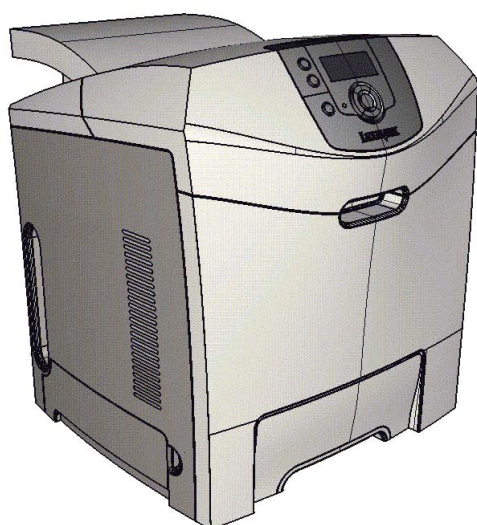




C520, C522, and C524

User's Guide



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- Refer service or repairs, other than those described in the operating instructions, to a professional service person.
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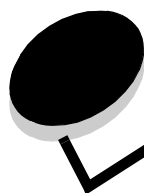
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1

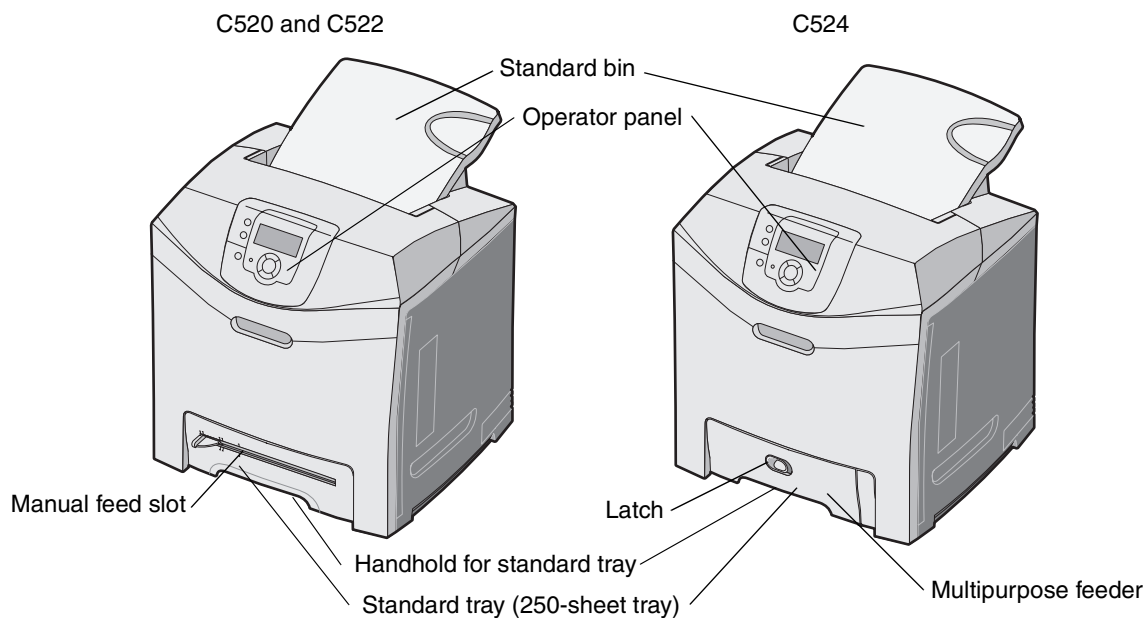
Overview

Basic models

The following illustration shows the Lexmark™ C520, C522, and C524 of the Lexmark family of printers and their features.

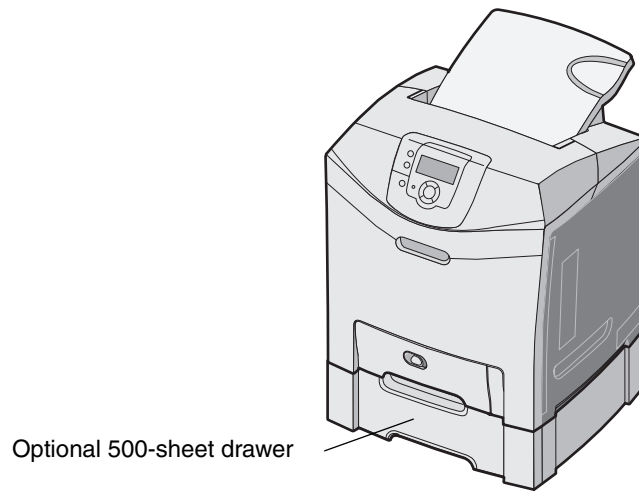
C520 and C522 have a manual feed slot on the front of the standard tray. C524 has a multipurpose feeder located on the front of the standard tray which can be seen once it is lowered using the latch. The standard tray for all models is available when it is pulled out using the handhold.

The C522 and C524 have an optional 500-sheet drawer available for purchase.



Configured model

The following illustration shows the option available for the Lexmark C522 and C524.



Illustrations in this publication

Illustrations in this publication are predominantly for C524 with the multipurpose feeder. Illustrations for C522 with the manual feed slot are only shown for loading and clearing jams instructions.

2

Installing drivers for local printing

A local printer is a printer attached to the computer using a USB or parallel cable. The local printer is intended to be used by the computer to which it is attached. If attaching a local printer, install the printer driver on the computer before setting up the printer.

The printer driver is software that lets the computer communicate with the printer.

The procedure to install drivers depends on the operating system used. Use the following table to find driver installation instructions for the particular operating system. For additional help, see the documentation that shipped with the computer and the software.

Operating system	Go to page
Windows	10
Windows Server 2003, Windows 2000, Windows XP, Windows 98 SE, Windows Me, Windows NT 4.x	10
Windows 95 and Windows 98 (first edition)	11
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Windows

Some Windows operating systems may already include a printer driver that is compatible with the printer.

Note: Installing a custom driver will not replace the system driver. A separate printer object will be created and appear in the Printers folder.

Use the drivers CD that shipped with the printer to install the custom printer driver and obtain enhanced printer features and functionality.

Drivers are also available in downloadable software packages on the Lexmark Web site at www.lexmark.com.

Using Windows Server 2003, Windows 2000, Windows XP, Windows 98 SE, Windows Me, or Windows NT

Note: Install the printer software before connecting the USB cable.

- 1 Insert the drivers CD.

If the CD does not launch automatically, click **Start** → **Run**, and type `D:\Setup.exe` in the Run dialog (where D is the letter of the CD-ROM drive).

Note: USB support is not available for Windows NT operating systems.

Installing drivers for local printing

- 2 Click **Install Printer and Software**.

Note: Some Windows operating systems require that the user has administrative access to install printer drivers on the computer.

- 3 Click **Agree** to accept the license agreement.

- 4 Select **Suggested**, and click **Next**.

The Suggested option is the default installation for local and network-attached setup. To install utilities, change settings, or customize device drivers, select **Custom**, and follow the instructions on the screen.

- 5 Select **Local Attach**, and click **Finish**.

Follow the instructions on the screen. It may take some time for the drivers to load.

- 6 Close the drivers CD installer application.

- 7 Connect the USB cable, and turn on the printer.

The Plug and Play screen appears, and a printer object is created in the printers folder of the computer.

Using Windows 95 and Windows 98 (first edition)

- 1 Turn on the computer.

- 2 Insert the drivers CD. If the CD launches automatically, click **Exit** to return to the Add Printer Wizard.

- 3 Click **Start → Settings → Printers**, and double-click **Add Printer**.

Note: USB support is not available for Windows 95 and Windows 98 (first edition) operating systems.

- 4 When prompted, select **Local printer**.

- 5 Click **Have Disk**.

Note: Some Windows operating systems require that the user has administrative access to install printer drivers on the computer.

- 6 Specify the location of the custom printer driver on the drivers CD.

The path should be similar to the following:

D:\Drivers\Print\Win_9xMe\<language>

Where D is the letter of the CD-ROM drive.

- 7 Click **OK**.

It may take some time for the drivers to load.

- 8 Close the drivers CD.

Serial printing





With serial printing, data is transferred one bit at a time. Although serial printing is usually slower than parallel printing, it is the preferred option when there is a great deal of distance between the printer and computer, or when a parallel interface is not available.

Note: A serial interface card is required and can be purchased separately.

Before printing, establishing communication between the printer and computer is required. To do this:

- 1 Set serial parameters in the printer.
- 2 Install a printer driver on the attached computer.
- 3 Match the serial settings in the COM port.















Setting parameters in the printer

- 1 Press  on the operator panel.
- 2 Press  until  **Reports** appears, and then press .

Note: For information about serial menus and messages, see the publications CD that shipped with the printer.


- 3 Press  until  **Menu Settings Page** appears, and then press .

The printer returns to **Ready**.








- 4 Press .
- 5 Press  until  **Network/Ports** appears, and then press .
- 6 Press  until  **Serial** or  **Serial [x]** appears, and then press . ([x] is the number of the serial port.)
- 7 Press  until  **<Parameter>** appears, and then press  (where **<Parameter>** is the parameter required for a change).
- 8 Press  until  **<Setting>** appears, and then press  (where **<Setting>** is the setting required for a change).

Note the following restrictions:

- Maximum baud rate supported is 115,200.
- Data Bits must be set to 7 or 8.
- Parity must be set to Even, Odd, or None.
- Stop Bits must be set to 2.
- Flow Control recommended protocol setting is Xon/Xoff.

- 9 Press  to select the setting. The printer returns to **Serial** or **Serial [x]**.
- 10 Print a Menu Settings page, and verify that the serial parameters are correct.

Note: Keep this page for later use.

- a Press  on the operator panel.
- b Press  until  **Reports** appears, and then press .
- c Press  until  **Menu Settings Page** appears, and then press .
- d Look under the Standard Serial (or Serial Option X if a serial interface card is installed) heading to find the serial parameters.

Installing a printer driver

A printer driver must be installed on the computer that is connected to the printer.

Note: Windows 95 and Windows 98 (first edition) users should follow the installation directions in **Using Windows 95 and Windows 98 (first edition)**.

- 1 Insert the drivers CD. It should launch automatically. If the CD does not launch automatically, click **Start → Run**, and type the following in the Run dialog:

D: /Setup.exe

Where D is the letter of the CD-ROM drive.
- 2 Click **Install Printer and Software**.
- 3 Click **Agree** to accept the Printer Software License Agreement.
- 4 Select **Custom**, and click **Next**.
- 5 Select **Components**, and click **Next**.
- 6 Select **Local**, and click **Next**.
- 7 Select the printer from the list, and click **Add Printer**.
- 8 Expand the printer item listed below Selected Components.
- 9 Click **PORT: <LPT1>**, and select the communications port (COM1 or COM2) needed for use.
- 10 Click **Finish** to complete the printer software installation.

Setting parameters in the communications (COM) port

After the printer driver is installed, the serial parameters must be set for the communications port assigned to the printer driver.

The serial parameters in the communications port must match exactly to the serial parameters set in the printer.

- 1 Click **Start → Settings → Control Panel**, and double-click **System**.
- 2 On the **Device Manager** tab, click + to expand the list of available ports.
- 3 Select the communications port assigned to the printer (COM1 or COM2).
- 4 Click **Properties**.
- 5 On the **Port Settings** tab, set the serial parameters to the exact same serial parameters in the printer.

Look for the printer settings under the Serial Standard (or Serial Option X) heading on the Menu Settings page printed previously.
- 6 Click **OK**, and close all the windows.
- 7 Print a test page to verify printer installation.
 - a Click **Start → Settings → Printers**.
 - b Select the printer just added.
 - c Click **File → Properties**.
 - d Click **Print Test Page**. When a test page prints successfully, printer setup is complete.

Macintosh

Mac OS 9.x or later is required for USB printing. To print locally to a USB-attached printer, create a desktop printer icon (Mac OS 9) or create a queue in Print Center / Printer Setup Utility (Mac OS X).

Creating a queue in Print Center / Printer Setup Utility (Mac OS X)

- 1** Install a PostScript Printer Description (PPD) file on the computer.

- a** Insert the drivers CD.
- b** Double-click the installer package for the printer.

Note: A PPD file provides detailed information about the capabilities of a printer to the Macintosh computer.

- c** Click **Continue** on the Welcome screen and again after viewing the Readme file.
- d** Click **Continue** after viewing the license agreement, and click **Agree** to accept the terms of the agreement.
- e** Select a Destination, and click **Continue**.
- f** On the Easy Install screen, click **Install**.
- g** Enter the user password, and click **OK**. All the necessary software is installed on the computer.
- h** Click **Close** when installation is complete.

- 2** Open Finder, click **Applications**, and click **Utilities**.

- 3** Double-click **Print Center or Printer Setup Utility**.

Note: A PPD for the printer is also available in a downloadable software package on the Lexmark Web site at www.lexmark.com.

- 4** Do one of the following:

- If the USB-attached printer appears in the Printer List, quit Print Center or Printer Setup Utility. A queue has been created for the printer.
- If the USB-attached printer does not appear in the Printer List, make sure the USB cable is properly connected and the printer is turned on. After the printer appears in the Printer List, quit Print Center or Printer Setup Utility.

Creating a desktop printer icon (Mac OS 9.x)

- 1** Install a PostScript Printer Description (PPD) file on the computer.

- a** Insert the drivers CD.
- b** Double-click **Classic**, and double-click the installer package for the printer.

Note: A PPD file provides detailed information about the capabilities of a printer to the Macintosh computer.

- c** Choose the language needed for use, and click **Continue**.
- d** Click **Continue** after viewing the Readme file.
- e** Click **Continue** after viewing the license agreement, and click **Agree** to accept the terms of the agreement.
- f** On the Easy Install screen, click **Install**. All the necessary files are installed on the computer.
- g** Click **Close** when installation is complete.

Note: A PPD for the printer is also available in a downloadable software package on the Lexmark Web site at www.lexmark.com.

- 2** Do one of the following:

- For *Mac OS 9.0*: Open **Apple LaserWriter**.
- For *Mac OS 9.1–9.x*: Open **Applications**, and click **Utilities**.

- 3** Double-click **Desktop Printer Utility**.

Installing drivers for local printing

- 4 Select **Printer (USB)**, and click **OK**.
- 5 In the USB Printer Selection section, click **Change**.
If the printer does not appear in the USB Printer Selection list, make sure the USB cable is properly connected, and the printer is turned on.
- 6 Select the name of the printer, and click **OK**. The printer appears in the original Printer (USB) window.
- 7 In the PostScript Printer Description (PPD) File section, click **Auto Setup**. Make sure the printer PPD now matches the printer in use.
- 8 Click **Create**, and click **Save**.
- 9 Specify a printer name, and click **Save**. The printer is now saved as a desktop printer.

UNIX/Linux

Local printing is supported on many UNIX and Linux platforms, such as Sun Solaris and Red Hat.

The Sun Solaris and Linux packages are available on the drivers CD and on the Lexmark Web site at www.lexmark.com. The UNIX/Linux *User's Guide* in each package gives detailed instructions for installing and using Lexmark printers in UNIX and Linux environments.

All the printer driver packages support local printing using a parallel connection. The driver package for Sun Solaris supports USB connections to Sun Ray appliances and Sun workstations.








Visit the Lexmark Web site at www.lexmark.com for a complete list of supported UNIX and Linux platforms.

3

Installing drivers for network printing

Printing a network setup page

If the printer is attached to a network, print a network setup page on the printer to verify the network connection. This page also provides important information that helps in configuring for network printing.

- 1 Make sure the printer is on.
- 2 Press  on the operator panel.
- 3 Press  until  **Reports** appears, and then press .
- 4 Press  until  **Network Setup Page** appears, and then press .

Note: If an optional MarkNet™ N8000 Series internal print server is installed, **Print Network1 Setup** appears on the display.

- 5 Check the first section on the network setup page, and confirm that Status is “Connected.”



















If Status is “Not Connected” is on the page, the LAN drop may not be active, or the network cable may be malfunctioning. Consult a system support person for a solution, and print another network setup page to verify that the printer is connected to the network.



Assigning a printer IP address

If the network is using DHCP, an IP address is automatically assigned after connecting the network cable to the printer.

- 1 Look for the address under the “TCP/IP” heading on the network setup page printed in **Printing a network setup page**.
- 2 Go to **Verifying the IP settings**, and begin with step 2.

If the network is not using DHCP, then manually assign an IP address to the printer. One of the easiest ways is to use the operator panel:

- 1 Press  on the operator panel.
- 2 Press  until  **Network/Ports** appears, and then press .
- 3 Press  until  **TCP/IP** appears, and then press .
- Standard Network** appears if the printer has a network port on the printer system board. If a MarkNet N8000 Series internal print server is installed in the option card, **Network 1** appears.
- 4 Press  until  **Address** appears, and then press .
- 5 Using the navigation arrow buttons, enter the IP address. Once it is entered, press .
- Submitting Selection** appears briefly.
- 6 Press  until  **Netmask** appears, and then press .
- 7 Using the navigation arrow buttons, enter the IP netmask. Once it is entered, press .
- Submitting Selection** appears briefly.
- 8 Press  until  **Gateway** appears, and then press .

- 9 Using the navigation arrow buttons, enter the IP gateway. Once it is entered, press  .
Submitting Selection appears briefly.
- 10 Press  until the printer returns to **Ready**.

Verifying the IP settings

- 1 Print another network setup page. Look under the “TCP/IP” heading, and make sure the IP address, netmask, and gateway are correct. See **Printing a network setup page on page 16** if help is needed.
- 2 Ping the printer, and verify that it responds. At a command prompt on a network computer, type **ping** followed by the new printer IP address (for example, 192.168.0.11).

Note: On Windows computers, click **Start → Programs → Command prompt** (or **Accessories → Command prompt** if using Windows 2000).

If the printer is active on the network, a reply is sent.

After the TCP/IP settings are assigned and verified, install the printer on each network computer.

Windows

In Windows environments, network printers can be configured for direct printing or shared printing. Both network printing methods require the installation of a printer driver and the creation of a network printer port.

Supported printer drivers

- Windows system printer driver
- Lexmark custom printer driver

System drivers are built into Windows operating systems. Custom drivers are available on the drivers CD.

Updated system and custom drivers are available on the Lexmark Web site at **www.lexmark.com**.

Supported network printer ports

- Microsoft Standard TCP/IP port—Windows 2000, Windows XP, and Windows Server 2003
- LPR—Windows NT 4.0
- Lexmark Enhanced TCP/IP port—Windows 98 SE/Me, Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003

For basic printer functionality, install a system printer driver and use a system network printer port, such as an LPR or a Standard TCP/IP port. The system printer driver and port allow for a consistent user interface for use with all the printers on the network. However, using a custom printer driver and network port provides enhanced functionality, such as printer status alerts.

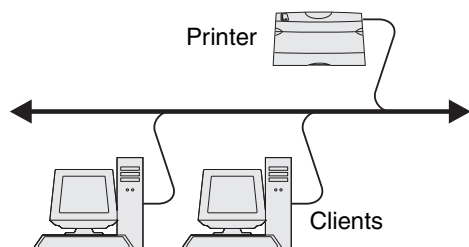
Installing drivers for network printing

Follow the steps for the printing configuration and operating system in use to configure the network printer:

Printing configuration	Operating system	Go to page
Direct <ul style="list-style-type: none">Printer is connected directly to the network using a network cable, such as Ethernet.Printer drivers are typically installed on each network computer.	Windows 98 SE, Windows NT 4.0, Windows Me, Windows 2000, Windows XP, or Windows Server 2003	18
Shared <ul style="list-style-type: none">Printer is connected to one of the computers on the network using a local cable, such as USB.Printer drivers are installed on the computer attached to the printer.During driver installation, the printer is set up to be “shared” so that other network computers can print to it.	Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003	19

Direct printing using Windows 98 SE, Me, Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

To install a custom printer driver and network port:



- 1 Launch the drivers CD.
- 2 Click **Install Printer and Software**.
- 3 Click **Agree** to accept the license agreement.
- 4 Select **Suggested**, and click **Next**.
- 5 Select **Network Attach**, and click **Next**.
- 6 Select the printer model from the list, and click **Next**.
- 7 Select the printer port from the list, and click **Finish** to complete the installation.

If the printer port is not listed:

- a Click **Add Port**.
- b Select **Lexmark Enhanced TCP/IP Port**, and enter the information to create the port.
- c Enter a port name.

This can be any name to associate with the printer, such as `Color1-lab4`. After the port is created, this name appears in the list of available ports.

- d Enter the IP address in the text box.

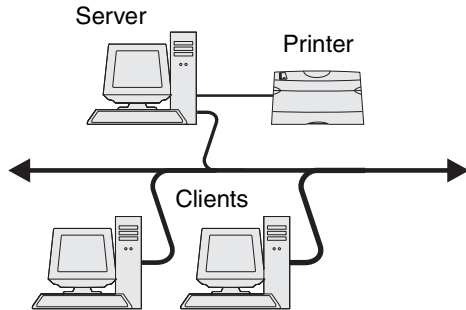
Note: If the IP address is unknown, print a network setup page, and look under the TCP/IP heading. For help, see **Printing a network setup page** and **Verifying the IP settings**.

- 8 Print a test page to verify printer installation.

Shared printing using Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003

Note: Install the printer software before connecting the USB cable.

After connecting the printer to a Windows NT 4.0, Windows 2000, Windows XP, or Windows Server 2003 computer (which will act as a server), follow these steps to configure the network printer for shared printing:



1 Install a custom printer driver.

- a** Launch the drivers CD.
- b** Click **Install Printer and Software**.
- c** Click **Agree** to accept the license agreement.
- d** Select **Suggested**, and click **Next**.

The Suggested option is the default installation for local and network-attached setup. To install utilities, change settings, or customize device drivers, select **Custom**, and follow the instructions on the screen.

- e** Select **Local Attach**, and click **Finish**.

Follow the instructions on the screen. It may take some time for the drivers to load.

- f** Close the drivers CD installer application.
- g** Connect the USB cable, and turn on the printer.

The Plug and Play screen appears, and a printer object is created in the Printers folder of the computer. The printer is shared in step 2: "Share the printer on the network."

- h** Print a test page to verify printer installation.

2 Share the printer on the network.

- a** Click **Start → Settings → Printers**.
- b** Select the printer just added.
- c** Click **File → Sharing**.
- d** Select the **Shared as** check box, and enter a name in the text box.
- e** In the Alternate Drivers section, select the operating systems of all the network clients that will print to the printer.
- f** Click **OK**.

Note: If files are missing, prompts may appear to request the server operating system CD.

Installing drivers for network printing

- g Check the following to make sure the printer was successfully shared.
- The printer object in the Printers folder now has a shared indicator. For example, in Windows NT 4.0, a hand appears under the printer object.
 - Browse Network Neighborhood. Find the host name of the server, and look for the shared name assigned to the printer.

Install the printer driver (or subset) on network clients

Using the point and print method

Note: This method is usually the best use of system resources. The server handles driver modifications and the print job processing. This lets network clients return to applications much faster.

With this method, a subset of driver information is copied from the server to the client computer. This is just enough information to send a print job to the printer.

- 1 Double-click **Network Neighborhood** on the Windows desktop of the client computer.
- 2 Locate the host name of the server computer, and double-click the host name.
- 3 Right-click the shared printer name, and click **Install**.

Wait a few minutes for the driver information to be copied from the server computer to the client computer and for a new printer object to be added to the Printers folder. The time this takes varies based on network traffic and other factors.

- 4 Close **Network Neighborhood**.
- 5 Print a test page to verify printer installation.

Using the peer-to-peer method

With this method, the printer driver is fully installed on each client computer. Network clients retain control of driver modifications. The client computer handles the print job processing.

