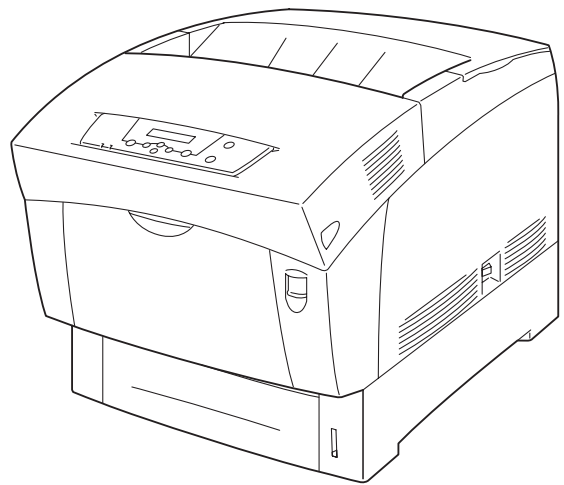


# **PageMaster 1600c**

## *Installation Guide*



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Internet:[www.cpg-i.com](http://www.cpg-i.com)

E-mail:[sales@cpg-i.com](mailto:sales@cpg-i.com)





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# Preface

## **In this Chapter . . .**

- “Welcome” on page 2
- “About the Printer” on page 2
- “How This Manual is Organized” on page 3

## Welcome

Thank you for selecting the PageMaster 1600c laser printer. In this manual you will find important information about the operation and care of your printer. Please read this manual in its entirety and keep it at hand for later reference.

## About the Printer

### Features

This printer provides the following high-grade features to satisfy a wide variety of printing requirements. Your laser printer has the following features:

- High quality, high-resolution full color laser printing at 600/1,200 dpi with duplex printing capabilities.
- High-speed 600 dpi monochrome/color output at 16 pages per minute and 8 pages per minute monochrome/color output at 1,200 dpi.
- Printing on a wide variety of sizes such as postcards, A5 through A4, and long paper (215.9 mm × 900 mm).
- With the optional High Capacity Feeder installed, you can increase printing efficiency by using both paper trays. You can set up to 1,600 sheets with this option. The illustration on the following page shows the printer with the optional High Capacity Feeder installed.
- Easy operation, the easy-to-read control panel display clearly shows the status of printer operation. Control panel pushbuttons allow you to access and view printer menus, submenus, and status messages.
- Network-readiness, the standard configuration of the printer includes an Ethernet Network Interface Card.

### Available Configuration

The PageMaster 1600c printer is available in the following configuration:

#### *Standard Configuration*

- Memory: 256 MB
- Resolutions: 600 x 600 dpi, and 1200 x 1200 dpi
- Paper Input: One 500-sheet A4/letter paper tray and one 100-sheet front tray for paper, transparencies, envelopes, and other non-standard print media
- Paper Output: One 250-sheet face-down tray
- Interfaces: IEEE 1284 Parallel, USB, 10/100BaseT, 10Base2
- Printer Languages: PCL6, Adobe Postscript 3

- The illustration below shows the printer with the optional High Capacity Feeder installed.



---

NOTE: Various optional accessories are also available for the printer.

---

## **How This Manual is Organized**

This manual consists of three chapters and 1 appendix 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 Understanding and Navigating the Control Panel Menus**

Explains the printer control panel, and describes the menu structure and menu navigation.

### **Chapter 3 Troubleshooting**

Explains procedures to isolate and solve problems that may occur during the installation of your printer. Control panel LCD error messages are also discussed in this chapter.

### **Appendix A Safety and Regulatory Compliance**

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

## Manual Conventions

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

---

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

---



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



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



# Chapter 1

## Unpacking and Installing Your Printer

### In this Chapter . . .

- See “About this Chapter” on page 1-2
- See “Positioning the Printer” on page 1-2
- See “Accessories” on page 1-4
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- See “Printing PCL and PostScript Font Lists” on page 1-29
- See “Turning the Printer Off” on page 1-29

## About this Chapter

This chapter describes how to select an appropriate installation location, what accessories are provided with the printer, and the installation procedures required once you have chosen a location for your printer.

## Positioning the Printer

For safe and convenient printer operation, take time to read the information in this section when deciding where to place your printer.

### Installation Environment

Place the printer in a location that meets the following conditions:

- Level and stable surface.
- Well ventilated.
- Ambient temperature range of 10 to 32°C, relative humidity 15 to 85% (no condensation).
- If you use the printer at an ambient temperature of 32°C, the relative humidity should not exceed 65%. If the relative humidity reaches 85%, the ambient temperature should not exceed 28°C.

---

**NOTE:** Do not position the printer in a room where there are sudden temperature fluctuations. Do not move the printer from a cool, dry location to a warm, humid location. Sudden temperature fluctuations can cause water droplets (condensation) to form inside the printer and cause the print quality to deteriorate. If condensation occurs, allow at least one hour for the printer to adapt to the new environment before use.

---

### *Connect the printer to its own AC outlet*

Do not plug any other equipment into the printer's AC outlet, especially high-current equipment such as copiers or air conditioners. Electrical noise and voltage fluctuations from other equipment plugged into the same outlet can cause computing errors and data loss.



**WARNING:** Connect the power plug to an AC outlet with the same voltage as the printer (220V), and rated for at least 15A. No other devices should be plugged into this AC outlet, as overheating could cause fire or electrical shock. The printer draws 8.5A at 220V.

---

Avoid exposing the printer to:

- Direct sunlight
- Air conditioners or heaters
- Windy locations
- Surfaces subject to vibration
- Dusty or dirty places
- Naked flames
- Humidity
- Magnetic fields
- Wide ranging temperature and humidity fluctuations

### ***When using an ultrasonic water vaporizer***

Using tap or well water with ultrasonic water vaporizers disperses impurities into the air. These impurities can accumulate inside the printer and cause print quality to deteriorate. If you install the printer in the same room as an ultrasonic water vaporizer, use only filtered water in the water vaporizer.

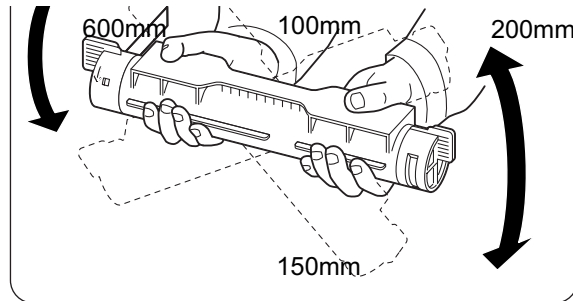
### **Minimum Installation Clearances**

Be sure to install the printer in a location that respects the minimum clearances indicated in the illustrations below.

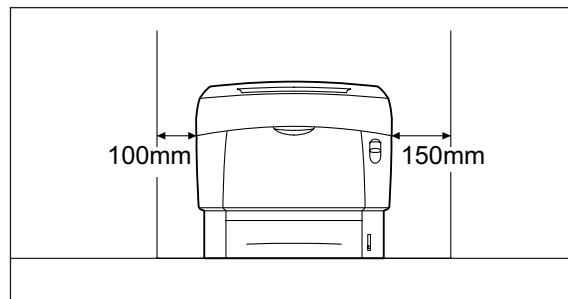


**CAUTION:** To avoid obstruction of the ventilation grills on the back and the side of the printer, position the printer no less than 150 mm from the wall on the right side, 100 mm from the wall on the left side, and 200 mm from the wall at the back. Obstructing the ventilation grills can cause the printer to overheat and become a fire hazard. To allow easy routine maintenance, replacement of consumables, proper operation and ensure satisfactory performance, confirm that the printer's position is as illustrated below.

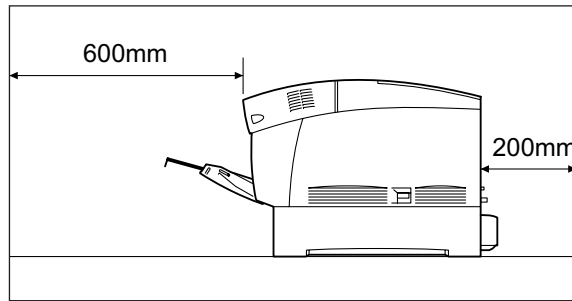
***Top View***



***Front View***



### Side View



## Accessories

The standard printer package consists of the following items. Before installing the printer, confirm that all the items listed below are accounted for.

---

**NOTE:** Keep the box and packaging in case you need to transport the printer over long distances in the future.

---

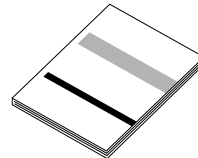
**NOTE:** For information about optional accessories for the printer, please refer to *Chapter 6 Options* of the *PageMaster 1600c User Guide* (located on the *PageMaster 1600c* Electronic Library) and the literature accompanying the optional accessories.

---

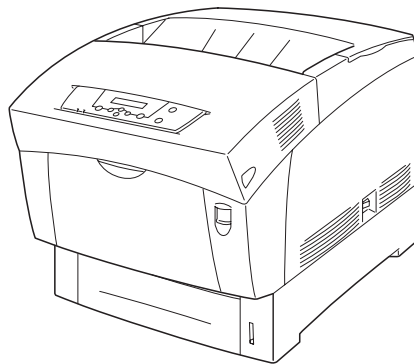
PageMaster 1600c  
Installation Guide



CD-ROM  
The PageMaster 1600c  
Electronic Library for  
your printer.

