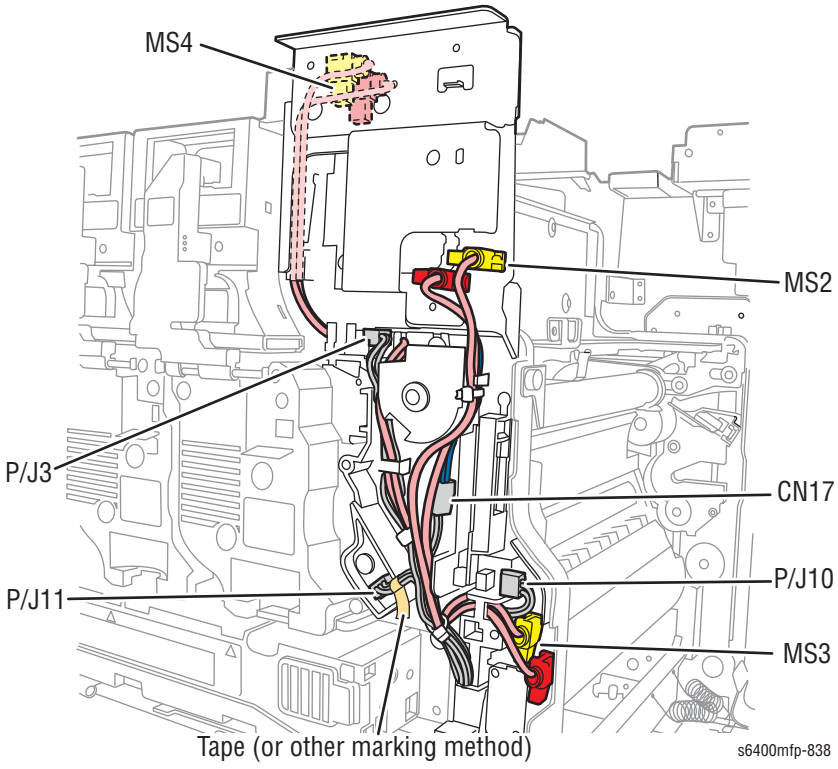
Replacement Note

Be sure to fit the Interlock Spring into the slot.



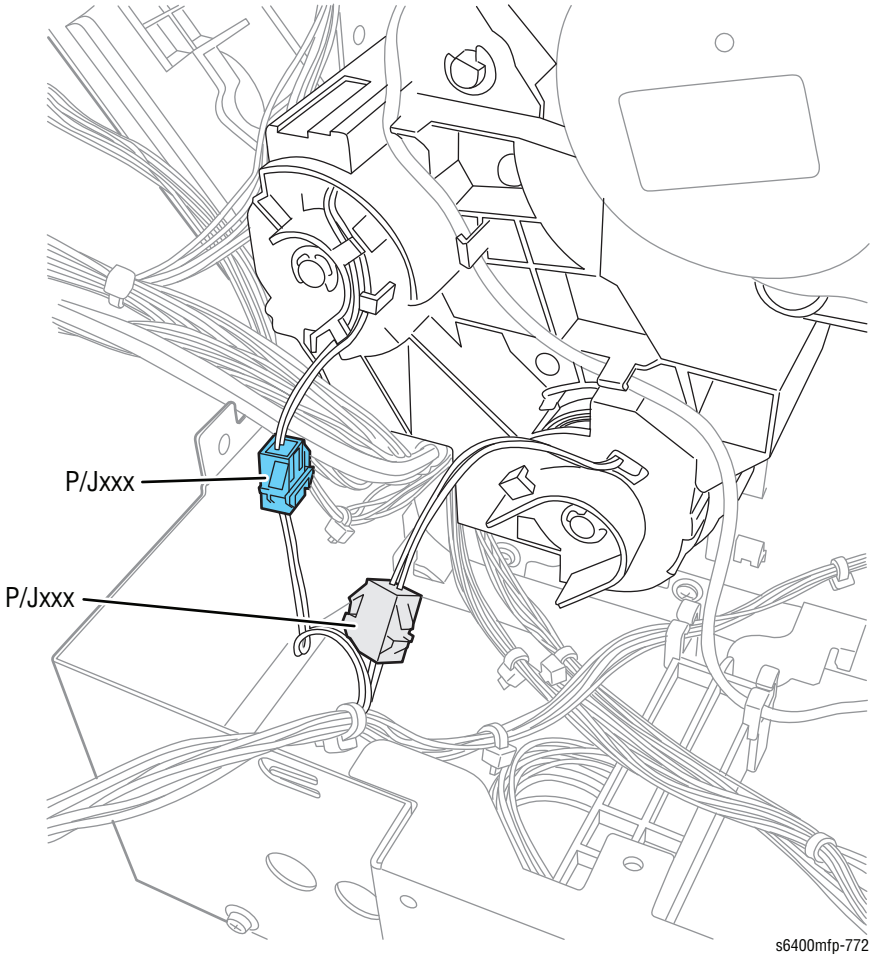
Be sure to connect the gray wiring harness connector correctly (the marked gray wiring harness connects to the connector on the left side).

Be sure to connect the 10 wiring harness connectors and route them in the correct places.

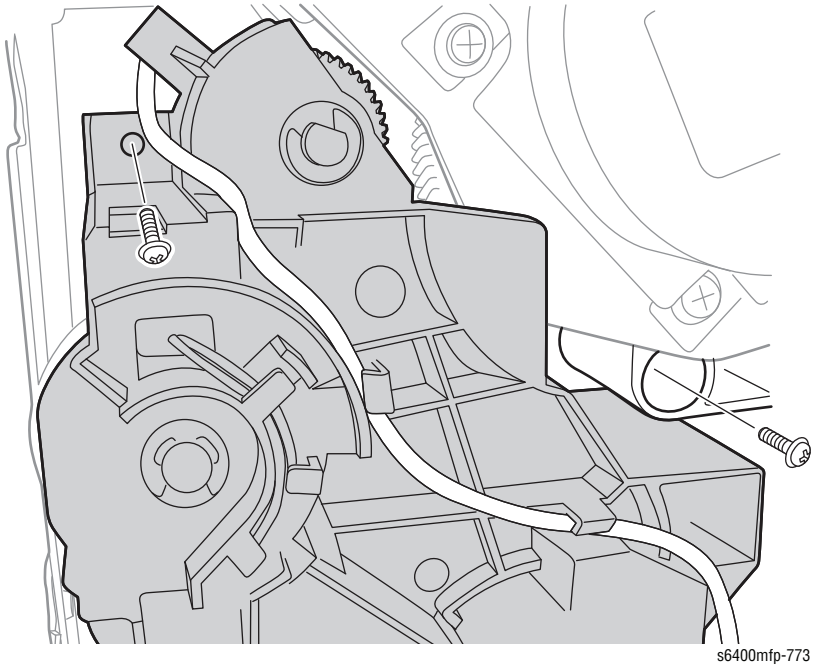


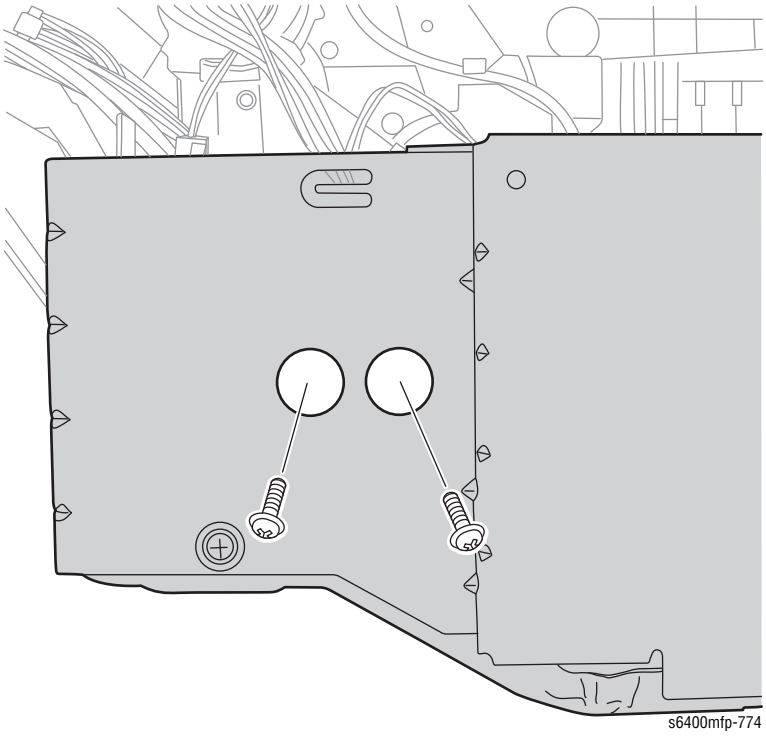
Paper Take-Up Drive Assembly (PL12.15)

1. Remove the Card Cage (page 8-111).
2. Disconnect the white and blue wiring harness connectors.

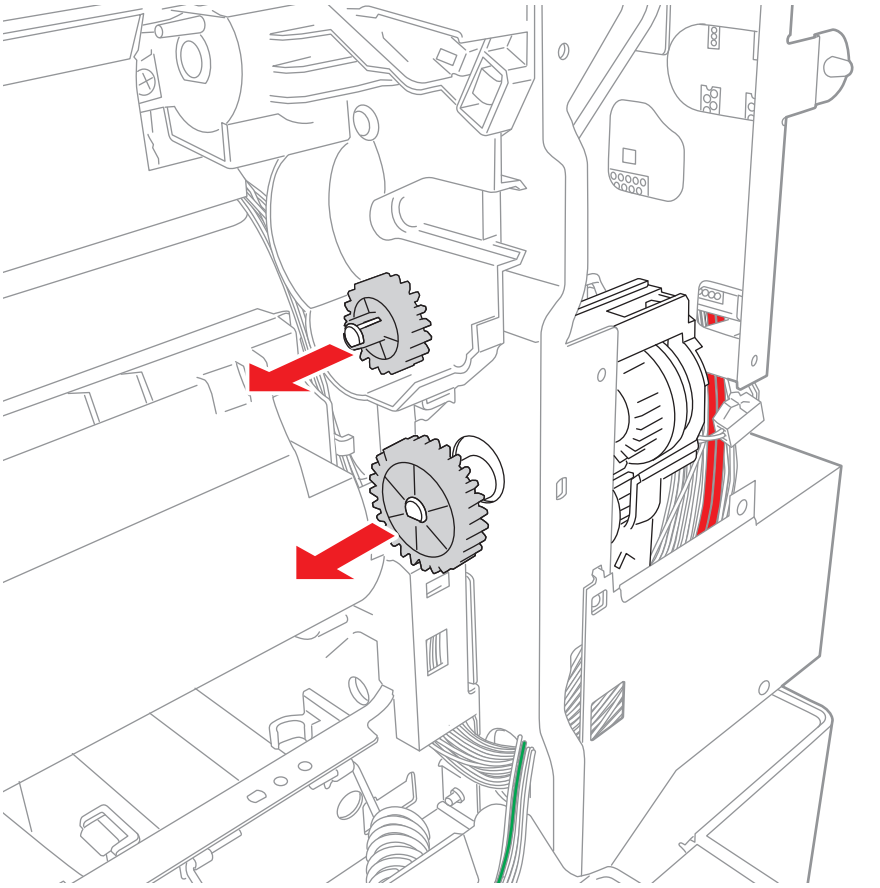


3. Remove 4 screws that secure the Paper Take-Up Drive Assembly.





4. Remove the Gears.
5. Slide the Paper Take-Up Drive Assembly out and remove the Paper Take-Up Drive Assembly.

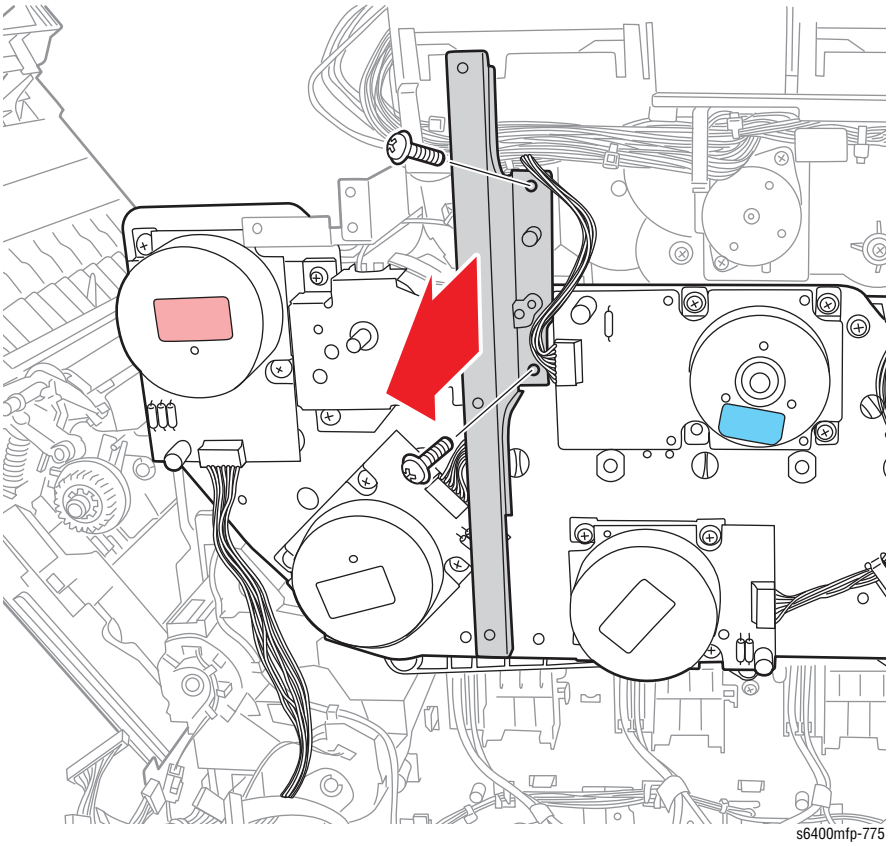


Replacement Note

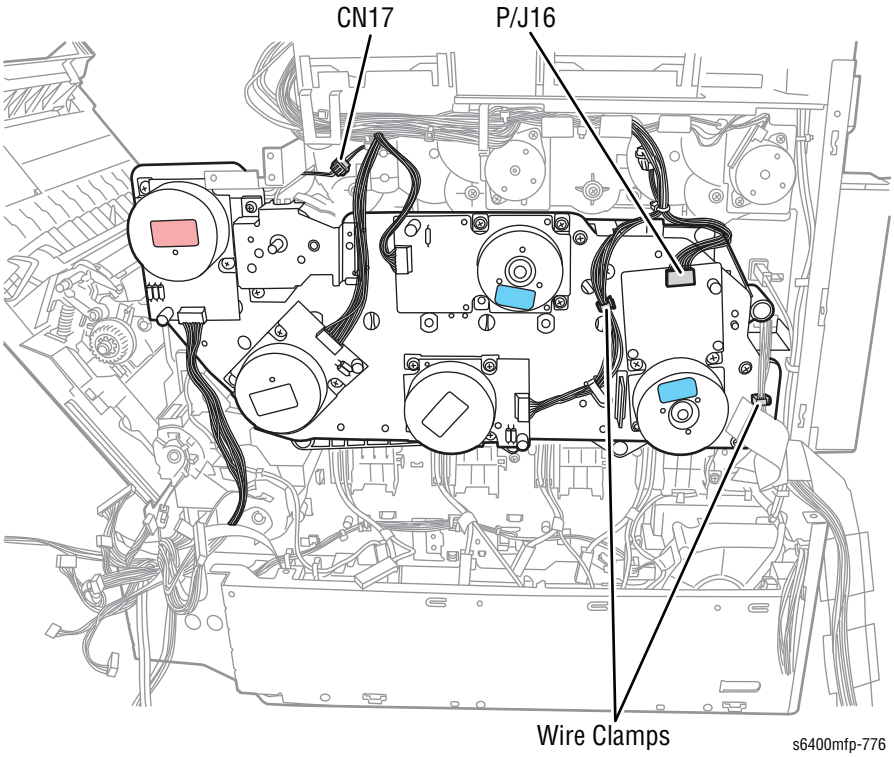
When reinstalling the Paper Take-Up Drive Assembly, be sure to replace the Gears that have been removed, because these Gears could be damaged.

Main Drive Assembly (PL12.22)

1. Remove the HVPS-1 (page 8-106).
2. Remove the Color Print Cartridge Drum Motor (page 8-155).
3. Remove the Black Developer Motor (page 8-156).
4. Remove the Fusing Motor (page 8-158).
5. Remove the Intermediate Transport Motor (page 8-157).
6. Remove the Paper Take-up Drive Assembly (page 8-139).
7. Remove 2 screws that secure the Hold Plate (PL20.25).



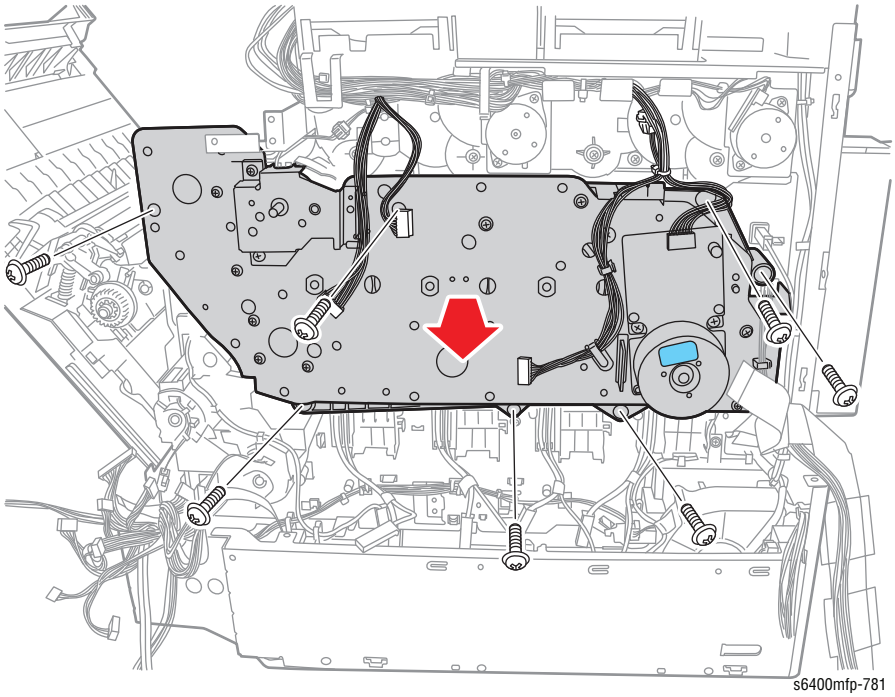
8. Disconnect the wiring harness connectors.
9. Remove the wiring harness from the two wire clamps.



Caution

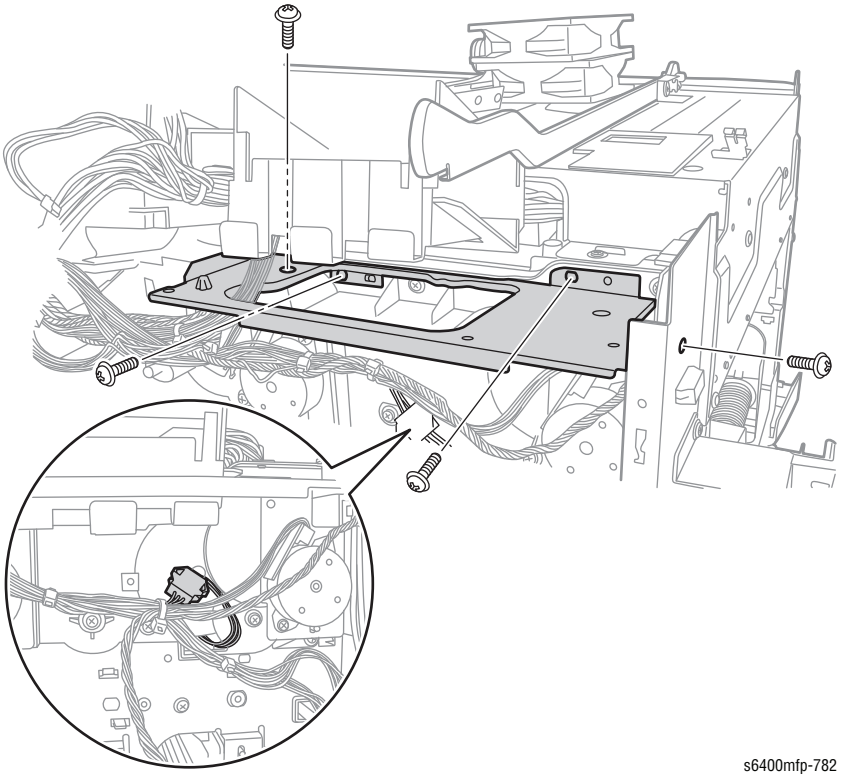
Do not remove the 4 red screws that secure the motor.

10. Remove 7 screws that secure the Main Drive Assembly.
11. Remove the Main Drive Assembly.



Hopper Drive Assembly (PL13.20)

1. Remove the DC Power Supply Fan (page 8-148).
2. Remove the Main Drive Assembly (page 8-142).
3. Remove 4 screws that secure the Bracket (PL13.01).
4. Remove the Bracket.
5. Disconnect the wiring harness connector.



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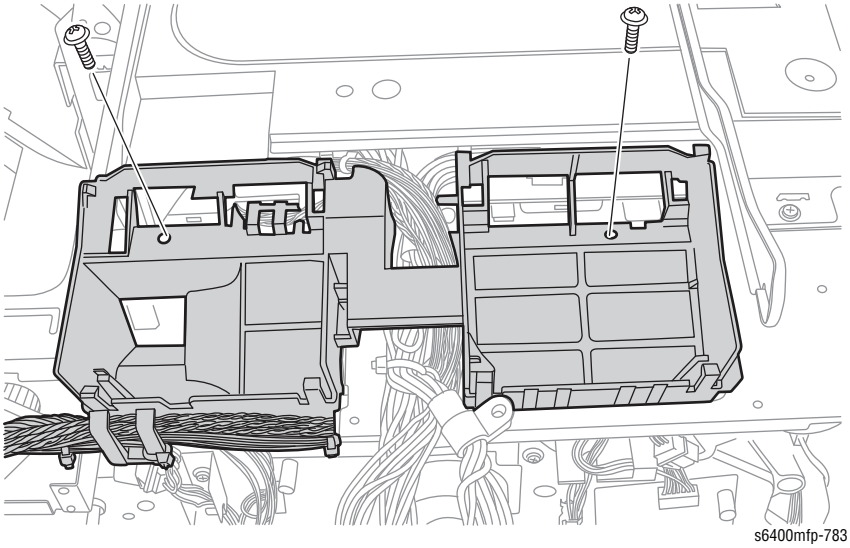
6. Remove 2 screws that secure the Fan Duct (PL13.03).
7. Turn the Fan Duct over and place it on top of the printer frame.



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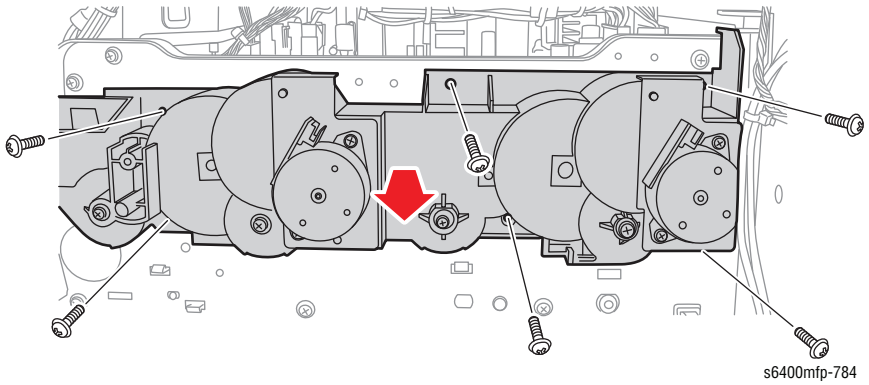
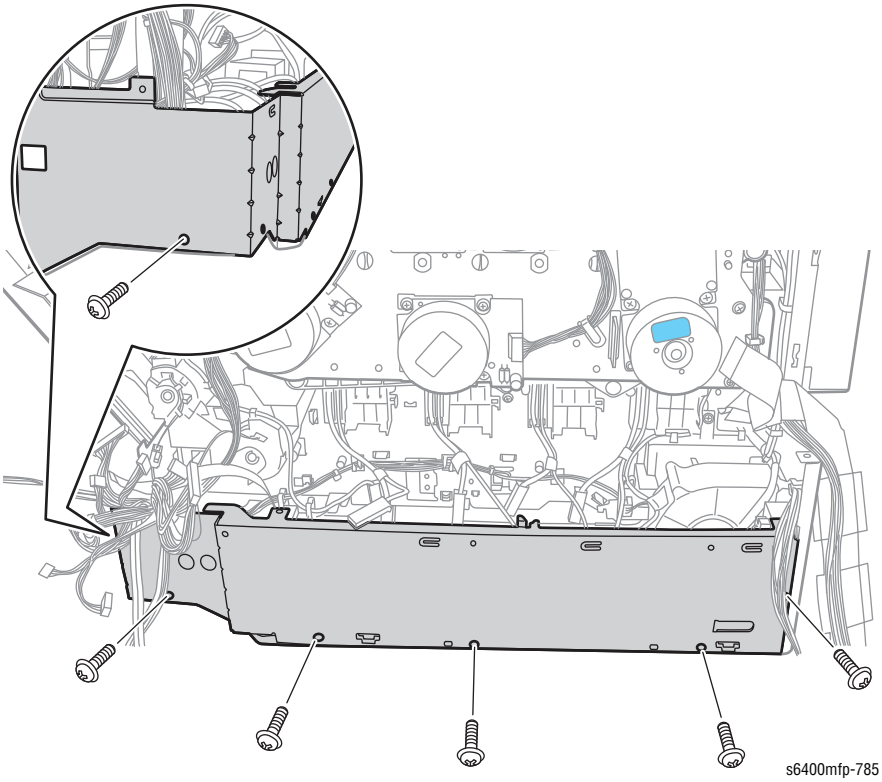
8. Remove 6 screws that secure the Hopper Drive Assembly.
9. Remove the Hopper Drive Assembly.



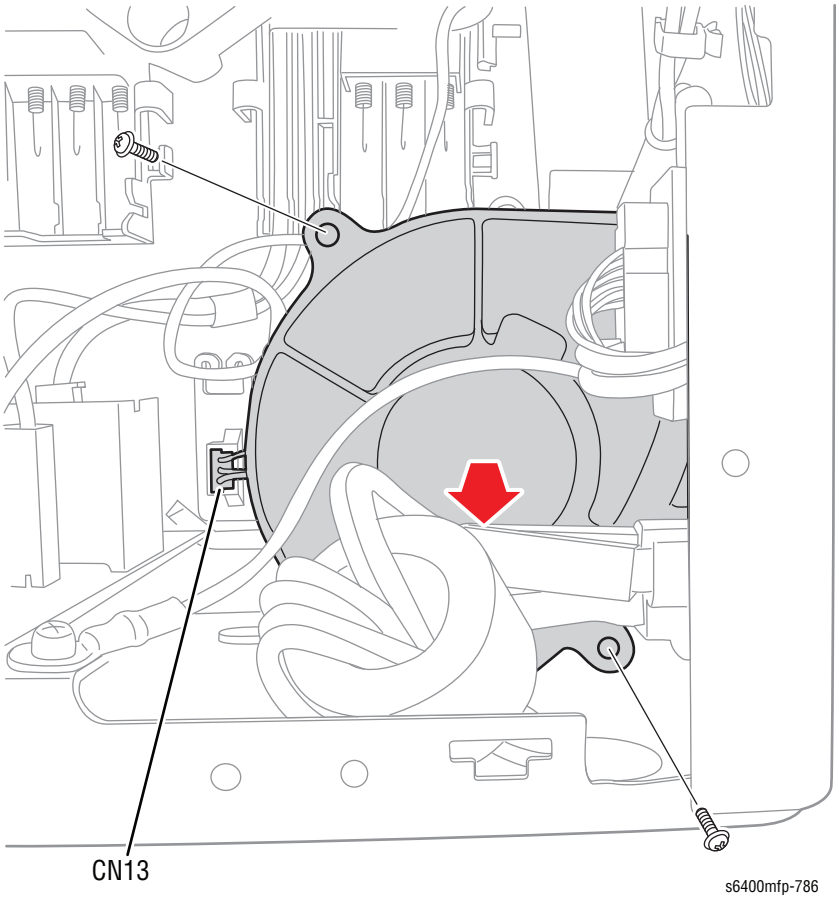
Fans and Motors

Ozone Ventilation Fan (FM13) (PL7.20)

1. Remove the Card Cage (page 8-111).
2. Remove the HVPS-1 (page 8-106).
3. Remove 6 screws that secure the Lower Rear Bracket (PL20.23).



4. Disconnect the wiring harness connector.
5. Remove 2 screws that secure the Ozone Fan and remove the Ozone Fan.

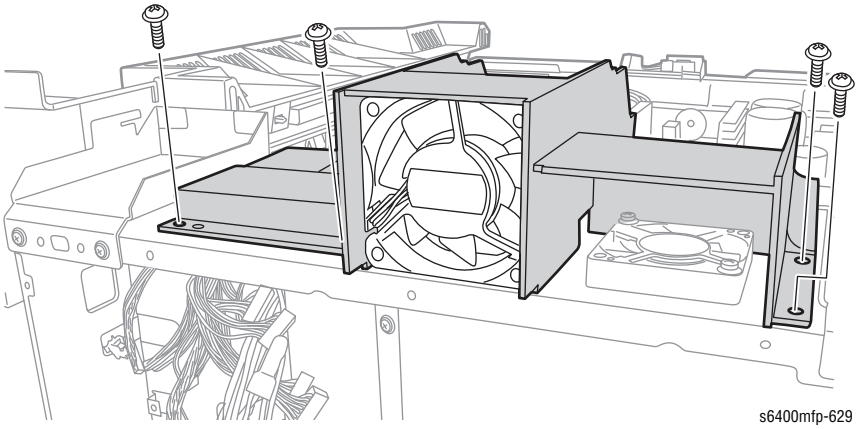


Replacement Note

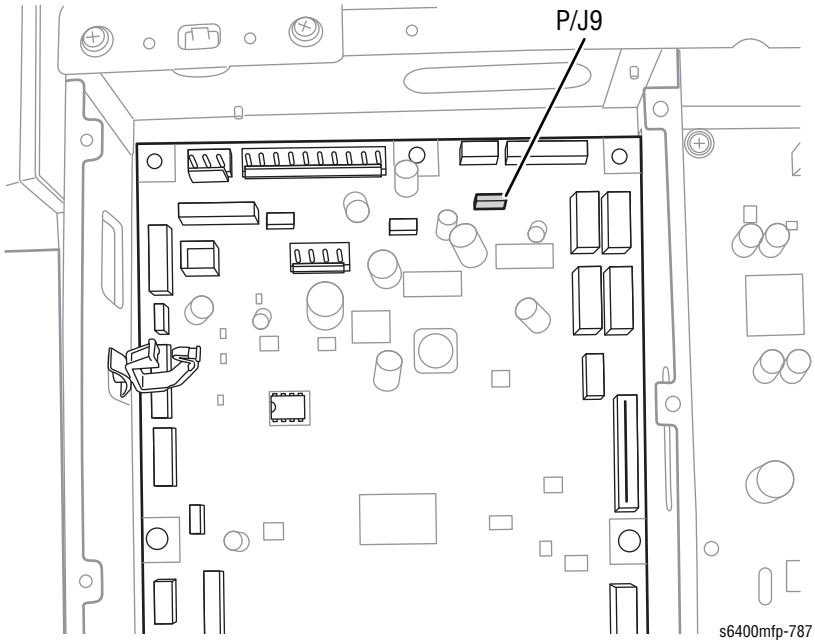
Be sure to align the 2 tabs of the Lower Rear Bracket (on the right side of the printer) with the holes on the printer frame.

DC Power Supply Fan (FM11) (PL13.02)

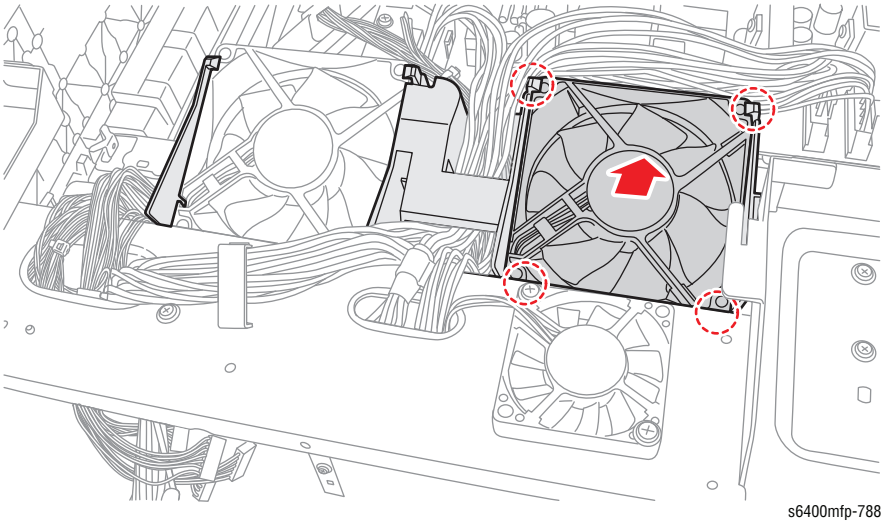
1. Remove the Cooling Fan (page 8-152).
2. Remove 4 screws that secure the Fan Duct (PL20.10.)
3. Remove the Fan Duct.



4. Disconnect the fan wiring harness connector P/J9 from the MCU Board.



5. Release the left, right, and rear latches on the Fan Duct (PL13.03) and slide the Fan out.



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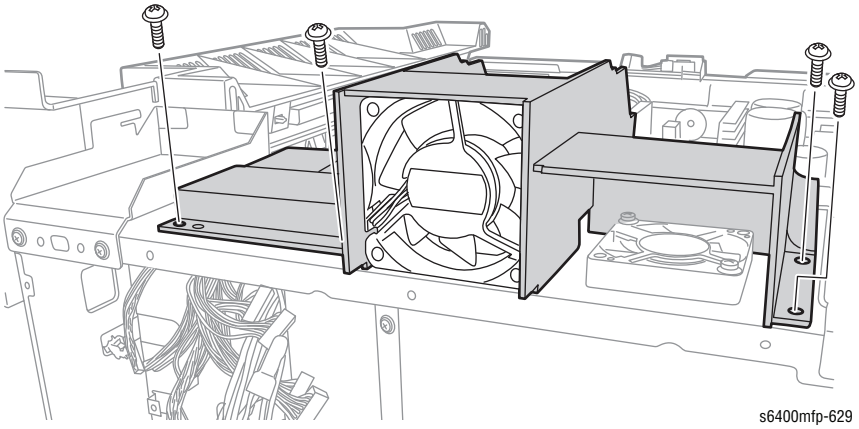
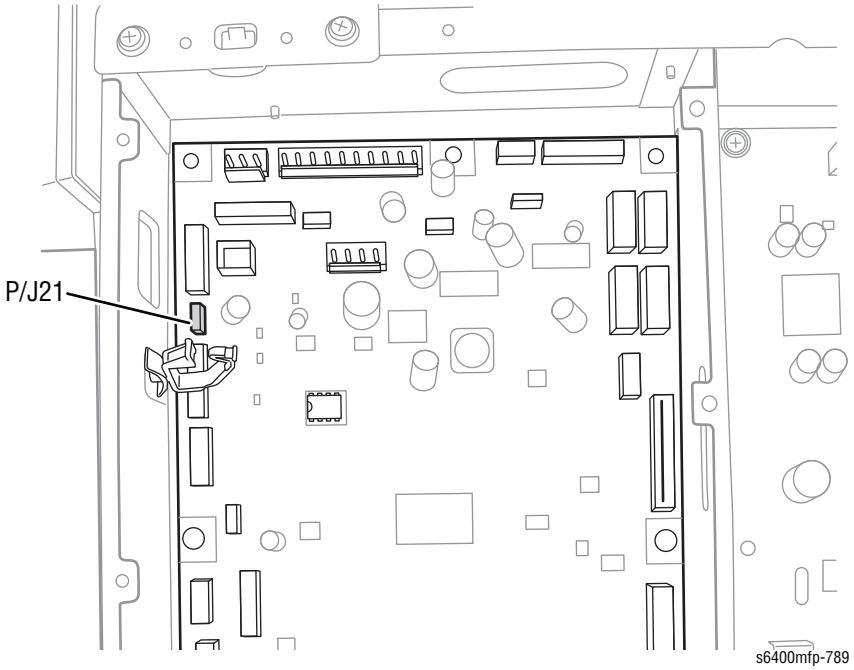
Fuser Fan (FM12) (PL13.02)

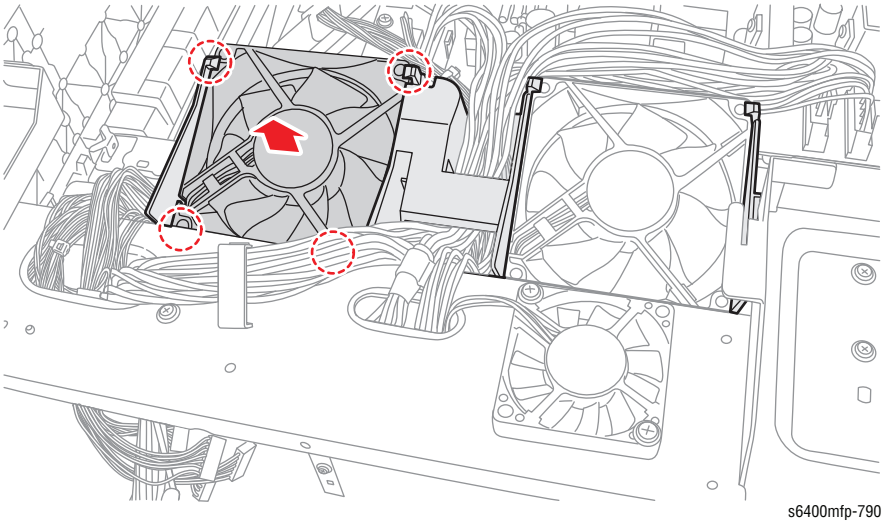
1. Remove the LVPS Cooling Fan (page 8-152).
2. Remove 4 screws that secure the Fan Duct (PL20.10).
3. Remove the Fan Duct.



4. Disconnect the fan wiring harness connector P/J21 from the MCU Board.



5. Release the left, right, and rear latches on the Fan Duct (PL13.03) and slide the Fan Duct out.



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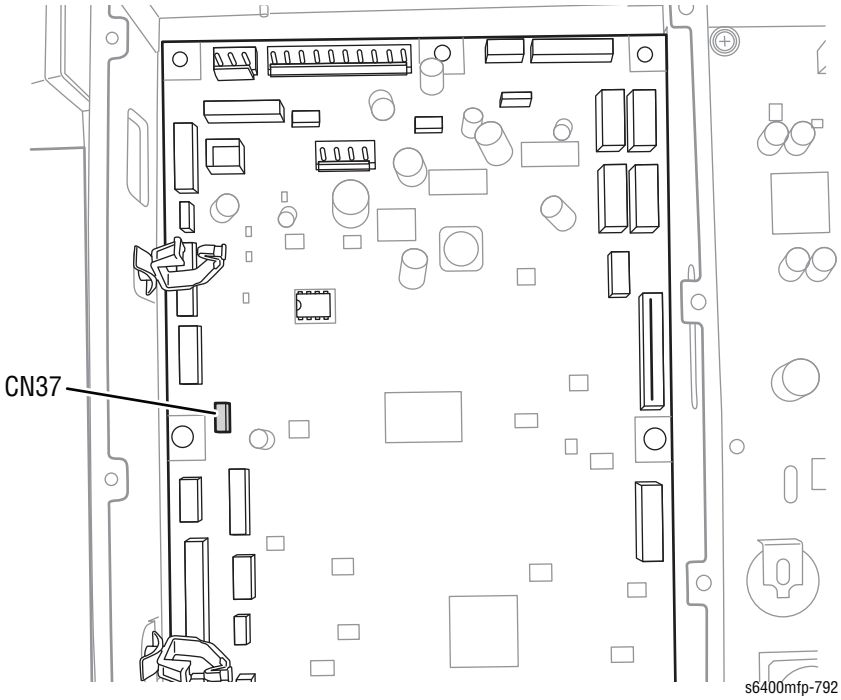
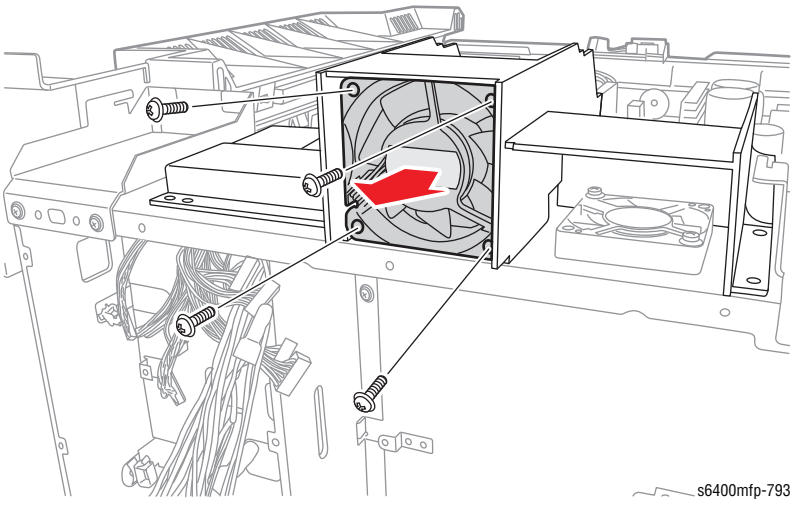
LVPS Cooling Fan (FM14) (PL20.05)

1. Remove the Lower Horizontal Transport Assembly (page 8-69).
2. Remove the RF Protective Shield (page 8-97).
3. Disconnect the fan wiring harness connector P/J37 from the MCU Board.

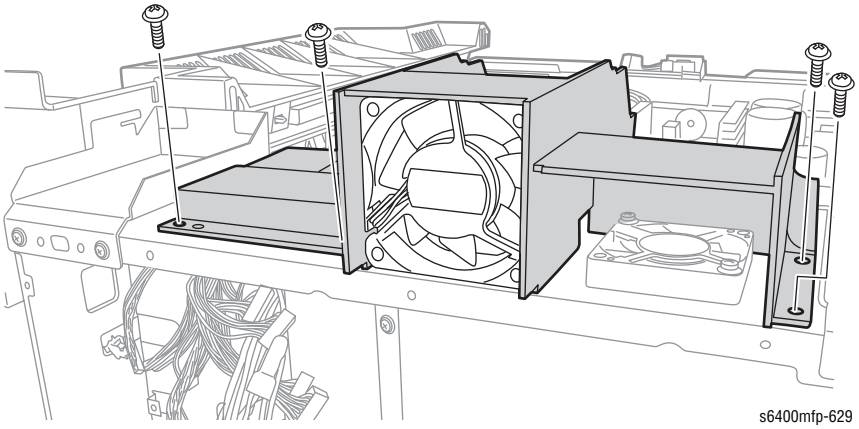


4. Remove 4 screws that secure the LVPS Cooling Fan.
5. Slide the Cooling Fan out from the Fan Duct (PL20.10) and remove the Cooling Fan.

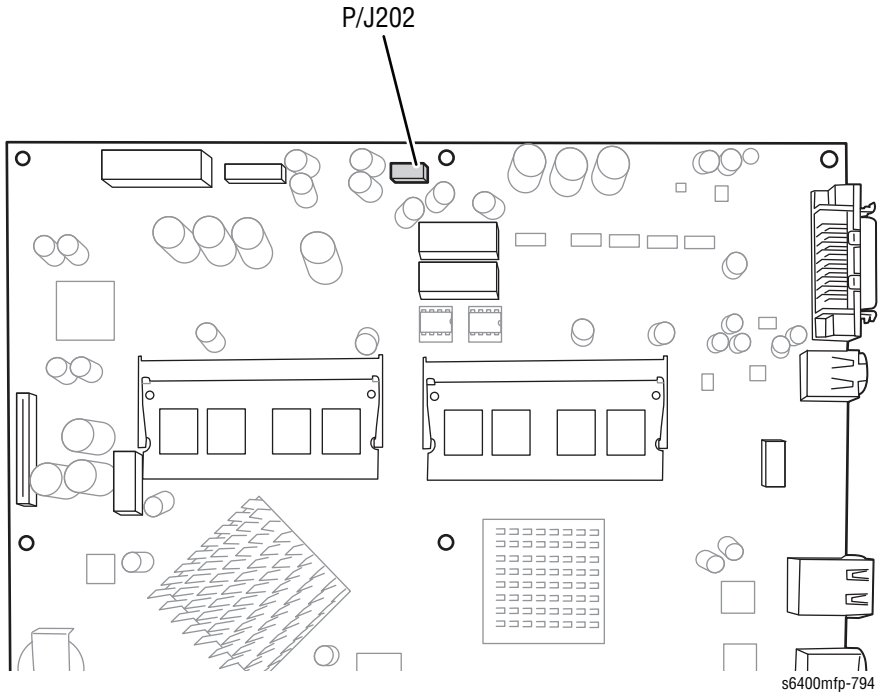


I/P Board Cooling Fan (FM15) (PL20.11)

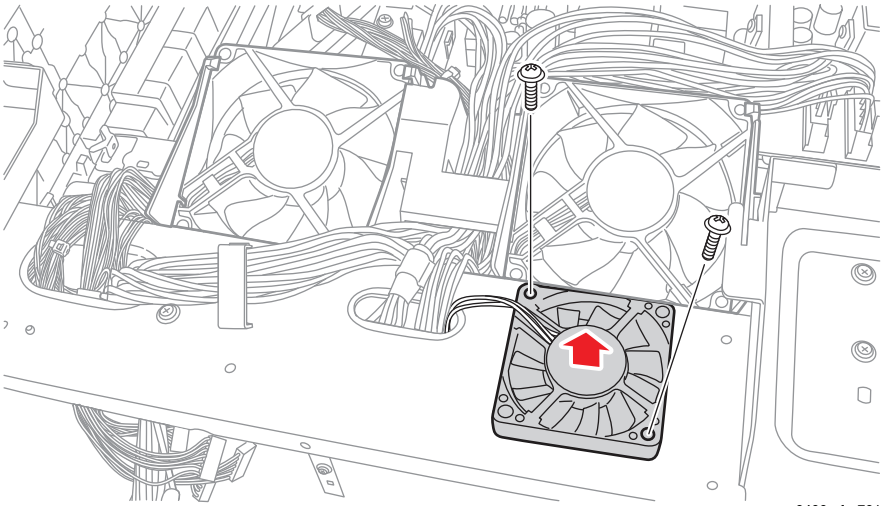
1. Remove the Lower Horizontal Transport Assembly (page 8-69).
2. Remove the RF Protective Shield (page 8-97).
3. Remove 4 screws that secure the Fan Duct (PL20.10).
4. Remove the Fan Duct.



5. Disconnect the fan wiring harness connector P/J202 from the I/P Board.



6. Remove 2 screws that secure the I/P Board Fan.
7. Remove the Controller Board Fan.

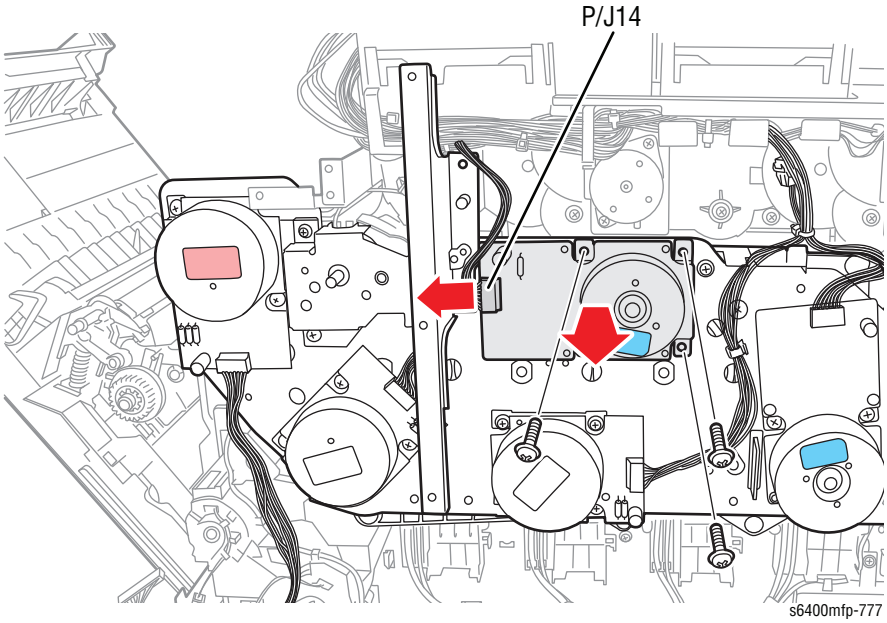


Replacement Note

When installing the Fan Duct, handle it with care to prevent damaging the latches on the bottom of the Fan Bracket.

Color Photo Conductor Drum Motor (M3) (IBT Motor) (PL12.01)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J14.
3. Remove 3 screws that secure the Color Photo Conductor Drum Motor.
4. Remove the Color Photo Conductor Drum Motor.

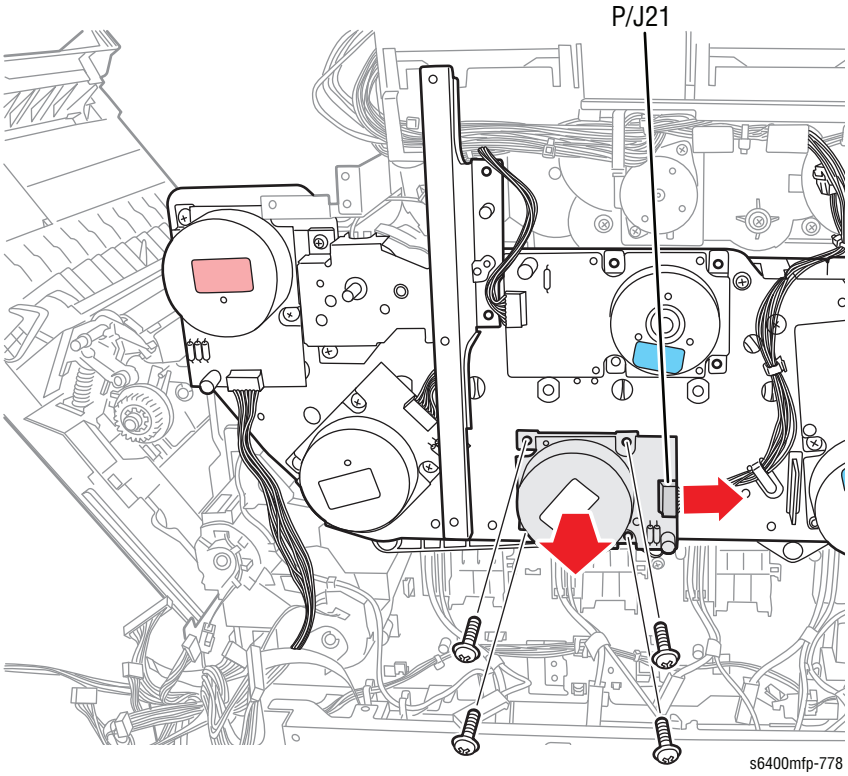


Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

Developer Motor K (M5) (PL12.02)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J21.
3. Remove 4 screws that secure the Black Developer Motor.
4. Remove the Black Developer Motor.

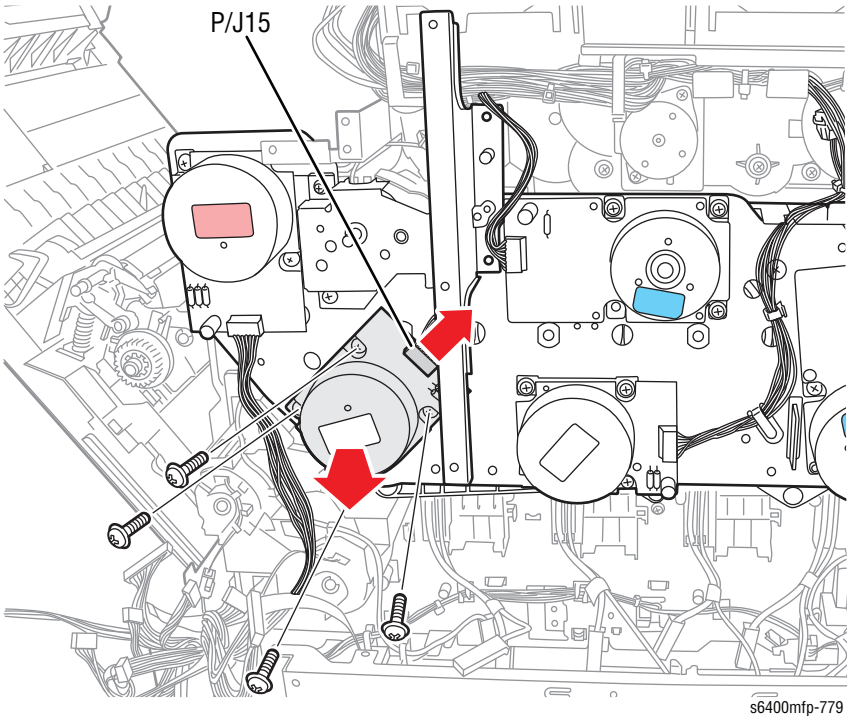


Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

Intermediate Transport Motor (M1) (PL12.02)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J15.
3. Remove 4 screws that secure the Intermediate Transport Motor.
4. Remove the Intermediate Transport Motor.

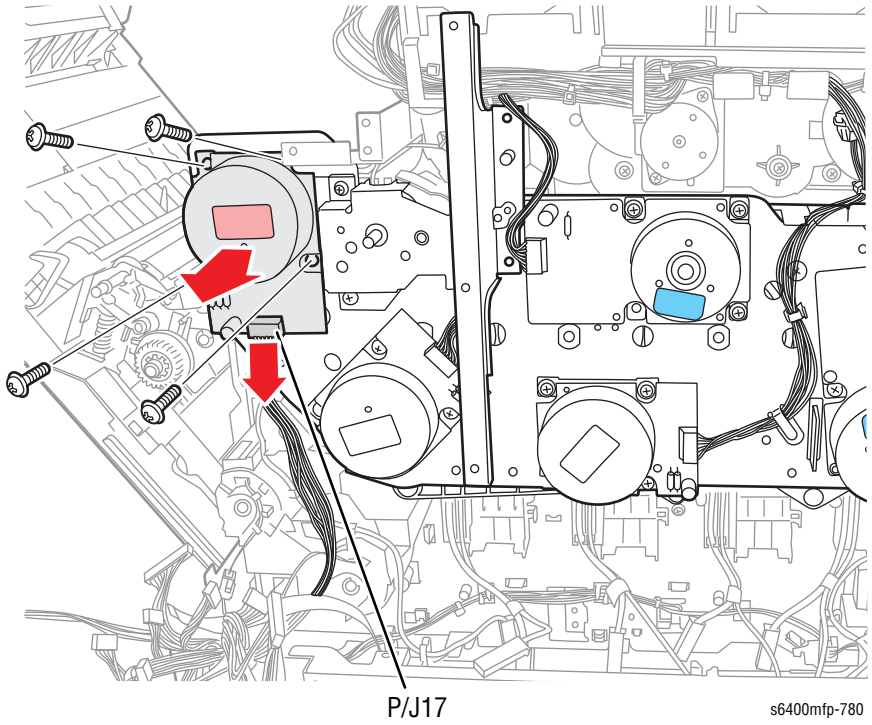


Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

Fuser Motor (M2) (PL12.04)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J17.
3. Remove 4 screws that secure the Fuser Motor.
4. Remove the Fuser Motor.

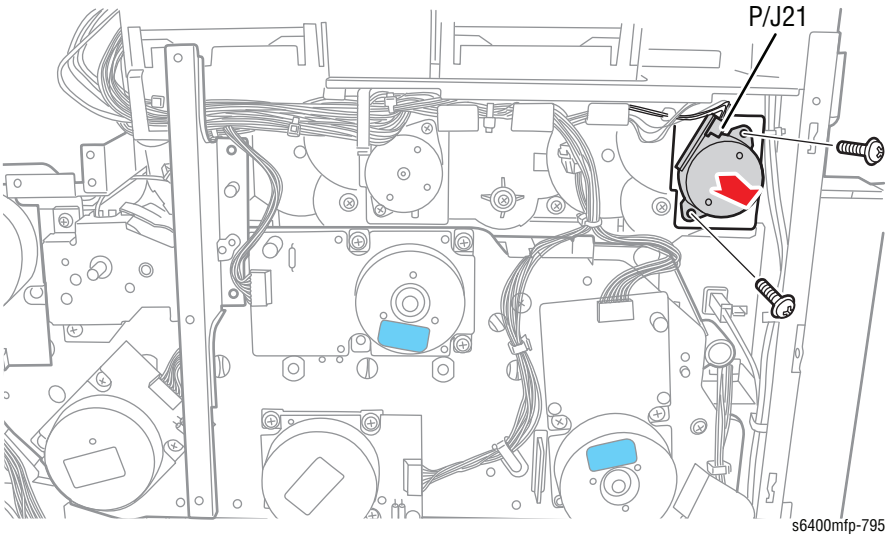


Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

Toner Supply Motor (Y/M) (M6) (PL13.22)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J21.
3. Remove 2 screws that secure the Y/M Toner Supply Motor.
4. Remove the Y/M Toner Supply Motor.

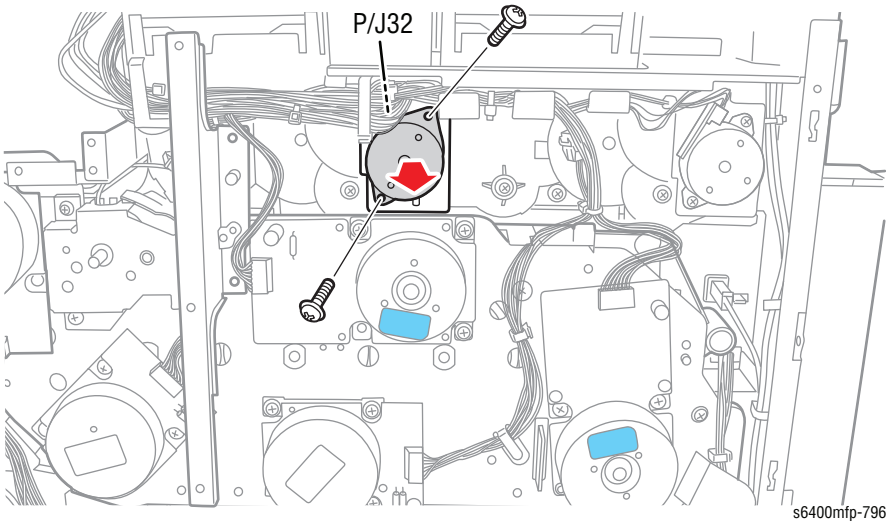


Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

Toner Supply Motor (C/K) (M7) (PL13.22)

1. Remove the Card Cage (page 8-111).
2. Disconnect the wiring harness connector P/J32.
3. Remove 2 screws that secure the C/K Toner Supply Motor.
4. Remove the C/K Toner Supply Motor.



Replacement Note

Be sure to insert the motor straight in. Be careful not to damage the gears.

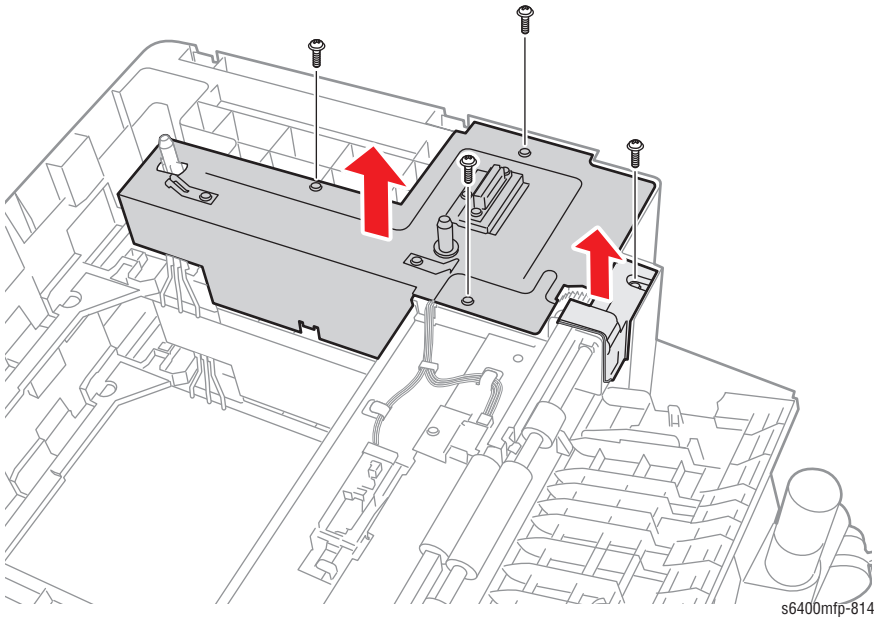
Optional 500-Sheet Feeder

Optional 500-Sheet Feeder Board (PL28.11)

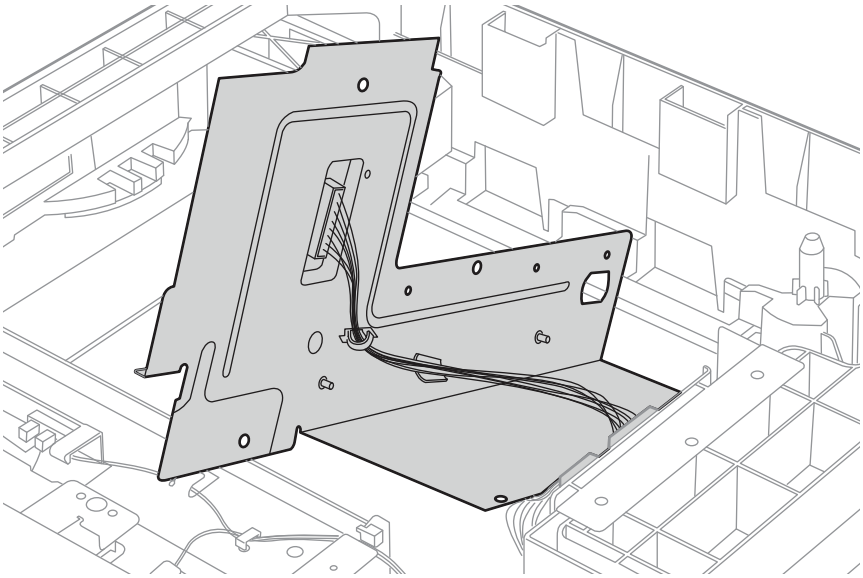
Caution

Observe all ESD procedures to avoid component damage.

1. Remove the printer from the Optional 500-Sheet Feeder (page 8-166).
2. Remove Tray 3/4 (page 8-172).
3. Open the Lower Feeder Unit Right Door (PL28.03).
4. Remove 1 screw that secures the Gear Cover (PL28.01).
5. Remove 3 screws that secure the Optional 500-Sheet Feeder Board Cover (PL28.17).



6. Slightly raise the Optional 500-Sheet Feeder Board Cover and disconnect the wiring harness connector from the Cover.
7. Remove the Optional 500-Sheet Feeder Board Cover.



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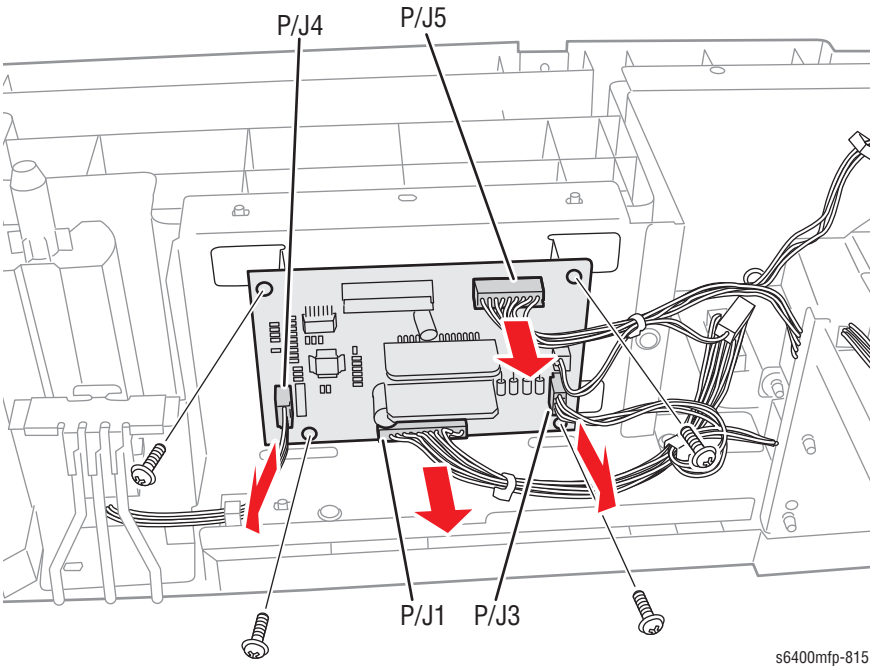
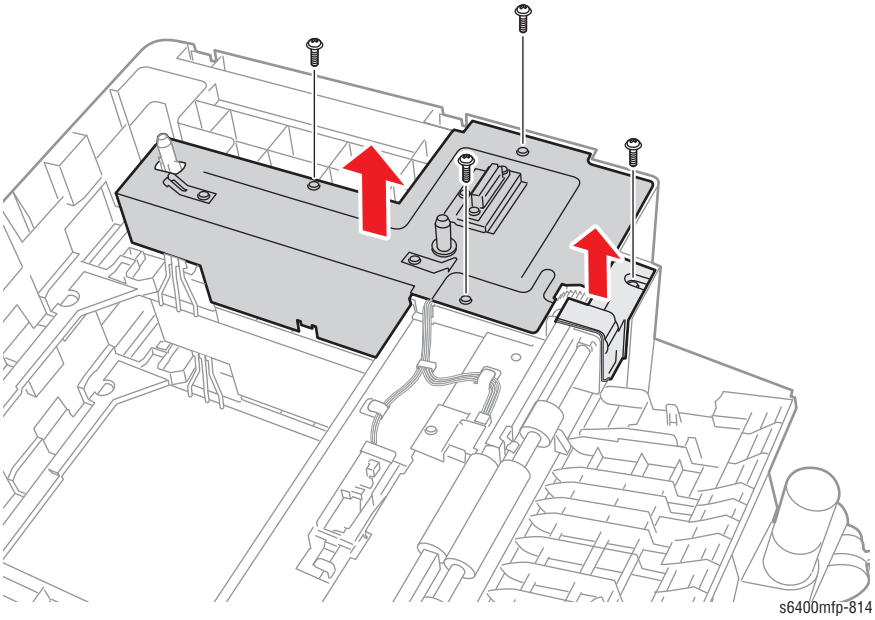
8. Disconnect the 4 wiring harness connectors from the PC Control Board.
9. Remove 4 screws that secure the Optional 500-Sheet Feeder Board.
10. Remove the Optional 500-Sheet Feeder Board.



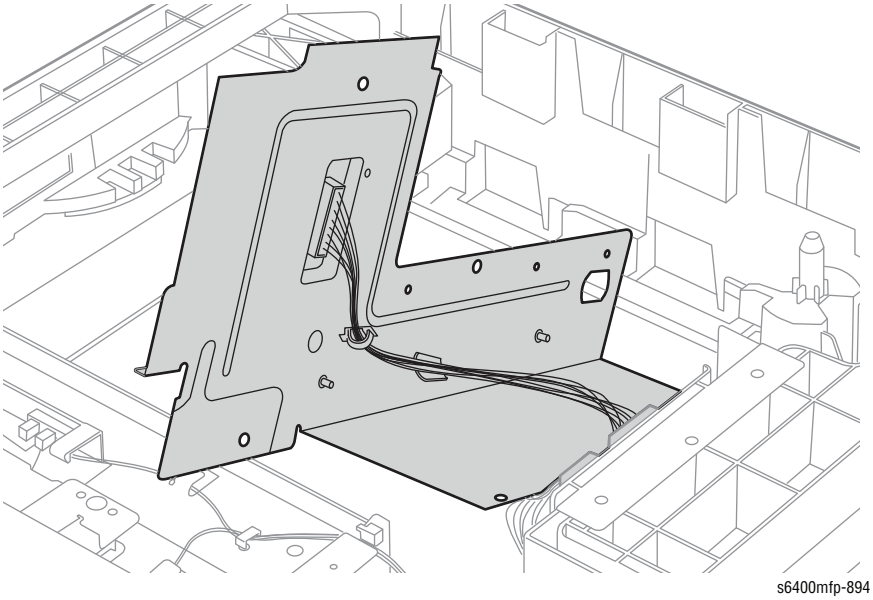
s6400mfp-815

Tray 3/4 Paper Size Switch Actuator (PL28.12)

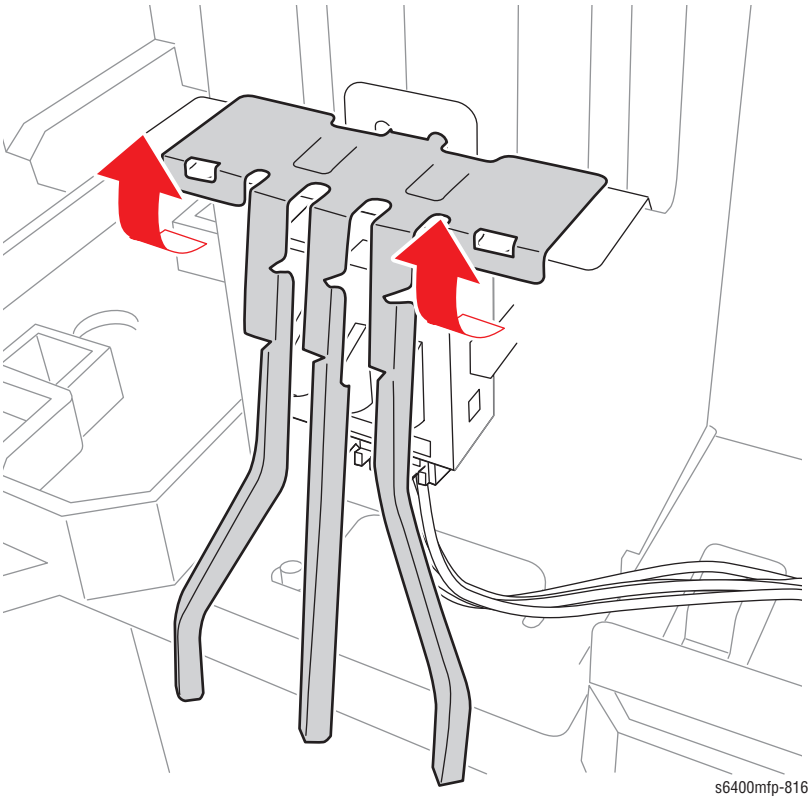
1. Remove the printer from the Optional 500-Sheet Feeder (page 8-166).
2. Remove Tray 3/4 (page 8-172).
3. Open the Lower Feeder Unit Right Door (PL28.03).
4. Remove 1 screw that secures the Gear Cover (PL28.01).
5. Remove 3 screws that secure the Optional 500-Sheet Feeder Board Cover (PL28.17).



6. Slightly raise the Optional 500-Sheet Feeder Board Cover and disconnect the wiring harness connector from the Cover.
7. Remove the Optional 500-Sheet Feeder Board Cover.

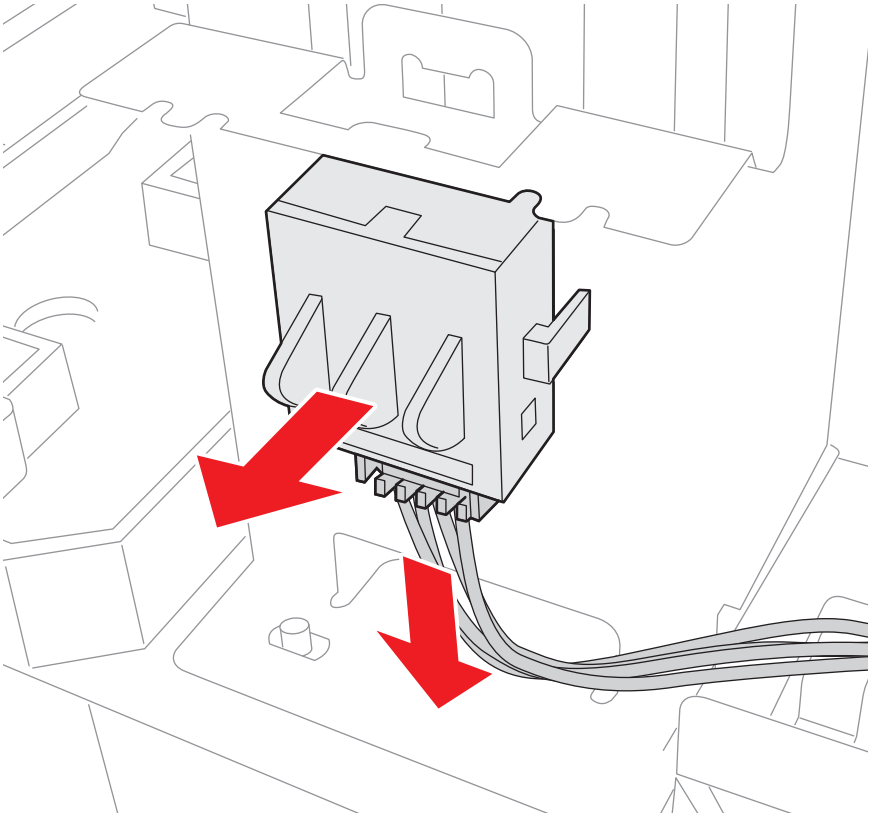


8. Lift the Actuator out at an angle to release it from the tabs on the Bracket (PL28.15).



Tray 3/4 Paper Size Switch (PL28.14)

1. Remove the Tray 3/4 Paper Size Switch Actuator (page 8-163).
2. Disconnect the wiring harness connector.
3. Release the latches on the Tray 3/4 Paper Size Switch from the frame and remove the Paper Size Switch.



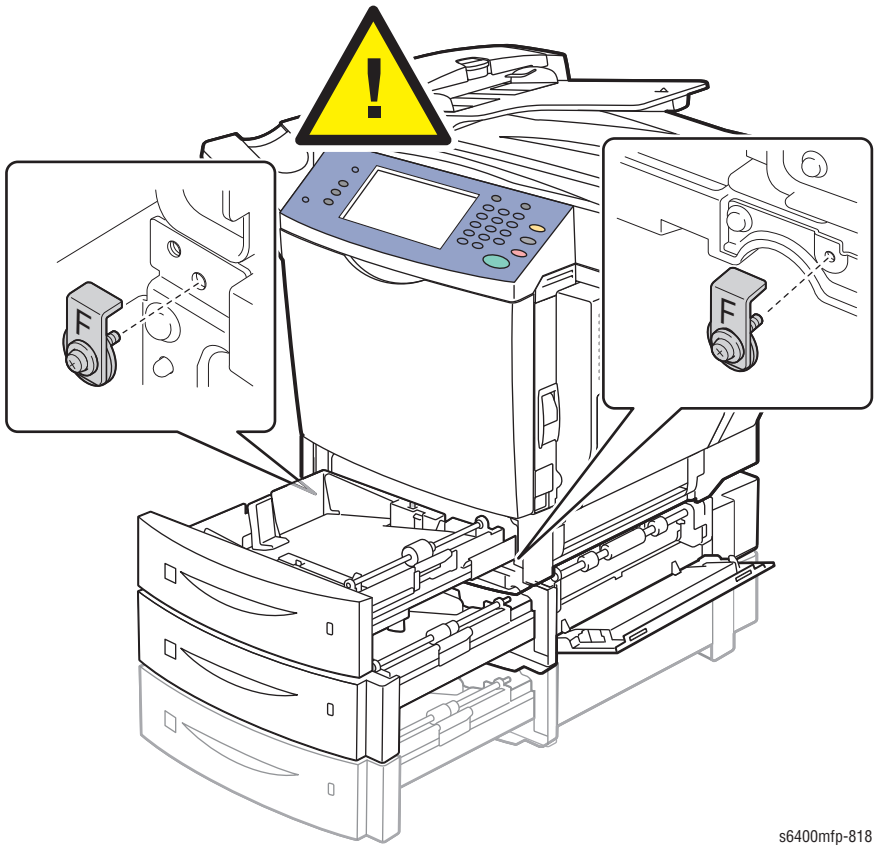
s6400mfp-817

Optional 500-Sheet Feeder (PL28.25)

Warning

Two people are required to move the printer from the Optional 500-Sheet Feeder. Use safety lifting and handling techniques when moving the printer.

1. Slide Trays 3 and 4 out from the printer.
2. Remove 2 screws that secure the Optional 500-Sheet Feeder.



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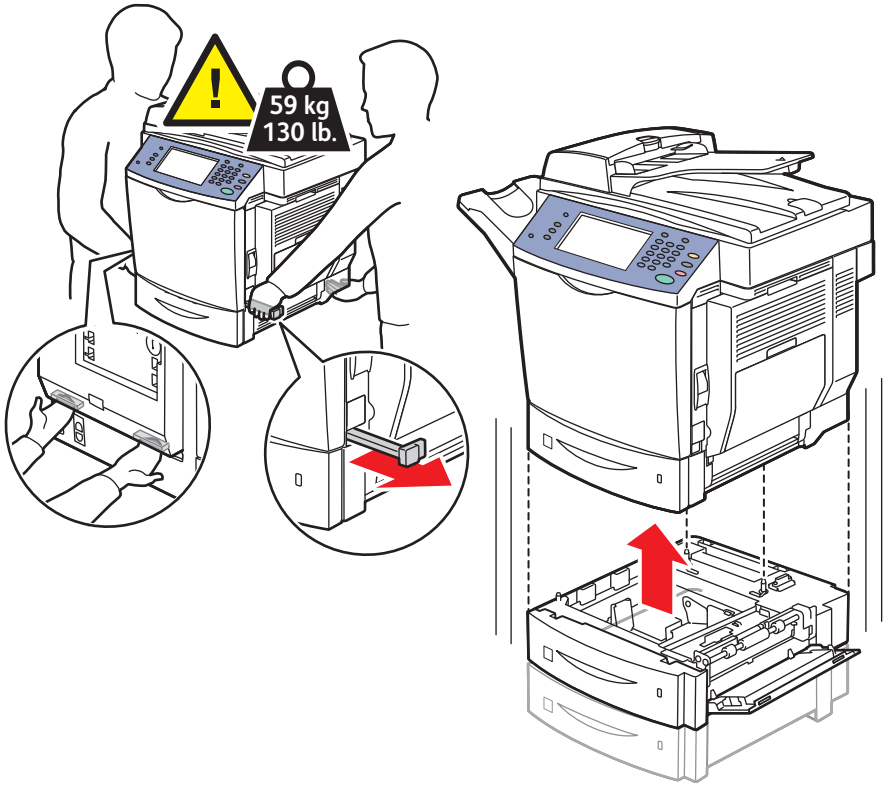
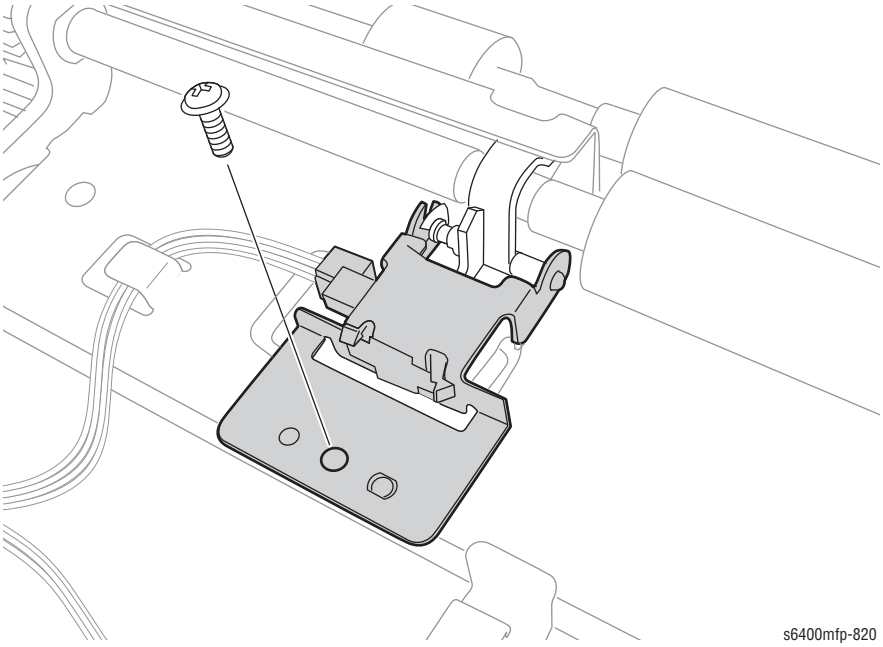
3. Close Trays 3 and 4.
4. Pull the lift bar out.
5. Carefully lift the printer from the Optional 500-Sheet Feeder.



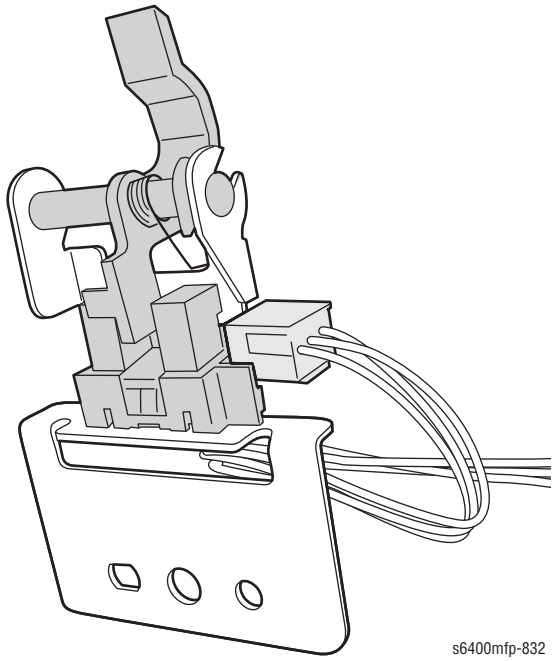
s6400mfp-819

Tray 3/4 Paper Feed Sensor Actuator (PL29.19)

1. Remove the printer from the Lower Feeder Unit (page 8-161).
2. Remove Tray 3/4 (page 8-172).
3. Remove 1 screw that secures the Bracket (PL29.17).



4. Lift the Bracket and the Tray 3/4 Paper Feed Sensor Actuator.
5. Disconnect the wiring harness connector.
6. Release the Tray 3/4 Paper Feed Sensor Actuator from the Bracket.



Tray 3/4 Paper Feed Clutch-1 (CL6) (PL30.03)

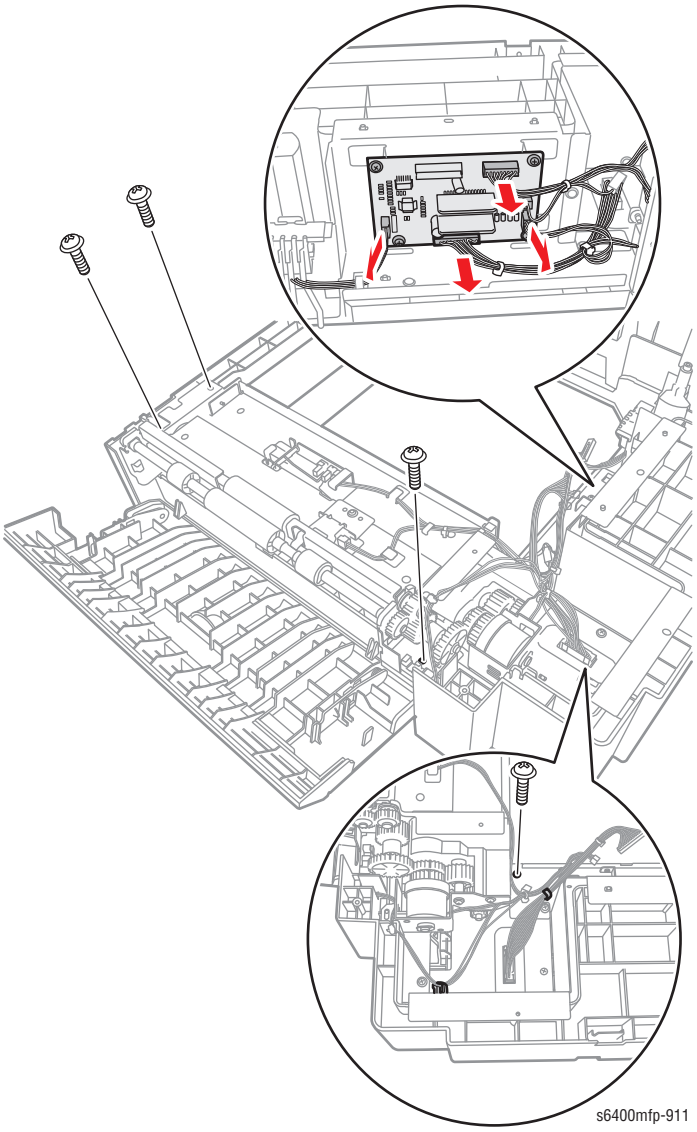
Caution

Observe all ESD procedures to avoid component damage.

Warning

Two people are required to move the printer from the Lower Tray Assemblies. Use safety lifting and handling techniques when moving the printer.

1. Remove the Optional 500-Sheet Feeder (page 8-166).
2. Remove the LTA Circuit Board (page 8-161).
3. Remove 4 screws that secure the Guide Plate (PL29.10).
4. Release the wiring harness from the wiring harness clips.
5. Disconnect the 4 wiring harness connectors.
6. Remove the Paper Feed Drive Assembly.

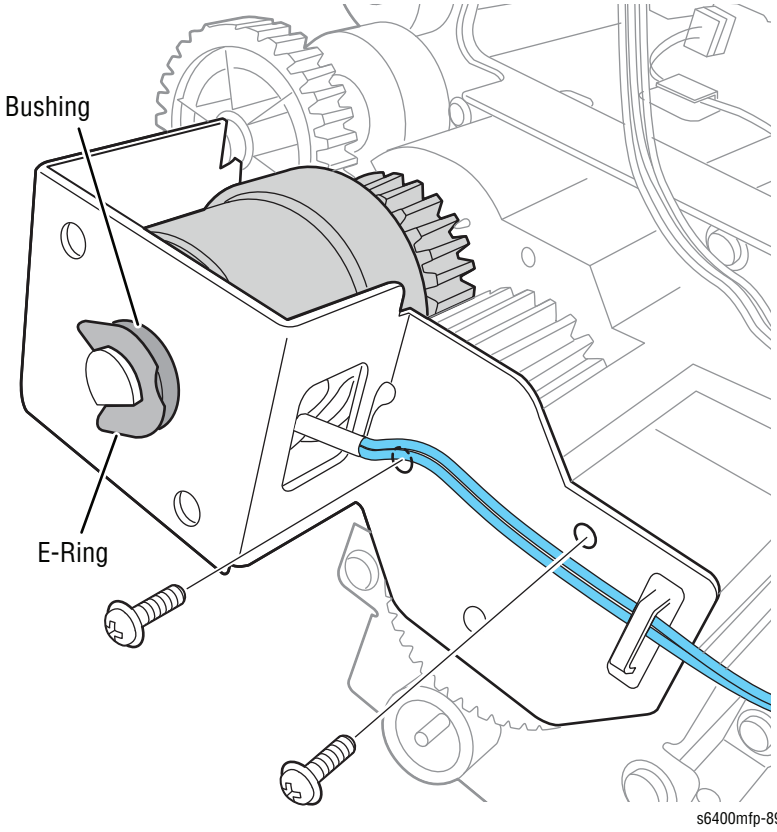


7. Remove 2 screws that secure the Paper Feed Clutch Bracket (PL30.02).

Note

Be sure to hold the gear on the bottom of the paper Feed Clutch-1 to prevent the gear from coming loose.

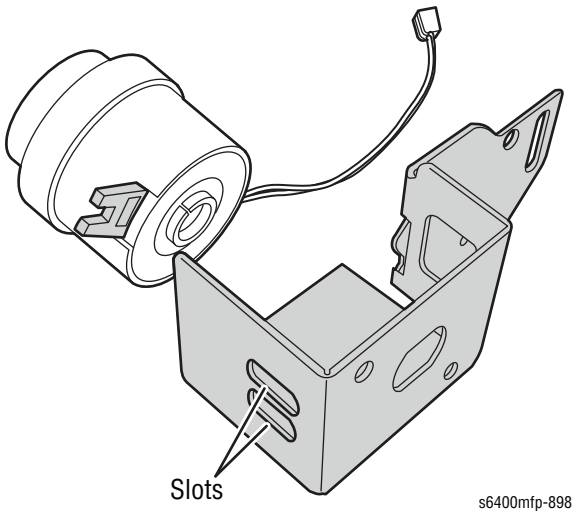
8. Remove the E-ring, Bushing (PL30.01), and the Paper Feed Clutch.



s6400mfp-895

Replacement Note

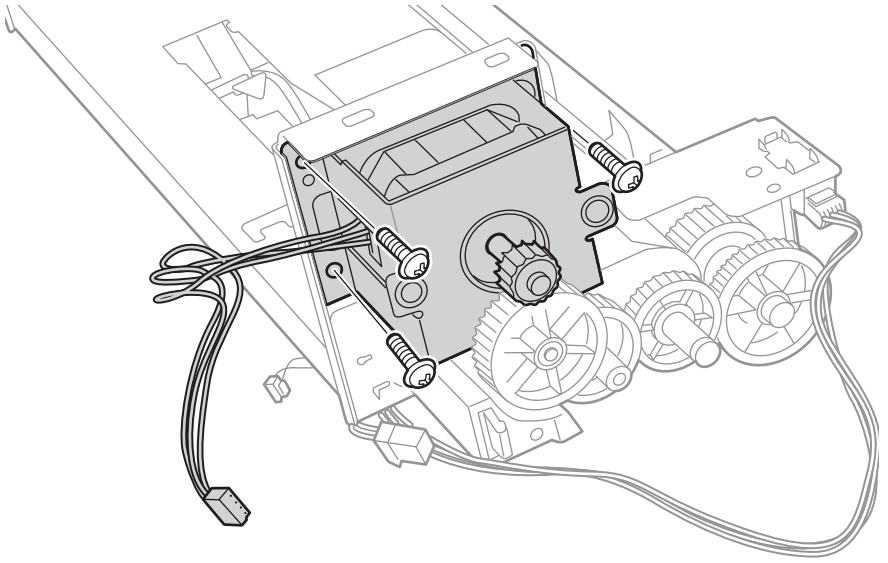
When installing the paper Feed Clutch-1, be sure to position the protrusion on the Paper Feed Clutch into the locking slots.



s6400mfp-898

Transport Motor (M16) (PL30.12)

1. Remove the Paper Feed Clutch (page 8-169).
2. Remove 3 screws that secure the Transport Motor Assembly.
3. Remove the Transport Motor Assembly.



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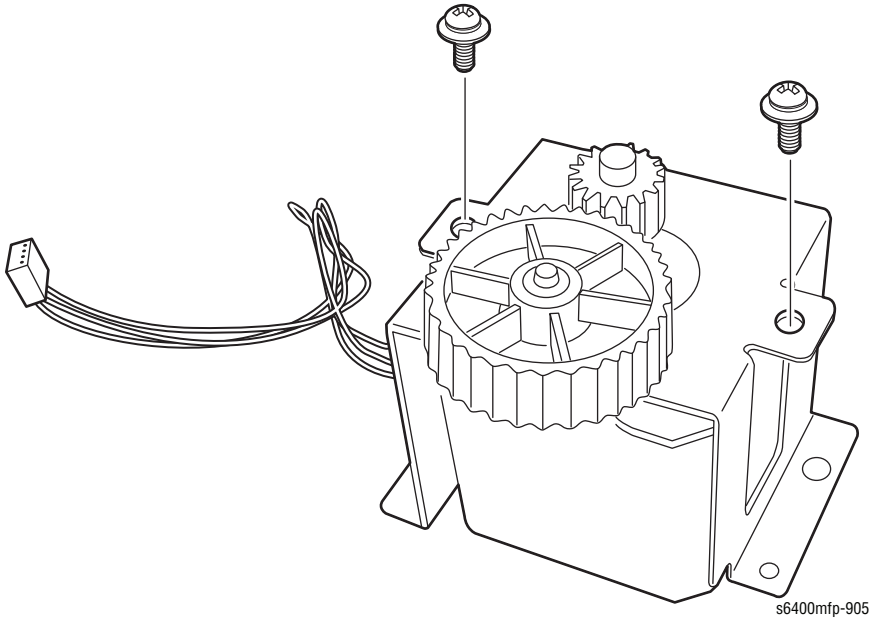
4. Remove the Gear (PL30.14).
5. Remove 2 screws that secure the Bracket (PL13.13).
6. Remove the Transport Motor from the Bracket.



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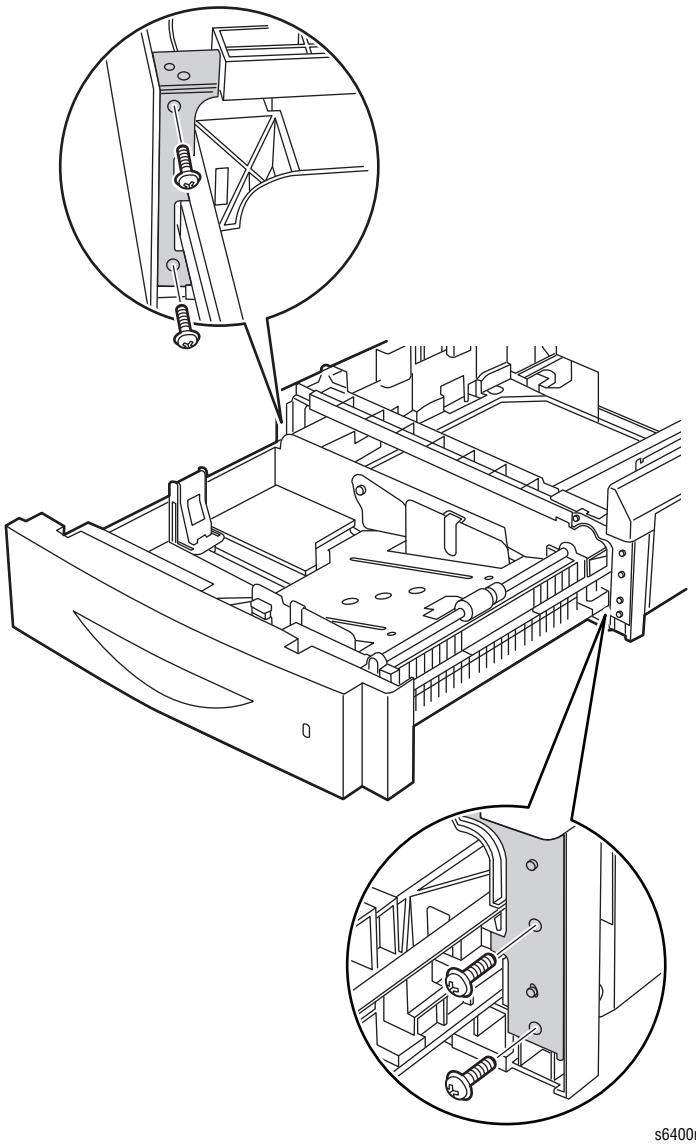
Tray 3/4 (PL31.24)

1. Slide the paper Tray out.
2. Remove 2 screws that secure the Stopper.
3. Press the tab on the paper Tray to release the Tray.

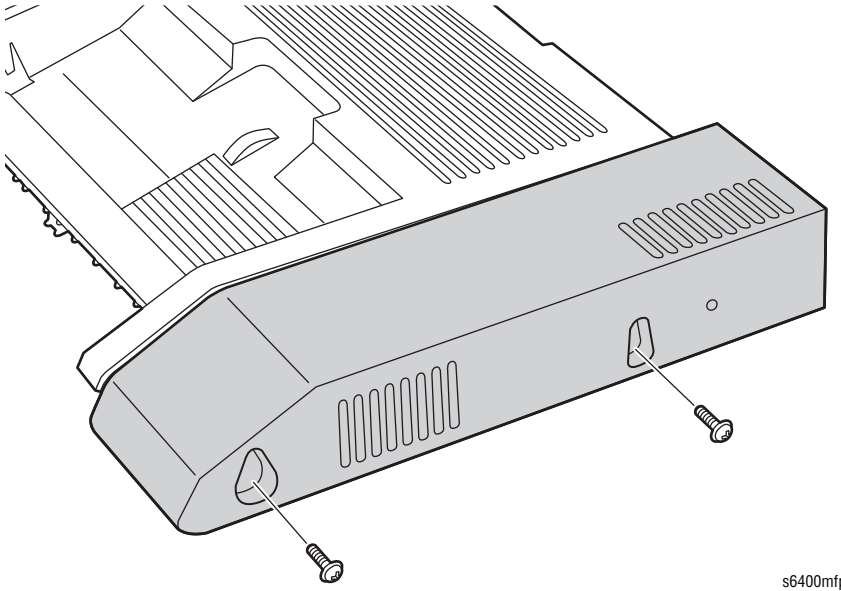


s6400mfp-903

Duplex

Duplex Unit Right Cover (PL22.12)

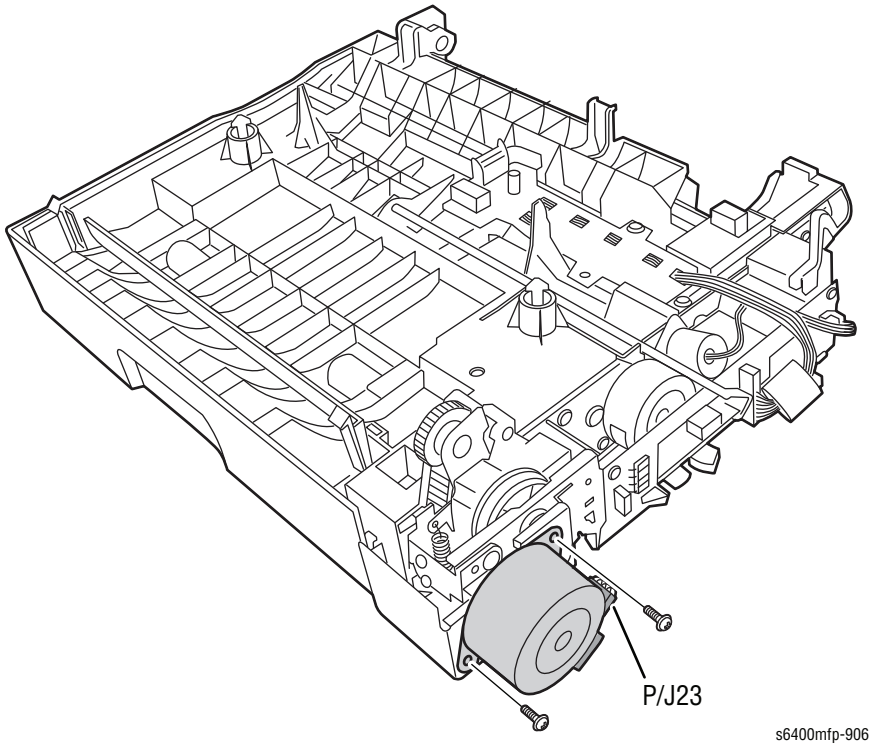
1. Remove the Duplex Unit (page 8-175).
2. Remove 2 screws that secure the Right Cover.
3. Remove the Right Cover.



s6400mfp-904

Duplex Unit Reverse Motor (M9) (PL22.13)

1. Remove the Duplex Unit (page 8-175).
2. Remove the Duplex Unit Right Cover (page 8-173).
3. Remove the Film Cover.
4. Disconnect the wiring harness connector.
5. Remove 2 screws that secure the Reverse Motor.
6. Remove the Reverse Motor.

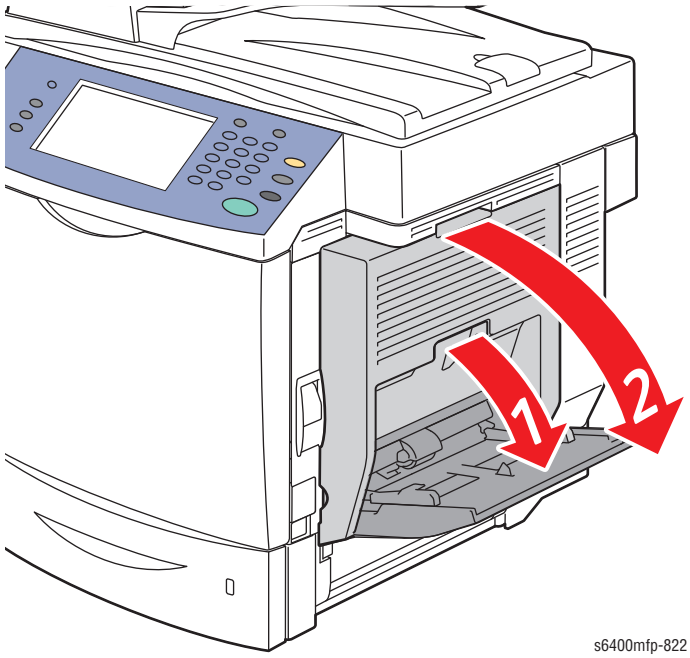


Replacement Note

Be sure the lip on the rear of the Reverse Motor sits in the hole in order to align the gears.

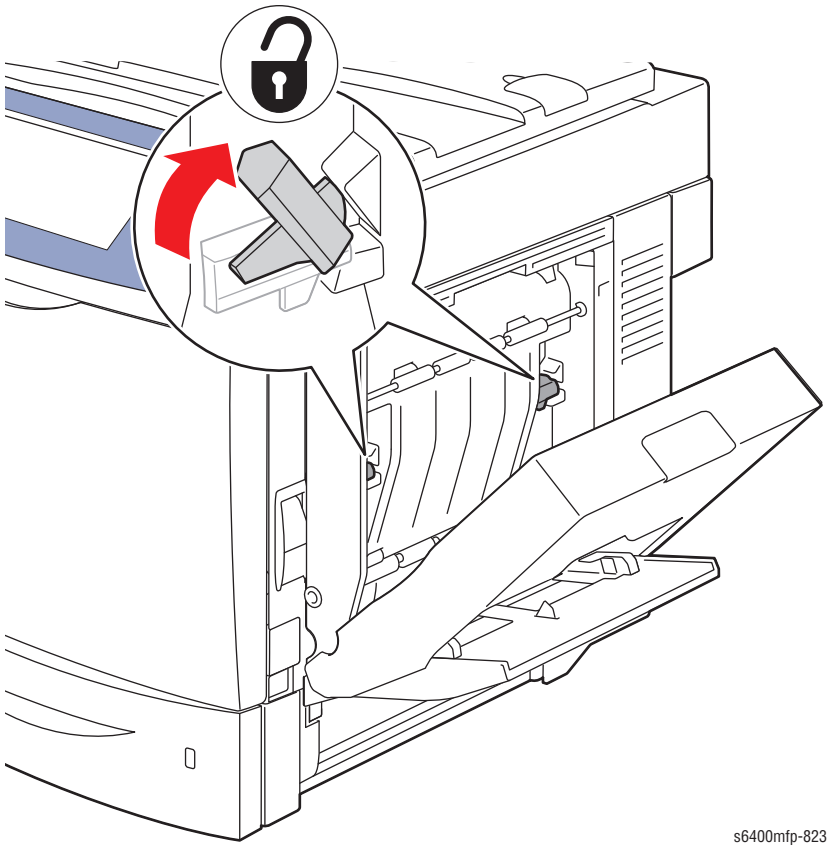
Duplex Unit (PL22.23)

1. Open Tray 1.
2. Open the Duplex Unit Door.



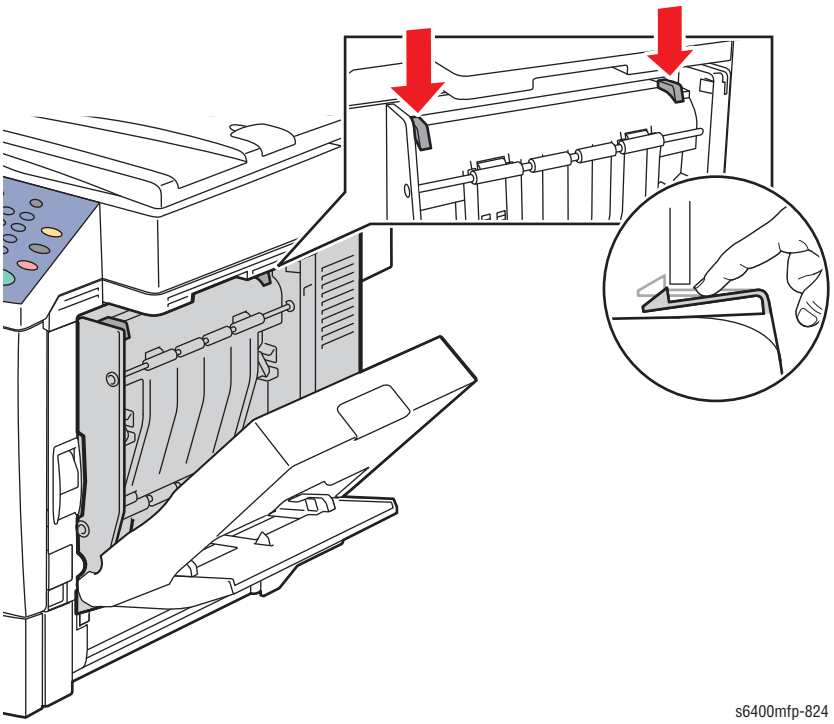
s6400mfp-822

3. Turn the 2 locking knobs to unlock the Duplex Unit.



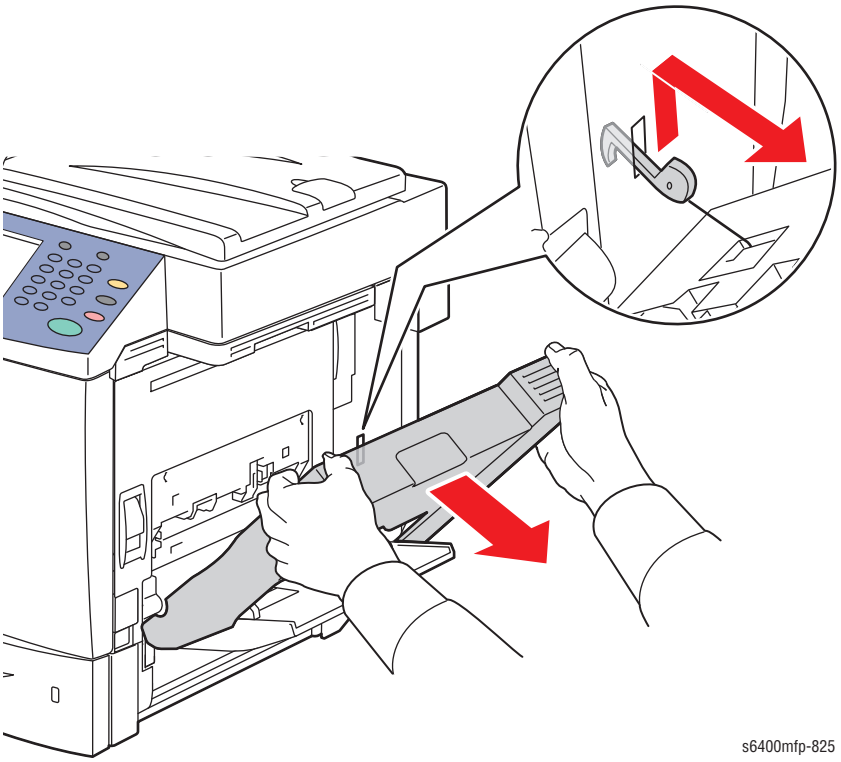
s6400mfp-823

4. Press the tabs to release the Duplex Unit.
5. Open the Duplex Unit.



s6400mfp-824

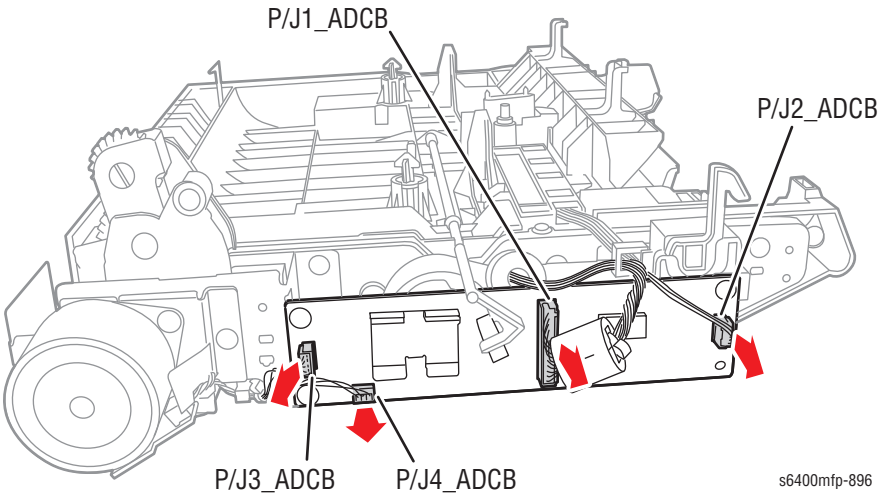
6. Unhook the support wire from the printer.
7. Remove the Duplex Unit.



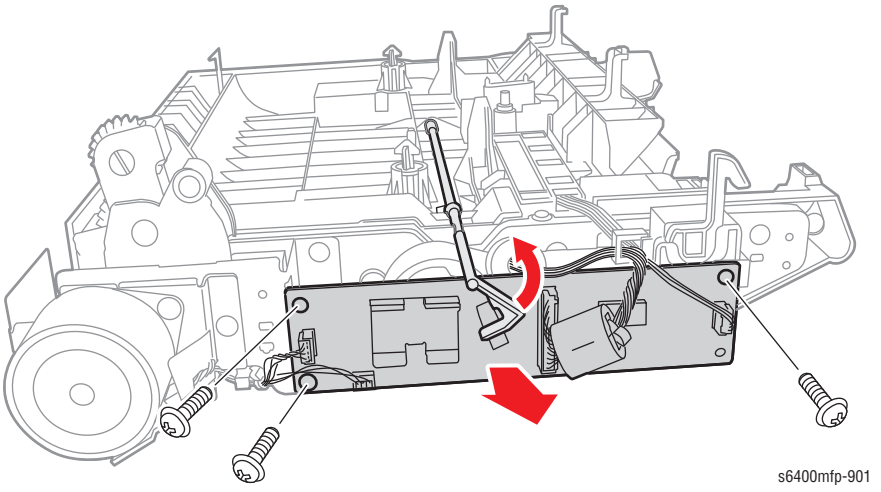
s6400mfp-825

Duplex Unit Control Board (PL23.12)

1. Remove the Duplex Unit (page 8-175).
2. Remove the Duplex Unit Right Cover (page 8-173).
3. Disconnect the 4 wiring harness connectors from the Duplex Unit Control Board.



4. Remove 3 screws that secure the Duplex Unit Control Board.
5. Rotate the Actuator, lift the Duplex Unit Control Board and remove the Duplex Unit Control Board.

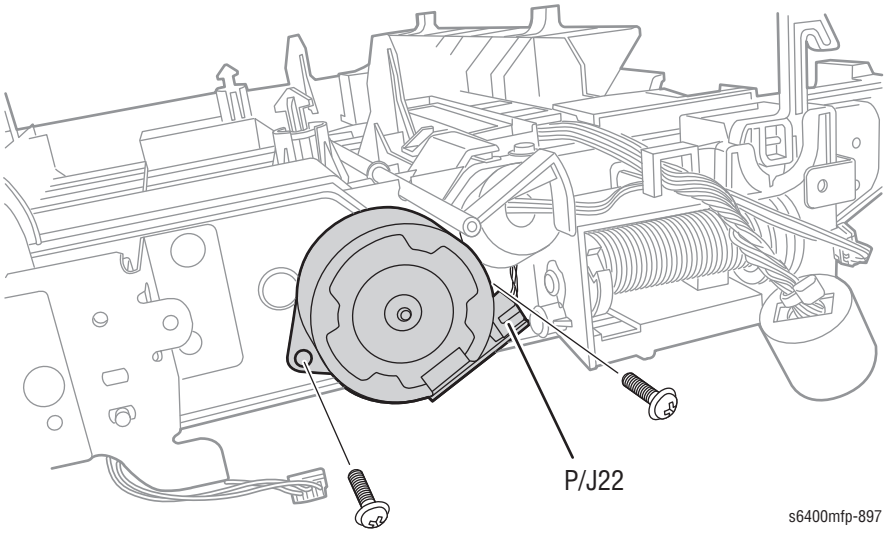


Replacement Note

Be sure to press the Actuator downward in order to position the Duplex Unit Control Board in place.

Duplex Unit Transport Motor (M8) (PL23.13)

1. Remove the Duplex Unit Control Board (page 8-177).
2. Disconnect the wiring harness connector.
3. Remove 2 screws that secure the Transport Motor.
4. Rotate and shift the Duplex Unit Transport Motor toward the left side and remove the Duplex Unit Transport Motor.



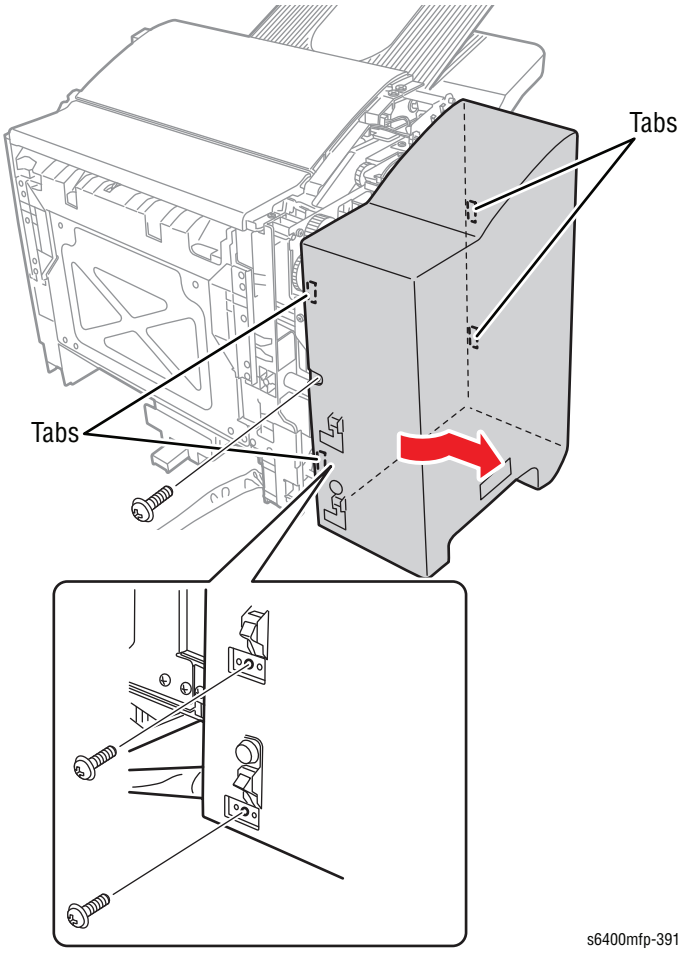
Replacement Note

Be sure to shift the Duplex Unit Transport Motor to the right side when installing the Motor.

Finisher (Option)

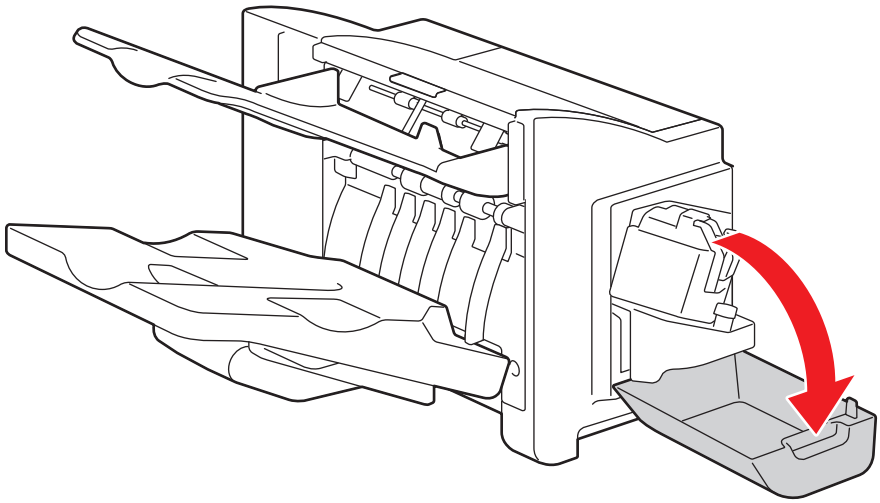
Finisher Rear Cover (PL35.01)

1. Remove the Finisher Assembly (page 8-182).
2. Remove the Finisher Sub Tray (page 8-191).
3. Remove 2 screws (metal) that secure the Grounding Clips.
4. Remove the Grounding Clips.
5. Remove 1 screw (plastic) that secures the Rear Cover.
6. Unhook the 4 tabs and pry the Rear Cover to release it from the 2 tabs.
7. Rotate the Finisher Rear Cover at angle and remove the Finisher Rear Cover.



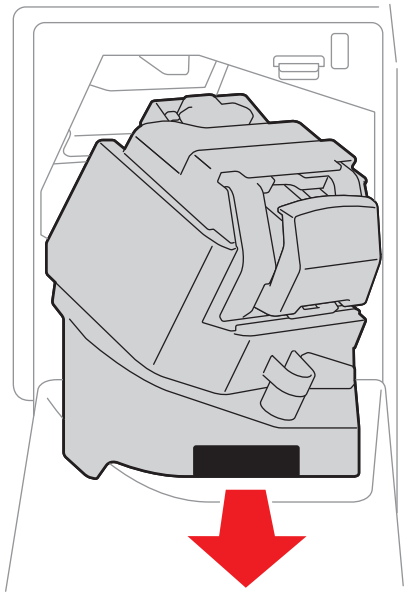
Finisher Front Cover (PL35.04)

1. Remove the Finisher Assembly (page 8-182).
2. Open the Staple Cover.



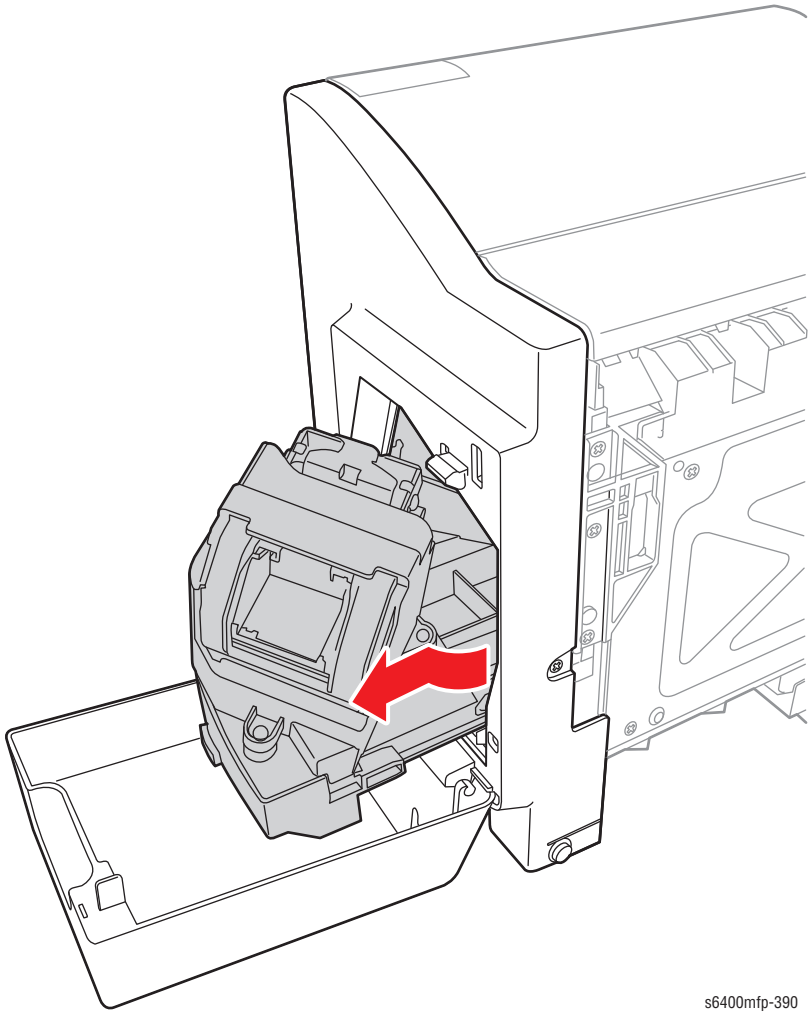
s6400mfp-388

3. Pull out the Stapler Unit.



s6400mfp-389

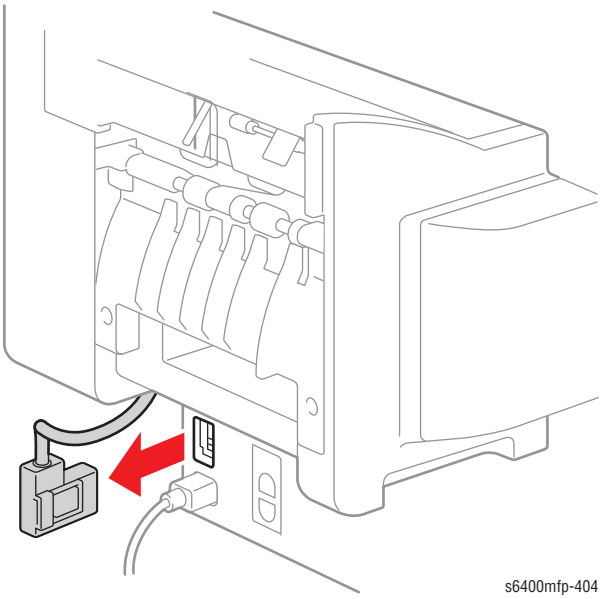
4. Remove 1 screw from the right side of the Finisher Front Cover.
5. Unhook the 2 tabs on the Cover from the Finisher Assembly.
6. Push the Finisher Front Cover forward to release the 2 tabs on the left side to remove the Front Cover Assembly.



s6400mfp-390

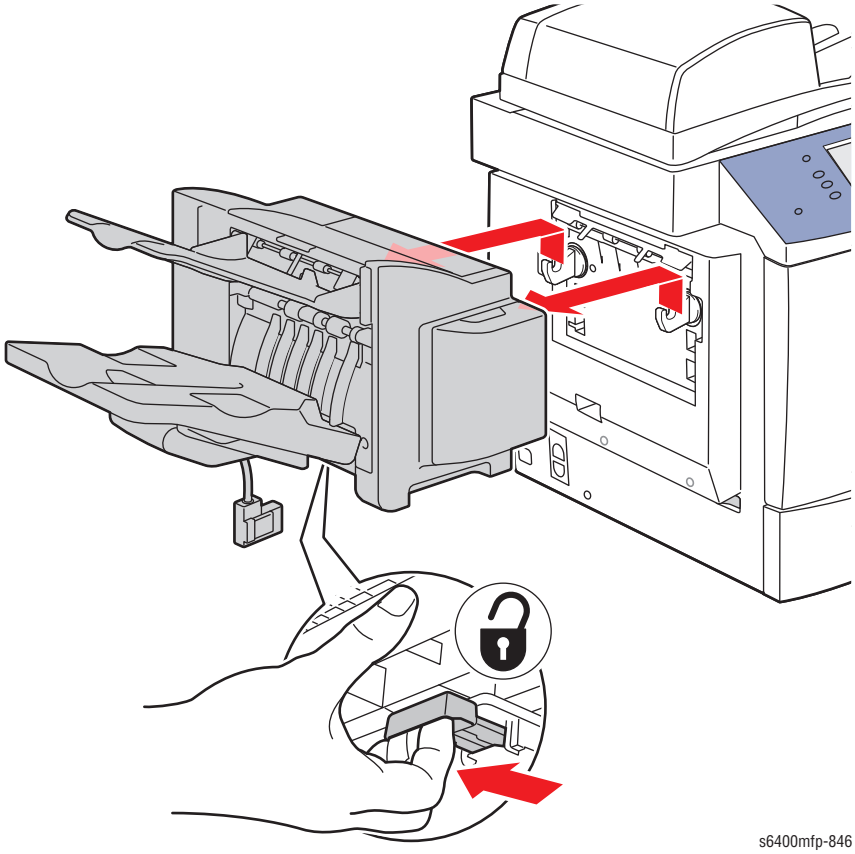
Finisher Assembly (PL35.09)

1. Squeeze the tab on the Finisher Assembly Cable connector and disconnect the cable from the printer.



s6400mfp-404

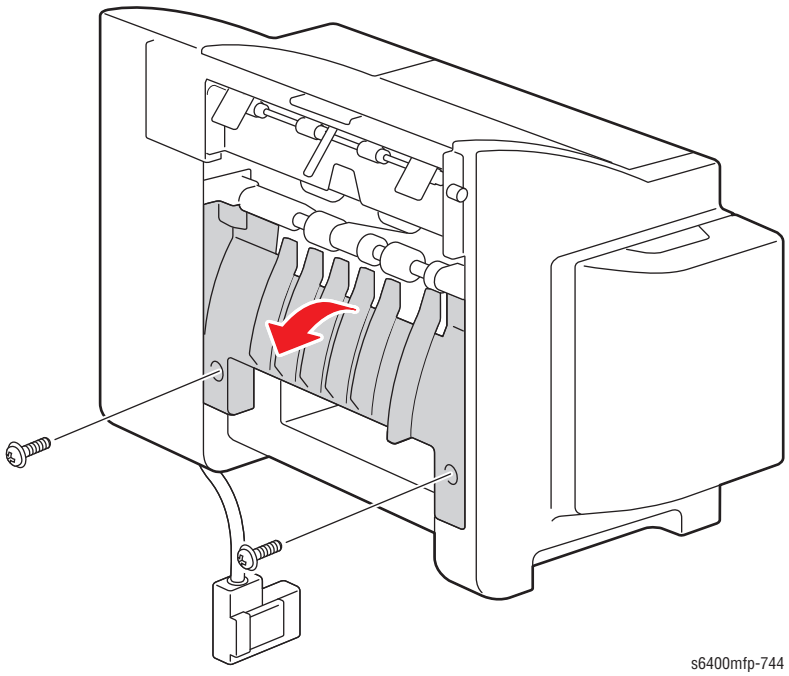
2. Pull the lever on the bottom of the Finisher Assembly, lift and remove the Finisher Assembly.



s6400mfp-846

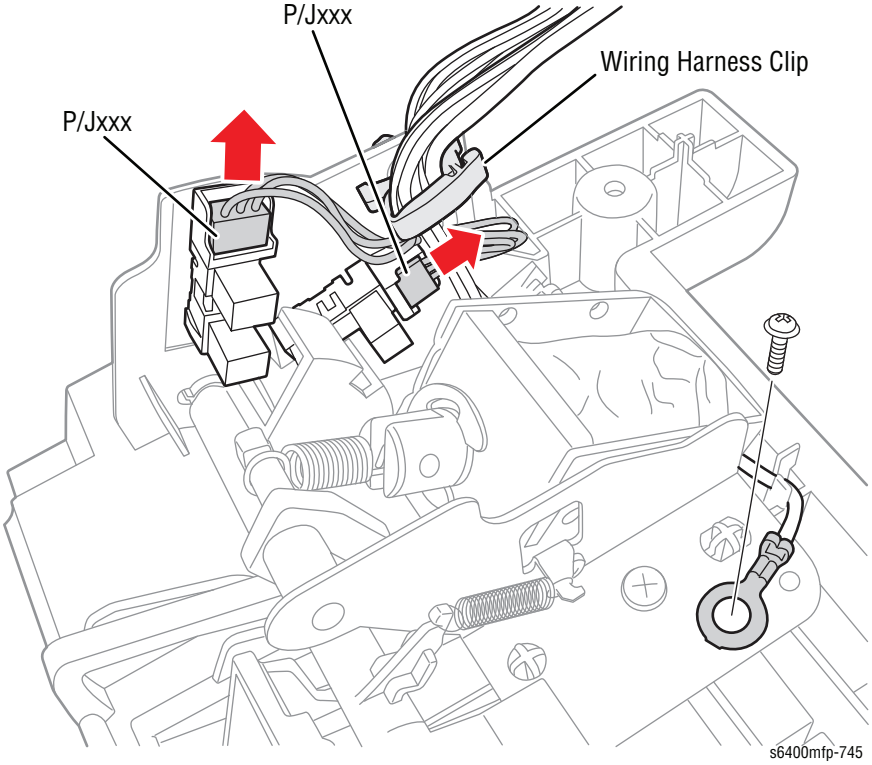
Finisher Cover Assembly (PL36.01)

1. Remove the Finisher Assembly (page 8-182).
2. Remove the Finisher Sub Tray (page 8-191).
3. Remove the Finisher Main Tray (page 8-216).
4. Remove the Finisher Rear Cover (page 8-179).
5. Remove the Finisher Control Board (page 8-205).
6. Disconnect the wiring harness connector (behind the Finisher Control Board).
7. Route the wiring harness connector through the hole.
8. Remove 2 screws that secure the Finisher Cover Assembly.
9. Remove the Finisher Cover Assembly.