- 1 Click **Start → Settings → Printers**.
- 2 Click **Add Printer** to launch the Add Printer wizard.
- 3 Click **Next**.
- 4 Click **Network Printer**, and click **Next**.
- 5 Enter the printer name or URL (if on the Internet or an intranet), and click **Next**.
If the printer name or URL is unknown, leave the text box blank, and click **Next**.
- 6 Select the network printer from the Shared printers list. If the printer is not listed, enter the path of the printer in the text box.

The path looks similar to the following:

`\\<server host name>\<shared printer name>`

Note: If this is a new printer, prompts may occur to install a printer driver. If no system driver is available, provide a path to available drivers.

The server host name is the name of the server computer that identifies it to the network. The shared printer name is the name assigned during the server installation process.

- 7 Click **OK**.
- 8 Select whether this printer will be the default printer for the client, and click **Finish**.
- 9 Print a test page to verify printer installation.

Configuring Drag‘N’Print

Note: Drag‘N’Print™ support is not available for all printers.

For detailed configuration instructions, launch the drivers CD, click **View Documentation**, and click **Software and utilities**.

Macintosh

Note: A PostScript Printer Description (PPD) file provides detailed information about the capabilities of a printer to UNIX or Macintosh computers.

To print to a network printer, each Macintosh user must install a custom PostScript Printer Description (PPD) file, and either create a desktop printer on the computer (Mac OS 9.x) or create a print queue in Print Center (Mac OS X).

Mac OS X

Step 1: Install a custom PPD file

- 1** Install a PostScript Printer Description (PPD) file on the computer.

- a** Insert the drivers CD.
- b** Double-click the installer package for the printer.

Note: A PPD file provides detailed information about the capabilities of a printer to the Macintosh computer.

- c** Click **Continue** on the Welcome screen and again after viewing the Readme file.
- d** Click **Continue** after viewing the license agreement, and click **Agree** to accept the terms of the agreement.
- e** Select a Destination, and click **Continue**.
- f** On the Easy Install screen, click **Install**.
- g** Enter the user password, and click **OK**. All the necessary software is installed on the computer.
- h** Click **Close** when installation is complete.

Step 2: Create a print queue in Print Center or Printer Setup Utility

Using AppleTalk Printing

Follow these steps to create a print queue using AppleTalk Printing.

- 1** Open Finder, click **Applications**, and click **Utilities**.
- 2** Double-click **Print Center or Printer Setup Utility**.
- 3** Choose **Add Printer** from the “Printers” menu.
- 4** Choose **AppleTalk** from the pop-up menu.

Note: Look on the network setup page under the “AppleTalk” heading to know which zone or printer to select.

- 5** Select the AppleTalk zone from the list.
- 6** Select the new printer from the list, and click **Add**.

Installing drivers for network printing

7 Verify printer installation:

- a Open Finder, click **Applications**, and click **TextEdit**.
- b Choose **Print** from the “File” menu.
- c Choose **Summary** from the “Copies & Pages” pop-up menu.

Note: Look on the Network Setup page under the “AppleTalk” heading to find the default name of the printer to know which printer to select.

- If the PPD file displayed in the Summary window is correct for the printer, then printer setup is complete.
- If the PPD file displayed in the Summary window is *not* correct for the printer, delete the printer from the printer list in Print Center or Printer Setup Utility, and repeat **Step 1: Install a custom PPD file**.

Using IP Printing

Follow these steps to create a print queue using IP Printing. To create an AppleTalk print queue, see **Step 2: Create a print queue in Print Center or Printer Setup Utility**.

- 1 Open Finder, click **Applications**, and click **Utilities**.
- 2 Double-click **Print Center or Printer Setup Utility**.
- 3 Choose **Add Printer** from the “Printers” menu.
- 4 Choose **IP Printing** from the pop-up menu.
- 5 Enter the IP address or the printer DNS name in the Printer Address box.
- 6 Choose **Lexmark** from the “Printer Model” pop-up menu.
- 7 Select the new printer from the list, and click **Add**.
- 8 Verify printer installation:
 - a Open Finder, click **Applications**, and click **TextEdit**.
 - b Choose **Print** from the “File” menu.
 - c Choose **Summary** from the “Copies & Pages” pop-up menu.
 - d Do one of the following:
 - If the PPD file displayed in the Summary window is correct for the printer, then printer setup is complete.
 - If the PPD file displayed in the Summary window is *not* correct for the printer, delete the printer from the printer list in Print Center or Printer Setup Utility, and repeat **Step 1: Install a custom PPD file**.

Mac OS 9.x

Step 1: Install a custom PPD file

- 1 Insert the drivers CD.
 - a Double-click **Classic**, and double-click the installer package for the printer.

Note: A PPD file provides detailed information about the capabilities of a printer to the Macintosh computer.

 - b Choose the language needed for use, and click **Continue**.
 - c Click **Continue** after viewing the Readme file.
 - d Click **Continue** after viewing the license agreement, and click **Agree** to accept the terms of the agreement.
 - e On the Easy Install screen, click **Install**. All the necessary files are installed on the computer.

Installing drivers for network printing

- f Click **Close** when installation is complete.

Note: A PPD for the printer is also available in a downloadable software package on the Lexmark Web site at www.lexmark.com.

Step 2: Create a desktop printer

- 1 In the Chooser, select the **LaserWriter 8** driver.
- 2 For a routed network, select the default zone from the list. For the zone to select, look on the Network Setup page under AppleTalk for Zone.
- 3 Select the new printer from the list.
- 4 For printer to select, look on the Network Setup page under the “AppleTalk” heading to find the default name of the printer.
- 5 Click **Create**.
- 6 Make sure there is an icon next to the printer name in the Chooser.
- 7 Close the Chooser window.
- 8 Verify printer installation.
 - a Click the desktop printer icon just added.
 - b Choose **Printing → Change Setup**.
 - If the PPD file displayed in the PostScript Printer Description (PPD) file portion of the menu is correct for the printer, printer setup is complete.
 - If the PPD file displayed in the PostScript Printer Description (PPD) file portion of the menu is *not* correct for the printer, repeat **Step 1: Install a custom PPD file**.

UNIX/Linux

The printer supports many UNIX and Linux platforms, such as Sun Solaris and Red Hat. Visit the Lexmark Web site at www.lexmark.com for a complete list of supported UNIX and Linux platforms.

Note: The Sun Solaris and Linux packages are available on the drivers CD and on the Lexmark Web site at www.lexmark.com.

Lexmark provides a printer driver package for each supported UNIX and Linux platform. The *User's Guide* in each package gives detailed instructions for installing and using Lexmark printers in UNIX and Linux environments.

These packages are available for download from the Lexmark Web site. The driver package needed is also on the drivers CD.

NetWare

The printer supports Novell Distributed Print Services (NDPS/iPrint). For the latest information about installing a network printer in a NetWare environment, launch the drivers CD, and click **View Documentation**.

4

Printing

This chapter covers tips for printing, how to print certain lists of information from the printer, how to cancel a job, and how to print black-only text and graphics.

Tips for successful printing

Tips on storing media

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

Avoiding jams

By selecting appropriate paper or specialty media (transparencies, labels, and card stock) and loading it properly, most jams are avoidable. See **Loading the standard tray** and **Loading the optional 500-sheet tray** for instructions on loading paper and specialty media into the standard tray and the optional 500-sheet tray.

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

Note: Try a sample of any paper or specialty media before purchasing large quantities.

Sending a job to print

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

Click **Properties** or **Setup** from the initial Print box to see all of the available printer settings that may be changed. If a feature in the printer driver window is unfamiliar, 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. A user may also use the system drivers built into the operating system. See the *Setup* sheet for more information about choosing and installing drivers.

Sending a job from a typical Windows application

- 1 Open the file needed for printing.
- 2 From a word processor, spreadsheet, browser, or other application, select **File** → **Print**.
- 3 Click **Properties**. (If there is no Properties button, click **Setup**, and then click **Properties**.)
Verify that the correct printer is selected in the dialog. Modify the printer settings as appropriate (such as the pages selected to print or the number of copies).
- 4 Click **OK** or **Print** to send the job to the selected printer.

Sending a job from a typical Macintosh application

- 1 Open the file needed for printing.
- 2 From a word processor, spreadsheet, browser, or other application, select **File → Print**.
- 3 In the **Copies & Pages** or **General** pop-up menu, select **Job Routing**.
 - a When using Mac OS 9, if Job Routing is not a choice on the pop-up menu, select **Plug-in Preferences → Print Time Filters**.
 - b Turn down the disclosure triangle to the left of **Print Time Filters**, and select **Job Routing**.
 - c Select **Job Routing** in the pop-up menu.
- 4 Click **OK** or **Print** to send the job to the selected printer.

Printing or deleting a confidential job

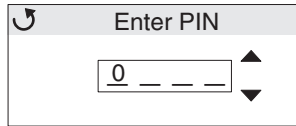
When the user sends a job to the printer, the user can enter a personal identification number (PIN) from the driver. The PIN must be four digits using the numbers 0–9. The job is held in printer memory until the user enters the same four-digit PIN from the operator panel and chooses to print or delete the job. This ensures that the job does not print until the specific user is 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 the printer.

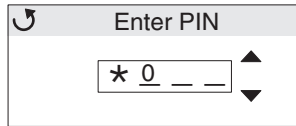
- 1 In the word processor, spreadsheet, browser, or other application, select **File → Print**.
- 2 Click **Properties**. (If there is no Properties button, click **Setup**, and then click **Properties**.)
- 3 Click **Help** and see the topic Confidential Print or Print and Hold. Follow instructions for printing a confidential job. Go to the printer to retrieve the confidential print job, and continue with these steps or for more information, see **Accessing held jobs from the operator panel**.
- 4 At **Ready**, press ▼ until ✓ **Held jobs** appears, and then press ⏏.
- 5 Press ▼ until ✓ **user name** appears, where *user name* is the name for the individual user and the name specified when the job was sent to the printer. User name is actually a folder since its sub-selections contain print jobs.
- 6 Press ⏏.
- 7 Press ⏏ again since ✓ **Confidential jobs** appears on the first line of the display. The **Enter PIN** prompt appears.
- 8 See **Entering a personal identification number (PIN)** as follows. Continue with **step 1 on page 26** to print a confidential job.

Entering a personal identification number (PIN)

When **Confidential jobs** is selected, the following prompt appears:

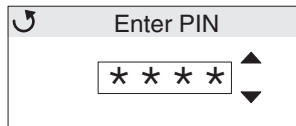


- 1 Use the navigation arrow buttons on the operator panel to specify the numbers of the four-digit PIN associated with the confidential job.
 - a In the first of the four fields, press ▲ or ▼ to scroll to the first number of the PIN which is displayed, and then press ⏎. The number changes to an asterisk. The next field to the right becomes the current field.



- b Specify the second number of the PIN by pressing ▲ or ▼ to scroll to the correct number, and press ⏎. Continue in this manner to specify the third and fourth numbers of the PIN.

When ⏎ is pressed each time, asterisks appear on the display to ensure confidentiality.



- c If a mistake is made, press ◀ to scroll back to the field with the incorrect number, and reenter the PIN.

Once the four numbers are entered, if it is an invalid PIN, the message **Invalid PIN** appears. If this message appears, press ▼ until ✓ **Try again** or ✓ **Cancel** appears, and then press ⏎.
- 2 When the complete, correct PIN is entered, press ⏎. A complete list of confidential jobs associated with the specified PIN appears. **Print all confidential jobs** also appears in the list if there is more than one job.
- 3 Press ▼ until ✓ appears next to the job requiring printing or press ▼ until ✓ **Print all confidential jobs** or **Delete all confidential jobs** appears, and then press ⏎.
- 4 Press ▼ until ✓ appears next to **Print 1 copy**, **Print copies**, **Delete**, or **Delete all confidential jobs** based on the needed action for the print job, and then press ⏎. Based on the chosen selection from this list, one of the following occurs:
 - For **Print 1 copy**, one copy prints.
 - For **Print copies**, a second menu appears. Press ▲ or ▼ to scroll to the correct number of copies needed, and then press ⏎.
 - For **Delete**, only the selected job is deleted.
 - For **Delete all confidential jobs**, all confidential jobs associated with the user name are deleted.

Note: When one or more jobs print, the job or jobs 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 is formatting or already printing, and **Cancel a Job** appears on the first line of the display:

- 1 Press .
A list of jobs appears.
- 2 Press  until  appears next to the job requiring cancelation, and then press .
The message **Canceling <filename>** appears.

Note: Once a print job is sent, to easily cancel the job, press . The Stopped screen appears. Press  until  **Cancel a job** appears, and then press .

Canceling a job from a computer running Windows

Canceling a job from the taskbar

When a job is sent 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 requiring cancelation.
- 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 selected when the job was sent to print.
A list of print jobs appears in the printer window.
- 5 Select the job requiring cancelation.
- 6 Press the **Delete** key on the keyboard.

Canceling a job from a Macintosh computer running Mac OS 9.x

When sending a job to print, the printer icon for the selected printer appears on the desktop.

- 1 Double-click the printer icon on the desktop.
A list of print jobs appears in the printer window.
- 2 Select the print job requiring cancelation.
- 3 Press the trash can button.

Canceling a job from a Macintosh computer running Mac OS X








- 1 Open **Applications → Utilities**, and then double-click **Print Center** or **Printer Setup**.
- 2 Double-click the printer where the print job is being sent.

- 3 In the printer window, select the print job requiring cancelation.
- 4 Press **Delete**.

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. Use this page to verify that all printer options are properly installed and the printer settings are correct.

See **Understanding the operator panel** to identify the display and operator panel buttons if help is needed.











- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press and release .
- 3 Press  until  **Reports** appears, and then press .
- 4 Press  until  **Menu Settings Page** appears, and then press .
- 5 The message **Printing Menu Settings Page** appears while the page prints. The printer returns to the **Ready** message after the menu settings page prints.

If any other message appears when this page prints, see the *Menus and Messages Guide* located on the publications CD 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 .
- 3 Press  until  **Settings** appears, and then press .
- 4 Press  until  **Reports** appears, and then press .
- 5 Press  until  **Print Directory** appears, and then press .

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 the printer:

- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press and release .
- 3 Press  until  **Reports** appears, and then press .
- 4 Press  until  **Print Fonts** appears, and then press .
- 5 Press  until either  **PCL Fonts** or  **PostScript Fonts** is the current item based on the font listing needed. It is current when the  appears in front of the item.
 - 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.



- 6 When the needed item is selected, press .

The message **Printing PCL Fonts.** or **Printing PS Fonts.** appears while the pages print based on the one selected. The printer returns to the **Ready** message after the font sample pages print.




If any other message appears when this page prints, see the *Menus and Messages Guide* located on the publications CD for more information.

Printing the Print Quality Test Pages

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

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
- 3 Release the buttons when the clock appears.




CONFIG MENU appears on the first line of the display.

- 4 Press  until  **Prt Quality Pgs** appears, and then press .

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 several pages. The first page which is printed in English text only contains a mixture of text and graphics. The information includes values of the **Quality Menu** settings in **Settings**, and printer and toner cartridge configuration information. The remaining pages only contain graphics.

After the Print Quality Test Pages print, exit the **CONFIG MENU**.

- 5 Press  until  **Exit Config Menu** appears, and then press .
- 6 The message **Resetting the Printer** and the clock appear, and the printer returns to **Ready**.









Printing only black text and graphics

If planning to print for an extended period with black toner only, complete **Configuring the printer for black-only printing** which follows and **Removing the color supplies**. This saves the matching toner cartridges (cyan, magenta, and yellow) and photoconductor units from excessive wear.

Note: Store the photoconductor units in a clean, cool, dark, and dry place where they will not be touched or scratched. Store the toner cartridges with the photoconductor units. Keep the photoconductor units and toner cartridges readily available.

Configuring the printer for black-only printing

Complete the following instructions to print with black only *prior* to removing all the color supplies from the printer.

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
- 3 Release the buttons when the clock appears.
CONFIG MENU appears on the first line of the display.
- 4 Press  until  **Black Only Mode** appears, and then press .
- 5 Press  until  **On** appears, and then press .

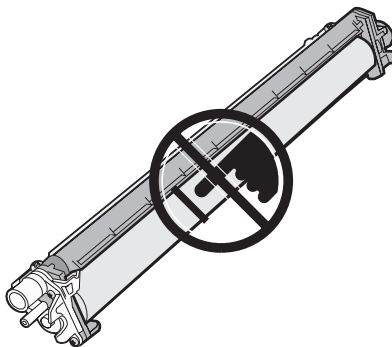
The **Submitting Selection** message appears.

- 6 Press ▼ until ✓ Exit Config Menu appears, and then press ⏹.

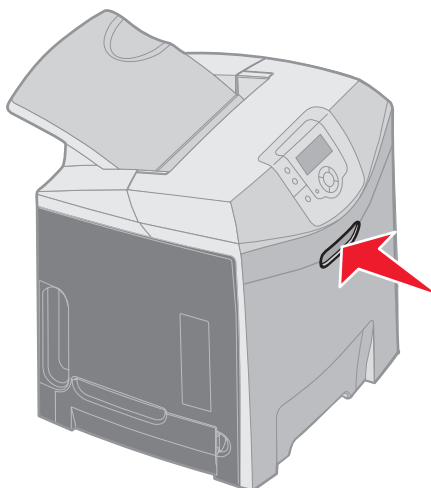
Resetting the Printer appears briefly, followed by the clock. Remove all color supplies then appears, so complete **Removing the color supplies** as follows.

Removing the color supplies

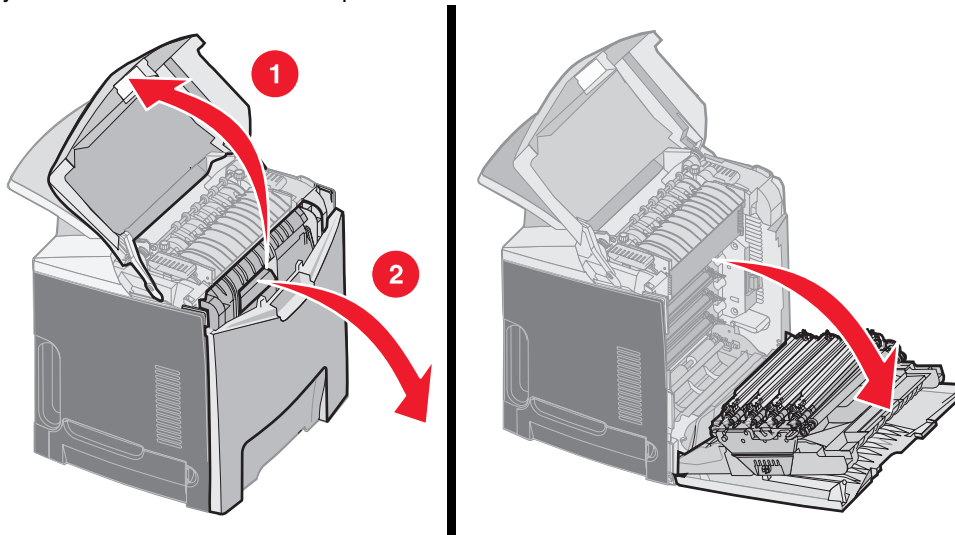
Warning: Do not touch the shiny photoconductor drum on the photoconductor unit.



- 1 Grasp the handhold.

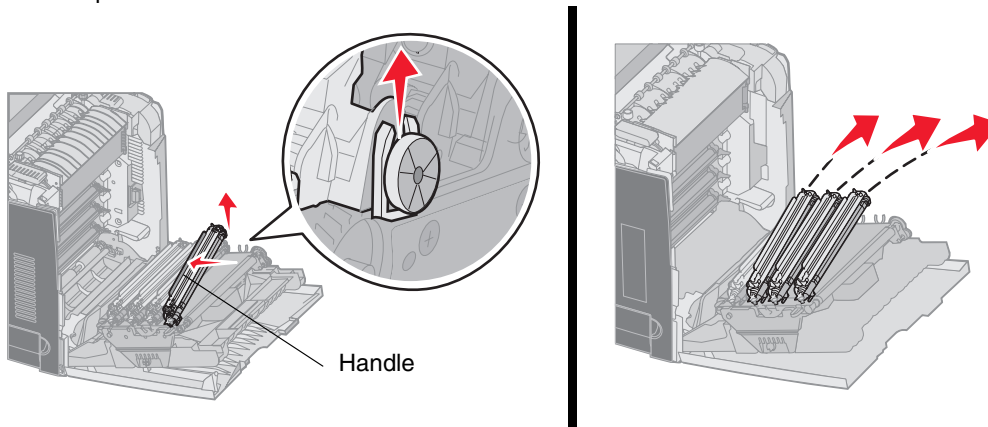


- 2** Open the upper door fully. Grasp the handle on the inner door and pull to open both the inner and lower doors. Gently lower the lower door. Now the photoconductor units can be seen.

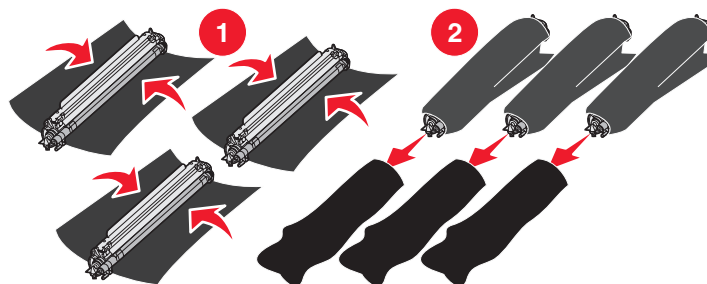


- 3** Grasp the knob on the right side of the photoconductor unit, lift up on the knob to release the photoconductor unit, and then lift the photoconductor unit by the handle.

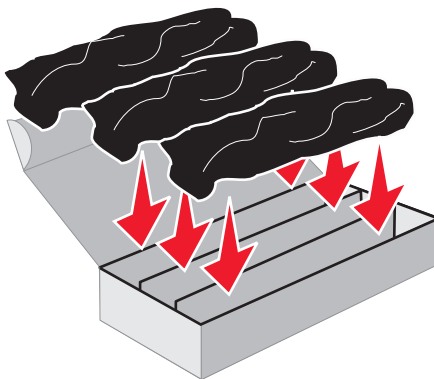
The illustration on the left shows in detail how to remove one of the units, but as the illustration on the right shows, all three color photoconductor units must be removed.



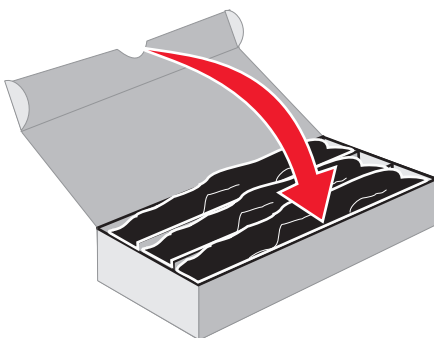
- 4** Use the packaging (which is a cover sheet and a bag that came on replacement photoconductor units) to cover them. If these items were not saved from the original packaging, wrap a sheet of paper around each unit and seal the sheet with tape, but do not attach the tape to the shiny photoconductor drum.



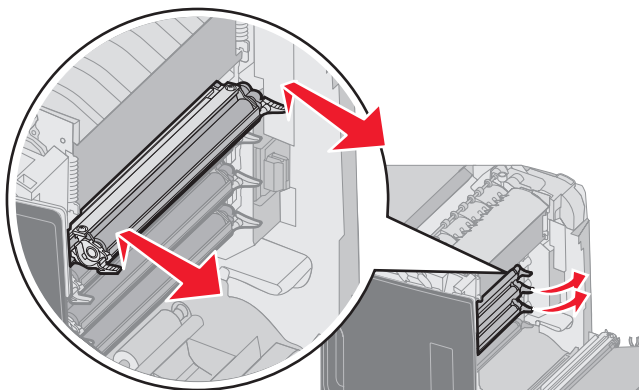
- 5** Place the photoconductor units in the box that comes with replacement units. If the box is not available, use an empty paper supplies box.



