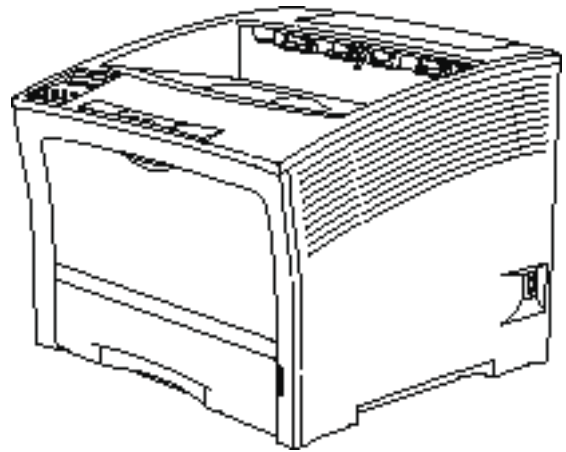




PageMaster 402N

User Guide



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Preface

In this Chapter . . .

- “Welcome” on page 2
- “About this Manual” on page 2
- “About the Printer” on page 4

Welcome

Thank you for selecting the PageMaster 402N laser printer. This User Guide contains important information about the operation and care of your printer. Please read this manual in its entirety and keep it at hand for later reference.

About this Manual

Scope

This User Guide contains all of the information necessary to operate and care for your printer and accessories. It is intended to be used with the pictorial unpacking instructions and the Installation Guide, both included in the printer packaging. If you have not already unpacked and installed the printer, please refer to these documents. This guide does not contain instructions for unpacking and installing the printer.

Overview

This manual contains ten chapters and one appendix:

Preface

The Preface contains information about this guide and about the features and available configurations of the printer.

Chapter 1: Getting Started

This chapter reviews the contents of the printer packaging, explains the parts of the printer, and describes the space and environment requirements of the printer.

Chapter 2: Using the Printer

This chapter provides information concerning the daily use of the printer, including procedures for connecting the printer and loading print media, and guidelines for selecting print media.

Chapter 3: Understanding and Navigating the Control Panel

This chapter explains the control panel and its functions, and also demonstrates how to navigate throughout the various menus and submenus that allow you to view and change the printer settings.

Chapter 4: Maintaining the Printer

This chapter provides information about maintaining your printer. Although the printer requires very little maintenance, with normal daily use you will need to perform some routine maintenance procedures, including replacing consumable items and cleaning the printer. This chapter also contains information about moving and storing the printer.

Chapter 5: Troubleshooting

This chapter describes the problems that you may encounter when using your printer, and provides procedures for resolving the problems. This chapter also lists the warning and error messages that appear on the control panel display.

Chapter 6: Using the Duplexer

This chapter provides all of the information necessary to install, use, and maintain the duplexer.

Chapter 7: Using the 500-Sheet Feeder

This chapter provides all of the information necessary to install, use, and maintain the 500-sheet paper feeder option, including procedures for cleaning the feeder and removing paper jams.

Chapter 8: Using the High Capacity Feeder

This chapter provides all of the information necessary to install, use, and maintain the high capacity feeder, including procedures for cleaning the feeder and removing paper jams.

Chapter 9: Using the Stacker

This chapter provides all of the information necessary to install, use, and maintain the stacker, including procedures for cleaning and removing paper jams.

Chapter 10: Optional Extended Features

This chapter provides all of the information necessary to install and use the optional extended features: DRAMM memory DIMMs, Hard Disk, User FLASH DIMM Modules, RS-232C/RS-422 Serial Interface , the Power-On Files and the Custom Paper Size features

Appendix A: Safety Notes and Regulatory Compliances

This appendix describes cautions to take when installing, transporting, or operating the printer, and also includes the applicable regulatory compliances.

Printer Orientation

Throughout this guide, the four sides of the printer are referred to as front, rear, right, and left. The front of the printer is the side near the control panel, and the rear of the printer is opposite the front. The left and right sides of the printer are defined as the sides to the left and right, respectively, of a person who is facing the front of the printer.

Conventions

This following conventions are used throughout this manual to emphasize certain procedures or information:

NOTE: A note is a tip or extra information that may be helpful in installing or using the printer.



CAUTION: A caution message provides information that may help you avoid equipment damage, process failure, or inconvenience. Read all caution messages carefully. CPG International will not be responsible for damage that results from improper use of the printer.



WARNING! A warning message indicates the possibility of personal injury if a specific procedure is not performed exactly as described in the guide. Pay close attention to these sections and read them fully to prevent possible injury. CPG International will not be responsible for damage that results from improper use of the printer.

About the Printer

The PageMaster 402N printer uses a data modulated laser beam and conventional dry-ink xerographic processes to produce images up to 1200 dpi resolution at a paper output speed of 40 pages per minute. The printer can accommodate both plain paper and other print media, and feeds paper from either a main 500-sheet paper tray or from the front tray, which is designed to feed special print media such as labels and transparencies.

There are four paper handling options available for the printer, including a Duplexer for two-sided printing, a 500-Sheet Feeder for additional paper capacity or variety, a High Capacity Feeder for even greater paper feeding options, and a High Capacity Stacker to hold and separate large print jobs. There are also four replaceable components: the Toner Cartridge, the Fuser, the Transfer Roller, and the High Capacity Feeder Feed Rolls.

You may connect the printer to either a local computer or a computer network system. Application and print driver software on the computer controls image generation and print processing. The computer sends the electronic image to the printer, where the printer turns the electronic image into a black and white printed image.

Features

Your laser printer has the following features:

- Quality printing at a high speed

The printer has an output of 40 pages per minute with a resolution up to 1200 dpi.

- Flexible use of paper sources and delivery methods

The base configuration of the printer includes one 500-sheet universal paper feeder and a front tray. You may also add the following options to the printer: additional 500-sheet Feeders, 2000-sheet High Capacity Feeder, High Capacity Stacker, and Duplexer.

- Easy operation

The easy-to-read control panel display clearly shows the status of printer operation. Control panel pushbuttons allow you to access and view printer menus, submenus, and status messages.

- Single-element toner cartridge

The integrated toner cartridge contains both the toner and the photosensitive drum in a single housing, making replacement easy and convenient.

- Continuous printing of up to 3150 sheets

The printer can print up to 1000 sheets unattended when the stacker is installed, and can print up to 3150 sheets attended when the high capacity feeder and one 500-sheet paper feeder are installed.

- Network-readiness

The standard configuration of the printer includes an Ethernet Network Interface Card.

Available Configuration

The PageMaster 402N is available in the following configuration:

- Memory: 64 MB
- Resolutions: 600 x 600 dpi, and 1200 x 1200 dpi
- Paper Input: One 500-sheet A4/letter paper tray and one 150-sheet front tray for paper, transparencies, envelopes, and other non-standard print media
- Paper Output: One 500-sheet face-down tray
- Interfaces: IEEE 1284 Parallel, 10/100BaseT, 10Base2
- Printer Languages: PCL6, Adobe Postscript 3



Chapter 1

Getting Started

In this Chapter . . .

- “About this Chapter” on page 1-2
- “Package Contents” on page 1-2
- “Printer Location Requirements” on page 1-3
- “Parts of the Printer” on page 1-5
- “Optional Printer Accessories” on page 1-8
- “Paper Path” on page 1-9

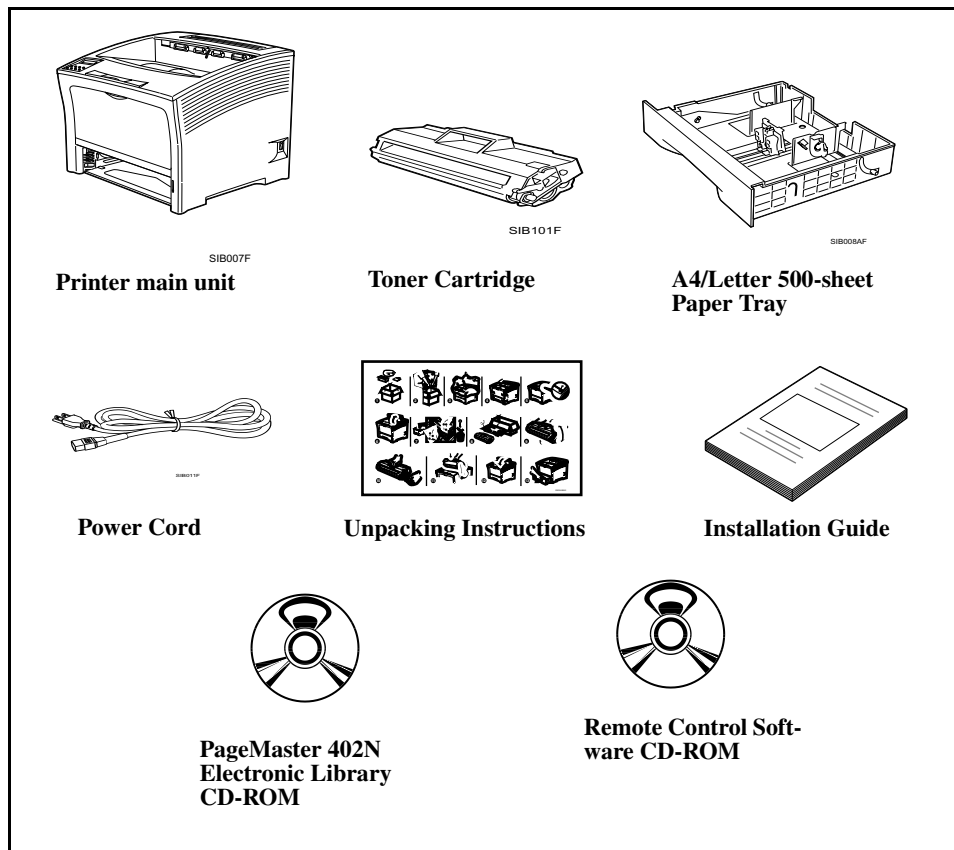
About this Chapter

This chapter reviews the contents of the printer packaging, explains the parts of the printer, and describes the space and environment requirements of the printer.

Package Contents

The items shown in the following figure are included in the printer packaging. If any items are missing or damaged, contact your dealer.

NOTE: If you have not unpacked and installed your printer, please refer to the pictorial unpacking instructions and the Installation Guide included in the printer packaging.



CD-ROM Contents

The two CD-ROMs provided with your printer include the following contents:

- **PageMaster 402N Electronic Library CD-ROM**
The Electronic Library CD-ROM contains printer drivers, software, and documentation designed to help you fully utilize the printer, and also contains Adobe PostScript fonts that match those available on the printer.
- **Remote Control Software (RCS) CD-ROM**
The RCS CD-ROM contains remote control software that enables your Network/System Administrator to manage all of your network printers from a single desktop.

Printer Location Requirements

Printer Weight and Dimensions

This printer weighs approximately 55 lbs (25 kg) and should always be lifted by two people. The dimensions of the printer are listed below.

- Printer Height: 15.6 in (395 mm)
- Printer Width (left to right): 19.3 in (490 mm)
- Printer Depth (front to back): 18.1 in (460 mm)

Space Requirements

A certain amount of space is required for proper operation of the printer and also for performing printer maintenance and replacing consumables. The following figures indicate the necessary clearances for each side of the printer.



CAUTION: There is a ventilation opening on the left side of the printer. To avoid overheating and fire hazards, be sure to leave a clearance of at least 8 inches (200 mm) between this opening and the nearest wall or other surface.

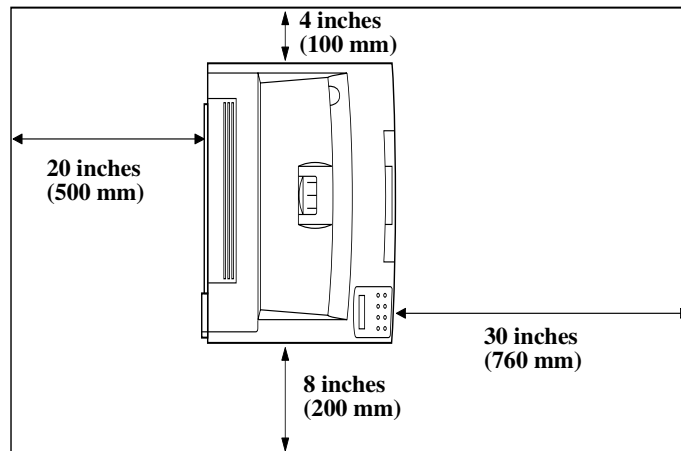


Figure 1-1: Top view of the printer.

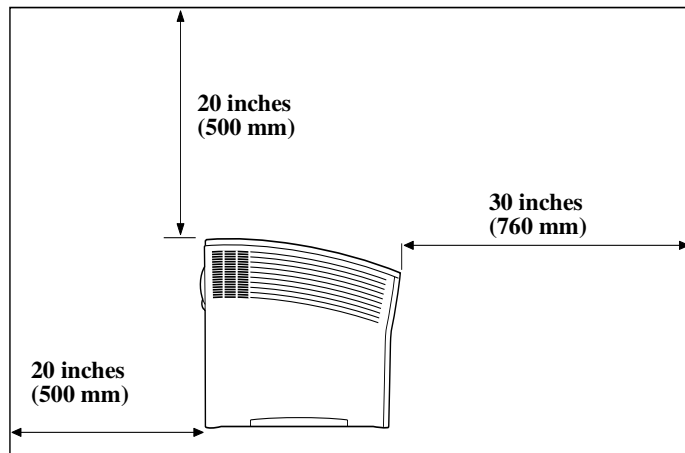
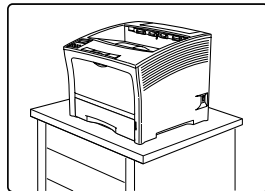


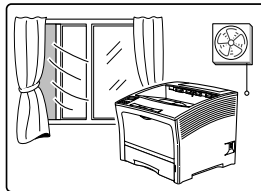
Figure 1-2: Side view of the printer.

Environment Requirements

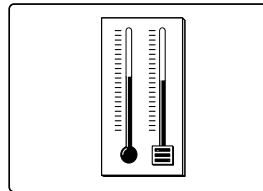
Use the following guidelines to determine the best location for the printer:



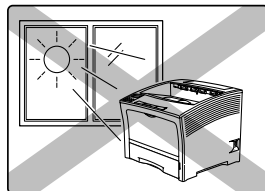
Horizontal, sturdy, and stable surface



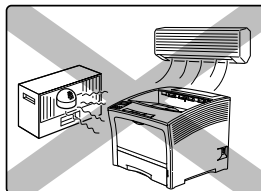
Location with good ventilation



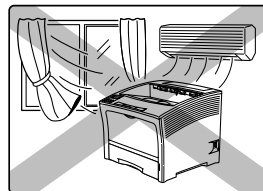
Location with stable temperature and humidity



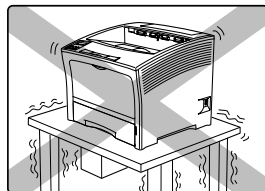
Exposed to direct sunlight



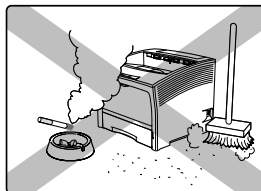
Near heating appliances



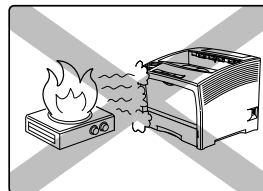
Exposed to direct air currents



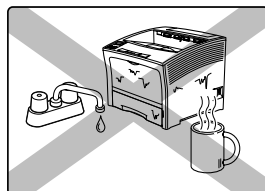
Subject to vibrations



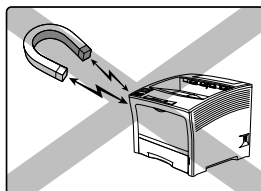
Exposed to high levels of dust and contamination



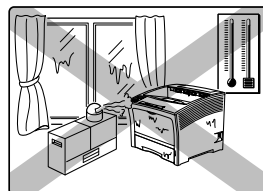
Near an open flame



Exposed to water and high humidity



Exposed to magnetic fields



Subject to extreme variations in temperature and humidity

Electrical Requirements

For correct printer operation, install the printer in a location where the AC wall outlet meets the following electrical requirements.

- **PageMaster 402N, 110V:**
90-132 Volts AC grounded @ 50/60 Hz,
9 AMP current draw
- **PageMaster 402N, 220V:**
198-264 Volts AC grounded @ 50/60 Hz
4 AMP current draw



CAUTION: Never plug a 110VAC printer into a 220VAC wall outlet or plug the printer into a wall outlet that does not meet the current draw requirement of the printer. Consult an electrician if you are uncertain about the voltage rating of an AC wall outlet

Parts of the Printer

The following figures indicate the names and functions of the main parts of the printer.

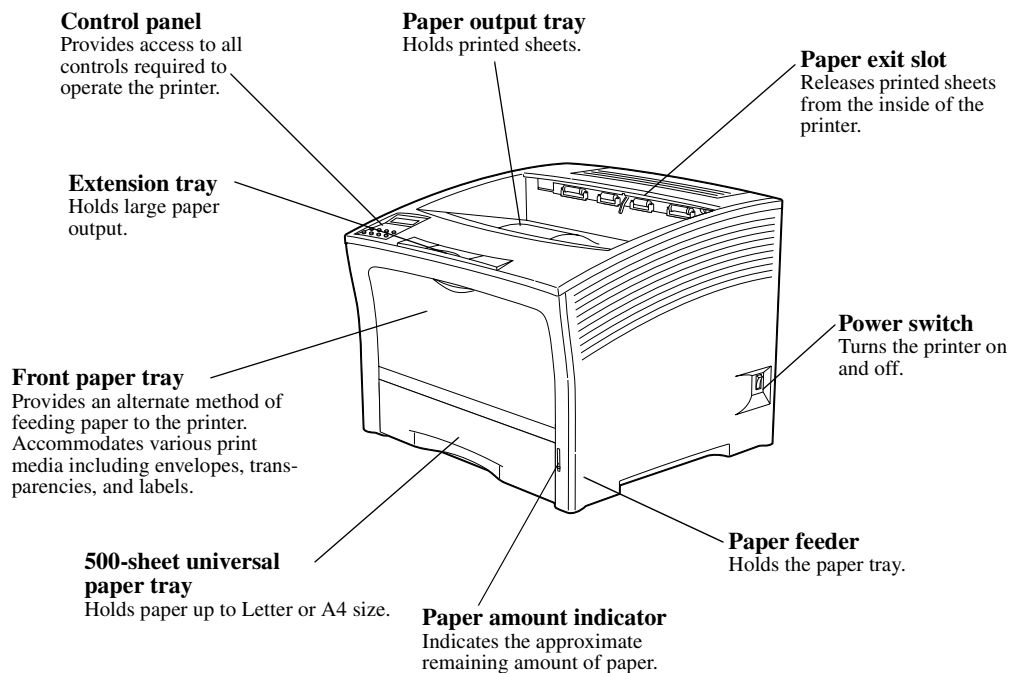


Figure 1-3: Front of the Printer.

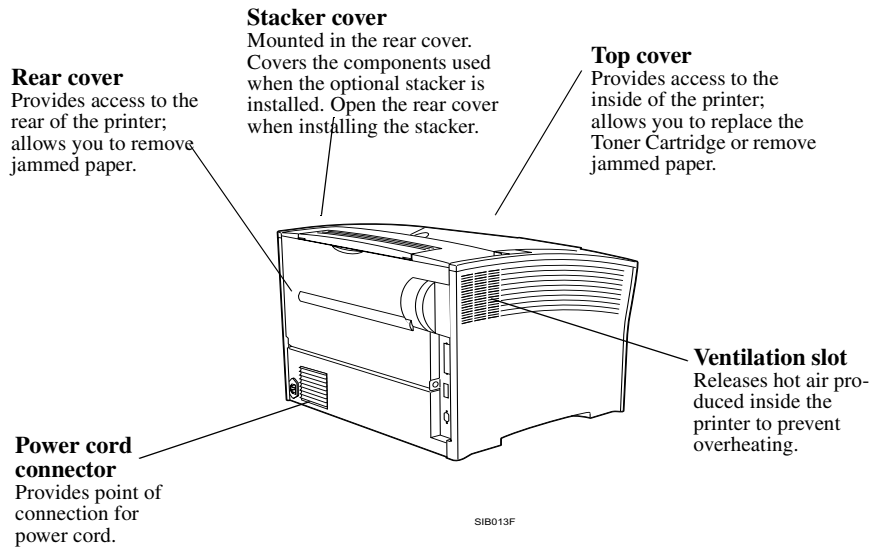


Figure 1-4: Rear of the Printer.

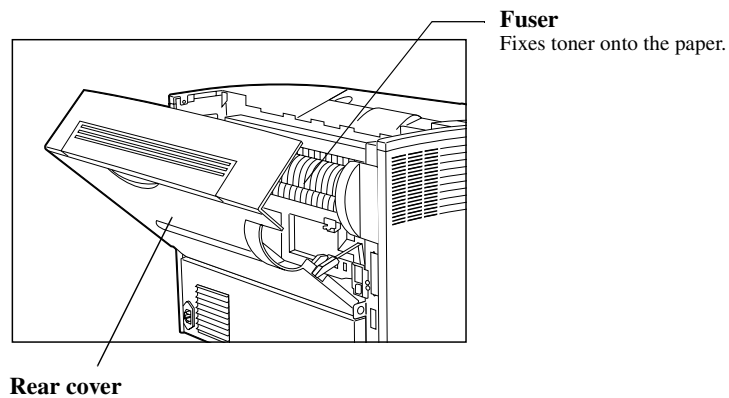


Figure 1-5: Internal Parts of the Printer.



CAUTION: The fuser becomes very hot while the printer is operating. If you need to remove the drum cartridge to remove a paper jam, turn the power off and wait at least 10 minutes before removing the drum cartridge and touching the fuser.

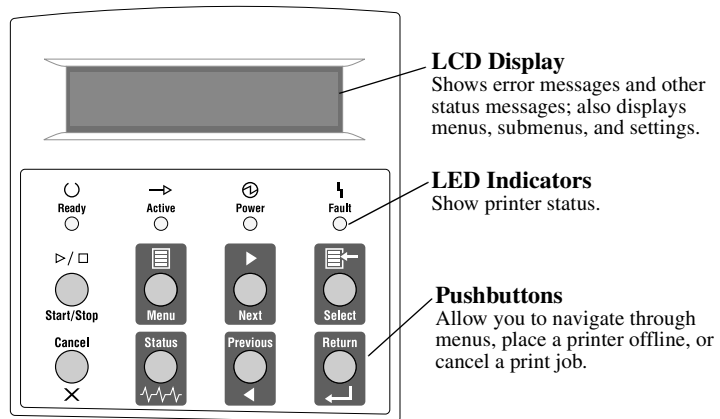


Figure 1-6: Control Panel.

Optional Printer Accessories

The following figure shows all of the available accessories as installed on the printer:

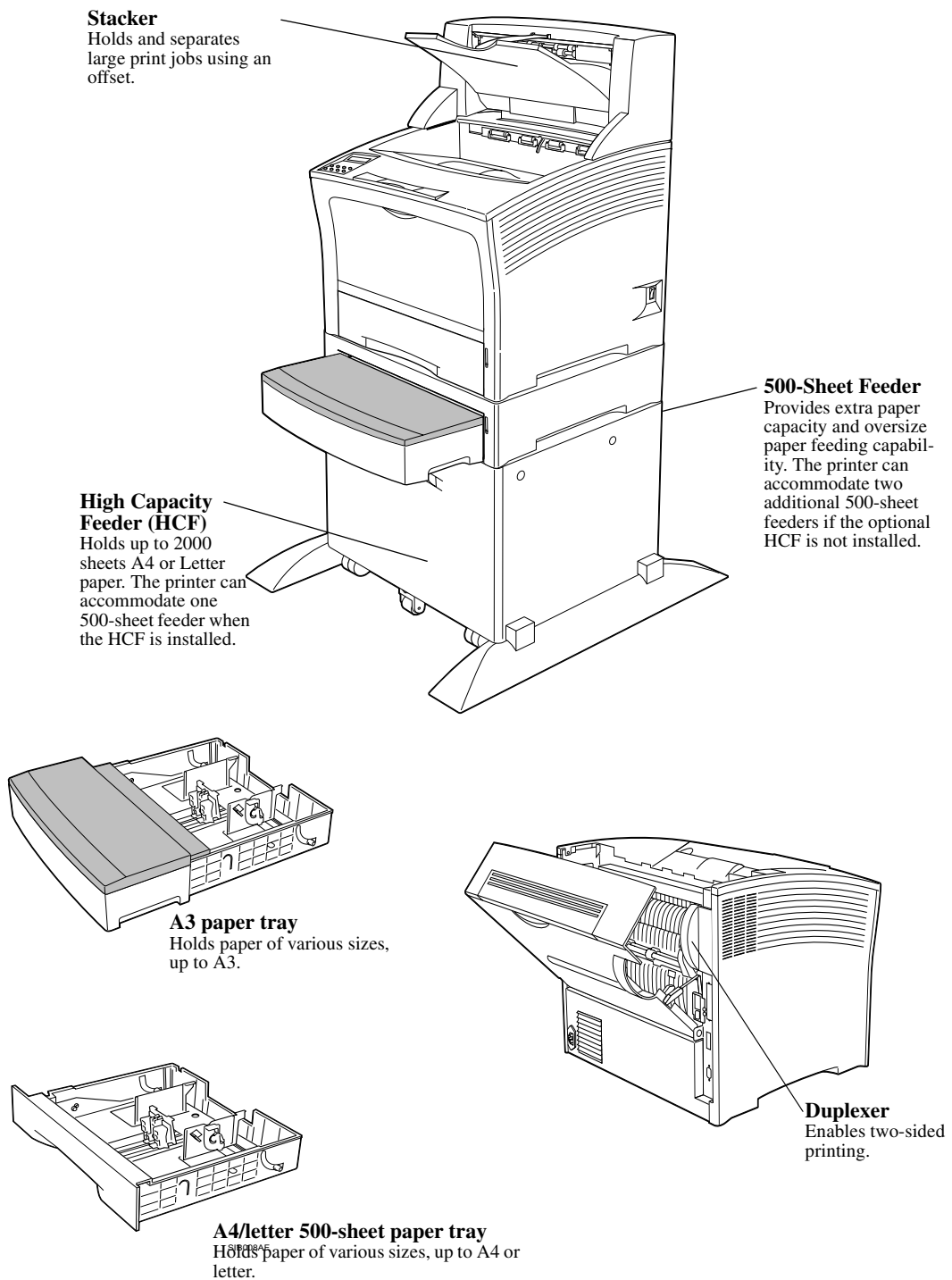
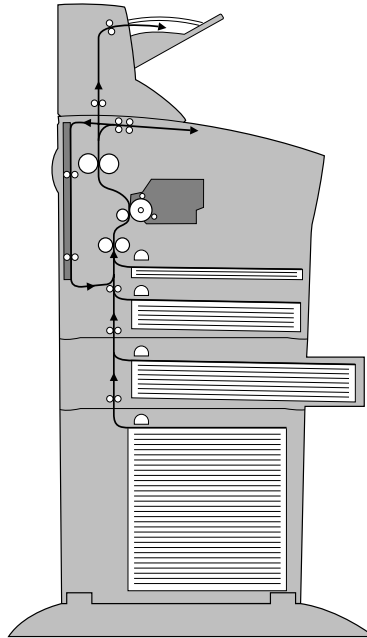


Figure 1-7: Optional Accessories.

Paper Path

The following figure shows the path that paper travels through the printer:

1. The paper is initially fed from the front paper tray or one of the other paper trays.
2. The image is transferred from the photosensitive drum onto the paper.
3. The fuser fixes the toner permanently on the paper.
4. After passing through the duplex printing unit, the paper is fed once more through steps (2) and (3).
5. The paper emerges onto the output tray, or the stacker if installed.



SIB016F

Figure 1-8: Paper Path.



Chapter 2

Using the Printer

In this Chapter . . .

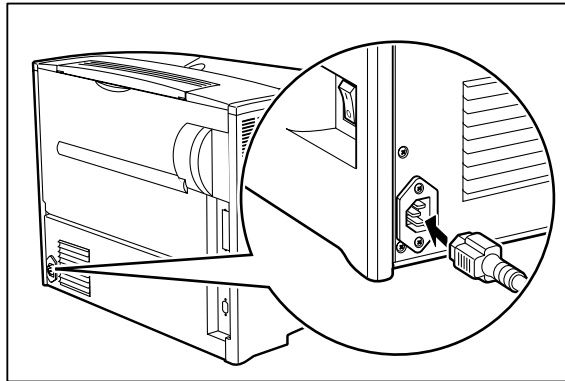
- “About this Chapter” on page 2-2
- “Connecting the Printer to the AC Outlet” on page 2-2
- “Turning Power On and Off” on page 2-2
- “Connecting the Printer to the Host Computer” on page 2-3
- “Selecting Print Media” on page 2-4
- “Loading Print Media” on page 2-7
- “Output Options for Oversize Print Media” on page 2-18

About this Chapter

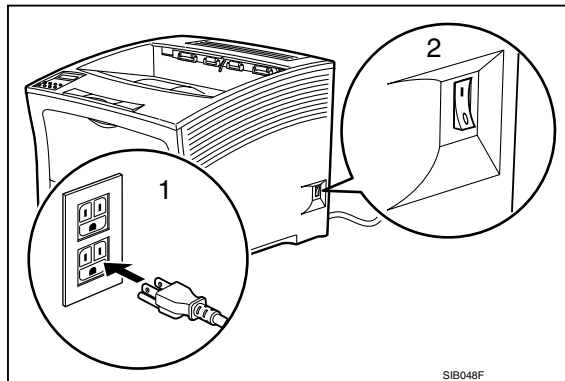
This chapter provides information concerning the daily use of the printer, including procedures for connecting the printer and loading print media, and guidelines for selecting print media.

Connecting the Printer to the AC Outlet

1. Insert the power cord into the AC connector on the rear of the printer.



2. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.

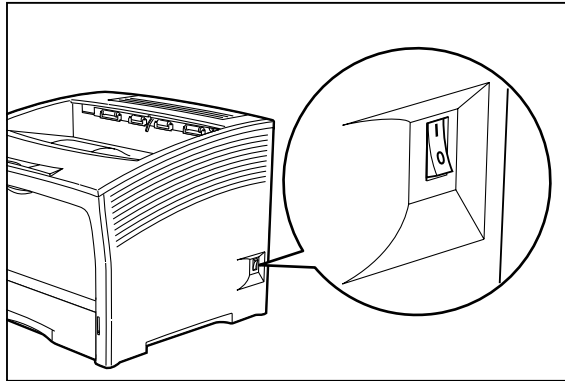


WARNING: Never touch the power cord or plug with wet hands, to prevent the risk of electric shock. When disconnecting, always grasp the plug and do not pull on the cable. Damage to the cord can lead to fire and electric shock.

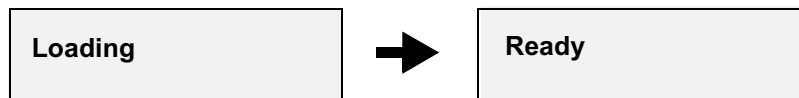
Turning Power On and Off

Use the following procedure to turn the printer on:

1. Turn the printer on by pressing [I] on the power switch on the right side of the printer.



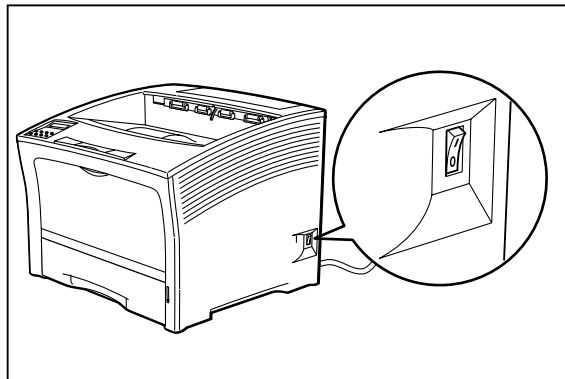
The status message **“Loading”** appears on the display. This message indicates that the printer is warming up and is not ready to print. After about 60 seconds, the status message changes to **“Ready”**, indicating that the printer is ready to print.



NOTE: If an error message appears on the display after you turn the printer on, refer to “Warning Messages and Error Messages” on page 5-39.

Use the following procedure to turn the printer off:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.



Connecting the Printer to the Host Computer

You must connect the printer to your computer using an IEEE 1284 parallel cable. This cable is user-supplied, the printer does not include this cable. The parallel port is the default port. To connect the printer to your computer using the parallel port, simply connect the parallel cable to the parallel port on the printer, then connect the cable to your computer.

Selecting Print Media

Your printer can print on a variety of media, including plain paper, labels, transparencies, and envelopes. Always use print media that meet the guidelines for use with this printer. Print media that is not recommended for use with this printer may cause frequent paper jams or poor print quality.

Paper and Print Media To Avoid

Do not use paper or print media that has any of the following characteristics:

- Does not meet the paper and media size and weight specifications for this printer
- Is not labeled for use with xerographic printers or xerographic copiers
- Cannot withstand temperatures of up to 310°F/155°C
- Is in a sealed package that is obviously damaged or wet
- Is excessively wrinkled, curled, torn, or warped
- Is folded or creased
- Has either an extremely slick surface or an extremely textured surface
- Has an exposed adhesive surface
- Has paper pieces glued or taped to the media
- Has staples or paperclips attached
- Is categorized as thermal paper, coated paper, or carbon paper
- Is an envelope that is embossed, is made of extremely thick paper, or is padded
- Is an envelope that has metal clasps
- Is a sheet of labels that has the backing sheet exposed between individual labels

Correct Paper Storage

It is important to store paper correctly prior to placing it in the printer, since improper storage can cause frequent paper jams and poor print quality. Use the following guidelines when storing paper for use in the printer:

- Store reams of paper on a flat surface, and always store them stacked horizontally.
- Store reams of paper in an area away from both direct sunlight and high humidity
- Open sealed reams only when you are ready to load the paper into the paper tray, and always close and seal partial reams of paper.
- Do not stack partial reams of paper

Print Media Capacities

Your printer can hold up to 3,150 sheets of standard weight paper, depending upon the options installed. The printer can be configured in the following five variations:

- Printer (650 sheets)
- Printer with 500 sheet feeder(1150 sheets)
- Printer with two 500 sheet feeders (1650 sheets)
- Printer with high capacity feeder(2650 sheets)
- Printer with high capacity feeder and 500 sheet feeder (3150 sheets)

The following table shows the five configurations and the breakdown of paper capacity:

Front Tray (standard)	Tray 1 (standard)	Tray 2 (option)	Tray 3 (option)	High Capacity Feeder (option)	Total Paper Capacity
150	500	--	--	--	650
150	500	500	--	--	1,150
150	500	500	500	--	1,650
150	500	--	--	2,000	2,650
150	500	500	--	2,000	3,150

If you want to use paper that is an odd size or weight, you must use the front paper tray. The front tray can hold the following quantities of non-standard print media:

- Envelopes : 10
- Transparencies: 30
- Labels: 30
- Paper: 150

NOTE: Expect a slight reduction in image quality when you print on envelopes, labels, transparencies, or postcards.

Print Media Weight, Type, and Size

The following table defines print media that you can use in each of the paper sources, and also indicates the feed orientation—long edge feed (LEF) or short edge feed (SEF). If you have concerns about a specific brand or type of media, try samples of the media to determine if the resulting printer performance and print quality meet your expectations.

Paper Source	Weight	Paper Type and Feed Direction	Paper Sizes Accommodated
Letter/A4 Paper Tray (main tray and optional 500 sheet A4/Letter paper feeder)	16 to 24 lbs. 64 to 200g/m ²	A4 LEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF	279.4 x 215.9mm 8.5 x 11 inches
		Executive LEF	266.7 x 184.5mm 10.5 x 7.26 inches
		Monarch LEF (envelope)	190.5 x 98.4mm 7.5 x 3.87 inches
		Statement LEF	215.9 x 139.7mm 8.5 x 5.5 inches
		Com 10 LEF (envelope)	241.3 x 104.8mm 9.5 x 4.13 inches
		B5 LEF	257 x 182mm 10.1 x 7.2 inches
		A5 LEF	210 x 149mm 8.27 x 5.9 inches
		A6 LEF	100 x 148mm 3.94 x 5.83 inches
		C5 LEF (envelope)	229 x 162mm 9 x 6.4 inches
		DL LEF (envelope)	220 x 110mm 8.67 x 4.3 inches
Front Tray		Envelopes Transparencies Labels Standard Paper (LEF and SEF)	Width: 3.0 to 12.0 inches 76.2 mm to 305 mm Length: 3.87 to 20.0 inches 98.4 mm to 508 mm

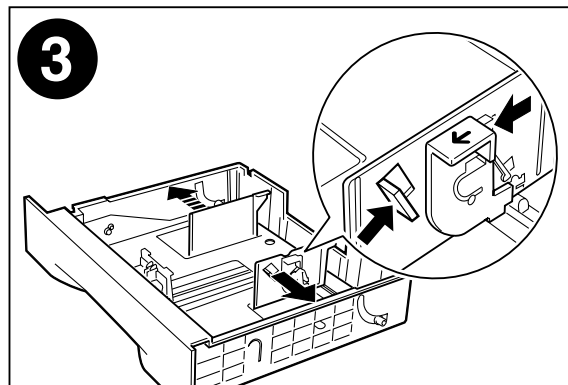
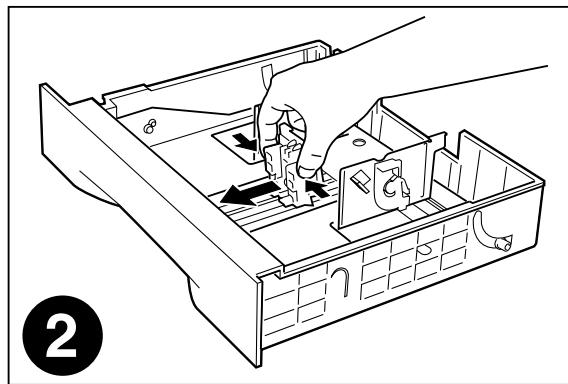
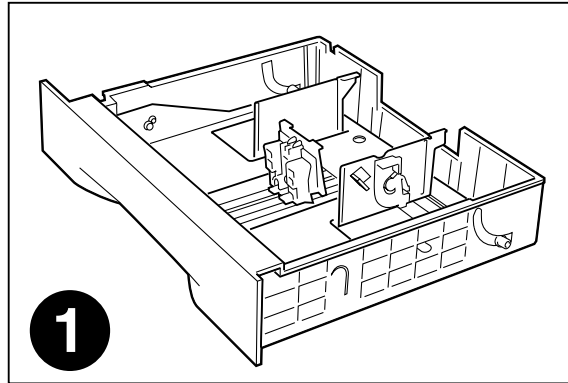
Paper Source	Weight	Paper Type and Feed Direction	Paper Sizes Accommodated
A3 Paper Tray (optional 500 sheet A3/ Ledger paper feeder)	16 to 24 lbs. 60 to 135 g/m ²	A4 LEF/SEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF/SEF	279.4 x 215.9mm 11 x 8.5 inches
		Legal 13" SEF	330.2 x 215.9mm 13 x 8.5 inches
		Legal 14" SEF	355.6 x 215.9mm 14 x 8.5 inches
		A3 SEF	420 x 297mm 16.5 x 11.7 inches
		B4 SEF	364 x 257mm 14.3 x 10.1 inches
		Statement LEF	215.9 x 139.7mm 8.5 x 5.5 inches
		Executive LEF	266.7 x 184.5mm 10.5 x 7.26 inches
		Ledger SEF	431.8 x 279.4mm 11 x 17 inches
		B5 LEF	257 x 182mm 10.1 x 7.2 inches
		A5 LEF	210 x 149mm 8.27 x 5.9 inches
High Capacity Feeder	16 to 24 lbs. 60 to 135 g/m ²	A4 LEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF	279.4 x 215.9mm 11 x 8.5 inches

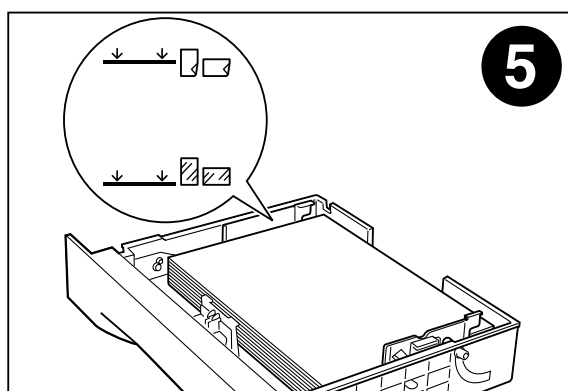
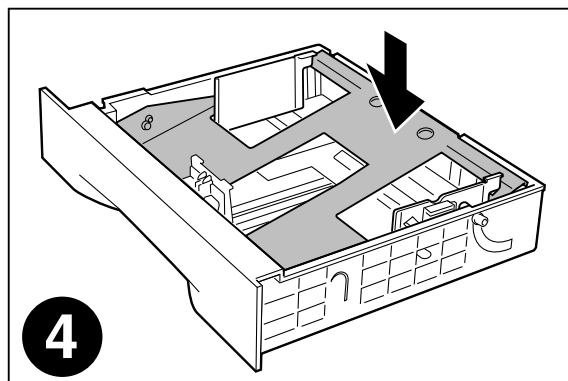
Loading Print Media

Loading the Main Tray

The 500-sheet paper tray that sits inside the printer can accommodate paper sizes up to letter or A4. The tray has two length guides that are located on the sides of the tray, and one width guide that is located near the center of the tray. These guides allow you to adjust the size of the area that holds paper.

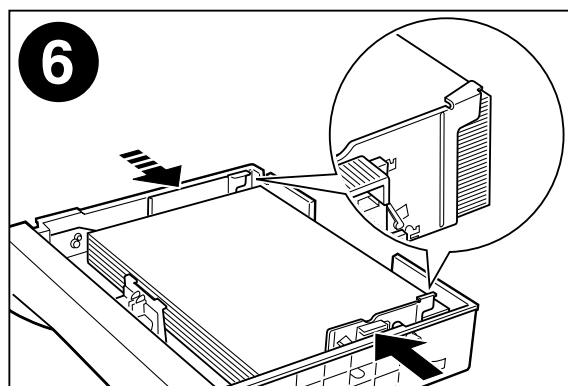
Use the following procedure to load paper into the 500-sheet A4/letter paper tray:

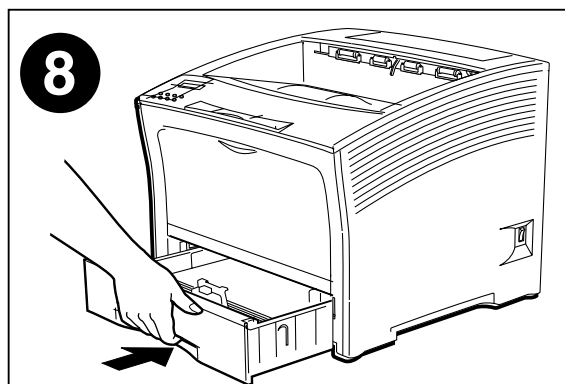
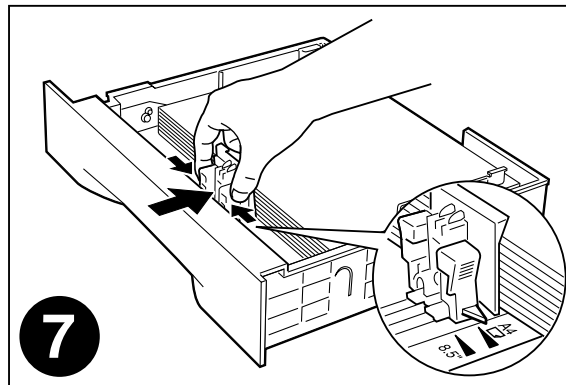




CAUTION: Do not overload the tray, and make sure the paper stack is beneath the retaining clips on both sides of the tray. Fan paper before placing it in the tray, and place paper in the tray with the print side up.

NOTE: To avoid paper jams and other paper transportation problems, make sure the length and width guides are adjusted to match the paper size and are locked firmly into place.





Loading the Front Tray

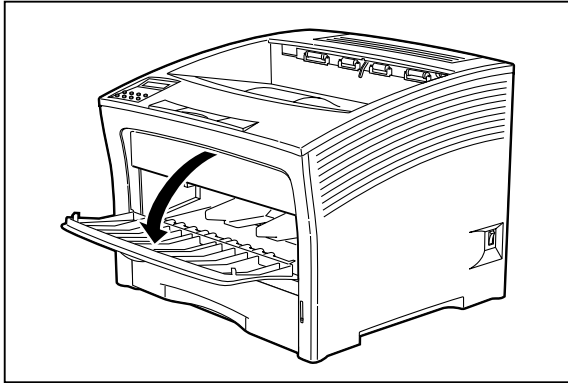
The front tray located on the front of the printer can accommodate a maximum of 150 sheets of paper sizes up to A3 or 8.5 x 17 inches; the front tray can also accommodate a maximum of 30 sheets of standard labels, transparencies, or postcards, and a maximum of 10 standard envelopes. The tray has two guides that are located on the left and right sides of the tray. These guides allow you to adjust the size of the area that holds the print media. Use the following guidelines when loading the front tray:

- Do not mix print media in the front tray; for example, do not load a stack that includes both envelopes and standard paper. Load only one type of print media.
- Do not mix print media sizes in the front tray; for example, do not load a stack that includes two or more different sizes of paper.
- Do not load print media that is obviously damaged, wet, creased, or wrinkled.
- Do not overfill the front tray.

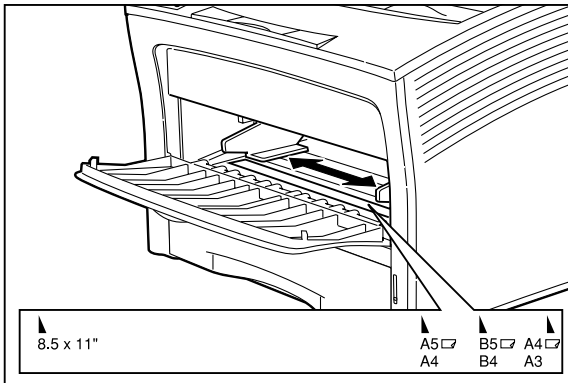
Loading Paper in the Front Tray

Use the following procedure to load paper in the front tray:

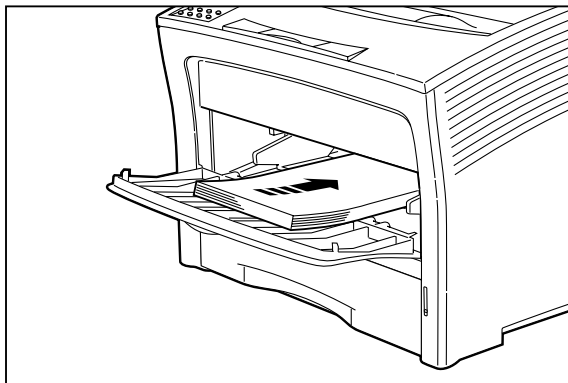
1. Open the front tray by pulling the hand grip on the top of the front tray cover.



2. Slide the paper guides so they match the size of the paper that you are loading.



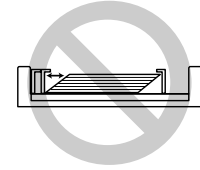
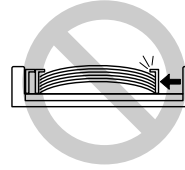
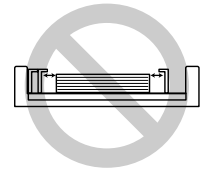
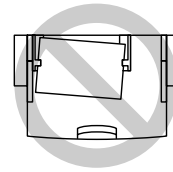
3. Lift the front tray up and out as shown on the label inside the front tray.
4. Stack the paper that you will load in the front tray, making sure that the edges are aligned and neat. Position the paper stack so the surface to be printed faces up.
5. Load the stack of paper into the front tray by sliding the stack between the paper guides and then pushing the paper stack into the tray until it will not go any further.



6. Check the paper stack to make sure it is not loaded at an angle and that the guides barely touch the stack.

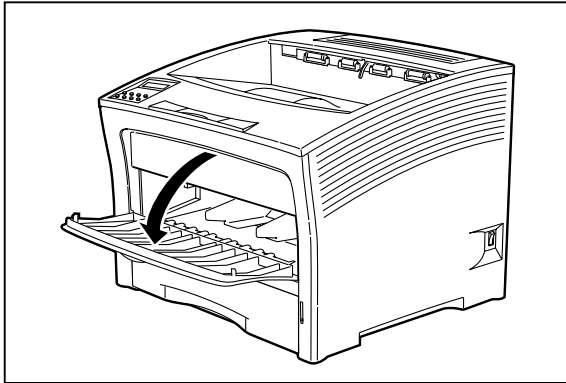


CAUTION: Do not press the guides tightly against the stack; the guides should just barely touch the stack of paper. Paper guides that are too tight can cause feed jams.

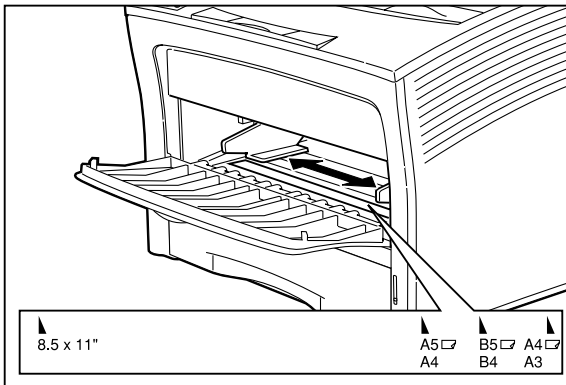


Loading Envelopes in the Front Tray

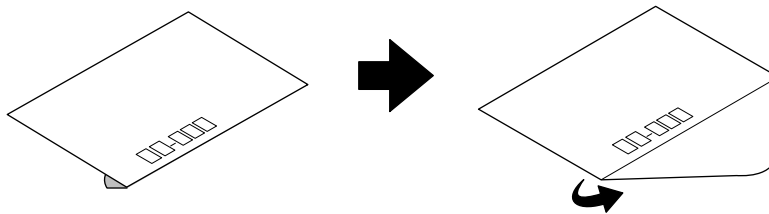
1. Open the front tray by pulling on the hand grip on the top of the tray.



2. Slide the paper guides all the way to the sides of the front tray.

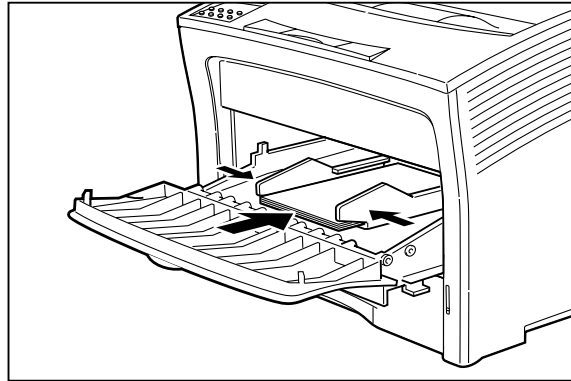


3. Pull the front tray up and out of the printer, as shown on the label inside the front tray.
4. Open the flap of each envelope and place the envelopes in a neat and aligned stack that does not exceed 10 envelopes.



5. Position the envelope stack so the surface to be printed faces up and the flaps are open.
6. Load the stack of envelopes into the front tray by sliding the stack between the paper guides

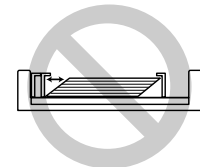
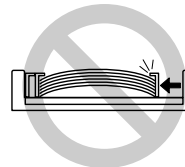
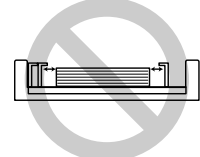
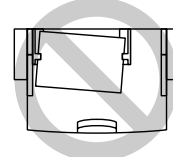
and then pushing the envelope stack into the tray until it will not go any further.



7. Slide the paper guide up against the stack of envelopes.
8. Check the envelope stack to make sure it is not loaded at an angle and that the guides barely touch the stack.

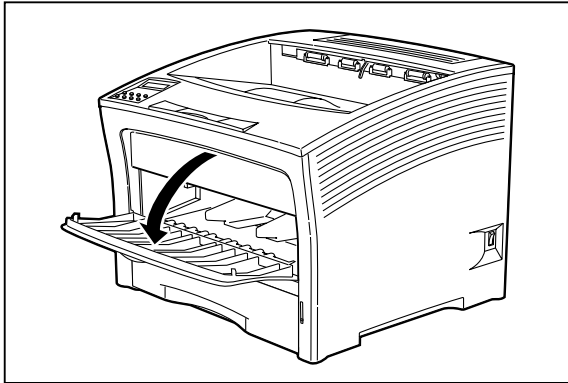


CAUTION: Do not press the guides tightly against the stack; the guides should just barely touch the stack of paper. Paper guides that are too tight can cause feed jams.