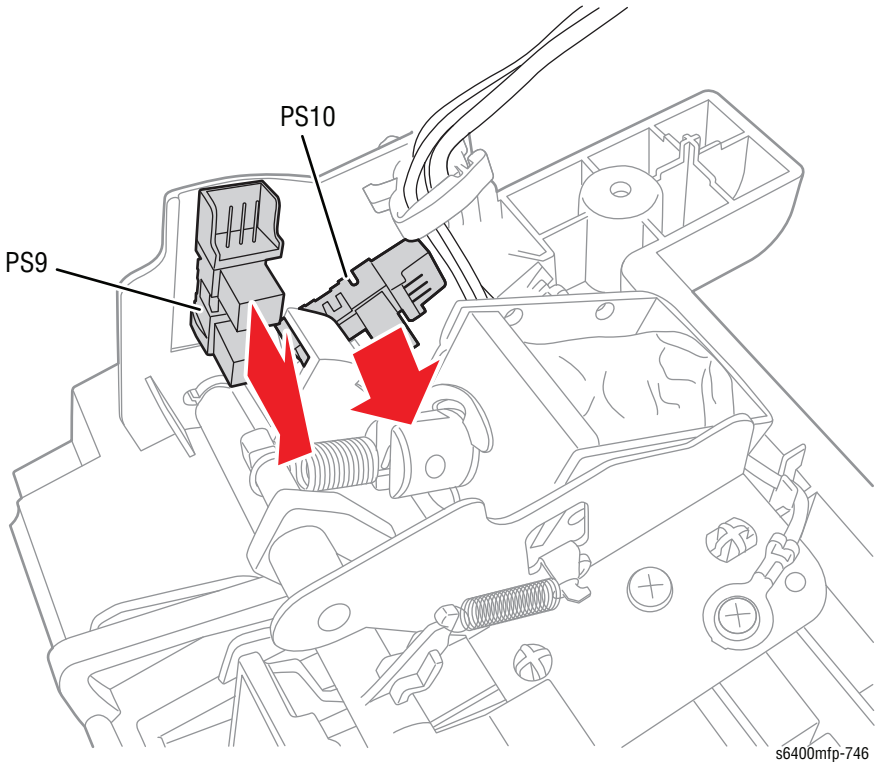
s6400mfp-744

10. Remove 1 screw that secures the Ground wire.
11. Disconnect the 2 wiring harness connectors.
12. Release the wiring harness clip and remove the wiring harness clip from the Finisher frame.



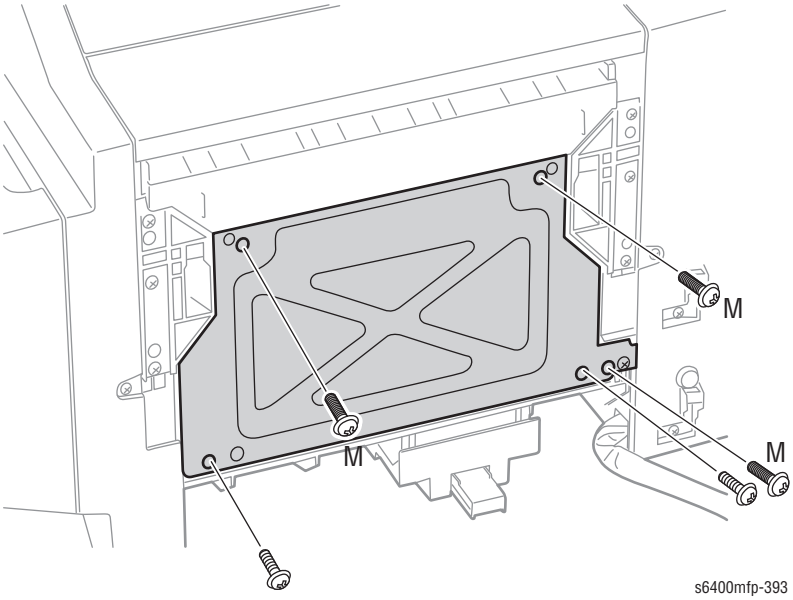
Paper Level Sensor (PS9/ PS10) (PL36.14)

1. Remove Finisher Cover Assembly (page 8-183) (steps 1-9).
2. Release the wiring harness clip from the Finisher frame.
3. Disconnect the wiring harness connector.
4. Release the Paper Level Sensor from the Cover Assembly.



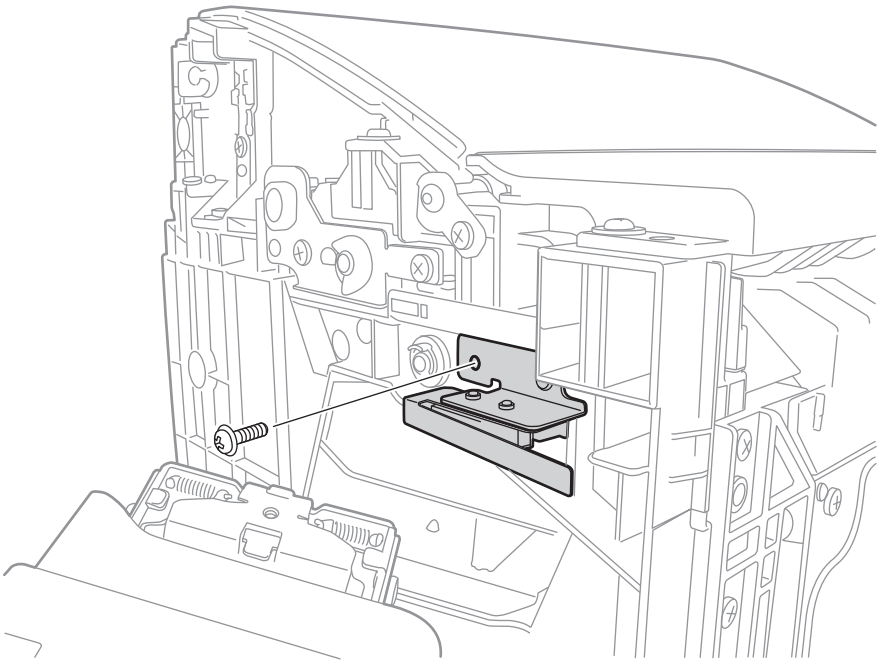
Finisher Right Plate (PL37.01)

1. Remove 5 screws (2 plastic screws, 3 metal screws) that secure the Finisher Right Plate.
2. Remove the Finisher Right Plate.



Switch Assembly (MS1) (PL37.08)

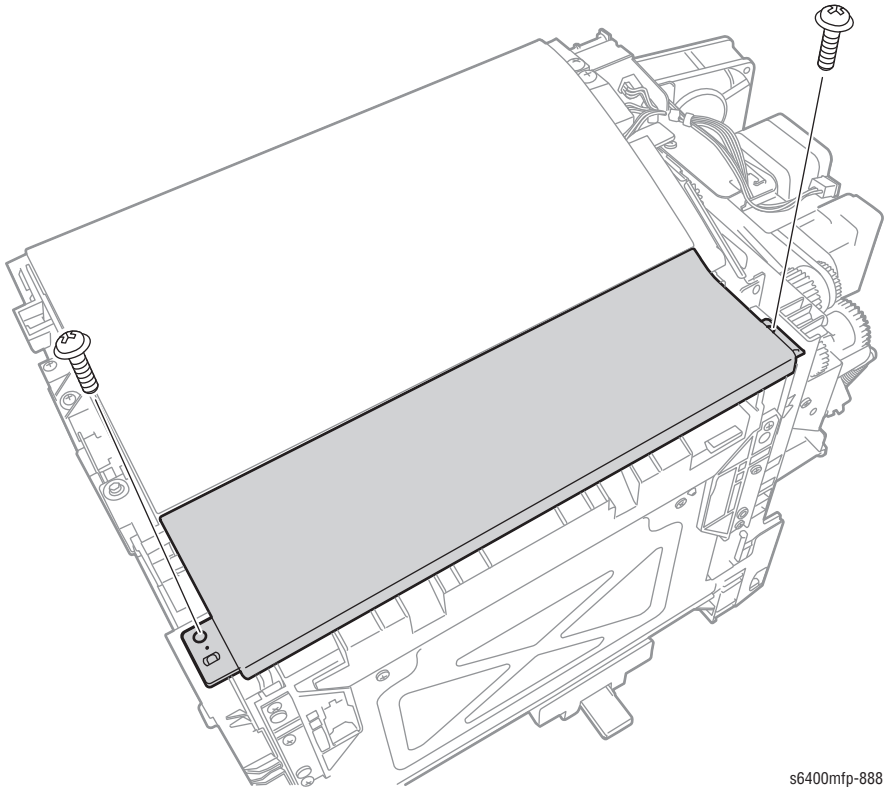
1. Remove the Finisher Front Cover (page 8-180).
2. Remove 1 screw that secures the Bracket.
3. Remove the Switch Assembly.



s6400mfp-887

Finisher Top Right Cover (PL38.04)

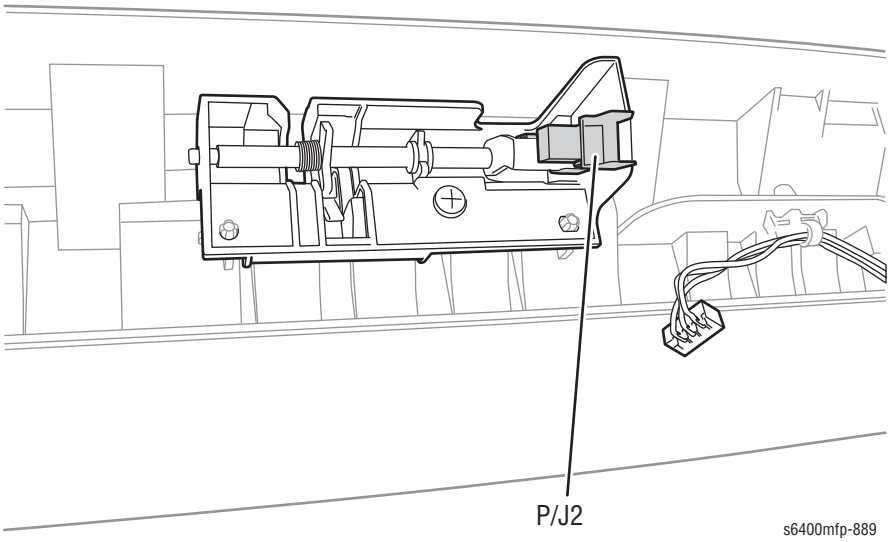
1. Remove the Finisher Front Cover (page 8-180).
2. Remove the Finisher Rear Cover (page 8-179).
3. Remove 2 screws that secure the Finisher Top Right Cover.
4. Lift and remove the Finisher Top Right Cover.



s6400mfp-888

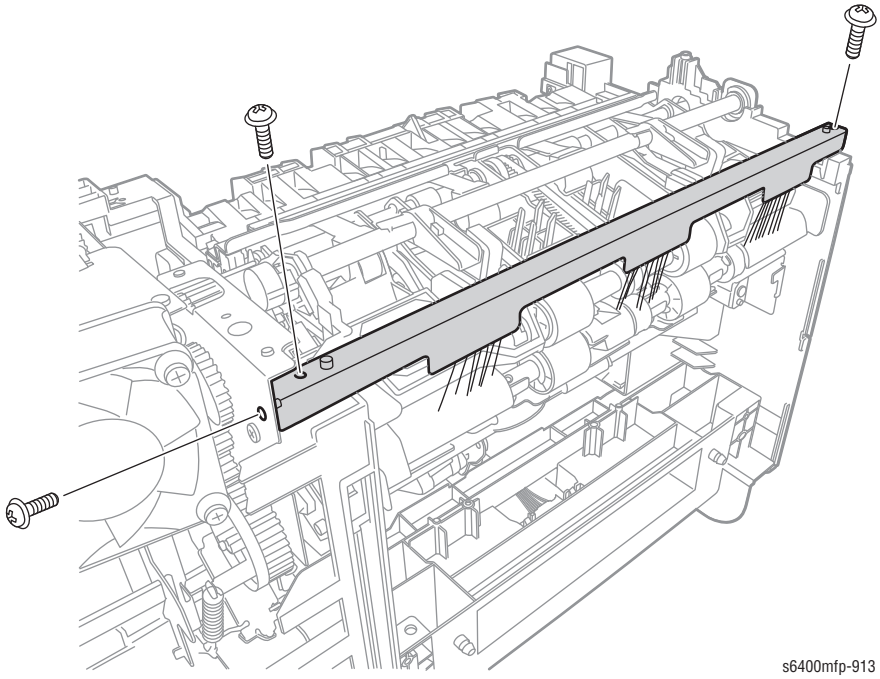
Entrance Sensor (PS1) (PL38.10)

1. Remove the Finisher Top Right Cover (page 8-188).
2. Remove the Paper Exit Assembly (page 8-192) (steps 1-9).
3. Turn the Paper Exit Assembly over and lay it next to the Finisher.
4. Remove the Finisher Guide Assembly (page 8-195).
5. Release the clips and remove the Sensor.



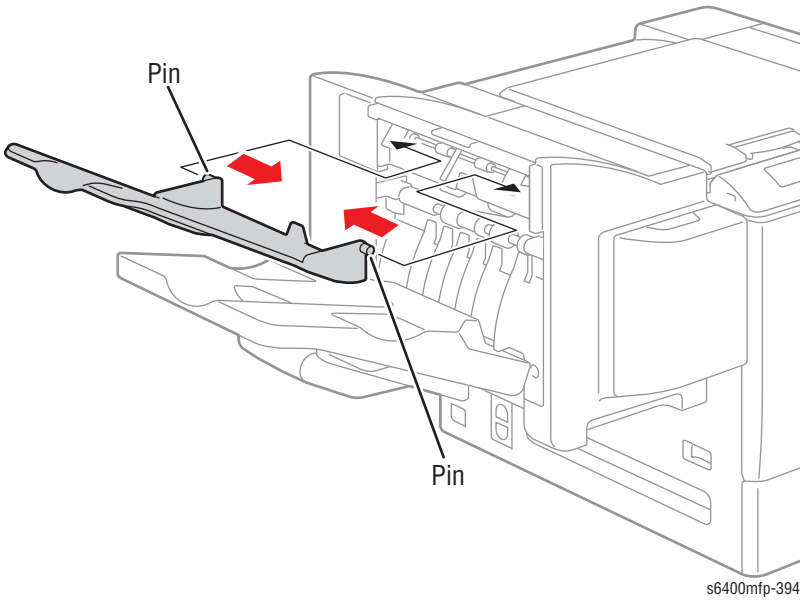
Neutralizing Brush Assembly (PL38.17)

1. Remove the Paper Exit Assembly (page 8-192) (steps 1-9).
2. Turn the Paper Exit Assembly over and lay it next to the Finisher.
3. Remove 3 screws that secure the Neutralizing Brush Assembly.
4. Remove the Neutralizing Brush Assembly.



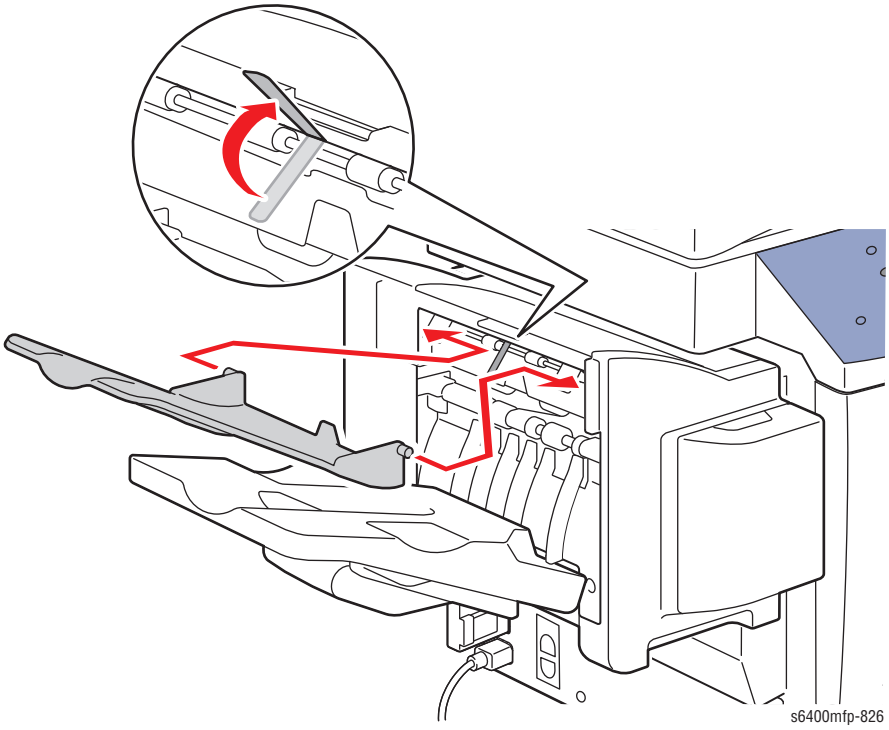
Finisher Top Tray (PL38.18)

1. Press the 2 tabs on the Top Tray inward to release it.
2. Remove the Top Tray.



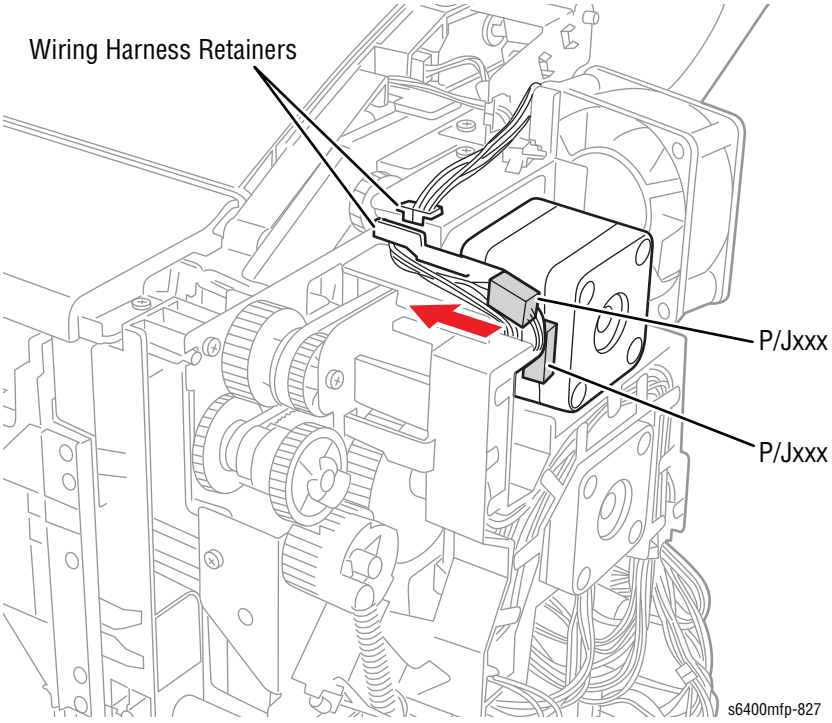
Replacement Note

Be sure to lift the flap on the Finisher up when installing the Top Tray.

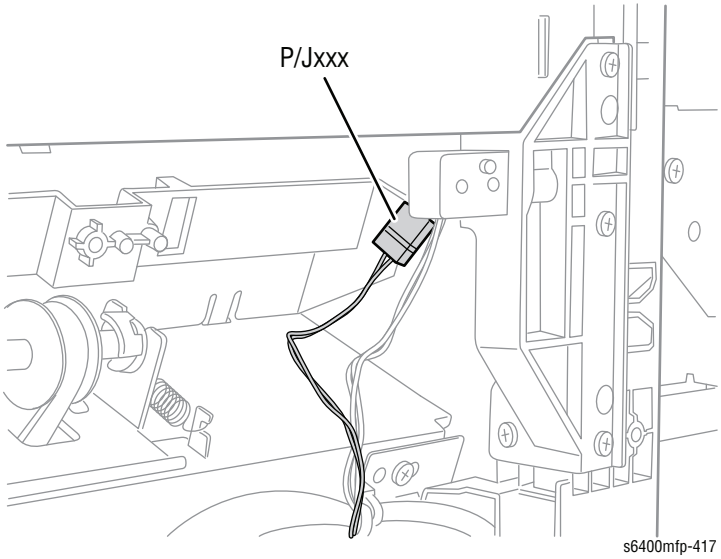


Paper Exit Assembly (PL38.24)

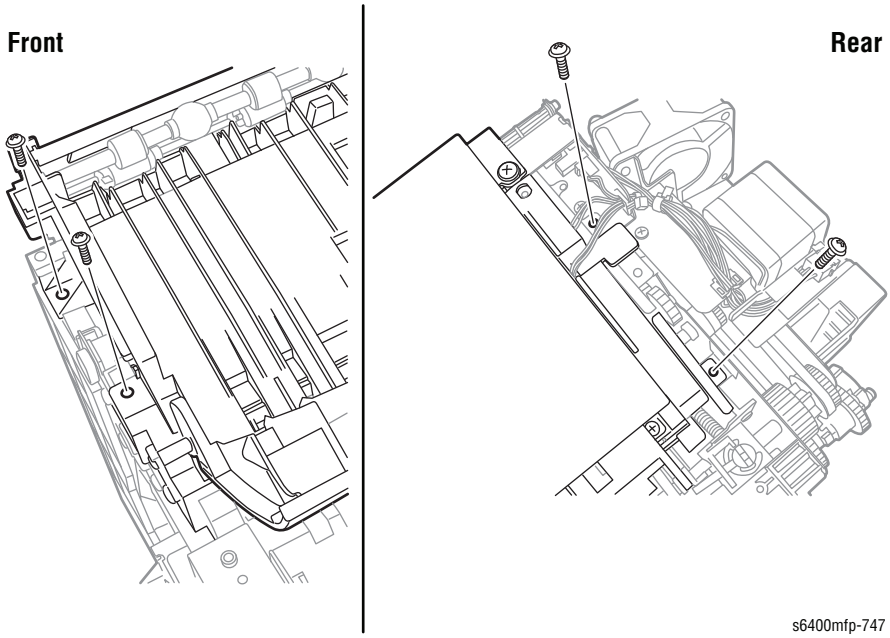
1. Remove the Finisher Rear Cover (page 8-179).
2. Remove the Finisher Top Right Cover (page 8-188).
3. Remove the Finisher Right Plate (page 8-186).
4. Release the wiring harness retainers from the frame.
5. Shift the wiring harness connectors toward the arrow direction as in the illustration.



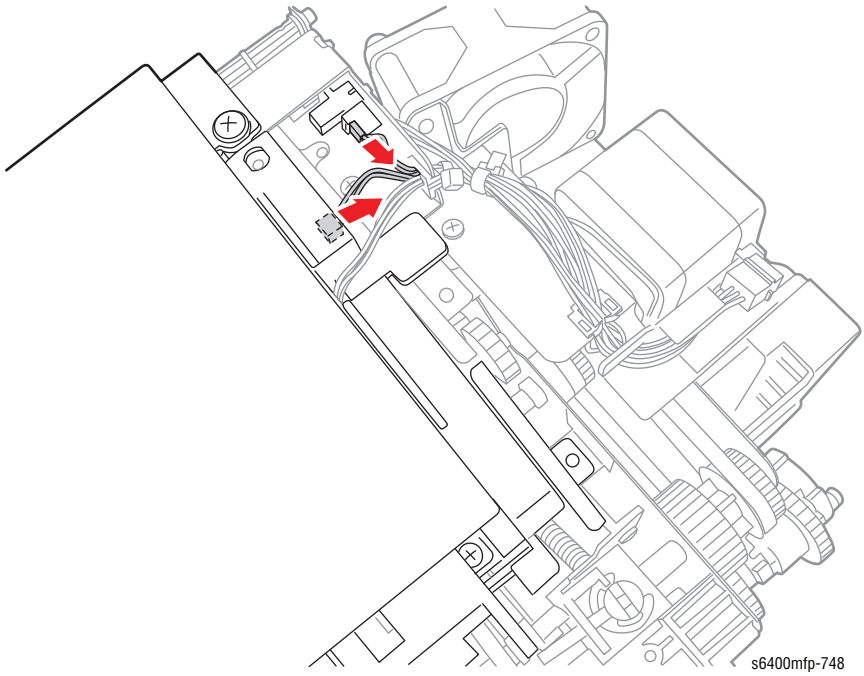
6. Disconnect the Solenoid wiring harness connector.



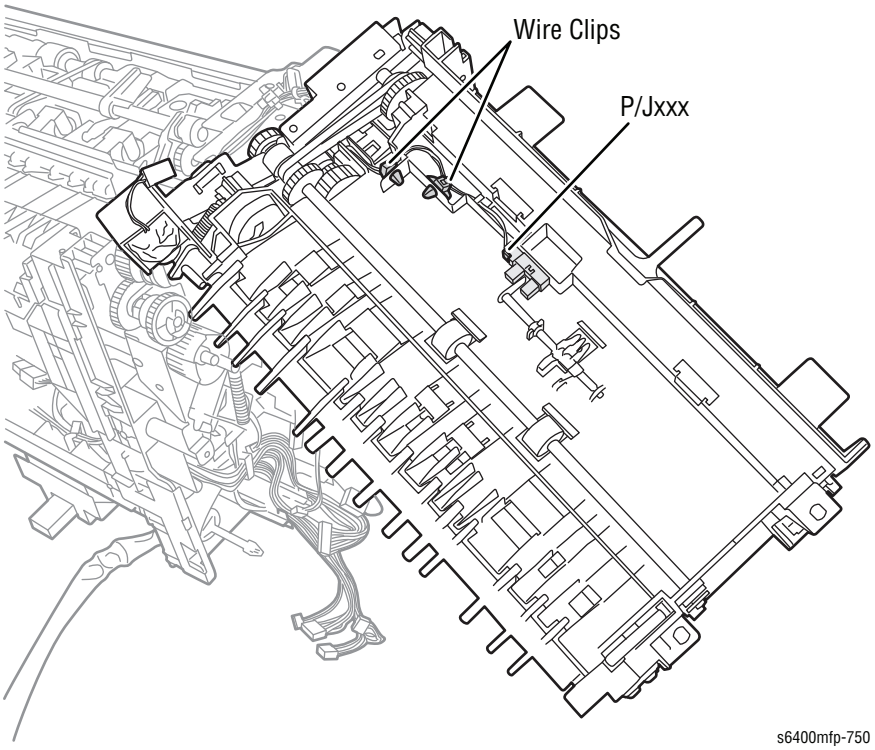
7. Remove 4 screws (2 plastic with flange, 2 metal) that secure the Paper Exit Assembly.
8. Open the Top Cover Assembly (PL38.03).
9. Slide the Top Cover Assembly upward and remove the Top Cover Assembly.



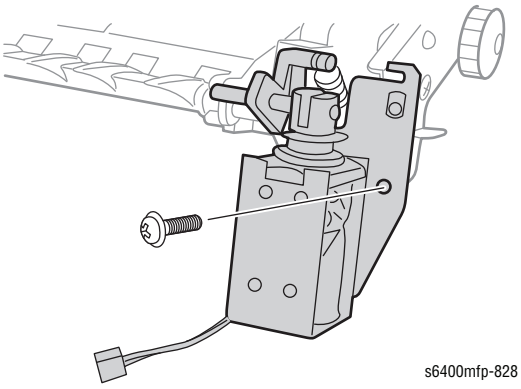
10. Disconnect the 3 wiring harness connectors (2 on the top side, 1 on the bottom side).



11. Remove the Paper Exit Assembly.
12. Disconnect the wiring harness connector.
13. Cut the cable ties to release the 2 wiring harness clips from the Paper Exit Assembly.
14. Route the wiring harness through the hole.



15. Remove 1 screw that secures the Entrance Solenoid Assembly (PL39.05).



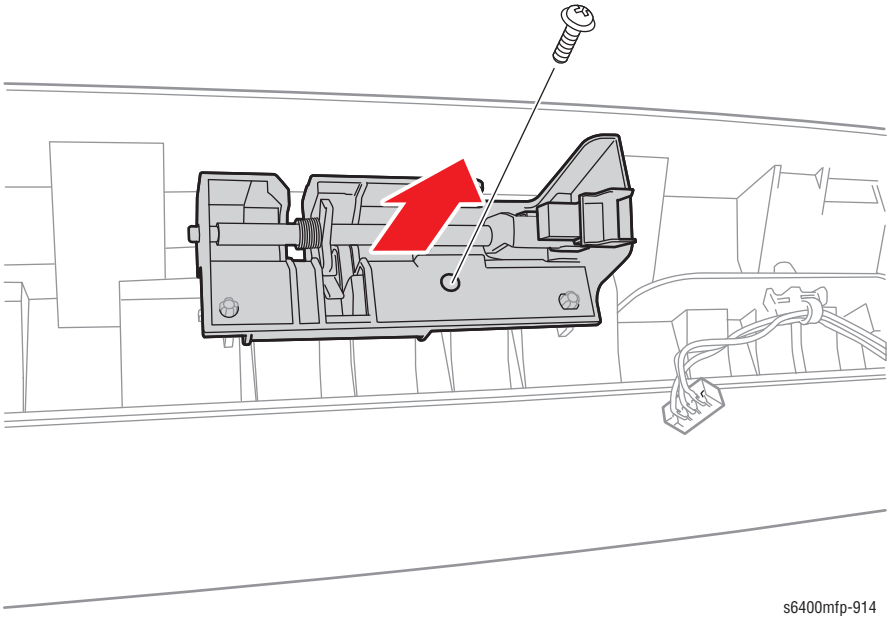
Finisher Guide Assembly (PL38.25)

1. Remove the Finisher Top Right Cover (page 8-188).
2. Remove the Paper Exit Assembly (page 8-192) (steps 1-9).
3. Turn the Paper Exit Assembly over and lay it next to the Finisher.

Caution

Be careful when disconnecting the wiring harness connector to prevent damaging the plastic holder.

4. Lift the Finisher Guide Assembly and turn it over.
5. Release the wiring harness holder from the Finisher Guide Assembly.
6. Disconnect the wiring harness connector and remove the Finisher Guide Assembly.



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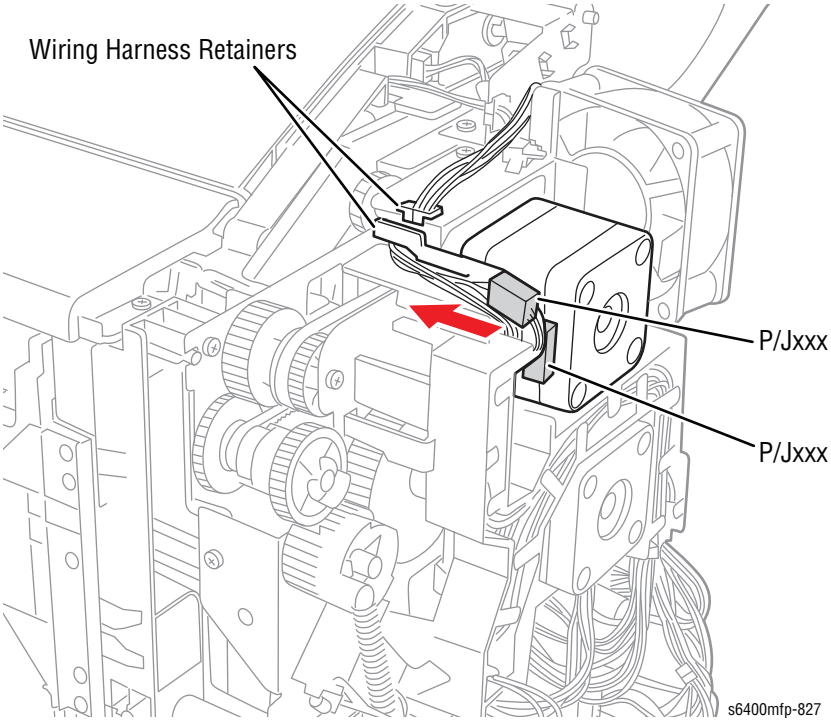
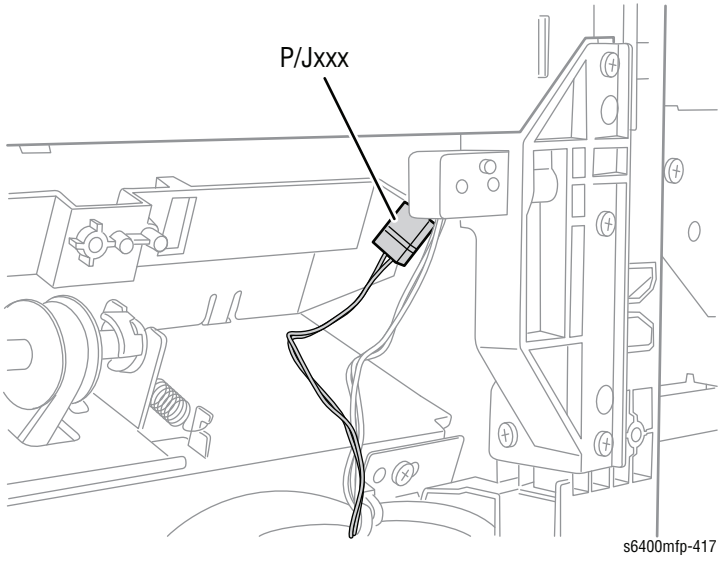
Finisher Entrance Solenoid (SL1) (PL39.05)

1. Remove the Finisher Rear Cover (page 8-179).
2. Remove the Finisher Top Right Cover (page 8-188).
3. Remove the Finisher Right Plate (page 8-186).
4. Release the wiring harness retainers.
5. Shift the wiring harness connectors toward the arrow direction as in the illustration.



6. Remove the right Finisher Right Plate (page 8-186).
7. Disconnect the Solenoid wiring harness connector.



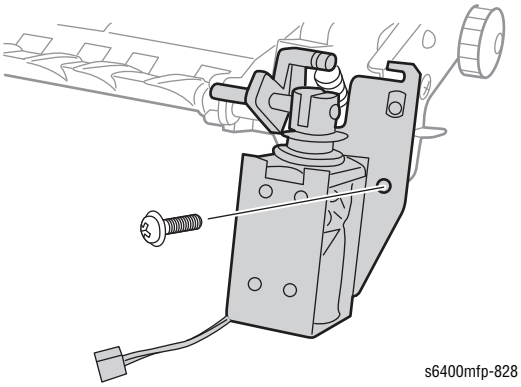
8. Remove the Paper Exit Assembly (page 8-192) (steps 1-9).

9. Turn the Paper Exit Assembly over and lay it next to the Finisher.

Caution

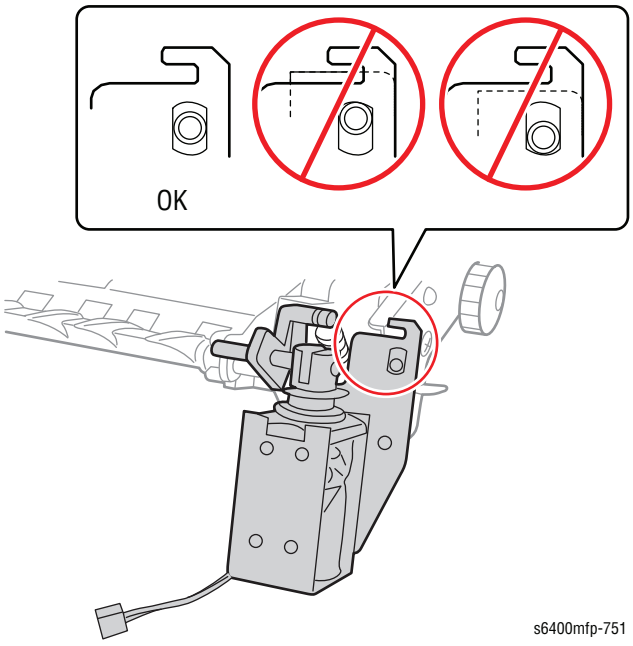
Be sure to hold the Tension Spring (PL39.7) when removing the Solenoid to prevent from losing the spring.

10. Remove 1 screw that secures the Entrance Solenoid Assembly.
11. Remove the Entrance Solenoid Assembly.



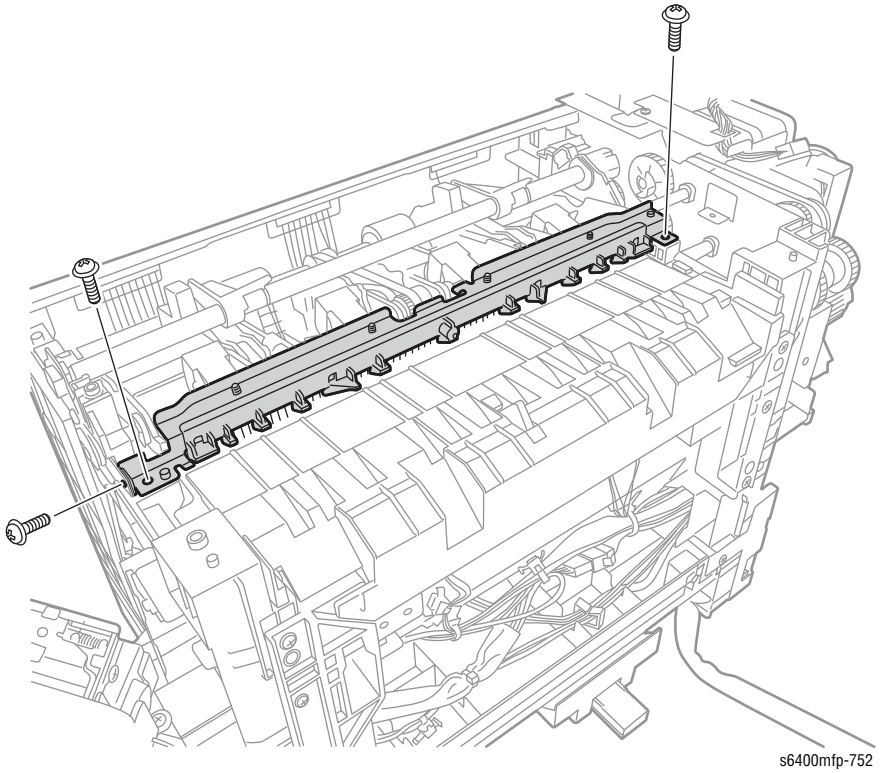
Replacement Note

Be sure to feed the wiring harnesses through the hole on the printer frame in order to connect the connectors. Pull the Guide (PL39.8) toward you in order to align the Solenoid in place. Be sure to align the mounting plate as in the illustration.



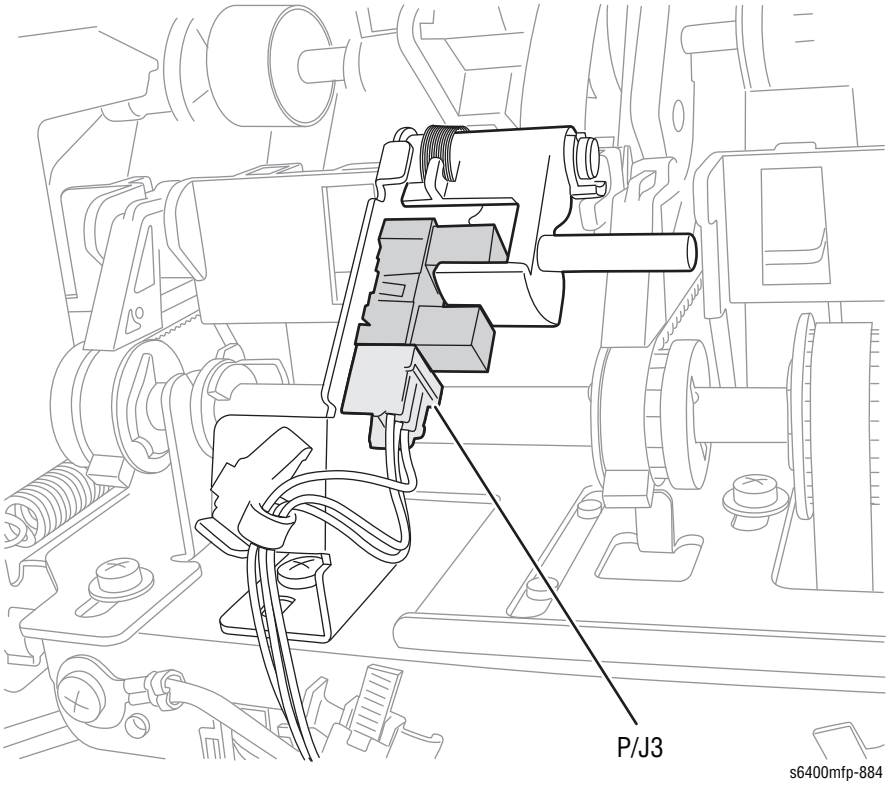
Finisher Roll Assembly (PL40.07)

1. Remove the Paper Exit Assembly (page 8-192) (steps 1-9).
2. Turn the Paper Exit Assembly over and lay it next to the Finisher.
3. Remove 3 screws that secure the Finisher Roll Assembly.
4. Lift and remove the Finisher Roll Assembly.



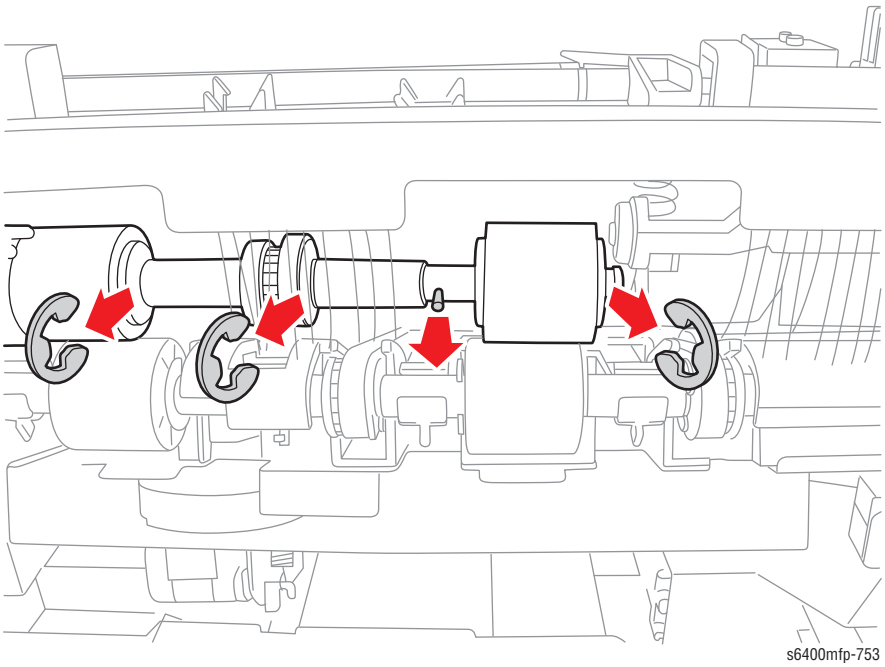
Storage Section Sensor (PS7) (PL41.02)

1. Remove the Finisher Right Plate (page 8-186).
2. Disconnect the wiring harness connector.
3. Release the Sensor tabs from the frame.
4. Remove the Storage Section Sensor.



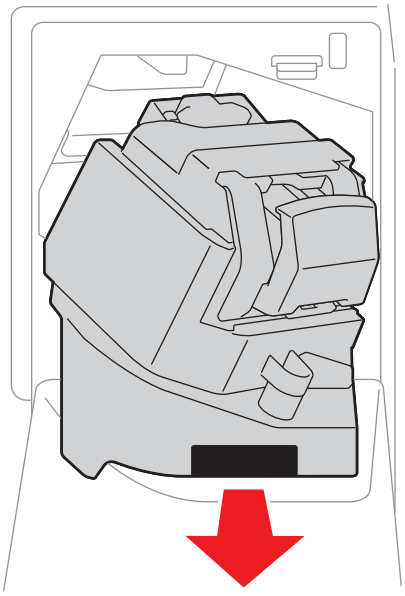
Roller Assembly (PL44.15)

1. Remove the Finisher Cover Assembly (page 8-183).
2. Remove the Paper Exit Assembly (page 8-192).
3. Remove the 3 C-Clips that secure the Roller.
4. Slide the Roller (PL44.11) toward the right side and remove the Pin (PL44.5).
5. Slide the Roller Assembly toward the right side and remove the Roller Assembly.



Stapler Assembly (PL45.11)

1. Remove the Finisher Front Cover (page 8-180).
2. Extend the Stapler Unit.



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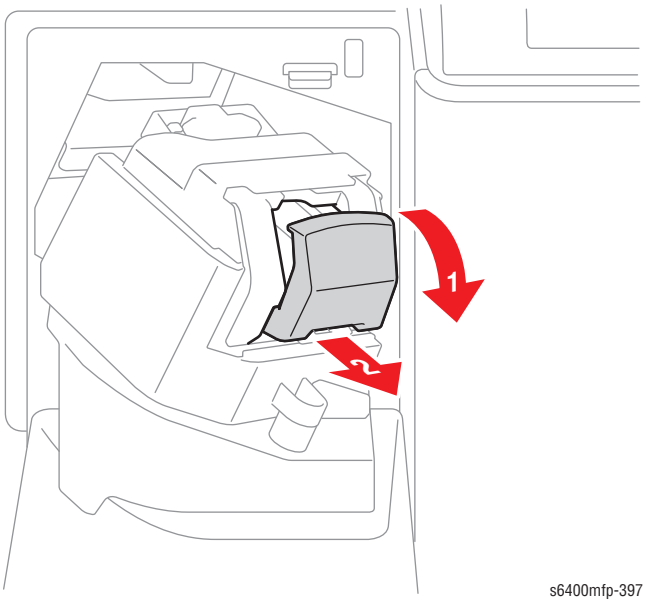
3. Remove the Stapler Unit (PL45.09).



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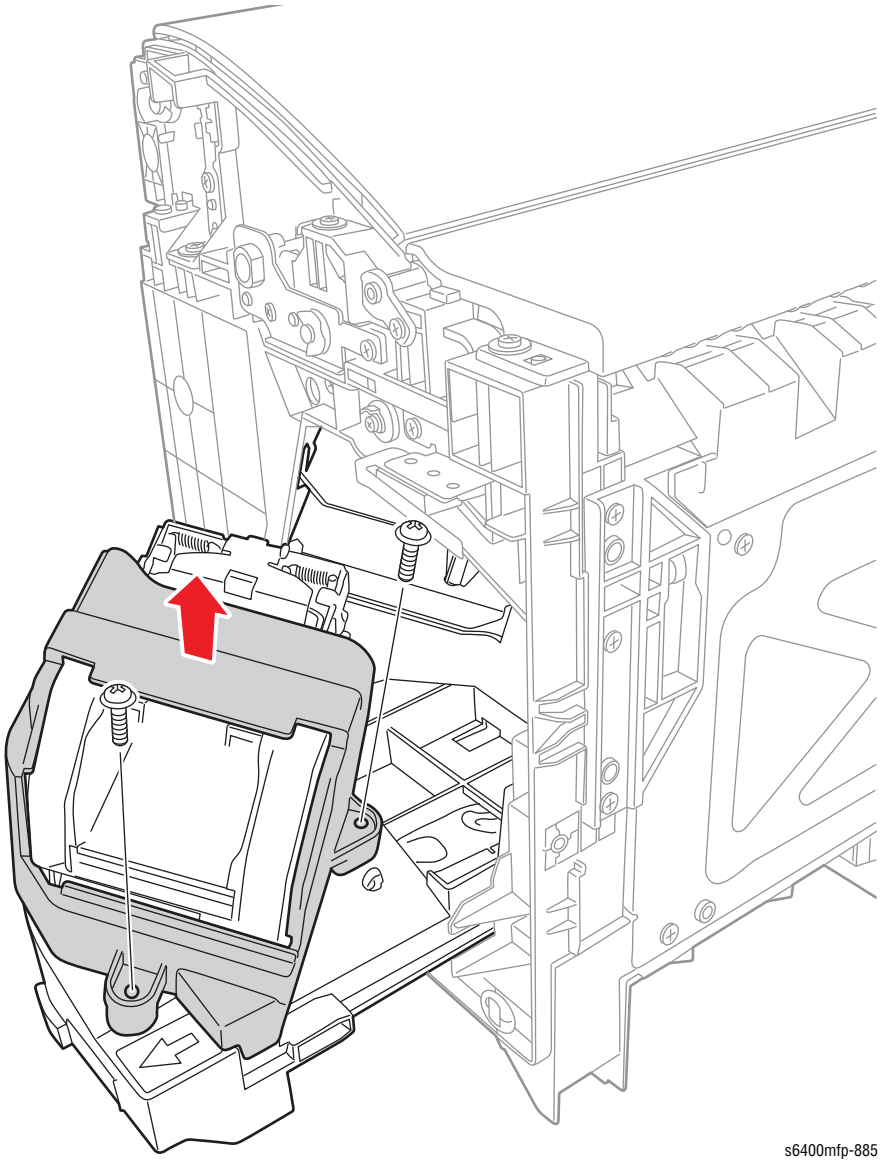
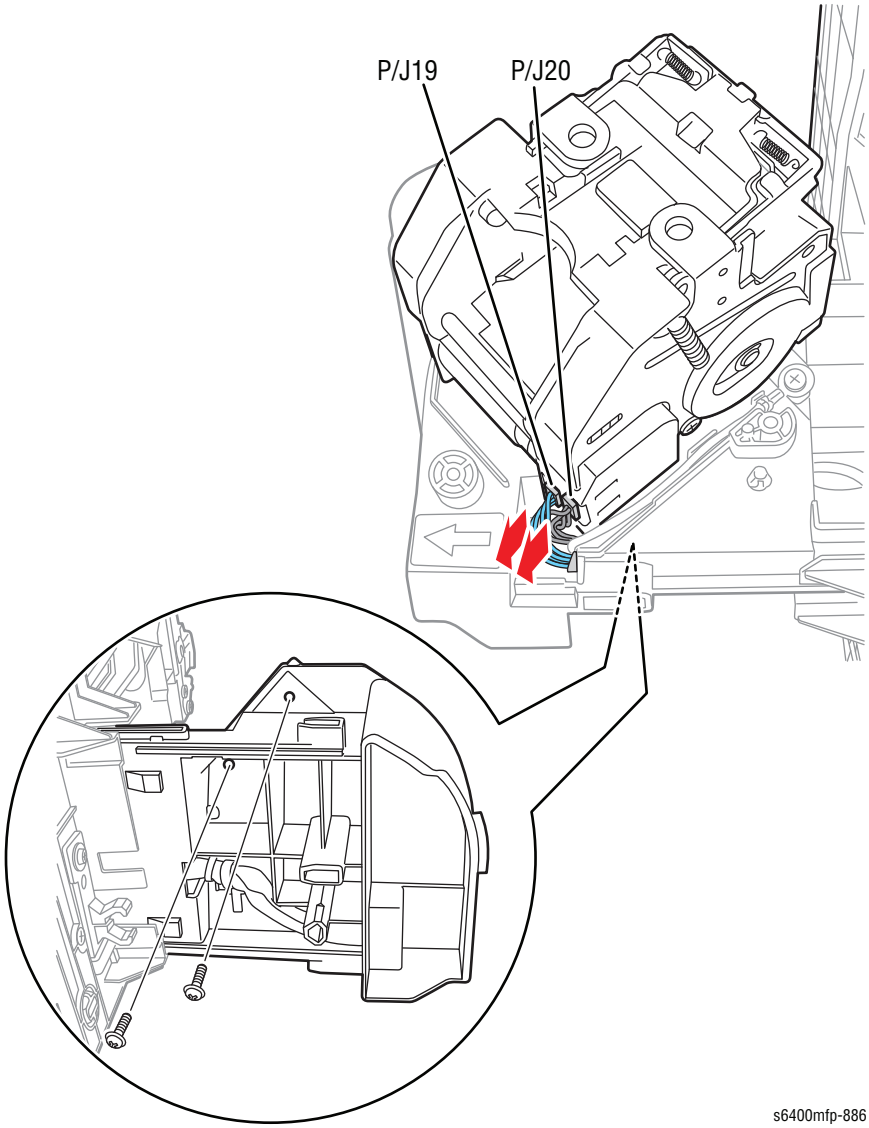
4. Remove 2 screws that secure the Stapler Unit Assembly Cover.
5. Remove the Stapler Unit Assembly Cover.



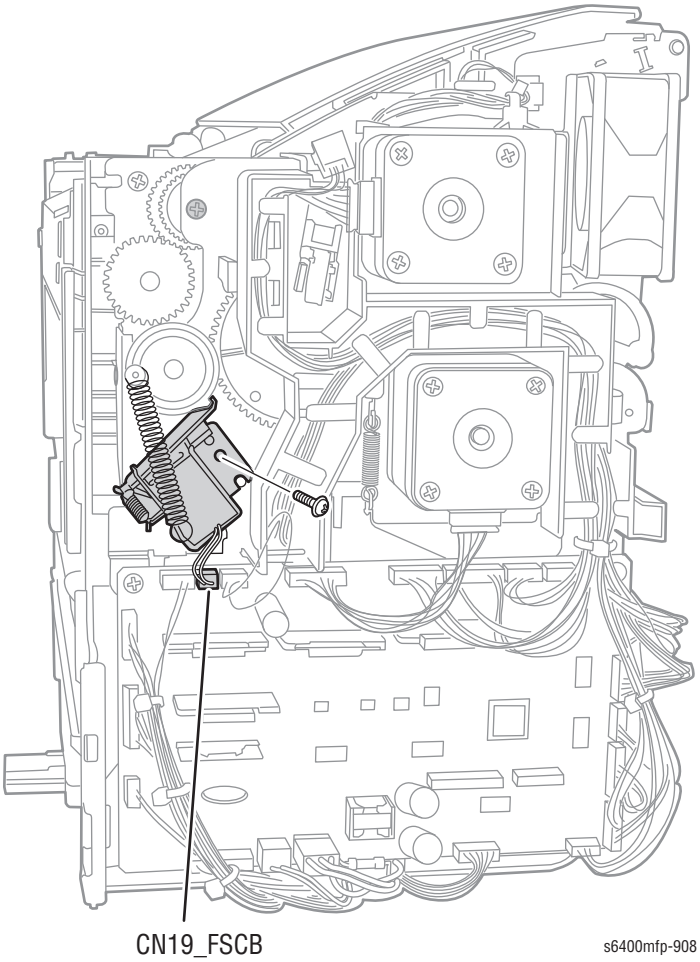
s6400mfp-885

6. Disconnect the 2 wiring harness connectors.
7. Remove 2 screws that secure the Stapler Unit.
8. Remove the Stapler Unit.



Alignment Belt Up/ Down Solenoid (SL3) (PL46.04)

1. Remove the Finisher Rear Cover (page 8-179).
2. Release the Spring from the Solenoid.
3. Disconnect the wiring harness connector CN19 from the Finisher Control Board.
4. Remove 1 screw that secures the Alignment Belt Up/ Down Solenoid.
5. Remove the Alignment Belt Up/ Down Solenoid.

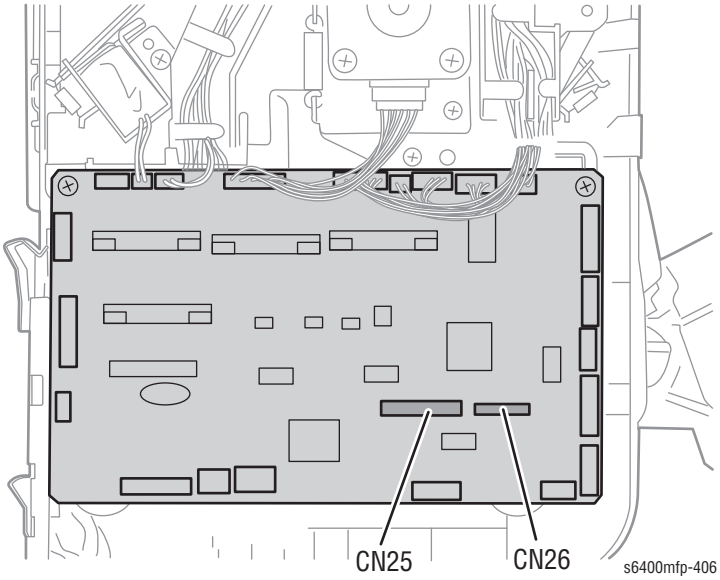


Finisher Control Board (PL46.16)

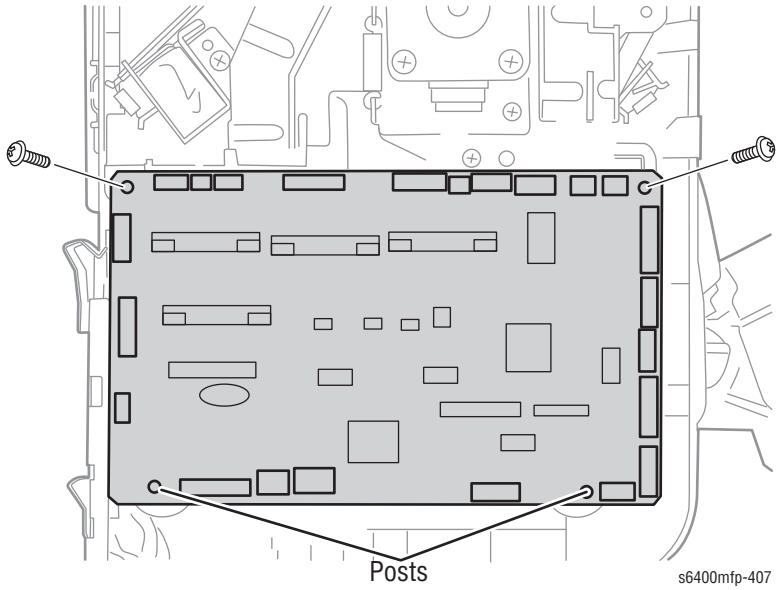
1. Remove the Finisher Rear Cover (page 8-179).
2. Disconnect the 23 wiring harness connectors on the Finisher Control Board.

Note

Connectors CN25 and CN26 are not connected.

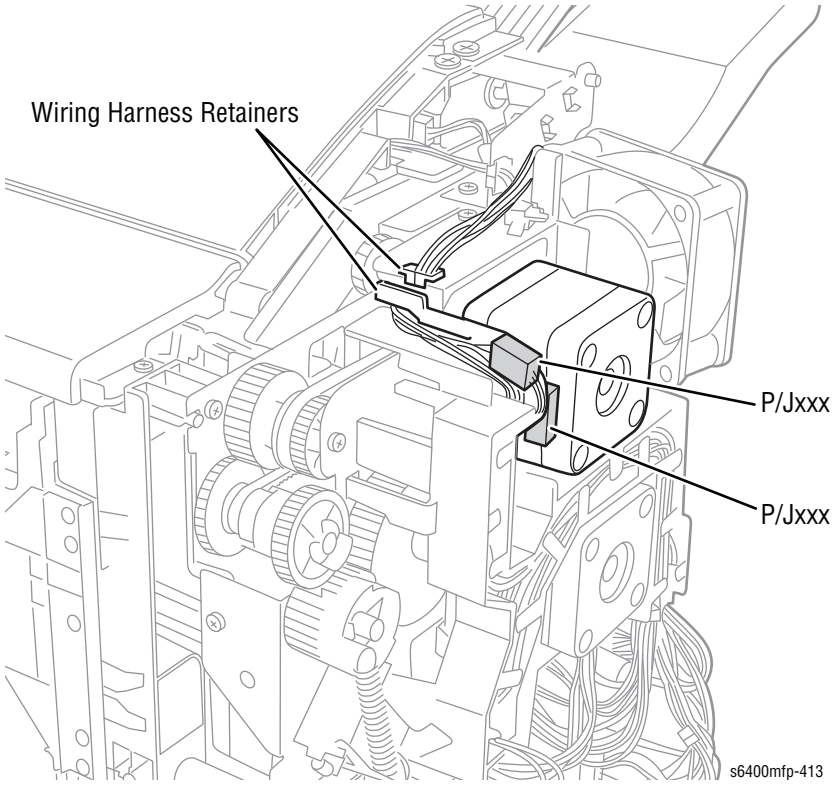


3. Remove the 2 Stand-Off Posts from the Finisher Control Board.
4. Remove 2 screws that secure the Finisher Control Board.
   - Right screw: long plastic screw
   - Left screw: short metal screw
5. Remove the Finisher Control Board.

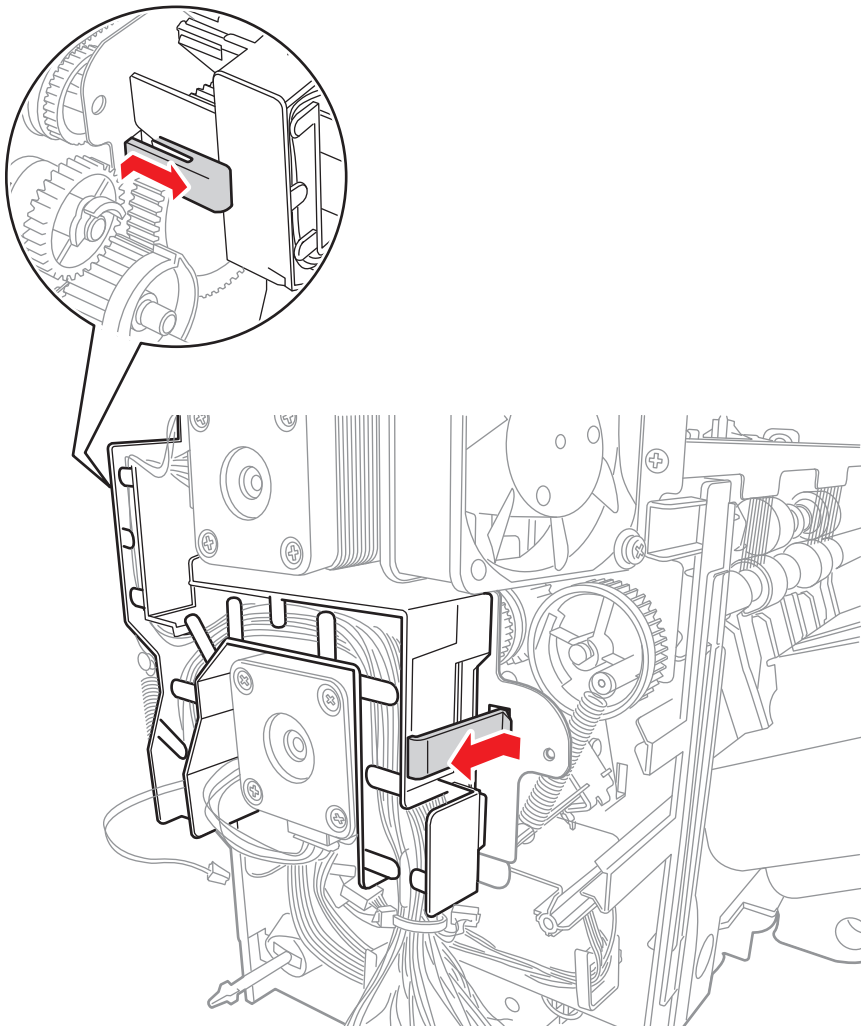


Finisher Transport Motor (M3) (PL46.20)

1. Remove the Finisher Rear Cover (page 8-179).
2. Remove the Finisher Control Board (page 8-205).
3. Remove the wiring harness from the wiring harness retainers.
4. Disconnect the wiring harness connectors.



5. Unhook the 2 tabs and remove the wiring harness Guide.
6. Loosen the wiring harnesses from the top part of the wiring harness Guide to gain access of the left screw on the Motor.



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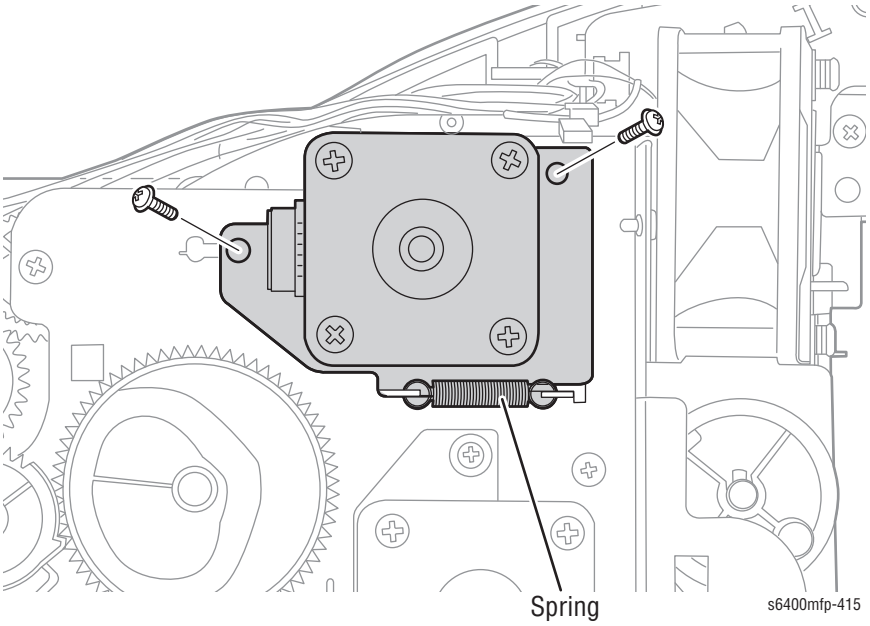
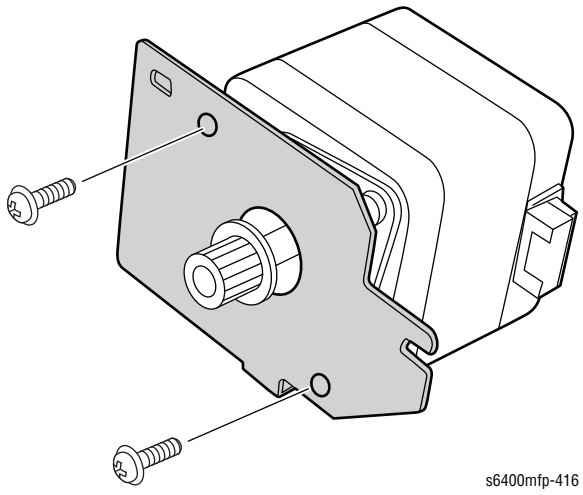
7. Unhook the Tension Spring (PL46.22).
8. Remove 2 screws that secure the Transport Motor Assembly.
9. Remove the Transport Motor Assembly.



10. Remove 2 screws that secure the Transport Motor to the Bracket (PL46.23).
11. Remove the Transport Motor.

Note

Be sure to move the Bracket to the new Transport Motor.



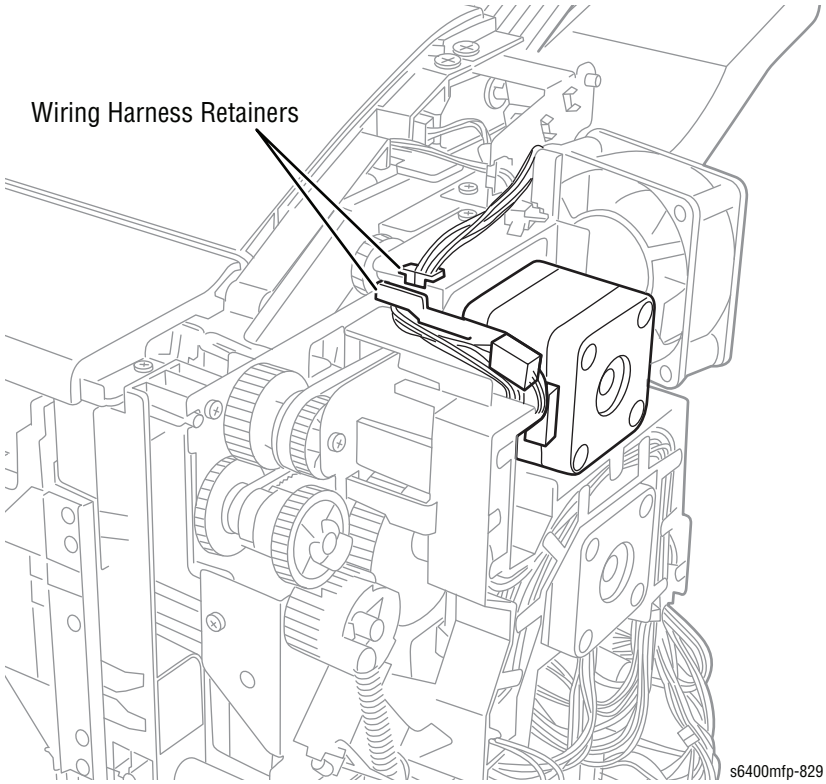
Replacement Note

When installing the Transport Motor Assembly, hook the Spring first, then secure Transport Motor Assembly with one screw. This will stretch the Spring.

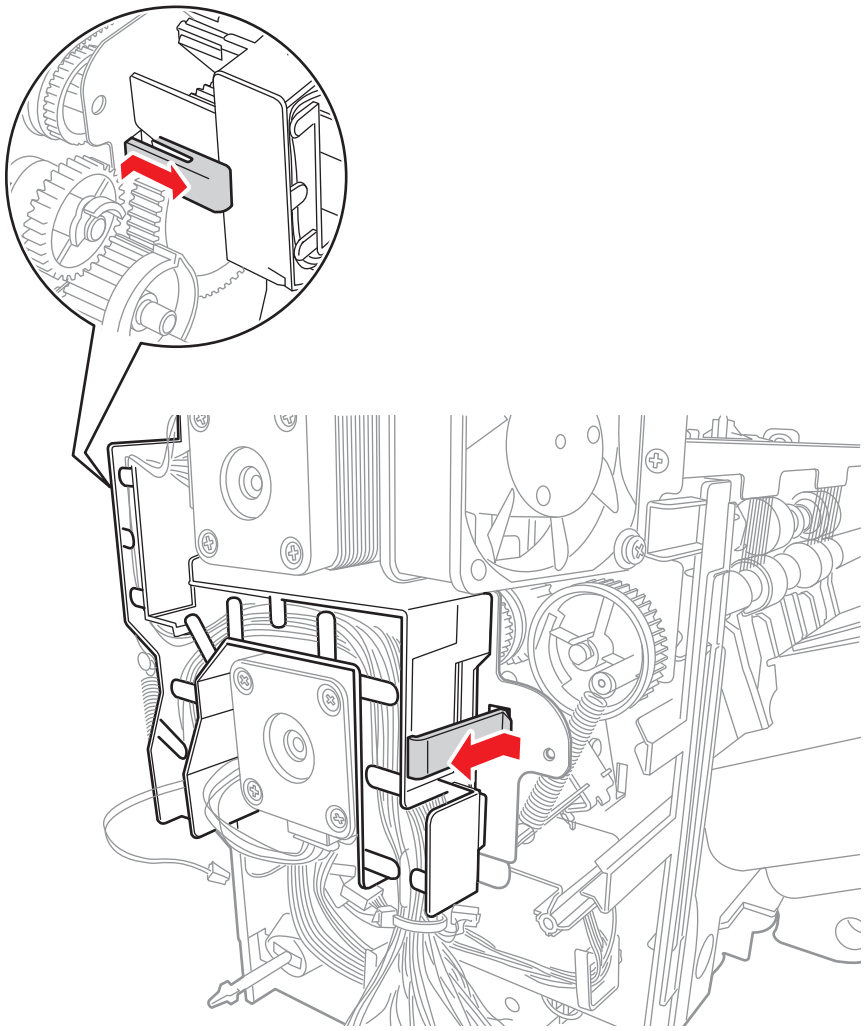
When installing the Transport Motor, be sure to align the Belt with the motor's gear.

Finisher Exit Motor (M4) (PL46.20)

1. Remove the Finisher Rear Cover (page 8-179).
2. Remove the Finisher Control Board (page 8-205).
3. Remove the wiring harness from the wiring harness retainers.



4. Unhook the 2 hooks and remove the wiring harness Guide with the wiring harnesses.



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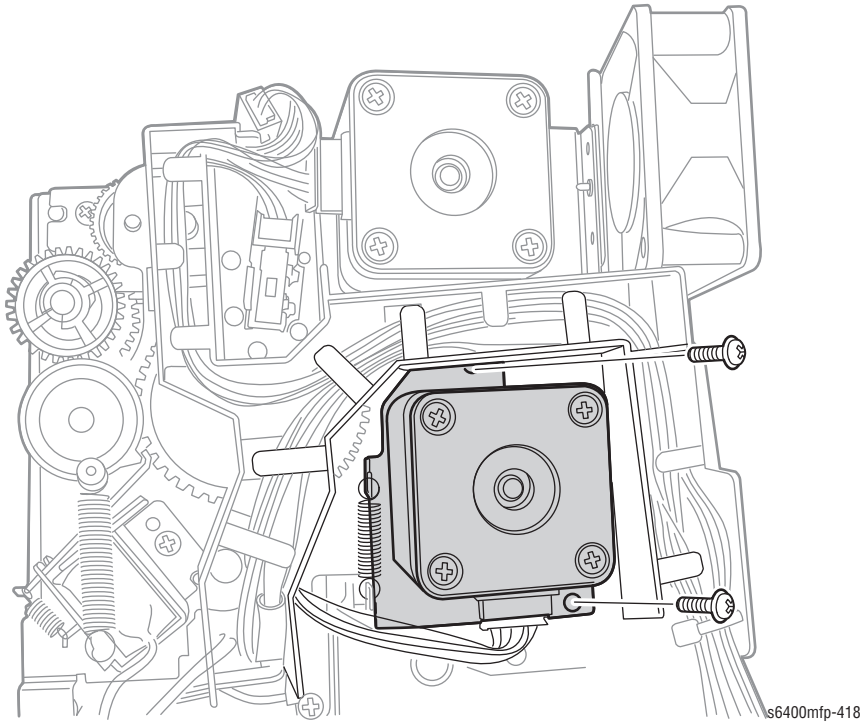
5. Disconnect the wiring harness connector.
6. Unhook the Tension Spring (PL46.22).
7. Remove 2 screws that secure the Exit Motor Assembly.
8. Remove the Exit Motor Assembly.

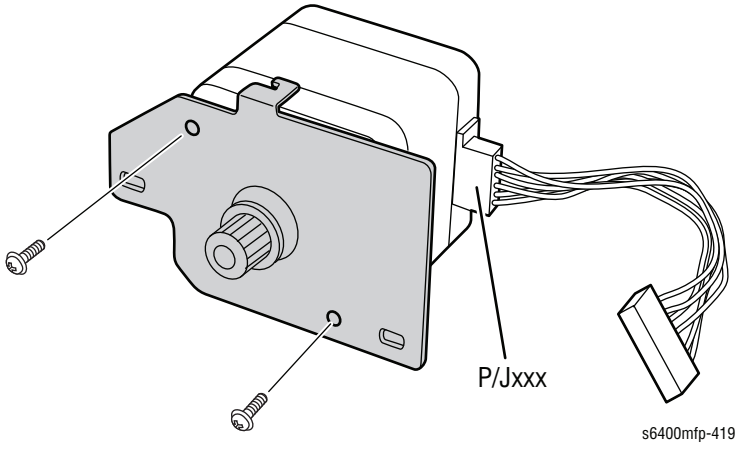


9. Remove 2 screws that secure the Exit Motor to the Bracket (PL46.21).

Note

Be sure to hold the Belt while removing the Exit Motor.

10. Remove the Exit Motor.

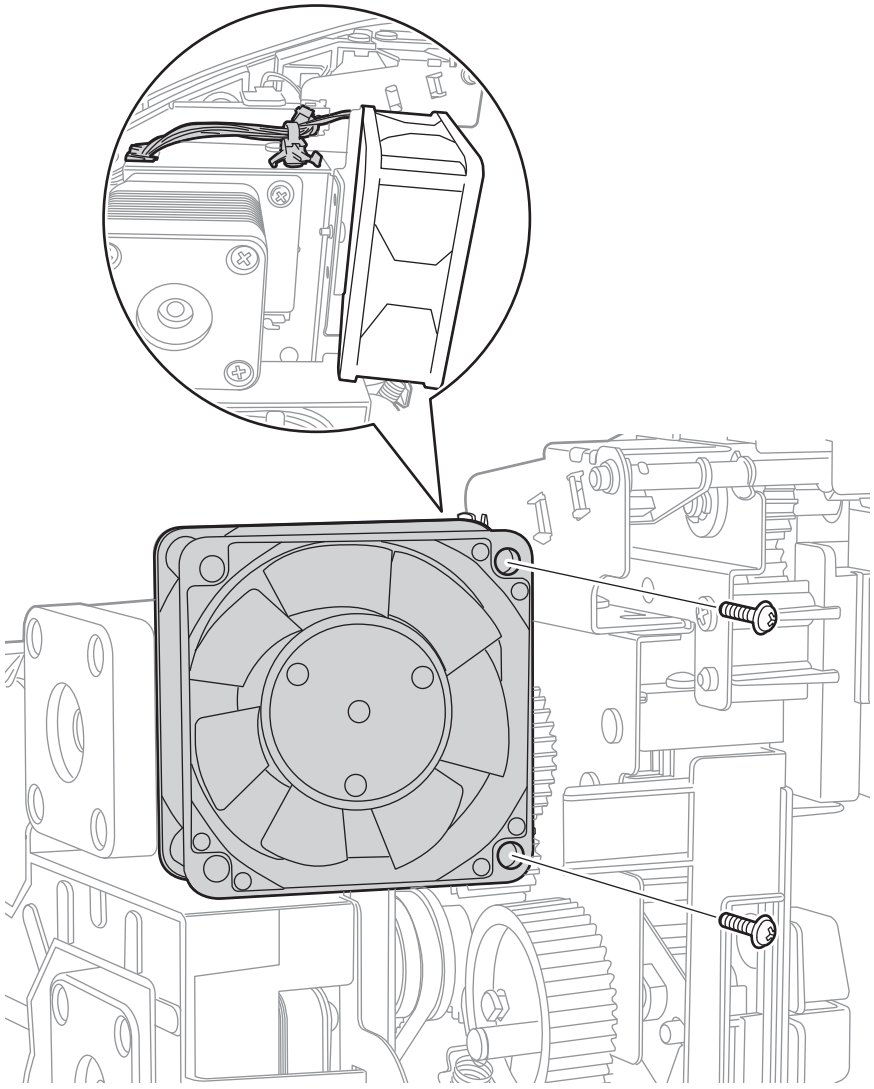


Replacement Note

When installing the Exit Motor Assembly, hook the Spring first, then secure the Transport Motor Assembly with a screw. This will stretch the Spring. When installing the Exit Motor, be sure to position the belt in place.

Finisher Motor Fan (FM1) (PL46.24)

1. Remove the Finisher Rear Cover (page 8-179).
2. Disconnect the wiring harness connector.
3. Cut the tie wrap.
4. Remove the 2 wiring harness retainers.
5. Remove 2 screws that secure the Motor Fan.
6. Remove the Finisher Motor Fan.



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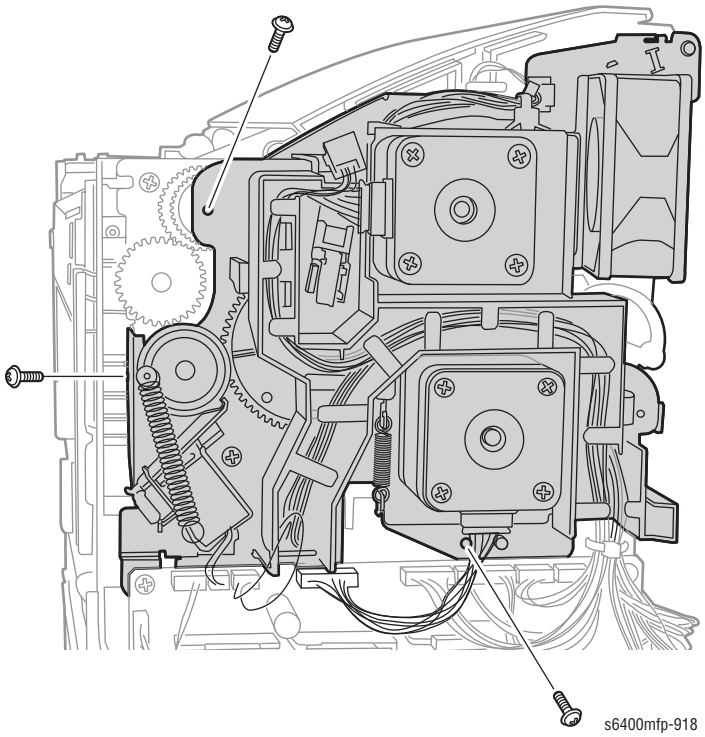
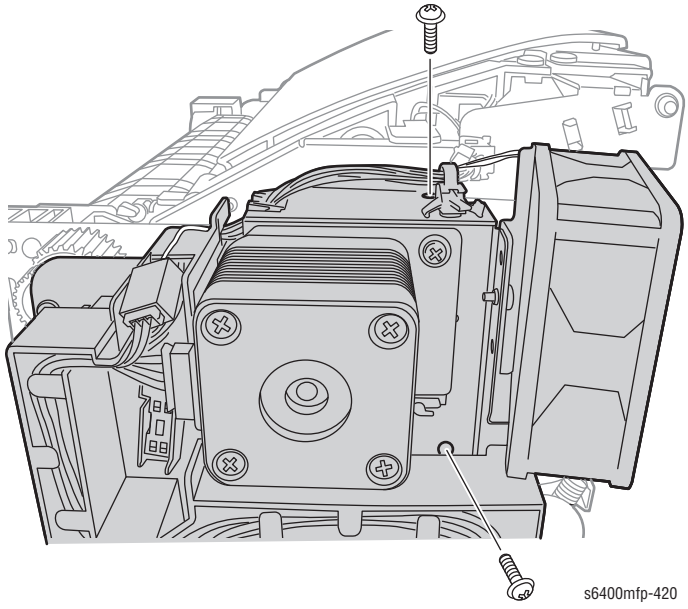
Finisher Exit Roller Up/ Down Motor (M5) (PL47.05)

1. Remove the Finisher Control Board (page 8-205).
2. Release the wiring harness holder from the Finisher frame.
3. Remove 5 screws (1 plastic screw, 4 metal screws) that secure the Mounting Metal Plate Assembly.



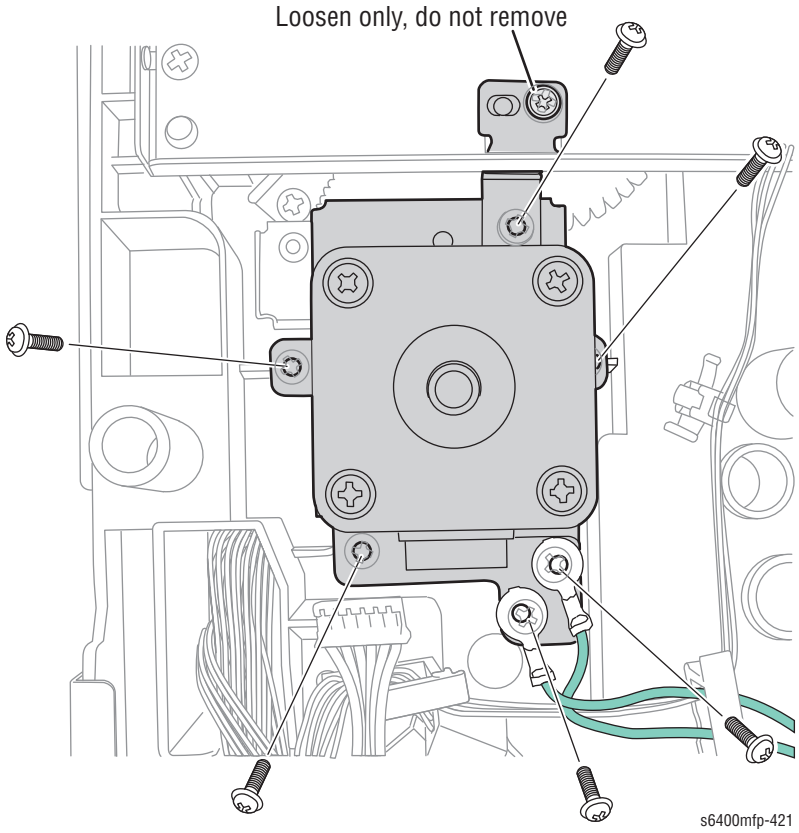


4. Disconnect the wiring harness connector.
5. Loosen 1 screw that secures the Bracket (PL47.07).
6. Remove 2 screws that secure the Ground Wire.
7. Remove the Ground Wire.
8. Remove 4 screws that secure the Exit Roller Up/ Down Motor Assembly.

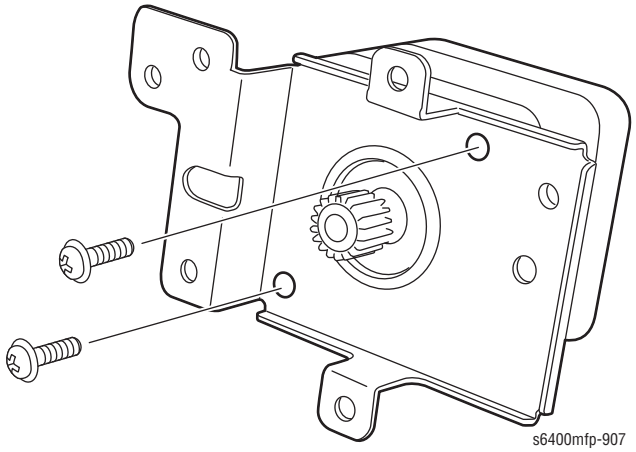
Note

The screw on the top side is a short screw.

9. Remove the Exit Roller Up/ Down Motor Assembly.



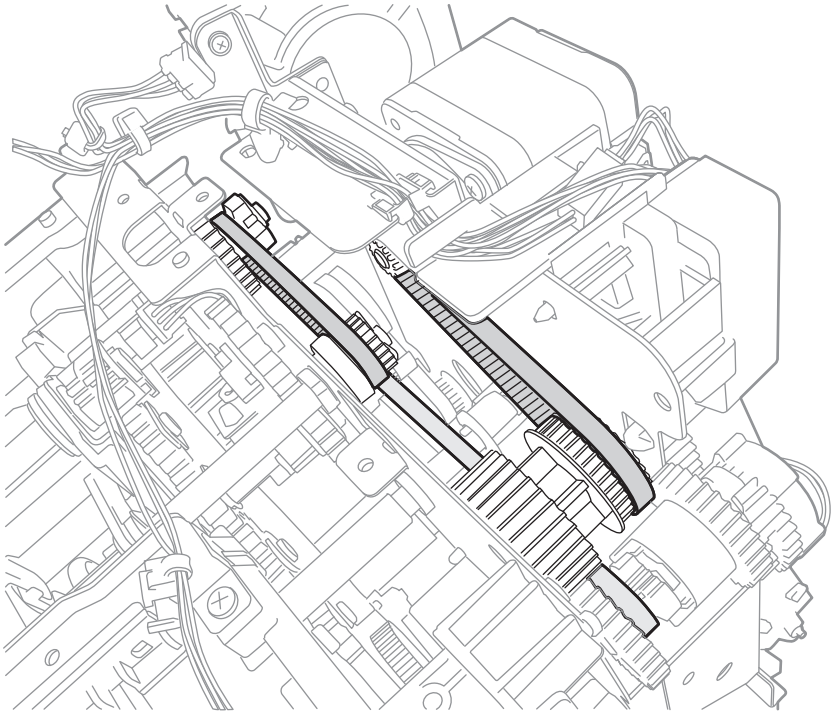
10. Remove 2 screws that secure the Exit Roller Up/ Down Motor and the Bracket (PL47.07).
11. Remove the Exit Roller Up/ Down Motor.



Replacement Note

When installing the Exit Roller Up/Down Motor Assembly, be sure to position the Bracket front of the Motor Assembly.

Be sure to position the belts on the gears and motors in the correct positions.



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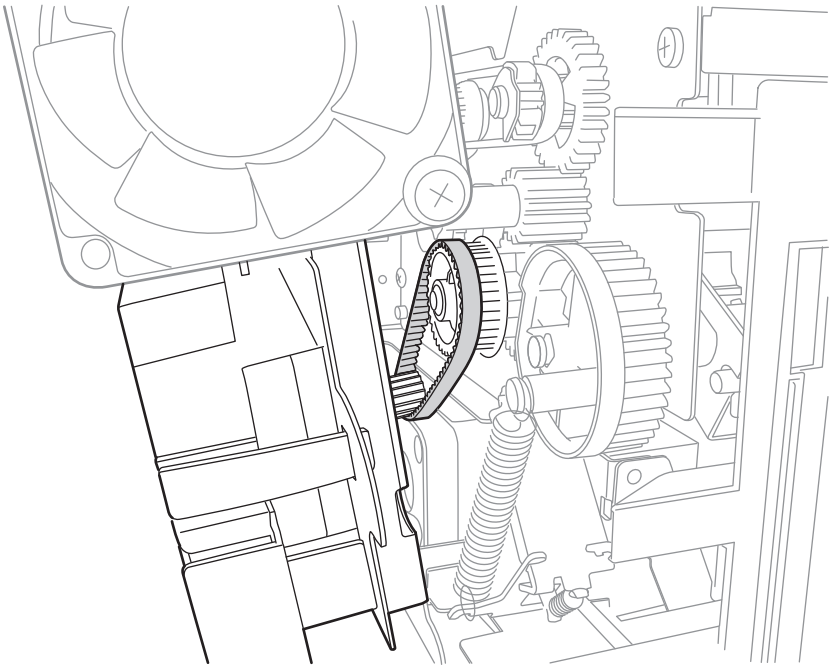

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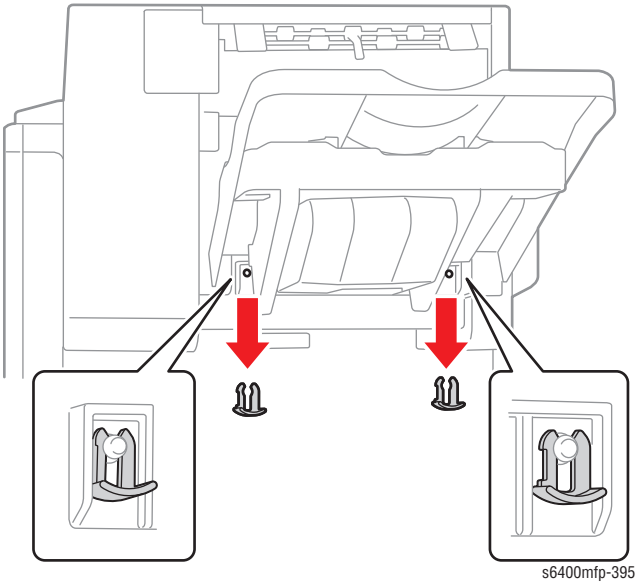
Finisher Main Tray (PL48.18)

1. Remove the 2 clips that secure the Main Tray.



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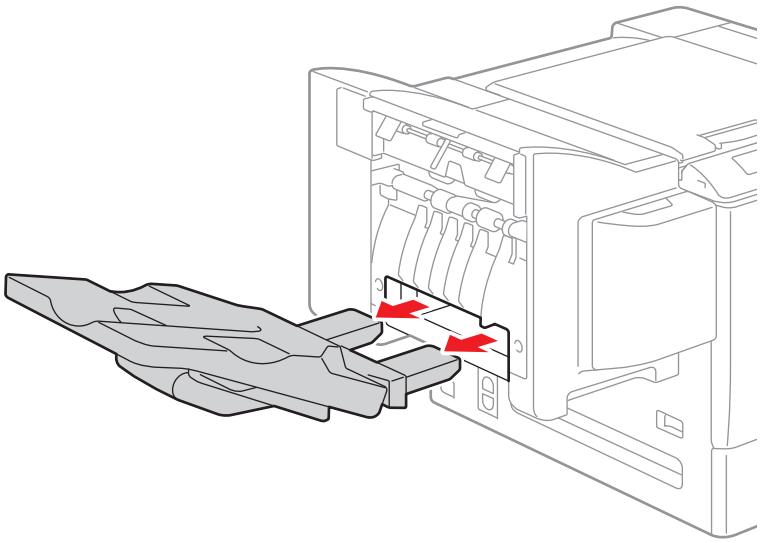
2. Slide the Main Tray out and remove the Main Tray.



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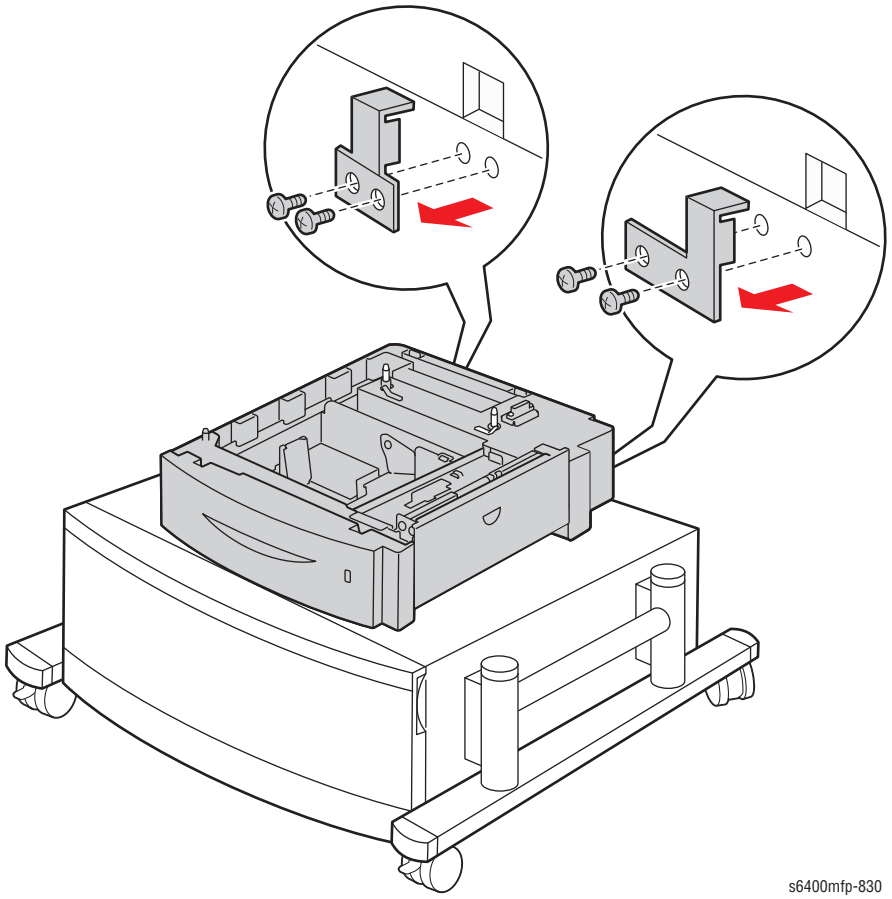
Printer Stand (Option)

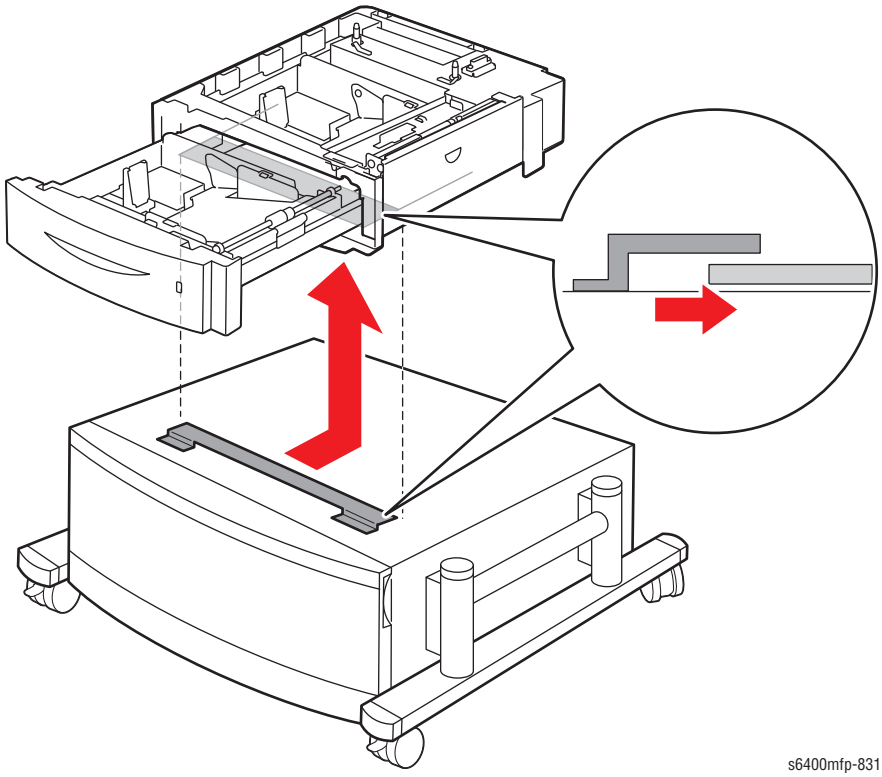
Stand Assembly (PL49.01)

1. Remove the 500-Sheet Feeder (page 8-166).
2. Remove 4 screws that secure the left and right Brackets.
3. Remove the left and right Brackets.



s6400mfp-830

4. Slide the Optional 500-Sheet Feeder back to release the latch on the bottom of the Optional 500-Sheet Feeder from the Printer Stand.
5. Lift and remove the Optional 500-Sheet Feeder.



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Parts List

In this chapter...

Chapter 9

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 nine-digit serial number has the following format:

- **PPPRSSSSS**
- **PPP =** Three digit alphanumeric product code
- **R =** Single digit numeric revision digit, 0~9. To be rolled when a major product change occurs and initiated with a change request.

Product	Product Code
WorkCentre 6400 (110V)	KAA
WorkCentre 6400V (220V)	HYX

SSSSS = Five digit numeric serial number based on the following table:

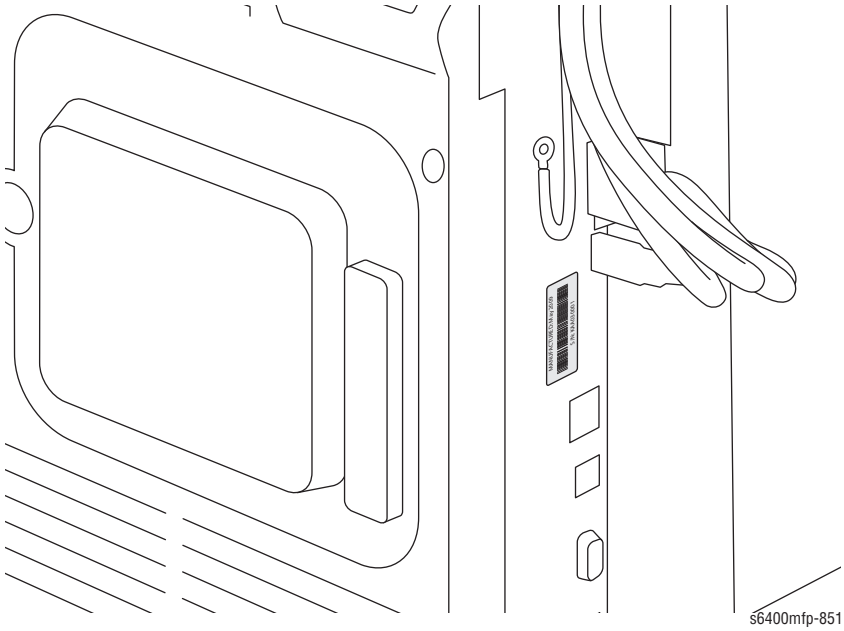
Product	Starting Serial Number	Ending Serial Number	Total
WorkCentre 6400	00501	99999	69998
WorkCentre 6400V	00501	99999	69998

Example

KAA030001: Xerox Serial Number
KAA: Product Code for the WorkCentre 6400
1 = Revision Level
30001 = Serial Number for 6400
The serial number labels can be found at two locations of the printer.

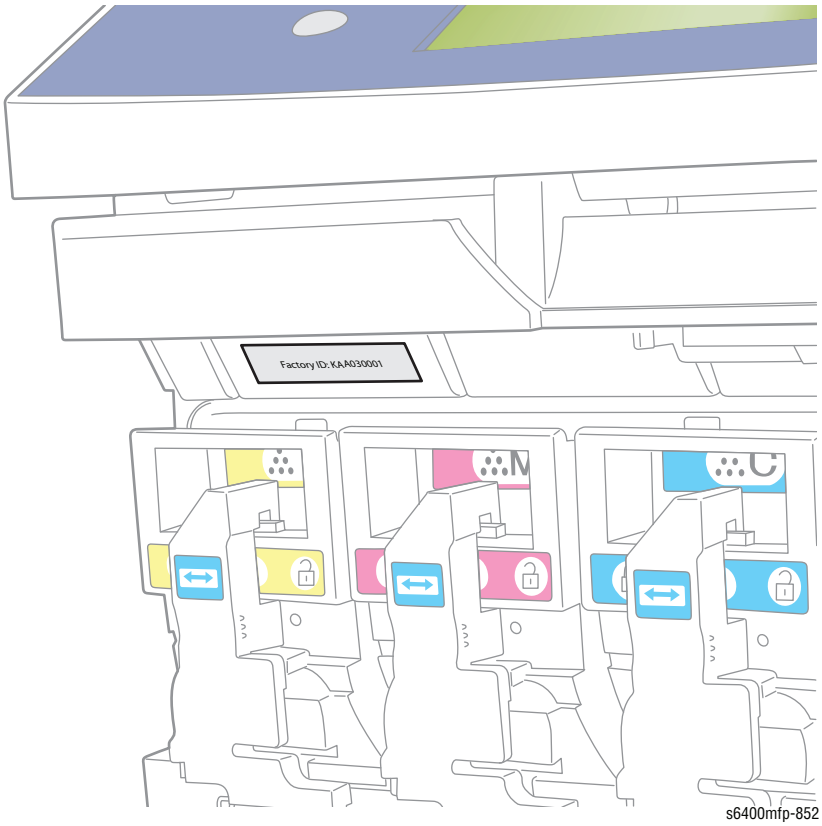
Label Placement

The Barcode label is applied to the Rear panel on the left side of the printer.
Barcode Label Location



The Text-only label is applied to the front of the printer chassis.

Text-Only Label Location



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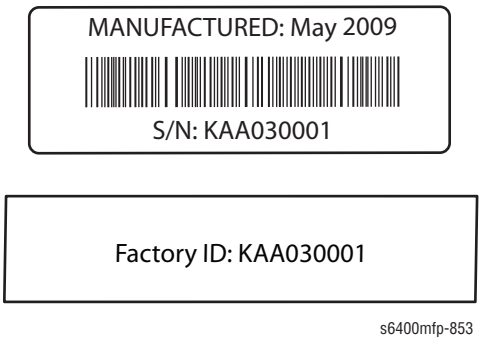
Label Layout Examples



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Using the Parts List

- **ID No.:** The callout number from the exploded part diagram.
- **Name/Description:** The name of the part to be ordered and the number of parts supplied per order.
- **Part Number:** The material part number used to order that specific part.
- **Qty:** The quantity indicates quantity per engine, not part number.
- Parts identified throughout this manual are referenced **PL#.#**; For example, PL3.10 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

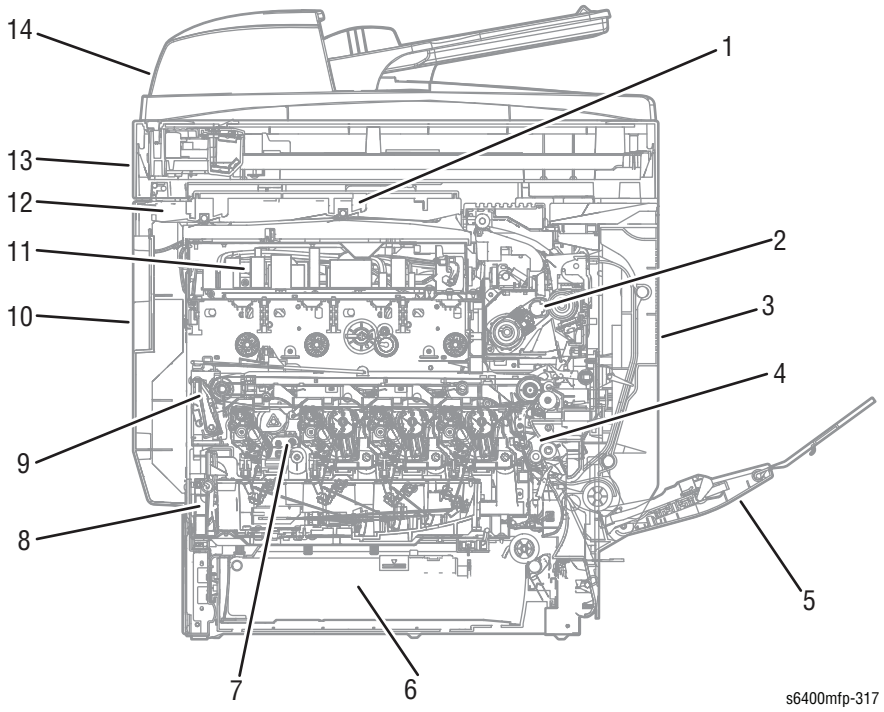
Only parts showing part numbers are available for ordering by support. Parts not showing part numbers are available on the parent assembly.