- 6** Close the box to protect the photoconductor units from light exposure.

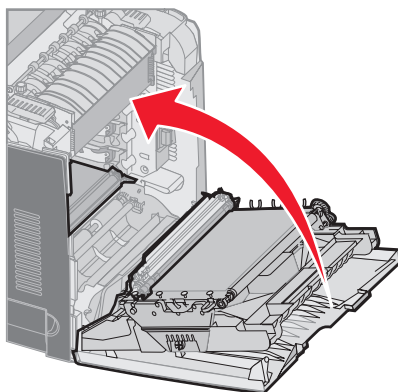


- 7** Grasp the small handles on the yellow toner cartridge as the illustration blowup shows in detail. Lift it up slightly, and then pull it straight out. As the main part of the illustration shows, remove the magenta and cyan toner cartridges in the same way.

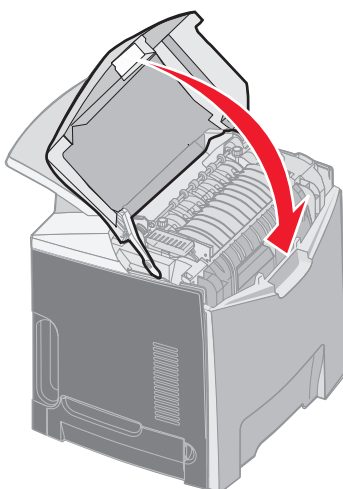


- 8** Place the toner cartridges in any box available.

- 9 Close the lower door. This closes the inner door.



- 10 Close the upper door.



Configuring the printer for color printing and replacing the supplies

To return to color printing, complete the following steps.

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.

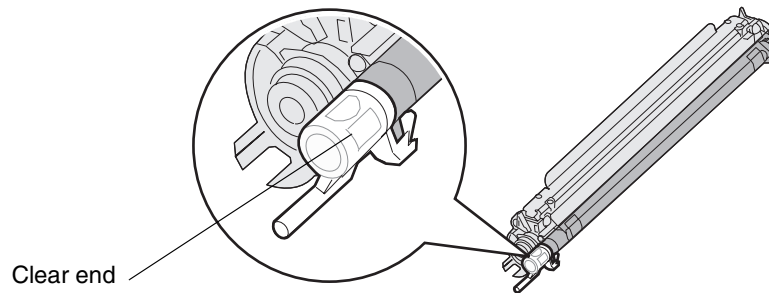
- 3 Release the buttons when the clock appears.

CONFIG MENU appears on the first line of the display.

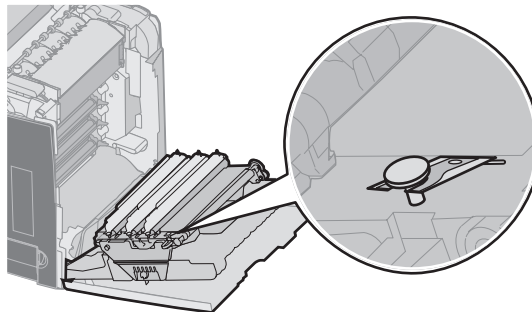
The following messages appear individually as prompts for the replacement of photoconductor units and color toner cartridges.

84 Cyan PC Unit missing	31 Missing or defective Cyan cartridge
84 Magenta PC Unit missing	31 Missing or defective Magenta cartridge
84 Yellow PC Unit missing	31 Missing or defective Yellow cartridge

As the photoconductor units stored in the box are replaced in the printer, check the clear end of the photoconductor unit for color residue.



The residue color should match the color label located on the transfer belt in the printer.



- 4 Press ▼ until ✓ **Black Only Mode** appears, and then press ⏏.

- 5 Press ▼ until ✓ **off** appears, and then press ⏏.

The **Submitting Selection** message appears.

- 6 Press ▼ until ✓ **Exit Config Menu** appears, and then press ⏏ to complete the procedure.

5

Media specifications

Media is paper, card stock, transparencies, labels, and envelopes. The last four are sometimes referred to as *specialty media*. The printer provides high quality printing on a variety of media. A number of things must be considered concerning media before printing. This chapter provides information to help make media selections and how to care for media.

Media guidelines

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

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

For detailed information about media characteristics, see 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/m² (24 lb) xerographic, grain long paper. Business papers designed for general business use may also provide acceptable print quality.

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 180°C (356°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 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 standard tray** and **Loading the optional 500-sheet tray** for detailed loading instructions.

Paper characteristics

The following paper characteristics affect print quality and reliability. It is recommended that these guidelines are followed when evaluating new paper stock.

For detailed information, see 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 176 g/m² (16 to 47 lb bond) grain long. Paper lighter than 60 g/m² (16 lb) might not be stiff enough to feed properly, causing jams. For best performance, use 90 g/m² (24 lb bond) grain long paper. To use paper smaller than 182 x 257 mm (7.2 x 10.1 in.), it is recommended that the weight be greater than or equal to 90 g/m² (24 lb bond).

Curl

Curl is the tendency of media to curve at its edges. Excessive curl can cause paper feeding problems. Curl can occur after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in hot, humid, cold and dry 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 or print quality issues.

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 it is time to use it. This limits the exposure of the paper to moisture changes that can degrade its performance.

Condition paper while it is still in the original wrapper. To condition it, store it in the same environment as the printer for 24 to 48 hours before printing to let the paper stabilize in the new conditions. Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period because of the mass of material.

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/m² (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 ±2.3 mm (±0.09 in.), such as optical character recognition (OCR) forms

In some cases, registration can be adjusted with the 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
- Any paper having a weight less than 60 g/m² (16 lb)
- Multiple-part forms or documents

Selecting paper

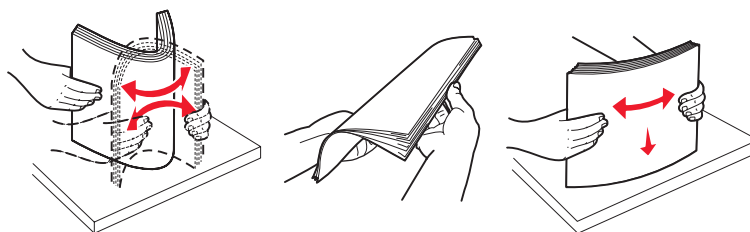
Proper paper loading helps prevent jams and ensures trouble-free printing.

To help avoid jams or poor print quality:

- *Always* use new, undamaged paper.
- Before loading paper, know the recommended print side of the paper. This information is usually indicated on the paper package.
- *Do not* use paper that has been cut or trimmed by hand.
- *Do not* mix media sizes, weights, or types in the same source; mixing results in jams.
- *Do not* use coated papers unless they are specifically designed for electrophotographic printing.
- *Do not* forget to change the Paper Size setting when using a source that does not support auto size sensing.
- *Do not* remove trays while a job is printing or **Busy** appears on the operator panel.

Media specifications

- Make sure the Paper Type, Paper Texture, and Paper Weight settings are correct. (See **Paper Menu** in the *Menus and Messages Guide* located on the publications CD 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 for 60 to 90 g/m² weights.
- 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 180°C (356°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. When in doubt, contact the paper supplier.

Preprinted papers such as letterhead must be able to withstand temperatures up to 180°C (356°F) without melting or releasing hazardous emissions.

Printing on letterhead

Check with the manufacturer or vendor to determine whether the chosen preprinted letterhead 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 face-up	Letterhead goes toward the front of the tray.
Tray 2 Optional 500-sheet drawer	Printed letterhead face-up	Letterhead goes toward the front of the tray.
Duplex (two-sided) printing using tray 1 or tray 2	Printed letterhead face-down	Letterhead goes toward the rear of the tray.
Multipurpose feeder	Printed letterhead face-down	Letterhead top edge enters first.
Manual feed slot	Printed letterhead face-down	Letterhead top edge enters first.

Transparencies

Feed transparencies from the standard tray or the multipurpose feeder. Try a sample of any transparencies being considered for use with the printer before buying large quantities.

When printing on transparencies:

- Be sure to set the Paper Type to Transparency from the printer operator panel, printer driver, or from MarkVision™ Professional.
- Use transparencies designed specifically for laser printers. Transparencies must be able to withstand temperatures of 180°C (356°F) without melting, discoloring, offsetting or releasing hazardous emissions.
- To prevent print quality problems, avoid getting fingerprints on the transparencies.
- 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. Transparencies must be 0.12–0.14 mm (4.8–5.4 mil) in thickness or 161–179 g/m² in weight. Print quality and durability depend on the transparency used. Always print samples on the transparencies being considered for use before buying large quantities.

We recommend Lexmark part number 12A8240 for letter size transparency and Lexmark part number 12A8241 for A4 size transparency.

The Paper Type setting should be set to Transparency to help prevent jams. (See “Paper Type” on the *Publications* CD for detailed information about this setting.) Check with the manufacturer or vendor to determine whether the transparencies are compatible with laser printers that heat transparencies to 180°C (356°F). Use only transparencies that are able to withstand these temperatures without melting, discoloring, offsetting, or releasing hazardous emissions.

Envelopes

Try a sample of any envelopes in consideration for use with the printer before buying large quantities. See **Loading the multipurpose feeder** 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 in use, 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/m² (24 lb bond) paper. Use up to 105 g/m² (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/m² (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 180°C (356°F) without sealing, excessive curling, wrinkling, or releasing hazardous emissions. If any doubts exist about the envelopes considered for use, check with the envelope supplier.
- Adjust the width guide to fit the width of the envelopes.
- A combination of high humidity (over 60%) and the high printing temperatures may wrinkle or seal the envelopes.

Labels

The printer can print on paper labels designed for use with laser printers. Only letter size, A4 size, and legal size label sheets should be used. Label adhesives, face sheet (printable stock), and topcoats must be able to withstand temperatures of 180°C (356°F) and pressure of 30 pounds per square inch (psi). Do not use vinyl labels.

Try a sample of any labels considered for use with the printer before purchasing a large quantity.

For detailed information on label printing, characteristics and design, see 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.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate the printer and the cartridge with adhesive, and could void the printer and cartridge warranties.
- Use labels that can withstand temperatures of 180°C (356°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. Zone coating of the adhesive at least 1 mm (0.04 in.) away from edges is recommended. Adhesive material contaminates the printer and could void the warranty.
- If zone coating of the adhesive is not possible, remove a 3 mm (0.125 in.) strip on the leading and driver edge, and use a non-oozing adhesive.
- 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, see 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 considered for use 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 **Card Stock Weight**, and select the **Card Stock 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 heavier than 163 g/m² (90 lb Index Bristol).
- 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.

Media specifications

- Do not use preprinted card stock manufactured with chemicals that may contaminate the printer. Preprinting introduces semi-liquid and volatile components into the printer.
- The use of grain long card stock is recommended.

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%. Most label manufacturers recommend printing in a temperature range of 18 to 24°C (65 to 75°F) with a relative humidity of 40 to 60%.
- Store cartons of media on a pallet or shelf, rather than directly on the floor.
- When storing 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 available from the **Paper Size** menu, and supported weights.

Note: If a media size not listed needs to be used, select the next larger size.

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

Media sizes and support

Legend ✓ — supported ✗ — unsupported				
Media size Dimensions		Standard 250-sheet tray (Tray 1)	Optional 500-sheet tray (Tray 2)	Multipurpose feeder or manual feed slot
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.)	✓	✓	✓
* This size setting formats the page or envelope for 215.9 x 355.6 mm (8.5 x 14 in.) for the 250-sheet tray 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 139.7 x 210 mm (5.50 x 8.27 in.).				

Media specifications

Media sizes and support (continued)

Legend ✓ — supported ✗ — unsupported				
Media size Dimensions		Standard 250-sheet tray (Tray 1)	Optional 500-sheet tray (Tray 2)	Multipurpose feeder or manual feed slot
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.)	✗	✗	✓
Universal*	148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)**	✓	✓	✓
7 3/4 Envelope (Monarch)	98.4 x 190.5 mm (3.875 x 7.5 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 8.27 in. to 8.5 in. x 14 in.)	✗	✗	✓
* This size setting formats the page or envelope for 215.9 x 355.6 mm (8.5 x 14 in.) for the 250-sheet tray 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 139.7 x 210 mm (5.50 x 8.27 in.).				

Media specifications

Media source support and duplex (two-sided printing) support for Universal media size

Legend ✓ — supported ✗ — unsupported	Standard 250-sheet tray (Tray 1)	Optional 500-sheet tray (Tray 2)	Multipurpose feeder	Manual feed slot	Duplex
Universal media size dimensions					
98.4 x 123.8 mm to 215.9 x 355.6 mm (3.875 x 4.875 in. to 8.5 x 14 in.)	✗	✗	✓	✗	✗
98.4 x 152.4 mm to 215.9 x 355.6 mm (3.875 x 6 in. to 8.5 x 14 in.)	✗	✗	✓	✓	✗
139.7 x 210 mm to 215.9 x 355.6 mm (5.5 x 8.27 in. to 8.5 x 14 in.)	✗	✗	✓	✓	✓
148 x 210 mm to 215.9 x 355.6 mm (5.83 x 8.27 in. to 8.5 x 14 in.)	✓	✓	✓	✓	✓

Media support for sources and duplex feature

Legend ✓ — supported ✗ — unsupported	Standard 250-sheet tray (Tray 1)	Optional 500-sheet drawer (Tray 2)	Multipurpose feeder and manual feed slot	Duplex
Media				
Paper	✓	✓	✓	✓
Card stock	✓	✗	✓	✗
Transparencies	✓	✗	✓	✗
Paper labels	✗	✗	✓	✗
Envelopes	✗	✗	✓	✗
Glossy paper	✓	✓	✓	✓

Media specifications

Media types and weights

Media	Type	Media weight		
		Standard 250-sheet tray (Tray 1)	Optional 500-sheet drawer (Tray 2)	Multipurpose feeder or manual feed slot
Paper	Xerographic or business paper (Used for simplex printing only) ¹	60 to 74.9 g/m ² grain long (16 to 19.9 lb bond) ²	60 to 74.9 g/m ² grain long (16 to 19.9 lb bond) ²	60 to 74.9 g/m ² grain long (16 to 19.9 lb bond) ²
	Xerographic or business paper (Used for simplex or duplex printing)	75 to 176 g/m ² grain long (20 to 47 lb bond)	75 to 176 g/m ² grain long (20 to 47 lb bond)	75 to 176 g/m ² grain long (20 to 47 lb bond)
Glossy papers	Book	88 to 176 g/m ² grain long (60 to 120 lb book)	88 to 176 g/m ² grain long (60 to 120 lb book)	88 to 176 g/m ² grain long (60 to 120 lb book)
	Cover	162 to 176 g/m ² grain long (60 to 65 lb cover)	162 to 176 g/m ² grain long (60 to 65 lb cover)	162 to 176 g/m ² grain long (60 to 65 lb cover)
¹ Paper weighing less than 75 g/m ² (20 lb bond) is limited to simplex printing only at less than 60% relative humidity. ² This paper weight in any source is not supported for duplex (two-sided) printing. ³ For 60 to 176 g/m ² (16 to 47 lb bond) paper, grain long fibers are recommended. For papers heavier than 176 g/m ² (47 lb bond), grain short is recommended. ⁴ Pressure sensitive area must enter the printer first. ⁵ 100% cotton content maximum weight is 90 g/m ² (24 lb bond). ⁶ 105 g/m ² (28 lb bond) envelopes are limited to 25% cotton content.				

Media specifications

Media types and weights (continued)

Media	Type	Media weight		
		Standard 250-sheet tray (Tray 1)	Optional 500-sheet drawer (Tray 2)	Multipurpose feeder or manual feed slot
Card stock—maximum (grain long)³	Index Bristol	163 g/m ² (90 lb)	Not recommended	163 g/m ² (90 lb)
	Tag	163 g/m ² (100 lb)	Not recommended	163 g/m ² (100 lb)
	Cover	176 g/m ² (65 lb)	Not recommended	176 g/m ² (65 lb)
Card stock—maximum (grain short)³	Index Bristol	199 g/m ² (110 lb)	Not recommended	199 g/m ² (110 lb)
	Tag	203 g/m ² (125 lb)	Inapplicable	203 g/m ² (125 lb)
	Cover	216 g/m ² (80 lb)	Inapplicable	216 g/m ² (80 lb)
Transparencies	Laser printer	0.12 mm – 0.14 mm (4.8 – 5.4 mil) in thickness 161 – 179 g/m ² in weight	Inapplicable	0.12 mm – 0.14 mm (4.8 – 5.4 mil) in thickness 161 – 179 g/m ² in weight
Labels—maximum⁴	Paper	Inapplicable	Inapplicable	199 g/m ² (53 lb bond)
Envelopes	Sulfite, wood-free or up to 100% cotton bonds	Inapplicable	Inapplicable	60 to 105 g/m ² (16 to 28 lb bond) ^{5, 6}

¹ Paper weighing less than 75 g/m² (20 lb bond) is limited to simplex printing only at less than 60% relative humidity.

² This paper weight in any source is not supported for duplex (two-sided) printing.

³ For 60 to 176 g/m² (16 to 47 lb bond) paper, grain long fibers are recommended. For papers heavier than 176 g/m² (47 lb bond), grain short is recommended.

⁴ Pressure sensitive area must enter the printer first.

⁵ 100% cotton content maximum weight is 90 g/m² (24 lb bond).

⁶ 105 g/m² (28 lb bond) envelopes are limited to 25% cotton content.

Media capacities

Legend ✓ — supported ✗ — unsupported		
Media type	Standard 250-sheet tray (Tray 1)	Optional 500-sheet drawer (Tray 2)
Paper	250 sheets ¹	500 sheets ¹
Card stock	30 sheets ²	✗
Labels³	✗	✗
Transparencies	50	✗
Envelopes	✗	✗

¹ Based on 75 g/m² (20 lb) paper.

² 30 sheets of 163 g/m² (90 lb) card stock or 25 sheets of 199 g/m² (110 lb) card stock.

³ Vinyl labels are not supported.

Tray linking

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

For example, if the same size and type of media is 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, a single source with a capacity of 750 sheets is created.

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

Once the selected trays 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, a job could mistakenly print on the wrong paper type.

Using the duplex function (two-sided printing)

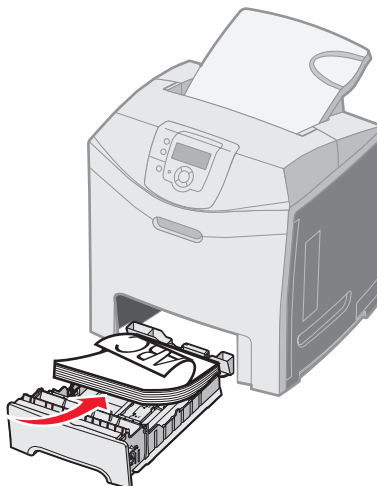
Duplex printing (or *two-sided printing*) allows printing on both sides of a sheet of paper. Printing on both sides of paper reduces printing costs.

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

Select Duplex from the 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 face-down.



Using Duplex Bind

When Duplex Bind printing is selected in the printer driver or **Duplex Bind** in the **Finishing Menu** in **Settings**, either long edge or short edge binding must be selected, 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).

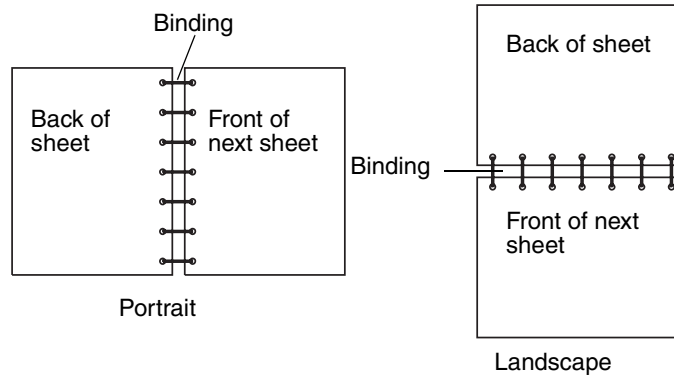
Media specifications

The two values for the **Duplex Bind** are:

Long Edge*

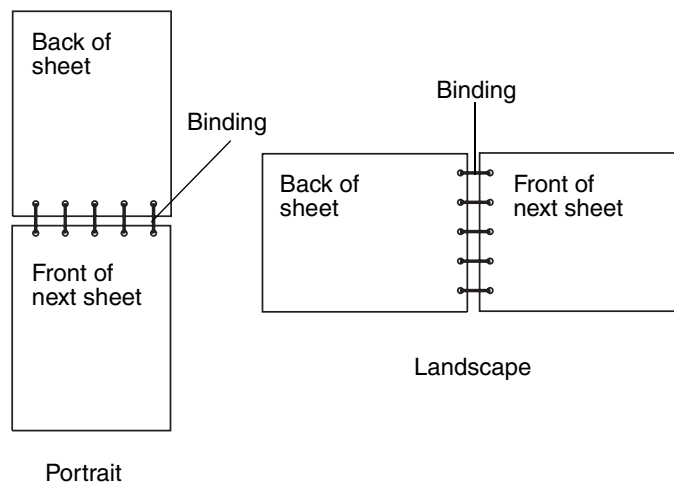
The asterisk (*) indicates this is the factory default setting.

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:



6

Loading media

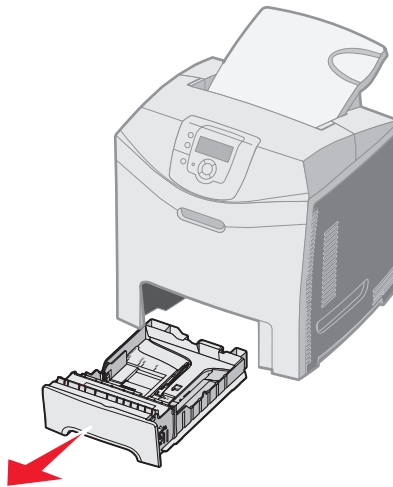
This chapter shows how to load the standard tray (250-sheet letter size tray), the multipurpose feeder, and the optional 500-sheet tray which is part of the optional 500-sheet drawer. It also includes information about the standard bin.

Loading the standard tray

The printer has two trays to select from: the standard tray (tray 1), also known as the 250-sheet tray and the optional 500-sheet tray (tray 2), which is part of the optional 500-sheet drawer and fits into the support unit. Load the paper or specialty media used for the majority of print jobs in tray 1. Proper media loading helps prevent jams and helps make printing trouble-free.

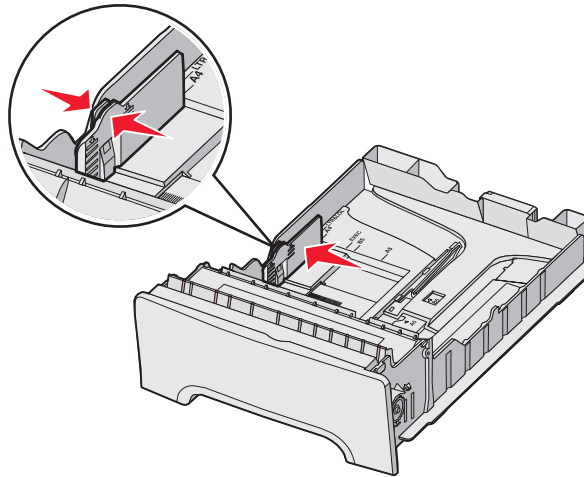
Do not remove trays while a job prints or while **Busy** blinks on the operator panel. Doing so may cause a jam.

