PHASER® 6200
COLOR LASER PRINTER

Service Manual

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: March 2002
071-0784-00

MP
RJ

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 that might be present during a procedure or action. Be aware of all symbols and terms when they are used, and always read **NOTE**, **CAUTION** and **WARNING** messages.

Note:	***A NOTE may indicate an operating or maintenance procedure, practice or condition that is necessary to efficiently accomplish a task.*** ***A NOTE may also provide additional information related to a specific subject or add a comment on the results achieved through a previous action.***
Caution	**A CAUTION indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.**
Warning:	**A WARNING indicates an operating, or maintenance procedure, practice or condition that, if not strictly observed, could result in injury or loss of life.**

PL: Correspondes to the FRU Parts List.

RRP: Correspondes to the FRU Dissassembly Removal and Replacement Procedures.

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.

Power Safety Precautions

Power source

For 110 VAC printers, do not apply more than 140 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. For 220 VAC printers, do not apply more than 264 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord. This manual assumes that the reader is a qualified service technician.

Warning: 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.

Disconnecting Power

Warning: Turning the power off using the On/Off switch does not completely de-engergize the printer. You must also disconnect the printer power cord from the AC outlet. Position the power cord so that it is easily accessible during servicing so that you may power down the printer during an emergency.

Disconnect the power plug 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 case,
- 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.

Electrostatic Discharge (ESD) 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.

Caution **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 unpackaged 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 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.

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.

Power source: This product is intended to operate from a power source that will not apply more then 264 volts rms for a 220 volt AC outlet or 140 volts rms for a 110 volt AC outlet between the supply conductors or between either supply conductor and ground. A protective ground connection by way of the grounding conductor in the power cord is essential for safe operation.

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

CLASS 1 LASER PRODUCT

The Phaser® 6200 Color Laser Printer is certified to comply with Laser Product Performance Standards set by the U.S. Department of Health and Human Services as a Class 1 Laser Product. This means that this is a class of laser product that does not emit hazardous laser radiation; this is possible only because the laser beam is totally enclosed during all modes of customer operation. 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 off the printer power and **unplug the power cord** from the wall outlet. If you must service the printer with power applied, be aware of the potential for electrical shock.

Warning: Turning the power off using the On/Off switch does not completely de-energize the printer. You must also disconnect the printer power cord from the AC outlet. Position the power cord so that it is easily accessible during servicing so that you may power down the printer during an emergency.

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


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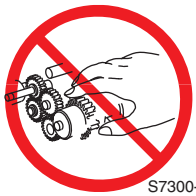
Servicing Mechanical Components

Manually rotate drive assemblies to inspect sprockets and gears.

Warning: Do not try to manually rotate or manually stop the drive assemblies while any printer motor is running.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Servicing Fuser Components

Warning: This printer uses heat to fuse the toner image to a sheet of paper. The Fuser Assembly is very hot. Turn the printer power off and wait at least 5 minutes for the Fuser to cool before you attempt to service the Fuser Assembly or adjacent components.

Regulatory Specifications

Federal Communications Commission Compliance

The equipment described in this manual generates and uses radio frequency energy. If it is not installed properly in strict accordance with Xerox instructions, it may cause interference with radio and television reception or may not function properly due to interference from another device. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Changes or modifications not expressly approved by Xerox can affect the emission and immunity compliance and could void the user's authority to operate this product. To ensure compliance, use shielded interface cables. A shielded parallel cable can be purchased directly from Xerox at www.xerox.com/officeprinting/6200supplies.

Xerox has tested this product to internationally accepted electromagnetic emission and immunity standards. These standards are designed to mitigate interference caused or received by this product in a normal office environment. This product is also suitable for use in a residential environment based on the levels tested.

In the United States this product complies with the requirements of an unintentional radiator in part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference; (2) this device must accept any interference received, including interference that may cause undesired operation.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications, ICES-003.

Le présent appareil numérique n'émet pas de bruits radioélectrique dépassant les limits applicables aux appareils numériques de la classe B prescrites dans le Réglement sur le brouillage radioélectrique édicté par le ministere des Communications du Canada, NMB-003.

Declaration of Conformity

Xerox Corporation, declares, under our sole responsibility that the printer to which this declaration relates, is in conformity with the following standards and other normative documents:

In the European Union

following the provisions of the Low Voltage Directive 73/23/EEC and its amendments:

EN 60950 (IEC 950)	"Safety of Information Technology Equipment including Electrical Business Equipment"

following the provisions of the Electromagnetic Compatibility Directive 89/336/EEC and its amendments:

EN55022:1998 (CISPR 22)	"Limits and Methods of measurement of radio interference characteristics of Information Technology Equipment." Class B.
EN61000-3-2:1995 +A1:1998+A2:1998. (IEC61000-3-2)	“Part 3: Limits - Section 2: Limits for harmonic current emissions (equipment input current less than or equal to 16A per phase).”
EN61000-3-3:1995 (IEC61000-3-3)	“Part 3: Limits - Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current less than or equal to 16A.”
EN55024:1998 (CISPR 24)	"Information technology equipment - Immunity characteristics - Limits and methods of measurement. "

CISPR 24 Immunity Phenomena	**Basic Standard**	**Test Specification**
Electrostatic Discharge	IEC61000-4-2:1995	6kV Contact, 10kV Air
Radio-Frequency Electromagnetic Field (radiated)	IEC61000-4-3:1995	80-1000 MHz, 3V/m, 80% AM @ 1KHz
Fast Burst Transients	IEC61000-4-4:1995	5/50 Tr/Th ns, 5kHz Rep. Freq 0.5kV on Signal Lines 1kV on AC Mains
Line Surge	IEC61000-4-5:1995	Combination wave 2.0kV Common mode 2.0kV Differential mode
Radio-Frequency Electromagnetic Field (Conducted)	IEC61000-4-6:1996	0.15 - 80 MHz, 3V, 80% AM @ 1kHz
Line voltage dips	IEC61000-4-11:1994	>95% dip for ½ cycle @ 50 Hz 30% dip for 25 cycles @ 50 Hz
Line voltage drop-out	IEC61000-4-11:1994	>95% dropout for 250 cycles @ 50 Hz

This product, if used properly in accordance with the user's instructions is neither dangerous for the consumer nor for the environment. A signed copy of the Declaration of Conformity for this product can be obtained from Xerox.

Manual Organization

This Service Manual contains technical information for the Phaser 6200 Color Laser Printer, as well as complete Error Messages and Codes, Diagnostics, Disassembly/Reassembly (RRPs) procedures and a complete Field Replaceable Units (FRU) Parts List.

Frontis - Introductory, Safety and Regulatory Information

This is the section you are reading at this moment. It contains important safety information regarding technical components, regulatory agency requirements and information about the structure of this manual.

Chapter 1 - General Information

This chapter contains a general overview of the printer and basic information regarding printer specifications.

Chapter 2 - Error Messages and Codes

Information regarding front panel error codes and image processor diagnostics and fatal messages in tabular form.

Chapter 3 - Troubleshooting

This chapter discusses the most common troubleshooting problems encountered with: Printer Performance Problems, Image-Quality Problems and Electrical Problems.

Chapter 4 - Tests, Adjustments and NVRAM

This chapter provides information on how to use the service test prints, color registration, margin calibrations and resetting NVRAM to assist in analyzing and fine tuning printer performance.

Chapter 5 - Cleaning and Maintenance

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

Chapter 6 - FRU Disassembly Removal and Replacement Procedures (RRPs)

This large chapter provides many procedures and illustrations for removing and replacing key Field Replaceable Units (FRUs) within the print engine.

Chapter 7- FRU Parts List

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

Chapter 8 - Theory of Operation

This chapter covers the detailed processes for the printer's major assemblies: switches and sensors, drives and gears, and the paper path.

Chapter 9 - Plug/Jack Locator Maps

This chapter contains detailed Plug/Jack locator maps for all wiring harnesses within the printer.

Chapter 10 - Wiring Diagram

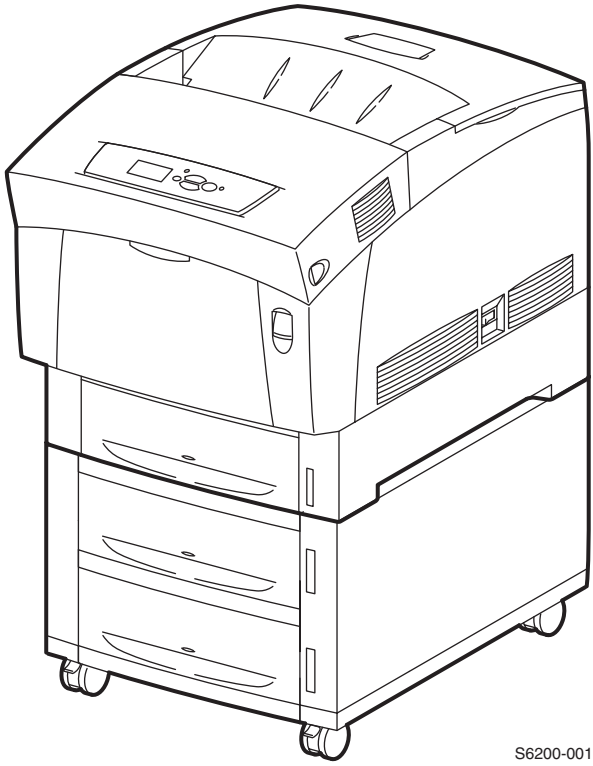
The Master Wiring Diagram is contained in this chapter.

Table of Contents

General Information

The Xerox Phaser® 6200 Color Laser Printer Service Manual is the primary document used for repairing, maintaining and troubleshooting the printer.

To ensure complete understanding of the product, participation in Xerox Phaser 6200 Service Training is recommended.



Phaser 6200 Color Laser Printer shown with the optional High-Capacity Feeder

Phaser 6200 Color Laser Printer Overview

The Phaser 6200 Color Laser Printer combines a single-pass, tandem color laser design with an image processor supporting PostScript 3 and PCL5c. The Phaser 6200 is a high performance, A4, 16 ppm desktop color laser printer with a resolution up to 2400 x 600 dpi.

The Phaser 6200 has four configurations. The main difference is optional networking, standard memory, optional High-Capacity Feeder (HCF), duplexing and optional internal hard drive.

A replaceable “Configuration Upgrade Chip” holds configuration information that enables or disables built-in features as described below.

Phaser 6200B The Phaser 6200B is a base configuration, entry-level, single pass color laser printer. The printer comes standard with 64 Mbytes of memory, resolution of 600 x 600 dpi, USB and Parallel support, a built in Multi-Purpose Tray and a 500-sheet universal paper tray.

Phaser 6200N The Phaser 6200N is the networking configuration. This configuration includes all the features of the 6200B, but comes with 128 Mbytes of memory, built-in 10/100 Ethernet networking capabilities, job pipelining, enhanced print mode and a resolution up to 2400 x 600 dpi.

Phaser 6200DP The Phaser 6200DP is the plus configuration. The printer includes all the features of the 6200N, but comes standard with 128 Mbytes of memory, built-in auto-duplexing, PDF and Photo Mode support.

Phaser 6200DX The Phaser 6200DX is the marketing configuration. The printer includes all the features of the 6200DP, but comes standard with 256 Mbytes of memory, a 1000-sheet High-Capacity Feeder Assembly with wheels and an internal 10+ Gbyte hard drive.

Page Description Languages (PDL)

- PCL5c (not available on the Phaser 6200B)
- Adobe PostScript 3
- PDF (not available on the Phaser 6200B, requires internal hard drive)

Resident Fonts

- 136 PostScript Type 1
- 115 Central European PostScript Type 1
- 46 PCL fonts (more fonts are available with the optional internal hard drive)

Proof Jobs. A proof job is a specific case of a multiple-copy job. With a proof job, the customer assigns a password and copy count at the client workstation before printing. The first set of prints are printed immediately. The original number of requested sets are printed after the customer enters the matching password on the printer's control panel. The customer has the option of printing the original number of requested sets or deleting the job. Since more than one job may be associated with the same password, the customer can print all the jobs, delete all the jobs, or select or delete individual jobs. A proof job that has not been printed is retained on the optional internal hard drive through power cycles.

Secure Jobs. Secure printing allows the customer to defer printing of a job until a matching password is entered from the control panel. The customer assigns the password at the client workstation before printing. The job is stored, and printing is delayed until the password is entered on the printer's control panel. Since more than one job can have the same password, all secure jobs with the same password are printed. A secure job that has not been printed or released is retained on the internal hard drive through power cycles.

Saved Jobs. Saved print allows the user to save print jobs to the internal hard drive of the printer. The print job is not deleted after printing, it is stored on the hard drive for print on demand. This function requires an internal hard drive.

Printer Memory and RAM Capabilities

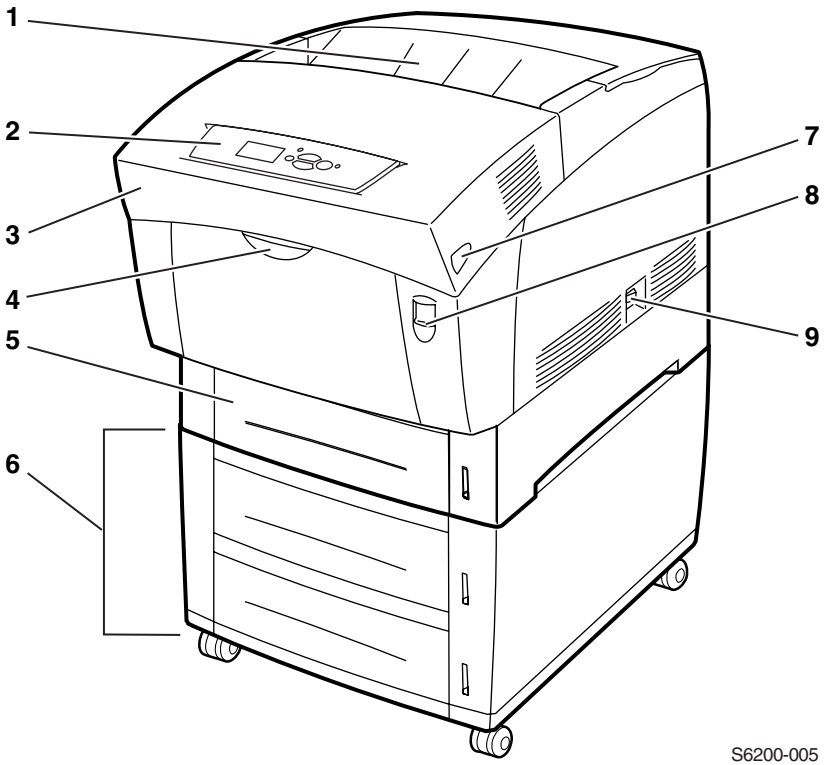
The printer features two slots which accept 64, 128 and 256 Mbyte of SDRAM. All combinations are allowed for 64, 128, 192, 256, 320, 384 and 512 Mbytes.

- PC133 DRAM Standard
- 144 Pin SODIMM
- Serial Presence Detect
- 3.3 Volt

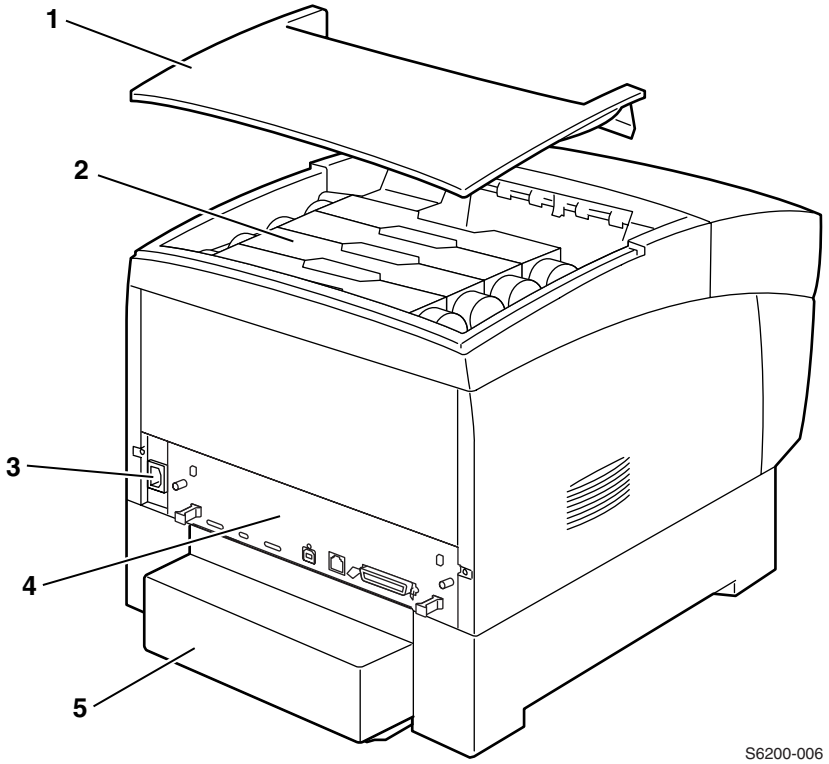
The Startup Page and the Configuration Page list the amount of RAM installed in the printer.

If the memory does not meet the above specifications, it will be ignored by the printer.

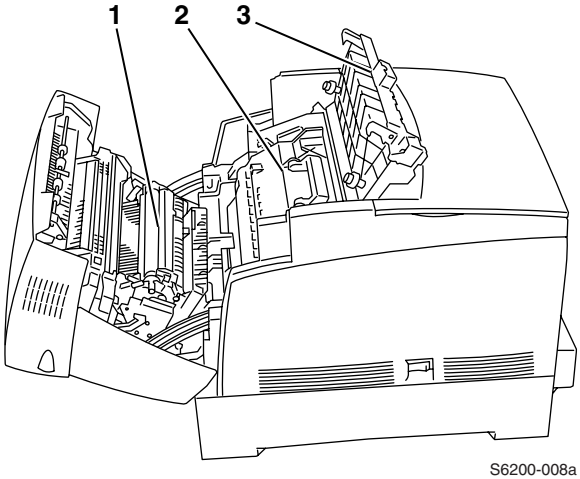
Parts of the Printer



No.	Description
1	Top Cover (Output Tray)
2	Control Panel (Front Panel)
3	Front Cover
4	Multi-Purpose Tray
5	Universal Paper Tray 1
6	High-Capacity Feeder with Tray 2 and Tray 3
7	Door Latch B
8	Door Latch A
9	Power On/Off Switch



No.	Description
1	Top Cover
2	Toner Cartridge
3	AC Power Cord Plug
4	Image Processor Board
5	Paper Tray Rear Cover



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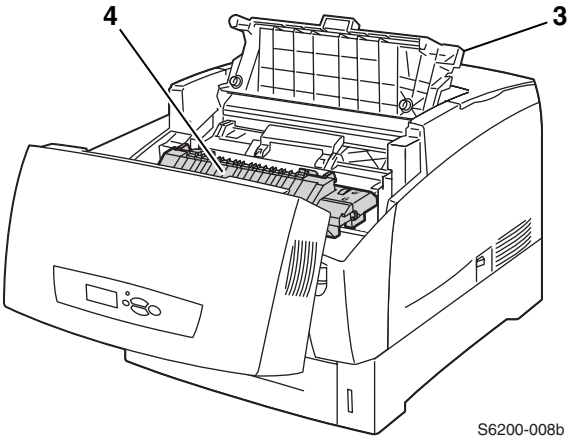

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No.	Description
1	Transfer Roller
2	Imaging Unit
3	Door C
4	Fuser Assembly

CRC Life Counter Behavior

Internal counters track Customer-Replaceable Consumables (CRCs) life usage and store the values in NVRAM. The image processor board monitors these counters in order to display the near end-of-life and end-of-use messages.

Life ratings are based on 5% coverage. Imaging Unit average 4 page job length.

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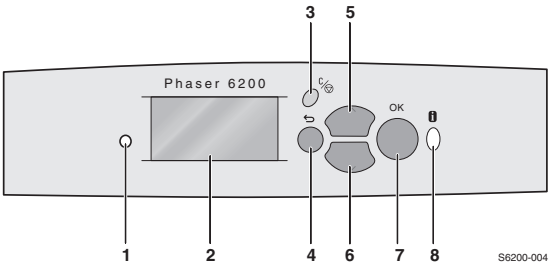
Customer-Replaceable Consumable (CRC)	Print Life	
Toner Cartridges* *(Black Toner Cartridge Standard Capacity is 4,000)	High-Capacity 8,000 Standard-Capacity 3,000	(B50)
Imaging Unit	30,000	(B50)
Fuser Assembly	60,000	(B10)
Transfer Roller and Waste Box	15,000	(B50)
Customer-Replaceable Unit (CRU)		
Feed Roller Kit	up to 100,000	

Front Panel Configuration

The Front Panel consists of one tricolor LED, a display window and six functional keys. These keys navigate the menu system, perform functions and select modes of operation for the printer.

LED indicators:

- Green = Ready to Print or Printing
- Flashing Green = Receiving, Processing Data, Printing or Power Saver Mode
- Flashing Yellow = Warning
- Flashing Red = Error



Phaser 6200 Front Panel Configuration

Front Panel Key Descriptions

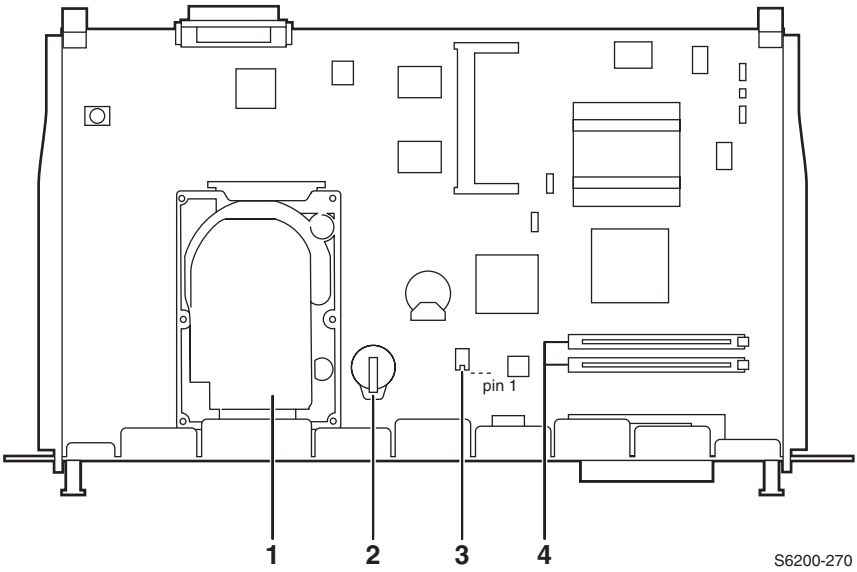
1	LED (Power/Status)	**5**	Up Arrow Key - scrolls up the menu system
2	Graphic front panel display	**6**	Down Arrow Key - scrolls down the menu system
3	Cancel Key	**7**	OK (select) Key
4	Back Key	**8**	Information Key - for additional explanation or help

Front Panel Shortcuts

Mode	Press this selection at Power On
Skip execution of POST diagnostics	**OK**
Print Service Diagnostics Map	**INFO**
Reset PostScript NVRAM	**BACK+OK**
Password Bypass	**UP+DOWN**
Enter Service Diagnostics	**BACK+INFO**

Image Processor Board

The following components need to be transferred from the old board when installing a new Image Processor Board in the printer. See RRP 12.8 for information on replacing the Image Processor Board.



Top View

No.	Description
1	Hard Drive (optional)
2	Configuration Upgrade Chip (“i” Button)
3	NVRAM
4	Memory (RAM) DIMM 1 and DIMM 2

Rear Panel Configuration Interfaces

- IEEE 1284 Parallel
- Ethernet 10BaseT and 100BaseTx
- USB

Printer Specifications

Physical Dimensions - Printer

Dimensions	Value
Height:	445 mm (17.52 in.)
Width:	439 cm (17.28 in.)
Depth:	638 mm (25.12 in.)
Weight:	Approximately 36.5 kg (80.5 lb.) Print engine Approximately 56.5 kg (124.5 lb.) with Paper Tray(s) installed

Physical Dimensions - Optional High-Capacity Feeder

Dimensions	Value
Height:	336 mm (13.23 in.) Optional Paper Tray Assembly
Width:	439 cm (17.28 in.)
Depth:	563 cm (22.17 in.)
Weight:	Approximately 15 kg (33 lb.) no Paper Tray(s) installed Approximately 20 kg (44 lb.) with Paper Tray(s) installed

Printer Clearances

Clearances	Value
Top:	350 mm (13.78 in.)
Left:	100 mm (3.94 in.)
Right:	150 mm (5.91 in.)
Front:	600 mm (23.62 in.)
Rear:	200 mm (7.87 in.)
Mounting surface level tolerance:	Within 3 degrees of horizontal with all four feet in contact with the surface.

Functional Specifications

Functional Specifications

Characteristic	Specification
Printing process	**Imaging System** - 4-tandem drums, electro-photographic system using intermediate drum transfer rolls (IDTs). **Exposure System** - Semiconductor laser, simultaneous scanning by 4 beams. **Development System** - Dry type 2-component developer. **Fusing System** - Heat fusing, free nip-belt system.
Color medium	Cyan, Magenta, Yellow and Black Toner Cartridges
Resolution / Addressability	Standard & Draft 600 x 600 dpi Enhanced 2400 x 600 dpi* (Factory Default) Photo 1200 x 1200 dpi** * Not available on the Phaser 6200B. ** Not Available on the Phaser 6200B or Phaser 6200N.
Operating Modes	**Running Mode:** Print Engine capable of making prints immediately. **Ready Mode:** 20 seconds from completion of a print. **Sleep/ Low Power/ Power Saver Mode:** entered after a specified period of Print Engine inactivity since completion of the last print.
Continuuous Operating Printing Speed ppm = pages per minute ipm = image per minute	**Mode** / **Paper Size / wt g/m^2** / **Simplex** / **Duplex** 600 dpi / Letter / A4 65 -105 / 16 ppm / 10 ipm 100-159 / 8 ppm / N/A 160-216 / 8 ppm / N/A 1200/2400 dpi / Letter / A4 65 -105 / 8 ppm / 5 ipm 100-159 / 8 ppm / N/A 160-216 / 8 ppm / N/A 600/1200 dpi / Envelope/Postcard 160-216 / 8 ppm / N/A **Mode** / **OHP** 600 dpi / Letter / A4 / 8 ppm / N/A 1200 dpi / Letter / A4 / 8 ppm / N/A
Cleaning Cycle interval for continuous printing	Print speed will be reduced if the print job is larger than the cleaning cycle interval. **IU Print Volume** / **Standard/Draft pages** / **Enhanced/Photo pages** 0 - 5 K Pages / 48 / 24 5 - 10 K Pages / 32 / 16 10 - 15 K Pages / 32 / 16 15 - 20 K Pages / 32 / 16 20 - 25 K Pages / 20 / 10 25 - 30 K Pages / 16 / 8

Functional Specifications (cont'd.)

Characteristic	Specification				
First Print-Out (in seconds) (Letter/A4)	**Mode**	**Tray 1**	**Tray 2**	**Tray 3**	**MPT**
	Simplex, 600 dpi	15	16.5	18	14.5
	Duplex, 600 dpi	23.5	25	26.5	23
	Simplex, 1200 dpi	24.5	27.5	30.5	23.5
	Duplex, 1200 dpi	39.5	42.5	45.5	38.5
Warm-up time	30 seconds from cold start (power off condition)				

Electrical Specifications

Electrical specifications

Characteristic	Specification			
Primary line voltages	100-120 V Printer - (97 - 132 V) 13 amp circuit 220-240 V Printer - (198 - 264 V) 7-8 amp circuit			
Primary line voltage frequency range	100-120 V Printer - 50/60 Hz ± 2 Hz 220-240 V Printer - 50/60 Hz ± 2 Hz			
Power consumption	**Mode**	**Condition**	**100/115 VAC**	**240 VAC**
	Print Mode	**Max.**	850 W or less	850 W or less
	Ready Mode	**Fuser On**	180 W or less	180 W or less
	Sleep Mode	**Fuser Off**	45 W or less	45 W or less

Environmental Specifications

Environmental Specifications

Characteristic	Specification
Temperature:	Optimal print-quality range: 62^{o} to 80^{o} F (17^{o} to 26^{o} C)
Operating	10^{o} C to 32^{o} C (50^{o} F to 90^{o} F)
Transportation	-30^{o} C to $+50^{o}$ C (-22^{o} F to 122^{o} F)
Storage	
24 month maximum	Normal: 0^{o} C to 35^{o} C (32^{o} F to 95^{o} F)
1 month maximum	Severe: -20^{o} C to 40^{o} C (-4^{o} F to 104^{o} F)
Humidity	Optimal print-quality range: 35% to 70%
Operating	10% - 85%
Transportation	30% - 85%
Storage	5% - 95%
Altitude	
Operating	0 - 2,500 meters (8,000 ft.)
Transportation	0 - 6,092 meters (20,000 ft.)
Acoustic Noise	35.0db or less
Idle	53.0db or less (Full Speed) (5.3 B)
Printing	70.0db or less (Half Speed) (7.0 B)

Media and Tray Specifications

Media and Tray Specifications

	Specification		Trays
Printable Area	Minimum margins = 5 mm (0.2 in.) on all sides Maximum paper size = 215.9 mm x 355.6 mm (8.5 in. x 14 in.) Minimum paper size = 88.9 mm x 139.7 mm (3.5 in. x 5.5 in.)		All Trays
Usable paper sizes	**Paper Type**	**Size**	
	Letter	8.5 x 11 in.	All Trays
	Legal	8.5 x 14 in.	All Trays
	Executive	7.25 x 10.5 in.	All Trays
	Statement	5.5 x 8.5 in.	MPT Only
	US Folio	8.5 x 13 in.	All Trays
	A4	210 x 297 mm	All Trays
	A5	148 x 210 mm	MPT Only
	A6	105 x 148 mm	MPT Only
	B5 JIS	182 x 257 mm	All Trays
	ISO B5	176 x 250 mm	MPT Only
	Custom Size		MPT Only
Supported paper types and weights	**Type**	**Weight**	
	Plain Paper	64 - 90 g/m^2 (17 - 24 lb. Bond)	All Trays
	Heavy Plain Paper	85 - 105 g/m^2 (22 - 28 lb. Bond)	All Trays
	Phaser 6200 Transparency **ONLY**		MPT & Tray 1
	Thin Card Stock	100 - 163 g/m^2 (26 - 60 lb. Cover)	MPT Only
	Thick Card Stock	160 - 216 g/m^2 (59 - 80 lb. Cover)	MPT Only
	Labels	N/A	MPT Only
	Letterhead	85 - 105 g/m^2 (22 - 28 lb. Bond)	All Trays
	Glossy Coated Paper	120 - 163 g/m^2 (81 - 110 lb. Book	MPT Only
	Business and Greeting Card	N/A	MPT Only
	CD/DVD Labels and Inserts	N/A	MPT Only
	Digital Photo Paper	120 - 163 g/m^2 (81 - 110 lb.)	MPT Only
Supported envelopes	Envelopes Weight	20 - 24 lb. Bond	
	Commercial #10	4.12 x 9.5 in	MPT Only
	Monarch Envelope	3.87 x 7.5 in	
	A7 Envelope	5.25 x 7.25 in	
	Custom		
	DL Envelope	110 x 220 mm	
	C5 Envelope	162 x 229 mm	
	C6 Envelope	114 x 162 mm	
	B5 Envelope	176 x 250 mm	
	Envelopes with hot melt type glue are not supported in this printer.		
Specialty Media	Premium Phaser 6200 Transparencies		
	Letter	216 x 279 mm 8.5 x 11 in.	MPT and Tray 1 Only
	A4	210 x 297 mm 8.27 x 11.69 in.	
	Other sizes will be handled through the Multi-Purpose Tray with use of the custom size option.		

Media and Tray Specifications (cont'd.)

	Specification			Trays
Tray Capacity		**Universal Tray**	**MPT**	
	Standard Paper	500 Sheets	100 Sheets	
	Transparency*	100 Sheets*	50 Sheets	*Tray 1 / MPT only
	Envelopes	N/A	10 each	

Error Messages and Codes

This section covers troubleshooting procedures for the Phaser 6200 Color Laser Printer's front panel error messages and codes. Only jams and fatal errors will produce an associated numeric code. Error messages and codes are generally specific, making it important that service personnel and users record errors exactly when reporting problems with the printer. Any code associated with an error message or jam can be viewed by pressing the **INFO** key and scrolling to the bottom of the help text displayed on the front panel.

Some procedures require running service diagnostic test functions to verify a specific printer part is operating correctly. For information on Service Diagnostics and all internal printer test functions, see the table "Service Diagnostics" on page 23

To troubleshoot problems, such as start up and power on, media, paper path, print-quality or image problems, and electrical failures not associated with a front panel message or code, refer to the section "Troubleshooting" on page 81.

If an error message or code is not visible on the front panel, the usage profile report and fault history list errors reported by the printer.

When an error first occurs, record the error message and code then cycle power to the printer to see if the error recurs. These can be accessed one of three ways:

Accessing Fault History

1. Print (if possible) the `Usage Profile` Report Log from the printer's front panel `Support Menu`. The fault history will be detailed in this report log.
2. View the printer's fault history on the front panel.
   a. Go to `Support Menu --> Service Tools --> Fault History`.
3. If the printer is connected to a network and has a TCP/IP address, view the printer's web page using a web browser.
   a. Open a web browser.
   b. Enter the printer's IP address as the URL.
   c. Select the Troubleshoot link and the fault history will be displayed.

Contents

Contents (cont'd.)

Service Flowchart

The Service Flowchart outlines one possible approach to troubleshooting and repair of the printer. The Service Flowchart is an overview of the path a service technician could take, using this technical manual, to service the print engine and options. If you choose not to use the Service Flowchart, it is recommended that you start at the appropriate troubleshooting table and proceed from there.

Always follow the safety measures detailed in the front of the manual when servicing the printer. See "Service Safety Summary" on page vi of this manual.

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 a Usage Profile Report, if the printer is able to print.
8. View the fault history under the Service Tools Menu
9. 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. Switch OFF printer power.
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 Imaging Unit and protect it from light.
5. Inspect the printer interior and remove any foreign matter such as paper clips, staples, pieces of paper, dust or loose toner.
   - Do not use solvents or chemical cleaners to clean the printer interior.
   - Do not use any type of oil or lubricant on printer parts.
   - Use only an approved toner vacuum.
6. Clean all rubber rollers with a lint-free cloth, dampened slightly with cold water and mild detergent.
7. Inspect the interior of the printer for damaged wires, loose connections, toner leakage, and damaged or obviously worn parts.
8. If a toner cartridge appears obviously damaged, replace with a new one.

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 Diagnostics to check printer and optional components.
3. Use the Wiring Diagrams and Plug/Jack Locator to locate test points.
4. Take voltage readings at various test points as instructed in the appropriate troubleshooting procedure.
5. Use the “Engine Test Print”, page 96, to isolate problems with the Image Processor Board.

Step 4: Correct the Problem

1. Use the Parts List to locate a part number
2. Use the Removal and Replacement 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.

Using the Troubleshooting Procedures

1. Each **Step** in a Troubleshooting Procedure instructs you to perform a certain action or procedure. The steps are to be followed sequentially in the order given until the problem is fixed or resolved.
2. The **Actions and Questions** box contains additional information and/or additional procedures you must follow to isolate the problem.
3. When a procedure instructs you to test a component using service diagnostics, See "Service Diagnostics" on page 23 for the detailed steps and functions for testing parts of the printer.
4. The action is followed by a question. If your response to the question is "**Yes"**, then follow the instructions for a "**Yes**" reply. If your response to the question is "**No"**, then follow the instructions for a "**No**" reply.
5. Troubleshooting Procedures may ask you to take voltage readings or test for continuity at certain test points within the printer. For detailed diagrams, refer to the section "Plug/Jack Locator Maps" on page 341 and "Wiring Diagrams" on page 351 for complete information on test point locations and signal names.
6. Troubleshooting Procedures often ask you to replace a printer component. The section "FRU Disassembly - Removal and Replacement Procedures" on page 119 provides detailed steps for removing and replacing all major parts of the printer. The section "FRU Parts List" on page 253 details the location, quantity and part number for all spared parts of the printer.

General Notes on Troubleshooting

1. Unless indicated otherwise, the instruction "switch ON printer main power" means for you to switch ON printer power and let the printer proceed through POST to a 'Ready' condition.
2. Conventions used to represent connectors

Plug	Jack
	
	S6200-282

3. When instructed to take voltage, continuity or resistance readings on wiring harness, proceed as follows; Check P/J 232–1 to P/J 210–5 by placing the red probe (+) of your meter on pin 1 of P/J 232, and place the black probe (–) of your meter on pin 5 of P/J 210.
4. When you are instructed to take resistance readings between "P/J 232 <=> P/J 210" (without specified pin numbers), check all pins. Refer to the the section "Wiring Diagrams" on page 351 for the location of all wiring harnesses and pins.
5. When you are instructed to take a voltage reading, the black probe (–) is generally connected to a pin that is either RTN (Return) or SG (Signal Ground). You can substitute any RTN pin or test point in the printer, and you can use FG (frame ground) in place of any SG pin or test point.
6. Before measuring voltages make sure the printer is switched ON, the Imaging Unit and the paper trays are in place, and the interlock switches are actuated, unless a troubleshooting procedure instructs otherwise.

7. All voltage values given in the troubleshooting procedures are approximate values. The main purpose of voltage readings is to determine whether or not a component is receiving the correct voltage value from the power supply and if gating (a voltage drop) occurs during component actuation. Gating signals may be nothing more than a pulse, resulting in a momentary drop in voltage that may be difficult or impossible to read on the average multi-meter.
8. When a troubleshooting procedure instructs you to replace a non-spared component and that component is part of a parent assembly, you should replace the entire parent assembly.

Voltage Measurements

Power and signal grounds are connected to the frame ground. All circuit troubleshooting can be performed using the metal frame (chassis) as the grounding point. To locate connectors or test points, refer to the section "Plug/Jack Locator Maps" on page 341 or "Wiring Diagrams" on page 351 for more information.

Unless otherwise specified, the following voltage tolerances are used within this section:

Voltage Measurements

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

Service Diagnostics

The Phaser 6200 Color Laser Printer has built-in diagnostics to aid in troubleshooting problems with the printer. The Service Diagnostics Menu provides a means to test sensors, motors, switches, clutches, fans and solenoids. Diagnostics also contain built-in test prints, cleaning procedures, printer status and some NVRAM access.

Service diagnostics are to be executed by a service technician only, through the front panel. Service Diagnostics can be entered one of two ways:

Entering without rebooting the printer:

1. From the printer's main menu, scroll to the `Support Menu`, press **OK** and then scroll to the `Service Tools Menu` and press **OK**.
2. Hold down the **Up Arrow** key and press the **Down Arrow** key.
3. Scroll to `Run Service Diagnostics` and press **OK**.

Entering by reboooting the printer:

1. Turn the printer power OFF.
2. Hold down the **Back** and **Information** keys simultaneously and turn the printer back ON.
3. Continue to hold the keys until the following mesage is displayed on the front panel: `Service Diagnostics V#.##, Initializing...,` and then release the keys.
4. The front panel displays the Service Diagnostics Menu.

You can print a Service Diagnostics Menu Map by highlighting `Print Service Diagnostics Menu`, and press **OK**. The printer will run through POST and return to `Ready`. You will need to re-enter service diagnostics.

Service Diagnostics Key Press and Function Table

Key	Function
BACK	Returns to the prior higher level menu structure, if available. If help text is displayed on the front panel, pressing BACK will restore the current menu item and remove the help text.
CANCEL	Terminates the current test. Cancels current INFO display.
INFO	Provides help information, if available. Pressing INFO again restores the current menu item and removes the help text.
UP	Scrolls up one menu item within a menu list. This control does not 'wrap'. Used to increment data in tests requiring user input.
DOWN	Srolls down one menu item within a menu list. This control does not 'wrap', the end of a menu list is designated by three asterisks. Used to decrement data in tests requiring user input.
OK	Enters the highlighted menu. Executes the current test item. Used to select a data value entered by the user.

Service Diagnostics Tests and Functions Table

Test	Front Panel Display and Test Definition	
Print Service Menu Map - Prints the service diagnostics menu page		
General Status - Provides the following print engine status:		
Status	<No Status to Report>	**No Status to Report** = the printer is online and ready to print. Displays an engine status that will prevent printing. Status is displayed sequentially, on line at a time.
Engine Board ROM Version	Engine FW: #.#.#	Displays the engine firmware version installed.
Printer Configuration	Memory: ###MB Hard Drive: Not Installed or Installed HCF: Installed Not Installed	Displays current memory installed. Detects presence of Hard Drive option. Detects presence of High-Capacity Feeder option.
Ambient Temperature/ Humidity	Temperature: XX ^{o}C Humidity: ## %	Displays the current Temperature and Humidity for the printer.
Fuser Temperature	Temperature: XX ^{o}C	Displays the printers current Fuser temperature.
Fault History	Device Status Jams Hardware Errors Firmware Errors Fan Motors CTD Sensor Errors Fuser Failure Laser Failure Life Over Trays Miscellaneous	Displays Fault occurrence since last power cycle.
Test Prints - Prints test prints stored in the Engine Control Board. The prints are used by service personnel to identify, repair and validate the operability of the printer.		
Blank Page Print	Continuously prints blank pages until stopped by the user.	See "Test Prints, Adjustments and NVRAM" on page 109, for specific test print information.
600 x 600 Test Pattern	Continuously prints the step pattern until stopped by the user.	

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
Motors/Fans Tests - Tests the functionality of motors and fans by giving service personnel the ability to energize/de-energize the motor and fans one at a time.		
Main Motor	Normal Speed Half Speed Normal Speed Continuous Half Speed Continuous	Audible verification of motor functionality. The motor tests are pulsed or continuous.
Duplex Motor	Forward Normal Speed Forward Half Speed Forward Double Speed Reverse Normal Speed Reverse Half Speed Reverse Double Speed Forward Normal Speed Contiuous Forward Half Speed Contiuous Forward Double Speed Contiuous Reverse Normal Speed Contiuous Reverse Half Speed Contiuous Reverse Double Speed Contiuous	Audible verification of motor functionality.
Fuser Motor	Normal Speed Half Speed Normal Speed Continuous Half Speed Continuous	Audible verification of motor functionality.
Developer Motor **Caution:** Do NOT allow this motor to run any longer than necessary to verify operation.	Normal Speed Half Speed	Audible verification of motor functionality. **Caution:** Only run the developer motor test once per power cycle to avoid excessive amounts of toner being forced inside the developer resulting in possible damage.
HCF Motor	Normal Speed Half Speed Normal Speed Continuous Half Speed Continuous	Audible verification of motor functionality.
Toner Motor Yellow **Toner Motor Magenta** **Toner Motor Cyan** **Toner Motor Black**	Normal Speed	Audible verification of motor functionality. **Caution:** Only run the Toner Motor tests once per power cycle to avoid toner spillage inside the Imaging Unit cavity and packing the auger tubes with toner.
Rear Fan	High Speed Low Speed High Speed Continuous Low Speed Continuous	Audible verification of motor functionality. Check for airflow.

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
Fuser Fan	High Speed Low Speed High Speed Continuous Low Speed Continuous	Audible verification of motor functionality. Check for airflow.
Sensor/Switch Tests - Tests the functionality of the sensors and switches by giving service personnel the ability to input actuation and state changes of all sensors and switches.		
Interlock Switch	Sensor is: ON Sensor is: OFF	Front Door OPEN Front Door CLOSED
Registration Sensor	Sensor is: OFF Sensor is: ON	This test continuously cycles paper through the printer. The sensor state changes from off to on as the paper passes through the Registration Chute. **Note**: This test can also be used as a paper path transport test when troubleshooting Jam conditions.
Exit Sensor	Sensor is: OFF Sensor is: ON	Actuate/de-actuate the Exit Actuator (PL8.1.7) located in the Fuser to toggle the sensor state.
Duplex Sensor	Sensor is: OFF Sensor is: ON	Actuate/de-actuate the Duplex Actuator (PL6.1.13) located in the Fuser to toggle the sensor state.
Full Stack Sensor	Sensor is: OFF Sensor is: ON	Actuate/de-actuate the Output Tray Full Actuator (PL6.1.4) at the output tray to toggle the sensor state.
Black Toner (K) Low **Cyan Toner (C) Low** **Magenta Toner (M) Low** **Yellow Toner (Y) Low**	Toner is [NOT] Low	Displays current state of the sensor.
Black Toner Cartridge Present **Cyan Toner Cartridge Present** **Magenta Toner Cartridge Present** **Yellow Toner Cartridge Present**	Sensor is: OFF Sensor is: ON	Toggle the toner cartridge switch for the appropriate color. Toner Cartridge is in the LOCKED position. Toner Cartridge is in the UNLOCKED position.

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
Tray 1 Low Paper **Tray 2 Low Paper** **Tray 3 Low Paper**	Size: XXXX Paper is Not Low Paper is Low	Move the Rear Guide in the paper tray to the desired paper size and verify the sensor output matches the paper size selected. Insert and fill Tray [1] [2] [3] with paper to the fill line. Insert one sheet of paper in Tray [1] [2] [3] to change the sensor state.
Tray 1 No Paper **Tray 2 No Paper** **Tray 3 No Paper**	Paper is Not Present Paper is Present	Insert Tray [1] [2] [3] with an adequate amount of paper. Toggle the No Paper Actuator.
MPT No Paper Sensor	Paper is Not Present Paper is Present	Insert Paper into the MPT Tray. Toggle the MPT No Paper Actuator (PL6.1.37) to change the state.
Transfer Roller Toner Full Sensor	Toner Waste [Not] Full	Block the Toner Full Sensor (PL5.1.13) to change the sensor state.
Image Unit Not Installed Sensor	Image Unit is [Not] Present	Open Door C to change the state of the Switch.
Fuser Fan Alarm Sensor	Fuser Fan Alarm Sensor is: OK Failure	Status only **Note:** Perform a test print immediately prior to performing this test.
Rear Fan Alarm Sensor	Rear Fan Alarm Sensor is: OK Failure	Status only **Note:** Perform a test print immediately prior to performing this test.
CTD (ADC) Sensor	Dark Value: # Light Value: ### Sensor OK	Status only Remove the transfer roller to observe change of state.
OHP Sensor	OHP Absense of Media Paper	Reports “Paper” if opaque media is present. Reports “OHP or Absence of Media if OHP or no media is present. Manually insert a sheet of paper backwards through the Registration Chute Assembly (PL9.1.6) until the state of the sensor changes to “Paper”.

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
Clutch Tests - Tests the functionality of the clutches by giving service personnel the ability to energize/de-energize one clutch at a time.		
Registration Clutch **MPT Turn Clutch** **Tray 1 Turn Clutch** **Tray 2 Turn Clutch** **Tray 3 Turn Clutch**	Clutch is: ON Clutch is: OFF	Audible verification of Clutch functionality. You should hear the clutch engage (click) once.
Solenoid Tests - Tests the functionality of the clutches by giving service personnel the ability to energize/de-energize one solenoid at a time.		
MPT Turn Clutch **Tray 1 Turn Clutch** **Tray 2 Turn Clutch** **Tray 3 Turn Clutch**	Solenoid is: ON Solenoid is: OFF	Audible verification of the Solenoid function.
Maintenance - Cleans the Intermediate Transfer Unit within the Imaging Unit		
Clean the Imaging Unit IDT 1 **Clean the Imaging Unit IDT 2**	Printing.....	“Printing” is displayed on the Front Panel during the IDT cleaning cycle. The test continuously cycles paper through the printer until the **Cancel** key is pressed.
NVRAM Access - This menu lets you read, set or reset the following values		
PostScript NVRAM Reset	Resetting PostScript NVRAM... Are you sure? Yes NO	Restores the Printers setup values to their factory defaults. For more information on resetting NVRAM, See "Resetting NVRAM" on page 114
CRU Life Reset: The following options are available for CRU Life Reset		

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
Black Toner (K) Life **Cyan Toner (C) Life** **Magenta Toner (M) Life** **Yellow Toner (Y) Life** **Transfer Roller Life**	Confirmed Reset <if successful> Unconfirmed Reset <if unsuccessful> **Note**: The primary life tracking device for the transfer roller is the clear plastic window in the transfer roller.	Resets the CRU Life Count to 0. **Note:** Record the current value in the CRU Life Read Menu prior to resetting the valure to 0. **Caution:** This function is for troubleshooting **ONLY**. Do **NOT** attempt to extend the life of the CRU. Doing so may cause print-quality problems or premature failure of other internal printer components.
CRU Life Read: The following options are available for CRU Life Read. Perform this operation and record the values prior to performing a CRU Life Reset		
Black Toner (K) Life **Cyan Toner (C) Life** **Magenta Toner (M) Life** **Yellow Toner (Y) Life** **Transfer Roller Life**	Count: XXX Record this value	Displays the current CRU Life count.
Read Printer Page Count	Count: XXXX	Reads engine printer life count. Record this value before replacing the Engine Control Board.
CRU Life Restore: The following options are available for CRU Life Restore.		
Black Toner (K) Life **Cyan Toner (C) Life** **Magenta Toner (M) Life** **Yellow Toner (Y) Life** **Transfer Roller Life**	Count: XXXX Up/ Dn to Incr/ Decr Help/ Back to Select Multiplier	Restores the CRU Life Count value. **Caution:** This function is for Troubleshooting **ONLY**. Do **NOT** attempt to extend the life of the CRU. Doing so may cause Print Quality problems or premature failure of other internal printer components.
Printer Page Count		Restore the print engine life count.
IP Controller Diagnostics - Tests the basic functionality of the Image Processor Board.		

Service Diagnostics Tests and Functions Table (cont'd.)

Test	Front Panel Display and Test Definition	
RAM Read/Write Test	Executing..... Passed	Performs an extended memory test on the Image Processor Board. Note: Cycle power to the printer after executing this test.
Exit - Exits service diagnostics and reboots the printer.		

Jam at Fuser Jam F

The printer's front panel displays "Jam at Fuser". The fuser has been removed, reseated and locked into place. Any obstruction, media and debris has been removed from the fuser paper path, printer power has been cycled and the error still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Fuser, PL 8.1.1	"Drive Section" on page 355
Exit Sensor/Actuator, PL 8.1.7	"Fuser Assembly" on page 358
Motor Driver Board, PL 12.1.12	"Map 1" on page 345

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Exit Actuator & Sensor, PL 8.1.7 Fuser Assembly, PL 8.1.1 Front Cover, PL 1.1.2 Chute Assembly In, PL 5.1.1 Transfer Roller, PL 8.1.12 Imaging Unit, PL 9.1.3	Replace the part(s) concerned.	Go to step [2].
2	Remove the Fuser and check for broken or bent pins.	Replace the parts concerned.	Go to step [3].
3	Use service diagnostics to test the Exit Sensor. Does the sensor function correctly?	Go to step [8].	Replace the Fuser Assembly. Go to step [4]
4	Does an error occur after the Fuser Assembly has been replaced?	Go to step [5].	Complete.
5	Insert a sheet of paper into the Fuser Assembly. Verify the voltage on the Fuser Harness P138-3 <=> P138-2 is 0VDC.	Go to step [7].	Go to step [6].
6	Check all pins on the FSR 2 (Fuser) Harness Assembly (PL5.1.10) for continuity.	Go to step [7].	Replace the Assembly, Harness FSR 2 PL 5.1.9.
7	Check all pins on the Front 1A Harness Assembly for continuity.	Go to step [8].	Replace the Assembly, Front 1A, PL 13.1.7.
8	If possible print one sheet of paper. Does the Fuser Motor Turn? Inspect the gears for damage.	Replace the gear(s) if defective.	Go to step [9].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
9	Use service diagnostics to test the Fuser Motor. Does the Fuser Motor function correctly?	Replace Engine Control Board, RRP 12.7.	Go to step [10].
10	Verify the voltage between P 52-1 <=> P 60-2 on the Motor Driver Board is +24 VDC.	Go to step [11].	Replace the Motor Driver Board, RRP 12.3.
11	Replace the Fuser Motor. Does the Fuser Motor function correctly?	Complete	Go to step [12].
12	Check the DRV 1 Harness for continuity.	Replace the Engine Control Board, RRP 12.7.	Replace the DRV 1 Harness, PL 13.1.2.

Jam at Duplex Jam D

The printer's front panel displays "Jam at Duplex" and any obstruction, media and debris has been removed from the duplex paper path, printer power has been cycled and the error still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Duplex Sensor, PL 6.1.4	"Drive Section" on page 355
Actuator Kit, PL 15.1	
Gear Kit, PL 7.1.99	"Paper Feed" on page 362
Chute Assembly Exit, PL 7.1.7	"Map 1" on page 345

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Chute Assembly Exit, PL 7.1.7 Duplex Motor Assembly, PL 7.1.8 Duplex Sensor, PL 6.1.4 Duplex Actuator, PL 6.1.5 Chute Assembly Out, PL 6.1.1	Replace the damaged part.	Go to step [2].
2	Use service diagnostics to test the Duplex Sensor. Does the sensor function correctly?	Go to step [7].	Replace the sensor and Go to step [3].
3	Does the printer function correctly after the Duplex Sensor is replaced?	Complete	Go to step [4].
4	Block the Duplex Sensor and verify the voltage between J 139-3<=>J 139-2 is 0 VDC.	Go to step [6].	Go to step [5].
5	Check the Front 2 Harness for continuity. See "Paper Feed" on page 362.	Go to step [6].	Replace the Front 2 Harness Assembly, PL 6.1.2.
6	Check P 139<=>J 13 on the Front 1A Harness for continuity. See "Paper Feed" on page 362.	Replace the Engine Control Board, RRP 12.7.	Replace the Assembly, Front 1A, PL 13.1.7.
7	If possible, print 1 sheet of paper in Duplex Mode and check to see if the sheet has reversed in the printer.	Replace the Chute Assembly Exit, RRP 7.1.	Go to step [8].
8	Use service diagnostics to test the Duplex Motor. Actuate the Interlock Switch during the test.	Replace the Chute Assembly Exit, RRP 7.1.	Go to step [9].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
9	Verify the voltage between P 50-1<=>P 60-2 on the Motor Driver Board is +24 VDC.	Go to step [10].	Replace the Motor Driver Board, RRP 12.3.
10	Check J 131<=>J 50 on the Duplex Harness for continuity. See "Drive Section" on page 365	Got to step [11].	Replace the Duplex Harness Assembly, PL 6.1.23.
11	Does the error recur after replacing the Duplex Motor?	Go to step [12].	Complete
12	Check J 12 <=> J 42 pins on the DRV 2 Harness for continuity. See "Drive Section" on page 365	Replace the Engine Control Board, RRP 12.7.	Replace the Assembly, Harness DRV2, PL 13.1.3.

Jam at Registration Roller Jam RR

The printer's front panel displays "Jam at Registration Roller" and any obstruction, media and debris has been removed from the Chute Assembly Registration and the Turn Chute Assembly in the tray 1 cavity. Printer power has been cycled and the error still appears.

In some instances the error code will clear after power is cycled to the printer, but will reappear with the next print. Check to see if there is a piece of paper fan-folded behind the turn chute assembly or below the registration roller.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Chute Assembly Registration, PL 9.1.6	"Paper Feed" on page 362

Troubleshooting Procedure Table

Steps	Action and Questions	Yes	No
1	Check the following for evidence of fault or damage. Registration Actuator, PL 9.1.9 Chute Assembly Registration, PL 9.1.6	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Registration Sensor. Does sensor function correctly?	Go to step [6].	Go to step [3].
3	Check that the connection between the Harness and the Registration Sensor is properly connected and seated.	Go to step [4].	Reconnect properly.
4	Check J181 <=> J18 on the Registration Clutch Harness for continuity. See "Paper Feed" on page 362	Go to step [5].	Replace the Chute Assembly Registration, RRP 9.3.
5	Verify the voltage between P/J 18-3 <=> P/J 18-2 on the Engine Control Board is 0 VDC.	Go to step [6].	Replace the Registration Sensor, RRP 9.4.
6	Use service diagnostics to test the Registration Clutch. Close the Interlock Switch during the test. Does the clutch function correctly?	Go to step [8].	Go to step [7].
7	Remove the connector J18. Is J 18-4 <=> J 18-5 less than 200Ω?	Go to step [8].	Replace the Chute Assembly Registration, RRP 9.3.

Troubleshooting Procedure Table (cont'd.)

Steps	Action and Questions	Yes	No
8	Verify the voltage between P 18-4 <=> P 18-2 on the Engine Control Board is +24 VDC. Close the Interlock Switch while checking the voltage.	Replace the Chute Assembly Registration, RRP 9.3.	Replace the Engine Control Board, RRP 12.7.

Misfeed at MPT Jam T0

The printers front panel displays “Misfeed at MPT” indicating a paper misfeed has occurred in the printer. The MPT is securly attached to the printer and any obstruction, media and debris has been removed from the paper path and there is adequate paper in the MPT. Printer power has been cycled and the error still displays.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Roll Feed Assembly, PL 6.1.27	"Paper Tray 1" on page 354
Paper Present Sensor, PL 6.1.4	"Paper Feed" on page 362
MPT Actuator, PL 6.1.37	"Drive Section" on page 355
MPT Feed Solenoid, PL 6.1.40	"Main Wiring Diagram" on page 352
Chute Assembly Registration, PL 9.1.6	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following parts for fault or damage: Multi-Purpose Tray Remove any foriegn objects or debris in the paper path. Registration Sensor PL 9.1.8 Main Drive Assembly PL 11.114	Replace any damaged or excessively worn parts.	Go to step [2].
2	Use service diagnostics to test the Registration Sensor. Does the sensor function normally?	Go to step [6].	Go to step [3].
3	Check that the connection between the Harness and the Registration Sensor is properly connected and seated.	Go to step [4].	Connect or replace the faulty part.
4	Check J 18-4 <=> J 18-5 on the Registration Clutch Harness for continuity. See "Paper Feed" on page 362	Go to step [5].	Replace the Registration Chute Assembly, RRP 9.3.
5	Verify the voltage between P/J18-3 <=> P/J18-2. This measurement point can be accessed under the electric housing assembly (See RRP 9.3) on the Engine Control Board is0 VDC.	Replace Sensor, Registration, RRP 9.4.	Go to step [6].
6	If possible, print a sheet of paper from the MPT. Does the Main Drive motor function properly?	Go to step [16]	Go to step [7]

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
7	Use service diagnostics to test the Main Drive Motor. Does the Main Drive Motor turn?	Replace the Engine control Board, RRP 12.7	Go to step [8].
8	Verify the voltage between P/J48-1 <=> P/J60-2 on the Motor Driver Board is +24 VDC	Go to step [12].	Go to step [9].
9	Use service diagnostics to test the Interlock Switch. Does the Interlock switch function correctly?	Go to step [10].	Replace the , Motor Driver Board, RRP 12.3.
10	Verify the voltage between SW-1 <=> P/J60-2 and SW-2 <=> P/J60-2 on the Motor Driver Board is +24 VDC. Close the Interlock Switch.	Replace the , Motor Driver Board, RRP 12.3	Go to step [11].
11	Check the power supply by verifing the voltage between P/J60-1 <=> P/J60-2 on the Motor Driver Board is +24 VDC.	Replace the Motor Driver Board, RRP 12.3	See "DC Power Supply Troubleshooting " on page 88.
12	Check the power supply by verifing the voltage between P/J61-8 <=> P/J61-7 on the Motor Driver Board is +5 VDC.	Go to step [13].	Go to step [14].
13	Check the power supply by verifing the voltage between P/J61-6 <=> P/J61-5 on the Motor Driver Board is +3.3 VDC.	Go to step [15].	Go to step [14].
14	Check the LVNC Harness for continuity. See "Main Wiring Diagram" on page 352	See "DC Power Supply Troubleshooting" on page 88.	Replace the Harness LVNC PL 13.1.1.
15	Check the DRV 1 Harness for continuity. See "Drive Section" on page 355	Replace in the following order: Main Drive Assembly, RRP 11.3 Engine Control Board, RRP 12.7	Replace the DRV 1 Harness Assembly, PL 13.1.1.
16	Perform steps 1 through 3 in RRP 3.1. Open and close the front door. Observe the Turn Roller. Dose the Turn Roller turn while the machine is warming up?	Go to step [19].	Go to step [17].
17	Using service diagnostics, test the MPT Turn Clutch. Does the Turn Clutch Assembly function normally? In the test, actuate the Interlock switch.	Check the Clutch for slip or the gear for damage. Replace if necessary.	Go to step [18].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
18	Remove the clutch connector J19. Check the following pins; Is J19-1 <=> J19-2 less than 200Ω?	Replace the Engine Control Board, RRP 12.7.	Replace the MPT Turn Clutch, RRP 3.13.
19	Does the Feed Gear in the MPT turn when printing 1 sheet of paper?	Check parts for damage or obstructions in the paper path.	Go to step [20].
20	Use service diagnostics to test the MPT Feed Solenoid. Does the solenoid actuate? In the test, actuate the Interlock Switch.	Check the spring and stopper of the Feed Solenoid.	Go to step [21].
21	Remove the MPT Feed Solenoid connector J132; Is J132-1 <=> J132-2 less than 100Ω?	Go to step [22].	Replace the MPT Feed Solenoid.
22	Check the Front 2 Harness for continuity.	Replace the Engine Control Board, RRP 12.7	Replace Front 2 Harness Assembly, PL 6.1.2.

Misfeed at Tray 1 Jam T1

The printers front panel displays “Misfeed at Tray 1” indicating a paper misfeed has occurred in the printer. Tray 1 is free from defects and installed properly. Any obstruction, media and debris has been removed from the paper path and there is adequate paper in the paper tray. Printer power has been cycled and the error still displays.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Pick Roller Kit, PL 3.3.3	"Paper Tray 1" on page 354
Paper Feed Roller Kit, PL 3.3.23	"Paper Feed" on page 362
Paper Pick Assembly, PL 3.3.1	"Drive Section" on page 355
Chute Assembly Registration, PL 9.1.6	"Main Wiring Diagram" on page 352

Steps	Actions and Questions	Yes	No
1	Check the following parts for fault or damage: Check for worn or damaged rollers and gears on the Paper Pick Assembly and the Feed Roller on Tray 1. Check Tray 1 for damage. Remove any foriegn objects or debris in the paper path. Registration Sensor PL 9.1.8 Main Drive Assembly PL 11.1.14	Replace any damaged or excessively worn parts.	Go to step [2].
2	Use service diagnostics to test the Registration Sensor. Does the sensor function normally?	Go to step [6].	Go to step [3].
3	Check that the connection between the Harness and the Registration Sensor is properly connected and seated.	Go to step [4].	Connect or replace the faulty part.
4	Check the Registration Clutch Harness for continuity. See "Paper Feed" on page 362	Go to step [5].	Replace the Registration Chute Assembly, RRP 9.3.
5	Is the voltage between P/J18-3 <=> P/J18-2, located under the electric housing assembly (see RRP 9.3) on the Engine Control Board is 0 VDC.	Replace Registration Sensor, RRP 9.4.	Go to step [6].
6	If possible, print a sheet of paper from Tray 1. Does the Main Drive Motor function properly?	Go to step [16].	Go to step [7].

7	Use service diagnostics to test the Main Drive Motor. Does the Main Drive Motor turn?	Replace the Engine control Board, RRP 12.7	Go to step [8].
8	Verify the voltage between P/J48-1 <=> P/J60-2 on the Motor Driver Board is +24 VDC	Go to step [12].	Go to step [9].
9	Use service diagnostics to test the Interlock Switch. Does the Interlock switch function correctly?	Go to step [10].	Replace the , Motor Driver Board, RRP 12.3.
10	Verify the voltage between SW-1 <=> P/J60-2 and SW-2 <=> P/J60-2 on the Motor Driver Board is +24 VDC. Close the Interlock Switch.	Replace the , Motor Driver Board, RRP 12.3.	Go to step [11].
11	Check the power supply by verifing the voltage between P/J60-1 <=> P/J60-2 on the Motor Driver Board is +24 VDC.	Replace the Motor Driver Board, RRP 12.3.	See "DC Power Supply Troubleshooting " on page 88.
12	Check the power supply by verifing the voltage between P/J61-8 <=> P/J61-7 on the Motor Driver Board is +5 VDC.	Go to step [13].	Go to step [14].
13	Check the power supply by verifing the voltage between P/J61-6 <=> P/J61-5 on the Motor Driver Board is +3.3 VDC.	Go to step [15].	Go to step [14].
14	Check the LVNC Harness for continuity. See "Main Wiring Diagram" on page 352	See "DC Power Supply Troubleshooting" on page 88	Replace the Harness LVNC PL 13.1.1.
15	Check the DRV 1 Harness for continuity. See "Drive Section" on page 355	Replace in the following order: Main Drive Assembly, RRP 11.3 Engine Control Board, RRP 12.7	Replace the DRV 1 Harness Assembly, PL 13.1.1
16	Perform steps 1 through 3 in RRP 3.1. Open and close the front door. Observe the Turn Roller. Dose the Turn Roller turn while the machine is warming up?	Go to step [21].	Go to step [17].
17	Use service diagnostics to test the Tray 1 Turn Clutch. During the test, close the Interlock Switch.	Check the clutch and gears for damage. Replace if necessary.	Go to step [18].
18	Verify the voltage between P/J47-13<=> P/J60-2 on the Motor Driver Board is +24 VDC.	Go to step [19].	Replace the Motor Driver Board, RRP 12.3.

19	Check the Feeder Harness for continuity.	Go to step [20].	Replace the Feeder Harness Assembly, PL 3.3.24.
20	Remove the clutch connector J475. Is J475-1 <=> J475-2 less than 200Ω?	Go to step [21].	Replace the Paper Pick Assembly, PL 3.3.1
21	If possible print one sheet of paper. Did the paper attempt to feed?	Check parts for damage or obstructions in the paper path.	Go to step [22].
22	Use service diagnostics to test the Tray 1 Feed Solenoid. Does the solenoid actuate? During the test actuate the Interlock Switch.	Check the spring and stopper on the Feed Solenoid.	Go to step [23].
23	Verify the voltage between P/J47-11 <=> P/J60-2 on the Motor Driver Board is +24 VDC	Go to step [24].	Replace the Motor Driver Board, RRP 12.3.
24	Check the Feeder Harness for continuity.	Go to step [25].	Replace the Feeder Harness Assembly, PL 3.3.24.
25	Remove the Solenoid connector J474. Is J474-1 <=> J474-2 less than 100Ω?	Go to step [26].	Replace Feed Solenoid, PL 3.3.17.
26	Check the DRV2 Harness for continuity.	Replace the Engine Control Board, RRP 12.7.	Replace the DRV2 Harness Assembly, PL 13.1.3.

Misfeed at Tray 2 Jam T2

The printers front panel displays “Misfeed at Tray 2” indicating a paper misfeed has occurred in the printer. Tray 2 is free of defects and correctly installed in the HCF. Any obstruction, media and debris has been removed from the paper path and there is adequate paper in the paper tray. Printer power has been cycled and the error still displays

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Pick Roller Kit, PL 14.4.3	"Paper Tray 2" on page 366
Paper Feed Roller Kit, PL 14.1.2	"Paper Feed" on page 362
HCF Paper Pick Assembly, PL 14.4.1	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Does the printer feed paper correctly from Tray 1?	Go to step [2].	See "Misfeed at Tray 1 Jam T1" on page 40.
2	Does the HCF Motor run when printing one sheet?	Tray 2 Go to step [9].	Go to step [3].
3	Use service diagnostics to test the HCF Motor. Does the HCF motor function correctly?	Replace the Engine Control Board, RRP 12.7.	Go to step [4].
4	Verify the voltage between P/J84-3 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC	Go to step [7].	Go to step [5].
5	Verify the voltage between P/J81-2 <=> P/J81-1 on the Lower Feeder Circuit Board HCF is +24 VDC.	Replace the Lower Feeder Circuit Board, PL 14.5.1.	Go to step [6]
6	Verify the connector between the HCF and the printer is connected properly and not damaged.	Replace the damaged part.	Go to step [7].
7	Does the error recur after the HCF Motor has been replaced with a new one?	Go to step [8].	Complete
8	Perform steps 1 through 3 in RRP 14.3. Open and close the front door. Observe the Turn Roller. Dose the Turn Roller turn while the machine is warming up?	Go to step [13].	Go to step [9].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
9	Use service diagnostics to test the Tray 2 Turn Clutch. During the test close the Interlock Switch. Does the Tray 2 Turn Clutch function correctly?	Check the Clutch for slipping or the gear for damage.	Go to step [10].
10	Verify the voltage between P/J82-13 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC.	Go to step [11].	Replace the Lower Feeder Circuit Board, PL 14.5.1.
11	Check the Tray 2 Harness Assembly for continuity. "Paper Tray 2" on page 366	Go to step [12].	Replace the Tray 2 Harness Assembly, PL 14.5.3.
12	Remove the clutch connector J825. Is J825-1 <=> J825-2 of the Tray 2 Turn Clutch Assembly less than 200 ohms?	Go to step [13].	Replace the Tray 2 Turn Clutch Assembly, PL 14.4.18.
13	Does the Feed Gear in the Tray 2 Feeder turn when printing one sheet of paper?	Check the Tray 2 Feed Solenoid for damage.	Go to step [14].
14	Use service diagnostics to test the Tray 2 Clutch Solenoid. Does the solenoid function correctly?	Check the stopper on the feed solenoid and replace if necessary.	Go to stop [15].
15	Verify the voltage between P/J82-11 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC.	Go to step [16].	Replace the Lower Feeder Circuit Board, PL 14.5.1.
16	Remove the Tray 2 Feed Solenoid connector J824; Is J824-1 <=> J824-2 less than 100 ohms?	Go to step [17].	Replace the Tray 2 Feed Solenoid, PL 14.4.17.
17	Verify the voltage between P/J83-11 <=> P/J81-1 on the Circuit Board HCF is +24 VDC.	Go to step [18]	Replace the Lower Feeder Circuit Board, PL 14.5.1.
18	Check the OPT Feeder Plug Assembly to the HCF Main Assembly to the Tray 2 Harness Assembly for continuity. "Paper Tray 2" on page 366	Replace the Engine Control Board, RRP 12.7.	Replace the open Harness Assembly.

Misfeed at Tray 3 Jam T3

The printers front panel displays “Misfeed at Tray 3” indicating a paper misfeed has occurred in the printer. Tray 3 is free of defects and correctly installed in the printer. Any obstruction, media and debris has been removed from the paper path and there is adequate paper in the paper tray. Printer power has been cycled and the error still displays.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Pick Roller Kit, PL 14.4.3	"Paper Tray 3" on page 367
Paper Feed Roller Kit, PL 14.1.2	"Paper Feed" on page 362
HCF Paper Pick Assembly, PL 14.4.1	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Does the printer feed paper correctly from Tray 1?	Go to step [2].	See "Misfeed at Tray 1 Jam T1" on page 40.
2	Does the HCF Motor run when printing one sheet?	Go to step [10].	Go to step [3].
3	Use service diagnostics to test the HCF Motor. Does the HCF motor function correctly?	Replace the Engine Control Board, RRP 12.7.	Go to step [4].
4	Verify the voltage between P/J84-3 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC	Go to step [7].	Go to step [5].
5	Verify the voltage between P/J81-2 <=> P/J81-1 on the Lower Feeder Circuit Board HCF is +24 VDC.	Replace the Lower Feeder Circuit Board, PL 14.5.1.	Go to step [6]
6	Verify the connector between the HCF and the printer is connected properly and not damaged.	Replace the damaged part.	Go to step [7].
7	Does the error recur after the HCF Motor has been replaced with a new one?	Go to step [8].	Complete
8	Perform steps 1 through 3 in RRP 14.3. Open and close the front door. Observe the Turn Roller. Dose the Turn Roller turn while the machine is warming up?	Go to step [12].	Go to step [9].
9	Does the Tray 3 Turn Clutch Assembly function correctly when feeding 1 sheet of paper?	Go to step [14].	Go to step [10].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
10	Use service diagnostics to test the Tray 3 Turn Clutch. Does the clutch function correctly?	Check the clutch for slip or the gears for damage.	Go to step [11].
11	Verify the voltage between P/J83-13 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC.	Go to step [12].	Replace the Lower Feeder Circuit Board, PL 14.5.1.
12	Check the Tray 3 Harness for continuity. See "Paper Tray 3" on page 367	Go to step [13].	Replace the Tray 3 Harness Assembly, PL 14.4.
13	Remove the Assembly, Clutch Turn Tray 3 connector J835. Is J835-1 <=> J835-2 less than 200 ohms?	Go to step [14].	Replace the Tray 3 Turn Clutch Assembly, PL 14.4.18.
14	Does the Feed Gear in the Tray 3 Feeder turn when feeding 1 sheet of paper?	Check the Solenoid for damage.	Go to step [16].
15	Use service diagnostics to test the Tray 3 Clutch Solenoid. Does the solenoid function correctly?	Check the stopper on the feed solenoid and replace, if necessary.	Go to step [17].
16	Verify the voltage between P/J83-11 <=> P/J81-1 on the Lower Feeder Circuit Board is +24 VDC.	Go to step [17].	Replace the Lower Feeder Circuit Board, PL 14.5.1.
17	Remove the Tray 3 Feed Solenoid connector J834. Is J834-1 <=> J834-2 less than 100 ohms?	Go to step [18].	Replace the Tray 3 Feed Solenoid, PL 14.4.17.
18	Check the OPT Feeder Plug Assembly to the HCF Main Assembly to the Tray 3 Harness Assembly for continuity. See "Paper Tray 3" on page 367	Replace the Engine Control Board, RRP 12.7.	Replace the open Harness Assembly.

Close Front Door

The printer's front panel displays "Close Front Door". The front door is free of obstructions and is fully closed. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Front Cover, PL 1.1.2	"Main Wiring Diagram" on page 352
Motor Driver Board, PL 12.1.12	"Drive Section" on page 355

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Motor Driver Board, PL 12.1.12 Interlock Switch on Motor Driver Board Actuator tab on the Front Cover CAM I/R on the Top Imaging Unit Cover Acutator I/L, PL 11.1.8	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Interlock Switch. Does the Interlock Switch function correctly?	Replace Engine Control Board, RRP12.7.	Go to step [3].
3	Verify the voltage between P/J41-35 <=> P/J41-22 on the Motor Driver Board is 0 VDC. Close the Front Cover during the check.	Replace Engine Control Board, RRP12.7.	Replace the Motor Driver Board, RRP 12.3.

Install or Reseat Imaging Unit

The printer's front panel displays "Install or Reseat Imaging Unit", the imaging unit is correctly installed in the printer, Door C is fully closed and printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Imaging Unit, PL 9.1.3	"Laser Unit" on page 359
	"Fuser Assembly" on page 358

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Remove the Imaging Unit. Inspect the printer cavity for damage, foreign material and loose toner under the auger area which could prevent the Imaging Unit from being seated properly. Is there foreign material or damage?	Remove foreign materials. Vacuum out loose toner if found.	Go to step [2].
2	Inspect and reseat the Imaging Unit checking for possible defects or damage.	Replace the Imaging Unit, PL 9.1.3.	Go to step [3].
3	Remove the left cover. Check the Gear Slide and the Rack V for damage or misalignment. See "Toner Cartridge Holder Unit Assembly (PL 10.1)" on page 203 for more information, (RRP 10.1)	Damage can occur if the Gear and Rack are not in the proper position. With Door C open, push the Rack V up as far as it can go and then reinstall the gear slide.	Go to step [4].
4	Verify the CRUM connector is not damaged or improperly connected.	Replace the Plate Dispenser Left, PL 10.1.9.	Go to step [5].
5	Check the CRUM Harness for continuity. See "Laser Unit" on page 359	Go to step [6]	Replace CRUM Harness Assembly, PL 10.1.15.
6	Check the EEPROM Harness for continuity. See "Laser Unit" on page 359	Replace the Engine Control Board, RRP 12.7.	Replace EEPROM Harness Assembly, PL 13.1.10.

Replace Imaging Unit or Imaging Unit is at End of Life

The printer's front panel displays "Replace Imaging Unit or Imaging Unit is at End of Life" and the imaging unit has been replaced. Printer power has been cycled and the message still appears.

Note: ***The "Imaging Unit is at End of Life" is a warning. "Replace Imaging Unit" is a hard stop.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
	"Laser Unit" on page 359

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following parts for evidence of fault or damage: Imaging Unit (CRC) PL 9.1.3 CRUM Connector on the Plate Dispenser	Replace the parts concerned.	Go to step [2].
2	Replace the Imaging Unit . Does the error recur?	Go to step [3].	Complete
3	Verify the CRUM Harness is properly connected. See "Laser Unit" on page 359	Go to step [4].	Replace the CRUM Harness Assembly, PL 10.1.15.
4	Check CRUM Harness Assembly for continuity. See "Laser Unit" on page 359	Go to step [5].	Replace the CRUM Harness Assembly, PL 10.1.15.
5	Check the EEPROM Harness for continuity. See "Fuser Assembly" on page 358	Replace the Engine Control Board, RRP 12.7.	Replace EEPROM Harness Assembly, PL 13.1.10.

Install or Reseat Transfer Roller

The printer's front panel displays "Install or Reseat Transfer Roller". The CTD (ADC) Sensor is clean and the transfer roller is correctly installed in the printer. Printer power has been cycled and the error still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
CTD (ADC) Sensor Assembly , PL 5.1.11	"Xerographics 1" on page 360
Transfer Roller Assembly (CRU), PL 8.1.12	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the following parts for damage and replace if defective: Transfer Roller (CRC,) PL 8.1.12 CTD (ADC) Sensor, PL 5.1.11	Complete	Go to step [2].
2	Clean the CTD (ADC) Sensor to remove any toner build up. Does this fix the problem?	Complete	Go to step [3].
3	Use service diagnostics to test the ADC Sensor. Does the sensor function correctly/	Go to step [4].	Go to step [5]
4	Replace the Transfer Roller. Does the error recur?	Go to step [5].	Complete
5	Is the CTD (ADC) Harness connected to the CTD (ADC) Sensor correctly?	Go to step [6].	Connect properly
6	Check J 136 <=> J 1361 on the CTD (ADC) Harness for continuity.	Go to step [7].	Replace the CTD (ADC) Harness, RRP 5.2.
7	Check J 1361 <=> J 13 on the Front 1A Harness for continuity.	Go to step [8].	Replace the Front 1A Harness Assembly, PL 13.1.7.
8	Verify the voltage between P/J136-5 <=> P/J136-3 on the Front 1A Harness Assembly is 0 VDC.	Replace the CTD (ADC) Sensor, RRP 5.2	Replace the Engine Control Board, RRP 12.7.

Replace Transfer Roller or Transfer Roller is at End of Life

The printer's front panel displays "Replace Transfer Roller or Transfer Roller is at End of Life". The transfer roller has been replaced. Printer power has been cycled and the error still appears.

Note: ***Look at the clear plastic window on the Transfer Roller. If toner is present in the center of the window the Transfer Roller is at end of life and needs to be replaced. If no toner is visible, try cleaning the CTD (ADC) Sensor.***

Note: ***The "Transfer Roller is at End of Life" is a warning. "Replace Transfer Roller" is a hard stop.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Toner Full Sensor, PL 5.1.13	"Xerographics 1" on page 360

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Transfer Roller PL 8.1.12 Toner Full Sensor PL 5.1.13	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Transfer Roller Toner Full Sensor. Does the Transfer Roller Toner Full Sensor function correctly?	Replace the Engine Control, Board, RRP 12.7.	Go to step [3].
3	Remove the Transfer Roller Assembly. Verify the voltage between P/J141-2 <=> P/J141-1 on the Transfer Roller Toner Full Sensor Harness is 0 VDC.	Go to step [5].	Go to step [4].
4	Verify the voltage between P/J141-3 <=> P/J141-1 on the Transfer Roller Toner Full Sensor Harness is + 5 VDC.	Go to step [5].	Replace Assembly, Harness EEPROM PL 13.1
5	Check theTransfer Roller Toner Full Sensor Harness for continuity See "Xerographics 1" on page 360	Replace the Toner Full Sensor, RRP 5.3	Replace the Toner Full Sensor Harness, RRP 5.3.

Install or Reseat Fuser

The printer's front panel displays "Install or Reseat Fuser". The Fuser is correctly installed and locked into position. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Fuser Harness (FSR 2), PL 5.1.9	"Fuser Assembly" on page 358

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Cycle power to the printer. Does the error recur	Go to step [2].	Complete
2	Check the Fuser Assembly for fault or damage.	Replace the Fuser Assembly (CRC), PL 8.1.1 Power cycle the printer after replacing the Fuser.	Go to step [3].
3	Does the error recur after replacing the Fuser Assembly?	Go to step [4].	Complete
4	Check the Fuser Harness (FSR2 - 110V or Fuser 22 - 220V) for continuity. See "Fuser Assembly" on page 358	Go to step [5].	Replace the Fuser Harness, FSR 2 = 110 V FSR 22 = 220 V PL 5.1.9.
5	Check theFRONT 1A Harness for continuity. See "Fuser Assembly" on page 358	Replace the Engine Control Board, RRP 12.7.	Replace the FRONT 1A Harness Assembly, PL 13.1.7.

Replace Fuser or Fuser is at End of Life

The printer's front panel displays "Replace Fuser or Fuser is at End of Life". The Fuser has been replaced and is firmly locked into position. Printer power has been cycled and the error still appears.

Note: ***The "Fuser is at End of Life" is a warning. "Replace Fuser" is a hard stop.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
EEPROM Board, PL 10.1.16	"Laser Unit" on page 359
CRUM Harness Assembly, PL 10.1.15	"Fuser Assembly" on page 358

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the connector to the Fuser Assembly for damage.	Connect properly or replace the parts concerned. Power cycle the printer.	Go to step [2].
2	Does the error recur after the Fuser has been replaced with a new one?	Go to step [3].	Complete
3	Replace the EEPROM Board. Does the error recur?	Troubleshoot using the wiring diagram "Fuser Assembly" on page 358 Replace the Engine Control Board, RRP 12.7.	Complete

Install or Lock [Y] [M] [C] [K] Toner Cartridge

The printer's front panel displays "Install or Lock Yellow, Magenta, Cyan or Black Toner Cartridge". The corresponding toner cartridge is correctly seated, all shipping tape has been removed and the cartridge is fully locked into position. Printer power has been cycled and the error still appears.

Note: ***Follow this troubleshooting procedure using the Y, M, C or K steps as appropriate for the color indicated by the front panel error message.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Toner Present Switch, PL 10.1.18	"Developer Section 1" on page 356

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Use service diagnostic to test the toner present switch of the problem color. Does the Toner Present Switch (YMCK) function normally?	Replace the Engine Control Board, RRP 12.7.	Go to step [2].
2	Check the following for evidence of fault or damage, replace the assembly if defective: Toner Present Switch (YMCK), PL 10.1.18 Toner Present Switch Connector (YMCK), PL 10.1	Complete	Go to step [3].
3	Replace the Motor Driver Board. Does the error recur?	Go to step [4].	Complete
4	Troubleshoot the problem color using the wiring diagram in the "Developer Section 1" on page 356. Replace any defective parts.	Complete	Replace the Engine Control Board, RRP 12.7.

Replace [Y] [M] [C] [K]Toner Cartridge or [Y] [M] [C] [K] Toner Cartridge Empty

The printer's front panel displays "Replace Y, M, C, or K Toner Cartridge or Y, M, C, or K Toner Cartridge Empty". The corresponding cartridge has been replaced, power to the printer has been cycled and the error still appears.

Note: ***"[Y] [M] [C] [K] Toner Cartridge Empty" is a warning condition. "Replace [Y] [M] [C] [K] Toner Cartridge" is a hard stop error.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Toner Low Sensor, PL 10.1.8	"Developer Section 1" on page 356
Motor Driver Board, PL 12.1.14	"Drive Section" on page 355
Toner Cartridge Holder Assembly, PL 10.1	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Verify Toner Cartridge replacement of the of the problem color. Does the error recur?	Go to step [2].	Complete
2	Use service diagnostics to test the Toner Low Sensor for the problem color. If the test fails check the connector, if it is ok replace the Toner Low Sensor for the problem color. Does the error recur?	Go to step [3].	Complete
3	Use service diagnostics to test the Toner Motor. Caution: Run this test for ONLY 5 seconds to avoid packing the toner. Does the Toner Motor function correctly?	Check the toner stirring auger or gear for damage.	Go to step [4].
4	Replace the Toner Motor. Does this fix the problem?	Complete	Go to step [5].
5	Verify the auger tube of the problem color is full of toner near the hopper end.	Go to step [6].	Inspect the toner cartridge for dispense problems.
6	Check the Developer Drive Assembly, PL 11.1.13 for evidence of fault or damage.	Replace the part concerned.	Go to step [7].
7	Does the printer function correctly after replacing the Motor Driver Board?	Complete	Go to step [8].

Troubleshooting Procedure Table (cont'd.)

