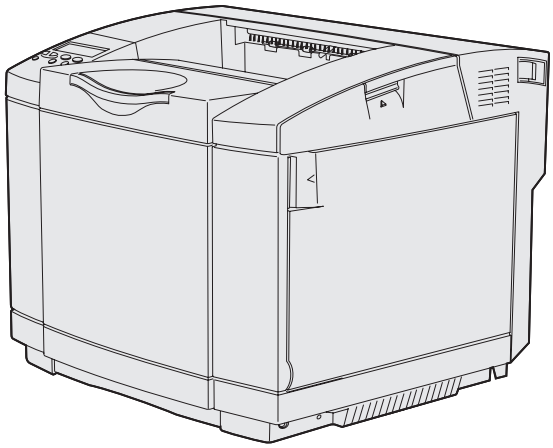
LEXMARK™

C510

User's Reference



December 2003

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Notices

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Edition: December 2003

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printer recognizes PostScript 3 commands used in various application programs, and that the printer emulates the functions corresponding to the commands.

Details relating to compatibility are included in the *Technical Reference*.

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The printer resident software contains:

- Software developed and copyrighted by Lexmark
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- Software licensed under the BSD license and warranty statements

Click the title of the document you want to review:

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GNU General Public License

The Lexmark modified GNU licensed software is free software; you can redistribute it and/or modify it under the terms of the licenses referenced above. These licenses do not provide you any rights to the Lexmark copyrighted software in this printer.

Since the GNU licensed software that the Lexmark modifications are based upon is supplied explicitly without warranty, use of the Lexmark modified version is similarly provided without warranty. See the warranty disclaimers in the referenced licenses for additional details.

To obtain source code files for the Lexmark modified GNU licensed software, launch the drivers CD that shipped with your printer and click Contact Lexmark.

Safety information

- If your product is *not* marked with this symbol ⧈, it *must* be connected to an electrical outlet that is properly grounded.
  CAUTION: Do not set up this product or make any electrical or cabling connections, such as the power cord or telephone, during a lightning storm.
- The power cord must be connected to an electrical outlet that is near the product and easily accessible.
- Refer service or repairs, other than those described in the operating instructions, to a professional service person.

- This product is designed, tested, and approved to meet strict global safety standards with the use of specific Lexmark components. The safety features of some parts may not always be obvious. Lexmark is not responsible for the use of other replacement parts.
- Your product uses a laser.
  CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- Your product uses a printing process that heats the print media, and the heat may cause the media to release emissions. You must understand the section in your operating instructions that discusses the guidelines for selecting print media to avoid the possibility of harmful emissions.

Conventions

CAUTION: A caution identifies something that could cause you harm.

Warning: A warning identifies something that could damage your product hardware or software.

Attention!

This symbol identifies static-sensitive parts. Do not touch in the areas near these symbols without first touching the metal frame of the printer

Electronic emission notices

Federal Communications Commission (FCC) compliance information statement

The Lexmark C510 base and network printer, Types 5021-000 and 5021-010, have been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The FCC Class B 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 into an outlet on a circuit different from that to which the receiver is connected.
- Consult your point of purchase or service representative for additional suggestions.

The manufacturer is not responsible for any radio or television interference caused by using other than recommended cables or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate this equipment.

Note: To assure compliance with FCC regulations on electromagnetic interference for a Class B computing device, use a properly shielded and grounded cable such as Lexmark part number 1329605 for parallel attach or 12A2405 for USB attach. Use of a substitute cable not properly shielded and grounded may result in a violation of FCC regulations.

Any questions regarding this compliance information statement should be directed to:

Director of Lexmark Technology & Services
Lexmark International, Inc.
740 West New Circle Road
Lexington, KY 40550
(859) 232-3000

Industry Canada compliance statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Avis de conformité aux normes de l’industrie du Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

European Community (EC) directives conformity

This product is in conformity with the protection requirements of EC Council directives 89/336/EEC and 73/23/EEC on the approximation and harmonization of the laws of the Member States relating to electromagnetic compatibility and safety of electrical equipment designed for use within certain voltage limits.

A declaration of conformity with the requirements of the directives has been signed by the Director of Manufacturing and Technical Support, Lexmark International, S.A., Boigny, France.

This product satisfies the Class B limits of EN 55022 and safety requirements of EN 60950.

Republic of Korea Compliance Statement

If your product includes the following symbol on the regulatory label:

the following statement is applicable to your product.

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거 지역에서는 물론 모든 지역에서 사용할 수 있습니다.

This equipment has undergone EMC registration as a household product. It can be used in any area, including a residential area.

Japanese VCCI notice

If your product includes the following symbol on the regulatory label:

the following statement is applicable to your product.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

The United Kingdom Telecommunications Act 1984

This apparatus is approved under the approval number NS/G/1234/J/100003 for the indirect connections to the public telecommunications systems in the United Kingdom.

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

1-meter average sound pressure, dBA	C510
Printing	53
Idling	42

ENERGY STAR

The EPA ENERGY STAR Office Equipment program is a partnership effort with office equipment manufacturers to promote the introduction of energy-efficient products and to reduce air pollution caused by power generation.

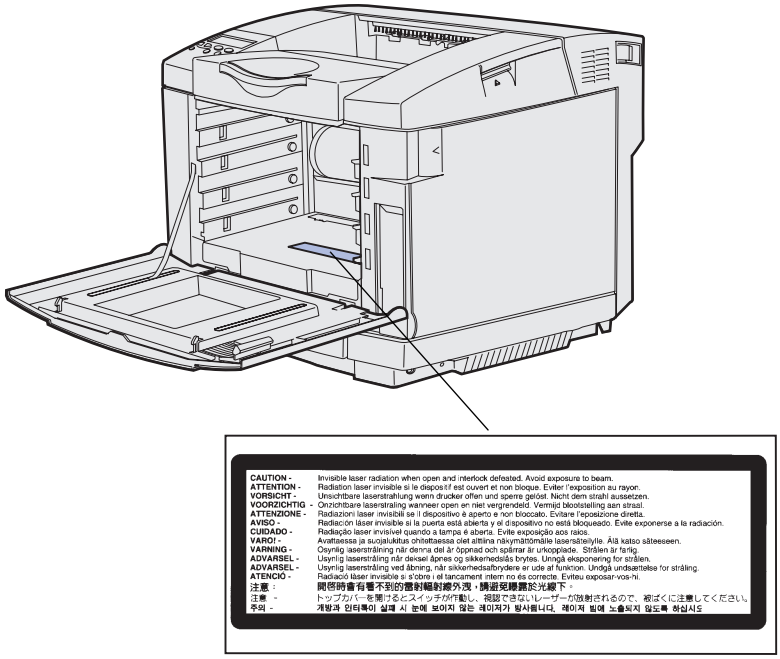
Companies participating in this program introduce products that power down when they are not being used. This feature will cut the energy used by up to 50 percent. Lexmark is proud to be a participant in this program.

As an ENERGY STAR Partner, Lexmark International, Inc. has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

Laser notices

Laser advisory label

A laser notice label may be affixed to this printer as shown:



Class 1 laser statement

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 60825-1.

Class I laser products are not considered to be hazardous. The printer contains internally a Class IIIb (3b) laser that is nominally a 5 milliwatt gallium arsenide laser operating in the wavelength region of 770-795 nanometers. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

Statement of limited warranty

Lexmark International, Inc., Lexington, KY

This warranty applies to the United States and Canada. For customers outside the U.S. and Canada, refer to the country-specific warranty information that came with your printer.

C510 printer

This Statement of Limited Warranty applies to this product if it was originally purchased for your use, and not for resale, from Lexmark or a Lexmark remarketer, referred to in this statement as “Remarketer.”

Warranty

Lexmark warrants that this product:

- Is manufactured from new parts, or new and serviceable used parts, which perform like new parts
- Is free from defects in material and workmanship
- Conforms to Lexmark’s official published specifications
- Is in good working order

If this product does not function as warranted during the warranty period, contact a Remarketer or Lexmark for repair without charge.

If this product is a feature or option, this statement applies only when that feature or option is used with the product for which it was designed. To obtain warranty service, you may be required to present the feature or option with the product.

If you transfer this product to another user, warranty service under the terms of this statement is available to that user for the remainder of the warranty period. You should transfer proof of original purchase and this statement to that user.

Warranty service

The warranty period is 12 months and starts on the date of original purchase as shown on the purchase receipt.

To obtain warranty service you may be required to present proof of original purchase. Warranty service will be provided at your location.

When warranty service involves the exchange of a product or part, the item replaced becomes the property of the Remarketer or Lexmark. The replacement may be a new or repaired item. The replacement item assumes the remaining warranty period of the original product.

Replacement is not available to you if the product you present for exchange is defaced, altered, in need of a repair not included in warranty service, or damaged beyond repair. Also, such product must be free of any legal obligation or restrictions that prevent its exchange.

Before you present this product for warranty service, remove all programs, data, and removable storage media.

For further explanation of your warranty alternatives and the nearest Lexmark authorized servicer in your area, please contact Lexmark at 1-859-232-3000, or on the World Wide Web at http://support.lexmark.com.

Remote technical support is provided for this product throughout its warranty period. Lexmark offers a variety of extended warranty programs that include an extension of technical support. For products no longer covered by a Lexmark warranty, technical support may only be available for a fee.

Extent of warranty

We do not warrant uninterrupted or error-free operation of a product.

Warranty service does not include repair of failures caused by:

- Modification or attachments
- Accidents or misuse
- Unsuitable physical or operating environment
- Maintenance by anyone other than Lexmark or a Lexmark authorized servicer
- Operation of a product beyond the limit of its duty cycle
- Failure to have installed a maintenance kit as specified (if applicable)
- Use of printing media outside of Lexmark specifications
- Use of other than Lexmark supplies (such as toner cartridges, inkjet cartridges, and ribbons)
- Use of other than Lexmark product or component

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES, EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD.

Limitation of liability

Your sole remedy under this Statement of Limited Warranty is set forth in this section. For any claim concerning performance or nonperformance of Lexmark or a Remarketer for this product under this Statement of Limited Warranty, you may recover actual damages up to the limit set forth in the following paragraph.

Lexmark's liability for actual damages from any cause whatsoever will be limited to the greater of 1) $5,000 or 2) the amount you paid for the product that caused the damages. This limitation of liability will not apply to claims by you for bodily injury or damage to real property or tangible personal property for which Lexmark is legally liable. In no event will Lexmark be liable for any lost profits, lost savings, incidental damage, or other economic consequential damages. This is true even if you advise Lexmark or a Remarketer of the possibility of such damages. Lexmark is not liable for any claim by you based on a third party claim.

This limitation of remedies also applies to any developer of materials supplied to Lexmark. Lexmark’s and the developer’s limitations of remedies are not cumulative. Such developer is an intended beneficiary of this limitation.

Additional rights

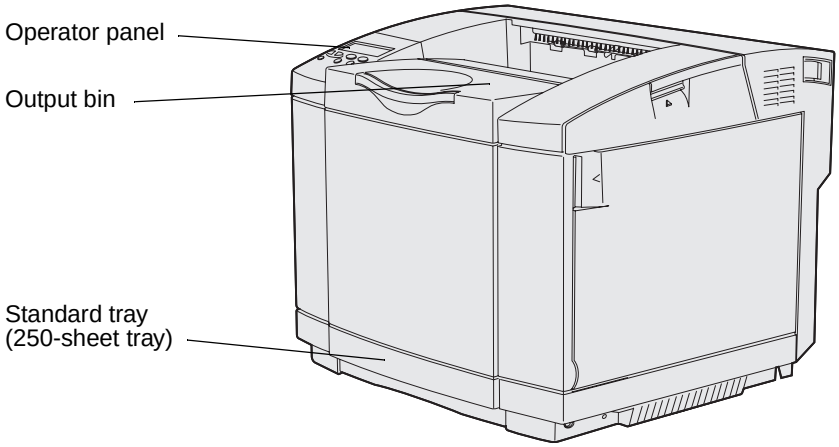
Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

1 Overview

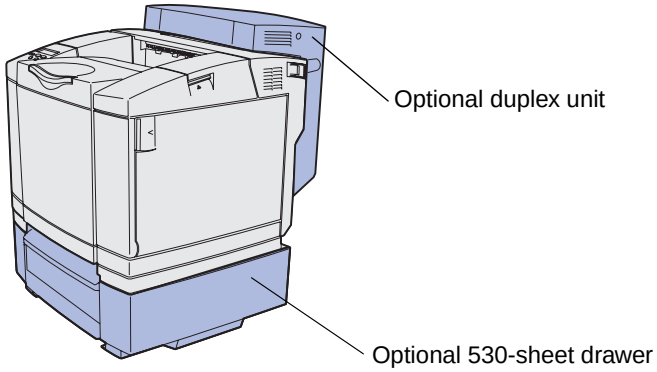
Basic model

The following illustration shows the basic model and features of the Lexmark™ C510 printer.



Configured model

The following illustration shows the options available for the Lexmark C510.The options are shaded. To learn the order of installation for the options, refer to the *Setup Guide*.



2 Printing

This chapter covers tips for printing, how to print certain lists of information from your printer, and how to cancel a job.

Tips for successful printing

Tips on storing media

Store your media properly. For more information, see **Storing media**.

Avoiding jams

If you select appropriate paper or speciality media (transparencies, labels, and card stock), you are assisting in trouble-free printing. See **Avoiding jams hints** for more information.

> **Note:** We recommend that you try limited samples of any paper or speciality media you are considering using with the printer before purchasing large quantities.

By selecting appropriate paper or speciality media and loading it properly, you are able to avoid most jams. See **Loading the trays** for instructions on loading paper and speciality media into the standard tray, the optional 250-sheet legal size tray, and the optional 530-sheet tray.

If you experience a jam, see **Clearing jams** for instructions. For hints to help you avoid jams, see **Avoiding jams hints**.

Sending a job to print

A printer driver is software that lets your computer communicate with your printer. When you choose **Print** from a software application, a window representing the printer driver opens. Select the appropriate settings for the specific job you are sending to print. Print settings selected from the driver override the default settings selected from the printer operator panel.

You may need to click **Properties** or **Setup** from the initial Print box to see all of the available printer settings you can change. If you are not familiar with a feature in the printer driver window, open the online Help for more information.

To support all the printer features, use the Lexmark custom printer drivers. Updated drivers, as well as a complete description of the driver packages and Lexmark driver support, are available from the

Lexmark Web site.You can also use the system drivers built into your operating system. Refer to the *Setup Guide* for more information about choosing and installing drivers.

To print a job from a typical Windows application:

1. Open the file you want to print.
2. From the File menu, select **Print**.
3. Verify that the correct printer is selected in the dialog box. Modify the printer settings as appropriate (such as the pages you want to print or the number of copies).
4. Click **Properties** or **Setup** to adjust printer settings not available from the first screen, and then click **OK**.
5. Click **OK** or **Print** to send the job to the selected printer.

Printing a confidential job

When you send a job to the printer, you can enter a personal identification number (PIN) from the driver. The PIN must be four digits using the numbers 1–6. The job is held in printer memory until you enter the same four-digit PIN from the operator panel and choose to print or delete the job. This ensures that the job does not print until you are there to retrieve it, and no one else using the printer can print the job.

This will only work with the Lexmark custom drivers that came on the drivers CD which shipped with your printer.

1. In your word processor, spreadsheet, browser, or other application, select **File** ▸ **Print**.
2. Click **Properties**. (If there is no Properties button, click **Setup**, and then click **Properties**.)
3. Click **Help** and refer to the topic confidential print or print and hold. Follow instructions for printing a confidential job. (See **Printing a confidential job**.)

   Go to the printer when you are ready to retrieve your confidential print job, and continue with these steps:
4. Press and release **Menu** until you see **`Job Menu`**, and then press **Select**.
5. Press and release **Menu** until you see **`Confidential Job`**, and then press **Select**.
6. Press and release **Menu** until you see your user name, and then press **Select**.
7. See **Entering a personal identification number (PIN)** as follows. Continue with **step 8 on page 22** to print a confidential job.

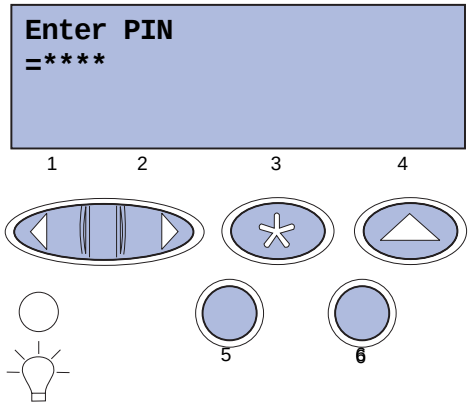
Entering a personal identification number (PIN)

When you select **Confidential Job** from the **Job Menu**, the following prompt appears on the display after you select your user name:

```
Enter PIN:
=____
```

8 Use the buttons on the operator panel to enter the four-digit PIN associated with your confidential job.

The numbers next to the button names identify which button to press for each digit (1–6). As you enter the PIN, asterisks appear on the display to ensure confidentiality.



If you enter an invalid PIN, the message **No Jobs Found. Retry?** appears.

9 Press **Go** to reenter the PIN, or press **Stop** to exit the Confidential Job menu.

10 Press **Select** to print your confidential jobs.

Your jobs print and are deleted from printer memory.

For more information about confidential jobs, and Print and Hold jobs, see **Using the Print and Hold function**.

Canceling a print job

There are several methods for canceling a print job.

Canceling from the printer operator panel

If the job you want to cancel is printing, and **Busy** appears on the display:

1 Press **Menu** to open the **Job Menu**.

Cancel Job appears on the second line of the display.

2 Press **Select**.

The message **Canceling Job** is displayed.

Canceling a job from a computer running Windows

Canceling a job from the taskbar

When you send a job to print, a small printer icon appears in the right corner of the taskbar.

1 Double-click the printer icon.

A list of print jobs appears in the printer window.

2 Select the job you want to cancel.

3 Press the **Delete** key on the keyboard.

Canceling a job from the desktop

1 Minimize all programs to reveal the desktop.

2 Double-click the **My Computer** icon.

3 Double-click the **Printers** icon.

A list of available printers appears.

4 Double-click the printer you selected when you sent the job.

A list of print jobs appears in the printer window.

5 Select the job you want to cancel.

6 Press the **Delete** key on the keyboard.

Canceling a job from a Macintosh computer

When you send a job to print, the printer icon for your selected printer appears on the desktop.

1 Double-click the printer icon on your desktop.

A list of print jobs appears in the printer window.

2 Press **Control** and click the print job you want to cancel.

3 Select **Stop Queue** from the pop-up menu that appears.

Printing the menu settings page

The menu settings page shows current settings (user default settings) for the menus, a list of installed options, and available printer memory. You can use this page to verify that all printer options are properly installed and the printer settings are correct.

See **Understanding the printer operator panel** to identify the display and operator panel buttons if you need help.

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Utilities Menu**, and then press **Select**.
3. Press and release **Menu** until you see **Print Menus**, and then press **Select**.

The message **Printing Menu Settings** appears while the page prints. The printer returns to the **Ready** message after the menu settings page prints.

If any other message appears when you print this page, see **Understanding printer messages** for more information.

Printing a directory list

A directory list shows all the resources stored in flash memory or on the hard disk. To print a list:

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Utilities Menu**, and then press **Select**.
3. Press and release **Menu** until **Print Directory** appears, and then press **Select**.

   The message **Printing Directory List** appears and remains on the operator panel until the page prints. The printer returns to the **Ready** state after the directory list prints.

Printing a font sample list

To print samples of all the fonts currently available for your printer:

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Utilities Menu**, and then press **Select**.
3. Press and release **Menu** until **Print Fonts** appears, and then press **Select**.

4 Press and release **Menu** until either **PCL Fonts** or **PS Fonts** appears on the second line of the display.

- Select **PCL Fonts** to print a listing of the fonts available to the PCL emulator.
- Select **PS Fonts** to print a listing of the fonts available to the PostScript 3 emulator.

5 Press **Select**.

The message **Printing Font List** appears and remains on the operator panel until the page prints. The printer returns to the **Ready** state after the font sample list prints.

Printing the Print Quality Test Pages

To help isolate print quality problems, print the Print Quality Test Pages.

1 Make sure the printer is on and the **Ready** message appears.

2 Press and release **Menu** until you see **Utilities Menu**, and then press **Select**.

3 Press and release **Menu** until you see **Prt Quality Pgs**, and then press **Select**.

The pages are formatted. The **Printing Quality Test Pages** message appears. Then, the pages print. The message remains on the operator panel until all the pages print.

The Print Quality Test Pages contain seven pages. There are four pages representing the colors the printer can produce - cyan, magenta, yellow, and black. There are two pages containing test patterns in black or shades of gray, and one page of text containing printer information like page count, installed memory, and so on.

The printer returns to the **Ready** state after the Print Quality Test Pages print.

3 Media specifications

Media is paper, card stock, transparencies, labels, and envelopes. The last four are sometimes referred to as *specialty media*. Your printer provides high quality printing on a variety of media. You must consider a number of things concerning media before you print. This chapter provides information to help you make media selections, how to care for the media, and how to load it in the standard tray (250-sheet letter size tray), the optional 250-sheet legal size tray, and the optional tray which is part of the optional 530-sheet drawer.

Media guidelines

Selecting the appropriate media for your printer helps you avoid printing problems.

The following sections contain guidelines for choosing the correct media for your printer.

For detailed information about media characteristics, refer to the *Card Stock & Label Guide* available on the Lexmark Web site at **www.lexmark.com/publications**.

Paper

To ensure the best print quality and feed reliability, use 90 g/m^2 (24 lb) xerographic, grain long paper. Business papers designed for general business use may also provide acceptable print quality.

Lexmark recommends Lexmark Part Number 12A5950 letter size glossy paper and Lexmark Part Number 12A5951 for A4 size glossy paper.

Always print several samples before buying large quantities of any type of media. When choosing any media, consider the weight, fiber content, and color.

The laser printing process heats paper to high temperatures of 170°C (338°F) for non-MICR applications. Use only paper able to withstand these temperatures without discoloring, bleeding, or releasing hazardous emissions. Check with the manufacturer or vendor to determine whether the paper you have chosen is acceptable for laser printers.

When loading paper, note the recommended print side on the paper package, and load paper accordingly. See **Loading the trays** for detailed loading instructions.

Paper characteristics

The following paper characteristics affect print quality and reliability. We recommend that you follow these guidelines when evaluating new paper stock.

For detailed information, refer to the *Card Stock & Label Guide* available on the Lexmark Web site at **www.lexmark.com/publications**.

Weight

The printer can automatically feed paper weights from 60 to 90 g/m^2 (16 to 24 lb bond) grain long. Paper lighter than 60 g/m^2 (16 lb) might not be stiff enough to feed properly, causing jams. For best performance, use 90 g/m^2 (24 lb bond) grain long paper. To use paper narrower than 182 x 257 mm (7.2 x 10.1 in.), we recommend that the weight be greater than or equal to 90 g/m^2 (24 lb bond).

Curl

Curl is the tendency of media to curve at its edges. Excessive curl can cause paper feeding problems. Curl usually occurs after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in humid conditions, even in the trays, can contribute to paper curling prior to printing and can cause feeding problems.

Smoothness

The degree of smoothness of paper directly affects print quality. If the paper is too rough, the toner does not fuse to the paper properly, resulting in poor print quality. If the paper is too smooth, it can cause paper feeding problems. Smoothness needs to be between 100 and 300 Sheffield points; however, smoothness between 150 and 250 Sheffield points produces the best print quality.

Moisture content

The amount of moisture in the paper affects both print quality and the ability of the printer to feed the paper properly. Leave the paper in its original wrapper until you are ready to use it. This limits the exposure of the paper to moisture changes that can degrade its performance.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60 to 90 g/m^2 (16 to 24 lb bond) paper, grain long fibers are recommended.

Fiber content

Most high-quality xerographic paper is made from 100% chemically pulped wood. This content provides the paper with a high degree of stability resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton possess characteristics that can result in degraded paper handling.

Unacceptable paper

The following papers are not recommended for use with the printer:

- Chemically treated papers used to make copies without carbon paper, also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser
- Preprinted papers that require a *registration* (the precise print location on the page) greater than ±0.09 in., such as optical character recognition (OCR) forms

  In some cases, you can adjust registration with your software application to successfully print on these forms.
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough or heavily textured surface papers or curled papers
- Recycled papers containing more than 25% post-consumer waste that do not meet DIN 19 309
- Recycled paper having a weight less than 60 g/m^2 (16 lb)
- Multiple-part forms or documents

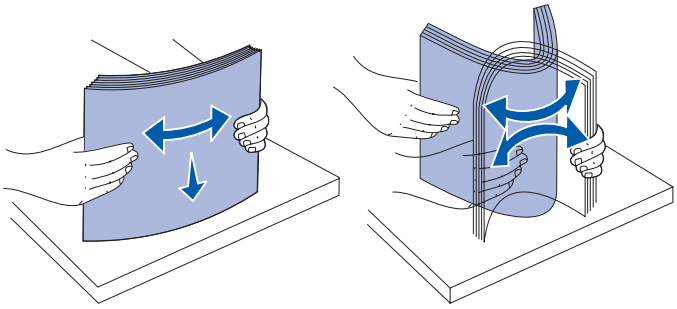
Selecting paper

Proper paper loading helps prevent jams and ensures trouble-free printing.

To help avoid jams or poor print quality:

- *Always* use new, undamaged paper.
- Before loading paper, know the recommended print side of the paper you are using. This information is usually indicated on the paper package.
- *Do not* use paper that you have cut or trimmed yourself.
- *Do not* mix media sizes, weights, or types in the same source; mixing results in jams.
- *Do not* use coated papers.
- *Do not* forget to change the Paper Size setting when you use a source that does not support auto size sensing.
- *Do not* remove trays while a job is printing or **Busy** is displayed on the operator panel.
- Make sure the Paper Type, Paper Texture, and Paper Weight settings are correct. (See **Paper Menu** for detailed information about these settings.)
- Make sure the paper is properly loaded in the source.

- Flex paper back and forth. Do not fold or crease the paper. Straighten the edges on a level surface.



Selecting preprinted forms and letterhead

Use the following guidelines when selecting preprinted forms and letterhead paper for the printer:

- Use grain long papers for best results.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid papers with rough or heavily textured surfaces.

Use papers printed with heat-resistant inks designed for use in xerographic copiers. The ink must withstand temperatures of 170°C (338°F) without melting or releasing hazardous emissions. Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based should meet these requirements; latex inks might not. If you are in doubt, contact your paper supplier.

Preprinted papers such as letterhead must be able to withstand temperatures up to 170°C (338°F) without melting or releasing hazardous emissions.

Printing on letterhead

Check with the manufacturer or vendor to determine whether the preprinted letterhead you have chosen is acceptable for laser printers.

Page orientation is important when printing on letterhead. Use the following table for help when loading letterhead in the media sources.

Media source or process	Print side	Top of page
Tray 1 (Standard tray)	Printed letterhead faceup	Letterhead goes toward the rear of the tray
Tray 1 (Optional 250-sheet legal size tray)	Printed letterhead faceup	Letterhead goes toward the rear of the tray
Tray 2 Optional 530-sheet drawer		
Duplex (two-sided) printing using tray 1 or tray 2	Printed letterhead facedown	Letterhead goes toward the front of the tray

Transparencies

You can feed transparencies from the standard tray. Try a sample of any transparencies you are considering using with the printer before buying large quantities.

When printing on transparencies:

- Be sure to set the Paper Type to Transparency from the printer driver or from MarkVision™ Professional to avoid damaging your printer.
- Use transparencies designed specifically for laser printers. Transparencies must be able to withstand temperatures of 170°C (338°F) without melting, discoloring, offsetting or releasing hazardous emissions.
- To prevent print quality problems, avoid getting fingerprints on the transparencies when you handle them.
- Before loading transparencies, fan the stack to prevent sheets from sticking together.

Selecting transparencies

The printer can print directly on transparencies designed for use in laser printers. Print quality and durability depend on the transparency used. Always print samples on the transparencies you are considering before buying large quantities.

Lexmark recommends Lexmark Part Number 12A5940 letter size transparency and Lexmark Part Number 12A5941 for A4 size transparency.

The Paper Type setting should be set to Transparency to help prevent jams. (See **Paper Type** for detailed information about this setting.) Check with the manufacturer or vendor to determine whether your transparencies are compatible with laser printers that heat transparencies to 170°C (338°F). Use only transparencies that are able to withstand these temperatures without melting, discoloring,

offsetting, or releasing hazardous emissions. For detailed information, refer to the *Card Stock & Label Guide*, which is available on the Lexmark Web site at **www.lexmark.com/publications**.

Envelopes

You can load up to 10 envelopes in the standard tray. Try a sample of any envelopes you are considering using with the printer before buying large quantities. See **Loading envelopes in the standard tray** for instructions on loading envelopes.

When printing on envelopes:

- To achieve the best possible print quality, use only high-quality envelopes that are designed for use in laser printers.
- Set the Paper Source in the Paper Menu based on the source you are using, set the Paper Type to Envelope, and select the correct envelope size from the operator panel, the printer driver, or from MarkVision Professional.
- For best performance, use envelopes made from 90 g/m^2 (24 lb bond) paper. You can use up to 105 g/m^2 (28 lb bond) weight for the 250-sheet standard tray or 105 g/m^2 (28 lb bond) weight for envelopes as long as the cotton content is 25% or less. Envelopes with 100% cotton content must not exceed 90 g/m^2 (24 lb bond) weight.
- Use only new, undamaged envelopes.
- For best performance and to minimize jams, do not use envelopes that:
  - Have excessive curl or twist.
  - Are stuck together or damaged in any way.
  - Contain windows, holes, perforations, cutouts or embossing.
  - Use metal clasps, string ties, or metal folding bars.
  - Have an interlocking design
  - Have postage stamps attached
  - Have any exposed adhesive when the flap is in the sealed or closed position
  - Have nicked edges or bent corners
  - Have rough, cockle, or laid finishes
- Use envelopes that can withstand temperatures of 170°C (338°F) without sealing, excessive curling, wrinkling, or releasing hazardous emissions. If you have any doubts about the envelopes you are considering using, check with the envelope supplier.
- Adjust the width guide to fit the width of the envelopes.
- Load only one size of envelope at a time in the tray. Envelopes may only be loaded in the standard tray. Load them with the flap down and the flap to the left of the tray.
- A combination of high humidity (over 60%) and the high printing temperatures may seal the envelopes.

Labels

Your printer can print on many labels designed for use with laser printers, except for vinyl labels. These labels are supplied in letter size, A4 size, and legal size sheets. Label adhesives, face sheet (printable stock), and topcoats must be able to withstand temperatures of 170°C (338°F) and pressure of 25 pounds per square inch (psi).

Try a sample of any labels you are considering using with the printer before purchasing a large quantity.

For detailed information on label printing, characteristics and design, refer to the *Card Stock & Label Guide* available on the Lexmark Web site at **www.lexmark.com/publications**.

When printing on labels:

- Set the Paper Type menu item to Labels in the Paper Menu. Set the Paper Type from the printer operator panel, the printer driver, or from MarkVision Professional.
- Do not load labels together with paper or transparencies in the same source; mixing media can cause feeding problems.
- Do not use label sheets with a slick backing material.
- Do not print within 1 mm (0.04 in.) of the die cut.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate your printer and your cartridge with adhesive, and could void your printer and cartridge warranties.
- Use labels that can withstand temperatures of 170°C (338°F) without sealing, excessive curling, wrinkling, or releasing hazardous emissions.
- Do not print within 1 mm (0.04 in.) of the edge of the label, of the perforations, or between die-cuts of the label.
- Do not use label sheets that have adhesive to the edge of the sheet. We recommend zone coating of the adhesive at least 1 mm (0.04 in.) away from edges. Adhesive material contaminates your printer and could void your warranty.
- If zone coating of the adhesive is not possible, a 3 mm (0.125 in.) strip should be removed on the leading and driver edge, and a non-oozing adhesive should be used.
- Remove a 3 mm (0.125 in.) strip from the leading edge to prevent labels from peeling inside the printer.
- Portrait orientation is preferred, especially when printing bar codes.
- Do not use labels that have exposed adhesive.

For detailed information on label printing, characteristics, and design, refer to the *Card Stock & Label Guide*, available on the Lexmark Web site at **www.lexmark.com/publications**.

Card stock

Card stock is single ply, and has a large array of properties, such as the moisture content, thickness, and texture, that can significantly affect print quality. See **Identifying media sources and specifications** for information on the preferred weight for the grain direction of media.

Try a sample of any card stock you are considering using with the printer before purchasing a large quantity.

See **Media types and weights** for information on the preferred weight of media.

When printing on card stock:

- Set the Paper Type menu item in the Paper Menu to Card Stock from the operator panel, from the printer driver, or from MarkVision Professional. Set the Paper Weight to CardStock Weight and select the CardStock Weight as Normal or Heavy for the value. Set this from the operator panel, the printer driver, or from MarkVision Professional. Use Heavy for card stock weighing greater than or heavier than 163 g/m^2 (90 lb).
- Be aware that preprinting, perforation, and creasing can significantly affect the print quality and cause media handling or jamming problems.
- Avoid using card stock that may release hazardous emissions when heated.
- Do not use preprinted card stock manufactured with chemicals that may contaminate the printer. Preprinting introduces semi-liquid and volatile components into the printer.
- We recommend the use of grain long card stock.

Storing media

Use the following guidelines for proper media storage. These help avoid media feeding problems and uneven print quality:

- For best results, store media in an environment where the temperature is approximately 21°C (70°F) and the relative humidity is 40%.
- Store cartons of media on a pallet or shelf, rather than directly on the floor.
- If you store individual packages of media out of the original carton, make sure they rest on a flat surface so the edges do not buckle or curl.
- Do not place anything on top of the media packages.

Identifying media sources and specifications

The following tables provide information on standard and optional sources, including the media sizes you can select from the Paper Size menu, and supported weights.

Note: If you use a media size not listed, select the next larger size.

For information on card stock and labels, refer to the *Card Stock & Label Guide*.

Media sizes and support

Legend ✓ — supported ✘— unsupported Media size	Dimensions	Standard tray 250-sheet letter size tray (Tray 1)	Optional tray 250-sheet legal size tray (Tray 1)	Optional 530-sheet tray (Tray 2)	Duplex unit
A4	210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓	✓
A5	148 x 210 mm (5.83 x 8.27 in.)	✓	✓	✘	✓
JIS B5	182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✘	✓
Letter	215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓
Legal	215.9 x 355.6 mm (8.5 x 14 in.)	✘	✓	✘	✓
Executive	184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓	✓
Folio	216 x 330 mm (8.5 x 13 in.)	✘	✓	✘	✓
Statement	139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	✘	✓

* This size setting formats the page or envelope for 215.9 x 297 mm (8.5 x 11.7 in.) for the 250-sheet letter size tray or 215.9 x 355.6 mm (8.5 x 14 in.) for the optional 250-sheet legal size tray based on which tray is installed, unless the size is specified by the software application.

** Measurements apply to simplex (single-sided) printing only. For duplex (two-sided) printing, the minimum size is 148 x 210 mm (5.83 x 8.27 in.) for the 250-sheet letter size tray (standard tray) and 148 x 210 mm (5.83 x 8.27 in.) for the optional 250-sheet legal size tray.

Media sizes and support(continued)

Legend ✓ — supported ✘— unsupported Media size	Dimensions	Standard tray 250-sheet letter size tray (Tray 1)	Optional tray 250-sheet legal size tray (Tray 1)	Optional 530-sheet tray (Tray 2)	Duplex unit
Universal*	**250-sheet letter tray**:** 104.8 x 210 mm to 215.9 x 297 mm (4.125 x 8.27 in. to 8.5 x 11.7 in.) **250-sheet legal tray**:** 104.8 x 210 mm to 215.9 x 355.6 mm (4.125 x 8.27 in. to 8.5 x 14 in.)	✓	✓	✘	✓
9 Envelope	98.4 x 225.4 mm (3.875 x 8.9 in.)	✓	✓	✘	✘
Com 10 Envelope	104.8 x 241.3 mm (4.12 x 9.5 in.)	✓	✓	✘	✘
DL Envelope	110 x 220 mm (4.33 x 8.66 in.)	✓	✓	✘	✘
C5 Envelope	162 x 229 mm (6.38 x 9.01 in.)	✓	✓	✘	✘
B5 Envelope	176 x 250 mm (6.93 x 9.84 in.)	✓	✓	✘	✘
Other Envelope*	104.8 mm x 210 mm to 215.9 mm x 355.6 mm 4.125 in. x 827 in. to 8.5 in. x 14 in.)	✓	✓	✘	✘

* This size setting formats the page or envelope for 215.9 x 297 mm (8.5 x 11.7 in.) for the 250-sheet letter size tray or 215.9 x 355.6 mm (8.5 x 14 in.) for the optional 250-sheet legal size tray based on which tray is installed, unless the size is specified by the software application.

** Measurements apply to simplex (single-sided) printing only. For duplex (two-sided) printing, the minimum size is 148 x 210 mm (5.83 x 8.27 in.) for the 250-sheet letter size tray (standard tray) and 148 x 210 mm (5.83 x 8.27 in.) for the optional 250-sheet legal size tray.

