XEROX

Service Manual

701P47817

Phaser® 3250

Laser Printer

XEROX®

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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 2008

Prepared By:

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Service Terms

Manual Terms

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

Note

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

Caution

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

Warning

A warning indicates an operating or maintenance procedure, practice or condition that, if not strictly observed, may result in personal injury.

Product Terms

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

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

Symbols Marked on the Product

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

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

Warning. Use caution to avoid personal injury.

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

Do not touch the OPC Drum.

Do not expose the item to sunlight.

Do not tilt the Print Cartridge.

Do not expose item to high temperature.

Recycle the item.

Power Safety Precautions

Power Source

For 115 VAC printers, do not apply more than 127 volts RMS between the supply conductors or between either supply conductor and ground. For 230 VAC printers, do not apply more than 254 volts RMS between the supply conductors or between either supply conductor and ground. Use only the specified power cord and connector. This manual assumes that the reader is a qualified service technician.

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

Disconnecting Power

Warning

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

Disconnect the power cord in the following cases:

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

Electrostatic Discharge Precautions

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

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

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

Service Safety Summary

General Guidelines

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

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.

Ozone: During normal operation, this machine produces ozone gas. The amount of ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

Warning Labels

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

Safety Interlocks

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

Class 1 Laser Product

The Phaser 3250 is certified to comply with Laser Product Performance Standards set by the U.S. Department of Health and Human Services as a Class 1 Laser Product. This means that this product does not emit hazardous laser radiation; which is possible only because the laser beam is totally enclosed during all modes of customer operation. When servicing the printer or laser unit, follow the procedures specified in this manual and there will be no hazards from the laser.

Maintenance

Cleaning

Before cleaning this product, unplug the product from the electrical outlet. Aways use materials specifically designated for this product, the use of other materials may result in poor performance and create a hazardous situation. Do not use aerosol cleaners; they may be explosive and flammable under certain conditions.

Toner Cartridge

The product contains a dry image cartridge that is recyclable. Under various state and local laws, it may be illegal to dispose of the cartridge into the municipal waste. Check with the local waste officials for details on recycling options or the proper disposal procedures.

Fuses

Warning

Do not install a Fuse of a different type or rating. Installing the wrong type or rating of Fuse can cause overheating and a risk of fire.

Part Replacement

Only use genuine Xerox approved spare parts or components to maintain compliance with legislation and safety certification.

Reassembly Precautions

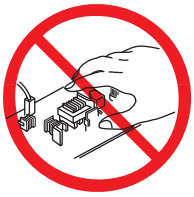
Use extreme care during assembly. Check all harnesses to ensure they do not contact moving parts and do not get trapped between components.

Servicing Electrical Components

Before starting any service procedure, switch the printer power Off and unplug the power cord from the wall outlet. If you must service the printer with power applied, be aware of the potential for electrical shock.

Warning

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

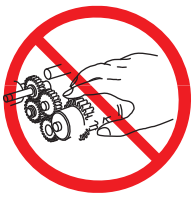


Servicing Mechanical Components

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

Warning

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



Servicing Fuser Components

Warning

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

Moving the Printer

Warning

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

Warning

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

Warning

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

- The printer can be lifted by one person. Use safety lifting and handling techniques when moving the printer.
- Always move the printer separately from Tray 2.

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

Caution

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

Regulatory Information

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

United States (FCC Regulations)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with these instructions, it may cause harmful interference to radio communications. 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 equipment into an outlet on a circuit different from that which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

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

Canada (Regulations)

This Class B digital apparatus complies with Canadian ICES-003.

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

European Union

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

December 12, 2006: Council Directive 2006/95/EC as amended. Approximation of the laws of the member states related to low voltage equipment.

December 15, 2004: Council Directive 2004/108/EC as amended. Approximation of the laws of the member states related to electromagnetic compability.

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

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

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

Manual Organization

The Phaser 3250 Laser Printer Service Manual is the primary document used for repairing, maintaining, and troubleshooting the printer. Use this manual as your primary resource for understanding the operational characteristics of the printer and all available options. This manual describes specifications, theory, and the diagnosis and repair of problems occurring in the print engine and attached options. Also included are detailed replacement procedures, parts lists, and wiring diagrams.

The Phaser 3250 Laser Printer Service Manual contains these sections:

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

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

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

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

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

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

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

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

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

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

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

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

Contents

1 General Information

2 Theory of Operation

3 Error Messages and Codes

4 General Troubleshooting

5 Print-Quality Troubleshooting

6 Adjustments and Calibrations

7 Cleaning and Maintenance

8 Service Parts Disassembly

9 Parts List

10 Plug/Jack and Wiring Diagrams

A Reference

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General Information

In this chapter...

Chapter 1

Printer Introduction and Overview

The Xerox Phaser 3250 Laser Printer has a single-pass laser design architecture, which offers mono print speed at 30-ppm, and resolution up to 1200 x 1200 dots-per-inch image quality. The printer supports PostScript 3 and PCL 6 for Base and Network configurations.

The Phaser 3250 provides a standard 250-Sheet Tray 1. The Manual Feeder holds 1 sheet and does not act as a tray. The Manual Feeder supports specialty media, card stock, and envelopes. The Output Tray holds 50 sheets facedown.

The printer options add memory, media capacity, and functionality:

- Memory upgrades are available to increase from 32 MB standard RAM up to 160 MB maximum.
- A 250-Sheet Feeder (Tray 2) is available as an option.
- Automatic 2-sided printing is available and no tools are required to install the Duplex Unit.

Technical Support Information

The Xerox Phaser 3250 Laser Printer Service Manual is the primary document used for repairing, maintaining, and troubleshooting the printer.

To ensure complete understanding of this product, participation in Xerox Phaser 3250 Service Training is strongly recommended. To service this product, Xerox certification for this product is required.

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

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

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

Printer Configurations

The Phaser 3250 printer is available in two configurations.

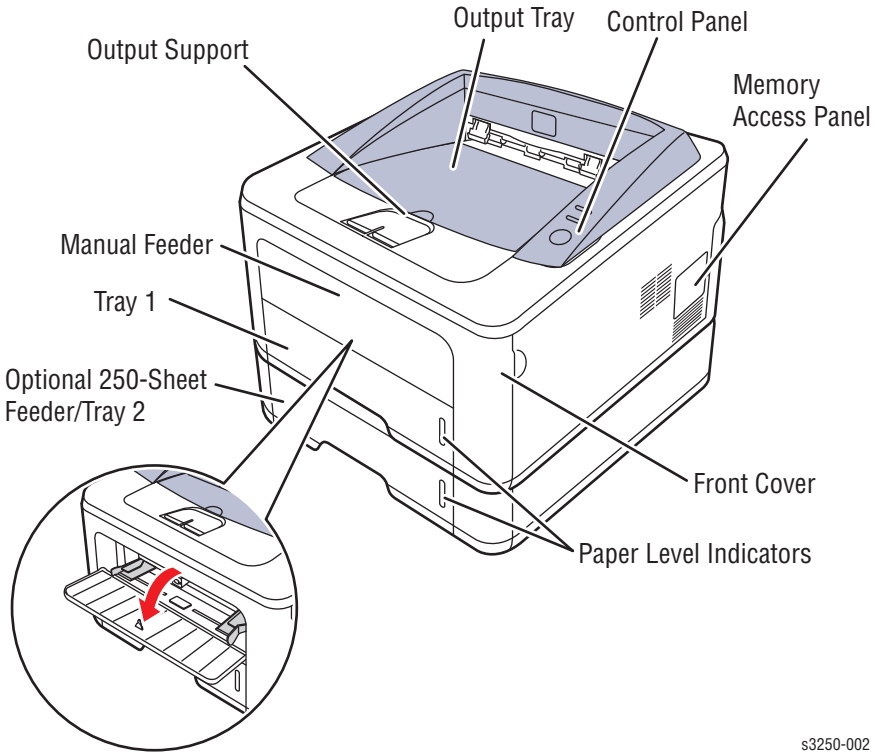
Phaser 3250 Configurations

Features	Printer Configurations	
	3250D	**3250DN**
Processor and Clock Speed	400 MHz	400 MHz
Memory Configuration*	32 MB	32 MB
Duplex Unit	Standard	Standard
Print Speed		
■ Simplex (ppm) Letter	30	30
■ Duplex (ipm) Letter	15	15
Printer Resolutions (dpi)		
■ Standard	600 x 600	600 x 600
■ Enhanced (dpi quality)	1,200 x 1,200	1,200 x 1,200
Fonts		
■ PostScript 3 Fonts	Standard	Standard
■ PCL6 Fonts	Standard	Standard
■ EPSON/IBM	Standard	Standard
Interface		
■ USB 2.0 Hi-Speed	Standard	Standard
■ Parallel Port	Standard	Standard
■ Ethernet Interface	N/A	10/100 Base-TX
■ Wired Network (Protocol)	N/A	SPX/IPX, TCP/IP, EtherTalk, SNMP, HTTP 1.1
■ Wireless Network (Protocol)	N/A	N/A
Tray		
■ Manual Feeder	Standard	Standard
■ Tray 1 (250 Sheet)	Standard	Standard
■ Tray 2 250-Sheet Feeder (250 Sheet)	Optional	Optional
Application		
■ Printer Settings Utility	Windows/ Macintosh/UNIX	Windows/ Macintosh/UNIX
■ CentreWare IS (Network Management)	N/A	Standard
■ Set IP	N/A	Standard

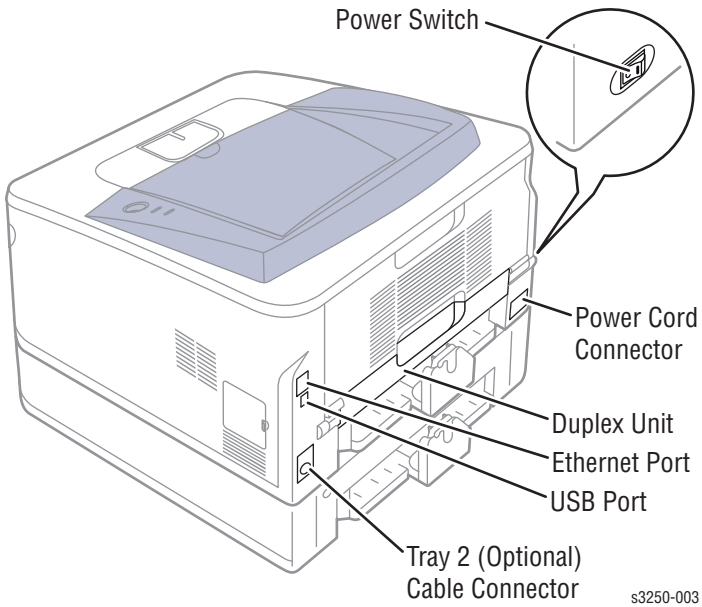
* All configurations have one memory slot supporting 128 MB DDR2 DIMM to a maximum of 160 MB.

Parts of the Printer

Front View

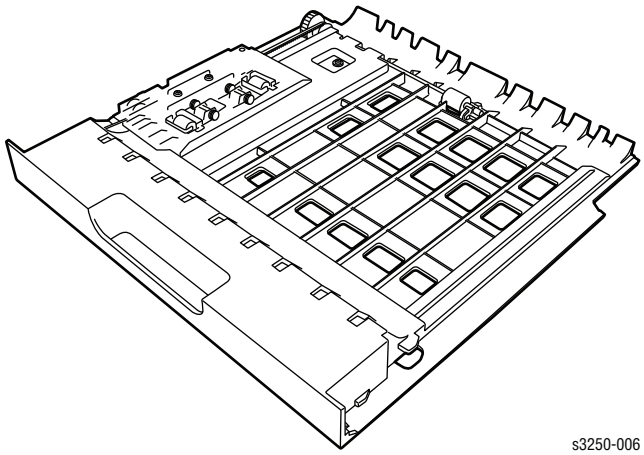


Rear View



Duplex Unit

The Phaser 3250 includes a Duplex Unit. User can install the Duplex Unit without using any tools.



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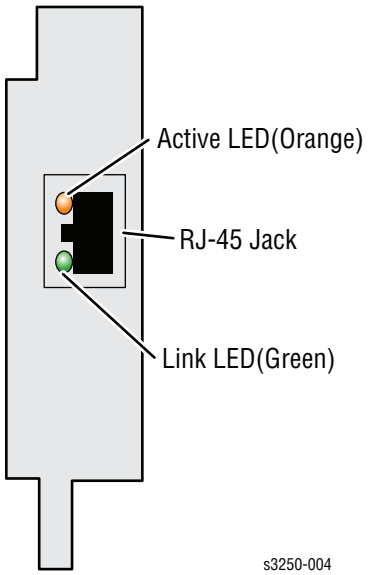
LAN (Network Model)

The Phaser 3250 can be used with a wired LAN.

LED State	Printer State
Active LED Random Blink	Normal NPC & Normal packet receive
Active LED Regular Blink	Normal NPC & No Packet
Active LED Off/On Maintenance	NPC Initial Error
Link LED On	Link LED On, Normally linked
Link LED Off	Link LED Off, Link Error



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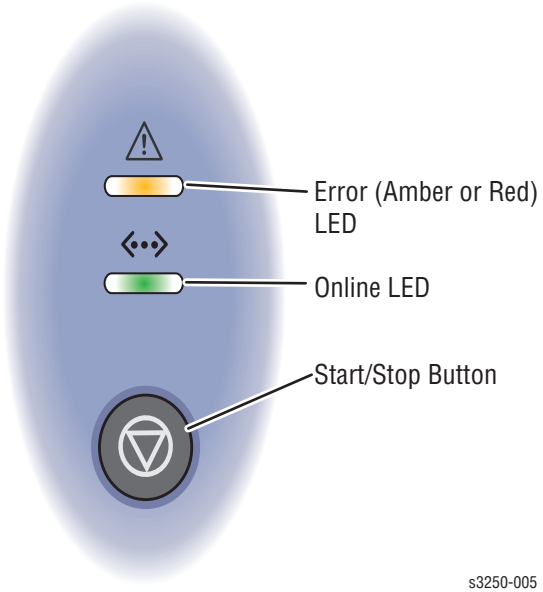
Control Panel

The Control Panel consists of 2 LEDs and 1 function button.



Control Panel Description

	Description
1	**Error**: Indicates status of the printer.
2	**Online**: Indicates status of the printer.
3	**Start/Stop button**: ■ Prints a Demo page or Configuration page. ■ Cleans the Printer. ■ Cancels the print job. ■ Resumes a print job.
	Print the Demo Page: In Ready mode, press and hold the **Start/Stop** button until the bottom LED slowly blinks green, and then release (approximately 2 seconds).
	Print the Configuration page and Menu Map: In Ready mode, press and hold the **Start/Stop** button until the bottom LED slowly blinks green, then changes to fast blinking, and then release (approximately 6 seconds).
	Clean the Printer: In Ready mode, press and hold the **Start/Stop** button until the bottom LED slowly blinks (green), changes to fast blinking, changes to slow blinking, and then release the **Start/Stop** button (approximately 10 seconds).
	Cancel a Print Job: In Ready mode, press the **Start/Stop** button. ■ **Note**: In Manual Feed mode, it is not possible to cancel the print job by pressing the **Start/Stop** button.

LED Indicators

LED State	Printer State
Green	The printer is ready to print or in Power Save mode. The printer is on-line.
Amber	Paper jam has occurred.
Red	Error has occurred. The Print Cartridge is empty or is not installed.
Flashing Red	A minor error has occurred. The Print Cartridge toner is low.

Note

Refer to “LED Status and Errors” on page 4-2, Chapter 4, Troubleshooting Procedure for additional detailed information.

Printer Options

The Phaser 3250 printer options include:

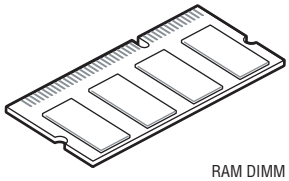
- Additional Memory (128 MB)
- 250-Sheet Feeder (Tray 2)

Additional Memory

The standard 32 MB memory is soldered on board. The printer features one memory slot that supports a 128 MB for a maximum of 160 MB. Memory modules must meet the following characteristics:

- 200 Pin DDR2 DIMM (8 chip type)
- Unbuffered, Non-parity

The printer's Configuration page lists the amount of RAM installed in the printer.



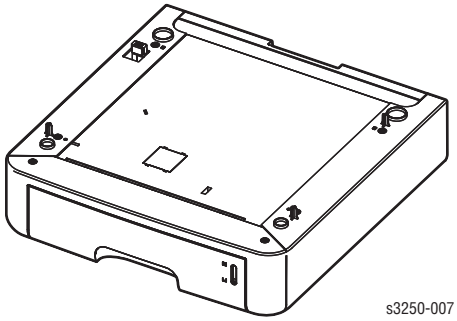
RAM DIMM

Optional 250-Sheet Feeder (Tray 2)

The Optional 250-Sheet Feeder increases the input capacity of the printer and can be attached to the printer underneath Tray 1. The Optional 250-Sheet Feeder is customer installable.

Note

Only one Optional 250-Sheet Feeder is supported.



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Maintenance Items

A maintenance item is a printer part or assembly that has a limited life, and requires periodic replacement.

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

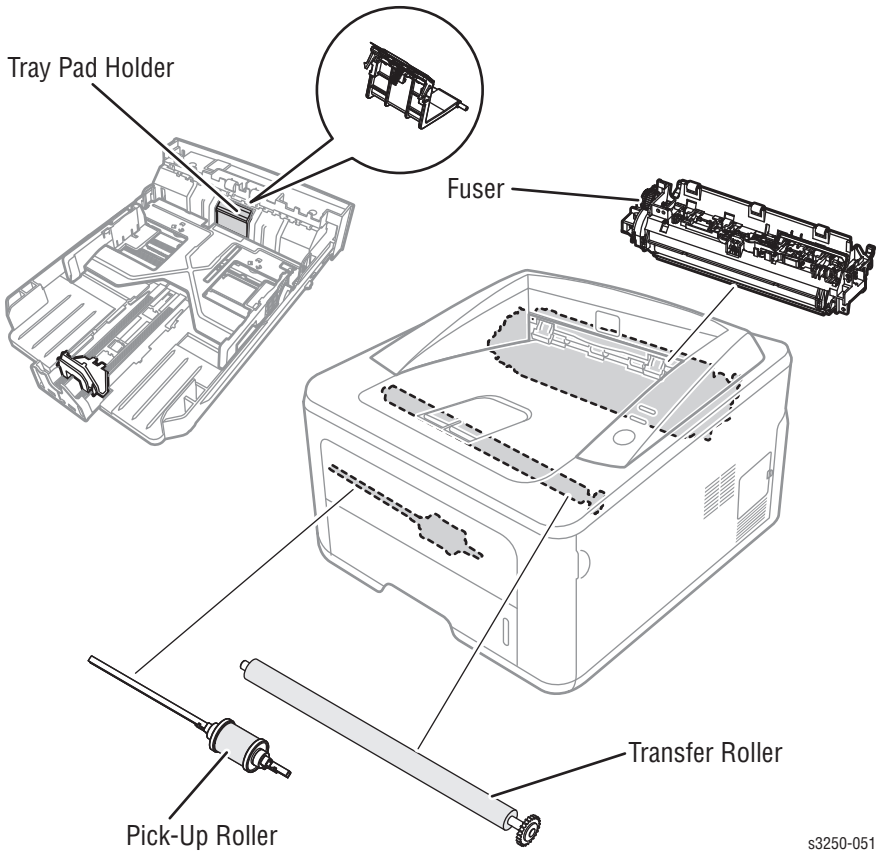
Phaser 3250 Maintenance Items

Item	Print Life
Fuser	50,000 pages
Pick-Up Roller (*)	50,000 pages
Transfer Roller (*)	50,000 pages
Tray Holder Pad	50,000 pages

(*) Customer Replaceable

Note

Print life is based on “typical” office printing and 5% coverage per color on 24 lb. paper. The 50,000 life is not guaranteed and varies depending on usage habits.



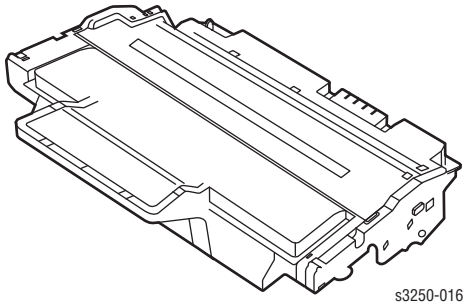
Consumables

Consumables consist of 1 Print Cartridge used in the printer.

The Print Cartridge has a CRUM (Customer Replaceable Unit Meter) to record the usage information. A CRUM counts the amount of remaining toner. When toner empty is detected, Life End status will be sent to indicate toner empty.

Life ratings are based on A4 (Letter) sheets at 5% coverage.

Print Cartridge	Print Life
Standard Capacity	3,500 pages
High Capacity	5,000 pages



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Specifications

Functional Specifications

Characteristic	Specifications	
Printing Technology	**Printing System**: Laser Diode Unit and Electro-photographic system	
	Developing System: Non-magnetic Contacting Development System	
	Fusing System: Heat Roller heating by 750W Halogen Lamp.	
Printer Life	100,000 pages or 5 years	
Average Monthly Print Volume (average)	600 PV/month	
	For Duplex prints, prints on the front and back sides of paper are counted as 2 PV.	
Maximum Duty Cycle	30,000 pages/month*	
Resolution	Up to 1,200 x 1,200 dpi	
Print-Quality Mode	600 x 600 dpi	
Average Image Coverage	5%	
Warm-Up Time	15 seconds	
Operating System	Windows	2000/ 2003 Server/ XP/ Vista
	Mac	OS 8.6~9.2 / OS 10.1~10.4
	Linux	Redhat 8~9, Fedora Core 1~4, Mandrake 9.2~10.1, SuSE 8,2~9.2

* Assumes a 30 day month of printing.

Memory Specifications

Characteristic	Specifications	
Memory	Minimum	32 MB on-board
	Maximum	160 MB
Supported RAM	Supports up to 160 MB of DDR2 DIMM with one slot for 128 MB.	

Environmental Specifications

Characteristic	Specifications		
Temperature			
Operating	10 to 32° C(50 to 90° F)		
Storage (unpacked)	0 to 35° C (32 to 95° F)		
Storage (packed)	-20 to 40° C (-4 to 104° F)		
Humidity (% RH)			
Operating	10 to 80% RH		
Storage (unpacked)	20 to 80% RH		
Storage (packed)	20 to 95% RH		
Altitude			
Operating	2,500 meters (8,200 feet)		
Acoustic Noise Level	**Sound Power/Pressure (Decibels)**		
	Simplex	**Duplex**	**Tray 2**
Printing	Less than 50.0 dB(A)	Less than 54.0 dB(A)	Less than 55.0 dB(A)
Standby	Less than 25.0 dB(A)		
Sleep	Background Level		

Electrical Specifications

Characteristic	Specifications	
Power Supply Voltage/Frequency		
Line Voltages	100-127 VAC -10% ~ +6%	
	220-240 VAC -10% ~ +6%	
Frequency Range	50/60 Hz ± 3 Hz	
Current Capacity	110 V: 9.0A 220 V: 4.5A	
Power Consumption	**AC 110 V**	**AC 220 V**
Standby	70 W or less	70 W or less
Sleep Mode	11 W or less	11 W or less
Average	Less than 550 W	Less than 550 W
In-rush Current		
At 25° Cold Start	Less than 40 Amp	
Hot Start	135 Amp	
Other Conditions	Less than 60 Amp	
Leakage Current	Less than 3.5 mA (UL)	

Print Speed

Resolution	Simplex (ppm)	Duplex (ipm)
Letter	30	15
A4	28	14
Legal	24	10
B5	21	-----
A5	15	-----
A6	15	-----

Operating Mode

The Phaser 3250 consists of the following operating modes:

- **Ready Mode**: When the machine is turned On, it changes from the power Off state to Ready mode. In this mode, printing is available.
- **Running Mode**: The printer operates in the Print mode.
- **Save Mode**: The Printer enters into the Save mode to reduce power consumption when it has not received data for the specified time.

Information listed in the table provides description and statuses of the printer modes at various states.

Operating Modes

Mode	LED Status	State
Ready	Green	The printer is ready.
Running	Flashing Green	In operation.
Save	Green	Printer idles at a specified time.

Warm-Up Time

Warm-up Time is defined as the time when the printer changes from Power-On to Standby mode.

- Standard Configuration: 15 seconds (from Sleep)

First Print Output Time

First Print Output Time (FPOT) is defined as the time from when the engine receives a Start signal in Ready state, until a single page is printed and delivered to the output tray.

Mode	FPOT (sec.)
Ready	Less than 8.5
Sleep	Less than 23.5
Cold Start	Less than 25.0

Image Specifications

Note

The printer has 4 mm margins on all sides. Edge-to-edge printing will not be available.

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

Print Margins

Print Area		Margin	
Guaranteed Print Quality Area	Paper Width (A+B)	A = Left Margin	4.23 mm
		B = Right Margin	4.23 mm
	Paper Length (C+D)	C = Top Margin	4.23 mm
		D = Bottom Margin	4.23 mm
Printable Area	Paper Width (A+B)	A = Left Margin	3 mm
		B = Right Margin	3 mm
	Paper Length (C+D)	C = Top Margin	3 mm
		D = Bottom Margin	3 mm

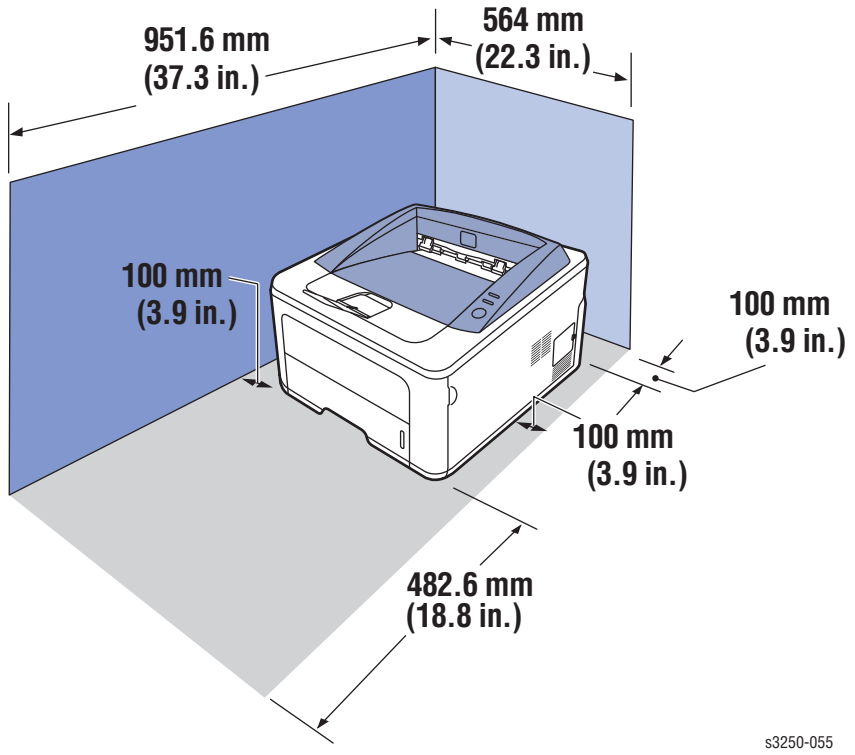
Characteristic	Specifications
Skew	
Vertical	241.3 mm (9.5 in.) ± 2.0 mm (.08 in.) Tray 3, Duplex: 241.3 mm (9.5 in.) ± 2.5 mm (.09 in.)
Horizontal	177.8 mm (7.0 in.) ± 1.5 mm (.06 in.) Tray 3, Duplex: 241.3 mm (9.5 in.) ± 2.0 mm (.08 in.)
Linearity	
Horizontal	200 mm (7.9 in.) ± 0.5 mm (.02 in.)
Magnification	
Horizontal	177.8 mm (7.0 in.) ± 1.8 mm (.07 in.)
Vertical	241.3 mm (9.5 in.) ± 2.4 mm (.09 in.)
Registration	
Left Print Position (scanning direction)	Simplex: 2.5 mm (.09 in.) Duplex: 3.0 mm (1.2 in.)
Top Print Position (feeding direction)	Simplex: 3.0 mm (1.2 in.) Duplex: 3.0 mm (1.2 in.)

Physical Dimensions and Clearances

Printer Dimensions

Print Engine	3250D	3250DN
Height	198 mm (7.8 in.)	198 mm (7.8 in.)
Width	364 mm (14.3 in.)	364 mm (14.3 in.)
Depth	370 mm (14.5 in.)	370 mm (14.5 in.)
Weight (base printer with standard fill print cartridge)	11.9 kg (26.2 lb.)	11.9 kg (26.2 lb.)
Optional 250-Sheet Feeder		
Height	91.2 mm (3.6 in.)	91.2 mm (3.6 in.)
Width	363.0 mm (14.3 in.)	363.0 mm (14.3 in.)
Depth	402.5 mm (15.8 in.)	402.5 mm (15.8 in.)
Weight	2.62 kg (5.7 lb.)	2.62 kg (5.7 lb.)

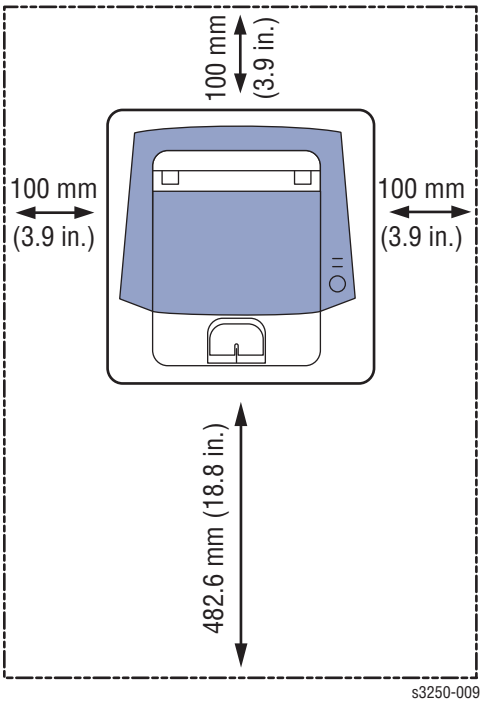
Minimum Clearances



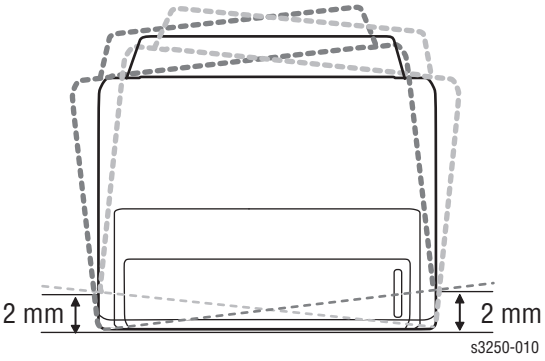
Mounting Surface Specifications

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

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



2. Mounting surface flatness must be within the specified range. The printer must not be tipped or tilted more than 2 mm.



Failure to adhere to the specified mounting specifications will void all guarantees of print-quality and/or performance.

Media and Tray Specifications

The following tables list the supported paper and media for the Phaser 3250.

Supported Paper Type and Size

Paper Type	Paper Size	Dimension	Manual Feeder	Tray 1, 2	Duplex
Plain Paper	Letter	8.5 x 11 in. (216 x 279 mm)	Yes	Yes	Yes
	Legal	8.5 x 14 in. (216 x 356 mm)	Yes	Yes	Yes
	US Folio	8.5 x 13 in. (216 x 330.2 mm)	Yes	Yes	Yes
	Oficio	8.5 x 13.5 in. (216 x 343 mm)	Yes	Yes	Yes
	Executive	7.25 x 10.5 in. (184 x 267 mm)	Yes	Yes	No
	A4	8.26 x 11.69 in. (210 x 297 mm)	Yes	Yes	No
	A5	5.82 x 8.26 in. (148 x 210 mm)	Yes	Yes	No
	A6	4.13 x 5.82 in. (105 x 148 mm)	Yes	Yes	No
	B5 ISO	6.93 x 9.84 in. (176 x 250 mm)			
	B5 JIS	7.18 x 10.12 in.) (182 x 257 mm	Yes	Yes	No
	Custom Page Size*		Yes	Yes	No
Transparency	Letter, A4	Refer to Plain Paper	Yes	Yes	Yes
Labels	Letter, Legal, Folio, Oficio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to Plain Paper	Yes	No	No
Card Stock	Letter, Legal, Folio, Oficio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to Plain Paper	Yes	No	No
Custom (minimum size)		3.86 x 5.83 in. (76 x 127 mm)	Yes	No	No
Custom (maximum size)		8.5 x 14 in. (215.9 x 356 mm)	Yes	No	No

* All trays support Custom sizes. The Manual Feeder supports a wider range of Custom size dimensions than trays 1 and 2.

Supported Paper Type and Weight

Paper Type	Paper Weight	Manual Feeder	Tray 1, 2	Duplex
Plain Paper	60-105 g/m² (16-28 lb. Bond) 60-163 g/m² (16-43 lb. Bond)	Yes	Yes	Yes
Labels	120-150 g/m² (32-40 lb.)	Yes	No	No
Card Stock	60-163 g/m² (16-43 lb.)	Yes	No	No
Transparency	138-146 g/m² Xerox Premium Transparency	Yes	No	No
Envelope	75-90g/m² (20-24 lb.)	Yes	No	No
Custom	60-163 g/m² (16-43 lb.)	Yes	No	No

Supported Envelopes

Type	Dimension	Manual Feeder	Tray 1, 2	Duplex
#10 Commercial Envelope	4.12 x 9.5 in. (105 x 241 mm)	Yes	No	No
Monarch Envelope	3.88 x 7.5 in. (98.4 x 190.5 mm)	Yes	No	No
B5 Envelope	6.93 x 9.84 in. (176 x 250 mm)	Yes	No	No
C5 Envelope	6.38 x 9.02 in. (162 x 229 mm)	Yes	No	No
C6 Envelope	4.49 x 6.38 in. (114 x 162 mm)	Yes	No	No
DL Envelope	4.33 x 8.66 in. (110 x 220 mm)	Yes	No	No

Note: Do not use envelopes with hot melt glue, windows, or metal clasps.

Non-Genuine Mode

When the Print Cartridge life has ended, the printer stops accepting print request (life of the Print Cartridge is counted by the counter in the CRUM).

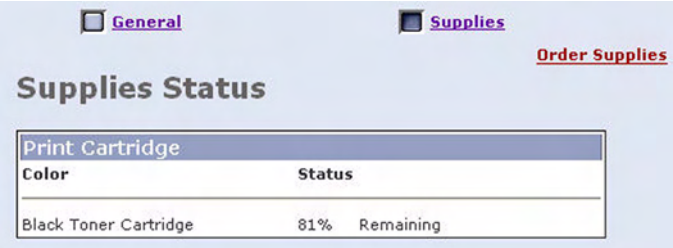
Print Cartridge Error Information

Print Cartridge	LED Display	Status Monitor	Functionality
Xerox	Red	Replace Toner	Stops printing.
Xerox	Blinking Red	Low Toner	Prints with full functionality.
Non-Xerox Print Cartridge Manufacturer	Red	Invalid Toner	Stops printing.

Toner Remaining Amount

Toner remaining amount can be checked through CentreWare Internet Services (CWIS), Configuration Page, or Supplies Info Page.

CentreWare IS View



Maintenance Function

Firmware Update

The Main Controller Board firmware can be updated by customers and service technicians using Windows PC or Macintosh with dedicated utilities. Firmware updates are available at www.xerox.com/office/support.

Detailed procedures are available in the “Updating Firmware” on page A-3.

Updated Firmware	Windows	
	Via USB/IEEE1284	Via Network (port 9100)
Main Controller Board	Available	Available

Diagnostics

Two types of diagnostic functions are available:

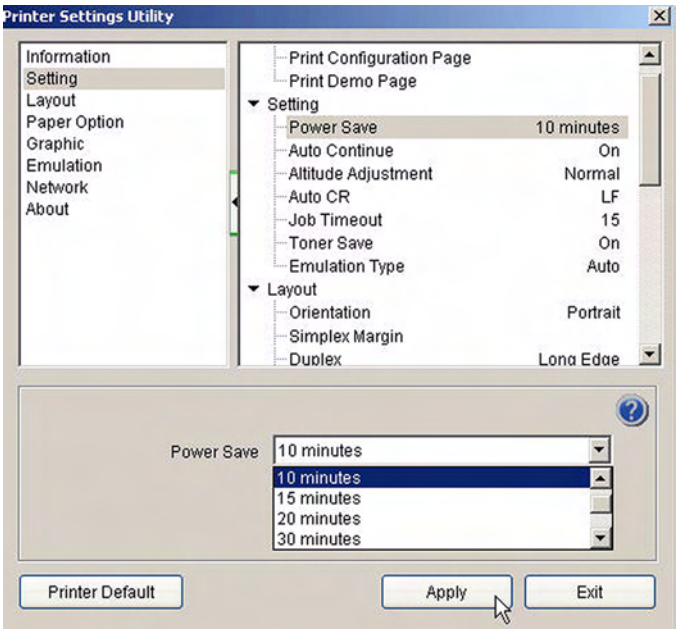
1. Auto Diagnostics: The printer is checked when whether or not it is turned On. It is checked whether or not hardware (ROM, RAM, ASIC, etc....) operates properly.
2. Manual Diagnostics: Only qualified service personnel can perform manual diagnostics.

Power Save Mode

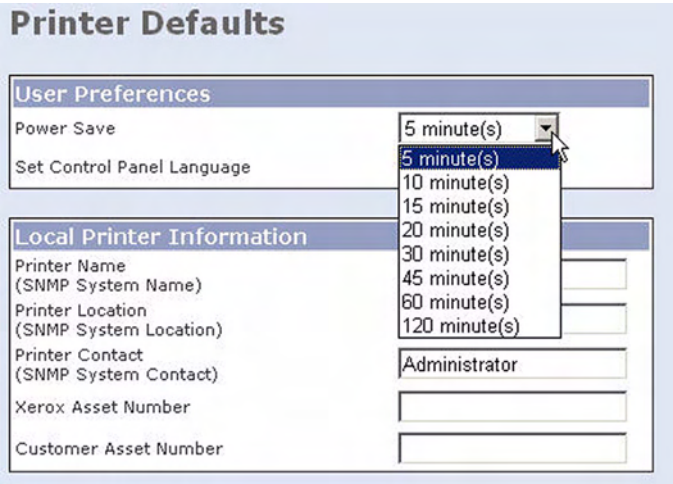
The Power Save Mode is controlled by the main system firmware. In order to switch the Ready state to the Power Save Mode after a specified time, the main system sends a sleep command to the engine. When the engine receives a sleep command, it stops the operation of the Fuser and the Fan Unit in the engine. The main system then sets the engine to a sleep state.

User can adjust Power Save Mode for the Phaser 3250 printer. The Power Save can be set from 5 to 120 minutes.

Printer Settings Utility View (USB Connection)



CentreWare IS View (Network Connection)

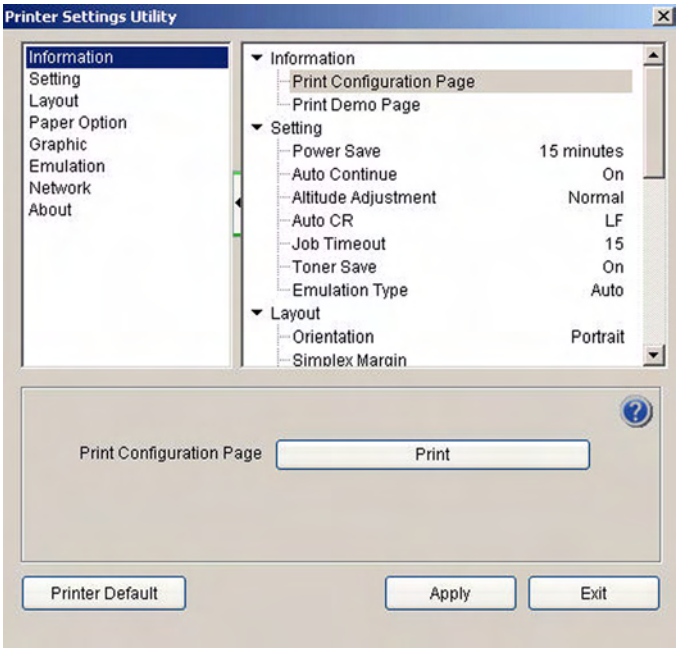


Printer Settings Utility

The Printer Settings Utility enables user to monitor the printer's status. User can use the Printer Settings Utility to add and/or update the printer's information as needed.

Accessing Printer Settings Utility

1. From the **Start Menu**, select **Programs** > **Xerox P3250** > **Printer Settings Utility**.
2. The **Printer Settings Utility** window is displayed.
3. Information contained in the Printer Settings Utility include:
   - Information: Print Configuration Page, Print Demon Page
   - Setting: Power Save, Auto Continue, Altitude Adjustment, Auto CR, Job Timeout, Toner Save, Emulation Type
   - Layout: Orientation, Simplex Margin, Duplex, Duplex Margin
   - Paper Option: Copies, Paper Size, Paper Type, Paper Source, Tray Chaining
   - Graphic: Resolution, Darkness, Image Enhance
   - Emulation: Emulation Setting
   - Network: Configuration Network, Print Network Configuration
   - About

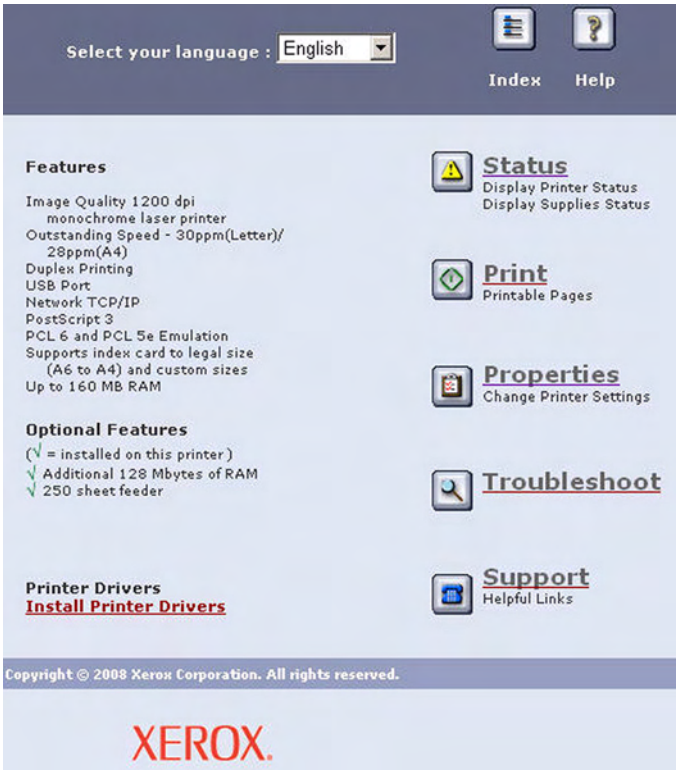


CentreWare IS

The CentreWare IS enables the user to monitor the printer's status. User can access the CentreWare IS menu to add and/or update the printer's information as needed.

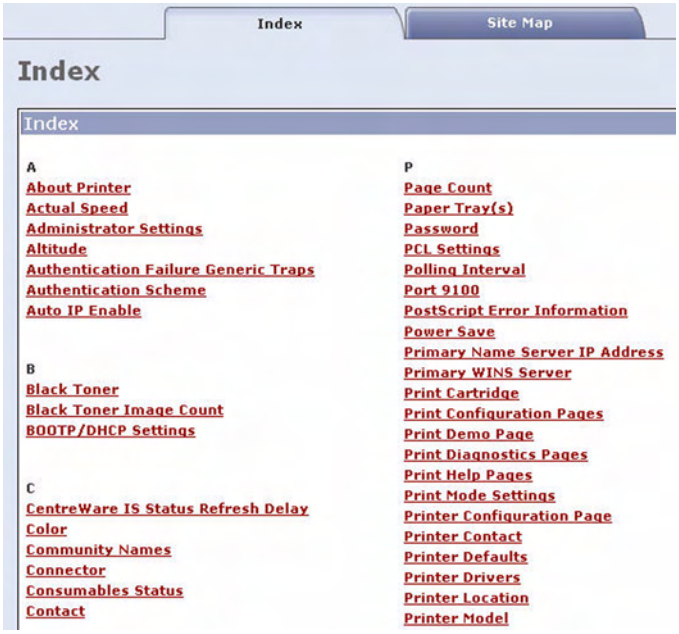
Accessing the CentreWare IS

1. Open a web browser.
2. Enter the printer's IP address.
3. The **CentreWare IS** page is displayed.



4. Various printer information are located under different categories:
   - **Status**: Provides General Status information of the printer.
   - **Print**: Prints Help pages.
   - **Properties**: Provides general information about the printer including Version Information, Memory, Page Description Languages, and Printer Options.
   - **Troubleshoot**: Provides list of embedded pages including Menu Map, PostScript Font List, PCL Font List, and Print Cleaning Page.
   - **Support**: Provides web links and information for support including Software, Documentation, Supplies, and Registration.

The **Index** provides additional detailed information on the printer.



Reports and Information Pages

The following reports and information pages are available in the Phaser 3250 printer. The embedded pages can be printed using various methods.

Report/Information Page	Print Method		
	Control Panel	Printer Settings Utility (USB)	CentreWare IS (Network)
Demo Page	Yes	Yes	Yes
Menu Map	Yes	No	Yes
Printer Configuration Page	Yes	Yes	Yes
Network Configuration Page	No	Yes	Yes
Event Log	Yes	No	No
Supplies Info	Yes	No	No
PCL Font List	No	Yes	Yes
PostScript Font List	No	Yes	Yes
Print Cleaning Page	Yes	No	Yes

Control Panel Method

To print various report/information page from the Control Panel, press and hold the **Start/Stop** button for a specific amount of time and release the **Start/Stop** button.

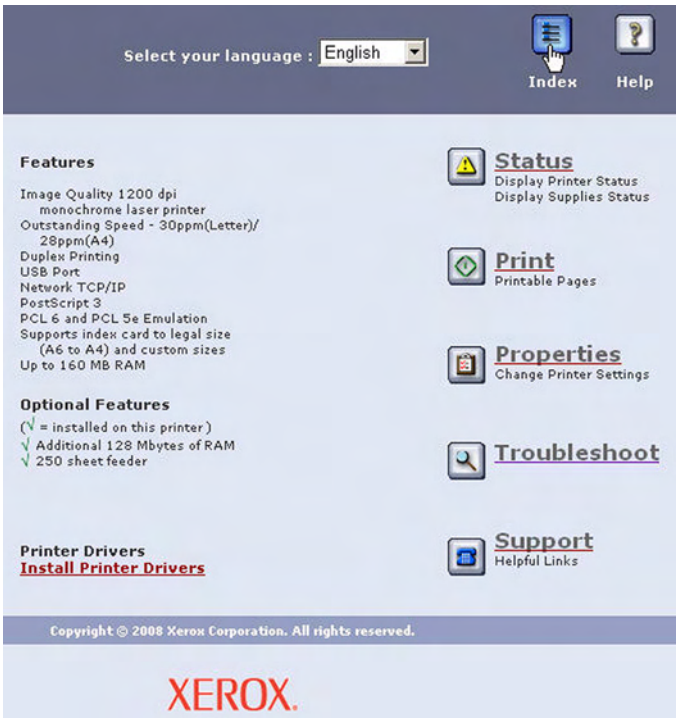
Report/Information Page	Time (second)	LED Status
Demo page	0~2	Blinks slowly
Configuration Page and Menu Map	0~5	Blinks quickly
Print Cleaning Page	0~10	Blinks slowly
Supplies Info and Event Log	0~15	Blinks quickly

Embedded Pages	*Demo Page*	*Configuration Page and Menu Map*	*Print Cleaning Page*	*Event Log and Supplies Information*
Blinking Rate	 Slowly	Quickly	Slowly	Quickly
Approx. Release Time	2 seconds	5 seconds	10 seconds	15 seconds
	For Customer (in the User Guide)		Only for Service Technician (in the Service Manual)	

s3250-074

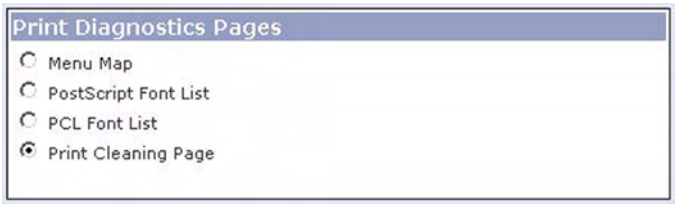
CentreWare IS Method (Network)

1. Open a web browser.
2. Enter the printer's IP address.
3. The **CentreWare IS** page is displayed.
4. Click the **Index** button.

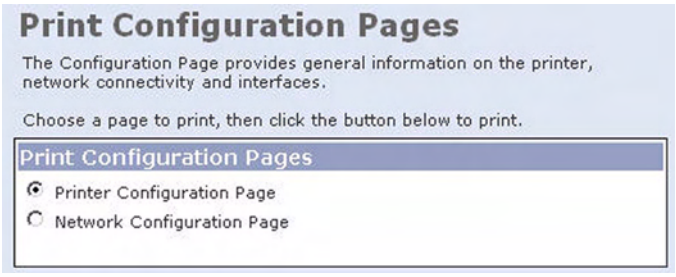


5. Click the appropriate page link to be printed.
   - Print Cleaning Page
   - Print Configuration Pages
   - Print Demo Page
   - Print Diagnostics Pages
   - Print Help Pages

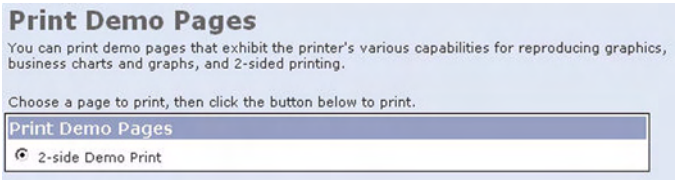
Print Cleaning Page



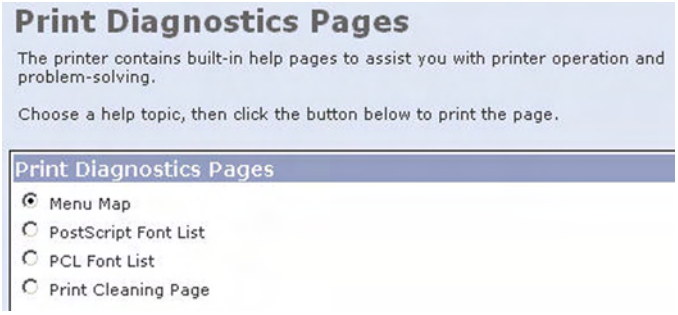
Print Configuration Pages



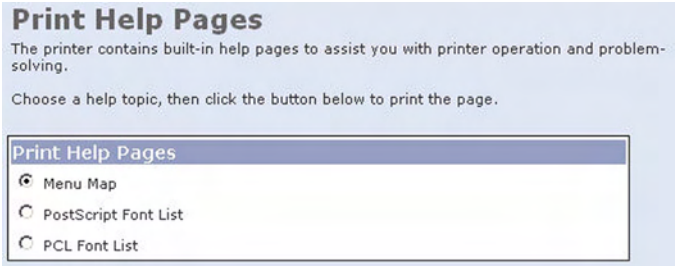
Print Demo Page



Print Diagnostics Pages



Print Help Pages



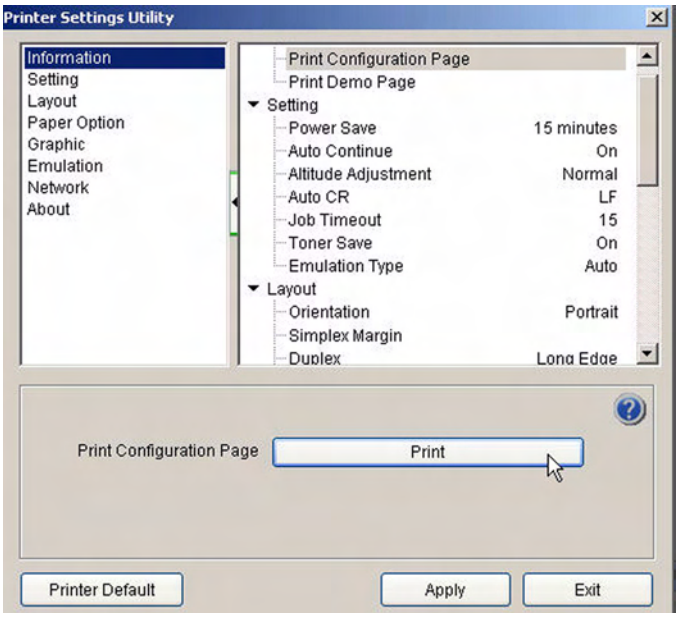
6. Select the appropriate page to be printed.
7. Click the **Blue** button.

8. The status window is displayed. Click **OK** to close the window. Close the **CentreWare IS** window.

9. The Green LED on the Control Panel starts blinking and a printable page is printed.

Printer Settings Utility Method (USB Connection)

1. From the **Start Menu**, select **Programs** > **Xerox P3250** > **Printer Settings Utility**.
2. The **Printer Settings Utility** window is displayed.
   a. On the left side of the page, select **Information** or **Network**.
   b. On the right column of the window, **Information** is displayed.
3. Select the appropriate page to be printed and click the **Print** button.
   - **Information**: Prints the Configuration Page or Print Demo Page.
   - **Network**: Prints the Network Configuration.



Demo Page

The Demo Page provides sample print for the Phaser 3250 Laser Printer.

Menu Map

The Menu Map lists all the available functions of the printer.

Menu Map Information

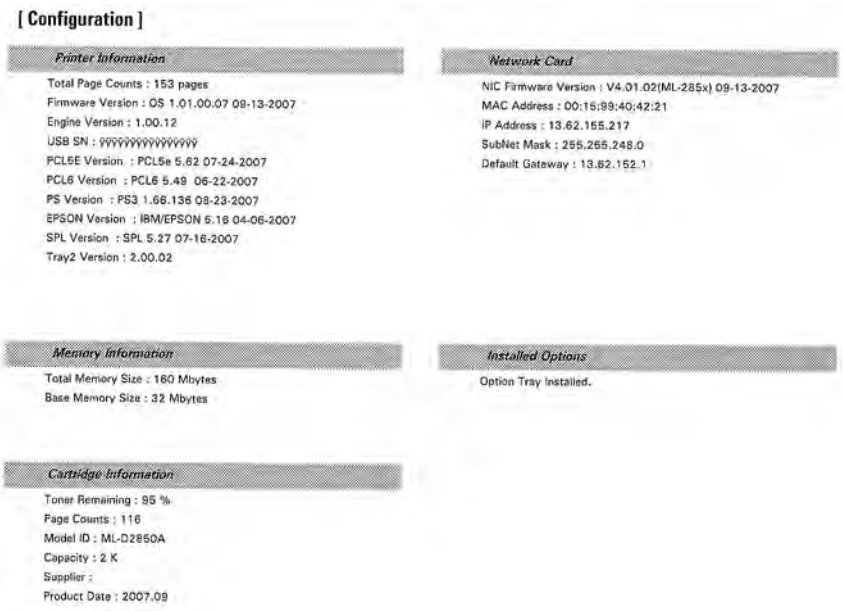
General Description	Detail Description
1. Information	Menu Map, Configuration, Demo Page, PCL Font List, PostScrip 3 Font List, EPSON Font
2. Layout	Orientation, Simplex Margin, Duplex, Duplex Margin
3. Paper	Copies, Paper Size, Paper Type, Paper Source
4. Graphic	Resolution, Darkness, Image Enhance
5. System Setup	Language, Power Save, Auto Continue, Altitude Adj, Auto CR, Job Timeout, Toner Save, Maintenance, Clear Setting
6. Emulation	Emulation Type, Setup
7. Network	TCP/IP, EtherTalk, Ethernet Speed, Clear Setting, Network Info.
PCL (-)	Typeface, Symbol, Courier, Pitch, Lines
PostScript (-)	Print PS Error
EPSON (-)	Font, Character Set, Character Tab, Pitch, LPI, Auto Wrap

Configuration Page

The Configuration page contains configuration information for the printer. Two types of Configuration page are available: Printer Configuration page and Network Configuration.

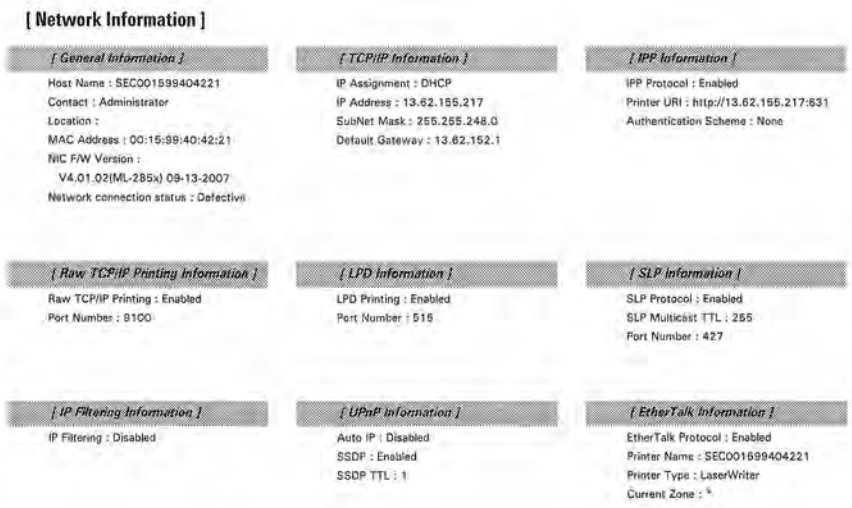
Printer Configuration Page Information

General Description	Detail Description
Printer Information	Total Page Counts, Firmware Version, Engine Version, USB SN, PCL5E Version, PCL6 Version, PS Version, EPSON Version, SPL Version, Tray2 Version
Memory Information	Total Memory Size, Base Memory Size
Cartridge Information	Toner Remaining, Page Counts, Model ID, Capacity, Supplier, Product Date
Network Card	NIC Firmware Version, MAC Address, IP Address, SubNet Mask, Default Gateway
Install Options	Option Tray Installed/Option Tray Not Installed



Network Configuration Page Information

General Description	Detail Description
General Information	Host Name, Contact, Location, MAC Address, NIC F/W Version, Network Connection Status
TCP/IP Information	IP Assignment, IP Address, SubNet Mask, Default Gateway
IPP Information	IPP Protocol, Printer URI, Authentication Scheme
Raw TCP/IP Printing Information	Raw TCP/IP Printing, Port Number
LPD Information	LPD Printing, Port Number
SLP Information	SLP Protocol, SLP Multicast TTL, Port Number
IP Filtering Information	IP Filtering
UPnP Information	Auto IP, SSDP, SSDP TTL
EtherTalk Information	EtherTalk Protocol, Printer Name, Printer Type, Current Zone



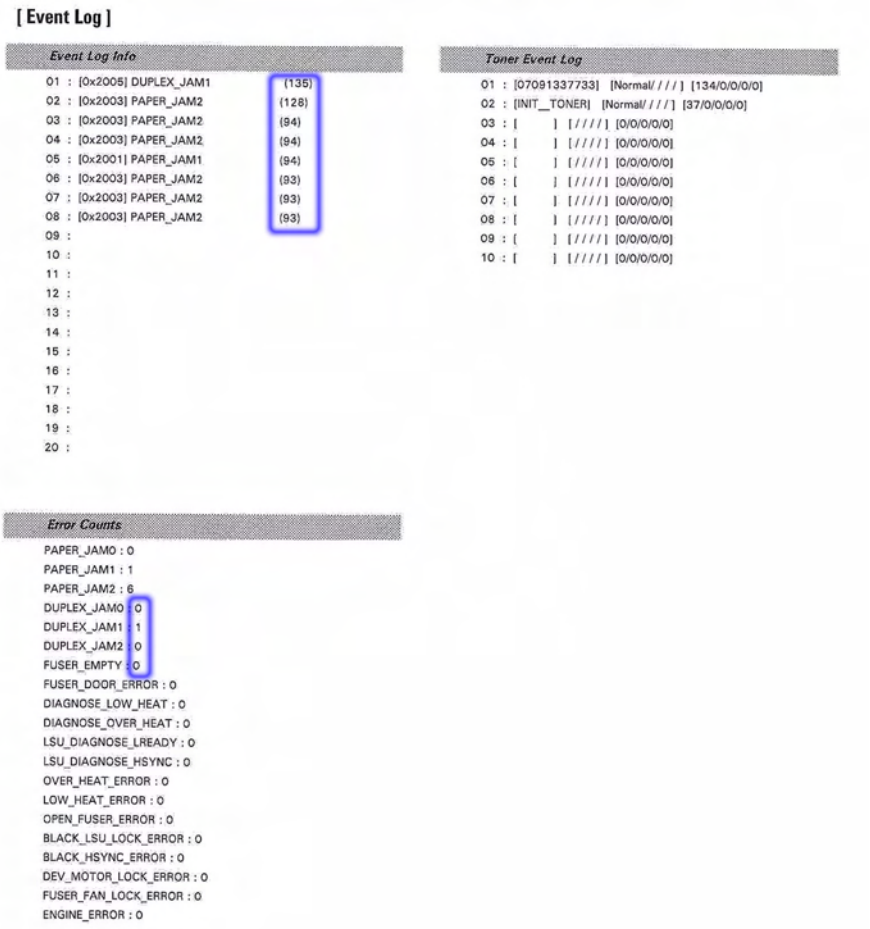
Event Log

The user can print the Event Log on A size paper from the default tray. The Event Log contains:

- Event Log Info
- Toner Event Log
- Error Counts

Detailed information on the Event Log Info and Error Counts include:

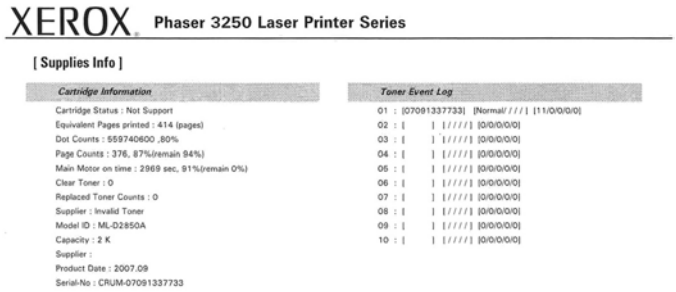
- Event Log Info (##): Page number where the error occurs
- Error Counts (#): Number of error per the type of error



Supplies Info

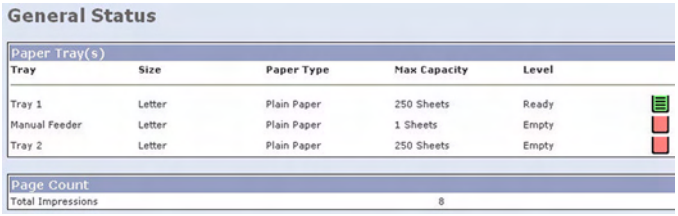
The user can print the Supplies Info page on A-size paper from the default tray. The Supplies Info page contains:

- Cartridge Information: Cartridge Status, Equivalent Pages Printed, Dot Counts, Page Counts, Main Motor On Time, Clear Toner, Replaced Toner Counts, Model ID, Capacity, Supplier, Product Date, Serial Number
- Toner Event Log



Page Count

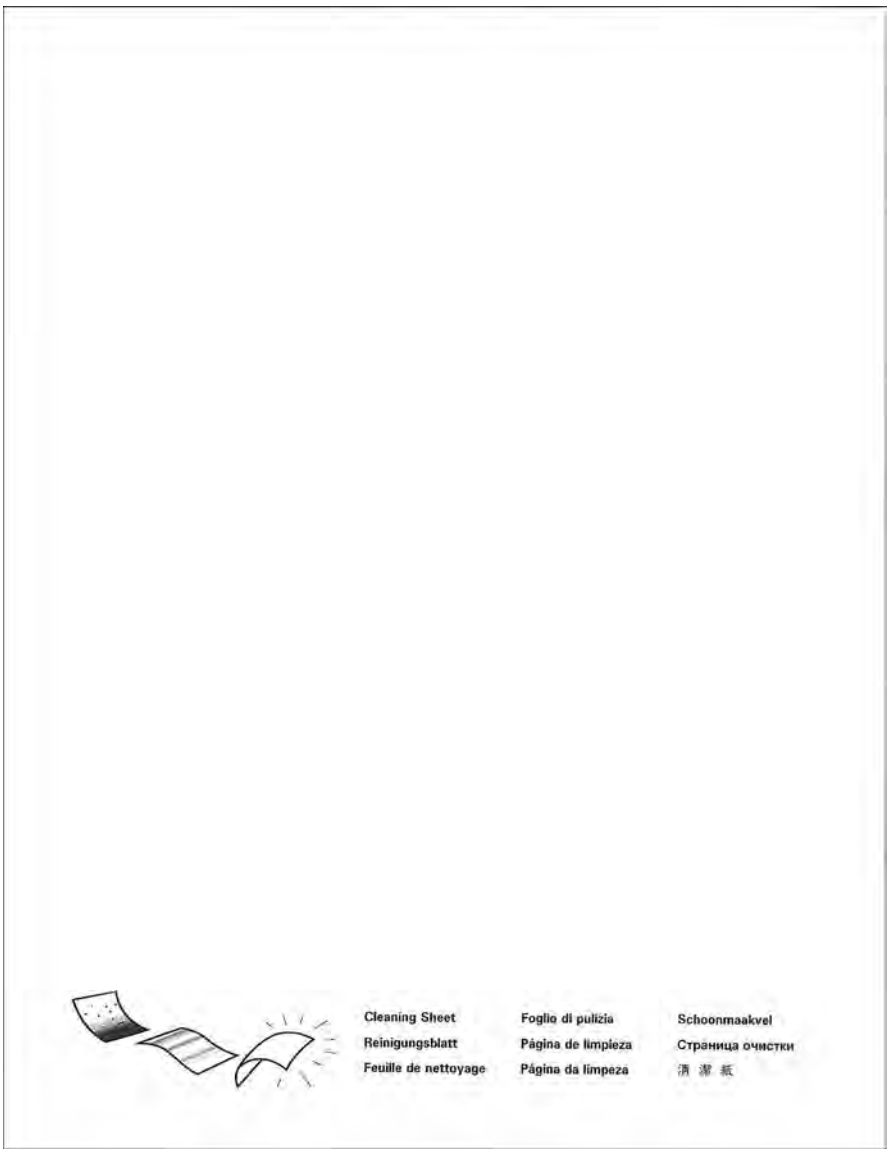
Page Count information is available through CentreWare IS.