Steps	Actions and Questions	Yes	No
8	Troubleshoot using the wiring diagrams: See "Developer Section 1" on page 356 and See "Drive Section" on page 355. Replace any defective parts. Does the error still appear?	Replace the Engine Control Board, RRP 12.7.	Complete

Dusty Density Sensor

The printer's front panel displays "Dusty Density Sensor". The sensor has been cleaned and printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
CTD (ADC) Sensor Assembly , PL 5.1.11	"Xerographics 1" on page 360

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Clean the CTD Sensor to remove any toner build up. Does this fix the problem?	Complete	Go to step [2].
2	Check the following for evidence of fault or damage: Transfer Roller Assembly, PL 8.1.12 CTD (ADC) Sensor Assembly , PL 5.1.11	Replace the parts concerned.	Go to step [3].
3	Is the CTD (ADC) Harness connected to the CTD (ADC) Sensor and functioning correctly?	Go to step [4].	Replace the parts concerned.
4	Replace the CTD (ADC) Sensor. Does the error still appear after replacing the sensor?	Go to step [5].	Complete
5	Check the CTD (ADC) Harness for continuity. See "Xerographics 1" on page 360	Go to step [6].	Replace the CTD Harness Assembly, PL 5.1.10.
6	Check the Front 1A Harness for continuity. See "Xerographics 1" on page 360	Go to step [7].	Replace Front 1A Harness, PL 13.1.7.
7	Verify the voltage between P/J1361-1 <=> P/J1361-3 on the CTD Harness is 0 VDC.	Replace the CTD (ADC) Sensor Assembly, PL 5.1.11	Replace Engine Control Board, RRP 12.7.

Output Tray is Full, Unload Paper

The printer's front panel displays "Output Tray is Full, Unload Paper". The output tray has been emptied of all paper, printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Actuator Kit, PL 6.1.5	"Paper Feed" on page 362
Full Stack Sensor, PL 6.1.4	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Actuator, Full Stack PL 6.1 Full Stack Sensor PL 6.1	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Full Stack Sensor. Does the sensor function correctly?	Replace Engine Control Board, RRP 12.7	Go to step [3].
3	Replace the Full Stack Sensor. Does the sensor report an error once replaced?	Go to step [4].	Complete
4	Troubleshoot the wiring using the wiring diagram "Paper Feed" on page 362.	Replace defective parts.	Replace Engine Control Board, RRP 12.7.

Insert Tray 1 or Tray 1 Missing

The printer's front panel displays "Insert Tray 1" or "Tray 1 is Missing". The tray 1 cavity is free of debris and obstructions. The paper tray is free of defects and properly inserted into the printer. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Size Switch Assembly, PL 3.2.4	"Paper Tray 1" on page 354

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage. Paper Size Switch Assembly, PL 3.2.4 Tray 1, PL 2.1.1	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the paper size switches using the table below. Do the switches function normally?	Replace Engine Control Board, RRP 12.7.	Go to step [3].
3	Troublshoot using the wiring diagram "Paper Tray 1" on page 354 Replace any defective parts.	Complete	Replace Engine Control Board, RRP 12.7.

Paper Size Switches are indicated as SW1, SW2, and SW3.

Paper Size	Paper Size Switch		
	SW1	SW2	SW3
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
A	OFF	OFF	ON
A5 (Used for reference only. Supported by MPT only.)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Insert Tray [2] [3] orTray [2] [3] Missing

The printer's front panel displays "Insert Tray 2 or 3" or "Tray 2 or 3 is Missing". The corresponding tray cavity is free of debris and obstructions. The paper tray is free of defects and properly inserted into the printer. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Size Switch Assembly, PL 14.3.6	"Paper Tray 2" on page 366
	"Paper Tray 3" on page 367

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Paper Size Switch Tray [2] [3], PL 14.3.6 Actuators on the side of the Tray [2] [3]	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Tray [2] [3] Paper Size Switches use the table below for reference. Do the switches function correctly?	Replace Engine Control Board, RRP 12.7.	Go to step [3].
3	Troubleshoot using the Paper Tray [2] [3] wiring diagrams. Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Paper Size Switches are indicated as SW1, SW2, and SW3 from the above one.

Paper Size	Paper Size Switch		
	SW1	SW2	SW3
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
A	OFF	OFF	ON
A5 (Used for reference only. Supported by MPT only.)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Tray 1 Paper is Low

The printers front panel displays “Tray 1 Paper is Low” when paper tray is full. Tray 1 has been inspected for defects. Printer power has been cycled and the error still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Low Paper Sensor, PL 3.3.4	"Paper Tray 1" on page 354
Low Paper Lever, PL 3.2.7	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Fill the paper tray with paper to the fill line. Does the error still appear?	Go to step [2].	Complete
2	Check the following for evidence of fault or damage: Low Paper; No Paper Sensor PL 3.3.4 No Paper Actuator, PL 3.3.5	Replace the parts concerned.	Go to step [3].
3	Use service diagnostics to test the Tray 1 Low Paper Sensor. Do the sensor and actuator function properly?	Replace the Engine Control Board, RRP 12.7.	Go to step [4].
4	Does the printer function correctly after replacing the Motor Driver Board?	Complete	Go to step [5].
5	Troubleshoot using the Paper Tray wiring diagrams Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Tray [2] [3] Paper is Low

The printers front panel displays “Tray 2 or 3 Paper is Low” when the paper tray is full of paper. The tray has been inspected for defects. Printer power has been cycled and the error still appears

In the following procedures, diagnose the part that correlates directly to the Tray receiving the error.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Low Paper Sensor, PL 14.5.7	"Paper Tray 2" on page 366
Low Paper Lever, PL 14.5.8	"Paper Tray 3" on page 367

Troubleshooting Procedures Table

Steps	Actions and Questions	Yes	No
1	Fill the tray with paper. Does the error occur if the tray is full?	Go to step [2].	Complete
2	Check the following for evidence of fault or damage: Low Paper Sensor; PL 14.5.7 Low Paper Lever, PL 14.5.8	Replace the parts concerned	Go to step [3].
3	Use service diagnostics to test the Tray [2] [3] Low Paper Sensor. Do the sensor and actuator function properly?	Replace the Engine Control Board, RRP 12.7.	Go to step [4].
4	Does the printer function correctly after replacing the Circuit Board HCF?	Complete	Go to step [5].
5	Troubleshoot using the Paper Tray [2] [3] wiring diagrams. Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

MPT Empty, Load Paper

The printer's front panel displays "MPT Empty, Load Paper", but the MPT has paper. The MPT is securely attached to the printer and the guides are resting securely against the both sides of the paper in the tray. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
MPT No Paper Sensor, PL 6.1.4	"Paper Feed" on page 362
MPT Actuator , PL 6.1.37	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Fill the MPT with paper. Does the error occur even if the MPT is full?	Go to step [2].	Complete
2	Check the following for evidence of fault or damage: MPT No Paper Sensor PL 6.1.4 MPT Actuator, PL 6.1.37	Replace the parts concerned.	Go to step [3].
3	Use service diagnostics, to test the MPT No Paper Sensor. Does the Sensor function correctly?	Replace Engine Control Board, RRP 12.7.	Go to step [4].
4	Replace the MPT No Paper Sensor. Does the error recur after the MPT No Paper Sensor was replaced?	Go to step [5].	Complete
5	Troubleshoot using the wiring diagram "Paper Feed" on page 362 Does the problem recur if any defective parts are replaced.	Complete	Replace Engine Control Board, RRP 12.7.

Tray 1 Empty, Load Paper

The printer's front panel displays "Tray 1 Empty, Load Paper" when the tray is full. The tray 1 cavity is free of debris and obstructions. The tray is free of defects and is properly positioned within the printer. Printer power has been cycled and the message still appears.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
No Paper Sensor, PL 3.3.4	"Paper Tray 1" on page 354
Link Actuator, PL 3.3.6	
No Paper Actuator, PL 3.3.5	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Fill Tray 1. Does the error occur even if the tray is full?	Go to step [2].	Complete
2	Check the following for evidence of fault or damage: No Paper Sensor, PL 3.3.4 No Paper Actuator, PL 3.3.5	Replace the parts concerned.	Go to step [3].
3	Use service diagnostics to test the Tray 1 No Paper Sensor Does the sensor function correctly?	Replace Engine Control Board, RRP 12.7.	Go to step [4].
4	Does the printer function correctly after replacing the Motor Driver Board?	Complete	Go to step [5].
5	Troubleshoot using the wiring diagram "Paper Tray 1" on page 354. Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Load Tray 1 with [size] [type]

The printer's front panel displays "Load Tray 1..." with a specific size and/or type of paper. The tray 1 cavity is free from debris and obstructions. The paper tray is free from defects, fully loaded with paper and all paper guides are seated securely against the paper. Printer power has been cycled and the message still appears.

Note: ***This is a media SIZE mismatch error.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Size Switch Assembly, PL 3.2.4	"Paper Tray 1" on page 354

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Paper Size Switch Assembly, PL 3.2.4 Tray 1 PL 2.1	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Paper Size Switches using the table below. Does the switch function normally?	Replace the Engine Control Board, RRP 12.7.	Go to step [3].
3	Does the printer function correctly after replacing the Motor Driver Board?	Complete	Go to step [4].
4	Troubleshoot using the wiring diagram "Paper Tray 1" on page 354. Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Paper Size Switches are indicated as SW1, SW2, and SW3.

Paper Size	Paper Size Switch		
	SW1	SW2	SW3
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
A	OFF	OFF	ON
A5 (Used for reference only. Supported by MPT only.)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Load Tray [2] [3] with [size] [type]

The printer's front panel displays "Load Tray 2 or 3..." with a specific size and/or type of paper. The tray cavity is free from debris and obstructions. The paper tray is free from defects, fully loaded with paper and all paper guides are seated securely against the paper. Printer power has been cycled and the message still appears.

Note: ***This is a media SIZE mismatch error.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Paper Size Switch Tray [2] [3] PL 14.3.6	"Paper Tray 2" on page 366 and "Paper Tray 3" on page 367

Troublshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Paper Size Switch Tray [2] [3] PL 14.3.6 Tray [2] [3] PL 14.1.1	Replace the parts concerned.	Go to step [2].
2	Use service diagnostics to test the Tray [2] [3] switches, using the table below for reference. Does the sensor and actuator function properly?	Replace the Engine Control Board, RRP 12.7.	Go to step [3].
3	Does the printer function correctly after replacing the HCF Circuit Board ?	Complete	Go to step [4].
4	Troubleshoot using the Paper Tray [2] [3] wiring diagrams Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Paper Size Switches are indicated as SW1, SW2, and SW3.

Paper Size	Paper Size Switch		
	SW1	SW2	SW3
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
A	OFF	OFF	ON
A5 (Supported by MPT only.)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Load Tray [MPT] [1] [2] [3] with [size] [type]

The printer's front panel displays "Load ..." with a specific size and/or type of paper. The tray cavity is free from debris and obstructions. The paper tray is free from defects. Printer power has been cycled and the message still appears

Note: ***This is a media TYPE mismatch error indicating a malfunction of the OHP Sensor.***

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
OHP Sensor Kit PL 9.1.12	"Paper Feed" on page 362

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: OHP Sensor and Harness PL 9.1.12 Chute Assembly Registration PL 9.1.6	Replace OHP Sensor and Harness RRP 9.5. Assembly, Chute Registration RRP 9.3.	Go to step [2].
2	Using service diagnostics, test the OHP Sensor. Does the OHP Sensor function correctly?	Replace the Engine Control Board, RRP 12.7.	Go to step [3].
3	Verify the voltage between P/J32-2 <=> P/J32-1 on the Engine Control Board is 0 VDC.	Go to step [4].	Go to step [5].
4	Block the OHP Sensor. Has P/J32-2 <=> P/J32-1 changed from 0 VDC to +3.3 VDC?	Replace Engine Control Board, RRP 12.7.	Go to step [5].
5	Verify the voltage between P/J32-3 <=> P/J32-1 on the Engine Control Board is +5 VDC.	Replace the OHP Sensor, RRP 9.5.	Replace the Engine Control Board, RRP 12.7.

Laser Failure

Code 7: Laser power has failed

Code 8: SOS (start of scan) failure 1

Code 9: SOS failure 2

Code 10: Warm up failure

Code 11: This is the generic laser used by the engine if a lower level error cannot be reported to the controller.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Laser Unit, PL 9.1.1	"Laser Unit" on page 359

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check and reseat P/J151 on the Laser Unit. Does the printer function correctly if the harness is reseated?	Complete	Go to step [2].
2	Does the error recur after the Laser Unit has been replaced?	Go to step [3].	Complete
3	Check the Laser (ROSKA) Harness (ROSKA) for continuity or damage. See the wiring diagram "Laser Unit" on page 359	Replace the ROSKA Harness Assembly, PL 13.1.5.	Replace the Engine Control Board, RRP 12.7.

Density Sensor Failure or Low Density Failure

Code 12: An error was detected in the toner dispense system.

Code 13, 14, 15: An error was detected in the Density Sensor.

Code 16: This is a generic density sensor error that is generated when a code 12, 13, 14 or 15 is not specifically triggered.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
CTD (ADC) Sensor Assembly , PL 5.1.11	"Xerographics 1" on page 360

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Clean the CTD (ADC) Sensor to remove any toner build up. Does this fix the problem?	Complete	Go to step [2].
2	Use service diagnostics to test the ADC Sensor. Does the sensor function correctly?	Go to step [4].	Go to step [3].
3	Does the error recur after the CTD (ADC) Sensor has been replaced?	Go to step [4].	Complete
4	Check the following for evidence of fault or damage: Transfer Roller Assembly PL 8.1.12 Imaging Unit PL 9.1.3	Replace the parts concerned.	Go to step [5].
5	Does the error recur after the Laser windows have been cleaned with a dry lint free cloth?	Go to step [6].	Complete
6	Replace the Laser Unit. Does the error still occur?	Go to step [7].	Complete
7	Troubleshoot using the wiring diagram "Xerographics 1" on page 360. Does the printer function correctly after replacing any defective parts?	Complete	Go to step [8].
8	Replace the Transfer Roller Assembly. Does the error still occur?	Replace the Engine Control Board, RRP 12.7.	Complete

Fuser Failure

Code 40: The temperature sensor sensed an overheat condition.

Code 41: The temperature sensor sensed a low temperature condition.

Code 43: Warm up failure, the temperature sensor does not detect the correct temperature within 60.4 seconds after the fuser lamp has been turned on.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Low-Voltage Power Supply, PL 12.1.10	"Fuser Assembly" on page 358
FSR 2 Harness Assembly, PL 5.1.9	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Ensure the correct Fuser (110v/220v) is installed in the printer, verify against the label on the Fuser Assembly. Check the Fuser Assembly for evidence of fault or damage.	Replace the parts concerned.	Go to step [2].
2	Remove the Fuser Assembly and check for broken or bent pins.	Replace the parts concerned.	Go to step [3].
3	Does the error recur after the Fuser Assembly has been replaced with a new one?	Go to step [4].	Complete
4	Replace the Low-Voltage Power Supply. Does the error recur after the LVPS has been replaced?	Go to step [5].	Complete
5	Check the Fuser Harness for continuity. See the wiring diagram "Fuser Assembly" on page 358.	Go to step [6].	Replace the Fuser Harness, FSR 2 = 110 V FSR 22 = 22-0 V PL 5.1.9.
6	Check the Front 1A Harness for continuity: See the wiring diagram "Fuser Assembly" on page 358.	Replace the Engine Control Board, RRP 12.7.	Replace Front 1A Harness Assembly, PL 13.1.7.

Fuser Failure (cont'd)

Code 44: Indicates a failure in the Fuser Lamp circuit.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Low-Voltage Power Supply, PL 12.1.10	"Fuser Assembly" on page 358
Fuser Harness Assembly, PL 5.1.9	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the Fuser Assembly for evidence of fault or damage.	Replace the parts concerned.	Go to step [2].
2	Remove the Fuser Assembly and check for broken or bent pins.	Replace the parts concerned.	Go to step [3].
3	Does the error recur after the Fuser Assembly has been replaced with a new one?	Go to step [4].	Complete
4	Replace the Low-Voltage Power Supply RRP 12.2. Does the error recur after the LVPS has been replaced?	Go to step [5].	Complete
5	Troubleshoot using the wiring diagram "Fuser Assembly" on page 358. Does the printer function correctly after replacing any defective parts?	Complete	Go to step [6].
6	Verify the voltage of P/J61-4 on the Motor Driver Board is 2.8 VDC.	Replace the LVNC Harness Assembly, PL 13.1.1.	Go to step [7].
7	Verify the voltage of P/J42-11 on the Motor Driver Board is 2.8 VDC.	Replace the Motor Driver Board, RRP 12.3.	Go to step [8].
8	Verify the voltage of P/J12-20 on the Engine Control Board is 2.8 VDC.	Replace the Engine Control Board, RRP12.7.	Replace Front 1A Harness Assembly, PL 13.1.7.

Fuser Failure (cont'd)

Fuser CRUM Failure

Code 45: CRUM data revise failure

Code 46: CRUM setting value failure

Code 47: This is the generic fuser code displayed when the printer cannot generate a specific error. This error code can represent any fuser error code from 40 through 46. In this instance, all of the Fuser Failure troubleshooting procedures need to be completed until the error is resolved.

Fuser Firmware Failure

Code 76: The CRUM firmware has failed.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
EEPROM Board, PL 10.1.16	"Fuser Assembly" on page 358
FSR 2 Harness Assembly, PL 5.1.9	"Laser Unit" on page 359

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the Fuser Assembly for evidence of fault or damage.	Replace the parts concerned.	Go to step [2].
2	Remove the Fuser Assembly and check for broken or bent pins.	Replace the parts concerned.	Go to step [3].
3	Does the error recur after the Fuser Assembly has been replaced with a new one?	Go to step [4].	Complete
4	Troubleshoot using the wiring diagram "Fuser Assembly" on page 358. Does the printer function correctly after replacing any defective parts?	Go to step [5].	Replace the Assembly, Harness Fuser PL 13.1.
5	Troubleshoot using the wiring diagrams "Laser Unit" on page 359 and "Fuser Assembly" on page 358 for the EEPROM Harness.	Replace the Engine Control Board, RRP 12.7.	Replace EEPROM Harness Assembly, PL 13.1.10.

Fuser Fan Failure

Code 50

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Fuser Fan, PL 1.1.7	"Drive Section" on page 355
Motor Driver Board, PL 12.1.12	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the Fuser Fan for evidence of fault or damage.	Replace the Fuser Fan, RRP 1.3.	Go to step [2].
2	Does an error recur after the Fuser Fan has been replaced?	Replace the Engine Control Board, RRP 12.7.	Go to step [3].
3	Does the error recur after the Motor Driver Board has been replaced?	Go to step [4].	Complete
4	Troubleshoot using the wiring diagram "Drive Section" on page 355. Replace any defective parts. Does the printer function correctly after replacing any defective parts?	Complete	Go to step [5].
5	Print one sheet. Verify the voltage between P/J12-4<=>P/J12-17 on the Engine Control Board is +3.3 VDC.	Replace the DRV2 Harness Assembly, PL 13.1.3.	Replace the Engine Control Board, RRP 12.7.

Rear Fan Failure

Code 51

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Rear Fan, PL 12.1.2	"Main Wiring Diagram" on page 352
Low-Voltage Power Supply, PL 12.1.10	

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the Rear Fan for evidence of fault or damage.	Replace the Rear Fan, RRP 12.4.	Go to step [2].
2	Does an error occur after the Rear Fan is replaced?	Go to step [3].	Complete
3	Replace the Low-Voltage Power Supply Board. Does the error recur after the LVPS is replaced?	Go to step [4].	Complete
4	Troubleshoot using the wiring diagram "Main Wiring Diagram" on page 352. Replace any defective parts. Does the printer function correctly after replacing any defective parts?	Complete	Replace the Engine Control Board, RRP 12.7.

Generic Fan Failure

Code 52: This is a generic fan error, generated by the Rear Fan or the Fuser Fan circuit.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Fuser Fan, PL 1.1.7	"Main Wiring Diagram" on page 352
Rear Fan, PL 12.1.2	"Drive Section" on page 355

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the following for evidence of fault or damage: Rear Fan, PL 12.1.2 Fuser Fan, PL 1.1.7	Replace the defective fan.	Go to step [2].
2	Isolate the problem fan by running service diagnostics testing both the Rear Fan and Fuser Fan. Did one of the fans fail?	Go to the troubleshooting procedure for the specific fan.	If both fans pass diagnostics replace the Enginge Control Board, RRP 12.7.

Engine Firmware Failure

Code 72: NVRAM verify error

Code 77: NVRAM data error

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Does an error occur even if the power is turned off and on?	Engine Control Board, RRP 12.7.	If the error returns again, replace the Engine Control Board, RRP 12.7.

Engine Firmware Failure (cont'd)

Code 70: Task Table overflow

Code 71: Timer Table overflow

Code 73: Queue Buffer overflow

Code 74: Communications buffer overflow

Code 78: ESS Video data fail

Code 79: This is a generic Engine Firmware Failure code generated when any other Engine Firmware Failure code fails to report to the controller properly.

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Is the problem application related?	Forward the application information to ESS for evaluation.	Go to step [2].
2	Turn printer power off and then back on. Does the error recur?	If the error re-occurs, replace the Engine Control Board, RRP 12.7.	Complete

Imaging Unit Firmware Failure

Code 75: This is an Imaging Unit CRUM data error.

Caution **Protect the imaging unit from exposure to light by covering the unit or placing in a light proof bag.**

Troubleshooting Reference Table

Wiring and Plug/Jack Map References
"Fuser Assembly" on page 358

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Check the Imaging Unit for defects or possible damage. Replace the Imaging Unit.	Replace the parts concerned.	Go to step [2].
2	Does the error recur if the Imaging Unit is replaced?	Go to step [3].	Complete
3	Is the CRUM Harness connector damaged or improperly connected.	Replace the Plate Dispense Left, PL 10.1.9.	Go to step [4].
4	Remove the left cover. Check the Gear Slide and the Rack V for damage or misalignment. Is the Rack V out of alignment? See RRP 10.1 for more information.	Damage can occur if the Gear and Rack are not in the proper position. With Door C open, push the Rack V up as far as it can go and then reinstall the gear slide.	Go to step [5].
5	Check J710 <=> J71 on the CRUM Harness for continuity. Use the wiring diagram "Fuser Assembly" on page 358.	Go to step [6].	Replace the Plate Dispense Left Assembly, PL 10.1.9.
6	Check J71 <=> J140 on the EEPROM Harness Assembly for continuity. Use the wiring diagram "Fuser Assembly" on page 358.	Replace the Engine Control Board, RRP 12.7.	Replace the EEPROM Harness Assembly, PL 13.1.10.

Controller to Engine Communications Failure

Code 81: This is a communication failure between the Image Processor Board and the engine control board.

Note: ***When replacing the Image Processor Board, the NVRAM, memory, configuration chip ('i' button) and the hard drive must be transferred to the new Image Processor Board.***

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Cycle power to the printer. Is the error cleared?	Complete	Go to step [2].
2	Is the error cleared by reseating the Image Processor Board to Engine Control Board.	Complete	Go to step [3].
3	Is the error cleared after replacing the Image Processor Board? See note above.	Complete	Replace the Engine Control Board, RRP 12.7.

Engine NVRAM Error

Code 83: Engine NVRAM is being corrupted or receiving erroneous data from a CRUM.

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Cycle power to the printer. Does the error still appear?	Go to step [2].	Complete
2	Perform the troubleshooting procedure on page 71 for codes 45 & 46. Did this resolve the problem?	Complete	Go to step [3].
3	Perform the troubleshooting procedure, Code 75, "Imaging Unit Firmware Failure" on page 77. Did this resolve the problem?	Complete	Replace the Engine Control Board, RRP 12.7.

Non-Xerox Imaging Unit

Code 95: A non-Xerox Imaging Unit has been detected in the printer.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
	"Laser Unit" on page 359

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Is the Imaging Unit the correct Xerox part numbered Imaging Unit.	Go to step [2].	Have customer order the correct consumable.
2	Check the Imaging Unit for defects or possible damage.	Replace the parts concerned.	Go to step [3].
3	Does replacing the Imaging Unit fix the problem?	Complete	Go to step [4].
4	Verify the CRUM Harness is not damaged or improperly connected.	Go to step [4]	Replace the Plate Dispense Left, PL 10.1.9.
5	Remove the left cover. Check the Gear Slide and the Rack V for damage or misalignment. Is the Rack V out of alignment? See RRP 10.1 for more information.	Damage can occur if the Gear and Rack are not in the proper position. With Door C open, push the Rack V up as far as it can go and then reinstall the gear slide.	Go to step [5].
6	Check the CRUM Harness for continuity. J170 <=> J71.	Go to step [4].	Replace CRUM Harness Assembly, PL 10.1.15.

Environmental Sensor Failure

Code 102: Indicates an error was detected in the environment sensor circuit.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
Temperature/Humidity Sensor, PL 3.2.2	"Xerographics 1" on page 360
Temp/Humidity Harness, PL 3.2.1	"Xerographics 2" on page 361

Troubleshooting Procedure Table

Steps	Actions and Questions	Yes	No
1	Use service diagnostics to test the Temperature/Humidity Sensor. Does the sensor function correctly?	Go to step [2].	Replace the Temp/Hum Sensor, RRP 3.5.
2	Troubleshoot using the wiring diagrams "Xerographics 1" on page 360 and "Xerographics 2" on page 361 Is the problem resolved?	Complete	Replace the Engine Control Baord, RRP 12.7.

Troubleshooting

This section is for troubleshooting electrical, system power-up, print-quality, media jams and paper path problems. For information on troubleshooting error codes, hard stop and fatal errors, refer to the section "Error Messages and Codes" on page 17.

Troubleshooting is ordered as follows:

Contents

Contents (cont'd.)

System Boot Sequence

1. When the main power switch is turned on, the health LED on the Image Processor Board turns on immediately.
2. The boot loader checks for RAM present and functional. If not, it posts a very large “RAM ERROR” on the front panel and blinks the LED 1/2 second on/off continuously.
3. The boot Loader then runs POST diagnostics.
4. POST turns off the health LED.
5. Post checks the front panel.
6. If keys have been pushed, the front panel displays “Processing Input”.
7. The front panel LED cycles: Green, Yellow, Red, and then off.
8. The front panel turns on, the LED turns Green and the POST tests are run.

Power On Self Test (POST)

The following tests are performed when the printer is powered on, after the boot loader runs, and before the operating system is loaded and initialized.

POST diagnostics are intended to provide a quick means of isolating a defective subsystem associated with the Image Processor Board and SDRAM. POST returns control to the boot loader and the operating system is loaded. The operating system then loads the imaging processing software. If POST detected any soft errors, a message is printed in a red box on the start page. If POST detects any hard errors, both the front panel and health LED blink the error code pattern, see "LED Blink Patterns" on page 84.

POST Startup indications

- At power-on the hardware default is to turn on the IP board ‘health’ LED.
- The Image Processor Board ‘health’ LED is turned off.
- The front panel display is reset (addressable area becomes “gray”).
- The Green LED turns on for 1/3 second.
- The Yellow LED turns on for 1/3 second.
- The Red LED turns on for 1/3 second.
- The front panel LED is turned off.
- The backlight is turned on (high intensity), with nominal contrast display.
- The front panel display area is turned on, dark black for 1 second.
- The front panel display is cleared.
- The backlight is turned on with nominal intensity.
- The POST Vn.nn message appears, and tests are quickly executed.
- If any tests fail, the front panel screen freezes with the name of the test displayed and the line posted is “Call Customer Service”.
- After the POST tests have finished running, the Xerox ‘splash screen’ is posted to the front panel and PostScript begins initialization.

POST Faults

There are two kinds of faults: soft and hard.

A soft fault is any fault that is discovered by POST, but does not prevent the operating system from initializing and becoming available as a tool for troubleshooting. These POST faults do not stop execution and are reported on the StartPage in a red box after the system is running.

A hard fault is any fault discovered by POST that prevents the operating system from initializing successfully. A hard fault prevents the system from further execution and is halted with blinking LEDs (front panel and health LED). The test name of the test that failed is displayed on the front panel.

Fault Reporting Devices

There are four fault presentation devices.

- All soft faults are printed on the StartPage.

For hard faults:

- The health LED flashes according to the fault code.
- The front panel LED flashes in unison with the health LED.
- The last posted message to the graphic front panel is present.

LED Blink Patterns

For faults identified as hard faults, the POST firmware causes the PS health LED to blink in a particular pattern to identify the fault. There are short and long blinks. A long blink is worth 5 and a short blink is worth 1. If a fault blink pattern is flashed as long, long, short, short, this is fault code 5+5+1+1=12, which indicates a failure in the CPU interupt test, See “POST Diagnostics Test Descriptions” on page 85.

The exception to the above pattern is a RAM test error. The RAM tests have a special blink pattern and the front panel displays “RAM Error”. During power up the front panel LED is on. If the RAM tests fail, the Image Processor Board health LED is turned off, and the front panel LED is red. At 1/2-second intervals, the health LED and the front panel LED toggle continuously.

POST Diagnostics Test Descriptions

POST Diagnostics Test Descriptions

Test	Fault Code	Description
SDRAM	**1**	(Hard) This test fails if the boot loader finds no RAM present or faulty RAM. Boot loader posts the message “RAM error” to the front panel and blinks the front panel LED.
I/O ASIC	**2**	(Hard) This test determines if the I/O chip is functioning properly.
Local Bus/ Front Panel	**3**	(Hard) Performed during the POST firmware initialization phase. If the front panel is unplugged, a hard fault is indicated by the heath LED.
“i” Button (Configuration Chip)	**5**	(Hard) This test checks to see if the “i” button (configuration chip) is present. If no chip is present the test will fail and the front panel message “Please Install “i” button” will display.
EEPROM	**10**	(Hard) This test checks addressing of the EEPROM.
Ethernet	**11**	(Hard) This test checks the ethernet core.
CPU Interrupts	**12**	(Hard) This test checks that each interrupt source to the CPU is functioning.
USB	**13**	(Hard) This test checks that the USB core is functioning properly.
Real Time Clock	**14**	(Soft) The real time clock is tested.
RAM DIMM Presence	**15**	(Soft) This test examines bad or incompatible RAM DIMMs.
RAM Limits	**16**	(Soft) Checks that there is at least 128 Mbytes installed and ignores more than 512 Mbytes.
IDE Disk	**20**	(Soft) Checks the disk controller core, and runs a DIAGNOSE command on the hard drive.
Engine Command	**22**	Hard
Memory	**24**	(Hard) This test checks 64-bit reads and writes to memory.

Power Supply

Low-voltage Power Supply Overcurrent Protection Circuit

This circuit stops all outputs if the 24 VDC, 5 VDC or 3.3 VDC power supply is shorted. The circuit is reset when the short is removed, the power is turned off and then on again.

Low-voltage Power Supply Overvoltage Protection Circuit

This circuit stops all outputs if the 24 VDC, 5 VDC or 3.3 VDC power supply exceeds the specified voltage. The operating point is 32 VDC or more for 24 VDC, 7 VDC or more for 5 VDC, or 6 VDC or more for 3.3 VDC.

Fan Output Circuit

For the Fan Rear ON (H) signal, the output voltage varies depending on the status of FAN LOW signal and FAN STOP signal.

+24 VDC Output Stopped By Interlock Switch

Opening Door A, B or C deactivates the front cover interlock switch. This shuts off the +24 VDC supplied by the Motor Driver Board to the motors, clutches and solenoids.

Outline of Paper Size Switch Assembly

Paper size and tray installation is determined by a combination of ON/OFF statuses of the upper, middle, and lower switches of the Switch Paper Size Assembly.

Paper size	Switches		
	Upper	Middle	Lower
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
LETTER	OFF	OFF	ON
A5 (for reference only, supported in the MPT only)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Front Panel and Printer Malfunctions

Engine Power-Up Sequence

1. Engine Control Board logic check.
2. Imaging Unit (Detached, NVRAM (CRUM) Error, CRUM ID, Life Over).
3. Fuser (Detached, NVRAM(CRUM) Error, Life Over)
4. Toner Cartridge (Detached, Life Over)
5. Transfer Roller (Detached, Life Over)
6. CTD Sensor (Error)
7. All paper sensor (Jam)
8. OHP sensor (Jam)
9. Door(s) (Open)
10. Environment Sensor (Error)
11. NVRAM (NVRAM error)
12. Image Processor Board POST Diagnostic check

Printer Does Not Come to a "Ready" State

1. ·See “AC Power Supply Troubleshooting” on page 88.

No Front Panel Display After Power Switch is Turned On

1. Remove and reseat the Image Processor Board.
2. See “DC Power Supply Troubleshooting” on page 88.
3. Replace the Front Panel wiring harness RRP 1.2.
4. Replace the Front Panel RRP 1.2.
5. Replace the Image Processor Board RRP 12.8.

Front Panel LED is on, no Front Panel Message (Blank Display)

1. Remove and reseat the Imaging Processor Board
2. Replace the Front Panel wiring harness RRP 1.2.
3. Replace the Front Panel RRP 1.2.
4. Replace the Image Processor Board RRP 12.8.

Front Panel Continually Displays "Warming Up"

1. Verify the correct Fuser (110V vs 220V) is installed in the printer.
2. See the Engine Power-Up Sequence.

Front Panel Continually Displays "Install or Reseat Imaging Unit"

1. See “Install or Reseat Imaging Unit” on page 48.

AC Power Supply Troubleshooting

Troubleshooting Reference Table

Triage Parts	Wiring and Plug/Jack Map References
Low Voltage Power Supply, PL 12.1.10	"Power Supply" on page 353
AC Switch Harness Assembly, PL 12.1.11	"Drive Section" on page 355

Troubleshooting Procedure Table

Steps	Action and Questions	Yes	No
1	Check the voltage at the AC wall outlet. Is there approximately 110VAC (or 220VAC if the printer is a 220V model) 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 a loose connection.	Replace or reseat the power cord.	Go to step [3].
3	Disconnect the Power Cord and turn the AC switch ON. Check the AC Switch Harness for continuity. See “Drive Section” on page 355.	Replace the Low-Voltage Power Supply, PL 12.1.12.	Replace the AC Switch Harness Assembly, PL 12.1.11.

DC Power Supply Troubleshooting

Troubleshooting Reference Table

Triage Parts	Wiring and Plug/Jack Map References
Low Voltage Power Supply, PL 12.1.10	"Power Supply" on page 353

Troubleshooting Procedure Table

Steps	Action and Questions	Yes	No
1	Perform the AC power supply troubleshooting procedure first, if this does not fix the problem go to step [2]		
2	Turn the AC power Switch OFF. Is the fuse (F001) on the low-voltage power supply board open?	Replace the Low-Voltage Power Supply Board, RRP 12.2.	Go to step [3].

Troubleshooting Procedure Table

Steps	Action and Questions	Yes	No
3	Disconnect the connectors J163, J164 and J165 from the LVPS, turn the AC power switch on and verify the DC voltages between the following pins on the Low Voltage Power Supply board. P163-1 <=> P163-2 = +24VDC? P164-1 <=> P164-2 = +3.3VDC? P165-1 <=> P165-2 = +5VDC? P165-3 <=> P165-4 = +3.3VDC? Caution: Be careful not to touch any other pins during these measurements or you may blow the fuse (F001) on the LVPS.	Go to step [4].	Replace the Low-Voltage Power Supply Board, RRP 12.2.
4	Turn the AC power switch OFF. Connect J164 to the LVPS then turn the AC power switch ON. P/J164-1 <=>P/J164-2 = +3.3 VDC?	Go to step [6].	Go to step [5].
5	Check the following parts for fault or damage: LVRPG Harness Assembly for damage or if it is shorted to the frame. Engine Control Board.	Replace if damaged or defective.	Go to step [6].
6	Turn the AC power switch OFF. Connect J165 to the LVPS then turn the AC power switch ON. Verify: P/J165-1 <=> P/J165-2 = +5 VDC? P/J165-3 <=> P/J165-4 = +3.3 VDC?	Go to step [8].	Go to step [7].
7	Check the following parts for fault or damage: LVNC Harness Assembly Motor Driver Board	Replace if damaged or defective.	Go to step [8].
8	Turn the AC power Switch OFF Connect J163 to the LVPS then turn the AC power switch ON. P/J163-1 <->P/J163-2 = +24 VDC?	Complete	Go to step [9].
9	Check the following for fault or damage: 24V Harness Assembly Motor Driver Board	Replace if damaged or defective.	Complete

Media Jams and the Paper Path

Media-based problems

1. Check that the correct type of media is being used; for the correct media types and weights, see "Printer Specifications" on page 10. The customer should be using a quality laser printer paper. The printer may have trouble picking slick-finish paper.
2. Only Phaser 6200 transparency film can be used in this printer.
3. Inspect the paper for bent, torn, or folded corners.
4. Ensure that the correct media type is set in the front panel.
5. Ensure that the paper guides are set correctly.
6. Ensure that the media is a supported type for the tray. See “Media and Tray Specifications” on page 14, for the correct media types, sizes and weights for each tray.
7. Load a fresh ream of paper in the tray.

Multiple-sheet pick

1. Ensure that the paper is in good condition and appropriate for a laser printer; quality office laser printer paper works best.
2. Ensure that the printer is printing within its environmental specifications by using the built-in service diagnostics temperature/humidiy test.
3. Remove the tray and ensure the paper is correctly loaded, the guides are securely against the paper and the tray has not been over filled.
4. Try loading paper from a fresh ream, fan the paper, and then insert into the tray or flip existing paper over.
5. Check the tray’s retard roller for damage.
6. Clean the pick rollers with a clean, dry, lint-free wipe.
7. Replace the paper pick rollers.
8. Replace the paper tray.

Mis-pick

1. Check that the correct type of media is being used.
2. Ensure that the tray has not been over filled.
3. Try loading paper from a fresh ream, fan the paper, and then insert into the tray or flip existing paper over.
4. Clean the pick rollers with a clean, dry, lint-free wipe.
5. Troubleshoot the paper pick roller assembly.

Skewed image

The image area is not parallel with the sides of the page but the printer neither jams nor displays an error code.

1. Remove the tray and ensure the paper guides are set correctly.
2. Check that the correct type of media is being used.
3. Ensure that the tray has not been over filled. (Skewed images are a common defect when the MPT is filled too high.)
4. Verify the paper pick rollers are installed correctly.
5. Clean the pick rollers with a clean, dry, lint-free wipe.
6. Troubleshoot the paper pick roller assembly.

Damaged prints

The printed page exits the printer either wrinkled, creased, or torn. The printer neither jams nor displays an error code.

1. Stop the page at various points in the paper path to determine where the media becomes damaged. See “Paper Path Route” on page 315 for more information.
2. Try using the next heaviest type of paper. For more information print the Paper Tips Page from the printer’s Printable Pages Menu.
3. Feed paper through the printer from each of the available trays. Is the paper damaged when fed out of one tray but not when fed out of the others? If so, inspect the tray for damage, ensure that the media guides are set correctly and verify that the proper media is being used.
4. Feed paper from the MPT. Is the paper damaged when fed out of MPT? Inspect the MPT for debris or obviously broken components that could be damaging the paper as it feeds out of the assembly and into the printer.
5. Inspect the paper tray for debris or broken components.

Fuser jams

1. Ensure the paper is in good condition and is the correct type for the printer. See “Media and Tray Specifications” on page 14 for the correct media types, sizes and weights for each tray.
2. Ensure only Phaser 6200 Transparency film is being used.
3. Check that the printer is operating within its environmental specifications.
4. Ensure that the loaded media matches the front panel settings.
5. Are the margins on the page greater than 5 mm?
6. Check the Fuser area for debris.
7. Visually inspect the Fuser baffle for burrs.
8. Test the fuser motor using service diagnostics.
9. See “Jam at Fuser Jam F” on page 31 for troubleshooting Fuser Jams.

Exit jams

1. Ensure the paper is in good condition and is the correct type for the printer. See “Media and Tray Specifications” on page 14 for the correct media types, sizes and weights for each tray.
2. Ensure the printer is within its operating environmental specifications.
3. Ensure that the loaded media matches the front panel settings.
4. Is the jam caused by a heavy, stiff paper being used for two-sided printing? In such cases, a lighter grade of paper should be used, see the printer’s Paper Tips Page.
5. Clean all exit locations in the Fuser and the Assembly, Chute Exit with a clean, dry, lint-free wipe, if debris is visible.
6. Does the Exit Roller turn? Test the Duplex Motor using service diagnostics. For information on service diagnostics, see "Service Diagnostics" on page 23.
7. See “Jam at Duplex Jam D” on page 33 for troubleshooting duplex jams if the Duplex Motor test fails.

Operating System and Application Problems

Print an internal test print from the printer's front panel to ensure the problem is not printer related. See "Using the Print Engine Only Test Print" on page 96 Troubleshooting tips and more information are also available on the Xerox web site at: **www.xerox.com/officeprinting/support**.

Macintosh printing problems

Image never prints

Printer acts as if it is receiving data, but nothing comes out of the printer or it goes back to "Ready" mode without printing. The most likely cause is a PostScript error occurred in the printer.

1. Power cycle the printer and try printing again.
2. Make sure that the correct Phaser 6200 printer icon was selected in the **Chooser**. Try printing the job again.
3. In the **Chooser** or the print dialog, switch background printing to *off*. Try printing the job again.
4. If the error returns, turn ON the PostScript error handler through the front panel PostScript Error Info in the Support menu, or CWIS and print the document again. Take note of the information on the error page that just printed.
5. Select the appropriate Phaser 6200 PPD with the LaserWriter Driver or application. Not selecting the appropriate PPD can cause PostScript errors.
6. Select a different document from the application and try to print. If the PostScript error does not occur, then the original document may be causing the problem.

Image prints in black-and-white

1. Ensure the driver setting for TekColor tab is not set to "Black & White".

Image is rotated 90 degrees

1. In the application's **Page Setup**, make sure that the image is selected to print in portrait or landscape orientation to match the document. Also, ensure the selected paper size is correct.

Windows printing problems

Image never prints

1. Try printing a test page from the printer driver's properties dialog box.
2. Try printing from another application.
3. Try printing to another printer.
4. Try printing from another computer.
5. If the error returns, turn ON the PostScript error handler through the front panel PostScript Error Info in the Support menu, or CWIS and print the document again. Take note of the information on the error page that just printed.

Network Problems

The Phaser 6200 printer maintains 4 logs in memory detailing network functions. The logs contain TCP/IP, NetWare and AppleTalk initialization events. The logs can also be accessed remotely via CentreWare.

The logs list events chronologically. The log is limited in length; when the log is full the printer stops recording data to the log. The logs are stored on the Hard Drive so only new data is stored each time the printer's power is cycled.

There is a Connection Setup Page, Configuration Page and a network reset available for troubleshooting Network problems.

To print an Event Log, Runtime Log or Configuration Page:

1. Enter normal 'Customer Mode'.
2. From the main menu, highlight **Support Menu** and press **OK.**
3. Scroll and highlight **Network Questions?** and press **OK.**
4. Highlight the appropriate menu item from the list and select **OK.**
5. The page should now print.

Print-Quality Problems

Print-quality defects can be attributed to printer components, consumables, media, internal software, external software applications and environmental conditions. To successfully troubleshoot print quality problems, as many variables as possible must be eliminated. The first step is to generate prints using printable pages embedded in the printer on laser paper from the approved media list. The paper should be from an unopened ream that has been acclimated to room temperature.

See the approved media list, "Xerox Supplies and Accessories" on page 296 for media that has been tested and approved for use in the Phaser 6200 printer. If the print-quality defect is still present when printing on approved media from an unopened ream of paper, then media, software applications, and environmental conditions need to be researched.

Print the Usage Profile Report to determine the temperature and humidity the printer has been operating under. Compare this to the environmental specifications for the printer found in "Environmental Specifications" on page 13 of this manual. Temperature and humidity extremes can adversely effect the Xerographic and fusing characteristics of the printer.

The Phaser 6200 printer uses an Imaging Unit that contains all the imaging drums and developers for all four colors in one Customer Replaceable Consumable.
Print-quality defects can be isolated to one particular component in the print engine, See “Repeating Defects Identification Chart” on page 95 or print the Repeating Defects Page from the front panel. When a single component of the Imaging Unit is causing a print-quality defect, the entire Imaging Unit must be replaced.

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. Defects occurring in only one color are usually attributable to the Imaging Unit. Continuous defects in the process direction, such as voids and lines, are the most difficult to diagnose. The visible surfaces of all rollers should be inspected for obvious defects. If no defects are observed, the Imaging Unit, Transfer Roller and Fuser should be changed one at a time until the defect has been eliminated.

Some print-quality problems can be associated with specific assemblies, the most common problems and the associated assemblies are listed below. Also, refer to the specific print-quality troubleshooting procedure for more information.

■ Imaging Unit

- ■ Streaks
- ■ Fine Lines
- ■ Banding in Process Direction
- ■ Uneven Density
- ■ Voids
- ■ Repeating Defects

■ Transfer Roller

- ■ Toner on the back side of the printed page (simplex mode)
- ■ Light Prints
- ■ Repeating Defects

■ Fuser

- ■ Hot or Cold Offsetting
- ■ Repeating Defects

Repeating Defects Identification Chart

FRU	Component	Distance between Defects
Imaging Unit	Developer Roller [YMCK]	28 mm (1.10 in.)
	Drum [YMCK]	62 mm (2.44 in.)
	Drum Charge Rollers	25 mm (1 in.)
	IDT 1 (Y and M, C and K)	132 mm (5.20 in.)
	IDT 2 all colors together	132 mm (5.20 in.)
Transfer Roller	Transfer Roller	64 mm (2.52 in.)
Fuser Assembly	Fuser Assembly	82 mm (3.23 in.)

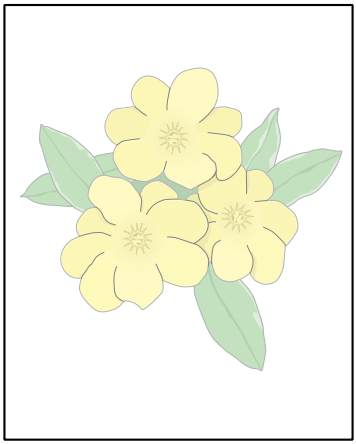
Using the Print Engine Only Test Print

Print-quality and engine logic problems can be easily isolated to either the Image Processor Board or the Print Engine by running the Print Engine Only Test Print.

1. Turn printer power OFF.
2. Remove the Image Processor Board.
3. Turn printer power ON.
4. Look inside the Image Processor Board cavity, on the rear of the Engine Control Board locate jumper pins 1 and 2 on connector P31.
5. With a long screwdriver, touch the pins to short and start the test process, the pins must remain shorted to execute the test.
6. The printer will begin to print the 600 x 600 engine test print unless an error status from the Engine Control Board is present. Printing will continue until the jumper is removed from pin 1 to 2. The prints that are in process will be completed.

Note: ***Power to the front panel is disabled during this test. The front panel graphics and all LED's are off.***

Light Prints



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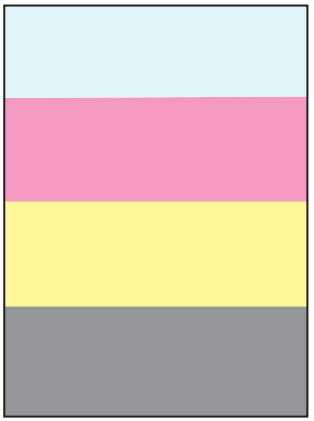
Verify the media used is supported by this printer. See “Media and Tray Specifications” on page 14 for the correct media types, sizes and weights for each tray. Verify the media settings are correct at the front panel and that color calibration has been performed prior to using this troubleshooting procedure.

Step	Check	Yes	No
1	Check the Imaging Unit, Fuser Assembly and Transfer Roller for correct installation, damage or contamination, and life remaining.	Replace or reinstall the affected component.	Go to step [2].
2	Does the image quality improve if the Imaging Unit is replaced?	Complete.	Go to step [3].
3	Check the Heat Roll and NIP Belt for evidence of damage or contamination. See “Transfer Roller and Fuser Assembly” on page 331	Replace the Fuser Assembly (CRC), PL 8.1.1	Go to step [4].
4	Does the image quality improve if the Transfer Roller is replaced?	Complete	Go to step [5].
5	Check the Front 1A Harness for continuity. P/J5030 <=> Transfer roller. P/J5020 <=> Transfer roller	Go to step [6].	Replace the defective wire.
6	Does the image quality improve if the Laser Unit is replaced?	Complete	Go to step [7].
7	Does the image quality improve if the SUB-HVPS is replaced?	Complete	Go to step [8].
8	Check the FRONT 1A Harness for continuity.	Replace the Engine Control Board, RRP 12.7.	Replace the Front 1A , Harness Assembly PL 13.1.7.

Light Print in Only One Color



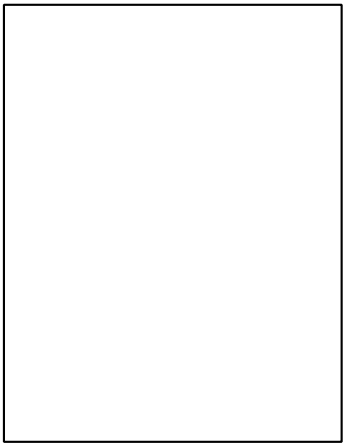
S6200-272

Only one color, yellow, magenta, cyan or black, is too light on the printed image. The test print is 80% coverage. Verify the media used is supported by this printer. See “Media and Tray Specifications” on page 14 for the correct media types, sizes and weights for each tray. Verify the media settings are correct at the front panel and that color calibration has been performed prior to using this troubleshooting procedure.

Step	Check	Yes	No
1	Check the Imaging Unit for correct installation, damage or contamination. Verify the shipping seals are completely removed.	Replace the Imaging Unit (CRC). PL 9.1.3.	Go to step [2].
2	Is the affected color(s) toner supply empty?	Replace Toner Cartridge, PL 10.1	Go to stop [3].
3	Check for foreign objects or contamination present in the laser beam path between the Laser Unit and the Imaging Unit.	Remove object and/or contamination.	Go to step [4].
4	Inspect the Developer Bias Plunger Stud of the effected color for proper spring pressure, compare to the other colors. Check for contamination	Go to step [5].	Replace the Housing Assembly Bias RRP 9.2.
5	Check the following pins between the Engine Control Board and the Housing Assembly Bias for continuity, depending on the color affected. J 601<=>DEVE Y contact J 602<=>DEVE M contact J 603<=>DEVE C contact J 604<=>DEVE K contact	Go to step [6].	Replace the Housing Assembly Bias RRP 9.2.
6	Replace the Laser Unit, RRP 9.1 Does the image quality improve if the Laser Unit is replaced?	Complete	Replace the Engine Control Board, RRP 12.7.

Blank Prints

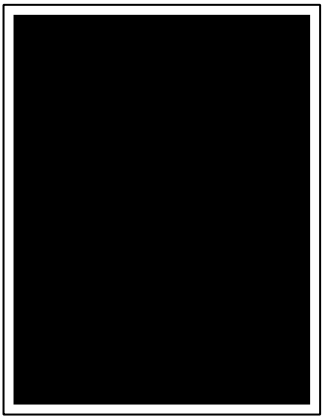
The entire image area is blank.



S6200-288

Step	Check	Yes	No
1	Run the 600 x 600 test print from service diagnostics. Examine the print, see "Resetting NVRAM" on page 114 for evaluating the print.	Replace the Image Processor Board RRP 12.8.	Go to step [2].
2	Check for an obstruction in the laser beam path between the Laser Unit and the Imaging Unit.	Remove the obstruction.	Go to step [3].
3	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC) PL 9.1.3.	Go to step [4].
4	Does the imaging quality improve if the Transfer Roller is replaced?	Replace the Transfer Roller (CRC) PL 8.1.12.	Go to step [5].
5	Does the image quality improve if the Laser Unit is replaced?	Replace the Laser Unit, RRP 9.1.	Replace the Engine Control Board, RRP 12.7.

Black Prints with White Margin Border

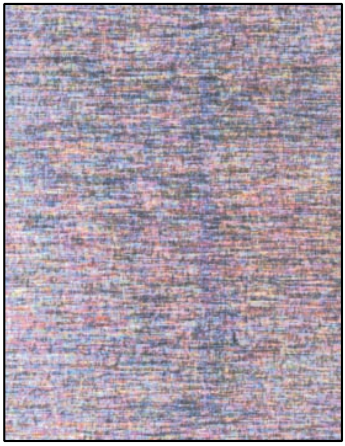


S6200-289

The entire image area, except the margins, are black

Step	Check	Yes	No
1	Run the 600 x 600 test print from service diagnostics. Examine the print, see "Resetting NVRAM" on page 114 for evaluating the print.	Replace the Image Processor Board, RRP 12.8	Go to step [2].
2	Does the image improve if the laser beam path between the Laser Unit and the Imaging unit is blocked with a sheet of paper?	Replace the Engine Control Board, RRP 12.7.	Go to step [3].
3	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC,) PL 9.1.3.	Go to step [4].
4	Does the image quality improve if the Laser Unit is replaced?	Replace the Laser Unit, RRP 9.1.	Replace the Engine Control Board, RRP 12.7.

Solid Dark or Dirty Prints, No Border



S6200-292

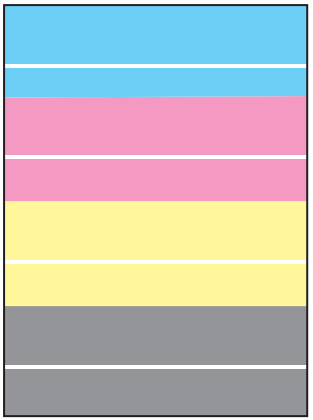
The prints appear very dirty and brown over the entire page.

This print-quality symptom is a composite image of all colors with no margin. This is caused by a charge voltage failure. For information on the Imaging Unit charge contacts, see "Theory of Operation" on page 301.

Step	Check	Yes	No
1	Is the problem resolved after replacing the Imaging Unit?	Complete	Go to step [2].
2	Inspect the Imaging Unit charge voltage contacts (PL9.1.5) and the Bias Housing Assembly (PL 9.1.4) in the printer for any damage or defects. See "Imaging Unit Charge Voltage Contacts" on page 334.	Complete	Go to step [3].
3	Is the problem resolved after replacing the Sub-High Voltage Supply Board?	Complete	Replace the Engine Control Board, RRP 12.7.

Note: ***After replacing any component in Step 2 or 3, run the Clean the Imaging Unit IDT1 and IDT2 rollers from the Maintenance section of Service Diagnostics. See "Service Diagnostics Tests and Functions Table" on page 24***

Missing Band, Voids Or Streaks In a Single Color or All Colors Parallel to the Leading Edge

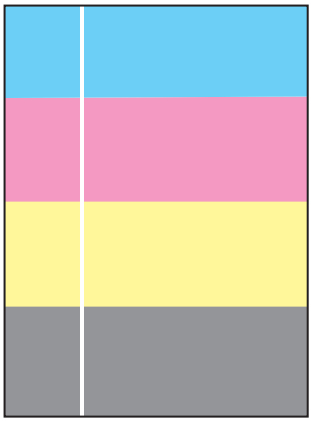


S6200-273

There are areas of the image that are extremely light or missing entirely. These missing areas form bands parallel to the leading edge.

Step	Check	Yes	No
1	Is the 600x600 test pattern printed from service diagnostic correct?	Replace the Image Processor Board, RRP 12.8.	Go to step [2].
2	Is the paper wrinkled, dimpled or show any signs of having a high moisture content? Is the problem resolved by loading fresh dry paper?	Complete	Go to step [3].
3	Print a Repeating Defects Page. Do the defects correspond to a Customer Replaceable Unit? See “Repeating Defects Identification Chart” on page 95	Replace the indicated CRU.	Go to step [4].
4	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC) PL 9.1	Go to step [5].
5	Check the Heat Roller and NIP Belt in the Fuser Assembly for evidence of contamination or damage.	Replace the Fuser Assembly (CRC), PL 8.1.1	Go to step [6].
6	Does the imaging quality improve if the Transfer Roller is replaced?	Replace the Transfer Roller (CRC), PL 8.112.	Go to step [7]
7	Check the following pins for continuity; J5030 and J5020 <=> Transfer Roller.	Go to step [8]	Replace the defective wire.
8	Does the image quality improve if the SUB HVPS is replaced?	Replace the S-HVPS, RRP 10.6	Go to step [9]
9	Does the image quality improve if the Laser Unit is replaced?	Replace the Laser Unit, RRP 9.1.	Replace the Engine Control Board, RRP 12.7.

Missing Band, Voids or Streaks in a Single Color or All Colors in Direction of Paper Travel



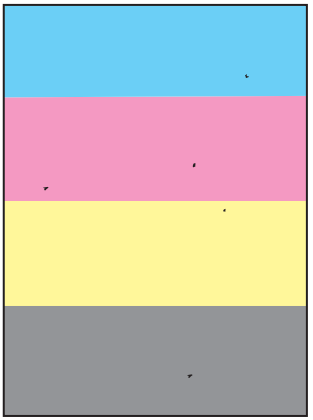
S6200-274

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.

Step	Check	Yes	No
1	Print the 600 x 600 test print and evaluate the print. Are there defects in the print?	Replace the Image Processor Board, RRP 12.8	Go to step [2].
2	Is the paper wrinkled, dimpled or show any signs of having a high moisture content? Is the problem resolved by loading fresh dry paper?	Complete	Go to step [3].
3	Check for an obstruction in the laser beam path between the Laser Unit and the Imaging Unit. Lay Imaging Unit on it's back with the IDT Rollers facing up and rotate the developer gears to remove any loose toner.	Remove the obstruction or debris.	Go to step [4].
4	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC,) PL 9.1.3.	Go to step [5].
5	Check the Heat Roller and NIP Belt in the Fuser Assembly for evidence of contamination or damage.	Replace the Fuser Assembly, PL 8.1.1.	Go to step [6].
6	Does the imaging quality improve if the Transfer Roller is replaced?	Replace the Transfer Roller (CRC,) PL 8.1.12.	Go to step [7].
7	Does the image quality improve if the Laser Unit is replaced?	Replace the Laser Unit, RRP 9.1.	Replace the Engine Control Board, RRP 12.7.

Repeating and/or Random Spots

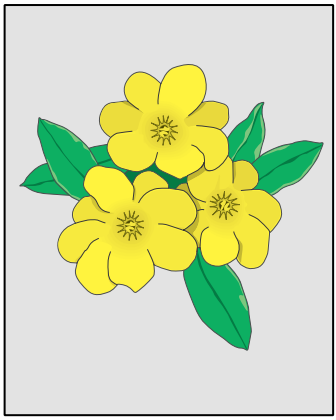
Spots of toner are randomly scattered across the page or at a fixed repeating interval.



S6200-276

Step	Check	Yes	No
1	Print the Repeating Defects Page from the Support<-> Improve Print Quality? Menu. Do the defects correspond to a Customer Replaceable Consumable? See “Repeating Defects Identification Chart” on page 95.	Replace the indicated CRU.	Go to step [2].
2	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC), PL 9.1.3	Go to step [3].
3	Check the Heat Roller and NIP Belt in the Fuser Assembly for evidence of contamination or damage. See “Transfer Roller and Fuser Assembly” on page 331.	Replace the Fuser Assembly, PL 8.1.1.	Go to step [4].
4	Does the imaging quality improve if the Transfer Roller is replaced?	Replace the Transfer Roller (CRC), PL 8.1.12	Go to step [5].
5	Does the image quality improve if the SUB HVPS is replaced?	Replace the SUB-HVPS, RRP 10.6.	Go to step [6].
6	Does the image quality improve if the Laser Unit is replaced?	Replace the Laser Unit, RRP 9.1.	Replace the Engine Control Board, RRP 12.7.

Background Contamination

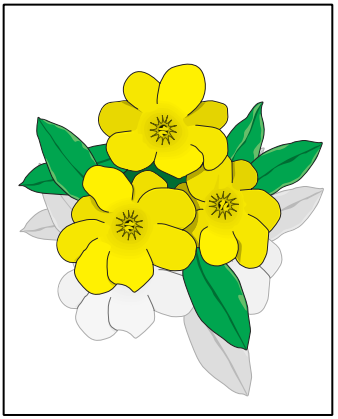


S6200-285

There is toner contamination on all or most of the page. The contamination appears as a very light gray dusting. The printer displays no error code. Before using this procedure, Ensure the TekColor Correction is not set to “None” in the printer’s dialog box. Ensure the customer is making less than 2,000 prints per day. Making more than 2,000 prints a day exceeds the duty cycle specifications for the printer.

Step	Check	Yes	No
1	Check the Imaging Unit, Fuser Assembly and the Transfer Roller for correct installation, damage or contamination.	Replace or reinstall the affected component.	Go to step [2].
2	Does the image quality improve if the Imaging Unit is replaced?	Replace the Imaging Unit (CRC), PL 9.1.3.	Go to step [3].
3	Check the Heat Roller and NIP Belt in the Fuser Assembly for evidence of contamination or damage. See “Transfer Roller and Fuser Assembly” on page 331.	Replace the Fuser Assembly (CRC), PL 8.1.1.	Go to step [4].
4	Does the imaging quality improve if the Transfer Roller is replaced?	Complete	Go to step [5].
5	Check the following pins to the transfer roller contacts for continuity: J5030 <=> Transfer Roller J5020 <=> Transfer Roller	Go to step [6].	Replace the defective wire.
6	Does the image quality improve if the Laser Unit is replaced?	Complete	Go to step [7].
7	Does the image quality improve if the S-HVPS is replaced?	Complete	Go to step [8].
8	Check J 5011 <=> J13 for continuity.	Replace the Engine Control Board, RRP 12.7	Replace the Front 1A , Harness Assembly PL 13.1.7.

Residual Image, Ghosting or Hot Offset



S6200-284

There are faint, ghostly images appearing on the page. The images may be either from a previous page or from the page currently printed. The printer displays no error code.

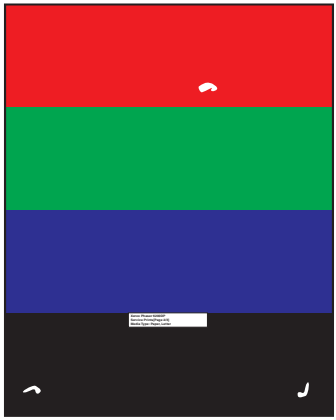
Hot Offset: A light image of the print is repeated and offset 82m. See “Repeating Defects Identification Chart” on page 95.

Step	Check	Yes	No
1	Was the customer printing numerous copies of the same image?	Avoid long runs of the same image.	Go to step [2].
2	Set the paper to the next heaviest type. Does this resolve the problem?	Complete	Go to step [3].
3	Does the ghosting appear in only one or 2 colors?	Replace the Imaging Unit (CRC), PL 9.1.3.	Go to step [4].
4	Check the Heat Roller and NIP Belt in the Fuser Assembly for evidence of contamination or damage.	Replace the Fuser Assembly (CRC), PL 8.1.1.	Go to step [5].
5	Does the image quality improve after the Fuser has been replaced?	Complete	Go to step [6].
6	Does the imaging quality improve if the Transfer Roller is replaced?	Complete	Go to step [7].
7	Does the image quality improve if the LVPS is replaced? (The fuser control circuit is located on the LVPS)	Complete	Go to step [8].
8	Print a usage profile, do the temperature and humidity values reported seem to agree with the actual conditions?	Replace the Engine Control Board, RRP 12.7.	Replace the Temperature/Humidity Sensor, RRP 3.5.

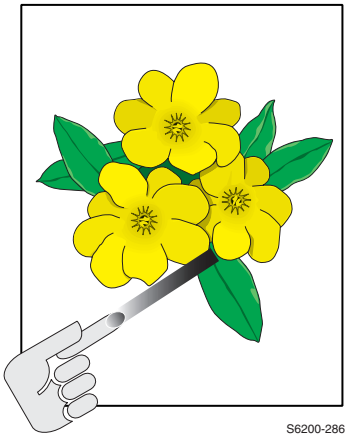
Incomplete Fusing or Cold Offset

Incomplete Fusing: The toner is not completely fused to the paper and easily rubs off.

Cold Offset: Portions of the image are not fully fused and flake or rub off.



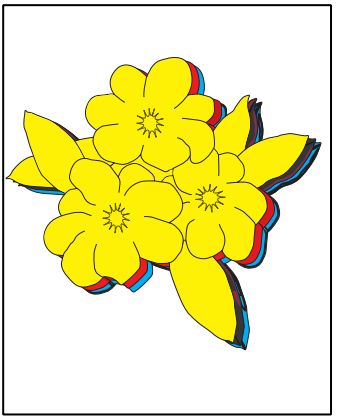
S6200-224



S6200-286

Step	Check	Yes	No
1	Is the problem resolved by running “Remove Print Smears” from the printer’s front panel. Is the problem resolved by changing the paper type setting on the printer? Hot offset: One type lighter. Cold offset / Incomplete fusing: One type heavier.	Complete	Go to step [2].
2	Replace the Fuser Assembly. Does the problem recur after the Fuser is replaced?	Replace the LVPS, RRP 12.2.	Complete.

Mis-Registration, Color Layer not Correctly Registered in the Proces Direction



S6200-287

The four colors of the image are not registered correctly into one image.

If the mis-registration is in the horizontal direction, perform the color registration adjustment. See “Color Registration” on page 113

If the mis-registration is in the vertical direction, clean the CTD (ADC) Sensor, cycle power to the printer once and let the printer adjust the registration, check to see if the problem still appears before using this procedure.

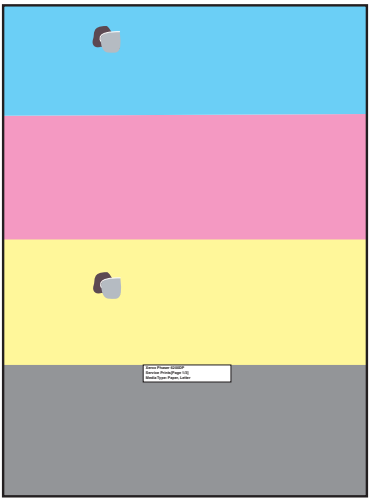
Step	Check	Yes	No
1	Clean the CTD Sensor and cycle power to the printer. Is the problem resolved?	Complete	Go to step [2].
2	Replace the CTD Sensor. Is the problem resolved?	Go to step [3]	Complete
3	Print the 600 x 600 Service Test Print. Are all the colors aligned both vertically and horizontally?	Replace the Image Processor Board, RRP 12.8.	Go to step [4].
4	If only one color is affected replace the Imaging Unit. Does this solve the problem?	Complete	Go to step [5].
5	Replace the Laser Unit. Does this solve the problem?	Complete	Replace the Engine Control Board, RRP 12.7.

Test Prints, Adjustments and NVRAM

Service Test Prints

From the printers front panel Main Menu, select `Printable Pages Menu`, select `Service Pages Menu` and then select `Service Test Prints`.

Analyzing the CMYK Sample Page



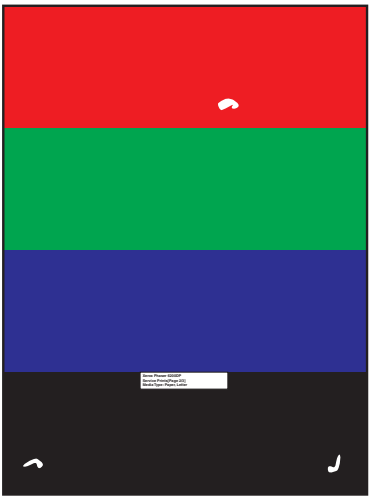
S6200-222

This page consists of four 25% tint primary color bands.

Things to look for:

- Repeating defects
- Missing Color(s)
- Streaks
- Voids
- Banding

Analyzing the RGB Sample



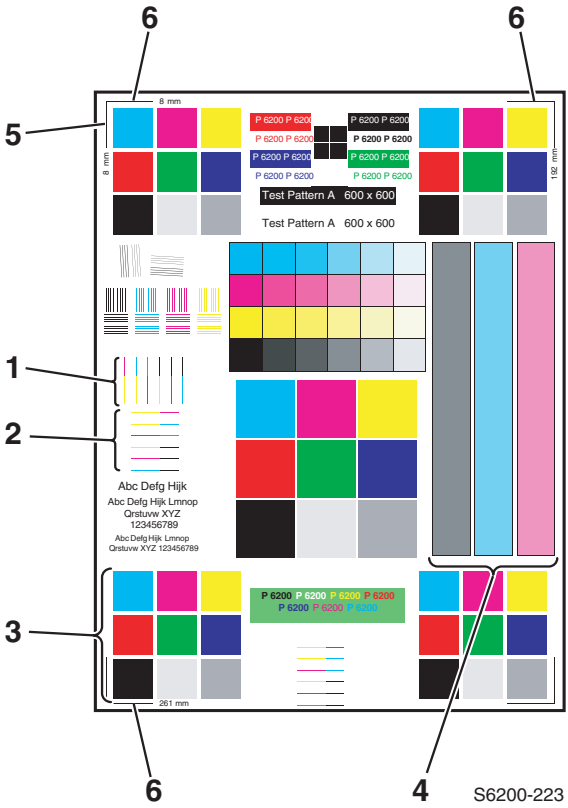
S6200-224

This page consists of 80% solid fill in RGBK Bands.

Things to look for

- Wrinkling
- Creases
- Roller marks
- Scratches
- Cold Offset

Analyzing the Test Pattern Sample



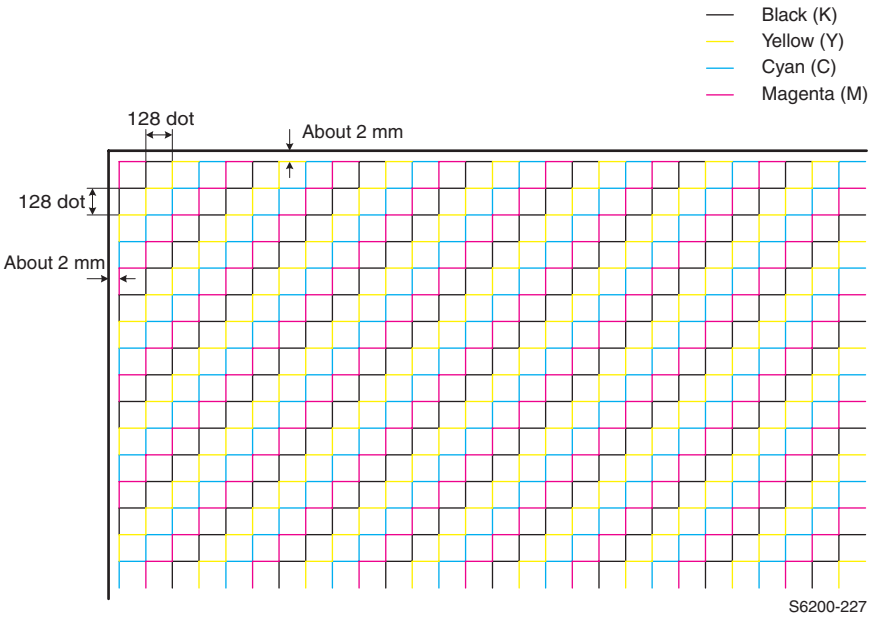
Things to look for

1. Color Registration (Horizontal): The colored lines should match up. Perform the color registration procedure. See “Color Calibration” on page 112.
2. Color Registration (Vertical): The colored lines should match up. Clean the CTD sensor and cycle power to the printer to correct.
3. Uniform RGB: The secondary color squares should be uniformly colored with no mottling.
4. Density: The color bars should have even density from top to bottom.
5. Margins: Should be 8mm from the edge of the paper to the line.
6. Image Size: the image height should be 261 mm between the top and bottom lines. The image width should be 192 mm between the left and right lines.

Note: ***Some of the graphics on this page contain composite black with heavy fill images exceeding 240% coverage. Transfer roll offsetting may occur as a result.***

Analyzing the 600 x 600 Service Test Print

This test print is used to verify margins and color registration. The colors should be aligned vertically and horizontally.



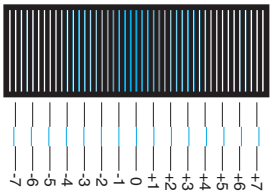
Color Calibration

Color calibration procedures adjust the printer for optimal color output. color settings may need adjustment upon initial printer set-up or when toners and imaging units are replaced. There are two procedures; Lighten/Darken Colors and Balance Colors.

If the overall image appears either too light or dark, use the Lighten/Darken colors procedure. If a finer adjustment of the primary colors, cyan, magenta and yellow, is needed, continue with the balance colors procedure.

Print the `Color Calibration Tutorial` from the printer's front panel `Improve Print Quality Menu` and follow the instructions detailed on the page.

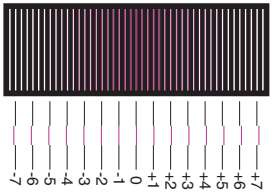
Color Registration



This procedure must be performed whenever the Laser Unit has been removed or replaced.

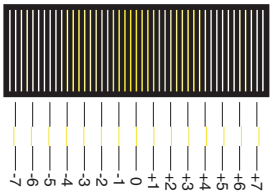
The Color Registration Menu allows you to adjust the printer's cyan, magenta and yellow against black to ensure that the colors are properly aligned.

You can adjust the settings from -7 to +7 units. (left to right). See the images on the left.



0 is always the printer's current color registration setting.

Print the Color Registration page from the printer’s front panel Printable Pages Menu.



Margin Calibration

The Calibrate Margins Menu allows you to adjust the printer’s imaging area relative to the edges of the paper. The imaging area is shown as a dashed rectangle on the front side of the print, the printer will not print outside this rectangle. The dashed rectangle should line up with the solid rectangle printed on the back side of the page. Hold up to strong light for verification.

Print the `Calibrate Margins Page` from the printer’s front panel `Improve Print Quality Menu` and follow the instructions detailed on the page.

Resetting NVRAM

Resetting NVRAM returns all the Image Processor Board NVRAM-stored parameters to their factory default values. The print counts and the Adobe firmware serial number are not affected by this reset. You can reset the PostScript NVRAM using the Customer Menu or the Service Diagnostics Menu.

PostScript NVRAM Resets

Restore factory settings (Registration)

1. You can reset settings for color registration to the factory-default values.
2. From the Main Menu, highlight Support and press OK.
3. Highlight Improve Print-Quality and press OK.
4. Highlight Color Registration Menu and press OK.
5. Highlight Restore Factory Settings and press OK.
6. Highlight Restore Factory Settings NOW and press the OK to reset the color settings to factory defaults.

Restore factory settings (Color)

1. You can reset settings for density and color balance to the factory-default values.
2. From the Main Menu, highlight Support and press OK.
3. Highlight Improve Print-Quality and press OK.
4. Highlight Calibrate Colors Menu and press OK.
5. Highlight Restore Factory Settings and press OK to reset the color settings to factory defaults.

Restore previous settings (color)

You can return the color settings to the ones that existed before you saved the last color balance adjustments.

1. From the Main Menu, highlight Support and press OK.
2. Highlight Improve Print-Quality and press OK.
3. Highlight Calibrate Colors Menu and press OK.
4. Highlight Restore Previous Settings and press OK to restore the previous color settings.
5. Highlight Restore Previous Settings NOW and press the OK to reset the color settings to factory defaults.

Restore Factory Settings (Margins)

You can reset margin settings to the factory-default values.

Caution **Use caution when resetting your margins to the factory-default settings. Changing these settings back to factory defaults may not be the last-saved settings if you have previously calibrated your margins.**

1. From the Main Menu, highlight Support and press OK.
2. Highlight Improve print-quality and press OK.
3. Highlight Calibrate Margins Menu and press OK.
4. Highlight Restore Factory Settings and press OK.
5. Highlight Restore Factory Settings and press OK to reset the margin settings.

Reset Calibrations (color and margins)

Note: ***Resetting calibrations resets the color and margin settings.***

1. From the Main Menu, highlight Support and press OK.
2. Highlight Improve print-quality and press OK.
3. Highlight Reset Calibrations NOW and press OK to reset the color, margins and paper (transfer) settings to factory defaults.

Resetting job defaults

Resetting the job defaults resets the paper source, print-quality mode, 2-sided printing, image smoothing and tekcolor corrections to their default values.

1. From the Main Menu, highlight Print Setup Menu and press OK.
2. Highlight Job Defaults Menu and press OK.
3. Reset Job Defaults is displayed, press OK.
4. Highlight Reset Job Defaults NOW and press OK to reset the job defaults.

Resetting Printer setup values to default

Resetting the Printer setup values resets the job defaults, front panel language, Intellegent ready, MPT Tray setup, Tray 1 -3 setup, startup page, front panel intensity, front panel contrast, PostScript error information and energy star to their default values.

1. From the Main Menu, highlight Network Setup Menu and press OK.
2. Highlight Reset Network Setup and press OK.
3. Reset Network Setup NOW is displayed, press OK.

Resetting network setup values to default

Resetting the network setup values resets the TCP/IP address, TCP/IP address menu settings (gateway, broadcast, etc.), CentreWare IS, EtherTalk, Netware, set IPX frame type, IPP and Ethernet speed to their default values.

1. From the Main Menu, highlight Network Setup Menu and press OK.
2. Highlight Reset Connection Setup and press OK.
3. Reset Connection Setup NOW is displayed, press OK.

Caution **Make note of the current network settings or Print a configuration page to reference the customers current network settings prior to resetting the network setup to the factory default values.**

Resetting All Printer Default Settings (PostScript NVRAM)

Resetting the NVRAM restores all printer values stored in the IP controller NVRAM including network, printer setup, job defaults, color, margin, and calibrations to their factory default values. The print counts and the Adobe firmware serial number are not affected by this reset

1. From the Main Menu, highlight Support and press OK.
2. Highlight Service Tools Menu and press OK.
3. Reset NVRAM is displayed, press OK.
4. Highlight Reset NVRAM and Reset Printer NOW and press OK to reset all the settings to their factory default values.

Service Diagnostics PostScript NVRAM Resets

Resetting the NVRAM restores all printer values stored in the IP controller NVRAM including network, printer setup, job defaults, color, margin, and calibrations to their factory default values. The print counts and the Adobe firmware serial number are not affected by this reset.

1. Enter Service Diagnostics.
2. Highlight NVRAM Access and press OK.
3. Highlight PostScript NVRAM Reset and press OK.
4. Resetting NVRAM! Are you sure? Is displayed , highlight Yes and press OK.

The printer now exits Service Diagnostics and reboots. While booting, NVRAM is reset.

Cleaning and Maintenance

Service preventive 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 and the type of paper a customer prints on determines how critical and how often cleaning the machine 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

Caution	**Never apply alcohol to any parts in the printer.**
Caution	**Never use a damp cloth to clean up toner.**
Warning	**If you remove the Imaging Unit, place it in a light protective bag.**

1. Record number of sheets printed.
2. Print several sheets of paper to check for problems or defects.
3. Turn off the printer.
4. Remove the Toner Cartridges, the Imaging Unit and both side covers prior to cleaning.
5. Remove the front cover and clean the Fuser Fan with a brush or dry cloth to remove excess dust.
6. Remove the rear cover and clean the Rear Fan with a brush or dry cloth to remove excess dust.
7. Remove any debris or foreign objects from the Transfer Roller, Fuser Assembly, Laser Unit and Imaging Unit.
8. Vacuum out any loose toner from the interior of the printer with a Type II toner vacuum only.
9. Open left side door and clean up any toner inside.
10. Remove and clean the paper trays.
11. Clean pick rollers with a slightly damp, lint-free cloth.

FRU Disassembly - Removal and Replacement Procedures

This section contains the removal and replacement procedures for selected parts of the printer according to the Field Replaceable Units (FRUs) Parts List. Not all Replacement Procedures are included in this Service Manual. In most cases, to reinstall a part, simply reverse the Removal Procedure shown. In some instances, the Replacement Procedure is included, because it may contain special steps. For specific assemblies and parts, refer to the "FRU Parts List' on page 253.

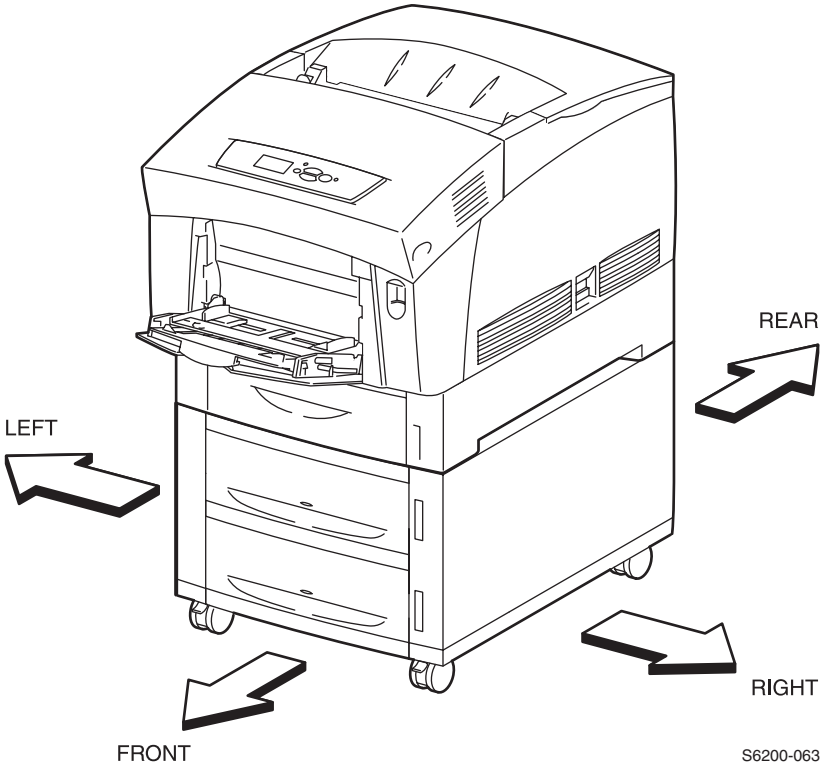
Contents

Contents (cont'd.)

Contents (cont'd.)

Contents (cont'd.)

Orientation of the Printer



General Notes on Disassembly

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power and disconnect the power cord from the wall outlet.
2. Remove the Imaging Unit and protect it from exposure to light by covering it with a light proof bag or by placing it in a light-tight container. Disconnect all computer interface cables from the printer.
3. Wear an electrostatic discharge wrist strap to help prevent damage to the sensitive electronics of the printer circuit boards.
4. Remove the Fuser Assembly or wait at least 5 minutes after you have switched OFF printer power for the Fuser to cool before you work on or around the Fuser.

Work Notes

Note: ***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.***

Note: ***Names of parts that appear in the RRPs may not be exactly the same as the names appear in the Parts List. For example; a part called the Registration Chute Assembly in an RRP may appear on the Parts List as Assembly, Chute REGI. When working on an RRP, ignore any prerequisite RRP if you have already performed that removal procedure.***

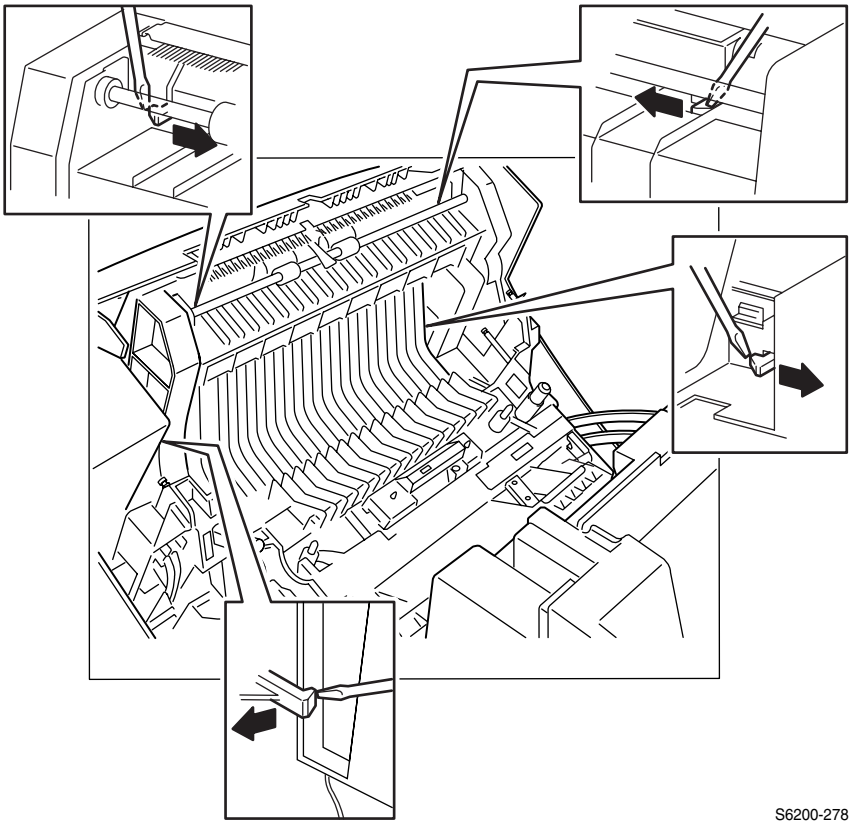
Caution: **Always use the correct type and size screw. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install either a screw or a printer part.**

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

Notations in the RRP text

- When needed the orientation of the printer is called out in the procedure for locating printer parts, refer to the printer orientation graphic on page 123 for locating the right, left, front and back sides of the printer.
- The notation “RRP *X.Y*” in an RRP step, directs you to another RRP for information on how to perform a related or prerequisite procedure.
- The notation “(item X)” points to the illustration that corresponds to the RRP you are performing.
- The notation “PL*X.X.X*” indicates that this component is listed in the FRU Parts List.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.

