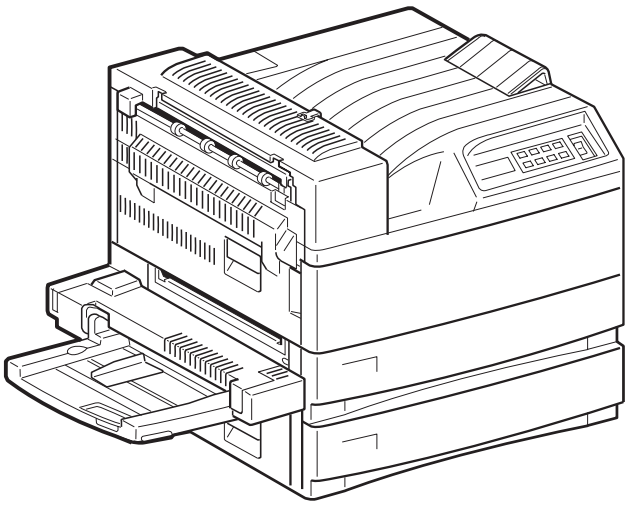
TallyGenicom mL450 Laser Printer User Manual



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How This Manual is Organized

This manual consists of 7 chapters and 5 appendices as follows:

Chapter 1 Unpacking and Installing Your Printer

Describes a suitable location for your laser printer and how to unpack and install it. Be sure to read this chapter before setting up the printer..

Chapter 2 Printer and Options Parts and Functions

Describes the parts of the printer and paper handling options and their functions. A discussion of the paper path is also included. Also describes all available options and consumables for your printer and their respective part numbers.

Chapter 3 Understanding Paper, Paper Paths, Paper Delivery and Paper Loading

Provides information on paper qualities, paper size requirements, paper paths, paper output delivery and loading of paper in your printer and options.

Chapter 4 Understanding and Navigating the Control Panel Menus

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

Chapter 5 Printer Consumables, Cleaning and Maintenance

Describes how to handle and replace the EP cartridge, replacement of transfer and feed rollers and performance of other steps as necessary for day-to-day operation of your printer..

Chapter 6 Troubleshooting

Explains procedures to isolate and solve problems that may occur during use of your printer. Clearing paper jams and detailed troubleshooting of LCD error messages are discussed in this chapter..

Chapter 7 Optional Extended Features

This chapter describes the procedures for installation of DRAM Memory DIMMs and FLASH DIMMS. Also describes how to use the extended features associated with these options.

Appendix A General Information

Provides information on how to contact your local vendor for technical support, service and repair issues.

Appendix B Safety Notes and Regulatory Compliances

Describes cautions to take when installing, transporting, or operating the printer. Also includes applicable regulatory compliances of your printer.

Appendix C Printing Font Summaries

This appendix explains the procedure for printing summaries of PCL or PostScript fonts installed in your printer..

Appendix D Frequently Used Ethernet Commands

This appendix lists some of the most frequently-used commands of the Print Server command set. More information about the command set, including additional options, can be found in the Ethernet Network Interface Manual on the Electronic Library CD-ROM.

Appendix C TallyGenicom Customer Support and Part Numbers

This appendix lists the part numbers for TallyGenicom Intelliprint mL450 printers, options, and consumables. To order parts, contact your local authorized TallyGenicom dealer. This appendix will familarize you with TallyGenicom and how to contact TallyGenicom for support.

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Preface

In this Chapter . . .

- "Welcome" on page 2
- "Features" on page 2
- "Standard Configurations" on page 3
- "Manual Conventions" on page 5

Welcome

Thank you for selecting the 45 PPM Laser Printer. In this manual you will find important information regarding operation and care of your printer. Please read this manual in its entirety and keep it at hand for later reference.

Features

Your laser printer comes with the following features.

- High-speed and high-quality printing

  The 45 PPM Laser Printer has paper output of 45 pages per minute with a resolution of up to 600 x 600 dpi, assuring razor-sharp output of graphics and text, even at very small point sizes.

- Two integral interfaces

  Base configurations of the 45 PPM Laser Printer have two integral interfaces: a bidirectional parallel port and an Ethernet 10/100BaseT port.

- Flexible Paper Source and Delivery

  The printer comes standard with two 500-sheet universal paper cassettes and the Multi-Bypass Feeder. An optional 2500-sheet High Capacity Feeder (HCF), Envelope Feeder, and Duplexer can be installed. The printer also features the following paper output options—Face Down Output Tray, Face-Up Tray, and Finisher/Stapler.

- Ergonomic operation

  The easy-to-read display clearly shows the operation status of the printer. Ergonomically shaped front-panel push-buttons are used to control all functions.

- User-friendly EP cartridge

  The integrated EP cartridge contains both the toner and the photosensitive drum in a single housing, which makes it easy to replace the cartridge.

- Continuous printing of up to 3550 sheets

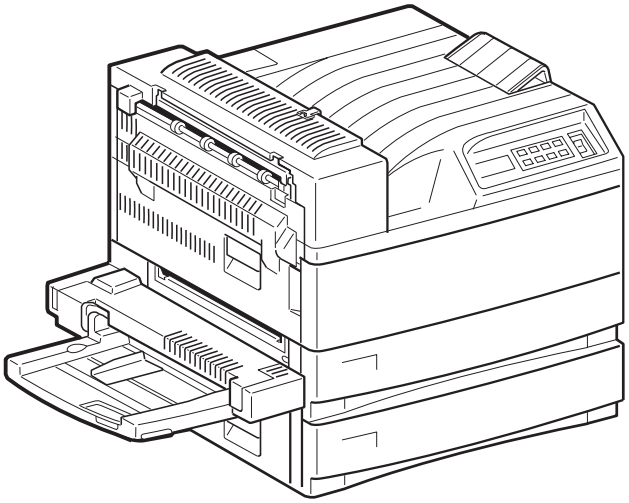
  The two standard paper cassettes hold about 500 sheets of paper each and the multi bypass feeder holds 50 sheets. Trays 3, 4, and 5 in the optional HCF unit provide a total of 2500 sheets. Together they allow continuous printing of up to 3550 sheets.

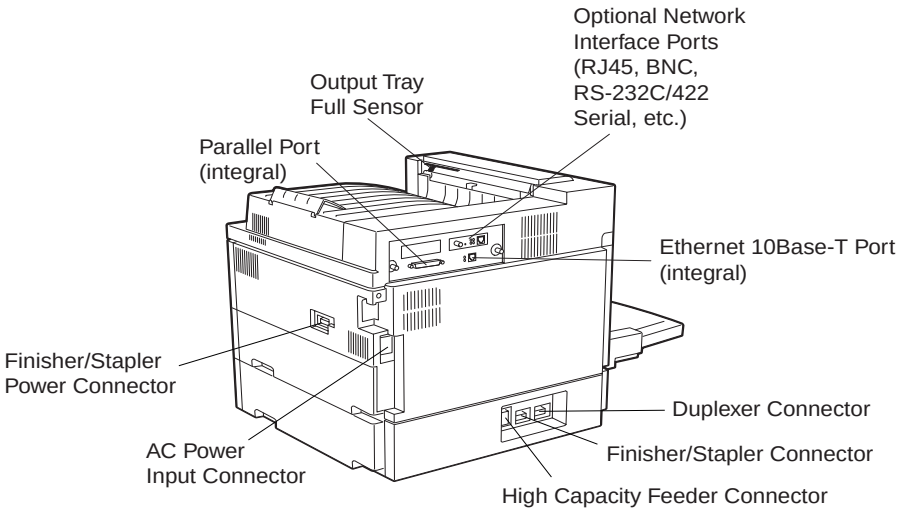
Standard Configurations

The 45 PPM Laser Printer can be ordered in the following two standard configurations:

Base Configuration (for table-top use)

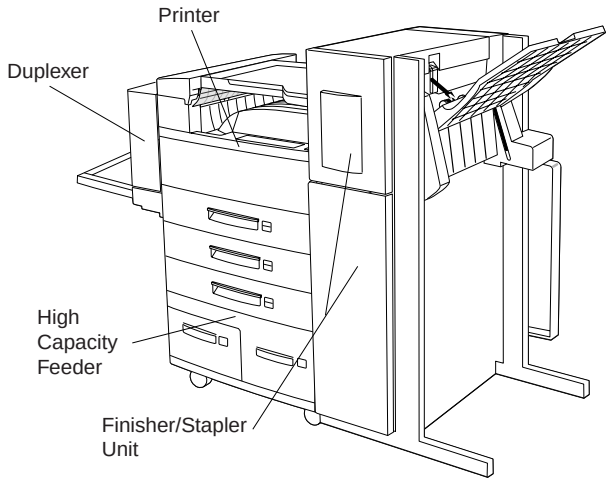
- **Memory:** 64 Mbytes RAM Memory
- **Resolutions:** 300 x 300 dpi and 600 x 600 dpi
- **Paper Input:** Two 500-sheet universal paper trays and one 50-sheet Multi-Purpose Bypass Feeder for paper, transparencies, envelopes, and other non-standard paper sizes
- **Paper Output:** One 500-sheet face down tray
- **Interfaces:** Bidirectional 1284 Parallel Port (Type-B); Ethernet 10/100BaseT Port
- **Printer Languages:** Adobe PostScript 3 and PCL6, PJL





Extended Configuration (floor-standing)

- **Memory:** 64 Mbytes RAM Memory
- **Resolutions:** 300 x 300 dpi and 600 x 600 dpi
- **Paper Input:** Two 500-sheet universal paper trays and one 50-sheet Multi-Purpose Bypass Feeder
- **Paper Output:** One 500-sheet face down tray
- **Interfaces:** Bidirectional 1284 Parallel Port (Type-B); Ethernet 10/100BaseT Port
- **Printer Languages:** Adobe PostScript 3 and PCL6, PJL
- **Paper Handling Options:** Duplexer, High Capacity Feeder (includes one 500-sheet tray and two 1,000-sheet trays), Finisher/Stapler Unit (supports 3,000 sheets, offers 3-hole punch capability and staples up to 50 sheets). Stapling and 3-hole punch functions can be used in conjunction to provide a 3-hole punched and stapled finished document of up to 50 sheets.



Manual Conventions

NOTE: Notes contain tips, extra information, or important information that deserves emphasis or reiteration.

Caution: Cautions present information that you need to know to avoid equipment damage, process failure, or extreme annoyance. Pay special attention to these sections and read them fully before operating the printer. The manufacturer will not be responsible for any problems or damage arising from improper use.

WARNING! Warnings indicate the possibility of personal injury if a specific procedure is not performed exactly as described in the manual. Pay special attention to these sections and read them fully to prevent possible injury.

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Chapter 1

Unpacking and Installing Your Printer

In this Chapter . . .

- "About this Chapter" on page 1-2
- "Installation Precautions" on page 1-2
- "Unpacking the Printer" on page 1-4
- "Installing the EP Cartridge" on page 1-6
- "Adding paper to the 500-sheet universal paper cassette" on page 1-10
- "Connecting the Parallel Cable" on page 1-14
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- "Printing PCL and PostScript Font Lists" on page 1-22
- "Turning the Printer Off" on page 1-23

About this Chapter

Describes a suitable location for your laser printer and how to unpack and install it. Be sure to read this chapter before setting up the printer.

Installation Precautions

Before unpacking your laser printer, it is recommended that you read the following to assist locating a suitable spot for your new laser printer. To make optimum use of the printer, observe the following precautions when locating the printer.

Environment

WARNING: The installation surface must be stable and very sturdy to support the considerable weight of the printer. If the printer falls over, there is a severe risk of injuries.

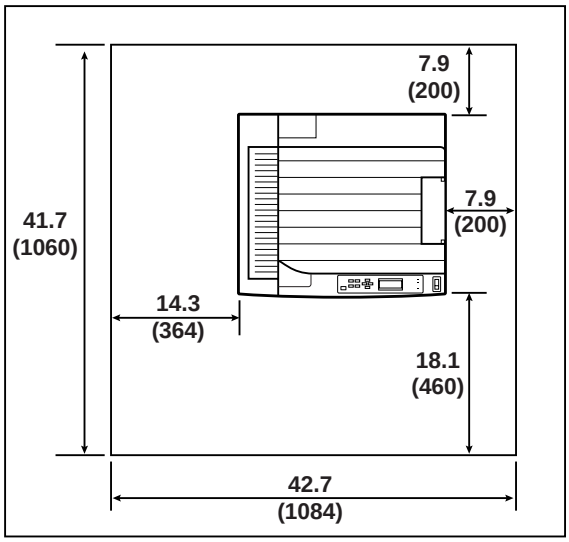
- Place the printer on a horizontal, sturdy and stable surface. The printer weighs about 106 lbs. (48 kg) and may cause injury if it falls over.
- Always place the printer under the following conditions:
  Temperature: 50° to 95° F (10 to 35° C)
  Humidity: 15 to 85% (non-condensation)
- Be sure to keep the temperature to below 82° F (28° C) if the humidity is 85%

  If the temperature changes drastically from a cold environment to a warm environment, condensation may develop inside the printer and cause print problems. Therefore, be sure to let the printer rest for some time to adjust to the new temperature.
- Do not subject the printer to direct sunlight or a malfunction may result.
- Do not place the printer in a location with high temperature and humidity, poor ventilation, or high level of dust, otherwise a fire hazard or electric shock may result.
- Do not place the printer near heaters or similar objects, otherwise a fire hazard may result.
- Never block the ventilation openings of the printer, otherwise the internal temperature will build up and cause a fire hazard.
- Do not place the printer near alcohol, benzine, or other volatile and flammable materials, or a fire hazard may result.

Space requirements

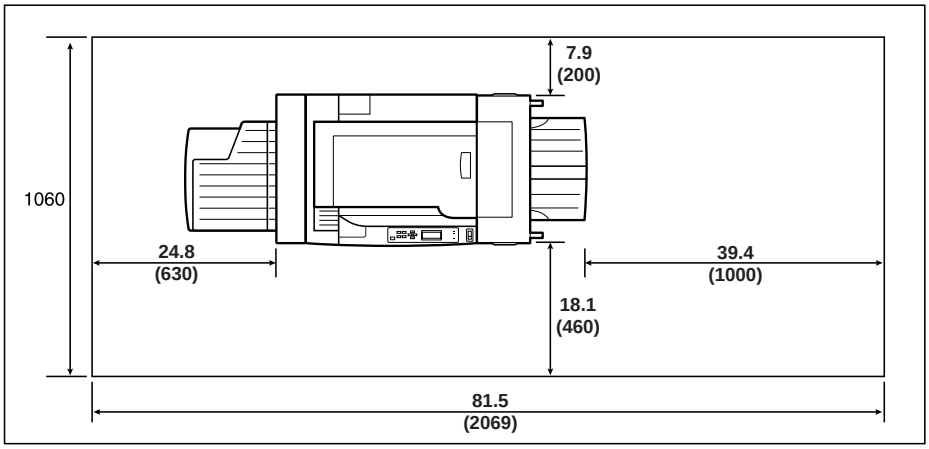
CAUTION: Be sure to leave ample space between the ventilation openings on the printer and the nearest wall or other surface, otherwise overheating may occur leading to a fire hazard. For easy operation, maintenance and replacing of consumables, you should also leave the clearances shown below around the printer. Installation of the printer should be carried out by qualified service personnel.

Top View of Printer (standard configuration)



Measurements in inches (mm)

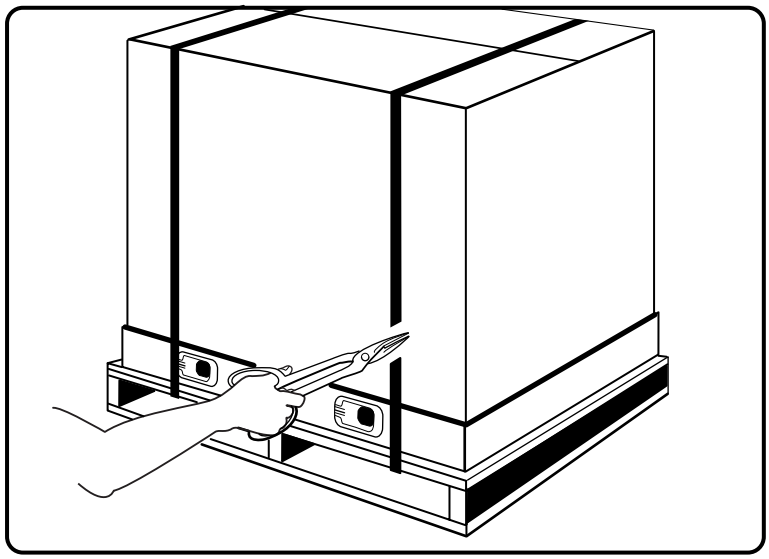
Top View of Printer (when options are installed)



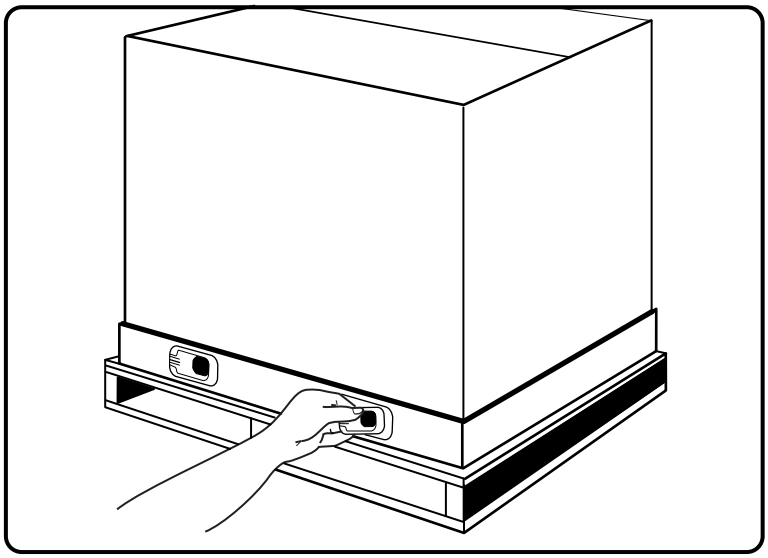
Measurements in inches (mm)

Unpacking the Printer

1. Cut the shipping straps off the exterior carton.



2. Remove the four plastic inserts at the base of the shipping container by pulling on the tabs of each insert. Plastic inserts should be completely removed.



3. Lift the shipping carton up and away from the printer.
4. Remove the plastic bag and any shipping tapes affixed to the printer.

5. Refer to the cautions below on how to carry the printer. Then, with the assistance of another person, lift up the printer and place it on the floor.

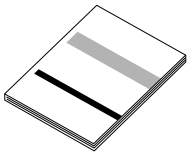
WARNING:
1) This printer is very heavy. The weight of the main unit without paper cassette, consumables, and paper is about 106 lbs (48kg). Never attempt to lift the printer by yourself. The printer should always be carried by two persons.
2) To carry the printer, grasp the four bottom corners from the right and left sides, not from the front (where the control panel is located) and back sides. Never try to lift the printer while holding any part other than the bottom corners otherwise there will be a severe risk of injury if the printer is dropped.
3) When lifting the printer, correct posture is important to prevent injuries.

6. Relocate the printer to a flat and sturdy surface meeting the "Location and Environment Precautions" on page B-3.

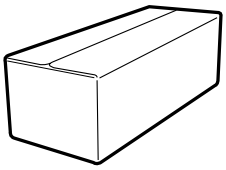
NOTE: Save the carton and packing materials for later use in case you need to ship the printer at a later time. It is particularly important that you save the wooden shipping pallet.

CAUTION: Never attempt to ship your printer without using the wooden pallet. Severe damage may occur.

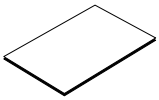
When you unpack the printer, make sure that all the items shown below are included. If any items are missing or damaged, contact your point of purchase.



45 PPM Laser Printer Installation Guide

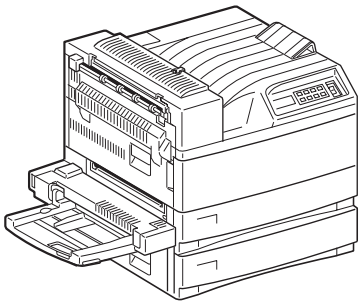


EP Cartridge

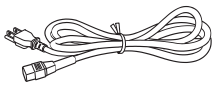


Paper tray size labels

The 45 PPM Laser Printer Electronic Library CD-ROM



Printer main unit



Power cord

Installing the EP Cartridge

Before installing the EP cartridge, see the following precautions. Also, read "Chapter 5 Printer Consumables, Cleaning and Maintenance" for more information on the EP cartridge.

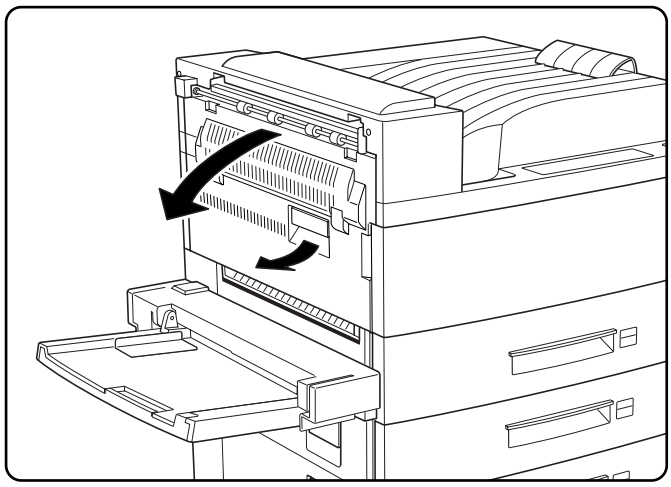
Handling Precautions

- Do not expose the cartridge to direct sunlight or other strong light sources.
- Do not carry out the procedure in a brightly lit location, and complete the installation procedure as quickly as possible (within about 5 minutes).
- When the EP cartridge is removed from the printer, immediately put it back in its original packing or wrap it with a thick lint-free cloth.
- If the EP cartridge is moved from a cold location to a warm location, let it rest for 1 hour or more before using it.
- Do not turn the cartridge over and do not stand it on its end.

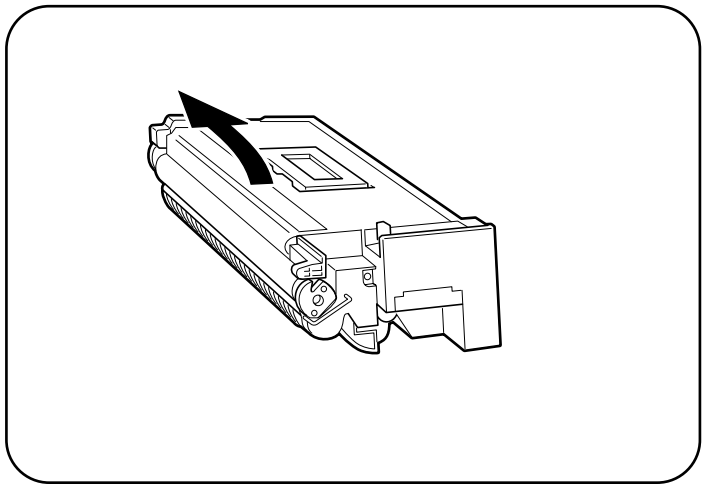
- Toner is not harmful to the human body, but if some toner has come into contact with your skin, you can wash it off with warm water and soap. If toner gets on your clothing, you should try to immediately blow it off with compressed air.
- After removing the sealing tape, do not shake the EP cartridge.
- The drum shutter protects the photosensitive drum from external light. Do not open the drum shutter by hand.
- Never touch the surface of the photosensitive drum.

For standard configuration

1. Hold the latch and open the upper left cover.

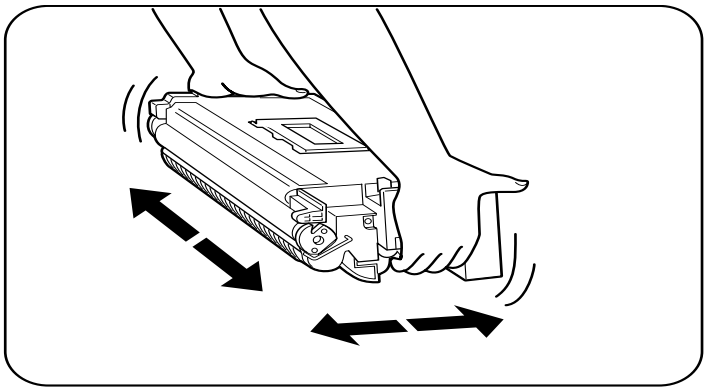


2. Remove the EP cartridge from the packing carton, and pull out the protective paper sheet from the drum shutter.

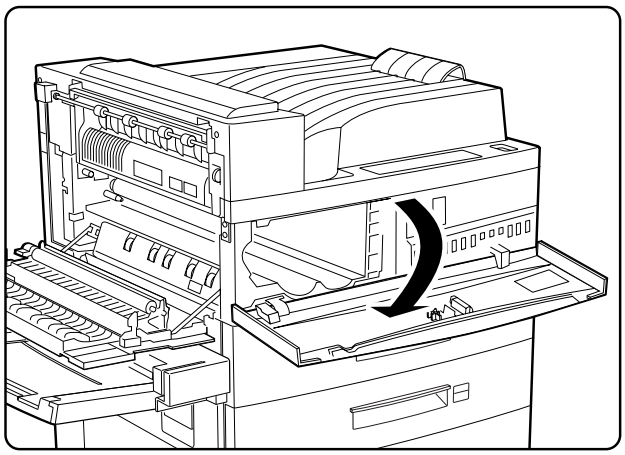


3. Hold the EP cartridge horizontally and gently shake it 5 to 6 times to evenly distribute the toner inside. Uneven toner distribution may degrade print quality. If the toner has not been

properly freed by shaking the cartridge, a noise may be heard when turning on the printer and the EP cartridge may be damaged.

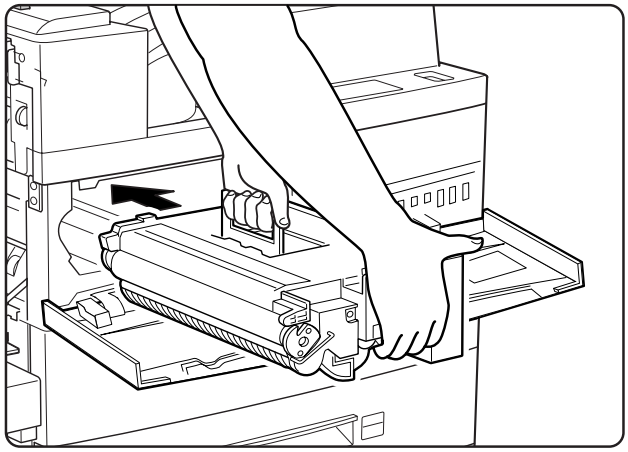


4. Open the front cover as indicated.



WARNING: Never touch the fuser area (where a label indicating high temperature is located). Burns may result.

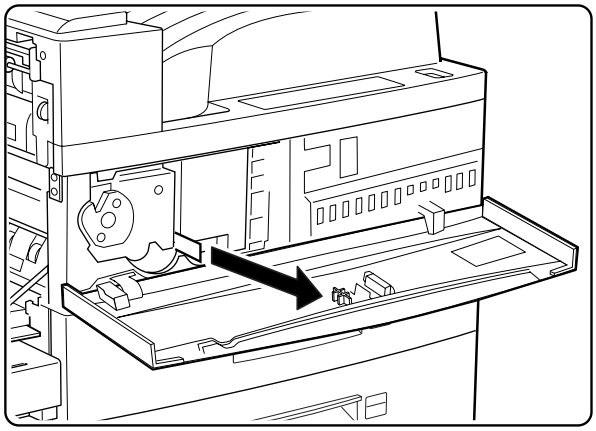
5. While holding the orange handle with one hand, gently push the cartridge all the way into the printer.



I

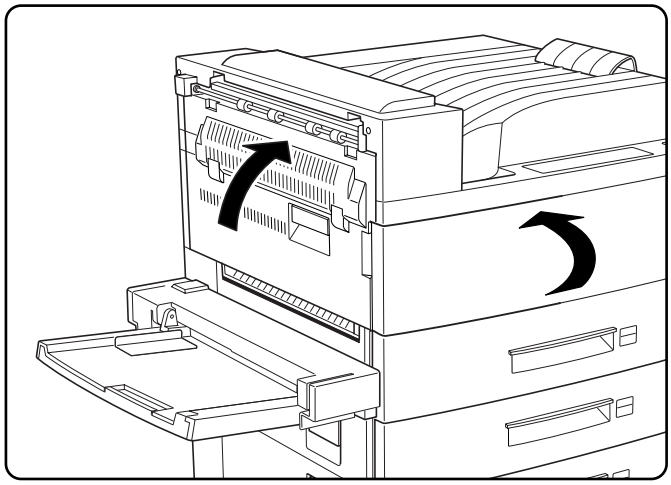
CAUTION: Do not touch any parts inside the printer. Make sure the cartridge is seated properly.

1. Gently pull out the sealing tape in the direction of the arrow.



NOTE: If the tape is pulled out at an angle, it may break.

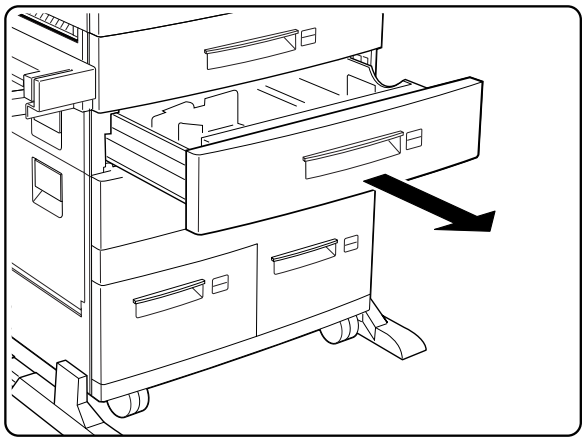
2. Close the front cover and the upper left cover.



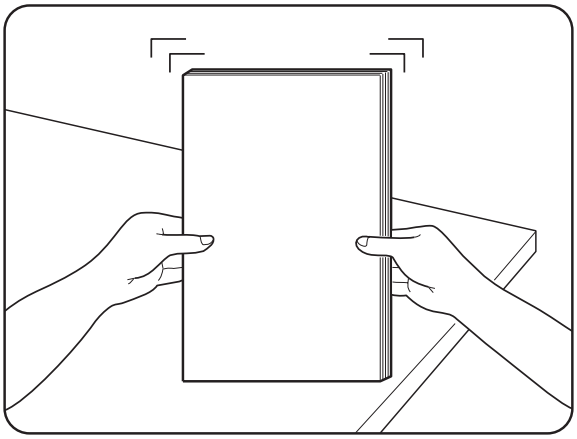
NOTE: When closing the upper left cover, do not use the latch on the cover. Instead, follow the instruction label on the cover and push the recommended location.

Adding paper to the 500-sheet universal paper cassette

1. Pull out the cassette until it stops.

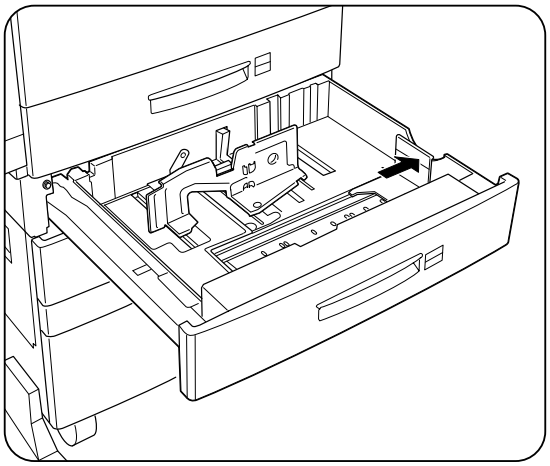


2. Prepare a stack of paper. Make sure the tops of the sheets are properly aligned.

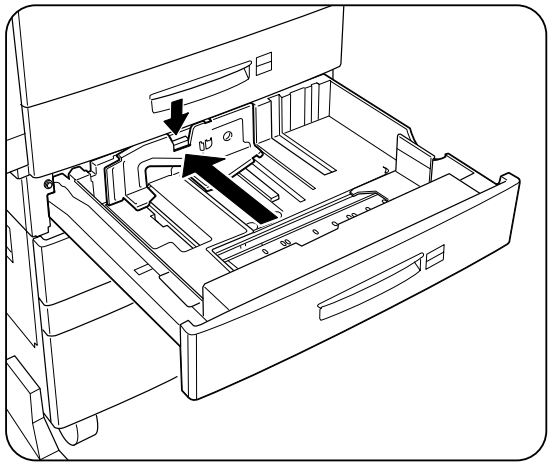


NOTE: Do not use paper with creases or wrinkles. When using special paper, fan it before insertion.

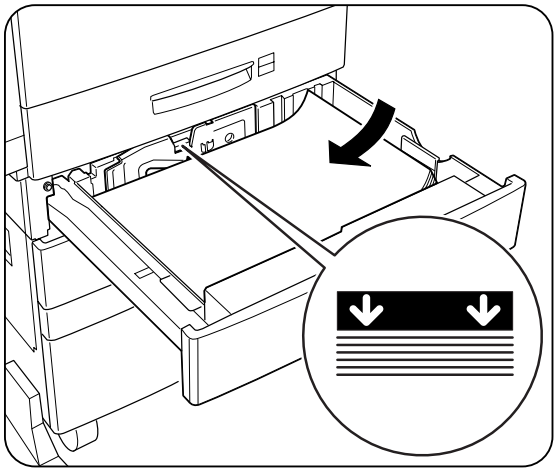
3. Gently lift up the length guide, and slide it all the way until it stops.



4. While pressing down the gray handle, slide the side guide all the way until it stops.

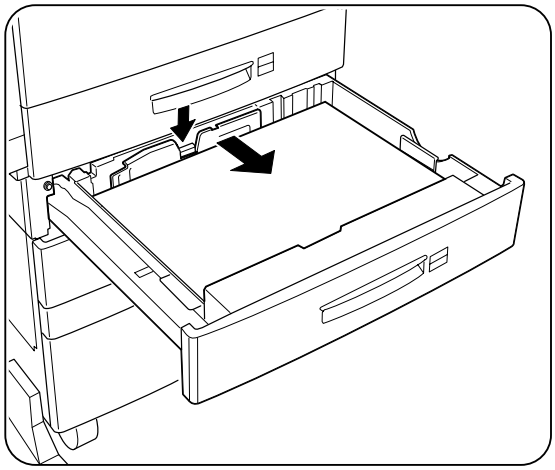


5. Align the four corners of the paper and place the paper in the cassette. The paper should enter easily between the guides. Make sure the paper does not get bent upwards by the guides.



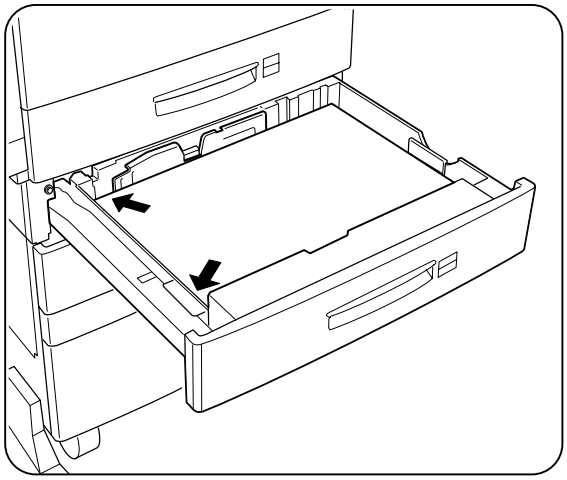
NOTE: Make sure the paper stack height does not exceed the paper limit mark. Do not overload the cassette. Always load paper of the same size.

6. Adjust the side guide to the paper width.

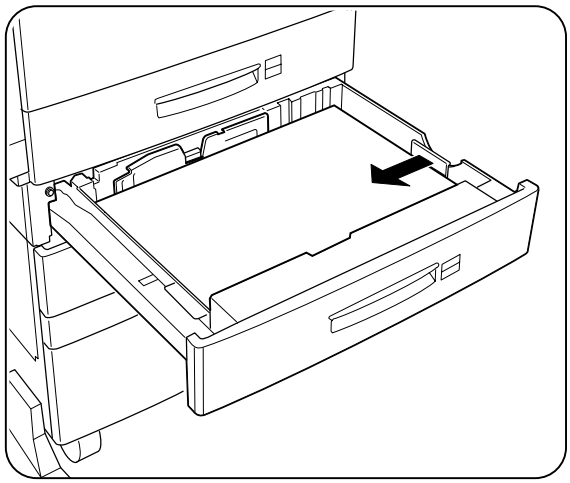


NOTE: Adjust the guide to the paper size correctly; otherwise paper may not be transported correctly and may result in a paper jam.

7. Align the edges of the paper stack

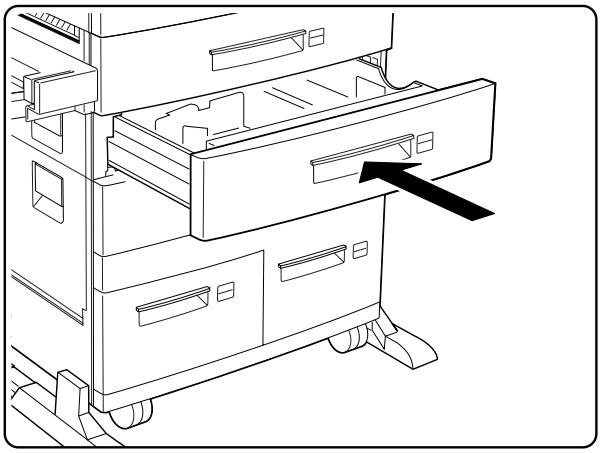


8. Adjust the length guide to the paper length.



NOTE: Make sure the guide stopper is locked firmly in the guide hole on the bottom of the cassette. Adjust the guide to the paper size correctly otherwise paper may not be transported correctly and may result in a paper jam.

9. Insert a correct paper size label into the paper size slot on the cassette, then push the cassette all the way back into the printer until it latches.



Connecting the Parallel Cable

1. Attach an optional parallel cable to the parallel port on the rear of your printer.
2. Attach the other end of the parallel cable to the parallel port on your PC or workstation.

Connecting the Ethernet Cable

1. Attach appropriate cable to your Ethernet hub.
2. Attach the opposite end of the cable to the ethernet port on the printer.

Connecting the Power Cord

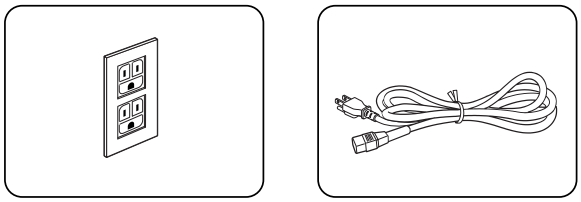
Connect the printer to an AC outlet as described below.

WARNING: To prevent the risk of electric shock, never touch the power cord or plug with wet hands.

CAUTION: When disconnecting the power cord, always grasp the plug and do not pull at the cable. Damage to the cord can lead to fire and electric shock.

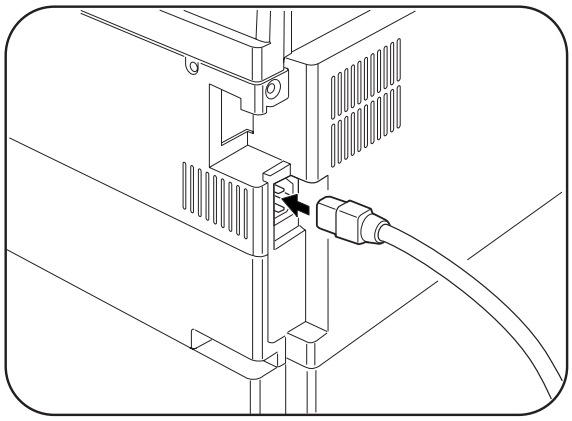
- Do not plug the printer into an AC outlet with incorrect voltage.
- Do not use any multi-extension cord connector otherwise there is a risk of fire and electric shock.
- Do not use extension cords with rated current less than 124V 15A. Never use extension cords with low capacity, or extreme heat or flame may result. Consult your dealer on the correct type of extension cord to use.
- Do not damage or modify the extension cord. Also, do not bend, pull, or place heavy objects on the extension cord otherwise the extension cord may be damaged and result in fire hazard or electric shock.
- See “Safety Notes” on page B-2.

AC outletPower cord

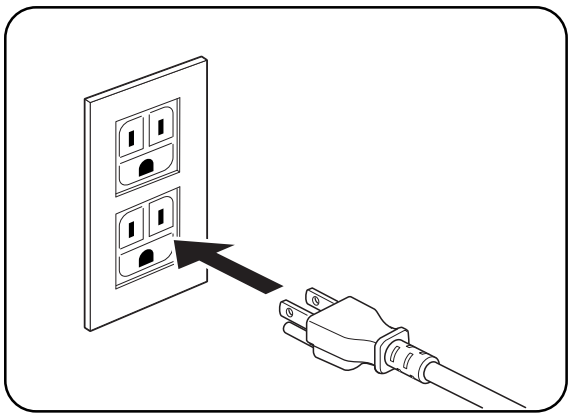


1. Insert the power cord into the AC connector on the printer

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

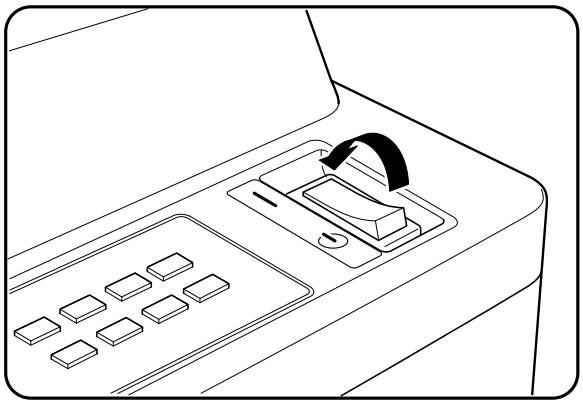


3. Connect the power cord to the outlet.



Turning the Printer On

Set the power switch to the [I] position to turn on the printer.



The top line of the LCD display reads:

```
Loading
```

followed by asterisks progressing across the bottom line:

```
**************
```

Following a LED self test, asterisks progress across both lines of the display

```
**************
**************
```

and the Power On Self Test ends with the top line of the display reading:

```
Ready
```

NOTE: While turned on, the printer will go into the standby state if it remains idle for a period of time.If an error message appears, see "Control Panel LCD Messages" on page 6-17.

Selecting a Display Language

The default language for all LCD display messages and the Configuration Summary and Test Page is English. You can change the default language to Espanol, Italiano, Deutsch or Francais.