Media support for models and sources

Legend ✓ — supported ✘— unsupported Media	Standard tray 250-sheet letter size tray (Tray 1)	Optional tray 250-sheet legal size tray (Tray 1)	Optional 530-sheet drawer (Tray 2)	Optional duplex unit
Paper	✓	✓	✓	✓
Card stock	✓	✓	✘	✘
Transparencies	✓	✓	✘	✘
Paper labels	✓	✓	✘	✘
Envelopes	✓	✓	✘	✘
Glossy paper	✓	✓	✘	✓

Media types and weights

Legend ✓ — supported ✘— unsupported Media	Type	Media weight		
		Standard tray 250-sheet letter size tray (Tray 1)	Optional tray 250-sheet legal size tray (Tray 1)	Optional 530-sheet drawer (Tray 2)
Paper	Xerographic or business paper	60 to 90 g/m^2 grain long (16 to 24 lb bond)	60 to 90 g/m^2 grain long (16 to 24 lb bond)	60 to 90 g/m^2 grain long (16 to 24 lb bond)
Card stock—maximum (grain long)*	Index Bristol	90 to 210 g/m^2 (24 to 55 lb)	90 to 210 g/m^2 (24 to 55 lb)	✘
Transparencies	Laser printer	138 to 146 g/m^2 (37 to 39 lb bond)	138 to 146 g/m^2 (37 to 39 lb bond)	✘
Labels	Paper	180 g/m^2 (48 lb bond)	180 g/m^2 (48 lb bond)	✘
Envelopes 100% cotton content maximum weight— 20 lb	Sulfite, wood-free or up to 100% cotton bonds	75 to 90 g/m^2 (20 to 24 lb bond)**	75 to 90 g/m^2 (20 to 24 lb bond)**	✘

* Grain short is preferred for papers over 135 g/m^2.

** 28 lb bond envelopes are limited to 25% cotton content.

Media type setting based on media and weight

Legend N/A = Non-applicable		Media weight[1]				
Media	Type	Standard tray 250-sheet letter size or optional 250-sheet legal size tray (Tray 1)	Optional 530-sheet drawer (Tray 2)	Optional duplex unit	Print mode	Paper Weight setting[1]
Paper (grain long)[2]	Xerographic or bond paper	60–74 g/m^2 (16–19 lb)	60–74 g/m^2 (16–19 lb)	60–74 g/m^2 (16–19 lb)	Plain paper	Light
	Xerographic or bond paper	75–120 g/m^2 (20–32 lb)	75–105 g/m^2 (20–28 lb)	75–105 g/m^2 (20–28 lb)		Normal
	100% cotton	75–120 g/m^2 (24–32 lb)	75–120 g/m^2 (24–32 lb)	75–120 g/m^2 (24–32 lb)		Heavy
Glossy paper[5]	Glossy	120 g/m^2 (32 lb)	N/A	120 g/m^2 (32 lb)	Glossy	Normal
Card stock—maximum (grain long)[2]	Index	163 g/m^2 (90 lb)	N/A	N/A	Card stock	Normal
	Index	164–210 g/m^2 (91–110 lb)	N/A	N/A		Heavy
Transparency	Laser printer	See [4].	N/A	N/A	Transparency	Normal
Labels[3]	Paper	90–163 g/m^2 (24–90 lb)	N/A	N/A	Labels	Normal
Envelopes 100% cotton content maximum weight—24 lb	Sulfite, wood-free or up to 100% cotton bonds	75–90 g/m^2 (20–24 lb)	N/A	N/A	Envelope	Normal

[1] The Paper Weight setting is in the Paper Menu within the operator panel menus. Select the correct value based on the information presented.

[2] Punched, embossed, water-marked, perforated, inkjet, or plastic coated media should not be used.

[3] Only an occasional use of paper labels in an office environment is supported.

[4] Use transparencies Lexmark Part Number 12A5940 for letter size and Lexmark Part Number 12A5941 for A4 size in tray 1.

[5] Use glossy paper Lexmark Part Number 12A5950 for letter size and Lexmark Part Number 12A5951 for A4 size.

Media capacities

Legend ✓ — supported ✘— unsupported Media type	Standard tray 250-sheet letter size tray (Tray 1)	Optional tray 250-sheet legal size tray (Tray 1)	Optional 530-sheet drawer (Tray 2)
Paper	250 sheets*	250 sheets*	530 sheets*
Card stock	30 sheets**	30 sheets**	✘
Labels	80	80	✘
Transparencies	50	50	✘
Envelopes	10 of Com 10	10 of Com 10	✘
* Based on 20 lb paper. ** 30 sheets of 90 lb card stock or 25 sheets of 110 lb card stock.			

Tray linking

Tray linking enables the automatic linking feature for trays when you load the same size and type of media in multiple sources. The printer automatically links the trays; when one tray is empty, media feeds from the next linked tray.

For example, if you have the same size and type of media loaded in tray 1 and tray 2, the printer selects media from tray 1 until it becomes empty, and then the printer automatically feeds media from the next linked tray — tray 2.

By linking both trays, you effectively create a single source with a capacity of 780 sheets.

If you load the same size media in each tray, make sure the media is all the same type in order to link the trays.

Once the trays you selected are loaded with the same size and type of media, select the same Paper Type setting in the Paper Menu for these sources.

To disable tray linking, set the Paper Type to a unique value in each one of the trays. If all the trays do not have the same type of media when they are linked, you could mistakenly print a job on the wrong paper type.

Using the duplex function (two-sided printing)

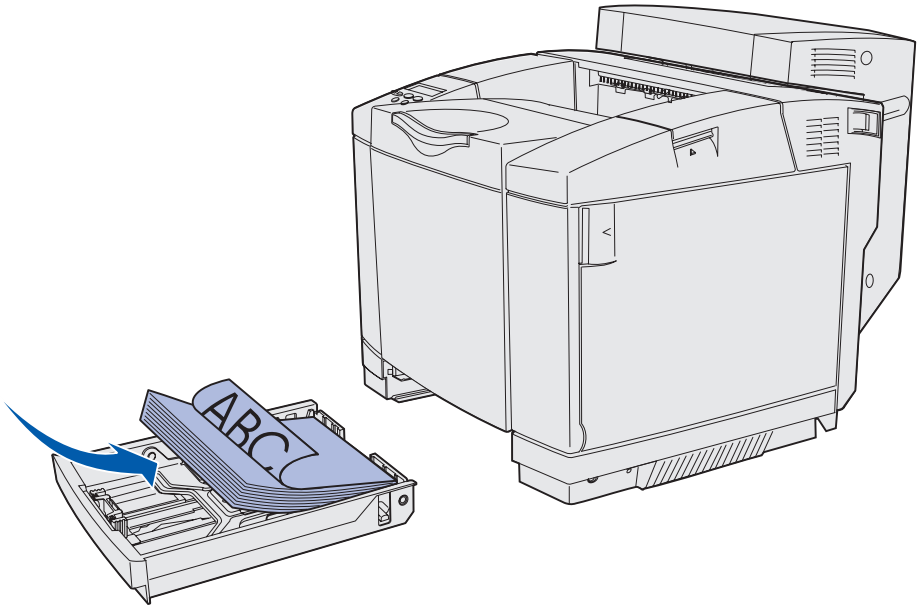
Duplex printing (or *two-sided printing)* lets you print on both sides of a sheet of paper. Printing on both sides of paper reduces printing costs.

For sizes that are acceptable for duplex printing, see **Media sizes and support**.

Select Duplex from your printer driver to print individual duplex jobs.

Duplex printing on letterhead

When duplex (two-sided) printing on letterhead from the trays, load it with the logo facedown and entering the printer last.



Using Duplex Bind

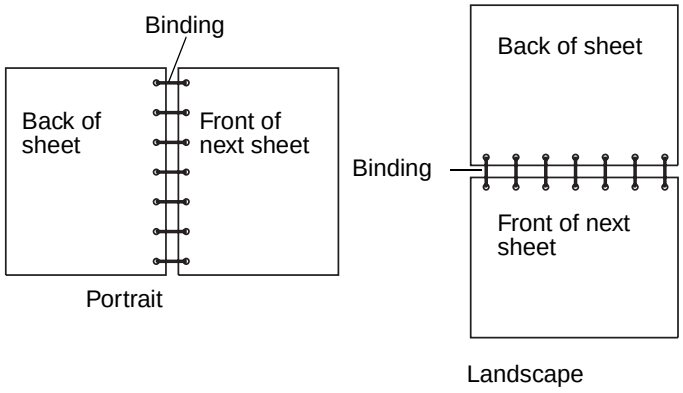
When you select duplex bind printing in the printer driver or Duplex Bind in the Finishing Menu, you must select either long edge or short edge binding, which are the values for this setting. The purpose of Duplex Bind is to define the way duplexed pages are bound, and how the printing on the back of the sheet (even-numbered pages) is oriented in relation to the printing on the front (odd-numbered pages).

The two values for Duplex Bind are:

Long Edge*

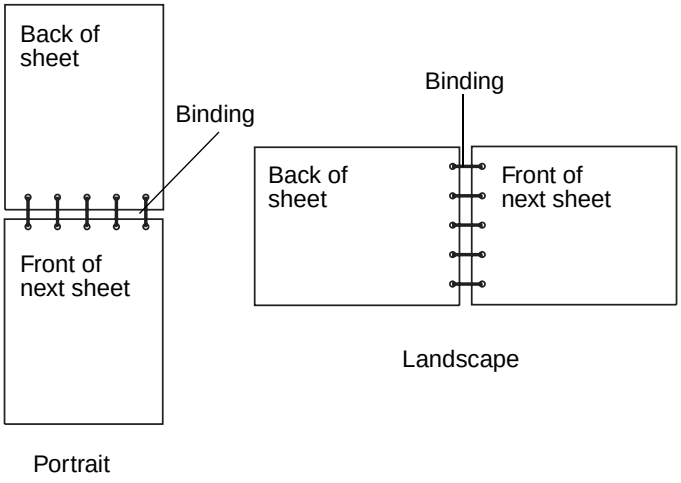
The asterisk (*) indicates this is the factory default setting

Assumes binding along the long end of the page (left edge for portrait orientation and top edge for landscape orientation). The following illustration shows long-edge binding for portrait and landscape pages:



Short Edge

Assumes binding along the short edge of the page (top edge for portrait orientation and left edge for landscape orientation). The following illustration shows short-edge binding for portrait and landscape pages:



Using the output bin

The output bin holds up to 250 sheets of 20 lb paper and is located on top of the printer. The output bin collates print jobs facedown.

The output bin supports all media listed in **Media sizes and support**.

Loading the trays

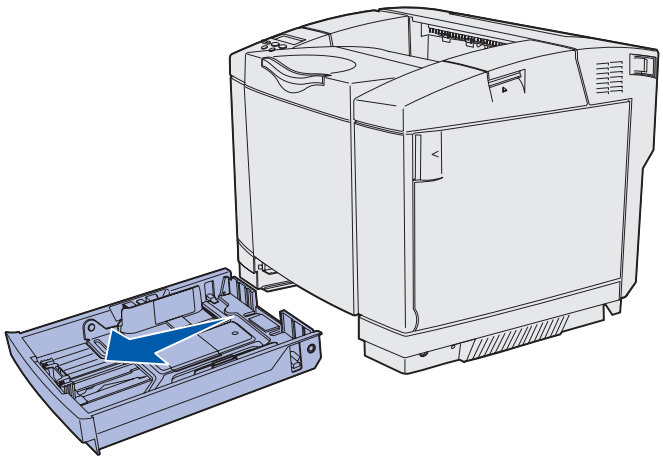
Your printer has three trays to select from: the standard tray (tray 1), also known as the 250-sheet tray or 250-sheet letter size tray, the optional 250-sheet legal size tray (tray 1), or an optional 530-sheet tray (tray 2) which is part of the 530-sheet drawer and fits into the support unit. Load the paper or specialty media you use for the majority of your print jobs in tray 1. Proper media loading helps prevent jams and helps make your printing trouble-free.

Note: You use either the standard tray or the optional 250-sheet legal size tray in the printer. Only one may be used at a time. Either tray is considered tray 1.

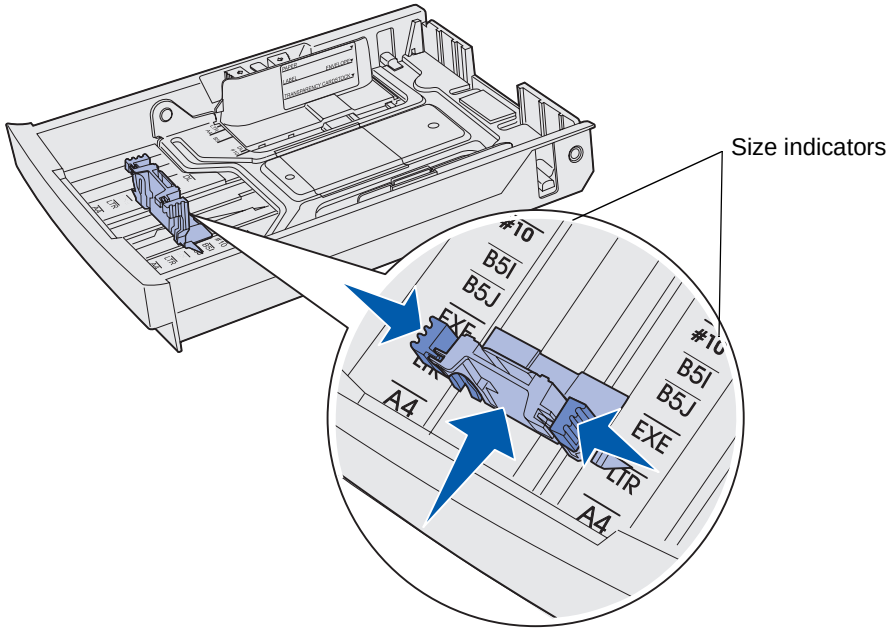
Do not remove trays while a job prints or while **Busy** blinks on the operator panel. Doing so may cause a jam.

Load the standard tray or optional trays in the same way. The width and length guide tabs look differently; however, all of them squeeze and move in the same manner.

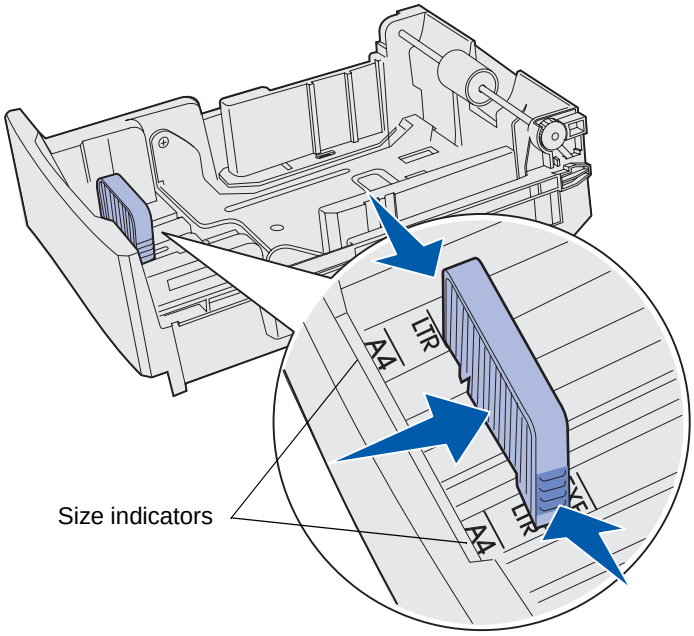
1 Pull the tray out. Remove the tray completely.



2 Squeeze the length guide tabs together as shown. Slide the guide to the correct position for the size of paper you are loading. For setup, load Letter or A4 based on the standard size for your country or region. Notice the size indicators on the bottom of the tray on both sizes of the guide. Use these indicators to help you position the guide at the correct size.

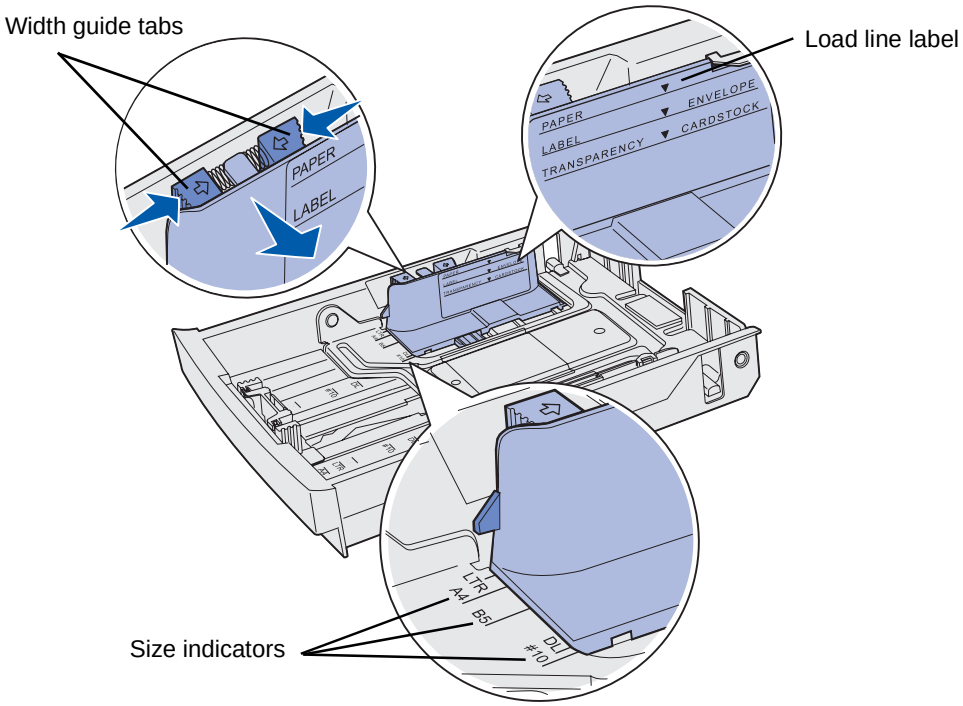


This second illustration shows the tabs and size indicators for the optional 530-sheet tray.

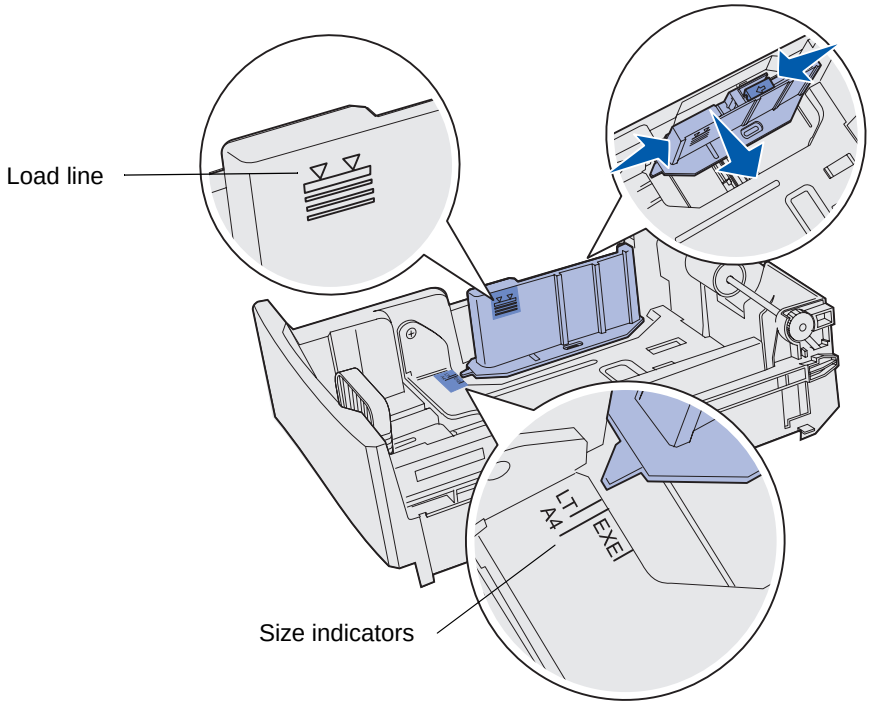


3 Squeeze the width guide tabs as shown. Slide the width guide to the correct position for the size of paper you are loading. For setup, load Letter or A4 based on the standard size for your

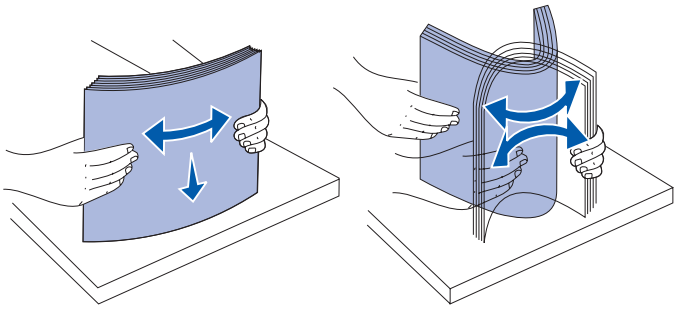
country or region. Notice the size indicators on the bottom left of the tray. Notice the load line label on the side of the tray which indicates the maximum stack height for your media.



This second illustration shows the tabs, the size indicators, and the load line for the optional 530-sheet tray which is part of the optional 530-sheet drawer.

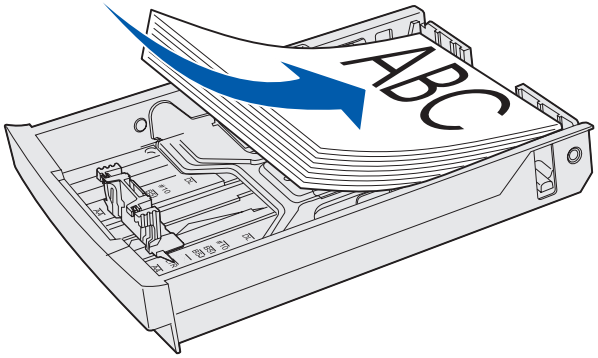


4 Flex the sheets back and forth to loosen them, and then fan them. Do not fold or crease the media. Straighten the edges on a level surface.



5 Load the paper stack with the recommended print side faceup. Load the stack toward the rear of the tray as shown.

If you load letterhead paper, place the header at the rear of the tray.



6 Insert the tray.

Loading envelopes in the standard tray

The recommended stack height is 10 envelopes; however, in normal environments as many as 15 envelopes may be loaded. In high temperature or humidity environments, only seven envelopes should be loaded.

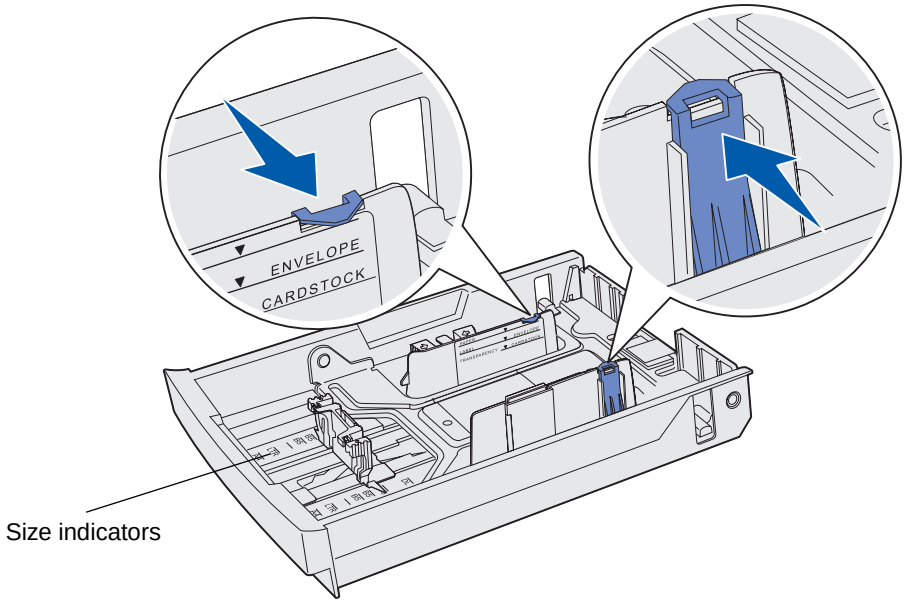
1 Pull the standard tray completely out.

2 Squeeze the length guide tabs together as shown in **step 2 on page 42**. Slide the guide to the correct position for the size of envelope you are loading.

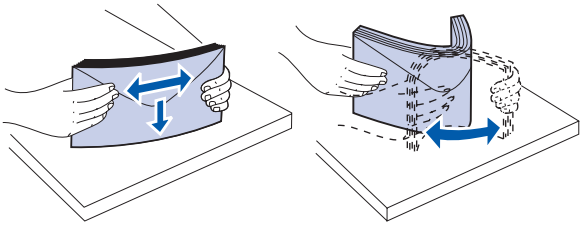
3 Squeeze the width guide tabs as shown in **step 3 on page 42**. Slide the width guide to the correct position for the size of envelope you are loading. Notice the size indicators on the bottom left of the tray.

4 Push the envelope stack aid tabs toward each other. They *snap* into place.

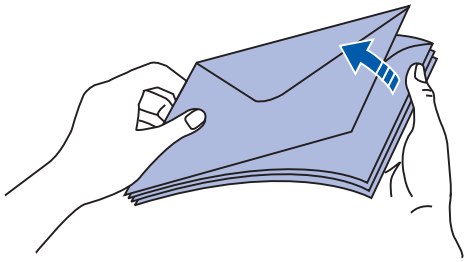
Note: These tabs keep a stack of envelopes in the proper position for feeding.



5 Flex a stack of envelopes back and forth and then straighten the edges on a level surface. Press down the corners to flatten them.



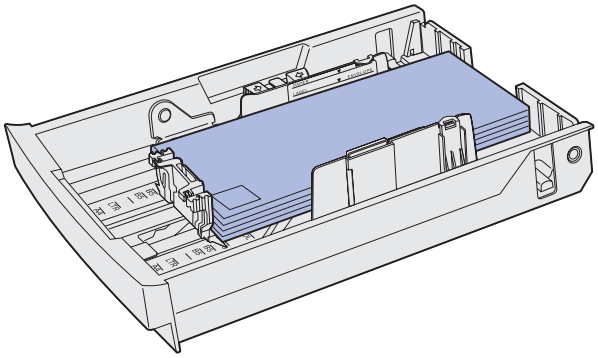
Fan the envelopes. This prevents the edges of the envelopes from sticking together and helps them feed properly.



6 Load envelopes flap side down with the stamp area and flap on the right. The end of the envelope with the stamp area enters the printer first.

Note: Some envelopes may feed better with the flap loaded to the left. Try printing a few envelopes before printing large quantities.

Warning: Never use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives. These envelopes may severely damage the printer. The stamp is shown in the illustration only for placement.

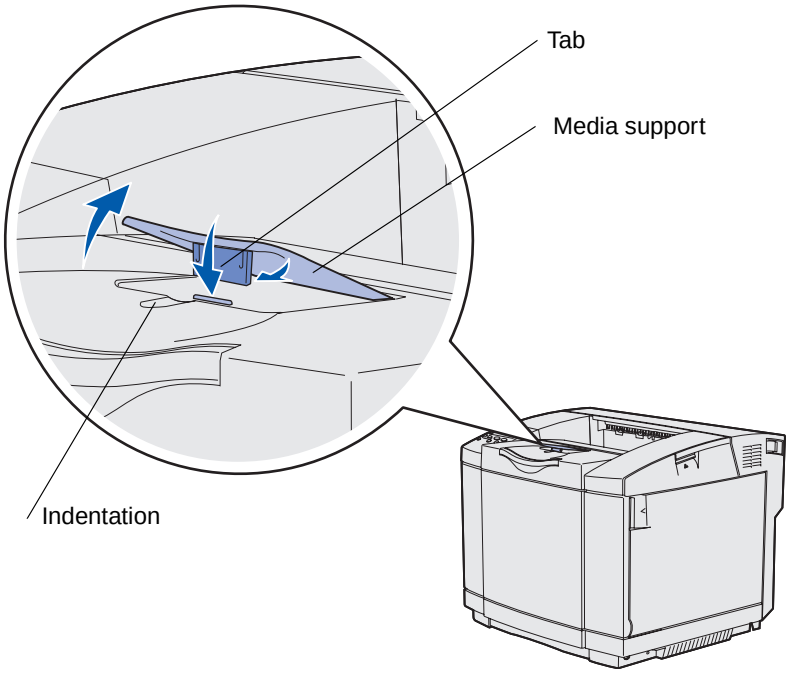


7 Insert the standard tray.

Using the media support in the output bin

Use the media support so a stack of media does not skew in the output bin. To use the media support:

1. Grasp the edge of the media support at the indentation in the output bin.
2. Lift the media support. Pull the tab on the bottom of the media support forward until it *snaps* into place.
3. Lower the media support into place so that it is now at an angle due to the tab.



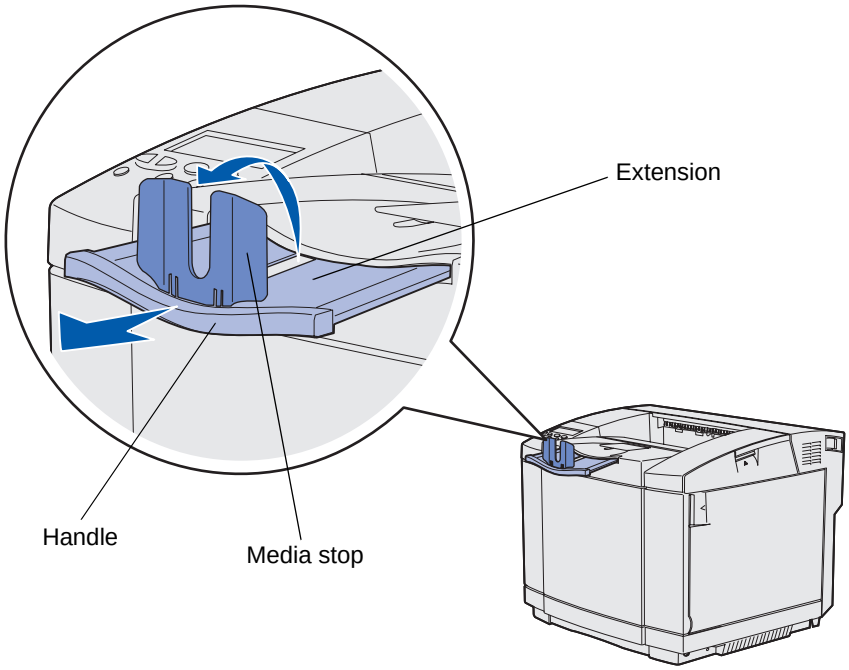
The media support is inclined so your stacked media now remains in a neater stack in the output bin.

Note: Do not leave the media support inclined if you are printing transparencies.

Using the media stop

Use the media stop when printing on letter, legal, or A4 size media.

1. Grasp the handle on the extension and pull it straight out.
2. Rotate the media stop upward.



3. Push the extension to the position for the media size you are using based on the size markings on the extension.

4 Clearing jams

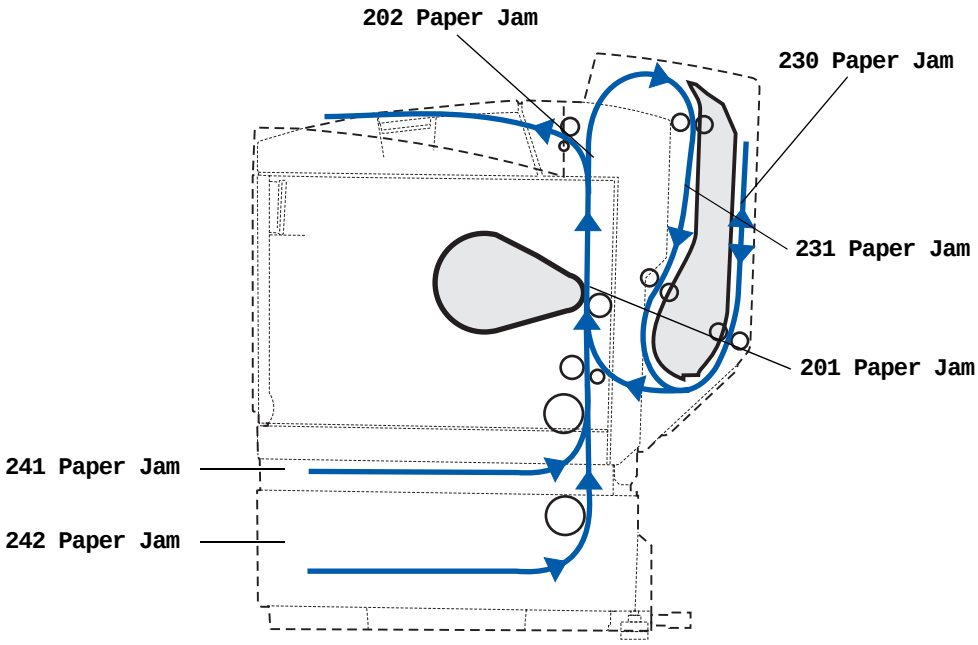
Avoiding jams hints

The following hints can help you avoid jams:

- Use only recommended paper or specialty media (referred to as media). See **Media guidelines** for more information. Refer to the *Card Stock & Label Guide* available on the Lexmark Web site at www.lexmark.com/publications for more information about which media will provide optimum results for your printing environment.
- If you need detailed information before purchasing large quantities of customized media, refer to the *Card Stock & Label Guide*.
- See **Loading the trays** to load media properly.
- Do not overload the media sources. Make sure the stack height does not exceed the maximum height indicated by the load line labels in the sources.
- Do not load wrinkled, creased, damp, or curled media.
- Flex, fan, and straighten media before you load it.
- Do not use media that you have cut or trimmed yourself.
- Do not mix media sizes, weights, or types in the same media source.
- Use only recommended paper. See **Unacceptable paper**.
- Make sure the recommended print side is faceup when loading all trays for simplex (single-sided) printing.
- Keep media stored in an acceptable environment. See **Storing media**.
- Do not remove trays during a print job.
- Push all trays in firmly after loading them.
- Make sure the guides in the trays are properly positioned for the size of media you have loaded. Make sure the guides are not placed too tightly against the stack of media.
- Make sure all cables that connect to the printer are correctly attached. Refer to the *Setup Guide* for more information.

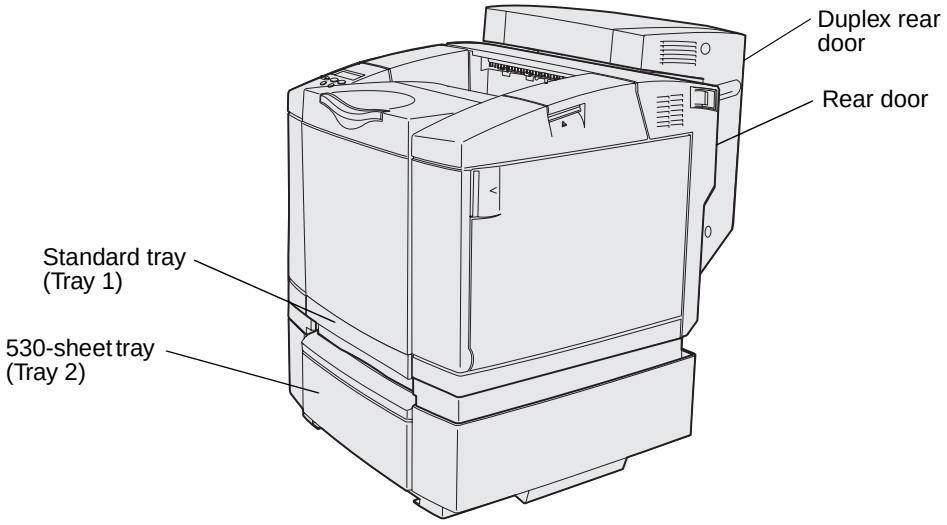
Identifying the media path

The following illustration shows the path that media travels through the printer. The path varies depending on the input source (tray 1 or tray 2) and if you use the optional duplex unit.



Accessing jam areas

Open doors and covers, and remove trays to access jam areas. The illustration shows the location of sources and possible jam areas.



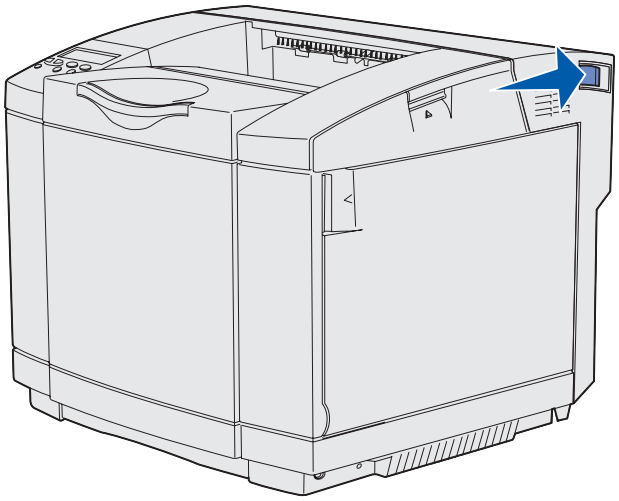
Use the following table to locate instructions for a particular jam; however, to resolve any message, you must clear all media from the media path.

Jam message	Go to page
201 Paper Jam Open Rear Door	52
202 Paper Jam Open Rear Door	54
230 Paper Jam Duplex Door	55
231 Paper Jam Duplex Door	56
241 Paper Jam Check Tray 1	57
242 Paper Jam Check Tray 2	58

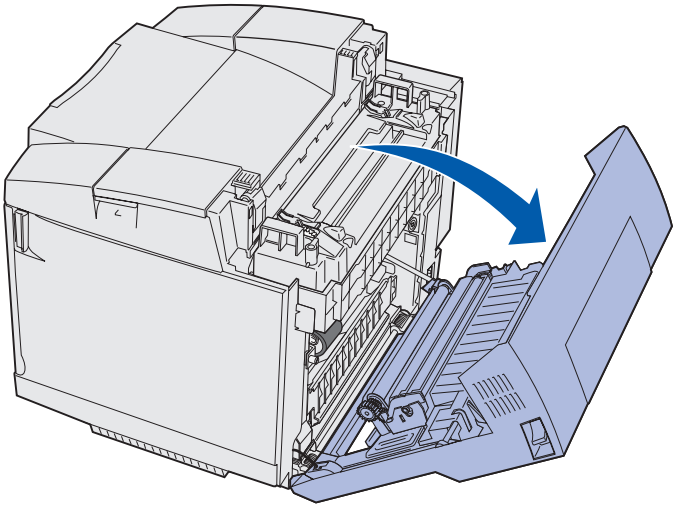
201 Paper Jam Open Rear Door

A **201 Paper Jam** message indicates the media is jammed behind the rear door.