Abbreviations

Abbreviation	Meaning
C	C-ring
E	E-ring
KL	K-clip
S	Screw

Overview Parts

Parts List - Overview

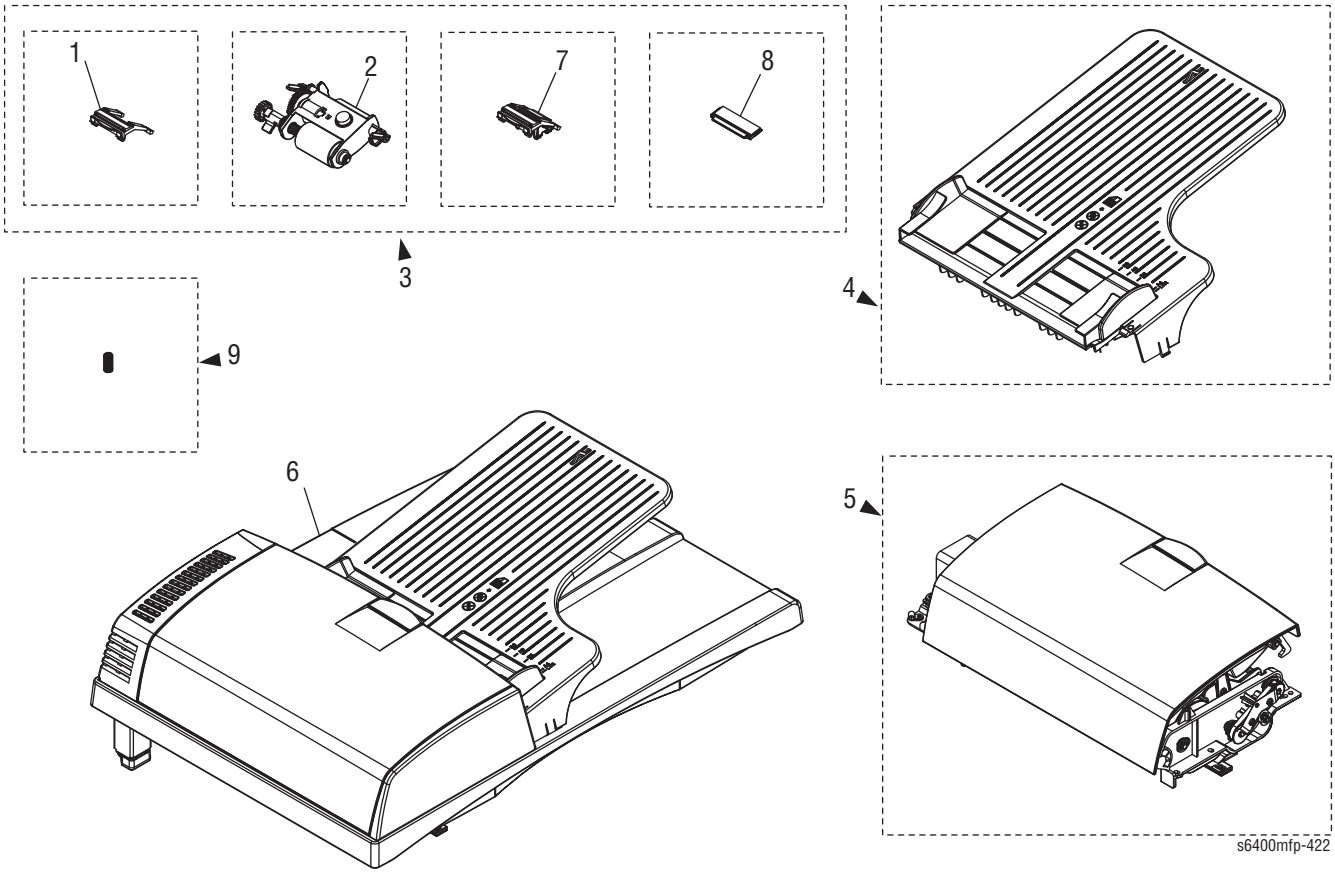


Item	Description
1.	Horizontal Transport Unit
2.	Fusing Unit
3.	Duplex Unit
4.	Vertical Transport Unit
5.	Tray 1 (Manual Feed)
6.	Tray 2
7.	Laser Unit Section
8.	Waste Toner Transport Section
9.	Main Frame Section
10.	External Parts
11.	LVPS Section
12.	Paper Exit Section
13.	Scanner (IR Section)
14.	DADF Section

Table of Contents

Print Engine Parts

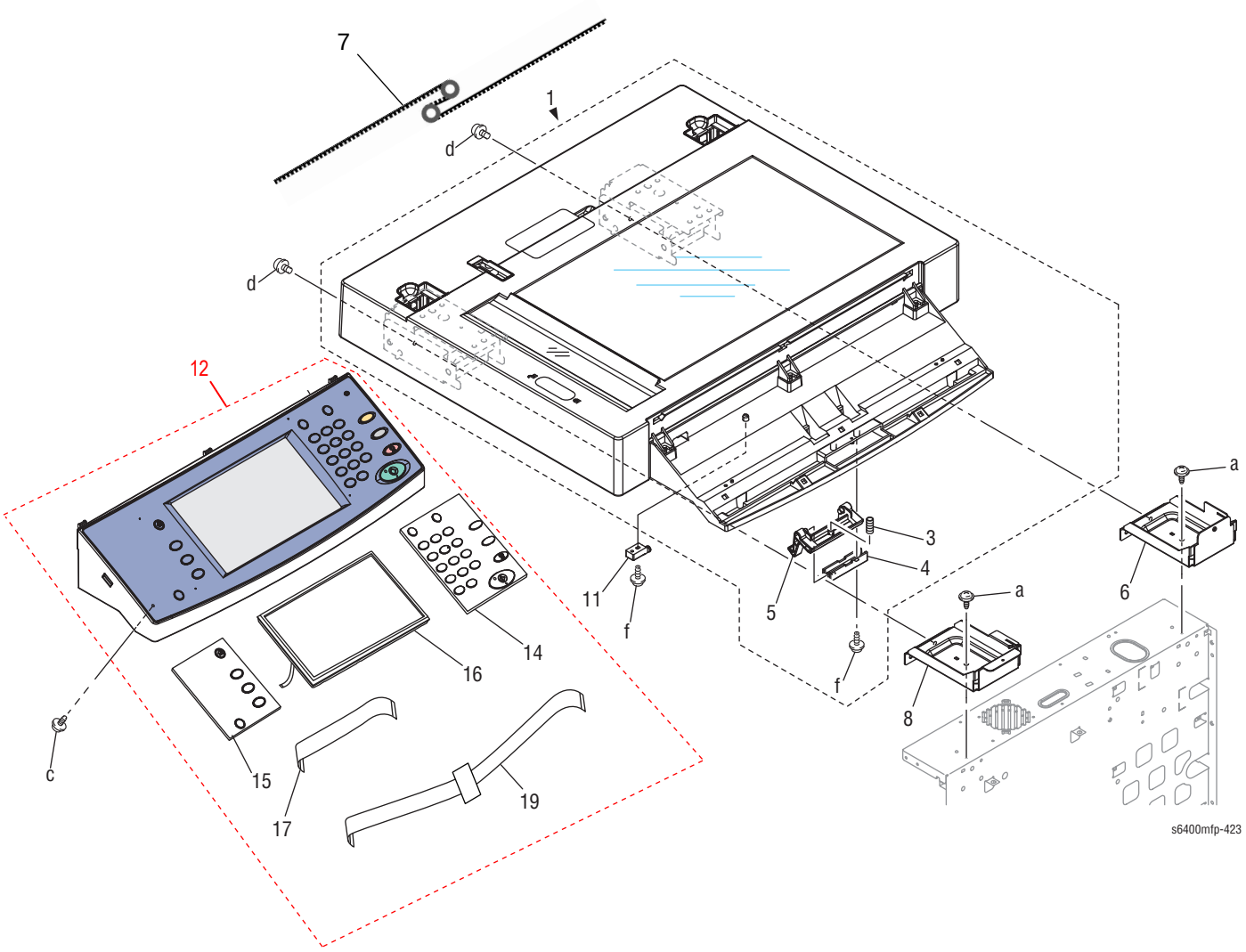
Parts List 1.0 Duplex Automatic Document Feeder Assembly



Parts List 1.0 Duplex Automatic Document Feeder Assembly

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Pre-Separator Pad Assy	014K10910	1	20K Life
2.	Separator Roller Assy		1	100K Life
3.	DADF Roller Kit Assy	108R00866	1	Up to 100K Life
4.	DADF Paper Tray Assy	050K68360	1	
5.	DADF Top Cover Assy	848K31450	1	Includes item 1.3
6.	DADF Assy (*)	059K69750	1	Complete Assy, 100K Life
7.	Separator Pad	019K14220	1	20K Life
8.	Friction Pad	019K14230	1	50K Life
9.	Pressure Spring	809E95220	1	
(*) Includes one Calibration Target and Instruction Sheet				

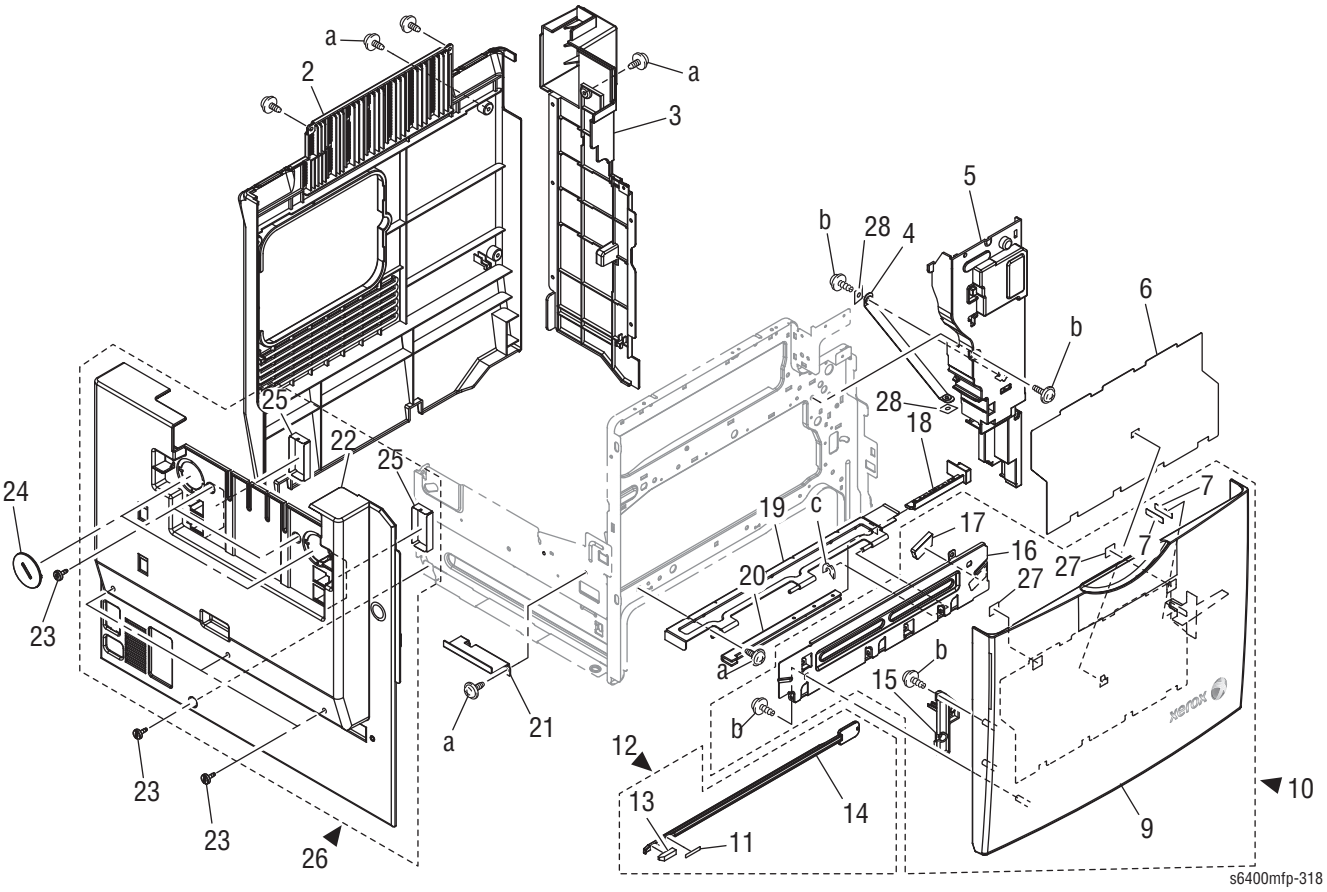
Parts List 2.0 Scanner Assembly



Parts List 2.0 Scanner Assembly

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Scanner Assy (*)	062K22940	1	Includes Hinges and Latch
2.	-----			
3.	Pressure Spring		1	
4.	Holder		1	
5.	Scanner Latch	803E13730	1	
6.	Bracket		1	
7.	Scan Drive Belt	062E22490	1	See Eureka Tip #1374222 for replacement procedure
8.	Bracket		1	
9.	-----			
10.	-----			
11.	Holder		1	
12.	Control Panel - 120V	848K25660	1	
	Control Panel - 220V	848K25670	1	
13.	Control Panel Overlay - French	604K61380	1	Overlay Kit (Not shown) Contains 3 Overlays
	Control Panel Overlay - Spanish		1	
	Control Panel Overlay - Brazukuan/Portugese		1	
14.	UI Main PWB	960K58180	1	
15.	UI Slave PWB	960K58190	1	
16.	Color LCD Module	123K08520	1	
17.	Ribbon Cable, Video	962K76250	1	
18.	-----			
19.	Ribbon Cable, Board Connector	117E36250	1	
a.	Screw (Tapping)		2	P/O Hardware Kit
b.	Screw (P/O Hinge Assy)			Not shown
c.	Screw (Tapping)		3	P/O Hardware Kit
d.	Screw			
e.	Screw (Hinge Plate)		2	Not shown
f.	Screw			P/O Hardware Kit
(*) Includes one Calibration Target and Instruction Sheet				

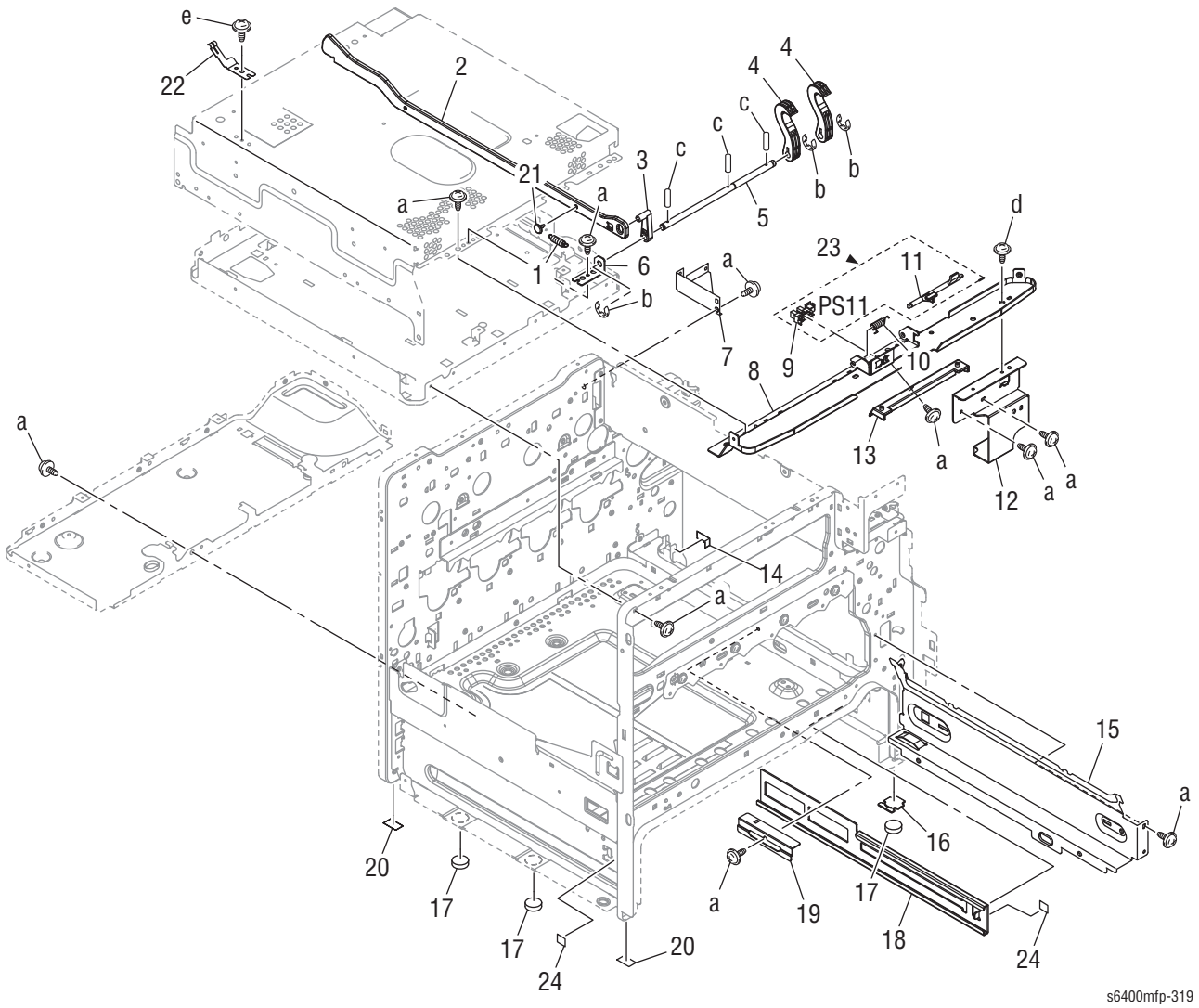
Parts List 3.0 Covers



Parts List 3.0 Covers

No.	Name/Description	Part Number	Qty.	Comments
1.	-----			
2.	Rear Cover	848E40070	1	
3.	Right Rear Cover	848E40080	1	
4.	Front Cover Strap	868E31260	1	
5.	Right Front Cover		1	
6.	Front Cover Label Set	896E86820	1	
7.	Seal		2	
8.	-----			
9.	Front Cover		1	Front Door
10.	Front Cover Assy	848E40090	1	Front Door Assembly
11.	Label Arrow		1	
12.	Laser Lense Cleaning Tool	600T80377	1	
13.	Cleaning Pad		1	
14.	Cleaning Rod		1	
15.	Lever		1	
16.	Reinforce Plate		1	
17.	Member		1	
18.	Cover		1	
19.	Hinge		1	
20.	Handle		1	
21.	Bracket		1	
22.	Cover		1	
23.	Shoulder Screw	826E49130	6	Qty 5 when ordered
24.	Cover	848E40100	2	
25.	Seal		2	
26.	Left Side Cover	848E40110	1	
27.	Label Arrow		2	
a.	Screw (Tapping)		3	P/O Hardware Kit
b.	Screw		4	P/O Hardware Kit
c.	C-Clip	019E81510	1	Also P/O Hardware Kit

Parts List 4.0 Main Frame

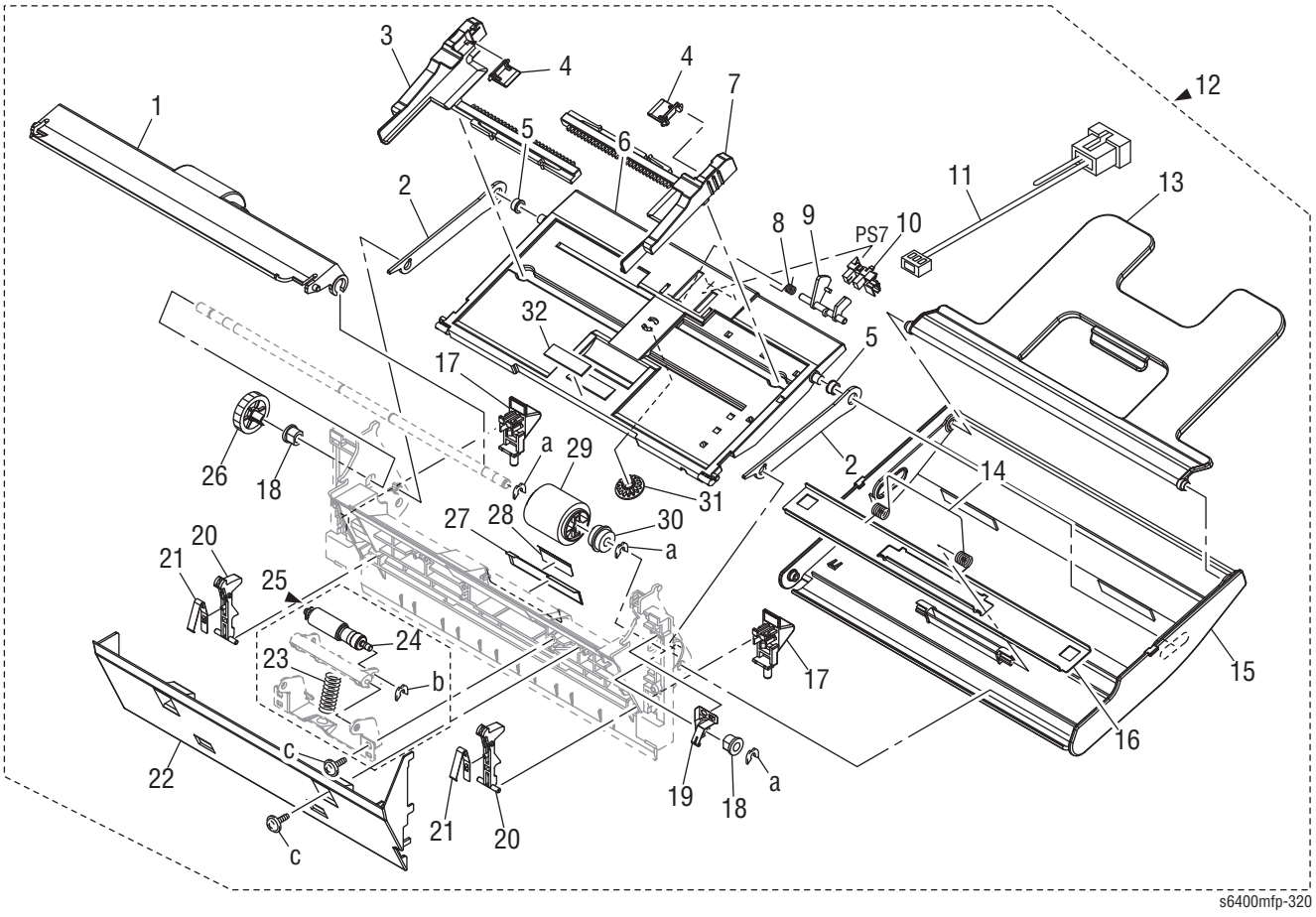


Tray holder and bracket, refer to PL#7.0.7

Parts List 4.0 Main Frame

No.	Name/Description	Part Number	Qty.	Comments
1.	Tension Spring		1	
2.	Arm		1	
3.	Lever		1	
4.	Scanner Lock Latch	803E13980	2	Qty 1 when ordered
5.	Shaft		1	
6.	Bracket		1	
7.	Bracket		1	
8.	Bracket		1	
9.	Photo Interrupter (PS11)	130E11800	1	Scanner Unit Open/ Close Sensor
10.	Torsion Spring		1	
11.	Actuator		1	
12.	Reinforce Plate		1	
13.	Pawl		1	
14.	Cover		1	
15.	Rail		1	
16.	Spacer		1	
17.	Rubber Foot	017E11810	3	Sheet of 4 per part number
18.	Rail		1	
19.	Bracket		1	
20.	Seal		2	
21.	Shoulder Screw		1	Included in Hardware Kit
22.	Ground Strap		1	
23.	Scanner Open Sensor Kit	604K55020	1	
24.	Label		2	
a.	Screw (Tapping)		9	P/O Hardware Kit
b.	E-Ring		3	P/O Hardware Kit
c.	Pin		3	P/O Hardware Kit
d.	Screw (Tapping)		1	P/O Hardware Kit
e.	Screw			

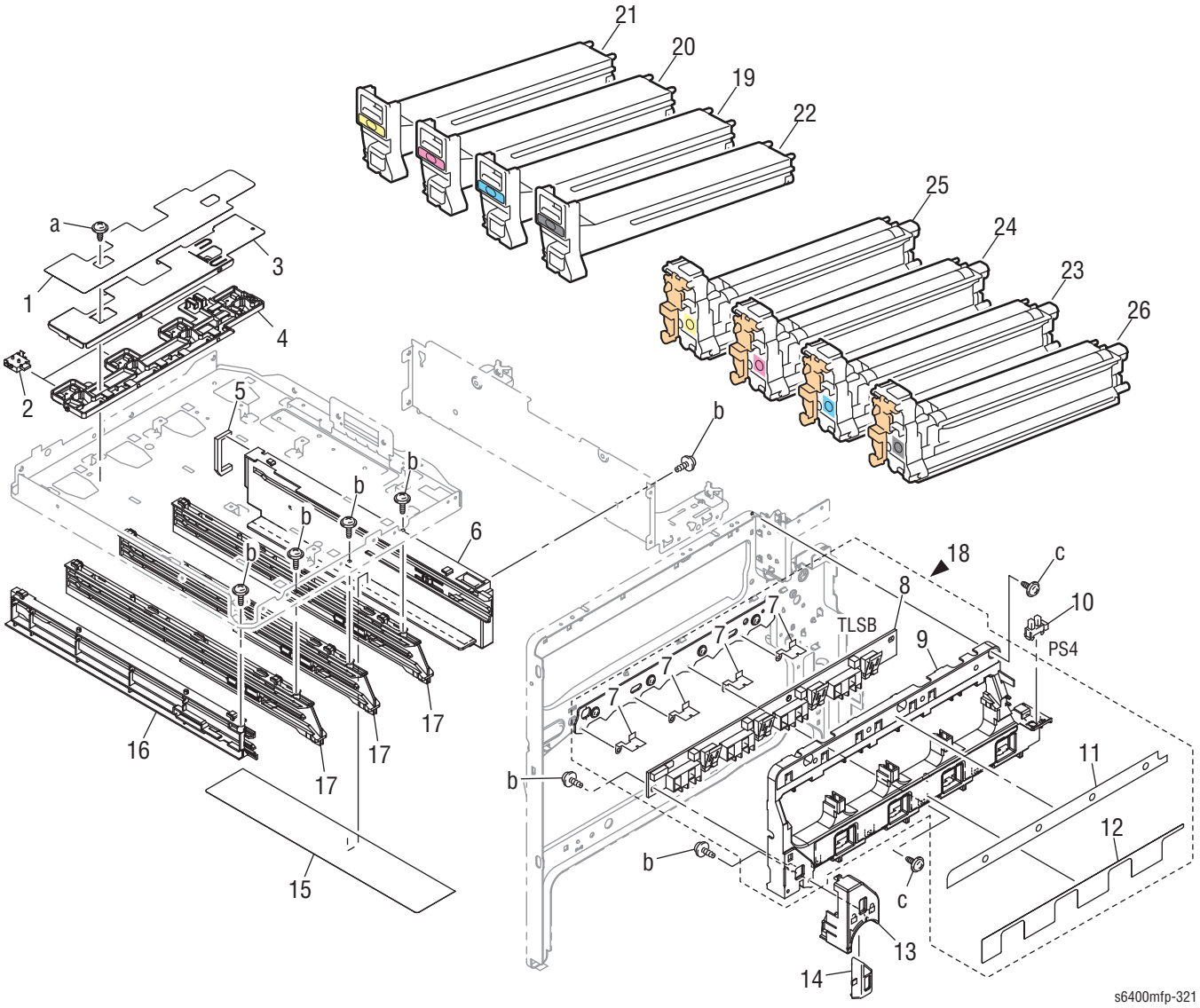
Parts List 5.0 Tray 1 (Manual Feed)



Parts List 5.0 Tray 1 (Manual Feed)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Guide		1	
2.	Lever		2	
3.	Regulating Plate		1	
4.	Guide		2	
5.	Collar		2	
6.	Lifting Plate		1	
7.	Regulating Plate		1	
8.	Torsion Spring		1	
9.	Actuator		1	
10.	Photo Interrupter (PS7)	130E11800	1	Tray 1 Paper Empty Sensor
11.	Wire Harness Assy (CN15-PJ5)	962K76260	1	Tray 1 to Main Engine
12.	Tray 1 Assy	054K43480	1	Complete Assembly
13.	Tray	050E28970	1	Tray 1 Extension
14.	Torsion Spring		1	
15.	Tray		1	
16.	Reinforce Plate		1	
17.	Lever		2	
18.	Bushing		2	
19.	Earth Ground		1	
20.	Stopper		2	
21.	Plate Spring		2	
22.	Guide		1	
23.	Pressure Spring		1	
24.	Separation Roller		1	
25.	Separation Roller Assy	059K69680	1	Complete Assembly
26.	Gear 25T		1	
27.	Guide Plate		1	
28.	Guide		1	
29.	Feed Roller	059E10850	1	120K Life
30.	Clutch		1	
31.	Gear 14T		1	
32.	Friction Sheet		1	
a.	C-Clip		3	
b.	C-Clip		1	P/O Hardware Kit
c.	Screw (Tapping)		2	P/O Hardware Kit

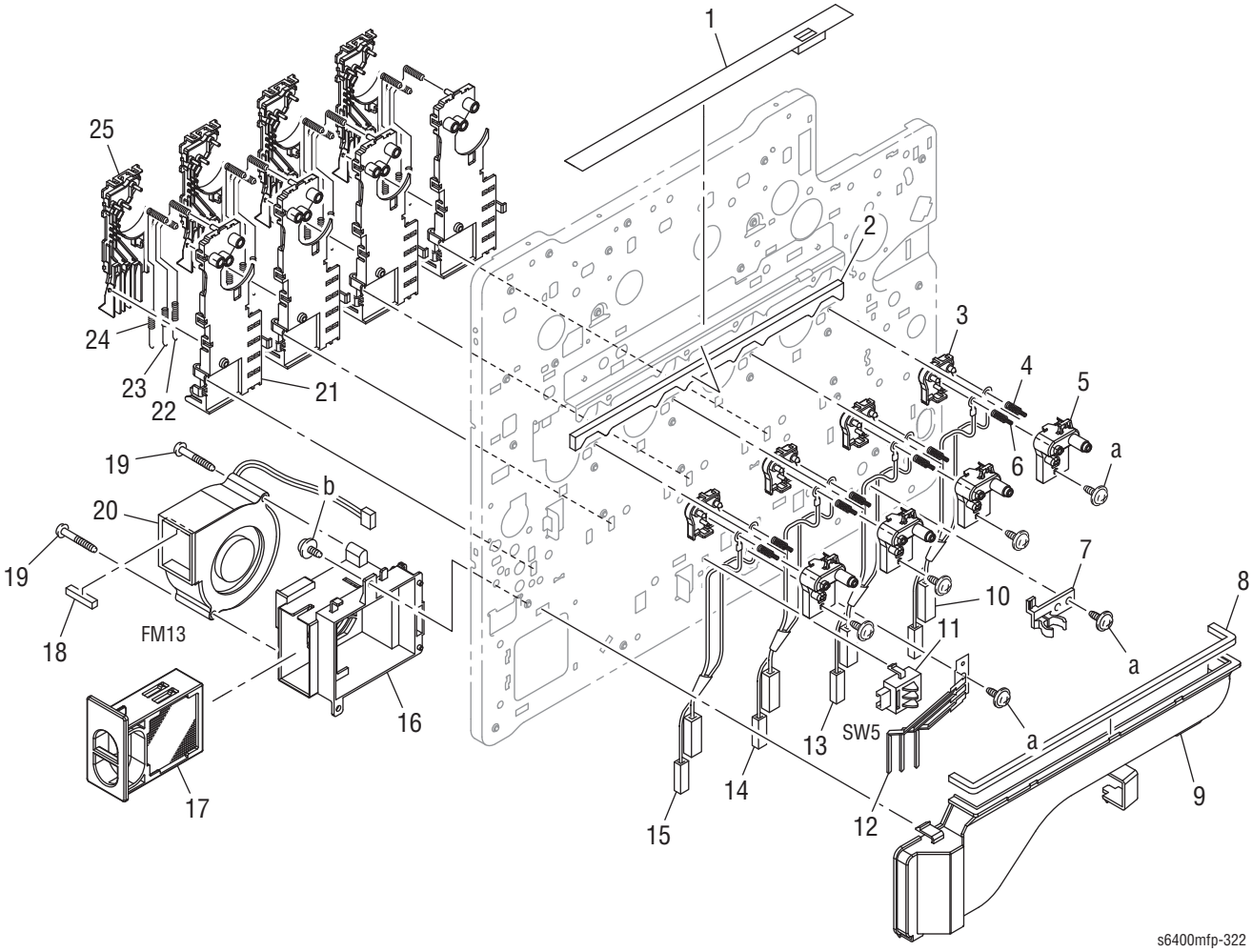
Parts List 6.0 Imaging Unit Rail



Parts List 6.0 Imaging Unit Rail

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Seal		1	
2.	CRUM Reader	101E29031	4	Qty 1 when ordered
3.	Cover		1	
4.	Bracket		1	
5.	Seal		1	
6.	Rail		1	
7.	Earth Ground		4	
8.	PWBA Assy		1	
9.	Cover		1	
10.	Photo Interrupter (PS4)	130E11800	1	Front Door Sensor
11.	Toner Cartridge Position Label		1	
12.	Imaging Unit Position Label		1	
13.	Cover		1	
14.	Lever		1	
15.	Shield		1	
16.	Rail		1	Toner Cartridge Rail (Y)
17.	Rail		3	Toner Cartridge Rail (M, C, K)
18.	PWB Assy (Toner Low Sensor Board - TLSB)	960K51950	1	Complete Assembly
19.	Toner Cartridge (C), High Capacity (12K)	106R01317	1	
	Toner Cartridge (C), Standard Capacity (6K)	106R01320	1	
	Toner Cartridge (C), Metered	106R01324	1	
20.	Toner Cartridge (M), High Capacity (12K)	106R01318	1	
	Toner Cartridge (M), Standard Capacity (6K)	106R01321	1	
	Toner Cartridge (M), Metered	106R01325	1	
21.	Toner Cartridge (Y), High Capacity (12K)	106R01319	1	
	Toner Cartridge (Y), Standard Capacity (6K)	106R01322	1	
	Toner Cartridge (Y), Metered	106R01326	1	
22.	Toner Cartridge (K), High Capacity (12K)	106R01316	1	
	Toner Cartridge (K), Metered	106R01323	1	
23.	Imaging Unit (C)	108R00775	1	
24.	Imaging Unit (M)	108R00776	1	
25.	Imaging Unit (Y)	108R00777	1	
26.	Imaging Unit (K)	108R00774	1	
a.	Screw		1	P/O Hardware Kit
b.	Screw (Tapping)		6	P/O Hardware Kit
c.	Screw (Tapping)		1	P/O Hardware Kit

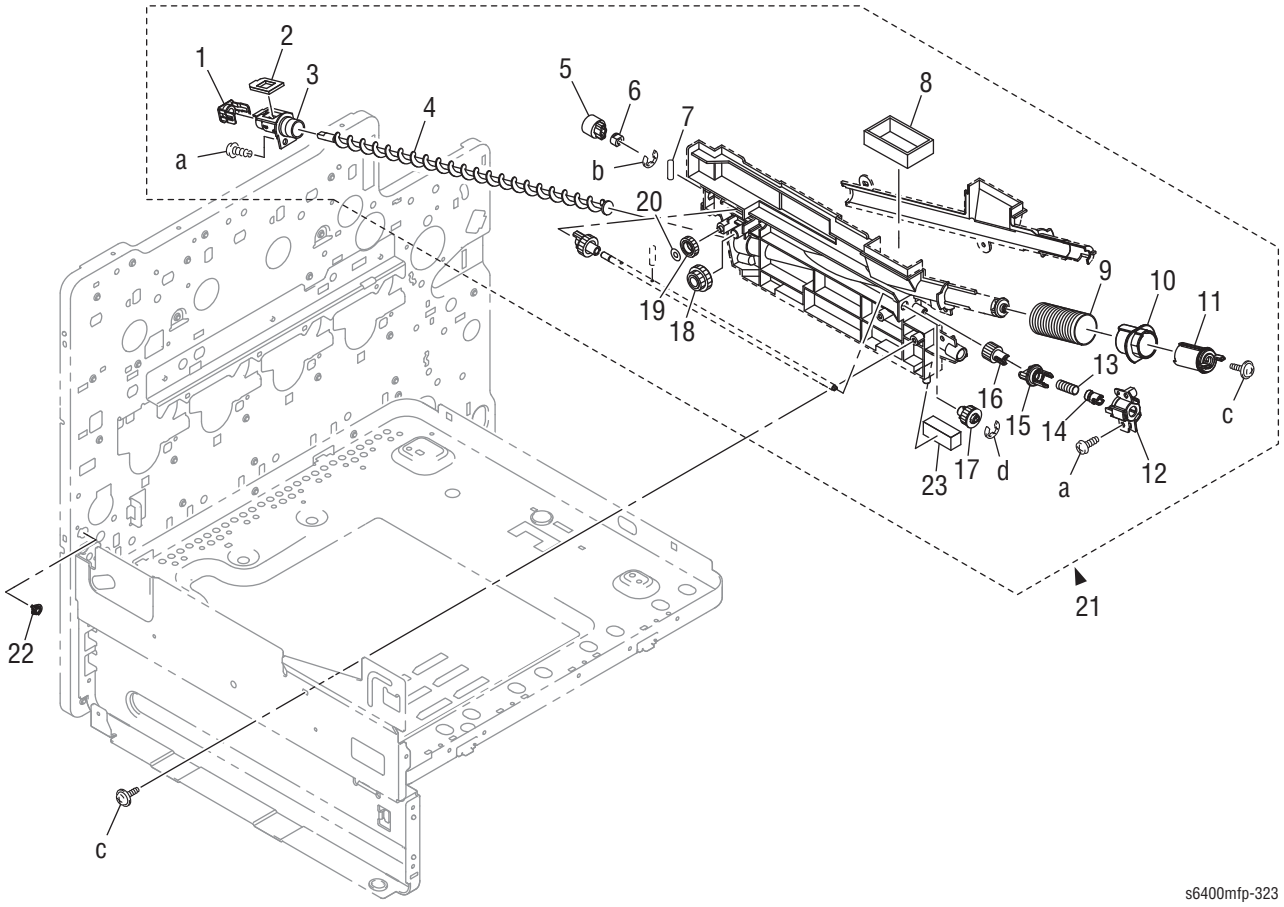
Parts List 7.0 Imaging Unit Contact



Parts List 7.0 Imaging Unit Contact

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Seal		1	
2.	Seal		1	
3.	Holder		4	
4.	Pressure Spring		4	
5.	Holder		4	
6.	Pressure Spring		4	
7.	Holder	019E81220	1	
8.	Seal		1	
9.	Duct		1	
10.	Wire Harness Assy (C4HV2, G4HV2)		1	Y Imaging Unit to HVPS-2
11.	Switch (SW5)	110E19930	1	Tray 2 Paper Size Switch
12.	Actuator	120E36330	1	Tray 2 Paper Size Actuator
13.	Wire Harness Assy (C3HV2, G3HV2)		1	M Imaging Unit to HVPS-2
14.	Wire Harness Assy (C2HV2, G2HV2)		1	C Imaging Unit to HVPS-2
15.	Wire Harness Assy (C1HV2, G1HV2)		1	K Imaging Unit to HVPS-2
16.	Duct		1	
17.	Ozone Filter	108R00815	1	Includes with Transfer Roller
18.	Seal		1	
19.	Screw		2	
20.	Fan Motor (FM13)	127E16410	1	Exhaust Fan Motor (Ozone Ventilation Fan)
21.	Cover		4	
22.	Contact (*)		4	
23.	Contact (*)		4	
24.	Contact (*)		4	
25.	Holder		4	
a.	Screw		6	P/O Hardware Kit
b.	Screw		1	P/O Hardware Kit
(*) Developer Bias Voltage contact from HVPS-1.				

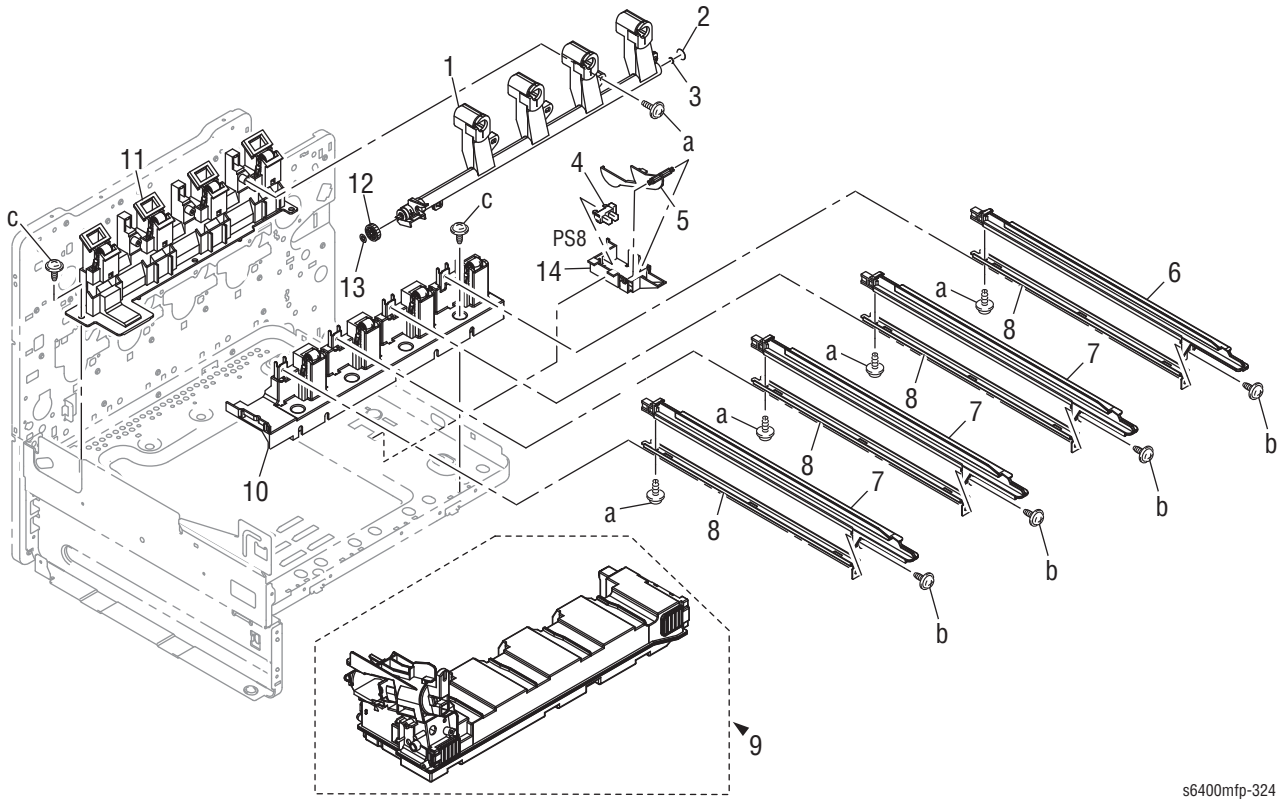
Parts List 8.0 Waste Toner Transport (1 of 2)



Parts List 8.0 Waste Toner Transport (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cover		1	
2.	Seal		1	
3.	Bushing Assy		1	
4.	Screw		1	
5.	Gear 16T		1	
6.	Bushing		1	
7.	Pin		1	
8.	Seal		1	
9.	Pressure Spring		1	
10.	Shutter		1	
11.	Shutter		1	
12.	Holder		1	
13.	Pressure Spring		1	
14.	Coupling		1	
15.	Joint		1	
16.	Gear 14T		1	
17.	Gear 16T		1	
18.	Gear 16/20T		1	
19.	Gear 17T		1	
20.	Stop Ring		1	
21.	Waste Toner Auger Assy	848K25680	1	Complete Assembly
22.	Holder	019E81230	1	Waste Auger Shaft Bearing
23.	Foam Seal		1	
a.	Screw		2	
b.	E-Ring		1	P/O Hardware Kit
c.	Screw		2	P/O Hardware Kit
d.	C-Clip		1	

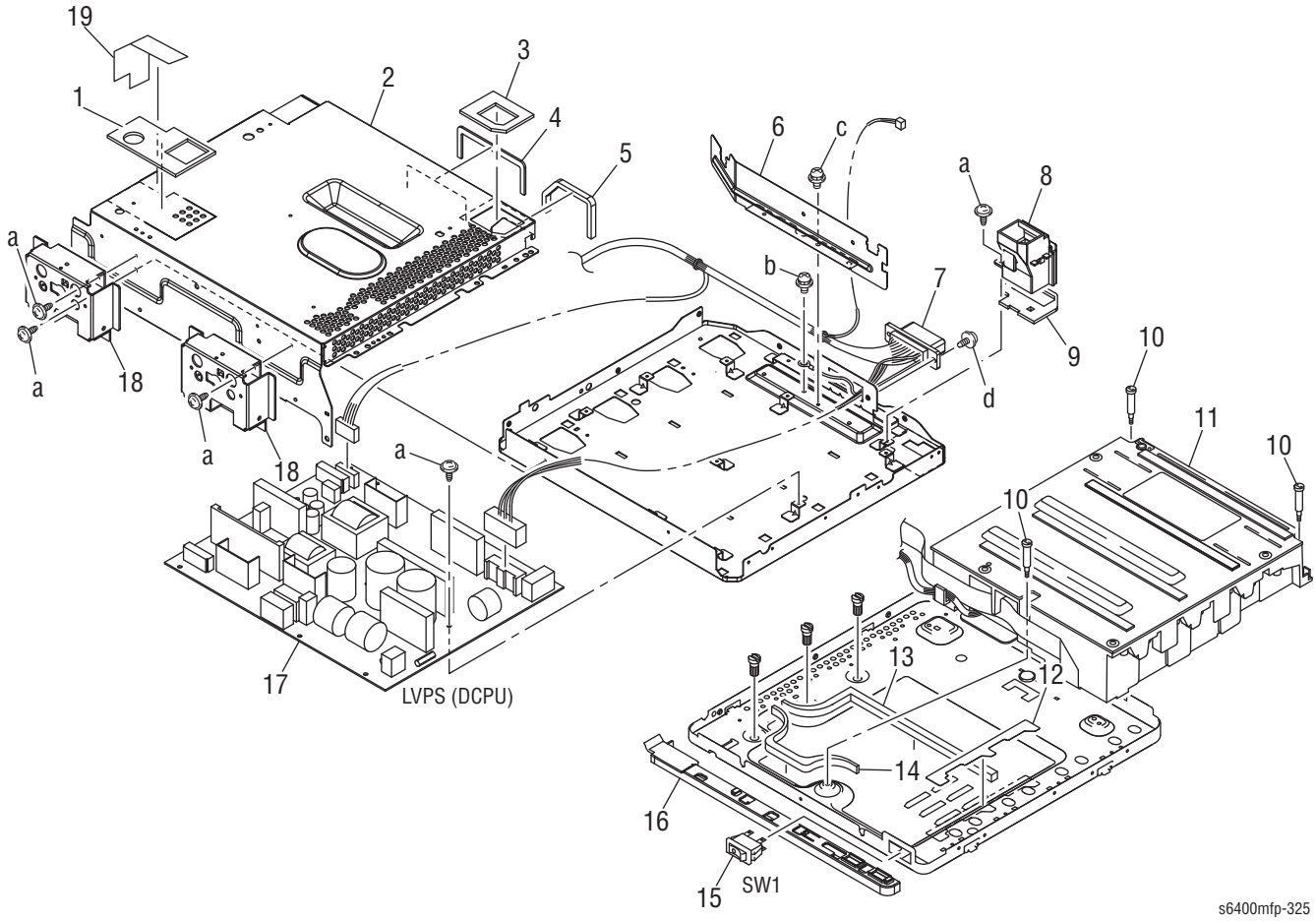
Parts List 9.0 Waste Toner Transport (2 of 2)



Parts List 9.0 Waste Toner Transport (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Holder Assy	019K13960	1	Waste Auger Delivery
2.	Seal		1	
3.	Seal		1	
4.	Photo Interrupter (PS8)	130E11800	1	Tray 2 Paper Empty Sensor
5.	Actuator	120E36340	1	Tray 2 Paper Empty Sensor Actuator
6.	Rail		1	Imaging Unit Cartridge Rail (K)
7.	Rail		3	Imaging Unit Cartridge Rail (Y, M, C)
8.	Reinforce Plate		4	
9.	Waste Cartridge	106R01368	1	Includes two Cartridges per part number
10.	Holder Assy	019K13970	1	Front Imaging Unit Holder
11.	Holder Assy	019K13980	1	Rear Imaging Unit Holder
12.	Gear 19T		1	
13.	Stop Ring		1	
14.	Bracket	868E66210	1	
a.	Screw (Tapping)		5	P/O Hardware Kit
b.	Screw (Tapping)		4	P/O Hardware Kit
c.	Screw		2	P/O Hardware Kit

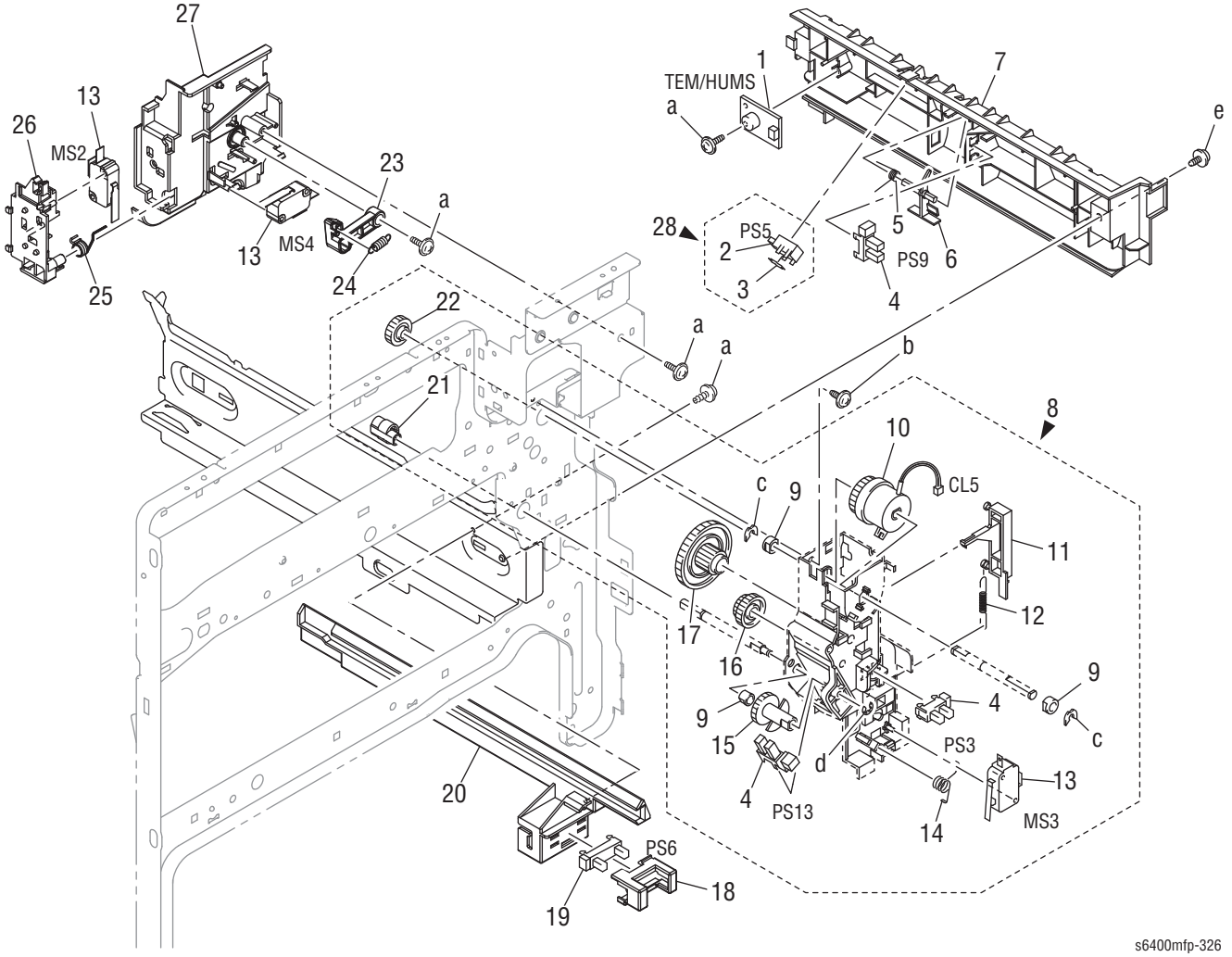
Parts List 10.0 LVPS/ Laser Unit



Parts List 10.0 LVPS/ Laser Unit

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Seal		1	
2.	Reinforce Plate		1	LVPS Shield
3.	Seal		1	
4.	Seal		1	
5.	Seal		1	
6.	Bracket		1	
7.	Wire Harness Assy (*)	962K76270	1	“Map 1 - LVPS (DCPU)” on page 10-21
8.	Duct		1	
9.	Seal		1	
10.	Shoulder Screw	826E49140	3	Laser Unit Mounting Screw
11.	Laser Unit	017E16960	1	Print Head Assy (P/H)
12.	Seal		1	
13.	Seal		1	
14.	Seal		1	
15.	Switch	110E20890	1	Power Switch
16.	Cover		1	
17.	LVPS - 120V	105E24160	1	DCPU
	LVPS - 220V	105E24170	1	DCPU
18.	Bracket		2	
19.	Seal		1	
a.	Screw (Tapping)		5	P/O Hardware Kit
b.	Screw		1	
c.	Screw		1	P/O Hardware Kit
d.	Screw (Tapping)		2	P/O Hardware Kit
(*) Connections to Fuser, LVPS, I/P Board, MCU Board, Scanner. PL 10.7 includes Fuser Bulkhead connector.				

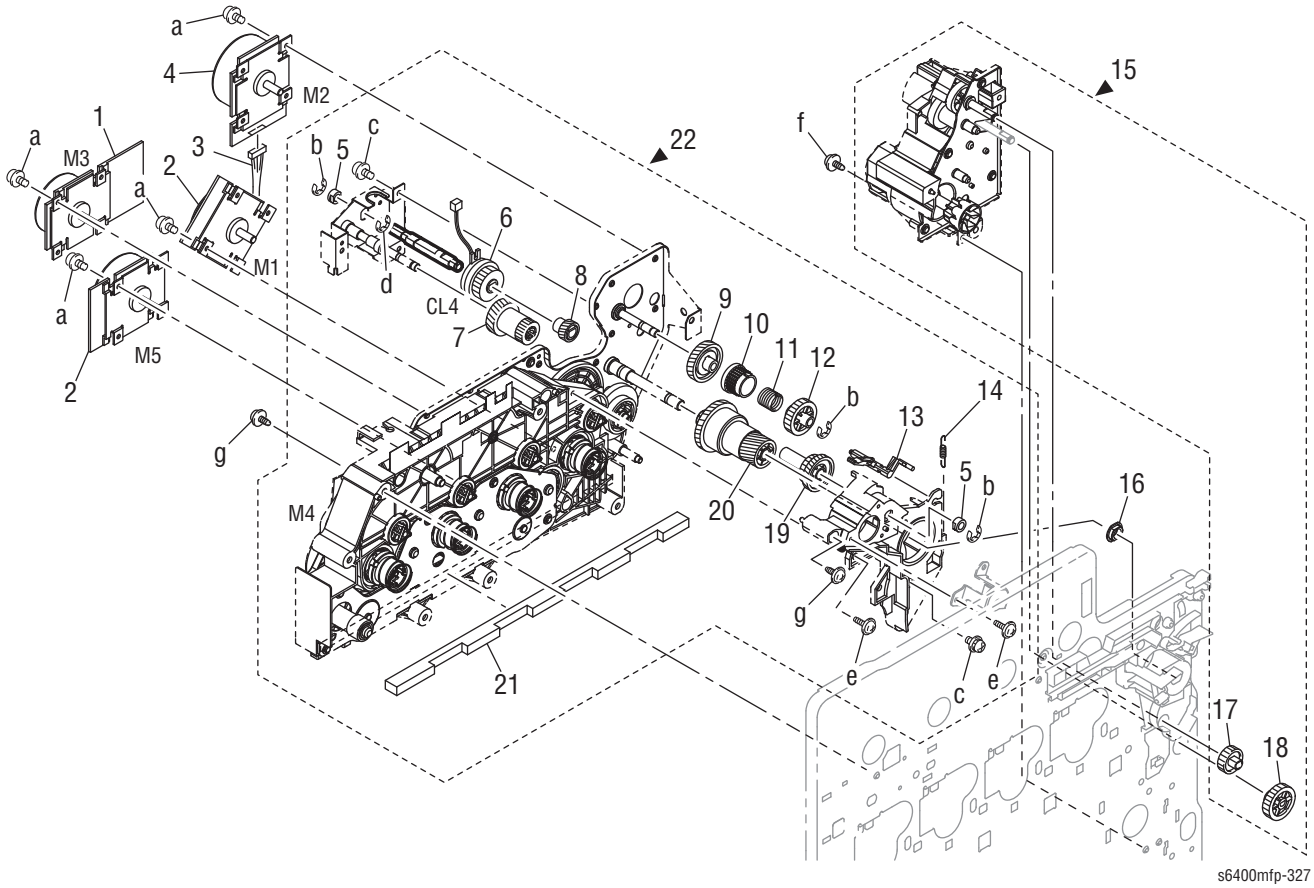
Parts List 11.0 Drive (1 of 3) - 2nd Transfer Pressure/ Retraction



Parts List 11.0 Drive (1 of 3) - 2nd Transfer Pressure/ Retraction

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Temperature/Humidity Sensor	130E12990	1	
2.	Photo Interrupter (PS5)		1	OHP Sensor - P/O Item 28
3.	Stopper		1	
4.	Photo Interrupter (PS3, PS9, PS13)	130E11800	3	PS3 = Right Door Sensor PS9 = Registration Sensor PS13 = Pressure/ Retraction Sensor 2
5.	Torsion Spring	809E94730	1	Registration Sensor Actuator Spring
6.	Actuator	120E36350	1	Registration Sensor Actuator
7.	Guide Plate		1	
8.	Drive Assy Kit	604K54540	1	2nd Image Transfer Pressure/ Retraction Drive Assembly
9.	Bushing		3	
10.	Clutch (CL5)		1	Pressure/Retraction Clutch 2
11.	Lever		1	
12.	Tension Spring		1	
13.	Micro - Switch (MS2, MS3, MS4)	110K15620	3	MS2 = Front Door Safety Switch MS3 = Right Door Safety Switch MS4 = Fuser In Switch
14.	Torsion Spring		1	
15.	Gear 24T		1	
16.	Gear 18/25T		1	
17.	Gear 19/44T		1	
18.	Cover		1	
19.	Solid State Switch (PS6)	107E29990	1	Waste Toner Full Sensor
20.	Rail		1	
21.	Cam		1	
22.	Gear 17T		1	
23.	Lever		1	
24.	Tension Spring		1	
25.	Torsion Spring		1	
26.	Bracket		1	
27.	Cover		1	
28.	Photo Interrupter (PS5)	130E13000	1	OHP Sensor
a.	Screw (Tapping)		4	P/O Hardware Kit
b.	Screw (Tapping)		1	P/O Hardware Kit
c.	C-Clip			
d.	C-Clip	019E81510	2	P/O Hardware Kit
e.	Screw (Tapping)		2	P/O Hardware Kit

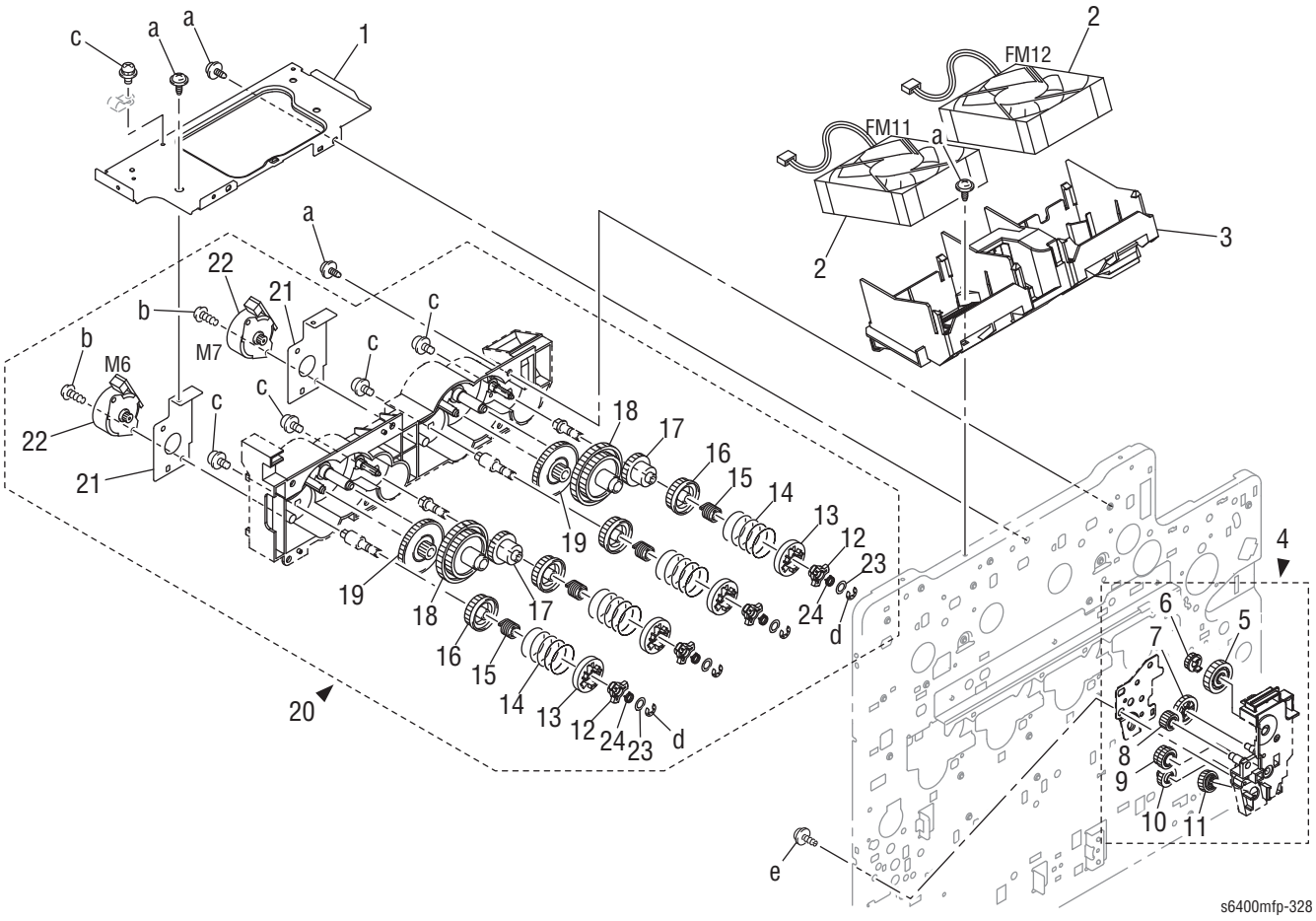
Parts List 12.0 Drive (2 of 3) - Main Drive



Parts List 12.0 Drive (2 of 3) - Main Drive

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Brushless Motor (M3)	127E16420	1	Color PC Drum Motor
2.	Brushless Motor (M1, M5)	127E16430	2	M1 = Intermediate Transport Motor M5 = Developer K Motor
3.	Wire Harness Assy (PJ19MCU-PJ17)		1	MCU to Fusing Motor
4.	Brushless Motor (M2)	127E16520	1	Fusing Motor
5.	Bushing		2	
6.	Clutch (CL4)	121E26560	1	Pressure/ Retraction Clutch 1
7.	Gear 17 50T		1	
8.	Gear 28T		1	
9.	Gear 58T		1	
10.	Ratchet		1	
11.	Torsion Spring		1	
12.	Gear 26T		1	
13.	Lever		1	
14.	Tension Spring		1	
15.	Paper Take-Up Drive Assy	130K75990	1	Includes Tray 1 Paper Feed Clutch (CL1) & Tray 2 Paper Feed Clutch (CL3)
16.	Bushing		1	
17.	Gear 19T		1	P/O 15
18.	Gear 27T		1	P/O 15
19.	Gear 21 66T		1	
20.	Gear 40T		1	
21.	Seal		1	
22.	Main Drive Assy	007K19870	1	Includes Developer YMC Motor (M4) and Pressure Retraction Clutch 2. M4 requires factory alignment, do not remove it from the Assembly.
a.	Screw		4	P/O Hardware Kit
b.	C-Clip		3	
c.	Screw		2	P/O Hardware Kit
d.	C-Clip		2	
e.	Screw		2	
f.	Screw		1	P/O Hardware Kit
g.	Screw		2	P/O Hardware Kit

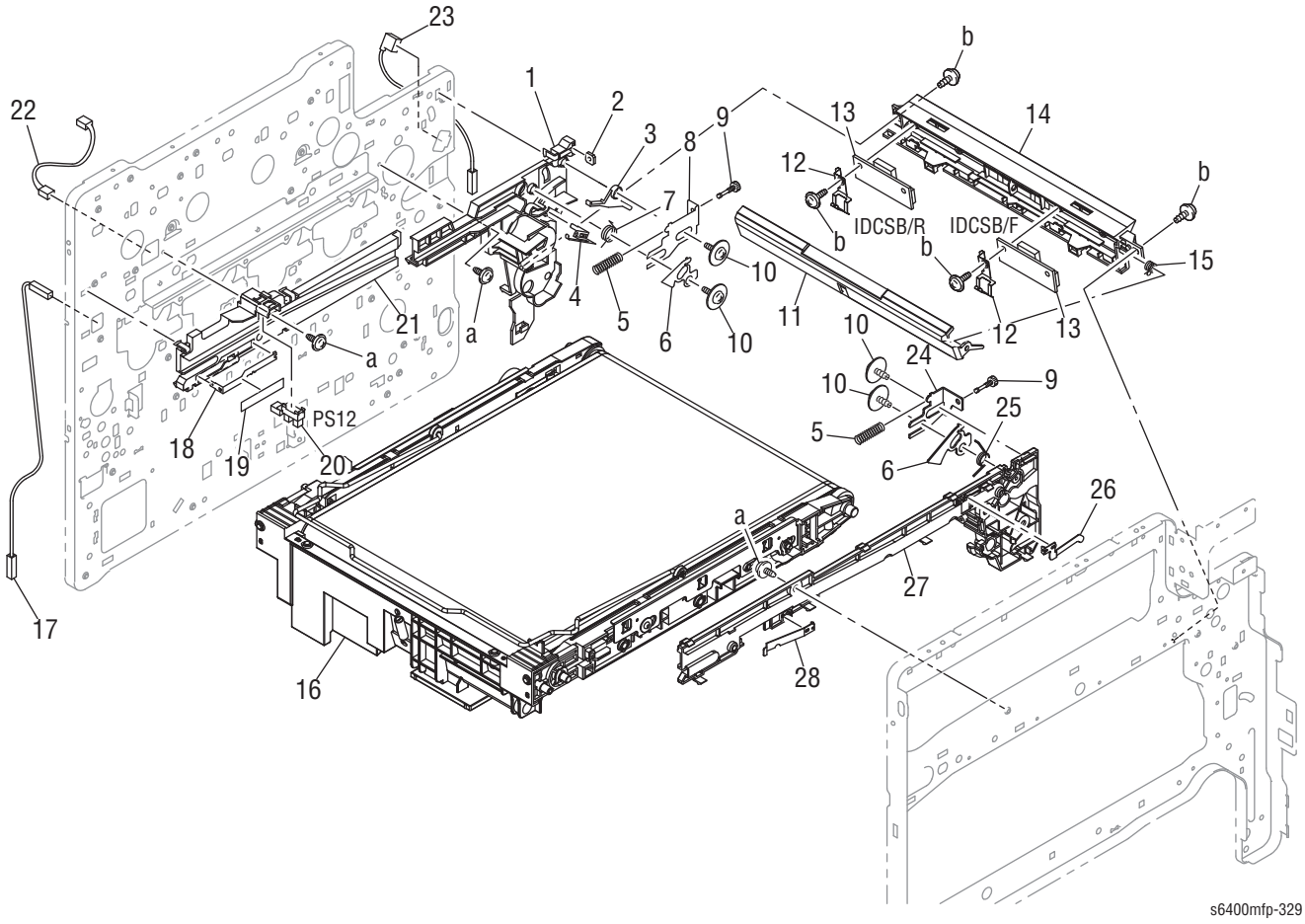
Parts List 13.0 Drive (3 of 3) - Toner Supply (Hopper)



Parts List 13.0 Drive (3 of 3) - Toner Supply (Hopper)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Bracket		1	
2.	Fan Motor (FM11, FM12)	127E16440	2	FM11 = DC Power Supply Fan Motor FM12 = Fusing Fan Motor
3.	Duct		1	
4.	Waste Toner Drive Assy	007K19880	1	
5.	Gear 30T		1	
6.	Gear 14T		1	
7.	Gear 28T		1	
8.	Gear 15T		1	
9.	Gear 17/17T		1	
10.	Gear 17T		1	
11.	Gear 17T		1	
12.	Gear		4	
13.	Coupling		4	
14.	Pressure Spring		4	
15.	Torsion Spring		4	
16.	Gear 30T		4	
17.	Gear 30T		2	
18.	Gear 45/96T		2	
19.	Gear 22/108T		2	
20.	Hopper Drive Assy	007K19890	1	Includes Toner Supply Motors M6 and M7.
21.	Heat Sink		2	
22.	Motor (M6, M7)	127E16450	2	M6 = Toner Supply Motor Y/M M7 = Toner Supply Motor C/K
23.	Washer		4	
24.	Torsion Spring		4	
a.	Screw		4	P/O Hardware Kit
b.	Screw (Tapping)		2	P/O Hardware Kit
c.	Screw (Tapping)		4	P/O Hardware Kit
d.	E-Ring		2	P/O Hardware Kit
e.	Screw		1	P/O Hardware Kit

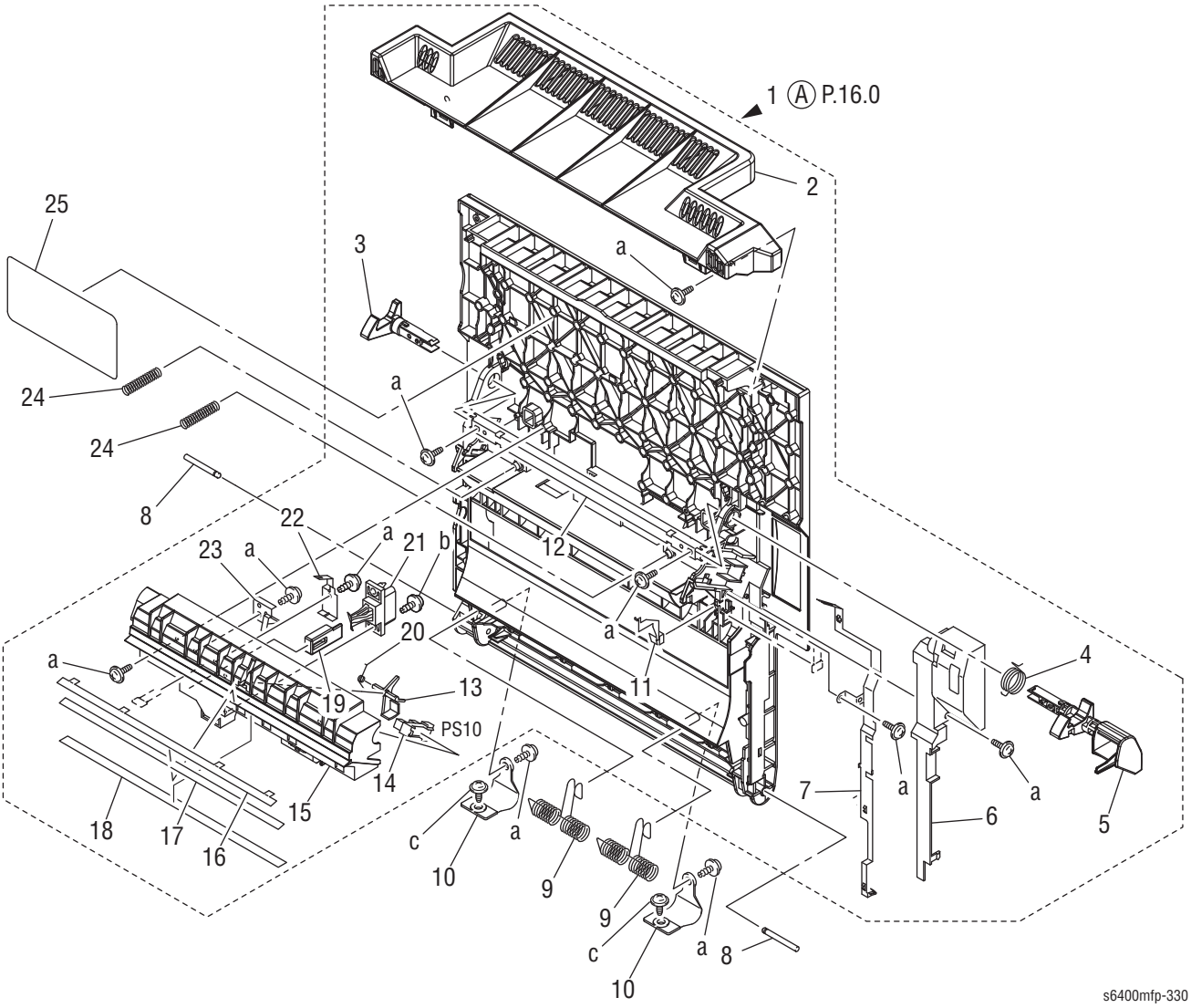
Parts List 14.0 Transfer Belt Unit



Parts List 14.0 Transfer Belt Unit

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Rail		1	
2.	Plate Nut		1	
3.	Lever		1	
4.	Contact		1	
5.	Pressure Spring		2	
6.	Stop Plate		2	
7.	Torsion Spring		1	
8.	Guide Plate		1	
9.	Screw		2	
10.	Screw		4	
11.	Cover	848E40550	1	IDCSB Shutter
12.	Earth Ground		2	
13.	Image Density Control Board (IDCSB)	960K51960	2	R = Rear F = Front
14.	Guide		1	
15.	Torsion Spring	809E94740	1	IDCSB Shutter Spring
16.	Transfer Belt Unit	108R00816	1	
17.	Wire Harness Assy (T1HV2)		1	HV2 to 1st Image Transfer
18.	Contact		1	
19.	Guide Plate		1	
20.	Photo Interrupter (PS12)	130E11800	1	Pressure/ Retraction Sensor 1
21.	Rail		1	
22.	Wire Harness Assy (CN27-PJ13)		1	MCU to PS12
23.	Wire Harness Assy (T2HV2)		1	HV2 to 2nd Image Transfer
24.	Guide Plate		1	
25.	Torsion Spring		1	
26.	Contact		1	
27.	Rail		1	
28.	Plate Spring		1	
a.	Screw		3	P/O Hardware Kit
b.	Screw		2	P/O Hardware Kit

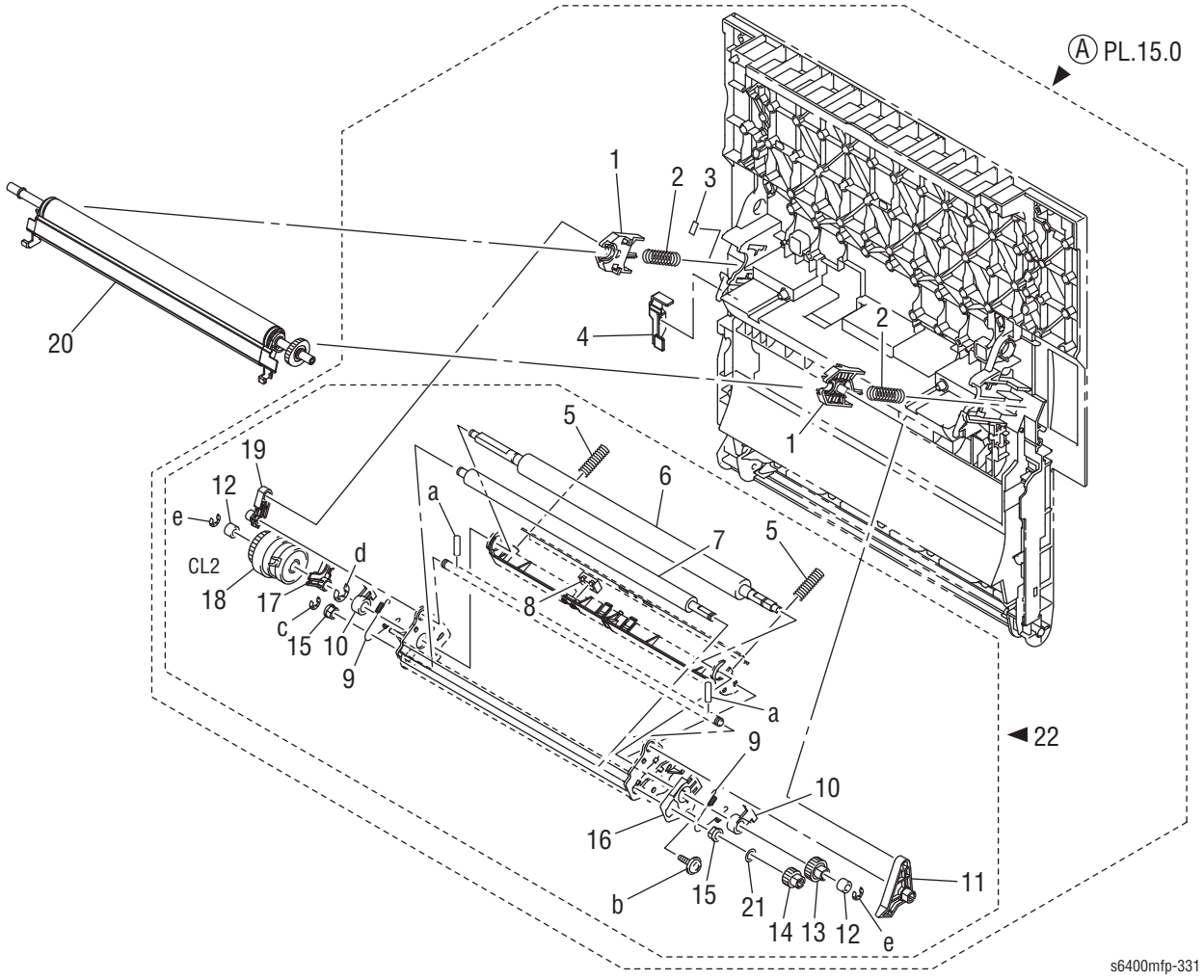
Parts List 15.0 Vertical Transport Unit (1 of 2)



Parts List 15.0 Vertical Transport Unit (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Vertical Transport Assy	059K69690	1	Complete Right Door Assembly
2.	Cover		1	
3.	Pawl		1	
4.	Torsion Spring		1	
5.	Claw		1	
6.	Cover		1	
7.	Ground Plate		1	
8.	Shaft		2	
9.	Torsion Spring		2	
10.	Stopper		2	
11.	Ground Plate		1	
12.	Bracket		1	
13.	Actuator	120E36360	1	Paper Loop Sensor Actuator
14.	Photo Interrupter (PS10)	130E11800	1	Paper Loop Sensor
15.	Guide		1	
16.	Plate Spring		1	
17.	Ground Plate		1	
18.	Guide		1	
19.	Guide		1	
20.	Torsion Spring		1	
21.	Wire Harness Assy (CN14A/B-PJ11)	962K76760	1	MCU to Duplex Unit
22.	Plate Spring		1	
23.	Plate Spring		1	
24.	Pressure Spring	809E94750	2	
25.	Label - Fuser Jam	896E86840	1	
a.	Screw (Tapping)		10	P/O Hardware Kit
b.	Screw		2	P/O Hardware Kit
c.	Screw (Tapping)		1	P/O Hardware Kit

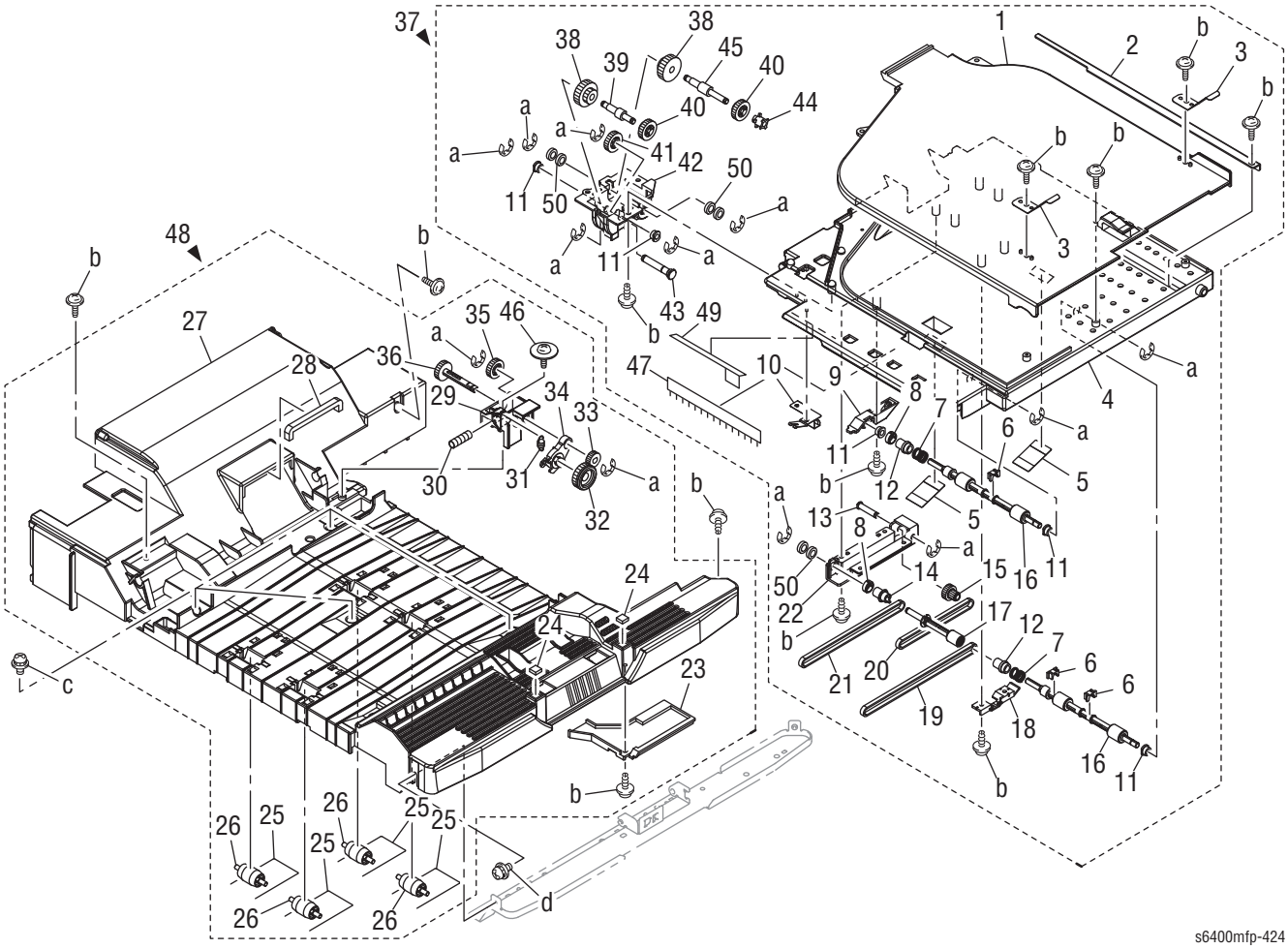
Parts List 16.0 Vertical Transport Unit (2 of 2)



Parts List 16.0 Vertical Transport Unit (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Holder		2	
2.	Pressure Spring		2	
3.	Stopper		1	
4.	Set Plate		1	
5.	Pressure Spring	809E94760	2	
6.	Roller		1	
7.	Roller		1	
8.	Solid State Switch		1	OHP Sensor Reflector
9.	Tension Spring		2	
10.	Bushing		2	
11.	Lever		1	
12.	Roll		2	
13.	Gear 20T		1	
14.	Gear 15T		1	
15.	Bushing		2	
16.	Earth Ground		1	
17.	Spacer		1	
18.	Clutch (CL2)	121E26560	1	Registration Clutch
19.	Lever		1	
20.	Transfer Roller	108R00815	1	Includes Ozone Filter
21.	Washer		1	
22.	Registration Roller Assy	059K69700	1	Complete Assembly
a.	Pin		2	
b.	Screw (Tapping)		1	P/O Hardware Kit
c.	E-Ring		2	P/O Hardware Kit
d.	E-Ring		1	
e.	C-Clip	019E81510	2	P/O Hardware Kit

Parts List 17.0 Horizontal Transport Unit



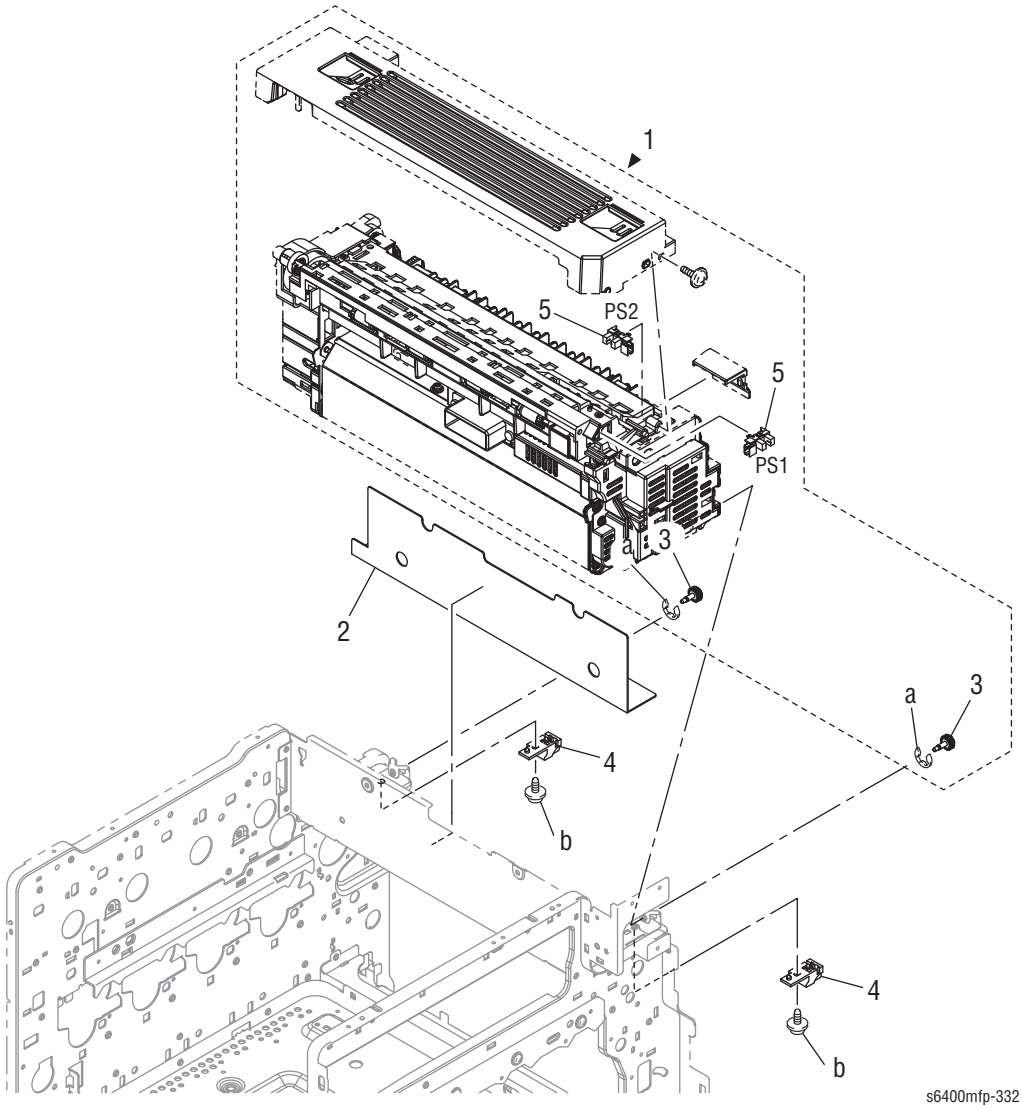
Parts List 17.0 Horizontal Transport Unit

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Duct		1	
2.	Reinforce Plate		1	
3.	Spring		2	
4.	Guide		1	
5.	Guide		2	
6.	Bushing		3	
7.	Torsion Spring		2	
8.	Collar		2	
9.	Bracket		1	
10.	Ground		1	
11.	Bushing		5	
12.	Pulley 14T		2	
13.	Shaft		1	
14.	Pulley 14T		1	
15.	Gear 14/17T		1	
16.	Roller		2	
17.	Shaft		1	
18.	Bracket		1	
19.	Timing Belt 308L		1	
20.	Timing Belt 206L		1	
21.	Timing Belt 280L		1	
22.	Bracket		1	
23.	Duct		1	
24.	Cushion		2	
25.	Spring		4	
26.	Roll		4	
27.	Guide		1	
28.	Seal		1	
29.	Holder		1	
30.	Pressure Spring		1	
31.	Tension Spring		1	
32.	Gear 30T		1	
33.	Gear 16T		1	
34.	Arm		1	
35.	Gear 17T		1	
36.	Gear 16T		1	
37.	Horizontal Transport - Upper	059E10840	1	Complete Assembly
38.	Gear 22T		2	
39.	Shaft		1	
40.	Gear 17T		2	

Parts List 17.0 Horizontal Transport Unit (continued)

ID No.	Name/Description	Part Number	Qty.	Comments
41.	Gear 17T		1	
42.	Holder		1	
43.	Shaft		1	
44.	Pulley 14T		1	
45.	Shaft		1	
46.	Screw		1	
47.	Neutralizing Brush		1	
48.	Horizontal Transport - Lower	059E10830	1	Complete Assembly
49.	Seal		1	
50.	Bearing		6	
a.	E-Ring		10	P/O Hardware Kit
b.	Screw		8	P/O Hardware Kit
c.	Screw		2	

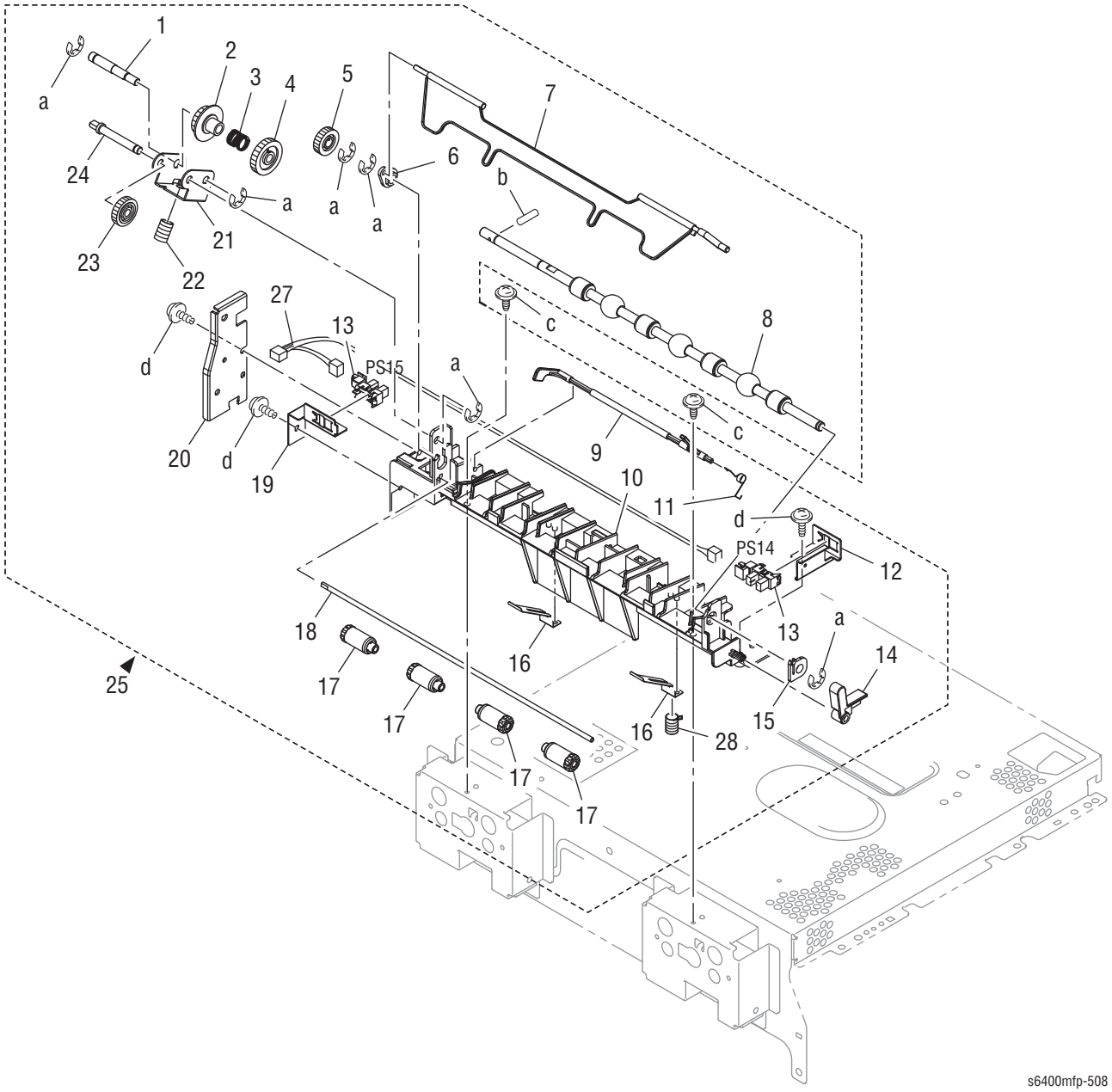
Parts List 18.0 Fuser Unit



Parts List 18.0 Fuser Unit

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Fuser Unit - 120V	115R00059	1	
	Fuser Unit - 220V	115R00060	1	
2.	Seal		1	
3.	Shoulder Screw		2	
4.	Pawl	807E34410	2	
5.	Photo Interrupter (PS1, PS2)	130E11800	2	PS1 = Fuser Exit Sensor PS2 = Paper Feed Sensor
a.	C-Clip	019E81510	2	P/O Hardware Kit
b.	Screw (Tapping)		2	P/O Hardware Kit

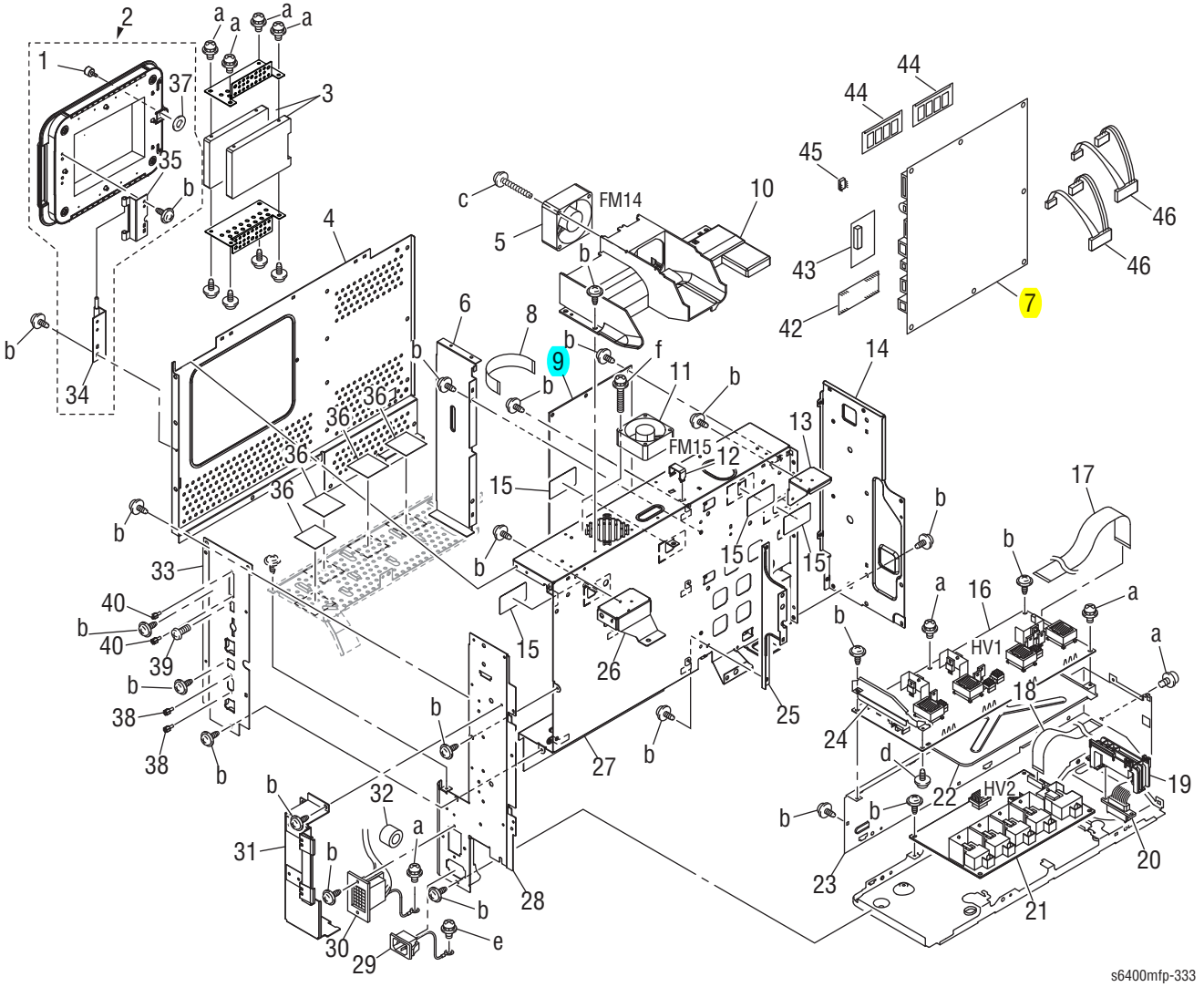
Parts List 19.0 Paper Exit



Parts List 19.0 Paper Exit

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Shaft		1	
2.	Gear 17T		1	
3.	Torsion Spring		1	
4.	Gear 22T		1	
5.	Gear 16T		1	
6.	Bushing		1	
7.	Actuator	120E36490	1	Output Tray Full Actuator
8.	Roller		1	
9.	Actuator		1	Exit Sensor Actuator
10.	Guide		1	
11.	Torsion Spring		1	
12.	Bracket		1	
13.	Photo Interrupter (PS14, PS15)	130E11800	2	PS14 = Paper Tray Full Sensor PS15 = Exit Sensor 2
14.	Lever		1	
15.	Bushing		1	
16.	Plate Spring		2	
17.	Roll		4	
18.	Shaft		1	
19.	Bracket		1	
20.	Bracket		1	
21.	Bracket		1	
22.	Pressure Spring		1	
23.	Gear 17T		1	
24.	Shaft		1	
25.	Paper Exit Assy	848K25690	1	Complete Assembly
26.	-----			
27.	Sensor Wiring 2 Wiring Harness (*)		1	MCU Board to PS14, PS15
28.	Pressure Spring		1	
a.	E-Ring		6	P/O Hardware Kit
b.	Pin		1	P/O Hardware Kit
c.	Screw (Tapping)		2	P/O Hardware Kit
d.	Screw		2	P/O Hardware Kit
(*) Connections from CN-Exit, CN-Exit1, CN-Exit2 (PS14/PS15) to MCU Board.				

Parts List 20.0 Electrical Components



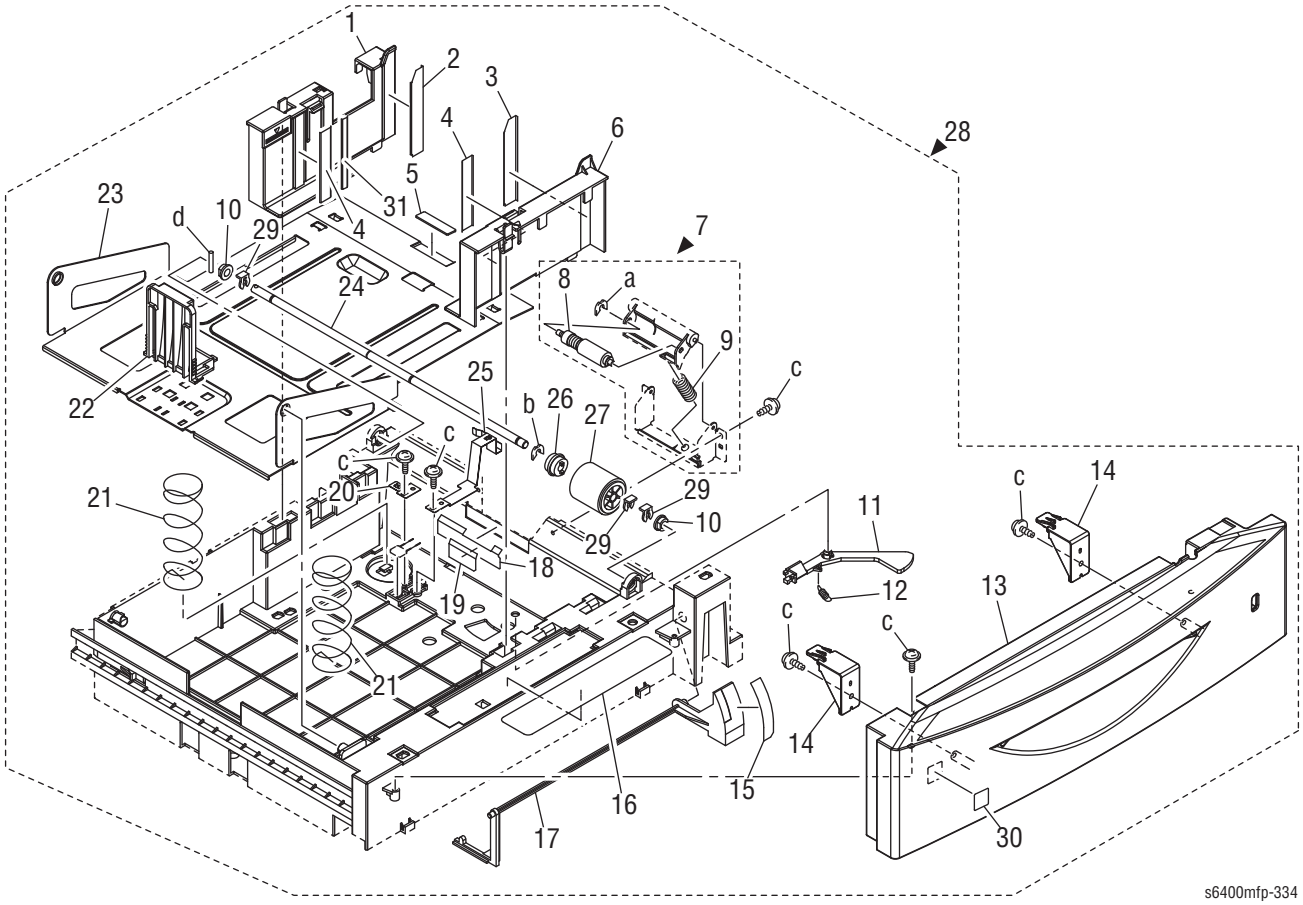
Parts List 20.0 Electrical Components

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Shoulder Screw		1	Included with Hardware Kit
2.	Rear Cover Access Door	848E40120	1	
3.	HDD - CC	121K50770	1	Copy Controller
	HDD - NC	121K50810	1	Network Controller
4.	Shield		1	RF Protective Shield
5.	Horizontal Transport Fan (FM14)	127E16560	1	
6.	Bracket		1	
7.	Image Processor Board	960K51980	1	I/P Board (includes Fax and SATA Daughter Board)
8.	Ribbon Cable	962K76280	1	I/P Board to MCU Board Ribbon Cable
9.	Engine Controller Board (MFPB)	960K51970	1	MCU Board
10.	Duct		1	
11.	Cooling Fan (FM15)	127E16550	1	I/P Board Cooling Fan Motor
12.	Supporter		1	
13.	Bracket		1	
14.	Bracket		1	
15.	Seal		4	
16.	HVPS-1 (HV1)	105K35700	1	HV Power Supply 1
17.	Ribbon Cable (CN1HV1-PJ17MCU)	962K76290	1	MCU to HV1 Ribbon Cable
18.	Ribbon Cable (CN1HV2-PJ17MCU)	962K76300	1	MCU to HV2 Ribbon Cable
19.	Bracket		1	
20.	Wire Harness Assy (CN25-PJ20MCU)	962K76310	1	Engine to LTA Harness
21.	HVPS-2 (HV2)	105K35710	1	HV Power Supply 2
22.	Cover		1	
23.	Bracket		1	
24.	Shield		1	
25.	Hold Plate		1	
26.	Bracket		1	
27.	Bracket		1	Card Cage
28.	Bracket		1	
29.	Wire Harness Assy (CN1PG1)		1	AC Input
30.	Wire Harness Assy (CN29L/A-PJ34/35MCU)	962K76770	1	Engine to Finisher Harness
31.	Bracket		1	
32.	Ferrite Core		1	
33.	I/P Board Back Panel	848E40130	1	
34.	Hinge		1	
35.	Hinge		1	
36.	Seal		4	
37.	Washer		1	
38.	Screw		2	

Parts List 20.0 Electrical Components (continued)

ID No.	Name/Description	Part Number	Qty.	Comments
39.	Screw		1	
40.	Hex Nut		2	
41.	-----			
42.	Fax Board	960K51990	1	
43.	NVM Module	960K58220	1	
44.	RAM (Memory DIMM)	237E24920	2	512 MB each
45.	IP Board NVRAM Chip	960K52040	1	
46.	Hard Drive Cable	962K40460	1	Common harness for both NC and CC HDDs
a.	Screw		8	P/O Hardware Kit
b.	Screw (Tapping)		14	P/O Hardware Kit
c.	Screw		1	
d.	Screw (Tapping)		1	P/O Hardware Kit
e.	Screw		1	
f.	Screw		1	

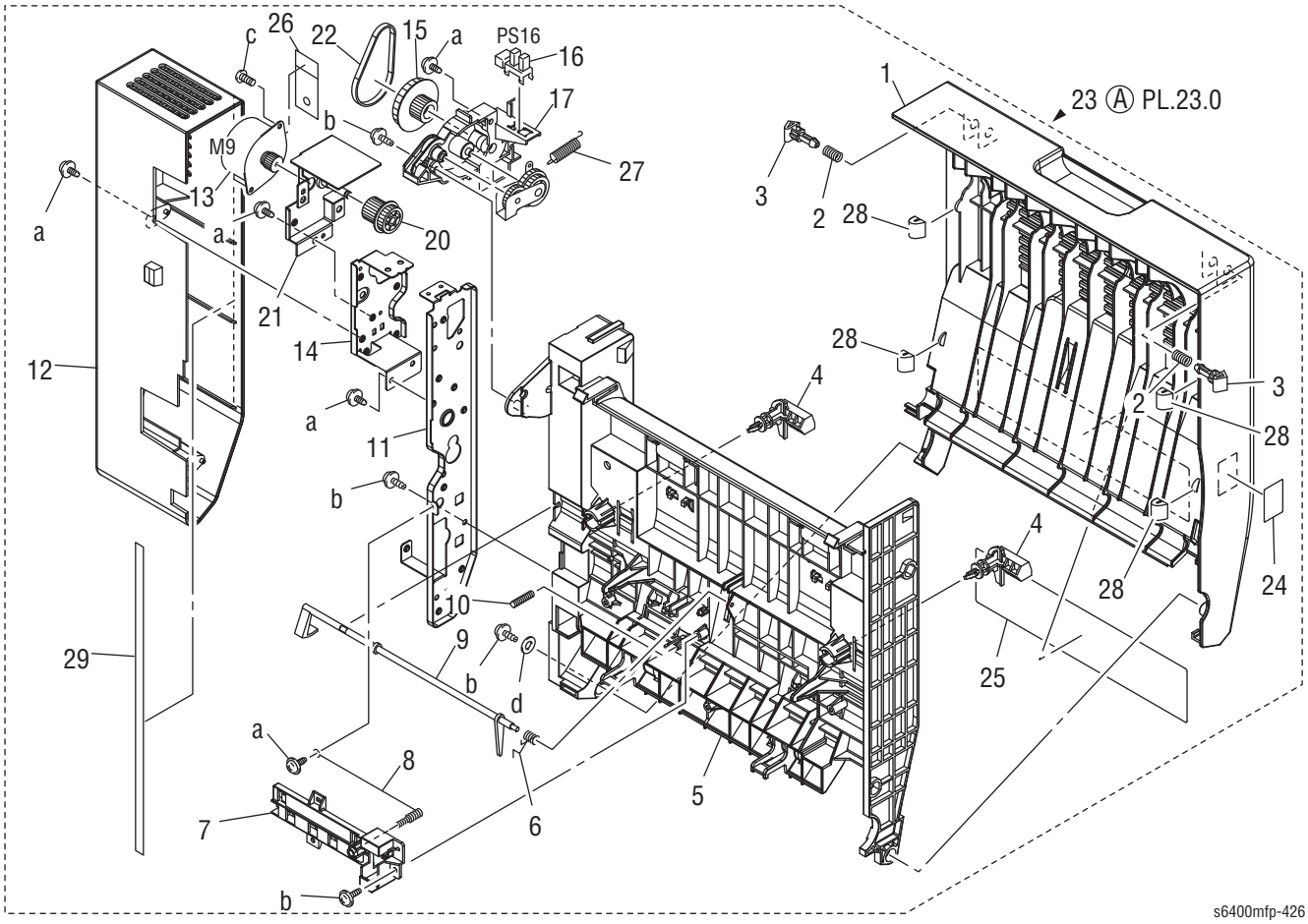
Parts List 21.0 500-Sheet Tray



Parts List 21.0 500-Sheet Tray

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Regulating Plate		1	
2.	Guide		1	
3.	Guide		1	
4.	Guide		2	
5.	Friction Sheet		1	
6.	Regulating Plate		1	
7.	Separation Roller Assy	059K69710	1	Complete Assembly
8.	Separation Roller		1	
9.	Pressure Spring		1	
10.	Bushing		2	
11.	Lever		1	
12.	Tension Spring		1	
13.	Front Cover		1	
14.	Hold Plate		2	
15.	Label		1	
16.	Label		1	
17.	Lever		1	
18.	Guide Plate		1	
19.	Guide		1	
20.	Plate Spring		1	
21.	Pressure Spring		2	
22.	Regulating Plate		1	
23.	Lifting Plate		1	
24.	Shaft		1	
25.	Plate Spring		1	
26.	Clutch	121E26580	1	Tray 2 Separation Roller Clutch
27.	Feed Roller	059E10850	1	120K Life
28.	Cassette Assy (A4)	050K68310	1	Complete Tray Assembly
	Cassette Assy (Letter)	050K68320	1	Complete Tray Assembly
29.	K Clip	019E81520	3	
30.	Label		1	
31.	Brake		1	
a.	E-Ring		1	P/O Hardware Kit
b.	E-Ring		1	
c.	Screw		6	P/O Hardware Kit
d.	Pin		1	

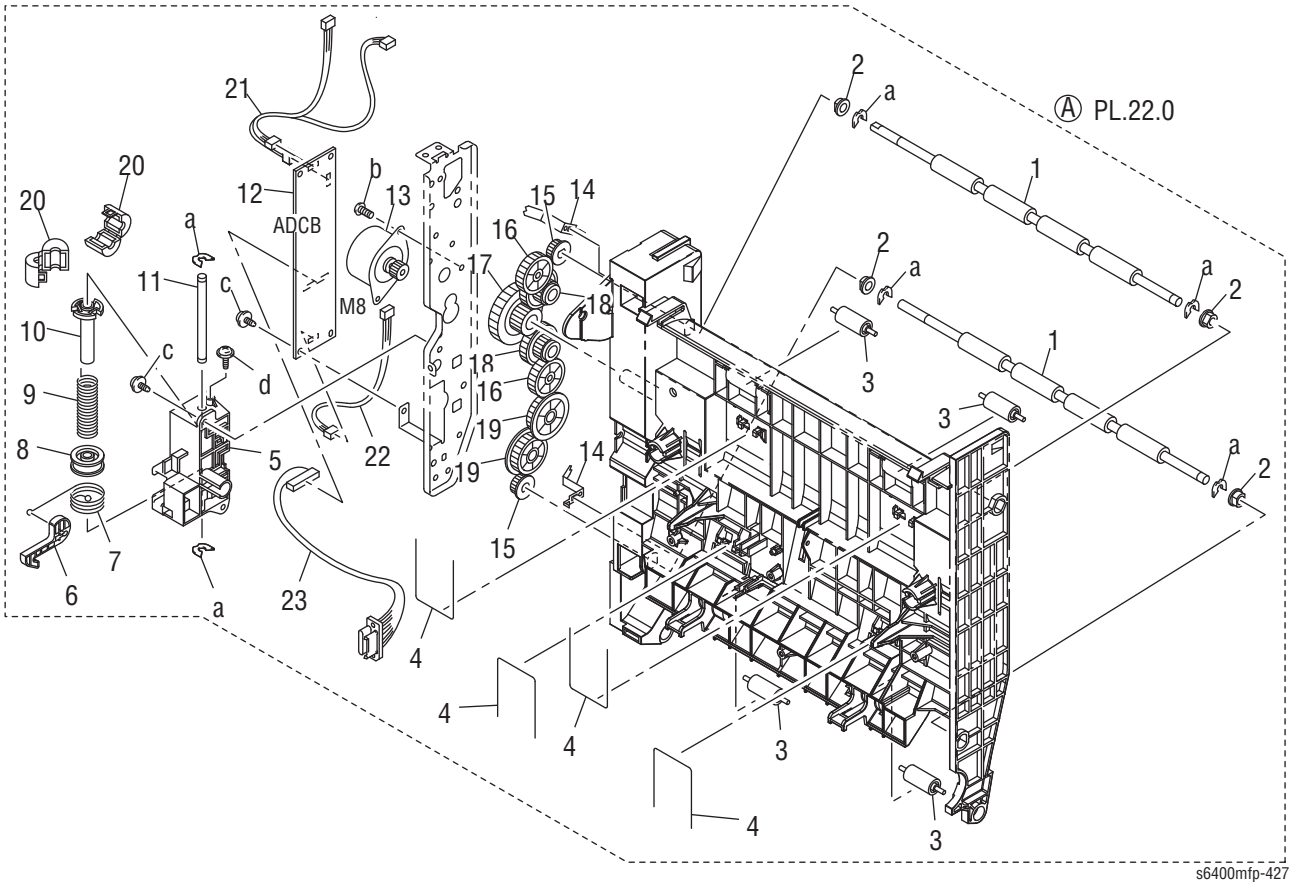
Parts List 22.0 Duplex Unit (1 of 2)



Parts List 22.0 Duplex Unit (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cover		1	
2.	Pressure Spring		2	
3.	Shaft		2	
4.	Lever		2	
5.	Frame		1	
6.	Torsion Spring		1	
7.	Cover		1	
8.	Pressure Spring		1	
9.	Actuator		1	
10.	Pressure Spring		1	
11.	Bracket		1	
12.	Cover		1	Right Cover
13.	Stepping Motor (M9)	127E16460	1	Duplex Reverse Motor
14.	Bracket		1	
15.	Gear 15/58T		1	
16.	Photo Interrupter (PS16)	130E11800	1	Duplex Door Sensor
17.	Holder		1	
18.	-----		1	
19.	-----		1	
20.	Gear 32T		1	
21.	Axle Plate (Drive)		1	
22.	Timing Belt 158L		1	
23.	Duplex Unit	084K36930	1	Complete Duplex Unit Assembly
24.	Label		1	
25.	Label		1	
26.	Seal		1	
27.	Spring		1	
28.	Seal		4	
29.	Seal		1	
a.	Screw		5	P/O Hardware Kit
b.	Screw		4	P/O Hardware Kit
c.	Screw		1	
d.	Washer		1	

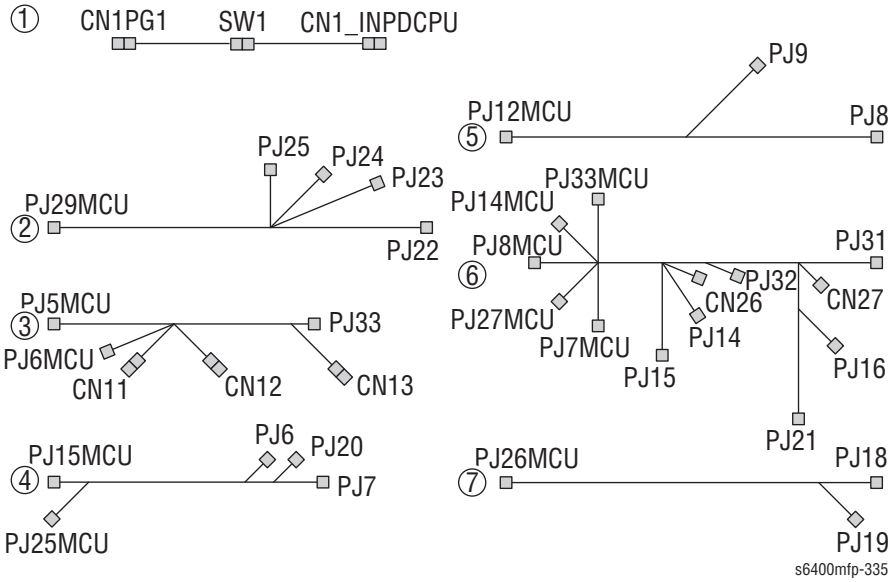
Parts List 23.0 Duplex Unit (2 of 2)



Parts List 23.0 Duplex Unit (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Roller		2	
2.	Bushing		4	
3.	Roll		4	
4.	Spring		4	
5.	Holder		1	
6.	Hook		1	
7.	Wire		1	
8.	Pulley		1	
9.	Torsion Spring		1	
10.	Collar		1	
11.	Shaft		1	
12.	PWB Assy (ADCB)	960K52000	1	Duplex Control Board
13.	Stepping Motor (M8)	127E16470	1	Duplex Transport Motor
14.	Plate Spring		1	
15.	Gear 12T		1	
16.	Gear 28T		2	
17.	Gear 17/52T		1	
18.	Gear 15/28T		2	
19.	Gear 30T		2	
20.	Ferrite Core		2	
21.	Wire Harness Assy (*)		1	
22.	Wiring Harness Assy (PJ2ADCB-PJ22)		1	ADCB to M8
23.	Wiring Harness Assy (CN14A/CN14B-PJ1ADCB)	117E36000	1	Duplex Unit to Engine Harness. Includes Bulkhead connector
a.	E-Ring		6	
b.	Screw		1	
c.	Screw		2	P/O Hardware Kit
d.	Screw		1	
(*) Connections from PJ3/PJ4ADCB to PJ23 (M9) and PJ25 (PS16).				

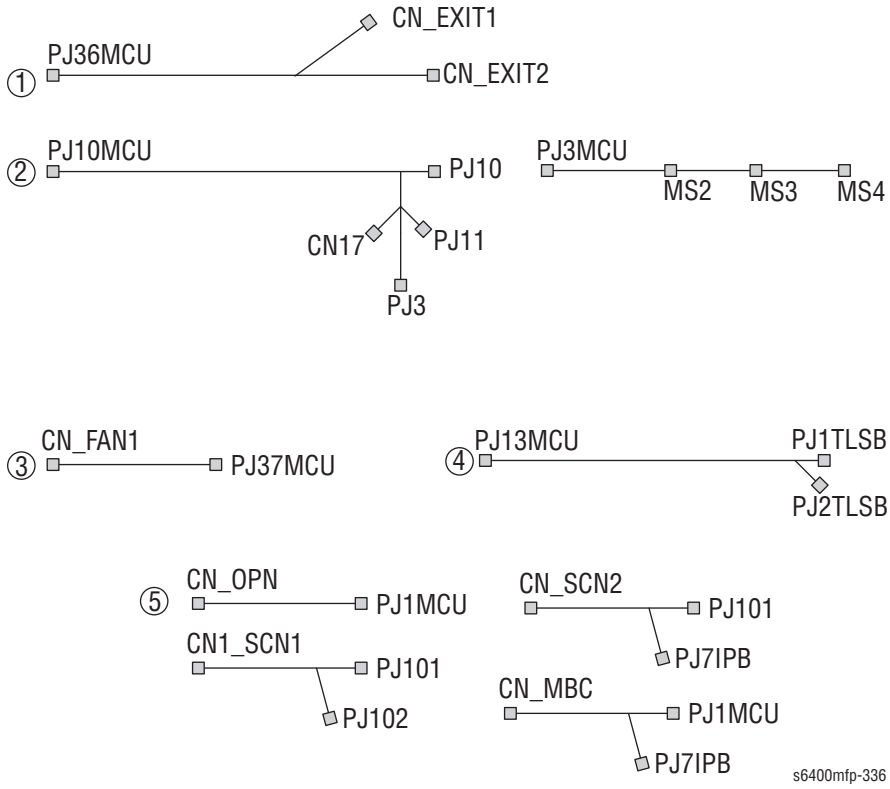
Parts List 24.0 Wiring (1 of 2)



Parts List 24.0 Wiring (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Wire Harness Assy ■ CN1PG1-SW1-CN1INPDCPU		1	
2.	Wire Harness Assy ■ PJ29MCU to PJ22(Y), PJ23(M), PJ24(C) & PJ25(K)	962K76780	1	CMYK Toner CRUM Harness
3.	Wire Harness Assy ■ PJ5MCU to PJ33(SW5) ■ PJ6MCU to CN11(CL3), CN12(CL1) & CN13(FM13)		1	
4.	Wire Harness Assy ■ PJ15MCU to PJ7(PS9) and PJ20(PS5) ■ PJ25MCU to PJ6(Temp/Hum Sensor)	962K76790	1	
5.	Wire Harness Assy ■ PJ12MCU to PJ8(IDCSB/R) & PJ9(IDCB/F)		1	
6.	Wire Harness Assy ■ PJ7MCU to PJ31(M6), PJ32(M7), CN26(CL4), CN27/PJ13(PS12) ■ PJ8MCU & PJ33MCU to PJ21(M5) & PJ16(M4) ■ PJ14MCU to PJ14(M3) ■ PJ27MCU to PJ15(M1)	962K76820	1	Developer Motors Harness
7.	Wire Harness Assy ■ PJ26MCU to PJ19(PS7) & PJ18(PS6)		1	

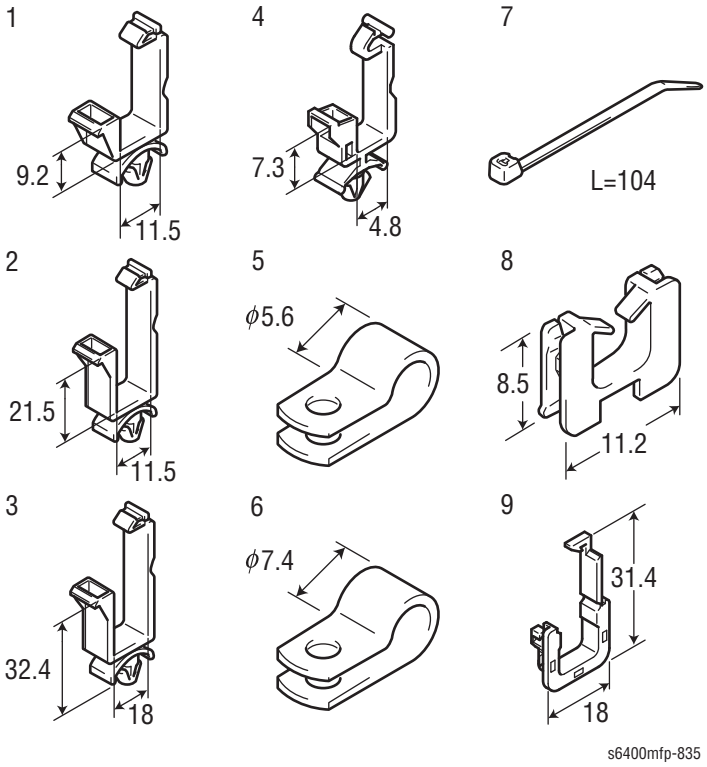
Parts List 25.0 Wiring (2 of 2)



Parts List 25.0 Wiring (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Wire Harness Assy		1	Paper Full and Exit Sensor Harness
2.	Wire Harness Assy (Interlock) (*)	962K76800	1	Front and Right Door Sensor Harness
3.	Wire Harness Assy (Relay)		1	
4.	Wire Harness Assy	962K76810	1	TLSB Harness
5.	Wire Harness Assy (Power Source)	962K76270	1	Fuser Bulkhead Connector
(*) ■ Connections from PJ10MCU to CN17, CL5, PJ10(PS3), PJ11(PS13) & PJ3 (PS4) ■ Connections from PJ3MCU to MS2 & MS3 & MS4				

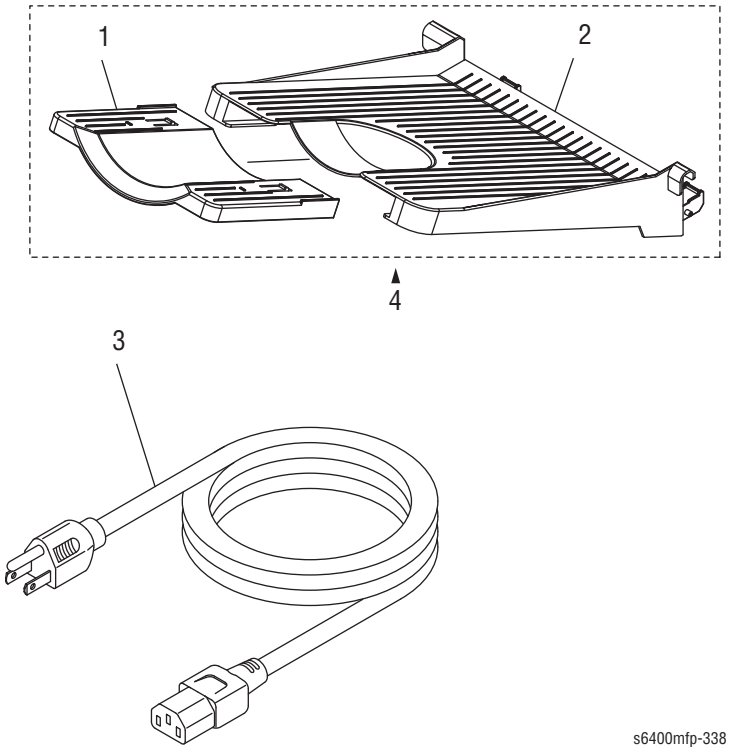
Parts List 26.0 Wiring Accessories



Parts List 26.0 Wiring Accessories

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Saddle			
2.	Saddle			
3.	Saddle			
4.	Saddle		2	P/O Hardware Kit
5.	Clamp			
6.	Clamp			
7.	Band		2	P/O Hardware Kit
8.	Saddle			
9.	Holder			P/O Hardware Kit

Parts List 27.0 Accessories

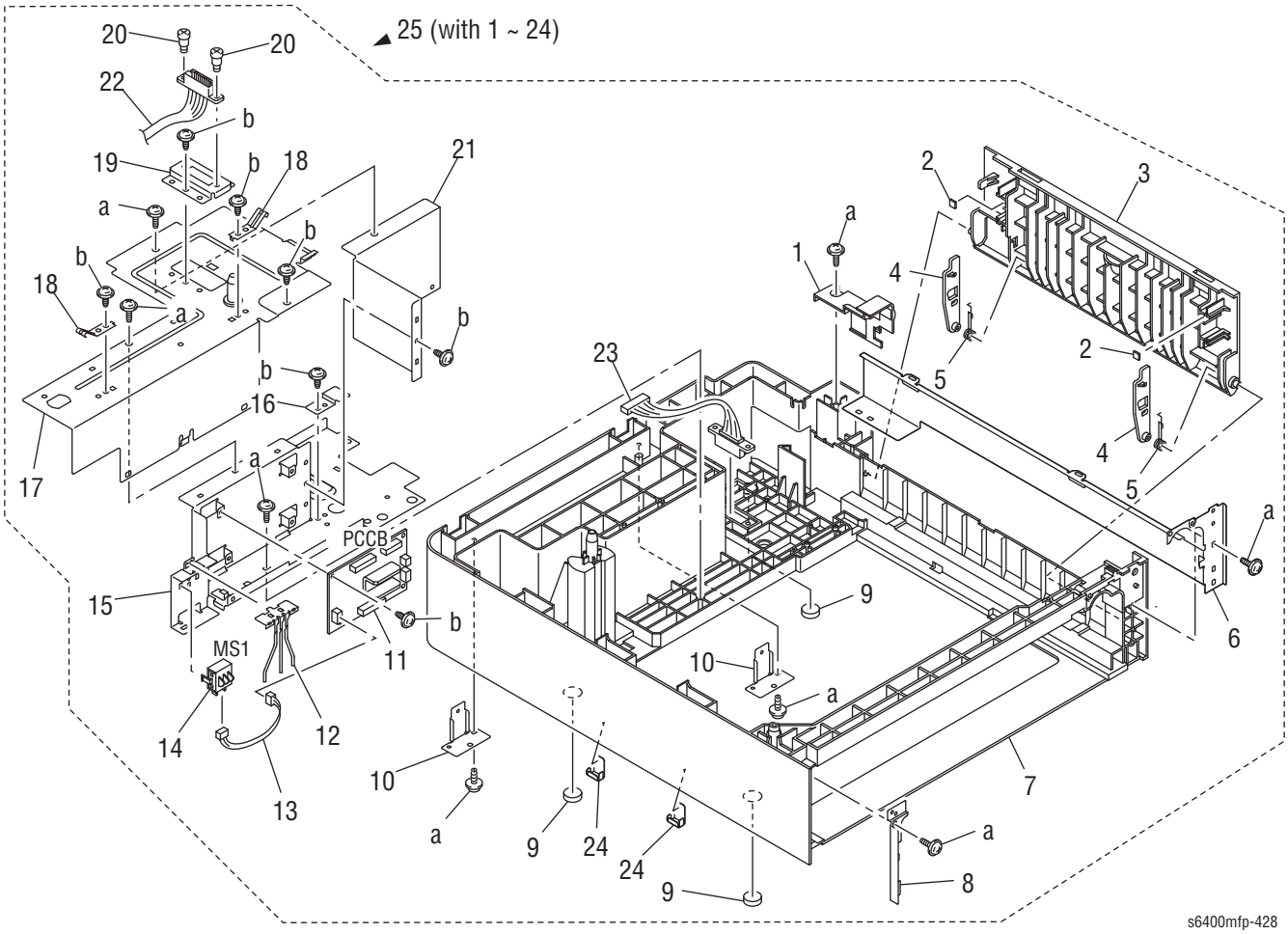


Parts List 27.0 Accessories

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Tray		1	
2.	Tray		1	
3.	Power Cord, 120V	117E35990	1	Refer to “Xerox Supplies and Accessories” on page 9-97 for non-North America Power Cord part numbers.
4.	Output Tray	050E28910	1	

Option - 500-Sheet Feeder

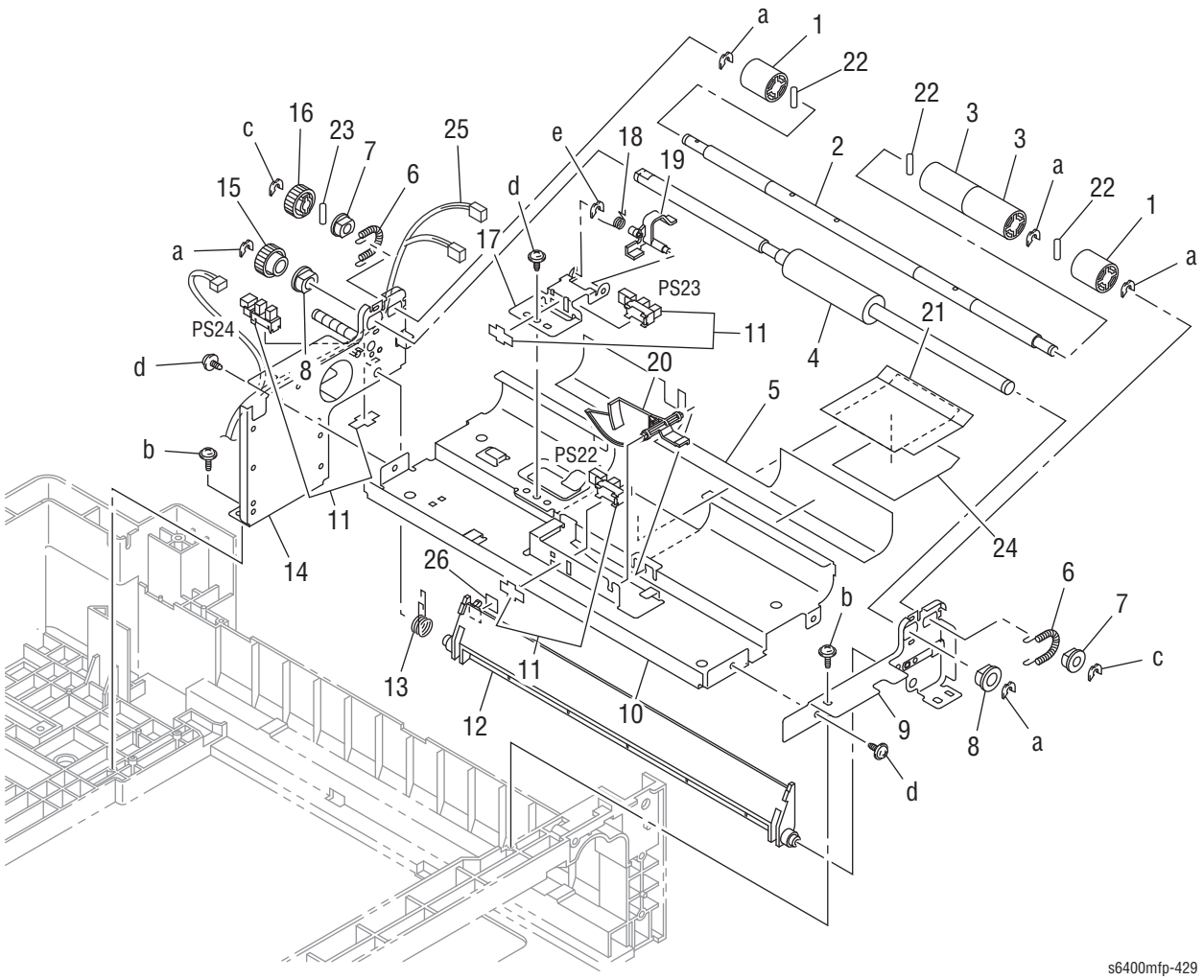
Parts List 28.0 Optional 500-Sheet Tray 3/4 (1 of 7)



Parts List 28.0 Optional 500-Sheet Tray 3/4 (1 of 7)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cover		1	
2.	Sound Shield		2	
3.	Door		1	
4.	Lever		2	
5.	Torsion Spring		2	
6.	Rail		1	
7.	Frame		1	
8.	Bracket		1	
9.	Rubber Foot	017E11810	3	
10.	Bracket		2	
11.	PWB Assy (PCCB)	960K52010	1	LTA Circuit Board
12.	Actuator	120E36370	1	LTA Paper Size Switch Actuator
13.	Wire Harness Assy	962K76320	1	
14.	Switch (MSI)	110E19930	1	Paper Size Switch
15.	Bracket		1	
16.	Plate Spring		1	
17.	Cover		1	
18.	Plate Spring		2	
19.	Bracket		1	
20.	Shoulder Screw		2	
21.	Bracket		1	
22.	Wire Harness Assy (PJ20MCU-CN25)	962K76330	1	LTA to Engine
23.	Wire Harness Assy (PJ1PCCB-CN25)	962K77190	1	Tray 3 to Tray 4 Connector
24.	Reinforce Plate		2	
25.	Optional-500 Sheet Feeder	050K68330	1	Complete 500-Sheet Feeder Assembly (does not include Tray)
a.	Screw		8	P/O Hardware Kit
b.	Screw		7	P/O Hardware Kit

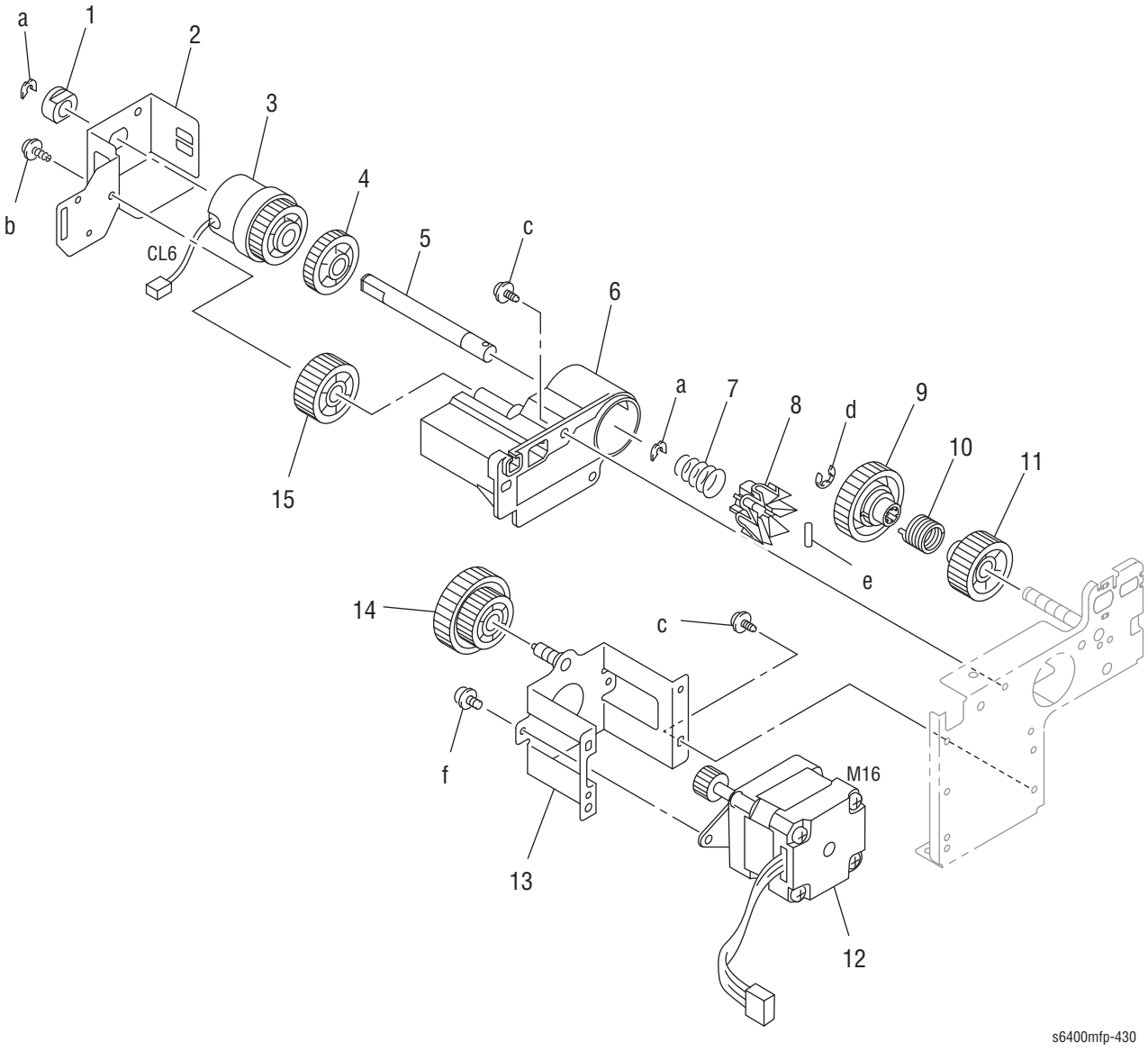
Parts List 29.0 Optional 500-Sheet Tray 3/4 (2 of 7) - Paper Take-up Section



Parts List 29.0 Optional 500-Sheet Tray 3/4 (2 of 7) - Paper Take-Up Section

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Roller		2	
2.	Shaft		1	
3.	Roller		2	
4.	Roller		1	
5.	Sheet		1	
6.	Tension Spring		2	
7.	Bushing		2	
8.	Bushing		2	
9.	Frame		1	
10.	Guide Plate		1	
11.	Photo Interrupter (PS22, PS23, PS24)	130E13020	3	PS22 = Media Empty Sensor PS23 = Media Feed Sensor PS24 = Right Door Sensor
12.	Guide		1	
13.	Torsion Spring		1	
14.	Frame Assy		1	
15.	Gear 22T		1	
16.	Gear 22T		1	
17.	Bracket		1	
18.	Torsion Spring		1	
19.	Actuator	120E36400	1	Tray 3/4 Paper Feed Sensor Actuator
20.	Actuator		1	
21.	Guide		1	
22.	Pin		3	
23.	Pin		1	
24.	Slider		1	
25.	Wire Harness Assy (*)		1	
26.	Label		1	
a.	C-Clip		5	
b.	Screw		2	P/O Hardware Kit
c.	C-Clip		2	
d.	Screw		3	P/O Hardware Kit
e.	C-Clip		1	P/O Hardware Kit
(*) Connections from PJ5PCCB to PJ28(PS24), PJ29(PS23) & PJ30(PS22)				