NOTE: The language that you select will be reflected on all LCD display messages, and also the content of the Configuration Summary and Test Page.

To change the default language from English to one of the other four available selections:

1. From the Ready status, press MENU, the control panel display will read:

   ```
   Menu
   Paper
   ```

2. Press PREVIOUS or NEXT until the display reads:

   ```
   Menu
   System Menu
   ```

3. Press SELECT, the display will read:

   ```
   System Menu
   Factory Defaults
   ```

4. Press NEXT or PREVIOUS until the display reads:

   ```
   System Menu
   Display Language
   ```

5. Press SELECT, the display will read:

   ```
   System Menu
   English
   ```

6. Press NEXT or PREVIOUS until the desired default language appears on the bottom line of the display:

7. Press SELECT. You have now changed the default language.

Installing Printer Drivers

Installing Printer Drivers and other Software for UNIX and Windows

To install printer drivers and other software for UNIX and Windows, go to the SOFTWARE folder located on the Electronic Library CD-ROM. The SOFTWARE folder contains the following subfolders:

- Drivers Folder

  The Drivers folder contains all of the printer drivers necessary to print from Windows 3.1and 95/98, and Windows NT 3.5.1 and 4.0, and Windows 2000 systems. Refer to the DRIVERS.TXT file included in this folder for more information about installing and using driver software.

- NetPort Folder

  The NetPort folder contains the network port software that allows you to print directly from Windows 95/98 and Intel Windows NT 4.0 systems. Refer to the README.TXT file included in this folder for more information about installing and using this software.

- PFDload Folder

  The PFDload folder contains information about downloading printer firmware updates. Refer to the README.TXT file included in this folder for more information.

- UnixSW Folder

The UnixSW folder contains UNIX Printing Software, which is an enhanced print filter and network socket driver that allows you to take advantage of all of the printing features of your printer. Refer to the INSTSALL.PDF file included in this folder for more information about installing and using Gentian UNIX Printing Software.

Installing Printer Drivers for MacOS

To install printer drivers for MacOS, refer to the following folder on the Electronic Library CD-ROM:

- Printer Driver folder
- The Printer Driver folder contains the AdobePS driver installation kit and PPD file for the printer. These items are available in English, German, French, Italian, and Spanish.

Printing a Configuration Summary

Your printer can print a configuration summary that lists the currently selected status of menu options, media selections in trays, options installed and other relevant information about your printer. To print a Configuration Summary, follow these steps:

1. From the Ready status, press MENU, the control panel display will read:

   ```
   Menu
   Paper
   ```

2. Press PREVIOUS or NEXT until the display reads:

   ```
   Menu
   Functions
   ```

3. Press SELECT, the display will read:

   ```
   Functions
   Reset Printer
   ```

4. Press NEXT or PREVIOUS until the display reads:

   ```
   Functions
   Print Summary
   ```

5. Press SELECT. A two page Configuration Summary will print. An example of a Configuration Summary appears on the following page.

NOTE: Depending upon the options installed and menu settings, your Configuration Summary may vary.

TallyGenicom Intelliprint mL450

MENUS

Paper Menu
- Copies = 1
- Duplex = Off
- Duplex Bind = Long Edge
- Default Source = Tray 1
- Manual Feed = Off
- Output Tray = Face Down Tray
- **Media Size/Type**
  - **MBF**
    - Media Size = Letter LEF
    - Media Type = Plain
    - **Custom Size**
      - Width = 8.50
      - Length = 11.00
  - **Tray 1**
    - Media Type = Plain
  - **Tray 2**
    - Media Type = Plain
  - **Tray 3**
    - Media Type = Plain
  - **Tray 4**
    - Media Type = Plain
  - **Tray 5**
    - Media Type = Plain
- Tray Linking = On
- Job Offset = On
- Blank Pages = Print
- Staple Mode = Off
- Face Up Inst = No
- Hole Punch = Off
- MBF First = Off
- Auto Resize = Off
- Separator Page = Off
- Custom Size Unit = Inches

Interface Menu
- **Port**
  - Parallel = On
  - Network Card 1 = On
  - USB = On
- **Parallel Setup**
  - Interpreter = Auto Switch
  - Format = Raw
  - Mode = Bidirectional
  - Delay Out Close = Off
  - Binary PS = Off
- **Network 1 Setup**
  - Interpreter = Auto Switch
  - Format = Normal
  - Network Address = 00502700A850
  - IP Address = 010.001.254.102
  - Subnet Mask = 255.255.000.000
  - Default Router = 010.001.001.001
  - LPD Banner = Off
  - DHCP = Off
  - Delay Out Close = Off
  - Host Name = IntelliprintmL45000A850
  - mDNS = On
  - Local Link = 169.254.168.080
  - mDNS Host Name = IntelliprintmL45000A850
  - mDNS Svc Name = Intelliprint mL450 00A850
  - Multi-Session = Off
  - AppleTalk = On
  - Binary PS = Off
- **USB Setup**
  - Interpreter = Auto Switch
  - Format = Raw
  - Delay Out Close = Off
  - Binary PS = Off

PS Menu
- Print PS Errors = Off
- Manual Feed TO = 0

PCL Menu
- Orientation = Portrait
- Font Source = Internal
- Font Number = 12
- Pitch = 10.00
- Symbol Set = 10U:PC-8 CP437
- Macro Filter = Off
- Lines Per Page = 3
- CR Mode = CR=CR
- LF Mode = LF=LF

PCL Menu cont'd
- FF Mode = FF=FF
- Print Area = Normal
- **Parameter Values**
  - **Paper Source**
    - MBF = 8
    - Tray 1 = 1
    - Tray 2 = 4
    - Tray 3 = 5
    - Tray 4 = 20
    - Tray 5 = 21
    - Auto-Select = 7
  - **Paper Size**
    - Executive = 1
    - Letter = 2
    - Legal = 3
    - Statement = 4
    - Folio = 5
    - Ledger = 6
    - A6 = 24
    - A5 = 25
    - A4 = 26
    - B5 = 45
    - B4 = 46
    - Monarch Envelope = 80
    - Com10 Envelope = 81
    - DL Envelope = 90
    - C5 Envelope = 91

System Menu
- Display Language = English
- Alarm Control = Single
- Power Saver = 15
- Wait Timeout = 20
- Job Timeout = 0
- Jam Recovery = On
- Hex Print = Off
- Toner Out = Stop
- Page Compression = Off
- Intellifilter = On

Quality Menu
- Toner Saver = Off
- Print Density = 5

STATUS

MBF
- Media Size = Letter LEF
- Media Type = Plain
- Level = Empty

Tray 1
- Media Size = A3
- Media Type = Plain
- Level = 1/4 Full

Tray 2
- Media Size = Ledger
- Media Type = Plain
- Level = 1/4 Full

Tray 3
- Media Size = A4 LEF
- Media Type = Plain
- Level = 1/4 Full

Tray 4
- Media Size = Letter LEF
- Media Type = Plain
- Level = 1/2 Full

Tray 5
- Media Size = A4 LEF
- Media Type = Plain
- Level = 1/4 Full

Face Down Tray = OK
Stacker Main = 0%
Stacker Top = Empty
Toner = 80%

INFORMATION

Product Version : 2.00
PostScript Version : 3010.106
Engine Version : 55.61-2
Duplexor Version : 11.2

INFORMATION cont'd

Finisher Version : 5.20
Network 1 Version : 1.0
Installed Memory : 128 Mbytes
Printer Name : Intelliprint mL450 00A850
Serial Number :
Image Counter : 119128
Sheet Counter : 5604
Toner Page Count : 6678
HID=A1:0119,A2:20,S1:8,
M1:A000A4000000,P1:00005231

OPTIONS

Duplex Installed
HCF Installed
Finisher Installed
Hard Drive Installed

TallyGenicom®

Printing a Test Page

Your printer can print a test page that lists the indicates, grey scale, resolution settings, page counter, and other relevant information about your printer. To print a Test Page, follow these steps:

1. From the Ready status, press MENU, the control panel display will read:

   ```
   Menu
   Paper Menu
   ```

2. Press PREVIOUS or NEXT until the display reads:

   ```
   Menu
   Functions
   ```

3. Press SELECT, the display will read:

   ```
   Functions
   Reset Printer
   ```

4. Press NEXT or PREVIOUS until the display reads:

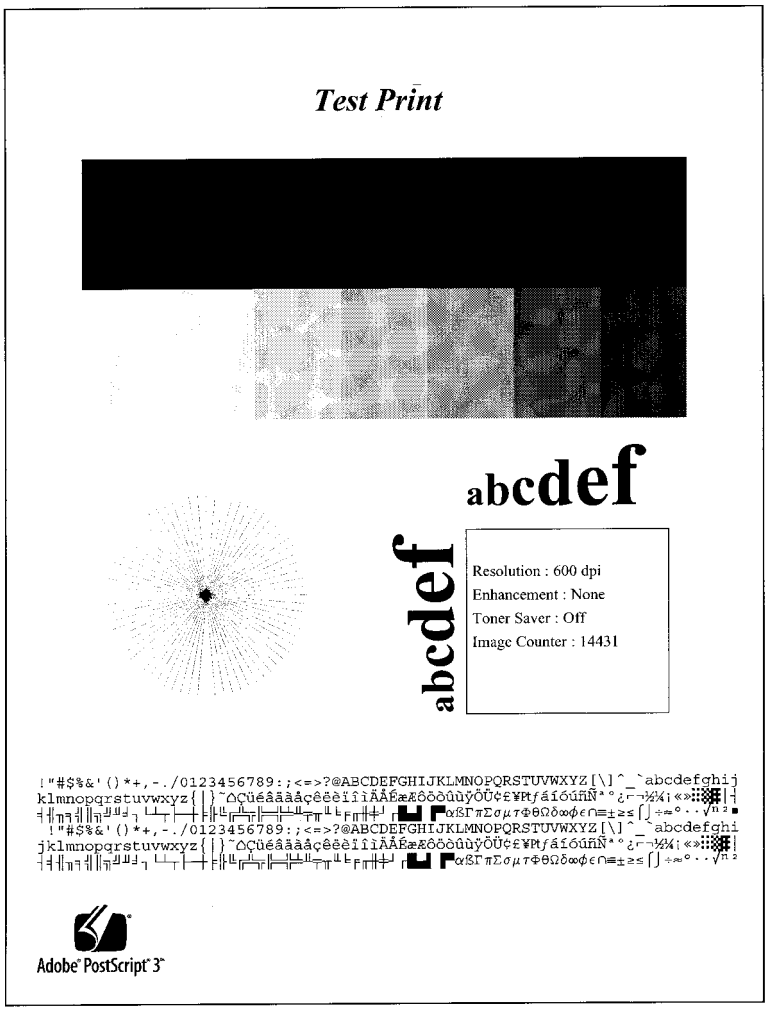
   ```
   Functions
   Print Test
   ```

5. Press SELECT, the display will read:

   ```
   Print Test
   Single
   ```

6. Press SELECT. A single page Test Page will print. An example of a Test Page appears on the following page.

NOTE: The size of the Test Page will match the size of the default paper size selected.



Printing PCL and PostScript Font Lists

Your printer has the capability of printing lists of all installed PCL or PostScript fonts. To print a Font List, follow these steps:

1. From the Ready status, press MENU, the control panel display will read:

   ```
   Menu
   Paper Menu
   ```

2. Press PREVIOUS or NEXT until the display reads:

   ```
   Menu
   Functions
   ```

3. Press SELECT, the display will read:

```
Functions
Reset Printer
```

4. Press NEXT or PREVIOUS until the display reads:

```
Functions
Print Fonts
```

5. Press SELECT, the display will read:

```
Print Fonts
PCL Fonts
```

NOTE: You may toggle between PCL Fonts and Postscript Fonts using the PREVIOUS or NEXT push-buttons.

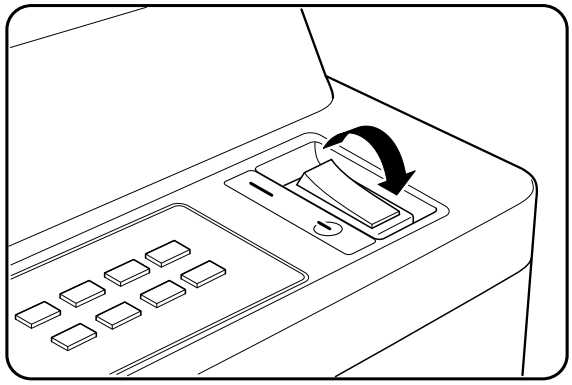
6. Press SELECT. A multi page resident Font List will print. Examples of a PCL and PostScript Font Lists appears in Appendix C of this manual.

Turning the Printer Off

Remember to turn off the printer at the end of day or when the printer will not be used for an extended period of time.

NOTE: When the printer is turned off, all print data still in memory will be erased.

Set the power switch to the [0] position to turn off the printer.



◆ ◆ ◆

Chapter 2

Printer and Options Parts and Functions

In this Chapter . . .

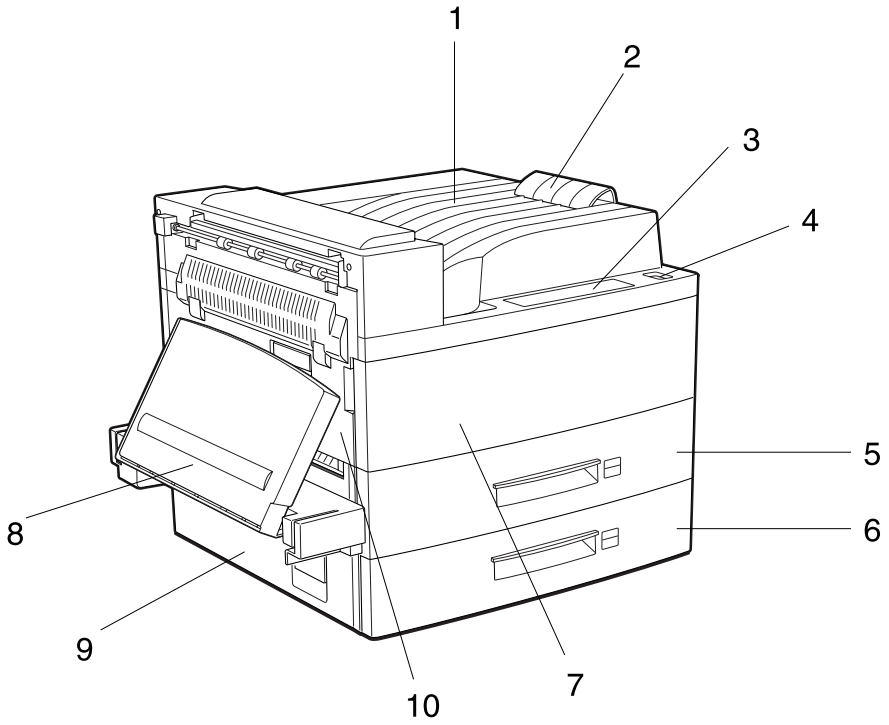
- "About this Chapter" on page 2-2
- "Main Unit" on page 2-2
- "Options" on page 2-6

About this Chapter

Describes the parts of the printer and paper handling options and their functions. A discussion of the paper path is also included. Also describes all available options and consumables for your printer and their respective part numbers.

Main Unit

Front view

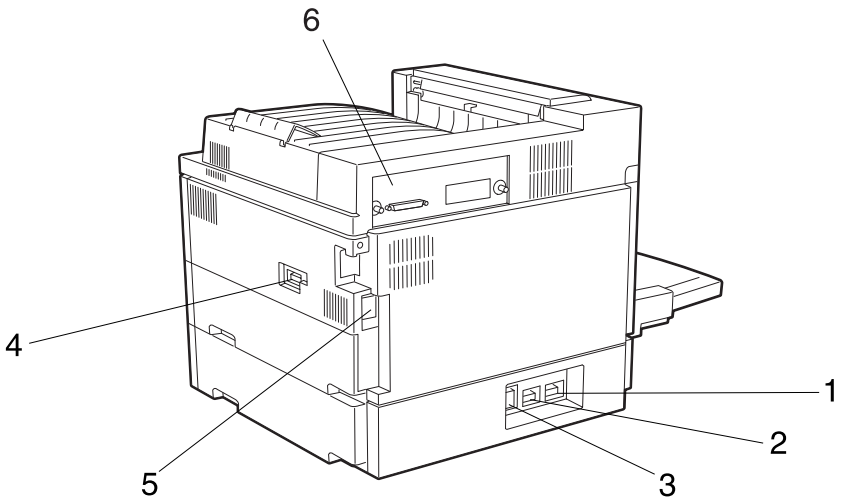


1	Paper output tray	Collects printed sheets, face down.
2	Paper stopper	Stops printed sheets so that they are collected properly.
3	Operation panel	Contains all push-buttons, LEDs and LCD display controls required for operation of the printer.
4	Power switch	Serves to turn the printer on and off.
5	Tray 1	Paper cassette which holds about 500 sheets of paper.
6	Tray 2	Paper cassette which holds about 500 sheets of paper.
7	Front cover	Provides access to the EP cartridge inside the printer.
8	Multi bypass feeder (MBF)	Accepts both standard and non-standard paper sizes for printing.

9	Lower left cover	Access area for clearing paper jam.
10	Upper left cover	Open this cover to clear paper jam or when replacing the EP cartridge.

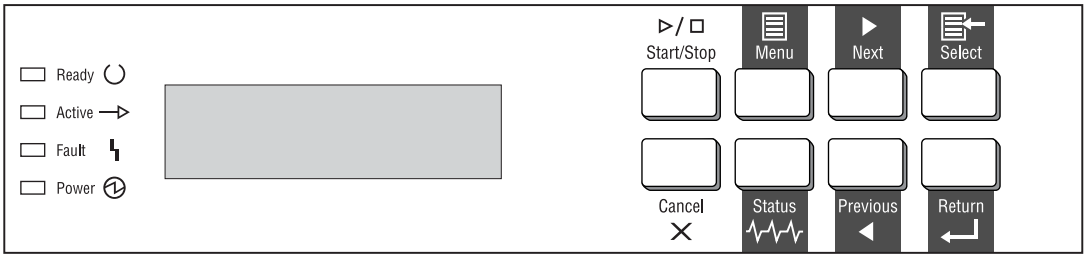
NOTE: The upper left cover can be closed only when the EP cartridge is installed in the printer. Do not close it when the EP cartridge is not inside the printer.

Rear View



1	DUPLEXER connector	Connects to the optional duplexer.
2	OUTPUT connector	Connects to the optional Finisher/Stapler unit.
3	TRAY connector	Connects to the optional HCF (High Capacity Feeder) unit.
4	Power cord receptacle	Connects to an AC outlet.
5	AC outlet	Supplies power to the optional Finisher/Stapler unit.
6	Controller	Houses the parallel and RJ45 ports and optional network interfaces.

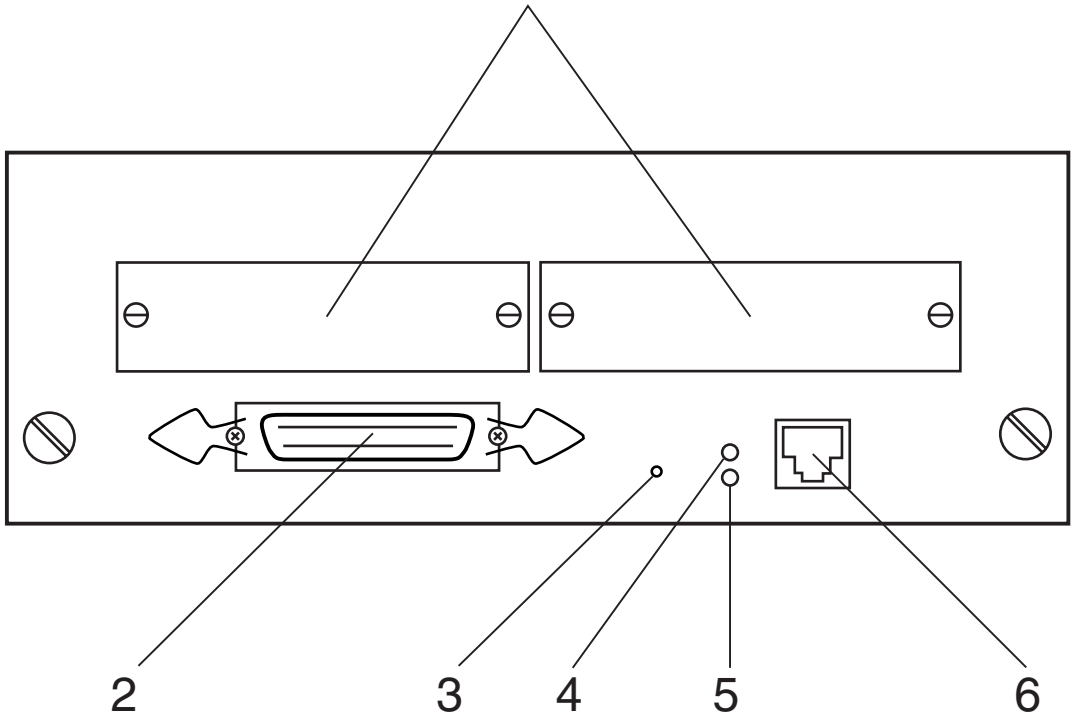
Operation Panel



Display

Shows error messages and other status information. Refer to "Chapter 4 Understanding and Navigating the Control Panel Menus" for a detailed discussion about using the LCD display and push-buttons of the control panel.

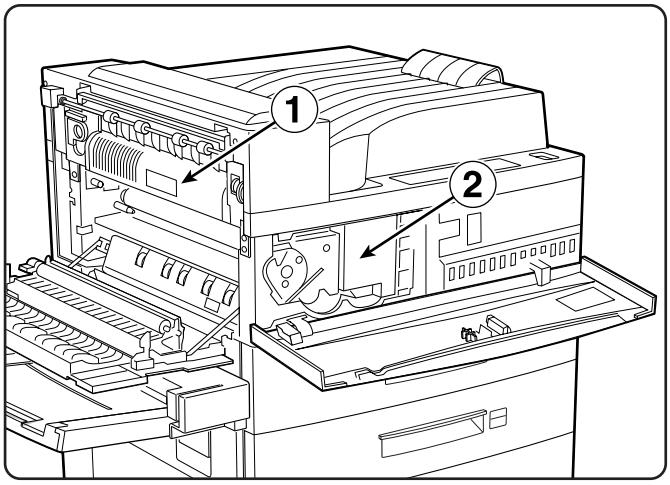
Controller



1	Optional Network Interfaces
2	Parallel Port
3	Ethernet Reset Switch
4	LED ON - 100BaseT Connection active OFF - 10BaseT Connection active

5	LED ON - Indicates Ethernet connection is active.
6	RJ45 Ethernet Port

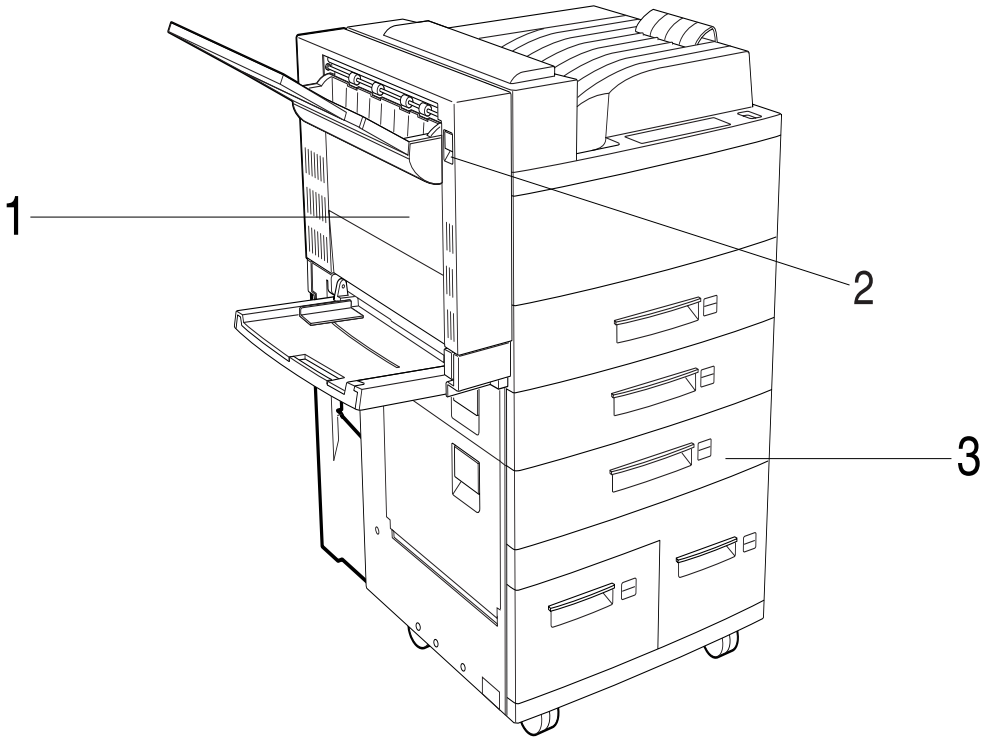
Inside the Printer



1	Fuser	Fixes toner onto the paper
2	EP Cartridge	The integrated cartridge contains the toner and the photosensitive drum.

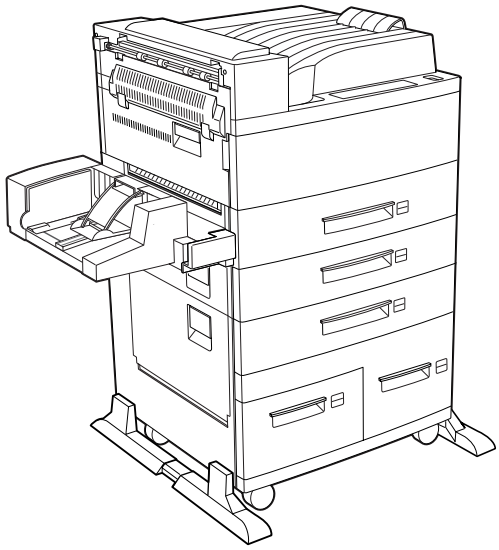
WARNING: The fuser becomes very hot in operation. If you have to access the fuser area, turn the power off and wait at least 40 minutes before removing the drum cartridge and touching the fuser section. Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result

Options



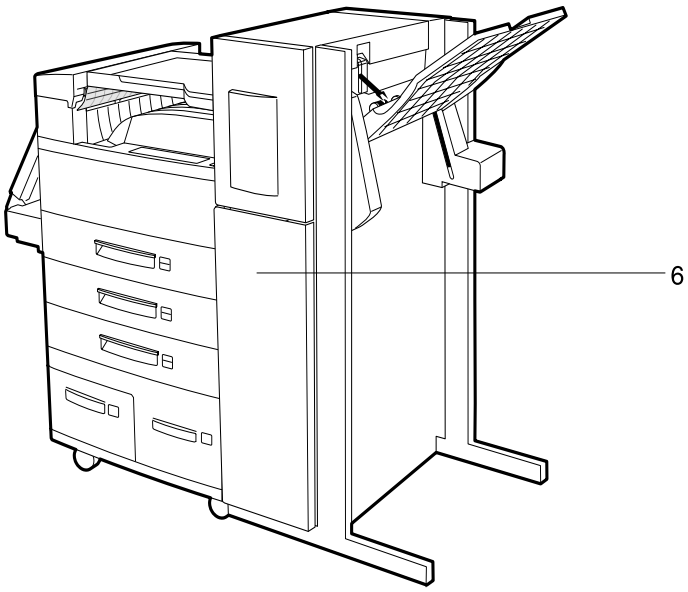
The above illustration show the printer with the standard cassette feeders, duplexer, and face-up tray installed.

1	Duplexer	For printing on both sides of a sheet.
2	Duplexer latch	Lift to replace the EP cartridge or remove jammed paper
3	High Capacity Feeder (HCF) unit (Trays 3, 4, 5)	Contains 3 cassettes for high volume paper input.



The above illustration shows the printer with the envelope feeder installed.

5	Envelope feeder	The optional envelope feeder can be hold up to about 100 envelopes.



The above illustration shows the printer with the Finisher/Stapler unit installed.

6	Finisher/Stapler unit	High capacity finisher (stacker) and stapler for automatic stapling of printed sheets.

NOTE: Additional options such as network interfaces, memory DIMMs, consumables and user publications are available for your printer. For a complete list of available options, part numbers and ordering information see "Appendix E TallyGenicom Customer Support and Part Numbers" .

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Chapter 3

Understanding Paper, Paper Paths, Paper Delivery and Paper Loading

In this Chapter . . .

- "About this Chapter" on page 3-2
- "Paper" on page 3-2
- "Paper Size Requirements" on page 3-2
- "Media Sizes Supported" on page 3-4
- "Media Types supported" on page 3-5
- "Paper Orientation" on page 3-6
- "Long and Short Edge Duplex Binding in Portrait and Landscape Orientations" on page 3-9
- "Paper Paths" on page 3-11
- "Paper Delivery" on page 3-13
- "Adding paper to the 500-sheet paper cassette, Tray 1 or Tray 2" on page 3-16
- "Adding paper to the multi bypass feeder" on page 3-20
- "Adding paper to the HCF unit (2500-sheet)" on page 3-22
- "Loading envelopes into the envelope feeder" on page 3-29

About this Chapter

Provides information on paper qualities, paper size requirements, paper paths, paper output delivery and loading of paper in your printer and options.

Paper

To obtain good print quality, only use the recommended paper. In choosing paper other than the recommended ones, use the following tables as guidance. Using paper other than that recommended may cause paper jam and other printer problems. Contact your point of purchase for more information.

Unacceptable paper

Avoid using the following media as they cause paper jams and print quality problem.

- Excessively thick or thin paper
- Paper that has already been printed
- Wrinkled, torn or bent paper
- Moist or wet paper
- Curled paper
- Paper with an electrostatic charge
- Glued paper
- Paper with special coating
- Color paper with surface treatment
- Paper unable to withstand temperature of 302∫ F (150∫ C)
- Thermal paper
- Carbon paper
- Paper with paper fastener, ribbons, tape etc. attached
- Heavily textured paper
- Label stock with exposed backing sheets

Storing paper

In addition to using paper meeting the specifications, be sure to store the paper properly to avoid print quality problems and paper jams.

- Store paper in a dry location away from direct sunlight.
- Store any unused paper in its original packing and store in it in a dry location.
- Store paper horizontally on a flat surface.

Store paper so as to avoid wrinkle, bending, curl, etc.

Paper Size Requirements

The paper sizes you can use are listed in the following tables.

Main unit

Paper Source	Paper Size			Simplex Printing	Duplex Printing
		X (mm)	Y(mm)		
Tray 1 Tray 2	A4 LEF	210	297	Yes	Yes
	B4 SEF	364	257	Yes	Yes
	8.5" x 11" LEF	216	280	Yes	Yes
	8.5" x 13" SEF	330	216	Yes	Yes
	7.5" x 10.5" LEF	184	267	Yes	Yes
	B5 LEF	182	257	Yes	Yes
	A3 SEF	420	297	Yes	Yes
	8.5" x 14" SEF	356	216	Yes	Yes
	11" x 17" SEF	432	279	Yes	Yes
Tray 1 Only	A5 LEF	148	210	Yes	Yes
	5.5" x 8.5" LEF	140	216	Yes	Yes

High Capacity Feeder Option (Trays 3, 4, and 5)

Paper Source	Paper Size			Simplex Printing	Duplex Printing
		X (mm)	Y(mm)		
Tray 3	A4 LEF	210	297	Yes	Yes
	B4 SEF	364	257	Yes	Yes
	8.5" x 11" LEF	216	280	Yes	Yes
	8.5" x 13" SEF	330	216	Yes	Yes
	7.5" x 10.5" LEF	184	267	Yes	Yes
	B5 LEF	182	257	Yes	Yes
	A3 SEF	420	297	Yes	Yes
	11" x 17" SEF	432	279	Yes	Yes
	8.5" x 14" SEF	356	216	Yes	Yes

Paper Source	Paper Size			Simplex Printing	Duplex Printing
Tray 4 Tray 5	A4 LEF	210	297	Yes	Yes
	8.5” x 11” LEF	216	280	Yes	Yes
	7.5” x 10.5” LEF	330	216	Yes	Yes
	B5 LEF	182	257	Yes	Yes

NOTE: 1. Different size papers cannot be mixed and loaded into the same paper source.
2. Duplex printing is possible only when the optional duplexer is installed.

Media Sizes Supported

NOTE: In the following table, SEF refers to Short Edge Feed whereas LEF refers to Long Edge Feed.
See “Paper Orientation” on page 3-6

.

MEDIA SIZE	Tray 1	Tray 2	Tray 3	Tray 4	Tray 5	MBF	Env Fdr
LEDGER (11” x 17”)	*	*	*			*	
LETTER LEF (8.5” x 11”)	*	*	*	*	*	*	
LEGAL (8.5” X 14”)	*	*	*			*	
FOLIO (8.5” X 13”)	*	*	*			*	
EXECUTIVE (7.25” X 10.5”)	*	*	*	*	*	*	
STATEMENT (5.5” X 8.5”)	*					*	
A3	*	*	*			*	
A4 LEF	*	*	*	*	*	*	
A4 SEF						*	
A5	*					*	
A6						*	
B4	*	*	*			*	
B5	*	*	*	*	*	*	
MONARCH ENVELOPE						*	*
DL ENVELOPE						*	*
C5 ENVELOPE						*	*

MEDIA SIZE	Tray 1	Tray 2	Tray 3	Tray 4	Tray 5	MBF	Env Fdr
COM 10 ENVELOPE						*	*
LETTER SEF						*	

Media Types supported

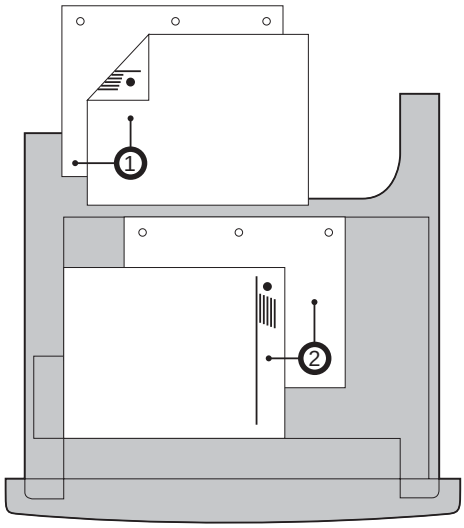
NOTE: In the following tables, SEF refers to Short Edge Feed whereas LEF refers to Long Edge Feed.

.

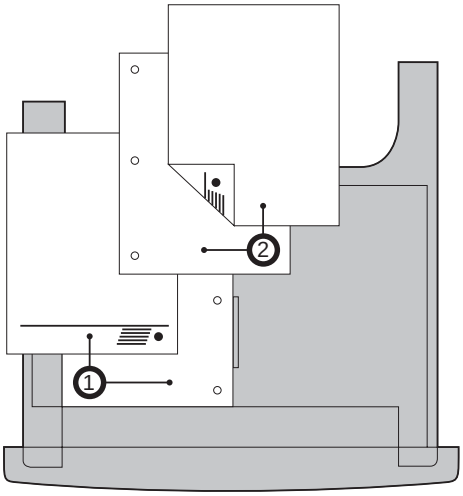
MEDIA TYPE	Tray 1	Tray 2	Tray 3	Tray 4	Tray 5	MBF	Env Fdr
PLAIN	*	*	*	*	*	*	*
LABEL						*	
TRANSPARENCY (LETTER)	*	*				*	
TRANSPARENCY (A4)	*	*				*	
PREPUNCHED	*	*	*	*	*	*	*
LETTERHEAD	*	*	*	*	*	*	*
COLORED	*	*	*	*	*	*	*
PREPRINTED	*	*	*	*	*	*	*
BOND	*	*	*	*	*	*	*
CARD STOCK						*	
POSTCARD						*	
ENVELOPE						*	*
OTHER	*	*	*	*	*	*	*

Paper Orientation

Paper Orientation in Trays 1, 2, or 3



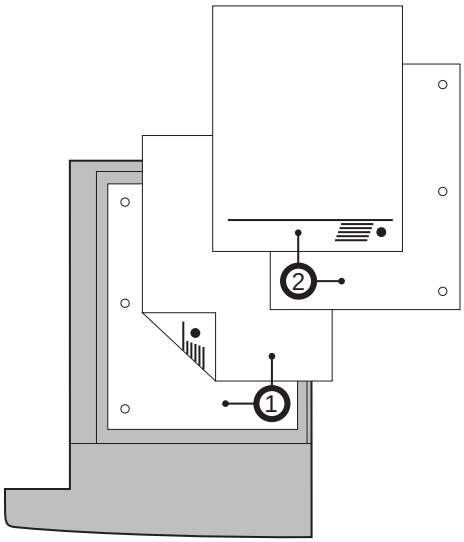
Top View of Short Edge Feeds



Top View of Long Edge Feeds

- 1 represents duplex printing
- 2 represents simplex printing

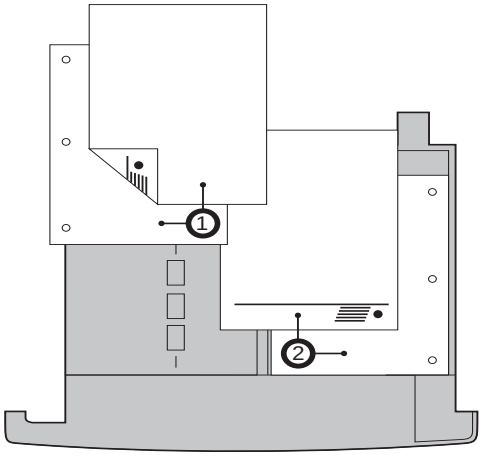
Paper Orientation in Tray 4



Top View of Long Edge Feeds

- 1 represents duplex printing
- 2 represents simplex printing

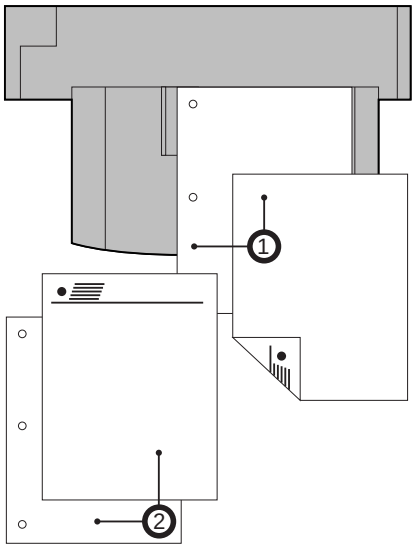
Paper Orientation in Tray 5



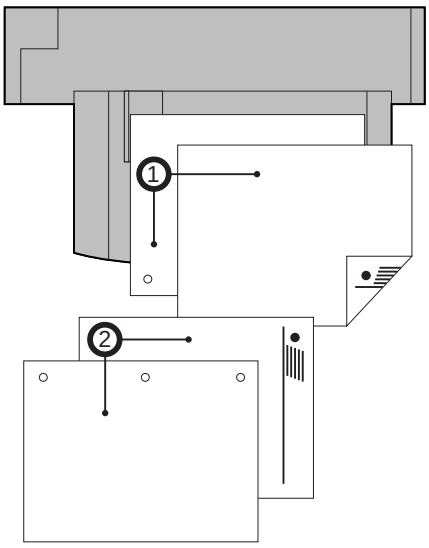
Top View of Long Edge Feeds

- 1 represents duplex printing
- 2 represents simplex printing

Paper and Envelope Orientation in the Bypass Feeder

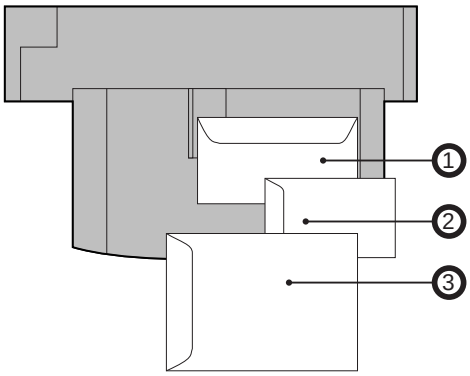


Top View of Short Edge Feeds (SEF)



Top View of Long Edge Feeds (LEF)

- 1 represents duplex printing
- 2 represents simplex printing

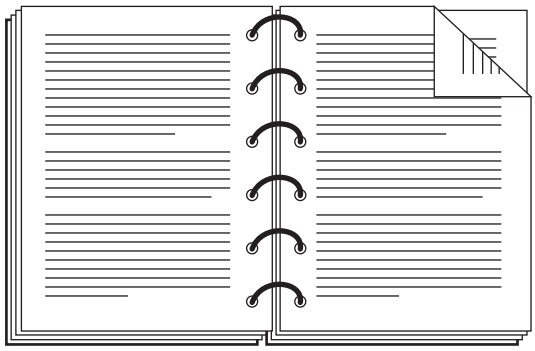


Top View of Envelope Feeds

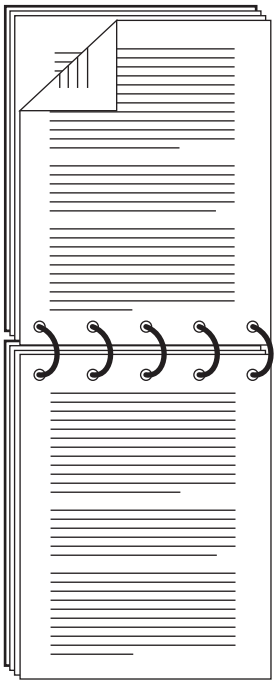
- 1 represents Envelope
- 2 represents DL Envelope
- 3 represents C5 Envelope

Long and Short Edge Duplex Binding in Portrait and Landscape Orientations

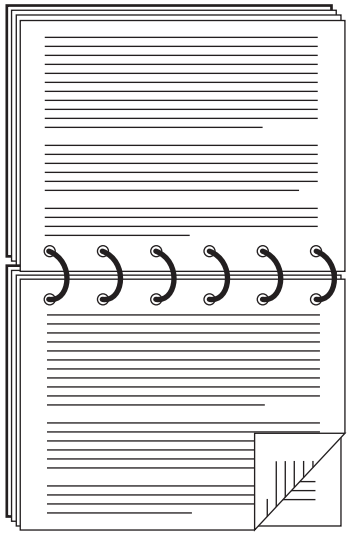
Long Edge Duplex Bind in Portrait Orientation



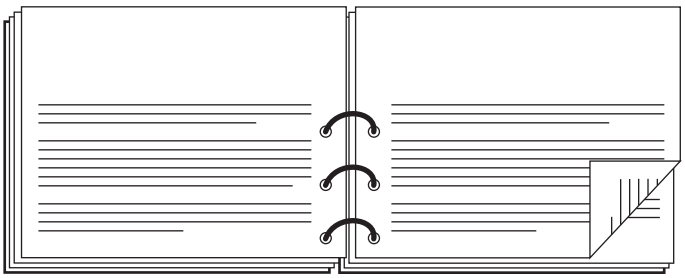
Short Edge Duplex Bind in Portrait Orientation



Long Edge Duplex Bind in Landscape Orientation



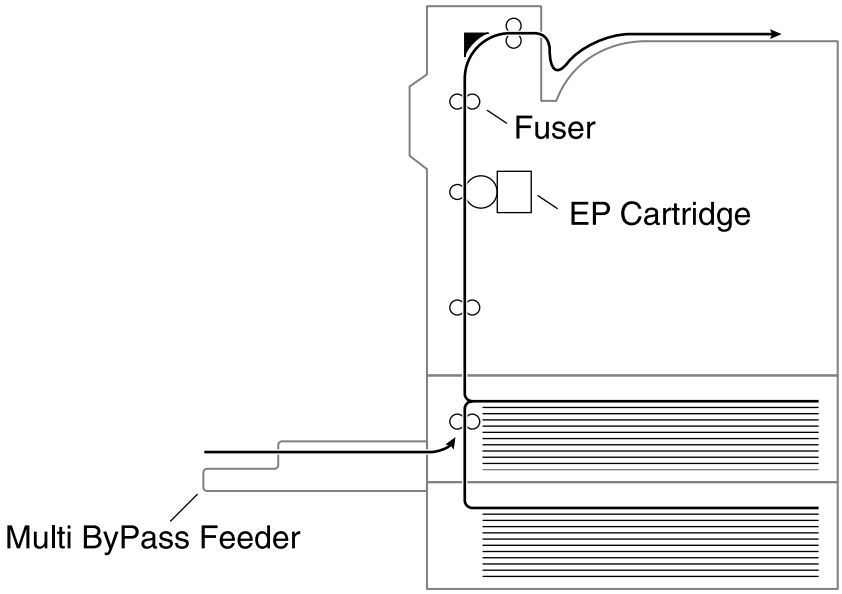
Short Edge Duplex Bind in Landscape Orientation



Paper Paths

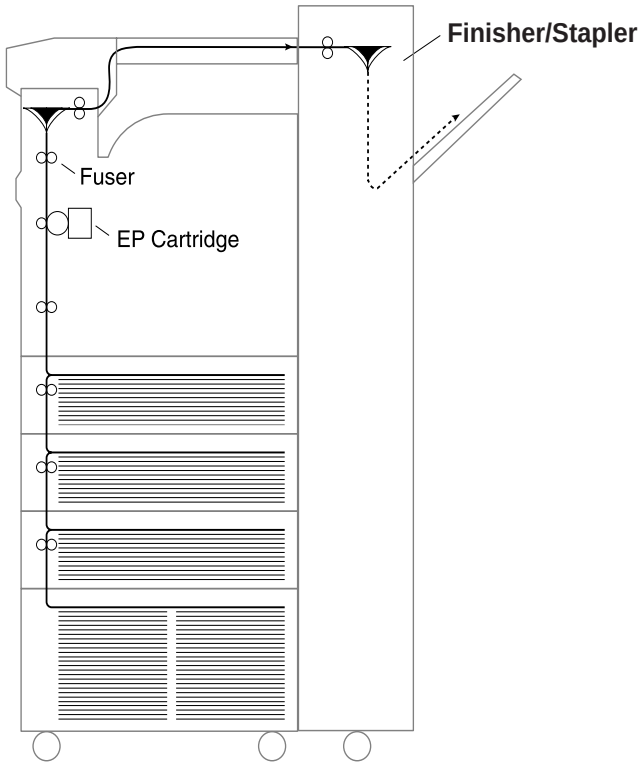
The following illustrations show the paper path through the printer in its standard configuration and also when options are installed.