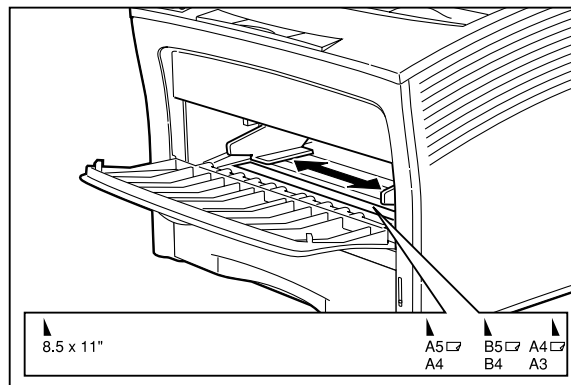


Loading Transparencies into the Front Tray

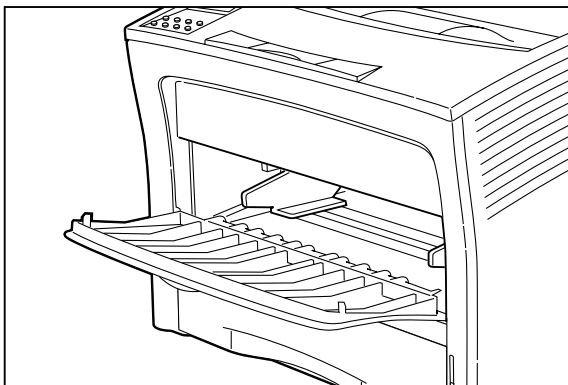
1. Open the front tray by pulling on the hand grip on the top of the tray.



2. Slide the paper guides all the way to the sides of the front tray



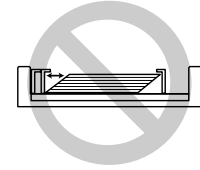
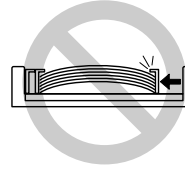
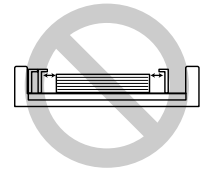
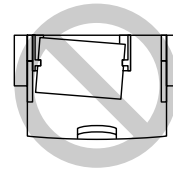
3. Load transparencies into the front tray one at a time, sliding each transparency between the paper guides and then pushing the transparency into the tray until it will not go any further.



4. Slide the paper guides up against the stack of transparencies.
5. Check the transparency stack to make sure it is not loaded at an angle and that the guides barely touch the stack.

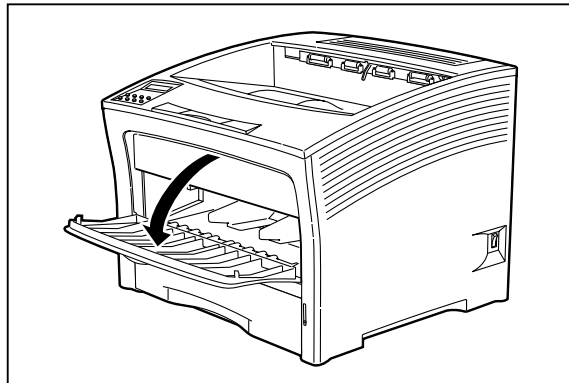


CAUTION: Do not press the guides tightly against the stack; the guides should just barely touch the stack of paper. Paper guides that are too tight can cause feed jams.

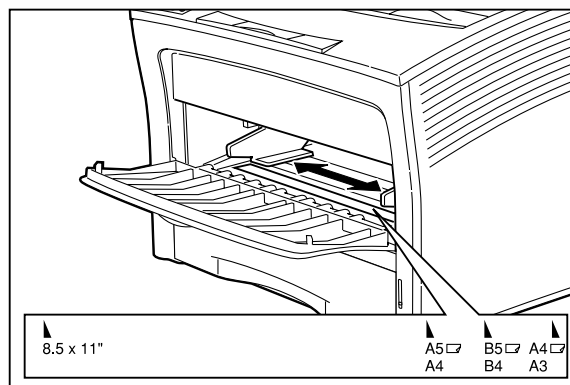


Loading Postcards into the Front Tray

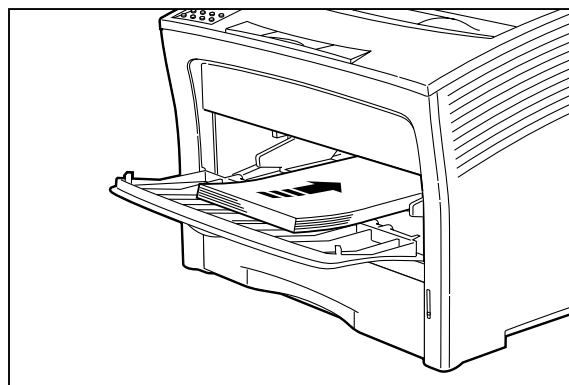
1. Open the front tray by pulling on the hand grip on the top of the tray.



2. Slide the paper guides all the way to the sides of the front tray



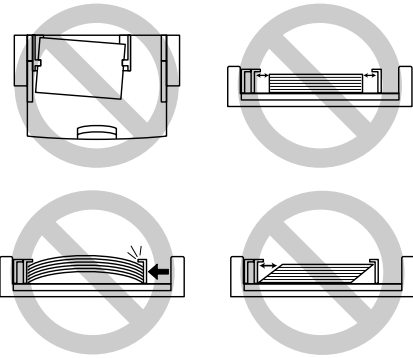
3. Position the postcard stack so the surface to be printed faces up.
4. Load the stack of postcards into the front tray, sliding the stack between the paper guides and then pushing the stack of postcards into the tray until it will not go any further.



5. Slide the paper guides up against the stack of postcards.
6. Check the postcard stack to make sure it is not loaded at an angle and that the guides barely touch the stack.

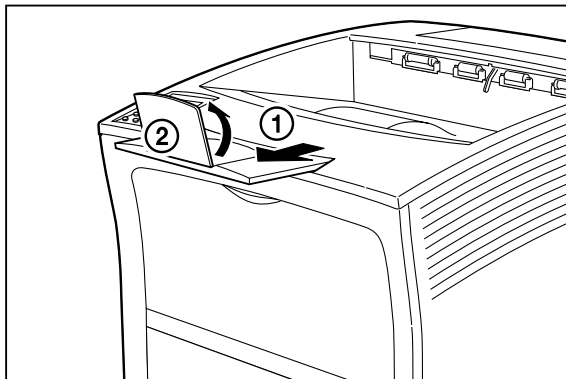
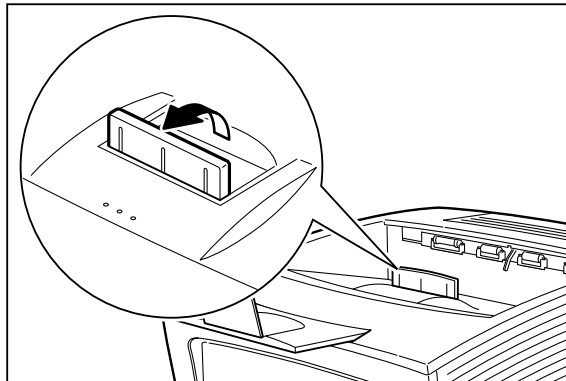


CAUTION: Do not press the guides tightly against the stack; the guides should just barely touch the stack of paper. Paper guides that are too tight can cause feed jams.



Output Options for Oversize Print Media

Non-standard paper sizes and types have a tendency to curl upon output, and may also have problems with static electricity that prevent the paper from stacking properly in the output tray. To help prevent these problems, raise the paper stop on the top output tray when you are printing on non-standard paper types, and pull out the extension tray and raise the oversize paper stop when printing on oversize papers.



Chapter 3

Understanding and Navigating the Control Panel Menus

In this Chapter . . .

- “About this Chapter” on page 3-2
- “Control Panel Features” on page 3-2
- “Navigating the Control Panel Menus” on page 3-4
- “Menu Structure” on page 3-6
- “Paper Menu” on page 3-7
- “Interface Menu” on page 3-9
- “PS Menu” on page 3-12
- “PCL Menu” on page 3-13
- “System Menu” on page 3-16
- “Quality Menu” on page 3-18
- “Functions Menu” on page 3-19
- “Status Menu” on page 3-20

About this Chapter

This chapter explains the control panel and its functions, and also demonstrates how to navigate throughout the various menus and submenus that allow you to view and change the printer settings.

Control Panel Features

The control panel is located on the front of the printer, and contains the display, indicators, and pushbuttons that allow you to view and change the printer settings.

The figure below shows the control panel features.

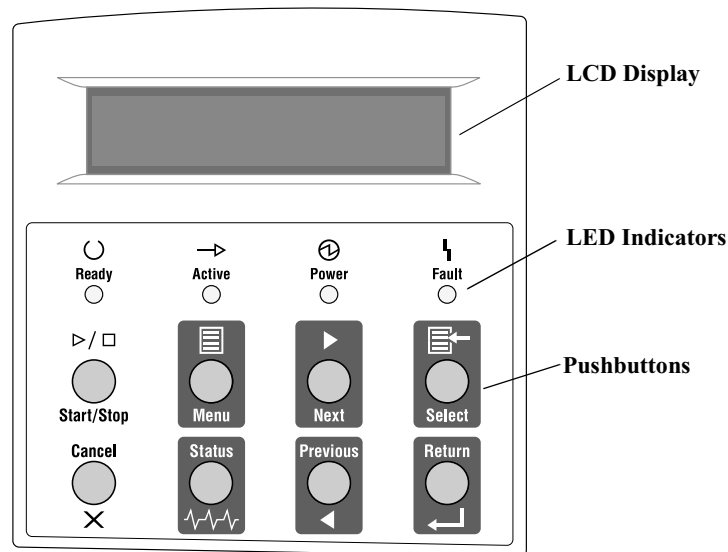










Figure 3-9: Control Panel.

LCD Display

The LCD display shows status and error messages that inform you of the current status of the printer, and also displays menus, submenus, and printer settings when you are in the menu system. The display contains two lines of text, each with a maximum of sixteen characters.







LED Indicators




The LED indicators also indicate printer status. The four indicators can each be on, off, or blinking, indicating different phases of printer operation. The table below explains the LED indicators.

LED	Color	When Off	When On	When Blinking
 Ready 	Green	Printer is NOT READY	Printer is READY	N/A
 Active 	Green	Printer is IDLE	Printer is ACTIVE (processing a job)	Printer is WAITING (a partial job has been printed, and the printer is waiting for additional job data)
 Power 	Green	POWER is off	POWER is on	Power Saver Mode ON
 Fault 	Yellow	Printer is not in error mode	There is an error that requires user intervention, such as a paper jam, a service call required, etc.	N/A

Pushbuttons

The control panel pushbuttons allow you to access and navigate menus, and also assist you in recovering from printer errors. The table below explains the functions of the eight pushbuttons.

Pushbutton	Function
  Start/Stop	START/STOP—Push this button to start or stop the printer, or to exit the menu system.
 Menu	MENU—Push this button to enter the menu system.
 Next	NEXT—Push this button to move to the next menu, submenu, or setting within the same level of the menu structure.
 Select	SELECT—Push this button to select the menu or submenu that is shown on the second line of the display or to choose and save the setting shown on the second line of the display.
 Cancel	CANCEL—Push this button to cancel an action.

Pushbutton	Function
	STATUS—Push this button to enter the Status Menu and view the current status of printer.
	PREVIOUS—Push this button to return to the previous menu, submenu, or option within the same level of the menu structure.
	RETURN—Push this button to move up one level in the menu structure to the menu shown on the first line of the display.

Navigating the Control Panel Menus

When you press the **MENU** button on the control panel, you enter the printer's menu system. At that point, the first line of the display contains the text "**Menu**", indicating that you are in the menu system. The second line of the display lists the active menu, which you can change by pressing the **NEXT** or **PREVIOUS** button.

Menu
Paper Menu

If you press the **NEXT** button repeatedly, the second line of the display cycles through the main menus in the following order:

- Paper Menu
- Interface Menu
- PS Menu
- PCL Menu
- System Menu
- Quality Menu
- Functions

NOTE: Additional menus and submenus may appear in the printer menu system when other options are installed.

The following figure shows the sequence of pushbuttons and display messages that would allow you to change the number of copies printed. This example illustrates the basic relationship between menus and submenus and demonstrates how the **NEXT**, **PREVIOUS**, **SELECT**, and **RETURN** buttons help you to navigate through the menus.

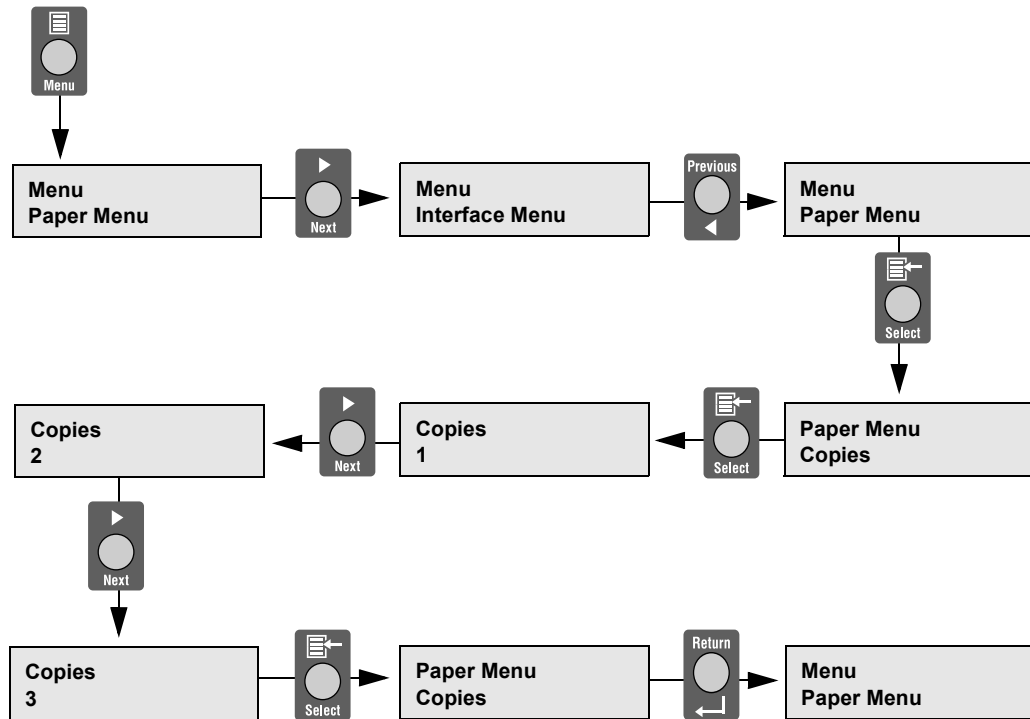


Figure 3-10: Navigating the Paper Menu.

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**Paper Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the paper menu.
4. Press the **NEXT** button until the text “**Copies**” is shown on the second line of the display.
5. Press the **SELECT** button to enter the copies submenu.
6. Press the **NEXT** or **PREVIOUS** button to increase or decrease the number of copies printed.
7. Press the **SELECT** button to save this setting.
8. Press the **START/STOP** button to exit the menu system.

Menu Structure

The following figure shows the structure of the control panel main menus and submenus. For more specific information about using and navigating the printer menu system, see the User Guide provided on the Electronic Library CD-ROM.

<i>Paper Menu</i> Copies Default Source Manual Feed Output Tray Media Size/Type <i>Front Tray</i> <i>Tray 1</i> <i>Tray 2 (optional)</i> <i>Tray 3 (optional)</i> Blank Pages Front Tray First Auto Resize Custom Size Unit	<i>Interface Menu</i> Port <i>Parallel</i> <i>Network Card 1</i> Parallel Setup <i>Interpreter</i> <i>Format</i> <i>Mode</i> <i>Delay Out Close</i> <i>Binary PS</i> Network 1 Setup <i>Interpreter</i> <i>Format</i> <i>Network Channel</i> <i>Network Address</i> <i>IP Address</i> <i>Subnet Mask</i> <i>Default Router</i> <i>LPD Banner</i> <i>DHCP</i> <i>Netware Frame</i> <i>Delay Out Close</i> <i>Binary PS</i>	<i>PS Menu</i> Print PS Errors Manual Feed TO	<i>PCL Menu</i> Orientation Font Source Font Number Pitch Symbol Set Macro Filter Lines Per Page CR mode LF Mode FF Mode Print Area Parameter Values
<i>System Menu</i> Factory Defaults Display Language PowerSaver Wait Timeout Job Timeout Jam Recovery Hex Print Page Compression DatastreamMaster (*)	<i>Quality Menu</i> Resolution Toner Saver Print Density	<i>Functions</i> Reset Printer Print Summary Print Test Print Fonts	

Figure 3-11: Printer Menu Structure.

NOTE: (*) Please consult your CPG International Technical Support person for information on use of this feature.

NOTE: Additional menus and submenus may appear in the printer menu system when other options are installed.

Paper Menu

The **Paper Menu** provides access to the printer settings for various paper-handling functions. Use the following procedure to enter the paper menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**Paper Menu**" is shown on the second line of the display.
3. Press the **SELECT** button to enter the Paper Menu.
4. Press the **NEXT** button to move through the submenus: **Copies**, **Default Source**, **Manual Feed**, **Output Tray**, **Media Size/Type**, **Blank Pages**, **Front Tray First**, **Auto Resize** and **Custom Size Unit**.
5. Use the procedures in the following table to access and change the printer paper-handling settings:

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Copies This submenu allows you to change the number of copies printed.	1	Numbers 1 - 999	1. Press NEXT or PREVIOUS to increase or decrease the number of copies printed. 2. Press SELECT to save this setting.
Default Source This submenu allows you to choose a default paper source from a list of all installed sources.	Tray 1	Front Tray 1 Tray 2 (optional) Tray 3 (optional)	1. Press NEXT or PREVIOUS to scroll through the list of available sources of paper. 2. Press SELECT to set a source as the default.
Manual Feed This submenu allows you to turn the manual feed on or off.	Off	On Off	1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Output Tray This submenu allows you to choose a default output tray from a list of all installed output trays.	Face Down Tray	Face Down Tray Offset Tray (optional)	1. Press NEXT or PREVIOUS to scroll through the list of available output trays. 2. Press SELECT to set a tray as the default.

Media Size/Type This submenu allows you to set the media size and type for the Front Tray and set the medial type for all other trays.	Front Tray Size: Letter LEF Type: Plain Custom Size: Width: 209 mm Length: 39 mm Tray 1 Type: Plain Tray 2 (optional) Type: Plain Tray 3 (optional) Type: Plain	Size Front Tray: Letter LEF, A4 LEF, B5, A5, Statement, Executive, C5 Envelope, DL Envelope, Com10 Envelope, Monarch Envelope, Ledger, A3, B4, Legal, Folio, A4 SEF, Letter SEF, B5 SEF	Type Front Tray: Plain, Transparency, Prepunched, Letterhead, Colored, Preprinted, Bond, Label, Card Stock, Postcard, Envelope, Other Other Trays: Plain, Transparency, Prepunched, Letterhead, Colored, Preprinted, Bond, Other	1. Press NEXT or PREVIOUS to scroll through the list of available sources of paper. 2. Press SELECT to choose a tray. 3. Press NEXT or PREVIOUS to toggle between MEDIA SIZE, MEDIA TYPE, and CUSTOM SIZE. 4. Press SELECT to choose either. 5. Press NEXT or PREVIOUS to scroll through the available sizes or types. 6. Press SELECT to set a size or type.
Blank Pages This submenu allows you to choose to either print or not print blank pages of a document.	Print	Print Do Not Print		1. Press NEXT or PREVIOUS to toggle between PRINT and DO NOT PRINT. 2. Press SELECT to save this setting.
Front Tray First This submenu sets the front tray as the default paper source if paper size and type are the same as front tray.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Auto Resize This submenu allows you to set the printer to automatically continue the print job when there is a media size mismatch. PostScript print jobs will scale to the nearest paper size, PCL will not scale, but will print on the nearest paper size.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Custom Size Unit This submenu allows you to set the unit of measurement for the custom paper size.	Millimeters	Millimeters Inches		1. Press NEXT or PREVIOUS to select millimeters or inches. 2. Press SELECT to save this setting.

Interface Menu

The **Interface Menu** provides access to the printer interface settings. Use the following procedure to enter the interface menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**Interface Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the interface menu.
4. Press the **NEXT** button to move through the submenus: **Port**, **Parallel Setup** and **Network 1 Setup**
5. Use the procedures in the following table to access and change the printer interface settings

:

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Port This submenu allows you to choose the type of interface.	Parallel: On Network Card 1: On USB: On	Parallel : On, Off Network Card 1: On, Off USB: On, Off	1. Press NEXT or PREVIOUS to scroll through PARALLEL, NETWORK CARD 1 and USB. 2. Press SELECT to save this setting

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Parallel Setup This submenu allows you to set up the parallel interface.	Interpreter: Auto Switch Format: Raw Mode: Bidirectional Delay Out Close: Off Binary PS Off	Interpreter: Auto Switch PCL PostScript 3 Format: Raw Normal Binary Mode: Bidirectional Standard Delay Out Close: On Off Binary PS On Off	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through INTERPRETER, FORMAT, MODE, DELAY OUT CLOSE and BINARY PS submenus. 2. Press SELECT to choose a submenu. 3. Press NEXT or PREVIOUS to scroll through the settings. 4. Press SELECT to choose and save a setting.

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Network 1 Setup This submenu allows you to set up the Network interface.	Interpreter: Auto Switch Format: Raw Network Channel: Netware Network Address: IP Address: (user-specified) Subnet Mask: (user-specified) Default Router: (user-specified) LPD Banner: On DHCP: Off Netware Frame: Auto-Sense Delay Out Close: Off Binary PS: Off	Interpreter: Auto Switch PCL PostScript 3 Format: Raw Normal Binary Network Channel: Netware, DEC LAT, AppleTalk, TCP/IP Network Address: IP Address: (user-specified) Subnet Mask: (user-specified) Default Router: (user-specified) LPD Banner: On Off DHCP: Off On Netware Frame: Auto-Sense, 802.3, Ethernet II, 802.2 SNAP, 802.2, Delay Out Close: Off On Binary PS: Off On	1. Press NEXT or PREVIOUS to move among the submenus. 2. Press SELECT to choose a submenu. 3. Press NEXT or PREVIOUS to scroll through the settings. 4. Press SELECT to save this setting.

PS Menu

The PS Menu provides access to the PostScript settings. Use the following procedure to enter the PS Menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**PS Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the PS menu.
4. Press the **NEXT** button to move through the submenus: **Print PS Errors**, and **Manual Feed TO**.
5. Press the **SELECT** button to enter a submenu.
6. Use the procedures in the following table to access and change the PostScript settings:

Submenus	Default Setting	Available Settings	Procedure for Changing Settings
Print PS Errors This submenu allows you to choose to either print or not print PS errors.	Off	On Off	1. Press NEXT or PREVIOUS to toggle between ON (print) and OFF (do not print). 2. Press SELECT to save this setting.
Manual Feed TO This submenu allows you to set the manual feed timeout—the number of seconds the printer should wait for a manual feed. A setting of 0 will cause printer to wait indefinitely for a manual feed.	0	0 - 99999	1. Press NEXT or PREVIOUS to increase or decrease each digit of the five-digit number. 2. Press SELECT to move to the next number. 3. Press SELECT after setting the last digit to save the setting.

PCL Menu

The **PCL Menu** provides access to the PCL settings. Use the following procedure to enter the PCL menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**PCL Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the PCL menu.
4. Press the **NEXT** button to move through the submenus: **Orientation**, **Font Source**, **Font Number**, **Pitch**, **Symbol Set**, **Macro Filter**, **Lines Per Page**, **CR Mode**, **LF Mode**, **FF Mode**, **Print Area** and **Parameter Values**
5. Press the **SELECT** button to enter a submenu.
6. Use the procedures in the following table to access and change the PCL settings:

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Orientation This submenu allows you to choose the orientation of the page.	Portrait	Portrait Landscape	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to toggle between PORTRAIT and LANDSCAPE. 2. Press SELECT to choose and save an orientation.
Font Source This submenu allows you to choose a font source.	Internal	Internal	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through the available font sources. 2. Press SELECT to choose and set a source.
Font Number This submenu allows you to set the font number.	12	Numbers 0-?	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to increase or decrease the font number. 2. Press SELECT to save this setting.
Pitch This submenu allows you to change the pitch of text.	10.00	0.08 - 100.00	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to increase or decrease the pitch. 2. Press SELECT to save this setting.

Symbol Set This submenu allows you to choose a symbol set.	10U:PC-8 CP437	10U:PC-8 CP437 11U:PC-8 D/N 12U:PC-850 17U:PC-852 9T:PC-Turkish 19U:WIN Latin1 9E:WIN Latin2 5T:WIN Latin5 7J:Desk Top 10J:PS Text 13J:Ventura Intl 14J:Ventura US 6J:Microsoft Pub 8M:Math-8 PS:Math 6M:Ventura Math	15U:Pi Font 1U: Legal 1E: ISO4 UK 0U:ISO6 ASCII 0U:ISO11 Swedish 0I:ISO15 Italian 2S:ISO17 Spanish 1G:ISO21 German 0D:ISO60 Norweg. 1F:ISO69 French 9U:WIN3.0 Latin1 8U:Roman 8 0N:ISO 8859-1 2N:ISO 8859-2 5N:ISO 8859-5	1. Press NEXT or PREVIOUS to scroll through the available symbol sets. 2. Press SELECT to choose and set a symbol set.
Macro Filter This submenu allows you to turn the macro filter on or off.	Off	On Off	1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.	
Lines Per Page This submenu allows you to change the number of lines per page.	60	5 - 128	1. Press NEXT or PREVIOUS to increase or decrease the lines per page. 2. Press SELECT to save this setting.	
CR Mode This submenu allows you to define the action prompted by a carriage return—a carriage return equals either a carriage return alone, or a carriage return and a line feed together.	CR = CR	CR = CR CR = CR/LF	1. Press NEXT or PREVIOUS to choose from CR=CR or CR=CR/LF. 2. Press SELECT to save this setting.	
LF Mode This submenu allows you to define the action prompted by a line feed—a line feed equals either a line feed alone or a carriage return and a line feed together.	LF = LF	LF = LF LF = CR/LF	1. Press NEXT or PREVIOUS to choose from LF=LF or LF=CR/LF. 2. Press SELECT to save this setting.	
FF Mode This submenu allows you to define the action prompted by a form feed—a form feed equals either a form feed alone or a carriage return and a form feed together.	FF = FF	FF = FF FF = CR/FF	1. Press NEXT or PREVIOUS to choose from FF=FF or FF=CR/FF. 2. Press SELECT to save this setting.	

Print Area This submenu allows you to expand the print area.	Normal	Normal Expanded		1. Press NEXT or PREVIOUS to toggle between Normal and Expanded. 2. Press SELECT to save this setting.
Parameter Values	Paper Source: Front Tray Paper Size: Executive	Paper Source: Front Tray=8) Tray 1 =1 Tray 2 = 4 optional tray) Tray 3 =5 - optional tray) Auto-Select =7	Paper Size: Executive (= 1), Letter (= 2), Legal (= 3), Statement (= 4), Folio (= 5), A6 (= 24), A5 (=25), A4 (=26), B5 (= 45), B4 (=46)	1. Press NEXT or PREVIOUS to toggle between the PAPER SOURCE and PAPER SIZE submenus. 2. Press SELECT to choose a submenu. 3. Press NEXT or PREVIOUS to scroll through the settings. 4. Press SELECT to save this setting.

System Menu

The system menu provides access to system settings. Use the following procedure to enter the system menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**System Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the system menu.
4. Press the **NEXT** button to move through the submenus: **Factory Defaults**, **Display Language**, **Power Saver**, **Wait Timeout**, **Job Timeout**, **Jam Recovery**, **Hex Print**, **Page Compression** and **DatastreamMaster**.
5. Press the **SELECT** button to enter a submenu.
6. Use the procedures in the following table to access and change the system settings:

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Factory Defaults This submenu allows you to reset the printer to U.S. or Non-U.S. factory defaults.	U.S.	U.S. Non-U.S.	1. Press NEXT or PREVIOUS to toggle between U.S. and NON-U.S. 2. Press SELECT to choose and set the factory defaults.
Display Language This submenu allows you to change the language of the display messages.	English	English French German Italian Spanish	1. Press NEXT or PREVIOUS to scroll through the available languages: English, French (Francais), German (Deutsch), Italian (Italiano), or Spanish (Espanol). 2. Press SELECT to choose and set the language.
Power Saver This submenu allows you to set the number of minutes the printer is idle before it reverts to Power Saver Mode.	15	0 - 999	1. Press NEXT or PREVIOUS to increase or decrease the number of minutes. 2. Press SELECT to save this setting.
Wait Timeout This submenu allows you to increase or decrease the length of time (in seconds) that the printer will remain in the waiting state—a job is being processed, no end-of-file has been detected, and there is no more data to process. This setting applies to <i>both PCL and PostScript print jobs</i> .	20	0 - 99999	1. Press NEXT or PREVIOUS to increase or decrease each digit of the five-digit number. 2. Press SELECT set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.
Job Timeout This submenu allows you to increase or decrease the time limit (in seconds) for PostScript jobs. A 0 setting indicates no timeout. This setting applies <i>only to PostScript jobs</i> .	0	0 - 99999	1. Press NEXT or PREVIOUS to increase or decrease each digit of the five-digit number. 2. Press SELECT set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.

Jam Recovery This submenu allows you to turn jam recovery on or off.	On	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Hex Print This submenu allows you to print hexadecimal characters.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Page Compression This submenu allows you to turn page compression on or off.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
DatastreamMaster This submenu allows to turn this feature on or off. <i>Note:</i> Please consult your CPG International Technical Support person for information on use of this feature.	On	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.

Quality Menu

The Quality Menu provides access to the printer settings that are related to print quality. Use the following procedure to enter the Quality Menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**Quality Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the system menu.
4. Press the **NEXT** button to move through the submenus: **Resolution**, **Toner Saver** and **Print Density**.
5. Press the **SELECT** button to enter a submenu.
6. Use the procedures in the following table to access and change the system settings:

Submenus	Default Setting	Available Settings	Procedure for Changing Setting
Resolution This submenu allows you to set the resolution (dpi).	600 dpi	600 dpi 1200 dpi	1. Press NEXT or PREVIOUS to scroll through the available resolutions. 2. Press SELECT to choose and set the dpi.
Toner Saver This submenu allows you to choose from several toner-saving settings.	On	On Off	1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Print Density This submenu allows you to specify the print density. 1 represents the lightest print density, while 7 represents the darkest print density.	5	1 - 7	1. Press NEXT or PREVIOUS to scroll through the available print density settings. 2. Press SELECT to choose and save this setting.

Functions Menu

The Functions Menu provides access to several printer functions that can supply you with information about the printer and its settings. Use the following procedure to enter the Functions Menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**Functions Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the system menu.
4. Press the **NEXT** button to move through the available functions: **Reset Printer**, **Print Summary**, **Print Test**, and **Print Fonts**.
5. Use the procedures in the following table to execute the functions:

Functions	Procedure for Executing Function
Reset Printer This function resets the printer.	Press SELECT to reset the printer.
Print Summary This function prints a list of all printer settings:	Press SELECT to print a summary of the printer settings.
Print Test This function allows you to print a single test page or a continuous test page.	1. Press NEXT or PREVIOUS to toggle between SINGLE PAGE and CONTINUOUS . 2. Press SELECT to print the test page(s).
Print Fonts This function allows you to print Postscript or PCL font lists.	1. Press NEXT or PREVIOUS to toggle between POSTSCRIPT and PCL . 2. Press SELECT to select and print the specific fonts list.

Status Menu

In addition to the main menus listed above, the printer also provides a status menu that allows you to view the current settings for the input and output trays and the toner cartridge. Use the following procedure to enter the Status Menu:

1. Press the **STATUS** button on the control panel.
2. Press the **NEXT** button to move through the submenus: **Front**, **Tray 1**, **Tray 2**, **Tray 3**, **Face Down**, and **Toner**.
3. Press the **SELECT** button to enter a submenu.
4. Use the procedures in the following table to view the status of the printer:

Submenu	Procedure for Executing Function
Front This submenu allows you to view the current Media Size and Media Type for the front tray.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for the Front Tray. 2. Press SELECT to view a specific setting.
Tray 1 This submenu allows you to view the current Media Size, Media Type, and Level for Tray 1.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for Tray 1. 2. Press SELECT to view a specific setting.
Tray 2 This submenu allows you to view the current Media Size, Media Type, and Level for Tray 2.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for Tray 2. 2. Press SELECT to view a specific setting.
Tray 3 This submenu allows you to view the current Media Size, Media Type, and Level for Tray 3.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for Tray 3. 2. Press SELECT to view a specific setting.
Face Down Tray This submenu allows you to view the status of the face down tray.	1. Press SELECT to view the status of the Face Down Tray.
Toner Press SELECT to view the status of the toner cartridge.	



Chapter 4

Maintaining the Printer

In this Chapter . . .

- “About this Chapter” on page 4-2
- “Upgrading Printer Firmware” on page 4-2
- “Replacing Printer Components” on page 4-3
- “Cleaning the Printer” on page 4-14
- “Moving the Printer” on page 4-25
- “Storing the Printer for Long Periods of Time” on page 4-27

About this Chapter

This chapter provides information about maintaining your printer. Although the printer requires very little maintenance, with normal daily use you will need to perform some routine maintenance procedures, including replacing consumable items and cleaning the printer. This chapter also contains information about moving and storing the printer.

Upgrading Printer Firmware

The executable firmware for the printer controller is stored in FLASH memory. You can easily upgrade this firmware on site when a new version of code is available. The upgrade process involves sending the new code, which is usually named with a .LOD extension, to the printer using either the parallel or network interface. When the printer receives the file, it will automatically recognize it as a firmware upgrade file and will program it into the FLASH memory. During this process the printer will display information about each sub-file that it is receiving or programming. When finished, the printer displays the text “Upgrade Completed” and reboots, executing the new firmware.

Contact your dealer or service provider for more information about firmware upgrades.

Upgrading Firmware Using the Parallel Interface

To upgrade the printer using the parallel interface, go to the DOS prompt and use the copy command to copy the new file to the printer. For example, type “copy newversion.lod/b lpt1” at the DOS prompt, where “newversion” is the name of the firmware upgrade file and “lpt1” is the printer you would like to upgrade. Be sure to use the “/b” switch on the copy command line to ensure that the data is sent in binary mode.

NOTE: If you are using a PC that is not running Windows or if you do not have any printer drivers installed and configured to use the parallel interface, you will need to configure the parallel port for permanent retry by entering the following command PRIOR to entering the copy command discussed above: mode lpt1:,p

If you are running Windows, you may get an error message during the upgrade process that indicates that the printer is busy or that there is a printer error. This message box will contain check-boxes for “Retry” or “Cancel”. DO NOT SELECT CANCEL. This error message is only a result of the printer programming a large file into FLASH memory and will disappear once the programming is completed.

Upgrading Firmware Using the Network Interface

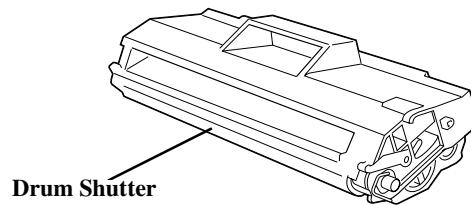
To upgrade printer firmware using the network interface, simply send the new file to the printer using whatever procedure you normally use to send a print file. This procedure varies depending on the network environment.

Replacing Printer Components

Replacing the Toner Cartridge

The toner cartridge contains the dry ink as well as the xerographic drum and associated components that create the xerographic image on a sheet of paper. The toner cartridge will eventually run out of ink through normal use. When the toner is low, printed images will be uneven or very light. Use the following guidelines when using or storing a toner cartridge:

- An unopened and correctly stored toner cartridge has a shelf life of approximately two years.
- Do not open the box containing the toner cartridge until you are ready to install the cartridge into the printer.
- Store the toner cartridge box horizontally—not on end.
- Keep the cartridge out of the reach of children, and in an area where the temperature remains between 32°F and 95°F and the humidity remains between 15% to 85%. If you bring a cold toner cartridge into a warm room, wait at least an hour for the temperature to stabilize before opening the cartridge box.
- Do not disassemble the toner cartridge.
- Toner is a safe material, but if you get any on your hands DO NOT wash them in hot water. Use only cold water to wash off toner. Hot water sets the toner and makes it difficult to remove.
- A shutter protects the photosensitive drum from ambient light. Do not open the drum shutter by hand.



CAUTION: Do not expose the new toner cartridge to strong light for more than a few minutes before installing it into the printer.

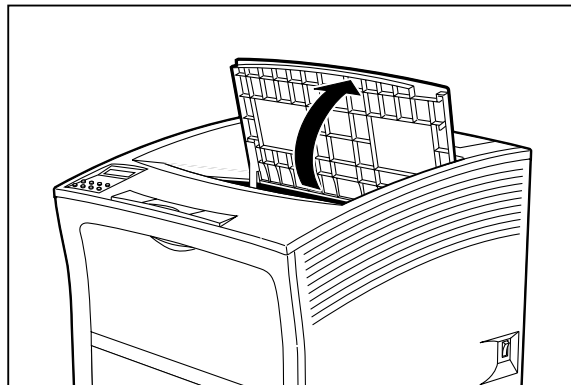
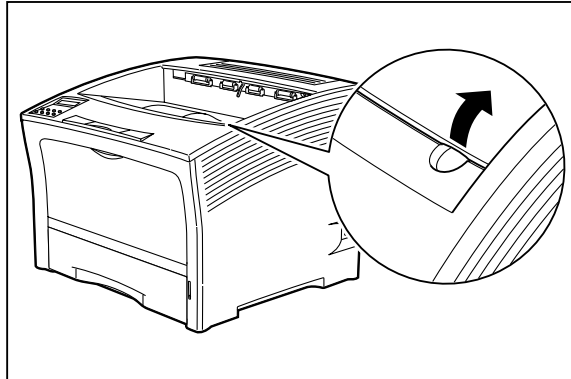


WARNING! Do not dispose of used toner cartridges in an incinerator or in an open fire.

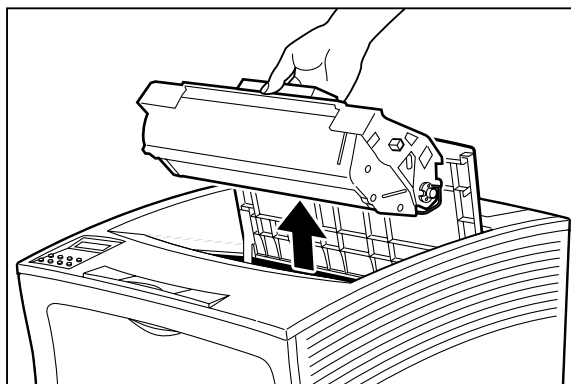
Use the following procedure to replace the toner cartridge:

1. Place a drop-cloth or some paper on the table or floor near the printer.

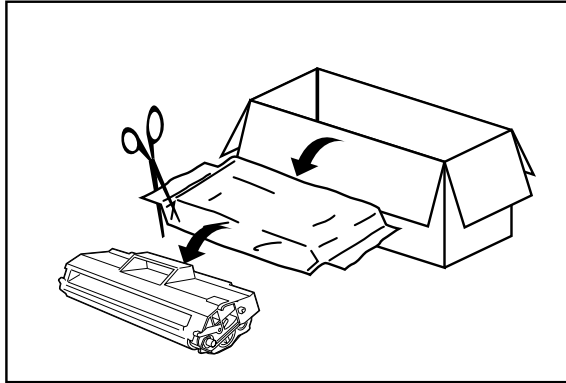
2. Locate the finger grip near the top cover of the printer and pull the top cover up and back to open it.



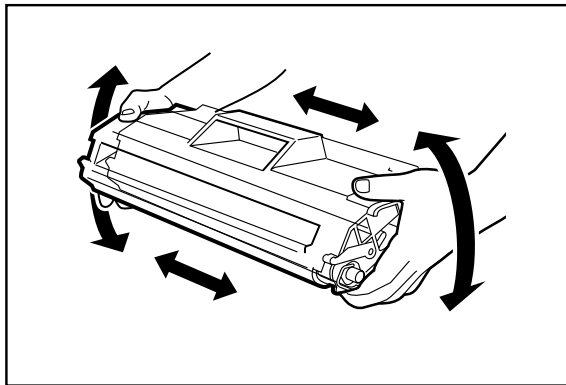
3. Remove the old toner cartridge from the printer and carefully place it on the drop-cloth.



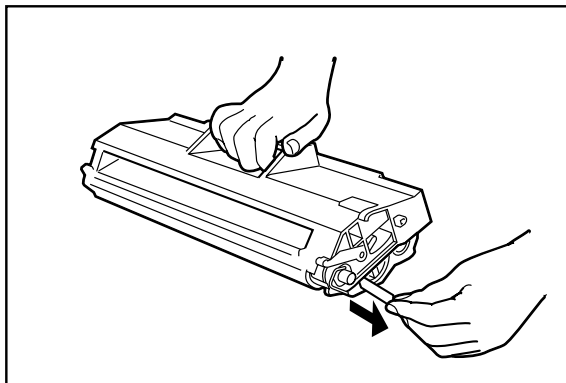
4. Remove the new toner cartridge from its packaging.



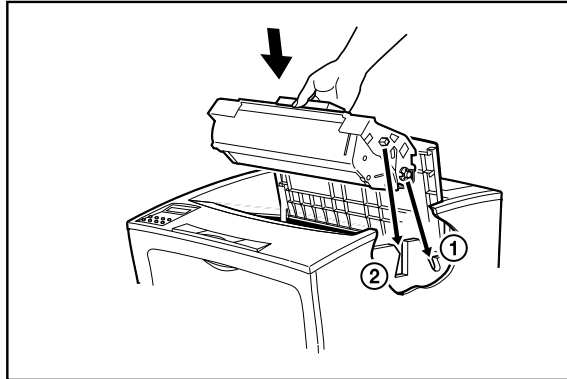
5. Rock the toner cartridge back and forth and then shake it horizontally to ensure that the toner is evenly distributed.



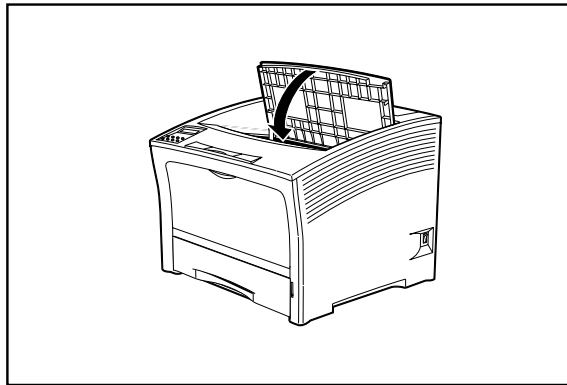
6. Grasp the toner cartridge firmly and pull the sealing tape straight out from the cartridge.



7. Slide the pegs on the toner cartridge into the channels on the inside of the printer, and lower the toner cartridge into the printer.



8. Close the top cover.



Disposing of the Print Cartridge

1. Place the used toner cartridge inside the new toner cartridge box and seal the box.
2. Dispose of or recycle the used toner cartridge.



WARNING! Do not dispose of the old toner cartridge in an incinerator or in an open fire.

Replacing the Fuser

The fuser melts the toner image into the paper to form a finished print. The fuser wears with normal use and can leave dirt or marks on printed sheets when worn. The normal life of a fuser is approximately 200,000 A4/Letter size prints at 5% area coverage. Running high image density prints or large format paper will cause the fuser life to be shorter.

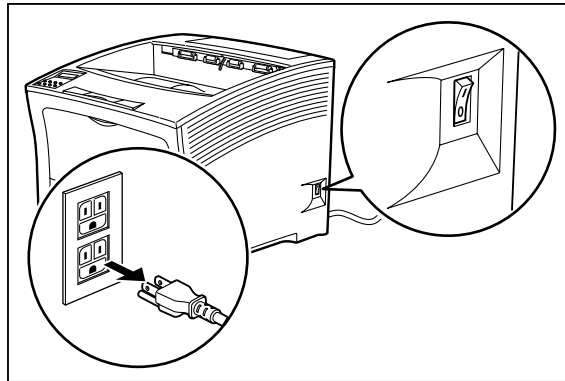


WARNING! The fuser becomes very hot during operation. Do not touch the fuser until it is cool.

NOTE: In the following procedure, the left and right sides of the printer are those to the left and right of a person facing the rear of the printer.

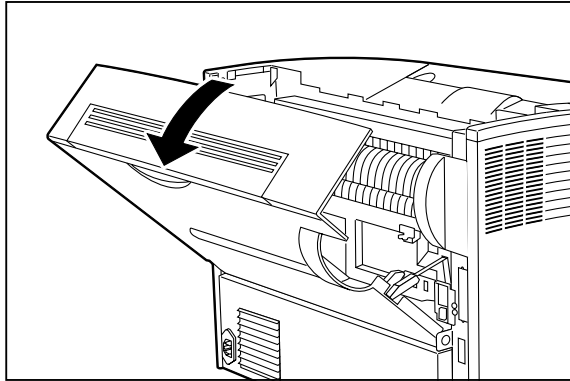
Use the following procedure to remove and replace the fuser:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet. Wait at least 30 minutes before proceeding to remove the fuser..

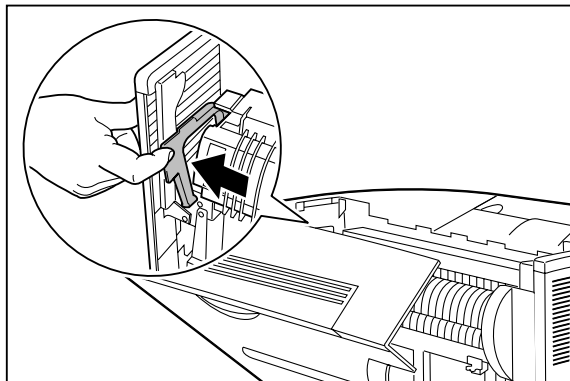


NOTE: If the high capacity stacker is installed, it is not necessary to remove it to replace the fuser; however, removing the stacker will make it easier to access the fuser.

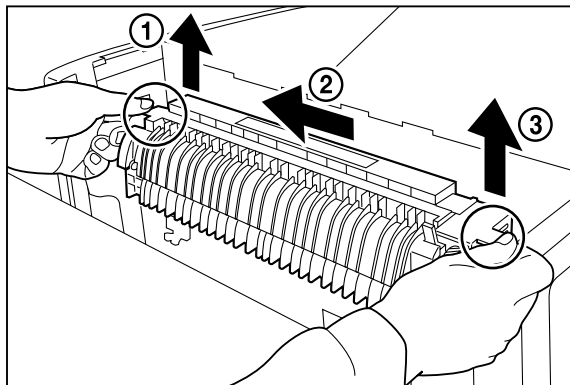
2. Locate the hand grip on the rear of the printer and pull it toward you to open the rear cover.



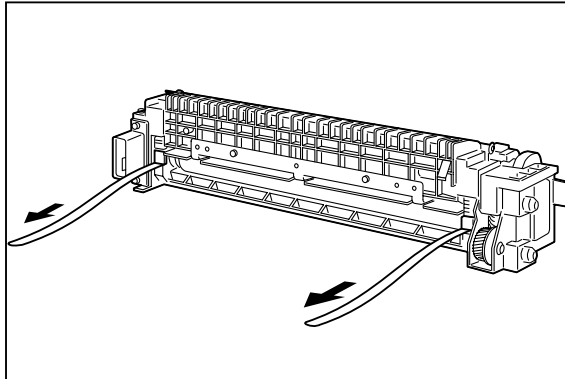
3. Release the fuser by pressing the top of the fuser latch on the left side of the printer.



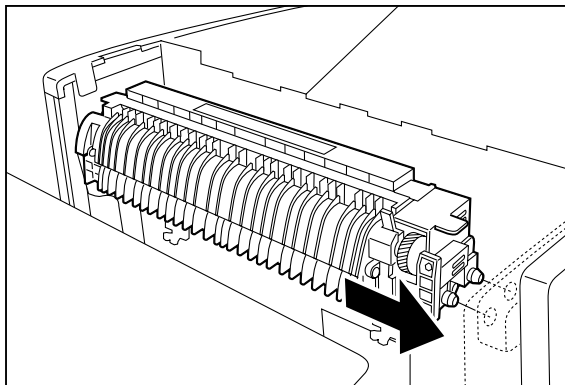
4. Grasp the handles at the ends of the fuser. Lift up on the left end slightly, move the fuser to the left, then lift the fuser straight up and out of the printer.



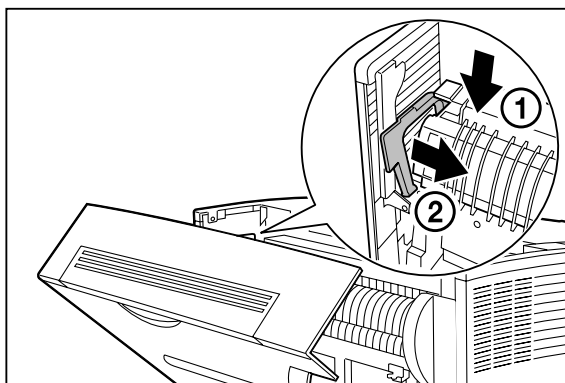
5. Remove the new fuser from its packaging, and remove the fuser shipping spacers by pulling them in the direction shown in the figure below.



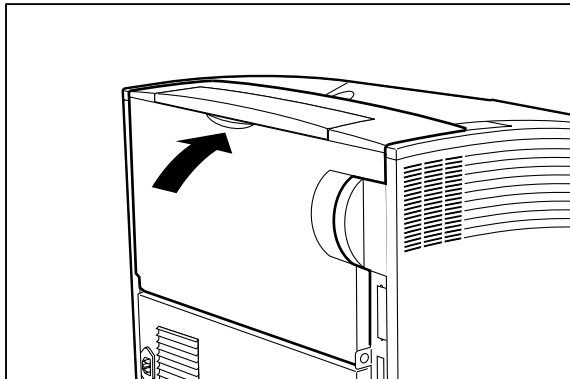
6. Grasp the fuser by the handles. Tilt the right end of the fuser downwards slightly and insert the right end of the fuser under the catch on the right side of the printer frame.



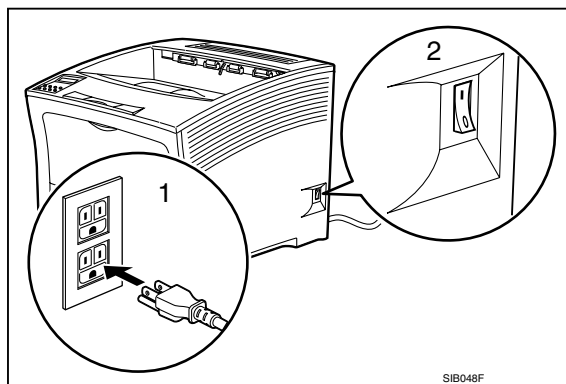
7. Ensure that the fuser pins are properly placed into the holes in the printer frame by lifting up on the right end of the fuser. The fuser should not move.
8. Press down on the left end of the fuser to seat it, then move the top of the fuser latch to the right to lock the fuser into position.



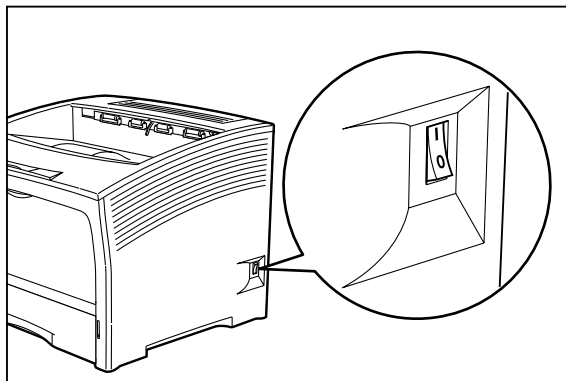
9. Close the rear cover.



10. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



11. Turn the printer on by pressing [I] on the power switch on the right side of the printer.

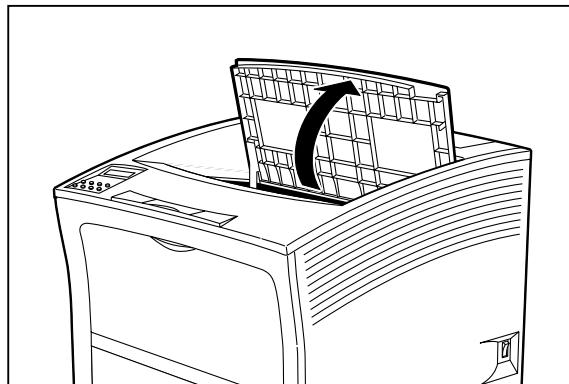
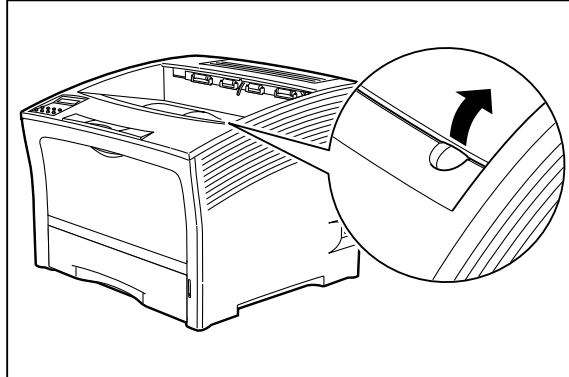


Replacing the Transfer Roll

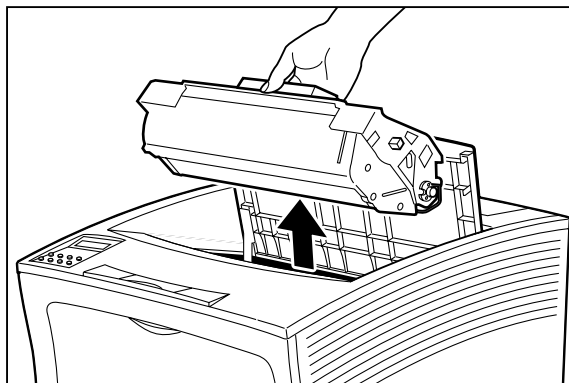
The transfer roll is the electrically conductive rubber roll that transfers the toner image from the drum onto the paper. The transfer roll wears with normal use, and eventually must be replaced. Use the following procedure to replace the transfer roll:

NOTE: This procedure involves removing the toner cartridge. To avoid getting toner on counters, floors, and other surfaces, set the toner cartridge on a drop-cloth or some old newspaper after removing it from the printer.