- 1 Grasp the handle and pull the tray out. Remove the tray completely.

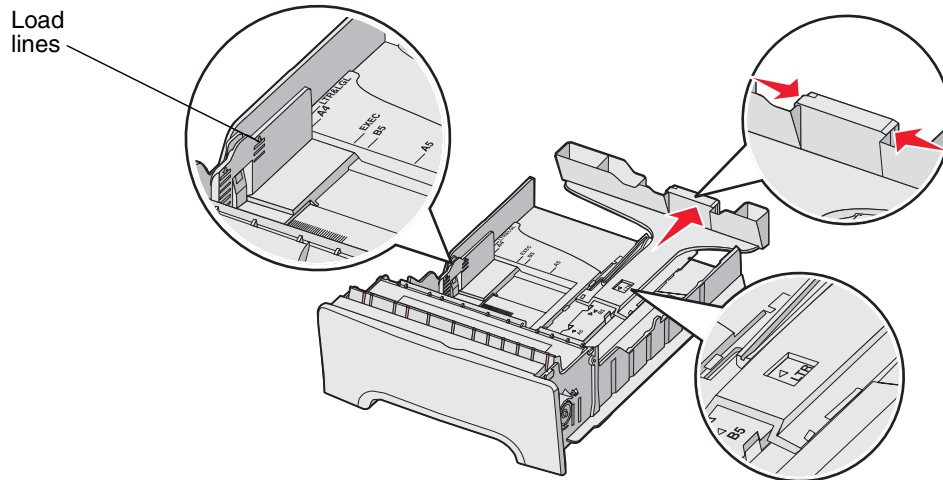


Loading media

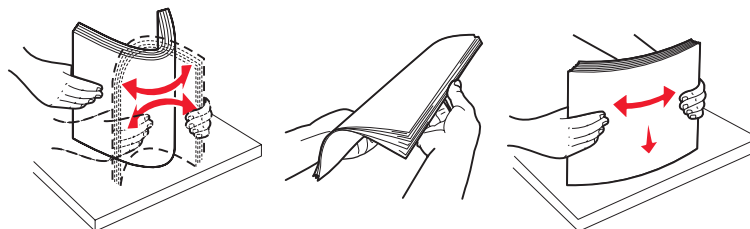
- 2 Squeeze the width guide tabs together as shown, and move the width guide to the side of the tray.



- 3 Squeeze the length guide tabs together as shown, and slide the length guide to the correct position for the size of paper being loaded. 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 sides of the guide. Use these indicators to help position the guide at the correct size. Notice the load lines on the width guide tab which is the maximum height indicator for loading media.



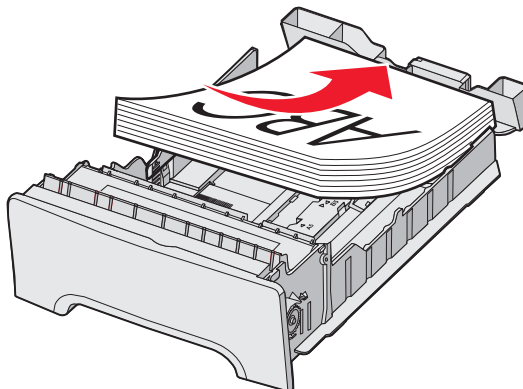
- 4 Flex the sheets back and forth to loosen them, and then fan them. Do not fold or crease the media. Straighten the edges on a level surface.



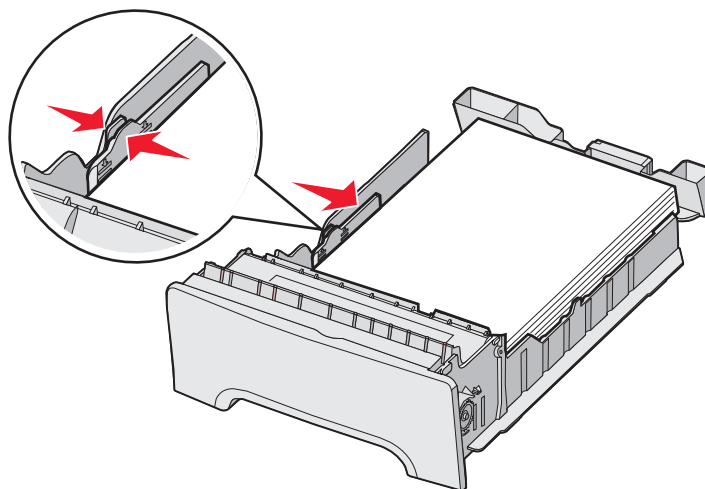
Loading media

- 5** Load the paper stack with the recommended print side face-up. Load the stack toward the back of the tray as shown.

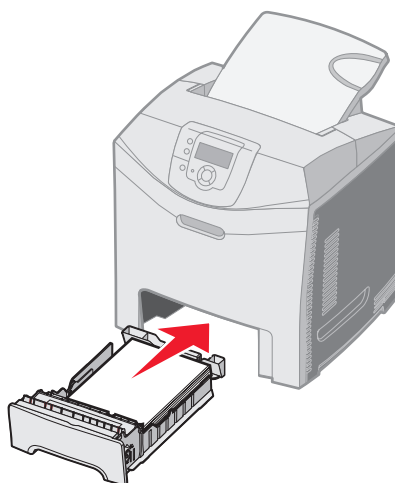
When loading letterhead paper, place the header toward the front of the tray.



- 6** Squeeze the width guide tabs, and slide the length guide to lightly touch the side of the stack.



- 7** Align the tray, and insert it.

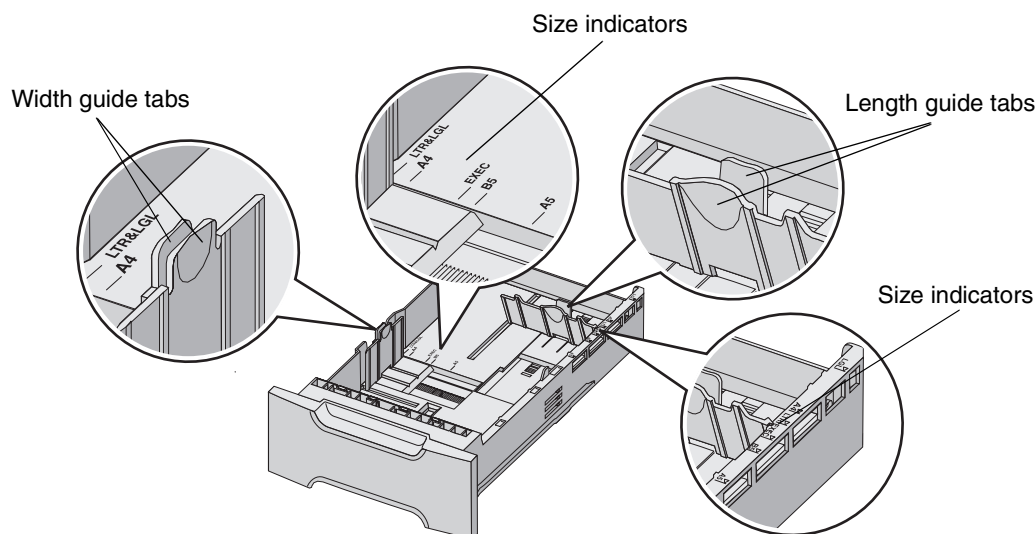


Loading the standard tray

- 8 If a different type of media was loaded than the type previously loaded in the tray, change the Paper Type setting for the tray from the operator panel. See **Setting the Paper Type and Paper Size**.

Loading the optional 500-sheet tray

The optional 500-sheet drawer consists of a 500-sheet tray and the support unit. The tray is loaded in the same way as the 250-sheet standard tray is loaded. The only differences between the trays are the look of the width and length tabs and the location of the size indicators. The following illustration shows the tabs and the location of the size indicators for the optional 500-sheet tray. When the 500-sheet tray is loaded for the first time or when a new size is loaded, remove the tray completely from the support unit.




Note: If the same media size is loaded again, the tray does not need to be completely removed from the support unit. Just remove it partially and load the media without adjusting the guides.

Identifying the multipurpose feeder or the manual feed slot

The printer has either a multipurpose feeder or a manual feed slot located on the front of the standard tray. See **Overview** to identify the model. Each holds several sizes and types of media.

Using and loading the multipurpose feeder

The multipurpose feeder can be closed when not in use. Reserve the multipurpose feeder for printing on different sizes and types of media, such as card stock, transparencies, and envelopes. A stack of media or single sheets of media not kept in a tray can be loaded into the multipurpose feeder.

When **Load MP Feeder with x** appears on the operator panel, load the multipurpose feeder with the media specified for x. Load the media, and press . The message appears again as a prompt to load the next sheet.

See **Media guidelines** for a listing of supported types and sizes.

Note: When printing from the multipurpose feeder, be sure to set the Paper Size and Paper Type. See **Setting the Paper Type and Paper Size** for more information.

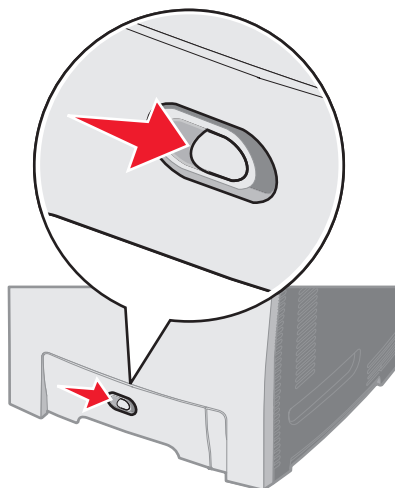
Loading media

Follow these guidelines when using the multipurpose feeder:

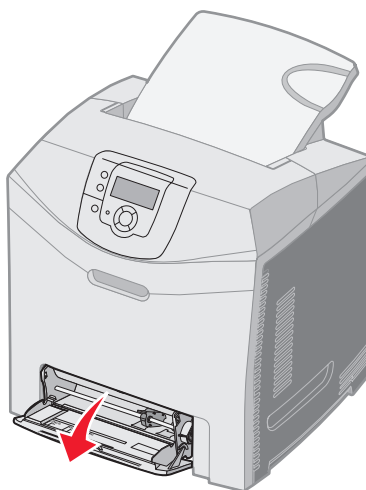
- Load only one size and type of media at a time.
- To achieve the best possible print quality, use only high-quality media that is designed for use in laser printers. See **Media guidelines** for information on selecting types of media.
- To prevent jams, do not add media to the multipurpose feeder when it already contains media.
- Do not close the multipurpose feeder while a job is printing. Doing so may cause a jam.
- Load media with the top edge going into the multipurpose feeder first. (Letterhead goes in face-down.)
- Do not place objects on the multipurpose feeder. Also, avoid applying excessive force to it.
- Remove media from the multipurpose feeder, and push the extensions back into place if opening the lower door is needed. To release the media, press the release tab. For an illustration of the release tab, see **page 57**.

Loading the multipurpose feeder

- 1 Push the multipurpose feeder latch to the right.

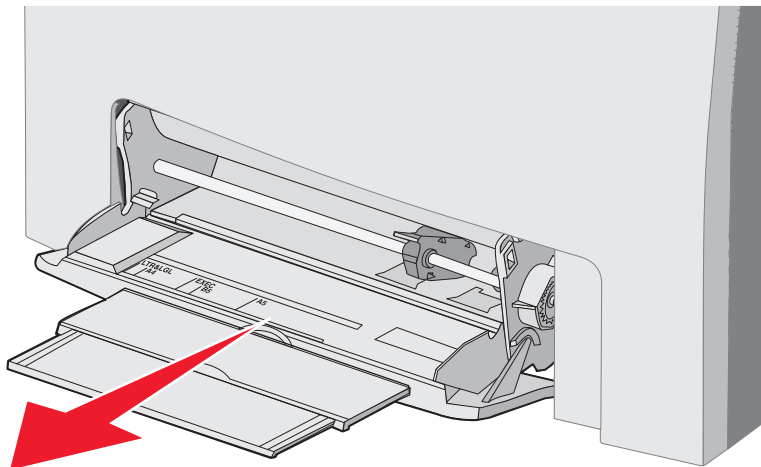


- 2 Pull the multipurpose feeder door down.



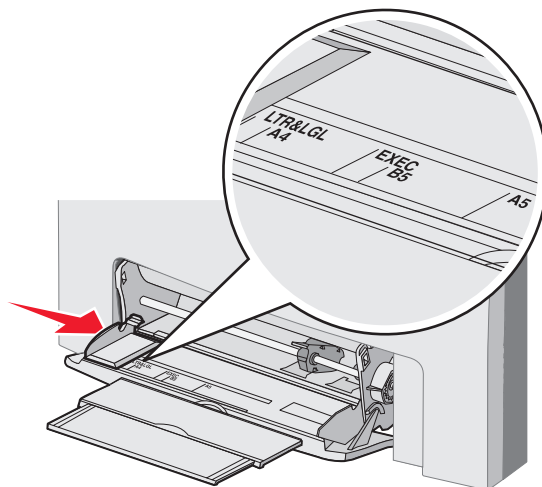
Loading media

- 3 Grasp the extension, and pull it straight out until fully extended.



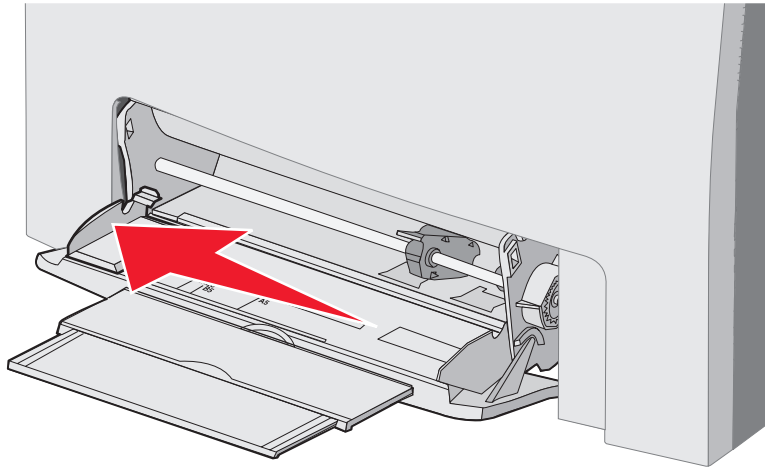
- 4 Grasp the handle of the guide.

- For paper, push the guide to the media size that is being loaded. Notice the size names molded into the surface.



Loading media

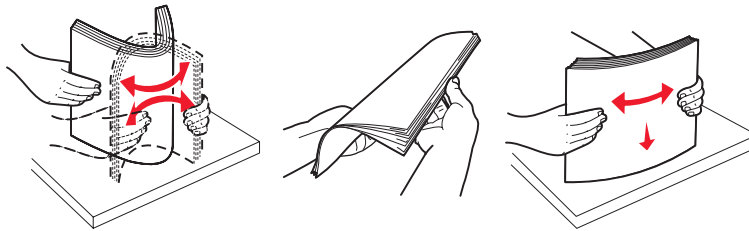
- If not loading paper, push the guide all the way to the left.



5 Prepare media for loading.

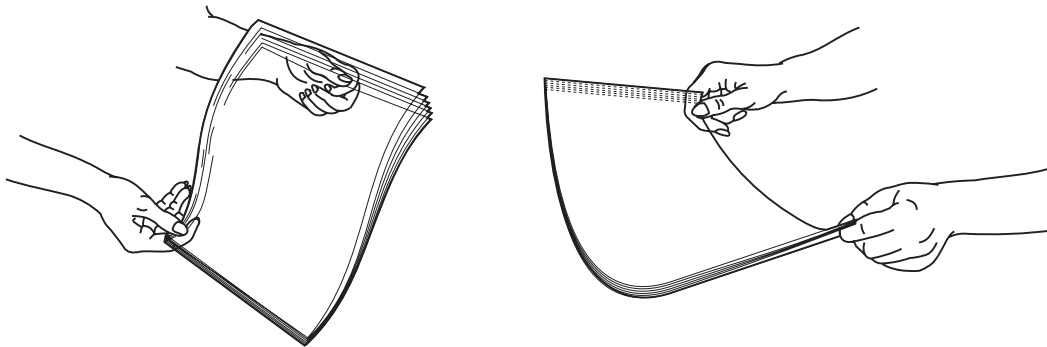
Note: Do not load different sizes or types of media in the multipurpose feeder at the same time. Doing so may cause a jam.

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



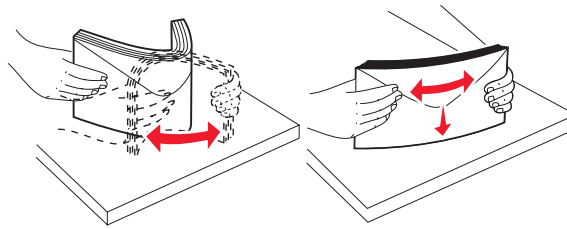
- Hold transparencies by the edges and fan them to prevent feeding failures.

Note: Avoid touching the print side of the transparencies. Be careful not to scratch them.

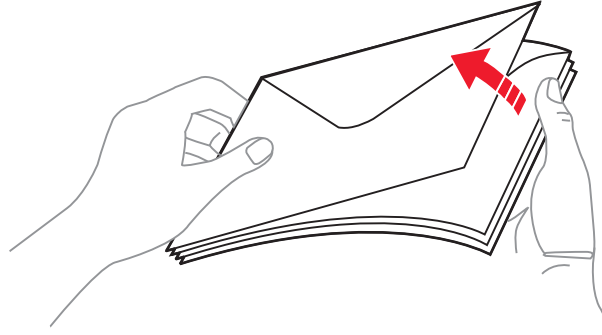


Loading media

- 6 Flex a stack of envelopes back and forth to loosen them, and then straighten the edges on a level surface.

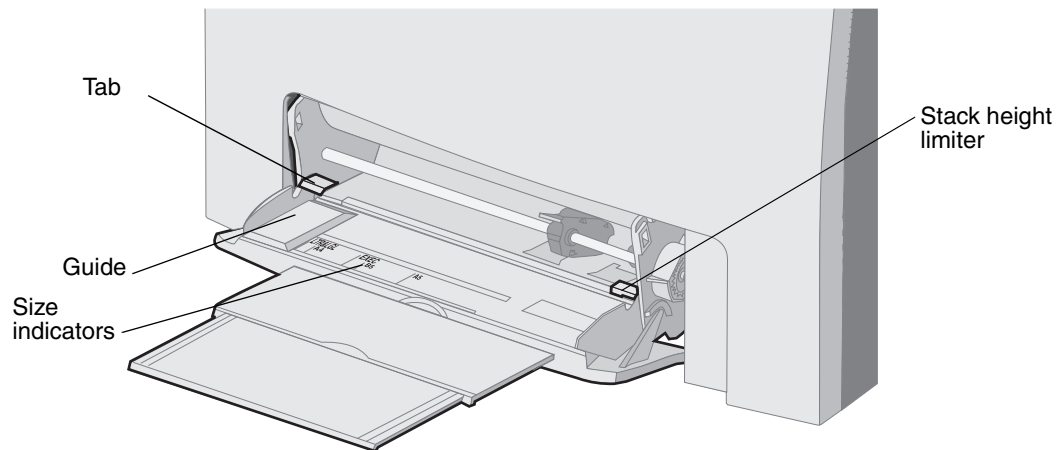


- Fan the envelopes. This prevents the edges of the envelopes from sticking together and helps them feed properly. Do not fold or crease the envelopes.



- 7 Move the guide close to the size indicator for the size of envelopes being loaded first.

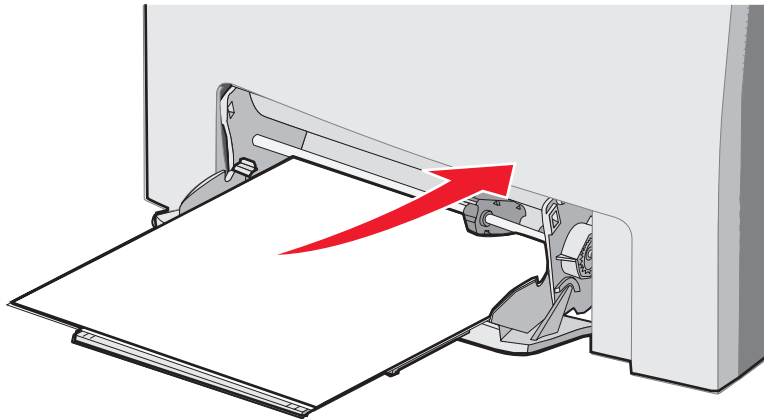
- 8 Locate the stack height limiter and tab. Do not exceed the maximum stack height by forcing media under the stack height limiter. The maximum stack height for any media is 10 mm (0.4 in.). Overfilling the multipurpose feeder could cause jams.



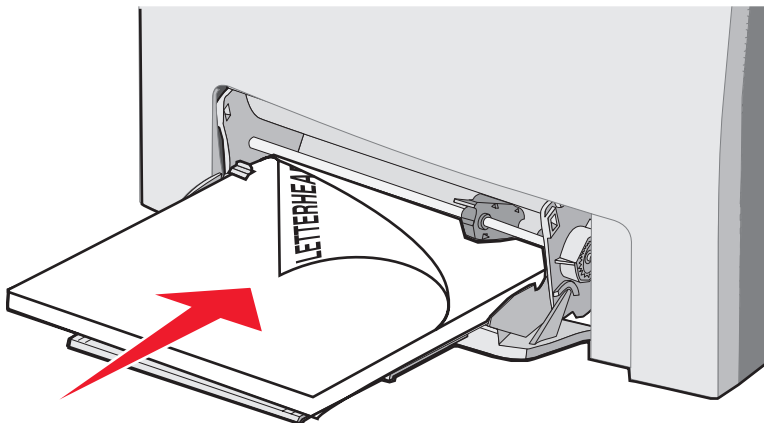
Loading media

9 Load the media.

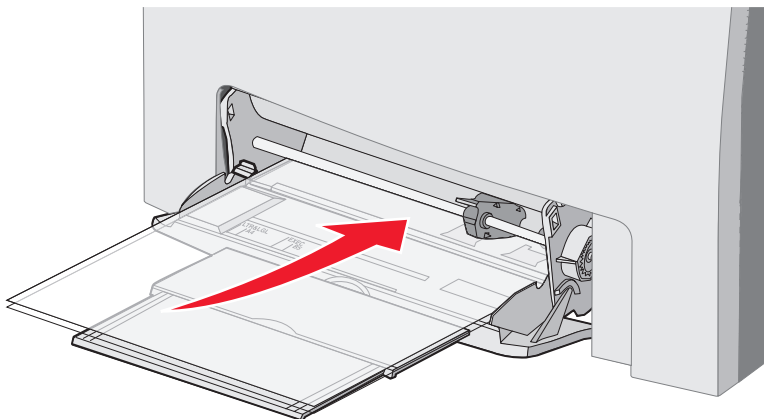
- Load paper and card stock with the recommended print side face down and the top edge entering first.



- Load letterhead with the logo face down and the top edge entering first.