Paper path for standard configuration



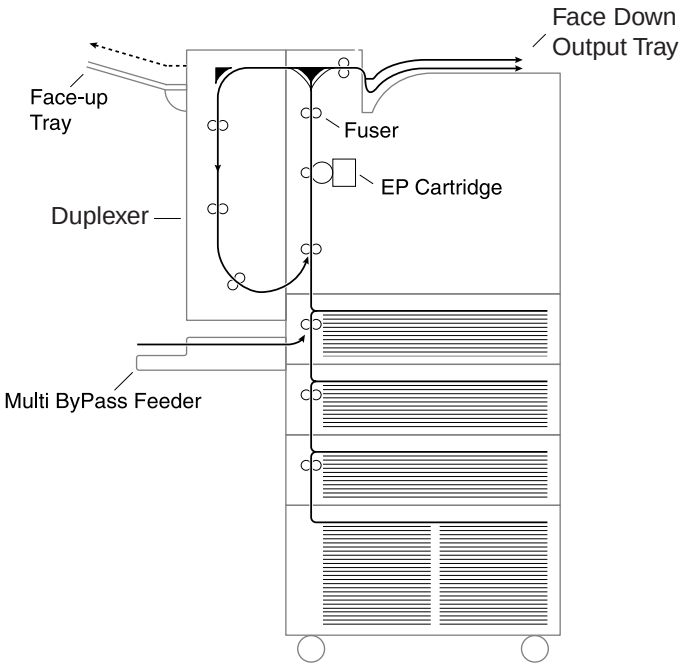
1. The paper is pulled out of a paper cassette or the multi bypass feeder.
2. The image is transferred by the photosensitive drum inside the EP cartridge.
3. The toner on the paper is fixed by the fuser.
4. The paper emerges onto the paper output tray, face down.

Paper path when options are installed



The following illustration shows the printer with the optional HCF unit, duplexer, and face-up tray

installed



1. The paper is pulled out of a paper cassette or the multi bypass feeder.
2. The image is transferred by the photosensitive drum.
3. The toner on the paper is fixed by the fuser.
4. The paper is output as follows:
   - For face-up tray: face up.
   - For paper output tray: face down.
   - For Finisher/Stapler unit: face down, stapled.

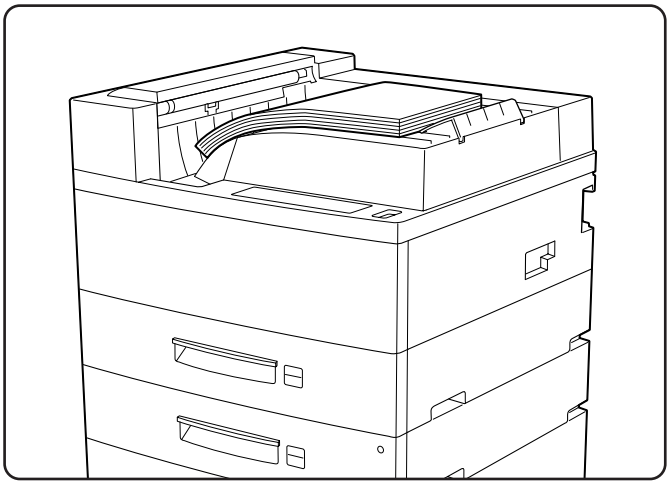
Paper Delivery

The output of paper from the printer is provided in the following ways.

NOTE: Avoid storing too many printouts in the paper output tray. Remove them as soon as possible; otherwise paper jam and paper delivery problems may result.

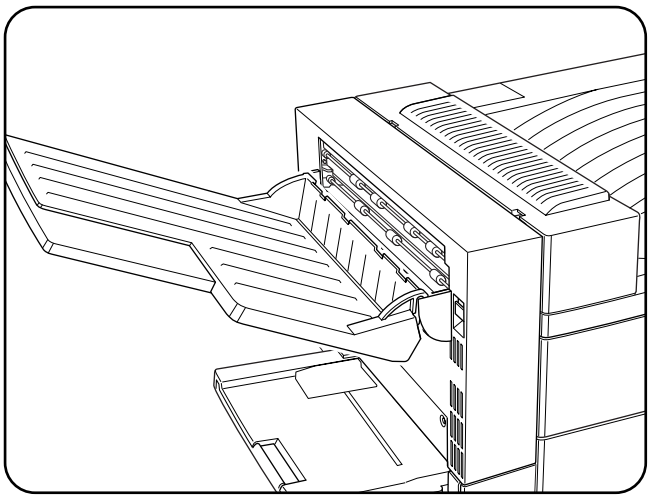
Paper output tray

The standard output tray enables printouts to emerge facing down. It can store up to about 500 sheets of printed paper.



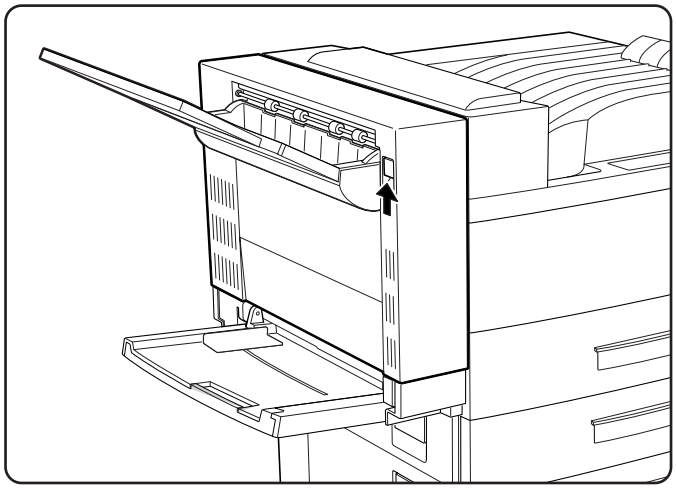
Face-up tray (option)

When installed and selected, the face-up tray can store up to about 200 sheets of paper coming out face down.

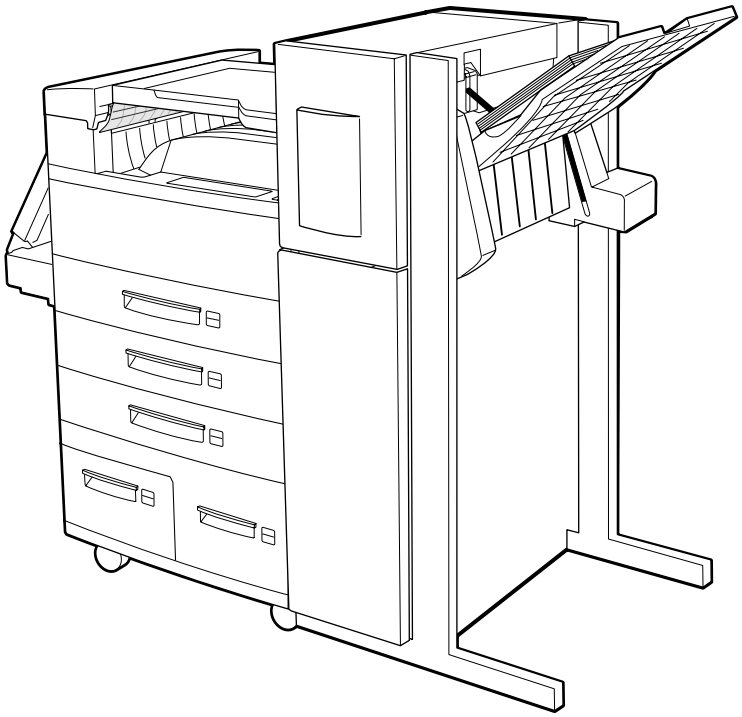


Face-up tray with the Duplexer (option)

When installed and selected, the face-up tray can store up to about 200 sheets of printouts coming out face down.

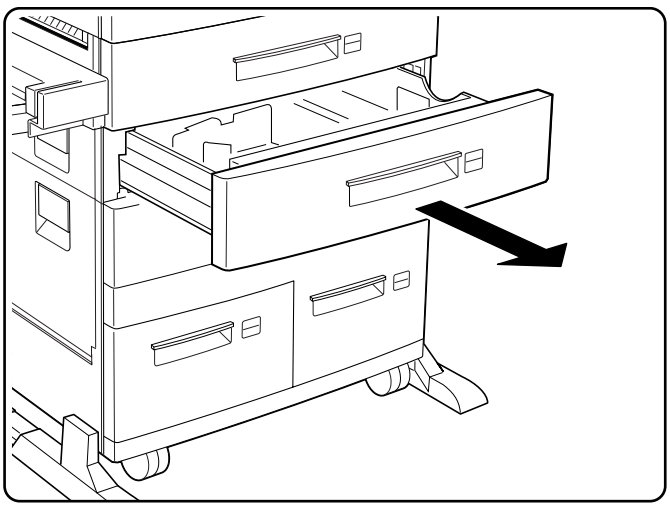


Finisher/Stapler unit (option)

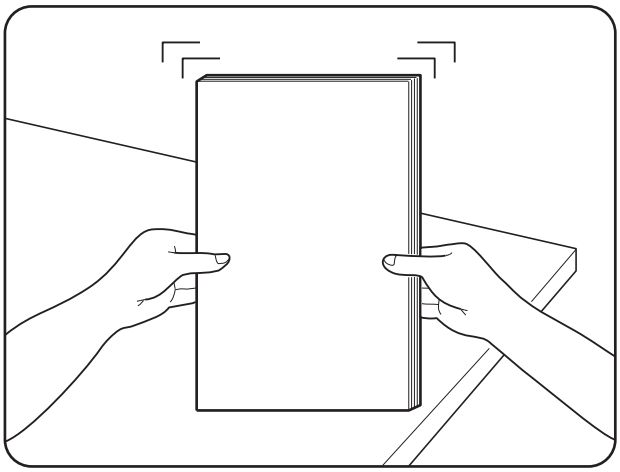


Adding paper to the 500-sheet paper cassette, Tray 1 or Tray 2

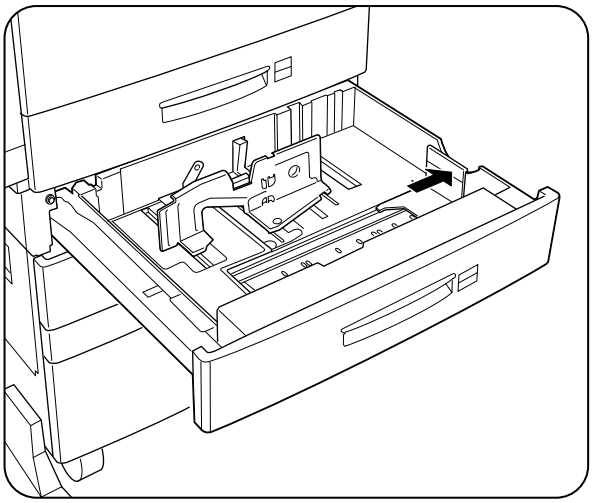
1. Pull out desired tray until it stops.



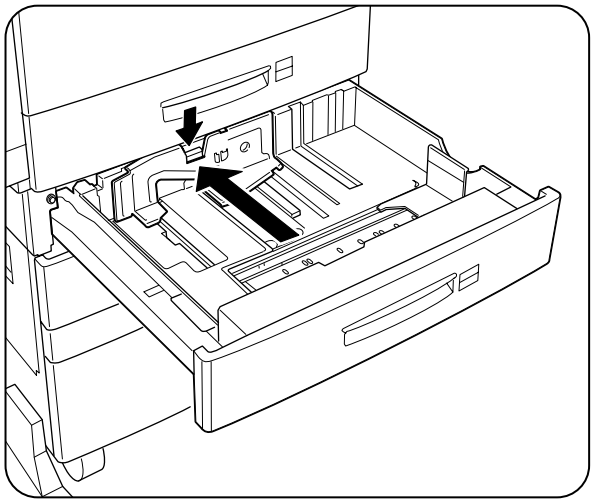
2. Prepare a stack of paper. Make sure the tops of the sheets are properly aligned.



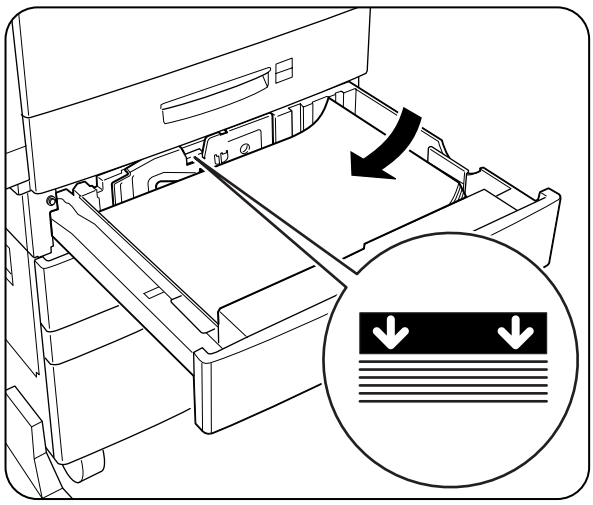
3. Gently lift up the length guide, and slide it all the way until it stops.



4. While pressing down the gray handle, slide the side guide all the way until stops.

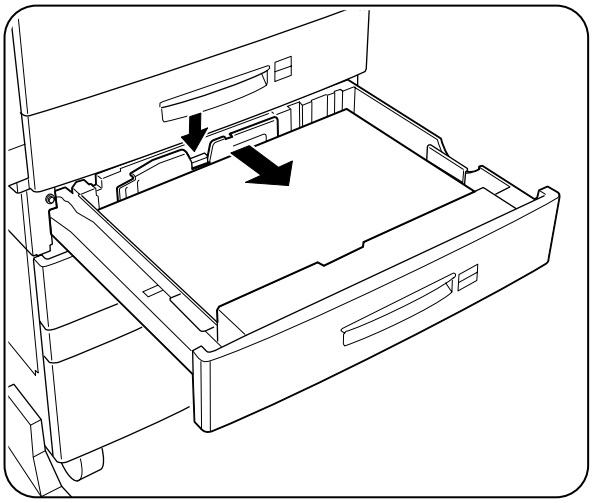


5. Align the four corners of the paper and place the paper in the cassette. The paper should enter easily between the guides. Make sure the paper does not get bent upwards by the guides.



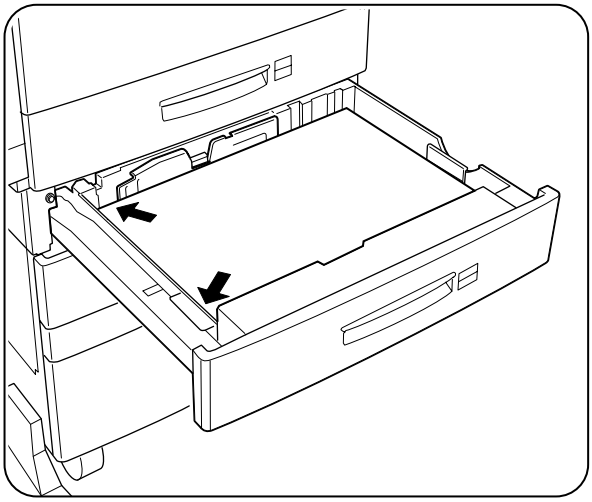
NOTE: Make sure the paper's stack height does not exceed the paper limit mark.

6. Adjust the side guide to the paper width.

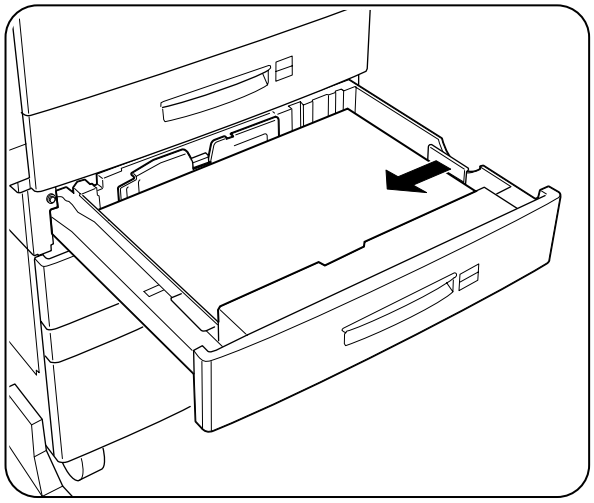


NOTE: Adjust the guide to the paper size correctly otherwise paper may not be transported correctly and may result in paper jam.

7. Align the edges of the paper stack

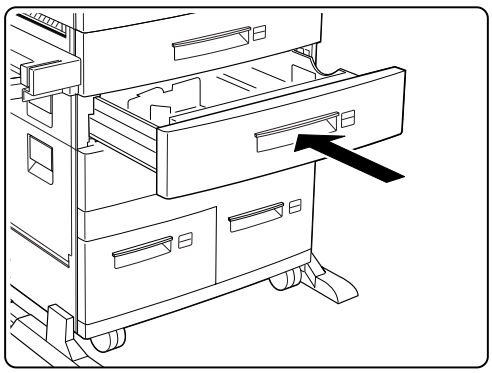


8. Adjust the length guide to the paper length.



NOTE: Make sure the guide stopper is locked firmly in the guide hole on the bottom of the cassette. Adjust the guide to the paper size correctly otherwise paper may not be transported correctly and may result in a paper jam.

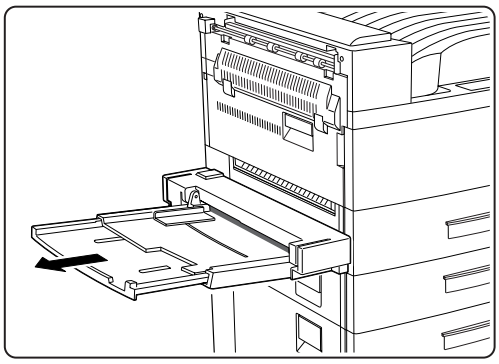
9. Insert a correct paper size label into the paper size slot on Tray 2, then push the cassette all the way back into the printer until it latches.



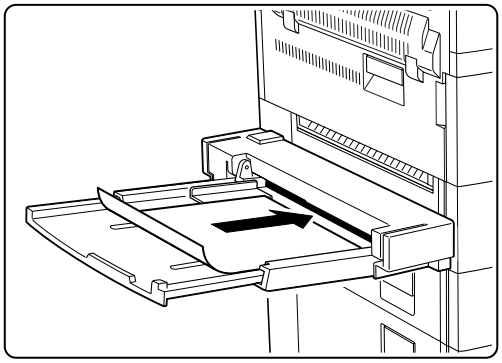
Adding paper to the multi bypass feeder

The multi bypass feeder can hold about 50 sheets (up to 80g/m^2 or about 3/16" or 5mm high) of paper. When adding paper, make sure the height of the paper stack is below the paper limit mark on the multi bypass feeder.

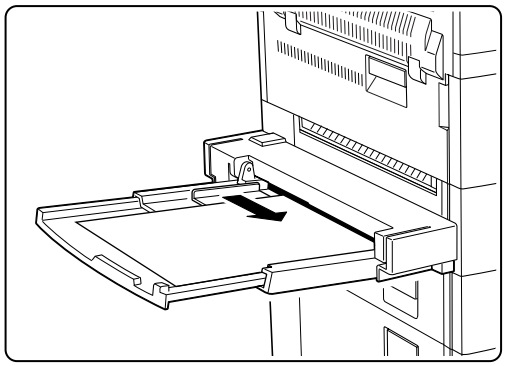
1. If necessary, pull out the extension tray to a length desired for the paper to be loaded.



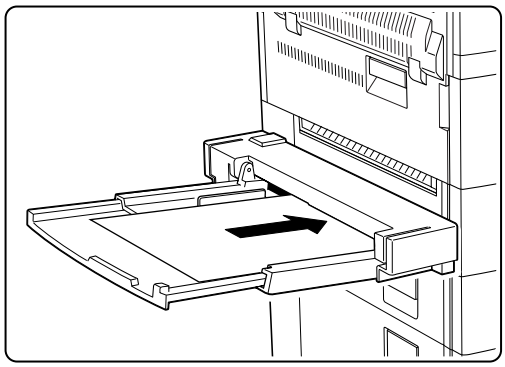
2. Place paper along the right side of the multi bypass feeder.



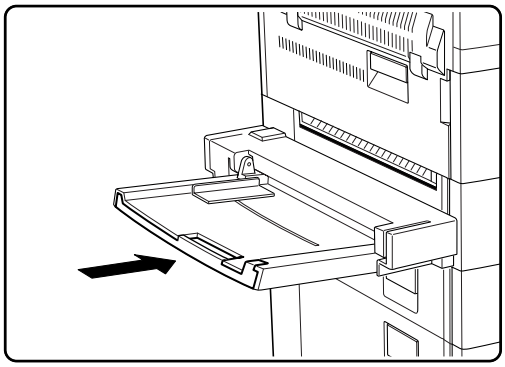
3. Push the paper guide until it slightly touches the paper stack.



4. Insert the paper stack as far as it can go into the printer. The paper is now ready for use.



5. When the paper is no longer required, remove it and push back the extension tray if necessary.

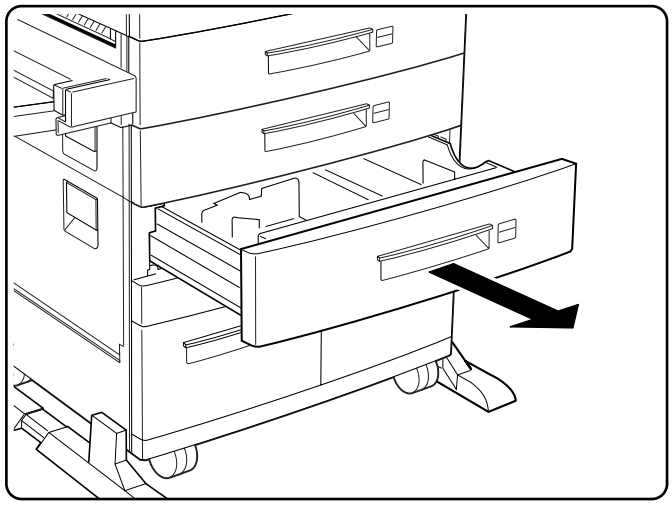


Adding paper to the HCF unit (2500-sheet)

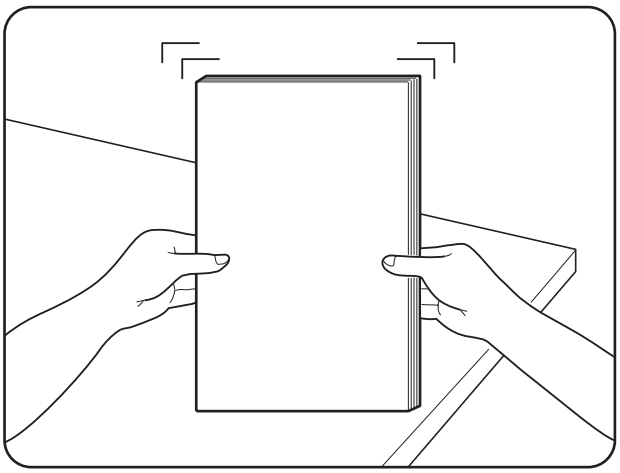
The HCF unit adds one 500-sheet universal paper cassette (Tray 3) and two A4/Letter size paper compartments (Trays 4 and 5) for high volume printing.

Tray 3 (500-sheet universal paper cassette)

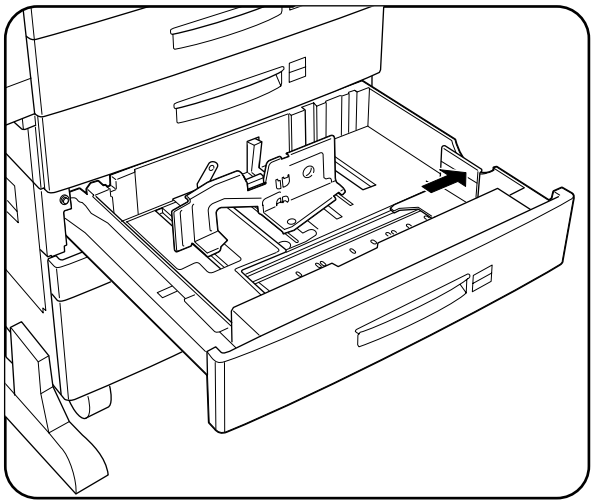
1. Pull out Tray 3 until it stops.



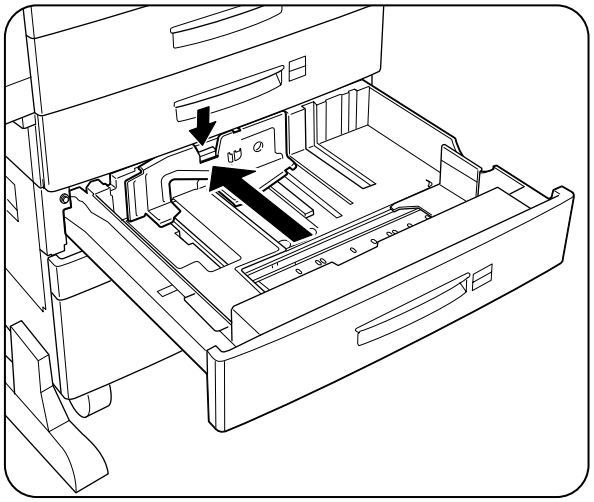
2. Prepare a stack of paper. Make sure the tops of the sheets are properly aligned.



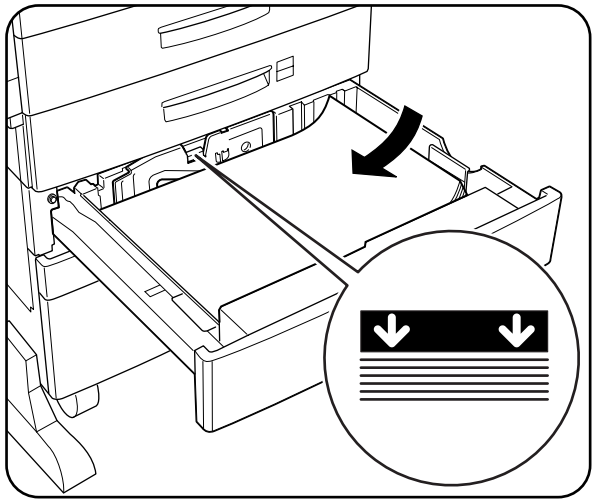
3. Gently lift up the length guide, and slide it all the way until it stops.



4. While pressing down the gray handle, slide the side guide all the way until it stops. If you will use the same paper as before, this step is not required.

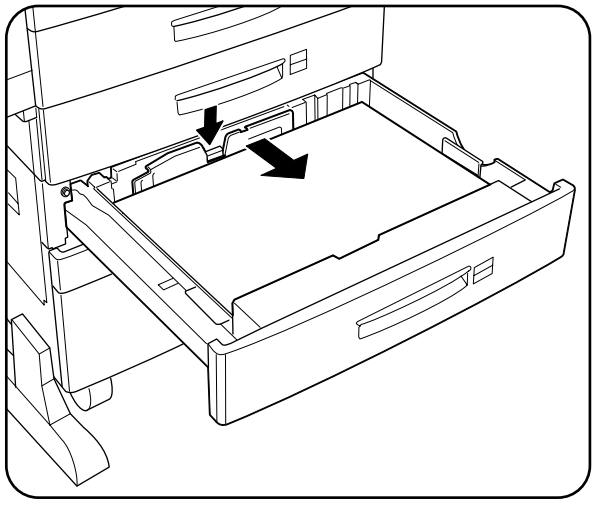


5. Align the four corners of the paper and place the paper in the cassette. The paper should enter easily between the guides. Make sure the paper does not get bent upwards by the guides.

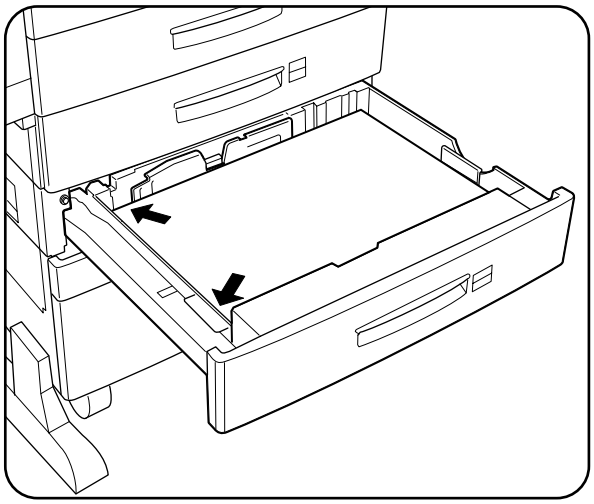


NOTE: Make sure the paper's stack height does not exceed the paper limit mark.

6. Adjust the side guide to the paper width.

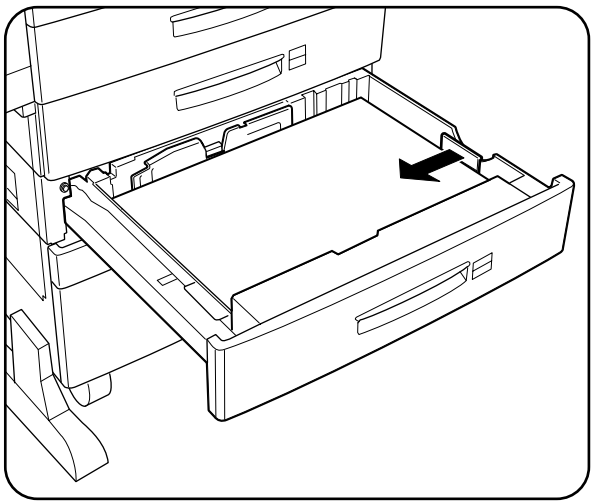


7. Align the edges of the paper stack.



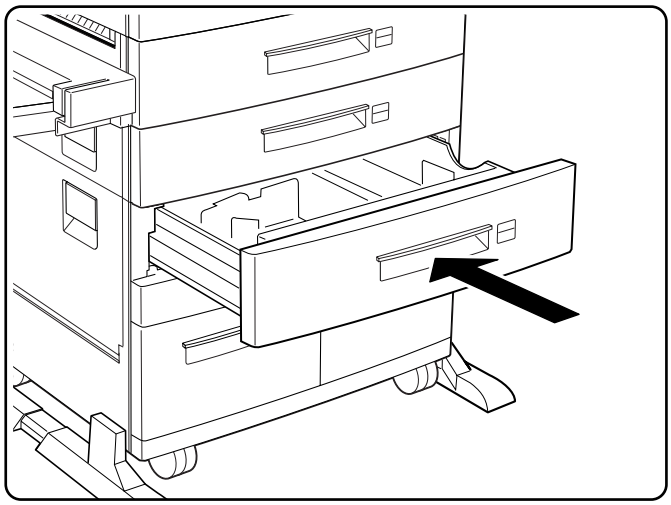
CAUTION: Adjust the guide to the paper size correctly otherwise paper may not be transported correctly and may result in a paper jam.

8. Adjust the length guide to the paper length.



CAUTION: Make sure the stack is under the retaining clips on both sides. Also make sure that the guide stopper is locked firmly in the guide hole on the bottom of the cassette. Adjust the vertical guide to the paper size correctly, otherwise paper may not be transported correctly and may result in paper jam.

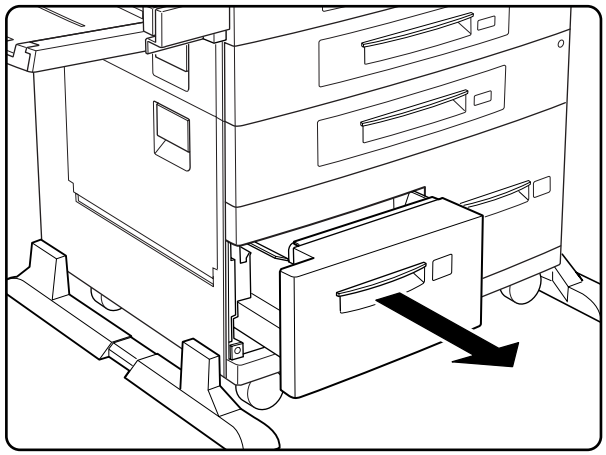
9. Insert a correct paper size label into the paper size slot on the cassette, then push the cassette all the way back into the printer until it latches.



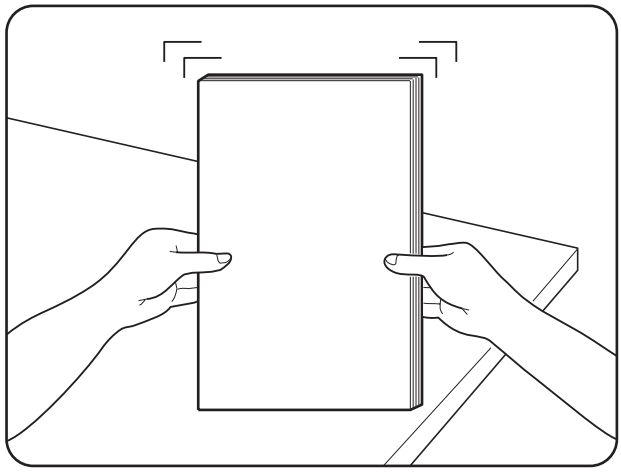
Trays 4 and 5 (A4/Letter size paper compartment)

Trays 4 and 5 are designated for printing of A4 or letter size paper. The following illustrate how to add paper using Tray 4, the left compartment, as an example.

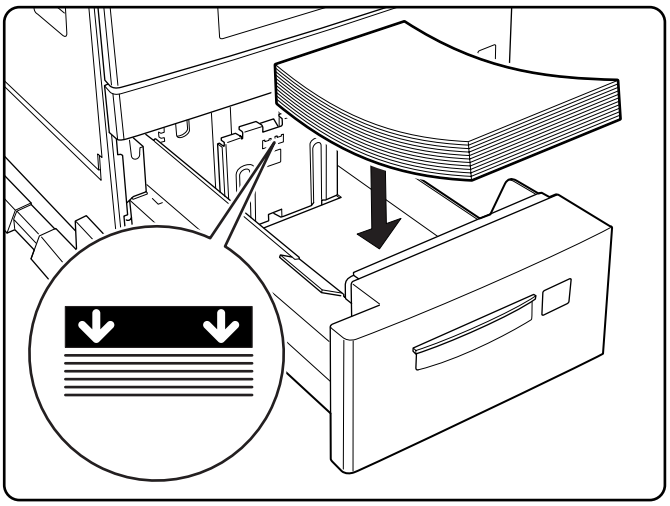
1. Pull on the latch to open Tray 4.



2. Prepare a stack of paper. Make sure the tops of the sheets are properly aligned.

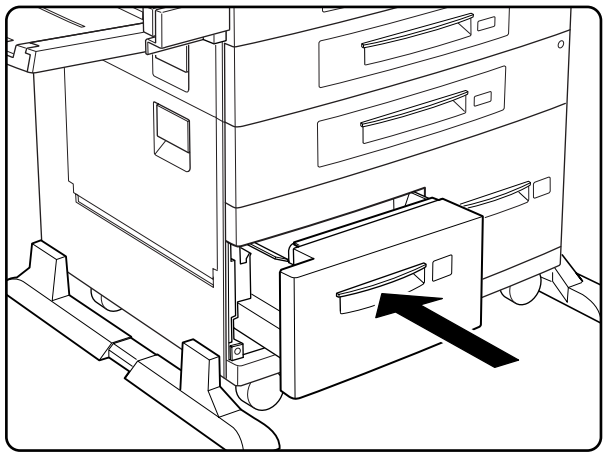


3. Insert paper into the compartment.



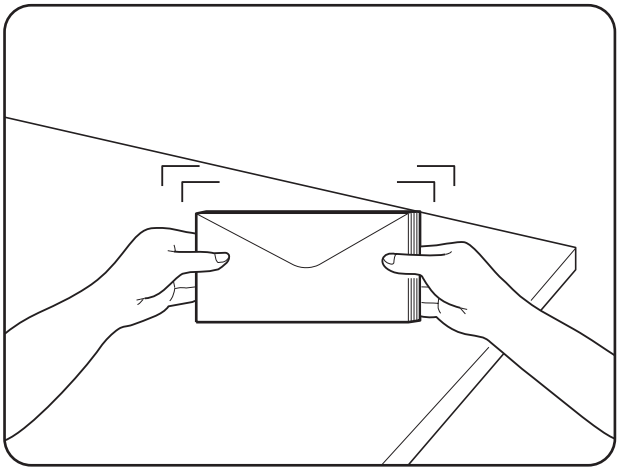
NOTE: Make sure the paper's stack height does not exceed the paper limit mark.

4. Push Tray 4 back into the printer.

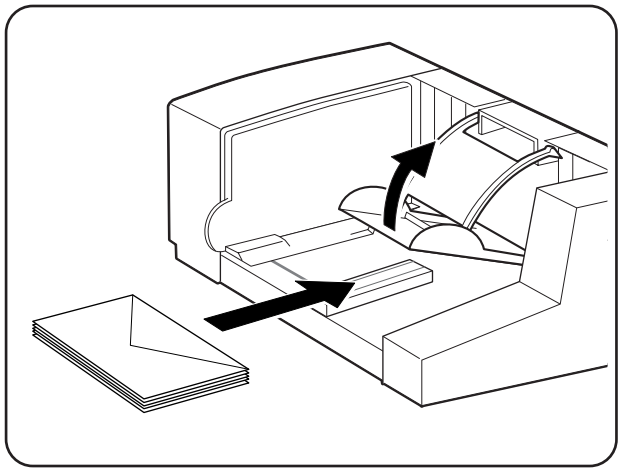


Loading envelopes into the envelope feeder

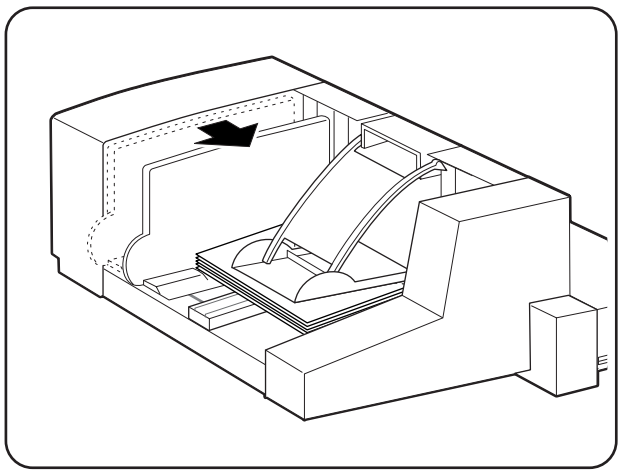
1. Prepare a stack of envelopes. Make sure the envelopes are not stuck together and all flaps are closed.