1. Push the rear door release latch.

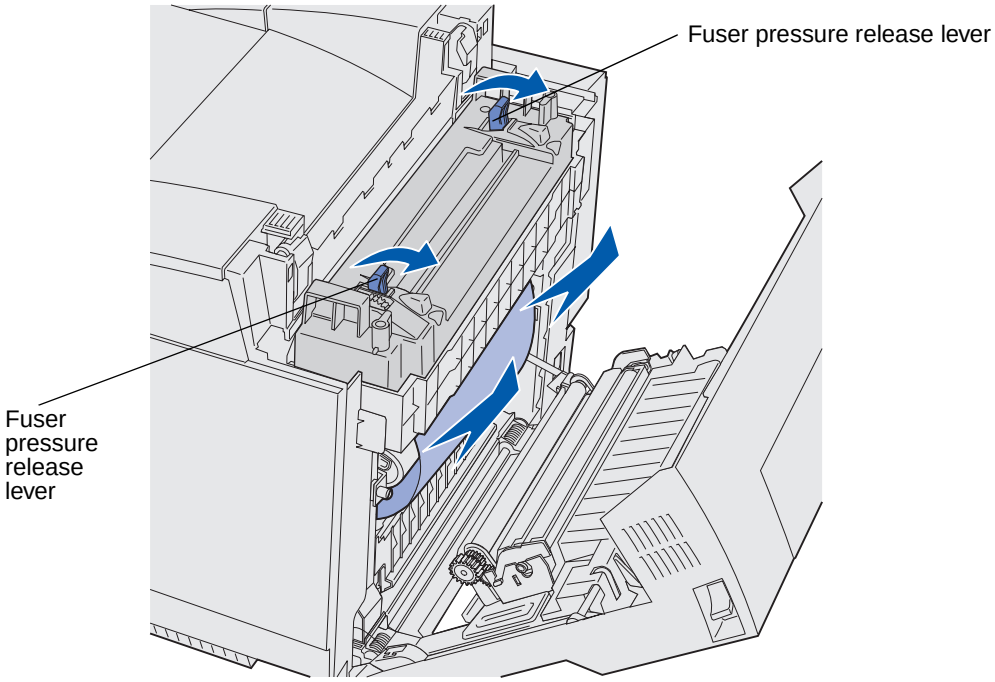


2. Gently lower the rear door.



3 Pull the fuser pressure release levers to release tension on the media.

4 Grasp each side of the jammed media. Pull it to the rear of the printer and then out.



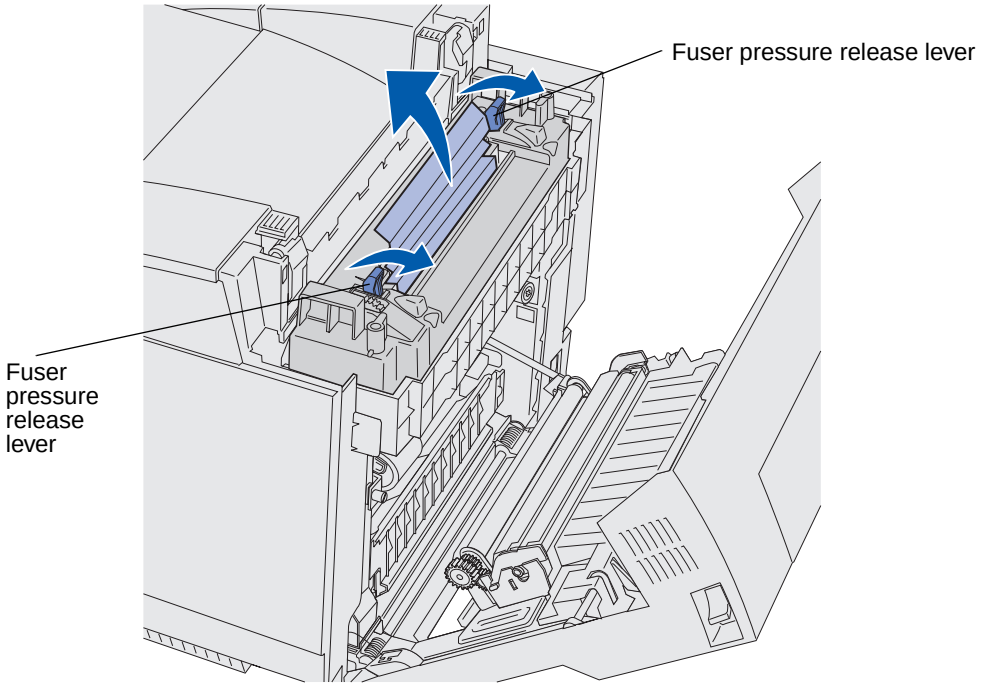
Note: Gently pull the media out so you do not tear it.

5 Close the rear door.

202 Paper Jam Open Rear Door

A **202 Paper Jam** message indicates the media is jammed behind the rear door above the fuser.

1. Push the rear door release latch and gently lower the rear door. See the illustrations on **page 52**.
2. Pull the fuser pressure release levers to release tension on the media.
3. Grasp each corner of the jammed media and pull it up and out.



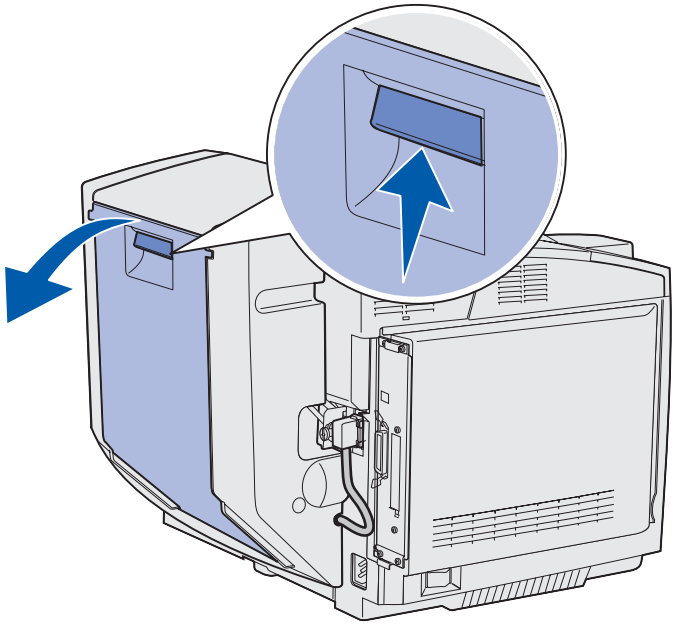
Note: Gently pull the media out so you do not tear it.

4. Close the rear door.

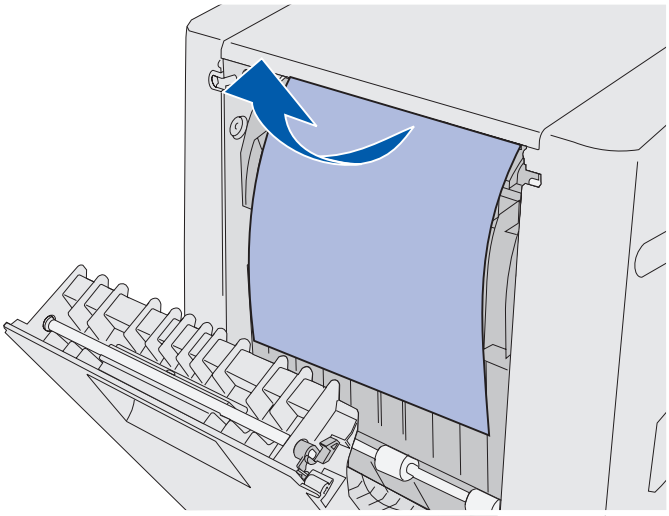
230 Paper Jam Duplex Door

A **230 Paper Jam** message indicates the media is jammed between the duplex redrive and the duplex door.

1. Pull up on the duplex rear door latch. Gently lower the duplex rear door.



2. Grasp the jammed media. Pull it straight up and out.

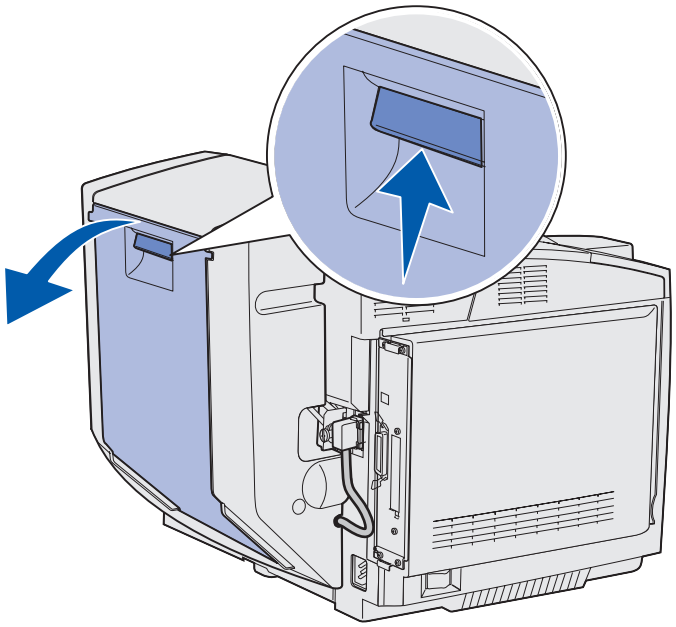


3. Close the duplex rear door.

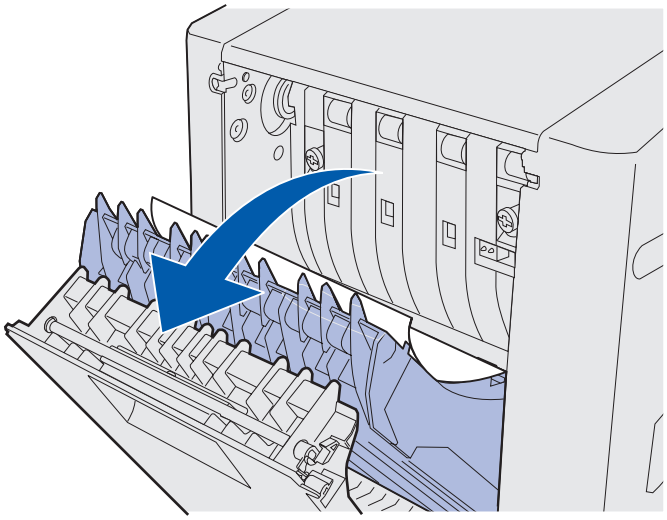
231 Paper Jam Duplex Door

A **231 Paper Jam** message indicates the media is jammed behind the duplex redrive.

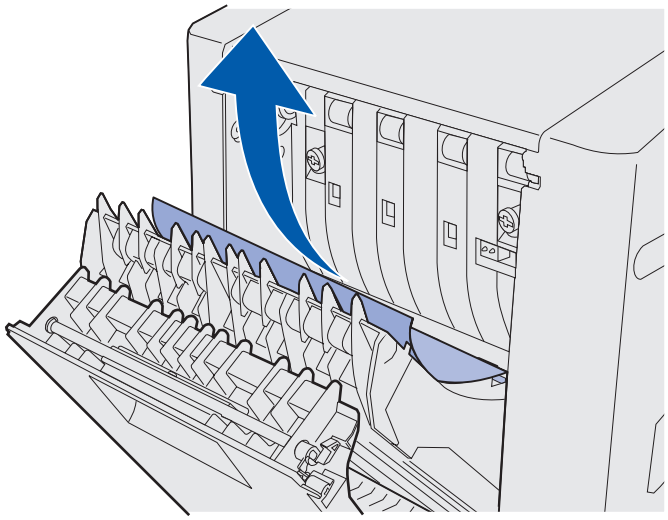
1. Pull up on the duplex rear door latch. Gently lower the duplex rear door.



2. Pull the duplex redrive down.



3 Grasp the jammed media. Pull it straight up and out.



4 Close the duplex redrive.

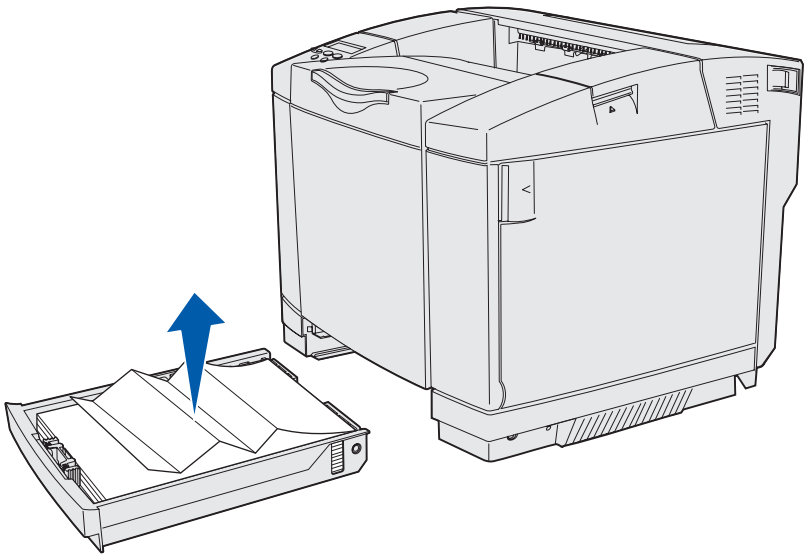
5 Close the duplex rear door.

241 Paper Jam Check Tray 1

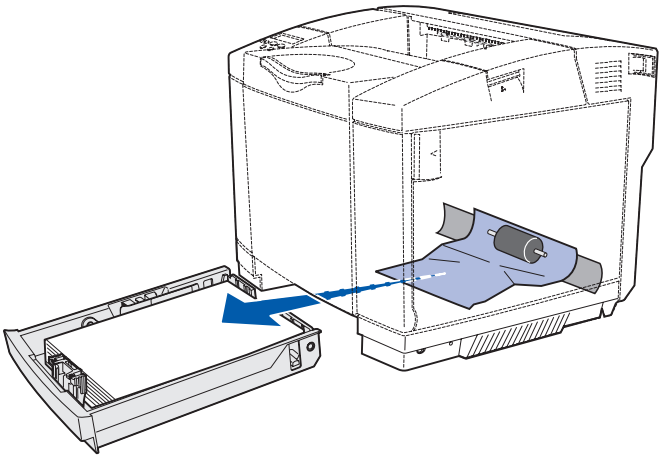
A **241 Paper Jam** message indicates the media is jammed in tray 1. Tray 1 could be the 250-sheet letter size tray or the optional 250-sheet legal size tray.

1 Pull the tray out. Remove the tray completely.

- For a misfeed of the media, the single piece of media is laying on top of the stack. Pull it straight out.



- For media jammed behind the tray area, locate the jam on the bottom surface of the tray housing. You may have to reach far under the printer to locate the jam, as shown in the following illustration. Pull the jam straight out.



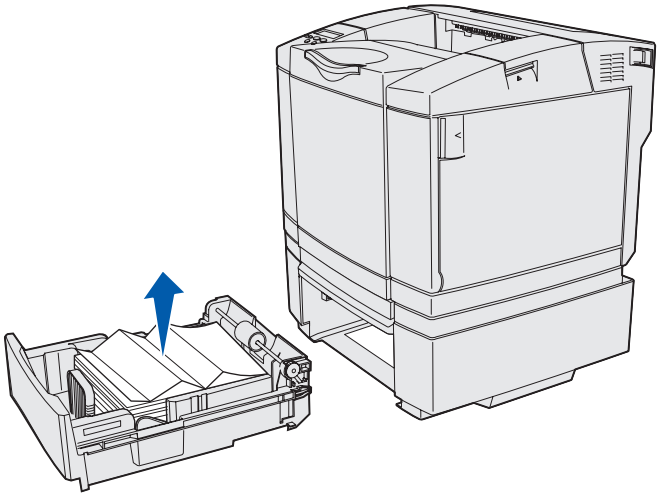
2 Insert the tray.

242 Paper Jam Check Tray 2

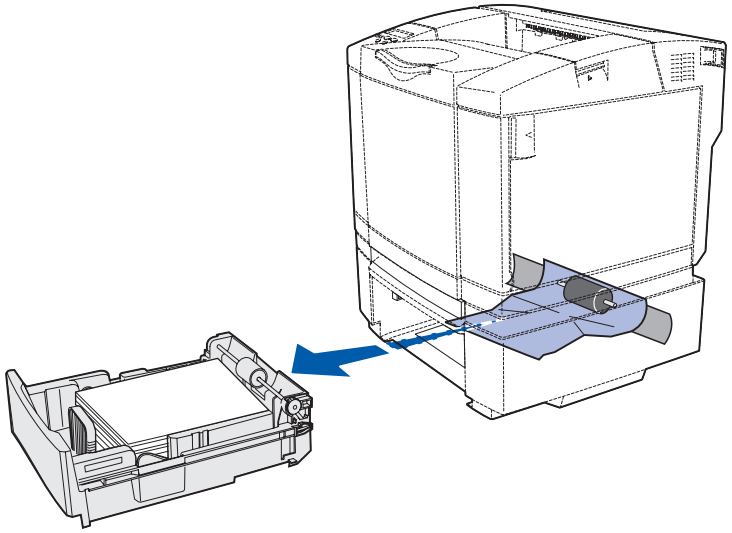
A **242 Paper Jam** message indicates the media is jammed in the optional 530-sheet tray (tray 2).

1 Pull the tray out. Remove the tray completely.

- For a misfeed of the media, the single piece of media is laying on top of the stack. Pull it straight out.



- For media jammed behind the tray area, locate the jam on the bottom surface of the support unit. You may have to reach far under the printer to locate the jam. Pull the jam straight out.



2 Push the tray into the support unit.

5 Maintenance

The following sections deal with topics for a network administrator in charge of the printer.

Maintaining your printer

Periodically, you need to complete certain tasks to maintain optimum print quality. These tasks are covered in this chapter.

If several people are using the printer, you may want to designate a key operator to do the setup and maintenance of your printer. Refer printing problems and maintenance tasks to this key operator.

In the U.S., contact Lexmark at 1-800-539-6275 for information about Lexmark Authorized Supplies Dealers in your area. In other countries or regions, visit the Lexmark Web site at www.lexmark.com or contact the place where you bought your printer.

Determining the status of supplies

To determine the status of all of the consumables installed in your printer, print the menu settings page.

See **Printing the menu settings page** for detailed instructions.

One or two pages print, depending on the number of menu settings you have. Look for “Consumable Status” on the page; the percentage of life remaining for each of the items is indicated.

Conserving supplies

Several settings in your application software or on the display let you conserve toner and paper:

Supply	Setting	What the setting does	For more information, see...
Toner	Toner Darkness in the Color Menu	Lets you adjust the level of toner released on a sheet of media. The values range from 1 (lightest setting) to 5 (darkest setting).	**Toner Darkness**
Paper and speciality media	Multipage Print in the Finishing Menu	Causes the printer to print the two or more page images on one side of a sheet. Values for Multipage Print are 2 Up, 3 Up, 4 Up, 6 Up, 9 Up, 12 Up, and 16 Up. Combined with the duplex setting, Multipage Print lets you print up to 32 pages on one sheet of paper (16 images on the front and 16 on the back).	**Multipage Print**
	Duplex in the Finishing Menu	Duplex (two-sided) printing is available when you attach the optional duplex unit. It lets you print on both sides of a sheet of paper.	**Duplex**
	Use your software application or printer driver to send a Verify Print job. Use Held Jobs in the Job Menu to access Verify Print job.	Lets you examine the first copy of a multiple-copy job to be sure it is satisfactory before you print the other copies. If the job is unsatisfactory, you can cancel the job.	**Verify Print** **Canceling a print job** **Held Jobs** **Using the Print and Hold function**

Ordering supplies and maintenance items

To order supplies in the U.S., contact Lexmark at 1-800-539-6275 for information about Lexmark Authorized Supplies Dealers in your area. In other countries or regions, visit the Lexmark Web site at www.lexmark.com or contact the place where you bought your printer.

Replacing maintenance items as needed helps you maintain top performance, optimize print quality, and avoid printing problems.

Ordering toner cartridges

When a **88 Cyan Toner Low**, **88 Magenta Toner Low**, **88 Yellow Toner Low**, or **88 Black Toner Low** message appears on the operator panel, you should order the appropriate new print cartridge. You can print a few hundred pages after one of the messages comes on.

The recommended print cartridges specifically designed for your printer are:

Part number	Description of cartridge	Average yield
20K0500	Cyan toner	3,000 pages
20K0501	Magenta toner	3,000 pages
20K0502	Yellow toner	3,000 pages
20K0503	Black toner	5,000 pages
20K1400	Cyan high yield toner	6,600 pages
20K1401	Magenta high yield toner	6,600 pages
20K1402	Yellow high yield toner	6,600 pages
20K1403	Black high yield toner	10,000 pages
Yields are based on an approximate coverage of 5%.		

Ordering a fuser

Order Lexmark part number 20K0506 for a low-voltage (120V/50–60Hz) printer or 20K0507 for a high-voltage (220–240V/50–60Hz) printer.

Ordering a waste toner bottle

Order Lexmark part number 20K0505.

Ordering a photodeveloper cartridge

Order Lexmark part number 20K0504.

Maintaining your printer for long term storage

If you turn the printer off for an extended period, remove the fuser. Pull the fuser pressure release levers open and then store the fuser. To pull the fuser pressure release levers open, see **page 53** for an illustration.

Storing supplies

Use the following guidelines for proper storage.

Storing media

These help avoid media feeding problems and uneven print quality:

- For best results, store media in an environment where the temperature is approximately 21°C (70°F) and the relative humidity is 40%.
- Store cartons of media on a pallet or shelf, rather than directly on the floor.
- If you store individual packages of media out of the original carton, make sure they rest on a flat surface so the edges do not buckle or curl.
- Do not place anything on top of the media packages.

Storing the toner cartridges

Store toner cartridges in their original packaging until you are ready to install them.

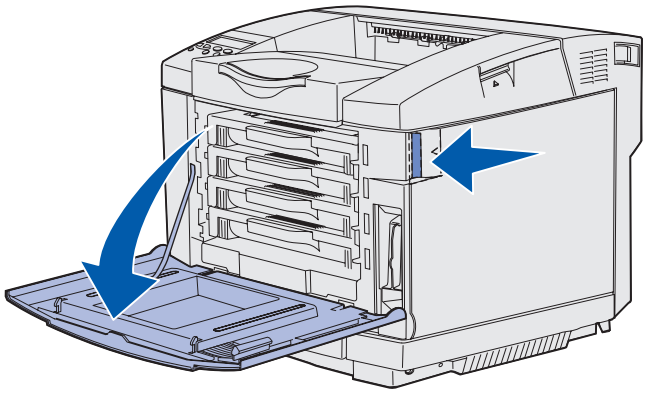
Do not store toner cartridges in:

- Temperatures greater than 40°C (104°F).
- An environment with extreme changes in humidity or temperature.
- Direct sunlight.
- Dusty places.
- A car for a long period of time.
- An environment where corrosive gases are present.
- An environment with salty air.

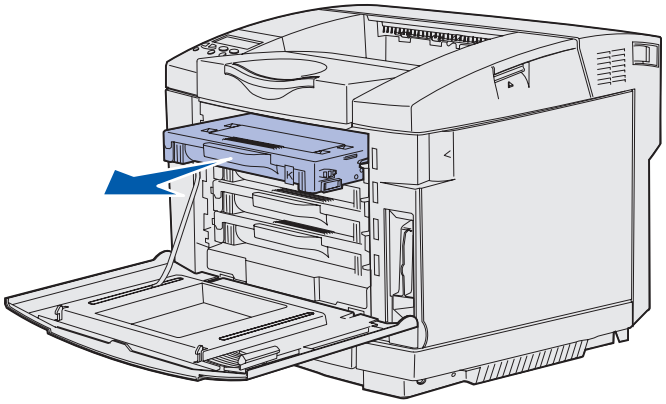
Replacing the toner cartridges

When one of the following messages appears on the operator panel, you know that the toner cartridge must be replaced soon: **88 Cyan Toner Low, 88 Magenta Toner Low, 88 Yellow Toner Low, 88 Black Toner Low**. Make sure you have ordered the appropriate toner cartridge. Replace the cartridge when the **88 Cyan Toner Empty, 88 Magenta Toner Empty, 88 Yellow Toner Empty,** or **88 Black Toner Empty** message appears. See **Ordering toner cartridges** and **88 <color> Toner Empty** for more information.

1. Pull the front door release latch forward and gently lower the front door.

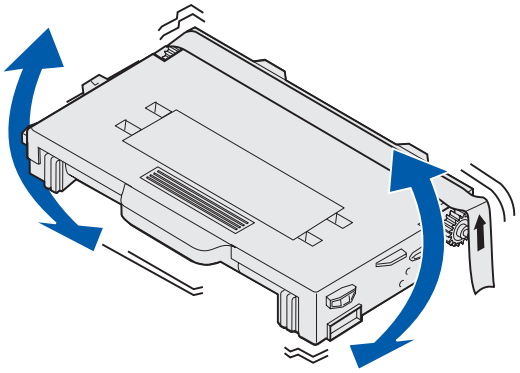


2. Grasp the handle on the empty toner cartridge and pull it straight out.

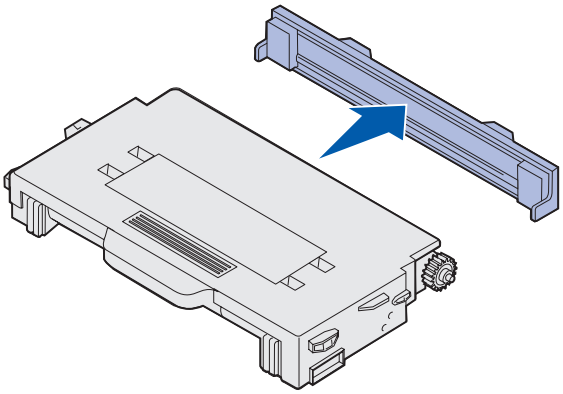


3. Remove the new toner cartridge from any packaging material.

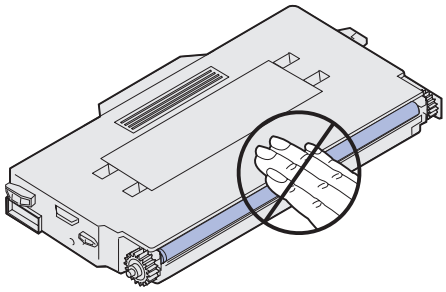
4 Gently shake the new toner cartridge to distribute the toner. Keep the toner cartridge flat as you gently shake it and do not turn it upside down.



5 Remove the cover and any other packing material or tape from the cartridge.

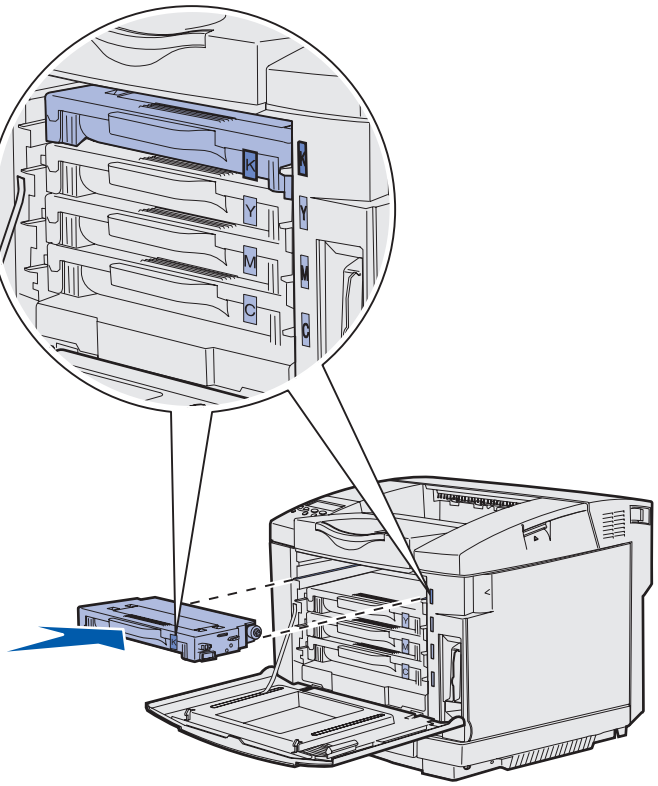


Warning: Do not touch the roller surface under the toner cartridge cover. Touching the surface may damage the roller.



6 Grasp the handle on the new toner cartridge.

7 Align the toner cartridge with the appropriate slot and slide the toner cartridge in.



Toner cartridges must remain in this order; they are not interchangeable in the slots. Notice the labels on the right side of the toner cartridges. From top to bottom, the labels mean:

K	Black
Y	Yellow
M	Magenta
C	Cyan

8 Repeat **step 2 on page 65** through **step 7 on page 67** to replace any other toner cartridges.

9 Close the front door.

10 Continue with **Setting the operator panel when a supply is replaced**.

11 Follow the instructions located in the new toner cartridge box to recycle the used toner cartridge.

When you return a used toner cartridge, you contribute to a worldwide recycling effort at no cost to you.

For best results, use Lexmark supplies with the printer. Damage caused to the printer by use of third-party supplies is not covered under your Lexmark printer warranty.

Recycling Lexmark products

To return your Lexmark products to Lexmark for recycling:

1 Visit our Web site:

www.lexmark.com/recycle

2 Follow the instructions on your screen.

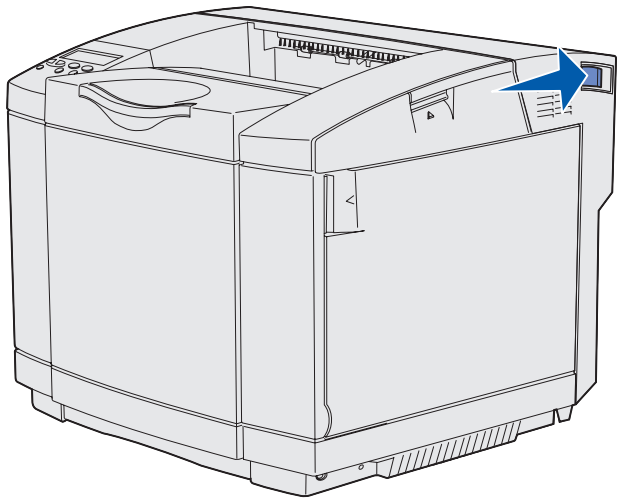
Replacing the fuser

When **87 Fuser Life Warning** appears on the operator panel, you need to replace the fuser soon. Make sure you have ordered one. See **Ordering a fuser** for more information.

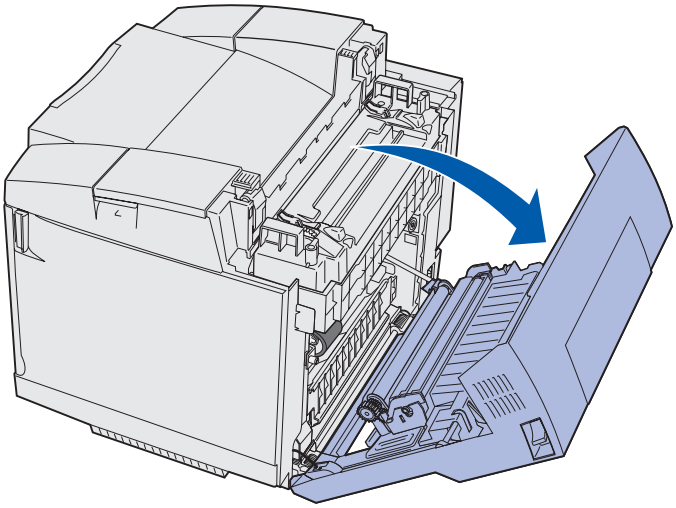
When **87 Fuser Exhausted** appears on the operator panel, you must replace the fuser immediately.

CAUTION: The fuser and the inside of the printer near the fuser may be hot. Wait for it to cool before replacing the fuser.

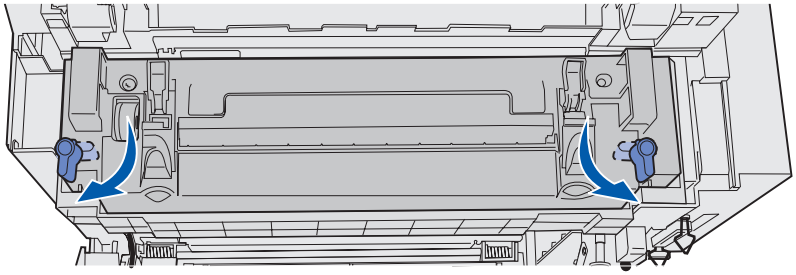
1. Turn the printer off.
2. Push the rear door release latch.



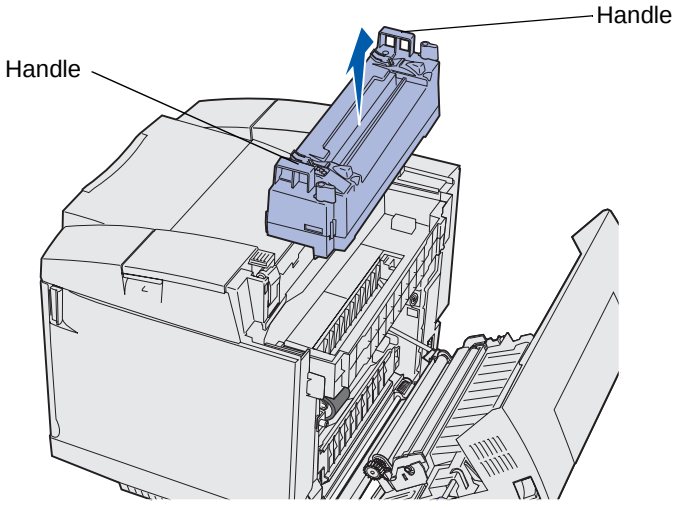
3. Gently lower the rear door.



4 Turn the two green fuser release levers as shown.



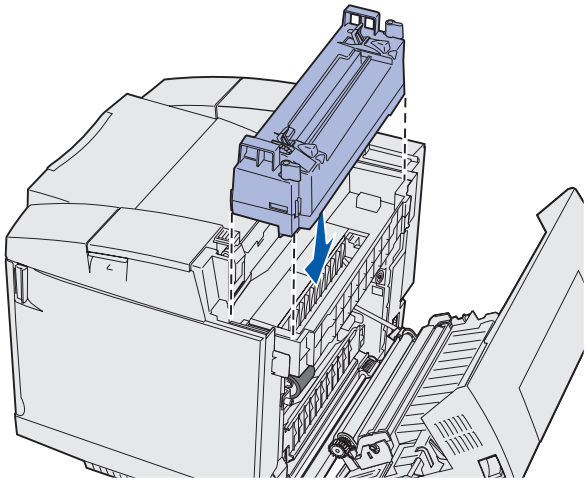
5 Grasp the used fuser by the handles and lift it straight up. Dispose of the used fuser.



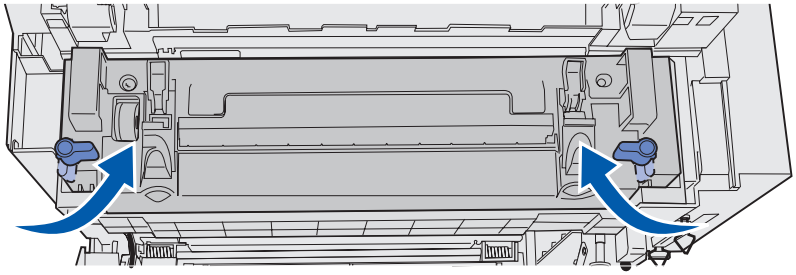
6 Unpack the new fuser. Remove any packaging material or tape.

7 Grasp the new fuser by the handles and align it with its opening.

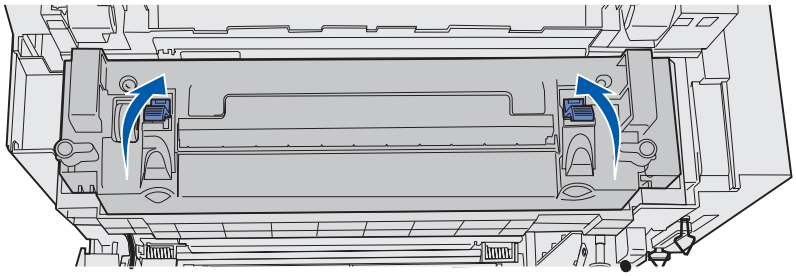
8 Gently lower it into place.



9 Turn the two green levers as shown to lock the new fuser into place.



10 Push the other two green release levers down.



11 Close the rear door.

12 Turn the printer on.

13 Continue with **Setting the operator panel when a supply is replaced**.

If you have installed the fuser improperly, **87 Fuser Missing** appears on the operator panel. If this message appears, remove the fuser, and try to reinstall it correctly.

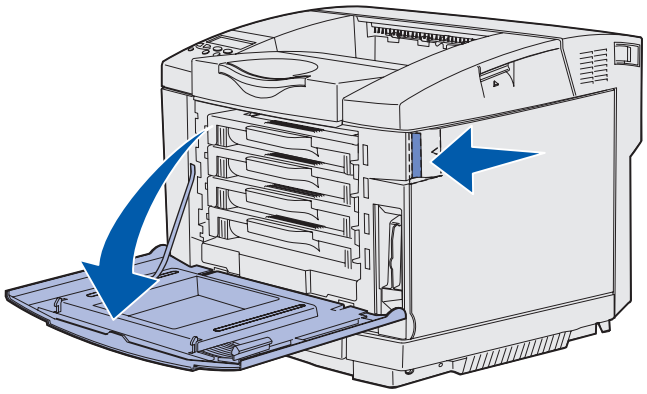
Replacing the waste toner bottle

When **82 Waste Bottle Nearly Full** appears on the operator panel, you need to replace the waste toner bottle soon. Make sure you have ordered one. See **Ordering a waste toner bottle** for more information.