RRP 1.1 Front Cover (PL 1.1.2)

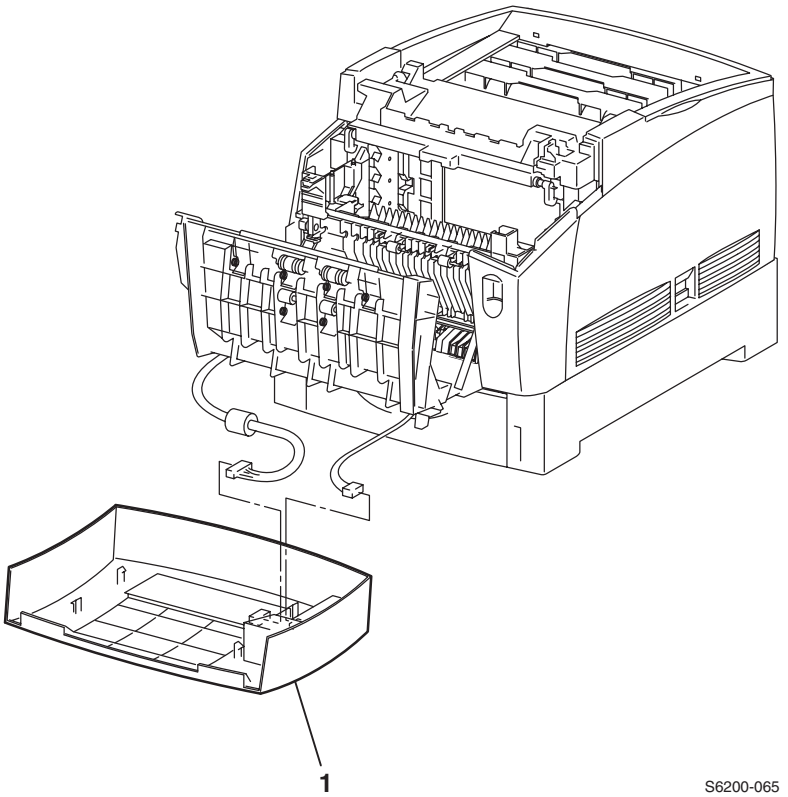


Removal

1. Open Door B.

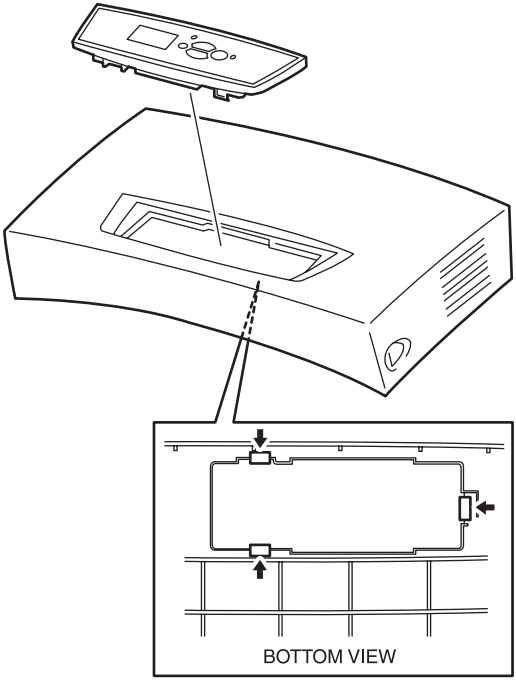
Caution: Do not separate the Front Cover from the Chute Assembly Out until the two wiring connectors have been disconnected.

2. Release the four tabs securing the Front Cover to the Chute Assembly Out.



3. Slightly separate the Front Cover from the printer and remove connector P/J220 from the Front Panel and P/J 137 from the Fuser Fan.
4. Remove the Front Cover.

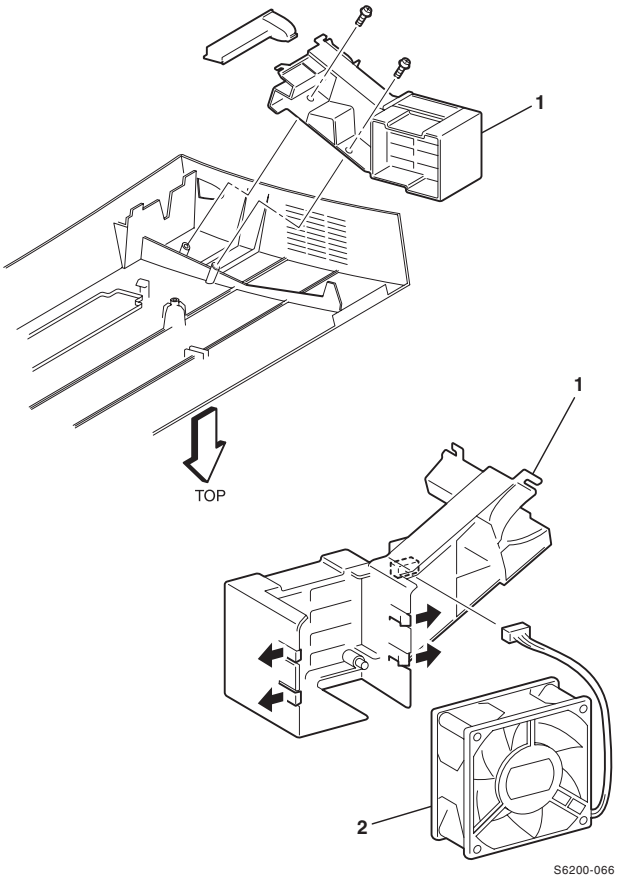
RRP 1.2 Front Panel (PL 1.1.1)



Removal

1. Remove the Front Cover (RRP 1.1).
2. Release the 3 hooks securing the Front Panel to the Front Cover and remove the Front Panel.

RRP 1.3 Fuser Fan (PL 1.1.7)



Removal

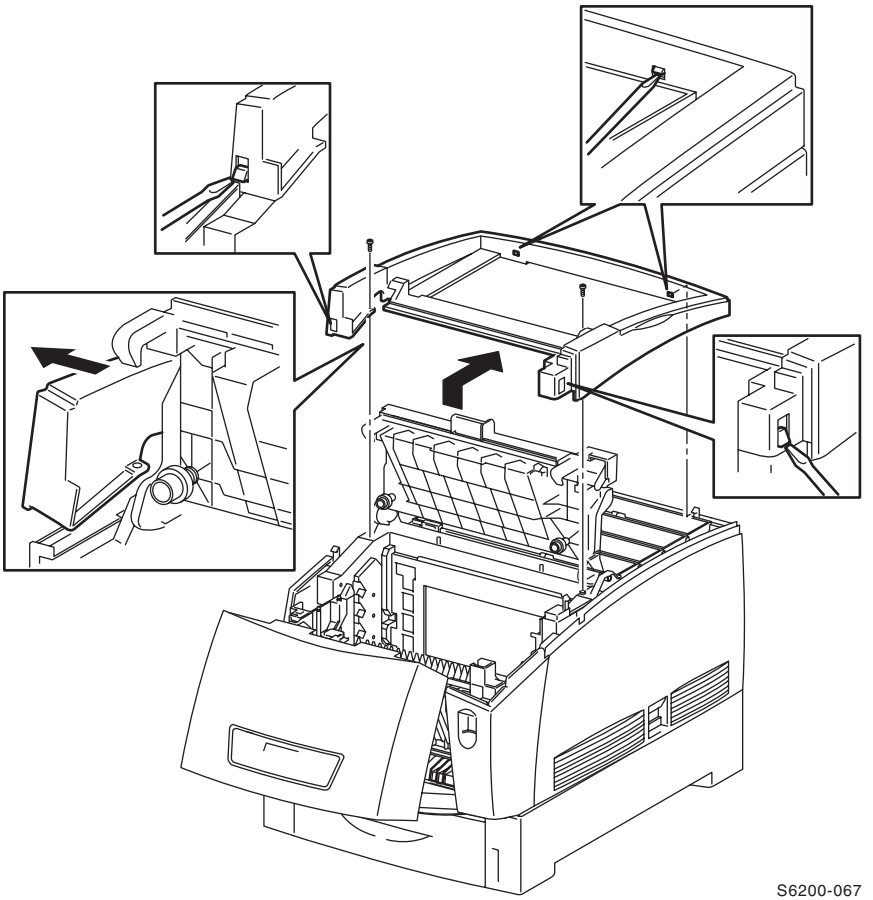
1. Remove the Front Cover (RRP 1.1).
2. Remove the 2 screws securing the Fuser Fan Holder (item #1) to the rear of the Front Cover and remove the Fuser Fan Holder.
3. Disconnect P/J137 from the Fuser Fan Holder.
4. Release the 4 tabs securing the Fuser Fan (item #2) to the Fuser Fan Holder and remove the Fuser Fan.

Replacement

1. Assemble in reverse order.

Note: ***When replacing the Fuser Fan note the airflow direction. The label on the fan should face out.***

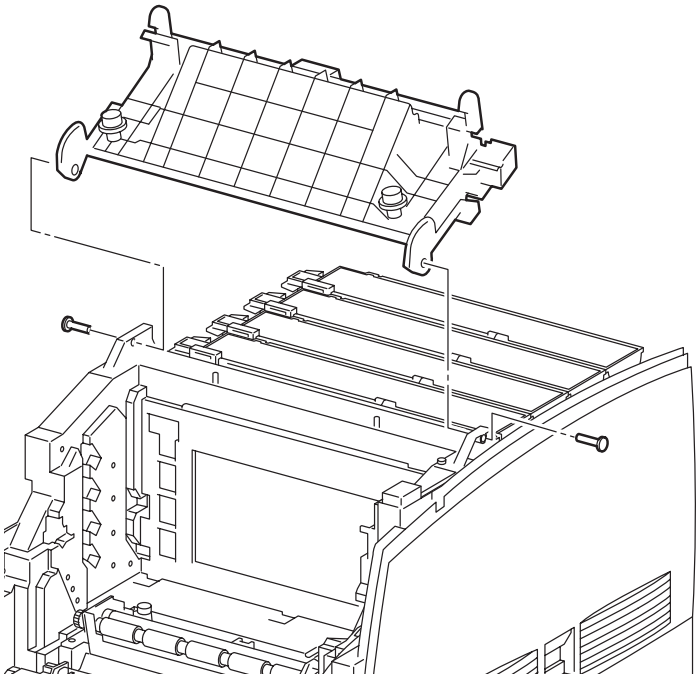
RRP 1.4 Top Main Cover (PL1.1.9)



Removal

1. Remove the Top Cover (Output Tray).
2. Remove all the Toner Cartridges.
3. Open Door A.
4. Open Door C (Top Image Unit Cover PL1.1.10).
5. Remove the 2 screws securing the Top Main Cover to the printer.
6. Release the 4 tabs securing the Top Main Cover to the printer.
7. Raise the Top Main Cover slightly from the printer, flexing both the front edges then lift off by moving the cover toward the rear of the printer.

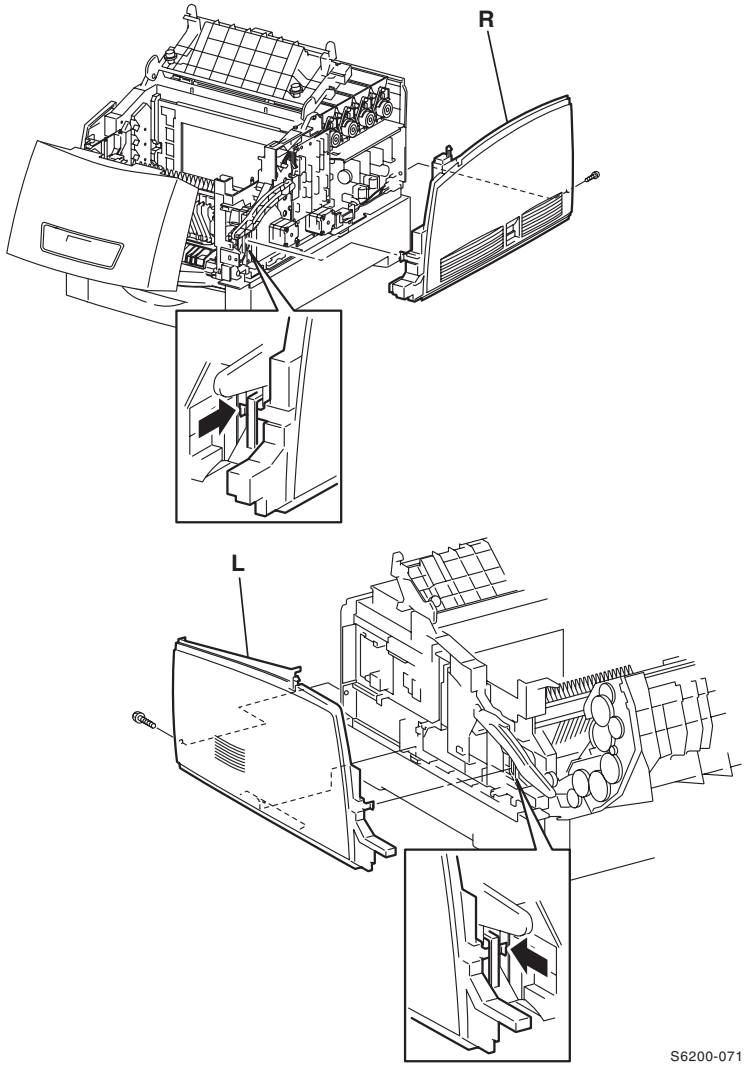
RRP 1.5 Image Unit Top Cover (Door C) (PL1.1.10)



Removal

1. Remove the Top Main Cover (RRP 1.4).
2. Open Door A.
3. Open Door C.
4. Remove the Left Cover (RRP 1.6).
5. Remove the right and left Stud Top Hinge pins (item #2 PL1.1.21) from the Image Unit Top Cover and remove the cover.

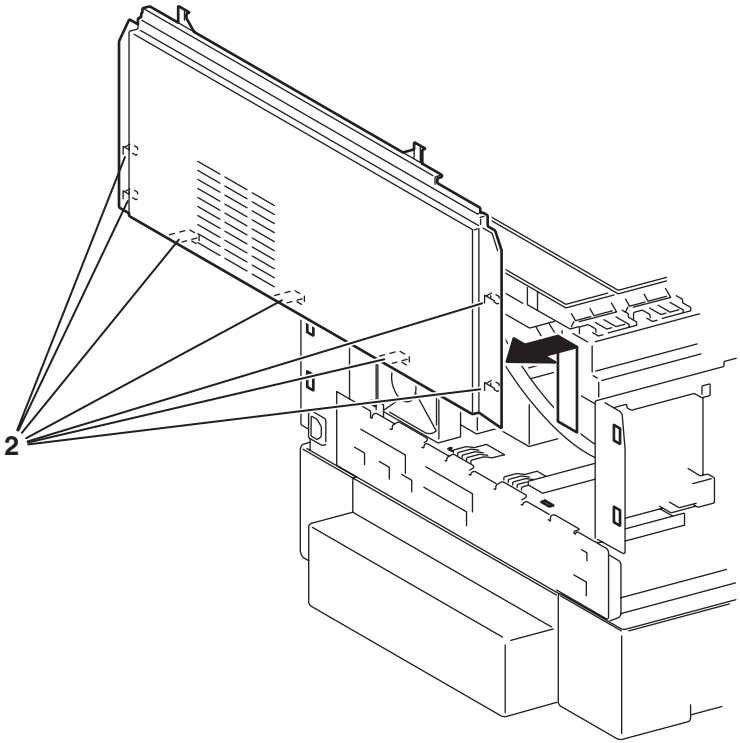
RRP 1.6 Right Side Cover (PL1.1.24) and Left Side Cover (PL1.1.30)



Removal

1. Remove the Top Main Cover (RRP 1.4).
2. Remove 1 screw securing the Right Side Cover and/or Left Side Cover to the printer.
3. Release the tab at the front of the printer securing the Ride Side Cover and/or Left Side Cover to the printer.
4. Flex the cover slightly and slide off to remove from the printer.

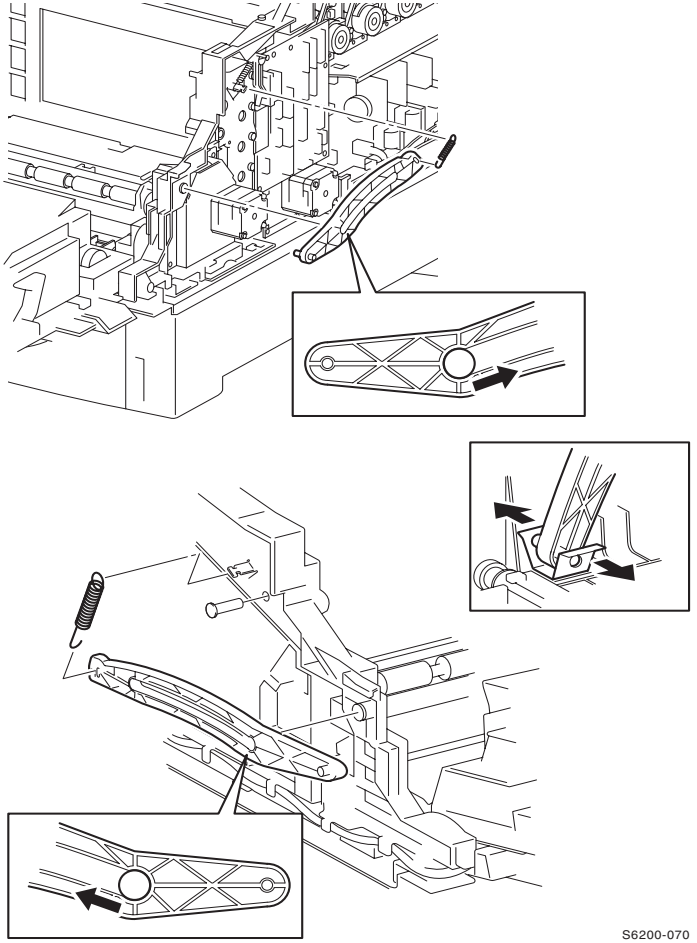
RRP 1.7 Rear Cover (PL 1.1.20)



Removal

1. Remove the Right and Left Side Covers. (RRP 1.6).
2. Raise the Rear Cover slightly and release the 7 tabs (item #2) securing the cover to the printer and remove.

RRP 1.8 Left and Right Links (PL 1.1.23)

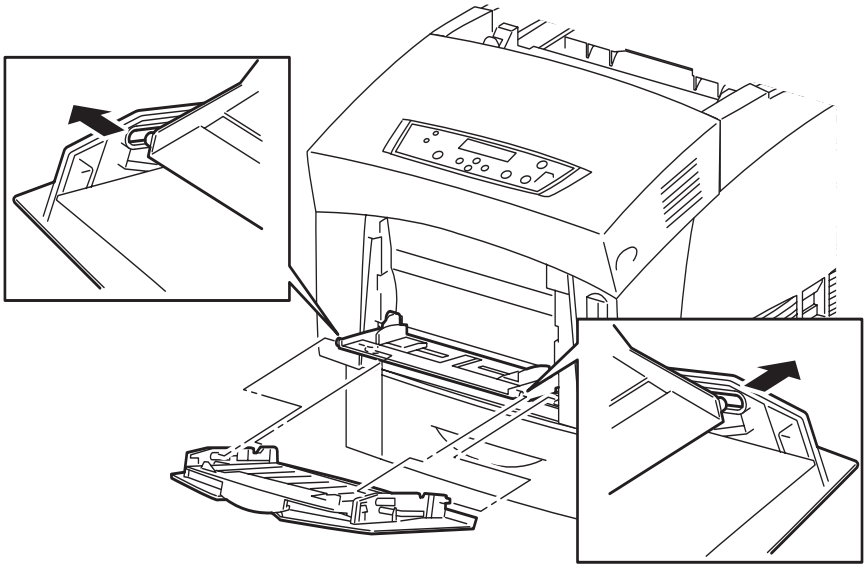


Removal

1. Remove the Right and Left Side Covers (RRP 1.6).
2. Remove the upper end (eye) of the spring from the printer.
3. Open Door A.
4. From inside the printer, push out the Link Pin securing the Link to the printer.
5. With a flat blade screwdriver, spread apart both sides of the metal retaining clip holding the Link to the Front Cover Assembly and remove the Link and Spring together.

Note: ***To disengage the links from the printer without removing the link, only perform Steps 1 through 4.***

RRP 1.9 Multi-Purpose Tray (MPT) (PL1.1.99)



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Removal

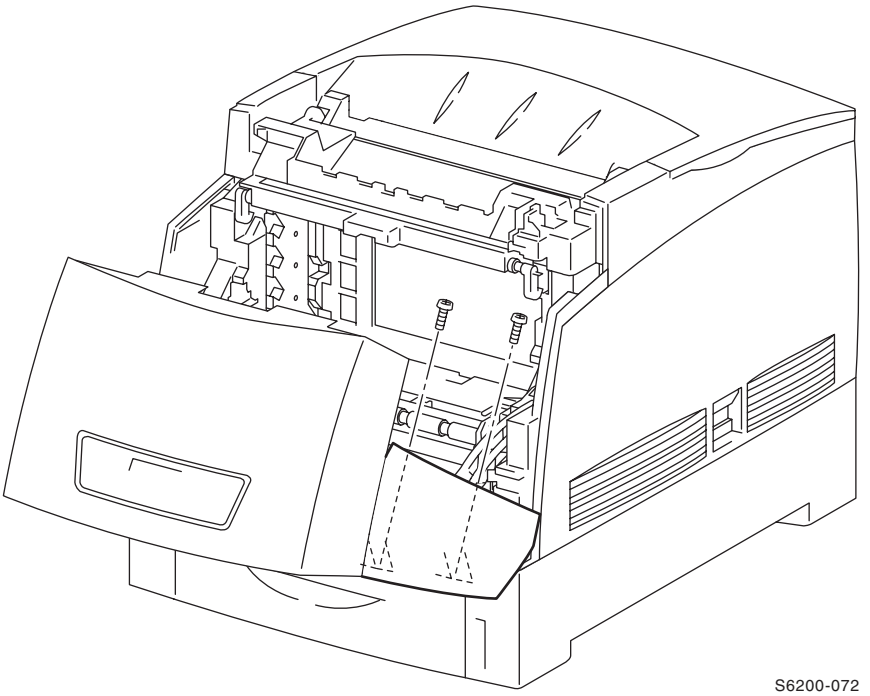
1. Open the Multi-Purpose Tray.
2. Flex the right and left side of the MPT slide (PL 1.1.27) to seperate the base from the slide.
3. With the MPT Slide at a 90 degree angle, pull the slide out of the printer.
4. To remove the Mult-Purpose Tray Base (PL 1.1.28) from the printer, press in, lift up and pull out from the printer.

Replacement

Note: ***The base must be re-installed at a 90 degree angle to align the tabs properly.***

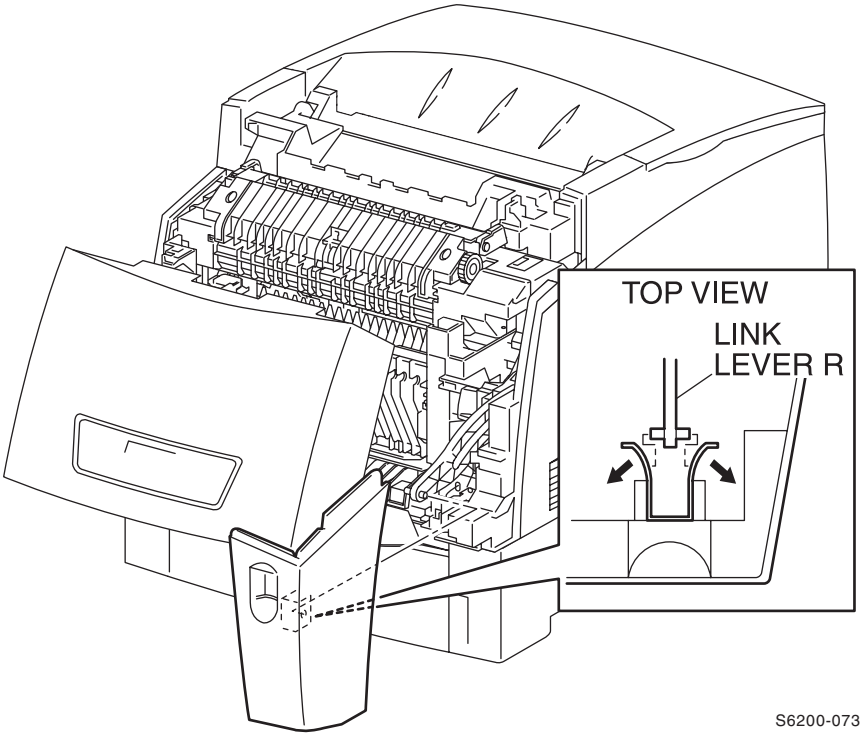
1. With the base at a 90 degree angle with the printer, ensure the tabs are on the outside, push down and then pull forward to re-install.

RRP 1.10 Front Right Cover (PL 1.1.25)



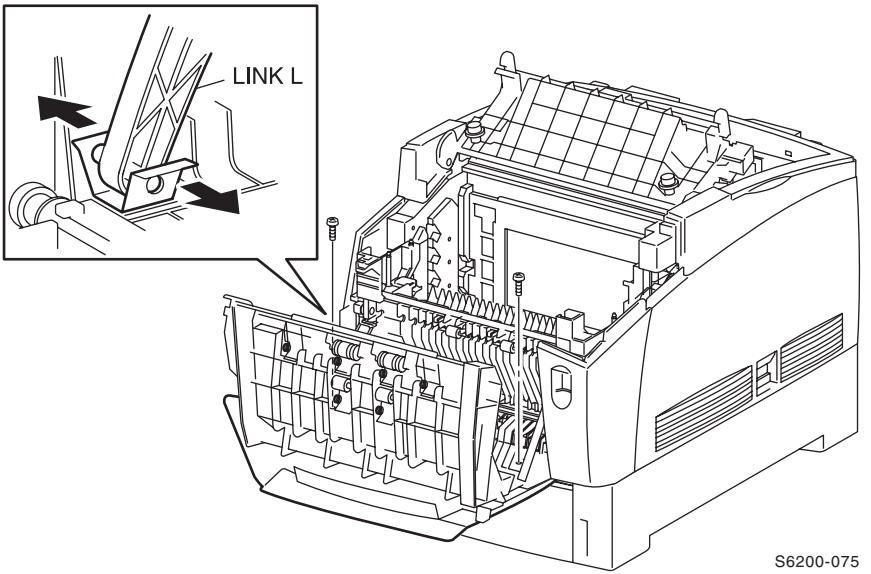
Removal

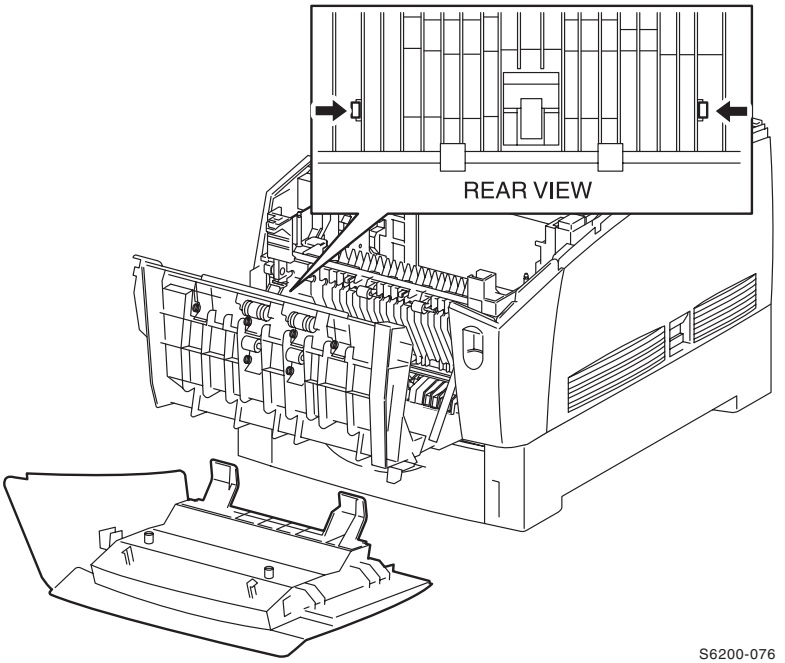
1. Open Door A
2. Remove the 2 screws securing the Front Right Cover.



3. Close Door A and open Door B.
4. Pull the Front Right Cover slightly away from the Chute Assembly Out.
5. With a flat blade screwdriver, spread apart both sides of the metal retaining clip holding the Link to the Front Right Cover and disengage the Link.
6. Remove the Front Right Cover.

RRP 1.11 Front Left Cover Assembly (PL1.1.29)

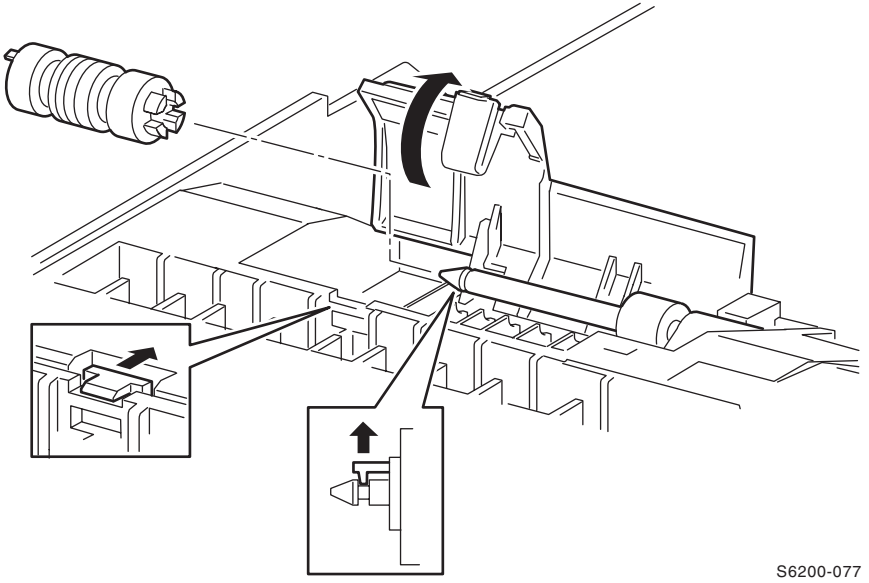




Removal

1. Remove the Multi-Purpose Tray (RRP 1.9).
2. Remove the Front Cover (RRP 1.1).
3. Remove the Front Right Cover (RRP 1.10).
4. Open Door B.
5. Spread apart both sides of the metal retaining clip with a flat blade screwdriver to disengage the Link holding the Front Left Cover.
6. Remove the 2 screws securing the Front Left Cover to the Chute Assembly Out.
7. Release the 2 tabs securing the Front Left Cover to the Chute Assembly Out and remove the Front Left Cover from the printer.

RRP 2.1 Paper Feed Roller (PL 2.1.1) (CRC as Kit)

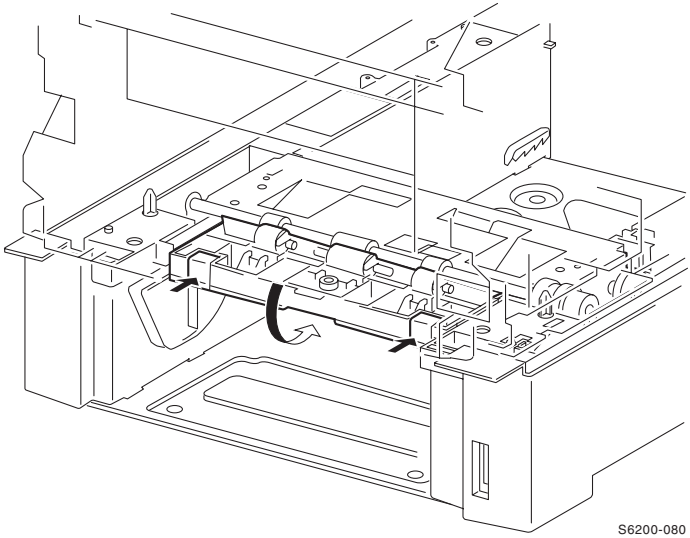


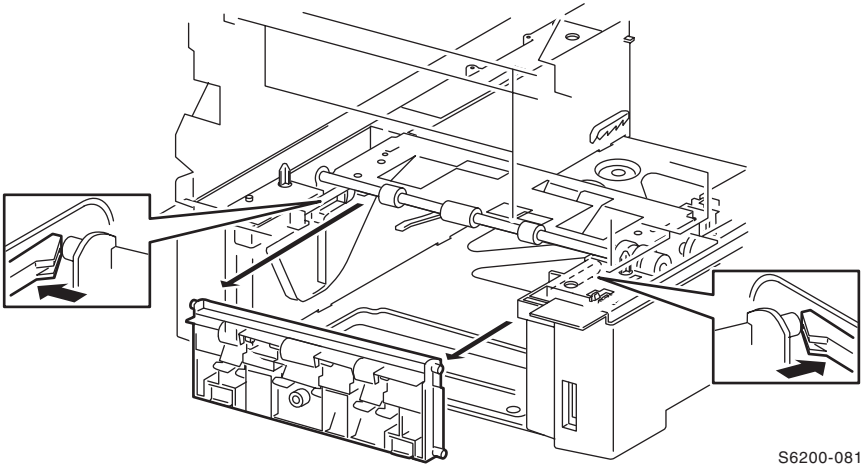
Removal

1. Pull the paper tray out of the printer.
2. Release the tab securing the Feed Cover to the Paper Tray and open the Feed Cover.
3. Carefully release the hook securing the Paper Feed Roller to the Retard Shaft.
4. Slide the Paper Feed Roller off the shaft to remove.

Note: ***The Paper Feed Roller Kit contains two rollers. One roller for the Paper Tray and one Roller for the Paper Feeder (PL 3.3.23). The Paper Feed Rollers are interchangeable.***

RRP 3.1 Turn Chute Assembly (PL3.1.2)

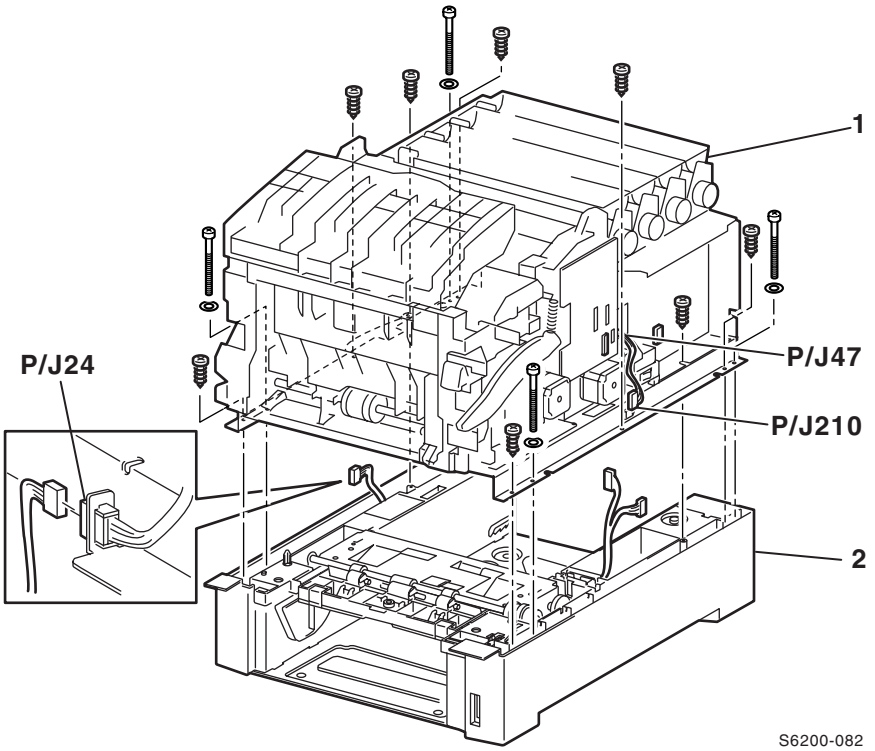




Removal

1. Pull the paper tray out of the printer.
2. Push in on the Turn Chute Assembly to releae the 2 tabs.
3. Rotate the Turn Chute Assembly 90 degrees downward from the Paper Feeder.
4. Release the tabs securing the right and left shaft of the Turn Chute Assembly to the Paper Feeder.
5. Pull out the Turn Chute Assembly from the Paper Feeder to remove.

RRP 3.2 Printer Chassis



Removal

1. Remove the Imaging Unit.
2. Remove the Paper Tray Rear Cover.
3. Remove Paper Tray 1.
4. Remove the Top Main Cover (RRP 1.4).
5. Remove the Front Right Cover (RRP 1.10).
6. Remove the Right and Left Side Covers (RRP 1.6).
7. Remove the Turn Chute Assembly (RRP 3.1).
8. Remove the Link Actuator (RRP 3.11).
9. On the right side of the printer, disconnect P/J2361 (gray) from the Printer Chassis.
10. On the left side of the printer, disconnect P/J210 (yellow) from the Printer Chassis.
11. Disconnect P/J47 (yellow/blue) from the Motor Driver Circuit Board on the right side of the printer.

12. Remove the 8 short screws securing the Printer Chassis (item #1) to the Paper Feeder Assembly (item #2).

Note: ***It is easy to strip the long screws, use caution when removing and replacing.***

13. Using a PZ1 Posi bit, remove the 4 long screws securing the Printer Chassis to the Paper Feeder Unit Assembly.
14. Using a large screwdriver handle, prop up the right side of the printer chassis in order to clear the wiring harnesses in the following steps.
15. Shift the harness P/J24 (gray) from the square hole on the bottom plate.
16. Shift the harness P/J210 (yellow) and P/J47 (yellow/blue) through the square hole on the bottom plate.

Caution: **Lift the printer chassis unit off the Paper Feeder Assembly by placing your hands into the front and back cavity of the paper tray. The right and left sides of the printer chassis are extremely sharp.**

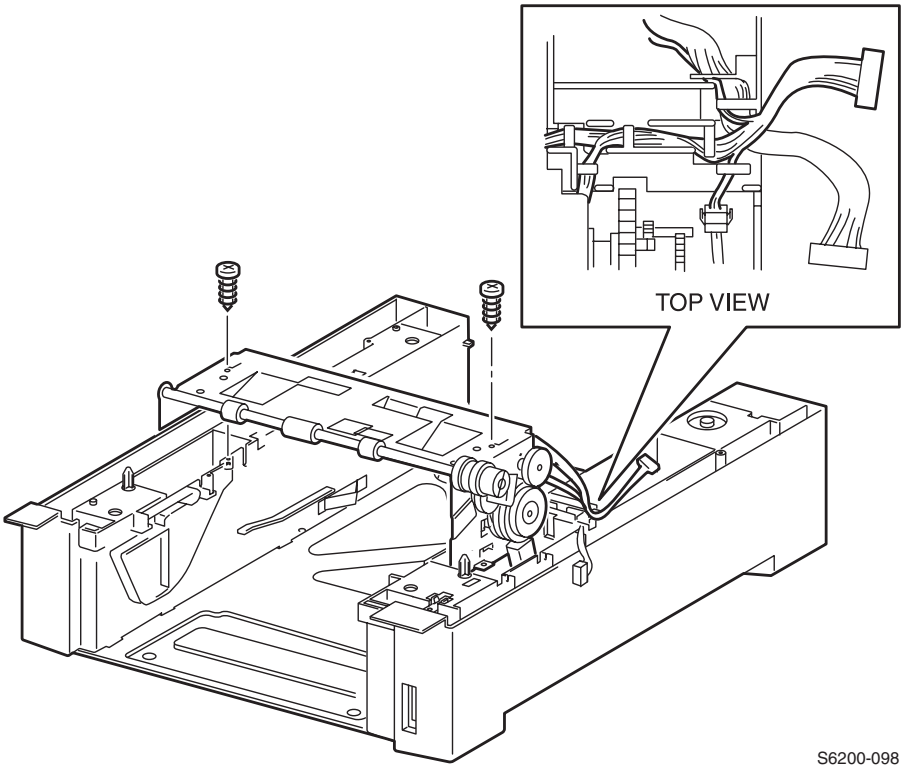
17. Remove the screwdriver, being careful not to pinch the wires, and lift the entire printer chassis off the Paper Feeder Unit Assembly.

Replacement

1. Replace in reverse order of removal.

Note: ***When replacing the Printer Chassis check to make sure none of the wiring harnesses between the Printer and Feeder Unit are pinched.***

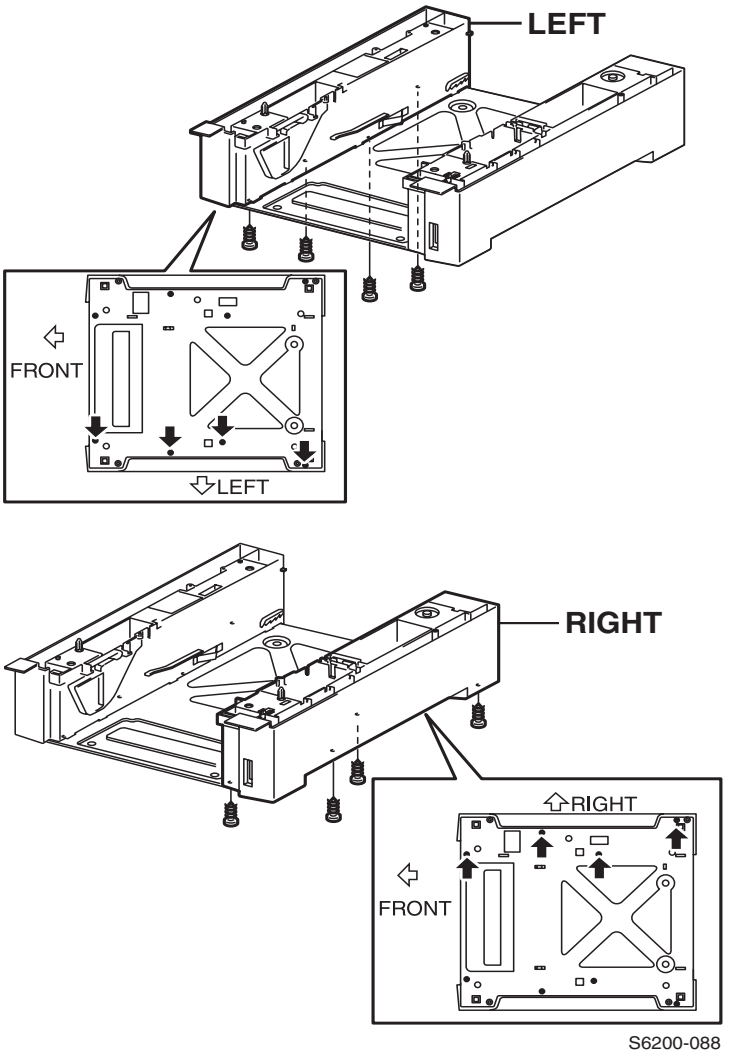
RRP 3.3 Paper Pick Assembly (PL3.3.1)



Removal

1. Remove the Paper Feeder Assembly Unit from the printer chassis (RRP 3.2).
2. Disconnect P/J471 (yellow) from the Paper Size Switch in the Paper Feeder Unit Assembly.
3. Carefully free the wires (yellow/blue) from their guides, noting the postion of the wires for reassembly.
4. Remove the 2 screws securing the Paper Pick Assembly from the Paper Feeder Unit Assembly.
5. Raise the Paper Pick Assembly out of the Paper Feeder Unit Assembly.

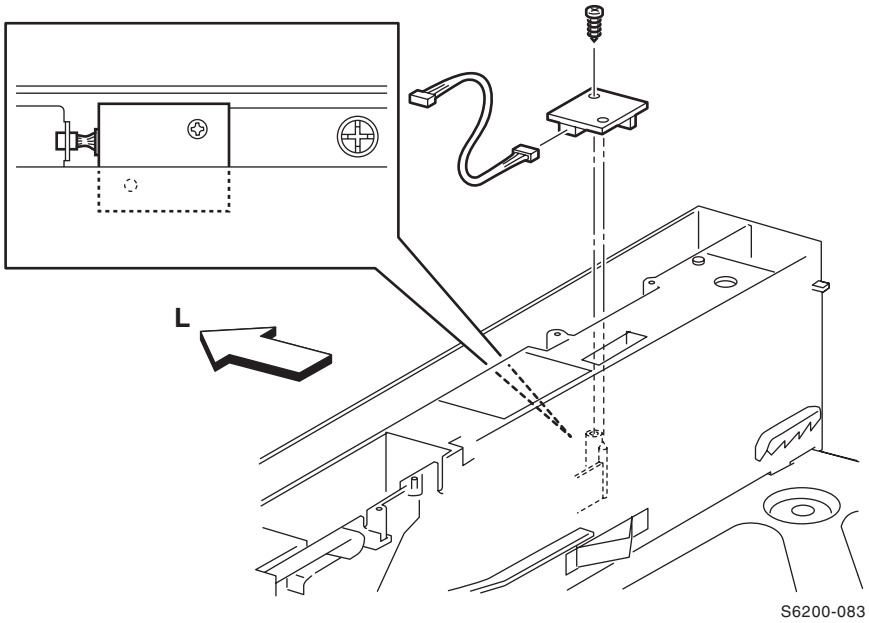
RRP 3.4 Right and Left Housing (PL 3.2)



Removal

1. Remove the Paper Pick Assembly (RRP 3.3).
2. Remove the 4 screws securing the Left/Right Housing Assembly Feeder to the bottom plate.
3. Turn the Housing Assembly Feeder in slightly and extract the 3 hooks out of the holes on the Bottom Plate.

RRP 3.5 Temperature/Humidity Harness (PL3.2.1) and Sensor (PL3.2.2)



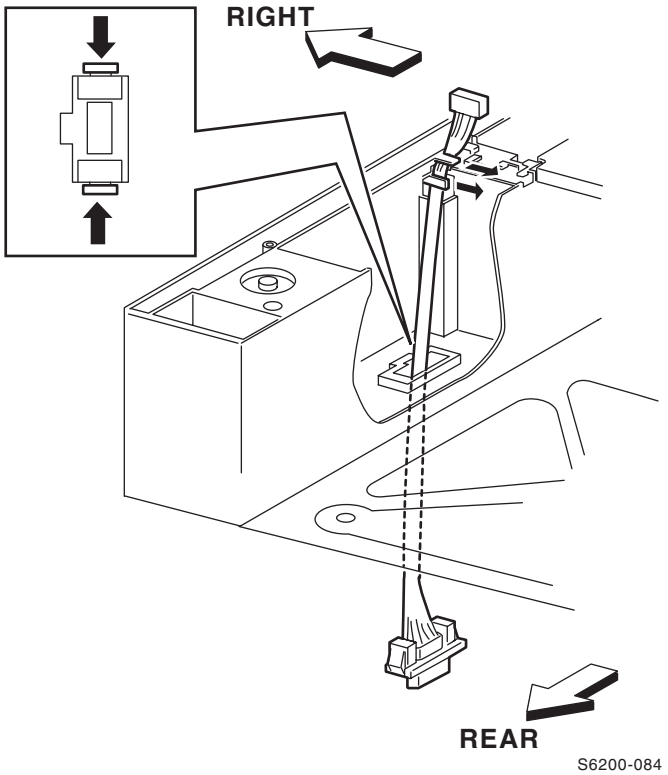
Removal

1. Remove the Top Main Cover(RRP 1.4).
2. Remove the Left Side Cover (RRP 1.6).
3. Disconnect P/J2361 (gray) from the printer.
4. Remove the 1 screw securing the Temperature/Humidity Sensor and remove the sensor.

Replacement

Note: ***Seat the sensor onto the Guide Pins with needle nose pliers then re-insert the screw. Reconnect connector P/J2361.***

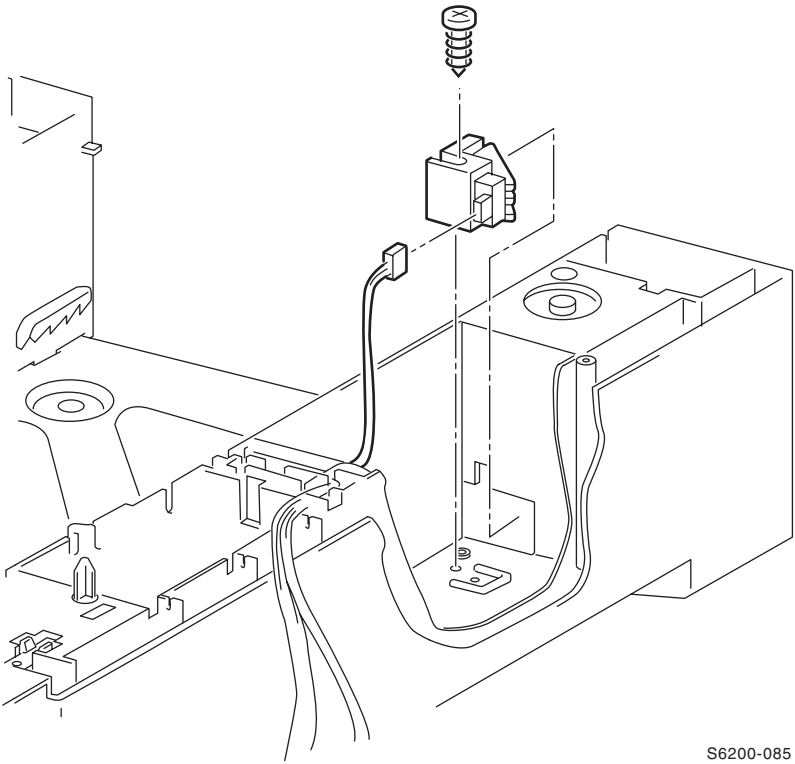
RRP 3.6 High-Capacity Feeder Harness (PL3.2.3)



Removal

1. Remove the Printer Chassis (RRP 3.2).
2. Shift the HCF Harness from the Right Housing.
3. Release the 2 tabs securing the harness to the Right Housing.
4. Pull the HCF Harness down from the Housing Assembly to remove.

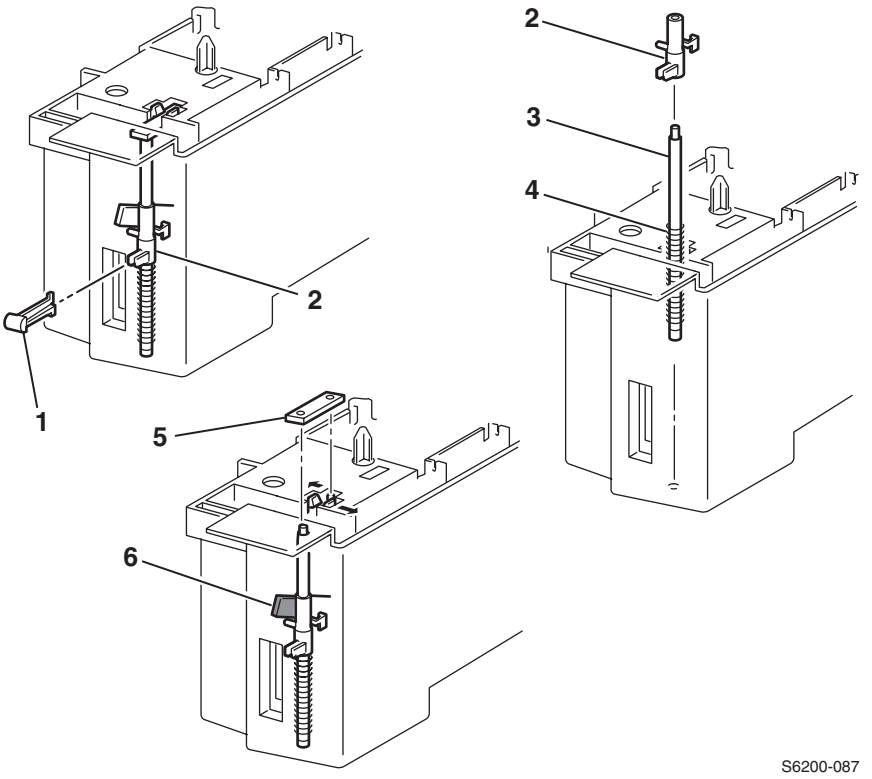
RRP 3.7 Paper Size Switch Assembly (PL3.2.4)



Removal

1. Remove the Printer Chassis (RRP 3.2).
2. Disconnect P/J471 from the Paper Size Switch.
3. Remove 1 screw securing the Paper Size Switch to the Right Housing.
4. Rotate the front of the Paper Size Switch to free the tab and remove.

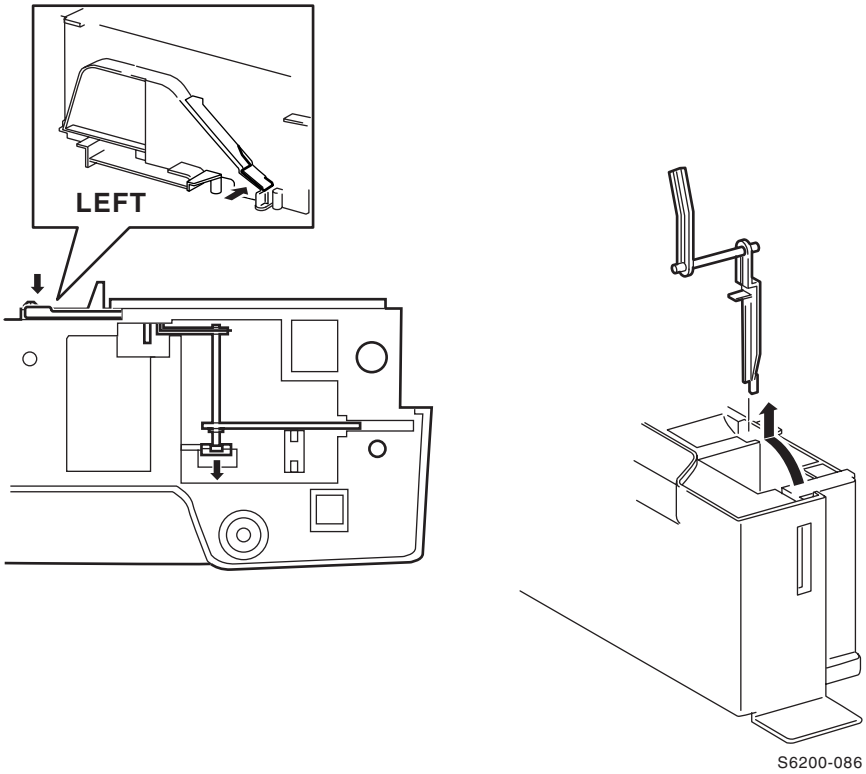
RRP 3.8 Low Paper Lever (PL3.2.7), Indicator (PL3.2.8) and Indicator Guide (PL3.2.10)



Removal - Indicator and Guide Indicator

1. Remove the Paper Feeder Unit Assembly (RRP 3.2).
2. Remove the Feeder Right Housing (RRP 3.4).
3. Hold the tip of the Paper Level Indicator (item #1) with needle nose pliers and pull the Indicator forward to remove from the Right Housing.
4. Release the 2 tabs securing the Shaft Holder (item #6) to the Right Housing.
5. Pull the Guide Indicator (item #3) together with the Indicator Spring (item #5) and Shaft Indicator (item #4).

Note: ***When reinstalling the guide, ensure the flag is on top of the guide.***



Removal - Low Paper Lever

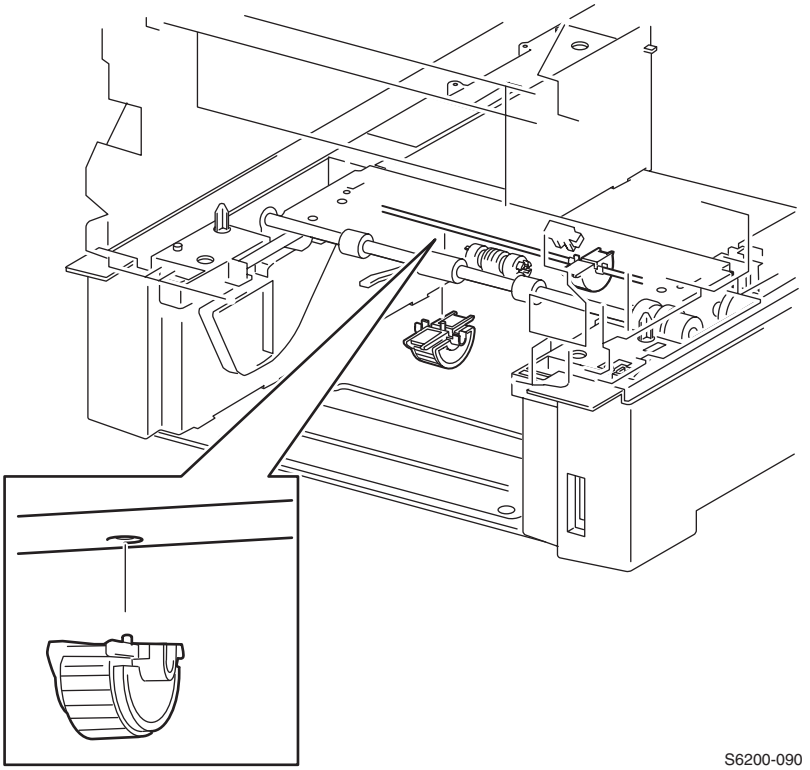
1. Deflect the shaft in the Right Housing securing the right axis of the Lever Low Paper from the bottom surface and shift the right axis.
2. Push the actuator on the Low Paper Lever toward the inside of the Right Housing then raise the Low Paper Lever up and out of the feeder.

Replacement

1. Replace in reverse order of removal.

Note: ***Put the leading end of the lever low paper on the left convex portion of the Guide Indicator when replacing the Guide Indicator. Hold the Guide Indicator securely when replacing the Indicator.***

RRP 3.9 Paper Pick Rollers (PL3.3.3)



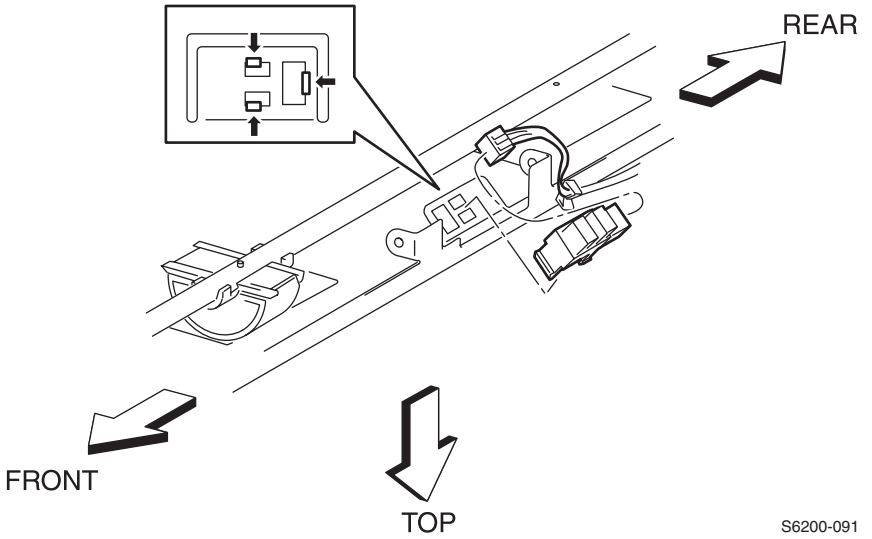
Removal

1. Pull the paper tray out of the printer.

Note: ***Remove and replace the Paper Pick Rollers one at a time to maintain their orientation.***

2. Remove the Turn Chute Assembly (RRP 3.1).
3. Rotate the Feed Shaft so that the Paper Pick Rollers face down.
4. Pull the Paper Pick Roller off the shaft.

RRP 3.10 No Paper Actuator (PL3.3.5), No/Low Paper Sensor (PL3.3.4)



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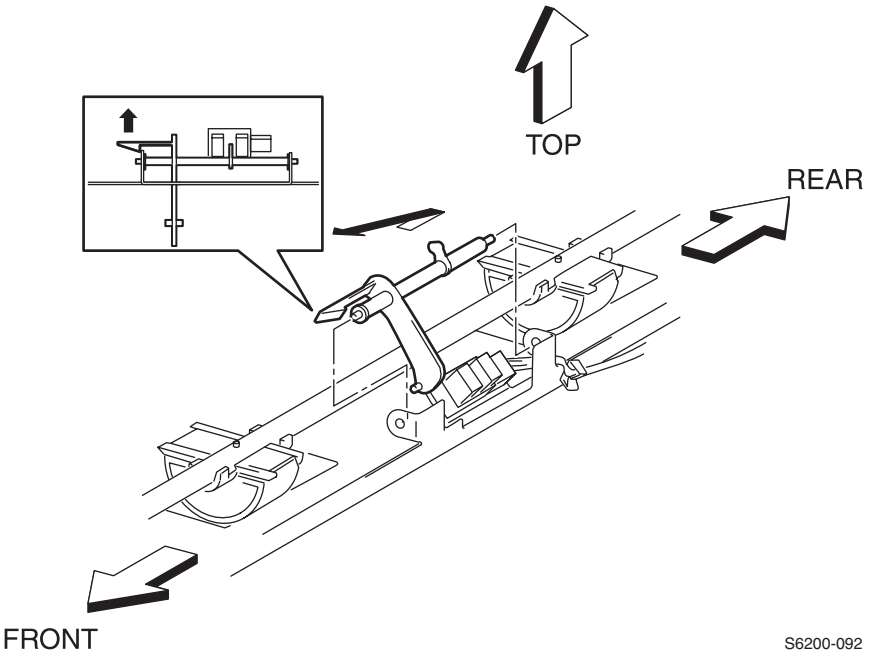

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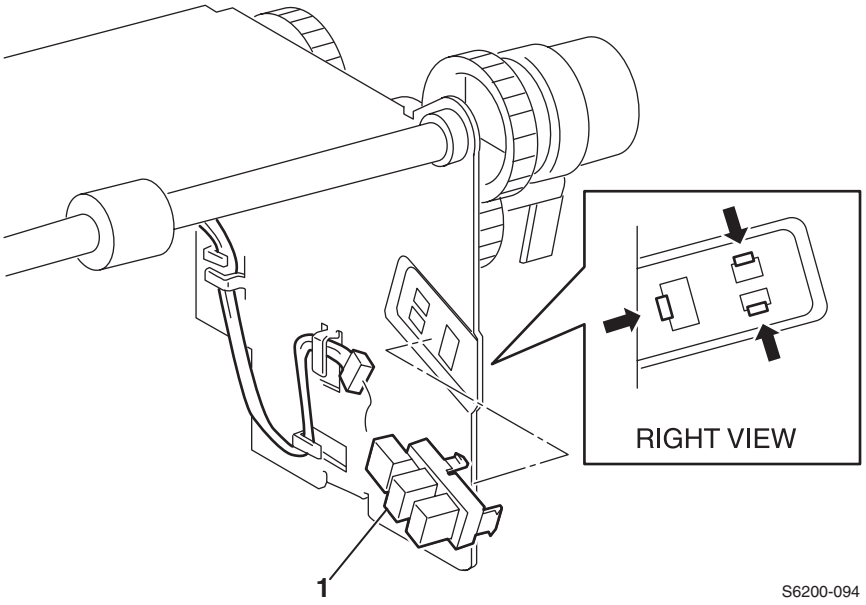
Removal - Actuator

1. Remove the Paper Feeder Unit Assembly (RRP 3.2).
2. Remove the Paper Pick Assembly (RRP 3.3) and turn it upside down.
3. Release the hook securing the No Paper Actuator to the Paper Pick Assembly and extract the left end of the shaft.
4. Pull the No Paper Actuator out and up to remove.

Removal - No Paper Sensor

5. Remove the right Paper Pick Roller to gain access to the P/J472 (blue).
6. Disconnect P/J472 (blue) from the No Paper Sensor.
7. Lift up on the clear plastic lock to release 3 tabs securing the No Paper Sensor to the Paper Pick Assembly and remove the No Paper Sensor.

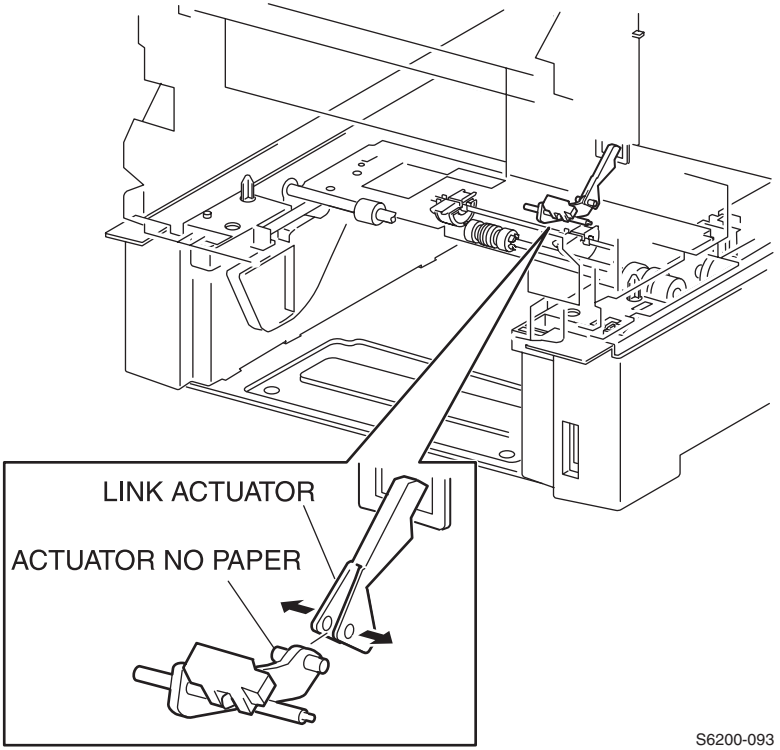


Removal - Low Paper Sensor

8. Disconnect P/J473 (yellow) on the Low Paper Sensor.
9. Release 3 tabs securing the Low Paper Sensor to the Paper Pick Assembly and remove the sensor.

Note: ***The sensors are interchangeable.***

RRP 3.11 Link Actuator (PL3.3.6)

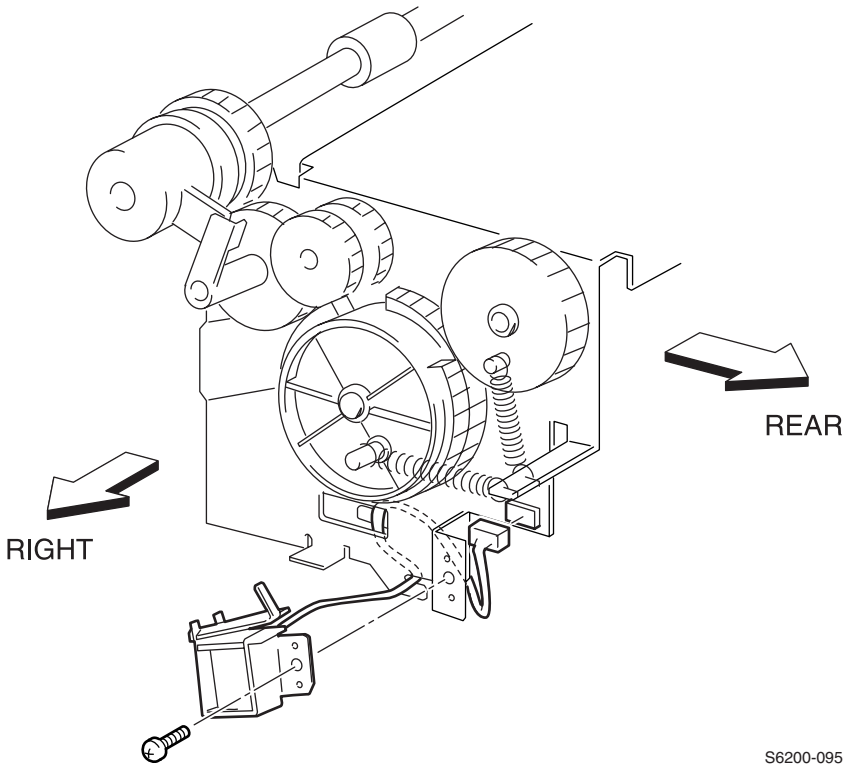


Note: ***Perform this procedure from the rear of the printer.***

Removal

1. Pull the paper tray out of the printer.
2. Remove the paper tray Rear Cover.
3. Reach in through the rear of the printer and spread the tabs of the Link Actuator apart.
4. Remove the link actuator from the bracket in the printer and remove.

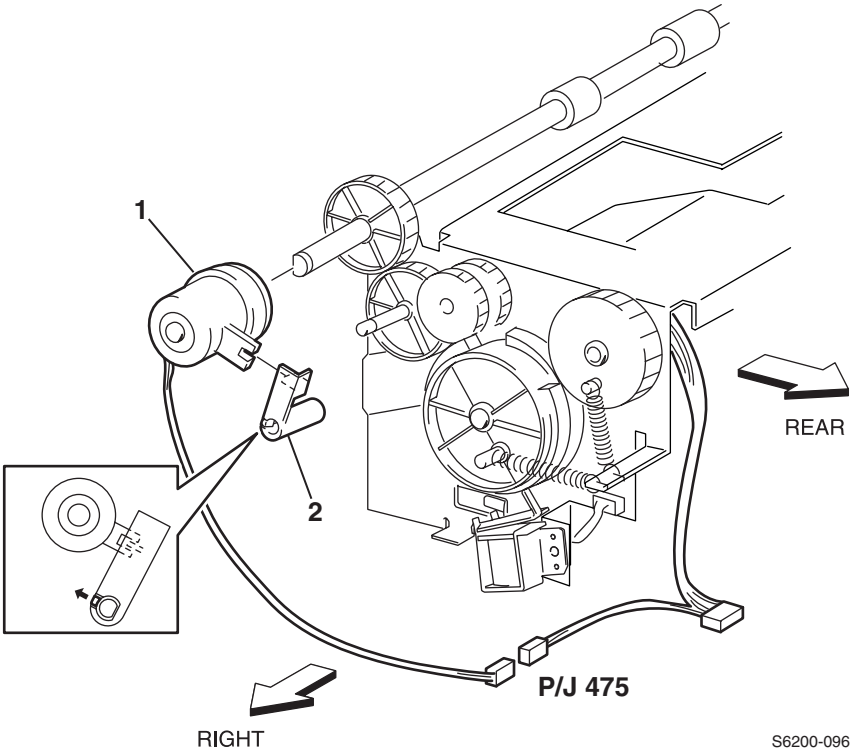
RRP 3.12 Feed Solenoid (PL3.3.17)



Removal

1. Remove the Paper Feeder Assembly Unit (RRP 3.2).
2. Remove the Paper Pick Assembly (RRP 3.3).
3. Remove 1 screw securing the Feed Solenoid to the Paper Pick Assembly.
4. Separate the Feed Solenoid slightly and shift the harness to disconnect P/J474 (gray).
5. Remove the Feed Solenoid.

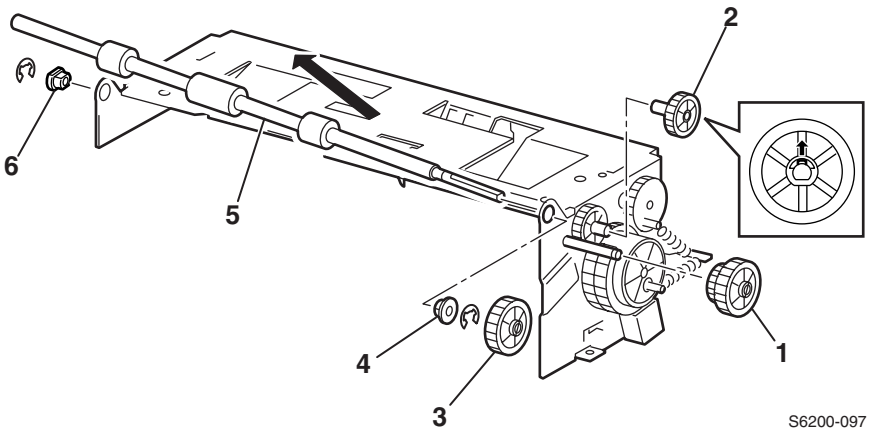
RRP 3.13 Turn Clutch Assembly (PL3.3.18)



Removal

1. Remove the Paper Feeder Unit Assembly (RRP 3.2).
2. Remove the Paper Pick Assembly (RRP 3.3).
3. Release the tab securing the Stopper Clutch (item #2) to the shaft on the right side of the Paper Pick Assembly.
4. Pull out the Stopper Clutch (item #1).
5. Disconnect P/J475 (blue) from the Paper Pick Asssembly.
6. Pull out the Turn Clutch Assembly.

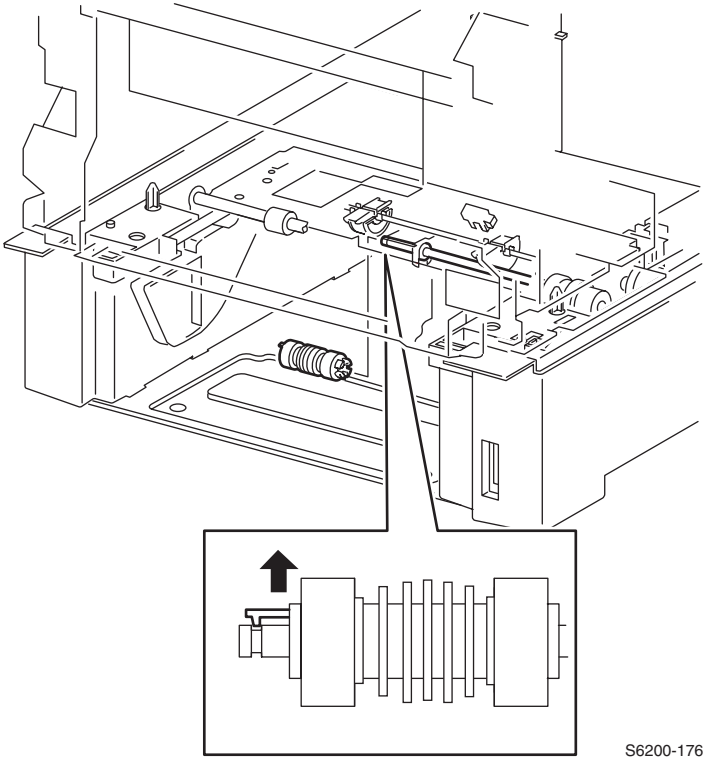
RRP 3.14 Roll Turn Assembly (PL3.3.20)



Removal

1. Remove the Paper Feeder Assembly Unit (RRP 3.2).
2. Remove the Paper Pick Assembly (RRP 3.3).
3. Remove the Clutch Turn Assembly (RRP 3.13).
4. Release the tab securing the Gear Feed 2 (item 1#) to the shaft of the Paper Pick Assembly and pull out the Gear Feed 2.
5. Pull out the Idler Gear (item #2) and Idler Gear In (item #3) from the Paper Pick Assembly.
6. Remove the right and left E-rings securing the shaft of the Roll Turn Assembly to the Paper Pick Assembly.
7. Remove the metal bearing (item #6) securing the right shaft of the Turn Roll Assembly.
8. Remove the black bearing (item #4) securing the left shaft of the Roll Turn Assembly.
9. Remove the shaft (item #5) from the Paper Pick Assembly.

RRP 3.15 Paper Feed Roller (CRC - Roller Kit)

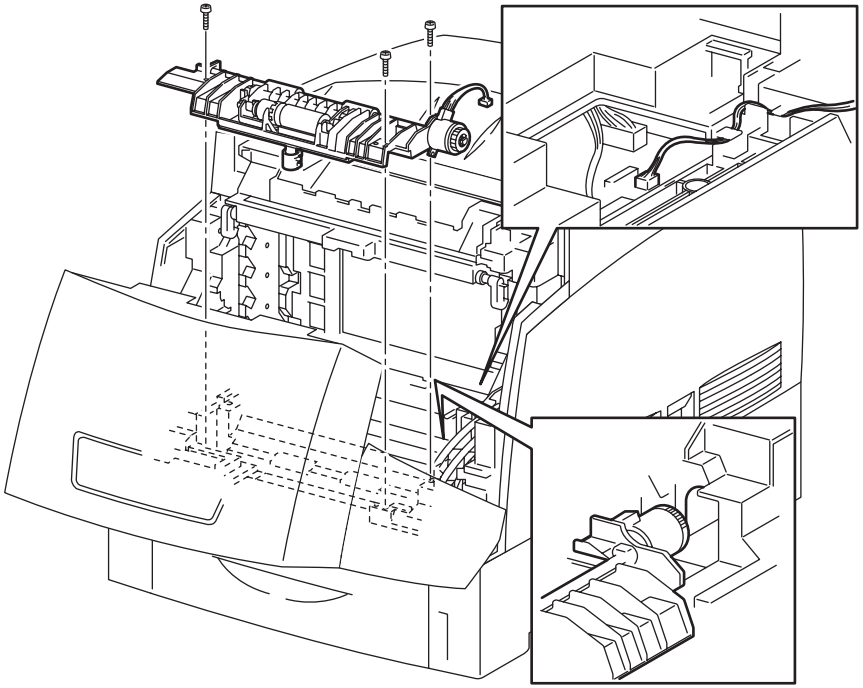


Removal

1. Pull paper tray out of the printer.
2. Release 1 tab securing the Paper Feed Assembly to the shaft.
3. Slide the Paper Feed Roller off the left side of the shaft.

Note: ***The Paper Feed Roller Kit contains two rollers. One roller for the Paper Tray and one Roller for the Paper Feeder (PL 3.3.23). The Paper Feed Rollers are interchangeable.***

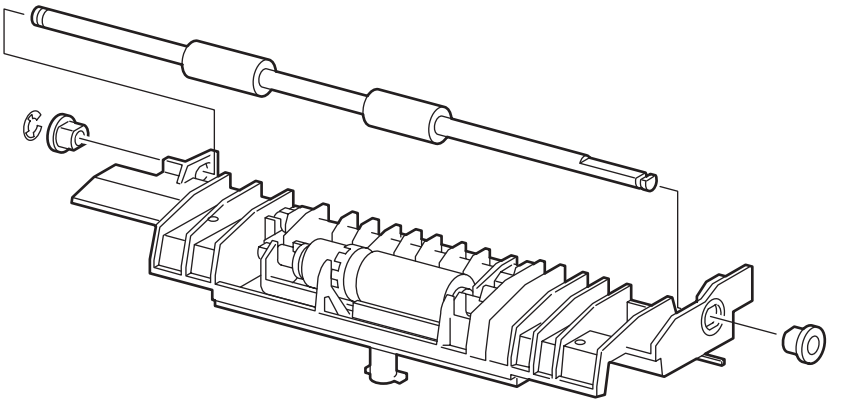
RRP 4.1 Retard Roller Housing Assembly (PL4.1.1)



Removal

1. Remove the Registration Chute Assembly (RRP 9.3).
2. Disconnect the blue wire from the Turn Clutch.
3. Remove the 3 screws securing the Retard Roller Housing Assembly to the printer and remove the assembly.

RRP 4.2 Turn Roll (PL 4.1.2)
Turn Clutch (PL 4.1.9)
Friction Clutch Assembly, (PL 4.1.4)



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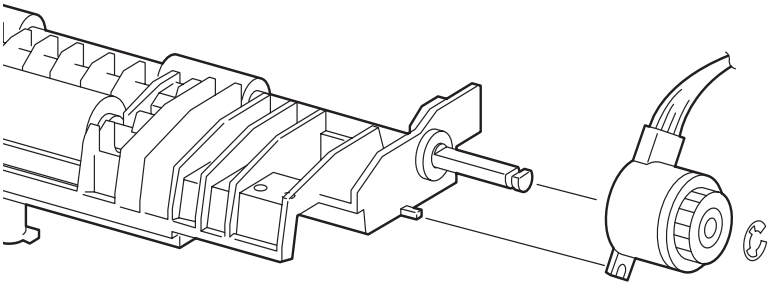
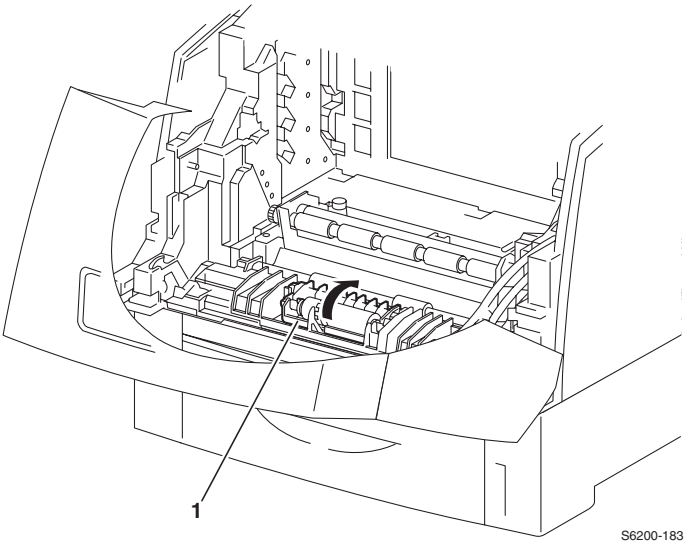


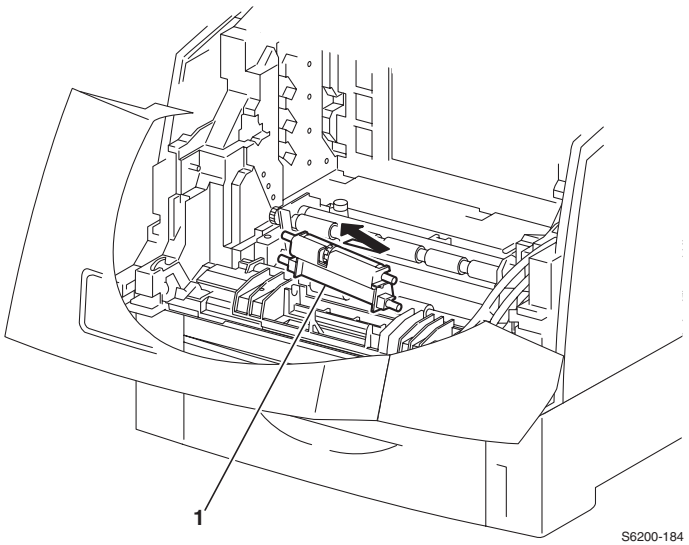
S6200-103

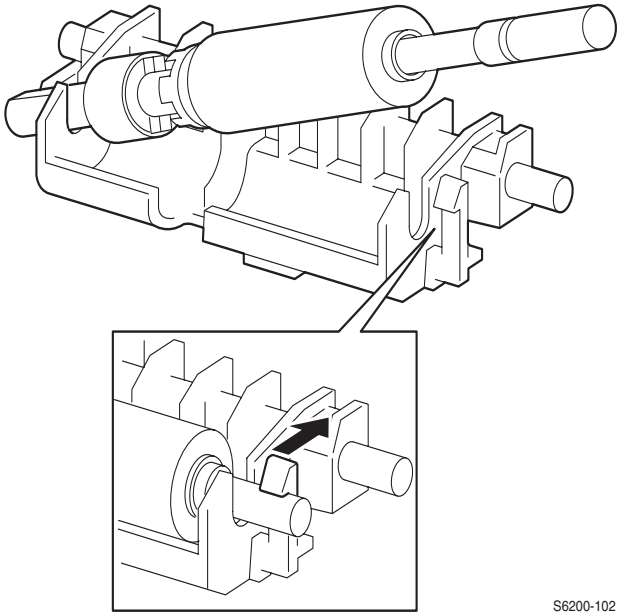
Removal

1. Remove the Retard Roller Housing Assembly (RRP 4.1)
2. Remove the e-ring securing the Turn Clutch to the shaft and remove the clutch.
3. Remove the e-ring securing the Turn Roll to the Retard Roller Housing Assembly.
4. Remove the left and right bearings.
5. Slide the shaft to the right and remove to the left of the assembly.