2. While lifting the envelope weight, insert envelopes with the flap-side up and the long edges leading first.



3. Slide the side guide so that it slightly touches the edges of the envelope stack



CAUTION: Make sure the envelopes do not exceed the paper limit mark. Do not add envelopes while printing otherwise a paper jam may result

◆ ◆ ◆.

Chapter 4

Understanding and Navigating the Control Panel Menus

In this Chapter . . .

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- "Control Panel Features" on page 4-2
- "Navigating the Control Panel Menus" on page 4-4
- "Menu Structure" on page 4-6
- "Job Library" on page 4-7
- "Job Accounting" on page 4-8
- "Paper Menu" on page 4-9
- "Interface Menu" on page 4-12
- "PS Menu" on page 4-15
- "PCL Menu" on page 4-16
- "System Menu" on page 4-19
- "Quality Menu" on page 4-21
- "Functions Menu" on page 4-22
- "FLASH Menu" on page 4-22
- "DISK Menu" on page 4-23
- "Status Menu" on page 4-24

About this Chapter

This chapter explains the control panel and its functions, and also demonstrates how to navigate through the control panel 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.

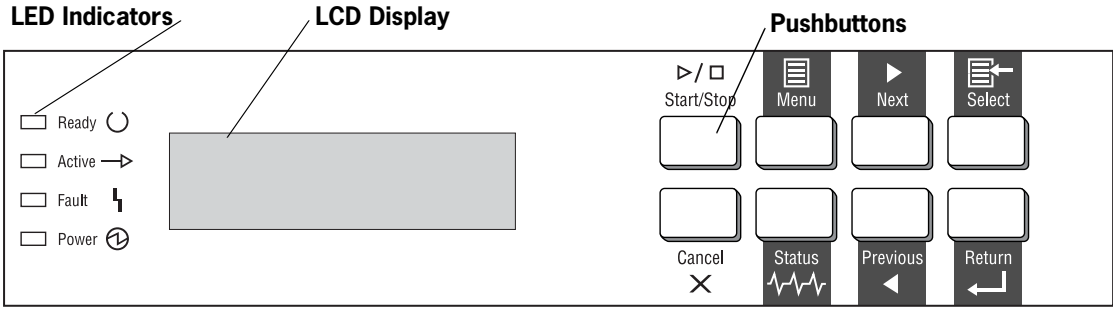


Figure 4-1: Control Panel.

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)

LED	COLOR	WHEN OFF	WHEN ON	WHEN BLINKING
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
Power	Green	POWER is off	POWER is on	Power Saver Mode ON

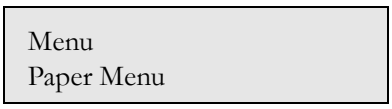
Pushbuttons

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.
Status	STATUS—Push this button to enter the Status Menu and view the current status of printer.
Previous ◁	PREVIOUS—Push this button to return to the previous menu, submenu, or option within the same level of the menu structure.
Return ↵	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.



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

- Job Library Menu
- Job Accounting Menu
- Paper Menu
- Interface Menu
- PS Menu
- PCL Menu
- System Menu
- Quality Menu
- Functions Menu
- Flash Menu
- Status

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.

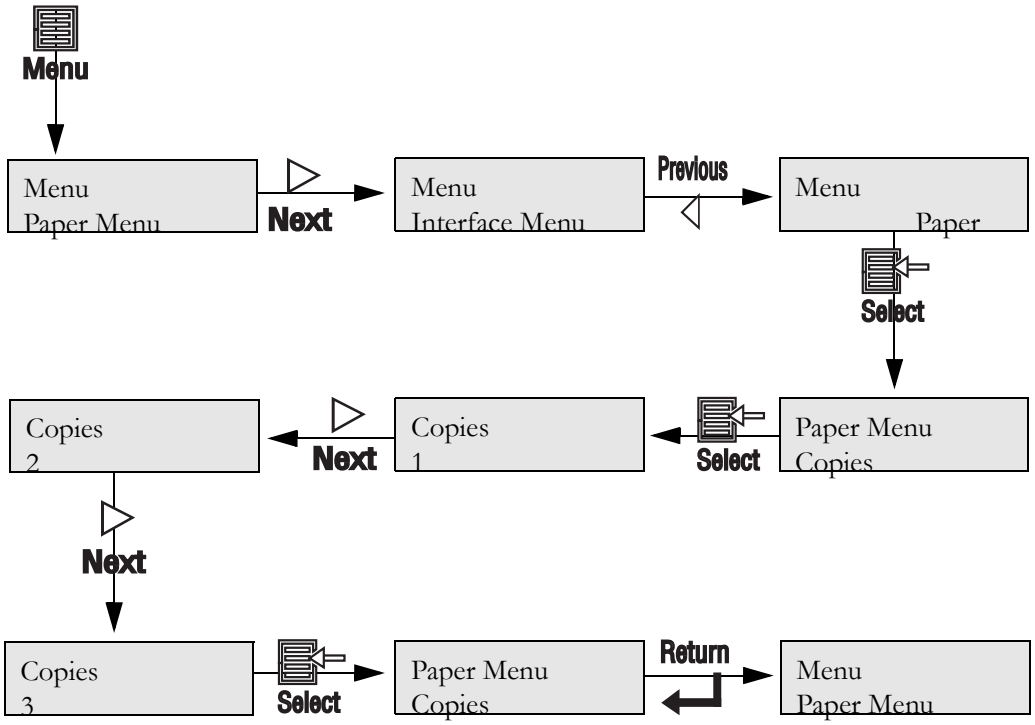


Figure 4-2: Navigating the Paper Menu.

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.

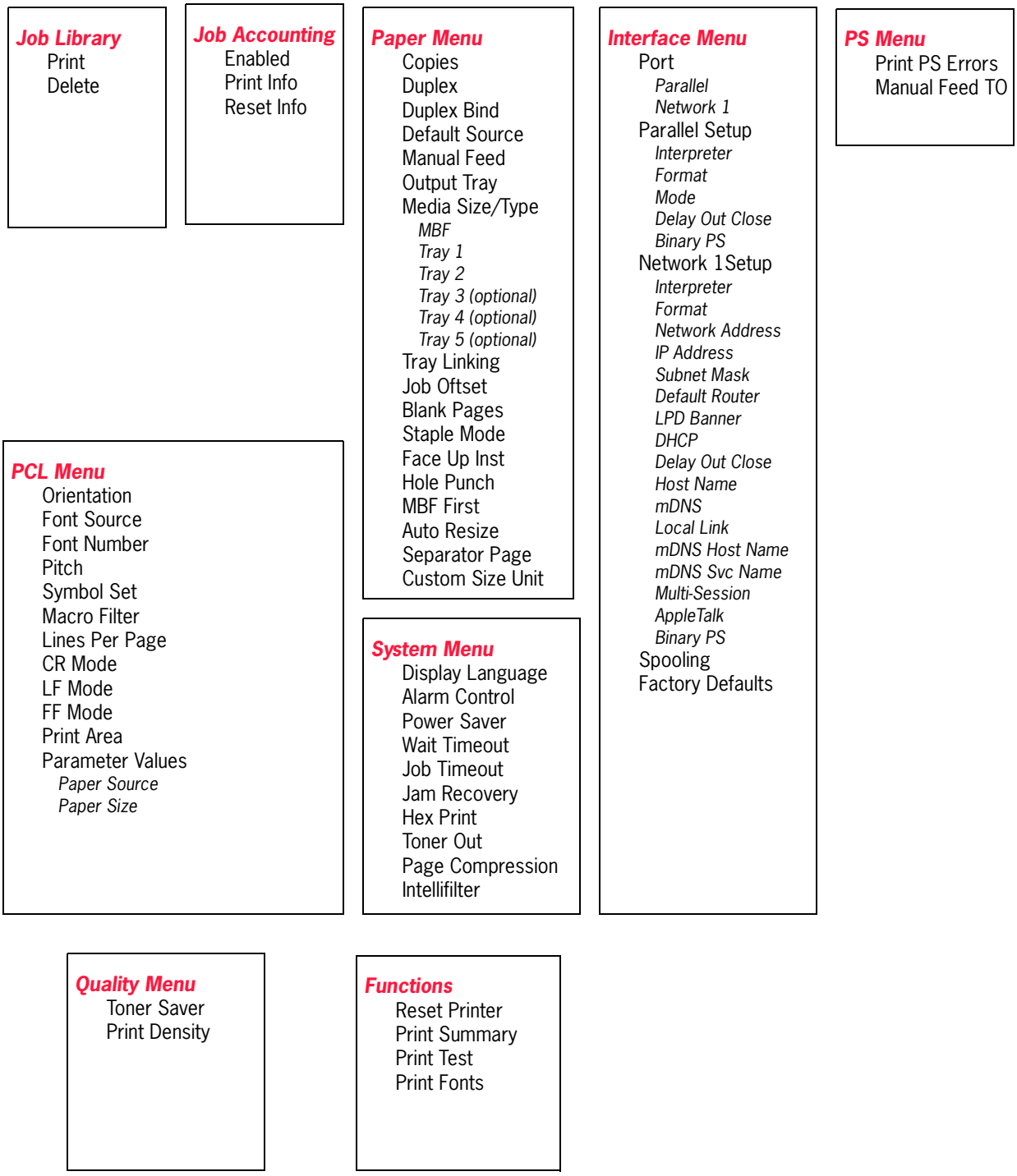


Figure 4-3: Printer Menu Structure.

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

Job Library

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 Job Library 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.

Submenu	Default Setting	Available Settings	Procedure for Changing Setting
Print	Print User Folder 1		1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
Print	Print Job1		1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job.
	Job Name PIN	This step is necessary if the job is a PRIVATE job.	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.
Print	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 set one digit and move to the next digit. 3. Press SELECT after changing the last digit to save this setting.
Print	Job Name Copies		1. Press SELECT to print the job.
Print	Printing Playback		1. The printer will display PRINTING on Line 1 and PLAYBACK on Line 2 of the display while printing the job.
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.

Submenu	Default Setting	Available Settings	Procedure for Changing Setting
	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	This step is necessary if the job is a PRIVATE job.	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 Accounting

The Job Accounting Menu provides access to functions and settings related to this feature. Use the following procedure to enter the Job Accounting Menu to change the settings or access the functions:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**Job Accounting Menu**" is shown on the second line of the display.
3. Press the **SELECT** button to enter the Job Accounting Menu.
4. Press the **NEXT** button to move through the submenus: **Enable, Print Info, Reset Info.**
5. Press the **SELECT** button to enter a submenu.

Use the procedures in the following table to access and change the system settings.

SubMenu	Default Settings	Available Settings	Procedure for Changing Setting
Enabled	No	Yes No	1. Press NEXT or PREVIOUS to scroll through Yes or No options. 2. Press SELECT to choose Yes to turn on this function.
Print Info			1. Press SELECT to begin printing the Job Accounting Summary Report.
Reset Info			1. Press SELECT to reset the Job Accounting Information. This will delete all stored information related to jobs received by the printer.

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.
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.
Duplex This submenu allows you to turn the duplex on or off.	Off	On/Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Duplex Bind This submenu allows you to choose between LEF (Long Edge Feed) and SEF (Short Edge Feed).	LEF	LEF/SEF		1. Press NEXT or PREVIOUS to toggle between LEF and SEF. 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	MBF Tray 1 Tray 2 Tray 3 (optional) Tray 4 (optional) Tray 5 (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 Stacker (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.

Submenus	Default Setting	Available Settings		Procedure for Changing Setting
Media Size/Type This submenu allows you to set the media size and type for the MBF Tray and set the medial type for all other trays.	**MBF** Size: Letter LEF Type: Plain **Tray 1** Type: Plain **Tray 2** Type: Plain **Tray 3** (optional) Type: Plain **Tray 4** (optional) Type: Plain **Tray 5** (optional) Type: Plain	**Size** MBF: Letter LEF, A4 LEF, B5 LEF, A5, A6, Statement, Executive, C5 Envelope, DL Envelope, Com10 Envelope, Monarch Envelope, Ledger, A3, B4, Legal, Folio, A4 SEF, Letter SEF	**Type** MBF: 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 and MEDIA TYPE. 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.
Tray Linking This submenu allows you to turn the tray linking function on or off.	On	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Job Offset	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
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.
Staple Mode This submenu allows you to choose a staple mode for the Finisher/Stapler option. This submenu is only available if the Finisher/Stapler is installed.	Off	Dual Off Front Rear		1. Press NEXT or PREVIOUS to locate your preferred staple mode. 2. Press SELECT to save this setting.
Face Up Inst	No	No Yes		1. Press NEXT or PREVIOUS to toggle between NO and YES. 2. Press SELECT to save this setting.

Submenus	Default Setting	Available Settings		Procedure for Changing Setting
Hole Punch This submenu allows you to turn the Hole Punch feature on and off. This submenu is only available if the Finisher/Stapler is installed.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
MBF First	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Auto Resize This menu will scale the output of a PS job to the size selected. It does not scale a PCL job.	Off	On Off		1. Press NEXT or PREVIOUS to toggle between ON and OFF. 2. Press SELECT to save this setting.
Separator Page Prints a blank page between print jobs.	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 menu is used to set the unit of measurement for the Custom Paper Size feature.	Inches	Inches Millimeters		1. Press NEXT or PREVIOUS to toggle between INCHES and MILLIMETERS. 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 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 enable the type of interface.	**Parallel:** On **Network Card 1:** On	**Parallel:** On, Off **Network Card 1:** On, Off	1. Press NEXT or PREVIOUS to toggle between PARALLEL, NETWORK CARD 1. 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:** Off On **Binary PS:** Off On	1. Press NEXT or PREVIOUS to scroll through the INTERPRETER, FORMAT, MODE, DELAY OUT CLOSE, and BINARY PSsubmenus. 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 Card 1 Setup This submenu allows you to set up the Network interface.	**Interpreter:** Auto Switch **Format:** Raw **Network Address:** **IP Address:** (user-specified) **Subnet Mask:** (user-specified) **Default Router:** (user-specified) **LPD Banner:** On **DHCP:** On **Delay Out Close:** Off **Host Name**: Character string 0-31 characters **mDNS:** On **Local Link:** 0.0.0.0 **mDNS Host Name:** Product name and last 3 hex byte values of Network Address **mDNS Svc Name:** Product name and last 3 hex byte values of Network Address **Mulit-Session:** On **AppleTalk:** **Binary PS:** Off	**Interpreter:** Auto Switch PCL PostScript 3 **Format:** Raw Normal Binary **Network Address:** **IP Address:** (user-specified) **Subnet Mask:** (user-specified) **Default Router:** (user-specified) **LPD Banner:** On Off **DHCP:** Off On **Delay Out Close:** Off On **Host Name:** **mDNS:** On Off **Local Link:** **mDNS Host Name:** **mDNS Svc Name:** **Mulit-Session:** On Off **AppleTalk:** **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: **Print PS Errors, 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 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	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	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.	0	Numbers 0-?	1. Press NEXT or PREVIOUS to increase or decrease the font number. 2. Press SELECT to save this setting.
Pitch or Point Size This submenu allows you to change the pitch of text.	10.00	0.08 - 100.00	1. Press NEXT or PREVIOUS to increase or decrease the pitch. 2. Press SELECT to save this setting.

Submenus	Default Setting	Available Settings		Procedure for Changing 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 0S: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.	45	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 top 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.

Submenus	Default Setting	Available Settings		Procedure for Changing 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 set the print area.	Normal	Normal Expanded		1. Press NEXT or PREVIOUS to toggle between the NORMAL and EXPANDED settings. 2. Press SELECT to save this setting.
Parameter Values	**Paper Source:** MBF **Paper Size:** Executive	**Paper Source:** MBF Tray 1 Tray 2 Tray 3 Tray 4 Tray 5 Auto-select	**Paper Size:** Executive, Letter, Legal, Statement, Folio, Ledger, A6, A5, A4, B5, B4, Monarch Envelope, Com10 Envelope, DL Envelope, CS Envelope	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, and Toner Out.**
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 Francais (French) Deutsch (German) Italiano (Italian) Espanol (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.
Alarm Control This submenu allows you to set the alarm control.	Single	Single Continuous Off	1. Press NEXT or PREVIOUS to move among the alarm settings. 2. Press SELECT to choose and set the alarm setting.
Power Saver This submenu allows you to set the number of minutes the printer is idle before it reverts to Power Saver Mode.	15	1 - 999	1. Press NEXT or PREVIOUS to increase or decrease the number of minutes. 2. Press SELECT to save this setting.

Submenus	Default Setting	Available Settings	Procedure for Changing 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 *both PCL and PostScript print jobs. A 0 setting indicates immediate timeout.*	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 *only to PostScript jobs.*	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.
Toner Out This submenu allows you to specify whether the printer should stop or continue when out of toner.	Stop	Stop Continue	1. Press NEXT or PREVIOUS to toggle between STOP and CONTINUE. 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, Enhancement, 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
Toner Saver This submenu allows you to choose from several toner-saving settings.	Off	Off Light Lighter Lightest	1. Press NEXT or PREVIOUS to scroll through the available toner settings. 2. Press SELECT to choose and 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	Numbers 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.

FLASH Menu

NOTE: This menu will only appear if an optional FLASH DIMM has been installed in the FLASH DIMM slot. Consult the documentation that came with your FLASH DIMM for detailed installation and usage instructions.

The FLASH Menu provides access to the printer settings that are related to the optional FLASH DIMM. Use the following procedure to enter the FLASH Menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**FLASH 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, Delete, Format FLASH, and FLASH summary.**
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	Procedure for Changing Setting
Print This selection will read the selected file from FLASH and print it as if it were being received from one of the input ports.	1. Press NEXT or PREVIOUS to scroll through the files. 2. Press SELECT to choose and print the file.
Delete This selection will delete the selected disk file or directory from the FLASH DIMM. To delete an entire directory, you must first delete all the files within that directory.	1. Press NEXT or PREVIOUS to scroll through the files. 2. Press SELECT to choose and delete the file.
Format Flash This selection will reformat the FLASH DIMM.	1. Press SELECT to reformat the FLASH DIMM.
Flash Summary This selection will print a page containing information about the installed FLASH DIMM including a list of all the current existing files and directories.	1. Press SELECT to print the FLASH summary.

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WARNING! All files on the FLASH DIMM will be deleted if the **Format FLASH** function is selected.

DISK Menu

NOTE: This menu selection will only appear if an optional hard disk drive has been installed. Consult the documentation that came with your hard disk drive for detailed installation and usage instructions.

The Disk Menu provides access to the printer settings that are related to the optional Hard Disk. Use the following procedure to enter the Disk Menu:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**Disk 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, Delete, Format Disk, and Disk Summary.**
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	Procedure for Changing Setting
Print This selection will read the selected file from Disk and print it as if it were being received from one of the input ports.	1. Press NEXT or PREVIOUS to scroll through the files. 2. Press SELECT to choose and print the file.
Delete This selection will delete the selected disk file or directory from the hard disk. To delete an entire directory, you must first delete all the files within that directory.	1. Press NEXT or PREVIOUS to scroll through the files. 2. Press SELECT to choose and delete the file.
Format Disk This selection will reformat the hard disk.	1. Press SELECT to reformat the hard disk.
Disk Summary This selection will print a page containing information about the installed hard disk, including a list of all the current existing files and directories.	1. Press SELECT to print the Disk summary.

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WARNING! All files on the hard disk will be deleted if the **Format Disk** function is selected.

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: **MBF, Tray 1, Tray 2, 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
MBF This submenu allows you to view the current Media Size and Media Type for the MBF tray.	1. Press NEXT or PREVIOUS to scroll through the MEDIA SIZE, MEDIA TYPE, and LEVEL settings for the MBF. 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 (optional) 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.
Tray 4 (optional) This submenu allows you to view the current Media Size, Media Type, and Level for Tray 4.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for Tray 4. 2. Press SELECT to view a specific setting.
Tray 5 (optional) This submenu allows you to view the current Media Size, Media Type, and Level for Tray 5.	1. Press NEXT or PREVIOUS to scroll through the media size, media type, and level settings for Tray 5. 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.
Stacker This submenu allows you to view the status of the Finisher/Stapler main tray. This menu is only available if the Finisher/Stapler option is installed.	1. Press SELECT to view the status of the Stacker tray.
Toner Press SELECT to view the status of the toner cartridge.	

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Chapter 5

Printer Consumables, Cleaning and Maintenance

In this Chapter . . .

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- "Replacing the EP Cartridge" on page 5-2
- "Replacing the Fuser" on page 5-13
- "Replacing the Transfer Roller" on page 5-19
- "Replacing the Feed Rollers" on page 5-20
- "Cleaning" on page 5-26
- "Daily Maintenance" on page 5-28
- "Preparing the Printer for a Period of Extended Non-Use" on page 5-28
- "Relocating the Printer" on page 5-30

About this Chapter

Describes how to handle and replace the EP cartridge, replacement of transfer and feed rollers and performance of other steps as necessary for day-to-day operation of your printer.

Replacing the EP Cartridge

Cautions on handling the EP cartridge

- Do not expose the cartridge to direct sunlight or other strong light sources.
- Do not carry out the procedure in a brightly lit location, and complete the installation procedure as quickly as possible (within about 5 minutes).
- When the EP cartridge is removed from the printer, immediately put it back to its original packing or wrap it with a thick lint-free cloth.
- If the EP cartridge is moved from a cold location to a warm location, let it rest for 1 hour or more before using it.
- Do not turn the cartridge over and do not stand it on its end.
- Toner is not harmful to the human body, but if some toner has come into contact with your skin, you can wash it off with warm water and soap. If toner gets on your clothing, you should immediately try to blow it off with compressed air.
- The drum shutter protects the photosensitive drum from external light. Do not open the drum shutter by hand.
- Never touch the surface of the photosensitive drum.

Cautions on storing the EP cartridge

- Do not remove the EP cartridge from its packing until use. If it is removed, immediately put it back into the packing.
- Avoid direct sunlight. Keep the EP cartridge in the following environment:
  Temperature: 50° to 95° F (10 to 35° C)
  Humidity: 15 to 85% (non-condensation)
- Do not place the EP cartridge in a location with high temperature and high humidity.
- Do not turn the cartridge over and do not stand it on its end.
- Keep the EP cartridge away from CRT, disk drive, floppy drive, or any magnetic objects.
- Keep the EP cartridge out of reach of children.

When to replace the EP cartridge

The EP cartridge contains a photosensitive drum and toner. It can print about 30,000 pages of letter or A4 size paper (assuming 5% coverage).

The printer shows the following messages when it is time to replace the EP cartridge:

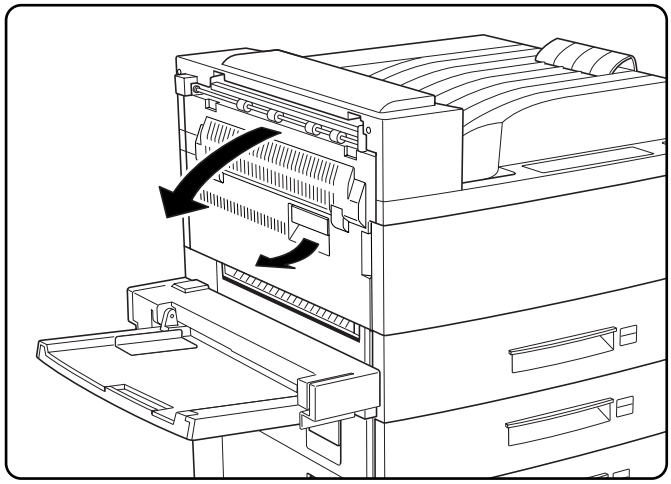
When the EP cartridge should be replaced soon, the “TONER LOW” message appears. Prepare a new EP cartridge.

When there is no more toner or the drum must be replaced, an error message appears and the printer stops. Follow the steps described in the following sections to replace the EP cartridge with a new one. Be sure to use only the designated EP cartridge. Consult your dealer for more information.

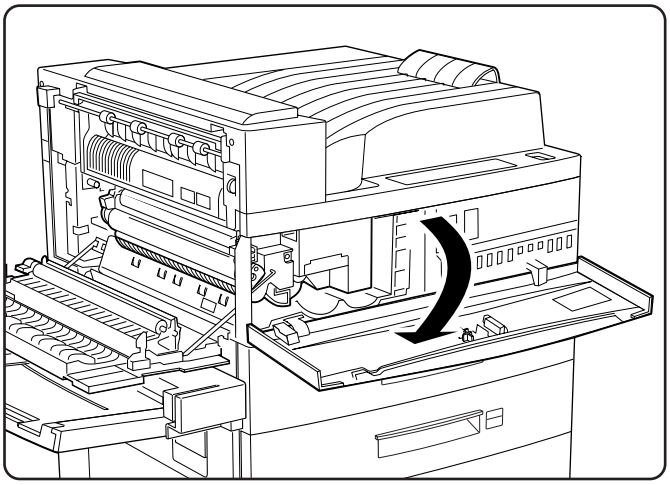
CAUTION: Do not shake the EP cartridge in order to check for toner level. A tiny amount of toner left may spill out.

Replacing the EP cartridge (for standard configuration)

1. Hold the latch and open the upper left cover.

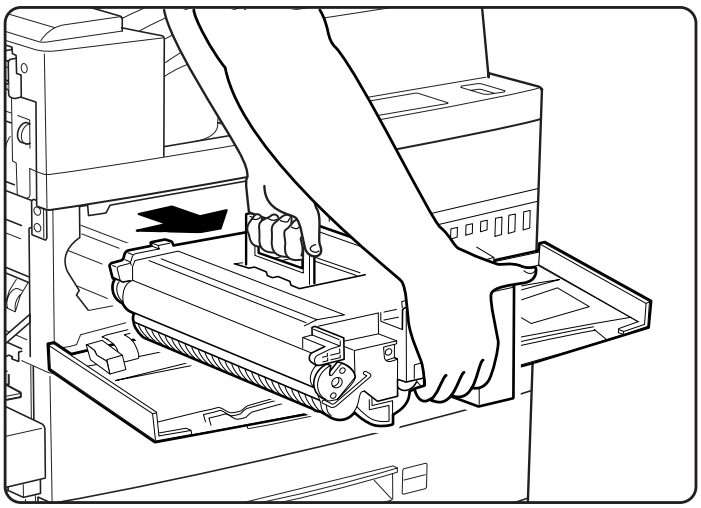


2. Open the front cover as indicated.

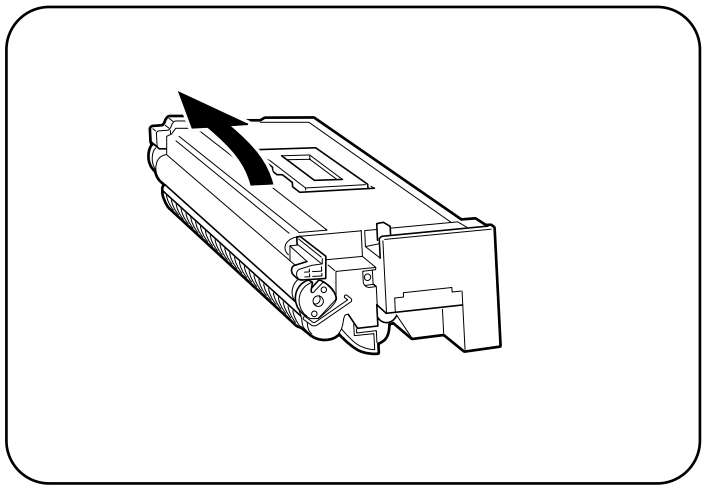


WARNING: Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result.

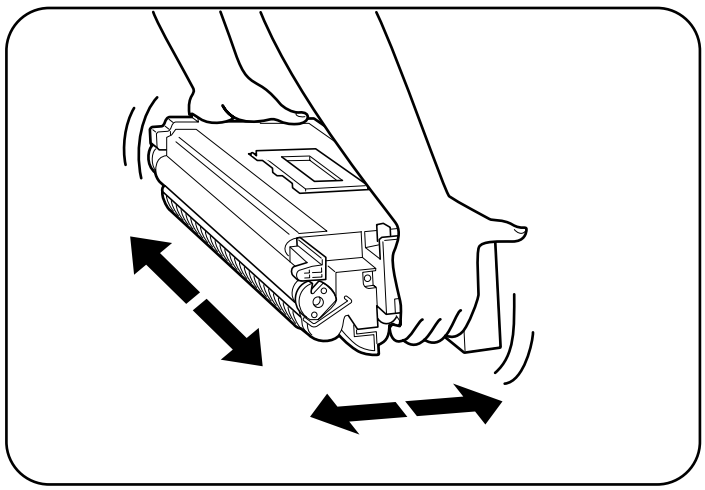
3. Remove the EP cartridge. Lift the orange handle on the cartridge to gently take it out. Then hold the handle and completely remove the cartridge. Be careful about the toner falling out, then wrap the used EP cartridge in its original packing and dispose it properly. Never dispose of it by burning.



4. Remove a new EP cartridge from the packing, and pull out the protective paper sheet from the drum shutter.

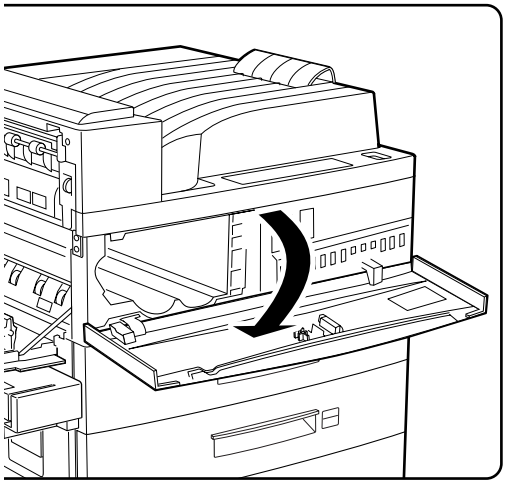


5. Hold the EP cartridge horizontally and gently shake it 5 to 6 times to evenly distribute the toner inside.

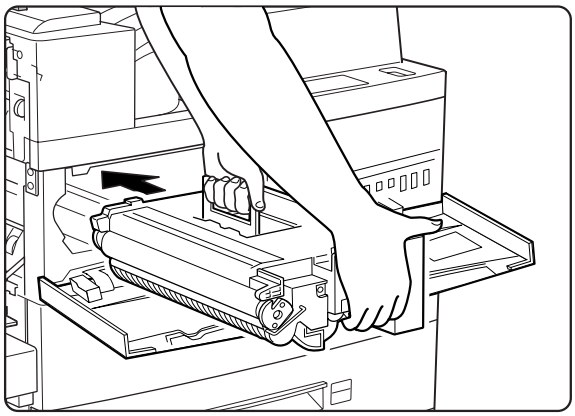


CAUTION: Uneven toner distribution may degrade print quality. If the toner has not been properly freed by shaking the cartridge, a noise may be heard when turning on the printer and the EP cartridge may be damaged.

6. Open the front cover as indicated.

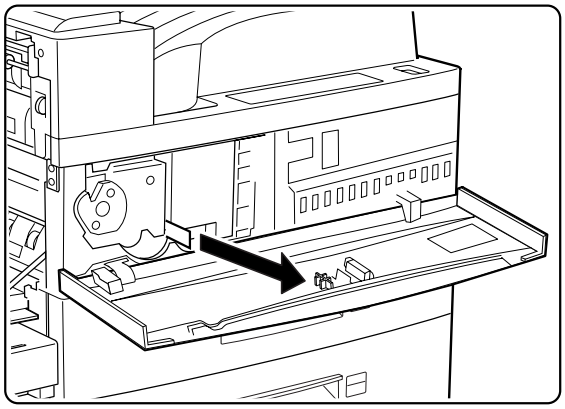


7. While holding the orange handle with one hand, gently push the cartridge all the way into the printer.



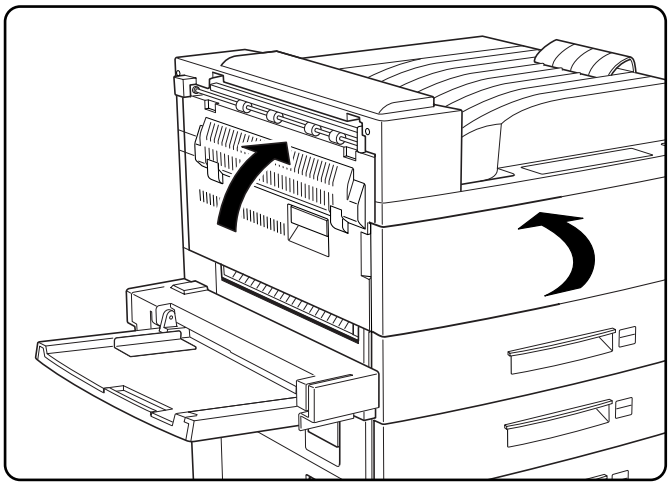
NOTE: Do not touch any parts inside the printer. Make sure the cartridge is seated properly.

8. Gently pull out the sealing tape in the direction of the arrow.



NOTE: If the tape is pulled out at an angle, it may break possibly rendering the cartridge unusable.

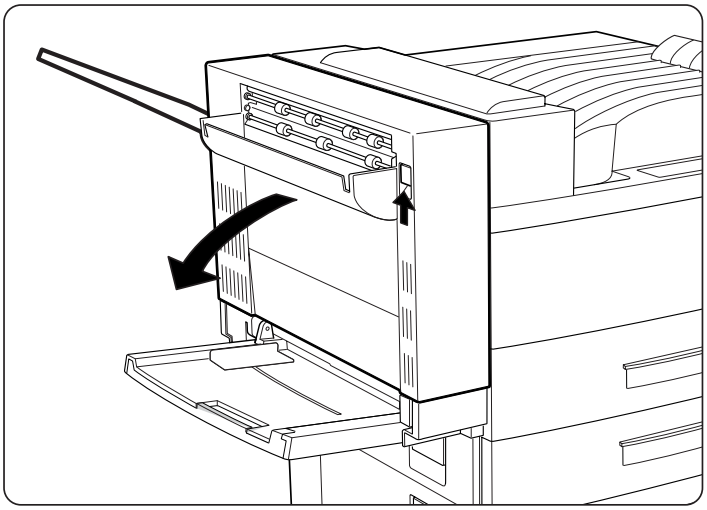
9. Close the front cover and the upper left cover.



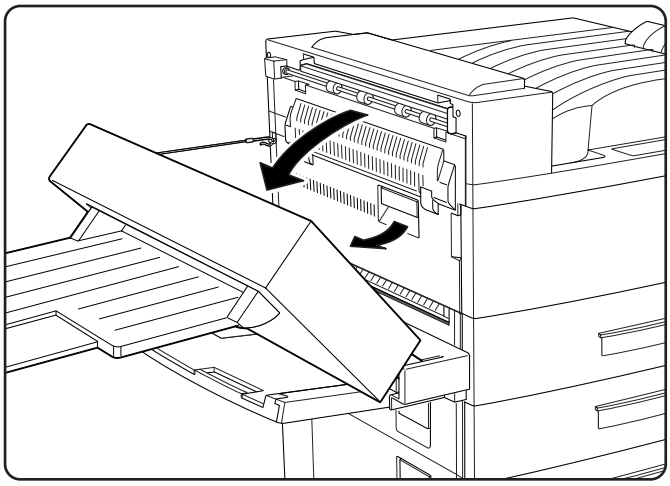
CAUTION: The upper left cover can be closed only when the EP cartridge is inside the printer. If you have not installed the EP cartridge, do not close the upper left cover by force. When closing the upper left cover, do not use the latch on the cover. Instead, follow the instruction label on the cover and push the recommended location.

Replacing the EP cartridge (when options are installed)

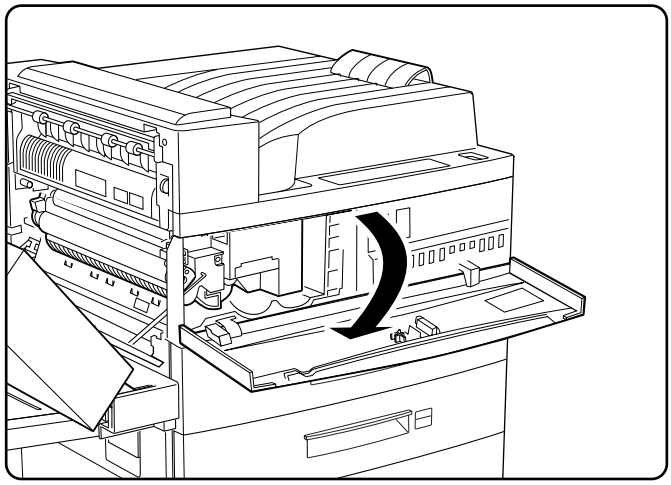
1. If the duplex printing unit is installed, pull on its latch to open it.



2. Hold the latch and open the upper left cover.

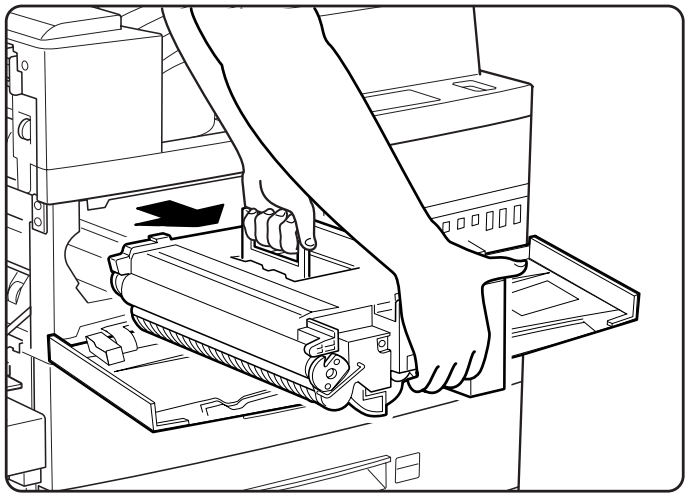


3. Open the front cover as indicated.

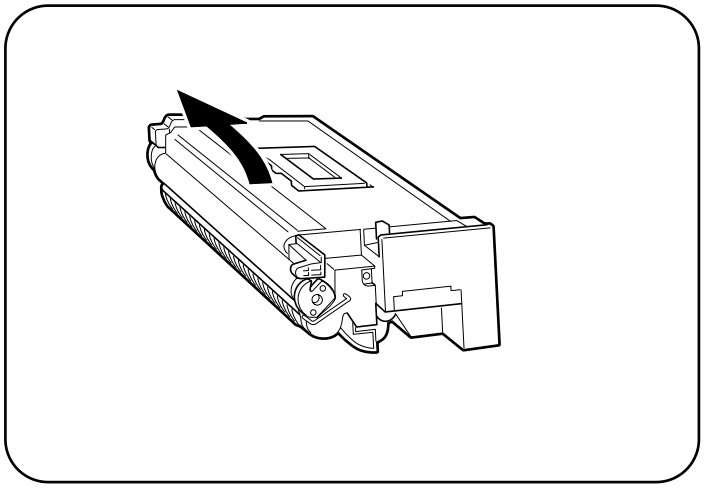


WARNING: Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result.

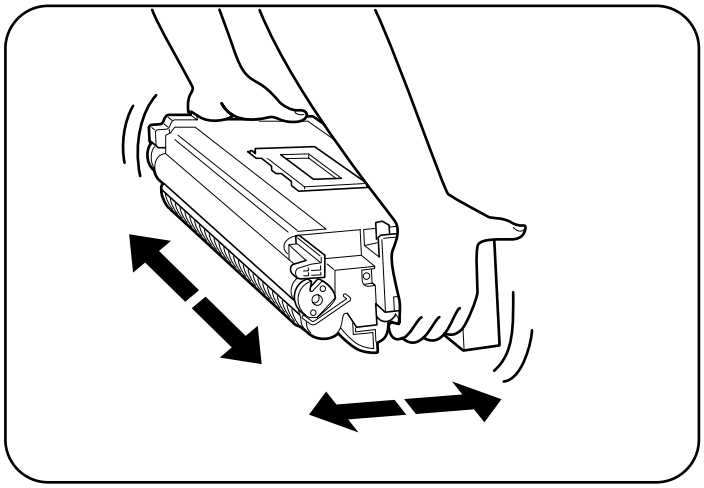
4. Remove the EP cartridge. Lift the orange handle lever on the cartridge to gently take it out. Then hold the handle and completely remove the cartridge. Be careful about the toner falling out, then wrap the used EP cartridge in its original packing and dispose it properly. Never dispose of it by burning.



5. Remove a new EP cartridge from the packing, and carefully pull out the protective paper sheet from the drum shutter.

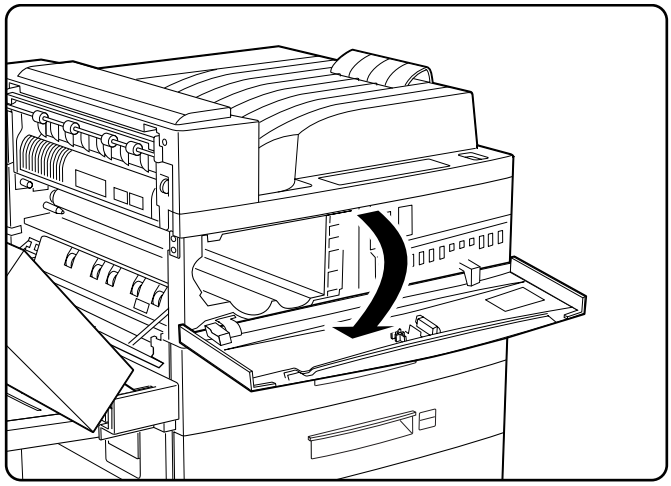


6. Hold the EP cartridge horizontally and gently shake it 5 to 6 times to evenly distribute the toner inside.



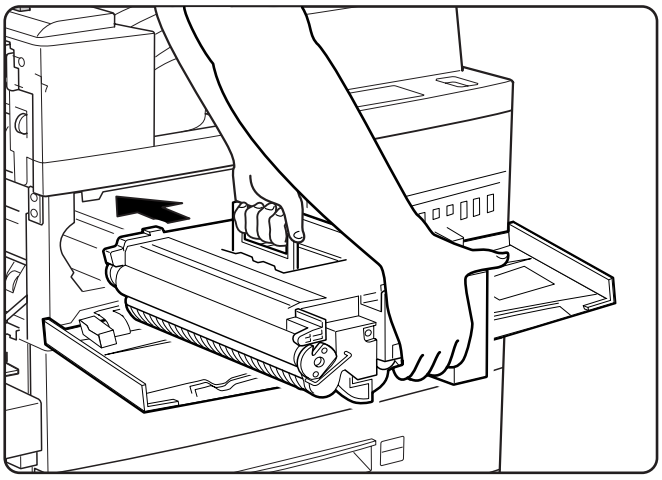
CAUTION: Uneven toner distribution may degrade print quality. If the toner has not been properly freed by shaking the cartridge, a noise may be heard when turning on the printer and the EP cartridge may be damaged.