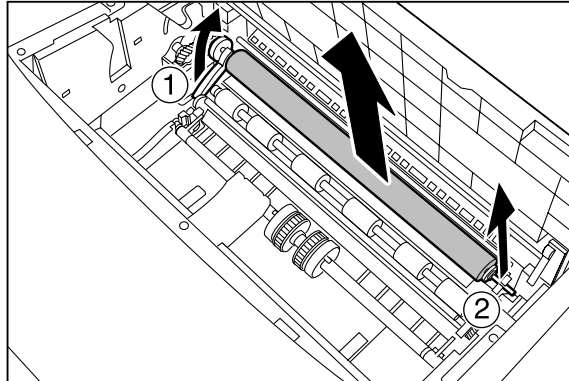
1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Locate the finger grip on the right side of the top cover and lift the top cover up and back.



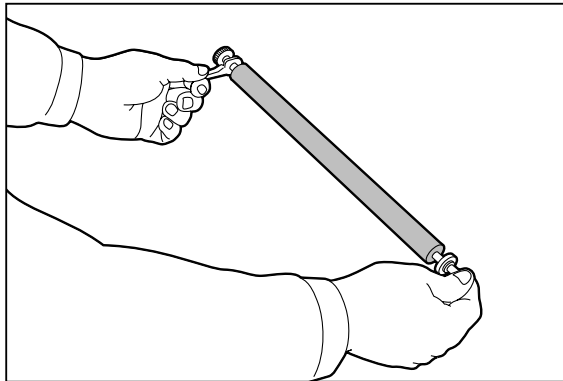
3. Remove the toner cartridge from the printer and carefully place it on a drop-cloth or old newspaper.



4. Release the transfer roll by lifting up on the latches at either end. Carefully lift the roll out of the clips and remove it from the printer.

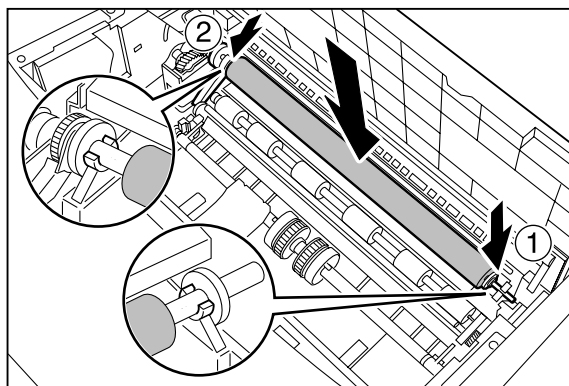


5. Remove the new transfer roll from its packaging and hold it as shown below.

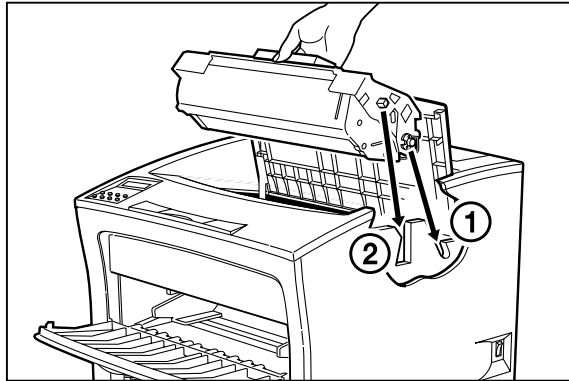


Do not touch the surface of the new transfer roll. Oil from your fingers can cause marks on printed sheets.

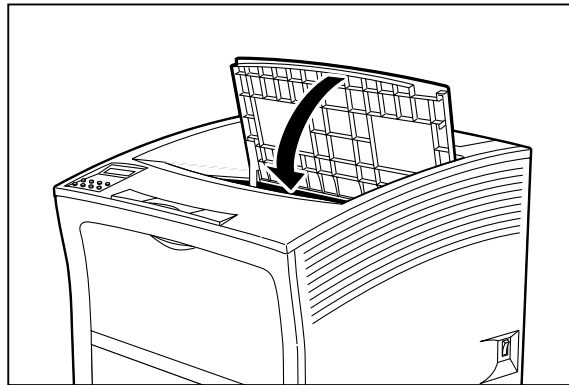
6. Press the ends of the new transfer roll into the clips on the paper transport. Rotate the locking arm down into the locked position.



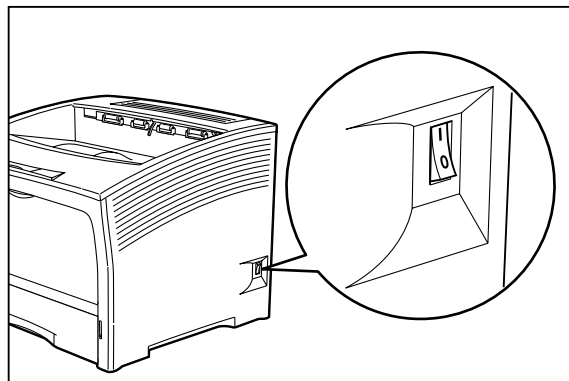
7. Slide the pegs on the end of the toner cartridge into the slots inside the printer, and lower the toner cartridge into the printer.



8. Close the top cover.



9. Turn the printer on by pressing [I] on the power switch on the right side of the printer.

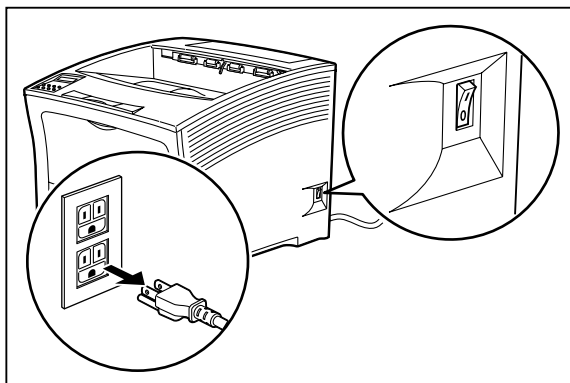


Cleaning the Printer

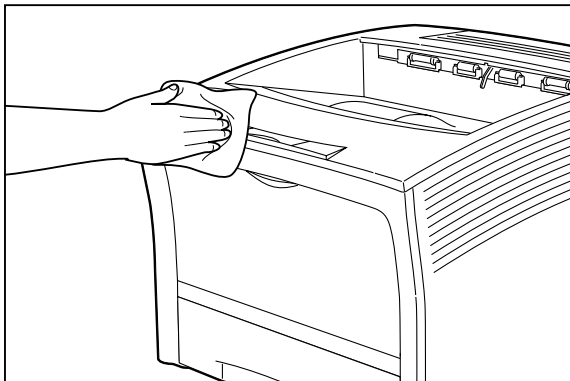
Cleaning the Exterior

The covers and tray faces of the printer may collect dust and dirt through normal use. Although exterior dirt should not affect printer performance, an occasional exterior cleaning helps maintain the appearance of the printer appearance. Use the following procedure to clean the exterior of the printer:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet.



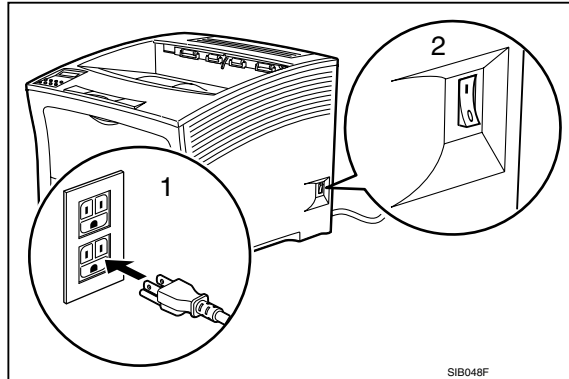
2. Using a soft cloth that is slightly damp with cold water, wipe the printer covers and tray faces. Use a very mild, non-abrasive soap to remove heavy dirt and toner stains.



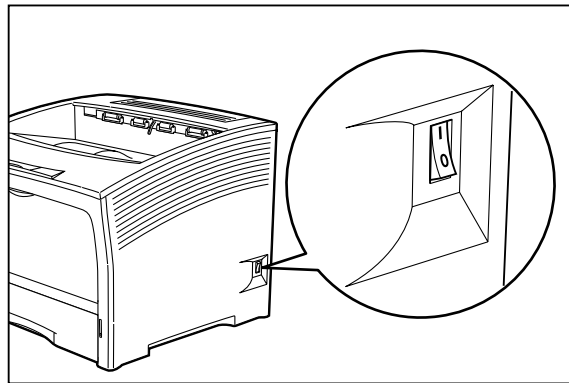
Do not use solvents or abrasive cleaners to clean printer covers. Use only cold water and a very mild soap.

3. Use a soft, dry cloth to thoroughly dry the covers and tray faces.

4. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



5. Turn the printer on by pressing [I] on the power switch on the right side of the printer.



Cleaning the Interior

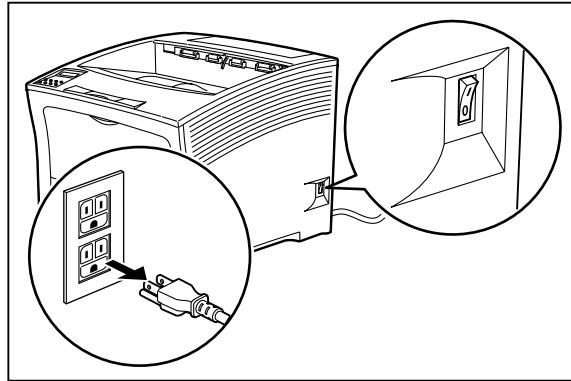
The interior of the printer does not generally need to be cleaned unless a paper jam drops toner onto the paper path or you accidentally spill toner inside the printer when installing a new toner cartridge. Use the following procedure to clean the interior of the printer only when necessary:



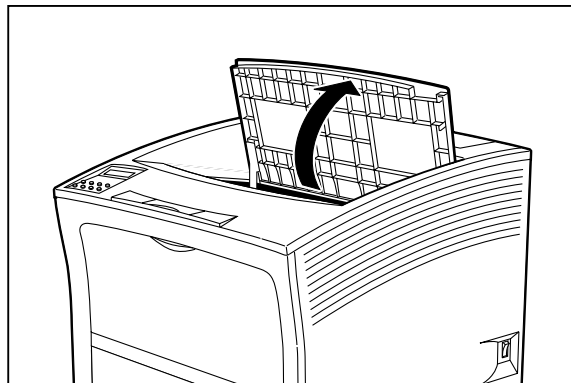
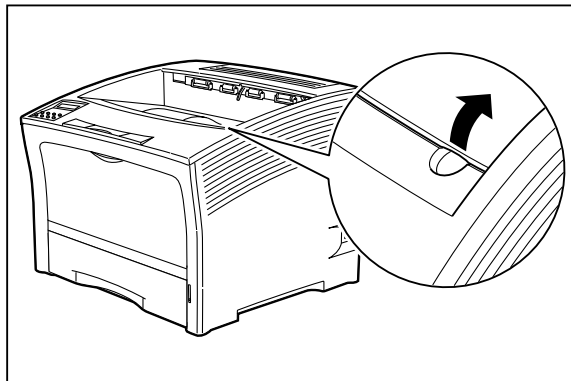
Since there is always the possibility of damaging delicate printer components by carelessness or vigorous cleaning methods, CPG International recommends that you clean the interior only when you are instructed to do so by a service representative or in a troubleshooting procedure presented in this manual.

NOTE: This procedure involves removing the toner cartridge. To avoid getting toner on counters, floors, and other surfaces, set the toner cartridge on a drop-cloth or some old newspaper after removing it from the printer.

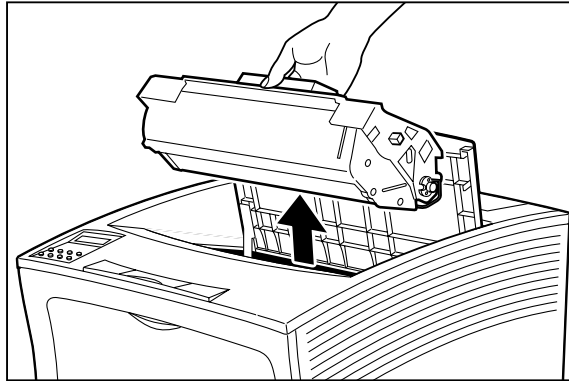
1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet.



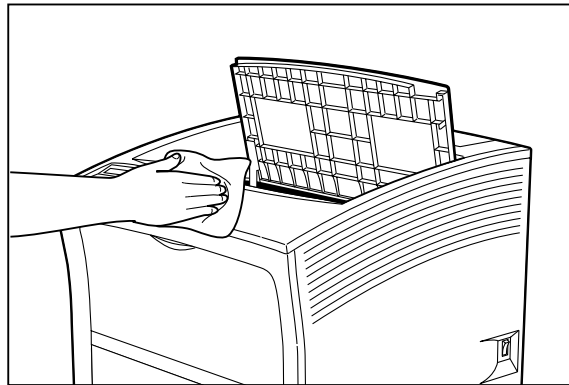
2. Remove all of the paper from the main paper tray and from the front paper tray.
3. Locate the finger grip on the right side of the top cover and lift the top cover up and back.



4. Remove the toner cartridge from the printer and carefully place it on a drop-cloth or old newspaper.



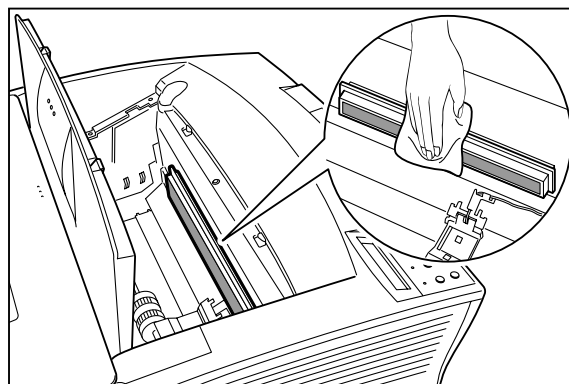
5. Open all printer doors.



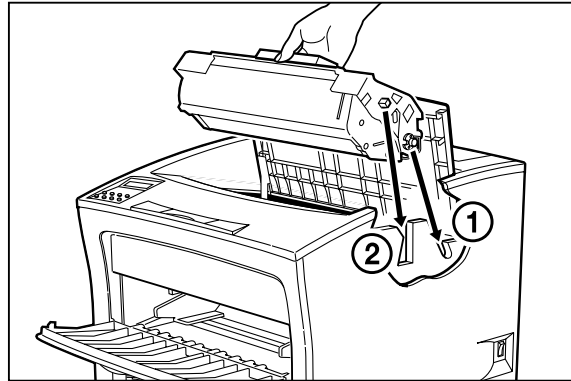
6. For minor cleaning, use a soft, dry cloth and carefully wipe only those areas of the printer interior that appear to be dirty.

For major cleaning, use a small vacuum cleaner with a disposable bag and crevice tool attachment. Use a soft-haired brush to dislodge dirt and toner and sweep it into the vacuum nozzle.

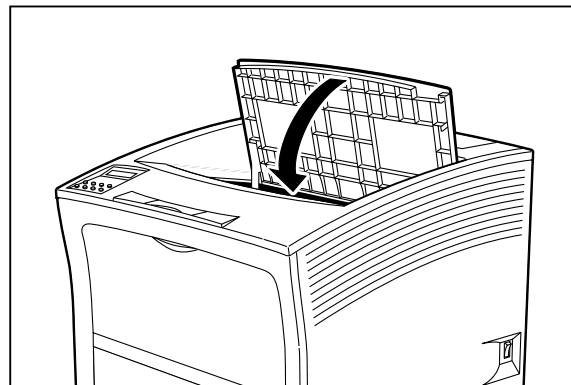
7. Wipe the laser scanner window with a soft lint free cloth.



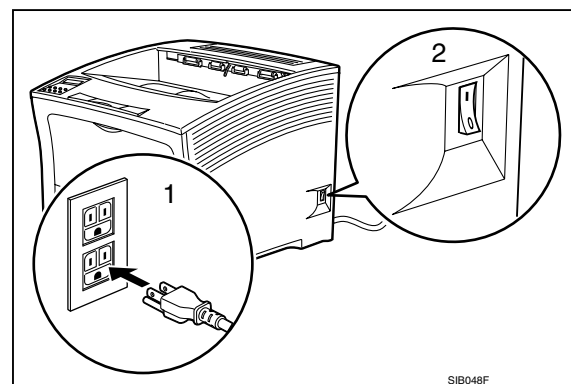
8. Slide the pegs on the end of the toner cartridge into the slots inside the printer, and lower the toner cartridge into the printer.



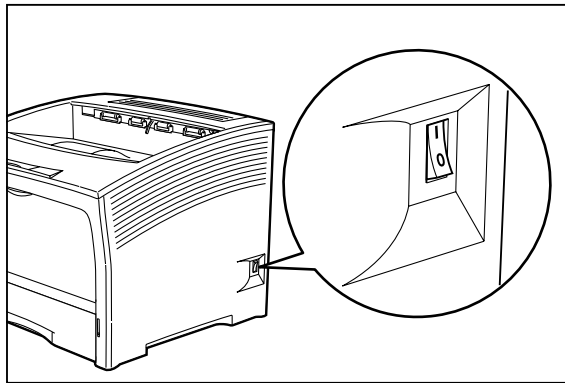
9. Close the top cover.



10. Reload all paper into the main paper tray and the front paper tray.
11. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



12. Turn the printer on by pressing [I] on the power switch on the right side of the printer.



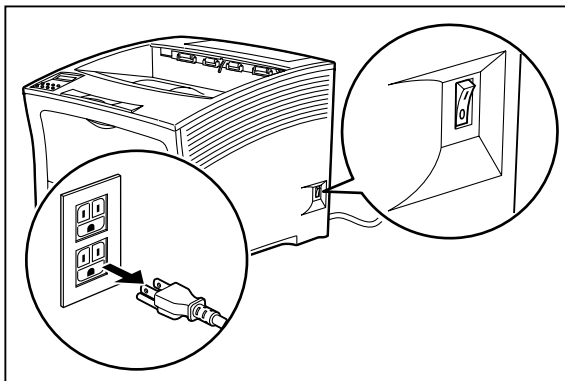
Cleaning Feed Rolls

Rubber feed rolls drive sheets of paper out of the front paper tray into the printer, and also drive sheets of paper out of the main paper tray into the printer. These feed rolls wear with normal use and eventually become coated with paper dust and must be cleaned. Frequent feed jams in the front tray or main tray indicate that the feed rolls need to be cleaned.

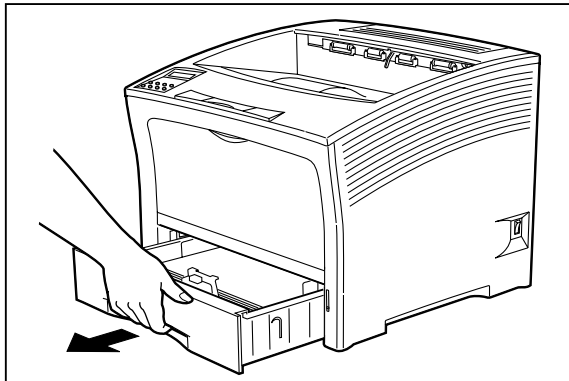
Main Feed Roll

Use the following procedure to clean the main feed roll:

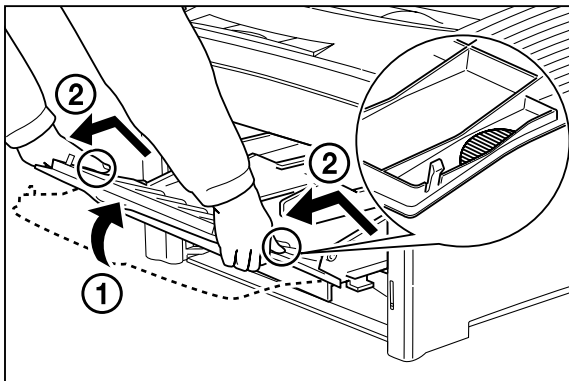
1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet.



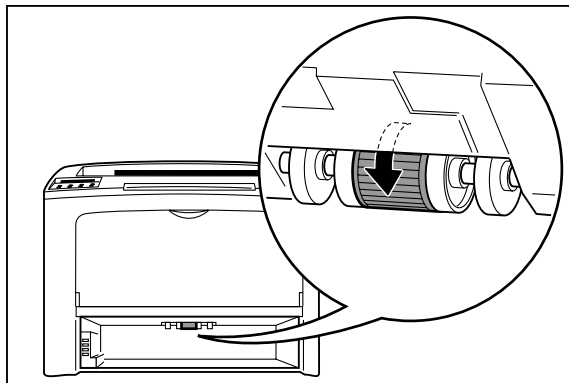
2. Remove the main paper tray and set it on a flat level surface.



3. Open the front paper tray and pull the front feeder partially out of the printer.

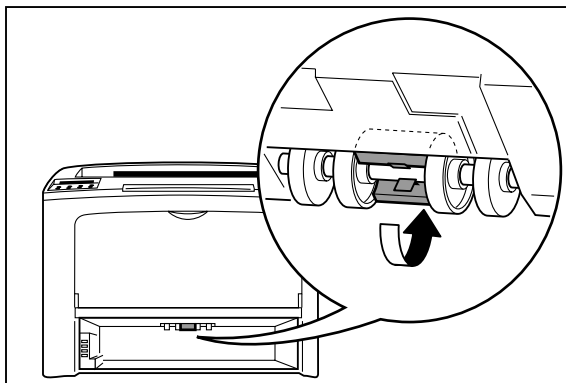


4. Reach into the main paper tray well and rotate the feed roll to the down position, as shown in the figure below.

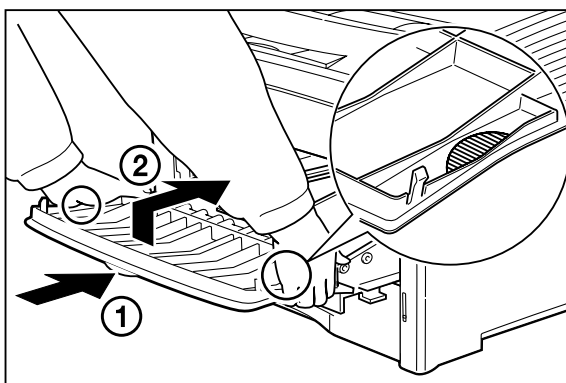


5. Using a soft cloth slightly moistened with plain water, carefully wipe the feed roll.

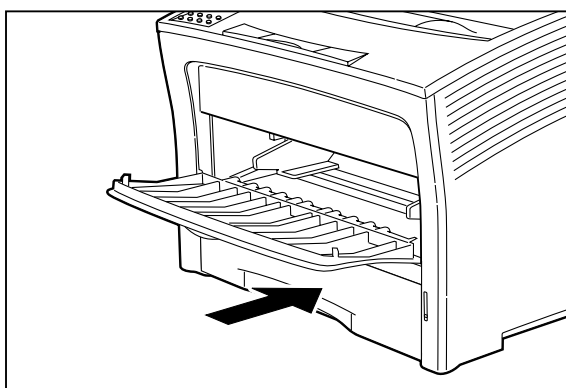
6. Rotate the feed roll back into the feed position.



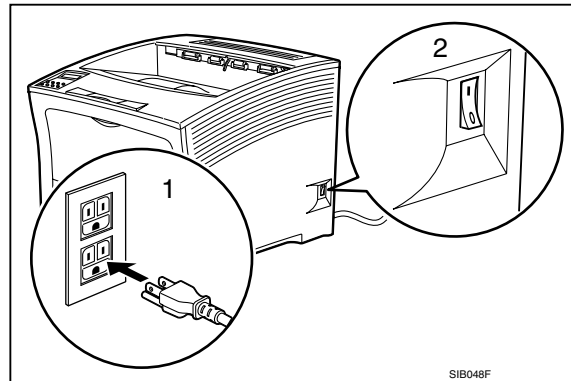
7. Reinstall the front paper tray.



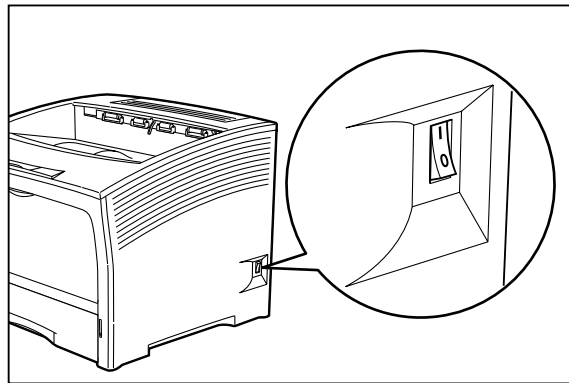
8. Reinstall the main paper tray.



9. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



10. Turn the printer on by pressing [I] on the power switch on the right side of the printer.

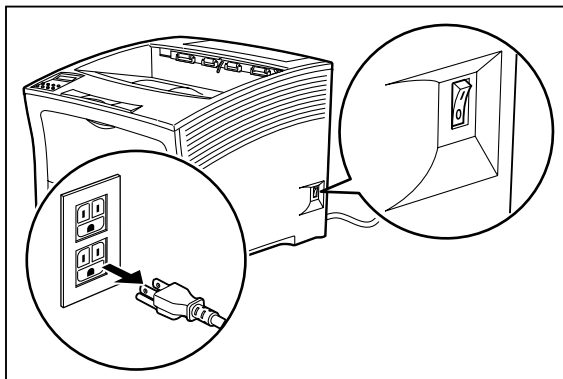


Front Feed Rolls

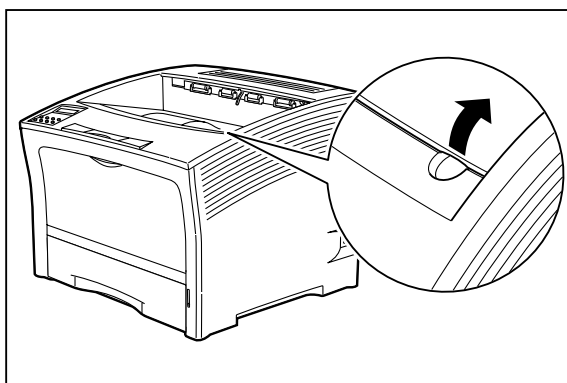
Use the following procedure to clean the front feed rolls:

NOTE: This procedure involves removing the toner cartridge. To avoid getting toner on counters, floors, and other surfaces, set the toner cartridge on a drop-cloth or some old newspaper after removing it from the printer.

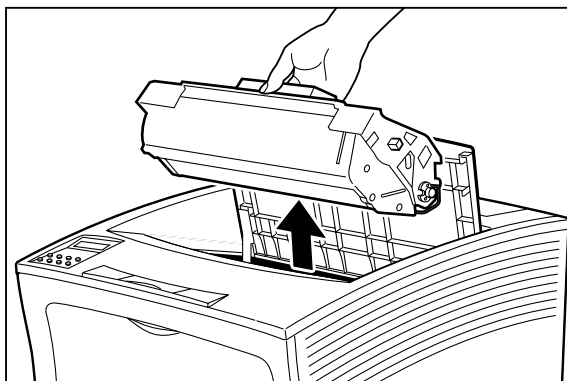
1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet.



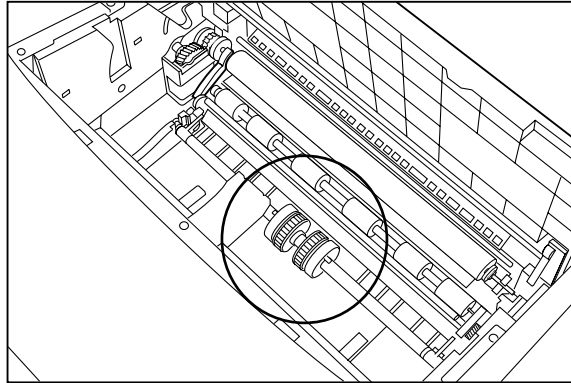
2. Locate the finger grip on the right side of the top cover and lift the top cover up and back.



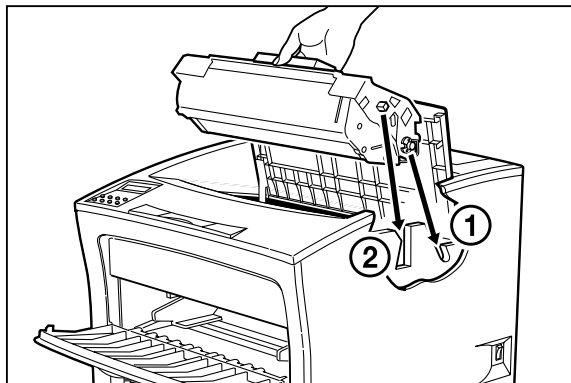
3. Remove the toner cartridge from the printer and carefully place it on a drop-cloth or old newspaper.



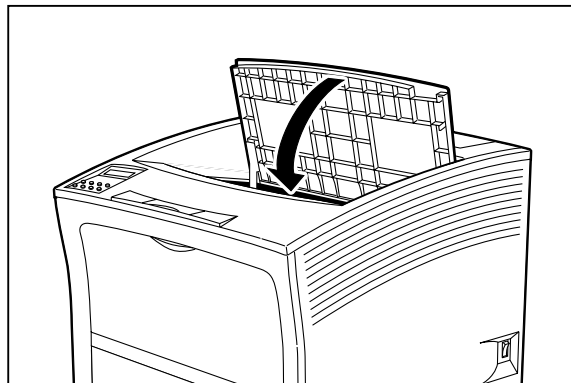
4. Look inside the empty toner cartridge cavity and locate the D shaped rubber front tray feed rolls and the white plastic rolls next to them.



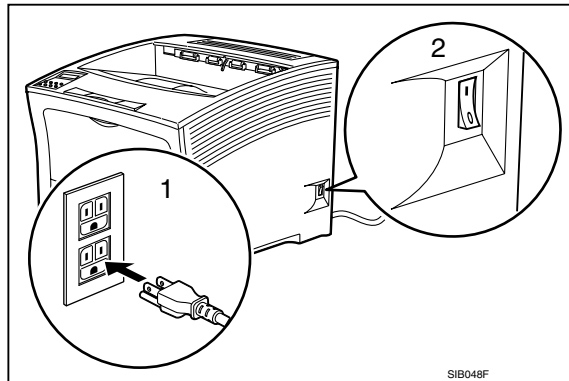
5. Using a soft cloth slightly moistened with plain water, carefully wipe the feed rolls.
6. Slide the pegs on the end of the toner cartridge into the slots inside the printer, and lower the toner cartridge into the printer.



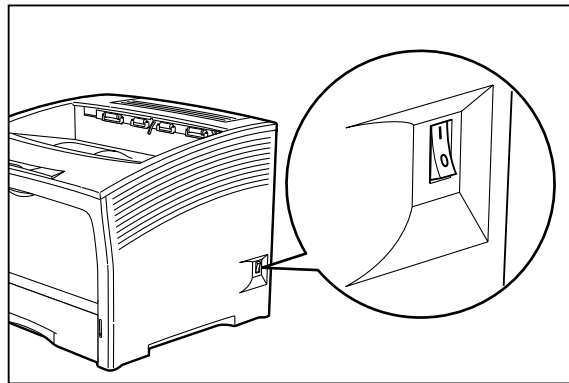
7. Close the top cover.



8. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



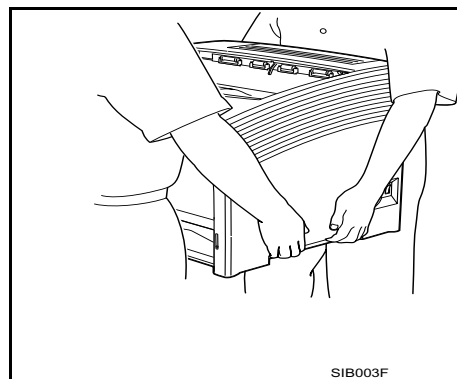
9. Turn the printer on by pressing [I] on the power switch on the right side of the printer.



Moving the Printer

Follow the guidelines below when lifting or moving the printer:

- The printer is very heavy, and should always be lifted by two people. The weight of the printer without paper tray, toner cartridge, and paper is about 55 lbs (25 kg). Never attempt to lift the printer alone.



- To lift the printer, have two individuals facing each other from the front and the rear of the printer grasp the recessed areas on each side of the printer. Do not lift the printer by grasping any area other than these recessed areas.
- When lifting the printer, maintain proper lifting posture to prevent injuries.

Moving the Printer a Short Distance

Use the following procedure to move the printer a short distance:

1. Turn the printer off by pressing the [O] on the power switch on the back of the printer.
2. Unplug the AC power cord from the AC wall outlet.
3. Disconnect the printer from the host computer.
4. Wait 30 minutes for the printer to cool.
5. Refer to Chapters 6 through 9 for instructions on moving installed paper-handling options.
6. Remove the toner cartridge and cover it with an opaque plastic sheet.
7. If the printer or the table the printer is on has casters, unlock the casters.
8. Move the printer to the new location.
9. Once the printer is in the new location, refer to the **Installation Guide** included in the original printer packaging and in the Electronic Library CD-ROM for installation instructions.

Moving the Printer a Long Distance

Use the following procedure to move the printer a long distance:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Unplug the AC power cord from the wall outlet and from the back of the printer.
3. Disconnect the printer from the host computer.
4. Remove the paper from all of the paper trays.
5. Wait 30 minutes for the printer to cool.
6. Remove all installed paper-handling options. Refer to Chapters 6 through 9 for instructions for removing installed paper-handling options.
7. Remove the toner cartridge and place it in an opaque plastic bag, then seal the bag with tape and place it in a sturdy box.
8. Repack the printer, paper trays, AC power cord and toner cartridge into the original shipping box or boxes.
9. Once the printer is in the new location, refer to the **Installation Guide** included in the original printer packaging and in the Electronic Library CD-ROM for installation instructions.

Storing the Printer for Long Periods of Time

If you will not be using the printer for several months, use the following procedure to prepare the printer for storage:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Unplug the AC power cord from the AC wall outlet.
3. Disconnect the printer from the host computer.
4. Remove the paper from all of the paper trays.
5. If you will be storing the printer for six months or longer, remove the toner cartridge and place it in an opaque plastic bag, and seal the bag with tape.

NOTE: After prolonged inactivity the toner cartridge may degrade to the point where it is no longer usable and must be replaced. Poor print quality and frequent paper jams may indicate that the toner has solidified and that the drum has oxidized during storage.

6. Cover the printer with a plastic sheet and tape down the corners.
7. Store the printer in an area where the temperature and humidity are moderate, as described in “Environment Requirements” on page 1-4.

NOTE: Do not stack other items on top of the printer when storing the printer.



Chapter 5

Troubleshooting

In this Chapter . . .

- “About this Chapter” on page 5-2
- “Installation Problems” on page 5-2
- “Paper Jams” on page 5-4
- “Print Image Quality Problems” on page 5-27
- “Miscellaneous Problems” on page 5-35
- “Warning Messages and Error Messages” on page 5-39

About this Chapter

This chapter describes the problems that you may encounter when using your printer, and provides procedures for resolving the problems. This chapter also lists the warning and error messages that appear on the control panel display.

There are four basic types of printer problems:

- Installation problems

If there is a problem with the printer when you first turn it on, refer to “Installation Problems” on page 5-2 for information about possible installation problems.

- Paper Jams

If there is a paper jam, refer to “Paper Jams” on page 5-4 for procedures to remove the jam.

- Print quality problems

If the finished prints delivered to the output tray display image problems such as image black spots or vertical lines on the page, refer to “Print Image Quality Problems” on page 5-27 and complete the procedure provided for the specific image problem that you have encountered.

- Miscellaneous problems

If you have a printer problem but the control panel does not display a warning message or error message, refer to “Miscellaneous Problems” on page 5-35 and follow the directions for correcting that problem.

Many of these printer problems are indicated by a warning or error message appearing on the control panel display. If the printer control panel displays a warning message or error message, refer to “Warning Messages and Error Messages” on page 5-39 and complete the actions prescribed for the specific warning or error message.

Installation Problems

It is common for simple oversights during printer installation to cause problems when you first turn the printer on, resulting in noise, smoke, or smell; an inoperative printer; or the absence of a ready message on the control panel.

Inoperative Printer

If you have problems turning on the printer, check the possible causes listed in the table below. If the printer will not start after checking these items, turn the printer off, disconnect the power cord from the AC outlet, and contact your dealer or an authorized service provider.

Description	Possible Cause	Action
There is no power.	The power switch is not set to [I] (on).	Check the power switch. See “Step 7: Connecting the Power Cord and Turning the Printer On” on page 1-15. of the Installation Guide.
	The power cord is not properly plugged into an AC outlet or into the AC connector on the rear of the printer.	Set the power switch to [O] (off) and then connect the power cord firmly to the AC connector and to the AC outlet. See “Step 7: Connecting the Power Cord and Turning the Printer On” on page 1-15. of the Installation Guide.
	Voltage of the AC power is not correct.	Verify that the AC outlet is rated for the voltage of your printer. See “Electrical Requirements” on page 2-5. of this guide.
	The fuse on the power cord is not functioning. (UK only)	Verify that the fuse on the power cord is intact. (UK only)
	The AC wall outlet is not functioning.	Verify that voltage is present at the AC wall outlet by connecting another electrical device to the outlet. If power does not flow to the other device, check the AC wall outlet circuit breakers for a tripped breaker.
	There is interference from other electrical devices on the same circuit.	Unplug all electrical devices from the AC wall outlet circuit, and then reconnect only the printer. Turn printer power on.
	Thermal sensors may have shut down the printer.	Turn the printer off and wait 20 minutes, then turn the printer back on.
Power is frequently interrupted.	The printer is malfunctioning.	Turn the printer off and disconnect the power cord from the AC outlet. Contact your dealer or an authorized service provider.

No Ready Message

After warming up, the printer control panel displays the text “**Ready**”, indicating that the printer is ready to print. If the printer does not show this message, but shows an error message instead, refer to “Warning Messages and Error Messages” on page 5-39 to determine the appropriate action for the specific error message that is shown. If the printer does not display either the “**Ready**” message or an error message, contact your retailer or sales representative.

Noise, Smoke, or Smell

If you notice unusual noise, smoke, or smell after turning the printer on, *turn the printer off immediately and disconnect it from the AC wall outlet.* Use the following procedure to determine the cause of and alleviate the problem:

1. Refer to the pictorial unpacking sheet and the Installation Guide included in the printer packaging and make sure you have removed all shipping spacers and protective tape from the inside of the printer, the paper trays, and the toner cartridge.
2. Open the covers on the printer and carefully inspect the fuser area. Remove any pieces of paper that may be stuck in the fuser.
3. Check the inside of the printer for any obviously broken or detached parts. If you find a broken part, contact your retailer or sales representative.
4. Check the exterior of the printer for broken covers. If you find a broken cover, contact your retailer or sales representative.
5. Verify that the AC wall outlet is the correct voltage for your printer.
6. Remove any paper you have loaded in the main tray, check the inside of the tray well for stray sheets of paper, and reload the paper into the main tray.
7. Connect the printer to the AC wall outlet and turn the printer on by pressing the [I] on the power switch on the right side of the printer.
8. If this procedure does not eliminate the noise, smoke or smell, or if the problem returns, turn the printer off, unplug the AC power cord from the AC wall outlet, and contact your retailer or sales representative.

Paper Jams

Paper jams are generally the most common and reoccurring problem encountered when using any printer. Paper may jam anywhere along the paper path—from the paper tray to the output tray. Sensors within the printer constantly monitor paper travel, so when a sheet of paper fails to arrive at a certain point within a specific time, the printer interprets that to mean that the paper has stopped between two sensors along the paper path. The printer then displays a Paper Jam error message that corresponds to that specific jam.

When paper gets jammed inside the printer, printing stops and an error code indicating the position of the jam appears on the display.

Error Code	Paper Jam Location
E0	At the high capacity feeder
E1	At the regi sensor
E2-X	Between the paper feed section (front paper tray or main tray) and the toner cartridge
E3	Between the toner cartridge and the fuser unit
E4	At the paper exit slot
E7	At the duplexer
E8	At the stacker

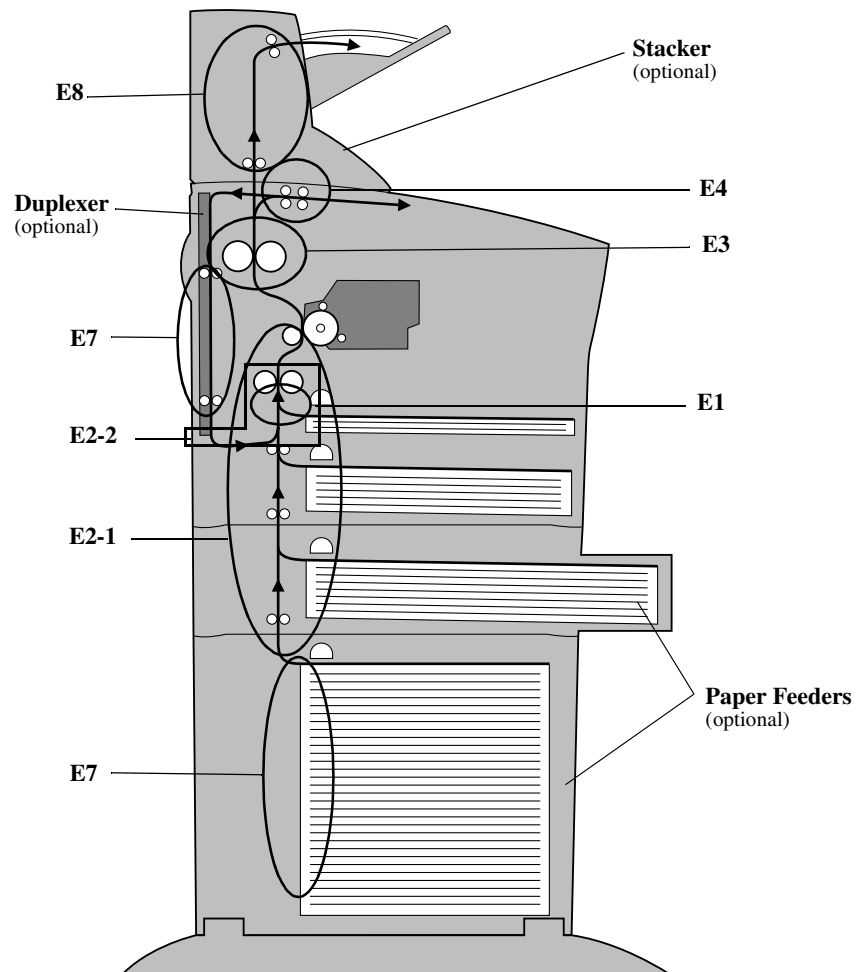


Figure 3-12: Paper Jam Locations and Error Codes.

The most common causes of paper jams are:

- The printer is not placed on a level surface.
- The print media does not conform to the specifications.
- The paper is not loaded correctly in the front paper tray or the cassette.
- The paper is wrinkled or curled.
- The paper guide is not set correctly.

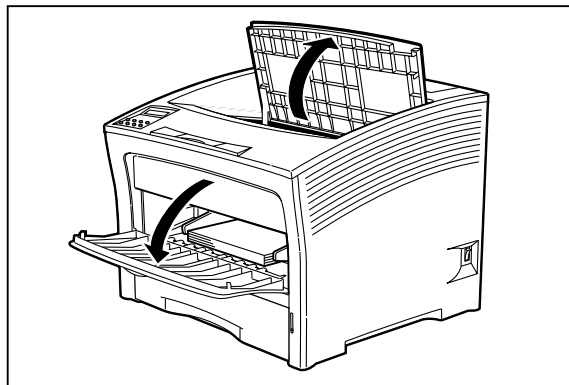
Occasional paper jams result from simple things such as static electricity sticking paper together—causing several sheets to feed at the same time—or from the feed rolls becoming slippery from an accumulation of paper dust. Occasional paper jams usually require minor user intervention that involves reloading the paper or cleaning the feed rolls.

Frequent paper jams can be caused by anything from foreign material in the paper path to a broken or malfunctioning component. Frequent paper jams may require involved user intervention that includes replacing a consumable item or calling a service technician to troubleshoot and correct the problem.

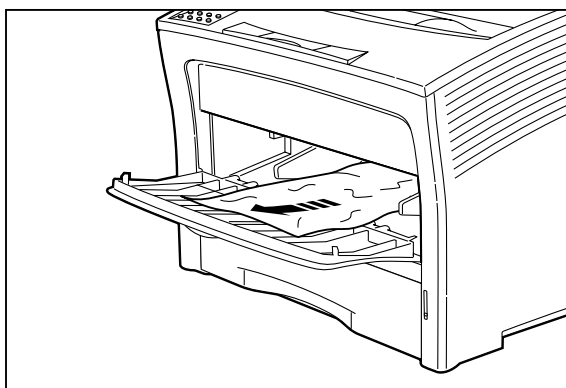
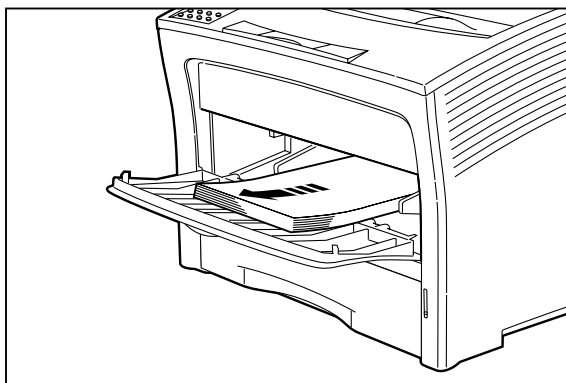
Clearing an E1, E2-1 or E2-2 Paper Jam

If an E1, E2-1 or E2-2 error code precedes the error message on the first line of the control panel display, paper has jammed somewhere between the feed area and the registration sensor. Use the following procedure to clear a paper jam in this location:

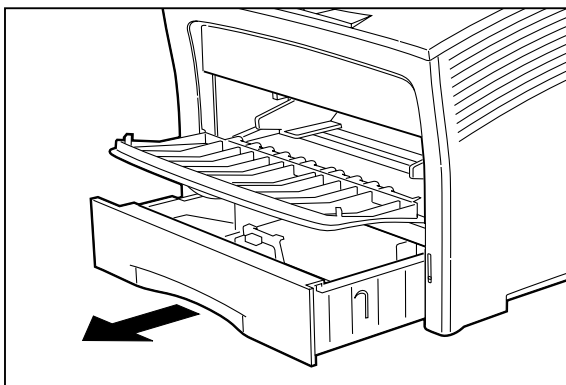
1. Remove any printed pages from the output tray.
2. Open the top cover and the front tray cover.



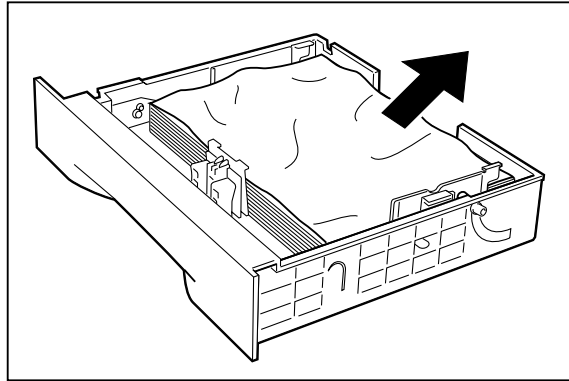
3. If the jam occurred while feeding from the front paper tray, remove all paper from the front tray, including any paper that may be jammed inside the tray.



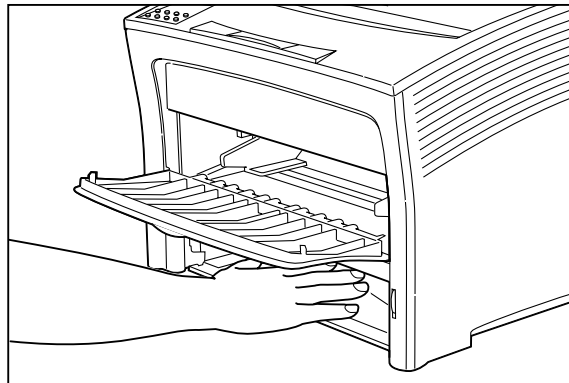
4. If the jam occurred while feeding from the main paper tray, remove the main paper tray.



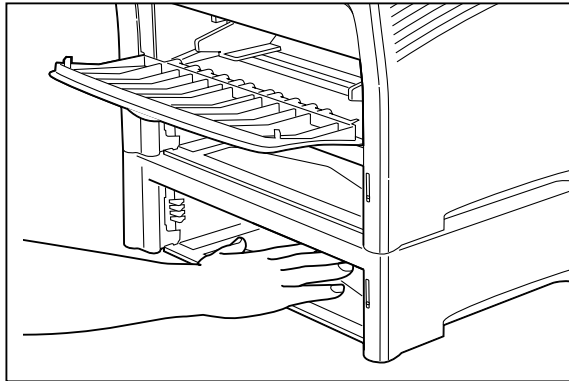
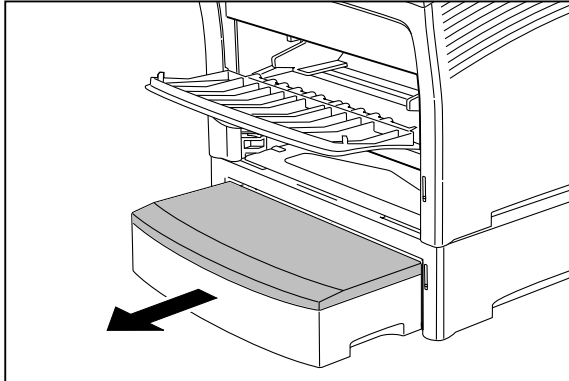
5. Remove any jammed or wrinkled paper from the paper tray.



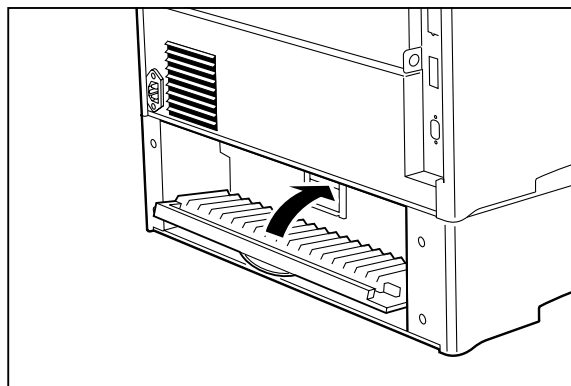
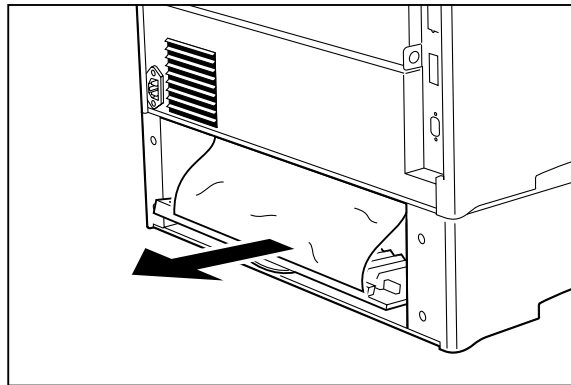
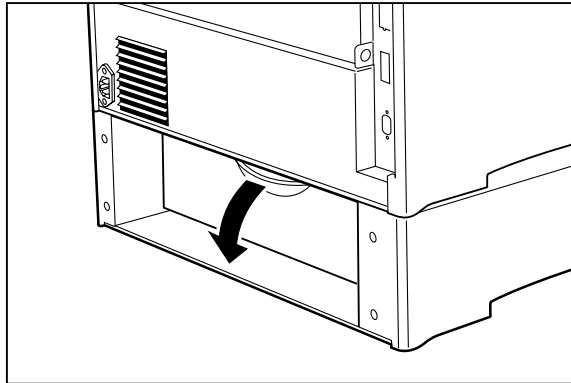
6. Remove any jammed paper from the inside of the paper tray well.



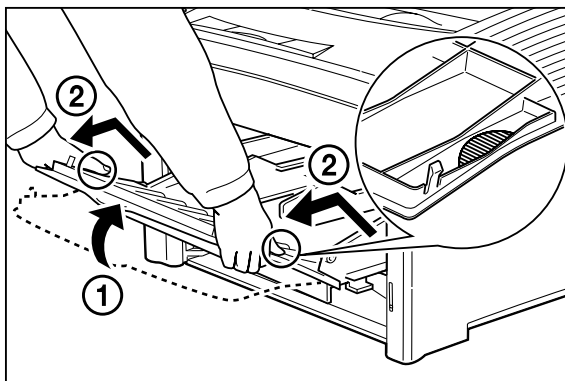
7. If the jam occurred while feeding from Tray 2 or 3, remove the paper tray associated with that feeder and inspect the inside of the paper tray well, removing any jammed paper.