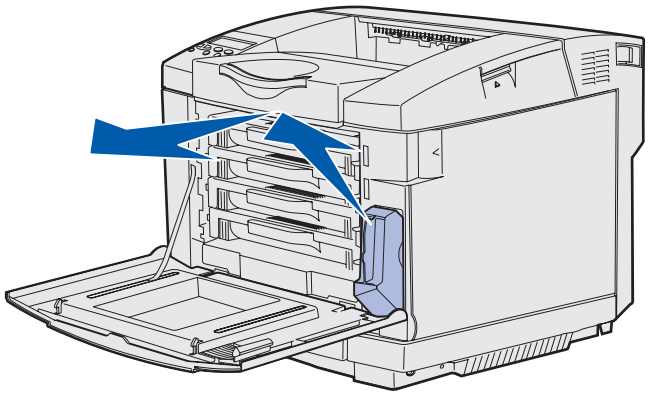
When **82 Waste Bottle Full or Missing** appears on the operator panel, you must replace the waste toner bottle immediately.

Unpack the box. It contains a new waste toner bottle, a bottle cap, and a plastic bag. Remove any packaging material or tape on the items.

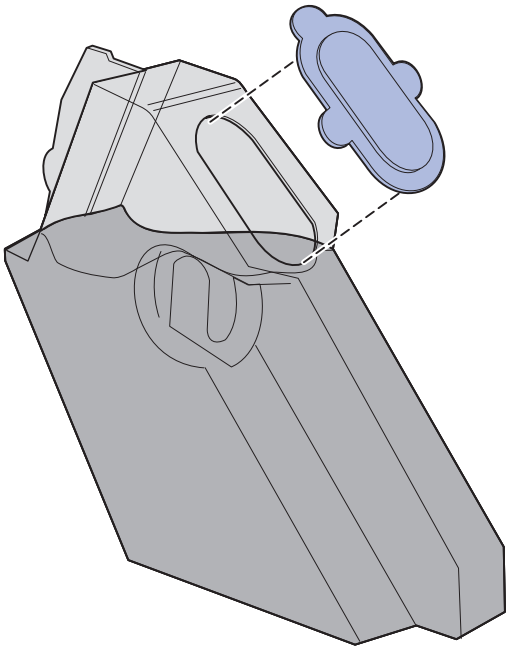
1. Pull the front door release latch forward and gently lower the front door.



2. Grasp the handle on the waste toner bottle. Lift it slightly and pull it straight out.



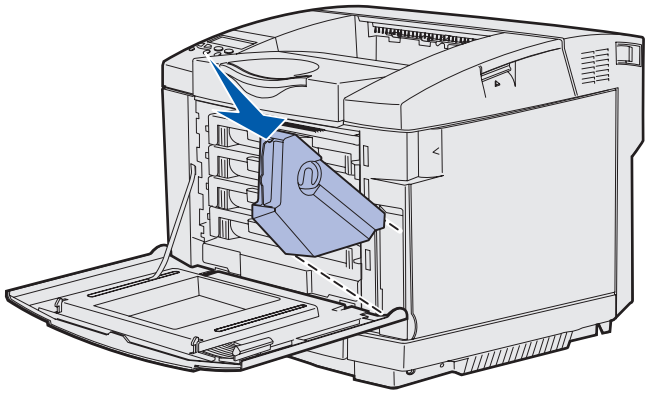
3 Plug the hole of the used waste toner bottle with the bottle cap.



4 Wrap the used waste toner bottle in the plastic bag and dispose of the bag properly.

5 Grasp the handle on the new waste toner bottle and align it with its opening.

6 Push it straight in.



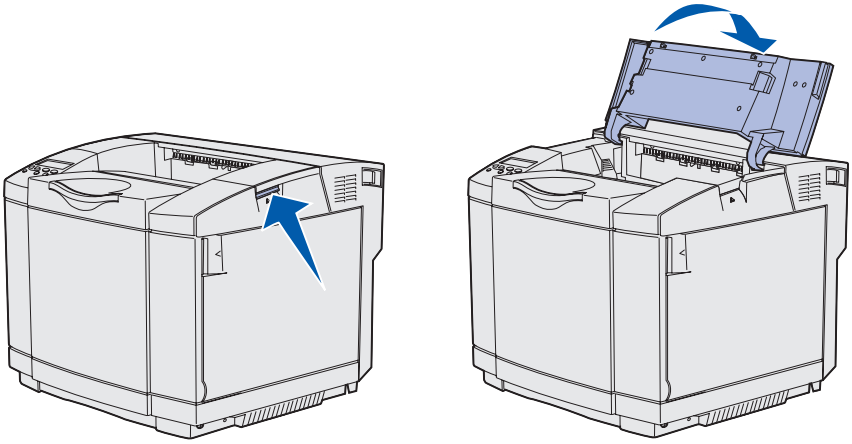
7 Close the front door.

Replacing the photodeveloper cartridge

When **`83 Photodev Cart Life Warning`** appears on the operator panel, you need to replace the photodeveloper cartridge soon. Make sure you have ordered one. See **Ordering a photodeveloper cartridge** for more information.

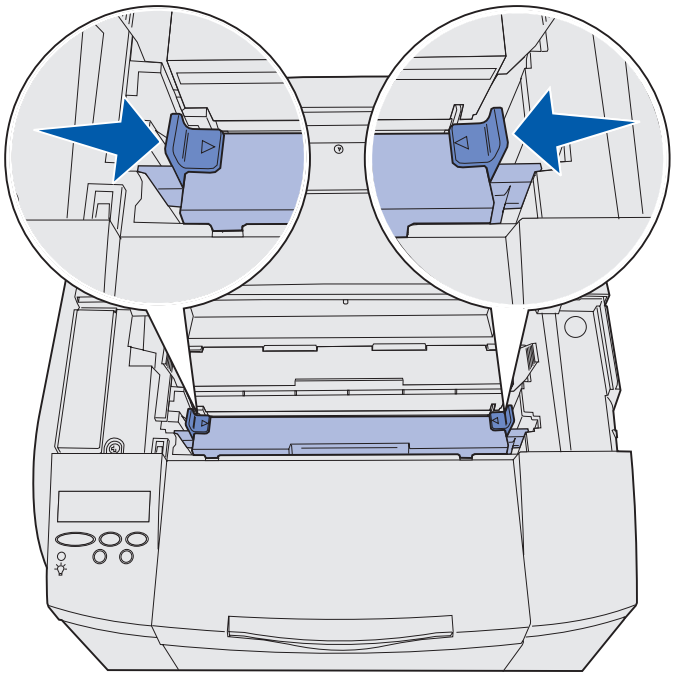
When **83 Photodev Cart Exhausted** appears on the operator panel, you must replace the photodeveloper cartridge immediately.

1. Pull up on the top door release latch. Pull the top door up, then rotate it backwards to its open position.

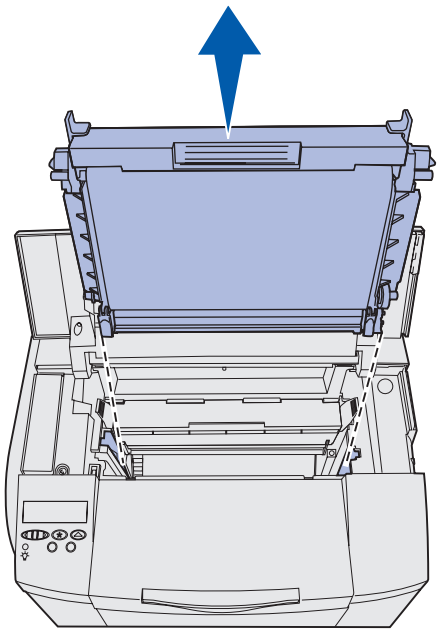


2. Push the latches toward each other to release the photodeveloper cartridge.

Note: Notice the arrow on each latch which points inward.

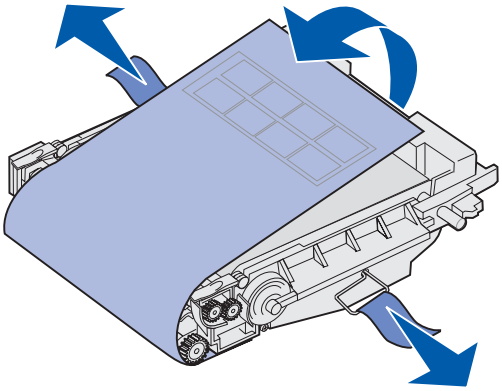


3 Grasp the handle and pull the used photodeveloper cartridge straight up. Dispose of it properly.



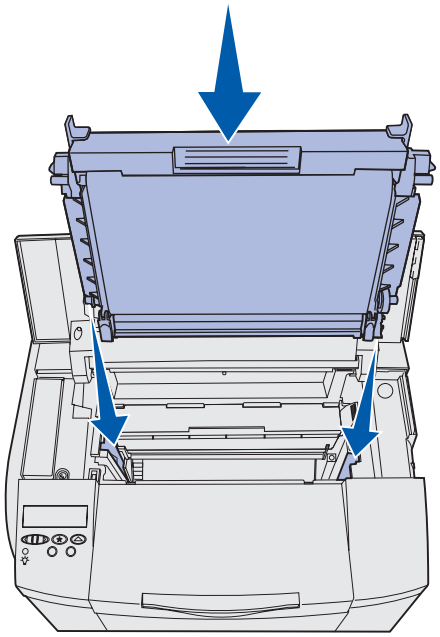
4 Carefully unpack the new photodeveloper cartridge. Remove any packaging material or tape.

5 Remove the two clips on the sides of the photodeveloper cartridge.

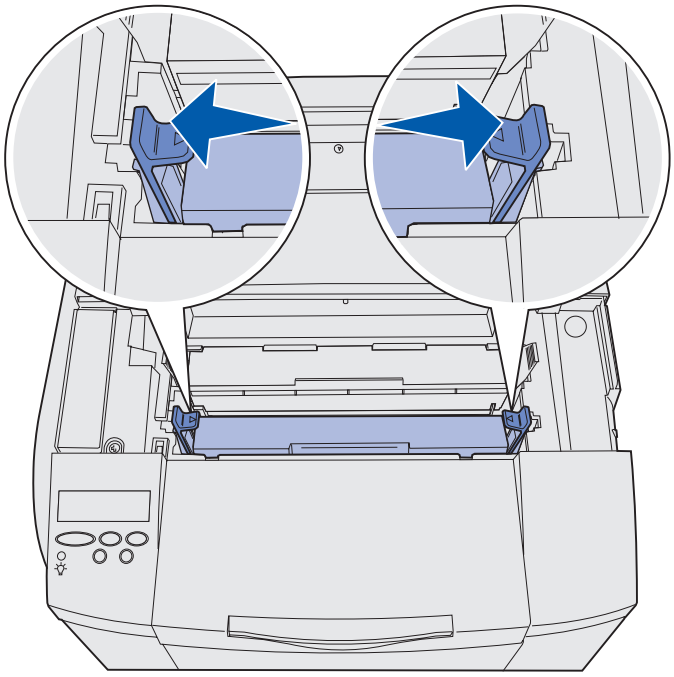


Warning: Do not touch the photoconductor film, which is the shiny green part of the photodeveloper cartridge.

6 Grasp the handle of the new photodeveloper cartridge and align it with its opening. Gently lower it into place.



7 Push the latches away from each other to lock the photodeveloper cartridge into place.



8 Close the top door.

9 Continue with **Setting the operator panel when a supply is replaced**.

Setting the operator panel when a supply is replaced

If you plan to replace a toner cartridge and the toner cartridge you are replacing has a different part number, you must change the toner cartridge yield setting before installing the toner cartridge. Changing this setting is necessary to maintain the accuracy of the counter in showing the remaining toner. See **Changing the toner cartridge yield** for instructions.

When you replace a supply item, you must specify which item was replaced. See **Specifying the replaced supply** for instructions.

Changing the toner cartridge yield

Change the yield setting before you install the toner cartridge.

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Config Menu**, and then press **Select**.
3. Press and release **Menu** until you see **Cartridge Yield**, and then press **Select**.
4. Press and release **Menu** until you see the color name of the toner cartridge you need to replace. The selections are **Cyan**, **Magenta**, **Yellow**, and **Black**. Press **Select**.
5. Press and release **Menu** until you see the type of the toner cartridge you need to replace. The selections are **Standard Yield** and **High Yield**. Press **Select**.
6. Press **Menu** until you see **Exit Config Menus**, and then press **Select**.

   The change to the yield setting takes effect once you exit the Config Menu.
7. Install the toner cartridge. See **Replacing the toner cartridges** for instructions.
8. Specify the item you replaced. See **Specifying the replaced supply** for instructions.

Specifying the replaced supply

> **Note:** If you replace the fuser or photodeveloper cartridge once the printer issues the **87 Fuser Life Warning** or **83 Photodev Cart Life Warning** messages, respectively, the printer issues message prompts on the operator panel for you to follow. You need to follow those printer message prompts instead of completing the following instructions.

Once you have replaced a toner cartridge, a fuser, or a photodeveloper cartridge, complete the following:

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Supplies Menu**, and then press **Select**.
3. Press and release **Menu** until you see **Replace Supplies**, and then press **Select**.

4 Press and release **Menu** until you see one of the following items based on the one you replaced. Make sure the one you want to select is on the second line of the operator panel.

Yellow Toner

Magenta Toner

Cyan Toner

Black Toner

Photodev Cart

Fuser

5 Press **Select**.

6 Press and release **Menu** until you see **Replaced**, and then press **Select**.

The **Saved** message appears. Press and release **Return** until the printer returns to the **Ready** state.

Cleaning the printhead lens

Clean the printhead lens when you see print quality problems as mentioned in **Solving print quality problems** in the **Troubleshooting** chapter.

1 Turn the printer off.

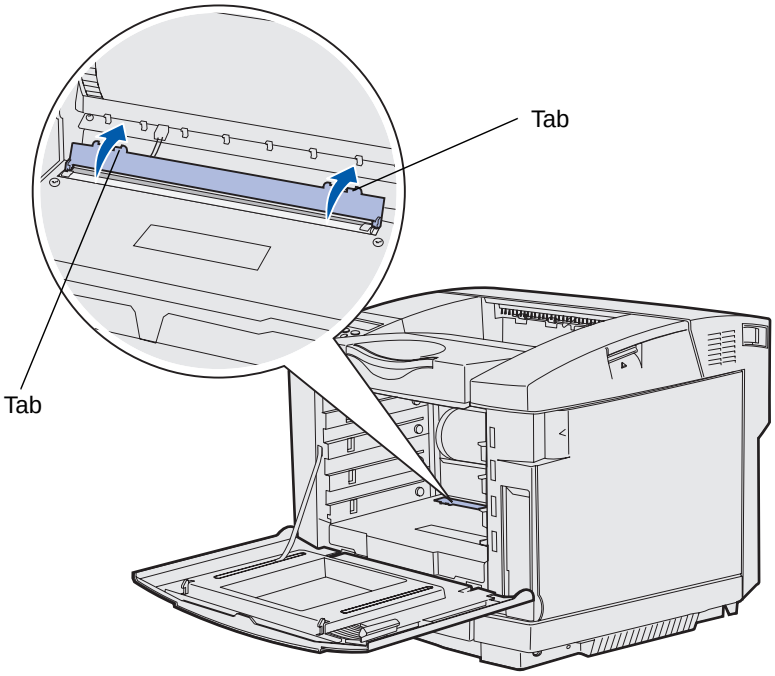
2 Pull the front door release latch forward and gently lower the front door. See the illustration in **step 1 on page 65** if you need help.

3 Remove all of the toner cartridges one at a time. See the illustration in **step 2 on page 65** if you need help.

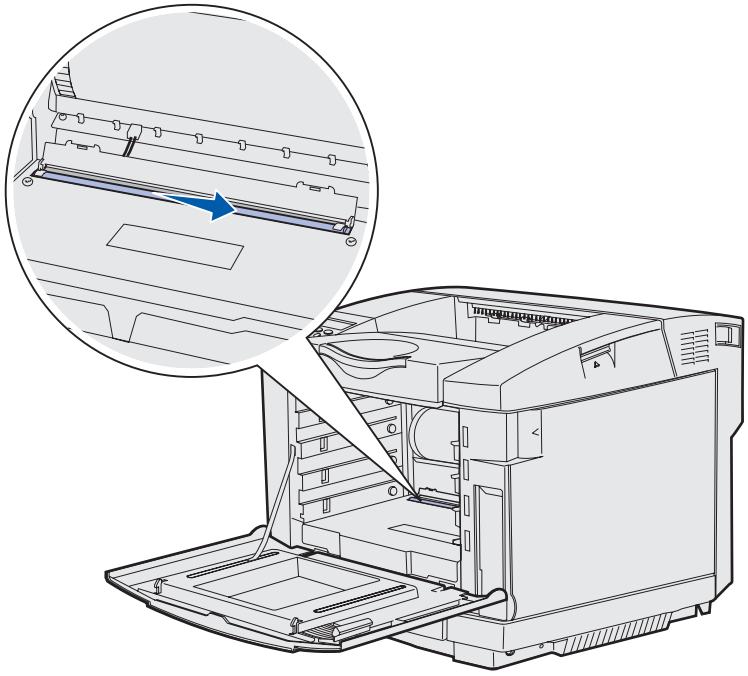
4 Open the top door. See the illustration in **step 1 on page 74** if you need help.

5 Remove the photodeveloper cartridge. Complete **step 2 on page 74** through **step 3 on page 75** to remove the photodeveloper cartridge.

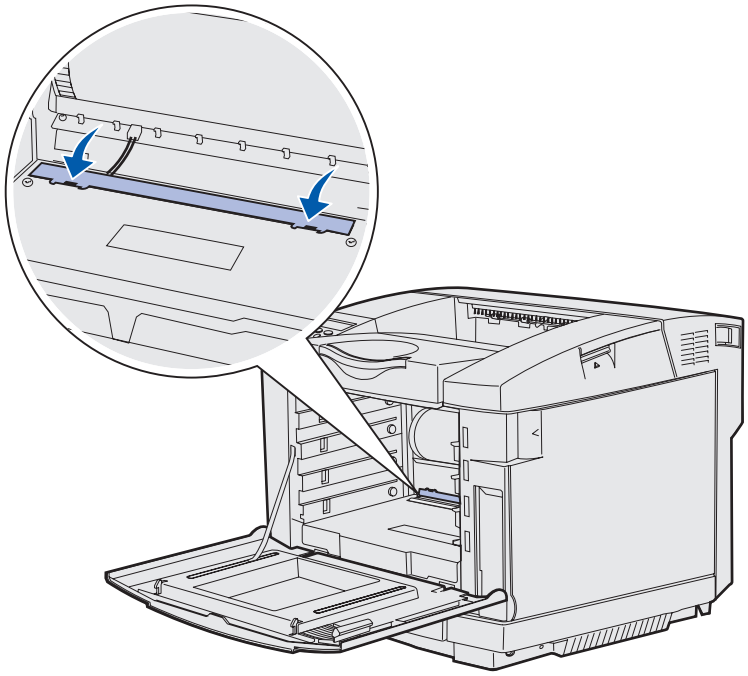
6 Pull on the tabs to lift the lens cover.



7 Gently wipe the printhead lens in one direction using a clean, dry lint-free cloth.



8 Push the lens cover down.



9 Align the photodeveloper cartridge with its opening. Gently lower it into place. See the illustration in **step 6 on page 76** if you need help.

10 Push the latches away from each other to lock the photodeveloper cartridge into place. See the illustration in **step 7 on page 76** if you need help.

11 Close the top door.

12 Install all of the toner cartridges. See the illustration in **step 7 on page 67** if you need help.

13 Close the front door.

14 Turn the printer on.

6 Troubleshooting

Solving basic printer problems

Sometimes printer problems are very easy to solve. When you have a problem, first make sure that:

- If a message is displayed on the operator panel, you consult **Understanding printer messages**.
- The printer power cord is plugged into the printer and a properly grounded electrical outlet.
- The printer power switch is on.
- The electrical outlet is not turned off by any switch or breaker.
- Other electrical equipment plugged into the outlet is working.
- All options are properly installed.

If you have checked all of the above and still have a problem, turn the printer power off, wait for about 10 seconds, and then turn the printer power on. This often fixes the problem.

Checking an unresponsive printer

When you have a problem, first make sure that:

- The printer power cord is plugged into the printer and a properly grounded electrical outlet.
- The printer power switch is on.
- The electrical outlet is not turned off by any switch or breaker.
- Other electrical equipment plugged into the outlet is working.
- You try turning the printer off, then wait for about 10 seconds, and turn the printer on. This often fixes the problem.
- Your printer driver settings are correct.

Note: If an error message appears, see **Understanding printer messages**.

Solving display problems

Symptom	Cause	Action
Operator panel displays only diamonds or is blank.	The printer self test failed.	Turn the printer off, wait about 10 seconds, and turn the printer on. **`Performing Self Test`** appears on the operator panel. When the test is completed, **Ready** is displayed. If the messages do not appear, turn the printer off and contact the Lexmark Customer Support Center at 1-859-232-3000 or http://support.lexmark.com.
Menu settings changed from the operator panel have no effect.	Settings in the software application, the printer driver, or the printer utilities are overriding the settings made from the operator panel.	Change the menu settings from the printer driver, the printer utilities, or the software application instead of the operator panel. Disable the settings in the printer driver, the printer utilities, or the software application so you can change settings from the operator panel.

Solving printing problems

Symptom	Cause	Solution
Jobs do not print.	The printer is not ready to receive data.	Make sure **Ready** or **`Power Saver`** appears on the display before sending a job to print. Press **Go** to return the printer to the **Ready** state.
	The output bin is full.	Remove the stack of paper from the output bin, and then press **Go**.
	The specified tray is empty.	Load paper in the tray. See **Loading the trays** for detailed instructions.
	You are using the wrong printer driver or are printing to a file.	Verify that you selected the printer driver associated with the C510. If you are using a USB port, make sure you are running Windows 98/Me, Windows 2000, Windows XP, or Windows Server 2003 and using a Windows 98/Me, Windows 2000, Windows XP, or Windows Server 2003 compatible printer driver.
	Your MarkNet™ print server is not set up properly or is not connected properly.	Verify that you have properly configured the printer for network printing. Refer to the drivers CD or to our Lexmark Web site for information.
	You are using the wrong interface cable, or the cable is not securely connected.	Make sure you are using a recommended interface cable. Refer to the *Setup Guide* for cable specifications.

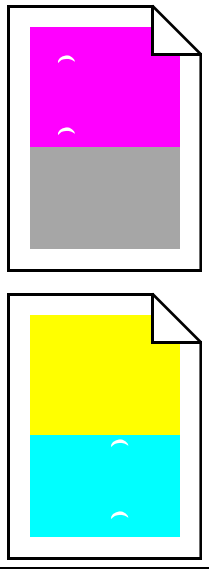
Symptom	Cause	Solution
Held jobs do not print.	A formatting error has occurred.	Print the job. (Only part of the job may print.) Delete the job.
	The printer has insufficient memory.	Free up additional printer memory by scrolling through the list of held jobs and deleting others you have sent to the printer.
	The printer has received invalid data.	Delete the job.
Job takes longer than expected to print.	The job is too complex.	Reduce the complexity of your print job by eliminating the number and size of fonts, the number and complexity of images, and the number of pages in the job.
	Page Protect is set to On.	Set **Page Protect** to Off from the **Setup Menu**. Press **Menu** until you see **Setup Menu**, and then press **Select**. Press **Menu** until you see **Page Protect**, and then press **Select**. Press **Menu** until you see **Off**, and then press **Select**.
Job prints from the wrong tray or on the wrong media.	The operator panel menu settings do not match the media loaded in the tray.	Make sure the **Paper Size** and **Paper Type** specified on the operator panel and in the printer driver are correct for the job you are printing.
Incorrect characters print.	You are using an incompatible parallel cable.	If you are using a parallel interface, make sure you are using an IEEE 1284-compliant parallel cable. We recommend Lexmark part number 1329605 (10 ft) or 1427498 (20 ft) for the standard parallel port.
	The printer is in Hex Trace mode.	If **Ready Hex** appears on the display, you must exit Hex Trace mode before you can print your job. Turn the printer off and back on to exit Hex Trace mode.
Tray linking does not work.	Tray linking is not configured properly.	To configure the linked trays: Make sure the Tray x Type value in the **Paper Type** menu item in the **Paper Menu** is the same for all linked trays. Make sure the Tray x Size value in the **Paper Size** menu item in the **Paper Menu** is the same for all linked trays.

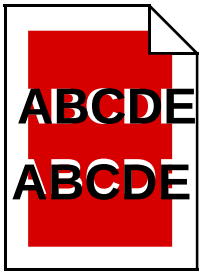
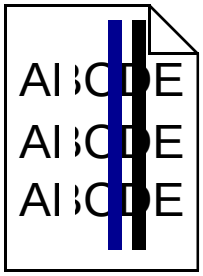
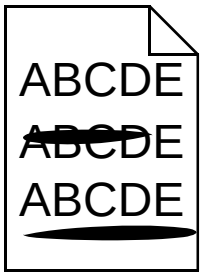
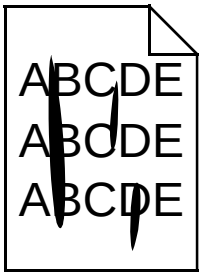
Symptom	Cause	Solution
Large jobs do not collate.	Collate is not set to On.	Set **Collation** to On in the **Finishing Menu** or through the printer driver.
	The job is too complex.	Reduce the complexity of the print job by eliminating the number and size of fonts, the number and complexity of images, and the number of pages in the job.
	The printer does not have enough memory.	Add printer memory or an optional hard disk. Refer to the *Setup Guide* for information on selecting memory options to install.
Unexpected page breaks occur.	The job has timed out.	Set **Print Timeout** to a higher value from the **Setup Menu**.

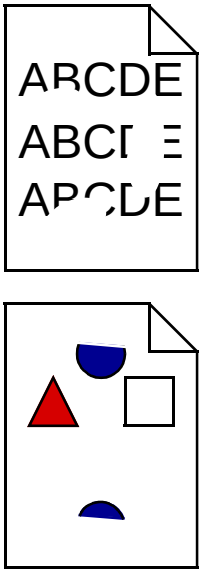
Solving print quality problems

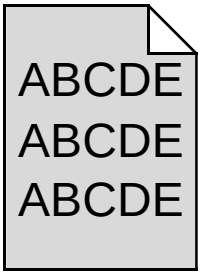
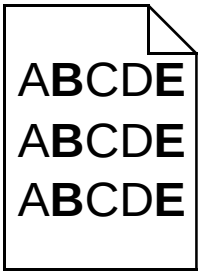
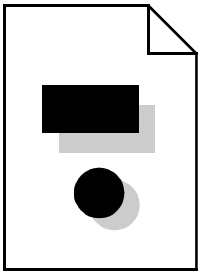
You can solve many print quality problems by replacing a supply or maintenance item that has reached the end of its intended life. Check the operator panel for a message about a printer consumable. See **Determining the status of supplies** for information about other ways to identify consumables that need to be replaced.

Use the following table to find solutions to print quality problems.

Symptom	Cause	Solution
Repeating defects 	Either the toner cartridges, the photodeveloper cartridge, or the fuser are defective.	**Marks occur repeatedly only in one color and multiple times on a page:** Replace the item if the defects occur every: 35 mm (1.38 in.) for the toner cartridges You may want to print the Print Quality Test Pages to look for defects. See **Printing the Print Quality Test Pages** for more information.
		Marks occur down the page repeatedly in all colors: Replace the item if the defects occur every: 35 mm (1.38 in.) or 95 mm (3.74 in.) for the photodeveloper cartridge 95 mm (3.74 in.) or 128 mm (5.04 in.) for the fuser

Symptom	Cause	Solution
Color misregistration 	Color has shifted outside of the appropriate area (top to bottom or left to right) or has been superimposed over another color area.	Turn the printer off. Remove and reinstall the photodeveloper cartridge. Turn the printer on.
White or colored line 	Either the toner cartridges, the fuser, or the photodeveloper cartridge are defective, or toner has accumulated in front of the printhead or on the printhead lens.	Replace the color toner cartridge causing the line. If you still have the problem, replace the fuser and the photodeveloper cartridge. Clean any spilled toner you see in the printer housing near the printhead using a soft, clean lint-free cloth. Clean the printhead lens. See **Cleaning the printhead lens**.
Streaked horizontal lines 	The toner cartridges may be defective, empty, or worn. The fuser may be defective or worn.	Replace the toner cartridges or fuser as needed.
Streaked vertical lines 	Toner is smeared before fusing to the paper. The toner cartridges are defective.	If paper is stiff, try feeding from another tray. Replace the color toner cartridge causing the streaks.

Symptom	Cause	Solution
Print irregularities  	Paper has absorbed moisture due to high humidity. You are using paper that does not meet the printer specifications. The fuser is worn or defective. The toner cartridges may be empty.	Load paper from a fresh package in the tray. Avoid textured paper with rough finishes. Make sure the printer paper type setting matches the type of paper you are using. Replace the fuser. Replace the needed toner cartridge.
Print too light	The Toner Darkness setting is too light. You are using paper that does not meet the printer specifications. The toner cartridges are low on toner. The toner cartridges are defective or have been installed in more than one printer.	Select a different Toner Darkness setting from the printer driver before sending the job to print. Load paper from a new package. Avoid textured paper with rough finishes. Make sure the paper you load in the trays is not damp. Replace the toner cartridges.
Print too dark	The Toner Darkness setting in the Color Menu is too dark. The toner cartridges are defective.	Select a different Toner Darkness setting from the printer driver before sending the job to print. Replace the toner cartridges.
Transparency print quality is poor (Print has inappropriate light or dark spots, toner is smeared, horizontal or vertical light bands appear, or color does not project.)	You are using transparencies that do not meet the printer specifications. The Paper Type setting for the tray you are using is set to something other than Transparency.	Use only transparencies recommended by the printer manufacturer. Make sure the Paper Type setting in the Paper Menu is set to Transparency.
Toner specks	The toner cartridges are defective. The fuser is worn or defective. Toner is in the paper path.	Replace the toner cartridges. Replace the fuser. Call for service.

Symptom	Cause	Solution
Toner rubs off the paper easily when you handle the sheets.	The Paper Weight setting in the Paper Menu is wrong for the type of paper or specialty media you are using. The fuser is worn or defective.	Change Paper Weight from Plain Weight to CardStock (or other appropriate weight). Replace the fuser.
Gray background 	The Toner Darkness setting is too dark. The toner cartridges are defective.	Select a different Toner Darkness setting from the printer driver before sending the job to print. Replace the toner cartridges.
Uneven print density 	The toner cartridges and the photodeveloper cartridge are defective.	Replace the toner cartridges and the photodeveloper cartridge.
Ghost images 	The photodeveloper cartridge is not functioning properly.	Make sure the Paper Type setting is correct for the paper or specialty media you are using. Replace the photodeveloper cartridge. Call for service.
Clipped images (Some of the print is cut off on the sides, top, or bottom of the paper.)	Guides in the selected tray are set for a different size paper than what is loaded in the tray.	Move the guides in the tray to the proper positions for the size loaded.

Symptom	Cause	Solution
Incorrect margins	Guides in the selected tray are set for a different size paper than what is loaded in the tray. Auto size sensing is set to **Off**, but you loaded a different size paper in a tray. For example, you inserted A4 size paper into the selected tray but did not set the Paper Size to A4.	Move the guides in the tray to the proper positions for the size loaded. Align the optional 530-sheet drawer and duplex margins with the margins used for tray 1. Refer to the *Setup Guide* for instructions on adjusting the margins for tray 2 and the optional duplex unit.
Skewed print (Print is inappropriately slanted.)	Guides in the selected tray are not in the correct position for the paper size loaded in the tray.	Move the guides in the tray to the proper positions for the size loaded.
Blank pages	An incorrect media type is loaded in the tray being printed from or the Paper Type setting does not match the type of media loaded in the tray. The toner cartridges are defective or empty.	Load the correct type media for your print job or make sure the Paper Type setting is correct for the paper or specialty media you are using. Replace the toner cartridges.
Solid color pages	The toner cartridges are defective. Your printer requires servicing.	Replace the toner cartridges. Call for service.
The paper curls badly once it prints and exits to the output bin.	The Paper Weight setting is wrong for the type of paper or specialty media you are using.	Change the Paper Weight setting.

Solving color quality problems

This section helps answer some basic color-related questions and describes how some of the features provided in the Color Menu can be used to solve typical color problems.

Note: You should also read **Solving print quality problems on page 84**, which provides solutions for common print quality problems, some of which may affect the color quality of the printed output.

Frequently asked questions (FAQ) about color printing

What is RGB color?

Red, green, and blue light can be added together in various amounts to produce a large range of colors observed in nature. For example, red and green light can be combined to create yellow light. Televisions and computer monitors create colors in this manner. RGB color is a method of describing colors by indicating the amount of red, green, and blue light needed to reproduce a particular color.

What is CMYK color?

Cyan, magenta, yellow, and black inks or toners can be printed in various amounts to produce a large range of colors observed in nature. For example, cyan and yellow can be combined to create green. Printing presses, inkjet printers, and color laser printers create colors in this manner. CMYK color is a method of describing colors by indicating the amount of cyan, magenta, yellow, and black needed to reproduce a particular color.

How is color specified in a document to be printed?

Software applications typically specify document color using RGB or CMYK color combinations. Additionally, they commonly let users modify the color of each object in a document. Since the procedures to modify colors vary depending upon the application, refer to the software application Help section for instruction.

How does the printer know what color to print?

When a user prints a document, information describing the type and color of each object in the document is sent to the printer. The color information is passed through color conversion tables that translate the color into appropriate amounts of cyan, magenta, yellow, and black toner needed to produce the desired color. The object type information lets different color conversion tables be used for different types of objects. For example, it is possible to apply one type of color conversion table to text while applying a different color conversion table to photographic images.

Should I use the PostScript or PCL driver for the best color? What driver settings should I use for the best color?

The PostScript driver is strongly recommended for best color quality. The default settings in the PostScript driver provide preferred color quality for the majority of printouts.

Why doesn't the printed color match the color I see on my computer screen?

The color conversion tables used in Auto **Color Correction** mode generally approximate the colors of a standard computer monitor. However, because of technology differences that exist between printers and monitors there are many colors that can be generated on a computer screen that cannot be physically reproduced on a color laser printer. Color match can also be affected by monitor variations and lighting conditions. Read the response to the question **How can I match a particular color (such as a color in a corporate logo)?** for recommendations on how the printer Color Samples pages may be useful in solving certain color matching problems.

The printed page appears tinted. Can I slightly adjust the color?

Sometimes a user may consider printed pages to appear tinted (for example, everything printed seems to be too red). This can be caused by environmental conditions, paper type, lighting conditions, or user preference. In these instances, **Color Balance** may be used to create more preferable color. Color Balance provides the user with the ability to make subtle adjustments to the amount of toner being used in each color plane. Selecting positive (or negative) values for cyan, magenta, yellow, and black under the Color Balance menu will slightly increase (or decrease) the

amount of toner used for the chosen color. For example, if a user believes the overall printed page to be too red, then decreases to both magenta and yellow could potentially improve color preference.

My color transparencies seem dark when projected. Is there anything I can do to improve the color?

This problem most commonly occurs when projecting transparencies with reflective overhead projectors. To obtain the highest projected color quality, transmissive overhead projectors are recommended. If a reflective projector must be used, then adjusting **Toner Darkness** settings to 1, 2, or 3 will lighten the transparency.

What is Manual Color Correction?

The color conversion tables applied to each object on the printed page when using the default Auto **Color Correction** setting generate preferred color for the majority of documents. Occasionally a user may want to apply a different color table mapping. This customization is accomplished using the Manual Color menu and the Manual Color Correction setting.

Manual Color Correction applies the RGB and CMYK color conversion table mappings as defined in the Manual Color menu. Users may select any of four different color conversion tables available for RGB objects (sRGB Display, sRGB Vivid, Off, and Vivid) and any of four different color conversion tables available for CMYK objects (US CMYK, Euro CMYK, Vivid CMYK, and Off).

Note: The Manual Color Correction setting is not useful if the software application does not specify colors with RGB or CMYK combinations, or in certain situations where the software application or the computer operating system adjusts the colors specified in the application through color management.

How can I match a particular color (such as a color in a corporate logo)?

Occasionally users have a need for the printed color of a particular object to closely match a specific color. A typical example of this is when a user is trying to match the color of a corporate logo. While instances can occur in which the printer cannot exactly reproduce the desired color, users should be able to identify adequate color matches for the majority of cases. The **Color Samples** menu item can provide useful information in helping to solve this particular type of color matching problem.

The eight Color Samples values correspond to color conversion tables in the printer. Selecting any of the Color Samples values will generate a multi-page printout consisting of hundreds of colored boxes. Either a CMYK or RGB combination will be located on each box, depending upon the table selected. The observed color of each box is obtained by passing the CMYK or RGB combination labeled on the box through the selected color conversion table.

The user can scan the color samples pages and identify the box whose color is the closest to the desired color. The color combination labeled on the box can then be used for modifying the color of the object in a software application. The software application Help section should provide instructions for modifying an object's color. Manual **Color Correction** may be necessary to utilize the selected color conversion table for the particular object.

Which Color Samples pages to use for a particular color matching problem depends upon the Color Correction setting being used (Auto, Off, or Manual), the type of object being printed (text, graphics,

or images), and how the color of the object is specified in the software application (RGB or CMYK combinations). The following table identifies which Color Samples pages to use:

Color specification of object being printed	Classification of object being printed	Printer Color Correction setting	Color Samples pages to print and use for color matching
RGB	Text	Auto	sRGB Vivid
		Off	Off - RGB
		Manual	Manual Color RGB Text Setting
	Graphic	Auto	sRGB Vivid
		Off	Off - RGB
		Manual	Manual Color RGB Graphics Setting
	Image	Auto	sRGB Display
		Off	Off - RGB
		Manual	Manual Color RGB Image Setting
CMYK	Text	Auto	US CMYK
		Off	Off - CMYK
		Manual	Manual Color CMYK Text Setting
	Graphic	Auto	US CMYK
		Off	Off - CMYK
		Manual	Manual Color CMYK Graphics Setting
	Image	Auto	US CMYK
		Off	Off - CMYK
		Manual	Manual Color CMYK Image Setting

Note: The Color Samples pages are not useful if the software application does not specify colors with RGB or CMYK combinations. Additionally, certain situations exist where the software application or the computer operating system will adjust the RGB or CMYK combinations specified in the application through color management. The resulting printed color may not be an exact match of the Color Samples pages.