7. Open the front cover as indicated.



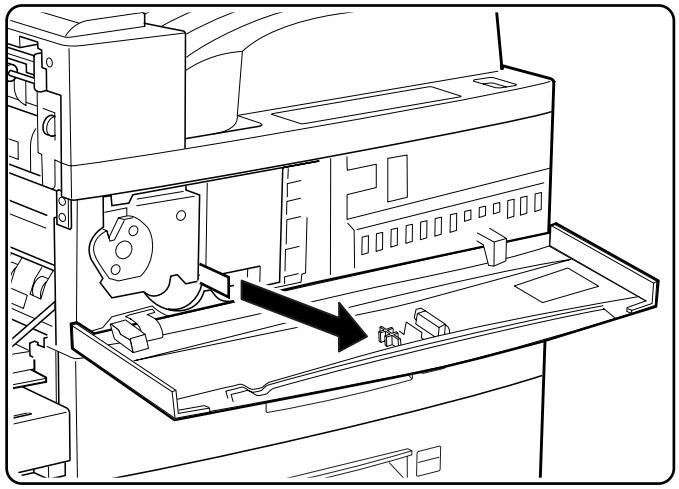
WARNING: Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result

8. While holding the orange handle with one hand, gently push the cartridge all the way into the printer.



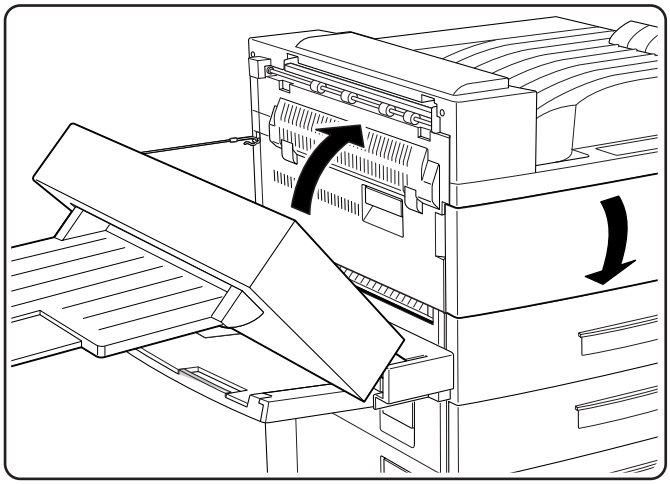
NOTE: Do not touch any parts inside the printer. Make sure the cartridge is seated properly.

9. Gently pull out the sealing tape in the direction of the arrow.



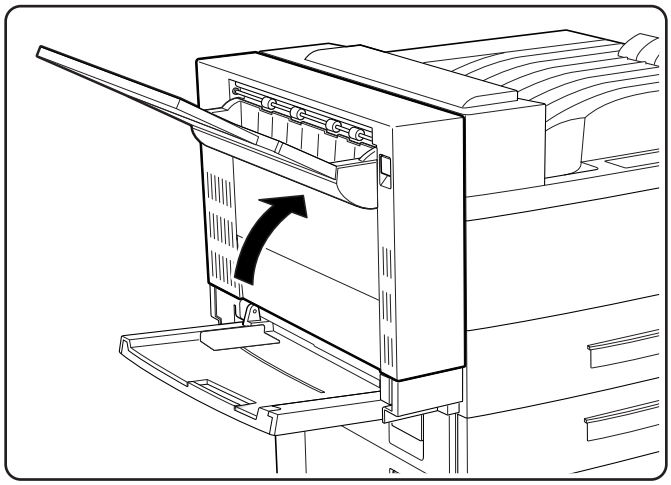
NOTE: If the tape is pulled out at an angle, it may break possibly rendering the cartridge unusable.

10. Close the front cover and the upper left cover.



NOTE: The upper left cover can be closed only when the EP cartridge is inside the printer. If you have not installed the EP cartridge, do not close the upper left cover by force. When closing the upper left cover, do not use the latch on the cover. Instead, follow the instruction label on the cover and push the recommended location.

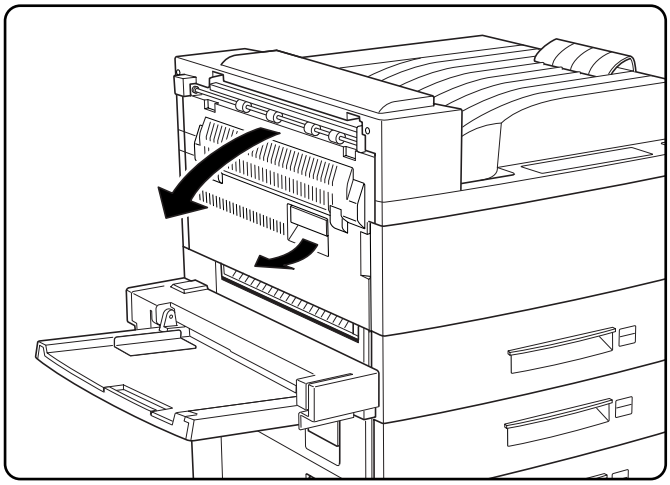
11. Close the duplex printing unit.



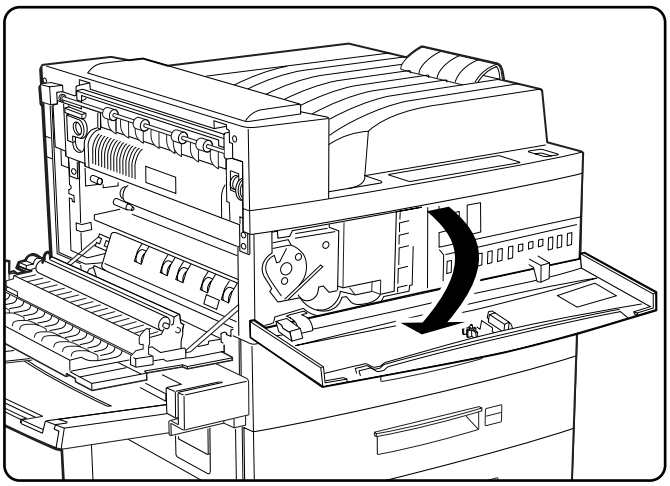
Replacing the Fuser

WARNING: The fuser becomes very hot during operation. Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result. Before replacing the fuser, turn the printer off and wait at least 40 minutes before replacing it.

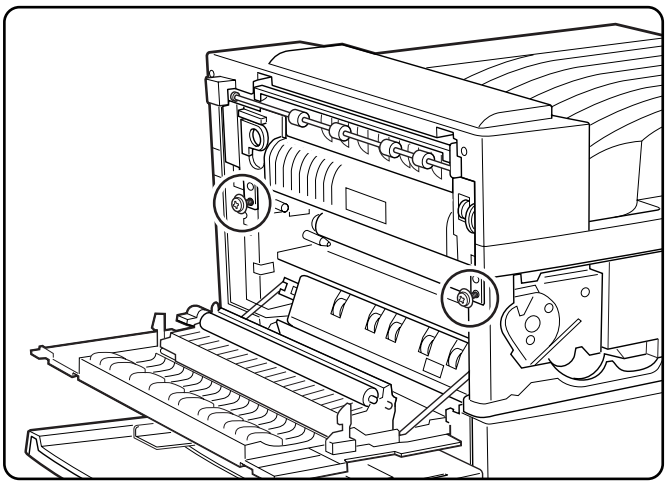
1. Open the upper left cover.



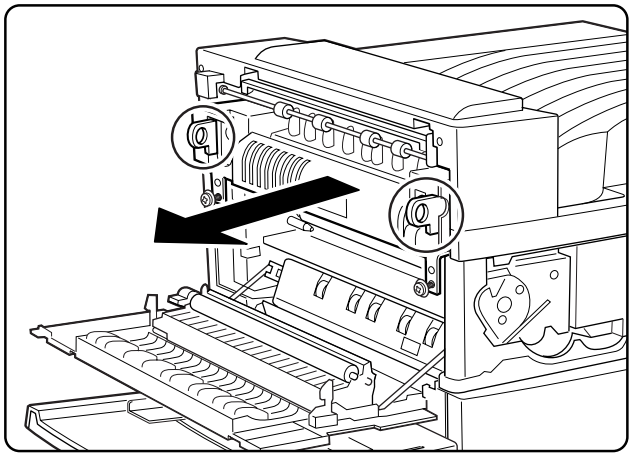
2. Open the front cover.



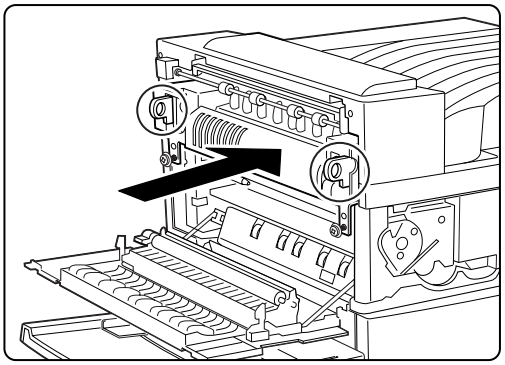
3. Loosen the two locking screws indicated. (You cannot remove them completely.)



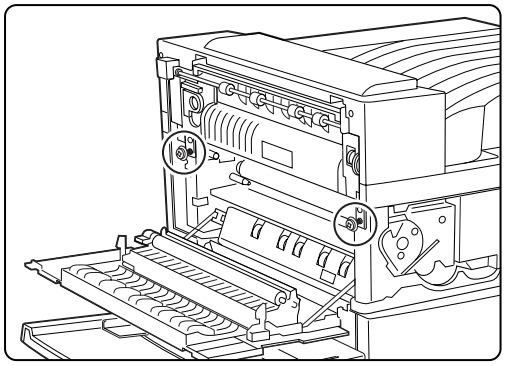
4. Hold the two rings indicated and pull out the fuser. Dispose of the fuser



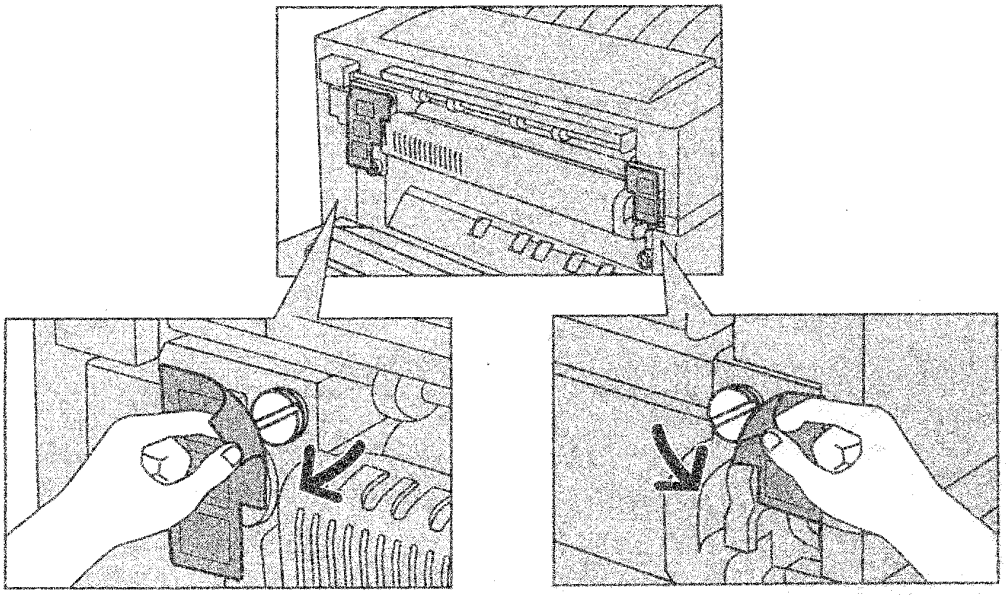
5. Prepare a new fuser. While holding the two rings of the new fuser, push into the printer as indicated.



6. Tighten the two locking screws.

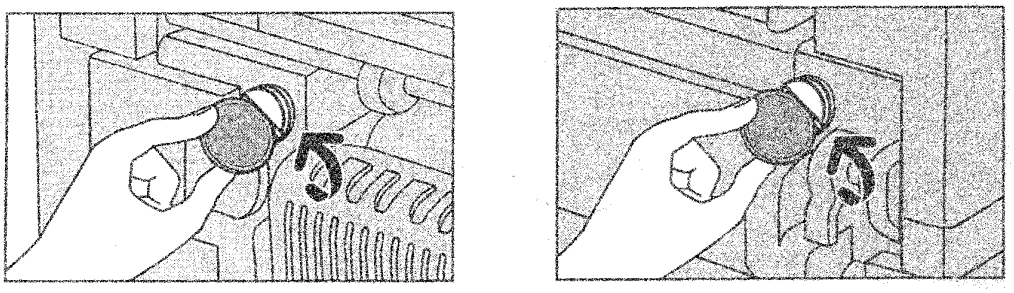


7. Remove and discard the protective covers to expose the two metal fuser shipping screws

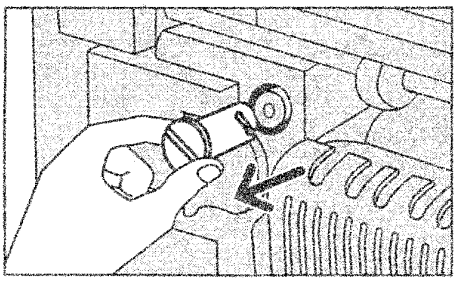


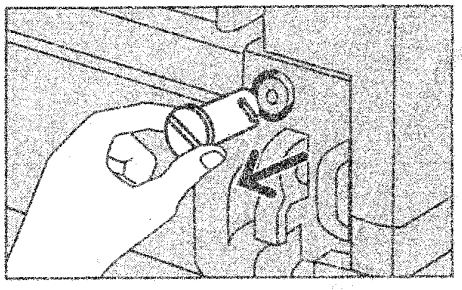
The two metal fuser shipping screws MUST be removed and discarded. They are intended to protect the fuser assembly during shipment. Failure to remove them will result in inferior fusing of toner and possible damage to the toner assembly.

8. Using a coin or a flat head screwdriver with a wide blade, turning in a counter-clockwise direction, loosen the two metal fuser shipping screws.

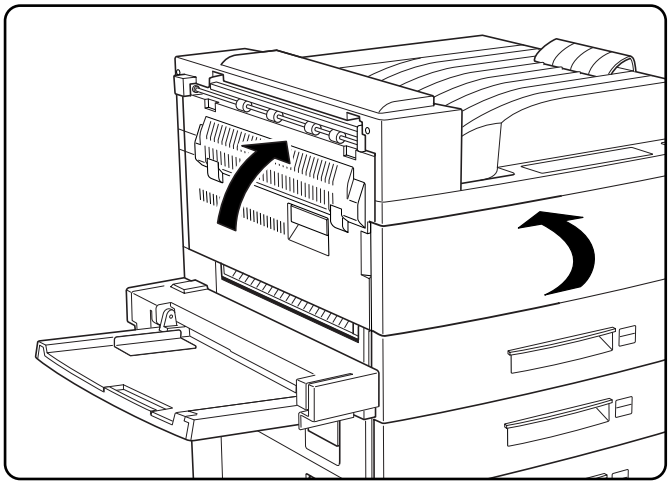


9. Completely remove and discard the two metal fuser shipping screws





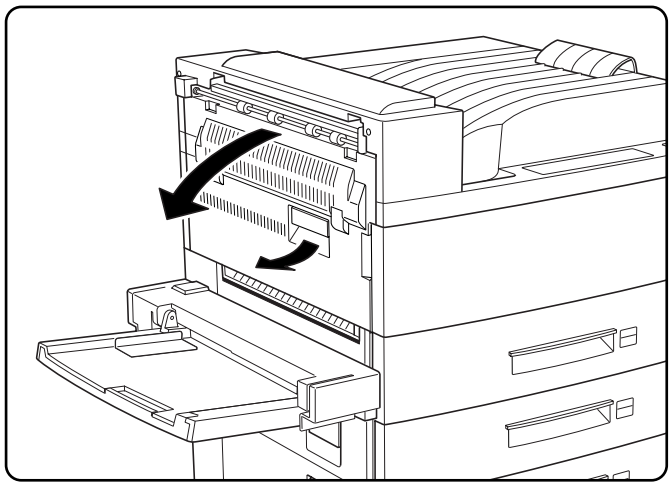
10. Close the front cover and then the upper left cover.



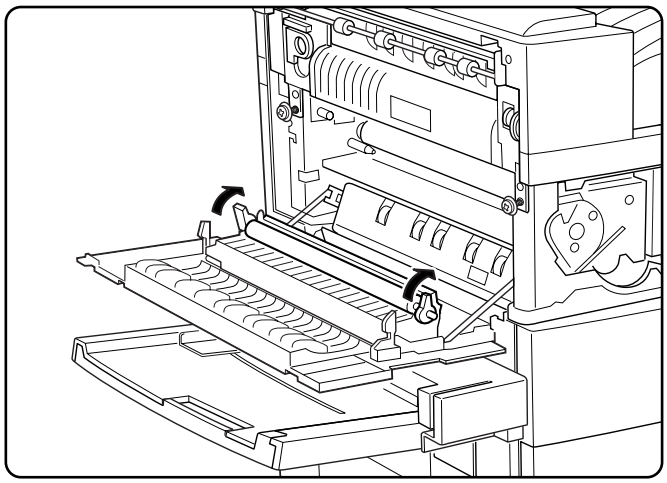
Replacing the Transfer Roller

WARNING: Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result.

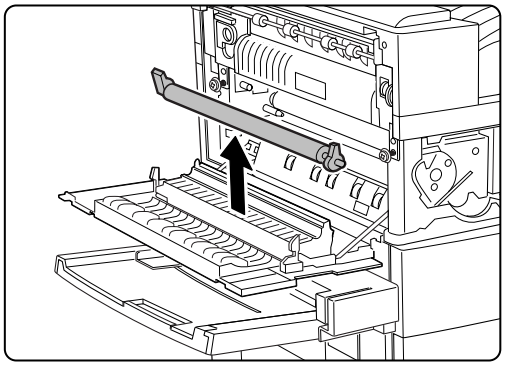
1. Open the upper left cover.



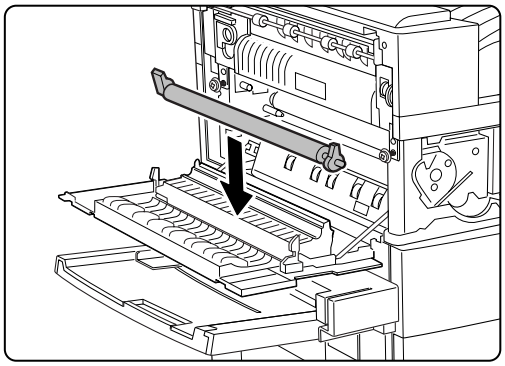
2. Lift up the handles to unlock the transfer roller.



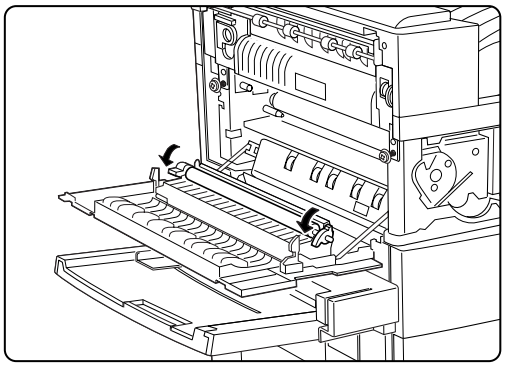
3. Remove the transfer roller.



4. Insert a new transfer roller and press down to hold the roller in place.



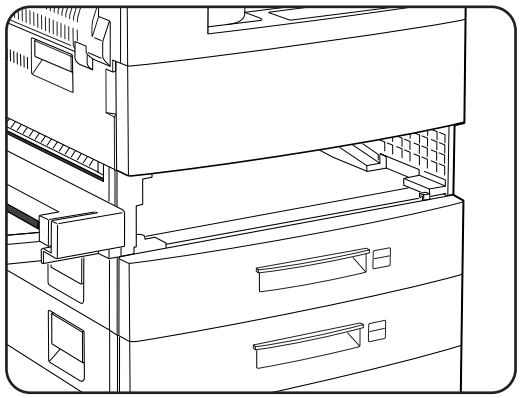
5. Push the handles to lock the transfer roller in place.



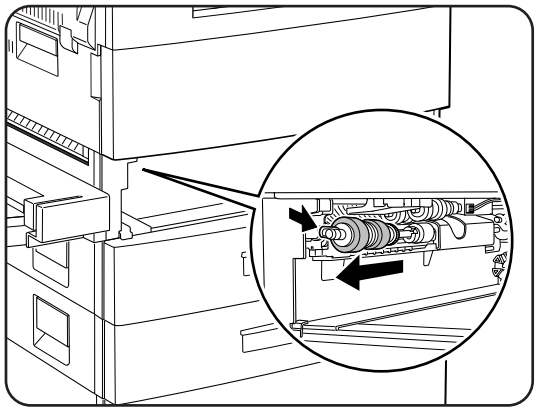
Replacing the Feed Rollers

After replacing the fuser, be sure to also replace the feed rollers.

1. Remove the top cassette from the printer unit.

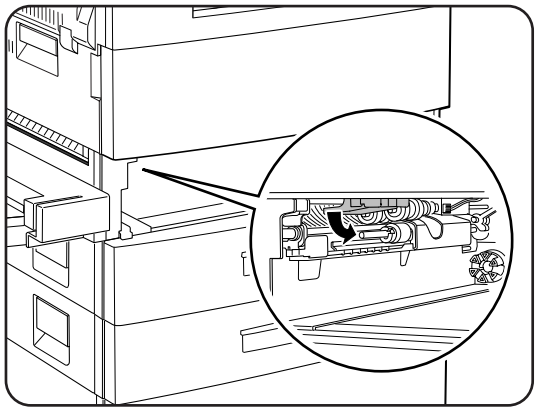


2. While pressing the white tab, remove the lower feed roller.

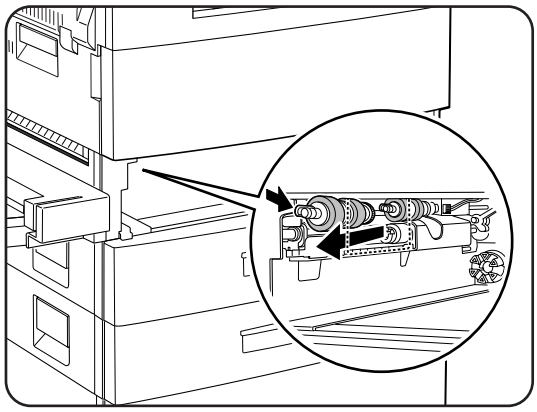


NOTE: Be sure not to remove the coupling behind the feed roller.

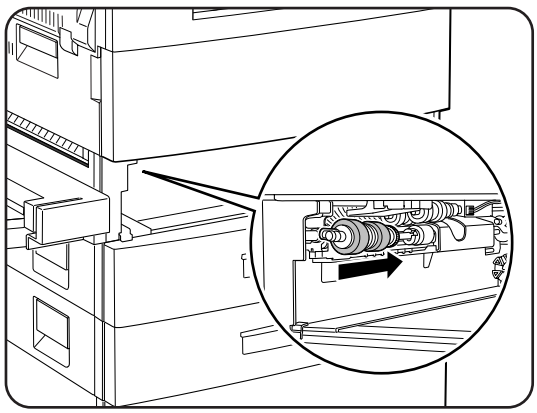
3. Flip down the cover and remove the upper two rollers with the same steps described earlier.



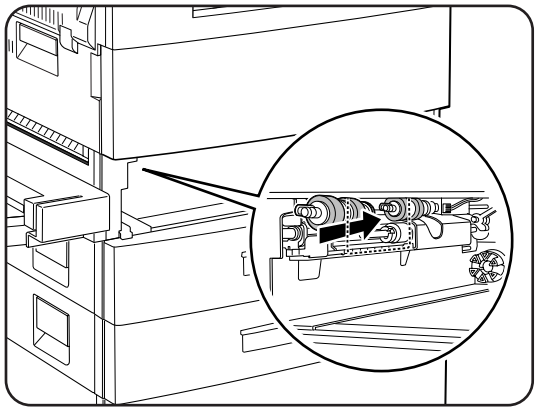
4. While pressing the white tab, remove the upper two rollers.



5. Insert a new upper feed rollers.

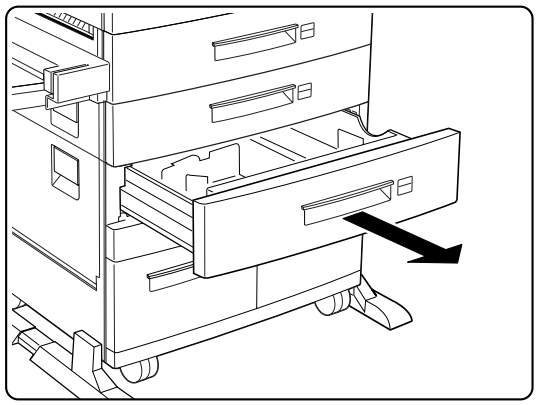


6. Inset a new lower feed roller.

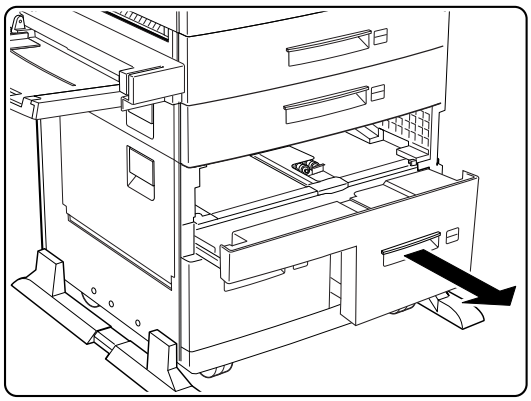


Tray 5 (HCF Unit)

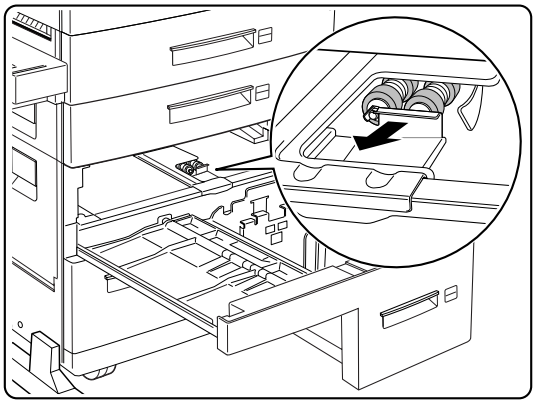
1. Remove the Tray 3.



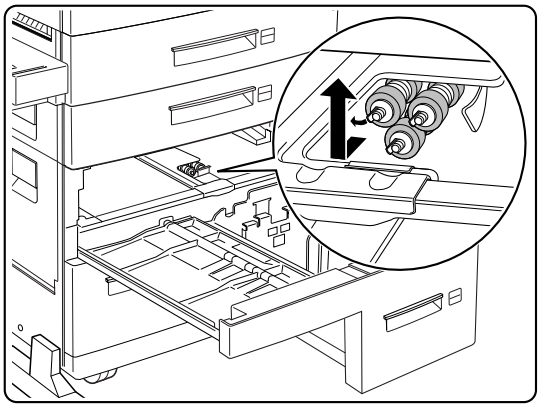
2. Pull out the Tray 5.



3. Pull the roller cover towards you.

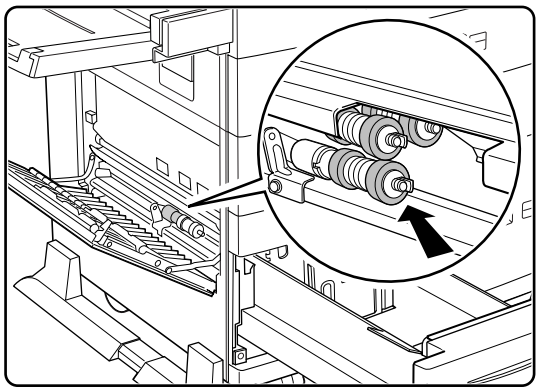


4. While pressing the white tab, remove the three feed rollers



NOTE: Be sure not to remove the coupling behind the feed roller.

5. Insert the three new feed rollers.

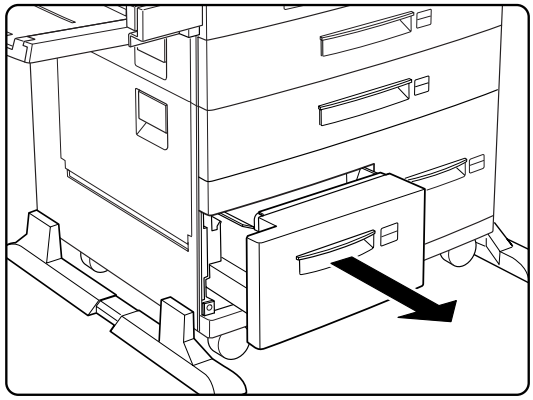


6. Push back the Tray 5.

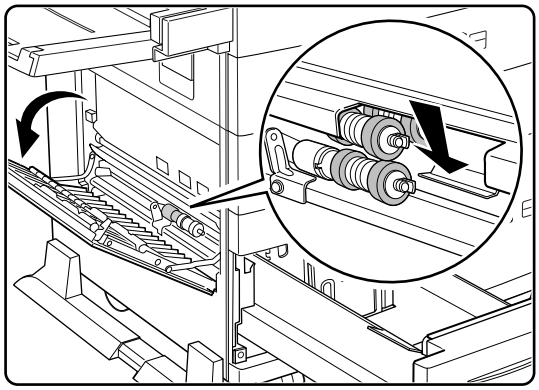
7. Re-insert the Tray 3.

Tray 4 (HCF Unit)

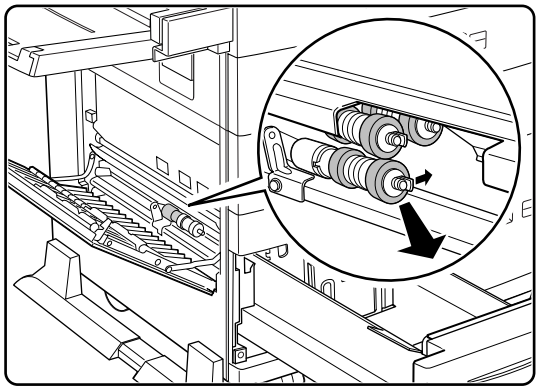
1. Pull out the left tray.



2. Open the lower left cover. Press down the roller cover.

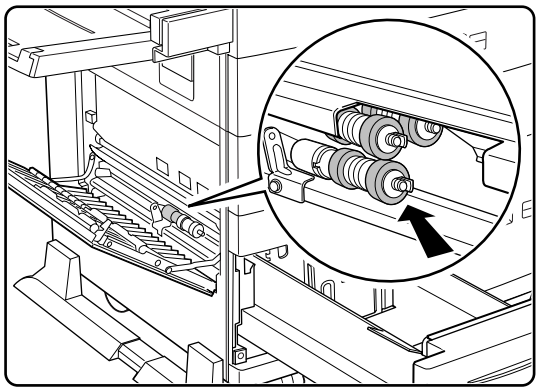


3. While pressing the white tab, remove the three feed rollers.



NOTE: Be sure not to remove the coupling behind the feed roller.

4. Insert three new feed rollers.



5. Push back Tray 4.

Cleaning

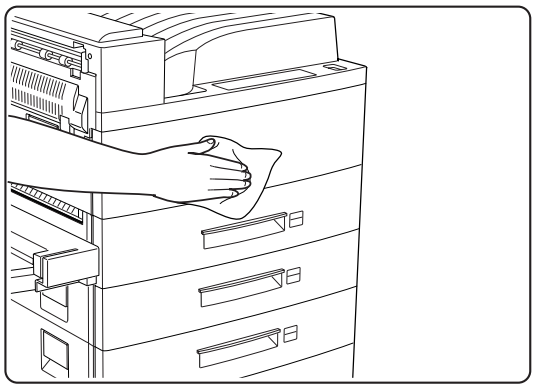
In order to keep your printer in optimum working condition, clean the exterior and interior of the printer as described below.

WARNING: Before cleaning the printer or performing any other maintenance tasks, be sure to turn off the printer and disconnect the power cord from the AC outlet. Not doing so may cause a risk of electric shock.

CAUTION: Use only water or mild detergent. To prevent the possibility of discoloration, cracking, and deformation of the printer housing, do not use cleaning alcohol or other volatile substances,.

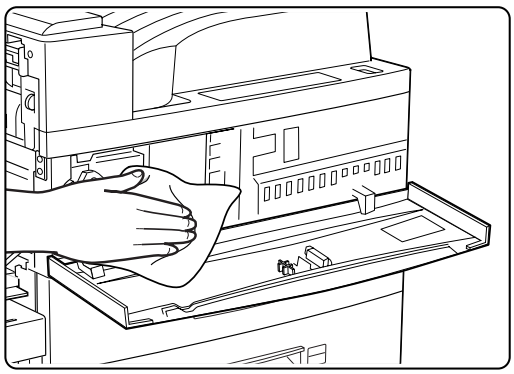
Clean the exterior of the printer

Clean the exterior of the printer about once a month. Use a soft cloth slightly moistened with water. For stubborn stains, soak the cloth in a mild detergent solution before cleaning. Finish by wiping the printer with a soft, dry cloth.



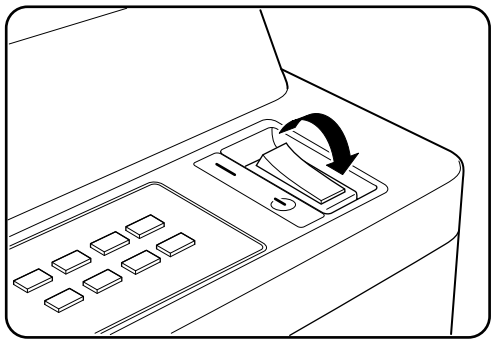
Check the interior of the printer

After removing a paper jam or replacing the EP cartridge, check the inside of the printer. Remove any paper scraps and wipe off paper dust with a dry, clean lint-free cloth.



Daily Maintenance

At the end of the day, turn off the printer by setting the power switch to [0]. If any error message or status code appears, see "Chapter 6 Troubleshooting"and turn off the printer properly.



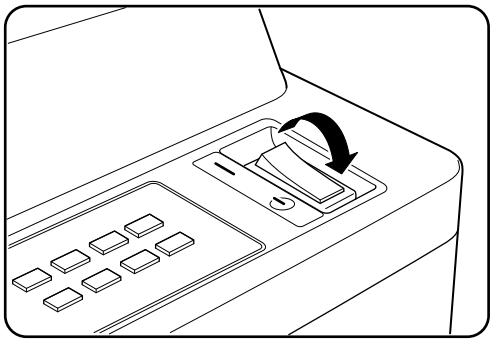
Preparing the Printer for a Period of Extended Non-Use

If the printer will not be used for one week or more, perform the following steps.

WARNING: Never touch the power cord or the plug with wet hands; otherwise electric shock may result.

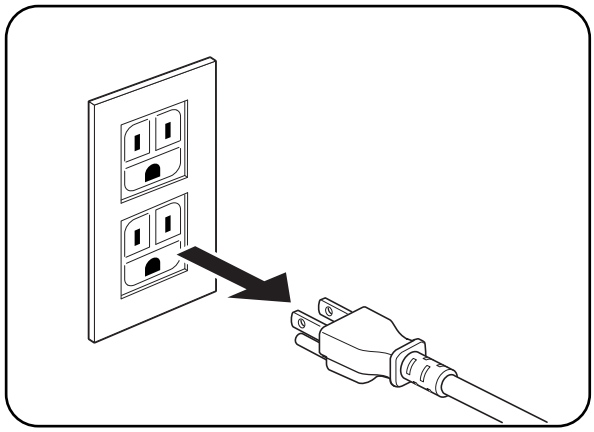
WARNING: Always remove the power cord by pulling on the plug but not the cord; otherwise the power cord may be damaged and fire or electric shock may result.

1. Turn off the printer by setting the power switch to the [0] position.

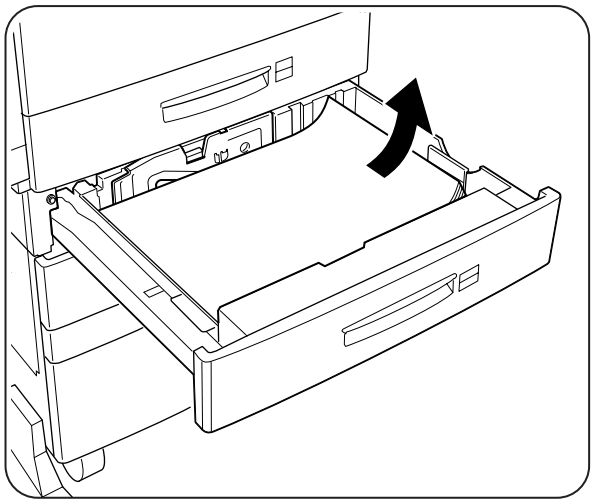


If any error message or status code appears, see "Chapter 6 Troubleshooting" and turn off the printer properly.

2. Unplug the power cord from the AC outlet.



3. Remove any paper from the multi bypass feeder as well as all the paper cassettes. Store the paper in a location that is not humid and dusty. For more information, see "Appendix B Safety Notes and Regulatory Compliances".



Relocating the Printer

To move the printer, follow the steps below.

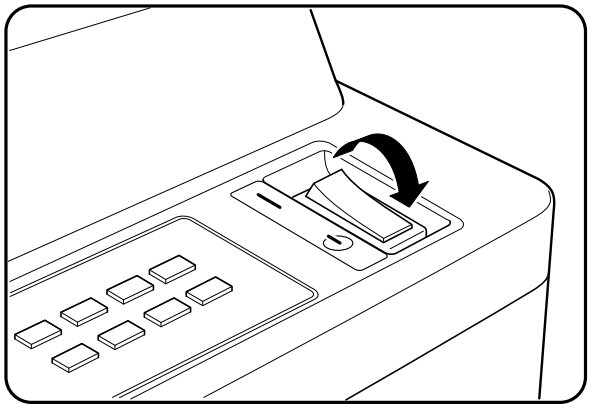
WARNING: This printer is very heavy. The weight of the main unit without paper cassette, consumables, and paper is about 106 lbs. Never attempt to lift the printer by yourself. The printer should always carried by two persons.
To carry the printer, grasp the four bottom corners from the right and left sides, not from the front (where the control panel is located) and back sides. Never try to lift the printer while holding any part other than the bottom corners. Otherwise there will be a severe risk of injury if the printer is dropped.
When lifting the printer, correct posture is important to prevent hip injuries.

WARNING: Never touch the power cord or the plug with wet hands; otherwise electric shock may result.

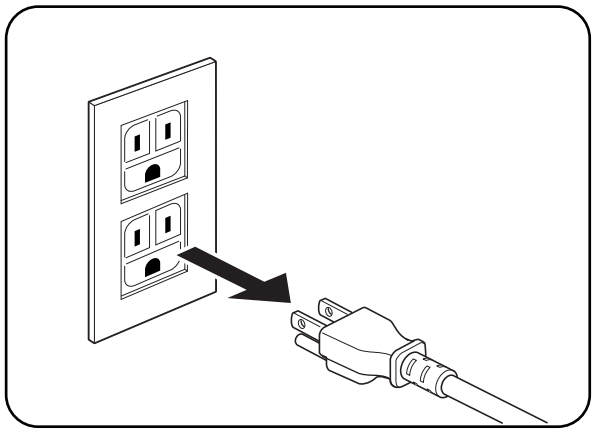
WARNING: Always remove the power cord by pulling on the plug but not the cord; otherwise the power cord may be damaged and fire or electric shock may result.

NOTE: Remove any options such as the duplex printing unit before moving the printer. For instructions on how to remove the options, see the appropriate section. To transport the printer over long distance, put the printer in its original shipping carton and other packing materials.

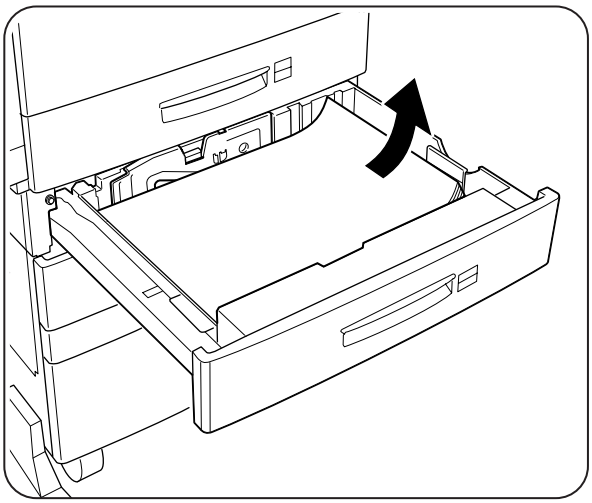
1. Turn off the printer by setting the power switch to the [0] position.
   If any error message or status code appears, see "Chapter 6 Troubleshooting"and turn off the printer properly.



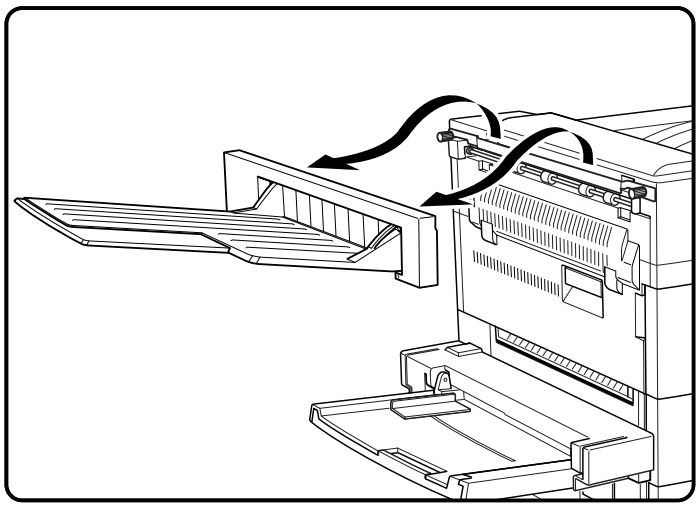
2. Unplug the power cord from the AC outlet and the printer.