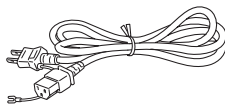


Printer

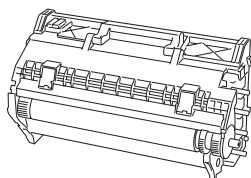


CD-ROM  
RCS (Remote  
Control Software)

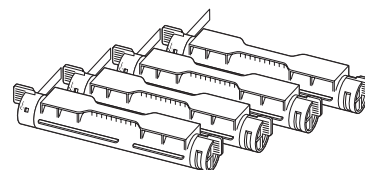
Power Cord



Drum Cartridge



Toner Cartridges: Black, Cyan, Magenta, Yellow



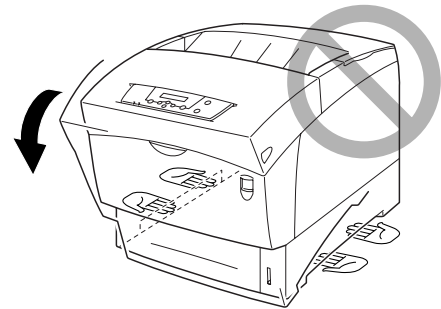
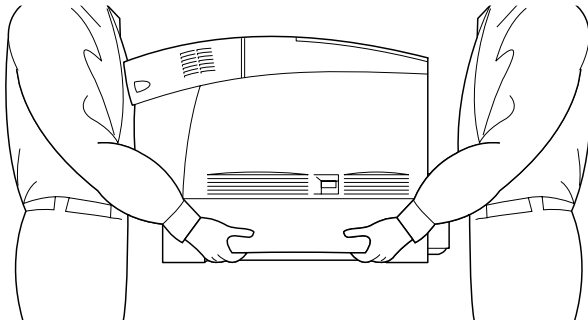
## Transporting the Printer

Note the following points when transporting the printer into position.



**CAUTION:** At least two people should carry the printer.

- Because the printer weighs 34.5 kg with the tray and consumables installed, at least two people should carry it.
- To lift the printer, face the front and back of the printer and grip the recessed areas at the bottom left and right with both hands. Never try to lift the printer by gripping any other areas. Lifting the printer by gripping other areas can cause the printer to fall, resulting in injury. Bend your knees when lifting the printer to avoid back injury.



There is danger of the printer falling.

### ***Keep the printer level.***

When carrying the printer, keep it level to prevent trays and consumables from falling out. Do not tilt it more than 10 degrees in any direction.

## Installation Procedure

Install the printer as follows:

1. Remove all the packing tape from the printer.
2. Remove all the spacers from the printer.
3. Install the drum cartridge.
4. Install the toner cartridges.
5. Load the paper.
6. Plug the power cord.

---

**NOTE:** Spacers are installed in various parts of the printer to protect it from shock and vibrations during shipping. Make sure you remove all the spacers before using the printer. If you purchased the optional High Capacity Feeder (2 shelves), install it first. For details on installing optional accessories, see *Chapter 6 Options* of the *PageMaster 1600c User Guide* (located on the *PageMaster 1600c* Electronic Library) and the literature accompanying the High Capacity Feeder.

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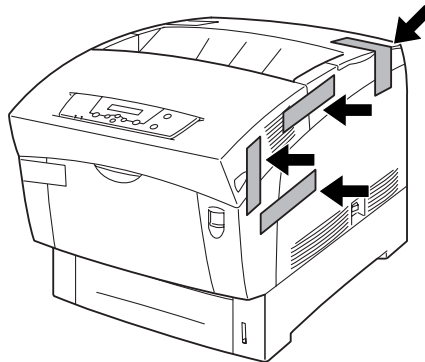
**NOTE:** Keep the cardboard box, handles, polystyrene packaging and spacers in case you need to transport the printer over long distances in the future.

---

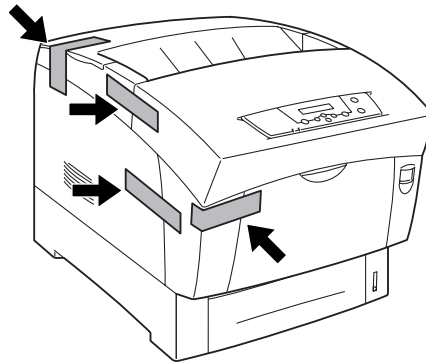
### Removing the packing tape

When you first remove the printer from its box, there is packing tape in 8 places to secure the covers during shipping. Refer to the illustrations below and remove all the packing tape from the printer.

#### *Right Side*



*Left Side*



**Removing the Spacers**

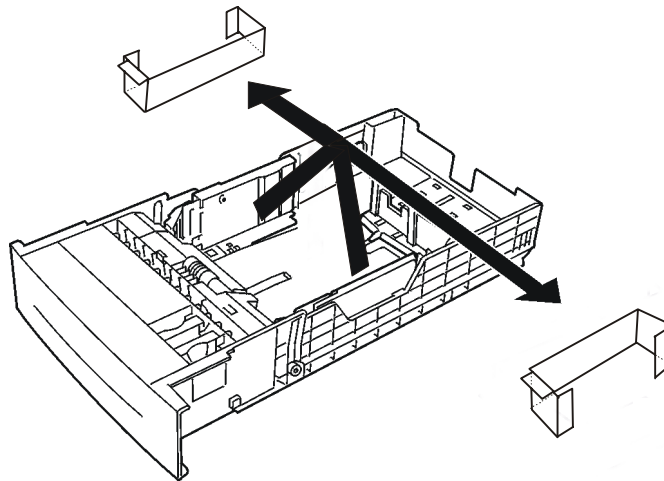
Two spacers are installed in the paper tray to protect it from shock and vibrations during shipping. Remove the spacers before using the printer.

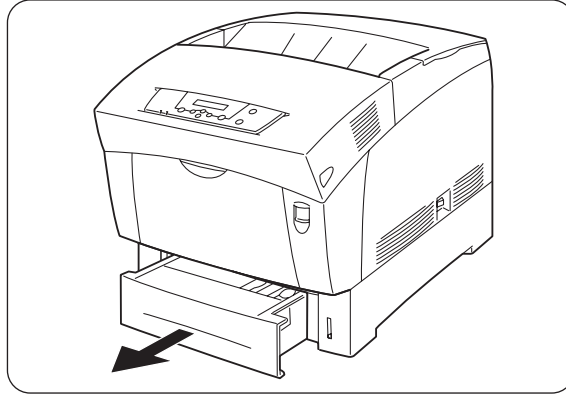
Follow the procedure below to remove the spacers from the paper tray.

---

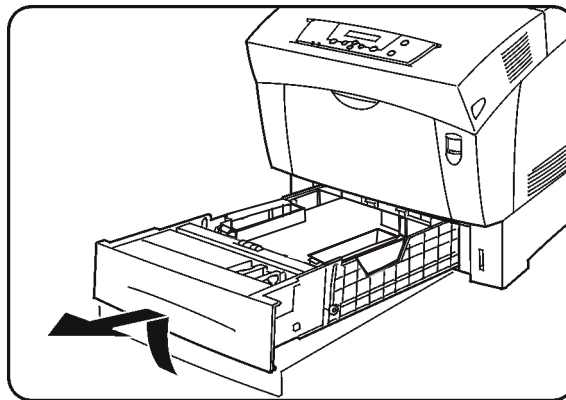
**NOTE:** Keep the spacers in case you need to transport the printer over long distances in the future.