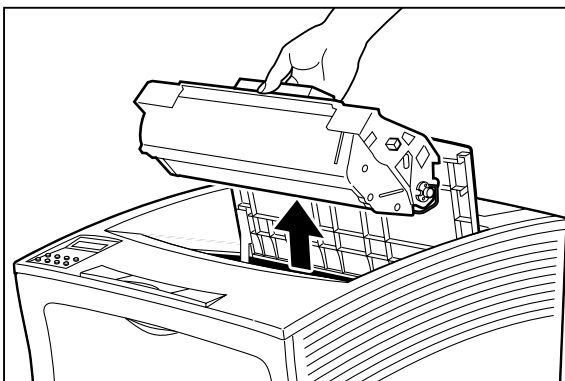
8. Open the rear door of the feeder for tray 2 or tray 3 and remove any jammed paper, then close the rear door of the feeder



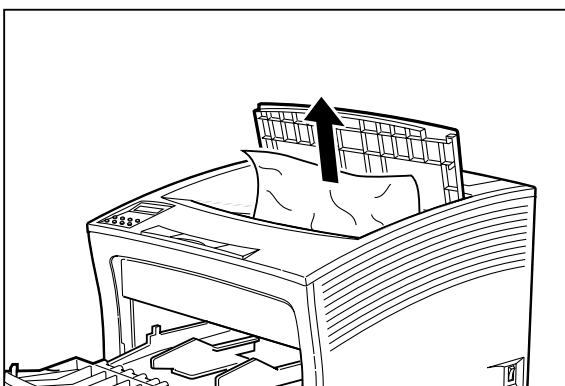
9. Remove the front tray by lifting up slightly and pulling the tray out from the printer.



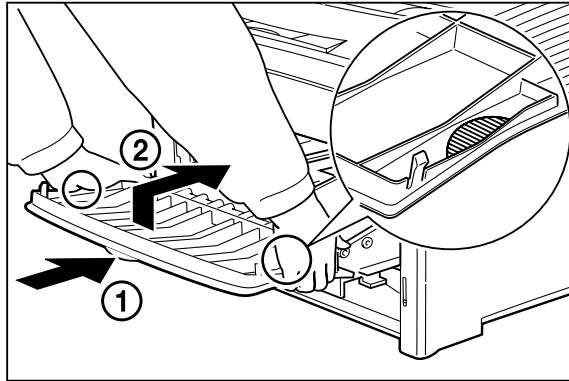
10. Remove the toner cartridge.



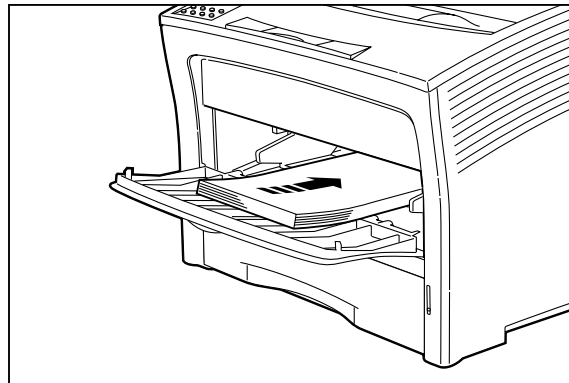
11. Remove any jammed paper from the toner cartridge well.



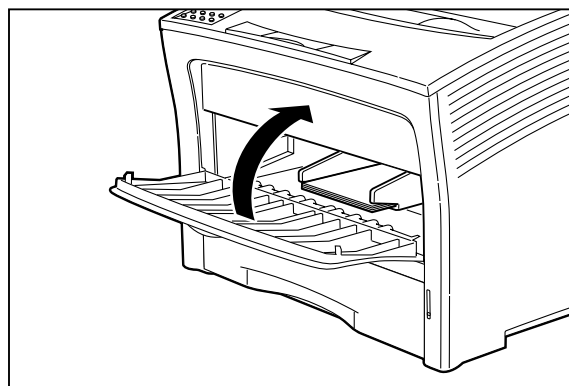
12. Reinsert the front tray into the printer.



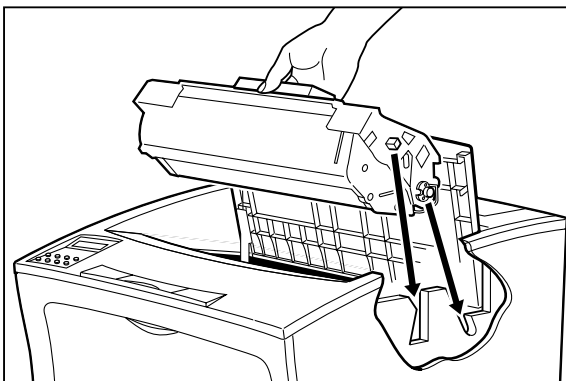
13. Reload any paper into the front tray.



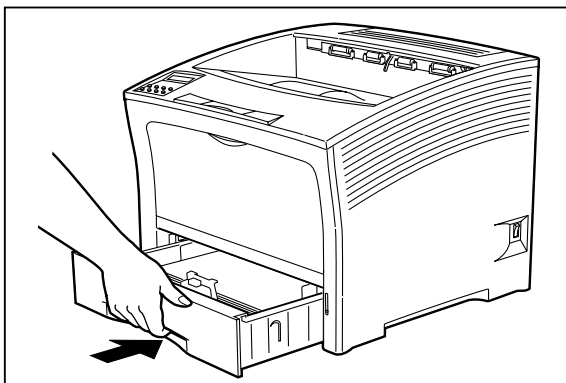
14. Close the front tray cover.



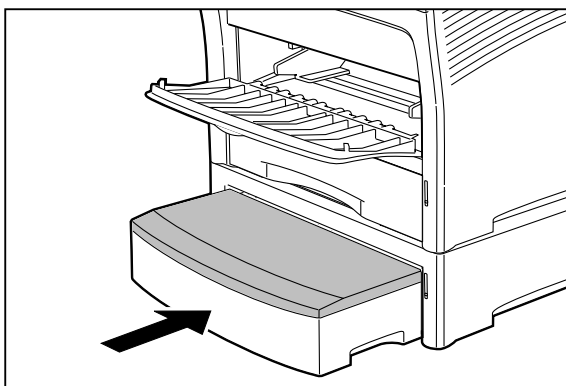
15. Slide the pegs on the toner cartridge into the channels on the inside of the printer, and lower the toner cartridge into the printer.



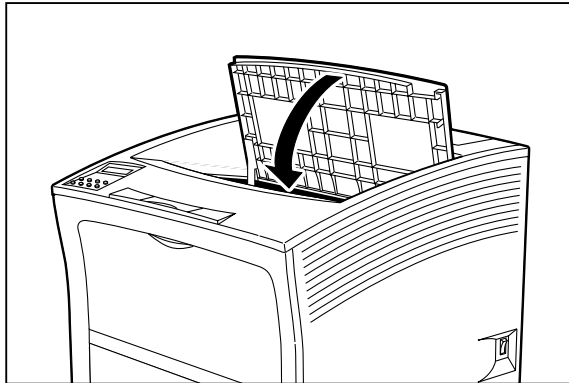
16. Reinstall the main paper tray.



17. If you removed either tray 2 or tray 3, reinstall it.



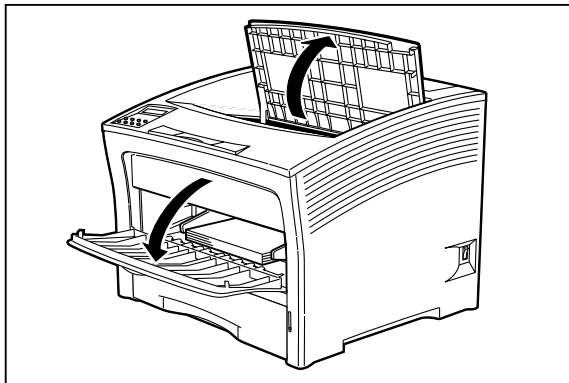
18. Close the Top Cover.



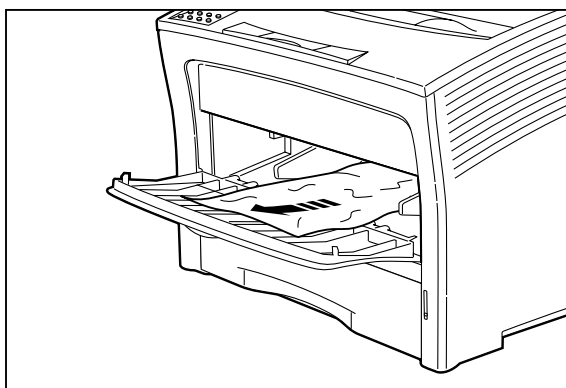
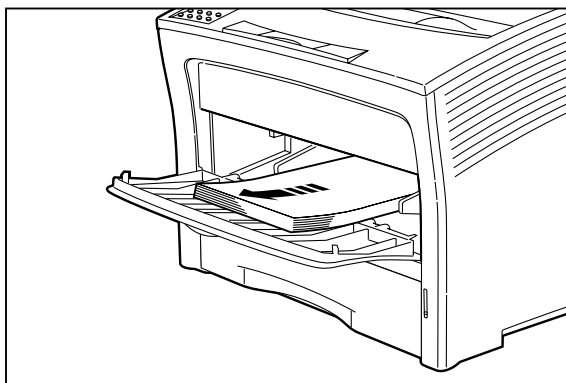
Clearing an E3 or E4 Jam

If an E3 or E4 error code precedes the error message on the first line of the control panel display, paper has jammed somewhere between the registration sensor and the exit sensor. Use the following procedure to clear a paper jam in this location:

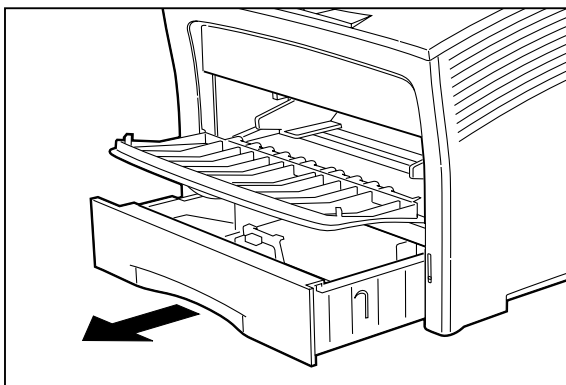
1. Remove any printed pages from the output tray.
2. Open the top cover and the front tray cover.



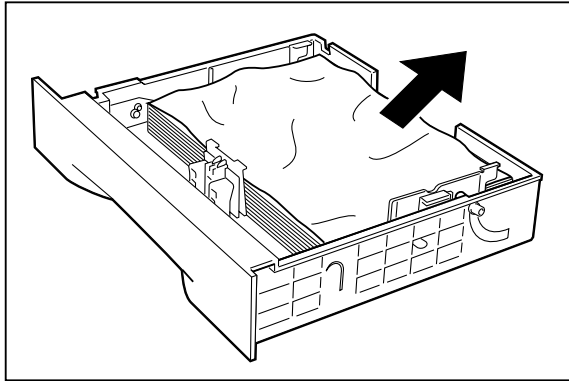
3. If the jam occurred while feeding from the front paper tray, remove all paper from the front tray, including any paper that may be jammed inside the tray.



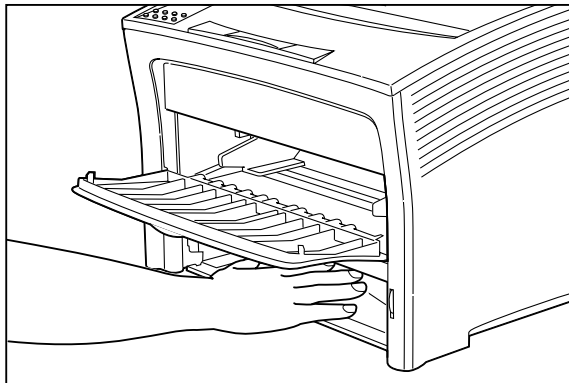
4. If the jam occurred while feeding from the main paper tray, remove the main paper tray.



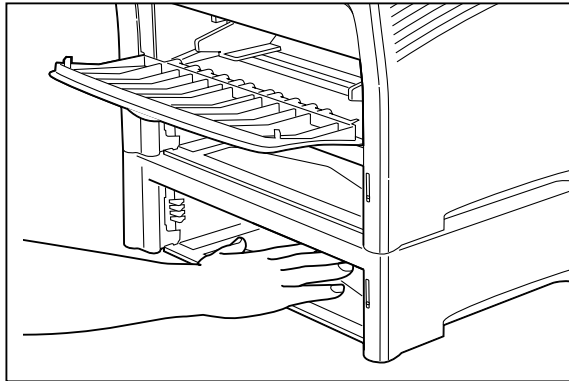
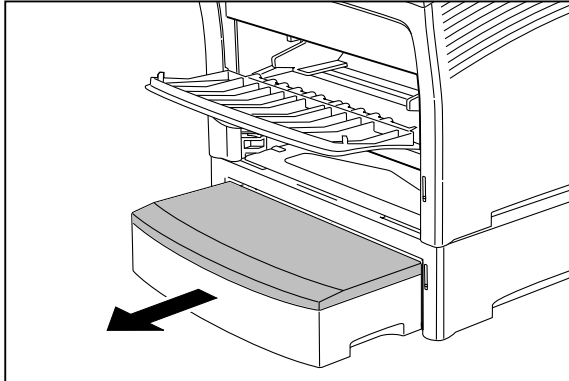
5. Remove any jammed or wrinkled paper from the paper tray.



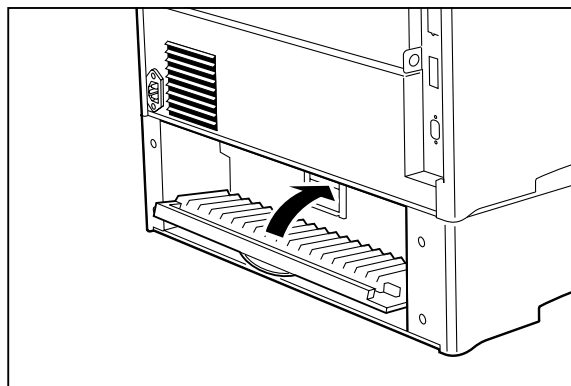
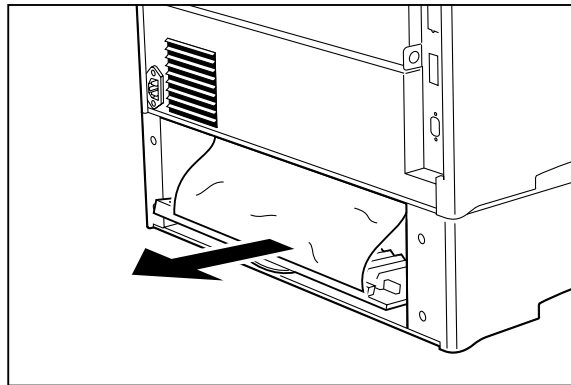
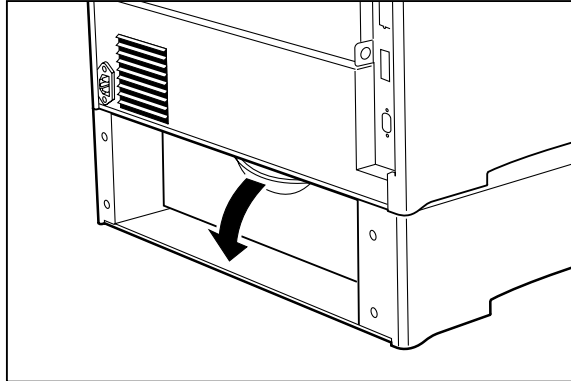
6. Remove any jammed paper from the inside of the paper tray well.



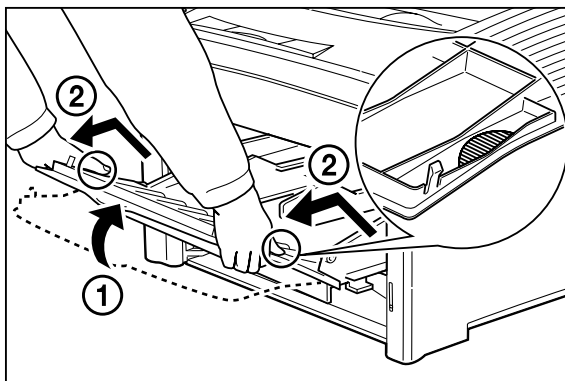
7. If the jam occurred while feeding from Tray 2 or 3, remove the paper tray associated with that feeder and inspect the inside of the paper tray well, removing any jammed paper.



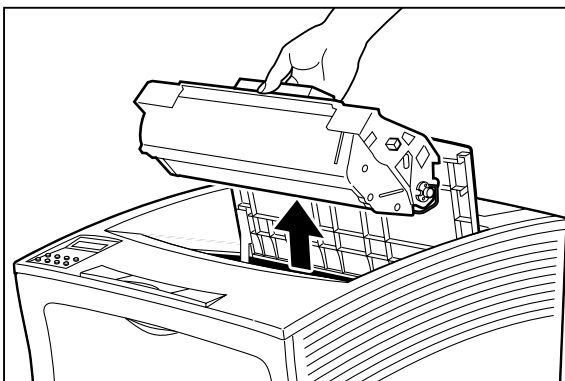
8. Open the rear door of the feeder for Tray 2 or 3 and remove any jammed paper, then close the rear door of the feeder



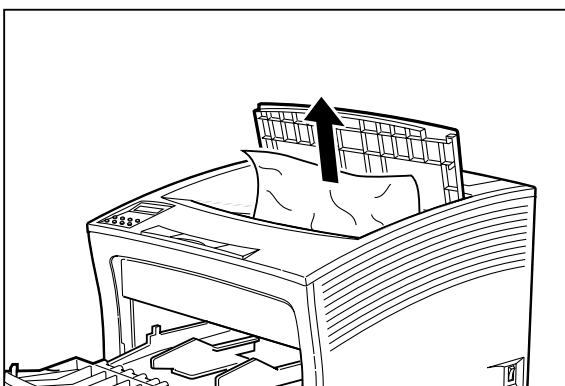
9. Remove the front tray by lifting up slightly and pulling the tray out from the printer.



10. Remove the toner cartridge.

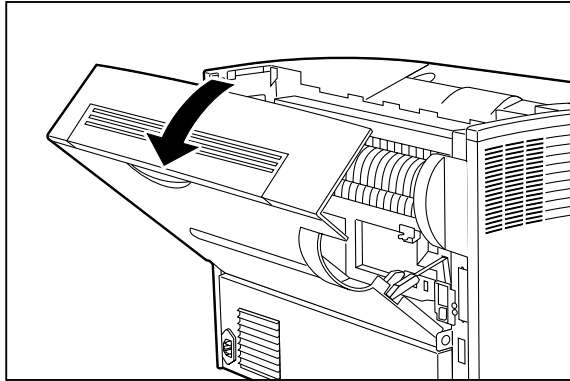


11. Remove any jammed paper from the toner cartridge well.

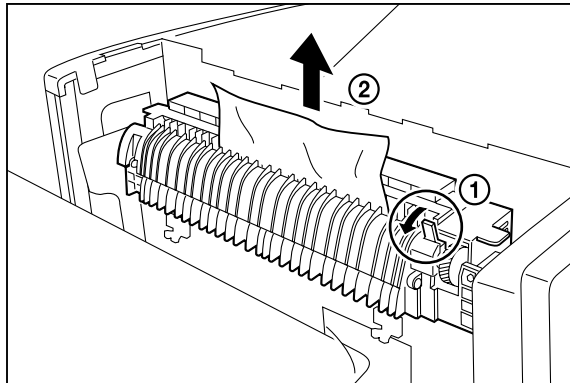


NOTE: At this point you must wait at least 10 minutes before proceeding to clear jammed paper from the fuser. This time is required to allow the fuser to cool.

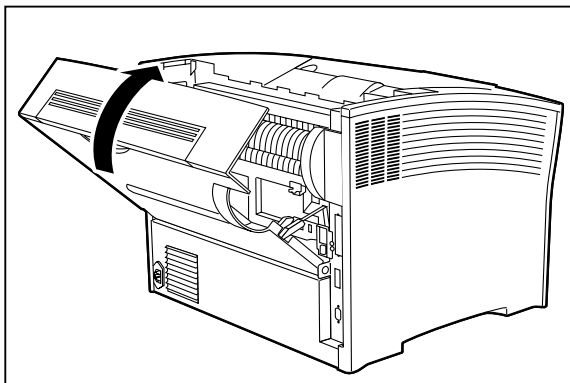
12. Locate the hand grip on the rear of the printer and pull it to open the rear cover of the printer.



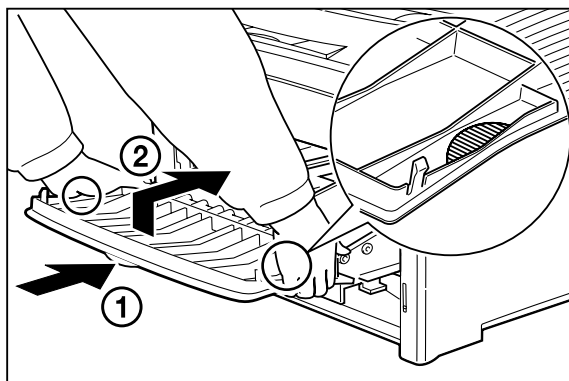
13. Open the fuser transport by pulling down on the spring loaded lever (1). Remove any jammed paper from the fuser (2). Make sure you do not tear the paper, leaving pieces stuck in the fuser.



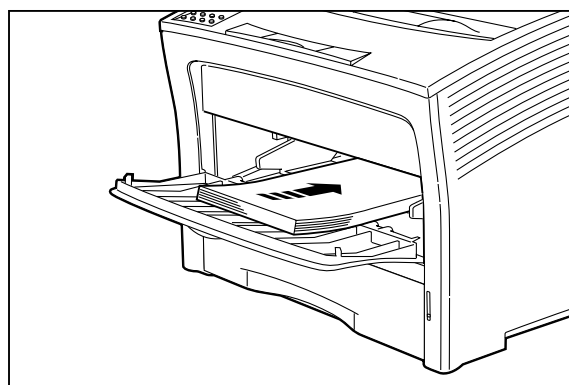
14. Allow the fuser transport to close, and close the rear cover.



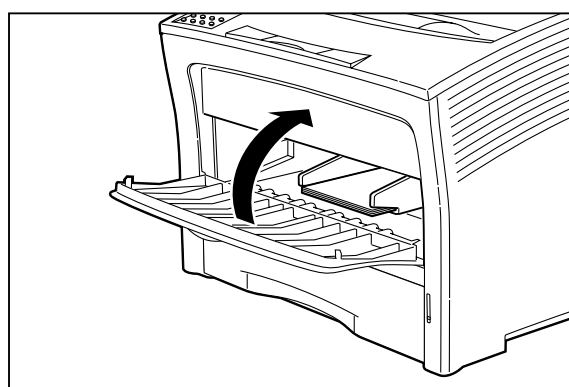
15. Reinsert the front tray into the printer.



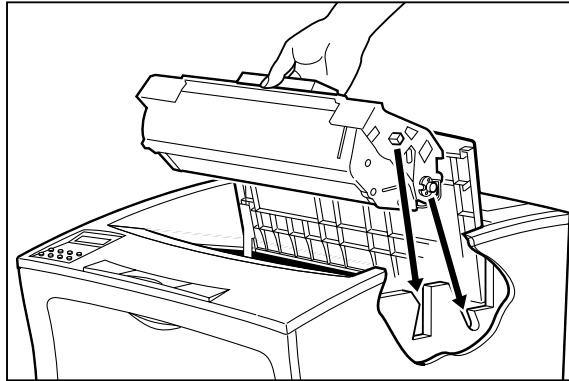
16. Reload any paper into the front tray.



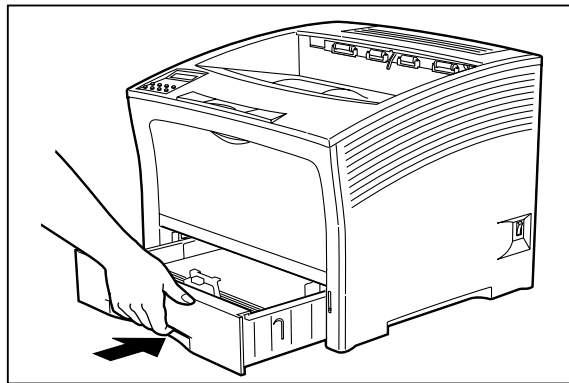
17. Close the front tray cover.



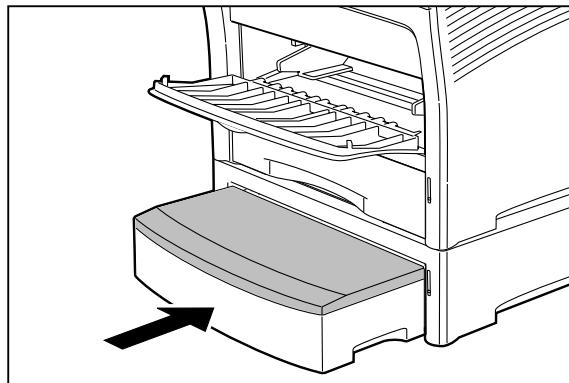
18. Slide the pegs on the toner cartridge into the channels on the inside of the printer, and lower the toner cartridge into the printer.



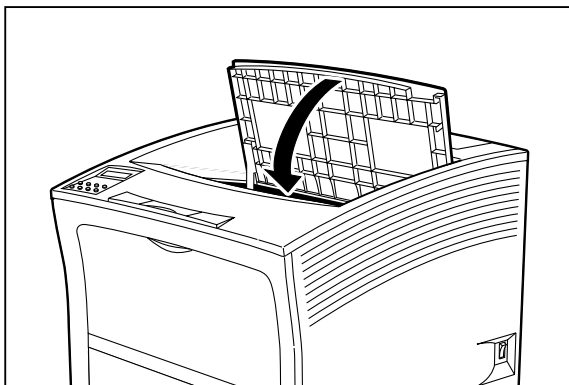
19. Reinstall the main paper tray.



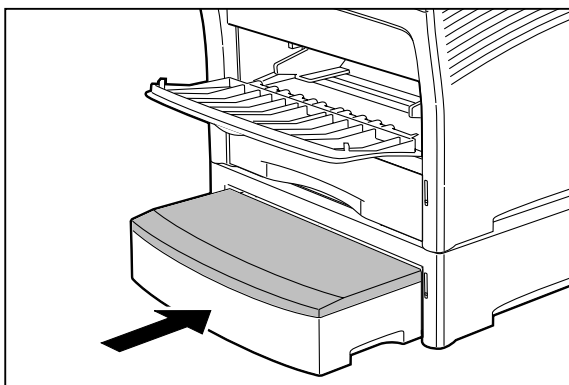
20. If you removed either Tray 2 or Tray 3, reinstall it.



21. Close the top cover.



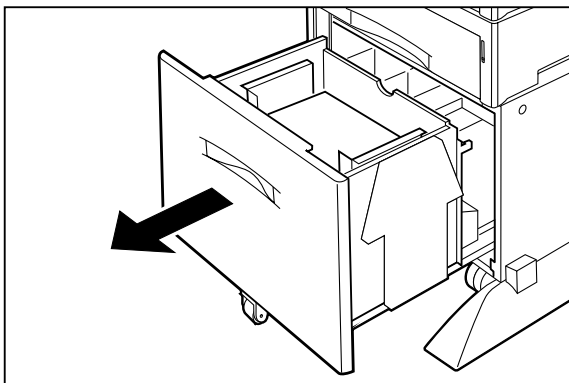
22. Reinstall any other trays that you removed.



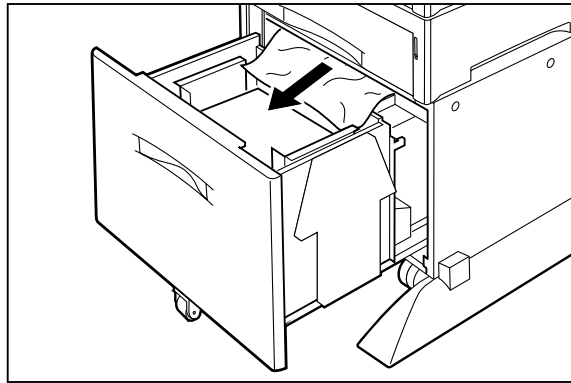
Clearing an E0 Jam

If an E0 error code precedes the error message on the first line of the control panel display, paper has jammed at the high capacity feeder. Use the following procedure to clear a paper jam in this location:

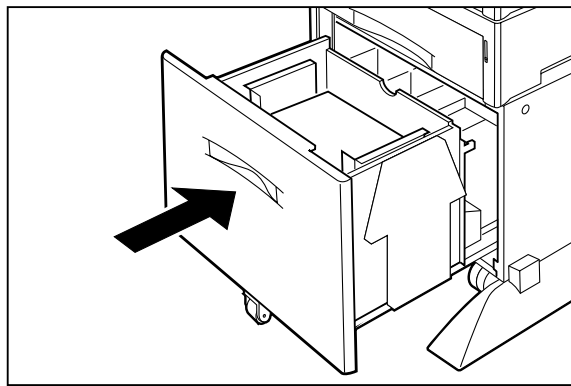
1. Pull the high capacity feeder paper drawer out.



2. Remove any jammed paper from the paper drawer.



3. Push the paper drawer back into the high capacity feeder, making sure the drawer is properly closed.



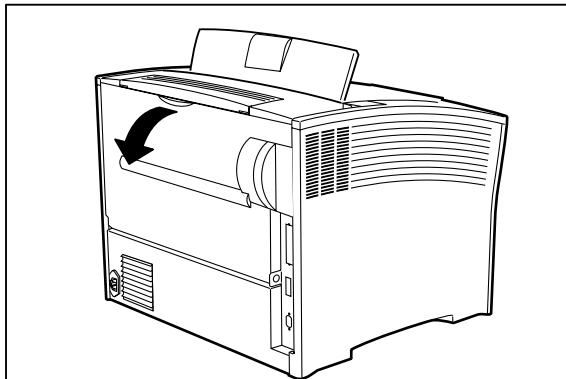
4. Check the display to make sure the printer is ready for printing.

Clearing an E7 Jam

If an E7 error code precedes the error message on the first line of the control panel display, paper has jammed at the duplexer. Use the following procedure to clear a paper jam in this location:

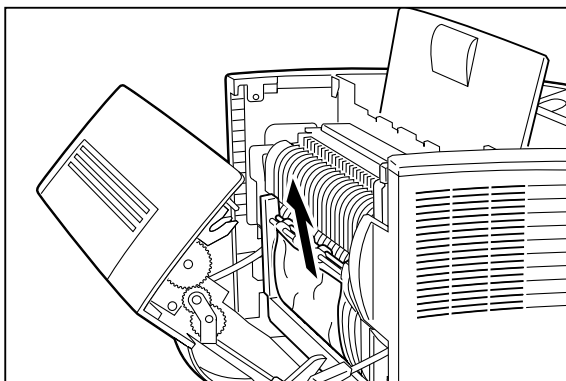
1. Locate the hand grip on the rear cover and pull the rear cover open.

Do not touch any parts inside the duplex printing unit.



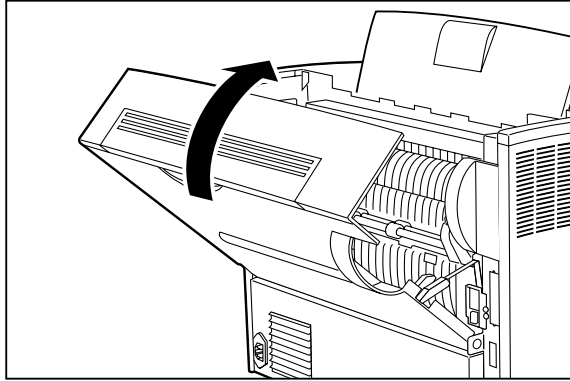
Grasp both sides of the duplex printing unit and pull it toward you to remove it. Carefully remove any jammed paper from the duplex unit or from within the printer.

NOTE: If you can not remove the jammed paper, refer to the procedure for removing jammed paper for an E2-1 error message.



WARNING: The fuser unit becomes very hot right after the printer has been used. Be careful not to touch the fuser unit.

2. Reinsert the duplex printing unit into the printer, and close the rear cover.

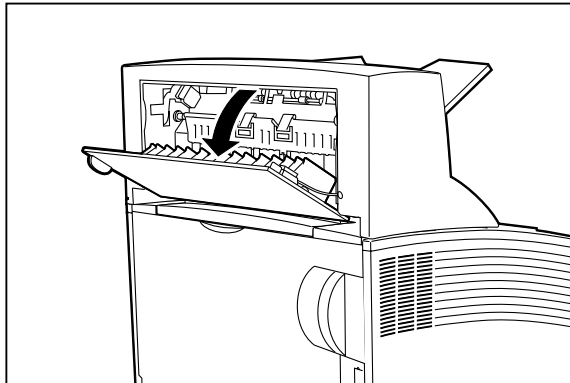


3. Check the display and make sure the printer is ready for printing.

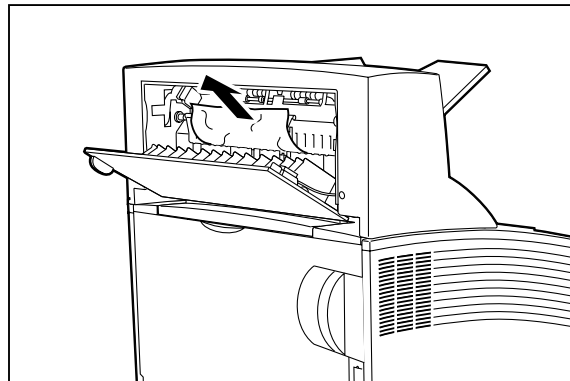
Clearing an E8 Jam

If an E8 error code precedes the error message on the first line of the control panel display, paper has jammed at the stacker. Use the following procedure to clear a paper jam in this location:

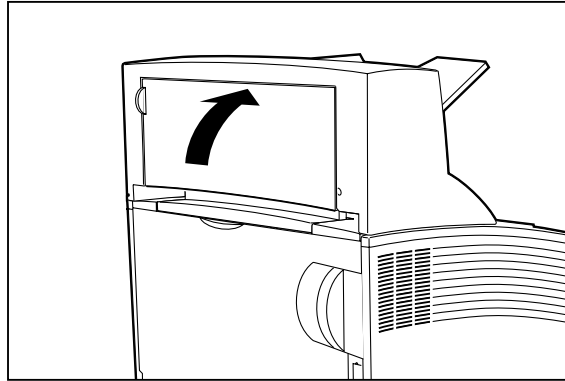
1. Open the rear cover of the stacker by pulling on the recessed area on the rear cover.



2. Remove any jammed paper.



3. Close the rear cover.



4. Check the display and make sure the printer is ready for printing.

Print Image Quality Problems

When functioning correctly, the printer should produce printed paper that is relatively flat and undamaged, containing a fused image of correct intensity—without streaks, smears, spots, or missing areas. If the printed sheets that your printer produces do not meet these qualifications, there is a print image quality problem.

- **Minor Print Image Quality Problems** can be caused by exhausted or damaged consumables, such as the toner cartridge. These problems are easily corrected by simply replacing the consumable.
- **Major Print Image Quality Problems** can be caused by a malfunctioning or broken component. These problems may require you to call a service technician to determine and correct the problem.

This section contains detailed procedures for correcting the following print image quality problems:

- Image is extremely faint and/or image contains blank areas
- Entire page is blank
- Image is extremely dark and/or white areas are not clean
- Entire page is black
- Black lines on page
- Ghost images on page
- Black spots on page
- Back of printed page is dirty
- Finished print is damaged
- Finished image rubs off of the paper
- Other print image quality problems

Image is extremely faint and/or image contains blank areas

The following characteristics define this print image problem:

- The print is very light.
- There are no dark black areas.
- Parts of images, letters, or words may be missing.
- The image may easily rub off.
- White areas on the page are generally clean, with no toner contamination.
- The control panel does not display an error code.



The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Attempt to increase toner in the printer developer system by running 20 copies of a page with only a few lines of text on it.

If you have been printing pages that contain dense text or heavy graphics, you may have temporarily depleted the toner in the printer developer system. Running 20 copies of minimum text should increase image darkness.

2. Replace all of the paper in the paper trays with newly opened paper.

The paper in the trays may be damp or damaged, resulting in poor image transfer. New paper may correct the problem.

3. Replace the toner cartridge with a new one.

The cartridge may have reached end of life or may be damaged.

4. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Entire Page is Blank

The following characteristics define this print image problem:

- The entire page is blank—there is no image, neither a very faint image nor a partial image.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Remove the toner cartridge from the printer, then reinstall it making sure it is securely seated inside the printer.

The toner cartridge may not be seated correctly. Through use and vibration the toner cartridge may have disconnected from the electrical contacts inside the printer. Reinstalling the toner cartridge should reestablish a good electrical connection.

2. Disconnect then reconnect the interface cable that runs between the printer and the host computer.

There could be a bad connection between the printer and the computer. Reconnecting both ends should reestablish a good electrical connection. If you have another interface cable available, substitute that cable for the one currently connecting the printer and the computer.

3. Reinstall the appropriate print driver software located in the DRIVERS folder on the Electronic Library CD-ROM.

The print driver software running on the host computer may be corrupted. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the cause of the problem.

4. Replace all of the paper in the paper trays with newly opened paper.

The paper in the trays may be damp or damaged, resulting in poor image transfer. New paper may correct the problem.

5. Replace the toner cartridge with a new one.

The toner cartridge may be damaged.

6. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Image is extremely dark and/or white areas are not clean

The following characteristics define this print image problem:

- The print is very dark.
- Black image areas are too black, with little or no detail in them.
- There is little or no separation between individual letters and words.
- White areas on the page may have a light gray cast to them.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. If your printer and software allows you to change the image density setting, adjust the setting to the midpoint and print 20 pages of dense text or graphics.

If your system has an image density adjustment and it is set to maximum darkness, unused toner may build up in the printer developer system and cause dark and dirty prints.

2. If your printer and software does not have an image density adjustment, attempt to decrease the amount of toner in the printer developer system by running 20 pages of dense text or graphics. Do not run a solid black page.

If you have been running prints that contain sparse text and abundant white area, you may have temporarily over-toned the printer developer system. Running 20 pages of dense text or graphics should use up the extra toner in the developer system.

3. Replace the toner cartridge with a new one.

The toner cartridge imaging circuitry or the cleaning system may be damaged.

4. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Entire page is black

The following characteristics define this print image problem:

- The entire page is completely black. There is no image, only a sheet of paper covered, except perhaps for a narrow white border, in solid black toner.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Remove the toner cartridge from the printer, then reinstall it making sure it is securely seated inside the printer.

The toner cartridge may be seated incorrectly. Through use and vibration, the toner cartridge may have disconnected from the electrical contacts inside the printer. Reinstalling the toner cartridge should reestablish a good electrical connection.

2. Disconnect then reconnect the interface cable that runs between the printer and the host computer.

There may be a bad connection between the printer and the computer. Reconnecting both ends should reestablish a good electrical connection. If you have another interface cable available, substitute that cable for the one currently connecting the printer and the computer.

3. Reinstall the print driver software located in the DRIVERS folder on the Electronic Library CD-ROM.

The print driver software running on the host computer may be corrupted. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the source of the problem.

4. Replace the toner cartridge with a new one.

The toner cartridge may be damaged.

5. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Black lines on the page

The following characteristics define this print image problem:

- There are black lines running either horizontally or vertically on the page. The lines may be isolated lines or they may be in groups or in tight patterns.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Replace the toner cartridge with a new one.

The toner cartridge may be scratched or damaged.

2. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Ghost images on the page

The following characteristics define this print image problem:

- Faint ghost images appear randomly on the page. The image is generally a shadowy version of the previously printed page. The quality of the main image is usually not affected.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. If you were printing multiple copies of the same image, print 20 pages of varying images.

Printing repeated impressions of the same image may leave a slight residual electrical image or faint toner image on the surface of the toner cartridge drum. This faint image is then transferred to the sheet of paper along with the main image.

2. Replace the toner cartridge with a new one.

The toner cartridge cleaning system may be malfunctioning, failing to clean the previous image completely off of the toner cartridge drum.

3. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Black Spots on the Page

The following characteristics define this print image problem:

- There are spots of toner scattered randomly across the page. The spots may be few and isolated, or clustered into larger spots that have a rough texture. If the back of the page is also dirty, skip this procedure and go to the next image quality procedure—"Back of the page is dirty".
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Open the paper trays and check to see if there is any toner inside the trays. If there is toner inside a tray, remove and clean the trays, then replace the paper with clean paper.

A paper jam can cause a small amount of toner to contaminate a paper tray.

2. Print 10 blank pages.

Printing blank pages can clean the printer system of small amounts of toner that may have contaminated the paper path as a result of a recent paper jam.

3. Remove the toner cartridge and inspect it for small pieces of paper that might be stuck between the drum and the toner cartridge frame. Carefully remove the pieces of paper. If you cannot remove the paper, replace the toner cartridge with a new one.

When you clear a paper jam, a piece of paper may tear off and lodge between the drum and the toner cartridge frame. This paper scrap creates a channel that allows toner from the cleaning system to leak out onto paper as it passes through the printer.

4. Call your service technician.

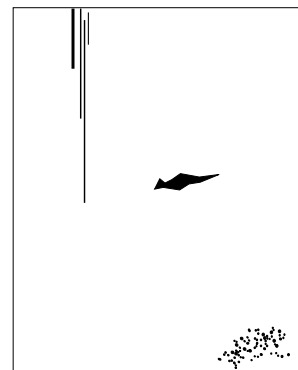
This image quality problem may be caused by a malfunctioning or broken component that requires service.

Back of the Printed Page is Dirty

The following characteristics define this print image quality problem:

- When a printed sheet exits the printer, there are marks on back of the page.
- The image side of the paper may or may not be clean.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



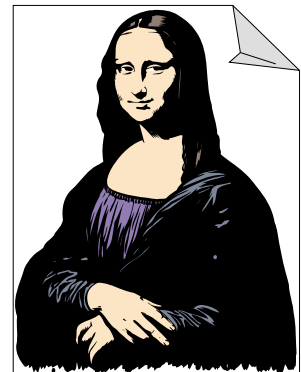
1. Open the paper trays and check to see if there is any toner inside the trays. If there is toner inside a tray, remove and clean the trays, then replace the paper with clean paper.
 A paper jam can cause small amount of toner to contaminate a paper tray.
2. Print 10 blank pages.
 Printing blank pages can clean the printer system of small amounts of toner that may have contaminated the paper path as a result of a recent paper jam.
3. Turn the printer off, wait 10 minutes for the fuser to cool, then open all of the printer access covers and inspect the interior of the printer for toner contamination. Clean off any toner that you find.
 After any paper jam, toner from the jammed sheet of paper may contaminate the paper path. When a sheet of paper passes through the printer, toner contamination is inadvertently transferred to the back side of the paper. If the contamination proves difficult or impossible for you to remove, go to step 4.
4. Remove the toner cartridge and inspect it for small pieces of paper that might be stuck between the drum and the toner frame. Carefully remove the pieces of paper. If you cannot remove the paper, replace the toner cartridge with a new one.
 When you clear a paper jam, a piece of paper may tear off and lodge between the drum and the toner cartridge frame. This paper scrap creates a channel that allows toner from the cleaning system to leak out onto paper as it passes through the printer.
5. Call your service technician.
 This image quality problem may be caused by a malfunctioning or broken component that requires service.

Finished Print is Damaged

The following characteristics define this print image problem:

- The printed sheet is either wrinkled, torn, or creased.
- There is no paper jam.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Replace all of the paper in the paper trays with newly opened paper.
 The paper in the trays may be damp, warped, or damaged. As the paper travels through the printer, it may catch or tear on printer components. New paper may correct the problem.
2. Print a few sheets out of the main paper tray and a few prints out of the front tray. If the damage appears to be isolated to paper that is fed from one source, carefully inspect the source feeder for scraps of paper or obviously broken components. Remove any scraps of paper that you find. If you discover a broken component, call for service.

Broken and dangling components or scraps of paper lodged in a paper feeder can damage a sheet of paper as it moves out of the feeder.

3. Turn the printer off and open all of the printer access covers. Inspect the interior of the printer for scraps of paper or obviously broken components that could be obstructing the paper path. Remove any scraps of paper that you find. If you see a broken component, call for service.

Broken and dangling components or scraps of paper lodged inside the printer can damage a sheet of paper as it moves along the paper path.

4. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Finished Image Rubs Off of the Page

The following characteristics define this print image problem:

- The toner image is not completely affixed to the finished print; the image easily rubs off of the page.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.



1. Inspect the finished print. If the image is extremely light, go to the first image quality problem procedure in this section, “Image is extremely faint and/or image contains blank areas.”

The ability of the printer to melt and permanently bond the toner image to the page depends a great deal on the darkness of the image. A light image causes less heat to build up during the fusing process, which in turn makes the image on the page less permanent.

2. If the image density is normal but the image still easily rubs off, call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Other Print Image Quality Problems

The following characteristics define this print image problem:

- The finished print has a problem that is not identified by any of the other procedures in this manual.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Replace all of the paper in the paper trays with newly opened paper.

The paper in the trays may be damp or damaged, resulting in poor image quality. New paper may correct the problem.

2. Replace the toner cartridge with a new one.

The toner cartridge may have reached end of life or is damaged.

3. Disconnect then reconnect the interface cable that runs between the printer and the host computer.

There may be a bad connection between the printer and the computer. Reconnecting both ends should reestablish a good electrical connection. If you have another interface cable available, substitute that cable for the one currently connecting the printer and the computer.

4. Reinstall the print driver software.

The print driver software that is running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the source of the problem. Refer to the DRIVERS folder on the electronic library CD-ROM for detailed instructions on installing the driver.

5. Call your service technician.

This image quality problem may be caused by a malfunctioning or broken component that requires service.

Miscellaneous Problems

Some printer problems may not generate error codes or produce observable print image defects. These miscellaneous problems may effect only the printer or they may effect things outside of the printer, such as the room lights or a nearby radio receiver.

This section contains detailed procedures for correcting the following problems:

- **Printer is Inoperative**
- **Printer Operates Erratically**
- **Printer Makes Unusual Noises**
- **Room Lights Dim or Flicker When Printer Starts**
- **Printer Interferes with Nearby Radio or Television Reception**

Printer is Inoperative

The following characteristics define this type of problem:

- The printer appears to have no power.
- The control panel does not light up or display characters.
- The printer motors do not run and the printer does not warm up.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Make sure that you push the [I] on the main power switch to turn on the printer.
2. Check to make sure the AC power cord is firmly plugged into the AC wall outlet and that the other end of the AC power cord is firmly plugged into the printer.

Sometimes the AC power cord is only partially plugged in and is not making good electrical contact. If the AC power cord keeps working loose you might consider moving the printer to a safer location. If the AC wall outlet is broken, allowing the power cord to easily fall out, replace the outlet.

3. Test for voltage present by plugging an AC electrical device, such as a lamp, into the AC wall outlet. If the lamp does not light, inspect the building circuit breakers or check for a broken AC wall outlet.

A circuit breaker trips because there was an overload on the line. A tripped breaker may indicate that you have too many AC devices working off the same line or that you have faulty building wiring. If the breaker is not tripped, but the lamp doesn't light when plugged into the outlet, replace the outlet or have an electrician check the line.

4. Turn the printer off and wait 20 minutes, then turn the printer on.

Thermal sensors may have shut down the printer. Waiting 20 minutes for the printer to reset may return the printer to normal operation. A thermal shutdown may indicate there is a more serious problem with the printer. If the problem reoccurs, call for service.

5. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Printer Operates Erratically

The following characteristics define this type of problem:

- The printer does not function correctly.
- The printer may go into frequent warm-up.
- The control panel may display garbled characters.
- The printer may lose power or stop printing for no apparent reason.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Check to make sure the AC power cord is firmly connected to the AC wall outlet and that the other end of the AC power cord is firmly connected to the printer.

A loose or partially connected AC power cord may cause erratic operation. If the AC power cord is repeatedly loose or disconnected, you may consider moving the printer to a safer location. If the AC wall outlet is broken, allowing the power cord to easily fall out, replace the outlet.

2. Check to make sure the computer interface cable is firmly connected to the printer and that the other end of the cable is firmly connected to the computer.

There may be a bad connection between the printer and the computer. Reconnecting both ends should reestablish a more reliable electrical connection. If you have another interface cable available, substitute the new cable for the one currently connecting the printer and computer.

3. Open and then firmly close all printer doors and covers.

Interlock switches monitor the position of printer doors and covers for safety reasons. When a door is closed, the interlock switch is activated and the printer can operate. When a door is open, the interlock switch is not activated and the printer cannot operate. If a door is not firmly closed, the interlock switch can bounce between being activated and being not activated—confusing the system and causing erratic printer operation.

4. Reinstall the print driver software.

The print driver software that is running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the DRIVERS folder on the Electronic Library CD-ROM for detailed instructions on installing the driver.

5. Unplug the AC power cord from the AC wall outlet. Plug a 100 watt lamp into the AC wall outlet and watch the lamp for 30 minutes. If the lamp flickers noticeably or dims then brightens, you should replace the outlet or have an electrician check the line.

Voltage surges or drops at the AC wall outlet can cause sensitive printer components to function erratically. In some instances wide voltage swings can seriously damage the printer.

6. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Printer Makes Unusual Noises

The following characteristics define this type of problem:

- The printer makes unusual noises or makes more noises than usual either while idle or while printing.
- The printer generates printed sheets without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Turn the printer off and open all of the printer access covers. Inspect the interior of the printer for pieces of paper or obviously broken components that could be causing the noise. Remove any paper that you find. If you see a broken component, call for service.

Broken and dangling components or scraps of paper lodged inside the printer may be brushing against moving parts and causing the noise.

2. Inspect the fan outlets for broken grills or objects stuck in the fans. Remove any objects from the fan grill. If you see a broken grill or cover, call for service.

An object or part of a broken fan grill may be brushing against the fan and causing the noise. A broken fan grill is a potential safety hazard and should be replaced.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Room Lights Dim or Flicker When Printer Starts

The following characteristics define this type of problem:

- Nearby lights dim slightly or flicker when you first turn on the printer or when the printer begins printing.
- The lights remain normal when the printer is not on.
- The printer generates printed sheets without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Unplug all devices that are plugged into the same AC wall outlet as the printer.

During warm-up and at the start of each print run, the printer normally draws a large amount of current. If other devices are running off of the same AC circuit, the accumulative current draw may result in nearby lights momentarily dimming.

2. Have an electrician check your building wiring.

There may be a problem with the AC outlet or the AC wiring in the building that needs the attention of a licensed electrician.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Printer Interferes with Nearby Radio or Television Reception

The following characteristics define this type of problem:

- When the printer begins printing, it causes audio noise in nearby radios or interferes with the picture in nearby televisions.
- The printer generates printed sheets without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this print image quality problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. If the radio/television is plugged into the same AC wall outlet as the printer, plug either the printer or the radio/television into another AC outlet.

Electrical noise may be transmitted through the AC line. You can reduce the noise to the radio/television by using a dedicated AC wall outlet for the printer.

2. Move the radio/television away from the printer.

Your printer complies with the FCC rules regarding radio/television interference caused by digital devices. This printer generates, uses, and may radiate low levels of radio frequency energy that could interfere with radio and television reception in some installations. Increasing the distance between the printer and the radio/television is a very effective method for reducing minor interference.

3. Identify the building circuit breaker that controls the AC outlet to your printer. Identify all of the AC outlets that are controlled by that circuit breaker. Unplug all devices from the AC outlets that are controlled by that circuit breaker, except for the printer.

Electrical noise may be transmitted through the AC line. In difficult interference cases you may have to dedicate an entire AC line to the printer.

4. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Warning Messages and Error Messages

The control panel display shows a warning message or error message when there is a problem with the printer. Some messages indicate routine status conditions such as an empty paper tray, while others indicate that a sheet of paper has jammed in a specific area of the printer. Some messages indicate more serious printer problems that may require the help of a service technician.

Warning messages use only the second line of the display and indicate conditions that do not prevent the printer from operating. For example, if Tray 1 is out of paper but the printer is currently drawing paper from Tray 2, a warning message will appear on the second line of the display indicating that Tray 1 is out of paper—but the printer will continue to operate, drawing paper from Tray 2.

Error messages use both lines of the display and indicate conditions that prevent the printer from operating. The first line of an error message contains the error code and type of error, while the second line of the display contains information about the action required to recover from the error.

When the control panel displays a warning or error message, refer to the following tables and complete the actions recommended for the specific message that is shown.

Warning Messages

The following table lists warning messages, possible causes, and the actions required to correct each cause.

Warning Message Line 2 of display	Possible Cause	Action
Tray 1 Missing	Tray 1 is not installed.	Install the tray.
Tray 2 Missing	Tray 2 is not installed.	Install the tray.
Tray 3 Missing	Tray 3 is not installed.	Install the tray.

Warning Messages and Error Messages

Paper Low Tray 1	The paper supply in tray 1 is low.	Add paper to the tray. See “Loading the Main Tray” on page 2-7.
Paper Low Tray 2	The paper supply in Tray 2 is low.	Add paper to the tray.
Paper Low Tray 3	The paper supply in Tray 3 is low.	Add paper to the tray.
Paper Out Tray 1	There is no paper in Tray 1.	Add paper to the tray.
Paper Out Tray 2	There is no paper in Tray 2.	Add paper to the tray.
Paper Out Tray 3	There is no paper in tray 3.	Add paper to the tray.
Output Tray Full	The output tray is full.	Remove paper from the tray.
Stacker Full	The stacker is full.	Remove paper from the tray.
HCF Lifting	The HCF is lifting.	Wait until the HCF has finished lifting completely.
Maintenance Req	Maintenance is required.	Call service.

Error Messages

The table below lists error messages, the possible causes of each error, and the actions required to recover from each error.