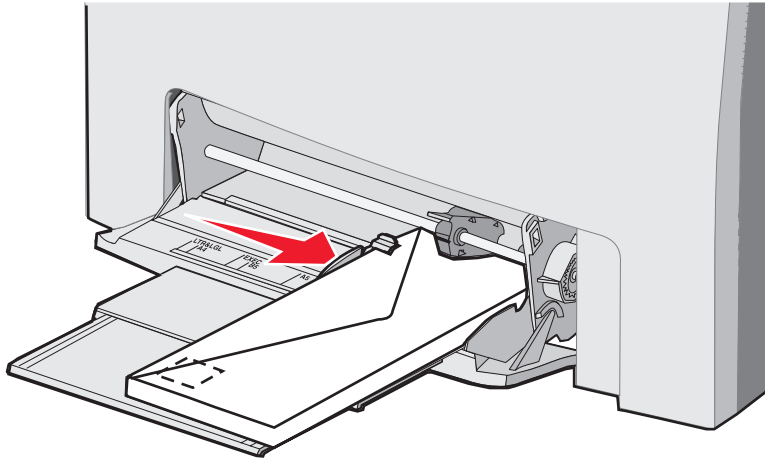


- Load transparencies with the recommended print side face down and the top edge entering first.



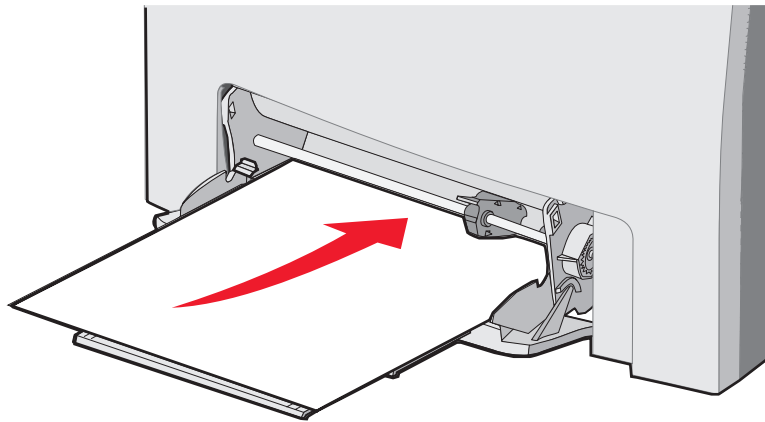
Loading media

- Load envelopes with the flap side up.



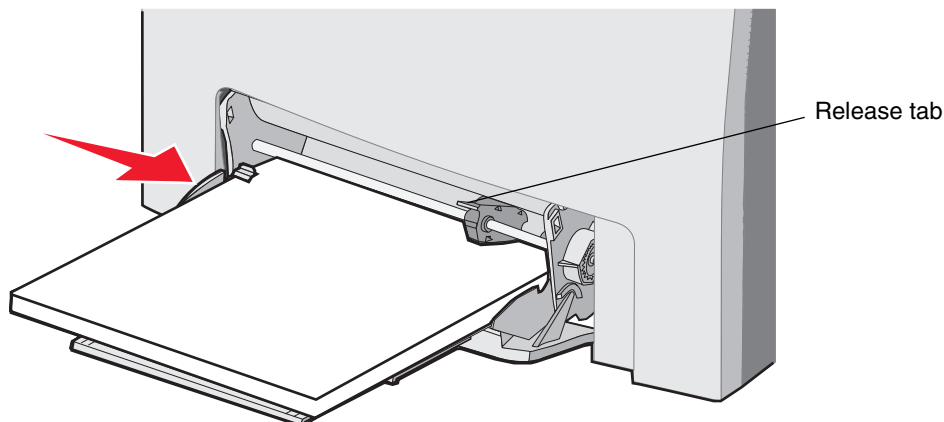
Warning: Never use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives. These envelopes may severely damage the printer. Do not feed stamped envelopes into the multipurpose feeder. The stamp is shown in the illustration only for placement.

- 10 Adjust the guide to lightly touch the side of the stack of media. Ensure the media is under the stack height limiter and the tab.
- 11 Slide the media gently into the multipurpose feeder until it comes to a stop. Media should lie flat on the multipurpose feeder.



Loading media

- 12 Slide the width guide to the right until it lightly touches the edge of the stack for transparencies, card stock, or envelopes. For paper, the guide was already placed before the paper was loaded; however, check to see if the guide needs a slight adjustment.




Make sure the media fits loosely in the multipurpose feeder and is not bent or wrinkled.

- 13 Set the **Paper Size** and **Paper Type** in the menus from the operator panel.

Note: Press the release tab down prior to removing media from the multipurpose feeder.

Using and loading the manual feed slot

Use the manual feed slot to load single sheets not kept in a tray, such as letterhead when a special sheet needs to be printed.

When **Load Manual feeder with x** appears on the operator panel, load a single piece of media in the manual feed slot as specified for x. Load the media, and press .

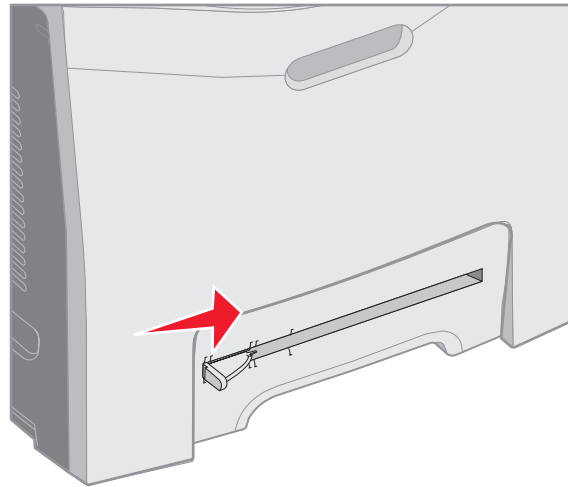
See **Media guidelines** for a listing of supported types and sizes.

Note: When printing from the manual feed slot, be sure to set the Paper Size and Paper Type. See **Setting the Paper Type and Paper Size** for more information. Loading the manual feed slot while a print job is already printing may cause a jam.

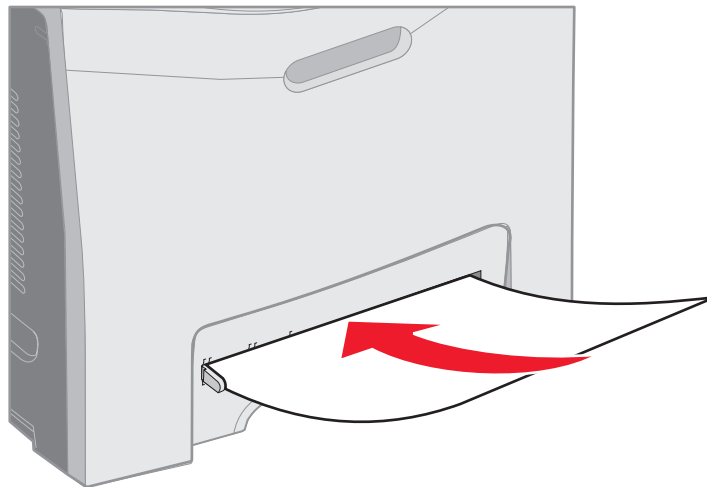
Loading media

Follow these guidelines when using the manual feed slot:

- Load only one sheet at a time.
 - To achieve the best possible print quality, use only high-quality media that is designed for use in laser printers. See **Media guidelines** for information on selecting types of media.
 - Load media with the top edge going into the manual feed slot first. (Letterhead goes face-down.)
- 1** Use the marks above the slot to adjust the guide for standard sizes of media. For an odd size, adjust the guide after the media is loaded. Place the guide to rest gently against the left side of the media. Do not force the guide against the media or it could be damaged.



- 2** Load one sheet of media. Load the media so it fits flush with the right side of the manual feed slot. Load an envelope with the flap up and to the left. The orientation of the envelope is the same as when the multipurpose feeder is loaded. For an illustration, see page 56.



- 3** Push the media in until it stops. The printer pulls the media in farther.

Using the standard bin

The standard bin holds up to 250 sheets of 20 lb paper and is located on top of the printer. The standard bin collates print jobs face-down.

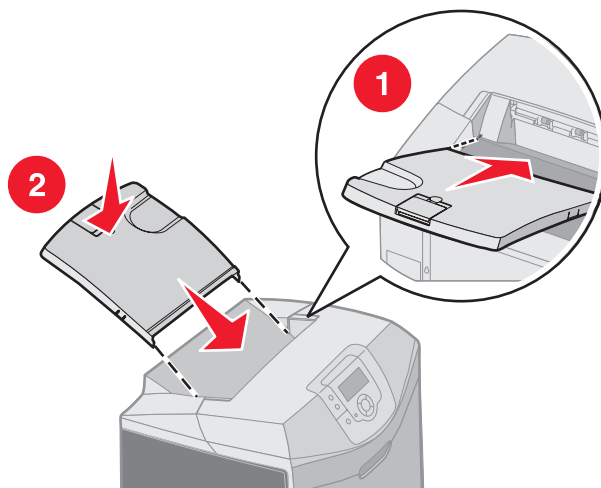


The standard bin supports all media listed in **Media sizes and support**.

Attaching the standard bin

To attach the standard bin to the top of the printer:

- 1 Align it with the opening and slide it down.
- 2 Press it down into place.

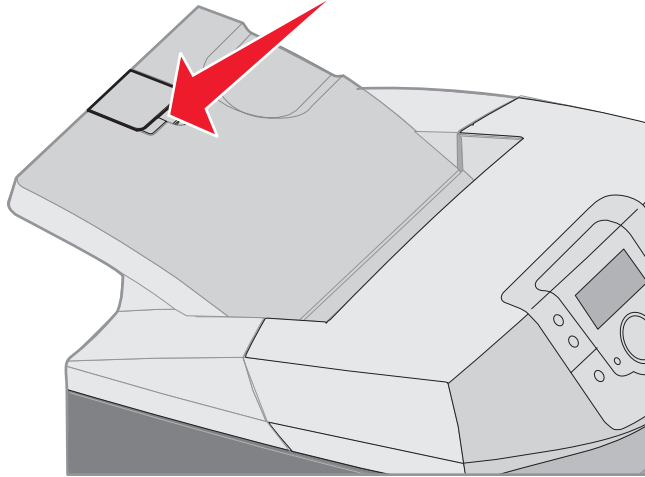


Using the media stop

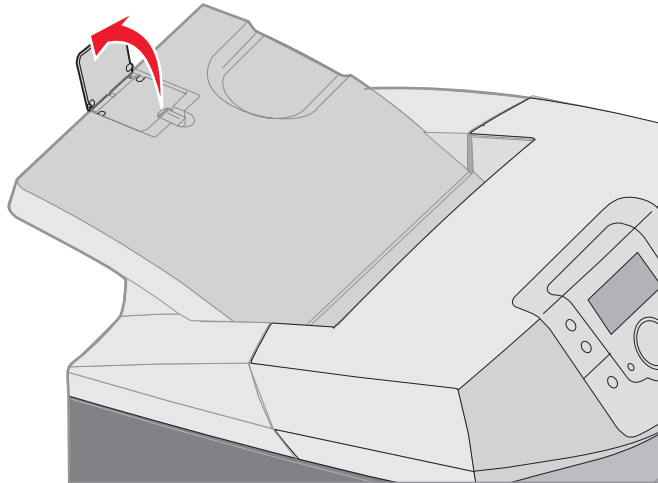
The standard bin has a media stop which is used to keep media from sliding off the back of the standard bin. It has two lengths, one for shorter media like Letter and A4 sizes, and one for longer media like Legal size.

To extend the media stop for short sizes of media:

- 1 Grasp the media stop at the first indentation.



- 2 Lift it up and then back until it stops at a 90 degree angle.

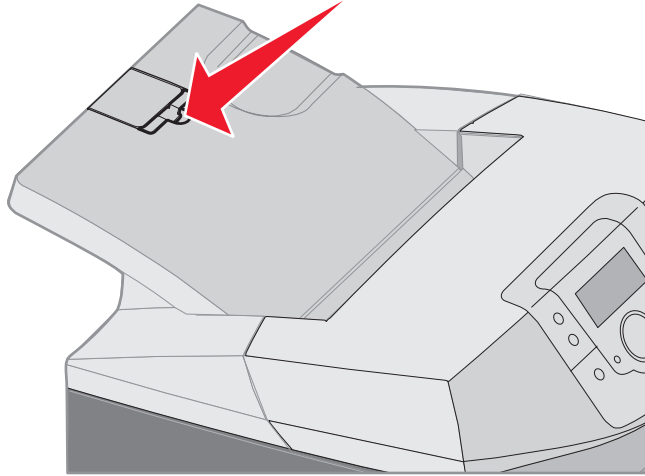


To close it, fold it back down.

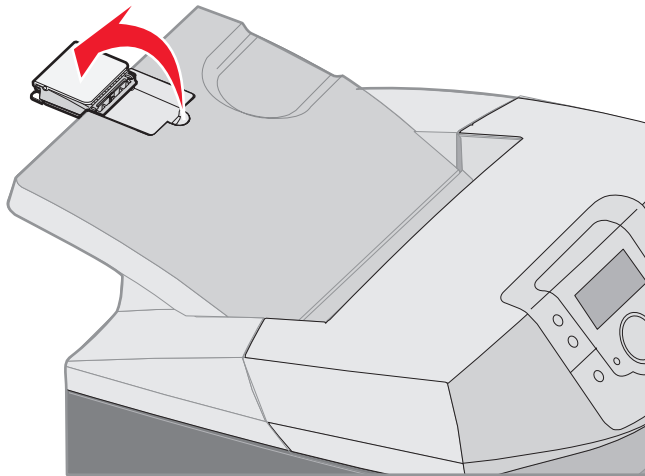
Loading media

To extend the media stop for longer sizes of media, start with the media stop fully closed:

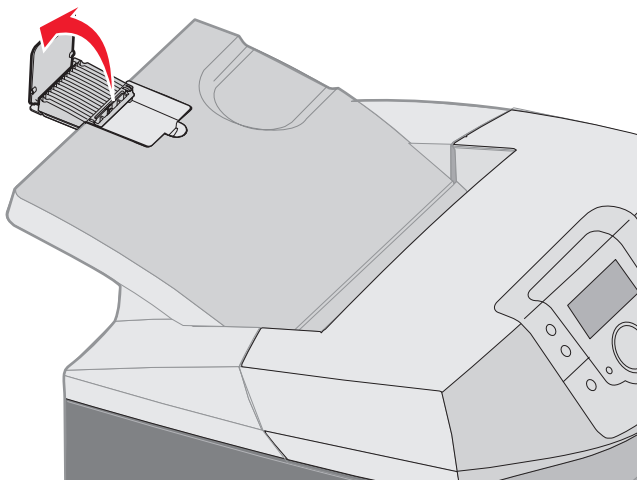
- 1 Grasp the media stop at the second indentation.



- 2 Lift it up and back until it is flat at a 180 degree angle.



- 3 Lift up and then back on the extension until it stops at a 90 degree angle.


















To close the media stop, fold the extension forward and down. Raise the media stop, and then fold it back down into its closed position.

Setting the Paper Type and Paper Size

After setting the Paper Type and Paper Size to the correct values for the type and size used in the trays, then any trays containing the same size and type are automatically linked by the printer.

Note: If the size of the media being loaded now is the same size as the media previously loaded, do not change the Paper Size setting.

To change the Paper Size and Paper Type setting:

- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press and release .
- 3 Press  until  **Paper Menu** appears, and then press .
- 4 Press  until  **Paper Size/Type** appears, and then press .
- 5 Press  until the needed media source is reached, and then press .
- 6 Press  to scroll through a list of possible paper sizes to locate the correct size, and then press .
- 7 Press  or  to scroll through a list of possible paper types to locate the correct type, and then press . This saves this setting as the new user default type or size setting.
The message **Submitting Selection** appears. The printer returns to the **Paper Menu**.
- 8 Press  twice to return to **Ready**.

7

Clearing jams

Avoiding jams hints

The following hints can help avoid jams:

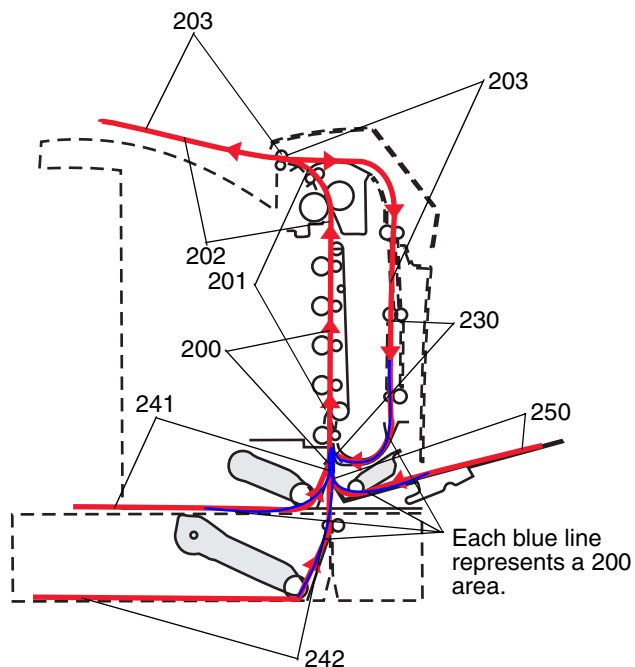
- Use only recommended paper or specialty media (referred to as media). See **Media guidelines** for more information. See the *Card Stock & Label Guide* available on the Lexmark Web site at www.lexmark.com/publications for more information about which media will provide optimum results for the printing environment.
- For detailed information prior to purchasing large quantities of customized media, see the *Card Stock & Label Guide*.
- See **Loading media** 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 loading it.
- Do not use media that has been cut or trimmed by hand.
- 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 face-up when loading all trays for simplex (single-sided) printing.
- Make sure the recommended print side is face-down when loading the multipurpose feeder and manual feed slot.
- Keep media stored in an acceptable environment. See **Storing media**.
- Do not remove trays during a print job. Wait for **Load tray x** or **Ready** before removing a tray.
- Do not load the manual feed slot during printing since this may cause a jam. Wait for the **Load Manual feeder with x** prompt.
- Push all trays in firmly after loading media.
- Make sure the guides in the trays are properly positioned for the size of media loaded. Make sure the guides are not placed too tightly against the stack of media.

- Make sure the media size in the sources matches the size setting selected from the operator panel menus.
- Make sure all cables that connect to the printer are correctly attached. See the *Setup* sheet for more information.

Identifying the media path

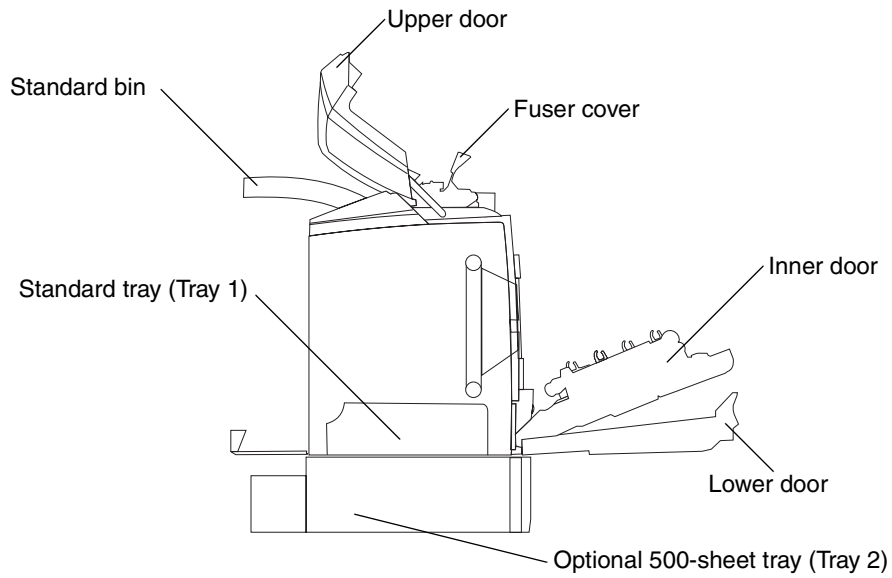
The following illustration shows the path that media travels through the printer. The path varies depending on the input source (tray 1 or tray 2) and if a duplex (two-sided) print job is being sent.

When a jam occurs, the printer issues a message indicating the region of the jam. Only the three-digit jam prefix numbers are given in the following illustration. For the same three-digit jam numbers and a description of the jam location, see the table starting on **page 66**.



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.



Clearing jams

Use the following table to locate instructions for a particular jam.

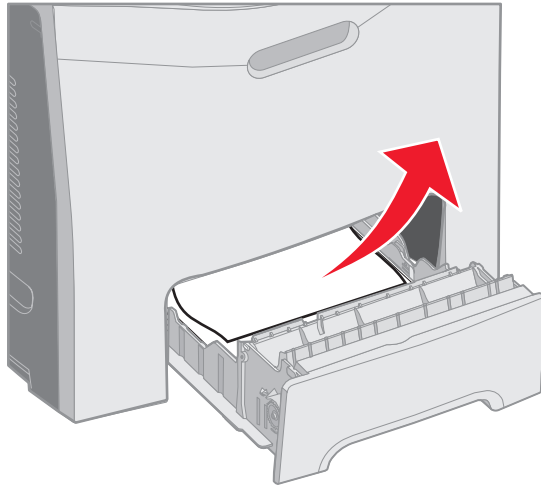
Note: To resolve any message, all media must be cleared from the entire media path.

Operator panel message	Area description	Clearing a jam...	Go to page
200.xx Paper Jam	Jam at the input sensor	Just beyond Tray 1	67
		Between Tray 1 and Tray 2	69
		Behind the inner door	69
		Under the four photoconductor units	70
		In Tray 1	76
200.xx Paper Jam	Jam in the manual feed slot	In the manual feed slot	77
201.xx Paper Jam	Jam between an input sensor and the fuser exit sensor	Under the four photoconductor units	70
		Under the four photoconductor units and requires removal of the photoconductor units to release the jammed media	70
		Under the fuser	71
		Under the fuser cover	72
202.xx Paper Jam	Jam after the fuser exit sensor	Partially under the fuser and partially exposed from a slot behind the fuser	72
		Between the fuser and the standard bin	73
203.xx Paper Jam	Jam in the duplex page-turnaround area	Under the rollers near the fuser	74
230.xx Paper Jam	Jam in the duplex area	Between the lower door and the inner door	75
		Tray 1	76, 76
		Entering Tray 1 during the duplex turnaround of the sheet	76
241.xx Paper Jam	Jam in Tray 1	In Tray 1	67
242.xx Paper Jam	Jam in Tray 2	In Tray 2	68
		Between Tray 1 and Tray 2	68
250.xx Paper Jam	Jam in the multipurpose feeder	In the multipurpose feeder	77

Clearing a jam in the standard tray (Tray 1)

If the media did not feed correctly from the standard tray, the jam is in the tray. The operator panel indicates a 241.xx **Paper Jam**.

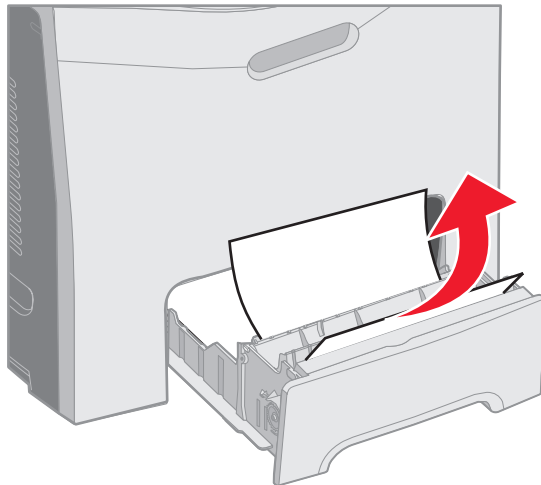
- 1 Open the standard tray.
- 2 Pull the jammed media out.