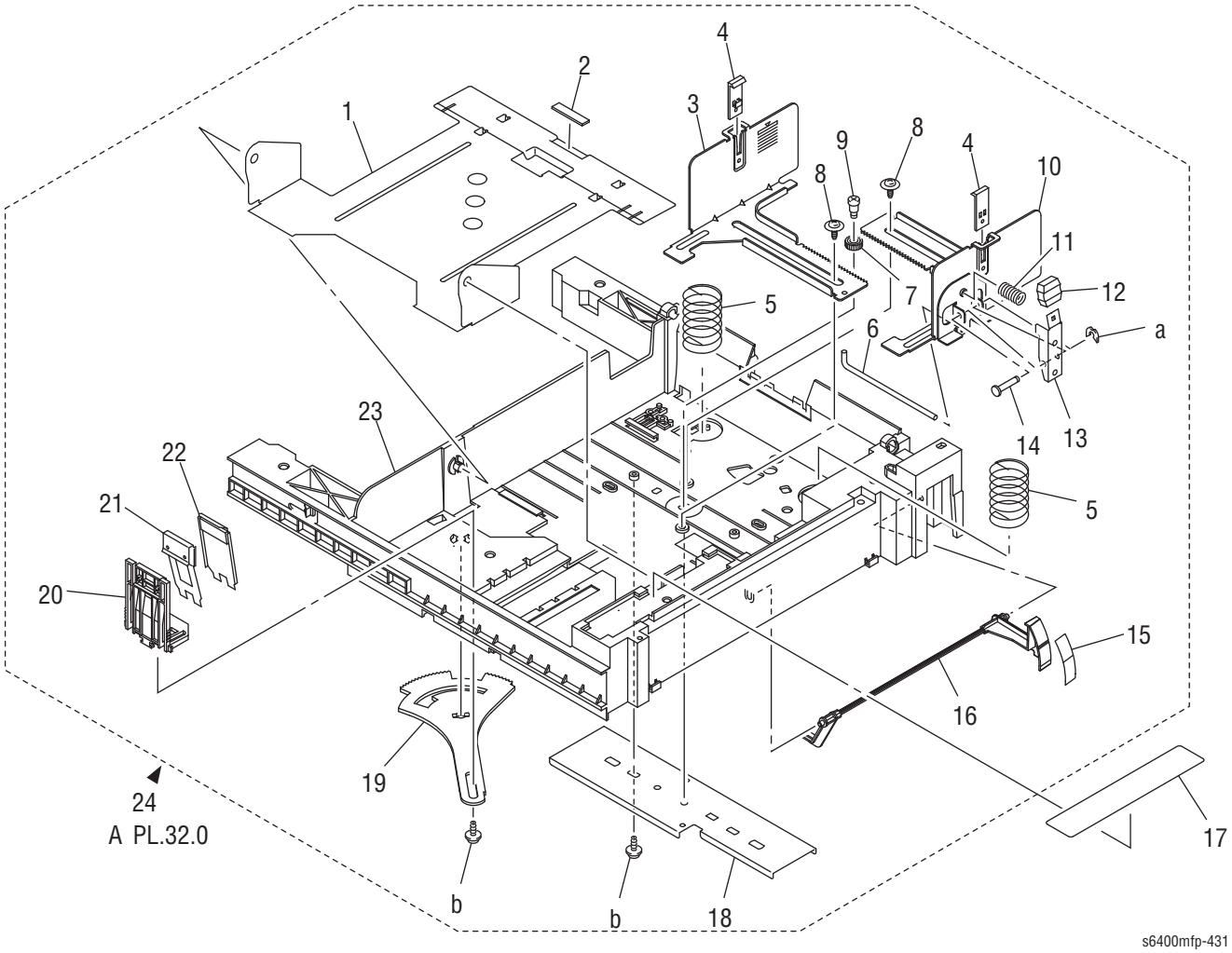
Parts List 30.0 Optional 500-Sheet Tray 3/4 (3 of 7) - Drive Section



Parts List 30.0 Optional 500-Sheet Tray 3/4 (3 of 7) - Drive Section

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Bushing		1	
2.	Bracket		1	
3.	Clutch (CL6)	121E26590	1	Paper Feed Clutch
4.	Gear 24T		1	
5.	Shaft		1	
6.	Holder		1	
7.	Pressure Spring		1	
8.	Pawl		1	
9.	Gear 32T		1	
10.	Torsion Spring		1	
11.	Gear		1	
12.	Motor (M16)	127E16480	1	Transport Motor
13.	Bracket		1	
14.	Gear 18/40T		1	
15.	Gear 24T		1	
a.	C-Clip		2	
b.	Screw		1	P/O Hardware Kit
c.	Screw		2	P/O Hardware Kit
d.	E-Ring		1	P/O Hardware Kit
e.	Pin		1	P/O Hardware Kit
f.	Screw		1	

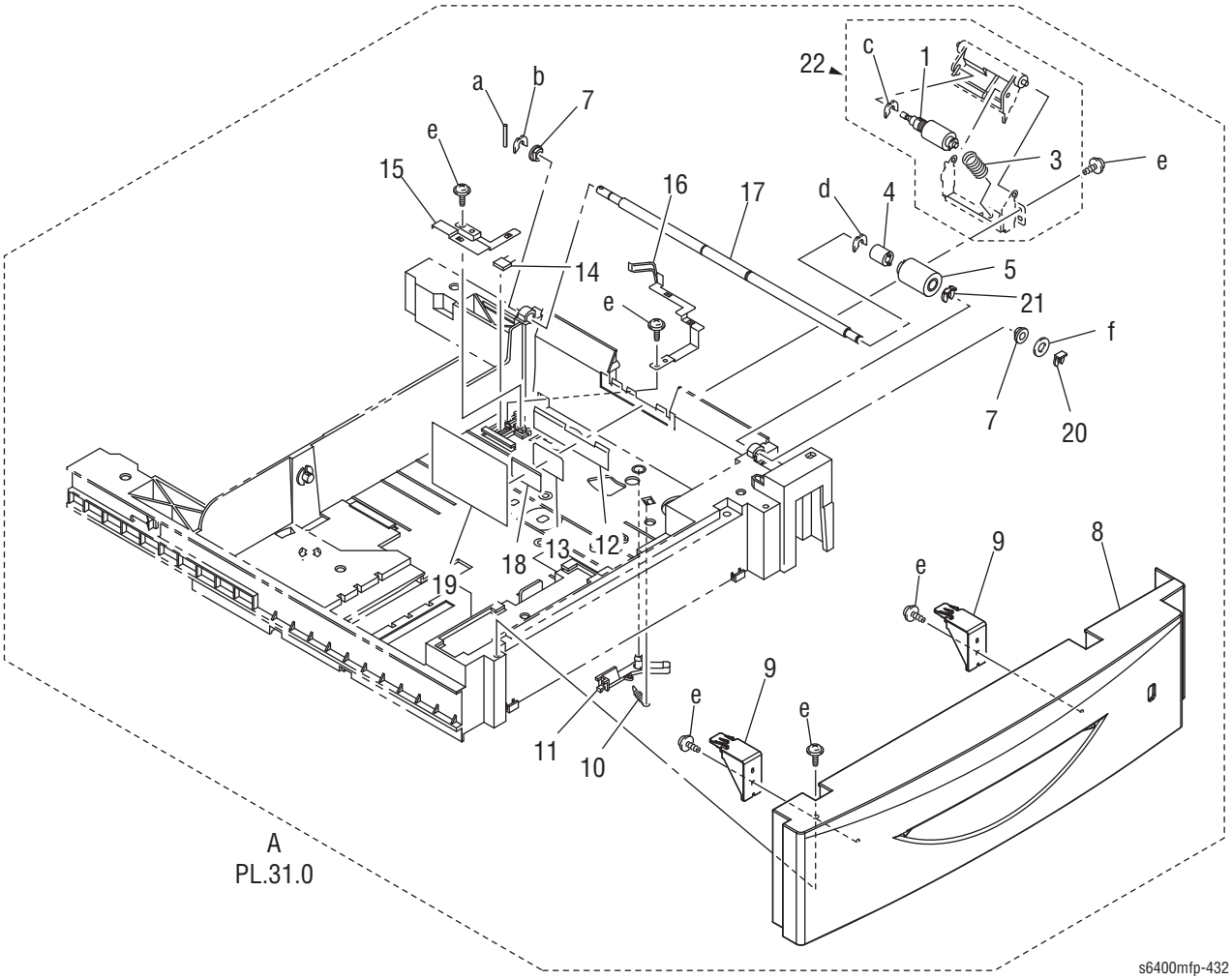
Parts List 31.0 Optional 500-Sheet Tray 3/4 (4 of 7) - Paper Feed Tray Section



Parts List 31.0 Optional 500-Sheet Tray 3/4 (4 of 7) - Paper Feed Tray Section

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Lifting Plate		1	
2.	Friction Sheet		1	
3.	Guide		1	
4.	Guide		2	
5.	Pressure Spring		2	
6.	Shaft		1	
7.	Gear 14T		1	
8.	Screw		2	
9.	Shoulder Screw		1	
10.	Guide		1	
11.	Pressure Spring		1	
12.	Knob		1	
13.	Lever		1	
14.	Shaft		1	
15.	Label		1	
16.	Lever		1	
17.	Label Paper Supply		1	
18.	Bracket		1	
19.	Detecting Plate		1	
20.	Guide		1	
21.	Plate Spring		1	
22.	Back Stop		1	
23.	Cassette (Tray)		1	
24.	Cassette Assy (Tray Assy)	050K68340	1	Complete Tray Assembly
a.	E-Ring		1	P/O Hardware Kit
b.	Screw		2	

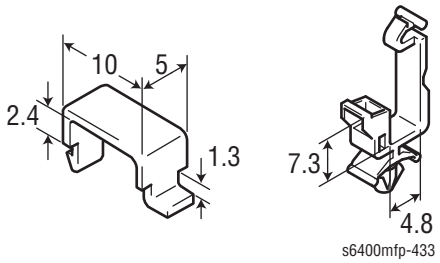
Parts List 32.0 Optional 500-Sheet Tray 3/4 (5 of 7) - Paper Feed Tray Section



Parts List 32.0 Optional 500-Sheet Tray 3/4 (5 of 7) - Paper Feed Tray Section

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Separator Roller		1	
2.	-----			
3.	Pressure Spring		1	
4.	Clutch		1	
5.	Feed Roller	059E10880	1	240K Life
6.	-----			
7.	Bushing		2	
8.	Front Cover		1	
9.	Hold Plate		2	
10.	Tension Spring		1	
11.	Lever		1	
12.	Guide Plate		1	
13.	Guide		1	
14.	Resistor		1	
15.	Plate Spring		1	
16.	Plate Spring		1	
17.	Shaft		1	
18.	Guide		1	
19.	Guide		1	
20.	K-Clip	019E81520	1	
21.	K-Clip	005E29580	1	
22.	Separation Roller Assy	059K70360	1	Complete Assembly
a.	Pin		1	
b.	C-Clip		1	
c.	C-Clip		1	P/O Hardware Kit
d.	C-Clip		1	
e.	Screw		6	P/O Hardware Kit
f.	Washer		1	

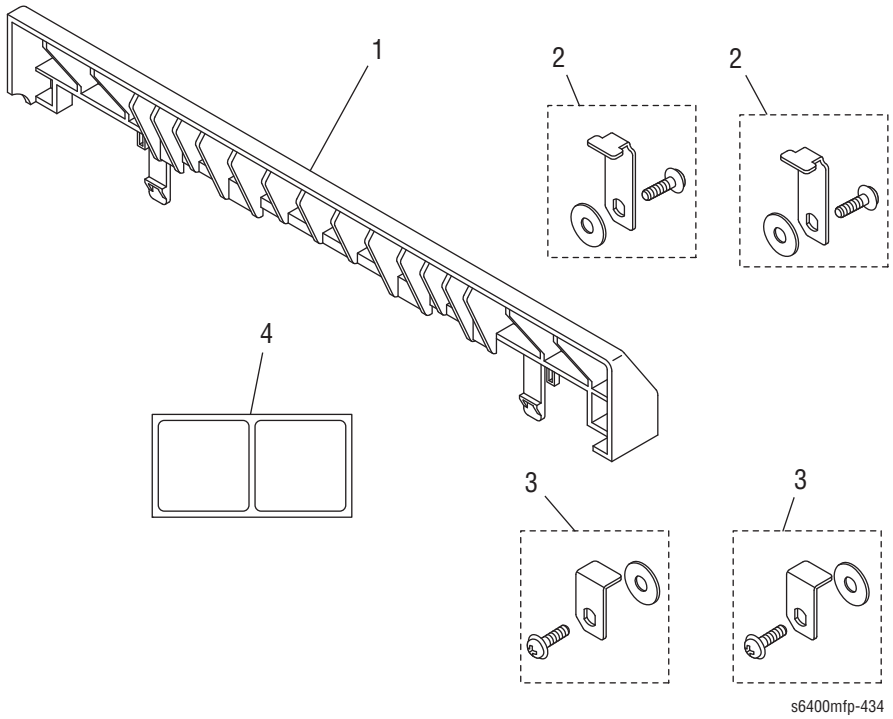
Parts List 33.0 Optional 500-Sheet Tray 3/4 (6 of 7) - Wiring Accessories



Parts List 33.0 Optional 500-Sheet Tray 3/4 (6 of 7) - Wiring Accessories

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cord Clamp			
2.	Saddle			

Parts List 34.0 Optional 500-Sheet Tray 3/4 (7 of 7) - Accessory Parts

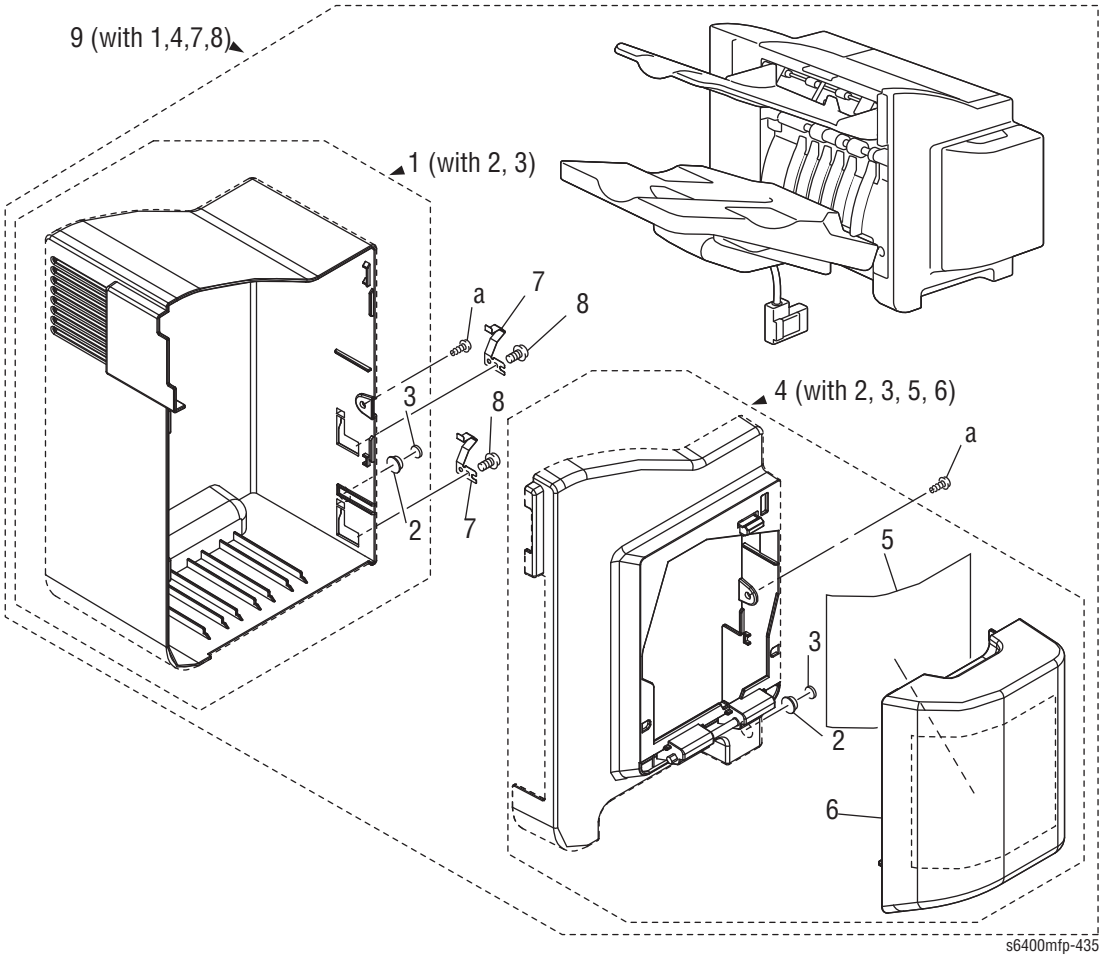


Parts List 34.0 Optional 500-Sheet Tray 3/4 (7 of 7) - Accessory Parts

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cover	848E40140	1	
2.	Rear LTA Fasteners	029E51120	2	
3.	Front LTA Fasteners	029E51160	2	
4.	Label Tray 3/4		1	

Option - Finisher

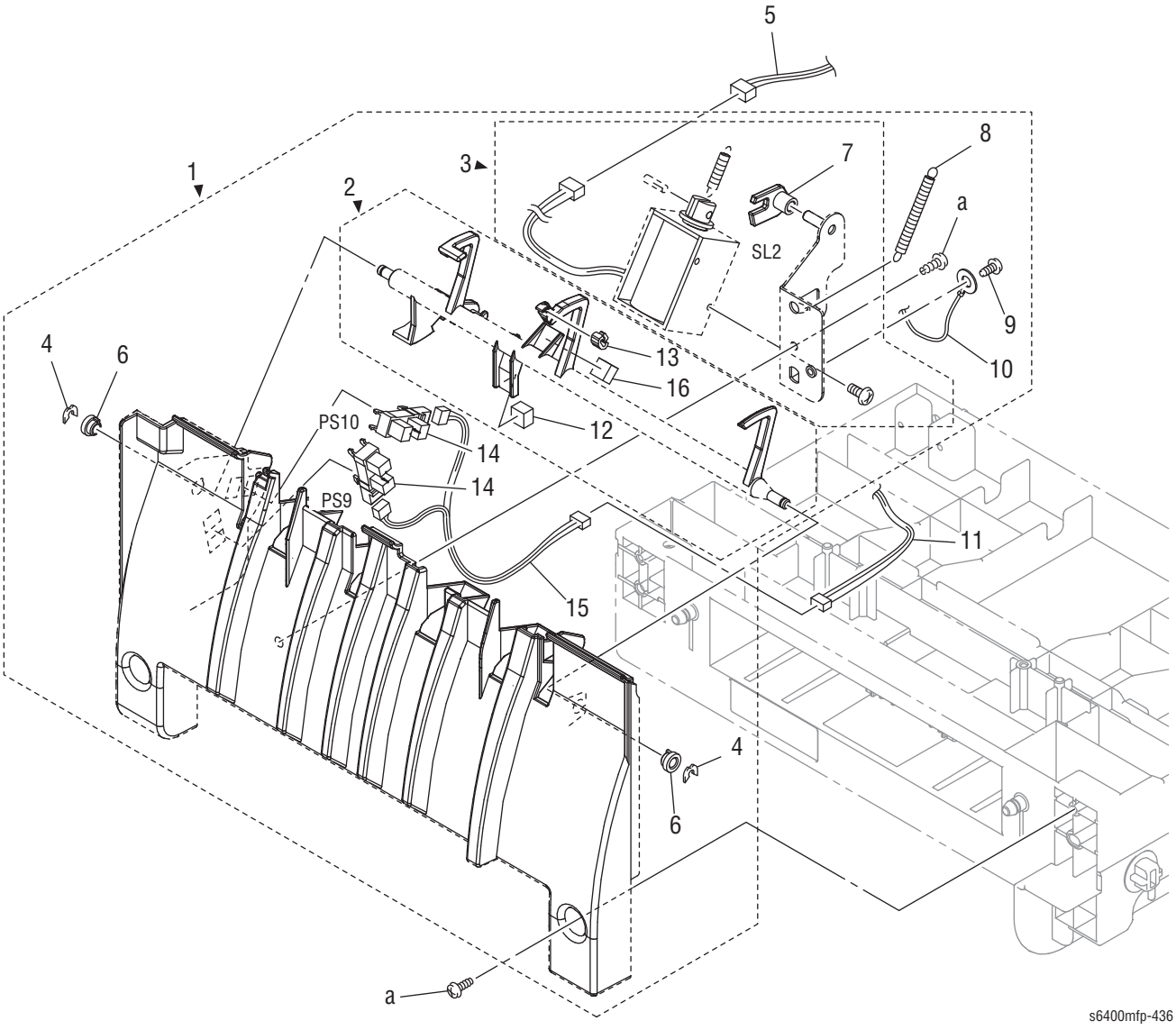
Parts List 35.0 Cover (1 of 2)



Parts List 35.0 Cover (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Rear Cover Assy		1	
2.	Cushion		2	
3.	Cushion		2	
4.	Front Cover Assy		1	
5.	Label Staple Supply		1	
6.	Front Door		1	
7.	Plate Spring		2	
8.	Tapping Screw		2	
9.	Finisher Assy	059K69720	1	Complete Assembly
a.	Screw		2	

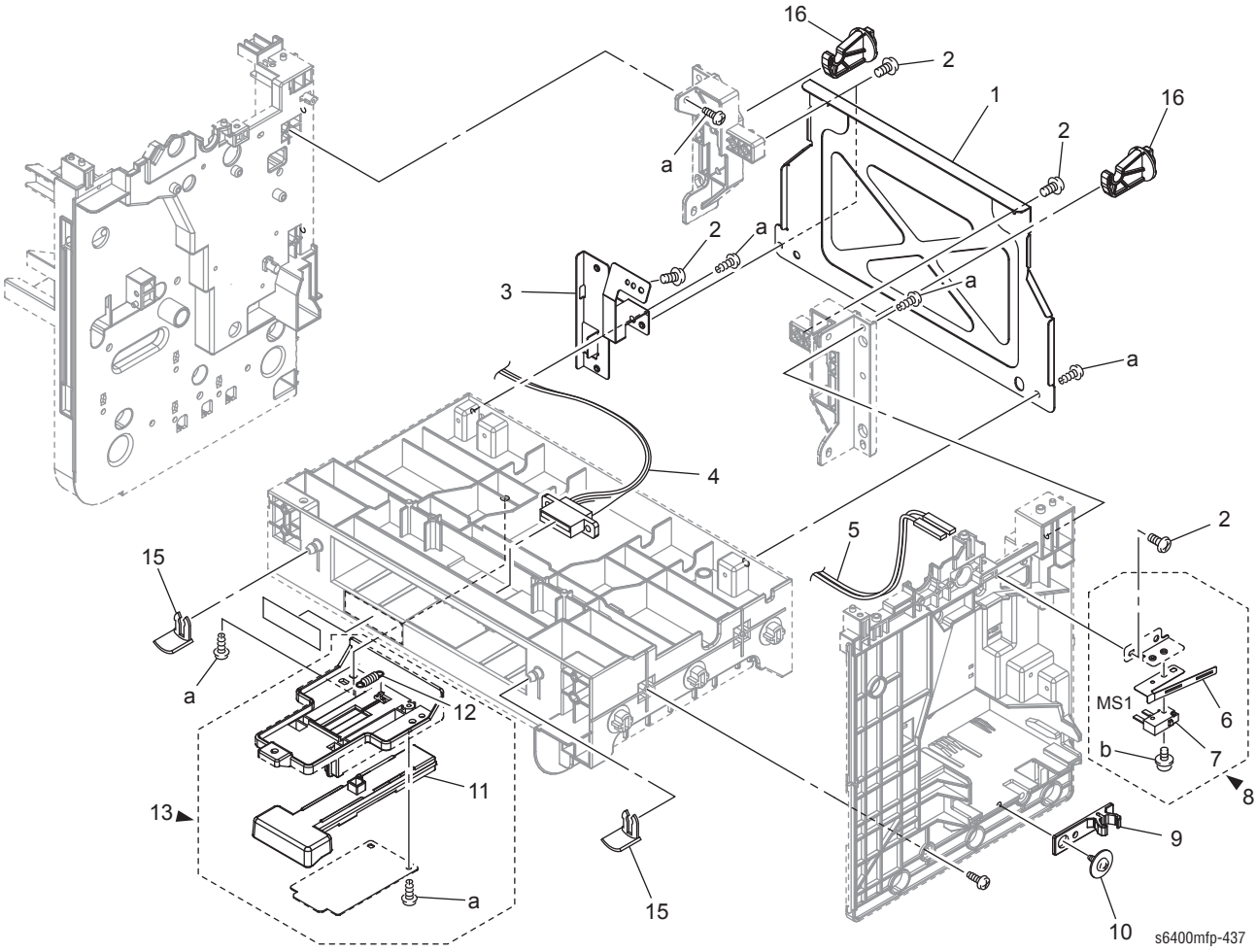
Parts List 36.0 Cover (2 of 2)



Parts List 36.0 Cover (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Cover Assy	848K25700	1	Includes items 2 & 3
2.	Lever Assy		1	Paper Level Lever Actuator
3.	Solenoid Assy (SL2)		1	Paper Level Lever
4.	Retaining Ring		2	
5.	Wire Harness Assy (CN17FSCB-SL2)		1	
6.	Bushing		2	
7.	Lever		1	
8.	Tension Spring		1	
9.	Tapping Screw		1	
10.	Wire Harness Assy		1	
11.	Wire Harness Assy		1	
12.	Cushion		1	
13.	Cushion		1	
14.	Photo Interrupter (PS9, PS10)	130E13030	2	PS9 = Paper Level Sensor 1 PS10 = Paper Level Sensor 2 Caution: Connectors to PS9 and PS10 can get swapped. The wiring color is different, but the plugs are the same.
15.	Wire Harness Assy (CN8FSCB-PJ6, PJ7)		1	FSCB to PS9, PS10
16.	Cushion		1	
a.	Screw		2	

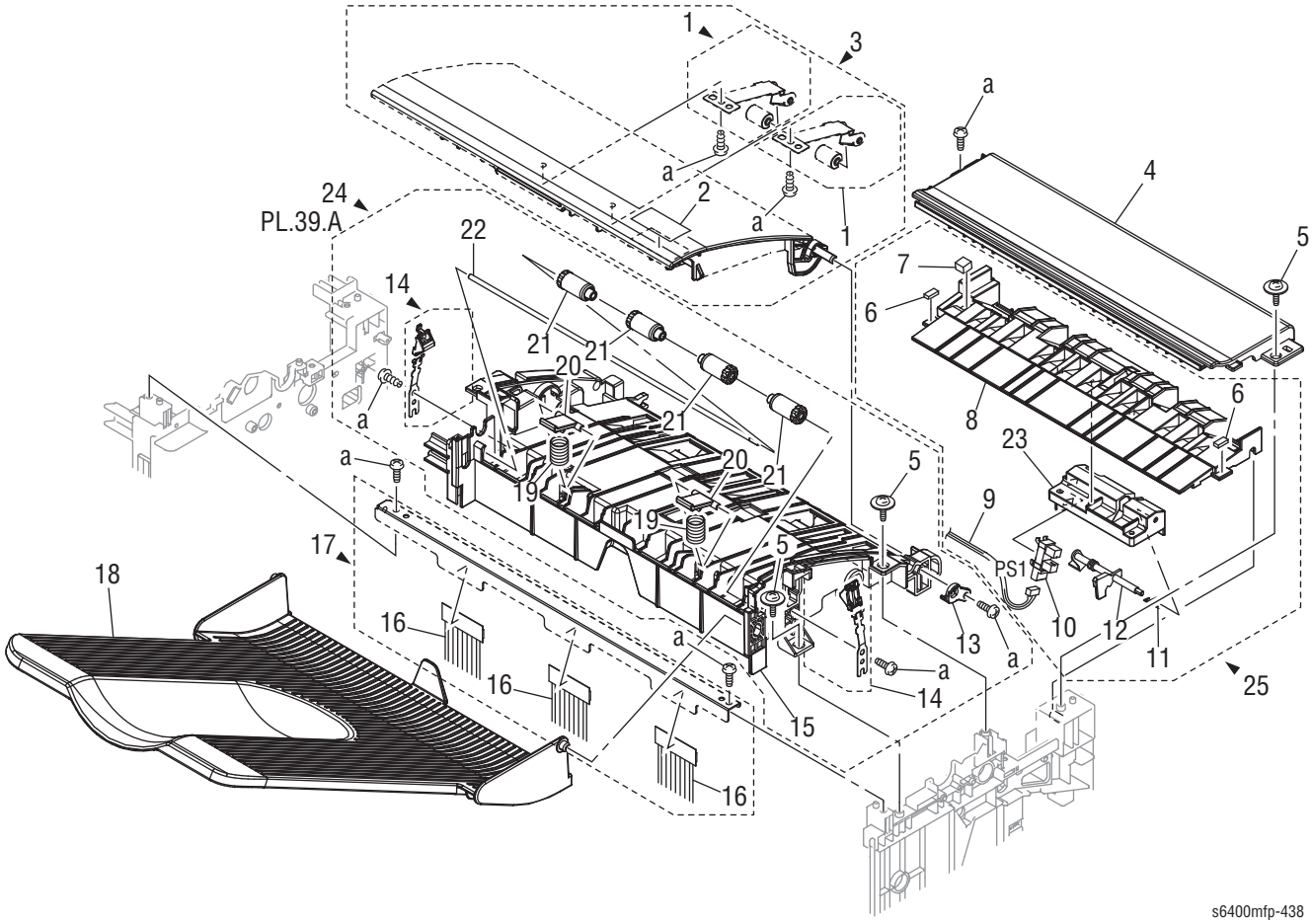
Parts List 37.0 Frame



Parts List 37.0 Frame

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Bracket		1	Right Plate
2.	Tapping Screw		5	
3.	Bracket		1	
4.	Wire Harness Assy		1	
5.	Wire Harness Assy (CN24FSCB-MS1)		1	
6.	Bracket		1	
7.	Push Button Switch		1	
8.	Front Door Switch (MS1)	110K21050	1	Finisher Front Door Switch (Stapler Cover)
9.	Holder		1	
10.	Screw		1	
11.	Lever		1	
12.	Tension Spring		1	
13.	Lock Assy		1	
14.	-----			
15.	Stop Ring	005E29460	2	
16.	Hook	019E81240	2	Qty 1 when ordered
a.	Screw		5	
b.	Screw		1	

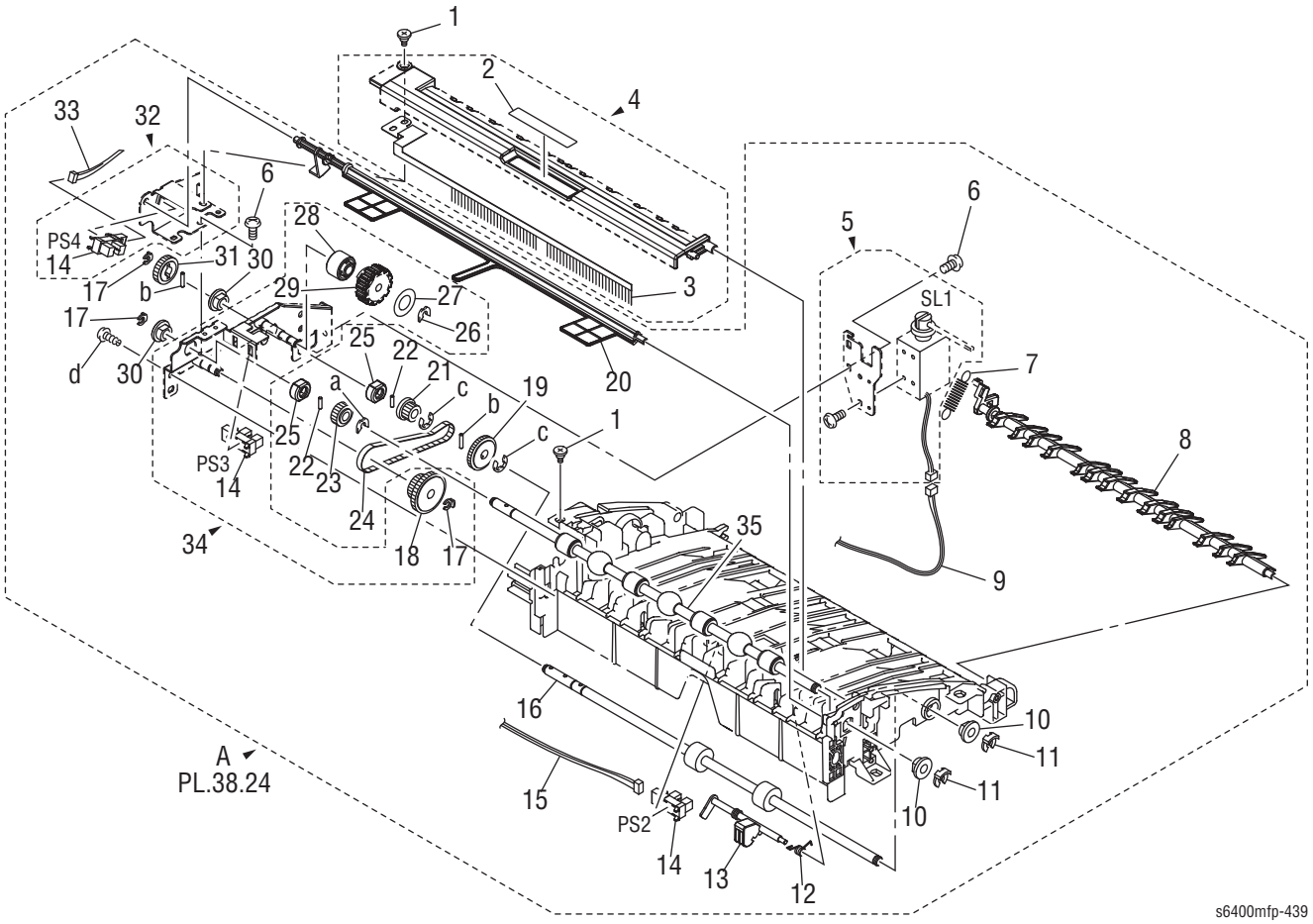
Parts List 38.0 Paper Entrance



Parts List 38.0 Paper Entrance

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Roller Assy		2	
2.	Label Prohibition		1	
3.	Top Cover Assy	848K25710	1	Includes items 1 & 2
4.	Top Cover-Right		1	
5.	Screw		3	
6.	Cushion		2	
7.	Cushion		1	
8.	Guide		1	
9.	Wire Harness Assy		1	
10.	Photo Interrupter (PS1)	130E13030	1	Entrance Sensor
11.	Torsion Spring		1	
12.	Actuator		1	
13.	Bush		1	
14.	Plate Spring		2	
15.	Guide		1	
16.	Neutralizing Brush		3	
17.	Neutralizing Brush Assy	118K01690	1	
18.	Tray	050E28920	1	Top Tray
19.	Pressure Spring		2	
20.	Lever		2	
21.	Roller		4	
22.	Shaft		1	
23.	Holder		1	
24.	Paper Exit Assy	848K31460	1	Includes items 13-15, 19-22 Does not include 38.05
25.	Guide Assy	032K09700	1	Includes items 6-12, 23
a.	Screw		8	

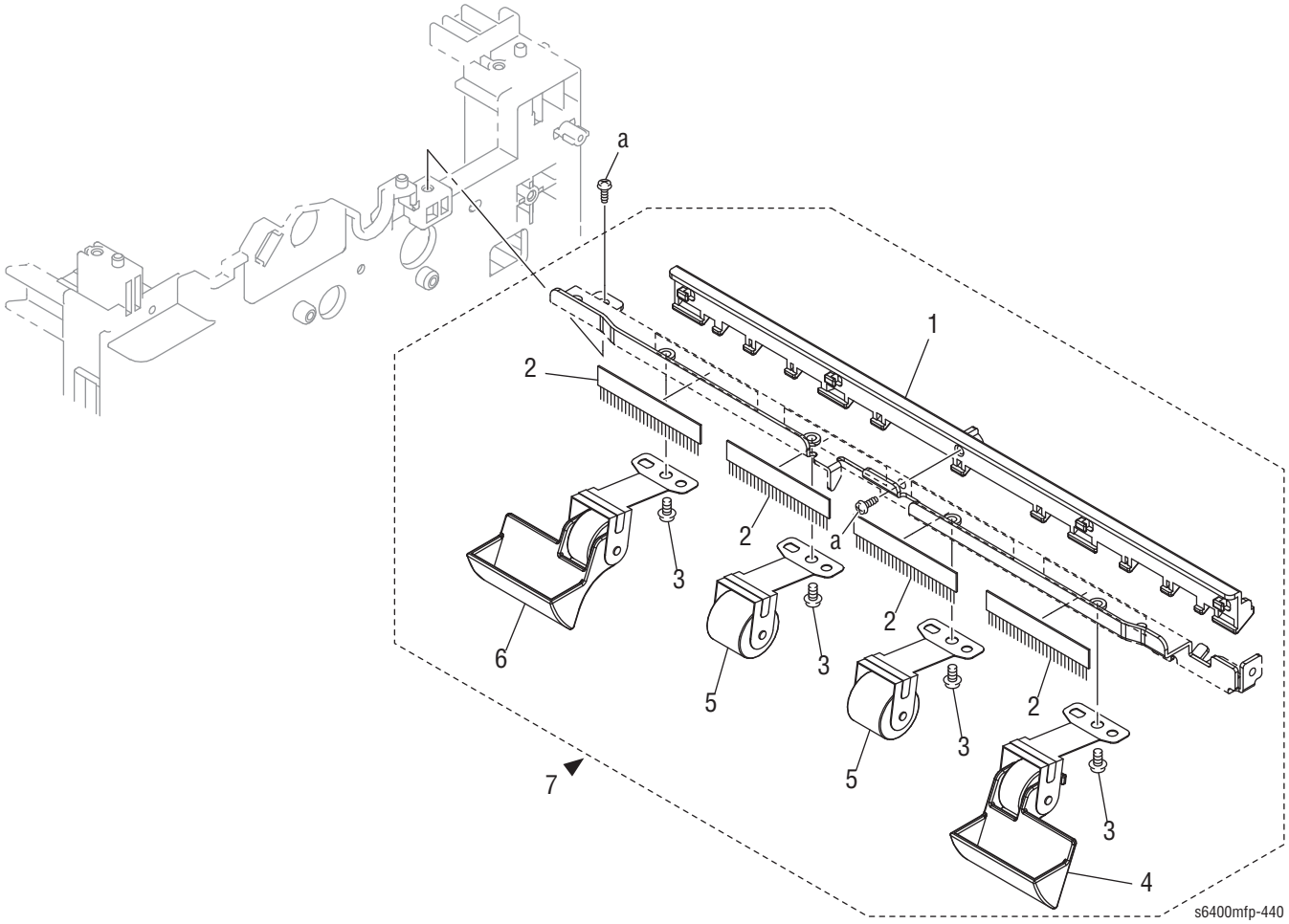
Parts List 39.0 Paper Transport (1 of 2)



Parts List 39.0 Paper Transport (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Shoulder Screw		2	
2.	Label Handle		1	
3.	Neutralizing Brush		1	
4.	Cover Assy	848K25720	1	
5.	Solenoid Assy (SL1)	121K50650	1	Entrance Solenoid
6.	Tapping Screw		2	
7.	Tension Spring		1	
8.	Guide		1	
9.	Wire Harness Assy (CN14FSCB-SL1)		1	
10.	Bushing		2	
11.	Stop Ring		2	
12.	Torsion Spring		1	
13.	Actuator		1	
14.	Photo Interrupter (PS2, PS3, PS4)	130E13030	3	PS2 = Transport Section Sensor PS3 = Top Cover Sensor PS4 = Paper Full Sensor
15.	Wire Harness Assy (CN6FSCB-PJ9, PJ10)		1	FSCB to PS2, PS3
16.	Roller		1	
17.	Stop Ring		3	
18.	Gear 32T		1	
19.	Gear		1	
20.	Lever		1	
21.	Pulley		1	
22.	Pin		2	
23.	Gear 16T		1	
24.	Timing Belt		1	
25.	Collar		2	
26.	Retaining Ring		1	
27.	Label Dial		1	
28.	Collar		1	
29.	Gear 18T		1	
30.	Bushing		2	
31.	Gear 16T		1	
32.	Sensor Assy		1	
33.	Wire Harness Assy (CN7FSCB-PS4)		1	
34.	Bracket Assy		1	
35.	Roller		1	
a.	C-Clip		1	
b.	Pin		2	P/O Hardware Kit
c.	E-Ring		2	
d.	Screw		1	

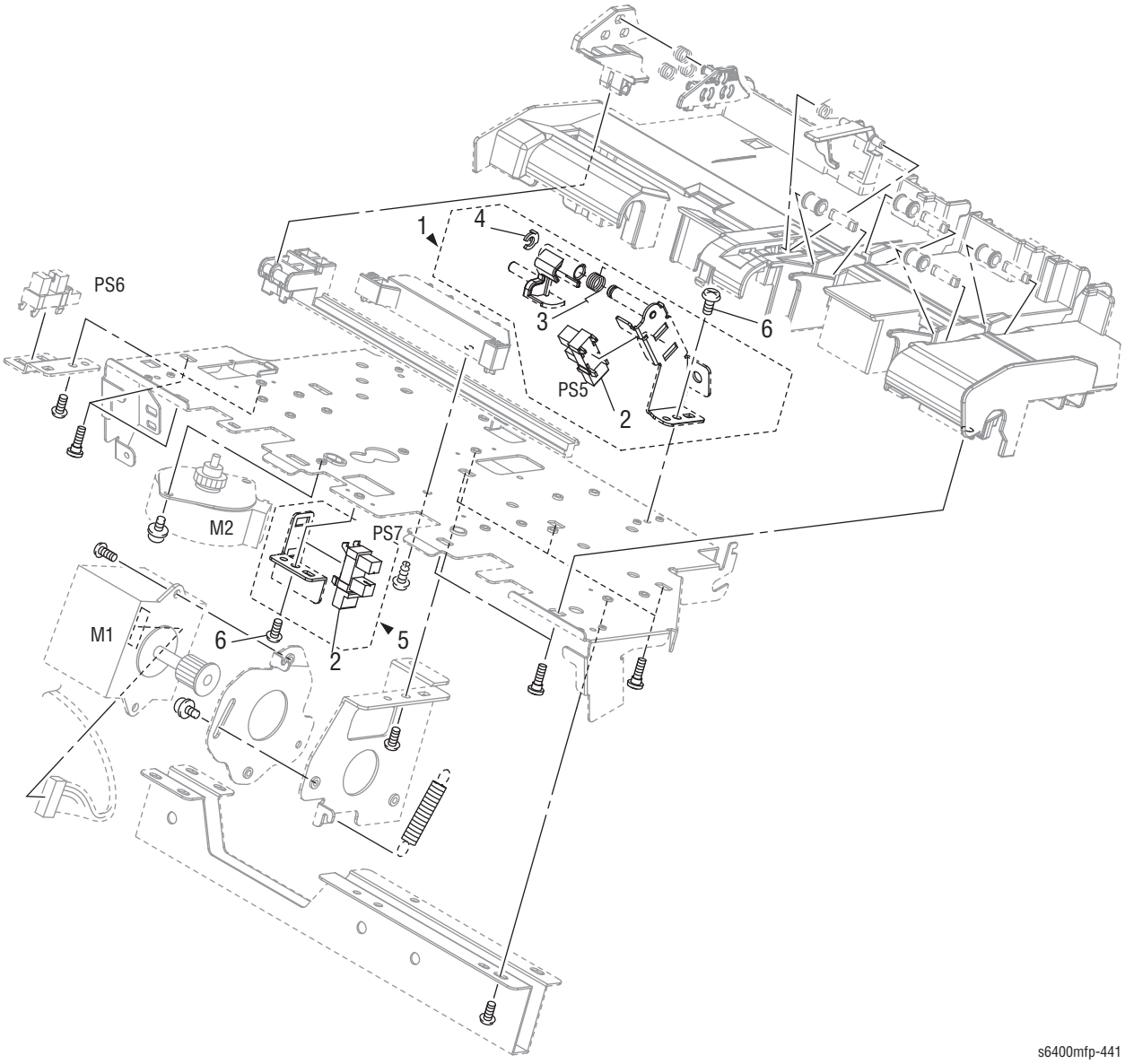
Parts List 40.0 Paper Transport (2 of 2)



Parts List 40.0 Paper Transport (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Guide		1	
2.	Neutralizing Brush		4	
3.	Tapping Screw		4	
4.	Roller Assy		1	
5.	Roller Assy		2	
6.	Roller Assy		1	
7.	Roller Assy	059K69730	1	Includes items 1-6
a.	Screw		2	

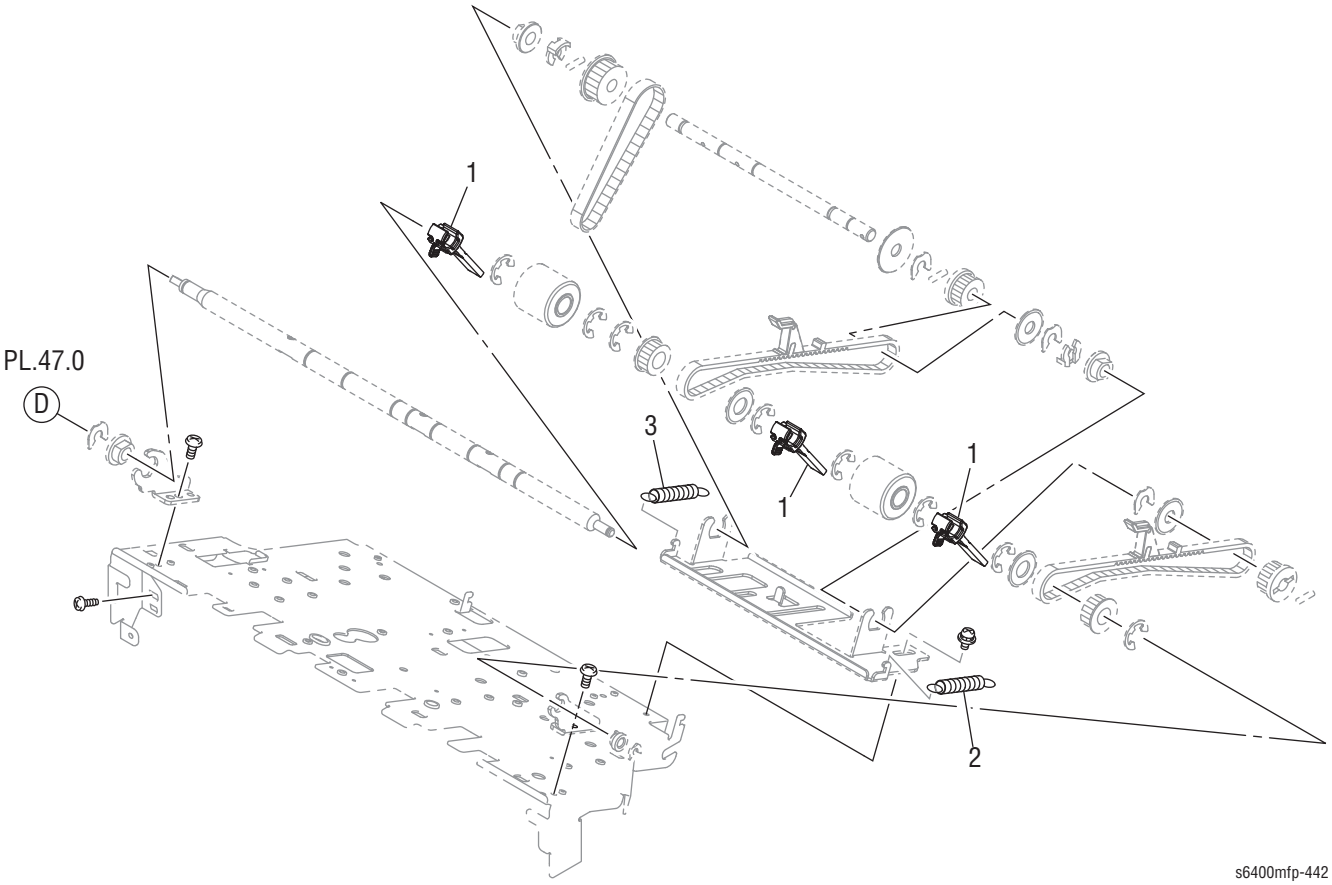
Parts List 41.0 Alignment (1 of 2)



Parts List 41.0 Alignment (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Sensor Assy	130K76010	1	Complete Assembly
2.	Photo Interrupter (PS5, PS7)	130E13030	2	PS5 = Paper Ejector Sensor PS7 = Storage Section Sensor
3.	Torsion Spring		1	
4.	Stop Ring		1	
5.	Sensor Assy		1	
6.	Tapping Screw		2	

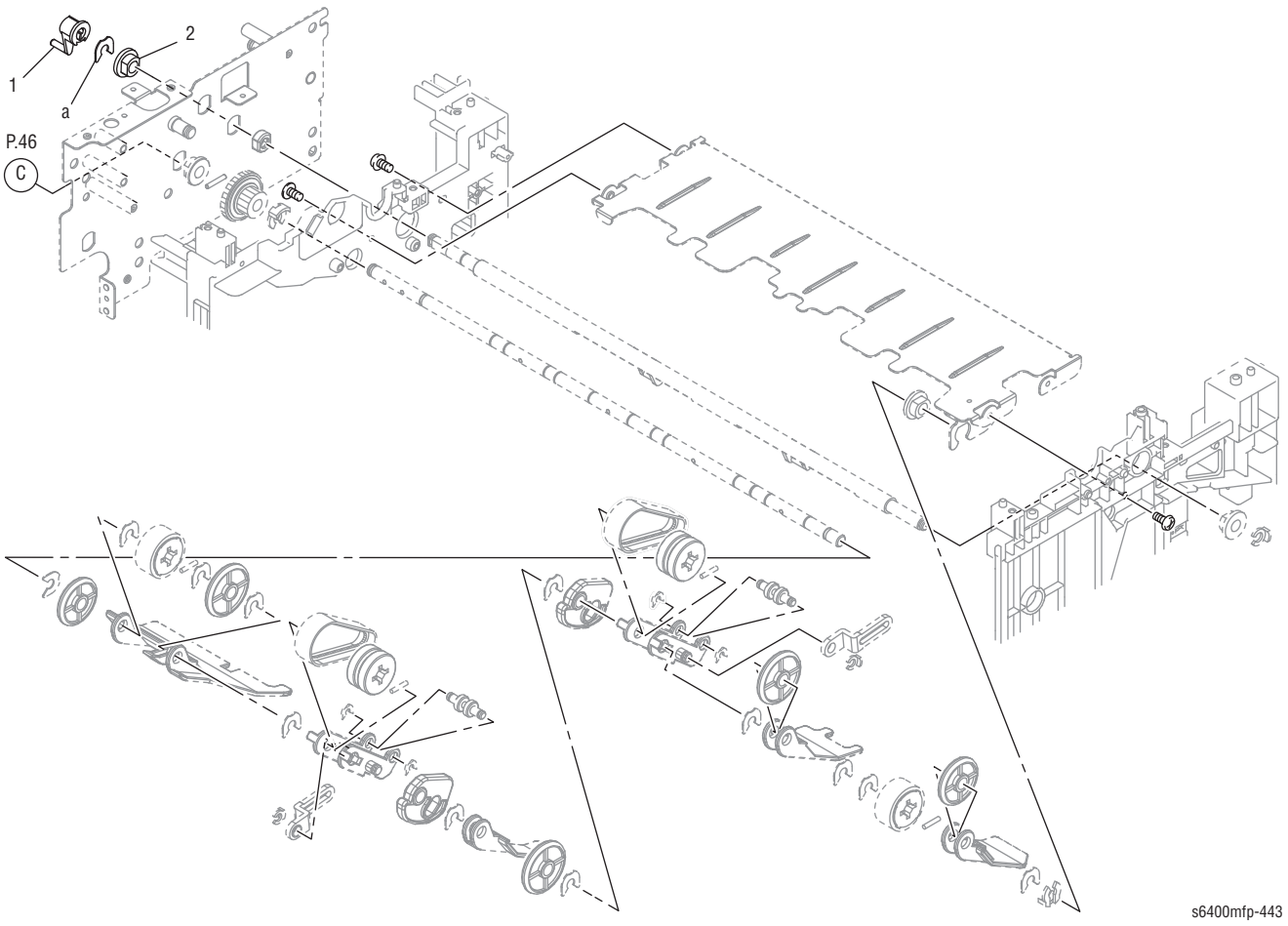
Parts List 42.0 Alignment (2 of 2)



Parts List 42.0 Alignment (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Paddle	033E05420	1	
2.	Tension Spring		1	
3.	Tension Spring		1	

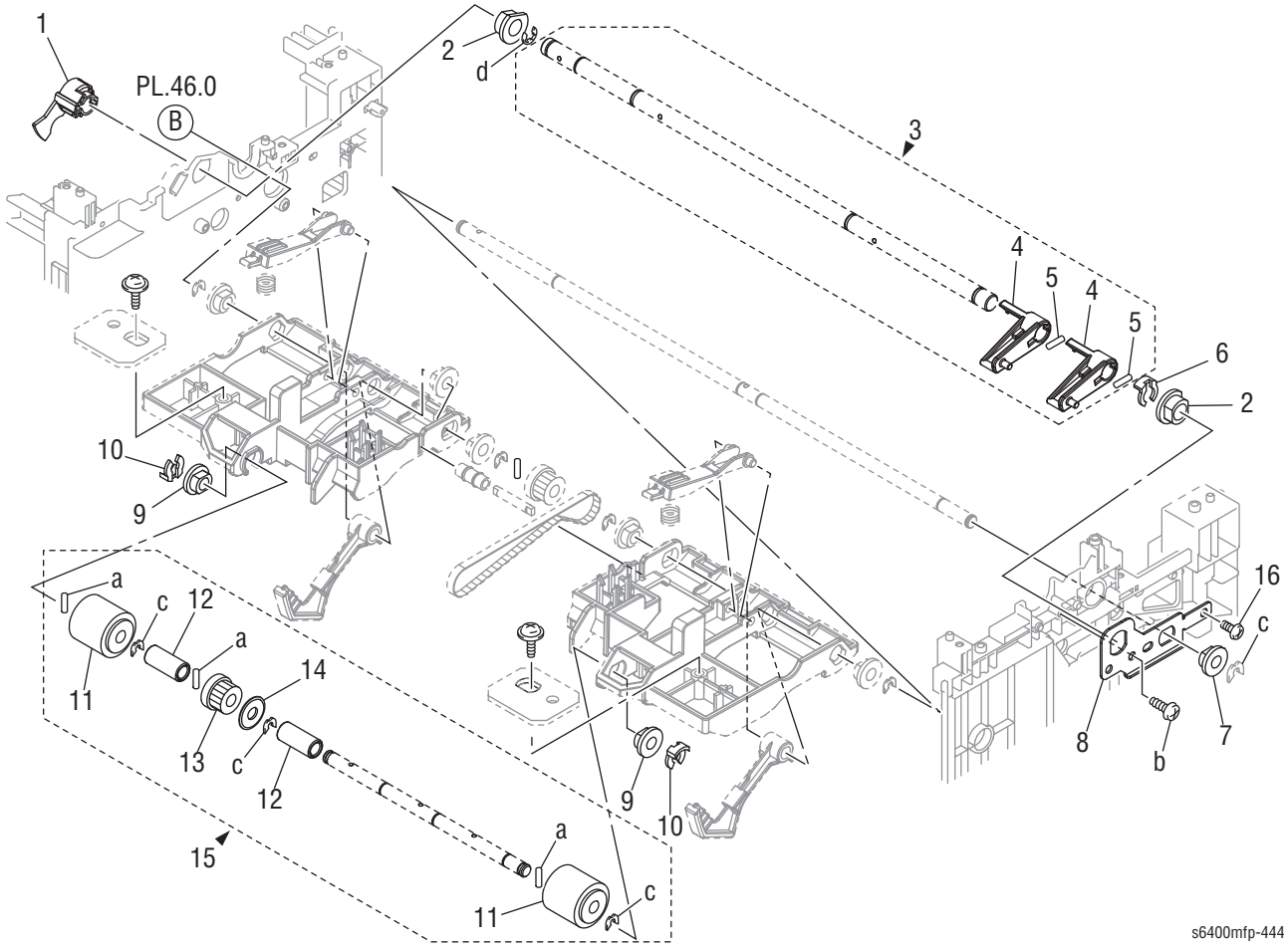
Parts List 43.0 Storage (1 of 2)



Parts List 43.0 Storage (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Lever		1	
2.	Bushing		1	
a.	C-Clip		1	

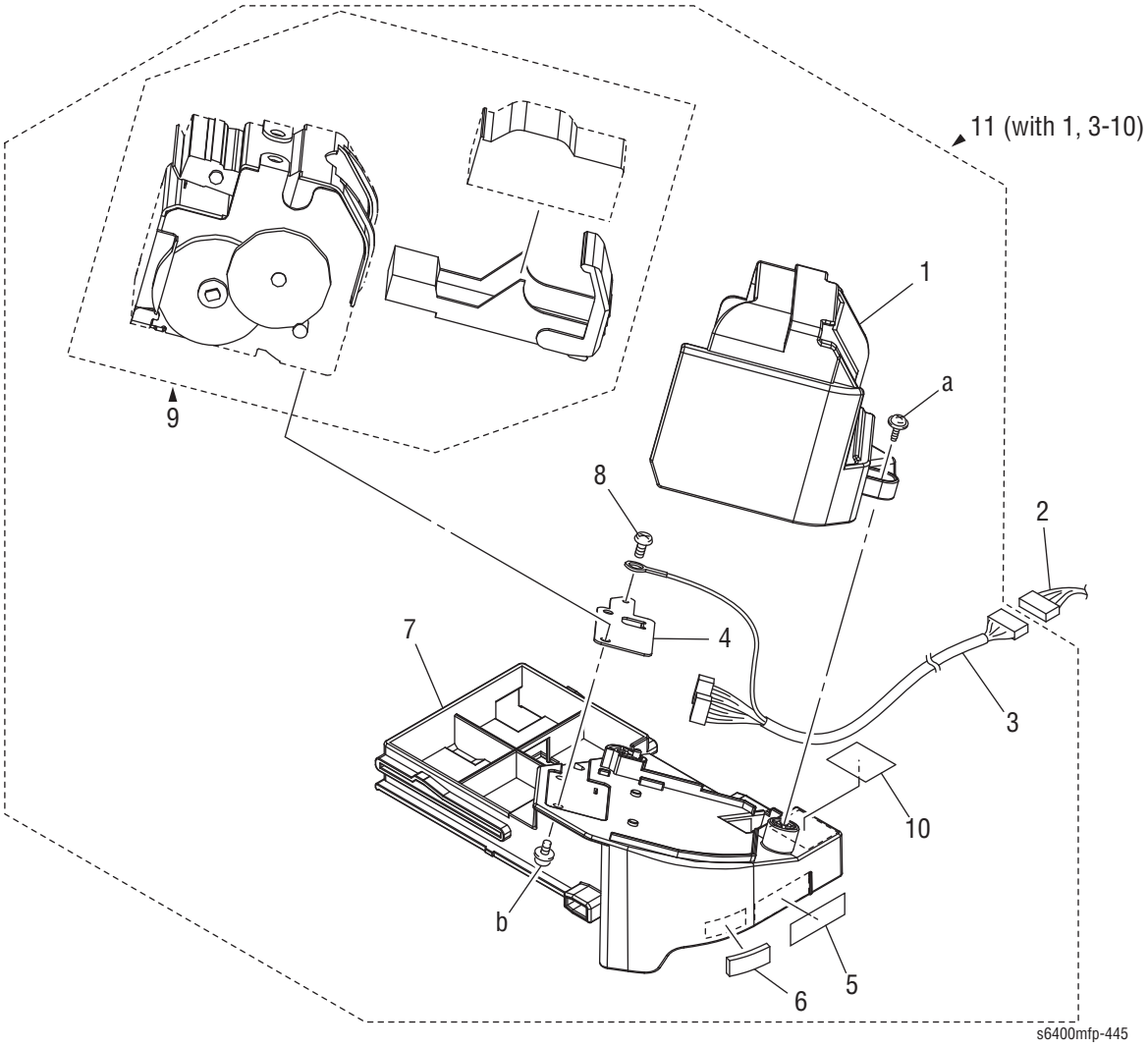
Parts List 44.0 Storage (2 of 2)



Parts List 44.0 Storage (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Gear 14T		1	
2.	Bush		2	
3.	Shaft Assy		1	
4.	Arm		2	
5.	Pin		2	
6.	Stopper Ring		1	
7.	Bushing		1	
8.	Bracket		1	
9.	Bushing		2	
10.	Stop Ring		2	
11.	Roller		2	
12.	Collar		2	
13.	Pulley 22T		1	
14.	Flange		1	
15.	Roller Assy	059K69740	1	
16.	Tapping Screw		1	
a.	Pin		3	
b.	Screw		1	
c.	C-Clip		4	
d.	E-Ring		1	

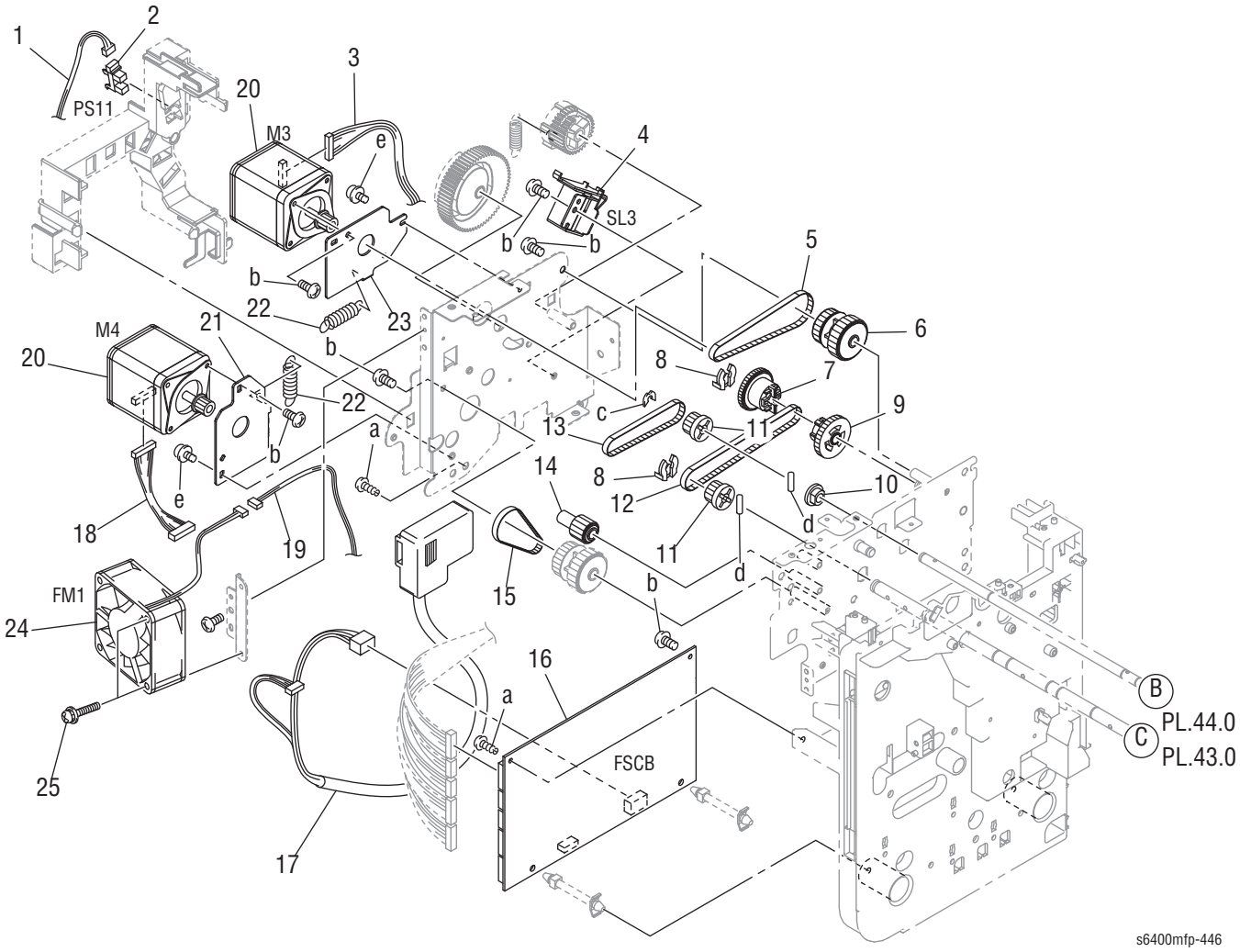
Parts List 45.0 Stapler Unit



Parts List 45.0 Stapler Unit

ID No.	Name/Description	Part Number	Qty,	Comments
1.	Cover		1	
2.	Wire Harness Assy (CN23FSCB - CN9)		1	
3.	Wire Harness Assy (CN9 - PJ20 & PJ19)		1	
4.	Bracket		1	
5.	Label		1	
6.	Cushion		1	
7.	Base Frame		1	
8.	Tapping Screw		1	
9.	Stapler Unit		1	
10.	Label Arrow		1	
11.	Stapler Assy	029K04650	1	Complete Stapler Assembly
a.	Screw		1	
b.	Screw		1	P/O Hardware Kit

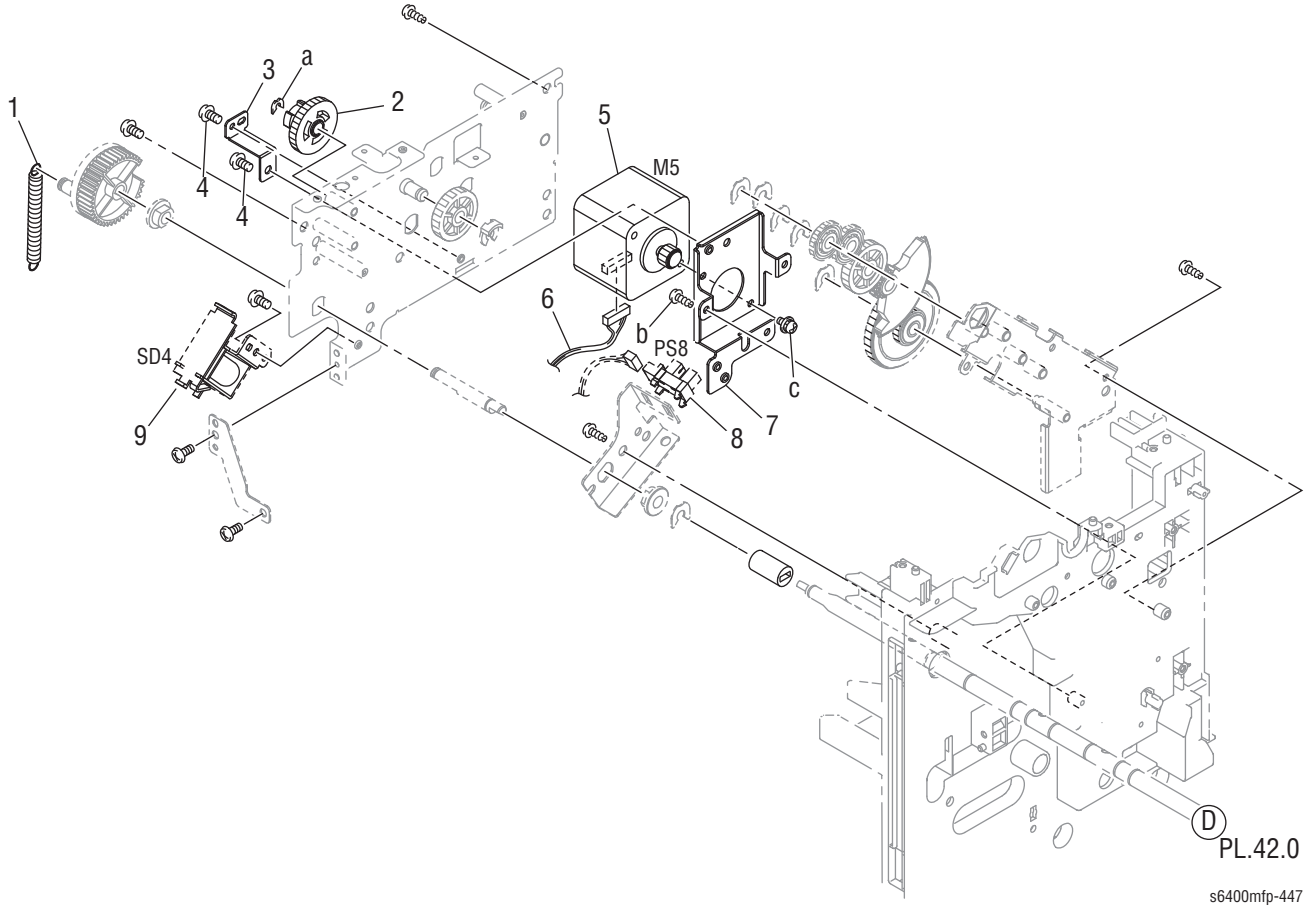
Parts List 46.0 Drive (1 of 2)



Parts List 46.0 Drive (1 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Wire Harness Assy (CN11FSCB-PS11)		1	FSCB to PS11
2.	Photo Interrupter (PS11)	130E13030	1	Aligning Belt Sensor
3.	Wire Harness Assy (CN15FSCB-PJ12)		1	FSCB to M3
4.	Solenoid (SL3)	121E26600	1	Alignment Belt Up/ Down Solenoid
5.	Timing Belt		1	
6.	Gear 32/35T		1	
7.	Gear 32T		1	
8.	Stop Ring		2	
9.	Gear 32/18T		1	
10.	Bushing		1	
11.	Pulley 22T		2	
12.	Timing Belt		1	
13.	Timing Belt		1	
14.	Gear 16T		1	
15.	Timing Belt		1	
16.	PWB Assy (FSCB)	960K52030	1	Finisher Control Board
17.	Wire Harness Assy (*)	962K76340	1	FSCB to Engine
18.	Wire Harness Assy (CN16FSCB-PJ13)		1	FSCB to M4
19.	Wire Harness Assy (CN13FSCB-CN5)		1	FSCB to FM1
20.	Motor (M3, M4)	127E16490	2	M3 = Transport Motor M4 = Exit Motor
21.	Bracket		1	
22.	Tension Spring		2	
23.	Bracket		1	
24.	Fan Motor (FM1)	127E16500	1	FM1 = Fan Motor
25.	Screw		2	
a.	Screw		2	
b.	Screw		6	
c.	C-Clip		1	
d.	Pin		2	
e.	Screw		2	
(*) Connections from CN1/CNAFSCB to CN2/CN3 to Engine				

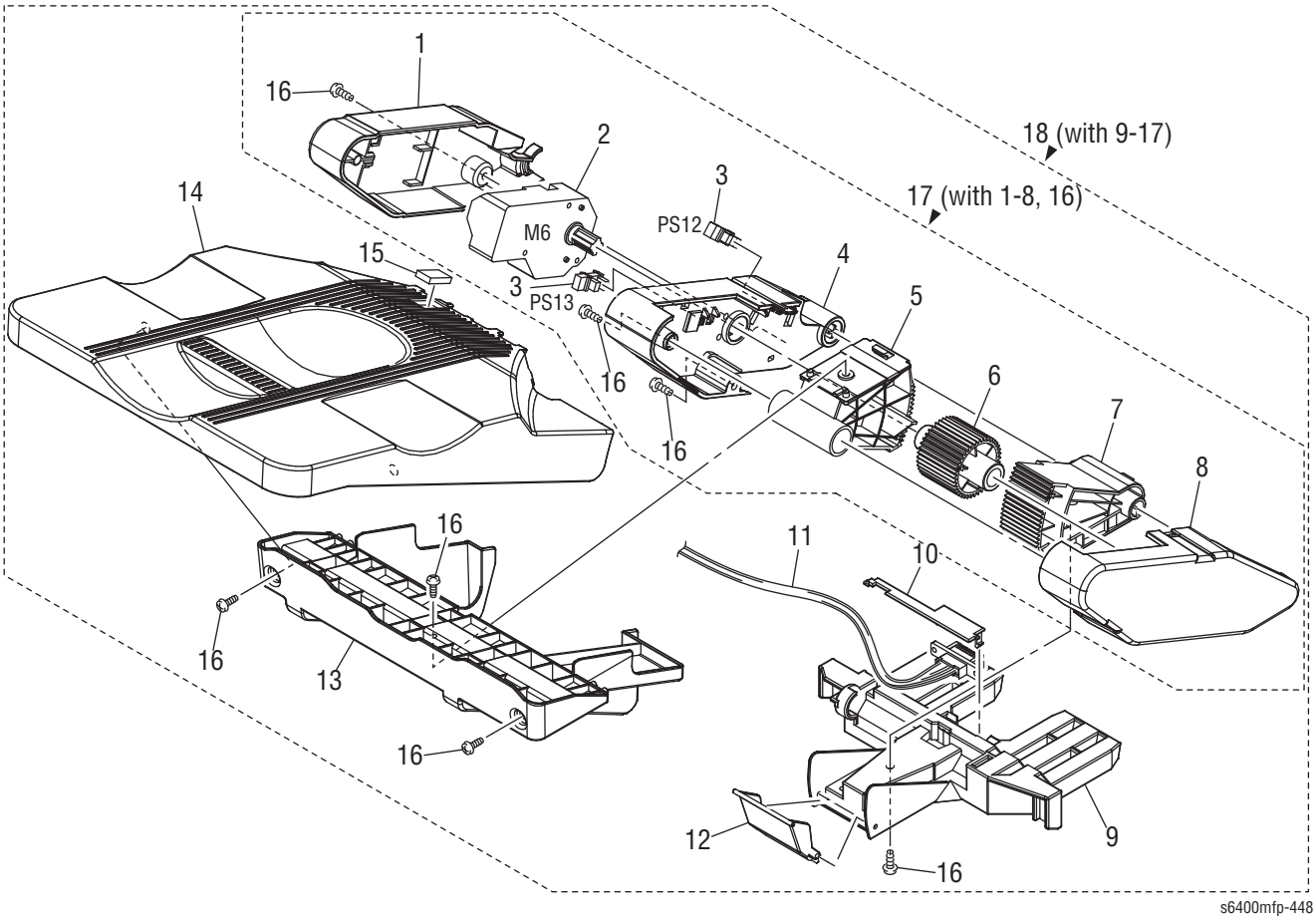
Parts List 47.0 Drive (2 of 2)



Parts List 47.0 Drive (2 of 2)

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Tension Spring		1	
2.	Gear 32/18T		1	
3.	Bracket		1	
4.	Tapping Screw		2	
5.	Motor	127E16510	1	M5 = Exit Roller Up/ Down Motor
6.	Wire Harness Assy		1	
7.	Bracket		1	
8.	Photo Interrupter (PS8)		1	Exit Roller Sensor
9.	Solenoid (SD4)		1	Paddle Solenoid
a.	C-Clip		1	
b.	Screw		1	
c.	Screw		1	P/O Hardware Kit

Parts List 48.0 Main Tray

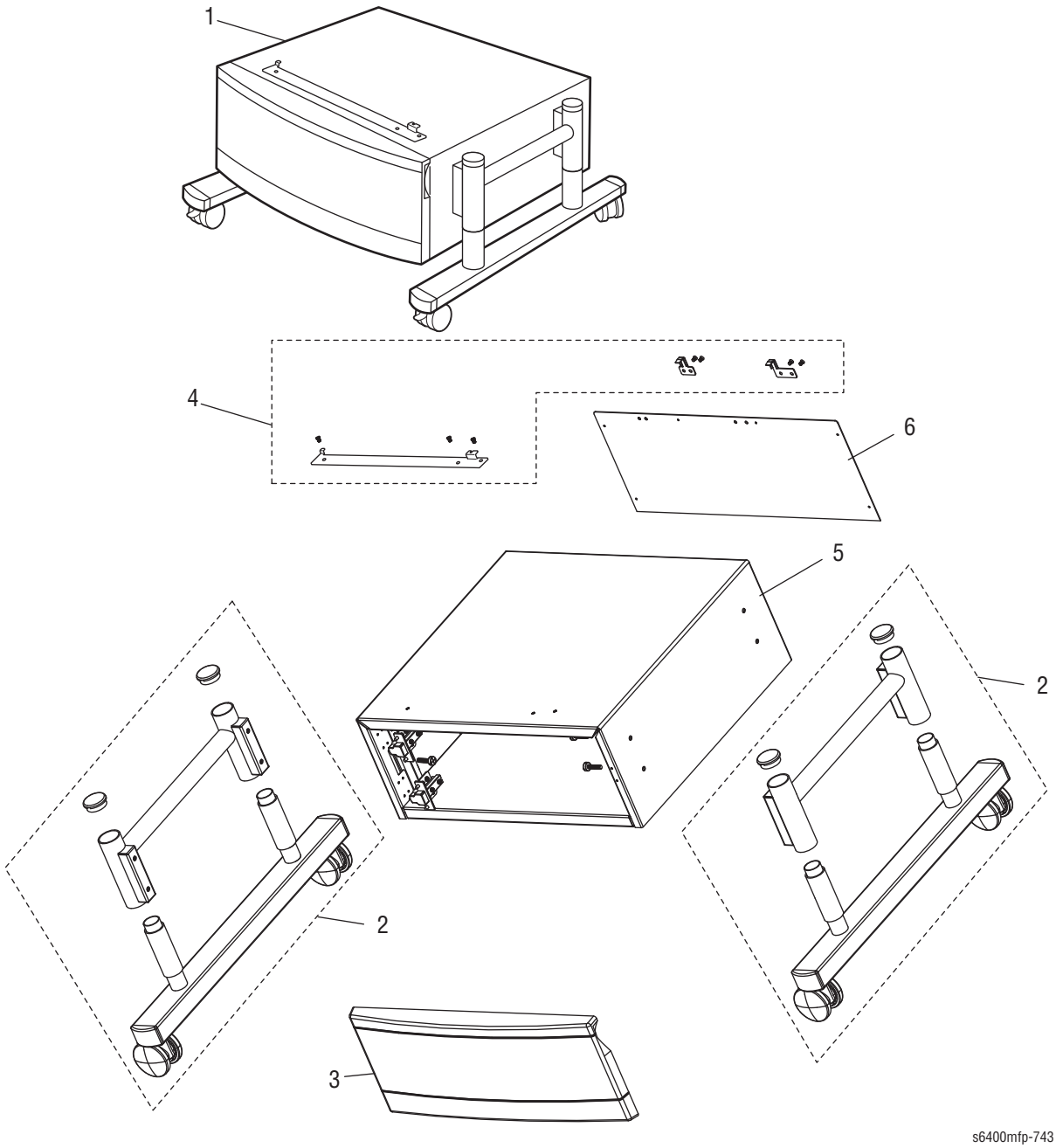


Parts List 48.0 Main Tray

ID No.	Name/Description	Part Number	Qty.	Part Number
1.	Cover		1	
2.	Motor (M6)		1	Tray Up/ Down Motor
3.	Photo Interrupter (PS12, PS13)	130E13030	2	PS12 = Tray Upper Sensor PS13 = Tray Lower Sensor
4.	Holder		1	
5.	Lever		1	
6.	Gear 40T		1	
7.	Lever		1	
8.	Holder		1	
9.	Holder		1	
10.	Cover		1	
11.	Wire Harness Assy		1	
12.	Lever		1	
13.	Holder		1	
14.	Tray		1	
15.	Cushion		1	
16.	Screw		7	
17.	Tray Motor Assy		1	
18.	Tray Assy	050K68350	1	Complete Main Tray Assembly

Option - Printer Cart

Parts List 49.0 Printer Stand



Parts List 49.0 Printer Cart

ID No.	Name/Description	Part Number	Qty.	Comments
1.	Stand Assembly	078K00820	1	Complete Assembly
2.	Leg Stand Assy	078K00830	1	Left/ Right Leg Assembly
3.	Door Assy	078K00840	1	
4.	Mounting Kit	604K55040	1	
5.	Frame Assy		1	
6.	Cover, Rear		1	
7.	RePack Kit	650K65000	1	Stand Repackaging Kit (Not shown)

Xerox Supplies and Accessories

World Kit

Description	Part Number
Inbox Kit - 110 V	604K60850
Inbox Kit - 2200 V	604K60860

Consumables and Maintenance Items

Description	Parts List Reference	Part Number
Toner Cartridge (C), High Capacity (12K)	6.19	106R01317
Toner Cartridge (C), Standard Capacity (6K)		106R01320
Toner Cartridge (C), Metered		106R01324
Toner Cartridge (M), High Capacity (12K)	6.20	106R01318
Toner Cartridge (M), Standard Capacity (6K)		106R01321
Toner Cartridge (M), Metered		106R01325
Toner Cartridge (Y), High Capacity (12K)	6.21	106R01319
Toner Cartridge (Y), Standard Capacity (6K)		106R01322
Toner Cartridge (Y), Metered		106R01326
Toner Cartridge (K), High Capacity (12K)	6.22	106R01316
Toner Cartridge (K), Metered		106R01323
Imaging Unit (C), (Up to 30K, 5-page jobs, or more, simplex, plain paper)	6.23	108R00775
Imaging Unit (M), (Up to 30K, 5-page jobs, or more, simplex, plain paper)	6.24	108R00776
Imaging Unit (Y), (Up to 30K, 5-page jobs, or more, simplex, plain paper)	6.25	108R00777
Imaging Unit (K) (Up to 30K, 5-page jobs, or more, simplex, plain paper)	6.26	108R00774
Waste Cartridge ■ Color (Up to 9K, 5% coverage) ■ Mono: (Up to 36K, 5% coverage)	9.9	106R01368
Fuser Unit ■ Fuser Unit - 110V ■ 150K, continuous ■ 130K, 2-page jobs ■ Fuser Unit - 220V ■ 150K, continuous ■ 130K, 2-page jobs	18.1	115R00059 115R00060
Transfer Roller (Up to 120K)	16.20	108R00815

Consumables and Maintenance Items (continued)

Description	Parts List Reference	Part Number
Transfer Belt (Up to 120K)	14.16	108R00816
Ozone Filter (Up to 120K) (bundles with Ozone Filter)	7.17	108R00815
Tray 1 Feed Roller (Up to 120K)	5.29	059E10850
Tray 2 Feed Roller (Up to 120K)	21.27	059E10850
Lower Feed Unit Feed Roller (240K)	32.5	059E10880
Staple Cartridge - 5,000 each (3)	N/A	108R00813

Options

Description	Parts List Reference	Part Number
512 MB DDR2 Memory (1 x 512 MB)	20.44	237E24920
Finisher Assy	35.9	059K69720
Foreign Device Interface	N/A	097S03872
Lower Tray Unit (500-Sheet Tray 3/4)	28.25	050K68330
Printer Cart	49.1	078K00820

Power Cords

Description	Part Number
Power Cord, North America (NEMA 5-15), 125 V, 15A	117E29520
Power Cord, Cable Assy, EUR, 240 V	117E29500
Power Cord, Cable Assy, UK, 240 V	117E29510
Power Cord, Italy, 230V	117E29450
Power Cord, Denmark, 230V	117E29460
Power Cord, India/South Africa, 230V	117E29470
Power Cord, Israel, 230V	117E29480
Power Cord, Australia, 230V	117E29490
Power Cord, China, 220V	117E35030
Power Cord, Argentina, 220V	117E35040
Power Cord, Switzerland, 230V	117E35050

Service Kits/Tools

Service Kits are developed to provide an easy means to obtain spare parts normally associated with larger assemblies. A number of Service Kits have been developed for the WorkCentre 6400. The following tables list the contents for each kit.

Kits

Hardware Kit

Description	Quantity	Parts List Reference	Part Number
Hardware Kit		N/A	604K54550
Screw	2	12.0a	
Screw	6	10.0c, 12.0c, 20.0a, 45.0b, 47.0c	
Tapping Screw	10	2.0a, 4.0a, 6.0a, 7.0a, 9.0b, 10.0a, 11.0b, 12.0f, 13.0a, 14.0a, 19.0c, 20.0b, 22.0a, 23.0c, 28.0b, 29.0d, 30.0c	
Tapping Screw	2	3.0a, 10.0d, 15.0c	
Tapping Screw	4	4.0d, 6.0c, 7.0b, 9.0c, 11.0e, 12.0g, 18.0b, 20.0d	
Screw	8	2.0f, 3.0b, 5.0c, 6.0b, 8.0c, 9.0a, 11.0a, 14.0b, 15.0a, 16.0b, 17.0b, 19.0d, 21.0c, 22.0b, 28.0a, 29.0b, 30.0b, 31.0b, 32.0e	
Screw	2	13.0e, 15.0b	
E-ring	2	3.0c, 8.0b, 11.0d, 16.0e, 18.0a	
E-ring	4	4.0b, 13.0d, 16.0c, 17.0a, 30.0d	

Hardware Kit (continued)

Description	Quantity	Parts List Reference	Part Number
E-ring	2	5.0b, 21.0a, 29.0e, 31.0a, 32.0c	
Pin	1	19.0b	
Pin	1	4.0c, 39.0b	
Pin	1	30.0e	
Wire Saddle	2	26.04	
Clamp	2	26.07	
Edge Holder	2	26.09	
Steps Screw	1	4.21	
Steps Screw	1	20.1	

Repack Kit

Parts List Reference	Description	Part Number
N/A	Printer Packaging Kit	695K28270

Tools

Description	Parts List Reference	Part Number
USB Memory with Firmware	N/A	237E25350
DADF Registration Calibration Target Sheet	N/A	109K02300

Plug/Jack and Wiring Diagrams

In this chapter...

Chapter 10

Plug/Jack Diagrams and Designators

This chapter contains the Plug/Jack Designators, Locators, and wiring diagrams for the print engine and all options.

The Plug/Jack Locator diagrams show the P/J locations within the printer, Finisher, Optional 500-Sheet Feeder, Duplex Unit, Fax, Copier, and Scanner. Use these illustrations to locate P/J connectors called out in the Troubleshooting procedures presented in Sections 3, 4, and 5.

The Plug/Jack locators consist of the P/J Designator Tables and the P/J Locator Diagrams.

- The P/J column lists the Plug/Jack numbers in numerical order.
- The Map column provides the map number of the specific areas (i.e., Electrical, Laser Unit...etc.)
- The Coordinates column lists the diagram coordinates for the location of the connector.
- The Remarks column provides a brief description of each connection.

1. Locate the P/J connector designator in the first column of the table.
2. With this information, go to the map listed in the second column.
3. Use the coordinates to locate the connection indicated on the map with its P/J designation number.

Main Body Plug/Jack Designators (including Duplexer)

Main Body Plug/Jack Designators

P/J	Map	Coordinates	Wiring Diagram	PL	Description
LVPS (DCPU)					
CN_FSR DCPU	1	J-6	p. 10-41	10.07	Connects DCPU to Fuser Bulkhead (CN_FSR1)
CN1_INP DCPU		I-10	p. 10-41	24.01	Connects DCPU to connector for AC Power (CN1PG1) and Power Switch (SW1)
CN_MCBDCPU	1	D-5	p. 10-41	10.07	Connects DCPU to Scanner (PJ7IPB) and MCU Board (PJ1MCU)
CN_OPNDCPU	1	D-5	p. 10-41	10.07	Connects DCPU to MCU Board (PJ1MCU)
CN_SCN1DCPU	1	A-7	p. 10-41	25.05	Connects DCPU to IP Board (PJ101 & PJ102)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN_SCN2DCPU	1	A-7	p. 10-41	25.05	Connects DCPU to Scanner (PJ7IPB) and IP Board (PJ101)
CN_SIGDCPU	1	D-5	p. 10-41	10.07	Connects DCPU to MCU Board (PJ2MCU)
HVPS-1 (HV1)					
BL1 HV1	2	D-20	p. 10-39	7.23	Connects HV1 to Black Developer
BL2 HV1	2	E-21	p. 10-39	7.23	Connects HV1 to Cyan Developer
BL3 HV1	2	G-21	p. 10-39	7.23	Connects HV1 to Magenta Developer
BL4 HV1	2	I-22	p. 10-39	7.23	Connects HV1 to Yellow Developer
B1 HV1	2	D-20	p. 10-39	7.24	Connects HV1 to Black Developer
B2 HV1	2	E-21	p. 10-39	7.24	Connects HV1 to Cyan Developer
B3 HV1	2	G-21	p. 10-39	7.24	Connects HV1 to Magenta Developer
B4 HV1	2	I-22	p. 10-39	7.24	Connects HV1 to Yellow Developer
CN1 HV1	2	B-21	p. 10-39	20.17	Connects HV1 to MCU Board (PJ17MCU) (Ribbon Cable)
R1 HV1	2	D-20	p. 10-39	7.22	Connects HV1 to Black Developer
R2 HV1	2	E-20	p. 10-39	7.22	Connects HV1 to Cyan Developer
R3 HV1	2	G-21	p. 10-39	7.22	Connects HV1 to Magenta Developer
R4 HV1	2	I-22	p. 10-39	7.22	Connects HV1 to Yellow Developer
HVPS-2 (HV2)					
C1 HV2	3	E-35	p. 10-40	7.15	Connects HV2 to K Developer Charge Voltage
C2 HV2	3	F-36	p. 10-40	7.14	Connects HV2 to C Developer Charge Voltage

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
C3 HV2	3	H-36	p. 10-40	7.13	Connects HV2 to M Developer Charge Voltage
C4 HV2	3	I-36	p. 10-40	7.10	Connects HV2 to Y Developer Charge Voltage
CN1 HV2	3	B-37	p. 10-40	20.18	Connects HV2 to MCU Board (PJ18MCU) (Ribbon Cable)
G1 HV2	3	F-37	p. 10-40	7.15	Connects HV2 to K Developer Grid Voltage
G2 HV2	3	H-38	p. 10-40	7.14	Connects HV2 to C Developer Grid Voltage
G3 HV2	3	I-38	p. 10-40	7.13	Connects HV2 to M Developer Grid Voltage
G4 HV2	3	I-38	p. 10-40	7.10	Connects HV2 to Y Developer Grid Voltage
T1 HV2	3	H-39	p. 10-40	14.17	Connects HV2 to 1st Image Transfer
T2 HV2	3	D-35	p. 10-40	14.23	Connects HV2 to 2nd Image Transfer
Image Processor Board					
PJ101 IP	4	C-49	p. 10-41	10.07	Connects IP Board to DCPU (CN_SCN1 & CN_SCN2) & Scanner (PJ7IPB)
PJ102 IP	4	D-49	p. 10-41	10.07	Connects IP Board to DCPU (CN_SCN1) and MCU Board (PJ39MCU)
PJ103 IP	4	c-51	p. 10-34		Connects IP Board to NC RAM
PJ202 IP	4	F-50	p. 10-42	Part of Fan	Connects IP Board to Cooling Fan Motor (FM15)
PJ205 IP	4	F-50	p. 10-42	PL10.07	Connects IP Board to HDD (Power)
PJ206 IP	4	E-51	p. 10-42		Connects IP Board to HDD Power

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ208 IP	4	F-51	p. 10-34		Connects IP Board to CC RAM
PJ306 IP	4	J-51	p. 10-34	Part of Scanner	Connects IP Board to Scanner (PJ1IPB) & Control Panel (PJX301)
PJ401 IP	4	A-52	p. 10-37	20.08	Connects IP Board to MCU Board (PJ24MCU) (Ribbon Cable)
PJ402 IP	4	B-52	p. 10-42	PL10.07	Connects IP Board to HDD (SATA)
PJ602 IP	4	H-52	p. 10-42		Connects IP Board to CC Daughter Board connector
PJ603 IP	4	I-53	p. 10-34		Connects IP Board to Ethernet connector
PJ604 IP	4	I-54	p. 10-34		Connects IP Board to USB port (Customer Interface)
PJ605 IP	4	I-51	p. 10-34		Connects IP Board to USB port (Service Interface)
PJ801 IP	4	C-55	p. 10-34		Connects IP Board to NVM Module connector
PJ901 IP	4	H-56	p. 10-38	Part of Laser	Connects IP Board to LASDB (PJ2LASDB) (Ribbon Cable)
PJ902 IP	4	I-56	p. 10-42		Connects IP Board to phone line connector
PJ903 IP	4	I-55	p. 10-34		Connects IP Board to Serial port
Fax Board Connector	4	F-55, F-56 G-55, G-56	p. 10-42		Connects IP Board to Fax Board connector
MCU Board (Engine Control Board)					
PJ1 MCU	5	D-62	p. 10-41	10.07	Connects MCU Board to DCPU (CN_OPN & CN_MBC) & Scanner (PJ7IPB)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ2 MCU	5	G-62	p. 10-41	10.07	Connects MCU Board to DCPU (CN_SIG)
PJ3 MCU	5	C-62	p. 10-43	25.02	Connects MCU Board to Front Door Switch (MS2), Right Door Switch (MS3), and Fuser Detect Switch (MS4)
PJ4 MCU	5	C-63	p. 10-43	10.07	Connects MCU Board to Fuser Bulkhead (CN_FSR1A & CN_FSR1B)
PJ5 MCU	5	C-69	p. 10-47	24.03	Connects MCU Board to Tray 2 Media Size Switch [PJ33 (SW5)]
PJ6 MCU	5	B-71	p. 10-40	24.03	Connects MCU Board to Tray 1 Media Feed Clutch (CN12), Tray 2 Media Feed Clutch (CN11), & Exhaust Fan Motor (FM13)
PJ7 MCU	5	H-62	p. 10-46	24.06	Connects MCU Board to Toner supply motors [PJ31 (M6) & PJ32 (M7)], Ret. Pos. 1 [CN27 (PS12)], and Press/Ret Clutch 1 [CN26 (CL4)]
PJ8 MCU	5	I-64	p. 10-44	24.06	Connects MCU Board to Developing Motor C, M, Y [PJ16 (M4)]
PJ9 MCU	5	G-63	p. 10-46	Not shown	Connects MCU Board to DCPU Fan (FM11)
PJ10 MCU	5	B-72	p. 10-39	25.02	Connects MCU Board to Front [PJ3 (PS4)] and Right Door [PJ10 (PS3)] Sensors, Ret. Pos. 2 [PJ11 (PS13)], and Press/Ret Clutch 2 [CN17 (CL5)]

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ11 MCU	5	B-69	p. 10-36	15.21	Connects MCU Board to Connector for Duplex Unit (CN14A & CN14B)
PJ12 MCU	5	C-68	p. 10-47	24.05	Connects MCU Board to Front IDC Sensor Board (PJ9) & Rear IDC Sensor Board (PJ8)
PJ13 MCU	5	B-64	p. 10-45	25.04	Connects MCU Board to Toner Low Sensor Board (PJ1TLSB & PJ2TLSB)
PJ14 MCU	5	I-63	p. 10-44	24.06	Connects MCU Board to Color PC Drum Motor [PJ14 (M3)]
PJ15 MCU	5	C-72	p. 10-46	24.04	Connects MCU Board to Registration Sensor [PJ7 (PS9)] & OHP Sensor [PJ20 (PS5)]
PJ16 MCU	5	C-71	p. 10-47	Not shown	Connects MCU Board to Registration Roller Clutch [CN16 (CL2)] & Media Loop Sensor [PJ4 (PS10)]
PJ17 MCU	5	D-72	p. 10-39	20.17	Connects MCU Board to HV1 (CN1HV1) (Ribbon Cable)
PJ18 MCU	5	D-72	p. 10-40	20.18	Connects MCU Board to HV2 (CN1HV2) (Ribbon Cable)
PJ19 MCU	5	B-66	p. 10-48	12.03	Connects MCU Board to Fusing Motor [PJ17 (M2)]
PJ20 MCU	5	C-73	p. 10-36	20.20	Connects MCU Board to connector for LTA (CN25)
PJ21 MCU	5	B-74	p. 10-48	Not shown	Connects MCU Board to Fusing Fan Motor (FM12)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ22 MCU	5	H-73	p. 10-48	Part of Laser	Connects MCU Board to Laser (Thermistor, Polygon Motor, & Index Board)
PJ23 MCU	5	F-73	p. 10-38	Part of Laser	Connects MCU Board to LASDB (PJ1LASDB) (Ribbon Cable)
PJ24 MCU	5	I-66	p. 10-37	20.08	Connects MCU Board to IP Board (PJ401) (Ribbon Cable)
PJ25 MCU	5	B-70	p. 10-47	24.04	Connects MCU Board to Temperature Humidity Sensor (PJ6)
PJ26 MCU	5	B-68	p. 10-48	24.07	Connects MCU Board to Waste Toner Sensor [PJ18 (PS6)] and Tray 2 Media Empty Sensor [PJ19 (PS8)]
PJ27 MCU	5	I-63	p. 10-44	24.06	Connects MCU Board to Intermediate Transport Motor [PJ15 (M1)]
PJ28 MCU	5	C-72	p. 10-40	Not shown	Connects MCU Board to Connector for Tray 1 Media Empty Sensor (CN15)
PJ29 MCU	5	B-65	p. 10-45	24.02	Connects MCU Board to Toner Cartridge CRUMs [PJ22 (Y), PJ23 (M), PJ24 (C), PJ25 (K)]
PJ30 MCU	5	I-68	p. 10-34	PL25.05	Not used
PJ31 MCU	5	D-63	p. 10-46	Not shown	Connects MCU Board to Scanner Open Sensor (PS11)
PJ33 MCU	5	I-64	p. 10-44	24.06	Connects MCU Board to Developing Motor K [PJ21 (M5)]

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ34 MCU	5	C-64	p. 10-36	20.30	Connects MCU Board to connector for Finisher (CN29L)
PJ35 MCU	5	D-73	p. 10-36	20.30	Connects MCU Board to connector for Finisher (CN29A)
PJ36 MCU	5	I-66	p. 10-43	25.01	Connects MCU Board to connector for Connector for Exit Sensor and Media Full Sensor (CN_EXIT)
PJ37 MCU	5	B-67	p. 10-34	25.05	Connects MCU Board to Connector for Cooling Fan (CN_FAN1) (Horizontal Transport Fan)
PJ38 MCU	5	D-64	p. 10-41	10.07	Connects MCU Board to DCPU (CN_SCN2) and Scanner Power (PJ7IPB)
PJ39 MCU	5	F-63	p. 10-34	20.08	Connects MCU Board to IP Board (PJ102)
Duplex Unit Control Board (ADCB)					
PJ1 ADCB	6	D-97	p. 10-49	23.23	Connects ADCB to Main Engine Body
PJ2 ADCB	6	A-98	p. 10-49	23.22	Connects ADCB to Duplex Transport Motor [PJ22 (M8)]
PJ3 ADCB	6	K-97	p. 10-49	23.21	Connects ADCB to Duplex Switchback Motor [PJ23 (M9)]
PJ4 ADCB	6	I-97	p. 10-49	23.21	Connects ADCB to Duplex Door Sensor [PJ25 (PS16)]
Connectors Not On Map Locators					
CN3	N/A	N/A	p. 10-57	46.17	Connector for Finisher to Main Engine Body
CN6	N/A	N/A		Part of Laser	Connector for Thermistor 3 (Laser)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN11	N/A	N/A	p. 10-40	24.03	Connector for Tray 2 Media Feed Clutch (CL3)
CN12	N/A	N/A	p. 10-40	24.03	Connector for Tray 1 Media Feed Clutch (CL1)
CN13	N/A	N/A	p. 10-40	24.03	Connector for Exhaust Fan Motor (FM13)
CN14A	N/A	N/A	p. 10-49	23.23	Connector for Duplex Unit (ADCB Board)
CN14B	N/A	N/A	p. 10-49	23.23	Connector for Duplex Unit (ADCB Board)
CN15	N/A	N/A	p. 10-40	5.11	Connector for Tray 1 Media Empty Sensor [PJ5 (PS7)]
CN16	N/A	N/A	p. 10-47	16.18	Connector for Registration Roller Clutch (CL2)
CN17	N/A	N/A	p. 10-39	25.02	Connector for Pressure/Retraction Clutch 2 (CL5)
CN25	N/A	N/A	p. 10-36	20.20	Connector for LTA
CN26	N/A	N/A	p. 10-46	24.06	Connector for Pressure/Retraction Clutch 1 (CL4)
CN27	N/A	N/A	p. 10-46	24.06	Connector for Retraction Position Sensor 1 (PS12)
CN29A	N/A	N/A	p. 10-36	46.17	Connector for Finisher
CN29L	N/A	N/A	p. 10-36	46.17	Connector for Finisher
CN1 INVB	N/A	N/A	p. 10-34	Part of Scanner	Connector for Scanner Inverter Board
CN2 INVB	N/A	N/A	p. 10-34	Part of Scanner	Connects Scanner Inverter Board to Exposure Lamps 1 & 2
CN1 PG1	N/A	N/A	p. 10-41	20.29	Connector for AC Power (PG1)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN_EXIT	N/A	N/A	p. 10-43	19.27	Connector for Exit Sensor2 (CN_EXIT1) and Media Full Sensor (CN_EXIT2)
CN_EXIT1	N/A	N/A	p. 10-43	19.27	Connector for Exit Sensor2 (PS15)
CN_EXIT2	N/A	N/A	p. 10-43	19.27	Connector for Media Full Sensor (PS14)
CN_FAN1	N/A	N/A	p. 10-34	25.03	Connector for Horizontal Transport Fan (FM14)
CN_FSR1	N/A	N/A	p. 10-41	10.07	Connector for Fuser Bulkhead
CN_FSR1A	N/A	N/A	p. 10-41	10.07	Connector for Fuser Bulkhead
CN_FSR1B	N/A	N/A	p. 10-41	10.07	Connector for Fuser Bulkhead
PJ3	N/A	N/A	p. 10-39	25.02	Connector for Front Door Sensor (PS4)
PJ4	N/A	N/A	p. 10-47	15.14	Connector for Media Loop Sensor (PS10)
PJ5	N/A	N/A	p. 10-40	5.11	Connector for Tray 1 Media Empty Sensor (PS7)
PJ6	N/A	N/A	p. 10-47	24.04	Connector for Temperature Humidity Sensor
PJ7	N/A	N/A	p. 10-46	24.04	Connector for Registration Sensor (PS9)
PJ8	N/A	N/A	p. 10-47	24.05	Connects MCU Board to Rear IDC Sensor Board
PJ9	N/A	N/A	p. 10-47	24.05	Connects MCU Board to Front IDC Sensor Board
PJ10	N/A	N/A	p. 10-33	25.02	Connector for Right Door Sensor (PS3)
PJ11	N/A	N/A	p. 10-33	25.02	Connector for Pressure/Retraction Sensor 2 (PS13)
PJ13	N/A	N/A	p. 10-46	14.22	Pressure/Retraction Sensor 1 (PS12)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ14	N/A	N/A	p. 10-44	24.06	Connector for Color PC Drum Motor (M3)
PJ15	N/A	N/A	p. 10-44	24.06	Connector for Intermediate Transport Motor (M1)
PJ16	N/A	N/A	p. 10-44	24.06	Connector for C M Y Developing Motor (M4)
PJ17	N/A	N/A	p. 10-48	12.04	Connector for Fusing Motor (M2)
PJ18	N/A	N/A	p. 10-48	24.07	Connector for Waste Toner Full Sensor (PS6)
PJ19	N/A	N/A	p. 10-48	24.07	Connector for Tray 2 Media Empty Sensor (PS8)
PJ20	N/A	N/A	p. 10-46	24.04	Connector for OHP Sensor (PS5)
PJ21	N/A	N/A	p. 10-46	24.06	Connector for Developing Motor K (M5)
PJ22	N/A	N/A	p. 10-45	24.02	Connector for Y Toner Cartridge CRUM
PJ23	N/A	N/A	p. 10-45	24.02	Connector for M Toner Cartridge CRUM
PJ24	N/A	N/A	p. 10-45	24.02	Connector for C Toner Cartridge CRUM
PJ25	N/A	N/A	p. 10-45	24.02	Connector for K Toner Cartridge CRUM
PJ31	N/A	N/A	p. 10-46	24.06	Connector for Y and M Toner Supply Motor (M6)
PJ32	N/A	N/A	p. 10-46	24.06	Connector for C and K Toner Supply Motor (M7)
PJ33	N/A	N/A	p. 10-47	24.03	Connector for Tray 2 Media Size Switch (SW5)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ34	N/A	N/A	p. 10-46	4.09	Connector for Scanner Open Sensor (PS11)
PJ1 IPB	N/A	N/A	p. 10-34	10.07	Connects Scanner to IP Board (PJ307IP)
PJ2 IPB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner to Control Panel (PJX301)
PJ3 IPB	N/A	N/A	p. 10-54	Part of Scanner	Connects Scanner to ADF
PJ4 IPB	N/A	N/A	p. 10-54	Part of Scanner	Connects Scanner IP Board to Scanner Unit Control Board (PJ5SUCB)
PJ5 IPB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner IP Board to Scanner Unit Control Board (PJ4SUCB)
PJ7 IPB	N/A	N/A	p. 10-34	10.07	Connects Scanner to DCPU (CN_SCN2 & CN_MBC) & MCU Board (PJ1MCU & PJ38MCU)
PJ1 LASDB	N/A	N/A		Part of Laser	Connects LASDB to MCU Board (PJ23MCU) (Ribbon Cable)
PJ2 LASDB	N/A	N/A		Part of Laser	Connects LASDB to IP Board (PJ901IP) (Ribbon Cable)
PJ1 SUCB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner Unit Control Board to Scanner Motor (M100)
PJ2 SUCB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner Unit Control Board to Inverter Board (CN1INVB)
PJ3 SUCB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner Unit Control Board to Scanner Home Sensor (PS100)
PJ4 SUCB	N/A	N/A	p. 10-53	Part of Scanner	Connects Scanner IP Board to Scanner Unit Control Board (PJ5SUCB)

Main Body Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ5 SUCB	N/A	N/A	p. 10-54	Part of Scanner	Connects Scanner Unit Control Board to Scanner IP Board (PJ4IPB)
PJ1 TLSB	N/A	N/A	p. 10-45	25.04	Connector for Toner Low Sensor Board
PJ2 TLSB	N/A	N/A	p. 10-45	25.04	Connector for Toner Low Sensor Board
PJX301	N/A	N/A		Part of Scanner	Connects Control Panel to IP Board (PJ306IP)

Optional 500-Sheet Feeder Plug/Jack Designators

Optional 500-Sheet Feeder Plug/Jack Designators

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ1PCCB	7	E-84	p. 10-55	28.22	Connects PCCB to Engine Main Body (CN25)
PJ2PCCB	7	D-82	p. 10-55	28.23	Connects PCCB to Optional second lower tray
PJ3PCCB	7	H-84	p. 10-55	30.12	Connects PCCB to Transport Motor (M16)
PJ4PCCB	7	C-84	p. 10-55	28.13	Connects PCCB to Paper Size Switch (PJ27)
PJ5PCCB	7	G-82	p. 10-55	29.25	Connects PCCB to Paper Empty Sensor (PJ30), Paper Feed Sensor (PJ29), and Right Door Sensor (PJ28)
PJ6PCCB	7	H-83	p. 10-55	Not shown	Connects PCCB to Connector for Paper Feed Clutch (CN29)
Connectors not on Map Locators					
CN25	N/A	N/A	p. 10-55	28.22/ 28.23	Connector to the Engine Main Body or Optional Tray 3 from the Optional Tray 4
CN29	N/A	N/A	p. 10-55	30.03	Connector for Paper Feed Clutch (CL6)
PJ27	N/A	N/A	p. 10-55	28.13	Connector for Paper Size Switch (SW6)
PJ28	N/A	N/A	p. 10-55	29.25	Connector for Right Door Sensor (PS24)
PJ29	N/A	N/A	p. 10-55	29.25	Connector for Paper Feed Sensor (PS23)
PJ30	N/A	N/A	p. 10-55	29.25	Connector for Paper Empty Sensor (PS22)

Finisher Plug/Jack Designators

Finisher Plug/Jack Designators

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN1 FSCB	8	D-115	p. 10-57	46.17	Connects FSCB to connector for Engine Main Body (CN2)
CN2 FSCB	8	I-115	p. 10-58	47.x	Connects FSCB to Exit Roller Sensor (PJ11)
CN4 FSCB	8	G-115	p. 10-59	46.17	Connects FSCB to connector for Engine Main Body (CN3)
CN5 FSCB	8	J-115	p. 10-57	37.04	Connects FSCB to connector for Tray Lower Sensor and Tray Upper Sensor (CN8)
CN6 FSCB	8	J-114	p. 10-58	39.15	Connects FSCB to Finisher Cover Sensor (PJ10 and Transport Section Sensor (PJ9)
CN7 FSCB	8	J-113	p. 10-58	39.33	Connects FSCB to Paper Full Sensor (PJ8)
CN8 FSCB	8	J-112	p. 10-58	36.11	Connects FSCB to Paper Level Sensor 2 (PJ7) and Paper Level Sensor 1 (PJ6)
CN9 FSCB	8	J-111	p. 10-58	Not shown	Connects FSCB to Paper Ejector Sensor (PJ5), Aligning Plate Home Position Sensor (PJ4), and Storage Section Sensor (PJ3)
CN10 FSCB	8	I-111	p. 10-59	38.09	Connects FSCB to Entrance Sensor (PJ2)
CN11 FSCB	8	I-111	p. 10-59	46.01	Connects FSCB to Aligning Belt Sensor (PJ1)
CN12 FSCB	8	H-111	p. 10-62	41.x	Connects FSCB to Align Motor (CN4)
CN13 FSCB	8	G-111	p. 10-62	46.19	Connects FSCB to Fan Motor (CN5)
CN14 FSCB	8	G-111	p. 10-62	39.09	Connects FSCB to connector for Entrance Solenoid (CN6)

Finisher Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN15 FSCB	8	F-111	p. 10-61	46.03	Connects FSCB to Transport Motor (PJ12)
CN16 FSCB	8	D-111	p. 10-61	46.18	Connects FSCB to Exit Motor (PJ13)
CN17 FSCB	8	C-110	p. 10-61	36.05	Connects FSCB to connector for Paper Level Lever Solenoid (CN7)
CN18 FSCB	8	B-111	p. 10-61	Not shown	Connects FSCB to Paddle Solenoid (SD4)
CN19 FSCB	8	C-111	p. 10-61	Not shown	Connects FSCB to Aligning belt Up/Down Solenoid (SD3)
CN20 FSCB	8	B-111	p. 10-60	47.06	Connects FSCB to Exit Roller Up/Down Motor (PJ14)
CN21 FSCB	8	B-113	p. 10-60	41.x	Connects FSCB to Paper Ejector Motor (PJ15)
CN22 FSCB	8	B-114	p. 10-60	37.04	Connects FSCB to Tray Up/Down Motor (CN8)
CN23 FSCB	8	C-115	p. 10-60	45.02	Connects FSCB to connector for Staple Unit (CN9)
CN24 FSCB	8	D-115	p. 10-59	37.05	Connects FSCB to Stapler Cover Switch (MS1)
CN25 FSCB	8	F-114	p. 10-57	N/A	Not used
CN26 FSCB	8	H-114	p. 10-57	N/A	Not used
Connectors not on Map Locators					
CN1	N/A	N/A	p. 10-58	36.15	Connector for Paper Level Sensor 1 and 2
CN2	N/A	N/A	p. 10-59	46.17	Connector for Engine Main Body
CN3	N/A	N/A	p. 10-59	46.17	Connector for Engine Main Body
CN4	N/A	N/A	p. 10-62	41.x	Connector for Align Motor (M2)
CN5	N/A	N/A	p. 10-62	46.19	Connector for Fan Motor (FM1)
CN6	N/A	N/A	p. 10-62	39.09	Connector for Entrance Solenoid (SD1)

Finisher Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
CN7	N/A	N/A	p. 10-61	36.05	Connector for Paper Level Lever Solenoid (SD2)
CN8	N/A	N/A	p. 10-60	48.11	Connector for Tray Up/ Down Motor, Tray Lower Sensor, and Tray Upper Sensor
CN9	N/A	N/A	p. 10-57	45.02	Connector for Staple Unit
PJ1	N/A	N/A	p. 10-59	46.01	Connector for Aligning Belt Sensor (PS11)
PJ2	N/A	N/A	p. 10-59	38.09	Connector for Entrance Sensor (PS1)
PJ3	N/A	N/A	p. 10-58	41.x	Connector for Storage Section Sensor (PS7)
PJ4	N/A	N/A	p. 10-58	Not shown	Connector for Aligning Plate Home Position Sensor (PS6)
PJ5	N/A	N/A	p. 10-58	41.x	Connector for Paper Ejector Sensor (PS5)
PJ6	N/A	N/A	p. 10-58	36.15	Connector for Paper Level Sensor 1 (PS9)
PJ7	N/A	N/A	p. 10-58	36.15	Connector for Paper Level Sensor 2 (PS10)
PJ8	N/A	N/A	p. 10-58	39.33	Connector for Paper Full Sensor (PS4)
PJ9	N/A	N/A	p. 10-58	39.15	Connector for Transport Section Sensor (PS2)
PJ10	N/A	N/A	p. 10-58	39.15	Connector for Finisher Cover Sensor (PS3)
PJ11	N/A	N/A	p. 10-58	47.x	Connector for Exit Roller Sensor (PS8)
PJ12	N/A	N/A	p. 10-61	46.03	Connector for Transport Motor (M3)
PJ13	N/A	N/A	p. 10-61	46.18	Connector for Exit Motor (M4)
PJ14	N/A	N/A	p. 10-60	47.06	Connector for Exit Roller Up/Down Motor (M5)
PJ15	N/A	N/A	p. 10-60	41.x	Connector for Paper Ejector Motor (M1)
PJ16	N/A	N/A	p. 10-60	48.11	Connector for Tray Upper Sensor (PS12)

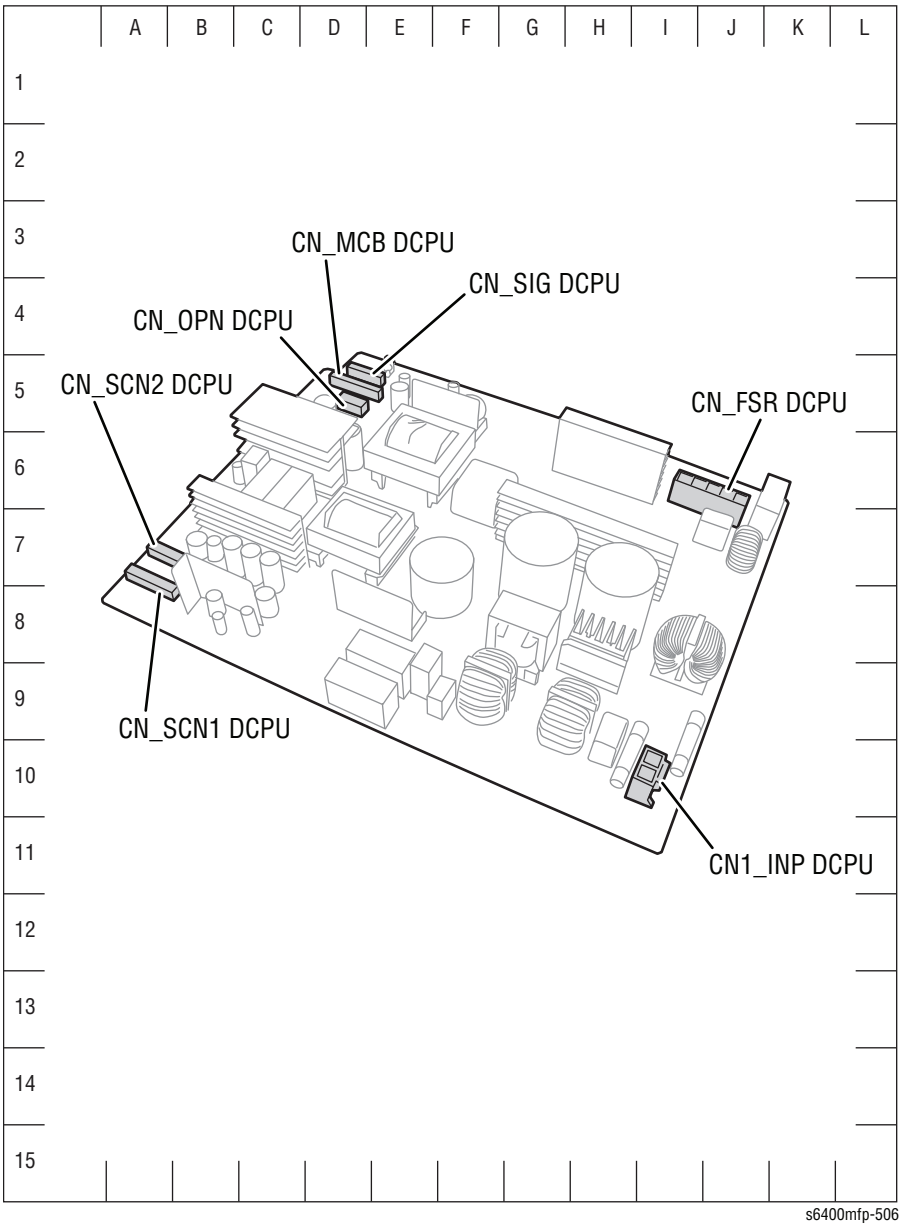
Finisher Plug/Jack Designators (continued)

P/J	Map	Coordinates	Wiring Diagram	PL	Description
PJ17	N/A	N/A	p. 10-60	48.11	Connector for Tray Lower Sensor (PS13)
PJ18	N/A	N/A	p. 10-60	48.11	Connector for Tray Up/ Down Motor (M6)
PJ19	N/A	N/A	p. 10-60	45.03	Connector for Staple Unit
PJ20	N/A	N/A	p. 10-60	45.03	Connector for Staple Unit

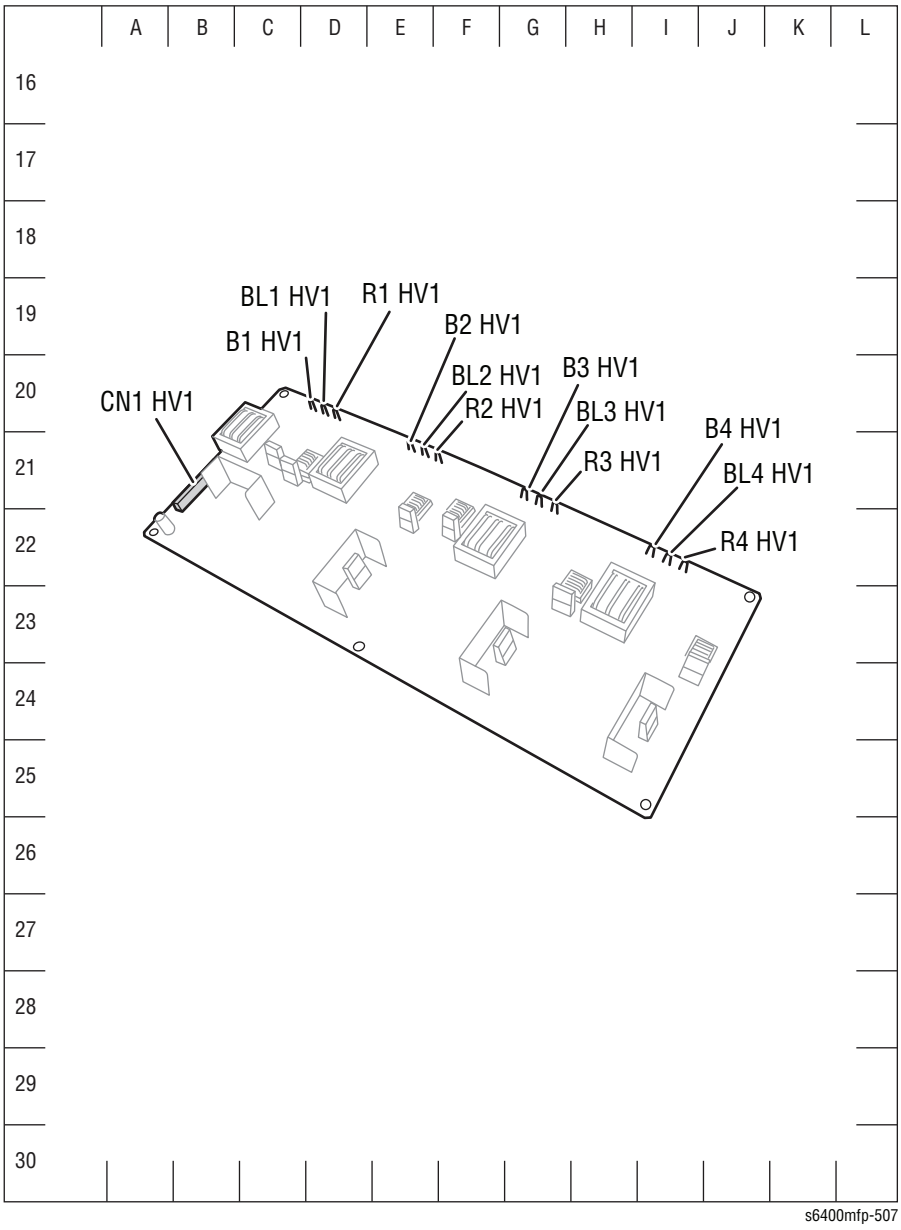
Plug/Jack Locators

Maps 1 through 8 indicate the location of key connections within the printer, Optional 500-Sheet Feeder, and Finisher. Connections are referenced by their P/J designation.