---





1. Gently pull out the paper tray until it stops.

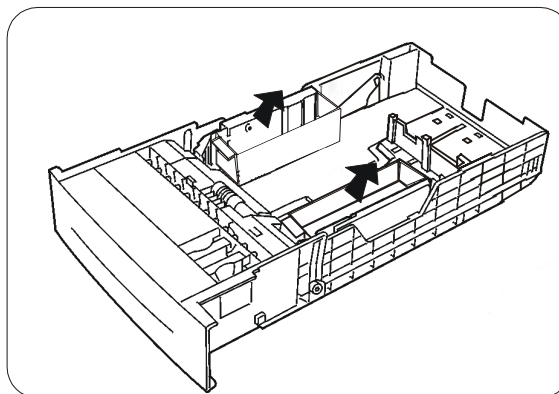


2. Hold the tray with both hands, lift the front up slightly and pull it completely out of the printer.

---

**NOTE:** Place the tray on a flat surface.

---

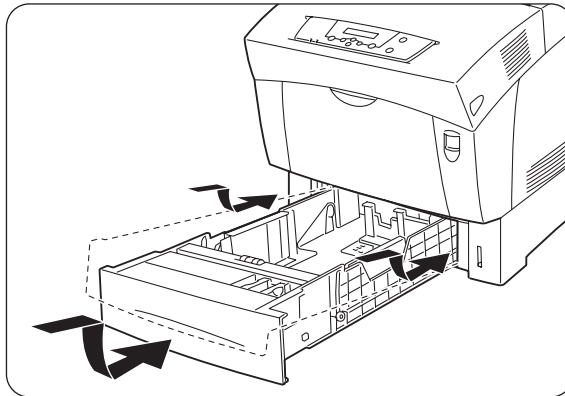


3. Remove the spacers.

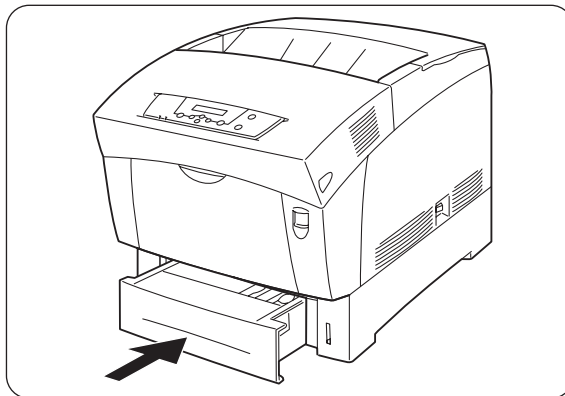
---

**NOTE:** Keep the spacers in case you need to transport the printer over long distances in the future.

---



4. Holding the paper tray with both hands, align it with the opening in the printer and gently insert it.



5. Push the paper tray completely back into the printer.

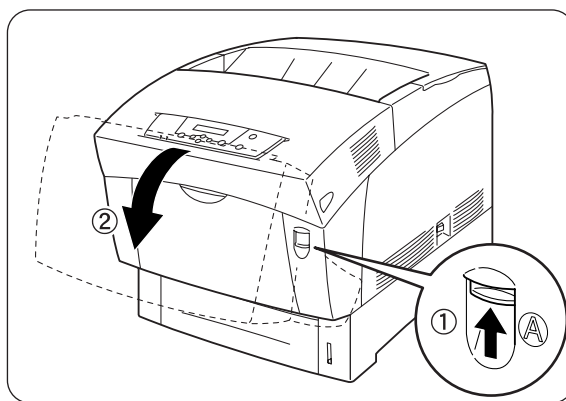
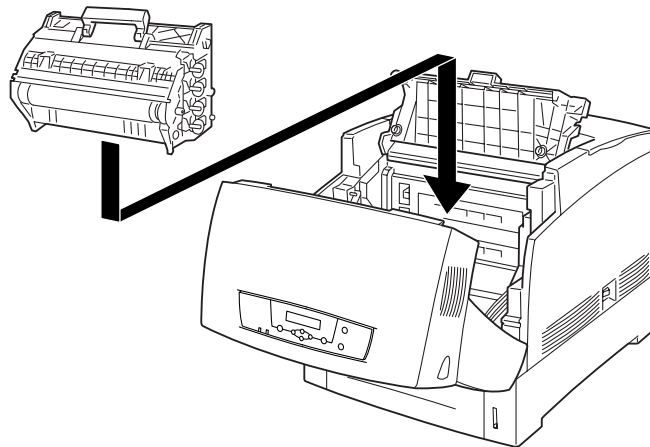
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**NOTE:** Do not use excessive force on the paper tray.

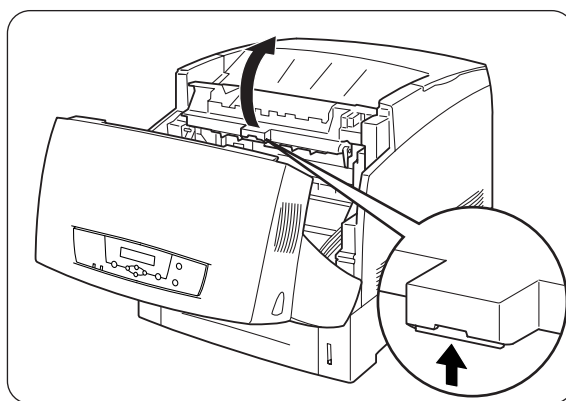
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### Installing the Drum Cartridge

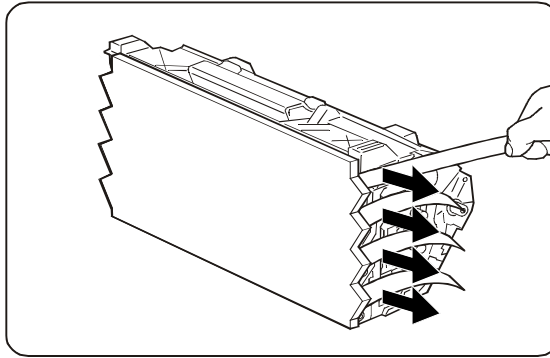
Follow the procedure below to install the drum cartridge.



1. Push up button 'A' 1 and fully open the front cover 2.



2. Open the paper outlet cover.

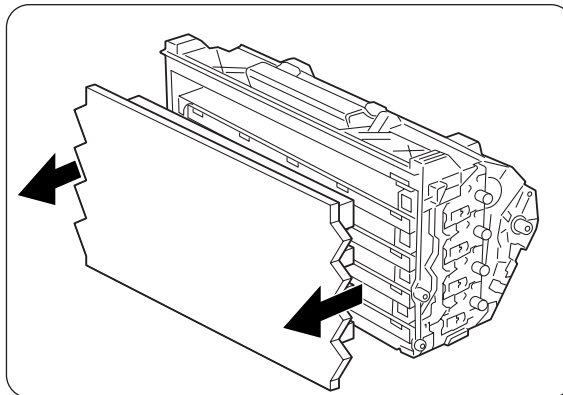
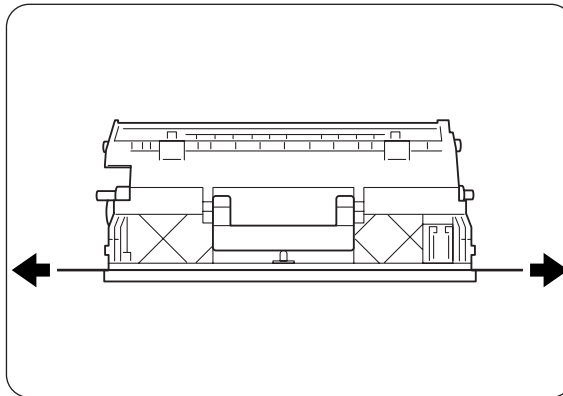


3. Take a new drum cartridge out of its package and pull hard on each the seals to remove them. Pull the seals completely out.

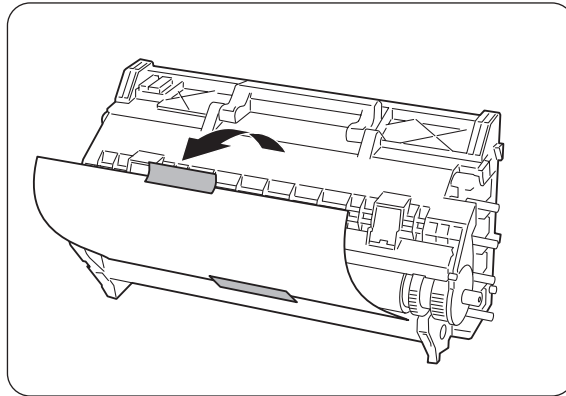
---

**NOTE:** Keep the aluminum package of the drum cartridge in case you need to transport the printer over long distances in the future.

---



4. Hold the left and right sides of the drum cartridge and remove the protective cover from it.



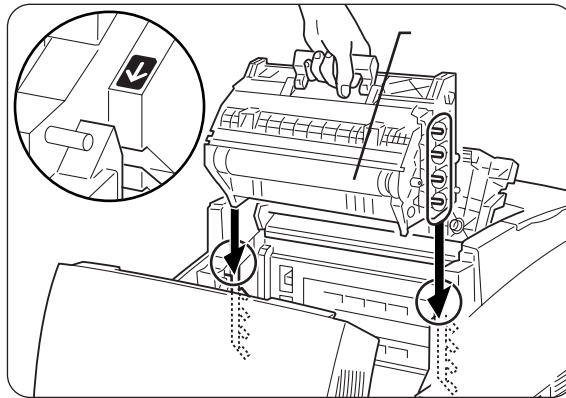
5. Remove the protective sheet from the drum cartridge as shown in the illustration.

---

**NOTE:**

- Do not touch the transfer roller (black colored part). Make sure nothing touches or scratches the roll surface. Scratches or oil from your hands on the drum deteriorates print quality.
- Make sure you remove the protective sheet. Installing the drum cartridge without removing the protective sheet deteriorates print quality.
- Remove the protective sheet with the drum cartridge in a horizontal position.

---

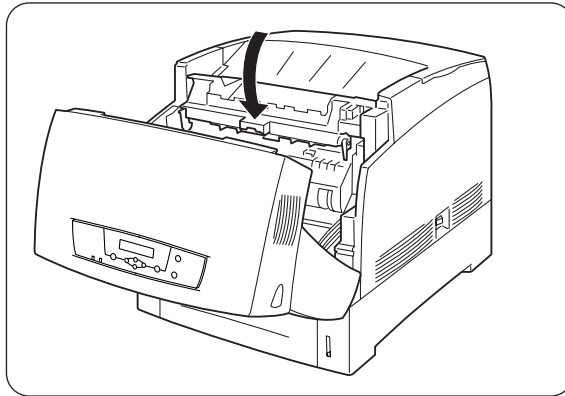


6. Hold the drum cartridge by the handle, align its 4 shafts with the slots indicated by the arrows on the printer, and gently lower it into the printer.