- 3 Insert the tray.

If the media fed from the tray and jammed just beyond tray 1, the operator panel indicates a 200.xx **Paper Jam**.

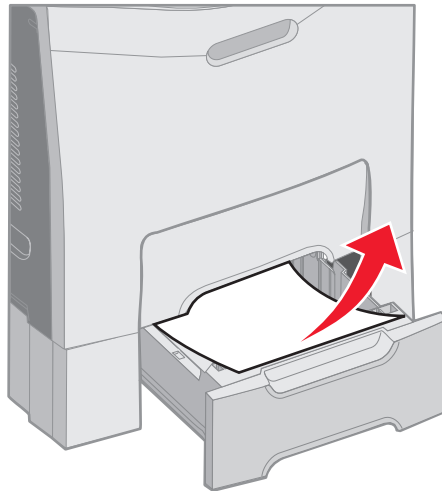
- 1 Open the standard tray.
- 2 Pull the jammed media out. Insert the tray.



Clearing a jam in the optional 500-sheet tray (Tray 2)

If the media did not feed correctly from the optional 500-sheet tray (Tray 2), the jam is in the tray. The operator panel indicates a **242.xx Paper Jam**.

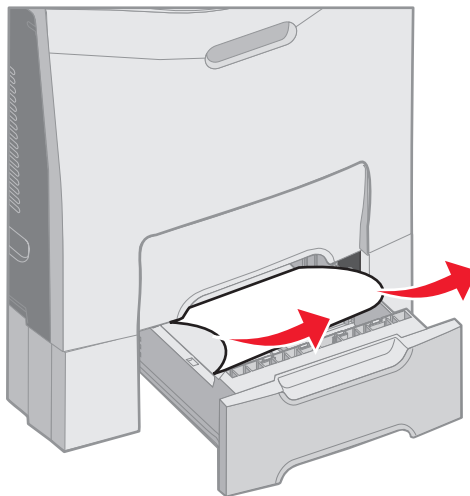
- 1 Open the optional 500-sheet tray.
- 2 Pull the jammed media out.



- 3 Insert the tray into the support unit.

If the media fed from Tray 2, but is caught between Tray 1 and Tray 2 in the media path, the operator panel indicates a **242.xx Paper Jam**, also.

- 1 Open the optional 500-sheet tray.
- 2 Grasp the jammed media on both sides, and pull it out gently to avoid tearing it.

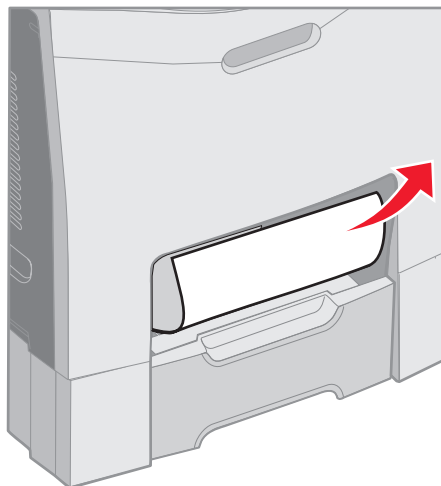


- 3 Insert the tray into the support unit.

Clearing jams

If the media fed from Tray 2, but is caught between Tray 1 and Tray 2 in the media path, the operator panel may indicate a 200.xx Paper Jam instead. If so, clear the jam as follows.

- 1 Remove the standard tray.
- 2 Pull the jammed media up and then out of the tray.



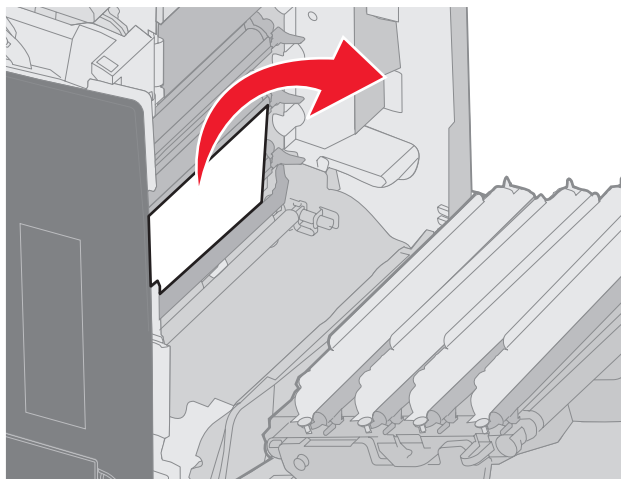
- 3 Insert the tray.

Clearing jams behind the inner door

The media is jammed behind the inner door, but not under the photoconductor units. The operator panel indicates a 200.xx Paper Jam.

Warning: To avoid overexposing the photoconductor units to light, do not leave the inner door open longer than 10 minutes while clearing this jam.

- 1 Open the upper door and the inner door. The lower door comes open with the inner door.
- 2 Pull the jammed media up and out.



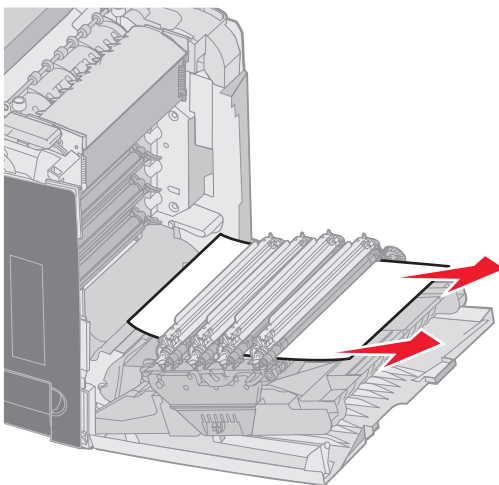
- 3 Close the lower door. This closes the inner door. Close the upper door.

Clearing jams

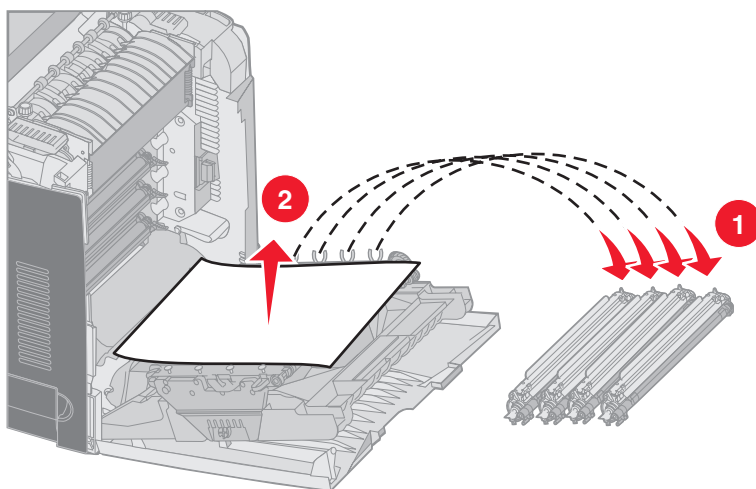
The media is jammed under the photoconductor units. The operator panel indicates a 200.xx Paper Jam or 201.xx Paper Jam.

- 1 Open the upper door and the inner door. The lower door comes open with the inner door.
- 2 Pull the media straight forward only to remove it.

Note: Be careful not to dislodge the photoconductor units.



- 3 If the media does not pull free at all, remove all four photoconductor units. (If help to remove them is needed, see the illustration on **page 31**.) Remove the jammed media, then reinstall the photoconductor units.



- 4 Close the lower door. This closes the inner door. Close the upper door.

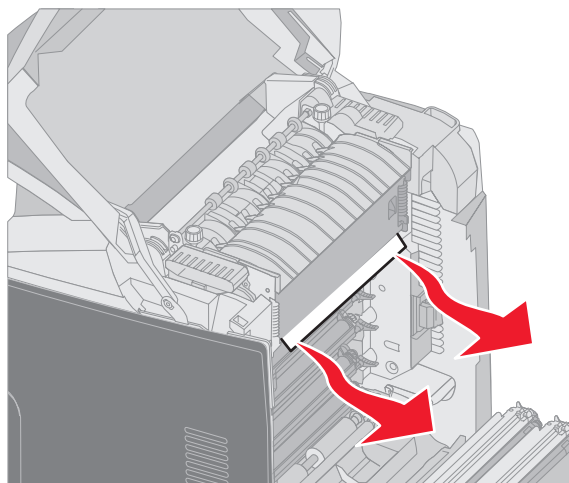
Clearing jams under the fuser or fuser cover

CAUTION: The fuser and the inside of the printer near the fuser may be hot. Wait for the fuser to cool before clearing jams from this area.

The jammed media is under the fuser or the fuser cover. The operator panel indicates a 201.xx **Paper Jam**.

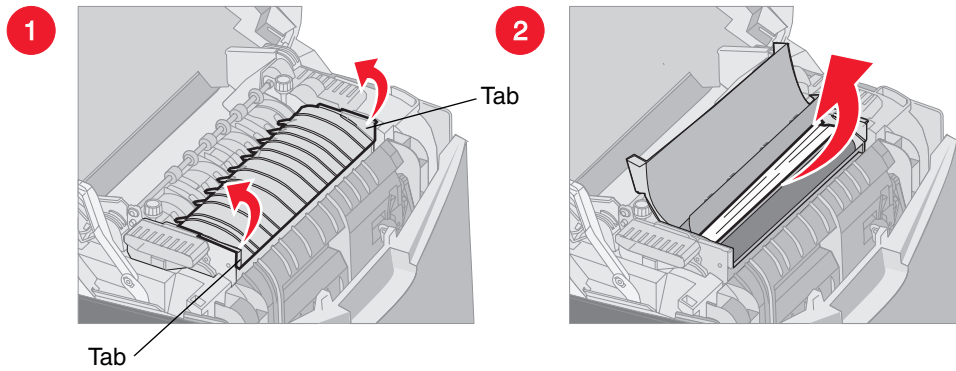
Warning: To avoid overexposing the photoconductor units to light, do not leave the inner door open longer than 10 minutes while clearing this jam.

- 1** Open the upper door and the inner door. The lower door comes open with the inner door.
- 2** Determine where the jam is located.
 - a** If the jammed media is seen under the fuser, grasp the jammed media on each side and pull it forward.



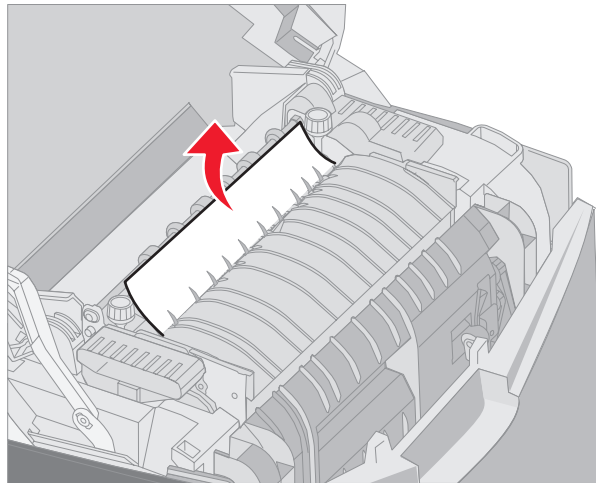
Clearing jams

- b** If the jammed media is not seen, grasp the tabs on the fuser cover and lift it. Grasp the jammed media, and pull it up and out. Close the fuser cover.



If the jammed media is partially under the fuser and partially exposed from the slot behind the fuser, the operator panel indicates a **202.xx Paper Jam**.

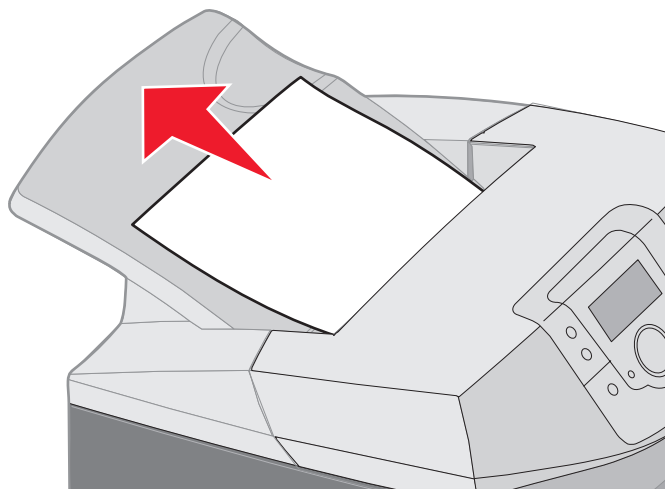
Warning: If jammed media is seen in the position shown in the following illustration, pull the jammed media gently up and to the rear of the printer.



- 3** Close the lower door. This closes the inner door. Close the upper door.

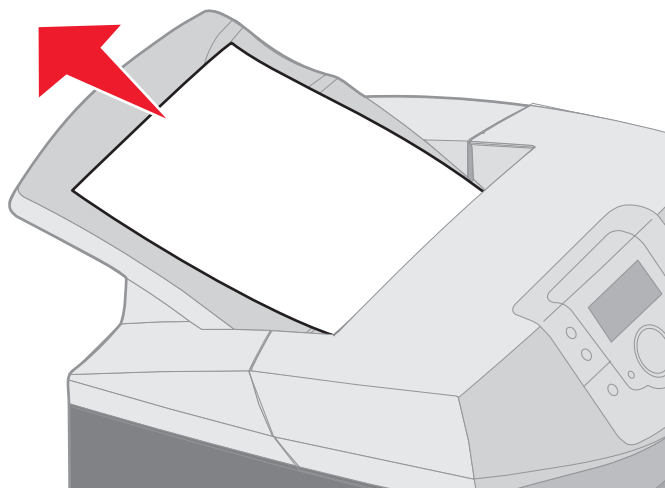
Clearing jams between the fuser and the standard bin

The jammed media is visible from the standard bin. The operator panel indicates a 202.xx Paper Jam. Grasp the jam, and pull it back away from the bin.



Clearing a jam in the standard bin

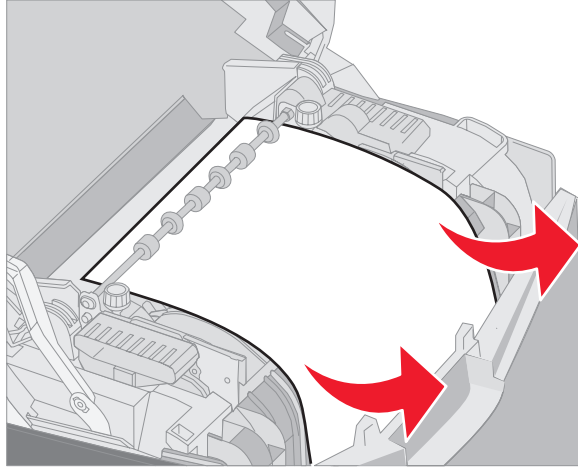
The jammed media is in the standard bin. The operator panel indicates a 203.xx Paper Jam. Grasp the jam, and pull it back away from the bin.



Clearing duplex path jams

The jammed media is under the rollers near the fuser. The operator panel indicates a 203 .xx Paper Jam.

- 1** Open the upper door.
- 2** Grasp the jammed media on each side, and pull it out gently.

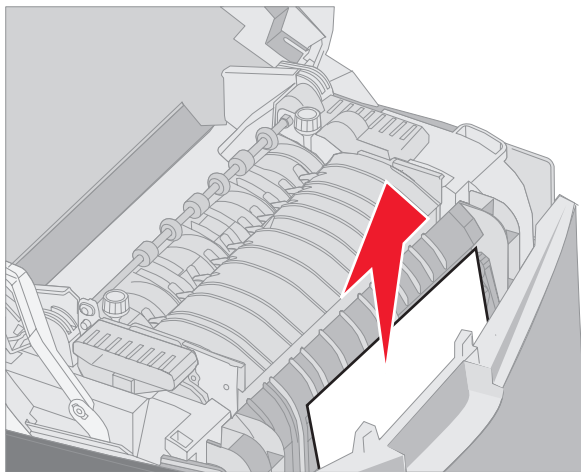


- 3** Close the upper door.

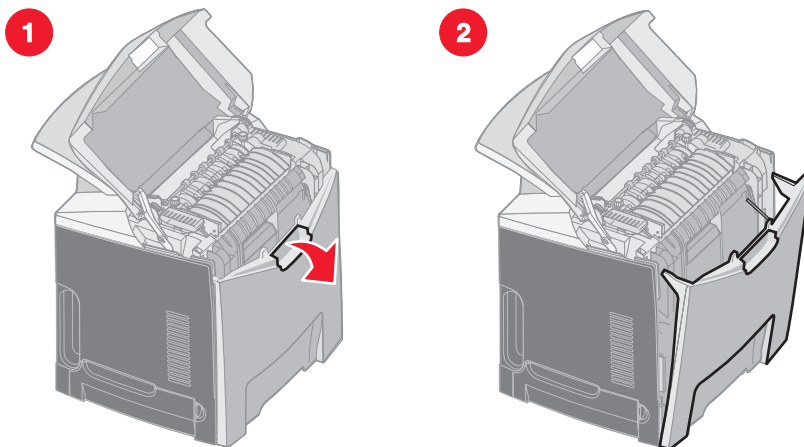
Clearing jams

If the jammed media is caught between the lower door and the inner door, the operator panel indicates a **230.xx Paper Jam**.

- 1 Open the upper door.
- 2 Pull the jammed media straight up.



Note: If most of the jammed media is not visible with the upper door open, open the lower door to access the jam. To open the lower door without also opening the inner door, pull on the lower door handle. Do *not* pull the inner door handle, or both the inner door and the lower door will pull down together.

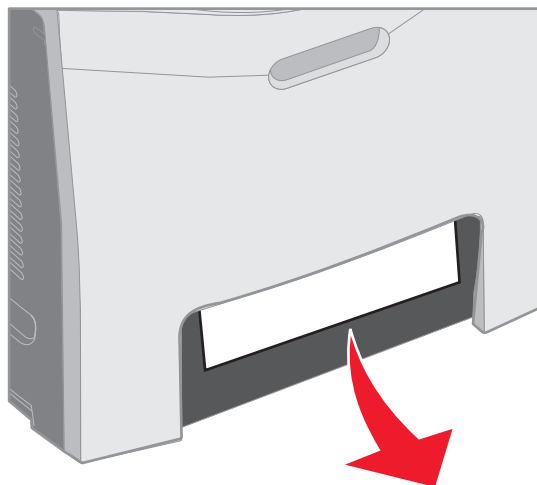


- 3 Close the door(s).

Clearing jams

If the jammed media is caught entering the standard tray (Tray 1), the operator panel indicates a **230.xx Paper Jam**.

- 1 Remove the standard tray.
- 2 Pull the jammed media down and out.

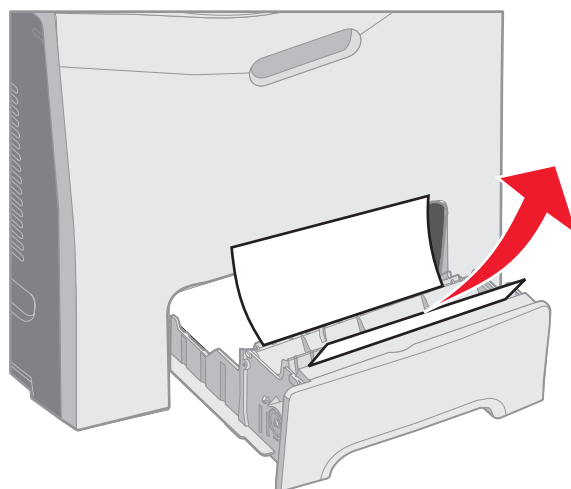


- 3 Install the standard tray.

The jammed media is caught as shown in the standard tray (Tray 1). The operator panel indicates a **200.xx Paper Jam** or a **230.xx Paper Jam**.

- 1 Remove the standard tray.
- 2 Pull the jammed media straight up.

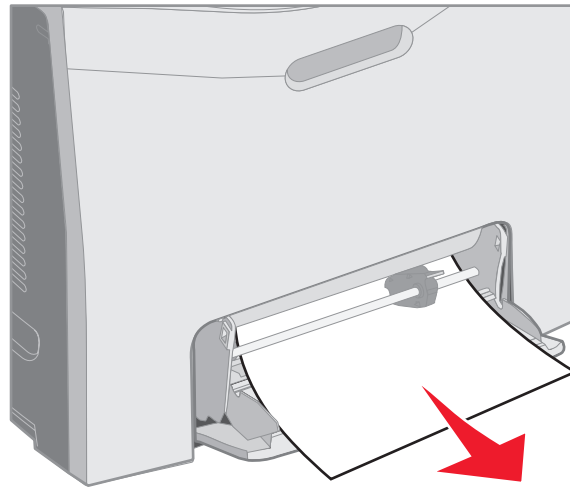
Note: If the media is not visible in this area, pull the tray out completely. Also, look behind the upper and lower doors for the jammed media.



- 3 Install the standard tray.

Clearing jams from the multipurpose feeder

The media jams as it enters the multipurpose feeder. The operator panel indicates a **250.xx Paper Jam**.

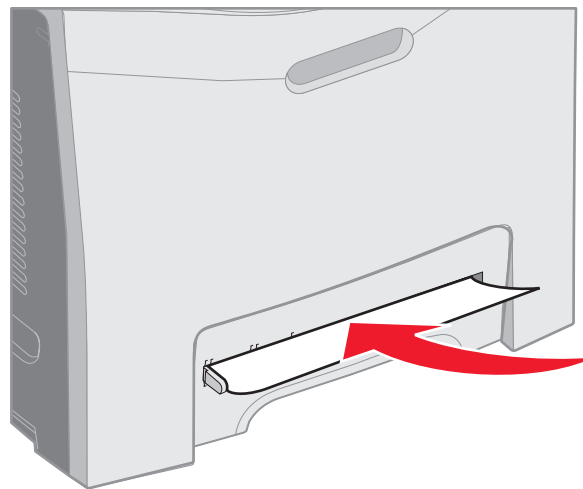


Clearing jams from the manual feed slot

If the media is not placed far enough into the manual feed slot, the printer operator panel issues a message to insert the media. In this case, push the media farther into the slot.

If the media is pushed far enough for the printer to recognize its presence, but not far enough to grasp it in order to feed it, the operator panel indicates a **200.xx Paper Jam**.

Push the media farther into the slot.



8

Maintaining the printer

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

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

If several people are using the printer, designate a key operator to do the setup and maintenance of the 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 the printer, print the menu settings page.

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

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

Conserving supplies

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

Supply	Setting	What the setting does	Other resources
Toner cartridge	Toner Darkness in the Quality Menu in Settings	Allows adjustment of the level of toner released on a sheet of media. The values range from 1 (lightest setting) to 5 (darkest setting).	Toner Darkness in the <i>Menus and Messages Guide</i> on the publications CD
Paper and specialty media	Multipage Print in the Finishing Menu in Settings	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 allows up to 32 pages to print on one sheet of paper (16 images on the front and 16 on the back).	Multipage Print in the <i>Menus and Messages Guide</i> on the publications CD
	Duplex in the Finishing Menu in Settings	Duplex (two-sided) printing allows printing on both sides of a sheet of paper.	Duplex in the <i>Menus and Messages Guide</i> on the publications CD
	Use the software application or printer driver to send a Verify Print job. Use Held Jobs to access a Verify Print job.	Allows time to examine the first copy of a multiple-copy job to be sure it is satisfactory before printing the other copies. If the job is unsatisfactory, cancel the job.	See Verify Print See Canceling a print job Held Jobs in the <i>Menus and Messages Guide</i> on the publications CD See Using the Print and Hold function

Ordering supplies and maintenance items

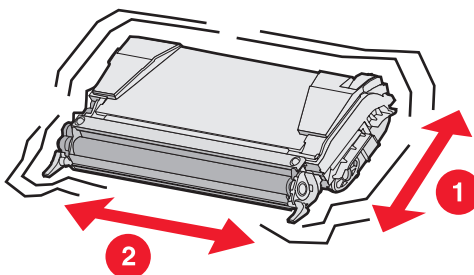
To order supplies in the U.S., contact Lexmark at 1-800-539-6275 for information about Lexmark Authorized Supplies Dealers in your area. In other countries or regions, visit the Lexmark Web site at www.lexmark.com or contact the place where you bought your printer.