Error Message Line 1	Error Message Line 2	Possible Cause	Action
E0 JAM HCF E1 JAM TRAY/REGI E2-1 JAM MISFEED E2-2 MISFEED DUP E3 JAM REGI/FUSR E4 EXIT JAM E7 JAM DUPLEX E8 JAM STACKER	Remove Paper	There is a paper jam inside the printer.	Remove the jammed paper from the indicated location. See the “Paper Jams” on page 5-4 for information about removing paper jams.
E5 TRAY OUT	Reposition Front	The front tray is out.	Reposition or close the front tray.
E5 COVER OPEN	Top/Rear	The top cover or rear cover is open.	Close the top or rear cover.
E5 COVER OPEN	Stacker	The stacker cover is open.	Close the stacker cover.
E5 COVER OPEN	Close HCF Cover	The HCF cover is open.	Close the HCF cover.
J3 TONER CART.	Install/Reset	The toner cartridge is not installed, or an incorrect cartridge is installed.	Install the correct toner cartridge according to the specifications. See “Replacing the Toner Cartridge” on page 4-3.
LOAD PAPER TRAY1	Paper Size/Paper Type	Tray 1 is empty.	Load paper into the tray.
LOAD PAPER TRAY2	Paper Size/Paper Type	Tray 2 is empty.	Load paper into the tray.
LOAD PAPER TRAY3	Paper Size/Paper Type	Tray 3 is empty.	Load paper into the tray.
LOAD PAPER FRONT	Paper Size/Paper Type	The front tray is empty.	Load paper into the tray.
OUTPUT TRAY FULL	Remove Paper	The output tray is full.	Remove paper from the tray.
STACKER FULL	Remove Paper	The stacker is full.	Remove paper from the tray.

Warning Messages and Error Messages

Error Message Line 1	Error Message Line 2	Possible Cause	Action
U2 ROS FAILURE	Call Service	The ROS has failed.	Turn the printer off, then turn it on. If the problem reoccurs, contact an authorized service provider.
U4 FUSER FAILURE	Call Service	The fuser has failed.	
HCF UNIT FAILURE	Call Service	The HCF has failed.	
STACKER FAIL	Call Service	The stacker has failed.	
DUPLEX FAILURE	Call Service	The duplexer has failed.	
MAIN MOTOR FAIL	Call Service	The main motor has failed.	
ENGINE NV FAIL	Call Service	The engine has failed.	
FAN FAILURE	Call Service	The fan has failed.	Press the START button.
MAINTENANCE REQ	Press Start	The printer needs maintenance.	



Chapter 6

Using the Duplexer

In this Chapter . . .

- “About this Chapter” on page 6-2
- “About the Duplexer” on page 6-2
- “Installing the Duplexer” on page 6-2
- “Testing the Duplexer” on page 6-5
- “Solving Duplexer Problems” on page 6-5
- “Removing the Duplexer” on page 6-11

About this Chapter

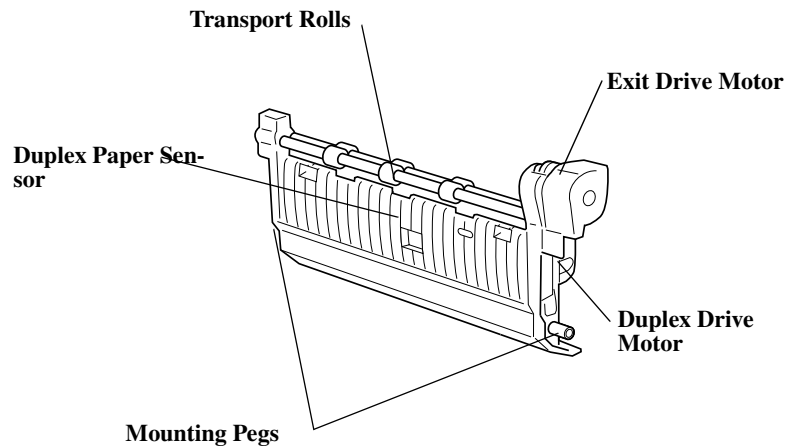
This chapter provides all of the information necessary to install, use, and maintain the duplexer.

About the Duplexer

The duplexer is a customer-installed optional device that enables automatic printing on both sides of a sheet of paper. The duplexer is designed to be mounted inside the printer, just below the exit transport in the paper path. The duplexer drives a single-sided print partially out of the exit transport, then reverses the direction and pulls the printed page back into the printer to print the second side. The printer can image two pages at a time, therefore the duplex unit will process two pages (sides 1 and 3) then refeed these pages for sides 2 and 4.

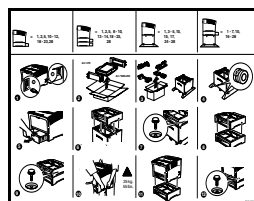
Major Components of the Duplexer

The following figure shows the major components of the duplexer.

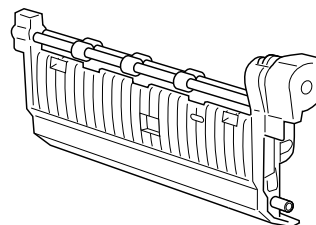


Installing the Duplexer

Before you begin the installation procedure, remove the duplexer from its packaging and remove any shipping tape or cardboard inserts. Verify that you have received the following items:



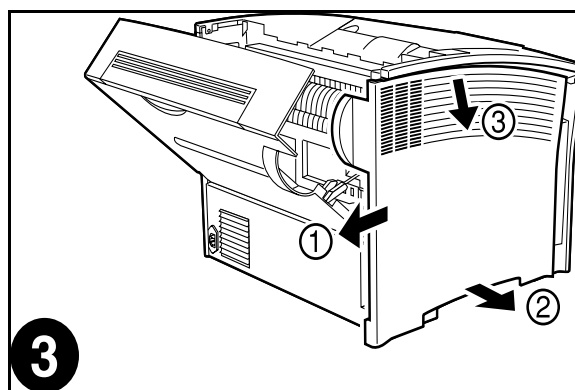
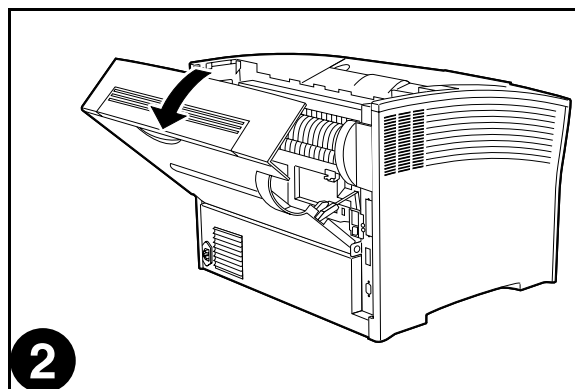
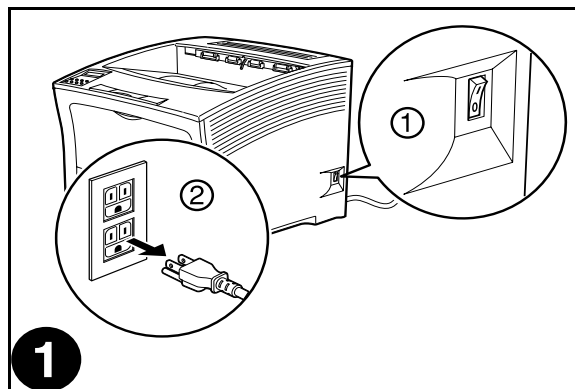
Duplexer Installation Sheet

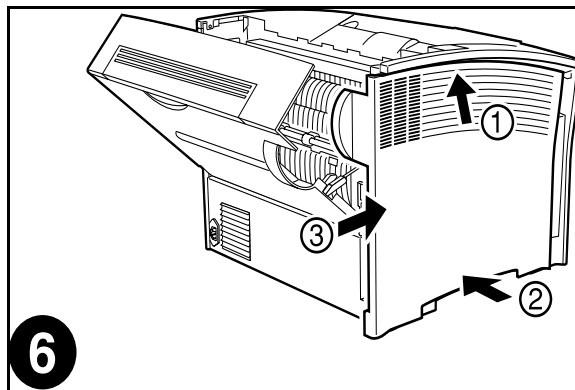
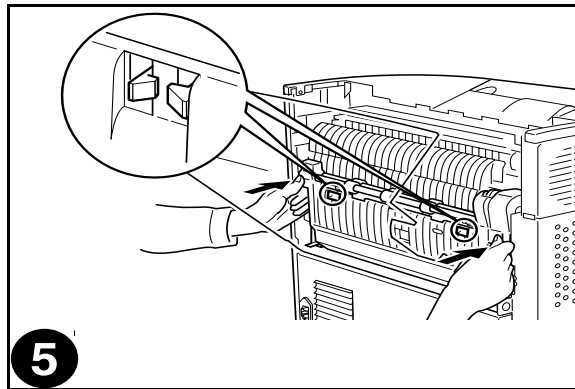
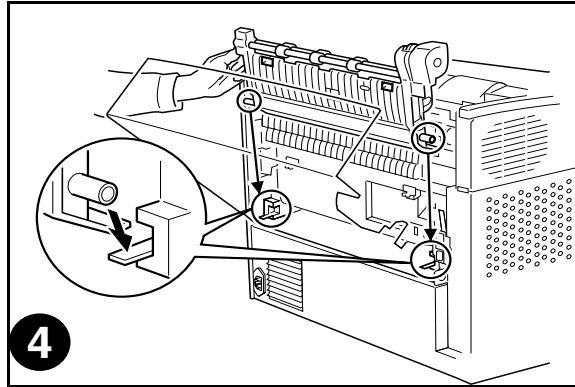


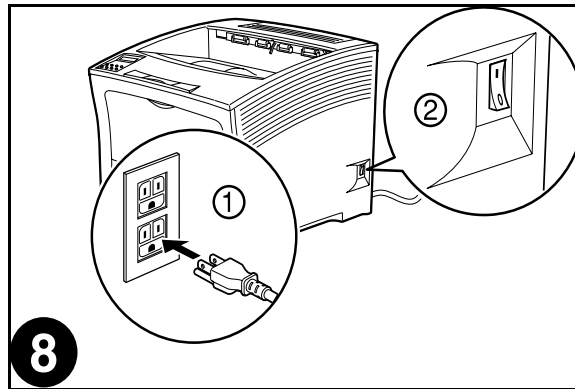
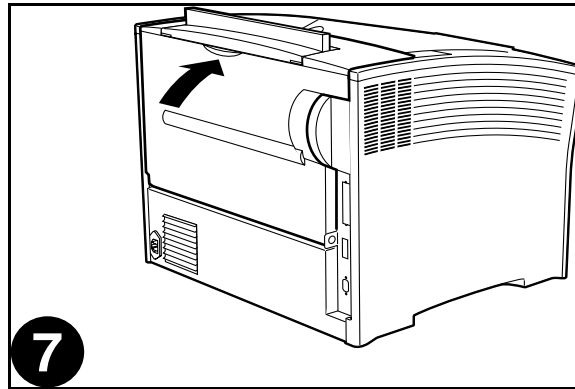
Duplexer

Figure 6-13: Contents of Duplexer Shipping Box.

Use the following procedure to install the duplexer:







Testing the Duplexer

After installing the duplexer, use the following procedure to make sure it transports paper correctly:

1. Turn the printer on by pressing the [I] on the power switch on the right side of the printer.
2. Once the printer has warmed up and displays the “Ready” message on the control panel display, use any software application to print a few duplexed sheets.
3. If the duplexer does not transport paper or if the control panel shows an error message, refer to “Solving Duplexer Problems” on page 6-5.

Solving Duplexer Problems

When there is a problem with the duplexer, the printer control panel displays an error code and error message. Most duplexer error codes indicate routine status conditions such as a paper tray running out of paper or a paper jam in a specific area of the duplexer. Some error codes indicate much more serious problems that may require the help of a service technician.

- If the duplexer is inoperative after installation, refer to “Installation Problems” on page 6-6 and complete the recommended procedure.
- If the printer control panel displays an error message or an error code, refer to “Interpreting

Duplexer Error Codes” below.

- If you have a duplexer problem but the printer control panel does not display an error message or error code, refer to “Correcting Miscellaneous Duplexer Problems” on page 6-8 and follow the directions for correcting that problem.

Interpreting Duplexer Error Codes

The printer control panel displays error messages when there is a problem with the printer or any of the optional paper-handling components. The following table lists all of the error messages associated with the duplexer, the possible cause of the error, and the action to take to correct the problem. If the control panel shows an error message that concerns another part of the printer, refer to **Chapter 5: Troubleshooting** for a complete list of all warning and error messages.

Error Message Line 1	Error Message Line 2	Possible Cause	Action
E2-2 MISFEED DUP	Remove Paper	There is a misfeed jam near the duplexer.	Remove the jammed paper. See “Clearing Duplex Paper Jams” on page 6-7.
E7 JAM DUPLEX	Remove paper	There is a paper jam in the duplexer.	Remove the jammed paper from the duplexer. See “Clearing Duplex Paper Jams” on page 6-7.
DUPLEX FAILURE	Call Service	The duplexer has failed.	Turn the printer off, then turn it on. If the problem reoccurs, contact an authorized service provider.

Installation Problems

Simple oversights during installation may cause problems when you first use the duplexer. If the duplexer is inoperative after you have installed it, use the following procedure to check several possible causes.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Make sure that the duplexer connector is firmly connected to the printer jack.
3. If the connector is firmly plugged into the printer, but the duplexer is still inoperative, return to “Installing the Duplexer” on page 6-2 and carefully repeat all of the installation steps.
4. If the duplexer is still inoperative after reinstallation, remove it from the printer so you can run tests on the printer without the duplexer affecting the tests.
5. Print a few sheets of text or images to make sure the printer is still operational.

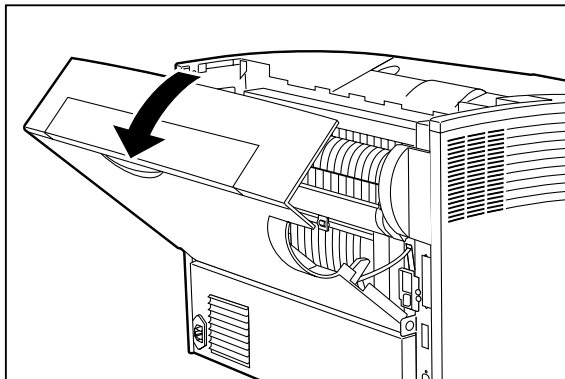
If the printer is operational when the duplexer is removed, contact either your sales representative or a service provider and report your problem.

If the printer is not operational after you have removed the duplexer, refer to **Chapter 5: Troubleshooting**. After correcting the printer problem, return to “Installing the Duplexer” on page 6-2 and reinstall the duplexer.

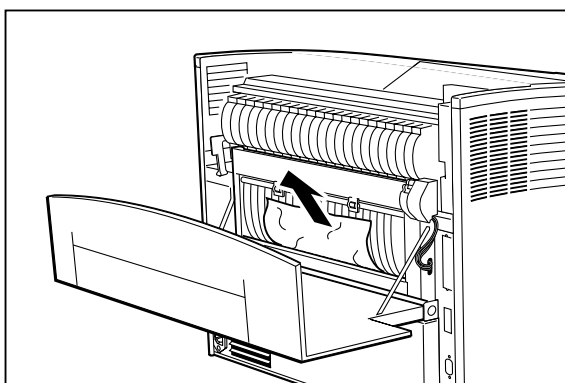
Clearing Duplex Paper Jams

Use the following procedure to clear a duplex paper jam:

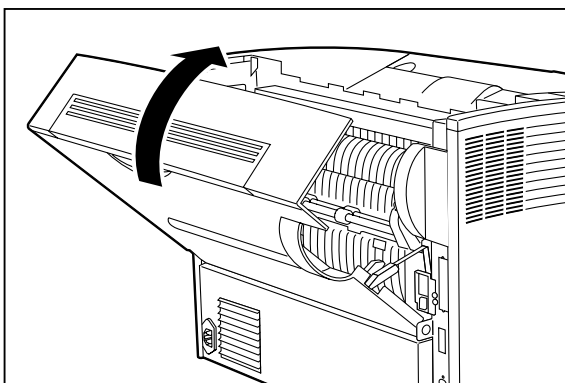
1. Open the rear cover of the printer.



2. Remove any jammed paper from the duplex area.



3. Close the rear cover of the printer.



Correcting Miscellaneous Duplexer Problems

Some duplexer problems may not cause an error message and may not interfere with the operation of the printer. If you are experiencing one of the problems listed below and there is no error message shown on the control panel display, refer to the procedures in the following sections to check the possible causes of the specific problem.

- Inoperative duplexer
- Erratic operation
- Unusual noise

Inoperative Duplexer

The following characteristics define this duplexer problem:

- The duplexer appears to be inoperative.
- When attempting to print duplexed sheets, the duplexer does not respond and does not feed paper.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this duplexer problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer doors and covers.

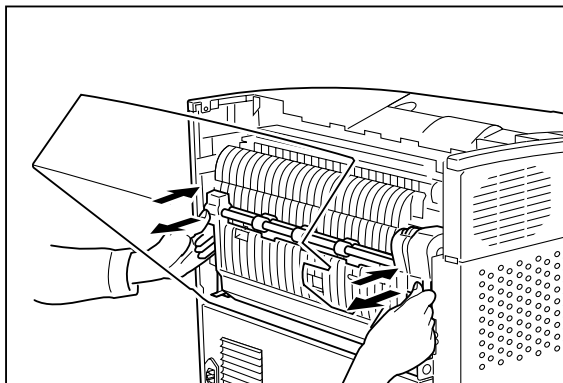
Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the duplexer can operate. When a door is open, the interlock switch is not activated and the duplexer cannot operate. If a door is not firmly closed, the interlock switch may not be fully activated—resulting in an inoperative duplexer.

2. Test the printer by printing single-sided sheets from the main tray.

If you cannot print a sheet of paper from the main tray and the printer does not display an error code, go to “Inoperative Printer” on page 5-3. If you can print a sheet of paper from the main tray, proceed to the next step.

3. Open the rear cover of the printer. Disconnect and reconnect the duplexer.

If the connection between the duplexer and the printer is not intact, the duplexer will not receive power or logic commands, resulting in an inoperative duplexer.



4. Examine the printer driver settings to make sure the duplexer is available as an installed option.
5. If the duplexer is correctly set as an installed option, reload the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the driver.

6. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Duplexer Operates Erratically

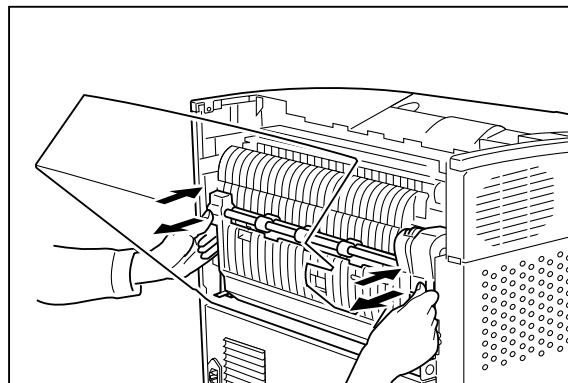
The following characteristics define this duplexer problem:

- The duplexer does not function correctly.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this duplexer problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open the rear cover of the printer. Disconnect and reconnect the duplexer.

If the connection between the duplexer and the printer is not intact, the duplexer will not receive power or logic commands, resulting in an inoperative duplexer.



2. Test the printer by allowing it to run for a few days without the duplexer installed.

If the printer operates erratically when the duplexer is not installed, refer to “Printer Operates Erratically” on page 5-36.

If the printer does not operate erratically when the duplexer is not installed, reinstall the duplexer and proceed to the next step.

3. Open and then firmly close all of the doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the duplexer can operate. When a door is open, the interlock switch is not activated and the duplexer cannot operate. If a door is not firmly closed, the interlock switch can bounce between being activated and being not activated - confusing the system and causing erratic operation.

4. Reinstall the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the drivers.

5. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Duplex Makes Unusual Noises

The following characteristics define this duplexer problem:

- The duplexer makes unusual noises or makes more noise than usual either while idle or while printing.
- The duplexer feeds paper without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this duplexer problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open the rear cover of the printer and inspect the inside of the duplexer for jammed paper or obviously broken components.

Broken components or scraps of paper lodged inside the duplexer may be brushing against moving parts and causing the noise.

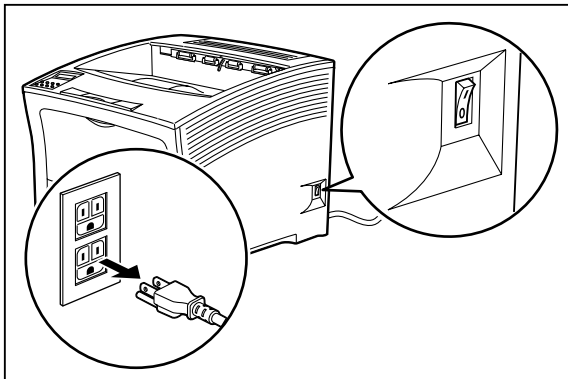
2. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

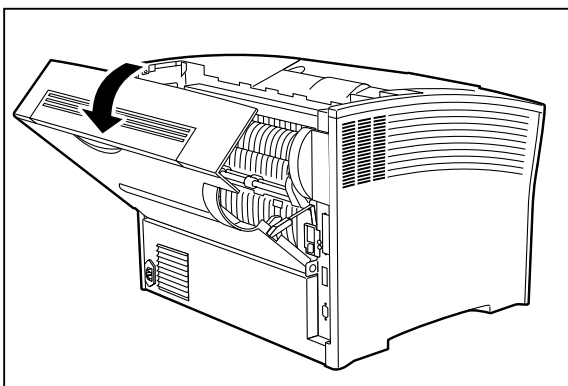
Removing the Duplexer

Use the following procedure to remove the duplexer:

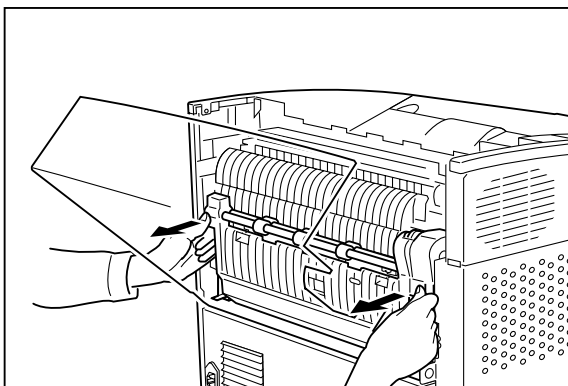
1. Turn off the printer and disconnect the AC power cord from the AC wall outlet..



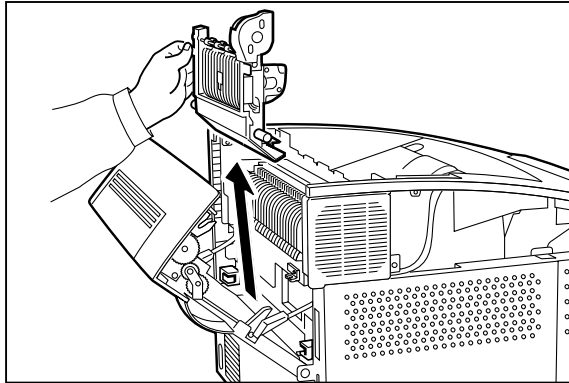
2. Locate the hand grip on the back of the printer and pull to open the rear cover..



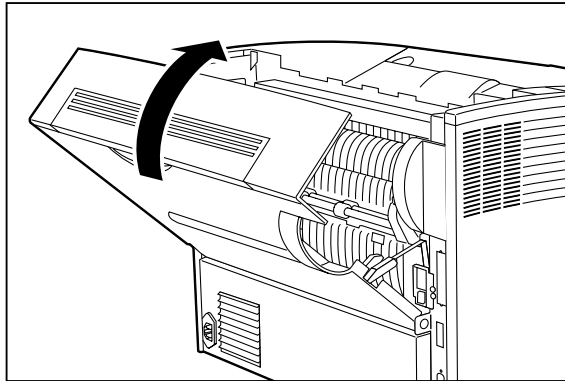
3. Carefully pull the top of the duplexer out toward you to disengage the upper mounting clips.



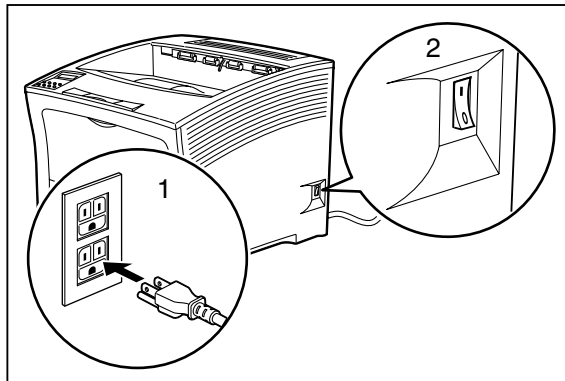
4. Slip the lower mounting pins out of the brackets inside the rear of the printer and lift the duplex unit out of the printer.



5. Close the rear cover.



6. Insert the plug of the AC power cord into the AC wall outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.



Chapter 7

Using the 500 Sheet Feeder

In this Chapter . . .

- “About the 500 Sheet Feeder” on page 7-2
- “Installing the 500 Sheet Paper Feeders” on page 7-3
- “Testing the 500 Sheet Feeder” on page 7-10
- “Selecting Print Media” on page 7-10
- “Loading Print Media” on page 7-13
- “Solving 500 Sheet Feeder Problems” on page 7-16
- “Maintaining the 500 Sheet Feeder” on page 7-25
- “Moving the 500 Sheet Feeder” on page 7-28

About this Chapter

This chapter provides all of the information necessary to install, use, and maintain the 500 sheet paper feeder option, including procedures for cleaning the feeder and removing paper jams.

About the 500 Sheet Feeder

The 500 sheet feeder is an optional single tray paper feeder that attaches under the printer, which accommodates either an A4/letter paper tray for standard formats or an A3/ledger paper tray for oversize formats. The tray holds a maximum of 500 sheets of standard weight paper. The printer supplies all of the operating power that is needed by the feeder, and motors and circuit boards internal to the feeder provide the feeder with drive and operational logic.

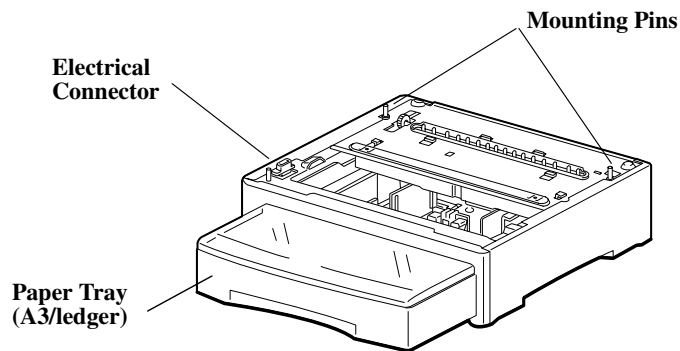
At the start of a print run the feeder motor switches on and begins to feed a sheet of paper out of a selected tray. Rubber rollers drive the sheet out of the tray, through the feeder, and into the printer. Sensors monitor the progress of the paper as it travels through the feeder.

The 500 sheet feeder can be installed in the following configurations:

- Printer and one 500 sheet feeder
- Printer and two 500 sheet feeders
- Printer and one 500 sheet feeder and high capacity feeder

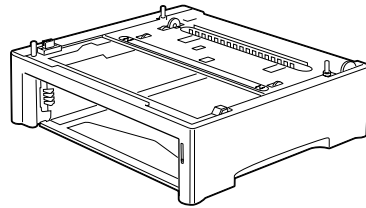
Major Components of the 500 Sheet Feeder

The following illustration shows the major components of the 500 sheet feeder:




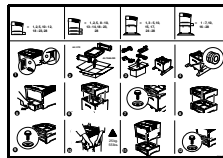
Installing the 500 Sheet Paper Feeders

Before installing the paper feeder(s), verify that you have received the following items in the paper feeder shipping box:



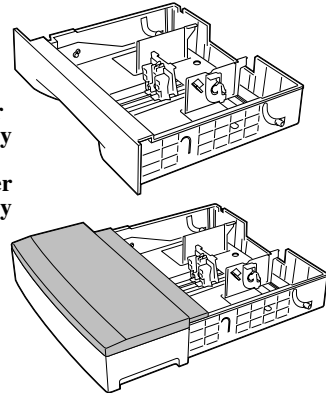
500 Sheet Paper Feeder


2 Thumbscrews



Installation Sheet

A4/letter
paper tray
OR
A3/Ledger
paper tray



Installing One Paper Feeder

Use the following procedure to install one paper feeder:

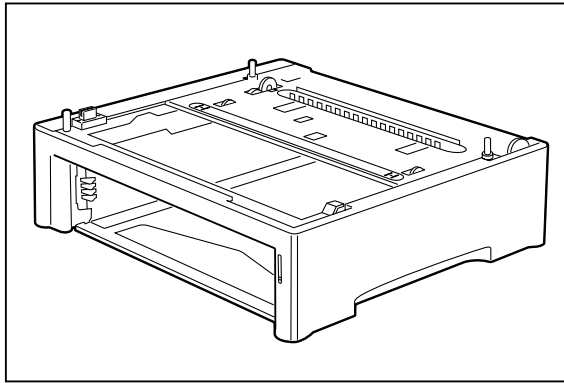


WARNING: Before installing any options, turn the printer off by pressing [O] on the power switch on the right side of the unit and disconnect the power cord from the AC outlet. These precautions are necessary to avoid the risk of electric shock.

1. Remove the 500 sheet paper feeder from its packaging and remove any cardboard inserts and packing tape. Locate and set aside the small plastic bag containing two thumbscrews.
2. Place the paper feeder on a sturdy, level surface.

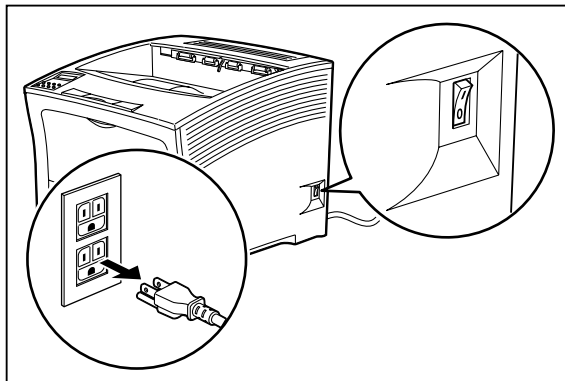
NOTE: Do not move the printer once the paper feeder is installed.

3. Remove the paper tray from the paper feeder.

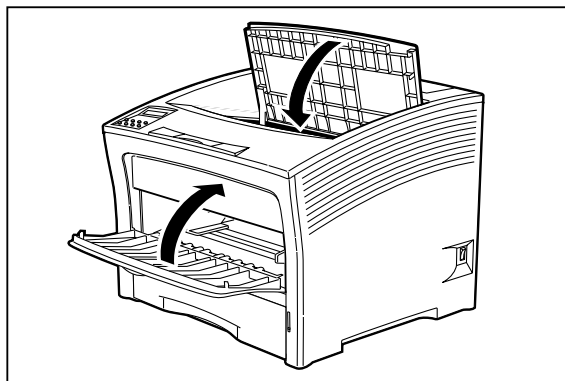


4. Turn the printer off by pressing [O] on the power switch on the right side of the unit, and disconnect the power cord from the AC outlet.

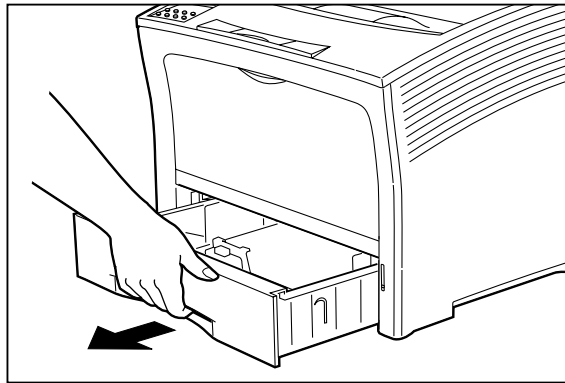
NOTE: Installing the paper feeder while the printer is on may damage the printer or paper feeder.



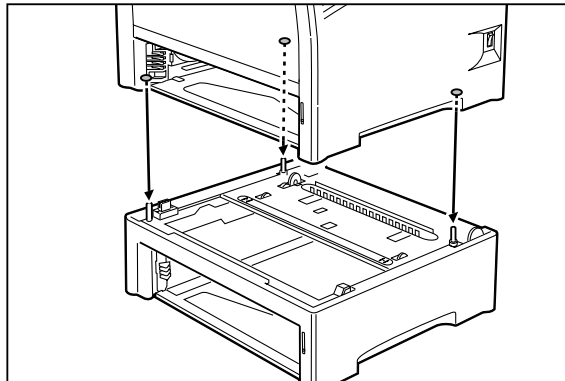
5. Close the front paper tray, remove any printed sheets from the paper output tray, and close the top cover.



6. Remove the main paper tray from the printer.

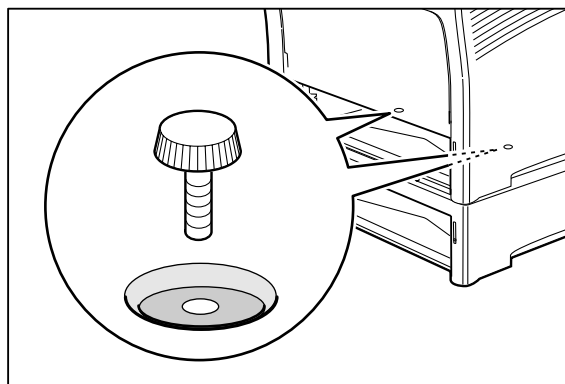


7. Align the three holes on the bottom of the printer with the three pegs on the paper feeder, and lower the printer onto the paper feeder.

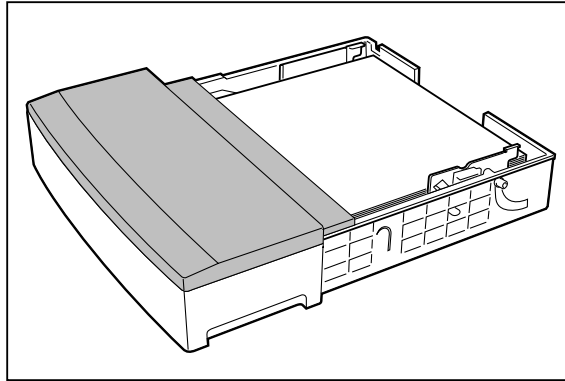


NOTE: Be sure to lower the printer gently. Components inside the printer may be damaged by lowering the printer quickly.

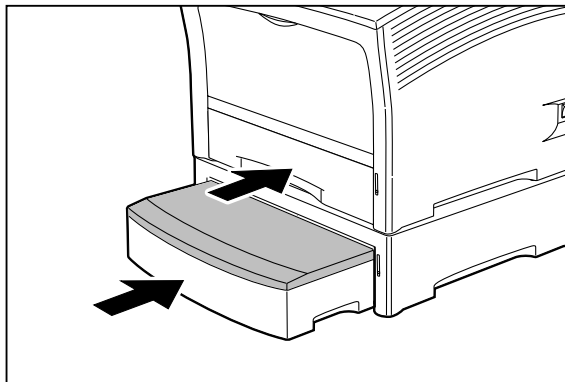
8. Insert the two thumbscrews supplied with the paper feeder into the holes on the base of the printer, and turn them until tight.



9. Load paper into the paper tray.



10. Insert the paper tray all the way into the paper feeder, making sure the tray is properly seated.



11. Insert the plug of the power cord into the AC outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.

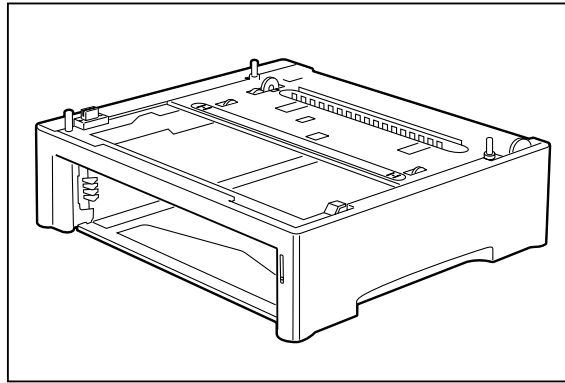
NOTE: If an error message appears on the control panel display, see **Chapter 5: Troubleshooting**.

Installing Two Paper Feeders

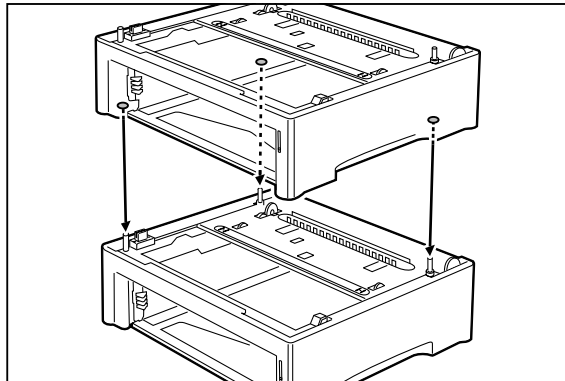
Use the following procedure to install two paper feeders:

1. Remove the paper feeders from their packaging and remove any packing tape or cardboard inserts. Set aside the small plastic bags, each containing two thumbscrews.
2. Place one paper feeder on a sturdy, level surface.
3. Remove the paper trays from both paper feeders.

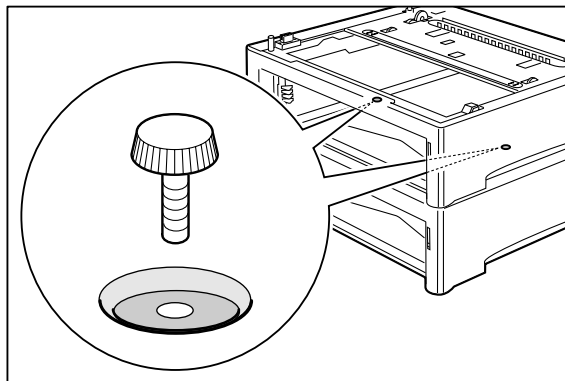
NOTE: Do not move the printer when the paper feeder is installed.



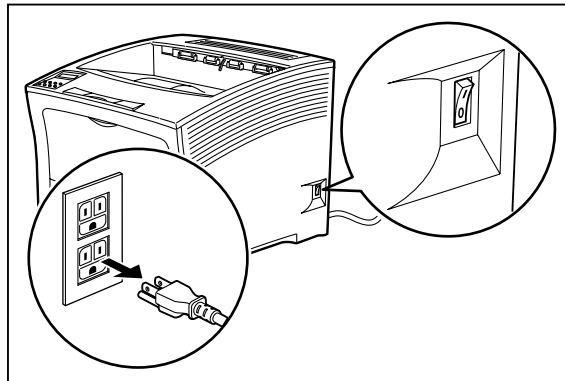
4. Align the three holes on the bottom of the upper feeder with the three stubs on the lower feeder, and place the upper paper feeder on top of the lower paper feeder.



5. Insert the two thumbscrews supplied with the paper feeder into the two holes on the base of the upper paper feeder and turn them until tight.

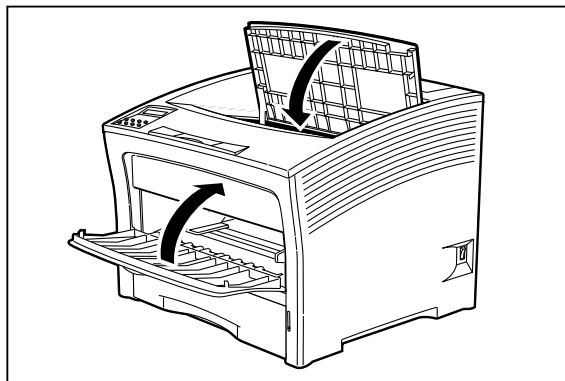


6. Turn the printer off by pressing [O] on the power switch on the right side of the unit, and disconnect the power cord from the AC outlet.

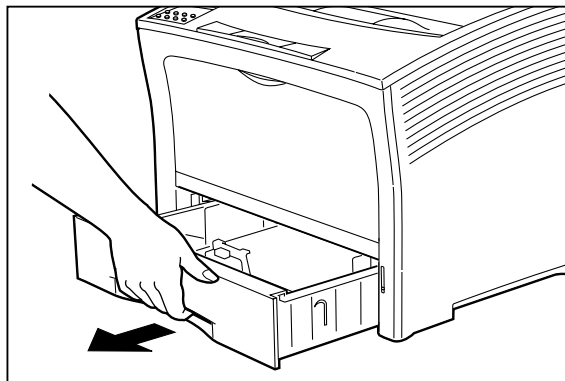


NOTE: Installing the paper feeder while the printer is on may damage the printer or the paper feeder.

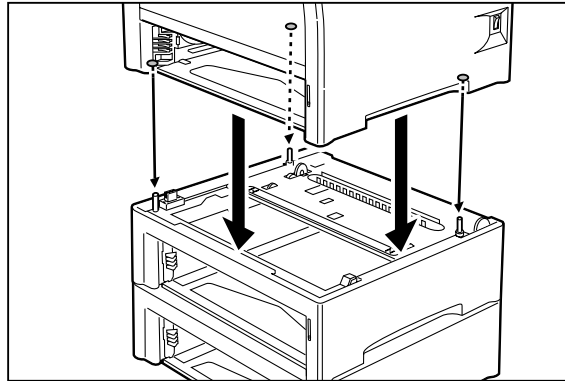
7. Close the front paper tray, remove any printed sheets from the output paper tray, and close the top cover.



8. Remove the main paper tray from the printer.

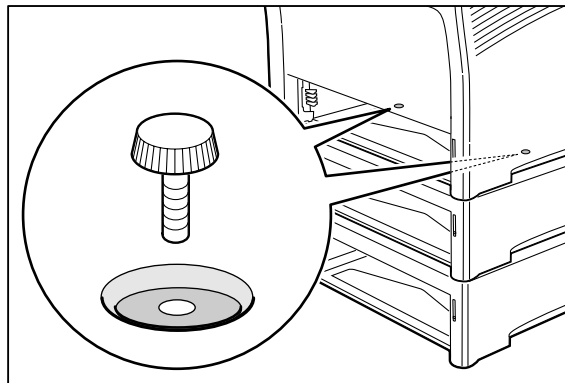


9. Lift the printer and lower it onto the two stacked paper feeders, aligning the three stubs on the upper paper feeder with the holes on the bottom of the printer.

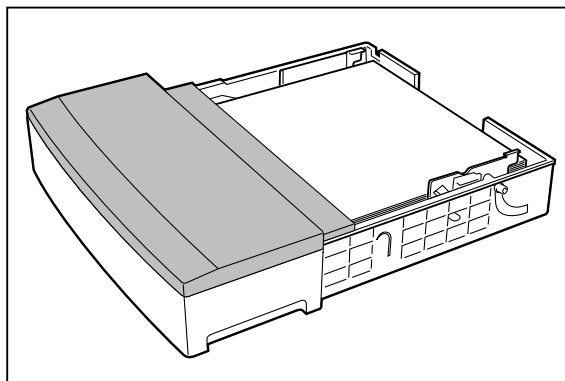


NOTE: Be sure to lower the printer gently. Components inside the printer may be damaged by lowering it quickly.

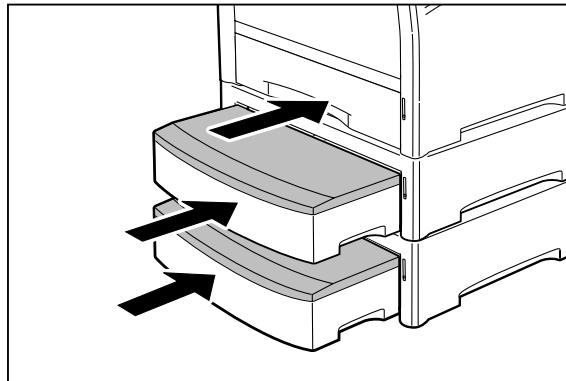
10. Insert the two thumbscrews supplied with the paper feeder into the holes on the base of the printer.



11. Load paper into the paper trays for both paper feeders.



12. Insert the paper trays all the way into the paper feeders, making sure each tray is properly seated.



13. Insert the plug of the power cord into the AC outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.

NOTE: If an error message appears on the control panel display, see the Chapter titled “Error Messages” in the User Manual.

Testing the 500 Sheet Feeder

After installing the 500 sheet paper feeder, use the following test procedure to verify that the feeder is operating correctly.

1. Turn the printer on by pressing the [I] on the power switch on the right side of the printer.
2. Once the printer has warmed up and displays the “**Ready**” message on the control panel display, use any software application to print a few sheets from each of the feeder trays.
3. If the feeder does not feed paper or if the control panel displays an error message, refer to “Solving 500 Sheet Feeder Problems” on page 7-16.

Selecting Print Media

Your printer can print on a variety of media, including plain paper, labels, transparencies, and envelopes. Always use print media that meet the guidelines for use with this printer. Print media that is not recommended for use with this printer may cause frequent paper jams or poor print quality.

Paper and Print Media To Avoid

Do not use paper or print media that has any of the following characteristics:

- Does not meet the paper and media size and weight specifications for this printer
- Is not labeled for use with xerographic printers or xerographic copiers
- Cannot withstand temperatures of up to 310°F/155°C
- Is in a sealed package that is obviously damaged or wet
- Is excessively wrinkled, curled, torn, or warped
- Is folded or creased

- Has either an extremely slick surface or an extremely textured surface
- Has an exposed adhesive surface
- Has paper pieces glued or taped to the media
- Has staples or paper clips attached
- Is categorized as thermal paper, coated paper, or carbon paper
- Is an envelope that is embossed, is made of extremely thick paper, or is padded
- Is an envelope that has metal clasps
- Is a sheet of labels that has the backing sheet exposed between individual labels

Correct Paper Storage

It is important to store paper correctly prior to placing it in the printer, since improper storage can cause frequent paper jams and poor print quality. Use the following guidelines when storing paper for use in the printer:

- Store reams of paper on a flat surface, and always store them stacked horizontally.
- Store reams of paper in an area away from both direct sunlight and high humidity
- Open sealed reams only when you are ready to load the paper into the paper tray, and always close and seal partial reams of paper.
- Do not stack partial reams of paper

Print Media Weight, Type, and Size

The following table defines print media that you can use in each of the two available 500 sheet feeder paper trays, and also indicates the feed orientation—long edge feed (LEF) or short edge feed (SEF). If you have concerns about a specific brand or type of media, try samples of the media to determine if the resulting printer performance and print quality meet your expectations.

Paper Source	Weight	Paper Type and Feed Direction	Paper Sizes Accommodated
Letter/A4 Paper Tray (main tray and optional 500 sheet A4/Letter paper feeder)	16 to 24 lbs. 64 to 200g/m ²	A4 LEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF	279.4 x 215.9mm 8.5 x 11 inches
		Executive LEF	266.7 x 184.5mm 10.5 x 7.26 inches
		Monarch LEF (envelope)	190.5 x 98.4mm 7.5 x 3.87 inches
		Statement LEF	215.9 x 139.7mm 8.5 x 5.5 inches
		Com 10 LEF (envelope)	241.3 x 104.8mm 9.5 x 4.13 inches
		B5 LEF	257 x 182mm 10.1 x 7.2 inches
		A5 LEF	210 x 149mm 8.27 x 5.9 inches
		A6 LEF	100 x 148mm 3.94 x 5.83 inches
		C5 LEF (envelope)	229 x 162mm 9 x 6.4 inches
		DL LEF (envelope)	220 x 110mm 8.67 x 4.3 inches

Paper Source	Weight	Paper Type and Feed Direction	Paper Sizes Accommodated
A3 Paper Tray (optional 500 sheet A3/ Ledger paper feeder)	16 to 24 lbs. 60 to 135 g/m ²	A4 LEF/SEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF/SEF	279.4 x 215.9mm 11 x 8.5 inches
		Legal 13" SEF	330.2 x 215.9mm 13 x 8.5 inches
		Legal 14" SEF	355.6 x 215.9mm 14 x 8.5 inches
		A3 SEF	420 x 297mm 16.5 x 11.7 inches
		B4 SEF	364 x 257mm 14.3 x 10.1 inches
		Statement LEF	215.9 x 139.7mm 8.5 x 5.5 inches
		Executive LEF	266.7 x 184.5mm 10.5 x 7.26 inches
		Ledger SEF	431.8 x 279.4mm 11 x 17 inches
		B5 LEF	257 x 182mm 10.1 x 7.2 inches
		A5 LEF	210 x 149mm 8.27 x 5.9 inches

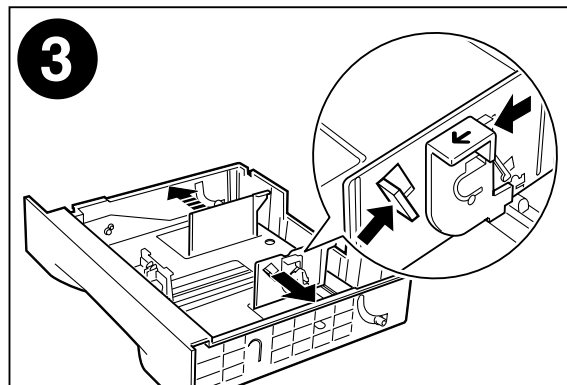
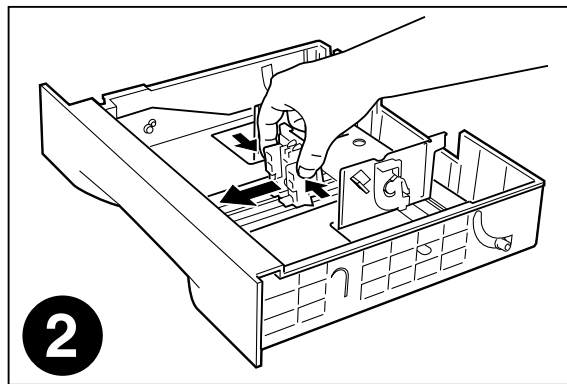
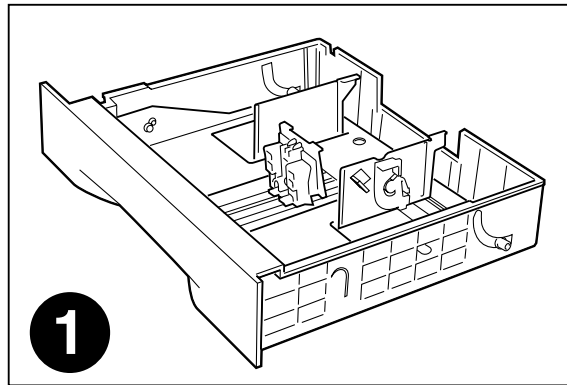
Loading Print Media

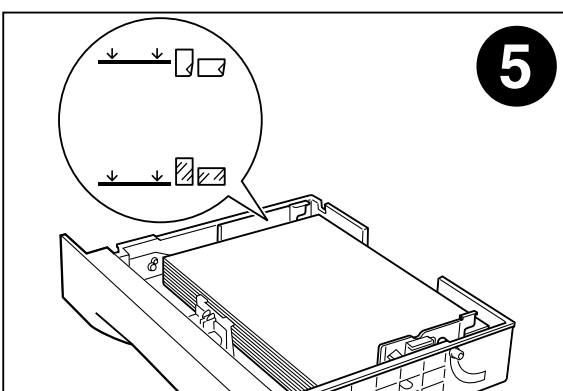
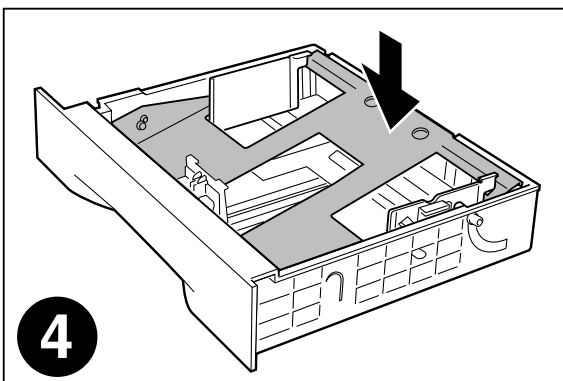
Loading the A4/Letter or A3/Ledger Paper Tray

The 500-sheet A4/letter paper tray and A3/Ledger each have two length guides that are located on the sides of the tray, and one width guide that is located near the center of the tray. These guides allow you to adjust the size of the area that holds paper.

NOTE: The procedure for loading paper shown below illustrates the process using the A4/letter paper tray; however, the procedure is the same for the A3/ledger paper tray.

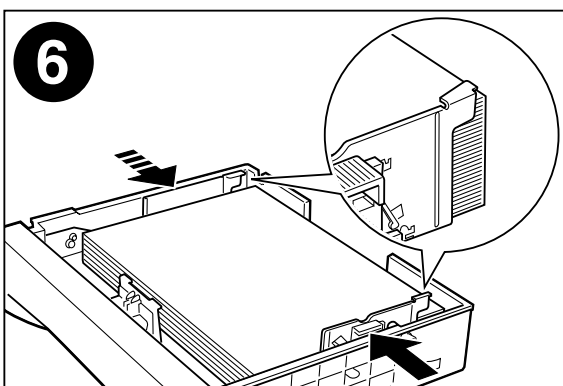
Use the following procedure to load paper into the 500 sheet A4/letter or A3/ledger paper tray:

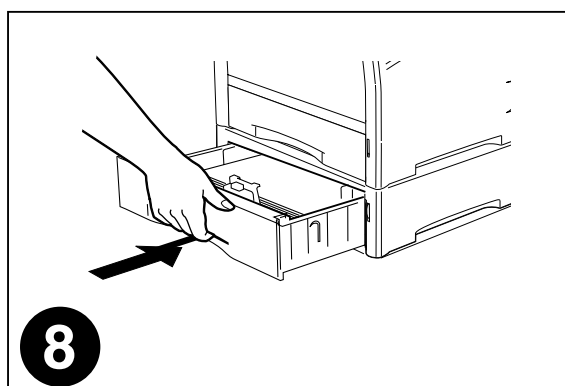
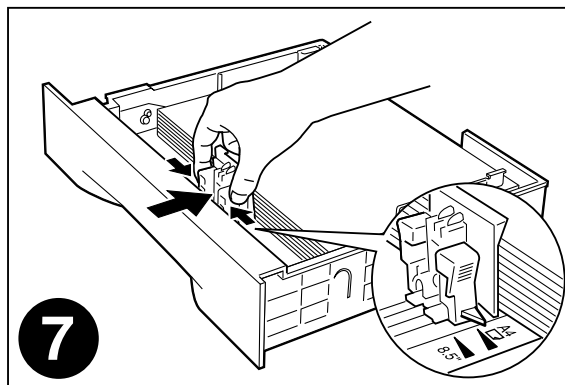




CAUTION: Do not overload the tray, and make sure the paper stack is beneath the retaining clips on both sides of the tray. Fan paper before placing it in the tray, and place paper in the tray with the print side up.