Print Cleaning Page

The Print Cleaning page is printed when a Cleaning procedure is performed. There are two methods for printing the Print Cartridge Cleaning page.

- Control Panel Method - refer to “Control Panel Method” on page 1-27 (Chapter 1, General Information).
- CentreWare IS Method - refer to “Printing the Print Cleaning Page” on page 7-5 (Chapter 7, Cleaning and Maintenance).



PCL Font List

The user can print the PCL Fonts List on A-size paper from the default tray. The PCL Font List contains:

- Font Number, Font Name, Pitch/Point, Escape Sequence

PS Font List

The user can print the PostScript Font List on A-size paper from the default tray.

Theory of Operation

In this chapter...

- Phaser 3250 Operational Overview
- Paper Path of the Printer
- Major Assemblies and Functions
- Electrical Components

Chapter 2

Phaser 3250 Operational Overview

The Phaser 3250 is a monochrome laser printer that uses Laser Scanner Unit (LSU) with an electrophotographic process. The printer system consists of one print cartridge which creates toner image.

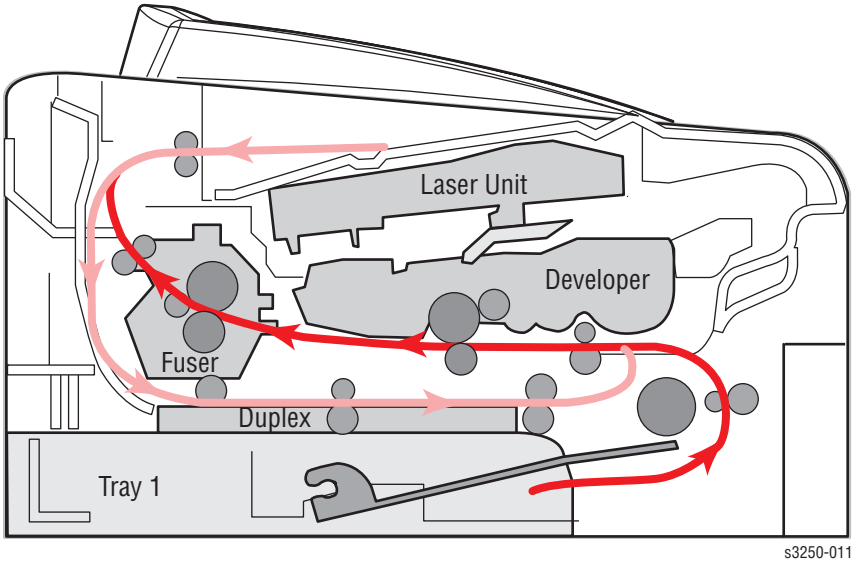
System Overview

The Phaser 3250 Laser Printer consists of the Feeding Mechanism, Drive Assembly, Transfer Roller, Fuser, Laser Unit, Control Panel, and Printer Controller.

- **Feeding Mechanism:** The Feeding mechanism consists of the Manual Feeder, Tray 1, Tray 2, Pick-Up Roller, Tray Holder Pad, and Feed Rollers. The rollers and sensors in the paper feed path control paper registration and guide the paper through the image transfer, image development, image fusing, and exit assemblies.
- **Drive Assembly:** The Drive Assembly receives power from the Main Controller Board, The Main Motor provides drive energy to the paper feed, Toner Cartridge, Fuser, Pick-Up Roller, Feed Rollers, and Duplex Unit. The Drive Assembly consists of a Main Motor.
  - Main Motor: DC 24V
  - Rated RPM: 2170 rpm
- **Transfer Roller:** The Transfer Roller transfers toner on an Organic Photo Conductor (OPC) to the paper.
- **Fuser:** The Fuser consists of a Heat Lamp, Heat Roller, Pressure Roller, Thermistor, and Thermostat. The Fuser applies toner on to paper using heat and pressure.
- **Laser Unit:** The Laser Unit is an exposure unit that generates laser beams to form electrostatic latent image on the drum surface.
- **Control Panel:** The Control Panel displays LED status of the printer.
- **Printer Controller:** The Printer Controller controls the total system of the machine. The Printer Controller processes and stores images from the Print Engine, printer I/F, and controls the panel.

Paper Path of the Printer

The media is supplied from the Manual Feeder, Tray 1, or Tray 2, and is transported through the printer as shown.



Paper Feeding

Paper feeding consists of the Manual Feeder, Tray 1, Tray 2, Duplex Unit, and components relating to paper transferring. The Rollers and Sensors in the paper feed path control paper registration and guide the paper through the image transfer, image development, image fusing, and exit assemblies. The paper path has an anti-static connection to ground to eliminate problems due to static charge on the paper.

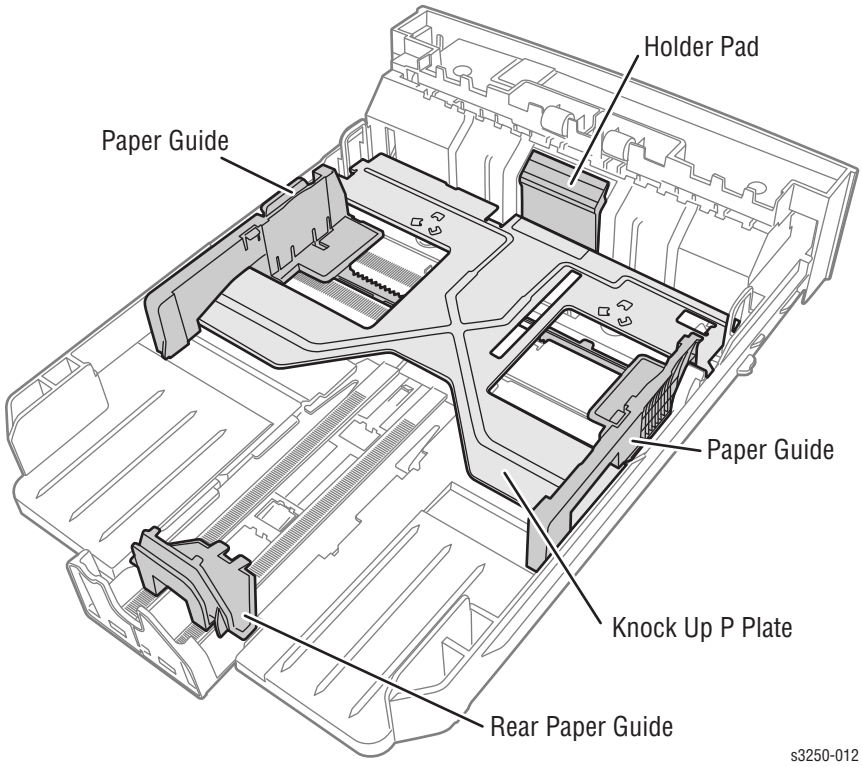
Separation Method

Individual sheets are separated from the Friction Pad in the tray. When paper feeds into the printer, it passes over a spring loaded Friction Pad that separates the sheets of paper.

Paper Tray

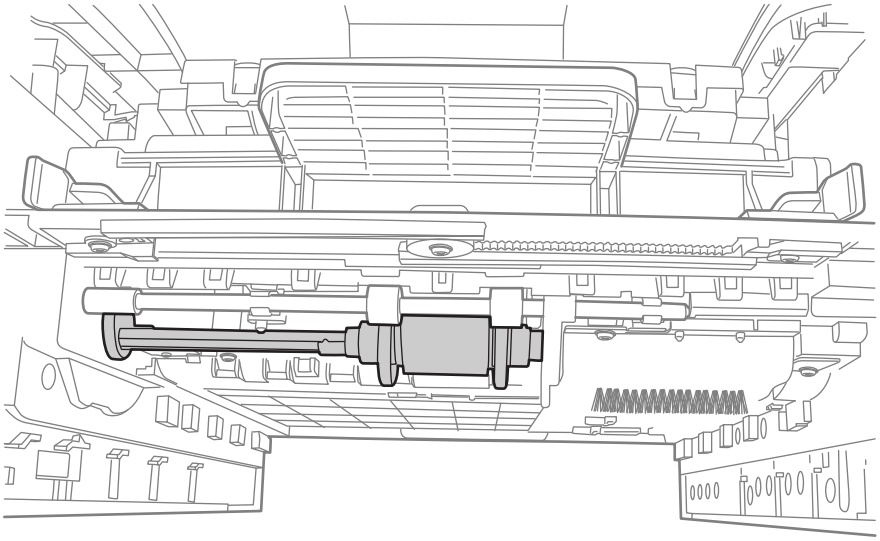
The paper tray uses a “center loading” method. The paper tray has Side and Rear Guides which can be adjusted for various paper sizes. A paper level indicator, located in front of Tray 1 and Tray 2, indicates the amount of remaining paper.

The paper tray also has a paper detecting functions which includes Existence Sensing function, Paper Arranging function, Various Size Papers Accepting function, Tray 2 Paper Path function, and Displaying Remaining of Paper function.



Pick-Up Roller

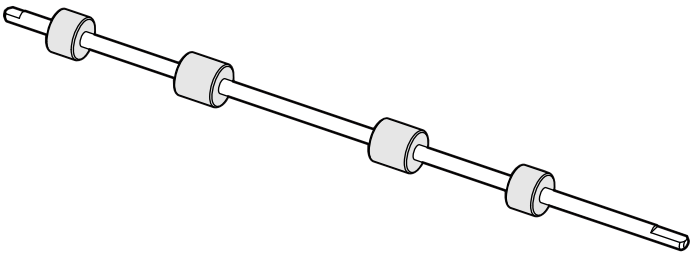
The Pick-Up Roller is used to pick up and feed paper into the printer and remove static charge on the paper.



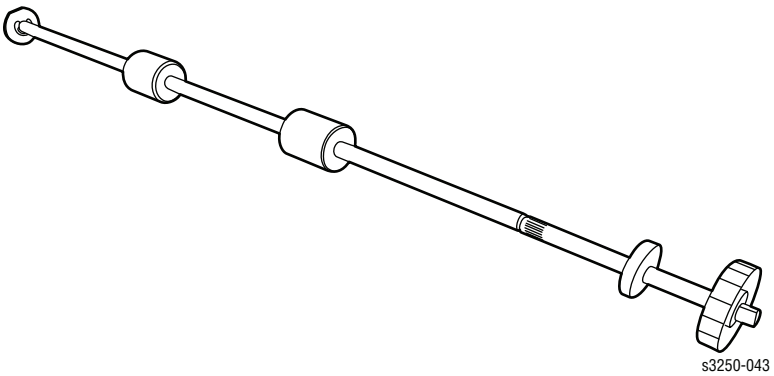
Feed Roller (Registration)

The Feed Roller arranges paper, transfers paper, detects paper, and removes jam.

Feed Roller (top area of the printer)

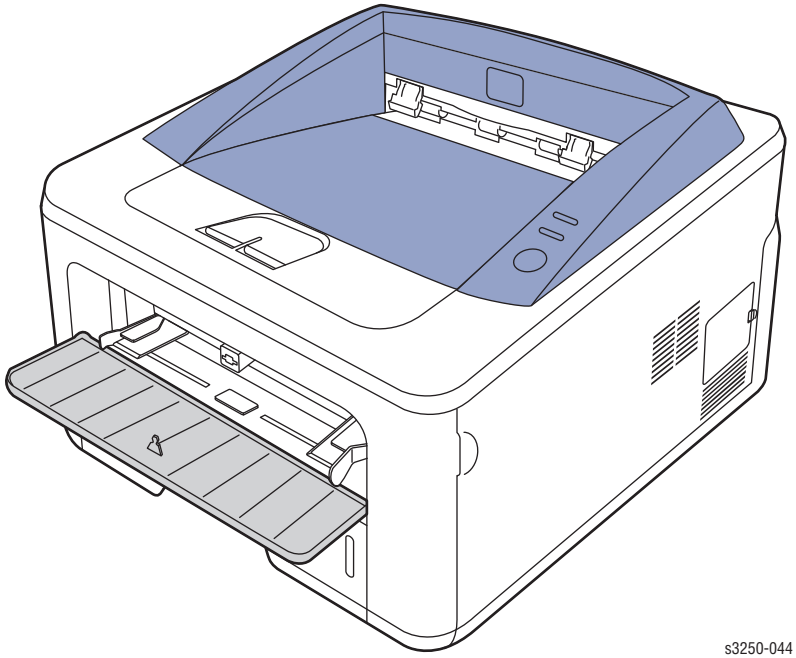


Feed Roller (bottom area of the printer)



Manual Feeder

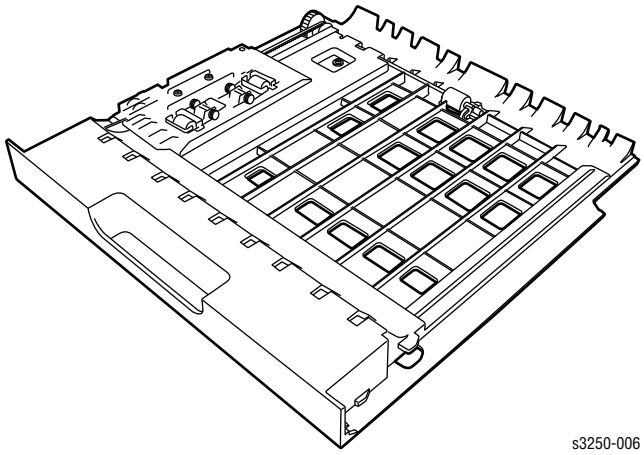
The Manual Feeder is used to hold non-standard or custom paper sizes and special media (envelopes, transparencies, etc.). The Manual Feeder uses a friction pad method to ensure paper is separated and can only hold 1 sheet of paper.



s3250-044

Duplex Unit

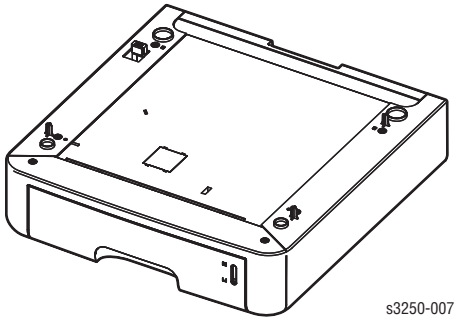
The Duplex Unit can be installed without using any tools. The Duplex Unit uses a side feeding method. When a jam occurred in the front or rear part of the printer, the Duplex Unit can be removed to access the jam area.



s3250-006

Tray 2 (Optional Tray)

The Optional Tray 2 is universal with Tray 1 and has a capacity of 250 sheets. Tray 2 has a separate driving mechanism.

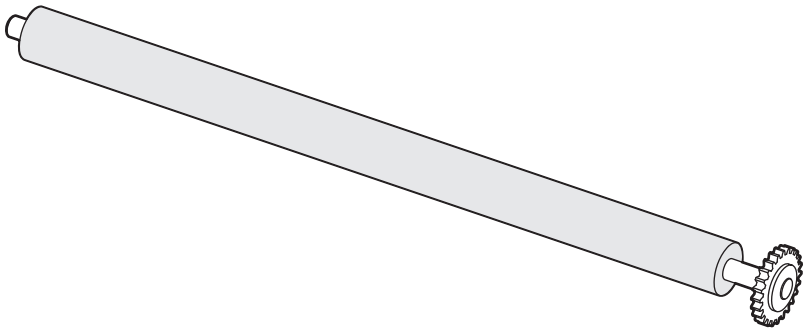


s3250-007

Major Assemblies and Functions

Transfer Roller

The Transfer Roller transfers toner on an Organic Photo Conductor (OPC) to the paper.

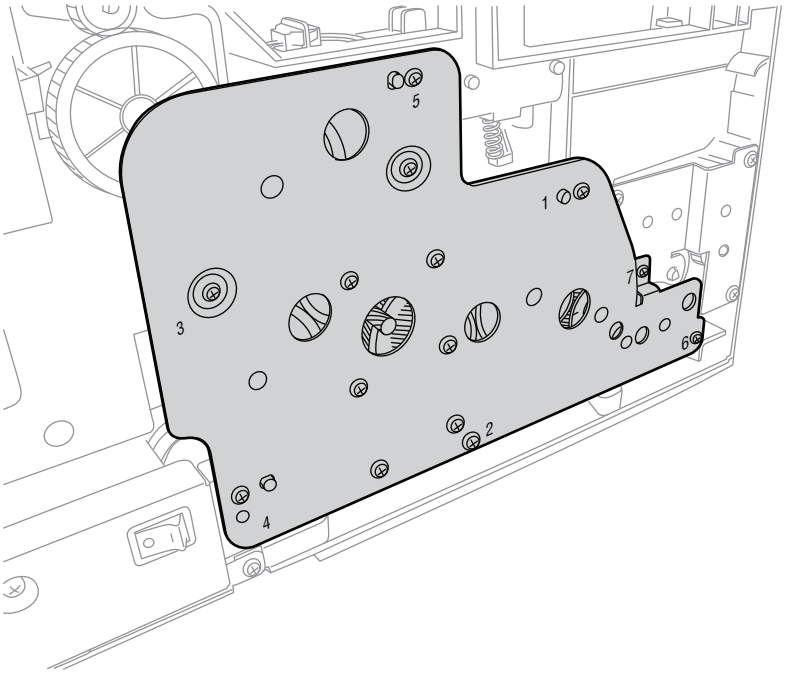


s3250-045

Drive Assembly

The Drive Assembly receives power from the Main Controller Board, The Main Motor provides drive energy to the paper feed, Toner Cartridge, Fuser, Pick-Up Roller, Feed Rollers, and Duplex Unit. The Drive Assembly consists of a Main Motor.

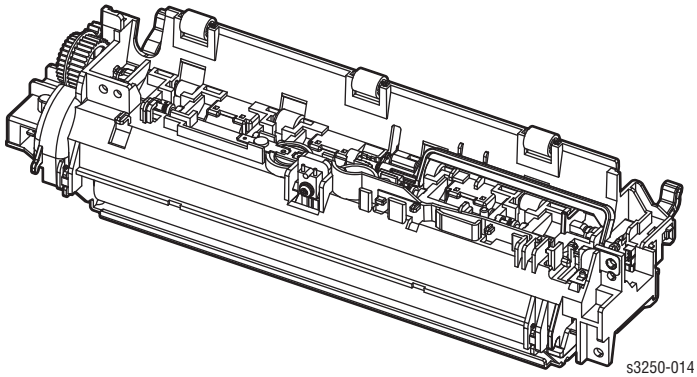
- Main Motor: DC 24V
- Rated RPM: 2170 rpm



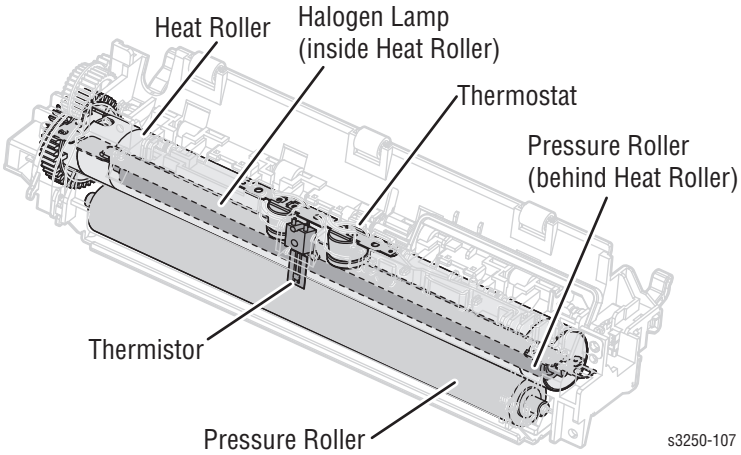
s3250-072

Fuser

The Fuser uses a heat lamp process. The Fuser consists of a Halogen Lamp, Heat Roller, 2 Pressure Rollers, Thermistor, and Thermostat. Toner is melted to adhere to the paper surface by heat and pressure process.



Fuser Components



Halogen Lamp

- Voltage
  - 120V: 115 ±5%
  - 220V: 230 ±5%
- Capacity: 750 Watt ±25 W
- Temperature Distribution: 120%

Thermistor (Temperature Detecting Sensor)

The Thermistor is used to detect the temperature of the heating unit and feeds this data into the main processor.

Thermostat (Heat Lamp Power Cut-Off)

When the Heat Lamp becomes too hot, the Thermostat cuts off power to the Lamp to prevent from overheating.

Heat Roller

The Heat Roller transfers heat from the Lamp to the paper. As the paper passes between the Heat Roller and Pressure Rollers, the toner is melted and permanently fixed to the paper. The surface of the Heat Roller is coated with Teflon, so that toner does not stick to the surface.

Pressure Roller

The Pressure Roller, mounted under a Heat Roller, is made of a silicon resin and the surface is also coated with Teflon. When paper passes between the Heat Roller and the Pressure Roller, toner powder is melted and permanently fixed to the surface of the paper.

Safety Features

To Prevent Overheating:

- 1st Protection Device: Hardware cuts off when overheated.
- 2nd Protection Device: Software cuts off when overheated.
- 3rd Protection Device: Thermostat cuts off main power to the Lamp.

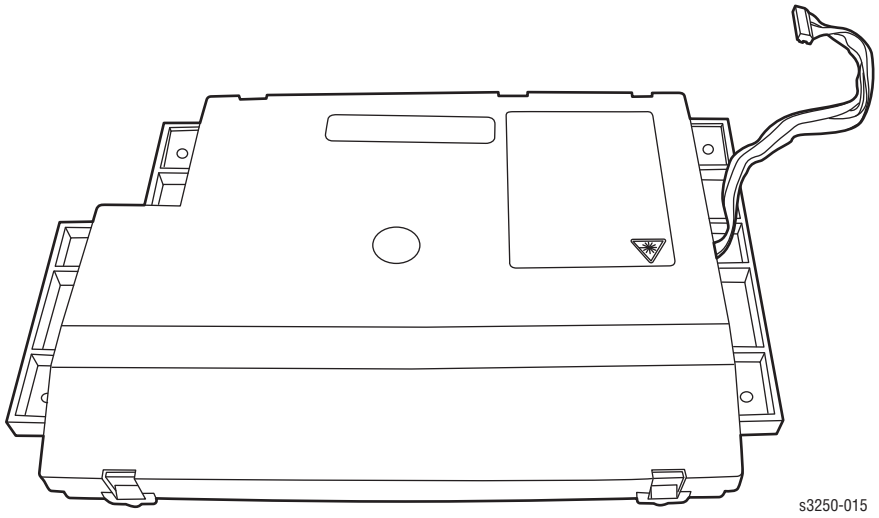
Safety Device:

- Fuser power is cut off when the Front Cover is opened.
- Laser power is cut off when the Front Cover is opened.
- The temperature of the Fuser cover's surface is maintained at less than 80° to protect the user. A Caution label is attached where the customer can easily see when the Rear Cover is opened.

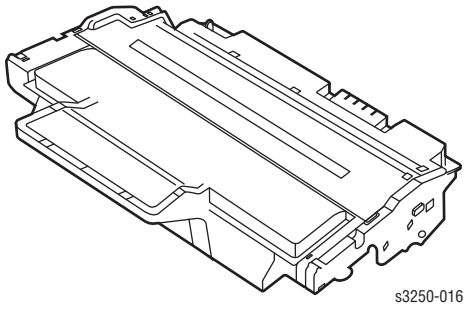
Laser Unit

The Laser Unit is the core part of the Phaser 3250 and is controlled by a video controller. The Laser Unit converts video data received from the computer into an electrostatic latent image on the surface of the OPC Drum. This is achieved by controlling the laser beam and exposing the surface of the OPC Drum to the laser light. A rotating polygon mirror reflects the laser light onto the OPC. Each face of the mirror produces one scan line. The OPC Drum rotates at the same as the paper feeding speed. As the OPC Drum turns, the laser scans, which creates the full page image.

The Horizontal Sync (HSYNC) signal is created when the laser beam from the Laser Unit reaches the end of the polygon mirror and this signal is sent to the controller. The controller detects the HSYNC signal to adjust the vertical line of the image on paper. In other words, after the HYSNC signal is detected, the image data is sent to the Laser Unit to adjust the left margin on the paper.

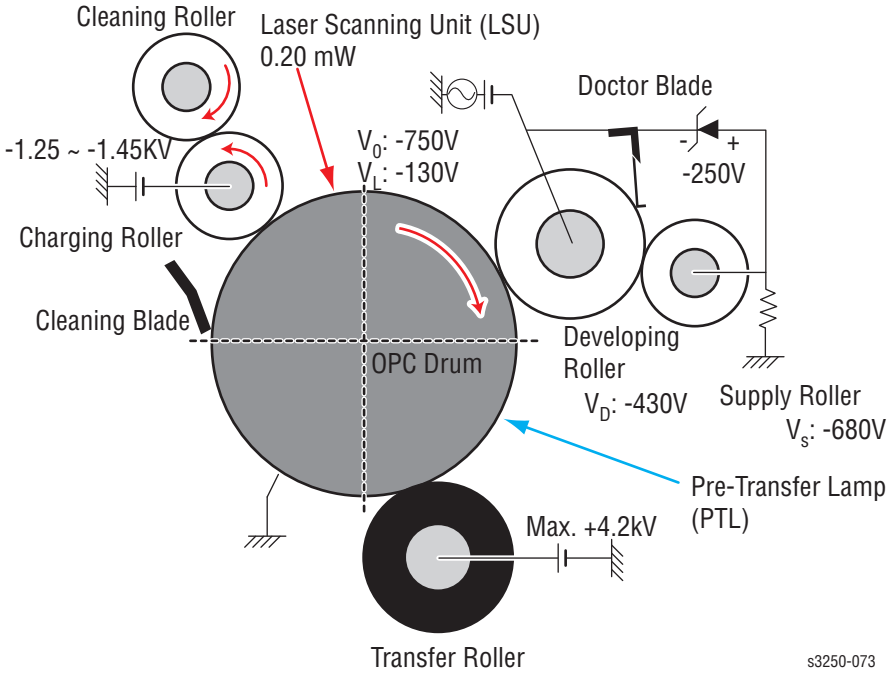


Print Cartridge



The Print Cartridge is an integral unit containing the OPC Unit and toner unit. The OPC Unit consists of the OPC Drum and Charging Roller. The Print Cartridge consists of toner, Toner Cartridge, Supply Roller, Developing Roller, and Blade (Doctor Blade).

- Developing Method: Non-contacting method
- Toner: Non magnetic 1 component pulverized type toner
- Toner Life: 3,500 pages/5,000 pages (ISO19752 standard)
- Toner Remaining Sensor: Yes
- OPC Cleaning: Cleaning blade type
- Management of Waste Toner: Collects toner using the Cleaning Blade.
- OPC Drum Protecting Shutter: No
- Toner CRUM Reader: Identifies whether toner is Xerox branded toner or whether a Non-Xerox toner cartridge is installed in the printer, except for the initial cartridge.

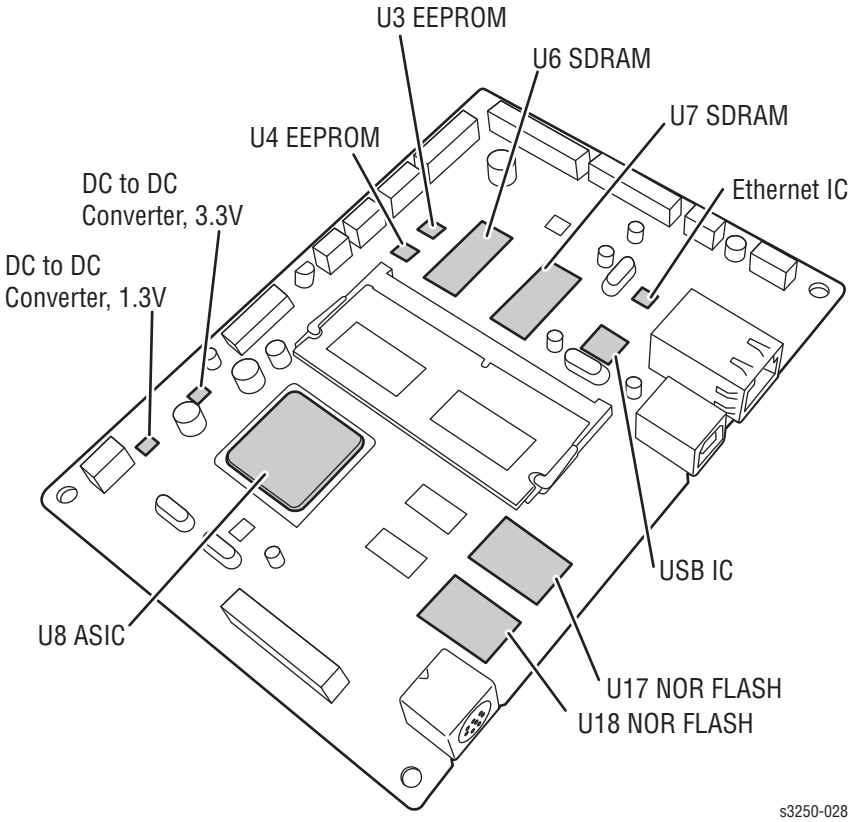


Electrical Components

Main Controller Board

The Engine Board and the Controller Board have been integrated into one Main Controller Board, which consists of the CPU and printer control functions. The CPU functions as the bus control, I/O handling, drivers, and PC interface. The Main Controller Board sends the current image video data to the Laser Unit and manages the electrophotographic printing process. Circuits on the Main Controller Board drive the Main Motor (paper feed), Clutch, Pre-Transfer Lamp, Heat Lamp, and Fan.

The signals from the Paper Feed Jam Sensor and Paper Empty Sensor are inputted to the Main Controller Board.



Asic (SPGPv3)

CPU Core: ARM1020E

- 32KB instruction cache and 32 KB data cache

Operating Frequency

- CPU Core: Over 300 MHz
- System Bus: 100 MHz

SDRAMC

- 32 Bits only, 100 MHz
- 5 Banks (up to 128 MB per Bank)

ROMC

- 4 Banks (up to 16 MB per Bank)

IOC

- 6 Banks (up to 16 per Bank)

DMAC

- 4 channels

HPVC

- Dual/Single Beam
- LVDS Pad (VDO, HSYNC)

UART

- 5 channels (1 channel supports DMA operation)

PCI Controller

- 32 Bits, 33/66 MHz
- PCI Local Bus specification rev2.2 Compliant
- Host/Agent Mode (supports 4 devices in Host mode)

NAND Flash Controller

- 8/16 Bits, H/W EEC Generation
- Auto Boot Mode (using Internal SRAM, 4 KB)

MAC

- 10 M/100 Mbps
- Full IEEE 802.3 compatibility

Engine Controller

- Laser Unit interface
- Step Motor: 2 channels
- PWM: 8 channels
- ADC: 6 channels

I2C Controller

- I2C (S-BUS) Slave Device Support (I2C version 2.1)

RTC

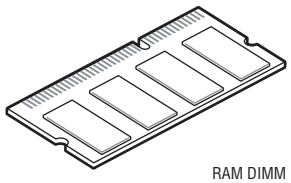
- RTC Core Voltage: 3 V

PLL

- 3 PLL: Main, PCI, PVC

Memory

The Main Controller Board has Flash ROM and DRAM memory units.



RAM DIMM

- **Flash Memory**: Stores System Program and downloads the System Program through PC Interface.
  - Capacity: 16 MB (NOR Flash)
  - Random Access Time: 10 us (max.)
  - Serial Page Access Time: 50 ns (min.)
- **DRAM**: It is used as Swath Buffer, System Working Memory Area, while printing. DRAM also stores Font List, compresses into Flash memory on DRAM, and uses it as PCL font for export based on printer configuration.
  - Capacity: 32 MB (basic), up to 160 MB (factory option)
  - Type: SDRAM 100 MHz/133 MHz, 32 Bit

Sensor Input Circuit

Paper Empty Sensing

The Paper Empty Sensor (Photo Interrupter) on the High-Voltage Power Supply (HVPS) provides the state of paper to the CPU whether the tray is empty or not when the Actuator is in operation. When the tray is empty, the Paper Empty Sensor detects E20 of the CPU and then flashes the red LED on the printer's Control Panel.

Paper Feeding with Print Cartridge Sensing

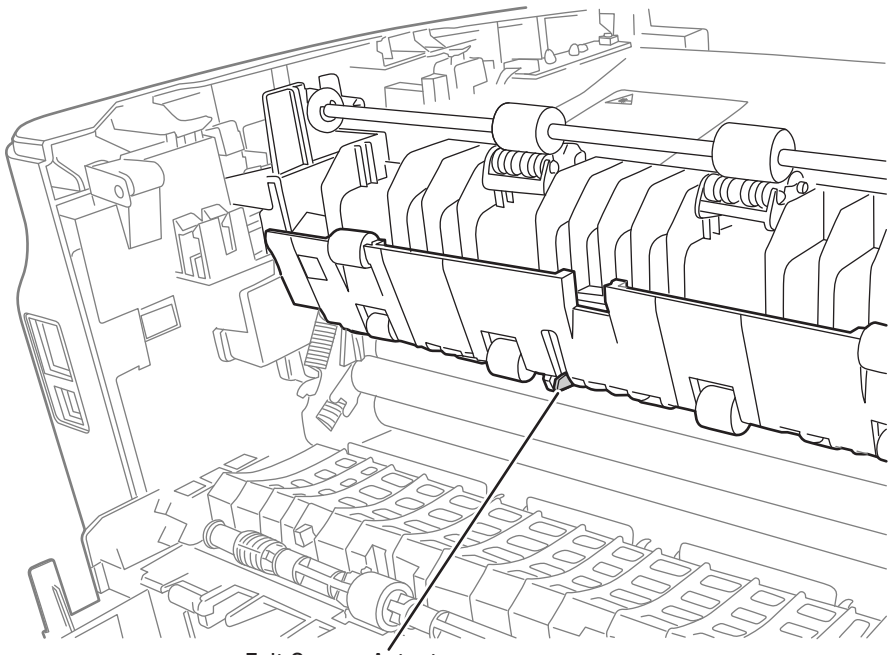
When paper passes the Actuator on the Feed Sensor, it detects the signal of the Photo Interrupter, sends the paper feeding state to the CPU, and starts creating the image after a specified delay time.

If the Feed Sensor is not detected within one second after paper is fed, a paper Jam0 occurs, while the amber LED is lit on the printer's Control Panel.

After the Print Cartridge is installed, the sub CRUM reads the data of the Print Cartridge from contacting with the CRUM involved in the Print Cartridge. If the data of the Print Cartridge is invalid, the red LED is lit on the printer's Control Panel.

Paper Exit Sensing

This detects that paper exits cleanly from the printer using an Exit Sensor on the HVPS and Actuator on the printer frame. Paper detects the On/Off time of the Exit Sensor by reading D22 of the CPU, and the normal operation or a jam status is reported. If a Jam2 error occurs, the amber LED is lit on the printer's Control Panel.



Front Cover Open Sensing

The Front Cover Sensor is located on the HVPS. When the Front Cover is open, +24 V that is supplied to the DC Fan, Solenoid, Main Motor, Polygon Motor in the Laser Unit, HVPS, and Laser Diode are cut off. When the Front Cover is open, the red LED is lit on the printer's Control Panel.

DC Fan/Solenoid Driving

It is driven by transistor and controlled by the Main Fan (D14), Duplex Fan (E16), Pick-Up Clutch (C23), Regi Clutch (C18), and the Manual Feeder Clutch (D15) of the CPU.

When it is high, the Transistor turns On and drives the Fan, and it is Off when Sleep mode is selected. There are three Solenoids, and they are driven by paper Pick-Up, Regi, and Manual Feeder signals. It is turned On or Off by C23, C18, and D15 of the CPU.

The diode protects the driving Transistor from the noise pulse, which is created when the Solenoid is de-energizing.

The Fan Driving Circuit is driven by the Transistor and controls D14 and E16 of the CPU.

Motor Driving Circuit

The main motor driving circuits are located on the Brush-less Direct Current (BLDC) Motor Assembly. The Motor Assembly Control Board contains a Motor Driver IC.

The Exit Motor Driving Circuit is formed when the driver IC is selected. The AN44060A Motor Driver IC is used in this case. The resistance Rs value for sensing and voltage value for the V reference can be changed by motor driving voltage value. The motor driving voltage is calculated with the following formula:

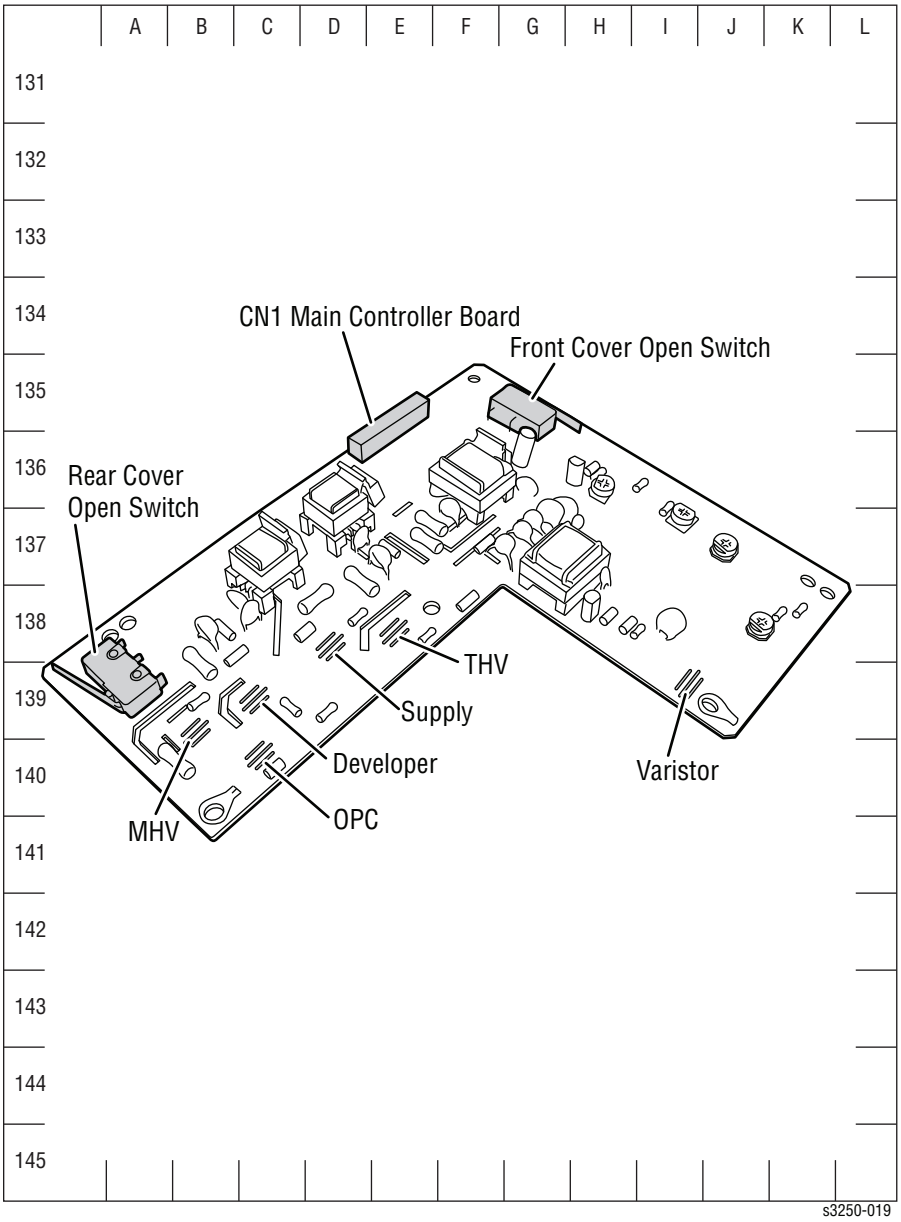
IN 0, 2	IN 1, 3	Output Current
L	L	Vref / (10*Rs) = Iout
H	L	Vref / (15*Rs) = Iout * 2/3
L	H	Vref / (30*Rs) = Iout *1/3
H	H	0

The motor driving circuit is formed when the driver IC is selected. The A3977 Motor Driver IC is used in this case. The resistance Rs value for sensing and voltage value for the V reference can be changed by the motor driving voltage value.

- I = Vref / Rs, wherein Vref is (R1 x 5V) / (R1+R2)

High-Voltage Power Supply (HVPS)

The HVPS uses 24 V and outputs high voltage for the THV/MHV/BIAS and the outputted high voltage is supplied to the toner, OPC Cartridge, and Transfer Roller.



Transfer High Voltage (THV+)

The (+) Transfer High Voltage is supplied to the Transfer Roller for transferring toner onto the OPC Drum to the paper.

- Input Voltage: 24 VDC ±15%
- Output Voltage:
  - MAX +5.0KV ±5% (duty variable, no loading)
  - -1.2KV ±15% (when cleaning, 200 M Ω)
- Output Voltage Trigger: 6.5 uA
- Input Contrast of the Voltage Stability Degree: Under ±3% (fluctuating input 21.6 V ~ 26.4 V0
  - Loading Contrast: ±5% or less
- Output Voltage Rising Time: 50 ms Max
- Output Voltage Falling Time: 100 ms Max
- Fluctuating Transfer Voltage with Environmental Various: 0 ~ 5 KV
- **Environment Recognition Control Method**: The THV-PWM ACTIVE is transfer active signal. It detects the resistance by recognizing the voltage value, F/B, while permits the environmental recognition voltage.
- **Output Voltage Control Method**: Transfer Output Voltage is outputted and controlled by changing Duty of THV/PWM signal.

Charge Voltage (MHV)

The High Voltage is supplied to the OPC Drum through the Charging Roller while charging the skin of the OPC Drum.

- Input Voltage: 24 VDC ±15%
- Output Voltage: -1.0 KV ~ -1.8 VDC ±3%
- Output Voltage Riding Time: 50 ms Max
- Output Voltage Failing Time: 50 ms Max
- Output Loading Range: 30 M Ω ~ 1000 M Ω
- Output Control Signal (MHV-PWM): CPU is HV output when PWM is Low.

Cleaning Voltage (THV-)

The (-) Transfer High Voltage is supplied to the Transfer Roller to remove the remaining toner from the OPC Drum.

- The (+) Transfer Voltage is not outputted because the THV PWM is controlled with high.
- The (-) Transfer Voltage is outputted because the THF-Enable Signal is controlled with low.
- The output fluctuation range is large because there is no feedback control.

Developing Voltage (DEV)

The Developing Voltage is supplied to the Developer Roller to transfer to the toner to the charge on the OPC Drum scanned by the laser beam while printing the image. The engine controls whether the high voltage is supplied and its quantity.

- Input Voltage: 24 VDC ± 15%
- Output Voltage: -200 V ~ 600 V DC ± 3%
- Output Voltage Fluctuation Range: PWM Control
- Input Contrast of the Output Stability Degree: ± 3% or less

  Loading Contrast: ± 3% or less
- Output Voltage Rising Time: 50 ms Max
- Output Voltage Failing Time: 50 ms Max
- Output Loading Range: 10 M Ω ~ 1000 M Ω
- Output Control Signal (BIAS-PWM): The CPU output is HV output when PWM is low.

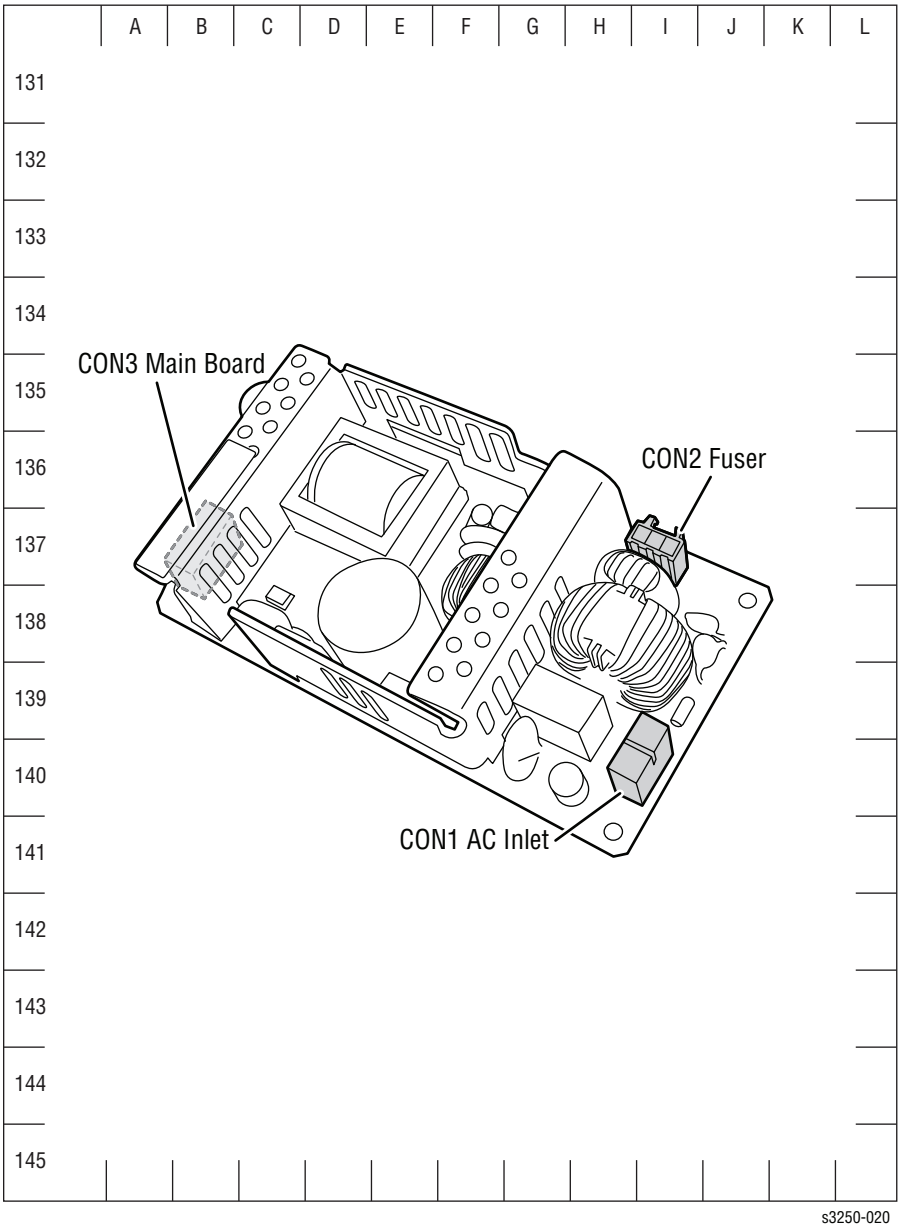
Supply

- Output Voltage: -400 C ~ 800 VDC ± 50 V (ZENER using, DEV)
- Input Contrast of the Output Stability Degree: Under ± 5%
  - Loading Contrast: ± 5% or less
- Output Voltage Rising Time: 50 ms Max
- Output Voltage Failing Time: 50 ms Max
- Output Loading Range: 10 M Ω ~ 1000 M Ω
- Output Control Signal (BIAS-PWM): The CPU is HV output when PWM is low.

Low-Voltage Power Supply (LVPS) (SMPS)

The LVPS is the power source for the entire printer system. The LVPS supplies DC power for driving the printer, and the AC heater control, which supplies power to the Fuser.

The LVPS has two output channels: +5.0 V and +24 V.



AC Input

- Input Rated Voltage:
  - AC 220 V~240 V
  - AC 110 V~127 V
- Input Voltage Fluctuation Range:
  - AC 198 V~264 V
  - AC 99 V~135 V
- Rated Frequency Fluctuating Range: 47~63 Hz
- Input Current: Under 4.0 Arms/2.0 Arms (when the e-coil is Off or rated voltage is inputted/outputted)

Rated Output Power

No.	Item	CH1	CH2	Remark
1	CHANNEL NAME	+5.0 V	+24.0 V	
2	CONNECTOR PIN	CON 35V PIN: 11, 13, 15 GND PIN: 12, 14, 16	CON 324V PIN: 3, 5, 7, 9 GND PIN: 4, 6, 8, 10	
3	Rated Output	+5 V ± 5% (4.75~5.25 V)	+24 V ± 10% (21.6~26.4 V)	
4	Max. Output Current	3 A	4.4 A	
5	Peak Loading Current	3.6 A	5.3 A	1ms
6	RIPPLE NOISE Voltage	100mVp-p	Under 500mVp-p	
7	Maximum Output	15 W	105.6 W	
8	Peak Output	18 W	127.2 W	1ms
9	Protection for Loading Shortage and Overflowing Current	Shut down or Fuse Protection	Shut down or Output Voltage Drop	

Power Consumption

No.	Item	System
1	Standby	Less than 70 W
2	Printing	Less than 550 W
3	Sleep Mode	Less than 11 W

- Length of Power Cord: 1830 ± 50 mm (72.0 ± 1.9 in.)
- Power Switch: Use
- Feature:
  - Insulating Resistance: 100 M Ω or more (at DC 500 V)
  - Withstanding Voltage: Must be no problem within 1 min.

    (at 1000V-LV model/1500Vac-HV model, 10 mA)
  - Leaking Current: Under 3.5 mA
  - Running Current:

    * Under 40 A PEAK (at 25° C, COLD START)

    * Under 60 A PEAK (in other conditions)
  - Rising Time: Within 2 Sec.
  - Falling Tine: Over 20 ms
  - Surge: Bi-Wave 3kV - Normal, 6kV - Common

Fuser AC Power Control

The Fuser receives heat from AC power, which controls the switch with the Triac, a semiconductor switch. The On/Off control is operated when the gate of the Triac is turned On/Off by Phototriac (insulting part). In other words, the AC control part is passive circuit, so it turns the heater On/Off while retrieving signal from the engine control part.

When the Heater On signal is turned On at the print engine, the LED of PC501 (Photo Triac) measures the voltage and flashes. From the flashing light, the Triac part (light receiving part) measures the voltage, and the voltage is supplied to the gate of Triac and flows into the Triac. As the result, the AC current flows in the Lamp, and heat is generated.

On the other hand, when the signal is Off, the PC501 is Off, the Triac is cut off at the gate of Triac. When the Triac turns Off, the Lamp is turned Off.

- Triac (Q501) Feature: 24A-LV model/16A-HV model, 600 V Switching
- Phototriac Coupler (PC501)
  - Turn On if Current: 15 mA~50 mA (Design: 16 mA)
  - High Repetitive Peak Off State Voltage: Min 600 V

Engine F/W

Control Algorithm

Feeding

When feeding from a paper tray, the drive of the Pick-Up Roller is controlled by the Solenoid.

The printer feeds the paper from the Manual Feeder according to information provided by the Manual Feed Sensor, and by driving the Main Motor, insert the paper in front of the Feed Sensor.

Different types of Jam are provided in the following table:

Jam Errors

Item	Description
JAM 0	This is an indication that the leading edge of the paper did not pass the Feed Sensor. ■ After paper pick, paper does not enter the printer. ■ After paper pick, paper enters the printer, but does not reach the Feed Sensor in the specified time. ■ If paper has been picked, and the Feed Sensor is not On, the printer will re-pick. If after re-picking, the Feed Sensor is still not reported as On, this error will occur. This is an indication that the leading edge of the paper already passed the Feed Sensor. ■ Even though paper reaches the Feed Sensor, the Feed Sensor is not On.
JAM 1	This is an indication that the paper is between the Feed Sensor and the Exit Sensor. ■ After the leading edge of the paper passes the Feed Sensor, the trailing edge of the paper cannot pass the Feed Sensor in the specified time. (The Feed Sensor cannot be Off.) ■ After the leading edge of the paper passes the Feed Sensor, paper cannot reach the Exit Sensor in the specified time. (The Exit Sensor cannot be Off.)
JAM 2	After the trailing edge of the paper passes the Feed Sensor, paper cannot pass the Exit Sensor in the specified time.
DUPLEX JAM 1	After the trailing edge of the paper passes the Exit Sensor, the leading edge of the paper cannot reach the Regi Sensor in the specified time.
DUPLEX JAM 0	After the leading edge of the paper passes the Regi Sensor, the leading edge of the paper cannot reach the Feed Sensor in the specified time.

Driver

The Main Motor drives the Feed Roller, Developing Roller, and Exit Roller. The BLDC Motor controls acceleration and steadiness of the Rollers. The BLDC Motor is operated by the BLDC Clock and enable signal.

Transfer

The charging voltage, developing voltage, and transfer voltage are controlled by Pulse Width Modulation (PWM). Each output voltage is changeable due to the PWM duty cycle. The transfer voltage is used when the paper passes the Transfer Roller is decided by environmental recognition. The resistance value of the Transfer Roller changes due to the surrounding environment or the printer, or the voltage value. This change in resistance in turn changes the value of the voltage due to loading. This voltage is fed back into the printer through the A/D Converter. Based on the value fed back, the PWM cycle is changed to maintain the required transfer voltage.

Fusing

The temperature change of the Heat Roller's surface is detected according to the value of the Thermistor. The Thermistor resistance is measured using the A/D Converter and thus the CPU can determine the temperature of the Heat Roller. AC power is controlled by comparing the target temperature to the value from the Thermistor. If the value from the Thermistor is out of the controlled range while controlling the fusing process, an error is reported.

Lamp Method

Error	Description	LED Display
Open Heat Error	When the engine operates at the warm-up state, the temperature of the fixing unit is not higher than a specified temperature. When the error occurs, the engine stops all functions and keeps it at error state. ■ Lower than 90° C for more than 10 seconds while warming up. ■ When the engine operates warm-up process, if the temperature of the fixing unit is not higher than a specified temperature.	All LEDs blinking.

Lamp Method

Error	Description	LED Display
Low Heat Error	When the engine is at Standby, Printing, or Warm-Up mode, if the temperature of the fixing unit is lower than the specified temperature at each state and the lower temperature state is maintaining during a specified time. When the error occurs, the engine stops all functions and keeps it at error state. **Standby** ■ Lower than -20° C for more than 10 seconds. **Printing** ■ Lower than -20° C for more than 10 seconds. **Warm-Up End** ■ Lower than -10° C for more than 10 seconds.	All LEDs blinking.
Over Heat Error	For overall engine state, if the temperature of the fixing unit is higher than the specified temperature and the temperature state is kept during a specified time. When the error occurs, the engine stops all functions and keeps it at error state. ■ It has been higher than 220° C for more than 20 seconds. ■ It has been higher than 230° C for more than 3 seconds. ■ It has been higher than 10° C for more than 180 seconds.	All LEDs blinking.

Recovering from Heat Error

Heat error is automatically recovered when the error is only caused by Low Heat Error, and not the Heat Errors in Warm-Up state and the Over Heat Error.

When an error occurs, the engine memorizes the present temperature.

In case of Low Heat Error, the maximum heat is supplied to the fixing unit. When a specified time is elapsed, the engine detects the temperature again. If the present temperature is higher than the memorized temperature, the error is recovered.

In case of Over Heat Error, no heat is supplied to the fixing unit. When a specified time is elapsed, the engine detects a present temperature again. If the present temperature is a specified degree lower than the memorized temperature, the error is recovered.

Laser Scanner Unit

The Laser Scanner Unit (LSU) receives image data from the PVC or HPVC and make latent image on the OPC surface. The LSU uses dual beam system, LD1 and LD2. The control method of the two beams are the same. In comparison with a single beam system, dual beam contains half of the LSU's frequency.

The LSU consists of laser diode (LD) and the polygon motor control. When the printing signal occurs, the laser diode is turned On and the polygon motor is enabled. When the light sensor detects the beam, H-SYNC occurs. When the polygon motor speed becomes steady, Ready mode occurs. If these two conditions are satisfied, the Laser Unit is ready. If the two conditions are not satisfied, one of the two errors are reported as shown in the table below:

Error	Description
Polygon Motor Error (LReady)	■ When the polygon motor speed is not steady. ■ When printing is started, the engine drives the Polygon Motor of the LSU. After a specified time is elapsed, if the motor is not at a Ready status, the engine detects the error that the Polygon Motor is not Ready.
H-SYNC Error	■ The Polygon Motor speed is steady, but the H-SYNC is not generated. ■ When the Polygon Motor is Ready, the LSU sends out the signal called H-SYNC and used to synchronize with each image line. If the engine does not detect the signal consecutively for a fixed time, H-SYNC error occurs. When this error occurs, the engine stops all functions and keeps it at error state. Red error LED is lit when error occurs.

LSU Error Recovery

When LReady or H-SYNC error occurs, paper exits from the printer. The engine mode is changed to recovery mode and the engine checks the LSU error. When the error stops, print job will continue.

Error Messages and Codes

In this chapter...

Chapter 3

Introduction

This chapter describes error messages listed on the Error History page. These error indications serve as the entry point into the troubleshooting process.

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

The printer tracks and reports errors on the Error History Report including Engine (fatal) and Jam Error logs (refer to “Error Message Summary” on page 3-6)

Accessing the Event Log

Note

For detailed information on how to print various embedded pages, refer to “Reports and Information Pages” on page 1-26, Chapter 1, General Information.

1. From the Control Panel, press and hold the **Start/Stop** button for approximately 15 seconds and release the **Start/Stop** button.
2. The **Event Log** is printed.

Embedded Pages	*Demo Page*	*Configuration Page and Menu Map*	*Print Cleaning Page*	*Event Log and Supplies Information*
Blinking Rate	Slowly	Quickly	Slowly	Quickly
Approx. Release Time	2 seconds	5 seconds	10 seconds	15 seconds
	For Customer (in the User Guide)		Only for Service Technician (in the Service Manual)	

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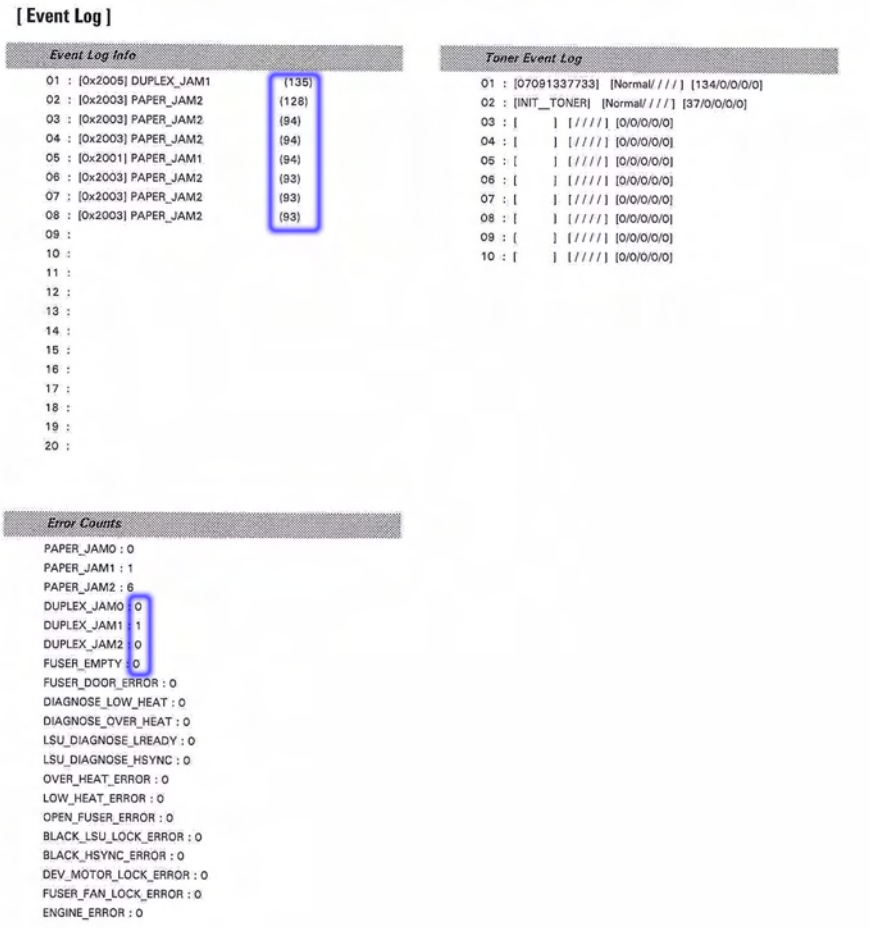
Event Log

The Event Log provides a list of error messages relating to Jam errors and System (fatal) errors.

Information on the Event Log includes: Event Log Info, Error Counts, and Toner Event Log.

- Event Log Info (##): Page number where the error occurs
- Error Counts (#): Number of error per the type of error



Servicing Instructions

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

Step 1: Identify the Problem

1. Verify the reported problem does exist.
2. Check for any error codes and write them down.
3. Print normal customer prints and service test prints.
4. Make note of any print-quality problems in the test prints.
5. Make note of any mechanical or electrical abnormalities present.
6. Make note of any unusual noise or smell coming from the printer.
7. View the System Error and Paper Jam Error on the Event Log.
8. Verify the AC input power supply is within proper specifications by measuring the voltage at the electric outlet while the printer is running.