Solving option problems

Symptom	Cause	Solution
The option does not operate correctly after it is installed, or it stops working.	The option is not installed correctly.	Remove the option, and then reinstall it.
	Cables connecting the option to the printer are not attached correctly.	Check the cable connections. Refer to the *Setup Guide* for instructions.
	The printer driver does not recognize that the option is installed.	Look at the driver settings and verify that all the printer configuration settings are correct. If an option does not appear in the driver settings, it is not installed properly. Refer to the *Setup Guide* for installation procedures and reinstall the option.
	Optional 530-sheet drawer: Make sure the connection between the drawer and the printer is made securely. Refer to the *Setup Guide* for installation instructions.	
	Optional duplex unit: Make sure the connection between the duplex unit and the printer is made securely. Refer to the *Setup Guide* for installation instructions.	
	Optional memory or flash memory card: Make sure the connection between the card and the system board is made securely. Refer to the *Setup Guide* for installation instructions. See **Memory requirements** for more information on memory cards.	
	Optional INA card: Make sure the connection between the card and the system board is made securely. Refer to the *Setup Guide* for installation instructions.	

Solving media feed problems

Symptom	Cause	Solution
Paper frequently jams.	You are using paper that does not meet the printer specifications.	Use recommended media. Refer to the *Card Stock & Label Guide* available on our Lexmark Web site at www.lexmark.com for detailed specifications. See **Clearing jams** for more information. See **Avoiding jams hints** for information that can help prevent jams from occurring.
	You have loaded too much paper or too many envelopes.	Make sure the stack of paper you load does not exceed the maximum stack height indicated by the load line on the tray.
	Guides in the selected tray are not set to the appropriate position for the size paper loaded.	Move the guides in the tray to the correct position. See **Loading the trays** for detailed instructions.
	The paper has absorbed moisture due to high humidity.	Load paper from a fresh package. Store paper in its original wrapper until you load it. See **Storing media** for more information.
	The fuser may be damaged	Replace the fuser. See **Replacing the fuser**.
The `Paper Jam` message remains after you remove the jammed media.	You have not cleared the entire media path, or you did not open the door specified by the message to check for jams in this area.	Clear media from the entire path, open the door indicated by the operator panel message, clear the jam, and close the door. The printer resumes printing. See **Identifying the media path** for more information.
The page that jammed does not reprint after you clear the jam.	Jam Recovery in the Setup Menu is set to Off.	Set **`Jam Recovery`** to Auto or On.
Blank pages feed into the output bin**.**	An incorrect media type is loaded in the tray being printed from.	Load the correct type media for your print job or change the Paper Type on the operator panel to match the type of media loaded.

Solving network printing problems

Problem	Action
Job did not print or incorrect characters printed.	Verify that the Lexmark internal print server or external print server is set up properly and the network cable is connected. For more details, refer to the drivers CD that shipped with your printer.
	For Novell users: Make sure the netware.drv file is dated October 24, 1994 or later. Make sure the NT (no tabs) flag is included in the capture statement.
	For Macintosh users: The printer may need an optional internal print server to allow Macintosh connection. Verify that the printer is set up correctly in Chooser.

Solving other problems

Problem	Action
I need to get updated printer drivers or utilities.	Refer to the drivers CD that came with your printer. It contains printer drivers and utilities. Visit the Lexmark Web site, **www.lexmark.com**, for the most current printer drivers or utilities.
I need to attach a serial cable to the printer.	If your printer is configured with a serial port, or you have installed an optional interface card, refer to the *Setup Guide*.
I cannot find the printer escape codes.	Refer to the *Technical Reference* available on the Lexmark Web site at **www.lexmark.com**.

Calling for service

When you call for printer service, be prepared to describe the problem you are experiencing or the error message on the display.

You need to know your printer model type and serial number. Refer to the label on the right side or the inside of the front door of the printer for this information. The serial number is also listed on the menu settings page you can print from the Utilities Menu. See **Printing the menu settings page** for more information.

For service, contact the Lexmark support site for customer service at http://support.lexmark.com, and report a description of the problem.

7 Administration

The following sections are for a network administrator in charge of the printer.

Since many people could be using the printer, an administrator may choose to lock the menus to keep others from changing menu settings from the operator panel.

Memory requirements

Your printer ships with at least 64MB of memory for fast, efficient processing of color jobs. Network printers and other models may ship with more memory.

You can install an optional hard disk for storing downloaded resources and job statistics, and for spooling or collating print jobs. Resources stored in flash memory or on disk are retained in memory even after the printer is turned off and back on.

Lexmark recognizes that there are third party suppliers of memory features for Lexmark products. Lexmark does not recommend, test, or support third party memory features. We cannot guarantee their reliability, accuracy, or compatibility. Any damage to a Lexmark product caused by third party memory is not covered by the product's warranty. Lexmark may require that all third party features be removed before a product is supported or serviced.

Disabling operator panel menus

To disable the operator panel menus so that changes cannot be made to the printer default settings:

1. Turn the printer off.

   Note: Disabling the operator panel menus does not prevent access to the Job Menu or to Print and Hold functionality.

2. Press and hold **Select** and **Return,** and then turn the printer on.
3. Release the buttons when you see **`Performing Self Test`**.

   `Config Menu` appears on the first line of the display.
4. Press **Menu** until you see **`Panel Menus`**, and then press **Select**.

   `Disable` appears on the second line of the display.
5. Press **Select**.

   `Disabling Menus` appears briefly.

6 Press **Menu** until you see **Exit Config Menus**, and then press **Select**.

The menus are disabled. If you press **Menu**, the message **Menus Disabled** appears.

Enabling menus

1 Repeat steps **1** through **4** in **Disabling operator panel menus**.

2 Press **Menu** until you see **Enable**.

Continue with steps **5** and **6** in **Disabling operator panel menus**.

Restoring factory default settings

When you first enter the printer menus from the operator panel, you may notice an asterisk (*) next to a value in the menus. This asterisk indicates the *factory default setting*. These settings are the original printer settings. (Factory defaults may vary for different countries.)

When you select a new setting from the operator panel, the **Saved** message appears. When the **Saved** message disappears, an asterisk appears next to the setting to identify it as the current *user default setting*. These settings are active until new ones are stored or the factory defaults are restored.

To restore the original printer factory default settings:

1 Make sure the printer is on and the **Ready** message appears.

2 Press **Menu** until you see **Utilities Menu**, and then press **Select**.

3 Press **Menu** until you see **Factory Defaults**, and then press **Select**.

Restore appears on the second line of the display.

4 Press **Select**.

The message **Restoring Factory Defaults** appears, followed by the **Ready** message.

When you select Restore:

- No other button actions are available on the operator panel while **Restoring Factory Defaults** appears.
- All downloaded resources (fonts, macros, and symbol sets) in printer memory (RAM) are deleted. (Resources residing in flash memory or on the optional hard disk are unaffected.)
- All menu settings are returned to the factory default values, except:
  - The operator panel Display Language setting in the Setup Menu.
  - All settings in the Parallel Menu, Serial Menu, Network Menu, and USB Menu.

If you need more information about changing menu settings or selecting new user default settings, see **Using the operator panel to change printer settings**.

Adjusting Power Saver

To adjust the **Power Saver** setting in the **Setup Menu**:

1. Press **Menu** until you see **Setup Menu**, and then press **Select**.
2. Press **Menu** until you see **Power Saver**, and then press **Select**.
3. Press **Menu** until you see the desired number of minutes and then press **Select**. Minute settings available range from 1–240. If needed, the menu value **Disabled** is also available.

Note: You can also adjust the Power Saver setting by issuing a Printer Job Language (PJL) command. For more information, refer to the *Technical Reference* available on our Lexmark Web site at www.lexmark.com.

Configuring printer alerts

You can configure the printer several ways to let you know when it requires attention.

Using the Setup Menu

Menu item	Function	Value	Result
Alarm Control	Lets you establish whether the printer sounds an alarm when it requires operator intervention.	Off	The alarm does not sound, but printing stops until the interventions are cleared.*
		Single	The printer stops printing, displays a message, and activates the selected alarm type.
		Continuous	
Toner Alarm	Lets you choose how the printer responds when toner is low.	Off	The printer displays a message and continues printing.
		Single	The printer stops printing, displays a message, and activates the selected alarm type.
		Continuous	

* If multiple attendance conditions are pending, the alarm only sounds when the first message is displayed. No additional alarms sound as subsequent attendance conditions arise.

Selecting **Auto Continue** may affect how the printer alerts execute. This setting defines how long the printer waits after displaying a message before it resumes printing.

Understanding fonts

Typefaces and fonts

A *font* is a set of characters and symbols created with a distinct design. The distinct design is called a *typeface.* The typefaces you select add personality to a document. Well-chosen typefaces make a document easier to read.

The printer has numerous resident fonts in PCL 6 and PostScript 3 emulations. See **Resident fonts** for a listing of all resident fonts.

Weight and style

Typefaces are often available in different weights and styles. These variations modify the original typeface so you can, for example, emphasize important words in text or highlight book titles. The different weights and styles are designed to complement the original typeface.

Weight refers to the thickness of the lines that form the characters. Thicker lines result in darker characters. Some words commonly used to describe the weight of a typeface are bold, medium, light, black, and heavy.

Style refers to other typeface modifications, such as tilt or character width. Italic and oblique are styles where the characters are tilted. Narrow, condensed, and extended are three common styles that modify the character widths.

Some fonts combine several weight and style modifications; for example, Helvetica Narrow Bold Italic. A group of several weight and style variations of a single typeface is called a *typeface family*. Most typeface families have four variations: regular, italic, bold, and bold italic. Some families have more variations, as the following illustration for the Helvetica typeface family shows:

Helvetica	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Helvetica-Italic	*ABCDEFGHIJKLMNOPQRSTUVWXYZ*
Helvetica-Bold	**ABCDEFGHIJKLMNOPQRSTUVWXYZ**
Helvetica-BoldItalic	***ABCDEFGHIJKLMNOPQRSTUVWXYZ***
Helvetica-Narrow	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Helvetica-Narrow Italic	*ABCDEFGHIJKLMNOPQRSTUVWXYZ*
Helvetica-Narrow Bold	**ABCDEFGHIJKLMNOPQRSTUVWXYZ**
Helvetica-Narrow-BoldItalic	***ABCDEFGHIJKLMNOPQRSTUVWXYZ***

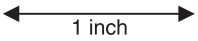
Pitch and point size

The size of a font is specified as either a pitch or point size, depending on whether the font is fixed space or proportional.

In *fixed space* fonts, each character has the same width. *Pitch* is used to specify the size of fixed space fonts. It is a measure of the number of characters that will print in one horizontal inch of type. For example, all 10-pitch fonts print 10 characters per inch (cpi) and all 12-pitch fonts print 12 cpi:

```
Courier       10 Pitch   1234567890
Courier-Bold  10 Pitch   1234567890

Courier       12 Pitch   123456789012
Courier-Bold  12 Pitch   123456789012
```



In *proportional* (or *typographic*) fonts, every character can have a different width. Since proportional fonts have characters with different widths, the font size is specified in point size, not pitch. *Point size* refers to the height of the characters in the font. A *point* is defined as 1/72 inch. The characters in a font printed at 24 point will be twice as large as the characters in the same font printed at 12 point.

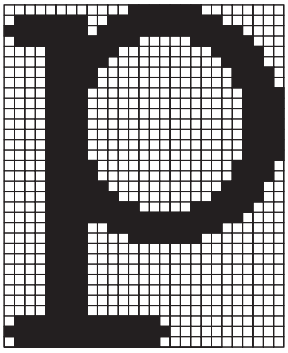
The following illustration shows samples of a font printed in different point sizes:

The point size of a font is defined as the distance from the top of the tallest character in the font to the bottom of the lowest character in the font. Due to the definition of point size, different fonts printed at the same point size may appear quite different in size. This is because there are other font parameters that affect how the font looks. However, the point size of a font is an excellent specification of the relative size of a font. The following examples illustrate two very different proportional fonts at 14 point:

Bitmapped and scalable fonts

The printer uses both bitmapped and scalable fonts.

Bitmapped fonts are stored in printer memory as predefined patterns of bits that represent a typeface at a specific size, style, and resolution. The following illustration shows an example of a character from a bitmapped font.



Bitmapped fonts are available in different type styles and point sizes as downloadable fonts. Contact the place where you bought your printer for more information about downloadable fonts.

Scalable fonts (also called *outline* fonts) are stored as computer programs that define the outlines of the characters in the font. Each time you print characters from a scalable font, the printer creates a bitmap of the characters at the point size you choose and saves it temporarily in printer memory.

These temporary bitmapped fonts are deleted when you turn off or reset the printer. Scalable fonts provide the flexibility of printing in many different point sizes.

Your printer uses different scalable font formats for downloading fonts to the printer. PCL 6 emulation uses *Intellifont* and *TrueType* scalable fonts. PostScript 3 emulation uses *Type 1* and *TrueType* scalable fonts. There are thousands of different scalable fonts available in these different font formats from numerous font suppliers.

If you plan to use many downloadable bitmapped or scalable fonts or if you plan to use many different sizes of scalable fonts, you may need to purchase additional memory for your printer.

Resident fonts

Your printer is equipped with resident fonts stored permanently in printer memory. Different fonts are available in PCL 6 and PostScript 3 emulations. Some of the most popular typefaces, like Courier and Times New Roman, are available for all printer languages.

The following table lists all the fonts resident in your printer. See **Printing a font sample list** for instructions on how to print samples of the fonts. You can select the resident fonts from your software application, or from the operator panel if you are using PCL 6 emulation.

Resident scalable fonts	
PCL 6 emulation	**PostScript 3 emulation**
Albertus Medium	AlbertusMT
	AlbertusMT-Italic
	AlbertusMT-Light
Albertus Extra Bold	
Antique Olive	AntiqueOlive-Roman
Antique Olive Italic	AntiqueOlive-Italic
Antique Olive Bold	AntiqueOlive-Bold

Resident scalable fonts(continued)	
PCL 6 emulation	**PostScript 3 emulation**
	AntiqueOlive-Compact
Arial	ArialMT
Arial Italic	Arial-ItalicMT
Arial Bold	Arial-BoldMT
Arial Bold Italic	Arial-BoldItalicMT
ITC Avant Garde Book	AvantGarde-Book
ITC Avant Garde Book Oblique	AvantGarde-BookOblique
ITC Avant Garde Demi	AvantGarde-Demi
ITC Avant Garde Demi Oblique	AvantGarde-DemiOblique
ITC Bookman Light	Bookman-Light
ITC Bookman Light Italic	Bookman-LightItalic
ITC Bookman Demi	Bookman-Demi
ITC Bookman Demi Italic	Bookman-DemiItalic
Clarendon Condensed Bold	
Coronet	Coronet-Regular
CourierPS	Courier
CourierPS Oblique	Courier-Oblique
CourierPS Bold	Courier-Bold
CourierPS Bold Italic	Courier-BoldOblique
CG Omega	
CG Omega Bold	
CG Omega Italic	
CG Omega Bold Italic	
Garamond Antiqua	Garamond-Antiqua
Garamond Halbfett	Garamond-Halbfett
Garamond Kursiv	Garamond-Kursiv
Garamond Kursiv Halbfett	Garamond-KursivHalbfett
Helvetica Light	Helvetica-Light
Helvetica Light Oblique	Helvetica-LightOblique
Helvetica Black	Helvetica-Black
Helvetica Black Oblique	Helvetica-BlackOblique
Helvetica	Helvetica
Helvetica Italic	Helvetica-Oblique

Resident scalable fonts(continued)	
PCL 6 emulation	**PostScript 3 emulation**
Helvetica Bold	Helvetica-Bold
Helvetica Bold Italic	Helvetica-BoldOblique
Helvetica Narrow	Helvetica-Narrow
Helvetica Narrow Italic	Helvetica-Narrow-Oblique
Helvetica Narrow Bold	Helvetica-Narrow-Bold
Helvetica Narrow Bold Italic	Helvetica-Narrow-BoldOblique
CG Times	Intl-CG-Times
CG Times Italic	Intl-CG-Times-Italic
CG Times Bold	Intl-CG-Times-Bold
CG Times Bold Italic	Intl-CG-Times-BoldItalic
Univers Medium	Intl-Univers-Medium
Univers Medium Italic	Intl-Univers-MediumItalic
Univers Bold	Intl-Univers-Bold
Univers Bold Italic	Intl-Univers-BoldItalic
Courier	Intl-Courier
Courier Italic	Intl-Courier-Oblique
Courier Bold	Intl-Courier-Bold
Courier Bold Italic	Intl-Courier-BoldOblique
Letter Gothic	LetterGothic
Letter Gothic Italic	LetterGothic-Slanted
Letter Gothic Bold	LetterGothic-Bold
	LetterGothic-BoldSlanted
Marigold	Marigold
Century Schoolbook Roman	NewCenturySchlbk-Roman
Century Schoolbook Italic	NewCenturySchlbk-Italic
Century Schoolbook Bold	NewCenturySchlbk-Bold
Century Schoolbook Bold Italic	NewCenturySchlbk-BoldItalic
	Optima
	Optima-Bold
	Optima-BoldItalic
	Optima-Italic
Palatino Roman	Palatino-Roman
Palatino Italic	Palatino-Italic

Resident scalable fonts(continued)	
PCL 6 emulation	**PostScript 3 emulation**
Palatino Bold	Palatino-Bold
Palatino Bold Italic	Palatino-BoldItalic
SymbolPS	Symbol
Symbol	
Times Roman	Times-Roman
Times Italic	Times-Italic
Times Bold	Times-Bold
Times Bold Italic	Times-BoldItalic
Times New Roman	TimesNewRomanPSMT
Times New Roman Italic	TimesNewRomanPS-ItalicMT
Times New Roman Bold	TimesNewRomanPS-BoldMT
Times New Roman Bold Italic	TimesNewRomanPS-BoldItalicMT
	Univers
	Univers-Oblique
	Univers-Bold
	Univers-BoldOblique
Univers Condensed Medium	Univers-Condensed
Univers Condensed Medium Italic	Univers-CondensedOblique
Univers Condensed Bold	Univers-CondensedBold
Univers Condensed Bold Italic	Univers-CondensedBoldOblique
Wingdings	Wingdings-Regular
ITC Zapf Chancery Medium Italic	ZapfChancery-MediumItalic
ITC Zapf Dingbats	ZapfDingbats
	Univers-Extended
	Univers-ExtendedObl
	Univers-BoldExt
	Univers-BoldExtObl
	Univers-Light
	Univers-LightOblique
	Clarendon
	Clarendon-Light
	Clarendon-Bold
	Helvetica-Condensed

Resident scalable fonts(continued)	
PCL 6 emulation	**PostScript 3 emulation**
	Helvetica-Condensed-Bold
	Helvetica-Condensed-BoldObl
	Helvetica-Condensed-Oblique
	StempelGaramond-Bold
	StempelGaramond-BoldItalic
	StempelGaramond-Italic
	StempelGaramond-Roman
	Apple-Chancery
	Chicago
	Geneva
	Monaco
	NewYork
	Oxford
	Taffy
	MonaLisa-Recut
	Candid
	Bodoni
	Bodoni-Italic
	Bodoni-Bold
	Bodoni-BoldItalic
	Bodoni-Poster
	Bodoni-PosterCompressed
	CooperBlack
	CooperBlack-Italic
	Copperplate-ThirtyTwoBC
	Copperplate-ThirtyThreeBC
	Eurostile
	Eurostile-Bold
	Eurostile-ExtendedTwo
	Eurostile-BoldExtendedTwo
	GillSans
	GillSans-Italic
	GillSans-Bold

Resident scalable fonts(continued)	
PCL 6 emulation	**PostScript 3 emulation**
	GillSans-BoldItalic
	GillSans-Condensed
	GillSans-BoldCondensed
	GillSans-Light
	GillSans-LightItalic
	GillSans-ExtraBold
	Goudy
	Goudy-Italic
	Goudy-Bold
	Goudy-BoldItalic
	Goudy-ExtraBold
	HoeflerText-Regular
	HoeflerText-Italic
	HoeflerText-Black
	HoeflerText-BlackItalic
	HoeflerText-Ornaments
	JoannaMT
	JoannaMT-Italic
	JoannaMT-Bold
	JoannaMT-BoldItalic
	LubalinGraph-Book
	LubalinGraph-BookOblique
	LubalinGraph-Demi
	LubalinGraph-DemiOblique
Line Printer 16	
POSTNET Barcode	
OCR-A	
OCR-B	
C39 Narrow	
C39 Regular	
C39 Wide	

Readability disclaimer

Many factors can affect the readability of bar codes and optical character recognition (OCR) characters, including printer settings, such as Print Resolution, Toner Darkness, and Print Darkness. In addition, choice of media can significantly affect the readability of bar codes. See **Using printer menus** and **Media specifications** for information on printer settings and media considerations to help optimize the readability of printer bar codes and OCR characters.

For more information, refer to the *Card Stock & Label Guide* available on the Lexmark Web site at www.lexmark.com/publications. It is also located on the drivers CD.

Before purchasing any specific solutions, print a sample of OCR characters or bar codes on your media. Then, verify readability with the actual devices that will be used to read them. Lexmark does not warrant that a specific bar code reader will be able to read the bar code images as printed or that a specific OCR reader will be able to read the OCR characters as printed.

Symbol sets

A *symbol set* is the collection of alphabetic and numeric characters, punctuation, and special characters available in the font you select. Symbol sets support the requirements for different languages or specific applications, such as math symbols used for scientific text.

In PCL 6 emulation, a symbol set also defines which character will print for each key on the keyboard (or more specifically, for each *code point*). Some applications require different characters at some code points. To support multiple applications and languages, your printer has 88 symbol sets for the resident PCL 6 emulation fonts.

Symbol sets for PCL 6 emulation

Not all font names support all of the symbol sets listed. Refer to the *Technical Reference* to determine which symbol sets are supported by each font name.

ABICOMP Brazil/Portugal	ISO 21: German	PC-853 Latin 3 (Turkish)
ABICOMP International	ISO 25: French	PC-855 Cyrillic
DeskTop	ISO 57: Chinese	PC-857 Latin 5 (Turkish)
Legal	ISO 60: Norwegian version 1	PC-858 Multilingual Euro
MC Text	ISO 61: Norwegian version 2	PC-860 Portugal
Microsoft Publishing	ISO 69: French	PC-861 Iceland
Russian-GOST	ISO 84: Portuguese	PC-863 Canadian French
Ukrainian	ISO 85: Spanish	PC-865 Nordic
PCL ITC Zapf Dingbats	ISO 8859-1 Latin 1 (ECMA-94)	PC-866 Cyrillic
PS ITC Zapf Dingbats	ISO 8859-2 Latin 2	PC-869 Greece
PS Math	ISO 8859-5 Latin/Cyrillic	PC-911 Katakana
PS Text	ISO 8859-7 Latin/Greek	PC-1004 OS/2

Pi Font	ISO 8859-9 Latin 5	Math-8
Symbol	ISO 8859-10 Latin 6	Greek-8
Wingdings	ISO 8859-15 Latin 9	Turkish-8
POSTNET Barcode	PC-8 Bulgarian	Roman-8
ISO : German	PC-8 Danish/Norwegian (437N)	Roman-9
ISO : Spanish	PC-8 Greek Alternate (437G)	Roman Extension
ISO 2: IRV (Int'l Ref Version)	PC-8 Turkish (437T)	Ventura ITC Zapf Dingbats
ISO 4: United Kingdom	PC-8 Latin/Greek	Ventura International
ISO 6: ASCII	PC-8 PC Nova	Ventura Math
ISO 10: Swedish	PC-8 Polish Mazovia	Ventura US
ISO 11: Swedish for Names	PC-8 Code Page 437	Windows 3.0 Latin 1
ISO 14: JIS ASCII	PC-775 Baltic (PC-8 Latin 6)	Windows 98 Cyrillic
ISO 15: Italian	PC-850 Multilingual	Windows 98 Greek
ISO 16: Portuguese	PC-851 Greece	Windows 98 Latin 1
ISO 17: Spanish	PC-852 Latin 2	Windows 98 Latin 2
Barcode (9Y)	OCR-A	Windows 98 Latin 5
Barcode (109Y)	OCR-B	Windows 98 Latin 6 (Baltic)
Barcode (209Y)		

Downloadable fonts

You can download scalable fonts in PostScript 3 emulation and either scalable or bitmapped fonts in PCL 6 emulation. Fonts can be downloaded to printer memory or to a flash memory option or hard disk option. Fonts downloaded to flash memory or hard disk remain in memory even after the printer language changes, the printer resets, or the printer is turned off.

Using the Print and Hold function

When sending a job to the printer, you can specify in the driver that you want the printer to hold the job in memory. When you are ready to print the job, you must go to the printer and use the operator panel menus to identify which *held* job you want to print. (See **Understanding the printer operator panel** for information on using the operator panel.) You can use this function to delay printing a job, verify one copy before printing additional copies, request extra copies of a job at a later time, or print a confidential job when you can be at the printer to retrieve it.

Note: *Print and Hold* functions require a minimum of 16MB available printer memory. We recommend a minimum of 32MB available printer memory and a hard disk.

Selecting a user name

All confidential and held jobs have a user name associated with them. To access all held jobs or confidential jobs, you must first select your user name from a list of user names for print jobs. When the list is presented, press **Menu** to scroll through the list. Press **Select** once you find your user name for your job.

Printing and deleting held jobs

Once held jobs are stored in printer memory, you can use the printer operator panel to specify what you want to do with one or more of the jobs. You can select either Confidential Job or Held Jobs (Repeat Print, Reserve Print, and Verify Print jobs) from the **Job Menu**. Then, you select your user name from a list. If you select Confidential Job, you must enter the personal identification number (PIN) you specified in the driver when you sent the job. See **Confidential jobs** for more information.

From either the Confidential Job or the Held Jobs menu items, you have five choices:

- Print All Jobs
- Print A Job
- Delete All Jobs
- Delete A Job
- Print Copies

Accessing held jobs from the operator panel

1. To access held jobs from the operator panel:
   - If the printer is Busy, press **Menu** and the **`Job Menu`** appears.
   - If the printer is Ready, continue to step 2.
2. Press and release **Menu** until you see **`Held Jobs`** or **`Confidential Job`** on the operator panel display, depending on the type of job you want to access.
3. Press **Select**.

   `User Name` appears on the first line of the operator panel. The second line displays the names of users currently associated with Print and Hold jobs.
4. Press and release **Menu** until you see your user name.

   Note: If you are looking for a Confidential Job, you are prompted to enter your PIN. See **Confidential jobs** for more information.
5. Press **Select**.
6. Press **Menu** until the action you want to take is on the second line of the operator panel (**`Print A Job`**, **`Delete A Job`**, and so on).

7 Press **Select**.

- If you are looking for a particular job, press and release **Menu** to scroll through the list of available jobs, and press **Select** when the correct job is displayed. An asterisk (*) appears next to the job name, indicating you have chosen to print or delete that job.
- If you are prompted to enter the number of copies you want to print, press **Menu** to increase or decrease the number on the display, and then press **Select**.

8 Press **Go** to print or delete specific jobs you have marked.

The printer briefly shows messages indicating what Print and Hold functions it is performing.

Recognizing when format errors occur

If the ϟ symbol appears on the display, it indicates that the printer had trouble formatting one or more of the held jobs. These formatting problems are most commonly the result of insufficient printer memory or invalid data that might cause the printer to flush the job.

When a ϟ symbol appears next to a held job, you can:

- Print the job. Be aware, however, that only part of the job may print.
- Delete the job. You may want to free up additional printer memory by scrolling through the list of held jobs and deleting others you have sent to the printer.

If formatting errors are a recurring problem with held jobs, your printer may require more memory.

Repeat Print

If you send a Repeat Print job, the printer prints all requested copies of the job *and* stores the job in memory so you can print additional copies later. You can print additional copies as long as the job remains stored in memory.

Note: Repeat Print jobs are automatically deleted from printer memory when the printer requires extra memory to process additional held jobs.

Reserve Print

If you send a Reserve Print job, the printer does not print the job immediately, but stores the job in memory so you can print the job later. The job is held in memory until you delete it from the Held Jobs menu. Reserve Print jobs may be deleted if the printer requires extra memory to process additional held jobs.

See **Printing and deleting held jobs** for information.

Verify Print

If you send a Verify Print job, the printer prints one copy and holds the remaining copies you requested from the driver in printer memory. Use Verify Print to examine the first copy to see if it is satisfactory before printing the remaining copies.

See **Printing and deleting held jobs** if you need help printing the additional copies stored in memory.

Note: Once all copies are printed, the Verify Print job is deleted from printer memory.

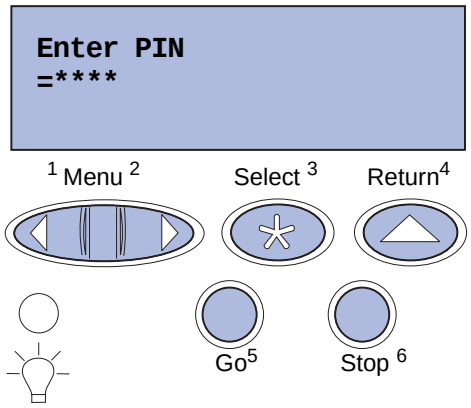
Confidential jobs

When you send a job to the printer, you can enter a personal identification number (PIN) from the driver. The PIN must be four digits using the numbers 1–6. The job is then held in printer memory until you enter the same four-digit PIN from the printer operator panel and choose to print or delete the job. This ensures that the job does not print until you are there to retrieve it, and no one else using the printer can print the job.

When you select Confidential Job from the Job Menu and then select your user name, the following prompt is displayed:

```
Enter PIN:
=____
```

Use the buttons on the operator panel to enter the four-digit PIN associated with your confidential job. The numbers next to the button names identify which button to press for each digit (1–6). As you enter the PIN, asterisks are displayed to ensure confidentiality.



If you enter an invalid PIN, the message **No Jobs Found. Retry?** appears. Press **Go** to reenter the PIN, or press **Stop** to exit the Confidential Job menu.

When you enter a valid PIN, you have access to all print jobs matching the user name and PIN you entered. The print jobs matching the PIN you entered appear on the display when you enter the Print A Job, Delete A Job, and Print Copies menu items. You can then choose to print or delete jobs matching the PIN you entered. (See **Printing and deleting held jobs** for more information.) After printing the job, the printer deletes the confidential job from memory.

Removing optional cards

There are several types of optional cards that can be removed. See the following sections of instructions on how to remove them after you remove the system board.

Removing the system board

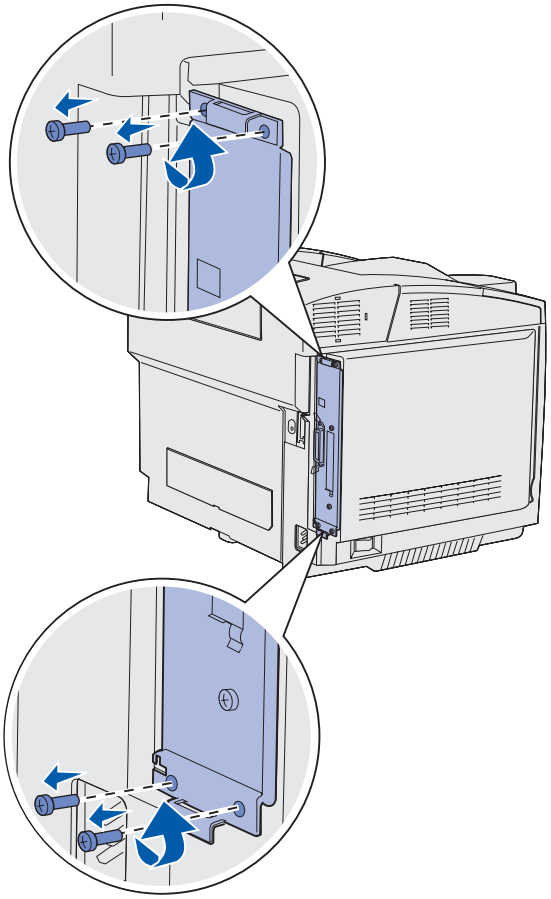
See **Safety information on page 10** before completing this procedure.

Note: You will need a #2 Phillips screwdriver for this procedure.

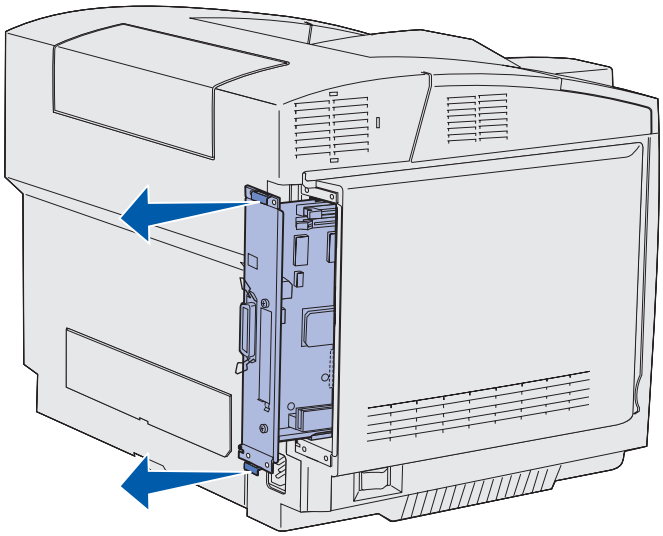
1. Turn the printer off and unplug the printer power cord.
2. Disconnect all cables from the back of the printer.

Warning: System board electrical components are easily damaged by static electricity. Touch something metal before you touch any system board electronic components or connectors.

3 Remove the four screws at the corners of the system board.



4 Pull on the system board firmly and slide it straight out from the back of the printer. Completely remove it from the printer.



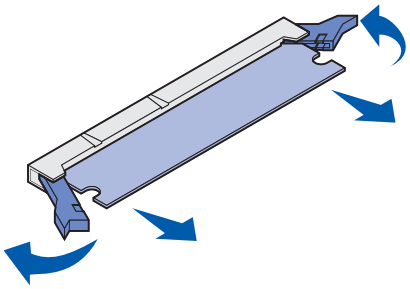
Removing optional printer memory cards

These instructions help you remove optional printer memory cards.

1. Remove the system board. See **Removing the system board** for more information.
2. Locate the optional card you want to remove.

Warning: Electronic components are easily damaged by static electricity. Touch something metal on the printer before you touch the option card.

3. Push each latch out at each end of the connector.
4. Grasp the option card and pull it gently out of the connector.



5. Place the memory card in its original packaging, or wrap it in paper and store it in a box for protection.
6. If you need to install another memory card on the system board, refer to the *Setup Guide*.
7. Replace the system board. See **Replacing the system board**.

Removing an optional firmware card or optional flash memory card

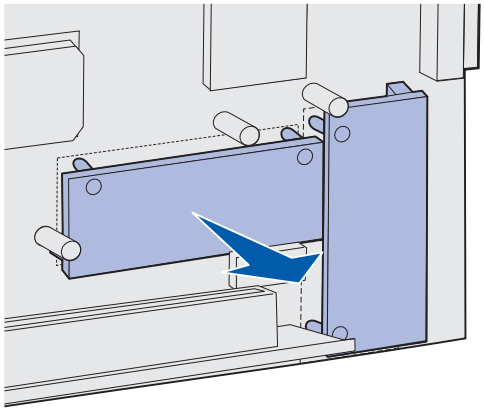
These instructions help you remove an optional firmware card or optional flash memory cards.

1. Remove the system board. See **Removing the system board**.
2. Select the optional firmware or flash memory card you want to remove.

Warning: Electronic components are easily damaged by static electricity. Touch something metal on the printer before you touch the option card.

3 Holding the card by its sides, gently pull it straight out from the system board. If the card does not come out easily, turn the top edge of the card away slightly and then toward the system board several times as you pull gently and evenly on both sides.

Note: Avoid touching the metal pins on the bottom of the card.



4 Place the optional firmware or flash memory card in its original packaging, or wrap it in paper and store it in a box for protection.

5 If you need to install another optional firmware or flash memory card on the system board, refer to the *Setup Guide*.

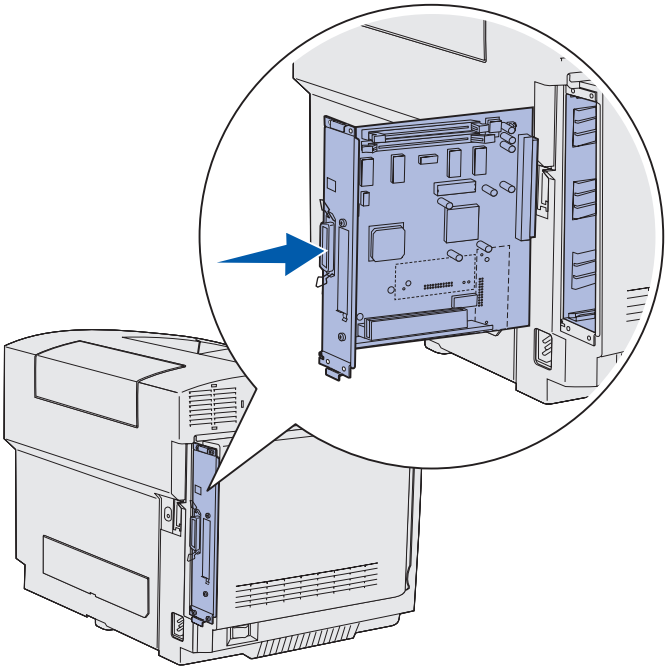
6 Replace the system board. See **Replacing the system board**.