RRP 4.3 Retard Roll Assembly (PL4.1.5)



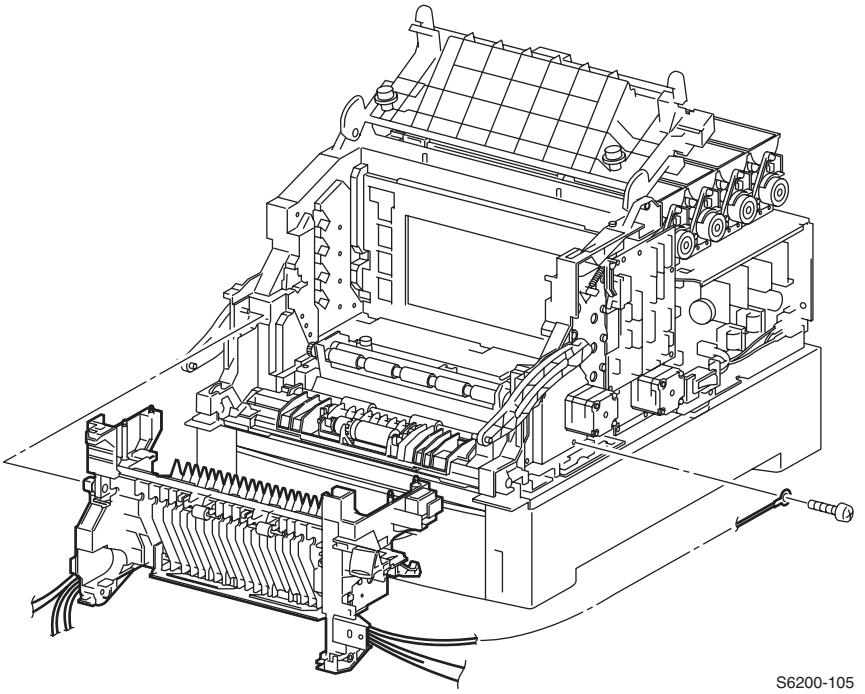




Removal

1. Remove the Imaging Unit.
2. Rotate the Retard Roller Assembly (item #1) up, slide to the right and remove to the left of the printer.
3. Release the tab securing the Retard Roller Shaft, raise the right end and remove the Retard Roller.

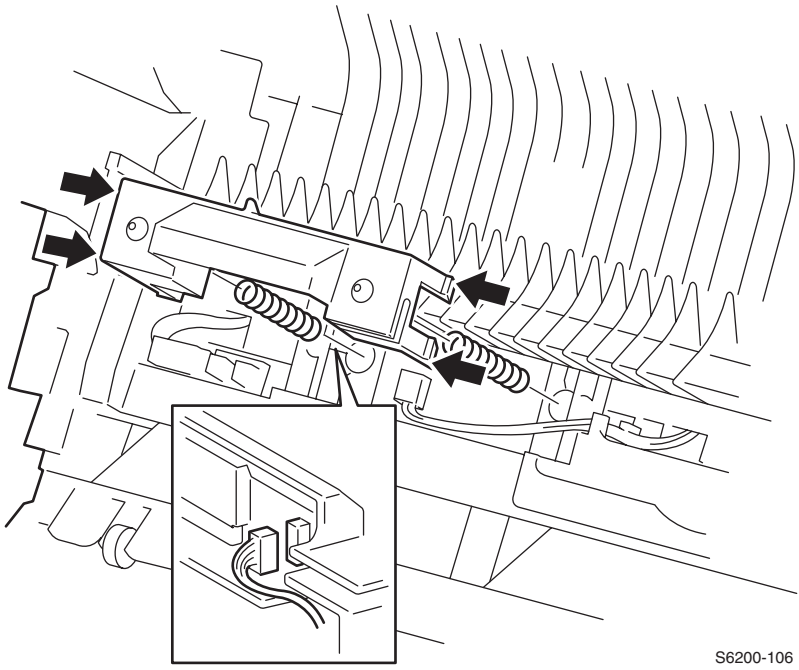
RRP 5.1 Chute Assembly In (PL 5.1.1)



Removal

1. Remove the Fuser Assembly.
2. Remove the Transfer Roller.
3. Remove the Imaging Unit.
4. Remove all covers and the MPT (RRP 1.7 and RRP 1.11).
5. Remove the Chute Assembly Out (RRP 6.1).
6. Release latch A (Door A) and pull the Chute Assembly In forward to remove from the printer chassis.

RRP 5.2 CTD (ADC) Sensor (PL 5.1.11)



Removal

1. Open door A.
2. Remove the Transfer Roller Assembly (CRC).
3. Release the 4 tabs securing the CTD Sensor Assembly to the Chute Assembly In.

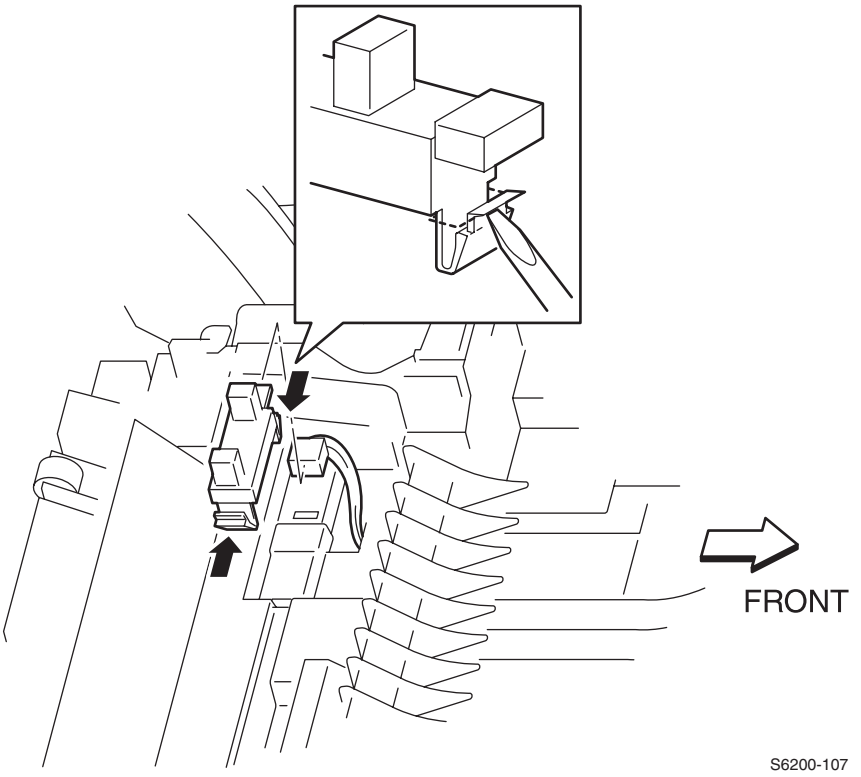
Caution: **The CTD Sensor is under spring tension, be careful not to damage or lose the springs.**

4. Raise the sensor slightly to disconnect P/J136 (yellow) from the Chute Assembly In.
5. Remove the CTD Sensor.
6. Remove the springs from the Sensor CTD (ADC) Assembly.

Reassembly

Note: ***The left spring has an aligning post on the Chute Assembly In.***

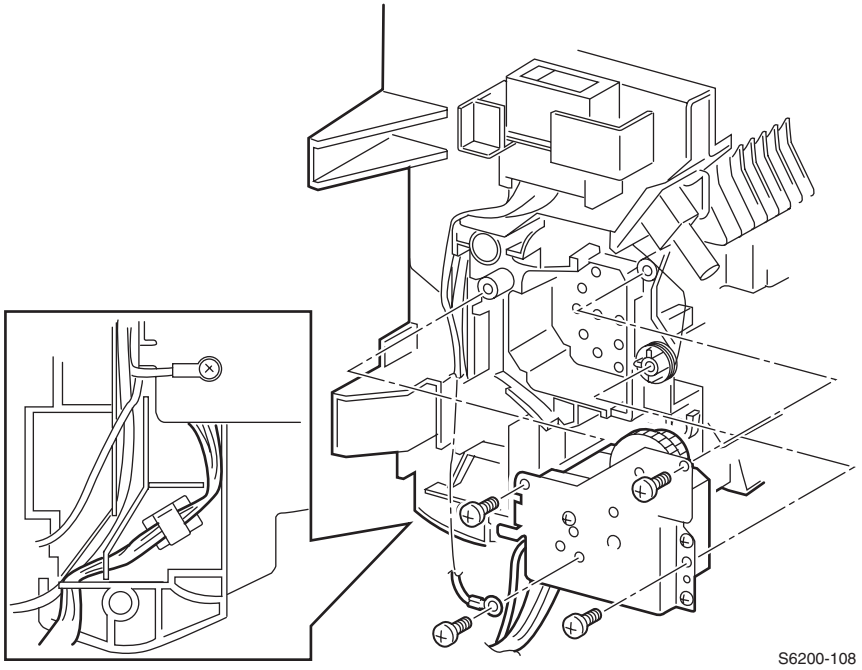
RRP 5.3 Toner Full Sensor (PL 5.1.14)



Removal

1. Open Door A.
2. Remove the Transfer Roll Assembly (CRU).
3. Disconnect P/J142 from the Chute Assembly In.
4. Release 2 tabs securing the Toner Full Sensor with a small screwdriver.
5. Remove the Toner Full Sensor from the Chute Assembly In.

RRP 5.4 Fuser Drive Assembly (PL 5.1.18)

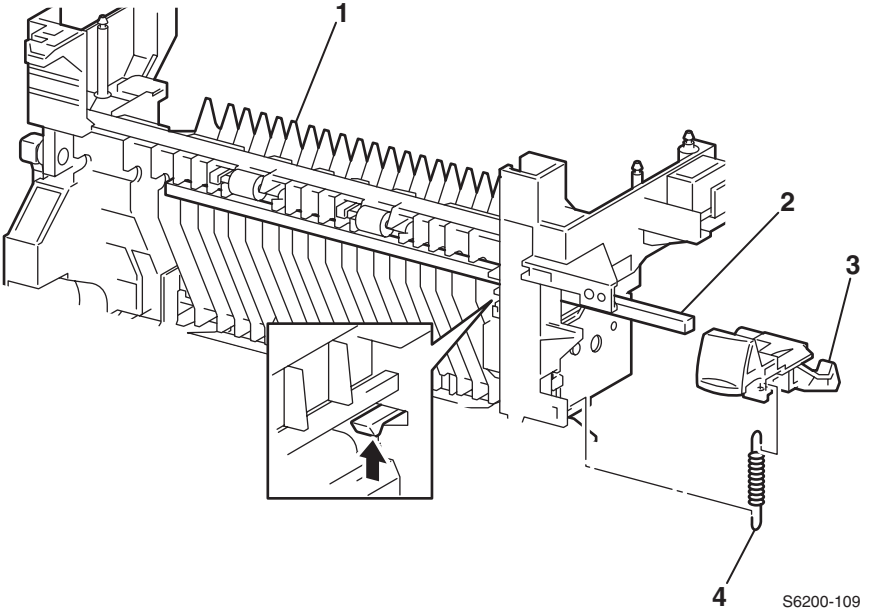


Removal

1. Remove the Fuser.
2. Remove Transfer Roller (CRC).
3. Remove the Chute Assembly Out (RRP 6.1).
4. Remove the Chute Assembly In (RRP 5.1).
5. Remove Latch A (RRP 5.5).
6. Remove the 1 screw securing the fuser ground wire to the Fuser Drive Assembly.
7. Shift the harness attached to the Fuser Drive Assembly from its clamp and housing.
8. Remove the 3 screws securing the Fuser Drive Assembly to the Chute Assembly In.
9. Remove the Fuser Drive Assembly.

Note: ***Note the routing of the wires for reassembly.***

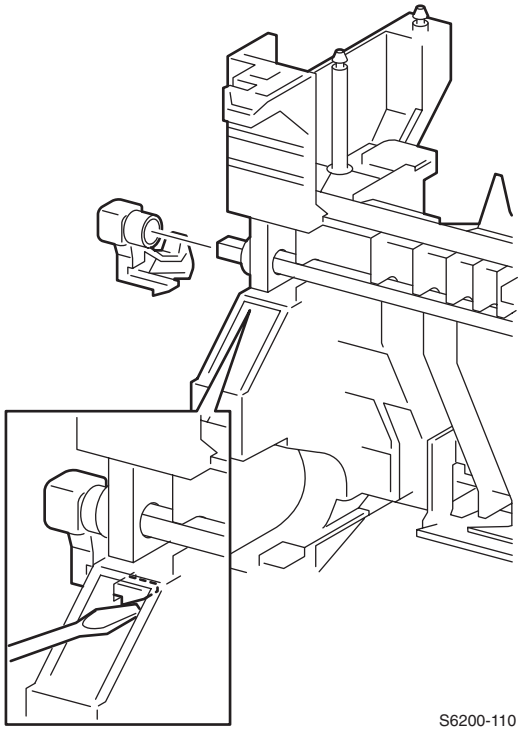
RRP 5.5 Latch R (Door A) (PL 5.1.21)



Removal for Latch R

1. Remove the Fuser Assembly (CRU).
2. Remove the Front Right Cover (RRP 1.10).
3. Open Door A.
4. Release the hook on the lower part of the spring (item #4) securing it to the Chute Assembly In.
5. Release the tab securing Latch R (item #3) to the Chute Assembly In.
6. Remove Latch R.

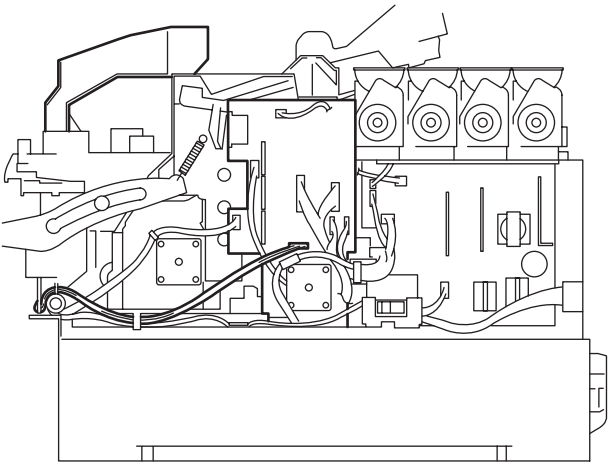
RRP 5.6 Latch L (PL 5.1.30)



Removal

1. Remove the Fuser Assembly.
2. Remove the Front Left Cover (RRP 1.6).
3. Open Door A.
4. Release the tab securing Latch L to the left side of the Chute Assembly In.
5. Remove the Latch L.

RRP 6.1 Chute Assembly Out, Duplex (PL6.1.1)



RIGHT SIDE VIEW S6200-111

Removal

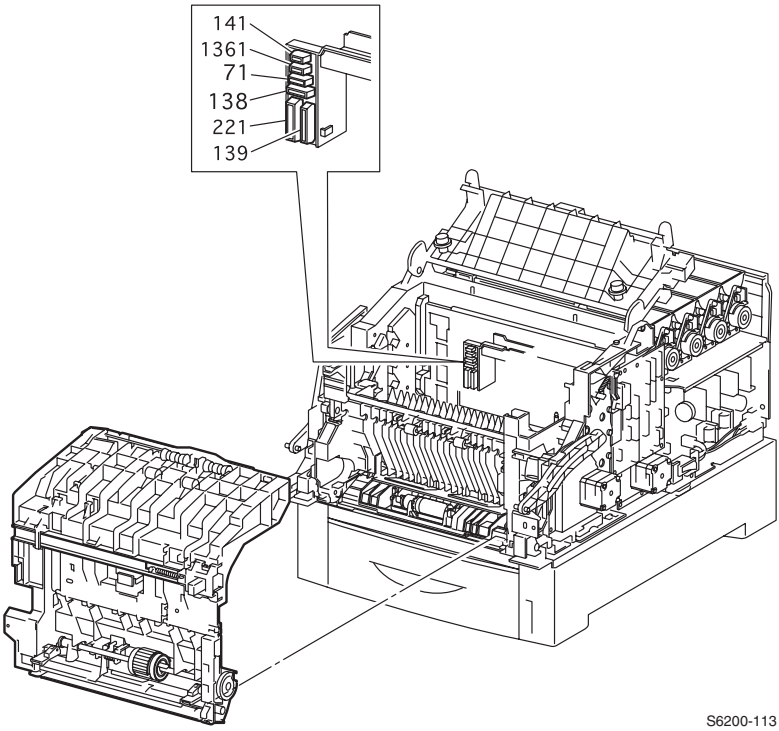
1. Remove the Imaging Unit (CRC).
2. Remove the Fuser Assembly (CRC).
3. Remove the Transfer Roller (CRC).
4. Remove all Covers and the MPT (RRP 1.7 and RRP 1.11).
5. Remove the strap (RRP 8.2).

Caution: In the following steps, you will need to latch the Chute Assembly Out (Door B) and the Chute Assembly In (Door A) while disconnecting wiring harnesses to avoid damaging the printer.

6. On left side of the printer, disconnect P/J5030 (Red) and P/J5020 (Red) from the Sub-High Voltage Supply Board.
7. Disconnect the top 2 connectors; P/J141, P/J1361 and the 4th connector P/J138 from the bracket and P/J145 (bottom gray) from the EEPROM Circuit Board.
8. Remove 1 screw securing the ground wire (left side) and move out of the way.

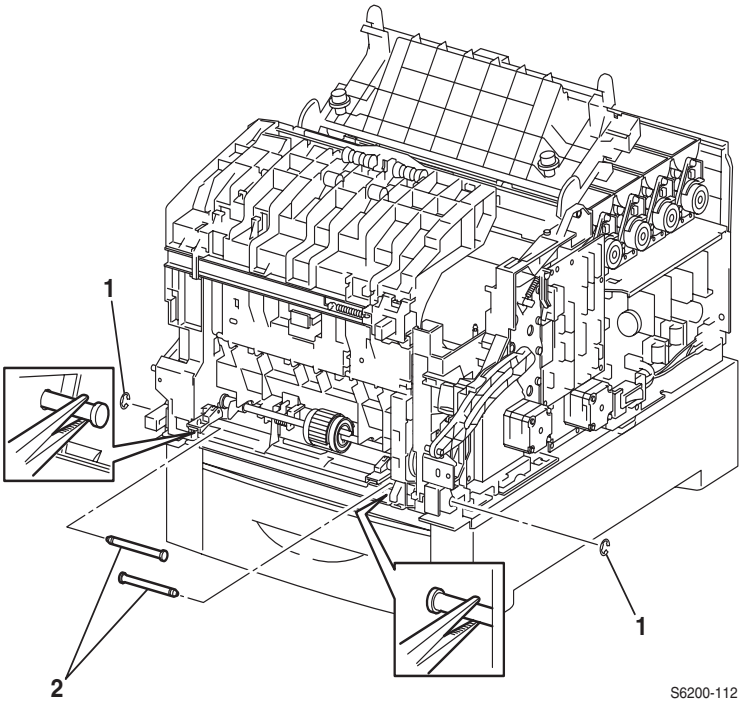
Caution: **The yellow and gray harnesses on the EEPROM Board contain the same number of pins, but are NOT interchangeable. Make sure P/J144 (yellow) is connected on the top and the P/J145 (gray) is connected to the bottom.**

9. Free the harness in step 6 from the bottom portion of the Housing Assembly Bias.
10. On the right side of the printer, disconnect P/J52 and P/J50 from the Motor Driver Board and disconnect P/J162 from the Low-Voltage Power Supply.
11. Remove 1 screw securing the Fuser ground wire (right side) and move out of the way.
12. Free the wiring harness on the Fuser Drive Assembly from the clamp on the Main Drive Assembly.
13. Free the wiring harness on the Fuser 2 Harness Assembly from the hook of the housing on the right side of the printer.



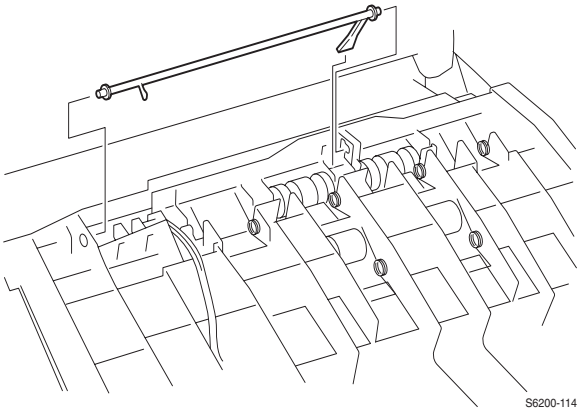
14. Remove the e-rings (item #1) from the right and left Shaft Pivots securing the bottom of the Chute Assembly Out to the printer.
15. Rotate the MPT roller until the lower plate assembly raises up.

Caution: The Plate Assembly Bottom has sharp burrs, be careful when performing the following steps.



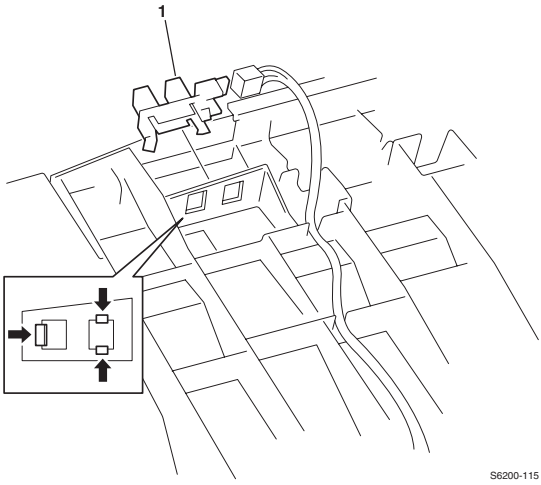
16. Using needle nose pliers, remove the left and right Shaft Pivots (item #2), pulling them inward to remove.
17. Release the latch at Door B and pull the Chute Assembly Out forward to remove.

RRP 6.2 Output Tray Full Actuator (PL 6.1.5) Full Stack Sensor (PL 6.1.4)



Removal - Actuator

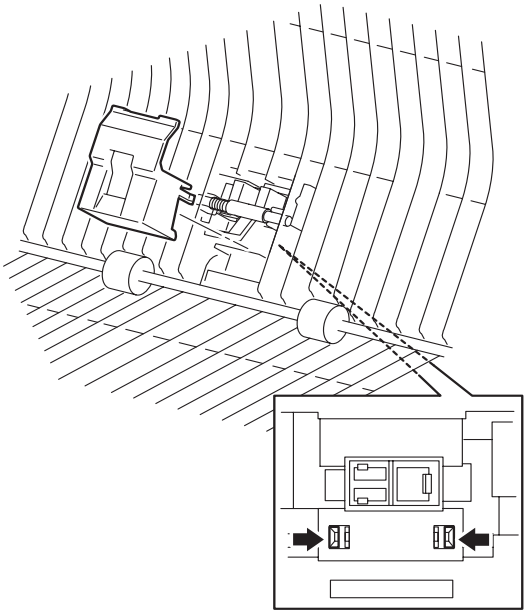
1. Remove the Front Cover (RRP 1.1).
2. Deflect the shaft of the Actuator Full from the top portion of the Chute Assembly Out and remove the shaft from the left side.



Removal - Full Stack Sensor

1. Remove the Actuator, Output Tray Full.
2. Disconnect P/J134 from the Full Stack Sensor.
3. Release the 3 tabs securing the Full Stack Sensor and remove.

RRP 6.3 Duplex Actuator (PL 6.1.13)
Duplex Sensor (PL 6.1.4)



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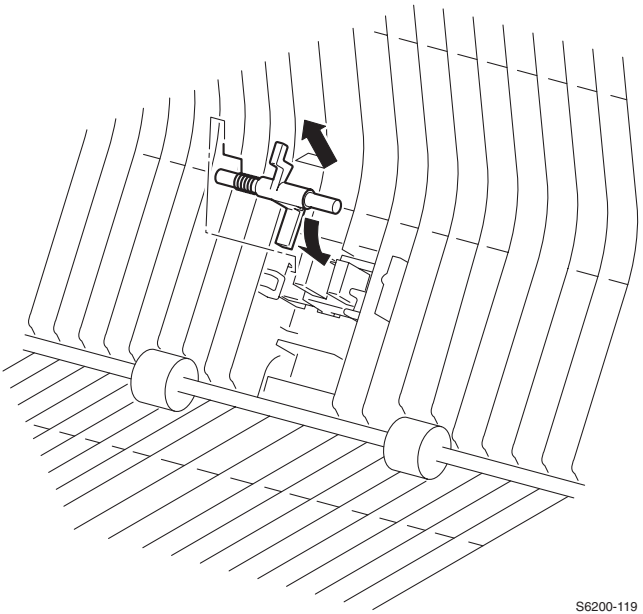

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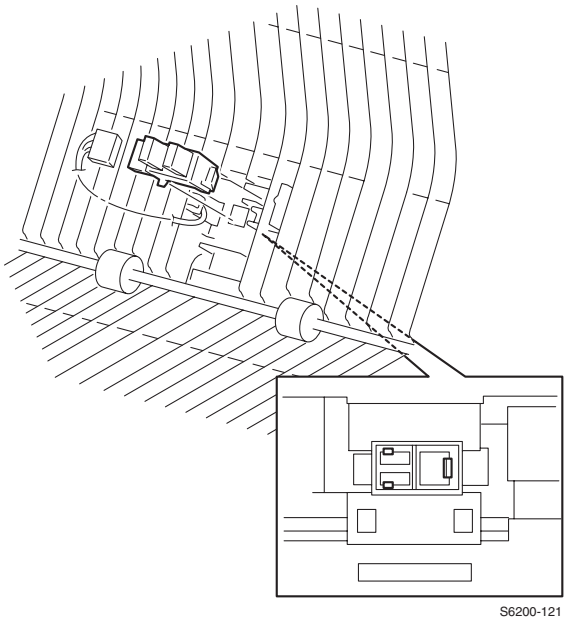
Removing the Duplex Actuator

1. Remove the Front Left Cover (RRP 1.11).
2. Release the 2 tabs securing the Actuator Cover, push in and remove the cover.
3. Release the tab on the left side of the Duplex Actuator.
4. Push the actuator to the left and remove out the right side removing the actuator with the spring still on the shaft.

Note: ***Note the position of the actuator spring during removal to ensure proper reassembly.***

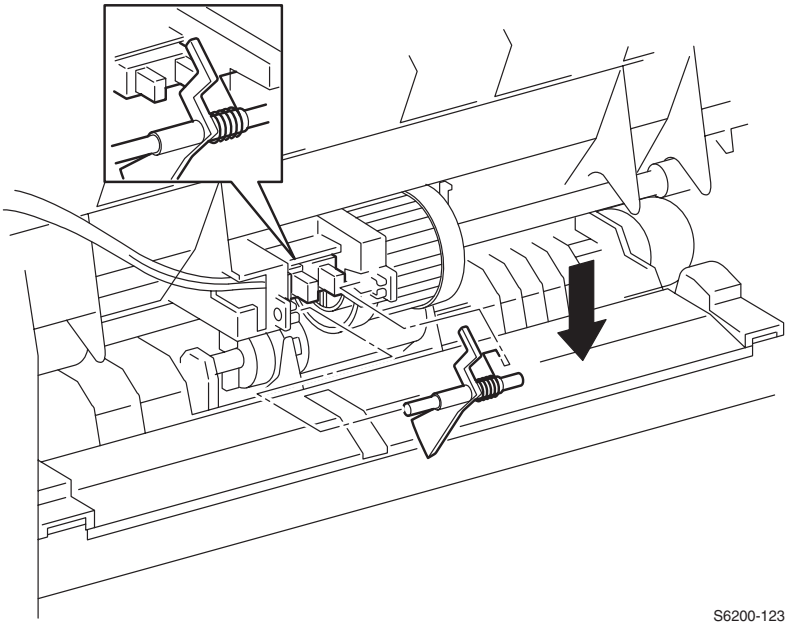
Reassembly



Removing the Duplex Sensor

1. Remove the Duplex Actuator.
2. Release the 3 tabs securing the Duplex Sensor and remove the sensor.
3. Disconnect the connector to the Duplex Sensor.

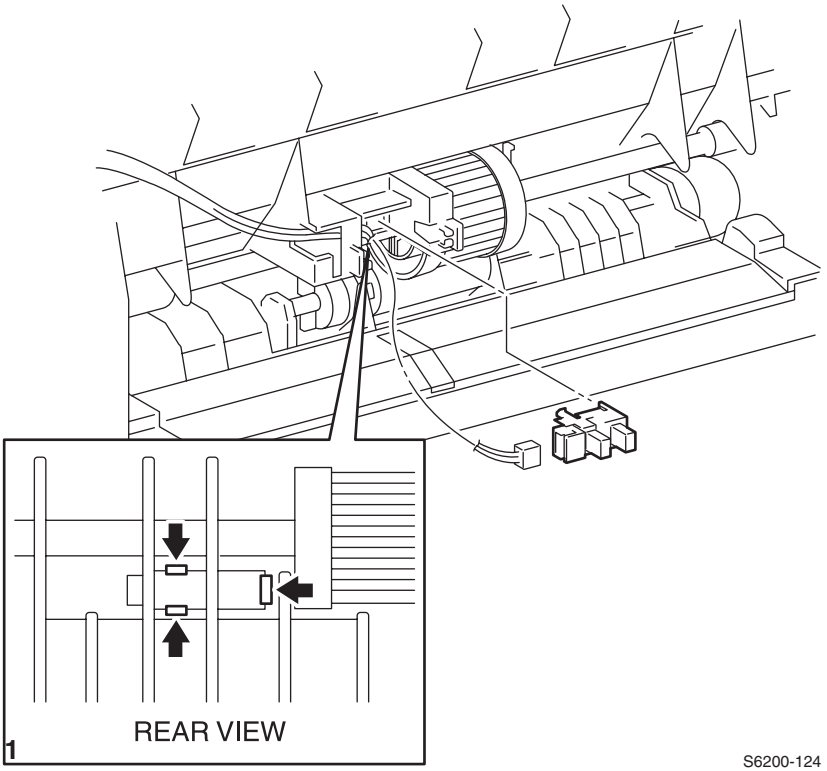
RRP 6.4 Multi-Purpose Tray Actuator (PL 6.1.37) Multi-Purpose Tray Sensor (PL 6.1.4)



Removal of the Actuator

1. Remove the Front Left Cover (RRP 1.11).
2. Push down on the Multi-Purpose Tray metal plate and push the actuator in.
3. Slide the actuator to the left and remove to the right.
4. Remove the spring from the actuator.

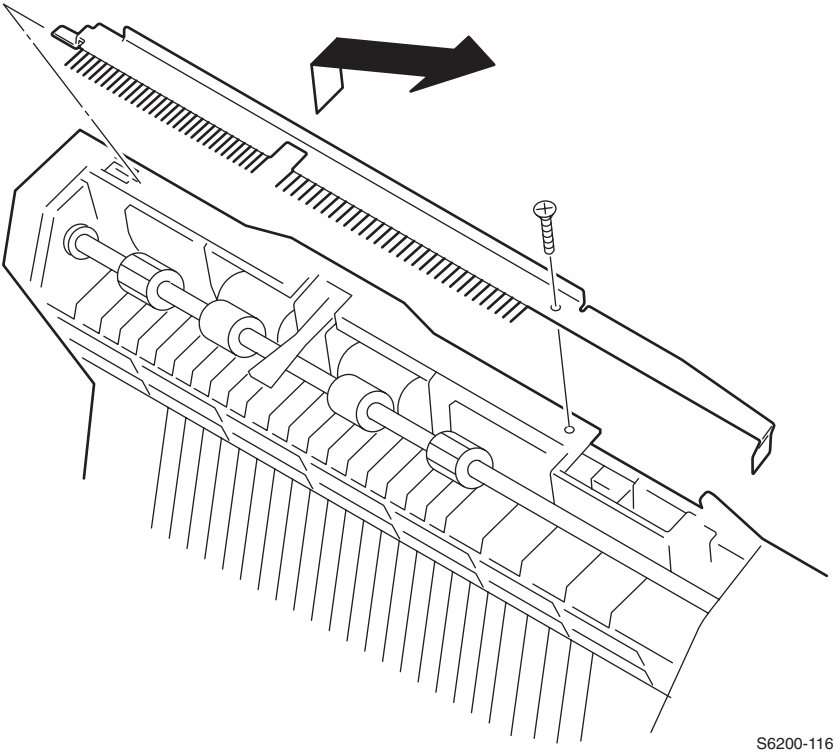
Caution: Be careful not to lose or damage the spring. Note spring orientation for reassembly.



Removal of the Sensor

1. Remove the MPT Actuator.
2. Open Door B.
3. From the back of the sensor, release the 3 tabs securing the sensor and remove.
4. Disconnect P/J135 from the Sensor.

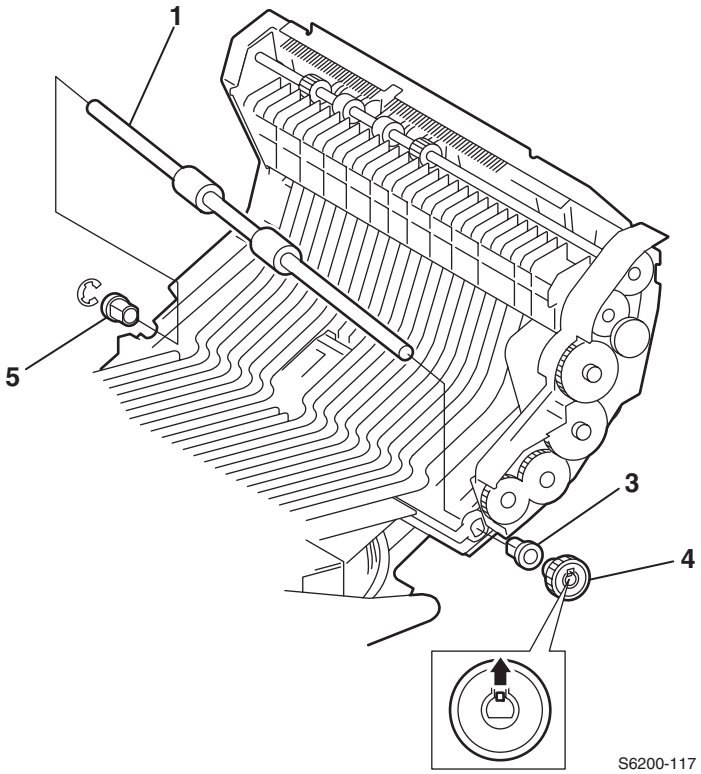
RRP 6.5 Static Eliminator Assembly (PL 6.1.9)



Removal

1. Remove the Front Cover Assembly (RRP 1.1).
2. Remove 1 screw securing the Eliminator Assembly to the Chute Assembly Out.
3. Raise the left end up and remove the Eliminator Assembly.

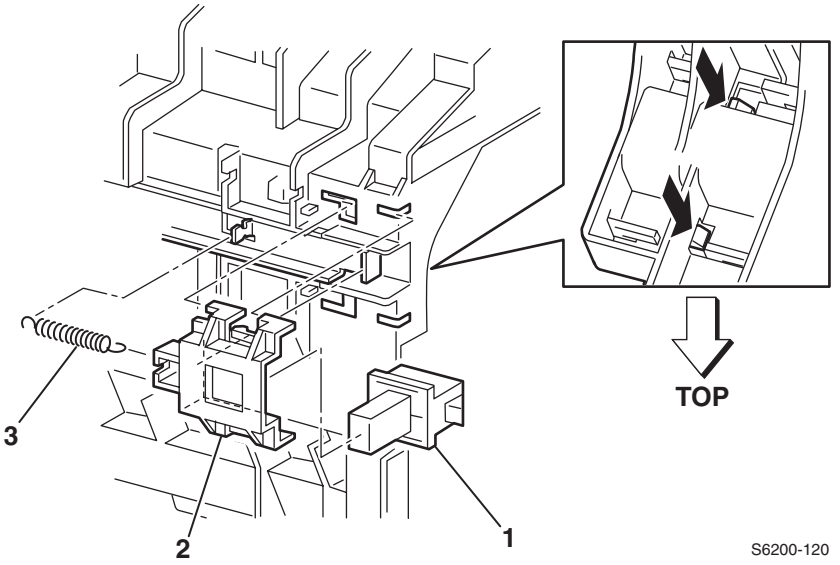
RRP 6.6 Duplex Roller (PL 6.1.12)



Removal

1. Remove the Front Left Cover (RRP 1.11).
2. Release the tab securing Gear 30 (item #4), See "Gear Layout - Print Engine and Tray 1' on page 318 and remove the gear.
3. Remove the bearing securing the left end of the shaft (item #5).
4. Raise the left end of the roller and shift the right bearing out (item #3) then remove the Duplex Roller.

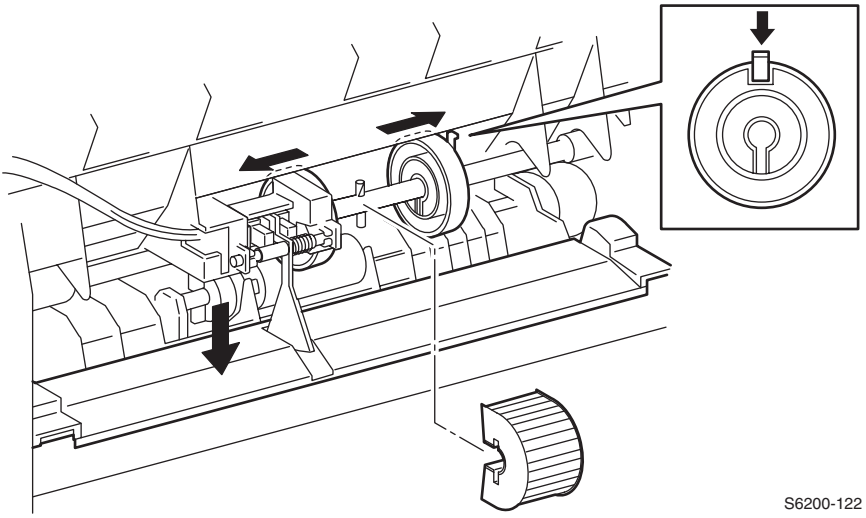
RRP 6.7 Latch, Plate (PL 6.1.17)
Latch, Out (PL 6.1.18)
Latch, Holder (PL 6.1.19)
Latch, Spring Out (PL 6.1.20)



Removal

1. Remove the Front Right Cover (RRP 1.10).
1. Remove the Front Left Cover (RRP 1.11).
2. Remove the Spring Out (item #3) from the Chute Assembly Out.
3. Release the 2 tabs from the inside of the Chute Assembly Out.
4. Slide the Holder Latch (item #2) to the right and remove.
5. Remove the Latch Out from the Holder (item #1).

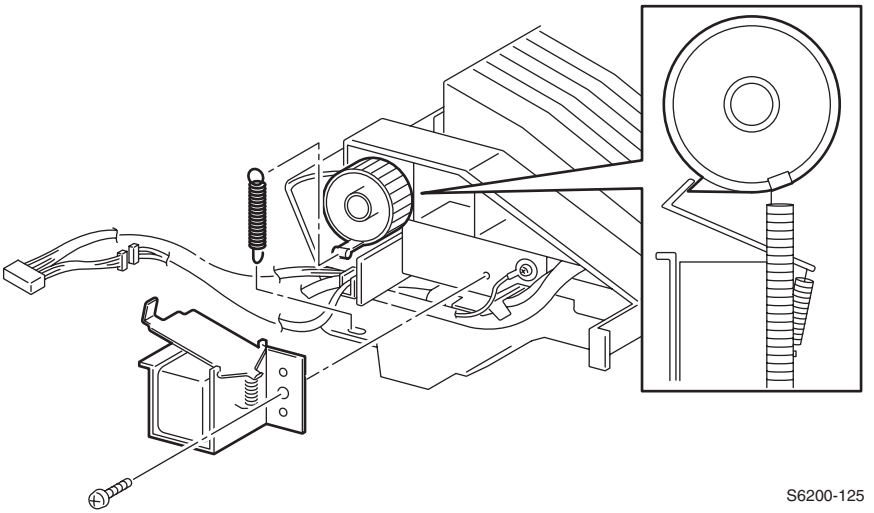
RRP 6.8 MPT Paper Pick Assembly (PL 6.1.27) (Roll Feed)



Removal

1. Remove the Front Left Cover (RRP 1.11).
2. Release the tab securing the roll core to the shaft and slide right.
3. Push down on the MPT metal plate and feed roller.
4. Slide the Paper Pick Roller to the right and pull out the front to remove.

RRP 6.9 MPT Feed Solenoid (PL 6.1.40)



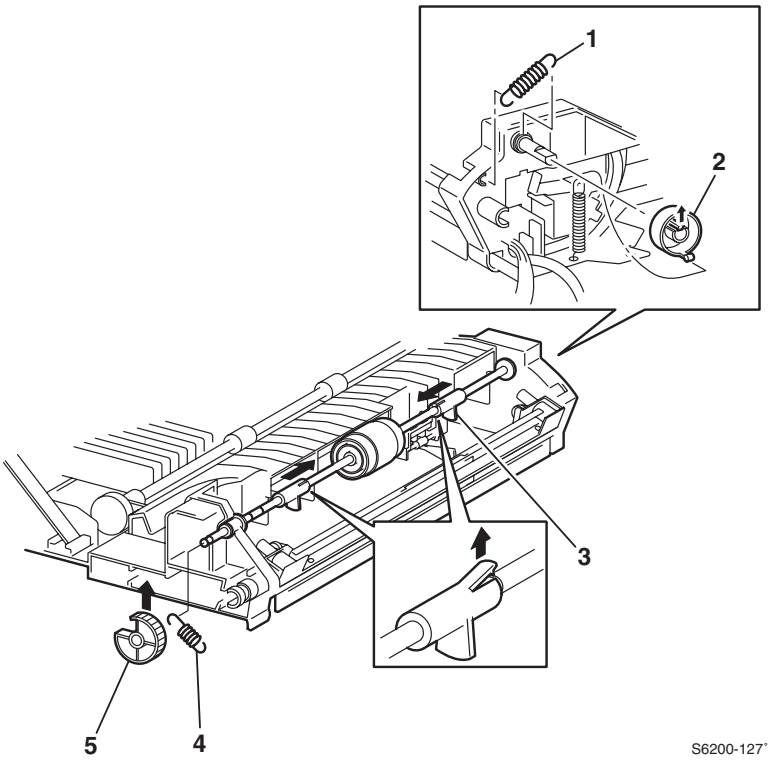
Removal

1. Remove the Chute Assembly Out (RRP 6.1).
2. Unhook the N/F MPT spring from the Solenoid Stopper.
3. Disconnect P/J132 from the Solenoid.
4. Remove 1 screw securing the Feed Solenoid to the Chute Assembly Out and remove.

Reassembly

Note: ***Make sure the solenoid seats properly on the aligning pins. The pins are plastic.***

RRP 6.10 Multi-Purpose Tray Shaft (PL 6.1.28)



Removal

1. Remove the Chute Assembly Out (RRP 6.1).
2. Remove the spring from the Solenoid Stopper.
3. Release the tab securing the Solenoid Stopper to the shaft and remove.
4. Release the tab on the MPT Gear (item #5) and remove the gear.

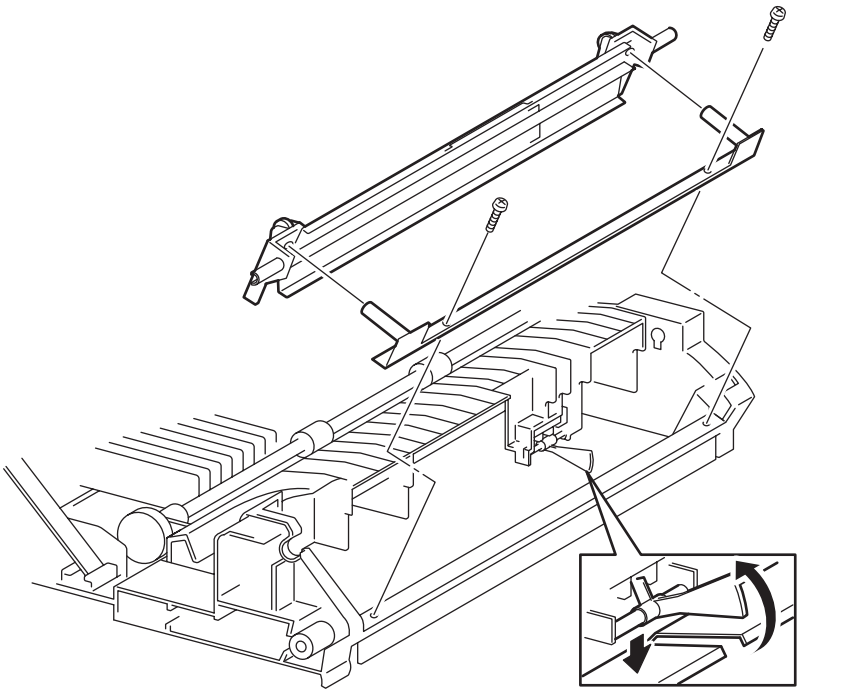
Note: ***Note the orientation of the springs for reassembly. A long eye hook attaches to the shaft.***

5. Remove the 2 springs (item #1 and #4) from the left and right side of the shaft.

Note: ***In the following step, do not lose the pins when moving the CAMs.***

6. Slide the CAMs (item #3) in.
7. Slide the shaft to the right and remove.

RRP 6.11 MPT Bottom Plate (PL 6.1.42)



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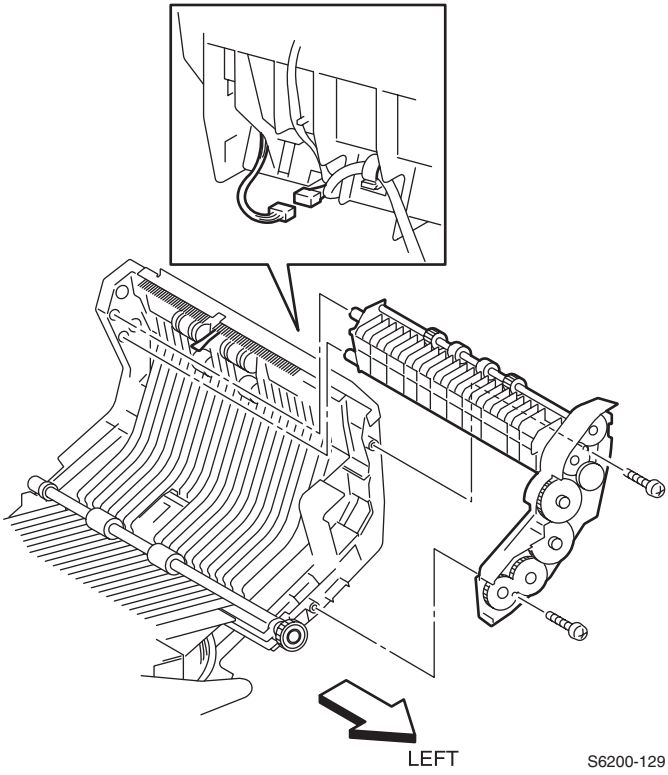
Removal

1. Remove the Chute Out Assembly (RRP 6.1).
2. Remove the 2 screws securing the plate to the Chute Out Assembly.
3. Remove the left and right springs from the MPT Shaft.

Note: ***In the following steps, shift the actuator out of the hole in the Plate bottom when removing the Plate.***

4. Remove the MPT Bottom Plate Assembly.

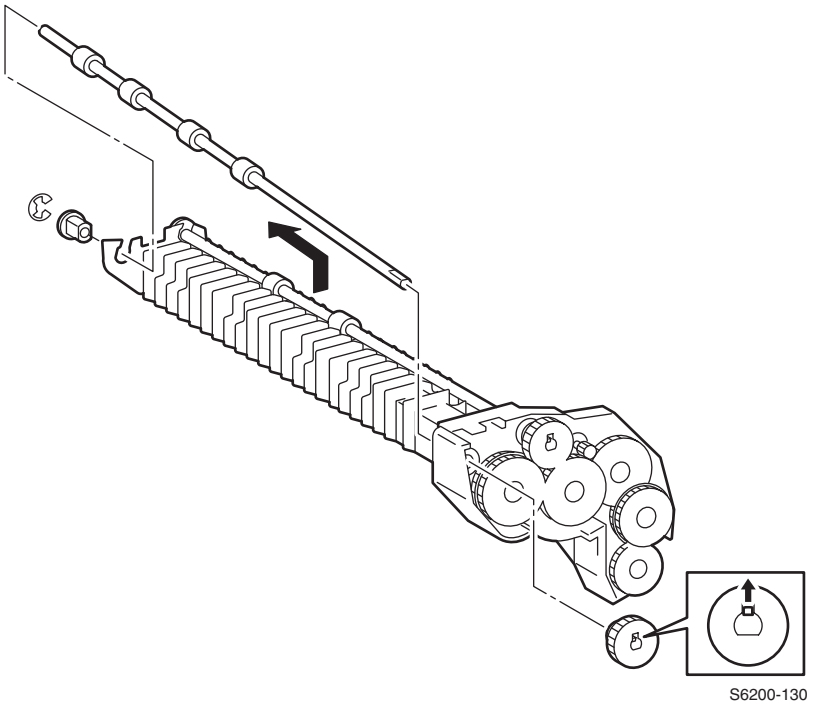
RRP 7.1 Chute Assembly Exit (PL 7.1.1)



Removal

1. Remove the Front Cover (RRP 1.1).
2. Remove the Front Left Cover (RRP 1.11).
3. Disconnect P/J131 and shift the harness to the side of the Chute Assembly Out.
4. Remove the 2 screws, the upper screw is attached to the static discharge harness, securing the Chute Assembly Exit to the Chute Assembly Out.

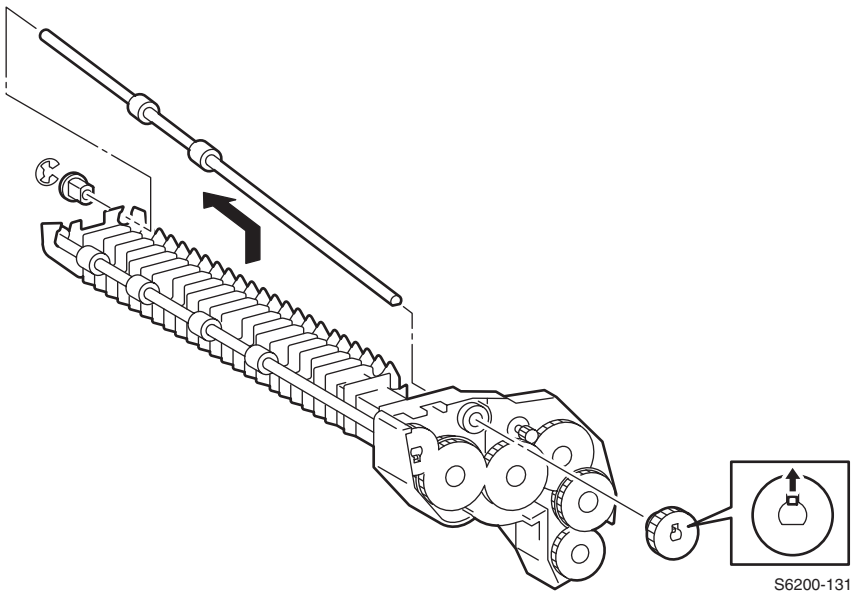
RRP 7.2 Exit Roller (PL 7.1.4)



Removal - Exit Roller

1. Remove the Front Cover (RRP 1.1).
2. Release the tab securing the Gear Roll to the shaft and remove the Gear Roll.
3. Remove the bearing from the left side of the shaft on the Roll Exit.
4. Remove the e-ring securing the right end of the shaft of the Roll Exit.
5. Remove the bearing.
6. Raise the right side of the shaft and pull the Roll Exit to the right and up to remove.

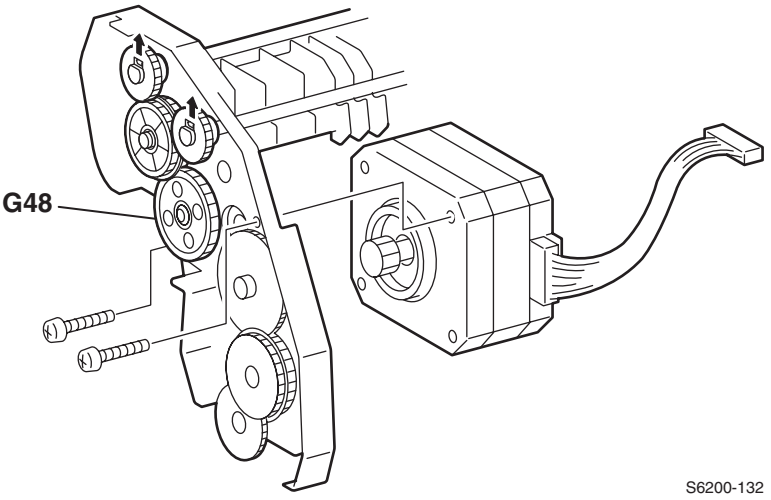
RRP 7.3 Mid Roller (PL 7.1.5)



Removal

1. Remove the Chute Assembly Exit (RRP 7.1)
2. Release the tab securing the Gear Roll and remove the Gear.
3. Remove the bearing from the left side of the shaft.
4. Remove the e-ring and bearing securing the right side of the shaft.
5. Raise the right side of the shaft and pull out the Mid Roll.

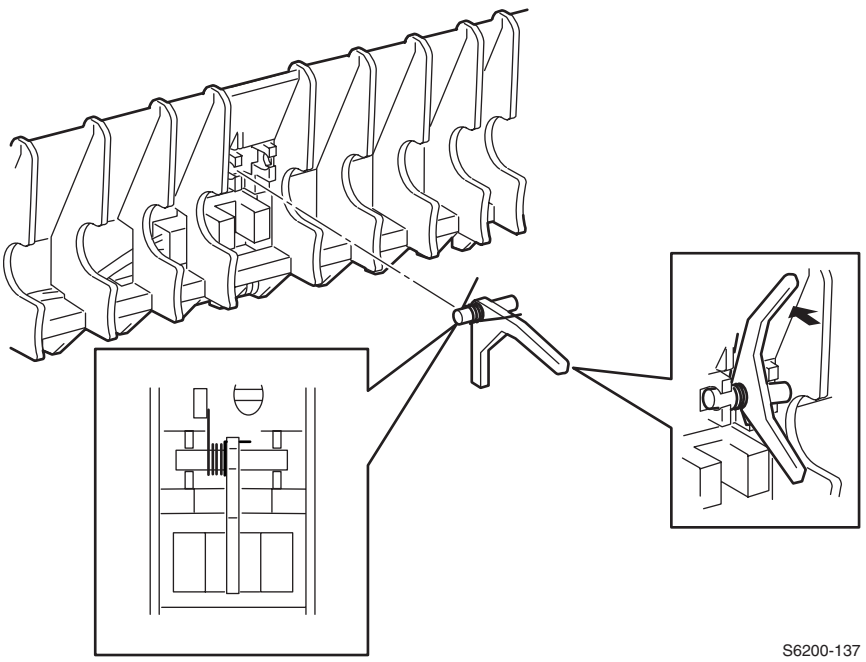
RRP 7.4 Duplex Motor Assembly (PL 7.1.8)



Removal

1. Remove the Chute Assembly Exit (RRP 7.1).
2. Rotate Gear 48 to access 1 screw securing the Duplex Motor Assembly to the Chute Assembly Exit, then remove the other screws.
3. Remove the Duplex Motor Assembly from the Chute Assembly Exit.

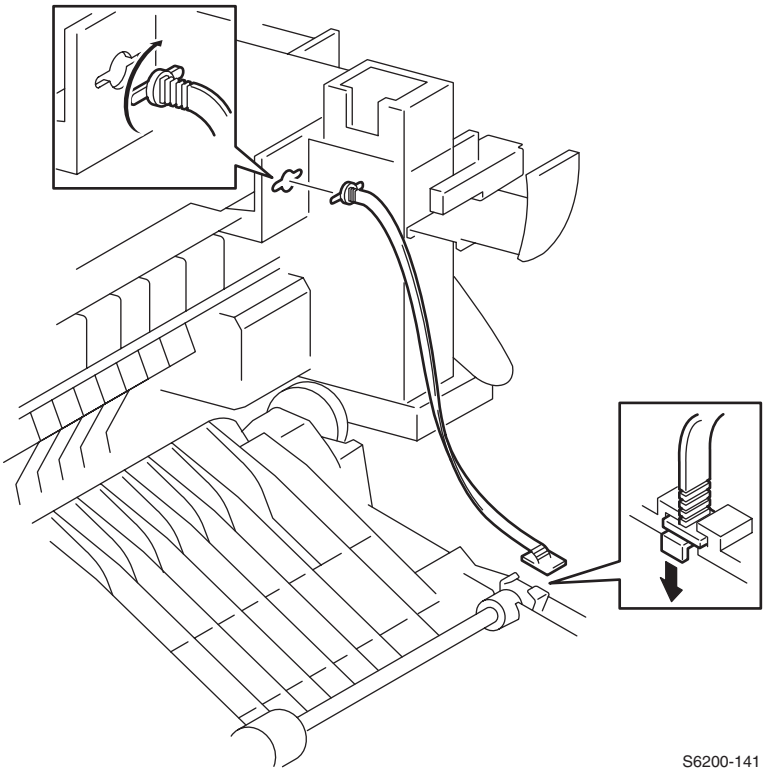
RRP 8.1 Exit Actuator (Fuser) (PL 8.1.7)



Removal

1. Remove the Fuser Assembly.
2. Remove the bearing from the left side of the Fuser Exit Roller and move the exit roller slightly out of the way.
3. Slide the Exit Actuator left.
4. Remove the Actuator Spring.

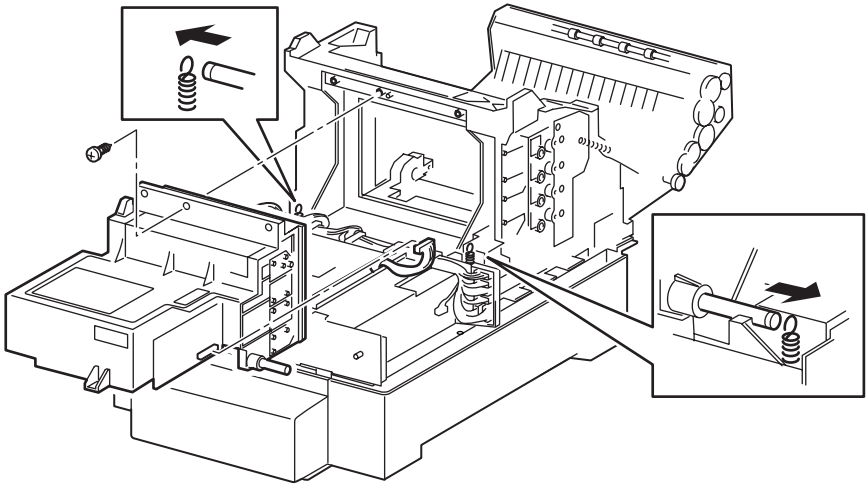
RRP 8.2 Strap (PL 8.1.13)



Removal

1. Open Door B.
2. Turn the top of the strap 90 degrees and remove.

RRP 9.1 Laser Unit (PL 9.1.1)



Removal

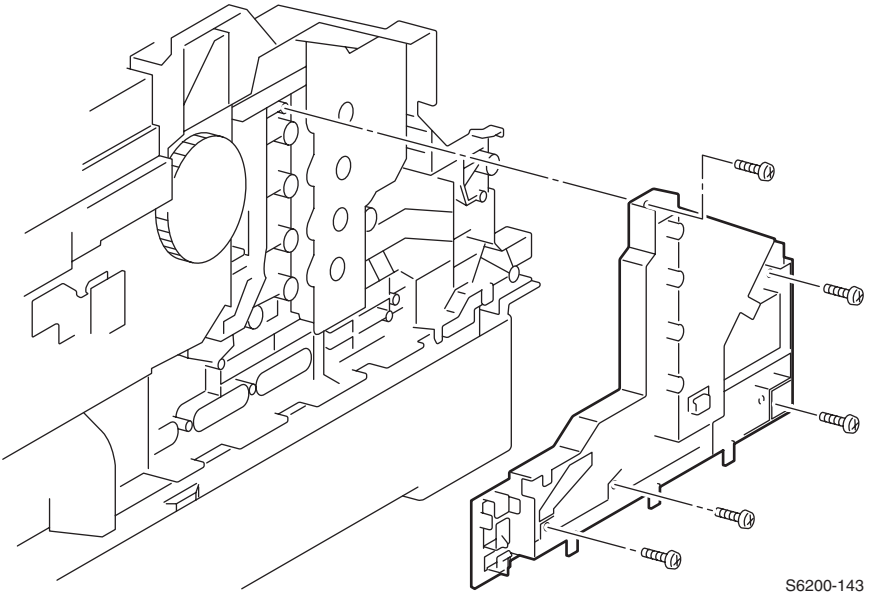
1. Remove the Toner Cartridge Holder Assembly Unit (RRP 10.1)
2. Remove the Rear Fan (RRP 12.4).
3. Disconnect P/J151 from the Laser Unit.
4. Release the tabs securing the harness cable guide, located on top of the power switch, and move out of the way.
5. Unhook the springs from the left and right ends of the shaft.
6. Remove 1 screw securing the Laser Unit to the printer and remove the assembly.

Replacement

1. Align the Laser Unit with the printer.
2. Secure the right and left shafts of the Laser Unit with the tabs on the top of the Spring Laser.
3. Install the screw.
4. Connect P/J151.

Note: ***Perform the Color Registration procedure after replacing the Laser Unit.***

RRP 9.2 Bias Housing Assembly (PL 9.1.4)



Removal

Note: ***The Imaging Unit must be removed to prevent loss of the biasing buttons.***

1. Remove the Imaging Unit.
2. Remove the Left Side Cover (RRP 1.6).
3. Disconnect all the wires and remove from the channel.
4. Remove the Link: Left (RRP 1.8).
5. Remove the 5 screws securing the Bias Housing Assembly.

Caution: **The biasing buttons fall out easily.**

6. Remove the Housing Assembly.

Replacement

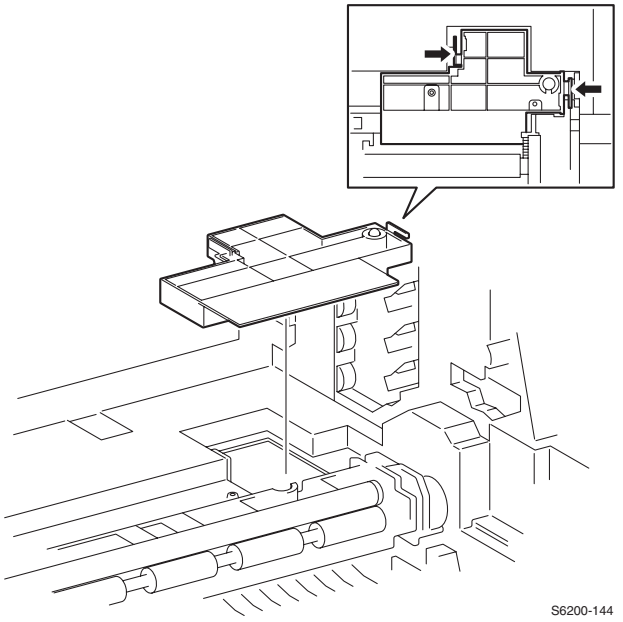
1. Replace in reverse order.

Note: ***Move all wiring harness out of the way when replacing.***

Note: ***Ensure all 8 biasing buttons are in place.***

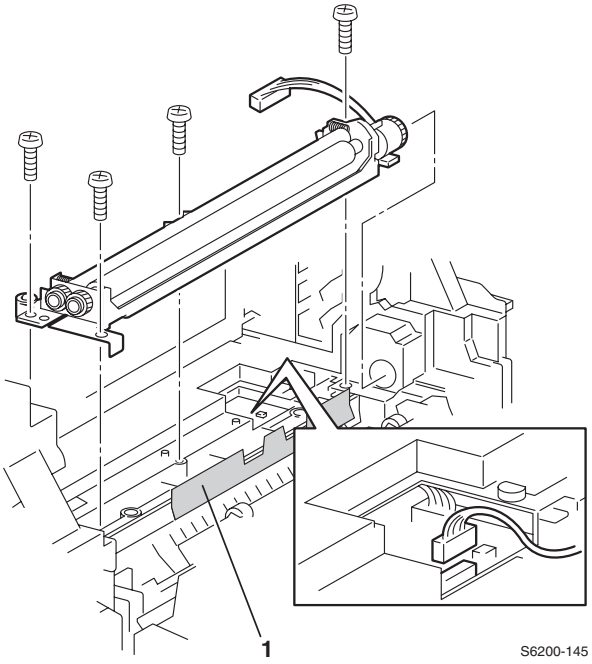
Note: ***Verify the proper alignment of the biasing springs.***

RRP 9.3 Chute Assembly Registration (PL 9.1.6) Housing Electric Assembly (PL 9.1.11)



Removal

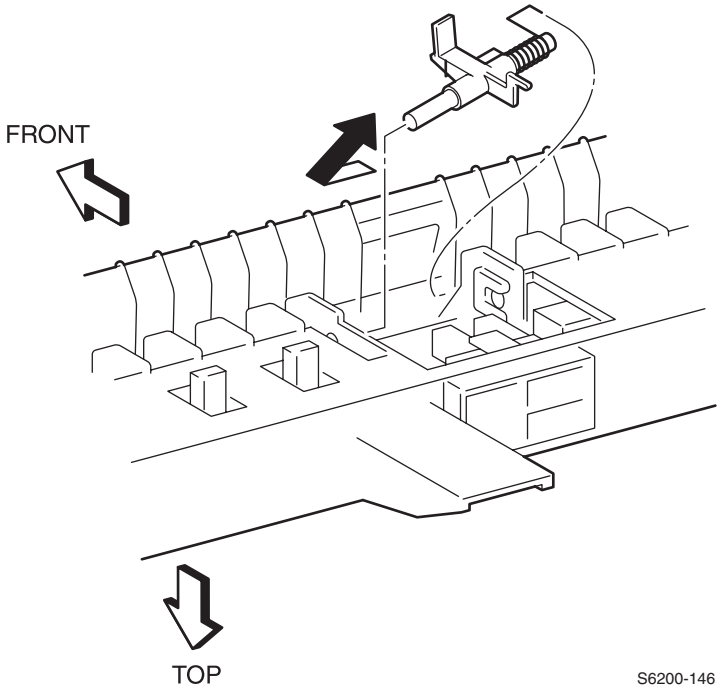
1. Open Door A and Door C.
2. Remove the Imaging Unit.
3. Release the 2 tabs securing the Electric Housing Assembly to the printer and remove straight up.
4. Disconnect P/J18 (blue) from the Registration Chute Assembly.
5. Disconnect P/J32 (blue) from the OHP Sensor.



6. Remove the 4 screws securing the Registration Chute Assembly.
7. Raise the left side of the Registration Chute Assembly and pull towards the left side of the printer to remove.

Note: ***Ensure the mylar strip (item #1) is not bent or pinched but seated properly in the middle cavity of the Registration chute when reassembling.***

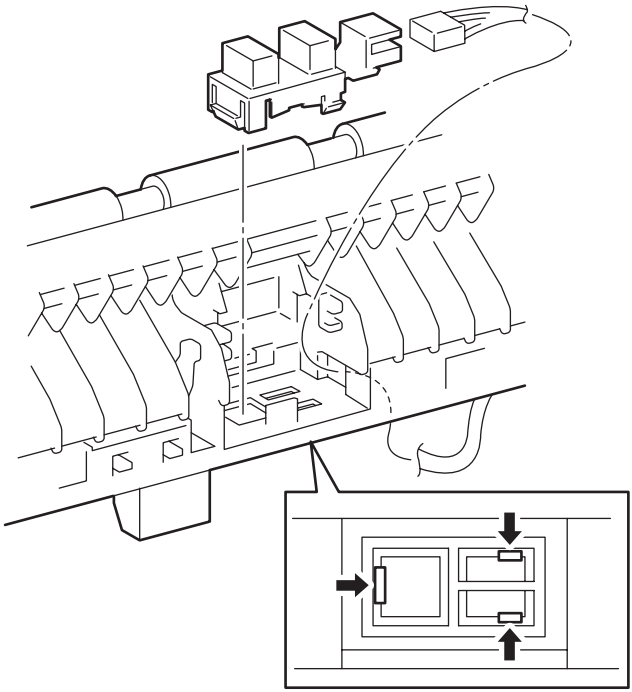
RRP 9.4 Registration Sensor Actuator (PL 9.1.9) Registration Sensor (PL 9.1.8)



Removal of Actuator

1. Remove the Chute Assembly Registration (RRP 9.3).
2. Shift the actuator to the left, lift up on the right side and remove.
3. Remove the actuator spring from the Actuator.

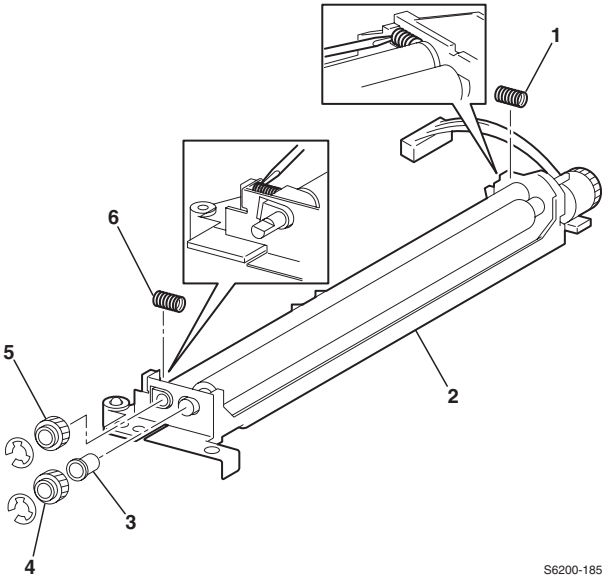
Note: ***Make note of the orientation of the spring for reassembly.***



Removal of Sensor

1. Remove the Registration Actuator.
2. Disconnect P/J181.
3. Release the 3 tabs securing the Sensor to the Chute Assembly Registration and remove the sensor.

RRP 9.5 OHP Sensor and Harness (Kit) (PL 9.1.12)

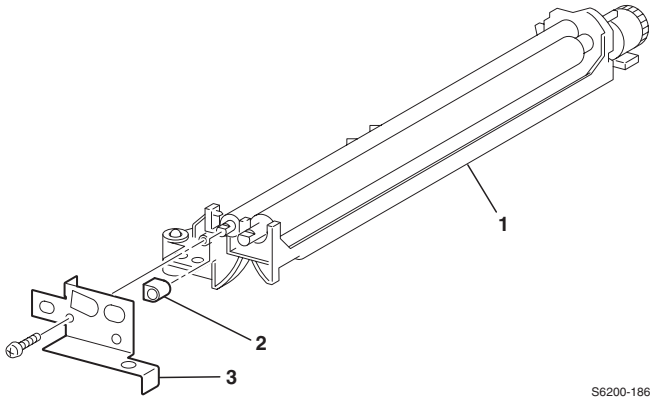


Removal

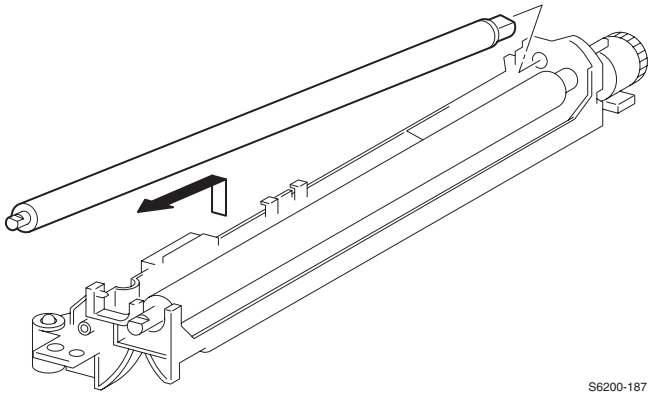
1. Remove the Chute Assembly Registration (RRP 9.3).
2. Remove the 2 e-rings securing the 2 Gears (items #4 & #5).

Note: ***When removing the Springs use caution they spring off the shaft easily.***

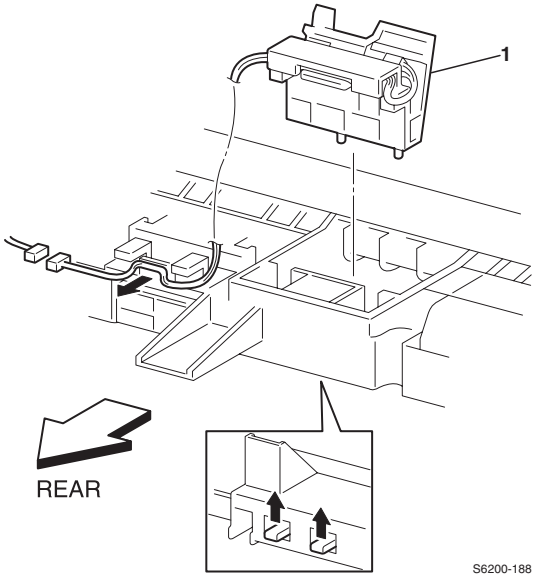
3. Remove both springs (item #1 & #6).
4. Pull out the bearing on the left side of the shaft (item #3).



5. Remove 1 screw from the left side of the Chute Assembly securing the Bracket Assembly (item #3).
6. Pull off the black plastic bearing (item #2) securing the left side of the metal registration roller.



7. Raise the left end of the shaft and remove with the right white plastic bearing attached.



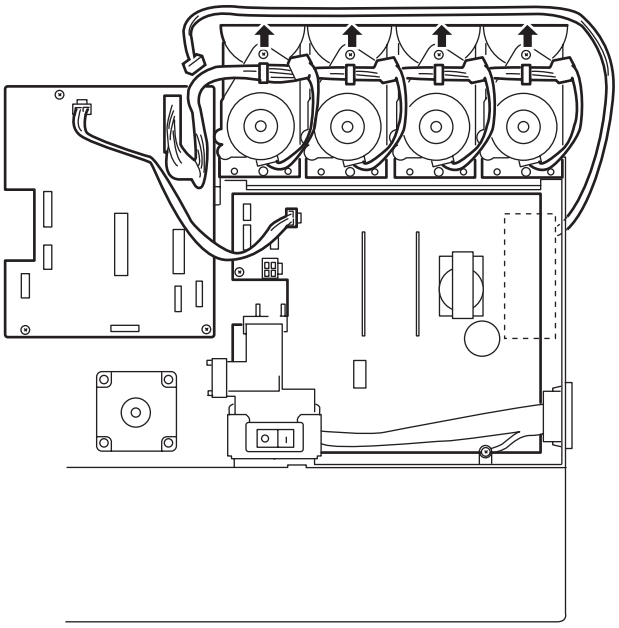
8. Pull back on the tabs (item #1) to remove the OHP Sensor Cover.
9. Remove the OHP Sensor from the cover.
10. Disconnect P/J321.

Reassembly

Note: ***When reassembling item #5, the white gear goes on the metal roller, and the black gear (item 4) goes on the rubber roller.***

Note: ***Install the springs last.***

RRP 10.1 Toner Cartridge Holder Unit Assembly (PL 10.1)



Note: ***Use only a Type II Toner Vacuum to remove toner deposits before removing the Toner Cartridge Assembly.***

Note: ***When removing toner deposits, be careful not to get toner into the sensors.***

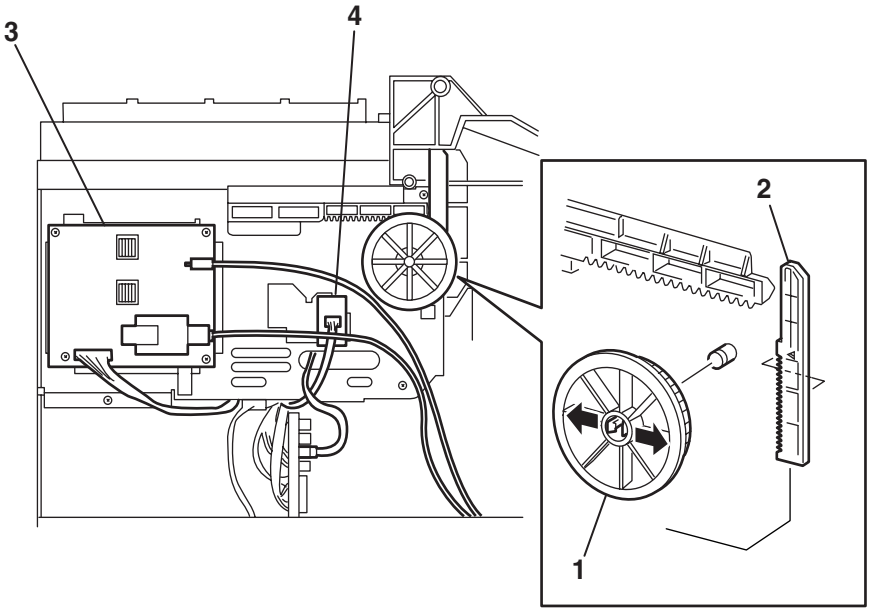
Removal

1. Remove the Imaging Unit (CRU).
2. Remove the Rear Cover (RRP 1.7).

Note: ***Reinstall the toner cartridges to seal the toner system and prevent spillage.***

3. Disconnect P/J166 from the Low-Voltage Power Supply (rear fan) and shift the wiring harness through the tab on the right side of the printer, being very careful not to break the tab.
4. Disconnect P/J51 from the Motor Driver Board.

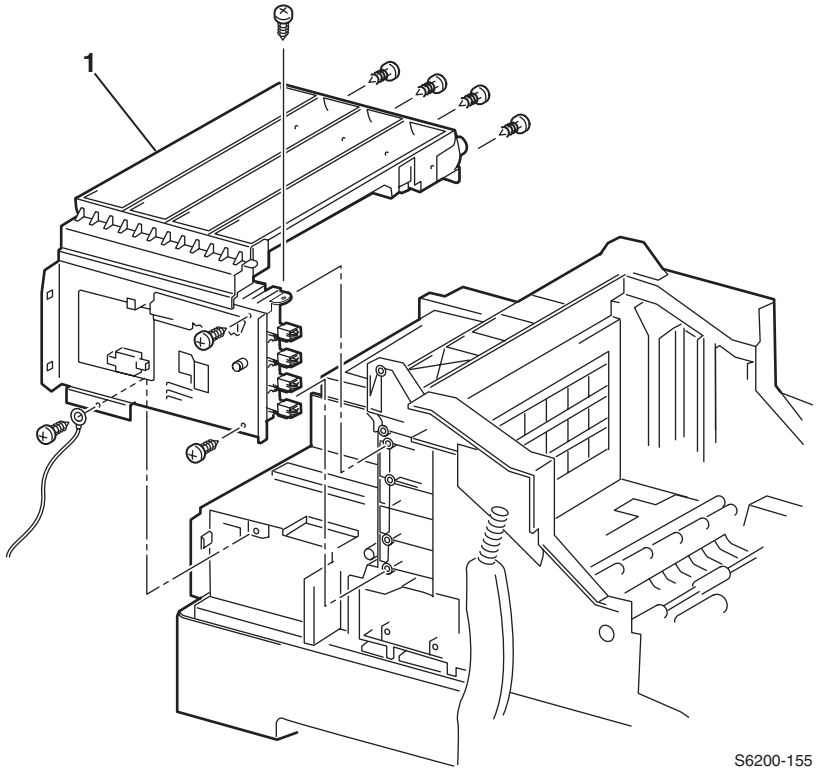
5. Disconnect P/J144 (yellow top) and P/J145 (gray bottom) from the EEPROM Board (item #4).
6. Disconnect the third connector (P/J71) from the bracket on the left side printer.
7. Disconnect P/J5020, P/J5030, and P/J5011 from the Sub-High-Voltage Power Supply Board (item #3).
8. Release P/J5011 from the clamp.



9. Release the 2 tabs securing the Gear Slide (item #1) and remove the slide.
10. Remove the Rack V (item #2) from the printer.

11. Remove the 8 screws securing the Toner Cartridge Holder Unit and remove the unit.

Note: ***The 4 screws on the right side of the printer are below the toner motors.***

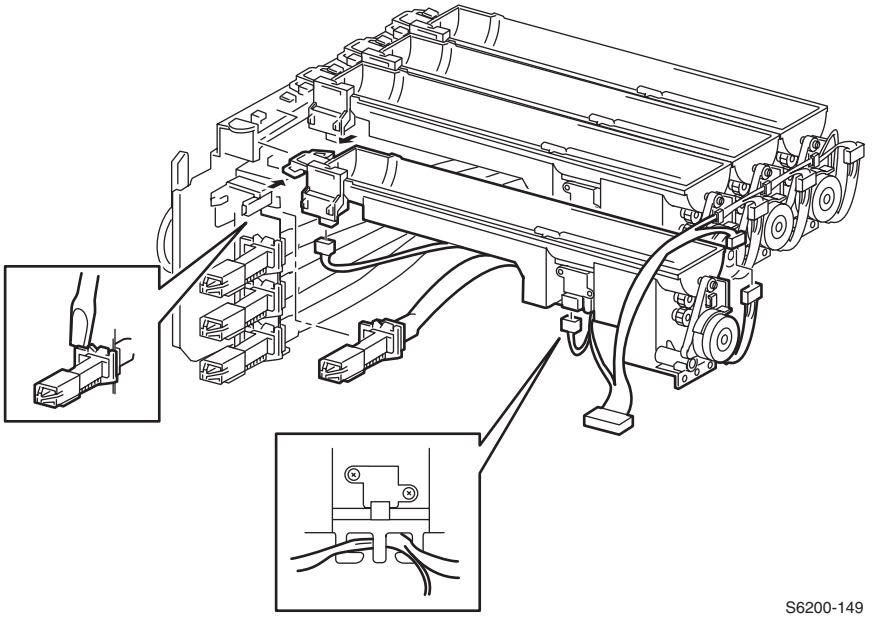


Replacment

1. Replace in reverse order.

Note: ***Damage can occur if the Gear and Rack are not in the proper position. With Door C open, push the Rack V up as far as it can go and then replace the gear.***

RRP 10.2 Toner Cartridge Holder Assembly (Y) (PL 10.1.1) (M) (PL 10.1.2) (C) (PL 10.1.3 (K) (PL 10.1.4)



Removal

2. Remove the Left and Right Covers (RRP 1.6).
3. Remove the Holder Toner Cartridge Assembly Unit (RRP 10.1).

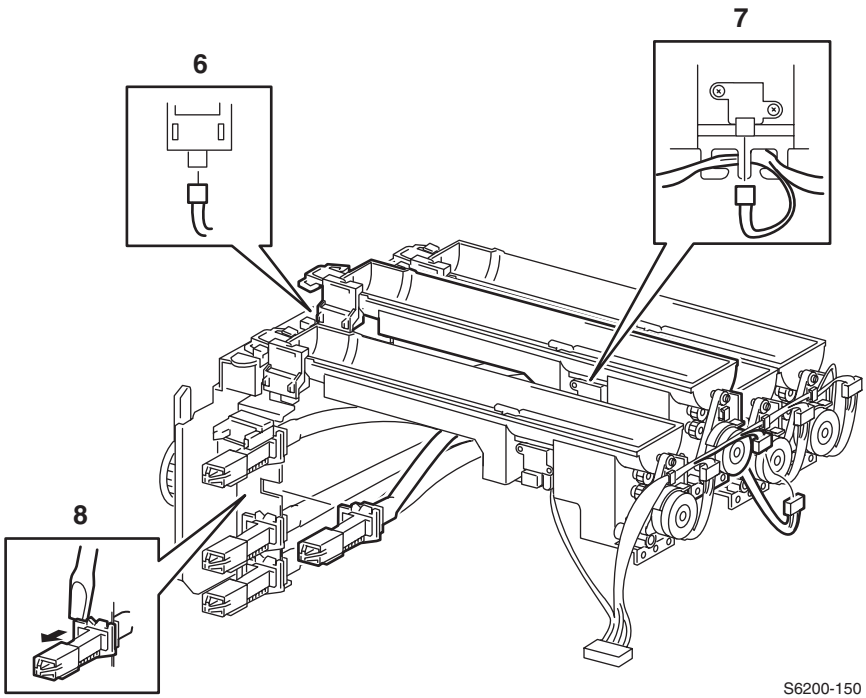
Note: ***Reinstall the toner cartridges to prevent spillage.***

Note: ***The holders need to be removed in Y, M, C, K order. There are small locking tabs between the holders on each end that lock them together.***

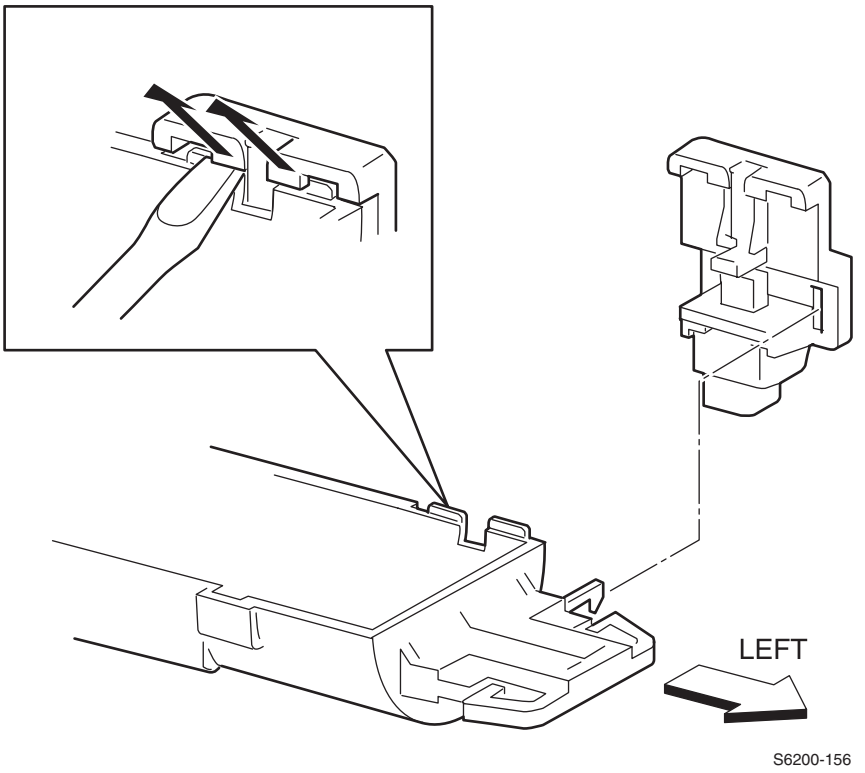
4. In the Holder Toner Assembly Unit, release the tab securing the auger tube from the Plate Dispensor (PL 10.1.9) with a small screwdriver and remove by sliding to the right.