Step 2: Inspect and Clean the Printer

1. Turn the printer power Off.
2. Disconnect the AC power cord from the wall outlet.
3. Verify the power cord is free from damage or short circuit and is connected properly.
4. Remove the Print Cartridge and protect it from light.
5. Remove the Transfer Roller.
6. Inspect the printer interior and remove any debris such as paper clips, staples, pieces of paper, dust, or loose toner.
7. Do not use solvents or chemical cleaners to clean the printer interior.
8. Do not use any type of oil or lubricant on the printer parts.
9. Use only an approved toner vacuum.
10. Clean all rubber rollers with a lint-free cloth, dampened slightly with cold water and mild detergent.
11. Inspect the interior of the printer for damaged wires, loose connections, toner leakage, and damaged or obviously worn parts.
12. If the Print Cartridge appears damaged, replace with 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 Service Diagnostics to check the printer and optional components.
3. Use the Wiring Diagrams and Plug/Jack Locator to locate test points.
4. Take voltage readings as instructed in the appropriate troubleshooting procedure.

Step 4: Correct the Problem

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

Step 5: Final Checkout

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

Error Messages and Procedures

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

Error Message Abbreviations

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

Term	Definition
DEV	Developer
HSYNC	Horizontal Sync Signal
LSU	Laser Scanner Unit

Error Message Summary

The Error Message Summary table lists possible errors and page reference for the corrective procedure.

- The Description column provides the message relating to the error.
- The Go to Page column references the procedure related to the error.

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

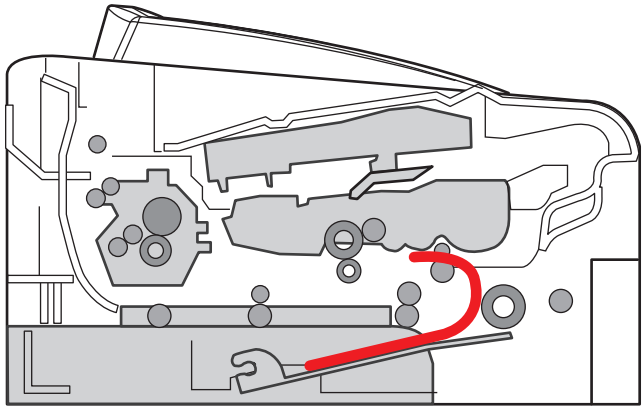
Error Message Display

Description	Go to Page
Jam Errors (page 3-7)	
Paper Jam 0	page 3-7
Paper Jam 1	page 3-9
Paper Jam 2	page 3-11
Jam Duplex	page 3-13
Tray and Paper Errors (page 3-14)	
No Paper Error	page 3-14
Paper Empty without Indication	page 3-15
Multiple Feeding	page 3-16
Wrong Print Position	page 3-17
Consumables/Routine Maintenance Part Errors (page 3-18)	
Fuser Error (Open Fuser Error)	page 3-18
Fuser Error (Low Heat Error)	page 3-18
Paper Rolled in the Fuser	page 3-20
Fuser Gear Does Not Function due to Overheat	page 3-22
Paper Rolled on the OPC Drum	page 3-24
Print Cartridge Not Installed	page 3-26
Motor, Cover, and Laser Errors (page 3-27)	
Defective Motor Operation	page 3-27
Front Cover Open	page 3-28
Fuser Error (Overheat Error)	page 3-18
Laser Unit Not Ready	page 3-29
Laser Unit Not Ready	page 3-29

Jam Errors

Paper Jam 0

Paper is not exiting from the paper tray. Jam 0 has occurred when paper feeds into the printer.



Applicable Error Message

- Paper Jam 0

Initial Actions

- Try picking paper from a different tray.
- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

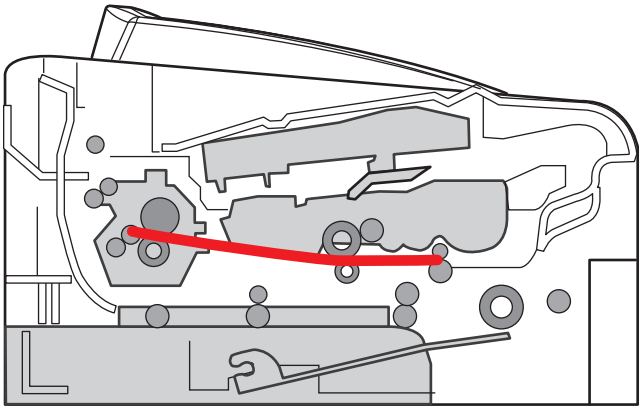
Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ Pick-Up Roller, PL6.1.26 ■ Pick-Up Solenoid, PL6.1.37 ■ Feed Sensor, PL6.1.75 ■ Paper Holder Pad, PL11.1.14	■ Map 1 - Main Controller Board ■ “Map 6 - Main Motor, Interlock Switch, Fans, and Sensors” on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Pick-Up Solenoid for damage. 2. Is the Pick-Up Solenoid damaged?	Replace the Pick-Up Solenoid (page 8-39).	Go to step 2.
2	1. Check the Paper Holder Pad on the paper tray (page 8-8). 2. Is the Paper Holder Pad loose due bad sealing of the side-pad?	Replace the Paper Holder Pad (page 8-8).	Go to step 3.
3	1. Check the surface of the Pick-Up Roller for damage or debris. Wipe the Pick-Up Roller using a damp cloth. 2. Is the Pick-Up Roller damaged?	Replace the Pick-Up Roller (page 8-11).	Go to step 4.
4	1. Check the Feed Sensor for damage. 2. Is the Feed Sensor damaged?	Replace the Feed Sensor (page 8-49).	Replace the Main Controller Board (page 8-62).

Paper Jam 1

There is a paper jam in front of or inside of the Fuser. There is a paper jam stuck between the Transfer Roller and in the Fuser, just after passing the Feed Actuator.



Applicable Error Message

- Paper Jam 1

Initial Actions

- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ LVPS, PL1.1.4 ■ Feed Actuator, PL6.1.72 ■ Fuser, PL9.1.0 ■ Exit Sensor (Photo Interrupter), PL9.1.37	■ Map 1 - Main Controller Board ■ Map 6 - Main Motor, Interlock Switch, Fans, and Sensors ■ Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch

Troubleshooting Procedure Table

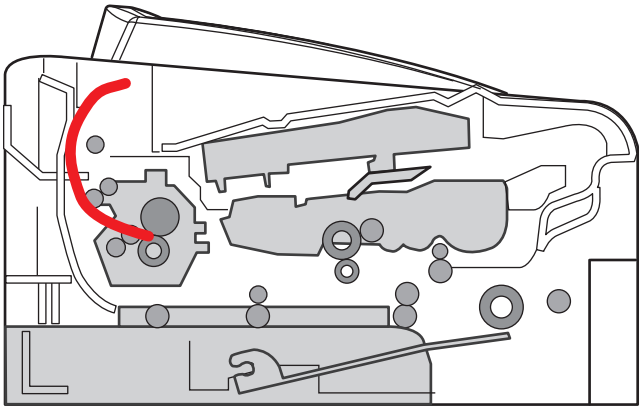
Step	Actions and Questions	Yes	No
1	1. Check the Feed Actuator for correct installation. Reseat the Feed Actuator (page 8-45). 2. Does the error still occur?	Replace the Feed Actuator (page 8-45). Go to step 2.	Complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	Does the error still occur?	Go to step 3.	Complete.
3	1. Check the Exit Sensor for damage. 2. Is the Exit Sensor damaged?	Replace the Exit Sensor (page 8-55).	Go to step 4.
4	1. Check the LVPS for correct installation. Reseat the LVPS (page 8-67). 2. Does the error still occur?	Replace the LVPS (page 8-67). Go to step 5.	Complete.
5	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Paper Jam 2

There is an accordion jam in front of or inside of the Fuser. The accordion jamis stuck between the Exit Roller and in the Fuser, just after passing the Feed Actuator.



Applicable Error Message

- Paper Jam 2

Initial Actions

- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

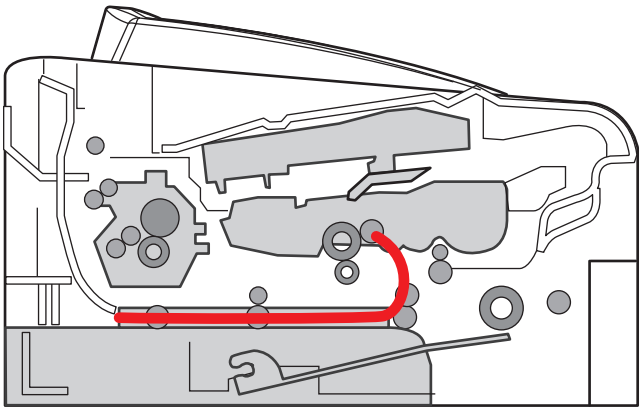
Applicable Parts	Wiring and Plug/Jack Map References
■ Fuser, PL9.1.0 ■ Guide Claw, PL9.1.16 ■ Exit Actuator, PL9.1.19 ■ Exit Sensor (Photo Interrupter), PL9.1.37	■ Map 1 - Main Controller Board ■ Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Fuser for any paper jam inside the Fuser. 2. Is there paper in the Fuser?	Remove paper from the Fuser. Clean the surface of the Pressure Roller. ■ Roller #1 (page 8-20) ■ Roller #2 (page 8-22)	Go to step 2.
2	1. Check the Exit Sensor for damage. 2. Is the Exit Sensor damaged?	Replace the Exit Sensor (page 8-55).	Go to step 3.
3	1. Check the Exit Actuator for damage. 2. Is the Exit Actuator damaged?	Replace the Exit Actuator (page 8-54).	Go to step 4.
4	1. Check the Guide Claws for damage. 2. Are the Guide Claws damaged?	Replace the Fuser (page 8-13).	Complete.

Jam Duplex

Paper is jammed in front or inside the Duplex Unit.



Applicable Error Message

- Duplex Jam

Initial Actions

- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Duplex Unit, PL1.1.13	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Duplex Unit for correct installation. Reseat the Duplex Unit (page 8-37). 2. Does the error still occur?	Replace the Duplex Unit (page 8-37).	Complete.

Tray and Paper Errors

No Paper Error

The LED is lit on the Control Panel even when paper is loaded in the Tray.

Applicable Error Message

- No Paper Error

Initial Actions

- Inspect the tray to ensure that it is free of obstructions, is loaded with supported paper, and the Guides are adjusted correctly.
- Try picking paper from a different tray.
- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ Empty Actuator, PL6.1.84 ■ Paper Empty Sensor (Photo Interrupter), PL6.1.75)	■ Map 1 - Main Controller Board ■ “Map 6 - Main Motor, Interlock Switch, Fans, and Sensors” on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Empty Actuator for damage. 2. Is the Empty Actuator damaged?	Replace the Empty Actuator (page 8-49).	Go to step 2.
2	1. Check the Paper Empty Sensor for damage. 2. Is the Paper Empty Sensor damaged?	Replace the Paper Empty Sensor (page 8-51).	Go to step 3.
3	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Paper Empty without Indication

The LED is not lit on the Control Panel even when the paper tray is empty.

Applicable Error Message

- Paper Empty without Indication

Initial Actions

- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ Empty Actuator, PL6.1.84 ■ Paper Empty Sensor (Photo Interrupter), PL6.1.75	■ "Map 1 - Main Controller Board" on page 10-6 ■ "Map 6 - Main Motor, Interlock Switch, Fans, and Sensors" on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Empty Actuator for damage. 2. Is the Empty Actuator damaged?	Replace the Empty Actuator (page 8-49).	Go to step 2.
2	1. Check the Paper Empty Sensor for damage. 2. Is the Paper Empty Sensor damaged?	Replace the Paper Empty Sensor (page 8-51).	Go to step 3.
3	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Multi Feeding

Multiple sheets of paper are picked from the tray at the same time.
The LED is not lit on the Control Panel even when the paper tray is empty.

Applicable Error Message

- Multiple Feeding

Initial Actions

- Inspect the tray to ensure that it is free of obstructions, is loaded with supported paper, and the Guides are adjusted correctly.
- Try picking paper from a different tray.
- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Pick-Up Solenoid, PL6.1.37 ■ Feed Actuator, PL6.1.72 ■ Holder Pad, PL11.1.4	■ “Map 6 - Main Motor, Interlock Switch, Fans, and Sensors” on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the left and right Guides of the tray to ensure they are set correctly. 2. Are the Guides set correctly?	Go to step 2.	Adjust the left and right Guides.
2	1. Check the Friction Pad for contamination or damage. 2. Is the Friction Pad contaminated or damaged?	Clean the Friction Pad. Replace the Tray Pad Holder (page 8-8), if damaged.	Go to step 3.
3	1. Check the Pick-Up Solenoid for correct installation and damage. Reseat the Pick-Up Solenoid (page 8-39). 2. Does the error still occur?	Replace the Pick-Up Solenoid (page 8-39).	Complete.

Wrong Print Position

Prints begin at wrong position on the paper.

Applicable Error Message

- Wrong Print Position

Initial Actions

- Try picking paper from a different tray.
- Check the paper path for obstructions or debris.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Feed Actuator, PL6.1.72 ■ Feed Sensor (Photo Interrupter), PL6.1.75	■ “Map 6 - Main Motor, Interlock Switch, Fans, and Sensors” on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Feed Sensor for damage. 2. Is the Feed Sensor damaged?	Replace the Feed Sensor (page 8-49).	Go to step 2.
2	1. Check the Feed Actuator for damage. 2. Is the Feed Actuator damaged?	Replace the Feed Actuator (page 8-45).	Complete.

Consumables/Routine Maintenance Part Errors

Fuser Error

All LED's are blinking. There is a Fuser error.

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Applicable Error Message

- Open Fuser Error
- Low Heat Error
- Overheat Heat Error
- Fuser Empty
- Fuser Door Error
- Fuser Fan Lock Error
- Diagnose Low Heat

Initial Actions

- Ensure that the Fuser is secured to the printer.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map Reference
■ Fuser, PL9.1.0 ■ Thermistor Assembly, PL9.1.5 ■ Thermostat, PL9.1.7 ■ Halogen Lamp, PL9.1.30	■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Fuser for correct installation. Reseat the Fuser (page 8-13). 2. Does the error still occur?	Go to step 2.	Complete.
2	1. Check the Thermostat for damage. 2. Does the Thermostat have an open circuit?	Replace the Thermostat (page 8-16).	Go to step 3.
3	1. Check the Thermistor for open circuit. 2. Is the Thermistor damaged?	Replace the Thermistor (page 8-15).	Go to step 4.
4	1. Check the Halogen Lamp for damage or overheating. 2. Is the Halogen Lamp damaged or overheated?	Replace the Halogen Lamp (page 8-24).	Replace the Fuser (page 8-13).

Paper Rolled in the Fuser

There is an accordion jam in the Fuser. There is contamination at intervals of 77.6 mm on the back of the paper.

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Applicable Error Code

- Paper Rolled in the Fuser

Initial Actions

- Ensure that the Fuser is secured to the printer.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map Reference
■ Fuser, PL9.1.0 ■ Thermistor Assembly, PL9.1.5 ■ Thermostat, PL9.1.7 ■ Heat Roller, PL9.1.10 ■ Guide Claw, PL9.1.16 ■ Pressure Roller #1, PL9.1.21 ■ Pressure Roller #2, PL9.1.23	■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Fuser for contamination. 2. Is the Fuser dirty?	Disassemble the Fuser and clean the debris between the Heat Roller (page 8-17), Thermistor (page 8-15), and Pressure Rollers (#1 - page 8-20; #2 - page 8-22). Go to step 2.	Go to step 2.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	1. Check the Guide Claws for damage? 2. Are the Guide Claws damaged?	Replace the Fuser (page 8-13).	Complete.

Fuser Gear Does Not Function due to Overheating

There is a constant jam where paper is entering the Fuser or the Fuser Rollers are not turning.

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Applicable Error Message

- Fuser Gear Does Not Function due to Overheat
- Overheat Error
- Diagnose Overheat

Initial Actions

- Ensure that the Fuser is secured to the printer.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map Reference
■ Main Controller Board, PL1.1.2 ■ LVPS, PL1.1.4 ■ Fuser, PL9.1.0 ■ Halogen Lamp, PL9.1.30	■ "Map 1 - Main Controller Board" on page 10-6 ■ "Map 3 - LVPS" on page 10-8 ■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Halogen Lamp for damage or overheating. 2. Is the Halogen Lamp damaged?	Replace the Halogen Lamp (page 8-24).	Go to step 2.
2	1. Replace the Fuser (page 8-13). 2. Does the error still occur?	Replace the LVPS (page 8-67).	Go to step 3.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
3	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Paper Rolled on the OPC Drum

Paper is caught or rolled up in the OPC Drum.

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

Applicable Error Message

- Paper Rolled on the OPC Drum

Initial Actions

- Ensure that the Fuser is secured to the printer.
- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map Reference
■ Print Cartridge, PL1.1.20 ■ Fuser, PL9.1.0	■ “Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch” on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the paper type. 2. Does the paper type meet specifications?	Replace the paper with the correct specifications.	Go to step 2.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
2	1. Check the Print Cartridge for paper jam. 2. Is there paper caught inside the Print Cartridge?	Remove the paper. Clean the OPC Drum using a lint-free cloth slightly dampened with cold water.	Complete.

Print Cartridge Not Installed

The Print Cartridge is not installed.

Applicable Error Message

- Print Cartridge is not installed.

Initial Actions

- Check the Print Cartridge information.
- Cycle printer power.
- If problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Print Cartridge, PL1.1.20	

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the printer for the Print Cartridge. 2. Is the Print Cartridge installed?	Reseat the Print Cartridge (page 8-7).	Install a Print Cartridge.

Motor, Cover, and Laser Errors

Defective Motor Operation

The Main Motor is defective and paper does not feed into the printer, resulting Jam0.

Applicable Error Message

- Main Motor Operation

Initial Actions

- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Fuser, PL9.1.0 ■ Guide Claw, PL9.1.16	■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Fuser for debris and contamination. 2. Is the Fuser dirty?	Clean the Fuser and remove the debris.	Go to step 2.
2	1. Check the Guide Claws inside the Fuser for damage. 2. Are the Guide Claws damaged?	Replace the Fuser (page 8-13).	Complete.

Front Cover Open

The red LED is lit on the Control Panel even though the Front Cover is closed.

Applicable Error Message

- Cover Open (Front Door Open)

Initial Actions

- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ HVPS, PL1.1.3 ■ Front Cover, PL1.16.4	■ “Map 6 - Main Motor, Interlock Switch, Fans, and Sensors” on page 10-14

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Interlock Switch for damage. 2. Is the Interlock Switch damaged?	Replace the HVPS (page 8-64).	Go to step 2.
2	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Laser Unit Not Ready

All LEDs are blinking on the Control Panel. An error was detected in the Laser Unit. Error includes PMotor Error or HSYNC Error.

Applicable Error Message

- LSU Not Ready (LSU Scanner Motor not ready)
- LSU Not Ready (HSYNC signal not output)
- Black LSU Lock Error
- Black HSYNC Error

Initial Actions

- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ Laser Unit, PL1.1.12	■ "Map 8 - Laser Unit" on page 10-16

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the wiring harness connections between the Laser Unit and the Main Controller Board. 2. Are the wiring harness connectors securely connected?	Go to step 2.	Reconnect the connectors.
2	1. Check the Laser Unit for correct installation. Reseat the Laser Unit (page 8-57). 2. Does the error still occur?	Replace the Laser Unit (page 8-57).	Replace the Main Controller Board (page 8-62).

Print-Quality Error

Vertical Line Getting Curved

When printing, vertical lines are not straight.

Applicable Error Message

- LSU Not Ready (LSU Scanner Motor not ready)
- LSU Not Ready (HSYNC signal not output)

Initial Actions

- Cycle printer power.
- If the problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ LVPS, PL1.1.4 ■ Laser Unit, PL1.1.12	■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15 ■ "Map 8 - Laser Unit" on page 10-16

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the LVPS for the correct voltage. 2. Does the voltage show +24V?	Go to step 2.	Replace the LVPS (page 8-67).
2	1. Replace the Laser Unit (page 8-57). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

General Troubleshooting

In this chapter...

Chapter 4

Introduction

This chapter covers Service Diagnostics, LED Status and Errors, and troubleshooting problems that are not associated with an error message or Control Panel error.

For troubleshooting problems associated with an error message or Control Panel error, refer to “Error Messages and Codes” on page 3-1. Print-quality problems are covered in “Print-Quality Troubleshooting” on page 5-1.

Service Diagnostics

Using various tests, service technicians should be able to diagnose the problems quickly and isolate which component or sub-assembly part needs replacement.

If confronted with an error that requires more than a cursory investigation to clear or when directed by a troubleshooting procedure, use Service Diagnostics to exercise selected sub-assemblies or parts in the vicinity of the reported error. Detailed diagnostic procedures are available in Chapter 3, “Error Messages and Codes” on page 3-1.

LED Status and Errors

Status			Description	Solution
Error	Red	On	The Front Cover is open.	Close the Front Cover.
			There is no paper in the tray.	Load paper in the tray.
			The printer has stopped printing due to a major error.	
			The Print Cartridge is not installed.	Install the Print Cartridge.
			The Print Cartridge is empty.	Replace the Print Cartridge.
		Blinking	A minor error is occurring and the printer is waiting for the error to be cleared.	When the problem is cleared, the print job resumes.
			The Print Cartridge is low on toner.	Replace the Print Cartridge.
	Amber	On	A paper jam has occurred.	Remove paper.
Online	Green	On	The printer is in Power Save mode.	
			The printer is on-line and can receive data from the computer.	

Status	Description	Solution
Blinking	Slowly indicates that the printer is receiving data from the computer.	
	Quickly indicates that the printer is printing.	

No Error LED when the Front Cover is Open

The error LED is not On when the Front Cover is open.

Initial Actions

- Cycle printer power.
- If problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ LVPS, PL1.1.4 ■ Front Cover, PL1.1.16-4 ■ LED Board, PL6.1.44	■ Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch ■ Map 9 - Optional Tray 2 and Control Panel

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the wiring harness connectors CN18 and CN31 between the LED Board and the Main Controller Board. 2. Are the connectors securely connected?	Replace the LED Board (page 8-75).	Reconnect the connectors. Go to step 2.
2	Check the LVPS Board signal. 1. Is there +24 V across: ■ CN3-16, CN3-13, CN3-11, CN3-9, and CN3-7 pins 2. Is there +5 V across: ■ CN3-5, CN3-3, and CN3-1 pins	Go to step 3.	Replace the LVPS Board (page 8-67).
3	1. Check the Main Control Board for correct installation. Reseat the Main Control Board (page 8-62). 2. Does the error still occur?	Go to step 4.	Complete.
4	Check the Main Controller Board signal. 1. Is there +24 V across: ■ CN10-1, CN10-4, CN10-6, CN10-8, and CN10-10 pins 2. Is there +5 V across: ■ CN10-12, CN10-14, and CN10-16 pins	Complete.	Replace the Main Controller Board (page 8-62).

Inoperable Printer Troubleshooting

The Printer is Not Responding to the Print Command

The printer is On, but not operating in print mode.

1. Print a Demo page.
   a. When the green LED lights, press and hold the **Start/Stop** button until the LED flashes, then release the button.
   b. If the test print works, there are no hardware problems within the printer. Check the application settings.
   c. If the test print does not print, check the LED status and refer to detailed diagnostic procedures to troubleshoot the problems.
2. Check that the computer and the printer are properly connected.
   a. Reconnect the cable(s) if not properly connected.
   b. Replace the cable(s) if damaged.
3. The printer does not print from Windows environment.
   a. Check that the printer driver is set up correctly, the correct port is selected, and Use On-line is selected in the driver.
   b. If the printer driver is properly set up, try printing a test page from the driver properties.
   c. Check on which program is not printing.
   d. If no applications can print, open Notepad and send a print job using Notepad.
   e. If the problem is within a single application, adjust the printing properties within that program.
   f. If changing the properties in the application print dialog box does not solve the problem, uninstall and reinstall new printer driver.
   g. If reinstalling the print drivers does not solve the problem, check the port settings.
      - CMOS is on ECP
      - the address is IRQ 7
      - 378 (for parallel port 1)

The Printer is Not Responding to a Print Command due to Incorrect Setup

After receiving a print command, there is no response from the printer.

1. Ensure there is sufficient hard disk space for the temporary work files created during printing.
   a. The message “insufficient printer memory” means there is a hard disk space problem, rather than a printer RAM problem. Free up disk space on the hard disk. Use the disk utilities program to delete unnecessary files.
2. The error occurs even though there is plenty of hard disk space.
   a. The connection or communication between the printer port and the computer is incorrect.
   b. Verify the cable is properly connected and configured for printing. Make sure the CMOS settings are correctly set for the printer port. Select:
      - ECP which supports 12-bit data transfer or
      - SPP which supports 8-bit data transfer.
3. Reboot the printer.
   a. If the regular fonts are not printing, the cable or the printer driver could be defective.
   b. Turn the computer and printer Off and back On.
   c. Send a print job. If the regular fonts are not printed again, replace the cable.

SPOOL Error

Simultaneous Peripheral Operations Online (SPOOL) is the process Windows uses to manage print jobs. Jobs are processed and then stored on the hard disk until the printer is ready to accept them.

1. Insufficient disk space on the hard disk in the directory assigned for the basic spool.
   a. Delete any unnecessary files to provide more disk space for spool storage.
2. If previous printing errors were not solved.
   a. There may be files from previous failed print jobs on the hard disk with the name in the form “*.jnl”. Delete these files and reboot Windows to restart the printer.
3. There may be a conflict with other drivers or programs.
   a. Shut down all other programs except the current one, if possible.
4. When an application program or the printer driver is damaged.
   a. After rebooting the computer, check for viruses, restore the damaged files and reinstall the application program which is not working properly.
5. Computer memory is insufficient to support printing.
   a. Add more memory to the PC.

How to Delete the Data in the SPOOL Manager

In the SPOOL Manager, the installed drivers and the list of documents waiting to be printed are shown. Select the document to be deleted and click Delete in the menu.

If the job you are deleting is the current job, any data that has already been transferred to the printer’s memory will still be printed. If there is a problem with the printer (out of toner, out of paper, etc...), the job may take a long time to delete as it must wait for a time out.

Power Supply Troubleshooting

AC Power Troubleshooting

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack References
■ LVPS, PL1.1.4	■ “Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch” on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the voltage at the AC wall outlet. 2. Is there approximately 110 VAC (or 220 VAC if the printer is a 220 V configuration) at the AC wall outlet?	Go to step 2.	Notify the customer of improper AC output from the outlet.
2	1. Check the power cord for defects or loose connection. 2. Is the power cord loose or defective?	Replace or reconnect the power cord.	Replace the LVPS (page 8-67).

No Power

When the printer is turned On, the LED's on the Control Panel do not come On.

Initial Actions

- Cycle printer power.
- If problem persists, refer to the following procedure.

Troubleshooting Reference Table

Applicable Parts	Wiring and Plug/Jack Map References
■ Main Controller Board, PL1.1.2 ■ LVPS, PL1.1.4 ■ Power Cord, PL1.1.19 ■ LED Board, PL6.1.44	■ "Map 1 - Main Controller Board" on page 10-6 ■ "Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch" on page 10-15

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the LVPS Board signal. 1. Is there +24 V across: ■ CN3-16, CN3-13, CN3-11, CN3-9, and CN3-7 pins 2. Is there +5 V across: ■ CN3-5, CN3-3, and CN3-1 pins	Replace the Power Cord. Go to step 2.	Go to step 3.
2	Does the error still occur?	Go to step 3.	Complete.
3	Is the Control Panel LED On?	Go to step 5.	Replace the LED Board (page 8-75). Go to step 4.
4	Does the error still occur?	Go to step 5.	Complete.
5	1. Check the power fuse on the LVPS. 2. Is the power fuse defective?	Replace the LVPS (page 8-69).	Go to step 6.
6	1. Check the Main Control Board for correct installation. Reseat the Main Control Board (page 8-62). 2. Does the error still occur?	Go to step 7.	Complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
7	Check the Main Controller Board signal. 1. Is there +24 V across: ■ CN10-1, CN10-4, CN10-6, CN10-8, and CN10-10 pins 2. Is there +5 V across: ■ CN10-12, CN10-14, and CN10-16 pins	Complete.	Replace the Main Controller Board (page 8-62).

Print Cartridge Troubleshooting

Use only Xerox Print Cartridges in the printer. Non-Xerox or Third Party Print Cartridges are not guaranteed to work with the Phaser 3250 and can cause malfuntions, print-quality problems, and jam errors.

Precautions for Print Cartridge

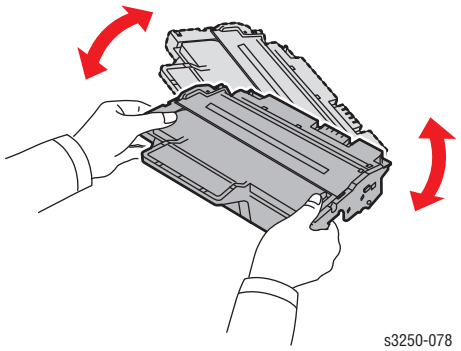
Excessive exposure to direct light for more than a few minutes can cause damage to the Print Cartridge and degrade print quality.

Print Cartridge Life

If the printed image is light due to toner life remaining, you can temporarily improve print quality by redistributing toner.

Redistributing Toner

1. Open the Front Cover.
2. Remove the Print Cartridge.
3. Gently shake the Print Cartridge from side to side five or six times to redistribute toner.



4. Reinsert the Print Cartridge into the printer. Ensure the Print Cartridge is locked in place.
5. Close the Front Cover.

Operating System and Application Problems

Note

If print-quality problem exists, or your job did not print, refer to the User Guide at www.xerox.com/office/3250support.

Common Windows Problems

The following messages may appear under various conditions.

Condition	Solutions
■ General Protection Fault ■ Exception OE ■ Spool32 ■ Illegal Operation	Close all other applications, reboot Windows, and try printing again.
■ Fail to print ■ A printer time-out error occurred	Wait until the printer finishes the print job. If the message appears in Standby mode or after printing has been completed, check the cable connection and/or whether an error has occurred.

Common Macintosh Problems

The following messages may appear under various conditions.

Condition	Possible Cause	Solutions
The printer does not print PDF file correctly. Some parts of graphics, text, or illustrations are missing.	Incompatibility between the PDF file and Acrobat products.	Print the PDF file as an image may solve this problem. ■ From the Acrobat printing options, turn On Print As Image. **Note**: It will take longer to print when printing a PDF file as an image.
The document has printed, but the print job has not disappeared from the spooler in Mac OS 10.3.2.		Update your Mac OS to OS 10.3.3 or higher.
Some letters are not displayed normal during the cover sheet printing.	Mac OS cannot find the font during the cover page printing.	Alphanumeric characters, in the Billing Info field, are only allowed for printing on the cover page. Other characters will be broken on the printout.

Common Linux Problems

The following messages may appear under various conditions.

Condition	Solutions
The printer does not print.	■ Check if the printer driver is installed on the computer. ■ Open Unified Driver Configurator and switch to the Printers tab in the Printers Configuration window to check the list of available printers. ■ Make sure that the printer is displayed on the list. If not, add a printer. ■ Check if the printer is started. Open the Printers Configuration window and select your printer from the printers list. Check the description in the Selected printer pane. If the printer status contains “stopped” string, press the **Start/Stop** button. Normal operation should restore. The “stopped” status might be activated when some problems in printing occurred. ■ Check if your application has special print option such as “=oras.” If “-oraw” is specified in the command line parameter, then remove it to print properly. For Gimp front-end, select “print” --> “Setup printer” and edit command line parameter in the command item.
“Unable to open mfp port device file” when printing a document.	Avoid changing print job parameters (via LPR GUI, for example) while a print job is in progress. Known versions of CUPS server break the print job whenever print options are changed and then try to restart the job from the beginning. Since Unified Linux driver locks mfp port while printing, the abrupt termination of the driver keeps the port locked and therefore unavailable for subsequent print jobs. If this situation occurred, try to release the mfp port.
When printing a document over the network in SuSE 9.2, the printer does not print.	The CUPS (Common Unix Printing System) version distributed with SuSE Linux 9.2 (cups-1.1.21) has a problem with IPP (Internet Printing Protocol) printing. Use the socket printing instead of IPP or install the later version of CUPS (cups-1.1.22 or higher).

Common PostScript Problems

The following errors are PostScript language specific that may occur when multiple printer languages are being used.

Note

To receive a printed or screen displayed message when PostScript errors occur, open the Print Options window and click the appropriate selection next to the PostScript errors section.

Condition	Possible Cause	Solutions
PostScript file cannot be printed.	The PostScript driver may not be installed correctly.	■ Print a Configuration page and verify that the PostScript version is available for printing. ■ Install the PostScript driver.
“Limit Check Error” message is displayed.	The print job was too complex.	Change the complexity of the print job.
A PostScript error page prints.	Print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected setup or PostScript header file to be sent to the printer.
When printing a document using a Macintosh with Acrobat Reader 6.0 or higher, colors print incorrectly.	The resolution setting in the printer driver may not be matched with that in Acrobat Reader.	Make sure that the resolution setting in your printer driver matches information in Acrobat Reader.

Print-Quality Troubleshooting

In this chapter...

Chapter 5

Print-Quality Problems Overview

Print-quality defects can be attributed to printer components, consumables, media, internal software, external software applications, and environmental conditions. To successfully troubleshoot print-quality problems, eliminate as many variables as possible. The first step is to generate prints using information pages embedded in the printer on laser paper from the approved media list. Refer to “Media and Tray Specifications” on page 1-18 for supported and specialty media that have been tested and approved for use in the Phaser 3250. Use paper from a fresh ream that is acclimated to room temperature and humidity.

If the print-quality defect is still present when printing on approved media from an unopened ream of paper, then investigate software applications and environmental conditions.

Check the temperature and humidity under which the printer is operating. Compare this to the “Environmental Specifications” on page 1-12. Extreme temperature and humidity can adversely affect the xerographic and fusing characteristics of the printer.

When analyzing a print-quality defect, determine if the defect is repeating or random occurrence. Continuous defects in the process direction, such as Voids and Lines, are the most difficult to diagnose. Inspect the visible surfaces of all Rollers for obvious defect. If no defects are found, replace the Print Cartridge, Transfer Roller, Fuser, and Laser Unit one at a time until the defect is eliminated.

Defects Associated with Specific Printer Components

Some print-quality problems can be associated with specific assemblies; the most common problems and the associated assemblies are listed in this section. Refer to the specific print-quality troubleshooting procedure for detail information.

Laser Unit

- Black Print (page 5-16)
- Vertical White Line (page 5-25)

Transfer Roller

- Uneven Density (page 5-18)
- Background Contamination (page 5-19)
- Ghosting (1) (page 5-21)
- Vertical White Line (page 5-25)
- Vertical Black Line and Band (page 5-27)
- Stains on the Front of the Page (page 5-31)
- Stains on the Back of the Page (page 5-32)

Fuser

Print Cartridge

Checklist Before Troubleshooting Print-Quality

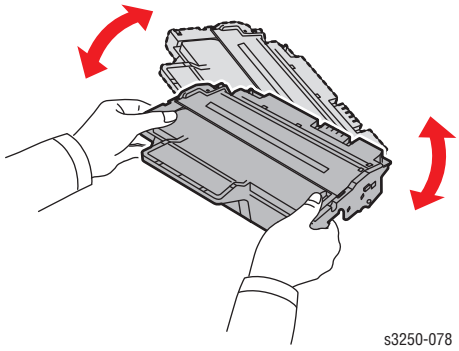
Checking the Printer Condition

Toner

Low toner can cause print-quality problems, such as Fading, Streaking, White Lines, or Dropouts. Print a small document from different software applications to replicate the problem and check the amount of toner available. Use the CentreWare Internet Services (IS) to check the supplies status. To access the CentreWare IS:

1. Open your web browser.
2. In the Address field, enter the printer's IP address.
3. Click the **Supplies Status** button.
4. The **Supplies Status** page is displayed.

If the toner is low, you can extend the Print Cartridge life by removing the Print Cartridge (page 8-7) from the printer, and gently shake the Print Cartridge from side-to-side to distribute toner.



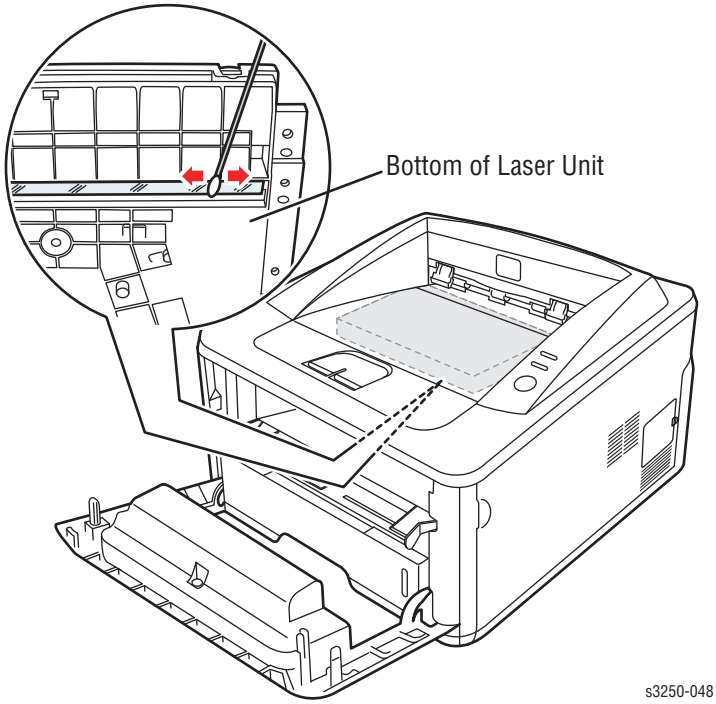
Cleaning

Paper, toner, and dust particles can accumulate inside the printer and cause print-quality problems such as Smearing or Toner Specks. Clean the inside of the printer to prevent these problems.

Checklist Before Troubleshooting Image Quality

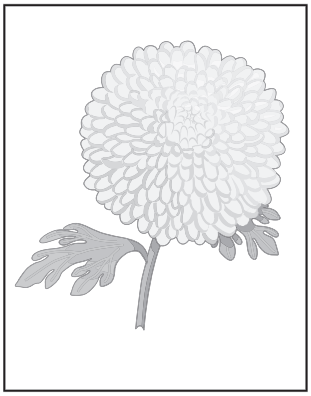
Check the following items prior to performing troubleshooting. These procedures may help to resolve the problems without troubleshooting the printer.

a. Clean the Laser Unit window using a Q-tip or a dry, lint-free cloth to wipe the window.



b. Check the Transfer Roller for damage.

1. Print is too light.



Light or Undertone Print

a. The toner may be too low. Check the amount of toner and change the Print Cartridge if necessary.

b. If you are printing on an uneven print surface, change the paper type settings.

c. Verify that the correct type of paper is used.

d. The Print Cartridge may need to be replaced. Replace the Print Cartridge.

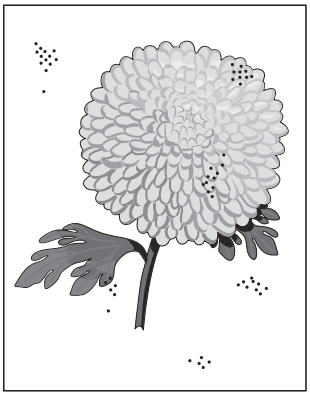
2. Toner smears or print comes off page.

Smudges or Smears

a. If you are printing on a thick or an uneven media, change the Media Type settings to a heavier type.

b. Verify that the paper is within the printer specifications (refer to “Media and Tray Specifications” on page 1-18).

3. Toner spots appear on the page and printing is blurred.

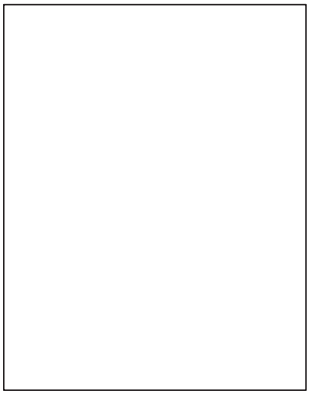


Random Spots

a. Check the Print Cartridge to make sure that it is installed correctly.

b. Change the Print Cartridge.

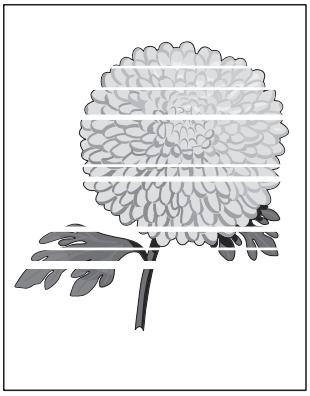
4. **Entire page is white.**



Blank Print

a. Ensure the packaging material is removed from the Print Cartridge.
b. Check the Print Cartridge to make sure that it is installed correctly.
c. Toner may be low. Change the Print Cartridge.
d. Check the Laser windows for obstructions.

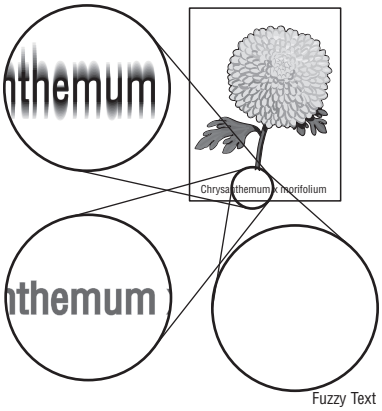
5. **Streaks appear on the page.**



Horizontal Band, Void, or Streaks

a. Toner may be low. Change the Print Cartridge.

6. **Characters have jagged or uneven edges.**



Fuzzy Text

a. If you are using downloaded fonts, verify that the fonts are supported by the printer, the host computer, and software application.
b. From the **Start** menu, go to **Settings** > **Printers and Faxes**.

c. Select **Phaser 3250/Phaser 3250 PS**. Right click on the printer icon and select **Printing Preferences**.

d. Click the **Graphic** tab. Under **Image Mode**, select **Text Enhancement**. Click **OK**.

7. **Part or all the page prints.**

Partial Band

a. Check the Print Cartridge to make sure it is installed correctly.

8. **The job prints, but the top and side margins are incorrect.**

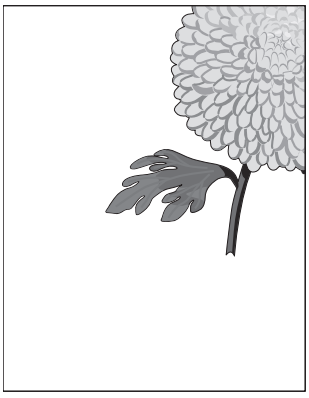


Image Not Centered

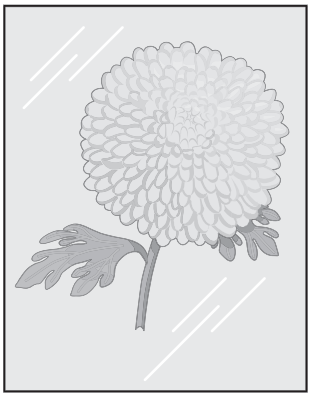
a. Ensure the Media Size settings in the Tray Settings are correct.

b. Ensure the margins are set correctly in your software application.

c. Perform internal test prints (i.e., printer's Demo Page, etc.,) and evaluate the prints.

9. Printing on both ends of the transparencies is faded.

This occurs when the printer is operating at a location where relative humidity reaches 85° or more.

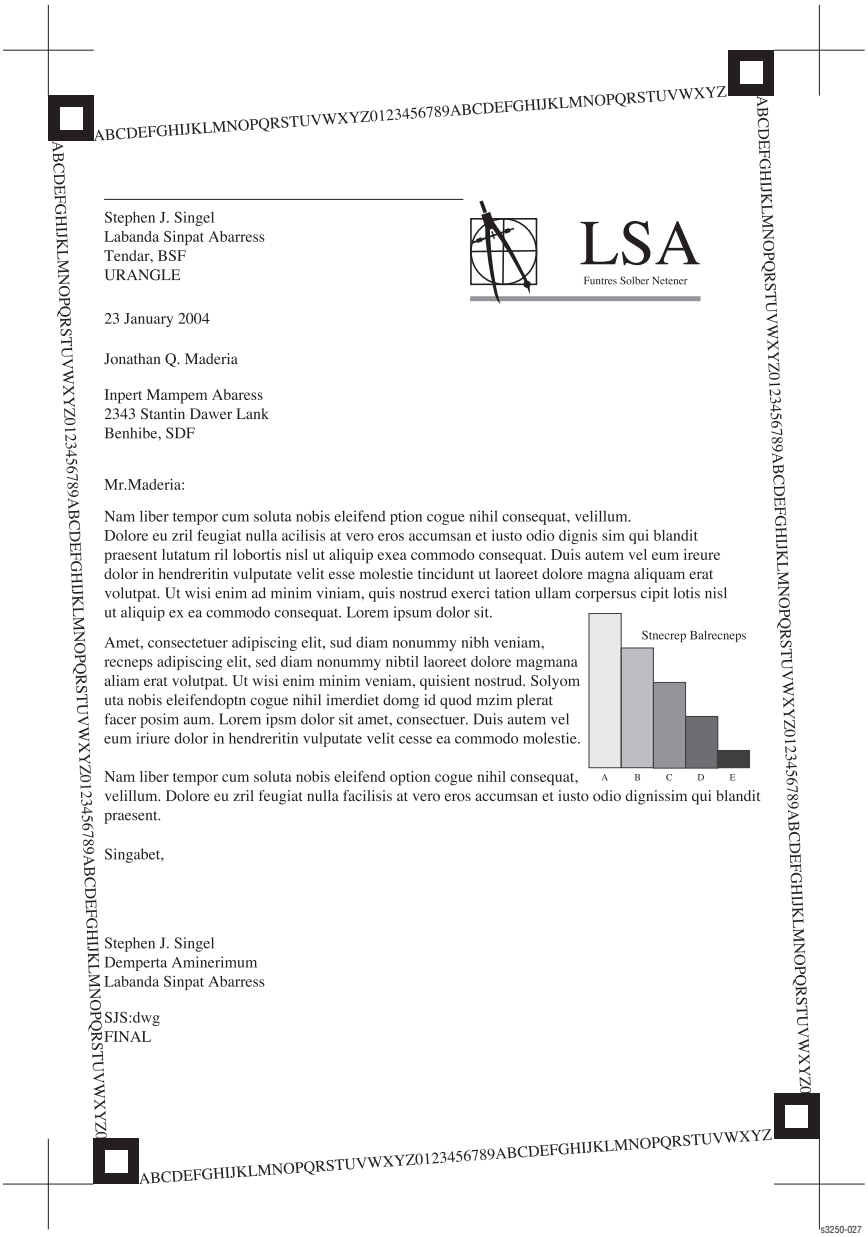


Light Print on Transparency

a. Adjust the humidity or relocate the printer to an appropriate environment.

Test Print

This section provides a sample of a test patterns. The life of the Print Cartridge and printing speed are measured with the pattern shown below 5%. The A4 ISO 19752 standard pattern samples are reproduced to 70% of the actual A4 size.



Print-Quality Specifications

The Print-Quality specifications are provided as follows.

Environmental Condition

- Temperature: 10° C - 32° C (50° F - 90.0° F)
- Humidity: 80% RH at 32° C) (90.0° F)

Note

Defects may occur due to condensation after around 30 minutes if the printer is turned On in a critical environment such as 85% at 10° C (50° F).

Quality Paper

The print-quality is best when quality paper is fed from the tray. The print quality is evaluated on the maximum size of each standard paper.

- Color Print Quality: Xerox-brand Color XPressions paper
- Black and White Quality: Xerox-brand 4200 paper

Paper Condition

Paper should be fresh and stored in the operating environment for 12 hours before use for printing.

Printer Condition

The specified print quality is guaranteed with the printer in specified normal environmental condition.

Print-Quality Troubleshooting

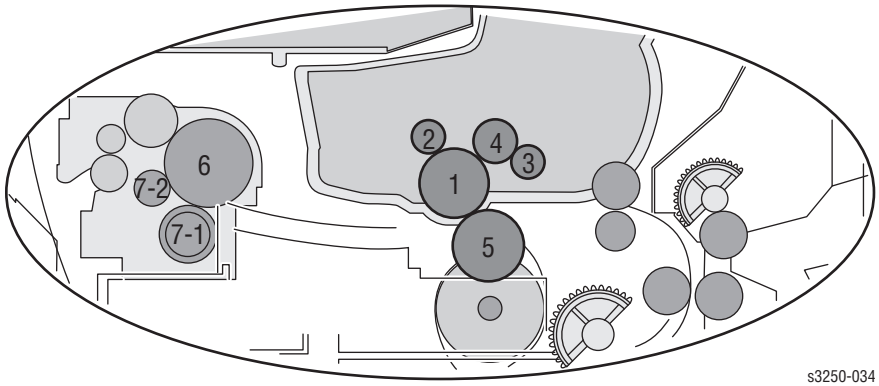
Print-Quality Defect Definitions

The following table lists the print-quality defect corrective procedure, their definition, and the page where each corrective procedure is provided.

Defect	Definition	Page
Light or Undertone Print	The overall image density is too light.	page 5-14
Black Print	The entire image area is black.	page 5-16
Uneven Density	Print Density is uneven between the left and right sides.	page 5-18
Background Contamination	Light or gray dusting contamination appears on all or most of the page.	page 5-19
Ghosting (1)	There is ghosting at 75.5 mm intervals from the OPC Drum.	page 5-21
Ghosting (2)	There is ghosting at 75.5 mm intervals on the whole print.	page 5-23
Ghosting (3)	There is ghosting at 62.8 mm and 77.6 mm intervals.	page 5-24
Vertical White Line	There are faded or completely non-printed lines along the page of the paper travel from the leading edge to the trailing edge.	page 5-25
Vertical Black Line and Band	There are faded or black lines along the page in the direction of the paper travel from the leading edge to the trailing edge.	page 5-27
Horizontal Black Line and Band	There are black lines running parallel with the leading edge of the print.	page 5-28
Black/White Spot	The toner image is not completely fused to the paper. The image easily rubs off.	page 5-29
Stains on the Front of the Page	The background of the front of the page is stained.	page 5-31
Stains on the Back of the Page	The background of the back of the page is stained.	page 5-32
Blank Page (1)	The entire image area is blank.	page 5-33
Blank Page (2)	The entire image area is blank. One or several blank pages are printed.	page 5-34

Repeating Defect Measurement

When horizontal lines and/or spots occurs periodically, it is possibly caused by a defect on a particular Roller. Measure the interval of the defect on the test print and check the relation to the Roller in the table. The interval does not necessarily match the circumference of the Roller.



Horizontal Line Spot Trouble Measurement

No.	Roll	Abnormal Image Period	Type of Abnormal Image	Replacement	Part List Number
1	OPC Drum	75.5 mm (2.98 in)	White spots, Black spots	Print Cartridge	PL1.1.20
2	Charge Roller	26.7 mm (1.01 in)	Black spot and Periodic band	Print Cartridge	PL1.1.20
3	Supply Roller	47.1 mm (1.85 in)	Periodic band by little difference of density	Print Cartridge	PL1.1.20
4	Developing Roller	35.2 mm (1.39 in)	White spot, Horizontal Black band	Print Cartridge	PL1.1.20
5	Transfer Roller	47.0 mm (1.85 in)	Ghost, Damaged image by abnormal transfer	Transfer Roller	PL1.1.11
6	Heat Roller	77.6 mm (3.05 in)	Black spots or Vertical Black band	Fuser	PL9.1.0
7-1	Pressure Roller (1st)	62.8 mm (2.47 in)	Background	Fuser	PL9.1.0
7-2	Pressure Roller (2nd)	37.7 mm (1.48 in)	Background	Fuser	PL9.1.0

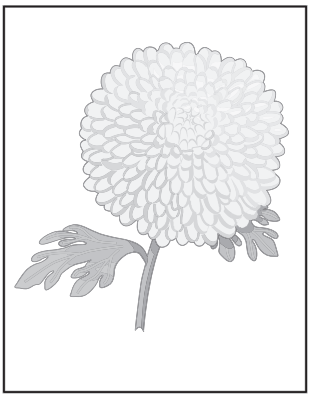
Light or Undertone Print

The overall image density is too light.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ HVPS, PL1.1.3 ■ Print Cartridge, PL1.1.20	 Light or Undertone Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the Print Cartridge. Is the Print Cartridge empty?	Replace the Print Cartridge (page 8-7).	Go to step 2.
2	1. Check Toner Save mode. 2. Is Toner Save mode enabled?	Go to step 3.	Enable Toner Save mode.
3	1. Check the ambient temperature. 2. Is the ambient temperature below 10° C?	Turn Off the printer, wait for 30 minutes, and turn On the printer.	Go to step 4.
4	1. Check the inside of the printer for toner spill. 2. Is there toner spill inside the printer?	Clean the inside of the printer.	Go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	1. Check the HVPS for correct installation. Reseat the HVPS (page 8-64). 2. Does the image quality improve?	Complete.	Replace the HVPS (page 8-64).

Black Print

The entire image is black.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Main Controller Board, PL1.1.2 ■ HPVS, PL1.1.3 ■ Laser Unit, PL1.1.12	 Black Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the wiring harness connectors between the Main Controller Board and the HVPS. 2. Are the connectors securely connected?	Go to step 3.	Reconnect the connectors. Go to step 2.
2	Does the error still occur?	Go to step 3.	Complete.
3	1. Reseat the HVPS (page 8-64). 2. Does the error still occur?	Replace the HVPS (page 8-64). Go to step 4.	Complete.
4	Does the error still occur?	Replace the Laser Unit (page 8-57). Go to step 5.	Complete.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

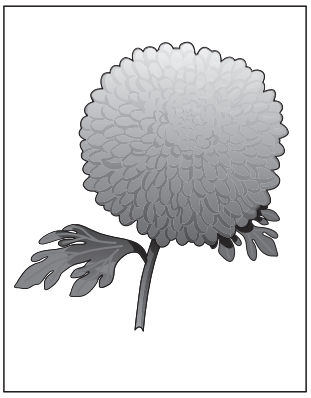
Uneven Density

Print Density is uneven between the left and right sides.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Color Uneven or Wrong (Process Direction)

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Transfer Roller for correct installation. Reseat the Transfer Roller (page 8-10). 2. Does the image quality improve?	Complete.	Go to step 2.
2	Check the Print Cartridge. Is the Print Cartridge empty?	Replace the Print Cartridge (page 8-7).	Go to step 3.
3	1. Check the Print Cartridge for damage. 2. Is the Print Cartridge damaged?	Replace the Print Cartridge (page 8-7).	Complete.

Background Contamination

There is toner contamination on all or most of the page. The contamination appears as a very light gray dusting.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ HVPS, PL1.1.3 ■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Background Contamination

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the paper condition. 2. Is the paper dry, recommended type, and loaded in the correct position?	Go to step 2.	Replace the paper.
2	1. Print a Demo page. 2. Does the image appear less than 2% on the page?	Go to step 3.	Go to step 4.
3	Check the Print Cartridge. Is the Print Cartridge empty?	Replace the Print Cartridge (page 8-7).	Go to step 4.
4	1. Check the Transfer Roller movement. 2. Does the Transfer Roller rotate smoothly?	Go to step 5.	Clean the Transfer Roller bushings.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	1. Check the HVPS for correct installation. Reseat the HVPS (page 8-64). 2. Does the image quality improve?	Complete.	Replace the HVPS (page 8-64).

Ghosting (1)

There is ghosting at 75.5 mm intervals from the OPC Drum while printing on card stock, transparencies, or using the Manual Feeder.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.
- Verify the paper is within the printer specifications (refer to “Media and Tray Specifications” on page 1-18).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Main Controller Board, PL1.1.2 ■ HVPS, PL1.1.3 ■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Residual Image/Ghosting

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	Check the Print Cartridge life usage. Is the Print Cartridge empty?	Replace the Print Cartridge (page 8-7).	Go to step 2.
2	1. Check the Print Cartridge for damage. 2. Is the Print Cartridge damaged?	Replace the Print Cartridge (page 8-7).	Go to step 3.
3	1. Check the Transfer Roller life usage. 2. Is the Transfer Roller life expired?	Replace the Transfer Roller (page 8-10).	Go to step 4.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
4	1. Check the HVPS for correct installation. Reseat the HVPS (page 8-64). Clean the HVPS connection if any toner particles are present. 2. Does the image quality improve?	Complete.	Go to step 5.
5	1. Replace the HVPS (page 8-64). 2. Does the image quality improve?	Complete.	Go to step 6.
6	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the image quality improve?	Complete.	Replace the Main Controller Board (page 8-62).

Ghosting (2)

There is ghosting at 75.5 mm intervals of the OPC Drum on the whole print.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.
- Verify the paper is within the printer specifications (refer to “Media and Tray Specifications” on page 1-18).

Troubleshooting Reference Table

Applicable Parts	Example Print
	 Residual Image/Ghosting

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the media type selection. 2. Is Thick Mode selected for paper type?	Complete.	Set the correct media type.

Ghosting (3)

There is ghosting at 62.8 mm or 77.6 mm intervals.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.
- Verify the paper is within the printer specifications (refer to “Media and Tray Specifications” on page 1-18).

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Fuser, PL9.1.0	 Residual Image/Ghosting

Warning

Ensure to wait for the Fuser to cool down before starting the procedure.

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Fuser. 2. Is there any contamination on the Fuser?	Clean the Fuser.	Replace the Fuser (page 8-13).

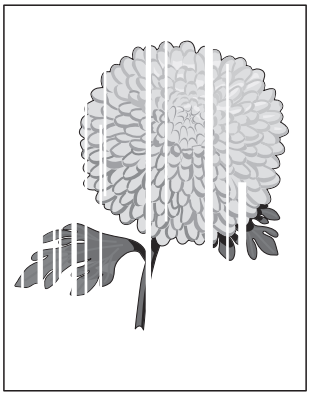
Vertical White Line

There are faded or completely non-printed lines along the page in the process direction.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Laser Unit, PL1.1.12 ■ Print Cartridge, PL1.1.20	 Vertical Blank Lines

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Print Cartridge life usage. 2. Is the Print Cartridge empty?	Replace the Print Cartridge (page 8-7).	Go to step 2.
2	1. Check the Laser Unit window for contamination. 2. Is there contamination on the Laser Unit window?	Clean the Laser Unit window.	Go to step 3.
3	1. Check the inside of the Laser Unit for debris. 2. Are there any debris inside of the Laser Unit?	Replace the Laser Unit (page 8-57).	Go to step 4.
4	1. Check the OPC Drum on the Print Cartridge for damage. 2. Is the OPC Drum damaged?	Replace the Print Cartridge (page 8-7).	Go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	1. Check the Transfer Roller surface for damage. 2. Is the Transfer Roller surface damaged?	Replace the Transfer Roller (page 8-10).	Complete.

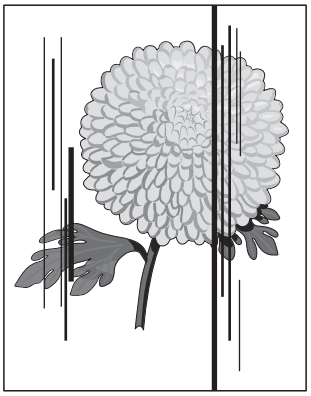
Vertical Black Line and Band

There are faded or black lines along the page in the direction of the paper travel from the leading edge to the trailing edge.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Vertical Stripes

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Print Cartridge for damage. 2. Is the Print Cartridge damaged?	Replace the Print Cartridge (page 8-7).	Go to step 2.
2	1. Check the Transfer Roller surface for damage. 2. Is the Transfer Roller surface damaged?	Replace the Transfer Roller (page 8-10).	Complete.

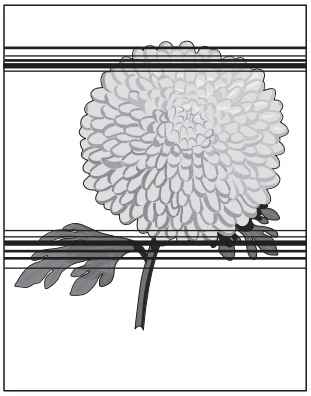
Horizontal Black Line and Band

There are black lines running parallel with the leading edge of the print, perpendicular to the direction of the paper travel.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Print Cartridge, PL1.1.20	 Horizontal Stripes

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Clean all voltage terminal of the Print Cartridge. 2. Does the image quality improve?	Complete.	Go to step 2.
2	1. Check for a defect occuring at a regular interval. 2. Are there any bands on the page?	Refer to “Repeating Defect Measurement” on page 5-13.	Go to step 3.
3	1. Check the Gear of the OPC Drum (has a small tooth gap) for damage. 2. Is the Gear damaged?	Replace the Print Cartridge (page 8-7).	Complete.

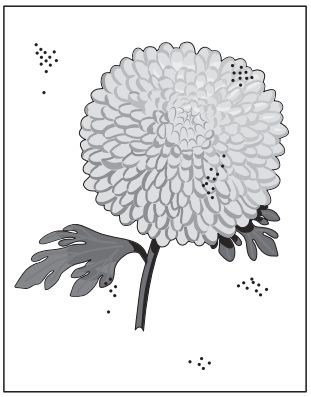
Black/White Spot

There are dark or blurry spots of toner randomly scattered across the page.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Random Spots

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the paper path. 2. Are there any debris or toner contamination on the paper path?	Remove the debris and clean the paper path.	Go to step 2.
2	1. Perform PC cleaning procedure (refer to “Printing the Print Cleaning Page” on page 7-5). 2. Does the error still occur?	Go to step 3.	Complete.
3	1. Check for spot’s regular intervals. 2. Are there any spots on the page?	Refer to “Repeating Defect Measurement” on page 5-13.	Go to step 4.
4	1. Check the Print Cartridge for damage. 2. Is the Print Cartridge damaged?	Replace the Print Cartridge (page 8-7).	Go to step 5.

Troubleshooting Procedure Table (continued)

Step	Actions and Questions	Yes	No
5	1. Check the Transfer Roller life usage. 2. Is the Transfer Roller life expired?	Replace the Transfer Roller (page 8-10).	Complete.

Stains on the Front of the Page

The background of the front of the page is stained.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Print Cartridge, PL1.1.20	 Repeating Defects

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Transfer Roller for contamination. 2. Is the Transfer Roller surface dirty?	Perform PC cleaning procedure (refer to “Printing the Print Cleaning Page” on page 7-5).	Go to step 2.
2	1. Check the Print Cartridge for damage or leakage. 2. Is the Print Cartridge damaged?	Replace the Print Cartridge (page 8-7).	Complete.

Stains on the Back of the Page

The background of the back of the page is stained at 47.0 mm or 62.8 mm.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Transfer Roller, PL1.1.11 ■ Fuser, PL9.1.0	 Residual Image/Ghosting

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Check the Transfer Roller for contamination. 2. Is the Transfer Roller surface dirty?	Perform PC cleaning procedure (refer to “Printing the Print Cleaning Page” on page 7-5).	Go to step 2.
2	1. Replace the Transfer Roller (page 8-10). 2. Does the error still occur?	Replace the Fuser (page 8-13).	Complete.