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

Ordering toner cartridges

When 88 Cyan cartridge low, 88 Magenta cartridge low, 88 Yellow cartridge low, or 88 Black cartridge low appears on the operator panel or when the print becomes faded, first try to extend the life of the specified cartridge.

- 1 Remove the specified toner cartridge.
- 2 Firmly shake it from front-to-back and from side-to-side several times to redistribute the toner toward the front.



- 3 Reinsert the toner cartridge to continue printing.
- 4 Repeat this procedure multiple times until printed text and graphics remain faded.

Note: Several hundred pages may be printed after one of the messages first appears.

Once the printed text and graphics remain faded, replace the specified toner cartridge. Order an appropriate new cartridge based on the following information.

Estimated toner cartridge yield is based on 5% coverage per color. Extremely low print coverage (less than 1.25% for a color) for extended periods of time may negatively affect actual yield for that color and may cause cartridge parts to fail prior to exhaustion of toner.

The recommended print cartridges specifically designed for the printer are:

Part name	Part Number	For printer(s)
Cyan High Yield Return Program Toner Cartridge	C5240CH	C524
Magenta High Yield Return Program Toner Cartridge	C5240MH	C524
Yellow High Yield Return Program Toner Cartridge	C5240YH	C524
Black High Yield Return Program Toner Cartridge	C5240KH	C524
Cyan High Yield Toner Cartridge	C5242CH	C524
Magenta High Yield Toner Cartridge	C5242MH	C524
Yellow High Yield Toner Cartridge	C5242YH	C524
Black High Yield Toner Cartridge	C5242KH	C524

Maintaining the printer

Part name	Part Number	For printer(s)
Cyan Return Program Toner Cartridge	C5220CS	C522, C524
Magenta Return Program Toner Cartridge	C5220MS	C522, C524
Yellow Return Program Toner Cartridge	C5220YS	C522, C524
Black Return Program Toner Cartridge	C5220KS	C522, C524
Cyan Return Program Toner Cartridge	C5200CS	C520
Magenta Return Program Toner Cartridge	C5200MS	C520
Yellow Return Program Toner Cartridge	C5200YS	C520
Black Return Program Toner Cartridge	C5200KS	C520
Cyan Toner Cartridge	C5222CS	C522, C524
Magenta Toner Cartridge	C5222MS	C522, C524
Yellow Toner Cartridge	C5222YS	C522, C524
Black Toner Cartridge	C5222KS	C522, C524
Cyan Toner Cartridge	C5202CS	C520
Magenta Toner Cartridge	C5202MS	C520
Yellow Toner Cartridge	C5202YS	C520
Black Toner Cartridge	C5202KS	C520

Ordering a photoconductor unit

Order Lexmark part number C52030X. For a multi-pack of photoconductor units, order Lexmark part number C52034X.

Ordering a fuser

Order Lexmark part number 40X1400 for a 120V/50–60Hz printer, 40X1402 for a 220–240V/50–60Hz printer, or 40X1403 for a 100V/50–60Hz printer.

Ordering a transfer belt

Order Lexmark part number 40X1401.

Ordering a waste toner box

Order Lexmark part number C52025X.

Maintaining the printer for long-term storage

If the printer will be turned off a month or longer, remove the fuser first and close the upper door. Store the fuser in a convenient place. See **Removing the fuser for long-term storage** for instructions.

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 individual packages of media out of the original carton are stored, 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.
- Leave media in its package until ready to be used.

Storing the toner cartridges and photoconductor units

Store toner cartridges and photoconductor units in their original packaging until the time for their installation.

Do not store toner cartridges and photoconductor units 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.

Warning: Store the photoconductor units within 10 minutes of removing them to avoid overexposing them to light and do not touch the shiny photoconductor drum.

Replacing the toner cartridges

When one of the following messages appears on the operator panel, the toner cartridge must be replaced soon: **88 Cyan cartridge low**, **88 Magenta cartridge low**, **88 Yellow cartridge low**, **88 Black cartridge low**. Make sure the appropriate toner cartridge is ordered. Replace the toner cartridge when the **88 Replace Cyan cartridge**, **88 Replace Magenta cartridge**, **88 Replace Yellow cartridge**, or **88 Replace Black cartridge** message appears.

See **Ordering toner cartridges** for more information. See **88 Replace <color> cartridge** in the *Menus and Messages Guide* on the publications CD for more information.

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:

- Y Yellow
- C Cyan

Maintaining the printer

M Magenta

K Black

To replace a toner cartridge, see the *Replacing a toner cartridge* sheet that comes with a replacement cartridge.

Once the toner cartridge is replaced, 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 Lexmark products to Lexmark for recycling:

- 1 Visit our Web site:
www.lexmark.com/recycle
- 2 Follow the instructions on the computer screen.

Replacing the photoconductor units

When **84 [color] PC Unit life warning** appears on the operator panel, replace the photoconductor unit soon. Make sure one is on order. See **Ordering a photoconductor unit** for more information.

When **84 Replace [color] PC Unit** appears on the operator panel, replace the photoconductor unit immediately.

To replace a photoconductor unit, see the *Replacing a photoconductor unit* sheet that comes with a replacement photoconductor unit.

Warning: Save the box and packaging from a new photoconductor unit. A bag and a box are needed to store each of the cyan, magenta, and yellow photoconductor units. They are removed and stored to protect them from exposure to light when printing black-only text and art for long periods. For more information on black-only printing, see either **Printing only black text and graphics** or the publication *Printing only black text and graphics*.

Replacing the fuser

When **80 Fuser life warning** appears on the operator panel, replace the fuser soon. Make sure one is on order. See **Ordering a fuser** for more information.

When **80 Replace Fuser** appears on the operator panel, 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.

To replace the fuser, see the *Replacing the fuser* sheet that comes with a replacement fuser.

Replacing the waste toner box

When **82 Waste toner box nearly full** appears on the operator panel, replace the waste toner box soon. Make sure one is on order. See **Ordering a waste toner box** for more information.

When **82 Replace waste toner box** appears on the operator panel, replace the waste toner box immediately.

To replace the waste toner box, see the *Replacing the waste toner box* sheet that comes with a replacement waste toner box.

Replacing the transfer belt

When **83 Transfer belt life warning** appears on the operator panel, replace the transfer belt soon. Make sure one is on order. See **Ordering a transfer belt** for more information.

When **83 Replace transfer belt** appears on the operator panel, replace the transfer belt immediately.

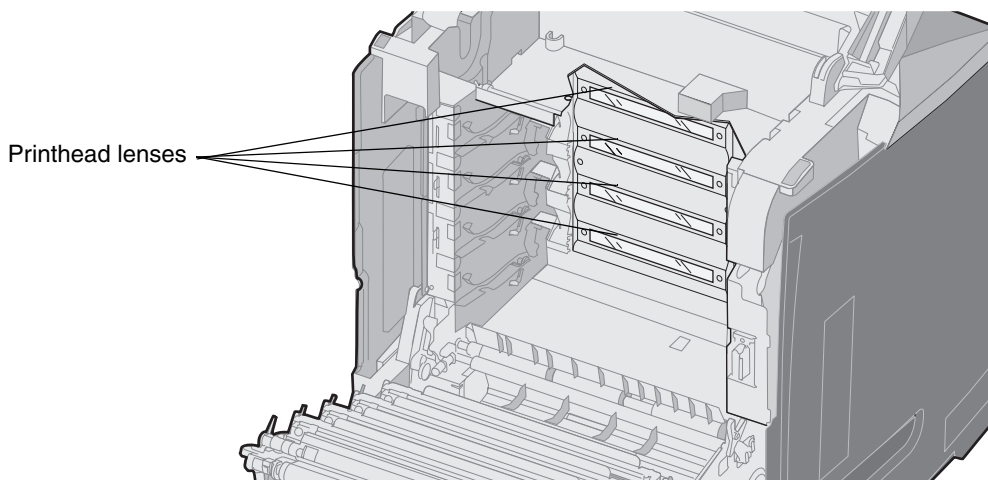
To replace the transfer belt, see the *Replacing the transfer belt* sheet that comes with a replacement transfer belt.

Cleaning the printhead lenses

Clean the printhead lenses when print quality problems become apparent as mentioned in **Solving print quality problems** in the **Troubleshooting** chapter.

Warning: To avoid overexposing the photoconductor units to light, do not leave the inner door open longer than 10 minutes.

- 1 Turn the printer off.
- 2 Open the upper door and the inner door. The lower door comes open with the inner door.
- 3 Remove all four toner cartridges. If help is needed, see the illustration on **page 32**.
- 4 Locate the four printhead lenses as shown.




















- 5 Clean the lenses using a can of compressed air (same as the compressed air used to clean a camera lens).

Warning: Do not touch the printhead lenses or they may be damaged.

- 6 Install the four toner cartridges.
- 7 Close the doors.
- 8 Turn the printer on.

Aligning the toner cartridges for color registration

When the new transfer belt was installed and all the photoconductor units were moved from the used transfer belt to the new one, the alignment of the toner cartridges and photoconductor units may have changed. For better color quality, complete the following steps for color registration:

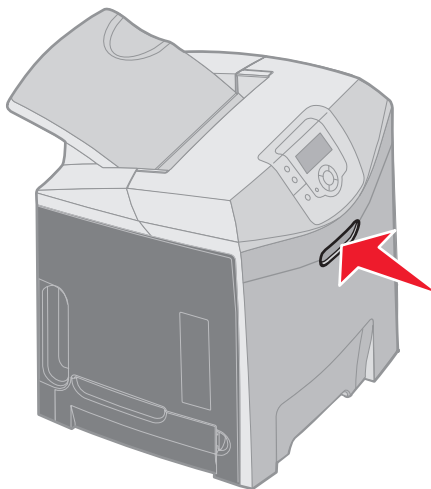
- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
- 3 Release the buttons when the clock appears.
CONFIG MENU appears on the first line of the display.
- 4 Press  until  Color Alignment appears, and then press .
- 5  Print Alignment Page is on the first line, so press .
- Wait as four pages print. Examine each page for the letters A through L.
- 6 Press  until  Set A appears, and then press .
- A screen appears with a number shown in the box. The number is the current alignment.
- 7 On the printed sheet, choose the straightest of the 20 lines beside the letter A.
- 8 Press  to decrease the number, or press  to increase the number shown in the box to make it correspond to the chosen number, and then press .
- The Submitting Selection message appears.
- 9 Repeat step 6 and step 8 to set the new alignment for letters B through L.
- 10 Press .
- 11 Press  until  Exit Config Menu appears, and then press  to complete this procedure.

Removing the fuser for long-term storage

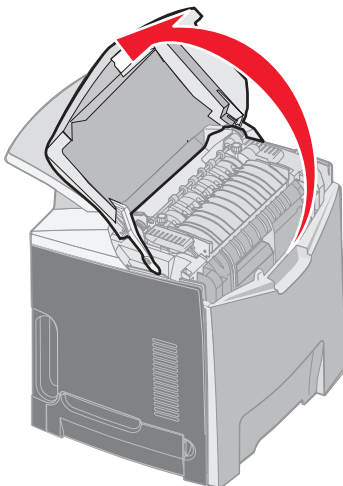
If the printer will be turned off for a month or longer, remove the fuser and store it in a clean and convenient place.

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

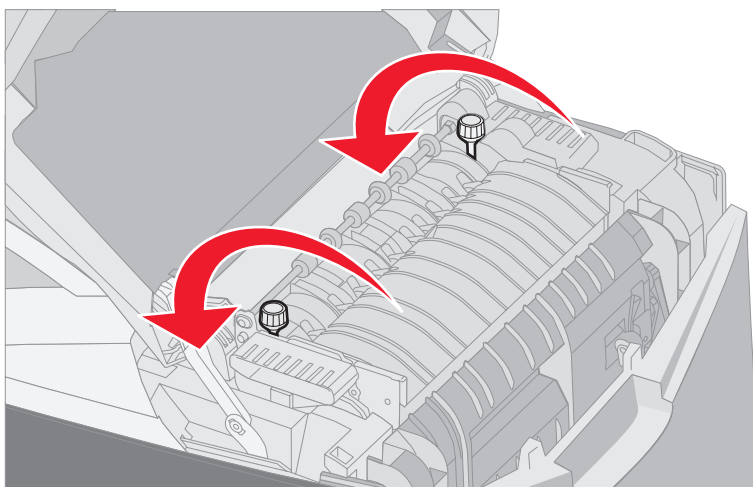
- 1 Turn the printer off.
- 2 Grasp the handhold.



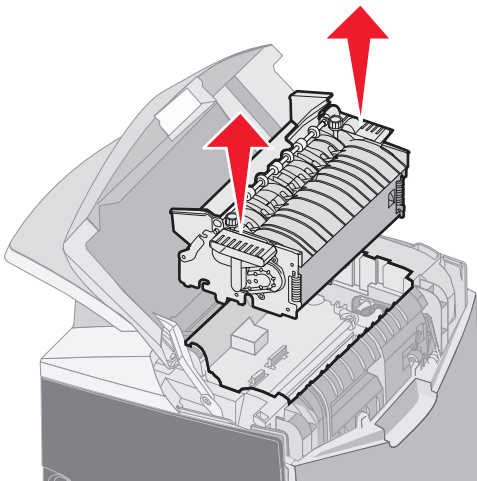
- 3 Open the upper door.



- 4 Turn the thumbscrews counterclockwise to loosen them.



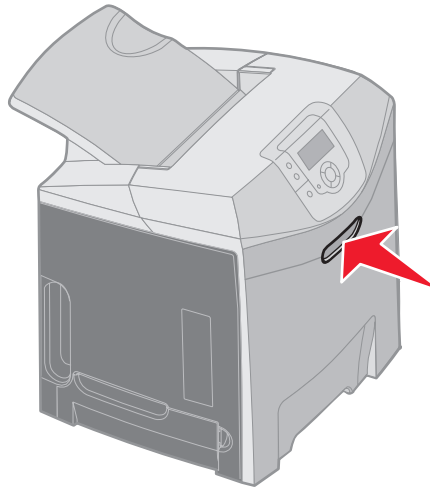
- 5 Grasp the fuser by the handles and lift it straight up.



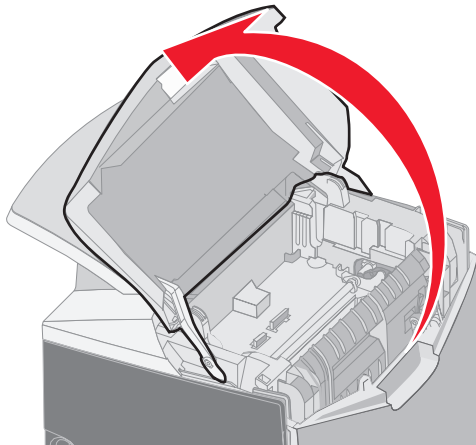
- 6 The fuser could still be hot. Touch it only by the handles.
- 7 Store the fuser in a clean and convenient place.
- 8 Close the upper door.

Replacing the fuser after long-term storage

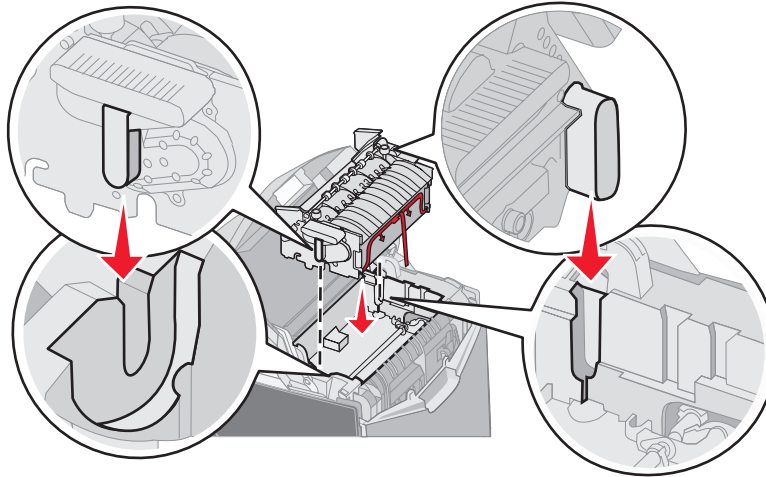
- 1 Grasp the handhold.



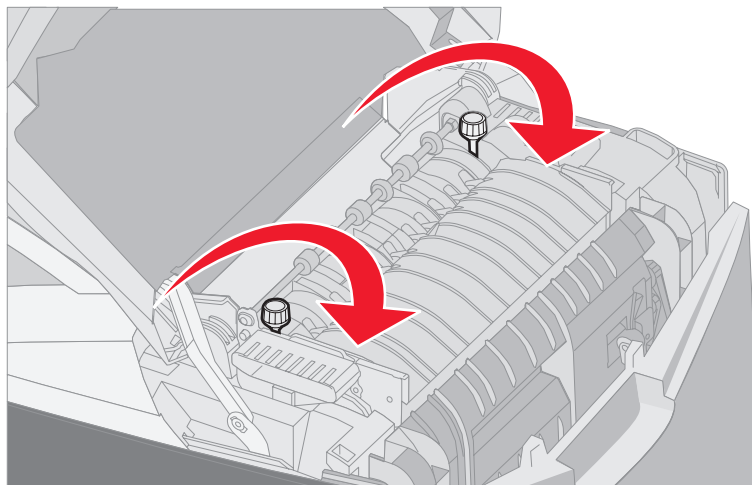
- 2 Open the upper door.



- 3 Grasp the fuser by the handles and align it with its opening. Align the tab on the right with the groove. Align the u-shaped part on the left of the fuser with the u-shaped groove.
- 4 Gently lower the fuser into place. Push it down until it is firmly seated.



- 5 Turn the thumbscrews clockwise to tighten them.



Warning: Make sure the thumbscrews are tightened fully before closing the upper door.

- 6 Close the upper door.
- 7 Turn the printer on.

If the fuser is installed improperly or it is missing, 87 **Fuser Missing** appears on the operator panel. If this message appears, remove the fuser, and reinstall it correctly.

Solving basic printer problems

Sometimes printer problems or an unresponsive printer are very easy to solve. When a problem occurs, 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.
- The printer driver settings are correct.
- All options are properly installed.

If all of the problems listed are checked, and a problem still exists, turn the printer power off, wait for about 10 seconds, and then turn the printer power on. This often fixes the problem.

Note: If an error message appears, see the *Menus and Messages Guide* located on the publications CD for more information.

















Solving display problems

Symptom	Cause	Action
Operator panel shows only diamonds or is blank.	The printer self test failed.	Turn the printer off, wait about 10 seconds, and turn the printer on. The clock appears on the operator panel. When the test is completed, Ready appears. If the messages do not appear, turn the printer off. For technical support, contact the Lexmark Customer Support Center at 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 the settings from the operator panel can be changed.
LCD is too light or too dark.	The LCD Contrast setting is not adjusted.	Adjust the LCD Contrast setting. See Adjusting operator panel contrast .

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.
	The standard bin is full.	Remove the stack of paper from the standard bin.
	The specified tray is empty.	Load paper in the tray. See Loading media for detailed instructions.
	The wrong printer driver is being used or printing to a file has been tried.	Verify the selection of the printer driver associated with the printer. If a USB port is in use, make sure the operating system and printer driver are compatible.
	The MarkNet N8000 Series internal print server is not set up properly or is not connected properly.	Verify the proper configuration for the printer for network printing. See the drivers CD or the Lexmark Web site for information.
	The wrong interface cable is in use, or the cable is not securely connected.	Use a recommended interface cable. See the <i>Setup sheet</i> for cable specifications.

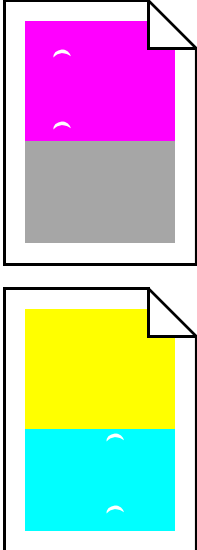
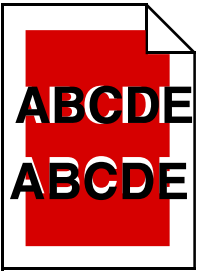
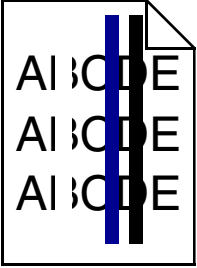
Troubleshooting

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.	Add an optional memory card. Free up additional printer memory by scrolling through the list of held jobs and deleting others 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 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.
	Page Protect is set to On.	Set Page Protect to Off from the Setup Menu in Settings . <ol style="list-style-type: none"> 1 Press . 2 Press  until  Settings appears, and then press . 3 Press  until  Setup Menu appears, and then press . 4 Press  until  Print Recovery appears, and then press . 5 Press  until  Page Protect appears, and then press . 6 Press  until  Off appears, and then press .
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 being printed.
Incorrect characters print.	An incompatible parallel cable is in use.	If using a parallel interface, make sure to use an IEEE 1284-compliant parallel cable. Lexmark part number 1329605 (10 ft) or 1427498 (20 ft) for the standard parallel port are recommended.
	The printer is in Hex Trace mode.	If Ready Hex appears on the display, exit Hex Trace mode; otherwise, the job will not print. 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 Size value in the Paper X Size menu item in the Paper Menu is the same for all linked trays. Make sure the Tray x Type value in the Paper X Type menu item in the Paper Menu is the same for all linked trays. Note: Select the paper source and the size first, and then the screen for Paper Type is shown.
Large jobs do not collate.	Collate is not set to On.	Set Collation to On in the Finishing Menu in Settings or through the printer driver.
	The standard bin media stop is not set to the correct position for the media size.	Set the media stop in the standard bin to the correct position. See Using the media stop for more information.
	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. See the <i>Setup</i> sheet for information on adding an optional memory card and Installing an optional hard disk for adding an optional hard disk.
Unexpected page breaks occur.	The job has timed out.	Set the Print Timeout menu item to a higher value from the Timeouts menu item in the Setup Menu in Settings .

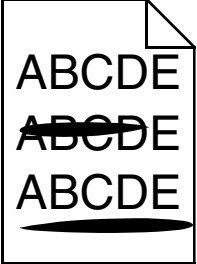
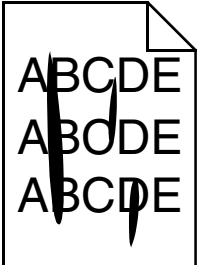
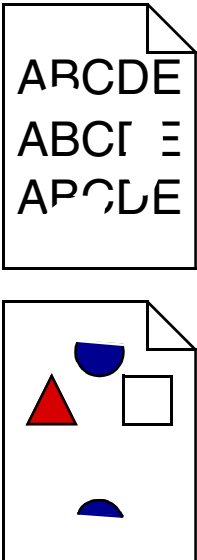
Solving print quality problems

Many print quality problems can be solved by replacing a supply or maintenance item that is approaching 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.