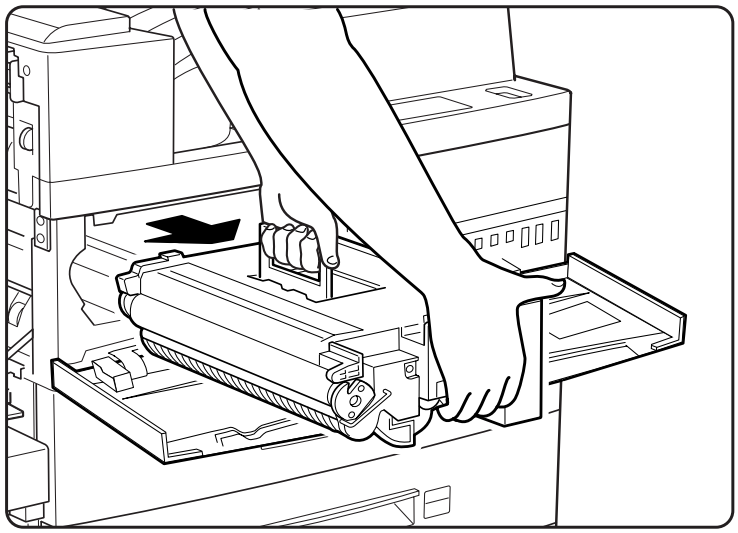
3. Remove any paper from the multi bypass feeder as well as all the paper cassettes.Store the paper in a location that is not humid and dusty. For more information, see "Appendix B Safety Notes and Regulatory Compliances".



4. If the optional face-up tray is installed, remove it.

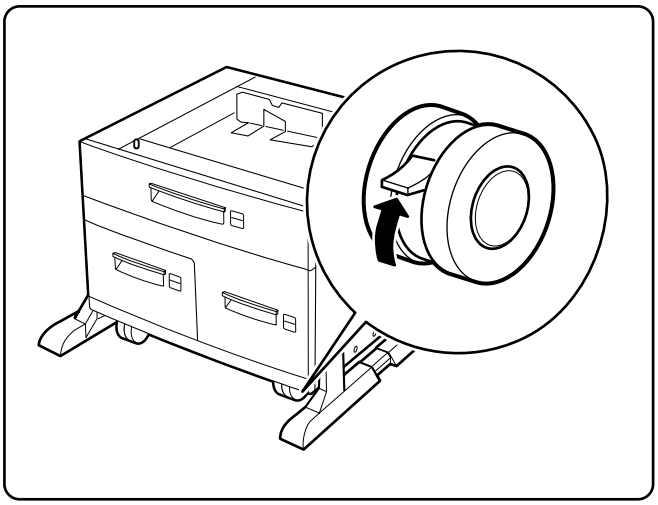


5. Remove the EP cartridge inside the printer. If the printer is moved with the cartridge inside, toner may spill out and soil the printer.



NOTE: Replace the EP cartridge in its original packing material, or wrap it in a thick lint-free cloth.

6. If the HCF unit is installed, unlock the stoppers on its casters.



7. Move the printer to a new location and reverse the steps above.

◆ ◆ ◆

Chapter 6

Troubleshooting

In this Chapter . . .

- "About this Chapter" on page 6-2
- "Solving Printer Power-on Problems" on page 6-2
- "Solving Print Quality Problems" on page 6-3
- "Clearing Paper Jams" on page 6-6
- "Control Panel LCD Messages" on page 6-17

About this Chapter

Explains procedures to isolate and solve problems that may occur during use of your printer. Clearing paper jams and detailed troubleshooting of LCD error messages are discussed in this chapter.

Solving Printer Power-on Problems

This section describes problems that can occur when starting up the printer. If the trouble persists after performing the checks listed below, turn the printer off [O], disconnect the power cord from the AC outlet, and call to arrange for a technical support or service or repair call.

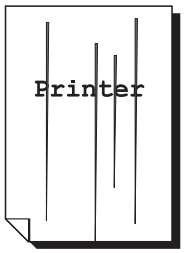
CAUTION: To prevent the risk of fire or smoke generation, do not attempt to modify the printer in any way.

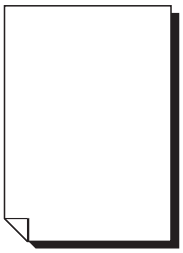
WARNING: Before cleaning the printer or performing any other maintenance, be sure to turn the printer off [O], and disconnect the power cord from the AC outlet to prevent the risk of electric shock.

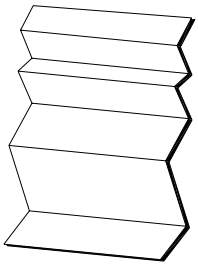
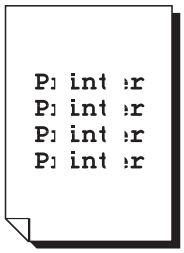
DESCRIPTION	POSSIBLE CAUSE	REQUIRED ACTION
No power.	Power switch not turned on. Switch not set to [I].	Check power switch. See "Chapter 1 Unpacking and Installing Your Printer" for Printer" for more information
	Power cord not properly plugged into AC outlet or AC connector on rear of printer	Set power switch to [O] (off) and plug in power cord firmly. See "Chapter 1 Unpacking and Installing Your Printer" for more information.
	Voltage of AC power line not correct.	Verify that AC outlet is rated for the correct voltage and amperage of your printer. See "Chapter 1 Unpacking and Installing Your Printer" for more information.
Power is frequently interrupted	Printer is defective	Turn printer off [O], disconnect power cord from the AC outlet. Call to arrange for a technical support or service or repair call.

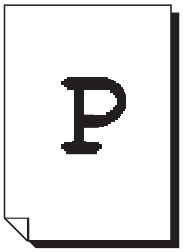
Solving Print Quality Problems

This section describes quality problems during printing. Go through the list below to find the conditon that most closely resembles the problem and follow the recommended action. If the trouble persists after performing the checks listed below, turn the printer off [O], disconnect the power cord from the AC outlet, and call to arrange for a technical support or service or repair call

DESCRIPTION	POSSIBLE CAUSE	REQUIRED ACTION
Faded print	Print media is moist.	Remove moist media and load new dry media.
	EP cartridge is old or damaged	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Toner in EP cartridge is low.	
Black dots	Print media is outside recommended specification.	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP catridge is old or damaged.	Replace EP cartridge.See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Vertical black streaks 	EP catridge is old or damaged.	Replace EP cartridge. See See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Repetitive defects.	Paper path is dirty.	Print out several blank sheets
	EP cartridge is old or damaged.	Replace EP cartridge. SeeSee "Chapter 5 Printer Consumables, Cleaning and Maintenance" .

DESCRIPTION	POSSIBLE CAUSE	REQUIRED ACTION
Character voids	Print media is outside recommended specifications	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Toner smears when rubbed	Print media is moist	Remove moist media and load new dry media. See See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Print media is outside recommended specifications	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Black page	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	High-voltage power supply may be defective	Call to arrange for a technical support or service or repair call.
Blank page 	Sealing tape of EP cartridge not pulled out.	Pull out sealing tape. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Printer feeds two or more sheets at a time	Avoice adding paper to a nearly full stack. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Toner in EP cartridge is low.	
	High-voltage power supply may be defective	Call to arrange for a technical support or service or repair call.

DESCRIPTION	POSSIBLE CAUSE	REQUIRED ACTION
Partial blanks	Print media is moist	Remove moist media and load new dry media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Print media is outside recommended specifications	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Sealing tape of EP cartridge not pulled out.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Creased paper 	Print media is outside recommended specifications	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Print media is moist	Remove moist media and load new dry media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Plotted print	Print media is outside recommended specifications	Use recommended print media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	Print media is moist	Remove moist media and load new dry media. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Vertical blanks 	EP cartridge is not installed correctly.	Remove EP cartridge and reinstall it. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .

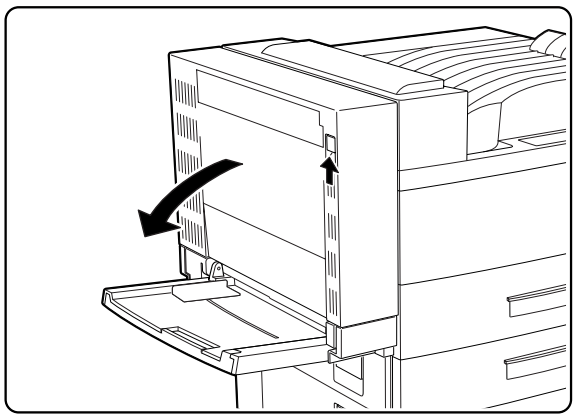
DESCRIPTION	POSSIBLE CAUSE	REQUIRED ACTION
Blurred print	Print density setting is not appropriate	Adjust print density. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
Bold print appears shaded 	Print density setting is not appropriate	Adjust print density. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .
	EP cartridge is old or damaged.	Replace EP cartridge. See "Chapter 5 Printer Consumables, Cleaning and Maintenance" .

Clearing Paper Jams

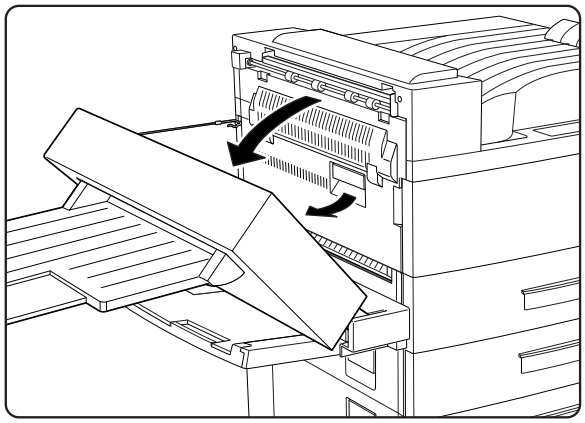
This section provide information for removing paper jams from paper path areas of your printer and paper handling options.

Clearing Paper Jams from Area A

1. If the dMuplexer is installed, pull on the latch indicated to open the unit

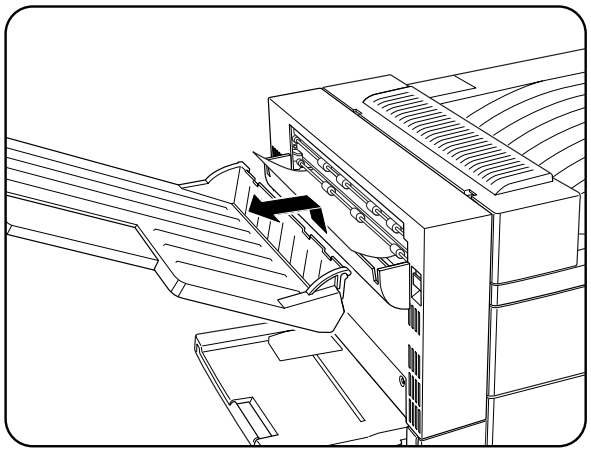


2. Pull on the latch to open the upper left cover.

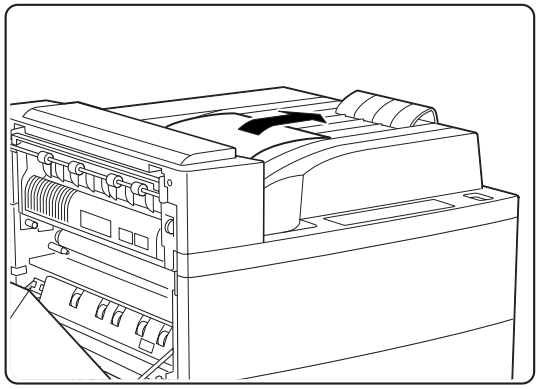


If the optional face up tray is installed instead of the duplexer, lift to unhook and remove the face up tray.

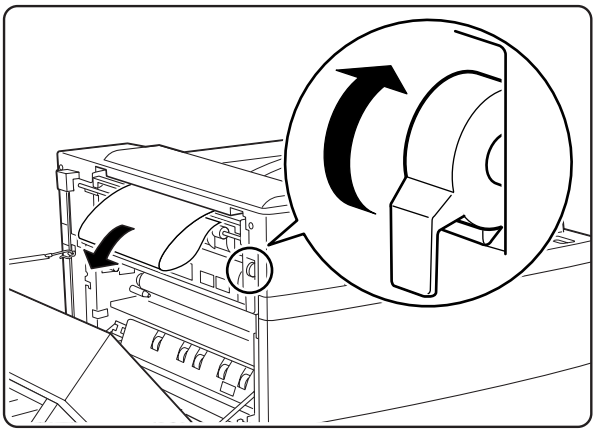
3. Remove any paper jam found.



If the leading edge of the paper is already in the paper output tray, pull out the paper in the direction of the arrow.

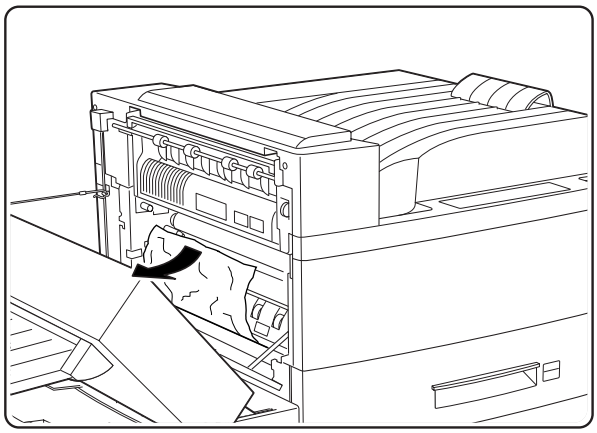


If the paper is jammed at the fuser area, pull it out carefully without touching the fuser If it becomes difficult to pull out the paper, turn the knob continuously in the direction of the arrow until the paper is adequately out and easy to pull..

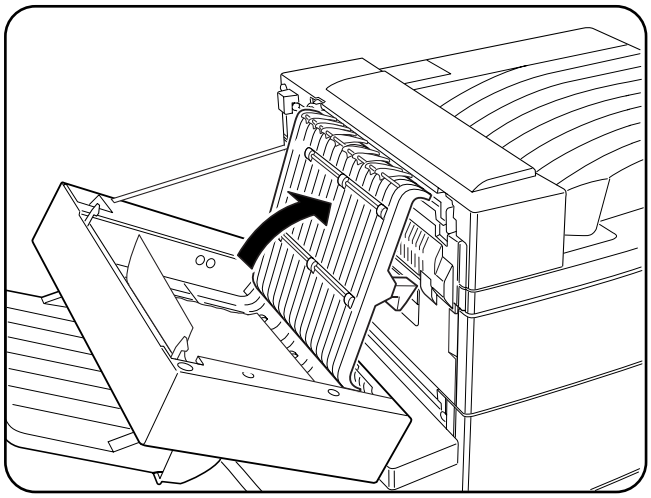


WARNING: Never touch the fuser area where a label indicating high temperature is located (such as that shown below), or else burns may result.

If the paper is jammed at the indicated location, pull it out in the direction of the arrow.

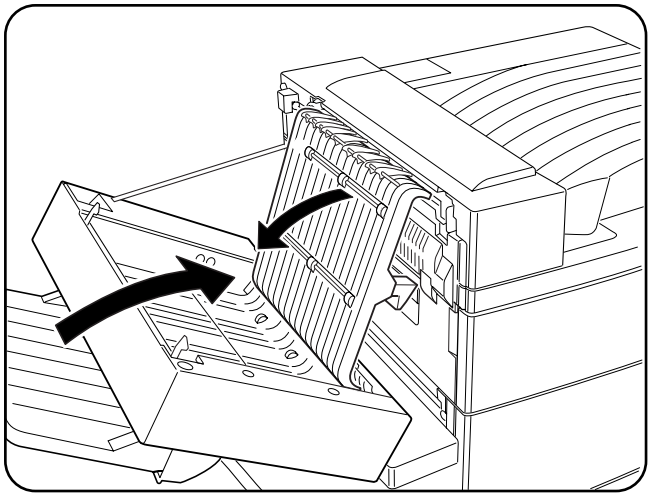


4. Open the cover inside the duplexer.



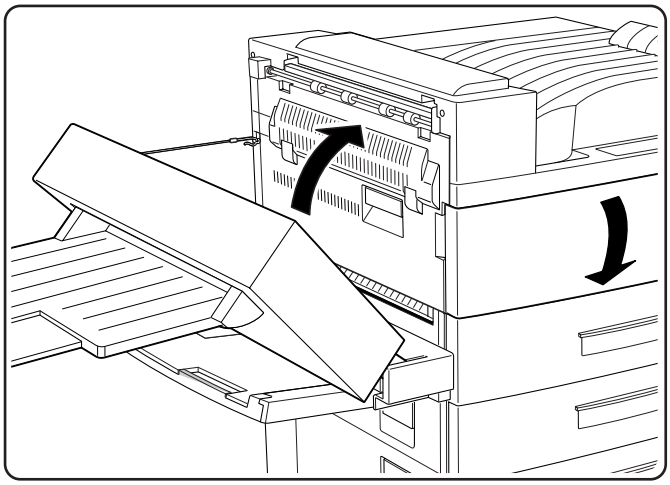
5. Remove any paper jam found by pulling out the paper in the direction of the arrow as shown.

6. Close the cover inside the duplexer

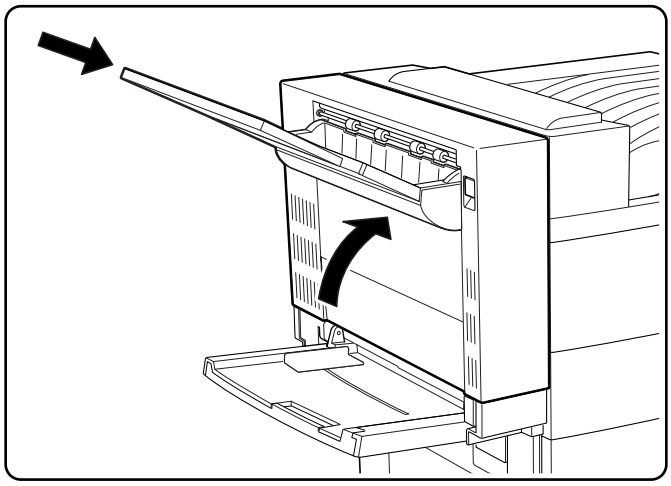


7. Close the duplexer.

NOTE: When closing the duplexer, do not use the latch on the cover. Instead, follow the instruction label on the cover and push the recommended location.

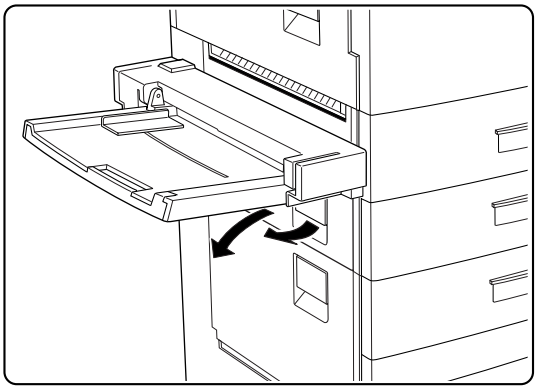


8. Close the duplexer or reinsert the face-up tray as appropriate.

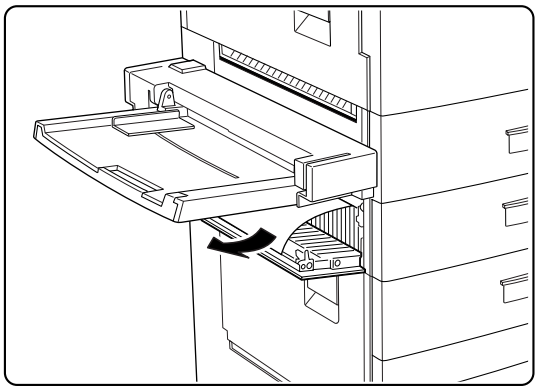


Clearing Paper Jams from Area B

1. Pull on the latch to open the cover to Area B



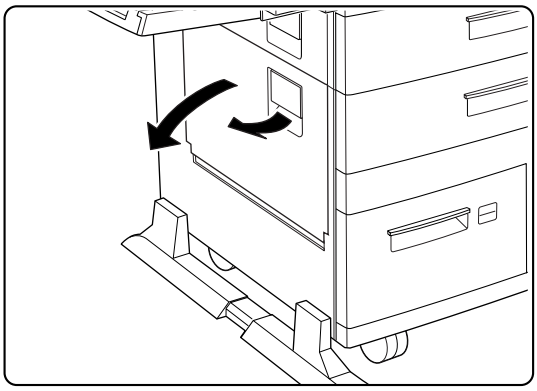
2. Remove any paper jam found



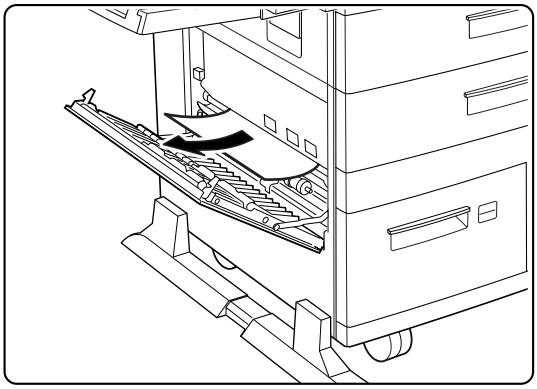
3. If the paper is jammed at Area B, pull it out in the direction of the arrow as shown. If no paper jam is found consult the LCD display of the control panel for information about a possible jam in a paper tray.

Clearing Paper Jams from Area C

1. Pull on the latch to open the cover to Area B



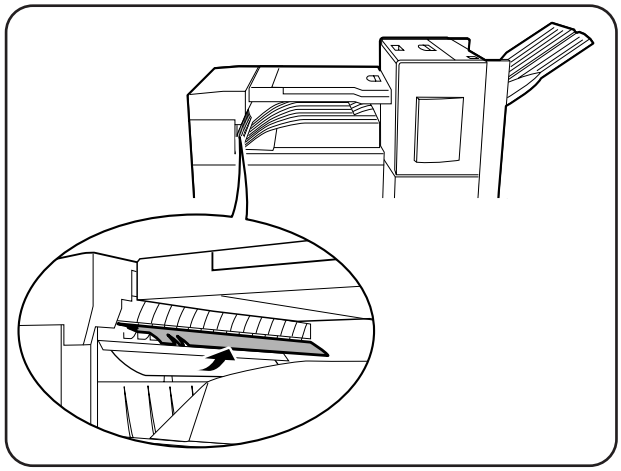
2. Remove any paper jam found



3. If the paper is jammed at Area B, pull it out in the direction of the arrow as shown. If no paper jam is found consult the LCD display of the control panel for information about a possible jam in a paper tray.

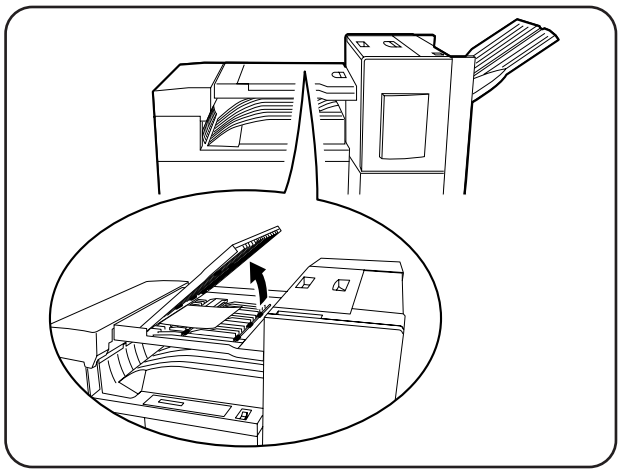
Clearing Paper Jams from Area E

Lift the handle of the Stapler/Stacker docking cover and remove any jammed paper found.



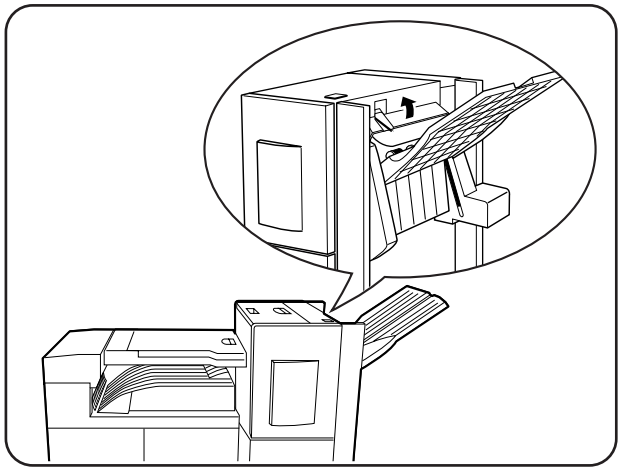
Clearing Paper Jams from Area F

Open the cover of the Stacker/Stapler's paper horizontal transport and remove any jammed paper found.



Clearing Paper Jams from Area H

Remove any jammed paper found.



Clearing Paper Jams from Tray 1

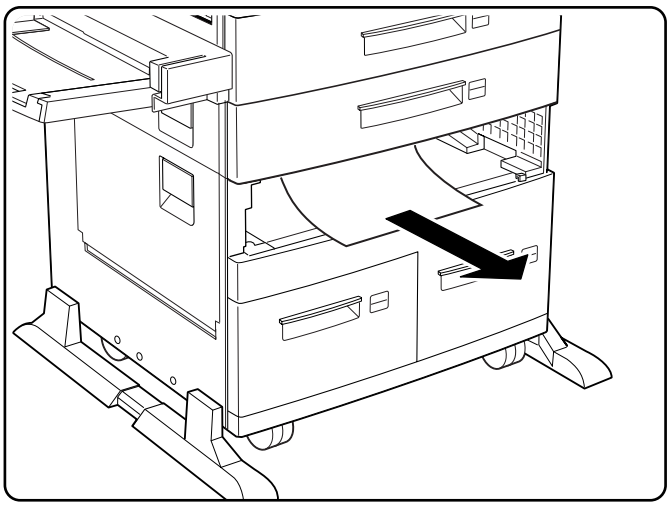
Pull out Tray 1. Check the paper feed area and carefully pull out any jammed paper found there.

Clearing Paper Jams from Tray 2

Pull out Tray 2. Check the paper feed area and carefully pull out any jammed paper found there.

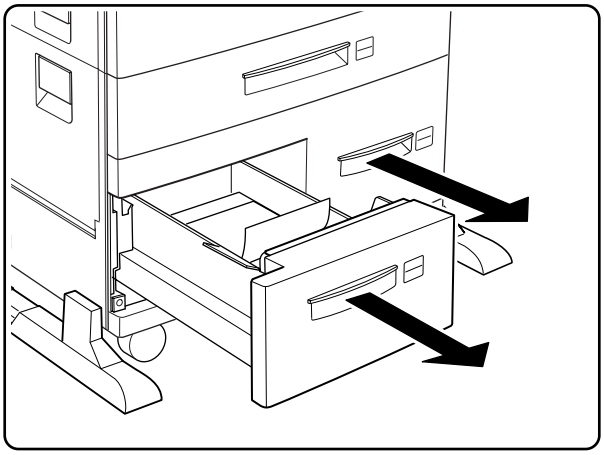
Clearing Paper Jams from Trays 3, 4 and 5 in the HCF unit

1. Pull out Tray 3 of the HCF unit. Check the paper feed area and carefully pull out any jammed paper found there.

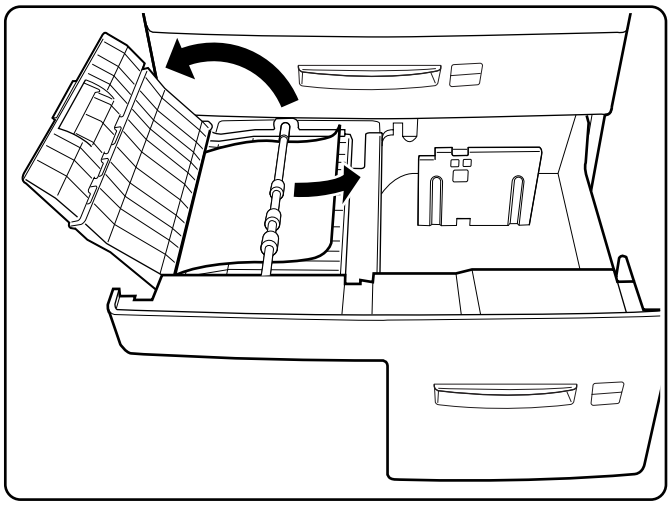


Carefully close Tray 3.

2. Pull out Trays 4 and 5.



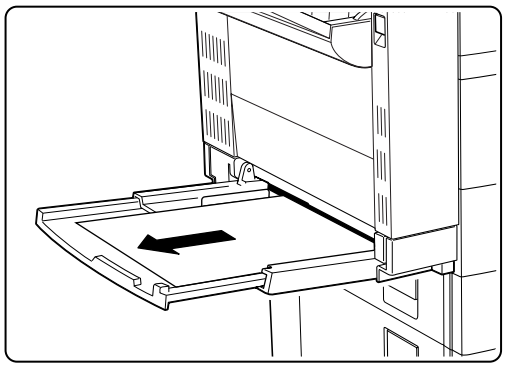
3. Check the paper feed area of Tray 5 and remove any jammed paper found



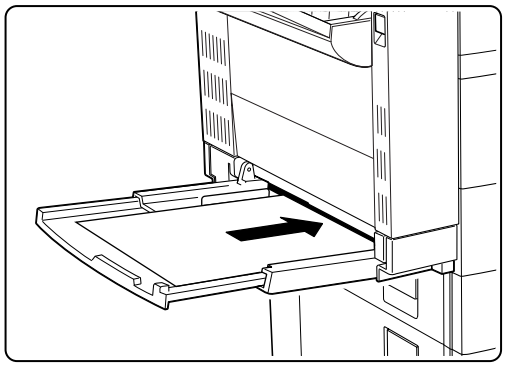
4. Carefully close Trays 4 and 5.

Clearing Paper Jams from the Multi-Bypass Feeder (MBF)

1. Remove the jammed paper by pull it out in the direction of the arrow as shown.

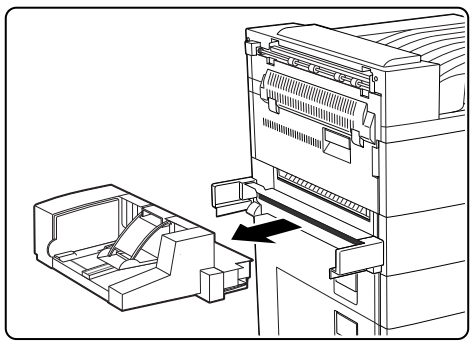


2. Remove all the paper and load the stack again.

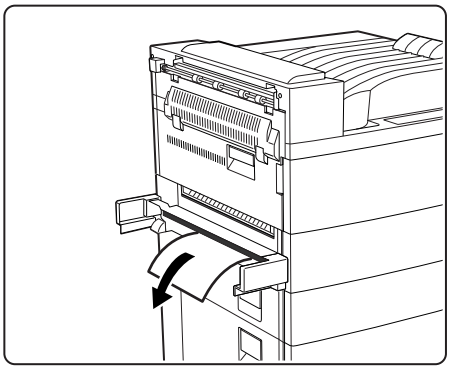


Clearing Paper Jams from the Envelope Feeder

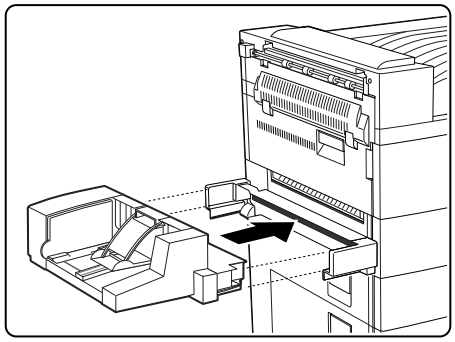
1. Remove the envelope feeder.



2. Remove any jammed paper found.



3. Re-insert the envelope feeder.



Control Panel LCD Messages

LCD messages involving troubleshooting are classified into nine numeric code classes (1 through 9) and an additional alphanumeric class. These code classes have no significance to you as a user of this printer. These class codes are designed specifically for assisting service and repair personnel. When reporting problems make note of the error message by code class.

Code Class 1

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
1-1 MAIN MOTOR	CALL SERVICE	Main Motor Rotation Failure	Service Call required
1-1 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
1-1 TRAY ERROR	CHECK TRAY 1	Tray 1 trouble (see note 1)	Ensure that Tray 1 is loaded correctly and securely closed.
1-2 TONER EMPTY	REPLACE TONER	Toner cartridge Empty	Replace Toner Cartridge
1-2 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
1-2 TRAY ERROR	CHECK TRAY 2	Tray 2 trouble (see note 1)	Ensure that Tray 2 is loaded correctly and securely closed.
1-3 FEED ERROR	AREA A/TRAY 1	Tray 1 paper misfeed	Clear paper misfeed from Tray 1, Area A
1-3 LVPS FAN	CALL SERVICE	LVPS FAN Rotation Failure	Service Call required
1-3 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
1-3 TRAY ERROR	CHECK TRAY 3	Tray 3 trouble (see note 1)	Ensure that Tray 3 is loaded correctly and securely closed.
1-4 DRUM MOTOR	CALL SERVICE	Drum Motor Rotation Failure	Service Call Required
1-4 TRAY ERROR	CHECK TRAY 4	Tray 4 trouble (see note 1)	Ensure that Tray 4 is loaded correctly and securely closed
1-5 TRAY ERROR	CHECK TRAY 5	Tray 5 trouble (see note 1)	Ensure that Tray 5 is loaded correctly and securely closed.
1-6 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A

Code Class 2

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
2-2 FEED ERROR	AREA B / TRAY 2	Tray 2 paper misfeed	Clear paper misfeed from Tray 1 or Area A
2-3 FEED ERROR	CLEAR AREA A	Tray 2 paper misfeed	Clear paper misfeed from Tray 2 or Area A
2-7 DUPLEX COMM	CALL SERVICE	Duplexer Communications failure (see note 2)	Check Duplexer Cabling – Service Call required
2-8 DUPLEX ERROR	CALL SERVICE	Wrong model duplexer installed	Service Call required

Code Class 3

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
3-1 NO CARTRIDGE	RESET TONER CART	Toner cartridge not set correctly	Reset Toner Cartridge
3-1 FEED ERROR	AREA B / TRAY 3	Tray 3 paper misfeed	Clear paper misfeed from Tray 3 or Area B
3-1 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
3-1 ROS ERROR	CALL SERVICE	ROS ASIC Failure	Service Call required
3-2 FEED ERROR	CLEAR AREA B	Tray 3 paper misfeed	Clear paper misfeed from Area B
3-3 FEED ERROR	CLEAR AREA B	Tray 3 paper misfeed	Clear paper misfeed from Area B
3-3 ROS ERROR	CALL SERVICE	Beam detect interval too long	Service Call required
3-4 ROS ERROR	CALL SERVICE	Beam detect interval too short	Service Call required
3-5 ROS ERROR	CALL SERVICE	ROS Motor Rotation Failure	Service Call required
3-6 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A

Code Class 4

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
4-0 FEED ERROR	AREA C/TRAY 4	Tray 4 paper misfeed	Clear paper misfeed from Tray 4 or Area C
4-1 FEED ERROR	AREA C/AREA B	Tray 4 paper misfeed	Clear paper misfeed from Tray 4, Area C or Area B
4-1 FUSER ERROR	CALL SERVICE	Fuser temperature setting out of control (On Time Fail)	Service Call required
4-1 IRREG. PAPER	CHECK TRAY 1	Irregular paper in Tray 1 (see note 1)	Ensure the correct paper is loaded in Tray 1
4-1 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
4-2 FEED ERROR	AREA C/AREA B	Tray 4 paper misfeed	Clear paper misfeed from Tray 4, Area C or Area B
4-2 FUSER ERROR	CALL SERVICE	Fuser overheat trouble detected	Service Call required
4-2 IRREG. PAPER	CHECK TRAY 2	Irregular paper in Tray 2 (see note 1)	Ensure the correct paper is loaded in Tray 2
4-2 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
4-3 FEED ERROR	CLEAR AREA B	Tray 4 paper misfeed	Clear paper misfeed from Tray 4 or Area B
4-3 FUSER ERROR	CALL SERVICE	Outboard Fuser temperature cannot be monitored	Service Call required
4-3 IRREG. PAPER	CHECK TRAY 3	Irregular paper in Tray 3 (see note 1)	Ensure the correct paper is loaded in Tray 3
4-3 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
4-4 FUSER ERROR	CALL SERVICE	Inboard Fuser temperature cannot be monitored	Service Call required
4-4 IRREG. PAPER	CHECK TRAY 4	Irregular paper in Tray 4 (see note 1)	Ensure the correct paper is loaded in Tray 4

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
4-5 FUSER ERROR	CALL SERVICE	Abnormally high Fuser temperature	Service Call required
4-5 IRREG. PAPER	CHECK TRAY 5	Irregular paper in Tray 5 (see note 1)	Ensure the correct paper is loaded in Tray 5
4-5 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
4-6 PAPER JAM	CLEAR AREA A	Paper jam in Area A	Clear Paper Jam in Area A
4-9 FUSER ERROR	CALL SERVICE	Fuser fan defective	Service Call required
4-11 FINISH JAM	CLEAR AREA E	Paper didn't pass TRANSPORT entry sensor in specified time after reaching the sensor	Clear paper jam in Area E
4-12 FINISH JAM	CLEAR AREA E	Paper didn't reach TRANSPORT entry sensor in specified time after passing fuser exit sensor	Clear paper jam in Area E
4-13 FINISH JAM	CLEAR AREA E	TRANSPORT entry sensor switched on while initializing finisher	Clear paper jam in Area E
4-16 FINISH JAM	CLEAR AREA E	Remaining paper detected at TRANSPORT entry sensor	Clear paper jam in Area E
4-21 FINISH JAM	CLEAR AREA F	Paper didn't pass TRANSPORT exit sensor in specified time after reaching the sensor	Clear paper jam in Area F
4-22 FINISH JAM	CLEAR AREA F	Paper didn't reach TRANSPORT exit sensor in specified time after passing the TRANSPORT exit sensor.	Clear paper jam in Area F
4-23 FINISH JAM	CLEAR AREA F	TRANSPORT exit sensor switched on while initializing finisher	Clear paper jam in Area F

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
4-26 FINISH JAM	CLEAR AREA F	Remaining paper detected on TRANSPORT exit sensor	Clear paper jam in Area F
4-31 FINISH JAM	CLEAR AREA F	Paper does not pass finisher input path sensor within specified time after reaching the sensor	Clear paper jam in Area F
4-32 FINISH JAM	CLEAR AREA F	Paper does not reach finisher input path sensor in specified time after reaching TRANSPORT exit sensor	Clear paper jam in Area F
4-36 FINISH JAM	CLEAR AREA G	Remaining paper detected on finisher input path sensor	Clear paper jam in Area F
4-41 FINISH JAM	CLEAR AREA G	Paper did not pass through finisher path sensor	Open finisher front cover - Clear paper jam in Area G
4-42 FINISH JAM	CLEAR AREA G	Paper did not reach finisher path sensor	Open finisher front cover - Clear paper jam in Area G
4-46 FINISH JAM	CLEAR AREA G	Remaining paper detected at finisher path sensor	Open finisher front cover - Clear paper jam in Area G
4-51 FINISH JAM	CLEAR AREA G	Paper did not pass through finisher exit path sensor	Open finisher front cover - Clear paper jam in Area G
4-52 FINISH JAM	CLEAR AREA G	Paper did not reach finisher exit path sensor	Open finisher front cover - Clear paper jam in Area G
4-56 FINISH JAM	CLEAR AREA G	Remaining paper detected at finisher exit path sensor	Open finisher front cover - Clear paper jam in Area G
4-61 FINISH JAM	CLEAR AREA H	Paper did not pass through compile tray exit path sensor	Clear paper jam in Area H
4-66 FINISH JAM	CLEAR AREA H	Remaining paper detected at compile tray exit path sensor	Clear paper jam in Area H

Code Class 5

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
5-0 FEED ERROR	AREA C/TRAY 5	Tray 5 paper misfeed	Clear paper misfeed from Tray 5 or Area C
5-1 COVER OPEN	CLOSE COVER A	Printer cover A open	Close printer cover A
5-1 COVER OPEN	CLOSE FRONT COVER	Printer front cover open	Close printer front cover
5-1 FEED ERROR	AREA C/AREA B	Tray 5 paper misfeed	Clear paper misfeed from Tray 5, Area C or Area B
5-2 COVER OPEN	CLOSE COVER B	Printer cover B open	Close printer cover B
5-2 FEED ERROR	AREA C/AREA B	Tray 5 paper misfeed	Clear paper misfeed from Tray 5, Area C or Area B
5-3 FEED ERROR	AREA A/AREA B	Tray 5 paper misfeed	Clear paper misfeed from Tray 5, Area A or Area B
5-4 FEED ERROR	AREA C/TRAY 5	Tray 5 paper misfeed	Clear paper misfeed from Tray 5 or Area C
5-11 FIN ERROR	CALL SERVICE	Finisher Stacker tray failure (see note 3)	Service Call required
5-21 FIN ERROR	CALL SERVICE	Finisher Jogger front failure (see note 3)	Service Call required
5-22 FIN ERROR	CALL SERVICE	Finisher Jogger rear failure (see note 3)	Service Call required
5-81 FIN ERROR	CALL SERVICE	Finisher exit roller failure (see note 3)	Service Call required
5-83 FIN ERROR	CALL SERVICE	Finisher roller shift failure (see note 3)	Service Call required
5-87 FIN ERROR	CALL SERVICE	Finisher Punch failure (see note 3)	Service Call required
5-91 FIN ERROR	CALL SERVICE	Finisher Stapler failure (see note 3)	Service Call required

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
5-92 FIN ERROR	CALL SERVICE	Finisher Stapler head home sensor failure (see note 3)	Service Call required
5-93 FIN ERROR	CALL SERVICE	Finisher Stapler front position failure (see note 3)	Service Call required
5-94 FIN ERROR	CALL SERVICE	Finisher Stapler dual position failure (see note 3)	Service Call required
5-95 FIN ERROR	CALL SERVICE	Finisher Stapler rear position failure (see note 3)	Service Call required
5-96 FIN ERROR	CALL SERVICE	Finisher Stapler swing failure (see note 3)	Service Call required