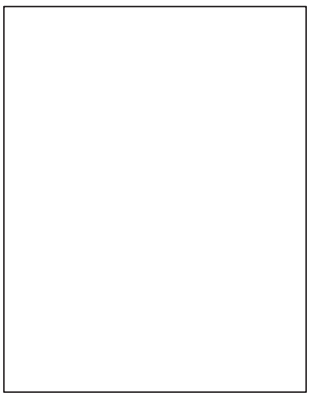
Blank Page (1)

The entire image area is blank.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.
- Check to ensure that there is nothing blocking the Laser windows.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Main Controller Board, PL1.1.2 ■ Print Cartridge, PL1.1.20	 Blank Print

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Clean the ground terminals on the Print Cartridge and inside of the printer. 2. Does the error still occur?	Go to step 2.	Complete.
2	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

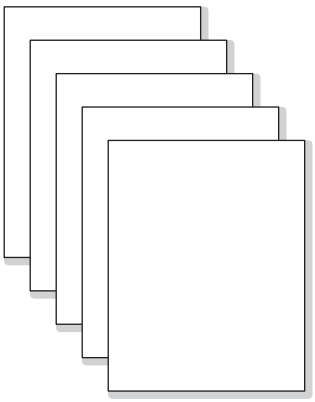
Blank Page (2)

The entire image area is blank. One or several blank pages are printed, or when the printer is turned On, several blank pages are printed.

Initial Actions

- Check the paper transfer path.
- Ensure there are no debris on the transfer path.

Troubleshooting Reference Table

Applicable Parts	Example Print
■ Main Controller Board, PL1.1.2 ■ Print Cartridge, PL1.1.20 ■ Pick-Up Solenoid, PL6.1.37	 Multiple Blank Prints

Troubleshooting Procedure Table

Step	Actions and Questions	Yes	No
1	1. Clean the ground terminals on the Print Cartridge and inside of the printer. 2. Does the error still occur?	Go to step 2.	Complete.
2	1. Check the Pick-Up Solenoid for correct installation. Reseat the Pick-Up Solenoid (page 8-39). 2. Does the error still occur?	Replace the Pick-Up Solenoid (page 8-39).	Go to step 3.
3	1. Check the Main Controller Board for correct installation. Reseat the Main Controller Board (page 8-62). 2. Does the error still occur?	Replace the Main Controller Board (page 8-62).	Complete.

Adjustments and Calibrations

In this chapter…

Chapter 6

Adjustments

Altitude Adjustment

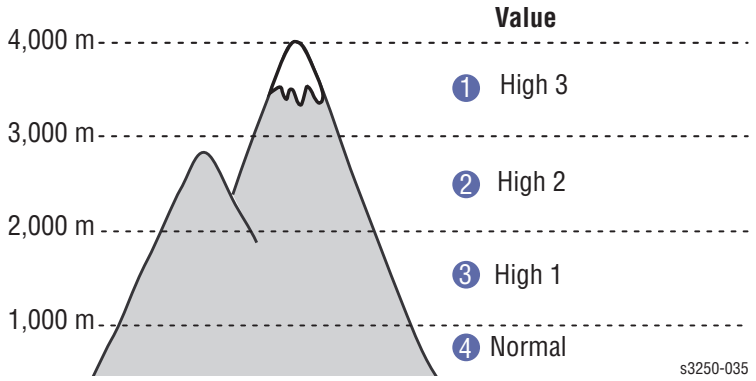
Print Quality is affected by atmospheric pressure, which is determined by the location of the printer above sea level. The following information contains instructions and specifications for adjusting altitude information for the Phaser 3250.

Note

Verify to ensure the Phaser 3250 printer driver has been installed.

Altitude Specifications

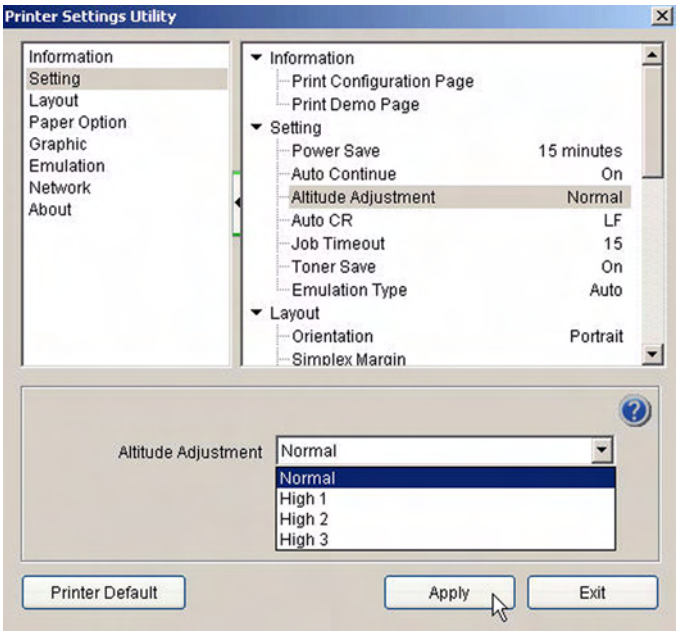
Prior to performing the altitude adjustment procedure, determine the altitude location of the printer and the appropriate value to be adjusted for the printer.



Adjusting Altitude

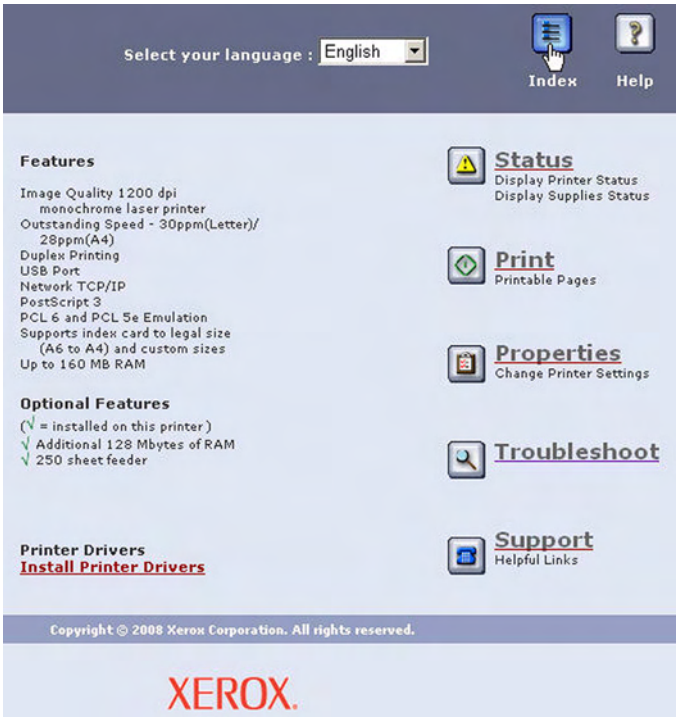
Printer Settings Utility Method (USB Connection)

1. From the **Start Menu**, select **Programs** > **Xerox P3250** > **Printer Settings Utility**.
2. The **Printer Settings Utility** window is displayed.
   a. On the left column, select **Setting**.
   b. On the right column, select **Altitude Adjustment**.
   c. Under **Altitude Adjustment** window, from the pull-down menu, select the appropriate altitude information for the printer.
   d. Click the **Apply** button to change the altitude information.
   e. Click the **Exit** button to close the **Printer Settings Utility** window.

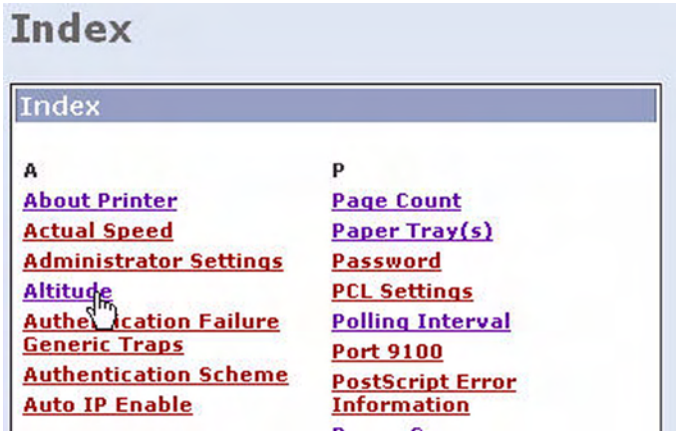


CentreWare IS Method (Network Connection)

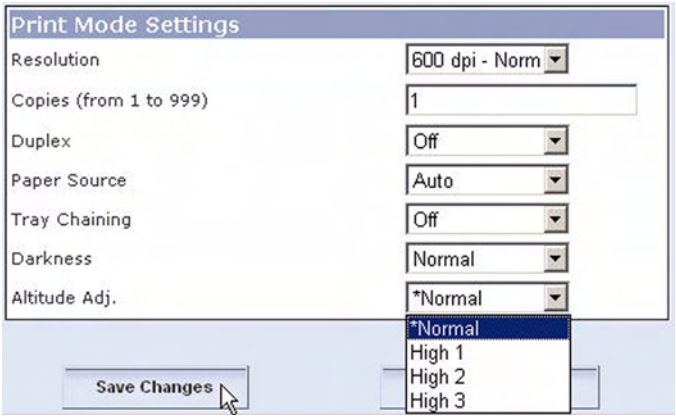
1. Open a web browser.
2. Enter the printer's IP address.
3. The **CentreWare IS** page is displayed.
4. Click the **Index** button.



5. Click the **Altitude** link.



6. In the **Print Mode Settings** window, find **Altitude Adj.** From the pull down menu, select the appropriate altitude information for the printer.
7. Click **Save Changes** to save the information.



8. The Completion window is displayed.
9. Click **OK** to close the window.

Cleaning and Maintenance

In this chapter...

- Service Maintenance Procedure
- Cleaning
- Maintenance

Chapter 7

Service Maintenance Procedure

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

The frequency of use, Average Monthly Print Volume (AMPV), type of media printed on, and operating environment are factors in determining how critical cleaning the machine is and how often it is necessary. Record the number of sheets printed.

Recommended Tools

- Toner vacuum cleaner
- Clean water
- Clean, dry, lint-free cloth
- Black light-protective bag

Cleaning

Perform the following general cleaning steps as indicated by the printer's operating environment.

Warning

Never apply alcohol or other chemicals to any parts of the printer. Do not use aerosol cleaners; they may be explosive and flammable under certain conditions.

Caution

Never use a damp cloth to clean up toner. If you remove the Print Cartridge, place it in a light-protective bag or otherwise protect it as exposure to light can quickly degrade performance and result in early failure.

1. Record number of sheets printed.
2. Print several sheets of paper to check for problems or defects.
3. Turn the printer power Off and disconnect the power cord.
4. Remove the Print Cartridge, Transfer Roller, Fuser, Duplex Unit, Side Covers, and Rear Cover before cleaning.
5. Remove the Top Cover and clean the Main Fan to remove excess dust.
6. Ensure that all cover vents are clean and free of obstructions.
7. Remove any debris or foreign objects from the Print Cartridge, Fuser, Transfer Roller, Duplex Unit, and inside of the printer.

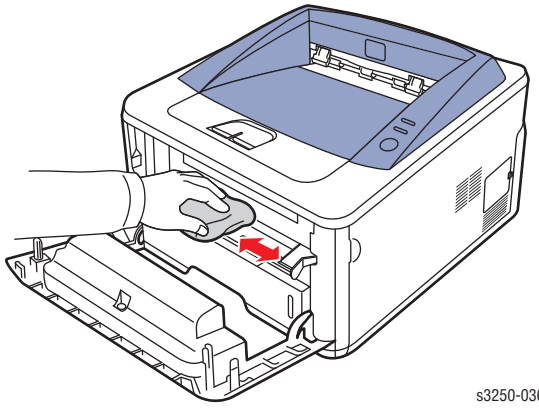
8. Remove and clean the paper trays.
9. Clean all rubber rollers with a lint-free cloth slightly dampened with cold water.

Cleaning the Print Cartridge

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

1. Open the Front Cover.
2. Use a dry lint-free cloth to wipe any dust and/or spilled toner from the Print Cartridge area. Remove any paper debris from the area.



s3250-036

Cleaning the Laser Unit

Caution

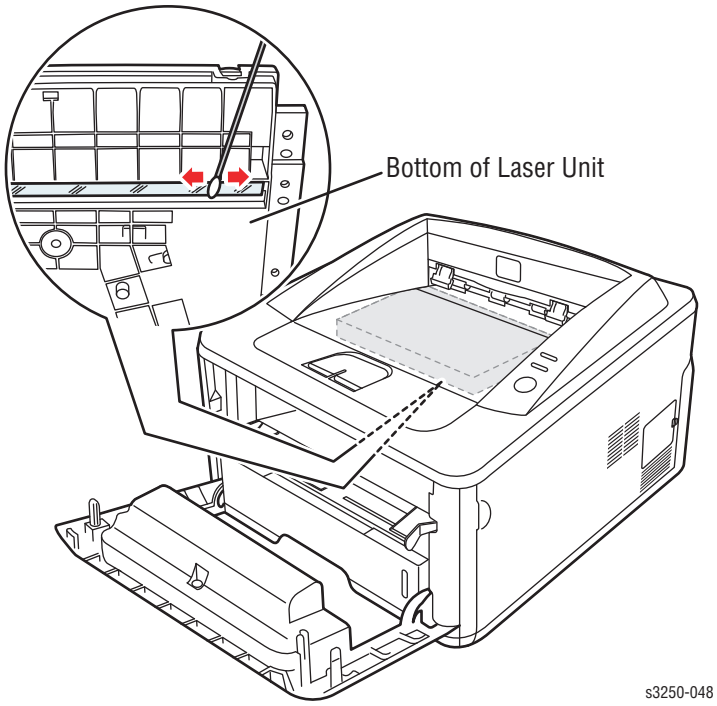
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

1. Open the Front Cover.
2. Remove the Print Cartridge (page 8-7).

Note

It may be difficult to locate the strip of glass on the Laser Unit.

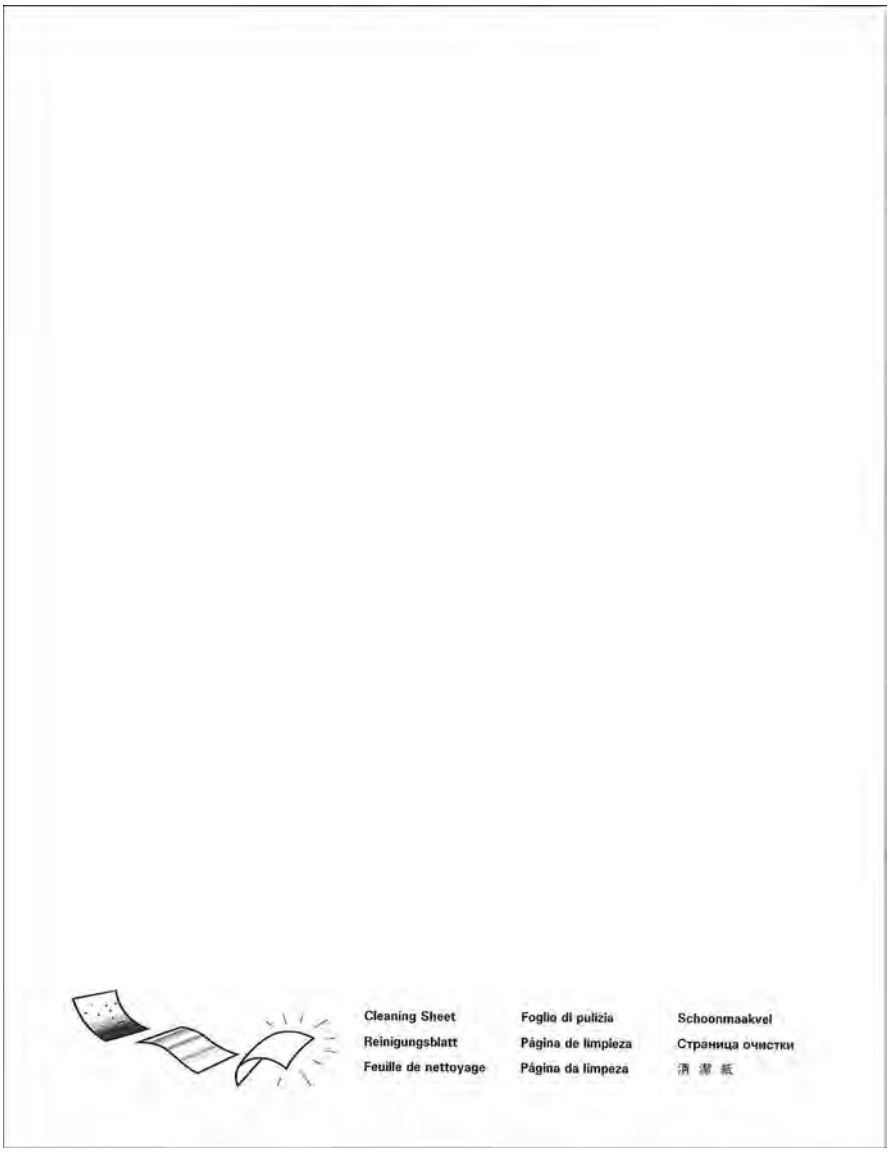
3. Use a Q-tip to wipe the long strip of glass of the Laser Unit.



Printing the Print Cleaning Page

There are two methods for printing the Print Cleaning page in Cleaning Mode.

- Control Panel Method
- CentreWare IS Method



Control Panel Method

1. On the printer's Control Panel, press and hold the **Start/Stop** button for about 10 seconds and release the **Start/Stop** button.

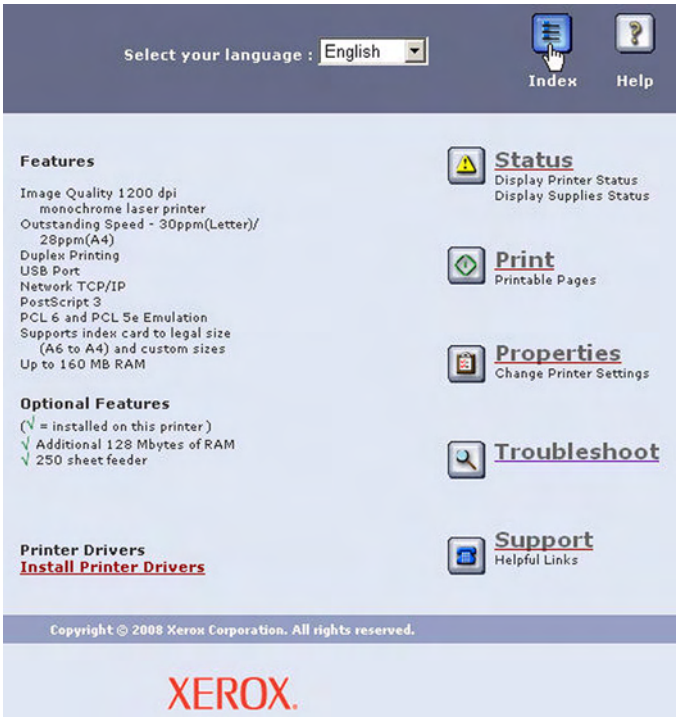
Embedded Pages	*Demo Page*	*Configuration Page and Menu Map*	*Print Cleaning Page*	*Event Log and Supplies Information*
Blinking Rate	Slowly	Quickly	Slowly	Quickly
Approx. Release Time	2 seconds	5 seconds	10 seconds	15 seconds
	For Customer (in the User Guide)		Only for Service Technician (in the Service Manual)	

s3250-074

2. A Cleaning Sheet is printed.

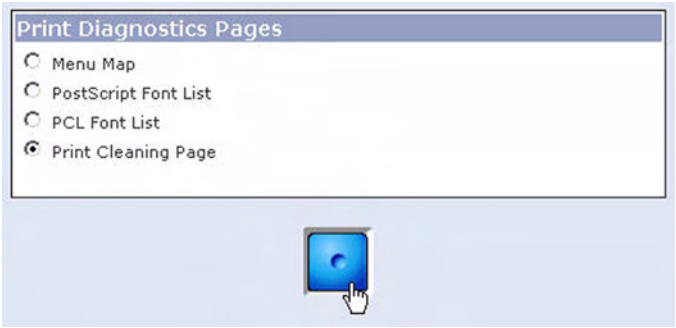
CentreWare IS Method

1. Open a web browser.
2. Enter the printer's IP address.
3. The **CentreWare IS** page is displayed.
4. Click the **Index** button.



5. Click the **Print Cleaning Page** link.

6. Select **Print Cleaning Page**.
7. Click the **Blue** button.



8. The status window is displayed. Click **OK** to close the window. Close the **CentreWare IS** window.

9. The Green LED on the Control Panel starts blinking and a Cleaning Sheet a printed.

Maintenance

RIP (Repair, Inspect, and Prevent) Procedure

Perform these routine maintenance procedures during the course of servicing the printer.

- Clean the Feed Rollers, Exit Rollers, and Guides; replace if necessary.
- Remove and clean the paper trays.
- Print a Configuration and Error History pages; diagnose, and repair any problems as indicated.
- Check the printer engine and image processor firmware fans; if necessary, clean (dust or vacuum) these areas.
- Check cleanliness of the interior and exterior, including fans; if necessary, clean (dust or vacuum) these areas.
- Review proper printer operation using a customer file, if possible. Check with the customer regarding any special applications they may be using.
- Review with the customer all work that was performed and discuss proper printer care.

Service Parts Disassembly

In this chapter...

Chapter 8

Overview

This section contains the removal procedures for field-replaceable parts of the printer listed in the Parts List. In most cases, the replacement procedure is simply the reverse of the removal procedure. In some instances, additional steps are necessary and are provided for replacement of the parts. For specific assemblies and parts, refer to the “Parts List” in Section 9.

Note

Always use the correct type and size screw (page 8-6). Using the wrong screw can damage tapped holes. Do not use excessive force to remove or install either a screw or a printer part.

The procedures are organized by the consumer replacement parts and functions of the printer.

Maintenance Items and Consumables

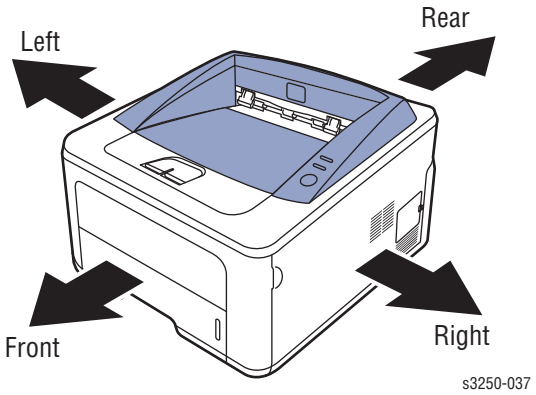
- Print Cartridge (page 8-7)
- Tray Holder Pad (page 8-8)
- Transfer Roller (page 8-10)
- Pick-Up Roller (page 8-11)
- Fuser (page 8-13)

Printer Assembly

- Covers (page 8-27)
- Duplex (page 8-37)
- Paper Feeder (page 8-38)
- Xerographics (page 8-57)
- Exit Guide (page 8-59)
- Drive (page 8-60)
- Electrical (page 8-62)

Standard Orientation of the Printer

When needed, the orientation of the printer is called out in the procedure as an aid for locating the printer parts. The following illustration identifies the Front, Rear, Left, and Right sides of the printer.



Preparation

Before you begin any removal and replacement procedure:

1. Wear an Electrostatic Discharge wrist strap to help prevent damaging to the sensitive electronics of the print circuit boards.
2. Turn the printer power Off and disconnect the power cord from the wall outlet.
3. Disconnect all computer interface cables from the printer.
4. Remove Tray 1.
5. Open the Front Cover.
6. Remove the Print Cartridge (page 8-10).

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. After removal, cover the Print Cartridge to minimize the amount of light striking the Print Cartridge. Prolonged exposure to light significantly reduces Print Cartridge performance.

Note

Names of parts that appear in the removal and replacement procedures may not match the names that appear in the Parts List. For example, a part called the Registration Chute Assembly in a removal procedure may appear on the Parts List as Assembly Registration Chute. When working on a removal procedure, ignore any prerequisite procedure for parts already removed.

Caution

Many parts are secured by plastic tabs. DO NOT over flex or force these parts. DO NOT over torque the screws threaded into plastic parts.

Warning

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

Notations in the Disassembly Text

- The notation “(item X)” points to a numbered callout in the illustration corresponding to the disassembly procedure being performed.
- The notation “PL*X.X.X*” indicates that this component is listed in the Parts List.
- Bold arrows in an illustration show direction of movement when removing or replacing a component.
- The notation “(tap, plastic, 10 mm)” or “(metal, 6 mm)” refer to the type of screw being removed.

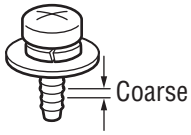
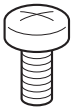
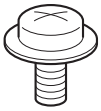
Note

Provides information specific to the replacement of parts or assemblies.

Fastener Types

The following table lists the primary types of Posi-Drive screws used to assemble the printer. The procedures provide dimensional specifications for screws being removed.

Posi-Drive Screw Types used in the Printer

Type	Shape	Characteristics
Sheet Metal with flange, gold		1. Gold colored. 2. Includes a round washer. 3. Screw has a flange. 4. Diameter is uniform.
Sheet Metal, silver		1. Silver colored. 2. Diameter is uniform.
Sheet Metal, silver		1. Silver colored. 2. Diameter is uniform.
Sheet Metal with flange, silver		1. Silver colored. 2. Screw has a flange. 3. Diameter is uniform.
Sheet Metal with flange, black		1. Black colored. 2. Screw has a flange. 3. Diameter is uniform.

Caution

Use care when installing self-tapping screws in plastic. To properly start the screw in plastic, turn the screw counter-clockwise in the hole until you feel the screw engage the threads, then tighten as usual. Failure to properly align or over tighten the screw can result in damage to previously tapped threads.

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

Maintenance Items and Consumables

Maintenance items include the Transfer Roller, Fuser, Pick-Up Roller, and Tray Holder Pad. Consumable item includes the Print Cartridge.

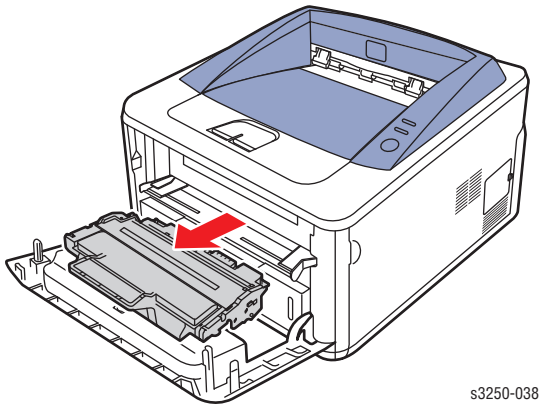
Print Cartridge (PL1.1.20)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Open the Front Cover.
2. Push the Print Cartridge handle upward and pull the Print Cartridge out from the printer.



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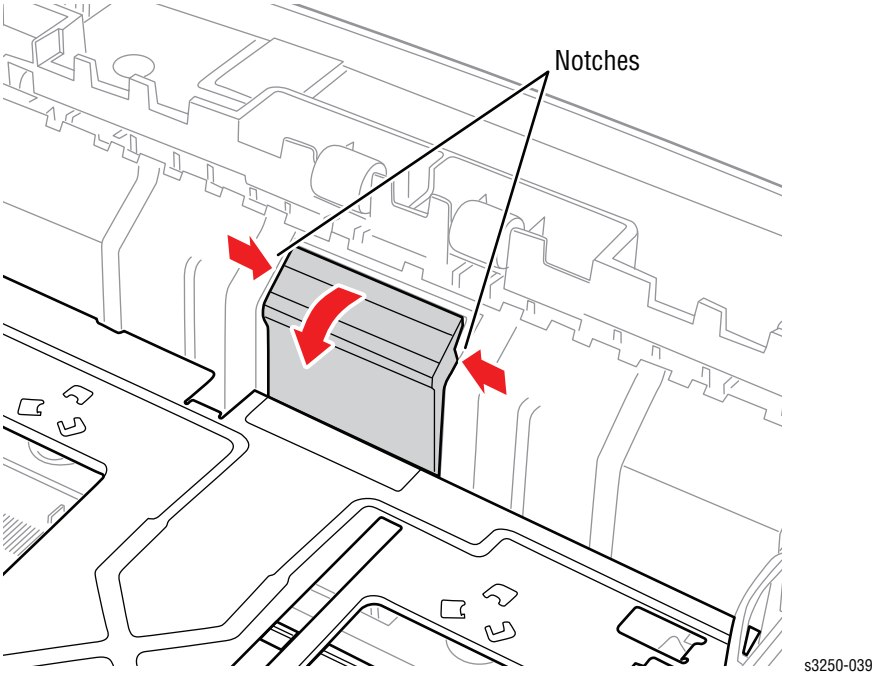
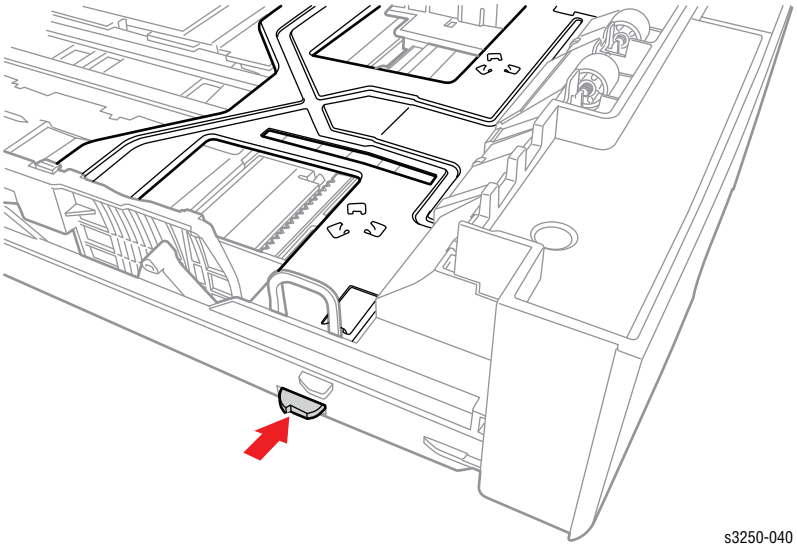
Tray Holder Pad (PL11.1.14)

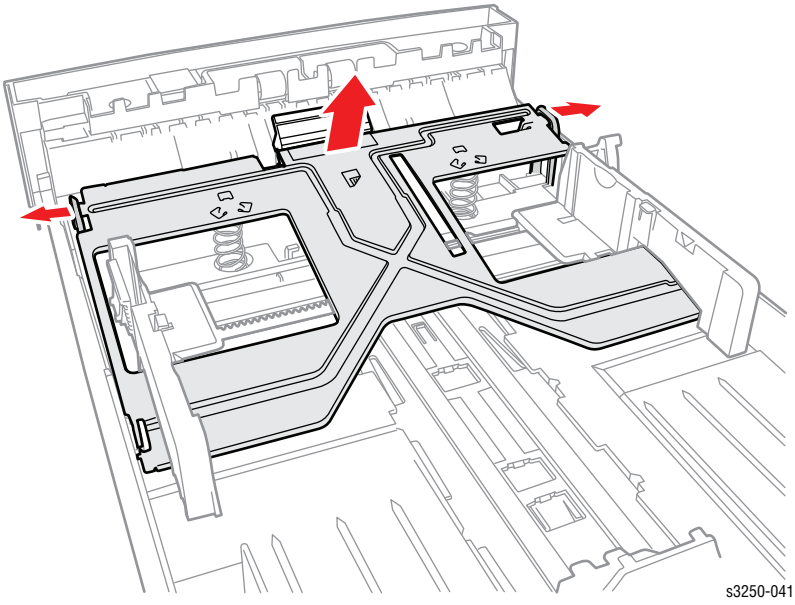
1. Remove Tray 1.
2. Remove paper from Tray 1.
3. Press the Tray Holder Pad to the left and right to release the notches on the left and right sides.



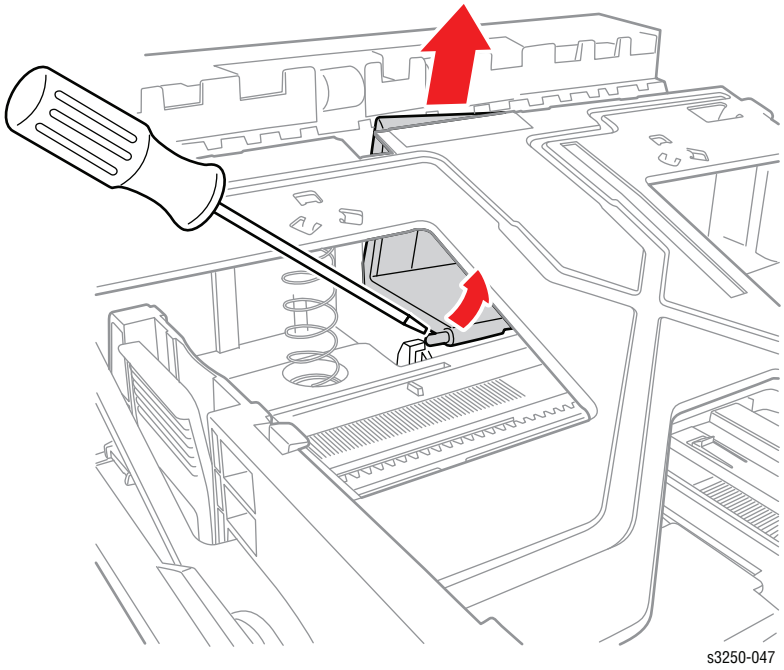
4. Apply pressure on the Knock-Up P Plate while pressing the white tab to release Knock-Up P Plate.



5. Release the left and right latches from the left and right hooks on the tray.
6. The Knock-Up P Plate is released from the hooks.



7. While holding the Tray Holder Pad, use a flat tip screw driver to pry the Holder Pad notch up from the tray.
8. Remove the Tray Holder Pad from the tray.

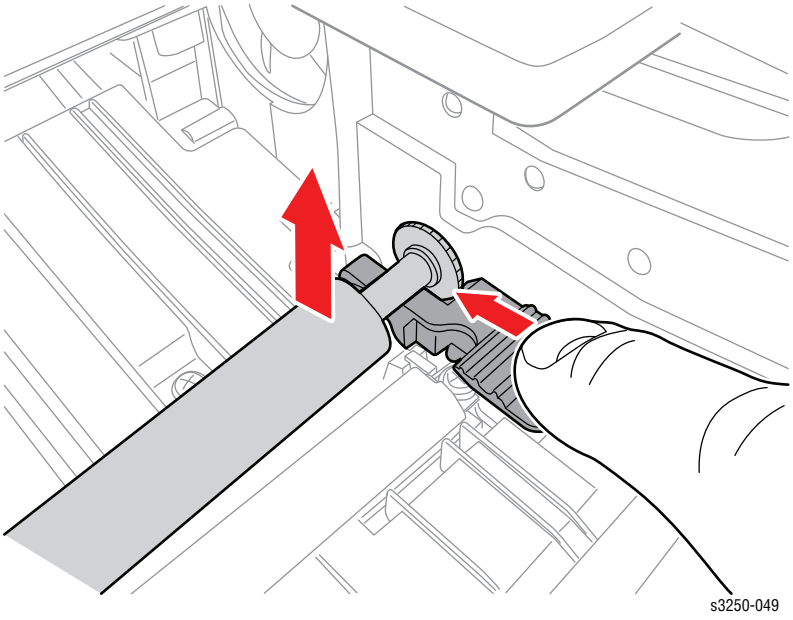


Transfer Roller (PL1.1.11)

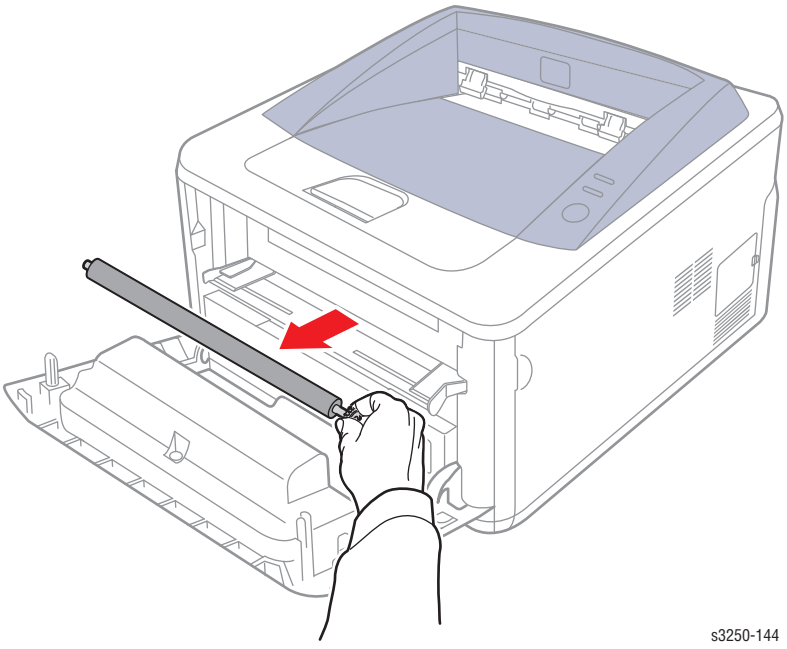
Caution

Do not touch the sponge on the Transfer Roller area.

1. Open the Front Cover.
2. Push the Transfer Roller holder forward to release the Transfer Roller.



3. Carefully lift the Transfer Roller up and remove it from the printer.



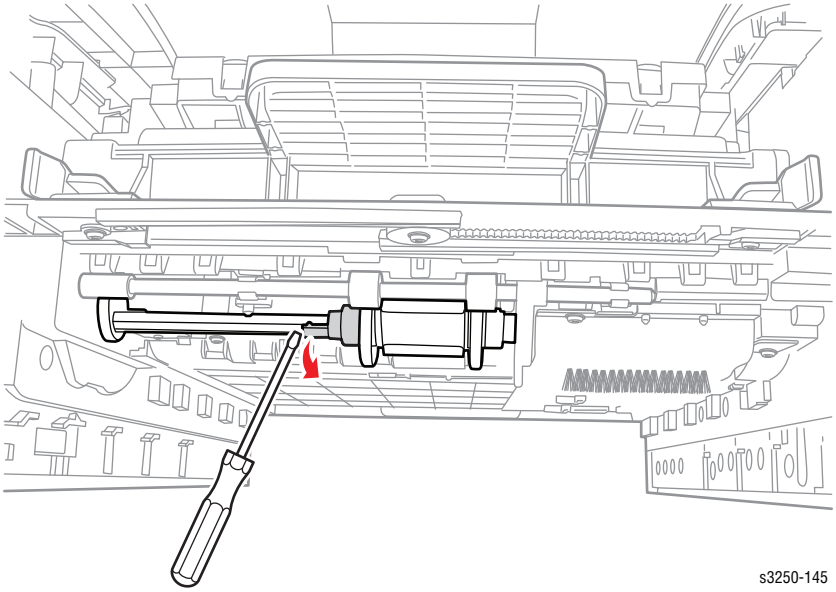
MEA Pick Up Unit (Pick-Up Roller) (PL6.1.26)

1. Remove Tray 1.

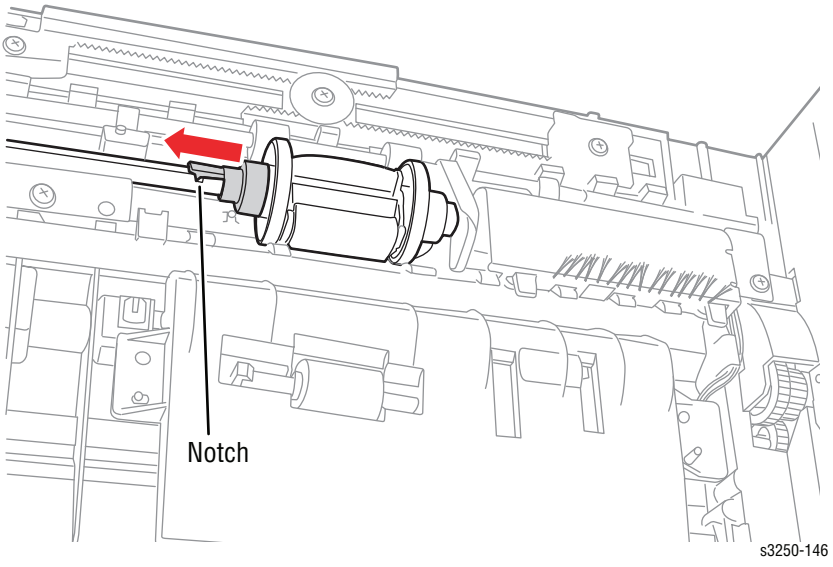
Note

Be sure not to lift the PMO Pick-Up Idle latch too high. This will prevent the Pick-Up Idle to secure in place for installation.

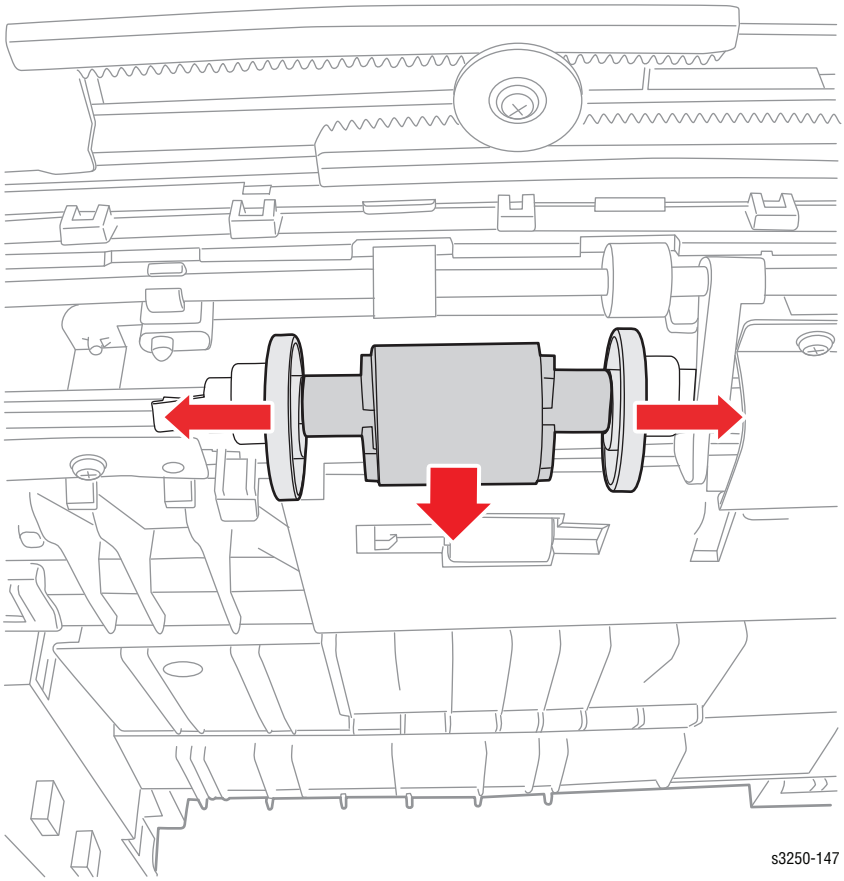
2. Use a flat tip screwdriver to release the PMO Pick-Up Idle (PL6.1.23) latch from the Pick-Up Shaft (PL6.1.24).



3. Slide the Pick-Up Idle toward the left side pass the groove on the shaft.



4. Slide the Pick-Up Stopper (PL6.1.25) toward the left side away from the Pick-Up Housing (PL6.1.26-3).
5. Rotate the Pick-Up Rubber (PL6.1.26-1) and slide it out away from the shaft to remove the MEA Pick-Up Unit.



Fuser (PL9.1.0)

Warning

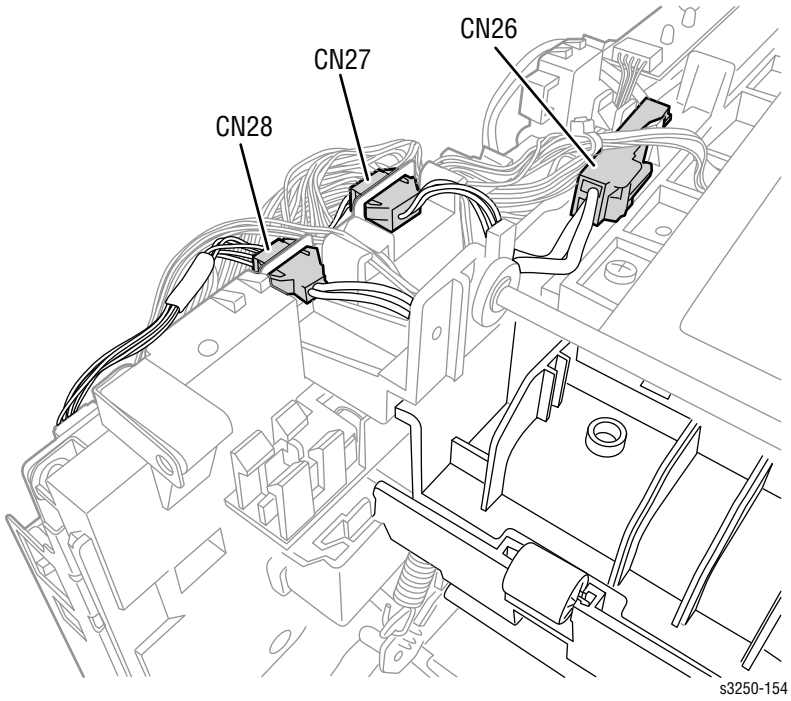
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

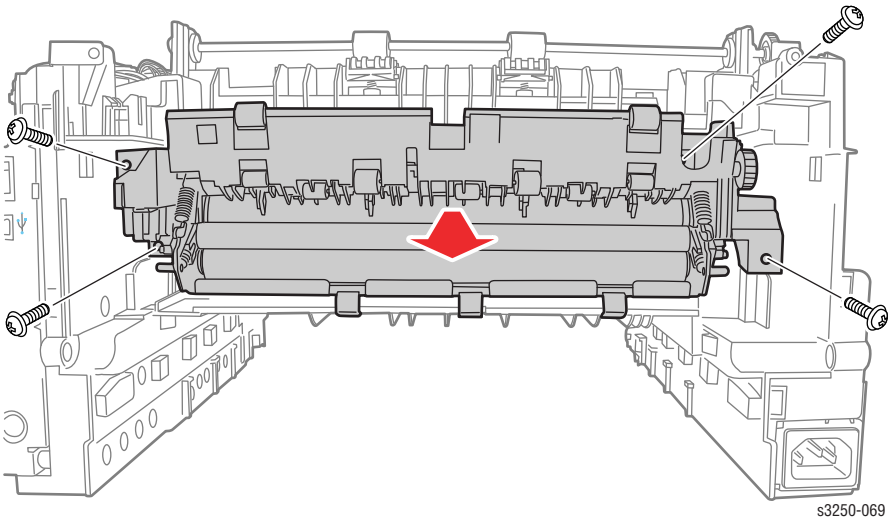
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Disconnect the 3 wiring harness connectors.



10. Remove the Rear Guide Assembly (page 8-59).
11. Remove 4 screws securing the Fuser.
12. Slide the Fuser out away from the printer.



Thermistor Assembly (PL9.1.5)

Warning

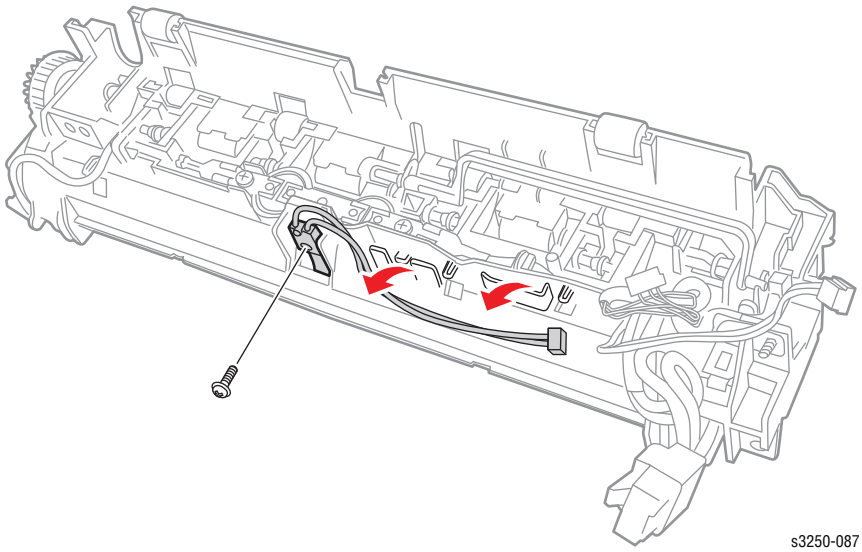
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Remove the Thermistor's wiring harness from the clips.
11. Remove 1 screw securing the Thermistor.
12. Remove the Thermistor Assembly.



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Thermostat (PL9.1.7)

Warning

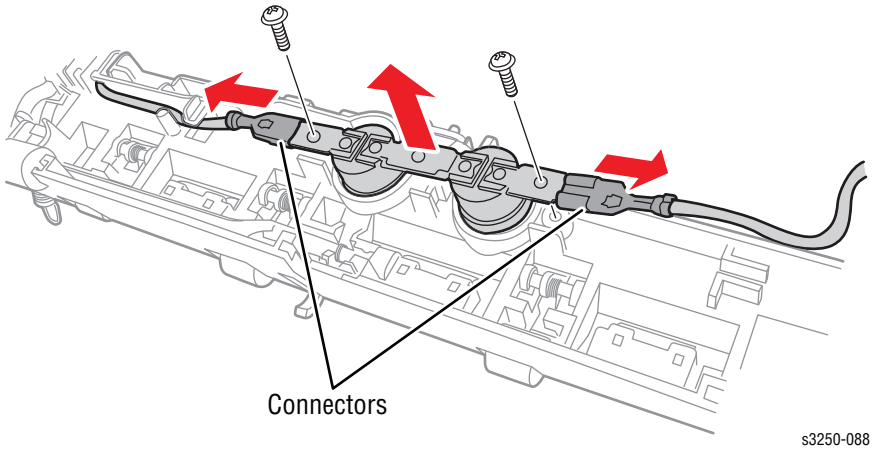
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Remove 2 screws securing the Thermostat to the Fuser Cover.
11. Lift the Thermostat away from the Fuser Cover.
12. Disconnect the left and right connectors from the wiring harnesses.
13. Remove the Thermostat.



Heat Roller (PL9.1.10)

Warning

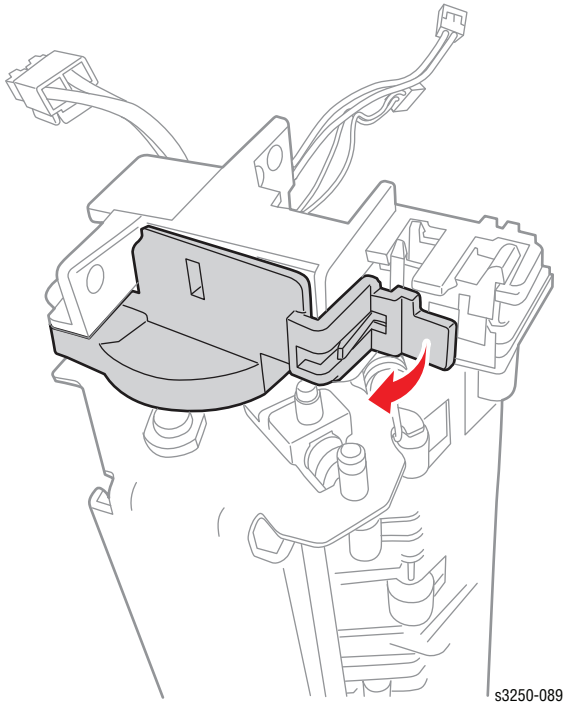
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

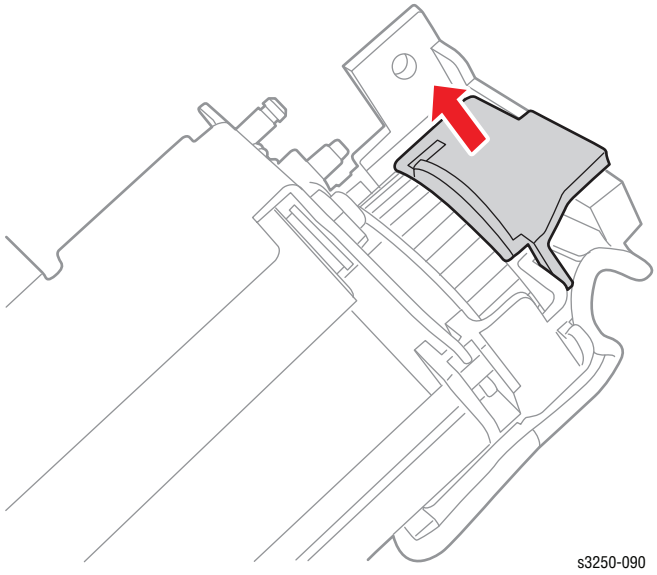
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

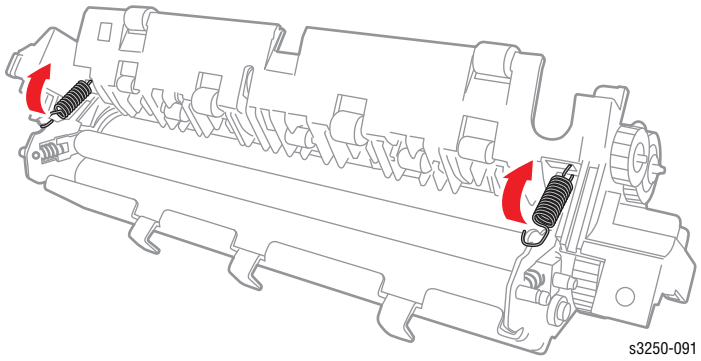
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Release the latch to remove the Right Lamp Cap (PL9.1.32).



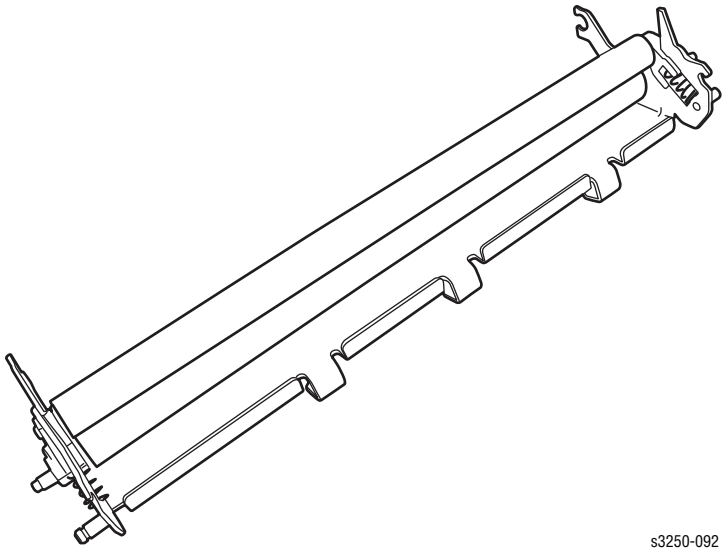
11. Release the latch to remove the Left Lamp Cap (PL9.1.31).



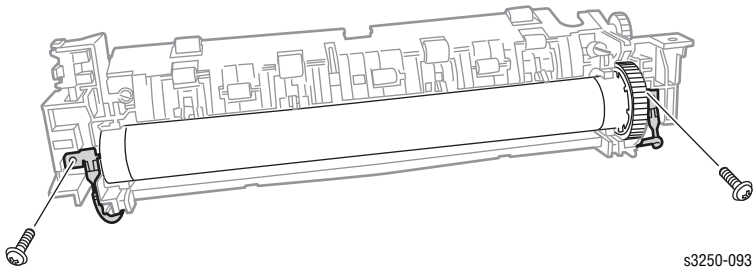
12. User a pair of pliers to unhook the left and right ES Springs (PL9.1.29) securing the Fuser Frame (PL9.1.20) and the Fuser Cover (PL9.1.1).



13. Remove the Fuser Frame with the Pressure Rollers (PL9.1.21/23) from the Fuser Cover.



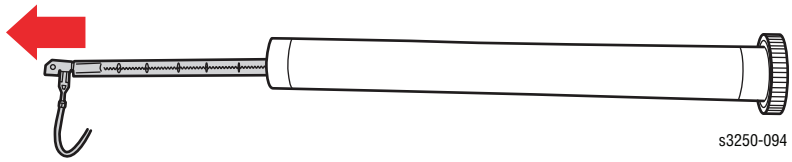
14. Release the 2 Lamp connectors from the wiring harnesses.
15. Remove 2 screws (black without washer) securing the Halogen Lamp (PL9.1.30) to the Fuser Cover (PL9.1.1).



Note

Ensure to hold the Halogen Lamp by the ends so there is no transfer of oil from the hands onto the Lamp, which could damage the Lamp.

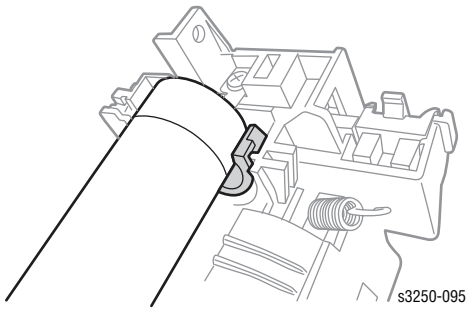
16. Slide the Halogen Lamp out away from the Heat Roller.



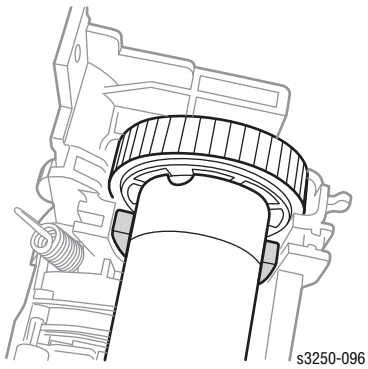
Replacement Note

Ensure the Bushings are placed in the correct position.

Right Bushing



Left Bushing



Pressure Roller (#1) (PL9.1.21)

Warning

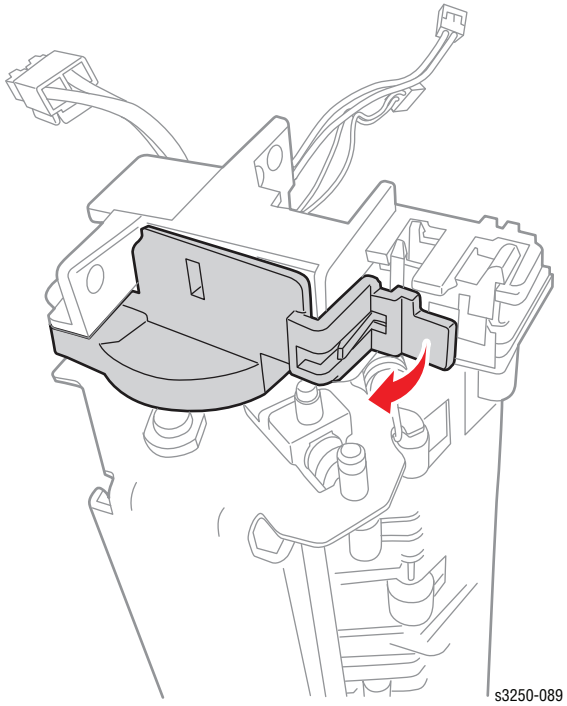
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

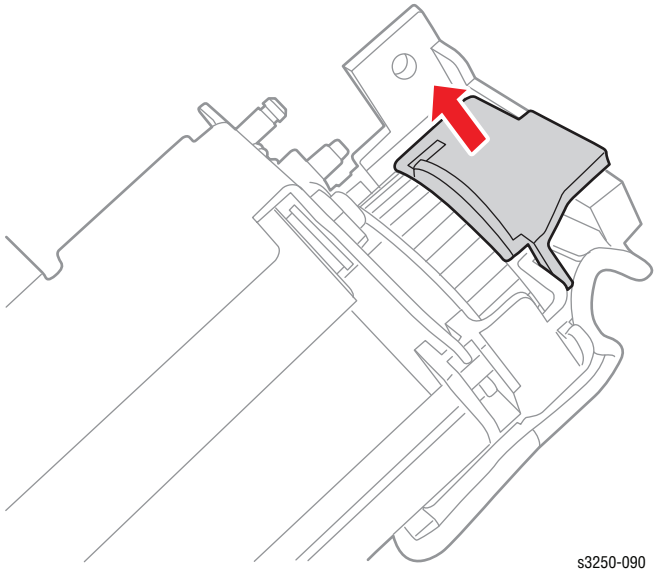
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

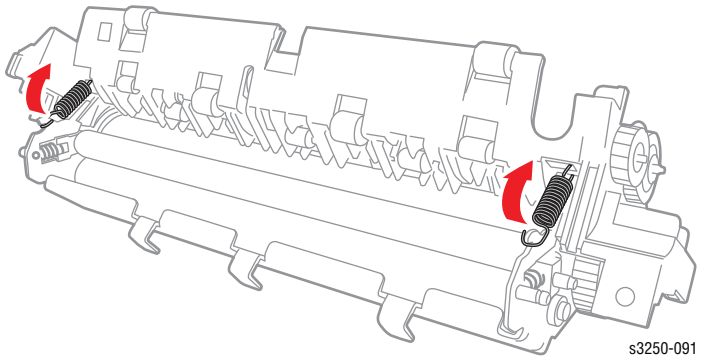
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Release the latch to remove the Right Lamp Cap (PL9.1.32).



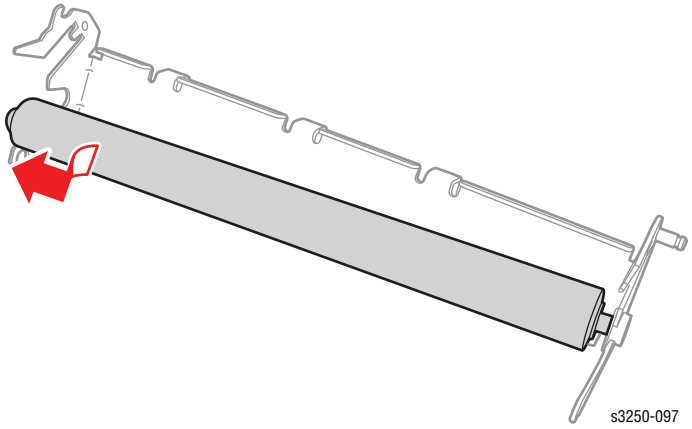
11. Release the latch to remove the Left Lamp Cap (PL9.1.31).



12. Use a pair of pliers to unhook the left and right ES Springs (PL9.1.29) securing the Fuser Frame (PL9.1.20) and the Fuser Cover (PL9.1.1).



13. Remove the Pressure Roller #2 (page 8-22).
14. On the wide open side of the Fuser Frame (PL9.1.20), slide the Pressure Roller out from the Fuser Frame. On the small open side of the Fuser Frame, slide the Pressure Roller out from the Bushing (PL9.1.22).