NOTE: To avoid paper jams and other paper transportation problems, make sure the length and width guides are adjusted to match the paper size and are locked firmly into place.





Solving 500 Sheet Feeder Problems

When there is a problem with the 500 sheet feeder, the printer control panel displays an error code and error message. Most paper feeder error codes indicate routine status conditions such as a paper tray running out of paper or a paper jam in a specific area of the paper feeder. Some error codes indicate much more serious problems that may require the help of a service technician.

- If the paper feeder is inoperative after installation, refer to “Installation Problems” on page 7-18 and complete the recommended procedure.
- If the printer control panel displays an error message or an error code, refer to “Interpreting Paper Feeder Error Messages” on page 7-17.
- If you have a paper feeder problem but the printer control panel does not display an error message or error code, refer to “Correcting Miscellaneous Paper Feeder Problems” on page 7-23 and follow the directions for correcting that problem.

Interpreting Paper Feeder Error Messages

The printer control panel displays error messages when there is a problem with the printer or any of the optional paper-handling components. The following table lists all of the error messages associated with the 500 sheet paper feeder, the possible cause of the error, and the action to take to correct the problem. If the control panel shows an error message that concerns another part of the printer, refer to **Chapter 5: Troubleshooting** for a complete list of all warning and error messages.

Error or Warning Message Line 1	Error or Warning Message Line 2	Possible Cause	Action
(Warning message, printer continues operating and line 1 shows printer status.)	Tray 2 Missing (applies to first paper feeder if installed)	Tray 2 is not installed.	Install the tray.
	Tray 3 Missing (applies to second paper feeder if installed)	Tray 3 is not installed.	Install the tray.
	Paper Low Tray 2 (applies to first paper feeder if installed)	Paper supply in tray 2 is low.	Add paper to the tray.
	Paper Low Tray 3 (applies to second paper feeder if installed)	Paper supply in tray 3 is low.	Add paper to the tray.
	Paper Out Tray 2 (applies to first paper feeder if installed)	There is no paper in tray 2.	Add paper to the tray.
	Paper Out Tray 3 (applies to second paper feeder if installed)	There is no paper in tray 3.	Add paper to the tray.
E1 JAM TRAY/REGI	Remove paper	There is a jam between the source tray and the registration sensor.	
E2-1 JAM MISFEED	Remove paper	There is a misfeed jam near the source paper tray.	Remove the jammed paper from the source tray.
LOAD PAPER TRAY2 (applies to first paper feeder if installed)	Paper Size/ Paper Type	Tray 2 is empty.	Load paper into the tray.
LOAD PAPER TRAY3 (applies to second paper feeder if installed)	Paper Size/ Paper Type	Tray 3 is empty.	Load paper into the tray.

Installation Problems

Simple oversights during installation may cause problems when you first use the paper feeder. If the paper feeder is inoperative after you have installed it, use the following procedure to check several possible causes.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Make sure that the feeder interface cables are firmly connected to the printer jacks.

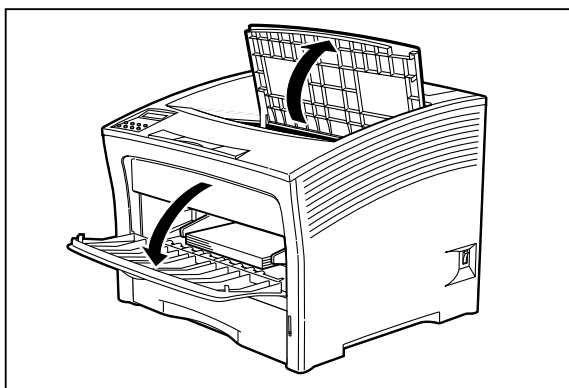
If the cables are firmly connected to the printer but the paper feeder is still inoperative, return to the installation procedure and carefully repeat all of the installation steps.

3. If the feeder is still inoperative after reinstallation, remove it from the printer so you can run tests on the printer alone.
4. Print a few sheets of paper through the main paper tray or the front tray to make sure the printer is still operational.
 - If the printer is operational when the feeder is not attached, contact either your sales representative or a service technician and report your problem.
 - If the printer is not operational when the feeder is not attached, refer to **Chapter 5: Troubleshooting**. After correcting the printer problem, return to **Chapter 7: Using the 500 Sheet Feeder** to reinstall the feeder.

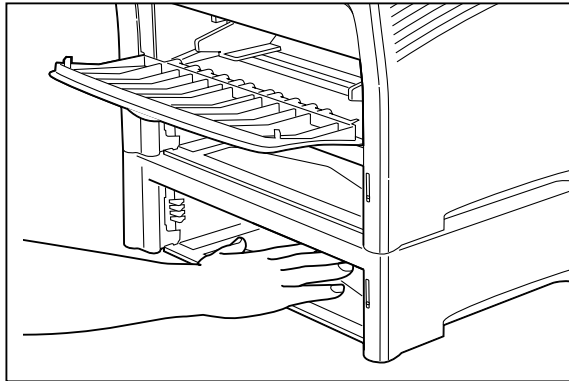
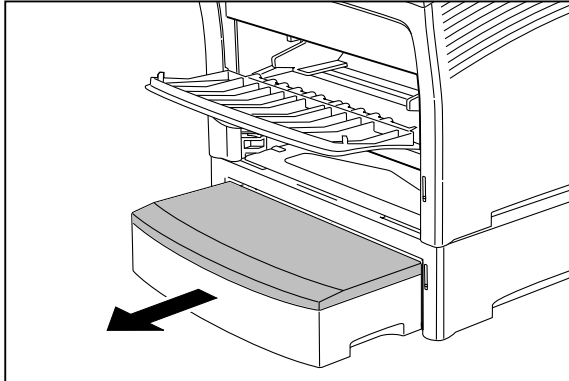
Clearing an E1, E2-1 or E2-2 Paper Jam

If an E1, E2-1 or E2-2 error code precedes the error message on the first line of the control panel display, paper has jammed somewhere between the feed area and the registration sensor. Use the following procedure to clear a paper jam in this location:

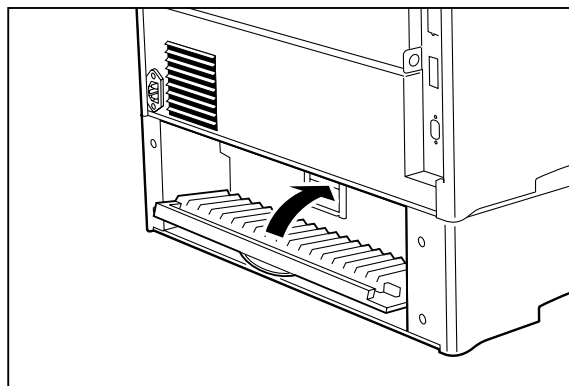
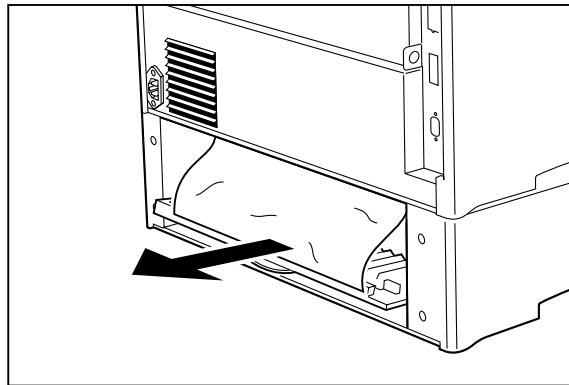
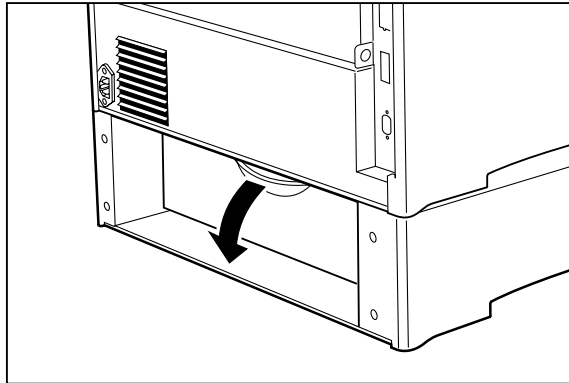
1. Remove any printed pages from the output tray.
2. Open the top cover and the front tray cover.



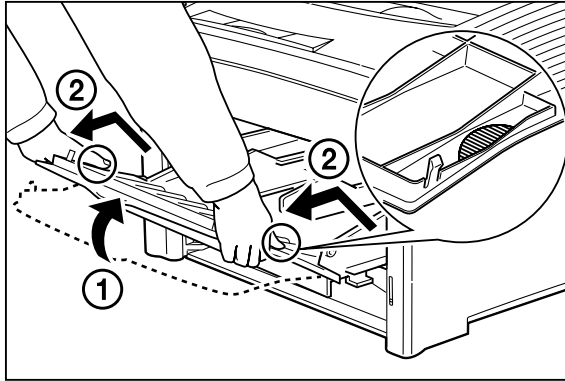
3. If the jam occurred while feeding from Tray 2 or 3, remove the paper tray associated with that feeder and inspect the inside of the paper tray well, removing any jammed paper.



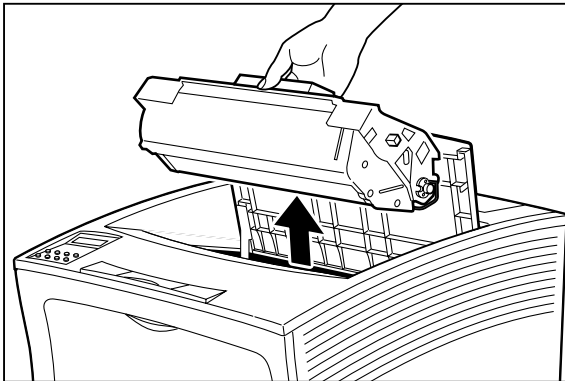
4. Open the rear door of the feeder for tray 2 or tray 3 and remove any jammed paper, then close the rear door of the feeder



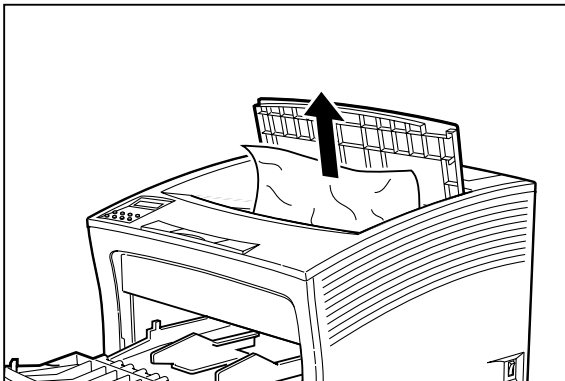
5. Remove the front tray by lifting up slightly and pulling the tray out from the printer.



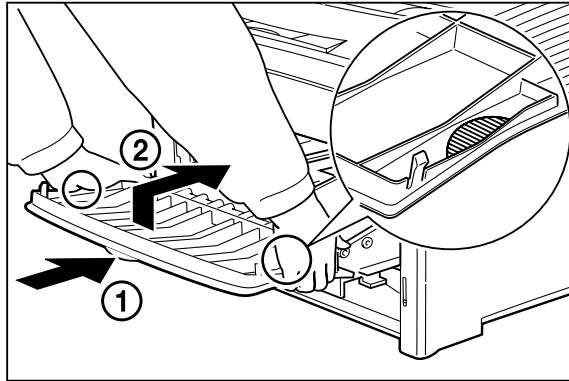
6. Remove the toner cartridge.



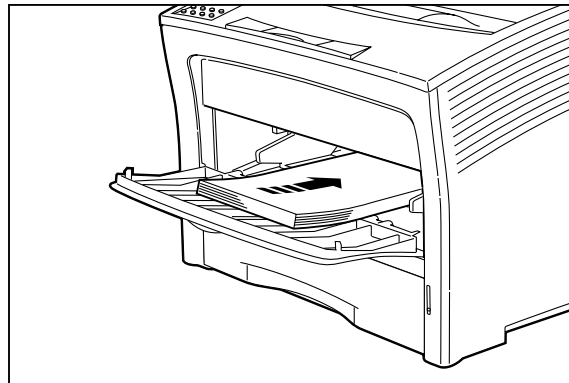
7. Remove any jammed paper from the toner cartridge well.



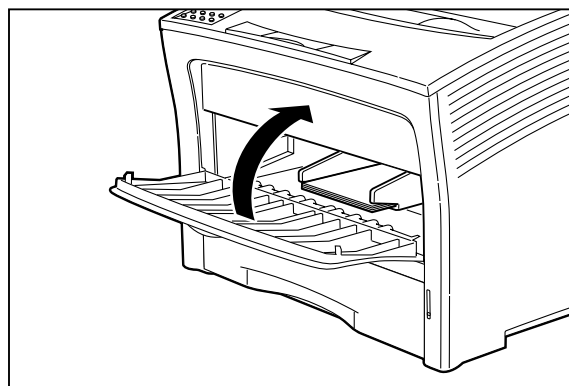
8. Reinsert the front tray into the printer.



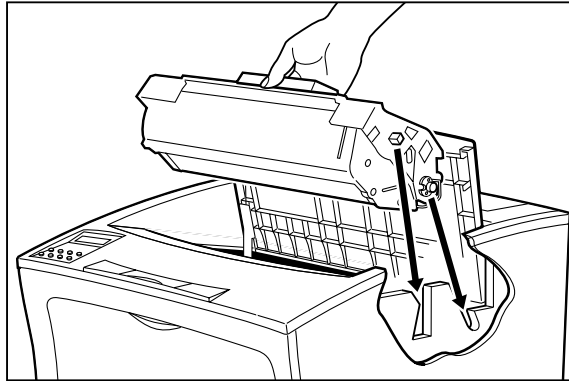
9. Reload any paper into the front tray.



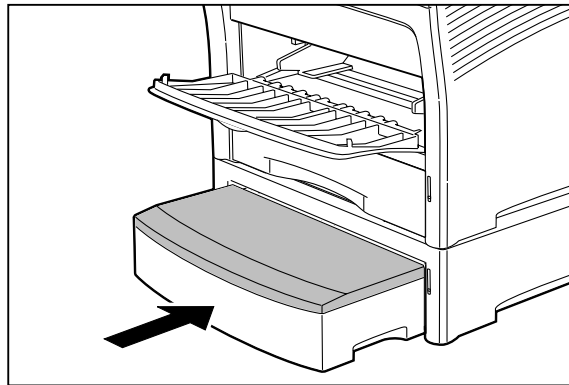
10. Close the front tray cover.



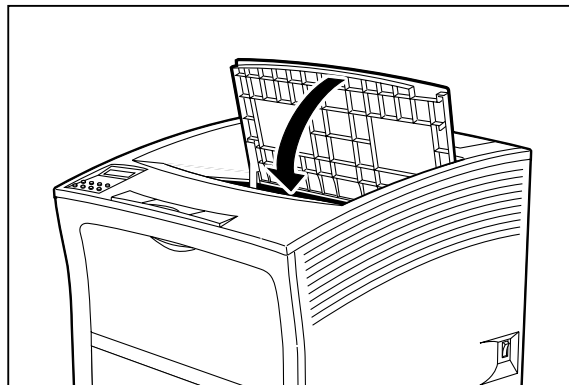
11. Slide the pegs on the toner cartridge into the channels on the inside of the printer, and lower the toner cartridge into the printer.



12. If you removed either tray 2 or tray 3, reinstall it.



13. Close the top cover.



Correcting Miscellaneous Paper Feeder Problems

Some paper feeder problems may not cause an error message and may not interfere with the operation of the printer. If you are experiencing one of the problems listed below and there is no error message shown on the control panel display, refer to the procedures in the following sections to check the possible causes of the specific problem.

- Inoperative paper feeder
- Erratic operation
- Unusual noise

Inoperative 500 Sheet Paper Feeder

The following characteristics define this feeder problem:

- The feeder appears to be inoperative.
- When attempting to print from the feeder, the feeder does not respond and does not feed paper.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and feeder doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the feeder can operate. When a door is open, the interlock switch is not activated and the feeder cannot operate. If a door is not firmly closed, the interlock switch may not be fully activated—resulting in an inoperative feeder.

2. Test the printer by printing a few sheets from the main tray.

If you cannot print a sheet of paper from the main tray and the printer does not display an error code, go to “Inoperative Printer” on page 5-3. If you can print a sheet of paper from the main tray, proceed to the next step.

3. Examine the printer driver settings to make sure the 500 sheet paper feeder is available as an installed option.
4. If the 500 sheet feeder is correctly set as an installed option, reload the printer driver software.
The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the driver.

5. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Feeder Operates Erratically

The following characteristics define this feeder problem:

- The feeder does not function correctly.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and feeder doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the feeder can operate. When a door is open, the interlock switch is not activated and the feeder cannot operate. If a door is not firmly closed, the interlock switch can bounce between being activated and being not activated - confusing the system and causing erratic operation.

2. Reinstall the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the drivers.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Feeder Makes Unusual Noises

The following characteristics define this feeder problem:

- The feeder makes unusual noises or makes more noise than usual either while idle or while printing.
- The feeder feeds paper without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Remove the paper trays and inspect the inside of the feeder for jammed paper or obviously broken components.

Broken components or scraps of paper lodged inside the feeder may be brushing against moving parts and causing the noise.

2. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Maintaining the 500 Sheet Feeder

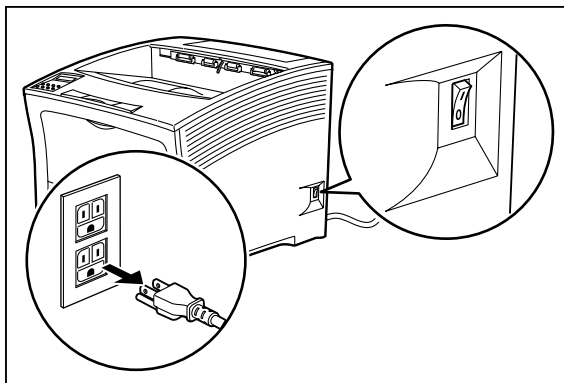
The 500 sheet feeder requires very little maintenance; however, normal daily use requires you to perform some routine maintenance including cleaning parts of the feeder.

Cleaning Feed Rolls

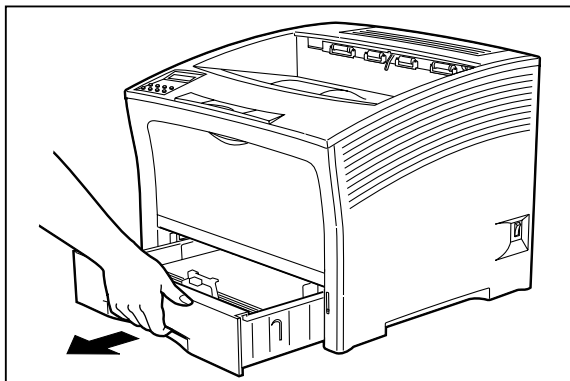
Rubber feed rolls drive sheets of paper out of the feeder paper trays into the printer. These feed rolls wear with normal use and eventually become coated with paper dust and must be cleaned. Frequent feed jams in the front tray or main tray indicate that the feed rolls need to be cleaned.

NOTE: The following procedure illustrates the process of cleaning the feed rolls for the main paper tray. To clean the feed rolls for a paper feeder, use the same procedure but remove the paper tray for the specific feeder that you are cleaning and clean the feed rolls in the paper tray well of that feeder.

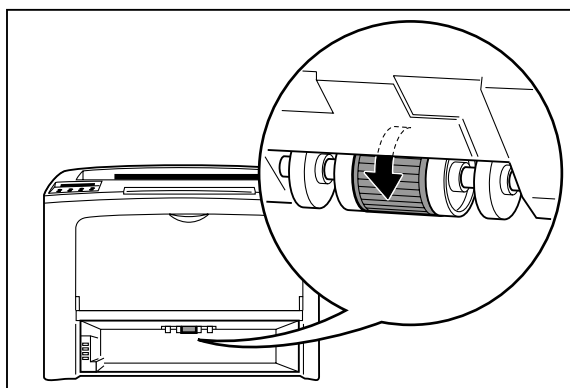
1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer, and disconnect the AC power cord from the wall outlet.



2. Remove the paper tray of the feeder that you intend to clean and set it on a flat level surface.

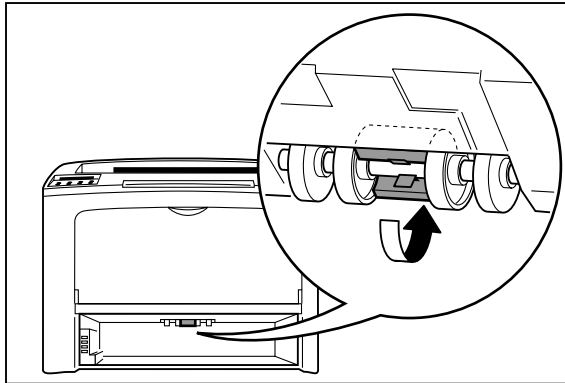


3. Reach into the feeder paper tray well and rotate the feed roll to the down position, as shown in the figure below.

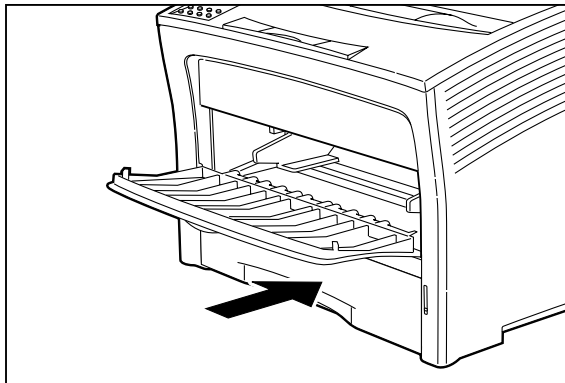


4. Using a soft cloth slightly moistened with plain water, carefully wipe the feed roll.

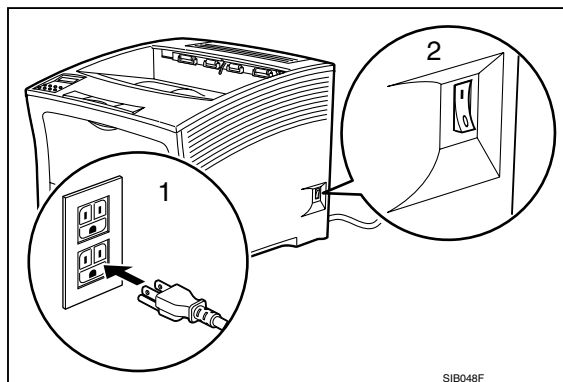
5. Rotate the feed roll back into the feed position.



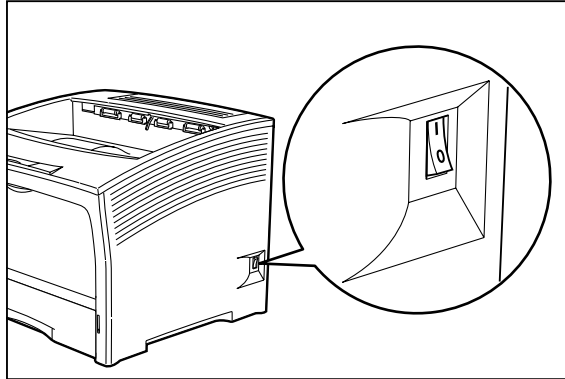
6. Reinstall the feeder paper tray.



7. Verify that the power switch of the printer is in the [O] (off) position, then insert the plug of the power cord into the AC outlet.



8. Turn the printer on by pressing [I] on the power switch on the right side of the printer.



Moving the 500 Sheet Feeder

When moving the printer a short distance, you may leave the 500 sheet paper feeder attached. However, when moving the printer a long distance, please remove the 500-sheet paper feeder to avoid damaging either the printer or the feeder.

Moving the Printer and 500 Sheet Feeder a Short Distance

Use the following procedure to move the printer and 500 sheet feeder a short distance:

1. Turn the printer off by pressing the [O] on the power switch on the back of the printer.
2. Unplug the AC power cord from the AC wall outlet.
3. Disconnect the printer from the host computer.
4. Wait 30 minutes for the printer to cool.
5. Remove the toner cartridge and cover it with an opaque plastic sheet.
6. With the help of another person, carefully lift the printer and attached 500 sheet feeder and move them to the new location.
7. Once the printer is in the new location, refer to the **Installation Guide** included in the original printer packaging and in the Electronic Library CD-ROM to reinstall the printer.

Moving the Printer and 500 Sheet Feeder a Long Distance

Use the following procedure to move the printer and 500 sheet feeder a long distance:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Unplug the AC power cord from the wall outlet and from the back of the printer.
3. Disconnect the printer from the host computer.
4. Remove the paper from all of the paper trays.
5. Wait 30 minutes for the printer to cool.
6. Remove the main paper tray.
7. Reach inside the open top tray and locate the two thumbscrews that are at the front left and front right of the feeder.

8. Unscrew the two thumbscrews to release the feeder from the printer.
9. Lift the printer off of the 500 sheet feeder and place it on the floor or on a table.
10. Repack the feeder in the original shipping box.
11. Remove the toner cartridge and place it in an opaque plastic bag, then seal the bag with tape and place it in a sturdy box.
12. Repack the printer, paper trays, AC power cord and toner cartridge into the original shipping box or boxes.
13. Once the feeder is in the new location, refer to “Installing the 500 Sheet Paper Feeders” on page 7-3 to reinstall the paper feeder(s).



Chapter 8

Using the High Capacity Feeder

In this Chapter . . .

- “About this Chapter” on page 8-2
- “About the High Capacity Feeder” on page 8-2
- “Installing the High Capacity Feeder” on page 8-3
- “Testing the High Capacity Feeder” on page 8-10
- “Selecting Print Media” on page 8-10
- “Loading Paper into the High Capacity Feeder” on page 8-11
- “Solving High Capacity Feeder Problems” on page 8-13
- “Maintaining the High Capacity Feeder” on page 8-18
- “Moving the High Capacity Feeder” on page 8-21

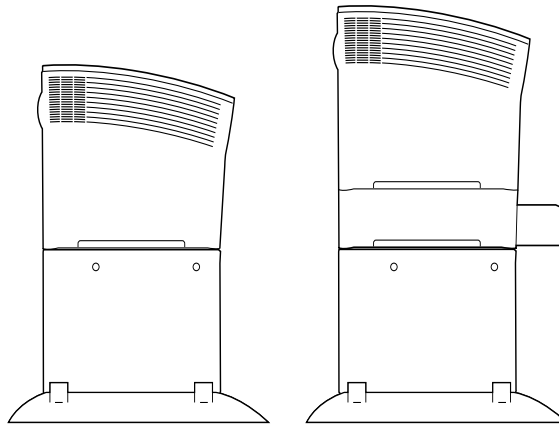
About this Chapter

This chapter provides all of the information necessary to install, use, and maintain the high capacity feeder, including procedures for cleaning the feeder and removing paper jams.

About the High Capacity Feeder

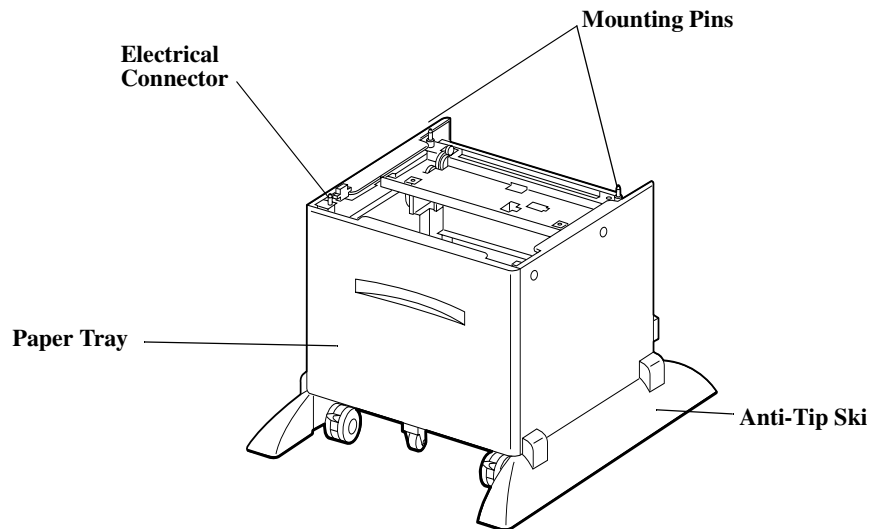
The High Capacity Feeder is an optional single-tray paper feeder that attaches under the printer. The tray holds a maximum of 2,000 sheets of standard weight paper in either A4 or Letter size. The printer supplies all of the operating power that is needed by the high capacity feeder. Motors and circuit boards internal to the high capacity feeder provide the feeder with drive and operational logic.

At the start of a print run the high capacity feeder motor switches on and begins to feed a sheet of paper out of a selected tray. Rubber rollers drive the sheet out of the tray, through the high capacity feeder, and into the printer. Sensors monitor the progress of the paper as it travels through the high capacity feeder. The high capacity feeder can be installed with either the Printer, or the Printer and one additional 500 Sheet Feeder (optional), as shown below.



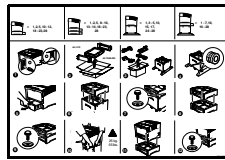
Major Components of the High Capacity Feeder

The following illustration shows the major components of the high capacity feeder:



Installing the High Capacity Feeder

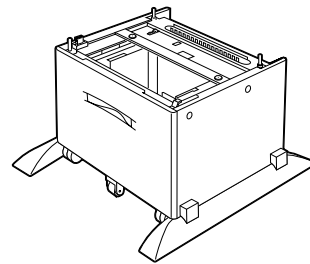
Before installing the high capacity feeder, verify that you have received the following items in the shipping box:



Installation Sheet



2 Thumbscrews



High Capacity Feeder

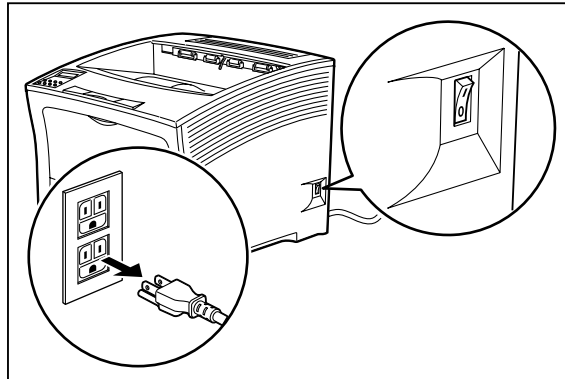
Installing the High Capacity Feeder with a Paper Feeder

Use the following procedure to install the high capacity feeder and a paper feeder together:.



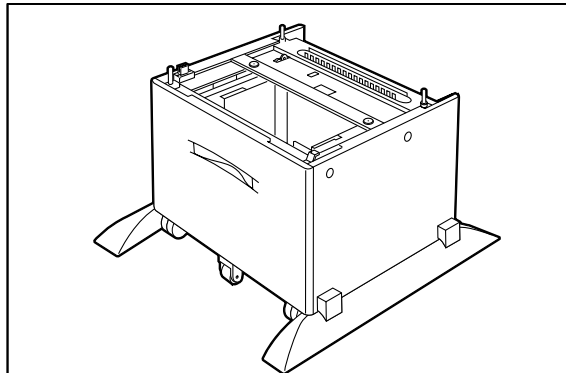
WARNING: Before installing any options, turn the printer off by pressing [O] on the power switch on the right side of the unit and disconnect the power cord from the AC outlet. These precautions are necessary to avoid the risk of electric shock.

1. Turn the printer off by pressing [O] on the power switch on the right side of the unit, and disconnect the power cord from the AC outlet.



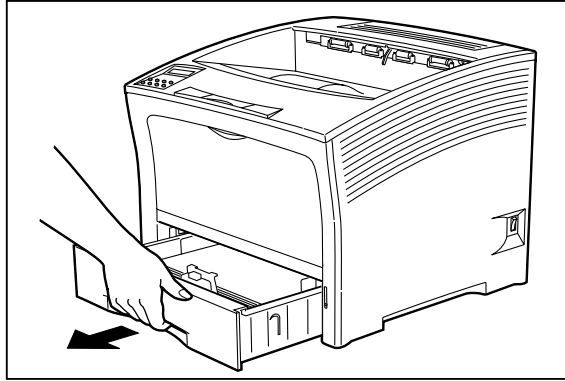
NOTE: Installing the high capacity feeder while the printer is on may damage the printer or the high capacity feeder.

2. Remove the high capacity feeder from its packaging and place it on a level surface. Remove any cardboard inserts and packing tape. Set aside the small plastic bag containing two thumb-screws.

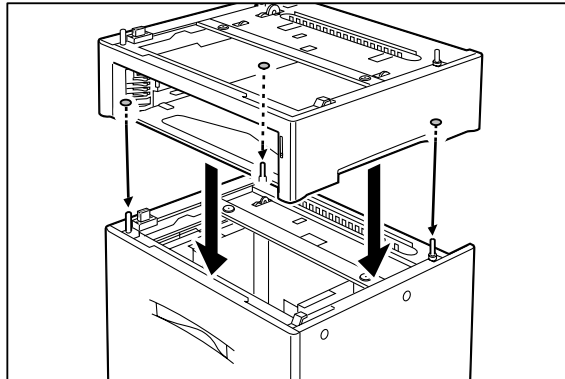


3. Lock both front casters of the high capacity feeder.

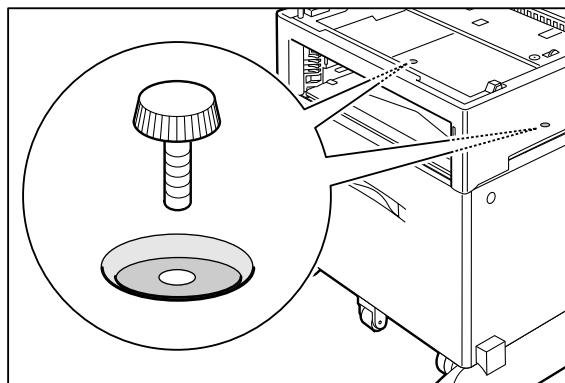
4. Remove the paper feeder from its packaging and remove any packing tape or cardboard inserts. Set aside the small plastic bag containing two thumbscrews.
5. Remove the paper tray from the printer and from the paper feeder.



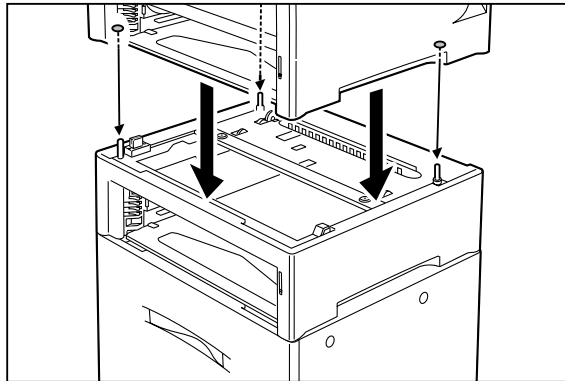
6. Align the three small holes on the bottom of the paper feeder with the metal stubs on top of the high capacity feeder, and place the paper feeder on top of the high capacity feeder.



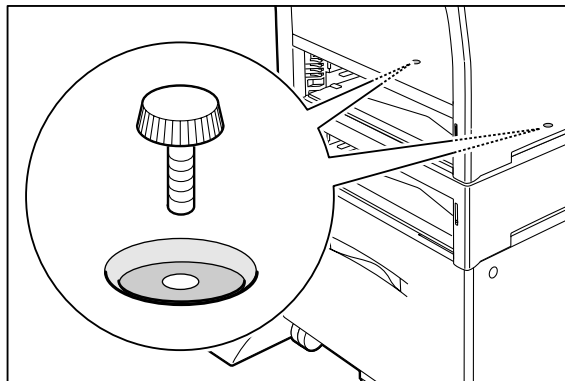
7. Insert the two thumbscrews supplied with the high capacity feeder into the holes on the base of the paper feeder and turn them until tight.



- Align the small holes on the bottom of the printer with the metal stubs on top of the paper feeder, and lower the printer onto the paper feeder.

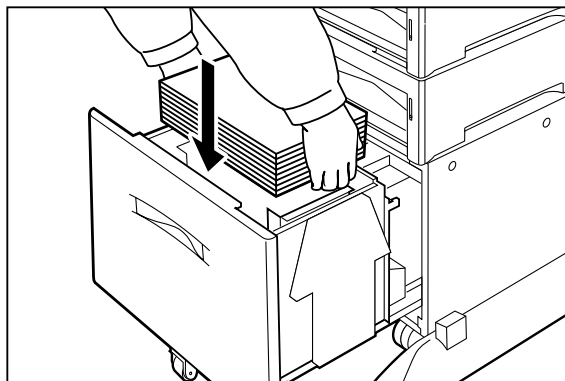


- Insert the two thumbscrews supplied with the paper feeder into the holes on the base of the printer and turn them until tight.



- Load paper into the high capacity feeder.

NOTE: For details on how to load paper, see “Loading Paper into the High Capacity Feeder” on page 8-11.



11. Insert the plug of the power cord into the AC outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.
12. Check the display to make sure the printer is ready for printing.

NOTE: If an error message is shown when you turn on the printer, see the Chapter titled “Error Messages” in the User Manual.

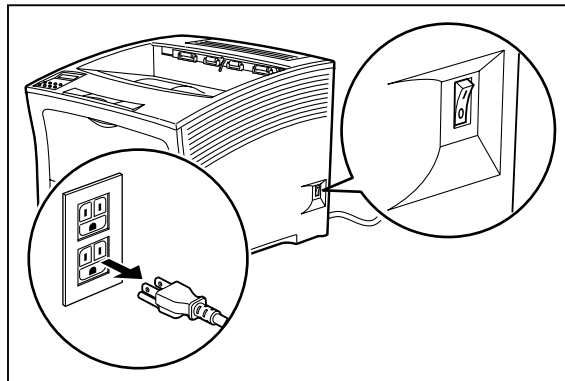
Installing Only the High Capacity Feeder

Use the following procedure to install the high capacity feeder:



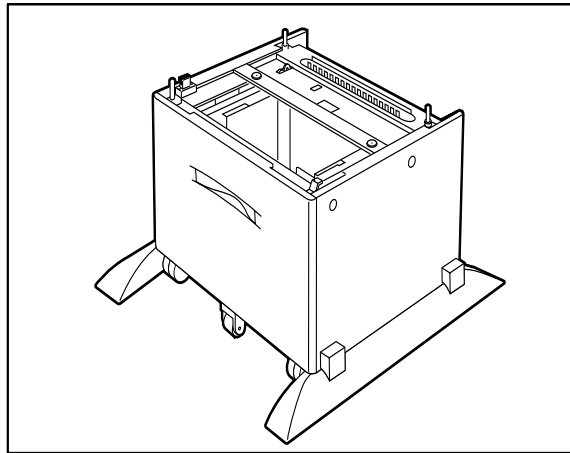
WARNING: Before installing any options, turn the printer off by pressing [O] on the power switch on the right side of the unit and disconnect the power cord from the AC outlet. These precautions are necessary to avoid the risk of electric shock.

1. Turn the printer off by pressing [O] on the power switch on the right side of the unit, and disconnect the power cord from the AC outlet.

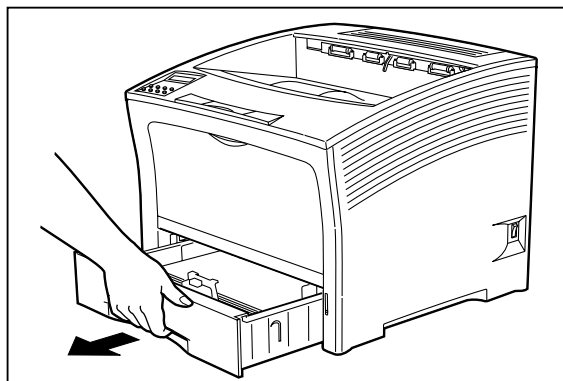


NOTE: Installing the high capacity feeder unit while the printer is on may damage the printer or the high capacity feeder.

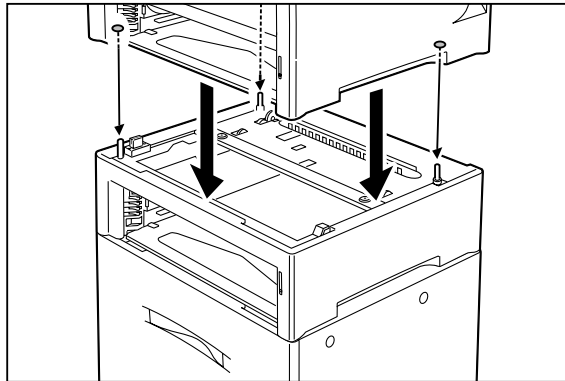
2. Remove the high capacity feeder from its packaging and place it on a level surface. Remove any cardboard inserts and packing tape. Set aside the small plastic bag containing two thumb-screws.



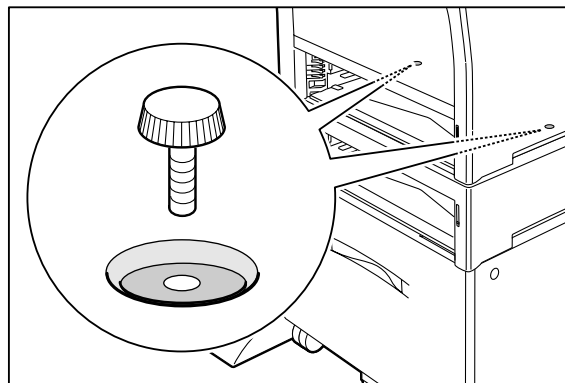
3. Lock both front casters of the high capacity feeder.
4. Remove the paper tray from the printer.



5. Align the three small holes on the bottom of the printer with the metal stubs on top of the high capacity feeder, and place the printer on top of the high capacity feeder.

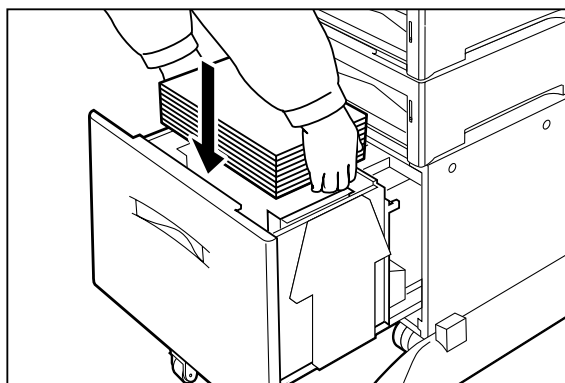


6. Insert the two thumbscrews supplied with the high capacity feeder into the holes on the base of the printer and turn them until tight.



7. Load paper into the high capacity feeder.

NOTE: For details on how to load paper, see “Loading Paper into the High Capacity Feeder” on page 8-11.



8. Insert the plug of the power cord into the AC outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.
9. Check the display to make sure the printer is ready for printing.

NOTE: If an error message is shown when you turn on the printer, see the Chapter 5: Troubleshooting.

Testing the High Capacity Feeder

After installing the high capacity feeder, use the following test procedure to verify that the feeder is operating correctly.

1. Turn the printer on by pressing the [I] on the power switch on the right side of the printer.
2. Once the printer has warmed up and displays the “**Ready**” message on the control panel display, use any software application to print a few sheets from the high capacity feeder.
3. If the feeder does not feed paper or if the control panel displays an error message, refer to “Solving High Capacity Feeder Problems” on page 8-13.

Selecting Print Media

Your printer can print on a variety of media, including plain paper, labels, transparencies, and envelopes. Always use print media that meet the guidelines for use with this printer. Print media that is not recommended for use with this printer may cause frequent paper jams or poor print quality.

Paper and Print Media To Avoid

Do not use paper or print media that has any of the following characteristics:

- Does not meet the paper and media size and weight specifications for this printer
- Is not labeled for use with xerographic printers or xerographic copiers
- Cannot withstand temperatures of up to 310°F/155°C
- Is in a sealed package that is obviously damaged or wet
- Is excessively wrinkled, curled, torn, or warped
- Is folded or creased
- Has either an extremely slick surface or an extremely textured surface
- Has an exposed adhesive surface
- Has paper pieces glued or taped to the media
- Has staples or paper clips attached
- Is categorized as thermal paper, coated paper, or carbon paper
- Is an envelope that is embossed, is made of extremely thick paper, or is padded
- Is an envelope that has metal clasps
- Is a sheet of labels that has the backing sheet exposed between individual labels

Correct Paper Storage

It is important to store paper correctly prior to placing it in the printer, since improper storage can cause frequent paper jams and poor print quality. Use the following guidelines when storing paper for use in the printer:

- Store reams of paper on a flat surface, and always store them stacked horizontally.
- Store reams of paper in an area away from both direct sunlight and high humidity
- Open sealed reams only when you are ready to load the paper into the paper tray, and always close and seal partial reams of paper.
- Do not stack partial reams of paper

Print Media Weight, Type, and Size

The following table defines print media that you can use in the high capacity feeder, and also indicates the feed orientation—long edge feed (LEF) or short edge feed (SEF). If you have concerns about a specific brand or type of media, try samples of the media to determine if the resulting printer performance and print quality meet your expectations.

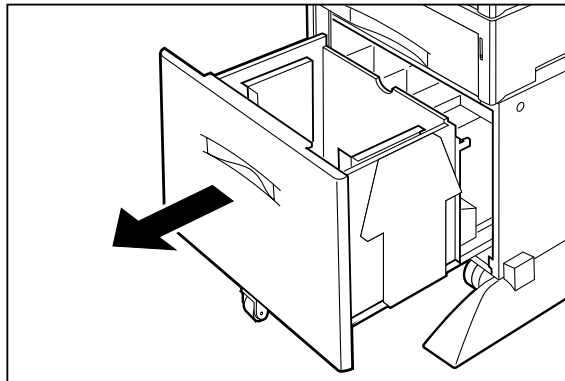
Paper Source	Weight	Paper Type and Feed Direction	Paper Sizes Accommodated
High Capacity Feeder	16 to 24 lbs. 60 to 135 g/m ²	A4 LEF	297 x 210mm 11.7 x 8.27 inches
		Letter LEF	279.4 x 215.9mm 11 x 8.5 inches

Loading Paper into the High Capacity Feeder

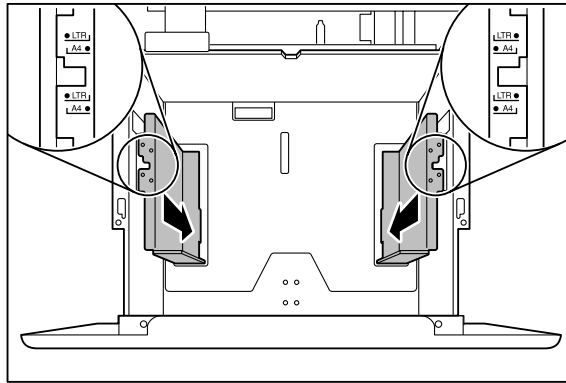
Use the following procedure to load paper into the high capacity feeder:

NOTE: The high capacity feeder accommodates only A4 or letter size paper.

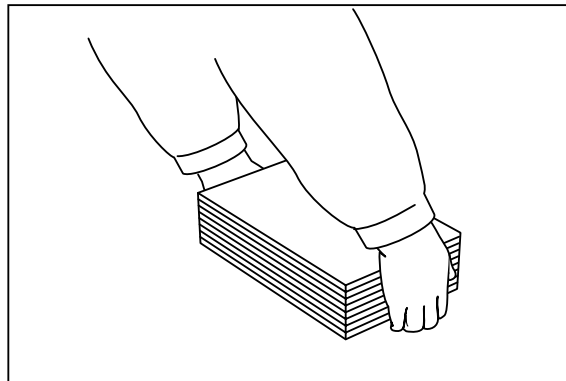
1. Pull the high capacity feeder tray out until it stops. Do not reach into the tray with your hand until the tray is completely lowered.



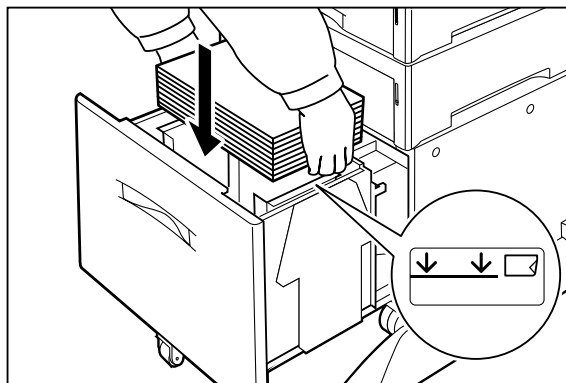
2. Adjust the paper guides to fit the desired paper size by lifting the paper guides and inserting them into the appropriate guide holes.



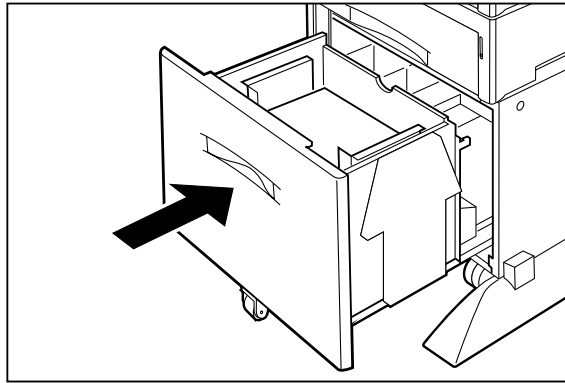
3. Hold a stack of paper with both hands as illustrated in the figure below.



4. Gently place the paper into the paper tray. Make sure the paper stack does not exceed the maximum paper level shown on the high capacity feeder tray.



5. Push the paper tray all the way back into the high capacity feeder.



Solving High Capacity Feeder Problems

When there is a problem with the high capacity feeder, the printer control panel displays an error code and error message. Most high capacity feeder error codes indicate routine status conditions such as running out of paper or a paper jam. Some error codes indicate much more serious problems that may require the help of a service technician.

- If the high capacity feeder is inoperative after installation, refer to “Installation Problems” on page 8-15 and complete the recommended procedure.
- If the printer control panel displays an error message or an error code, refer to “Interpreting High Capacity Feeder Error Messages” on page 8-14.
- If you have a high capacity feeder problem but the printer control panel does not display an error message or error code, refer to “Correcting Miscellaneous High Capacity Feeder Problems” on page 8-16 and follow the directions for correcting that problem.

Interpreting High Capacity Feeder Error Messages

The printer control panel displays error messages when there is a problem with the printer or any of the optional paper-handling components. The following table lists all of the error messages associated with the high capacity feeder, the possible cause of the error, and the action to take to correct the problem. If the control panel shows an error message that concerns another part of the printer, refer to **Chapter 5: Troubleshooting** for a complete list of all warning and error messages.

Error or Warning Message Line 1	Error or Warning Message Line 2	Possible Cause	Action
(Warning message, printer continues operating and line 1 shows printer status.)	Tray 2 Missing (applies to HCF if no 500 sheet feeder is installed)	Tray 2 is not installed.	Install the tray.
	Tray 3 Missing (applies to HCF if one 500 sheet paper feeder is installed)	Tray 3 is not installed.	Install the tray.
	Paper Low Tray 2 (applies to HCF if no 500 sheet feeder is installed)	Paper supply in tray 2 is low.	Add paper to the tray.
	Paper Low Tray 3 (applies to HCF if one 500 sheet paper feeder is installed)	Paper supply in tray 3 is low.	Add paper to the tray.
	Paper Out Tray 2 (applies to HCF if no 500 sheet feeder is installed)	There is no paper in tray 2.	Add paper to the tray.
	Paper Out Tray 3 (applies to HCF if one 500 sheet paper feeder is installed)	There is no paper in tray 3.	Add paper to the tray.
	HCF Lifting	The high capacity feeder is lifting.	Wait until the HCF has finished lifting completely.
E0 JAM HCF	Remove paper	There is a jam at the high capacity feeder.	Remove the paper jam. See “Clearing a High Capacity Feeder Paper Jam” on page 8-15.
E5 COVER OPEN	Close HCF Cover	The HCF cover is open.	Close the HCF cover.
LOAD PAPER TRAY2 (applies to HCF if no 500 sheet feeder is installed)	Paper Size/ Paper Type	Tray 2 is empty.	Load paper into the tray.

LOAD PAPER TRAY3 (applies to HCF if one 500 sheet paper feeder is installed)	Paper Size/ Paper Type	Tray 3 is empty.	Load paper into the tray.
HCF UNIT FAILURE	Call Service	The HCF has failed.	Turn the printer off, then turn it on. If the problem reoccurs, contact an authorized service provider.