Note: ***You will need to disconnect the all connectors before removing the holder in the next steps.***

5. Disconnect the following Plug/Jacks from each dispenser (item #6):
   - Y - P/J511, P/J441 and P/J431
   - M - P/J512, P/J442 and P/J432
   - C - P/J513, P/J443 and P/J433
   - K - P/J514, P/J444 and P/J434
6. Near the toner low sensor shift the harness's from the tabs on the Toner Cartridge Holder Assembly (item #7).
7. Release the tab securing the Toner Cartridge Holder Assembly (Y, M, C, K) to the Plate Dispenser (item #8) and slide the Toner Cartridge Holder to the right to remove.



RRP 10.3 Toner Present Switch (PL 10.1.18)



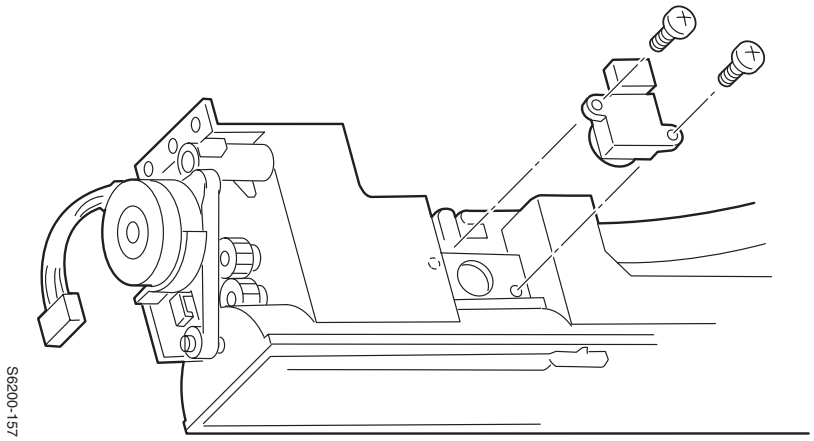
Removal

1. Remove the Toner Holder Cartridge Unit (RRP 10.1).
2. Remove the Holder Toner Cartridge Assembly of the relevant color (RRP 10.2).
3. Remove the Toner Cartridge for the relevant color.

Note: ***Rotate the Toner Holder Assembly with the switch facing up before removing the switch to prevent toner spills.***

4. Carefully pry the tabs securing the Toner Present Switch Assembly with a small screwdriver and remove the switch.

RRP 10.4 Toner Low Sensor (PL 10.1.8)



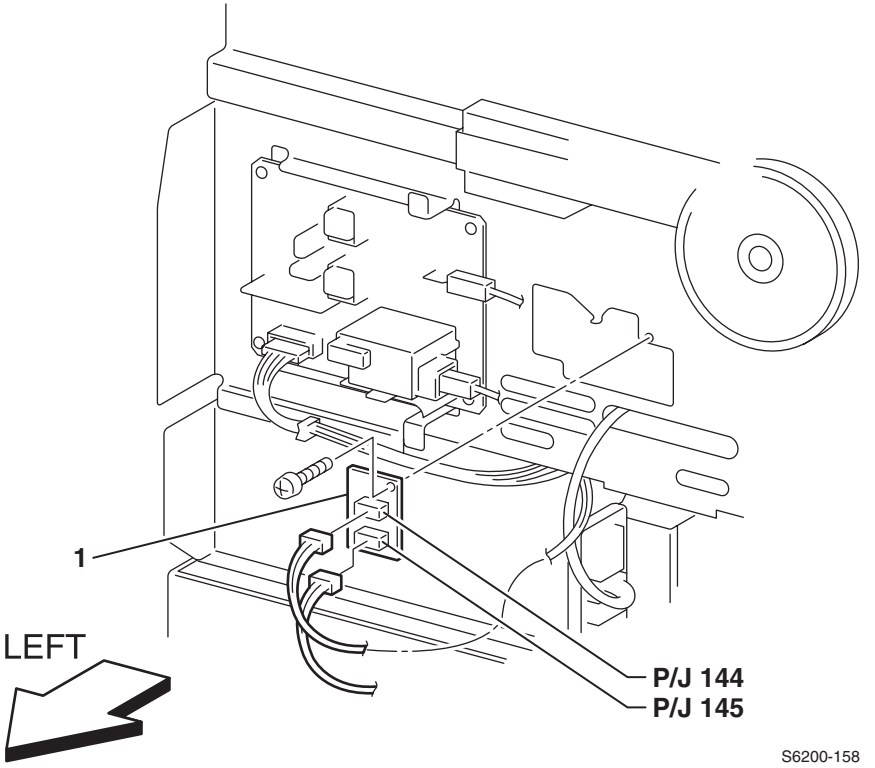
Removal

1. Remove the Toner Holder Cartridge Assembly Unit (RRP 10.1).
2. Remove the Holder Toner Cartridge Assembly of the relevant color (RRP 10.2).

Note: ***Rotate the Toner Holder Assembly with the sensor face up before removing the sensor to prevent toner spills.***

3. Remove the 2 screws securing the Low Toner Sensor to the holder and remove the sensor.

RRP 10.5 EEPROM Board (PL 10.1.16)



Removal

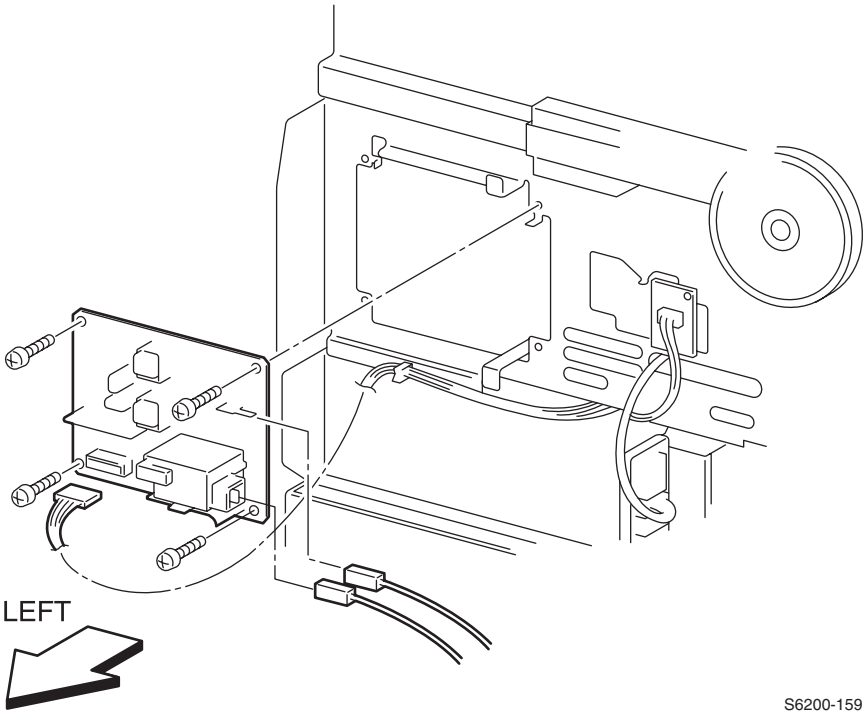
1. Remove the Left Side Cover (RRP 1.6).

Caution: **The yellow and gray harnesses on the EEPROM Board (item #1) contain the same number of pins, but are NOT interchangeable. Make sure P/J144 (yellow) is connected on the top and the P/J145 (gray) is connected to the bottom.**

2. Disconnect P/J144 and P/J145 from the EEPROM Board on the left side of the printer.
3. Remove 1 screw securing the EEPROM Board and remove the board.

Note: ***When a new EEPROM Board is installed in the printer, the CRUM data written to the EEPROM makes it unique to that printer. The EEPROM board cannot be re-used in another printer***

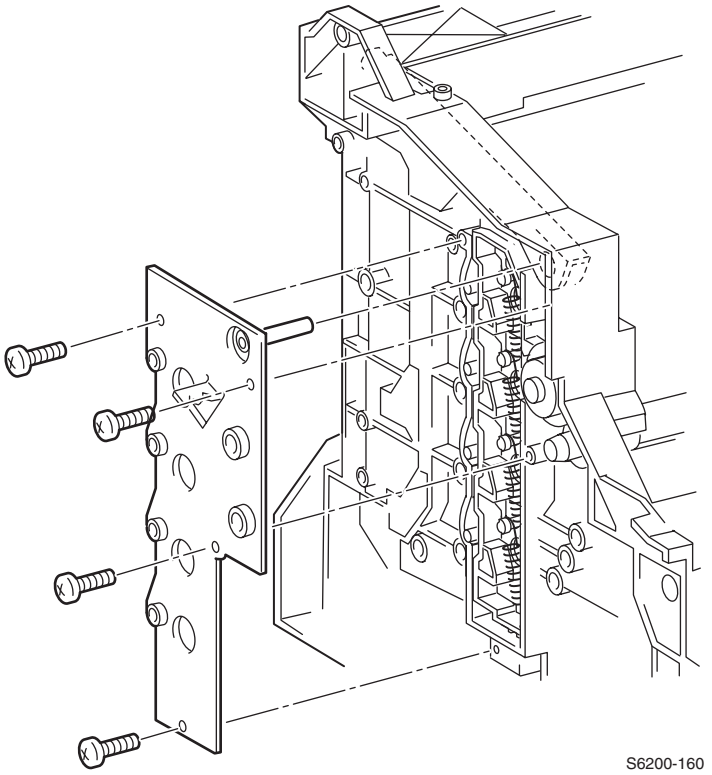
RRP 10.6 Sub-High Voltage Power Supply Board (PL 10.1.17)



Removal

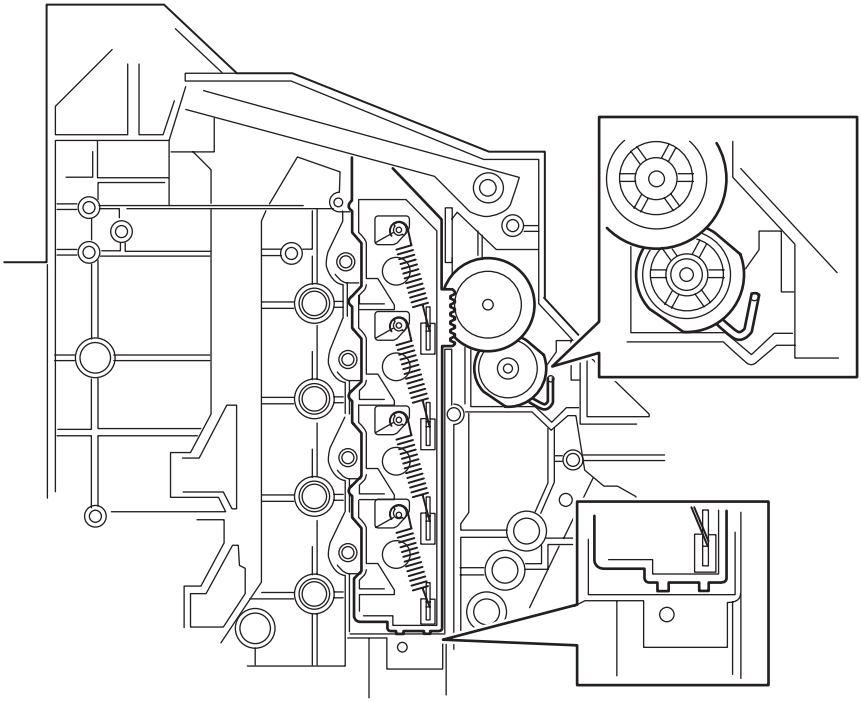
1. Remove the Left Side Cover (RRP 1.6).
2. Disconnect P/J5011, P/J5030, and P/J5020 from the Sub-High Voltage Power Supply Board.
3. Remove the 4 screws securing the board to the printer and remove the Sub-High Voltage Power Supply Board.

RRP 11.1 Left Lever Plate (PL 11.1.1)
Lever Bracket (PL 11.1.2)
Lever Link (PL 11.1.3)
Lever Drum (PL 11.1.4)
Lever Spring (PL 11.1.5)

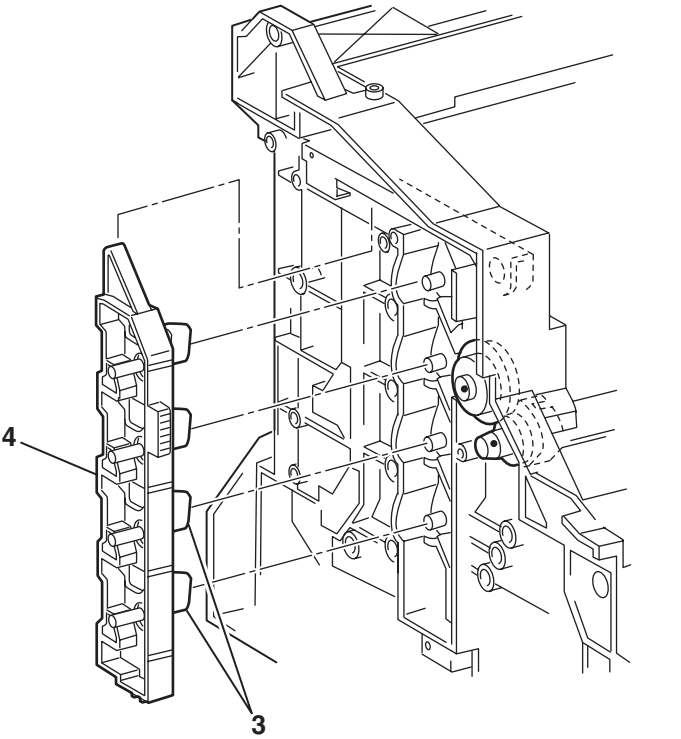


Removal

1. Remove the Left Cover (RRP 1.6).
2. Remove the Top Imaging Unit Cover Door C (RRP 1.5).
3. Unhook the Left Link Spring (PL1.1.23).



4. Remove the Housing Assembly Bias (RRP 9.2).
5. Remove the 4 screws securing the Left Plate Assembly.
6. Press on the aligning posts from inside the cavity of the printer to remove the Plate Assembly



7. Carefully remove the Left Link lever (item #4) from the printer chassis together with the springs and the drum levers (item #3).

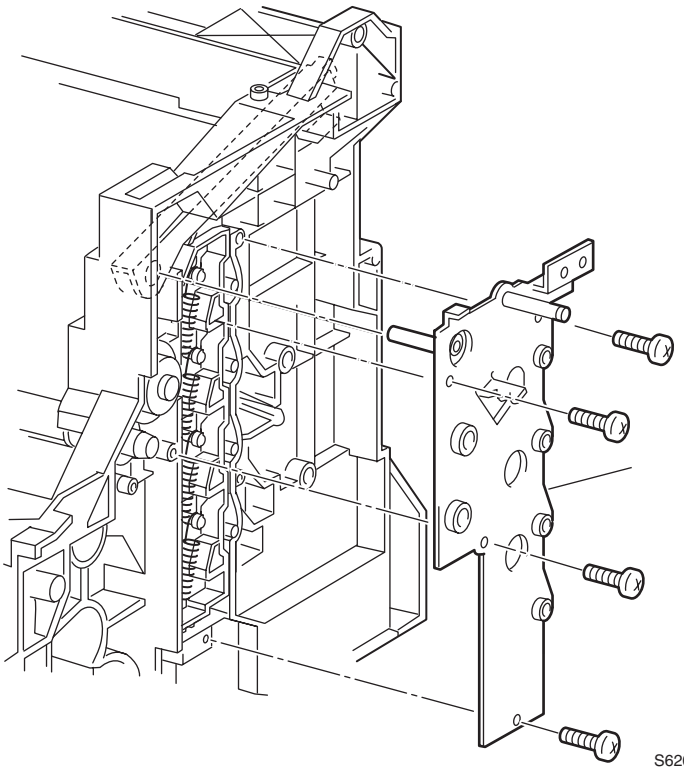
Note: ***Lay the asssembly on a flat surface, pressing down to remove the spring from the drum lever.***

8. Remove the spring levers.

Caution: **Do not accidentally knock out the stud plungers (bias contacts).**

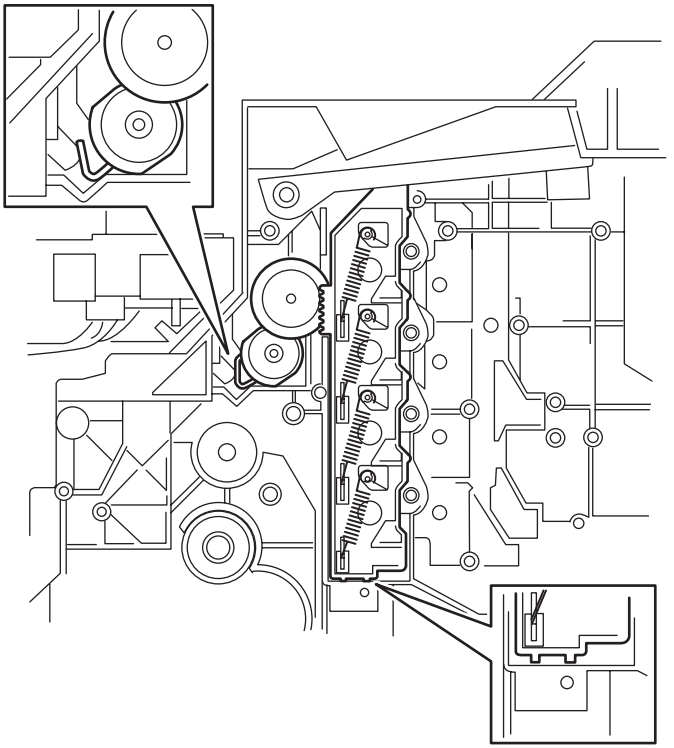
Note: ***For reassembly ensure the drum levers are seated properly on the aligning posts.***

RRP 11.2 Lever Plate Right (PL 11.1.7)
Lever Bracket (PL 11.1.2)
Lever Link (PL 11.1.6)
Lever Drum (PL 11.1.4)
Lever Spring (PL 11.1.5)

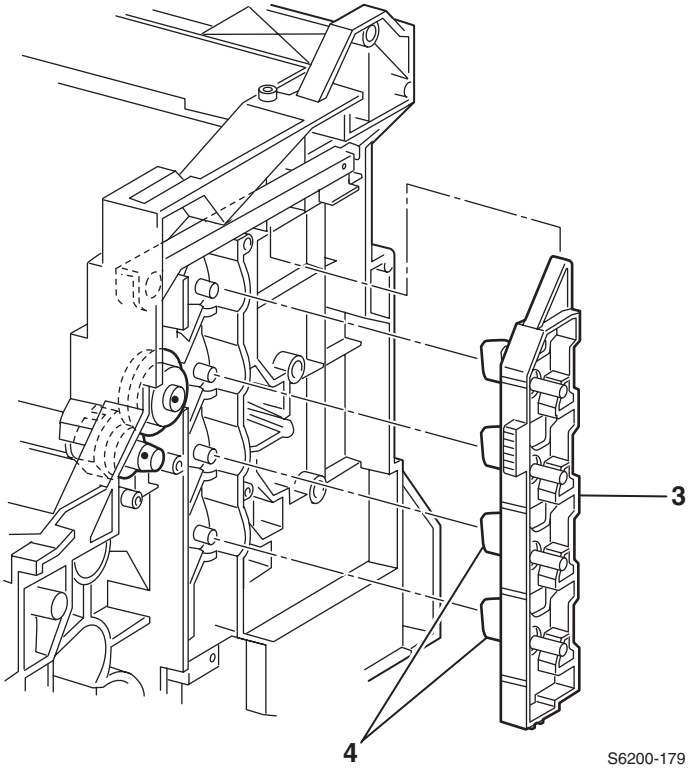


Removal

1. Remove the Right Cover (RRP 1.6).
2. Remove the Top Imaging Unit Cover (Door C) (RRP 1.5).
3. Remove the Right Link Spring (PL1.1.24)
4. Remove the Main Drive Assembly (RRP 11.3).
5. Remove the Motor Driver Board.



6. Remove the 4 screws securing the Right Plate Assembly.
7. Press on the aligning post from inside the cavity of the printer to remove the Plate Assembly.



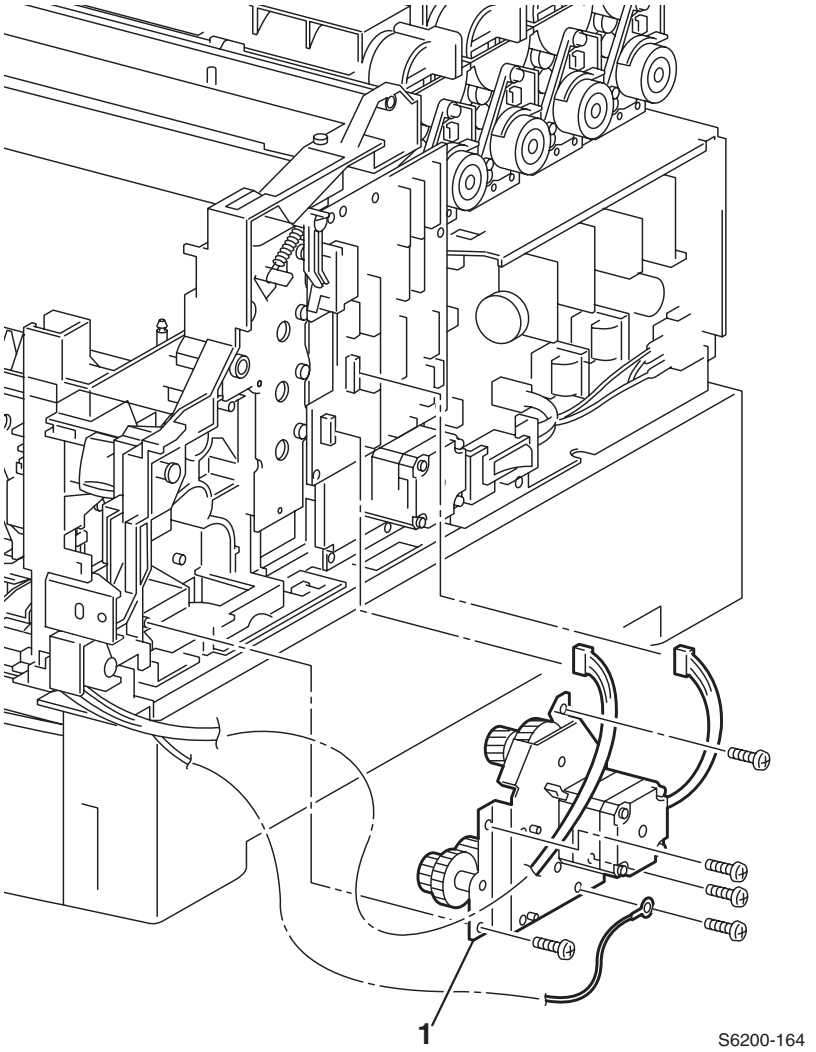
8. Carefully remove the Right Link lever (item #3) from the printer chassis together with the springs and the drum levers (item #4).

Note: ***Lay the asssembly on a flat surface, pressing down on the assembly, prior to removing the springs and the drum levers.***

9. Remove the spring levers.

Note: ***For reassembly ensure the drum levers are seated properly on the aligning posts.***

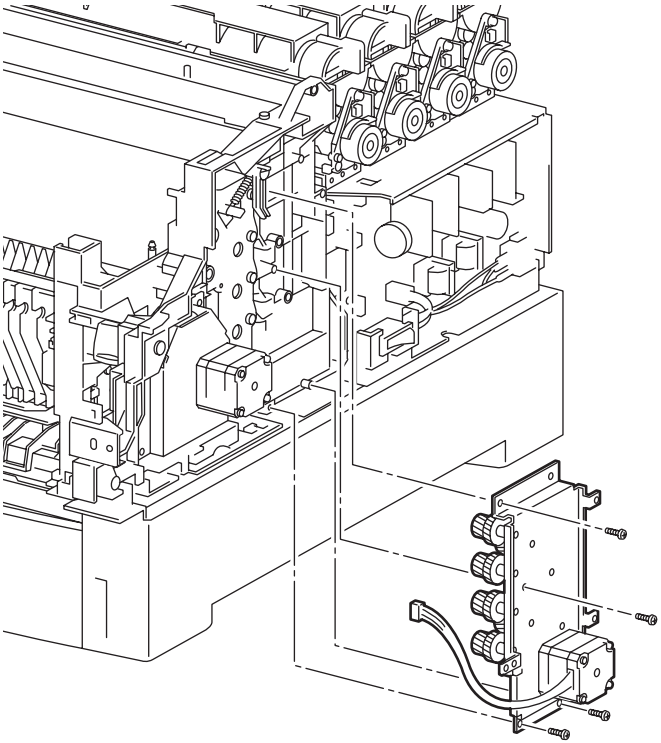
RRP 11.3 Main Drive Assembly (PL 11.1.14)



Removal

1. Remove the Cover Top Main (RRP 1.4).
2. Remove the Cover Front Right (RRP 1.10).
3. Remove the Cover Right (RRP 1.6).
4. Remove the Link: Right (RRP 1.8).
5. Disconnect the P/J48 from the Motor Driver Board.
6. Free the harness from the clamp on the Main Drive Assembly.
7. Remove the 4 screws securing the Main Drive Assembly to the printer.
8. Remove the grounding screw.
9. Remove the Main Drive (item #1).

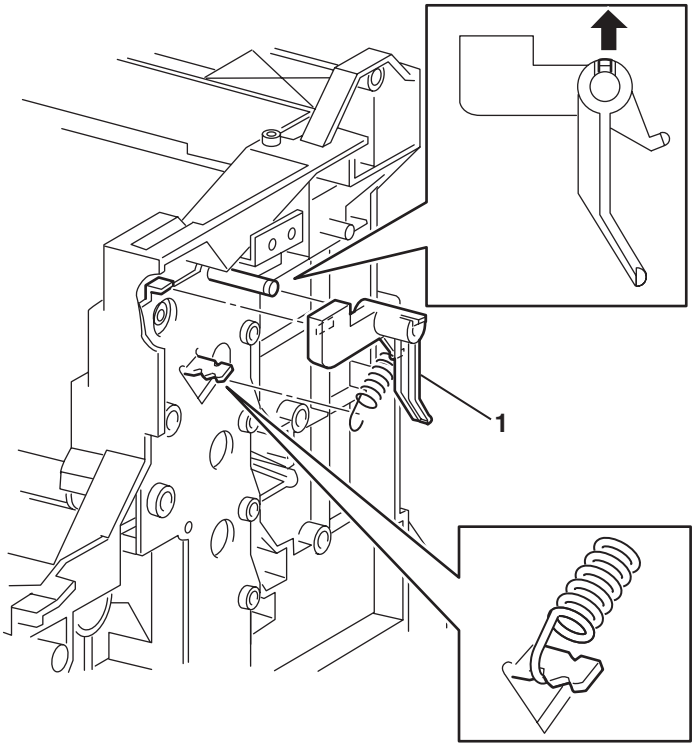
RRP 11.4 Developer Drive Assembly (PL 11.1.13)



Removal

1. Remove the Right Cover (RRP 1.6)
2. Remove the Motor Driver Board (RRP 12.3).
3. Disconnect P/J52 from the Motor Driver Board.
4. Remove the 4 screws securing the Developer Drive Assembly and remove.

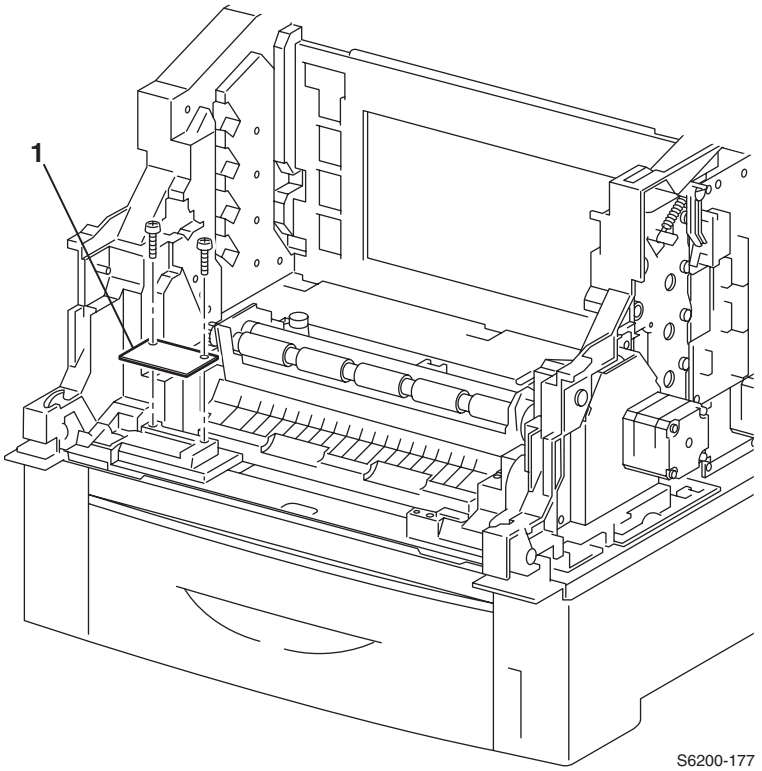
RRP 11.5 Actuator, I/L (PL 11.1.8)
Spring, I/L (PL 11.1.9)



Removal

1. Remove the 4 screws on the Motor Driver Board and set the board to the side.
2. Remove the spring from the actuator.
3. Release the hook securing the actuator to the shaft and remove (item #1).

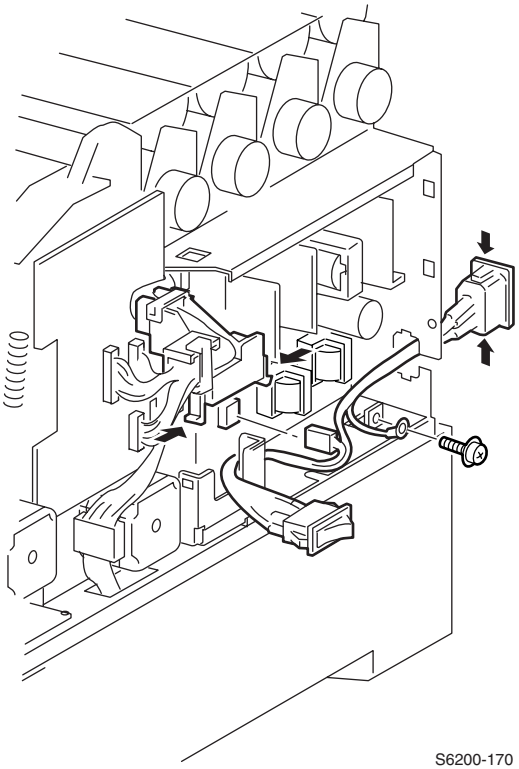
RRP 11.6 Earth Ground Circuit Board (PL 11.1.16)



Removal

1. Open Door A.
2. Remove the Fuser Assembly.
3. Remove the Transfer Roll Assembly.
4. Remove the Chute Assembly Registration (RRP 9.3).
5. Remove the Housing Assembly Retard (RRP 4.1).
6. Remove the 2 screws securing the Ground Circuit Board and remove the board.

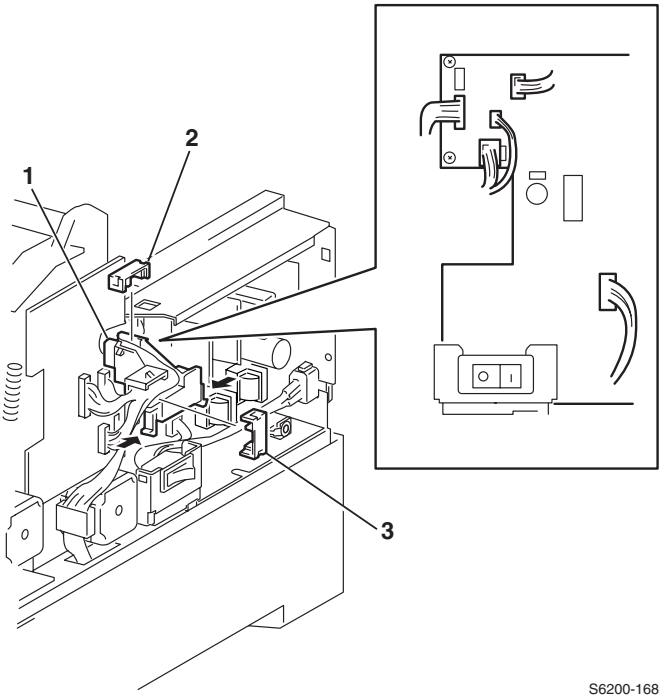
RRP 12.1 AC Switch Harness Assembly (PL 12.1.11)



Removal

1. Remove the Top Main Cover (RRP 1.4).
2. Remove the Front Right Cover (RRP 1.10).
3. Remove the Right Cover (RRP 1.6).
4. Remove the screw securing the ground wire to the LVPS.
5. Release the tabs securing the harness cable guide to the AC Switch bracket and move aside.
6. Disconnect P/J161 from the LVPS.
7. Press in on the tabs and remove the Harness Assembly AC Switch from the printer.

RRP 12.2 Low-Voltage Power Supply (PL 12.1.10)



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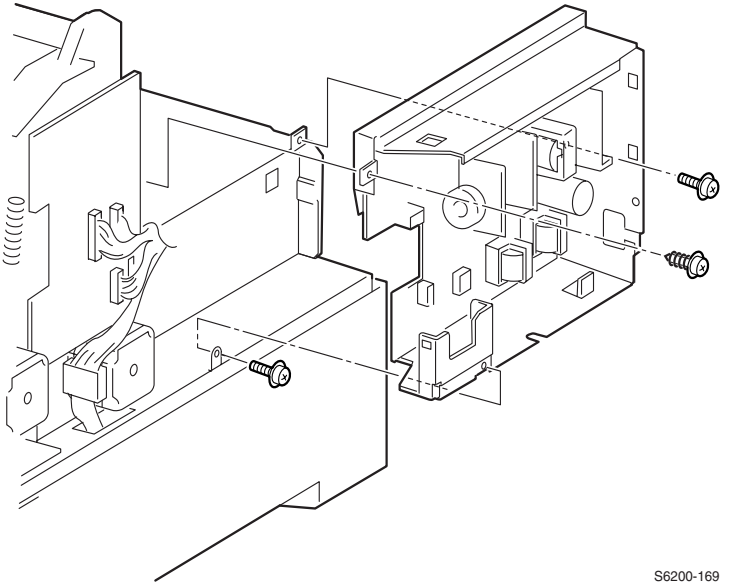

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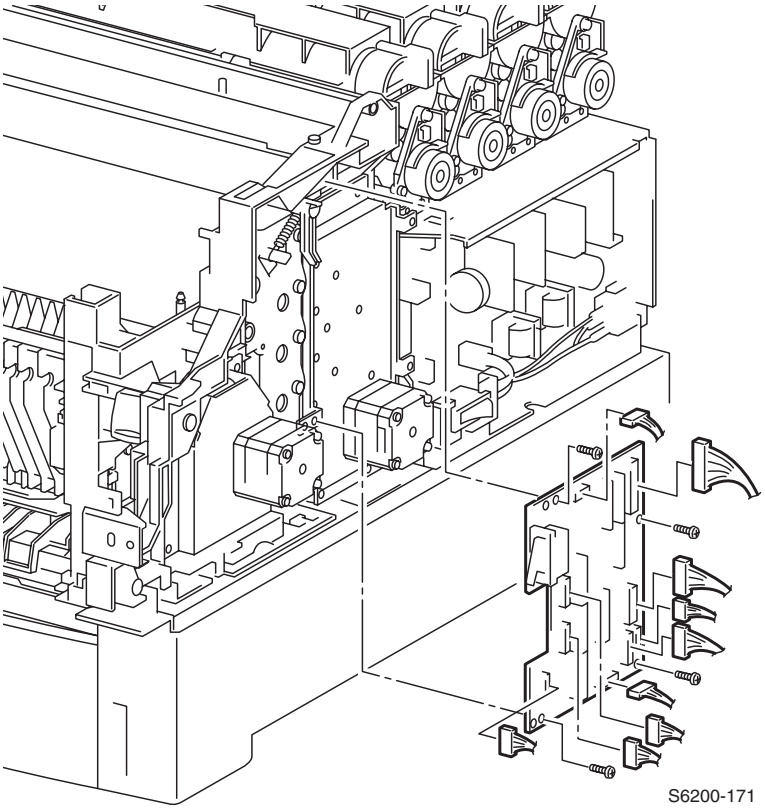
Removal

1. Remove the Right Cover (RRP 1.6).
2. Lift the Holder Toner Assembly Unit off the aligning tabs and move out of the way.
3. Remove the 4 screws securing the Motor Driver Board and move out of the way.
4. Remove the Harness Cable Guide Assembly (items #1, 2, 3).
5. Remove the Harness Assembly AC Switch (RRP 12.1).
6. Disconnect P/J162, P/J163, P/J164, P/J165, and P/J166 from the Low-Voltage Power Supply Board.
7. Remove the 3 screws securing the board to the printer and remove the Low-Voltage Power Supply board.

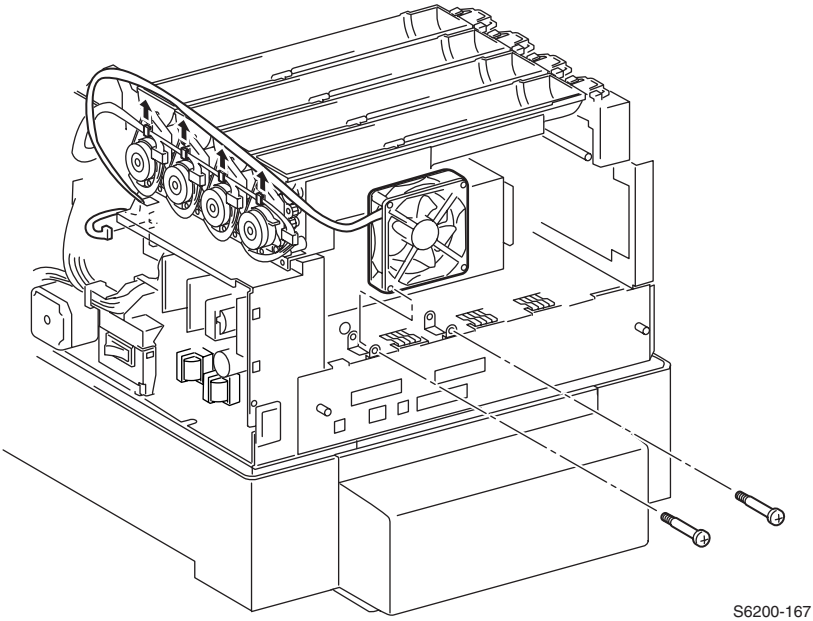
RRP 12.3 Motor Driver Board (PL 12.1.12)



Removal

1. Remove the Top Main Cover (RRP 1.4).
2. Remove the Front Right Cover (RRP 1.10).
3. Remove the Right Cover (RRP 1.6).
4. Disconnect all the connectors on the Motor Driver Board.
5. Remove the 4 screws securing the Motor Driver Board to the printer and remove the board.

RRP 12.4 Rear Fan (PL 12.1.2)

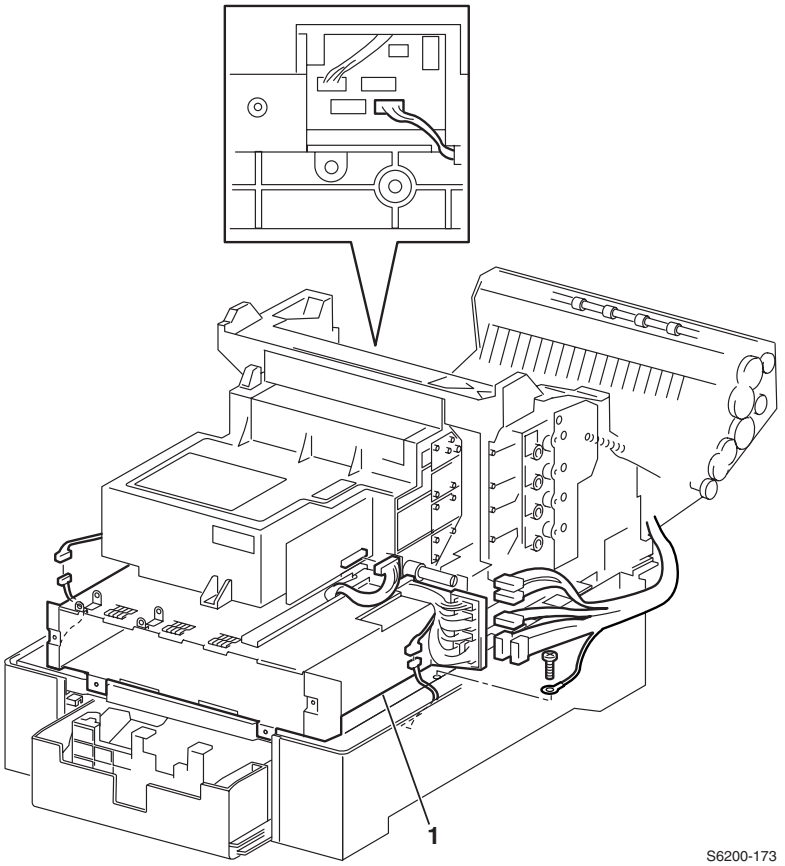


Removal

1. Remove the Cover Rear (RRP 1.7).
2. Disconnect P/J166 from the Low-Voltage Power Supply board.
3. Carefully shift the harness out of the 4 hooks on the Toner Cartridge Holder Assembly.
4. Remove the 2 screws securing the Rear Fan to the printer and remove the fan.

Note: ***When replacing the fan note the airflow direction, the label side should face out.***

RRP 12.5 Card Cage



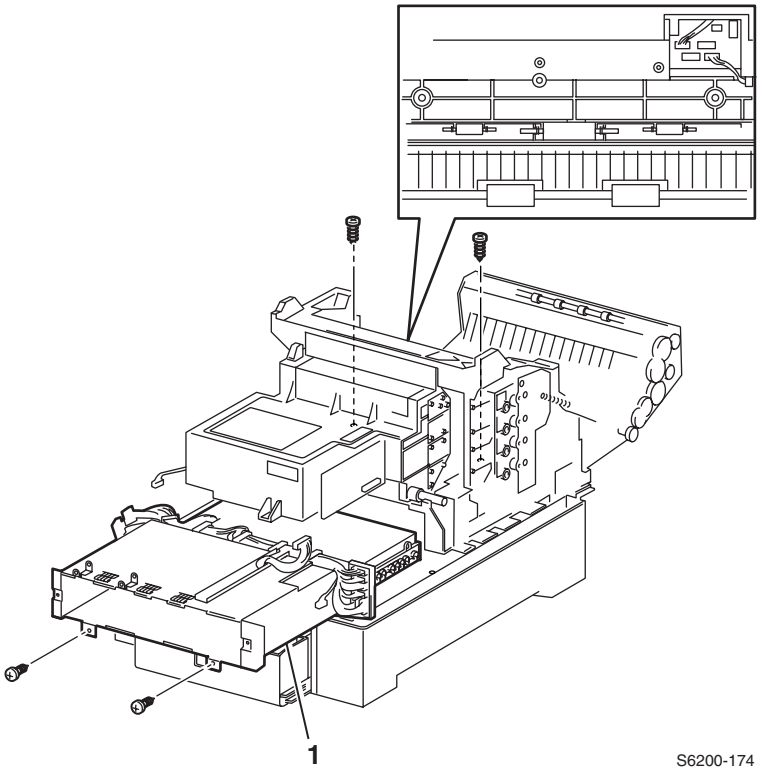
Removal

Note: ***You do not need to remove the Laser Unit or Fan.***

Note: ***The Chute Assembly Registration and the Housing Assembly Bias MUST be removed prior to removing the Card Cage to prevent damaging the Bias Springs.***

1. Remove the Chute Assembly Registration (RRP 9.3).
2. Remove the Housing Assembly Bias (RRP 9.2).
3. Remove the Motor Driver Board (RRP 12.3).
4. Remove the LVPS (RRP 12.2).
5. Disconnect P/J151 from the Laser Unit.
6. Disconnect P/J16 from the Paper Tray Feeder.
7. Disconnect P/J141, P/J1361, P/J138, P/J221 and P/J139 from the bracket.

8. Disconnect P/J18, P/J19, P/J32 and P/J24 from the Engine Control board.
9. Disconnect P/J 2361 going to the Temperature/Humidity Sensor.



10. Remove the screw securing the ground wire.

Note: ***Remove the two screws from the metal of the card cage, not the two screws secured in the plastic.***

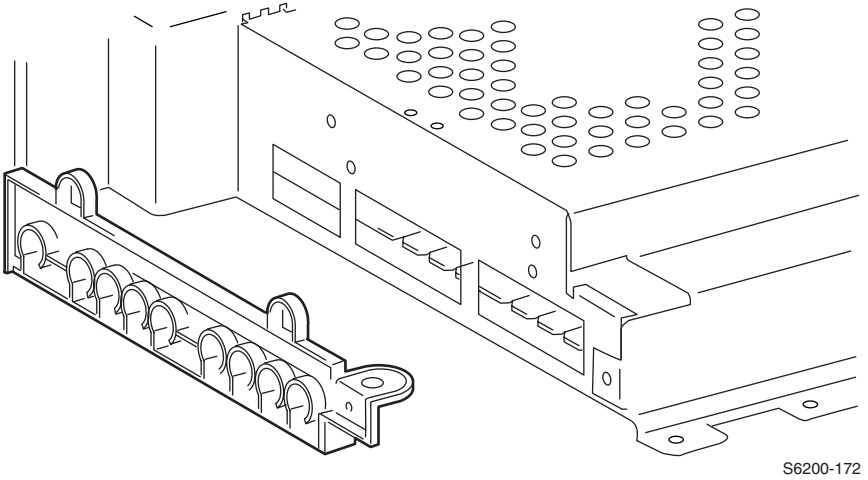
11. Remove the 4 screws securing the Card Cage to the printer and remove the card cage (item #1).

Reassembly

Note: ***When reinstalling the Card Cage, make sure the Chute Assembly Registration and the Bias Housing Assembly are installed after reinstalling the Card Cage to prevent damaging the bias springs.***

Note: ***The black connector P30 is not used.***

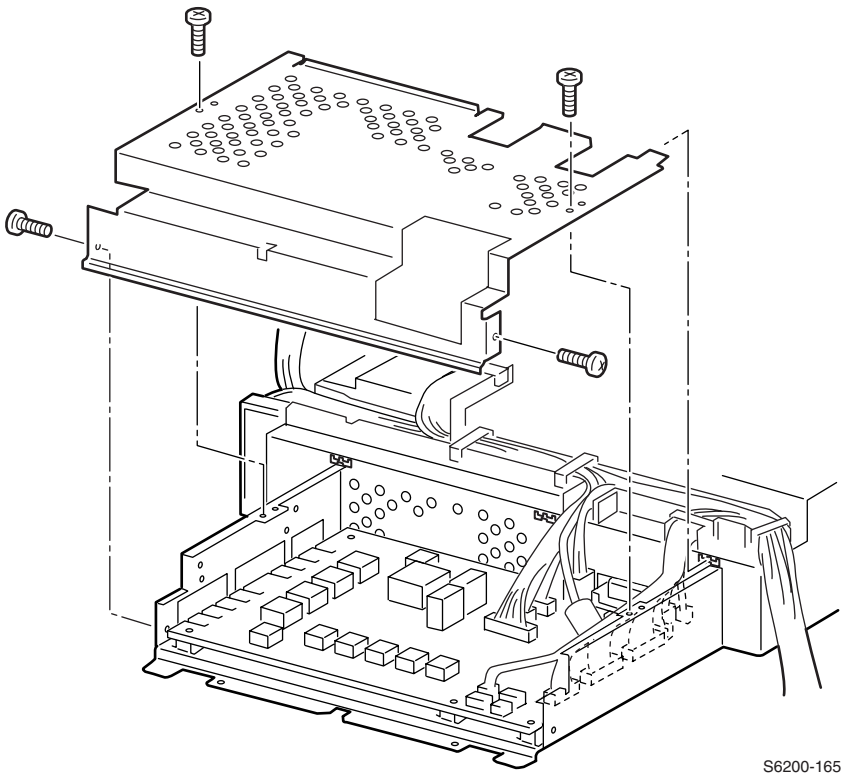
RRP 12.6 Housing Assembly Contact (PL 12.1.14)



Removal

1. Remove the Card Cage Assembly (RRP 12.5).
2. Release the 2 tabs securing the Housing Assembly Contact to the Card Cage and remove the contact.

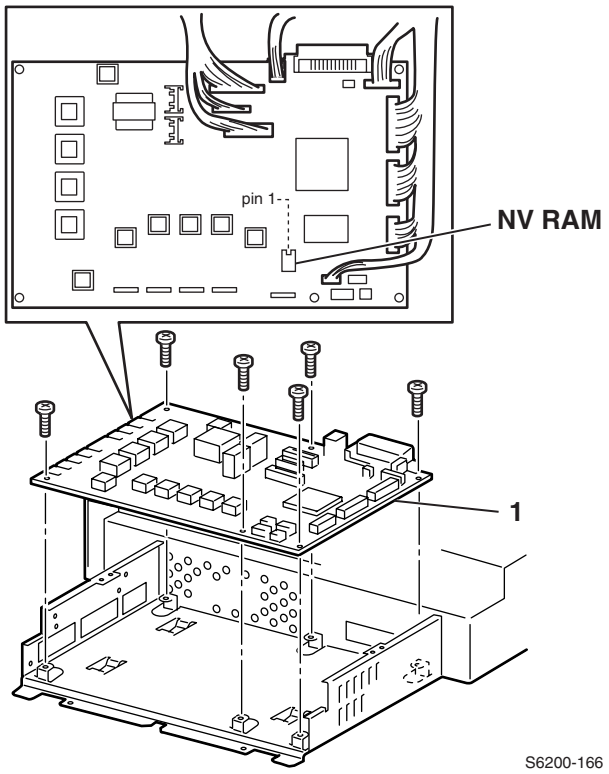
RRP 12.7 Engine Control Circuit Board (PL12.1.1)



Caution: Observe proper ESD procedures when removing any circuit board from the printer.

Removal

1. Remove the Card Cage (RRP 12.5).
2. Remove the Housing Assembly Contact (RRP 12.6).
3. Remove the 4 screws securing the Cover Engine Control Board from the Box Asssembly.



4. Disconnect all 9 connectors on the Engine Control Board from the Card Cage.
5. Remove the 6 screws securing the Engine Control Board to the Card Cage and remove the board.

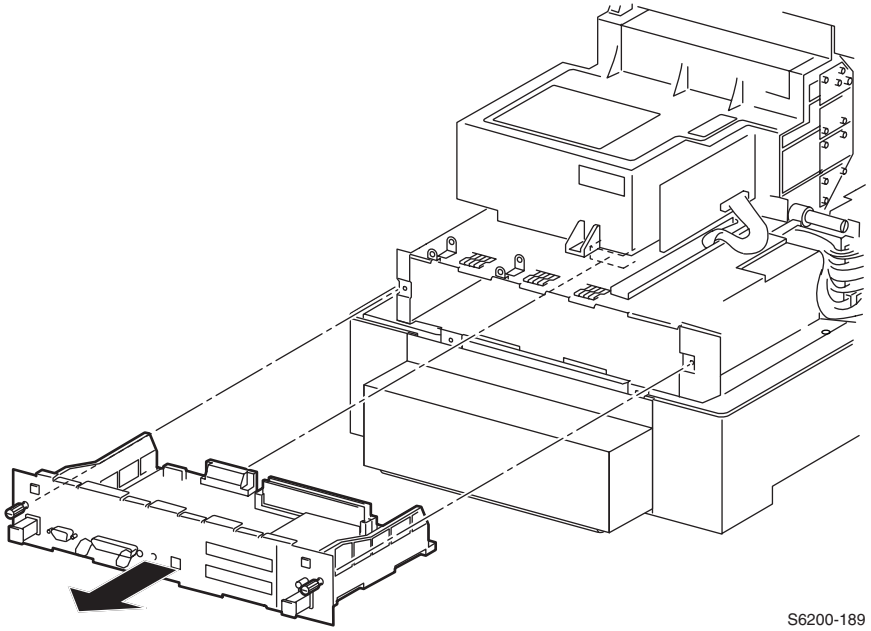
Caution: Observe proper ESD procedures when removing any circuit board from the printer.

Replacement

Note: ***The NVRAM must be moved over to the new board.***

Note: ***Re-install the Engine Control Board prior to installing the Chute Assembly Registration and the Housing Assembly Bias to prevent damaging the bias springs.***

RRP 12.8 Image Processor Board (PL12.1.4)



Removal

Caution: Observe proper ESD procedures when removing any circuit board from the printer.

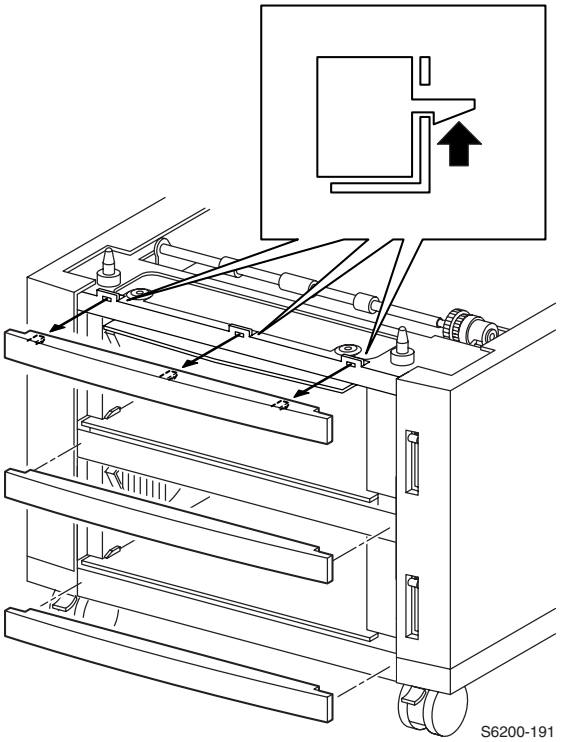
1. Turn the printer power off.
2. Disconnect any cables attached to the Image Processor board.
3. Loosen the 2 thumb screws securing the Image Processor board to the printer.
4. Holding both knobs on the Image Processor board, pull the board straight out from the printer to remove.

Replacing the Board

The following items **MUST** be moved from the original Image Processor Board to the new board. See "Image Processor Board' on page 9 for the exact locations of each component.

1. Memory
2. Hard Drive (if installed)
3. Configuration Upgrade Chip (‘i’ Button)
4. NVRAM
5. Print a Configuration Page after the new board is installed to ensure the customers configuration is correct.

RRP 14.1 Cover Front (PL14.2.4)



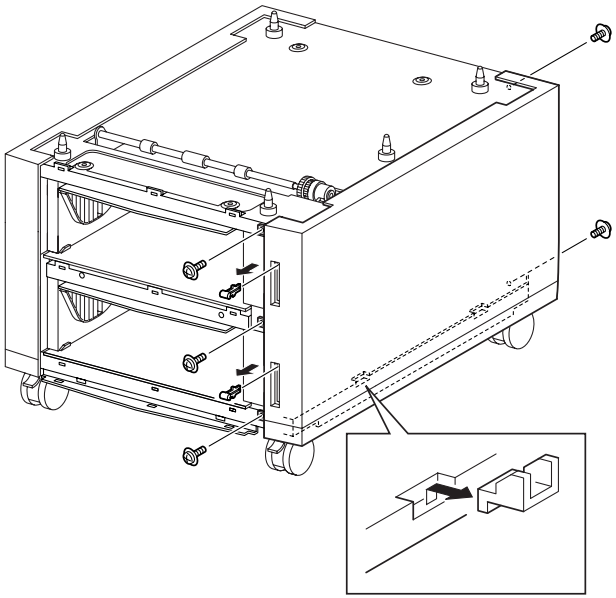
Removal

1. Remove Paper Trays 1 and 2.
2. Carefully pry up on the 3 tabs securing the Cover Front to the frame and remove the Cover Front.

Reassembly

Note: ***When replacing the Cover Front note the orientation. Align the edge with the slit in the Feeder Frame.***

RRP 14.2 Cover, Right (PL14.2.1)
Cover, Left (PL14.2.3)



Right side shown

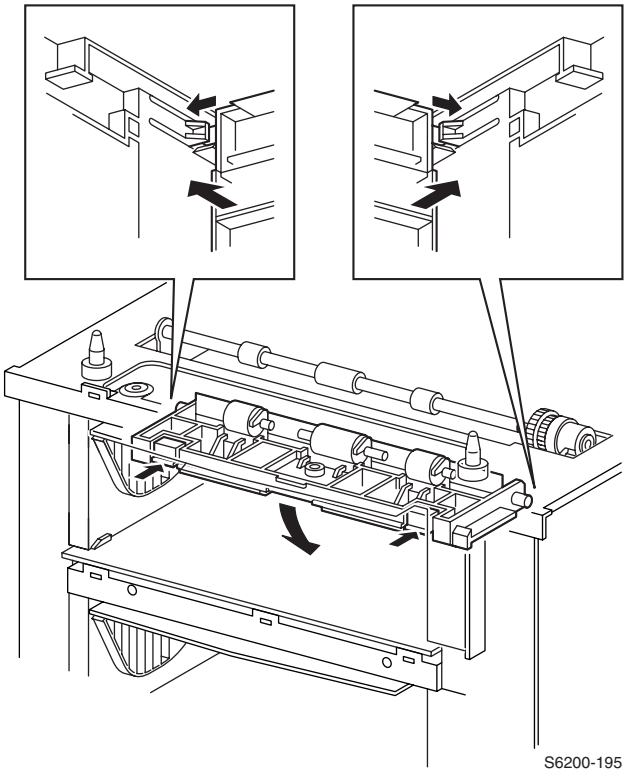
Removal

1. Remove Paper Trays 1 and 2.
2. Remove the Front Covers (RRP 14.1).
3. Remove the 5 screws securing the Cover Right and the 5 screws securing the Cover Left.
4. Holding both ends of the cover, lift the cover and move left and right, flexing slightly, to release the tabs from the holes in the Feeder frame.
5. Slide the cover toward the front to remove the Indicator Assembly.

Note: ***The Indicator Assembly flags will pop off.***

6. Remove the Cover Right / Left.

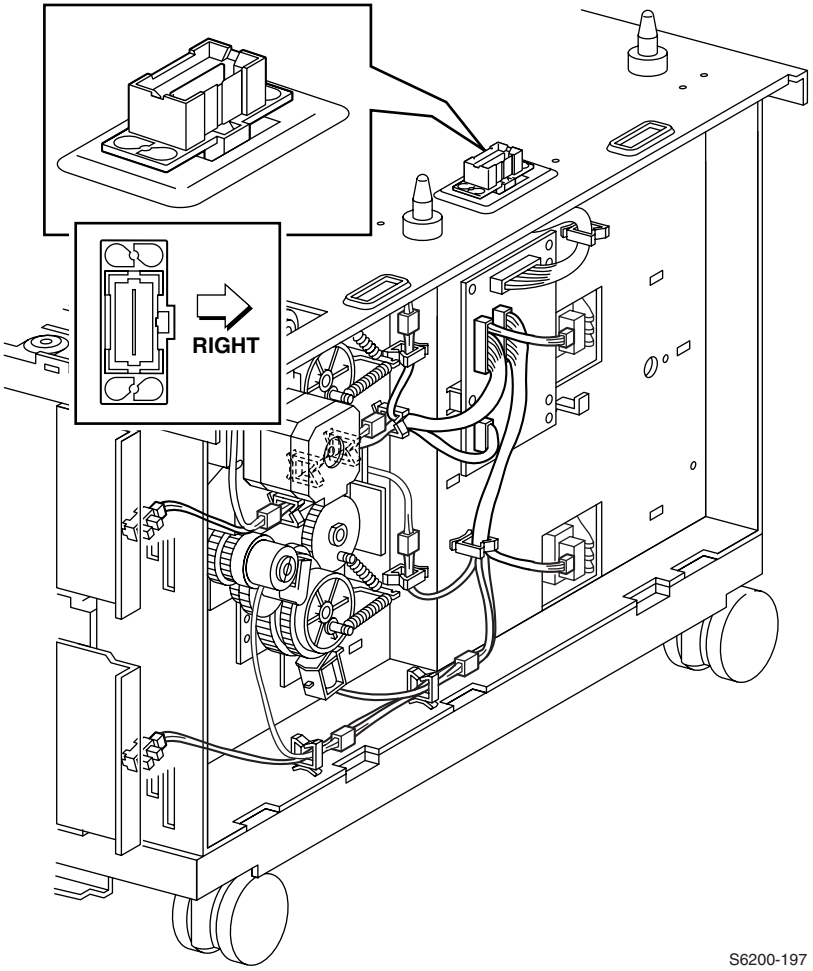
RRP 14.3 Turn Chute Assembly (PL14.3.7)



Removal

1. Remove both Paper Trays from the HCF.
2. Holding the Chute Asssembly Turn, grip at both ends, push it down and release the 2 tabs from the hole in the Fame Top.
3. Release the tabs securing the Chute Assembly Turn to the Tray Guide Left and Right and remove the Chute Assemlby Turn.

RRP 14.4 Tray 2 Harness Assembly (PL14.5.3)
Tray 3 Harness Assembly (PL14.5.4)
HCF Plug Harness Assembly (PL14.5.2)



Removal

1. Remove both Paper Trays from the HCF Assembly.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Cover Right (RRP 14.2).

Harness Assembly Tray 2

4. Disconnect P/J82 (gray) from the HCF Circuit Board
5. Remove the Harness Assembly Tray 2.

Harness Assembly Tray 3

6. Disconnect P/J83 (blue) from the Power Feeder Circuit Board and remove the Harness Assembly Tray 3.

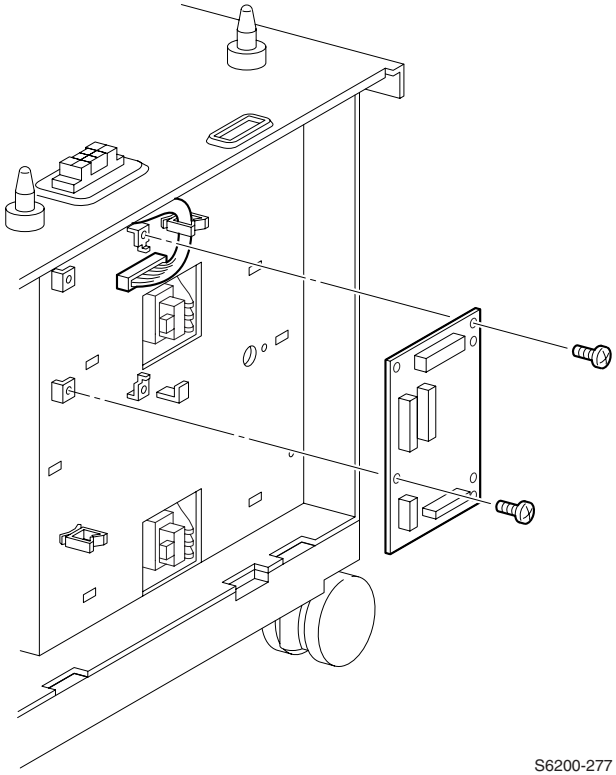
Harness Assembly Feeder Plug

Note: ***The wide slot in the middle of the plug faces outward.***

Note: ***The tabs on the bottom of J810 can be easily damaged during the removal process.***

7. Disconnect P/J81 (yellow) from the Power Feeder Circuit Board.
8. Remove J810 by lifting out of the hole in the top of the HCF frame.
9. Lift the entire Harness Assembly Feeder Plug through the hole in the top of the HCF frame.

RRP 14.5 Circuit Board, HCF (PL14.5.1)



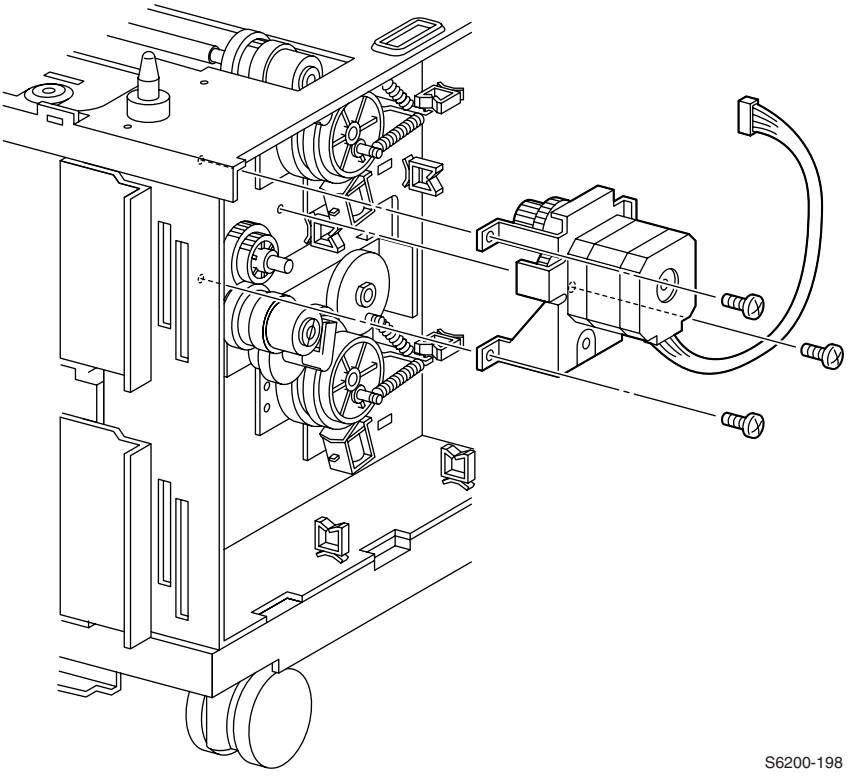
Removal

1. Remove both Paper Trays from the HCF.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Cover Right (RRP 14.2).
4. Disconnect P/J81 from the Harness Feeder Plug Assembly.
5. Disconnect P/J82 from the Harness Assembly Tray 2.
6. Disconnect P/J83 from the Harness Assembly Tray 3.
7. Disconnect P/J84 from the Drive Assembly.
8. Remove the 3 screws securing the Power Feeder Circuit board to the HCF frame and remove the board.

Replacement

Note: ***When replacing the Power Feeder Circuit Board, align the hole on the board and the two tabs on the HCF Frame.***

RRP 14.6 Drive Feeder Assembly (PL14.5.5)



Removal

1. Remove both Paper Trays from the HCF.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Right Cover (RRP 14.2).
4. Release the Tray 2 Harness Assembly (gray) from the cable restraints.
5. Disconnect P/J84.
6. Remove the 3 screws securing the Feeder Drive Assembly to the HCF and remove.

RRP 14.7 Indicator Assembly (PL14.5.9)

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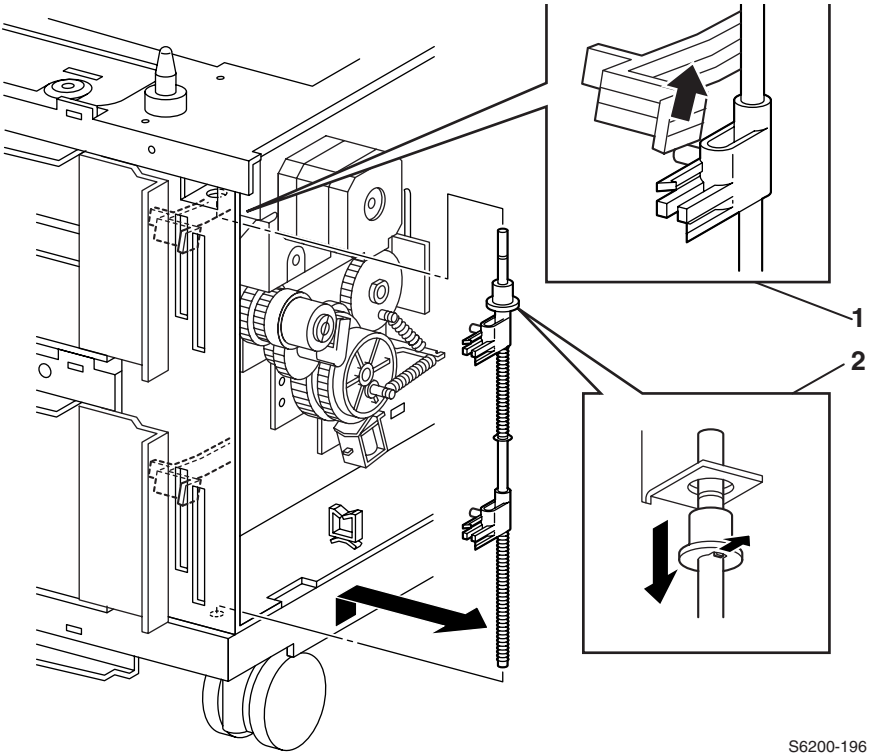


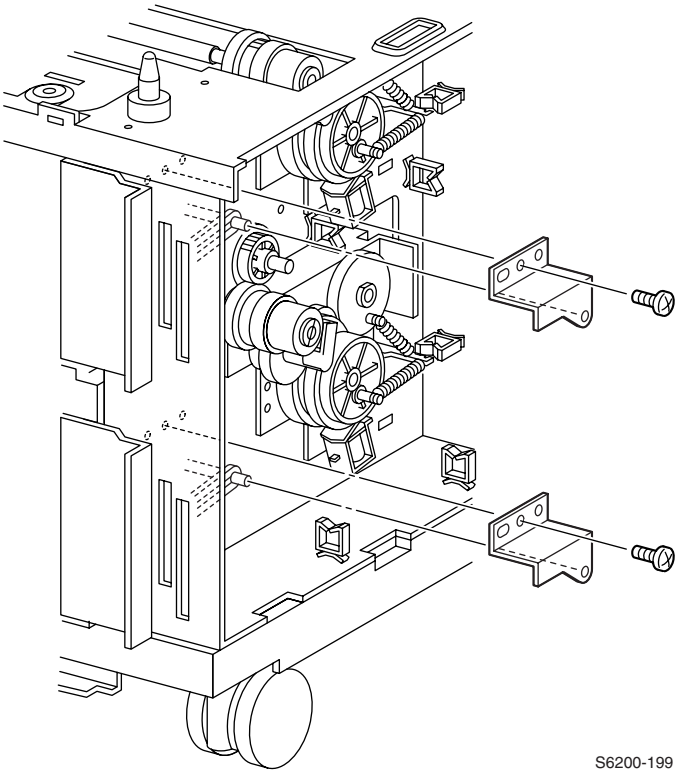
Removal

1. Remove both Paper Trays from the HCF.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Right Cover (RRP 14.2).
4. Push down on the black bearing, on the top of the indicator shaft, lift up on the shaft and pull out of the hole in the HCF frame.

Reassembly

Note: ***The Indicator Assembly has to be below the Low Paper Lever.***

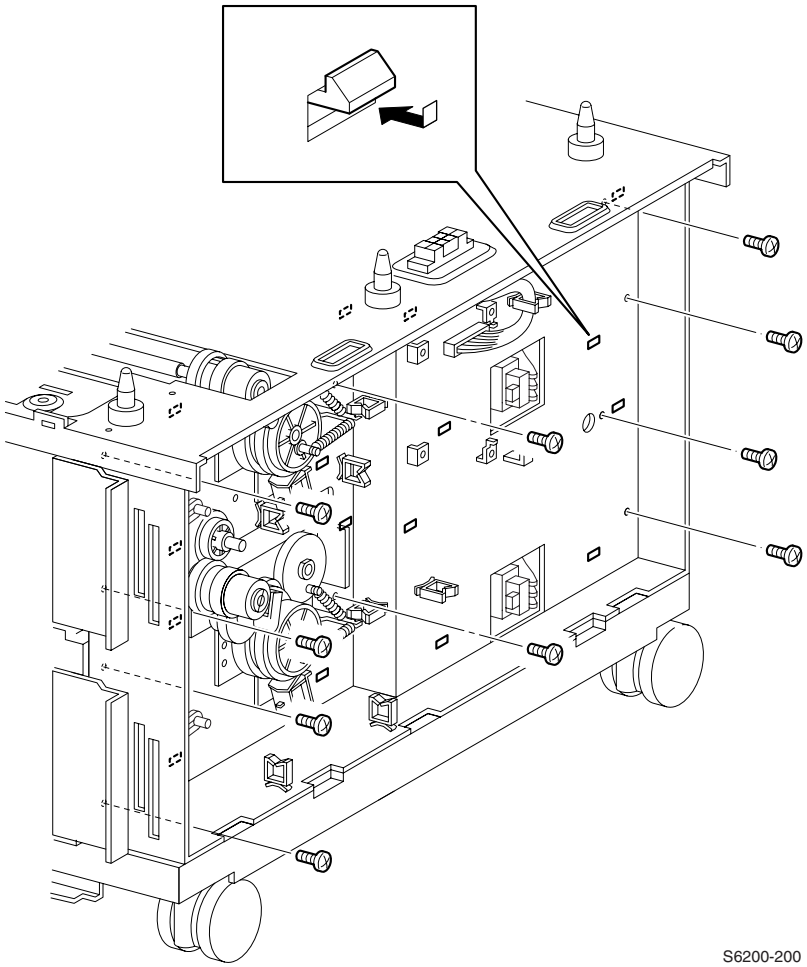
RRP 14.8 Right Tray Guide (PL14.3.5) Low Paper Lever (PL 14.5.8)



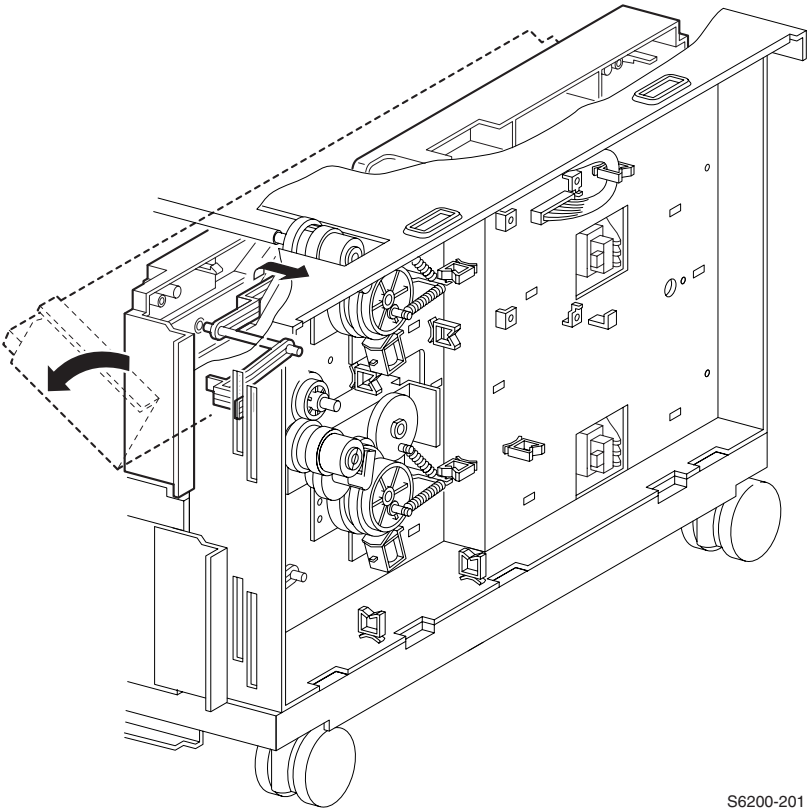
Removal

Guide Assembly Paper Tray Right

1. Remove both Paper Trays from the HCF.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Right Cover (RRP 14.2).
4. Remove the Chute Assembly Turn (RRP 14.3) .
5. Remove the Feeder Drive Assembly (RRP 14.6).
6. Remove the Indicator Assembly (RRP 14.7).
7. Remove the HCF Circuit Board (RRP 14.5).
8. Remove the 1 screw securing the Low Paper Bracket to the HCF frame.
9. Remove the Bracket.

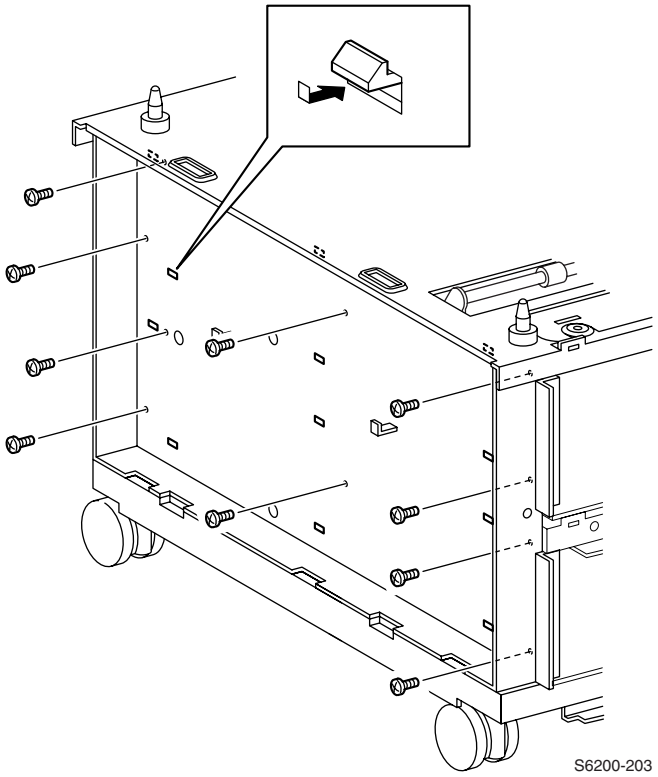


10. Remove the 5 screws securing the Right Tray Guide to the HCF frame.
11. Release the 7 tabs securing the Right Tray Guide to the HCF frame.



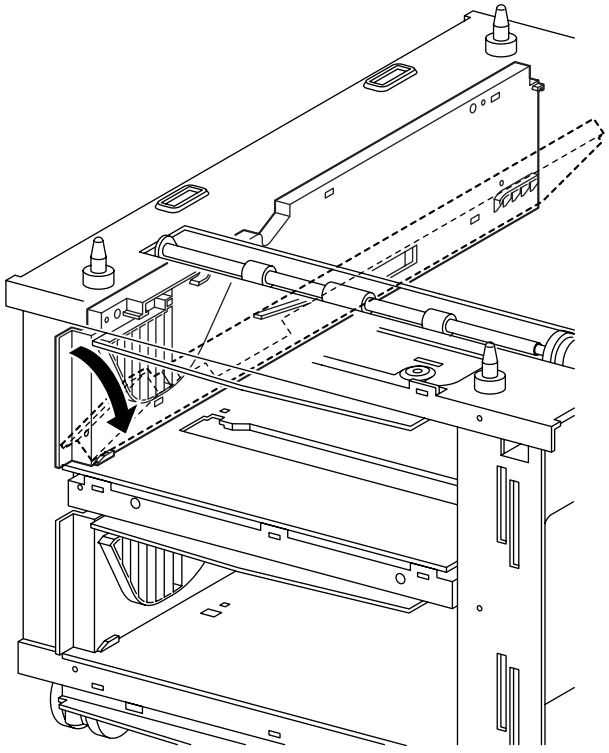
12. Carefully remove the Low Paper Lever from the slit in the Right Tray Guide.
13. Remove the Guide Assembly Right by rotating the top in.
14. Repeat Steps 11 - 14 to remove the lower guide.

RRP 14.9 Left Tray Guide (PL14.3.3)



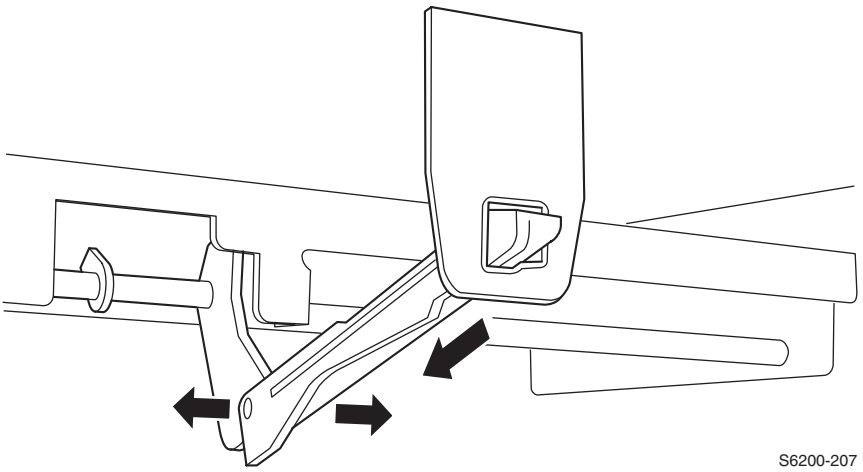
Removal

1. Remove both Paper Trays from the HCF.
2. Remove the Front Covers (RRP 14.1).
3. Remove the Left Cover (RRP 14.2).
4. Remove the Chute Assembly Turn (RRP 14.3).
5. Remove the 5 screws securing the Left Tray Guide Assembly to the HCF frame.
6. Release the 6 tabs securing the Left Tray Guide Assembly to the HCF frame.



7. Remove the Guide Assembly by rotating the top inward.
8. Repeat Steps 1 - 7 to remove the lower guide.

RRP 14.10 Link Actuator (PL 14.4.6)

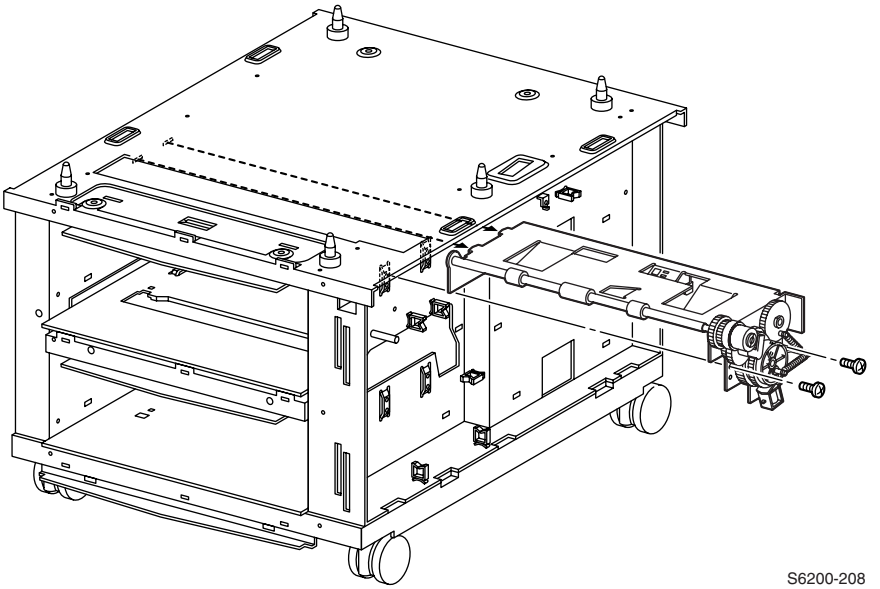


Removal

1. Remove both Paper Trays from the HCF.
2. Remove the paper tray Rear Cover.
3. Reach in through the rear of the printer and spread the tabs of the Link Actuator apart.
4. Remove the link actuator from the bracket in the printer.
5. Remove the actuator.