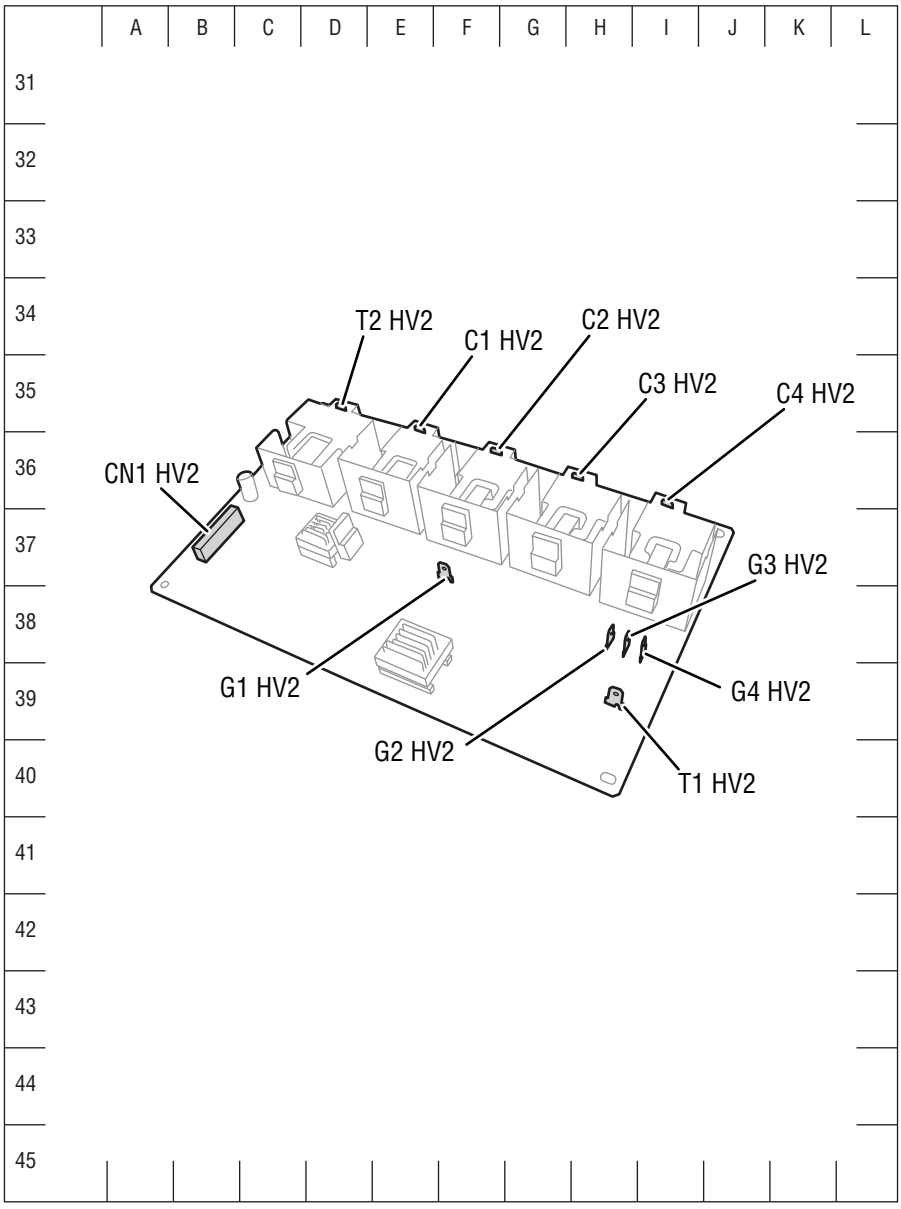
Map 1 - LVPS (DCPU)



Map 2 - HVPS-1 (HV1)



Map 3 - HVPS-2 (HV2)



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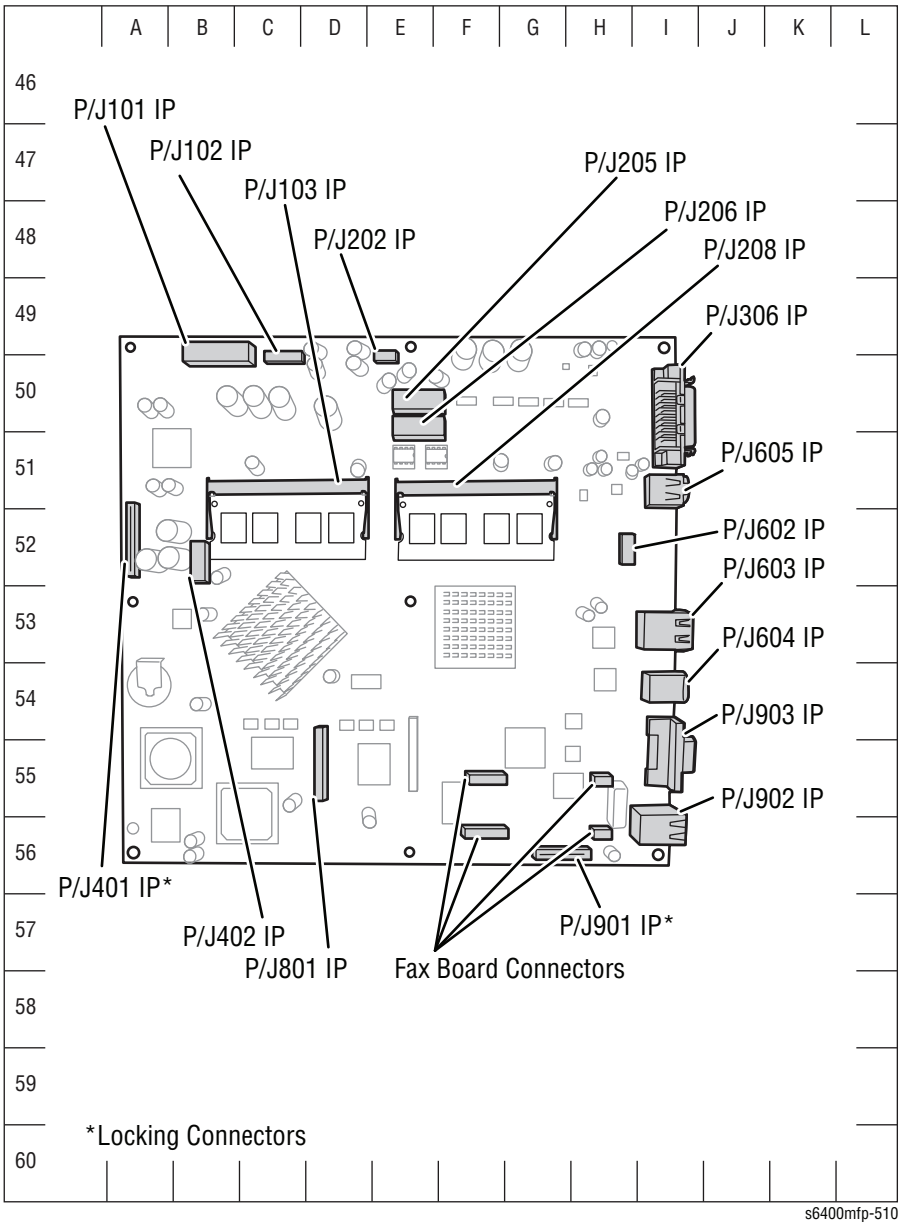
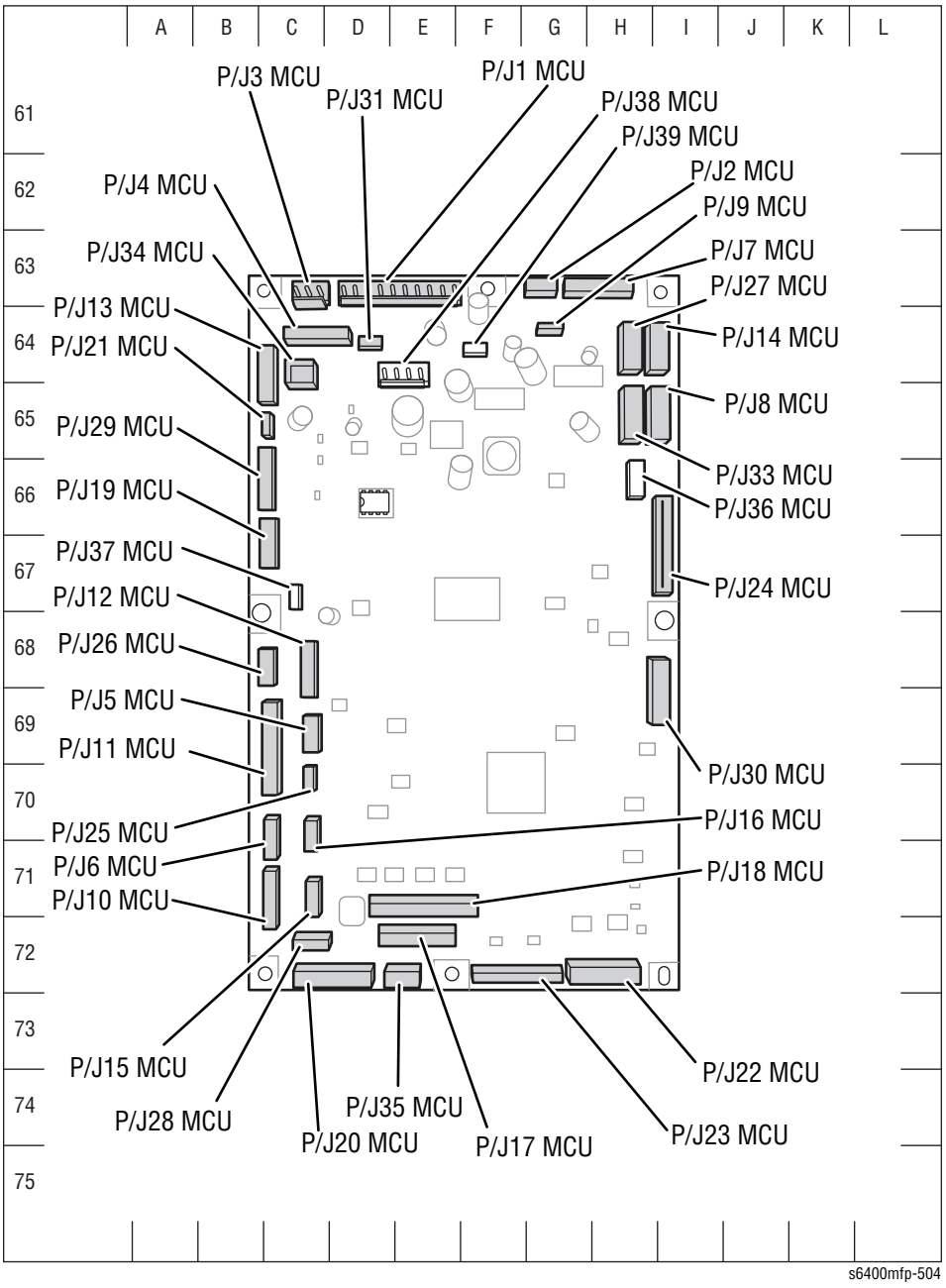
Map 4 - Image Processor Board



Map 5 - MCU Board (Engine Control Board)



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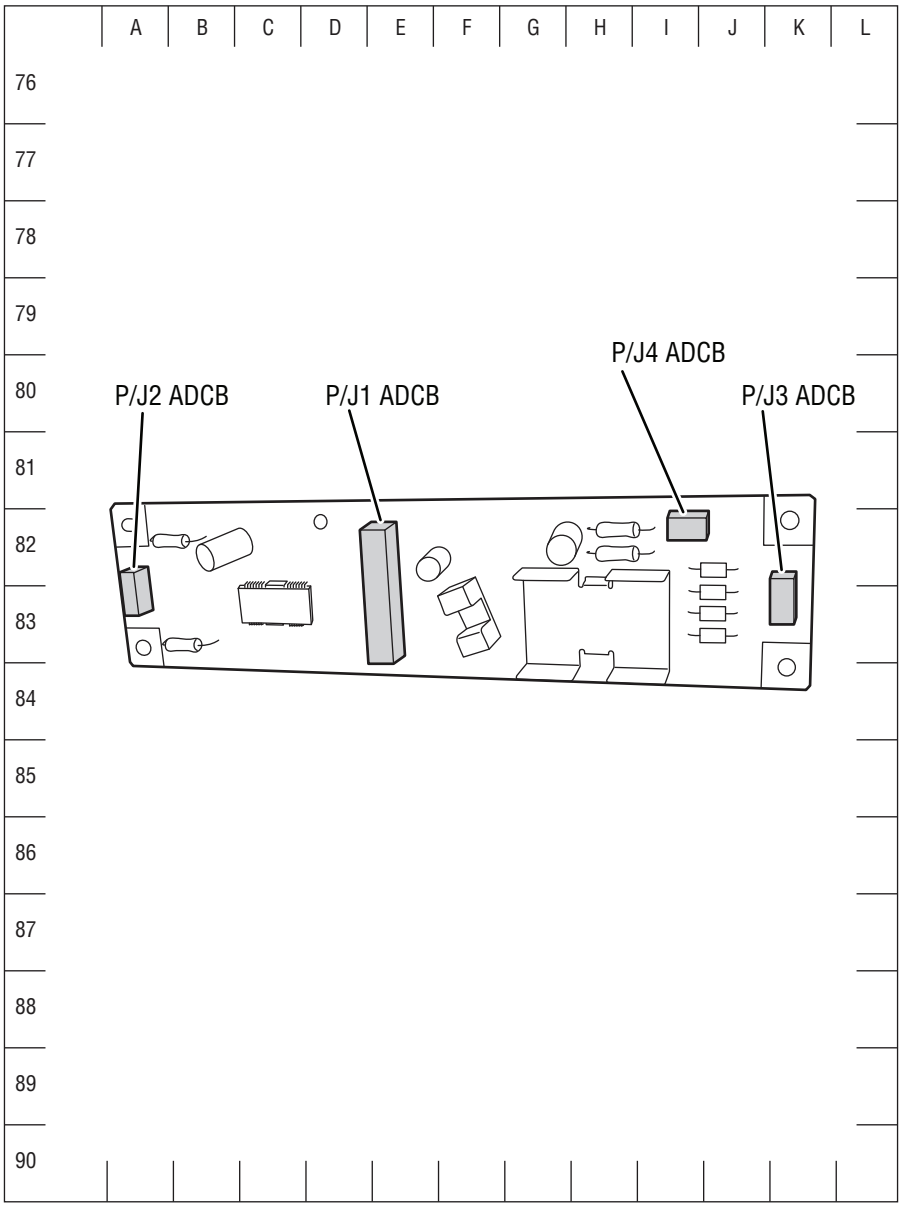
Map 6 - Duplex Unit Board (ADCB)



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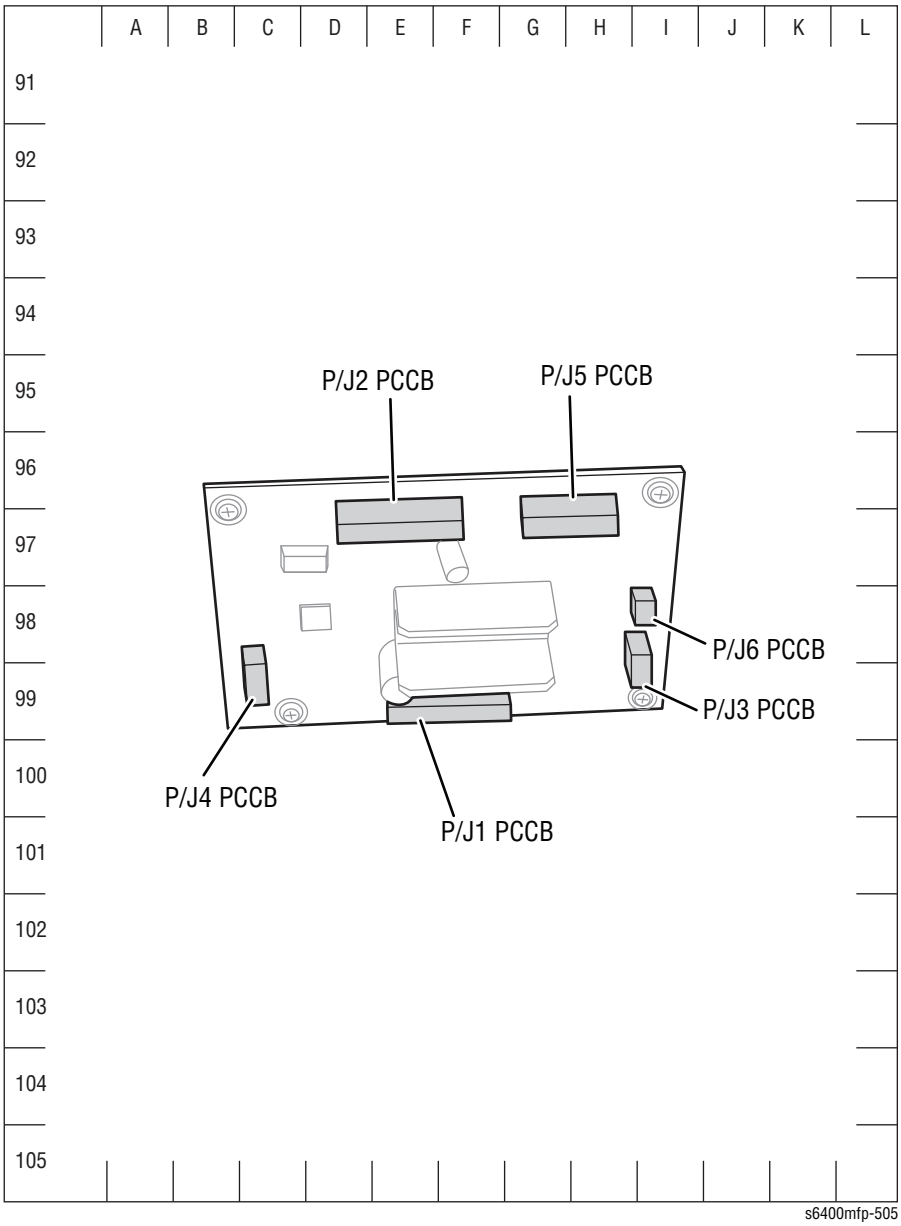
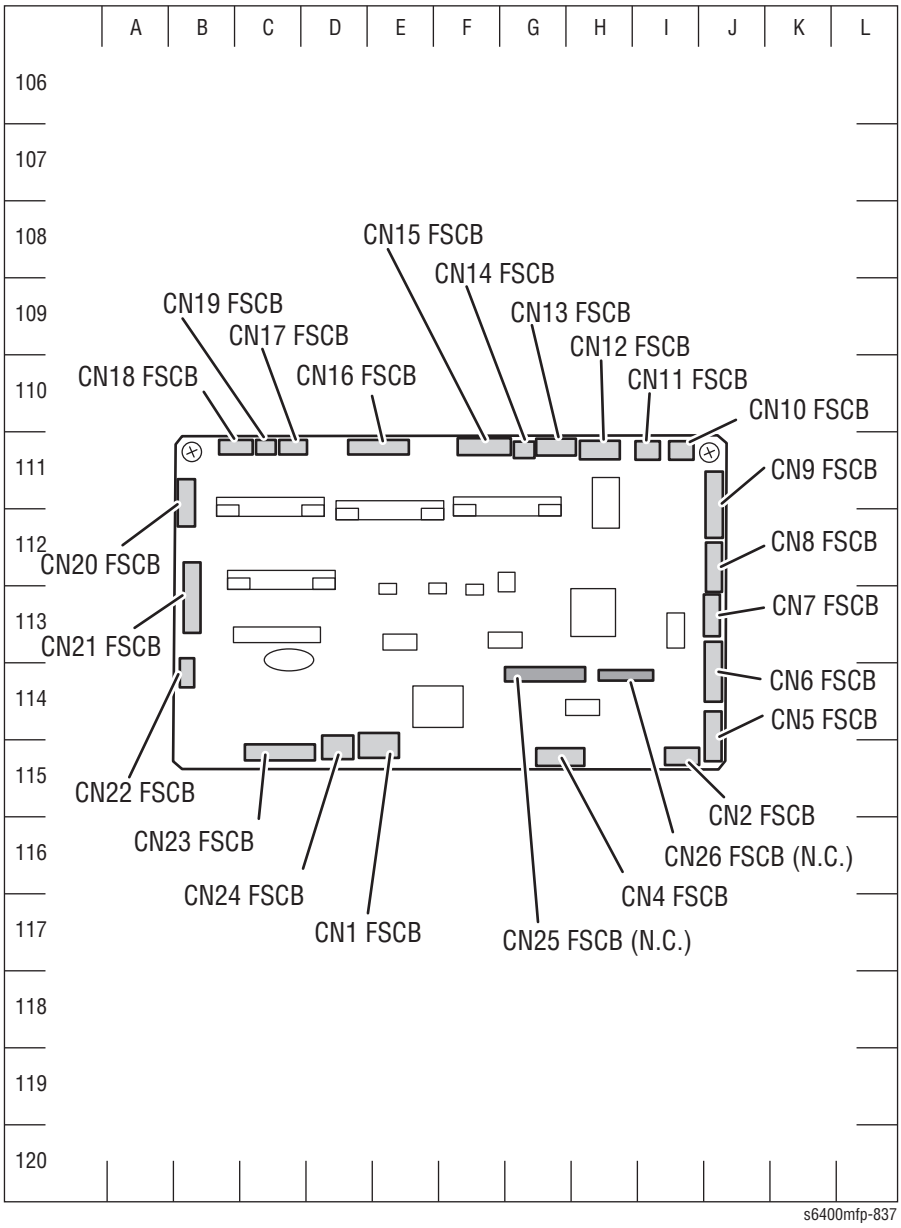
Map 7 - Optional 500-Sheet Feeder Board (PCCB)

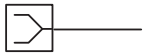
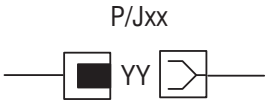


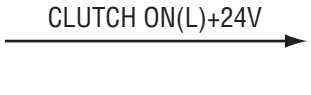
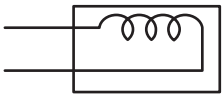
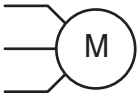
Map 8 - Finisher Control Board (FSCB)



Notations Used in the Wiring Diagrams

The following table lists the symbols used in the wiring diagrams.

Symbol	Description
 Plug	Denotes a Plug.
 Jack	Denotes a Jack.
 Plug and Jack	Denotes Pin yy and Jack yy of the connector Pxx and Jxx.
 Subassembly 1	Denotes the parts. PL X.Y.Z implies the item “Z” of plate (PL) “X.Y” in Parts List.
 Subassembly 2	Denotes functional parts attached with functional parts name.
 Subassembly 3	Denotes the control and its outline in the Board.
 Connection Wire	Denotes a connection between parts with harness or wires, attached with signal name/ contents.

Symbol	Description
 Function Logic 1	Denotes the function, and logic value of the signal to operate the function (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
 Function Logic 2	Denotes the function, and logic value of the signal when the function is operated (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
 Connection of Wires	Denotes a connection between wires.
 Solenoid/Clutch	Denotes a Clutch or Solenoid.
 Motor	Denotes a Motor.
 Optic Sensor	Denotes a Photo Sensor.
 On Off Switch	Denotes an On-Off Switch (single-pole, single-throw switch).
Interconnection	Represents an interconnection between parts using wiring harness or wire.

Symbol	Description
 Interconnection, Differing	Represents an interconnection which differs according to the specifications.
 Interconnection, Conductive Part	Represents an interconnection between parts using a conductive part such as a Plate Spring.
I/L +24 VDC	Denotes DC voltage when the Interlock Switch in the MCU Board turns On.
+5 VDC +3.3 VDC	Denotes DC voltage.
SG	Denotes signal ground.
AG	Denotes analog ground.
RTN	Denotes return.

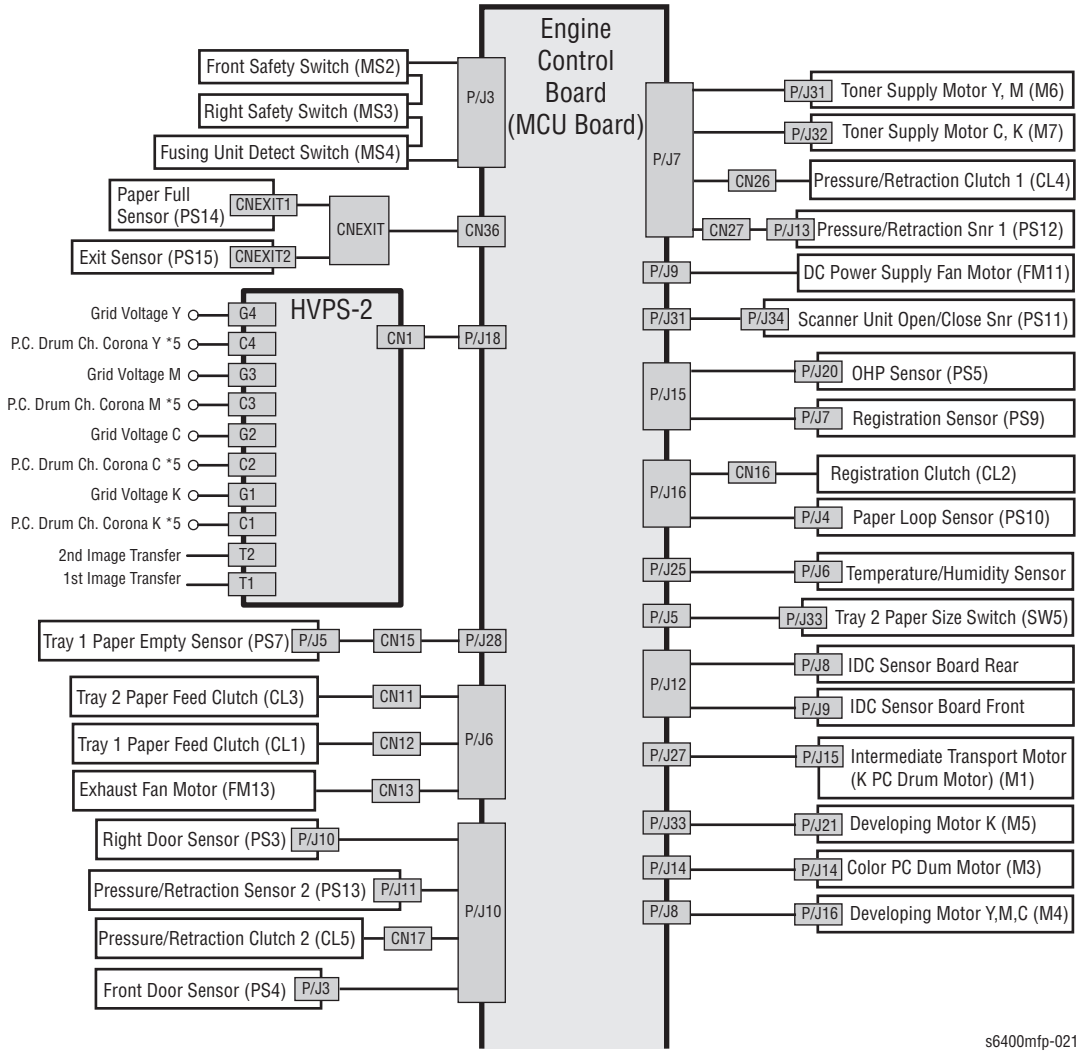
Print Engine Wiring Diagrams

General Wiring Diagram Configurations

Print Engine Wiring Diagram Configurations

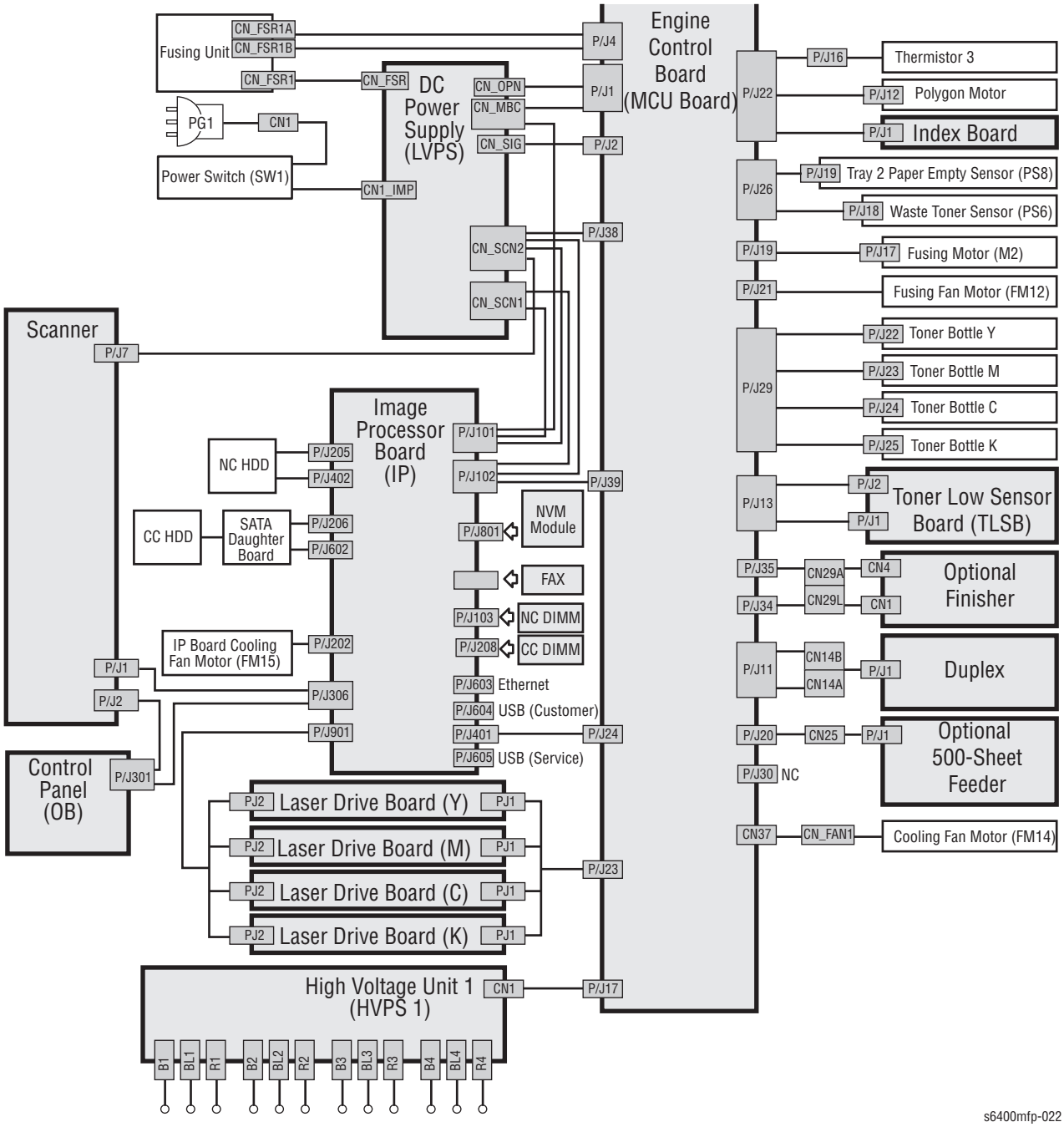
General Wiring Diagram - Print Engine (1 of 2)

Workcentre® 6400 Overall Plugs and Jacks Diagram (1 of 2)



General Wiring Diagram - Print Engine (2 of 2)

Workcentre® Overall Plugs and Jacks Diagram (2 of 2)



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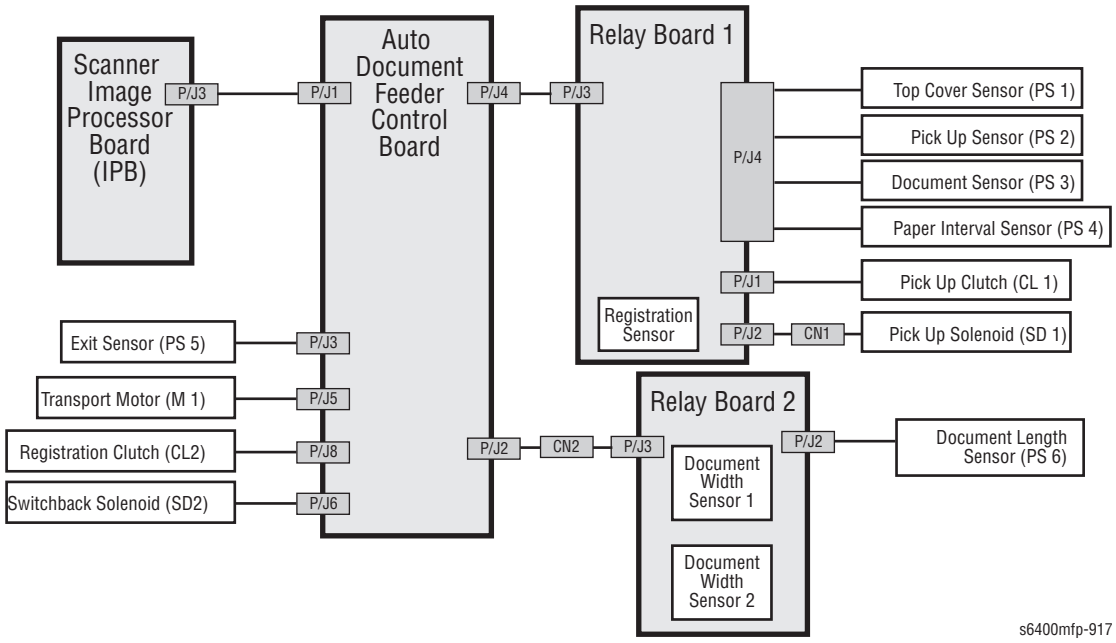
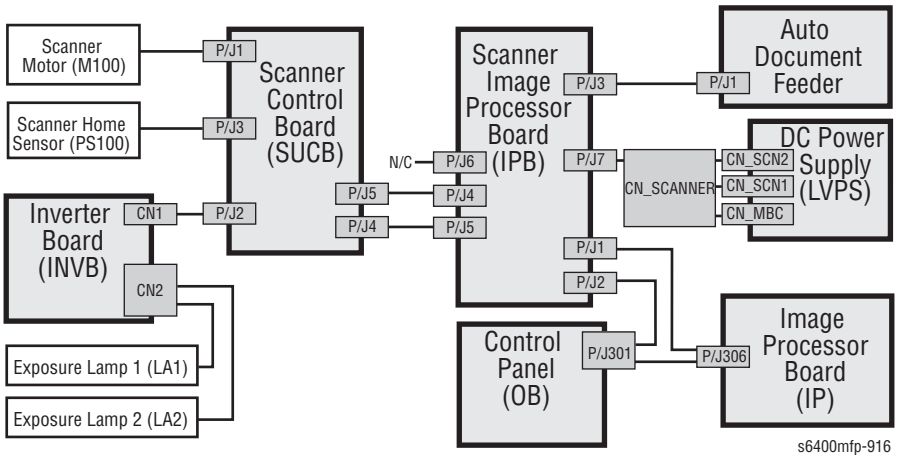
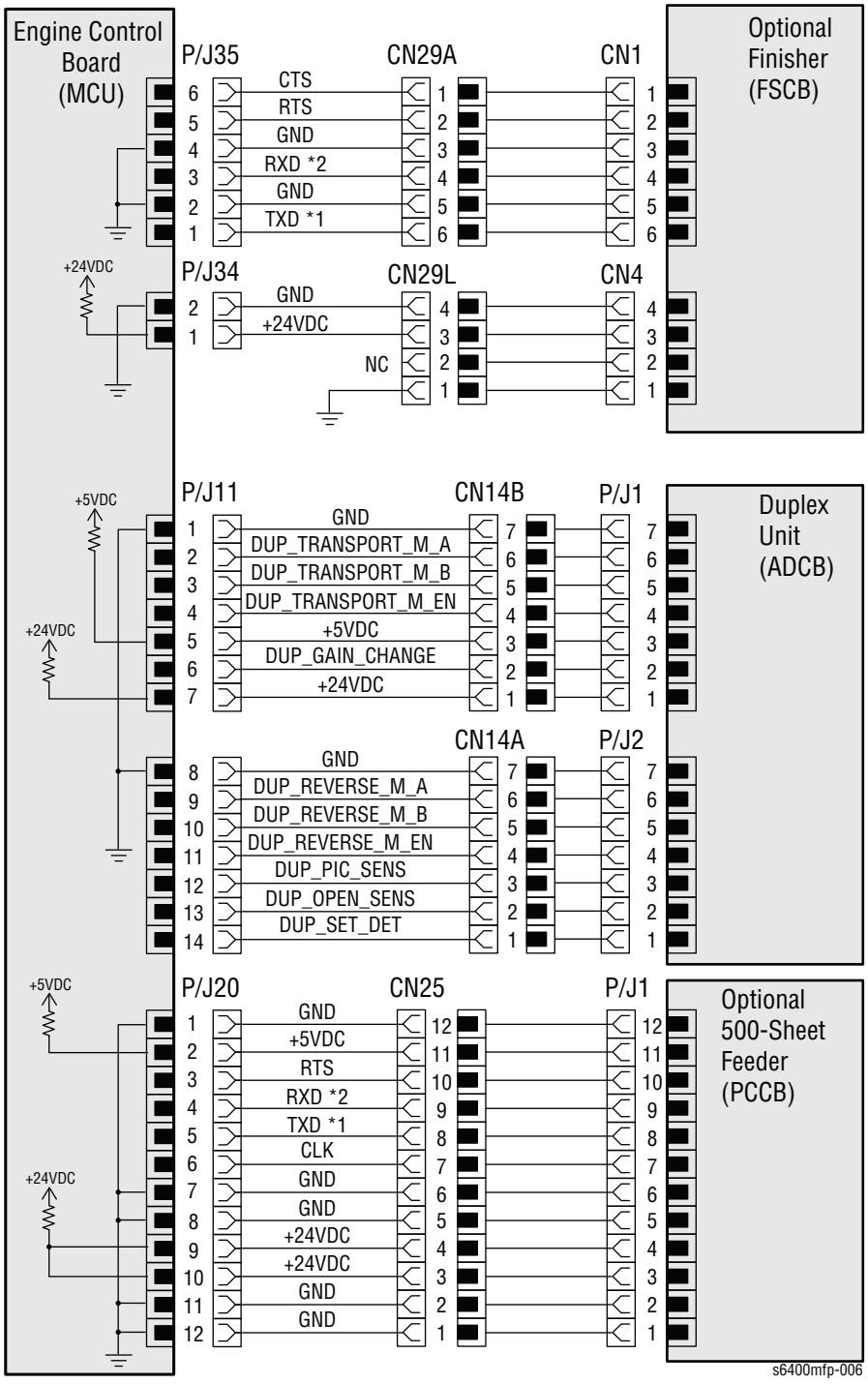
General Wiring Diagram - DADF



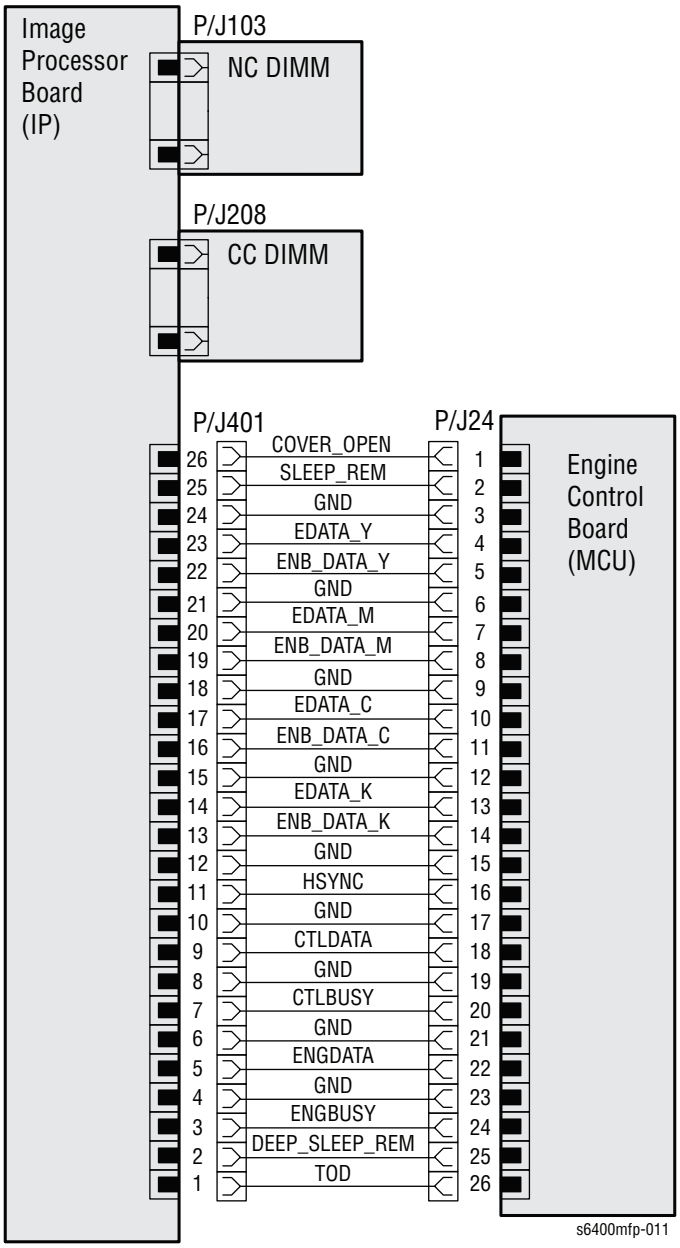
General Wiring Diagram - Scanner



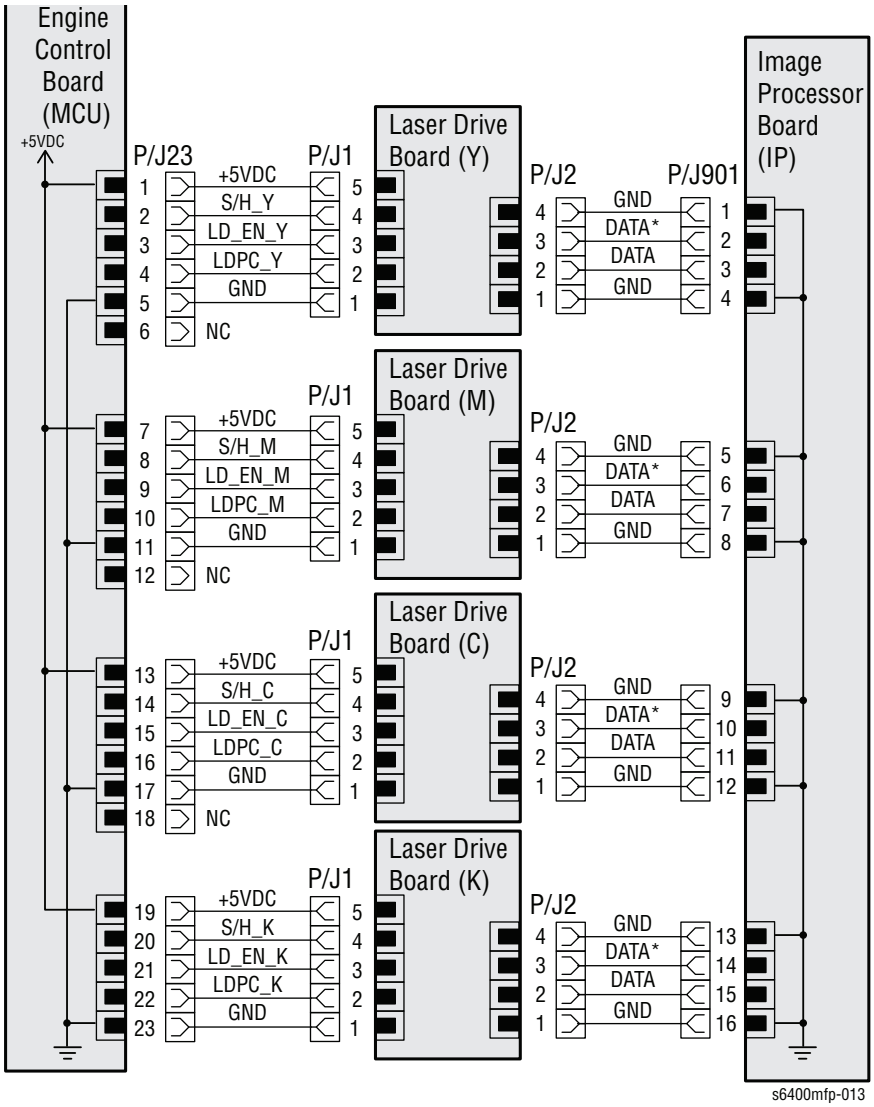
Print Engine - Duplex Unit, Optional Finisher, Optional 500-Sheet Feeder



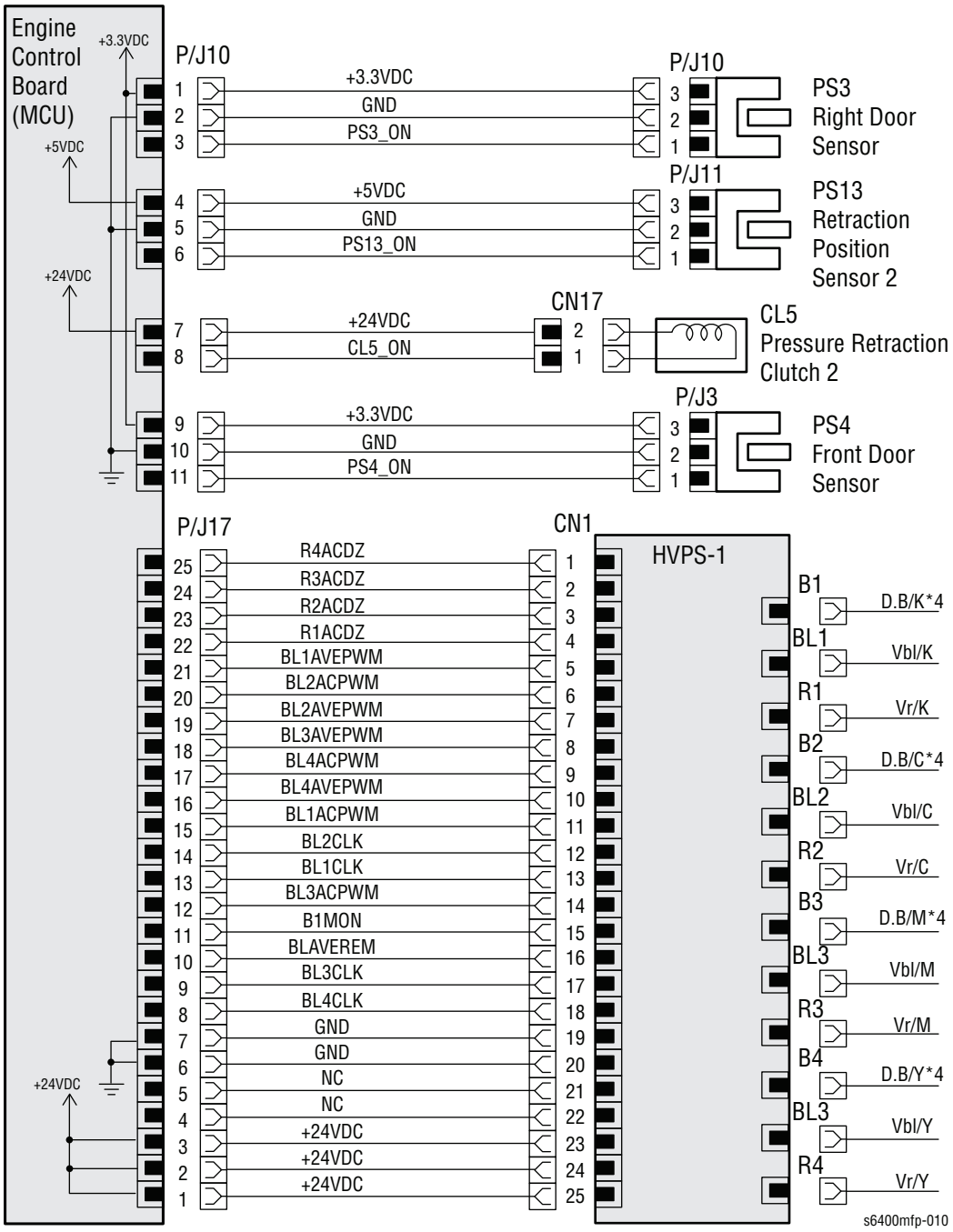
Print Engine - MCU Board (Engine Control Board), DIMMs



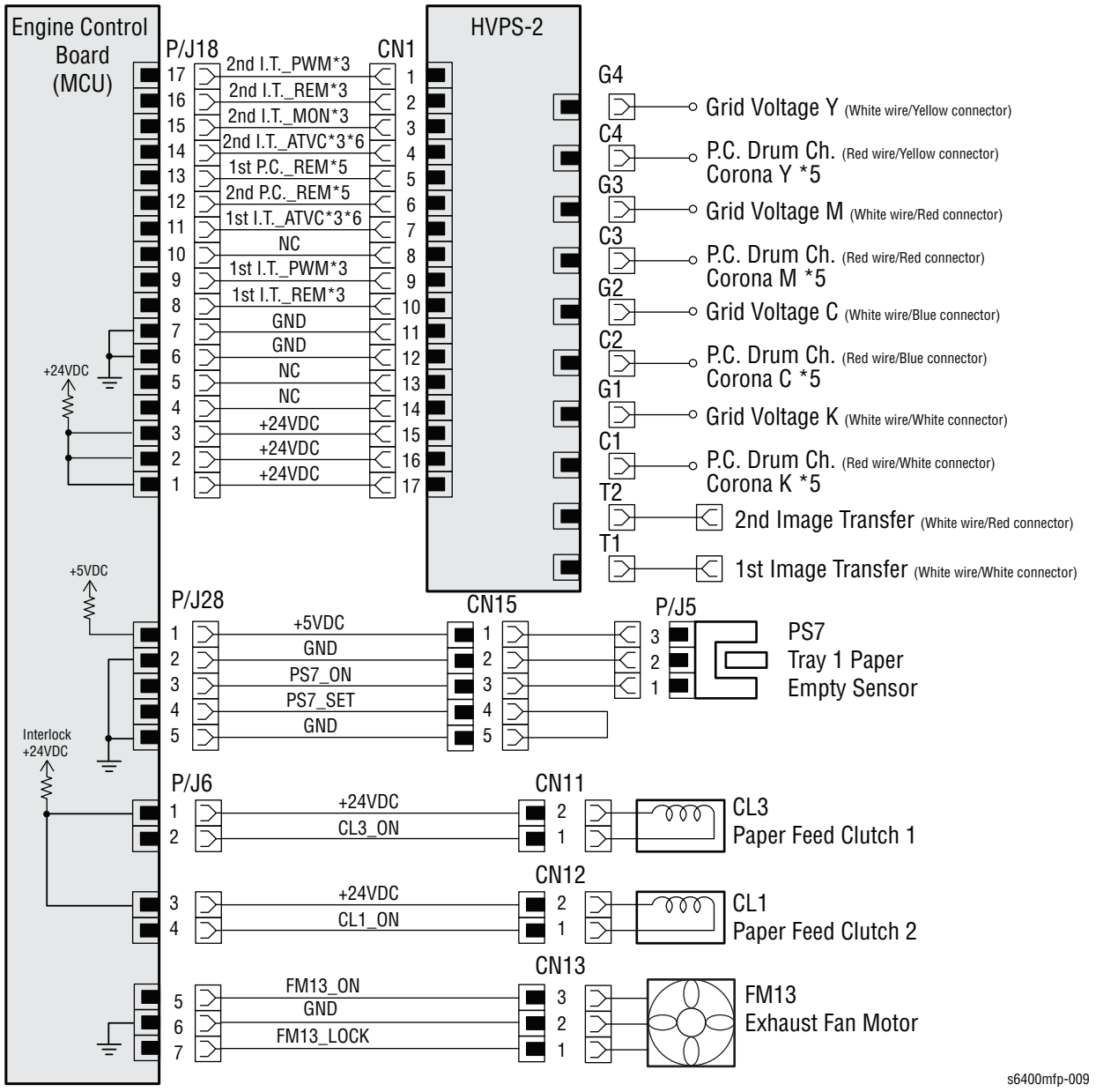
Print Engine - Image Processor Board, Laser Drive Boards



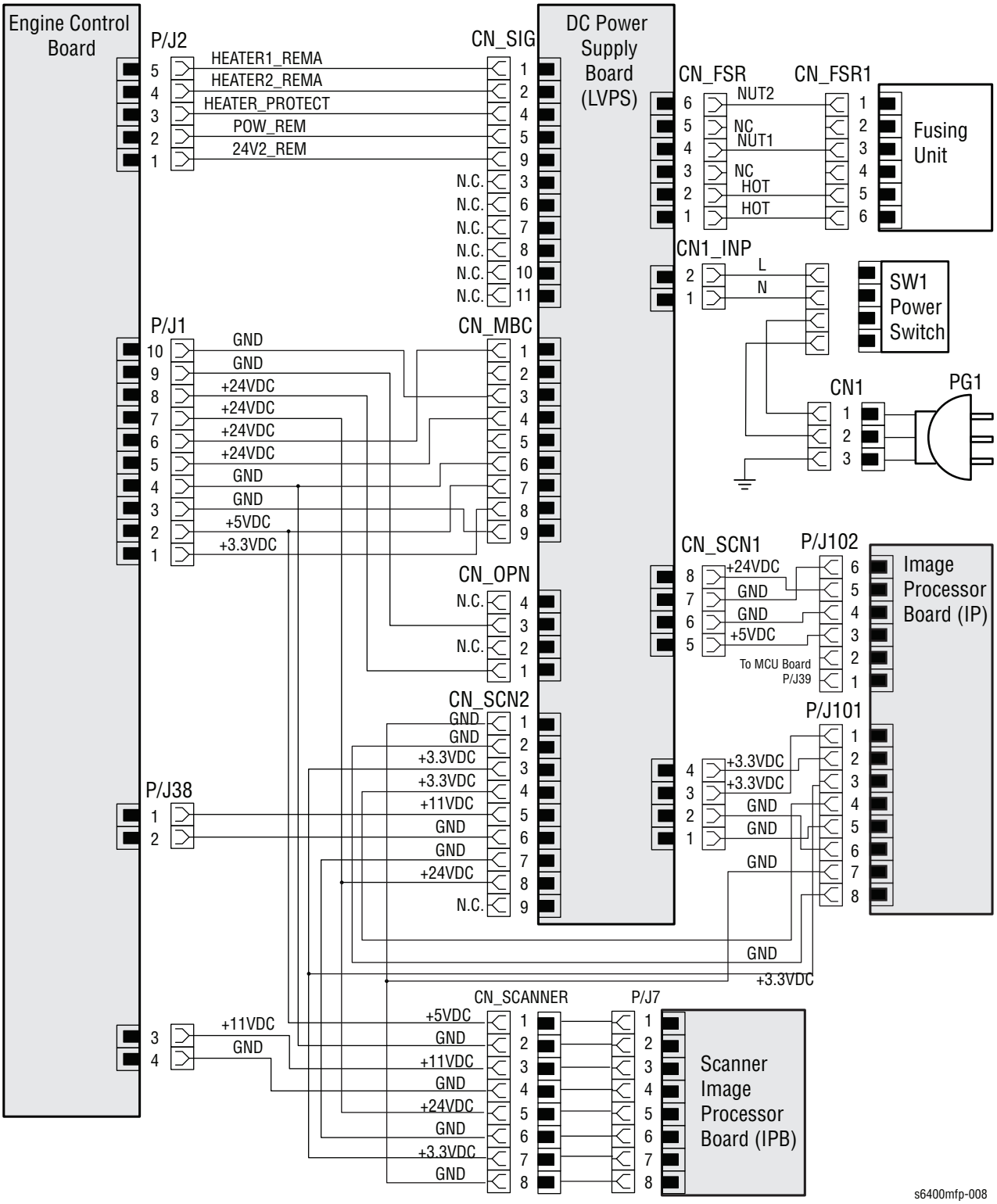
Print Engine - HVPS-1



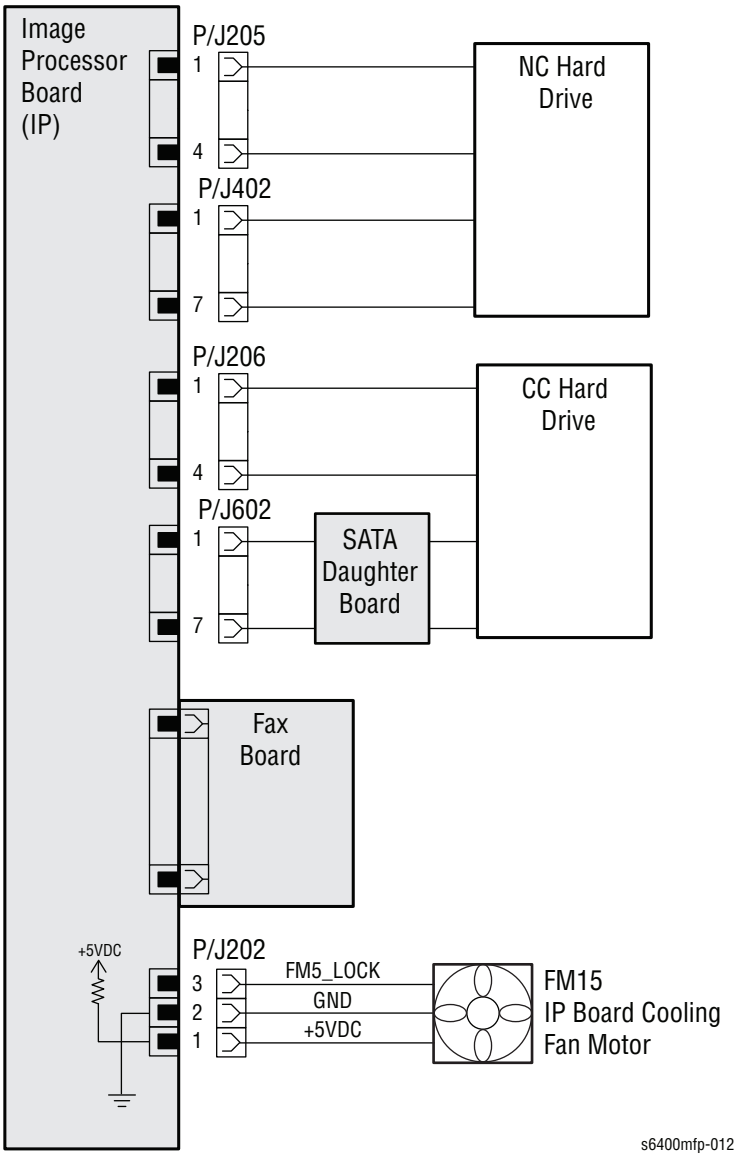
Print Engine - HVPS-2



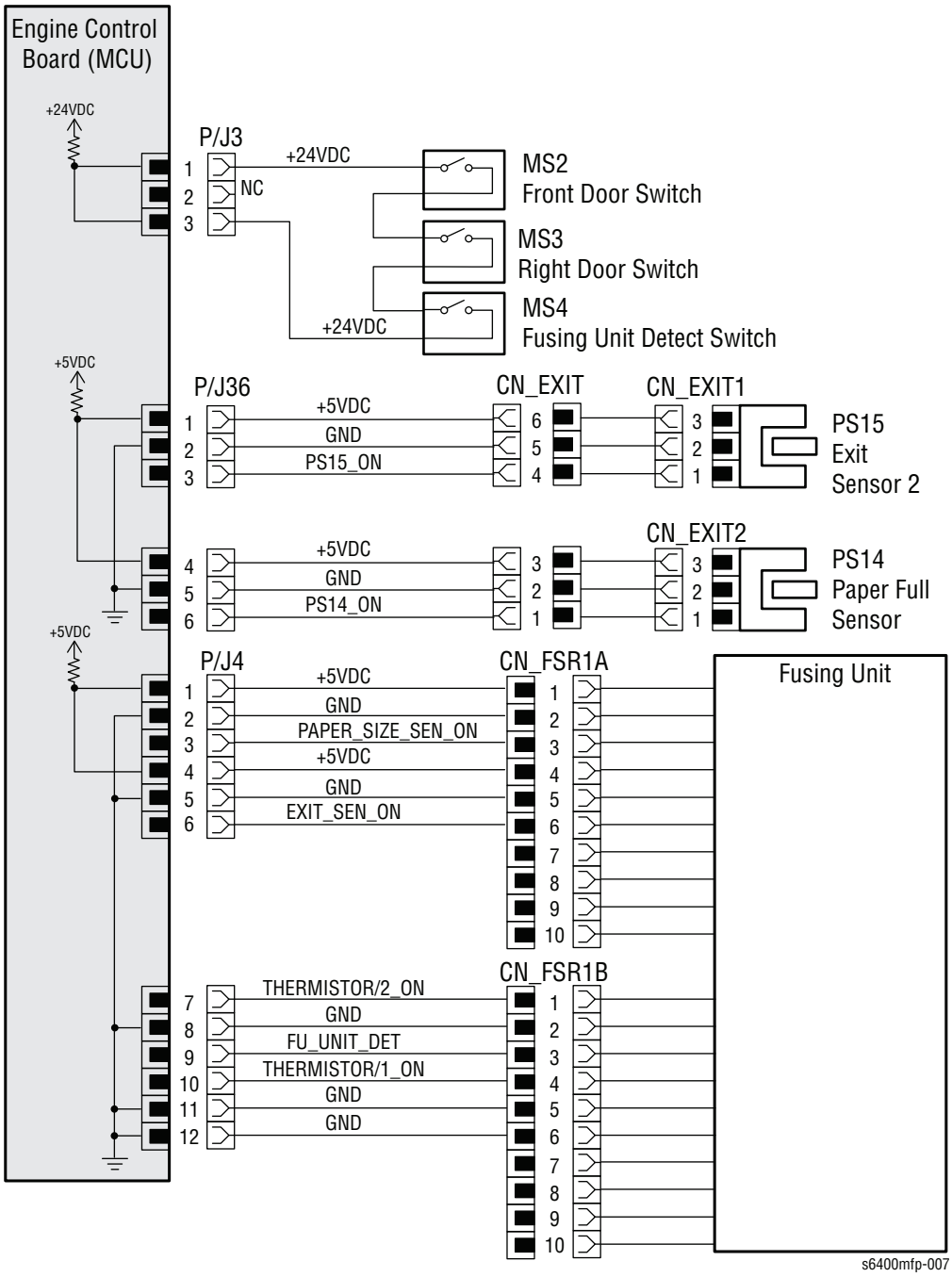
Print Engine - Image Processor Board, LVPS, Power Switch



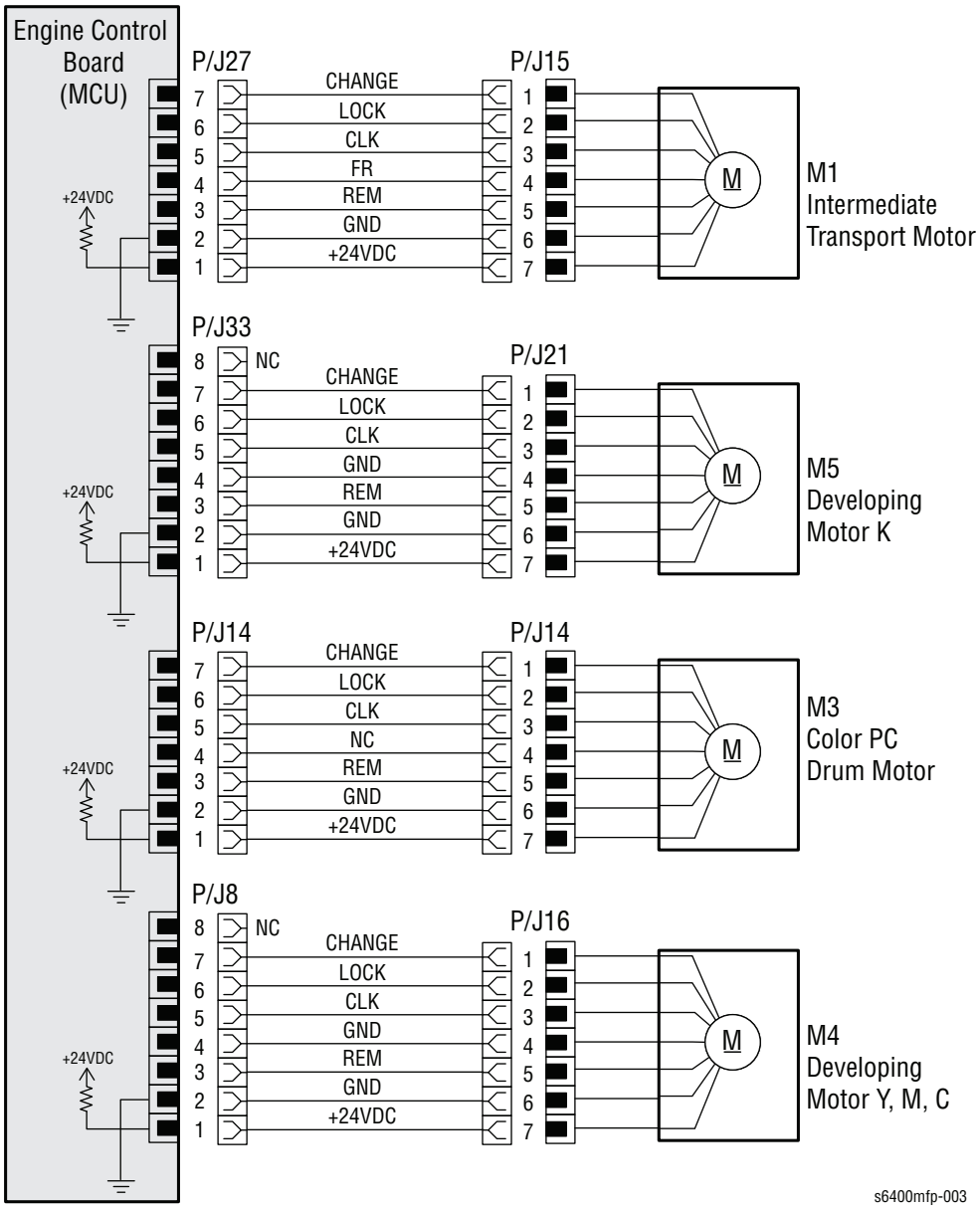
Print Engine - Hard Drives, User Interface Board, I/P Board Cooling Fan



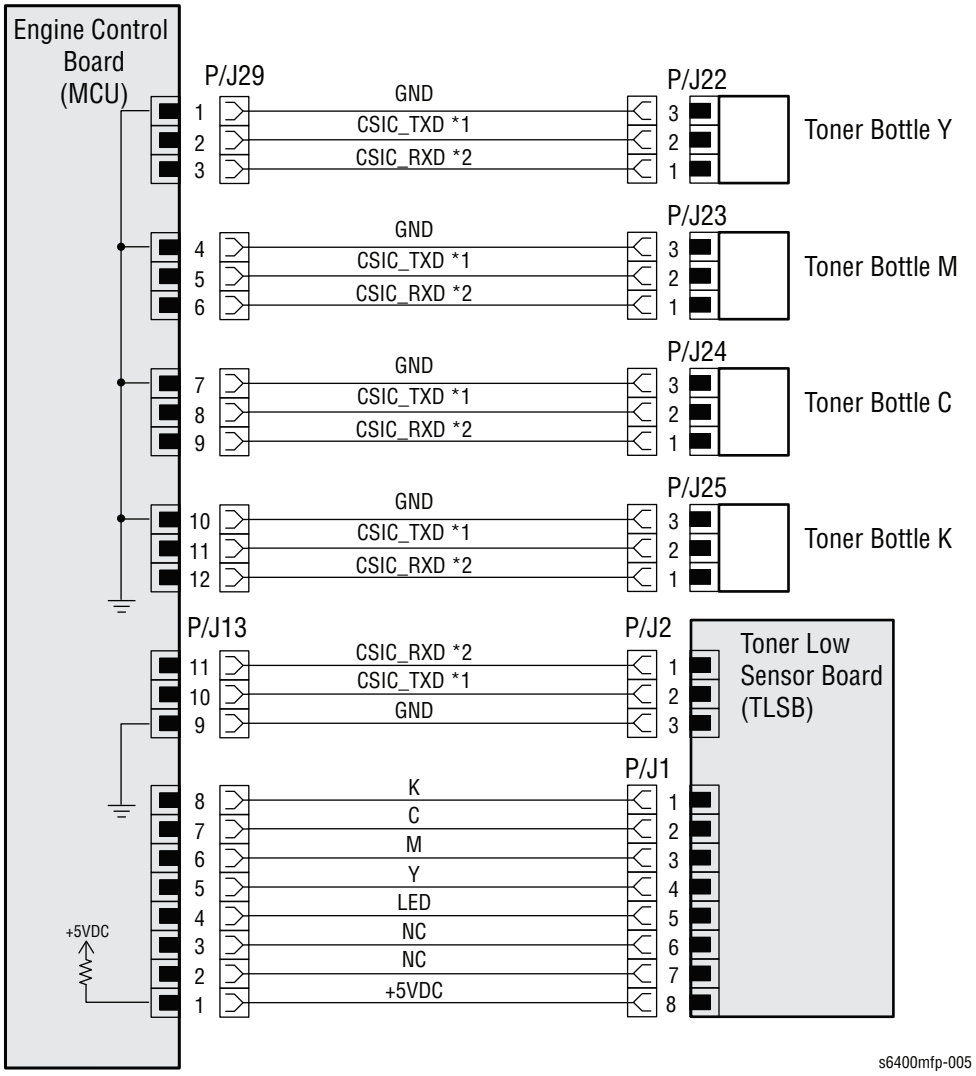
Print Engine - Fuser, Paper Full Sensor, Exit Sensor, Switches



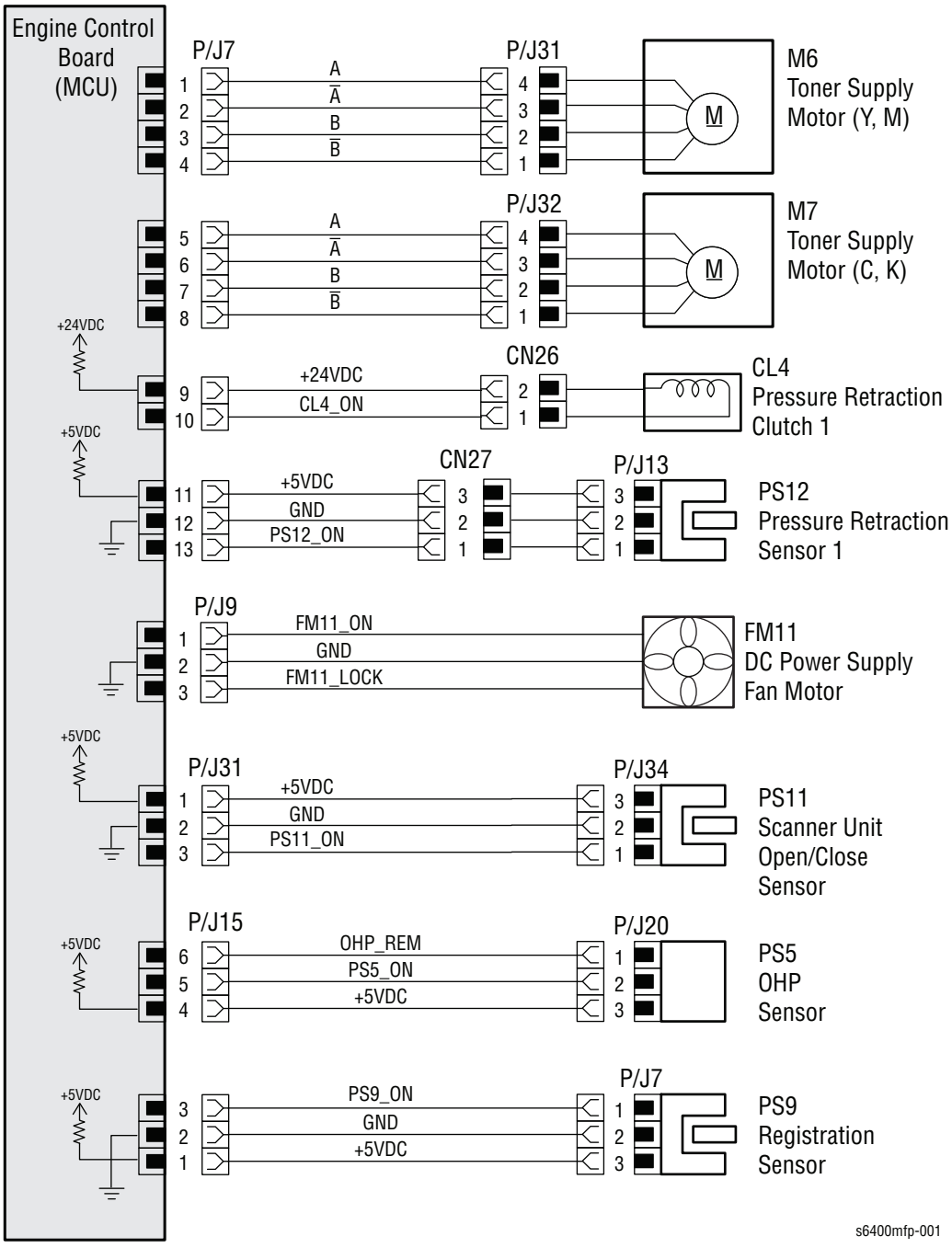
Print Engine - Developer Motors



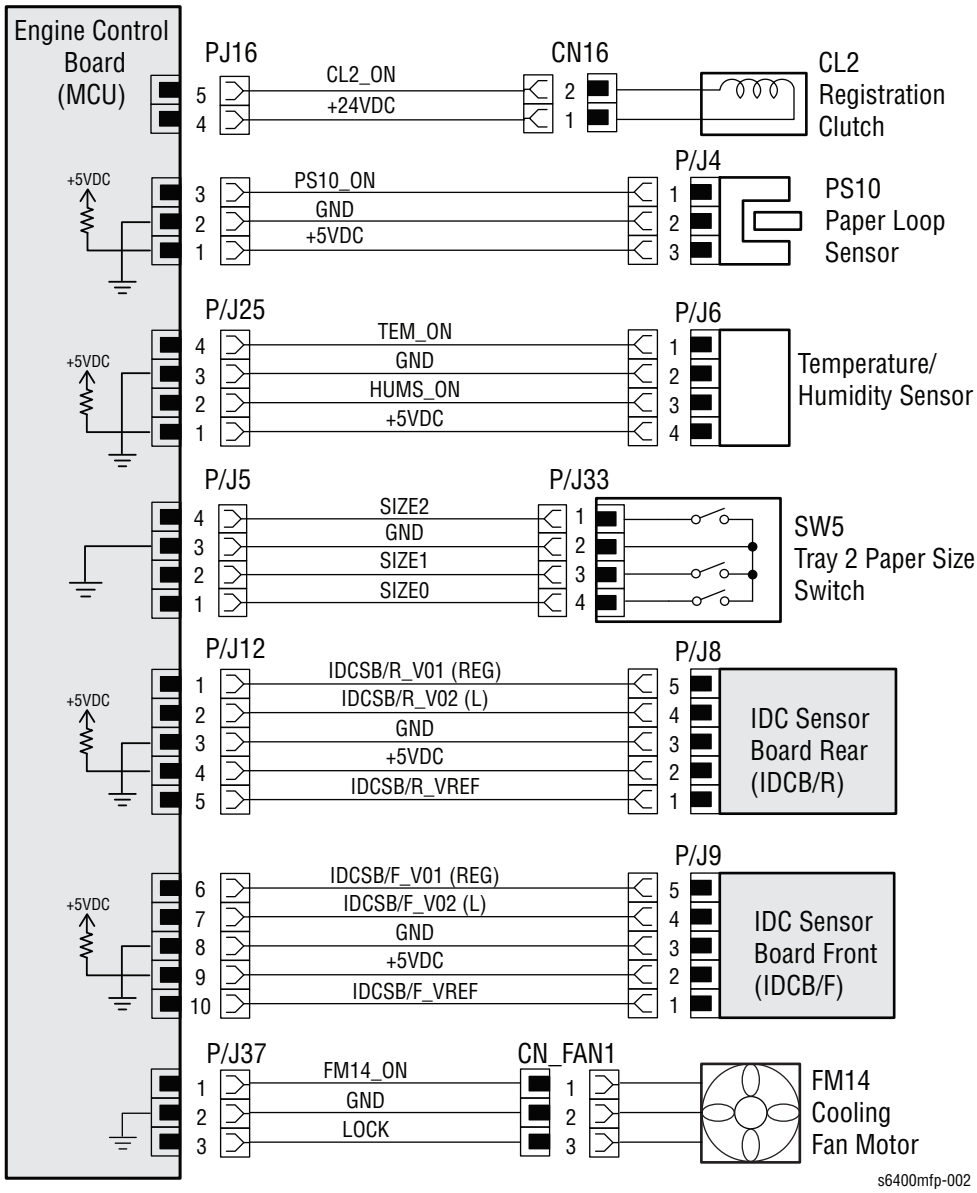
Print Engine - Toner Low Sensor Board, Toner Bottles



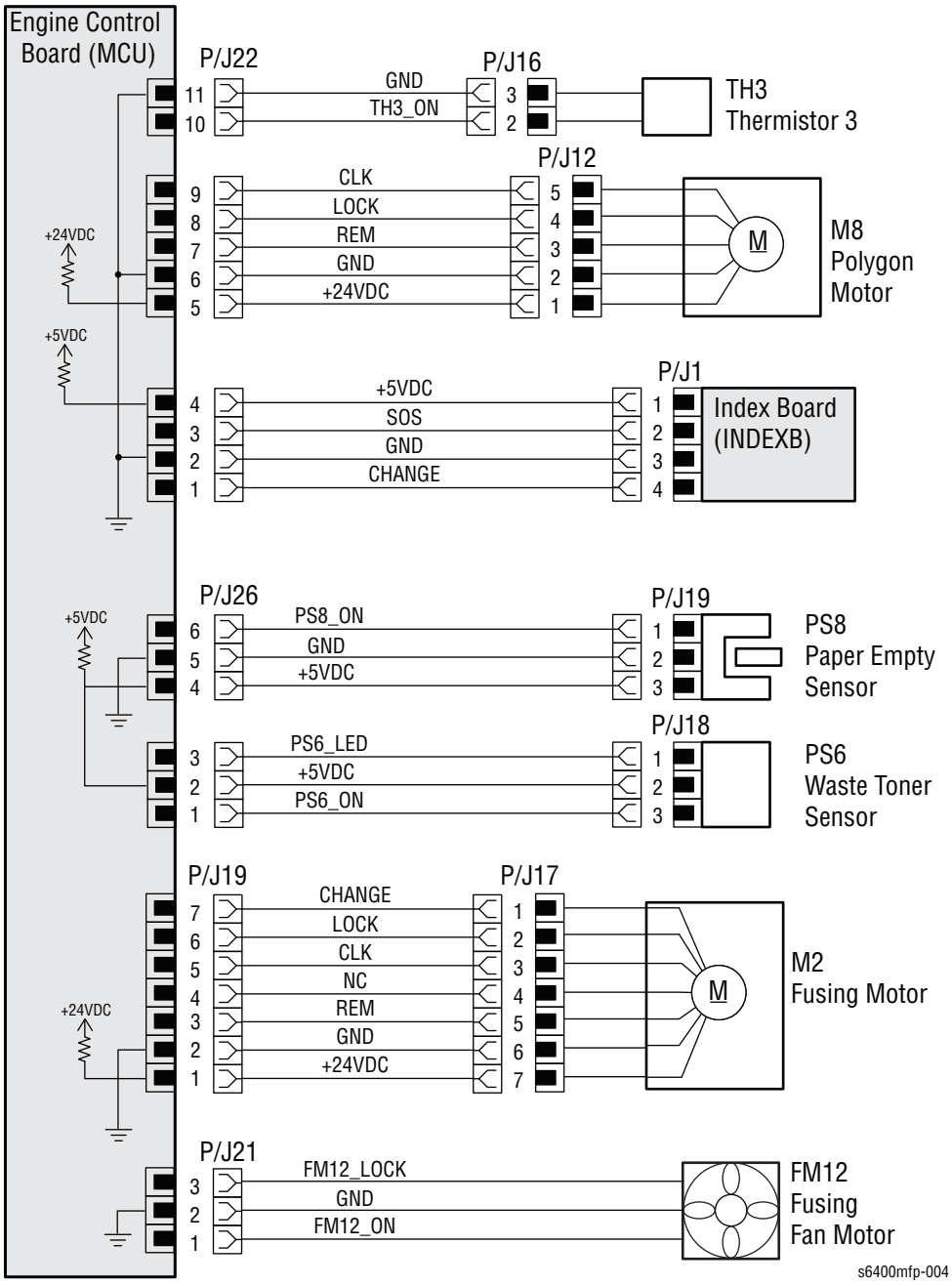
Print Engine - Toner Supply Motors, Sensors



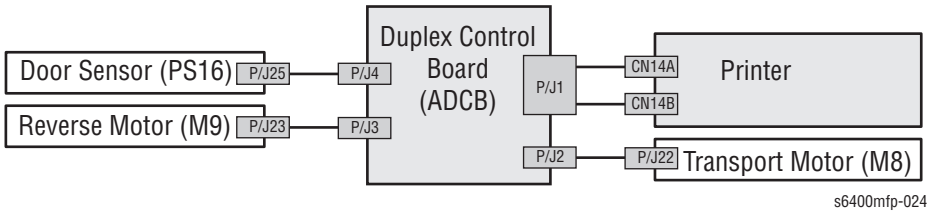
Print Engine - IDC Sensor Boards, Temperature/ Humidity Sensor



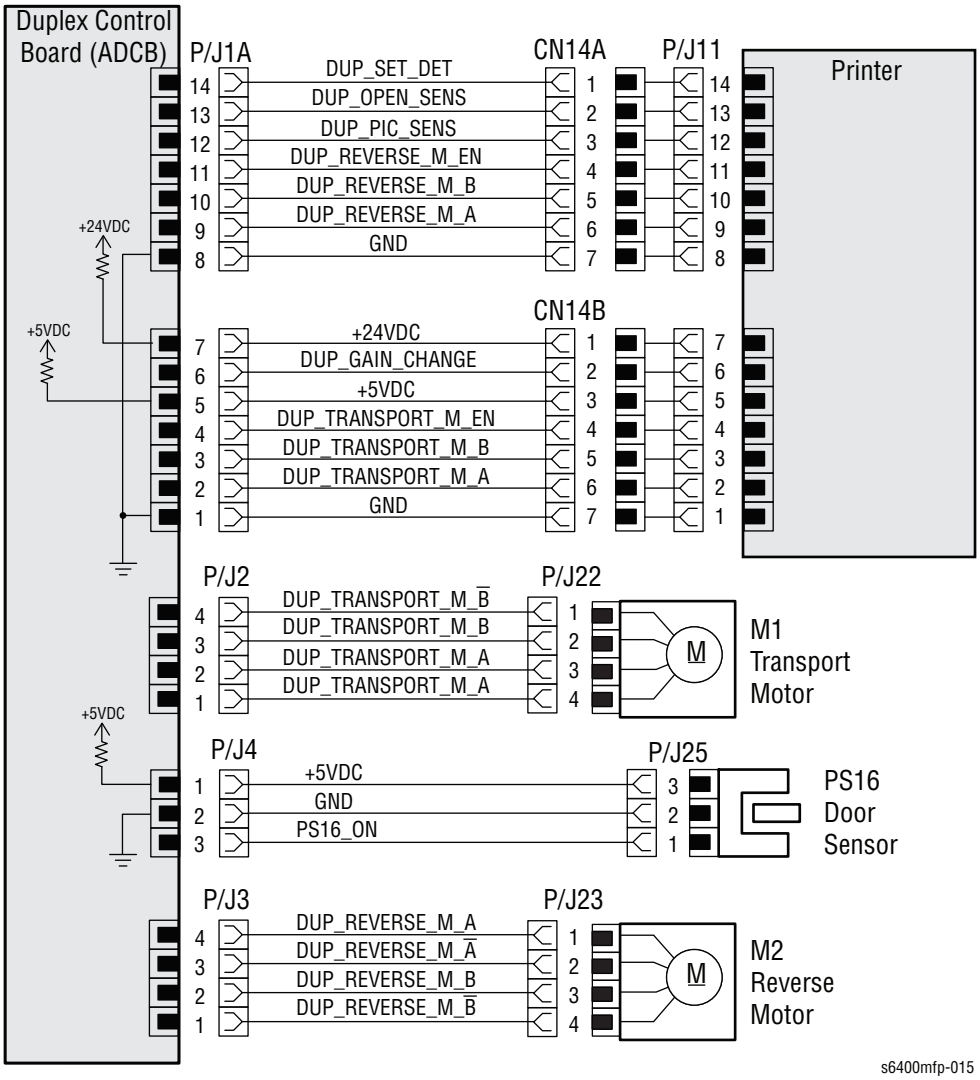
Print Engine - Waste Toner Sensor, Motors, Fans



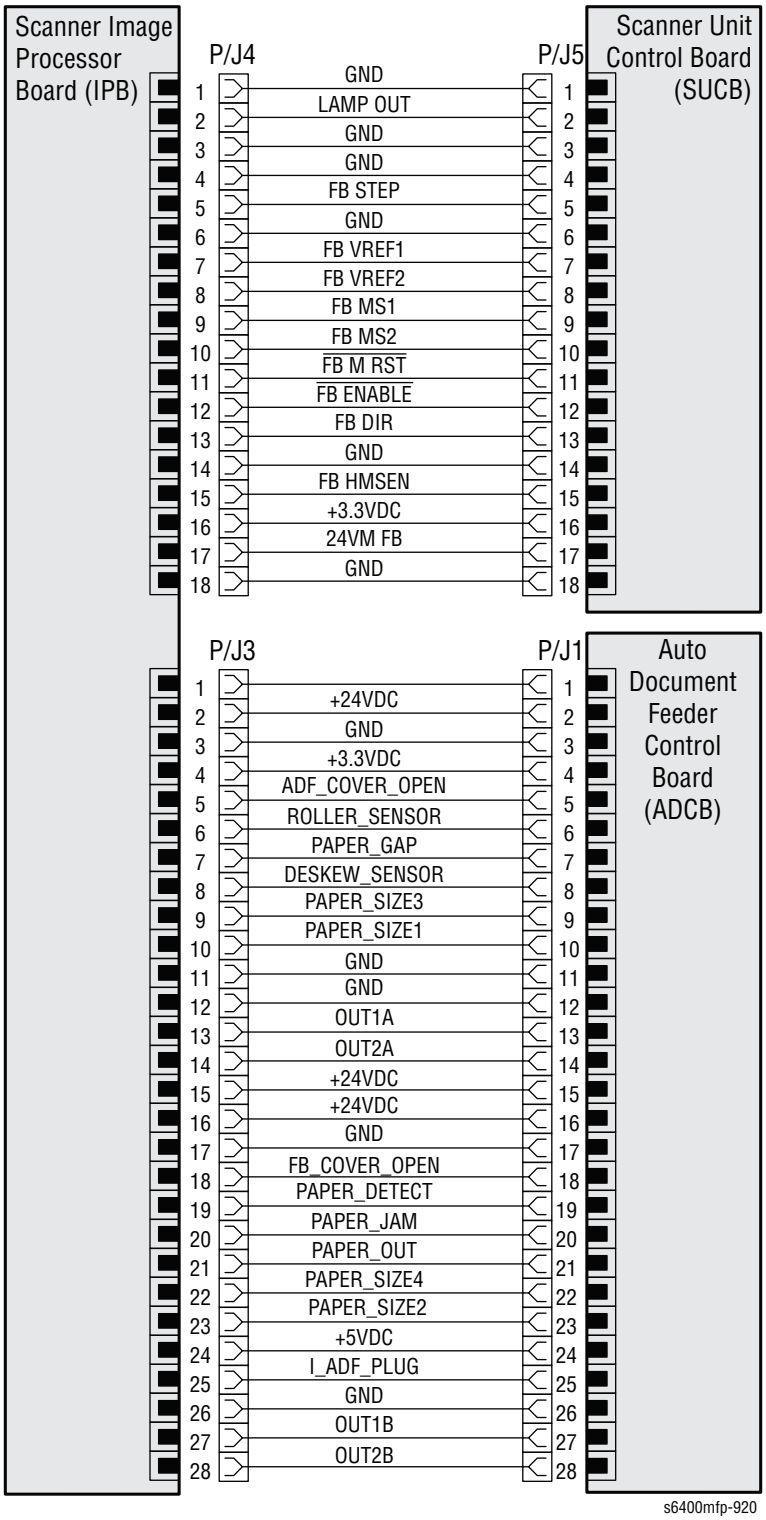
Print Engine - Duplex Unit Control Board



Print Engine - Duplex Unit Control Board, Transport Motor, Reverse Motor



Print Engine - DADF



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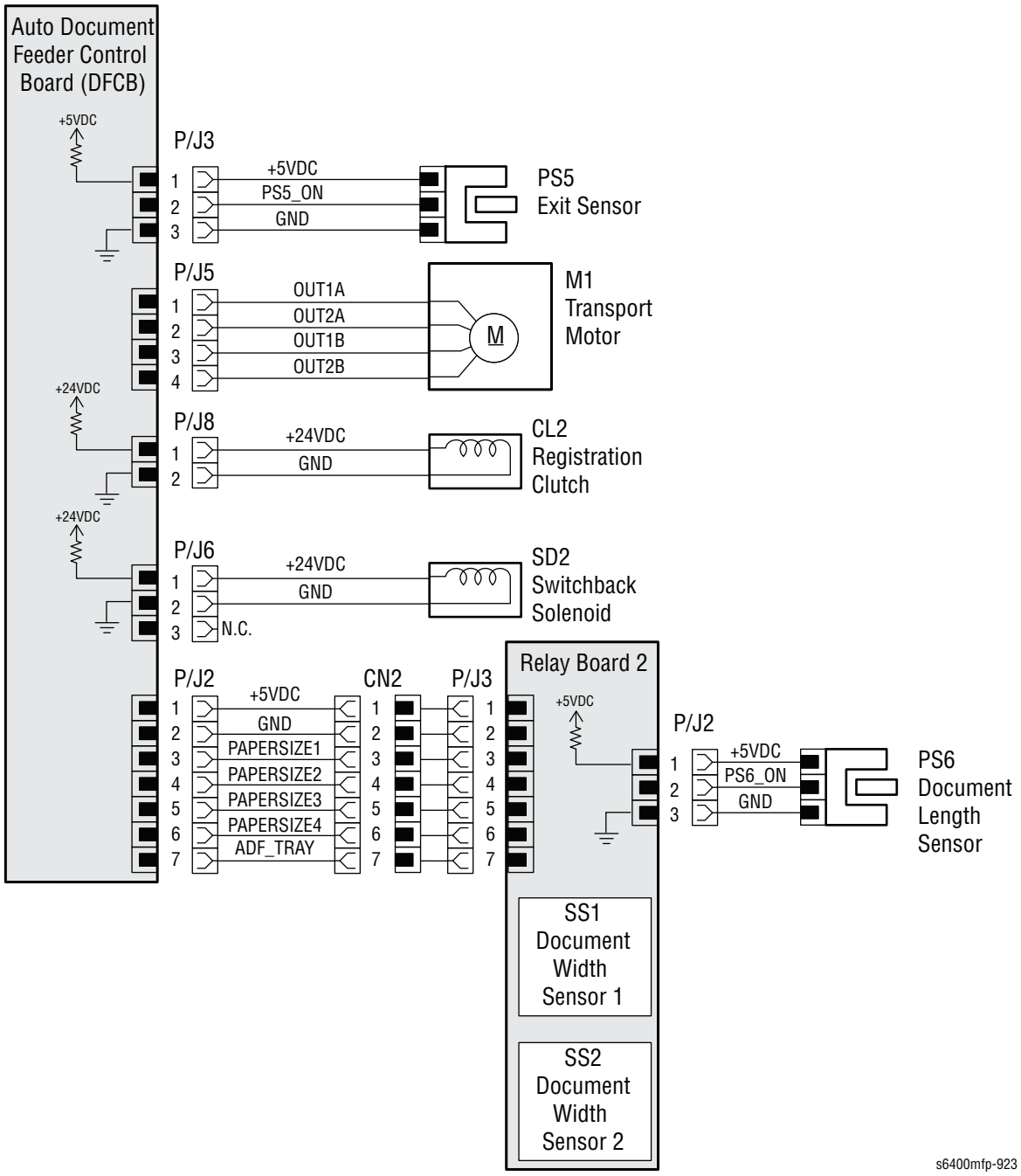
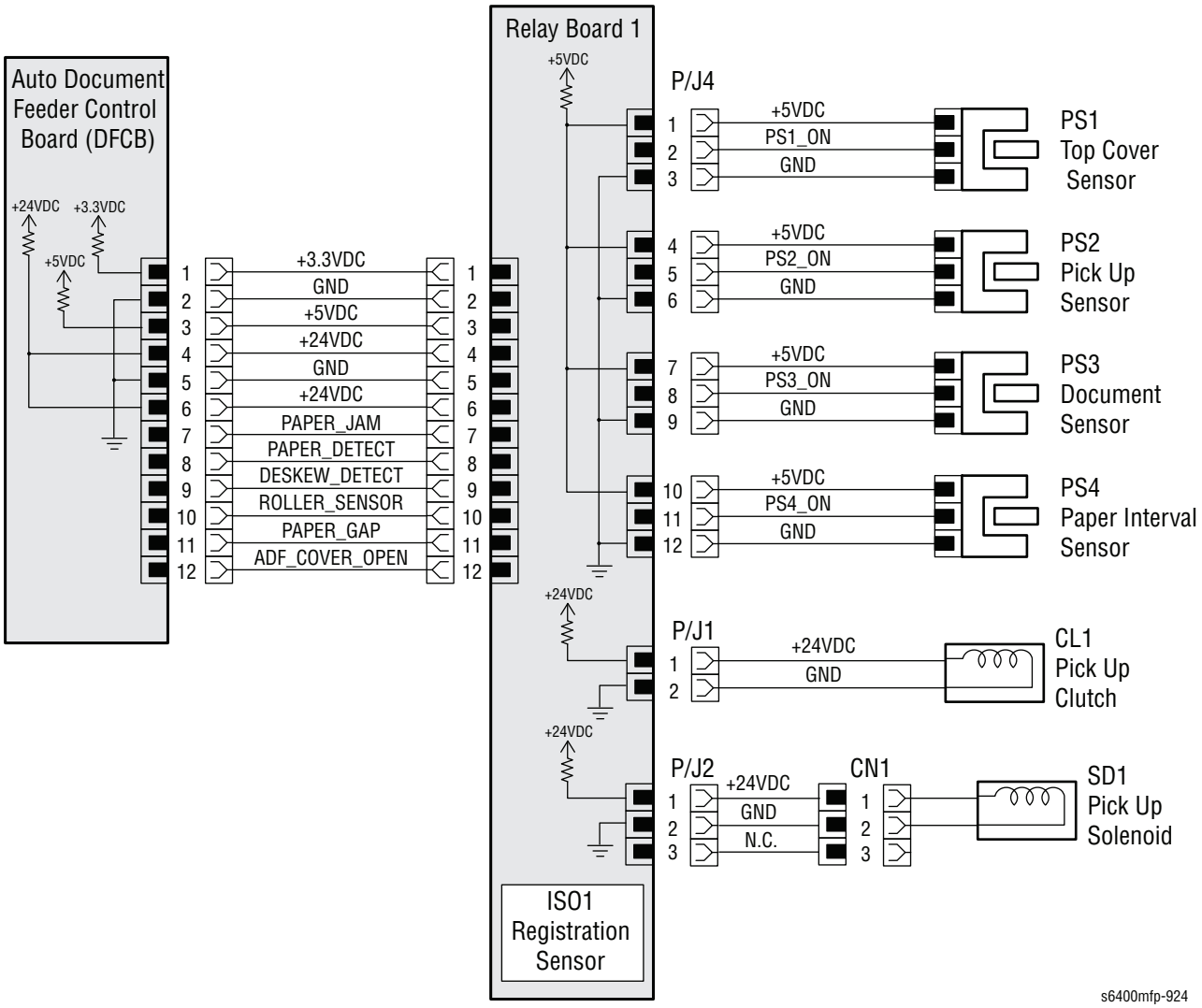
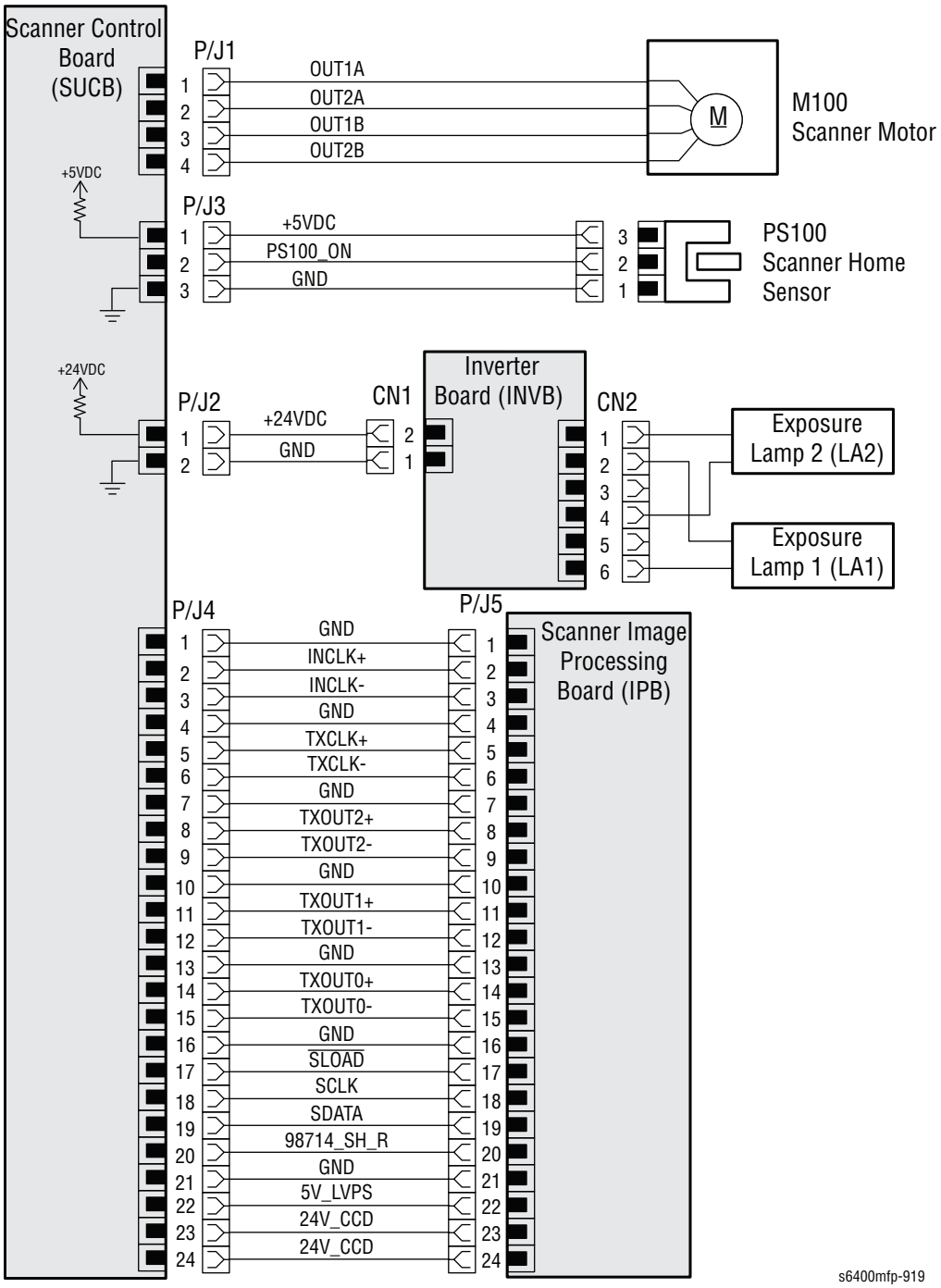
Print Engine - DADF



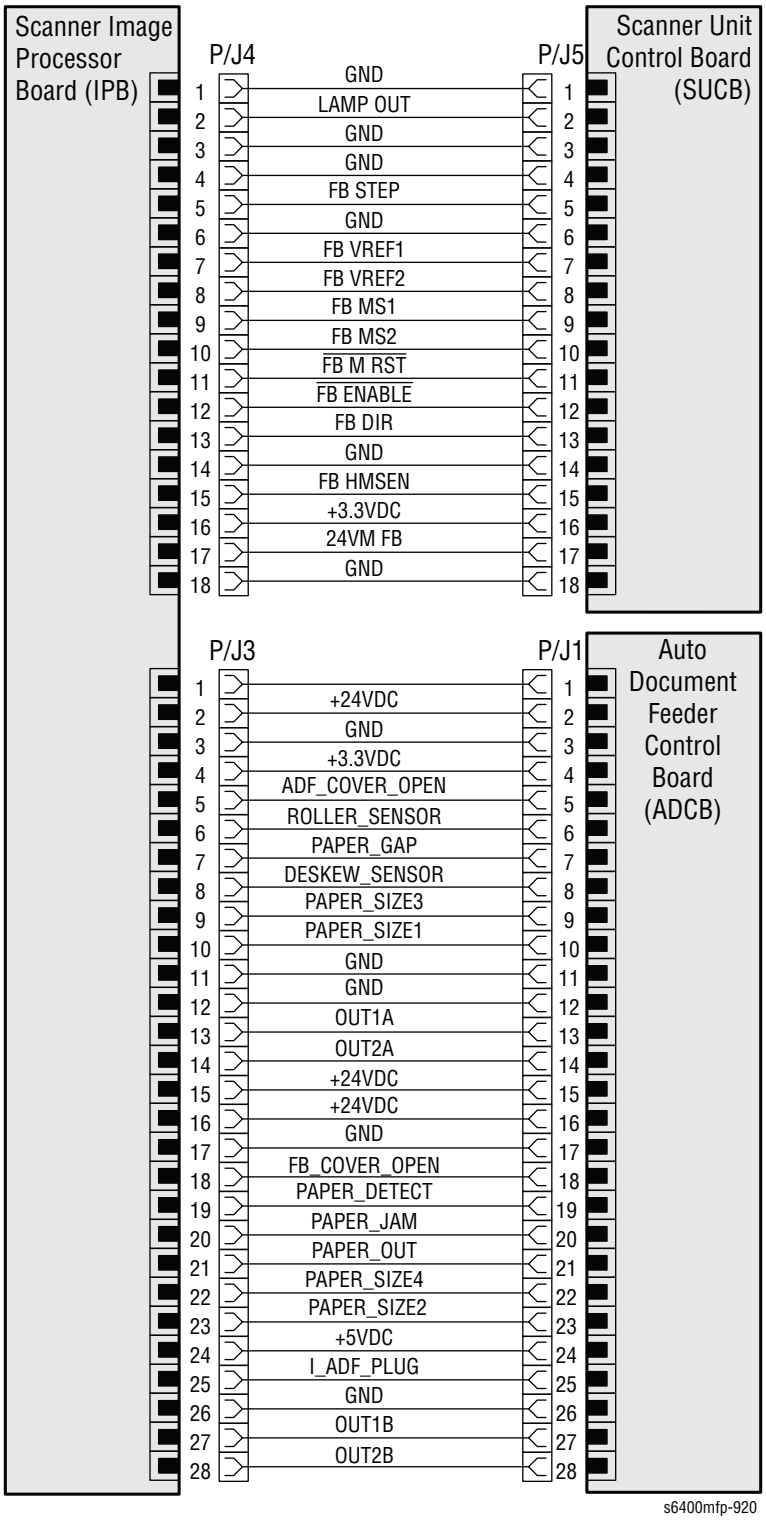
Print Engine - DADF



Print Engine - Scanner



Print Engine - Scanner



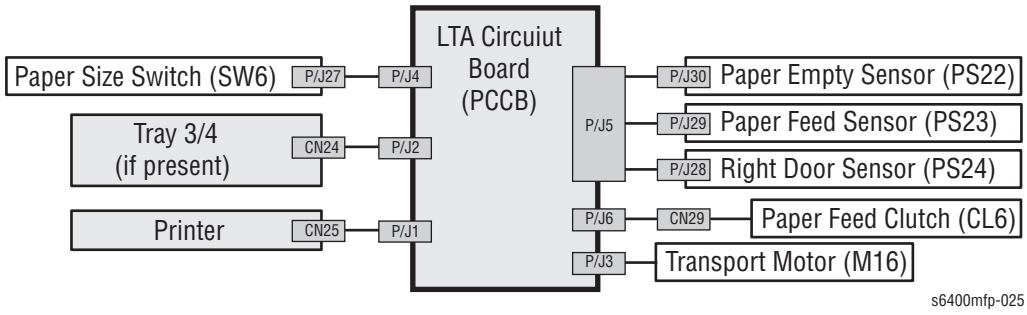
s6400mfp-920

Options Wiring Diagrams

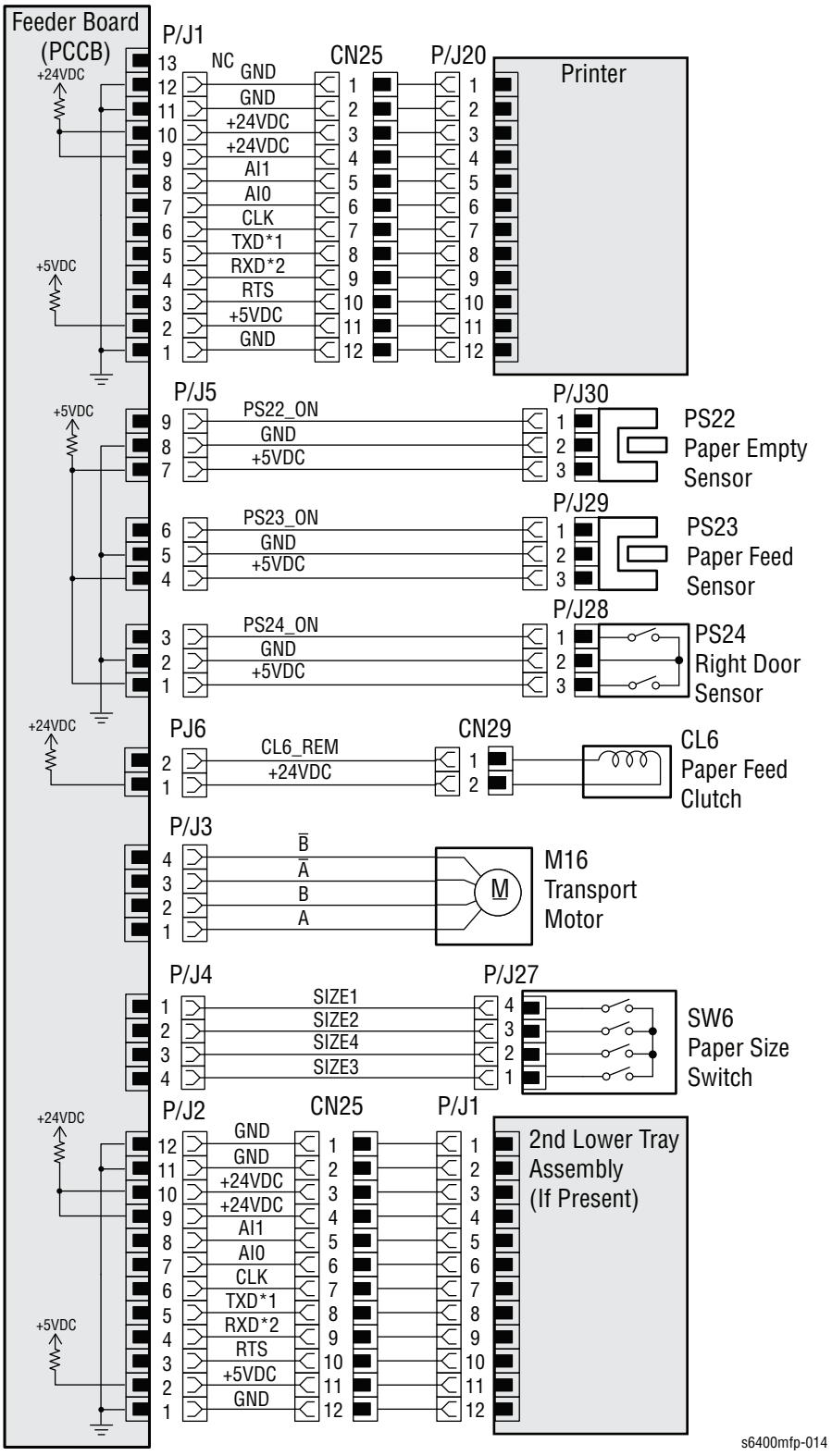
Optional 500-Sheet Feeder Wiring Diagram Configurations

Finisher Wiring Diagram Configurations

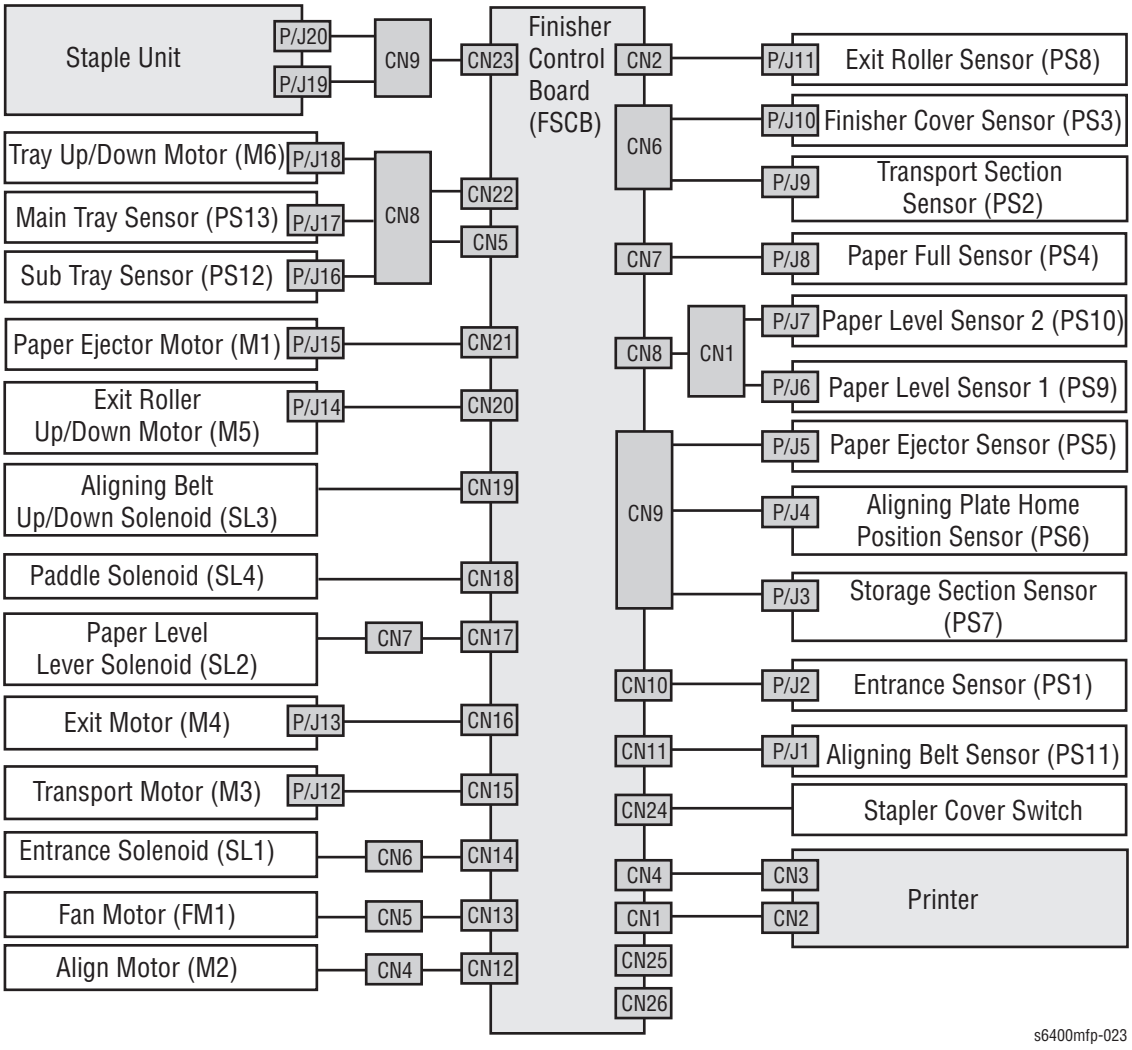
Optional 500-Sheet Feeder Board



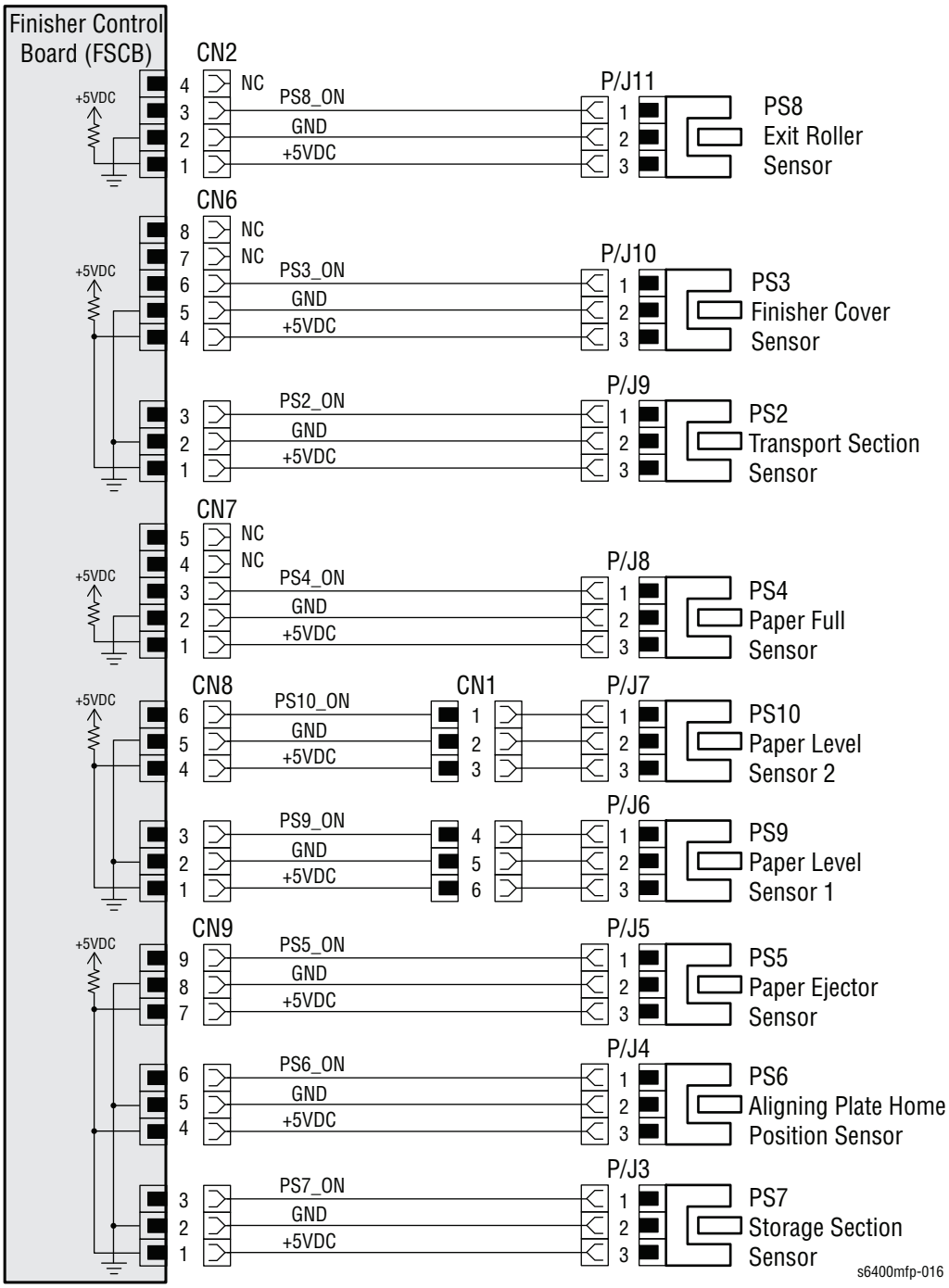
Tray 3/4 Optional 500-Sheet Feeder Board



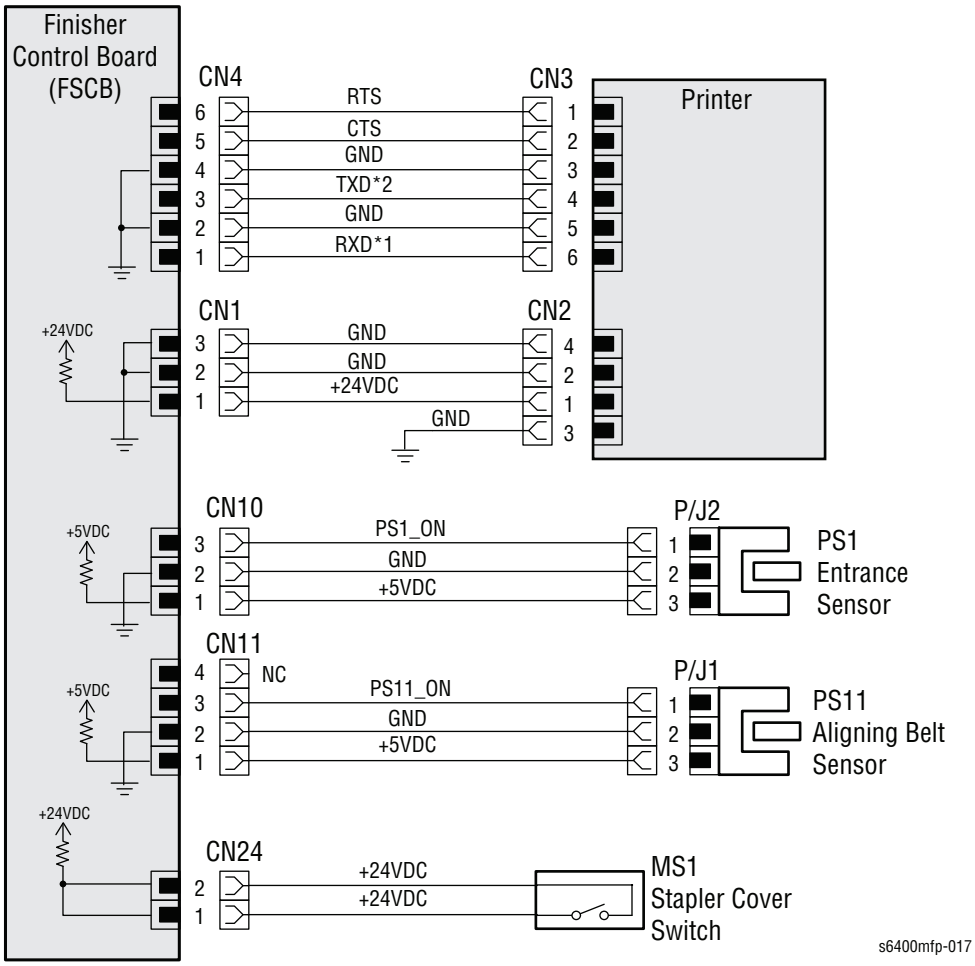
Finisher Control Board (FSCB)



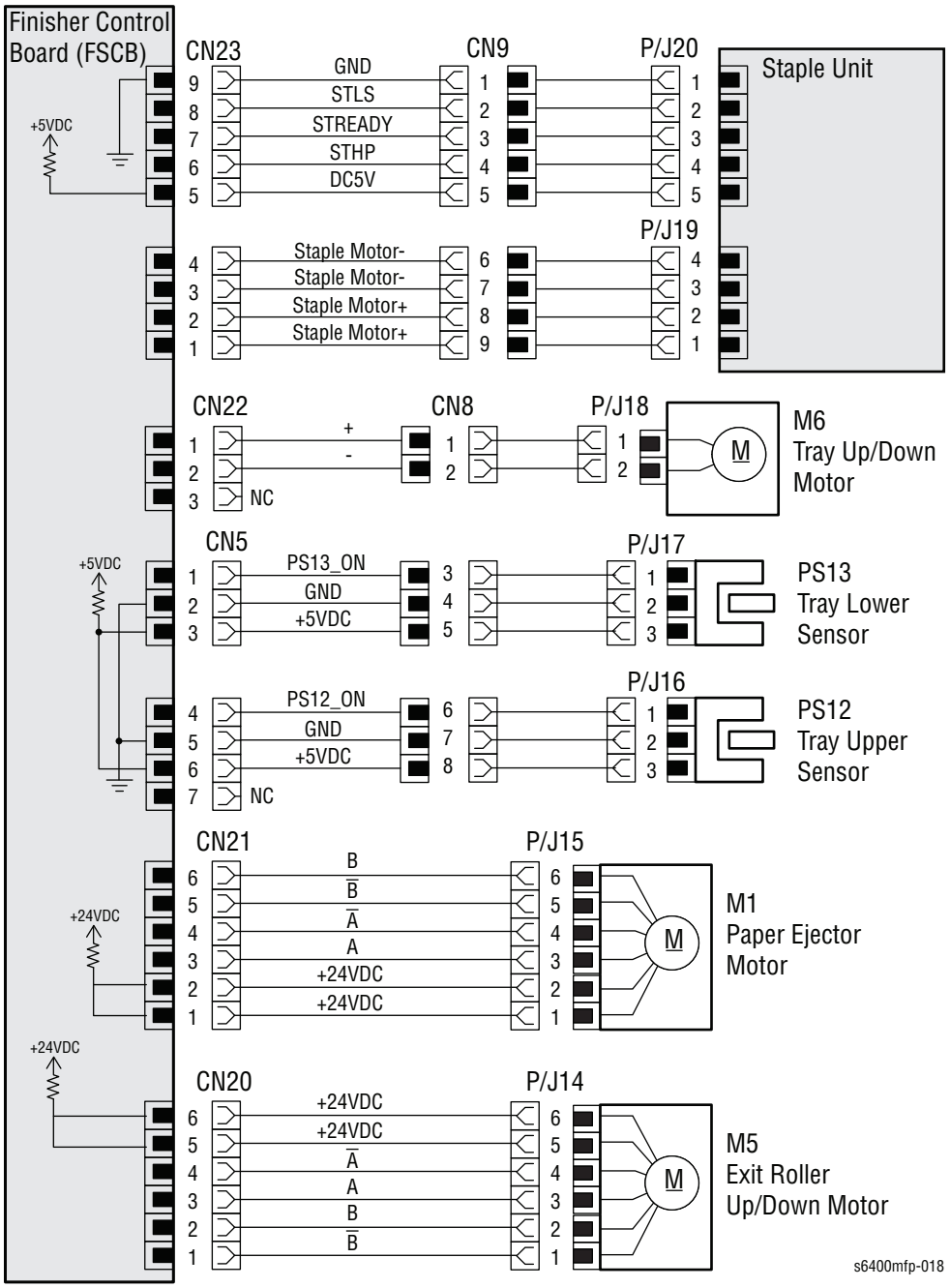
Finisher - Sensors



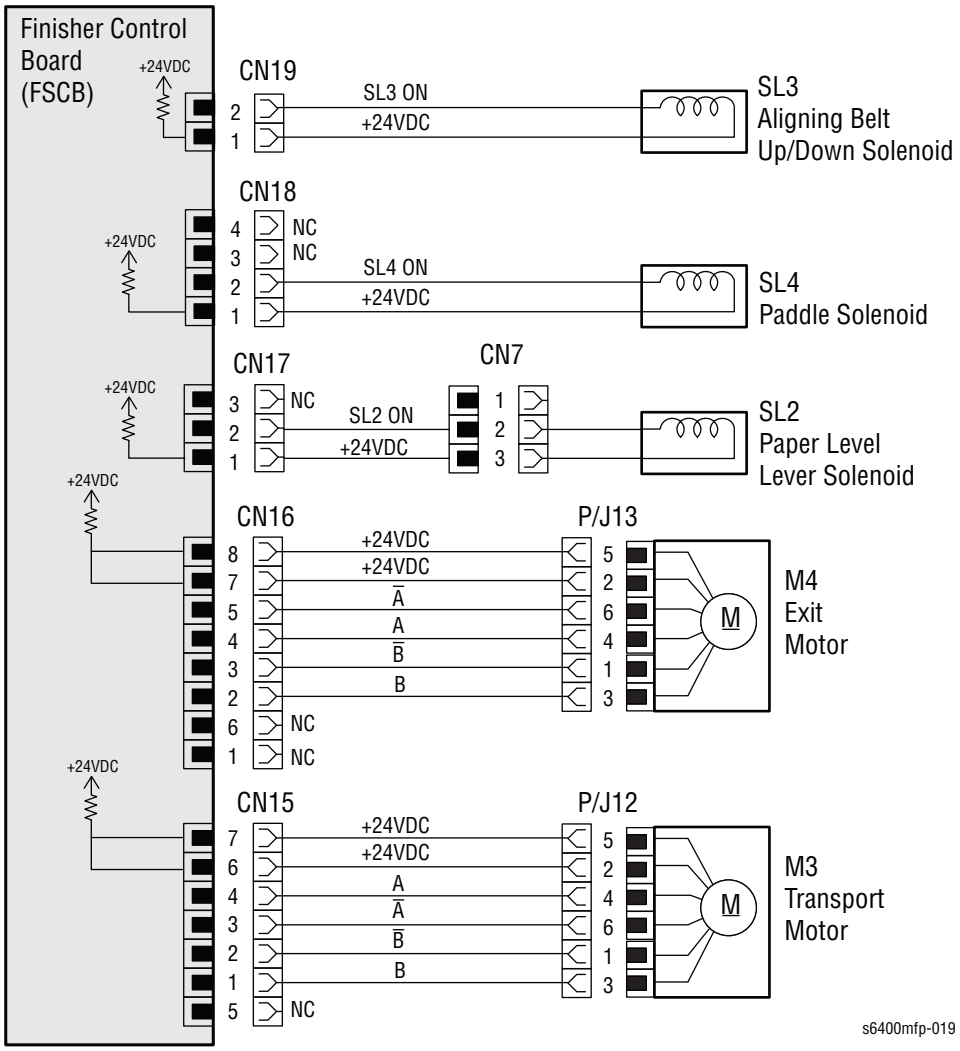
Finisher - Stapler Cover Switch, Sensors



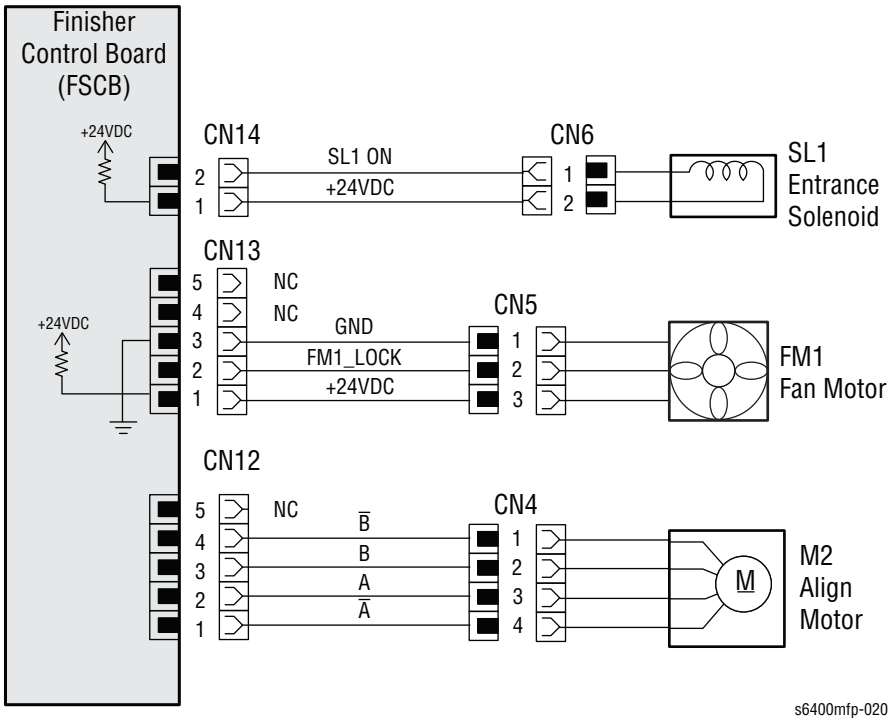
Finisher - Motors, Sensors



Finisher - Solenoids, Motors



Finisher - Fan and Align Motors, Entrance Solenoid



Reference

Contents...

Appendix A

Firmware Update

Note

When performing a manual upgrade, use the WebUI to download the .dlm file or use the USB upgrade process before using the AltBoot process.

The AltBoot process should only be used to recover a printer that has corrupted software preventing one of the other upgrade methods from being utilized.

Send DLM File via the WebUI

The WebUI method allows the user to perform the firmware update process using CWIS menu.

Note

Be sure to download the appropriate firmware file from the Xerox support web site.

1. Enter the printer's IP address.
2. Click the **Login** button.
3. In the **User ID** field, enter **admin** (default User ID).
4. In the **Password** field, enter **1111** (default password).
5. Click **Login**.
6. From the top menu, click the **Properties** button.
7. From the **Properties** menu on the left, expand **General Setup**.
8. Under **Machine Software**, select **Manual Upgrade**.
9. Click the **Browse** button to locate the .dlm file.
10. Click the **Open** button.
11. Click the **Install Software** button to download the firmware to the printer.

Note

It takes several minutes for the Network Controller to download the DLM file.

12. A progress bar appears on the bottom of the web browser.
13. A **File has been submitted** window appears on screen.
14. The UI displays the **Software Upgrade** screen with no progress bars.
15. The Copy Controller reboots and the scanner initializes.
16. The UI displays the Software Upgrade screen with the following progress bars:
    - Scan Engine
    - Copy Controller
    - Print/Copy Engine
    - Finishing
    - Network Controller

17. The firmware update process is as followed:
    a. Copy Controller updates
    b. Network Controller updates
    c. Scan Engine updates
    d. Print/Copy Engine updates
    e. Network Controller finishes updating
18. When the firmware update process is complete, the printer will reboot.
19. The printer will continue initializing and print the Software Upgrade Report, followed by the Configuration Report.