Pressure Roller (#2) (PL9.1.23)

Warning

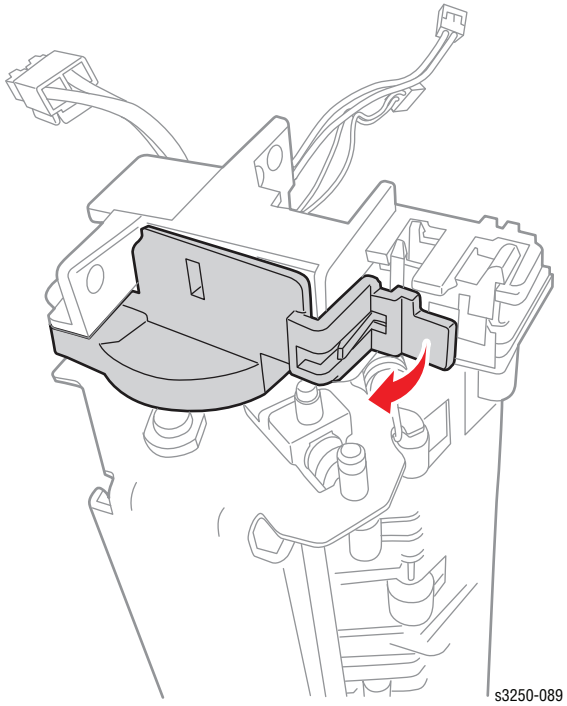
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

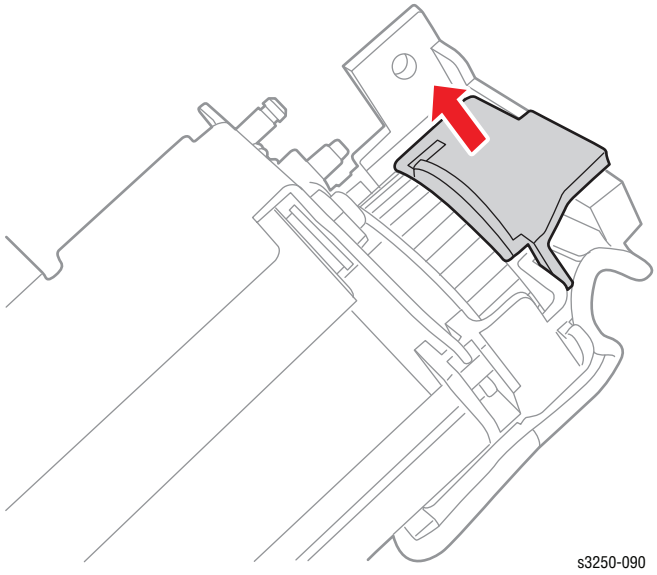
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

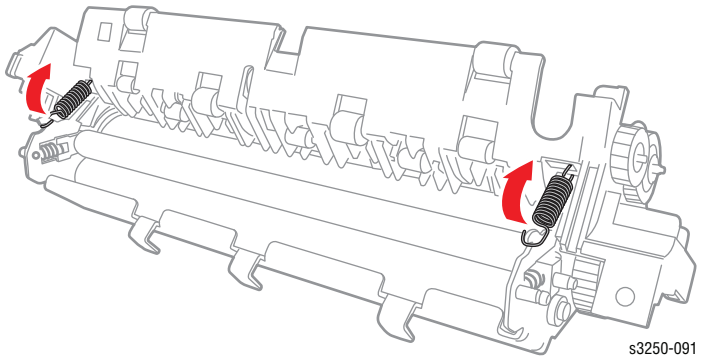
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Release the latch to remove the Right Lamp Cap (PL9.1.32).



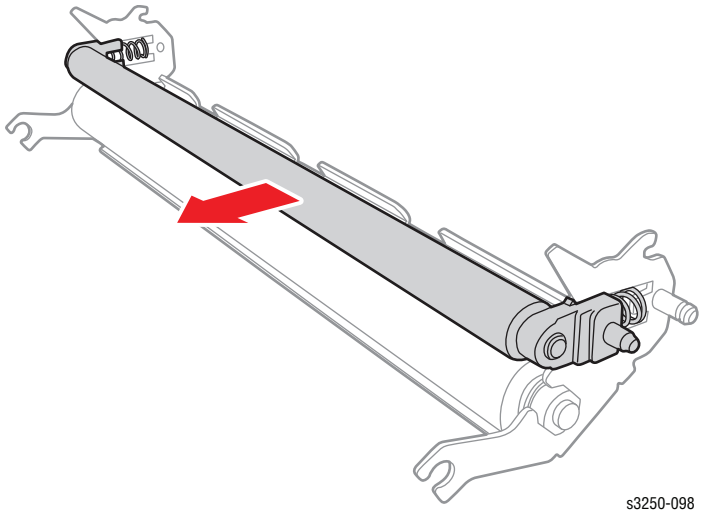
11. Release the latch to remove the Left Lamp Cap (PL9.1.31).



12. User a pair of pliers to unhook the left and right ES Springs (PL9.1.29) securing the Fuser Frame (PL9.1.20) and the Fuser Cover (PL9.1.1).



13. Slide the Pressure Roller #2 together with the Bushings (PL9.1.24) and the Springs (PL9.1.27) out away from the Fuser Frame.



Halogen Lamp (PL9.1.30)

Warning

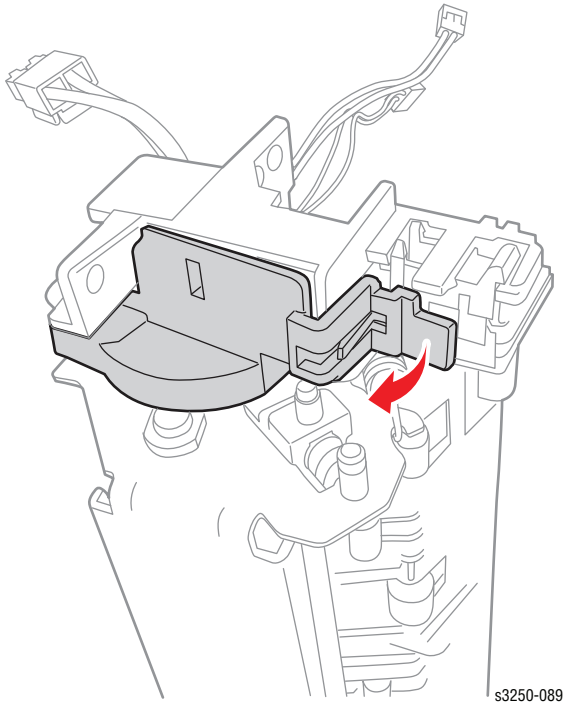
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

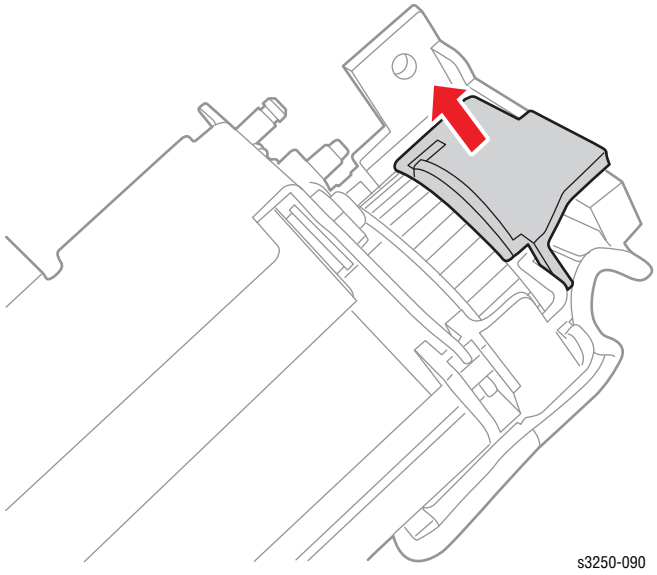
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

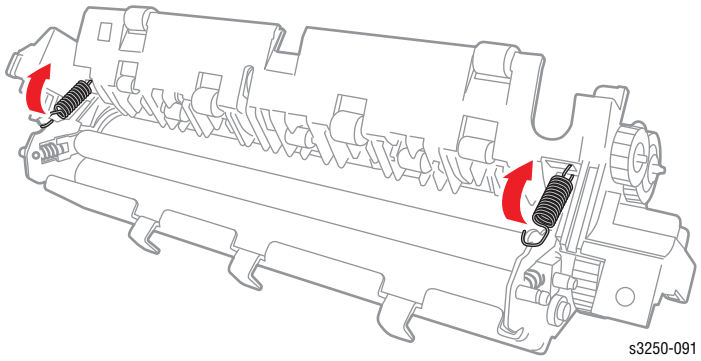
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Release the latch to remove the Right Lamp Cap (PL9.1.32).



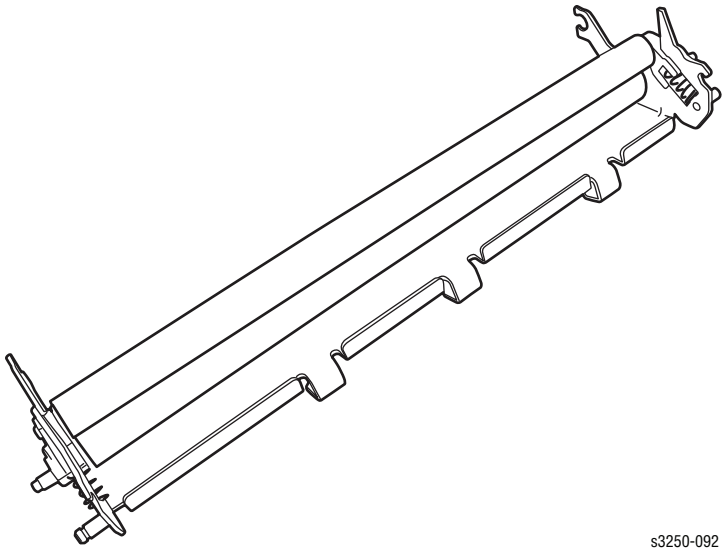
11. Release the latch to remove the Left Lamp Cap (PL9.1.31).



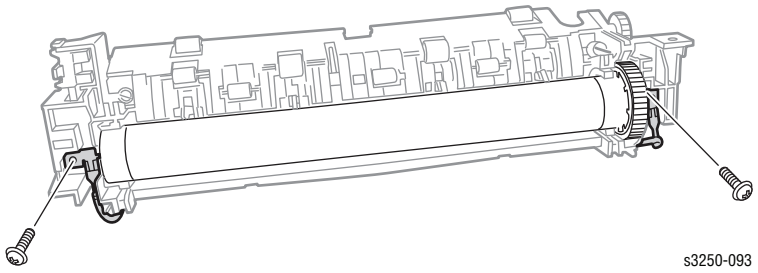
12. User a pair of pliers to unhook the left and right ES Springs (PL9.1.29) securing the Fuser Frame (PL9.1.20) and the Fuser Cover (PL9.1.1).



13. Remove the Fuser Frame with the Pressure Rollers (PL9.1.21/23) from the Fuser Cover.



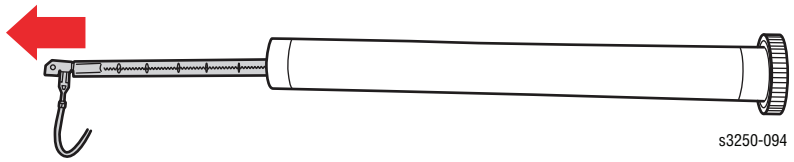
14. Release the 2 lamp connectors from the wiring harnesses.
15. Remove 2 screws (black without washer) securing the Halogen Lamp to the Fuser Cover.



Note

Ensure to hold the Halogen Lamp by the ends so there is no transfer of oil from the hands onto the Lamp, which could damage the Lamp.

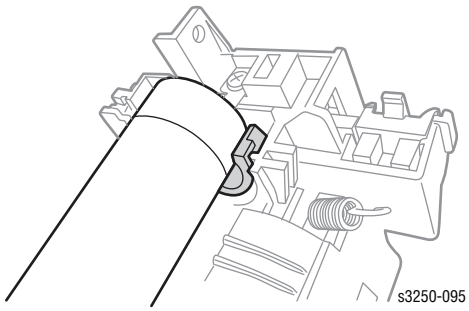
16. Slide the Halogen Lamp out away from the Heat Roller.



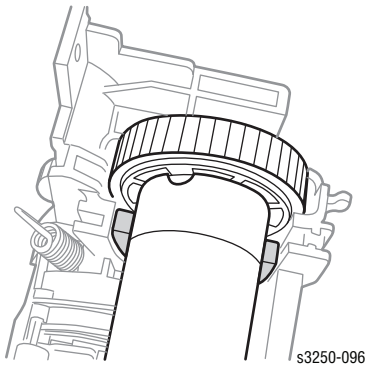
Replacement Note

Ensure the Bushings are placed in the correct position.

Right Bushing



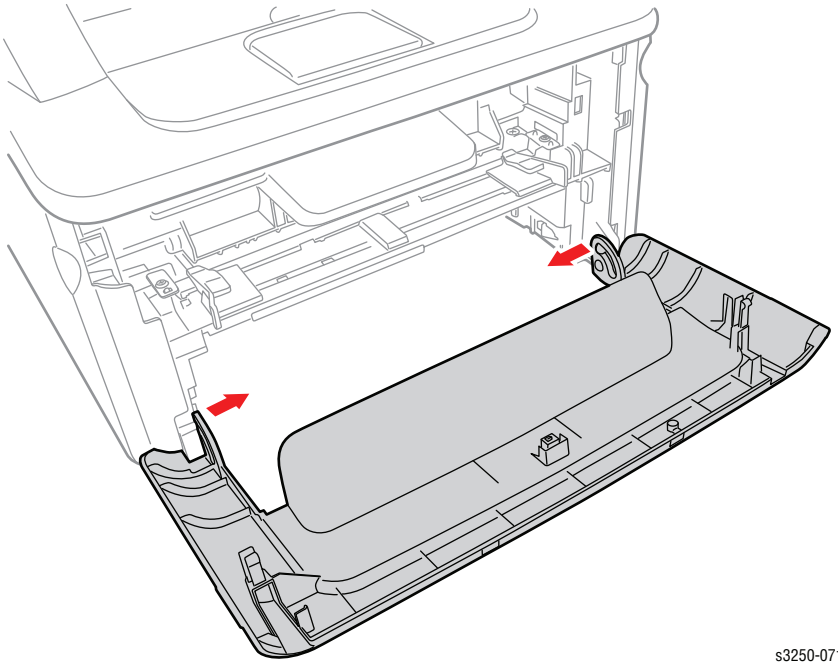
Left Bushing



Covers

Front Cover (PL4.1.0)

1. Remove Tray 1.
2. Open the Front Cover.
3. Carefully press the left or right latch inward to release the Front Cover from the notch.
4. Remove the Front Cover.



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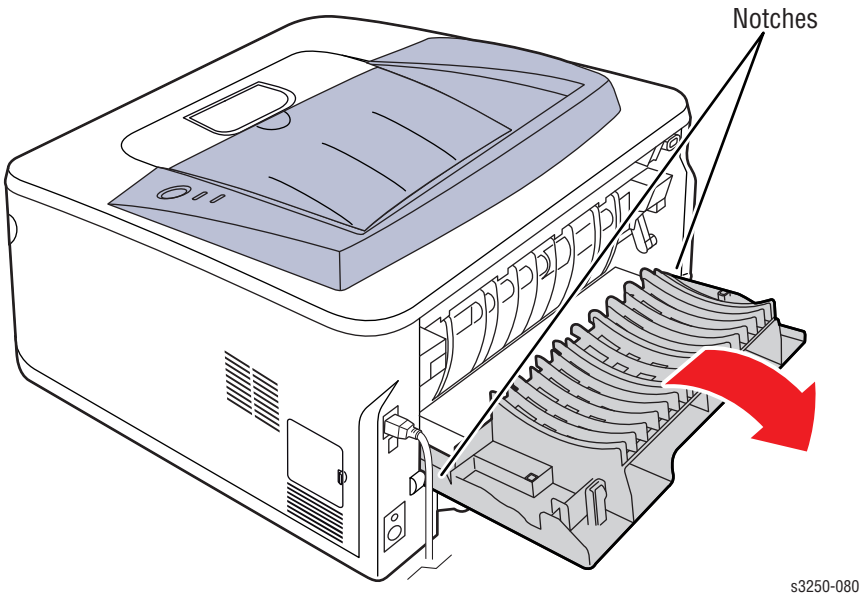
Rear Cover (PL5.1.0)

1. Remove the Duplex Unit (page 8-37).
2. Open the Rear Cover.
3. Press the Rear Cover toward one side to release the notch from the printer frame.
4. Remove the Rear Cover.



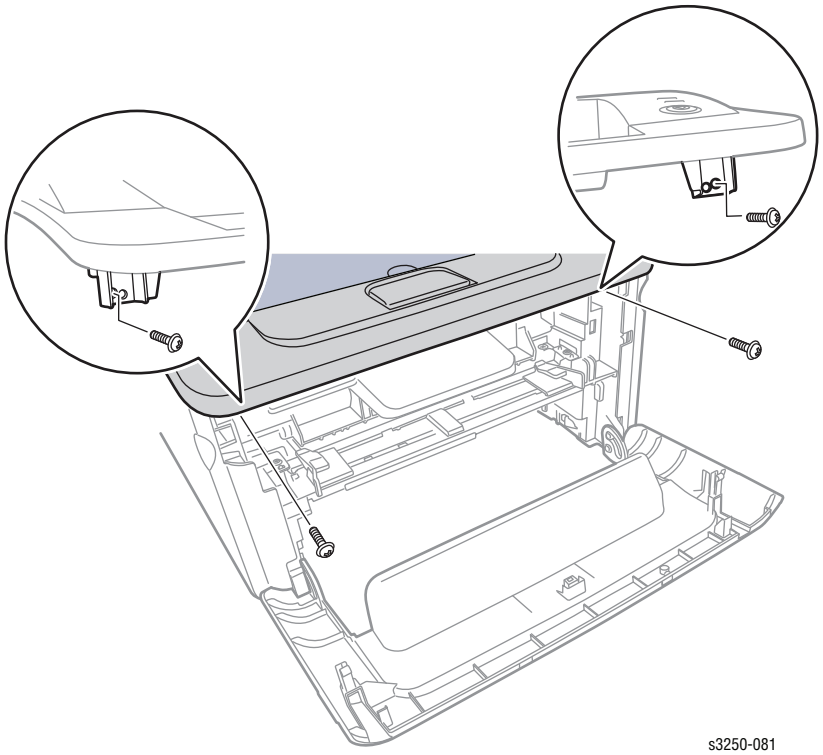
Top Cover (PL2.1.0)

Caution

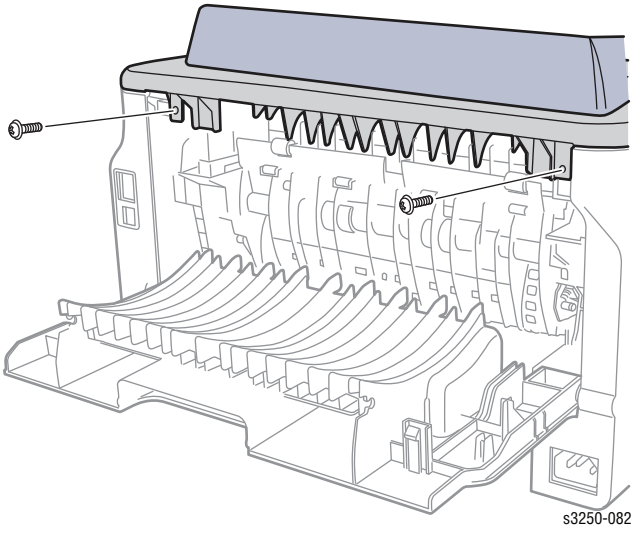
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

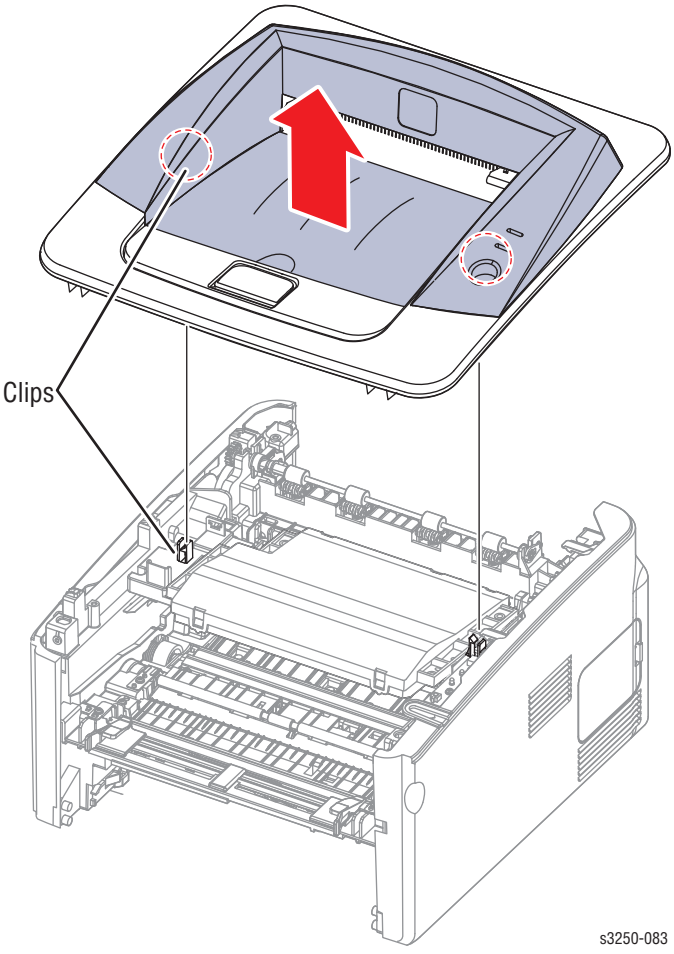
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove 2 screws securing the front side of the Top Cover.
6. Release the left and right tabs on the Top Cover from the notches.



7. Open the Rear Cover.
8. Remove 2 screws securing the rear side of the Top Cover.

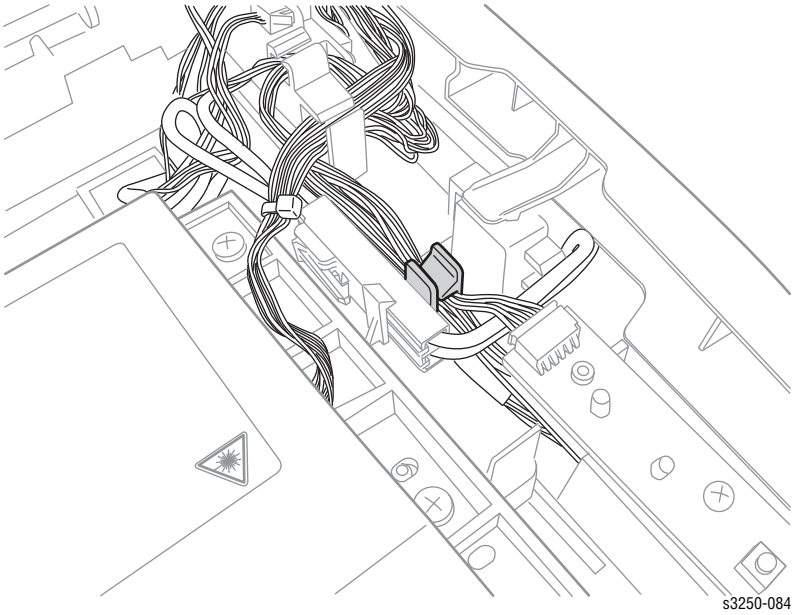


9. Lift the Top Cover to release the right and left cover latches from the clips on the printer frame.
10. Remove the Top Cover.

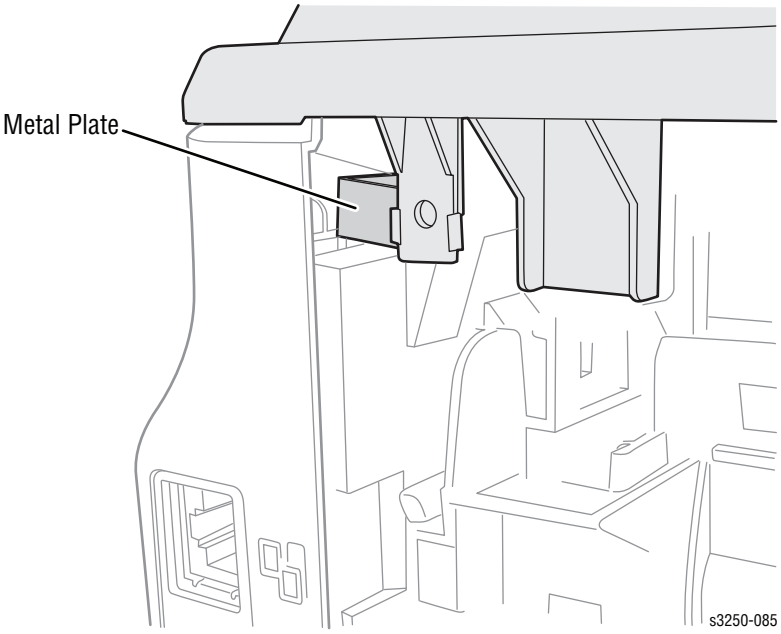


Replacement Note

1. Ensure that there are no wiring harnesses sitting in the clip area.



2. Ensure the metal plate is seated behind the plastic tab of the Top Cover.



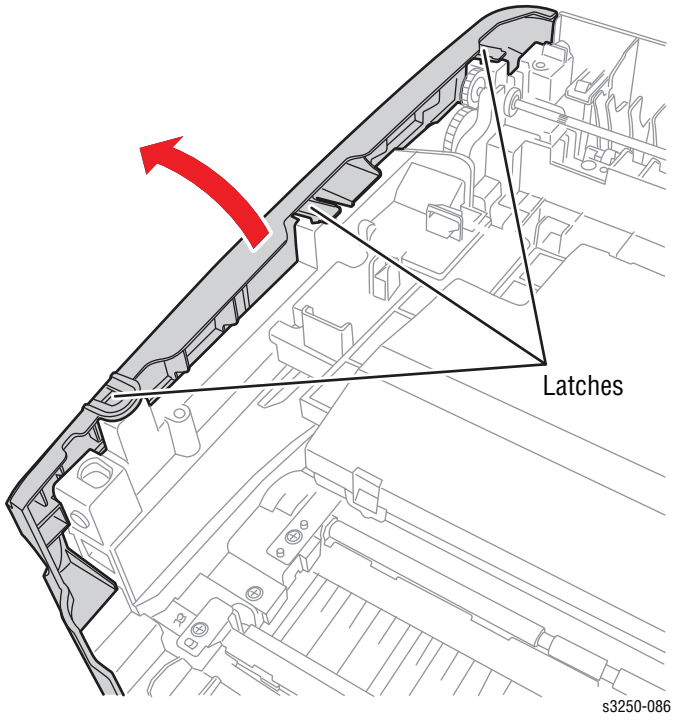
Left Cover (PL3.1.2)

Caution

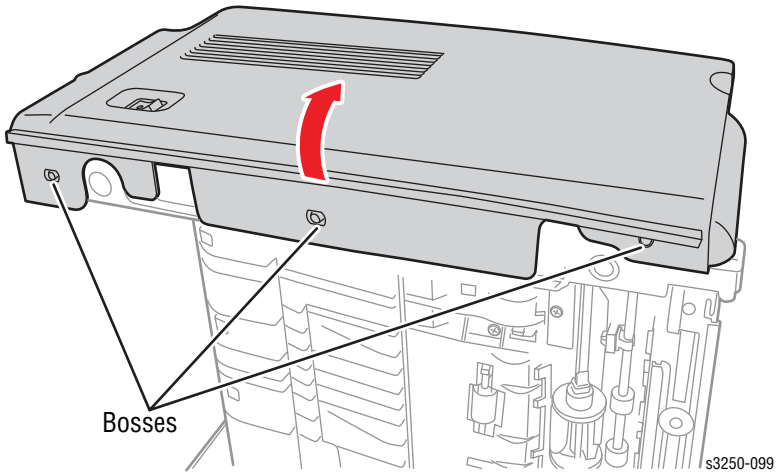
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Disconnect the Optional Tray 2 cable from the printer (if the optional Tray 2 is connected).
2. Remove Tray 1.
3. Open the Front Cover.
4. Remove the Print Cartridge (page 8-10).
5. Remove the Front Cover (page 8-27).
6. Remove the Duplex Unit (page 8-37).
7. Remove the Rear Cover (page 8-28).
8. Remove the Top Cover (page 8-29).
9. Release the 3 latches on the Left Cover from the printer frame.

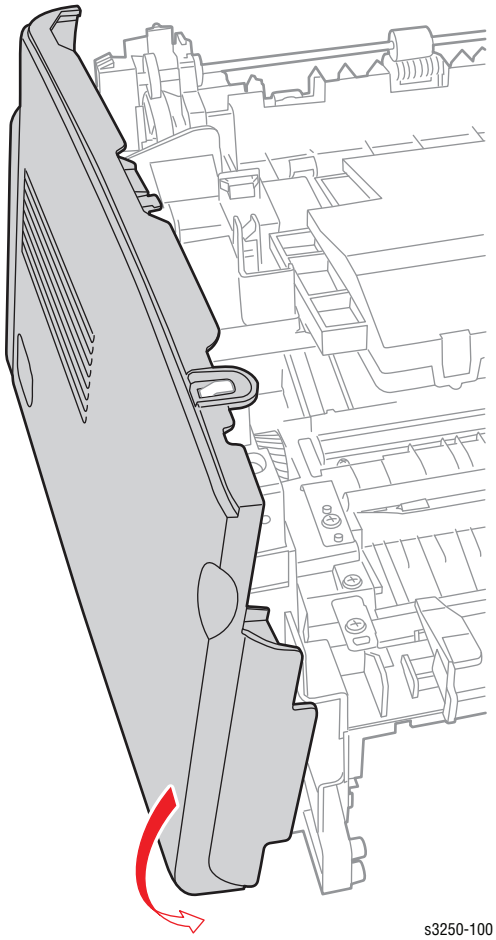


10. Use a flat tip screw driver to pry the bottom of the Left Cover from the 3 bosses on the bottom of the printer.
11. Slide the Left Cover out to remove the Left Cover.



Replacement Note

Place the front side of the Left Cover at an angle to secure the latch of the Left Cover to the notch on the printer frame while sliding the Left Cover toward the printer.



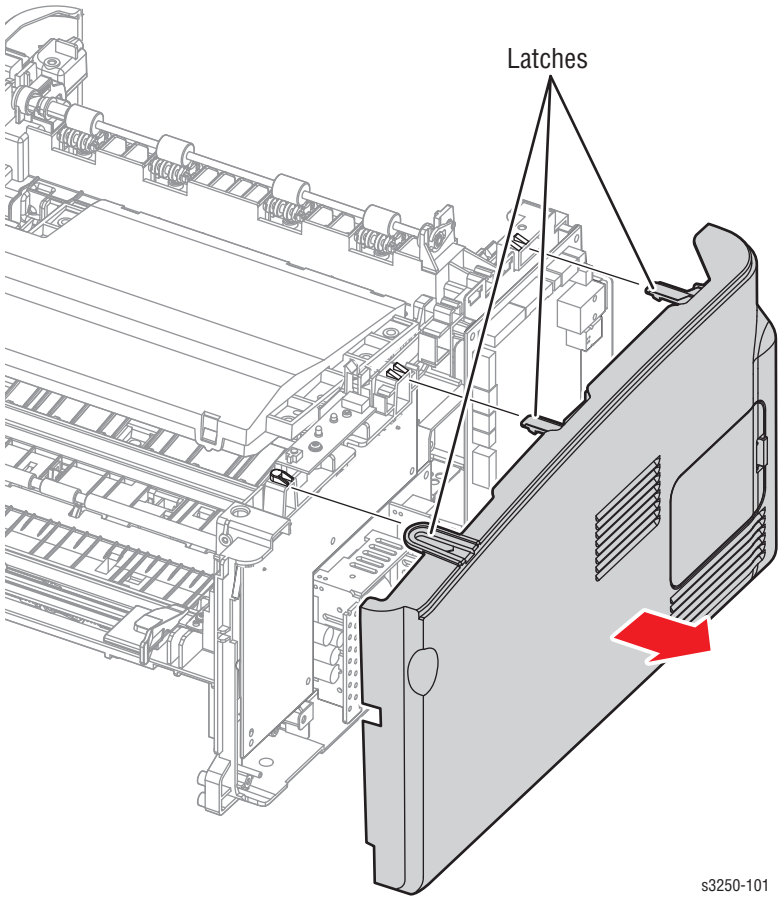
Right Cover (PL3.1.3)

Caution

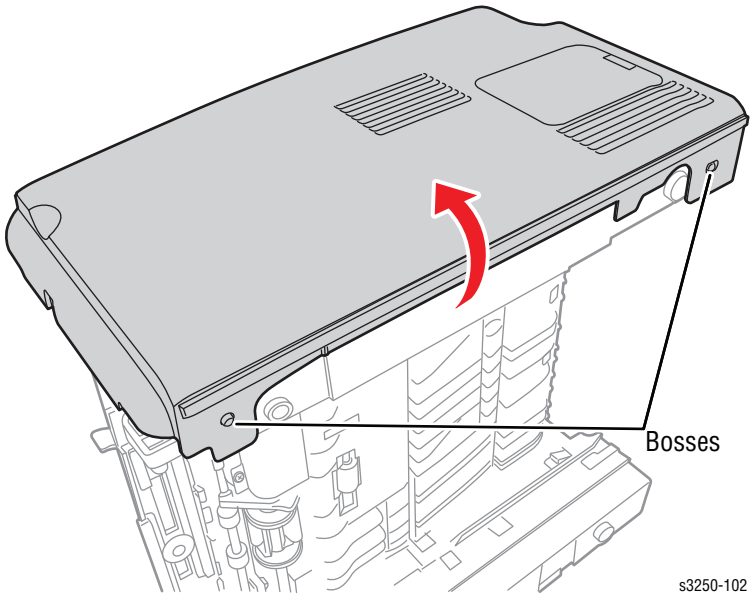
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Release the 3 latches on the Right Cover from the printer frame.

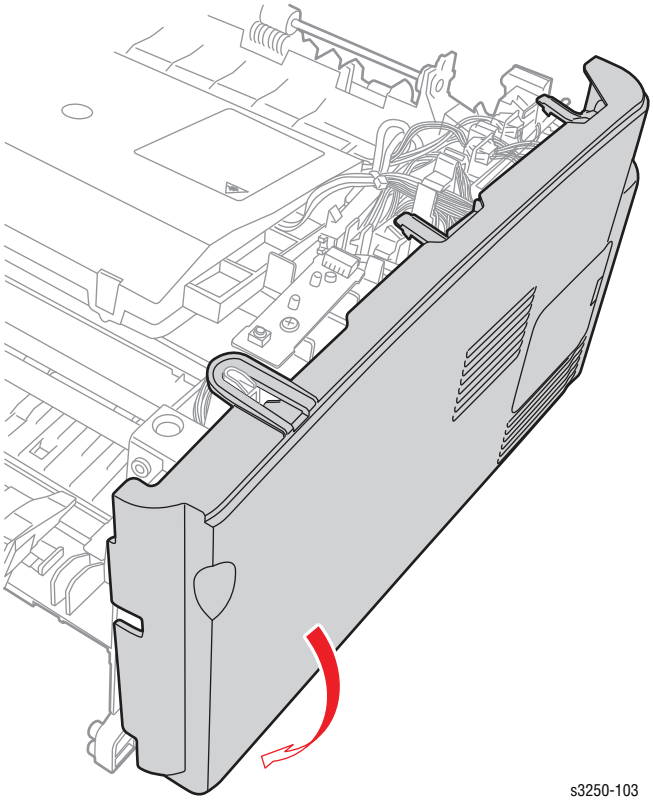


9. Use a flat tip screw driver to pry the bottom of the Right Cover from the 2 bosses on the bottom of the printer.
10. Slide the Right Cover out to remove the Right Cover.



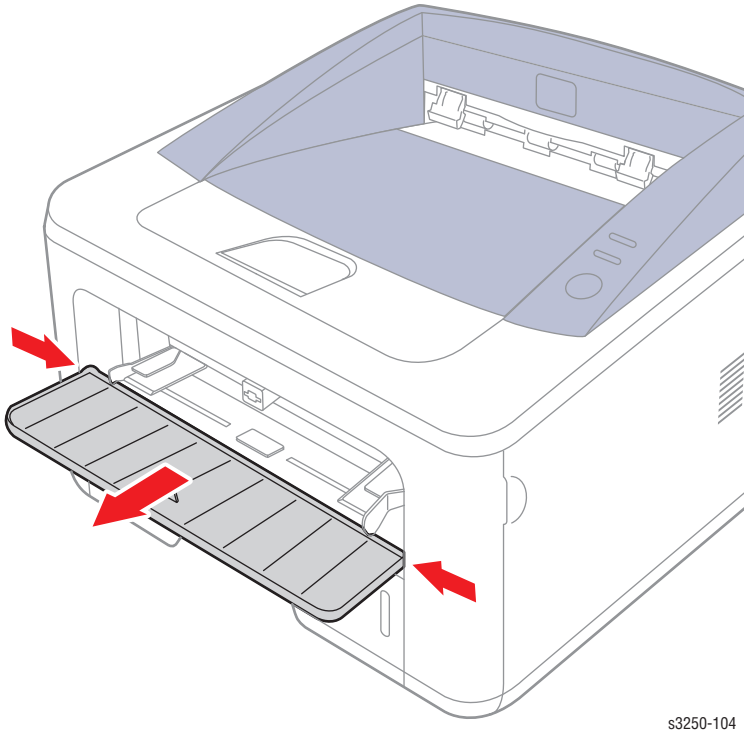
Replacement Note

Place the front side of the Right Cover at an angle to secure the latch of the Right Cover to the notch on the printer frame while sliding the Right Cover toward the printer.



Manual Feeder Cover (PL4.1.3)

1. Remove Tray 1.
2. Open the Manual Feeder Cover.
3. Push the Manual Feeder Cover at an angle toward the inside to release the left and right notches from the Front Cover.
4. Remove the Manual Feeder Cover.



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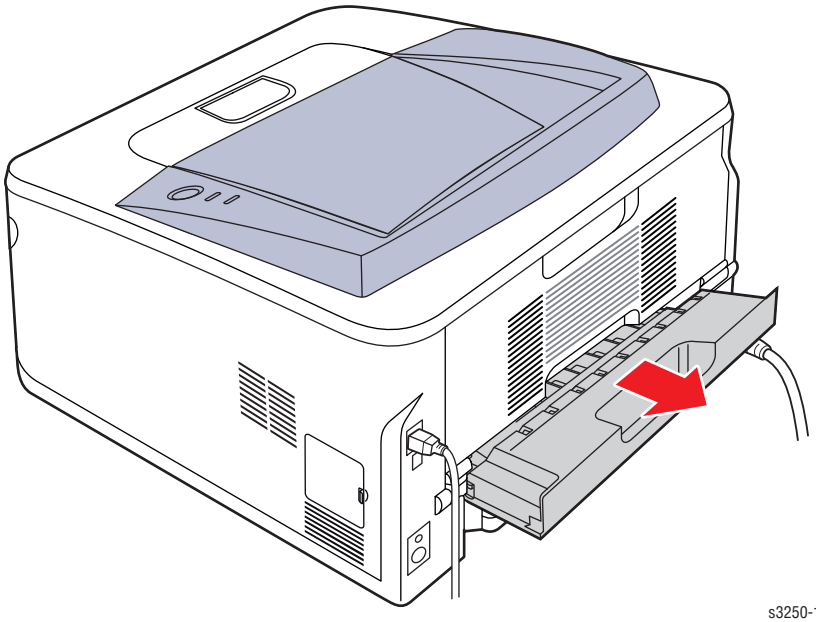
Duplex

Duplex Unit (PL1.1.13)

1. Slide the Duplex Unit out of the printer.



s3250-105

Paper Feeder

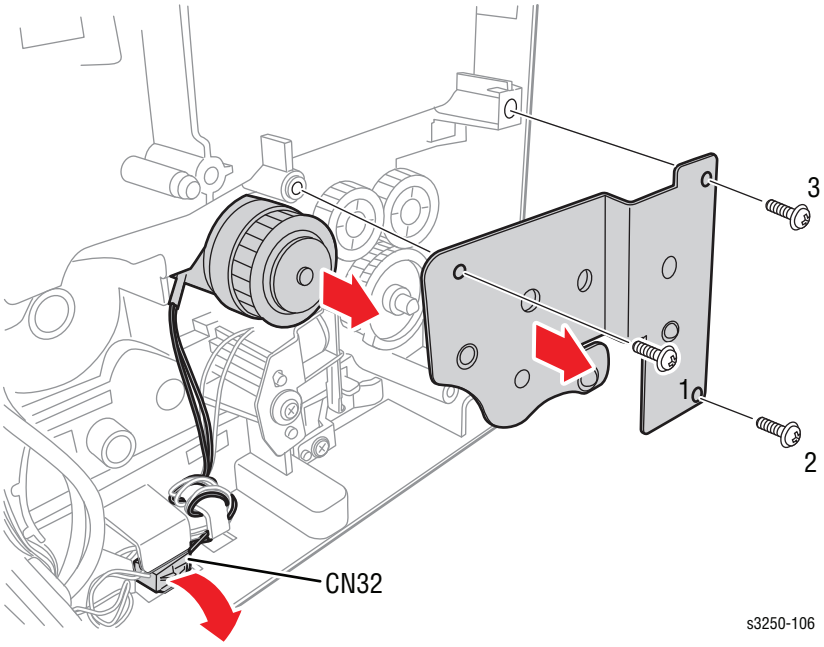
Registration Clutch (PL6.1.18)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Drive Assembly (page 8-60).
10. Remove 3 screws securing the Feed Bracket (PL6.1.36).
11. Remove the Feed Bracket.
12. Disconnect the black and gray wiring harness connector CN32.
13. Remove the black spacer and the Registration Clutch.



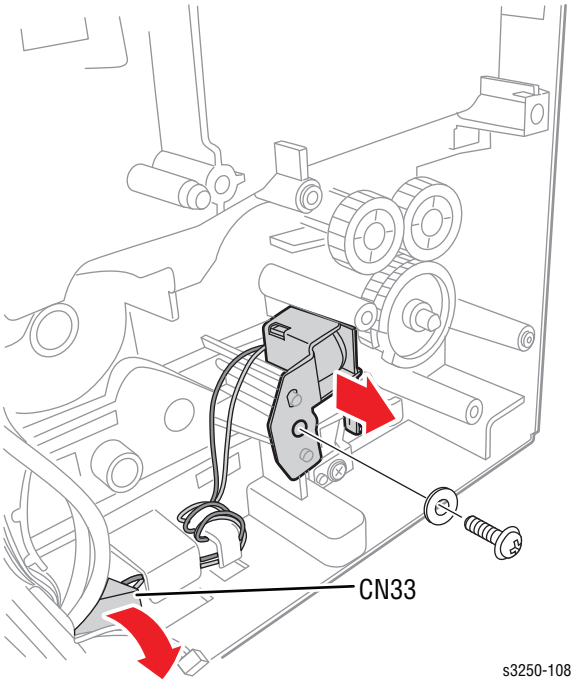
Pick-Up Solenoid (PL6.1.37)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Drive Assembly (page 8-60).
10. Remove the Registration Clutch (page 8-38).
11. Disconnect the black and gray wiring harness connector CN33.
12. Remove 1 screw securing the Pick-Up Solenoid and remove the Pick-Up Solenoid.



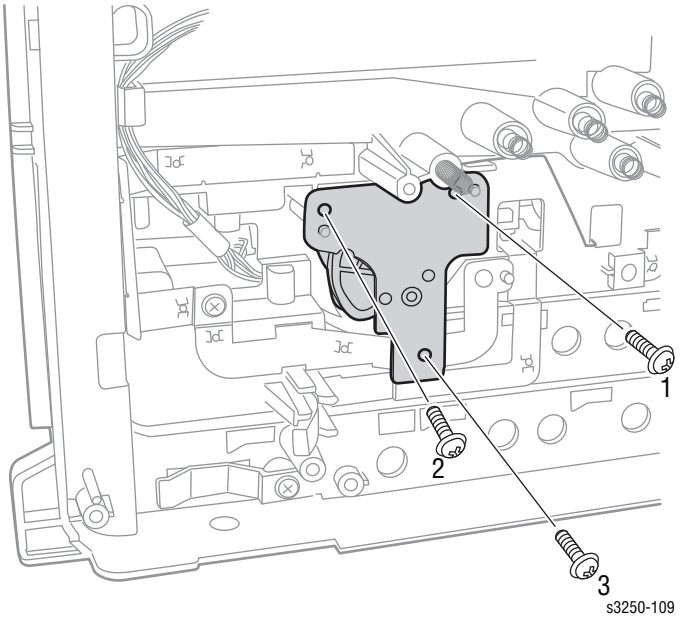
Feed Roller (Registration Roller) (PL6.1.20)

Caution

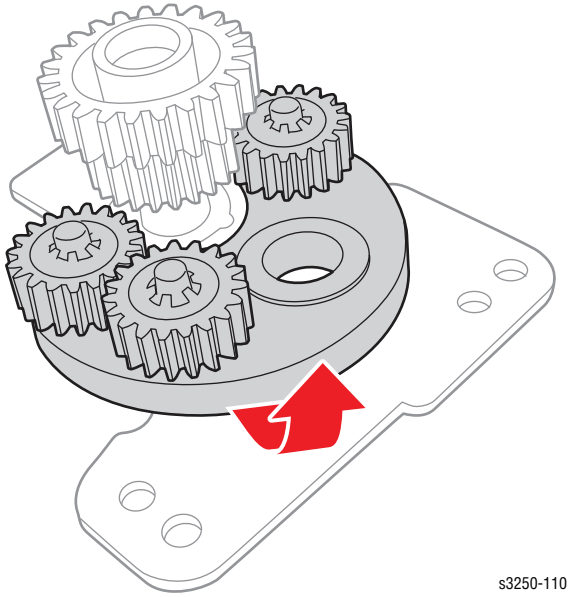
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Right Cover (page 8-34).
10. Remove the Drive Assembly (page 8-60).
11. Remove the Registration Clutch (page 8-38).
12. Remove the Idle Gear (PL6.1.34) and the RDCN 24/19 Feed Gear (PL6.1.35).
13. Remove the Pick-Up Solenoid (page 8-39).
14. Remove the HVPS (page 8-64).
15. Remove the LVPS (page 8-67).
16. Remove the LVPS Shield (page 8-69).
17. Remove 3 screws securing the Swing Bracket (PL6.1.16).
18. Remove the Swing Bracket.



19. Remove the Swing Collar (PL6.1.15), the RDCN 23/23 Gear (PL6.1.14), and the MEA Swing Unit (PL6.1.13).



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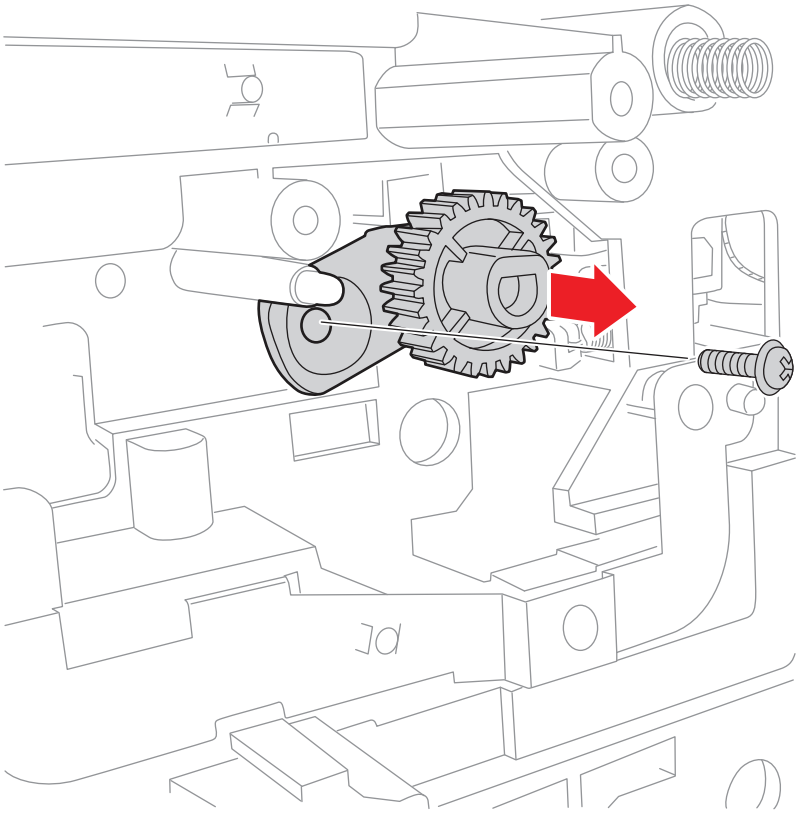
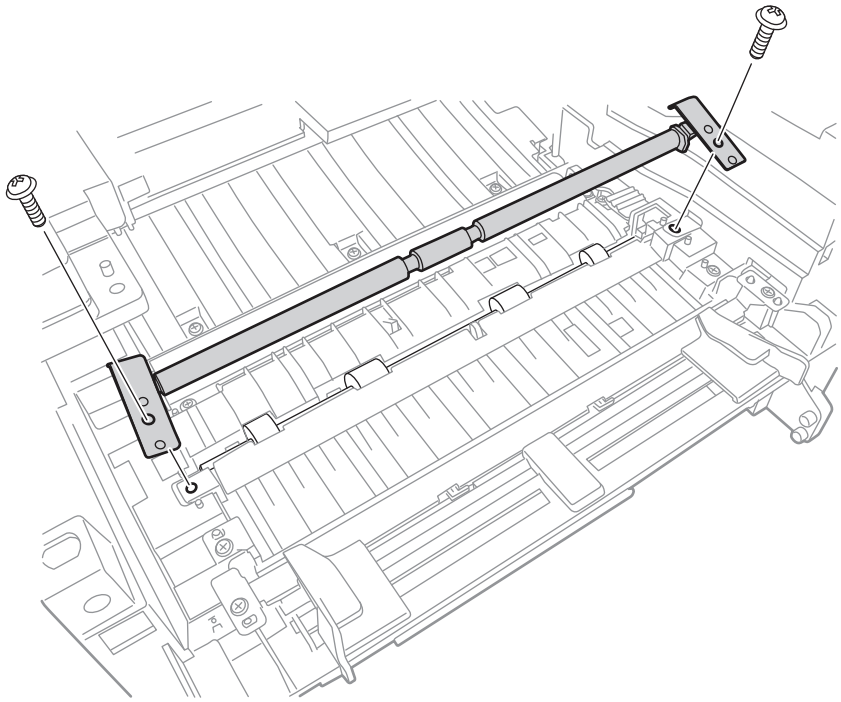
20. Remove the Gear and 1 screw securing the Regi Holder (PL6.1.12) and remove the Regi Holder.



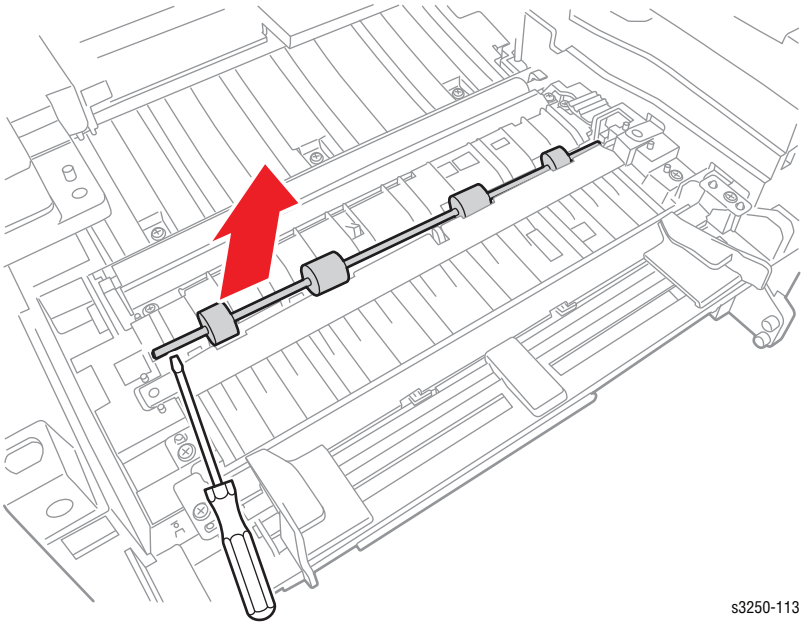
s3250-111

21. Remove 2 screws securing the Idle Feed Shaft (PL6.1.97) and remove the Feed Shaft together with the Springs and Bushings.



s3250-112

22. Use a flat tip screw driver to pry the Feed Roller up and away from the printer.
23. Remove the Feed Roller.



s3250-113

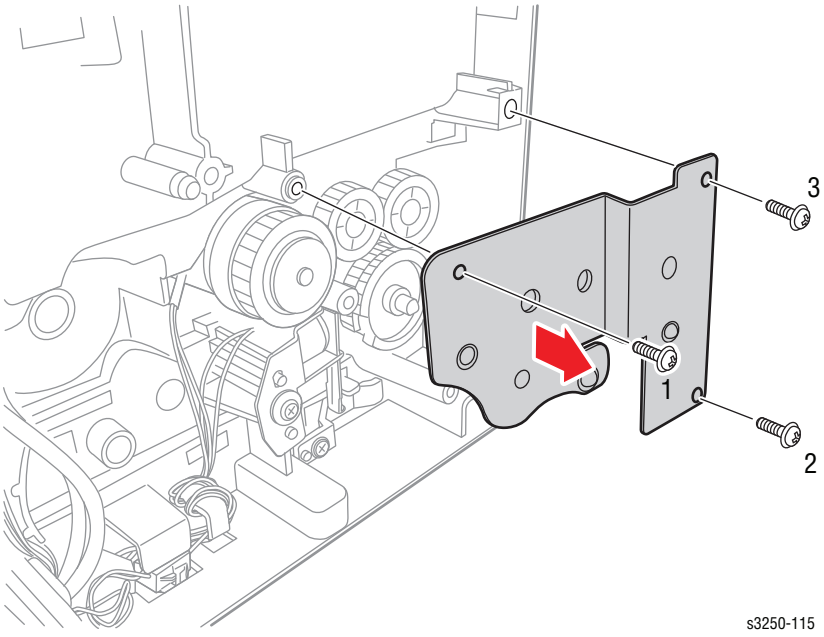
Feed Roller (PL6.1.83)

Caution

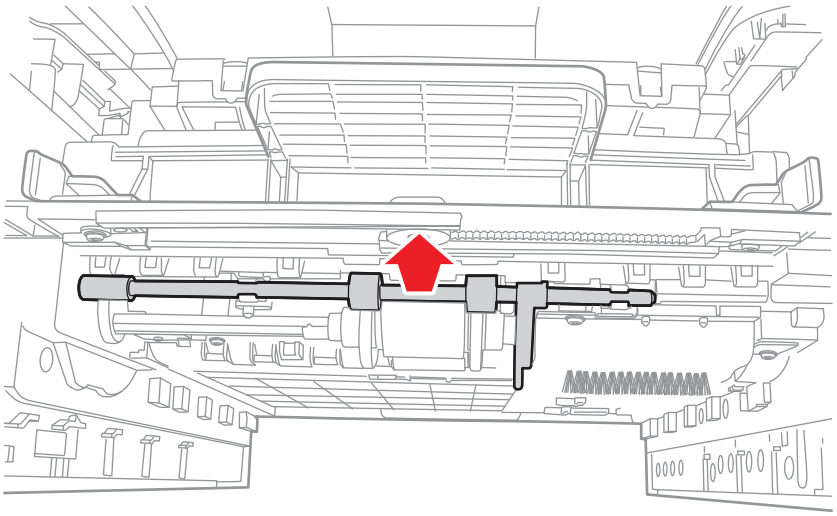
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Right Cover (page 8-34).
10. Remove the Drive Assembly (page 8-60).
11. Remove 3 screws securing the Feed Bracket (PL6.1.36).
12. Remove the Feed Bracket.



13. Remove the Exit Idle Gear (PL6.1.34) and the RDCN 24/19 Fee Gear (PL6.1.35).
14. Release the Feed Roller from the clips and remove the Feed Roller.



Feed Actuator (PL6.1.72)

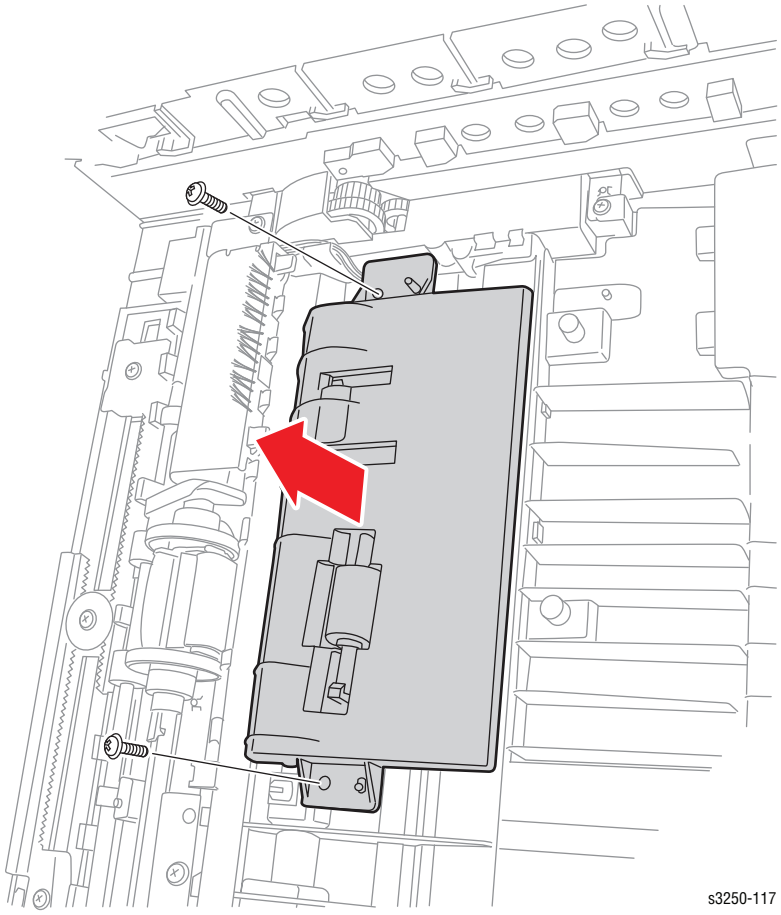
Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

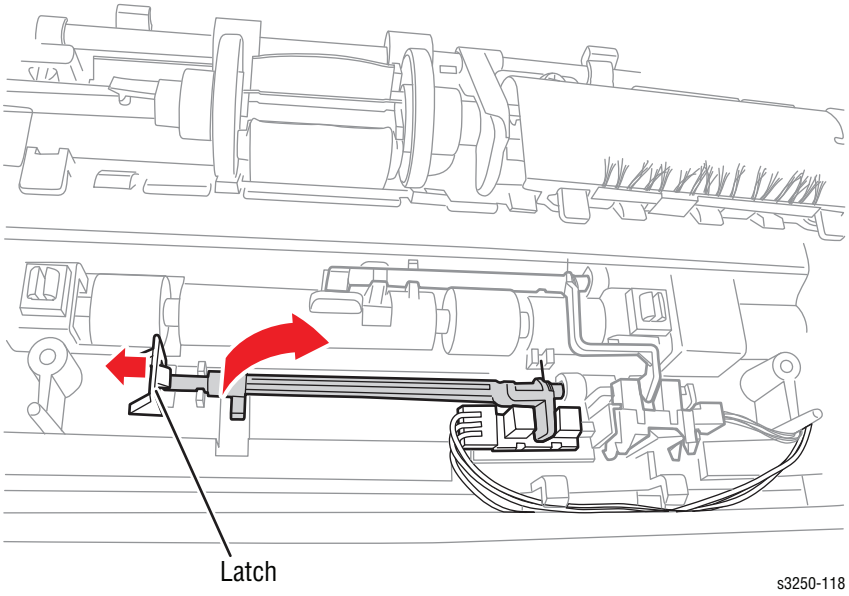
Do not touch the green surface underneath the Print Cartridge.

Ensure to use place a soft cloth under the printer prior to placing the printer on its side.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Duplex Unit (page 8-37).
5. Place the printer on its right side.
6. Remove 2 screws securing the Duplex Path Frame (PL6.1.77).



7. Press the latch to release the Feed Actuator from the printer frame.



Duplex Actuator (PL6.1.73)

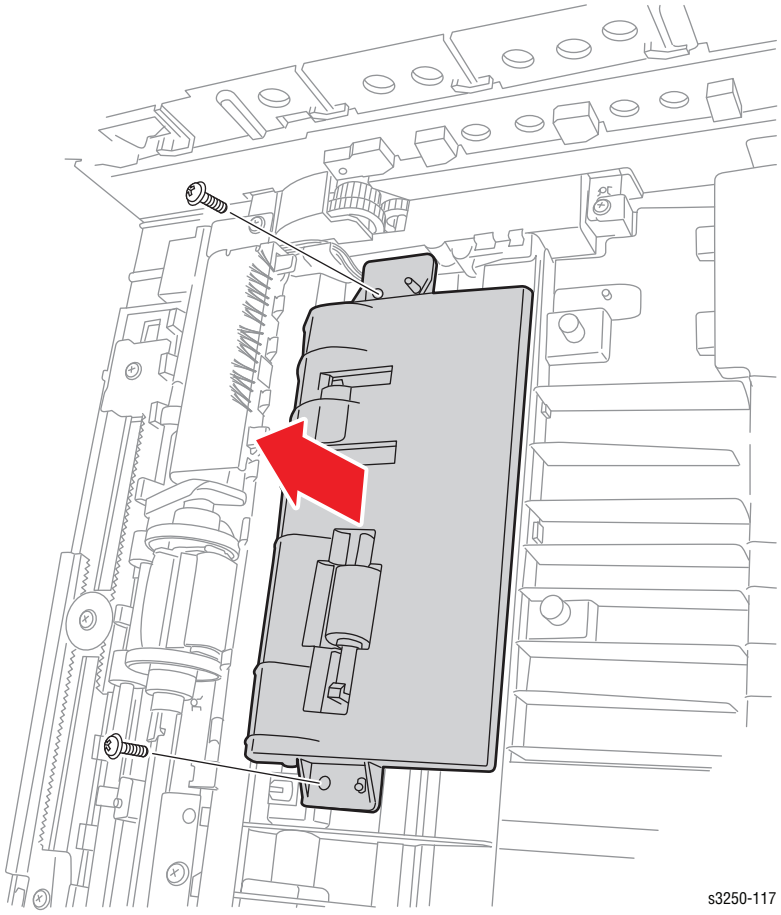
Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

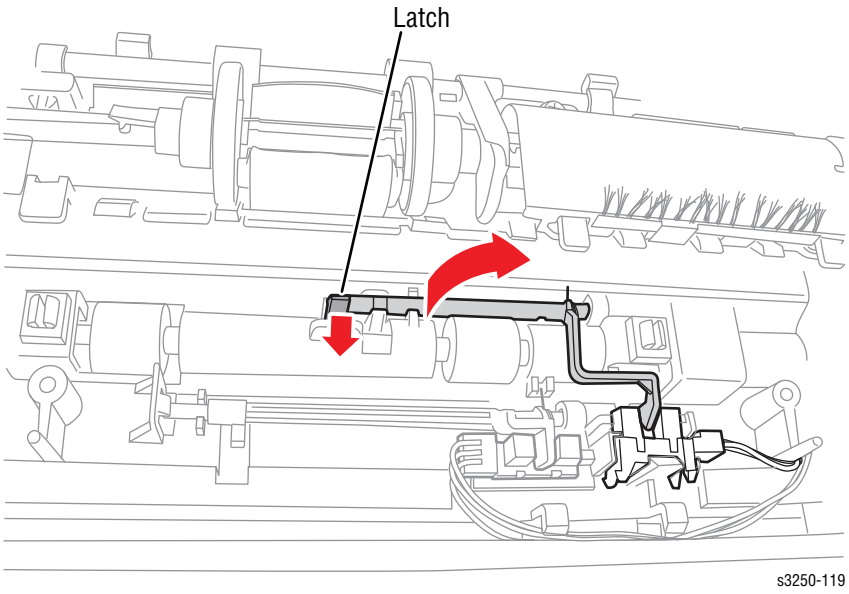
Do not touch the green surface underneath the Print Cartridge.