Note: ***When replacing, positon the Actuator so that the wider portion is on the right side viewe from the front. Replace it after passing the tip of the Link Actuator into the hole in the HCF frame.***

RRP 14.11 HCF Paper Pick Assembly (PL14.4.1)



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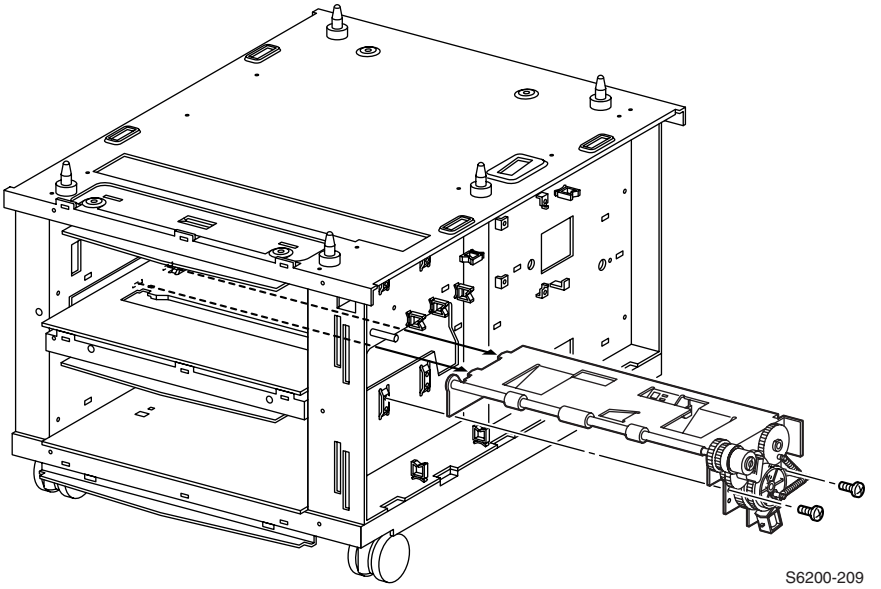

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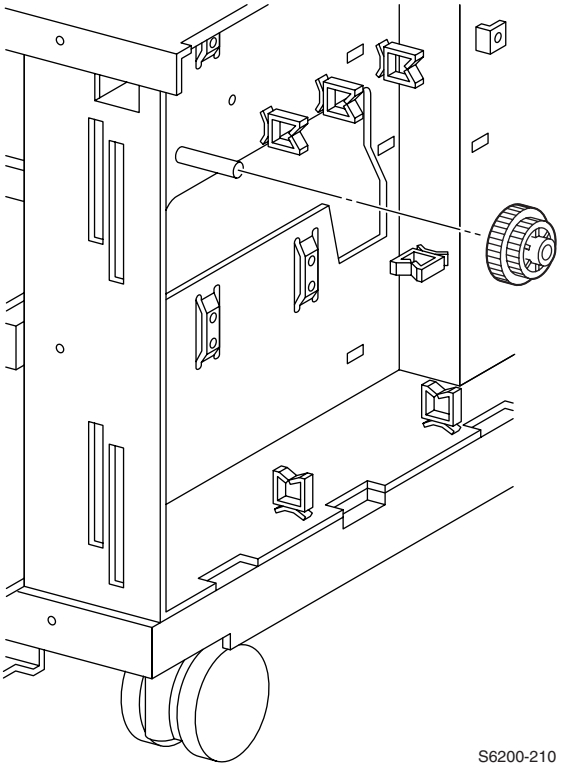
Removal

1. Remove the Right and Left Tray Guide Assemblies (RRP 14.8) and (RRP 14.9).
2. Remove the Link Actuator (RRP 14.10).
3. Remove the 2 screws securing the Paper Pick Assembly to the right side of the HCF frame.
4. Release 2 tabs on the Paper Pick Assembly from the 2 slits and window on the left side of the HCF frame.
5. Disconnect P/J824, P/J8220 and P/J825.
6. Remove the Paper Pick Assembly through the window.

Note: ***When removing or replacing the the screws, be careful not to damage the Gear or Spring with the screwdriver. When passing the Paper Pick Assembly through the window, be careful not to damage the rubber parts.***

RRP 14.12 Idler Gear (PL14.5.6)

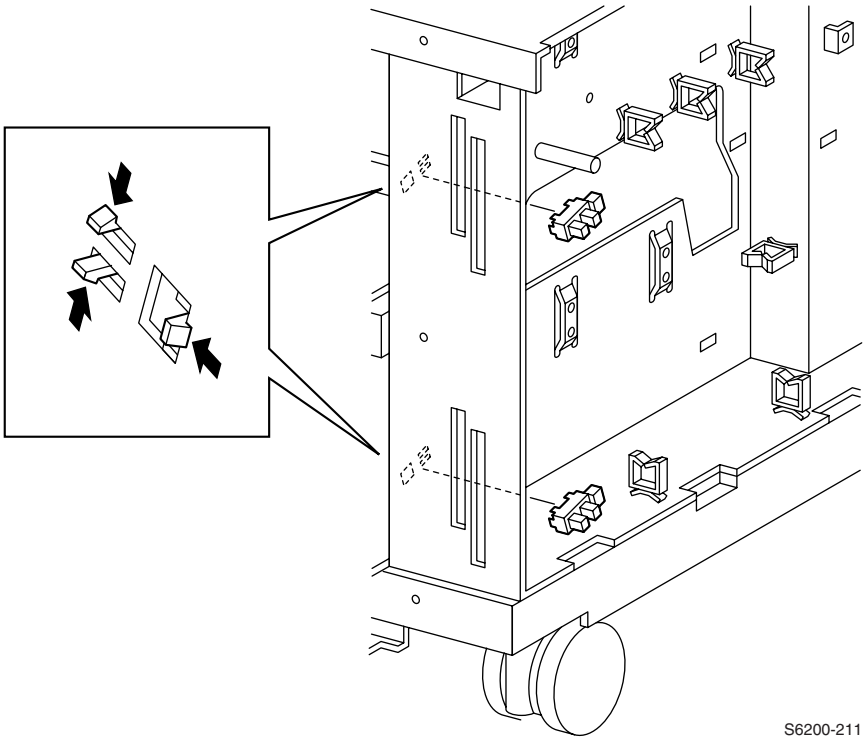


Removal

1. Remove the Tray 3 Guide Assembly Right and Left (RRP 14.8) (RRP 14.9).
2. Remove the Link Actuator (RRP 14.10).
3. Remove the Paper Pick Assembly for Tray 3 (RRP 14.11).
4. Remove the Gear Idler.

Note: ***When replacing, the larger side of the gear must face the HCF frame.***

RRP 14.13 No Paper, Low Paper Sensor (PL14.5.7)

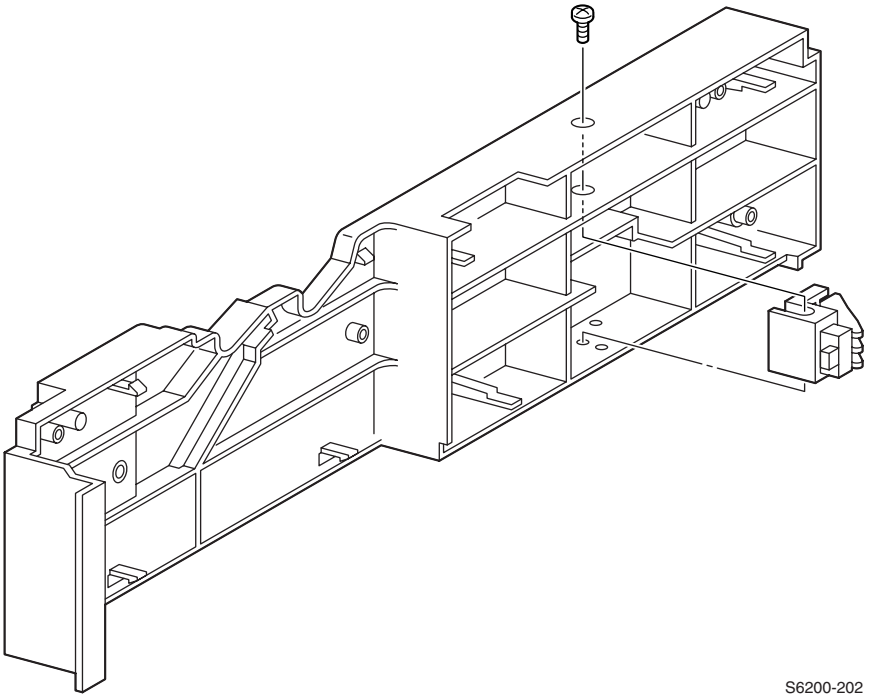


Remove

1. Remove the Paper Trays.
2. Remove the Cover Front (RRP 14.1).
3. Remove the Cover Right (RRP 14.2).
4. Remove the Chute Assembly Turn.
5. Remove the Indicator Assembly (RRP 14.7).
6. Remove the Bracket Low Paper, upper and lower.
7. Remove the HCF Circuit Board (RRP 14.5).
8. Remove the Right Tray Guide (RRP 14.8).
9. Release the 3 tabs securing the Sensor to the HCF frame and remove the sensor.

Note: ***Use caution, the Sensor tabs are easily broken.***

RRP 14.14 Paper Size Switch Assembly (PL14.3.6)



Removal

1. Remove the Right Tray Guide Assembly (RRP 14.8).
2. Remove the 1 screw securing the Paper Size Switch to the Right Guide Assembly and remove the switch.

FRU Parts List

Parts List Contents

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

Serial numbering. Particular fields in the serial number indicate the modification level of the printer, the date of its manufacture and the sequence number of the printer produced on that day. The serial number is coded as follows:

- The text "**S/N**" followed by the serial number in the barcode.
- The barcode **does not** include a field identifier.
- The nine digit serial number is based on the following format:

PPPRSSSSS

PPP = Three digit alphanumeric product code

Product	Model	Voltage	Product Code
6200	N	110V	LPH
6200	DP	110V	LPH
6200V	N	220V	LPK
6200V	DP	220V	LPK

R - Single digit numeric revision digit. To be rolled when a major product change occurs. Initiated with a change request.

SSSSS - Five digit numeric serial number.

Serial Number Example:

LPH453072:

LPH = Product code for the 110V Printer

4 = Revision level

53072 = Serial number

Using the Parts List

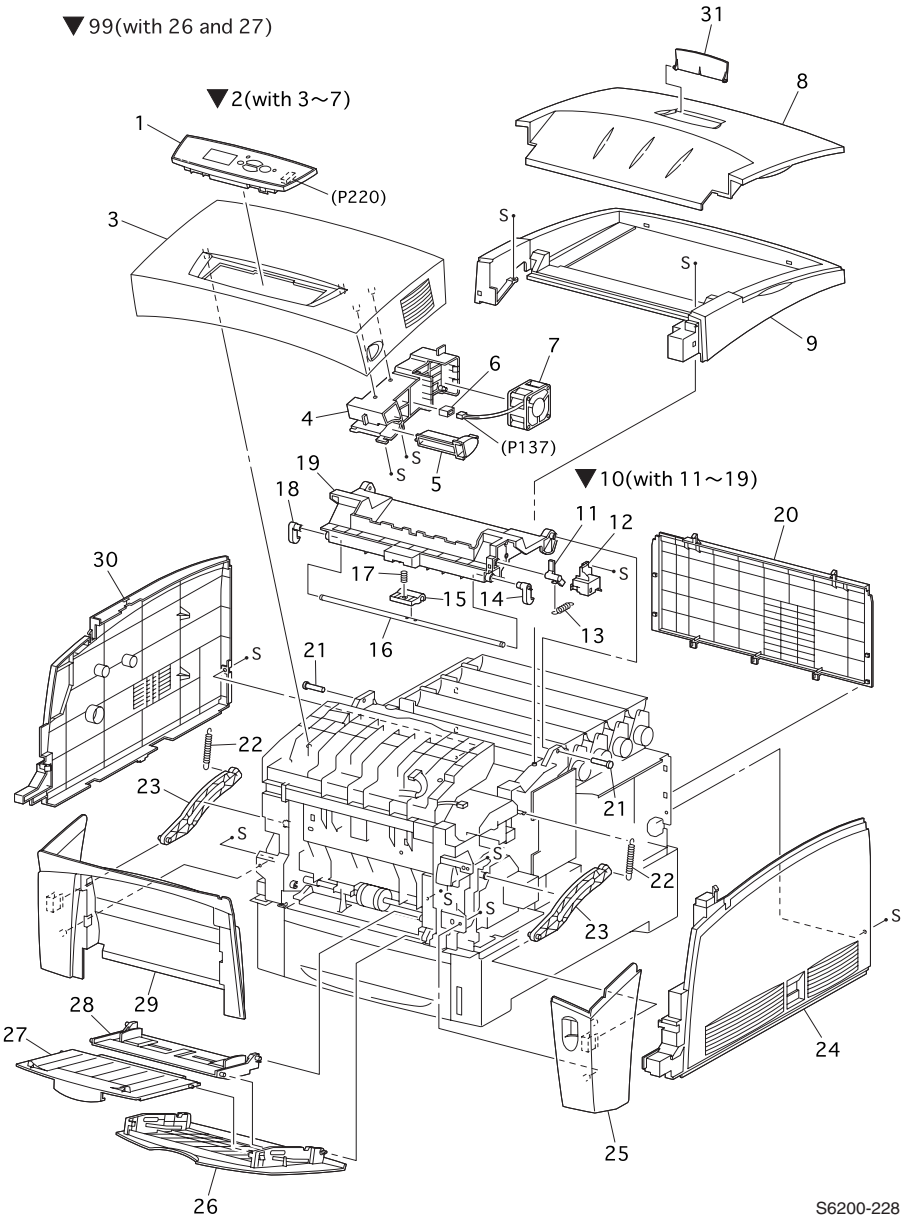
1. **No. =** The callout number from the exploded part diagram.
2. **Part Number** = The material part number used to order specific parts.
3. **Qty** = This number represents the parts per printer, not the number of parts supplied in the actual part order.
4. **Name/Description** = Details the name of the part to be ordered and the number of parts supplied per order.
5. Parts identified throughout this manual are referenced **PL#.#.#**; For example, PL3.1.10 means the part is item 10 of Parts List 3.1.
6. 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.
7. 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.
8. An asterisk (*) following a part name indicates the page contains a note about this part.
9. The notation (NS) next to a part indicates that pariticular part is not spared, but contained in a kit or major assembly.
10. 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 support. Parts not showing part numbers are available on the parent assembly.***

Legend:

Identifier	Meaning
C	C-ring
E	E-ring
KL	K-clip
S	Screw

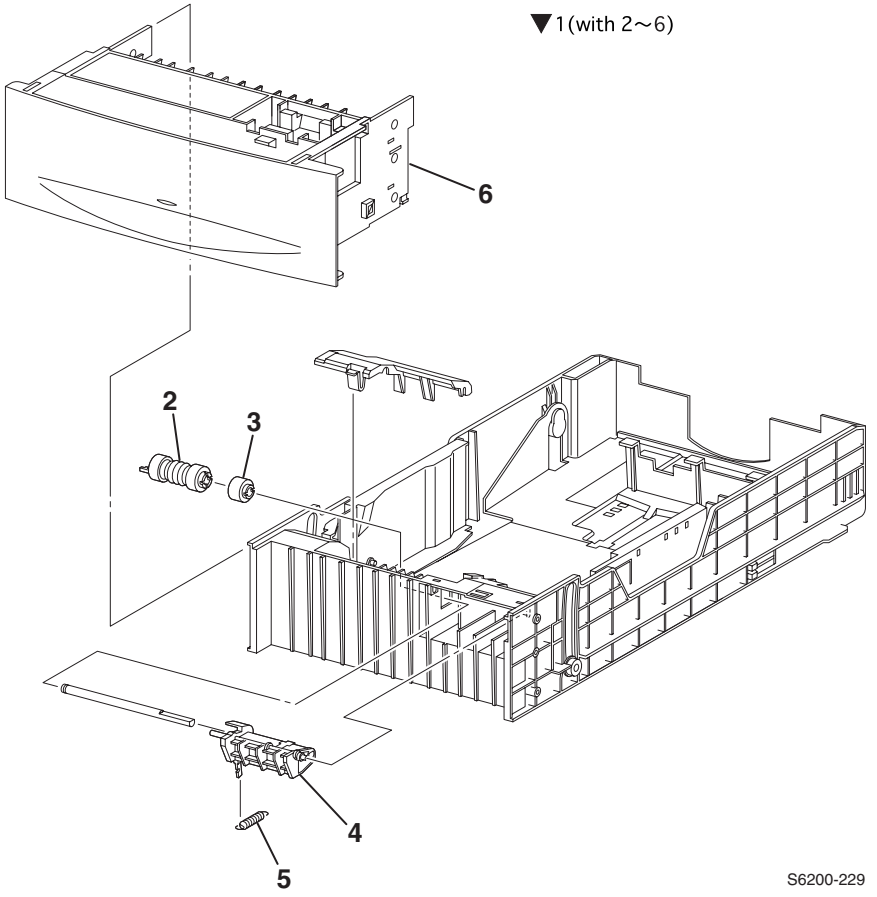
PL 1.1 Covers



PL 1.1 - Covers - FRU Parts List Table

No.	Part Number	Qty	Name/Description
1	333-4382-00	1	Control Panel (Front Panel Display)
2	116-0003-00	1	Cover Assembly, Front (with 3-7)
3		1	Cover, Front (NS, part of PL 1.1.2)
4		1	Holder, Lever Out (NS)
5		1	Lever Out (NS)
6		1	Con. Amp 175694-3 (NS)
7	116-0004-00	1	Fan, Fuser
8	116-0005-00	1	Cover Assembly, Top
9	116-0006-00	1	Cover, Top Main
10	116-0007-00	1	Cover Assembly, Top Image Unit (with11-19) (Door C)
11		1	CAM I/R (NS)
12		1	Cover, CAM (NS)
13	116-0010-00	1	Spring, CAM I/R
14	116-0011-00	1	Latch, Top Right
15		1	Handle, Top (NS)
16		1	Shaft Latch, Top (NS)
17		1	Spring, Handle (NS)
18	116-0014-00	1	Latch, Top Left
20	116-0016-00	1	Cover, Rear
21	116-0492-00	2	Stud, Top (1 per order)
22	116-0586-00	2	Spring, Link (1 per order)
23	116-0963-00	2	Link (1 per order)
24	116-0974-00	1	Cover, Side, Right
25	116-1322-00	1	Cover Assembly, Front Right
26		1	Cover, Multi-Purpose Tray (NS, part of Multi-Purpose Tray 99)
27		1	Multi-Purpose Tray Slide (NS, part of Multi-Purpose Tray 99)
28	116-1325-00	1	Assembly, MPT ,Base
29	116-1326-00	1	Cover Assembly, Front Left
30	116-1327-00	1	Cover, Side, Left
31		1	Cover, Top Stopper (NS)
99	116-1329-00	1	Tray, MPT(with 26 and 27)

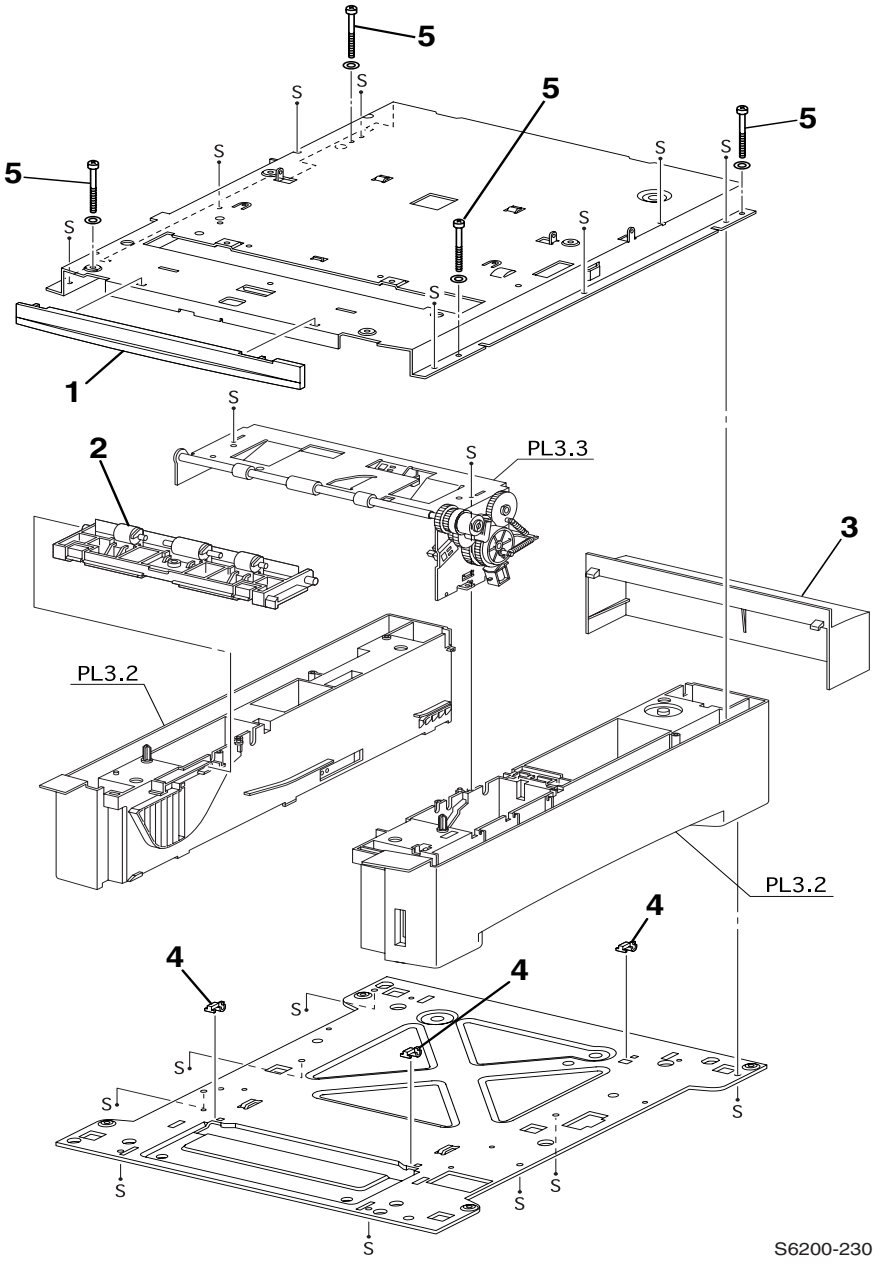
PL 2.1 Universal Paper Tray



PL 2.1 Tray, Univeral Paper - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1330-00	1	Universal Paper Tray (with 2~6)
2	116-1331-00	2	Paper Feed Roller Kit* *(2 interchangeable rollers per order)
3	116-1332-00	1	Assembly, Friction Clutch
4		1	Holder, Retard (NS)
5	116-1334-00	1	Spring, Retard
6		1	Cover, Front Tray (NS)

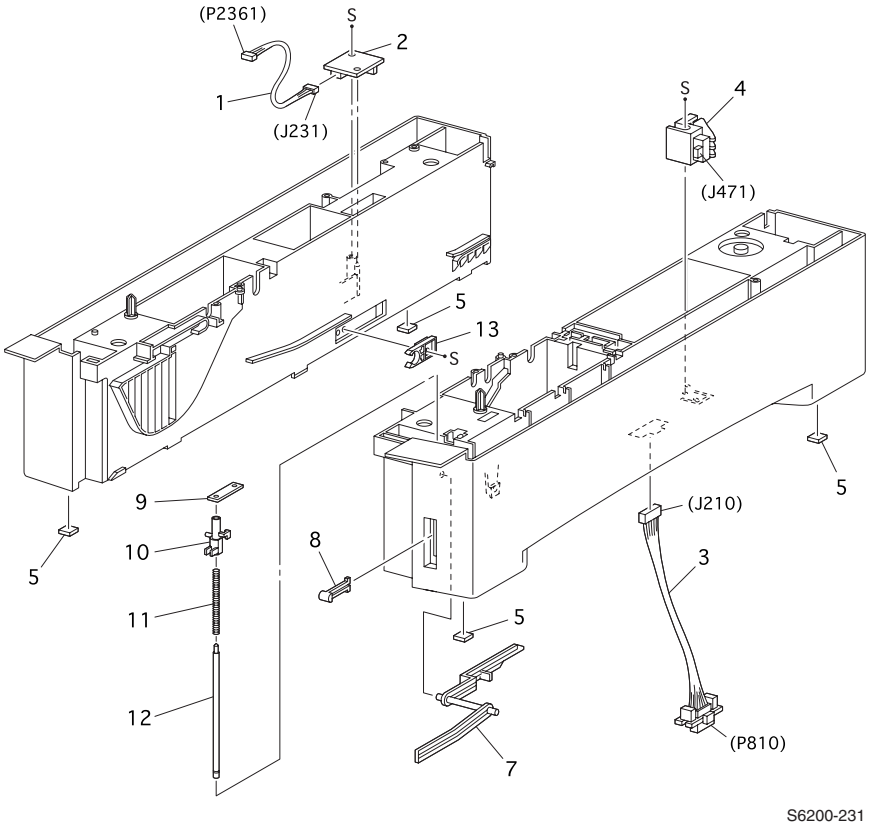
PL 3.1 Paper Feed I



PL 3.1 Paper Feed - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1335-00	1	Cover, Feeder, Front
2	116-1336-00	1	Assembly, Turn Chute
3	116-1337-00	1	Cover, Paper Tray, Rear
4	116-1338-00	3	Block (1 per order)
5	212-0237-00	4	Long Screw (M3 x 85) Kit (2 per order)

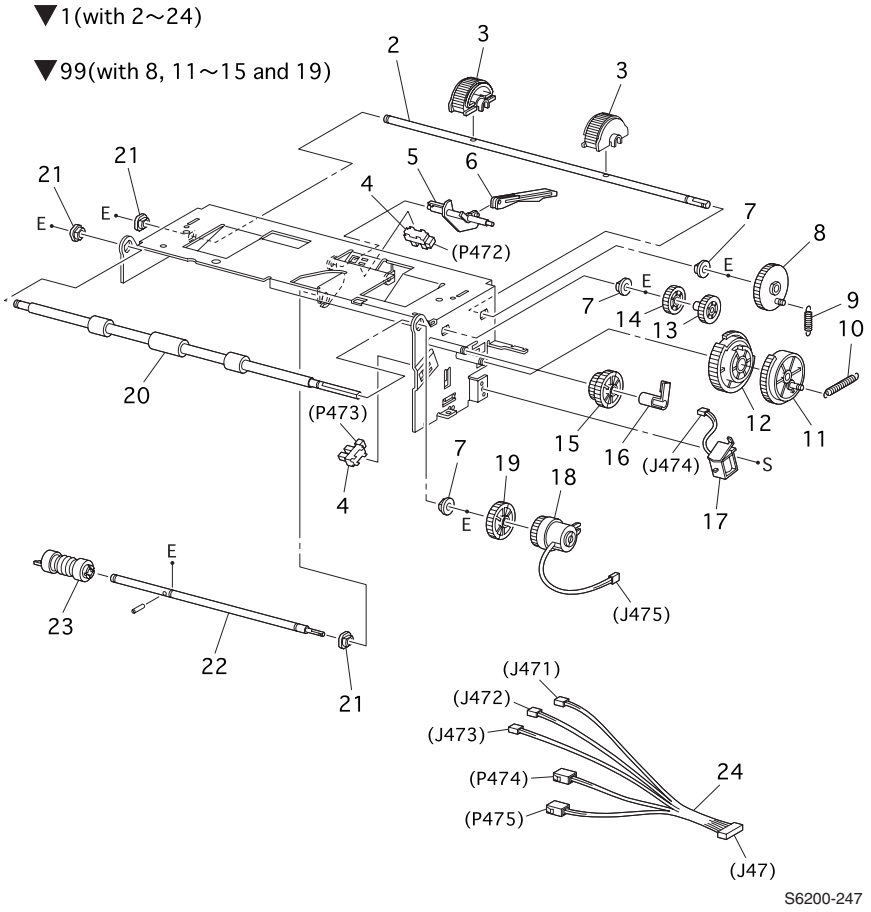
PL 3.2 Paper Feed II



PL 3.2 Paper Feed II - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1340-00	1	Assembly, Harness, Temperature/Humidity (J231~J2361)
2	116-1341-00	1	Sensor, Temperature/Humidity
3	116-1342-00	1	Asssembly, Harness, LTA (HCF) (J210~P810)
4	116-1343-00	1	Assembly, Paper Size Switch
5	116-1344-00	4	Printer Feet (4 per order)
7	116-1345-00	1	Lever, Low Paper
8	116-1346-00	1	Indicator, Paper Level
9	116-1347-00	1	Indicator, Holder, Shaft
10	116-1348-00	1	Indicator, Guide
11	116-1349-00	1	Indicator, Spring
12	116-1350-00	1	Indicator, Shaft
13	116-1351-00	1	Paper Tray Stopper

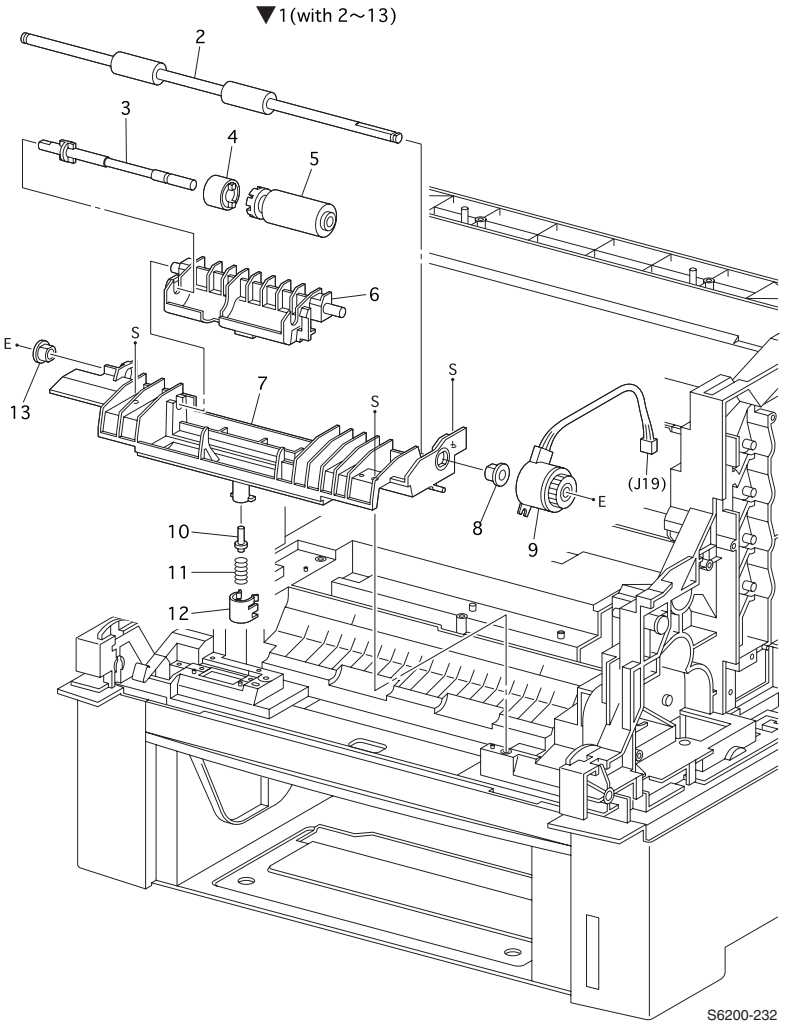
PL 3.3 Paper Feed III



PL 3.3 Paper Feeder III - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1352-00	1	Assembly, Paper Pick (with 2~24)
2		1	Shaft, Feed 1 (NS)
3	116-1353-01	2	Paper Pick Roller Kit (2 per order)
4	116-1354-00	1	Sensor, (No Paper, Low Paper)
5	116-1355-00	1	Actuator, No Paper
6	116-1356-00	1	Actuator, Link
7		3	Bearing - Metal (NS)
8		1	Gear, Feed 1 (NS)
9		1	Spring, Feed 1 (NS)
10		1	Spring, Feed H (NS)
11		1	Gear, Feed H2 (NS part of 99)
12		1	Gear, Feed H1 (NS part of 99)
13		1	Gear, Feed 2 (NS part of 99)
14		1	Gear, Idler Feed (NS part of 99)
15		1	Gear, Idler (NS part of 99)
16		1	Clutch Stopper (NS)
17	116-1361-00	1	Feed Solenoid
18	116-1362-00	1	Assembly, Clutch Turn
19		1	Gear, Idler In (NS part of 99)
20	116-1363-00	1	Assembly, Roll Turn
21		3	Bearing - Black (NS)
22		1	Shaft, Feed 2 (NS)
23	116-1331-00	2	Paper Feed Roller Kit* *(2 interchangeable rollers per order)
24	116-1366-00	1	Assembly, Harness, Feeder (J47-J471/J472/J473/P474/P475)
99	116-1367-00	1	Paper Feed Gear Kit (with 8, 11~15 and 19)

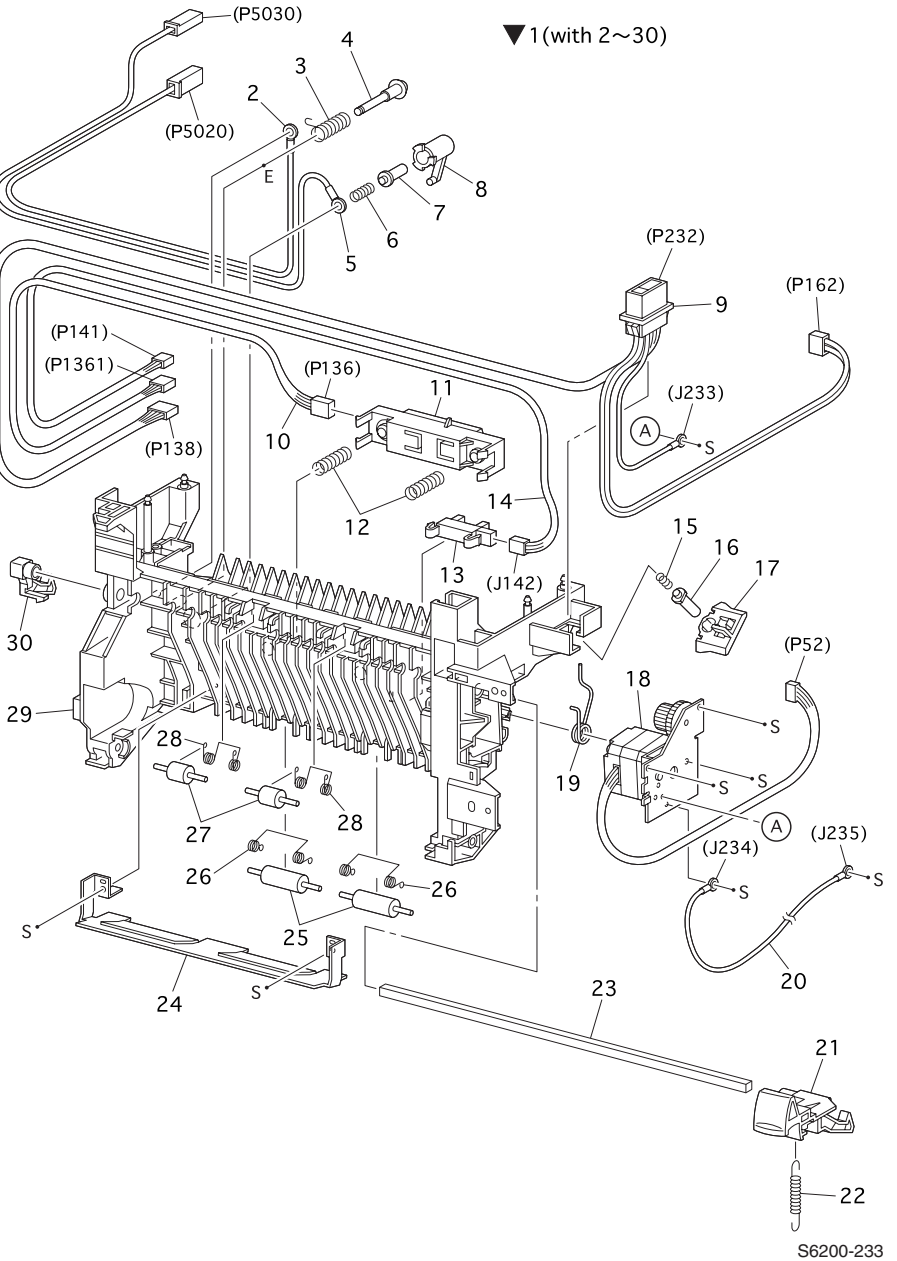
PL 4.1 Housing Assembly Retard



PL 4.1 Assembly, Housing Retard - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1368-00	1	Assembly, Housing Retard (with 2~13)
2		1	Roll, Turn (NS)
3		1	Shaft, Retard (NS)
4	116-1370-00	1	Assembly, Friction Clutch
5	116-1371-00	1	Assembly, RetardRoll
6		1	Holder, Retard (NS)
7		1	Housing, Retard (NS)
8		1	Bearing (NS)
9	116-1374-00	1	Turn Clutch
10		1	Stud, Retard (NS)
11		1	Spring, Retard 370 (NS)
12		1	Cap, Retard (NS)
13		1	Bearing, Ground (NS)

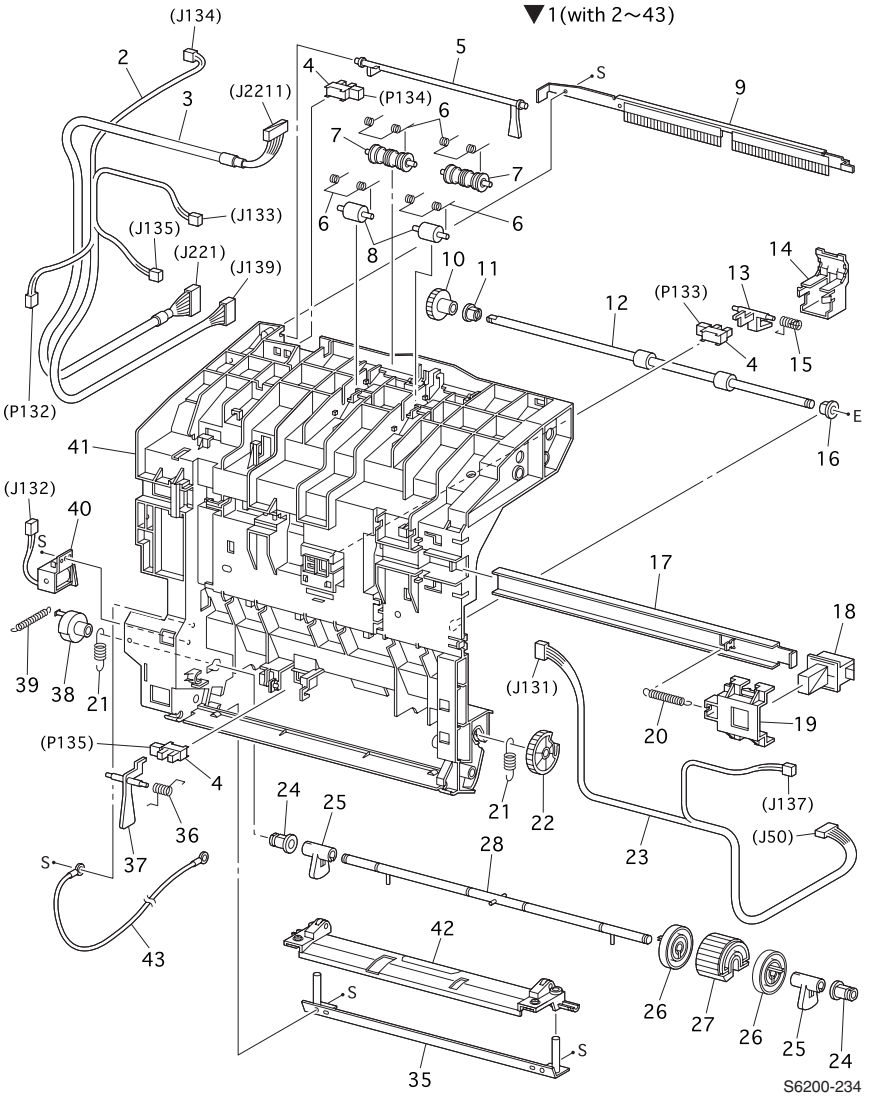
PL 5.1 Chute Assembly In



PL 5.1 Chute Assembly, In - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1			Chute Assembly, In (with 2~30)
1a	116-1379-00	1	120 V
1b	116-1380-00	1	220 V
2	116-1381-00	1	Assembly, Wiring 2nd BTR (J5020)(Transfer Roller)
3	116-1382-00	1	Spring, 2nd BTR
4	116-1383-00	1	Shaft, BTR IN
5	116-1384-00	1	Assembly, Wire Disk (J5030)
6	116-1385-00	1	Spring, DTC
7	116-1386-00	1	Stud, 2nd BTR
8	116-1387-00	1	Spring, Holder BTR
9	116-1388-00	1	Assembly, Harness Fuser 100 V / 120 V (FSR 2)
9a	116-1389-00	1	Assembly, Harness Fuser 220 V (FSR 22)
9b			
10	116-1390-00	1	Assembly, Harness CTD (ADC)
11	116-1391-00	1	Assembly, Sensor CTD (ADC)
12	116-1392-00	1	Spring, ADC
13	116-1393-00	1	Sensor, Toner Full
14	116-1394-00	1	Assembly, Harness Toner Full SNS
15	116-1395-00	1	Spring, IDT
16	116-1396-00	1	Stud, IDT
17	116-1397-00	1	Holder, IDT
18	116-1398-00	1	Assembly, Drive Fuser
19	116-1399-00	1	Spring, BTR
20	116-1400-00	1	Wire Assembly, FSR Earth GRND
21	116-1401-00	1	Right Latch
22	116-1402-00	1	Spring, Latch
23		1	Shaft, Latch (NS)
24	116-1403-00	1	Plate, In T/R
25	116-1404-00	2	Roll, Pinch Turn (1 per order)
26	116-1405-00	2	Spring, Pinch Turn (1 per order)
27	116-1406-00	2	Roll, Pinch Dup (Duplex) (1 per order)
28	116-1407-00	1	Spring, Pinch Dup (Duplex)
29	116-1408-00	1	Chute, In (Duplex)
30	116-1409-00	1	Left Latch

PL 6.1 Chute Assembly Out



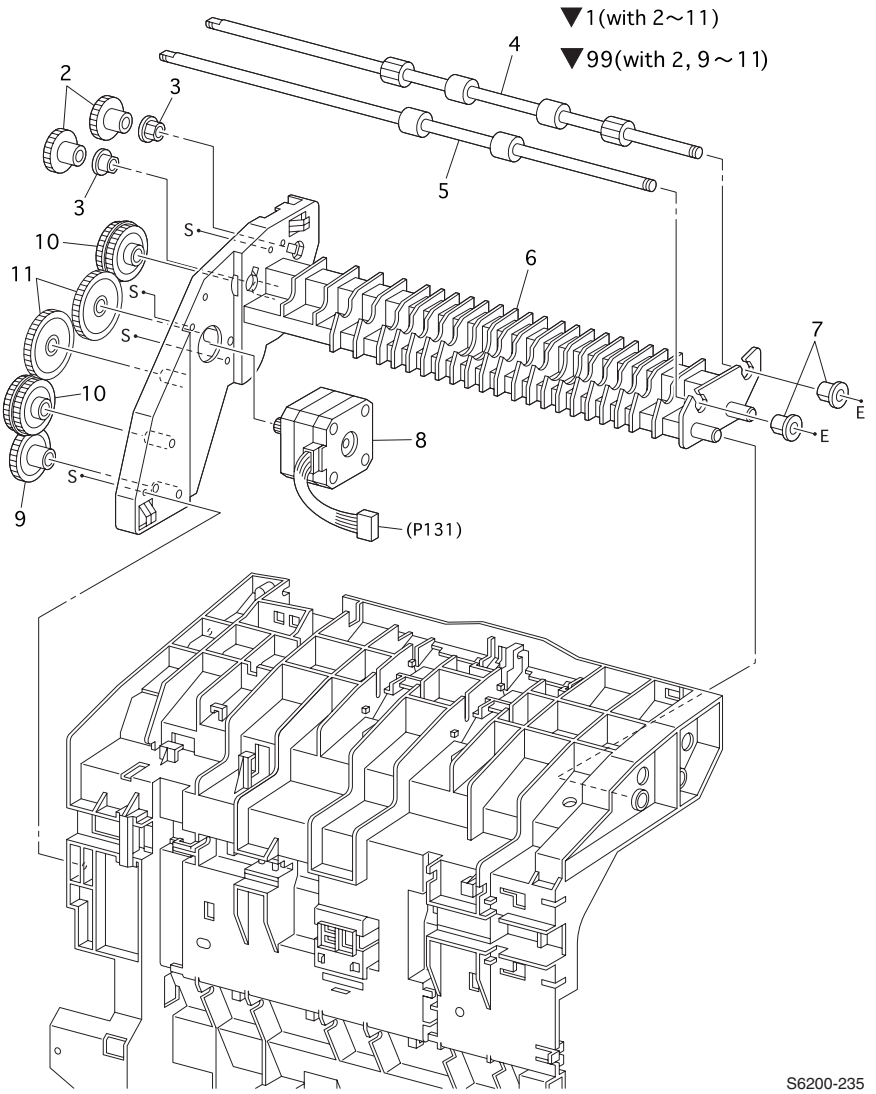
PL 6.1 Chute Assembly, Out - FRU Parts List Table

ID No	Part Number	Qty	Name/Description
1	116-1410-00	1	Assembly, Chute Out (with 2~43)
2	116-1411-00	1	Assembly, Harness, Front 2

PL 6.1 Chute Assembly, Out - FRU Parts List Table

ID No	Part Number	Qty	Name/Description
3	116-1412-00	1	Assembly, Harness, Front Panel
4	116-1413-00	3	Sensor, (Full Stack, Paper Present) (1 per order)
5	116-1414-00	1	Actuator, Output Tray Full (Full Stack)
6	116-1415-00	4	Spring, Pinch Exit (1 per order)
7	116-1416-00	2	Roll, Pinch Exit (1 per order)
8	116-1417-00	2	Roll, Pinch (1 per order)
9	116-1418-00	1	Eliminator Assembly
10	116-1419-00	1	Gear 30
11		1	Bearing Ground (NS)
12	116-1420-00	1	Roll, Dup (Duplex)
13	116-1421-00	1	Actuator, Duplex
14	116-1422-00	1	Actuator, Cover
15	116-1423-00	1	Spring, Sensor Dup (Duplex)
16		1	Bearing (NS)
17		1	Latch, Plate (NS)
18		1	Latch, Out (NS)
19		1	Latch, Holder (NS)
20	116-1425-00	1	Latch, Spring Out
21	116-1426-00	2	Spring, N/F MPT 250GF (1 per order)
22	116-1427-00	1	Gear, MPT
23	116-1428-00	1	Assembly, Harness Duplex
24		2	Bearing, MPT (NS)
25	116-1430-00	2	CAM, MPT (1 per order)
26	116-1431-00	2	Core, Roll, MPT (1 per order)
27	116-1432-00	1	Assembly, Feed Roll
28		1	Shaft MPT (NS)
35	116-1433-00	1	Plate, Out MPT
36	116-1434-00	1	Sensor, Spring MPT
37	116-1435-00	1	Actuator, MPT
38	116-1436-00	1	Solenoid Stopper
39	116-1437-00	1	Solenoid, Spring
40	116-1438-00	1	Feed Solenoid, MPT
41		1	Chute, Out (NS)
42	116-1439-00	1	Assembly, Bottom Plate, MPT
43	116-1440-00	1	Assembly, Wire, Earth GRND

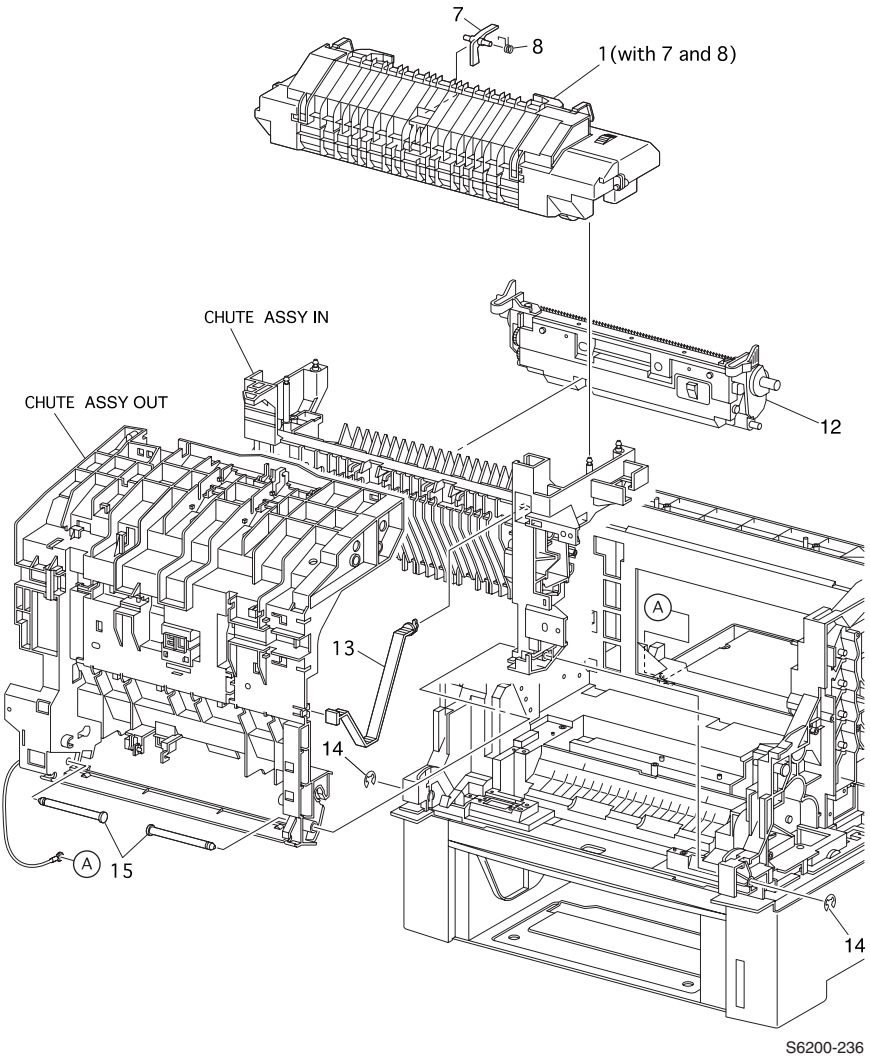
PL 7.1 Chute Assembly Exit



PL 7.1 Chute Assembly, Exit - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1441-00	1	Chute Assembly, Exit (with 2~11)
2		2	Gear Roll (NS, part of PL 7.1.99)
3		2	Bearing Earth (NS)
4	116-1442-00	1	Roll, Exit
5	116-1443-00	1	Roll, Mid
6	116-1444-00	1	Chute, Exit Lower
7		2	Bearing (NS)
8	116-1445-00	1	Assembly, Duplex Motor
9		1	Gear, 42 (NS, part of PL 7.1.99)
10		2	Gear, 40/42 (NS, part of PL 7.1.99)
11		2	Gear, 48 (NS, part of PL 7.1.99)
99	116-1446-00	1	Chute Assembly, Exit Gear Kit (with 2,9~11)

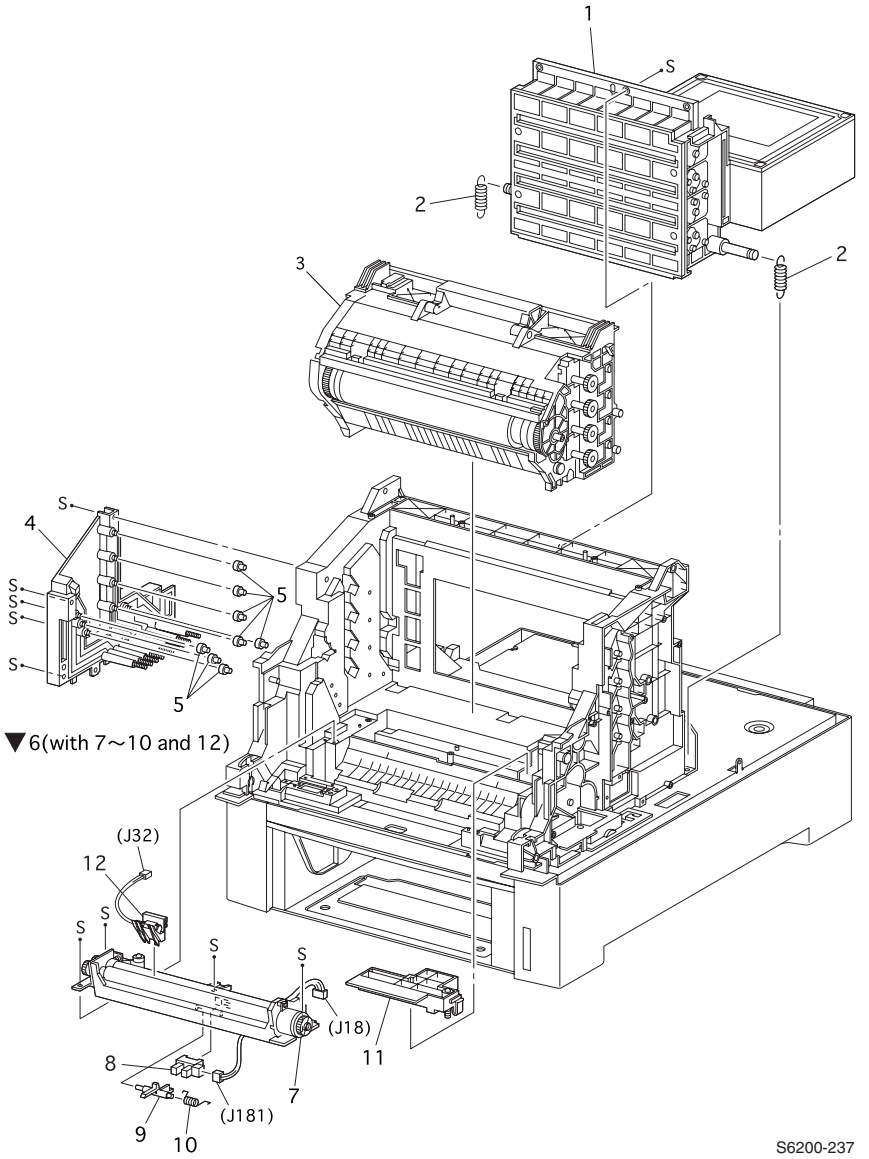
PL 8.1 Transfer Roller & Fuser Assembly (CRCs)



PL 8.1 Transfer Roller and Fuser - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1			
1a	016-2014-00	1	110 V Fuser, Phaser 6200 (with 7 and 8)
1b	016-2015-00	1	220 V Fuser, Phaser 6200 (with 7 and 8)
7	116-1447-00	1	Actuator, Exit
8	116-1448-00	1	Actuator, Spring
12	016-2013-00	1	Transfer Roller, (BTR)
13	116-1449-00	1	Strap
14	116-1528-00	2	E-Ring (part of E-Ring Kit)
15	116-1450-00	2	Shaft, Pivot (1 per order)

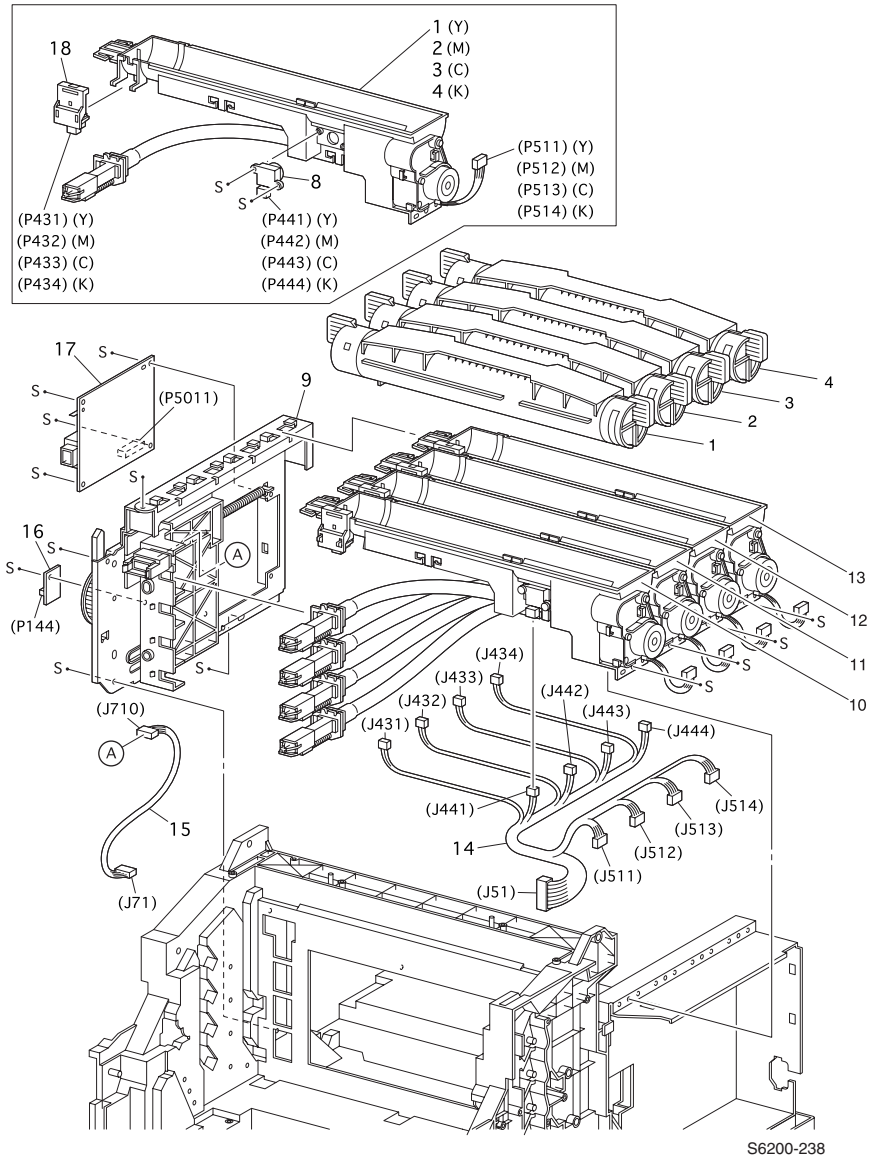
PL 9.1 Xerographics



PL 9.1 Xerographics - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1451-00	1	Laser Unit
2	116-1452-00	2	Spring, ROS (1 per order)
3	016-2012-00	1	Imaging Unit
4	116-1453-00	1	Bias Housing Assembly
5	116-1454-00	8	Plunger, Stud (1 per order)
6	116-1455-00	1	Assembly, Chute Registration (with 7~10 and 12)
7		1	Registration Clutch (NS)
8	116-1413-00	1	Sensor, Registration
9	116-1456-00	1	Actuator, Registration
10	116-1457-00	1	Actuator Spring, Registration
11	116-1458-00	1	Assembly, Housing, Electric
12	116-1459-00	1	OHP Sensor (with Harness) Kit

PL 10.1 Holder Toner Cartridge Assembly

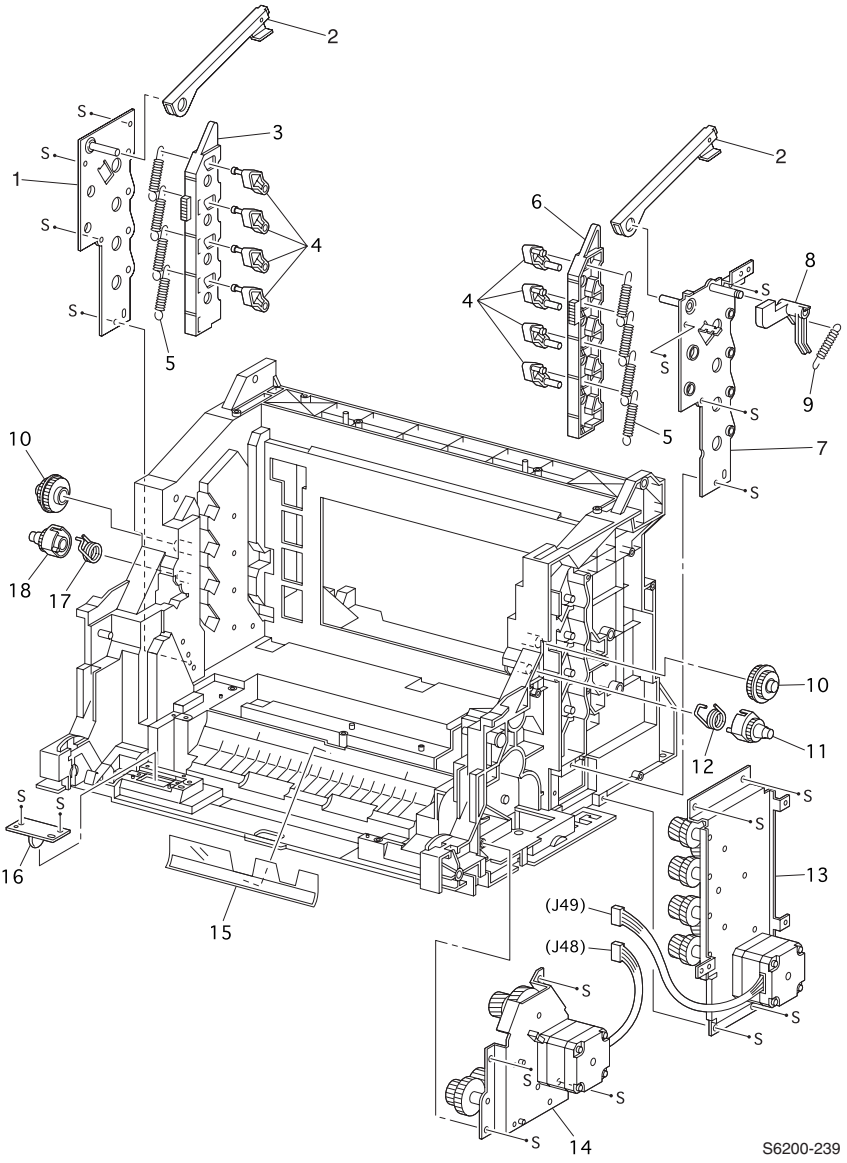


PL 10.1 Toner Cartridge Holder Unit Assemblies - FRU Parts List

ID No.	Part Number	Qty	Name/Description
1	016-2003-00 016-2007-00	1 1	Yellow Toner Cartridge, Standard-Capacity Yellow Toner Cartridge, High-Capacity
2	016-2002-00 016-2006-00	1 1	Magenta Toner Cartridge, Standard-Capacity Magenta Toner Cartridge, High-Capacity
3	016-2001-00 016-2005-00	1 1	Cyan Toner Cartridge, Standard-Capacity Cyan Toner Cartridge, High-Capacity
4	016-2004-00 016-2008-00	1 1	Black Toner Cartridge, Standard-Capacity Black Toner Cartridge, High-Capacity
8	116-1464-00	1	Sensor, Toner Low
9	116-1465-00	1	Assembly, Plate Dispenser, Left
10	116-1460-00	1	Holder, Toner Cartridge Assembly, Yellow
11	116-1461-00	1	Holder, Toner Cartridge Assembly, Magenta
12	116-1462-00	1	Holder, Toner Cartridge Assembly, Cyan
13	116-1463-00	1	Holder, Toner Cartridge Assembly, Black
14	116-1466-00	1	Assembly, Harness Toner (J51-J431/J432/J433/J434/J441/J442/J443/J444/ J511/J512/J13/J514)
15	116-1467-00	1	Assembly , Harness CRUM (J71-J710)
16	116-1468-00	1	*Circuit Board, EEPROM
17	116-1469-00	1	Sub-High-Voltage Power Supply
18	116-1470-00	1	Switch, Toner CTG-IN (Present)

* When a new EEPROM Board is installed in the printer, the CRUM data written to the EEPROM makes it unique to that printer. The EEPROM board cannot be re-used in another printer.

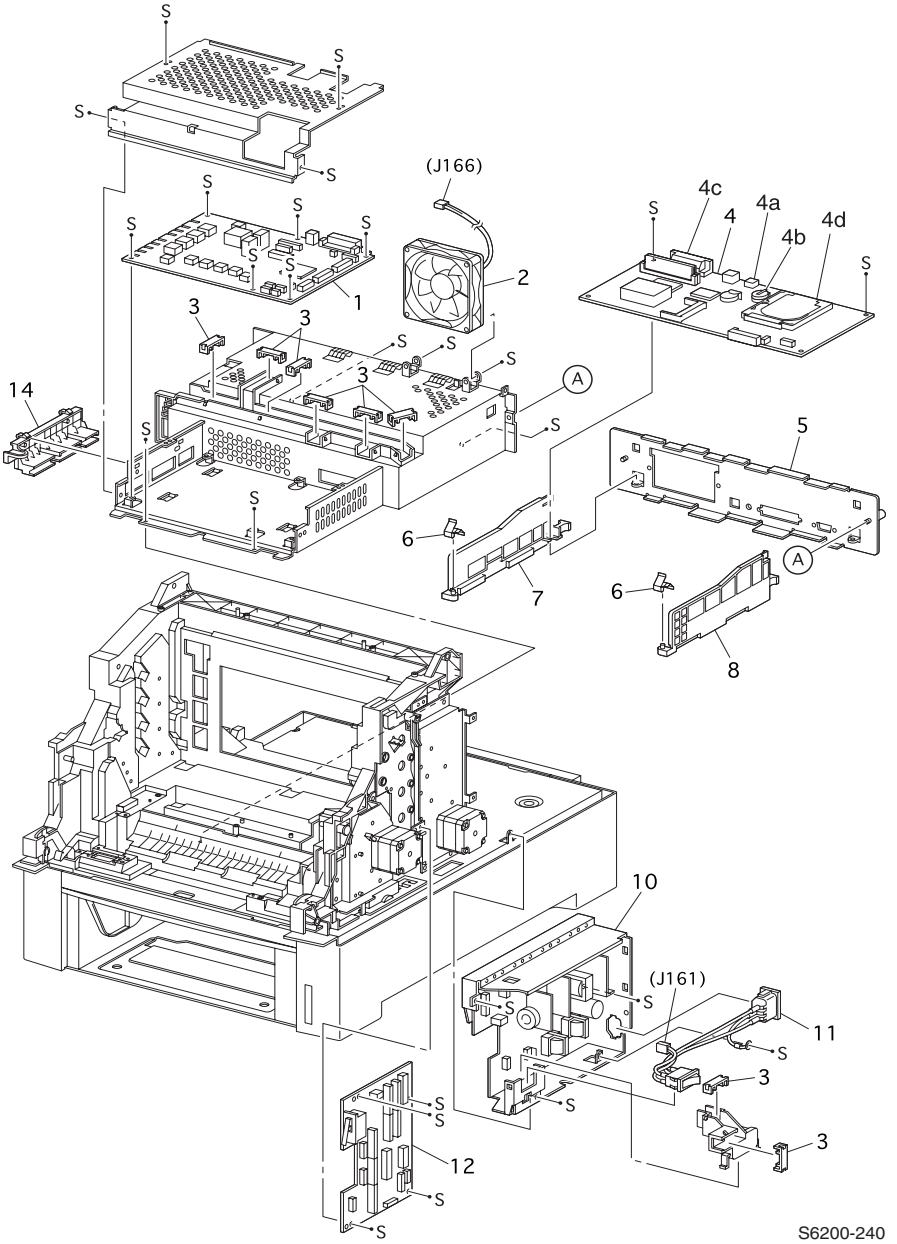
PL 11.1 Frame and Drive Assemblies



PL 11.1 Frame and Drive Assemblies - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1		1	Lever, Plate Left (NS)
2	116-1471-00	2	Lever, Bracket (1 per order)
3	116-1472-00	1	Lever, Link , Left
4	116-1473-00	8	Lever, Drum (1 per order)
5	116-1474-00	8	Lever, Spring (1 per order)
6	116-1475-00	1	Link Lever, Right
7		1	Lever, Plate Right (NS)
8	116-1476-00	1	Actuator, I/L
9	116-1477-00	1	Spring, I/L
10	116-1478-00	2	Press, Gear IDL (1 per order)
11	116-1479-00	1	Press, Gear Right
12	116-1480-00	1	Spring, IDT Right
13	116-1481-00	1	Assembly, Developer Drive
14	116-1482-00	1	Assembly, Main Drive
15	116-1483-00	1	Registration, Film
16	116-1484-00	1	Circuit Board, Earth GRND (Ground)
17	116-1485-00	1	Spring, IDT Left
18	116-1486-00	1	Press, Gear, Left

PL 12.1 Electrical



PL 12.1 Electrical - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1487-00	1	Circuit Board, Engine Control
2	116-1488-00	1	Rear Fan
3	116-1489-00	2	Harness, Clamp Guide (1 per order)
4	671-5290-81	1	Image Processor Board, no configuration chip, no memory, no NVRAM, no Hard Drive
4a	163-1459-00		IC, Memory NVRAM
4b	163-1458-00 163-1474-00 163-1475-00		Configuration Chip = “i” button IC, Base Configuration Chip IC, Network Configuration Upgrade Chip IC, DP/DX Configuration Upgrade Chip
4c	650-4237-00		Internal Hard Drive, FRU
4d	156-4838-00 156-4837-00 156-4663-00		Memory 64 MB, 8M x 64, PC133; Memory DIMM 128 MB, 16M x 64, PC133; Memory DIMM 256 MB, 32M x 64, PC133; Memory DIMM
5		1	Plate, Rear, Image Processor Board (NS)
6		2	Spring, Ground, Image Processor Board (NS)
7		1	Guide Right - Engine Control Board (NS)
8		1	Guide Left - Engine Control Board (NS)
10			
10a	116-1494-00	1	Low-Voltage Power Supply 110 V
10b	116-1495-00	1	Low-Voltage Power Supply 220 V
11	116-1496-00	1	Assembly, Harness, AC Switch
12	116-1497-00	1	Circuit Board, Motor Driver
14	116-1498-00	1	Housing Assembly Contact

PL 13.1 Harness Assemblies

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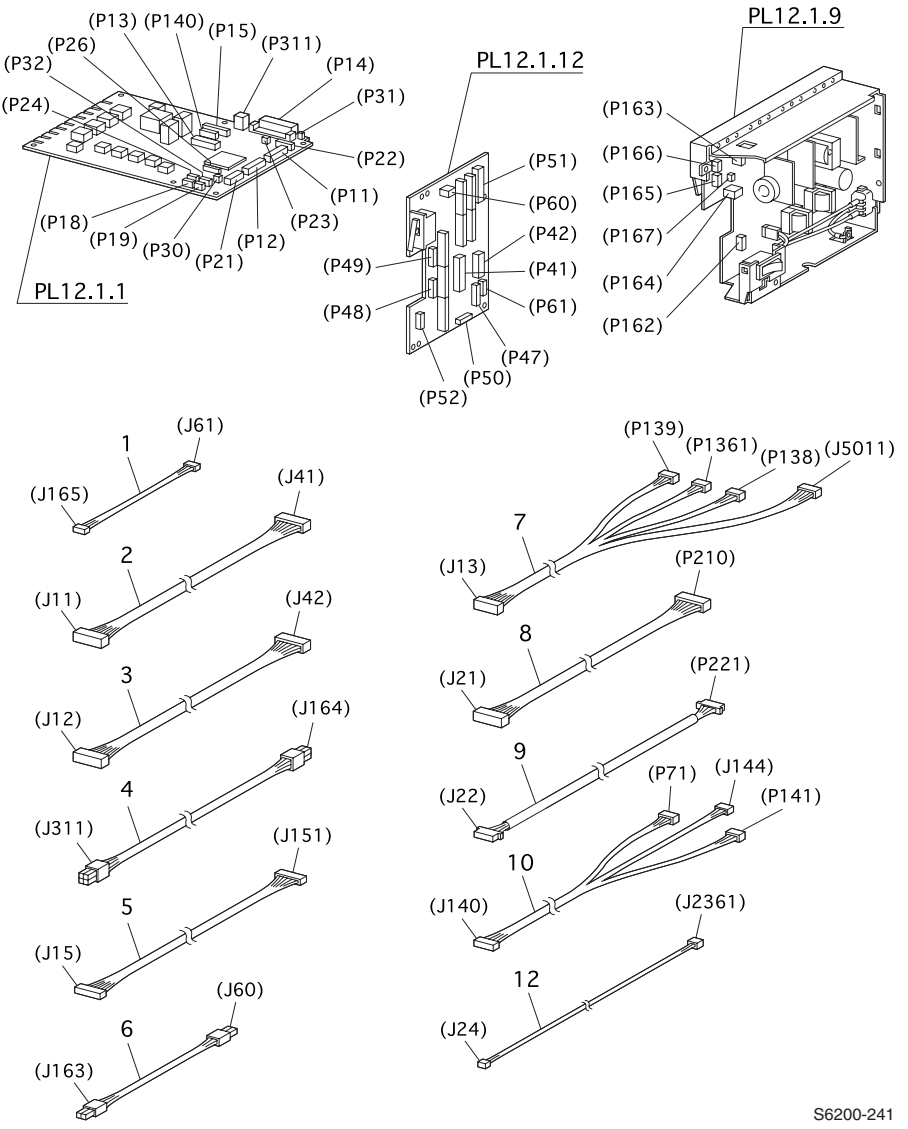
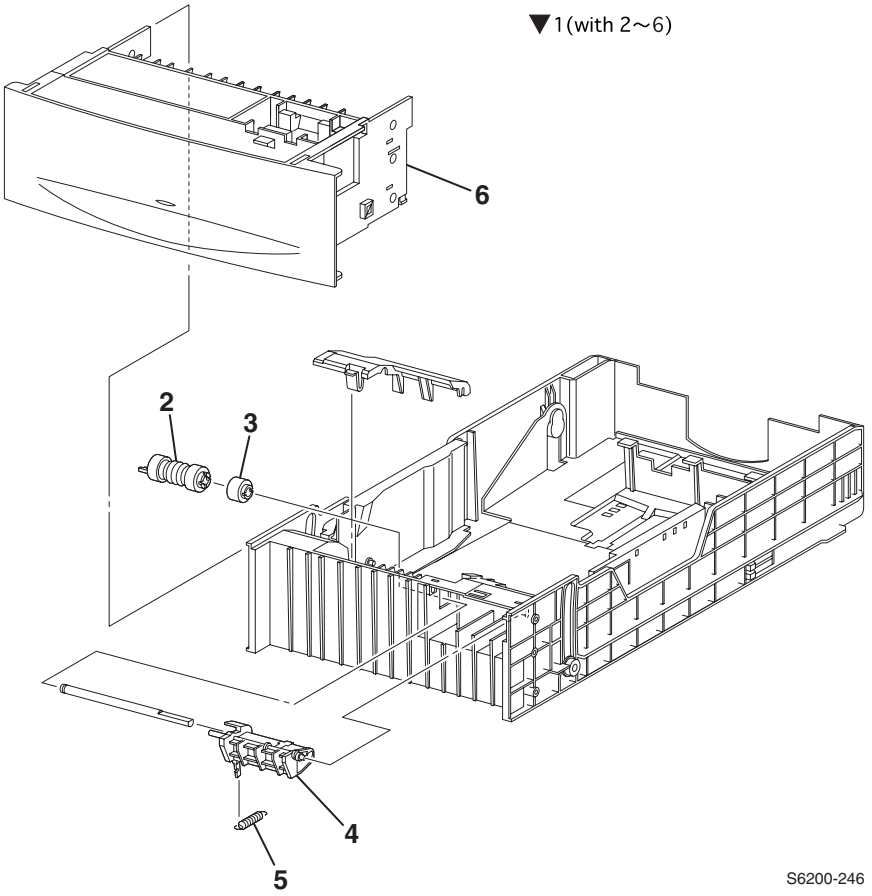


PL 13.1 - Harness Assemblies - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1499-00	1	Assembly, Harness, LVNC (J165-61)
2	116-1500-00	1	Assembly, Harness, DRV 1 (J11-J41)
3	116-1501-00	1	Assembly, Harness, DRV 2 (J12-J42)
4	116-1502-00	1	Assembly, Harness, LVRPG (J164-311)
5	116-1503-00	1	Assembly, Harness, ROSKA (J15-J151)
6	116-1504-00	1	Assembly, Harness, 24 V (J60-J163)
7	116-1505-00	1	Assembly, Harness, FRONT 1A (J13-P139/P1361/P1381/P5011)
8	116-1506-00	1	Assembly, Harness, OPF MAIN (J121-P210)
9	116-1507-00	1	Assembly, Harness, OPEPANE OPA (J22-P221)
10	116-1508-00	1	Assembly, Harness, EEPROM (J140-P71/J144/P141)
12	116-1509-00	1	Assembly, Harness, TMPB (J24-2361)

High Capacity Feeder FRU Parts List

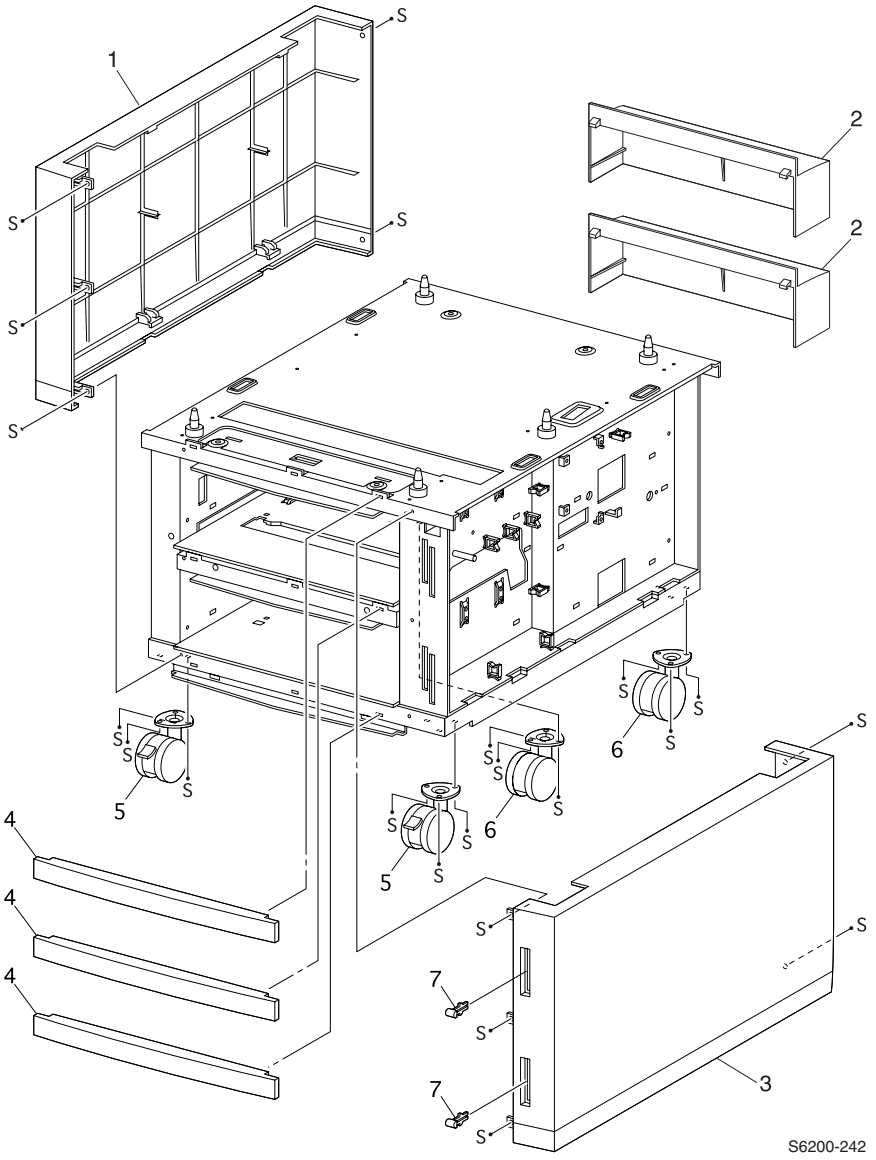
PL 14.1 High-Capacity Feeder Paper Trays 2 & 3



PL 14.1 Tray 2 & 3, Univeral Paper - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1330-00	1	Universal Paper Tray (with 2~5)
2	116-1331-00	2	Paper Feed Roller Kit* *(2 interchangeable rollers per order)
3	116-1332-00	1	Assembly, Friction Clutch
4		1	Holder, Retard (NS)
5	116-1334-00	1	Spring, Retard
6		1	Cover, Front Tray(NS)

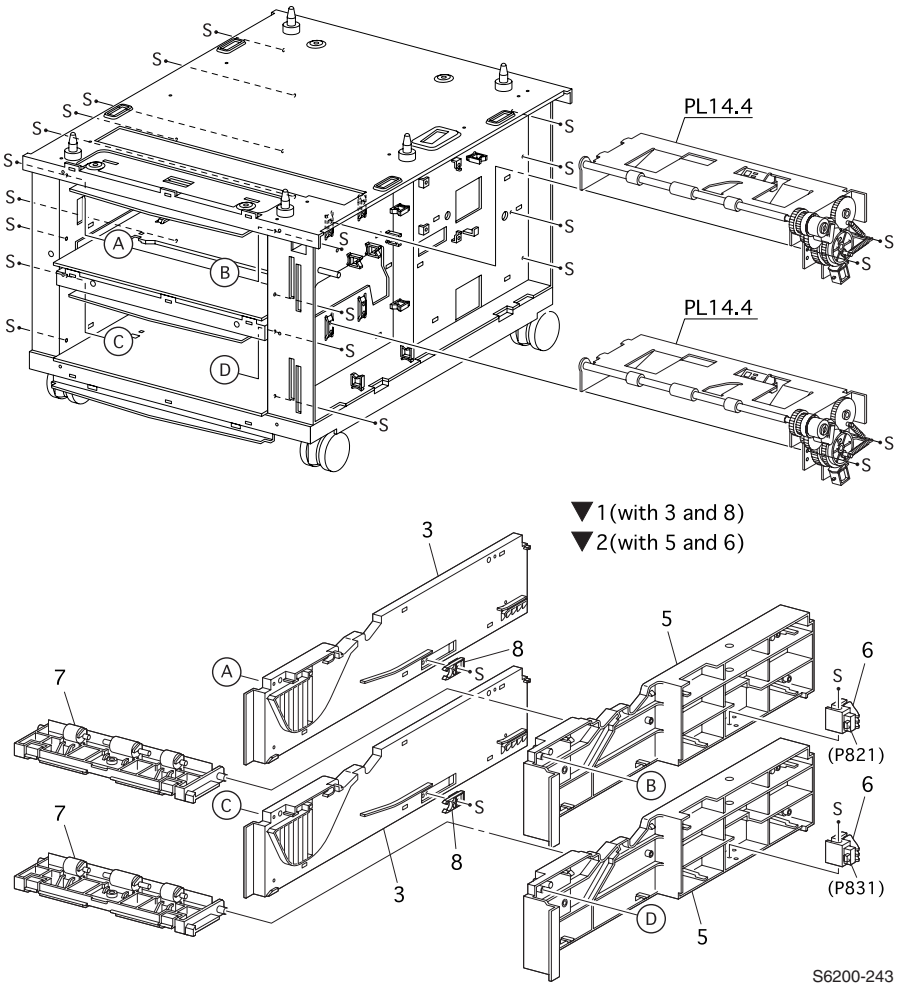
PL 14.2 High-Capacity Feeder Covers



PL 14.2 High-Capacity Feeder Covers- FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1510-00	1	Cover, Left
2	116-1337-00	2	Cover, Rear (1 per order)
3	116-1511-00	1	Cover, Right
4	116-1512-00	3	Cover, Front (1 per order)
5	116-0009-00	2	Casters, Locking (1 per order)
6	116-0008-00	2	Casters, Non-Locking (1 per order)
7	116-1514-00	2	Indicator, Paper (1per order)

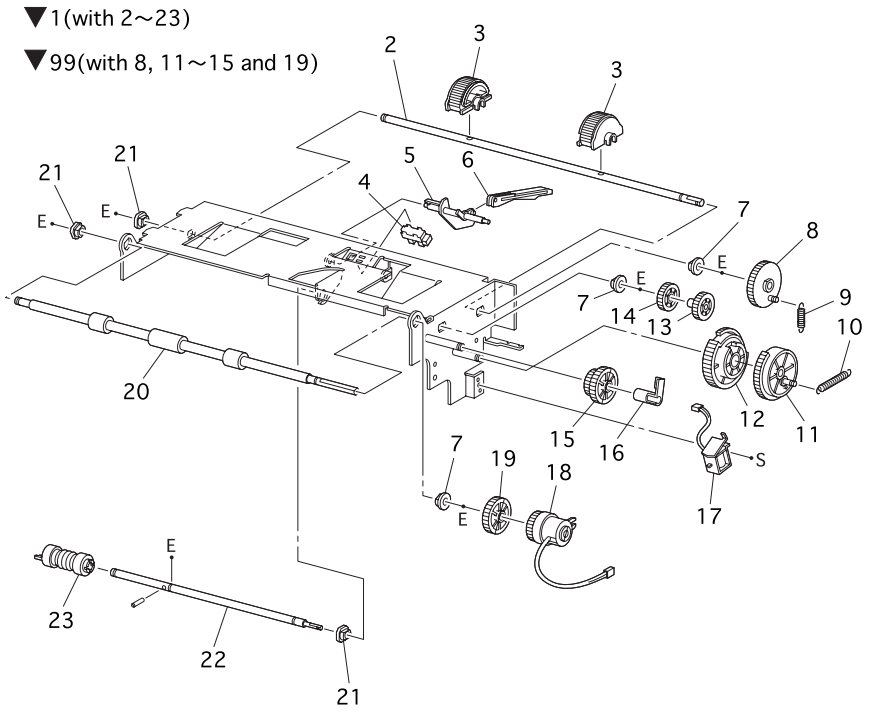
PL 14.3 High-Capacity Feeder Guides and Turn Chute Assembly



PL 14.3 High-Capacity Feeder Guides and Chute - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1			Guide Assembly (with 3 and 8) (NS)
2			Guide Assembly (with 5 and 6) (NS)
3	116-1515-00	2	Guide, Tray Left (1 per Tray)
5	116-1516-00	2	Guide, Tray Right (1 per Tray)
6	116-1343-00	2	Assembly, Paper Size Switch (1 per Tray)
7	116-1336-00	2	Assembly, Turn Chute (1 per Tray)
8	116-1351-00	2	Paper Tray Stopper(1 per Tray)

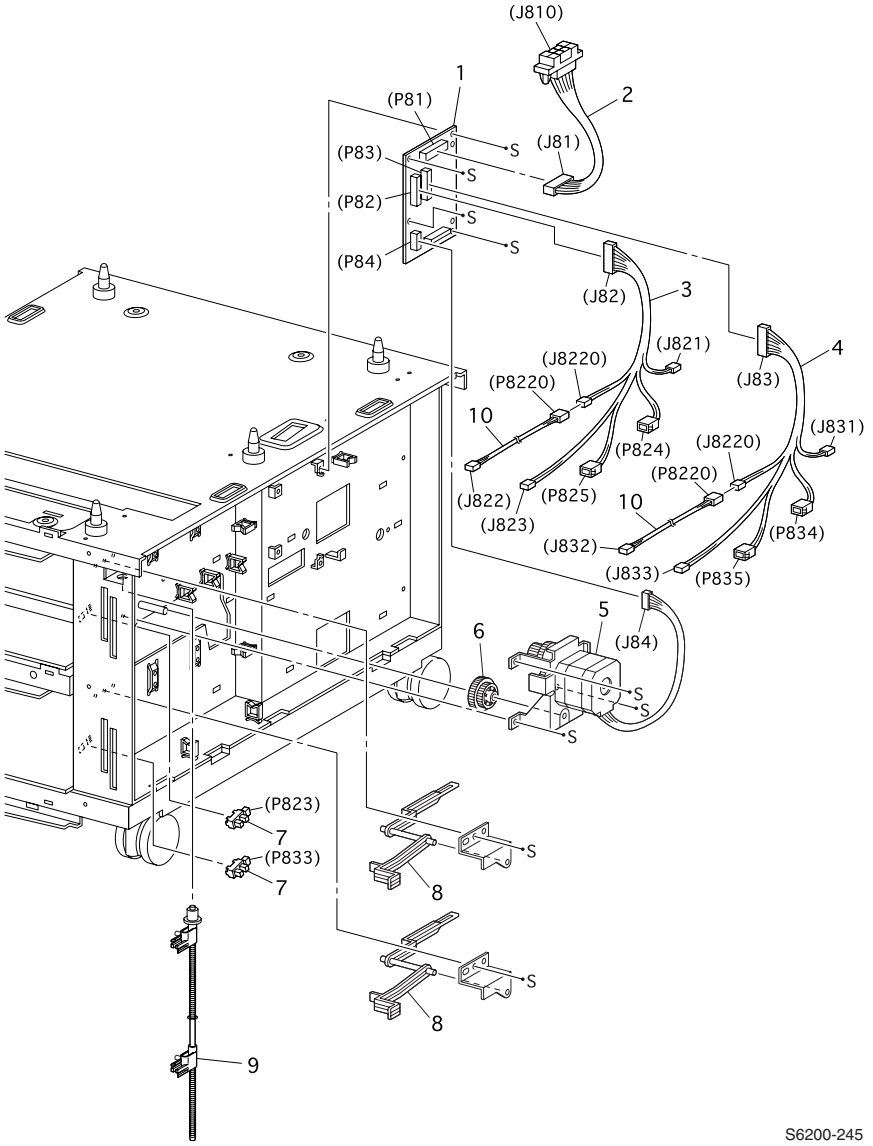
PL 14.4 Paper Pick Assembly Trays 2 & 3



PL 14.4 Paper Pick Assembly Trays 2 & 3 - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1517-00	1	Paper Pick Assembly, LTA (with 2~24)
2		1	Shaft, Feed 1 (NS)
3	116-1353-01	2	Paper Pick Roller Kit (2 per order)
4	116-1354-00	1	Sensor, No Paper, Low Paper
5	116-1355-00	1	Actuator, No Paper
6	116-1356-00	1	Actuator, Link
7		3	Bearing - Metal (NS)
8		1	Gear, Feed 1 (NS)
9		1	Spring, Feed 1 (NS)
10		1	Spring, Feed H (NS)
11		1	Gear, Feed H2 (NS part of 99)
12		1	Gear, Feed H1 (NS part of 99)
13		1	Gear, Feed 2 (NS part of 99)
14		1	Gear, Idler Feed (NS part of 99)
15		1	Gear, Idler (NS part of 99)
16		1	Clutch Stopper (NS)
17	116-1361-00	1	Feed Solenoid,
18	116-1362-00	1	Assembly, Turn Clutch
19		1	Gear, Idler In (NS part of 99)
20	116-1363-00	1	Assembly, Roll Turn
21		2	Bearing, Black (NS)
22		1	Shaft, Feed 2 (NS)
23	116-1331-00	2	Paper Feed Roller Kit* *(2 interchangeable rollers per order)
99	116-1367-00	1	Paper Feed Gear Kit (with 8, 11~15 and 19)

PL 14.5 High-Capacity Feeder Harness, Board and Motor



PL 14.5 High-Capacity Feeder Harness, Board, Motor - FRU Parts List Table

ID No.	Part Number	Qty	Name/Description
1	116-1518-00	1	Circuit Board, Lower Feeder
2	116-1519-00	1	Assembly, OPT Feeder Plug
3	116-1520-00	1	Assembly, Harness, Tray 2
4	116-1521-00	1	Assembly, Harness, Tray 3
5	116-1522-00	1	Assembly, Drive, Feeder
6		1	Gear, Idler (NS, part of PL 3.3.99)
7	116-1354-00	2	Sensor, No Paper, Low Paper (1 per order)
8	116-1524-00	2	Lever, Low Paper (1 per order)
9	116-1525-00		Assembly, Indicator
10	116-1526-00		Assemlby, Harness, NPRSJ

PL 15.1 Xerox Supplies and Accessories

Repair Kits, World Kits and Repacking Kits

Description	Part Number
Kit, Gear, Paper Feed	116-1367-00
Kit, Gear, Exit Chute	116-1446-00
Kit, OHP Sensor with Harness	116-1459-00
Printer Feet	116-1344-00
Kit Screw, Assorted	116-1527-00
Kit, Long Screw (M3 x 85) (2 each)	212-0237-00
Kit, E-Rings, Assorted	116-1528-00
Kit, Sensor Actuator, Assorted Actuators	116-1529-00
Kit, Paper Feed Rollers (2 interchangeable Rollers per)	116-1331-00
Paper Pick Rollers (2 interchangeable Rollers per)	116-1353-01
Main Shipping Box	004-5258-00
Lower Tray Deck Shipping Box	004-5278-00
Phaser 6200, World Kit Plus Standard Media Sample Pack	061-4462-00
Phaser 6200, World Kit Plus Metric Media Sample Pack	061-4463-00
Repackaging Kit, Phaser 6200	065-0610-00
Repackaging Kit, High-Capacity Feeder, Phaser 6200	065-0620-00
Cleaning Kit, 5 Texwipes	016-1845-00

Power Cords

Description	Part Number
Cable Assy, 3,18AWG, 115 V, 98, 0L	161-0066-00
Cable PWR EURO 220V , 99L	161-0066-09
Cable PWR U.K. 240 V, 96L	161-0066-10
Cable PWR AUST 240 V, 96L	161-0066-11
Cable Assy SWISS 220/240 V, 50Hz	161-0154-00
Cable Assy PWR. DANISH, 250 V	161-0240-00
Cable Assy PWR, PRC	161-0304-00
Power, 240V , ARGENTINA	161-0307-00

Upgrade Kits and Options

Description	Part Number
Internal Hard Drive, FRU	650-4237-00
Memory 64 MB, 8M x 64, PC133; Memory DIMM 128 MB, 16M x 64, PC133; Memory DIMM 256 MB, 32M x 64, PC133; Memory DIMM	 156-4838-00 156-4837-00 156-4663-00
High-Capacity Feeder w/ Trays	119-6415-00
Casters Non-Locking	116-0008-00
Casters Locking	116-0009-00
IC, Base Configuration Chip	163-1458-00
IC, Network Configuration Upgrade Chip	163-1474-00
IC, DP/DX Configuration Upgrade Chip	163-1475-00
IC, Memory NVRAM	163-1459-00

Customer-Replaceable Consumables (CRCs)

Description	Part Number
Toner Cartridges - Phaser 6200 all Yellow Toner Cartridge, Standard-Capacity Yellow Toner Cartridge, High-Capacity	 016-2003-00 016-2007-00
Magenta Toner Cartridge, Standard-Capacity Magenta Toner Cartridge, High-Capacity	016-2002-00 016-2006-00
Cyan Toner Cartridge, Standard-Capacity Cyan Toner Cartridge, High-Capacity	016-2001-00 016-2005-00
Black Toner Cartridge, Standard-Capacity Black Toner Cartridge, High-Capacity	016-2004-00 016-2008-00
Imaging Unit	016-2012-00
Fuser 110 V 220 V	 016-2014-00 016-2015-00
Transfer Roller	016-2013-00

Customer-Replaceable Units (CRUs)

Description	Part Number
Universal Paper Tray (1, 2, 3)	016-1330-00
Paper Feed Roller Kit	116-1331-00

Software and Documentation

Description	Part Number
Product CD	063-3414-00
Printer Management CD	063-3415-00
Interactive Documentation CD	063-3419-01
Service Manual	071-0784-00

Print Media

Description	Part Number
Premium Paper, A, 500 Sheets	016-1368-00
Premium Paper, A4, 500 Sheets	016-1369-00
Glossy Coated Paper, A, 100 Sheets	016-1704-00
Glossy Coated Paper, A4 100 Sheets	016-1705-00
Color Printing Labels, A, 30 per, 100 Sheets	016-1812-00
Color Printing Labels, A, 6 per, 100 Sheets	016-1813-00
Color Printing Labels, A4, 14 per, 100 Sheets	016-1814-00
Color Printing Labels, A4, 8 per, 100 Sheets	016-1815-00
Premium Cover Paper, A, 100 Sheets	016-1823-00
Premium Cover Paper, A4, 100 Sheets	016-1824-00
CD/DVD Label and Applicator; contains 1 Applicator & 1 Jewel Case	016-1885-00
CD/DVD Labels and Inserts, 1 Insert/Sheet, Letter (8.5 x 11 in.), 20 Sheets, 2 Labels per Sheet, 10 Sheets	016-2011-00
CD/DVD Labels and Inserts, A4, (210 x 297mm) 1 Insert/Sheet, 20 Sheets, 2 Labels per Sheet, 10 Sheets	016-2026-00
Premium Business Card Media, A, 10 per 25 Sheets	016-1898-00
Premium Business Card Media, A4, 10 per 25 Sheets	016-1899-00
Phaser 6200 Premium Transparency, Letter (8.5 x 11 in.), 50 Sheets	016-1948-00
Phaser 6200 Premium Transparency, A4 (210 x 297mm), 50 Sheets	016-1949-00
Premium Greeting Card Media w/ Envelopes, A, 50 sheets	016-1987-00

Print Media (cont'd.)