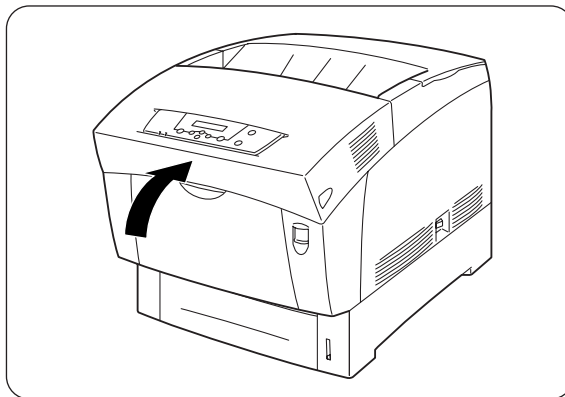
---

**NOTE:**    -Do not touch the transfer roller.  
              -Lowering the cartridge into the printer without correctly aligning the shafts with the slots can damage the cartridge.  
              -Do not allow the surface of the transfer roller to come into contact with anything.

---



7. Close the paper outlet cover.



8. Close the front cover.

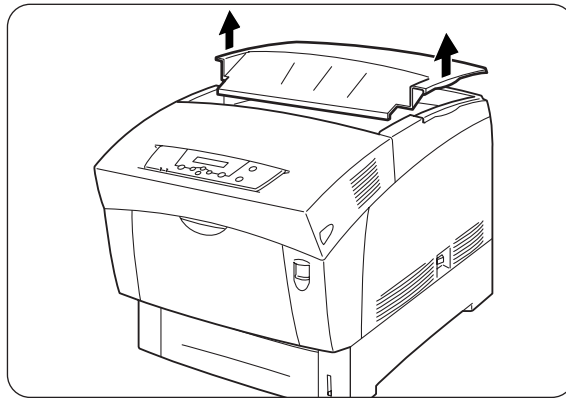
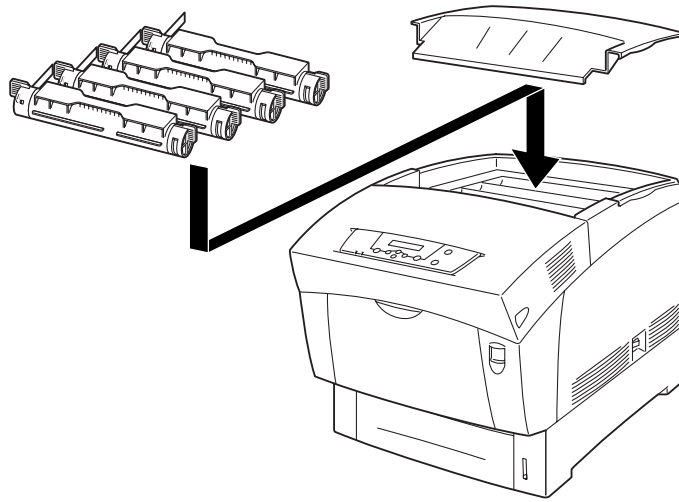
### Installing the Toner Cartridges

Follow the procedure below to install the toner cartridges

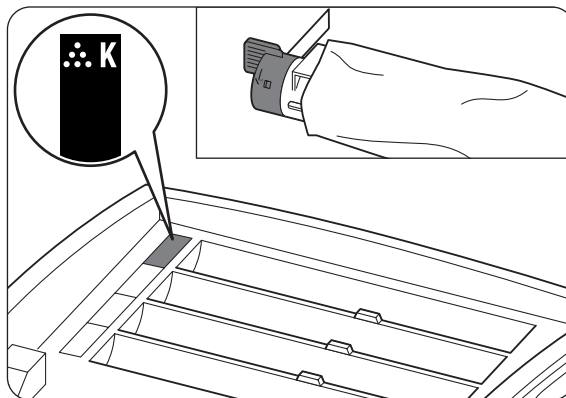
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**NOTE:**    The toner is harmless but should still be washed off immediately if it comes into contact with hands or clothing.

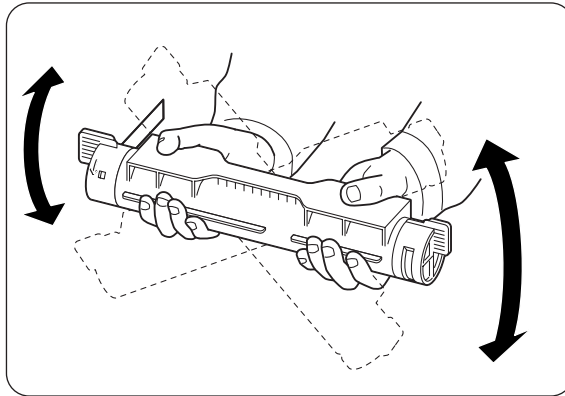
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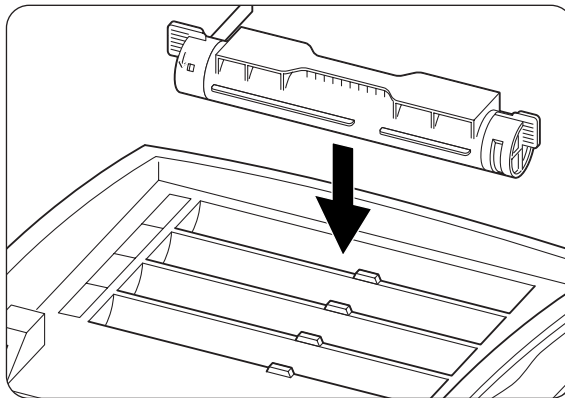
1. Remove the top cover.



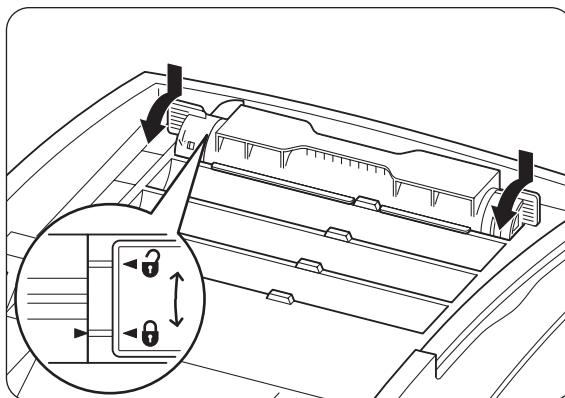
2. Select the new toner cartridge whose color matches the label on the insertion point and remove it from its packaging.



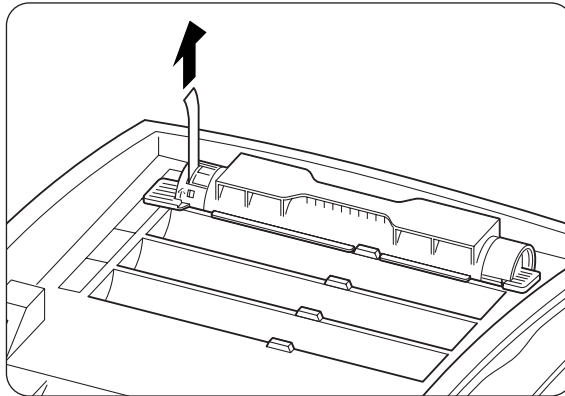
3. Shake the toner cartridge 7 or 8 times as shown in the illustration to distribute the toner evenly.



4. Align the toner cartridge with the corresponding insertion point in the printer and insert it as shown in the illustration.



5. Grip the levers at each end of the toner cartridge with your fingers, then push down lightly to rotate the levers forward.

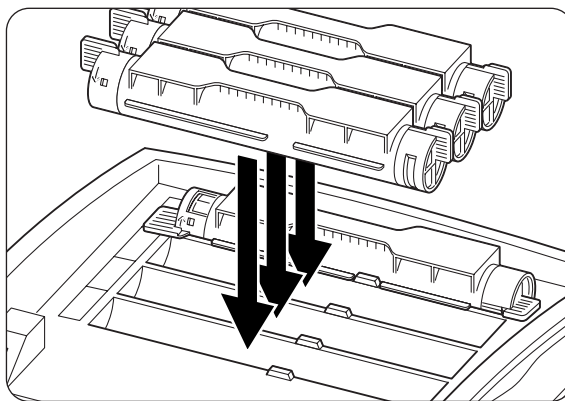


6. Pull the toner seal straight up to remove it.

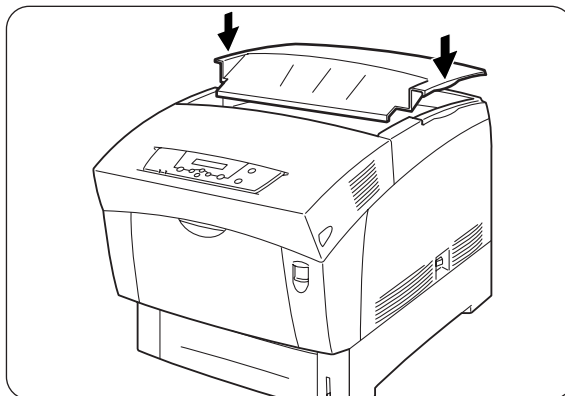
---

**NOTE:** Pull the toner seal straight up. Pulling the toner seal diagonally may tear the seal.

---



7. Repeat steps 2 - 6 to install the remaining toner cartridges.



8. Replace the top cover.

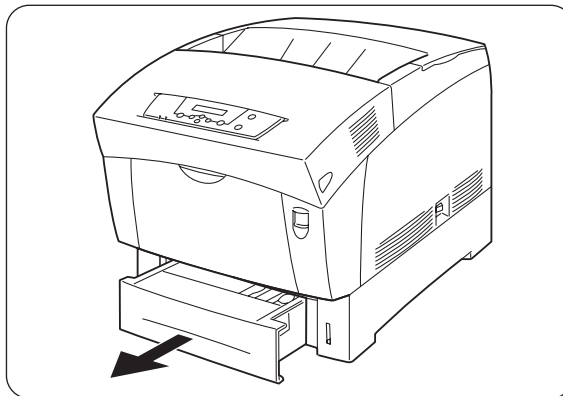
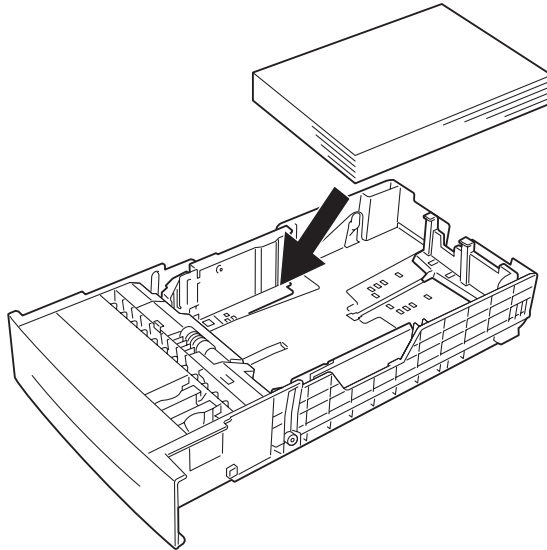
## Loading Paper

Follow the procedure below to load paper into the paper tray.