Installation Problems

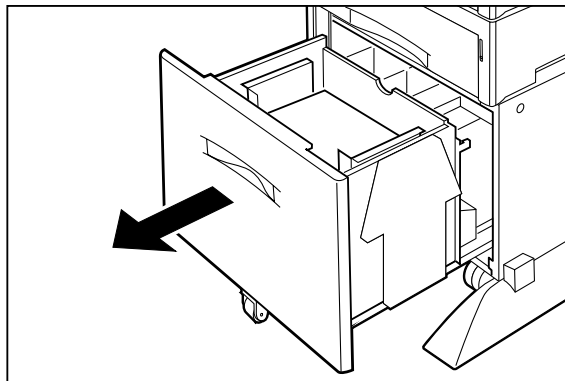
Simple oversights during installation may cause problems when you first use the high capacity feeder. If the high capacity feeder is inoperative after you have installed it, use the following procedure to check several possible causes.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Make sure that the printer is properly seated on the high capacity feeder.
If the printer is properly seated but the high capacity feeder is still inoperative, return to the installation procedure and carefully repeat all of the installation steps.
3. If the high capacity feeder is still inoperative after reinstallation, remove it from the printer so you can run tests on the printer alone.
4. Print a few sheets of paper through the main paper tray or the front tray to make sure the printer is still operational.
 - 1 If the printer is operational when the high capacity feeder is not attached, contact either your sales representative or a service technician and report your problem.
 - 1 If the printer is not operational when the high capacity feeder is not attached, refer to **Chapter 5: Troubleshooting** for procedures to correct printer problems. After correcting the printer problem, return to this chapter to reinstall the high capacity feeder.

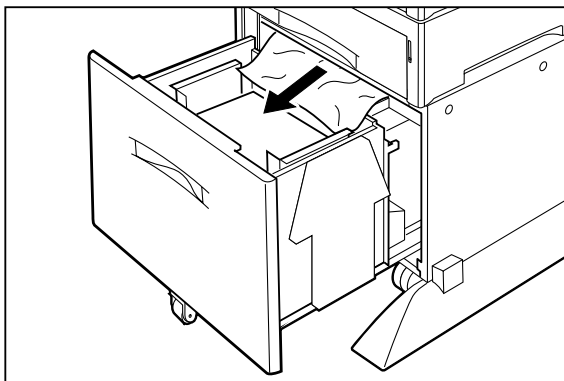
Clearing a High Capacity Feeder Paper Jam

If an E0 error code precedes the error message on the first line of the control panel display, paper has jammed at the high capacity feeder. Use the following procedure to clear a paper jam in this location:

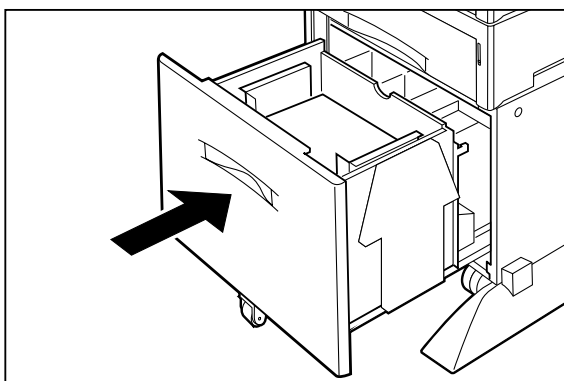
1. Pull the high capacity feeder paper drawer out.



2. Remove any jammed paper from the paper drawer.



3. Remove the paper stack from the paper drawer.
4. Inspect the paper for any obvious signs of damage. If the paper is damaged, replace the entire stack with new, undamaged paper.
5. While the paper is out of the drawer, inspect the Feed Roll area of the high capacity feeder and remove any jammed paper from the rolls.
6. Push the paper drawer back into the high capacity feeder, making sure the drawer is properly closed.



Correcting Miscellaneous High Capacity Feeder Problems

Some high capacity feeder problems may not cause an error message and may not interfere with the operation of the printer. If you are experiencing one of the problems listed below and there is no error message shown on the control panel display, refer to the procedures in the following sections to check the possible causes of the specific problem.

- Inoperative high capacity feeder
- Erratic operation
- Unusual noise

Inoperative High Capacity Feeder

The following characteristics define this feeder problem:

- The high capacity feeder appears to be inoperative.

- When attempting to print from the high capacity feeder, the high capacity feeder does not respond and does not feed paper.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and feeder doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the high capacity feeder can operate. When a door is open, the interlock switch is not activated and the high capacity feeder cannot operate. If a door is not firmly closed, the interlock switch may not be fully activated—resulting in an inoperative high capacity feeder.

2. Test the printer by printing a few sheets from the main tray.

If you cannot print a sheet of paper from the main tray and the printer does not display an error code, go to “Inoperative Printer” on page 5-3. If you can print a sheet of paper from the main tray, proceed to the next step.

3. Examine the printer driver settings to make sure the high capacity feeder is available as an installed option.
4. If the high capacity feeder is correctly set as an installed option, reload the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the driver.

5. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Feeder Operates Erratically

The following characteristics define this high capacity feeder problem:

- The high capacity feeder does not function correctly.
- The high capacity feeder does not feed paper, or feeds paper without a request.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this high capacity feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and high capacity feeder doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the high capacity feeder can operate. When a door is open, the interlock switch is not activated and the high capacity feeder cannot operate. If a door is not firmly closed, the interlock switch can bounce between being activated and being not activated - confusing the system and causing erratic operation.

2. Reinstall the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the drivers.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

High Capacity Feeder Makes Unusual Noises

The following characteristics define this high capacity feeder problem:

- The high capacity feeder makes unusual noises or makes more noise than usual either while idle or while printing.
- The high capacity feeder feeds paper without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this high capacity feeder problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Remove the paper trays and inspect the inside of the high capacity feeder for jammed paper or obviously broken components.

Broken components or scraps of paper lodged inside the high capacity feeder may be brushing against moving parts and causing the noise.

2. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Maintaining the High Capacity Feeder

The high capacity feeder requires very little maintenance; however, with normal use you will need to perform some routine maintenance tasks such as cleaning the high capacity feeder and replacing certain components.

Cleaning the Interior of the High Capacity Feeder

Generally, the interior of the high capacity feeder seldom needs cleaning unless paper dust accumulation inside the high capacity feeder starts to cause recurring paper feed problems.



Since there is always the possibility of damaging delicate high capacity feeder components by carelessness or by overly vigorous cleaning methods, we recommend that you clean the interior only when you are instructed to do so by a service representative or by a procedure presented in this manual.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Remove the plug of the AC power cord from the AC wall outlet.
3. Remove all paper from the high capacity feeder drawer.
4. Remove the paper drawer from the high capacity feeder by sliding the drawer out of the high capacity feeder and then raising the front of the tray to disengage it from the rails. Slide the drawer completely out of the high capacity feeder.
5. For minor cleaning, use a soft, dry cloth and carefully wipe only those areas of the high capacity feeder interior that appear to be dirty.

For major cleaning, use a small vacuum cleaner with a disposable bag and crevice tool attachment. Use a soft-haired brush to dislodge dirt and sweep it into the vacuum nozzle.
6. Reload paper into the high capacity feeder drawer.
7. Raise the front of the high capacity feeder drawer while you slip the rear of the drawer into the rails on the sides of the high capacity feeder, then slide the drawer back into the high capacity feeder.
8. Insert the plug of the AC power cord into the AC wall outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.

Cleaning the Exterior of the High Capacity Feeder

Through normal use the exterior of the high capacity feeder may become dirty or stained with toner. Although exterior dirt should not affect printer performance, an occasional exterior cleaning may be necessary to maintain the appearance of the high capacity feeder.

1. Turn the printer off by pressing [O] on the power switch on the right side of the printer.
2. Remove the plug of the AC power cord from the AC wall outlet.
3. Using a soft cloth, slightly damp with cold water, wipe the high capacity feeder covers and tray faces. Use a very mild, non-abrasive soap to remove heavy dirt and toner stains.



CAUTION: Do not use solvents or abrasive cleaners to clean high capacity feeder covers. Use only cold water and a very mild soap to clean covers.

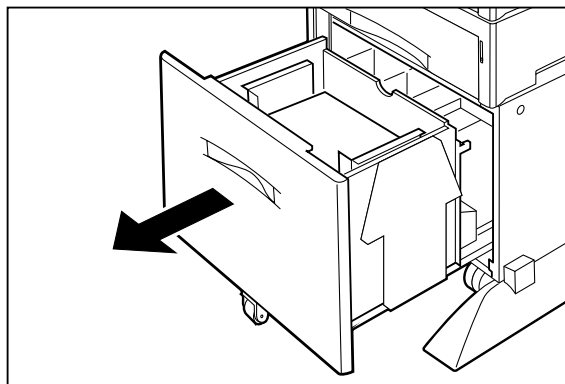
4. Using a soft, dry cloth, thoroughly dry the covers and tray faces.

5. Insert the plug of the AC power cord into the AC wall outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.

Cleaning Feed Rolls

Rubber feed rolls drive sheets of paper out of the high capacity feeder paper tray into the printer. These feed rolls wear with normal use and eventually become coated with paper dust and must be cleaned. Frequent feed jams in the front tray or main tray indicate that the feed rolls need to be cleaned.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Unplug the AC power cord from the AC wall outlet.
3. Remove the paper drawer from the high capacity feeder.



4. Look inside the empty paper tray cavity and locate the three rubber feed rolls.
5. Vigorously wipe the drive surface of each feed roll using a paper towel that is slightly damp with water.



Use only water to clean the feed rolls, do not use solvents or abrasive cleaners.

6. Use a clean, dry paper towel and wipe each feed roll dry.
7. Push the paper drawer back into the high capacity feeder.
8. Connect the plug of the AC power cord into the AC wall outlet.
9. Turn the printer on by pressing the [I] on the power switch on the right side of the printer.

Moving the High Capacity Feeder

Moving the High Capacity Feeder a Short Distance

Use the following procedure to move the high capacity feeder a short distance:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Disconnect the plug of the AC power cord from the AC wall outlet.
3. Disconnect the printer from the host computer.
4. Wait 30 minutes for the printer to cool before moving the printer.
5. Remove the toner cartridge and cover it with an opaque plastic sheet.
6. Pull up on the wheel tabs to unlock the four caster wheels under the high capacity feeder.
7. Roll the printer and high capacity feeder to the new location.
8. Once the printer and high capacity feeder are in the new location, refer to the printer Installation Guide included in the original packaging to reinstall the printer.

Moving the High Capacity Feeder a Long Distance

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Disconnect the plug of the AC power cord from the AC wall outlet, and disconnect the AC power cord from the printer.
3. Disconnect the printer from the host computer.
4. Wait 30 minutes for the printer to cool before moving the printer.
5. Pull up on the wheel tabs to unlock the four caster wheels under the high capacity feeder.
6. Roll the printer and high capacity feeder to a place where you can easily access all four sides.
7. Push down on the wheel tabs to lock the four high capacity feeder caster wheels.
8. Remove the paper tray from the printer
9. Remove the paper from the high capacity feeder paper trays.
10. Reach inside the open top tray and locate the two thumbscrews that are at the front left and front right of the high capacity feeder.
11. Unscrew the two thumbscrews to release the high capacity feeder from the printer.
12. With the help of another person, lift the printer off of the high capacity feeder and place it on the floor or on a strong table.



CAUTION: The printer is extremely heavy. Do not attempt to lift the printer by yourself.

13. Repack the high capacity feeder into the original shipping box.



CAUTION: The high capacity feeder is heavy. Do not attempt to lift the high capacity feeder by yourself.

-
14. Once the high capacity feeder is in the new location, refer to “Installing the High Capacity Feeder” on page 8-3.



Chapter 9

Using the Stacker

In this Chapter . . .

- “About this Chapter” on page 9-2
- “About the Stacker” on page 9-2
- “Installing the Stacker” on page 9-3
- “Testing the Stacker” on page 9-8
- “Solving Stacker Problems” on page 9-8
- “Maintaining the Stacker” on page 9-13
- “Moving the Stacker” on page 9-13

About this Chapter

This chapter provides all of the information necessary to install, use, and maintain the **Stacker**, including procedures for cleaning and removing paper jams.

About the Stacker

The Stacker is an optional output tray that attaches to the top rear of the printer and can hold up to 500 printed sheets. The printer supplies all of the operating power that is needed by the Stacker. Motors and circuit boards internal to the stacker provide it with drive and operational logic.

The stacker can be installed with only the printer, or it may be installed with other paper-handling options.

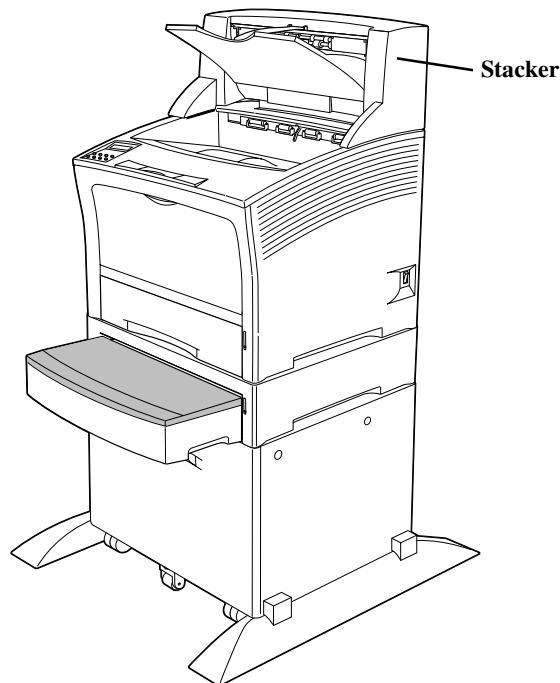


Figure 9-1: Stacker installed with other paper handling options.

Major Components of the Stacker

The following illustration shows the major components of the stacker:.

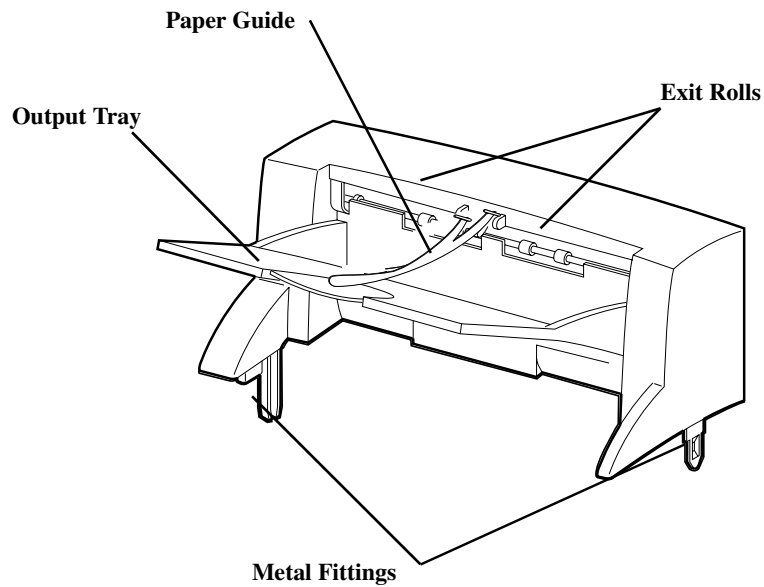
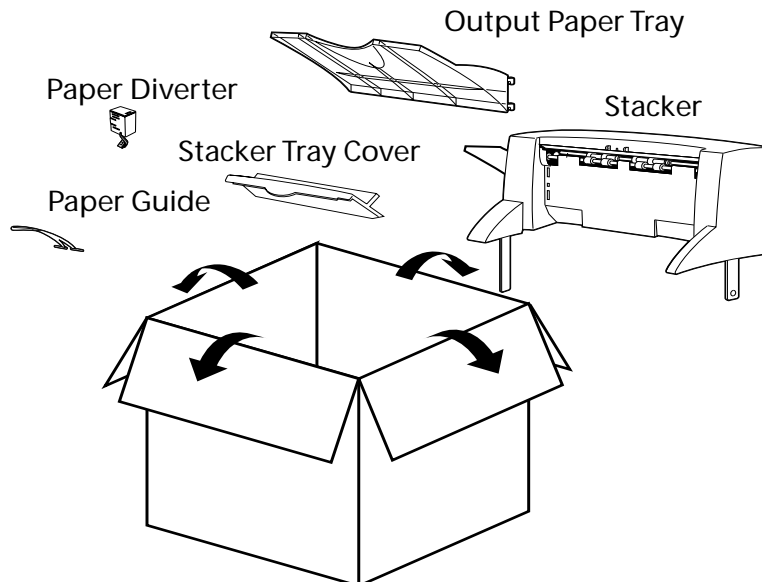


Figure 9-2: Stacker Major Components.

Installing the Stacker

Before installing the stacker, remove it from its packaging and verify that you have received the following items. If any of the items are missing or damaged, contact your dealer.

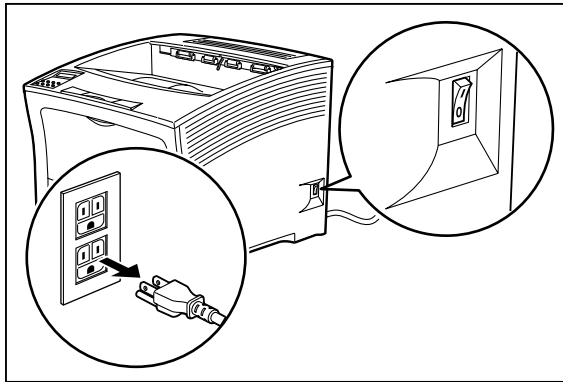


Throughout this procedure, the different sides of the printer are referred to as front, rear, left, and right. The front of the printer is the side that holds the control panel. The left and right sides are those to the left and right, respectively, of a person facing the front of the printer.

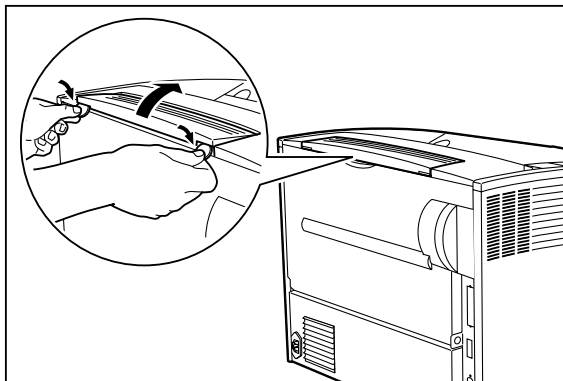
Use the following procedure to install the stacker:

1. Remove any cardboard inserts or packing tape from the interior and exterior of the stacker.
2. Turn the printer off by pressing [O] on the power switch on the right side of the unit, and disconnect the power cord from the AC outlet.

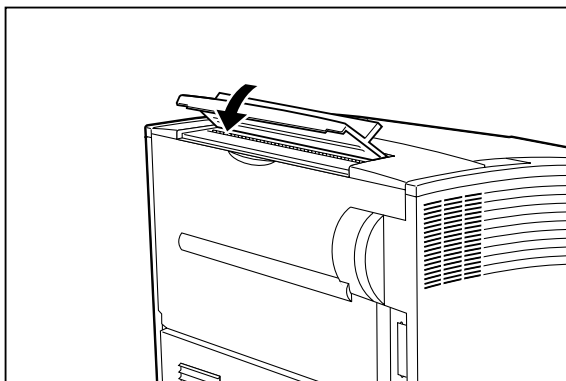
NOTE: Installing the stacker while the printer is on may damage the printer or the stacker.



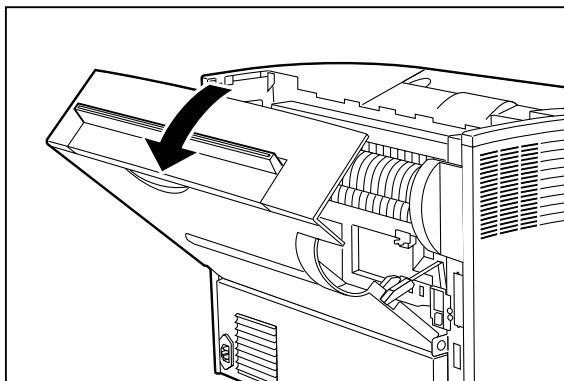
3. Insert coins or similar objects into the two spaces below the standard stacker cover, located at the rear of the top of the printer. Push down or twist the coins to release the cover, and remove the cover from the printer.



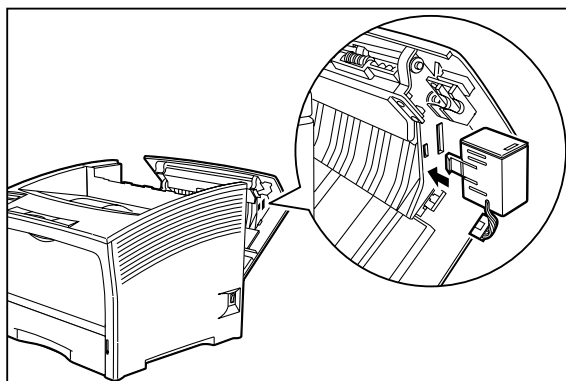
4. Install the cover supplied with the stacker in place of the standard cover. Align the tabs on the cover with the holes on the printer and snap the cover in place.



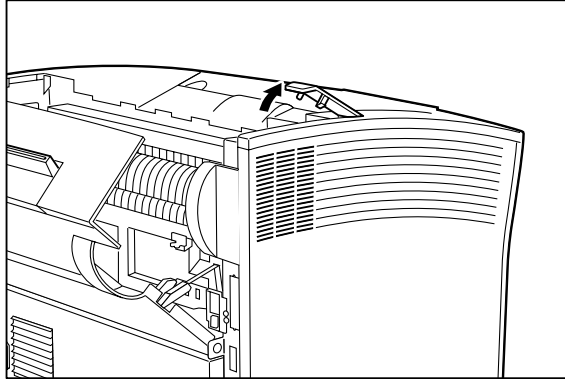
5. Pull on the recessed area near the top of the rear of the printer to open the rear cover.



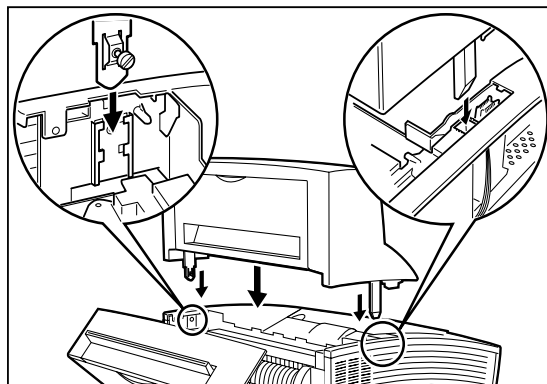
6. Insert the tabs on the stacker paper diverter into the matching holes on the right side of the rear cover.



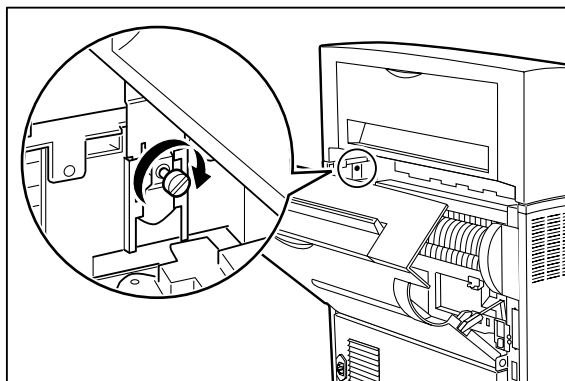
7. Connect the wiring on the stacker paper diverter to the rear cover.
8. Remove the small cover on the left side of the top of the printer.



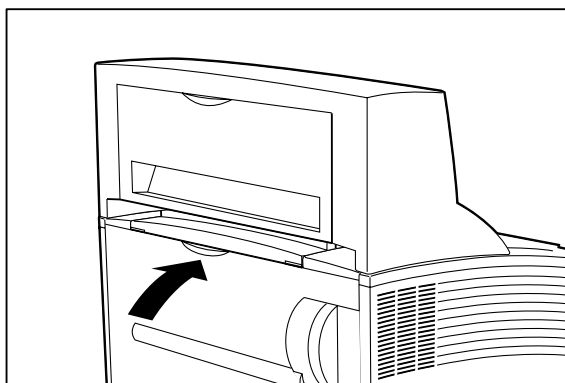
9. Gently lower the stacker onto the printer while inserting the metal fittings of the stacker into the slots on the printer.



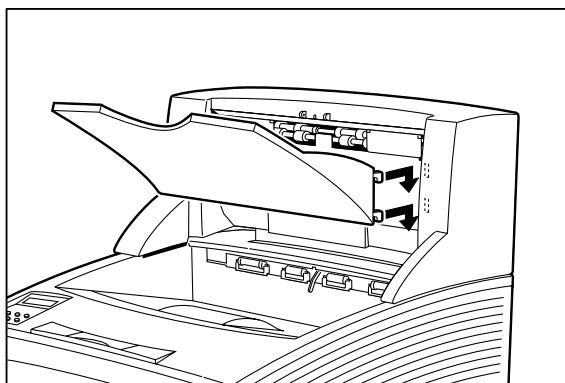
10. Tighten the screw attached to the right metal fitting of the stacker.



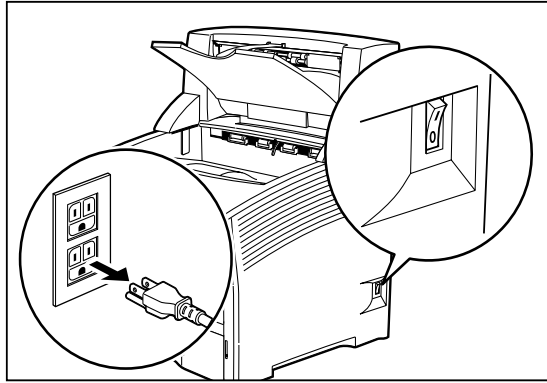
11. Close the rear cover of the printer.



12. Attach the paper output tray to the stacker.



13. Attach the paper guide near the paper exit slot.



14. Insert the plug of the power cord into the AC outlet and turn the printer on by pressing [I] on the power switch on the right side of the printer.
15. Check the display to make sure the printer is ready for printing.

NOTE: If an error message is shown when you turn the printer on, refer to **Chapter 5: Troubleshooting**.

Testing the Stacker

After installing the stacker, use the following test procedure to verify that it is operating correctly.

1. Turn the printer on by pressing the [I] on the power switch on the right side of the printer.
2. Once the printer has warmed up and displays the “Ready” message on the control panel display, use any software application to print a few sheets to the stacker.
3. If the feeder does not feed paper or if the control panel displays an error message, refer to “Solving Stacker Problems” on page 9-8.

Solving Stacker Problems

When there is a problem with the stacker, the printer control panel displays an error code and error message. Most stacker error codes indicate routine status conditions such as a paper jam. Some error codes indicate much more serious problems that may require the help of a service technician.

- If the stacker is inoperative after installation, refer to “Installation Problems” on page 9-9 and complete the recommended procedure.
- If the printer control panel displays an error message or an error code, refer to “Interpreting Stacker Error Messages” on page 9-9.
- If you have an stacker problem but the printer control panel does not display an error message or error code, refer to “Correcting Miscellaneous Stacker Problems” on page 9-11s and follow the directions for correcting that problem.

Interpreting Stacker Error Messages

The printer control panel displays error messages when there is a problem with the printer or any of the optional paper-handling components. The following table lists all of the error messages associated with the stacker, the possible cause of the error, and the action to take to correct the problem. If the control panel shows an error message that concerns another part of the printer, refer to **Chapter 5: Troubleshooting** for a complete list of all warning and error messages.

Error or Warning Message Line 1	Error or Warning Message Line 2	Possible Cause	Action
(Warning message, printer continues operating and line 1 shows printer status.)	Stacker Full	The stacker is full.	Remove paper from the tray.
E8 JAM STACKER	Remove paper	There is a jam at the stacker.	Remove the paper jam. See “Clearing an Stacker Paper Jam” on page 9-10.
E5 COVER OPEN	Stacker	The stacker is open.	Close the stacker cover.
STACKER FULL	Remove Paper	The stacker is full.	Remove paper from the tray.
STACKER FAIL	Call Service	The stacker has failed.	Turn the printer off, then turn it on. If the problem reoccurs, contact an authorized service provider.

Installation Problems

Simple oversights during installation may cause problems when you first use the stacker. If the stacker is inoperative after you have installed it, use the following procedure to check several possible causes.

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Make sure that the stacker is firmly attached to the printer and that the wiring attaching the paper diverter to the printer is intact.

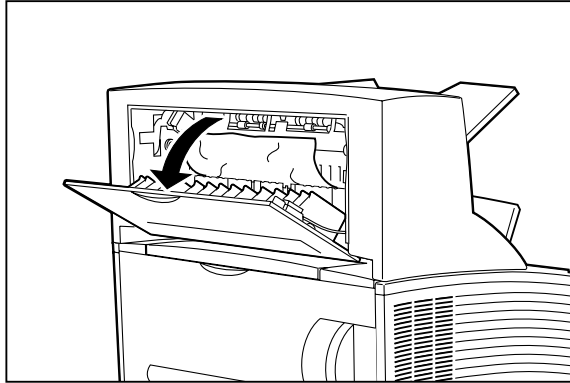
If the stacker is firmly attached and the wiring is intact but the stacker is still inoperative, return to the installation procedure and carefully repeat all of the installation steps.

3. If the stacker is still inoperative after reinstallation, remove it from the printer so you can run tests on the printer alone.
4. Print a few sheets of paper to the main output tray to make sure the printer is still operational.
 - If the printer is operational when the stacker is not attached, contact either your sales representative or a service technician and report your problem.
 - If the printer is not operational when the stacker is not attached, refer to **Chapter 5: Troubleshooting** for procedures to correct printer problems. After correcting the printer problem, return to this chapter to reinstall the stacker.

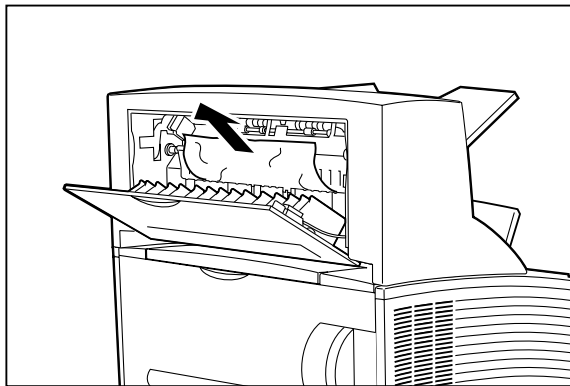
Clearing an Stacker Paper Jam

If an E8 error code precedes the error message on the first line of the control panel display, paper has jammed at the stacker. Use the following procedure to clear a paper jam in this location:

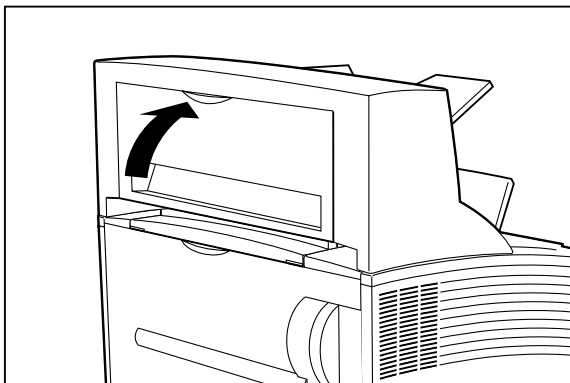
1. Pull on the hand grip on the rear of the stacker to open the rear cover.



2. Remove any jammed paper from the interior of the stacker.



3. Close the rear cover of the stacker.



Correcting Miscellaneous Stacker Problems

Some stacker problems may not cause an error message and may not interfere with the operation of the printer. If you are experiencing one of the problems listed below and there is no error message shown on the control panel display, refer to the procedures in the following sections to check the possible causes of the specific problem.

- Inoperative stacker
- Erratic operation
- Unusual noise

Inoperative Stacker

The following characteristics define this feeder problem:

- The stacker appears to be inoperative.
- When attempting to print to the stacker, the stacker does not respond and does not transport paper.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this stacker problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and stacker doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the stacker can operate. When a door is open, the interlock switch is not activated and the stacker cannot operate. If a door is not firmly closed, the interlock switch may not be fully activated—resulting in an inoperative stacker.

2. Examine the printer driver settings to make sure the stacker is available as an installed option. If the stacker is correctly set as an installed option, reload the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the driver.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Stacker Operates Erratically

The following characteristics define this stacker problem:

- The stacker does not function correctly.
- The stacker does not transport paper, or transports paper without a request.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this stacker problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open and then firmly close all of the printer and stacker doors and covers.

Interlock switches monitor the position of printer doors and covers. When a door is closed, the interlock switch is activated and the stacker can operate. When a door is open, the interlock switch is not activated and the stacker cannot operate. If a door is not firmly closed, the interlock switch can bounce between being activated and being not activated—confusing the system and causing erratic operation.

2. Reinstall the printer driver software.

The printer driver software running on the host computer may be damaged. Reinstalling the software is an easy and inexpensive way to isolate or eliminate the problem. Refer to the **DRIVERS** folder on the Electronic Library CD-ROM for detailed instructions on installing the drivers.

3. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Stacker Makes Unusual Noises

The following characteristics define this stacker problem:

- The stacker makes unusual noises or makes more noise than usual either while idle or while printing.
- The stacker transports paper without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this stacker problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open the stacker cover and inspect the inside for jammed paper or obviously damaged parts.

Broken components or scraps of paper lodged inside the stacker may be brushing against moving parts and causing the noise.

2. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Stacker will not Offset

The following characteristics define this stacker problem:

- The stacker does not offset printed sheets.
- The stacker transports paper without a problem.
- The control panel does not display an error code.

The following procedure guides you through multiple actions that may solve this stacker problem. Proceed one step at a time until the problem is solved—you may not need to complete the entire procedure. If one of the steps in this procedure corrects the problem but the identical problem returns in less than 50 prints, call for service.

1. Open the stacker cover and inspect the inside for jammed paper or obviously damaged parts.

Broken components or scraps of paper lodged inside the stacker may be wedged against moving parts, preventing the offset roll from moving.

2. Call your service technician.

This problem may be caused by a malfunctioning or broken component that requires service.

Maintaining the Stacker

The stacker requires very little maintenance; however, with normal use you will need to perform some routine maintenance tasks such as cleaning.

Cleaning the Exterior of the Stacker

Through normal use the exterior of the stacker may become dirty or stained with toner. Although exterior dirt should not affect printer performance, an occasional exterior cleaning may be necessary to maintain the appearance of the stacker.

1. Turn the printer off by pressing [O] on the power switch on the right side of the printer.
2. Remove the plug of the AC power cord from the AC wall outlet.
3. Using a soft cloth, slightly damp with cold water, wipe the stacker covers and tray faces. Use a very mild, non-abrasive soap to remove heavy dirt and toner stains.



CAUTION: Do not use solvents or abrasive cleaners to clean stacker covers. Use only cold water and a very mild soap to clean covers.

4. Using a soft, dry cloth, thoroughly dry the covers and tray faces.
5. Insert the plug of the AC power cord into the AC wall outlet, and turn the printer on by pressing [I] on the power switch on the right side of the printer.

Moving the Stacker

Moving the Stacker a Short Distance

Use the following procedure to move the stacker a short distance:

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Disconnect the plug of the AC power cord from the AC wall outlet.
3. Disconnect the printer from the host computer.
4. Wait 30 minutes for the printer to cool before moving the printer.
5. Remove the toner cartridge and cover it with an opaque plastic sheet.
6. With the help of another person, grasp the recessed areas on the bottom of the printer and lift the printer. Carefully carry the printer to the new location.

7. Once the printer and stacker are in the new location, refer to the printer **Installation Guide** included in the original packaging and in the Electronic Library CD-ROM to reinstall the printer.

Moving the Stacker a Long Distance

1. Turn the printer off by pressing the [O] on the power switch on the right side of the printer.
2. Disconnect the plug of the AC power cord from the AC wall outlet, and disconnect the AC power cord from the printer.
3. Disconnect the printer from the host computer.
4. Remove the paper diverter from the stacker.
5. Remove the stacker cover from the top rear of the printer and replace it with the original printer cover.
6. Remove the output paper tray from the stacker.
7. Remove the paper guide from the stacker.
8. Unscrew the thumbscrew on the right metal fitting of the stacker.
9. Carefully lift the stacker off of the printer.
10. Repack the stacker components in the original packaging.
11. Once the stacker is in the new location, refer to “**Installing the Stacker**” on page 9-3.



Chapter 10

Optional Extended Features

In this Chapter . . .

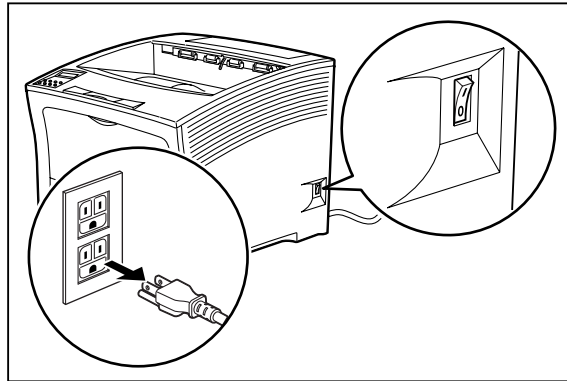
- See “Installing DRAM Memory DIMMS” on page 10-2.
- See “Installing the Hard Disk Option ” on page 10-6.
- See “Installing the User FLASH DIMM Module” on page 10-10.
- See “Using the Hard Disk Option and User Flash DIMM Module” on page 10-14.
- See “Using the Power-On Files Feature” on page 10-17.
- See “Extended Features Using the Hard Disk or User Flash Option” on page 10-18.
- See “Installing the RS-232C/RS-422 Serial Interface” on page 10-26
- See “Using the RS-232C/RS-422 Serial Interface” on page 10-32
- See “Using the Custom Paper Size Feature” on page 10-39

About this Chapter

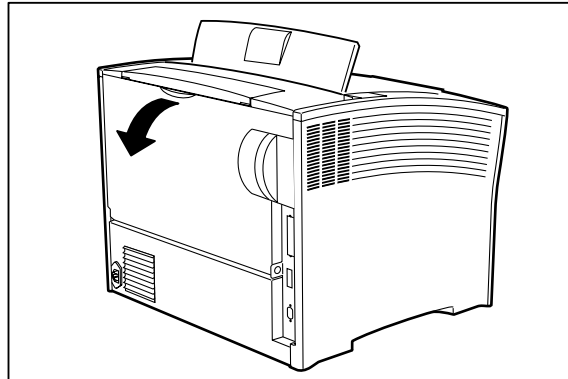
This chapter explains the procedure for installation of the DRAM DIMM module in the printer.

Installing DRAM Memory DIMMS

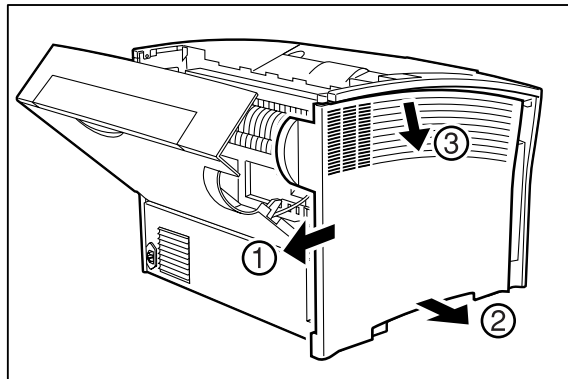
1. Carefully review the safety precautions in the front of this guide before starting this installation procedure.
2. Ensure that the printer power switch is set to the OFF [O] position and disconnect the power cord from the wall outlet.



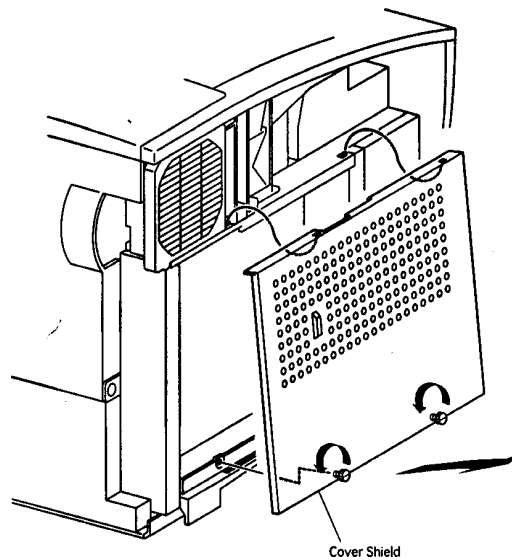
3. Locate the recessed area near the top of the rear of the printer and pull on the recessed area to open the rear cover.



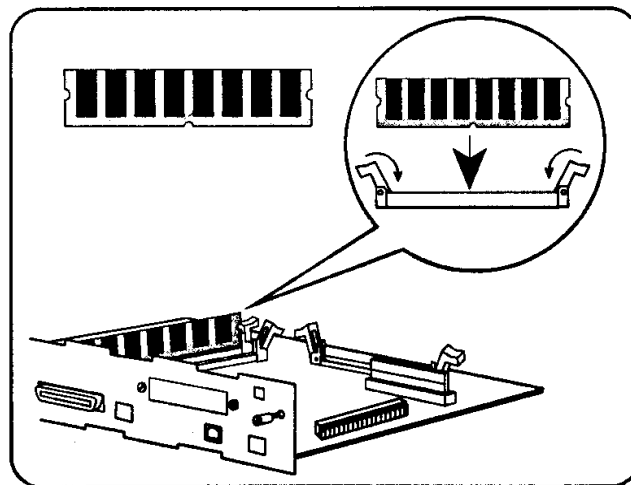
4. Remove the cover on the left side of the printer by first sliding the cover toward the rear of the printer, then pulling the bottom of the cover toward you and then down.



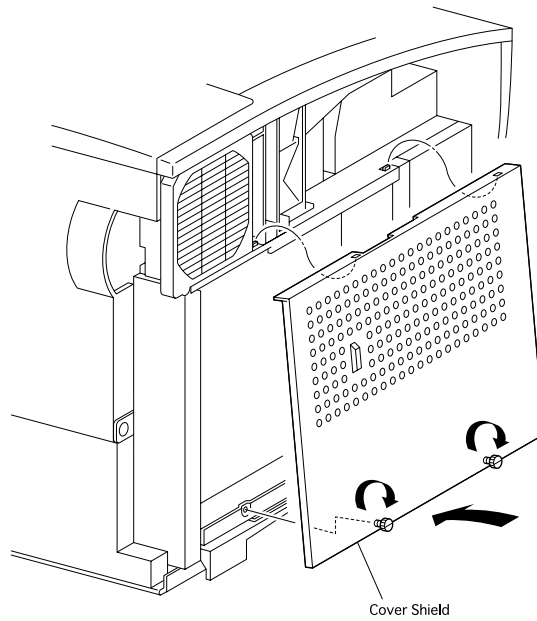
5. Remove the cover shield by first loosening the two thumbscrews in a counter-clockwise direction and then gently pulling towards you.



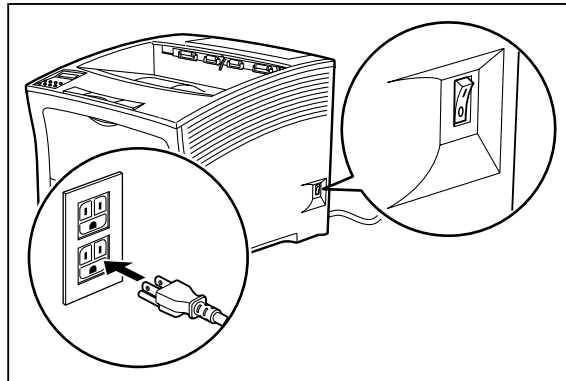
6. Carefully insert the DRAM DIMM module in any available SDRAM DIMM slot at a vertically as shown below. When properly seated, gently push down until the DIMM snaps and locks into place.



7. Replace the cover shield as shown and tighten the two thumbscrews.



8. First, connect the power cord to the wall outlet, and then turn the printer power switch to the ON [I] position.



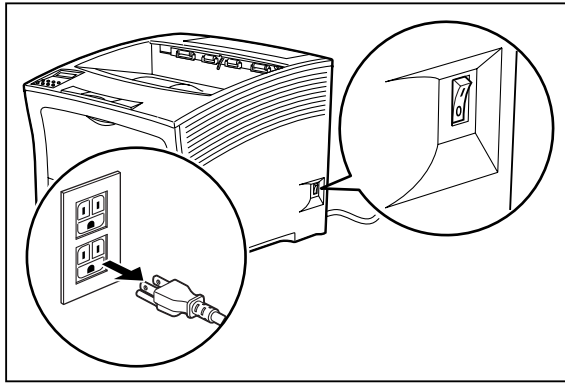
The installation of the DRAM Memory DIMMs in your printer is now complete.

About this Chapter

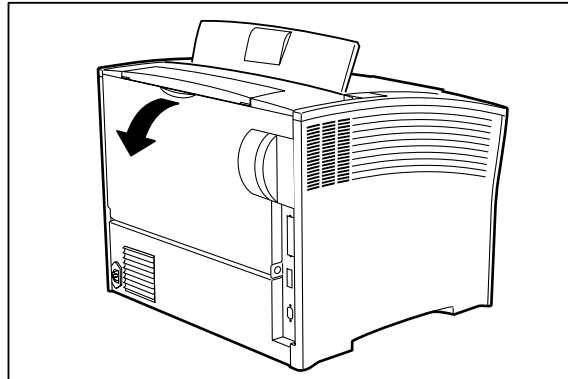
This chapter explains the procedure for installation of the Hard Disk option in the printer.

Installing the Hard Disk Option

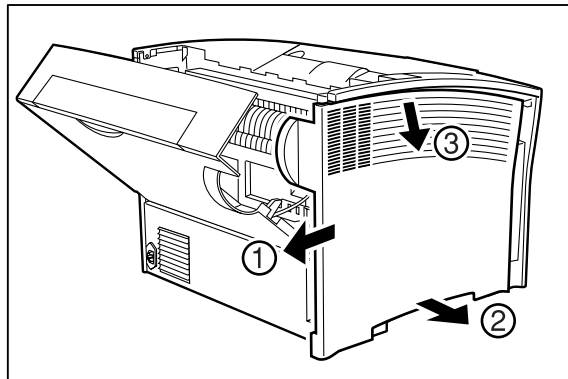
1. Carefully review the safety precautions in the front of this guide before starting this installation procedure.
2. Ensure that the printer power switch is set to the OFF [O] position and disconnect the power cord from the wall outlet.



3. Locate the recessed area near the top of the rear of the printer and pull on the recessed area to open the rear cover.

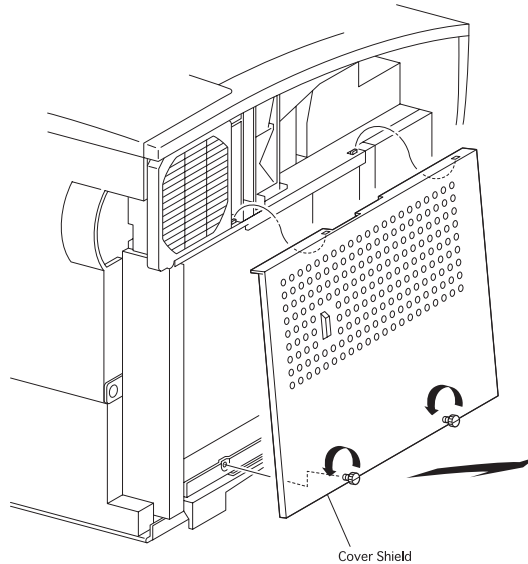


4. Remove the cover on the left side of the printer by first sliding the cover toward the rear of the printer, then pulling the bottom of the cover toward you and then down.



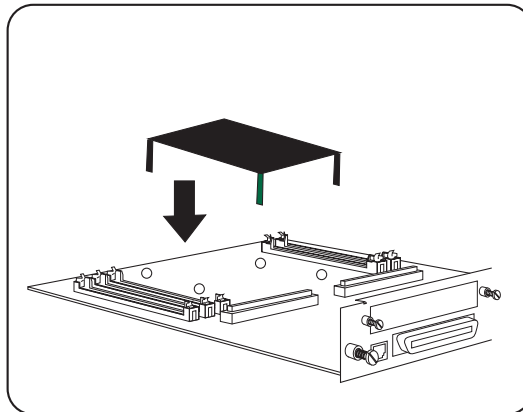
Installing the Hard Disk Option

5. Remove the cover shield by first loosening the two thumbscrews in a counter-clockwise direction and then gently pulling towards you.



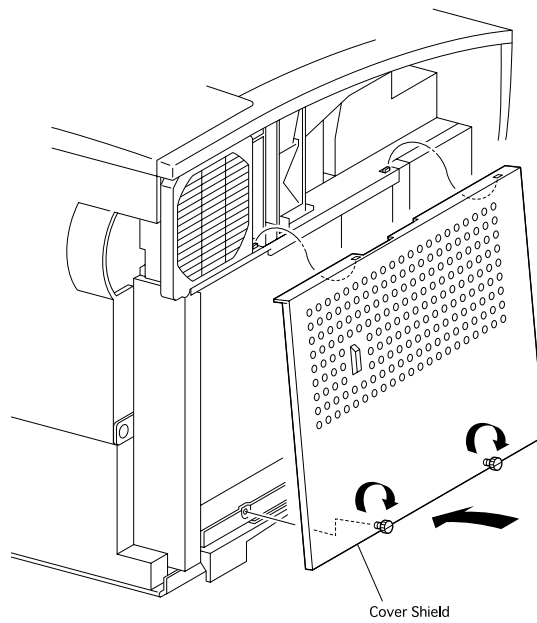
6. While holding the hard disk assembly with the ribbon cable facing down towards the floor, align the four plastic stand-off pins with the four mounting holes in the middle of the controller.

NOTE: For clarification, the following illustration depicts hard disk installation with the controller removed from the printer. It is NOT necessary to remove the controller from the printer to install the hard disk option.

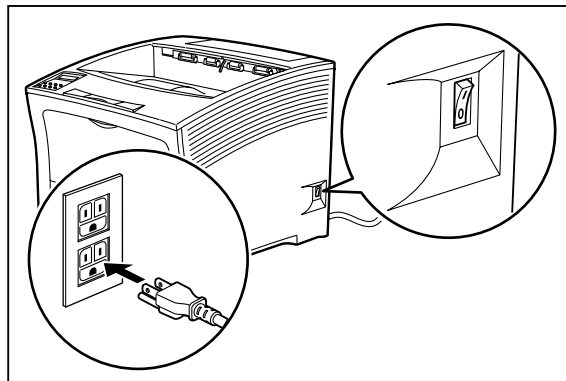


7. Attach the female connector on the hard disk ribbon cable to the male connector on the controller at location J8.

8. Replace the cover shield as shown and tighten the two thumbscrews.



9. First, connect the power cord to the wall outlet, and then turn the printer power switch to the ON [I] position.



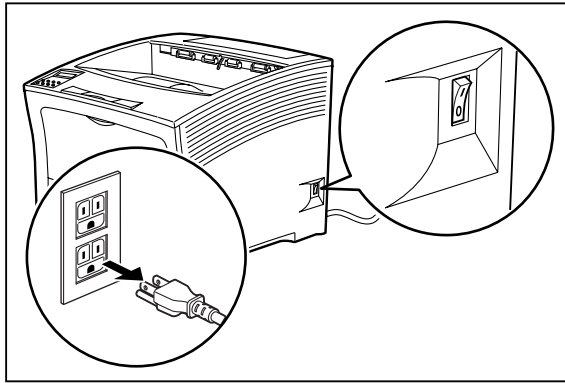
The installation of your Hard Disk option in your printer is now complete.

About this Chapter

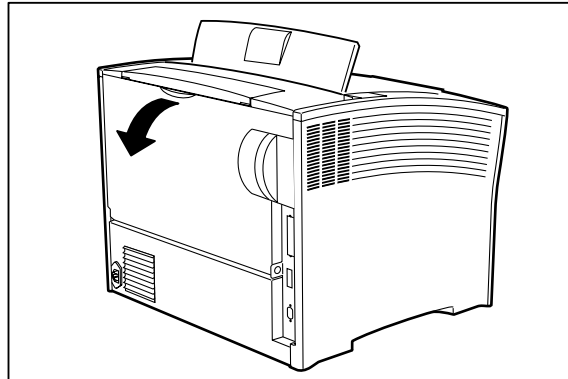
This chapter explains the procedure for installation of the User FLASH DIMM Module in the printer.

Installing the User FLASH DIMM Module

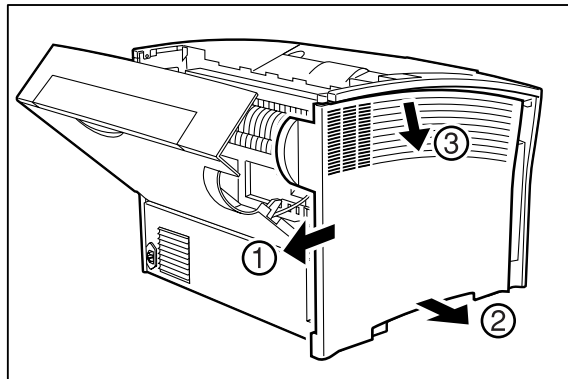
1. Carefully review the safety precautions in the front of this guide before starting this installation procedure.
2. Ensure that the printer power switch is set to the OFF [O] position and disconnect the power cord from the wall outlet.



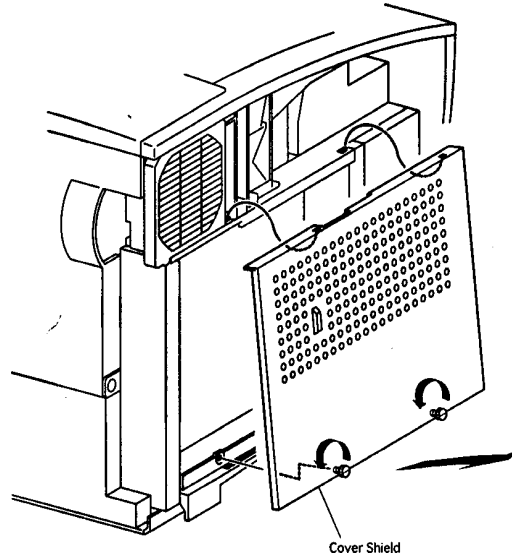
3. Locate the recessed area near the top of the rear of the printer and pull on the recessed area to open the rear cover.