Description	Part Number
Premium Greeting Card Media w/ Envelopes, A4, 50 sheets	016-1988-00
Digital Photo Paper, A, 50 Sheets	016-2009-00
Digital Photo Paper, A4, 50 Sheets	016-2010-00

Theory of Operation

Contents

Summary of the Printing Process

The Phaser 6200 Color Laser Printer is a 'full-color laser printer', applying the principals of an electrophotgraphic system. The system, comprising a drum and developing unit for each color (yellow, magenta, cyan and black (YMCK)), places the toner image of each color onto print media producing full-color prints through three intermediate transfer units (IDT1: 2, IDT2: 1). The following procedures are summarized. The printing process is composed of the following steps, see the illustration on the following page as a reference:

1. Charging: The drum surface rotates at a constant speed while being uniformly charged with negative electricity. This process is performed simultaneously for YMCK.

2. Exposure: The charged drum surface is scanned by laser beams to form an invisible electrostatic latent image on the drum surface. This process is performed simultaneously for YMCK.

3. Development: Toner is electrostatically attached to the invisible latent image on the drum surface to form the visible image on the drum. This process is performed simultaneously for YMCK.

4. Primary Transfer (drum --> IDT 1): The toner image formed on the individual drum surface is transferred onto the surface of the IDT1 (intermediate Drum Transfer 1: intermediate transfer roll 1). There are two IDT1's: one for yellow and magenta and one for cyan and black.

5. Secondary Transfer (IDT 1 --> IDT 2): The toner image formed on both IDT 1 surfaces are then transferred onto the surface of IDT 2 to create a 4-color toner complete image.

6. Cleaning: Toner remaining on both IDT 1's after the image transfer to IDT 2 is temporarily stored in the IDT 1 cleaner.

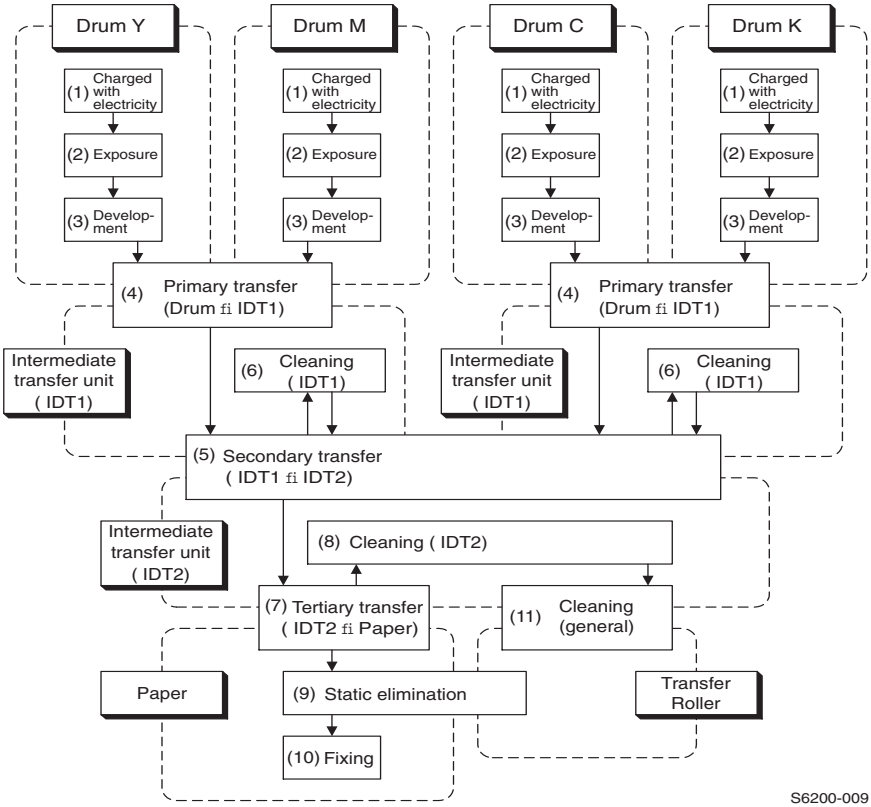
7. Tertiary Transfer: The finished toner image on IDT 2 is transferred onto the print media using the voltage supplied by the transfer roller.

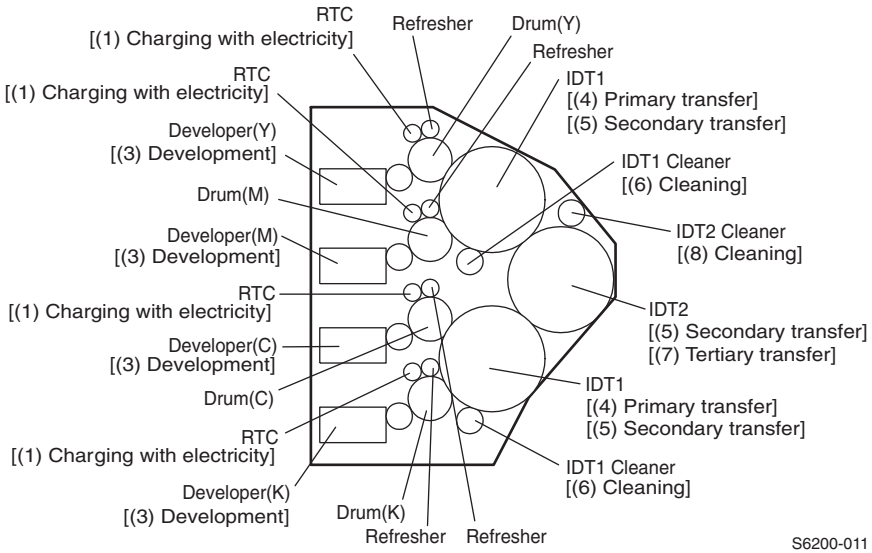
8. Cleaning: Toner remaining on IDT 2 after transfer is temporarily stored in the IDT 2 cleaner.

9. Static Elimination: Negative DC voltage is applied to the back side of the print media by the Detack Saw, located on the Transfer Roller Assembly, to neutralize and eliminate the charge to the print media.

10. Fixing: Toner is fused onto the print media by the Fuser Assembly using heat and pressure.

11. Cleaning: During the general cleaning process, the voltage from the IDT rollers and drums go through a cycle of changes to move the negative and positive charged toner from IDT1 then IDT2 and then the transfer roller. The toner stored in the IDT 1 cleaner, the IDT 2 cleaner and on the transfer roller is removed and deposited into the transfer roller waste recovery bin.





Flow chart of the printing process.

Overview of the Phaser 6200 Color Laser Printer Theory of Operation

Print Modes

There are three types of print modes: draft/standard mode, enhanced mode, and photo mode. These are based on the resolution (600 dpi/1200 dpi) and process speed (full speed/half speed).

Setting the process speed to half speed and the video data transfer speed to twice the speed at 600 dpi attains the resolution of 1200 dpi.

- Standard/Draft mode: Used for printing with a resolution of 600 dpi.
- Enhanced mode: Used for printing on plain paper with a resolution of 2400 X 600 dpi.
- Photo mode: Gloss is raised by setting half speed with plain paper with a resolution of 1200 x 1200 dpi.

Printer Controls

Control of Paper Size

The paper size control is determined by a paper size switch located in each paper tray slot. The switch setting is set by moving the tray which in turn sets the plastic “fingers” on the sides of the paper tray to a specific postion.

Paper Size Switches are indicated as SW1, SW2, and SW3.

Paper Size	Paper Size Switch		
	SW1	SW2	SW3
LEGAL14"	ON	ON	ON
LEGAL13"	ON	ON	OFF
EXECUTIVE	ON	OFF	ON
B5	ON	OFF	OFF
A4	OFF	ON	ON
A	OFF	OFF	ON
A5 (only supported from MPT)	OFF	ON	ON
No Tray	OFF	OFF	OFF

Selective Control; Paper Pick

When not controlled by the Engine Control Board, the paper pick selected at power ON is; "Tray 1". Trays in the optional High-Capacity Feeder are "Tray 2" and "Tray 3" respectively.

Laser Quantity Control

Image data is transmitted to the laser diodes in the Laser Unit as digital signals and the laser diodes convert the image data from digital signals to optical signals (data expressed with blinking laser beams). If variations in the light intensity from the laser beams or variations in the optical system, such as lenses or drum sensitivity, cannot obtain a proper electrostatic image, then the laser diodes monitor and adjust the light intensity of the laser beams to control and attain a stable electrostatic image. The Laser Unit in the Phaser 6200 printer has four laser diodes: one each for yellow, magenta, cyan and black, that adjust the light intensity for each color automatically.

Process Control

For stable printing, the parameters related to the image forming must be monitored and adjusted by the printer. Parameter correction and control over the entire printing process is called “process control”. There are two main controls:

- Bias Control
- Toner Density Control

To supplement these two controls, the following are provided:

- High-Area Coverage Mode
- Admix Mode
- CTD Sensor (ADC - Automatic Density Control) LED light density setting.

Bias Control

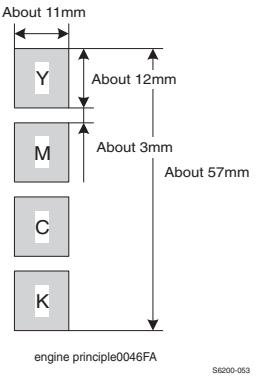
To attain stable image density, the drum charging voltage and the developing DC voltage are continuously adjusted according to the developing capability of each color. The adjusted drum charging voltage and the developing DC voltage are fed back to keep the image density constant.

The bias control is made immediately before the start of printing, if any of the following conditions is satisfied:

- First print produced after the power on.
- Accumulative print count exceeds 16 after power on.
- When a cleaning cycle is executed during continuous printing.

The outline of toner density control is as follows.

1. The Temperature/Humidity Sensor detects the temperature and humidity, and sets the target values of the drum charging voltage and developing DC voltage.
2. The patches of respective colors (yellow, magenta, cyan, and black) for the bias control are generated and transferred to the Transfer Roller.
3. The CTD (ADC) Sensor detects the density of the patches and area on the Transfer Roller where no toner is present.
4. The density measured in Step 3 is compared with the target value set in Step 1 to adjust the drum charging voltage and the developing DC voltage for each color according to the difference in value.

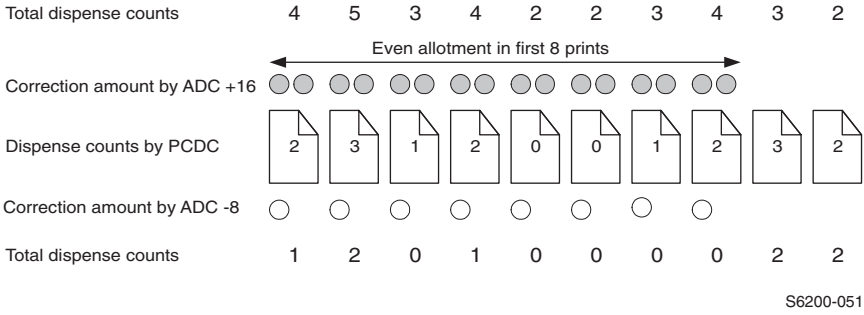


Toner Density Control

Toner density must be kept constant to attain a stable print image. To keep the toner density constant, the toner is dispensed at exactly the same rate it is consumed. There are two systems to control toner density: the PCDC and CTD working in conjunction.

PCDC (Pixel Count Dispense Control): The amount of toner consumed in the developing process is calculated by counting the video signals entered into the Laser Unit. The video signal count is made by the charging and discharging of the capacitor in the CR circuit performed simultaneously to the video signal line. The consumed toner quantity is calculated by the toner dispense time. The toner motor is then driven by the calculated toner dispense time, supplying toner to the developer.

CTD (ADC Auto Density Control): The patches of respective colors (yellow, magenta, cyan, and black) for the toner density control are generated and transferred by the transfer roller. The CTD (ADC) sensor measures this density. The measured value is compared with the reference value and if the toner density is low, the dispensed toner quantity is increased on the next print, or if the toner density is high, the dispensed toner quantity is reduced on the next print. The dispensed toner quantity is calculated by the toner dispense time. This calculation is made for each color.



High-Area Coverage Mode

Continuous printing of an image with density exceeding the toner dispense capability causes the toner density in the developer to be lowered below the target toner density.

The high area coverage mode retards the next page fed and dispenses toner during this time so that the toner density time reaches the specified value during continuous printing.

Admix Mode

If the high area coverage mode can not deal with the reduction of toner density in the developer or if the machine is used in a high-humidity environment and is relocated to a low-humidity environment, the reference value for the toner density will change. This causes a large discrepancy between the measured values from the CTD sensor and the referenced value for the toner density.

Admix mode dispenses the toner immediately to prevent low-toner density. If the patch density result measured by the CTD Sensor is lower than the reference value from the toner density control, then the admix mode is generated.

LED Light Density CTD (ADC) Control of Sensor

The CTD (ADC) sensor is a reflective sensor that emits light from an LED in the sensor and detects the reflected light from the transfer roller. For exact density measurement, the sensor output value (reflected light density) must be the specified value when no toner is put on the Transfer Roller. The reflected light density varies depending on the Transfer Roller surface condition or dirty condition of CTD (ADC) sensor surface. The light density emitted from the LED is controlled so that the reflected light density meets the specified value.

This control is implemented in two ways:

1. Sets the light density so that the light reflected satisfies a specific value.

2. Adjusts the subsequent light density to be within a specific tolerance value.

1. Light Density Setting

The reflected light density can vary greatly if the transfer roller has been replaced or the CTD (ADC) sensor has been cleaned. To deal with this variance the light density is reset when the power is turned on or the front cover is opened and closed.

The intensity of the LED increases gradually and the set value is adjusted when the output of the CTD (ADC) sensor exceeds the specified value. If the output of the CTD (ADC) sensor does not reach the specified value, even though the light density is increased to the maximum limit, the controller signals the sensor is dirty. The controller will also signal the sensor as faulty in the event of extremely high output.

2. Light Density Adjustment

At the execution of automatic density control, the light density adjustment is made just before the patches for toner density control are generated.

Light is emitted from the LED, with the current light density setting, to check if the output value of the CTD (ADC) sensor is within the specified range. If the output value is low light density is increased. If the output value is high, the light density is decreased.

If the output value is less than the first lower limit, the controller signals the sensor as dirty and generates a warning. If less than the second lower limit, the controler signals the sensor as faulty and stops the printing.

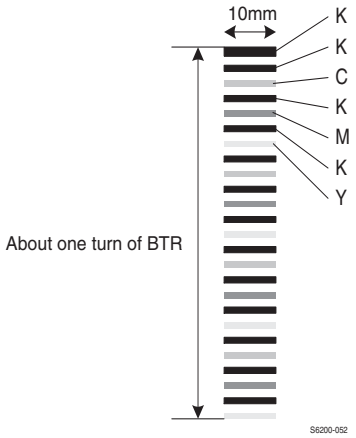
Color Registration Control

The printer uses a quad system where drums and developers are used exclusively for yellow, magenta, cyan, and black. Images are formed on the drums, in respective colors, and layered to form one image. To avoid a shift in color the color registration control calculates how much the registration is shifted, and adjusts the laser write timing.

Color registration control is made depending on the internal temperature and print count at the execution of process control.

This control is outlined below:

1. With no toner on the Transfer Roller, the output value of Sensor, CTD (ADC) is measured to determine the threshold value.
2. The patches for color registration control are generated on the Transfer Roller. These patches are composed of 10mm lines of K, C, K, M, K, and Y in this order by the amount of four dispense counts, led by a black trigger.
3. The density of patches generated by the CTD (ADC) sensor is read.
4. The amount of registration shift is calculated from the threshold value determined in step 1 and the patch density measured in step 3.
5. The laser write timing is changed to compensate for the amount of registration shift.



Transfer Roller Assembly Control

Detecting the Installation of the Transfer Roller Assembly

The CTD Sensor detects the installation of the Transfer Roller when power to the printer is turned on, or the front cover is opened and closed.

Light emits from the LED of the CTD sensor with the specified intensity and if the output of the CTD Sensor is greater than the specified value the controller signals installation of the Transfer Roller.

If printing is stopped by a jam, the toner image will be placed on the Transfer Roller. The this case the sensor output result is low, causing the controller to report the transfer roller as missing. To prevent this, the Transfer Roller is rotated a half turn if output is lower than the specified value. If the output of the CTD sensor is greater than the specified value, then the controller senses installation. If the output is less than the specified value, the controller senses the transfer roller is not installed.

Detecting the Life of the Transfer Roller Assembly

The Transfer Roller Assembly consists of a bias transfer roller and a waste toner recovery system. End of life of the Transfer Roller is detected when the toner recovery space becomes full.

The full toner recovery space is detected by the Toner Full Sensor.

1. Timing check for a full waste toner recovery space is:
   - When the power is turned on.
   - When the front cover is opened and closed.
   - When paper exits the print engine.
2. “Transfer Roller is at End of Life” ***error*** message is received when the toner full sensor detects the toner recovery space is full.
3. “Replace Transfer Roller ” ***warning*** message is received if the print count and the toner dispense time are counted and the total count exceeds 15,000 prints.

Toner Control

Toner Cartridge installation is detected by the Toner Present (CTG-In) Switch, and the presence of toner is detected by the Toner Low Sensor. These switches and sensors are provided for each respective color (CMYK), and detection is made for each individually.

Toner Low Sensor

The toner low sensor checks one color every 3.5 seconds, requiring 14 seconds to detect all four colors.

The toner low sensor is attached to the Toner Cartridge Holder Assembly and detects the presence of toner dispensed by the toner motor from the toner cartridge into the auger tube.

The toner low sensor can make a false detection if toner has stuck to the sensors surface. To prevent this, a film attached near the auger in the toner cartridge holder assembly cleans the sensor surface whenever toner is dispensed. This film rotates with the auger as toner dispenses scraping toner off the toner low sensor surface.

The toner low sensor may detect toner even if toner is not present or may not detect the toner even if toner is present, depending on the film position when the toner motor stops. This is avoided by the printer's internal toner presence control.

Toner Presence Control

1. Checks toner presence when the power is turned on, or after the front cover is opened and closed. Every 14 seconds
2. The "Toner Empty" ***warning*** is displayed when the toner low sensor detects the toner is empty two or more times consecutively and if toner is dispensed during the time of detection.
3. The "Replace Toner Cartridge" ***error*** is displayed when the toner dispense time count exceeds the specified value.
4. "Reseat or Replace Toner Cartridge [C] [Y] [M] [K]" ***error or warning*** displays when the toner is dispensed for 1.5 seconds after toner cartridge installation is detected. At the next toner control timing, if the toner low sensor detects toner present, the "Toner Empty Warning" and "Toner Empty Error" are reset. When toner is dispensed and the toner low sensor detects toner present three or more times consecutively, the controller regards this status as "toner presenct".

Fuser Control

Fuser temperature control

During fuser temperature control the printer's target temperature is set. The heat roller surface temperature is controlled to match the target temperature by turning the heater lamp on/off.

The heat roller surface temperature is detected by the thermistor sensor. The logic detects the resistance value alternately at 40ms cycles. The temperature is detected at 80ms cycles and if the detection result is high, the heater lamp is turned off. If the detection result is low, the heater lamp is turned on.

For the target temperature, different temperatures are set for standby, printing, and process control. The target temperature is also changed according to the inside temperature detected with the temperature/humidity sensor, print count, print mode, input power supply voltage and paper type.

Cool down

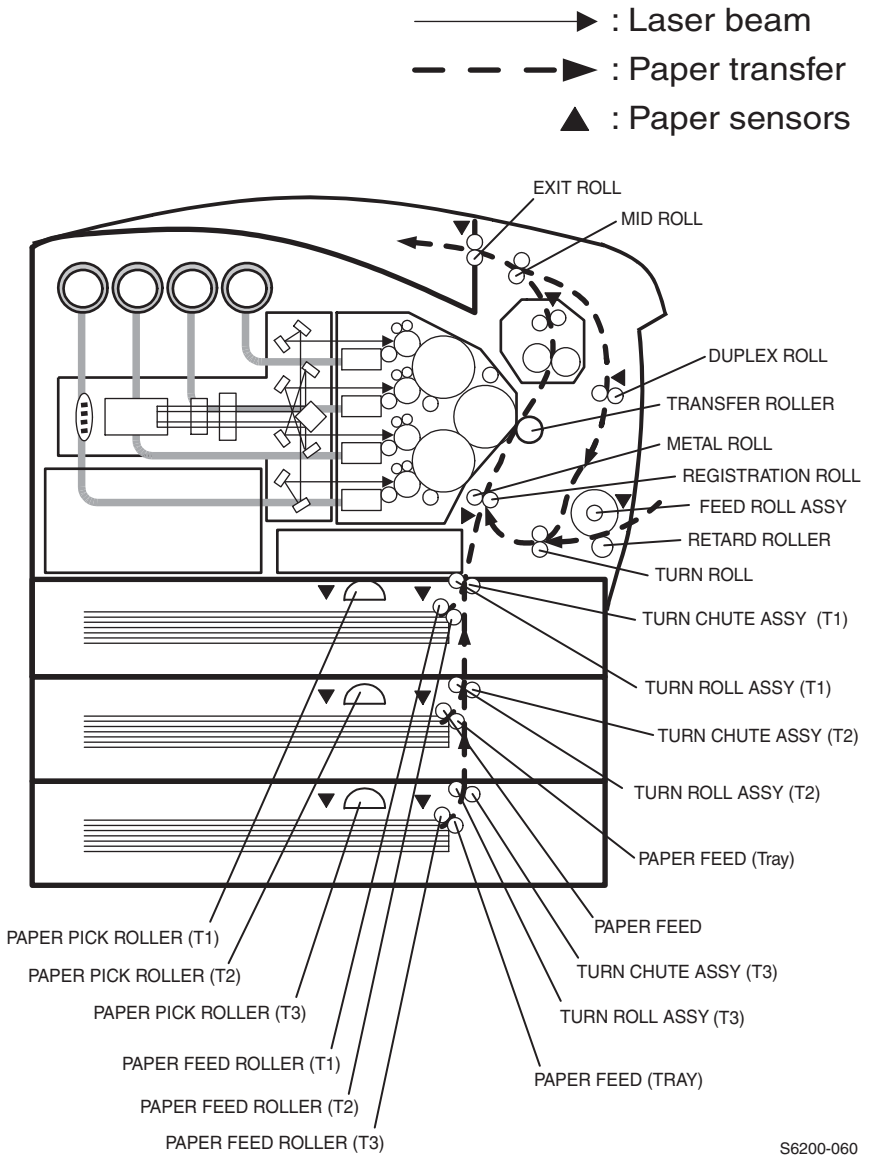
During printing, the temperature distribution of the heat roller becomes uneven between paper and non-paper. To make the heat roller temperature as even as possible, a wait time is provided and the heater lamp is kept off. This is called the cool down.

A cool down is executed according to the number of sheets continuously printed when a set, printing with a certain type and size of paper is completed, and when the paper type or size is changed. The cool down occurs evenly in the middle of several hundred sheets of continuous printing.

As a simple cool down, the *Pages Per Minute Down* is provided. This function idles the fuser during printing, without feeding paper, to improve temperature distribution on the heat roller.

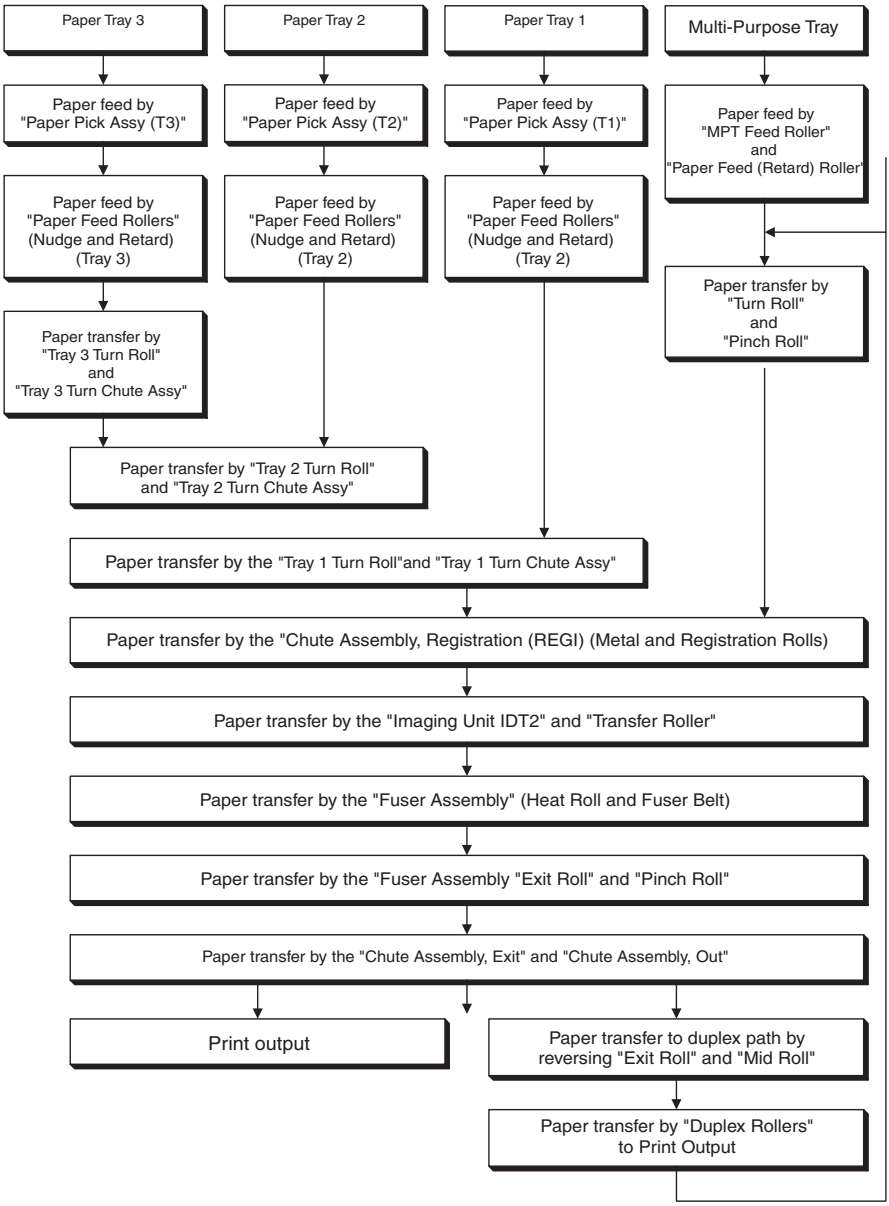
The pages per minute execution timing is determined depending on the paper size and type.

Paper Path of the Printer



Paper Path of the printer, shown with the optional High-Capacity Feeder

Paper Path Route

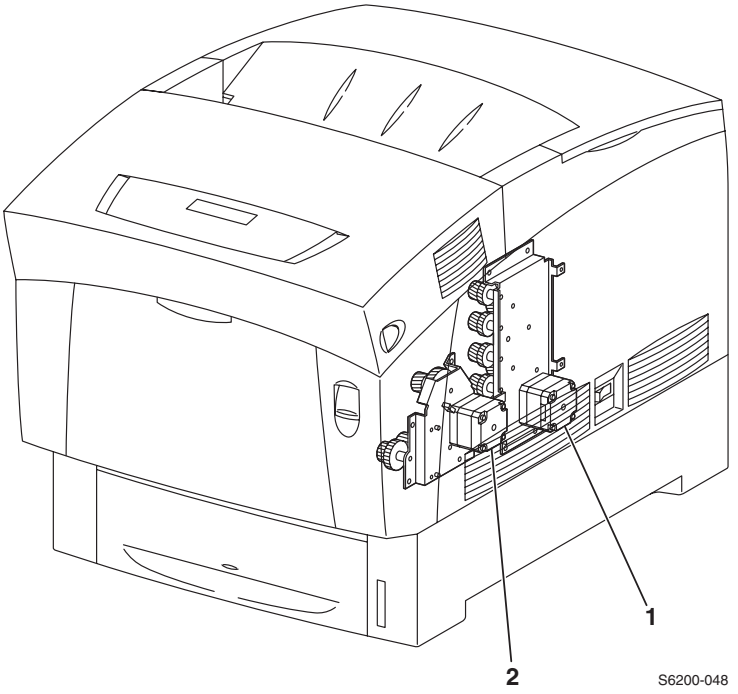


S6200-059

Major Assemblies and Functions

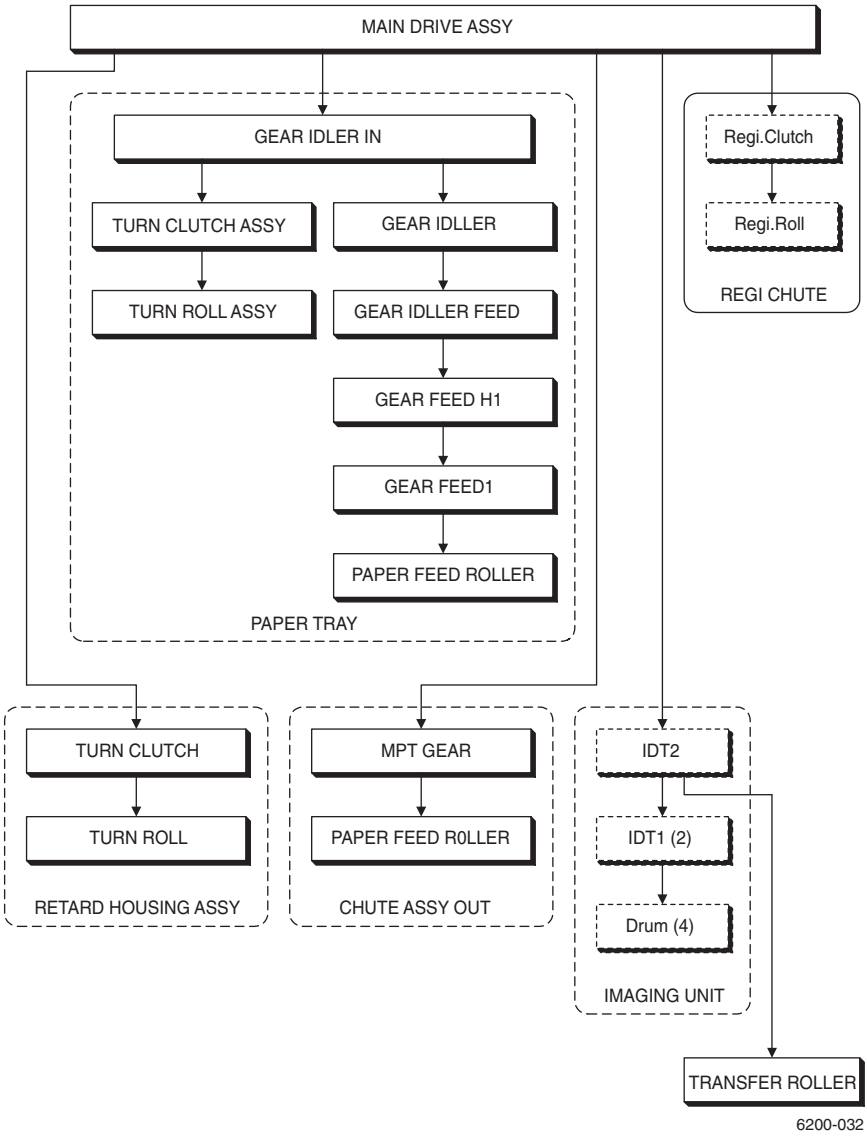
The following section details all major components of the printer and their relative functions. These components are broken down into the following areas based on the configuration of the printer and the optional High-Capacity Feeder.

Frame and Drive Assemblies

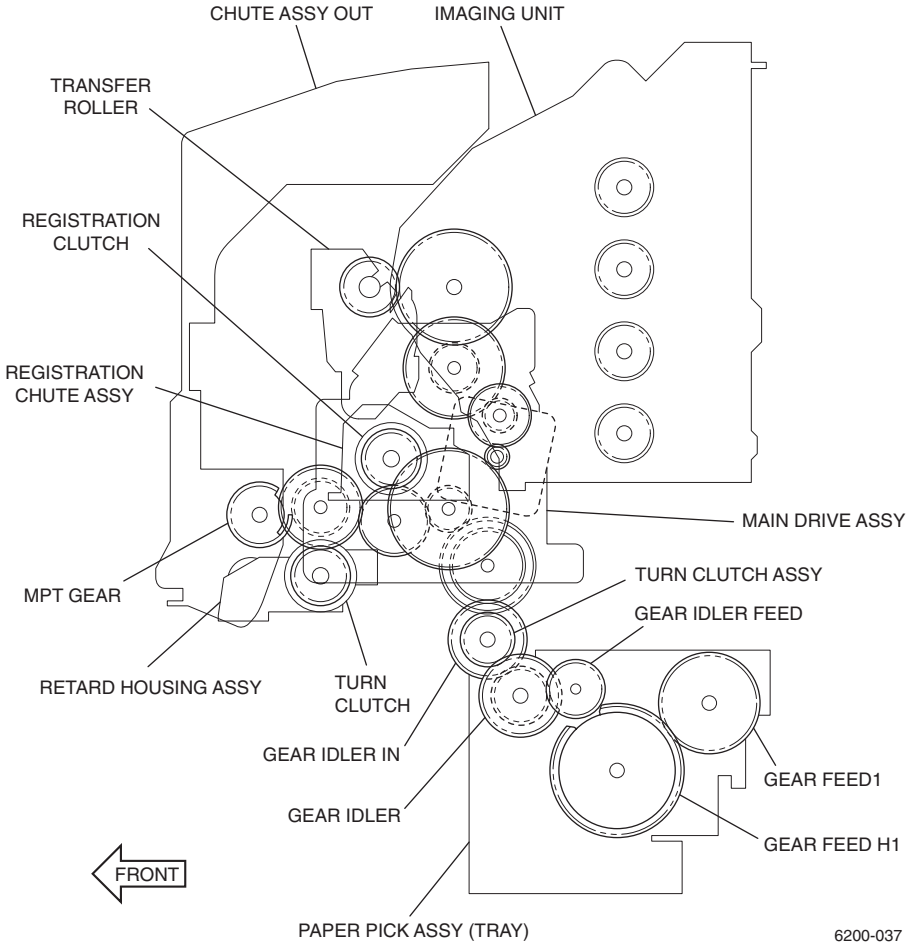


1. **Developer Drive Assembly:** Supplies the drive to the Imaging Unit Developer.
2. **Main Drive Assembly:** Supplies the drive to the following parts:
   - Paper Feeder
   - Retard Housing Assembly
   - Chute Assembly, Out (MPT position)
   - Chute Assembly, Registration
   - Imaging Unit (IDT 1, IDT 2, Drum)
   - Transfer Roller

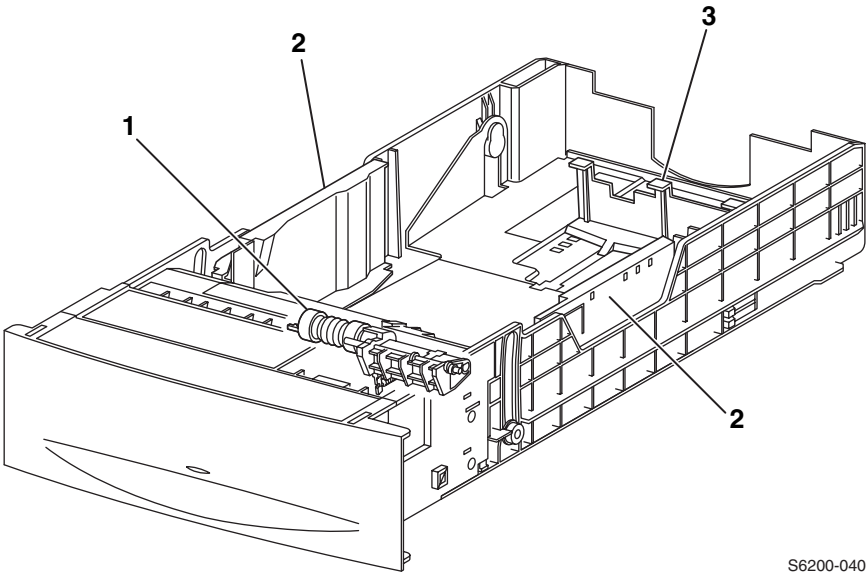
Main Drive Assembly - Transmission Route



Gear Layout - Print Engine and Tray 1

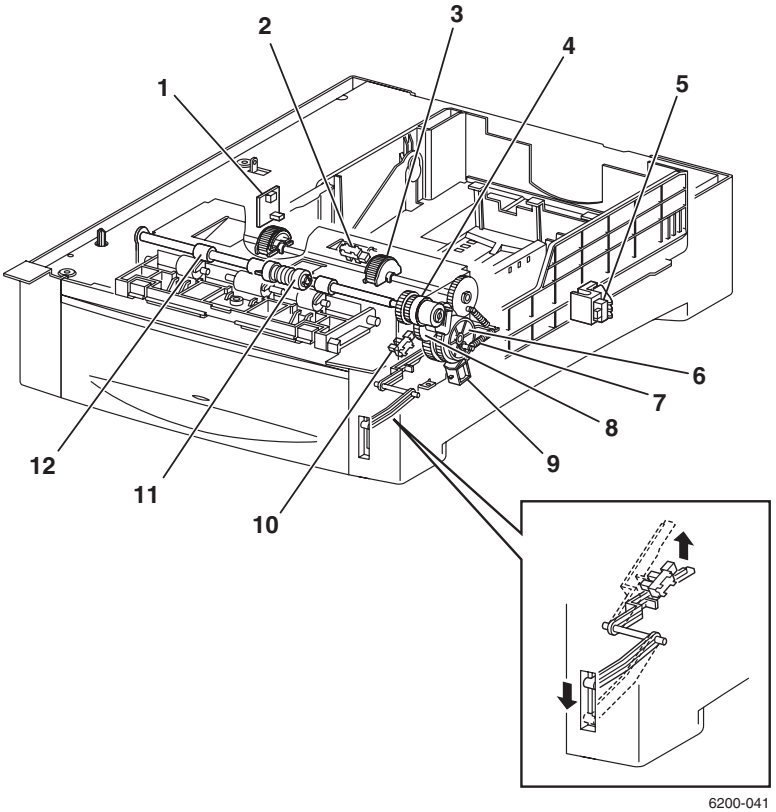


Paper Tray 1



1. **Paper (Retard) Feed Roller:** The paper retard feed roller prevents more than 1 sheet at a time from printing. The paper feed *retard* roller and the paper feed *nudge* roller are interchangeable parts in all trays.
2. **Side Guides Right and Left:** The side guides move against media to align or register the width of print media in the paper feed direction.
3. **Rear Guide:** The rear guide moves to determine the length of print media in the paper feed direction. The paper size switch uses this rear guide to detect the paper size.

Paper Feed - Tray 1



1. **Temperature/Humidity Sensor:** Detects temperature and humidity inside the printer to adjust the charge voltage, (the voltage supplied to the transfer roller and the developing bias).
2. **No Paper Sensor:** Detects print media in the tray based on the position of the Actuator.
3. **Paper Pick Rollers:** When the feed solenoid energizes, the spring feed force engages the gear feed and the gear idler feed to turn and feed the paper from the paper tray. This activates the pick-up assembly. After completion of one turn, determined by a cutout in the gear feed, the gear feed and the gear idler feed are disengaged stopping the paper retard feed roller. This allows one sheet to be fed at a time.
4. **Turn Clutch Assembly:** Transfers the drive energy from the main drive assembly to the roll turn assembly.
5. **Paper Size Switch:** Detects print media size and installation of the paper tray.

6. Gear Feed: See Paper Pick Rollers.

7. Spring Feed: See Paper Pick Rollers.

8. Gear Idler Feed: See Paper Pick Rollers.

9. Feed Solenoid: Controls the operation (rotation/stop) of the Feed Roller Assembly by controlling the rotations of the Gear Feed.

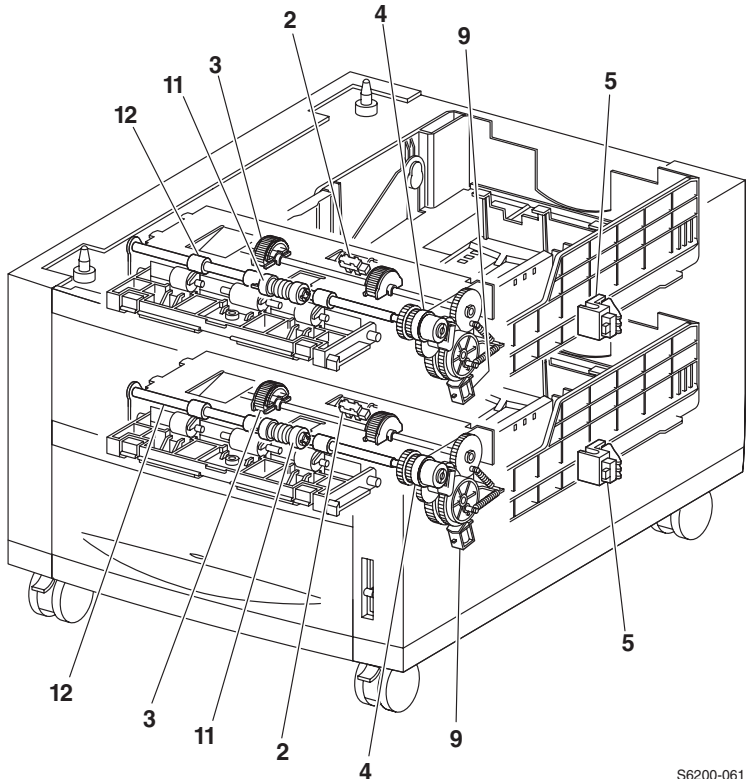
10. Low Paper Sensor: The actuator lowers as print media is used in the tray. When the actuator lowers to a pre-determined postion, it blocks the sensor beam to trigger a low paper status. The actuator position can be seen from the front of the paper tray allowing confirmation of the print media quantity.

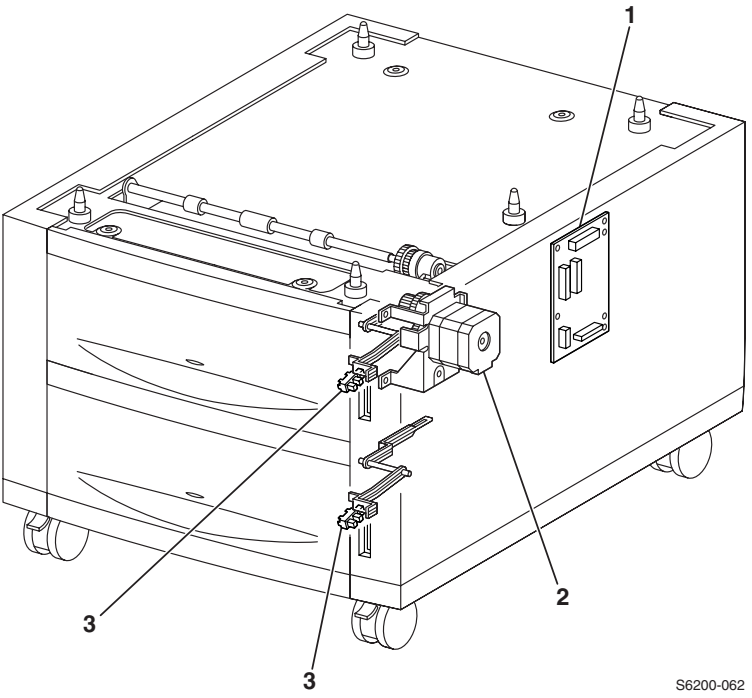
11. Paper Feed Roll: See paper Pick Rollers.

12. Roll Turn Assembly: The roll turn assembly receives drive energy from the main drive through the turn clutch and transports the print media out of the paper tray to the registration roller.

Note: ***Tray 1 paper pick assembly has a different part number than the HCF tray 2 and tray 3 paper pick assembly.***

High-Capacity Feeder - Trays [2] [3]





1. **HCF Feeder Circuit Board:** Controls the paper pick-up operation of each tray based on communication with the Engine Control Board and information from the sensors and switches.

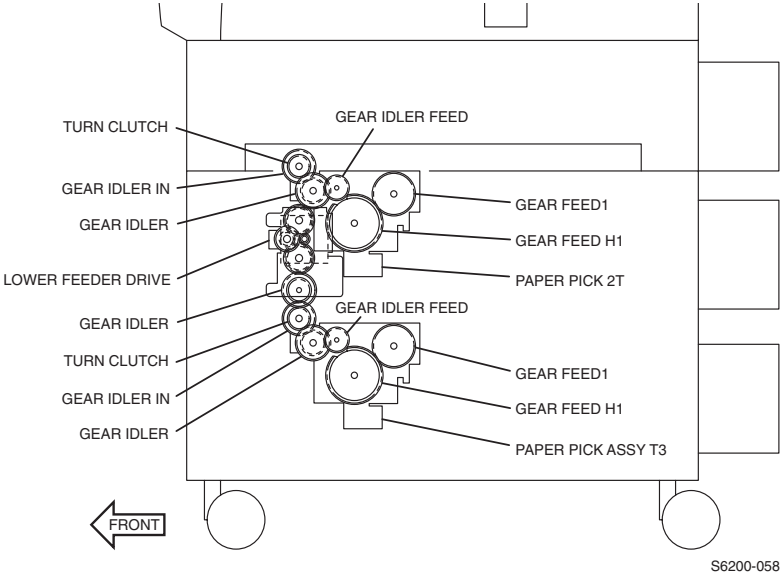
   Major Functions:

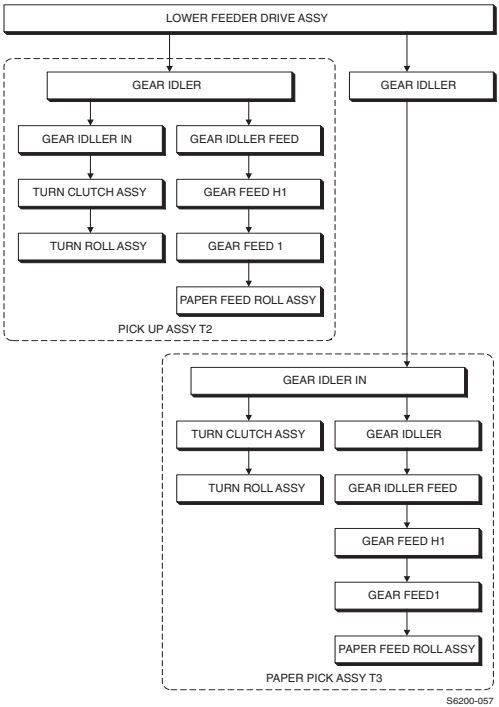
   - Communicates with the Engine Control Board.
   - Receives information transmitted from the sensors and switches.
   - Controls the Feeder Drive Assembly.
   - Controls the paper pick process.
   - Distributes the DC voltage power supplied from the print engine to each component.

2. **Feeder Drive Assembly:** Supplies the drive to the tray 2 and 3.

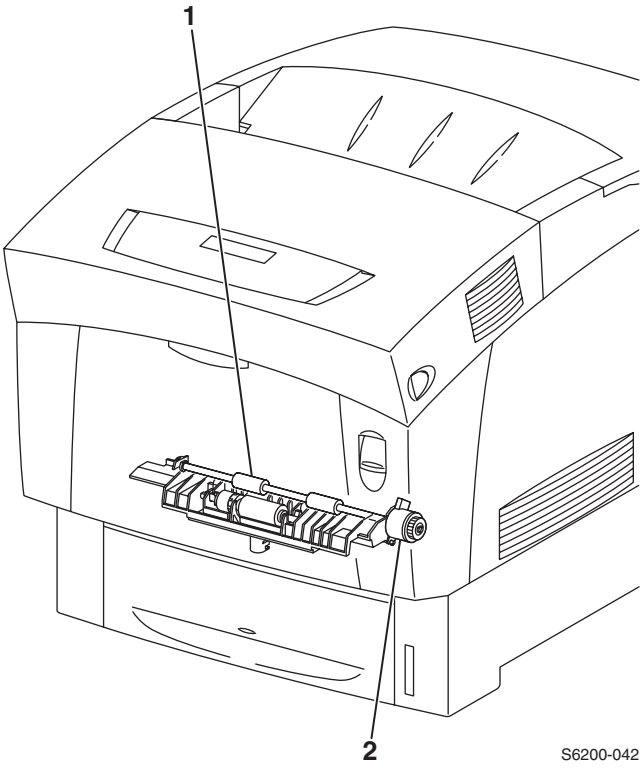
3. **Low Paper Sensor:** The actuator lowers as print media is used in the tray. When the actuator lowers to a pre-determined postion, it blocks the sensor beam to trigger a low paper status. The actuator position can be seen from the front of the HCF allowing confirmation of the print media quantity.

HCF Drive and Gears - Transmission Route



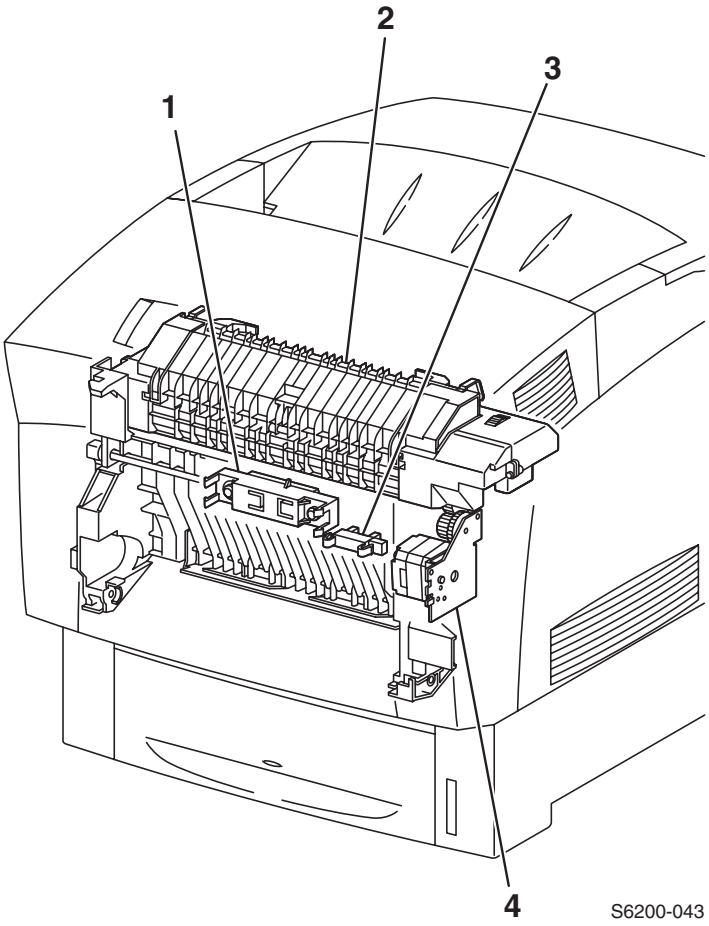


Retard Housing Assembly



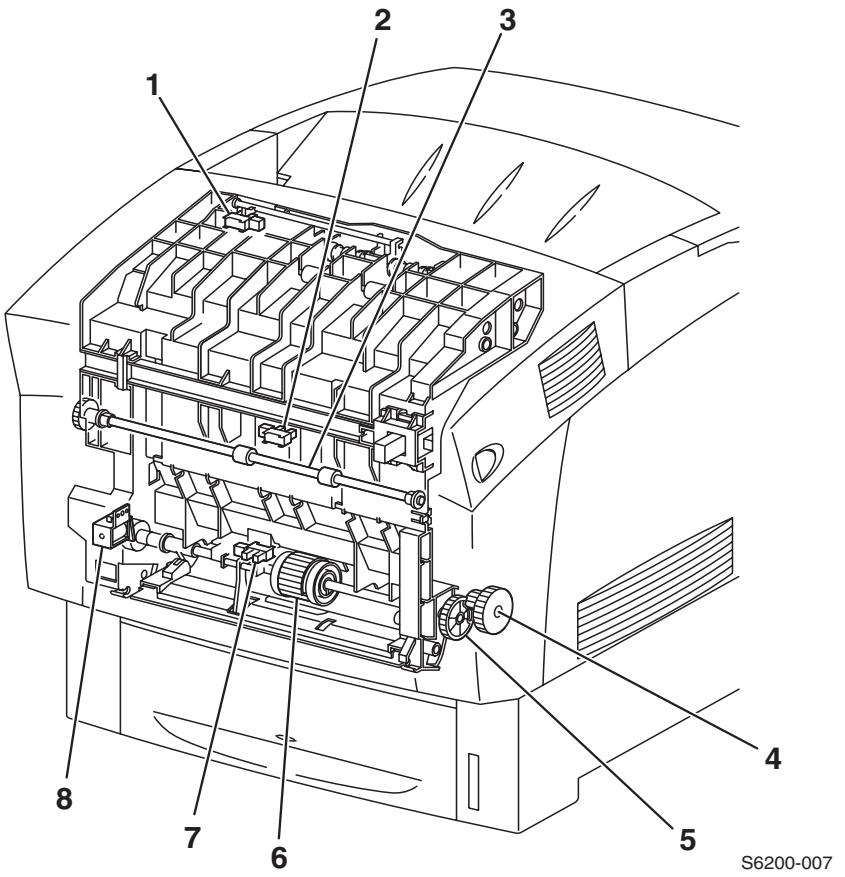
1. **Roll Turn:** The turn roll is rotated by the main drive assembly, through the turn clutch to feed paper from the MPT to the registration chute, (Registration Roll - See "Xerographics" on page 333).
2. **Turn Clutch:** Transfers drive energy from the main drive assembly to the roll turn through a friction clutch.

Chute Assembly, In



1. **CTD (ADC) Sensor:** Detects the presence of the Transfer Roller and monitors the density of toner on the surface of the transfer roller then sends it back to the process control.
2. **Fuser Assembly:** See "Transfer Roller and Fuser Assembly" on page 331.
3. **Toner Full Sensor:** Detects when the waste toner collect space in the transfer roller assembly is full.
4. **Fuser Drive Assembly:** Supplies the drive to the Fuser Assembly.

Chute Assembly, Out (Duplex)



1. **Full Stack (Output Tray Full) Sensor:** Detects a full output tray (over accumulation of print media) by the position of the actuator. This is only checked when the paper is feeding into the exit.

2. **Duplex Jam Sensor:** Detects when print media has reached and passed through the duplex roll based on the position of the actuator.

3. **Duplex Roll:** The duplex roller rotates under drive from the duplex motor and feeds the print media returned from the chute assembly exit to the turn roll in the retard housing assembly.

4. **Gear (Main Drive):** See Roll Feed Assembly.

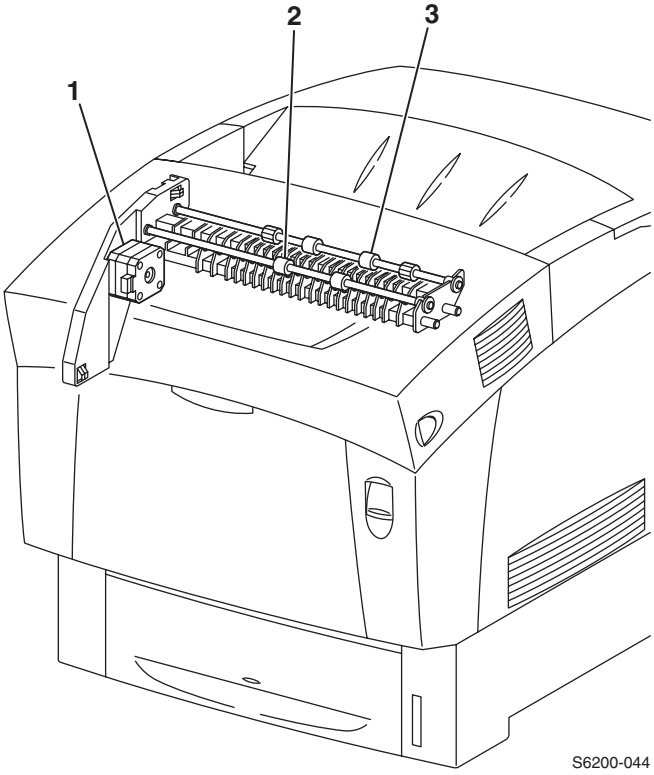
5. **MPT Gear:** See Roll Feed Assembly.

6. **Feed Roll Assembly:** When the MPT feed soleniod energizes, the MPT gear and the gear idler are engaged by the force of the spring solenoid. The roll feed rotates from the drive of the Main Drive Assembly and feeds paper from the MPT. After rotating one turn, the MPT gear and the gear idler are disengaged, the drives and roll feed stop, allowing one sheet of paper to be fed through at a time.

7. **MPT No Paper Sensor:** Actuator detects whether print media is present or not. No paper sensor beam is intercepted.

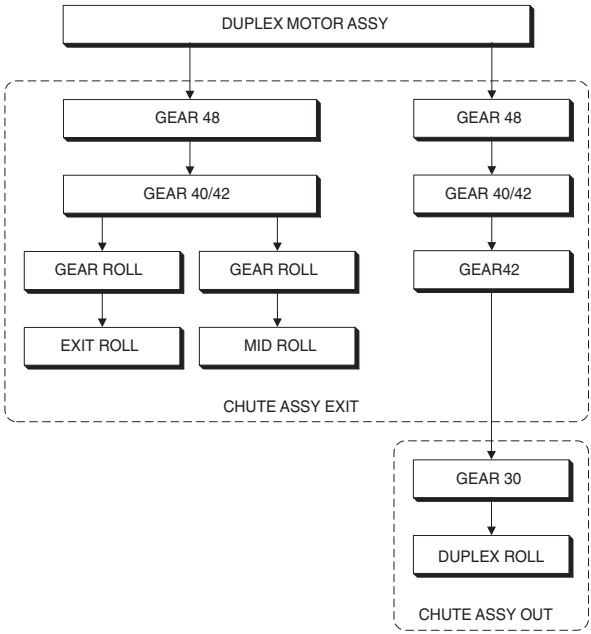
8. **MPT Feed Solenoid:** Controls the operation (rotation/stop) of the Assembly, Roll Feed by controlling the rotations of the Gear, MPT.

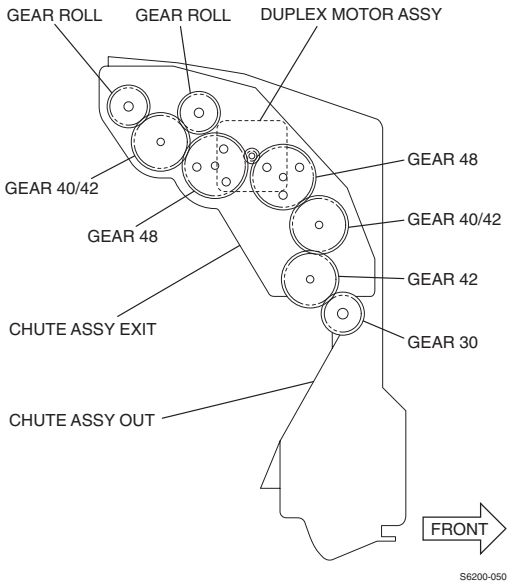
Chute Assembly, Exit



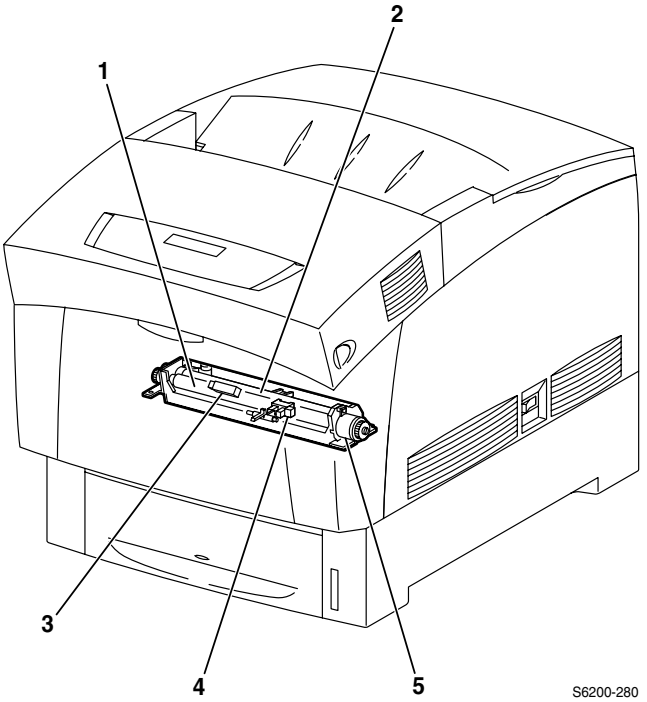
1. **Duplex Motor:** Supplies the drive to the exit roll, mid roll, and duplex roll.
2. **Mid Roll:** See Exit Roll.
3. **Exit Roll:** Rotates through the drive from the Duplex Motor and drives the fused print media partially into the output tray where it then reverses in duplex mode and feeds the print media (fused on one side) in the direction of the Registration Chute.

Duplex Motor Drive and Gear - Transmission Route



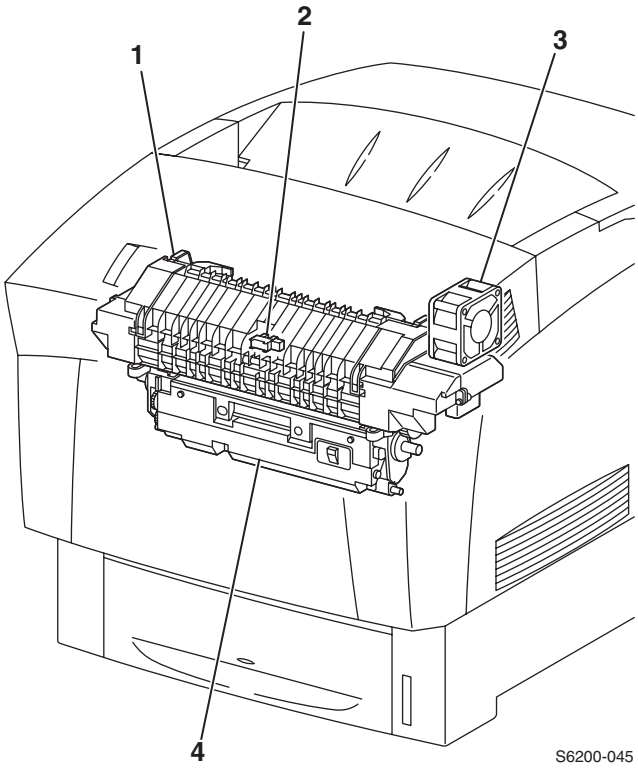


Chute Assembly Registration (REGI)



1. **Registration Rubber Roll:** Receives drive energy from the main drive assembly through the registration clutch, transporting the paper from the paper tray or MPT.
2. **Registration Metal Roll:** Works in conjuction with the rubber roller. When the leading edge of the paper arrives at the registration rubber roll/metal roll, it buckles the paper to correct the skew at the leading edge.
3. **OHP Sensor:** The OHP sensor can sense reflected light, detecting the print media. If the OHP sensor cannot sense reflected light, it identifies the print media as OHP (Transparency)
4. **Registration Sensor:** Detects the print media leading edge has reached the Registration Chute.
5. **Registration Clutch:** Transmits the drive from the main drive assembly to the registration rollers.

Transfer Roller and Fuser Assembly



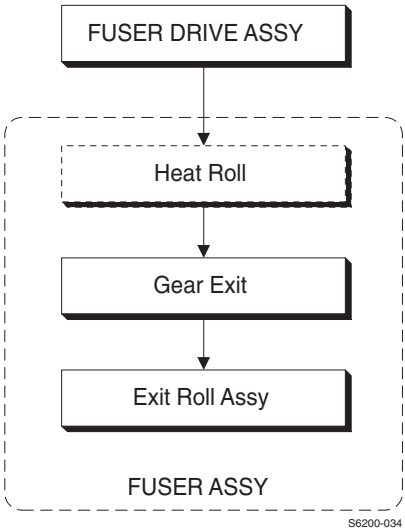
1. **Fuser Assembly:** Using heat and pressure, the fuser assembly fixes the transferred toner onto print media.

Parts of the Fuser Assembly:

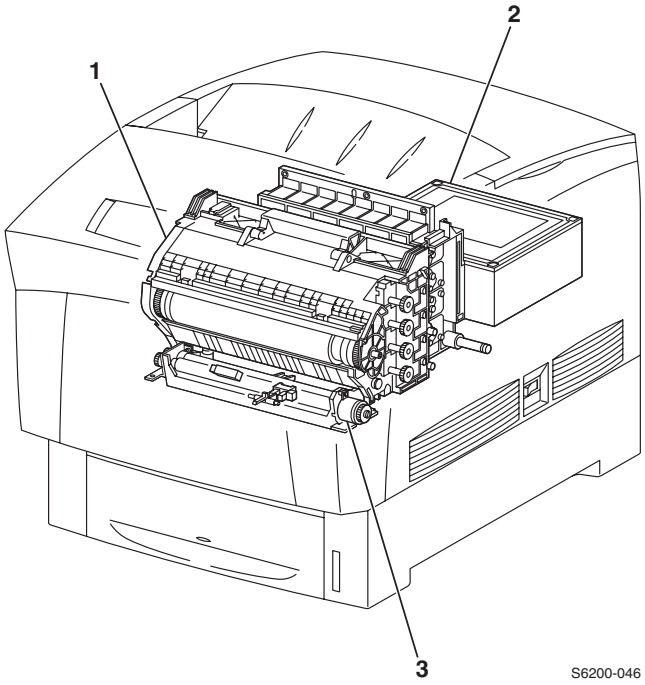
Heat Roll	Heat Lamp
Thermostat	Temperature Sensor
Belt Unit	Exit Roll Assembly
Exit Sensor	CRUM

2. **Exit Sensor:** Detects passage of the print media after fusing.
3. **Fuser Fan:** Cools the fuser assembly to prevent overheating.
4. **Transfer Roller:** Consists of the transfer roller and a waste toner recovery system. The transfer roller transfers the image from IDT 2 in the imaging unit onto the print media.

Fuser Drive Assembly - Transmission Route



Xerographics



1. **Imaging Unit:** The Imaging Unit carries out the operations of the printing process, such as charging, developing, and transfer. The Imaging Unit consists of the following parts:

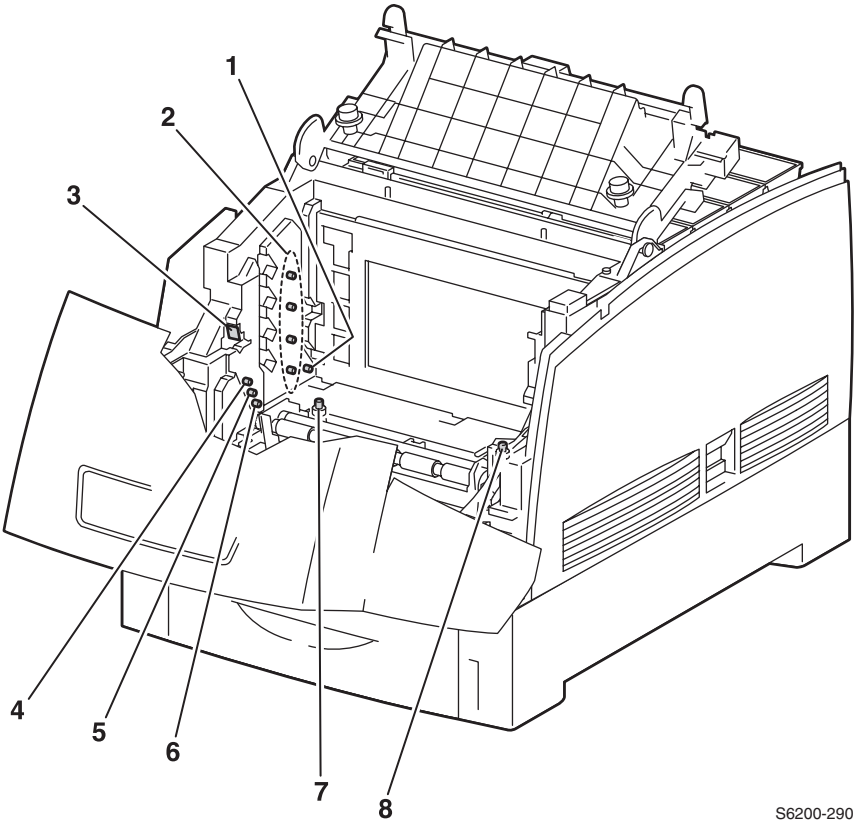
Drum (Y M C K)	Developer (Y M C K)
RTC (Y M C K)	Refresher (Y M C K)
IDT 1	IDT 2
IDT 1	IDT 2 Cleaner
IDT 1 Cleaner	

2. **Laser Unit:** The Laser Unit is an exposure unit that generates the laser beams to form an electrostatic latent image on the surface of the drum. The Laser Unit Assembly consists of the following parts:

LD Assembly	Scanner Assembly
SOS Board	Lens
Mirror	Window

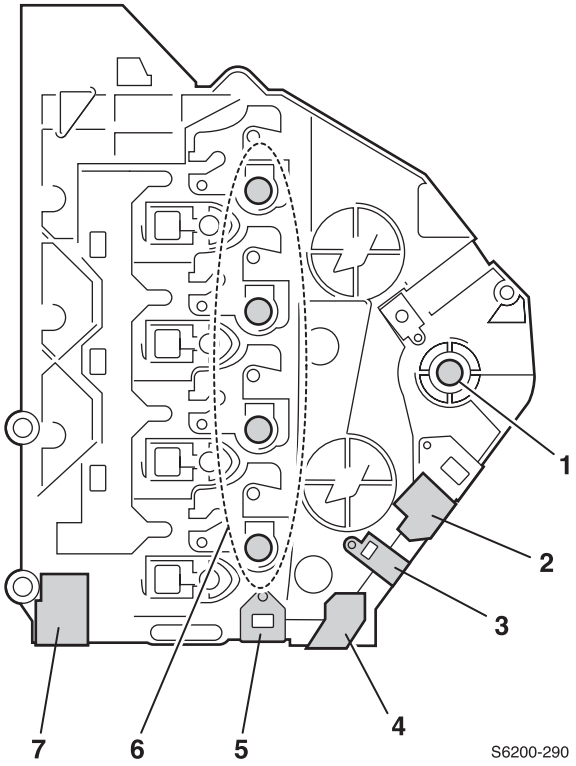
3. **Chute Assembly Registration:** See "Chute Assembly Registration (REGI)" on page 330.

Imaging Unit Charge Voltage Contacts



Printer shown with the Imaging Unit removed

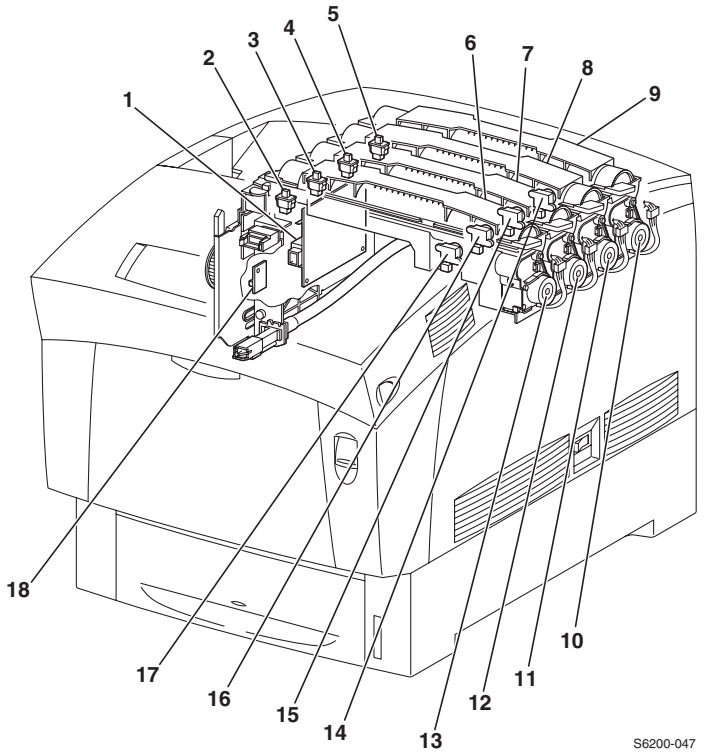
1. Charge Voltage
2. Developer Voltage
3. IDT2 Voltage
4. IDT2 Refresher/Cleaner
5. IDT1 Voltage
6. IDT1 Refresher/Cleaner
7. Drum Refresher/Cleaner
8. Drum Ground Contacts



Imaging Unit - Left Side View

1. IDT2
2. IDT2 Refresher/Cleaner
3. IDT1
4. IDT1 Refresher/Cleaner
5. Drum Refresher/Cleaner
6. Developer
7. Charge Roll

Toner Cartridge Assembly



1. Sub-High Voltage Power Supply Board: Supplies high-voltage to the Transfer Roller and the Detack Saw for the ‘tertiary transfer’ and ‘static elimination’ part of the printing process.