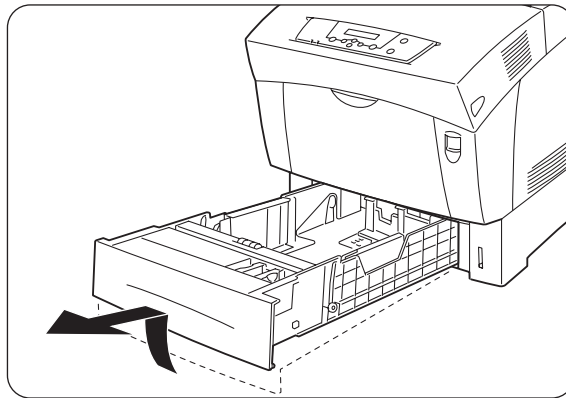
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**NOTE:** See “*Paper Handling*” in *Chapter 2* of the *PageMaster 1600c User Guide* for information about the types of paper suitable for printing. See “*Loading Paper in the Multi Purpose Tray*” in *Chapter 2* of the *PageMaster 1600c User Guide* for more details on setting paper in the manual feed tray. The *PageMaster 1600c User Guide* is located on the *PageMaster 1600c* Electronic Library CD-ROM.

---



1. Pull the paper tray out until it stops.

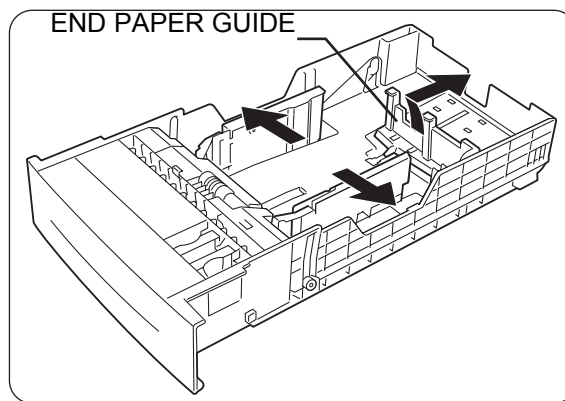


2. Hold the tray with both hands lift up the front slightly and remove it from the printer.

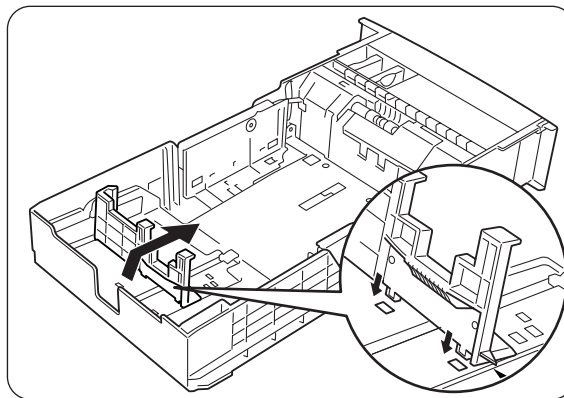
---

**NOTE:** Place the tray on a flat surface.

---



3. Move the end and side paper guides to their outermost positions. Gently lift the end paper guide to move it.

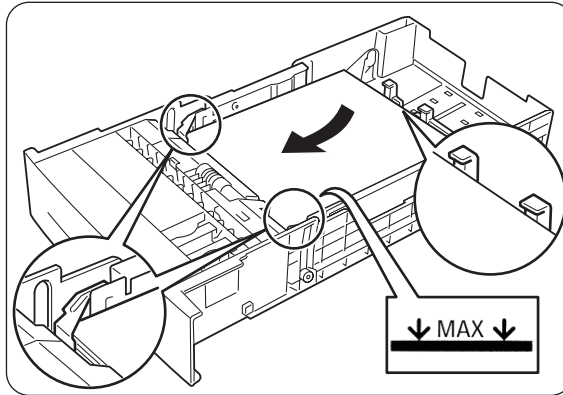


4. Grip the end paper guide with your fingers and gently lift it up. Insert the pins at the bottom of the guide in the holes corresponding to the paper size that you want to load.

---

**NOTE:** -Make sure that the end guide is properly inserted into the holes corresponding to the appropriate paper size.  
-Only a small amount of movement of the end paper guide can make automatic paper size detection impossible. If this occurs, move the end paper guide all the way to its outermost position again, then realign it with the appropriate paper size mark.

---

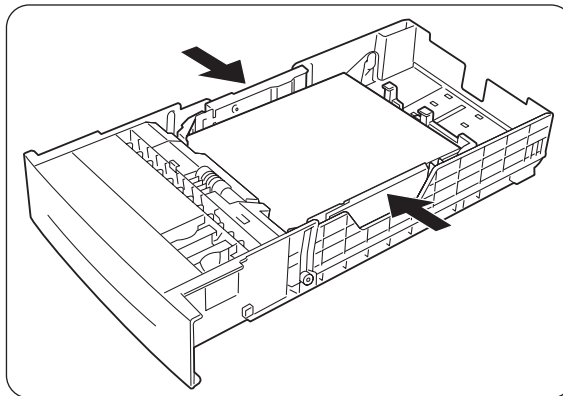


5. Align the four corners of the paper stack and insert the paper (print side up) under the tab.

---

**NOTE:** Do not use paper that is folded, creased, or heavily warped.  
Do not overload the paper tray.

---



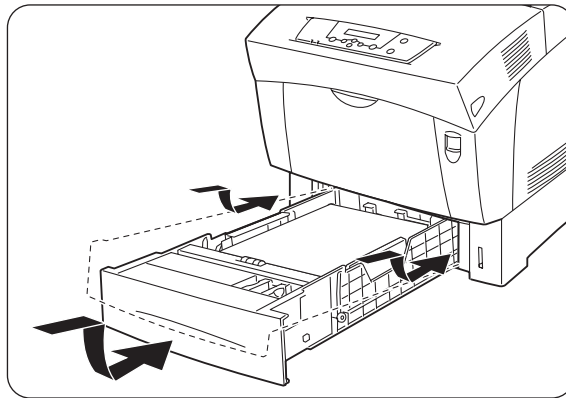
6. Align the side guides with the edges of the paper.

---

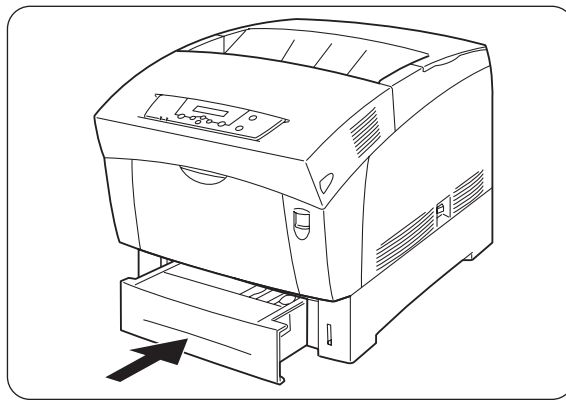
**NOTE:** Pushing the paper guides too hard against the edges of the paper stack can cause a paper jam. However, if the paper guide is too loose, the paper may twist as it feeds through the printer.

---

7. Hold the paper tray with both hands, align it with the opening in the printer and gently insert it.



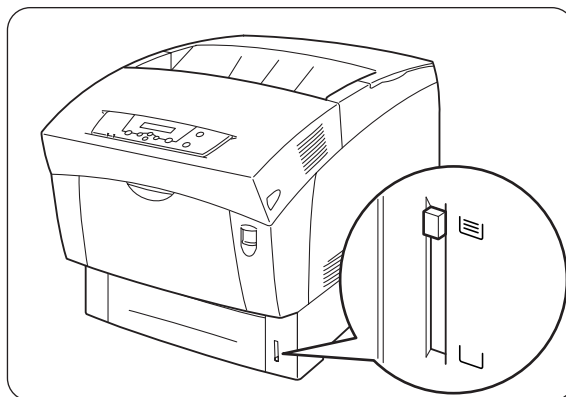
8. Push the paper tray completely back into the printer.