Ensure to place a soft cloth under the printer prior to placing the printer on its side.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Duplex Unit (page 8-37).
5. Place the printer on its right side.
6. Remove 2 screws securing the Duplex Path Frame (PL6.1.77).



7. Press the latch to release the Duplex Actuator from the printer frame.



Feed Sensor (Photo Interrupter) (PL6.1.75)

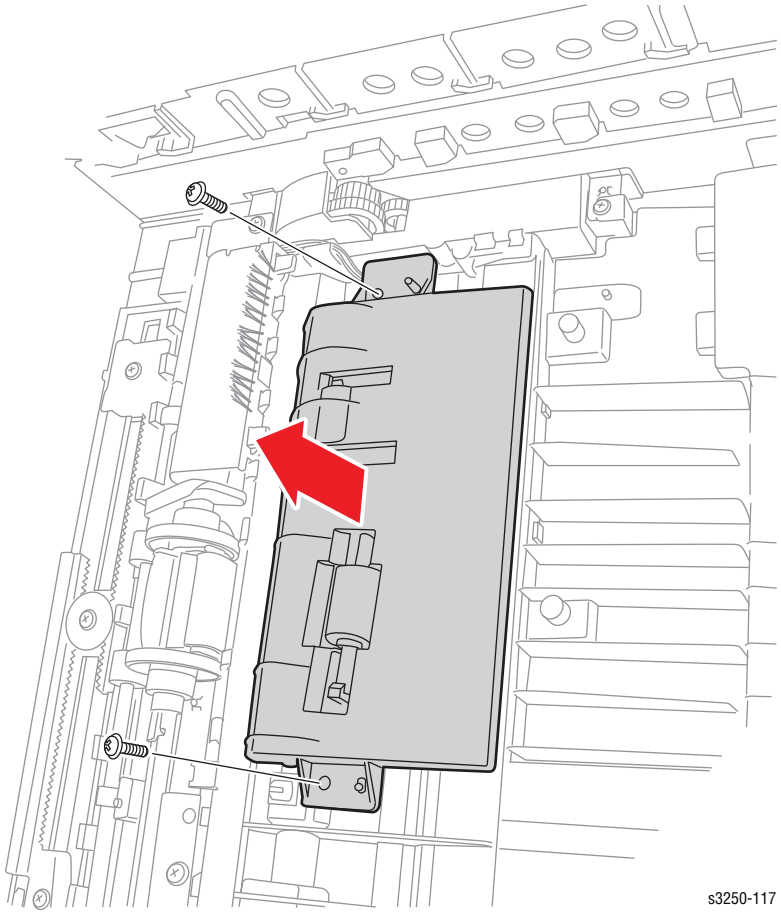
Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

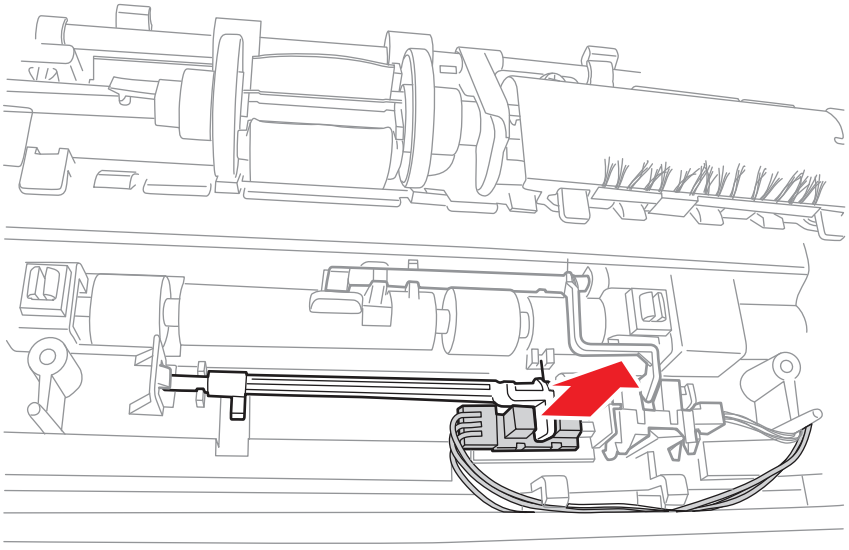
Do not touch the green surface underneath the Print Cartridge.

Ensure to place a soft cloth under the printer prior to placing the printer on its side.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Duplex Unit (page 8-37).
5. Place the printer on its right side.
6. Remove 2 screws securing the Duplex Path Frame (PL6.1.77).



7. Remove the Feed Actuator (page 8-45).
8. Disconnect the Feed Sensor wiring harness connector.
9. Remove the Feed Sensor.



s3250-120

Empty Sensor (Photo Interrupter) (PL6.1.75)

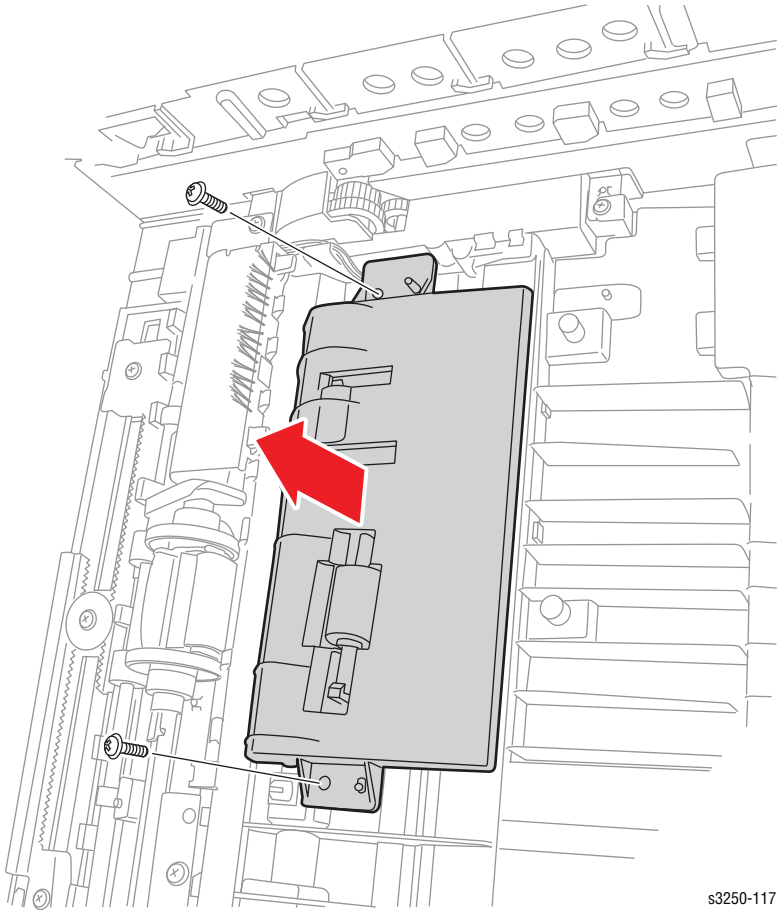
Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

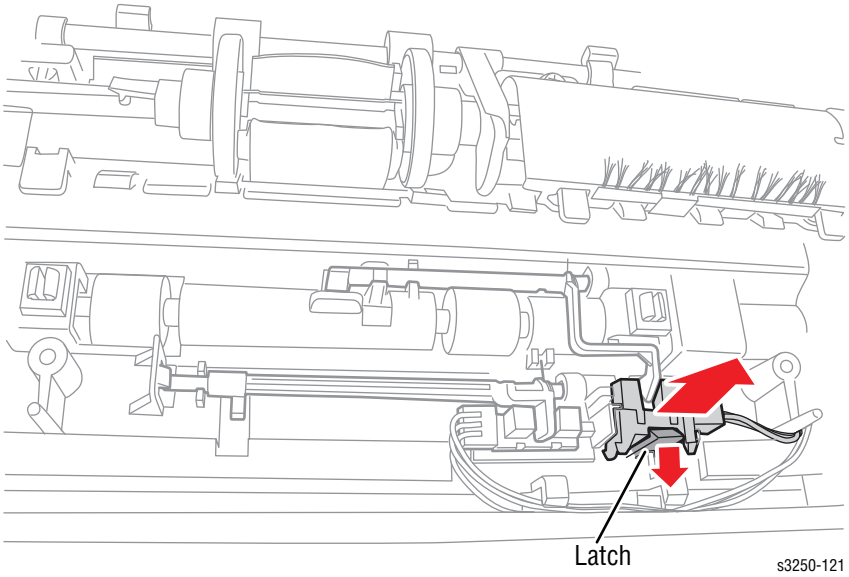
Do not touch the green surface underneath the Print Cartridge.

Ensure to place a soft cloth under the printer prior to placing the printer on its side.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Duplex Unit (page 8-37).
5. Place the printer on its right side.
6. Remove 2 screws securing the Duplex Path Frame (PL6.1.77).



7. Remove the Duplex Actuator (page 8-47).
8. Disconnect the Empty Sensor wiring harness connector.
9. Remove the Empty Sensor.



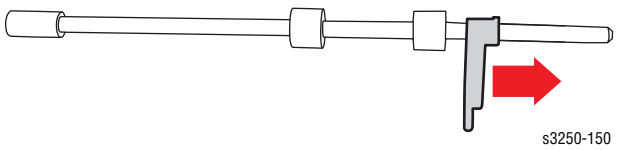
Empty Actuator (PL6.1.84)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Drive Assembly (page 8-60).
10. Remove the Feed Roller (page 8-43).
11. Slide the Empty Actuator out from the Feed Roller.



Exit Actuator (PL9.1.19)

Warning

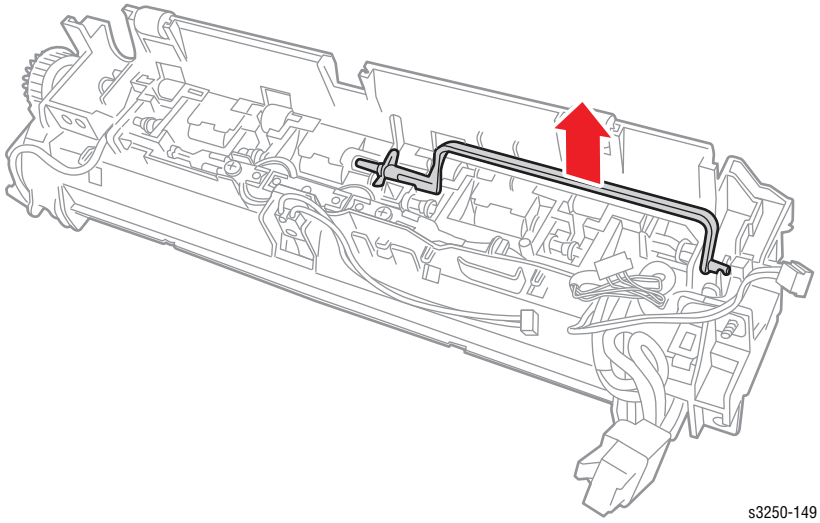
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Remove the Exit Actuator.



Exit Sensor (Photo Interrupter) (PL9.1.37)

Warning

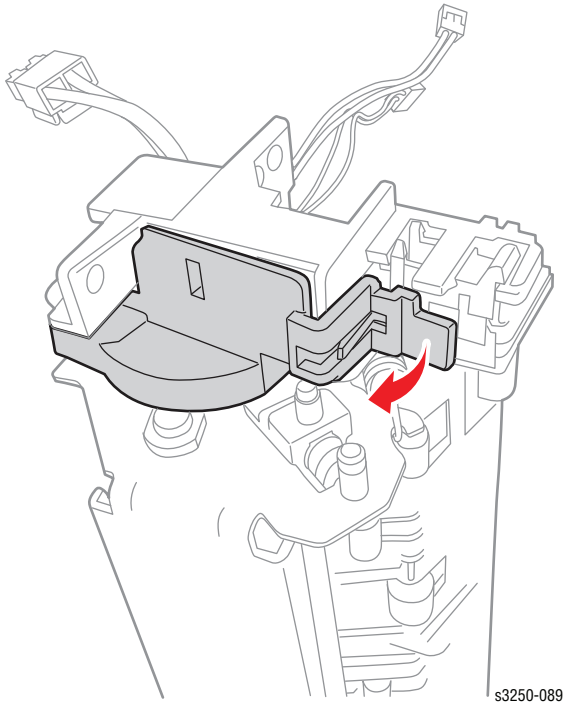
The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before removing the Fuser.

Caution

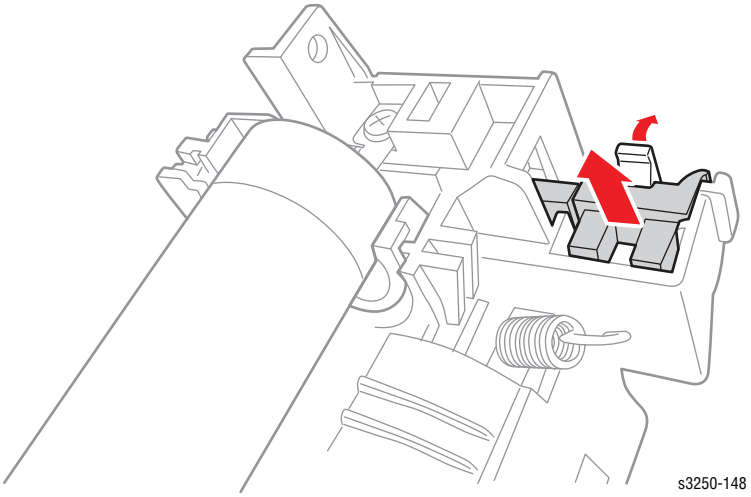
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Rear Guide Assembly (page 8-59).
8. Remove the Top Cover (page 8-29).
9. Remove the Fuser (page 8-13).
10. Release the latch to remove the Right Lamp Cap (PL9.1.32).



11. Release the latch securing the Exit Sensor and remove the Exit Sensor.



Xerographics

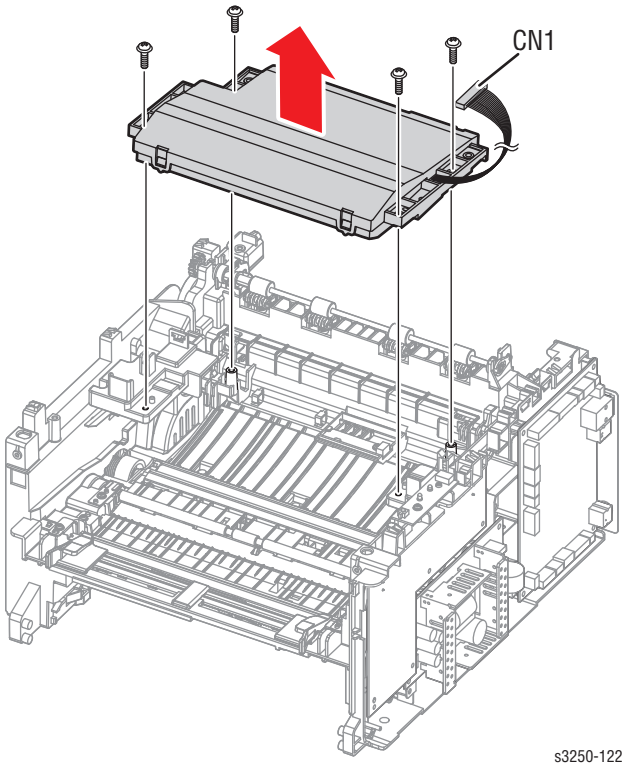
Laser Unit (PL1.1.12)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Disconnect the Laser Unit wiring harness CN1 connector.
10. Remove 4 screws securing the Laser Unit.
11. Remove the Laser Unit.



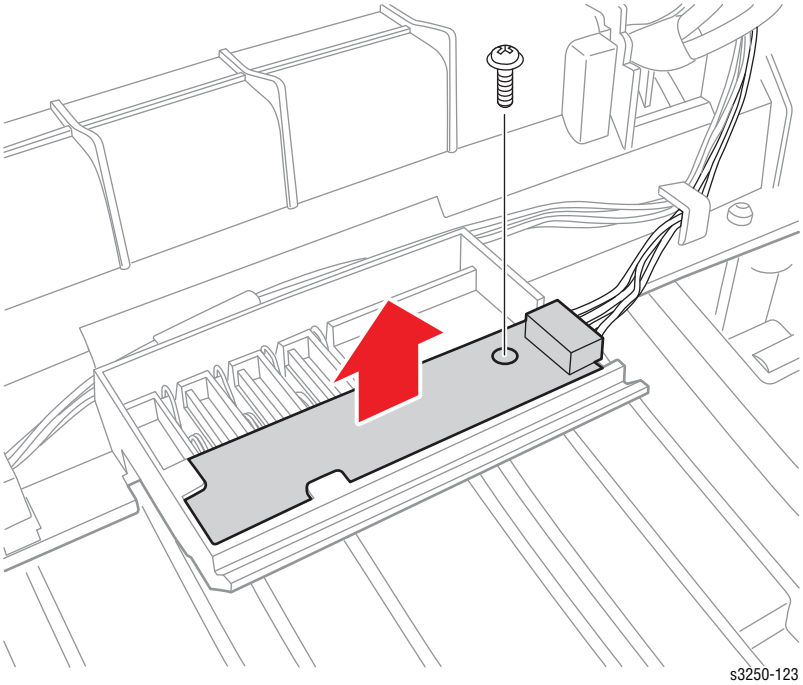
CRUM Board (PL6.1.53)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the Laser Unit (page 8-57).
10. Disconnect the CRUM Board wiring harness connector.
11. Remove 1 screw securing the CRUM Board.
12. Remove the CRUM Board.



s3250-123

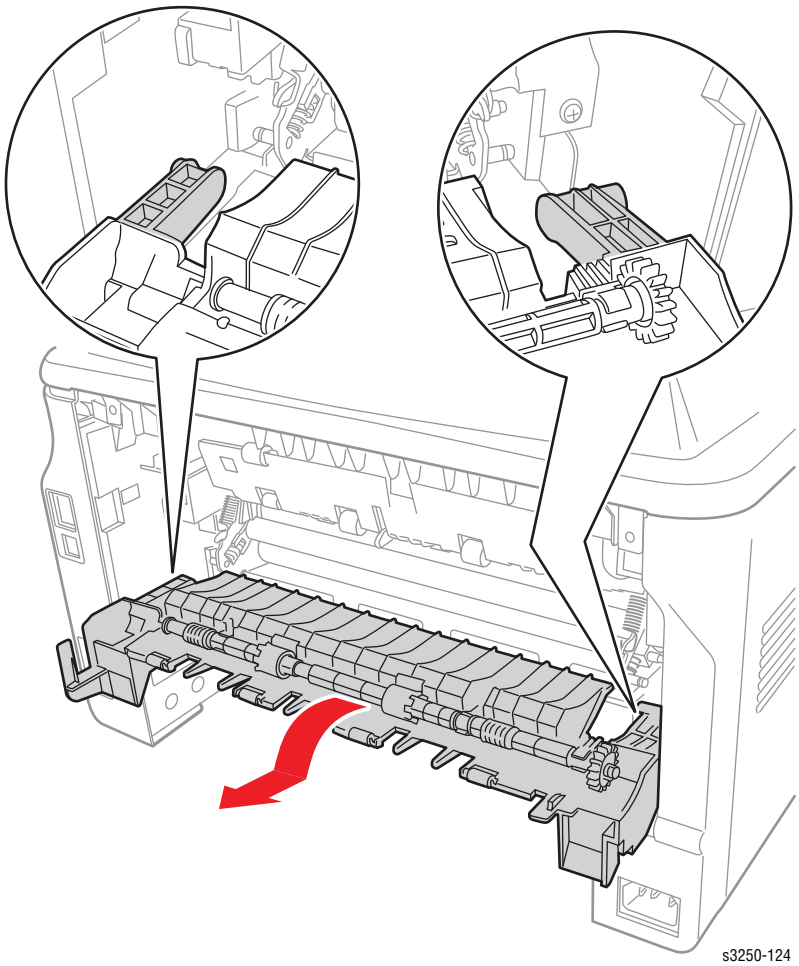
Exit Guide

Rear Guide Assembly (PL6.1.114)

Warning

The Fuser may be hot. Turn the printer power Off and allow at least 5 minutes for the Fuser to cool before performing the procedures.

1. Remove the Duplex Unit (page 8-37).
2. Open the Rear Cover (PL5.1.0).
3. Open the Rear Guide Assembly.
4. Push the Rear Guide Assembly toward one side to release the notch from the printer frame.
5. Slide the Rear Guide Assembly out to remove the Guide Assembly.



Drive

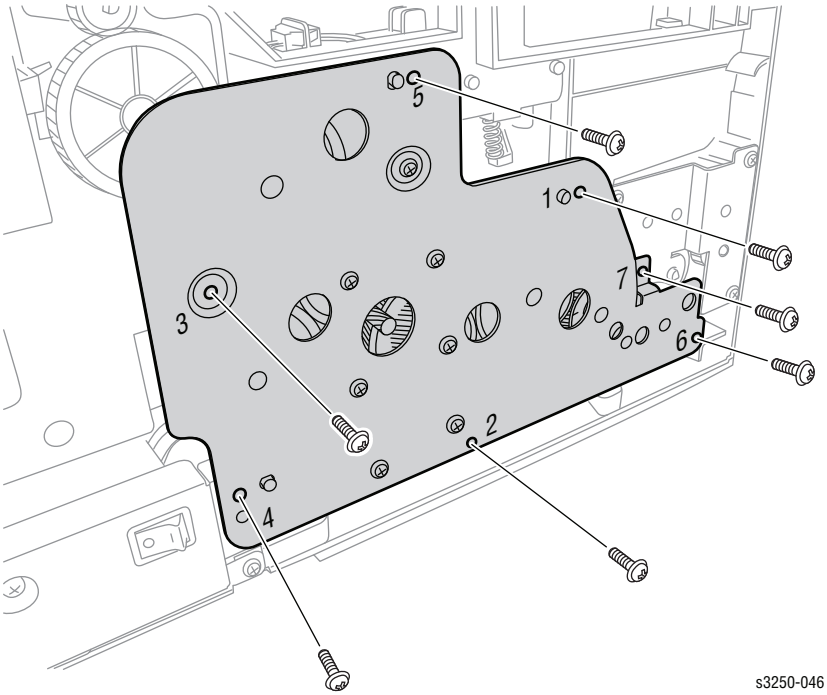
Drive Assembly (PL1.1.8)

Caution

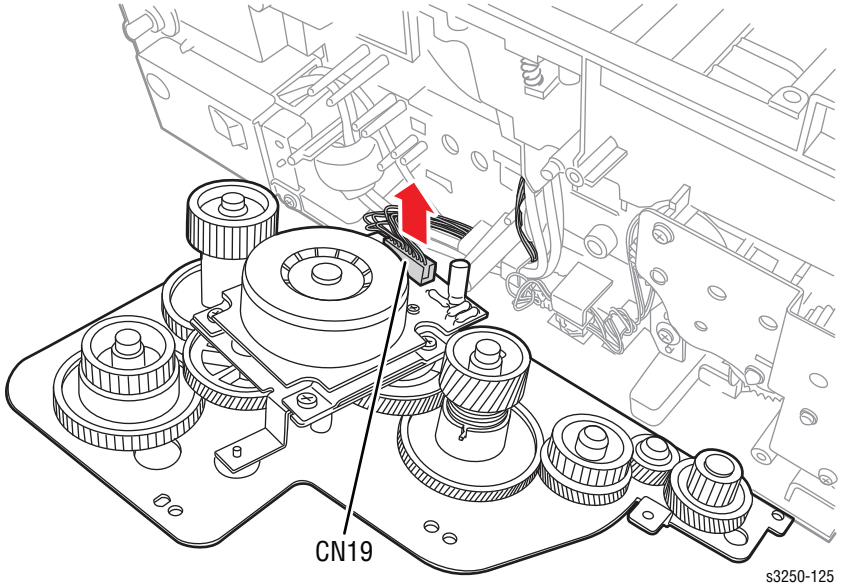
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove 7 screws securing the Drive Assembly.

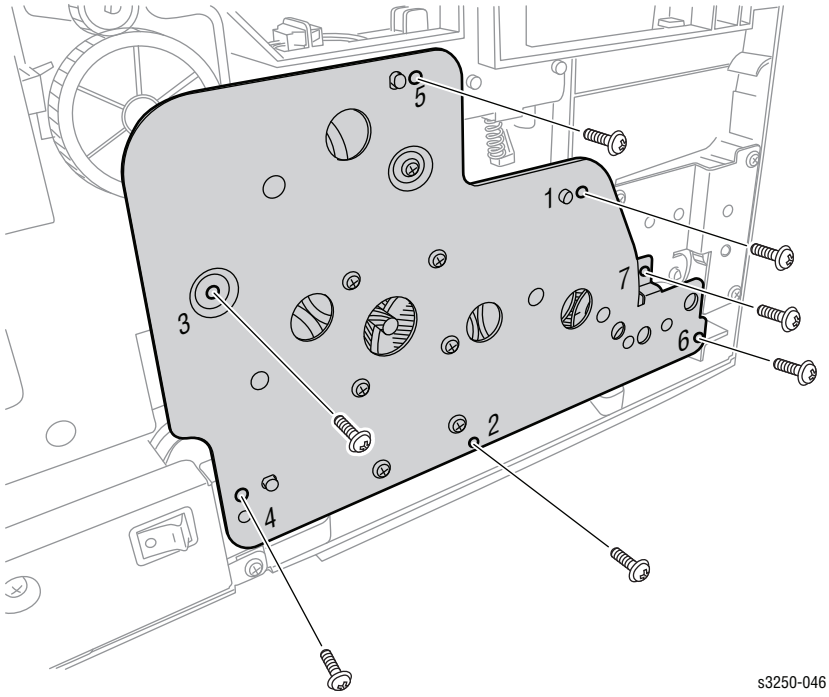


10. Disconnect the Drive Assembly wiring harness connector and remove the Drive Assembly.



Replacement Note

Ensure to secure the 7 screws in the order (1-7).



Electrical

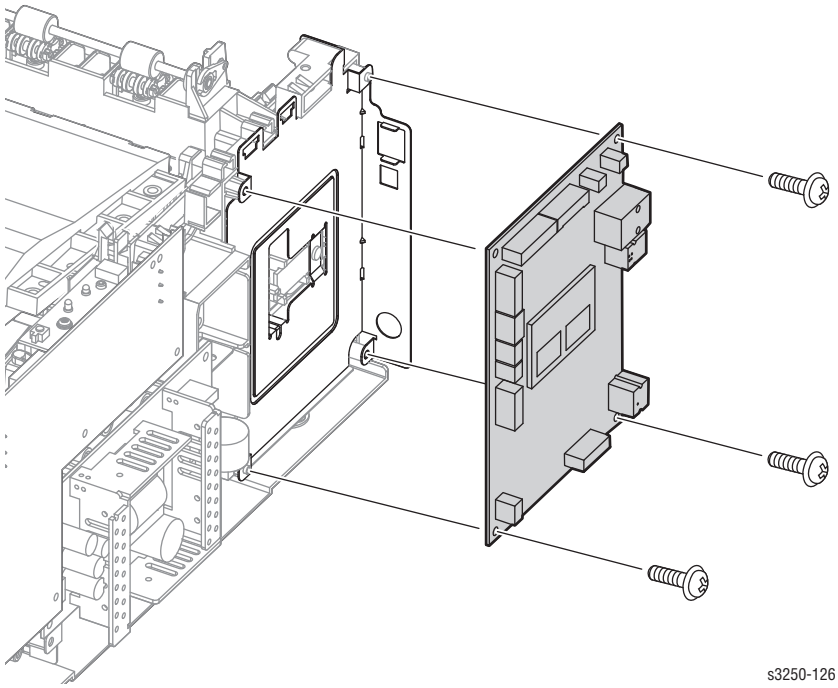
Main Controller Board (PL1.1.2)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Disconnect all the wiring harness connectors.
10. Remove 4 screws securing the Main Controller Board.
11. Remove the Main Controller Board.



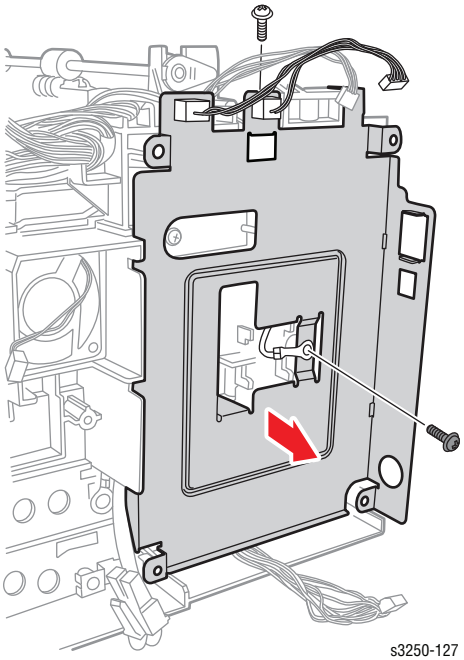
Controller Shield (PL1.1.1)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the Main Controller Board (page 8-62).
10. Disconnect the 2 wiring harness connectors on the back of the Controller Shield.
11. Remove 2 screws securing the Controller Shield.



12. Wiggle the Controller Shield to release the Controller Shield from the printer frame.

Replacement Note

Ensure to secure the ground wire between the Controller Shield and the screw.

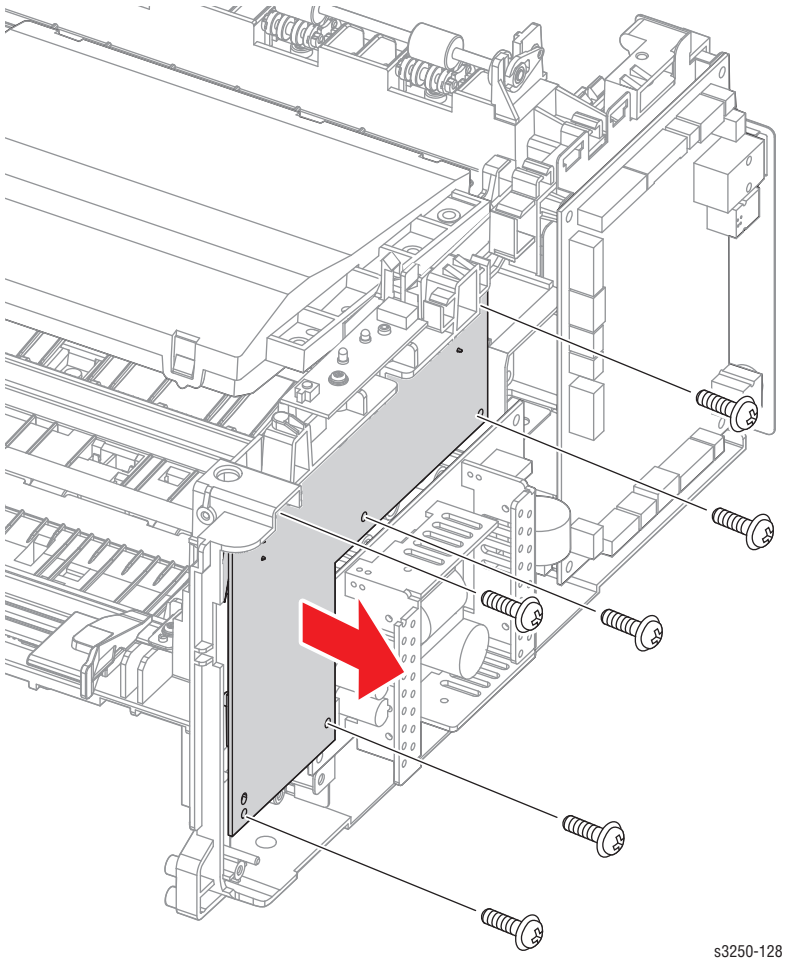
High Voltage Power Supply (HVPS) (PL1.1.3)

Caution

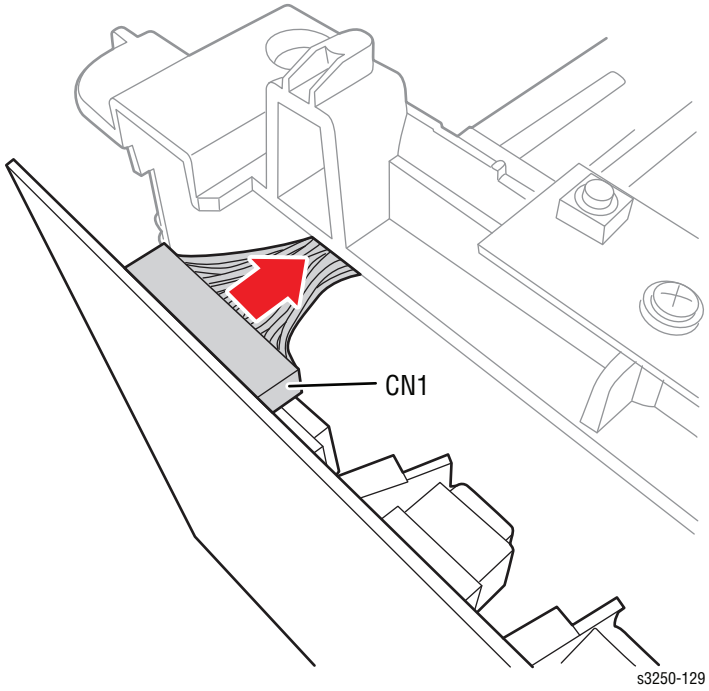
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove 6 screws securing the HVPS.



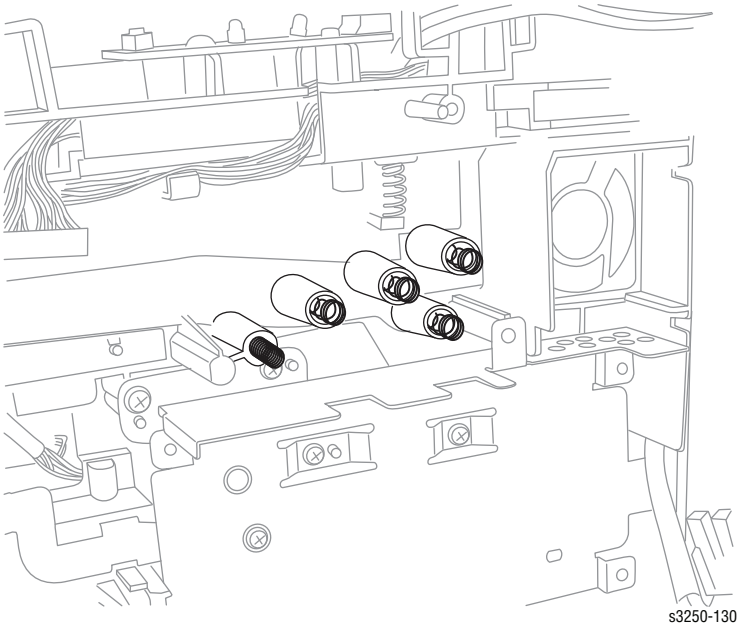
10. Disconnect 1 wiring harness connector.
11. Remove the HVPS.



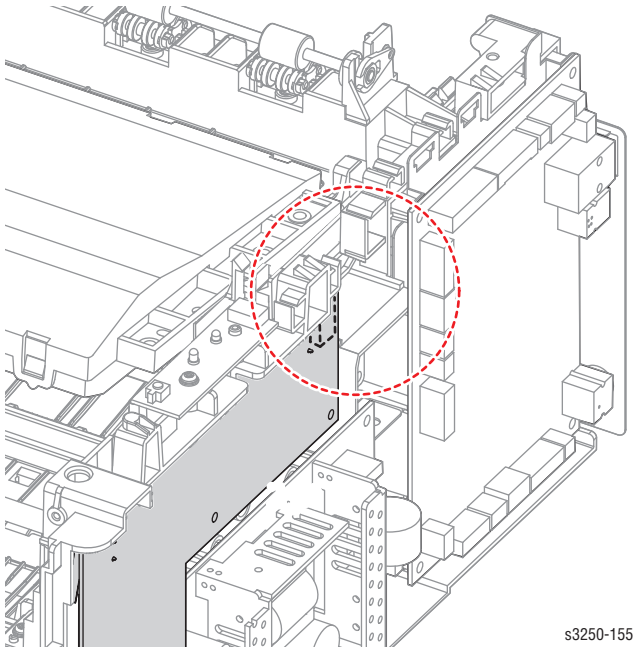
Replacement Note

Ensure to secure the 6 screws in order (1-6).

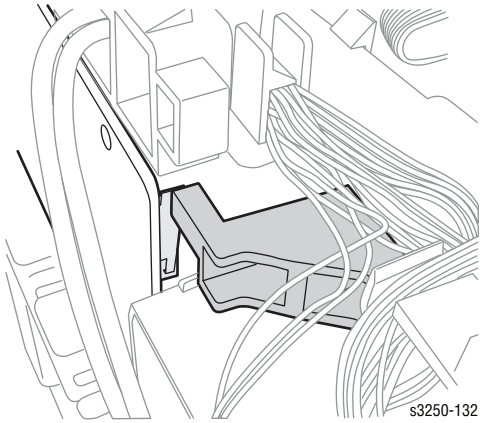
Be careful not to drop the 4 Contact Springs (PL6.1.6.2) on the printer frame.



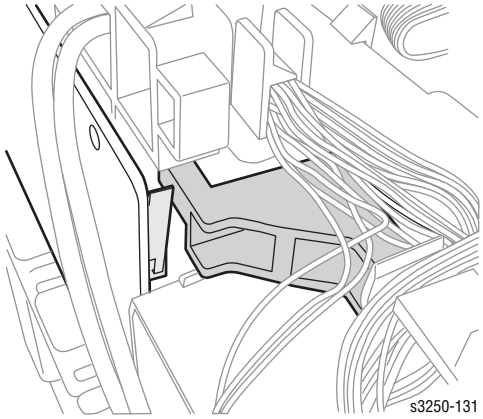
Make sure the Switch Actuator does not interfere with the Link Cover Rear (PL6.6.111)



Rear Link Cover with MEA Unit Guide Rear in Down Position (Correct)



Rear Link Cover with MEA Unit Guide Rear in Up Position (Incorrect)



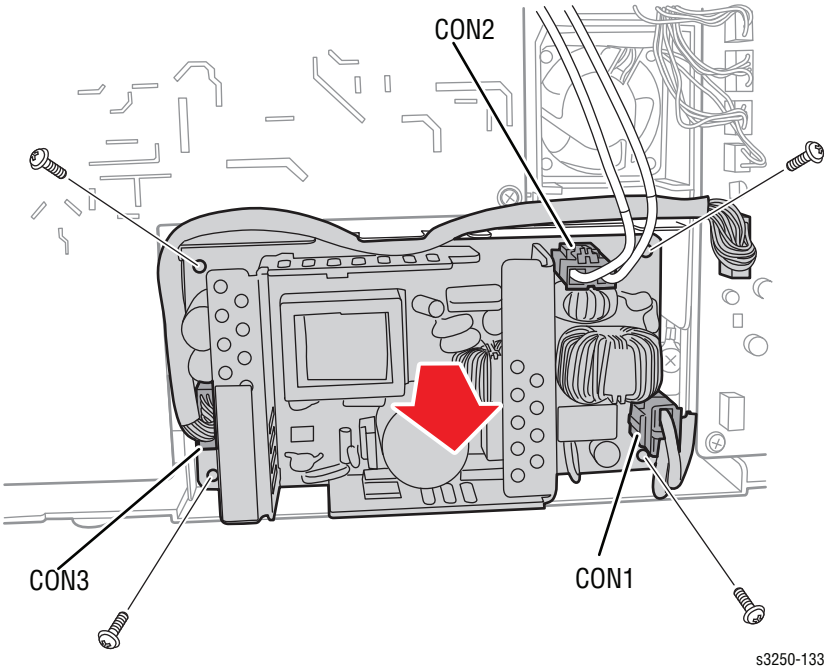
Low Voltage Power Supply (LVPS) (PL1.1.4)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

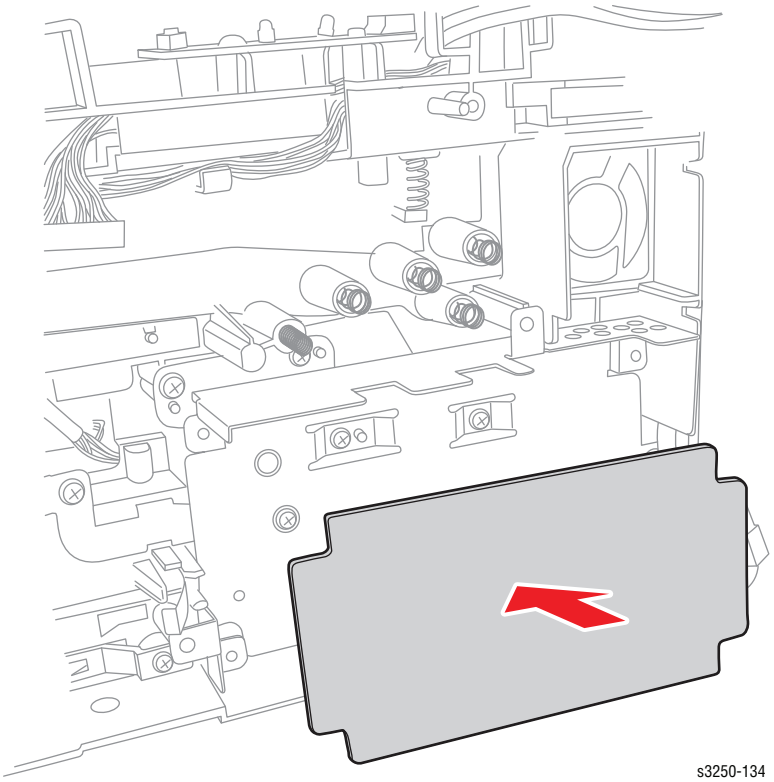
Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the Main Controller Board (page 8-62).
10. Remove the Controller Shield (page 8-63).
11. Disconnect the 3 wiring harness connectors.
12. Remove 4 screws securing the LVPS.
13. Remove the LVPS.



Replacement Note

Ensure to attach the LVPS Insulation to the LVPS Shield prior to installing the LVPS.



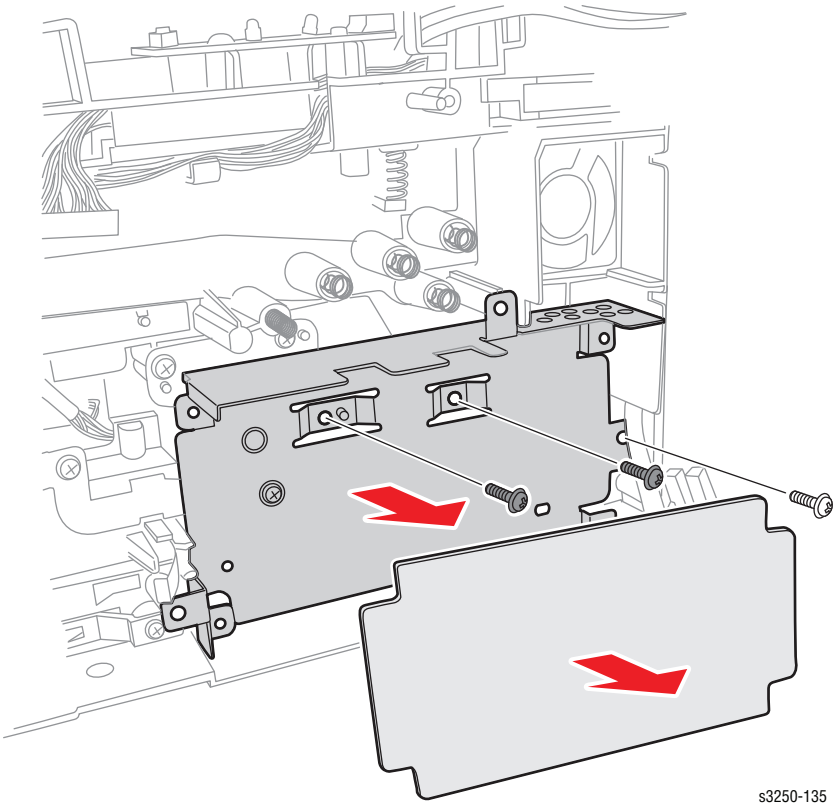
LVPS Shield (PL6.1.64)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

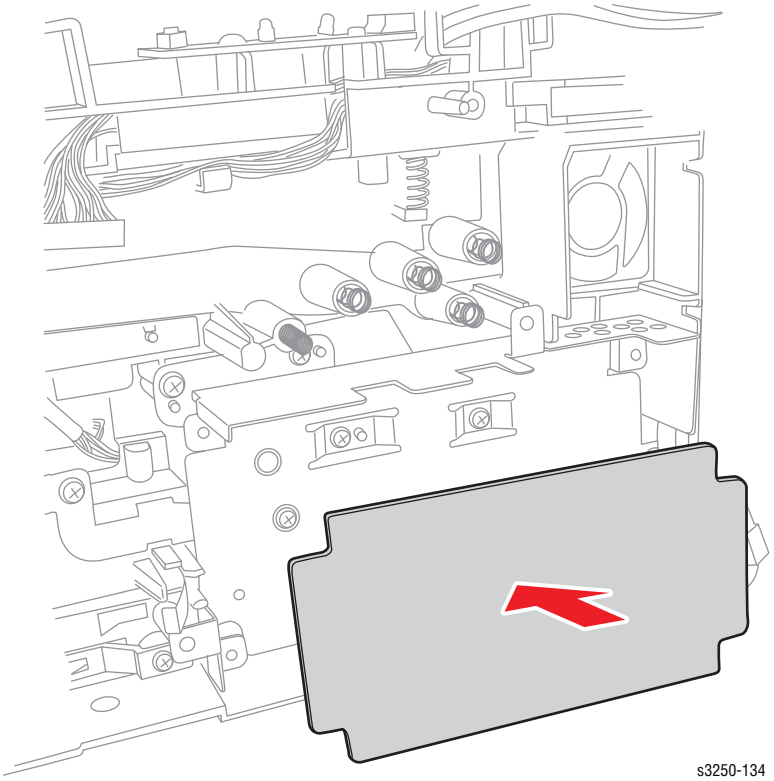
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the HVPS (page 8-64).
10. Remove the LVPS (page 8-67).
11. Remove the LVPS Insulation (PL6.1.65).
12. Remove 1 screw (silver) securing the ground wire and 2 screws (black) securing the LVPS Shield.
13. Remove the LVPS Shield.



s3250-135

Replacement Note

Ensure to attach the LVPS Insulation to the LVPS Shield.



s3250-134

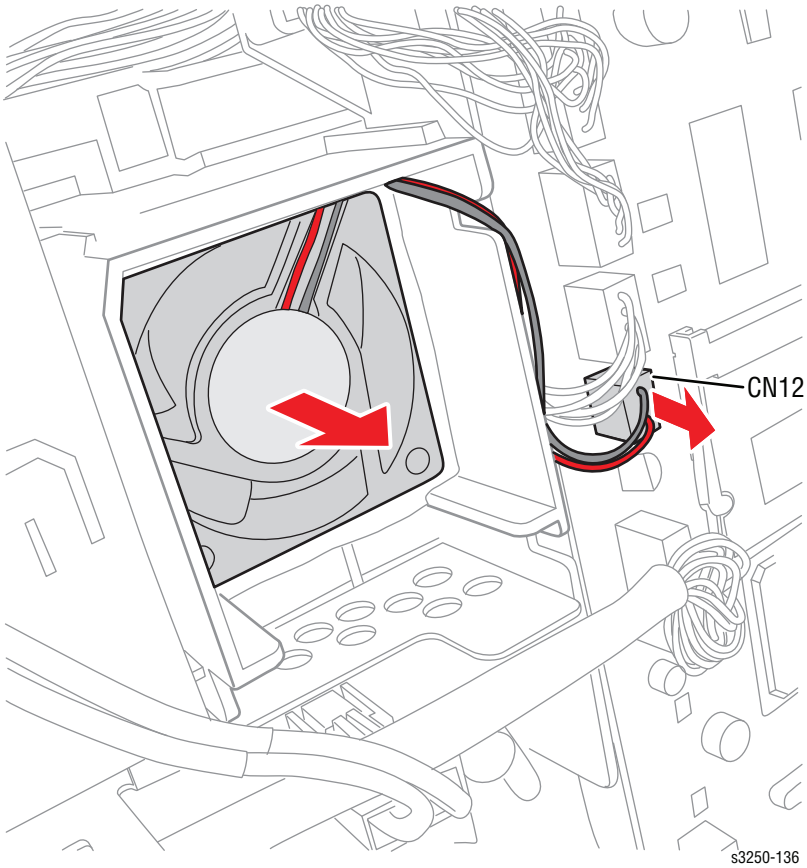
Main Fan (PL6.1.5)

Caution

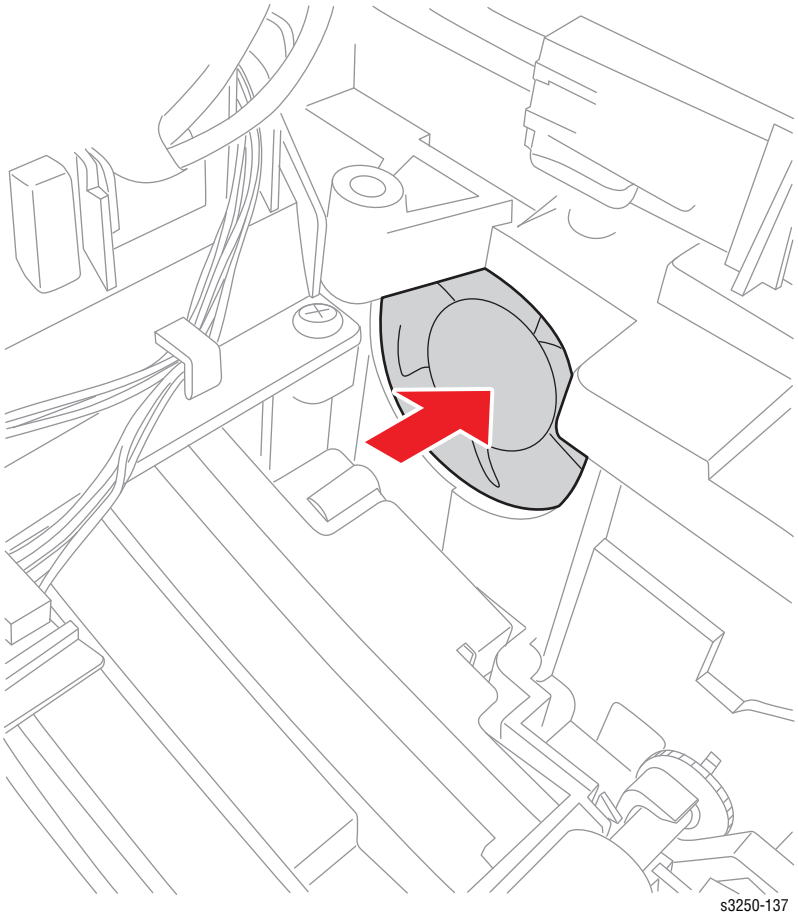
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the Laser Unit (page 8-57).
10. Disconnect the red and black wiring harness connector CN12.



11. From the inside of the printer, push the Main Fan out and remove the Fan.



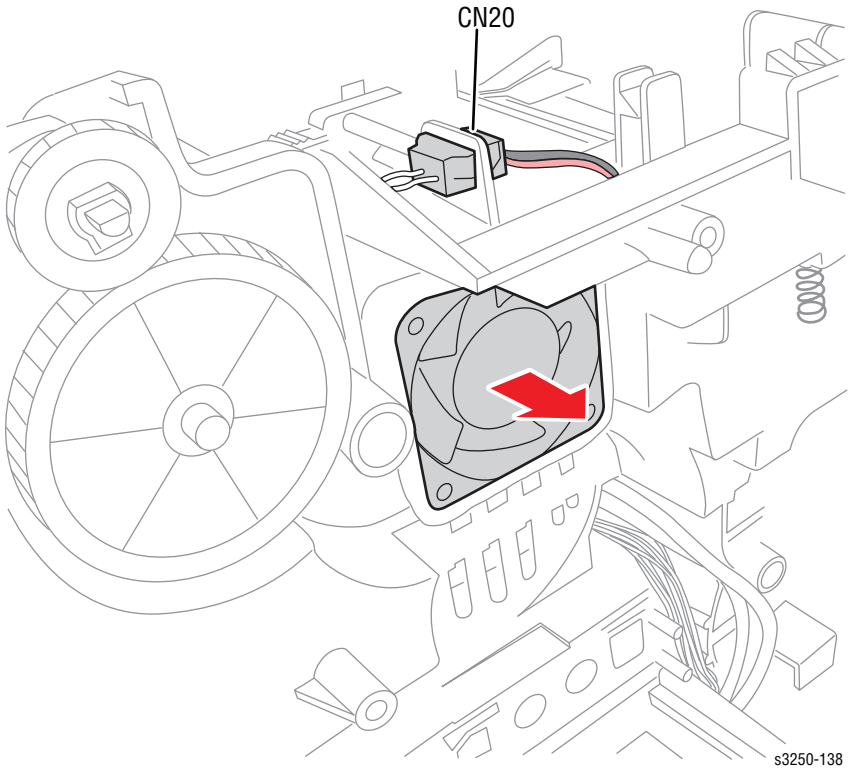
DC Fan (Laser Unit Fan) (PL6.1.39)

Caution

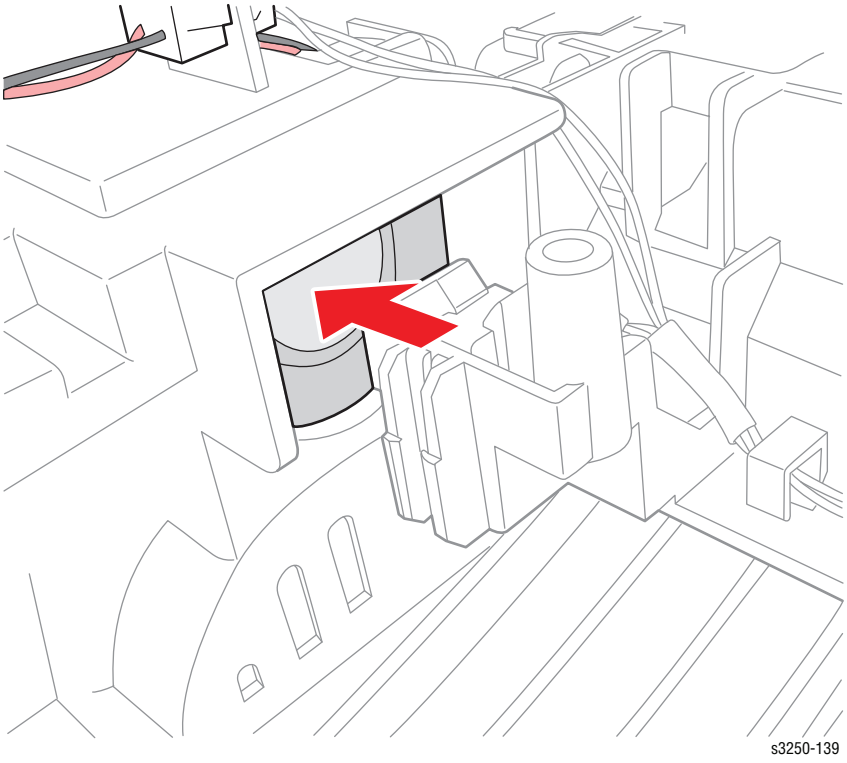
Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

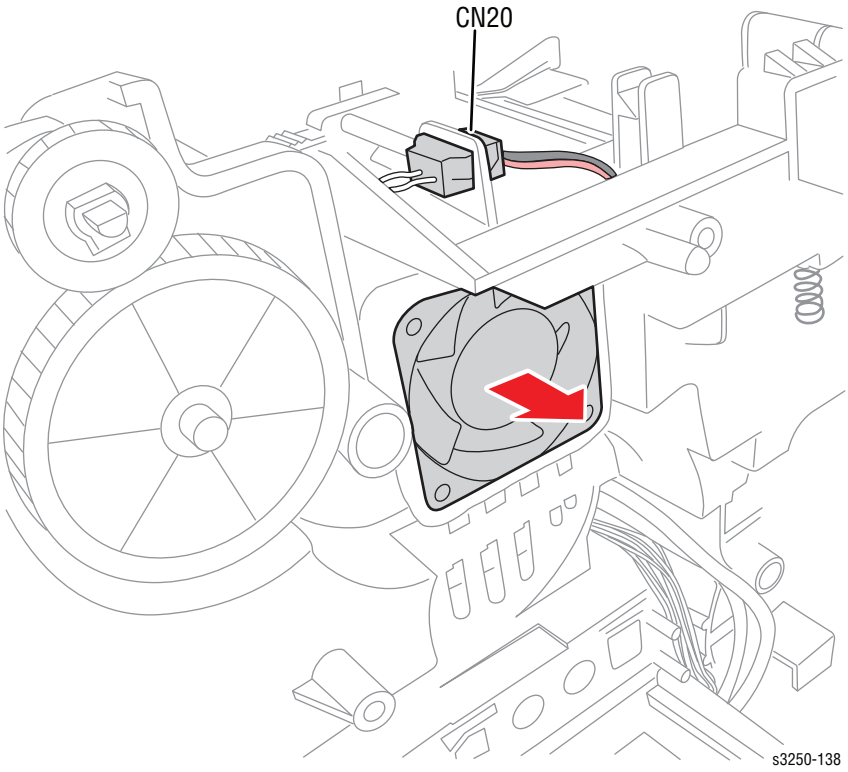
1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Left Cover (page 8-32).
9. Remove the Laser Unit (page 8-57).
10. Disconnect the red and black wiring harness connector CN20.



11. From the inside of the printer, push the DC Fan out.



12. Remove the DC Fan.



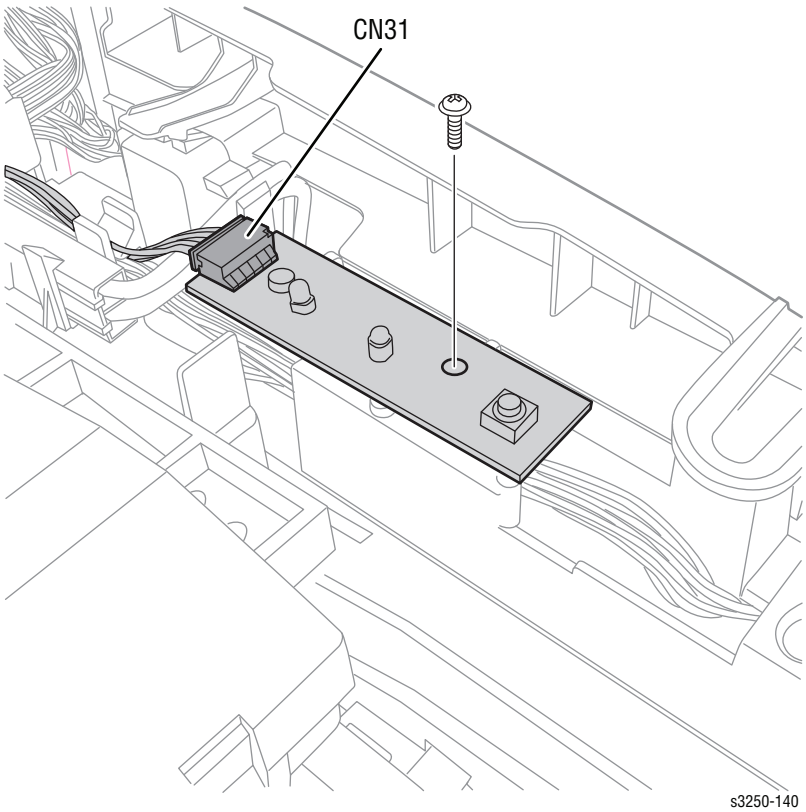
LED Board (PL6.1.44)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Disconnect the LED Board wiring harness connector.
9. Remove 1 screw securing the LED Board.
10. Remove the LED Board.



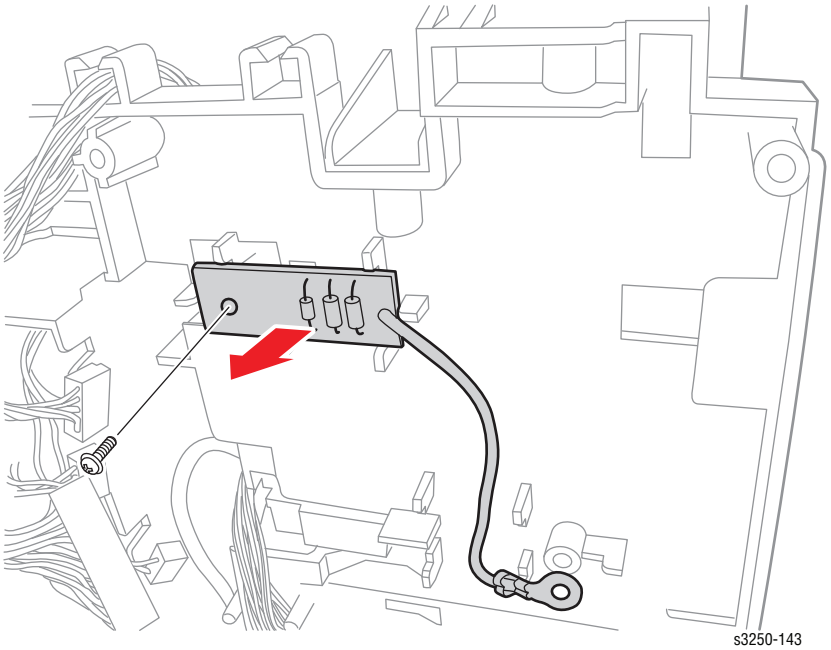
Main ZENER Board (PL6.1.3)

Caution

Do not expose the Print Cartridge to light for more than 5 minutes. Cover the Print Cartridge to avoid damage.

Do not touch the green surface underneath the Print Cartridge.

1. Remove Tray 1.
2. Open the Front Cover.
3. Remove the Print Cartridge (page 8-10).
4. Remove the Front Cover (page 8-27).
5. Remove the Duplex Unit (page 8-37).
6. Remove the Rear Cover (page 8-28).
7. Remove the Top Cover (page 8-29).
8. Remove the Right Cover (page 8-34).
9. Remove the Main Controller Board (page 8-62).
10. Remove the Controller Shield (page 8-63).
11. Remove 1 screw securing the Main ZENER Board.
12. Remove the Main ZENER Board.