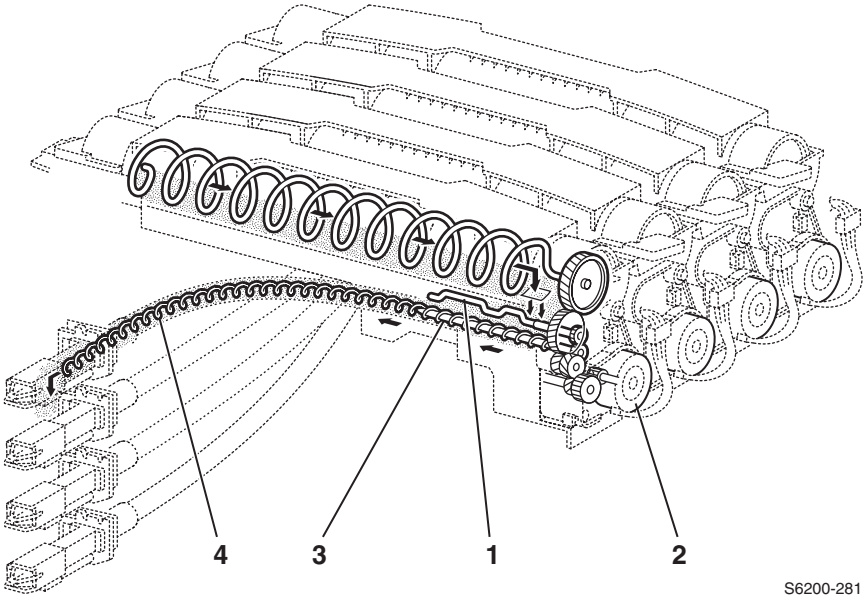
2, 3, 4, 5: Toner Cartridge Present Switch ((CTG) In [Y] [M] [C] [K]): Detects if the Toner Cartridge is installed.

6, 7, 8, 9: Toner Cartridge [Y] [M] [C] [K]: Individaul toner bottles containing toner mixture.

10, 11, 12, 13: Toner Cartridge Holder Assembly and Toner Motors [Y] [M] [C] [K]: The Toner Cartridge Holder Assemblies each contain a toner motor which supplies the drive to the Agitator in the Toner Cartridges and to the Auger in the Toner Cartridge Holder, supplying toner to the developer in the Imaging Unit.

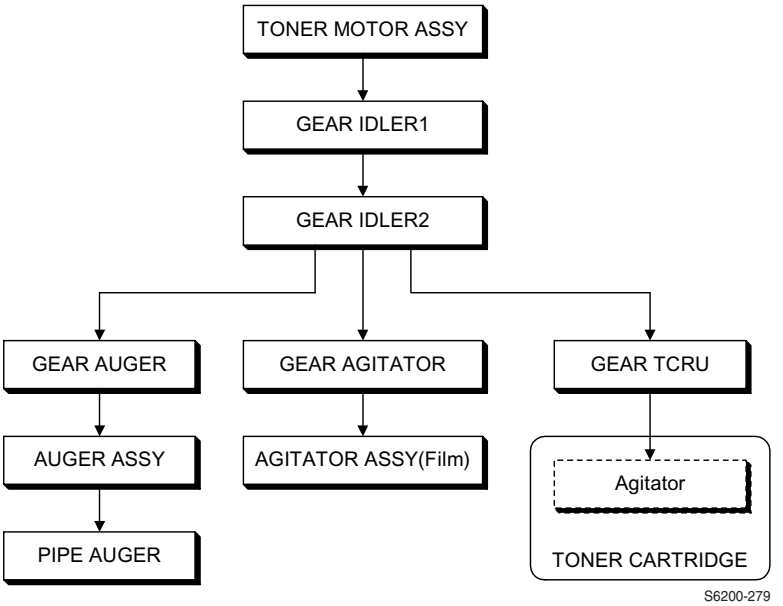
14, 15, 16, 17: Low Toner Sensor [Y] [M] [C] [K]: Detects level of toner in each auger tube.

18. Circuit Board, EEPROM: Consumable use (Fuser and Imaging Unit NVRAM Data) information is stored and communicated to the Engine Control Board.

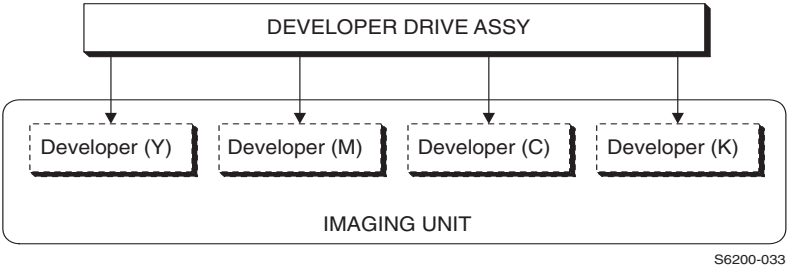


1. Agitator Assembly with film
2. Toner Motor
3. Auger Assembly
4. Auger Tube

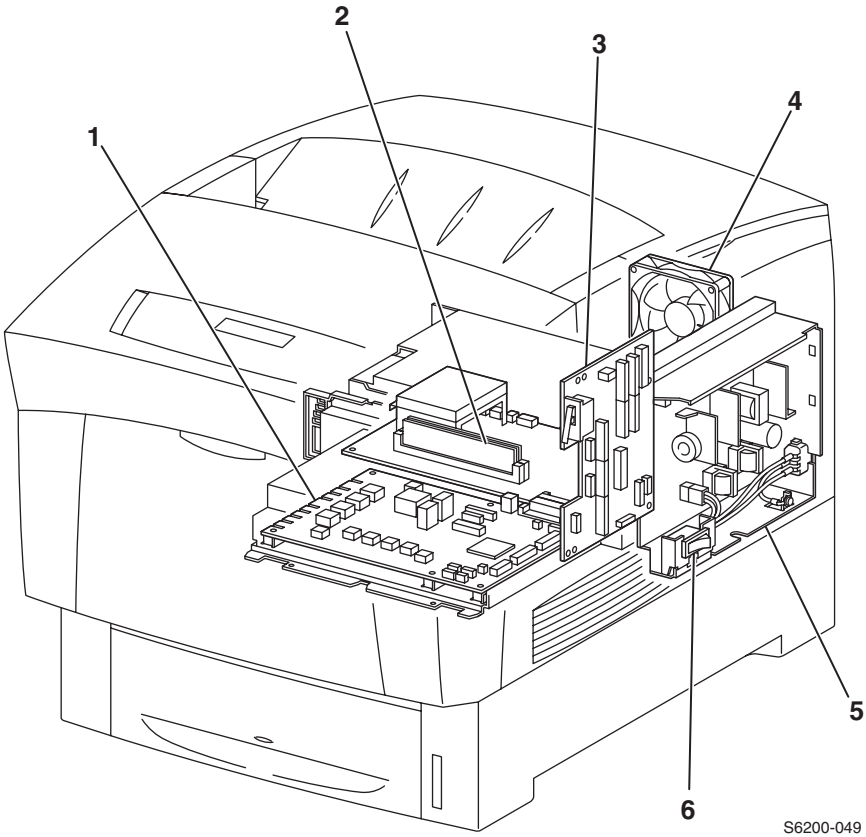
Toner Motor Drive Assembly - Transmission Route



Developer Assembly Transmission Route



Electrical



1. Engine Control Board: Controls printing operation based on the communication with the image processor board and input from the sensors and switches. Incorporates functions of the High-Voltage Power Supply.

Major Functions:

- Communicates with the Image Processor Board.
- Receives information from the sensors and/or switches.
- Controls the Laser Unit.
- Supplies high-voltage to the Imagning Unit to perform charging, development, primary transfer and secondary transfer.

2. **Image Processor Board:** Receives data from the host. Interfaces with the engine control board to produce prints.

3. **Motor Driver Board:** Controls motors through the signals received from the engine control board and sends information from the sensors and switches to the engine control board. Power from the low-voltage power supply is supplied to the engine control board through the motor driver board. The interlock switch is mounted on the motor driver board.

Major Functions:

- Receives information from the sensors and switches.
- Controls the motor in the main drive assembly, developer drive assembly, fuser drive assembly, duplex motor assembly and the holder toner cartridge motor assembly.
- Distributes the low-voltage DC power from the low-voltage power supply to each component.
- Controls the 24 VDC circuit through the interlock switch.

4. **Rear Fan:** Removes heat from the printer to prevent over-heating.

5. **Low-Voltage Power Supply Board:** Supplies AC power from the power source to the Fuser Assembly heater. Generates and supplies stable low-voltage DC power to be used for the logic circuits, etc.

6. **AC Switch Harness Assembly:** Consists of the main switch and harness. Controls the supply of AC power from the power source to the low-voltage power supply.

Plug/Jack Locator Maps

Use the table and maps in this section to locate specific plug/jack (P/J) connectors within the printer.

To find the location of a P/J within the printer:

1. Locate the P/J connector number in the first column of the P/J Location table.
2. Locate the corresponding map and location number, such as M2-5, in the second column.
3. With this information, go to the appropriate map (in this case, Map 2) and locate item number 5.

Plug/Jack Locator Table

P/J No.	Map	Connected to...	Other end connected to...
11	3	Engine Control Board	Motor Driver Board
12	3	Engine Control Board	Motor Driver Board
13	3	Connects: Engine Control Board, Sub-HVPS, Fuser Harness Assembly, Harness Assembly FRONT 1A and the CTD (ADC) Harness Assembly.	
14	3	Engine Control Board	Image Processor Board
15	3	Engine Control Board	Laser Unit
18	3	Engine Control Board	Chute Assembly Registration (Clutch and Sensor)
19	3	Engine Control Board	Retard Housing Assembly (Turn Clutch)
21	3	Engine Control Board	HCF Main Harness Assembly
22	3	Engine Control Board	Front Panel Harness Assembly
23	3	Engine Control Board	Low-Voltage Power Supply
24	3	Engine Control Board	Temperature / Humidity Harness
26	3		
30	3	Flash Write	
31	3	Test-Print	
32	3	Engine Control Board	OHP Sensor
41	2	Motor Driver Board	Engine Control Board
42	2	Motor Driver Board	Engine Control Board

Plug/Jack Locator Table (cont'd.)

P/J No.	Map	Connected to...	Other end connected to...
47	2	Connects: Motor Driver Board, Paper Pick Assembly (No Paper Sensor, Low Paper Sensor, Solenoid Feed, Clutch Turn) and Paper Size Switch	
48	2	Motor Driver Board	Main Drive Assembly
49	2	Motor Driver Board	Developer Drive Assembly
50	2	Connects: Motor Driver Board, Chute Assembly Exit (Duplex Motor Assembly) and Front Cover Assembly (Fan Fuser)	
51	2	Motor Driver Board	Toner Cartridge Holder Assembly (Toner Present Sensor, Low Toner Sensor, Toner Motor)
52	2	Motor Driver Board	Chute Assembly, In (Fuser Drive)
60	2	Motor Driver Board	LVPS Assembly
61	2	Motor Driver Board	LVPS Assembly
71	3	EEPROM Harness Assembly	Plate Dispenser L Assembly
131	1	Chute Assembly, Exit (Duplex Motor Assembly)	Engine Control Board
132	1	Chute Assembly Out (MPT Feed Solenoid)	FRONT 1A Harness Assembly
133	1	Chute Assembly, Out (Duplex Jam Sensor)	FRONT 1A Harness Assembly
134	1	Chute Assembly, Out (Full Stack Sensor)	FRONT 1A Harness Assembly
135	1	Chute Assembly, Out (MPT No Paper Sensor)	FRONT 1A Harness Assembly
136	2	Assembly, Front In (Sensor CTD (ADC) Assembly)	FRONT 1A Harness Assembly
137	1	Front Cover (Fan Fuser)	Motor Driver Board
138	3	FRONT 1A Harness Assembly	Fuser Assembly
139	3	FRONT 1A Harness Assembly	Chute Assembly, Out (MPT Feed Solenoid, Duplex Jam Sensor, Full Stack Sensor, MPT No Paper Sensor)
140	3	Connects: Engine Control Board, CRUM Harness Assembly, Toner Full Sensor Harness Assembly, EEPROM Circuit Board.	
141	3	EEPROM Harness Assembly	Chute Assembly, In (Toner Full Sensor)
142	2	Chute Assembly In (Toner Full Sensor)	EEPROM Harness Assembly
144	3	EEPROM Circuit Board	Engine Control Board

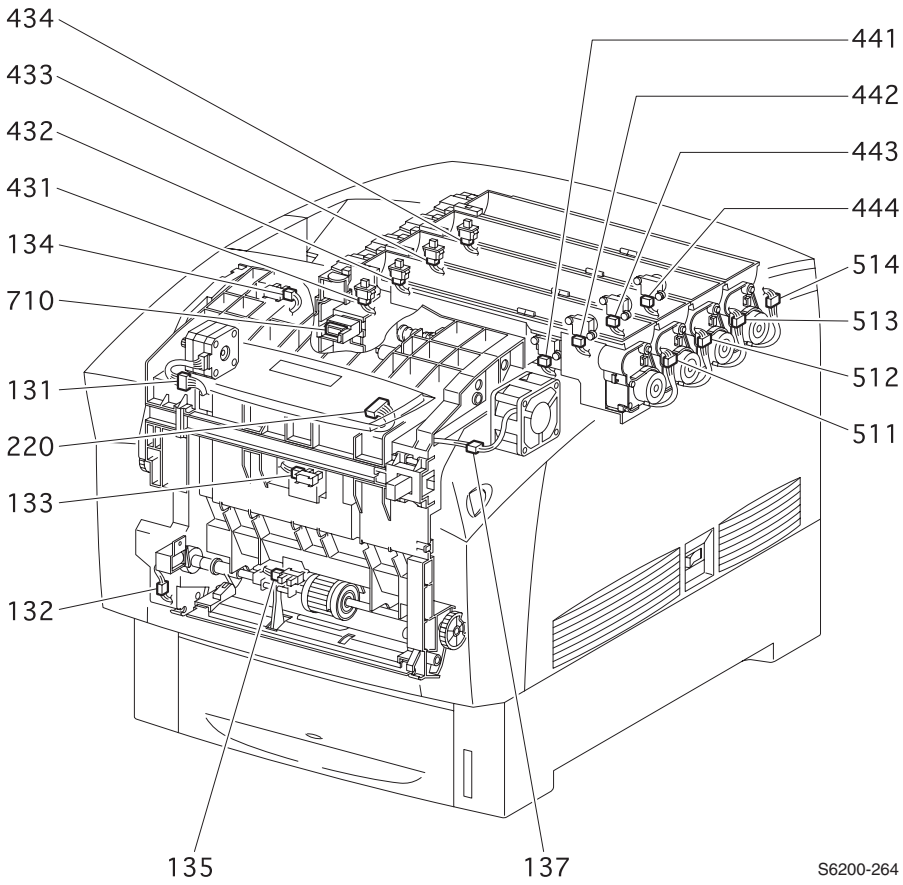
Plug/Jack Locator Table (cont'd.)

P/J No.	Map	Connected to...	Other end connected to...
145	**3**	EEPROM Circuit Board	CRUM Harness
151	**2**	Laser Unit	Engine Control Board
161	**2**	LVPS Assembly	Power Cord
162	**2**	LVPS Assembly	Fuser Assembly
163	**2**	LVPS Assembly	Motor Driver Board
164	**2**	LVPS Assembly	Engine Control Board
165	**2**	LVPS Assembly	Motor Driver Board
166	**2**	LVPS Assembly	Rear Fan
167	**2**	LVPS Assembly	Engine Control Board
181	**3**	Chute Assembly, Registration (Registration Sensor)	Engine Control Board
210	**2**	Lower Feeder Harness Assy	HCF-Plug
220	**1**	Front Panel	OPEPANE Harness Assembly
221	**3**	OPEPANE Harness Assembly	Front Panel
231	**4**	Temp/Humidity Sensor	Temp/Humidity Harness Assembly
232	**2**	Fuser Assembly	FRONT 1A Harness Assembly
311	**3**	Engine Control Board	LVPS Assembly
321	**3**	OHP Sensor	Engine Control Board
431	**1**	Holder Assembly MQ-Y (Toner Present Sensor)	Motor Driver Board
432	**1**	Holder Assembly MQ-M (Toner Present Sensor)	Motor Driver Board
433	**1**	Holder Assembly MQ-C (Toner Present Sensor)	Motor Driver Board
434	**1**	Holder Assembly MQ-K (Toner Present Sensor)	Motor Driver Board
441	**1**	Holder Assembly MQ-Y (Low Toner Sensor)	Motor Driver Board
442	**1**	Holder Assembly MQ-M (Low Toner Sensor)	Motor Driver Board
443	**1**	Holder Assembly MQ-C (Low Toner Sensor)	Motor Driver Board
444	**1**	Holder Assembly MQ-K (Low Toner Sensor)	Motor Driver Board
471	**4**	Paper Size Switch Assembly	Motor Driver Board

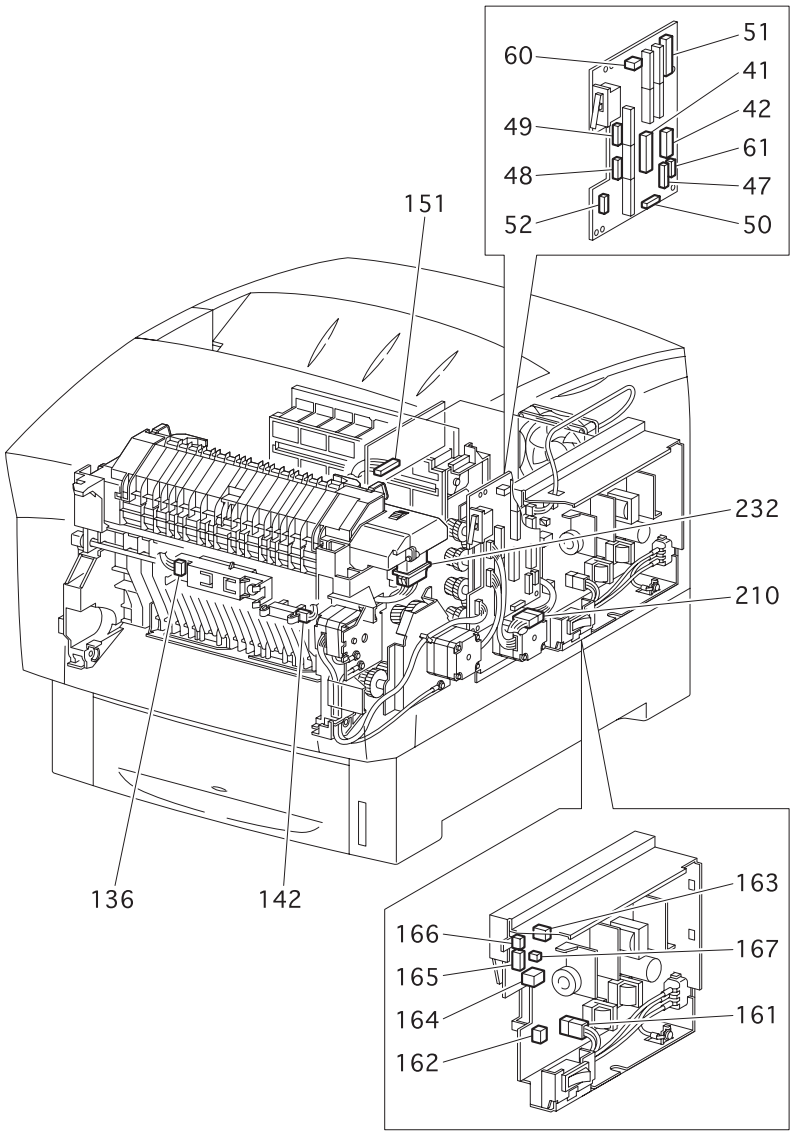
Plug/Jack Locator Table (cont'd.)

P/J No.	Map	Connected to...	Other end connected to...
472	**4**	No Paper Sensor	Motor Driver Board
473	**4**	Low Paper Sensor	Motor Driver Board
474	**4**	Feed Solenoid	Motor Driver Board
475	**4**	Clutch Turn Assembly	Motor Driver Board
511	**1**	Holder Assembly MQ-Y (Toner Motor)	Motor Driver Board
512	**1**	Holder Assembly MQ-M (Toner Motor)	Motor Driver Board
513	**1**	Holder Assembly MQ-C (Toner Motor)	Motor Driver Board
514	**1**	Holder Assembly MQ-K (Toner Motor)	Motor Driver Board
710	**1**	Plate Dispenser L	EEPROM Harness Assembly
810	**4**	High-Capacity Feeder	Engine Control Board
1361	**3**	FRONT 1A Harness Assembly	Chute Assembly, In (CTD (ADC) Sensor)
2361	**3**	Temp/Hum Harness Assembly	Temp/Humidity Sensor
5011	**3**	Sub-HVPS	Engine Control Board
5020	**3**	Sub-HVPS	Chute Assembly, In
5030	**3**	Sub-HVPS	Chute Assembly, In

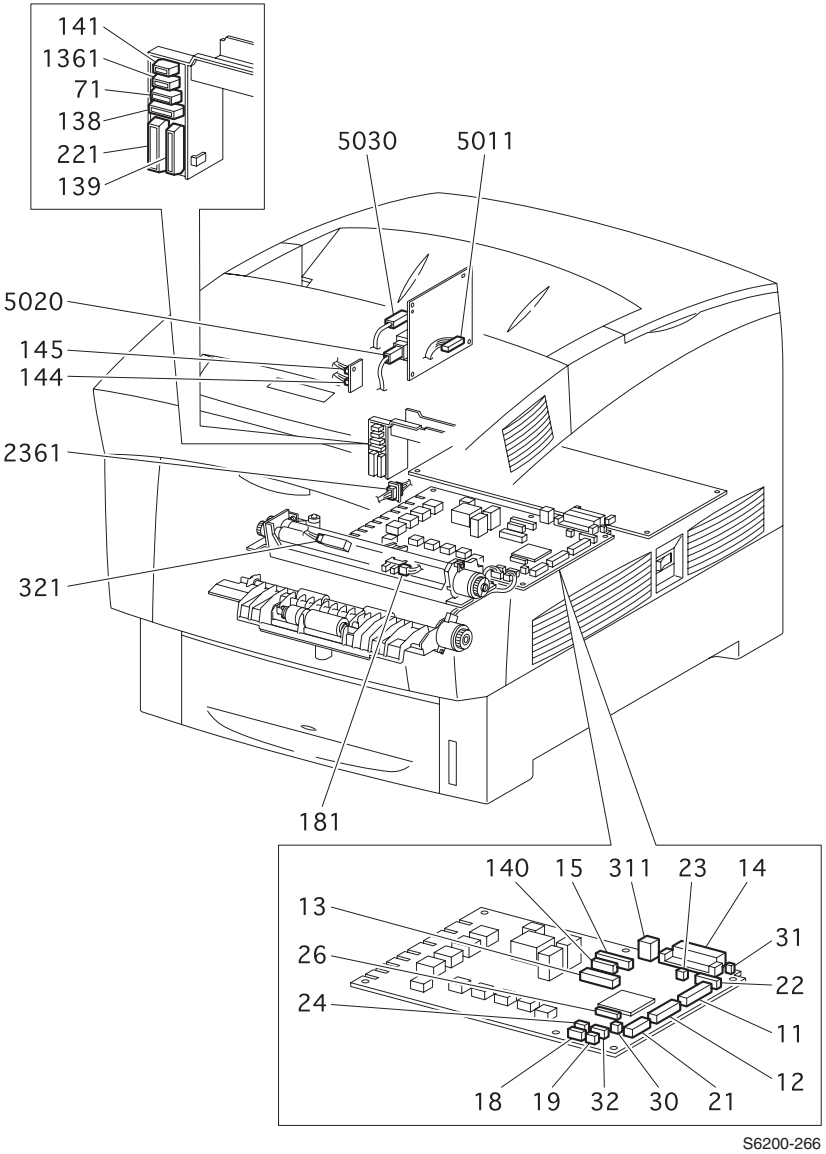
Map 1


434
433
432
431
134
710
131
220
133
132
135
137
441
442
443
444
514
513
512
511
S6200-264

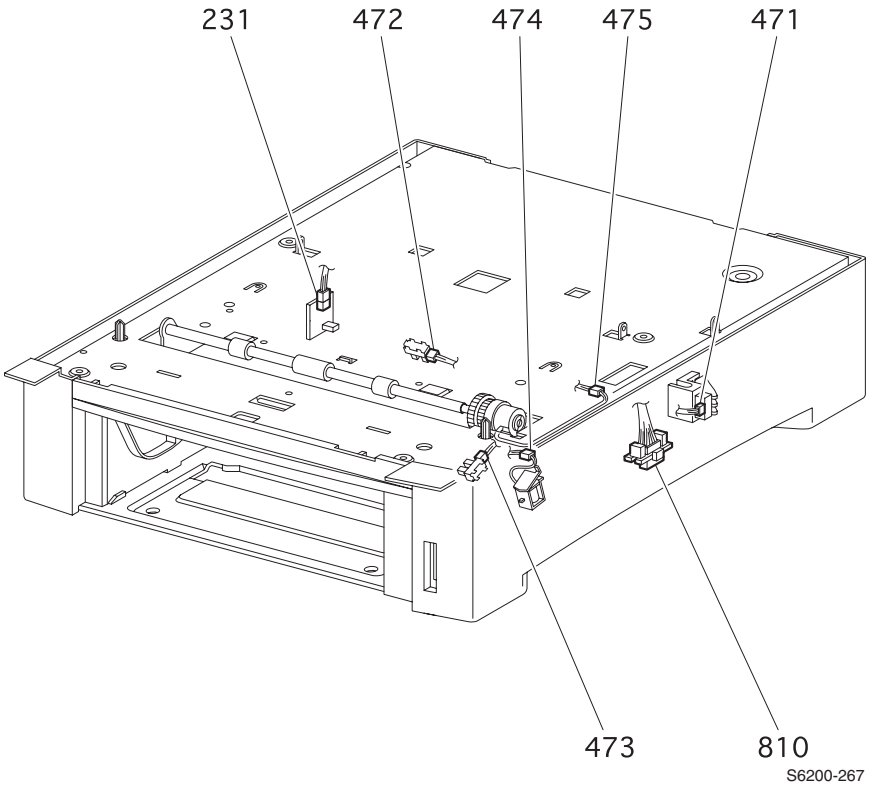
Map 2


60
51
41
42
49
61
48
47
52
50
151
232
210
136
142
163
166
167
165
164
161
162
S6200-265

Map 3


141
1361
71
138
221
139
5030
5011
5020
145
144
2361
321
181
140
15
311
23
14
13
26
24
31
22
11
12
18
19
32
30
21
S6200-266

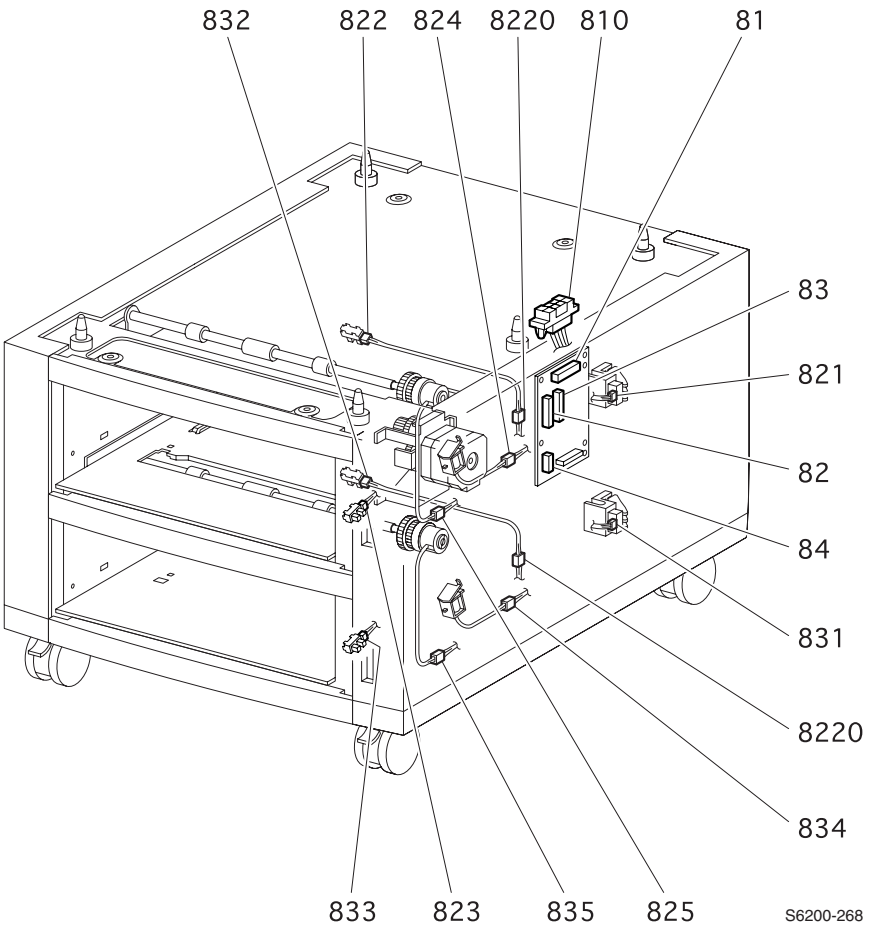
Map 4



High-Capacity Feeder Plug/Jack Locator Table

P/J No.	Connect to...	Other end connected to...
81	Circuit Board, Lower Feeder	Assembly, Harness HCF-PLUG
82	Circuit Board, Lower Feeder	Tray 2 Harness Assembly
83	Circuit Board, Lower Feeder	Tray 3 Harness Assembly
84	Circuit Board, Lower Feeder	Assembly, HCF Motor Harness
810	Assembly, Harness HCF Main	Circuit Board, HCF
821	Switch, Paper Size (T2)	Tray 2 Harness Assembly
822	Sensor, No Paper (T2)	Tray 2 Harness Assembly
823	Sensor, Low Paper (T2)	Tray 2 Harness Assembly
824	Solenoid Feed (Tray 2)	Circuit Board, HCF
825	Assembly, Clutch Turn (T2)	Circuit Board, HCF
831	Switch, Paper Size (T3)	Tray 3 Harness Assembly
832	Sensor, No Paper (Tray 3)	Tray 3 Harness Assembly
833	Sensor, Low Paper (T2)	Tray 3 Harness Assembly
834	Solenoid Feed (Tray 3)	Circuit Board, Lower Feeder
835	Assembly, Clutch Turn (T3)	Circuit Board, Lower Feeder
8220	Assembly, Harness No Paper Sensor	Circuit Board, Lower Feeder
8220	Assembly, Harness No Paper Sensor	Circuit Board, Lower Feeder

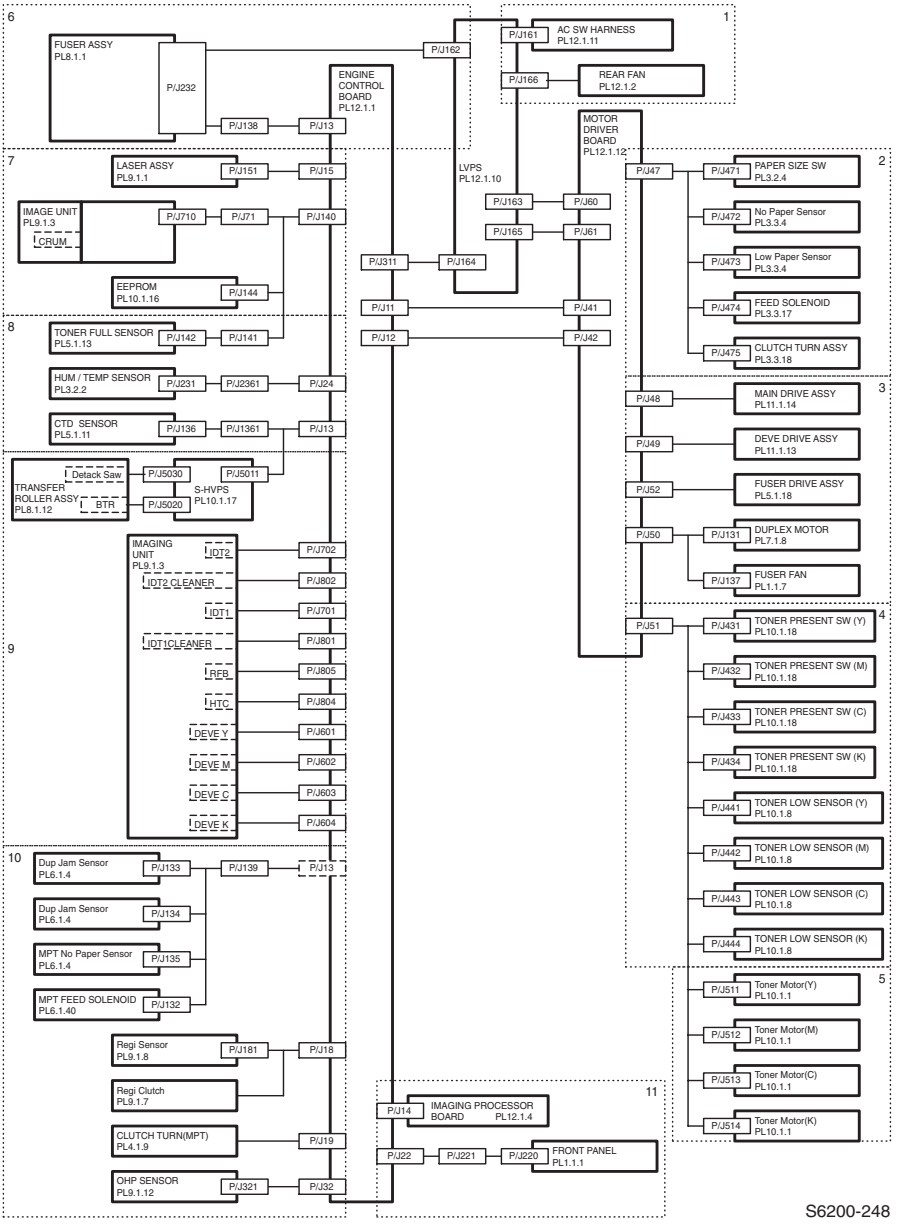
Map 5


832
822
824
8220
810
81
83
821
82
84
831
8220
834
833
823
835
825
S6200-268

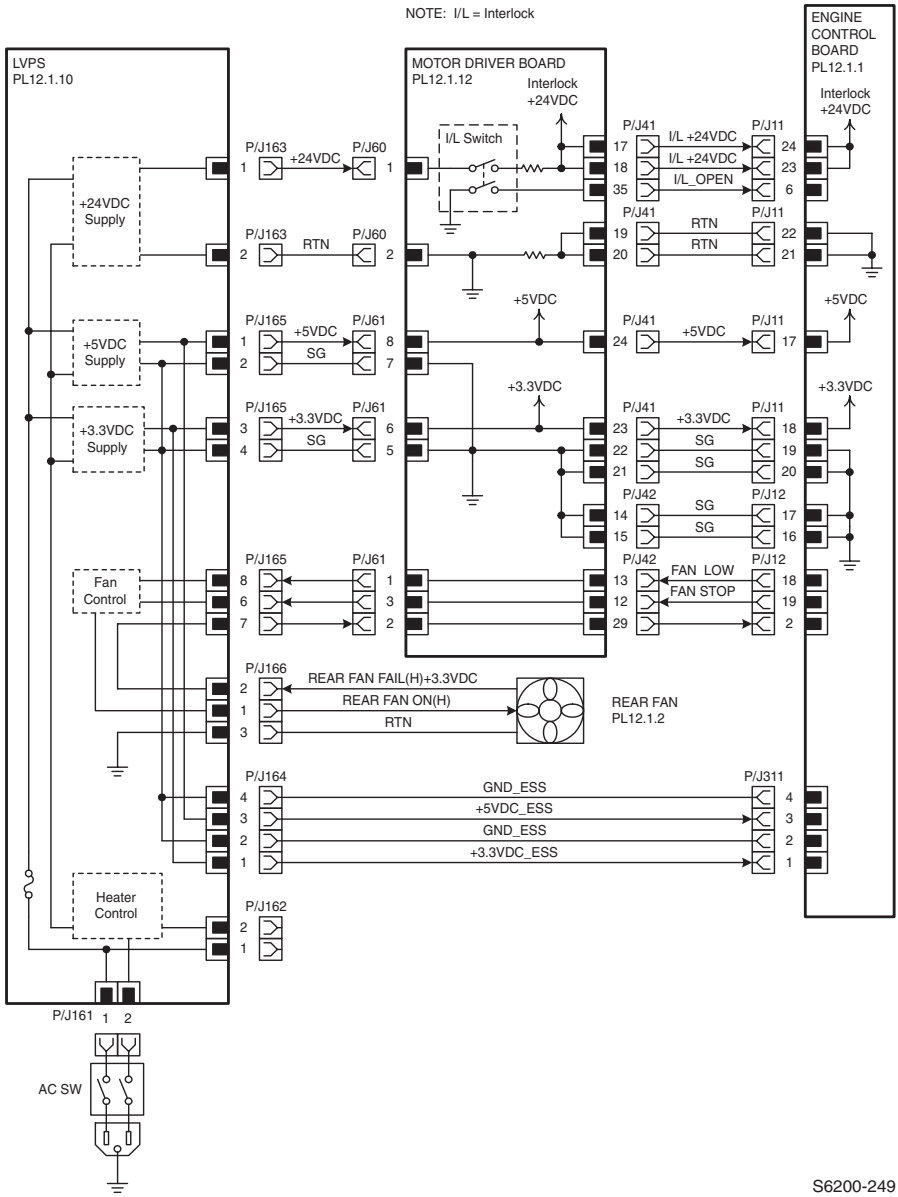
Wiring Diagrams

This section of the manual contains all the wiring diagrams for the Phaser 6200 Color Laser Printer and the optional trays 2 and 3.

Main Wiring Diagram

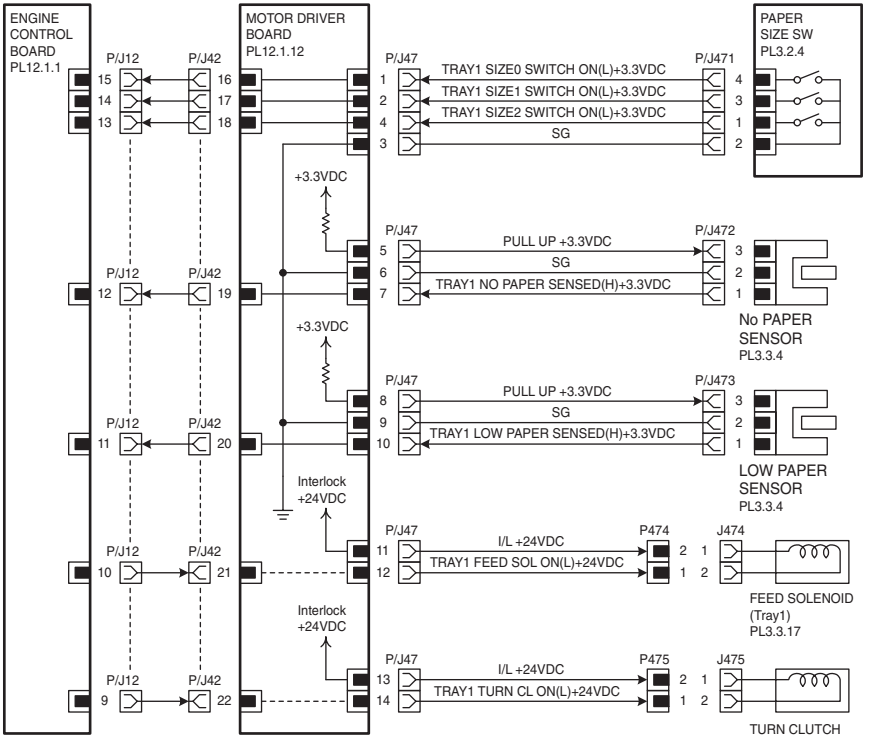


Power Supply



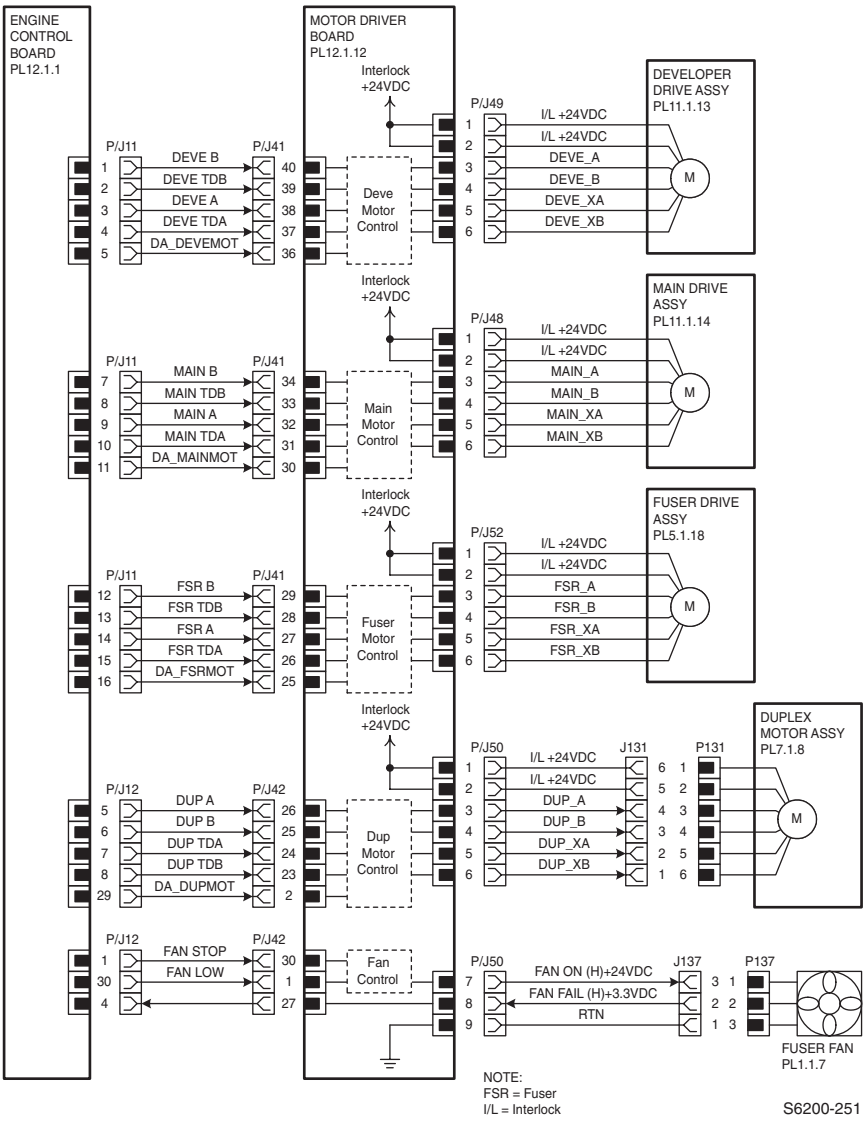
S6200-249

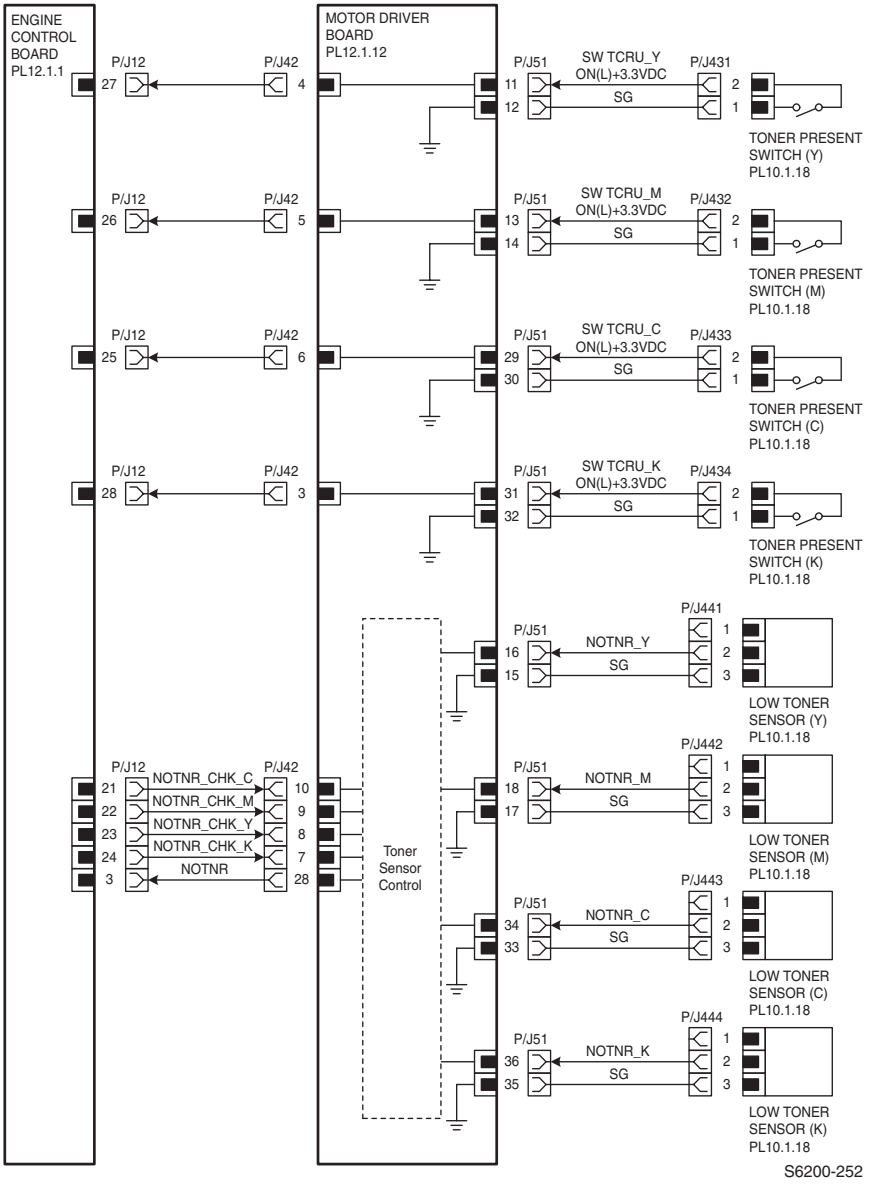
Paper Tray 1



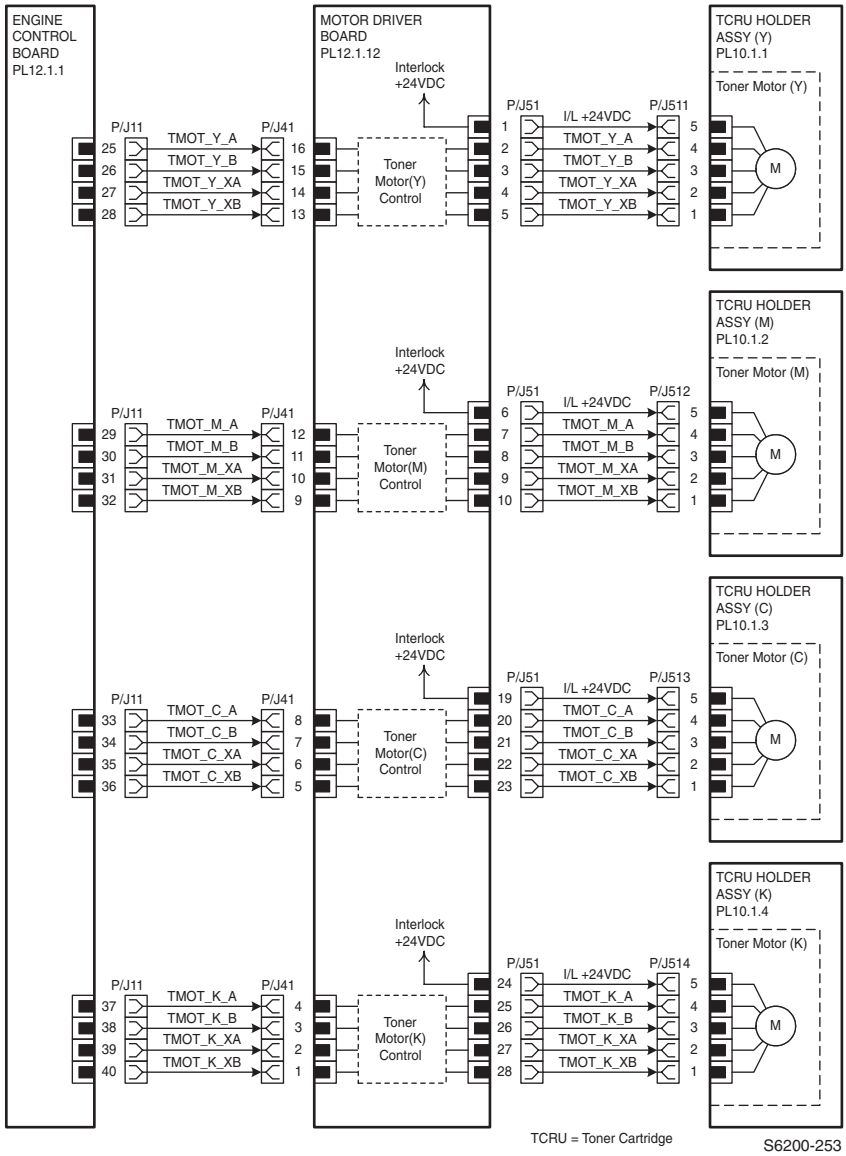
S6200-250

Drive Section

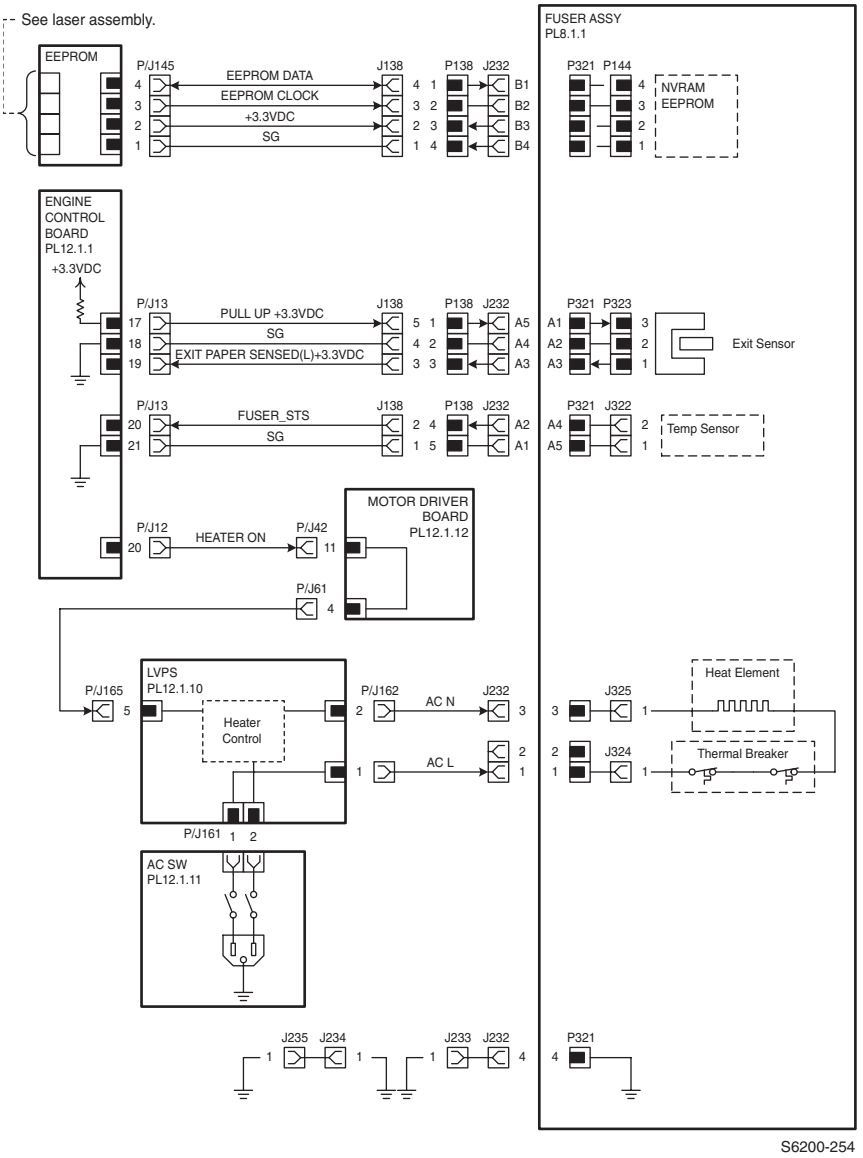



ENGINE CONTROL BOARD PL12.1.1
MOTOR DRIVER BOARD PL12.1.12
P/J12
P/J42
P/J51
P/J431
P/J432
P/J433
P/J434
P/J441
P/J442
P/J443
P/J444
SW TCRU_Y ON(L)+3.3VDC
SW TCRU_M ON(L)+3.3VDC
SW TCRU_C ON(L)+3.3VDC
SW TCRU_K ON(L)+3.3VDC
SG
TONER PRESENT SWITCH (Y) PL10.1.18
TONER PRESENT SWITCH (M) PL10.1.18
TONER PRESENT SWITCH (C) PL10.1.18
TONER PRESENT SWITCH (K) PL10.1.18
NOTNR_Y
NOTNR_M
NOTNR_C
NOTNR_K
LOW TONER SENSOR (Y) PL10.1.18
LOW TONER SENSOR (M) PL10.1.18
LOW TONER SENSOR (C) PL10.1.18
LOW TONER SENSOR (K) PL10.1.18
NOTNR_CHK_C
NOTNR_CHK_M
NOTNR_CHK_Y
NOTNR_CHK_K
NOTNR
Toner Sensor Control
S6200-252

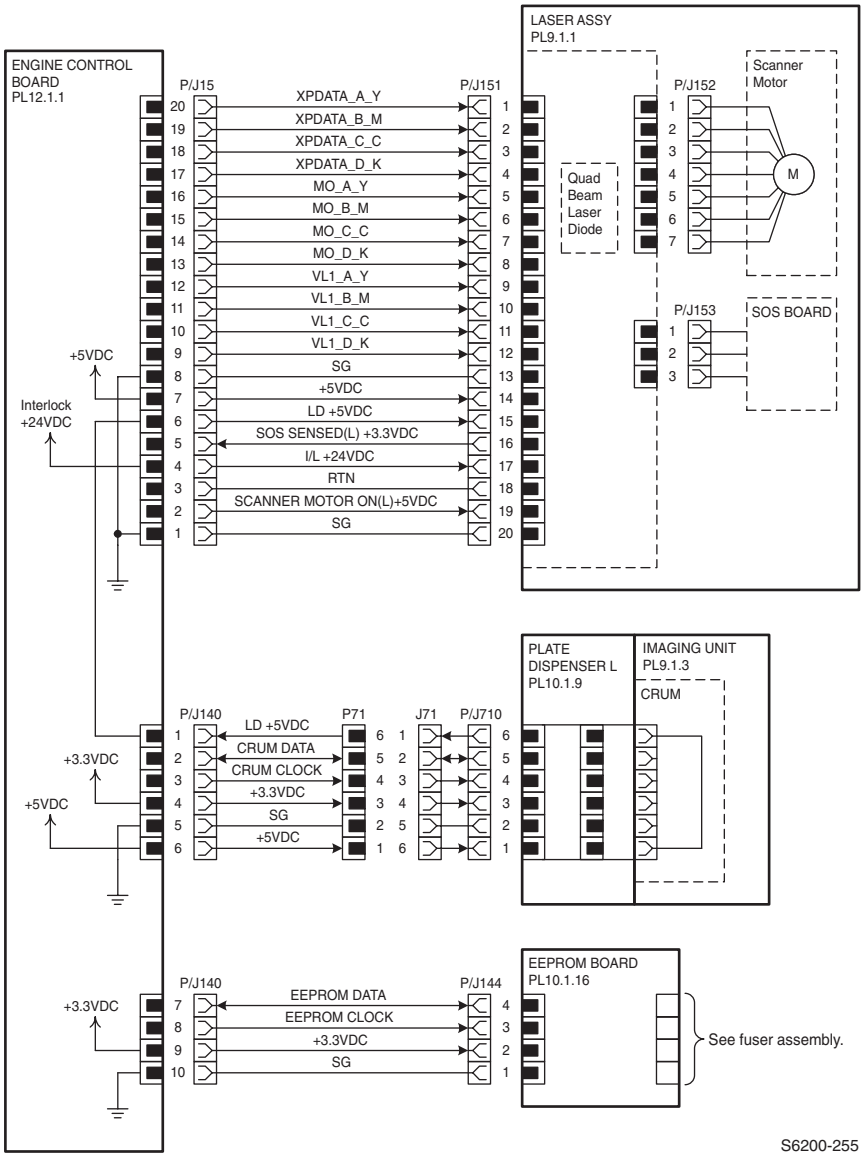
Developer 2


ENGINE CONTROL BOARD PL12.1.1
MOTOR DRIVER BOARD PL12.1.12
TCRU HOLDER ASSY (Y) PL10.1.1
Toner Motor (Y)
TCRU HOLDER ASSY (M) PL10.1.2
Toner Motor (M)
TCRU HOLDER ASSY (C) PL10.1.3
Toner Motor (C)
TCRU HOLDER ASSY (K) PL10.1.4
Toner Motor (K)
Interlock +24VDC
Toner Motor(Y) Control
Toner Motor(M) Control
Toner Motor(C) Control
Toner Motor(K) Control
P/J11
P/J41
P/J51
P/J511
P/J512
P/J513
P/J514
I/L +24VDC
TMOT_Y_A
TMOT_Y_B
TMOT_Y_XA
TMOT_Y_XB
TMOT_M_A
TMOT_M_B
TMOT_M_XA
TMOT_M_XB
TMOT_C_A
TMOT_C_B
TMOT_C_XA
TMOT_C_XB
TMOT_K_A
TMOT_K_B
TMOT_K_XA
TMOT_K_XB
M
TCRU = Toner Cartridge
S6200-253

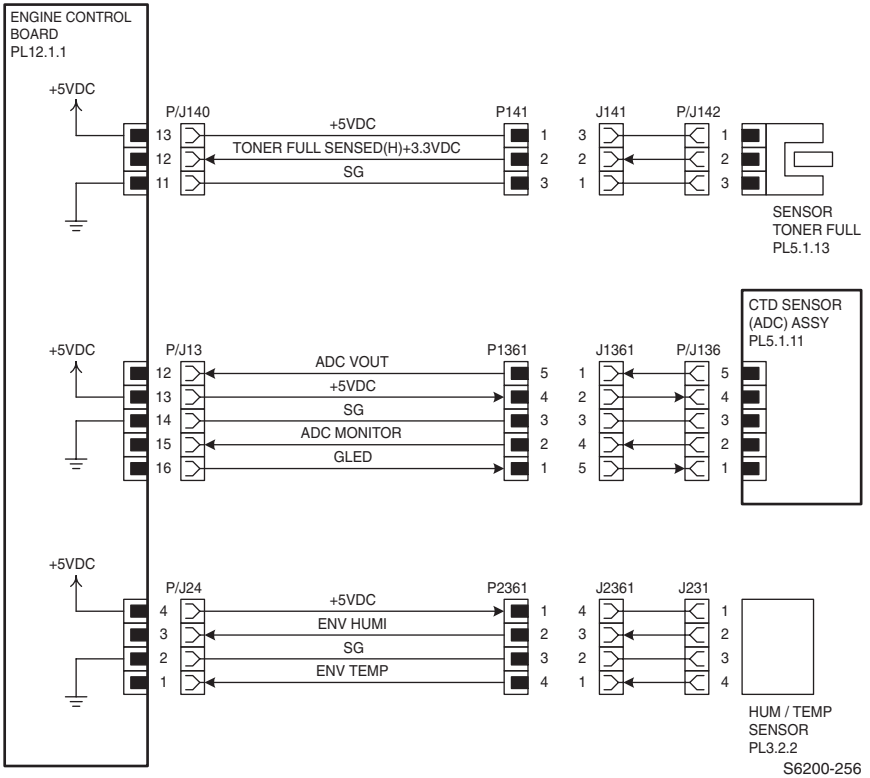
Fuser Assembly

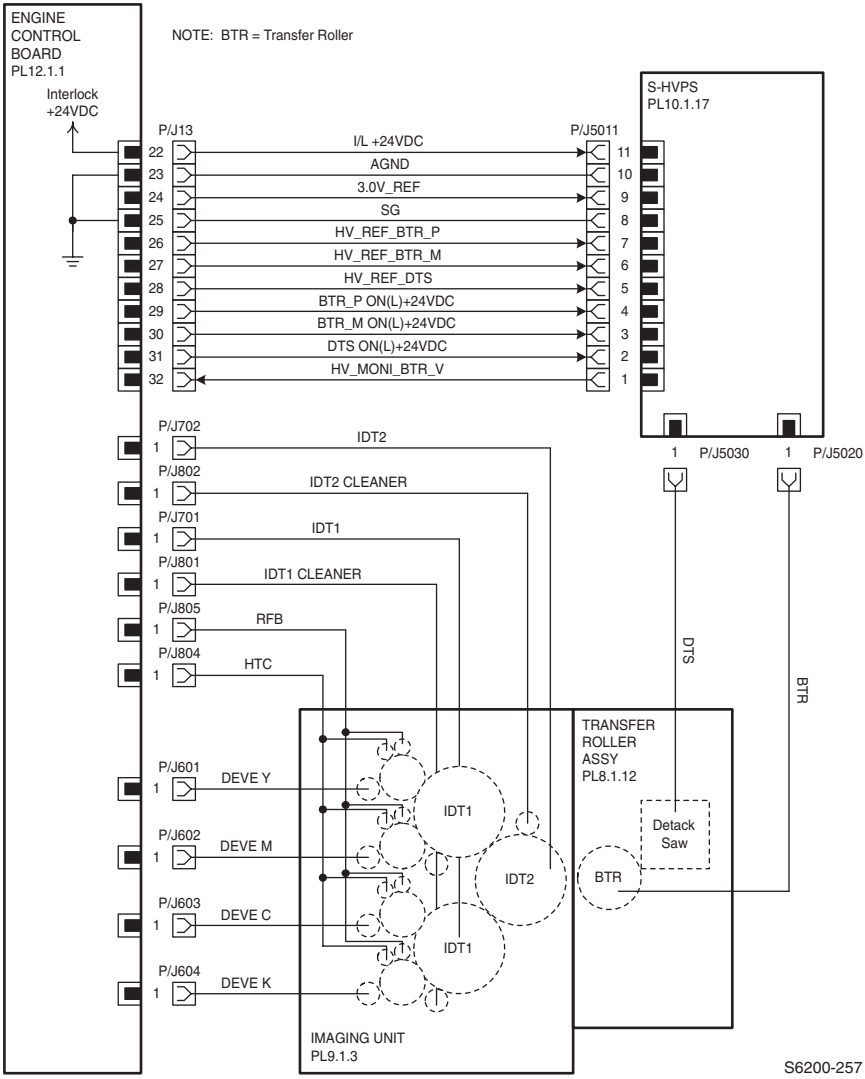


Laser Unit


ENGINE CONTROL BOARD PL12.1.1
P/J15
P/J151
XPDATA_A_Y
XPDATA_B_M
XPDATA_C_C
XPDATA_D_K
MO_A_Y
MO_B_M
MO_C_C
MO_D_K
VL1_A_Y
VL1_B_M
VL1_C_C
VL1_D_K
SG
+5VDC
LD +5VDC
SOS SENSED(L) +3.3VDC
I/L +24VDC
RTN
SCANNER MOTOR ON(L)+5VDC
SG
+5VDC
Interlock +24VDC
LASER ASSY PL9.1.1
Quad Beam Laser Diode
P/J152
Scanner Motor
M
P/J153
SOS BOARD
P/J140
P71
J71
P/J710
LD +5VDC
CRUM DATA
CRUM CLOCK
+3.3VDC
SG
+5VDC
+3.3VDC
+5VDC
PLATE DISPENSER L PL10.1.9
IMAGING UNIT PL9.1.3
CRUM
P/J140
P/J144
EEPROM DATA
EEPROM CLOCK
+3.3VDC
SG
+3.3VDC
EEPROM BOARD PL10.1.16
See fuser assembly.
S6200-255

Xerographics 1




ENGINE
CONTROL
BOARD
PL12.1.1
NOTE: BTR = Transfer Roller
Interlock
+24VDC
S-HVPS
PL10.1.17
P/J13
P/J5011
22
23
24
25
26
27
28
29
30
31
32
I/L +24VDC
AGND
3.0V_REF
SG
HV_REF_BTR_P
HV_REF_BTR_M
HV_REF_DTS
BTR_P ON(L)+24VDC
BTR_M ON(L)+24VDC
DTS ON(L)+24VDC
HV_MONI_BTR_V
11
10
9
8
7
6
5
4
3
2
1
P/J5030
P/J5020
P/J702
IDT2
P/J802
IDT2 CLEANER
P/J701
IDT1
P/J801
IDT1 CLEANER
P/J805
RFB
P/J804
HTC
DTS
BTR
TRANSFER
ROLLER
ASSY
PL8.1.12
Detack
Saw
BTR
P/J601
DEVE Y
P/J602
DEVE M
P/J603
DEVE C
P/J604
DEVE K
IDT1
IDT2
IDT1
IMAGING UNIT
PL9.1.3
S6200-257

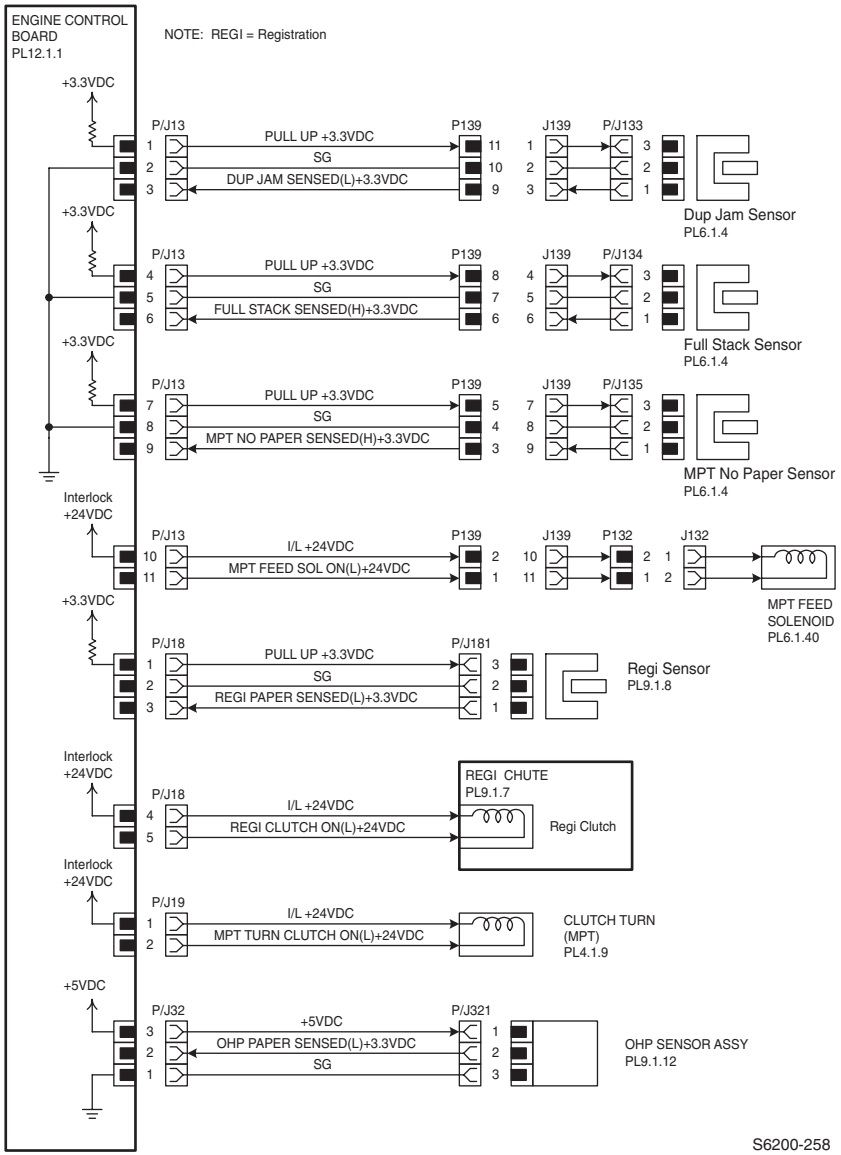
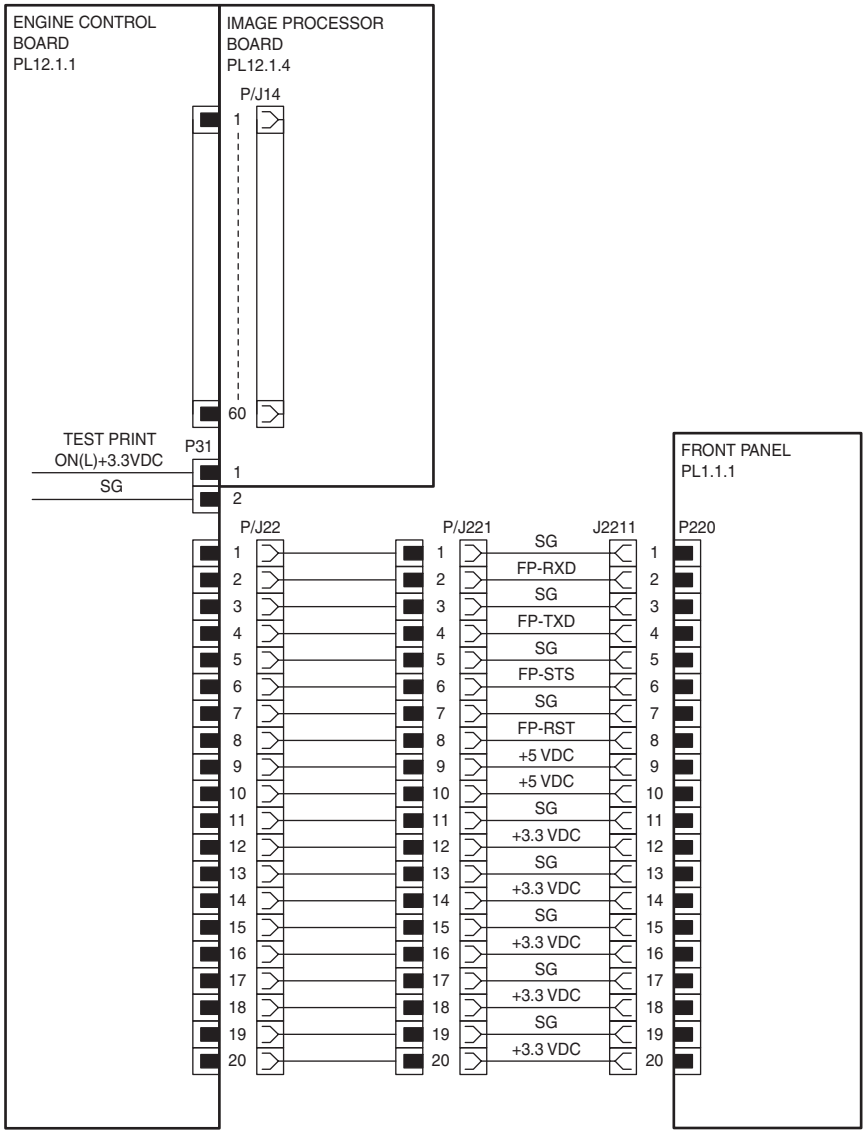
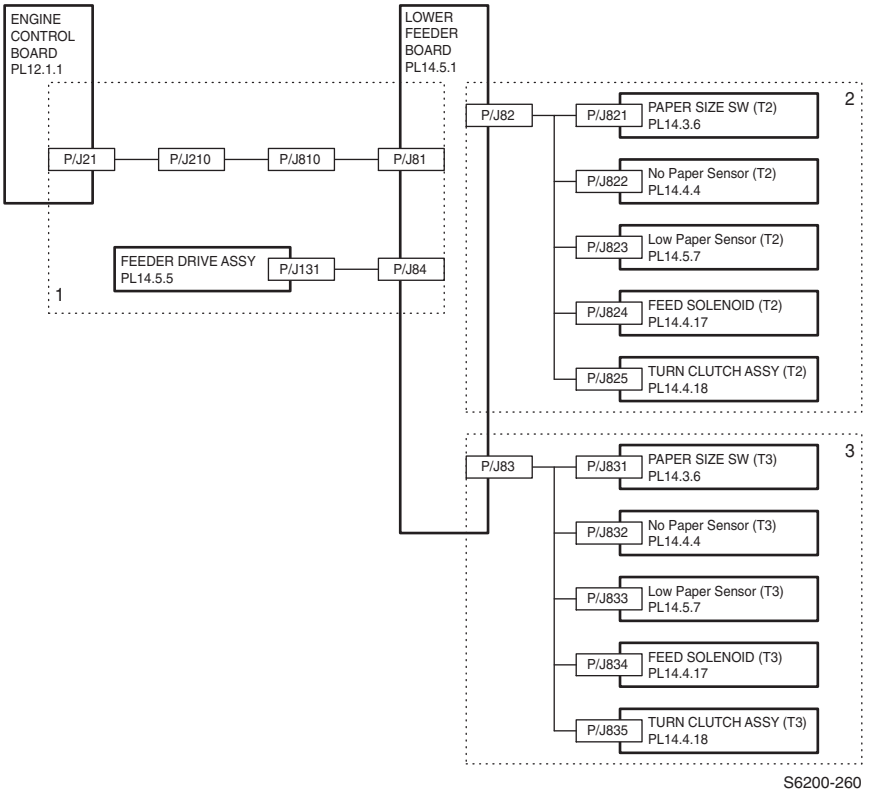

ENGINE CONTROL BOARD PL12.1.1
NOTE: REGI = Registration
+3.3VDC
P/J13
P139
J139
P/J133
PULL UP +3.3VDC
SG
DUP JAM SENSED(L)+3.3VDC
Dup Jam Sensor PL6.1.4
P/J134
FULL STACK SENSED(H)+3.3VDC
Full Stack Sensor PL6.1.4
P/J135
MPT NO PAPER SENSED(H)+3.3VDC
MPT No Paper Sensor PL6.1.4
Interlock +24VDC
I/L +24VDC
MPT FEED SOL ON(L)+24VDC
P132
J132
MPT FEED SOLENOID PL6.1.40
P/J18
P/J181
REGI PAPER SENSED(L)+3.3VDC
Regi Sensor PL9.1.8
REGI CHUTE PL9.1.7
REGI CLUTCH ON(L)+24VDC
Regi Clutch
P/J19
MPT TURN CLUTCH ON(L)+24VDC
CLUTCH TURN (MPT) PL4.1.9
+5VDC
P/J32
P/J321
OHP PAPER SENSED(L)+3.3VDC
OHP SENSOR ASSY PL9.1.12
S6200-258

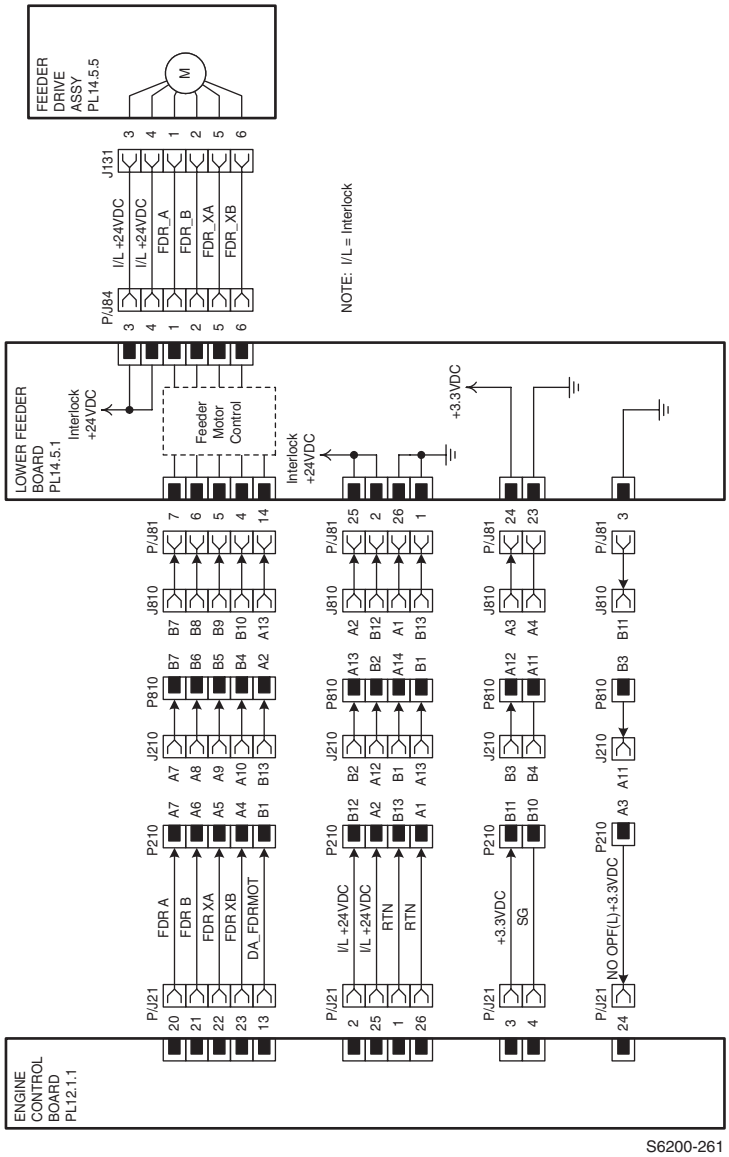
Image Processor Board



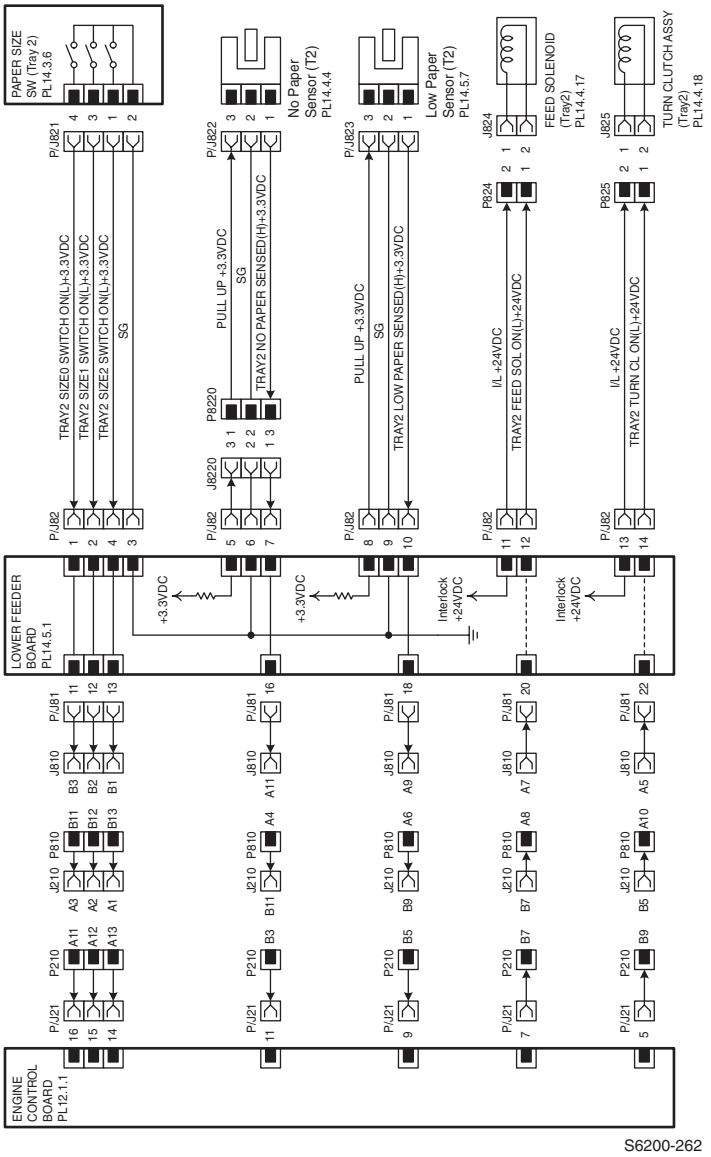
High-Capacity Feeder Wiring Diagrams



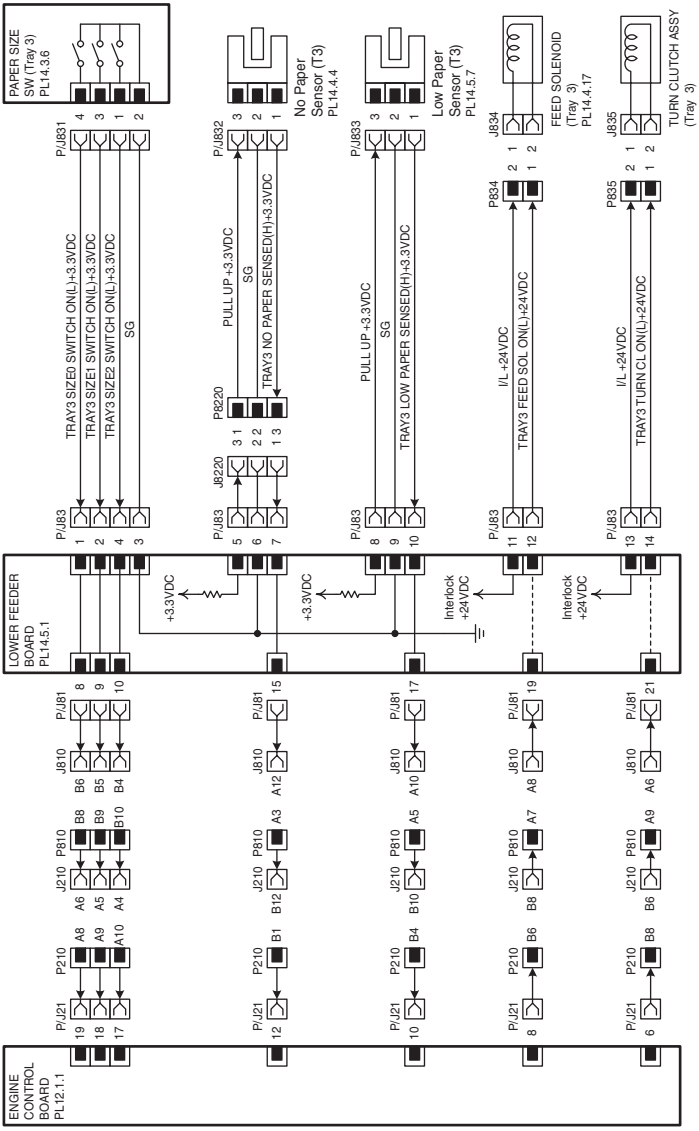
Drive Section



Paper Tray 2


ENGINE CONTROL BOARD PL12.1.1
LOWER FEEDER BOARD PL14.5.1
PAPER SIZE SW (Tray 2) PL14.3.6
No Paper Sensor (T2) PL14.4.4
Low Paper Sensor (T2) PL14.5.7
FEED SOLENOID (Tray2) PL14.4.17
TURN CLUTCH ASSY (Tray2) PL14.4.18
TRAY2 SIZE0 SWITCH ON(L)+3.3VDC
TRAY2 SIZE1 SWITCH ON(L)+3.3VDC
TRAY2 SIZE2 SWITCH ON(L)+3.3VDC
SG
PULL UP +3.3VDC
TRAY2 NO PAPER SENSED(H)+3.3VDC
TRAY2 LOW PAPER SENSED(H)+3.3VDC
I/L +24VDC
TRAY2 FEED SOL ON(L)+24VDC
TRAY2 TURN CL ON(L)+24VDC
+3.3VDC
Interlock +24VDC
S6200-262

Paper Tray 3


ENGINE CONTROL BOARD PL12.1.1
LOWER FEEDER BOARD PL14.5.1
PAPER SIZE SW (Tray 3) PL14.3.6
No Paper Sensor (T3) PL14.4.4
Low Paper Sensor (T3) PL14.5.7
FEED SOLENOID (Tray 3) PL14.4.17
TURN CLUTCH ASSY (Tray 3) PL14.4.18
TRAY3 SIZE0 SWITCH ON(L)+3.3VDC
TRAY3 SIZE1 SWITCH ON(L)+3.3VDC
TRAY3 SIZE2 SWITCH ON(L)+3.3VDC
SG
PULL UP +3.3VDC
TRAY3 NO PAPER SENSED(H)+3.3VDC
TRAY3 LOW PAPER SENSED(H)+3.3VDC
I/L +24VDC
TRAY3 FEED SOL ON(L)+24VDC
TRAY3 TURN CL ON(L)+24VDC
+3.3VDC
Interlock +24VDC
S6200-263