---

**NOTE:** Do not use excessive force on the paper tray.

---



---

**NOTE:** There is an indicator next to the paper tray that tells you how much paper remains in the tray. Use the meter as a guide to refill the paper tray.

---

## Connecting the Power Cord

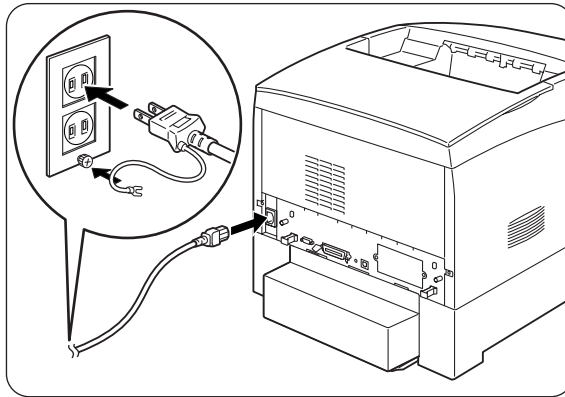
Follow the procedure below to connect the power cord.



**WARNING:** Connect the power plug to an AC outlet with the same voltage as the printer (220V), and rated for at least 15A. No other devices should be plugged to this AC outlet, as overheating could cause fire or electrical shock. The printer draws 10A at 220V.

The green ground wire of the power cord is meant to prevent electric shock or fire hazard in the event of a power leak.

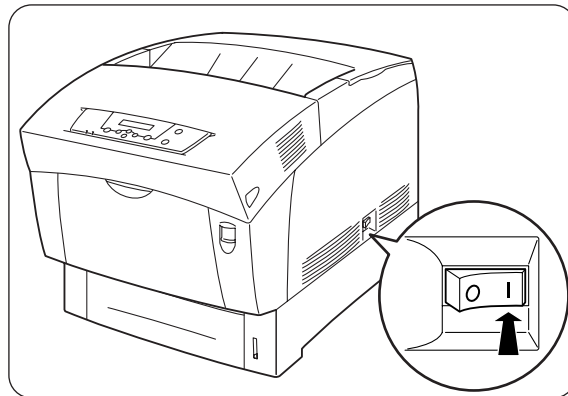
Connect it to the ground lead of the power outlet, or a copper pipe buried at least 650 mm in the ground, or a type D earth connection.



1. Plug the power cord into the power inlet at the back of the printer. Plug the other end of the cord into the AC outlet. Connect the earth connection to the ground, if possible.

## Turning the Printer On

On the printer's right side, press the side of the power switch marked [ I ] to turn the printer on.



---

**NOTE:** The printer motors run for 1 or 2 minutes when you first turn the power on.

---

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” in the *PageMaster 1600c User Guide* located on the *PageMaster 1600c* Electronic Library CD-ROM.

---

## Selecting a Display Language

The default language for all LCD display messages and the Configuration Summary 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.

---

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 Menu

2. Press PREVIOUS or NEXT until the display reads:

Menu

System Menu

3. Press SELECT, the display will read:

System Menu

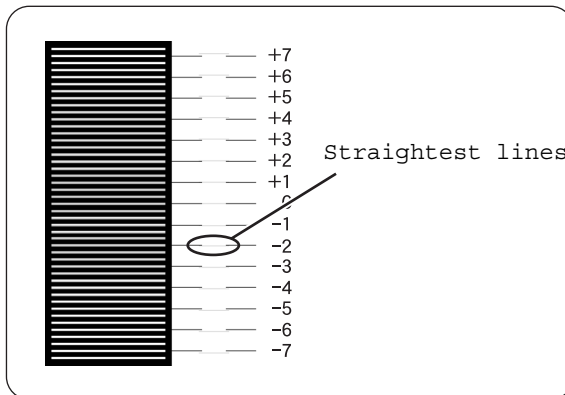
Factory Defaults

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:

Press SELECT. You have now changed the default language.

## Adjusting Color Registration

Follow the procedure below to adjust the color registration when first installing the printer or after moving it to a new location.



To obtain the best color print quality, the printer must be aligned so that all four color planes are positioned correctly on the printed page. This alignment is done in two parts:

1. Alignment of BLACK ink to ensure that proper image positioning is achieved relative to the printed page.
2. Alignment of CYAN, MAGENTA, and YELLOW inks to ensure color accuracy.

The following steps comprise the alignment procedure:

1. Using the control panel, enter the COLOR Menu. 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  
 Color Menu

3. Press SELECT, the display will read:

Color Menu  
Screening Mode

4. Press NEXT or PREVIOUS until the display reads:

Color Menu  
Alignment

5. Press SELECT, the display will read:

Alignment  
Alignment Page

6. Print the "ALIGNMENT PAGE"
7. Adjust BLACK INK alignment settings ("K-V ADJUST" and "K-H ADJUST" )
8. Print the "ALIGNMENT PAGE" (note: steps 3 and 4 may have to be repeated a few times)
9. Adjust COLOR INK alignment values ("M-V ADJUST", "M-H ADJUST", "Y-V ADJUST", "Y-H ADJUST", "C-V ADJUST" and "C-H ADJUST")
10. Print the "ALIGNMENT PAGE" (note: steps 5 and 6 may have to be repeated a few times)
11. Place the printer into "READY" mode.

### Adjusting Printer Alignment Settings

The following menu items under the COLOR MENU:ALIGNMENT menu are used during the alignment procedure to change the alignment settings.

Command	Adjustment
K-V ADJUST	Vertical alignment for BLACK (K) ink.
M-V ADJUST	Vertical alignment adjustment for MAGENTA (M) ink. (see note 1)
Y-V ADJUST	Vertical alignment adjustment for YELLOW (Y) ink. (see note 1)
C-V ADJUST	Vertical alignment adjustment for CYAN (C) ink. (see note 1)
M-H ADJUST	Horizontal alignment adjustment for MAGENTA (M) ink.
Y-H ADJUST	Horizontal alignment adjustment for YELLOW (Y) ink.
C-H ADJUST	Horizontal alignment adjustment for CYAN (C) ink.
K-H ADJUST	Horizontal alignment adjustment for BLACK (K) ink (see note 2).

---

**NOTE:** 1. There are different vertical alignment adjustments for "C", "M", and "Y" inks in 600 and 1200 DPI modes. The name of the setting will reflect the current setting of the QUALITY MENU:RESOLUTION menu.

---

---

**NOTE:** 2. There are different horizontal alignment adjustments for “K” ink for each paper source. The name of the setting will reflect the current value of the PAPER MENU:DEFAULT SOURCE menu.

---

### ***Adjusting Black Ink Alignment***

Adjust the “K-V ADJUST” and “K-H ADJUST” values until the box around the outside of the page is centered within the printed page.

### ***Adjusting the Color Ink Alignment Settings***

Next go to the “Color Registration Adjustment” portion of the alignment page. You will notice that there are six alignment pattern printed on the paper; three horizontal and three vertical. In each set of patterns, there is one each for YELLOW, MAGENTA, AND CYAN inks. Pay closest attention to the series of narrow tick marks in the alignment patterns. You will see two short black lines that are separated by a short colored line. You should be able to see that in each test pattern, there should be only instance where the two black lines and the colored line are in perfect alignment with each other, thus forming a single straight line.

When the straightest line is identified, note the number next to the line. In the appropriate adjustment menu, set the value to the number representing the straightest line. Do this for each color, and then print the alignment page again. When all of the straightest lines are at the “0” position, alignment has been successfully completed.

---

**NOTE:** It should only be necessary to perform this procedure one time when the printer is installed.

---

## **Installing Printer Drivers and Locating User Documentation**

### **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 sub-folders:

- Drivers Folder

The Drivers folder contains all of the printer drivers necessary to print from Windows 3.1 and 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.

- EZWebCon Folder

The EZWebCon folder contains the EZWebCon software used to configure and manage your Network Interface Card. Refer to the README.TXT file included in this folder for more information about installing and using EZWebCon.

- 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 UNIX Printing Software.

- USB Folder

The USB folder contains USB installation files for Windows 95 and 98, and also includes a program to test USB system readiness. Refer to the README.TXT file included in this folder for more information about installing and using USB.

### **Installing Printer Drivers for MacOS**

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

- CPG 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.

### **Locating User Documentation**

To locate other documentation that will assist you in operating and maintaining your printer, go to the MANUALS folder on the Electronic Library CD-ROM. You can open and read these manuals directly from the CD-ROM, save the manuals to the hard drive of your computer, or print the manuals. The MANUALS folder includes the following documents in Adobe PDF format:

- User Guide
- Printer Installation Guide (English, French, German, Italian, Spanish)
- Other installation and user guides for printer options

Refer to the README.TXT file (UNIX and Windows) or the Read Me First file (MacOS) included in the MANUALS folder for more information about the documentation.

## **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 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 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.