Code Class 6

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
6-1 COVER OPEN	CLOSE COVER C	HCF cover C open	Close HCF cover C
6-1 TONER EOL	REPLACE TONER	Toner Cartridge end-of-life	Replace Toner Cartridge
6-1 FEED ERROR	CLEAR DUPLEXER	Paper misfeed from duplexer	Clear paper misfeed from Duplexer
6-1 GATE OPEN	CHECK GATE IN	Gate Cover is open	Close Gate Cover
6-2 COVER OPEN	CLOSE DOOR F	Transport Cover is open	Close Transport Cover – Door F
6-2 RAM ERROR	CALL SERVICE	RAM Read/Write Error	Service Call required
6-3 NVRAM ERROR	CALL SERVICE	NVM breakdown	Service Call required
6-4 NVRAM ERROR	CALL SERVICE	NVM Read/Write error	Service Call required
6-5 MCU ERROR	CALL SERVICE	MCU ASIC circuit to control Toner Cartridge is defective	Service Call required
6-7 FIN ERROR	CALL SERVICE	Finisher Communications error (see note 2)	Check Finisher Cabling - Service Call required
6-8 FIN ERROR	CALL SERVICE	Wrong model finisher installed	Service Call required

Code Class 7

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
7-1 COVER OPEN	CLOSE DOOR G	Finisher front cover is open	Close Finisher front cover – Door G
7-2 COVER OPEN	FIN. TOP DOOR	Finisher top cover open	Close Finisher top door
7-3 DUPLEX OPEN	CLOSE DUPLEXER	Duplexer cover open	Close duplexer cover
7-3 FIN EXIT SW	CHECK FIN EXIT	Finisher Exit Roller Unit is open	Close Finisher Exit Roller Unit
7-3 HCF ERROR	CALL SERVICE	Cannot Read/Write HCF NVM	Service Call required
7-4 HCF ERROR	CALL SERVICE	HCF NVM failure	Service Call required
7-7 HCF ERROR	CALL SERVICE	Communications error between MCU and HCF (see note 2)	Check HCF Cabling - Service Call required
7-71 FINISH JAM	CLEAR TOP TRAY	Paper did not pass the top tray exit path sensor	Clear paper jam finisher top tray
7-72 FINISH JAM	CLEAR TOP TRAY	Paper did not reach top tray exit path sensor	Clear paper jam finisher top tray
7-73 FINISH JAM	CLEAR TOP TRAY	Top tray exit path sensor on while finisher is being initialized	Clear paper jam finisher top tray
7-76 FINISH JAM	CLEAR TOP TRAY	Remaining paper is detected by top tray exit path sensor	Clear paper jam finisher top tray

Code Class 8

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
8-1 FEED ERROR	CHECK ENVELOPE	Remaining paper detected in ENV area	Clear paper misfeed from Envelope Feeder
8-1 FIN DOCKING	CHECK FINISHER	Finisher docking incorrect	Check Finishing Docking
8-1 TONER TYPE	ID MISMATCH	Toner cartridge OEM ID mismatch	Replace Toner Cartridge
8-1 PAPER JAM	CHECK DUPLEXER	Paper jam in Duplexer	Clear paper jam in Duplexer
8-2 FEED ERROR	AREA A, B/TRAY 2	Remaining paper detected near Tray 2	Clear paper misfeed from or Area A, Area B or Tray 2
8-2 PAPER JAM	CLEAR DUPLEXER	Paper jam in Duplexer	Clear paper jam in Duplexer
8-3 TONER CART	RESET TONER CART	Toner Cartridge read/ write error	Reset Toner Cartridge
8-3 FEED ERROR	CLEAR AREA B	Remaining paper detected near Tray 3	Clear paper misfeed from Area B
8-4 TONER CART	RESET TONER CART	Toner Cartridge Communications error	Reset Toner Cartridge
8-4 FEED ERROR	CLEAR AREA C	Remaining paper detected near Tray 4	Clear paper misfeed from Area C
8-5 TONER CART	REPLACE TONER	Invalid Toner Cartridge error	Reset Toner Cartridge
8-5 FEED ERROR	AREA C/TRAY 5	Remaining paper detected near Tray 5	Clear paper misfeed from Area C or Tray 5
8-6 FEED ERROR	CLEAR DUPLEXER	Remaining paper detected in Duplexer	Clear Duplexer
8-6 PAPER JAM	CLEAR DUPLEXER	Paper Jam in Duplexer	Clear paper jam in Duplexer

Code Class 9

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
9-1 FEED ERROR	CHECK ENVELOPE	ENV OUT sensor time-out	Clear paper misfeed from Envelope Feeder
9-2 FEED ERROR	CHECK MBF	MBF T/A roll 1 sensor time-out	Clear paper misfeed from MBF
9-3 FEED ERROR	CLEAR AREA A	MBF or ENV Reg sensor time-out	Clear paper misfeed from Area A

Alphanumeric Code Class

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
DRUM EOL NEARBY	N/A (WARNING ONLY)	Toner Cartridge end of life nearby	Ensure that you have a new Toner Cartridge to install soon
F/D TRAY FULL	REMOVE PAPER	Face Down Tray Paper Full	Empty output paper from Face Down Finishing Tray
FINISHER OVER LAP	REMOVE PAPER	Finisher Paper Overlap	Empty output paper from Finisher
PAPER OUT-TRAY 1	LOAD LETTER OR LOAD LEGAL OR LOAD A4 OR ETC.	No Paper in Tray 1	Add indicated paper size to Tray 1
PAPER OUT-TRAY 2	LOAD LETTER OR LOAD LEGAL OR LOAD A4 OR ETC.	No Paper in Tray 2	Add indicated paper size to Tray 2
PAPER OUT-TRAY 3	LOAD LETTER OR LOAD LEGAL OR LOAD A4 OR ETC.	No Paper in Tray 3	Add indicated paper size to Tray 3
PAPER OUT-TRAY 4	LOAD LETTER OR LOAD LEGAL OR LOAD A4 OR ETC.	No Paper in Tray 4	Add indicated paper size to Tray 4
PAPER OUT-TRAY 5	LOAD LETTER OR LOAD LEGAL OR LOAD A4 OR ETC.	No Paper in Tray 5	Add indicated paper size to Tray 5
STACKER FULL	REMOVE PAPER	Finisher Full	Empty output paper from Finisher
STACKER TOP FULL	REMOVE PAPER	Finisher Top Tray Full	Empty output paper from Finisher top tray
STAPLE CARTRIDGE	INSTALL CART.	Finisher Staple Cartridge is not installed	Install staple cartridge in Finisher
STAPLES LOW	ADD STAPLES	Finisher Staple Pin	Add staples to Finisher
TONER LOW	N/A (WARNING ONLY)	Toner Low Alert	Ensure that you have a new toner cartridge to install soon
PUNCH WASTE FULL	EMPTY WASTE BOX	The punch waste box is Full	Empty the waste in the punch waste box
NO PUNCH WASTE	INSTALL BOX	The punch waste box is not installed	Install the punch waste box

Controller Error Messages

LCD MESSAGE (LINE 1)	LCD MESSAGE (LINE 2)	CAUSE OF ERROR MESSAGE	REQUIRED ACTION
SERVICE ERROR X (X IS A NUMBER)	CALL SERVICE	A fatal exception has occured on the printer controller.	Press “NEXT” and additional information may be displayed. Record all information and Call Service to report error.
NVRAM FAILURE X (X IS A NUMBER)	PRESS START	NVRAM on Printer Controller failed.	Press “START” to continue. Printer may still be able to function properly, but menu settings (and other permanently stored settings) may be lost. Call Service to report this errors.

Chapter 7

Optional Extended Features

In this Chapter . . .

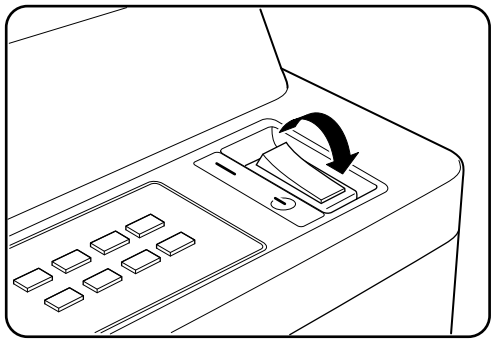
- "About this Chapter" on page 7-2
- "Installing DRAM Memory DIMMS" on page 7-2
- "Installing a FLASH DIMM Module" on page 7-5
- "Using the Hard Disk Option and User Flash DIMM Module" on page 7-7
- "Using the Power-On Files Feature" on page 7-13
- "Collating, Saved Jobs, and Job Accounting" on page 7-14
- "Using the Custom Paper Size Feature" on page 7-29
- "Custom Page size and Microsoft Word, Word 2000, and Word 2003" on page 7-32
- "Accessing the Printer Web Page" on page 7-34
- "Using the RS-232C/RS-422 Serial Interface" on page 7-39

About this Chapter

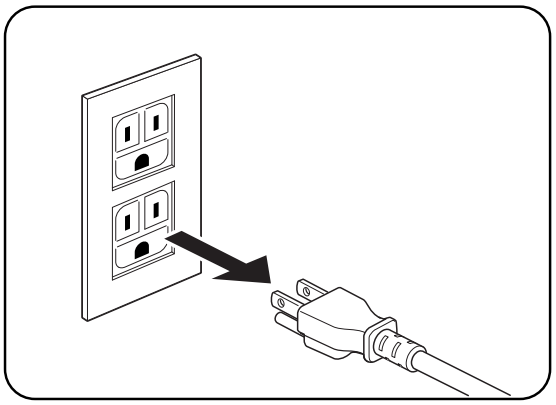
This chapter describes the procedures for installation of DRAM Memory DIMMs and FLASH DIMMS. Also describes how to use the extended features associated with these options.

Installing DRAM Memory DIMMS

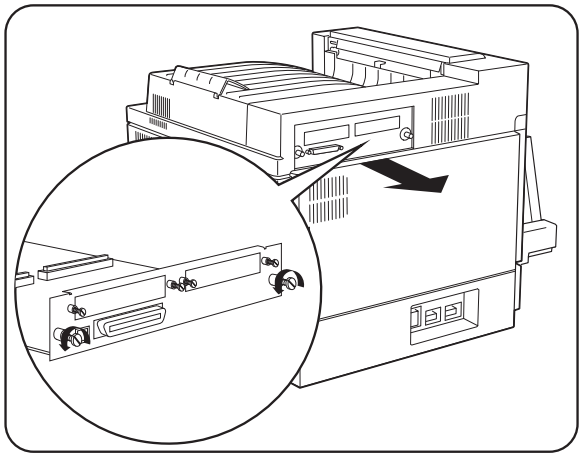
1. Ensure that the printer power switch is set to the OFF [O] position.



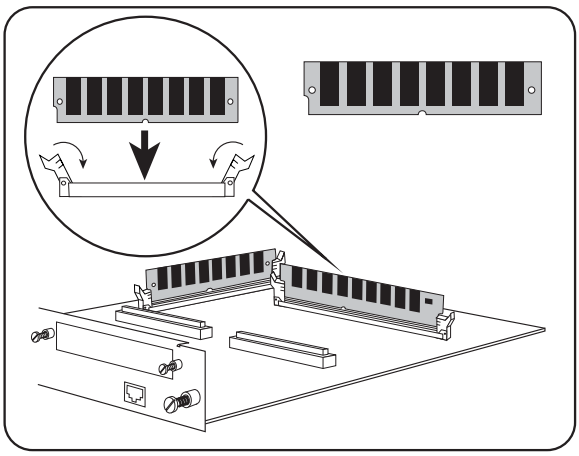
2. Disconnect the power cord from the wall outlet.



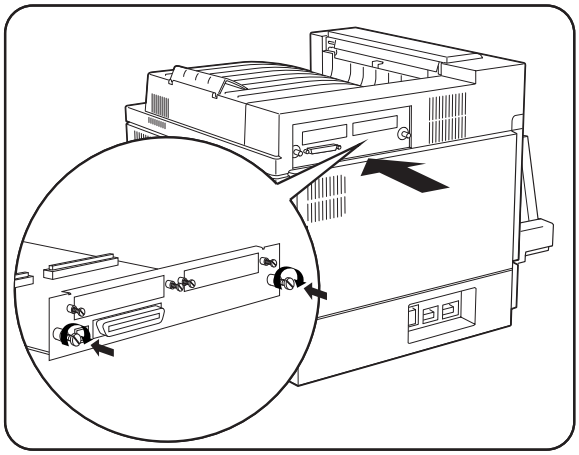
3. Turn thumbscrews on controller assembly counterclockwise until loose and gently pull controller assembly towards you to remove from printer.



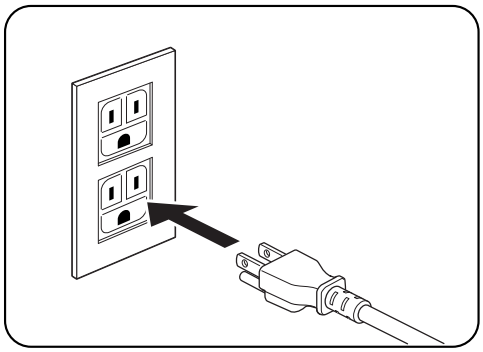
4. Carefully insert a DRAM DIMM which is compatible with your printer into any available DRAM DIMM slot as shown below. When properly seated, gently push down on the DIMM until the white braces close and snap onto the ends of the DIMM.



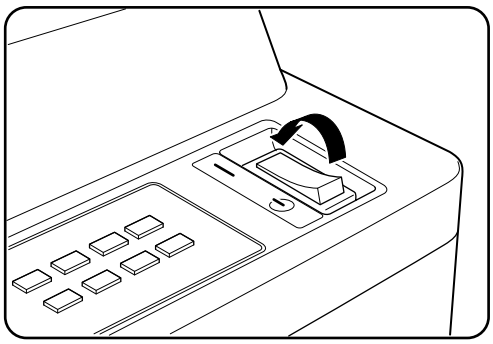
5. Reinstall the controller assembly. Once firmly in place, push and hand tighten the thumbscrews in a clockwise direction.



6. Connect the power cord to the wall outlet.

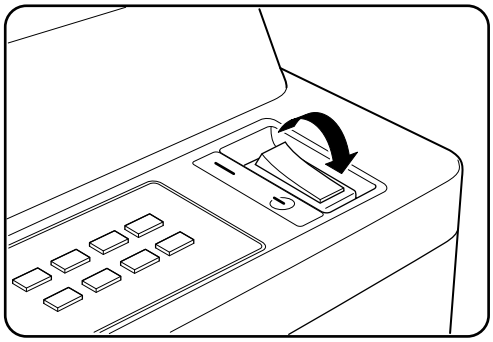


7. Turn the printer power switch to the ON [I] position.

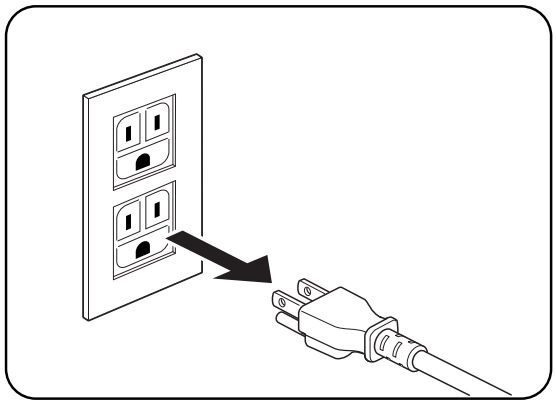


Installing a FLASH DIMM Module

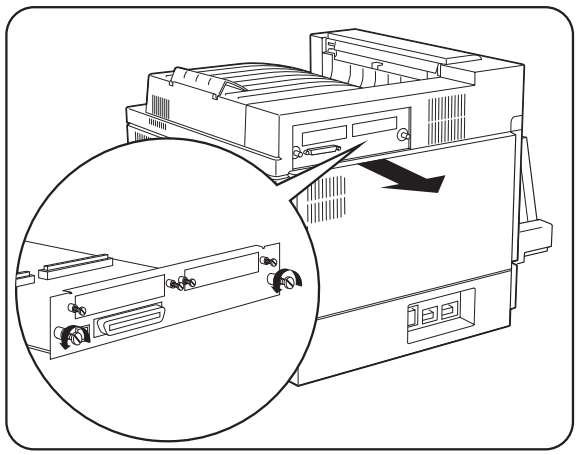
1. Ensure that the printer power switch is set to the OFF [O] position.



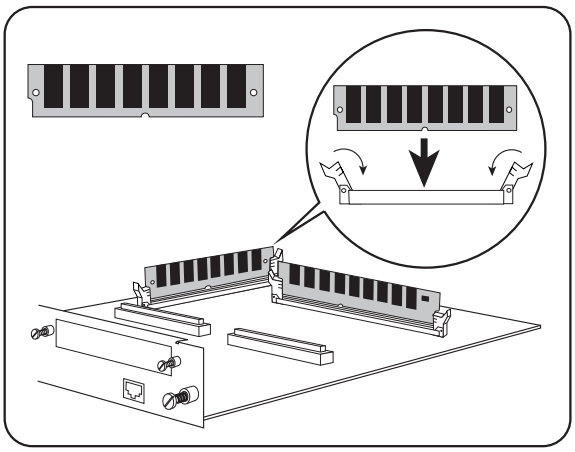
2. Disconnect the power cord from the wall outlet.



3. Turn thumbscrews on controller assembly counterclockwise until loose and gently pull controller assembly towards you to remove from printer.

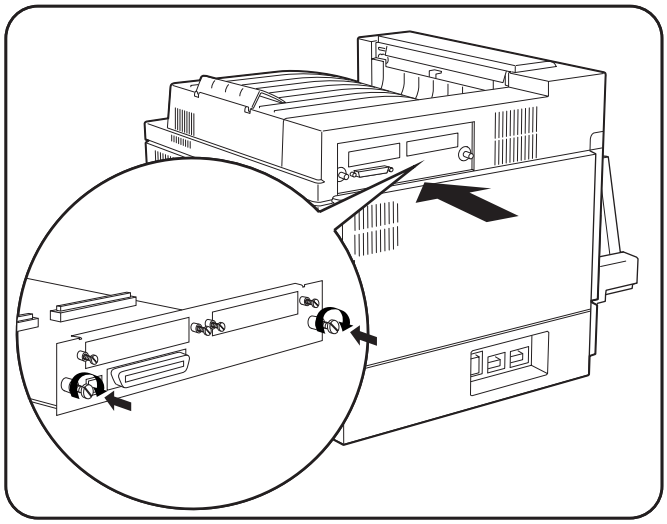


4. Carefully insert a FLASH DIMM module in FLASH DIMM slot as shown below. When properly seated, gently push down on the DIMM until the white braces close onto the ends of the DIMM.

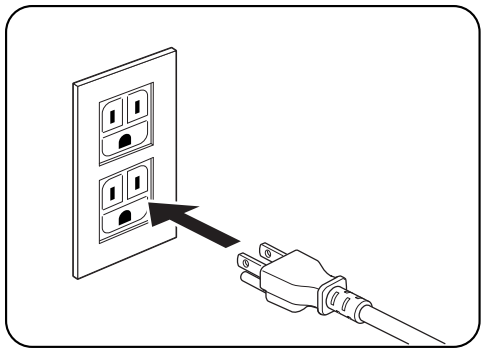


NOTE: To remove the FLASH DIMM, pull the white braces away from the ends of the DIMM until the DIMM snaps out of the slot.

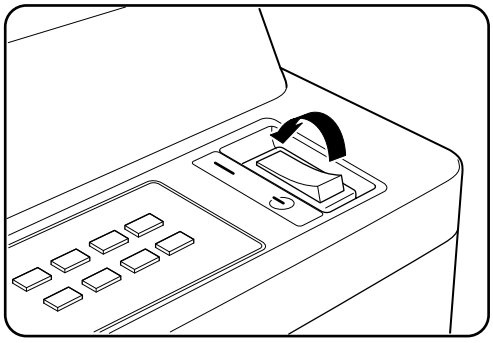
5. Reinstall the controller assembly. Once firmly in place, push and hand tighten the thumbscrews in a clockwise direction.



6. Connect the power cord to the wall outlet.



7. Turn the printer power switch to the ON [I] position.



Using the Hard Disk Option and User Flash DIMM Module

This section discusses the available control panel menus when the Hard Disk or User Flash option is installed. Storage of files on the Hard Disk and User Flash option are also discussed.

Operator Panel MENU Structure

When the Hard Disk or User Flash 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 or User Flash option.

Menu				
	Job Library			
	Job Accounting			
	Paper Menu			
	Interface Menu			
	PS Menu			
	PCL Menu			
	System Menu			
		Display Language		
		Alarm Control		
		Power Saver		
		Wait Timeout		
		Job Timeout		
		Jam Recovery		
		Hex Print		
		Intellifilter		
		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		
	Flash 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. 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 Flash Menu

Manipulation of files stored in the FLASH SIMM can be accomplished using the Flash Menu.

Flash Menu	
	Print
	Delete
	Format Disk
	Disk Summary

Print

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

Delete

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

Format Flash

This selection will reformat the FLASH SIMM. All files on the FLASH SIMM will be deleted if this function is selected.

Flash Summary

This selection will print a page containing information about the FLASH SIMM 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 a 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:

%flash%	device name for the FLASH SIMM
%disk0%	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 a 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. Power-on files are processed at power-on initialization only and not at the start of every print.

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.

Optional operator panel menu selections become available when either of these options are installed and power-on files are detected.

Collating, Saved Jobs, and Job Accounting

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:

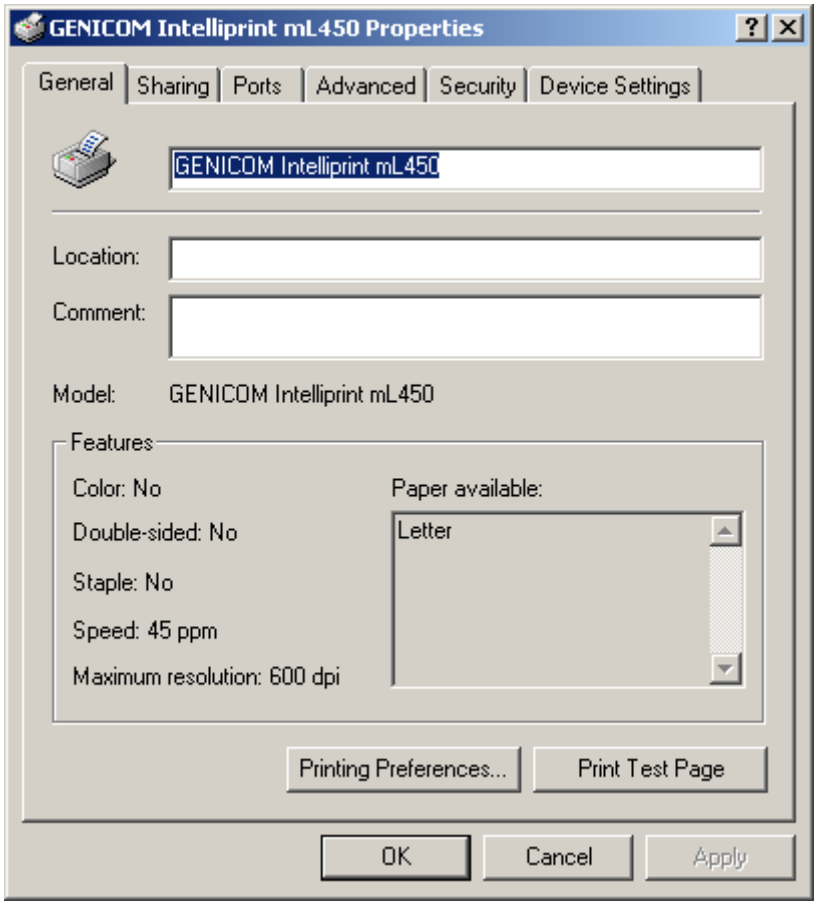
- PCL - All windows platforms
- PostScript - Windows 2000 and Windows XP

Collating Feature

When this feature is enabled, multiple copies of the entire document (all pages e.g. 1-3, 1-3, 1-3) will be printed in sequential order rather than multiple copies of each individual page (111, 222, 333).

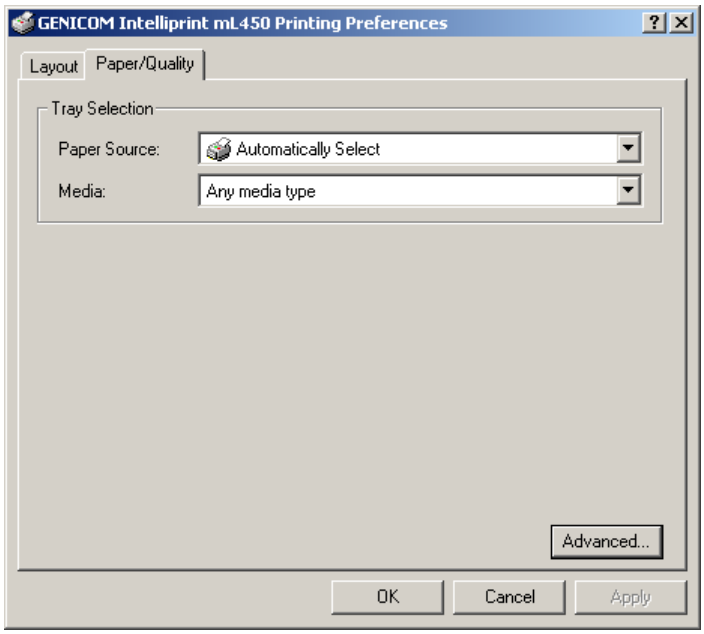
You access the collating feature through the drivers that support this feature. To access the Collating feature on your desktop, go to the Start menu, left click on Settings, left click on Printers, and then click on your printer driver icon, right click and follow the menu to the Properties menu. Use the following procedure to enable collating:

1. Press the **Printing Properties** button printer icon.

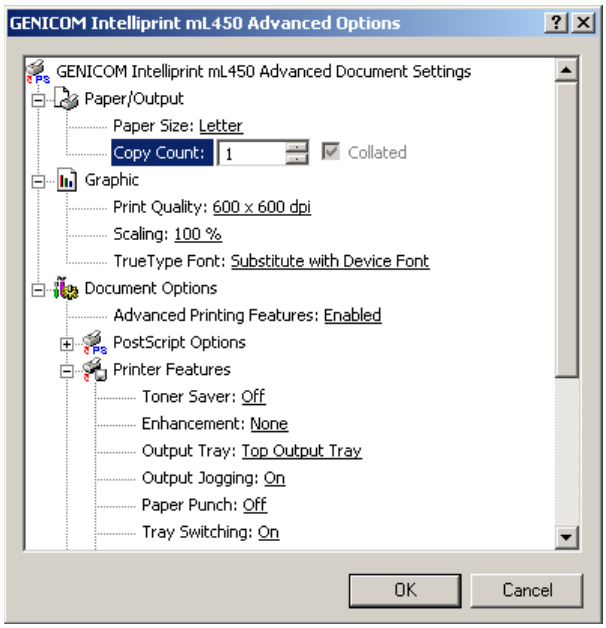


2. Click on the **Printing Preferences** button.

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 Feature

You can create saved jobs using the drivers that support this feature. The drivers that support this feature are as follows:

- PCL - All windows platforms
- 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

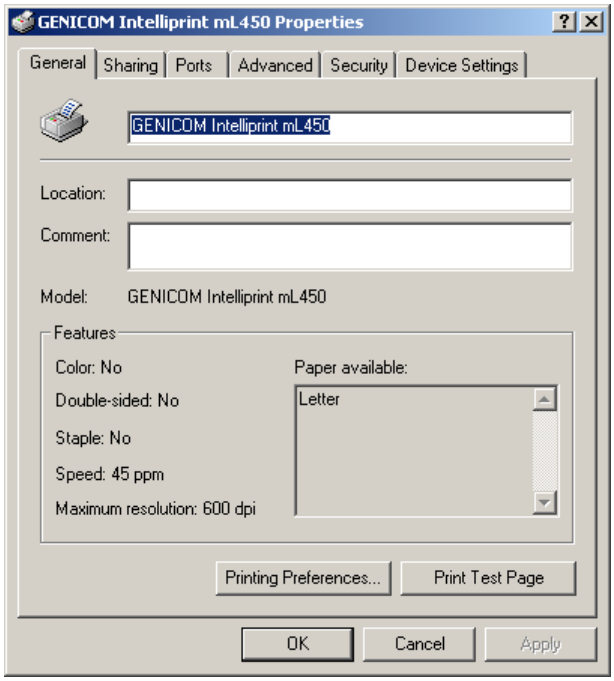
The print job data is saved on the Hard Disk or User Flash Option. The job will be saved in the "Job Library" folder. A sub-folder in the Job Library folder will be created, if necessary, for the user, as specified by the user name. The print job will be stored in a file in this folder with a name created by the user in the job name field of the printer driver.

Private

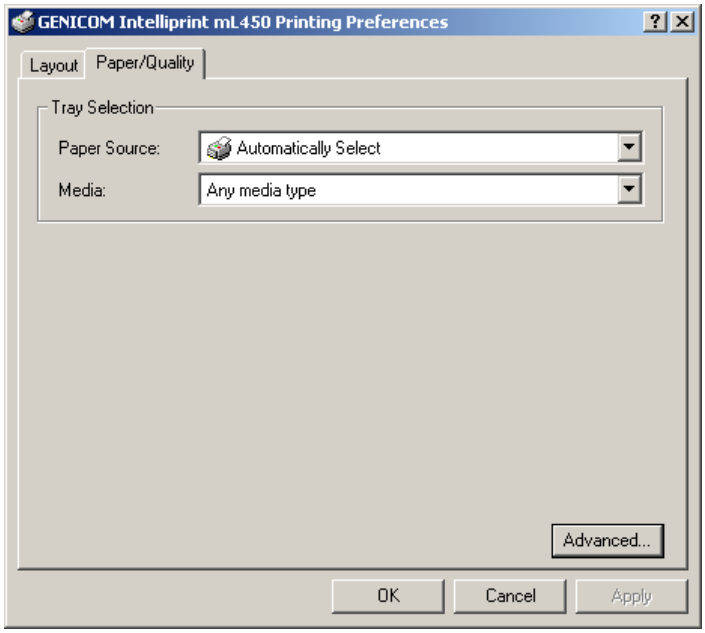
The print job data is saved on the Hard Disk or User Flash Option. The job will be saved in the "Job Library" folder. A sub-folder will be created, or the by the user as specified by user name. The print job will be stored in a file in this folder, with a name specified by user in the job name field 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.

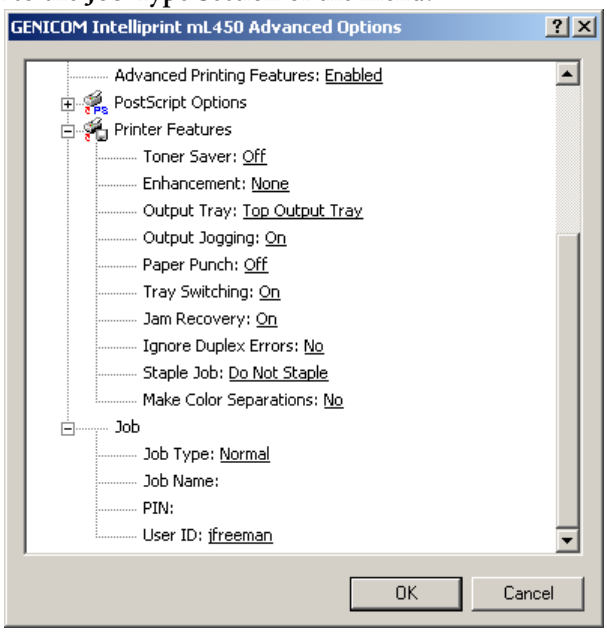
1. You are now in the **Printing Properties** menu, click on the **Printing Preference** button.



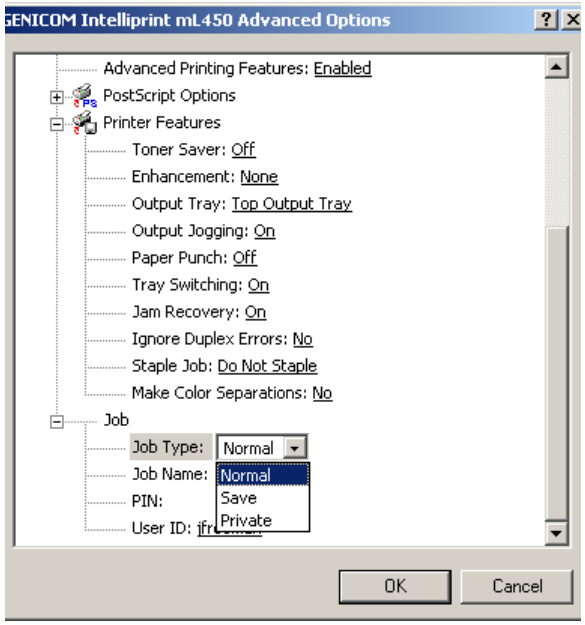
2. Click on the **Advanced** button.



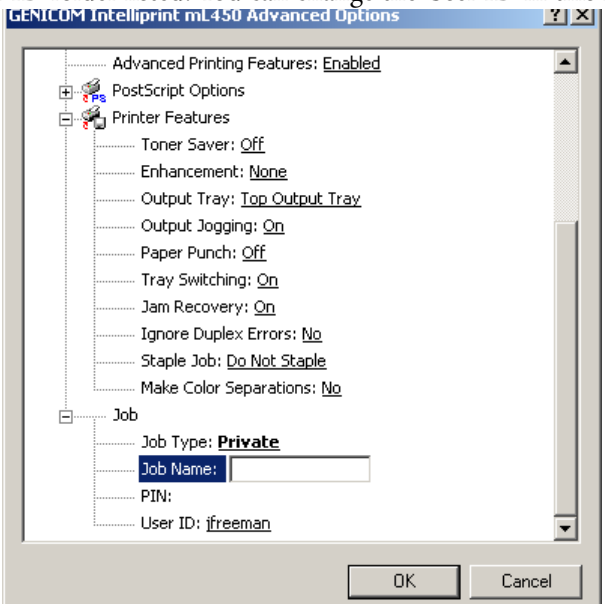
3. Now scroll down to the **Job Type** Section of the menu.



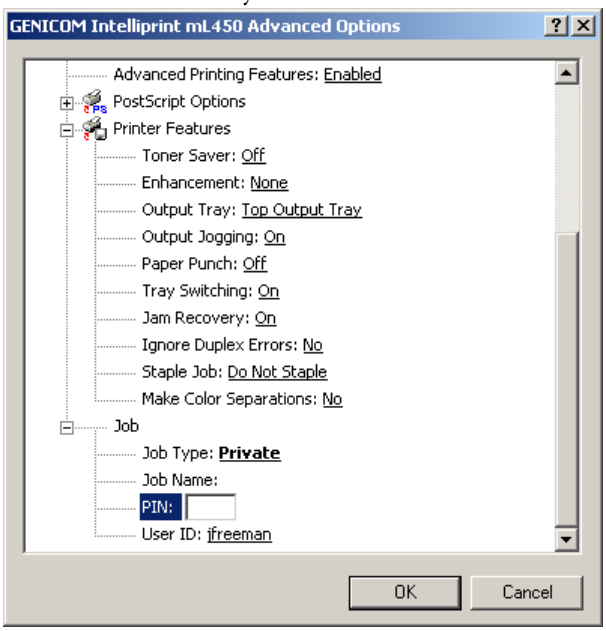
4. When you click on Job Type, three job types are available. **Normal, Saved,** and **Private.**



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.

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 Job Library 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.

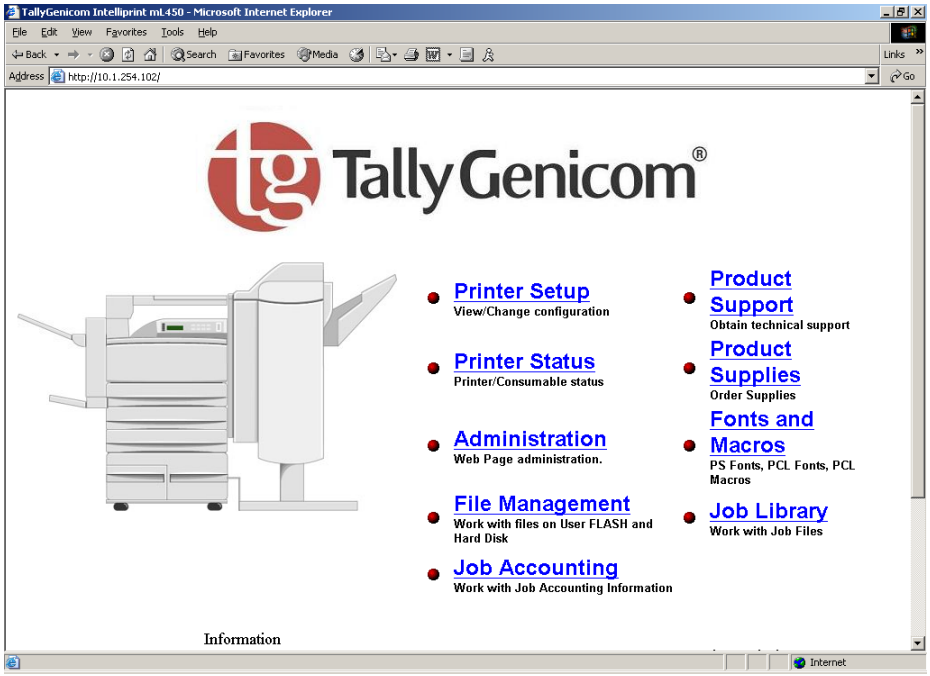
Menu	Submenus	Procedure for Changing Setting
Job Library (Saved Job)	Print (To print a saved job)	1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Print.
	Print User Folder 1	1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Print Job1	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	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	1. Press SELECT to print the job.
	Printing Playback	1. The printer will display PRINTING on Line 1 and PLAYBACK on Line 2 of the display while printing the job.
Job Library (Saved Job with PIN)	Print **(To print a saved job with a PIN)**	1. Press NEXT or PREVIOUS to scroll through Print or Delete options. 2. Press SELECT to choose Print.
	Print User Folder 1	1. Press NEXT or PREVIOUS to scroll through the User Folder Names. 2. Press SELECT to choose the desired User Folder.
	Print Job1	1. Press NEXT or PREVIOUS to scroll through the Print Job Names. 2. Press SELECT to choose the desired Print Job.
	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.

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.
Job Library (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.

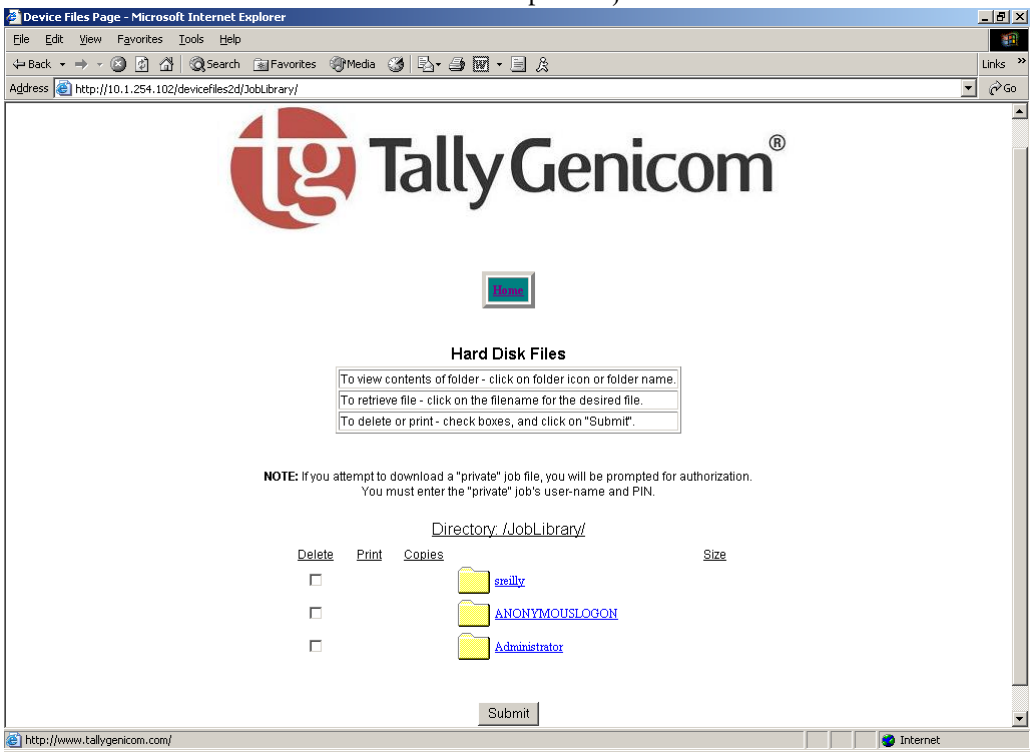
Web Page Access

Using the printer web page, you can delete, print, or download any job files stored in the job library. Go to your web browser and type in your printer web address. The printer web page will appear as follows:

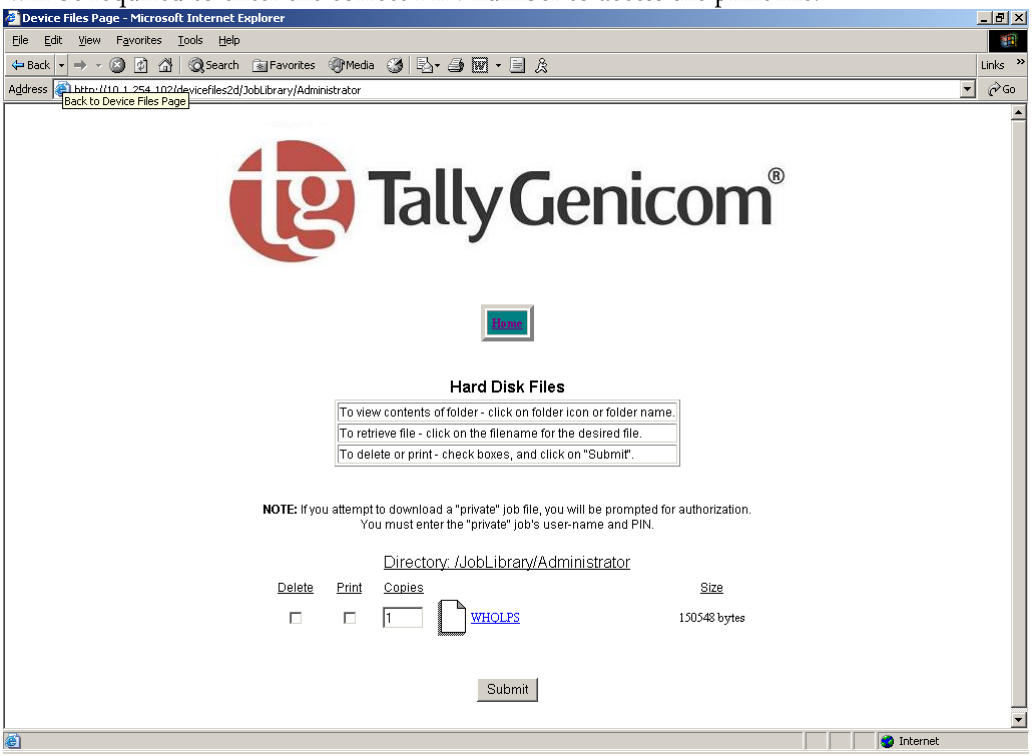
1. Click on Job Library.