USB Upgrade

The USB upgrade method allows the user to perform the firmware update process using a USB Thumb Drive.

Verify the data on the USB Thumb Drive: an Upgrade folder, in the root directory, with a file with extension .dlm.

1. Be sure the printer is at Ready status.
2. Connect the USB Thumb Drive to the USB connector on the rear of the printer.
3. The touch screen automatically displays the **Software Upgrade Screen**.
4. A progress bar is displayed once the upgrade has started.

Caution

Do not turn Off the printer while the printer is loading software.

5. When the upgrade is complete, the display shows a message asking you to remove the memory stick and press **0** to Reboot.
6. Disconnect the USB Thumb Drive from the printer.
7. Press the **0** button to reboot the printer.
8. The printer reboots and prints a Software Upgrade Report in addition to any other power on pages, such as the Configuration Page.
9. Verify the information on the Configuration Page to ensure that firmware has been upgraded.

USB ALTBOOT

Caution

Only perform this procedure as a last option to recover a corrupted system. The .dlm file for machine configuration will be deleted.

The AltBoot procedure will delete all stored data on the System Disk Drive, including email addresses, Xerox Standard Accounting data, and network configuration information. Always clone the machine, if possible, before performing AltBoot. If the machine failure is such that cloning is not possible, ensure that the customer is aware of the data loss.

The USB ALTBOOT method allows the user to perform the firmware update process using a USB Thumb Drive.

Verify the data on the USB Thumb Drive: an Altboot folder, in the root directory, with a file with extension .dlm.

1. Turn the printer Off.
2. Connect the USB Thumb Drive to the USB connector on the rear of the printer.
3. Turn the printer On.
4. On the printer's Control Panel, verify that the LEDs (under the **Features**, **Job Status**, and **Machine Status** buttons) come On for a short time.
5. The LED on the Machine Status button comes on again, by itself, for about 20 seconds. While it is lit, press and release it, then within 5 seconds press the 8 button.
6. The firmware update process begins.
7. On the UI screen, a **Software Upgrade** screen is displayed. The process takes approximately 20 minutes.
8. After the firmware update process is complete, the **Alt Boot Complete** screen is displayed.
9. Disconnect the USB Thumb Drive from the printer.
10. The printer reboots.
11. A Configuration page is printed.

Forced Upgrade Altboot

Back Channel Traces

In rare cases, the printer may exhibit unusual behavior that is difficult to troubleshoot. In such cases, if feasible, it can be useful to obtain a back channel trace from the printer's Serial Debug Port. The back channel trace, lists step-by-step what the printer is doing up to the point that an error occurs. The trace may offer clues to help troubleshoot the problem.

The WC6400 has two back channel ports on the image processing board; one for the copy controller (J506) and one for the network controller (J502). Determine which region of the controller is experiencing the problem and capture the appropriate trace by the following procedure.

Required Parts:

- Computer with a serial port
- Serial Cable, part number: 600T80374
- Level Adaptor, part number: 600T80375

To obtain a trace:

1. Connect the Serial Cable and Level Adaptor, then connect the Serial Cable to your PC. Serial port settings are COM1, 19.2 kbaud, 8 bits, no parity, 1 stop bit, and hardware control.
2. Turn Off the printer.
3. Connect the Level Adaptor with adapter's THIS SIDE UP label facing upwards to the Serial Debug Port located on the printer's Rear Panel.
4. Start up a terminal program such as in Window's HyperTerminal (usually located in **Programs** --> **Accessories** --> **Communications** --> **HyperTerminal**). Verify the serial port settings are correct, usually COM1:.
6. Turn On the printer.
7. The trace should appear in the terminal window. Examine the trace to troubleshoot the problem. Save the trace as a file, if necessary.

Fault Codes

The following Fault Codes may appear when an error occurs.

Soft Faults

Soft faults are events that occur within the system and, in most cases cause no disruption to the operation of the printer. The system automatically recovers from these events and no action is required by service. Soft fault events are viewable in diagnostics dc120 fault counters only.

Hard Faults

Hard faults are events that occur within the system that shut down one or more functions within the printer and require service for corrective action. Hard faults are logged in the Machine Status/ Faults Tab and diagnostics dc122 Fault History. A printable version of the fault log is available in the System Status Embedded Page.

Fault Codes

Fault Code	Fault History in Diagnostic Display String	Action
302.302.00	Rewrite Failure	Refer to “All LED’s are Blinking” on page 3-15.
302.306.00	Erase Failure	Refer to “All LED’s are Blinking” on page 3-15.
302.308.00	Download Invalid	Refer to “All LED’s are Blinking” on page 3-15.
302.315.00	Service Registry Bad or corrupted data.	Refer to “Invalid Service Registry” on page 3-17.
302.316.00	SRS returns invalid or missing data	Refer to “Invalid Service Registry” on page 3-17.
302.317.00	LUI gets no response from SRS	Refer to “Invalid Service Registry” on page 3-17.
302.320.00	UI Data Time Out Error	Refer to “Invalid Service Registry” on page 3-17.
302.321.00	XEIP browser does not respond or is dead.	Refer to “Extensible Services are not available” on page 3-18.
302.380.00	UI Communication Fault	Refer to “Control Panel LED’s Do Not Light” on page 4-53.
302.381.00	UI Communication Fault	Refer to “Control Panel LED’s Do Not Light” on page 4-53.
302.390.00	Config Services not stable	Refer to “Invalid Service Registry” on page 3-17.
303.301.00	Engine Flash ROM Failure	Refer to “System Fault” on page 3-19.
303.302.00	Engine Flash ROM Failure	Refer to “System Fault” on page 3-19.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
303.303.00	Engine Firmware Failure	Refer to “System Fault” on page 3-20.
303.304.00	Disk Failure	Refer to “Image Disk is Offline” on page 3-21.
303.305.00	Engine NVRAM Failure	Refer to “System Fault” on page 3-23.
303.306.00	Upgrade request failed - downgrade not allowed	Refer to “Power Cycle the Printer” on page 4-57.
303.307.00	Sync failure. Unable to enter SW Upgrade.	Refer to “Power Cycle the Printer” on page 4-57.
303.308.00	Engine NVRAM Failure	Refer to “System Fault” on page 3-23.
303.310.00	Error, Cause Unknown	Refer to “Unknown Printer Error” on page 3-24.
303.316.00	Communication Fault	Refer to “System Fault” on page 3-25.
303.317.00	Error saving critical IOT NVM.	Refer to “IOT NVM Error” on page 3-26.
303.318.00	Error initializing IOT NVM	Refer to “IOT NVM Error” on page 3-26.
303.319.00	Error restoring critical IOT NVM	Refer to “IOT NVM Error” on page 3-26.
303.320.00	Upgrade failed - incompatible product type	Refer to “Power Cycle the Printer” on page 4-57.
303.324.00	File transfer failure during SW Upgrade	Refer to “Power Cycle the Printer” on page 4-57.
303.325.00	Wall Clock fault	Refer to “System Fault” on page 3-27.
303.326.00	Upgrade failed. Version same as machine.	Refer to “Power Cycle the Printer” on page 4-57.
303.327.00	SW Upgrade Failed	Refer to “Power Cycle the Printer” on page 4-57.
303.329.00	Upgrade Request Failed due to Active Diagnostics	Refer to “Power Cycle the Printer” on page 4-57.
303.330.00	Upgrade failed. Security Feature Active	Refer to “Upgrade Failure” on page 3-28.
303.331.00	Communication fault with NC.	Refer to “Image Processor Board Troubleshooting” on page 4-60.
303.332.00	Communication fault with NC.	Refer to “Image Processor Board Troubleshooting” on page 4-60.
303.338.00	CCM reset.	Refer to “Software Reset” on page 3-29.
303.346.00	Communication fault with UI.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
303.347.00	Communication fault with UI.	Refer to “Control Panel LED’s Do Not Light” on page 4-53.
303.355.00	CCM POST failure. NVM battery may be dead.	Refer to “System Fault” on page 3-30.
303.390.00	Upgrade Automation failed	Refer to “Power Cycle the Printer” on page 4-57.
303.401.00	Basic FAX not detected/confirmed	Refer to “Fax Service Error” on page 3-31.
303.403.00	Extended FAX not detected/confirmed	Refer to “Power Cycle the Printer” on page 4-57.
303.417.00	Incompatible FAX software detected at power on	Refer to “Power Cycle the Printer” on page 4-57.
303.777.00	Power Loss Detected	Refer to “Power Cycle the Printer” on page 4-57.
303.788.00	CCS Runtime could not enter power saver mode S3	Refer to “Power Cycle the Printer” on page 4-57.
303.789.00	Error Autosaving Copy Controller NVM	Refer to “NVM Autosave Error” on page 3-32.
303.790.00	Timezone file cannot be set	Refer to “Power Cycle the Printer” on page 4-57.
304.001.00	Ozone Fan Failure. Power Off Now	Refer to “System Fault” on page 3-33.
304.002.00	Power Supply Fan Failure. Power Off Now	Refer to “System Fault” on page 3-35.
304.003.00	Finisher Fan Failure. Power Off Now	Refer to “Finisher Error” on page 3-36.
304.486.00	Jam at output tray (No Finisher)	Refer to “Paper Jam at the Output Tray” on page 3-37.
305.161.00	Jam at Document Feeder	Refer to “Paper Jam in the Document Feeder” on page 3-39.
305.162.00	Jam at Document Feeder	Refer to “Paper Jam in the Document Feeder” on page 3-39.
305.163.00	Jam at Document Feeder	Refer to “Paper Jam in the Document Feeder” on page 3-39.
305.164.00	Jam at Document Feeder	Refer to “Paper Jam in the Document Feeder” on page 3-39.
305.165.00	Scanner DRAM Test failure	Refer to “Scanner Fault” on page 3-41.
305.166.00	Home Position Test Failure	Refer to “Scanner Fault” on page 3-41.
305.167.00	Lock Check Failure	Refer to “Scanner Fault” on page 3-43.
305.168.00	Optical Test Failure	Refer to “Scanner Fault” on page 3-41.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
305.169.00	Device cooling fan is malfunctioning	Refer to “System Fault” on page 3-44.
305.194.00	Size mismatch Jam on SS Mix-size	Refer to “Document Feeder is not Available” on page 3-45.
305.196.00	Size mismatch Jam on No Mix-size	Refer to “Document Feeder is not Available” on page 3-45.
305.197.00	Prohibit Combine Size Jam	Refer to “Document Feeder is not Available” on page 3-45.
305.274.00	Original Size Sensor Fail	Refer to “Document Feeder is not Available” on page 3-45.
305.940.00	DADF No Original Fail	Refer to “Power Cycle the Printer” on page 4-57.
305.941.00	DADF Not Enough Document	Refer to “Power Cycle the Printer” on page 4-57.
308.001.00	1st Feeder Transfer Roller Contact Failure	Refer to “System Fault” on page 3-46.
308.002.00	2nd Transfer Roller Contact Failure	Refer to “System Fault” on page 3-49.
308-101-00	Jam at Tray 1 (MPT)	Refer to “Misfeed in Tray 1” on page 3-51.
308.102.00	Jam at right door / feed cassette (Tray 2)	Refer to “Misfeed in Tray 2” on page 3-53.
308.103.00	Jam at paper transport / feed cassette (Tray 3)	Refer to “Misfeed in Tray 3/4” on page 3-56.
308.104.00	Jam at paper transport / feed cassette (Tray 4)	Refer to “Misfeed in Tray 3/4” on page 3-56.
308.105.00	Jam at Duplex	Refer to “Paper Jam Behind the Duplex Door/Feed Area” on page 3-59.
309.001.00	Laser Unit Failure	Refer to “Xerographic System Error” on page 3-61.
309.002.00	Laser Unit Polygon Motor Failure	Refer to “Xerographic System Error” on page 3-61.
309.003.00	Black Developer Motor Failure	Refer to “Xerographic System Error” on page 3-63.
309.004.00	Color Developer Motor Failure	Refer to “Xerographic System Error” on page 3-65.
309.005.00	Color Print Cartridge Motor Failure	Refer to “Xerographic System Error” on page 3-68.
309.006.00	Black Print Cartridge Motor Failure	Refer to “Xerographic System Error” on page 3-70.
309.007.00	Cyan Toner Cartridge Failure	Refer to “Xerographic System Error” on page 3-72.
309.008.00	Magenta Toner Cartridge Failure	Refer to “Xerographic System Error” on page 3-72.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
309.009.00	Yellow Toner Cartridge Failure	Refer to “Xerographic System Error” on page 3-72.
309.010.00	Black Toner Cartridge Failure	Refer to “Xerographic System Error” on page 3-72.
309.011.00	IDC Sensor error 1 (Front). Machine will continue to run normally	Refer to “Auto Calibration Failed” on page 3-73.
309.012.00	IDC Sensor error 1 (Back). Machine will continue to run normally	Refer to “Auto Calibration Failed” on page 3-73.
309.013.00	Color Registration error Correction - Test pattern. Machine will continue to run normally	Refer to “Auto Calibration Failed” on page 3-73.
309.014.00	Color Registration error Correction - Correction amount. Machine will continue to run normally	Refer to “Auto Calibration Failed” on page 3-73.
310.102.00	Jam at Horizontal Transfer Door	Refer to “Paper Jam Under the Control Panel” on page 3-75.
310.103.00	Jam at 2nd Image Transfer Roller	Refer to “Paper Jam Behind the Right Side Door” on page 3-78.
310.104.00	Jam at Re-feeding Area	Refer to “Paper Jam Behind the Duplex Door/Feed Area” on page 3-59.
310.105.00	Jam at Vertical Transport Area	Refer to “Paper Jam Behind the Right Side Door” on page 3-78.
310.106.00	Jam at Fuser	Refer to “Paper Jam Behind the Right Side Door” on page 3-81.
310.301.00	Fuser Warm Time Failure	Refer to “Fuser System Error” on page 3-84.
310.302.00	Fuser Warm Time Failure	Refer to “Fuser System Error” on page 3-84.
310.303.00	Fuser Temperature Too Low	Refer to “Fuser System Error” on page 3-84.
310.304.00	Fuser Temperature Too Low	Refer to “Fuser System Error” on page 3-84.
310.305.00	Fuser Temperature Too High	Refer to “Fuser System Error” on page 3-84.
310.306.00	Fuser Temperature Too High	Refer to “Fuser System Error” on page 3-84.
310.307.00	Fuser Fan Failure. Power Off Now	Refer to “Fuser System Error” on page 3-86.
310.308.00	Fuser Motor Failure. Power Off Now	Refer to “Fuser System Error” on page 3-87.
312.098.00	Finisher Flash ROM Failure	Refer to “Finisher Error” on page 3-90.
312.099.00	Finisher Communication Failure	Refer to “Finisher Error” on page 3-92.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
312.480.00	Finisher Elevation Drive Failure	Refer to “Finisher Error” on page 3-94.
312.481.00	Finisher Paper Press Drive Failure	Refer to “Finisher Error” on page 3-96.
312.482.00	Finisher Alignment Plate Drive Failure	Refer to “Finisher Error” on page 3-98.
312.483.00	Finisher Eject Roller Contact Failure	Refer to “Finisher Error” on page 3-100.
312.484.00	Finisher Storage Belt Contact Failure	Refer to “Finisher Error” on page 3-102.
312.485.00	Finisher Bundle Eject Motor Failure	Refer to “Finisher Error” on page 3-104.
312.487.00	Jam at Finisher Transport Area	Refer to “Paper Jam in the Finisher Transport Area” on page 3-106.
312.488.00	Jam at Finisher Upper Output Tray	Refer to “Paper Jam at Finisher Top Output Tray” on page 3-108.
312.489.00	Jam at Finisher Stacker Output Tray	Refer to “Paper Jam at Finisher Main Output Tray” on page 3-110.
312.491.00	Stapler Jam	Refer to “Staple Jam in the Finisher” on page 3-112.
314.001.00	IIT Home Position Error	Refer to “Scanner Fault” on page 3-41.
314.002.00	Scanner Missing	Refer to “Scanner Fault” on page 3-114.
314.003.00	Scan Head Locked	Refer to “Scanner Fault” on page 3-43.
314.004.00	Pick up roller Error	Refer to “Paper Jam in the Document Feeder” on page 3-39.
314.005.00	Document Feeder Disconnected	Refer to “Document Feeder (DADF) Disconnected” on page 3-116.
315.007.00	IIT Internal Target Failure	Refer to “Scanner Fault” on page 3-41.
315.008.00	IIT Optical Error	Refer to “Scanner Fault” on page 3-41.
315.009.00	IIT Manual Calibration Fail	Refer to “Scanner Fault” on page 3-117.
315.010.00	IIT Manual Calibration Fail - Lead Edge Fail	Refer to “Scanner Fault” on page 3-117.
315.011.00	IIT Manual Calibration Fail - Side Edge Fail	Refer to “Scanner Fault” on page 3-117.
315.012.00	IIT Manual Calibration Fail - Shading Target Fail	Refer to “Scanner Fault” on page 3-117.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.000.00	Format Service Non Shutdown NC Faults	Refer to “Internal Communication Error” on page 3-119.
316.000.01	ENS Service Non Shutdown NC Faults	Refer to “Internal Communication Error” on page 3-119.
316.000.09	Cannot create RPC connection with ENS	Refer to “Internal Communication Error” on page 3-119.
316.000.14	Cannot create RPC connection with ENS	Refer to “Internal Communication Error” on page 3-119.
316.000.19	Cannot create RPC connection with ENS	Refer to “Internal Communication Error” on page 3-119.
316.000.26	Cannot create RPC connection with ENS	Refer to “Internal Communication Error” on page 3-119.
316.001.09	Unable to do startup synchronization	Refer to “Internal Communication Error” on page 3-119.
316.001.14	Unable to do startup synchronization	Refer to “Internal Communication Error” on page 3-119.
316.001.19	Unable to do startup synchronization	Refer to “Internal Communication Error” on page 3-119.
316.001.26	Unable to Start up and Sync with SC	Refer to “Internal Communication Error” on page 3-119.
316.001.47	Unable to do Start Up Synchronization	Refer to “Internal Communication Error” on page 3-119.
316.001.90	Unable to do start up Synchronization	Refer to “Internal Communication Error” on page 3-119.
316.002.09	Unable to register as RPC server	Refer to “Internal Communication Error” on page 3-119.
316.002.14	Unable to register as RPC server	Refer to “Internal Communication Error” on page 3-119.
316.002.19	Unable to Register as an RPC Server	Refer to “Internal Communication Error” on page 3-119.
316.002.26	Could not become an RPC Server	Refer to “Internal Communication Error” on page 3-119.
316.002.46	Unable to Register as RPC Server	Refer to “Internal Communication Error” on page 3-119.
316.003.09	Too many IPC Handles	Refer to “Internal Communication Error” on page 3-119.
316.003.14	Too many IPC Handles	Refer to “Internal Communication Error” on page 3-119.
316.003.19	Too many IPC Handlers	Refer to “Internal Communication Error” on page 3-119.
316.003.90	Utility Insert Handler Failure	Refer to “Internal Communication Error” on page 3-119.
316.004.14	RPC call failure to NC registration service	Refer to “Internal Communication Error” on page 3-119.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.004.19	RPC Connect Failure to NC Registration Service	Refer to “Internal Communication Error” on page 3-119.
316.004.26	RPC Connect Failure to NC Registration Service	Refer to “Internal Communication Error” on page 3-119.
316.004.46	RPC failed to connect to with NC Service	Refer to “Internal Communication Error” on page 3-119.
316.005.14	RPC call failure to NC registration service	Refer to “Internal Communication Error” on page 3-119.
316.005.19	RPC Call Failure to NC Registration Service	Refer to “Internal Communication Error” on page 3-119.
316.005.26	RPC Call Failure to NC Registration Service	Refer to “Internal Communication Error” on page 3-119.
316.005.46	RPC failed to register with NC Service	Refer to “Internal Communication Error” on page 3-119.
316.005.68	RPC failed to register with NC Service	Refer to “Internal Communication Error” on page 3-119.
316.005.90	RPC call to NC Registration failed	Refer to “Internal Communication Error” on page 3-119.
316.005.92	RPC failed to register with NC Service	Refer to “Internal Communication Error” on page 3-119.
316.006.09	Cannot register for events	Refer to “Internal Communication Error” on page 3-119.
316.006.19	Cannot register for events	Refer to “Internal Communication Error” on page 3-119.
316.007.92	Invalid RPC Data Received	Refer to “Internal Communication Error” on page 3-119.
316.009.09	Invalid IPC Data Received	Refer to “Internal Communication Error” on page 3-119.
316.010.14	Unable to send IPC	Refer to “Internal Communication Error” on page 3-119.
316.010.99	Unable to send IPC	Refer to “Internal Communication Error” on page 3-119.
316.013.14	Digital Copier ENS synchronization error	Refer to “Internal Communication Error” on page 3-119.
316.014.14	Digital Copier ENS registration error	Refer to “Internal Communication Error” on page 3-119.
316.015.14	SESS data store environmental variable not set	Refer to “Internal Communication Error” on page 3-119.
316.015.19	SESS data store environmental variable not set	Refer to “Internal Communication Error” on page 3-119.
316.016.14	Data Store init. failed	Refer to “Internal Communication Error” on page 3-119.
316.016.19	Data Store init. failed	Refer to “Internal Communication Error” on page 3-119.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.017.19	Send Event Failure Unable to send event to NC ENS	Refer to “Internal Communication Error” on page 3-119.
316.021.19	NC PM REGISTRATION CONNECT ERROR	Refer to “Internal Communication Error” on page 3-119.
316.021.26	Service could not get Host Name	Refer to “Internal Communication Error” on page 3-119.
316.021.46	Unable to Get Host Name	Refer to “Internal Communication Error” on page 3-119.
316.023.09	RPC Call Failure to ENS	Refer to “Internal Communication Error” on page 3-119.
316.023.26	RPC Call Failure to ENS	Refer to “Internal Communication Error” on page 3-119.
316.026.09	Memory allocation failure	Refer to “Internal Communication Error” on page 3-119.
316.026.14	MALLOC error	Refer to “Internal Communication Error” on page 3-119.
316.026.46	Memory Allocation Error	Refer to “Internal Communication Error” on page 3-119.
316.026.90	Malloc Error	Refer to “Internal Communication Error” on page 3-119.
316.026.92	Memory Allocation Fault	Refer to “Internal Communication Error” on page 3-119.
316.027.90	Unable to obtain well known Queue ID	Refer to “Internal Communication Error” on page 3-119.
316.028.09	Unable to complete RPC call	Refer to “Internal Communication Error” on page 3-119.
316.028.90	Invalid Range String	Refer to “Internal Communication Error” on page 3-119.
316.030.19	Unable to Obtain Client RPC handle to EJS	Refer to “Internal Communication Error” on page 3-119.
316.031.09	Invalid Event Notification Received	Refer to “Internal Communication Error” on page 3-119.
316.032.19	NVM Connection Failure	Refer to “Internal Communication Error” on page 3-119.
316.039.00	Pthread Create Error	Refer to “Internal Communication Error” on page 3-119.
316.040.92	Semaphore Fault	Refer to “Internal Communication Error” on page 3-119.
316.048.09	Unable to set binding	Refer to “Internal Communication Error” on page 3-119.
316.048.14	Can not set NC client binding	Refer to “Internal Communication Error” on page 3-119.
316.048.90	Can not set NC client binding	Refer to “Internal Communication Error” on page 3-119.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.048.99	Can not set NC client binding	Refer to “Power Cycle the Printer” on page 4-57.
316.150.09	Cannot send registration event	Refer to “Internal Communication Error” on page 3-119.
316.150.14	Unable to obtain RPC transport	Refer to “Internal Communication Error” on page 3-119.
316.150.19	NC Sync peer service fault	Refer to “Internal Communication Error” on page 3-119.
316.150.26	Fault Service Failed to Write to Log	Refer to “Internal Communication Error” on page 3-119.
316.150.90	Invalid IPC Request Destination	Refer to “Internal Communication Error” on page 3-119.
316.150.92	Consumer Interface Fault	Refer to “Internal Communication Error” on page 3-119.
316.151.09	Invalid IPC command	Refer to “Internal Communication Error” on page 3-119.
316.151.14	SNMP event registration failed	Refer to “Internal Communication Error” on page 3-119.
316.151.19	Invalid IPC command	Refer to “Internal Communication Error” on page 3-119.
316.151.26	Fault Service Failed to get a Log Handle	Refer to “Internal Communication Error” on page 3-119.
316.151.90	Put Environment Variable Failure	Refer to “Internal Communication Error” on page 3-119.
316.152.09	Internal IPC failure	Refer to “Internal Communication Error” on page 3-119.
316.152.14	Empty internal event received by ENS	Refer to “Internal Communication Error” on page 3-119.
316.152.19	Unable to send request to SESS	Refer to “Internal Communication Error” on page 3-119.
316.152.26	Fault Service could not open Fault Log	Refer to “Internal Communication Error” on page 3-119.
316.153.09	Unable to obtain IPC queue	Refer to “Internal Communication Error” on page 3-119.
316.153.14	Can not initialize internal event list.	Refer to “Internal Communication Error” on page 3-119.
316.153.19	NVM Save Failure	Refer to “Internal Communication Error” on page 3-119.
316.154.09	NC Registration Service configuration error.	Refer to “Internal Communication Error” on page 3-119.
316.154.14	Cannot create internal event queue.	Refer to “Internal Communication Error” on page 3-119.
316.154.19	NVM Read Failure	Refer to “Internal Communication Error” on page 3-119.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.155.19	NC Failed to Boot from Alternate Disk Partition	Refer to “Internal Communication Error” on page 3-119.
316.156.19	Service Run loop failed.	Refer to “Internal Communication Error” on page 3-119.
316.160.09	NC Registration Service process death	Refer to “Internal Communication Error” on page 3-119.
316.161.09	Cannot send registration event	Refer to “Internal Communication Error” on page 3-119.
316.162.09	NC Platform Manager Service process death	Refer to “Internal Communication Error” on page 3-119.
316.163.09	NC DM Agent Service process death	Refer to “Internal Communication Error” on page 3-119.
316.164.09	List access failure (Create, Add, Find, delete)	Refer to “Internal Communication Error” on page 3-119.
316.429.00	Unable to write to data store.	Refer to “Internal Communication Error” on page 3-119.
316.431.00	Unable to get system time	Refer to “Internal Communication Error” on page 3-119.
316.432.00	Unknown scheduler received.	Refer to “Internal Communication Error” on page 3-119.
316.433.00	RPC call failed.	Refer to “Internal Communication Error” on page 3-119.
316.434.00	Unable to change scheduler in DM.	Refer to “Internal Communication Error” on page 3-119.
316.600.07	Can not create RPC connection to ENS	Refer to “Internal Communication Error” on page 3-119.
316.600.35	Can not create RPC connection to ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.600.46	Cannot Create RPC Connection with ENS	Refer to “Internal Communication Error” on page 3-119.
316.600.66	Unable to Create RPC Connection with ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.600.67	Unable to Create RPC Connection with ENS	Refer to “Power Cycle the Printer” on page 4-57.
316-601-26	Fault Service Failed IPC Queue Setup	Refer to “Power Cycle the Printer” on page 4-57.
316.601.35	System Control initialization failed	Refer to “Power Cycle the Printer” on page 4-57.
316.601.46	Invalid UI Information (RPC data) Returned	Refer to “Power Cycle the Printer” on page 4-57.
316.601.47	Diag Service Failed IPC Queue Setup	Refer to “Power Cycle the Printer” on page 4-57.
316.601.66	Unable to do start up synchronization	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.601.67	Unable to do start up synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.601.68	Unable to start up & sync with SC.	Refer to “Power Cycle the Printer” on page 4-57.
316.601.105	Unable to do start up synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.602.07	RPC Service Registration Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.602.09	Unable to unregister as RPC service	Refer to “Power Cycle the Printer” on page 4-57.
316.602.11	RPC Server Registration failed	Refer to “Power Cycle the Printer” on page 4-57.
316.602.28	RPC Server Registration failed	Refer to “Power Cycle the Printer” on page 4-57.
316.602.35	RPC Server Registration	Refer to “Power Cycle the Printer” on page 4-57.
316.602.38	RPC Server Registration Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.602.66	Unable to Register as an RPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.602.67	Unable to Register as an RPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.602.68	Unable to Register as an RPC Serve	Refer to “Power Cycle the Printer” on page 4-57.
316.602.105	Unable to Register as an RPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.603.11	Replace Handler call failed	Refer to “Power Cycle the Printer” on page 4-57.
316.603.28	Replace Handler call failed	Refer to “Power Cycle the Printer” on page 4-57.
316.603.46	Too many IPC Handles	Refer to “Power Cycle the Printer” on page 4-57.
316.603.66	Replace Handler call failed	Refer to “Power Cycle the Printer” on page 4-57.
316.603.67	Too many IPC Handlers	Refer to “Power Cycle the Printer” on page 4-57.
316.603.68	Too many IPC Handlers	Refer to “Power Cycle the Printer” on page 4-57.
316.603.105	RPC call failure to NC registration service.	Refer to “Power Cycle the Printer” on page 4-57.
316.604.14	RPC call failure to NC registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.604.38	Could not register with Registration Service.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.604.99	Could not register with Registration Service.	Refer to “Power Cycle the Printer” on page 4-57.
316.604.105	SESS data store environmental variable not set.	Refer to “Power Cycle the Printer” on page 4-57.
316.605.07	Unable to Register with Registration Service	Refer to “Internal Communication Error” on page 3-119.
316.605.14	RPC call failure to NC registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.605.26	Fault Service timed out	Refer to “Power Cycle the Printer” on page 4-57.
316.605.35	RPC Call Failure to NC Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.605.47	RPC failed to register with NC	Refer to “Power Cycle the Printer” on page 4-57.
316.605.66	RPC Call Failure to NC Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.605.67	RPC Call Failure to NC Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.605.105	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.606.07	Can not register for events	Refer to “Internal Communication Error” on page 3-119.
316.606.35	Can not register for events	Refer to “Power Cycle the Printer” on page 4-57.
316.606.46	Cannot register for events	Refer to “Power Cycle the Printer” on page 4-57.
316.606.99	Cannot register for events	Refer to “Power Cycle the Printer” on page 4-57.
316.606.105	OS problem	Refer to “Power Cycle the Printer” on page 4-57.
316.607.19	Invalid RPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.607.46	Invalid RPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.607.47	Invalid RPC disk diagnostics Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.607.92	Invalid RPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.607.105	Service Run loop failed.	Refer to “Internal Communication Error” on page 3-119.
316.608.09	Unable to free IPC resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.11	IPC un-register failure	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.608.14	Unable to free IPC resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.26	Fault Service Failed to Unbind with SC	Refer to “Power Cycle the Printer” on page 4-57.
316.608.28	IPC un-register failure	Refer to “Power Cycle the Printer” on page 4-57.
316.608.35	Unable to Free IPC Resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.38	Unable to Unregister as IPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.608.46	Unable to Free IPC resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.66	Unable to Free IPC resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.67	Unable to Free IPC resources	Refer to “Power Cycle the Printer” on page 4-57.
316.608.105	Build UI SVC obtain client failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.609.07	Unknown Message Received From DM Agent	Refer to “Internal Communication Error” on page 3-119.
316.609.19	Invalid IPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.609.26	IPC Fault Service	Refer to “Power Cycle the Printer” on page 4-57.
316.609.46	Invalid IPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.609.47	Invalid IPC Data	Refer to “Power Cycle the Printer” on page 4-57.
316.609.92	Invalid IPC Data Received	Refer to “Power Cycle the Printer” on page 4-57.
316.609.105	Too many IPC Handlers	Refer to “Power Cycle the Printer” on page 4-57.
316.610.00	IPC send failure to NC TripleA service	Refer to “Power Cycle the Printer” on page 4-57.
316.610.07	IPC Send Failure to DM Agent	Refer to “Internal Communication Error” on page 3-119.
316-610-09	Cannot send IPC message to NC Platform Manage	Refer to “Power Cycle the Printer” on page 4-57.
316.610.11	IPC communication failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.610.19	Unable to Send IPC Message	Refer to “Power Cycle the Printer” on page 4-57.
316.610.26	Unable to Send IPC Message	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.610.28	IPC communication failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.610.35	Unable to send IPC Message	Refer to “Power Cycle the Printer” on page 4-57.
316.610.46	Unable to send IPC Message	Refer to “Power Cycle the Printer” on page 4-57.
316.610.90	IPC Send Response Error	Refer to “Power Cycle the Printer” on page 4-57.
316.610.92	Failure to send Queue Status	Refer to “Power Cycle the Printer” on page 4-57.
316.610.99	Unable to send IPC Message	Refer to “Power Cycle the Printer” on page 4-57.
316.611.07	Client Removal Failed	Refer to “Internal Communication Error” on page 3-119.
316.611.09	Cannot remove RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.14	Cannot remove RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.19	Unable to Remove RPC Connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.26	Cannot Remove RPC Connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.38	Client Removal Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.611.46	Cannot remove RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.47	Cannot remove RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.66	Unable to Remove RPC Connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.67	Unable to Remove RPC Connection	Refer to “Power Cycle the Printer” on page 4-57.
316.611.99	Cannot remove RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.612.09	Unable to do shutdown synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.612.14	Unable to do shutdown synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.612.35	Unable to do shutdown synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.612.46	Unable to do shutdown synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.612.47	Upgrade request failed - downgrade not allowed	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.612.68	Unable to do shutdown synchronization	Refer to “Power Cycle the Printer” on page 4-57.
316.613.09	DC Registration synchronization error	Refer to “Power Cycle the Printer” on page 4-57.
316.613.14	DC ENS synchronization error	Refer to “Internal Communication Error” on page 3-119.
316.613.19	DC Sys Mgr sync error	Refer to “Internal Communication Error” on page 3-119.
316.614.09	DC Registration communications error	Refer to “Power Cycle the Printer” on page 4-57.
316.614.14	Digital Copier ENS registration error	Refer to “Internal Communication Error” on page 3-119.
316.614.19	DC Sys Mgr communications error	Refer to “Internal Communication Error” on page 3-119.
316.614.47	Upgrade failed - invalid file format	Refer to “Internal Communication Error” on page 3-119.
316.615.35	SESS Data Store Environmental Variable not set	Refer to “Power Cycle the Printer” on page 4-57.
316.615.46	SESS data store environmental variable not set	Refer to “Power Cycle the Printer” on page 4-57.
316.615.47	Upgrade failed - multiple upgrade files detected	Refer to “Power Cycle the Printer” on page 4-57.
316.615.66	SESS data store environmental variable not set	Refer to “Power Cycle the Printer” on page 4-57.
316.615.67	SESS data store environmental variable not set	Refer to “Power Cycle the Printer” on page 4-57.
316.615.90	SESS Data Store Environmental Variable not set	Refer to “Power Cycle the Printer” on page 4-57.
316.616.35	Data Store initialization failure	Refer to “Power Cycle the Printer” on page 4-57.
316.616.38	Error - Shared Memory Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.616.46	Data Store Initialization Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.616.47	Upgrade request failed - IPC message failure	Refer to “Power Cycle the Printer” on page 4-57.
316.616.67	Submission of Email or IFax Job Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.617.19	Send Event Failure Unable to send event to NC ENS	Refer to “Internal Communication Error” on page 3-119.
316.617.47	Upgrade request failed - TAR extraction failure	Refer to “Power Cycle the Printer” on page 4-57.
316.618.47	Upgrade failed - DLM SPI extraction failure	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.619.14	Unable to unregister Registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.619.19	Unable to unregister Registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.619.26	Could not unregister with Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.619.46	Unable to unregister with NC due to RPC timeout	Refer to “Power Cycle the Printer” on page 4-57.
316.619.47	Upgrade request failed - DMPR failure at web	Refer to “Power Cycle the Printer” on page 4-57.
316.619.68	Unable to unregister with NC due to RPC timeout	Refer to “Power Cycle the Printer” on page 4-57.
316.619.93	Unable to unregister with NC due to RPC timeout	Refer to “Power Cycle the Printer” on page 4-57.
316.620.07	Failure to unregister with NC	Refer to “Internal Communication Error” on page 3-119.
316.620.14	Unable to unregister Registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.620.19	Unable to unregister Registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.620.35	Unable to unregister with NC Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.620.38	Unable to Unregister with Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.620.46	Unable to unregister with NC (Reg Service failure)	Refer to “Power Cycle the Printer” on page 4-57.
316.620.47	Upgrade request reject	Refer to “Power Cycle the Printer” on page 4-57.
316.620.90	Unable to unregister with Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.620.92	Unable to unregister with NC (Reg Service failure)	Refer to “Power Cycle the Printer” on page 4-57.
316.620.93	Unable to unregister with NC (Reg Service failure)	Refer to “Power Cycle the Printer” on page 4-57.
316.620.99	Unable to unregister with NC (Reg Service failure)	Refer to “Power Cycle the Printer” on page 4-57.
316.621.00	Unable to get host name Get Host Name failed	Refer to “Power Cycle the Printer” on page 4-57.
316.621.07	Unable to get host name	Refer to “Internal Communication Error” on page 3-119.
316.621.11	Unable to get host name	Refer to “Power Cycle the Printer” on page 4-57.
316.621.28	Unable to get host name	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.621.35	Get Host Name failed	Refer to “Power Cycle the Printer” on page 4-57.
316.621.38	Unable to get host name	Refer to “Power Cycle the Printer” on page 4-57.
316.621.47	Get Host Name failed	Refer to “Power Cycle the Printer” on page 4-57.
316.621.66	Unable to get the host name.	Refer to “Power Cycle the Printer” on page 4-57.
316.621.67	Unable to get the host name.	Refer to “Power Cycle the Printer” on page 4-57.
316.621.93	Unable to get host name	Refer to “Power Cycle the Printer” on page 4-57.
316.621.99	Get Host Name failed	Refer to “Power Cycle the Printer” on page 4-57.
316.622.07	RPC Unregister Server Failed	Refer to “Internal Communication Error” on page 3-119.
316.622.09	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.11	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.14	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.19	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.26	Fault Service Failed to Unregister as RPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.622.28	Unable to Unregister as RPC Service	Refer to “Power Cycle the Printer” on page 4-57.
316.622.35	Unable to Unregister as RPC Service	Refer to “Power Cycle the Printer” on page 4-57.
316.622.38	Unable to Unregister at RPC Server	Refer to “Power Cycle the Printer” on page 4-57.
316.622.46	Unable to Unregister as RPC Service	Refer to “Power Cycle the Printer” on page 4-57.
316.622.47	FTP "get" failure	Refer to “Power Cycle the Printer” on page 4-57.
316.622.66	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.67	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.622.68	Cannot unregister from registration service	Refer to “Power Cycle the Printer” on page 4-57.
316.623.35	RPC Call Failure to ENS	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.623.47	RPC Call Failure to ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.624.46	Unable to create RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.625.35	Invalid IPC Type.	Refer to “Power Cycle the Printer” on page 4-57.
316.625.46	Invalid IPC Message Type	Refer to “Power Cycle the Printer” on page 4-57.
316.625.66	Invalid IPC message Type	Refer to “Power Cycle the Printer” on page 4-57.
316.625.67	Invalid IPC message Type	Refer to “Power Cycle the Printer” on page 4-57.
316.625.90	Invalid Queue Service IPC message type	Refer to “Power Cycle the Printer” on page 4-57.
316.626.00	Memory Allocation Error	Refer to “Power Cycle the Printer” on page 4-57.
316.626.11	Can't allocate memory to load a template.	Refer to “Power Cycle the Printer” on page 4-57.
316.626.38	Memory Allocation Error	Refer to “Power Cycle the Printer” on page 4-57.
316.626.47	Memory Allocation Error	Refer to “Power Cycle the Printer” on page 4-57.
316.626.67	Memory allocation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.628.07	Range String could not be computed	Refer to “Internal Communication Error” on page 3-119.
316.628.09	Unable to complete RPC call	Refer to “Power Cycle the Printer” on page 4-57.
316.628.35	Range String calculation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.628.46	Object write value out of range	Refer to “Power Cycle the Printer” on page 4-57.
316.628.66	Cannot get range environment variable	Refer to “Power Cycle the Printer” on page 4-57.
316.628.67	Cannot get range environment variable	Refer to “Power Cycle the Printer” on page 4-57.
316.629.11	RPC call failure	Refer to “Power Cycle the Printer” on page 4-57.
316.629.26	Fault Service Call to PSW Callback failed	Refer to “Power Cycle the Printer” on page 4-57.
316.629.46	No Acknowledgment to RPC Message. RPC time-out	Refer to “Power Cycle the Printer” on page 4-57.
316.629.67	No acknowledgement for RPC message	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.629.68	No acknowledgement for RPC message	Refer to “Power Cycle the Printer” on page 4-57.
316.629.92	No Acknowledgment to RPC Message. RPC timeout	Refer to “Power Cycle the Printer” on page 4-57.
316.629.93	No Acknowledgment to RPC Message. RPC timeout	Refer to “Power Cycle the Printer” on page 4-57.
316.630.09	Unable to connect to a service using RPC	Refer to “Power Cycle the Printer” on page 4-57.
316.630.26	Fault Service Failed to get RPC Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.630.35	Unable to Get RPC Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.630.38	Client Create Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.630.46	Unable to Get RPC Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.630.47	Unable to get RPC client handle.	Refer to “Power Cycle the Printer” on page 4-57.
316.630.66	Unable to get RPC client handle.	Refer to “Power Cycle the Printer” on page 4-57.
316.630.67	Unable to get RPC client handle.	Refer to “Power Cycle the Printer” on page 4-57.
316.630.68	Unable to get RPC client handle.	Refer to “Power Cycle the Printer” on page 4-57.
316.630.99	Unable to Get RPC Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.631.19	Invalid Event Notification Received	Refer to “Power Cycle the Printer” on page 4-57.
316.631.46	Unexpected Event Notification	Refer to “Power Cycle the Printer” on page 4-57.
316.633.19	NVM Detach Error	Refer to “Power Cycle the Printer” on page 4-57.
316.634.46	Failed to unregister as RPC service during shutdown	Refer to “Power Cycle the Printer” on page 4-57.
316.635.07	Cannot free XDR data	Refer to “Internal Communication Error” on page 3-119.
316.635.35	Can not free XDR data	Refer to “Power Cycle the Printer” on page 4-57.
316.635.46	Unable to Free XDR Data	Refer to “Power Cycle the Printer” on page 4-57.
316.635.99	Can not free XDR data	Refer to “Power Cycle the Printer” on page 4-57.
316.636.35	Unable to unmarshall XDR data	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.636.99	Unable to unmarshall XDR data	Refer to “Power Cycle the Printer” on page 4-57.
316.637.11	Can't open template cache file	Refer to “Power Cycle the Printer” on page 4-57.
316.637.26	Unable to open file.	Refer to “Power Cycle the Printer” on page 4-57.
316.637.38	Unable to Open File for Write	Refer to “Power Cycle the Printer” on page 4-57.
316.637.47	Failed to Open File	Refer to “Power Cycle the Printer” on page 4-57.
316.637.66	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.637.67	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.637.93	Unable to open local file	Refer to “Power Cycle the Printer” on page 4-57.
316.637.95	Unable to open local file	Refer to “Power Cycle the Printer” on page 4-57.
316.638.66	Unable to initialize with Queue Library	Refer to “Power Cycle the Printer” on page 4-57.
316.638.67	Unable to initialize with Queue Library	Refer to “Power Cycle the Printer” on page 4-57.
316.639.38	Create Thread Fault	Refer to “Power Cycle the Printer” on page 4-57.
316.639.46	Pthread create error	Refer to “Power Cycle the Printer” on page 4-57.
316.640.28	RPC call failure	Refer to “Power Cycle the Printer” on page 4-57.
316.640.35	RPC send	Refer to “Power Cycle the Printer” on page 4-57.
316.640.46	Unable to create Semaphore	Refer to “Power Cycle the Printer” on page 4-57.
316.641.00	Cannot log fault to NC Fault Log	Refer to “Power Cycle the Printer” on page 4-57.
316.641.26	Cannot log fault to ESS fault log.	Refer to “Power Cycle the Printer” on page 4-57.
316.641.46	Cannot log fault to NC fault service	Refer to “Power Cycle the Printer” on page 4-57.
316.642.46	Invalid Internal Parameters	Refer to “Power Cycle the Printer” on page 4-57.
316.642.47	Invalid Internal Parameters	Refer to “Power Cycle the Printer” on page 4-57.
316.643.19	Unable to close file	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.643.26	Unable to close file	Refer to “Power Cycle the Printer” on page 4-57.
316.643.47	Failed to Close File	Refer to “Power Cycle the Printer” on page 4-57.
316.644.11	Can't read template cache file	Refer to “Power Cycle the Printer” on page 4-57.
316.644.26	Unable to read from file.	Refer to “Power Cycle the Printer” on page 4-57.
316.644.47	SWVerify Get_next_proc failed	Refer to “Power Cycle the Printer” on page 4-57.
316.644.66	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.644.67	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.645.11	Can't write updated template cache file	Refer to “Power Cycle the Printer” on page 4-57.
316.645.26	Unable to write to file.	Refer to “Power Cycle the Printer” on page 4-57.
316.645.46	Failed to Write File	Refer to “Power Cycle the Printer” on page 4-57.
316.645.47	Failed to Write File	Refer to “Power Cycle the Printer” on page 4-57.
316.645.66	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.645.67	File I/O Error	Refer to “Power Cycle the Printer” on page 4-57.
316.646.26	Failed to delete file.	Refer to “Power Cycle the Printer” on page 4-57.
316.647.19	Unable to get Time and Date	Refer to “Power Cycle the Printer” on page 4-57.
316.647.26	Unable to become Client of Diag Service	Refer to “Power Cycle the Printer” on page 4-57.
316.649.35	Invalid service attribute defaults	Refer to “Power Cycle the Printer” on page 4-57.
316.650.35	Invalid service attribute requested	Refer to “Power Cycle the Printer” on page 4-57.
316.650.99	Invalid service attribute requested	Refer to “Power Cycle the Printer” on page 4-57.
316.651.19	Cannot register for SESS Events	Refer to “Power Cycle the Printer” on page 4-57.
316.651.35	Can not register for SESS events	Refer to “Power Cycle the Printer” on page 4-57.
316.651.99	SPI register failed	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.652.38	Unable to Enroll Spi Callbacks	Refer to “Power Cycle the Printer” on page 4-57.
316.652.99	SPI enroll failed	Refer to “Power Cycle the Printer” on page 4-57.
316.653.38	Error - Invalid Job Handle Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.654.38	Return from spi_register Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.654.99	Return from Log_init Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.655.38	Return from spi_register Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.656.38	RPC Processing Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.658.07	Unable to get host name	Refer to “Internal Communication Error” on page 3-119.
316.659.11	Parser Utility open failure	Refer to “Power Cycle the Printer” on page 4-57.
316.659.28	Parser Utility open failure	Refer to “Power Cycle the Printer” on page 4-57.
316.659.93	Parser Utility open failure	Refer to “Power Cycle the Printer” on page 4-57.
316.659.95	Parser Utility open failure	Refer to “Power Cycle the Printer” on page 4-57.
316.660.95	Cannot read local directory entries	Refer to “Power Cycle the Printer” on page 4-57.
316.660.99	Service initialization failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.661.95	Cannot create spool directory	Refer to “Power Cycle the Printer” on page 4-57.
316.662.11	Parser utility template failed to parse	Refer to “Power Cycle the Printer” on page 4-57.
316.662.28	Parser utility template failed to parse	Refer to “Power Cycle the Printer” on page 4-57.
316.662.93	Parser utility destroy template failed	Refer to “Power Cycle the Printer” on page 4-57.
316.662.95	Parser utility destroy template failed	Refer to “Internal Communication Error” on page 3-119.
316.663.11	Parser utility destroy template failed	Refer to “Power Cycle the Printer” on page 4-57.
316.663.28	Parser utility destroy template failed	Refer to “Power Cycle the Printer” on page 4-57.
316.663.93	Parser utility destroy template failed	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.663.95	Parser utility destroy template failed	Refer to “Internal Communication Error” on page 3-119.
316.664.11	Parser utility parser closing failed	Refer to “Power Cycle the Printer” on page 4-57.
316.664.28	Parser utility parser closing failed	Refer to “Power Cycle the Printer” on page 4-57.
316.664.93	Parser utility parser closing failed	Refer to “Power Cycle the Printer” on page 4-57.
316.664.95	Parser utility parser closing failed	Refer to “Power Cycle the Printer” on page 4-57.
316.665.95	Unable to detach from child thread	Refer to “Power Cycle the Printer” on page 4-57.
316.666.11	Parser utility invocation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.666.28	Parser utility invocation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.666.93	Parser utility invocation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.666.95	Parser utility invocation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.667.11	Parser utility set status failed	Refer to “Power Cycle the Printer” on page 4-57.
316.667.28	Parser utility set status failed	Refer to “Power Cycle the Printer” on page 4-57.
316.667.95	Parser utility set status failed	Refer to “Power Cycle the Printer” on page 4-57.
316.668.47	Write NVM Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.668.93	Unable to determine local file statistics	Refer to “Power Cycle the Printer” on page 4-57.
316.668.95	Unable to determine local file statistics	Refer to “Power Cycle the Printer” on page 4-57.
316.669.28	Unable to write job template file to NC disk	Refer to “Network Controller Internal Error” on page 3-121.
316.669.93	Unable to write job template file to NC disk	Refer to “Power Cycle the Printer” on page 4-57.
316.669.95	Unable to write job template file to NC disk	Refer to “Network Controller Internal Error” on page 3-121.
316.670.00	Unable to lock/unlock data store	Refer to “Power Cycle the Printer” on page 4-57.
316.670.11	Unable to decode template file	Refer to “Power Cycle the Printer” on page 4-57.
316.670.28	Unable to decode template file	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.670.47	Save NVM Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.670.93	Unable to decode template file	Refer to “Power Cycle the Printer” on page 4-57.
316.671.00	Sort jobs failed	Refer to “Power Cycle the Printer” on page 4-57.
316.671.47	Init NVM failed	Refer to “Power Cycle the Printer” on page 4-57.
316.671.93	Unable to encode template file	Refer to “Power Cycle the Printer” on page 4-57.
316.671.95	Unable to encode template file	Refer to “Network Controller Internal Error” on page 3-121.
316.672.09	Unable to remove file from system	Refer to “Power Cycle the Printer” on page 4-57.
316.672.95	Unable to remove file from system	Refer to “Power Cycle the Printer” on page 4-57.
316.673.95	Cannot remove local directory	Refer to “Power Cycle the Printer” on page 4-57.
316.674.00	XSA RPC Server Death	Refer to “Power Cycle the Printer” on page 4-57.
316.674.09	XSA RPC Server Death	Refer to “Power Cycle the Printer” on page 4-57.
316.675.00	XSA Database Server Death	Refer to “Power Cycle the Printer” on page 4-57.
316.700.00	Unknown Attribute Requested	Refer to “Power Cycle the Printer” on page 4-57.
316.700.35	Unknown attribute requested	Refer to “Power Cycle the Printer” on page 4-57.
316.701.00	Unable to communicate with XSA database	Refer to “Power Cycle the Printer” on page 4-57.
316.701.99	Unable to communicate with XSA database	Refer to “Power Cycle the Printer” on page 4-57.
316.702.00	Unable to communicate with XSA database	Refer to “Power Cycle the Printer” on page 4-57.
316.702.95	Unable to communicate with XSA database	Refer to “Power Cycle the Printer” on page 4-57.
316.707.00	Unknown Queue Request received	Refer to “Power Cycle the Printer” on page 4-57.
316.709.00	Unknown Modify request received	Refer to “Power Cycle the Printer” on page 4-57.
316.710.00	NC Internal Communication Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.710.35	IPC send failure	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.716.00	Data Store init failed	Refer to “Power Cycle the Printer” on page 4-57.
316.728.00	Unable to compute Range String	Refer to “Power Cycle the Printer” on page 4-57.
316.730.00	Unable to create Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.730.28	Unable to create Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.730.35	Unable to create client handle	Refer to “Power Cycle the Printer” on page 4-57.
316.730.66	Unable to create Client Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.740.19	Error - NC Hard Disk IIO Failure	Refer to “Network Controller Internal Error” on page 3-121.
316.742.19	On Demand Image overwrite failed.	Refer to “Network Controller Internal Error” on page 3-121.
316.750.07	Message Received from DM not Processed correctly	Refer to “Internal Communication Error” on page 3-119.
316.750.09	Cannot Add existing Service	Refer to “Power Cycle the Printer” on page 4-57.
316.750.11	Template cache file is missing	Refer to “Power Cycle the Printer” on page 4-57.
316.750.14	Retry SNMP event registration	Refer to “Power Cycle the Printer” on page 4-57.
316.750.19	Invalid Online/ Offline request	Refer to “Power Cycle the Printer” on page 4-57.
316.750.26	Invalid number of faults requested	Refer to “Internal Communication Error” on page 3-119.
316.750.35	Queue Service library Initialization failed	Refer to “Power Cycle the Printer” on page 4-57.
316.750.38	Error - SPI Init Fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.750.46	Unknown Object (on Read)	Refer to “Power Cycle the Printer” on page 4-57.
316.750.47	SC Diag Startup failed	Refer to “Power Cycle the Printer” on page 4-57.
316.750.66	Failure to set service state	Refer to “Power Cycle the Printer” on page 4-57.
316.750.67	Failure to set service state	Refer to “Power Cycle the Printer” on page 4-57.
316.750.90	Invalid Queue Service IPC Queue ID	Refer to “Power Cycle the Printer” on page 4-57.
316.750.92	Bad file descriptor	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.750.93	IFS error when requesting memory	Refer to “Power Cycle the Printer” on page 4-57.
316.750.95	Local Spool area does not exist.	Refer to “Power Cycle the Printer” on page 4-57.
316.751.00	Database Error	Refer to “Power Cycle the Printer” on page 4-57.
316.751.07	Message Received from NC AAA not Processed correctly	Refer to “Internal Communication Error” on page 3-119.
316.751.09	Registration receives unrequested ENS notification	Refer to “Power Cycle the Printer” on page 4-57.
316.751.11	Initialization procedure fails	Refer to “Power Cycle the Printer” on page 4-57.
316.751.14	SESS SC event registration failed	Refer to “Power Cycle the Printer” on page 4-57.
316.751.19	Unable to set time / date	Refer to “Power Cycle the Printer” on page 4-57.
316.751.26	Unrecognized Fault Code	Refer to “Power Cycle the Printer” on page 4-57.
316.751.28	Template attributes are invalid, or syntax error.	Refer to “Network Controller Internal Error” on page 3-121.
316.751.35	Failure to initialize with DM Agent	Refer to “Power Cycle the Printer” on page 4-57.
316.751.38	Warning- Unknown Attribute.	Refer to “Power Cycle the Printer” on page 4-57.
316.751.46	Unknown Object (on Write)	Refer to “Power Cycle the Printer” on page 4-57.
316.751.47	SWVerify RepairDir failed	Refer to “Power Cycle the Printer” on page 4-57.
316.751.66	Unable to send event to NC ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.751.67	Unable to send event to NC ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.751.92	Job State Fault	Refer to “Power Cycle the Printer” on page 4-57.
316.751.93	Invalid template attribute	Refer to “Network Controller Internal Error” on page 3-121.
316.752.00	File Cabinet Application Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.752.07	Queue Service Library Initialization Failed	Refer to “Internal Communication Error” on page 3-119.
316.752.09	Attempt to register too many services	Refer to “Power Cycle the Printer” on page 4-57.
316.752.14	Retry SESS Sys Control event registration	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.752.19	Cannot Acknowledge System Mode Change	Refer to “Internal Communication Error” on page 3-119.
316.752.26	Unrecognized SESS Error Code	Refer to “Power Cycle the Printer” on page 4-57.
316.752.28	Template cache file is missing	Refer to “Network Controller Internal Error” on page 3-121.
316.752.35	Failure to initialize with PrintSpi	Refer to “Power Cycle the Printer” on page 4-57.
316.752.46	Invalid table row (on Read)	Refer to “Power Cycle the Printer” on page 4-57.
316.752.47	Invalid Test Pattern Source	Refer to “Power Cycle the Printer” on page 4-57.
316.752.66	Scan to FAX services registration error	Refer to “Power Cycle the Printer” on page 4-57.
316.752.67	Scan to Distribution services registration error	Refer to “Power Cycle the Printer” on page 4-57.
316.752.92	Printspi can't read frame type from data store	Refer to “Internal Communication Error” on page 3-119.
316.752.93	Error accessing job(s) in job list.	Refer to “Power Cycle the Printer” on page 4-57.
316.752.95	File transfer operation failure	Refer to “Power Cycle the Printer” on page 4-57.
316.753.00	File Cabinet Application Un-Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.753.09	No. of services attempt to go below zero	Refer to “Power Cycle the Printer” on page 4-57.
316.753.14	Invalid event number error received by ENS	Refer to “Power Cycle the Printer” on page 4-57.
316.753.19	Unable to send event to NC ENS	Refer to “Internal Communication Error” on page 3-119.
316.753.26	Unable to become Client of PSW	Refer to “Internal Communication Error” on page 3-119.
316.753.28	Cannot communicate with UI for template list request.	Refer to “Network Controller Internal Error” on page 3-121.
316.753.35	Unable to change EJS state to OFF line	Refer to “Power Cycle the Printer” on page 4-57.
316.753.46	Invalid table row (on Write)	Refer to “Power Cycle the Printer” on page 4-57.
316.753.47	Failed to Close Directory	Refer to “Power Cycle the Printer” on page 4-57.
316.753.66	Data Store Read Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.753.67	Data Store Read Failure	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.753.90	Null Return Address	Refer to “Power Cycle the Printer” on page 4-57.
316.753.92	Printspi can't read frame type from data store	Refer to “Internal Communication Error” on page 3-119.
316.753.93	Error adding job(s) in job list.	Refer to “Power Cycle the Printer” on page 4-57.
316.753.95	Requested transfer protocol not supported.	Refer to “Power Cycle the Printer” on page 4-57.
316.754.09	Exiting w/NC services still registered	Refer to “Power Cycle the Printer” on page 4-57.
316.754.14	Event notification via IPC error - no queue	Refer to “Power Cycle the Printer” on page 4-57.
316.754.19	Shutdown Request Reason Unknown	Refer to “Power Cycle the Printer” on page 4-57.
316.754.26	Fault Service encountered error reading fault log	Refer to “Power Cycle the Printer” on page 4-57.
316.754.28	Initialization procedure fails Can not generate SESS event Attempted write of read-only object SWVerify Repair file failed OS problem	Refer to “Power Cycle the Printer” on page 4-57.
316.754.35	Can not generate SESS event	Refer to “Internal Communication Error” on page 3-119.
316.754.46	Attempted write of read-only object	Refer to “Power Cycle the Printer” on page 4-57.
316.754.47	SWVerify Repair file failed	Refer to “Power Cycle the Printer” on page 4-57.
316.754.66	OS problem	Refer to “Power Cycle the Printer” on page 4-57.
316.754.67	OS problem	Refer to “Power Cycle the Printer” on page 4-57.
316.754.68	Initialization procedure fails	Refer to “Power Cycle the Printer” on page 4-57.
316.754.90	Attempt to Free Null Node	Refer to “Power Cycle the Printer” on page 4-57.
316.754.92	Consumer Interface Fault	Refer to “Internal Communication Error” on page 3-119.
316.754.93	Error deleting job(s) from job list.	Refer to “Power Cycle the Printer” on page 4-57.
316.754.95	Unable to remove advisory lock on network server.	Refer to “Power Cycle the Printer” on page 4-57.
316.755.00	Service Registry cannot initialize database.	Refer to “Power Cycle the Printer” on page 4-57.
316.755.09	Unable to register requested service	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.755.14	Event notification via IPC error - full queue	Refer to “Power Cycle the Printer” on page 4-57.
316.755.19	Unable to provide new s/w config. to SESS	Refer to “Power Cycle the Printer” on page 4-57.
316.755.26	Fault Service failed to Clear Fault Log	Refer to “Power Cycle the Printer” on page 4-57.
316.755.28	Cancel Request Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.755.35	Unable to update Data Store attribute	Refer to “Internal Communication Error” on page 3-119.
316.755.46	Object type mismatch	Refer to “Power Cycle the Printer” on page 4-57.
316.755.47	SWVerify Repair permission failed	Refer to “Power Cycle the Printer” on page 4-57.
316.755.67	Cancel Request Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.755.90	Exceeding Queue Array Size	Refer to “Power Cycle the Printer” on page 4-57.
316.755.93	Unable to initialize with IFS	Refer to “Power Cycle the Printer” on page 4-57.
316.755.99	Unable to abort job fault.	Refer to “Power Cycle the Printer” on page 4-57.
316.756.09	Unable to unregister requesting service	Refer to “Power Cycle the Printer” on page 4-57.
316.756.14	RPC creation error: RPC coms to client services error.	Refer to “Power Cycle the Printer” on page 4-57.
316.756.26	Memory Allocation Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.756.35	Unable to read NVM value	Refer to “Power Cycle the Printer” on page 4-57.
316.756.46	ServiceRun loop failed	Refer to “Internal Communication Error” on page 3-119.
316.756.47	SC Run Diagnostic failed	Refer to “Power Cycle the Printer” on page 4-57.
316.756.66	Unable to read NVM value.	Refer to “Power Cycle the Printer” on page 4-57.
316.756.67	Unable to read NVM value.	Refer to “Power Cycle the Printer” on page 4-57.
316.756.93	IPA operation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.757.09	Invalid RPC parameters	Refer to “Power Cycle the Printer” on page 4-57.
316.757.14	RPC Control error	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.757.19	System Manager callback sm_operation complete failed	Refer to “Power Cycle the Printer” on page 4-57.
316.757.26	Fault Service could not close Fault Log	Refer to “Power Cycle the Printer” on page 4-57.
316.757.35	Unable to write NVM value	Refer to “Power Cycle the Printer” on page 4-57.
316.757.46	Failed to get a specific IPC queue	Refer to “Internal Communication Error” on page 3-119.
316.757.47	SWVerify Repair chksum failed	Refer to “Power Cycle the Printer” on page 4-57.
316.757.66	Unable to write NVM value	Refer to “Power Cycle the Printer” on page 4-57.
316.757.67	Unable to write NVM value	Refer to “Power Cycle the Printer” on page 4-57.
316.757.93	Unable to set ICS document state	Refer to “Power Cycle the Printer” on page 4-57.
316.758.09	Invalid service failure reported.	Refer to “Power Cycle the Printer” on page 4-57.
316.758.14	RPC communication error to client	Refer to “Power Cycle the Printer” on page 4-57.
316.758.19	Unable to Unregister Registration Service	Refer to “Power Cycle the Printer” on page 4-57.
316.758.26	Fault Service: Error trying to access queue ID	Refer to “Power Cycle the Printer” on page 4-57.
316.758.35	Unable to change EJS state to OFF line	Refer to “Internal Communication Error” on page 3-119.
316.758.46	Registration Monitor Failure	Refer to “Power Cycle the Printer” on page 4-57.
316.758.47	Error Finding Job Id	Refer to “Power Cycle the Printer” on page 4-57.
316.758.66	ServiceRun loop failed	Refer to “Power Cycle the Printer” on page 4-57.
316.758.67	ServiceRun loop failed	Refer to “Power Cycle the Printer” on page 4-57.
316.758.93	Unable to obtain data store object handle.	Refer to “Power Cycle the Printer” on page 4-57.
316.759.09	Unable to map process death	Refer to “Power Cycle the Printer” on page 4-57.
316.759.14	Request for wildcard from non-NC	Refer to “Power Cycle the Printer” on page 4-57.
316.759.19	NC Failed Cold Reset 3 Times in a Row	Refer to “Internal Communication Error” on page 3-119.
316.759.26	Unrecognized Service ID requesting Fault Information.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.759.46	Failed to disable or enable a process	Refer to “Power Cycle the Printer” on page 4-57.
316.759.47	Failed to Abort Process	Refer to “Power Cycle the Printer” on page 4-57.
316.759.66	OA Event register Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.759.67	OA Event register Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.759.93	Unable to create .DAT file	Refer to “Power Cycle the Printer” on page 4-57.
316.760.09	Scan To File process death	Refer to “Network Controller Internal Error” on page 3-121.
316.760.14	Invalid unregister request	Refer to “Power Cycle the Printer” on page 4-57.
316.760.19	NC Initializing	Refer to “Power Cycle the Printer” on page 4-57.
316.760.26	Unable to become Client of RDT	Refer to “Internal Communication Error” on page 3-119.
316.760.46	Processes is in an unknown state	Refer to “Power Cycle the Printer” on page 4-57.
316.760.47	Incorrect Checksum partition 1	Refer to “Power Cycle the Printer” on page 4-57.
316.760.67	Create List Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.760.68	SRS returns invalid or missing data	Refer to “Power Cycle the Printer” on page 4-57.
316.760.93	Job report failure from CCM.	Refer to “Internal Communication Error” on page 3-119.
316.760.99	Request for system policy failed	Refer to “Power Cycle the Printer” on page 4-57.
316.761.09	LPD process death	Refer to “Network Controller Internal Error” on page 3-121.
316.761.14	Invalid RPC data	Refer to “Power Cycle the Printer” on page 4-57.
316.761.19	NC Shutting Down	Refer to “Power Cycle the Printer” on page 4-57.
316.761.26	Unable to become Client of UI	Refer to “Internal Communication Error” on page 3-119.
316.761.46	Ethernet status file error	Refer to “Network Controller Internal Error” on page 3-121.
316.761.47	SWVerify Init File failed	Refer to “Power Cycle the Printer” on page 4-57.
316.761.67	Failed to Retrieve Public List	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.761.68	Login gets no response from SRS (No IPC Response?)	Refer to “Power Cycle the Printer” on page 4-57.
316.761.93	Image conversion to TIFF failed Unable to read template pool.	Refer to “Power Cycle the Printer” on page 4-57.
316.761.95	Unable to read template pool.	Refer to “Internal Communication Error” on page 3-119.
316.762.09	Netware process death	Refer to “Network Controller Internal Error” on page 3-121.
316.762.14	Invalid internal table type. DC Platform Mgr Comm Error	Refer to “Power Cycle the Printer” on page 4-57.
316.762.19	DC Platform Mgr Comm Error	Refer to “Internal Communication Error” on page 3-119.
316.762.26	Unable to become client of SCS Diag Service.	Refer to “Power Cycle the Printer” on page 4-57.
316.762.46	Token ring status file error	Refer to “Network Controller Internal Error” on page 3-121.
316.762.47	Missing File	Refer to “Power Cycle the Printer” on page 4-57.
316.762.67	Invalid Index for Recipient List	Refer to “Power Cycle the Printer” on page 4-57.
316.762.68	Service Registry Bad data / Corrupted.	Refer to “Power Cycle the Printer” on page 4-57.
316.762.93	IFSImageDoneX call failed	Refer to “Power Cycle the Printer” on page 4-57.
316.762.95	Unable to read document repository.	Refer to “Internal Communication Error” on page 3-119.
316.763.09	NetBios process death	Refer to “Network Controller Internal Error” on page 3-121.
316.763.14	Reached internal limit for events	Refer to “Power Cycle the Printer” on page 4-57.
316.763.19	System Manager Comm Error No acknowledgment to RPC message. RPC time-out.	Refer to “Internal Communication Error” on page 3-119.
316.763.26	No acknowledgment to RPC message. RPC time-out.	Refer to “Power Cycle the Printer” on page 4-57.
316.763.46	DHCP status file error.	Refer to “Network Controller Internal Error” on page 3-121.
316.763.47	Invalid Permission	Refer to “Power Cycle the Printer” on page 4-57.
316.763.67	Failed to Retrieve LDAP List	Refer to “Power Cycle the Printer” on page 4-57.
316.763.93	Document image count not found.	Refer to “Power Cycle the Printer” on page 4-57.
316.763.95	Internal destination error	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.764.09	AppleTalk process death	Refer to “Network Controller Internal Error” on page 3-121.
316.764.14	Internal Logic error	Refer to “Power Cycle the Printer” on page 4-57.
316.764.19	Set Up of the SIGALRM Signal failed	Refer to “Power Cycle the Printer” on page 4-57.
316.764.46	RARP status file error	Refer to “Network Controller Internal Error” on page 3-121.
316.764.47	Incorrect Checksum partition 2	Refer to “Power Cycle the Printer” on page 4-57.
316.764.67	Create List Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.765.09	Banyan Vines process death	Refer to “Network Controller Internal Error” on page 3-121.
316.765.19	SystemMgr call failed	Refer to “Power Cycle the Printer” on page 4-57.
316.765.46	Failed to clear SM status	Refer to “Power Cycle the Printer” on page 4-57.
316.765.47	Novell Daemon not running	Refer to “Network Controller Internal Error” on page 3-121.
316.765.67	Failed to Retrieve Recipient List	Refer to “Power Cycle the Printer” on page 4-57.
316.765.93	Unable to access data store	Refer to “Power Cycle the Printer” on page 4-57.
316.766.09	Adobe process failure	Refer to “Network Controller Internal Error” on page 3-121.
316.766.19	DM admin error	Refer to “Network Controller Internal Error” on page 3-121.
316.766.46	Failed to set SM status	Refer to “Power Cycle the Printer” on page 4-57.
316.766.47	No Servers Responded	Refer to “Power Cycle the Printer” on page 4-57.
316.766.67	Failed to Bind to LDAP Server	Refer to “Power Cycle the Printer” on page 4-57.
316.766.93	TIFF handle has become null	Refer to “Power Cycle the Printer” on page 4-57.
316.766.95	Cannot create Image file name	Refer to “Power Cycle the Printer” on page 4-57.
316.767.09	HP PCL process death	Refer to “Network Controller Internal Error” on page 3-121.
316.767.19	Request to cancel spooling job error	Refer to “Power Cycle the Printer” on page 4-57.
316.767.46	Failed to send SESS alert/event	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.767.47	Server in Config list not up.	Refer to “Power Cycle the Printer” on page 4-57.
316.767.67	Error performing LDAP search	Refer to “Power Cycle the Printer” on page 4-57.
316.767.93	Get Document Image Count failed	Refer to “Power Cycle the Printer” on page 4-57.
316.767.95	Cannot determine filing policy for transfer.	Refer to “Power Cycle the Printer” on page 4-57.
316.768.09	Parallel process death	Refer to “Network Controller Internal Error” on page 3-121.
316.768.19	Hold/release of jobs error	Refer to “Power Cycle the Printer” on page 4-57.
316.768.46	Request had invalid parameters	Refer to “Power Cycle the Printer” on page 4-57.
316.768.47	NC Not Attached to Server	Refer to “Network Controller Internal Error” on page 3-121.
316.768.67	Error performing Public search	Refer to “Power Cycle the Printer” on page 4-57.
316.768.93	Increment image count failed	Refer to “Power Cycle the Printer” on page 4-57.
316.768.95	Cannot get Network advisory lock file name.	Refer to “Power Cycle the Printer” on page 4-57.
316.769.09	HTTP process death	Refer to “Network Controller Internal Error” on page 3-121.
316.769.19	Novell Network communications error	Refer to “Network Controller Internal Error” on page 3-121.
316.769.46	Config Methods library error	Refer to “Power Cycle the Printer” on page 4-57.
316.769.47	NC Not Attached to print queue	Refer to “Network Controller Internal Error” on page 3-121.
316.769.67	Failed to Cancel Search Request	Refer to “Power Cycle the Printer” on page 4-57.
316.769.93	IFS deregister call failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.769.95	Cannot determine appropriate lock name/ address. Unexpected process death	Refer to “Power Cycle the Printer” on page 4-57.
316.770.09	Unexpected process death	Refer to “Network Controller Internal Error” on page 3-121.
316.770.19	Online/Offline request time out	Refer to “Network Controller Internal Error” on page 3-121.
316.770.46	Cannot register for SESS events	Refer to “Power Cycle the Printer” on page 4-57.
316.770.47	Attached to Queue and Server	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.770.67	Required attribute missing.	Refer to “Power Cycle the Printer” on page 4-57.
316.771.09	Print Service EJS process death	Refer to “Power Cycle the Printer” on page 4-57.
316.771.19	Online/Offline callback failure	Refer to “Power Cycle the Printer” on page 4-57.
316.771.46	Internal error with Synchronizer queue.	Refer to “Power Cycle the Printer” on page 4-57.
316.771.47	Novell Config Info Failure	Refer to “Network Controller Internal Error” on page 3-121.
316.772.09	NC Print SPI process death	Refer to “Power Cycle the Printer” on page 4-57.
316.772.19	Failure to set NC Platform Manager service state	Refer to “Power Cycle the Printer” on page 4-57.
316.772.46	TCPIP status file error.	Refer to “Network Controller Internal Error” on page 3-121.
316.772.47	RPC Failure for communication	Refer to “Power Cycle the Printer” on page 4-57.
316.772.95	Invalid transfer request	Refer to “Power Cycle the Printer” on page 4-57.
316.773.09	NC Print Service Surrogate process death	Refer to “Power Cycle the Printer” on page 4-57.
316.773.19	Unknown client requested online/offline	Refer to “Power Cycle the Printer” on page 4-57.
316.773.46	Failed requesting platform reset.	Refer to “Network Controller Internal Error” on page 3-121.
316.774.09	NC Protocol Module process death	Refer to “Power Cycle the Printer” on page 4-57.
316.774.19	Can not obtain RPC connection	Refer to “Power Cycle the Printer” on page 4-57.
316.774.46	BOOTP status file error.	Refer to “Network Controller Internal Error” on page 3-121.
316.775.19	Can not obtain Data Store handle for server object	Refer to “Power Cycle the Printer” on page 4-57.
316.775.46	TCPIP missing config data.	Refer to “Network Controller Internal Error” on page 3-121.
316.775.95	Cannot create temporary file name	Refer to “Power Cycle the Printer” on page 4-57.
316.776.09	NC Fault Service process death	Refer to “Internal Communication Error” on page 3-119.
316.776.19	Can not delete jobs using Job Map library	Refer to “Power Cycle the Printer” on page 4-57.
316.776.46	TCPIP invalid interface.	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.776.95	Cannot clean up after job completion.	Refer to “Power Cycle the Printer” on page 4-57.
316.777.09	NC Completed Job Log Service/SPI process death	Refer to “Power Cycle the Printer” on page 4-57.
316.777.19	Can not access Data Store element	Refer to “Power Cycle the Printer” on page 4-57.
316.777.46	TCPIP invalid addressing.	Refer to “Network Controller Internal Error” on page 3-121.
316.777.95	Cannot log into requested network server	Refer to “Power Cycle the Printer” on page 4-57.
316.778.09	NC Configuration Utility process death	Refer to “Power Cycle the Printer” on page 4-57.
316.778.19	Invalid Enable Demo Job setting	Refer to “Power Cycle the Printer” on page 4-57.
316.778.46	TCPIP socket failure	Refer to “Network Controller Internal Error” on page 3-121.
316.778.95	Cannot generate confirmation sheet.	Refer to “Power Cycle the Printer” on page 4-57.
316.779.00	Power Save Complete callback failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.779.09	NC Diagnostic Service process death	Refer to “Power Cycle the Printer” on page 4-57.
316.779.19	Power Save Complete callback failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.779.46	TCPIP interface attach.	Refer to “Network Controller Internal Error” on page 3-121.
316.779.47	SESS IPX test failed on open for send	Refer to “Network Controller Internal Error” on page 3-121.
316.779.95	Cannot create the template / job log name.	Refer to “Power Cycle the Printer” on page 4-57.
316.780.00	Power Saver request time out	Refer to “Power Cycle the Printer” on page 4-57.
316.780.09	NC Authentication SPI process death	Refer to “Power Cycle the Printer” on page 4-57.
316.780.19	Power Saver request time out	Refer to “Power Cycle the Printer” on page 4-57.
316.780.46	TCPIP enable interface.	Refer to “Network Controller Internal Error” on page 3-121.
316.780.47	SESS IPX test failed on open for receive	Refer to “Network Controller Internal Error” on page 3-121.
316.780.95	Cannot determine the remote directory	Refer to “Power Cycle the Printer” on page 4-57.
316.781.09	NC Counters Utility process death	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.781.19	Network Upgrade Checksum Error	Refer to “Power Cycle the Printer” on page 4-57.
316.781.46	TCPIP NVRAM Failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.781.47	SESS IPX test failed on bind for send	Refer to “Network Controller Internal Error” on page 3-121.
316.782.09	NC Configuration Synchronization process failure	Refer to “Power Cycle the Printer” on page 4-57.
316.782.19	SW Upgrade manifest mismatch	Refer to “Power Cycle the Printer” on page 4-57.
316.782.46	TCPIP Gateway Failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.782.47	SESS IPX test failed on bind for receive	Refer to “Network Controller Internal Error” on page 3-121.
316.783.09	Unable to send sc_proc_disable()	Refer to “Power Cycle the Printer” on page 4-57.
316.783.19	NC Failure to enter upgrade mode	Refer to “Power Cycle the Printer” on page 4-57.
316.783.46	TCPIP host file failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.783.47	SESS IPX test send failure	Refer to “Network Controller Internal Error” on page 3-121.
316.784.09	Missing service type	Refer to “Power Cycle the Printer” on page 4-57.
316.784.19	Upgrade aborted - IOT failed to enter Upgrade Mode	Refer to “Power Cycle the Printer” on page 4-57.
316.784.46	TCPIP Resolve File Failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.784.47	SESS IPX test receive failure	Refer to “Network Controller Internal Error” on page 3-121.
316.785.09	NC SNMP Agent process failure	Refer to “Network Controller Internal Error” on page 3-121.
316.785.19	Upgrade aborted - UI failed to enter Upgrade Mode	Refer to “Power Cycle the Printer” on page 4-57.
316.785.46	TCPIP Resolve File Failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.785.47	SESS IPX test bad data in receive	Refer to “Network Controller Internal Error” on page 3-121.
316.786.09	Token Ring process death	Refer to “Network Controller Internal Error” on page 3-121.
316.786.19	NC failure to uncompress upgrade file	Refer to “Power Cycle the Printer” on page 4-57.
316.786.46	TCPIP ELT File Failure.	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.786.47	SESS IPX test unknown error	Refer to “Network Controller Internal Error” on page 3-121.
316.787.09	Sub agent process death	Refer to “Network Controller Internal Error” on page 3-121.
316.787.19	IOT SW Upgrade failed	Refer to “Internal Communication Error” on page 3-119.
316.787.46	TCPIP IPC failure.	Refer to “Network Controller Internal Error” on page 3-121.
316.787.47	SESS Apple test zip failure - network unreachable	Refer to “Network Controller Internal Error” on page 3-121.
316.788.09	Serial process death	Refer to “Network Controller Internal Error” on page 3-121.
316.788.19	NC PM Failed to install Scan to File	Refer to “Power Cycle the Printer” on page 4-57.
316.788.46	Dynamic DNS status file error	Refer to “Network Controller Internal Error” on page 3-121.
316.788.47	SESS Apple test no zones found	Refer to “Network Controller Internal Error” on page 3-121.
316.789.09	Connectivity Configuration Server process death	Refer to “Network Controller Internal Error” on page 3-121.
316.789.19	NC PM Failed to install LAN FAX	Refer to “Power Cycle the Printer” on page 4-57.
316.789.46	Autonet status file error	Refer to “Network Controller Internal Error” on page 3-121.
316.789.47	SESS Apple test unknown error	Refer to “Network Controller Internal Error” on page 3-121.
316.790.09	Lan Fax process death	Refer to “Network Controller Internal Error” on page 3-121.
316.790.19	NC PM Failed to install Job Based Accounting	Refer to “Power Cycle the Printer” on page 4-57.
316.790.47	SESS Banyan test unknown error	Refer to “Network Controller Internal Error” on page 3-121.
316.791.09	Accounting process death	Refer to “Power Cycle the Printer” on page 4-57.
316.791.19	Scan to File DLM is not defined.	Refer to “Power Cycle the Printer” on page 4-57.
316.791.46	DHCP for IPv6 failed	Refer to “Power Cycle the Printer” on page 4-57.
316.791.47	SESS Banyan test no network	Refer to “Network Controller Internal Error” on page 3-121.
316.792.09	Tiff process death	Refer to “Power Cycle the Printer” on page 4-57.
316.792.19	Lan Fax DLM is not defined.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.792.47	SESS Banyan test open failure	Refer to “Network Controller Internal Error” on page 3-121.
316.793.09	Port9100 process death	Refer to “Power Cycle the Printer” on page 4-57.
316.793.19	Job Based Accounting DLM is not defined.	Refer to “Power Cycle the Printer” on page 4-57.
316.793.47	SESS Banyan test echo failure	Refer to “Network Controller Internal Error” on page 3-121.
316.794.09	Cross platform synchronization error.	Refer to “Power Cycle the Printer” on page 4-57.
316.794.19	Install Password mismatch.	Refer to “Power Cycle the Printer” on page 4-57.
316.794.47	SESS Banyan test no servers	Refer to “Network Controller Internal Error” on page 3-121.
316.795.09	Slpsa process death	Refer to “Network Controller Internal Error” on page 3-121.
316.795.19	NC PM Failed to remove LAN FAX	Refer to “Power Cycle the Printer” on page 4-57.
316.795.47	SESS NetBIOS test no lanas found	Refer to “Network Controller Internal Error” on page 3-121.
316.796.09	SSDP process death	Refer to “Network Controller Internal Error” on page 3-121.
316.796.19	NC PM Failed to remove Scan to File	Refer to “Power Cycle the Printer” on page 4-57.
316.796.47	SESS NetBIOS test invalid command	Refer to “Network Controller Internal Error” on page 3-121.
316.797.09	USB process death	Refer to “Network Controller Internal Error” on page 3-121.
316.797.19	NC PM Failed to remove Job Based Accounting	Refer to “Power Cycle the Printer” on page 4-57.
316.797.47	SESS NetBIOS test interface busy	Refer to “Network Controller Internal Error” on page 3-121.
316.798.09	POP3 process death	Refer to “Network Controller Internal Error” on page 3-121.
316.798.19	Option already enabled.	Refer to “Power Cycle the Printer” on page 4-57.
316.798.47	SESS NetBIOS test too many commands	Refer to “Network Controller Internal Error” on page 3-121.
316.799.09	SMTP process death	Refer to “Network Controller Internal Error” on page 3-121.
316.799.19	Option already enabled.	Refer to “Power Cycle the Printer” on page 4-57.
316.799.47	SESS NetBIOS test invalid adapter	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.800.09	List access failure (Create, add, find, delete)	Refer to “Power Cycle the Printer” on page 4-57.
316.800.19	Option not supported.	Refer to “Power Cycle the Printer” on page 4-57.
316.800.46	Ethernet Initialization failure	Refer to “Network Controller Internal Error” on page 3-121.
316.800.47	SESS NetBIOS test cannot cancel	Refer to “Network Controller Internal Error” on page 3-121.
316.801.09	Invalid SESS event/IPC error.	Refer to “Power Cycle the Printer” on page 4-57.
316.801.19	Serial Number mismatch.	Refer to “Power Cycle the Printer” on page 4-57.
316.801.46	Token Ring Initialization failure	Refer to “Network Controller Internal Error” on page 3-121.
316.801.47	SESS NetBIOS test oem x (unusual network problem)	Refer to “Network Controller Internal Error” on page 3-121.
316.802.09	Invalid SESS event/IPC error.	Refer to “Power Cycle the Printer” on page 4-57.
316.802.19	Counters do not match.	Refer to “Power Cycle the Printer” on page 4-57.
316.802.46	DHCP Initialization failure	Refer to “Network Controller Internal Error” on page 3-121.
316.802.47	SESS NetBIOS test adapter malfunction	Refer to “Network Controller Internal Error” on page 3-121.
316.803.09	Invalid SESS event/IPC error.	Refer to “Power Cycle the Printer” on page 4-57.
316.803.46	RARP Initialization failure	Refer to “Network Controller Internal Error” on page 3-121.
316.803.47	SESS NetBIOS test cannot init token ring	Refer to “Network Controller Internal Error” on page 3-121.
316.804.09	Invalid SESS event/IPC error.	Refer to “Power Cycle the Printer” on page 4-57.
316.804.47	SESS NetBIOS test no cable connected to board	Refer to “Network Controller Internal Error” on page 3-121.
316.805.09	Invalid SESS event/IPC error.	Refer to “Power Cycle the Printer” on page 4-57.
316.805.19	Accounting install failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.805.47	SESS NetBIOS test could not join ring	Refer to “Network Controller Internal Error” on page 3-121.
316.806.00	CPI service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.806.09	CPI service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.806.19	Counters did not increment.	Refer to “Power Cycle the Printer” on page 4-57.
316.806.47	SESS NetBIOS test cable not connected to MAU	Refer to “Network Controller Internal Error” on page 3-121.
316.807.00	JobLog Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.807.09	Job Log service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.807.19	State change failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.807.47	SESS NetBIOS test memory allocation error	Refer to “Network Controller Internal Error” on page 3-121.
316.808.00	Job Tracker Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.808.09	JobTracker service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.808.47	SESS NetBIOS test no more minor devices available	Refer to “Network Controller Internal Error” on page 3-121.
316.809.00	Kerberos Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.809.09	Kerberos service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.809.47	SESS NetBIOS test token ring board was stopped	Refer to “Network Controller Internal Error” on page 3-121.
316.810.00	Scan To Distribution Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.810.09	Scan Service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.810.19	Failed to remove Accounting.	Refer to “Power Cycle the Printer” on page 4-57.
316.810.47	SESS NetBIOS test network is bad	Refer to “Network Controller Internal Error” on page 3-121.
316.811.00	SMB Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.811.09	SMB service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.811.19	Failed to initiate operation.	Refer to “Power Cycle the Printer” on page 4-57.
316.811.47	SESS NetBIOS test command timed out	Refer to “Network Controller Internal Error” on page 3-121.
316.812.00	TCP/IP Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.812.09	TCPIP service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.812.19	Failed to change the enable upgrade flag.	Refer to “Power Cycle the Printer” on page 4-57.
316.812.47	SESS NetBIOS test message incomplete	Refer to “Network Controller Internal Error” on page 3-121.
316.813.00	WS Scan Temp Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.813.09	Scan Service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.813.47	SESS NetBIOS test no resources on local adapter	Refer to “Network Controller Internal Error” on page 3-121.
316.814.00	Scan Compressor Service Death Error	Refer to “Power Cycle the Printer” on page 4-57.
316.814.09	Scan Compressor service unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.814.47	SESS NetBIOS test duplicate name in local name table	Refer to “Network Controller Internal Error” on page 3-121.
316.815.09	Service Registry process death	Refer to “Power Cycle the Printer” on page 4-57.
316.815.47	SESS NetBIOS test name table is full	Refer to “Network Controller Internal Error” on page 3-121.
316.816.47	SESS NetBIOS test unexpected protocol received	Refer to “Network Controller Internal Error” on page 3-121.
316.817.47	SESS NetBIOS test NetBIOS/ix being reset	Refer to “Network Controller Internal Error” on page 3-121.
316.818.47	SESS NetBIOS test NetBIOS/ix being stopped	Refer to “Network Controller Internal Error” on page 3-121.
316.819.47	SESS NetBIOS test NetBIOS/ix not loaded	Refer to “Network Controller Internal Error” on page 3-121.
316.820.47	SESS NetBIOS test NetBIOS/ix not running	Refer to “Network Controller Internal Error” on page 3-121.
316.821.47	SESS NetBIOS test MAC driver went offline	Refer to “Network Controller Internal Error” on page 3-121.
316.822.47	SESS NetBIOS test error during reset	Refer to “Network Controller Internal Error” on page 3-121.
316.823.47	SESS NetBIOS test unknown error	Refer to “Network Controller Internal Error” on page 3-121.
316.824.47	SESS UNIX test unknown error	Refer to “Network Controller Internal Error” on page 3-121.
316.825.47	Echo Test Failure; SESS diag name not found	Refer to “Network Controller Internal Error” on page 3-121.
316.826.47	SESS Apple test zip failure - system error	Refer to “Network Controller Internal Error” on page 3-121.
316.827.47	SESS Apple test zip failure - invalid parameters	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.828.47	SESS Apple test zip failure - no router found	Refer to “Network Controller Internal Error” on page 3-121.
316.829.47	SESS Apple test zip failure - unknown zip error	Refer to “Network Controller Internal Error” on page 3-121.
316.830.47	GetNetData IP Diagnostic - failed to get default router.	Refer to “Network Controller Internal Error” on page 3-121.
316.831.47	GetNetData IP Diagnostic - failed to get subnet mask.	Refer to “Network Controller Internal Error” on page 3-121.
316.832.47	GetNetData IP Diagnostic - failed to get local devices.	Refer to “Network Controller Internal Error” on page 3-121.
316.833.47	GetNetData IP Diagnostic - failed on ARP.	Refer to “Network Controller Internal Error” on page 3-121.
316.834.47	Novell GetNetData - failed getting default file server	Refer to “Network Controller Internal Error” on page 3-121.
316.835.47	Novell GetNetData - failed getting frame type	Refer to “Network Controller Internal Error” on page 3-121.
316.836.47	Novell GetNetData - failed to init netwar	Refer to “Network Controller Internal Error” on page 3-121.
316.837.47	GetNetData - Diagnostic Name not found	Refer to “Network Controller Internal Error” on page 3-121.
316.838.47	SWVerify Setup Alarm Failed	Refer to “Network Controller Internal Error” on page 3-121.
316.839.47	SWVerify Repair Filelength Failed	Refer to “Network Controller Internal Error” on page 3-121.
316.840.47	System call failed	Refer to “Network Controller Internal Error” on page 3-121.
316.841.47	SWVerify Missing Directory	Refer to “Network Controller Internal Error” on page 3-121.
316.842.47	SWVerify Process Not Running	Refer to “Network Controller Internal Error” on page 3-121.
316.843.47	SWVerify Repair Timeout	Refer to “Network Controller Internal Error” on page 3-121.
316.844.47	Failed to save data to NVM	Refer to “Power Cycle the Printer” on page 4-57.
316.845.47	Failed to initialize NVM	Refer to “Power Cycle the Printer” on page 4-57.
316.846.47	Failed to restore contents of NVM	Refer to “Power Cycle the Printer” on page 4-57.
316.847.47	Failed to write value to NVM	Refer to “Power Cycle the Printer” on page 4-57.
316.848.47	Failed to read faults	Refer to “Power Cycle the Printer” on page 4-57.
316.849.47	Failed to create command array	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.850.47	Failed to add substitution string	Refer to “Power Cycle the Printer” on page 4-57.
316.851.47	Failed calling stream editor	Refer to “Power Cycle the Printer” on page 4-57.
316.852.47	Failed to process fault for error report	Refer to “Power Cycle the Printer” on page 4-57.
316.853.47	Failed to get last reset time	Refer to “Power Cycle the Printer” on page 4-57.
316.854.47	Failed on call to fault service	Refer to “Power Cycle the Printer” on page 4-57.
316.855.47	Failed on call send event	Refer to “Power Cycle the Printer” on page 4-57.
316.856.47	Failed on system command	Refer to “Power Cycle the Printer” on page 4-57.
316.857.47	Failed to find process	Refer to “Power Cycle the Printer” on page 4-57.
316.858.47	Failed to dump log	Refer to “Power Cycle the Printer” on page 4-57.
316.859.47	Failed on software verify	Refer to “Power Cycle the Printer” on page 4-57.
316.860.47	No response for IP Ping Test	Refer to “Network Controller Internal Error” on page 3-121.
316.861.47	Registration Monitor Failure.	Refer to “Power Cycle the Printer” on page 4-57.
316.862.47	SESS NETBIOS test invalid cancel command.	Refer to “Network Controller Internal Error” on page 3-121.
316.863.47	SESS NETBIOS test illegal buffer length.	Refer to “Network Controller Internal Error” on page 3-121.
316.864.47	SESS NETBIOS test illegal local session number.	Refer to “Network Controller Internal Error” on page 3-121.
316.865.47	SESS NETBIOS test session closed.	Refer to “Network Controller Internal Error” on page 3-121.
316.866.47	SESS NETBIOS test command canceled.	Refer to “Network Controller Internal Error” on page 3-121.
316.867.47	SESS NETBIOS test name deregistered.	Refer to “Network Controller Internal Error” on page 3-121.
316.868.47	SESS NETBIOS test local session table full.	Refer to “Network Controller Internal Error” on page 3-121.
316.869.47	SESS NETBIOS test no listen in remote computer	Refer to “Network Controller Internal Error” on page 3-121.
316.870.47	SESS NETBIOS test illegal name number.	Refer to “Network Controller Internal Error” on page 3-121.
316.871.47	SESS NETBIOS test cannot find name or no answer.	Refer to “Network Controller Internal Error” on page 3-121.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.872.47	SESS NETBIOS test name in use.	Refer to “Network Controller Internal Error” on page 3-121.
316.873.47	SESS NETBIOS test name deleted.	Refer to “Network Controller Internal Error” on page 3-121.
316.874.47	SESS NETBIOS test session abended.	Refer to “Network Controller Internal Error” on page 3-121.
316.875.47	SESS NETBIOS test name conflict.	Refer to “Network Controller Internal Error” on page 3-121.
316.876.47	SW verify setup SIGTERM Failed.	Refer to “Network Controller Internal Error” on page 3-121.
316.877.47	SESS PCI test unknown error.	Refer to “Network Controller Internal Error” on page 3-121.
316.878.47	SESS PCI test failed to open driver.	Refer to “Network Controller Internal Error” on page 3-121.
316.879.47	SESS PCI test failed flushing stream buffer.	Refer to “Network Controller Internal Error” on page 3-121.
316.880.47	SESS PCI test failed on put msg call.	Refer to “Network Controller Internal Error” on page 3-121.
316.881.47	SESS PCI test invalid argument.	Refer to “Network Controller Internal Error” on page 3-121.
316.882.47	SESS PCI test failed on put msg call.	Refer to “Network Controller Internal Error” on page 3-121.
316.883.47	SESS PCI test failed on ioctl call.	Refer to “Network Controller Internal Error” on page 3-121.
316.884.47	SESS PCI test control flag area too small.	Refer to “Network Controller Internal Error” on page 3-121.
316.885.47	SESS PCI test driver not initialized.	Refer to “Network Controller Internal Error” on page 3-121.
316.886.47	SESS PCI test info request failed.	Refer to “Network Controller Internal Error” on page 3-121.
316.887.47	SESS PCI test driver failed to register.	Refer to “Network Controller Internal Error” on page 3-121.
316.888.47	SESS PCI test driver failed to unregister.	Refer to “Network Controller Internal Error” on page 3-121.
316.889.47	SW verify get data failed.	Refer to “Network Controller Internal Error” on page 3-121.
316.890.47	SW verify get next proc failed.	Refer to “Network Controller Internal Error” on page 3-121.
316.891.00	Edge server auto registration failed	Refer to “Power Cycle the Printer” on page 4-57.
316.892.00	Edge server communication failed	Refer to “Power Cycle the Printer” on page 4-57.
316.900.19	Failed to open on SMC driver.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.901.19	Failed to make ioctl call using SMC driver.	Refer to “Power Cycle the Printer” on page 4-57.
316.902.19	Address specified is invalid.	Refer to “Power Cycle the Printer” on page 4-57.
316.903.19	Result from ioctl does not match FD.	Refer to “Power Cycle the Printer” on page 4-57.
316.904.19	Invalid ioctl request.	Refer to “Power Cycle the Printer” on page 4-57.
316.905.19	Unknown ioctl failure.	Refer to “Power Cycle the Printer” on page 4-57.
316.906.19	Malloc failed for net upgrade.	Refer to “Power Cycle the Printer” on page 4-57.
316.908.19	Error opening File.	Refer to “Power Cycle the Printer” on page 4-57.
316.909.19	Error transfer data to CCM.	Refer to “Internal Communication Error” on page 3-119.
316.910.19	Failed to untar File.	Refer to “Power Cycle the Printer” on page 4-57.
316.911.19	Error changing directory.	Refer to “Power Cycle the Printer” on page 4-57.
316.912.19	Install script did not execute.	Refer to “Power Cycle the Printer” on page 4-57.
316.913.19	Write failure to File.	Refer to “Power Cycle the Printer” on page 4-57.
316.914.19	Shared memory was corrupted.	Refer to “Power Cycle the Printer” on page 4-57.
316.915.19	Open failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.916.19	CRC Failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.917.19	Failed to close on checksum.	Refer to “Power Cycle the Printer” on page 4-57.
316.918.19	CRC comparison failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.919.19	Restart request failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.920.19	ELT Daemon start failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.922.19	NVM store failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.923.19	Failed saving persistent data.	Refer to “Power Cycle the Printer” on page 4-57.
316.924.19	Failed in restoring persistent data.	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.925.19	Failed saving web config data.	Refer to “Power Cycle the Printer” on page 4-57.
316.926.19	Failed to save data store values.	Refer to “Power Cycle the Printer” on page 4-57.
316.927.19	Failed to restore web config data.	Refer to “Power Cycle the Printer” on page 4-57.
316.928.19	Failed to install files.	Refer to “Power Cycle the Printer” on page 4-57.
316.929.19	Failed to restore data store values.	Refer to “Power Cycle the Printer” on page 4-57.
316.930.19	Failed to remove jobs.	Refer to “Power Cycle the Printer” on page 4-57.
316.931.19	Failed to close on SMC driver.	Refer to “Power Cycle the Printer” on page 4-57.
316.932.19	NVM write failure.	Refer to “Power Cycle the Printer” on page 4-57.
316.933.19	Failed to remove File.	Refer to “Power Cycle the Printer” on page 4-57.
316.934.19	Job Based Accounting not enough dc memory.	Refer to “Power Cycle the Printer” on page 4-57.
316.935.19	Auto-Upgrade failed Cannot read/write attributes to machine.	Refer to “Power Cycle the Printer” on page 4-57.
316.936.19	Auto-Upgrade failed Cannot connect to remote server.	Refer to “Network Controller Internal Error” on page 3-121.
316.937.19	Auto-Upgrade failed Cannot login to remote server.	Refer to “Network Controller Internal Error” on page 3-121.
316.938.19	Auto-Upgrade failed Cannot access directory on remote server.	Refer to “Network Controller Internal Error” on page 3-121.
316.939.19	Auto-Upgrade failed. Multiple upgrade files found on remote server.	Refer to “Power Cycle the Printer” on page 4-57.
316.940.19	Auto-Upgrade failed Machine is in diagnostics mode.	Refer to “Power Cycle the Printer” on page 4-57.
316.941.19	Auto-Upgrade failed. NC to CCS Coms failure.	Refer to “Internal Communication Error” on page 3-119.
316.942.19	Auto-Upgrade failed. Upgrade file is invalid.	Refer to “Power Cycle the Printer” on page 4-57.
316.943.19	Auto-Upgrade failed. File is invalid. Installed software is more recent.	Refer to “Power Cycle the Printer” on page 4-57.
316.944.19	Auto-Upgrade failed. File is invalid. Corruption detected.	Refer to “Power Cycle the Printer” on page 4-57.
316.945.19	Auto-Upgrade failed - File not valid for machine.	Refer to “Power Cycle the Printer” on page 4-57.
316.946.19	Failed to install Scan to Email.	Refer to “Internal Communication Error” on page 3-119.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.947.19	Failed to install internet Fax.	Refer to “Fax Troubleshooting” on page 4-65.
316.948.19	Remove of Scan to Email option failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.949.19	Remove of Internet Fax option failed.	Refer to “Power Cycle the Printer” on page 4-57.
316.950.19	Scan to Email image processing hardware not available.	Refer to “Internal Communication Error” on page 3-119.
316.951.19	Internet fax image processing hardware not available.	Refer to “Internal Communication Error” on page 3-119.
316.952.19	Scan to Email memory size error.	Refer to “Internal Communication Error” on page 3-119.
316.953.19	Internet fax memory size error.	Refer to “Fax Troubleshooting” on page 4-65.
316.954.19	Internet Fax Application Registration Error	Refer to “Internal Communication Error” on page 3-119.
316.955.19	Internet Fax Application Un-Registration Error	Refer to “Internal Communication Error” on page 3-119.
316.956.19	Email Application Registration Error	Refer to “Internal Communication Error” on page 3-119.
316.957.19	Email Application Un-Registration Error	Refer to “Internal Communication Error” on page 3-119.
316.958.19	Failed to install Kerberos.	Refer to “Power Cycle the Printer” on page 4-57.
316.959.19	Failed to install Kerberos. Failed to install SMB	Refer to “Power Cycle the Printer” on page 4-57.
316.960.19	Failed to install SMTP	Refer to “Power Cycle the Printer” on page 4-57.
316.961.19	Failed to remove Kerberos.	Refer to “Power Cycle the Printer” on page 4-57.
316.962.19	Failed to remove SMB.	Refer to “Power Cycle the Printer” on page 4-57.
316.963.19	Failed to remove SMTP	Refer to “Power Cycle the Printer” on page 4-57.
316.964.19	Failed to Cancel operation.	Refer to “Power Cycle the Printer” on page 4-57.
316.965.19	Failed to send Platform Unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
316.966.19	Failed to install job tracker.	Refer to “Power Cycle the Printer” on page 4-57.
316.967.19	Failed to remove job tracker.	Refer to “Power Cycle the Printer” on page 4-57.
316.968.19	Failed to install POP3	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.969.19	Failed to remove POP3	Refer to “Power Cycle the Printer” on page 4-57.
316.975.19	Failed to install Disk Overwrite	Refer to “Network Controller Internal Error” on page 3-121.
316.976.19	Failed to install Immediate Image Overwrite.	Refer to “Internal Communication Error” on page 3-119.
316.977.00	Queue List Jobs failure	Refer to “Power Cycle the Printer” on page 4-57.
316.977.19	NC PM failed to remove Disk Overwrite	Refer to “Network Controller Internal Error” on page 3-121.
316.977.35	Queue List Jobs failure	Refer to “Power Cycle the Printer” on page 4-57.
316.978.00	Unable to get Copy jobs	Refer to “Power Cycle the Printer” on page 4-57.
316.978.19	NC PM failed to remove Job Overwrite	Refer to “Network Controller Internal Error” on page 3-121.
316.978.35	Unable to get Copy jobs	Refer to “Internal Communication Error” on page 3-119.
316.979.00	Unknown Attribute returned	Refer to “Power Cycle the Printer” on page 4-57.
316.979.19	NC PM failed to remove Embedded Fax.	Refer to “Fax Troubleshooting” on page 4-65.
316.979.35	Unknown Attribute returned	Refer to “Internal Communication Error” on page 3-119.
316.980.00	DM request Handle NULL	Refer to “Power Cycle the Printer” on page 4-57.
316.980.19	NC PM failed to install G4	Refer to “Power Cycle the Printer” on page 4-57.
316.980.35	DM request Handle NULL	Refer to “Power Cycle the Printer” on page 4-57.
316.981.00	Unable to Obtain Job Handle	Refer to “Power Cycle the Printer” on page 4-57.
316.981.35	Unable to obtain Job handle	Refer to “Power Cycle the Printer” on page 4-57.
316.982.00	Unknown Finishing Value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.982.19	Failed to remove Embedded Fax.	Refer to “Fax Troubleshooting” on page 4-65.
316.982.35	Unknown Finishing Value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.983.00	Unknown Offset value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.983.19	Failed to remove G4	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.983.35	Unknown Offset value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.984.00	Unknown Job State Reason value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.984.35	Unknown Job State Reason value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.985.00	Unknown Medium Type value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.985.19	Network Scanning Application Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.985.35	Unknown Medium Type value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.986.00	Unknown Collation value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.986.19	Network Scanning Application Un-Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.986.35	Unknown Collation value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.987.00	Unknown Tray value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.987.19	Server Fax Application Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.987.35	Unknown Tray value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.988.00	Unknown signature value returned.	Refer to “Power Cycle the Printer” on page 4-57.
316.988.19	Server Fax Application Un-Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
316.988.35	Unknown signature value returned.	Refer to “Power Cycle the Printer” on page 4-57.
316.989.00	Unknown Plex Value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.989.19	Disk Encryption operation failed	Refer to “Power Cycle the Printer” on page 4-57.
316.989.35	Unknown Plex Value returned	Refer to “Power Cycle the Printer” on page 4-57.
316.990.00	Promote Response from DM received with errors	Refer to “Power Cycle the Printer” on page 4-57.
316.990.35	Promote Response from DM received with errors	Refer to “Power Cycle the Printer” on page 4-57.
316.991.00	Request to DM to promote Job Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.991.35	Request to DM to promote Job Failed	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
316.992.00	Unable to build SESS Job Identifier for promote	Refer to “Power Cycle the Printer” on page 4-57.
316.992.35	Unable to build SESS Job Identifier for promote	Refer to “Power Cycle the Printer” on page 4-57.
316.993.00	Unable to get admin. name from data store for promote	Refer to “Power Cycle the Printer” on page 4-57.
316.993.35	Unable to get admin. name from data store for promote	Refer to “Power Cycle the Printer” on page 4-57.
316.994.00	Cancel Response from DM received with errors	Refer to “Power Cycle the Printer” on page 4-57.
316.994.35	Cancel response with errors	Refer to “Power Cycle the Printer” on page 4-57.
316.995.00	Request to DM to Cancel Job Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.995.35	Request to DM to Cancel Job Failed	Refer to “Power Cycle the Printer” on page 4-57.
316.996.00	Warning- Unable to build SESS Job Identifier	Refer to “Power Cycle the Printer” on page 4-57.
316.996.35	Warning- Unable to build SESS Job Identifier	Refer to “Power Cycle the Printer” on page 4-57.
316.997.00	Unable to get admin. name from data store	Refer to “Power Cycle the Printer” on page 4-57.
316.997.35	Unable to get admin. name from data store	Refer to “Power Cycle the Printer” on page 4-57.
316.998.00	Job not set to Released State	Refer to “Power Cycle the Printer” on page 4-57.
316.998.35	Job not set to Released State	Refer to “Power Cycle the Printer” on page 4-57.
316.999.00	Could Not Obtain Job PIN for Authorization	Refer to “Power Cycle the Printer” on page 4-57.
316.999.35	Could Not Obtain Job PIN for Authorization	Refer to “Power Cycle the Printer” on page 4-57.
319.300.00	Unable to read from Image Disk	Refer to “Image Disk is Offline” on page 3-21.
319-301-00	Unable to write to Image Disk	Refer to “Image Disk is Offline” on page 3-21.
319.302.00	Bad Data received from Disk	Refer to “Image Disk is Offline” on page 3-21.
319.303.00	Unable to Format Image Disk	Refer to “Image Disk is Offline” on page 3-21.
319.310.00	Disk System capacity fault	Refer to “Image Disk is Offline” on page 3-21.
319.401.00	Out of Memory - Stress Document	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
319.402.00	Out of Memory - Stress Job	Refer to “Power Cycle the Printer” on page 4-57.
319.403.00	Out of Memory - job in EPC	Refer to “Out of Memory” on page 3-123.
319.409.00	Video integrity fault	Refer to “Power Cycle the Printer” on page 4-57.
319.410.00	Mark Output Timeout	Refer to “Power Cycle the Printer” on page 4-57.
319.410.01	Video Decompressor fault	Refer to “Power Cycle the Printer” on page 4-57.
319.410.02	Compress Image timeout	Refer to “Power Cycle the Printer” on page 4-57.
319.410.03	Decompress Image timeout	Refer to “Power Cycle the Printer” on page 4-57.
319.410.04	Merge Image timeout	Refer to “Power Cycle the Printer” on page 4-57.
319.410.05	Rotate Image timeout	Refer to “Power Cycle the Printer” on page 4-57.
319.410.06	Network Input Failure	Refer to “Power Cycle the Printer” on page 4-57.
319.410.07	E-Fax Send/Receive Failure	Refer to “Power Cycle the Printer” on page 4-57.
319.410.08	Scan Input Failure	Refer to “Power Cycle the Printer” on page 4-57.
319.410.09	Byte Count Error	Refer to “Power Cycle the Printer” on page 4-57.
319.410.10	Set Up Too Late	Refer to “Power Cycle the Printer” on page 4-57.
319.410.11	DMA Master Abort	Refer to “Power Cycle the Printer” on page 4-57.
319.410.12	Huffman Error	Refer to “Power Cycle the Printer” on page 4-57.
319.410.13	EOR ERROR	Refer to “Power Cycle the Printer” on page 4-57.
319.750.00	EPC Memory Size fault	Refer to “Power Cycle the Printer” on page 4-57.
319.752.00	Image Rotation Config fault	Refer to “Power Cycle the Printer” on page 4-57.
319.754.00	Image Disk Config fault	“Power On Self Test (POST)” on page 4-4
319.760.00	Test Patterns are missing from EPC	Refer to “Power Cycle the Printer” on page 4-57.
320.302.00	Fax Card Hardware or Software error.	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
320.303.00	Fax Card Hardware or Software error.	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
320.305.00	Fax Card Hardware or Software error.	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
320.320.00	5 instances of unrecoverable fax fault not cleared by card reset.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.322.00	NV device not fitted to basic fax card	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.323.00	Fax system memory is low.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.324.00	Not enough memory to use Fax Service	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.327.00	Registers cannot be accessed on the Extended card	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.331.00	No comms via PSTN1 port	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
320.332.00	No comms via PSTN2 port	Refer to “Power Cycle the Printer” on page 4-57.
320.338.00	Fax communication error at power up or re-boot.	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
320.339.00	Basic Card problem	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.340.00	Extended Card Problem	Refer to “Power Cycle the Printer” on page 4-57.
320.341.00	Miscellaneous Basic Card problems	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.342.00	Error accessing file on a NV device	Refer to “A Fax Memory Error has Occurred” on page 3-125.
320.350.00	No Dial Tone Warn	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
320.351.00	No Dial Tone	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
320.701.00	Phonebook download failed	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
320.710.00	IIO Error occurred on fax card when overwriting the job	Refer to “Power Cycle the Printer” on page 4-57.
320.711.00	ODIO Error on fax card when overwriting compact flash memory	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
322.300.05	Image Complete fault	Refer to “Power Cycle the Printer” on page 4-57.
322.300.10	DVMA Transfer fault	Refer to “Power Cycle the Printer” on page 4-57.
322.300.16	Clock overflow fault	Refer to “Power Cycle the Printer” on page 4-57.
322.301.05	Scan resource fault	Refer to “Power Cycle the Printer” on page 4-57.
322.309.04	No Accepts received fault	Refer to “Power Cycle the Printer” on page 4-57.
322.310.04	Extended Job Service fault	Refer to “Power Cycle the Printer” on page 4-57.
322.311.04	Sequencer response fault	Refer to “Power Cycle the Printer” on page 4-57.
322.314.04	Module Registration Error	Refer to “Power Cycle the Printer” on page 4-57.
322.315.04	Module completion fault	Refer to “Power Cycle the Printer” on page 4-57.
322.316.04	Job Paper Tray fault	Refer to “Power Cycle the Printer” on page 4-57.
322.317.04	Job Finishing fault	Refer to “Power Cycle the Printer” on page 4-57.
322.318.04	Job IOT fault	Refer to “Power Cycle the Printer” on page 4-57.
322.319.04	IOT Integrity problem while printing a job	Refer to “Power Cycle the Printer” on page 4-57.
322.320.00	Scan to File install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.321.00	Scan to File remove fault	Refer to “Power Cycle the Printer” on page 4-57.
322.321.04	RS422I ResponseTimeOutError (Config Mismatch)	Refer to “Power Cycle the Printer” on page 4-57.
322.322.00	LAN FAX install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.323.00	LAN FAX remove fault	Refer to “Power Cycle the Printer” on page 4-57.
322.324.00	Scan to Email install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.325.00	Scan to Email remove fault	Refer to “Power Cycle the Printer” on page 4-57.
322.326.00	IFAX install Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.327.00	IFAX remove fault	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
322.328.00	Incomplete System Information. Accounting Service Data is corrupt.	Refer to “Power Cycle the Printer” on page 4-57.
322.330.00	PagePack PIN Entry locked due to repeated incorrect PIN entry attempts	System Locked. Wait 24 hours to try again.
322.330.01	List Jobs Request Timed out between UI and Atlanta	Refer to “Power Cycle the Printer” on page 4-57.
322.330.02	Queue to NC print Timeout	Refer to “Power Cycle the Printer” on page 4-57.
322.330.03	Queue to Scan to file Timeout	Refer to “Power Cycle the Printer” on page 4-57.
322.330.04	Queue to FaxSend Timeout	Refer to “Power Cycle the Printer” on page 4-57.
322.330.05	Queue to DC JOB service Timeout	Refer to “Power Cycle the Printer” on page 4-57.
322.330.06	Queue to Scan to distribution Timeout	Refer to “Power Cycle the Printer” on page 4-57.
322.335.00	JBA install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.336.00	JBA Remove Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.337.00	ODIO install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.338.00	ODIO remove fault	Refer to “Power Cycle the Printer” on page 4-57.
322.339.00	IIO install fault	Refer to “Power Cycle the Printer” on page 4-57.
322.340.00	IIO remove fault	Refer to “Power Cycle the Printer” on page 4-57.
322.350.01	Software detects non-valid Xerox SOK 1	Refer to “Power Cycle the Printer” on page 4-57.
322.350.02	Software detects non-valid Xerox SOK 2 or 3	Refer to “Power Cycle the Printer” on page 4-57.
322.351.01	SOK 1 Write Failure	Refer to “Power Cycle the Printer” on page 4-57.
322.351.02	SOK 2 Write Failure	Refer to “Power Cycle the Printer” on page 4-57.
322.351.03	SOK 3 Write Failure	Refer to “Power Cycle the Printer” on page 4-57.
322.353.00	IOT Serial number Invalid	Refer to “Power Cycle the Printer” on page 4-57.
322.353.01	Serial Number Mismatch	Refer to “Power Cycle the Printer” on page 4-57.
322.370.00	Unable to communicate with XSA database	Refer to “Power Cycle the Printer” on page 4-57.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
322.371.00	Fax Application Registration Error	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
322.372.00	Fax Application Un-Registration Error	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
322.407.00	Install Embedded Fax Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.417.00	Removal Embedded Fax Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.419.00	Enable Embedded Fax Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.421.00	Disable Embedded Fax Fault	Refer to “Power Cycle the Printer” on page 4-57.
322.701.04	Module completion fault	Refer to “Power Cycle the Printer” on page 4-57.
322.720.00	Service Registry Bad data / Corrupted.	Refer to “Power Cycle the Printer” on page 4-57.
322.721.00	Triple A gets no response from SRS	Refer to “Power Cycle the Printer” on page 4-57.
322.750.04	Output Device Configuration Mismatch	Refer to “Output Device Configuration Mismatch” on page 3-130.
322.750.17	Accessory Card Configuration Mismatch	Refer to “Power Cycle the Printer” on page 4-57.
322.751.04	Paper Tray Configuration Mismatch	Refer to “Power Cycle the Printer” on page 4-57.
322.754.17	UI Config change fault	Refer to “Power Cycle the Printer” on page 4-57.
322.755.17	RDT Configuration Mismatch	Refer to “Power Cycle the Printer” on page 4-57.
342.045.00	Print board control fan has an error and is off	Refer to “System Fault” on page 3-131.
362.310.00	IISS / Scanner -Controller communication Fail	Refer to “Scanner Fault” on page 3-114.
377.305.00	Tray 3 Right Side Door is Open	Refer to “Tray 3 or Tray 4 Right Side Door is Open” on page 3-132.
377.306.00	Tray 4 Right Side Door is Open	Refer to “Tray 3 or Tray 4 Right Side Door is Open” on page 3-132.
377.307.00	Duplex Door is Open	Refer to “Close Duplex Door” on page 3-134.
377.308.00	Finisher Top Door is Open	Refer to “Close Finisher Top Cover” on page 3-136.

Fault Codes (Continued)

Fault Code	Fault History in Diagnostic Display String	Action
377.309.00	Control Panel Door Open	Refer to “Lower the Control Panel Door” on page 3-138.
377.310.00	Finisher Front Door Open	Refer to “The Finisher Front Door is Open” on page 3-139.
377.311.00	Document Feeder Cover Open	Refer to “Document Feeder Cover is Open” on page 3-141.
377.312.00	Right Side Door Open	Refer to “The Right Side Door is Open” on page 3-142.
377.313.00	Communication error with duplex unit, may be disconnected or not installed	Refer to “Duplex Unit Error” on page 3-144.
377.314.00	Communication error with Tray 1 assembly, may be disconnected or not installed	Refer to “Tray 1 Assembly Error” on page 3-146.
391.313.00	CRUM ASIC Comm Fail	Refer to “Xerographic System Error” on page 3-148.
391.320.00	CC Wire Cut Fail	Refer to “Xerographic System Error” on page 3-150.

Status Codes

The following table is a comprehensive list of the status messages that can be displayed on the control panel. If a status message will not clear and an associated fault code is not present in fault history use this table to help determine the appropriate action.

Status Codes

Status Message	Action
A Fax Memory error has occurred.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
A Fax Service error has occurred.	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
A metered toner cartridge is installed but metering is not enabled.	Enter page pack pin or install a standard toner cartridge.
A valid Authorization PIN must be entered as soon as possible.	Enter Page Pack Pin.
Accounting out of memory.	Accounting log is full. Retrieve the log.
Additional memory is required to support Scan to File.	Refer to “Power Cycle the Printer” on page 4-57.
All incomplete jobs have been deleted.	Resubmit job.
Auto calibration failed. You may manually run Image Quality Calibration in Tools.	Manually calibrate image quality.
Auto configuration is disabled.	Refer to “Power Cycle the Printer” on page 4-57.
Auto Paper Select is not available.	Enable auto selection for at least one tray.
Autonet functions are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Black Toner cartridge is missing or not seated properly.	Refer to “Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly” on page 3-152.
Check the settings for Tray 1.	Verify tray settings.
Check the settings for Tray 2.	Verify tray settings.
Check the settings for Tray 3.	Verify tray settings.
Check the settings for Tray 4.	Verify tray settings.
Close Duplex Door.	Refer to “Close Duplex Door” on page 3-134.
Close Finisher Top Cover.	Refer to “Close Finisher Top Cover” on page 3-136.
Configuration mismatch.	Refer to “Power Cycle the Printer” on page 4-57.
Control Panel Door open.	Refer to “Lower the Control Panel Door” on page 3-138.

Status Codes (Continued)

Status Message	Action
Cyan Toner cartridge is missing or not seated properly.	Refer to “Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly” on page 3-152.
DHCPv6 services are not available.	Enable IPv6.
Diagnostics are active and the system is available.	Exit Diagnostics.
Diagnostics are active. The system is not available. Please wait.	Wait for system then exit diagnostics.
Document Feeder Cover open	Refer to “Document Feeder Cover is Open” on page 3-141.
Document Feeder Cover is open.	Refer to “Document Feeder Cover is Open” on page 3-141.
Duplex unit error. Call for assistance.	Refer to “Duplex Unit Error” on page 3-144.
Duplicate IPv6 address detected.	Verify Network Settings.
Enter your access code or the current job may be deleted.	Enter Access Code or verify job accounting configuration.
Extensible Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Fax job could not be sent at this time, please try again.	Refer to “Troubleshooting Sending or Receiving a Fax” on page 4-69
Fax job limit has been reached.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
Fax line 1 is unavailable. Check line connection.	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
Fax line 2 is unavailable. Check line connection.	Refer to “Power Cycle the Printer” on page 4-57.
Fax line 2 is unavailable. Fax line 1 is still available.	Refer to “Power Cycle the Printer” on page 4-57.
Fax line 2 is unavailable.	Refer to “Power Cycle the Printer” on page 4-57.
Fax memory is low.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
Fax Service is unavailable. Turn machine off, then on.	Refer to “Fax Services Cannot Register/ Unregister” on page 3-124.
Finisher error.	Check fault history for fault code and reference the appropriate procedure.
Finisher Front Door open.	Refer to “The Finisher Front Door is Open” on page 3-139.
Finisher Main Tray is full.	Refer to “Finisher Main Tray is Full” on page 3-154.
Finisher Top Door is open.	Refer to “Close Finisher Top Cover” on page 3-136.
Finisher Top Tray is full.	Refer to “Finisher Top Tray is Full” on page 3-156.

Status Codes (Continued)

Status Message	Action
Fuser is missing or not installed correctly.	Refer to “Fuser is Missing or Not Installed Correctly” on page 3-158.
Fuser needs replacement. Replace it NOW.	Install new Fuser.
Fuser System error.	Check fault history for fault code and reference the appropriate procedure.
Image Disk is offline.	Refer to “Image Disk is Offline” on page 3-21.
Image Disk is offline. Job(s) may take longer than normal.	Refer to “Image Disk is Offline” on page 3-21.
Image Overwrite is in progress... the machine is Offline.	Wait for image overwrite to complete.
Image rotation is not available.	Refer to “Power Cycle the Printer” on page 4-57.
Immediate Job Overwrite Failed. Perform an On Demand Overwrite immediately.	Perform On Demand Image Overwrite.
Incompatible FAX Software Detected (Upgrade Required)	Upgrade software using WebUI.
Incomplete system information.	Refer to “Power Cycle the Printer” on page 4-57.
Install or Reseat Imaging Unit.	Refer to “Install or Reseat Imaging Unit” on page 3-160.
Insufficient memory for Fax job.	Refer to “A Fax Memory Error has Occurred” on page 3-125.
Invalid original size detected. It will be treated as the next largest standard size.	No action required.
Job Status information not available.	Refer to “Power Cycle the Printer” on page 4-57.
Lower the Control Panel Door.	Refer to “Lower the Control Panel Door” on page 3-138.
Machine entering SW upgrade mode. ALL jobs will be cancelled.	No action required.
Machine is in a non-customer mode.	Exit Diagnostics.
Magenta Toner cartridge is missing or not seated properly.	Refer to “Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly” on page 3-152.
Misfeed in Tray 1.	Refer to “Misfeed in Tray 1” on page 3-51.
Misfeed in Tray 2.	Refer to “Misfeed in Tray 2” on page 3-53.
Misfeed in Tray 3.	Refer to “Misfeed in Tray 3/4” on page 3-56.
Misfeed in Tray 4.	Refer to “Misfeed in Tray 3/4” on page 3-56.
Network Cable unplugged.	Check network connection.

Status Codes (Continued)

Status Message	Action
Network Connectivity Configuration Server not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Controller error. Some Network Services not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Controller error.	Refer to “Power Cycle the Printer” on page 4-57.
Network Controller not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Printing disabled.	Refer to “Power Cycle the Printer” on page 4-57.
Network Scanning hardware must be added or replaced.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services involving a Parallel Port are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services involving a Serial Port are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services involving AppleTalk are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services involving PostScript are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services involving Scan to Email are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services related to Internet Fax are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services using BOOTP Initialization not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services using DC Platform recovery not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services using WS Edge Client are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services using WS Scan Temp are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services with Job Based Accounting not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services with Port 9100 Process are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Network Services with Scan Compressor are not available.	Refer to “Power Cycle the Printer” on page 4-57.
No communications with Xerox SMart eSolutions server.	Refer to “Power Cycle the Printer” on page 4-57.
No dial tone detected for Fax service.	Refer to “Fax Line 1 Unavailable or No Dial Tone Detected” on page 3-127.
No tray is configured with the required paper size.	Load a tray with the correct size paper.
Non-Xerox Black Imaging unit in use. Image quality may be limited.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.

Status Codes (Continued)

Status Message	Action
Non-Xerox Cyan Imaging unit in use. Image quality may be limited.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
Non-Xerox Magenta Imaging unit in use. Image quality may be limited.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
Non-Xerox Yellow Imaging unit in use. Image quality may be limited.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
Notify your System Administrator or call for assistance.	Check fault history for fault code and reference the appropriate procedure.
One or more queued jobs needs resources.	Check fault history for fault code and confirm correct paper size is loaded in a tray.
Only a partial list is available for display at this time.	Refer to “Power Cycle the Printer” on page 4-57.
Option Install error.	Refer to “Power Cycle the Printer” on page 4-57.
Option Install error. Please wait...The system is attempting to recover.	Refer to “Power Cycle the Printer” on page 4-57.
Option Removal error.	Refer to “Power Cycle the Printer” on page 4-57.
Output Tray is full.	Refer to “Output Tray is Full (No Finisher)” on page 3-164.
Paper jam at Finisher Main Output Tray.	Refer to “Finisher Main Tray is Full” on page 3-154.
Paper jam at Finisher Top Output Tray.	Refer to “Finisher Top Tray is Full” on page 3-156.
Paper jam at the Output Tray.	Refer to “Paper Jam at Finisher Top Output Tray” on page 3-108.
Paper jam behind the Control Panel.	Refer to “Paper Jam Under the Control Panel” on page 3-75.
Paper jam behind the Duplex Door.	Refer to “Paper Jam Behind the Duplex Door/Feed Area” on page 3-59.
Paper jam behind the Duplex Feed Area.	Refer to “Paper Jam Behind the Duplex Door/Feed Area” on page 3-59.
Paper jam behind the Right Side Door.	Check fault history for fault code and reference the appropriate procedure.
Paper jam behind the Tray 3 Right Side Door.	Refer to “Paper Jam Behind the Right Side Door” on page 3-78.
Paper jam behind the Tray 4 Right Side Door.	Refer to “Paper Jam Behind the Right Side Door” on page 3-78.
Paper jam in the Document Feeder.	Refer to “Paper Jam in the Document Feeder” on page 3-39.
Paper jam in the Finisher Transport Area.	Refer to “Paper Jam in the Finisher Transport Area” on page 3-106.
Paper required for the current job is not available.	Follow the on-screen instructions.
Please wait... Freeing memory.	No action required.