---

6. Press PREVIOUS or NEXT until the display reads:

Menu

Functions

## CPG PageMaster 1600c

### MENUS

#### Paper Menu

Copies = 1  
Duplex = Off  
Duplex Bind = Long Edge  
Default Source = Tray 1  
Manual Feed = Off

#### Media Size/Type

**MBF**  
Media Size = A4 SEF  
Media Type = Plain  
**Custom Size**  
Width = 209  
Length = 39

**Tray 1**  
Media Type = Plain

**Tray 2**  
Media Type = Plain

**Tray 3**  
Media Type = Plain

Tray Linking = On  
Blank Pages = Print  
MBF First = Off  
Gloss Level = Low  
Auto Resize = Off  
Custom Size Unit = Millimeters

#### 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 = Raw  
**Network Channel**  
Netware = On  
DEC LAT = On  
AppleTalk = On  
TCP/IP = On  
Network Address = 005027005524  
IP Address = 172.031.036.195  
Subnet Mask = 255.255.255.000  
Default Router = 172.031.036.001  
LPD Banner = On  
DHCP = Off  
Network Frame = Auto-Sense  
Delay Out Close = Off

#### Network 1 Setup cont'd

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 = 50  
Pitch = 10.00  
Symbol Set = 10U:PC-8 CP437  
Macro Filter = Off  
Lines Per Page = 64  
CR Mode = CR=CR  
LF Mode = LF=LF  
FF Mode = FF=FF  
Print Area = Normal

#### Parameter Values

##### Paper Source

MBF = 8  
Tray 1 = 1  
Tray 2 = 4  
Tray 3 = 5  
Auto-Select = 7

##### Paper Size

Executive = 1  
Letter = 2  
Legal = 3  
Statement = 4  
Folio = 5  
A6 = 24  
A5 = 25  
A4 = 26  
B5 = 45  
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



## 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 B of the *PageMaster 1600c User Guide* located on the *PageMaster 1600c* Electronic Library CD-ROM.

## Turning the Printer Off

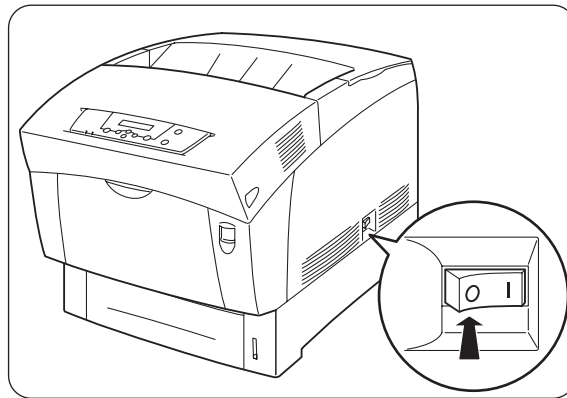
Remember to turn off the printer at the end of day or when the printer will not be used for an extended period of time.

---

**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

# Understanding and Navigating the Control Panel Menus

### **In this Chapter . . .**

- “About this Chapter” on page 2-2
- “Control Panel Features” on page 2-2
- “Navigating the Control Panel Menus” on page 2-5
- “Menu Structure” on page 2-7

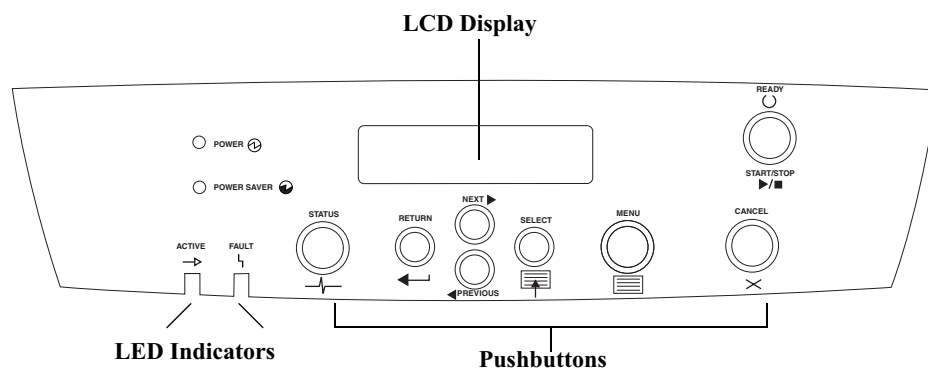
## About this Chapter

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 2-1: 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.






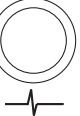
## LED Indicators



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
<b>READY</b> 	Green	Printer is NOT READY	Printer is READY	N/A
<b>ACTIVE</b> 	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)
<b>FAULT</b> 	Red	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
<b>POWER</b> 	Red	POWER is off	POWER is on	N/A
<b>POWER SAVER</b> 	Red	READY	N/A	Power saver is 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
 <p>START/STOP ▶/■</p>	START/STOP—Push this button to start or stop the printer, or to exit the menu system.
 <p>MENU</p>	MENU—Push this button to enter the menu system.
 <p>NEXT ▶</p>	NEXT—Push this button to move to the next menu, submenu, or setting within the same level of the menu structure.
 <p>SELECT</p>	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.
 <p>CANCEL</p>	CANCEL—Push this button to cancel an action.
 <p>STATUS</p>	STATUS—Push this button to enter the Status Menu and view the current status of printer.

PUSHBUTTON	FUNCTION
	<p><b>PREVIOUS</b>—Push this button to return to the previous menu, submenu, or option within the same level of the menu structure.</p>
	<p><b>RETURN</b>—Push this button to move up one level in the menu structure to the menu shown on the first line of the display.</p>

## 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 message “**Menu**”, indicating that you are in the menu system. The second line of the display lists the active menu, which you can change by pressing the **NEXT** or **PREVIOUS** button.

**Menu**  
**Paper Menu**

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

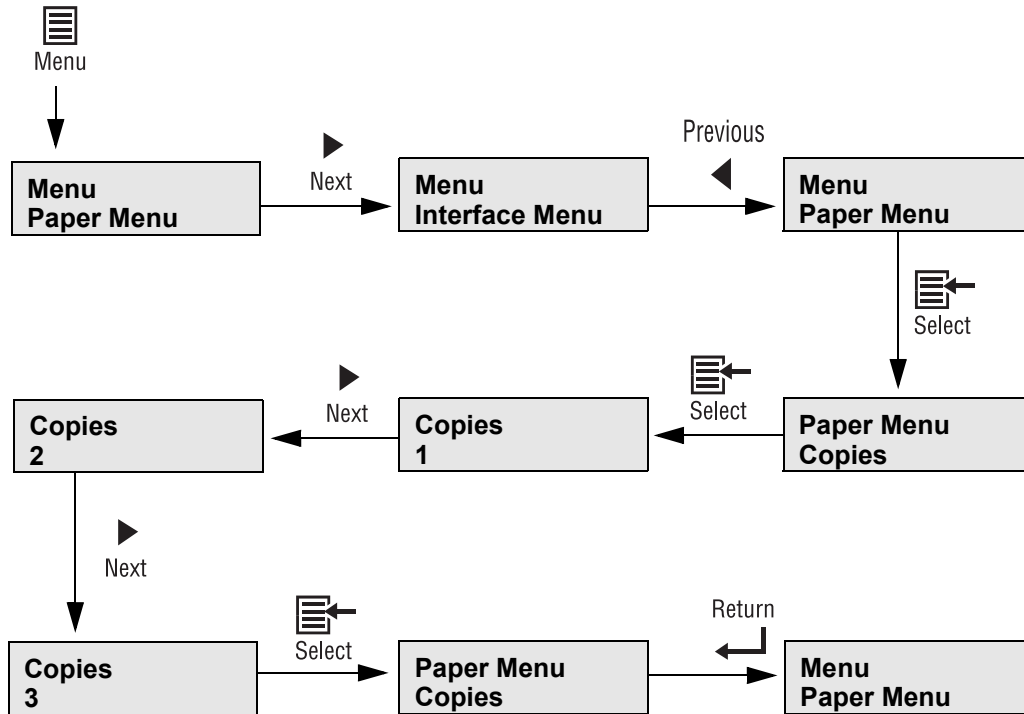
- Paper Menu
- Interface Menu
- PS Menu
- PCL Menu
- System Menu
- Quality Menu
- Color Menu
- Functions

---

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

---

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



**Figure 2-2: Navigating the Paper Menu.**

1. Press the **MENU** button on the control panel.
2. Press the **NEXT** button until the message “**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 message “**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.

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

**Figure 2-3: Printer Menu Structure.**

---

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

---

---

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

---

### Status Menu

In addition to the main menus listed above, the printer also provides a status menu that allows you to view the current printer settings. Push the **STATUS** button to enter the Status Menu

#### **Status**

MBF

*Media Size*

*Media Type*

*Level*

Tray 1

*Media Size*

*Media Type*

*Level*

Tray 2 (optional)

*Media Size*

*Media Type*

*Level*

Tray 3 (optional)

*Media Size*

*Media Type*

*Level*

Face Down Tray

CyanToner

MagentaToner

Yellow Toner

BLACK Toner



## Chapter 3

# Troubleshooting

### **In this Chapter . . .**

- “About this Chapter” on page 3-2
- “Solving Printer Power-on Problems” on page 3-2
- “Control Panel LCD Messages” on page 3-3

## About this Chapter

Explains procedures to isolate and solve problems that may occur during the installation of your printer. Control panel LCD error messages are also discussed in this chapter.

---

**NOTE:** This chapter provides troubleshooting information to assist you with the installation of your printer. Detailed troubleshooting information can be found in the *User Guide* located on the *PageMaster 1600c* Electronic Library CD-ROM.

---

## 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 contact your 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 is not set to [ I ].	Check power switch. See "Chapter 1 Unpacking and Installing Your 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. Contact your technical support or service or repair call.