2. Click on the folder icon or name to view the printer jobs in the user folders.



3. The printer job information will appear. If there is a PIN number associated with the file, you will be required to enter the correct PIN number to access the print file.



Job Accounting Feature

The printer supports a job accounting feature which will store certain information about each print job received by the printer. There are two ways to work with this feature. One is through the front panel menus, the other is through the printer web pages.

Front Panel Access

The Job Accounting Menu provides access to functions and settings related to this feature. Use the following procedure to enter the Job Accounting Menu to change the settings or access the functions:

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the text "**Job Accounting Menu**" is shown on the second line of the display.
3. Press the **SELECT** button to enter the Job Accounting Menu.
4. Press the **NEXT** button to move through the submenus: **Enable, Print Info, Reset Info.**
5. Press the **SELECT** button to enter a submenu.

Use the procedures in the following table to access and change the system settings.

SubMenu	Settings	Procedure for Changing Setting
ENABLED	Yes or No	1. Press NEXT or PREVIOUS to scroll through Yes or No options. 2. Press SELECT to choose Yes to turn on this function.
PRINT INFO		1. Press SELECT to begin printing the Job Accounting Summary Report.
RESET INFO		1. Press SELECT to reset the Job Accounting Information. This will delete all stored information related to jobs received by the printer.

When you print a Job Accounting Summary the following information will print on your report:

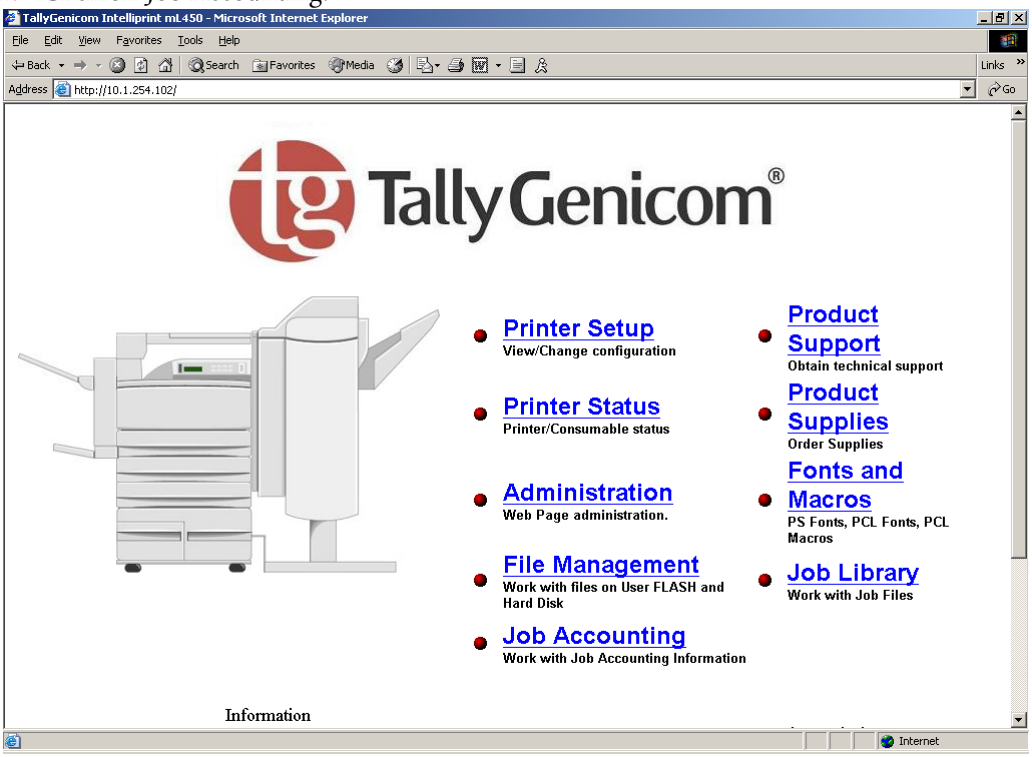
Job Name	User Name	Port	Protocol	Pages (sides)	Pages (sheets)	Date/Time	Duration
job2	jerry	parallel		4	4	March 30 2004 01:11:10 PM	00:00:08
job1	jerry	network1	LPD	4	4	March 30 2004 01:12:10 PM	00:00:04
job3	user1	network1	Ethertalk	3	3	March 30 2004 01:15:10 PM	00:00:03

NOTE: Only products that have real time clock support will provide the Date/Time information.

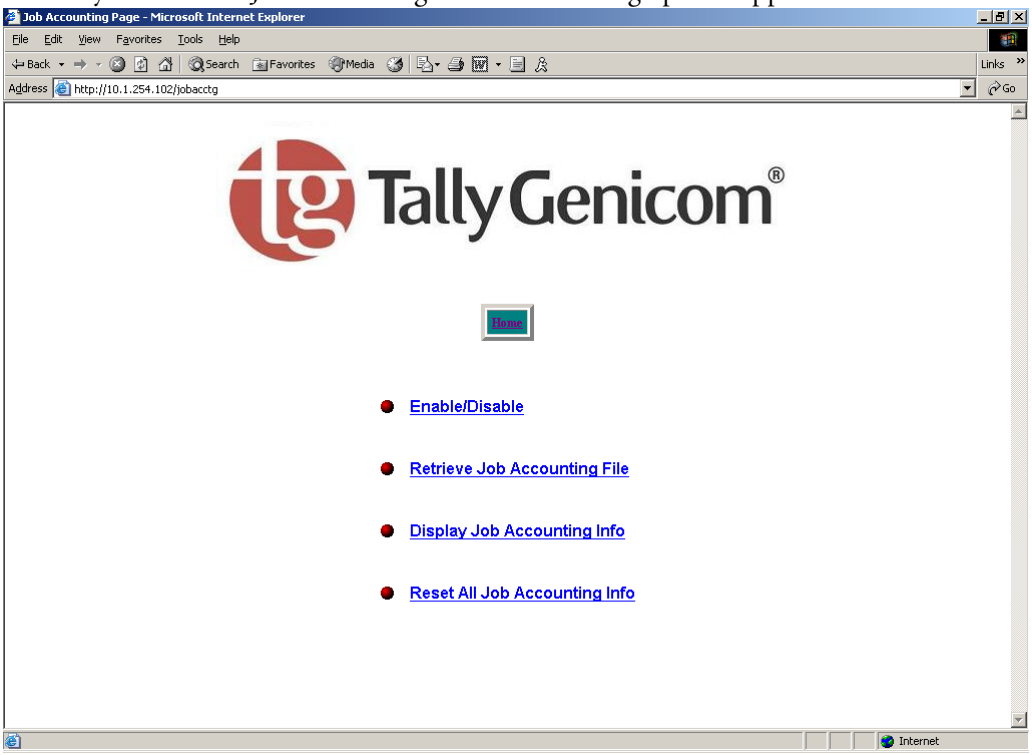
Web Page Access

Go to your web browser and type in your printer web address. The printer web page will appear.

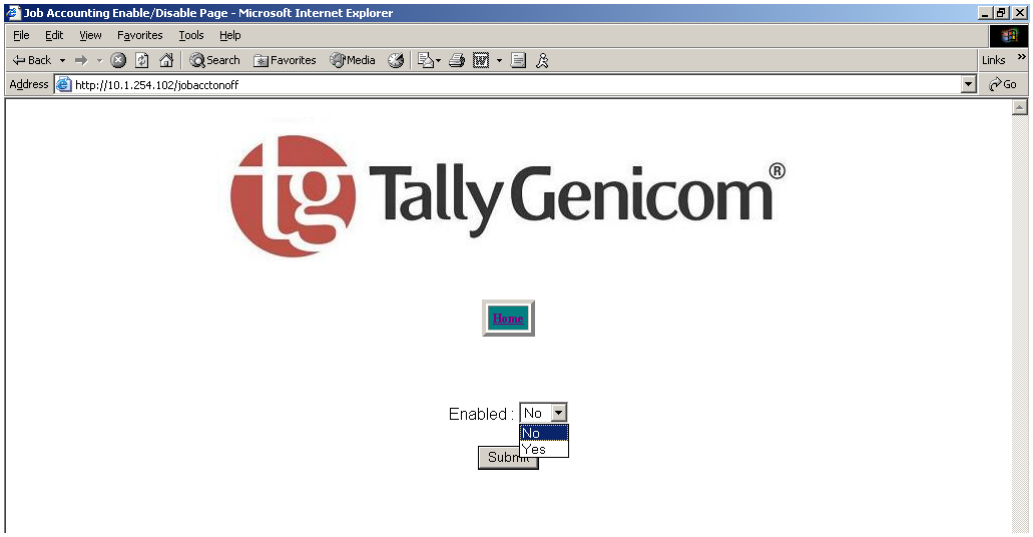
1. Click on Job Accounting.



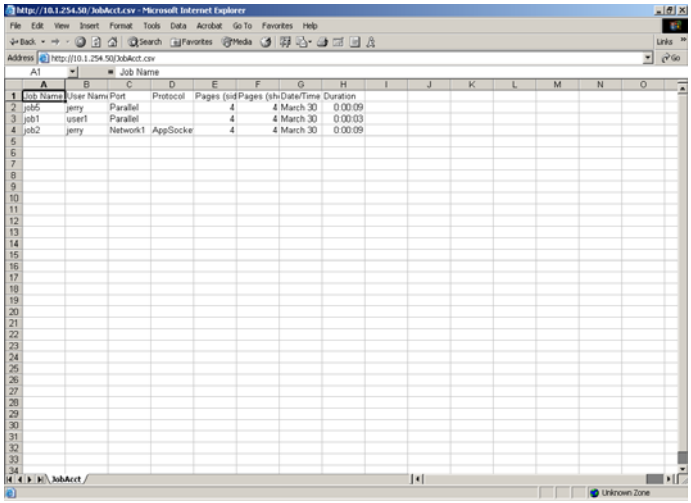
2. When you enter the Job Accounting field the following options appear:



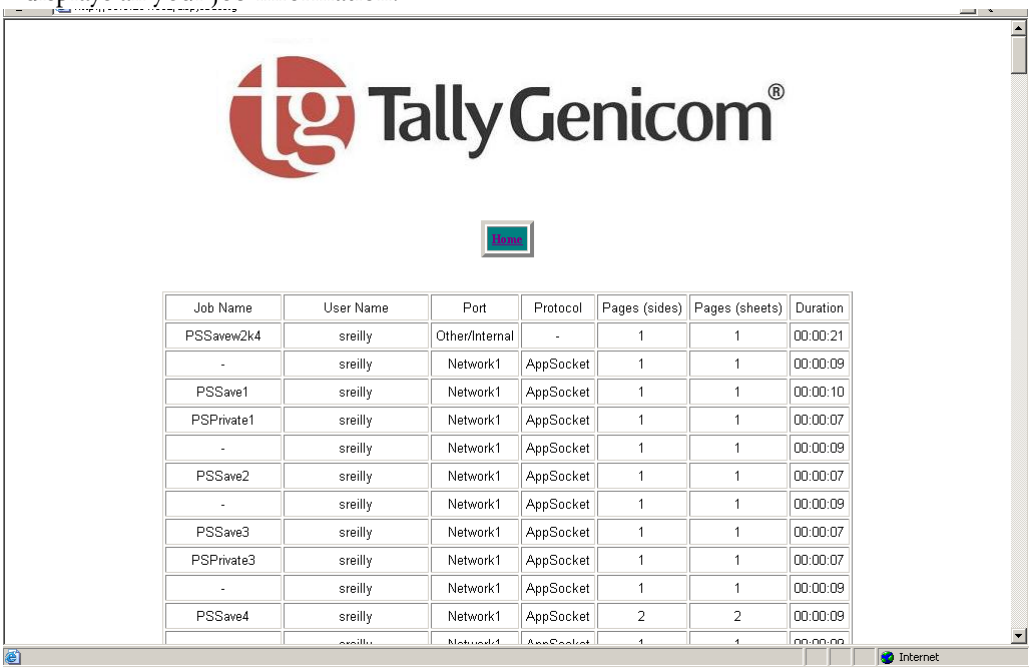
3. When you click on Enable/Disable it will take you to the following screen. Click Yes or No to Enable or Disable Job Accounting.



4. When you click on Retrieve Accounting Files it will upload the file information, which is stored in a .CSV file.



5. When you click on Display Job Accounting Info it will bring you the following screen which displays all your job information.



NOTE: Only products that have real time clock support will provide the Date/Time information.

6. When you click on Reset All Job Accounting Info, all printer job information will be deleted.

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. If you have a Windows or Macintosh printer driver, you can access this feature from the driver and you do not have to use front panel settings. Use the front panel access to these features if you have a Unix system or do not have Windows or MacIntosh drivers.

Operator Panel Access

The Paper Menu provides access to the Custom Paper Size settings. The range for setting a custom paper size is:

Paper Width	3.5 inches minimum to 8.5 inches maximum
Paper Length	5.5 inches minimum to 35.45 inches maximum

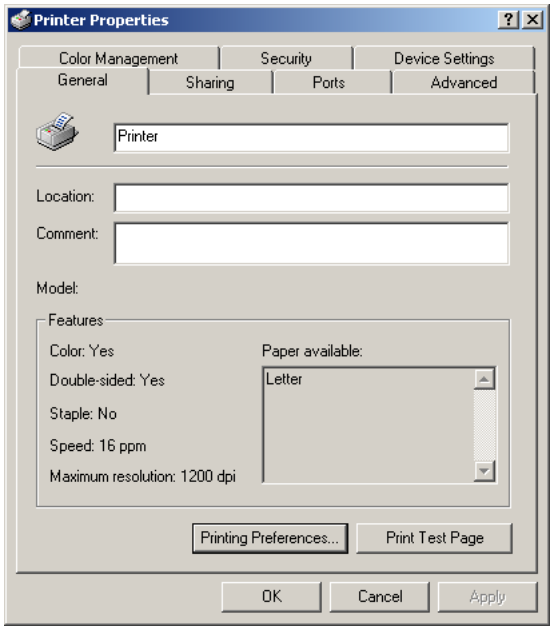
Use the following procedure to enter the Paper Menu to set a Custom Paper Size:

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**.

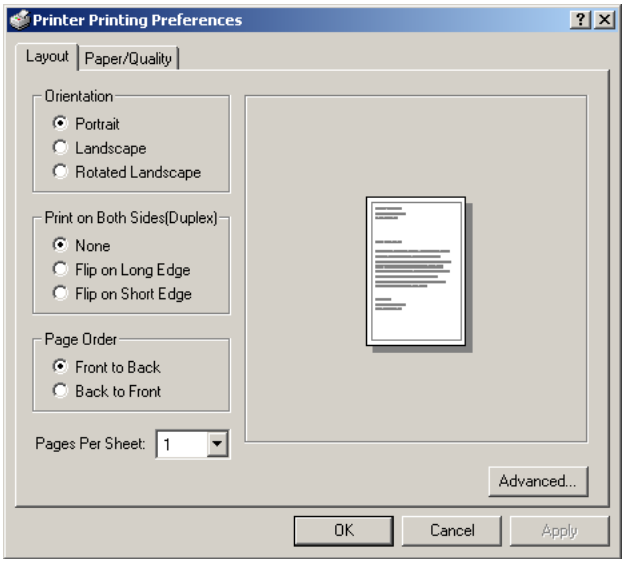
Printer Driver Access

To access the Custom Paper Size Feature through your printer driver, use the following procedure:

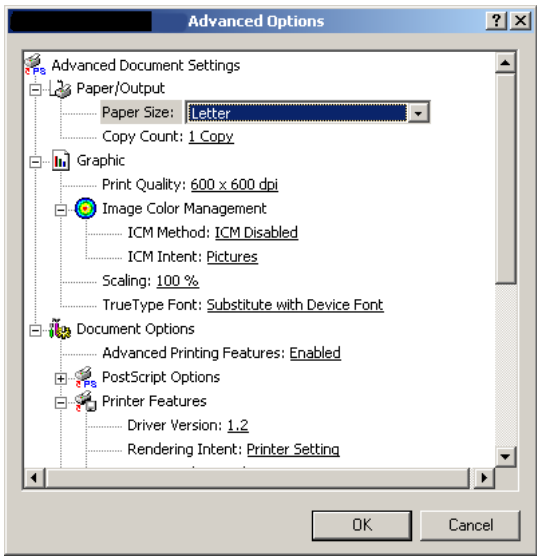
1. On your desktop, go to the Start menu, left click on Settings, left click on Printers, and then click on your printer driver icon, right click and follow the menu to the Properties menu.
2. You are now in the **Printing Properties** menu, click on the **Printing Preference** button.



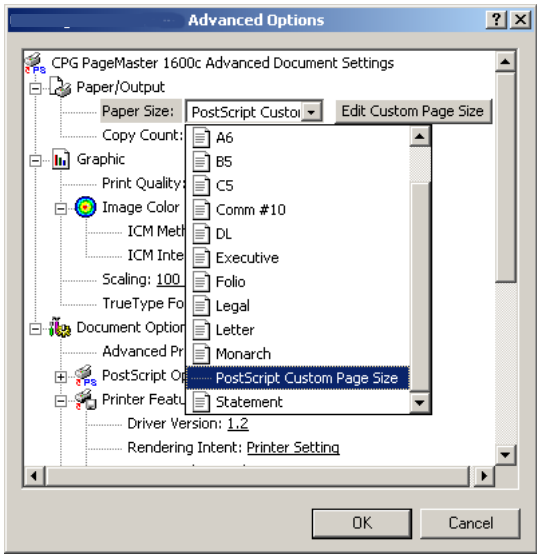
3. Click on the **Advanced** button.



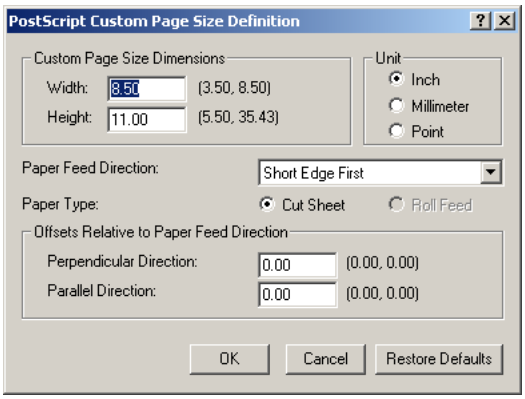
4. Click on the Paper Size button.



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.

Custom Page size and Microsoft Word, Word 2000, and Word 2003

When you specify a PostScript custom page size in the Paper Size box in the advanced printer properties for a supported printer, the custom size setting appears to be ignored if you have configured Microsoft Word to use the PostScript Custom Page Size setting. Word defaults to the default size of 8.5 by 11 inches.

Resolution

If you want to use PostScript custom page sizes that are supported by a printer, the only way to make them work correctly in Word is to add custom forms to Windows and then to choose those form names in Word. By using this method, the PostScript Page Size setting in Word is ignored, and the newly added forms are used instead.

Create a custom form for printing to a non-standard paper size in Microsoft Windows NT 4.0, Windows 2000, and Windows XP.

To create a custom form, follow these steps:

- Navigate to **CONTROL PANEL**, double click **PRINTERS**.
- On the **FILE** menu, click **SERVER PROPERTIES**.
- On the **FORMS** tab, select the **CREATE A NEW FORM** check box.

Enter the settings for the new form.

NOTE: When you set up a custom form, the margins cannot go beyond the confines of the specifications for the installed printer driver. Printable regions must be adhered to with regard to margin limits for the printer and driver in use.

- Click **SAVE FORM** or **OK**

To use the new form as the default form, follow these steps:

WINDOWS NT

- In **CONTROL PANEL**, double-click **PRINTERS**.
- Right-click the printer you want to select, and then click **DOCUMENT DEFAULTS**.
- In the **PAPER SIZE** box, click the new form.
- Click **OK**.

WINDOWS 2000 AND XP

- In **CONTROL PANEL**, double-click **PRINTERS**.
- Right-click the printer you want to select and then click **PROPERTIES**.
- On the **GENERAL** tab, click **PREFERENCES**.
- On the **PAPER QUALITY** tab, click **ADVANCED**, and then in the **PAPER SIZE** drop down menu, select the custom form size.
- Click **OK**.

To use the new form from a program, follow these steps:

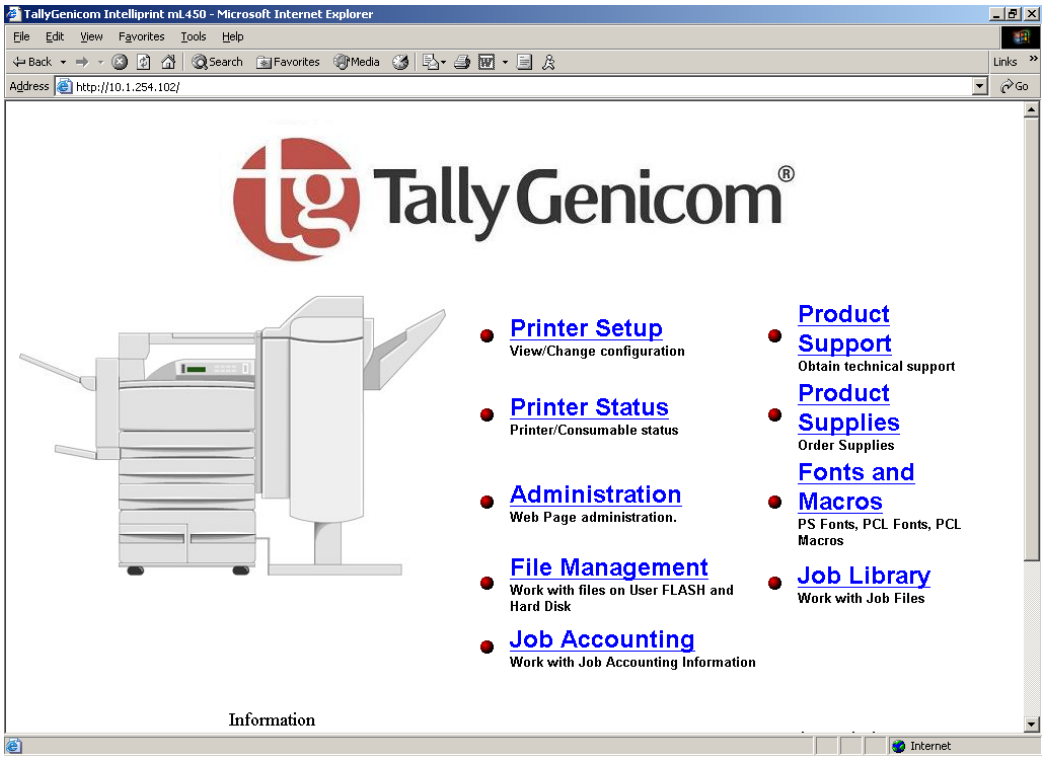
- In the program, click **PRINT.**
- In the **PRINT** dialog box, click **PROPERTIES**.
- In the **PAPER SIZE** box, click the new form.
- Click **OK**.
- Click **OK** to print.

NOTE: New forms are stored on the computer where they are created. When you create a new form for use with a shared printer, create the form on the print server.

NOTE: On a Windows 2000 and XP computer, occasionally the newly created form will not appears in the drop down list under paper size. If you encounter this, you may need to select an existing form under server properties, modify the settings, check box to create a new form, change the form name and save the form. Once you save the form, it should appear in the paper size drop down box.

Accessing the Printer Web Page

You can access the printer web page by going to the internet browser and typing the IP address of your network printer (http://IP ADDRESS). You can directly access the printer control panel on the web and it allows you to view and change the printer settings. Following is an example of the printer web page:



When you access the printer web page it will display your printer name and logo and provide access to the following menus:

Main Page of Printer Web Site	Submenu 1 of Printer Web Site	Submenu 2 of Printer Web Site
Printer Setup You can view and change printer configuration. With access to the following menus:	*Paper Menu* Provides access to the printer settings for various paper-handling functions:	Copies Duplex Duplex Bind Default Source Manual Feed Output Tray Media Size/Type Tray Linking Job Offset Blank Pages Face Up Inst MBF First Auto Resize Separator Page Custom Size Unit
	Interface Menu Provides access to the printer interface settings:	Port Parallel Network 1 Parallel Setup Interpreter Format Mode Delay Out Close Network 1Setup Interpreter Format Network Address IP Address Subnet Mask Default Router LPD Banner DHCP Delay Out Close Host Name mDNS Host Name mDNS Svc Name Multi-Session AppleTalk Binary PS
	PS Menu Provides access to the PostScript settings:	Print PS Errors Manual Feed TO

Main Page of Printer Web Site	Submenu 1 of Printer Web Site	Submenu 2 of Printer Web Site
	PCL Menu Provides access to the PCL settings:	Orientation Font Source Font Number Pitch or Point Size Symbol Set Macro Filter Lines Per Page CR Mode LF Mode FF Mode Print Area Parameter Values Paper Source Paper Size
	System Menu Provides access to the system settings:	Display Language Alarm Control Power Saver Wait Timeout Job Timeout Jam Recovery Hex Print Toner Out Page Compression Intellifilter
	Quality Menu Provides access to the printer settings that are related to print quality:	Print Density Toner Saver
Printer Status Displays printer option and consumables status. You can view the current settings for the Input options on your printer and the Output options installed.		
	Input	Displays paper trays and the paper size, type and capacity levels of all installed trays and options.
	Output	Displays output paper trays and capacity level.
	Consumable Information	Displays all toner cartridge percentage used. Also displays the Toner Page Count and Drum Time.
	Other	Sheet Counter Image Counter
Administration Displays security and factory defaults. Allows you to set up support and supplies web links.		
	Factory Defaults	

Main Page of Printer Web Site	Submenu 1 of Printer Web Site	Submenu 2 of Printer Web Site
	Console Security	
	Refresh Rate	
	Support Link	
	Supplies Link	
	Admin. Name	
	Password	
	Confirm Password	
File Management* Allows you to access (print or delete) files stored on your Hard Disk or User Flash.		
Only appears if User Flash is installed.	*User Flash Files*	You can view contents of folder, retrieve files or delete print files.
	Format User Flash	Allows you to format your User Flash.
	Print User Flash Summary	Prints a summary page of the files stored in the User Flash.
Only appears if Hard Disk Option is Installed.	*Hard Disk Files*	You can view contents of folder, retrieve files or delete print files.
	Format Hard Disk	Allows you to format your Hard Disk.
	Print Disk Summary	Prints a summary page of the files stored on the Hard Disk.
Job Accounting* View, retrieve, or reset job accounting information.		
	Enable/Disable	Click Yes or No to Enable or Disable Job Accounting
	Retrieve Job Accounting File	Retrieve a job file and upload the file information to a CSV file.
	Display Job Accounting Info	Displays all job information such as job name, user name, port, protocol, pages, date/time and duration.
	Reset All Job Accounting Info	Deletes all stored Job Accounting information.
Product Support Direct link to obtain technical support	*Takes you to the Product Support Website where you can obtain technical support.*	

Main Page of Printer Web Site	Submenu 1 of Printer Web Site	Submenu 2 of Printer Web Site
Product Supplies Direct link to order supplies	*Takes you to the Product Supplies Website where you can order product supplies.*	
Fonts and Macros* Allows you to view the PostScript Fonts and PCL Fonts, stored internally on your printer. Also allows you to view Macros stored on your Hard Disk or User Flash Options.	*PS Fonts* *PCL Fonts* *Macros*	
Job Library* Takes you to the job library where you can view all user folders and print jobs. Also allows access to print or delete all files stored in your job library on your Hard Disk or User Flash Option.	*View contents of user folder.* *Retrieve files.* *Delete or print selected files.*	

NOTE: *These menus only appear if you have a Hard Disk or User Flash Option installed.

Using the RS-232C/RS-422 Serial Interface

This section lists the Serial Interface setup features and available selections via the control panel menus. The Serial Interface connector pinouts are listed. Troubleshooting error messages appearing on the printer's control panel are also discussed.

Control Panel MENU structure

When the RS-232C/RS-422 serial interface 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 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 On/Off

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

DTR Error

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS Ready/Busy

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS On/Off

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

RTS Error

AVAILABLE SELECTIONS	Off On
DEFAULT	Off

XON Ready/Busy

AVAILABLE SELECTIONS	Off On
DEFAULT	On

XON On/Off

AVAILABLE SELECTIONS	Off On
DEFAULT	On

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 selections 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:

NET*x*: 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	Overrrun 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.

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Appendix A

General Information

- "About this Appendix" on page A-2
- "Specifications" on page A-2
- "Printable Area" on page A-3

About this Appendix

Provides printer specifications and information on the EP cartridge and the printable area of a page.

Specifications

Main Unit

Printing principle	Semiconductor laser beam scanning Xerography
Print speed	45 pages per minute (A4 sideways feed, identical content for printing)
Warm-up time	Max. 60 seconds after power-on or deep sleep mode (at 22° C)
Resolution	240, 400, 480, 600 dpi (fixed) 400, 480/400, 600/480, 600 dpi (variable)
Paper capacity	Multi bypass feeder: 50 sheets or up to 3/16" (5 mm high) (at 80 g/m^2)
Paper sizes	Cassette: A5 to A3 (A5 available only for cassette 1) Multi bypass feeder: Postcard up to A3
Output tray capacity	500 sheets (A4, 80 g/m^2)
Noise	During printing: max. 46 dB During standby: max. 36 dB
Power requirements	110 V: 100/115 VAC ± 10% 220 V: 220 VAC ± 10% 50/60 Hz ± 3 Hz
Power consumption	During operation: max 900W (115 V: 8A, 220V: 4.5A)
Temperature range for operation	50 to 90° F (10 to 35° C)
Humidity range for operation	15 to 85% (no condensation)
Dimensions	Base Width: 762 mm (30 in.) Depth: 520 mm (20.5 in.) Height: 486 mm (19.1 in.) Base (with HCF, and Finisher/Stapler Installed) Width: 1549 mm (61 in.) Depth: 711 mm (28 in.) Height with Finisher/Stapler in lowest position: 1092 mm (43 in.) Height with Finisher/Stapler in highest position: 1651 mm (65 in.)
Weight	about 106 lbs. (48 kg) (without paper or EP cartridge) 300 lbs. (136 kg) with Finisher
Ambient conditions for storage	Temperature: -20 to 40° C (-4 to 104° F) Temperature 15 to 85% (no condensation)

CAUTION: The EP cartridge requires special care. Failure to follow these precautions may result in poor printer performance or damage to your printer.

- Do not remove the EP cartridge from its packing until use. If it is removed, immediately put it back into the packing.
- Avoid direct sunlight. Keep the EP cartridge in the following environment:
  - Temperature: 0 to 35ºC Humidity: 15 to 80% RH (no condensation).
- Do not place the EP cartridge in a location with high temperature and high humidity.
- Do not turn the cartridge over and do not stand it on its end.
- Keep the EP cartridge away from CRT, disk drive, floppy drive, or any magnetic objects.
- Keep the EP cartridge out of reach of children.

To order an EP cartridge, contact your point of purchase.

Printable Area

Normal printing

Printable area is up to 5/32" (4 mm) from the edge of each side of a sheet of paper.

Wide printing

When the host computer issues the command for wide printing, then the printable area is from edge to edge on all sides of a sheet of paper. However, depending on the paper type, edge-to-edge printing may not be possible.

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Appendix B

Safety Notes and Regulatory Compliances

In this Chapter . . .

- "About this Appendix" on page B-2
- "Safety Notes" on page B-2
- "Regulatory Compliances" on page B-5

About this Appendix

Describes cautions to take when installing, transporting, or operating the printer. Also includes applicable regulatory compliances of your printer.

Safety Notes

WARNING: Two power specifications are listed below. The specifications that apply to your machine depend on your machine configuration. Connect the power plug only to a properly rated power outlet. Otherwise, it can cause a fire or shock hazard. If in doubt, contact your point of purchase.

Rated voltage 110V
Rated frequency 50/60Hz

Rated voltage 220-240V
Rated frequency 50/60Hz

WARNING: Never use multi-plug adaptors to plug multiple power plugs in the same outlet. Be sure to operate the machine on a sole-use receptacle. Multiple connectors can cause the outlet to overheat and cause a fire. Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous laser radiation exposure.

Power Source, Power Cord and Accessory Cable Precautions

- If you use a cord with an unspecified current rating, the machine or plug may emit smoke or become hot to the touch externally.
- Do not attempt to rework, pull, bend, chafe, or otherwise damage the power cord. Do not place a heavy object on the cord. A damaged cord can cause a fire or shock hazard.
- Never touch a power cord with wet hands. Danger of electric shock exists.
- If the power cord is broken or insulated wires are exposed, contact your point of purchase for a replacement. Using a damaged cord can cause a fire or shock hazard.
- When unplugging the machine, grasp the plug instead of the cord. Forcibly pulling on a cord can damage it and cause a fire or shock hazard.
- Be sure to switch off and unplug the machine before accessing the interior of the machine for cleaning, maintenance, or fault clearance. Access to a live machine's interior can cause a shock hazard.
- When the machine is not used over an extended period of time, switch it off and unplug it. If an unused machine is left connected to a power source for a long period, degraded insulation can cause a shock, leak current, or fire hazard.
- Once a month, unplug the machine and check the power cord for the following.
  - The power cord is plugged firmly into a receptacle.
  - The plug is not excessively heated, rusted, or bent.
  - The plug and receptacle are free of dust.
  - The cord is not cracked or frayed.

Switch off the machine before connecting the interface cable or optional accessory. Connecting the cable or accessory with a live machine can cause a shock hazard.

CAUTION: Ensure that the plug connection is free of dust. In a damp environment, a contaminated connector can draw a non-negligible amount of current that can generate heat and eventually cause a fire over an extended period of time.

CAUTION: Do not unplug or plug the machine in while it is on. Unplugging a live connector can deform the plug and cause a fire.

Location and Environment Precautions

- Do not place the machine in a hot, humid, dusty, or poorly ventilated environment. Prolonged exposure to these adverse conditions can cause a fire or shock hazard.
- When moving the machine, be sure to unplug the power cord from the outlet. If the machine is moved with the power cord connected, it can cause damage to the cord which could result in a fire or shock hazard.
- When moving the machine, do not tilt it more than 10 degrees. If tilted excessively, the machine may fall over and cause injuries.
- The machine is capable of operating normally within the following recommended environmental limits.
- Temperature range 10-35°C Humidity range15-85%(no condensation)
- Humidity should be 70% or below at 32°C and temperature should be 28°C or below at 85% humidity.
- Do not expose the machine to direct sunlight. Exposure to direct sunlight can adversely affect the machine's performance.
- For information on how to secure the printer against movement or tipping in case of an earthquake, please contact your point of purchase.
- Place the machine on a level and sturdy surface that can withstand the machine weight. If tilted, the machine may fall over and cause injuries.
- The machine weighs about 48kg. When carrying the equipment, play it safe. Get help.
- When lifting the machine, face the front panel and firmly grip the recessed areas provided on both sides of the machine. Never try to lift the machine by gripping any other areas. Lifting the machine by gripping any other areas can cause the fall of the machine, resulting in injuries.
- When lifting the machine, get a firm footing and bend your knees to avoid possible injuries to your back.

NOTE: Sudden temperature fluctuations can affect copy quality. Rapid heating of a cold room can cause condensation inside the machine, directly interfering with image transfer.

Fire, Smoke and Shock Precautions

- Do not place any liquid container such as a vase or coffee cup on the machine. Spilled water can cause a fire or shock hazard.
- Do not place any metal part such as staples or clips on the machine. If metal and flammable parts migrate into the machine, they can short internal components, and cause a fire or shock hazard.
- If debris (metal or liquid) migrates into the machine, switch off and unplug the machine. Contact your point of purchase. Operating a debris-contaminated machine can cause a fire or shock hazard.
- Never open or remove machine covers that are secured with screws unless specifically instructed in the "User's Manual."
- A high voltage component can cause a shock hazard.
- Do not try to alter the machine configuration, or modify any parts. An unauthorized modification can cause smoke or fire.
- Never throw a drum cartridge into an open flame. Toner remaining in the cartridge can cause an explosion and you can get burnt.
- Do not place a magnet near the safety switch of the machine. A magnet can activate the machine accidentally, resulting in injuries.
- Do not place any heavy object on the machine. An off-balance machine can fall over or the heavy object can fall, causing injuries.
- Do not use a highly flammable spray near the machine. It can cause a fire.
- Stop operation immediately if your machine produces smoke, excessive heat, unusual noise, or smell, or if water is spilled into the machine. These conditions can result in a fire. Immediately switch off and unplug the machine, and contact your point of purchase.
- To prevent a fire or shock hazard, follow the instruction below based on your machine configuration. If in doubt, contact your point of purchase.

CAUTION: Do not place the machine near heaters or volatile, flammable, or combustible materials such as curtains that may catch fire.

Paper Jam Precautions

- The fuser becomes very hot in operation. If a paper jam has occurred, turn the power off and wait at least 40 minutes before removing the drum cartridge and touching the fuser section.
- When clearing a jammed paper that is difficult or impossible to see, do not try to remove it by yourself. Doing so can cause injuries. Contact your point of purchase.
- When removing jammed paper, make sure that no pieces of torn paper are left in the machine. A piece of paper remaining in the machine can cause a fire.
- If a sheet of paper is not able to be removed or wrapped around the heat roller, do not try to remove it by yourself. Doing so can cause injuries. Switch off the machine immediately, and contact your point of purchase.

Regulatory Compliances

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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult with the dealer or an experienced radio/television technician for help.
- Always use the power cord provided with your machine. When an extension power cord is required, always use a properly rated cord.
- In Japan: 125V/15A
- In other countries: Contact your point of purchase.

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.

Class 1 Laser Device and CDRH Compliance

This equipment is certified as a Class 1 laser product. This means that the machine does not emit hazardous laser radiation.

Do not try anything which is not instructed in this User's guide. An unauthorized operation can cause injuries or damage to the machine.

This equipment is in the 2nd class category (information equipment to be used in a residential area or an adjacent area thereto) and conforms to the standards set by the Voluntary Control Council For Interference by Information Technology Equipment aimed at preventing radio interference in such residential area.* When used near a radio or TV receiver, it may become the cause of radio interference. Read the instructions for correct handling.

* This regulation applies only to Japan.

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 means 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.

Radio and Television Interference

When installed at a certain location, the machine may cause interference with radio and television reception. If you notice flickering or distorted images or noises on your audio-visual units, your machine may be causing radio interference.

Switch it off, and if the interference disappears, the machine is the cause of radio interference. Perform the following procedure until the interference is corrected.

- Move the machine and the TV and/or radio away from each other.
- Reposition or reorientate the machine and TV and/or radio.
- Unplug the machine, TV and/or radio, and replug them into outlets that operate on different circuits.
- Reorientate the TV and/or radio antennas and cables until the interference stops. For an outdoor antenna, ask your local electrician for support.
- Use coaxial cable antennas.

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Appendix C

TallyGenicom Customer Support and Part Numbers

In this Chapter . . .

- "About this Appendix" on page C-2
- "Sources of Support" on page C-2
- "TallyGenicom Intelliprint mL450 Part Numbers" on page C-3

About this Appendix

This appendix lists the part numbers for TallyGenicom Intelliprint mL450 printers, options, and consumables. To order parts, contact your local authorized TallyGenicom dealer. This appendix will familarize you with TallyGenicom and how to contact TallyGenicom for support.

Sources of Support

Several sources of help and information are available, depending on the type of help you need:

Your Vendor

Your local vendor (the one from whom you bought the 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 manufacturer is the best source of help.

Internet

The TallyGenicom server provides access to technical reports, new product announcements, a trade show schedule, and other general information about TallyGenicom. Many support features are available through the web site, including support by e-mail and technical documents.

You can access the TallyGenicom world wide web server via any one of the many world-wide web browsers available to Internet users. The TallyGenicom home page is at http://www.TallyGenicom.com.

TallyGenicom Technical Support

North America: Phone 425-251-5532 for call-back service Monday through Friday: 6:00 AM to 4:30 PM PST/PDT. Please be aware that our peak activity times are between 11:00AM and 2:00PM. Calling outside of this time frame may result in quicker access to one of our representatives.

If you call for assistance, have the following information ready so our technicians can help you more quickly:

- 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 interface you are using, and, if serial, the protocol
- The application and version you are using
- The emulation you are using
- Your printer firmware version (listed on the status/start-up pages)

TallyGenicom Intelliprint mL450 Part Numbers

Printers

TallyGenicom Part Number	Description
ML450N-CA	Intelliprint mL450 Laser Printer, Ethernet, US/Canada
ML450N-CC	Intelliprint mL450 Laser Printer, Ethernet, C.E.

Paper Handling and Other Options

TallyGenicom Part Number	Description
ML450F-TL	ML450/LN45 2500 Sheet Feeder
ML450F-SA	ML450/LN45 3000 Sheet Finisher/Stapler, US/Canada
ML450F-SB	ML450/LN45 3000 Sheet Finisher/Stapler, C.E.
ML450F-DA	ML450/LN45 Duplexer
ML450F-TE	ML450/LN45 Envelope Feeder
ML450F-TF	ML450/LN45 Face Up Tray

Network Interfaces

TallyGenicom Part Number	Description
MLXXXF-SI	RS-232C/422 Serial Option
ML450N-CS	IBM Coax/SCS Network Interface
ML450N-TS	IBM Twinax/SCS Network Interface
ML450N-CI	IBM Coax IPDS Network Interface
ML450N-TI	IBM Twinax IPDS Network Interface
ML450N-EI	LAN/IPDS DIMM

DRAM, FLASH DIMM, Barcode and Hard Disk Drive Options

TallyGenicom Part Number	Description
MLXXXM-64	64MB DRAM Memory DIMM
MLXXXM-128	128MB DRAM Memory DIMM
MLXXXF–FP	16MB User FLASH DIMM
MLXXXF-BP2	DIMM, Barcodes Plus
MLXXXF-BE2	DIMM, Barcodes Extended
MLXXXF-HD	30 GB Hard Disk

Consumables

TallyGenicom Part Number	Description
ML450X-AA	45 PPM Toner Cartridge
ML450X-MA	45 PPM Toner Cartridge, MICR
ML450X-AG	45 PPM Maintenance Kit, US/Canada
ML450X-BG	45 PPM Maintenance Kit, C.E.
ML450X-AS	45 PPM Staple Refills (3 sets of 5000)

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