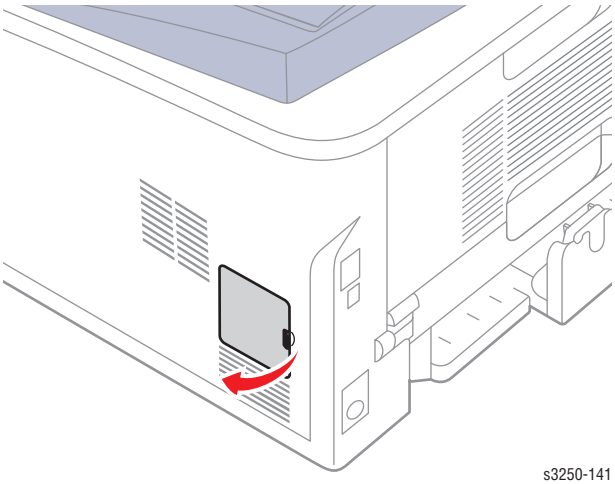
Options

Memory Card

Caution

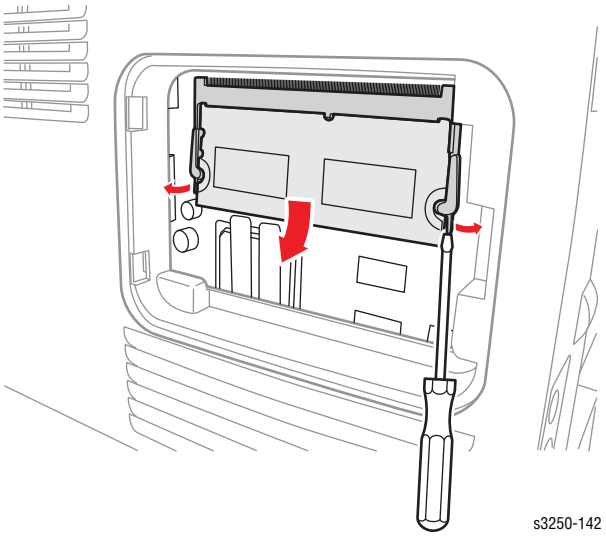
Be sure to wear proper ESD protection to prevent from damaging the Memory Card.

1. Turn the printer power Off.
2. Unplug all cables from the printer.
3. Release the memory card cover latch and remove the Cover.



s3250-141

4. Release the left and right latches securing the Memory Card and remove the Memory Card.



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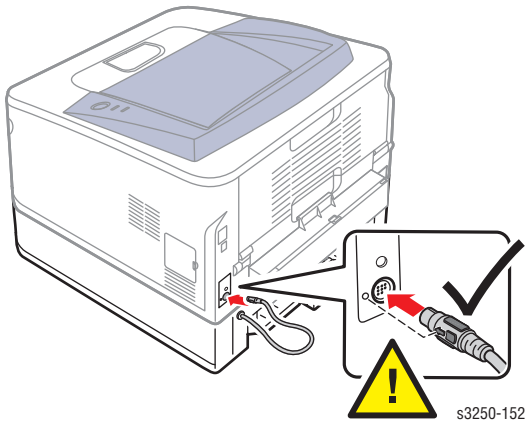
Optional 250-Sheet Feeder (PL1.1.18)

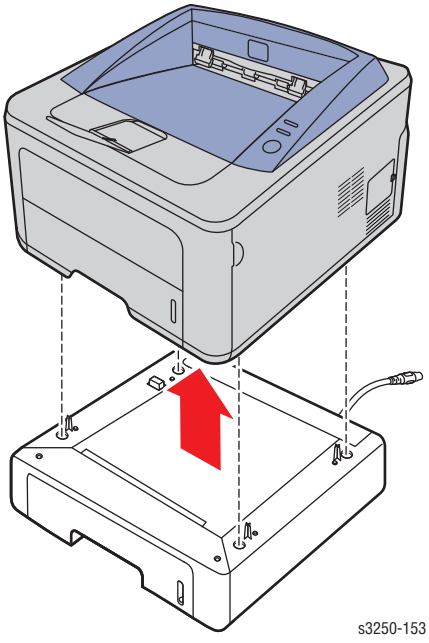
Caution

Use care when removing the printer from the Optional 250-Sheet Feeder.

1. Disconnect the Tray 2 cable.



2. Carefully lift the printer from the Optional 250-Sheet Feeder.



Parts List

In this chapter...

Chapter 9

Serial Number Format

Changes to Xerox products are made to accommodate improved components as they become available. It is important when ordering parts to include the following information:

- Component's part number
- Product type or model number
- Serial Number of the printer

The serial number is found on a label located on the frame of the printer..

The nine-digit serial number has the following format:

- **PPPRSSSSS**
- **PPP =** Three digit alphanumeric product code
- **R =** Single digit numeric revision digit, 0~9. To be rolled when a major product change occurs and initiated with a change request.

Product Code	Product
MXV	3250D, 110 V Engine
MXW	3250D, 220 V Engine
MXX	3250DN, 110 V Engine
MXY	3250DN, 220 V Engine

Mass Production Units (MP Build)

PPP1SSSSS

SSSSS = Five digit numeric serial number based on the following table:

Product	Starting Serial Number	Ending Serial Number
3250D, 110V Engine	085501	11225
3250DN, 110V Engine	158001	183750
3250D, 220V Engine	112251	158000
3250DN, 220V Engine	183751	239500

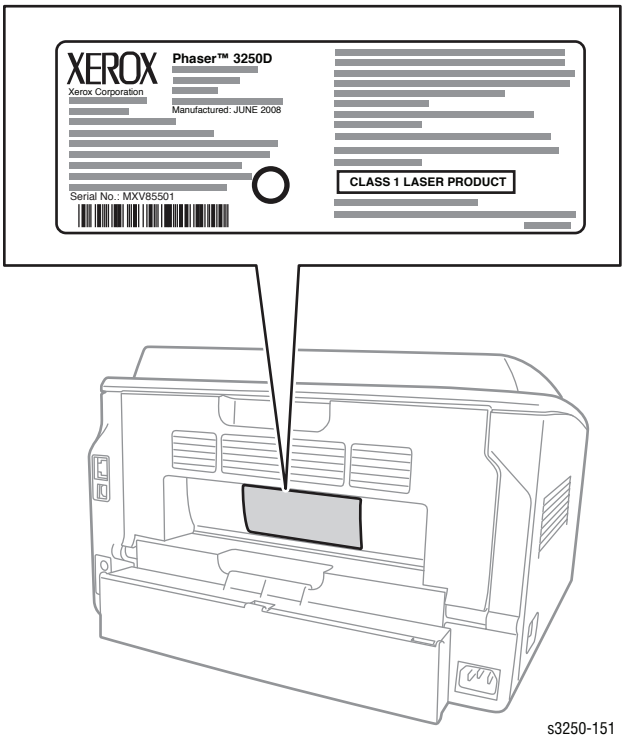
Example

MXV85501: Xerox Serial Number

MVX: Product Code for the Phaser 3250, configuration D or DN, 110V printer

85501 = Serial Number for 3250_D

Serial Number Label and Location



Using the Parts List

- **ID No.:** The callout number from the exploded part diagram.
- **Name/Description:** The name of the part to be ordered and the number of parts supplied per order.
- **Part Number:** The material part number used to order that specific part.
- Parts identified throughout this manual are referenced **PL#.#.#**; For example, PL3.1.10 means the part is item 10 of Parts List 3.1.
- A black triangle preceding a number followed by a parenthetical statement in an illustrated parts list means the item is a parent assembly, made up of the individual parts called out in parentheses.
- The notation "**with X~Y**" following a part name indicates an assembly that is made up of components X through Y. For example, "1 (with 2~4)" means part 1 consists of part 2, part 3, and part 4.
- An asterisk (*) following a part name indicates the page contains a note about this part.
- The notation (NS) next to a part indicates that particular part is not spared, but contained in a kit or major assembly.
- The notation "**J1<>J2 and P2**" is attached to a wire harness. It indicates that connector Jack 1 is attached to one end of the wire harness and connector J2 is attached to the other end that is plugged into P2.

Note

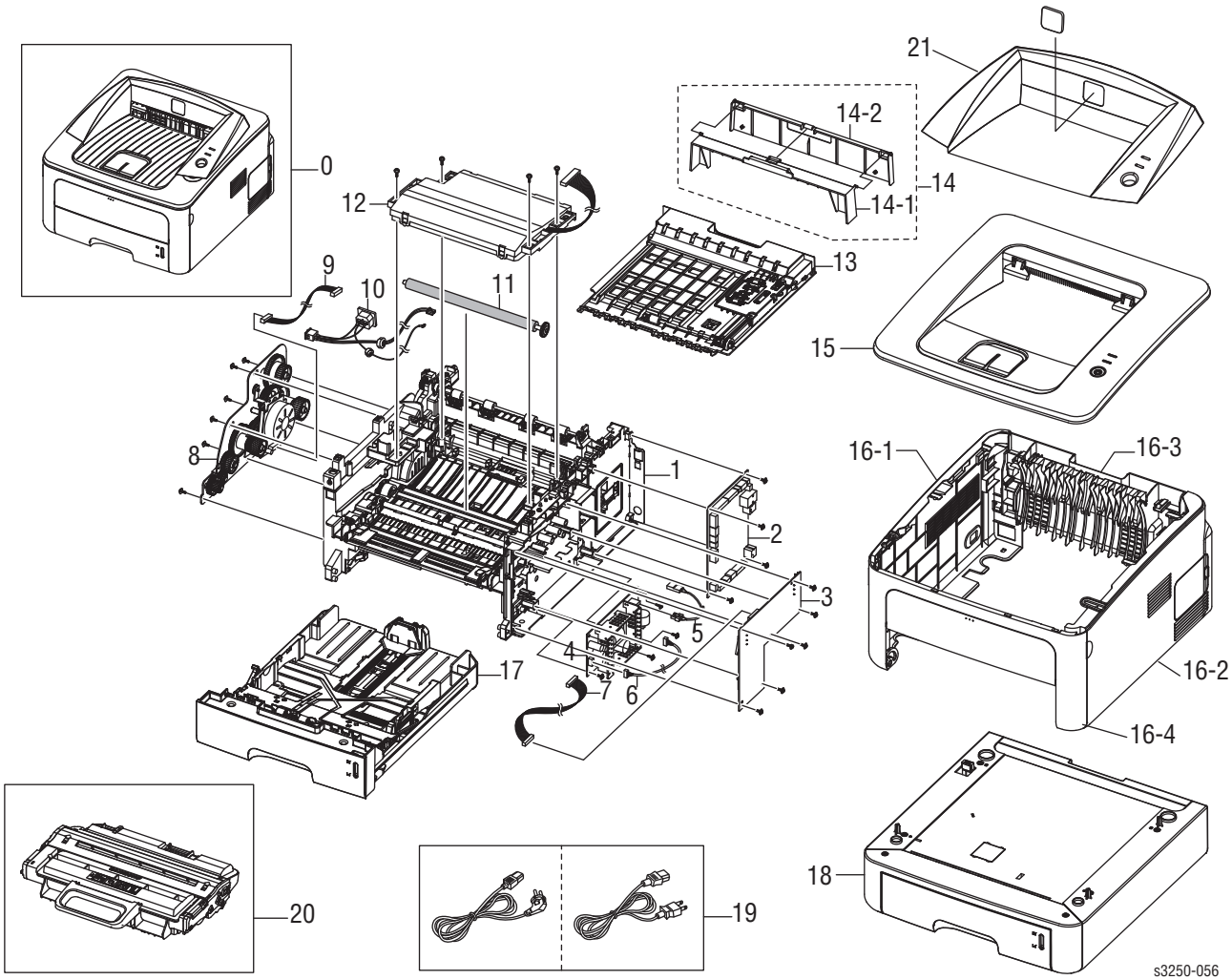
Only parts showing part numbers are available for ordering by support. Parts not showing part numbers are available on the parent assembly.

Abbreviations

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

Print Engine Parts

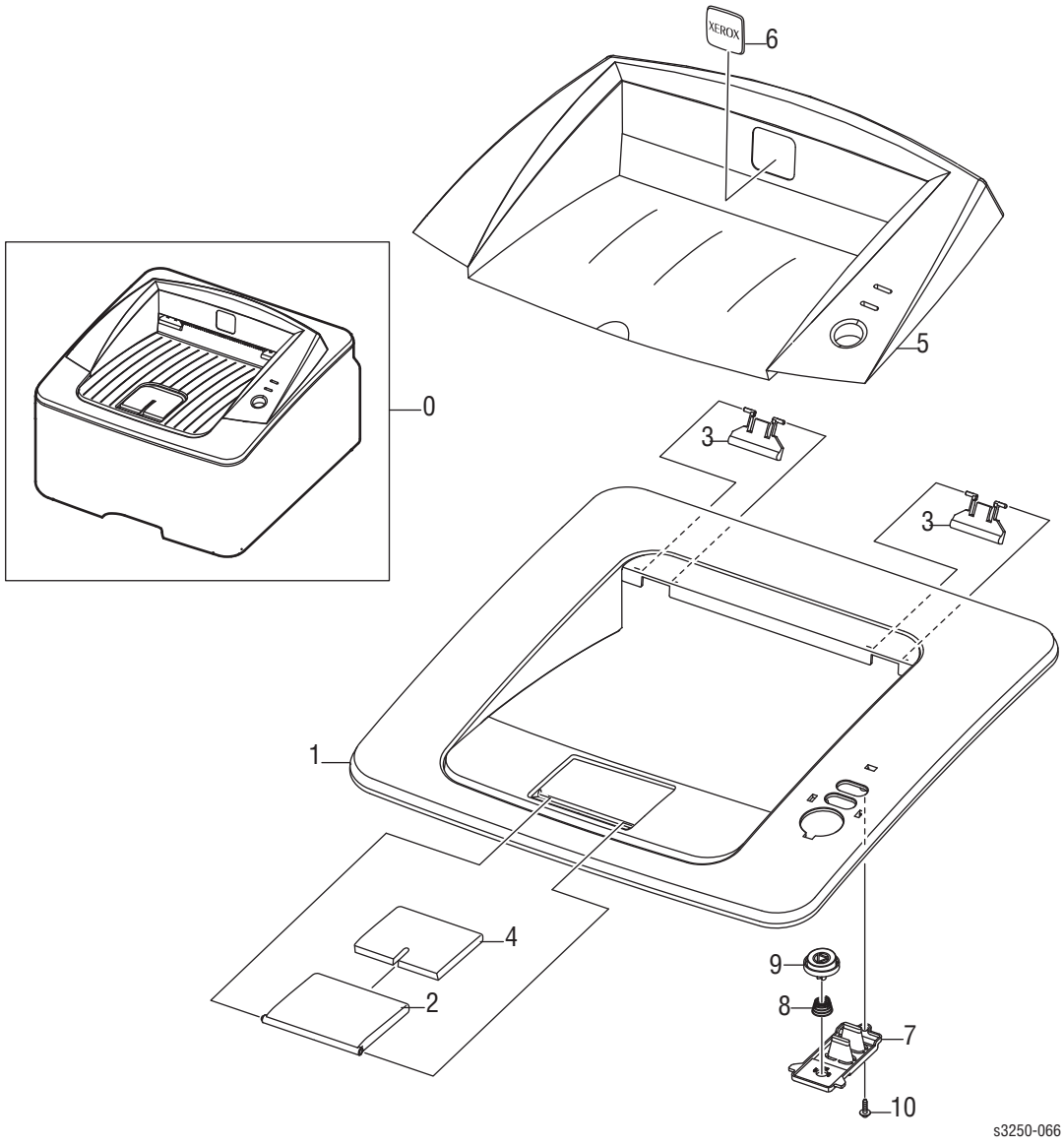
Parts List 1.1 Main



Parts List 1.1 Main

ID No.	Name/Description	Part Number
0.	Set - MEA Unit Cover Top (P3250DN)	002N02738
1.	Shield Controller	
2.	PBA Main Controller (P3250 D)	140N63322
	PBA Main Controller (P3250 DN)	140N63323
3.	HVPS	105N02147
4.	SMPS-PSP-Type 2 V2C (110V) (LVPS)	105N02139
	SMPS-PSP-Type 2 V2C (220V) (LVPS)	105N02140
5.	CBF Harness Fuser AC (SMPS)	
6.	Cable from Conn Coax	
7.	CBF Harness HVPS	
8.	ELA Unit Drive (Drive Assembly)	007N01601
9.	CBF Harness Motor & Solenoid	
10.	CBF Harness AC Inlet	
11.	Roller Transfer	022N02354
12.	ELA Unit LSU (Laser Unit)	122N00279
13.	MEA Unit Duplex	097N01682
14.	Duplex Rear Cover Assy	002N02736
14-1.	Cover Duplex	
14-2.	Cover Rear Duplex	
15.	Cover Top Lower	002N02739
16-1.	MEA Unit Cover Left	002N02731
16-2.	MEA Unit Cover Right (P3250D)	002N02733
	MEA Unit Cover Right (P3250DN)	002N02732
16-3.	MEA Unit Cover Rear	002N02734
16-4.	MEA Unit Cover Front	002N02735
17.	MEA Unit Cassette	050N00521
18.	ELA Unit SCF (Optional Tray 2)	098N02194
19.	CBF-Power Cord, 110V	105N02072
	CBF-Power Cord, 220V	117N01769
20.	ELA HOU-DEVE (Print Cartridge - 3.5K)	106R01373
	ELA HOU-DEVE (Print Cartridge - 5K)	106R01374
21.	Cover Top Upper	

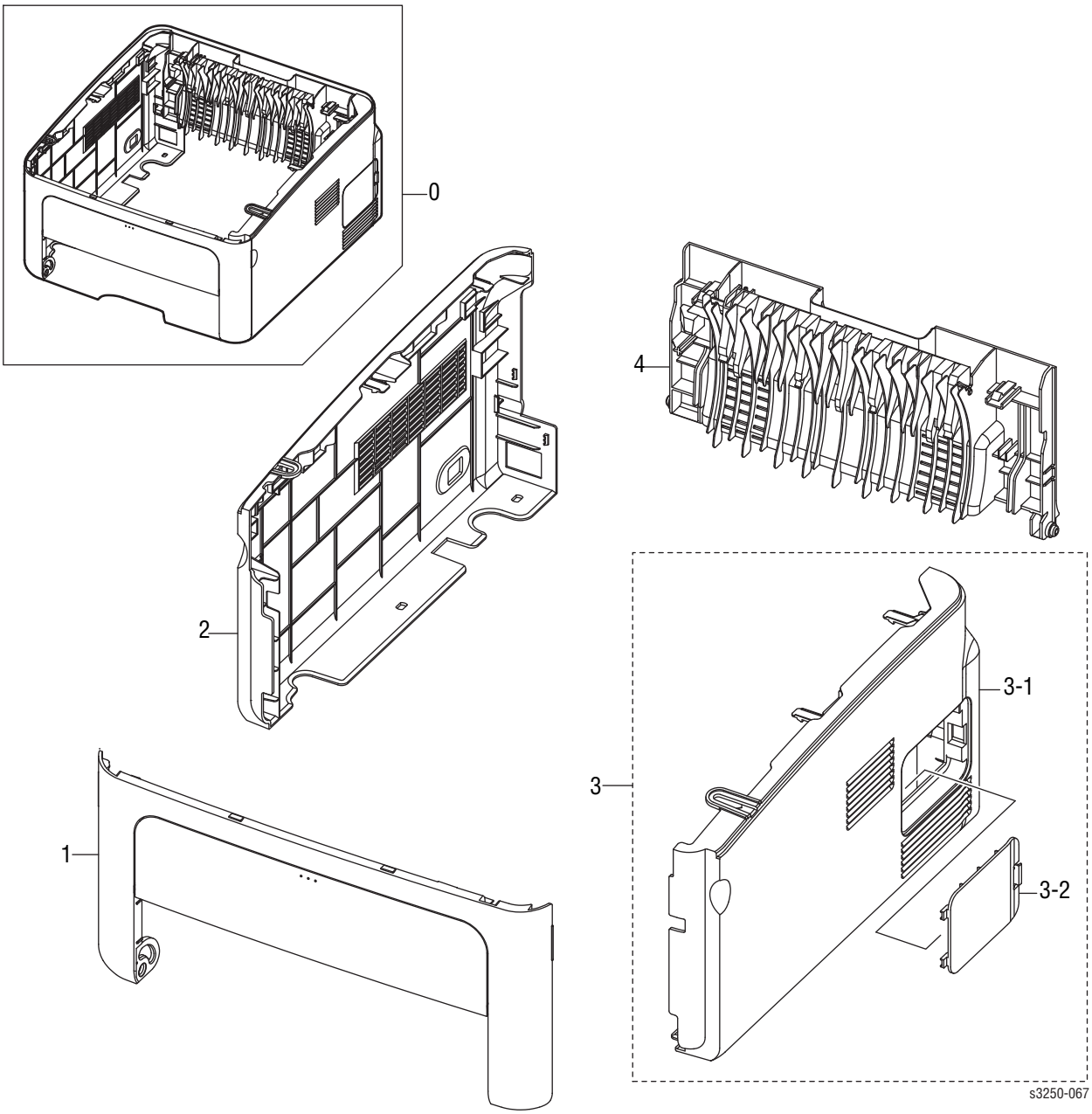
Parts List 2.1 Top Cover



Parts List 2.1 Top Cover

ID No.	Name/Description	Part Number
0.	MEA Unit Cover Top (P3250DN)	002N02738
1.	Cover Top Lower	002N02739
2.	Stacker Large	
3.	PMO Sub M-Stacker	
4.	Stacker Small	
5.	Cover Top Upper	
6.	Badge Xerox	
7.	Lens LED	
8.	Spring CS	
9.	Key On-Line	
10.	Screw Taptite	
11.	Sponge Cover Top (not shown)	

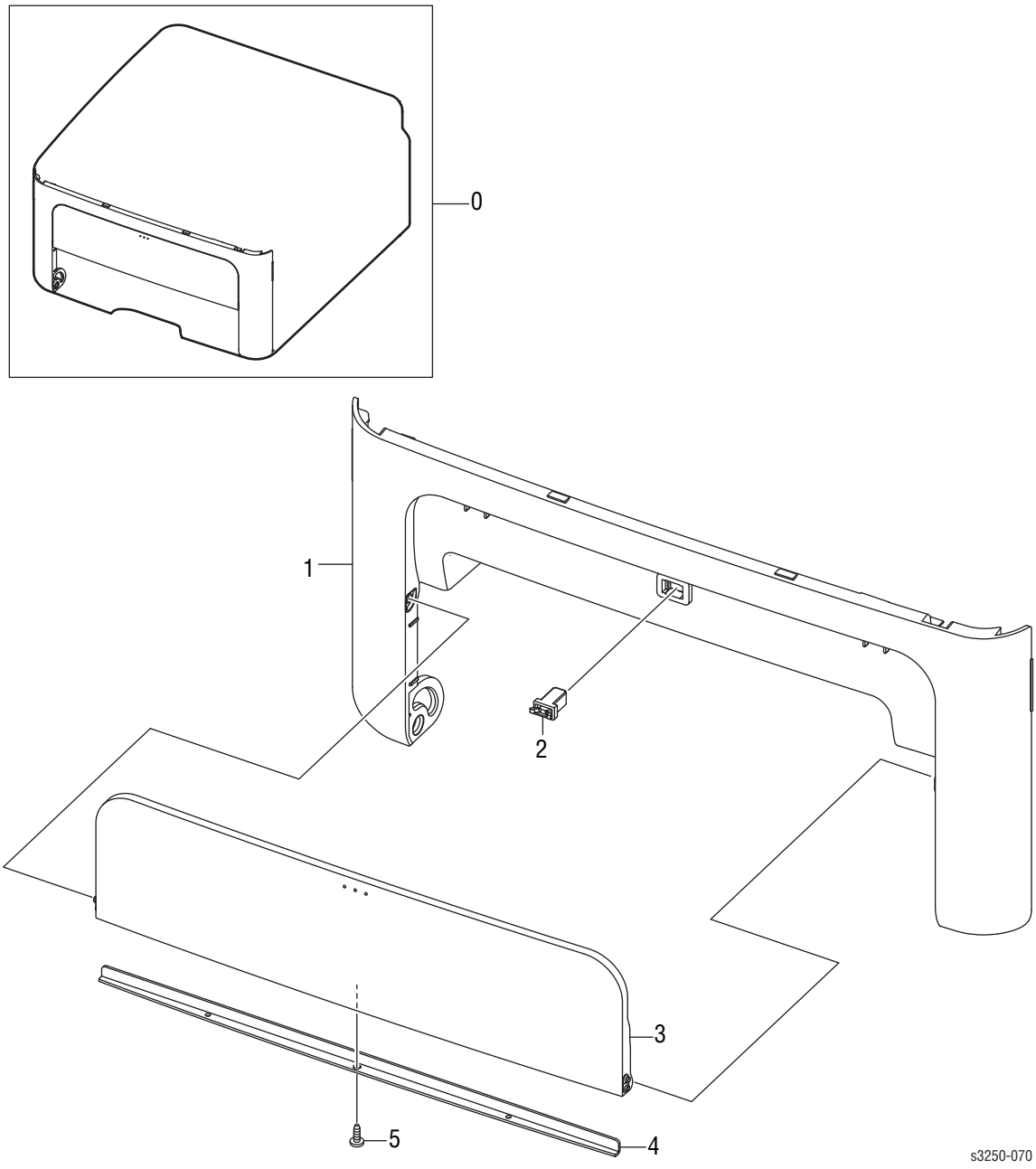
Parts List 3.1 Cover Assembly



Parts List 3.1 Cover Assembly

No.	Name/Description	Part Number
0.	ELA HOU Cover	
1.	MEA Unit Cover Front	002N02735
2.	MEA Unit Cover Left	002N02731
3.	MEA Unit Cover Right (P3250D)	002N02733
	MEA Unit Cover Right (P3250DN)	002N02733
3-1.	Cover Right	
3-2.	Cover Right DIMM	
4.	MEA Unit Cover Rear	002N02734

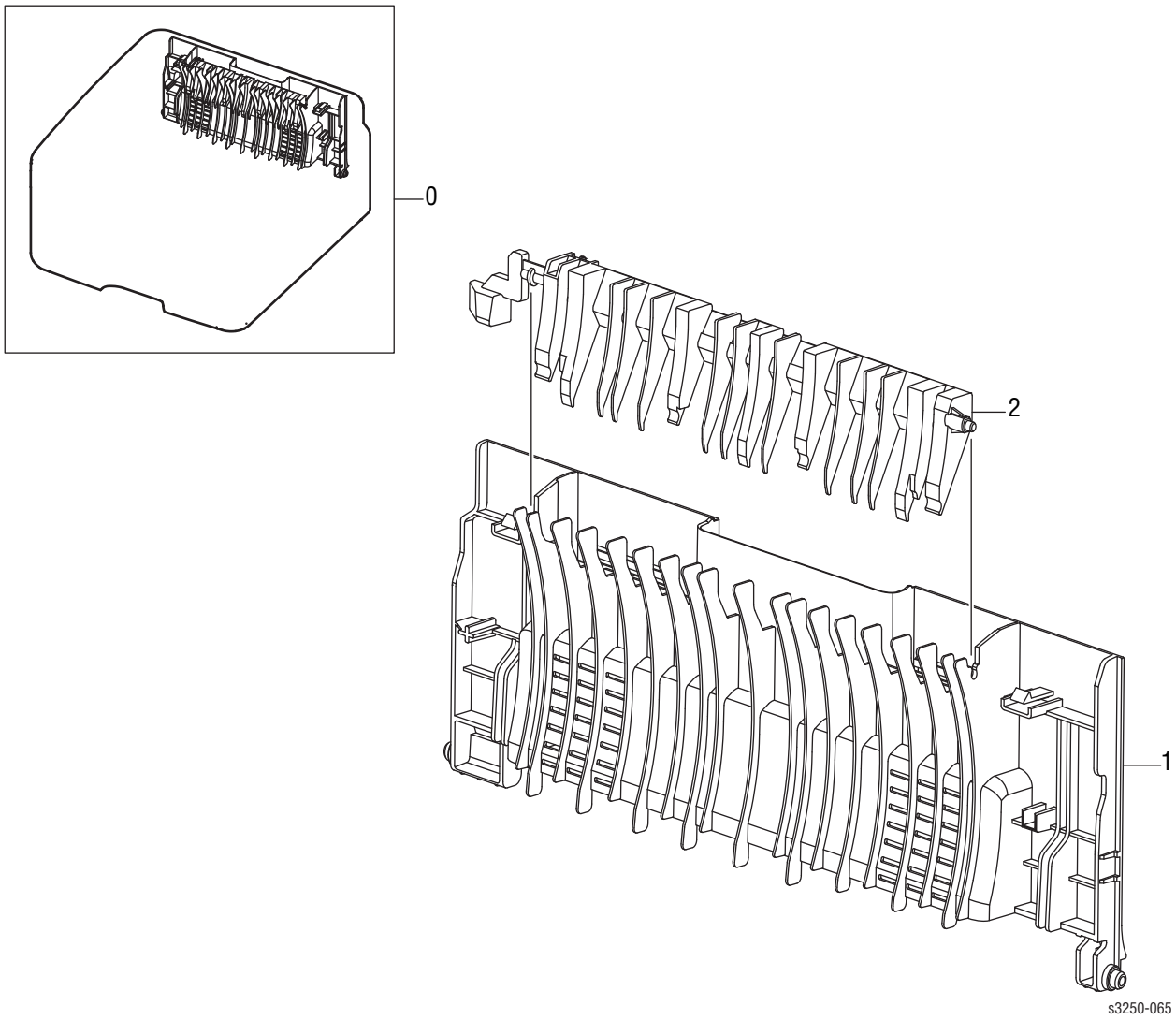
Parts List 4.1 Front Cover



Parts List 4.1 Front Cover

ID No.	Name/Description	Part Number
0.	MEA Unit Cover Front	002N02735
1.	Cover Front	
2.	Locker Latch Push	
3.	Cover Manual	
4.	Bracket Manual	
5.	Screw Taptite	

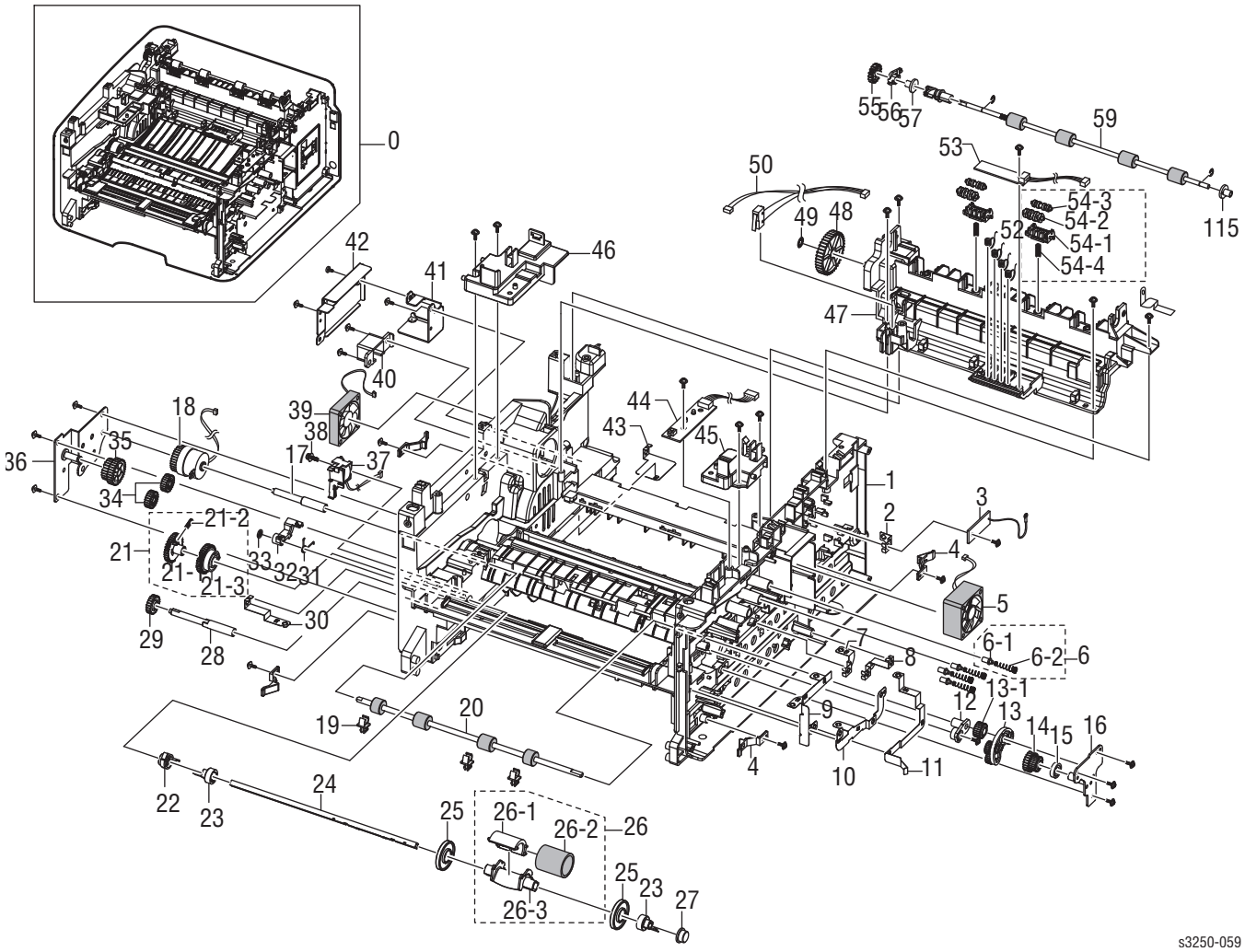
Parts List 5.1 Rear Cover



Parts List 5.1 Rear Cover

ID No.	Name/Description	Part Number
0.	MEA Unit Cover Rear	002N02734
1.	Cover Rear	
2.	Guide Change DUP	

Parts List 6.1 Frame



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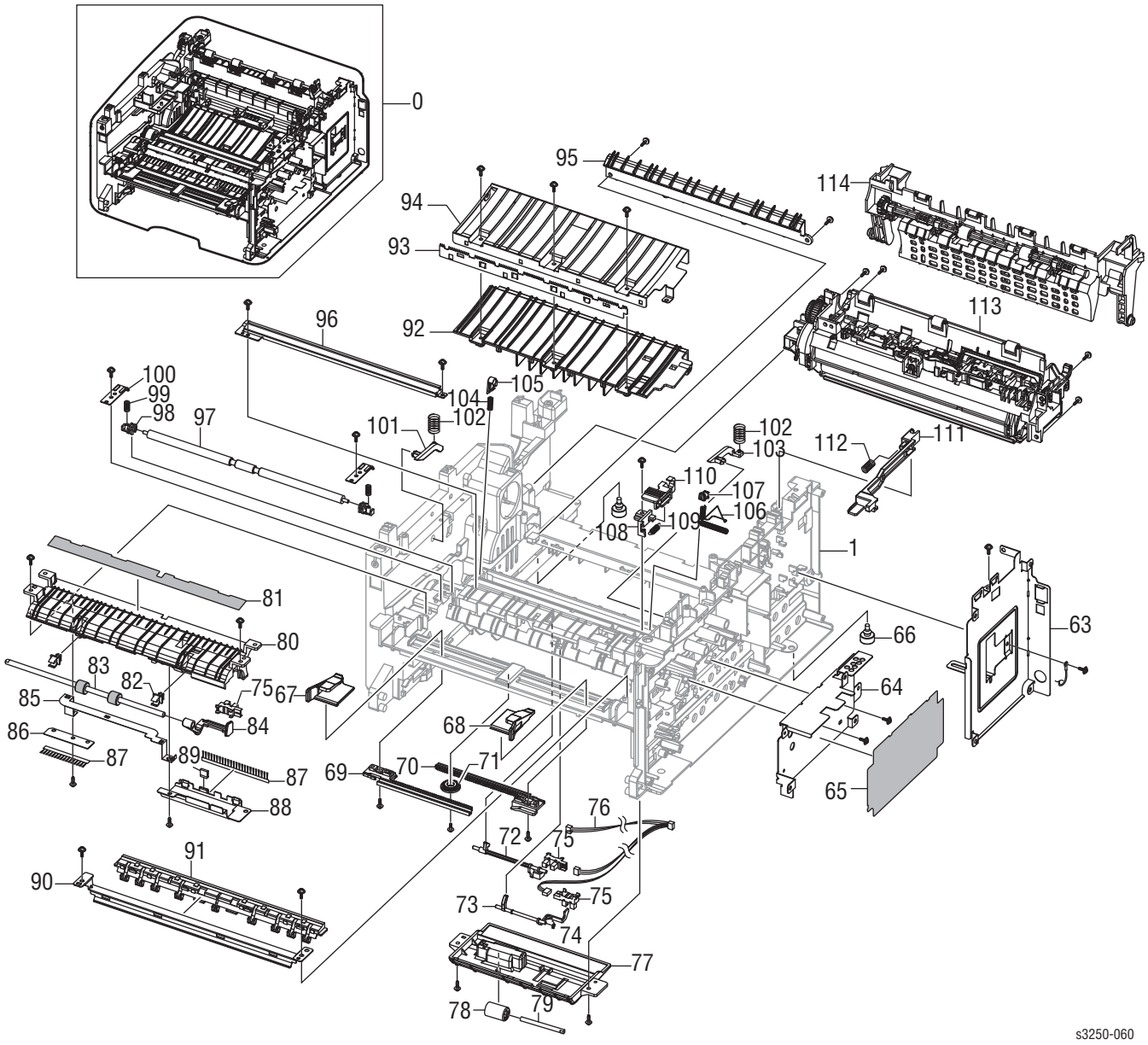
Parts List 6.1 Frame (continued)



Parts List 6.1 Frame

ID No.	Name/Description	Part Number
0.	ELA HOU Frame 110V	
1.	Frame Base	
2.	Ground Zenor	
3.	PBA Main Zener	140N63324
4.	PMO Locker CST	
5.	Fan DC Main	127N07572
6.	ELA Unit Terminal TR L	
6-1.	ICT Shaft HV Large	
6-2.	Spring ETC-HV Large	
7.	Ground Motor Main	
8.	Ground Controller	
9.	Ground Paper	
10.	Ground BRKT Front	
11.	Ground Transfer	
12.	Holder Regi	
13.	MEA Unit Swing	
13-1.	Gear Duplex DR 28	
14.	Gear RDCN 23/23	
15.	Collar Swing	
16.	BRKT Swing (Bracket)	
17.	Shaft Feed Regi	
18.	Clutch Electric	121N01169
19.	PMO Bushing Feed	
20.	Roller Feed Regi	
21.	MEA Unit Gear Pick-Up (with 22, 23, 24, 25, 26, 27)	130N01538
21-1.	Gear Pick-Up A	
21-2.	Spring CS	
21-3.	Gear Pick-Up B	
22.	CAM Pick-Up	
23.	PMO Idle Pick-Up	
24.	Shaft-P Pick-Up	
25.	Stopper-M Pick-Up R2	
26.	MEA Unit Pick-Up	130N01540
26-1.	Rubber Pick-Up	
26-2.	Housing-M Pick-Up 2-R2	
26-3.	Housing-M Pick-Up R2	
27.	Bush-M Pick-Up R	
28.	Shaft Feed	
29.	Gear Feed DR 16	
30.	Ground Guide TR	

Parts List 6.1 Frame (continued)

ID No.	Name/Description	Part Number
31.	Spring TS	
32.	CAM-M Pick-Up	
33.	Ring CS; ID3, OD3, T0.25, Black, SU	
34.	Gear Exit, Idle (Z17)	
35.	Gear Feed RDCN 24/19	
36.	Bracket Feed	
37.	Solenoid Pick-Up	121N01168
38.	Screw Taptite	
39.	Fan DC	127N07572
40.	Holder Power	
41.	Shield Power Switch	
42.	Plate Power Cap	
43.	Ground SCF	
44.	PBA LED Panel (LED Board)	101N01330
45.	Frame LSU Holder R	
46.	Frame LSU Holder L	
47.	Frame Exit High	
48.	Gear-M Fuser Idle 1	
49.	Ring CS	
50.	Harness LSU SW & Fan	
51.	-----	
52.	Terminal CRUM	
53.	PBA Sub Terminal (CRUM Board)	
54.	-----	
54-1.	Holder-M Exit F/Down	
54-2.	Roller Exit Main	
54-3.	Roller Exit FR	
54-4.	Spring CS	
55.	Gear-M Exit	
56.	PMO Bearing Shaft	
57.	Support Roller	
58.	-----	
59.	Roller Exit F/Down	
60.	-----	
61.	-----	
62.	-----	
63.	Shield Controller	
64.	Shield SMPS (LVPS)	
65.	Insulation SMPS (LVPS)	
66.	Foot ML80	

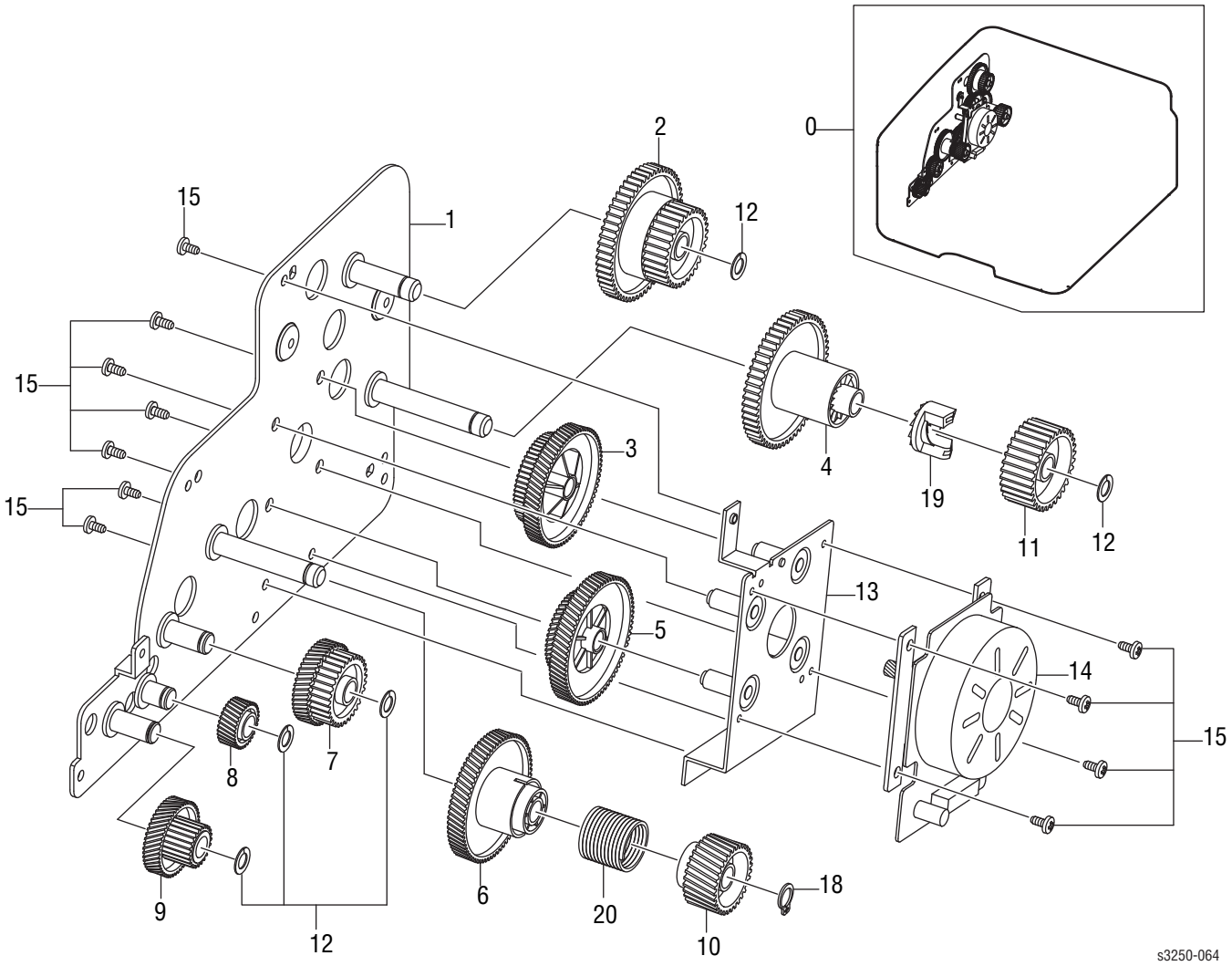
Parts List 6.1 Frame (continued)

ID No.	Name/Description	Part Number
67.	Adjust Manual L	
68.	Adjust Manual R	
69.	Adjust Rack-M Manual	
70.	Adjust Rack-M-Manual	
71.	Gear Rack Pinion	
72.	Actuator Feed	120N00522
73.	Actuator Duplex	120N00521
74.	Spring TS	
75.	Photo Interrupter (Feed Sensor, Paper Empty Sensor)	130N01274
76.	CBF Harness HVPS	
77.	Frame Duplex Path	
78.	Roller-M Idle SCF	
79.	Shaft DUP Roller	
80.	Guide Frame Duplex	
81.	Sheet Guide DUP Path	
82.	PMO Bushing Feed	
83.	Roller Feed	022N02355
84.	Actuator Empty	120N00523
85.	Ground Pick Up	
86.	Sheet Brush	
87.	MEC Brush Pick Up	
88.	Bracket Cover Front	
89.	Ground Brush Pick Up	
90.	Guide Paper	
91.	Guide Front Paper	
92.	Guide TR-RIB	
93.	Plate E-SAW	
94.	Guide TR	
95.	Guide Input	
96.	Plate Earth Transfer	
97.	Shaft Feed Idle	
98.	Bush-M Feed Idle	
99.	Spring ETC-TR	
100.	Plate-P Push Bushing	
101.	PMO Plate Guide DEVE-L	
102.	Spring ETC-Guide DEVE	
103.	PMO-Plate Guide DEVE-R	
104.	Spring TR	
105.	Bush TR-L	
106.	Terminal Spring TR	

Parts List 6.1 Frame (continued)

ID No.	Name/Description	Part Number
107.	PMO Bushing TR(L)	
108.	Guide Holder TR	
109.	Spring ETC-ES (Guide Holder TR)	
110.	Holder Transfer	
111.	Link Cover Rear	
112.	Spring CS	
113.	ELA Unit Fuser (110V)	126N00295
	ELA Unit Fuser (220V)	126N00296
114.	MEA Unit Guide Rear	032N00491
115.	Bush 4	

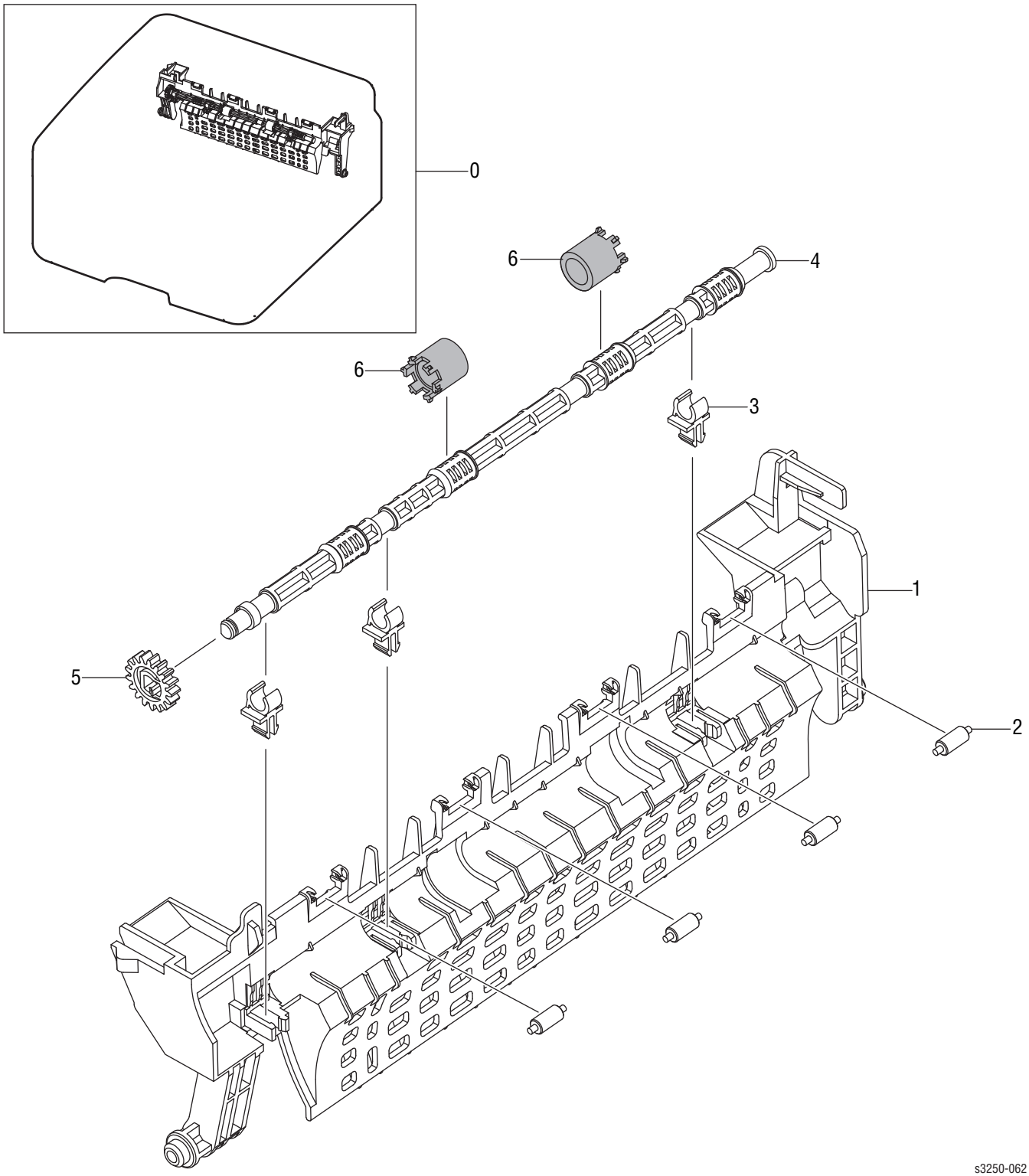
Parts List 7.1 Main Drive



Parts List 7.1 Main Drive

ID No.	Name/Description	Part Number
0.	ELA Unit Drive (Drive Assembly)	007N01601
1.	Bracket Gear	
2.	Gear Exit RDCN 61/28	
3.	Gear RDCN 83/40	
4.	Gear Fuser DR IN 61	
5.	Gear RDCN 89/55	
6.	Gear OPC DR IN 89	
7.	Gear Feed RDCN 56/25	
8.	Gear Pick Up Idle 31	
9.	Gear RDCN 52/18	
10.	Gear OPC Clutch 29	
11.	Gear Fuser DR OUT 37	
12.	Washer Plain	
13.	Bracket Motor	
14.	Motor BLDC	
15.	Screw Taptite	
16.	-----	
17.	-----	
18.	Ring C	
19.	Hub Clutch	
20.	Spring Clutch	

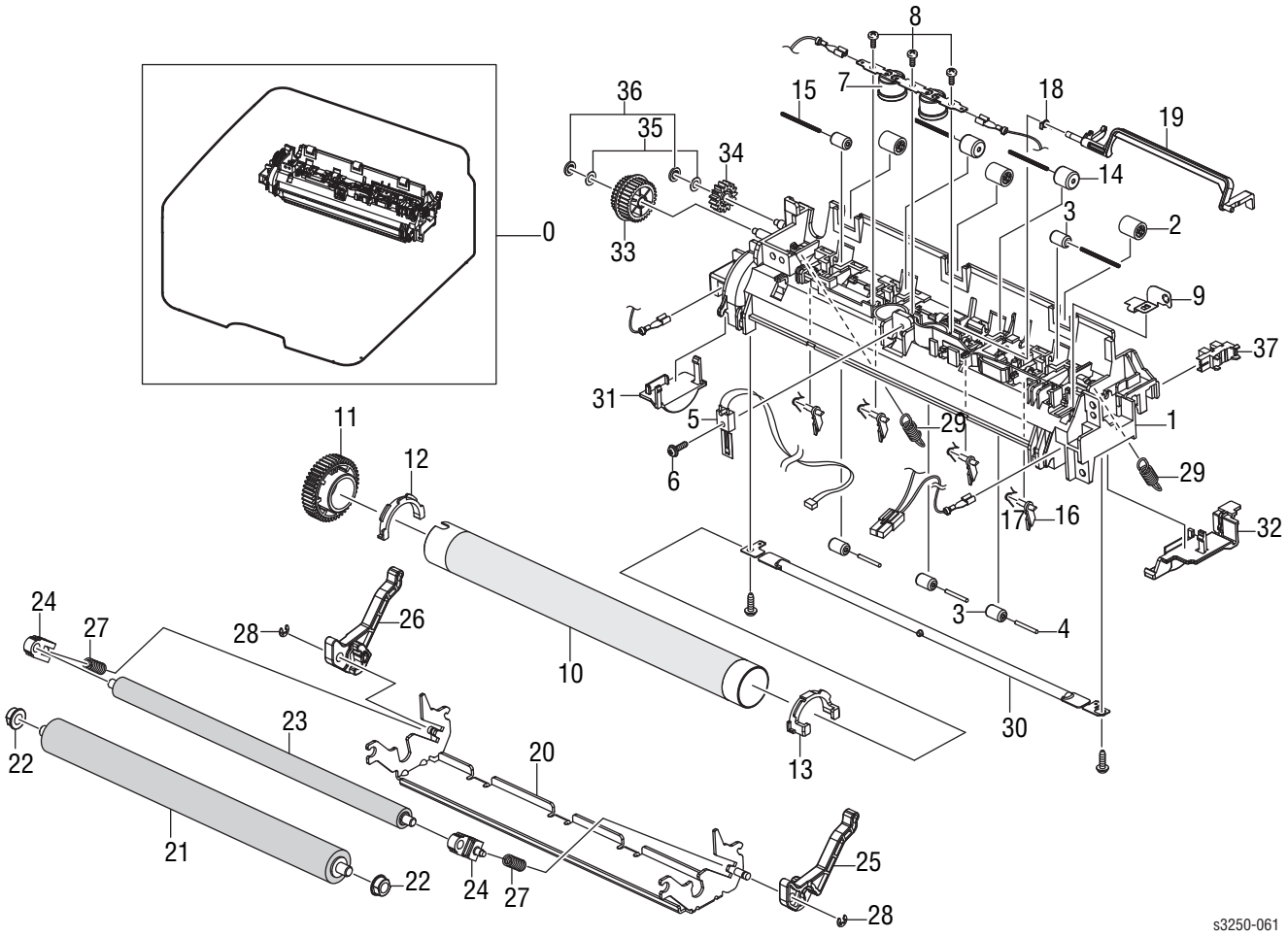
Parts List 8.1 Rear Guide



Parts List 8.1 Rear Guide

ID No.	Name/Description	Part Number
0.	MEA Unit Guide Rear	032N00491
1.	Guide Rear	
2.	Roller Idle Exit	
3.	Bush TX	
4.	Shaft Exit-F/Up	
5.	Gear Exit	
6.	Rubber Exit-F/Up	

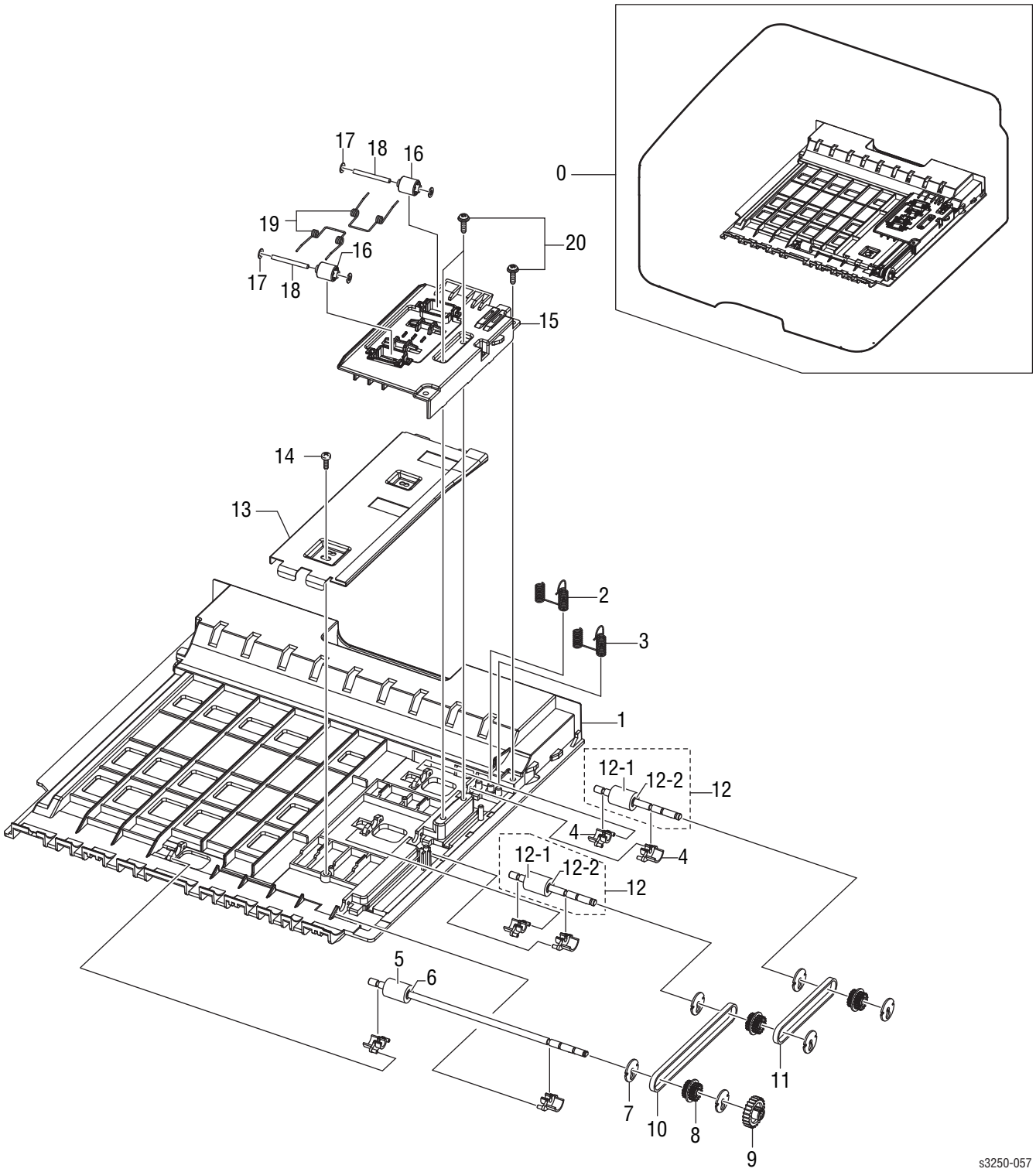
Parts List 9.1 Fuser



Parts List 9.1 Fuser

ID No.	Name/Description	Part Number
0.	ELA Unit Fuser (110V)	126N00295
	ELA Unit Fuser (220V)	126N00296
1.	Cover Fuser	
2.	PMO Roller Upper DP	
3.	Roller Idle	
4.	IEX Shaft Idle, F/Up	
5.	Thermistor NTC Assy	130N01539
6.	Screw Taptite	
7.	Thermostat	130N01490
8.	Screw Taptite	
9.	Ground Fuser	
10.	Roller Heat	022N02356
11.	Gear Fuser	
12.	Bush HR-L	
13.	Bush HR-R	
14.	PEX Roller F/Up (2)	
15.	Spring ETC	
16.	Guide Claw	
17.	Spring ETC Claw	
18.	Spring TS	
19.	Actuator Exit	120N00524
20.	Frame Fuser	
21.	Roller Pressure	022N02357
22.	Bush PR-1st	
23.	Roller Pressure-2nd	022N02358
24.	Bush PR-2nd	
25.	Lever Link Jam-R	
26.	Lever Link Jam-L	
27.	Spring CS	
28.	Ring-C	
29.	Spring ES	
30.	Lamp Halogen, 110V	122N00269
	Lamp Halogen, 220V	122N00270
31.	CAP Lamp-L	
32.	CAP Lamp-R	
33.	Gear Fuser RDCN 28-20	
34.	Gear MPF 5	
35.	Washer Plain	
36.	Ring CS	
37.	Photo Interrupter (Exit Sensor)	130N01274

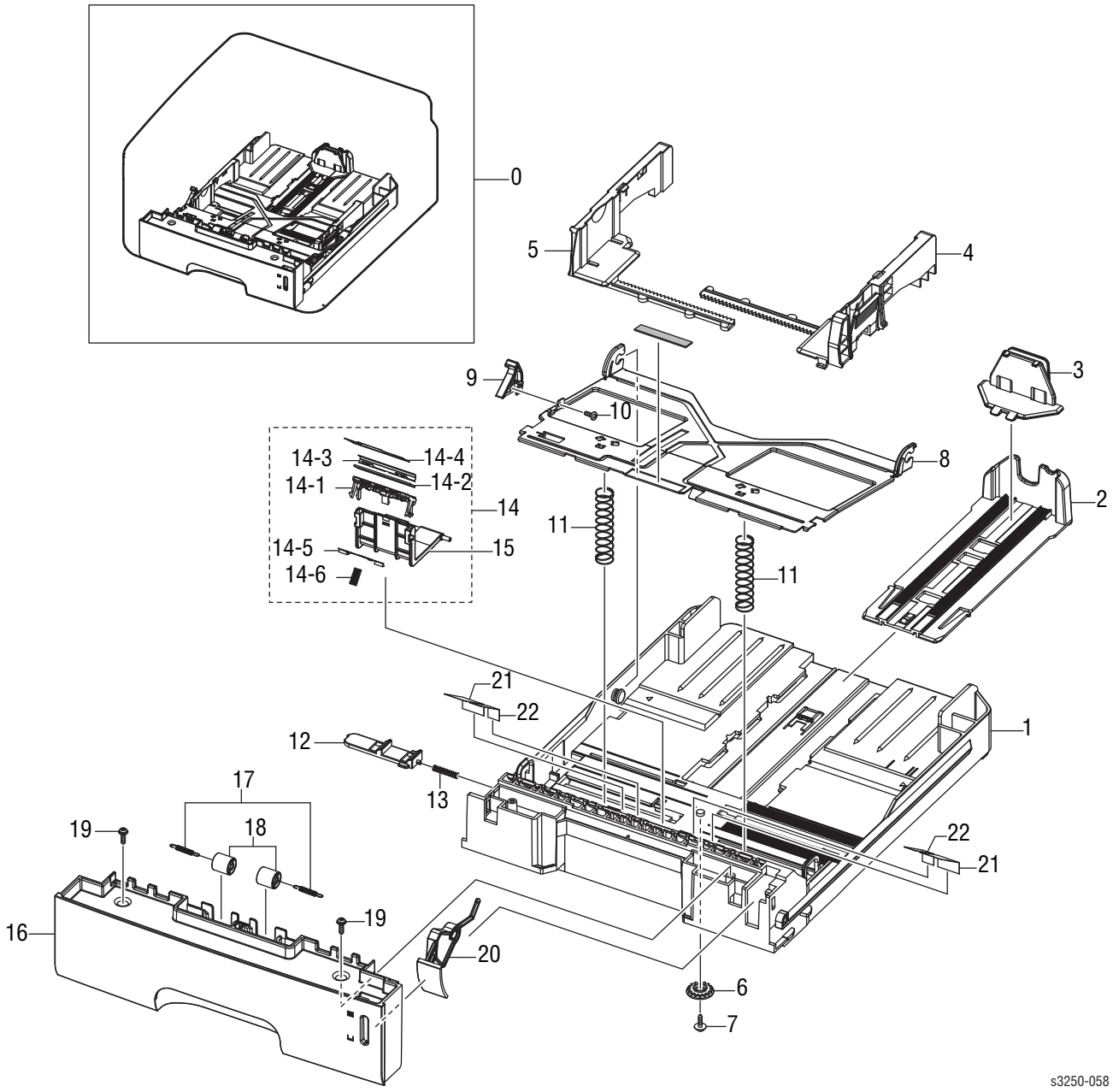
Parts List 10.1 Duplex Unit



Parts List 10.1 Duplex Unit

ID No.	Name/Description	Part Number
0.	ELA Unit Duplex	097N01682
1.	Frame Duplex Base	
2.	Terminal GND-DUP L	
3.	Terminal GND-DUP S	
4.	Bush M Feed, DUP	
5.	Roller Feed-DUP2	
6.	Ring-C	
7.	Pulley M-18 Dummy-DUP	
8.	Pulley 18-DUP	
9.	Gear Exit F/Down	
10.	Belt Timing Gear	
11.	Belt Timing Gear	
12.	ELA Unit Roller-DUP	
12-1.	Roller Feed-DUP	
12-2.	Ring-C	
13.	Bracket Duplex-Align	
14.	Screw Tapping	
15.	Guide Duplex-Upper	
16.	Roller M-Idle-DUP	
17.	PCT-SILP Washer	
18.	Shaft Idle Roll, DUP	
19.	Spring-TS	
20.	Screw Taptite	