Replacing the system board

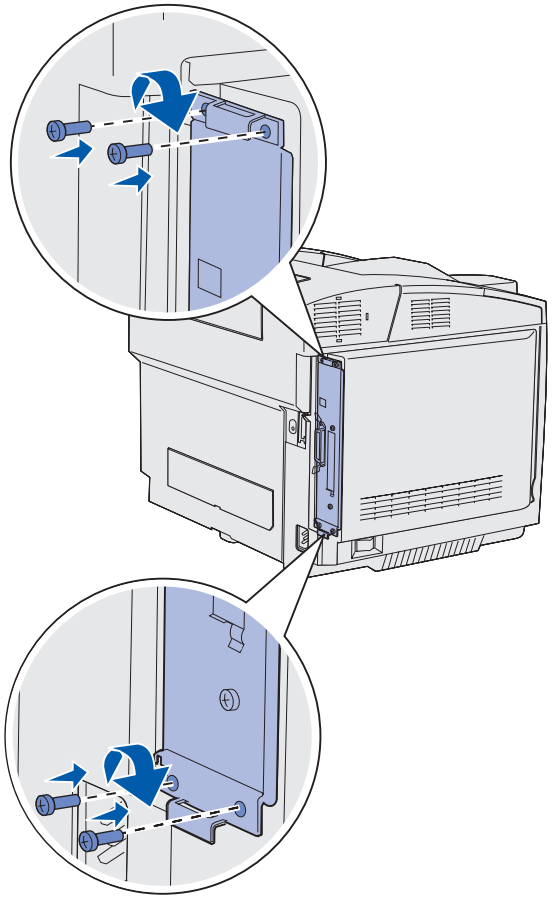
Note: You will need a #2 Phillips screwdriver for this procedure.

Warning: System board electrical components are easily damaged by static electricity. Touch something metal before you touch any system board electronic components or connectors.

1 Align the system board with its track and slide it in. It slides in easily when aligned properly.



2 Replace the four screws at the corners of the system board.



3 Reconnect all cables at the back of the printer.

4 Plug the printer power cord in and turn the printer on.

Removing options

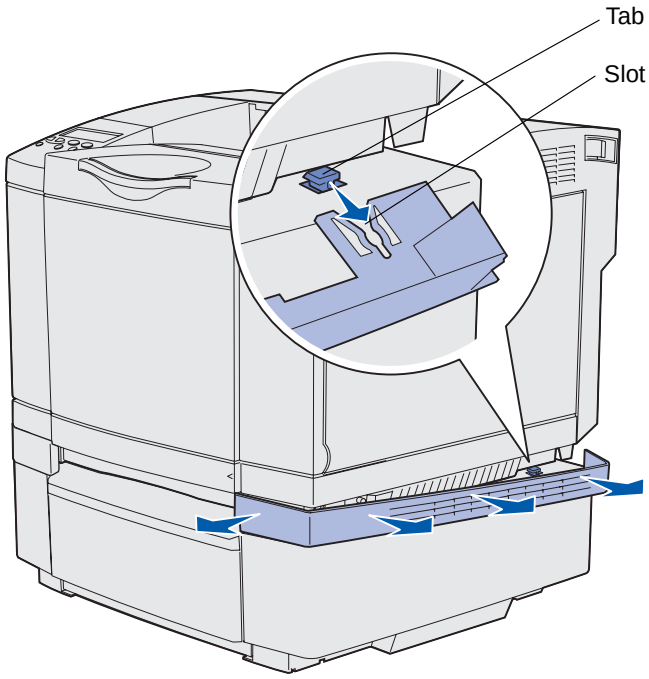
If the printer location needs to change or the printer and media handling options need to be shipped to a new location, all media handling options must be removed from the printer. For shipping, pack the printer and media handling options securely to avoid damage.

Removing the printer from the optional 530-sheet drawer

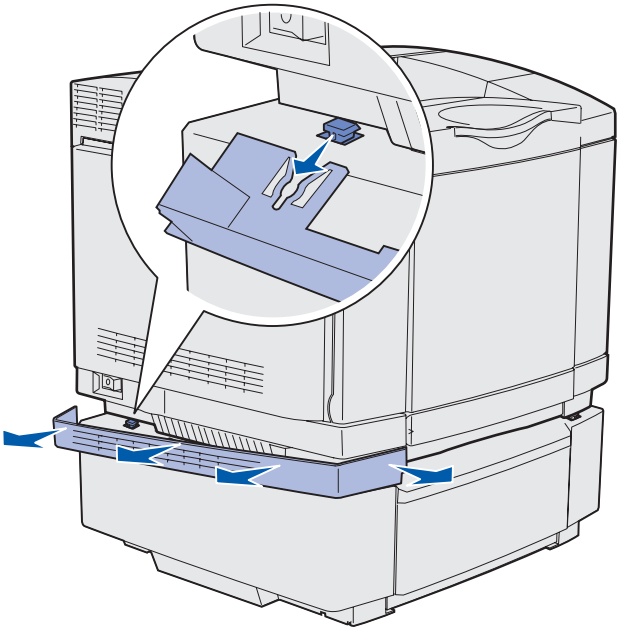
1 Turn the printer off and unplug the printer power cord.

2 Disconnect all cables from the back of the printer.

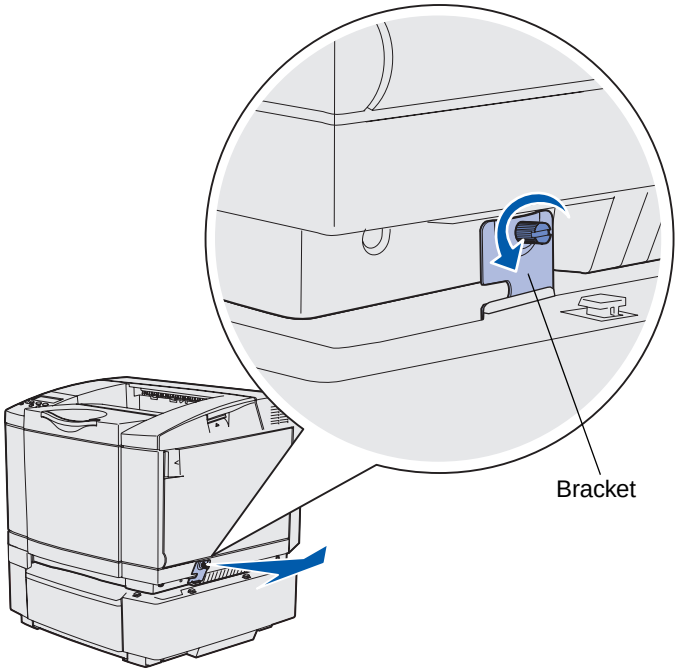
3 Starting at the back of the printer with the right side cover, gently pull each of the four slots off their matching tabs as you work your way to the front of the printer.



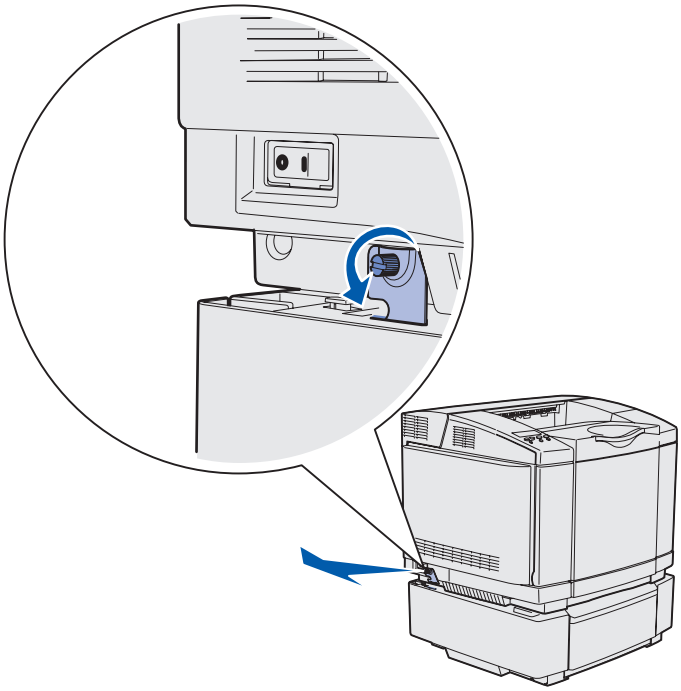
4 Starting at the back of the printer with the left side cover, gently pull each of the four slots of their matching tabs as you work your way to the front of the printer.



5 Loosen the right thumbscrew and remove the right bracket.

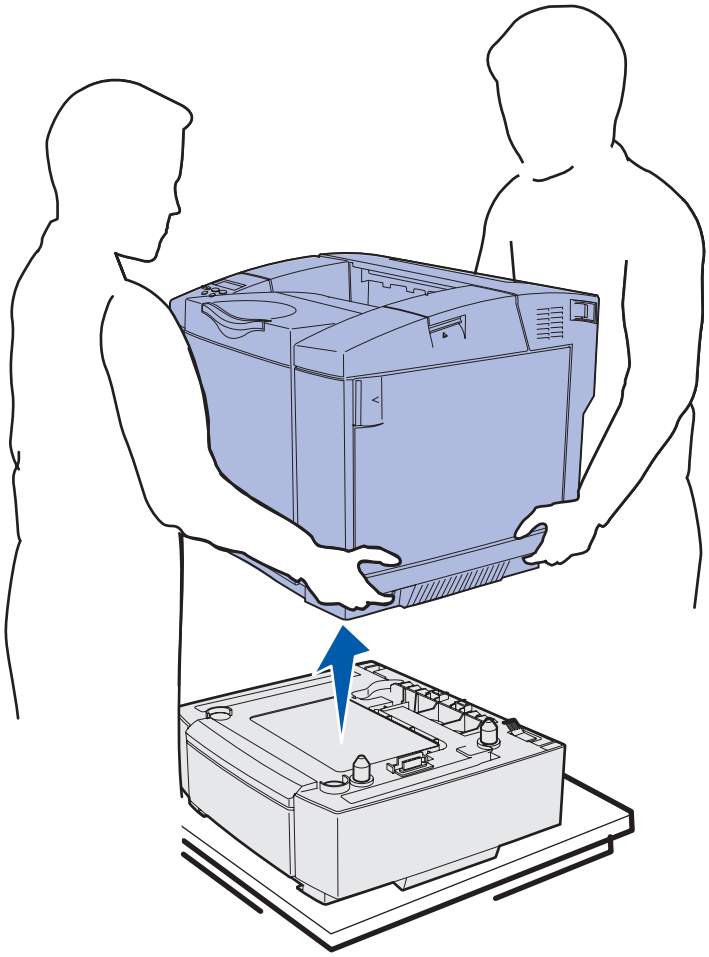


6 Loosen the left thumbscrew and remove the left bracket.



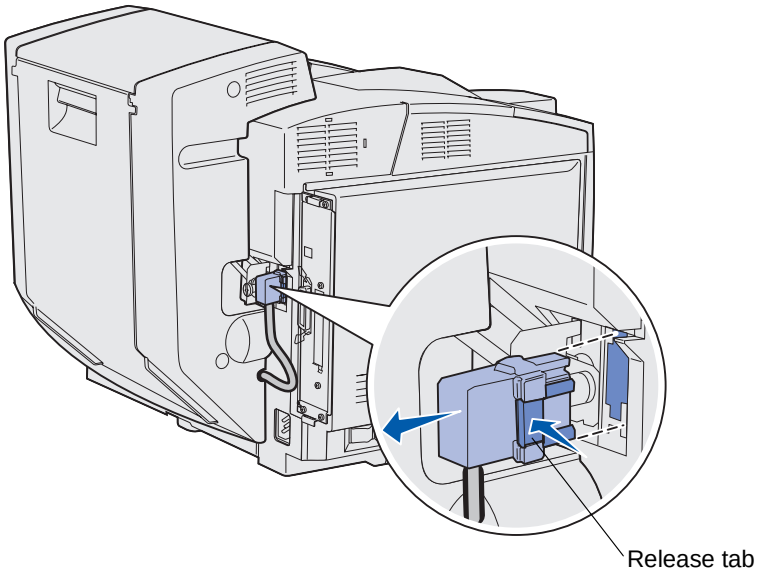
7 Lift the printer off of the optional drawer and set the printer aside.

CAUTION: The printer weighs 30.4 kg (67 lb); therefore, it requires at least two people to lift it safely. Make sure your fingers are not under the printer when you set it down.

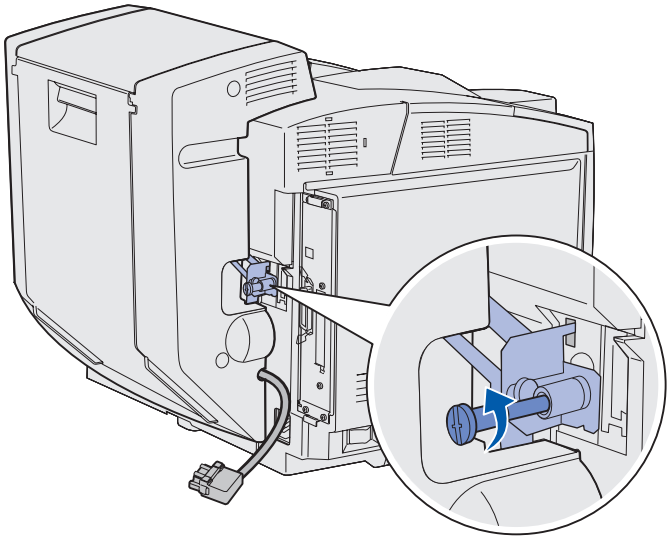


Removing the optional duplex unit

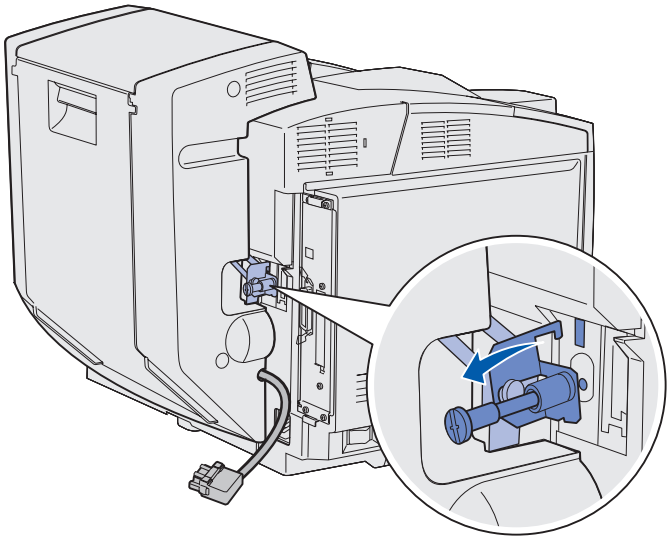
1. Turn the printer off and unplug the printer power cord.
2. Press the release tab and pull the duplex connector from the printer duplex connection.



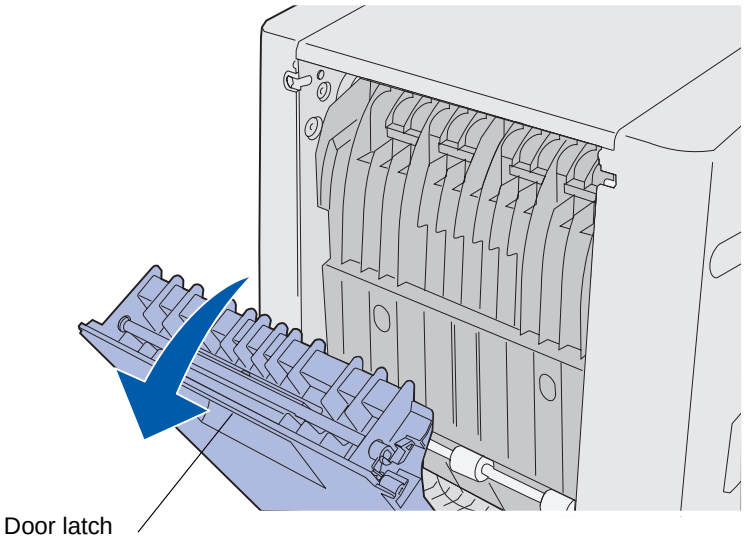
3. Turn the mounting screw counterclockwise to loosen it.



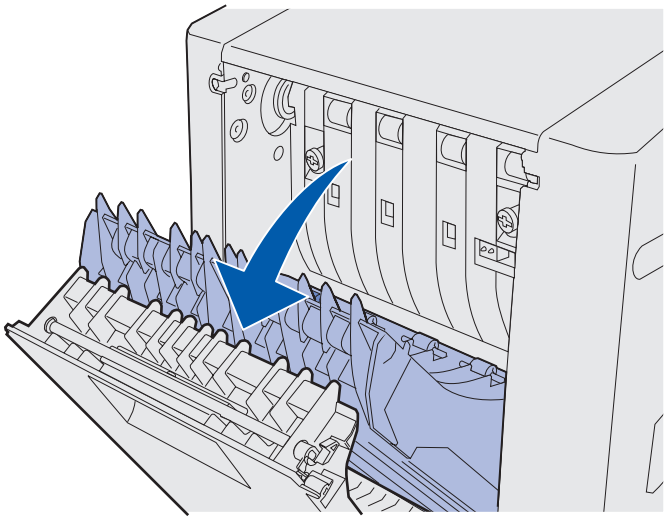
4 Pull the bracket up from its slot.



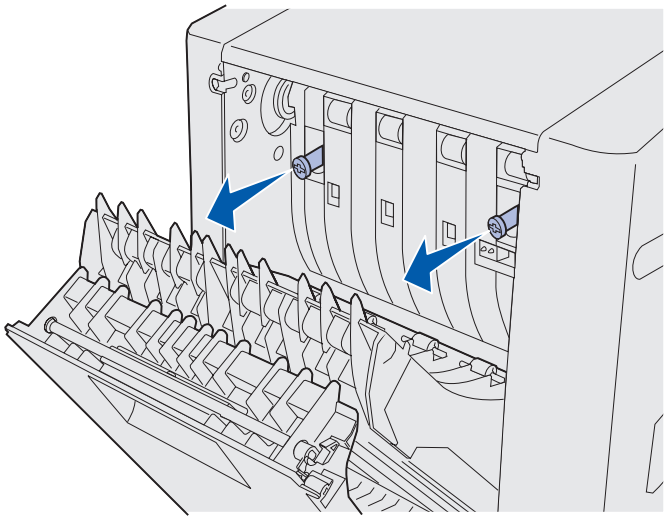
5 Pull up on the duplex rear door latch. Gently lower the duplex rear door.



6 Pull the duplex redrive down.

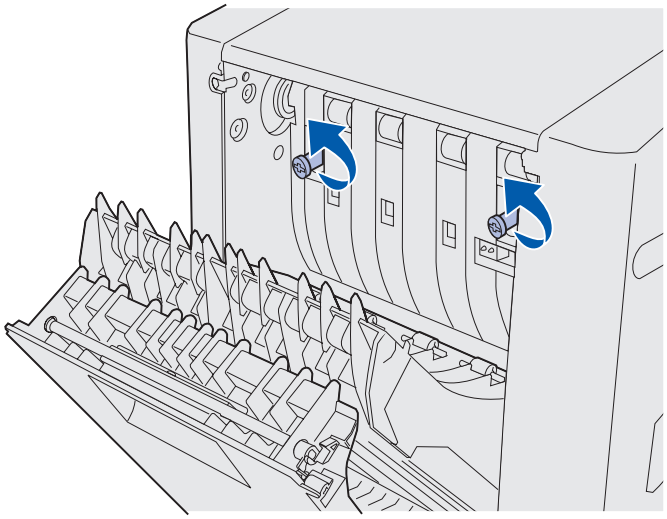


7 Pull on the green thumbscrews to extend them.

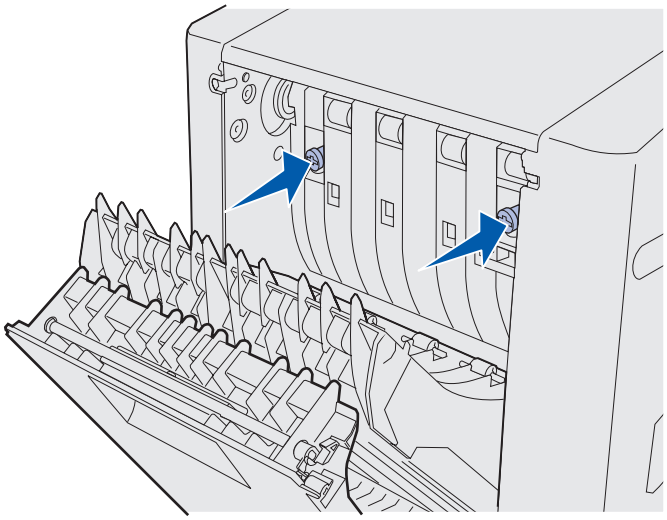


8 Turn each green thumbscrew counterclockwise to loosen it.

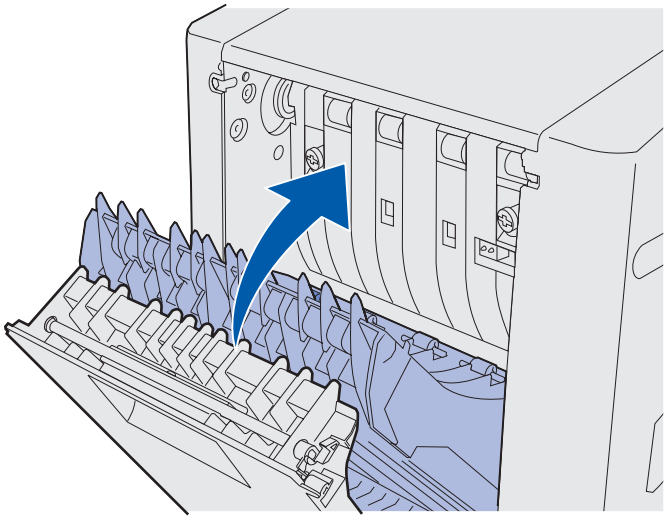
Note: You may use a flat-bladed screwdriver if needed.



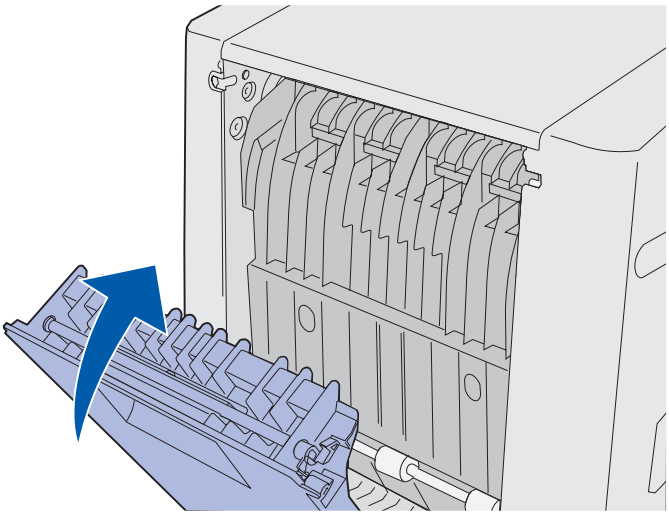
9 Push the green thumbscrews to collapse them.



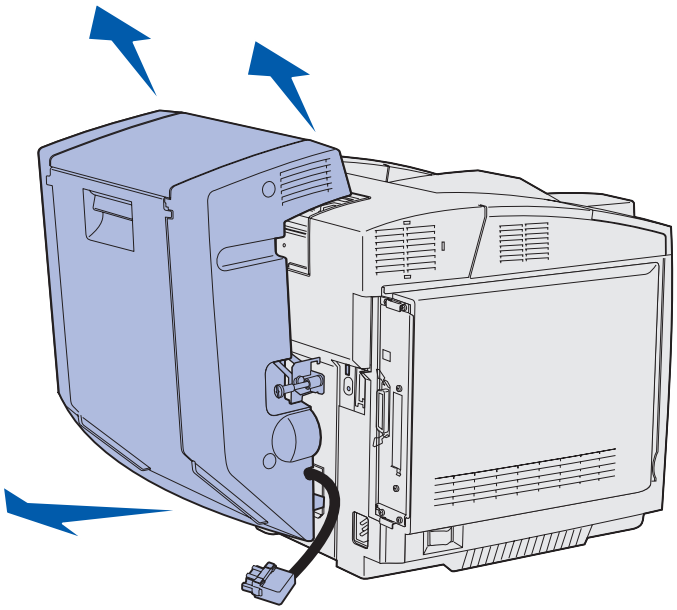
10 Close the duplex redrive.



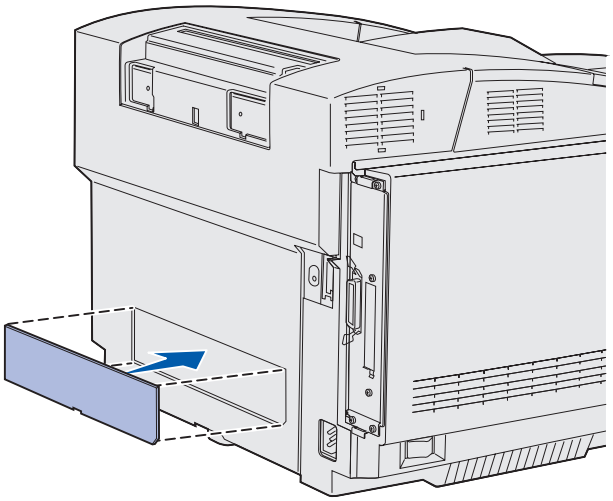
11 Close the duplex rear door.



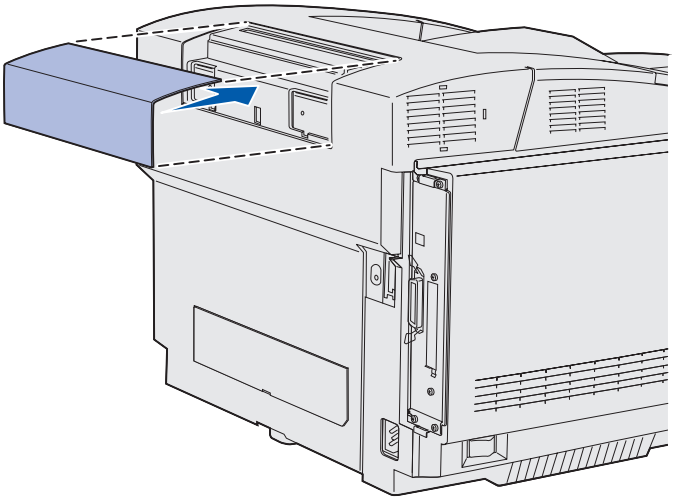
12 Lift the duplex unit and pull it away from the printer. Set the duplex unit aside.



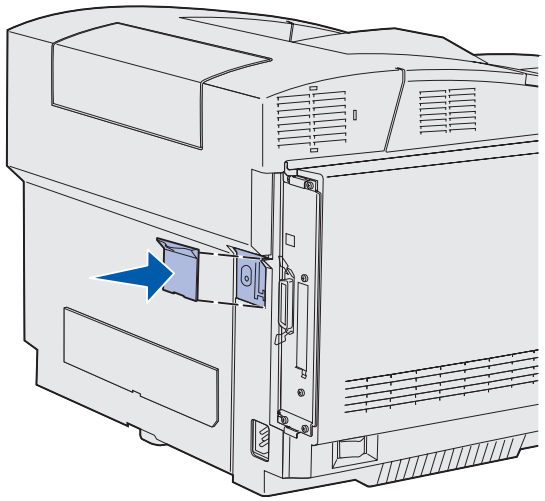
13 Align the lower duplex cover with its opening on the printer and push it into place.



14 Align the upper duplex cover with its opening on the printer and push it into place.



15 Align the connector cover with its opening on the printer and push it into place.



16 Plug the printer power cord in and turn the printer on.

8 Using printer menus

Understanding the printer operator panel

This section contains information about understanding the operator panel, changing printer settings, and understanding operator panel menus.

You can change most printer settings from your software application or printer driver. Settings you change from the application or printer driver apply only to the job you are preparing to send to the printer.

Changes made to printer settings from a software application override changes made from the printer operator panel.

If you cannot change a setting from your application, use the printer operator panel or the remote operator panel available from MarkVision Professional. Changing a printer setting from the printer operator panel or from MarkVision Professional makes that setting the user default.

The printer operator panel has a 2-line by 16-character liquid crystal display (LCD), five buttons, and one indicator light that flashes when the printer is processing a job indicated by the **Busy** message.

Indicator light

The indicator light gives information about the status of your printer. If the light is:

- Off, the printer is off
- On, the printer is on, but idle
- Blinking, the printer is on and is busy (indicated also by a blinking **Busy** message)

Buttons

Use the five operator panel buttons to open a menu, scroll through a list of values, change printer settings, and respond to printer messages.

The numbers 1 through 6 appear beside the operator panel buttons in this illustration. You use these numbers to enter your personal identification number (PIN) after you send a confidential print job from the printer driver. A confidential job is one type of job from the *Print and Hold* jobs. For more information, see **Using the Print and Hold function**.

The following information describes the functions of each button.

Note: Buttons act upon the information displayed on the second line of the operator panel.

Button	Function
Go	Press **Go** to: • Return to the **Ready** state if the printer is offline (the **Ready** message does not appear on the display). • Exit printer menus and return to the **Ready** state. • Clear some operator panel messages. • Resume printing after loading media and clearing jams. • Exit Power Saver. If you have changed printer settings from the operator panel menus, press **Go** before sending a job to print. The printer must display **Ready** for jobs to print.
Menu	Each end of the button has a function. Press **Menu>**: • When **Ready** is displayed, to take the printer offline (out of the **Ready** state) and enter the menus. • When **Busy** is displayed, to take the printer to the Job Menu. • When the printer is offline, to scroll through the menus. Press **<Menu** to go to the previous item in the menus. For menu items with numeric values, such as Copies, press and hold **Menu** to scroll through the values. Release the button when the number you want is displayed.
Select	Press **Select** to: • Open the menu shown on the second line of the operator panel. Depending on the type of menu, this action: – Opens the menu and displays the first item in the menu. – Opens the menu item and displays the default setting. • Save the displayed menu item as the new user default setting. The printer displays the **Saved** message and returns to the menu item. • Clear certain messages from the operator panel. • Continue printing after the **Change `tray <x>`** message appears. See **Change `Tray <x>`** for more information.
Return	Press **Return** to return to the previous menu level or menu item.
Stop	Press **Stop** at the **Ready**, **Busy**, or **`Waiting`** message to temporarily take the printer offline. The message changes to **`Not Ready`**. No data is lost. Press **Go** to return the printer to the **Ready**, **Busy**, or **`Waiting`** state.
1, 2, 3, 4, 5, 6	Use the numbers located next to the names of the buttons to enter your personal identification number (PIN) after you send a confidential job. For more information, see **Entering a personal identification number (PIN)**.

If your printer is configured as a network printer available to a number of users, it is possible that **`Menus Disabled`** appears on the display when you press **Menu** from the **Ready** state. Disabling the menus prevents other users from using the operator panel to inadvertently change a printer user default that has been set by the administrator. You can still clear messages and select items from the

Job Menu when printing a job, but you cannot change other printer settings. However, you can use your printer driver to override printer user defaults and select settings for individual print jobs.

See the **menu map** for a brief overview of the printer menus available from the operator panel.

Using the operator panel to change printer settings

From the operator panel, you can select menu items and associated values to print your jobs successfully. You can also use the panel to alter the setup and operating environment of the printer.

You can modify printer settings by:

- Selecting a setting from a list of values
- Changing an On/Off setting
- Changing a numerical setting

To select a new value as a setting:

1. From a **Ready** status message, press **Menu**. The menu names appear.
2. Continue to press and release **Menu** until you see the menu you need.
3. Press **Select** to select the menu or menu item on the second line of the display.
   - If the selection is a menu, the menu is opened and the first printer setting in the menu appears.
   - If the selection is a menu item, the default setting for the menu item appears. (The current user default setting has an asterisk [*] beside it.)

   Each menu item has a list of values for the menu item. A value can be:

   - A phrase or word to describe a setting
   - A numerical value that can be changed
   - An On or Off setting
4. Press **Menu** to move to the value you need.
5. Press **Select** to select the value on the second line of the operator panel. An asterisk appears beside the value to indicate that it is now the user default setting. The new setting appears for one second, clears, displays the word **Saved**, and then displays the previous list of menu items.
6. Press **Return** to go back to previous menus. Make additional menu selections to set new default settings. Press **Go** if this is the last printer setting you want to change.

User default settings remain in effect until you save new settings or restore the factory defaults. Settings you choose from your software application can also change or override the user default settings you select from the operator panel.

The **menu map** shows the menu items in each menu.

An asterisk (*) next to a value indicates the factory default setting. Factory defaults may differ for different countries.

Factory defaults are the function settings in effect the first time you turn your printer on. These remain in effect until you change them. Factory defaults are restored if you select the Restore value for the Factory Defaults menu item in the Utilities Menu. See **Utilities Menu** for more information.

When you select a new setting from the operator panel, the asterisk moves next to the selected setting to identify it as the current user default.

User defaults are the settings you select for different printer functions and store in printer memory. Once stored, these settings remain active until new ones are stored or the factory defaults are restored.

Note: Settings you choose from your software application may override the settings you select from the operator panel.

Menus Disabled

If your printer is configured as a network printer available to a number of users, **Menus Disabled** may appear when you press **Menu** from the **Ready** state. Disabling the menus prevents users from using the operator panel to inadvertently change a printer default that has been set by the person managing the printer. You can still use Print and Hold features, clear messages, and select items from the Job Menu when printing a job, but you cannot change other printer settings. You can, however, use your printer driver to override printer defaults and select settings for individual print jobs.

For more information, see **Disabling operator panel menus**.

Using printer menus

Select a menu or menu item for more details.

Supplies Menu
- <color> Toner
- Waste Bottle
- Photodev Cart
- Fuser
- Supplies Life
- Replace Supplies

Utilities Menu
- Print Menus
- Print Net Setup
- Print Net <x> Setup
- Print Fonts
- Print Directory
- Prt Quality Pgs
- Factory Defaults
- Remove Held Jobs
- Format Flash
- Defragment Flash
- Format Disk
- Job Acct Stat
- Hex Trace
- Coverage Est.

Setup Menu
- Printer Language
- Power Saver
- Resource Save
- Download Target
- Print Timeout
- Wait Timeout
- Auto Continue
- Jam Recovery
- Page Protect
- Print Area
- Display Language
- Alarm Control
- Toner Alarm
- Job Accounting
- Left Margin
- Black & White Lock

Color Menu
- Print Mode
- Color Correction
- Toner Darkness
- Color Saver
- Color Balance
- Color Samples
- Manual Color

PCL Emul Menu
- Font Source
- Font Name
- Point Size
- Pitch
- Symbol Set
- Orientation
- Lines per Page
- A4 Width
- Tray Renumber
- Auto CR after LF
- Auto LF after CR

Network Menu
- PCL SmartSwitch
- PS SmartSwitch
- NPA Mode
- Network Buffer
- Job Buffering
- MAC Binary PS
- Std Net Setup
- Network <x> Setup

USB Menu
- PCL SmartSwitch
- PS SmartSwitch
- NPA Mode
- USB Buffer
- Job Buffering
- MAC Binary PS

PostScript Menu
- Print PS Error
- Font Priority
- Image Smoothing
- PDF Menu

Paper Menu
- Paper Source
- Paper Size
- Paper Type
- Custom Types
- Universal Setup
- Substitute Size
- Paper Weight
- Paper Loading

Parallel Menu
- PCL SmartSwitch
- PS SmartSwitch
- NPA Mode
- Parallel Buffer
- Job Buffering
- Advanced Status
- Protocol
- Honor Init
- Parallel Mode 1
- Parallel Mode 2
- MAC Binary PS

Config Menu
- Auto Size Sense
- Prt Quality Pgs
- Tray Insert Msg
- Panel Menus
- Download Emuls
- Factory Defaults
- Energy Conserve
- Font Sharpening
- Cartridge Yield
- Exit Config Menu

Help Menu
- Print All
- Help Guide
- Printing Guide
- Supplies Guide
- Print Quality
- Color Quality
- Media Guide
- Connection Guide
- Moving Guide
- Print Defects
- Jam Clearance

Finishing Menu
- Duplex
- Duplex Bind
- Copies
- Blank Pages
- Collation
- Separator Sheets
- Separator Source
- Multipage Print
- Multipage Order
- Multipage View
- Multipage Border

Serial Menu
- PCL SmartSwitch
- PS SmartSwitch
- NPA Mode
- Serial Buffer
- Job Buffering
- RS-232/ RS-422
- RS-422 Polarity
- Serial Protocol
- Robust XON
- Baud
- Data Bits
- Parity
- Honor DSR

Job Menu
- Cancel Job
- Confidential Job
- Held Jobs
- Reset Printer
- Print Buffer
- Abort Restore

Color Menu

Use the Color Menu to adjust print quality and customize color printing.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Color Balance	To provide users with the ability to make subtle color adjustments to printed output by increasing or decreasing the amount of toner being used for each color plane individually. This function is only applied to files printed using the PostScript driver.	**Cyan**	-5, -4, -3, -2, -1, 0*, 1, 2, 3, 4, 5 • -5 is maximum decrease • 5 is maximum increase
		Magenta	
		Yellow	
		Black	
		Reset Defaults	Sets values for Cyan, Magenta, Yellow, and Black to 0 (zero).
Color Correction	To adjust the printed color to better match the colors of other output devices or standard color systems. Due to the differences between additive and subtractive colors, certain colors that appear on your monitor are impossible to duplicate on your printer.	**Auto***	Applies different color conversion tables to each object on the printed page, depending upon the type of object and how the color for each object is specified.
		Off	No color correction is implemented.
		Manual	Lets you customize the color conversion tables applied to each object on the printed page, depending upon the type of object and how the color for each object is specified. Customization is performed using the selections available under the Manual Color menu item.