## Control Panel LCD Messages

LCD Message (Line 1)	LCD Message (Line 2)	Cause of Error Message	REQUIRED ACTION
TONER Y MISSING (See note 1)	INSTALL/RESET	Yellow toner cartridge is missing.	Install Yellow toner cartridge. If cartridge is already installed, make sure the toner cartridge is fully seated and tabs are pressed into the locked position.
TONER M MISSING (See note 1)	INSTALL/RESET	Magenta toner cartridge is missing.	Install Magenta toner cartridge. If cartridge is already installed, make sure the toner cartridge is fully seated and tabs are pressed into the locked position.
TONER C MISSING (See note 1)	INSTALL/RESET	Cyan toner cartridge is missing.	Install Cyan toner cartridge. If cartridge is already installed, make sure the toner cartridge is fully seated and tabs are pressed into the locked position.
TONER K MISSING (See note 1)	INSTALL/RESET	Black toner cartridge is missing.	Install Black toner cartridge. If cartridge is already installed, make sure the toner cartridge is fully seated and tabs are pressed into the locked position.
	TONER Y LOW (See note 3)	The supply of YELLOW toner is running low. <b>Do not replace cartridge at this time.</b>	Make sure a replacement YELLOW toner is available. The toner will soon run out.
	TONER M LOW (See note 3)	The supply of MAGENTA toner is running low. <b>Do not replace cartridge at this time.</b>	Make sure a replacement MAGENTA toner is available. The toner will soon run out.
	TONER C LOW (See note 3)	The supply of CYAN toner is running low. <b>Do not replace cartridge at this time.</b>	Make sure a replacement CYAN toner is available. The toner will soon run out.

LCD Message (Line 1)	LCD Message (Line 2)	Cause of Error Message	REQUIRED ACTION
	TONER K LOW (See note 3)	The supply of BLACK toner is running low. <b>Do not replace cartridge at this time.</b>	Make sure a replacement BLACK toner is available. The toner will soon run out.
TONER Y EMPTY (See note 1)	REPLACE TONER	Yellow toner cartridge is empty.	Replace Yellow toner cartridge.
TONER M EMPTY (See note 1)	REPLACE TONER	Magenta toner cartridge is empty.	Replace Magenta toner cartridge.
TONER C EMPTY (See note 1)	REPLACE TONER	Cyan toner cartridge is empty.	Replace Cyan toner cartridge.
TONER K EMPTY (See note 1)	REPLACE TONER	Black toner cartridge is empty.	Replace Black toner cartridge.
PHD MISSING (See note 1)	INSTALL/RESET	Drum (PHD) Cartridge is missing.	Install Drum (PHD) cartridge.
BTR MISSING (See note 1)	INSTALL/RESET	Bias Transfer Roll (BTR) is missing.	Install Bias Transfer Roll.
FUSER MISSING (See note 1)	INSTALL/RESET	Fuser unit is missing.	Install Fuser unit.
	PHD EOL NEAR (See note 3)	The Printhead Cartridge (PHD) is close to the end of its life. Do not replace PHD unit at this time.	Make sure a replacement PHD is available. The PHD will need replacement soon.
	BTR EOL NEAR (See note 3)	The Bias Transfer Roller (BTR) is close to the end of its life. Do not replace BTR unit at this time.	Make sure a replacement BTR is available. The BTR will need replacement soon.
	FUSER EOL NEAR (See note 3)	The Fuser unit is close to the end of its life. Do not replace Fuser unit at this time.	Make sure a replacement Fuser unit is available. The Fuser unit will need replacement soon.
PHD LIFE OVER (See note 1)	REPLACE PHD	Drum (PHD) Cartridge needs to be replaced.	Install new Drum (PHD) cartridge.
BTR LIFE OVER (See note 1)	REPLACE BTR	Bias Transfer Roll (BTR) cartridge needs to be replaced.	Install new Bias Transfer Roll cartridge.
FUSER LIFE OVER (See note 1)	REPLACE FUSER	Fuser unit needs to be replaced.	Install new Fuser unit.

LCD Message (Line 1)	LCD Message (Line 2)	Cause of Error Message	REQUIRED ACTION
BAD PHD TYPE (See note 1)	REPLACE PHD	Bad Drum (PHD) Cartridge.	Replace Drum (PHD) Cartridge.
MEDIA MISMATCH (See note 1)	CLEAR PAPER	Incorrect paper in tray.	Check paper type in tray.
FEED JAM (See note 1)	CHECK TRAY	Paper jam.	Clear paper jam in tray.
REGISTRATION JAM (See note 1)	OPEN COVER A	Paper jam.	Open Cover A and remove paper.
FUSER JAM (See note 1)	OPEN COVER A	Paper jam.	Open Cover A and remove paper.
DUPLEX JAM (See note 1)	OPEN COVER B	Paper jam.	Open Cover B and remove paper.
ROS FAILURE (See note 2)	CALL SERVICE	ROS failure.	Service Call required
FUSER FAILURE (See note 2)	CALL SERVICE	Fuser unit failed.	Service Call required
MCU/NVRAM ERROR (See note 2)	CALL SERVICE	MCU or NVRAM failure	Service Call required
CTD SENSOR ERROR (See note 2)	CALL SERVICE	CTD (cartridge) sensor failure.	Service Call required
FAN MOTOR FAIL (See note 2)	CALL SERVICE	Fan motor failure.	Service Call required
MCU SW ERROR (See note 2)	CALL SERVICE	MCU software failure	Service Call required
ENV SENSOR ERROR (See note 2)	CALL SERVICE	Envelope sensor failure.	Service Call required
CTD SENSOR DUSTY (See note 1)	CLEAN CTD SENSOR	CTD (cartridge) sensor failure	Clean CTD sensors.
FRONT COVER OPEN (See note 1)	CLOSE CLOVER	Front cover is open.	Close front cover.
LOAD PAPER TRAY1 LOAD PAPER TRAY2 LOAD PAPER TRAY3 (See note 1)	(load paper according to requested size and media type)	There is an empty paper tray.	Put paper in empty paper tray.

LCD Message (Line 1)	LCD Message (Line 2)	Cause of Error Message	REQUIRED ACTION
	TRAY 1 MISSING TRAY 2 MISSING TRAY 3 MISSING (See note 3)	There is a paper tray missing.	Replace missing paper tray.
OUTPUT TRAY FULL (See note 1)	REMOVE PAPER	The output tray is full.	Remove the paper from the output tray.

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NOTE:     1: Printer operator must correct the problem for printer to continue to print.  
              2: Turn printer on and off, if problem persists, call service.  
              3. These errors are only displayed on line 2 of the control panel display. The printer will continue to  
              print until the condition prevents further printing.

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# Appendix A

## Safety Notes and Regulatory Compliance

### **In this Chapter . . .**

- “About this Appendix” on page A-2
- “Safety Notes” on page A-2
- “Regulatory Compliance” on page A-2

## About this Appendix

This appendix lists important safety precautions and identifies the applicable regulatory compliances of your printer.

## Safety Notes

- Be sure to switch off and unplug the printer before accessing the interior of the printer for cleaning, maintenance, or fault clearance. Accessing the interior of a live machine exposes you to the risk of electric shock.
- Do not place the printer in a hot, humid, dusty, or poorly ventilated environment. Prolonged exposure to these adverse conditions may cause fire or expose you to electric shock.
- The printer is capable of operating normally within the following environmental limits:
  - Temperature range: 50°F -95°F (10°C -35°C)  
At high temperatures (95°F /35°C), humidity should be at or below 70%.
  - Humidity range: 15%-85% (no condensation)  
At maximum humidity (85%), temperature should be at or below 82°F(28°C).
- Stop operation immediately if your printer produces smoke, excessive heat, unusual noise, or smell. These conditions can indicate or result in a fire. Immediately switch off and unplug the printer, and contact your point of purchase.
- The fuser becomes very hot in normal operation. If a paper jam has occurred, turn the power off and wait at least 10 minutes before removing the drum cartridge and touching the fuser section.

## Regulatory Compliance

### Safety Compliance

This product conforms the following safety standards:

- UL1950
- CSA C22.2 No. 950
- EN 60950
- IEC 950
- 73/23/EEC

### *Class 1 Laser Device and CDRH Compliance*

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This certification indicates that the printer does not emit hazardous laser radiation. Since radiation emitted inside the printer is completely confined within the protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 1976. These regulations apply to laser products marketed in the United States. The label on the printer indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

## **EMC Compliance**

### *Class B Equipment*

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If your machine is a 220-240V model, there is no need to attach a separate earth line since the earth connection is incorporated in the power line. Plug it into a properly rated outlet.

The use of a non-shielded interface cable with the reference devices is prohibited. Shielded interface cables must not exceed the following limitations:

- The length of the IEEE 1284 parallel interface cable must be 50 feet (15 meters) or less.
- The length of the Ethernet interface cable must be 328 feet (100 meters) or less for type 10/100BASE-2 or 185 meters (607 feet) or less for type 10/BASE-T.
- The length of the power cord must be 10 feet (3 meters) or less.

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment and the receiver to outlets that are on different circuits.
- Consult with the dealer or an experienced radio/television technician to help.
- Always use the power cord provided with your machine. When an extension cord is required, always use a properly rated cord.
- In countries other than the United States, please contact your point of purchase.

### *Other EMC Standards*

This product also conforms to the following EMC standards:

- CNS 13438
- VCCI V-3/97.04
- AS/NZS 3548:1995 including A1:1997 and A2:1997
- EN55022: 1994 including A1:1995 and A2:1997
- FCC Part 15, Subpart B (CFR 47, 1995)
- CISPR22: 1993 including A1:1995 and A2:1996