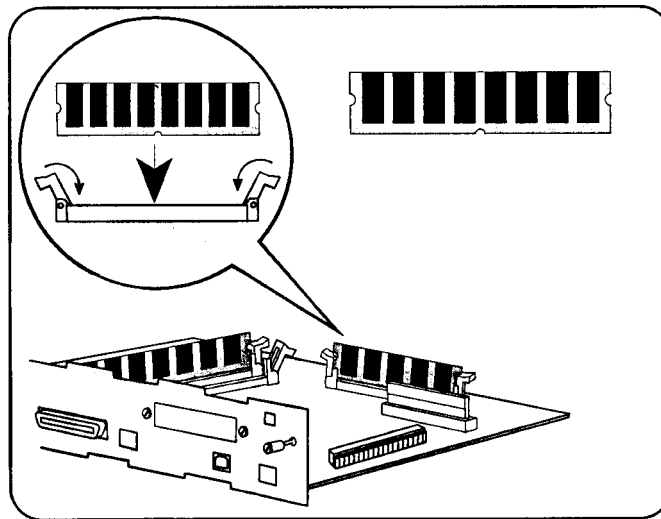
4. Remove the cover on the left side of the printer by first sliding the cover toward the rear of the printer, then pulling the bottom of the cover toward you and then down.



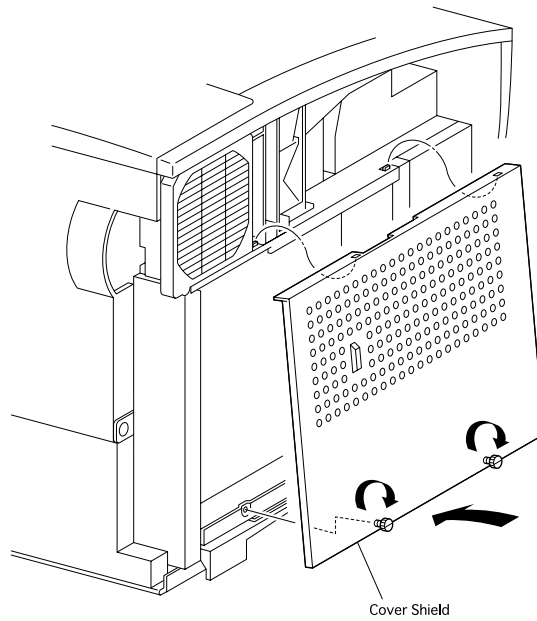
5. Remove the cover shield by first loosening the two thumbscrews in a counter-clockwise direction and then gently pulling towards you.



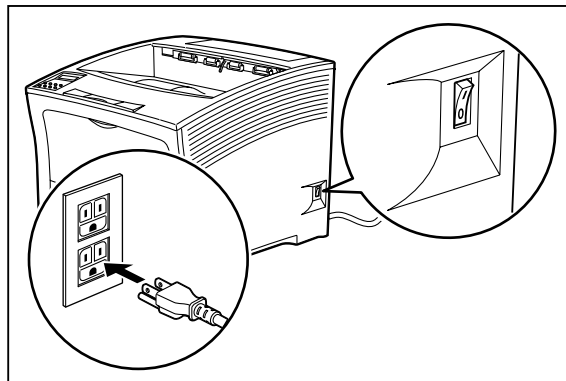
6. Carefully insert the user FLASH DIMM module in user FLASH DIMM vertically as shown below. When properly seated, gently push down until the DIMM snaps and locks into place.



7. Replace the cover shield as shown and tighten the two thumbscrews.



8. First, connect the power cord to the wall outlet, and then turn the printer power switch to the ON [I] position.



The installation of the User FLASH DIMM Module in your printer is now complete.

Using the Hard Disk Option and User Flash DIMM Module

This section discusses the available control panel menus when the Hard Disk option is installed. Power-on files and the storage of files on the Hard Disk option are also discussed.

Control Panel MENU Structure

When the Hard Disk option is installed, the printer control panel menu structure is enhanced as shown in the following table. The shaded areas denote additional features and settings relevant to the Hard Disk option.

Menu				
	Paper Menu			
	Interface Menu			
	PS Menu			
	PCL Menu			
	System Menu			
		Display Language		
		Alarm Control		
		Power Saver		
		Wait Timeout		
		Job Timeout		
		Jam Recovery		
		Hex Print		
		Toner Out		
		Power-On Files		
			Playback	FILE01.POR
				FILE02.POR
				FILE03.POR
				...
				...
			Delete	FILE01.POR
				FILE02.POR
				FILE03.POR
				...
				...
	Quality Menu			
	Functions			
	Disk Menu			
		Print		
		Delete		
		Format Disk		
		Disk Summary		

NOTE:

1. The Flash Menu and Disk Menu will only appear when the respective FLASH SIMM and/or Hard Disk option is installed.
2. Power-On Files menu will only appear if either a FLASH SIMM or a Hard Disk option is installed and power-on files exist.

Using the Disk Menu

Manipulation of files stored on the hard disk option can be accomplished using the Disk Menu.

Disk Menu	
	Print
	Delete
	Format Disk
	Disk Summary

Print

This selection will read the selected file from the Hard Disk and print it as if it were being received from one of the input ports.

Delete

This selection will delete the selected disk file or directory from the hard drive. To delete an entire directory, you must first delete all the files within that directory.

Format Disk

This selection will reformat the hard drive.



CAUTION: All files on the hard drive will be deleted if this function is selected.

Disk Summary

This selection will print a page containing information about the hard disk drive including a list of all the current existing files and directories.

Using the PCL and PostScript Power-On Files Feature

Power-on Files Defined

If an optional FLASH SIMM or Hard Disk option is installed in your printer, your printer has the capability of storing additional power-on files which can be read and interpreted at power-on.

Power-on files can contain either PCL or PostScript language content. Examples of power-on files include soft fonts, and macro/overlay definitions. The FLASH SIMM can store approximately 8MB of file storage, the hard disk drive storage depends on the size of the drive that is installed in your printer.

NOTE: Power-on files are processed at power-on initialization only and not at the start of every print job.

Contact the technical support organization at your point of purchase for full details about the power-on files feature.

Using the FLASH SIMM or Hard Disk Option as a PostScript Device

In order to allow PostScript programs to access the FLASH SIMM and/or hard disk options, a full implementation of a PostScript storage device is provided. This section discusses an overview of the PostScript operators and parameter sets that are included in the support.

For detailed information on using the operators/parameter sets, please refer to the following publications:

PostScript Language Reference Manual

Adobe PostScript 3 Version 3010 Product Supplement

Device Names and Priority

The device names assigned to the FLASH SIMM and hard disk options are as follows:

<code>%flash%</code>	device name for the FLASH SIMM
<code>%disk0%</code>	device name for the hard disk

If both devices are installed, both devices can be referenced uniquely by name. If no device name is specified in the PostScript operation, the *SearchOrder* parameter in the device parameter set establishes the priority for file operations. When both devices are installed, the *SearchOrder* value for the hard disk is set to 1, while the *SearchOrder* value for the FLASH SIMM is set to 2. This gives priority to the hard disk.

PostScript Operators

All of the standard file-object related operators (file, read, write, etc) are supported. In addition, following is a list of device-related PostScript Compatibility operators that are supported for use with the FLASH SIMM(`%flash%`) or hard disk (`%disk0%`) options:

- devdismount
- devforall
- devformat
- devmount
- devstatus
- diskonline
- diskstatus
- initializedisk
- dosysstart
- setdosysstart

Device Parameter Sets

When installed, a device parameter set will be supported for either or both FLASH SIMM and hard disk options. The parameter sets can be referenced using the device names `%flash%` or `%disk0%`. Each parameter set will include the following parameters:

- LogicalSize
- Writeable
- BlockSize
- Searchable
- SearchOrder
- Type
- Mounted
- HasNames
- PhysicalSize
- InitializeAction
- Free
- Removable

Warmstart.ps and Sys/Start Files

When either or both the FLASH SIMM or hard disk options are installed, there are two features which provide support for automatic execution of a PostScript program during power-on initialization.

The first feature is the *warmstart.ps* file. Each time the printer is powered on, either or both optional storage devices will be checked for a file named *warmstart.ps*. If this file is found, it will be read and parsed by the PostScript interpreter. It is up to the PostScript programmer to create the content of this file and get the file onto the storage device using the PostScript device and file operators.

The second feature is the *Sys/Start* file. If either or both of the optional storage devices are installed, an additional parameter will be supported in the System Parameter set. This parameter is an integer parameter called *StartupMode* and is set to 1 by default.

NOTE: This parameter can be read or written using the *dosysstart* and *setdosysstart* operators.

Each time the printer is powered on, if the *StartupMode* parameter is set to 1, either or both the optional storage devices will be searched for a file called *Sys/Start*, a file named *Start* in a path called *Sys*. If this file is found, it will be read and parsed by the PostScript interpreter. Again, it is up to the PostScript programmer to create the content of this file and get the file onto the storage device using the PostScript device and file operators.

Using the Power-On Files Feature

Power-on Files Defined

If an optional FLASH DIMM or hard disk drive is installed in your printer, your printer has the capability of storing additional power-on files which can be read and interpreted at power-on. See “FLASH Menu” on page 8-23 and “DISK Menu” on page 8-24

Power-on files can contain either PCL or PostScript language content. Examples of power-on files include soft fonts, and macro/overlay definitions. The FLASH DIMM can store approximately 8MB of file storage, the hard disk drive storage depends on the size of the drive that is installed in your printer.

NOTE: Power-on files are processed at power-on initialization only and not at the start of every print job.

Optional control panel menu selections become available when either of these options are installed and power-on files are detected. See “FLASH Menu” on page 8-23 and “DISK Menu” on page 8-24

NOTE: Contact the technical support team at your point of purchase for additional information regarding loading and using power-on files.

Extended Features Using the Hard Disk or User Flash Option

The features discussed in this section are designed to work with the Hard Disk Option. However, if no Hard Disk Option is installed, but a User Flash Option is installed, these features will utilize the User Flash Option. If both the Hard Disk Option and a User Flash Option are installed, these features will default to the Hard Disk Option.

There are two new features available using the Hard Disk or User Flash Option; Collating and Saved Jobs. The drivers that support these new features are as follows:

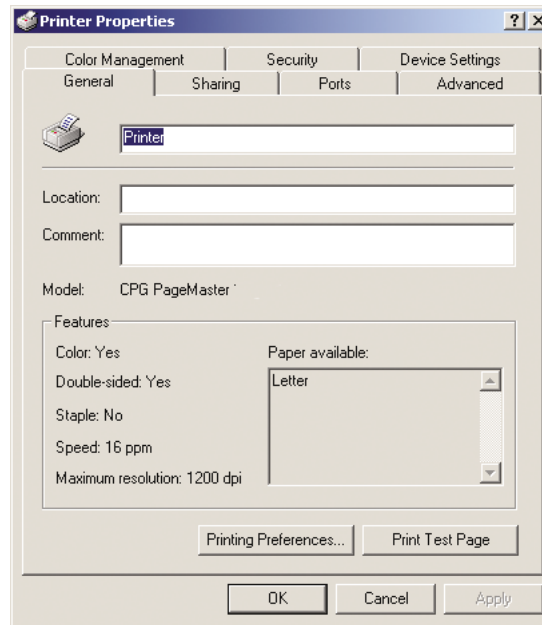
- 1 PCL - All windows platforms
- 1 PostScript - Windows 2000 and Windows XP

Collating

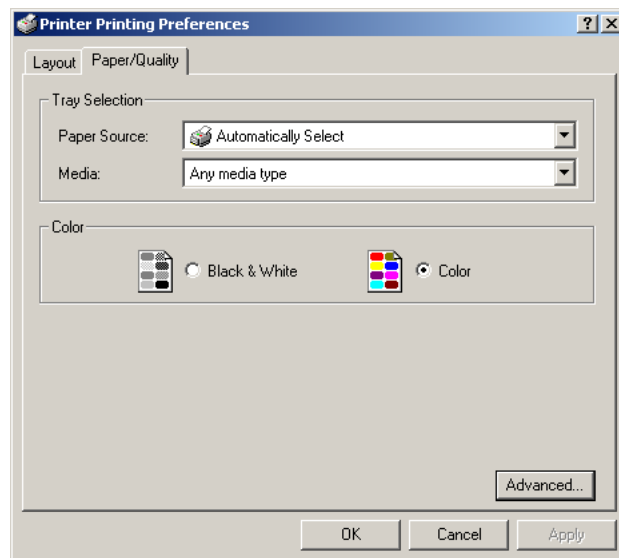
When this feature is enabled multiple copies of the entire document (all pages eg 1-3, 1-3, 1-3) will be printed in sequential order rather than multiple copies of each individual page (111, 222, 333).

You access the collating feature through the drivers that support this feature. To access the Collating feature on your desktop, go to the Start menu, left click on Settings, left click on Printers, and then click on your printer driver icon, right click and follow the menu to the Properties menu. Use the following procedure to enable collating:

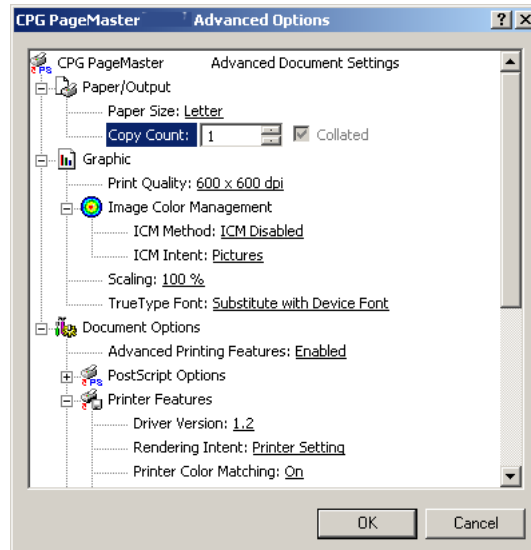
1. Press the **Printing Properties** button printer icon.



2. Click on the **Printing Preferences** button.
3. Click on the **Paper Quality** button and then the **Advanced** button.



4. Click on the **Copy Count** button to enter the number of copies and make sure the **Collate** button is checked.



5. Click to **OKAY** button and your printer driver is set to collate the number of copies specified.

Saved Jobs

You can create saved jobs using the drivers that support this feature. The drivers that support this feature are as follows:

- 1 PCL - All windows platforms
- 1 PostScript - Windows 2000 and Windows XP

There are three job types available, Normal, Saved, and Private. The descriptions of the job types are as follows:

Normal

A normal print job. No print job data is saved.

Saved

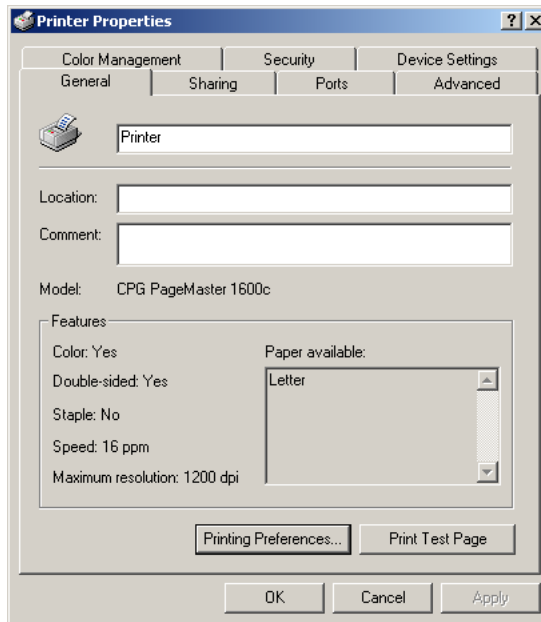
The print job data is saved on the Hard Disk or User Flash Option. The job will be saved in the "Job Library" folder. A sub-folder in the Job Library folder will be created, if necessary, for the user, as specified by the user name. The print job will be stored in a file in this folder with a name created by the user in the job name field of the printer driver.

Private

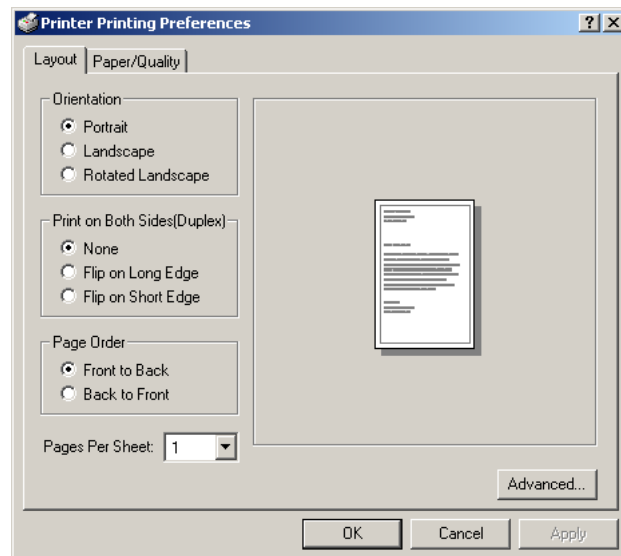
The print job data is saved on the Hard Disk or User Flash Option. The job will be saved in the "Job Library" folder. A sub-folder will be created, or the by the user as specified by user name. The print job will be stored in a file in this folder, with a name specified by user in the job name field of the printer driver. "Private" print job files are secured by having an associated PIN which is entered in the PIN field of the driver by the user. Any access to this file will require the PIN to be entered.

To access the Saved Jobs on your desktop, go to the Start menu, left click on Settings, left click on Printers, and then click on your printer driver icon, right click and follow the menu to the Properties menu.

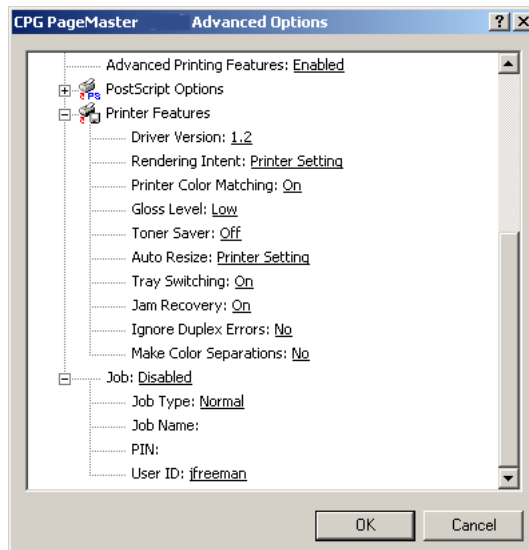
1. You are now in the **Printing Properties** menu, click on the **Printing Preference** button.



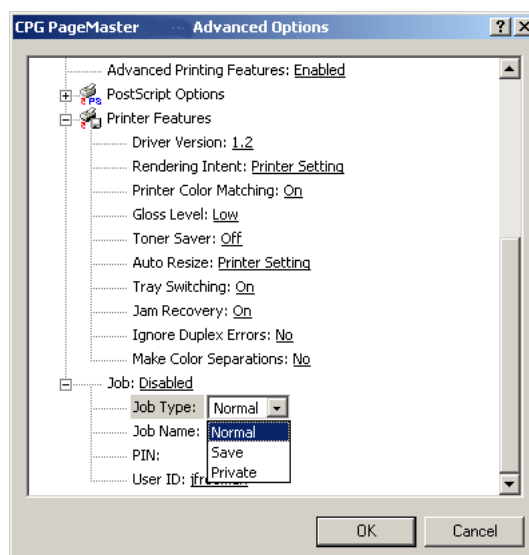
2. Click on the **Advanced** button.



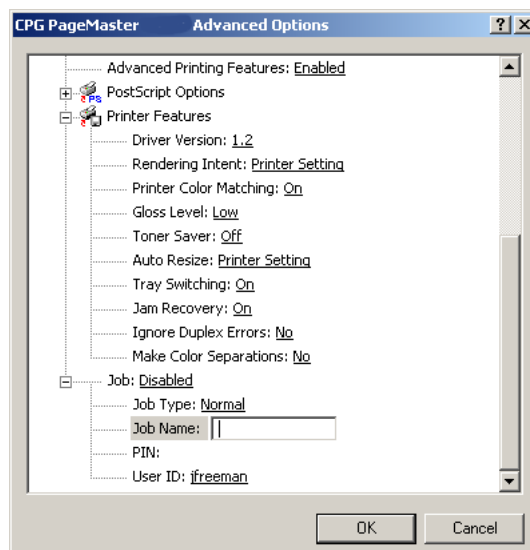
3. Now scroll down to the **Job Type** Section of the menu.



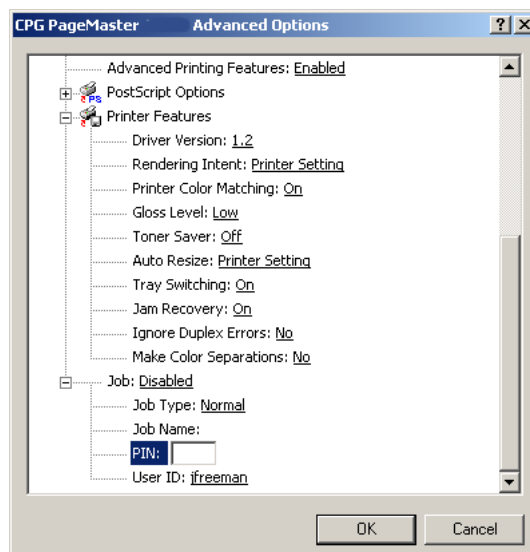
4. When you click on Job Type, three job types are available. **Normal**, **Saved**, and **Private**.



5. If you want to **Save** your print job, enter a name you want to save the job as and it will be saved under User ID folder listed. You can change the User ID in this menu also.



6. If you want to make your job **Private**, you can enter a number in the PIN menu. You will only be able to print this document if you know the PIN number..



Working with Saved Jobs

There are two ways to work with Saved Jobs. One is through the front panel menus, the other is through the printer web pages. Please refer to “Accessing the Printer Web Page” on page 7-25 to use this feature through the web page.

Front Panel Access

The Job Library Menu provides access to the printer settings that are related to the optional Hard Disk. Use the following procedure to enter the Job Library Menu to Print or Delete jobs that are Saved in the Job Library, including jobs that have a PIN number:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text “**Job Library Menu**” is shown on the second line of the display.
3. Press the **SELECT** button to enter the system menu.
4. Press the **NEXT** button to move through the submenus: **Print or Delete**.
5. Press the **SELECT** button to enter a submenu.

Use the procedures in the following table to access and change the system settings.

Menu	Submenus	Procedure for Changing Setting
Job Library SAVED JOB	Print (To print a saved job)	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Print.
	Print User Folder 1	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Print Job1	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job.
	Job Name Copies - Select 1-99	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to increase or decrease each digit of the two-digit number. 2. Press SELECT set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.
	Job Name Copies	<ol style="list-style-type: none"> 1. Press SELECT to print the job.
	Printing Playback	<ol style="list-style-type: none"> 1. The printer will display PRINTING on Line 1 and PLAYBACK on Line 2 of the display while printing the job.
SAVED JOB with PIN	Print (To print a saved job with a PIN)	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Print.
	Print User Folder 1	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Print Job1	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job.
	Job Name PIN	<ol style="list-style-type: none"> 1. Press NEXT or PREVIOUS to increase or decrease each digit of the four-digit number. 2. Press SELECT to set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.

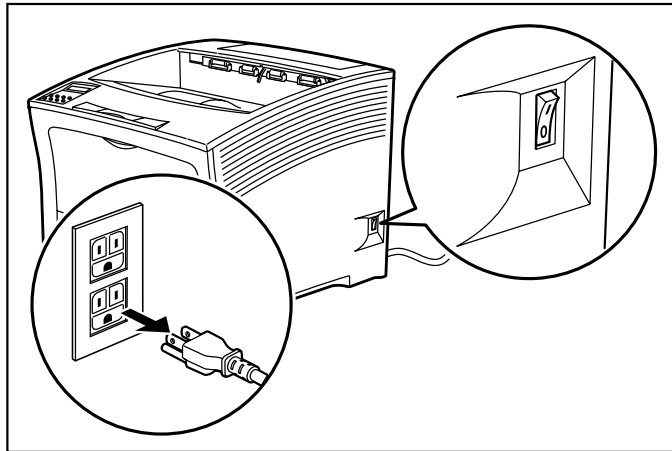
Menu	Submenus	Procedure for Changing Setting
	Job Name INCORRECT PIN	1. If an incorrect PIN is entered, press PREVIOUS to re-enter the correct PIN.
	Job Name Copies - Select 1-99	1. Press NEXT or PREVIOUS to increase or decrease each digit of the two-digit number. 2. Press SELECT to set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.
	Job Name Copies	1. Press SELECT to print the job.
	Printing Playback	The printer will display PRINTING on Line 1 and PLAYBACK on Line 2 of the display while printing the job.
Job Library DELETE	Delete (To delete a saved job)	1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Delete.
	Delete User Folder 1	1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Delete Job1	1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job to Delete.
DELETE SAVED JOB with PIN	Delete (To delete a saved job with a PIN)	1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Delete.
	Delete User Folder 1	1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Delete Job1	1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job to Delete.
	Job Name PIN	1. Press NEXT or PREVIOUS to increase or decrease each digit of the four-digit number. 2. Press SELECT to set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.
	Job Name INCORRECT PIN	1. If an incorrect PIN is entered, press PREVIOUS to re-enter the correct PIN.
	Job Name	1. Press SELECT to Delete the job.

About this Chapter

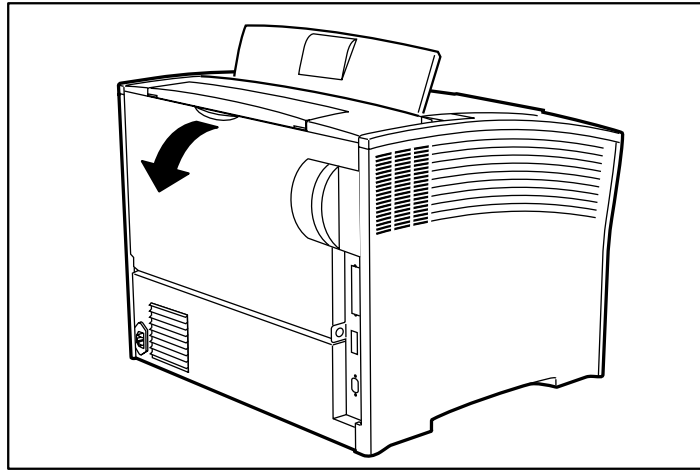
This chapter explains the procedure for installing the RS-232C/RS-422 Serial Interface option in the printer.

Installing the RS-232C/RS-422 Serial Interface

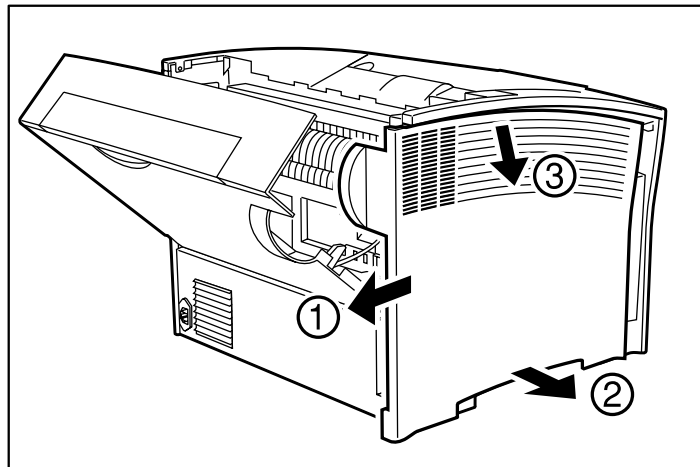
1. Carefully review the safety precautions in the front of this guide before starting this installation procedure.
2. Ensure that the printer power switch is set to the OFF [O] position and disconnect the power cord from the wall outlet.



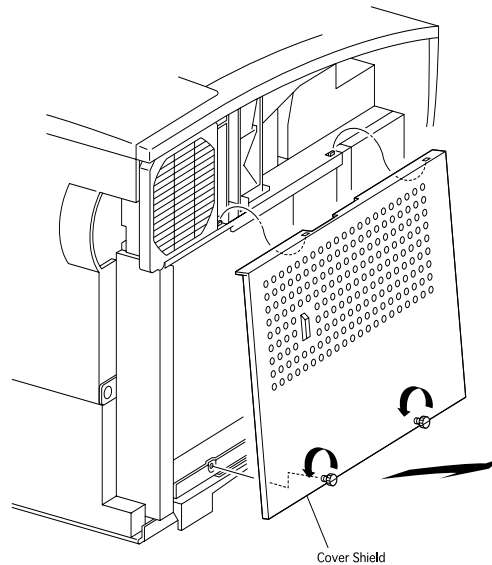
3. Locate the recessed area near the top of the rear of the printer and pull on the recessed area to open the rear cover.



4. Remove the cover on the left side of the printer by first sliding the cover toward the rear of the printer, then pulling the bottom of the cover toward you and then down.

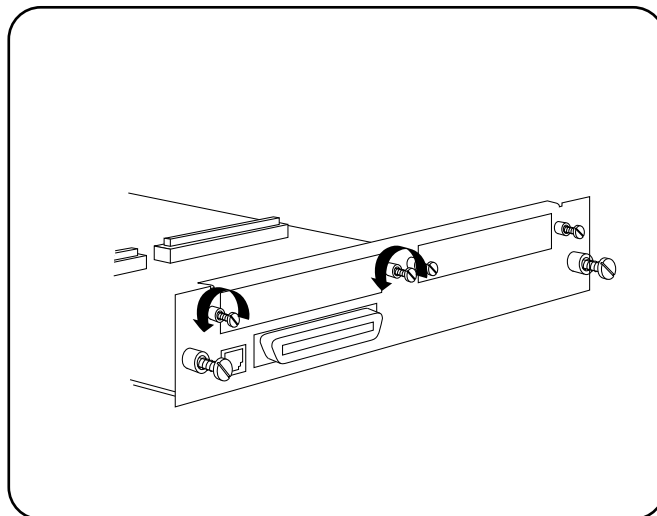


5. Remove the cover shield by first loosening the two thumbscrews in a counter-clockwise direction and then gently pulling towards you.

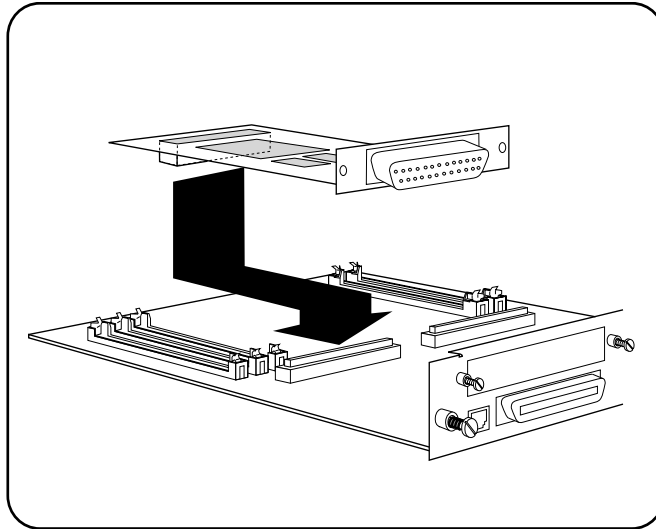


6. Turning thumbscrews counter-clockwise, remove the blank metal plate covering one of the available network ports on the controller bracket.

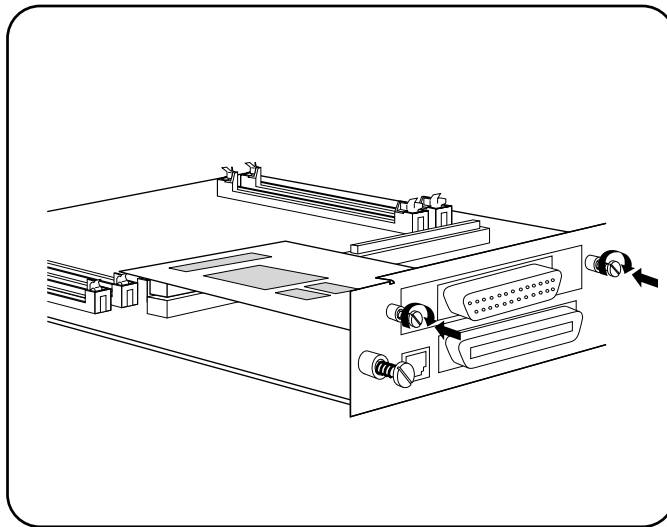
NOTE: It is not necessary to remove the controller from your printer to install the serial interface. For clarity, the following illustrations depict a controller removed from the printer. When facing the front of the controller as shown below, network port 1 is on the right and network port 2 is on the left. However, when installed in the printer, network port 1 is on the bottom and network port 2 is on top. In the following few steps, a serial network interface is being installed in network port 2.



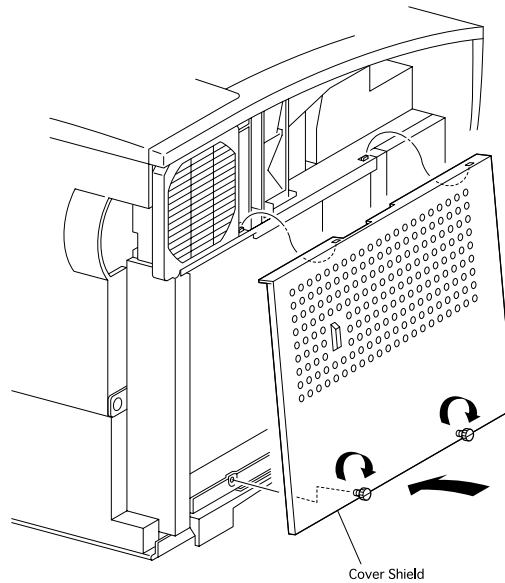
7. While aligning the front bracket of the serial interface assembly to the two respective thumbscrews on the controller assembly bracket, firmly seat the 80-pin male connector on the underside of the interface to the 80-pin female connector on the controller assembly.



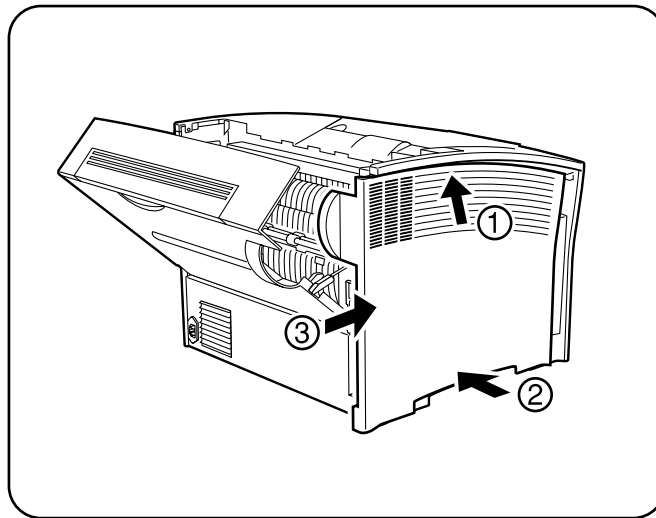
8. Secure the serial interface assembly to the controller bracket by tightening the two smaller thumbscrews in a clockwise direction.



9. Replace the cover shield as shown and tighten the two thumbscrews.



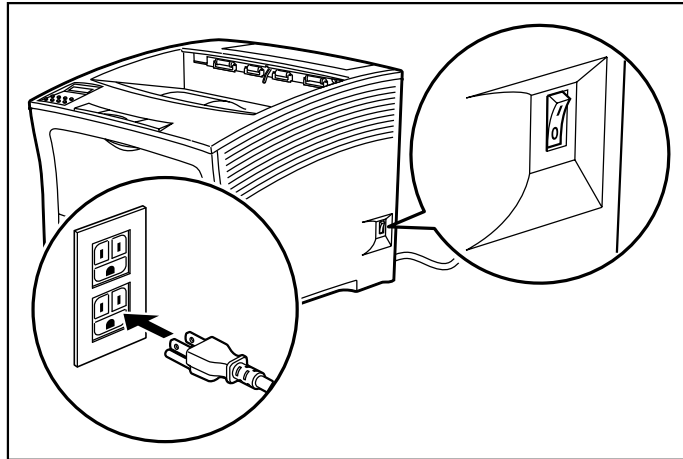
10. Replace the side cover of the printer.



11. Connect the 25-pin serial cable to the 25-pin serial connector of the serial interface.

NOTE: See “RS-232C Serial Cable Pin Assignments” on page 4-7 and “RS-422 Serial Cable Pin Assignments” on page 4-7.

12. Turn the printer power switch to the ON [I] position.



The installation of your RS-232C/RS-422 serial interface option in your printer is now complete.

Using the RS-232C/RS-422 Serial Interface

Control Panel MENU structure

When the serial interface is installed, the printer control panel menu structure is enhanced as shown in this table. The shaded areas denote additional features and settings relevant to the RS-232C/RS-422 interface.

Menu				
	Paper Menu			
	Interface Menu			
		Port		
			Parallel	
			Serial	
		Parallel Setup		On
		Serial Setup		Off
			Interpreter	
				Auto Switch
				PCL
				Postscript 3
			Format	
				Normal
				Binary
				Raw
			Serial Mode	
				RS232
				RS422
			Baud Rate	
				1200
				2400
				4800
				9600
				19200
				38400
				57600
				115200
			Data Bits	
				7
				8
			Stop Bits	
				1
				2
			Parity	

				None
				Even
				Odd
			DTR Ready/Busy	
				On
				Off
			DTR Onl/Offl	
				On
				Off
			DTR Error	
				On
				Off
			RTS Ready/Busy	
				On
				Off
			RTS Onl/Offl	
				On
				Off
			RTS Error	
				On
				Off
			XON Ready/Busy	
				On
				Off
			XON Onl/Offl	
				On
				Off
			XON Error	
				On
				Off
			DTR Polarity	
				High
				Low
			RTS Polarity	
				High
				Low
			Robust XON	
				On
				Off
	PS Menu			
	PCL Menu			
	System Menu			

NOTE: The structure of your display menus may vary slightly depending on the options installed in your printer.

SERIAL SETUP Menu

The following selections becomes available within a SERIAL SETUP submenu of the INTERFACE menu when the RS-232C/RS-422 serial interface is installed.

Interpreter

AVAILABLE SELECTIONS	Auto Switch PCL Postscript 3
DEFAULT	Auto Switch

Format

AVAILABLE SELECTIONS	Normal Binary Raw
DEFAULT	Raw

Serial Mode

AVAILABLE SELECTIONS	RS232 RS422
DEFAULT	RS232

Baud Rate

AVAILABLE SELECTIONS	1200 2400 4800 9600 19200 38400 57600 115200
DEFAULT	9600

Data Bits

AVAILABLE SELECTIONS	7 8
DEFAULT	8

Stop Bits

AVAILABLE SELECTIONS	1 2
DEFAULT	1

Parity

AVAILABLE SELECTIONS	None Even Odd
DEFAULT	None

DTR Ready/Busy

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

DTR Onl/Offl

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

DTR Error

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS Ready/Busy

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS Onl/Offl

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS Error

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

XON Ready/Busy

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

XON Onl/Offl

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

XON Error

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

DTR Polarity

AVAILABLE SELECTIONS	High Low
DEFAULT	High

RTS Polarity

AVAILABLE SELECTIONS	High Low
DEFAULT	High

Robust XON

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

Disabling the Serial Interface

The following selection becomes available within the PORT submenu of the INTERFACE menu when the RS-232C/RS-422 serial interface is installed.

Serial

The **Serial** option enables you to turn off the serial port on the interface. This selection is often used to permit uninterrupted communication to other ports such as the parallel or other network ports.

AVAILABLE SELECTIONS	On Off
DEFAULT	On

References for OpenVMS users

You can print to your laser printer via the serial interface option from an OpenVMS system, either directly connected to the system or through a network device such as a terminal server.

It is recommended that DECprint Supervisor (DCPS) be used for printing. Please see the "Setting Up Printers" chapter of the *DCPS System Manager's manual* for information on creating a DCPS print queue.

If DCPS will not be used, please see the "Setting Up and Maintaining Queues" chapter of the *OpenVMS System Manager's manual* for information on setting up print queues using the OpenVMS print symbiont.

RS-232C Serial Cable Pin Assignments

Eight pins of the 25-pin serial cable are utilized for the RS-232C standard:

Pin No.	Signal	Direction	Description
1	GND		Frame Ground
2	TXD	Out	Transmit Data
3	RXD	In	Receive Data
4	RTS		Request To Send
5	CTS	In	Clear To Send
6	DSR	In	Data Set Ready
7	GND		Logic Ground
20	DTR	Out	Data Terminal Ready

RS-422 Serial Cable Pin Assignments

Five pins of the 25-pin serial cable are utilized for the RS-422 standard:

Pin No.	Signal	Direction	Description
1	GND		Frame Ground
15	RXD -	In	Receive Data +
17	RXD +	In	Receive Data -
19	TXD -	Out	Transmit Data -
25	TXD +	Out	Transmit Data +

Troubleshooting

This section discusses troubleshooting error messages appearing on the printer's control panel. Sources of help, information and technical support are also discussed.

Control Panel Error Messages

The format of control panel error messages is:

NETx: ERROR y

and where x indicates the network slot where the serial interface is installed and where y reflects the error number as shown below:

Error No.	Description	Action Required
1	Overrun Error	Verify that all DTS, RTS and XON settings within the SERIAL SETUP menu are configured correctly. Check the pinout assignments of cabling between the printer and the host.
2	Parity Error	Verify that the PARITY setting within the SERIAL SETUP menu is configured correctly. Check the pinout assignments of cabling between the printer and the host.
3	Framing Error	Verify that the SERIAL MODE, BAUD RATE, DATA BITS, STOP BITS and PARITY settings within the SERIAL SETUP menu are configured correctly.
4	Flow Control Error	Verify that all DTS, RTS and XON settings within the SERIAL SETUP menu are configured correctly. Check the pinout assignments of cabling between the printer and the host.

Example

An error message of:

NET2: ERROR3

indicates that the serial interface which is located in network slot 2 has experienced a framing error.

Obtaining Help and Information

Several sources of help and information are available, depending on the type of help you need:

Your Point of Purchase

Your local vendor from whom you purchased this printer may be best equipped to help you. Your vendor has specially trained service technicians available to answer questions and the equipment to analyze your printer problems.

Your Application Vendor

Often, "printing" problems have more to do with the application being used than with the printer. In this case, the application manufacture is the best source of help.

Technical Support

Technical Support is available world-wide. Please refer to your point of purchase for the appropriate contact in your area.

When calling for assistance, please have the following information readily available:

- Your phone number, fax number and shipping address.
- A description of the problem.

- The printer model.
- The type of host computer you are using.
- The type and version of operating system you are using.
- The application and version you are using.
- The interface you are using (e.g., network, parallel, serial).
- If using the network interface, the network protocol (TCP/IP, EtherTalk, IPX/SPX, NetBIOS/NetBEUI).
- The printer emulation you are using (e.g., PCL or PostScript).
- A printout of your printer's Configuration Summary. (Refer to your printer's *User* manual).
- If you have a printer hardware problem you cannot resolve, provide the error message displayed on the Control Panel. For a list of error messages, refer to your printer's *User* manual.

NOTE: To confirm that a problem is isolated to the RS-232C/RS-422 Serial Interface, you may want to remove the serial interface from the printer and diagnose the printer using the User's Manual that came with your printer. If the condition persists, it can be assumed that the problem resides within the printer and not necessarily the serial interface.

Using the Custom Paper Size Feature

There are two ways to work with the Custom Paper Size Feature. One is through the front panel menus, the other is through the printer driver.

Front Panel Access

The Paper Menu provides access to the Custom Paper Size settings. The range for setting a custom paper size is:

Paper Width	3 inches (76,2 mm) minimum to 12 inches (305 mm) maximum
Paper Length	3,9 inches (98,4 mm) minimum to 20 inches (508 mm) maximum

Use the following procedure to enter the Paper Menu to set a Custom Paper Size:

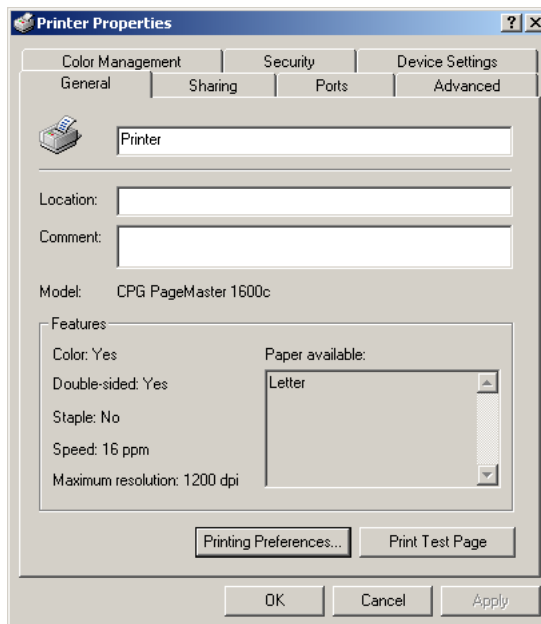
1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**Paper Menu**" is shown on the second line of the display.
3. Press the **SELECT** button to enter the **Paper Menu**.
4. Press the **NEXT** button until the text "**Media Size/Type**" is shown on the second line of the display and press the **SELECT** button.
5. Press the **NEXT** button until the text "**MBF**" is shown on the second line of the display.
6. Press the **SELECT** button.
7. Press the **NEXT** button until the text "**Custom Size**" is shown on the second line of the display.
8. Press the **SELECT** button to enter the "**Custom Size**" menu. "**Width**" is shown on the second line of the display.

9. Press **NEXT** or **PREVIOUS** to increase or decrease each digit of the three-digit number to set the width of your paper. When the width of paper is correct, press the **SELECT** button.
10. Next **"Length"** is shown on the second line of the display.
11. Press **NEXT** or **PREVIOUS** to increase or decrease each digit of the three-digit number to set the length of your paper. When the length of paper is correct, press the **SELECT** button.
12. Press **RETURN** until you exit out of all the submenus and return to **READY**.

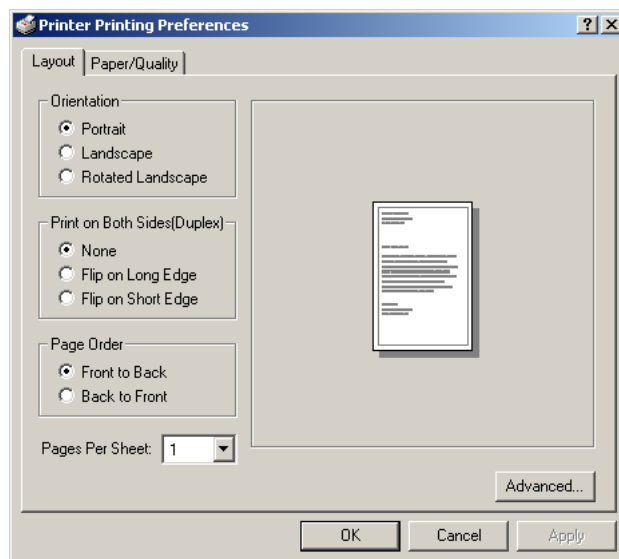
Printer Driver Access

To access the Custom Paper Size Feature through your printer driver, use the following procedure:

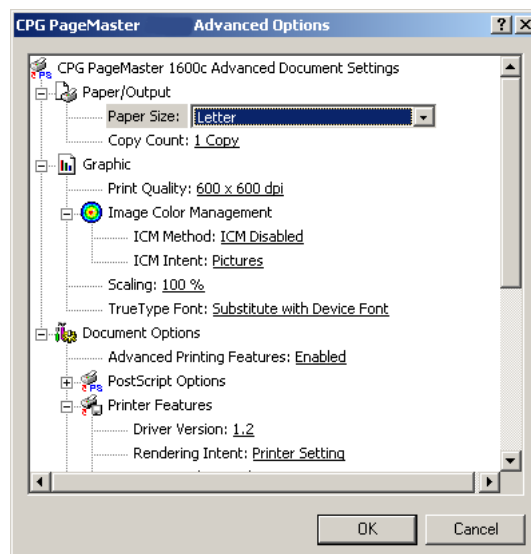
1. On your desktop, go to the Start menu, left click on Settings, left click on Printers, and then click on your printer driver icon, right click and follow the menu to the Properties menu.
2. You are now in the **Printing Properties** menu, click on the **Printing Preference** button.



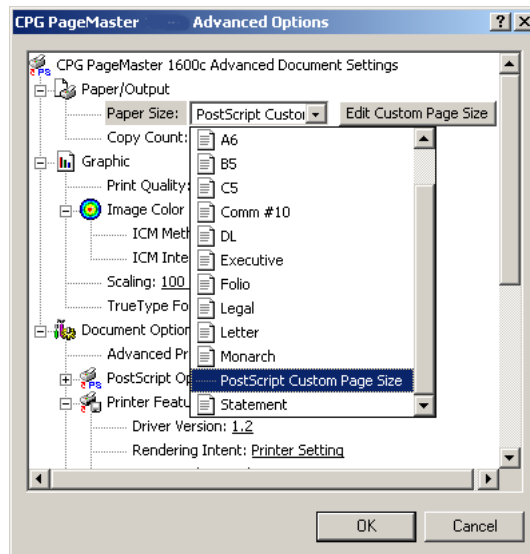
- Click on the **Advanced** button.



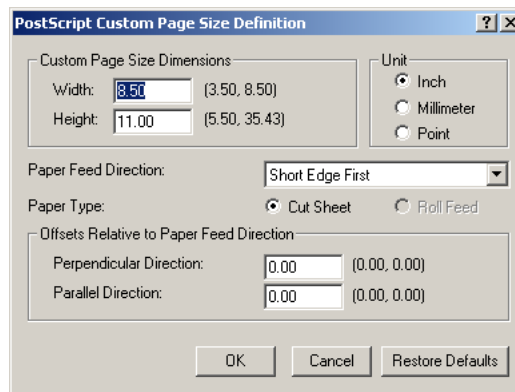
- Click on the Paper Size button.



5. Scroll down to Custom Page Size and click.



6. Then enter the width and height of your custom paper size.



7. Click the OKAY button until you exit out of the driver menu. You are now ready to print your custom sized document.



Appendix A

Safety Notes and Regulatory Compliance

In this Appendix . . .

- “About this Appendix” on page A-2
- “Safety Notes” on page A-2
- “Regulatory Compliance” on page A-2

About this Appendix

This appendix lists important safety precautions and identifies the applicable regulatory compliances of your printer.

Safety Notes

- Be sure to switch off and unplug the printer before accessing the interior of the printer for cleaning, maintenance, or fault clearance. Accessing the interior of a live machine exposes you to the risk of electric shock.
- Do not place the printer in a hot, humid, dusty, or poorly ventilated environment. Prolonged exposure to these adverse conditions may cause fire or expose you to electric shock.
- The printer is capable of operating normally within the following environmental limits:
 - Temperature range: 50°F -95°F (10°C -35°C)
At high temperatures (95°F /35°C), humidity should be at or below 70%.
 - Humidity range: 15%-85% (no condensation)
At maximum humidity (85%), temperature should be at or below 82°F(28°C).
- Stop operation immediately if your printer produces smoke, excessive heat, unusual noise, or smell. These conditions can indicate or result in a fire. Immediately switch off and unplug the printer, and contact your point of purchase.
- The fuser becomes very hot in normal operation. If a paper jam has occurred, turn the power off and wait at least 10 minutes before removing the drum cartridge and touching the fuser section.

Regulatory Compliance

Safety Compliance

This product conforms the following safety standards:

- UL1950
- CSA C22.2 No. 950
- EN 60950
- IEC 950
- 73/23/EEC

Class 1 Laser Device and CDRH Compliance

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This certification indicates that the printer does not emit hazardous laser radiation. Since radiation emitted inside the printer is completely confined within the protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 1976. These regulations apply to laser products marketed in the United States. The label on the printer indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

EMC Compliance

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If your machine is a 220-240V model, there is no need to attach a separate earth line since the earth connection is incorporated in the power line. Plug it into a properly rated outlet.

The use of a non-shielded interface cable with the reference devices is prohibited. Shielded interface cables must not exceed the following limitations:

- The length of the IEEE 1284 parallel interface cable must be 50 feet (15 meters) or less.
- The length of the Ethernet interface cable must be 328 feet (100 meters) or less for type 10/100BASE-T or 185 meters (607 feet) or less for type 10/BASE-2.
- The length of the power cord must be 10 feet (3 meters) or less.

This equipment generates, uses, and can radiate radio frequency energy. If the equipment is not installed and used in accordance with the 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 interference to radio or television reception, which can be determined by turning the equipment off and on, try to correct the interference using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment and the receiver to outlets that are on different circuits.
- Consult with the dealer or an experienced radio/television technician to help.
- Always use the power cord provided with your machine. When an extension cord is required, always use a properly rated cord.
- In countries other than the United States, please contact your point of purchase.

Other EMC Standards

This product also conforms to the following EMC standards:

- CNS 13438
- VCCI V-3/97.04
- AS/NZS 3548:1995 including A1:1997 and A2:1997
- EN55022: 1994 including A1:1995 and A2:1997
- FCC Part 15, Subpart B (CFR 47, 1995)
- CISPR22: 1993 including A1:1995 and A2:1996