Status Codes (Continued)

Status Message	Action
Please wait... Adjustments are in progress.	No action required.
Please Wait... Disk encryption operation in progress.	No action required.
Please wait... One or more options are being installed.	No action required.
Please wait... One or more options are being removed.	No action required.
Please wait... The Fax Service is initializing.	No action required.
Please wait... The image disk is full.	No action required.
Please wait... The Scanner is attempting to recover.	No action required.
Please wait... The system is attempting to recover.	No action required.
Please wait... The system is attempting to recover.	No action required.
Please wait... The system is attempting to recover.	No action required.
Power on failed.	Refer to “AC Power Supply Troubleshooting” on page 4-58.
Prohibited Original has been detected.	Anti-counterfeit system detected prohibited original.
Provide payment or the current job may be deleted.	Follow the on-screen instructions.
Provide payment.	Follow the on-screen instructions.
Remove documents from the Document Feeder Input Tray or close the Document Feeder.	Follow the on-screen instructions.
Reorder Black (K) Imaging Unit but DO NOT replace until prompted.	No action required.
Reorder Black Toner (K) but DO NOT replace until prompted.	No action required.
Reorder Cyan (C) Imaging Unit but DO NOT replace until prompted.	No action required.
Reorder Cyan Toner (C) but DO NOT replace until prompted.	No action required.
Reorder Fuser but DO NOT replace until prompted.	No action required.
Reorder Fuser but DO NOT replace until prompted.	No action required.
Reorder Magenta (M) Imaging Unit but DO NOT replace until prompted.	No action required.
Reorder Magenta Toner (M) but DO NOT replace until prompted.	No action required.
Reorder Transfer Belt but DO NOT replace until prompted.	No action required.
Reorder Transfer Roller but DO NOT replace until prompted.	No action required.
Reorder Waste Cartridge but DO NOT replace until prompted.	No action required.
Reorder Yellow (Y) Imaging Unit but DO NOT replace until prompted.	No action required.
Reorder Yellow Toner (Y) but DO NOT replace until prompted.	No action required.

Status Codes (Continued)

Status Message	Action
Right Side door open.	Refer to “The Right Side Door is Open” on page 3-142.
Scan and Copy Services not available. Print Service is available.	Follow the on-screen instructions.
Scan to Distribution Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Scan to File Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Scanner Fault.	Check fault history for fault code and reference the appropriate procedure.
Scanning will be delayed.	No action required.
Select Confirm if Fuser was replaced.	Select Confirm or Cancel as appropriate.
Select Confirm if Transfer Belt was replaced.	Select Confirm or Cancel as appropriate.
Select Confirm if Transfer Roller was replaced.	Select Confirm or Cancel as appropriate.
Select the Current Messages button in the Machine Status for more information.	Select the desired button.
Service limit exceeded. New services will not be available until some services are removed.	Refer to “Power Cycle the Printer” on page 4-57.
Software Option codes do not match.	Refer to “Power Cycle the Printer” on page 4-57.
Software upgrade needed.	Follow the on-screen instructions.
Some jobs may have been deleted.	Resubmit jobs.
Some jobs may have been deleted.	Resubmit jobs.
Some Lan Fax Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Accounting Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Authentication Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Diagnostic Services are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services are not available due to a process error.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving CPI are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving DDNS are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving DHCP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving Ethernet are not available.	Refer to “Power Cycle the Printer” on page 4-57.

Status Codes (Continued)

Status Message	Action
Some Network Services involving HTTP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving Internet Fax are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving Job Log are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving LPD are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving NetBios are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving Novell are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving PCL are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving RARP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving SLP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving SMB are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving SSDP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving TCP/IP are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving TIFF are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services involving USB are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services with Job Tracker are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Some Network Services with Kerberos are not available.	Refer to “Power Cycle the Printer” on page 4-57.
Staple cartridge is empty. Replace now.	Install new staple cartridge.
Staple jam in the Finisher.	Refer to “Staple Jam in the Finisher” on page 3-112.
Start accepted. Job will begin when the system is ready.	No action required.
System Fault.	Check fault history for fault code and reference the appropriate procedure.
The Black Imaging Unit (K) needs replacement. Replace it NOW.	Install new Black Imaging Unit.
The Black Toner Cartridge is not a genuine Xerox product.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
The Black Toner is empty. Replace it NOW.	Install new Black Toner Cartridge.

Status Codes (Continued)

Status Message	Action
The Cyan Imaging Unit (C) needs replacement. Replace it NOW.	Install new Cyan Imaging Unit.
The Cyan Toner (C) is empty. Replace it NOW.	Install new Cyan Toner Cartridge.
The Cyan Toner Cartridge is not a genuine Xerox product.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
The Document Feeder is not available. The Document Glass is still available.	Refer to “Document Feeder is not Available” on page 3-45.
The document size was different than expected. The job has been deleted.	Follow the on-screen instructions.
The Email Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Email Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Fax Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Fax Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Finisher Front Door is Open.	Refer to “The Finisher Front Door is Open” on page 3-139.
The Front Door is open.	Refer to “The Front Door is Open” on page 3-13.
The Fuser is warming up. Printing may be delayed.	No action required.
The Internet Fax Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Internet Fax Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.
The machine cannot be used without a valid Authorization PIN.	Enter Page Pack Pin.
The machine is not available.	Refer to “Power Cycle the Printer” on page 4-57.
The machine is offline.	Place machine online in Network Settings Menu.
The Magenta Imaging Unit (M) needs replacement. Replace it NOW.	Install new Magenta Imaging Unit.
The Magenta Toner (M) is empty. Replace it NOW.	Install new Magenta Toner Cartridge.
The Magenta Imaging Unit is not a genuine Xerox product.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
The Network Controller connection is about to be reset.	No action required.
The Network Controller is initializing - copy and print jobs may be delayed.	No action required.
The Network Scanning Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Network Scanning Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.

Status Codes (Continued)

Status Message	Action
The number of originals was less than the number originally scanned.	Follow the on-screen instructions.
The Reprint Saved Jobs Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Reprint Saved Jobs Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Right Side Door is open.	Refer to “The Right Side Door is Open” on page 3-142.
The Server Fax Service cannot Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Server Fax Service cannot Un-Register.	Refer to “Power Cycle the Printer” on page 4-57.
The Transfer Belt needs replacement. Replace it NOW.	Install new Transfer Belt.
The Transfer Roller needs replacement. Replace it NOW.	Install new Transfer Roller.
The Tray 3 Right Side Door is Open.	Refer to “Tray 3 or Tray 4 Right Side Door is Open” on page 3-132.
The Tray 4 Right Side Door is Open.	Refer to “Tray 3 or Tray 4 Right Side Door is Open” on page 3-132.
The Waste Container is full. Replace it NOW.	Install new Waste Container.
The Yellow Imaging Unit (Y) needs replacement. Replace it NOW.	Install new Yellow Imaging Unit.
The Yellow Toner (Y) is empty. Replace it NOW.	Install new Yellow Toner Cartridge.
The Yellow Imaging Unit is not a genuine Xerox product.	Refer to “Non-Xerox Imaging Unit in Use” on page 3-162.
There are originals in the Document Feeder.	Refer to “Paper Jam in the Document Feeder” on page 3-39.
There are too many sheets in the Original Input Tray.	Use fewer originals in the Document Feeder.
There is a problem with the Xerographic system.	Check fault history for fault code and reference the appropriate procedure.
Tray 1 assembly error.	Refer to “Tray 1 Assembly Error” on page 3-146.
Tray 1 guides are not set properly.	Verify Tray 1 guides and settings.
Tray 1 guides are not set to a standard size.	Verify Tray 1 guides and settings.
Tray 1 is open.	Refer to “Power Cycle the Printer” on page 4-57.
Tray 2 guides are not set properly.	Verify Tray 2 guides and settings.
Tray 2 guides are not set to a standard size.	Verify Tray 2 guides and settings.
Tray 2 is empty. Add paper.	Refer to “Tray 2 is Empty - Add Paper” on page 3-166.
Tray 2 is open.	Refer to “Tray 2 is Open” on page 3-168.
Tray 3 guides are not set properly.	Verify Tray 3 guides and settings.

Status Codes (Continued)

Status Message	Action
Tray 3 guides are not set to a standard size.	Verify Tray 3 guides and settings.
Tray 3 is empty. Add paper.	Refer to “Tray 3 or 4 is Empty - Add Paper” on page 3-170.
Tray 3 is open.	Refer to “Tray 3 or Tray 4 is Open” on page 3-172.
Tray 3 right side door is open.	Close Tray 3/4 Right Side Door RAP.
Tray 4 guides are not set properly.	Verify Tray 4 guides and settings.
Tray 4 guides are not set to a standard size.	Verify Tray 4 guides and settings.
Tray 4 is empty. Add paper.	Refer to “Tray 3 or 4 is Empty - Add Paper” on page 3-170.
Tray 4 is open.	Refer to “Tray 3 or Tray 4 is Open” on page 3-172.
Tray 4 right side door is open.	Refer to “Tray 3 or Tray 4 Right Side Door is Open” on page 3-132.
Unexpected paper size or type detected from Tray 1.	Verify Tray 1 guides and settings.
Unexpected paper size or type detected from Tray 2.	Verify Tray 2 guides and settings.
Unexpected paper size or type detected from Tray 3.	Verify Tray 3 guides and settings.
Unexpected paper size or type detected from Tray 4.	Verify Tray 4 guides and settings.
Yellow Toner cartridge is missing or not seated properly.	Refer to “Cyan, Magenta, Yellow, or Black Toner Cartridge is Missing or not Seated Properly” on page 3-152.
Your Administrator is reconfiguring the system. Services will not be available.	No action required.

NVM Value

Fax NVM

The Fax NVM table contains NVM value information that can be used to adjust the Fax NVM value for the printer.

Fax NVM Value

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Line 1 configuration setting	0 = Send and Receive 1 = Send only 2 = Receive only	FaxLine1Config	200	1	0	0	2
Line 2 configuration setting	0 = Send and Receive 1 = Send only 2 = Receive only	FaxLine2Config	200	2	0	0	2
Priority of fax lines	1 = line 1 has priority 2 = line 2 has priority	LinePriority	200	9	1	1	2
Number of times to redial (connected)	0 - 5		200	10	0	0	0
sends a cover sheet and extra pages if interrupted	0 = without cover page and resend failed pages 1 = with cover page and resend failed page 2=without cover page and resend all pages 3 = with Cover page and resend all pages	FaxAutoResendDefault	200	11	3	0	5
Listens to line traffic on sending	0 = Disabled 1 = Enabled		200	13	1	0	1
Enables audio line monitor and determines when audio line monitoring stops	0 = Disabled 1 = Speaker on until carrier signal detected 2 = Speaker always on when modem is off-hook 3 = Speaker on until carrier is detected, except while dialing	FaxAudioLineMonEnbld	200	14	0	0	1
Determines when to stop listening to the line traffic	0 - 25 seconds	FaxAudioLineMonEnbld	200	14	0	0	3
Volume of the line monitor	0 = High 1 = Medium 2 = Low	FaxAudioLineMonDel	200	15	5	0	25
Receive mailbox policy	0 = Delete on Print 1 = Keep For 1 -72 hours 2 = Keep Forever	FaxAudioLineMonVol	200	16	1	0	2
Time to keep if the policy is a pre set time	1 – 72 hours	FaxreceivemboxDocDef	200	17	0	0	2
Answer mode	0 = Auto 1 = Manual	FxreceivemboxDocTime	200	18	72	1	72
Determines what to declare for paper sizes	0 = Auto 1 = Manual	FaxAnswerMode	200	19	0	0	1
Determines what size of image to send	0 = Reduce to Fit 1 = Split pages	FaxRecvPprAutoEnbld	200	20	0	0	1
determines if removing scan lines is allowable	0 = Disabled 1 = Enabled (5")	FaxSendOptions	200	21	0	0	1
Determines if a reduced image is shown	0 = Reduced Image 1 = No Image	FaxRecvPageMargin	200	22	1	0	1
Determines when a transmission report is printed	0 = Always Print 1 = Print on Error 2 = Off	TransmnReportApp	200	23	0	0	1
Ring volume	0 = High 1 = Medium 2 = Low	TransRptBehaviour	200	24	1	0	2

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Ring volume enabled	0 = Disabled 1 = Enabled	FaxRingVolume	200	25	1	0	2
Date Format	0 = MM/DD/YY 1 = DD/MM/YY 2 = Unused (DO NOT USE) 3 = YY/MM/DD		200	28	0	0	1
Time format	0 = 12 hour 1 = 24 hour	FaxDateFieldFormat	200	29	0	0	3
Transmit header Text enabled	0 = Disabled 1 = Enabled	FaxTimeFieldFormat	200	30	1	0	1
Enable junk fax prevention	0 = Disabled 1 = Enabled		200	32	N/A	N/A	N/A
polling enabled	0 = Disabled 1 = Unsecure 2 = Dial & Poll Directory 3 = Poll Directory	FaxMatchJunkType	200	34	0	0	1
Polled document policy	0 = Delete on poll 1 = Keep For 1 -72 hours 2 = Keep Forever	FaxPollEnabled	200	35	0	0	3
Time to keep if the policy is a pre set time	1 – 72 hours	FaxPollPolicyDef	200	36	0	0	2
Report policy	0 = Print 1 = Follow Secure Policy 2 = Store in Mailbox	FaxOdioOption	200	39	0	0	1
Activity report default	0 = Off 1 = Auto Print	FaxReportPolicyDef	200	40	0	0	2
Broadcast and multipoll report default and remote broadcast	0 = Always Print 1 = Print on Error 2 = Off	FaxActivityReportDef	200	41	1	0	1

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fax country	0 = USA, 1 = Canada, 2 = Brazil, 3 = Mexico, 4 = Argentina, 5 = Chile, 6 = UK, 7 = Switzerland, 8 = Norway, 9 = Denmark, 10 = Ireland, 11 = Austria, 12 = Finland, 13 = France, 14 = Germany, 15 = Sweden, 16 = Belgium, 17 = Netherlands, 18 = Italy, 19 = Portugal, 20 = Greece, 21 = Spain, 22 = Russia, 23 = Czech Republic, 24 = Poland, 25 = Hungary, 26 = Not Used, 27 = Romania, 28 = Ukraine, 29 = Turkey, 30 = Egypt, 31 = UAE, 32 = Saudi Arabia, 33 = South Africa, 34 = Hong Kong, 35 = India, 36 = China, 37 = Iceland 38 = Luxembourg, 39 = Bulgaria, 40 = Morocco, 41 = Australia, 42 = New Zealand, 43 = Singapore, 44 = Malaysia 45 = Cyprus 46 = Peru 47 = Jordan	FaxBroadcstRepDef	200	42	1	0	2
Report Language	0 = FrenchCanadian 1 = English 2 = Danish 3 = Swedish 4 = InternationalSpanish 5 = German 6 = Italian 7 = USEnglish 8 = Dutch 9 = Portuguese 10 = Norwegian 11 = Finnish 12 = French 13 = Brazilian 14 = Greek 15 = Czech 16 = Polish 17 = Hungarian 18 = Romanian 19 = Turkish 20 = Russian 21 = SimplifiedChinese	FaxCountry	200	43	6	0	47
Determins whether Secure Receive is On or Off	0 = Secure receive is Off 1 = Secure Receive is on		200	55	N/A	N/A	N/A
Fax Line Current Detection Line 1	0 = Disabled 1 = Enabled		200	59	0	0	0

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fax Line Current Detection Line 2	0 = Disabled 1 = Enabled		200	60	0	0	0
T30 Maximum Compression -TX line 1	2=MH, 3=MR, 4=MMR, 5=JBIG Note: JBIG supported for Sorcery & Low Cost Fax		200	61	0	0	0
T30 Maximum Compression -TX line 2	2=MH, 3=MR, 4=MMR, 5=JBIG Note: JBIG supported for Sorcery & Low Cost Fax		200	62	0	0	0
T30 Maximum Compression - RX line 1	2=MH, 3=MR, 4=MMR, 5=JBIG Note: JBIG supported for Sorcery & Low Cost Fax		200	63	0	0	0
T30 Maximum Compression - RX line 2	2=MH, 3=MR, 4=MMR, 5=JBIG Note: JBIG supported for Sorcery & Low Cost Fax		200	64	0	0	0
T30 Maximum resolution Line 1 TX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8		200	65	0	0	0
T30 Maximum resolution Line 2 TX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8		200	66	0	0	0
T30 Maximum resolution Line 1 RX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8		200	67	0	0	0
T30 Maximum resolution Line 2 RX	200x100=2, 200x200=3, 300x300=5, 400x400=7, 600x600=8		200	68	0	0	0
T30 Maximum Speed Line 1 TX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16		200	69	0	0	0
T30 Maximum Speed Line 2 TX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16		200	70	0	0	0
T30 Maximum Speed Line 1 RX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16		200	71	0	0	0
T30 Maximum Speed Line 2 RX	33600=3, 31200=4, 28800=5, 26400=6, 24000=7, 21600=8, 19200=9, 16800=10, 14400=11, 12000=12, 9600=13, 7200=14, 4800=15, 2400=16		200	72	0	0	0
T30 Preferred Resolution Units Line 1 TX	0=Any, Metric=1, Inch=2		200	73	0	0	0
T30 Preferred Resolution Units Line 1 TX	Metric=1, Inch=2		200	74	0	0	5
T30 Preferred Resolution Units Line 2 TX	0=Any, Metric=1, Inch=2		200	75	0	0	6
T30 Preferred Resolution Units Line 2 TX	Metric=1, Inch=2		200	76	0	0	0
T30 Preferred Resolution Units Line 1 RX	0=Any, Metric=1, Inch=2	Line1CurrentDetect	200	77	1	0	1
T30 Preferred Resolution Units Line 2 RX	0=Any, Metric=1, Inch=2	Line2CurrentDetect	200	78	1	0	1
T30 Minimum Scan Line Time Line 1	0ms/0ms=0, 5ms/5ms=1, 10ms/5ms=2, 10ms/10ms=3, 20ms/10ms=4, 20ms/20ms=5, 40ms,20ms=6, 40ms/40ms=7	CompressTypeLine1TX	200	79	5	2	5
T30 Minimum Scan Line Time Line 2	0ms/0ms=0, 5ms/5ms=1, 10ms/5ms=2, 10ms/10ms=3, 20ms/10ms=4, 20ms/20ms=5, 40ms,20ms=6, 40ms/40ms=7	CompressTypeLine2TX	200	80	5	2	5
T30 ECM Enabled/Disabled Line 1 Tx	0=disabled 1=enabled	CompressTypeLine1RX	200	81	5	2	5
T30 ECM Enabled/Disabled Line 2 Tx	0=disabled 1=enabled	CompressTypeLine2RX	200	82	5	2	5
T30 ECM Enabled/Disabled Line 1 Rx	0=disabled 1=enabled	T30MaxResL1Tx	200	83	8	2	8

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
T30 ECM Enabled/Disabled Line 2 Rx	0=disabled 1=enabled	T30MaxResL2Tx	200	84	8	2	8
Look ahead period to pending fax job which will prohibit entry into Sleep.	Minutes	T30MaxSpeedL1Tx	200	87	3	3	16
Determines if a confirmed transmission report is printed if MCF not received for last page sent.	0 = Strict retry policy (all MCF required) 1 = Optional ignore final missing MCF	T30MaxSpeedL2Tx	200	88	3	3	16
Allows Fax Protocol Report to be printed in the event of a communications error	0 = Off 1 = Auto Print On Error 2=Always Print Report	T30MaxSpeedL1Rx	200	89	3	3	16
The ability to Enable always negotiating unlimited length (DCS) on line 1	0 = Disabled 1 = Enabled	T30PrefResUnitsL2Tx	200	92	1	1	2
The ability to Enable always negotiating unlimited length (DCS) on line 2	0 = Disabled 1 = Enabled	T30PrefResUnitsL1Rx	200	93	0	0	2
The ability to enable increased compatibility at the expense of more advanced fax features.	0 = Disabled 1 = Enabled	T30PrefResUnitsL2Rx	200	94	0	0	2
Busy Tone detection during dial tone detection	0 = disable 1 = enable	PwrSavEntryLookAhead	200	103	1	0	120
Part of pair with ID 1602 for Classic Fax	Reserved	ExtendedRetryPolicy	200	104	0	0	1
Allow the ability to send to the same destination number on both fax lines simultaneously. (*33 enabled/disabled via GUI)	0 = Disabled (Only 1 fax send to a given number at a time even if there is another line free) 1 = Enabled (Can have more than 1 fax send to a given number at the same time)	ProtReportOnError	200	105	0	0	2
Allows the ability to set a short time period which a failed job waits before redialing	0 = Disabled 1 = Enabled		200	106	0	0	2
Set the duration of the ShortResendTimer in seconds	1 - 255	FaxIioStatus	200	107	0	0	1
The ability to Enable or Disable Legal/Letter stock (DCS)	0 = Disabled 1 = Enabled	UNLIMITEDLENGTHLINE2	200	111	1	0	1
The ability to Enable or Disable Legal/Letter stock (DIS)	0 = Disabled 1 = Enabled	AdvancedCapabilities	200	112	1	0	1
Dial type configuration	0 = Tone 1 = Pulse		200	114	8	2	8
Dial type configuration	0 = Tone 1 = Pulse		200	115	8	2	8
When to answer the call if automatic.	0 - 15 seconds		200	116	5	2	5
Number of times to retry (not connected)	0 – 14		200	117	5	2	5
time between each redial	1 - 25 minutes		200	118	3	3	16
Busy 1 Filter stage 1 A1	0x02CA		200	119	3	3	16
Busy 1 Filter stage 1 A2	0xFD36		200	120	0	0	1
Busy 1 Filter stage 1 A3	0x0000	DetBusyToneDurDTone	200	121	0	0	1
Busy 1 Filter stage 1 B1	0x7243	DetBusyToneDurDTone	200	121	0	0	0
Busy 1 Filter stage 1 B2	0xC63E	ParallelTxToSameDest	200	122	0	0	1
Busy 1 Filter stage 2 A1	0x02CA	ShortResendPolicy	200	123	0	0	1
Busy 1 Filter stage 2 A2	0x0593	ShortResendTimer	200	124	30	1	255
Busy 1 Filter stage 2 A3	0x02CA		200	125	0	0	1
Busy 1 Filter stage 2 B1	0x7243		200	126	0	0	1
Busy 1 Filter stage 2 B2	0xC63E		200	127	1	0	1
Busy 1 Low Pass Feedback	0x7E67		200	128	0	0	0
Busy 1 Low Pass Gain	0x02DF		200	129	0	0	0

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 1 Upper Threshold	0x2A00		200	130	0	0	0
Busy 1 Lower Threshold	0x1C00		200	131	0	0	0
Call progress detection threshold (-dB)	0 - 255 (-dB)		200	132	0	0	0
Busy 2 Filter stage 1 A1	0x02CA		200	133	0	0	0
Busy 2 Filter stage 1 A2	0xFD36		200	134	0	0	0
Busy 2 Filter stage 1 A3	0x0000		200	135	0	0	0
Busy 2 Filter stage 1 B1	0x7243		200	136	0	0	0
Busy 2 Filter stage 1 B2	0xC63E		200	137	0	0	0
Busy 2 Filter stage 2 A1	0x02CA		200	138	0	0	0
Busy 2 Filter stage 2 A2	0x0593		200	139	0	0	0
Busy 2 Filter stage 2 A3	0x02CA	USSTOCKSUPPORTTX	200	140	0	0	1
Busy 2 Filter stage 2 B1	0x7243	USSTOCKSUPPORTRX	200	141	1	0	1
Busy 2 Filter stage 2 B2	0xC63E		200	142	0	0	0
Busy 2 Low Pass Feedback	0x7E67		200	143	0	0	1
Busy 2 Low Pass Gain	0x02DF	FaxLine1DialTypeDef	200	201	0	0	1
Busy 2 Upper Threshold	0x2A00	FaxLine2DialTypeDef	200	202	0	0	1
Busy 2 Lower Threshold	0x1C00	FaxAutoAnswerDelay	200	203	0	0	15
Busy 1 detection algorithm		FaxAutoRedialDefault	200	204	0	0	14
Busy 1 number cell pattern	number of patterns to describe the sequence	FaxAutoRedialTimeDef	200	205	15	1	25
Number of busy cycles required to detect busy condition	0 - 255	Busy1FilterStage1A1	200	206	0x02CA	0	0xFFFF
Busy 1 timeout reset detector	milliseconds	Busy1FilterStage1A2	200	207	0xFD36	0	0xFFFF
Busy 1 make min 1	milliseconds	Busy1FilterStage1A3	200	208	0x0000	0	0xFFFF
Min busy cadence on time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	Busy1FilterStage1B1	200	209	0x7243	0	0xFFFF
Busy 1 make max 1	milliseconds	Busy1FilterStage1B2	200	210	0xC63E	0	0xFFFF
Max busy cadence on time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	Busy1FilterStage2A1	200	211	0x02CA	0	0xFFFF
Busy 1 make hole 1	milliseconds	Busy1FilterStage2A2	200	212	0x0593	0	0xFFFF
Busy 1 break min 1	milliseconds	Busy1FilterStage2A3	200	213	0x02CA	0	0xFFFF
Min busy cadence off time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	Busy1FilterStage2B1	200	214	0x7243	0	0xFFFF
Busy 1 break max 1	milliseconds	Busy1FilterStage2B2	200	215	0xC63E	0	0xFFFF
Max busy cadence off time (x 10ms)	0 - 255 (x10 ms) 0 = standard detection algorithm; 1 - 255 = country specific cadence values	Busy1LowPassFeedback	200	216	0x7E67	1	0xFFFF
Busy 1 break hole 1	milliseconds	FaxBusy1LowPassGain	200	217	0x02DF	1	0xFFFF
Busy 1 idx next cell 1	Index of next pattern	Busy1UpperThreshold	200	218	0x2A00	1	0xFFFF
Busy 1 idx restart cell 1	Index to restart at	Busy1LowerThreshold	200	219	0x1C00	1	0xFFFF
Busy 1 flag detection performed 1	Is this the last detection pattern?	Busy1LowerThreshold	200	219	0x2B	0	0xFF
Busy 1 make min 2	milliseconds	Busy2FilterStage1A1	200	220	0x02CA	0	0xFFFF
Busy 1 make max 2	milliseconds	Busy2FilterStage1A2	200	221	0xFD36	0	0xFFFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 1 make hole 2	milliseconds	Busy2FilterStage1A3	200	222	0x0000	0	0xFFFF
Busy 1 break min 2	milliseconds	Busy2FilterStage1B1	200	223	0x7243	0	0xFFFF
Busy 1 break max 2	milliseconds	Busy2FilterStage1B2	200	224	0xC63E	0	0xFFFF
Busy 1 break hole 2	milliseconds	Busy2FilterStage2A1	200	225	0x02CA	0	0xFFFF
Busy 1 idx next cell 2	Index of next pattern	Busy2FilterStage2A2	200	226	0x0593	0	0xFFFF
Busy 1 idx restart cell 2	Index to restart at	FaxBsy2FilterStge2A3	200	227	0x02CA	0	0xFFFF
Busy 1 flag detection performed 2	Is this the last detection pattern?	FaxBsy2FilterStge2B1	200	228	0x7243	0	0xFFFF
Busy 1 make min 3	milliseconds	Busy2FilterStage2B2	200	229	0xC63E	0	0xFFFF
Busy 1 make max 3	milliseconds	Busy2LowPassFeedback	200	230	0x7E67	1	0xFFFF
Busy 1 make hole 3	milliseconds	FaxBusy2LowPassGain	200	231	0x02DF	1	0xFFFF
Busy 1 break min 3	milliseconds	Busy2UpperThreshold	200	232	0x2A00	1	0xFFFF
Busy 1 break max 3	milliseconds	Busy2LowerThreshold	200	233	0x1C00	1	0xFFFF
Busy 1 break hole 3	milliseconds	Busy1DetectAlgorithm	200	234	0x20	0x20	0x21
Busy 1 idx next cell 3	Index of next pattern	Busy1NumCellPattern	200	235	1	0	3
Busy 1 idx restart cell 3	Index to restart at	Busy1NumCellPattern	200	235	2	0	0xFF
Busy 1 flag detection performed 3	Is this the last detection pattern?	Busy1TmoutResetDetct	200	236	100	1	15000
Busy 2 detection algorithm		FaxBusy1MakeMin1	200	237	450	0	10000
Busy 2 number cell pattern	number of patterns to describe the sequence	FaxBusy1MakeMin1	200	237	0	0	0xFF
Busy 2 timeout reset detector	milliseconds	FaxBusy1MakeMax1	200	238	550	0	10000
Busy 2 make min 1	milliseconds	FaxBusy1MakeMax1	200	238	0	0	0xFF
Busy 2 make max 1	milliseconds	FaxBusy1MakeHole1	200	239	40	0	10000
Busy 2 make hole 1	milliseconds	FaxBusy1BreakMin1	200	240	450	0	10000
Busy 2 break min 1	milliseconds	FaxBusy1BreakMin1	200	240	0	0	0xFF
Busy 2 break max 1	milliseconds	FaxBusy1BreakMax1	200	241	550	0	10000
Busy 2 break hole 1	milliseconds	FaxBusy1BreakMax1	200	241	0	0	0xFF
Busy 2 idx next cell 1	Index of next pattern	FaxBusy1BreakHole1	200	242	0	0	10000
Busy 2 idx restart cell 1	Index to restart at	FaxBusy1IdxNextCell1	200	243	0	0	2
Busy 2 flag detection performed 1	Is this the last detection pattern?	Busy1IdxRestartCell1	200	244	0	0	2
Busy 2 make min 2	milliseconds	Busy1FlagDetctPerfd1	200	245	1	0	1
Busy 2 make max 2	milliseconds	FaxBusy1MakeMin2	200	246	0	0	10000
Busy 2 make hole 2	milliseconds	FaxBusy1MakeMax2	200	247	0	0	10000
Busy 2 break min 2	milliseconds	FaxBusy1MakeHole2	200	248	0	0	10000
Busy 2 break max 2	milliseconds	FaxBusy1BreakMin2	200	249	0	0	10000
Busy 2 break hole 2	milliseconds	FaxBusy1BreakMax2	200	250	0	0	10000
Busy 2 idx next cell 2	Index of next pattern	FaxBusy1BreakHole2	200	251	0	0	10000
Busy 2 idx restart cell 2	Index to restart at	FaxBusy1IdxNextCell2	200	252	0	0	2
Busy 2 flag detection performed 2	Is this the last detection pattern?	Busy1IdxRestartCell2	200	253	0	0	2
Busy 2 make min 3	milliseconds	Busy1FlgDetectPerfd2	200	254	0	0	1
Busy 2 make max 3	milliseconds	FaxBusy1MakeMin3	200	255	0	0	10000
Busy 2 make hole 3	milliseconds	FaxBusy1MakeMax3	200	256	0	0	10000
Busy 2 break min 3	milliseconds	FaxBusy1MakeHole3	200	257	0	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Busy 2 break max 3	milliseconds	FaxBusy1BreakMin3	200	258	0	0	10000
Busy 2 break hole 3	milliseconds	FaxBusy1BreakMax3	200	259	0	0	10000
Busy 2 idx next cell 3	Index of next pattern	FaxBusy1BreakHole3	200	260	0	0	10000
Busy 2 idx restart cell 3	Index to restart at	FaxBusy1IdxNextCell3	200	261	0	0	2
Busy 2 flag detection performed 3	Is this the last detection pattern?	Busy1IdxRestartCell3	200	262	0	0	2
Congest 1 Filter stage 1 A1	0x02CA	Busy1FlagDetctPerfd3	200	263	0	0	1
Congest 1 Filter stage 1 A2	0xFD36	Busy2DetectAlgorithm	200	264	0x20	0x20	0x21
Congest 1 Filter stage 1 A3	0x0000	Busy2NumCellPattern	200	265	1	0	3
Congest 1 Filter stage 1 B1	0x7243	Busy2TmoutResetDetct	200	266	100	1	15000
Congest 1 Filter stage 1 B2	0xC63E	FaxBusy2MakeMin1	200	267	600	0	10000
Congest 1 Filter stage 2 A1	0x02CA	FaxBusy2MakeMax1	200	268	3700	0	10000
Congest 1 Filter stage 2 A2	0x0593	FaxBusy2MakeHole1	200	269	130	0	10000
Congest 1 Filter stage 2 A3	0x02CA	FaxBusy2BreakMin1	200	270	550	0	10000
Congest 1 Filter stage 2 B1	0x7243	FaxBusy2BreakMax1	200	271	550	0	10000
Congest 1 Filter stage 2 B2	0xC63E	FaxBusy2BreakHole1	200	272	0	0	10000
Congest 1 Low Pass Feedback	0x7E67	FaxBusy2IdxNextCell1	200	273	0	0	2
Congest 1 Low Pass Gain	0x02DF	Busy2IdxRestartCell1	200	274	0	0	2
Congest 1 Upper Threshold	0x2A00	Busy2FlagDetctPerfd1	200	275	1	0	1
Congest 1 Lower Threshold	0x1C00	FaxBusy2MakeMin2	200	276	0	0	10000
Congest 1 detection algorithm		FaxBusy2MakeMax2	200	277	0	0	10000
Congest 1 number cell pattern	number of patterns to describe the sequence	FaxBusy2MakeHole2	200	278	0	0	10000
Congest 1 timeout reset detector	milliseconds	FaxBusy2BreakMin2	200	279	0	0	10000
Congest 1 make min 1	milliseconds	FaxBusy2BreakMax2	200	280	0	0	10000
Congest 1 make max 1	milliseconds	FaxBusy2BreakHole2	200	281	0	0	10000
Congest 1 make hole 1	milliseconds	FaxBusy2IdxNextCell2	200	282	0	0	2
Congest 1 break min 1	milliseconds	Busy2IdxRestartCell2	200	283	0	0	2
Congest 1 break max 1	milliseconds	Busy2FlagDetctPerfd2	200	284	0	0	1
Congest 1 break hole 1	milliseconds	FaxBusy2MakeMin3	200	285	0	0	10000
Congest 1 idx next cell 1	Index of next pattern	FaxBusy2MakeMax3	200	286	0	0	10000
Congest 1 idx restart cell 1	Index to restart at	FaxBusy2MakeHole3	200	287	0	0	10000
Congest 1 flag detection performed 1	Is this the last detection pattern?	FaxBusy2BreakMin3	200	288	0	0	10000
Congest 1 make min 2	milliseconds	FaxBusy2BreakMax3	200	289	0	0	10000
Congest 1 make max 2	milliseconds	FaxBusy2BreakHole3	200	290	0	0	10000
Congest 1 make hole 2	milliseconds	FaxBusy2IdxNextCell3	200	291	0	0	2
Congest 1 break min 2	milliseconds	Busy2IdxRestartCell3	200	292	0	0	2
Congest 1 break max 2	milliseconds	Busy2FlagDetctPerfd3	200	293	0	0	1
Congest 1 break hole 2	milliseconds	Congt1FilterStage1A1	200	294	0x02CA	0	0xFFFF
Congest 1 idx next cell 2	Index of next pattern	Congt1FilterStage1A2	200	295	0xFD36	0	0xFFFF
Congest 1 idx restart cell 2	Index to restart at	Congt1FilterStage1A3	200	296	0x0000	0	0xFFFF
Congest 1 flag detection performed 2	Is this the last detection pattern?	Congt1FilterStage1B1	200	297	0x7243	0	0xFFFF
Congest 1 make min 3	milliseconds	Congt1FilterStage1B2	200	298	0xC63E	0	0xFFFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Congest 1 make max 3	milliseconds	Congt1FilterStage2A1	200	299	0x02CA	0	0xFFFF
Congest 1 make hole 3	milliseconds	Congt1FilterStage2A2	200	300	0x0593	0	0xFFFF
Congest 1 break min 3	milliseconds	Congt1FilterStage2A3	200	301	0x02CA	0	0xFFFF
Congest 1 break max 3	milliseconds	Congt1FilterStage2B1	200	302	0x7243	0	0xFFFF
Congest 1 break hole 3	milliseconds	Congt1FilterStage2B2	200	303	0xC63E	0	0xFFFF
Congest 1 idx next cell 3	Index of next pattern	Congt1LwPassFeedback	200	304	0x7E67	1	0xFFFF
Congest 1 idx restart cell 3	Index to restart at	Congest1LowPassGain	200	305	0x02DF	1	0xFFFF
Congest 1 flag detection performed 3	Is this the last detection pattern?	Congt1UpperThreshold	200	306	0x2A00	1	0xFFFF
CED 1 Filter stage 1 A1	0x02CA	Congt1LowerThreshold	200	307	0x1C00	1	0xFFFF
CED 1 Filter stage 1 A2	0xFD36	Congt1DetctAlgorithm	200	308	0x20	0x20	0x21
CED 1 Filter stage 1 A3	0x0000	Congt1NumCellPattern	200	309	1	0	3
CED 1 Filter stage 1 B1	0x7243	Congt1TmoutRsetDetct	200	310	100	1	15000
CED 1 Filter stage 1 B2	0xC63E	FaxCongest1MakeMin1	200	311	450	0	10000
CED 1 Filter stage 2 A1	0x02CA	FaxCongest1MakeMax1	200	312	550	0	10000
CED 1 Filter stage 2 A2	0x0593	FaxCongest1MakeHole1	200	313	40	0	10000
CED 1 Filter stage 2 A3	0x02CA	FaxCongest1BreakMin1	200	314	450	0	10000
CED 1 Filter stage 2 B1	0x7243	FaxCongest1BreakMax1	200	315	550	0	10000
CED 1 Filter stage 2 B2	0xC63E	FaxCongst1BreakHole1	200	316	0	0	10000
CED 1 Low Pass Feedback	0x7E67	Congest1IdxNextCell1	200	317	0	0	2
CED 1 Low Pass Gain	0x02DF	Congt1IdxRstartCell1	200	318	0	0	2
CED 1 Upper Threshold	0x2A00	Congt1FlgDetctPerfd1	200	319	1	0	1
CED 1 Lower Threshold	0x1C00	FaxCongest1MakeMin2	200	320	0	0	10000
FAX/data answer tone detection threshold (-dB)	0 - 255 (-dB)	FaxCongest1MakeMax2	200	321	0	0	10000
CED 1 detection algorithm		FaxCongest1MakeHole2	200	322	0	0	10000
CED 1 number cell pattern	number of patterns to describe the sequence	FaxCongest1BreakMin2	200	323	0	0	10000
CED 1 timeout reset detector	milliseconds	FaxCongest1BreakMax2	200	324	0	0	10000
Answer tone validation time (x 10ms)	0 - 255 (x10 ms)	FaxCongst1BreakHole2	200	325	0	0	10000
CED 1 make min 1	milliseconds	Congest1IdxNextCell2	200	326	0	0	2
CED 1 make max 1	milliseconds	Congt1IdxRstartCell2	200	327	0	0	2
CED 1 make hole 1	milliseconds	Congt1FlgDetctPerfd2	200	328	0	0	1
CED 1 break min 1	milliseconds	FaxCongest1MakeMin3	200	329	0	0	10000
CED 1 break max 1	milliseconds	FaxCongest1MakeMax3	200	330	0	0	10000
CED 1 break hole 1	milliseconds	FaxCongest1MakeHole3	200	331	0	0	10000
CED 1 idx next cell 1	Index of next pattern	FaxCongest1BreakMin3	200	332	0	0	10000
CED 1 idx restart cell 1	Index to restart at	FaxCongest1BreakMax3	200	333	0	0	10000
CED 1 flag detection performed 1	Is this the last detection pattern?	FaxCongst1BreakHole3	200	334	0	0	10000
CED 1 make min 2	milliseconds	Congest1IdxNextCell3	200	335	0	0	2
CED 1 make max 2	milliseconds	Congt1IdxRstartCell3	200	336	0	0	2
CED 1 make hole 2	milliseconds	Congt1FlgDetctPerfd3	200	337	0	0	1
CED 1 break min 2	milliseconds	FaxCED1FiltrStage1A1	200	338	0x02CA	1	0xFFFF
CED 1 break max 2	milliseconds	FaxCED1FiltrStage1A2	200	339	0xFD36	1	0xFFFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
CED 1 break hole 2	milliseconds	FaxCED1FiltrStage1A3	200	340	0x0000	0	0xFFFF
CED 1 idx next cell 2	Index of next pattern	FaxCED1FiltrStage1B1	200	341	0x7243	1	0xFFFF
CED 1 idx restart cell 2	Index to restart at	FaxCED1FiltrStage1B2	200	342	0xC63E	1	0xFFFF
CED 1 flag detection performed 2	Is this the last detection pattern?	FaxCED1FiltrStage2A1	200	343	0x02CA	1	0xFFFF
CED 1 make min 3	milliseconds	FaxCED1FiltrStage2A2	200	344	0x0593	1	0xFFFF
CED 1 make max 3	milliseconds	FaxCED1FiltrStage2A3	200	345	0x02CA	1	0xFFFF
CED 1 make hole 3	milliseconds	FaxCED1FiltrStage2B1	200	346	0x7243	1	0xFFFF
CED 1 break min 3	milliseconds	FaxCED1FiltrStage2B2	200	347	0xC63E	1	0xFFFF
CED 1 break max 3	milliseconds	FaxCED1LwPassFeedbck	200	348	0x7E67	1	0xFFFF
CED 1 break hole 3	milliseconds	FaxCED1LowPassGain	200	349	0x02DF	1	0xFFFF
CED 1 idx next cell 3	Index of next pattern	FaxCED1UpprThreshold	200	350	0x2A00	1	0xFFFF
CED 1 idx restart cell 3	Index to restart at	FaxCED1LowrThreshold	200	351	0x1C00	1	0xFFFF
CED 1 flag detection performed 3	Is this the last detection pattern?	FaxCED1LowrThreshold	200	351	0x2B	0	0xFF
International Dtone 1 Filter stage 1 A1	0x02CA	CED1DetectAlgorithm	200	352	0x20	0x20	0x21
International Dtone 1 Filter stage 1 A2	0xFD36	CED1NumCellPattern	200	353	1	0	3
International Dtone 1 Filter stage 1 A3	0x0000	CED1TmoutResetDetect	200	354	100	1	15000
International Dtone 1 Filter stage 1 B1	0x7243	CED1TmoutResetDetect	200	354	0x0A	0	0xFF
International Dtone 1 Filter stage 1 B2	0xC63E	FaxCED1MakeMin1	200	355	600	0	10000
International Dtone 1 Filter stage 2 A1	0x02CA	FaxCED1MakeMax1	200	356	600	0	10000
International Dtone 1 Filter stage 2 A2	0x0593	FaxCED1MakeHole1	200	357	30	0	10000
International Dtone 1 Filter stage 2 A3	0x02CA	FaxCED1BreakMin1	200	358	0	0	10000
International Dtone 1 Filter stage 2 B1	0x7243	FaxCED1BreakMax1	200	359	0	0	10000
International Dtone 1 Filter stage 2 B2	0xC63E	FaxCED1BreakHole1	200	360	0	0	10000
International Dtone 1 Low Pass Feedback	0x7E67	FaxCED1IdxNextCell1	200	361	0	0	0xff
International Dtone 1 Low Pass Gain	0x02DF	CED1IdxRestartCell1	200	362	0	0	2
International Dtone 1 Upper Threshold	0x2A00	CED1FlagDetectPerfd1	200	363	1	0	1
International Dtone 1 Lower Threshold	0x1C00	FaxCED1MakeMin2	200	364	0	0	10000
Select tones to detect before dialling	0 = blind dial 1 = detect dial tone.	FaxCED1MakeMax2	200	365	0	0	10000
Dial tone detection before dialling	0 = detect dial tone 1 = blind dial 2 = blind dial with speaker on	FaxCED1MakeHole2	200	366	0	0	10000
Determines pause time before dial (blind mode) or dial tone detection timeout.	0-255 1=100ms	FaxCED1BreakMin2	200	367	0	0	10000
Determines pause time before dialing (blind dial mode)	0 - 65 seconds	FaxCED1BreakMax2	200	368	0	0	10000
Make time for pulse dialling	0-255 1=1mS step	FaxCED1BreakHole2	200	369	0	0	10000
Make time for pulse dialling	0-255 1=1mS step	FaxCED1IdxNextCell2	200	370	0	0	2
Break time for pulse dialling	0-255 1=1mS step	CED1IdxRestartCell2	200	371	0	0	2
Break time for pulse dialling	0-255 1=1mS step	CED1FlagDetectPerfd2	200	372	0	0	1
Interdigit pause for pulse dialling	0-255 1 = 10mS step	FaxCED1MakeMin3	200	373	0	0	10000
Select tones to detect after dialling	0 = No Detect (ANSAM/CED Only) 1 = Detect BUSY/CED/ANSAM 2 = Detect Cong/CED/ANSAM 3 = Detect BUSY/Cong/CED/ANSAM	FaxCED1MakeMax3	200	374	0	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Select tones to detect after dialling (Busy tone)	0 = No Detect (ANSAM/CED Only) 1 = Detect BUSY/CED/ANSAM	FaxCED1MakeHole3	200	375	0	0	10000
CED detect time from end of dial to call cleardown.	0-255 1 = 1S step	FaxCED1BreakMin3	200	376	0	0	10000
CED detect time from end of dial to call cleardown.	0-255 1 = 1S step	FaxCED1BreakMax3	200	377	0	0	10000
Abandons call and does not redial if T0 timeout occurrs (no ANSAM/CED detection)	0=disabled 1=enabled	FaxCED1BreakHole3	200	378	0	0	10000
Fax modem Tx level for line1 and 2	0 - -15 dBm in -1 dB steps 0= 0dBm, 15=-15dBm	FaxCED1IdxNextCell3	200	379	0	0	2
Fax modem Tx level for line1 and 2	0 - -20 dBm in -1 dB steps 0= 0dBm, 20=-20dBm	CED1IdxRestartCell3	200	380	0	0	2
Selects type of billing filter	0=none 1=12Khz 2=16KHz	CED1FlagDetectPerfd3	200	381	0	0	1
Selects type of billing filter	0=none 1=12Khz 2=16KHz	IntDtone1FltrStge1A1	200	382	0x02CA	1	0xFFFF
Receive level	0 = -43dB 1 = -48dB	IntDtone1FltrStge1A2	200	383	0xFD36	1	0xFFFF
Carrier receive threshhold (in dB) with a 6 dB DSP/DAA offset. This parameter should bet set to the required threshold + 6dB gain	0 - 255 (-dB)	IntDtone1FltrStge1A3	200	384	0x0000	0	0xFFFF
Tx level of DTMF high freq group	0-30 (0 - -15 dBm) 1 = - 0.5 dB step	IntDtone1FltrStge1B1	200	385	0x7243	1	0xFFFF
Tx level of DTMF high freq group	0 - 15 (- dB)	IntDtone1FltrStge1B2	200	386	0xC63E	1	0xFFFF
Tx level of DTMF low freq group	0-30 (0 - -15 dBm) 1 = - 0.5 dB step	IntDtone1FltrStge2A1	200	387	0x02CA	1	0xFFFF
DTMF ToneTime	0 - 30000 ms units	IntDtone1FltrStge2A2	200	388	0x0593	1	0xFFFF
DTMF Tone and Interdigit duration	0 - 255 ms	IntDtone1FltrStge2A3	200	389	0x02CA	1	0xFFFF
DTMF Interdigit Time	0 - 30000 ms units	IntDtone1FltrStge2B1	200	390	0x7243	1	0xFFFF
Delay between faxes	Guard delay between outgoing faxes (seconds)	IntDtone1FltrStge2B2	200	391	0xC63E	1	0xFFFF
Line 1 impedance	0 - Complex 1 - 600ohms	IntDtone1LwPssFdback	200	392	0x7E67	1	0xFFFF
Line 1 impedance	0 - CSP1034 (internal) 1 - Real (unused) 2 - Complex (external)	IntDtone1LwPssGain	200	393	0x02DF	1	0xFFFF
Line 2 impedance	0 - Complex 1 - 600ohms	IntDtone1UprThrshold	200	394	0x2A00	1	0xFFFF
Line 2 impedance	0 - CSP1034 (internal) 1 - Real (unused) 2 - Complex (external)	IntDtone1LwrThrshold	200	395	0x1C00	1	0xFFFF
Line 1 Current	0 - Off 1 - On	DetTonesBeforeDial	200	396	0	0	1
Line 1 Current Limit	0 - Off 1 - On	DetTonesBeforeDial	200	396	1	0	2
Line 2 Current	0 - Off 1 - On	TimeBeforeDial	200	397	13	0	255
Line 2 Current Limit	0 - Off 1 - On	TimeBeforeDial	200	397	2	0	65
Ring detector dwell	350 msec	PulseDialMake	200	398	40	0	255
Ring detector min freq	N = 2400 / Frequency	PulseDialMake	200	398	0x23	0x00	0xFF
Ring detector minimum frequency (max period)	0 - 255; expressed as 1000 / (0.833 x min ring frequency)	PulseDialBreak	200	399	60	0	255

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Ring detector max freq	N = 2400 / Frequency	PulseDialBreak	200	399	0x42	0x00	0xFF
Ring detector maximum frequency (min period)	0 - 255; expressed as 1000 / (0.833 x max ring frequency)	PulseDialInterdigit	200	400	80	0	255
Ring 1 detection algorithm	0x20	DetTonesAfterDial	200	401	1	0	3
Ring 1 number cell pattern	number of patterns to describe the sequence	DetTonesAfterDial	200	401	1	0	1
Ring 1 timeout reset detector	milliseconds	T0Timeout	200	402	45	0	255
Ring timeout reset detector	0 - 255 (x100 ms)	T0Timeout	200	402	55	0	255
Ring 1 make min 1	milliseconds	AbandonCall	200	403	0	0	1
Ring make minimum	0 - 255 (x10 ms)	FaxTxSignalLevLn1Ln2	200	404	10	0	15
Ring 1 make max 1	milliseconds	FaxTxSignalLevLn1Ln2	200	404	0x0C	0x00	0x14
Ring 1 make hole 1	milliseconds	BillingFilterTypeLn1	200	405	0	0	2
Ring 1 break min 1	milliseconds	BillingFilterTypeLn2	200	406	0	0	2
Ring break minimum	0 - 255 (x100 ms)	FaxReceiveLevel	200	407	0	0	1
Ring 1 break max 1	milliseconds	FaxReceiveLevel	200	407	0x2e	0x00	0xFF
Ring 1 break hole 1	milliseconds	FaxDTMFHighFreqLevel	200	408	8	0	30
Ring 1 idx next cell 1	Index of next pattern	FaxDTMFHighFreqLevel	200	408	8	0	15
Ring 1 idx restart cell 1	Index to restart at	FaxDTMFLowFreqLevel	200	409	10	0	30
Ring 1 flag detection performed 1	Is this the last detection pattern?	FaxDTMFToneTime	200	410	80	0	30000
Ring 1 make min 2	milliseconds	FaxDTMFToneTime	200	410	100	0	255
Ring 1 make max 2	milliseconds	FaxDTMFIntdigitTime	200	411	75	0	30000
Ring 1 make hole 2	milliseconds	FaxDelayBetweenFaxes	200	412	3	1	10
Ring 1 break min 2	milliseconds	Line 1 Impedance	200	413	0	0	1
Ring 1 break max 2	milliseconds	Line 1 Impedance	200	413	0	0	2
Ring 1 break hole 2	milliseconds	Line 2 Impedance	200	414	0	0	1
Ring 1 idx next cell 2	Index of next pattern	Line 2 Impedance	200	414	0	0	2
Ring 1 idx restart cell 2	Index to restart at	Line 1 Current	200	415	1	0	1
Ring 1 flag detection performed 2	Is this the last detection pattern?	Line 1 Current	200	415	0	0	1
Ring 1 make min 3	milliseconds	Line 2 Current	200	416	1	0	1
Ring 1 make max 3	milliseconds	Line 2 Current	200	416	0	0	1
Ring 1 make hole 3	milliseconds	FaxRingDetectorDwell	200	417	350	1	10000
Ring 1 break min 3	milliseconds	RingDetectorMinFreq	200	418	0xA0	1	0xFFFF
Ring 1 break max 3	milliseconds	RingDetectorMinFreq	200	418	0x55	0	0xFF
Ring 1 break hole 3	milliseconds	RingDetectorMaxFreq	200	419	0x23	1	0xFFFF
Ring 1 idx next cell 3	Index of next pattern	RingDetectorMaxFreq	200	419	0x12	0	0xFF
Ring 1 idx restart cell 3	Index to restart at	Ring1DetectAlgorithm	200	420	0x20	0x20	0x21
Ring 1 flag detection performed 3	Is this the last detection pattern?	Ring1NumCellPattern	200	421	1	0	3
Ring 2 detection algorithm		Ring1TmoutRsetDetect	200	422	8000	1000	15000
Ring 2 number cell pattern	number of ring pattern detectors	Ring1TmoutRsetDetect	200	422	0x50	0	0xFF
Ring 2 timeout reset detector	milliseconds	FaxRing1MakeMin1	200	423	150	0	10000
Ring 2 make min 1	milliseconds	FaxRing1MakeMin1	200	423	0x0E	0	0xFF
Ring 2 make max 1	milliseconds	FaxRing1MakeMax1	200	424	5000	0	10000
Ring 2 make hole 1	milliseconds	FaxRing1MakeHole1	200	425	100	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Ring 2 break min 1	milliseconds	FaxRing1BreakMin1	200	426	125	0	10000
Ring 2 break max 1	milliseconds	FaxRing1BreakMin1	200	426	0x1E	0	0xFF
Ring 2 break hole 1	milliseconds	FaxRing1BreakMax1	200	427	5500	0	10000
Ring 2 idx next cell 1	Index of next pattern	FaxRing1BreakHole1	200	428	100	0	10000
Ring 2 idx restart cell 1	Index to restart at	FaxRing1IdxNextCell1	200	429	0	0	2
Ring 2 flag detection performed 1	Is this the last detection pattern?	Ring1IdxRestartCell1	200	430	0	0	2
Ring 2 make min 2	milliseconds	Ring1FlgDetectPerfd1	200	431	1	0	1
Ring 2 make max 2	milliseconds	FaxRing1MakeMin2	200	432	0	0	10000
Ring 2 make hole 2	milliseconds	FaxRing1MakeMax2	200	433	0	0	10000
Ring 2 break min 2	milliseconds	FaxRing1MakeHole2	200	434	0	0	10000
Ring 2 break max 2	milliseconds	FaxRing1BreakMin2	200	435	0	0	10000
Ring 2 break hole 2	milliseconds	FaxRing1BreakMax2	200	436	0	0	10000
Ring 2 idx next cell 2	Index of next pattern	FaxRing1BreakHole2	200	437	0	0	10000
Ring 2 idx restart cell 2	Index to restart at	FaxRing1IdxNextCell2	200	438	0	0	2
Ring 2 flag detection performed 2	Is this the last detection pattern?	Ring1IdxRestartCell2	200	439	0	0	2
Ring 2 make min 3	milliseconds	Ring1FlgDetectPerfd2	200	440	0	0	1
Ring 2 make max 3	milliseconds	FaxRing1MakeMin3	200	441	0	0	10000
Ring 2 make hole 3	milliseconds	FaxRing1MakeMax3	200	442	0	0	10000
Ring 2 break min 3	milliseconds	FaxRing1MakeHole3	200	443	0	0	10000
Ring 2 break max 3	milliseconds	FaxRing1BreakMin3	200	444	0	0	10000
Ring 2 break hole 3	milliseconds	FaxRing1BreakMax3	200	445	0	0	10000
Ring 2 idx next cell 3	Index of next pattern	FaxRing1BreakHole3	200	446	0	0	10000
Ring 2 idx restart cell 3	Index to restart at	FaxRing1IdxNextCell3	200	447	0	0	2
Ring 2 flag detection performed 3	Is this the last detection pattern?	Ring1IdxRestartCell3	200	448	0	0	2
Dtone 1 Filter stage 1 A1	0x02CA	Ring1FlgDetectPerfd3	200	449	0	0	1
Dtone 1 Filter stage 1 A2	0xFD36	Ring2DetectAlgorithm	200	450	0x20	0x20	0x21
Dtone 1 Filter stage 1 A3	0x0000	Ring2NumCellPattern	200	451	0	0	3
Dtone 1 Filter stage 1 B1	0x7243	Ring2TmoutResetDetct	200	452	8000	1000	15000
Dtone 1 Filter stage 1 B2	0xC63E	FaxRing2MakeMin1	200	453	0	0	10000
Dtone 1 Filter stage 2 A1	0x02CA	FaxRing2MakeMax1	200	454	0	0	10000
Dtone 1 Filter stage 2 A2	0x0593	FaxRing2MakeHole1	200	455	0	0	10000
Dtone 1 Filter stage 2 A3	0x02CA	FaxRing2BreakMin1	200	456	0	0	10000
Dtone 1 Filter stage 2 B1	0x7243	FaxRing2BreakMax1	200	457	0	0	10000
Dtone 1 Filter stage 2 B2	0xC63E	FaxRing2BreakHole1	200	458	0	0	10000
Dtone 1 Low Pass Feedback	0x7E67	FaxRing2IdxNextCell1	200	459	0	0	2
Dtone 1 Low Pass Gain	0x02DF	Ring2IdxRestartCell1	200	460	0	0	2
Dtone 1 Upper Threshold	0x2A00	Ring2FlgDetectPerfd1	200	461	1	0	1
Dtone 1 Lower Threshold	0x1C00	FaxRing2MakeMin2	200	462	0	0	10000
Dtone Lower Threshold	0 - 255 (-dB)	FaxRing2MakeMax2	200	463	0	0	10000
Dtone 2 Filter stage 1 A1	0x02CA	FaxRing2MakeHole2	200	464	0	0	10000
Dtone 2 Filter stage 1 A2	0xFD36	FaxRing2BreakMin2	200	465	0	0	10000
Dtone 2 Filter stage 1 A3	0x0000	FaxRing2BreakMax2	200	466	0	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 2 Filter stage 1 B1	0x7243	FaxRing2BreakHole2	200	467	0	0	10000
Dtone 2 Filter stage 1 B2	0xC63E	FaxRing2IdxNextCell2	200	468	0	0	2
Dtone 2 Filter stage 2 A1	0x02CA	Ring2IdxRestartCell2	200	469	0	0	2
Dtone 2 Filter stage 2 A2	0x0593	Ring2FlgDetectPerfd2	200	470	0	0	1
Dtone 2 Filter stage 2 A3	0x02CA	FaxRing2MakeMin3	200	471	0	0	10000
Dtone 2 Filter stage 2 B1	0x7243	FaxRing2MakeMax3	200	472	0	0	10000
Dtone 2 Filter stage 2 B2	0xC63E	FaxRing2MakeHole3	200	473	0	0	10000
Dtone 2 Low Pass Feedback	0x7E67	FaxRing2BreakMin3	200	474	0	0	10000
Dtone 2 Low Pass Gain	0x02DF	FaxRing2BreakMax3	200	475	0	0	10000
Dtone 2 Upper Threshold	0x2A00	FaxRing2BreakHole3	200	476	0	0	10000
Dtone 2 Lower Threshold	0x1C00	FaxRing2IdxNextCell3	200	477	0	0	2
Dtone 1 detection algorithm		Ring2IdxRestartCell3	200	478	0	0	2
Dtone 1 number cell pattern	number of patterns to describe the sequence	Ring2FlgDetectPerfd3	200	479	0	0	1
Dtone 1 timeout reset detector	milliseconds	Dtone1FilterStage1A1	200	480	0x02CA	0	0xFFFF
Dtone 1 make min 1	milliseconds	Dtone1FilterStage1A2	200	481	0xFD36	0	0xFFFF
Dtone 1 make max 1	milliseconds	Dtone1FilterStage1A3	200	482	0x0000	0	0xFFFF
Dtone 1 make hole 1	milliseconds	Dtone1FilterStage1B1	200	483	0x7243	0	0xFFFF
Dtone make hole	0 - 255 (ms)	Dtone1FilterStage1B2	200	484	0xC63E	0	0xFFFF
Dtone 1 break min 1	milliseconds	Dtone1FilterStage2A1	200	485	0x02CA	0	0xFFFF
Dtone 1 break max 1	milliseconds	Dtone1FilterStage2A2	200	486	0x0593	0	0xFFFF
Dtone 1 break hole 1	milliseconds	Dtone1FilterStage2A3	200	487	0x02CA	0	0xFFFF
Dtone 1 idx next cell 1	Index of next pattern	Dtone1FilterStage2B1	200	488	0x7243	0	0xFFFF
Dtone 1 idx restart cell 1	Index to restart at	Dtone1FilterStage2B2	200	489	0xC63E	0	0xFFFF
Dtone 1 flag detection performed 1	Is this the last detection pattern?	Dtone1LowPassFeedbck	200	490	0x7E67	1	0xFFFF
Dtone 1 make min 2	milliseconds	FaxDtone1LowPassGain	200	491	0x02DF	1	0xFFFF
Dtone 1 make max 2	milliseconds	Dtone1UpperThreshold	200	492	0x2A00	1	0xFFFF
Dtone 1 make hole 2	milliseconds	Dtone1LowerThreshold	200	493	0x1C00	1	0xFFFF
Dtone 1 break min 2	milliseconds	Dtone1LowerThreshold	200	493	0x28	0	0xFF
Dtone 1 break max 2	milliseconds	Dtone2FilterStage1A1	200	494	0x02CA	0	0xFFFF
Dtone 1 break hole 2	milliseconds	Dtone2FilterStage1A2	200	495	0xFD36	0	0xFFFF
Dtone 1 idx next cell 2	Index of next pattern	Dtone2FilterStage1A3	200	496	0x0000	0	0xFFFF
Dtone 1 idx restart cell 2	Index to restart at	Dtone2FilterStage1B1	200	497	0x7243	0	0xFFFF
Dtone 1 flag detection performed 2	Is this the last detection pattern?	Dtone2FilterStage1B2	200	498	0xC63E	0	0xFFFF
Dtone 1 make min 3	milliseconds	Dtone2FilterStage2A1	200	499	0x02CA	0	0xFFFF
Dtone 1 make max 3	milliseconds	Dtone2FilterStage2A2	200	500	0x0593	0	0xFFFF
Dtone 1 make hole 3	milliseconds	Dtone2FilterStage2A3	200	501	0x02CA	0	0xFFFF
Dtone 1 break min 3	milliseconds	Dtone2FilterStage2B1	200	502	0x7243	0	0xFFFF
Dtone 1 break max 3	milliseconds	Dtone2FilterStage2B2	200	503	0xC63E	0	0xFFFF
Dtone 1 break hole 3	milliseconds	Dtone2LwPassFeedback	200	504	0x7E67	1	0xFFFF
Dtone 1 idx next cell 3	Index of next pattern	FaxDtone2LowPassGain	200	505	0x02DF	1	0xFFFF
Dtone 1 idx restart cell 3	Index to restart at	Dtone2UpperThreshold	200	506	0x2A00	1	0xFFFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Dtone 1 flag detection performed 3	Is this the last detection pattern?	Dtone2LowerThreshold	200	507	0x1C00	1	0xFFFF
Dtone 2 detection algorithm		Dtone1DetctAlgorithm	200	508	0x20	0x20	0x21
Dtone 2 number cell pattern	number of ring pattern detectors	Dtone1NumCellPattern	200	509	1	0	3
Dtone 2 timeout reset detector	milliseconds	Dtone1TmoutRsetDetct	200	510	100	1	15000
Dtone 2 make min 1	milliseconds	FaxDtone1MakeMin1	200	511	600	0	10000
Dtone 2 make max 1	milliseconds	FaxDtone1MakeMax1	200	512	3700	0	10000
Dtone 2 make hole 1	milliseconds	FaxDtone1MakeHole1	200	513	130	0	10000
Dtone 2 break min 1	milliseconds	FaxDtone1MakeHole1	200	513	0x32	0	0xFF
Dtone 2 break max 1	milliseconds	FaxDtone1BreakMin1	200	514	550	0	10000
Dtone 2 break hole 1	milliseconds	FaxDtone1BreakMax1	200	515	550	0	10000
Dtone 2 idx next cell 1	Index of next pattern	FaxDtone1BreakHole1	200	516	0	0	10000
Dtone 2 idx restart cell 1	Index to restart at	FaxDtone1IdxNxtCell1	200	517	0	0	0xff
Dtone 2 flag detection performed 1	Is this the last detection pattern?	Dtone1IdxRestrtCell1	200	518	0	0	2
Dtone 2 make min 2	milliseconds	Dtone1FlgDetctPerfd1	200	519	1	0	1
Dtone 2 make max 2	milliseconds	FaxDtone1MakeMin2	200	520	0	0	10000
Dtone 2 make hole 2	milliseconds	FaxDtone1MakeMax2	200	521	0	0	10000
Dtone 2 break min 2	milliseconds	FaxDtone1MakeHole2	200	522	0	0	10000
Dtone 2 break max 2	milliseconds	FaxDtone1BreakMin2	200	523	0	0	10000
Dtone 2 break hole 2	milliseconds	FaxDtone1BreakMax2	200	524	0	0	10000
Dtone 2 idx next cell 2	Index of next pattern	FaxDtone1BreakHole2	200	525	0	0	10000
Dtone 2 idx restart cell 2	Index to restart at	FaxDtone1IdxNxtCell2	200	526	0	0	0xff
Dtone 2 flag detection performed 2	Is this the last detection pattern?	Dtone1IdxRestrtCell2	200	527	0	0	2
Dtone 2 make min 3	milliseconds	Dtone1FlgDetctPerfd2	200	528	0	0	1
Dtone 2 make max 3	milliseconds	FaxDtone1MakeMin3	200	529	0	0	10000
Dtone 2 make hole 3	milliseconds	FaxDtone1MakeMax3	200	530	0	0	10000
Dtone 2 break min 3	milliseconds	FaxDtone1MakeHole3	200	531	0	0	10000
Dtone 2 break max 3	milliseconds	FaxDtone1BreakMin3	200	532	0	0	10000
Dtone 2 break hole 3	milliseconds	FaxDtone1BreakMax3	200	533	0	0	10000
Dtone 2 idx next cell 3	Index of next pattern	FaxDtone1BreakHole3	200	534	0	0	10000
Dtone 2 idx restart cell 3	Index to restart at	FaxDtone1IdxNxtCell3	200	535	0	0	2
Dtone 2 flag detection performed 3	Is this the last detection pattern?	Dtone1IdxRestrtCell3	200	536	0	0	2
The maximum range for the auto redial attempts displayed in SA/KO. Linked to ID204	0 to 14	Dtone1FlgDetctPerfd3	200	537	0	0	1
Application of very low impedance for approximately 350ms at line seizure	0=disabled, 1 = Enabled	Dtone2DetctAlgorithm	200	538	0x20	0x20	0x21
Pause time	0 – 255 seconds	DtoneNumCellPattern	200	539	0	0	3
Dialing Pause time	0 – 65 seconds	DtoneTmoutResetDetct	200	540	100	1	15000
Ring detector min freq Line2	N = 2400 / Frequency	FaxDtone2MakeMin1	200	541	0	0	10000
Ring detector max freq Line2	N = 2400 / Frequency	FaxDtone2MakeMax1	200	542	0	0	10000
Int Dtone detection algorithm		FaxDtone2MakeHole1	200	543	0	0	10000
Int Dtone number cell pattern	number of patterns to describe the sequence	FaxDtone2BreakMin1	200	544	0	0	10000
Int Dtone timeout reset detector	milliseconds	FaxDtone2BreakMax1	200	545	0	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Int Dtone make min 1	milliseconds	FaxDtone2BreakHole1	200	546	0	0	10000
Int Dtone make max 1	milliseconds	FaxDtone2IdxNxtCell1	200	547	0	0	0xff
Int Dtone make hole 1	milliseconds	Dtone2IdxRestrtCell1	200	548	0	0	2
Int. Dtone 1 break min 1	milliseconds	Dtone2FlgDetctPerfd1	200	549	0	0	1
Int Dtone break max 1	milliseconds	FaxDtone2MakeMin2	200	550	0	0	10000
Int Dtone break hole 1	milliseconds	FaxDtone2MakeMax2	200	551	0	0	10000
Int Dtone idx next cell 1	Index of next pattern	FaxDtone2MakeHole2	200	552	0	0	10000
Int Dtone idx restart cell 1	Index to restart at	FaxDtone2BreakMin2	200	553	0	0	10000
Int Dtone flag detection performed 1	Is this the last detection pattern?	FaxDtone2BreakMax2	200	554	0	0	10000
Int Dtone make min 2	milliseconds	FaxDtone2BreakHole2	200	555	0	0	10000
Int Dtone make max 2	milliseconds	FaxDtone2IdxNxtCell2	200	556	0	0	0xff
Int Dtone make hole 2	milliseconds	Dtone2IdxRestrtCell2	200	557	0	0	2
Int Dtone break min 2	milliseconds	Dtone2FlgDetctPerfd2	200	558	0	0	1
Int Dtone break max 2	milliseconds	FaxDtone2MakeMin3	200	559	0	0	10000
Int Dtone break hole 2	milliseconds	FaxDtone2MakeMax3	200	560	0	0	10000
Int Dtone idx next cell 2	Index of next pattern	FaxDtone2MakeHole3	200	561	0	0	10000
Int Dtone idx restart cell 2	Index to restart at	FaxDtone2BreakMin3	200	562	0	0	10000
Int Dtone flag detection performed 2	Is this the last detection pattern?	FaxDtone2BreakMax3	200	563	0	0	10000
Int Dtone make min 3	milliseconds	FaxDtone2BreakHole3	200	564	0	0	10000
Int Dtone make max 3	milliseconds	FaxDtone2IdxNxtCell3	200	565	0	0	2
Int Dtone make hole 3	milliseconds	Dtone2IdxRestrtCell3	200	566	0	0	2
Int Dtone break min 3	milliseconds	Dtone2FlgDetctPerfd3	200	567	0	0	1
Int Dtone break max 3	milliseconds	FaxMaxAutoRedials	200	568	0	0	14
Int Dtone break hole 3	milliseconds	LowImpAtLineSeize	200	569	0	0	1
Int Dtone idx next cell 3	Index of next pattern	FaxPauseTimeDefault	200	570	3	0	255
Int Dtone idx restart cell 3	Index to restart at	FaxPauseTimeDefault	200	570	3	0	65
Int Dtone flag detection performed 3	Is this the last detection pattern?	RingDetectorMinFreq2	200	571	0xA0	1	0xFFFF
Dial tone & call progress frequency filter index	0 = 340 - 560 Hz 1 = 310 - 485 Hz 2 = 363 - 502 Hz 3 = 276 - 504 Hz 4 = 415 - 460 Hz 5 = 310 - 640 Hz 6 = 370 - 525 Hz	RingDetectorMaxFreq2	200	572	0x23	1	0xFFFF
Dial tone detection time-out while detecting dial tone within the dial string (e. International dial tone)	0 - 255 (seconds)	FaxIntDtoneDetctAlg	200	573	0x20	0x20	0x21
DTMF high/low level difference (twist) (dB)	0 - 5 (dB)	FaxIntDtnNumCellPatt	200	574	1	0	3
Dial Tone validation time	0 - 255 (x100 ms)	FaxIntDtnToutRsetDet	200	575	100	1	15000
Dial tone validation delay (ie. The wait time before dial tone detection begins)	0 - 255 (x10 ms)	FaxIntDtoneMakeMin1	200	576	600	0	10000
Ringer impedance relay Line 1	0 = off 1 = on	FaxIntDtoneMakeMax1	200	577	3700	0	10000
Ringer impedance relay Line 2	0 = off 1 = on	FaxIntDtoneMakHole1	200	578	130	0	10000
Maximum total pause duration of multiple pauses during dialing	0 - 255 (seconds)	FaxIntDtoneBrekMin1	200	579	550	0	10000

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
ISDN ASR	ISDN Answer specified number range 1 or 2 numbers	FaxIntDtoneBrkHole1	200	581	0	0	10000
ISDN PP	0 = Operate point to multipoint protocol 1 = Operate point to point protocol	FaxIntDtoneIdxNxtC1	200	582	0	0	0xff
ISDN Overlap receiving	0 = Operate en-block receiving 1 = Operate overlap receiving	FaxIntDtIdxRestrtC1	200	583	0	0	2
ISDN Line Type	0 = National ISDN-1 1 = Northern Telecom (DMS-100) 2 = AT&T Custom (5ESS) 3 = Euro ISDN	FaxIntDtFlgDtPerfd1	200	584	1	0	1
Call Hunting	0 = Disabled 1 = Enabled	FaxIntDtoneMakeMin2	200	585	0	0	10000
TEI setting	0 - 63 (user entered Data)	FaxIntDtoneMakeHole2	200	587	0	0	10000
TEI type	0 = Automatic 1 = Manual	FaxIntDtoneBrkMin2	200	588	0	0	10000
Ohmic termination	0 = Disabled 1 = Enabled	FaxIntDtoneBrkMax2	200	589	0	0	10000
G4 enabled	0 = Disabled 1 = Enabled	FaxIntDtoneBrkHole2	200	590	0	0	10000
Reset/Stop card on recoverable fault	0 = Reset 1 = Stop	FaxIntDtIdxRestrtC2	200	592	0	0	2
Load jobs at start up	0 = Do not load jobs 1 = Load jobs	FaxIntDtFlgDetPrfd2	200	593	0	0	1
Load directories at start up	0 = Do not load directories 1 = Load directories	FaxIntDtoneMakeMin3	200	594	0	0	10000
load mailboxes at start up	0 = Do not load mailboxes 1 = Load mailboxes	FaxIntDtoneMakeMax3	200	595	0	0	10000
Temporary NVM to Capture the data for a received page to RAM disk and copy to NVM if errored.	0 = Disabled X = File size in bytes (Max = 0xFFFF)	FaxIntDtoneMakHole3	200	596	0	0	10000
Last allocated user job ID	Sets the last allocated user job ID	FaxIntDtoneBrkMin3	200	597	0	0	10000
Last allocated recurring job ID	Sets the last allocated recurring job ID	FaxIntDtoneBrkMax3	200	598	0	0	10000
Completed jobs count	Sets the completed jobs count for automatic activity report generation	FaxIntDtoneBrkHole3	200	599	0	0	10000
(Tap 1) Finite impulse response digital filter with programable Coefficients		FaxIntDtoneIdxNxtC3	200	600	0	0	2
(Tap 2) Finite impulse response digital filter with programable Coefficients		IntDtoneIdxRestrtC3	200	601	0	0	2
(Tap 3) Finite impulse response digital filter with programable Coefficients		IntDtoneFlgDetPrfd3	200	602	0	0	1
(Tap 4) Finite impulse response digital filter with programable Coefficients		DToneCPToneFrqFilter	200	603	5	0	6
(Tap 5) Finite impulse response digital filter with programable Coefficients		IntDToneDetectTime	200	604	0x40	0	0xFF
(Tap 6) Finite impulse response digital filter with programable Coefficients		DTMFLevelDifference	200	605	2	0	5
(Tap 7) Finite impulse response digital filter with programable Coefficients		DToneDetectTime	200	606	0x06	0	0xFF
(Tap 8) Finite impulse response digital filter with programable Coefficients		DToneDetectDelay	200	607	0	0	0xFF
(Tap 9) Finite impulse response digital filter with programable Coefficients		RingerImpedanceLine1	200	608	1	0	1
(Tap 10) Finite impulse response digital filter with programable Coefficients		RingerImpedanceLine2	200	609	1	0	1

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
(Tap 11) Finite impulse response digital filter with programable Coefficients		TotalPauseTimeLimit	200	610	0x1E	0x00	0xFF
(Tap 12) Finite impulse response digital filter with programable Coefficients		TonePulseSelection	200	611	0	0	1
(Tap 13) Finite impulse response digital filter with programable Coefficients			200	901	0	0	0
(Tap 14) Finite impulse response digital filter with programable Coefficients			200	902	0	0	0
(Tap 15) Finite impulse response digital filter with programable Coefficients		FaxISDNASR	200	903	2	1	2
(Tap 16) Finite impulse response digital filter with programable Coefficients		FaxISDNPP	200	904	1	0	1
(Tap 17) Finite impulse response digital filter with programable Coefficients		FaxISDNOverlapRec	200	905	0	0	1
(Tap 18) Finite impulse response digital filter with programable Coefficients		FaxISDNLineType	200	906	0	0	3
(Tap 19) Finite impulse response digital filter with programable Coefficients		CallHunting	200	907	0	0	1
(Tap 20) Finite impulse response digital filter with programable Coefficients			200	908	N/A	N/A	N/A
(Tap 21) Finite impulse response digital filter with programable Coefficients		TeiSetting	200	909	0	0	63
(Tap 22) Finite impulse response digital filter with programable Coefficients		TeiSettingType	200	910	0	0	1
(Tap 23) Finite impulse response digital filter with programable Coefficients		OhmTermination	200	911	0	0	1
(Tap 24) Finite impulse response digital filter with programable Coefficients		G4Enabled	200	912	0	0	1
(Tap 25) Finite impulse response digital filter with programable Coefficients			200	913	0	0	3
(Tap 26) Finite impulse response digital filter with programable Coefficients		CardResetStop	201	201	0	0	1
(Tap 27) Finite impulse response digital filter with programable Coefficients		LoadJobsAtStart	201	202	1	0	1
(Tap 28) Finite impulse response digital filter with programable Coefficients		LoadDirectrysAtStart	201	203	1	0	1
(Tap 29) Finite impulse response digital filter with programable Coefficients		LoadMailboxesAtStart	201	204	1	0	1
(Tap 30)Finite impulse response digital filter with programmable Coefficients		SaveCompressedData	201	205	0	0	0xFFFF
CEQ Transmit path	0 = Disabled 1 = Enabled	LastUserJobID	201	501	999	1	999
TX Compromise Equalizer. Specifies slope in transmit spectrum (in dB) between 1000Hz and 2800Hz	0 = 1 dB (0 KM) 2 = 2 dB (1.8 KM) 4 = 4 dB (3.6 KM) 6 = 6 dB (5.6 KM)	LastRecurringJobID	201	502	5199	5000	5199
CEQ Receive path	0 = Disabled 1 = Enabled	CompletedJobsCount	201	503	0	0	50
CEQ Type. switch between default filter coefficients and custom settings.	0 = Default 1 = Custom	CEQTAP1	203	1	0x0714	0	0xFFFF
Total number of CEQ Taps in Use		CEQTAP2	203	2	0x0A10	0	0xFFFF
Allow the ability to control the Echo Protect Tone (EPT)	0 = No EPT 1 = Short EPT 2 = Long EPT	CEQTAP3	203	3	0x121B	0	0xFFFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Allow the ability to control the Echo Protect Tone (EPT). Bit mapped per data rate.	00000000 = No EPT 00000001 = 2400 bps EPT 00000010 = 4800 bps EPT 00000100 = V.29 7200 bps EPT 00001000 = V.29 9600 bps EPT 00010000 = V.17 7200 bps EPT 00100000 = V.17 9600 bps EPT 01000000 = V.17 12000 bps EPT 10000000 = V.17 14400 bps EPT	CEQTAP4	203	4	0x13B9	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP5	203	5	0x18B8	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP6	203	6	0x16BD	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP7	203	7	0x12E7	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP8	203	8	0x0E18	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP9	203	9	0x0050	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP10	203	10	0xFF80	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP11	203	11	0xF0F1	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP12	203	12	0xF757	0	0xFFFF
Automatic Rate Adaption for 2400 Baud Rate.		CEQTAP13	203	13	0xF84C	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP14	203	14	0xFBBD	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP15	203	15	0x12C0	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP16	203	16	0xFEF3	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP17	203	17	0x19E0	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP18	203	18	0xF6C6	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP19	203	19	0xF6F7	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP20	203	20	0xF9CE	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP21	203	21	0xDBEF	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP22	203	22	0x22DC	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP23	203	23	0xF9F3	0	0xFFFF
Automatic Rate Adaption for 2800 Baud Rate.		CEQTAP24	203	24	0x19D5	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP25	203	25	0x1358	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP26	203	26	0xC001	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP27	203	27	0x0324	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP28	203	28	0x25BB	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP29	203	29	0xFD6A	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAP30	203	30	0xEC5A	0	0xFFFF
Automatic Rate Adaption for 3000 Baud Rate.		CEQTX	203	31	1	0	1
Automatic Rate Adaption for 3000 Baud Rate.		CEQTX	203	31	4	0	15
Automatic Rate Adaption for 3000 Baud Rate.		CEQRX	203	32	0	0	1
Automatic Rate Adaption for 3000 Baud Rate.		CEQTYPE	203	33	0	0	1
Automatic Rate Adaption for 3000 Baud Rate.		CEQTAPTOTAL	203	34	30	0	30
Automatic Rate Adaption for 3000 Baud Rate.		EPTADJUSTMENTS	203	35	2	0	2
Automatic Rate Adaption for 3200 Baud Rate.		EPTADJUSTMENTS	203	35	255	0	255
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD2400	203	36	0x55	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD4800	203	37	0x52	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD7200	203	38	0x4F	0	0xFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD9600	203	39	0x4B	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD12000	203	40	0x44	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD14400	203	41	0x3C	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD16800	203	42	0x35	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD19200	203	43	0x2E	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2400BAUD21600	203	44	0x27	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2800BAUD2400	203	45	0x00	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2800BAUD4800	203	46	0x53	0	0xFF
Automatic Rate Adaption for 3200 Baud Rate.		ARA2800BAUD7200	203	47	0x51	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD9600	203	48	0x4F	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD12000	203	49	0x48	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD14400	203	50	0x43	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD16800	203	51	0x3C	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD19200	203	52	0x37	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD21600	203	53	0x30	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD24000	203	54	0x2B	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA2800BAUD26400	203	55	0x26	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD2400	203	56	0x00	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD4800	203	57	0x56	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD7200	203	58	0x53	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD9600	203	59	0x50	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD12000	203	60	0x4C	0	0xFF
Automatic Rate Adaption for 3429 Baud Rate.		ARA3000BAUD14400	203	61	0x45	0	0xFF
NVM to store percentage of errored data frames to allow before training down in ECM		ARA3000BAUD16800	203	62	0x40	0	0xFF
Allow the ability to change the modem's EQT2 register to 0.	0 = EQT2 is reset following FTT 1 = EQT2 is always reset	ARA3000BAUD19200	203	63	0x3B	0	0xFF
RLSD Timeout		ARA3000BAUD21600	203	64	0x34	0	0xFF
RLSD Threshold	2's complement	ARA3000BAUD24000	203	65	0x30	0	0xFF
Set at which signal to noise ratio 3429 baud rate is disabled in v34.	0x0D = 12 dB	ARA3000BAUD26400	203	66	0x2A	0	0xFF
Set at which signal to noise ratio 2400 baud rate is forced in v34.	0x0D = 12 dB	ARA3000BAUD28800	203	67	0x24	0	0xFF
ARA EQM Bias control	2's complement	ARA3200BAUD2400	203	68	0x00	0	0xFF
Allow control of the V34 baud rate mask	2400 only = 0x01 Up to 2800 = 0x05 Up to 3000 = 0x0D Up to 3200 = 0x1D Up to 3429 = 0x3D	ARA3200BAUD4800	203	69	0x58	0	0xFF
Set Compromise Equalizer in the receive path for V.21 Channel 2.	0 = Disabled 1 = Enabled	ARA3200BAUD7200	203	70	0x56	0	0xFF
MT Fax ring count for auto answer (S0)	0 - 255	ARA3200BAUD9600	203	71	0x54	0	0xFF
V.34 to V.21 fallback timing during V.8/V.34 failure. Time (in seconds) to wait after reaching phase 3 of the V.34 negotiation before falling back to V.21	0 - 255 (seconds)	ARA3200BAUD12000	203	72	0x4F	0	0xFF
DC Loop V/I characteristics relay Line 1	0 - off 1 - on	ARA3200BAUD14400	203	73	0x49	0	0xFF

Fax NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
DC Loop V/I characteristics relay Line 2	0 - off 1 - on	ARA3200BAUD16800	203	74	0x43	0	0xFF
Maximum data rate during non-ECM communication	0 = 2400 bps 1 = 4800 bps 2 = 7200 bps 3 = 9600 bps 4 = 12000 bps 5 = 14400 bps	ARA3200BAUD19200	203	75	0x3E	0	0xFF
TCF transmission length extension (time)	0 - 255 (x 10 ms)	ARA3200BAUD21600	203	76	0x39	0	0xFF
Additional time between DCS and TCF frames when sending fax	0 - 255 (milliseconds)	ARA3200BAUD24000	203	77	0x33	0	0xFF
Wait time for silence after receiving a page if carrier was lost	0 - 255 (x 10 ms)	ARA3200BAUD26400	203	78	0x2A	0	0xFF
Number of positive detections that are necessary to determine that a V.21 frame not a high speed frame is received (non-V.34)	0 - 255	ARA3200BAUD28800	203	79	0x23	0	0xFF
Check interval of the V.21 detector bit after the ignore period is over (non-V.34)	0 - 255 (milliseconds)	ARA3200BAUD31200	203	80	0x20	0	0xFF
Time to initially ignore V.21 detection at the beginning of the RX page data detection period (non-V.34)	0 - 255 (x 10 ms)	ARA3429BAUD2400	203	81	0x00	0	0xFF
The percentage of a length of all zero bytes that is normally expected to be received for a given speed for a TCF to be good.	0 - 255	ARA3429BAUD4800	203	82	0x5A	0	0xFF

Copy Controller NVM

The Fax NVM table contains NVM value information that can be used to adjust the Fax NVM value for the printer.

The Copy Controller NVM table contains NVM value information that can be used to adjust the NVM value for the printer.

Copy Controller NVM Value

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Compression Mode		Compression Mode	600	1	0	0	1
Reserved Blocks		Reserved Blocks	600	2	0	0	5
Megs of Memory		Megs of Memory	600	3	16	0	65535
EPC memory low percent		EPC memory low percent	600	4	38	1	99
Fault Counter 19-401-00: Out of Memory Fault - Stress Document		Out Memory Fault - StrNC docFC	600	17	0	0	255
Fault Counter 19-402-00: FaultVideoDVMSTimeOutFault (Compressor DVMA Timeout)		Compressor DVMA Timeout FaultFC	600	18	0	0	255
Amount of EPC Memory		Memory on Target	600	19	512	0	65535
Fault Counter 22-300-10: AHA End of Record Fault		AHA End of Record Fault	600	20	0	0	255
Time before image disk receives power (sec)		Disk spin up delay time	600	21	10	0	30
Platinum Board Full Concurrency		Platinum Board Full Concurrency	600	22	1	0	1
Image disk partition size		Image disk partition size	600	23	4	0	30
Image Disk Dirty.		Image Disk Dirty.	600	24	0	0	1
IJO Enabled		IJO Enabled	600	25	0	0	1
Disk Dirty at power up		Disk Dirty at power up	600	26	0	0	1
Retry DMAMASTERABORT REREADS		Retry DMAMASTERABORT REREADS	600	27	50	0	255
KDrumPixelCount		KDrumPixelCount	600	28	0	0	4.29E+09
CDrumPixelCount		CDrumPixelCount	600	29	0	0	4.29E+09
MDrumPixelCount		MDrumPixelCount	600	30	0	0	4.29E+09
YDrumPixelCount		YDrumPixelCount	600	31	0	0	4.29E+09
vramLevel1RecThreshold		vramLevel1RecThreshold	600	32	3E+08	0	4.29E+09
vramLevel1TripThreshold		vramLevel1TripThreshold	600	33	2E+08	0	4.29E+09
vramLevel2RecThreshold		vramLevel2RecThreshold	600	34	2E+08	0	4.29E+09
vramLevel2TripThreshold		vramLevel2TripThreshold	600	35	2E+08	0	4.29E+09
vramLevel3RecThreshold		vramLevel3RecThreshold	600	36	2E+08	0	4.29E+09
vramLevel3TripThreshold		vramLevel3TripThreshold	600	37	1E+08	0	4.29E+09
vramLevel4RecThreshold		vramLevel4RecThreshold	600	38	1E+08	0	4.29E+09
vramLevel4TripThreshold		vramLevel4TripThreshold	600	39	8E+07	0	4.29E+09
vramLevel5RecThreshold		vramLevel5RecThreshold	600	40	7E+07	0	4.29E+09
vramLevel5TripThreshold		vramLevel5TripThreshold	600	41	4E+07	0	4.29E+09
vramLevel6RecThreshold		vramLevel6RecThreshold	600	42	4E+07	0	4.29E+09
vramLevel6TripThreshold		vramLevel6TripThreshold	600	43	1E+06	0	4.29E+09
cacheAllImagesToDisk		cacheAllImagesToDisk	600	44	0	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Interval of APS recognition of standard size.(mm)		APSPaperSizeInterval	603	1	5	1	65535
Determines whether APS requires input to be a standard size. 0=False (Off), 1=True (On)		APSStandardSizeRequired	603	2	0	0	1
Number of images inputted before simplex copy job is released for marking.		CopySimplexOutputStart	603	3	1	0	65535
Number of images inputted before duplex copy job is released for marking.		CopyDuplexOutputStart	603	4	4	0	65535
The priority set by SA/KO of copy job (used for job contention).		CopyJobPriority	603	5	3	0	65535
Determines whether copy marked images counter is displayable. 0=False, 1=True		COPYMarkedImagesDisplayable	603	8	1	0	1
Determines whether copy sheets counter is displayable. 0=False, 1=True		COPYSheetsDisplayable	603	10	0	0	1
Determines whether copy duplex sheets counter is displayabled. 0=false, 1=true		COPYDuplexSheetsDisplayable	603	12	0	0	1
Determines whether copy 11x17 A3 sheets counter is displayable. 0=False, 1=True		COPYLargeSheetsDisplayable	603	14	0	0	1
Determines whether copy job recovery is enabled. 0=False, 1=True		crashRecoveryEnabled	603	24	1	0	1
Disable /enable ABS prescan. 0=False, 1=True		ABSPrescanAllowed	603	25	0	0	1
Determines whether copy image counter is displayable. 0=False, 1=True		COPYMarkedColorImagesDisplay	603	36	1	0	1
Determines whether color copy sheets counter is displayable. 0=False, 1=True		COPYColorSheetsDisplay	603	37	0	0	1
Determines whether color copy duplex sheets counter is displayable. 0=False, 1=True		COPYDuplexColorSheetsDisplay	603	38	0	0	1
Determines whether large copy sheets counter is displayable. 0=False, 1=True		COPYLargeColorSheetsDisplay	603	39	0	0	1
CopyJobReleaseThreshold		CopyJobReleaseThreshold	603	46	2	1	4
Defines feeder module types	Feeder module types: 0=Invalid Module 55=SMH 57=HCF 58=HCFwithCovers 60=PFP 62=EnvelopeFeeder 221 = IotPFPStd, 222 = IotPFPA4LEFA3SEF/ A3 SEF */ 223 = IotPFPLetterLEFTabSEF/ Tabloid SEF */ 224 = IotPFPA4SEF 225 = IotPFPLetterSEFLegalSEF/ Legal SEF */	Feeder Module Type	604	1	0	0	255
Finisher module type.The finisher module that has been DETECTED by the system. (Read Only)	Defines finisher module types 65=OCT 70=BasicDiskFinisher 75=HighCapacityFinisher 80=Mailbox20Bin 100=NoFinisher 110=LCSS2K 120=LCSS1K 171=HVF 172=HVF_BM 173=HVF_Inserter 174=HVF_BM_Inserter 175=HVF_TriFolder 176=HVF_TriFolder_Inserter	Finisher Module Type	604	2	100	65	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Defines Default color	Default color settings: 0=White 1=Green 2=Buff 3=Yellow 4=Goldenrod 5=Blue 6=Pink 7=Transparent 8=Ivory 9=Gray 10=Red 11=Orange	MSDefaultColor	604	4	0	0	20
Defines Default type	Default type settings: 0=Standard 1=Drilled (pre-punched) 2=Envelope 4=Transparency 5=Letterhead 6=Labels 7=Recycled	MSDefaultType	604	6	0	0	60
Defines medium weight (not used) (gsm)	NOT USED	MSDefaultWeight	604	8	75	56	203
Resume Time out	Resume Time out settings: 0=Disable >0=Time in seconds (sec)	PEAutoResume	604	10	30	0	120
Debug switch	Debug switch settings: 0=Off 1=On	PrintModuleInfo	604	17	0	0	1
Enable display of "Total Images" 0=False, 1=True	Display of "Total Images" settings: 0=Off 1=On	Total Images Displayable	604	21	1	0	1
Default finisher auto resume	Default finisher auto resume settings: 0=Disabled >0= Time in seconds (sec)	MSDefaultFinisherAR	604	70	30	0	120
Enable Face up	Face up settings: 0=Off (normal delivery) 1=Deliver face up	MSFaceUpEnable	604	84	0	0	1
		MSDefaultTrayTrain	604	112	0	0	2
		MSDefaultTrayStack	604	113	0	0	1
		MSDefaultTrayId	604	114	0	0	4
		Propose Count No Finisher	604	115	12	2	16
Last image ID to recover		LastImageIDToRecover	604	118	0	0	65535
IOT comm fault counter		iotCommFaultCount	604	119	0	0	3
Quantity to recover		QtyToRecover	604	123	0	0	65535
Default decurler level	Default decurler setting: 0=Low decurling 1=Normal decurling 2=High decurling	MSDefaultDecurler	604	125	0	0	2
Enable Offset policy	Enable Offset policy 0=Off 1=On	MSOffsetEnabledPolicy	604	127	1	0	1
Serial number set.		SerNumSet	604	128	0	0	1
Out of staples policy	Out of staples policy settings: 0=Hold 1=Stapling defeated	MSOutOfStaplesPolicy	604	129	1	0	1
ProdCfgNvm		ProdCfgNvm	604	131	0	0	65535
Last sheet to recover		Last sheet to recover	604	132	106	0	108
Module has been setup		ModuleHasBeenSetUp	604	134	0	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Propose Count MCSS Finisher		Propose Count MCSS Finisher	604	137	12	2	16
IOT Diag Enter TO SEC		IOT Diag Enter TO SEC	604	138	30	0	1800
IOT Diag Exit TO SEC		IOT Diag Exit TO SEC	604	139	30	0	1800
IOT Diag Test Pattern TO SEC		IOT Diag Test Pattern TO SEC	604	140	0	0	1800
IOT Diag Device Status TO SEC		IOT Diag Device Status TO SEC	604	141	0	0	1800
IOT Diag Analog Monitor TO SEC		IOT Diag Analog Monitor TO SEC	604	142	0	0	1800
IOT Diag In Out Manual TO SEC		IOT Diag In Out Manual TO SEC	604	143	0	0	1800
IOT Diag PP Timing TO SEC		IOT Diag PP Timing TO SEC	604	144	0	0	1800
IOT Diag MSI Side Guide TO SEC		IOT Diag MSI Side Guide TO SEC	604	145	0	0	1800
IOT Diag Sys Regi TO SEC		IOT Diag Sys Regi TO SEC	604	146	0	0	1800
IOT Diag Reg Setup TO SEC		IOT Diag Reg Setup TO SEC	604	147	0	0	1800
IOT Diag Reg Check TO SEC		IOT Diag Reg Check TO SEC	604	148	0	0	1800
IOT Diag Reg Sens Check TO SEC		IOT Diag Reg Sens Check TO SEC	604	149	0	0	1800
IOT ATC Sensor Setup TO SEC		IOT ATC Sensor Setup TO SEC	604	150	0	0	1800
IOT Diag Belt Edge Learn TO SEC		IOT Diag Belt Edge Learn TO SEC	604	151	0	0	1800
IOT TRC Adjust TO SEC		IOT TRC Adjust TO SEC	604	152	0	0	1800
IOT Diag Tone Up Down TO SEC		IOT Diag Tone Up Down TO SEC	604	153	0	0	1800
IOT Diag No Paper Run TO SEC		IOT Diag No Paper Run TO SEC	604	154	0	0	1800
IOT Diag ProCon On Off TO SEC		IOT Diag ProCon On Off TO SEC	604	155	0	0	1800
IOT Diag Binary Cal TO SEC		IOT Diag Binary Cal TO SEC	604	156	0	0	1800
IOT Diag Fold Position TO SEC		IOT Diag Fold Position TO SEC	604	157	0	0	1800
IOT Diag CTRACS TO SEC		IOT Diag CTRACS TO SEC	604	158	0	0	1800
IOT Diag Comp Ctrl TO SEC		IOT Diag Comp Ctrl TO SEC	604	159	0	0	1800
Fault Counter 03-316: CCMCannotCommunicateWithIotFC		CCMCannotCommunicateWithIotFC	604	160	0	0	255
Fault Counter 77-312: FeederCommFailCountFC		FeederCommFailCountFC	604	308	0	0	255
Fault Counter 91-313: CrumAsicCommFailCountFC		CrumAsicCommFailCountFC	604	336	0	0	255
Fault Counter 91-320: CCWireCutFailCountFC		CCWireCutFailCountFC	604	337	0	0	255
# of bins		MSDefaultPrintBin	604	415	4	0	4
# of bins		MSDefaultCopyBin	604	416	4	0	4
# of bins		MSDefaultFaxBin	604	417	0	0	4
# of bins		MSDefaultOtherBin	604	418	4	0	4
Enable Auto Hold	Enable Auto Hold settings: 0=Off 1=On	MSAutoHoldEnable	604	419	1	0	1
Interrupt image to recover # of images		InteruptImageIDToRecover	604	422	0	0	65535
Interrupt quantity to recover		QtyToRecover;	604	426	0	0	65535
Interrupt last sheet to recover		lastSheetToRecover	604	427	0	0	65535
Media Size Convertion Policy	Media Size Convertion Policy settings: 0=Off 1=On	MSMediaSizeConvPolicy	604	428	1	0	1
		MSInvertDuplex	604	432	0	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		MSMirrorInvertDuplex	604	433	1	0	1
		Total Color Images Displayable	604	434	1	0	1
Total BW & Color Images Displayable		Total BW & Color Images Display	604	435	1	0	1
Media Order Group	1 = MSGXc 2 = MSGXe 3 = MSGFx 4 = MSGFxap 5 = MSGGco 6 = MSGDmoEast 7 = MSGDmoWest	MSMediaSizeGroup	604	442	1	1	7
Finisher Hole Punch Configuration		HolePunchConfiguration	604	979	0	0	3
Enable Display of Large Marked Images Counter	0=No Display 1=Displayed	Total Large Marked Images Disp	604	982	1	0	1
Enable Display of Large Black Marked Images Counter	0=No Display 1=Displayed	Total Large Blk Marked Imgs Disp	604	983	1	0	1
Enable Display of Large Colour Marked Images Counter	0=No Display 1=Displayed	Total Large Col Marked Imgs Disp	604	984	1	0	1
Enable Print Job Recovery	Print Job Recovery enable Settings 0=No Recovery 1=Recovered	PrintCrashRecoveryEnable	605	2	1	0	1
This holds the crash recovery print job information on the altanta side.		MFPrintCompletedJob Log Location	605	3	0	0	12
Enable Option to export marked image counter information to clients	0=No export 1=Exported	MFPRINTMarkedImagesDisplayable	605	6	1	0	1
Enable Option to export printed sheets counter information to clients	0=No export 1=Exported	MFPRINTSheetsDisplayable	605	8	0	0	1
Enable Option to export Duplexed counter information to clients	0=No export 1=Exported	MFPRINTDuplexSheetsDisplayable	605	10	0	0	1
Enable Option to export Large Sheet counter information to clients	0=No export 1=Exported	MFPRINTLargeSheetsDisplayable	605	12	0	0	1
Maximum time allowed for ESS to resync before deleting orphaned print jobs		disturbance time	605	13	12	0	240
Enable Option to export Colour images counter information to clients	0=No export 1=Exported	MFPRINTMarkedColorImagesDisplay	605	16	1	0	1
Enable Option to export Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTColorSheetsDisplay	605	17	0	0	1
Enable Option to export Duplex Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTDuplexColorSheetsDisplay	605	18	0	0	1
Enable Option to export Large Colour Sheet counter information to clients	0=No export 1=Exported	MFPRINTLargeColorSheetsDisplay	605	19	0	0	1
Counter		MFPSuccessImgRecServerFaxDisplay	605	20	1	0	1
Enable Option to export Large Success Ifax images counter information to clients	0=No export 1=Exported	MFPSuccessIFaxImagesRecDisplay	605	21	1	0	1
PrintJobReleaseThreshold		PrintJobReleaseThreshold	605	28	2	1	4
Black reprint image counter displayable	Usage Counter	BlackReprintImagesDisp	605	36	0	0	1
Color reprint image counter displayable	Usage Counter	ColorReprintImagesDisp	605	38	0	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 1 Media Type	MTStandard = 0, MTDrilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTransparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTExtraHeavyGlossy = 54, MTExtraHeavyGlossySide2 = 55, MTExtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 1 Media Type	606	1	0	0	102
Tray 1 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 1 Media Color	606	2	0	0	34
Tray 1 Media Weight		Tray 1 Media Weight	606	3	75	56	203
Tray 1 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 1 Direct Select	606	4	1	0	1
Tray 1 Priority		Tray 1 Priority	606	5	50	1	99
Tray 1 Width	Range and default size in mm	Tray 1 Width	606	6	279	148	356

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 1 Length	Range and default size in mm	Tray 1 Length	606	7	216	92	216
Tray 1 Percent Full		Tray 1 Percent Full	606	8	0	0	100
Tray 1 User Type	TAFixed = 0, TAAdjustableAll = 1, ---------- [TAAdjustableSizeOnly = 2]	Tray 1 User Type	606	9	1	0	1
Tray 1 Modulus		Tray 1 Modulus	606	10	0	0	100
Tray 1 Modulus Position		Tray 1 Modulus Position	606	11	1	1	100
Tray 2 Media Type	MTStandard = 0, MTDrilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTransparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTExtraHeavyGlossy = 54, MTExtraHeavyGlossySide2 = 55, MTExtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 2 Media Type	606	21	0	0	102

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 2 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 2 Media Color	606	22	0	0	34
Tray 2 Media Weight		Tray 2 Media Weight	606	23	75	56	203
Tray 2 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 2 Direct Select	606	24	1	0	1
Tray 2 Priority		Tray 2 Priority	606	25	10	1	99
Tray 2 Width	Range and default size in mm	Tray 2 Width	606	26	279	279	297
Tray 2 Length	Range and default size in mm	Tray 2 Length	606	27	216	210	216
Tray 2 Percent Full		Tray 2 Percent Full	606	28	0	0	100
Tray 2 User Type	TAFixed = 0, TAAdjustableAll = 1, ---------- [TAAdjustableSizeOnly = 2]	Tray 2 User Type	606	29	1	0	1
Tray 2 Modulus		Tray 2 Modulus	606	30	0	0	100
Tray 2 Modulus Position		Tray 2 Modulus Position	606	31	1	1	100

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 3 Media Type	MTStandard = 0, MTDrilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTransparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTExtraHeavyGlossy = 54, MTExtraHeavyGlossySide2 = 55, MTExtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 3 Media Type	606	41	0	0	102
Tray 3 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 3 Media Color	606	42	0	0	34
Tray 3 Media Weight		Tray 3 Media Weight	606	43	75	56	203
Tray 3 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 3 Direct Select	606	44	1	0	1
Tray 3 Priority		Tray 3 Priority	606	45	20	1	99
Tray 3 Width	Range and default size in mm	Tray 3 Width	606	46	279	257	356

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 3 Length	Range and default size in mm	Tray 3 Length	606	47	216	182	216
Tray 3 Percent Full		Tray 3 Percent Full	606	48	0	0	100
Tray 3 User Type	0 = TAFixed 1 = TAAdjustableAll	Tray 3 User Type	606	49	1	0	1
Tray 3 Modulus		Tray 3 Modulus	606	50	0	0	100
Tray 3 Modulus Position		Tray 3 Modulus Position	606	51	1	1	100
Tray 4 Media Type	MTStandard = 0, MTDrilled = 1, MTEnvelope = 3, MTTransparency = 4, MTLetterhead = 5, MTLabels = 6, MTRecycled = 7, MTOtherType = 9, MTBond = 12, MTPrePrinted = 13, MTCardStock = 14, MTCustom1 = 15, MTCustom2 = 16, MTCustom3 = 17, MTCustom4 = 19, MTCustom5 = 20, MTCustom6 = 21, MTCustom7 = 22, MTUnspecified = 18, MTSystemDefault = 23, MTPrecutTabs = 37, MTCovers = 38, MTTabs = 39, MTPaperBackedTransparency = 40, MTThin = 41, MTLightCardStock = 42, MTLightGlossy = 43, MTHeavyGlossy = 44, MTLightCardStockSide2 = 45, MTLightGlossySide2 = 46, MTHeavyGlossySide2 = 47, MTCardStockSide2 = 48, MTThinSide2 = 49, MTHeavyLabels = 50, MTHeavyPrecutTabs = 51, MTHeavyCardStock = 52, MTHeavyCardStockSide2 = 53, MTExtraHeavyGlossy = 54, MTExtraHeavyGlossySide2 = 55, MTExtraHeavyLabels = 56, MTUsedStandard = 57, MTRoughStock = 58, MTPhoto = 59, MTPostcard = 60	Tray 4 Media Type	606	61	0	0	102

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Tray 4 Media Color	MCWhite = 0, MCGreen = 1, MCBuff = 2, MCYellow = 3, MCGoldenrod = 4, MCBlue = 5, MCPink = 6, MCTransparent = 7, MCIvory = 8, MCGray = 9, MCRed = 10, MCOrange = 11, MCOtherColor = 12, MCCustom1 = 13, MCCustom2 = 14, MCCustom3 = 15, MCCustom4 = 17, MCCustom5 = 18, MCCustom6 = 19, MCCustom7 = 20, MCUnspecified = 16, MCSystemDefault = 21	Tray 4 Media Color	606	62	0	0	34
Tray 4 Media Weight		Tray 4 Media Weight	606	63	75	56	203
Tray 4 Direct Select	TSDirectOnly = 0, TSDirectAndAuto = 1	Tray 4 Direct Select	606	64	1	0	1
Tray 4 Priority		Tray 4 Priority	606	65	30	1	99
Tray 4 Width	Range and default size in mm	Tray 4 Width	606	66	279	257	356
Tray 4 Length	Range and default size in mm	Tray 4 Length	606	67	216	182	216
Tray 4 Percent Full		Tray 4 Percent Full	606	68	0	0	100
Tray 4 User Type	0 = TAFixed 1 = TAAdjustableAll	Tray 4 User Type	606	69	1	0	1
Tray 4 Modulus		Tray 4 Modulus	606	70	0	0	100
Tray 4 Modulus Position		Tray 4 Modulus Position	606	71	1	1	100
Billing Configuration This counter supports tier billing	Defines machine billing configuration. BCtraditional = 0; BC2tier = 1; BC3tier = 2; Note - for Mfg use only - not to be shered with Service - these are not intended for field adjustment	TB Configuration	606	272	0	0	2
Default sheet edge erase value for pre-punched, pre-cut tab stock. Please refer FS 16.020 for more details related to this feature.	The units are in millimeters (mm)	PrePunchMediaEraseValue	606	392	0	0	255
Fuser Assy - Number of sheets	system increments counter	FuserUsage	606	489	0	0	4.29E+09
Transfer Roller - Number of impressions	system increments counter	XferRollerUsage	606	490	0	0	4.29E+09
Transfer Belt - Number of impressions	system increments counter	XferBeltUsage	606	491	0	0	4.29E+09
Fuser Life Expectancy	Modifiable via DC131	FuserLife	606	523	0	0	4.29E+09
Transfer Roller Life Expectancy	Modifiable via DC131	XferRollLife	606	524	0	0	4.29E+09
Transfer Belt Life Expectancy	Modifiable via DC131	XferBeltLife	606	525	0	0	4.29E+09
Inhibit Mark On Tabs Policy	0=Off, 1=On	InhibitMarkOnTabsPolicy	606	540	0	0	1
Fault Counter 09-001: LaserUnitFailFC	no. of faults	LaserUnitFailFC	606	555	0	0	255
Fault Counter 09-002: LaserUnitPolygonMotorFailFC	no. of faults	LaserUnitPolygonMotorFailFC	606	556	0	0	255
Fault Counter 08-001: Feeder1XferRollerContactFailFC	no. of faults	Feeder1XferRollerContactFailFC	606	557	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 08-002: Feeder2XferRollerContactFailFC	no. of faults	Feeder2XferRollerContactFailFC	606	558	0	0	255
Fault Counter 10-301: FuserWarmTimeThermalFailFC	no. of faults	FuserWarmTimeThermalFailFC	606	559	0	0	255
Fault Counter 10-302: FuserWarmTimePressureFailFC	no. of faults	FuserWarmTimePressureFailFC	606	560	0	0	255
Fault Counter 10-303: FuserTempLowThermalFC	no. of faults	FuserTempLowThermalFC	606	561	0	0	255
Fault Counter 10-304: FuserTempLowPressureFC	no. of faults	FuserTempLowPressureFC	606	562	0	0	255
Fault Counter 10-305: FuserTempHighThermalFC	no. of faults	FuserTempHighThermalFC	606	563	0	0	255
Fault Counter 10-306: FuserTempHighPressureFC	no. of faults	FuserTempHighPressureFC	606	564	0	0	255
Fault Counter 10-307: FuserFanFailFC	no. of faults	FuserFanFailFC	606	565	0	0	255
Fault Counter 10-308: FuserMotorFailFC	no. of faults	FuserMotorFailFC	606	566	0	0	255
Fault Counter 04-001: OzoneFan FailFC	no. of faults	OzoneFan FailFC	606	567	0	0	255
Fault Counter 04-002: PowerFanFailFC	no. of faults	PowerFanFailFC	606	568	0	0	255
Fault Counter 04-003: FinisherFanFailFC	no. of faults	FinisherFanFailFC	606	569	0	0	255
Fault Counter 03-301: EngineFlashROMWriteFailFC	no. of faults	EngineFlashROMWriteFailFC	606	570	0	0	255
Fault Counter 03-302: EngineFlashROMDeviceFailFC	no. of faults	EngineFlashROMDeviceFailFC	606	571	0	0	255
Fault Counter 12-098: FinisherFlashROMFailFC	no. of faults	FinisherFlashROMFailFC	606	572	0	0	255
Fault Counter 12-099: FinisherCommErrorFC	no. of faults	FinisherCommErrorFC	606	573	0	0	255
Fault Counter 03-303: EngineFirmwareFailFC	no. of faults	EngineFirmwareFailFC	606	574	0	0	255
Fault Counter 03-304: HardDiskFailFC	no. of faults	HardDiskFailFC	606	575	0	0	255
Fault Counter 03-305: EngineNVRAMFail1FC	no. of faults	EngineNVRAMFail1FC	606	576	0	0	255
Fault Counter 03-308: EngineNVRAMFail2FC	no. of faults	EngineNVRAMFail2FC	606	577	0	0	255
Fault Counter 12-480: FinisherElevationDriveFailFC	no. of faults	FinisherElevationDriveFailFC	606	578	0	0	255
Fault Counter 12-481: FinisherPaperPressDriveFailFC	no. of faults	FinisherPaperPressDriveFailFC	606	579	0	0	255
Fault Counter 12-482: FinisherAlignPlateDriveFailFC	no. of faults	FinisherAlignPlateDriveFailFC	606	580	0	0	255
Fault Counter 12-483: FinisherEjectRollerContactFailFC	no. of faults	FinisherEjectRollerContactFailFC	606	581	0	0	255
Fault Counter 12-484: FinisherStorageBeltContactFailFC	no. of faults	FinisherStorageBeltContactFailFC	606	582	0	0	255
Fault Counter 12-485: FinisherBundleEjectMotorFailFC	no. of faults	FinisherBundleEjectMotorFailFC	606	583	0	0	255
Fault Counter 09-003: BlackDeveloperMotorFailFC	no. of faults	BlackDeveloperMotorFailFC	606	584	0	0	255
Fault Counter 09-004: ColorDeveloperMotorFailFC	no. of faults	ColorDeveloperMotorFailFC	606	585	0	0	255
Fault Counter 09-005: ColorPrintCartridgeMotorFailFC	no. of faults	ColorPrintCartridgeMotorFailFC	606	586	0	0	255
Fault Counter 09-006: XferBlkPrintCartridgeMotorFailFC	no. of faults	XferBlkPrintCartridgeMotorFailFC	606	587	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 09-007: CyanSensorErrorFC	no. of faults	CyanSensorErrorFC	606	588	0	0	255
Fault Counter 09-008: MagentaSensorErrorFC	no. of faults	MagentaSensorErrorFC	606	589	0	0	255
Fault Counter 09-009: YellowSensorErrorFC	no. of faults	YellowSensorErrorFC	606	590	0	0	255
Fault Counter 09-010: BlackSensorErrorFC	no. of faults	BlackSensorErrorFC	606	591	0	0	255
Fault Counter 03-310: UnknownPrinterErrorFC	no. of faults	UnknownPrinterErrorFC	606	592	0	0	255
Fault Counter 10-106: JamAtFuserFC	no. of faults	JamAtFuserFC	606	593	0	0	255
Fault Counter 08-105: JamAtDuplexFC	no. of faults	JamAtDuplexFC	606	594	0	0	255
Fault Counter 08-101: JamAtTray1MPTFC	no. of faults	JamAtTray1MPTFC	606	595	0	0	255
Fault Counter 08-102: JamRightDoorFeedCassetteTray2FC	no. of faults	JamRightDoorFeedCassetteTray2FC	606	596	0	0	255
Fault Counter 08-103: JamPaperTransFeedCassetteTray3FC	no. of faults	JamPaperTransFeedCassetteTray3FC	606	597	0	0	255
Fault Counter 08-104: JamPaperTransFeedCassetteTray4FC	no. of faults	JamPaperTransFeedCassetteTray4FC	606	598	0	0	255
Fault Counter 10-105: JamAtVerticalTransportAreaFC	no. of faults	JamAtVerticalTransportAreaFC	606	599	0	0	255
Fault Counter 10-102: JamAtHorizontalTransferDoorFC	no. of faults	JamAtHorizontalTransferDoorFC	606	600	0	0	255
Fault Counter 04-486: JamAtOutputTrayNoFinisherFC	no. of faults	JamAtOutputTrayNoFinisherFC	606	601	0	0	255
Fault Counter 10-103: Jam2ndImageTransferRollerFC	no. of faults	Jam2ndImageTransferRollerFC	606	602	0	0	255
Fault Counter 10-104: JamReFeedingAreaFC	no. of faults	JamReFeedingAreaFC	606	603	0	0	255
Fault Counter 12-487: JamFinisherTransportAreaFC	no. of faults	JamFinisherTransportAreaFC	606	604	0	0	255
Fault Counter 12-488: JamFinisherUpperOutputTrayFC	no. of faults	JamFinisherUpperOutputTrayFC	606	605	0	0	255
Fault Counter 12-489: JamFinisherStackerOutputTrayFC	no. of faults	JamFinisherStackerOutputTrayFC	606	606	0	0	255
Fault Counter 12-491: StaplerJamFC	no. of faults	StaplerJamFC	606	607	0	0	255
Have image registration settings been setup		ImageRegSettingsAreSetup	606	716	0	0	1
Have media calibration settings been setup		MediaCalSettingsAreSetup	606	717	0	0	1
Default is the version number of the Excel table used to create the NVM	Table Version used to create the NVM ie V1.234 = 1234	FS23.201 Table Version	606	787	1198	0	65535
Number of Grams of toner in a Standard size cartridge	Grams	TonerGramsStd	606	820	125	0	65535
Number of Grams of toner in a High Capacity cartridge	Grams	TonerGramsHiCap	606	821	250	0	65535
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Copy ABS Detect Window FS Start	610	1	75	0	1000
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Copy ABS Detect Window FS Size	610	2	850	0	1000
Auto Background Suppression level for platen		Copy ABS Level Platen	610	3	2	0	4

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Auto Background Suppression level for DADH		Copy ABS Level DADH	610	4	2	0	4
Auto Contrast level for platen		Copy Auto Contrast Level Platen	610	5	2	0	4
Auto Contrast level for DADH		Copy Auto Contrast Level DADH	610	6	2	0	4
Auto Color detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Copy Auto Color Detect FS Start	610	7	64	0	1000
Auto Color detection window slow scan start, defined in tenth of percentage point of document slow scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Copy Auto Color Detect SS Start	610	8	64	0	1000
Auto Color Detection Level for platen at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Copy Auto Color Level Pixel Plat	610	9	2	0	4
Auto Color Detection Level for platen at page level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Copy Auto Color Level Page Plat	610	10	2	0	4
Auto Color Detection Level for DADH at pixel level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Copy Auto Color Level Pixel DADH	610	11	2	0	4
Auto Color Detection Level for DADH at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Copy Auto Color Level Page DADH	610	12	2	0	4
Dictates if black & white copies are printed in K-only or composite black	Default specific for WorkCentre 6400 only	K only (only black ink for B&W)	610	13	1	0	1
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Copy Photo/Text Segmentat'n Ctrl	610	14	2	0	4
Defines the type of paper used		Copy White Reference	610	15	0	0	127
Defines the binary vs. contone image path/ printing		Copy Im Path Type (bit depth)	610	16	8	1	16
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Scan ABS Detect Window FS Start	610	17	75	0	1000
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Scan ABS Detect Window FS Size	610	18	850	0	1000
Auto Background Suppression level for platen		Scan ABS Level Platen	610	19	2	0	4
Auto Background Suppression level for DADH		Scan ABS Level DADH	610	20	2	0	4
Auto Contrast level for platen		Scan Auto Contrast Level Platen	610	21	2	0	4
Auto Contrast level for DADH		Scan Auto Contrast Level DADH	610	22	2	0	4
Auto Color detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Scan Auto Color Detect FS Start	610	23	64	0	1000

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Auto Color detection window slow scan start, defined in tenth of percentage point of document slow scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Scan Auto Color Detect SS Start	610	24	64	0	1000
Auto Color Detection Level for platen at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Scan Auto Color Level Pixel Plat	610	25	2	0	4
Auto Color Detection Level for platen at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Scan Auto Color Level Page Plat	610	26	2	0	4
Auto Color Detection Level for DADH at pixel level. Defines a value that dictates how chromatic a pixel has to be in order to be considered color		Scan Auto Color Level Pixel DADH	610	27	2	0	4
Auto Color Detection Level for DADH at page level. Defines a value that dictates how many color pixels have to be on a page so that the document is considered color		Scan Auto Color Level Page DADH	610	28	2	0	4
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Scan Photo/Text Segmentat'n Ctrl	610	29	2	0	4
Defines the type of paper used (4024, 4200, Xpressions, recyclable, etc)		Scan White Reference	610	30	0	0	127
Background detection window fast scan start, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Fax ABS Detect Window FS Start	610	31	75	0	1000
Background detection window fast scan dimension, defined in tenth of percentage point of document fast scan dimension. Values from 0 to 1000 (e.g. 1% is 10, 10% is 100, 100% is 1000).		Fax ABS Detect Window FS Size	610	32	850	0	1000
Auto Background Suppression level for platen		Fax ABS Level Platen	610	33	2	0	4
Auto Background Suppression level for DADH		Fax ABS Level DADH	610	34	2	0	4
Auto Contrast level for platen		Fax Auto Contrast Level Platen	610	35	2	0	4
Auto Contrast level for DADH		Fax Auto Contrast Level DADH	610	36	2	0	4
Photo/Text Segmentation Threshold will control the Galileo segmentation. When it changes, the part of the input that will be considered text will vary as well as the part that will be considered photo.		Fax Photo/Text Segment'n Control	610	37	2	0	4
Defines the type of paper used		Fax White Reference	610	38	0	0	127
Defines the binary vs. contone image path/ printing	1 to 16	Print ImagePath Type (bit depth)	610	47	8	1	16
Fault Counter 22-330-02: Queue To ESSPrint Timeout		Queue To NC Print TimeoutFC	612	1	0	0	255
Fault Counter 22-330-03: Queue To S2F Timeout		Queue To S2F Timeout	612	2	0	0	255
Fault Counter 22-330-04: Queue To FaxSend Timeout		Queue To FaxSend Timeout	612	3	0	0	255
Fault Counter 22-330-05: Queue To DCCopy Timeout		Queue To DCCopy Timeout	612	4	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 22-330-06: Queue To S2Distr Timeout		Queue To S2Distr Timeout	612	5	0	0	255
Defines market region	Market Region settings: 0=US (North America) 1=XCL(Canada) 2=FX (Fuji Xerox Japan) 3=FXAPO (Fuji Xerox Asian Pacific) 4=ACO(Latin) 5=RX(Europe) 6=MRDmoEast 7=MRDmoWest	Market Region	616	1	0	0	7
Enable Power Saver feature	0=Disabled 1=Enabled	power saver enabled	616	2	1	0	1
WC6400 Famly- Defines Product Configuration	115 = 32/37 Standard 116 = 32/37 with Option set 117 = 32/37 with Option set, finisher and 2-tray module	Product Configuration	616	3	115	115	117
Defines System Configuration (type of system)	0 = Unknown (Not set) 1 = ST (Networked) 8 = Network Suppressed	System Configuration	616	4	1	0	8
Defines start day of daylight savings time		DST Start	616	5	0	0	366
Defines end day of daylight savings time		DST End	616	6	0	0	366
Defines time display format 0=12 hour format, 1=24 hour format		Time Display Format	616	7	0	0	1
Determines whether power saver's power off option is enabled. 0=False, 1=True		power off enabled	616	8	1	0	1
Determines whether power saver's power off option using timers is enabled. 0=False, 1=True		power off timeout enabled	616	9	1	0	1
		powersaver idletime	616	10	15	1	225
Defines time in "mode 1" before transitioning to "mode 3" for appropriate configurations.		power saver in mode time	616	11	90	0	255
Defines time in "lowest" power saver mode before powering off.		power saver power off time	616	12	45	0	255
Defines date display format 0=mm/dd/yy, 1=dd/mm/yy, 3=yy/mm/dd		Date Display Format	616	13	0	0	3
Defines system's current installation phase.		system install phase	616	14	2	0	4
Defines reason for previous power off.		power up reason	616	16	1	0	3
Defines the order algorithm for queues/ contention: FIFO vs. priority		Contention Algorithm	616	17	1	0	1
Amount of additional time after power up before system can enter power saver.		Extra Time	616	18	5	0	5
Defines system's overall mode		system mode	616	19	0	0	11
Determines if the system runs through auto configuration, detect at power on. 0=False, 1=True		auto configuration enabled	616	20	1	0	1
Defines system line voltage 0=Unknown, 1=100V, 2=115V, 3=230V		line voltage	616	21	2	0	3
Defines system line frequency 0=50Hz, 1=60Hz		line frequency	616	22	1	0	1
Determines whether serial number has been set. 0=False, 1=True		serial number enabled	616	24	1	0	1
Defines time interval for increasing job's priority based on time in system.		promotion time	616	25	120	15	1440

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether to increase job priority longer job is in system. 0=False, 1=True		auto promotion enabled	616	26	1	0	1
Defines previous market region 0=USCO, 1=XCL, 2=FX, 3=FXAPO, 4=ACO, 5=RX		previous market region	616	27	0	0	5
Defines client who did the most recent system mode change.		modeChangeClientId	616	28	16	0	9994
Defines last day that an end of day was reached.		latest EOD event	616	29	0	0	4.29E+09
Defines previous product configuration (All Products)		previous product config	616	30	106	0	114
Defines previous line frequency 0=50Hz, 1=60Hz		previous line frequency	616	31	1	0	1
Defines previous line voltage 0=Unknown, 1=100V, 2=115V, 3=230V		previous line voltage	616	32	2	0	3
List of system's copyright years.		nvm copyright years	616	33	0	0	4.29E+09
Defines current client of system installation.		desired install client	616	34	0	0	255
Determines whether remote intrusive diagnostics is enabled. 0=False, 1=True		remoteIntrusiveDiagEnabled	616	35	1	0	1
Defines installation's value added reseller.		value added reseller	616	36	255	0	255
Used by platforms to insure system clocks are set to correct time zones.		GMT Offset	616	37	0	-4320 0	50400
Determines whether ESS is On (Off) line. 0=False, 1=True		NC OnlineNvm	616	38	1	0	1
Max time a job can be held before it is deleted by the system		Job Hold Time	616	39	4320	0	7200
SA/KO setting to enable/disable hold job timer		Job Hold Timer enabled	616	40	1	0	1
Counter used for secure install and remove operations of the optional features		ScanToFileinstalled count	616	41	0	0	65535
Counter used for secure install and remove operations of the optional features		LanFaxinstalled count	616	42	0	0	65535
Counter used for secure install and remove operations of the optional features		JBAinstalled count	616	43	0	0	65535
		ScanToFileenabled	616	44	0	0	1
Specifies whether Lan Fax is Enabled on the machine.		LanFaxenabled	616	45	0	0	1
Specifies whether JBA is allowed to be turned Enabled on the machine.		JBAenabled	616	46	0	0	1
Used by PWS to determine if ESS terminal window is enabled		NC TTY enabled	616	47	0	0	1
		NC Config - Type	616	48	42	0	99
		NC Config - Option	616	49	42	0	99
		NC Config - Storage	616	50	42	0	99
		NC Config - Software Options	616	51	42	0	99
Product Identifier (e.g. Marketing product name)	0 = Unknown (Not set) WorkCentre6400 145 to 147 145 = 6400S 146 = 6400X 147 = 6400XF	Product Identifier	616	52	0	0	255
HeapLimits F:max images T:max jobs		HeapLimits F:MaxImages T:MaxJobs	616	53	0	0	1
		InternetFaxinstalled count	616	54	0	0	65535