Menu Item	Purpose	Values	
Color Samples	To assist users in selecting colors to be printed. Users can print color samples pages for each of the RGB and CMYK color conversion tables used in the printer. The color samples pages consist of a series of colored boxes along with the RGB or CMYK combination that creates the color observed for each particular box. These pages can be useful in helping users decide which RGB or CMYK combinations to use in their software applications to create the desired printed color output.	**sRGB Display**	Prints RGB samples using sRGB Display color conversion tables.
		sRGB Vivid	Prints RGB samples using sRGB Vivid color conversion tables.
		Vivid	Prints RGB samples using Vivid color conversion tables.
		Off–RGB	Prints RGB samples using Off (or no) color conversion tables.
		US CMYK	Prints CMYK samples using US CMYK color conversion tables.
		Euro CMYK	Prints CMYK samples using Euro CMYK color conversion tables.
		Vivid CMYK	Prints CMYK samples using Vivid CMYK color conversion tables.
		Off–CMYK	Prints CMYK samples using Off (or no) color conversion tables.
Color Saver	To conserve toner. If selected, this setting overrides Toner Darkness settings.	**Off***	Prints using Toner Darkness setting.
		On	Applies a lower Toner Darkness level. Toner Darkness setting is ignored.

Menu Item	Purpose	Values	
Manual Color	To let users customize the RGB or CMYK color conversions applied to each object on the printed page. Color conversion of the data specified using RGB combinations can be customized based on object type (text, graphics, or image).	**RGB Image**	• **Vivid**: Applies a color conversion table that produces brighter, more saturated colors. • **sRGB Display***: Applies a color conversion table to produce output that approximates the colors displayed on a computer monitor. • **sRGB Vivid**: Increases color saturation for the sRGB Display color conversion table. Preferred for business graphics and text. • **Off**: No color conversion is implemented.
		RGB Text **RGB Graphics**	• **Vivid** • **sRGB Display** • **sRGB Vivid*** • **Off**
		CMYK Image **CMYK Text** **CMYK Graphics**	**US CMYK*** (country/region-specific factory default values)**:** Applies a color conversion table to approximate SWOP color output. **Euro CMYK*** (country/region-specific factory default values): Applies color conversion table to approximate EuroScale color output. • **Vivid CMYK:** Increases color saturation for the US CMYK color conversion table. • **Off:** No color conversion is implemented.
Print Mode	To determine whether images are printed in a monochrome grayscale or in color.	**Color***	
		Black & White	

Menu Item	Purpose	Values	
Toner Darkness	To lighten or darken printed output, or conserve toner. Setting Toner Darkness to values of 1, 2, or 3 is only effective when using the PostScript driver.	**5** **4***	Either setting gives you the maximum expenditure in toner consumption; however, 4 is the default toner darkness setting since only one could be the default.
		3	Reduction in toner consumption.
		2	Further reduction in toner consumption.
		1	Maximum reduction in toner consumption.

Config Menu

To gain access to the Config Menu, you must press and hold the **Select** and **Return** buttons as you turn the printer on. The Configuration Menu contains a set of menus, settings, and operations which are infrequently required, but beneficial to you.

Menu Item	Purpose	Values	
Auto Size Sense	To set tray 1 into a non-auto size sensing mode. This enables the printer to print media sizes not specifically supported by any of the trays, such as envelope sizes other than 10 and DL. It also allows the Universal setting.	**Tray1 Auto Size**	
		Auto	Sets auto size sensing on.
		Off	Sets auto size sensing off.
Prt Quality Pgs	To print the Printer Quality Test Pages which help isolate print quality problems by looking at the text and graphics on the pages.	No selections exist for this operation. Press **Select** to initiate the operation. For more complete instructions, see **Printing the Print Quality Test Pages**.	
Tray Insert Msg	Indicates the delay in seconds for how long it takes for the **Insert Tray <x>** message to appear on the operator panel once a tray is removed from the printer or support unit. x represents the number of the tray.	Disabled	Disables the tray insert message.
		1 – 90 (5*)	Specifies the number of seconds that pass before the **Insert Tray <x>** message appears on the operator panel.

Menu Item	Purpose	Values	
Panel Menus	This menu item is only displayed when the PJL Password Environment variable is set to zero. For information about PJL commands, refer to the *Technical Reference*. **Note:** The system administrator may want to disable the operator panel menus so other users do not make changes to the menu item selections. All menu selections are disabled. **Note:** Disabling the operator panel menus does not prevent access to the Job Menu or to Print and Hold functionality.	**Disable** **Enable***	For complete instructions, see **Disabling operator panel menus**.
Download Emuls	This menu item is only displayed if at least one Downloaded Emulator is installed.	**Disable**	Disables the download emulator.
Factory Defaults	Lets you to restore the network settings or the base printer settings to their factory default values. The **Restoring Factory Defaults** message is displayed once one of the values is selected.	**Restore Base**	Restores non-critical base printer NVRAM settings. This value is only listed on printer models that have integrated network support.
		Restore Network	Restores all network NVRAM settings to their factory default values. This is only available on printers with an integrated network adapter.
Energy Conserve	This setting only affects the values that are displayed in the Power Saver menu item in the Setup Menu.	**On***	If set to On, then Disabled does not appear as a value in the Power Saver menu item.
		Off	If set to Off, then Disabled appears as a value in the Power Saver menu item.
Font Sharpening	Lets you set the threshold for switching between font sharpening screens and normal screens. This applies only to PostScript fonts.	**1–150 (24*)**	For example, if the value is set to 75, then all fonts 75 points and smaller are sharpened. Fonts larger than 75 points are not sharpened. If the value is set to 102, then all fonts 102 points and smaller are sharpened. Fonts larger than 102 points are not sharpened.

Menu Item	Purpose	Values	
Cartridge Yield	Specifies the color and yield of the toner cartridge you plan to replace. **1** Select the toner cartridge to be replaced.	**2** Select the yield of the toner cartridge to be replaced.	
	Cyan	**Standard Yield***	Changes to the yield do not take effect until you exit the Config Menu. See **Exit Config Menu** as follows. You should change the setting for the Cartridge Yield menu item before you replace the toner cartridge. See **Changing the toner cartridge yield** for instructions.
	Magenta	**High Yield**	
	Yellow		
	Black		
Exit Config Menu	No selections exist for this menu item. Press **Select** to exit the Config Menu and restart the printer.		

Finishing Menu

Use the Finishing Menu to define how the printer delivers the printed output.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Blank Pages	To specify whether to include application-generated blank pages as part of your printed output.	**Do Not Print***	Does not print application-generated blank pages as part of your job.
		Print	Prints application-generated blank pages as part of your job.
Collation	To keep the pages of a print job stacked in sequence when printing multiple copies of the job.	**Off***	Prints each page of a job the number of times specified by the Copies menu item. For example, if you set Copies to 2 and send three pages to print, the printer prints page 1, page 1, page 2, page 2, page 3, page 3.
		On	Prints entire job the number of times specified by the Copies menu item. For example, if you set Copies to 2 and send three pages to print, the printer prints page 1, page 2, page 3, page 1, page 2, page 3.

Menu Item	Purpose	Values	
Copies	To set the number of copies you want for the printer default value. (Set the number of copies required for a specific job from the printer driver. Values selected from the printer driver always override values selected from the operator panel.)	**1...999 (1*)**	
Duplex	To set duplexing as the default for all print jobs. (Select Duplex from the printer driver to duplex only specific jobs.) *Duplex* means two-sided printing. **Note:** This menu item is displayed only when the optional duplex unit is installed.	**Off***	Prints on one side of the paper.
		On	Prints on both sides of the paper.
Duplex Bind	To define the way duplexed (two-sided) pages would be bound, and how the printing on the back of the sheet (even-numbered pages) is oriented in relation to the printing on the front (odd-numbered pages). **Note:** This menu item is displayed only when the optional duplex unit is installed.	**Long Edge***	Assumes binding along the long end of the page (left edge for portrait orientation and top edge for landscape orientation).
		Short Edge	Assumes binding along the short edge of the page (top edge for portrait orientation and left edge for landscape orientation).
Multipage Border	To print a border around each page image when using Multipage Print.	**None***	Does not print a border around each page image.
		Solid	Prints a solid line border around each page image.

<table>
<tr><th>Menu Item</th><th>Purpose</th><th colspan="2">Values</th></tr>
<tr><td rowspan="5">Multipage Order</td><td rowspan="4">To determine the positioning of multiple page images when using Multipage Print. The positioning depends on the number of images and whether the images are portrait or landscape in orientation.</td><td colspan="2">Horizontal*</td></tr>
<tr><td colspan="2">Vertical</td></tr>
<tr><td colspan="2">Rev Horizontal</td></tr>
<tr><td colspan="2">Rev Vertical</td></tr>
<tr><td colspan="3">For example, if you select 4-Up multipage printing and portrait orientation, the results differ depending on the Multipage Order value you select:
Horizontal Order
<table><tr><td>1</td><td>2</td></tr><tr><td>3</td><td>4</td></tr></table>
Vertical Order
<table><tr><td>1</td><td>3</td></tr><tr><td>2</td><td>4</td></tr></table>
Reverse Horizontal Order
<table><tr><td>2</td><td>1</td></tr><tr><td>4</td><td>3</td></tr></table>
Reverse Vertical Order
<table><tr><td>3</td><td>1</td></tr><tr><td>4</td><td>2</td></tr></table></td></tr>
<tr><td rowspan="8">Multipage Print</td><td rowspan="8">To print multiple page images on one side of a sheet of paper. Also called n-up or Paper Saver.</td><td>Off*</td><td>Prints 1 page image per side.</td></tr>
<tr><td>2 Up</td><td>Prints 2 page images per side.</td></tr>
<tr><td>3 Up</td><td>Prints 3 page images per side.</td></tr>
<tr><td>4 Up</td><td>Prints 4 page images per side.</td></tr>
<tr><td>6 Up</td><td>Prints 6 page images per side.</td></tr>
<tr><td>9 Up</td><td>Prints 9 page images per side.</td></tr>
<tr><td>12 Up</td><td>Prints 12 page images per side.</td></tr>
<tr><td>16 Up</td><td>Prints 16 page images per side.</td></tr>
<tr><td rowspan="3">Multipage View</td><td rowspan="3">To determine the orientation of a multipage sheet.</td><td>Auto*</td><td>Lets the printer choose between portrait and landscape orientation.</td></tr>
<tr><td>Long Edge</td><td>Sets the long edge of the paper as the top of the page (landscape).</td></tr>
<tr><td>Short Edge</td><td>Sets the short edge of the paper as the top of the page (portrait).</td></tr>
</table>

Menu Item	Purpose	Values	
Separator Sheets	To insert blank separator sheets between jobs, between multiple copies of a job, or between each page of a job.	**None***	Does not insert separator sheets.
		Between Copies	Inserts a blank sheet between each copy of a job. If Collation is Off, a blank page is inserted between each set of printed pages (all page 1's, all page 2's, and so on). If Collation is On, a blank page is inserted between each collated copy of the job.
		Between Jobs	Inserts a blank sheet between jobs.
		Between Pages	Inserts a blank sheet between each page of a job. This is useful if you are printing transparencies or want to insert blank pages in a document for notes.
Separator Source	To specify the paper source that holds separator sheets.	**Tray 1***	Selects separator sheets from the specified tray.
		Tray 2	

Help Menu

Use the Help Menu to find additional information available about your printer.

Menu Item	Purpose
Print All	Prints all the quick reference pages at once.
Help Guide	Provides information about how to use the Help Menu and how to get online help.
Printing Guide	Provides information about how to load trays, printing on specialty media, and how to set the paper size and type.
Supplies Guide	Provides part numbers for ordering supplies.
Print Quality	Provides information about print quality problems and solutions.
Color Quality	Provides information about how to get the best color performance.
Media Guide	Provides details about supported media.
Connection Guide	Provides instructions about how to connect the printer to a computer or network.
Moving Guide	Provides helpful information about how to pack the printer before moving it.
Print Defects	Provides guidelines for solving repetitive print defects.
Jam Clearance	Provides directions about how to clear jams.

To print any of the Help Menu guides:

1. Make sure the printer is on and the **Ready** message appears.
2. Press and release **Menu** until you see **Help Menu**, and then press **Select**. Make sure the guide you want is displayed on the second line of the display.
3. Press **Select**.

   The pages in the guide you selected print.

   Note: To print all the guides at once, select **Print All**.

Job Menu

The Job Menu is only available when the printer is busy processing or printing a job, when a printer message is displayed, or when the printer is in Hex Trace mode. Press **Menu** to open the Job Menu.

Menu Item	Purpose	Values
Abort Restore	To abort the restoration of held jobs on the hard disk.	No selections exist for this operation. Press **Select** to initiate the operation.
Cancel Job	To cancel the current print job. **Note: Cancel Job** is only displayed if the printer is processing a job or has a job in printer memory.	No selections exist for this operation. Press **Select** to initiate the operation.

Menu Item	Purpose	Values	
Confidential Job	To print confidential jobs stored in printer memory. **Note:** When the confidential job prints, it is automatically deleted from printer memory.		
	1 Use the operator panel buttons to enter the Personal Identification Number (PIN) associated with your confidential job.	**Enter PIN**	Use the operator panel buttons to enter the PIN associated with your confidential job.
	2 Then select a value:	**Print All Jobs**	Prints all jobs associated with your PIN.
		Print A Job	Prints the specified confidential job. Press **Menu** to scroll through the list of confidential jobs associated with your PIN. Press **Select** to print a specific job.
		Delete All Jobs	Deletes all jobs associated with your PIN.
		Delete A Job	Deletes the specified confidential job. Press **Menu** to scroll through the list of Confidential Jobs associated with your PIN. Press **Select** to delete a specific job.
		Print Copies	Determines the number of copies printed for each confidential job. Press **Menu** to scroll through the list of confidential jobs associated with your PIN. Press **Select** to specify the job you want to print. Press **Menu** to increase or decrease the number of copies, and then press **Select**.
Held Jobs	To print Reserve Print, Repeat Print, or Verify Print jobs stored in printer memory.	**Print All Jobs**	Prints all held jobs.
		Print A Job	Prints the specified held job. Press **Menu** to scroll through the list of held jobs. Press **Select** to print the specific job.
		Delete All Jobs	Deletes all held jobs.
		Delete A Job	Deletes the designated held job. Press **Menu** to scroll through the list of held jobs. Press **Select** to delete the job.
		Print Copies	Determines the number of copies for each held job. Press **Menu** to scroll through the list of held jobs. Press **Select** to specify the job you want to print. Press **Menu** to increase or decrease the number of copies, and then press **Select**.

Menu Item	Purpose	Values
Print Buffer	To print any data stored in the print buffer. **Note:** Print Buffer is only available when you enter the Job Menu while **Waiting** is displayed. The Waiting state occurs if an incomplete job is sent to the printer or an ASCII job, such as a print screen command, is printing.	
Reset Printer	To reset the printer to the user default value for each menu item, delete all downloaded resources (fonts, macros, and symbol sets) stored in printer memory (RAM), and delete all data in the interface link buffer. Before selecting Reset Printer, exit the software application you are using.	

Network Menu

Use the Network Menu to change printer settings affecting jobs sent to the printer through a network port (either Standard Network or Network Opt <x>).

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Job Buffering	To temporarily store jobs on the printer hard disk before printing. **Note:** Changing this menu item automatically resets the printer. This menu item is displayed only when a formatted disk is installed.	**Off***	Does not buffer jobs to the hard disk.
		On	Buffers print jobs to the hard disk.
		Auto	Buffers print jobs only if the printer is busy processing data from another input port.
MAC Binary PS	To configure the printer to process Macintosh binary PostScript print jobs.	**On**	Printer processes raw binary PostScript print jobs from computers using the Macintosh operating system. **Note:** This setting often causes Windows print jobs to fail.
		Off	Printer filters PostScript print jobs using standard protocol.
		Auto*	Printer processes print jobs from computers using either Windows or Macintosh operating systems.

Menu Item	Purpose	Values	
Network Buffer	To configure the size of the network input buffer. **Note:** Changing the Network Buffer menu item automatically resets the printer.	**Auto***	Printer automatically calculates the Network Buffer size (recommended setting).
		3K to maximum size allowed	User specifies the Network Buffer size. The maximum size depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Network Buffer size, disable or reduce the size of the parallel, serial, and USB buffers.
Network <x> Setup	To configure an internal print server.	Values for this menu item are supplied by the specific print server. Select the menu item to see the available values. **Note:** Refer to the documentation on the drivers CD for more information.	
NPA Mode	To specify whether the printer performs the special processing required for bidirectional communication, following the conventions defined in the Network Printing Alliance (NPA) Protocol. **Note:** Changing this menu item automatically resets the printer.	**Off**	Printer does not perform NPA processing.
		Auto*	Printer examines the data to determine the format and then processes it appropriately.
PCL SmartSwitch	To configure the printer so it automatically switches to PCL emulation when a print job received through the network port requires it, regardless of the default printer language.	**On***	Printer examines data on the network interface and selects PCL emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PostScript emulation to process the job if PS SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PS SmartSwitch is Off.

Menu Item	Purpose	Values	
PS SmartSwitch	To configure the printer so it automatically switches to PostScript emulation when a print job received through the network port requires it, regardless of the default printer language.	**On***	Printer examines data on the network interface connection and selects PostScript emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PCL emulation to process the job if PCL SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PCL SmartSwitch is Off.
Std Net Setup	To configure an internal print server.	Values for this menu item are supplied by the specific print server. Select the menu item to see the available values. **Note:** Refer to the documentation on the drivers CD for more information.	

Parallel Menu

Use the Parallel Menu to change printer settings affecting jobs sent to the printer through a parallel port (either Std Parallel or Parallel Opt <x>).

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Advanced Status	To enable bidirectional communication through the parallel port.	**Off**	Disables parallel port negotiation.
		On*	Enables bidirectional communication through the parallel interface.
Honor Init	To determine whether the printer honors hardware initialization requests from the computer. The computer requests initialization by activating the INIT signal on the parallel interface. Many personal computers activate the INIT signal each time the computer is turned on and off.	**Off***	Printer does not honor hardware initialization requests from the computer.
		On	Printer honors hardware initialization requests from the computer.
Job Buffering	To temporarily store jobs on the printer hard disk before printing. **Note:** Changing this menu item automatically resets the printer.	**Off***	Does not buffer print jobs to the hard disk.
		On	Buffers print jobs to the hard disk.
		Auto	Buffers print jobs only if the printer is busy processing data from another input port.
MAC Binary PS	To configure the printer to process Macintosh binary PostScript print jobs.	**On**	Printer processes raw binary PostScript print jobs from computers using the Macintosh operating system. **Note:** This setting often causes Windows print jobs to fail.
		Off	Printer filters PostScript print jobs using standard protocol.
		Auto*	Printer processes print jobs from computers using either Windows or Macintosh operating systems.
NPA Mode	To specify whether the printer performs the special processing required for bidirectional communication, following the conventions defined in the Network Printing Alliance (NPA) Protocol. **Note:** Changing this menu item automatically resets the printer.	**On**	Printer performs NPA processing. If data is not in NPA format, it is rejected as bad data.
		Off	Printer does not perform NPA processing.
		Auto*	Printer examines data and determines the format and then processes it appropriately.

Menu Item	Purpose	Values	
Parallel Buffer	To configure the size of the parallel input buffer. **Note:** Changing this menu item automatically resets the printer.	**Disabled**	Disables job buffering. Any jobs already buffered on the disk are printed before normal processing of incoming jobs resumes.
		Auto*	Printer automatically calculates the Parallel Buffer size (recommended setting).
		3K to maximum size allowed	User specifies the Parallel Buffer size. The maximum size depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Parallel Buffer size, disable or reduce the size of the serial and USB buffers.
Parallel Mode 1	To control the pull-up resistors on the parallel port signals. This menu item is useful for personal computers that have open collector outputs on the parallel port signals.	**On**	Disables the resistors.
		Off*	Enables the resistors.
Parallel Mode 2	To determine whether the parallel port data is sampled on the leading or trailing edge of strobe.	**On***	Samples parallel port data on the leading edge of strobe.
		Off	Samples parallel port data on the trailing edge of strobe.
PCL SmartSwitch	To configure the printer so it automatically switches to PCL emulation when a print job received through the parallel port requires it, regardless of the default printer language.	**On***	Printer examines data on the parallel interface and selects PCL emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PostScript emulation to process the job if PS SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PS SmartSwitch is Off.
PS SmartSwitch	To configure the printer so it automatically switches to PostScript emulation when a print job received through the parallel port requires it, regardless of the default printer language.	**On***	Printer examines data on the parallel interface and selects PostScript emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PCL emulation to process the job if PCL SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PCL SmartSwitch is Off.

Menu Item	Purpose	Values	
Protocol	To specify the parallel interface protocol.	**Standard**	May resolve some parallel interface problems.
		Fastbytes*	Provides compatibility with most existing parallel interface implementations (recommended setting).

PCL Emul Menu

Use the PCL Emul Menu to change printer settings that only affect jobs using the PCL emulation printer language.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
A4 Width	To select the width of the logical page for A4 size paper.	**198 mm***	Makes the logical page compatible with the Hewlett-Packard LaserJet 5 Printer.
		203 mm	Makes the logical page wide enough to print eighty 10-pitch characters.
Auto CR after LF	To specify whether the printer automatically performs a carriage return after a line feed control command.	**Off***	Printer does not perform a carriage return after a line feed control command.
		On	Printer performs a carriage return after a line feed control command.
Auto LF after CR	To specify whether the printer automatically performs a line feed after a carriage return control command.	**Off***	Printer does not perform a line feed after a carriage return control command.
		On	Printer performs a line feed after a carriage return control command.
Font Name	To choose a specific font from the specified font source.	**R0 Courier 10***	The font name and font ID for all fonts in the selected font source are displayed. The font source abbreviation is R for resident, F for flash, K for disk, and D for download.

Menu Item	Purpose	Values	
Font Source	To determine the set of fonts displayed in the Font Name menu item.	**Resident***	Displays all fonts resident in printer RAM when the printer ships from the factory.
		Download	Displays all fonts downloaded to printer RAM.
		Flash	Displays all fonts stored in flash memory.
		Disk	Displays all fonts stored on the printer hard disk.
		All	Displays all fonts available to the printer from all sources.
Lines per Page	To determine the number of lines that print on each page.	**1...255**	The printer sets the amount of space between each line (vertical line spacing) based on the Lines per Page, Paper Size, and Orientation menu items. Select the correct Paper Size and Orientation before changing Lines per Page.
		60* (country/ region-specific factory default values)	
		64* (country/ region-specific factory default values)	
Orientation	To determine how text and graphics are oriented on the page.	**Portrait***	Prints text and graphics parallel to the short edge of the paper.
		Landscape	Prints text and graphics parallel to the long edge of the paper.
Pitch	To specify the font pitch for scalable monospaced fonts.	**0.08...100** (in increments of 0.01 cpi)	Pitch refers to the number of fixed-space characters in a horizontal inch of type. You can select a pitch from 0.08 to 100 characters per inch (cpi) in increments of 0.01 cpi. For nonscalable monospaced fonts, the pitch is displayed, but cannot be changed. **Note:** Pitch is only displayed for fixed, or monospaced, fonts.
		10*	
Point Size	To change the point size for scalable typographic fonts.	**1...1008** (in increments of 0.25 points)	Point size refers to the height of the characters in the font. One point equals approximately 1/72 of an inch. You can select point sizes from 1 to 1008 in increments of 0.25 points. **Note:** Point Size is only displayed for typographic fonts.
		12*	

Menu Item	Purpose	Values	
Symbol Set	To choose a symbol set for a specified font name.	**10U PC-8*** (country/ region-specific factory default values)	A symbol set is a set of alphabetic and numeric characters, punctuation, and special symbols used when printing with a selected font. Symbol sets support the different requirements for languages or specific applications, such as math symbols for scientific text. Only the symbol sets supported for the selected font name are displayed.
		12U PC-850* (country/ region-specific factory default values)	
Tray Renumber	To configure your printer to work with printer drivers or applications that use different source assignments for the paper trays. **Note:** Refer to the *Technical Reference* for more information about assigning source numbers.		
	1 Select a media source.	**Assign Tray <x>**	
	2 Select a value.	**Off***	Printer uses factory default paper source assignments.
		0...199	Select a numeric value to assign a custom value to a paper source.
		None	Paper source ignores the Select Paper Feed command.
	Other Tray Renumber selections	**View Factory Def**	Press **Menu** to display the factory default value assigned to each paper source.
		Restore Defaults	Select Yes to return all tray assignments to factory default values.

Paper Menu

Use the Paper Menu to define the paper loaded in each tray and the default paper source.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Custom Types	To specify the kind of paper associated with each of the Custom Types available in the Paper Type menu item.	Values for Custom Type <x>, where <x> represents 1 or 2:	
		Paper*	**Note:** If a user-defined name is available, it is displayed instead of **Custom Type <x>**. The user-defined name is truncated to 14 characters. If two or more custom types share the same name, the name only appears once in the Custom Types value list.
		Card Stock	
		Transparency	
		Glossy Paper	
		Labels	
		Envelope	
Paper Loading	To properly handle preprinted paper loaded in a tray, whether the job is a duplexed job (two-sided) or a simplexed job (single-sided).		
	1 Select a media type. **Note:** If a user-defined name is available, it is displayed instead of **Custom <x> Loading** where **<x>** represents 1-2	**Glossy Loading**	
		Card Stock Load	
		Bond Loading	
		Ltrhead Loading	
		Preprint Loading	
		Colored Loading	
		Custom <x> Loading	
	2 Select a value.	**Duplex**	Notifies the printer that the specified media type is loaded properly for duplex printing (two-sided). If the printer receives a single-sided job using that media type, the printer inserts blank pages as necessary to print the job properly on preprinted forms. This setting may slow single-sided printing.
		Off*	Printer assumes preprinted material is loaded for single-sided printing. Duplexed jobs may not print properly.

Menu Item	Purpose	Values	
Paper Size	To identify the default size for each media source. For trays with automatic size sensing, only the value detected by the hardware is displayed.		
	1 Select a media source. **Note:** Tray 2 Size accommodates A4*, Letter*, and Executive sizes only.	**Tray 1 Size** **Tray 2 Size**	
	2 Select a value. (* Denotes country/region-specific factory default values) **Note:** Size sensing must be turned off for Statement and Folio values to appear. With Auto Size Sensing set On, Tray 1 can only detect the following sizes: Letter, Legal, Executive, A4, B5 Envelope, 10 Envelope, and DL Envelope. Tray 2 Size values are A4, Letter, and Executive.	**Letter***	
		Legal	
		Executive	
		Folio	
		Statement	
		A4*	
		A5	
		JIS B5	
		Universal	Select Universal when you load media that does not match any of the other available sizes. The printer automatically formats the page for the maximum possible size. You can then set the actual page size from your application software.
		10 Envelope (US)	
		9 Envelope	
		B5 Envelope	
		Other Envelope	Select Other Envelope when you load an envelope that does not match any of the other available sizes. The printer automatically formats the envelope for the maximum possible size. You can then set the actual size from your application software.
		DL Envelope (non US)	
		C5 Envelope	
Paper Source	To identify the default source. **Note:** Only installed sources are shown on the operator panel.	**Tray 1*** **Tray 2**	If you loaded the same size and type of paper in two paper sources (and the Paper Size and Paper Type menu items are correctly set), the trays are automatically linked. When one paper source is empty, paper automatically feeds from the next linked source.

Menu Item	Purpose	Values
Paper Type	To identify the type of media installed in each source. Use this menu item to: • Optimize print quality for the specified media. • Select sources through your software application by selecting type and size. • Automatically link sources. Any sources containing the same type and size of media are automatically linked by the printer, if you have set the Paper Size and the Paper Type to the correct values.	
	1 Select a media source.	**Tray 1 Type** **Tray 2 Type**
	2 Select a value. **Note:** Envelope and Transparency are not available values for Tray 2 Type.	**Plain Paper**
		Card Stock
		Transparency
		Labels
		Bond
		Letterhead
		Preprinted
		Custom Type <x>
		Glossy Paper
		Envelope
		Colored Paper
	The Paper Type default for each tray is as follows: **Note:** If a user-defined name is available, it is displayed instead of **Custom Type <x>**. The user-defined name is truncated to 14 characters. If two or more custom types share the same name, the name only appears once in the Paper Type value list.	**Custom Type 1**
		Custom Type 2

Menu Item	Purpose	Values	
Paper Weight	To identify the relative weight of the paper loaded in a specific source and ensure that the toner adheres properly to the printed page.		
	1 Select a type. **Note:** If a user-defined name is available, it is displayed instead of **Custom <x> Weight**. The name is truncated to 14 characters.	**Plain Weight**	
		Glossy Weight	
		Trnsprncy Weight	
		Labels Weight	
		Bond Weight	
		Card Stock Weight	
		Envelope Weight	
		Ltrhead Weight	
		Preprint Weight	
		Colored Weight	
		Custom 1 Weight	
		Custom 2 Weight	
	2 Select a value.	**Light**	
		Normal*	
		Heavy	
Substitute Size	To have the printer substitute the specified paper size if the requested size is not loaded.	**All listed***	Substitutes both Letter/A4 and Statement/A5.
		Off	Printer prompts the user to load the requested paper size.
		Statement/A5	Prints A5 size jobs on statement size paper if only statement size paper is loaded, and prints statement size jobs on A5 paper if only A5 paper is loaded.
		Letter/A4	Prints A4 size jobs on letter size paper if only letter size paper is loaded, and prints letter size jobs on A4 size paper if only A4 size paper is loaded.

Menu Item	Purpose	Values	
Universal Setup	To determine the default size when the Paper Size setting for a tray is Universal.		
	1 Select a unit of measure. (* Denotes a country/region-specific factory default value)	**Inches***	
		Millimeters*	
	2 Select the values.	**Portrait Width**	=3.00–14.17 in. (8.5 in.*) in increments of 0.01 in. =76–360 mm (216 mm*) in increments of 1 mm
		Portrait Height	=3.00–14.17 in. (14.17 in.*) in increments of 0.01 in. =76–360 mm (360 mm*) in increments of 1 mm
		Feed Direction	=Short Edge* =Long Edge

PostScript Menu

Use the PostScript Menu to change printer settings that only affect jobs using the PostScript emulation printer language.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Font Priority	To establish the font search order. **Note:** Font Priority is only displayed when a formatted flash or hard disk is installed, is neither defective nor Read/Write or Write protected, and Job Buffer Size is not set to 100%.	**Resident***	Printer searches printer memory for the requested font before searching flash memory or hard disk.
		Flash/Disk	Printer searches the hard disk and flash memory for the requested font before searching printer memory.
Image Smoothing	To enhance the contrast and sharpness of low resolution bitmapped images (such as images downloaded from the World Wide Web) and smooth their color transitions. **Note:** Image Smoothing has no effect on images that are 300 dpi or higher resolution.	**Off***	Uses default resolution when printing all images.
		On	Enhances low resolution images, such as graphics with a resolution of 72 dpi.

Menu Item	Purpose	Values	
PDF Menu	Use the PDF Menu within the PostScript Menu to change printer settings that only affect jobs using Portable Document Format (PDF) files.		
		Scale To Fit	To specify whether the document should be scaled to fit on the available media.
		No*	The document is not scaled to fit on the available media. Text or graphics outside the printable area is clipped.
		Yes	The document is scaled to fit on the available media.
		Orientation	To specify the default orientation of the PDF.
		Portrait*	Prints text and graphics parallel to the short edge of the paper for the PDF.
		Landscape	Prints text and graphics parallel to the long edge of the paper for the PDF.
		Halftone	To specify whether to use the printer default halftone screen or the document screen.
		Printer*	Use the printer default halftone screen.
		Document	Use the document halftone screen.
		Annotations	To specify whether to print the annotations within the PDF file. Annotation tools provide a variety of methods for marking up text and attaching notes and commentaries to PDF documents. If you select to print annotations, a new PDF file is created which lists all the annotation notes within the original PDF.
		Do Not Print*	Do not print the annotations in the PDF file.
		Print	Print the annotations in the PDF file.
Print PS Error	To print a page defining the PostScript emulation error when an error occurs.	**Off***	Discards the print job without printing an error message.
		On	Prints an error message before it discards the job.

Serial Menu

Use the Serial Menu to change printer settings affecting jobs sent to the printer through a serial port (either Standard Serial or Serial Opt <x>).

Note: Values marked with an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Baud	To specify the rate at which data can be received through the serial port.	**1200**	
		2400	
		4800	
		9600*	
		19200	
		38400	
		57600	
		115200	
		138200	
		172800	
		230400	
		345600	
Data Bits	To specify the number of data bits that are sent in each transmission frame.	**7**	
		8*	
Honor DSR	To determine whether the printer uses the Data Set Ready (DSR) signal. DSR is one of the handshaking signals for most serial interface cables. The serial interface uses DSR to distinguish data sent by the computer from data created by electrical noise in the serial cable. This electrical noise can cause stray characters to print. Select On to prevent stray characters from printing.	**Off***	All data received by the serial port is treated as valid data.
		On	Only data received while the DSR signal is high is treated as valid.
Job Buffering	To temporarily store jobs on the printer hard disk before printing. This menu item is displayed only when a formatted disk is installed. **Note:** Changing the Job Buffering menu item automatically resets the printer.	**Off***	Does not buffer print jobs to the hard disk.
		On	Buffers print jobs to the hard disk.
		Auto	Buffers print jobs only if the printer is busy processing data from another input port.

Menu Item	Purpose	Values	
NPA Mode	To specify whether the printer performs the special processing required for bidirectional communication, following the conventions defined in the Network Printing Alliance (NPA) Protocol. **Note:** Changing this menu item automatically resets the printer.	**On**	Printer performs NPA processing. If data is not in NPA format, it is rejected as bad data.
		Off	Printer does not perform NPA processing.
		Auto*	Printer examines the data to determine the format and then processes it appropriately.
Parity	To select the parity for serial input and output data frames.	**Even**	
		Odd	
		None*	
		Ignore	
PCL SmartSwitch	To configure the printer so it automatically switches to PCL emulation when a print job received through the serial port requires it, regardless of the default printer language.	**On***	Printer examines data on the serial interface and selects PCL emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PostScript emulation to process the job if PS SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PS SmartSwitch is Off.
PS SmartSwitch	To configure the printer so it automatically switches to PostScript emulation when a print job received through the serial port requires it, regardless of the default printer language.	**On***	Printer examines data on the serial interface and selects PostScript emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PCL emulation to process the job if PCL SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PCL SmartSwitch is Off.
Robust XON	To determine whether the printer communicates availability to the computer. This menu item only applies to the serial port if Serial Protocol is set to XON/XOFF.	**Off***	Printer waits to receive data from the computer.
		On	Printer sends a continuous stream of XONs to the host computer to indicate that the serial port is ready to receive more data.
RS-232/ RS-422	To specify the type of serial communication. **Note:** Selecting RS-422 automatically sets Serial Protocol to XON/XOFF.	**RS-232***	Sets serial communication to RS-232.
		RS-422	Sets serial communication to RS-422.

Menu Item	Purpose	Values	
RS-422 Polarity	To establish the behavior of the positive and negative signals when using RS-422 serial communication.	**Normal***	Uses default definition of one and zero.
		Reverse	Reverses the definition of one and zero, thereby allowing a positive connection to a host negative terminal without changing the physical cable.
Serial Buffer	To configure the size of the serial input buffer. **Note:** Changing the Serial Buffer menu item automatically resets the printer.	**Disabled**	Disables job buffering. Any jobs already buffered on the disk are printed before normal processing of incoming jobs resumes.
		Auto*	Printer automatically calculates the Serial Buffer size (recommended setting).
		3K to maximum size allowed	User specifies the Serial Buffer size. The maximum size depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Serial Buffer size, disable or reduce the size of the parallel and USB buffers.
Serial Protocol	To select the hardware and software handshaking values for the serial interface.	**DTR***	Hardware handshaking.
		DTR/DSR	Hardware handshaking.
		XON/XOFF	Software handshaking.
		XON/XOFF/ DTR	Combined hardware and software handshaking.
		XONXOFF/ DTRDSR	Combined hardware and software handshaking.

Setup Menu

Use the Setup Menu to configure a variety of printer features.

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Alarm Control	To establish whether the printer sounds an alarm when the printer requires operator intervention.	**Off**	Printer does not sound an alarm.
		Single*	Printer sounds three quick beeps.
		Continuous	Printer repeats three beeps every 10 seconds.

Menu Item	Purpose	Values	
Auto Continue	To define the amount of time (in seconds) the printer waits after displaying an operator intervention error message before it resumes printing.	**Disabled***	Printer does not resume printing until someone clears the error message.
		5...255	Printer waits the specified amount of time, and then automatically resumes printing. This timeout value also applies if the menus are displayed (and the printer is offline) for the specified period of time.
Black & White Lock	To set the printer to print only in black and white.	**Off***	Color prints as indicated in print job.
		On	The equivalent to setting Color Mode to Black & White.
Display Language	To determine the language of the text on the operator panel display.	**English**	**Note:** All values may not be available.
		Français	
		Deutsch	
		Italiano	
		Español	
		Dansk	
		Norsk	
		Nederlands	
		Svenska	
		Português	
		Suomi	
		Japanese	
		Russian	
		Polski	
		Hungarian	
		Turkish	
		Czech	
Download Target	To specify the storage location for downloaded resources. Storing downloaded resources in flash memory or on a hard disk is permanent storage rather than the temporary storage that RAM provides. The resources remain in the flash memory or on the hard disk even when the printer is turned off.	**RAM***	All downloaded resources are automatically stored in printer memory (RAM).
		Flash	All downloaded resources are automatically stored in flash memory.
		Disk	All downloaded resources are automatically stored on the hard disk.