Parts List 11.1 Tray 1

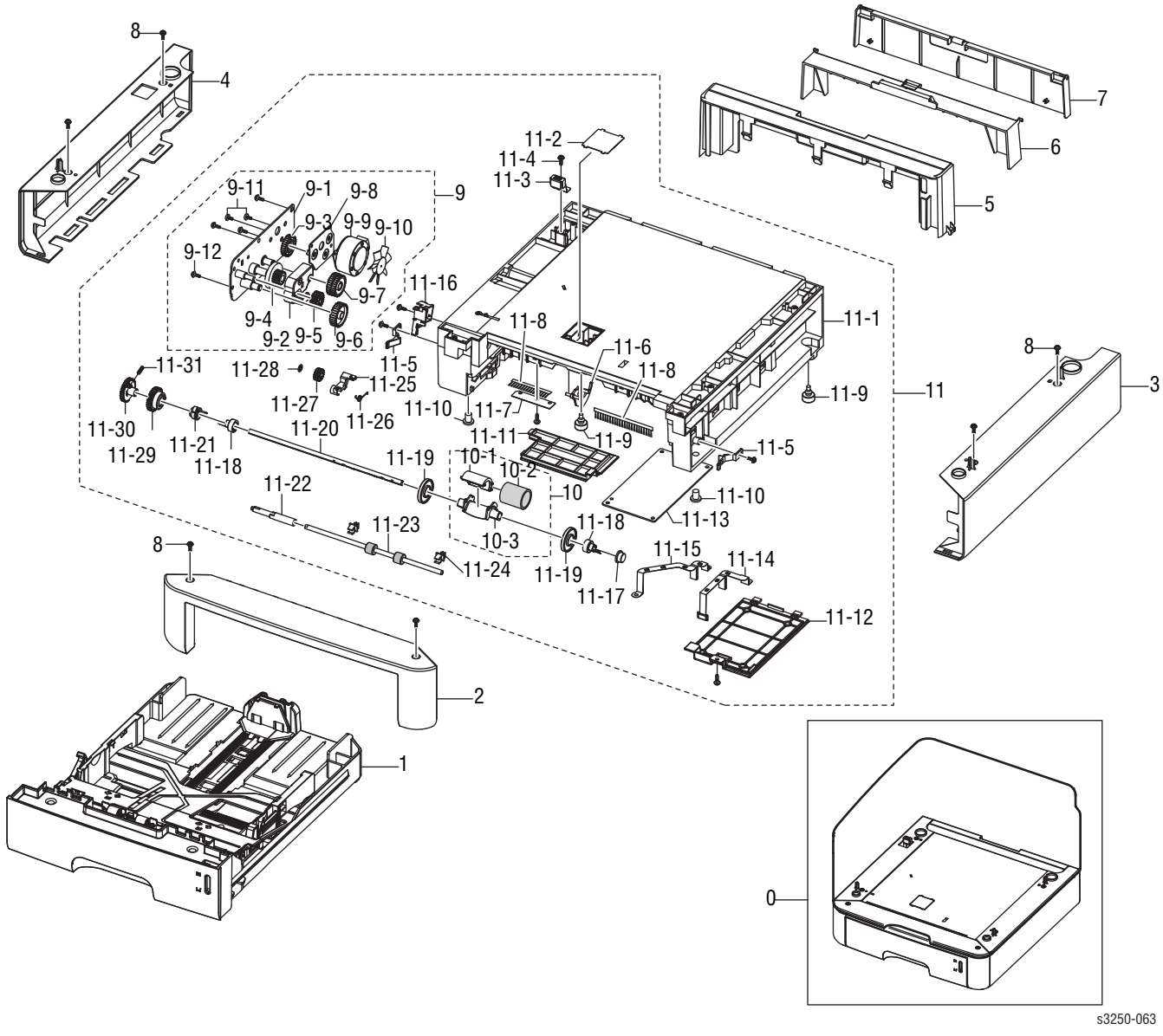


Parts List 11.1 Tray 1

ID No.	Name/Description	Part Number
0.	MEA Unit Cassette (Tray 1)	050N00521
1.	Frame-M Cassette	
2.	Guide-M Extension L2	
3.	PMO Extension Small	
4.	Adjust-M Cassette-R	
5.	Adjust-M Cassette-L	
6.	Gear Pinion	
7.	Screw Taptite	
8.	Plate-P Knock-Up	
9.	CAM-M Knock-Up	
10.	Screw Taptite	
11.	Spring-CS	
12.	PMO Plate-Locker	
13.	Spring ETC-Locker, Plate	
14.	ELA HOU Holder-Pad	019N00957
14-1.	Holder Pad	
14-2.	RPR-Friction Pad	
14-3.	Plate Pad	
14-4.	Sheet Pad	
14-5.	Ground Pad	
14-6.	Spring ETC Exit Roll FD	
15.	Housing Holder Pad	
16.	Cover Handle-Cassette	
17.	Spring-ES	
18.	Roller-M Idle Feed	
19.	Screw Taptite	
20.	Indicator Paper	
21.	Sheet Guide-Side-Far	
22.	Sheet Guide-Side-Near	

Options

Parts List 12.1 Tray 2



Parts List 12.1 Tray 2

ID No.	Name/Description	Part Number
0.	ELA Unit SCF (Optional 250-Sheet Feeder)	098N02194
1.	MEA Unit Cassette (Tray 2)	050N00521
2.	Cover Front-SCF	
3.	Cover Right-SCF	
4.	Cover Left-SCF	
5.	Cover Rear-SCF	
6.	Cover Duplex	
7.	Cover Rear Duplex	
8.	Screw Taptite	
9.	ELA HOU Motor-SCF	
9-1.	Bracket Motor-SCF	
9-2.	Support Feed-SCF	
9-3.	Gear Idle 59	
9-4.	Gear 61/47 Idle	
9-5.	Gear Idle 23	
9-6.	Gear-35 Idle	
9-7.	Gear RDCN 57/18	
9-8.	Bracket Gear-SCF	
9-9.	Motor Step	
9-10.	PMO Impeller-DRV	
9-11.	Screw Taptite	
9-12.	Washer Plain	
10.	MEA Unit Pick-Up	
10-1.	Housing-M Pick-Up R2	
10-2.	Rubber Pick-Up	
10-3.	Housing-M Pick-Up UP2-R2	
11.	ELA HOU Frame-SCF	
11-1.	Frame SCF	
11-2.	Sheet Cover Sensor	
11-3.	IPR Ground Top	
11-4.	Screw Taptite	
11-5.	PMO Locker CST	
11-6.	PMO Actuator Empty	
11-7.	Sheet Brush	
11-8.	MEC Brush Antistatic	
11-9.	Foot ML80	
11-10.	Foot Front	
11-11.	Cover Harness-SCF	
11-12.	Cover M-SIMM R2	
11-13.	PBA SCF	

Parts List 12.1 Tray 2 (continued)

ID No.	Name/Description	Part Number
11-14.	Ground Paper-SCF	
11-15.	Ground Brush-SCF	
11-16.	Solenoid Pick-Up	
11-17.	Bush-M Pick-Up R	
11-18.	Stopper-M Pick-Up-R2	
11-19.	PMO Idle Pick-Up	
11-20.	Shaft-P Pick-Up	
11-21.	Bush-M Pick-Up L	
11-22.	Shaft Feed-SCF	
11-23.	Roller Feed	
11-24.	PMO Bushing Feed	
11-25.	CAM M Pick-Up	
11-26.	Spring-TS	
11-27.	Gear Feed 2	
11-28.	Ring CS; ID3, OD3, T0.25, Black, SU	
11-29.	PMO Gear Pick-Up B	
11-30.	Gear Pick-Up A	
11-31.	Spring-TS	

Xerox Supplies and Accessories

World Kit

Description	Part Number
World Kit 1 - NA & DMO-W110V	600N03310
World Kit 1 - XE, DMO-W & E 220V	600N03311

Consumables and Maintenance Items

Parts List Reference	Description	Part Number
PL1.1.11	Transfer Roller (50K)	022N02354
PL9.1.0	Fuser Assy - 115V (50K)	126N00295
	Fuser Assy - 220V (50K)	126N00296
PL1.1.20	ELA HOU-DEVE (Print Cartridge - 5K)	106R01374
	ELA HOU-DEVE (Print Cartridge - 3.5K)	106R01373

Options

Parts List Reference	Description	Part Number
N/A	128 MB DDR2 Memory (1x 128 MB)	098N02195
PL12.1.0	Optional 250-Sheet Feeder	098N02194

Power Cords

Description	Part Number
CBF-Power Cord, 110V	105N02072
CBF-Power Cord, 220V	117N01769

Tools

Parts List Reference	Description	Part Number
N/A	Toner Vacuum	003-1496-00

Plug/Jack and Wiring Diagrams

In this chapter...

Chapter 10

Plug/Jack Diagrams and Designators

This chapter contains the Plug/Jack Designators, Locators, and wiring diagrams for the print engine and all options.

The Plug/Jack Locator diagrams show the P/J locations within the printer. Use these illustrations to locate the P/J connectors called out in the Troubleshooting procedures presented in Sections 3, 4, and 5.

The Plug/Jack locators consist of the P/J Designator Tables and the P/J Locator Diagrams.

- The P/J column lists the Plug/Jack numbers in numerical order.
- The Map column provides the map number of the specific areas (i.e., Electrical, Laser Unit...etc.)
- The Coordinates column lists the diagram coordinates for the location of the connector.
- The Remarks column provides a brief description of each connection.

1. Locate the P/J connector designator in the first column of the table.
2. With this information, go to the map listed in the second column.
3. Use the coordinates to locate the connection indicated on the map with its P/J designation number.

Print Engine Plug/Jack Designators

Print Engine Plug/Jack Designators

P/J	Map	Coordinates	Remarks
CN1	1, 5		Connects the Main Controller Board and the Laser Unit.
CN1	2, 5		Connects the HVPS and the Main Controller Board.
CN2	1		Connects the Main Controller Board and the Main Motor.
CN2	1		Connects the Main Controller Board and the Registration Clutch.
CN2	1		Connects the Main Controller Board and the Pick-Up Solenoid.
CN3	1		Connects the Main Controller Board and the DC Fan (LSU Fan).
CN3	1		Connects the Main Controller Board and the Interlock Switch.
CN4	1		Connects the Main Controller Board and the HVPS.
CN6	1		Connects the the Main Controller Board and the Thermistor (part of the Fuser).
CN6	1		Connects the Main Controller Board and the Exit Sensor.
CN8	1, 5		Connects the Main Controller Board and the Developer Unit CRUM.

Print Engine Plug/Jack Designators (continued)

P/J	Map	Coordinates	Remarks
CN9	1, 5		Connects the Main Controller Board and Ethernet connection.
CN10	1, 5		Connects the Main Controller Board and the LVPS.
CN11	1, 5		Connects the Main Controller Board and USB Connection.
CN12	1, 5		Connects the Main Controller Board and the Main Fan.
CN13	1, 5		Connects the Main Controller Board and the Paper Empty Sensor.
CN13	1, 5		Connects the Main Controller Board and the Duplex Registration Sensor.
CN13	1, 5		Connects the Main Controller Board and the Paper Feed Sensor.
CN14	1, 5		Connects the Main Controller Board and Tray 2 (Optional Sheet Feeder).
CN15	1, 5		Connects the Main Controller Board and RAMM DIMM.
CN17	1, 5		Connects the Main Controller Board and DCU connection.
CN18	1, 5		Connects the Main Controller Board and the Control Panel.
CN19	5		Connects the Main Motor and the Main Controller Board.
CN20	5		Connects the DC Fan (LSU Fan) and the Main Controller Board.
CN21	5		Connects the Interlock Switch and the Main Controller Board.
CN22	5		Connects the Main Fan and the Main Controller Board.
CN23	5		Connects the Paper Empty Sensor and the Main Controller Board.
CN24	5		Connects the Duplex Registration Sensor and the Main Controller Board.
CN25	5		Connects the Paper Feed Sensor and the Main Controller Board.
CN26	5		Connects the Fuser and the LVPS.
CN27	5		Connects the Fuser and the Main Controller Board.
CN28	5		Connects the Exit Sensor and the Main Controller Board.
CN29	5		Connects the Developer Unit CRUM and the Main Controller Board.
CN30	5		Connects the Optional Tray 2 and the Main Controller Board.

Print Engine Plug/Jack Designators (continued)

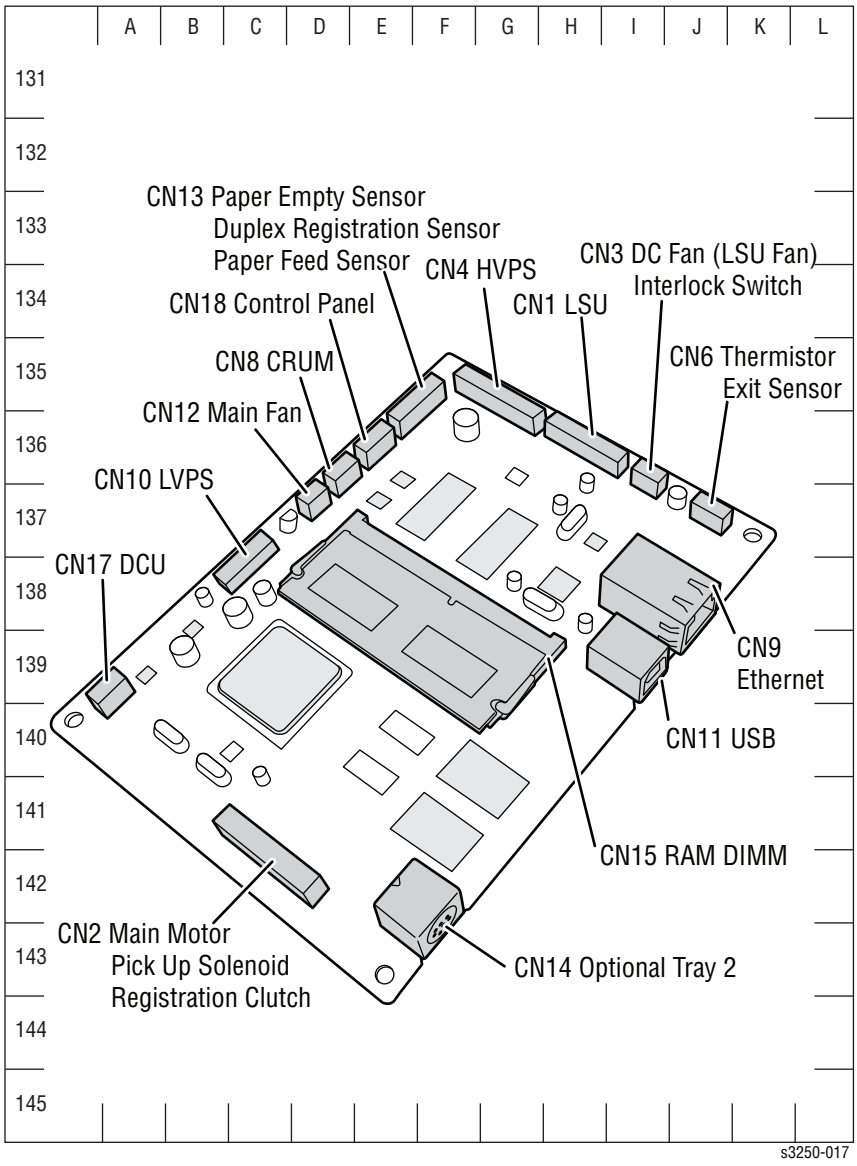
P/J	Map	Coordinates	Remarks
CN31	5		Connects the Control Panel and the Main Controller Board.
CN32	5		Connects the Registration Clutch and the Main Controller Board.
CN33	5		Connects the Pick-Up Solenoid and the Main Controller Board.
CON1	3		Connects the LVPS and the AC Inlet.
CON2	3		Connects the LVPS and the Fuser.
CON3	3		Connects the LVPS and the Main Controller Board.

Plug/Jack Locators

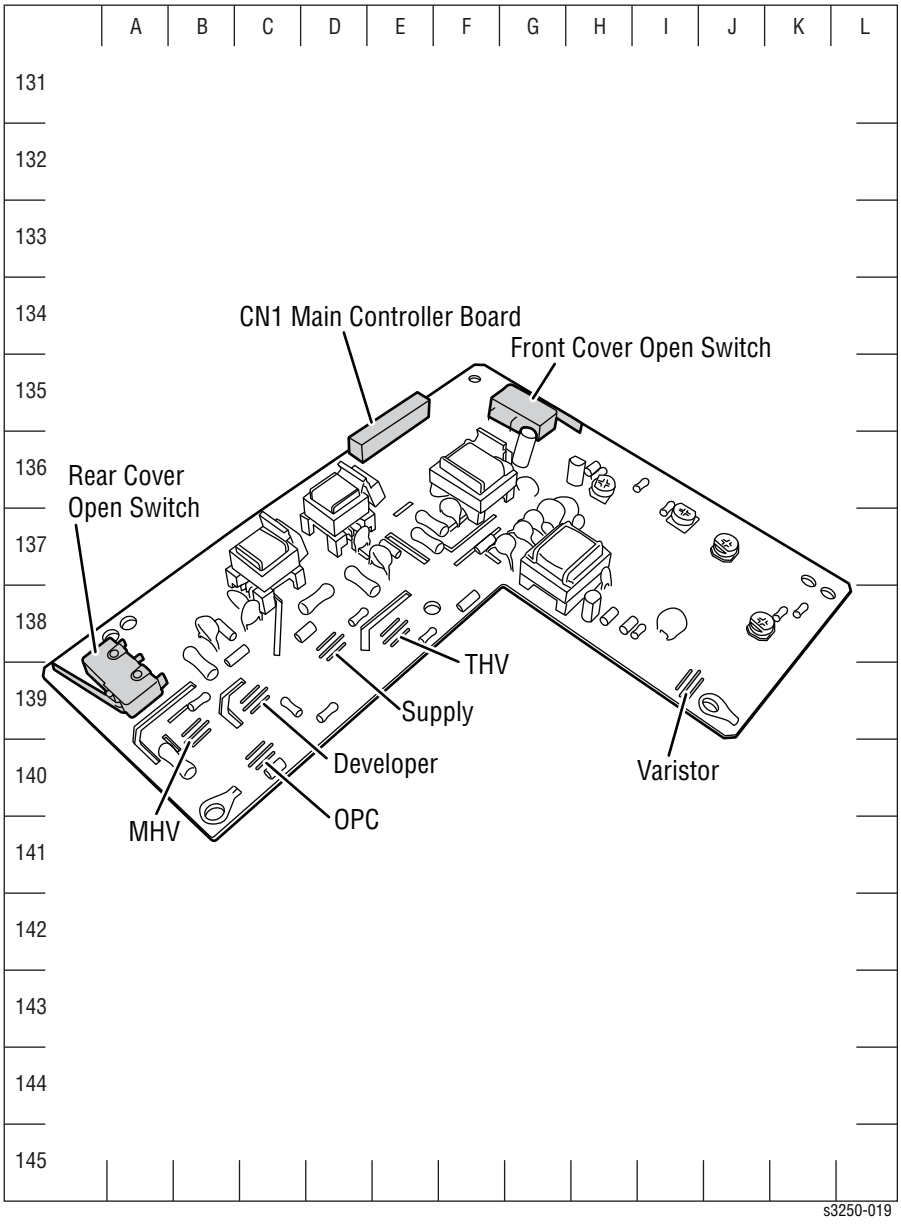
Maps 1 through 9 indicate the location of key connections within the printer. Connections are referenced by their P/J designation.

1. Map 1 - Main Controller Board
2. Map 2 - HVPS
3. Map 3 - LVPS
4. Map 4 - Fuser
5. Map 5 - General Wiring Diagram
6. Map 6 - Main Motor, Interlock Switch, Fans, and Sensors
7. Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch
8. Map 8 - Laser Unit
9. Map 9 - Optional Tray 2 and Control Panel

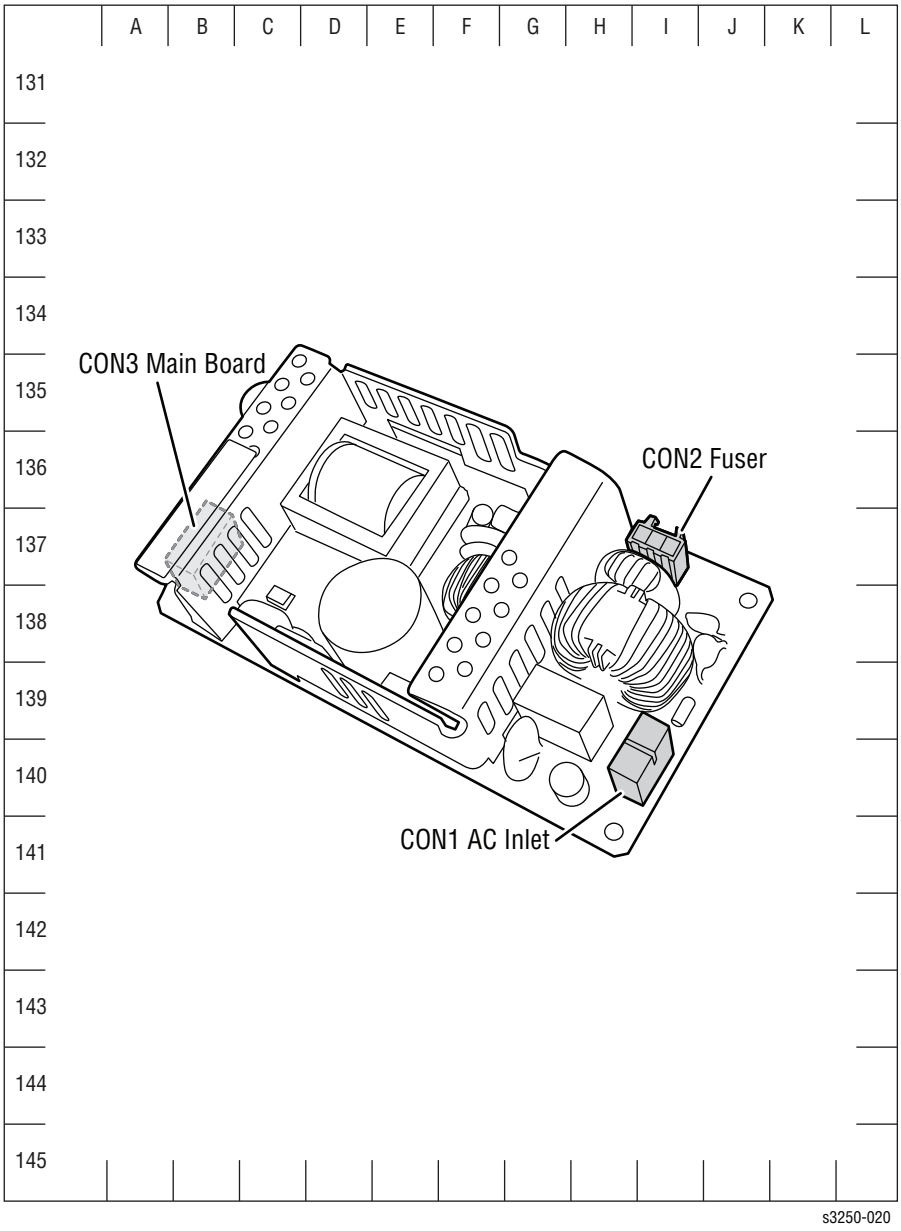
Map 1 - Main Controller Board



Map 2 - HVPS


A
B
C
D
E
F
G
H
I
J
K
L
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
CN1 Main Controller Board
Front Cover Open Switch
Rear Cover
Open Switch
THV
Supply
Developer
Varistor
MHV
OPC
s3250-019

Map 3 - LVPS


A
B
C
D
E
F
G
H
I
J
K
L
131
132
133
134
135
136
137
138
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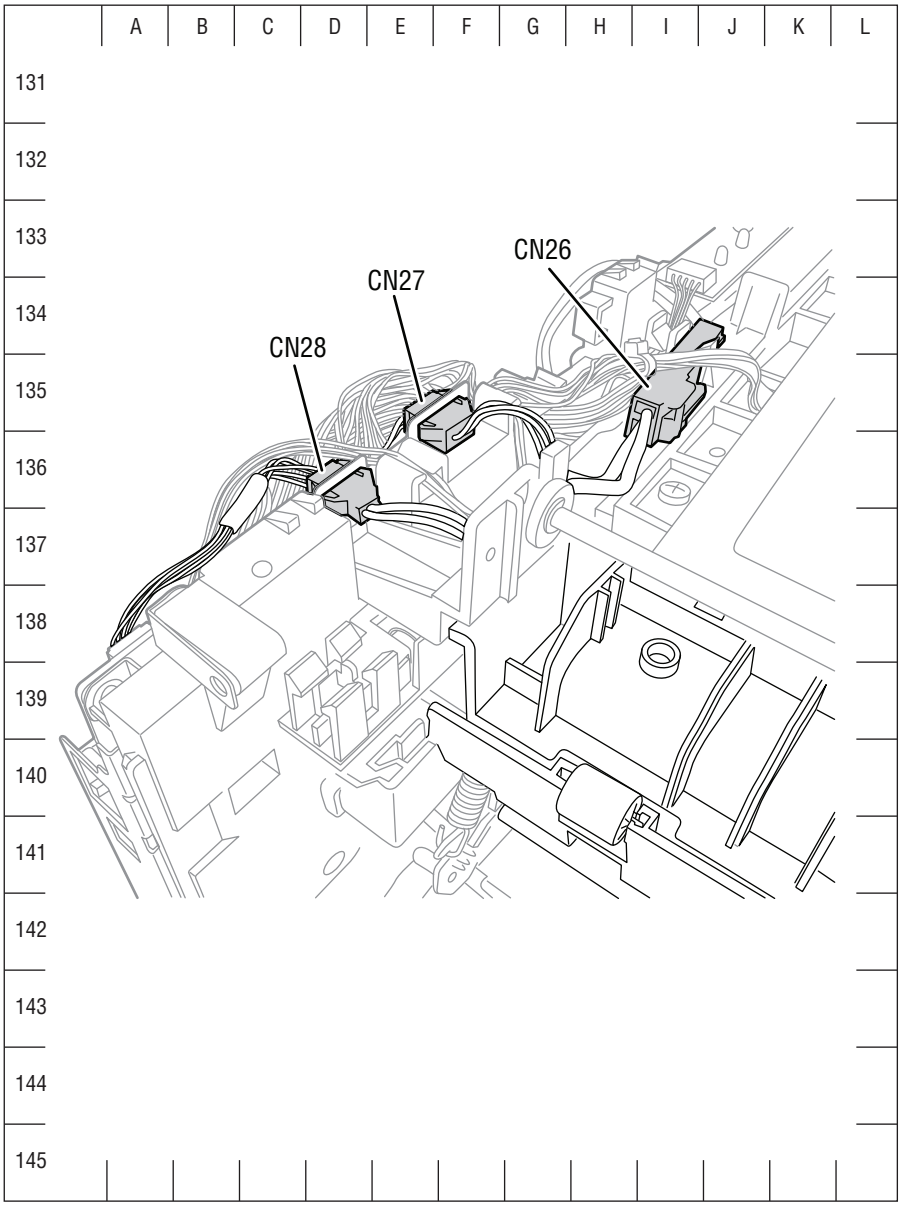
140
141
142
143
144
145
CON3 Main Board
CON2 Fuser
CON1 AC Inlet
s3250-020

Map 4 - Fuser


A
B
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D
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G
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L
131
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134
135
136
137
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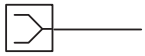
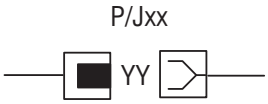
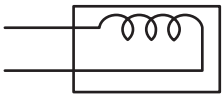
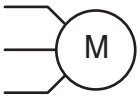
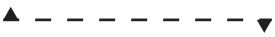
141
142
143
144
145
CN26
CN27
CN28
s3250-068

Notations Used in the Wiring Diagrams

The following table lists the symbols used in the wiring diagrams.

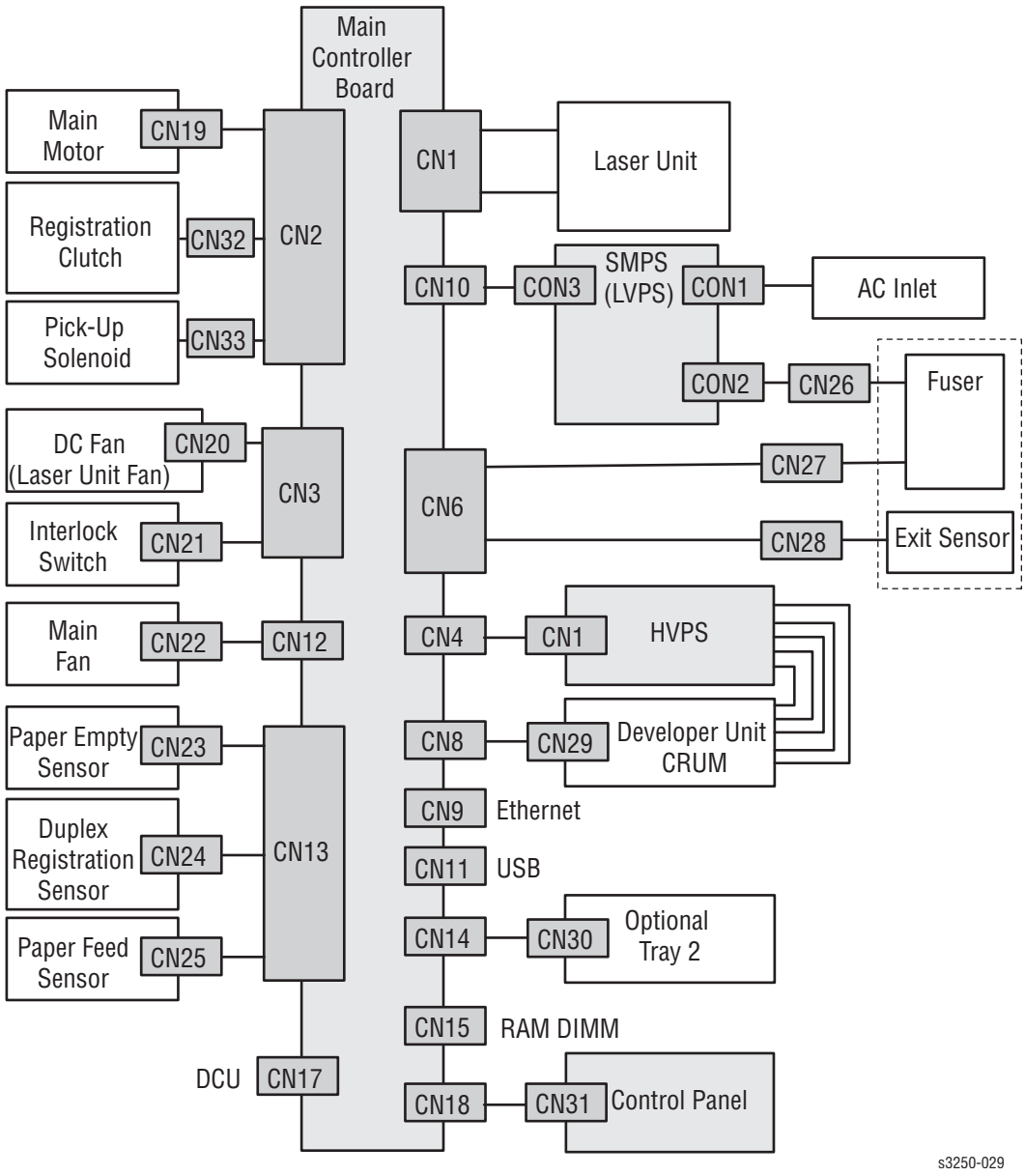
Symbol	Description
 Plug	Denotes a Plug.
 Jack	Denotes a Jack.
 Plug and Jack	Denotes Pin yy and Jack yy of the connector Pxx and Jxx.
 Jumper	Denotes a Jumper Point (JPxxx/xxx). Each end of the Jumper connection has a numeric designation.
 Subassembly 1	Denotes the parts. PL X.Y.Z implies the item “Z” of plate (PL) “X.Y” in Parts List.
 Subassembly 2	Denotes functional parts attached with functional parts name.

Symbol	Description
 Subassembly 3	Denotes the control and its outline in the Board.
 Connection Wire	Denotes a connection between parts with harness or wires, attached with signal name/ contents.
 Function Logic 1	Denotes the function, and logic value of the signal to operate the function (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
 Function Logic 2	Denotes the function, and logic value of the signal when the function is operated (Low: L, High: H). The given voltage is for signal in high status. The arrow indicates the direction of signal.
 Connection of Wires	Denotes a connection between wires.
 Solenoid/Clutch	Denotes a Clutch or Solenoid.
 Motor	Denotes a Motor.

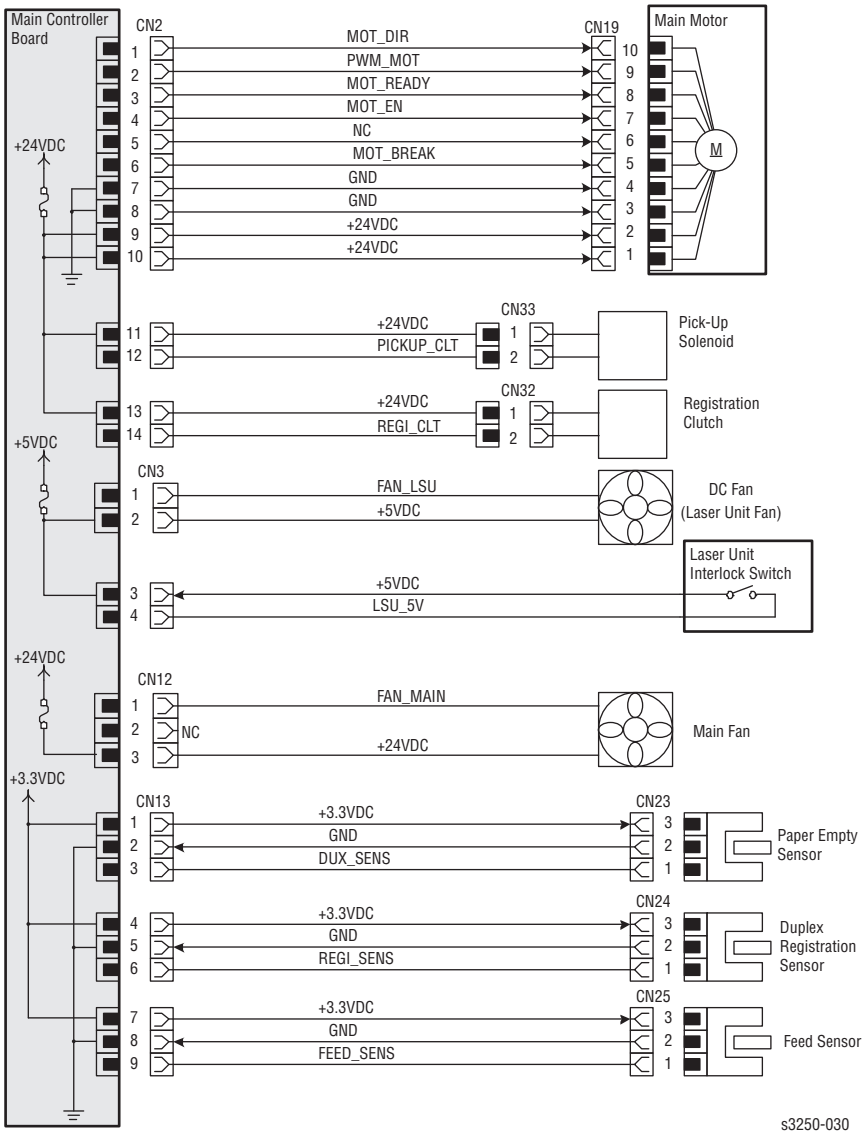
Symbol	Description
 Optic Sensor	Denotes a Photo Sensor.
 Safety Interlock Switch	Denotes a Safety Interlock Switch.
 On Off Switch	Denotes an On-Off Switch (single-pole, single-throw switch).
Interconnection	Represents an interconnection between parts using wiring harness or wire.
 Interconnection, Differing	Represents an interconnection which differs according to the specifications.
 Interconnection, Conductive Part	Represents an interconnection between parts using a conductive part such as a Plate Spring.
I/L +24 VDC	Denotes DC voltage when the Interlock Switch in the MCU Board turns On.
+5 VDC +3.3 VDC	Denotes DC voltage.
SG	Denotes signal ground.
AG	Denotes analog ground.
RTN	Denotes return.

Print Engine Wiring Diagrams

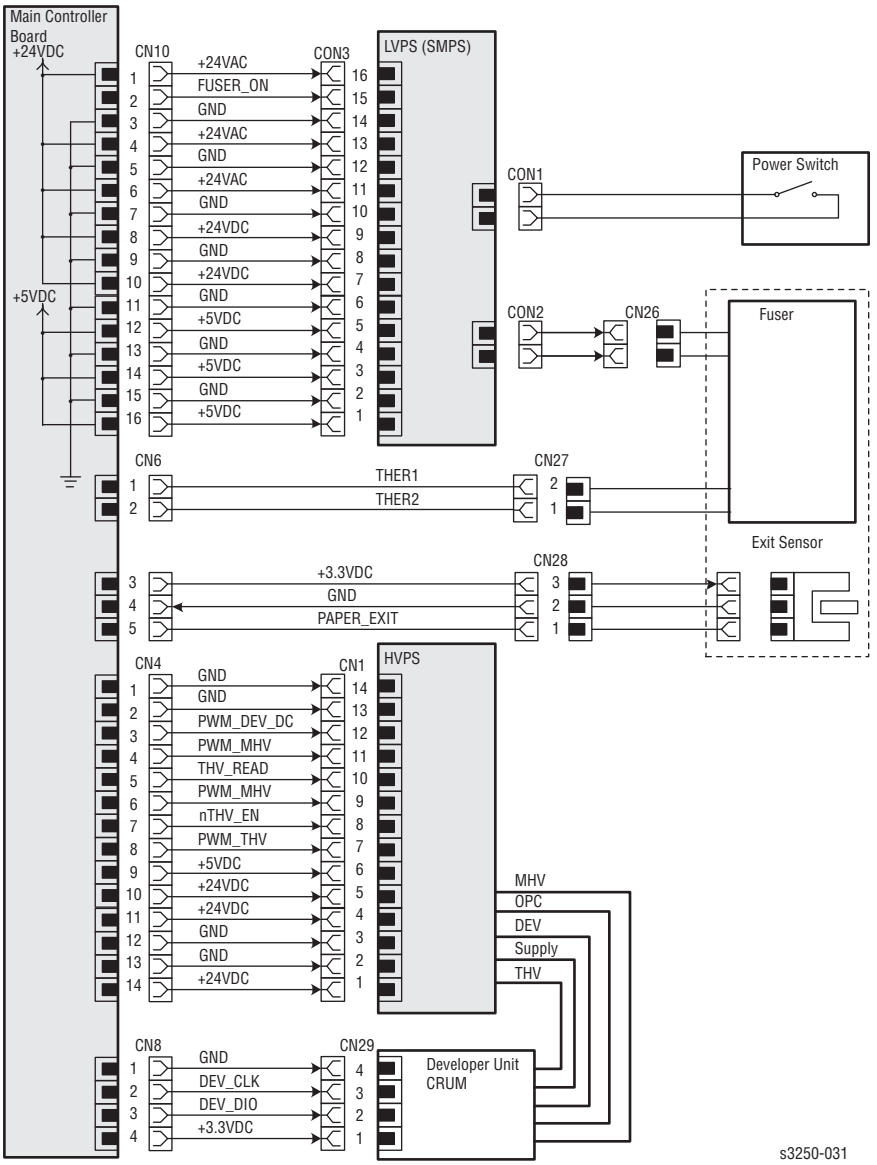
Map 5 - General Wiring Diagram



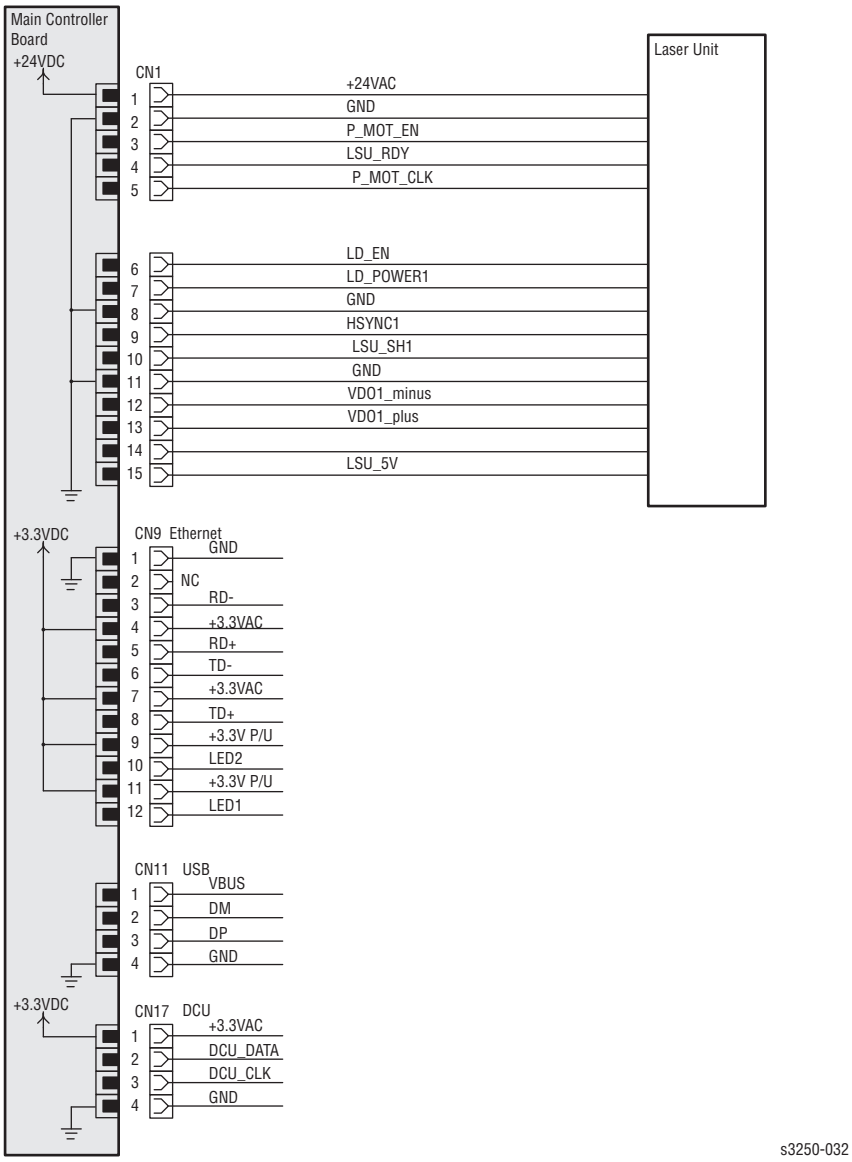
Map 6 - Main Motor, Interlock Switch, Fans, and Sensors



Map 7 - LVPS, HVPS, Fuser, Developer Unit CRUM, and Power Switch

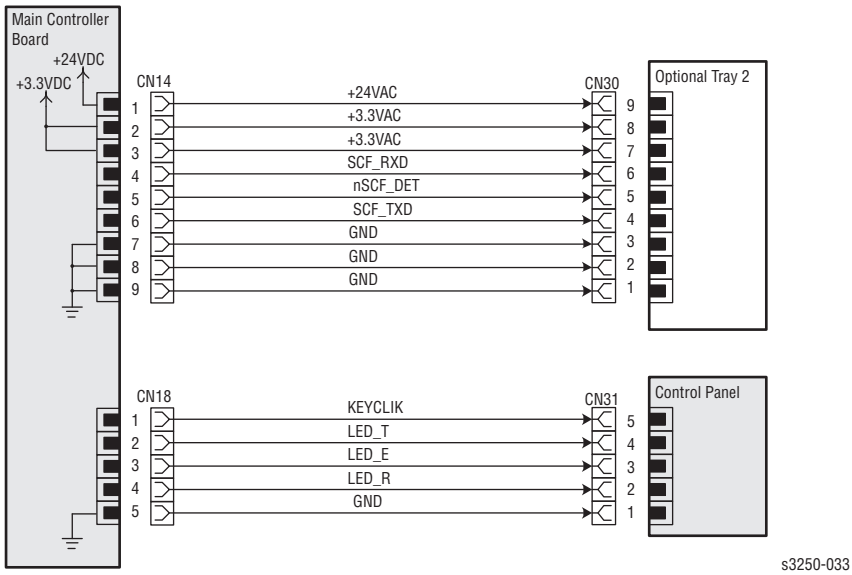


Map 8 - Laser Unit



s3250-032

Map 9 - Optional Tray 2 and Control Panel



Reference

Contents...

Appendix A

Phaser 3250 Menu Map

XEROX®

Phaser 3250 Laser Printer Series

[Menu Map]

1. Information
- Menu Map
- Configuration
- Demo Page
- PCL Font List
- PS3 Font List
- EPSON Font

2. Layout
- Orientation: Portrait
- Simplex Margin
  - *Top Margin: 0.0”
  - *Left Margin: 0.0”
- Duplex: Long Edge
- Duplex Margin
  - *Top Margin: 5.0 mm
  - *Left Margin: 5.0 mm
  - *Short Binding: 0 mm
  - *Long Binding: 0 mm

3. Paper
- Copies: 1
- Paper Size: Letter
- Paper Type: Plain Paper
- Paper Source: Auto

4. Graphic
- Resolution: 600 dpi-Normal
- Darkness: Normal
- Image Enhance: Normal

5. System Setup
- Language: English
- Power Save: [15] Min
- Auto Continue: On
- Altitude Adj: Normal
- Auto CR: LF
- Job Timeout: 15
- Maintenance
  - *Clean Drum
  - *Clean Fuser
  - *Supplies Life
- Clear Setting

6. Emulation
- Emulation Type = Auto
- Setup
  - *PCL (+)
  - *PostScript (+)
  - *EPSON (+)

7. Network
- TCP/IP: DHCP
- EtherTalk: On
- Ethernet Speed: Auto
- Clear Setting
- Network Info.

PCL(+)
- Typeface: PCL1
- Symbol: PC8
- Courier: Regular
- Pitch: 10.00
- Lines: 60

PostScript (-)
- Print PS Error: On

EPSON (-)
- Font: SANSERIF
- Character Set: USA
- Character Tab: PC437US
- Pitch: 10
- LPI: 6
- Auto Wrap: On

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Updating Firmware

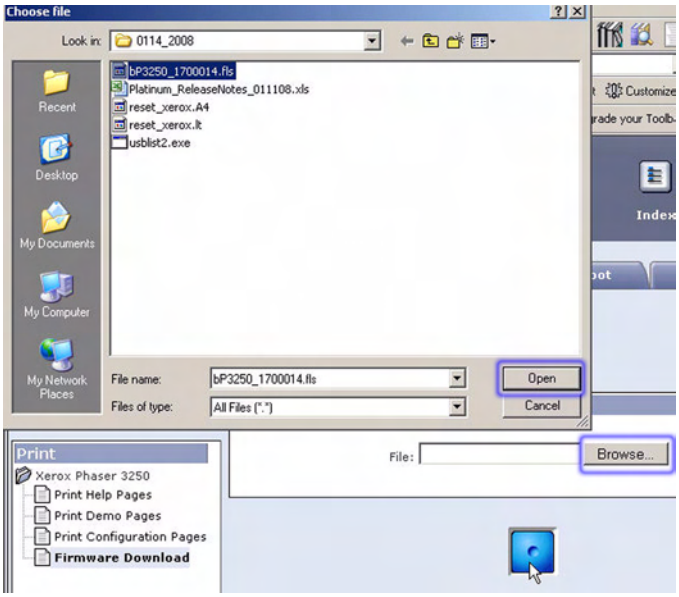
1. Down load the applicable files from the Xerox support web site. Unzip (decompress) the files.
2. Be sure your appropriate firmware updating option (Network or USB) is available and connected.
3. Reboot the printer.

Network Connection

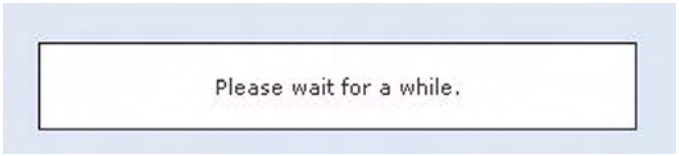
1. Ensure the printer is connected to the computer with a network connection.
2. Verify that you have downloaded the ***.fls** file.
3. Open a web browser.
4. Enter the printer's IP address.
5. The **CentreWare IS** window is displayed.
6. Click the **Print** button.

7. On the left side, click **Firmware Download**.

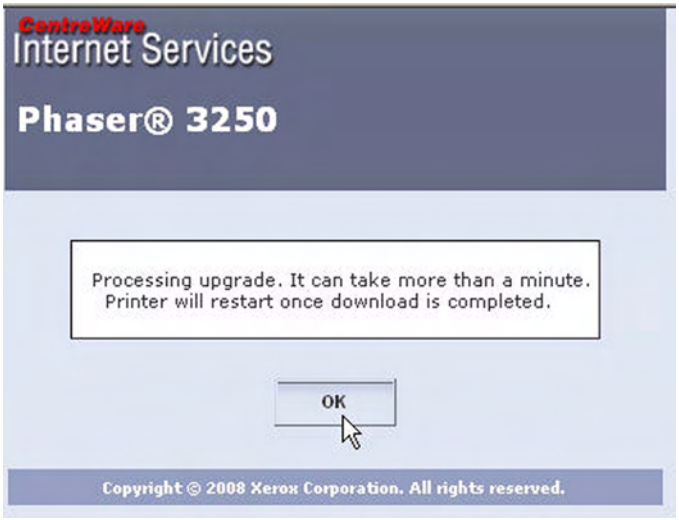
8. Click the **Browse** button and locate the "***.fls**" file on your computer. Select the "***.fls**" file and click **Open**.
9. Click the **Blue** button to start the firmware update process.



10. A status window is displayed.



11. The red LED on the printer's Control Panel turns On and slowly blinks as the printer starts the firmware update process.
12. A processing window is displayed.
13. Click **OK** to close the status window when the firmware upgrade is complete.

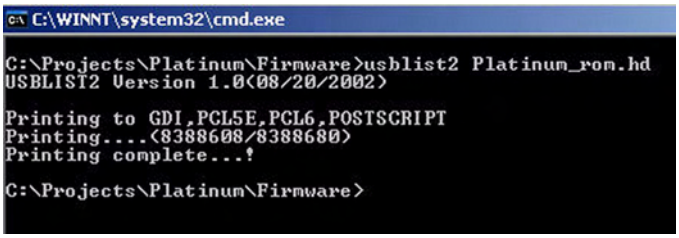


14. Print a **Configuration** page and verify the firmware information.

USB Connection

Normal Method

1. Ensure the printer is connected to the computer with a USB connection.
2. Verify that you have downloaded the "***.fls**" file.
3. At the DOS Prompt, verify that you're at the root directory of the file. Type **usblist2 [Rom file name.fls]** and press **Enter**.
4. In the DOS window, the **Printing....(######/######)** --> **Printing complete...!** messages are displayed.



5. On the printer's Control Panel, the red LED starts blinking.
6. When firmware update is complete, the red LED on the printer's Control Panel stops blinking. The printer makes a "click" sound.
7. Print a **Configuration** page and verify the firmware information.

Resetting Firmware

USB Connection

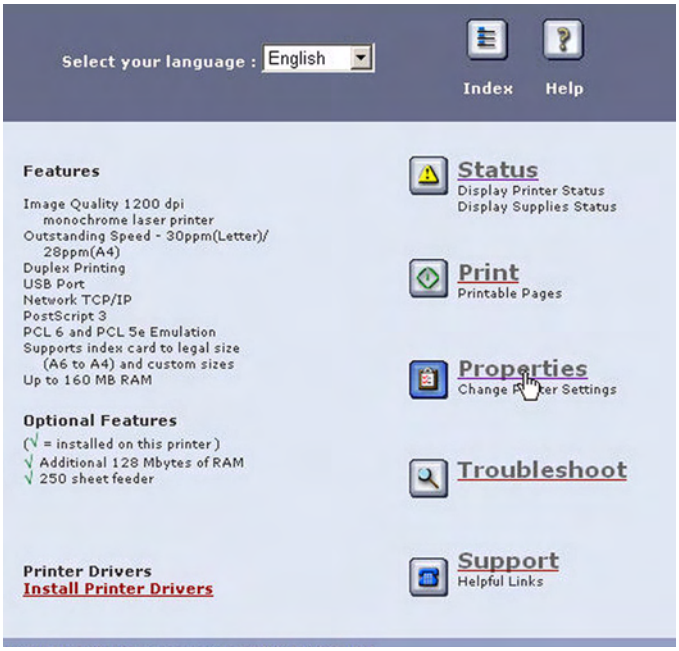
1. Ensure the printer is connected to the computer with a USB connection.
2. Verify that you have downloaded the **reset_xerox.Lt** file.
3. At the DOS Prompt, verify that you're at the root directory of the files. Type **usblist2 reset_xerox.Lt** and press **Enter**.
4. On the Control Panel, the greenLED slowly blilnks while a **Configuration** page is printed.
5. Verify the Firmware version and the Total Page Count is "0 pages."
6. Turn the printer power Off and back On.

Restoring Printer Setting and Network Setting (Network Connection)

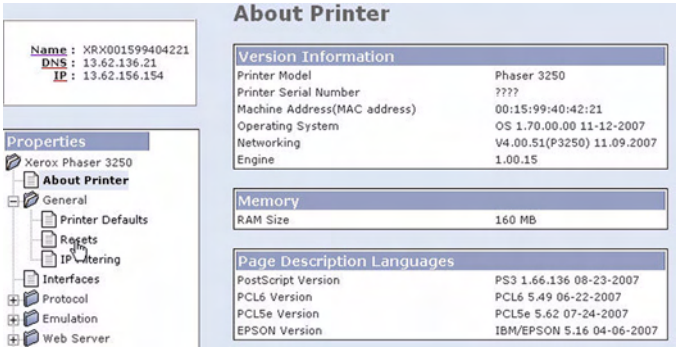
Two Restore options are available for the Phaser 3250: **Restore Printer Default** and **Restore Network Default**.

- Restore Printer Default – This funtion restores all printer related settings (Power Save, Print Mode Settings, PCL, PostScript, Epson Settings, Troubleshoot, Margins).
- Restore Network Default – This function restores all network related settings (all non-printer related settings in CentreWare IS).

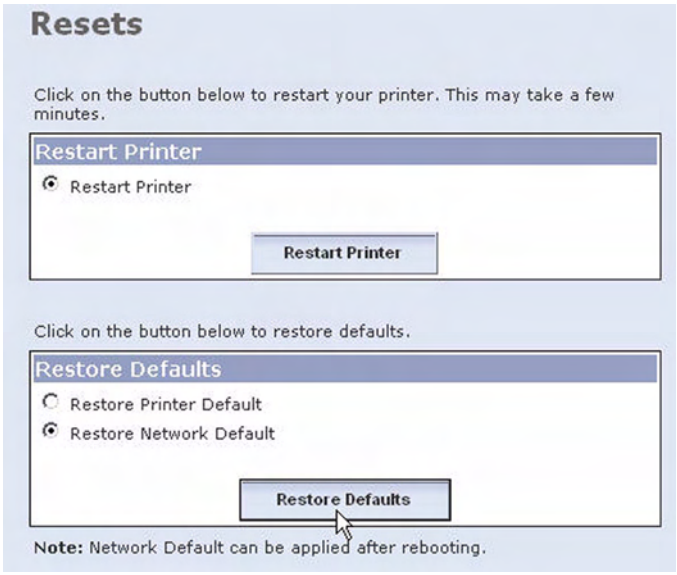
1. Ensure the printer is connected to the computer with a network connection.
2. Open a web browser.
3. Enter the printer's IP address.
4. The **CentreWare IS** window is displayed.
5. Click the **Properties** link.



6. The **About Printer** page is displayed. On the left side, expand **General**, and click **Resets**.

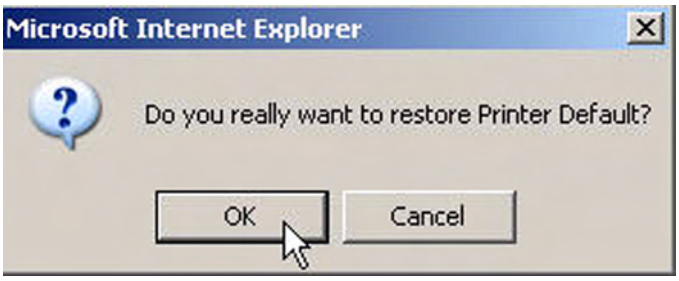


7. The **Resets** window is displayed. Select the appropriate option to restore the printer information.
8. Click **Restore Defaults.**

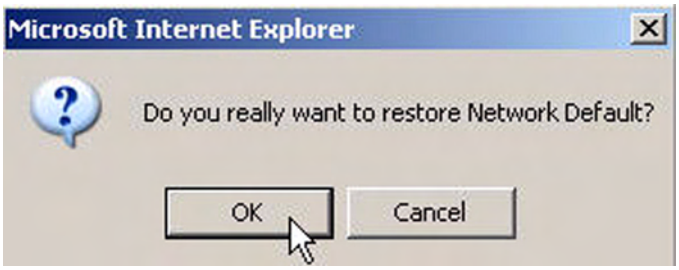


9. The **Microsoft Internet Explorer** window is displayed confirming restoring the Printer Default/Network Default information. Click **OK**.

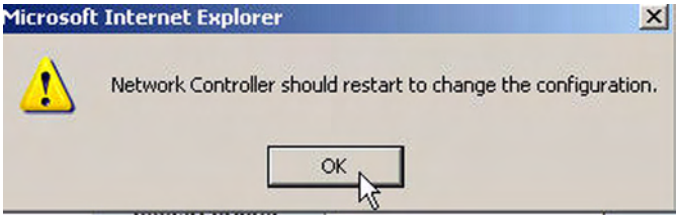
Printer Default



Network Default



10. For Restoring Network Default, a message window is displayed. Click **OK**.



11. The Completion window is displayed. Click **OK** to close the window.

12. The printer is turned Off.
13. Turn On the printer.

Acronyms and Abbreviations

Acronym	Description
A3	Paper size 297 millimeters (11.69 inches) x 420 millimeters (16.54 inches).
A4	Paper size 210 millimeters (8.27 inches) x 297 millimeters (11.69 inches).
A5	Paper size 148 millimeters (5.82 inches) x 210 millimeters (2.10 inches).
AC	Alternating Current is type of current available at power source for the printer.
AMPV	Average Monthly Print Volume
ASIC	Application Specific Integrated Circuit
ASSY	Assembly
ATM	Adobe Type Manager
BLDC	Brush-Less Direct Current
BOOTP	Boot Parameter Protocol
BSD	Block Schematic Diagram
BTM	Bottom
CAM	Cam Shaft
CCD	Charged Coupled Device (Photoelectric Converter)
CD	Circuit Diagram
CD	Compact Disc
CLT	Clutch
CN	Connector
CON	Connector
CRU	Customer Replaceable Unit
CRUM	Customer Replaceable Unit Meter/Memory
CST	Cassette
CUPS	Common Unix Printing System
dB	Decibel
DC	Direct Current is type of power for printer components. Machine converts AC power from power source to DC power.
DCU	Diagnostic Control Unit
DDR2 DIMM	Double Data Rate Dual In-Line Memory Module
DEVE	Developer
DHCP	Dynamic Host Configuration Protocol
DIMM	Dual In-line Memory Module

Acronym	Description
DPI	Dot Per Inch
DRV	Drive
DUP	Duplex
Duplex	2-sided printing
EC	European Community
EEC	European Economic Community
EEPROM	Electrically Erasable Programmable Read-Only Memory
EOM	End of Message
ESA	Electric Static Attachment
ESD	Electrostatic Discharge. A transfer of charge between bodies at different electrostactic potential.
FCC	Federal Communications Commission
FDR	Feeder
FE	Field Engineer
FPOT	First Print Output Time
FR/FRNT	Front
FRU	Field Replaceable Unit
F/W	Firmware
GB	Giga Byte
GND	Ground
HARN	Harness
HCF	High-Capacity Feeder
HDD	Hard Disk Drive
HOU	Housing
HUM	Humidity
HVPS	High-Voltage Power Supply
Hz	Hertz (cycles per second)
IC	Integrated Circuit
IEC	International Electrotechnical Commission
I/F	Interface
IP	Image Processor
IPM	Image Per Minute
IPP	Internet Printing Protocol
IQ	Image Quality
KB	Kilo Byte
LAN	Local Area Network
LCD	Liquid Crystal Display

Acronym	Description
LD	Laser Diode
LED	Light Emitting Diode
LEF	Long-Edge Feed
LSU	Laser Scanning Unit
LTR	Letter Size Paper (8.5 x 11 inches)
LVPS	Low-Voltage Power Supply
MAC	Media Access Control
MB	Mega Byte
MHz	Mega Hertz
MM	Millimeters
MOT	Motor
MPT	Multi-Purpose Tray
NVM	Non-Volatile Memory
NVRAM	Non-Volatile Random Access Memory
OHP	Overhead Paper (Transparency)
OPC	Organic Photo Conductor
OPT	Optional
OS	Operating System
PBA	Printed Board Assembly
PC	Personal Computer
PCB	Printed Circuit Board
PCL	Printer Command Language
PDL	Page Description Language
P/J	Plug Jack (electrical connections)
PJL	Printer Job Language
PL	Parts List
PPD	PostScript Printer Description
PPM	Pages Per Minute
PPS	Pulses Per Second
PS	PostScript
PTL	Pre-Transfer Lamp
PV	Print Volume Management
PWBA	Printed Wiring Board Assembly
PWM	Pulse Width Modulation
RAM	Random Access Memory
RH	Relative Humidity

Acronym	Description
RLS	Release
ROM	Read-Only Memory
ROS	Raster Output Scanner - Laser Unit
SEF	Short-Edge Feed
SMPS	Switching Mode Power Supply
SNR	Sensor
SOL	Solenoid
SOS	Start of Scan
SPOOL	Simultaneous Peripheral Operations Online
STS	Soft Touch Sensor
SYNC	Synchronous or Synchronization
THV	Transfer High Voltage
TNR	Toner
UI	User Interface
USB	Universal Serial Bus

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