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		ScanToEmailinstalled count	616	55	0	0	65535
		InternetFaxenabled	616	56	0	0	1
		ScanToEmailenabled	616	57	0	0	1
		Software Upgrade Status	616	58	0	0	7
declassify system - operation status		DeclassifySystemOperationStatus	616	59	0	0	5
		Declassify system - retry count	616	60	0	0	255
		Declassify system - client id	616	61	0	0	255
declassify system - platform mask		DeclassifySystemPlatformMask	616	62	0	0	65535
declassify system - pattern list length		Declassify system-pattern length	616	65	0	0	255
declassify system - number of repititions		Declassify system # repetitions	616	66	0	0	255
declassify system - number of retries		Declassify system - # of retries	616	67	0	0	255
declassify system - number of retries		Declassify system - Timeout	616	68	0	0	4.29E+09
		DiskOverwriteinstalled count	616	69	0	0	65535
		DiskOverwriteenabled	616	70	0	0	1
		ScanToFilehwsw available	616	71	1	0	1
		ScanToFileinstalled	616	72	0	0	1
		LanFaxhwsw available	616	73	1	0	1
		LanFaxinstalled	616	74	0	0	1
		JBAhwsw available	616	75	1	0	1
		JBAinstalled	616	76	0	0	1
		ScanToEmailhwsw available	616	77	1	0	1
		ScanToEmailinstalled	616	78	0	0	1
		InternetFaxhwsw available	616	79	1	0	1
		InternetFaxinstalled	616	80	0	0	1
		DiskOverwritehwsw available	616	81	1	0	1
		DiskOverwriteinstalled	616	82	0	0	1
		JobOverwritehwsw available	616	83	1	0	1
		JobOverwriteinstalled	616	84	0	0	1
		JobOverwriteinstalled count	616	85	0	0	65535
		JobOverwriteenabled	616	86	0	0	1
		EmbeddedFaxhwsw available	616	87	1	0	1
		EmbeddedFaxinstalled	616	88	0	0	1
		EmbeddedFaxinstalled count	616	89	0	0	65535
		EmbeddedFaxenabled	616	90	0	0	1
		Heavy Weight Fuser Enabled	616	91	1	0	1
Auto upgrade enable		software upgrade monitor enabled	616	92	0	0	1
Geographic Region	0=Unspecified, 1= Eastern, 2= Western, 3= Not Applicable A setting of 3 (GRNotApplicable) indicates the CRU's are not to be differentiated by geoRegion, but by ServicePlan	Geographic region	616	94	0	0	3
SIM data mirror		Zone1Page1Byte0	616	95	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
SIM data mirror		Zone1Page1Byte1	616	96	0	0	255
SIM data mirror		Zone1Page1Byte2	616	97	0	0	255
SIM data mirror		Zone1Page1Byte3	616	98	0	0	255
SIM data mirror		Zone1Page1Byte4	616	99	0	0	255
SIM data mirror		Zone1Page1Byte5	616	100	0	0	255
SIM data mirror		Zone1Page1Byte6	616	101	0	0	255
SIM data mirror		Zone1Page2Byte0	616	102	0	0	255
SIM data mirror		Zone1Page2Byte1	616	103	0	0	255
SIM data mirror		Zone1Page2Byte2	616	104	0	0	255
SIM data mirror		Zone1Page2Byte3	616	105	0	0	255
SIM data mirror		Zone1Page2Byte4	616	106	0	0	255
SIM data mirror		Zone1Page2Byte5	616	107	0	0	255
SIM data mirror		Zone1Page2Byte6	616	108	0	0	255
SIM data mirror		Zone1Page3Byte0	616	109	0	0	255
SIM data mirror		Zone1Page3Byte1	616	110	0	0	255
SIM data mirror		Zone1Page3Byte2	616	111	0	0	255
SIM data mirror		Zone1Page3Byte3	616	112	0	0	255
SIM data mirror		Zone1Page3Byte4	616	113	0	0	255
SIM data mirror		Zone1Page3Byte5	616	114	0	0	255
SIM data mirror		Zone1Page3Byte6	616	115	0	0	255
SWUP NVM Save Switch		SWUP NVM Save Switch	616	116	0	0	255
delete settings		delete settings	616	117	0	0	1
EssOnlineValidNvm		NC OnlineValidNvm	616	118	0	0	1
SearchPDFhwsw available		SearchPDFhwsw available	616	120	1	0	1
SearchPDFinstalled		SearchPDFinstalled	616	121	0	0	1
SearchPDFinstalled count		SearchPDFinstalled count	616	122	0	0	65535
SearchPDFenabled		SearchPDFenabled	616	123	0	0	1
Cpsrhwsw available		Cpsrhwsw available	616	124	1	0	1
Cpsrinstalled		Cpsrinstalled	616	125	0	0	1
Cpsrinstalled count		Cpsrinstalled count	616	126	0	0	65535
Cpsrenabled		Cpsrenabled	616	127	0	0	1
Fast Resume status	0=Disabled 1=Enabled	Fast Resume status	616	143	0	0	1
Power Management mode	0= intelligent ready 1= job activated 2= scheduled	Power Management mode	616	144	1	0	2
Power Management Scheduled wake time - Sunday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Sunday	616	145	9	0	23
Power Management Scheduled wake time - Monday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Monday	616	146	9	0	23
Power Management Scheduled wake time - Tuesday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Tuesday	616	147	9	0	23
Power Management Scheduled wake time - Wednesday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Wednesday	616	148	9	0	23

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Power Management Scheduled wake time - Thursday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Thursday	616	149	9	0	23
Power Management Scheduled wake time - Friday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Friday	616	150	9	0	23
Power Management Scheduled wake time - Saturday	0=00hrs --> 23 = 23hrs (hourly increments), default is 9	Scheduled wake time - Saturday	616	151	9	0	23
Power Management Scheduled power saver time - Sunday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Sunday	616	152	17	0	23
Power Management Scheduled power saver time - Monday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Monday	616	153	17	0	23
Power Management Scheduled power saver time - Tuesday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Tuesday	616	154	17	0	23
Power Management Scheduled power saver time - Wednesday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Wed.	616	155	17	0	23
Power Management Scheduled power saver time - Thursday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Thurs.	616	156	17	0	23
Power Management Scheduled power saver time - Friday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Friday	616	157	17	0	23
Power Management Scheduled power saver time - Saturday	0=00hrs --> 23 = 23hrs (hourly increments), Default is 17	Scheduled pwr saver time Sat.	616	158	17	0	23
Power Management daily Schedule type - Sunday	0 = Job Activated (default), 1 = Specified time	Schedule type - Sunday	616	159	0	0	1
Power Management daily Schedule type - Monday	0 = Job Activated (default), 1 = Specified time	Schedule type - Monday	616	160	0	0	1
Power Management daily Schedule type - Tuesday	0 = Job Activated (default), 1 = Specified time	Schedule type - Tuesday	616	161	0	0	1
Power Management daily Schedule type - Wednesday	0 = Job Activated (default), 1 = Specified time	Schedule type - Wednesday	616	162	0	0	1
Power Management daily Schedule type - Thursday	0 = Job Activated (default), 1 = Specified time	Schedule type - Thursday	616	163	0	0	1
Power Management daily Schedule type - Friday	0 = Job Activated (default), 1 = Specified time	Schedule type - Friday	616	164	0	0	1
Power Management daily Schedule type - Saturday	0 = Job Activated (default), 1 = Specified time	Schedule type - Saturday	616	165	0	0	1
Fault Counter 22-330: number of times page pack pin has been locked out	no. of faults	NumTimesPagePackPinlockedFC	616	200	0	0	255
Disk Encryption - hwsw available	Indicates if the appropriate hardware is available	Disk Encryption - hwsw available	616	203	1	0	1
Disk Encryption - Installed	Indicates if Disk Encryption option is installed	Disk Encryption - Installed	616	204	1	0	1
Disk Encryption - Installed Count		Disk Encryption Installed Count	616	205	0	0	65535
Disk Encryption enabled/disabled	0 = disabled 1 = enabled	Disk Encryption Enabled/Disabled	616	206	0	0	1
Fast Resume popup message enabled status	0= Fast Resume feature not previously enabled 1= Fast Resume feature has been previously enabled	Fast Resume popup enabled status	616	212	0	0	1
defines system manager full ODIO timeout	90 minutes	FullODIOTimeout	616	213	90	0	255
defines system manager standard ODIO timeout	30 minutes	StandardODIOTimeout	616	214	30	0	255
Automatic System Reset Count	0-2	Auto-Reset Count	616	216	0	0	2
		faults displayed on TTY	617	2	1	0	1
		display faults	617	3	1	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		IISS Version No Upper Level	620	1	0	0	65535
		prescanType	620	2	0	0	1
		photoTextSeparationLevel	620	3	2	0	4
		photoReproLevel	620	4	1	0	2
		bwSeparationLevel	620	5	2	0	4
		RED chromaticValueLow	620	6	0	0	65535
		RED chromaticValueHigh	620	7	25700	0	65535
		RED aChromaticValueLow	620	8	0	0	65535
		RED aChromaticValueHigh	620	9	0	0	65535
		GRN chromaticValueLow	620	10	25600	0	65535
		GRN chromaticValueHigh	620	11	25600	0	65535
		GRN aChromaticValueLow	620	12	0	0	65535
		GRN aChromaticValueHigh	620	13	0	0	65535
		BLU chromaticValueLow	620	14	25600	0	65535
		BLU chromaticValueHigh	620	15	63	0	65535
		BLU aChromaticValueLow	620	16	0	0	65535
		BLU aChromaticValueHigh	620	17	0	0	65535
		YEL chromaticValueLow	620	18	0	0	65535
		YEL chromaticValueHigh	620	19	25600	0	65535
		YEL aChromaticValueLow	620	20	0	0	65535
		YEL aChromaticValueHigh	620	21	0	0	65535
		MAG chromaticValueLow	620	22	0	0	65535
		MAG chromaticValueHigh	620	23	100	0	65535
		MAG aChromaticValueLow	620	24	0	0	65535
		MAG aChromaticValueHigh	620	25	0	0	65535
		CYA chromaticValueLow	620	26	25600	0	65535
		CYA chromaticValueHigh	620	27	0	0	65535
		CYA aChromaticValueLow	620	28	0	0	65535
		CYA aChromaticValueHigh	620	29	0	0	65535
		BLA chromaticValueLow	620	30	100	0	65535
		BLA chromaticValueHigh	620	31	0	0	65535
		BLA aChromaticValueLow	620	32	0	0	65535
		BLA aChromaticValueHigh	620	33	0	0	65535
Fault Counter 05-194:		05-194 counter	620	70	0	0	255
Fault Counter 05-196:		05-196 counter	620	72	0	0	255
Fault Counter 05-197:		05-197 counter	620	73	0	0	255
Fault Counter 62-310:		62-310 counter	620	99	0	0	255
		Market Information	620	101	0	0	3
		IISS Major Version	620	102	0	0	65535
		IISS Minor Version	620	103	0	0	65535
		IISS Revision Version	620	104	0	0	65535
		IISS Patch Version	620	105	0	0	65535

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		ADF Major Version	620	106	0	0	65535
		ADF Minor Version	620	107	0	0	65535
		ADF Revision Version	620	108	0	0	65535
		ADF Patch Version	620	109	0	0	65535
		IPL Version	620	110	0	0	65535
		IIT fail bypass	620	111	0	0	1
		Fan control mode	620	112	0	0	1
		the number of APS sensors	620	113	1	0	1
		Lamp Fan fal bypass	620	114	0	0	1
		Lamp Fan Low rotation ON time	620	115	15	0	60
		Lamp Fan Off time	620	116	0	0	60
		FL timer set	620	117	0	0	1
		Lamp On interval	620	118	30	0	60
		Lamp On time	620	119	1	0	60
		IIT failure parts diagnosis	620	120	0	0	65535
Platen SS Registration Adjustment		Platen SS Registration Adjust	620	121	100	16	184
Platen SS Magnification Adjustment		Platen SS Magnification Adjust	620	122	50	44	56
		Platen glass type	620	123	2	0	2
REGI correction value in FS direction on Platen		REGI corr value-FS dir on Platen	620	124	120	0	240
CVT FS Offset Side 1: Side1-1 (139.7 to 148)		CVT FS Off S1:S1-1 (139.7-148)	620	125	120	0	240
CVT FS Offset Side 2: Side2-1 (139.7 to 148)		CVT FS Off S2:S2-1 (139.7-148)	620	126	120	0	240
CVT FS Offset Side 1: Side1-2 (182 to 194)		CVT FS Off S1:S1-2 (182-194)	620	127	120	0	240
CVT FS Offset Side 2: Side2-2 (182 to 194)		CVT FS Off S2:S2-2 (182-194)	620	128	120	0	240
CVT FS Offset Side 1: Side1-3 (203.2)		CVT FS Off S1:S1-3 (203.2)	620	129	120	0	240
CVT FS Offset Side 2: Side2-3 (203.2)		CVT FS Off S2:S2-3 (203.2)	620	130	120	0	240
CVT FS Offset Side 1: Side1-4 (210)		CVT FS Off S1:S1-4 (210)	620	131	120	0	240
CVT FS Offset Side 2: Side2-4 (210)		CVT FS Off S2:S2-4 (210)	620	132	120	0	240
CVT FS Offset Side 1: Side1-5 (214.9 to 215.9)		CVT FS Off S1:S1-5 (214.9-215.9)	620	133	120	0	240
CVT FS Offset Side 2: Side2-5 (214.9 to 215.9)		CVT FS Off S2:S2-5 (214.9-215.9)	620	134	120	0	240
CVT FS Offset Side 1: Side1-6 (254 to 257)		CVT FS Off S1:S1-6 (254-257)	620	135	120	0	240
CVT FS Offset Side 2: Side2-6 (254 to 257)		CVT FS Off S2:S2-6 (254-257)	620	136	120	0	240
CVT FS Offset Side 1: Side1-7 (266.7 to 267)		CVT FS Off S1:S1-7 (266.7-267)	620	137	120	0	240
CVT FS Offset Side 2: Side2-7 (266.7 to 267)		CVT FS Off S2:S2-7 (266.7-267)	620	138	120	0	240
CVT FS Offset Side 1: Side1-8 (279.4)		CVT FS Off S1:S1-8 (279.4)	620	139	120	0	240
CVT FS Offset Side 2: Side2-8 (279.4)		CVT FS Off S2:S2-8 (279.4)	620	140	120	0	240
CVT FS Offset Side 1: Side1-9 (297)		CVT FS Off S1:S1-9 (297)	620	141	120	0	240
CVT FS Offset Side 2: Side2-9 (297)		CVT FS Off S2:S2-9 (297)	620	142	120	0	240

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
CVT FS Offset Side 1: Side3-1 (139.7 to 148)		CVT FS Off S1:S3-1 (139.7-148)	620	143	120	0	240
CVT FS Offset Side 2: Side4-1 (139.7 to 148)		CVT FS Off S2:S4-1 (139.7-148)	620	144	120	0	240
CVT FS Offset Side 1: Side3-2 (182 to 194)		CVT FS Off S1:S3-2 (182-194)	620	145	120	0	240
CVT FS Offset Side 2: Side4-2 (182 to 194)		CVT FS Off S2:S4-2 (182-194)	620	146	120	0	240
CVT FS Offset Side 1: Side3-3 (203.2)		CVT FS Off S1:S3-3 (203.2)	620	147	120	0	240
CVT FS Offset Side 2: Side4-3 (203.2)		CVT FS Off S2:S4-3 (203.2)	620	148	120	0	240
CVT FS Offset Side 1: Side3-4 (210)		CVT FS Off S1:S3-4 (210)	620	149	120	0	240
CVT FS Offset Side 2: Side4-4 (210)		CVT FS Off S2:S4-4 (210)	620	150	120	0	240
CVT FS Offset Side 1: Side3-5 (214.9 to 215.9)		CVT FS Off S1:S3-5 (214.9-215.9)	620	151	120	0	240
CVT FS Offset Side 2: Side4-5 (214.9 to 215.9)		CVT FS Off S2:S4-5 (214.9-215.9)	620	152	120	0	240
CVT FS Offset Side 1: Side3-6 (254 to 257)		CVT FS Off S1:S3-6 (254-257)	620	153	120	0	240
CVT FS Offset Side 2: Side4-6 (254 to 257)		CVT FS Off S2:S4-6 (254-257)	620	154	120	0	240
CVT FS Offset Side 1: Side3-7 (266.7 to 267)		CVT FS Off S1:S3-7 (266.7-267)	620	155	120	0	240
CVT FS Offset Side 2: Side4-7 (266.7 to 267)		CVT FS Off S2:S4-7 (266.7-267)	620	156	120	0	240
CVT FS Offset Side 1: Side3-8 (279.4)		CVT FS Off S1:S3-8 (279.4)	620	157	120	0	240
CVT FS Offset Side 2: Side4-8 (279.4)		CVT FS Off S2:S4-8 (279.4)	620	158	120	0	240
CVT FS Offset Side 1: Side3-9 (297)		CVT FS Off S1:S3-9 (297)	620	159	120	0	240
CVT FS Offset Side 2: Side4-9 (297)		CVT FS Off S2:S4-9 (297)	620	160	120	0	240
		W-Ref adjustment factor Red	620	161	140	70	255
		W-Ref adjustment factor Green	620	162	140	70	255
		W-Ref adjustment factor Blue	620	163	140	70	255
		W-Ref adjustment factor BW-X	620	164	140	70	255
		W-Ref adjustment factor BW-Y	620	165	140	70	255
W-Ref adjustment factor Red (each sheet)		W-Ref adj factor Red (sheet)	620	166	63	0	127
W-Ref adjustment factor Green (each sheet)		W-Ref adj factor Green (sheet)	620	167	63	0	127
W-Ref adjustment factor Blue (each sheet)		W-Ref adj factor Blue (sheet)	620	168	63	0	127
W-Ref adjustment factor BW (each sheet)		W-Ref adj factor BW (sheet)	620	169	63	0	127
		IIT paper code	620	170	0	0	8
		Optical axis adjustment: front	620	171	990	0	1980
		Optical axis adjustment: rear	620	172	990	0	1980
		CVT FS Offset Side 1: Side1	620	173	120	0	240
		CVT FS Offset Side 2: Side2	620	174	120	0	240
		CVT FS Offset Side 1: Side3	620	175	120	0	240
		CVT FS Offset Side 2: Side4	620	176	120	0	240
		BW/Color auto recognition level	620	177	0	0	1
Black line adjustment level (for COLOR)		Black line adj level (for COLOR)	620	178	8	0	15
Black line adjustment level (for BW)		Black line adj level (for BW)	620	179	8	0	15
		Black line adjustment test mode	620	180	0	0	7

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		BW adjustment table	620	181	0	0	7
		HOSEI_SCAN (for detection)	620	182	3	0	6
		HOSEI_SCAN (for image)	620	183	3	0	6
		CCD Calib Y scan Red	620	184	0	0	1023
		CCD Calib Y scanned: Green	620	185	0	0	1023
		CCD Calib Y scanned: Blue	620	186	0	0	1023
		CCD Calib M scanned: Red	620	187	0	0	1023
		CCD Calib M scanned: Green	620	188	0	0	1023
		CCD Calib M scanned: Blue	620	189	0	0	1023
		CCD Calib C scanned: Red	620	190	0	0	1023
		CCD Calib C scanned: Green	620	191	0	0	1023
		CCD Calib C scanned: Blue	620	192	0	0	1023
		CCD Calib PK scanned: Red	620	193	0	0	1023
		CCD Calib PK scanned: Green	620	194	0	0	1023
		CCD Calib PK scanned: Blue	620	195	0	0	1023
Switching A6 document / postcard detection		Switching A6/postcard detect	620	196	0	0	2
A4S/8.5in detection border switching 2		A4S/8.5in det. border switch 2	620	197	3	0	6
		B5/8W10 detection switch	620	198	0	0	3
		Switch 8.5W13/8.5W14 detections	620	199	0	0	3
Select special-document-detection table		Select special-doc-detect table	620	200	0	0	2
Switch document size detection tables		Switch docu size detect tables	620	201	2	1	5
		Switch A3/11W17 detections	620	202	0	0	3
		Switch A4/8.5W11 detections	620	203	0	0	3
		Document size detection.	620	204	0	0	1
		GCO/TFX sizes switching	620	205	1	0	1
		B4/8-kai FS threshold setting	620	206	3	0	6
8-kai/11W17SEF FS threshold setting		8-kai/11W17SEF FS threshold	620	207	3	0	6
		Switch B6/5W7 detections	620	208	0	0	2
		Lamp check NG counts	620	209	0	0	65535
		Data taken at lamp check NG.	620	210	0	0	1023
the number of AOC flow endings with error		AOC flow endings with error	620	211	0	0	255
		BW Copy BGR-AE adjustment level	620	212	0	0	4095
Color copy BGR-AE adjustment level		Color copy BGR-AE adjust level	620	213	0	0	4095
BW Copy BGR-AE adjustment - speed-prioritized		TP_BW_Copy BGR-AE-Level Speed	620	214	0	0	4095
Color copy BGR-AE adjustment - speed-prioritized AE (Text)		TX_CL_Copy BGR-AE-Level Speed	620	215	0	0	4095
BW contone scan BGR-AE adjustment level for speed-prioritized AE (Text photo)		TP_BW_Contone BGR-AE-Level Speed	620	216	0	0	4095
Color contone scan BGR-AE adjustment level for speed-prioritized AE (Text photo)		TP_CL_Contone BGR-AE-Level Speed	620	217	0	0	4095
background suppression; FS non-detected area 1		ABS; FS non-detected area 1	620	218	255	0	65535

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
background suppression; FS non-detected area 2		ABS; FS non-detected area 2	620	219	255	0	65535
background suppression; FS non-detected area 3		ABS; FS non-detected area 3	620	220	255	0	65535
background suppression; FS non-detected area 4		ABS; FS non-detected area 4	620	221	255	0	65535
background suppression; SS fixed position		ABS; SS fixed position	620	222	60	0	65535
background suppression; SS end position (for HAE)		ABS; SS end position (for HAE)	620	223	240	0	65535
background suppression; SS end position (for MAE)		ABS; SS end position (for MAE)	620	224	240	0	65535
background suppression; SS end position (for NAE)		ABS; SS end position (for NAE)	620	225	240	0	65535
		LIM control for BW COPY	620	226	1	0	1
		LIM control for color COPY	620	227	1	0	1
LIM control for FAX and binary scan		BW_Copy Variation Control(1-bit)	620	228	1	0	1
		LIM control for contone scan	620	229	1	0	1
background suppression threshold (HAE)		ABS threshold (HAE)	620	230	127	0	255
background suppression threshold (NAE1)		ABS threshold (NAE1)	620	231	33	0	255
background suppression threshold (NAE2)		ABS threshold (NAE2)	620	232	204	0	255
background suppression threshold (NAE3)		ABS threshold (NAE3)	620	233	8	0	65535
background suppression threshold (NAE4)		ABS threshold (NAE4)	620	234	4	0	65535
		AE control of FS size detection	620	235	0	0	1
AE parameter SS magnification correction upper limit 1		AE param SS mag corr TopLimit 1	620	237	4000	0	4000
AE parameter SS magnification correction upper limit 2		AE param SS mag corr TopLimit 2	620	238	4000	0	4000
AE parameter SS magnification correction upper limit 3		AE param SS mag corr TopLimit 3	620	239	4000	0	4000
AE parameter SS magnification correction upper limit 4		AE param SS mag corr TopLimit 4	620	240	4000	0	4000
FAX binary scan: background suppression Offset level; text mode (normal pencil)		TX_BW_Fax Offset Lvl AE	620	241	0	0	8191
level for BW COPY FAX and binary scan: Text/photo mode (print photographic paper copy)		TP_BW_Copy_Fax Removal Lvl AE	620	242	0	0	4095
OFFSET level for BW COPY FAX and binary scan: Text/photo mode (print photographic paper copy)		TP_BW_Copy_Fax Offset Lvl AE	620	243	273	0	4095
level for BW COPY FAX and binary scan: text mode (normal pencil)		TX_BW_Copy_Fax Removal Lvl AE	620	244	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text mode (normal pencil)		TX_BW_Copy_Fax Offset Lvl AE	620	245	273	0	4095
level for BW COPY FAX and binary scan: text/photo mode (pale-color document)		TPL_BW_Copy_Fax Removal Lvl AE	620	246	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text/photo mode (pale-color document)		TPL_BW_Copy_Fax Offset Lvl AE	620	247	273	0	4095
level for BW COPY FAX and binary scan: text mode (tracing paper)		TRP_BW_Copy_Fax Removal Lvl AE	620	248	0	0	4095
OFFSET level for BW COPY FAX and binary scan: text mode (tracing paper)		TRP_BW_Copy_Fax Offset Lvl AE	620	249	273	0	4095

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
level for Color COPY: text/photo mode (print photographic paper copy inkjet highlighter)		TP_CL_Copy Removal Lvl AE	620	250	0	0	4095
OFFSET level for Color COPY: text/photo mode (print photographic paper copy inkjet highlighter)		TP_CL_Copy Offset Lvl AE	620	251	0	0	4095
level for Color COPY: text (normal)		TX_CL_Copy Removal Lvl AE	620	252	0	0	4095
OFFSET level for Color COPY: text (normal)		TX_CL_Copy Offset Lvl AE	620	253	0	0	4095
level for BW Contone Scan (text photo)		TP_BW_Contone Removal Lvl AE	620	254	819	0	4095
OFFSET level for BW Condone Scan: (text photo)		TP_BW_Contone Offset Lvl AE	620	255	0	0	4095
level for BW Contone Scan (other than text photo)		notTP_BW_Contone Removal Lvl AE	620	256	819	0	4095
OFFSET level for BW Contone Scan: (other than text photo)		notTP_BW_Contone Offset Lvl AE	620	257	30	0	4095
level for Color Contone Scan (text photo)		TP_CL_Contone Removal Lvl AE	620	258	28	0	4095
OFFSET level for Color Contone Scan: (text photo)		TP_CL_Contone Offset Lvl AE	620	259	27	0	4095
Level for Color Contone Scan (other than text photo)		notTP_CL_Contone Removal Lvl AE	620	260	0	0	4095
OFFSET level for Color Contone Scan (other than text photo)		notTP_CL_Contone Offset Lvl AE	620	261	0	0	4095
Two-face AE control parameter: lower limit of multiplier coefficient		2F-AE LowLimit Multiplied Value	620	262	0	0	255
Two-face AE control parameter: upper limit of multiplier coefficient		2F-AE TopLimit Multiplied Value	620	263	255	0	255
Two-face AE control parameter: comparison margin OFST		Offset for 2F AE Control	620	264	8	0	255
Two-face AE control parameter: background level threshold LEVEL_N		Threshold for 2F AE Control	620	265	16	0	255
Two-face AE control parameter: forced selection		Mode Control of 2F AE	620	266	0	0	3
		Two color copy control	620	267	0	0	1
		Tracing paper mode setting	620	268	0	0	1
Default color balance adjustment level Y: low density		Def. ColorBal adj Y: low den.	620	269	4	0	8
Default color balance adjustment level Y: medium density		Def. ColorBal adj Y: med den.	620	270	4	0	8
Default color balance adjustment level Y: high density		Def. ColorBal adj Y: hi den.	620	271	4	0	8
Default color balance adjustment level M: low density		Def. ColorBal adj M: low den.	620	272	4	0	8
Default color balance adjustment level M: medium density		Def. ColorBal adj M: med den.	620	273	4	0	8
Default color balance adjustment level M: high density		Def. ColorBal adj M: hi den.	620	274	4	0	8
Default color balance adjustment level C: low density		Def. ColorBal adj C: low den.	620	275	4	0	8
Default color balance adjustment level C: medium density		Def. ColorBal adj C: med den.	620	276	4	0	8
Default color balance adjustment level C: high density		Def. ColorBal adj C: hi den.	620	277	4	0	8
Default color balance adjustment level K: low density		Def. ColorBal adj K: low den	620	278	4	0	8

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Default color balance adjustment level K: medium density		Def. ColorBal adj K: med den	620	279	4	0	8
Default color balance adjustment level K: high density		Def. ColorBal adj K: hi den	620	280	4	0	8
FS magnification correction (scanned on PLATEN/BELT DADF)		FS mag corr (PLATEN/BELT DADF)	620	281	50	0	100
FS magnification correction (scanned on CVT)		FS mag corr (CVT)	620	282	50	0	100
		IPS Through Bypass setting 1(A)	620	283	0	0	65535
		IPS through (bypass) setting 2	620	284	0	0	65535
BW COPY: text; normal density adjustment		BW COPY: text; normal dens adj	620	285	128	0	256
BW COPY: text; Darker 3 density adjustment		BW COPY: text; Darker3 dens adj	620	286	128	0	256
Scan/FAX: text; normal density adjustment		Scan/FAX: text; normal dens adj	620	287	128	0	256
Scan/FAX: text; Darker 3 density adjustment		Scan/FAX: text; Darker3 dens adj	620	288	128	0	256
Speed prioritized background suppression; SS non-detection area for Platen M/C		PLTN RAE SS Not Detect Area	620	289	0	0	65535
Speed prioritized background suppression; SS non-detection area for platen job on DADF M/C		DADF-P-Job RAE SSNotDetect Area	620	290	0	0	65535
Speed prioritized background suppression; SS non-detection area for DADF job on DADF M/C		DADF-D-Job RAE SSNotDetect Area	620	291	0	0	65535
		Hue angle B start	620	292	270	0	360
		Hue angle B end	620	293	320	0	360
		Hue angle G start	620	294	110	0	360
		Hue angle G end	620	295	200	0	360
		Hue angle R start	620	296	350	0	360
		Hue angle R end	620	297	60	0	360
		Hue angle Y start	620	298	60	0	360
		Hue angle Y end	620	299	120	0	360
		Hue angle M start	620	300	320	0	360
		Hue angle M end	620	301	360	0	360
		Hue angle C start	620	302	190	0	360
		Hue angle C end	620	303	280	0	360
		IISS-DADF communication Fail	620	304	0	0	65535
IISS-Controller communication Fail		IISS-Controller comm Fail	620	306	0	0	65535
		DADF EEPROM Fail	620	308	0	0	65535
		IPS Fan Fail	620	310	0	0	65535
		CRG Position Fail	620	312	0	0	65535
		IISS LOGIC Fail	620	314	0	0	65535
		Lamp Illumination Fail	620	316	0	0	65535
		CRG Over Run Fail	620	318	0	0	65535
		Lamp Fan Fail	620	320	0	0	65535
		CCD Fan Fail	620	322	0	0	65535
		AGC Fail	620	324	0	0	65535
		AOC Fail	620	326	0	0	65535

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		IPS PWBA Fail	620	328	0	0	65535
		IISS-EXT communication Fail	620	330	0	0	65535
		Extension EEPROM Fail	620	332	0	0	65535
		IPS-EXT Connection Fail	620	334	0	0	65535
		IPS-YATA Connection Fail	620	336	0	0	65535
		EXT-YATA Connection Fail	620	338	0	0	65535
		YATA PWBA Fail	620	340	0	0	65535
		IPS PWBA Memory Fail	620	342	0	0	65535
		IIT Hot Line Fail	620	344	0	0	65535
Scan Count replacement life (upper)		Scan Count replace life (upper)	620	346	91	0	65535
Scan Count replacement life (lower)		Scan Count replace life (lower)	620	347	36224	0	65535
Lamp-On time Count replacement life (upper)		Lamp-On time replace life (max)	620	348	109	0	65535
Lamp-On time Count replacement life (lower)		Lamp-On time replace life (min)	620	349	56576	0	65535
Lamp-On Count Replacement life (upper)		Lamp-On Count replace life (max)	620	350	91	0	65535
Lamp-On Count Replacement life (lower)		Lamp-On Count replace life (min)	620	351	36224	0	65535
Fax Document Size Detection for DADF		Fax doc Size detect DADF	620	352	0	0	1
		JAM bypass	620	353	0	0	1
		8.5 W11 LEF threshold	620	354	2093	1993	2193
		B5SEF / 8 W10 SEF switching	620	355	0	0	1
11 W15 SEF / 8-kai switching in AP market		11x15 SEF/8-kai switch (AP Mkt)	620	356	0	0	1
		FS MAX value	620	357	2970	1297	3070
		FS MIN value	620	358	2970	1297	3070
		SS MAX value	620	359	2100	1297	4418
		SS MIN value	620	360	2100	1297	4418
		Document Size	620	361	8	3	20
		Specify document feed direction	620	362	0	0	1
Select DADF document size detection table custom registration		DADF Doc Size Detection Table	620	363	0	0	1
S-size document Side2 Lead Regi correction value		S Size Side2 Lead Regi Adjust	620	364	250	217	283
M-size document Side2 Lead Regi correction value		M Size Side2 Lead Regi Adjust	620	365	250	217	283
L-size document Side2 Lead Regi correction value		L Size Side2 Lead Regi Adjust	620	366	250	217	283
Size mismatch Jam detection setting (applicable to only Simplex Mode)		Size Miss Match Set(Simp)	620	367	1	1	2
		Alternate Size switching 1	620	368	1	1	2
		Alternate Size switching 2	620	369	1	1	2
		Alternate Size switching 3	620	370	0	0	2
		Alternate Size switching 4	620	371	0	0	2
		Alternate Size switching 5	620	372	0	0	2
		Alternate Size switching 6	620	373	0	0	3
		Alternate Size switching 7	620	374	0	0	3

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		Alternate Size switching 8	620	375	0	0	4
		Alternate Size switching 9	620	376	0	0	2
		Alternate Size switching 10	620	377	0	0	2
		Alternate Size switching 11	620	378	0	0	3
Size-Mix Mode temporary size direction		Size-Mix Mode Assumed Size	620	379	1	0	1
		Fax job Mix Size Standard mode	620	380	0	0	1
		DADF DPM selection	620	381	80	0	65535
		Magnification correction control	620	382	0	0	1
		Color BW judgment level	620	383	2	0	4
YATAGRS text mode Photo and Text Recognition level		textmode Photo/Text RecogLvl	620	384	2	0	4
BW copy (text photo) AE adjustment level		BW copy (text photo) AE adj lvl	620	385	0	0	4095
Color copy (text photo) AE adjustment level		CL copy (text photo) AE adj lvl	620	386	0	0	4095
BW Copy (text) AE adjustment level		BW Copy text AE adjustment level	620	387	0	0	4095
Color Copy (text) AE adjustment level		CL Copy (text) AE adj lvl	620	388	0	0	4095
BW Copy for B AE adjustment level		BW CopyFor B AE adjustt level	620	389	0	0	4095
BW Copy for G and R AE adjustment level		BW Copy G and R AE adj lvl	620	390	0	0	4095
Color Copy for B AE adjustment level		CL Copy B AE adj lvl	620	391	0	0	4095
Color Copy for G and R AE adjustment level		CL Copy G and R AE adj lvl	620	392	0	0	4095
BW Copy (text) for B AE adjustment level		BW Copy (text) B AE adj lvl	620	393	0	0	4095
BW Copy (text) for G and R AE adjustment level		BW Copy (text) G & R AE adj lvl	620	394	0	0	4095
Color Copy (text) for B AE adjustment level		CL Copy (text) B AE adj lvl	620	395	0	0	4095
Color Copy (text) for G and R AE adjustment level		CL Copy (text) G & R AE adj lvl	620	396	0	0	4095
EXT. Tail Reg. adjustment (55.0mm/sec)		EXT. Tail Reg. adj (55.0mm/sec)	620	397	122	0	244
EXT. Tail Reg. adjustment (73.3mm/sec)		EXT. Tail Reg. adj (73.3mm/sec)	620	398	122	0	244
EXT. Tail Reg. adjustment (82.5mm/sec)		EXT. Tail Reg. adj (82.5mm/sec)	620	399	122	0	244
EXT. Tail Reg. adjustment (110.0mm/sec)		EXT. Tail Reg. adj (110.0mm/sec)	620	400	122	0	244
EXT. Tail Reg. adjustment (146.7mm/sec)		EXT. Tail Reg. adj (146.7mm/sec)	620	401	122	0	244
EXT. Tail Reg. adjustment (165.0mm/sec)		EXT. Tail Reg. adj (165.0mm/sec)	620	402	122	0	244
EXT. Tail Reg. adjustment (293.3mm/sec)		EXT. Tail Reg. adj (293.3mm/sec)	620	403	122	0	244
EXT. Tail Reg. adjustment (220mm/sec)		EXT. Tail Reg. adj (220mm/sec)	620	404	122	0	244
EXT. Tail Reg. adjustment (330mm/sec		EXT. Tail Reg. adj (330mm/sec	620	405	122	0	244
EXT. Tail Reg. adjustment (440mm/sec)		EXT. Tail Reg. adj (440mm/sec)	620	406	122	0	244
EXT. Lead Edge. adjustment (55.0mm/sec)		EXT. LE. adj (55.0mm/sec)	620	407	122	0	244
EXT. Lead Edge. adjustment (73.3mm/sec)		EXT. LE. adj (73.3mm/sec)	620	408	122	0	244
EXT. Lead Edge. adjustment (82.5mm/sec)		EXT. LE. adj (82.5mm/sec)	620	409	122	0	244
EXT. Lead Edge. adjustment (110.0mm/sec)		EXT. LE. adj (110.0mm/sec)	620	410	122	0	244
EXT. Lead Edge. adjustment (146.7mm/sec)		EXT. LE. adj (146.7mm/sec)	620	411	122	0	244
EXT. Lead Edge. adjustment (165.0mm/sec)		EXT. LE. adj (165.0mm/sec)	620	412	122	0	244
EXT. Lead Edge. adjustment (293.3mm/sec)		EXT. LE. adj (293.3mm/sec)	620	413	122	0	244
EXT. Lead Edge. adjustment (220mm/sec)		EXT. LE. adj (220mm/sec)	620	414	122	0	244

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
EXT. Lead Edge. adjustment (330mm/sec)		EXT. LE. adj (330mm/sec)	620	415	122	0	244
EXT. Lead Edge. adjustment (440mm/sec)		EXT. LE. adj (440mm/sec)	620	416	122	0	244
		CVT FS Offset 1p Duplex Side2-1	620	417	120	0	240
		CVT FS Offset 1p Duplex Side2-2	620	418	120	0	240
		CVT FS Offset 1p Duplex Side2-3	620	419	120	0	240
		CVT FS Offset 1p Duplex Side2-4	620	420	120	0	240
		CVT FS Offset 1p Duplex Side2-5	620	421	120	0	240
		CVT FS Offset 1p Duplex Side2-6	620	422	120	0	240
		CVT FS Offset 1p Duplex Side2-7	620	423	120	0	240
		CVT FS Offset 1p Duplex Side2-8	620	424	120	0	240
		CVT FS Offset 1p Duplex Side2-9	620	425	120	0	240
		1p Duplex Center Regi position	620	426	3598	0	7196
CIS black level Average number of lines		CIS black level Avg # lines	620	427	3	0	3
Target for black level auto adjust		Target black level auto adjust	620	428	16	0	255
Target for white level auto adjust		Target white level auto adjust	620	429	820	0	1023
		Digital Offset Level	620	430	512	0	1023
		Black Level Correction Value	620	431	128	0	255
		White Level Correction Value	620	432	255	0	255
DIPS white level; the average number of lines		DIPS white level; Avg # lines	620	433	4	0	4
white stability adjustment start point		white stability adj start point	620	434	10	0	4095
white stability adjustment average area		white stability adj Avg area	620	435	217	0	255
white stability adjustment Reference value		white stability adj Ref value	620	436	962	0	1023
		W-Ref density correction factor	620	437	158	100	255
Fine adjustment factor for highlight at white stability adjustment		Fine adj hilite WhiteStability	620	438	100	80	120
W-Ref density correction factor set value		W-Ref den. corr factor set value	620	439	255	0	255
EXT. Lead Reg. adjustment (460mm/sec)		EXT. Lead Reg. adj (460mm/sec)	620	440	122	0	244
EXT. Tail Edge. adjustment (460mm/sec)		EXT. Tail Edge. adj (460mm/sec)	620	441	122	0	244
		Switching main / sub	620	442	1	0	1
Shading correction dust detection threshold at shipment		Ship Garbage detection Thresh	620	443	500	0	5000
		EXT Fail bypass	620	444	0	0	1
		Daimajin Fail bypass	620	445	0	0	1
Data obtained at white stability adjustment failure		Data on WhiteStability adj fail	620	446	1023	0	1023
		Pre ASIC Through setting 1	620	447	448	0	8191
		BW-PG density	620	448	128	0	255
		FS non-detection area 1	620	449	255	0	65535
		FS non-detection area 3	620	450	255	0	65535
		SS fixed position	620	451	60	0	65535
		LIM control for BW COPY	620	452	1	0	1
LIM control for FAX and binary scan		LIM control FAX and binary scan	620	453	1	0	1
		LIM control for contone scan	620	454	1	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		AE FS size detection control	620	455	0	0	1
Upper Limit of SS Magnification correction AE Parameter1		TopLimit SS mag corr AE param1	620	457	4000	0	4000
Shading correction dust detection threshold in market		ship Thresh of Garbage Detect	620	458	2000	0	5000
		Adjusting all Lead Regi at once	620	459	122	0	244
		Adjusting all Taile Edge at once	620	460	122	0	244
		Adjusting all FS offset at once	620	461	120	0	240
level for BW COPY FAX and binary scan: (print photographic paper copy)		TP_BW_Copy_Fax Removal lvl AE	620	462	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (print photographic paper copy)		TP_BW_Copy_Fax Offset lvl AE	620	463	273	0	4095
level for BW COPY FAX and binary scan: (normal pencil)		TX_BW_Copy_Fax Removal lvl AE	620	464	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (normal pencil)		TX_BW_Copy_Fax Offset lvl AE	620	465	273	0	4095
level for BW COPY FAX and binary scan: (pale-color document)		TPL_BW_Copy_Fax Removal lvl AE	620	466	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (pale-color document)		TPL_BW_Copy_Fax Offset lvl AE	620	467	273	0	4095
level for BW COPY FAX and binary scan: (tracing paper)		TRP_BW_Copy_Fax Removal lvl AE	620	468	0	0	4095
OFFSET level for BW COPY FAX and binary scan: (tracing paper)		TRP_BW_Copy_Fax Offset lvl AE	620	469	273	0	4095
level for BW Contone Scan (text photo)		level BW Cont. Scan (TP)	620	470	0	0	4095
OFFSET level for BW Contone Scan: (text photo)		Off level BW Cont. Scan (TP)	620	471	0	0	4095
level for BW Contone Scan (other than text photo)		level BW Cont. Scan (not TP)	620	472	0	0	4095
OFFSET level for BW Contone Scan: (other than text photo)		Off level BW Cont. Scan (not TP)	620	473	0	0	4095
		EXT Major Version	620	474	0	0	65535
		EXT Minor Version	620	475	0	0	65535
		EXT Revision Version	620	476	0	0	65535
		EXT Patch Version	620	477	0	0	65535
Default color balance adjustment level K: low density		Def. ColorBal adj K: low den(2)	620	478	4	0	8
Default color balance adjustment level K: medium density		Def. ColorBal adj K: med den(2)	620	479	4	0	8
Default color balance adjustment level K: high density		Def. ColorBal adj K: hi den(2)	620	480	4	0	8
		Photo and Text Recognition level	620	481	2	0	4
FS Magnification Adjustment (at CVT scan)		FS mag Adjust (at CVT scan)	620	482	50	0	100
		IPS Through Bypass setting 1(B)	620	483	0	0	511
BW COPY; text; normal density adjustment		BW COPY; text; normal den. adj	620	484	128	0	256
BW COPY; text; darker 3 density adjustment		BWCopyTextDarker 3 DensityAdjust	620	485	128	0	256
Scan/FAX; text normal density adjustment		Scan/FAX; text normal den. adj	620	486	128	0	256
Scan/FAX; text darker 3 density adjustment		Scan/FAX; text darker3 den. adj	620	487	128	0	256
		SS non-detection band	620	488	0	0	65535

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
SS end position (for noise removal)		SS end position (noise removal)	620	489	240	0	65535
Parameter SS Magnification correction Upper Limit		param SS mag corr TopLimit	620	490	4000	0	4000
Shading correction dust detection threshold in market		dust detect threshold in market	620	491	500	0	5000
Selection of Shading data for removing black line		ShadingData blackline remove	620	492	1	0	1
White reference value at shipment		White Reference ValueAtShipment	620	493	636	0	1000
White-correction multiplier coefficient		White-corr multiplier coeff	620	494	0	0	1
		Paper dust detection threshold	620	495	150	0	10000
		VALID starting position	620	496	288	0	1000
Fault Counter 77-311-00:	no. of faults	DocumentFeederCoverOpenFC	620	534	0	0	255
Fault Counter 15-007: IITInternalTargetFailFC	no. of faults	IITInternalTargetFailFC	620	536	0	0	255
Fault Counter 15-008: IITOpticalErrorFC	no. of faults	IITOpticalErrorFC	620	537	0	0	255
Fault Counter 14-001: IITHomePositionErrorFC	no. of faults	IITHomePositionErrorFC	620	538	0	0	255
Fault Counter 15-009: IITManualCalibrationFailFC	no. of faults	IITManualCalibrationFailFC	620	539	0	0	255
Fault Counter 15-010: IITManualCalibrationLEFailFC	no. of faults	IITManualCalibrationLEFailFC	620	540	0	0	255
Fault Counter 15-011: IITManualCalibrationSEFailFC	no. of faults	IITManualCalibrationSEFailFC	620	541	0	0	255
Fault Counter 15-012: IITManualCalShadingTargetFailFC	no. of faults	IITManualCalShadingTargetFailFC	620	542	0	0	255
Fault Counter 05-161: JamDocumentFeederFC	no. of faults	JamDocumentFeederFC	620	543	0	0	255
Fault Counter 14-002: ScannerMissingFC	no. of faults	ScannerMissingFC	620	544	0	0	255
Fault Counter 14-003: ScanHeadLockedFC	no. of faults	ScanHeadLockedFC	620	545	0	0	255
Fault Counter 14-004: ClearDocumentGlassFC	no. of faults	ClearDocumentGlassFC	620	546	0	0	255
Fault Counter 14-005: DocumentFeederDisconnectedFC	no. of faults	DocumentFeederDisconnectedFC	620	547	0	0	255
Fault Counter 05-169-00: Scanner Cooling fan trouble	Scanner cooling fan trouble	ScannerCoolingFanTroubleFC	620	555	0	0	255
		NUP Layout Pattern	621	1	0	0	1
Determines whether rotation is enabled for reduction/ enlargement. 0=False, 1=True		Rotation enabled for RE	621	2	1	0	1
Determines whether rotation is enabled for APS. 0=False, 1=True		Rotation enabled for APS	621	3	1	0	1
		Signature Layout Changeable	621	4	0	0	1
		Use New Messaging	621	5	1	0	1
		Rotation Debug	621	6	1	0	1
Defines previous market region 0=USCO, 1=XCL, 2=FX, 3=FXAPO, 4=ACO, 5=RX		Previous Market Region	621	9	0	0	5
		Lakes Legacy Scan	621	10	1	0	1
spuiNeedsToInitNvm		spuiNeedsToInitNvm	633	1	1	0	1
internal image print job priority		Internal ImagePrintJobPriority	641	1	1	1	65535
Determines whether RS422 is configured. 0=False, 1=True		rs422 Configured	648	1	0	0	1

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Determines whether accessory card is configured. 0=False, 1=True		accessory Card Configured	648	2	1	0	1
Determines whether foreign interface is configured. 0=False, 1=True		foreign interface Configured	648	3	0	0	1
Determines whether RDT Modem is configured. 0=False, 1=True		rdt Modem Configured	648	4	0	0	1
Fault Counter 22-321-04: RS422 configuration mismatch.		RS422 (EPSV) Config MismatchFC	648	5	0	0	255
Fault Counter 22-750-17: Accessory card configuration mismatch.		Accessory Card Config MismatchFC	648	6	0	0	255
Fault Counter 22-755-17: RDT configuration mismatch.		RDT Config Mismatch FC	648	7	0	0	255
Fault Counter 03-331-00: ESS communication lost fault.		NC Comm Lost Fault	648	8	0	0	255
Fault Counter 03-338-00: for detection of DC crash at power up.		DC Crash Detected Fault	648	9	0	0	255
Fault Counter 03-347-00: UI communication lost fault.		UI Comm Lost Fault	648	10	0	0	255
Fault Counter 03-777-00: power loss detected fault.		Power Loss Detected Fault	648	11	0	0	255
Defines DC platform's current install phase.		DC Platform Install Phase	648	12	4	0	4
Fault Counter 03-346-00: UI communication failure.		UI Comms failureFC	648	13	0	0	255
Fault Counter 03-332-00: ESS communication is down fault.		NC Comm Dead Fault	648	14	0	0	255
Defines current state of communication to the PWS.		DCPMF.SPMGR.PWS	648	15	0	0	10
Defines whether machine phone number has been set up. 0=False, 1=True		Machine Phone Number Setup	648	16	0	0	1
		DC Platform Post Upgrade Phase	648	17	0	0	1
DC Platform Post Upgrade Retry Count		DCPlatformPostUpgradeRetry Cnt	648	18	0	0	255
WC6400 does not have an additional FDI card. So there is no way to inform the machine that the device should be in "FDI mode" as opposed to normal copy mode, i.e. there is no physical presence detection. This NVM can be set by a CSE who is installing the FDI device using dc131 that changes the device from normal mode to "FDI" mode. This NVM should not be settable from tools menu in or the service menu.	0 = Auto Detect (Enable/disable FDI based on detection of appropriate hardware) 1 = Always Enabled 2 = Always Disabled	FDI Present	648	23	2	0	2
Determines whether double count is enabled 0=False, 1=True		LargePaperCount	649	1	0	0	1
This specifies the amount of time FI will wait (seconds) before deleting a job when authentication has been removed.		CancelJobTimerValue	649	2	60	0	900
		PreCountDuration	649	3	100	0	200
		CountDuration	649	4	100	0	200
		PostCountDuration	649	5	100	0	200
		ExitDuration	649	6	100	0	200
		EnableOnInternalCredits	649	7	0	0	1
		DeviceType	649	8	0	0	4
		PremiumSelect	649	9	0	0	3

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
		CopyRestricted	649	10	1	0	1
		PrintRestricted	649	11	0	0	1
		s2fRestricted	649	12	0	0	1
		EFaxSendRestricted	649	13	0	0	1
		EFaxReceiveRestricted	649	14	0	0	1
submitPolicy		submitPolicy	652	4	0	0	2
jobMgmtPolicy		jobMgmtPolicy	652	5	1	0	2
Copy Authentication Policy (none, internal, external, EPSV or JBA)		authPolicy	652	6	0	0	8
Copy Accounting Policy (none, internal, external, EPSV, or JBA)		acctPolicy	652	7	0	0	8
invalidAccountPolicy		invalidAccountPolicy	652	8	1	0	2
nullAccountPolicy		nullAccountPolicy	652	9	1	0	2
Print Authentication Policy (none, internal, external, EPSV or JBA)		PrintAuthenticationPolicy	652	10	0	0	8
Print Accounting Policy (none, internal, external, EPSV or JBA)		PrintAccountingPolicy	652	11	0	0	8
InvalidAccountPolicy		InvalidAccountPolicy	652	12	1	0	2
NullAccountPolicy		NullAccountPolicy	652	13	1	0	2
Scan to File Authentication Policy (none, internal, external, EPSV or JBA)		ScanToFileAuthenticationPolicy	652	14	0	0	8
Scan to File Accounting Policy (none, internal, external, EPSV or JBA)		ScanToFileAccountingPolicy	652	15	0	0	8
ScanToFileInvalidPinPolicy		ScanToFileInvalidPinPolicy	652	16	1	0	2
ScanToFileNullPinPolicy		ScanToFileNullPinPolicy	652	17	1	0	2
Auditron - Set Hour		Auditron - Set Hour	652	18	0	0	23
Auditron - Set Minute		Auditron - Set Minute	652	19	0	0	59
Auditron - Set Second		Auditron - Set Second	652	20	0	0	59
Auditron - Set Month		Auditron - Set Month	652	21	1	1	12
Auditron - Set Day		Auditron - Set Day	652	22	1	1	31
Auditron - Set Year		Auditron - Set Year	652	23	70	70	135
Auditron - Wall Clock		Auditron - Wall Clock	652	24	0	0	4.29E+09
Fax Send Authentication Policy (none, internal, external, EPSV or JBA)		Fax Send Authenticity Policy	652	25	0	0	8
Fax Send Accounting Policy (none, internal, external, EPSV or JBA)		Fax Send Accounting Policy	652	26	0	0	8
Fax Send Invalid Pin Policy		Fax Send Invalid Pin Policy	652	27	1	0	2
Fax Send Null Pin Policy		Fax Send Null Pin Policy	652	28	1	0	2
Fax Receive Authentication Policy (none, internal, external, EPSV or JBA)		Fax Receive Authenticity Policy	652	29	0	0	8
Fax Receive Accounting Policy (none, internal, external, EPSV or JBA)		Fax Receive Accounting Policy	652	30	0	0	8
Fax Receive Invalid Pin Policy		Fax Receive Invalid Pin Policy	652	31	1	0	2
Fax Receive Null Pin Policy		Fax Receive Null Pin Policy	652	32	1	0	2
CopyAcivity		CopyAcivity	652	33	0	0	4.29E+09
HolePunchCount		HolePunchCount	652	38	0	0	4.29E+09

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
StapleCount		StapleCount	652	39	0	0	4.29E+09
CustomerName		CustomerName	652	40	0	0	4.29E+09
MonoImpressionCount		MonoImpressionCount	652	41	0	0	4.29E+09
ColourImpressionCount		ColourImpressionCount	652	42	0	0	1
CopyActivityPen		CopyActivityPen	652	43	0	0	4
CopyActivityJobIDGenerator		CopyActivityJobIDGenerator	652	46	256	2	65535
PermServiceSOAValues		PermServiceSOAValues	652	49	1	0	255
PermCreateJob		PermCreateJob	652	50	7	0	255
PermCancelJob		PermCancelJob	652	51	23	0	255
PermInterruptJob		PermInterruptJob	652	52	3	0	255
PermPauseJob		PermPauseJob	652	53	3	0	255
PermQueryJob		PermQueryJob	652	54	7	0	255
PermResumeJob		PermResumeJob	652	55	3	0	255
PermSubmitJob		PermSubmitJob	652	56	7	0	255
PermJobLOAValues		PermJobLOAValues	652	57	7	0	255
PermJobSOAValues		PermJobSOAValues	652	58	3	0	255
PermCreateDocument		PermCreateDocument	652	59	7	0	255
PermDeleteDocument		PermDeleteDocument	652	60	18	0	255
PermDocumentLOAValues		PermDocumentLOAValues	652	61	7	0	255
PermDocumentSOAValues		PermDocumentSOAValues	652	62	3	0	255
PermProofJob		PermProofJob	652	63	7	0	255
PermProofDocument		PermProofDocument	652	64	7	0	255
PermPromoteJob		PermPromoteJob	652	65	5	0	255
PermHoldJob		PermHoldJob	652	66	3	0	255
PermReleaseJob		PermReleaseJob	652	67	35	0	255
Tiered level 1 copy accounting	XSA will use this to allow color level 1 copies to be mapped to B/W	Tiered level 1 copy accnting	652	69	0	0	1
Tiered level 1 print accounting	XSA will use this to allow color level 1 prints to be mapped to B/W	Tiered level 1 print accnting	652	70	0	0	1
JBA display restricted		JBA display restricted	652	71	1	0	1
JBA display fields 0		JBA display fields 0	652	76	1	0	1
JBA display fields 1		JBA display fields 1	652	77	1	0	1
JBA Display masks 0		JBA display masks 0	652	78	0	0	1
JBA Display masks 1		JBA display masks 1	652	79	0	0	1
Fault Counter 19-300-00: Image disk read failure		Image Disk READ Failure.	656	1	0	0	255
Fault Counter 19-301-00: Image disk write failure		Image Disk WRITE Failure.	656	2	0	0	255
Fault Counter 19-302-00: Image disk bad data error		Image Disk BAD DATA ERROR.	656	3	0	0	255
Fault Counter 19-303-00: Image disk unable to format		ImageDiskUnableToFormatError.	656	4	0	0	255
Fault Counter 19-310-00: Image disk capacity not given at power on		Image Disk NoDiskCapacityError	656	5	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Toner empty display location		TonerEmptyDspLoc	658	1	0	0	3
		FdRollLife	658	2	150	0	200
		PDRNNotify	658	3	0	0	16
0=UI, 1=Network, 2=Both, 3=Neither		SupplyInfoFlag	658	4	0	0	3
CRU manager debug printouts 0=False, 1=True		CruMgrDebugPrint	658	5	0	0	1
0=False, 1=True		PDRNNotifyProc	658	6	0	0	1
Reorder message displayed (days before End of Life)		FuserReorderMsgTrig	658	7	3	1	25
Reorder message displayed (days before End of Life)		XeroReorderMsgTrig	658	8	3	1	25
		FuserReorderDspLoc	658	9	0	0	3
		XeroReorderDspLoc	658	10	0	0	3
		FuserReplDspLoc	658	11	0	0	3
		XeroReplDspLoc	658	12	0	0	3
Threshold value for Imaging Units	Stores remaining threshold value to trigger low supplies warnings	ImageUnitReorderMsgTrig	658	19	5	0	65535
Threshold value for Fuser	Stores remaining threshold value to trigger low supplies warnings	FuserReorderMsgTrigger	658	20	5	0	65535
Threshold value for Transfer Roller	Stores remaining threshold value to trigger low supplies warnings	XferRollerReorderMsgTrig	658	21	5	0	65535
Threshold value for Transfer Belt	Stores remaining threshold value to trigger low supplies warnings	XferBeltReorderMsgTrig	658	22	5	0	65535
Counts the number of days in which a threshold number of impressions have occurred. After {MarkUsageCalcDuration} days, this is reset to 0.	system increments counter	DayCounter	658	23	0	0	255
Stores the number of impressions made every day being counted for up to {MarkUsageCalcDuration} days	system increments counter	DayUsage	658	24	0	0	4.29E+09
Minimum number of impressions to consider the day to be a "usage" day. If the machine has not made at least n impressions, don't count the day	adpvThreshold	adpvThreshold	658	25	20	0	65535
Average daily volume	system calculates this	adpv	658	27	1000	0	4.29E+09
Pages per Black Colorant	Use a default for now. System may eventually calculate this value	PagesBlackCRU	658	28	8590	0	4.29E+09
Pages per Color Colorant	Use a default for now. System may eventually calculate this value	PagesColorCRU	658	29	7884	0	4.29E+09
Reorder Threshold value (Percent %) for Ink or Toner	Stores remaining threshold value to trigger low supplies warnings	ReorderMsgTrigPercent	658	31	5	0	65535
This determines how often the ADPV calculation is refreshed	1 = refresh daily, 10 = every 10 days	MarkUsageCalcDuration	658	39	10	1	255
This determines how often ADPV is calculated. This value should never exceed ScanFeedUsageCalcDuration, but code will check for this condition	1 = calculate daily	MarkUsageCalcFrequency	658	41	1	1	255
Specify what JBA should do when it runs out of space.		Out Of Resource Policy	665	1	0	0	1
Specify what JBA should do if it can't communicate with the ESS.		Comm Failed Policy	665	2	0	0	2

Copy Controller NVM Value (Continued)

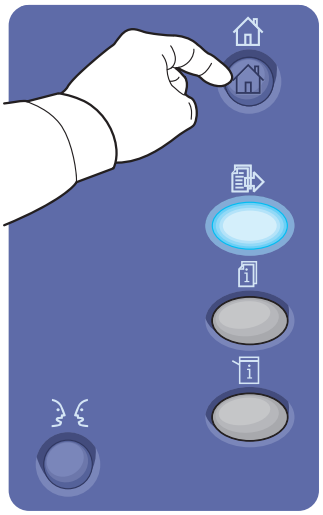
Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Specify if JBA should Authorize logins and submit jobs with the ESS.		EAS Validation Enable	665	3	1	0	1
		EFaxSendJobPriority	671	1	3	1	65535
EMBFAXSENDTransmitImagesDisplayable		EMBFAXSENDTransmitImagesDisplay	671	4	1	0	1
		SendShortJobRecoveryWaitTime	671	11	5	1	255
SendJobRecoverySendResponseTimeout		SendJobRecoverySendRespTimeout	671	12	120	1	255
		SendJobRecoveryWaitTime	671	13	120	1	255
SendJobRecoveryImageResponseTimeout		SendJobRecoverImageRespTimeout	671	14	120	1	255
SendJobRecoveryCompletedQUpdate Timeout		SendJobRecovComplQUpdate Timeout	671	15	120	1	255
		SendJobRecoveryCreateJobTimeout	671	16	3	1	255
		SendLowFaxMemoryWaitTime	671	17	20	1	255
		SendJobRecoveryRetryCounter	671	18	3	1	255
		EFaxReceiveJobPriority	672	1	3	1	65535
		EMBFAXRECEIVESheetsDisplayable	672	4	0	0	1
EMBFAXRECEIVEDuplexSheetsDisplayable		EFaxRecPlexSheetsDisplayable	672	6	0	0	1
EMBFAXRECEIVELargeSheetsDisplayable		EMBFAXRECEIVELargeSheetsDisplay	672	8	0	0	1
EMBFAXRECEIVEMarkedImagesDisplayable		Emb Fax Rec Marked Images Disp	672	13	1	0	1
		NextImageTimeOut	672	14	300	100	1000
EFPrintCompleted Job Log Location		EFPrintCompletedJob Log Location	672	16	0	0	70
		EF Card Disturbance Timeout	672	17	12	1	255
		Postpone fax install	673	1	0	0	1
Indication of whether the Fax Card was detected at previous powerup. When this NVM differs from current powerup hardware detection, a Config Mismatch is raised.	0 = Not Present 1 = Present and configured 2 = Present but not yet configured	EmbeddedFax Basic Previous State	673	2	1	0	2
Fault Counter 03-401-00: Basic fax not detected		Basic FAX Not Detected FC	673	5	0	0	255
Fault Counter 20-701-00: Fax phonebook download failed		Fax Phonebook Download Fault	673	6	0	0	255
Fault Counter 03-403-00: Extended fax not detected		Extended FAX Not Detected FC	673	7	0	0	255
Fault Counter 20-302-00: Unexpected reset		Fax Unexpected Reset Fault	673	8	0	0	255
Fault Counter 20-303-00: Fax Basic Card Unrecoverable Fault		Fax BasicCardUnrecoverable Fault	673	9	0	0	255
Fault Counter 20-305-00: Fax System Low Memory Unrecoverable Fault		Fax Sys Low Mem Unrecover Fault	673	10	0	0	255
Fault Counter 20-320-00: Fax card not cleared by reset		Fax Not Cleared By Reset Fault	673	11	0	0	255
Fault Counter 20-341-00: Basic fax card failed		Fax Basic Card Failed Fault	673	12	0	0	255
Fault Counter 20-327-00: Extended fax card failed		Fax Extended Card Failed Fault	673	13	0	0	255
Fault Counter 20-322-00: Fax NVM Not Present		Fax NV Device Not Present Fault	673	14	0	0	255
Fault Counter 20-323-00: Fax System Low Memory Recoverable Fault		Fax System Low Mem Recover Fault	673	15	0	0	255
Fault Counter 20-324-00: Fax Out of File Memory Fault		Fax Out Of File Memory Fault	673	16	0	0	255

Copy Controller NVM Value (Continued)

Description	Setting Information	dc131 Display Name	NVM ID	NVM Index	Default	Min	Max
Fault Counter 20-342-00: Fax - Error access file on NV		Fax File Integrity Fault	673	17	0	0	255
Fault Counter 20-331-00: Fax - No Comms via PSTN Line 1		Fax Network Line 1 Fault	673	18	0	0	255
Fault Counter 20-332-00: Fax - No Comms via PSTN Line 2		Fax Network Line 2 Fault	673	19	0	0	255
Fault Counter 20-339-00: Fax Port 1 fault		Fax Port 1 Fault	673	20	0	0	255
Fault Counter 20-340-00: Fax Port 2 fault		Fax Port 2 Fault	673	21	0	0	255
Fault Counter 20-323-00: Fax Memory Low	no. of faults	FaxMemoryLowFC	673	24	0	0	255
Fault Counter 20-350-00:	no. of faults	NoDialToneWarnFC	673	25	0	0	255
Fault Counter 20-351-00:	no. of faults	NoDialToneFC	673	26	0	0	255
Fault Counter 20-302-00: Actually used for faults 20-302, 20-303 & 20-305	no. of faults	FaxModemNotAvailableFC	673	27	0	0	255

WorkCentre 6400 Menu Map

Menu Map (page 1)



Services Home
Main menu of services
Note: Default home screen can be changed.

Features
Basic Copy, Scan, and Fax

Job Status
Job tracking menus

Machine Status
Information and settings menus

Language
Language and keyboard settings

To Print a Menu Map
Go to: Machine Status/Machine Information/Information Pages/Menu Map

Features

Copy

Copy
- Output Color
- Paper Supply
- 2-Sided Copying
- Copy Output
- Reduce/Enlarge

Image Quality
- Original Type
- Image Options
- Image Enhancement
- Color Presets
- Color Balance

Layout Adustment
- Original Orientation
- Original Size
- Book Copying
- Image Shift
- Edge Erase
- Invert Image

Output Format
- Booklet Creation
- Special Pages
- Annotations
- Transparency Separators
- Page Layout

Job Assembly
- Build Job
- Sample Job
- Save Current Settings
- Retrieve Saved Settings

Reprint Saved Job

Default Public Folder

Workflow Scanning

Workflow Scanning
- All Templates
- Output Color
- 2-Sided Scanning
- Original Type
- Scan Presets

Advanced Settings
- Image Options
- Image Enhancement
- Resolution
- Quality/File Size
- Update Templates

More…

*Features in this menu may require an administrator's login. **WorkCentre6400x/6400FX only s6400mfp-854

Menu Map (page 2)

Workflow Scanning (continued)

Layout Adjustment
- Original Orientation
- Original Size
- Edge Erase

Filing Options
- File Name
- File Format
- If File Already Exists
- Document Management
- Add File Destinations

Job Assembly
- Build Job

E-mail

E-mail
- New Recipient
- From
- Subject
- Output Color
- 2-Sided Scanning
- Original Type
- Scan Presets

Advanced Settings
- Image Options
- Image Enhancement
- Resolution
- Quality/File Size

Layout Adjustment
- Original Orientation
- Original Size
- Edge Erase

E-mail Options
- File Name
- File Format
- Message
- Reply To:

Job Assembly
- Build Job

**Fax

Fax
- Enter Number
- Dialing Characters
- Address Book
- Cover Sheet
- 2-Sided Scanning
- Original Type
- Resolution

Image Quality
- Image Options
- Image Enhancement

Layout Adustment
- Original Size
- Reduce/Split
- Book Faxing

Fax Options
- Confirmation Report
- Starting Rate
- Delay Send
- Send Header Text
- Mailboxes
- Local Polling
- Remote Polling

Job Assembly
- Build Job

**Internet Fax

Internet Fax
- New Recipient
- From
- Subject
- Output Color
- 2-Sided Scanning
- Original Type

Advanced Settings
- Image Options
- Image Enhancement
- Resolution
- Quality/File Size

More…

*Features in this menu may require an administrator's login. **WorkCentre6400x/6400FX only

s6400mfp-855

Menu Map (page 3)

**Internet Fax (continued)

Layout Adjustment
- Original Orientation
- Original Size

Internet Fax Options
- File Format
- Message
- Reply To
- Acknowledgement Report

Job Assembly
- Build Job

**Server Fax

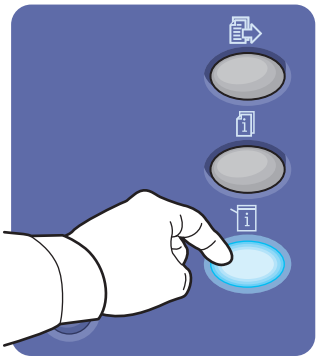
Server Fax
- Enter Number
- Dialing Characters
- Fax Directory
- 2-Sided Scanning
- Original Type
- Resolution

Image Quality
- Image Options
- Image Enhancement

Layout Adjustment
- Original Orientation
- Original Size

Fax Options
- Delay Send

Job Assembly
- Build Job



Machine Status

Machine Information

General Information
- Customer Support
- Device Model
- Machine Seriel Number
- Software version

Paper Tray Status

Information Pages
- Configuration Report
- Menu Map
- Connection Setup Page
- Paper Tips Page
- Supplies Usage Page
- Usage Profile
- Copying Guide
- Scanning Guide
- Faxing Guide
- Office Demo Page
- Graphics Demo Page
- 2-Sided Demo Page
- CMYK Sampler Pages
- RGB Sampler Pages
- Spot Color Sampler Pages
- PCL Font List
- PostScript Font List

Installed Options

Maintenence Assistant

*Features in this menu may require an administrator's login. **WorkCentre6400x/6400FX only

s6400mfp-856

Menu Map (page 4)

Faults
- **Current Faults**
- **Current Messages**
- **Fault History**

Supplies
- **Toner**
- **All Supplies**
- **Print Supplies Report**

Billing Information
- **Machine Serial Number**
- **Counters**
- **Usage Counters**

Tools
- **Device Settings**
  - *General
    - Energy Saver
    - Date and Time
    - Language/Keyboard Selection
    - Custom Keyboard Button
    - Xerox Customer Support
    - Entry Screen Defaults
    - Measurements
    - Paper Size Preferences
    - Low Supply Warning
    - Supply Counter Reset
  - *Paper Management
    - Paper Type & Color
    - Paper Substitution
    - Paper Size Preferences
    - Standard Size Required
    - Tray Settings
    - Tray Contents
  - *Timers
    - Auto Resume Timer
    - Held Job Timeout
    - System Timeout
  - *Input
    - Auto Color Detection
    - Photo/Text Settings
  - *Output
    - Contention Management
    - Out of Staples Option
    - Output Location
    - Within Job Offsetting
  - *Quick Setup Home
    - IP Address Settings
    - Contact Numbers
    - Fax Setup
  - Display Brightness
  - *Configuration/Information Pages
  - *Reset to UI Factory Settings
  - *Interrupt Printing Enablement
- ***Service Settings**
  - Copy Service Settings
    - Feature Defaults
    - Edge Erase Presets
    - Image Shift Presets
    - Reduce/Enlarge Presets
    - Reading Order Options
    - Auto Image Rotation
  - **Embedded Fax Settings
    - **Fax Setup
    - **Feature Defaults
    - **Fax Country Settings
    - Line 1 Setup
    - Incoming Fax Defaults
    - Transmission Defaults
    - Mailbox & Polling Policies
    - Mailbox Setup
    - **Setup Fax Reports
    - **Print Fax Reports
  - Job Sheets
    - Banner Sheets
    - Output Error Sheets
    - Paper Type & Color
  - Custom Keyboard Button

More…

*Features in this menu may require an administrator's login. **WorkCentre6400x/6400FX only

s6400mfp-857

Menu Map (page 5)

Tools (continued)

- ***Network Settings**
  - Online/Offline
  - Remote Software Upgrade
  - TCP/IP Settings
  - Advanced Settings
  - Network Logs
- ***Accounting Settings**
  - Accounting Mode
  - Copy Activity Report
- ***Security Settings**
  - Authentication
  - Image Overwrite Security

Troubleshooting

- Support Pages
  - Troubleshooting Print Quality Page
  - Repeating Defects Page
  - Service Usage Profile
  - System Status Page
  - Cyan 50 % Fill Test Page
  - Magenta 50 % Fill Test Page
  - Yellow 50 % Fill Test Page
  - Black 50 % Fill Test Page
  - Manufacturing Test Page 1
  - Manufacturing Test Page 2
  - Manufacturing Test Page 3
- Calibration
  - Color Calibration
  - *Altitude Adjustment
  - Calibrate Paper Type
  - *Document Feeder Registration
  - *Document Glass Registration
  - Image Position
  - Image Quality Calibration
- *Resets
  - Software Reset
  - Supply Counter Reset
- Network
  - Network Echo Test
- **Fax
  - **Fax Protocol Report

*Features in this menu may require an administrator's login. **WorkCentre6400x/6400FX only

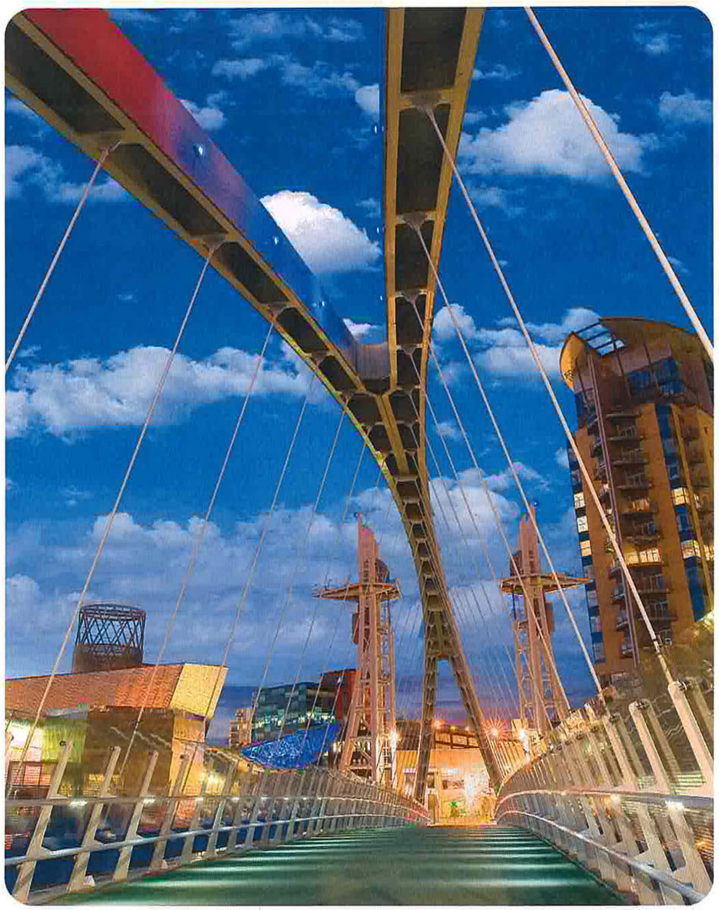
s6400mfp-858

Internal Page Samples

Graphics Demo Page

xerox

WorkCentre® 6400
Color Multifunction Printer
Your bridge to new possibilities



Votre passerelle vers de nouvelles possibilités

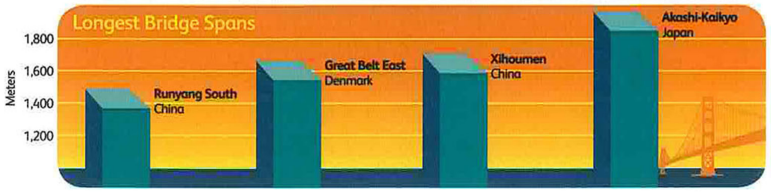
Un ponte verso nuove possibilità

Richtungs-weisende Technologie

Un puente hacia nuevas posibilidades

Seu caminho para novas possibilidades

Ваш мост к новым возможностям



Office Demo Page

WorkCentre® 6400
Color Multifunction Printer
Your Bridge to New Possibilities

32 ppm color • 37 ppm black-and-white • 2400 dpi
Color touch screen display • Gigabit Ethernet

32 ppm couleur • 37 ppm noir et blanc • 2400 ppp
Écran tactile couleur • Gigabit Ethernet

32 ppm a colori • 37 ppm in b/n • 2400 dpi
Schermo sensibile a colori • Gigabit Ethernet

32 Farbseiten/min • 37 Schwarzweißseiten/min
2400 dpi • Farbtouchscreen • Gigabit Ethernet

32 ppm en color • 37 ppm en blanco y negro • 2400 ppp
Pantalla táctil en color • Tecnología Gigabit Ethernet

32 ppm cor • 37 ppm branco e preto • 2400 dpi
Exibição de tela de toque colorida • Ethernet Gigabit

32 стр/мин в цвете • 37 стр/мин в черно-белом режиме
2400 точек на дюйм • Цветной сенсорный экран
Технология Gigabit Ethernet

Votre passerelle vers de nouvelles possibilités

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Ваш мост к новым возможностям

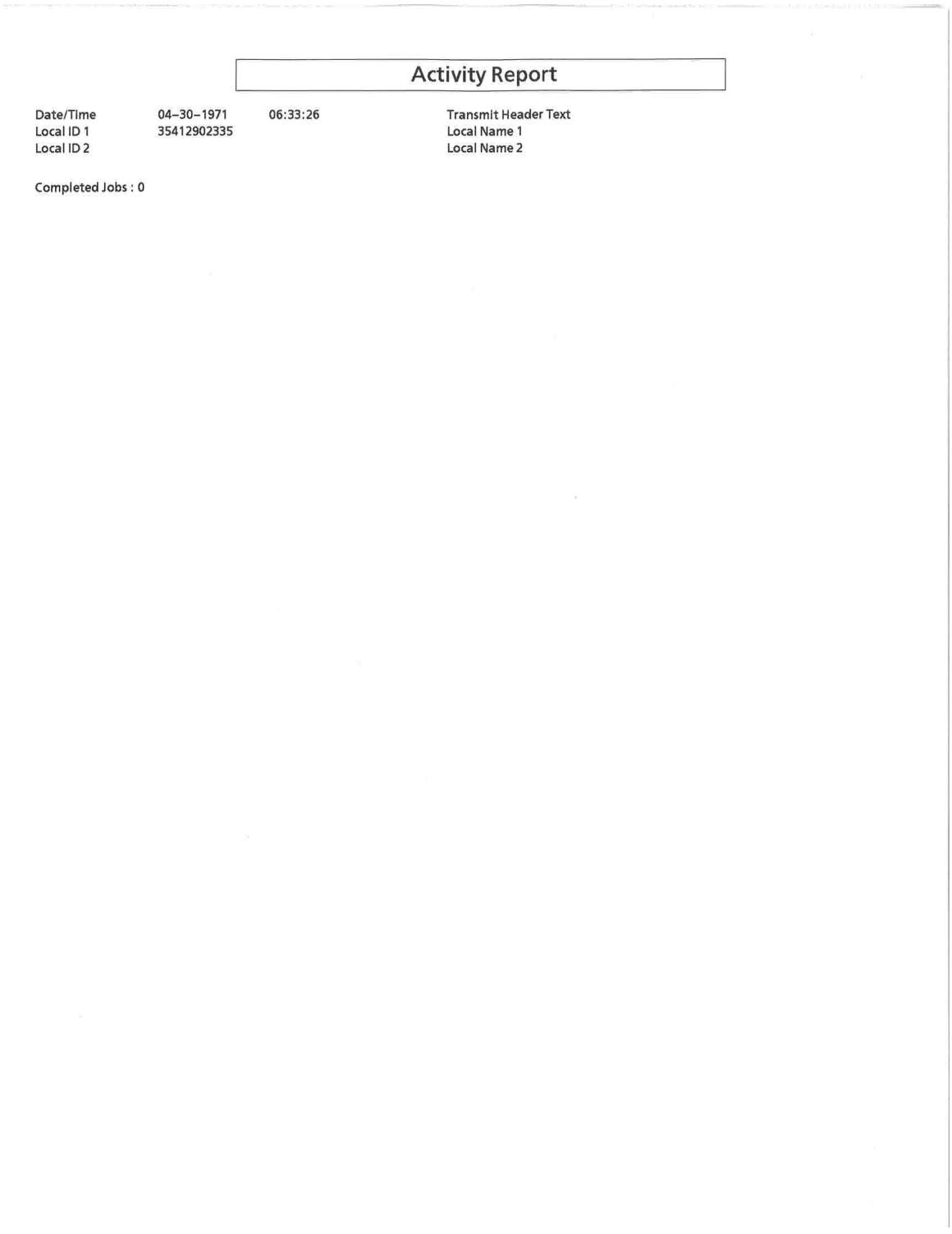
COPY ACTIVITY REPORT
MACHINE SERIAL NUMBER:

DATE: 11/19/08
TIME: 04:23 PM
TOTAL MARKED IMAGES START: 239
FINISH: 956

PAPER SIZE	MONOCHROME COPIES MADE		FULL COLOR COPIES MADE	
	SINGLE-SIDED	DOUBLE-SIDED	SINGLE-SIDED	DOUBLE-SIDED
8.5 X 11	7	0	7	0

********** PLEASE BRING THIS REPORT TO THE CASHIER **********

Fax Activity Report



Activity Report

Date/Time	04-30-1971	06:33:26	Transmit Header Text
Local ID 1	35412902335		Local Name 1
Local ID 2			Local Name 2

Completed Jobs : 0

Protocol Report

Date/Time	05-20-2008	03:01:06	Transmit Header Text	
Local ID 1	216		Local Name 1	Nottingham Low Cost Fax
Local ID 2			Local Name 2	
Fax Card Country Setting		UK		

Firmware Version

Application Version	Hardware Version	Modem Firmware Version
3.03.09	000.000.000.140	MT9234SMI 1.02i

Job Details :

Job	Line	Dialled Fax Number	Remote Station	Start Time	Duration	Pages	Mode	Results	EQM:
194	1	222	222	02:52:31 05-20-2008	00:00:18	1	EC	CP14400	0x0000

Abbreviations:

HS: Host send	PL: Polled local	MP: Mailbox print	TU: Terminated by user	
HR: Host receive	PR: Polled remote	CP: Completed	TS: Terminated by system	G3: Group 3
WS: Waiting send	MS: Mailbox save	FA: Fail	RP: Report	EC: Error Correct

Comms Summary :

Timer	Local	Remote	FCF	FIF
0m 0s 0mS	-->		88	Local Capabilities: 1,8,0,2,3,1,0,0,0
0m 0s 0mS	-->		88	Resolutions: R8x7.7, R8x3.85
0m 0s 0mS	-->		88	Bit Rate: 21600
0m 0s 0mS	-->		88	Page Width: 216 mm
0m 0s 0mS	-->		88	Page Length: unlimited
0m 0s 0mS	-->		88	Compression: MMR, MR, MH
0m 0s 0mS	-->		88	ECM: T.30 Annex A
0m 0s 0mS	-->		88	MSLT: 0 ms
0m 0s 49mS	-->		88	Dial: ATX3DT222
0m 16s 796mS		<--CSI	02	32 32 32 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
0m 17s 188mS		<--DIS	01	00 F7 1F 23 01 0B C1 01 01 14
0m 17s 244mS	-->		88	Remote Capabilities: 1,5,0,2,7,1,0,0,0
0m 17s 244mS		<--	88	Resolutions: R8x7.7, R8x3.85
0m 17s 244mS		<--	88	Bit Rate: 14400
0m 17s 244mS		<--	88	Page Width: 216 mm
0m 17s 244mS		<--	88	Page Length: unlimited
0m 17s 244mS		<--	88	Compression: JBIG, MMR, MR, MH
0m 17s 244mS		<--	88	ECM: T.30 Annex A
0m 17s 244mS		<--	88	MSLT: 0 ms
0m 18s 476mS	TSI-->		42	20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 36 31 32
0m 18s 477mS	DCS-->		41	00 46 1F 23 01 00
0m 24s 188mS		<--CFR	21	
0m 24s 188mS	-->		88	Negotiated Parameters: 1,5,0,2,3,1,0,0,0
0m 24s 188mS	-->		88	Resolution: R8x7.7
0m 24s 188mS	-->		88	Bit Rate: 14400
0m 24s 188mS	-->		88	Page Width: 216 mm

Fax Protocol Report (page 2)

Protocol Report

Date/Time	05-20-2008	03:01:07	Transmit Header Text
Local ID 1	216		Local Name 1 Nottingham Low Cost Fax
Local ID 2			Local Name 2
Fax Card Country Setting		UK	

Timer	Local	Remote	FCF	FIF
0m 24s 188mS	-->		88	Page Length: unlimited
0m 24s 188mS	-->		88	Compression: MMR
0m 24s 188mS	-->		88	ECM: T.30 Annex A
0m 24s 188mS	-->		88	MSLT: 0 ms
0m 24s 189mS		<--	88	Start Page Data
0m 25s 851mS		<--	88	End Page Data, 6120 Bytes
0m 29s 828mS	PPS.EOP-->		7D74	00 00 17
0m 32s 852mS		<--MCF	31	
0m 33s 860mS	DCN-->		5F	
0m 34s 196mS	-->		88	Call Termination 00

Dial Directory Report

Date/Time 04–30–1971 06:33:36 Transmit Header Text
Local ID 1 35412902335 Local Name 1
Local ID 2 Local Name 2

ID	Remote Station	Fax Name	Speed	Cover Letter	To	From	Comment

This Directory has no entries.

Fax Group Directory Report

Group Directory Report

Date/Time	04–30–1971	06:33:39	Transmit Header Text
Local ID 1	35412902335		Local Name 1
Local ID 2			Local Name 2

ID	Group Name	Dial/ Group Directory ID	Group Total

This Directory has no entries.

Fax Options Report (page 1)

Options Report

Date/Time	04–30–1971	06:33:42	Transmit Header Text
Local ID 1	35412902335		Local Name 1
Local ID 2			Local Name 2

Line 1 Config	Send and Receive
Line 1 Dialling Type	Tone

Line Priority	Line 1 has Priority

Ring Volume	Enabled
Volume Strength	Medium

Audio Line Monitor	Enabled
Audio Line Monitor Volume	Medium

Batch Send	Enabled

Pause Time	3 second(s)

Redial Count	10
Redial Time Interval	3 minute(s)
Page Resend Count	3
Auto Resend Policy	No cover page and resend failed pages

Answer Mode	Auto

Auto Answer Delay	0 second(s)

Junk Fax Prevention	Disabled

Polling Enabled	Disabled
Poll Deletion Policy	Delete on Poll
Poll Deletion Time	N/A

Mailbox Deletion Policy	Delete on Print

Mailbox Deletion Time	N/A
Date Format	MM/DD/YY
Time Format	24 hour

Determine Paper Size	Auto
Selectable Paper Sizes	Auto
Send Options	Reduce to fit
Receive Page Margin	Enabled (5")

Fax Options Report (page 2)

Options Report

Date/Time	04–30–1971	06:33:43	Transmit Header Text
Local ID 1	35412902335		Local Name 1
Local ID 2			Local Name 2

Print Reports	Print on Error
Print with reduced Image	Reduced Image
Report Policy	Print
Activity Report	Auto Print
Broadcast and Multi–Poll Report	Print on Error

Transmit Header Text Print	Enabled
Transmit Header Text	

Fax Card Country Setting	USA
Fax Card Report Language	UK English

Secure Receive	Secure Receive is Off

Fax Card Software Version	3.04.11
Modem Firmware Version	MT9234SMI 1.02i

Comments
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Fax Pending Jobs Report

Pending Jobs Report

Date/Time 04–30–1971 06:33:43 Transmit Header Text
Local ID 1 35412902335 Local Name 1
Local ID 2 Local Name 2

Outbound Jobs – Being Stored : 0

Outbound Jobs – Waiting To Send : 0

Inbound Jobs – Being Received : 0

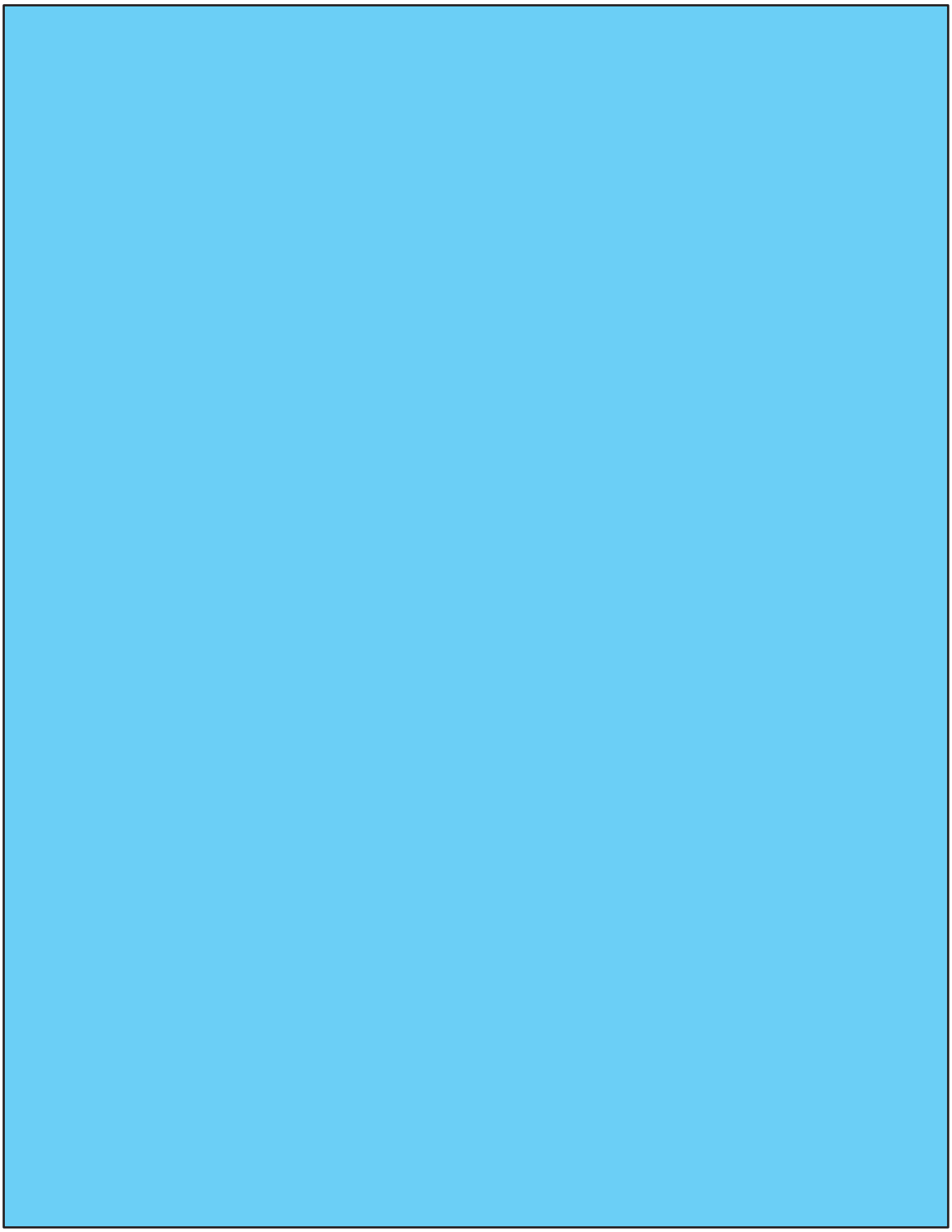
Inbound Jobs – Waiting To Print : 4

Job	Start Time	Remote Station	Job Type	Size	Pages
002	06:33:33 04–30–1971		RP	8.5"x11"	0/1
003	06:33:36 04–30–1971		RP	8.5"x11"	0/1

Abbreviations:

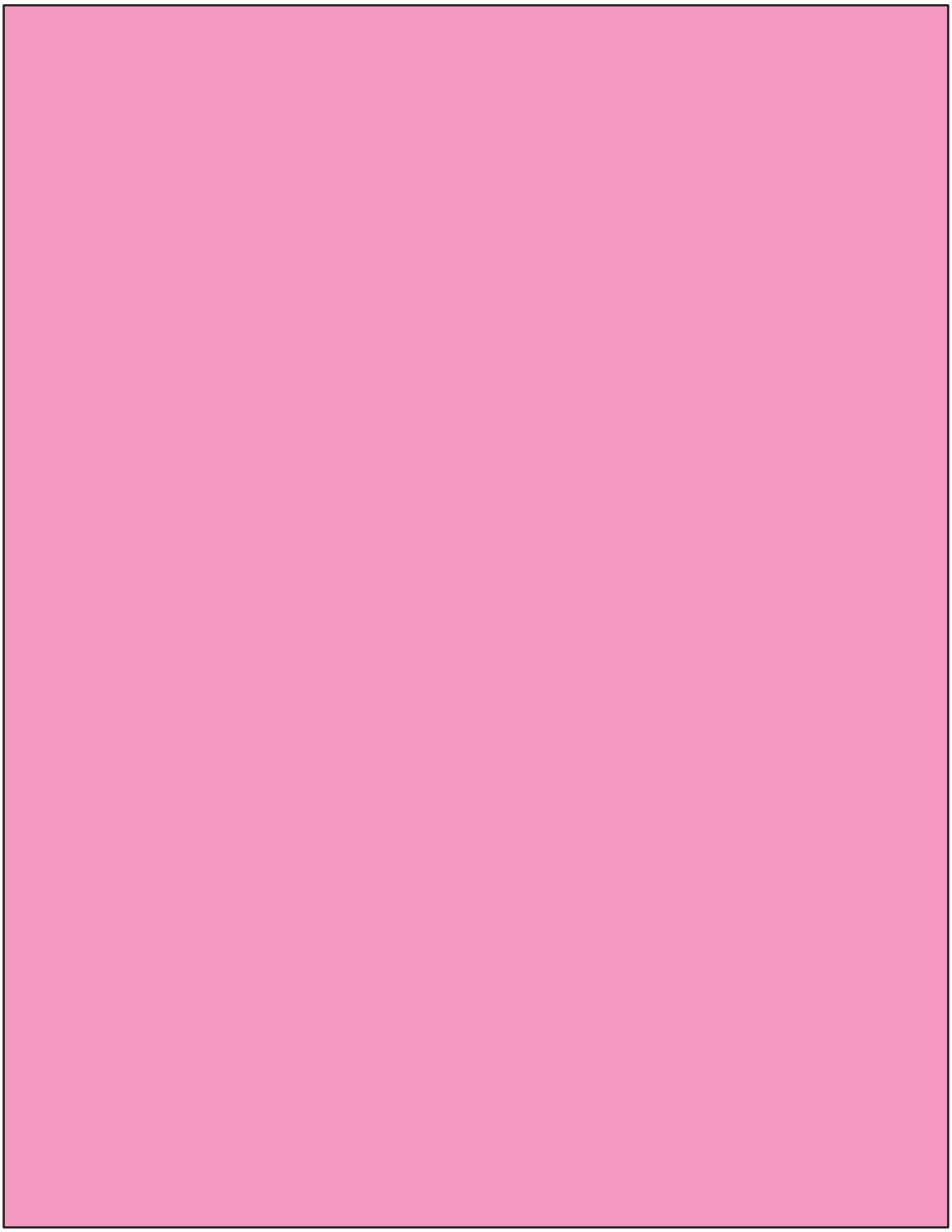
HS: Host send	PL: Polled local	MP: Mailbox print	TU: Terminated by user	
HR: Host receive	PR: Polled remote	CP: Completed	TS: Terminated by system	G3: Group 3
WS: Waiting send	MS: Mailbox save	FA: Fail	RP: Report	EC: Error Correct

Cyan 50% Fill



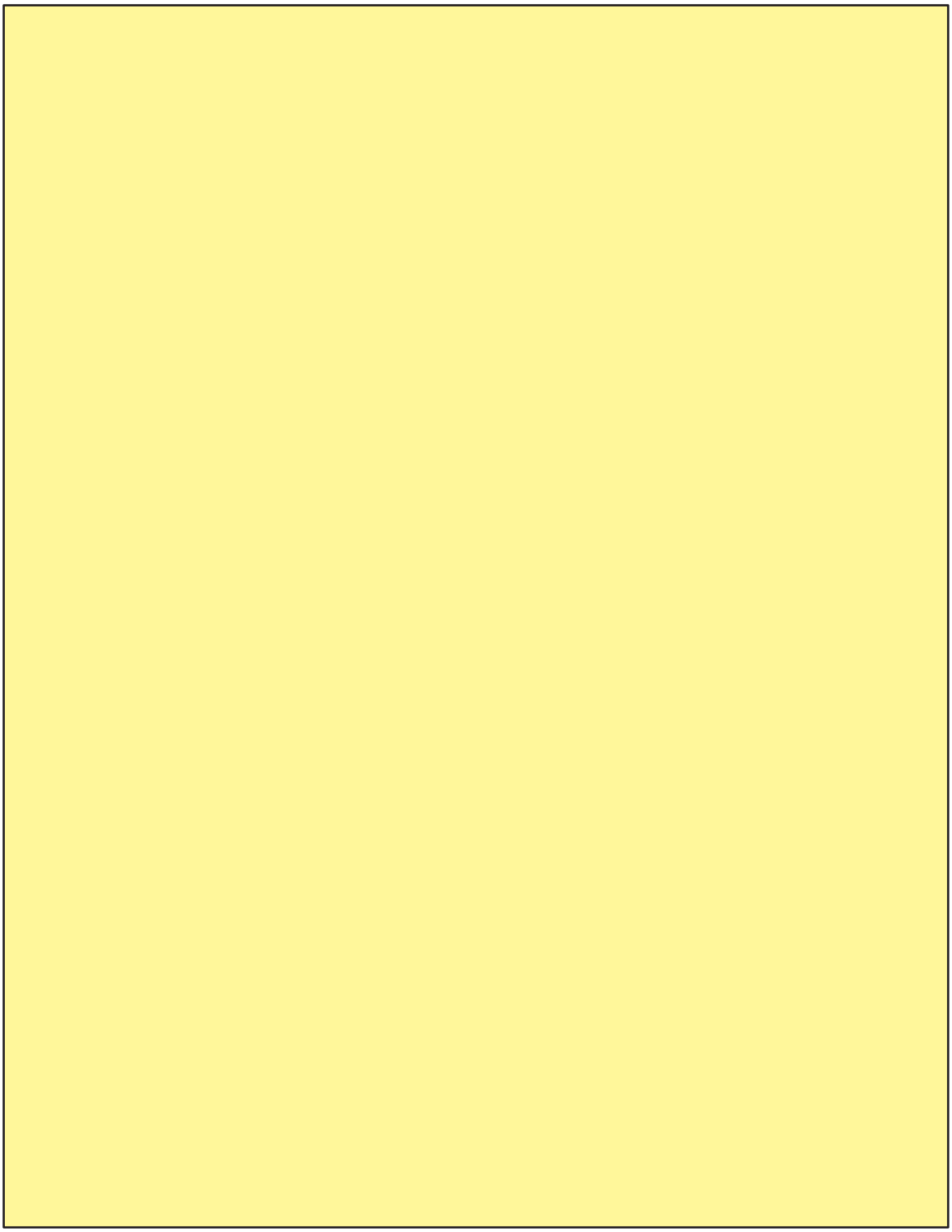
Cyan 50% (Large)

Magenta 50% Fill



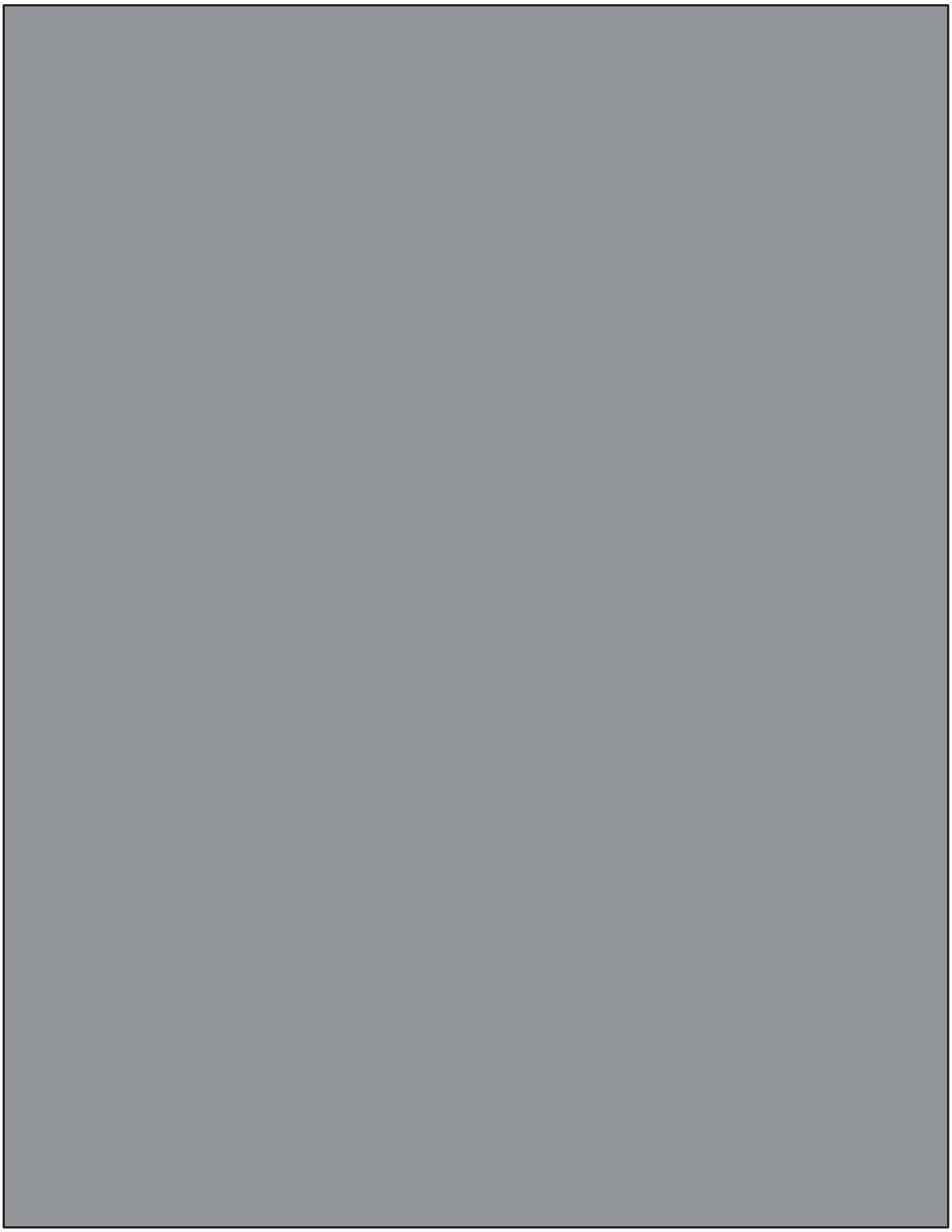
Magenta 50% (Large)

Yellow 50% Fill



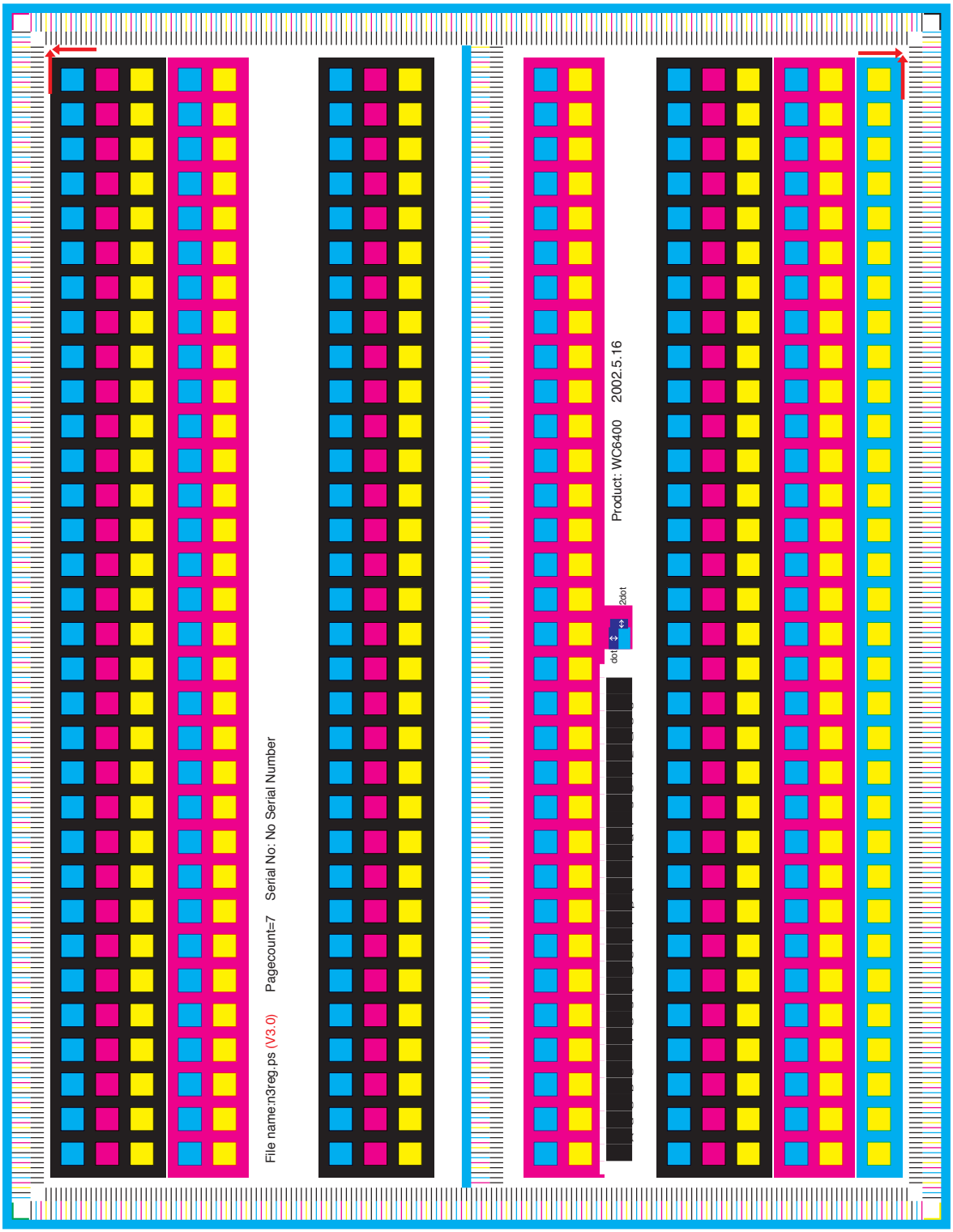
Yellow 50% (Large)

Black 50% Fill



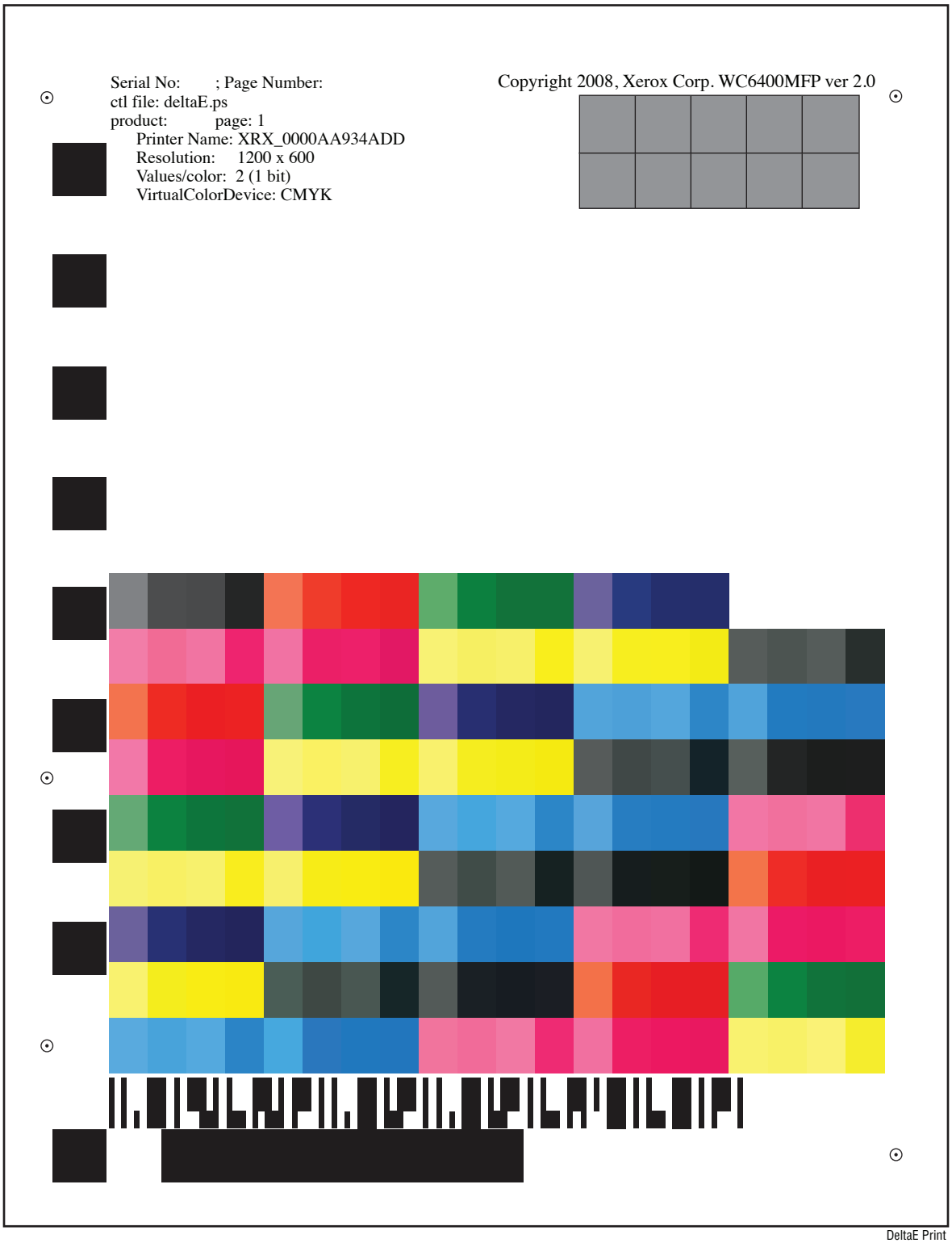
Black 50% (Large)

Manufacturing Test Page 1 / Registration Print



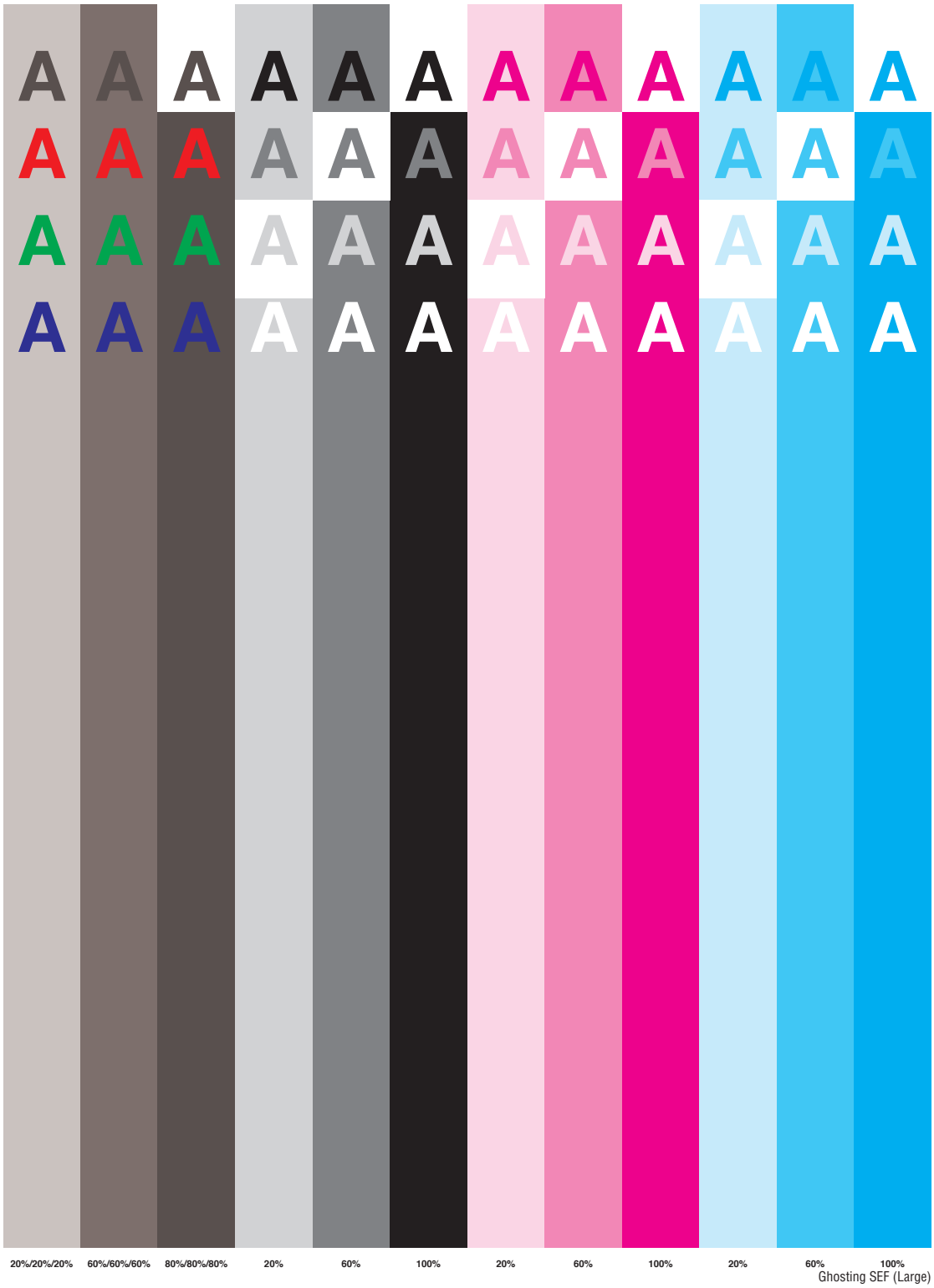
N3Reg-v3 (Large)

Manufacturing Test Page 2 / Delta-E Print



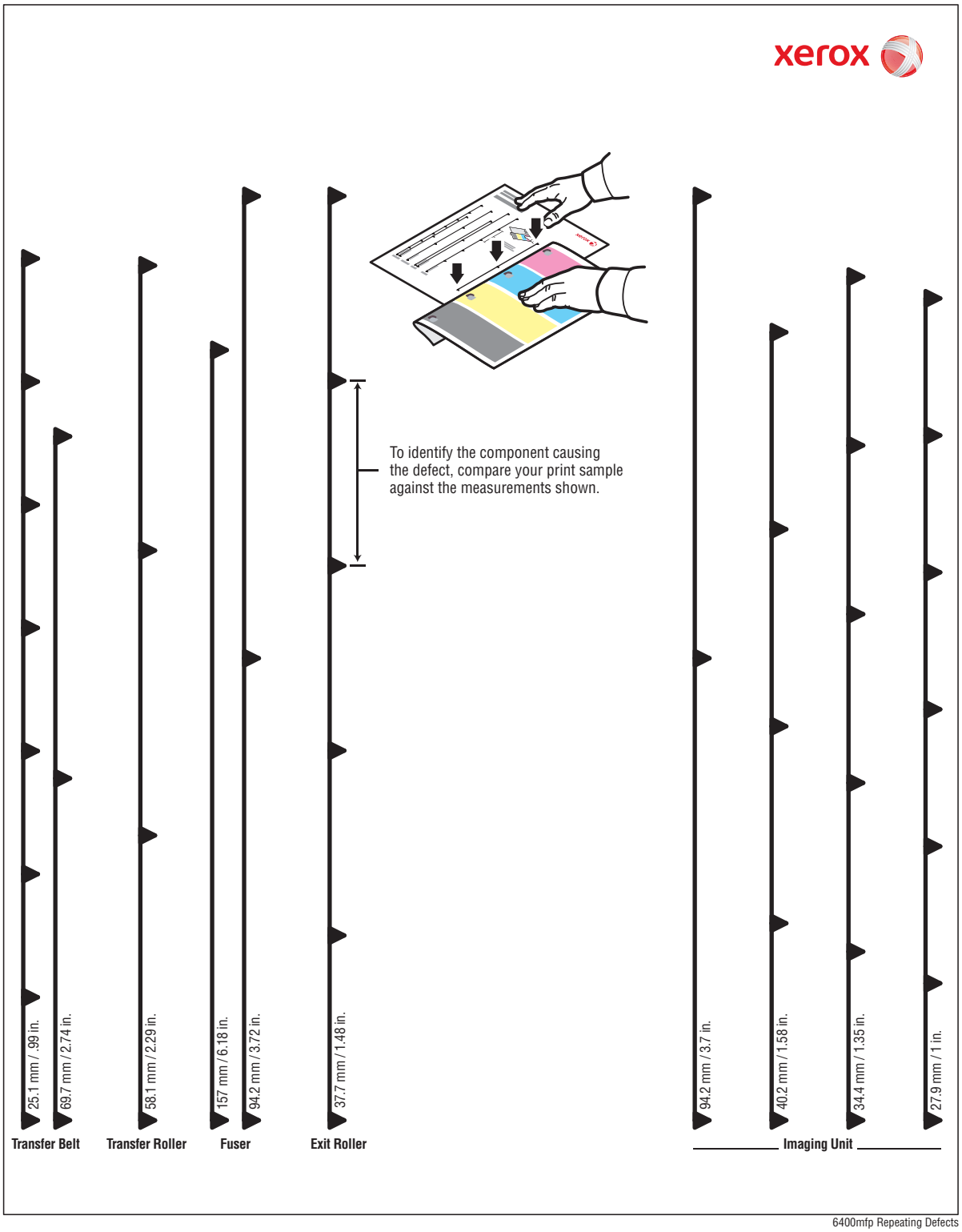
DeltaE Print

Manufacturing Test Page 3 / Ghosting Print



Ghosting SEF (Large)

Repeating Defects



6400mfp Repeating Defects

Fax Communication Commands Definitions

Acronym	Description
ANSam	Modulated Answer Tone
CED	Called Terminal Identification
CFR	Confirmation to Receive
CI	Call Indicator
CIG	Calling Subscriber Identification
CJ	CM Terminator
CM	Call Menu
CNG	Calling Tone
CRP	Command Repeat
CSI	Called Subscriber Identification
CTC	Continue to Correct
CTR	Response for Continue to Correct
DCN	Disconnect
DCS	Digital Command Signal
DIS	Digital Identification Signal
DP	Dial Pulse
DRPD	Distinctive Ring Pattern Detection
DSL	Digital Subscriber Line
DTC	Digital Transmit Command
EOM	End of Message
EOP	End of Procedure
EOR	End of Retransmission
EQM	Eye quality measurement - Value used to determine line quality. This field is populated with a hexadecimal number.
ERR	Response for End of Transmission
Fax	Facsimile
FTT	Failure to Train
IPP	Internet Present Provider
IPX	Internetwork Packet Exchange
ISDN	Integrated Services Digital Network
JM	Joint Menu
MCF	Message Confirmation
MPS	Multiple Signal
NCS	Non - Standard Facilities Command

Acronym	Description
NFS	Non - Standard Facilities
NSS	Non - Standard Set-up
PBX	Private Branch Exchange
PD	Pulse Dialing
PID	Procedure Interrupt Disconnect
PIN	Procedure Interrupt Negative
PIP	Procedure Interrupt Positive
PPS	Partial Page Signal
PPS	Pulses Per Second
PPR	Partial Page Request
PRI-EOM	Procedure Interrupt - EOM
PRI-EOP	Procedure Interrupt - EOP
PRI-MPS	Procedure Interrupt - MPS
PWD	Password for (Polling)
RCP	Return to Control for Partial Page
Results	Shows the speed of the communication to the remote machine and the connection status.
RNR	Receive Not Ready
RTN	Retrain Negative
RTP	Retrain Positive
SEP	Selective Polling
SLP	Service Location Protocol
SUB	Sub Address
TCF	Training Check
TD	Tone Dialing
TSI	Transmission Subscriber Identification
VDSL	Very High Bit Rate Digital Subscriber Line

Acronyms and Abbreviations

Acronym	Description
3TM	Three Tray Module
A3	Paper size 297 millimeters (11.69 inches) x 420 millimeters (16.54 inches).
A4	Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches).
A5	Paper size 148 millimeters (5.82 inches) x 210 millimeters (2.10 inches).
AC	Alternating Current is type of current available at power source for the printer.
ACAS	Alternating Current Application System
AD	Analog to Digital signal conversion
ADC	Automatic Density Control
ADCB	Automatic Duplex Control Board
ADF	Automatic Document Feeder
ADSL	Asymmetric Digital Subscriber Line
AGC	Automatic Gain Control
AIO	All In One
AMPV	Average Monthly Print Volume
AOC	Auto Offset Control, Automatic Offset Control
APC	Auto Power Control
ASSY	Assembly
ATM	Adobe Type Manager
ATVC	Auto Transfer Voltage Control
AVCDI	AV Common Device Interface
AWG	American Wire Gauge
BCR	Bias Charge Roller
BOOTP	Boot Parameter Protocol
BSD	Block Schematic Diagram
BTM	Bottom
BTR	Bias Transfer Roller
CAM	Cam Shaft
CCD	Charged Coupled Device (Photoelectric Converter)
CCW	Counter-Clock Wise
CD	Circuit Diagram
CD	Compact Disc

Acronym	Description
CD	Cross Direction
CF	Configuration Card
CLT	Clutch
CMYK	Toner colors for the printer: Y=yellow, C=cyan, M=magenta, K=black
CORR	Corrugate
CPU	Computer Processing Unit
CRD	(PostScript) Color Rendering Dictionary
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Meter/Memory
CST	Cassette
CVT	Constant Velocity Transport
CWIS	CentreWare Internet Services
dB	Decibel
DA	Digital to Analog signal conversion
DADF	Duplex Automatic Document Feeder
DC	Direct Current is type of power for printer components. Machine converts AC power from power source to DC power.
DCPU	DC Power Supply Unit (Lower Voltage Power Supply)
DDNS	Dynamic Domain Name System
DDR2 DIMM	Double Data Rate Dual In-Line Memory Module
DEV	Developer
DHCP	Dynamic Host Configuration Protocol
DMP	Damper
DPI	Dot Per Inch
DRV	Drive
DTMF	Dual-Tone Multi-Frequency
DUP	Duplex (2-sided printing)
EC	European Community
ECM	Error Correction Mode
EEC	European Economic Community
EEPROM	Electrically Erasable Programmable Read-Only Memory
EPC	Electronic Pre-collation Memory
ESA	Electric Static Attachment
ESD	Electrostatic Discharge. A transfer of charge between bodies at different electrostactic potential.
ESS	Printer Controller

Acronym	Description
FB	Flatbed
FCC	Federal Communications Commission
FCOT	First Copy Output Time
FD	Feed Direction
FDR	Feeder
FE	Field Engineer
FIFO	First In First Out
FPGA	Field Programmable Gate Array
FPOT	First Print Output Time
FR/FRNT	Front
FRU	Field Replaceable Unit
FSCB	Finisher Control Board
GB	Giga Byte
GND	Ground
HARN	Harness
HCF	High-Capacity Feeder
HDD	Hard Disk Drive
HFSI	High Frequency Service Item
HGEA	High-Grade Emulsion Aggregation (Toner)
HSG	Housing
HUM	Humidity
HVPS	High-Voltage Power Supply
Hz	Hertz (cycles per second)
HW	Hardware
IBT	Intermediate Belt Transfer
IC	Integrated Circuit
IDCSB	Image Density Control Sensor Board
IDT	Intermediate Drum Transfer
IEC	International Electrotechnical Commission
I/F	Interface
INDEXB	Index Board
IOT	Image Output Terminal - the ROS/Xerox/paper handling/ fusing portion of the printer
IP	Image Processor
IPC	Inter Process Communication
IPM	Impression Per Minutes
IQ	Image Quality

Acronym	Description
ITU-T	International Telecommunication Union - Telecommunication (Standards Organization)
JBA	Job-Based Accounting
KB	Kilo Byte
LAN	Local Area Network
LASDB (Y/M/C/K)	Laser Drive Board (Yellow/Magenta/Cyan/Black)
LCD	Liquid Crystal Display
LD	Laser Diode
LED	Light Emitting Diode
LEF	Long-Edge Feed
LH	Left Hand
LPD	Line Printer Daemon
LPR	Line Printer Remote
LTR	Letter Size Paper (8.5 x 11 inches)
LVDS	Low-Voltage Differential Signaling
LVPS	Low-Voltage Power Supply
LVPS Cooling Fan	DC Power Supply Fan
LVTTL	Low-Voltage Transistor Transistor Level
MAC	Media Access Control
MB	Mega Byte
MCU	Machine Control Unit (Engine Control Board)
MFPB	Multi-Function Printed Board (MCU Board)
MHz	Mega Hertz
MIB	Management Information Base
MICR	Magnetic Ink Character Recognition
MM	Millimeters
MOB	Marks On Belt
MOT	Motor
MPT	Multi-Purpose Tray
NC	No Connection
NCS	Non-Contact Sensor
NCU	Network Control Unit
NPP	No Paper
NTP	Network Time Protocol
NVM	Non-Volatile Memory
NVRAM	Non-Volatile Random Access Memory
OEM	Original Equipment Manufacturer

Acronym	Description
OHP	Overhead Paper (Transparency)
OPC	Organic Photo Conductor
OPT	Optional
OS	Operating System
PC	Personal Computer
PC	Photo Conductor
PC	Print Cartridge
PCB	Printed Circuit Board
PCCB	Printed Circuit Control Board
PCDC	Pixel Count Dispense Control
PCL	Printer Command Language
PDL	Page Description Language
PH	Paper Handling
P/J	Plug Jack (electrical connections)
PJL	Printer Job Language
PL	Parts List
POP3	Post Office Protocol version 3
PPA	PagePack Assistant
PPD	PostScript Printer Description
PPM	Pages Per Minute
PQ	Print Quality
PPS	Pages
PRCB	Print Control Board (Image Processor Board)
PU	Print Unit
PV	Print Volume Management
PWB	Printed Wiring Board
PWBA	Printed Wiring Board Assembly
RAM	Random Access Memory
RET	Retard
RF	Radio Frequency (RF Protective Shield)
RGB	Three primary colors of light - Red Green Blue
RH	Relative Humidity
RMI	Routine Maintenance Item
RML	Recommended Media List
RLS	Release
RMS	Root Mean Square Voltage

Acronym	Description
ROM	Read-Only Memory
ROS	Raster Output Scanner - Laser Unit
RTD	Retard
SA	Systems Administrator
SEF	Short-Edge Feed
SMB	Server Message Block
SNMP	Simple Network Management Protocol
SNR	Sensor
SOC	Service Order Code
SOL	Solenoid
SOS	Start of Scan
STS	Soft Touch Sensor
SW	Software
TDC	Toner Density Control
TLSB	Toner Low Sensor Board
TNR	Toner
TRNS	Transport
UI	User Interface
USB	Universal Serial Bus
WVGA	Wide Video Graphics Array
XML	Extensible Markup Language
XUI	XML User Interface
ZIF	Zero Insertion Force (ZIF Connector)

Index

Numerics

A

B

C

D

E

F

H

I

L

M

N

O

P

R

S

T

U

V

W

PART#: 701P48634

Oct. 2016