Menu Item	Purpose	Values	
Jam Recovery	To establish whether the printer reprints jammed pages.	**On**	Printer reprints jammed pages.
		Off	Printer does not reprint jammed pages.
		Auto*	Printer reprints a jammed page unless the memory required to hold the page is needed for other printer tasks.
Job Accounting	To store statistical information about your most recent print jobs on the hard disk. The statistics include whether the job printed with or without errors, the print time, the job size (in bytes), the requested paper size and paper type, the total number of printed pages, and the number of copies requested. **Note:** Job Accounting is only displayed when a hard disk is installed, is neither defective nor Read/Write or Write protected, and Job Buffer Size is not set to 100%.	**Off***	Printer does not store job statistics on disk.
		On	Printer stores job statistics for the most recent print jobs.
Left Margin	Allows for a shift right or left of the position of the left margin for the 530-sheet tray (Tray 2) or the duplex unit in order to align it properly with the standard tray (Tray 1) left margin. The margin can be set from -7 to 7 using increments of 1. Each number represents a 0.5 mm adjustment of the left margin. Selecting Left Margin value causes the Alignment Page to print.		
	1 Select a device.	**Tray 2** **Duplex**	
	2 Select the increment value.	**1 to 15**	Specify increments of 1.0 with each representing a 0.5 mm adjustment of the left margin.
Page Protect	To successfully print a page that may otherwise generate **Complex Page** errors. If, after selecting On, you still cannot print the page, you may also have to reduce the size and number of fonts on the page, or increase the installed printer memory. For most print jobs, you do not need to select On. When On is selected, printing may be slower.	**Off***	Prints a partial page of data if memory is insufficient to process the entire page.
		On	Ensures that an entire page is processed before it prints.

Menu Item	Purpose	Values	
Print Area	To modify the logical and physical printable area.	**Normal***	**Note:** The Whole Page setting only affects pages printed using PCL 6 interpreter. This setting has no effect on pages printed using the PCL XL or PostScript interpreters. If you try to print any data in the non-printable area defined by Normal Print Area, the printer will clip the image at the boundary defined by the Normal defined printable area.
		Whole Page	
Power Saver	To specify the amount of time (in minutes) the printer waits after a job is printed before it goes into a reduced power state.	**Disabled**	This value does not appear unless Energy Conserve is set to Off. See **Energy Conserve** for more information.
		1...240	Specifies the amount of time after a print job before the printer goes into Power Saver mode. (Your printer may not support the entire range of values.) The factory default Power Saver setting depends on your printer model. Print the menu settings page to determine the current Power Saver setting. When the printer is in Power Saver mode, it is still ready to receive print jobs. Select 1 to put the printer in Power Saver mode one minute after it finishes a print job. This uses much less energy, but requires more warm-up time for the printer. Select 1 if your printer shares an electrical circuit with room lighting and you notice lights flickering. Select a high value if your printer is in constant use. Under most circumstances, this keeps the printer ready to print with minimum warm-up time. Select a value between 1 and 240 minutes if you want a balance between energy consumption and a shorter warm-up period.

Menu Item	Purpose	Values	
Print Timeout	To specify the amount of time (in seconds) the printer waits before printing the last page of a print job that does not end with a command to print the page. The print timeout counter does not start until **Waiting** is displayed.	**Disabled**	The printer does not print the last page of a print job until one of the following occurs: • The printer receives enough information to fill the page. • The printer receives a Form Feed command. • You select Print Buffer from the Job Menu.
		1...255 (90*)	The printer prints the last page after the specified time. (Your printer may not support the entire range of values.)
Printer Language	To establish the default printer language used to communicate data from the computer to the printer. **Note:** Setting a printer language as the default does not prevent a software application from sending print jobs that use the other language.	**PCL Emulation***	PCL emulation, compatible with Hewlett-Packard printers.
		PS Emulation	PostScript emulation, compatible with Adobe PostScript language.
Resource Save	To determine what the printer does with downloaded resources, such as fonts and macros stored in RAM, if the printer receives a job that requires more memory than is available.	**Off***	Printer retains downloaded resources only until memory is needed. It then deletes those resources associated with the inactive printer language.
		On	Printer retains all downloaded resources for all printer languages during language changes and printer resets. If the printer runs out of memory, **38 Memory Full** is displayed.
Toner Alarm	To specify how the printer responds when it is low on toner.	**Off***	An error message is displayed until someone replaces the toner cartridge. If an Auto Continue value is selected from the Setup Menu, the printer resumes printing after the specified timeout value.
		Single	Printer stops printing, displays an error message, and sounds three quick beeps.
		Continuous	Printer stops printing, displays an error message, and repeats three beeps every 10 seconds until the toner cartridge is replaced.

Menu Item	Purpose	Values	
Wait Timeout	To specify the amount of time (in seconds) the printer waits to receive additional bytes of data from the computer. When this timeout expires, the print job is canceled. Wait Timeout is only available when you use PostScript emulation. This menu item has no effect on PCL emulation print jobs.	**Disabled**	Disables Wait Timeout.
		15...65535 (40*)	Specifies the amount of time the printer waits for additional data before it cancels the job.

Supplies Menu

The Supplies Menu provides information about printer supplies that require attention. It is only available when a supply is low or needs replacement.

Menu Item	Purpose	Values	
<color> Toner	To view the status of the color toner cartridges where <color> represents yellow, magenta, cyan, or black.	**Low**	
Waste Bottle	To view the status of the toner waste bottle. **Note:** Once the toner waste bottle reaches Full, the printer will print up to 15 more pages from the buffer and then stop until the bottle is replaced.	**Near Full**	The toner waste bottle is nearly full.
		Full or Missing	The toner waste bottle is full or is missing from the printer.
Photodev Cart	To view the status of the photodeveloper cartridge.	**Life Warning**	The photodeveloper cartridge is close to reaching its end of use.
		Exhausted	The photodeveloper cartridge is completely used.
Fuser	To view the status of the fuser. This menu item is shown in the Supplies Menu when the supply is not within life warning or exhausted state.	**Life Warning**	The fuser is close to reaching its end of use.
		Exhausted	The fuser is completely used.

Menu Item	Purpose	Values	
Supplies Life	To view the status and percentage of the remaining supply item. This menu item is shown in the Supplies Menu when the supply is not in one of the following states: low, empty, near full, full, missing, life warning, or exhausted.		
	1 Select one cartridge as the supply item.	**Yellow Toner**	
		Magenta Toner	
		Cyan Toner	
		Black Toner	
	2 Select the value.	**Low**	The cartridge is low on toner.
		Empty	The cartridge is empty.
		xxx%	The percentage represents how much is left of this supply item.
	1 Select the waste toner bottle as the supply item.	**Waste Bottle**	
	2 Select the value.	**Near Full**	The toner waste bottle is nearly full.
		Full or Missing	The toner waste bottle is full or is missing from the printer.
		OK	The toner waste bottle is not full or missing.
	1 Select the photodeveloper cartridge as the supply item.	**Photodev Cart**	
	2 Select the value.	**Missing**	The photodeveloper cartridge is missing from the printer.
		Life Warning	The photodeveloper cartridge is close to reaching its end of use.
		Exhausted	The photodeveloper cartridge is completely used.
		xxx%	The percentage represents how much is left of this supply item.
	1 Select the fuser as the supply item.	**Fuser**	
	2 Select the value.	**Missing**	The fuser is missing from the printer.
		Life Warning	The fuser is close to reaching its end of use.
		Exhausted	The fuser is completely used.
		xxx%	The percentage represents how much is left of this supply item.

Menu Item	Purpose	Values
Replace Supplies	Lets you specify if these supply items are replaced before they are low or in the maintenance state. **Not Replaced** is displayed as the current value, so you must press **Menu**, scroll to **Replaced**, and press **Select**. This is a precaution so you do not accidently reset a counter. This menu item is shown in the Supplies Menu when the supply is not in an exhausted or near exhausted state.	
	1 Select the supply.	**Yellow Toner**
		Magenta Toner
		Cyan Toner
		Black Toner
		Photodev Cart
		Fuser
	2 Select the value.	**Not Replaced**
		Replaced

USB Menu

Use the USB Menu to change printer settings affecting a Universal Serial Bus (USB) port (USB Option <x>).

Note: Values marked by an asterisk (*) are the factory default settings.

Menu Item	Purpose	Values	
Job Buffering	To temporarily store jobs on the printer hard disk before printing. **Note:** Changing the Job Buffering menu item automatically resets the printer.	**Off***	Does not buffer print jobs to the hard disk.
		On	Buffers print jobs to the hard disk.
		Auto	Buffers print jobs only if the printer is busy processing data from another input port.
MAC Binary PS	To configure the printer to process Macintosh binary PostScript print jobs.	**Off**	Printer processes raw binary PostScript print jobs from computers using the Macintosh operating system. **Note:** This setting often causes Windows print jobs to fail.
		On	Printer filters PostScript print jobs using standard protocol.
		Auto*	Printer processes print jobs from computers using either Windows or Macintosh operating systems.

Menu Item	Purpose	Values	
NPA Mode	To specify whether the printer performs the special processing required for bidirectional communication, following the conventions defined in the Network Printing Alliance (NPA) Protocol. **Note:** Changing this menu item automatically resets the printer.	**Off**	Printer performs NPA processing. If data is not in NPA format, it is rejected as bad data.
		On	Printer does not perform NPA processing.
		Auto*	Printer examines the data to determine the format and then processes it appropriately.
PCL SmartSwitch	To configure the printer so it automatically switches to PCL emulation when a print job received through the USB port requires it, regardless of the default printer language.	**On***	Printer examines the data on the USB interface and selects PCL emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PostScript emulation to process the job if PS SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PS SmartSwitch is Off.
PS SmartSwitch	To configure the printer so it automatically switches to PostScript emulation when a print job received through the USB port requires it, regardless of the default printer language.	**On***	Printer examines data on the USB interface and selects PostScript emulation if the data indicates that is the required printer language.
		Off	Printer does not examine the incoming data. The printer uses PCL emulation to process the job if PCL SmartSwitch is On, or uses the default printer language specified in the Setup Menu if PCL SmartSwitch is Off.
USB Buffer	To configure the size of the USB input buffer. **Note:** Changing the USB Buffer menu item automatically resets the printer.	**Disabled**	Job buffering is disabled. Any jobs already buffered on the disk are printed before normal processing of incoming jobs resumes.
		Auto*	Printer automatically calculates the USB Buffer size (recommended setting).
		3K to maximum size allowed	User specifies the USB Buffer size. The maximum size depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the USB Buffer size, disable or reduce the size of the parallel, serial, and network buffers.

Utilities Menu

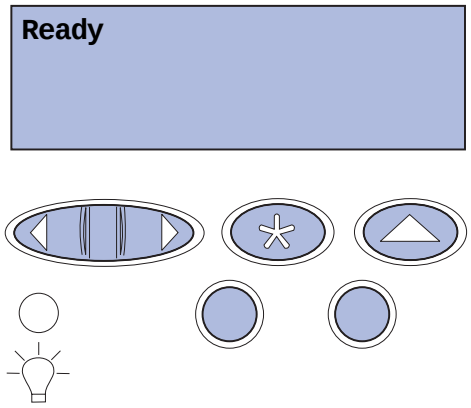
Use the Utilities Menu to print a variety of listings relating to available printer resources, printer settings, and print jobs. Other menu items let you set up printer hardware and troubleshoot printer problems.

Menu Item	Purpose	Values	
Coverage Est.	Coverage estimator provides an estimate of the percent coverage of cyan, magenta, yellow, and black on a page. This estimate is printed on the page.	**Off***	Percent coverage is not printed.
		On	Prints the estimated percentage of coverage for each color on the page.
Defragment Flash	To retrieve storage area lost when resources are deleted from flash memory. **Warning:** Do not turn off the printer while the flash is defragmenting.	**Yes**	Printer transfers all resources stored in flash memory to printer memory and then reformats the flash memory option. When the format operation is complete, the resources are loaded back into flash memory.
		No	Printer cancels the request to defragment the flash memory.
Factory Defaults	To return your printer settings to the factory default values.	**Restore**	• All menu items are returned to the factory default values except: – Display Language. – All settings in the Parallel Menu, Serial Menu, Network Menu, and USB Menu. • All downloaded resources (fonts, macros, and symbol sets) in printer memory (RAM) are deleted. (Resources residing in flash memory or on the hard disk are unaffected.)
		Do Not Restore	User-defined settings remain.
Format Disk	To format the printer hard disk. **Warning:** Do not turn off the printer while the hard disk is formatting.	**Yes**	Deletes any data stored on the hard disk and prepares the device to receive new resources.
		No	Cancels the request to format the hard disk and leaves current resources stored on the disk.
Format Flash	To format the flash memory. **Warning:** Do not turn off the printer while the flash is formatting.	**Yes**	Deletes any data stored in flash memory and prepares the flash memory to receive new resources.
		No	Cancels the request to format the flash memory and leaves current resources stored in flash memory.

Menu Item	Purpose	Values	
Hex Trace	To help isolate the source of a print job problem. With Hex Trace selected, all data sent to the printer is printed in hexadecimal and character representation. Control codes are not executed. To exit Hex Trace, turn the printer off or reset the printer from the Job Menu.		
Job Acct Stat	To print a listing of all job statistics stored on the hard disk, or to clear all statistics on the disk.	**Print**	Prints all statistics available for the most recent print jobs.
		Clear	Deletes all accumulated job statistics from the hard disk.
Print Directory	To print a list of all the resources stored in flash memory or on the hard disk. **Note:** Print Directory is available only when either a nondefective flash or disk is installed and formatted, and Job Buffer Size is not set to 100%.		
Print Fonts	To print a sample of all the fonts available for the selected printer language.	**PCL Fonts**	Prints a sample of all printer fonts available for PCL emulation.
		PS Fonts	Prints a sample of all printer fonts available for PostScript emulation.
Print Menus	To print a listing of the current user default values, the installed options, the amount of installed printer memory, the status of printer supplies, and key statistics about printer usage.		
Print Net Setup **Print Net <x> Setup**	To print information relating to the internal print server and the network settings defined by the Network <x> Setup menu item in the Network Menu.		
Prt Quality Pgs	For a complete description of this menu item, see **Prt Quality Pgs** listed in the **Config Menu**. You can access this menu item through the Utilities Menu or the Config Menu.		
Remove Held Jobs	To remove confidential and held jobs from the printer hard disk. **Note:** Remove Held Jobs is only available when confidential jobs or held jobs are stored on an installed hard disk. **Warning:** Removed jobs are no longer available in the list of jobs when you select Held Jobs or Confidential Job from the Job Menu. They cannot be restored on the hard disk during the printer power-on cycle.	**All**	Removes all confidential and held jobs stored on the hard disk.
		Confidential	Removes confidential jobs stored on the hard disk.
		Held	Removes held jobs stored on the hard disk.
		Not Restored	Removes all confidential or held jobs that were not restored from the hard disk to printer memory.

9 Understanding printer messages

The printer operator panel displays messages describing the current state of the printer and indicates possible printer problems you must resolve. This topic provides a list of all printer messages, explains what they mean, and tells you how to clear the messages.



Message	What this message means	What you can do
Activating Menu Changes	The printer is activating changes made to the printer settings.	Wait for the message to clear. See also: **Disabling operator panel menus**
Busy	The printer is busy receiving, processing, or printing data.	Wait for the message to clear. Press **Menu** to open the Job Menu and cancel the current job.
Canceling Job	The printer is processing a request to cancel the current print job.	Wait for the message to clear. See also: **Canceling a print job**
Change Tray <x> **<type> <size>**	The printer is requesting different media than what is loaded in the specified tray or defined by the Paper Size or Paper Type settings for that tray.	• Load media of the requested size and type in the tray specified. The printer automatically clears the message and continues printing the job. • Press **Select** to clear the message and continue printing on the media currently loaded in the tray. See also: **Loading the trays**; *Setup Guide*
Clearing Job Accounting Stat	The printer is deleting all job statistics stored on the hard disk.	Wait for the message to clear.

Message	What this message means	What you can do
Close Duplex Door	The duplex rear door is open.	Close the duplex rear door to clear the message.
Close Front Door	The printer front door is open.	Close the printer front door to clear the message.
Close Rear Door	The printer rear door is open.	Close the printer rear door to clear the message.
Close Top Door	The printer top door is open.	Close the printer top door to clear the message.
Defragmenting **DO NOT POWER OFF**	The printer is defragmenting the flash memory to reclaim storage space occupied by deleted resources.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Delete All Jobs. **Go/Stop?**	The printer is requesting confirmation to delete all held jobs.	Press **Go** to continue. The printer deletes all held jobs. Press **Stop** to cancel the operation.
Deleting Jobs	The printer is deleting one or more held jobs.	Wait for the message to clear.
Did you replace Photodev Cart? **Press Select for YES Stop for No**	This message appears when the top door is closed or when you answer another replacement message, and the photodeveloper cartridge is either in a warning or exhausted state requiring that you replace it. The secondary message appears with instructions.	Replace the photodeveloper cartridge and press **Go**. Pressing Go clears the maintenance counter. Press **Stop** to continue printing. This does not clear the maintenance counter. The **83 Photodev Exhausted** returns after pressing **Stop**. The photodeveloper cartridge remains in the warning state, and this message appears again each time the top door is opened.
Did you replace Fuser? **Press Select for YES Stop for No**	This message appears when the rear door is closed or when you answer another replacement message, and the fuser is either in a warning or exhausted state requiring that you replace it. The secondary message appears with instructions.	Replace the fuser and press **Go**. Pressing Go clears the maintenance counter. Press **Stop** to continue printing. This does not clear the maintenance counter. The fuser remains in the warning state, and the message appears again each time the rear door is opened.
Disabling Menus	The printer is responding to a request to disable the menus.	Wait for the message to clear. While the menus are disabled, you cannot change the printer settings from the operator panel. See also: **Disabling operator panel menus**

Message	What this message means	What you can do
Disk Corrupted. Reformat?	The printer has attempted a disk recovery process and cannot repair the disk.	Press **Go** to reformat the disk and delete all files currently stored on the disk. Press **Stop** to clear the message without reformatting the disk. The printer may display **Disk Recovery** and attempt to recover the disk. See also: **Disk Recovery x/5 yyy%**
Disk Recovery x/5 yyy%	The printer is attempting to recover the hard disk. Disk recovery takes place in five phases; the second line on the operator panel display shows the percent complete of the current phase.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Enabling Menus	The printer is responding to a request to make the menus available to all users.	Wait for the message to clear, and then press **Menu** to view the menus from the operator panel. See also: **Enabling menus**
Engine Warming	The printer is warming the fuser assembly to prepare for printing.	Wait for the message to clear.
Enter PIN: =___	The printer is waiting for you to enter your four-digit personal identification number (PIN).	Use the operator panel buttons to enter the PIN you identified in the driver when you sent the confidential job to the printer. See also: **Accessing held jobs from the operator panel**; **Entering a personal identification number (PIN)**
Flushing Buffer	The printer is flushing corrupted print data and discarding the current print job.	Wait for the message to clear.
Formatting Disk DO NOT POWER OFF	The printer is formatting the hard disk. When formatting takes longer than usual, the second line of the display shows the percent complete.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Formatting Disk yyy%	The printer is formatting the hard disk. When formatting takes longer than usual, the second line of the display shows the percent complete.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Formatting Flash DO NOT POWER OFF	The printer is formatting the flash memory.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.

Message	What this message means	What you can do
Held Jobs May Be Lost	The printer memory is too full to continue processing print jobs.	• Press **Go** to clear the message and continue printing. The printer frees memory by deleting the oldest held job and continues deleting held jobs until there is enough printer memory to process the job. • Press **Stop** to clear the message without deleting any held jobs. The current job may not print correctly. • Press **Menu** to open the Job Menu and cancel the current job. • To avoid this error in the future: – Delete fonts, macros, and other data stored in printer memory. – Install more printer memory. **Note:** The messages **37 Insufficient Memory** and **Held Jobs may be lost** alternate on the display. See also: **Printing and deleting held jobs**; **37 Insufficient Memory**
Held Jobs May Not Be Restored	The printer memory cannot restore Print and Hold jobs from the printer hard disk.	Press **Go** to clear the message. Some of the Print and Hold jobs stored on the disk will not be restored. See also: **37 Insufficient Memory**; **57 Configuration Change**
Insert Tray <x>	The specified tray is either missing or not fully inserted.	Insert the specified tray completely into the printer. See also: **Loading the trays**
Install <*device*> or Cancel Job	The printer is requesting that a specified device be installed so it can print a job. **<device>** is **Tray 1**, **Tray 2**, or **Duplex**.	• Turn the printer off, install the specified device, and restart the printer. • Press **Menu** to open the Job Menu and cancel the current job.
Invalid Engine Code	The printer engine code has not been programmed or is not valid.	Call for service. See also: **Calling for service**
Invalid Network <x> Code **Invalid Standard Network Code**	The code in an internal print server is not valid. The printer cannot receive and process jobs until valid code is programmed into the internal print server.	Download valid code to the printer internal print server. **Note:** You can download network code while this message is displayed.

Message	What this message means	What you can do
Load Tray <x>	The printer is trying to feed media from a source it detects is empty.	• Load media of the size and type requested in the second line of the display in the specified tray. The printer automatically clears the message and continues printing the job. • Press **Menu** to open the Job Menu and cancel the current job. See also: **Loading the trays**
Menus Disabled	The printer menus are disabled. You cannot change the printer settings from the operator panel.	You can still open the Job Menu to cancel a job that is printing or to select a confidential job or a held job that you want to print. If you need access to the printer menus, contact your network administrator. See also: **Disabling operator panel menus**; **Enabling menus**
Network Card Busy	An internal print server (also called an internal network adapter or INA) is being reset.	Wait for the message to clear.
Network **Network <x>**	A network interface is the active communication link.	Wait for the message to clear.
Network <x>, <y>	A network interface is the active communication link, where **<x>** represents the active communication link and **<y>** represents the channel.	Wait for the message to clear.
No Jobs Found. Retry?	The four-digit personal identification number (PIN) you entered is not associated with any confidential print job.	• Press **Go** to enter another PIN. • Press **Stop** to clear the PIN entry prompt. See also: **Accessing held jobs from the operator panel**
Not Ready	The printer is not ready to receive or process data. Someone pressed **Stop** to take the printer offline.	Press **Go** to make the printer ready to receive jobs.
Parallel **Parallel <x>**	A parallel interface is the active communication link.	Wait for the message to clear.
Performing Self Test	The printer is running the series of start-up tests it performs after it is turned on.	Wait for the message to clear.

Message	What this message means	What you can do
Power Saver	The printer is ready to receive and process data. It is reducing its electricity consumption while idle. If the printer remains inactive for the period of time specified in the Power Saver menu item (20 minutes is the factory default), the **Power Saver** message replaces the **Ready** message on the display.	Send a job to print. Press **Go** to quickly warm the printer to normal operating temperature and display the **Ready** message.
Print Jobs on Disk. Go/Stop?	Jobs that were spooled to the hard disk before the printer was last turned off have not yet printed.	• Press **Go** to print the jobs. • Press **Return** or **Stop** to delete the jobs from the hard disk without printing them.
Printing Directory List	The printer is processing or printing a directory of all files stored in flash memory or on a hard disk.	Wait for the message to clear. See also: **Printing a directory list**
Printing Font List	The printer is processing or printing a list of all available fonts for the specified printer language.	Wait for the message to clear. See also: **Printing a font sample list**
Printing Job Accounting Stat	The printer is processing or printing all job accounting statistics stored on the hard disk.	Wait for the message to clear. See also: **Job Acct Stat**
Printing Menu Settings	The printer is processing or printing the menu settings page.	Wait for the message to clear. See also: **Using printer menus**; **Printing the menu settings page**
Printing Quality Test Pages	The printer is processing or printing the Print Quality Test Pages.	Wait for the message to clear. See also: **Printing the Print Quality Test Pages**
Prog Engine Code DO NOT POWER OFF	The printer is programming new code into the flash memory.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Prog System Code DO NOT POWER OFF	The printer is programming new system code.	Wait for the message to clear and the printer to reset. **Warning:** Do not turn the printer off while this message is displayed.
Program Flash DO NOT POWER OFF	The printer is storing resources, such as fonts or macros, in flash memory.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Programming Disk DO NOT POWER OFF	The printer is storing resources, such as fonts or macros, on the hard disk.	Wait for the message to clear. **Warning:** Do not turn the printer off while this message is displayed.
Queuing and Deleting Jobs	The printer is deleting one or more held jobs and sending one or more jobs to print.	Wait for the message to clear. See also: **Printing and deleting held jobs**

Message	What this message means	What you can do
Queuing Jobs	The printer is sending one or more held jobs to print.	Wait for the message to clear. See also: **Using the Print and Hold function**
Ready	The printer is ready to receive and process print jobs.	Send a job to print.
Ready Hex	The printer is in Hex Trace mode and is ready to receive and process print jobs.	• Send a job to print. All data sent to the printer is printed in hexadecimal and character representation. Control strings are printed, not executed. • Turn the printer off and then on to exit Hex Trace mode and return to **Ready** status.
Remove Paper Standard Bin	The output bin is full.	Remove the stack of media from the bin to clear the message.
Res Reduced	The printer is reducing the resolution of a page in the current job from 600 dots per inch (dpi) to 300 dpi to prevent a **38 Memory Full** error. **Res Reduced** remains on the display while the job prints.	Press **Menu** to open the Job Menu and cancel the current job.
Resetting the Printer	The printer is resetting to the current default settings. Any active print jobs are canceled.	Wait for the message to clear. See also: **Using the operator panel to change printer settings**
Restore Held Jobs. Go/ Stop?	Someone reset the printer or turned it on, and the printer detects Print and Hold jobs stored on the hard disk.	• Press **Go**. All Print and Hold jobs on the hard disk are restored to printer memory. • Press **Return** or **Stop**. No Print and Hold jobs are restored to printer memory. The printer returns to the **Ready** state. See also: **Using the Print and Hold function**
Restoring Factory Defaults	The printer is restoring the factory default printer settings. When factory default settings are restored: • All downloaded resources (fonts, macros, symbol sets) in the printer memory are deleted. • All menu settings return to the factory default setting *except*: – The Display Language setting in the Setup Menu. – All settings in the Parallel Menu, Serial Menu, Network Menu, and USB Menu.	Wait for the message to clear. See also: **Restoring factory default settings**

Message	What this message means	What you can do
Restoring Held Job xxx/yyy	The printer is restoring held jobs from the hard disk. **xxx** represents the number of the job being restored. **yyy** represents the total number of jobs to be restored.	• Wait for the message to clear. • Select the Abort Restore menu item in the Job Menu. See also: **Using the Print and Hold function**
Serial <x>	A serial interface is the active communication link.	Wait for the message to clear.
Supplies	At least one of the printer supplies requires attention. For example, you may have a toner cartridge that is low on toner.	Press **Menu** to open the Supplies Menu and identify which supply item needs replacing. Replace the appropriate printer supplies.
TMA	Toner Mass Adjustment The printer is performing a toner mass adjustment. This is a secondary message that is displayed on the second line of the operator panel when the **Engine Warming** and **Performing Self Test** messages appear.	Wait for the message to clear.
USB **USB <x>**	The printer is processing data through the specified USB port.	Wait for the message to clear.
Waiting	The printer has received a page of data to print but is waiting for an End of Job command, a Form Feed command, or additional data.	• Press **Go** to print the contents of the buffer. • Press **Menu** to open the Job Menu and cancel the current job. See also: **Canceling a print job**
1565 Emul Error Load Emul Option	The download emulator version on the firmware card does not match the printer code version. This error can occur if you update printer firmware or move a firmware card from one printer to another.	The printer automatically clears the message in 30 seconds, and then disables the download emulator on the firmware card. Download the correct download emulator version from the Lexmark Web site.
2<xx> Paper Jam	The printer detects a jam.	Clear the media path of all jams. See also: **Identifying the media path**
30 <color> Toner Cart Missing	The specified toner cartridge is either missing or incorrectly installed.	Insert the toner cartridge completely into the printer. The printer automatically clears the message. See also: **Replacing the toner cartridges**

Message	What this message means	What you can do
32 Unsupported Print Cartridge	An unsupported toner cartridge is installed.	Remove the unsupported toner cartridge and install a new one. Make sure you are using the correct toner cartridge based on the part numbers given in **Ordering toner cartridges**. See also: **Replacing the toner cartridges**
34 Incorrect Media	The printer has detected a mismatch in the requested media type and the type loaded in any tray. See **Media support for models and sources** and **Media types and weights** for more information.	• Replace the media in the tray with the requested media and press **Go**. • Press **Menu** to access the **Busy/ Waiting Menu** group, and select one of the following options: – Cancel Job – Reset Printer – Reset Active Bin – Check Supply Levels
34 Short Paper	The printer has determined that the length of the paper in the source specified on the second line of the display is too short to print the formatted data. For auto-size sensing trays, this error occurs if the paper guides are not in the correct position.	• Press **Go** to clear the message and continue printing. The printer does not automatically reprint the page that prompted the message. • Make sure the Paper Size setting in the Paper Menu is correct for the size paper you are using. If MP Feeder Size is set to Universal, make sure your paper is large enough for the formatted data. • Press **Menu** to open the Job Menu and cancel the current job. See also: **Media specifications**
35 Res Save Off Deficient Memory	The printer lacks the memory needed to enable Resource Save. This message usually indicates too much memory is allocated for one or more of the printer link buffers.	• Press **Go** to disable Resource Save and continue printing. • To enable Resource Save after you get this message: – Make sure the link buffers are set to Auto, and exit the menus to activate the link buffer changes. – When **Ready** is displayed, enable Resource Save from the Setup Menu. • Install additional memory.
37 Insufficient Collation Area	The printer memory (or hard disk, if installed) does not have the free space necessary to collate the print job.	• Press **Go** to print the portion of the job already stored and begin collating the rest of the job. • Press **Menu** to open the Job Menu and cancel the current job. See also: **Canceling a print job**

Message	What this message means	What you can do
37 Insufficient Defrag Memory	The printer cannot defragment flash memory, because the printer memory used to store undeleted flash resources is full.	• Delete fonts, macros, and other data in printer memory. • Install additional printer memory.
37 Insufficient Memory	The printer memory is full and cannot continue processing current print jobs.	• Press **Go** to clear the message and continue the current print job. The printer frees memory by deleting the oldest held job and continues deleting held jobs until there is enough printer memory to process the job. • Press **Stop** to clear the message without deleting any held jobs. The current job may not print correctly. • Press **Menu** to open the Job Menu and cancel the current job. • To avoid this error in the future: – Delete fonts, macros, and other data in printer memory. – Install additional printer memory. **Note:** The messages **37 Insufficient Memory** and **Held Jobs may be lost** alternate on the display. See also: **Using the Print and Hold function**; **Held Jobs May Be Lost**; **Held Jobs May Not Be Restored**
38 Memory Full	The printer is processing data, but the memory used to store pages is full.	• Press **Go** to clear the message and continue printing the job. The job may not print correctly. • Press **Menu** to open the Job Menu and cancel the current job. • To avoid this error in the future: – Simplify the print job by reducing the amount of text or graphics on a page and deleting unnecessary downloaded fonts or macros. – Install additional printer memory. See also: **Canceling a print job**

Message	What this message means	What you can do
39 Complex Page	The page may not print correctly because the print information on the page is too complex.	• Press **Go** to clear the message and continue printing the job. The job may not print correctly. • Press **Menu** to open the Job Menu and cancel the current job. • To avoid this error in the future: – Reduce the complexity of the page by reducing the amount of text or graphics on the page and deleting unnecessary downloaded fonts or macros. – Set Page Protect to On in the Setup Menu. – Install additional printer memory. See also: **Setup Menu**
4<x> Unsupported Firmware Card	The printer detects an unsupported version of firmware on the installed firmware card.	• Turn the printer off, and then press and hold **Go** while turning it on. The printer reads the code on the system card and bypasses the code on the firmware card. • Remove the firmware card. See also: *Setup Guide*
51 Defective Flash	The printer detects defective flash memory.	Press **Go** to clear the message and continue printing. You must install different flash memory before you can download any resources to flash.
52 Flash Full	There is not enough free space in the flash memory to store the data you are trying to download.	• Press **Go** to clear the message and continue printing. Downloaded fonts and macros not previously stored in flash memory are deleted. • Delete fonts, macros, and other data stored on the flash memory. • Install flash memory with more storage capacity.
53 Unformatted Flash	The printer detects unformatted flash memory.	• Press **Go** to clear the message and continue printing. You must format the flash memory before you can store any resources on it. • If the error message remains, the flash memory may be defective and require replacing.
54 Serial Option <x> Error **54 Standard Serial Error**	The printer has detected a serial interface error on a serial port.	• Make sure the serial link is set up correctly and you are using the appropriate cable. • Press **Go** to clear the message and continue printing. The job may not print correctly. • Press **Menu** to open the Job Menu and reset the printer.

Message	What this message means	What you can do
54 Network <x> Software Error **54 Std Network Software Error**	The printer cannot establish communications with an installed network port.	• Press **Go** to clear the message and continue printing. The job may not print correctly. • Program new firmware for the network interface by way of the parallel port. • Press **Menu** to open the Job Menu and reset the printer.
54 Std Par ENA Connection Lost **54 Par <x> ENA Connection Lost**	The printer has lost the connection to an external print server (also called an external network adapter or ENA).	• Make sure the cable connecting the ENA and the printer is securely attached. Turn the printer off and then on to reset the printer. • Press **Go** to clear the message. The printer erases any reference to the ENA and then resets.
55 Unsupported Option in Slot <x> **55 Unsupported Flash in Slot <x>**	An unsupported option card is installed in one of the ports or an unsupported flash DIMM is installed in a memory slot.	Turn off and unplug the printer. Remove the unsupported option. Plug in the printer and turn it on. See **Removing optional cards** for help.
56 Serial Port <x> Disabled	Data has been sent to the printer through a serial port, but the serial port is disabled.	• Press **Go** to clear the message. The printer discards any data received through the serial port. • Make sure the Serial Buffer menu item in the Serial Menu is not set to Disabled. See also: **Serial Buffer**
56 Parallel Port <x> Disabled **56 Std Parallel Port Disabled**	Data has been sent to the printer through a parallel port, but the parallel port is disabled.	• Press **Go** to clear the message. The printer discards any data received through the parallel port. • Make sure the Parallel Buffer menu item in the Parallel Menu is not set to Disabled. See also: **Parallel Buffer**
56 USB Port <x> Disabled **56 Standard USB Port Disabled**	Data has been sent to the printer through a USB port, but the USB port is disabled.	• Press **Go** to clear the message. The printer discards any data received through the USB port. • Make sure the USB Buffer menu item in the USB Menu is not set to Disabled. See also: **USB Buffer**
57 Configuration Change	The printer cannot restore confidential or held jobs on the hard disk because the print configuration has changed. **Note:** The messages **57 Configuration Change** and **Held Jobs May Not Be Restored** alternate on the display.	Press **Go** to clear the message.

Message	What this message means	What you can do
58 Too Many Flash Options	Too many flash memory options are installed on the printer.	Turn off and unplug the printer. Remove the excess flash memory. Plug in the printer and turn it on. See also: **Removing optional cards**
61 Defective Disk	The printer detects a defective hard disk.	• Press **Go** to clear the message and continue printing. • Install a different hard disk before you perform any operations that require one. See also: *Setup Guide*
62 Disk Full	There is not enough memory on the hard disk to store the data sent to the printer.	• Press **Go** to clear the message and continue processing. Any information not previously stored on the hard disk is deleted. • Delete fonts, macros, and other data stored on the hard disk.
63 Unformatted Disk	The printer detects an unformatted hard disk.	• Press **Go** to clear the message and continue printing. • Format the disk before performing any disk operations. To format the disk, select **Format Disk** from the Utilities Menu. • If the error message remains, the hard disk may be defective and require replacing. Install a new hard disk and format it. See also: **Format Disk**
64 Unsupported Disk Format	The printer detects an unsupported disk format.	• Press **Go** to clear the message. • Format the disk. **Note:** Disk operations are not allowed until the disk is formatted.
82 Waste Bottle Nearly Full	The toner waste bottle is almost full.	• Press **Go** to clear the message and continue printing. • Replace the waste toner bottle. See also: **82 Waste Toner Bottle Full or Missing**; **Replacing the waste toner bottle**
82 Waste Toner Bottle Full or Missing	The waste toner bottle is full or missing.	Replace the waste toner bottle and press **Go** to clear the message. See also: **Replacing the waste toner bottle**
83 Photodev Cart Exhausted	The photodeveloper cartridge is completely used.	Replace the photodeveloper cartridge. See also: **Replacing the photodeveloper cartridge**

Message	What this message means	What you can do
83 Photodev Cart Life Warning	The photodeveloper cartridge is nearing the end of its life.	• Press **Go** to clear the message and continue printing. • Replace the photodeveloper cartridge. See also: **Replacing the photodeveloper cartridge**
83 Photodev Cart Missing	The photodeveloper cartridge is either missing or incorrectly installed.	Correctly install the photodeveloper cartridge to clear the message and continue printing. See also: **Replacing the photodeveloper cartridge**
87 Fuser Exhausted	The fuser is completely used.	Replace the fuser. See also: **Replacing the fuser**
87 Fuser Life Warning	The fuser is nearing the end of its life.	• Press **Go** to clear the message and continue printing. • Replace the fuser. See also: **Replacing the fuser**
87 Fuser Missing	The fuser is either missing or incorrectly installed.	Correctly install the fuser to clear the message and continue printing. See also: **Replacing the fuser**
88 <color> Toner Empty **Open Front Door Replace <color>**	This message is presented for a few seconds and then is followed by the secondary message with instructions. The printer has detected that the toner supply in the specified cartridge is empty. **<color>** is Cyan, Magenta, Yellow, or Black.	Open the front door and replace the specified toner cartridge immediately. See also: **Replacing the toner cartridges**
88 <color> Toner Low	The printer has detected that the toner supply in the specified cartridge is low. If you do not have the specified toner cartridge on hand, order one now. You can continue printing until **88 <color> Toner Empty** appears and then, replace the specified toner cartridge.	Replace the specified toner cartridge. Press **Go** to clear the message and continue printing. The **Supplies** message is displayed until you replace the specified toner cartridge. See also: **Replacing the toner cartridges**
900–999 Service <message>	Messages 900–999 relate to printer problems that may require printer service.	Turn the printer off and check all cable connections. Turn the printer back on. If the service message recurs, call for service and report the message number and description of the problem. See also: **Calling for service**

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