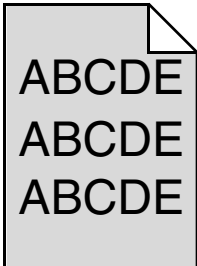
Use the following table to find solutions to print quality problems.

Symptom	Cause	Solution
Repeating defects 	Either the toner cartridges, the photoconductor units, or the fuser are defective.	<p>Marks occur repeatedly only in one color and multiple times on a page:</p> <p>Replace the item if the defects occur every: 33.5 mm (1.32 in.) or 35.7 mm (1.41 in.) for the toner cartridges 28.3 mm (1.11 in.) or 72.4 mm (2.85 in.) for the photoconductor unit</p> <p>Print the Print Quality Test Pages and the <i>Print defects guide</i> to look for defects. See Printing the Print Quality Test Pages for more information. Print the <i>Print defects guide</i> which is available from the Help menu on the printer operator panel.</p> <p>Marks occur down the page repeatedly in all colors:</p> <p>Replace the fuser if the defects occur every 116 mm (4.56 in.).</p>
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.	<ol style="list-style-type: none"> 1 Turn the printer off. 2 Remove and reinstall the photoconductor units. 3 Turn the printer on. 4 Select Color Adjust from the Quality Menu in Settings. <p>If the problem still exists, see Aligning the toner cartridges for color registration for more information.</p>
White or colored line 	Either the toner cartridges, the photoconductor units, or the transfer belt are defective, or toner has accumulated in front of the printhead or on the printhead lens.	<p>Clean any spilled toner in the printer housing near the printhead using a soft, clean, lint-free cloth.</p> <p>Clean the printhead lenses. See Cleaning the printhead lenses.</p> <p>Replace the color toner cartridge causing the line.</p> <p>If the problem still exists, replace the photoconductor units.</p> <p>If the problem continues, replace the transfer belt.</p>

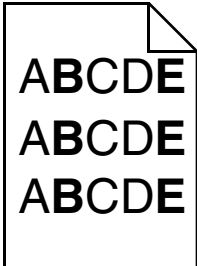
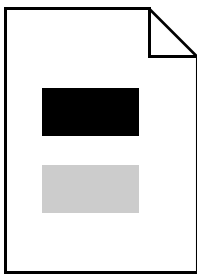
Troubleshooting

Symptom	Cause	Solution
Streaked horizontal lines 	The toner cartridges may be defective, empty, or worn.	Replace the toner cartridges as needed.
	The fuser may be defective or worn.	Replace the fuser.
Streaked vertical lines 	Toner is smeared before fusing to the media.	If media is stiff, try feeding from another tray.
	The toner cartridges are defective.	Replace the color toner cartridge causing the streaks.
	The transfer belt is defective.	Replace the transfer belt.
Print irregularities 	The media has absorbed moisture due to high humidity.	Make sure the media loaded in the source is not damp. Load media from a fresh package.
	The media being used does not meet the printer specifications.	Make sure the printer Paper Type setting matches the type of media being used. Avoid textured media with rough finishes.
	The toner cartridges may be empty.	Replace the needed toner cartridge.
	The fuser is worn or defective.	Replace the fuser.

Troubleshooting

Symptom	Cause	Solution
Print too light	Color Saver in the Quality Menu in Settings could be set to On.	Set Color Saver to Off .
	The Toner Darkness setting in the Quality Menu in Settings is too light, the RGB Brightness setting is too bright, or the RGB Contrast is too high.	Select a different Toner Darkness, RGB Brightness, or RGB Contrast setting from the printer driver before sending the job to print, or return the color settings to the factory defaults.
	The media being used does not meet the printer specifications.	Make sure the media loaded in the source is not damp. Load media from a new package. Avoid textured media with rough finishes.
	The toner cartridges are low on toner.	Shake the specified toner cartridge to utilize the remaining toner. For more information, see Ordering toner cartridges . When print becomes too faded, replace the specified toner cartridge.
	The toner cartridges are defective.	Replace the toner cartridges.
Print too dark	The Toner Darkness setting in the Quality Menu in Settings is too dark, the RGB Brightness setting is too dark, or the RGB Contrast is too low.	Select a different Toner Darkness, RGB Brightness, or RGB Contrast setting from the printer driver before sending the job to print, or return the color settings to the factory defaults.
	The toner cartridges are defective.	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.)	The transparencies being used do not meet the printer specifications. The Paper Type setting for the tray being used is set to something other than Transparency.	Avoid getting fingerprints on the transparencies. 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.	Replace the toner cartridges.
	Toner is in the media path.	Call for customer support.
Toner rubs off the paper easily when the sheets are handled.	A specialty media is being used.	Make sure the correct Media Type is selected.
	The Paper Weight setting in the Paper Menu is wrong for the type of paper or specialty media being used.	Change Paper Weight from Normal to Heavy . If necessary, change Paper Texture from Normal to Rough.
	The fuser is worn or defective.	Replace the fuser.
Gray background 	The Toner Darkness setting in the Quality Menu in Settings is too dark. The toner cartridges are defective.	Select a different Toner Darkness setting from the printer driver before sending the job to print. Remove and reinstall the toner cartridges. Replace the toner cartridges.

Troubleshooting

Symptom	Cause	Solution
Uneven print density 	The toner cartridges are defective.	Replace the toner cartridges.
	The photoconductor units are defective.	Replace the photoconductor units.
Ghost images 	The photoconductor units are not functioning properly.	Make sure the Paper Type setting is correct for the paper or specialty media being used. Replace the photoconductor units. See Repeating defects . Call for customer support.
Clipped images (Some of the print is cut off on the sides, top, or bottom of the paper.)	There could be an incorrect page size selected in the driver or application.	Specify the correct page size in the driver or application.
	Guides in the selected tray are set for a different size media than what is loaded in the tray.	Move the guides in the tray to the proper positions for the size loaded.
Incorrect margins	Guides in the selected tray are set for a different size media than what is loaded in the tray. Auto size sensing is set to Off, but a different size media is loaded in a tray. For example, if A4 size paper is inserted into the selected tray, but the Paper Size was not set to A4.	Move the guides in the tray to the proper positions for the size loaded.
Skewed print (Print is inappropriately slanted.)	Guides in the selected tray are not in the correct position for the media 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 source. The toner cartridges are defective or empty.	Load the correct type media for the print job, or make sure the Paper Type setting is correct for the paper or specialty media being used. Replace the toner cartridges.
Solid color pages	The photoconductor units are defective. The printer requires servicing.	Make sure all packaging is removed from the photoconductor units. See the <i>Setup</i> sheet or <i>Replacing a photoconductor unit</i> . Replace the photoconductor units. Call for customer support.

Troubleshooting

Symptom	Cause	Solution
The media curls badly once it prints and exits to the standard bin.	The Paper Weight setting is wrong for the type of paper or specialty media being used.	Change the Paper Weight setting.
	The media loaded in the source is damp.	Make sure the media loaded in the source is not damp. Load media from a new package.

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. See the <i>Setup sheet</i> 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. See Installing and removing options for installation procedures, and reinstall the option.
	Optional 500-sheet drawer: Make sure the connection between the drawer and the printer is made securely. See Installing the 500-sheet drawer for installation instructions.	
	Optional memory or flash memory card: Make sure the connection between the card and the system board is made securely. See Installing an optional memory card or Installing an optional flash memory or firmware card 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. See Installing an optional flash memory or firmware card for installation instructions.	

Solving media feed problems

Symptom	Cause	Solution
Paper frequently jams.	Media that does not meet the printer specifications is being used.	Use recommended media. See the <i>Card Stock & Label Guide</i> 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.
	Too much paper or too many envelopes are loaded.	Make sure the stack of media loaded does not exceed the maximum stack height indicated by the load line on the tray or the stack height limiter on the multipurpose feeder.
	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 standard tray and Loading the optional 500-sheet tray 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 it is loaded. See Storing media for more information.
	Some printer models do not have a standard bin full sensor.	Remove media from the standard bin.
	The standard bin media stop is not set to the correct position for the media size.	Set the media stop in the standard bin to the correct position. See Using the media stop for more information.
	The multipurpose feeder door is designed to tilt down to prevent damage to it when the lower door is opened. This is a protective feature of the printer.	To reposition the multipurpose feeder door: <ol style="list-style-type: none"> 1 Remove media from the multipurpose feeder. 2 Push the extensions back into place. 3 Close the multipurpose feeder. 4 Open the multipurpose feeder. 5 Grasp the multipurpose feeder extension, and pull it straight out until fully extended. 6 Load media into the multipurpose feeder.
	The fuser may be installed incorrectly. CAUTION: The fuser and the inside of the printer near the fuser may be hot. Wait for the fuser to cool before attempting to solve this problem.	<ol style="list-style-type: none"> 1 Turn the printer off. 2 Open the upper door. 3 Push down on the fuser handles while tightening each fuser thumbscrew. 4 Close the upper door completely. 5 Open the upper door completely. 6 Re-tighten each fuser thumbscrew completely. 7 Close the upper door completely. 8 Turn the printer on.
The Paper Jam message remains after the jam is removed.	The fuser may be damaged.	Replace the fuser.
	The entire media path is not cleared, or the door specified by the message has not been opened 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.

Troubleshooting

Symptom	Cause	Solution
Media falls out of the standard bin when the standard bin is full.	Some printer models do not have a standard bin full sensor.	Remove media from the standard bin.
	The standard bin media stop is not set to the correct position for the media size.	Set the media stop in the standard bin to the correct position. See Using the media stop for more information.
The page that jammed does not reprint after the jam is cleared.	Jam Recovery in Print Recovery the Setup Menu in Settings is set to Off.	Set Jam Recovery to Auto or On.
Blank pages feed into the standard bin.	An incorrect media type is loaded in the tray being printed from.	Load the correct type media for the 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 MarkNet N8000 Series internal print server or external print server is set up properly and the network cable is connected. For more details, see the drivers CD that shipped with the 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.	See the drivers CD that came with the 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 the printer is configured with a serial port, or an optional interface card is installed, see Installing and removing options .
The multipurpose feeder door tilts down when the lower door is opened.	This is an intentional protective feature to prevent damage to the printer when the lower door is opened when the multipurpose feeder is in use. To reposition the multipurpose feeder door: <ol style="list-style-type: none">1 Remove media from the multipurpose feeder.2 Push the extensions back into place.3 Close the multipurpose feeder.4 Open the multipurpose feeder.5 Grasp the multipurpose feeder extension, and pull it straight out until fully extended.6 Load media into the multipurpose feeder.
I cannot find the printer escape codes.	See the <i>Technical Reference</i> available on the Lexmark Web site at www.lexmark.com .

Solving color quality problems

This section helps answer some basic color-related questions and describes how some of the features provided in the **Quality Menu** in **Settings** can be used to solve typical color problems. For more information about the Quality Menu, including the menu selections, see the *Menus and Messages Guide*.

Note: Read **Solving print quality problems**, 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 on the application, see 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.

Color Saver must be Off to adjust **Toner Darkness**.

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 five different color conversion tables available for RGB objects (sRGB Display, Display — True Black, 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 nine Color Samples values correspond to color conversion tables in the printer. Selecting any of the Color Samples values generates a multiple-page printout consisting of hundreds of colored boxes. Either a CMYK or RGB combination is located on each box, depending on 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. If the user finds a box whose color is close to the desired color match, but the user would like to scan the colors in that area in more detail, then the user can access the Detailed Color Samples by using the printer EWS interface, which is only available on network models.

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 provides instructions for modifying the color of an object. **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 on 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). When the printer **Color Correction** setting is set to

Troubleshooting

off, the color is based on the print job information; no color conversion is implemented. 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
		Manual	Manual Color RGB Text Setting
	Graphic	Auto	sRGB Vivid
		Manual	Manual Color RGB Graphics Setting
	Image	Auto	sRGB Display
		Manual	Manual Color RGB Image Setting
CMYK	Text	Auto	US CMYK or EURO CMYK
		Manual	Manual Color CMYK Text Setting
	Graphic	Auto	US CMYK
		Manual	Manual Color CMYK Graphics Setting
	Image	Auto	US 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 adjusts 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.

What are Detailed Color Samples and how do I access them?

This information applies to network models only.

Detailed Color Samples are pages similar to the default pages of color samples accessible from the **Quality Menu** in **Settings** on the printer operator panel or from the "Configuration Menu" in the printer EWS. The default color samples accessed by these methods have an increment value of 10 percent for Red (R), Green (G), and Blue (B) values. Collectively, these values are known as RGB color. If the user finds a value on the pages that is close, but would like to scan more colors in a nearby area, the user can use the Detailed Color Samples to input the desired color value and a more specific or lower increment value. This lets the user print multiple pages of colored boxes that surround a specific color of interest.

To access the pages of Detailed Color Samples, use the printer EWS interface. Select the Color Samples option within the "Configuration Menu." Nine color conversion table options and three buttons called Print, Detailed, and Reset are shown on the options screen.

If the user selects a color conversion table and presses the **Print** button, the printer prints the default color samples pages. If the user selects a color conversion table and presses the **Detailed** button, a new interface becomes available. The interface lets the user enter individual R, G, and B values of the specific color of interest. The user can also enter an increment value that defines the difference between the RGB value that each color box differs by. If the user selects **Print**, a printout generates which consists of the user-specified color and the colors that exist near this color based on the increment value.

This process can be duplicated for Cyan (C), Magenta (M), Yellow (Y), and Black (K) color conversion tables, too. Collectively, these values are known as CMYK color. The default increment is 10 percent for Black, and 20 percent for

Cyan, Magenta, and Yellow. The increment value defined by the user for Detailed Color Samples applies to Cyan, Magenta, Yellow, and Black.

Online technical support

Technical support is available on the Lexmark Web site at **www.lexmark.com**.

Calling for service

When calling for printer service, be prepared to describe the problem or the error message on the display.

Be prepared to give the printer model type and serial number. See the label located on the back of the printer at the right for this information. The serial number is also listed on the menu settings page which can be printed. 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.

The following sections are for a system support person 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.

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 Print and Hold functionality.




- 2 Press and hold  and  while turning the printer on.

- 3 Release the buttons when the clock appears.


CONFIG MENU appears on the first line of the display.




- 4 Press  until  **Panel Menu** appears, then press .

Disable appears on the first line of the display.


- 5 Press  until  **Disable** appears, then press .

The messages **Submitting Selection** and **Disabling Menu** appear briefly in succession. The menus are disabled.

The operator panel returns to **CONFIG MENU** with  **Panel Menu** shown.




- 6 Press  until  **Exit Config Menu** appears, and then press .

Activating Menu Changes and **Resetting the Printer** appear briefly in succession followed by a short appearance of the clock. The operator panel then returns to **Ready**.


Note: Once the menus are disabled, pressing  causes **Menus are Disabled** to appear.




Enabling menus

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

- 2 Press  until  **Enable** appears, and then press .

The messages **Submitting Selection** and **Enabling Menu** appear briefly in succession. The menus are enabled.

The operator panel returns to **CONFIG MENU** with  **Panel Menu** shown.

- 3 Press  until  **Exit Config Menu** appears, and then press .














Activating Menu Changes and **Resetting the Printer** appear briefly in succession followed by a short appearance of the clock. The operator panel then returns to **Ready**.

Restoring factory default settings

When first entering the printer menus from the operator panel, 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 and regions.)

When a new setting is selected 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  to enter the menus.
- 3 Press  until  **Settings** appears, and then press .
- 4 Press  until  **Setup Menu** appears, and then press .
- 5 Press  until  **Factory Defaults** appears, and then press .
- 6 Press  until  **Restore Now** appears, and then press .














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

When Restore is selected:

- 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**.

Adjusting Power Saver

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

- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press  to enter the menus.
- 3 Press  until  **Settings** appears, and then press .
- 4 Press  until  **Setup Menu** appears, and then press .
- 5 Press  until  **Power Saver** appears, and then press .
- 6 Press  or  to decrease or increase the number in the scale for the desired number of minutes, and then press .

























Minute settings available range from 1–240. The menu value **Disabled** is also available if **Energy Conserve** is set to **Disabled**.

The **Submitting Selection** message appears.

Note: The Power Saver setting may also be adjusted by issuing a Printer Job Language (PJM) command. For more information, see the *Technical Reference* available on our Lexmark Web site at www.lexmark.com.

Disabling Power Saver
















Disabling Power Saver is a two-step process. First, the menu item is turned on, and then the menu item is selected.

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
- 3 Release the buttons when the clock appears.
`CONFIG MENU` appears on the first line of the display.
- 4 Press  until  `Energy Conserve` appears, and then press .
- 5 Press  until  `off` appears, and then press .
- `Submitting Selection` appears. The operator panel returns to the `CONFIG MENU`.
- 6 Press  until  `Exit Config Menu` appears, and then press .
- `Resetting the printer` appears briefly. The operator panel returns to `Ready`.
- 7 Press  to enter the menus.
- 8 Press  until  `Settings` appears, and then press .
- 9 Press  until  `Setup Menu` appears, and then press .
- 10 Press  until  `Power Saver` appears, and then press .
- 11 Press  or  until `Disabled` appears is on the display, and then press .
- `Submitting Selection` appears. Power Saver is disabled.



Encrypting the disk

Warning: All resources on the hard disk will be deleted. Resources residing in flash memory or in RAM remain unaffected.

Note: This setting is only available when a hard disk is installed.

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
- 3 Release the buttons when the clock appears.
`CONFIG MENU` appears on the first line of the display.
- 4 Press  until  `Disk Encryption` appears, and then press .
- 5 Press  until  `Enable` appears, and then press .
- `Contents will be lost. Continue?` appears.
- 6 Press  until  `Yes` appears, and then press .
- The Encrypting Disk progress bar appears.
- 7 Press  when the disk encryption finishes.
- 8 Press  until  `Exit Config Menu` appears, and then press .

To disable disk encryption:

- 1 Turn the printer off.
- 2 Press and hold  and  while turning the printer on.
The clock appears followed by `CONFIG MENU`.

- 3 Press ▼ until ✓ **Disk Encryption** appears, and then press ⏴.
- 4 Press ▼ until ✓ **Disable** appears, and then press ⏴.
Contents will be lost. Continue? appears.
- 5 Press ▼ until ✓ **Yes** appears, and then press ⏴.
The Encrypting Disk progress bar appears.
- 6 Press ⏴ when the disk encryption finishes.
- 7 Press ▼ until ✓ **Exit Config Menu** appears, and then press ⏴.

Configuring printer alerts

The printer may be configured in several ways to issue alerts to notify the user when it requires attention.

To access these printer alert menu items:

- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press ⏴ to enter the menus.
- 3 Press ▼ until ✓ **Settings** appears, and then press ⏴.
- 4 Press ▼ until ✓ **Setup Menu** appears, and then press ⏴.
- 5 Press ▼ until ✓ **Alarms**, and then press ⏴.
- 6 Press ▼ to go one of the following menu items listed in the table. Each menu item is a printer alert which can be set. When the menu item needed shows a ✓ in front of it, press ⏴.

Setup Menu — Alarms

Menu item	Function	Value	Result
Alarm Control	Establishes 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, posts a message, and activates the selected alarm type.
		Continuous	
Cartridge Alarm	Gives a choice on how the printer responds when cartridge life is low.	Off	The printer posts a message and continues printing.
		Single	The printer stops printing, posts a message, and activates the selected alarm type.
		Continuous	











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

Selecting **Auto Continue** in **Print Recovery** in the **Setup Menu** in **Settings** may affect how the printer alerts execute. This setting defines how long the printer waits after displaying a message before it resumes printing. For more information, see the *Menus and Messages Guide* located on the publications CD for more information.

Adjusting operator panel contrast

The LCD operator panel contrast can be adjusted through the **Utilities Menu** in **Settings**. For more information, see the *Menus and Messages Guide* located on the publications CD.

To change the LCD Contrast setting:

- 1 Make sure the printer is on and the **Ready** message appears.
- 2 Press  to enter the menus.
- 3 Press  until **Settings** appears, and then press .
- 4 Press  until **Utilities Menu** appears, and then press .
- 5 Press  until **LCD Contrast** appears, and then press .
- 6 Press  to decrease or  to increase the number shown for the setting.
- 7 Press  to complete the adjustment and save the setting as the new user default setting. The printer returns to **Ready**.

Memory requirements

The 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.

An optional hard disk can be installed 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. Lexmark cannot guarantee their reliability, accuracy, or compatibility. Any damage to a Lexmark product caused by third-party memory is not covered by the product warranty. Lexmark may require that all third-party features be removed before a product is supported or serviced.

Using the Print and Hold function

When sending a job to the printer, a user can specify in the driver for the printer to hold the job in memory. When the user is ready to print the job, the user must go to the printer and use the operator panel menus to identify which *held* job to print at this time. One or all confidential jobs may be printed. (See **Understanding the operator panel** for information on using the operator panel.) 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 at a convenient time to be at the printer to retrieve it.

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

Selecting a user name

All held jobs, including confidential jobs, have a user name associated with them. To access all held jobs, first select the user name from a list of user names for print jobs. When the list is presented, press  to scroll through the list. Press  once the user name for the job is found.

Printing and deleting held jobs

Once held jobs are stored in printer memory, use the printer operator panel to specify what to do with one or more of the jobs. Select a held job which could be a confidential job or another type of held job which is not specified on the operator panel. Types of held jobs are Repeat Print, Reserve Print, and Verify Print. Once the user name is selected, the choices are Confidential job or a list of one or more job names.

If a Confidential job is selected, the personal identification number (PIN) specified in the driver when the job was sent must be entered. See the following sections for more information:

- Confidential jobs
- Printing or deleting a confidential job
- Entering a personal identification number (PIN)

Accessing held jobs from the operator panel

To access held jobs from the operator panel:

- 1 At **Ready**, press ▼ until ✓ **Held Jobs** appears, and then press ⏵.
 - 2 Press ▼ until ✓ **user name** appears, where *user name* is the name for the individual user and the name specified when the job was sent to the printer. User name is actually a folder since its sub-selections contain print jobs.
 - 3 Press ⏵.
- ✓ **Confidential jobs** appears on the first line of the display if one has been sent. If this is needed, press ⏵, then see **Printing or deleting a confidential job** and **Entering a personal identification number (PIN)** to print or delete this type of held job.
 - The other lines on the display are other types of held jobs associated with the user name. One print job could be shown if only one job has been sent. If many print jobs have been sent, press ▼ to scroll to see them all. To print or delete this type of held job, continue with the following steps.
- 4 Press ▼ until ✓ appears next to the job requiring printing or deletion, or press ▼ until ✓ **Print all jobs** or ✓ **Delete all jobs** appears, and then press ⏵.
 - 5 Press ▼ until ✓ appears next to **Print 1 copy**, **Print copies**, **Delete**, or **Delete all jobs** based on the needed action for the print job, and then press ⏵. Based on the chosen selection from this list, one of the following occurs:
 - For **Print 1 copy**, one copy prints.
 - For **Print copies**, a second menu appears. Press ▲ or ▼ to scroll to the correct number of copies needed, and then press ⏵.
 - For **Delete**, only the selected job is deleted.
 - For **Delete all jobs**, all held jobs associated with the user name are deleted.

Repeat Print

If a Repeat Print job is sent, the printer prints all requested copies of the job *and* stores the job in memory so the user can print additional copies later. The user may 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 a Reserve Print job is sent, the printer does not print the job immediately, but stores the job in memory so the job may be printed later. The job is held in memory until it is deleted 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 a Verify Print job is sent, the printer prints one copy and holds the remaining copies 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.

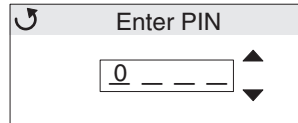
See **Printing and deleting held jobs** if help is needed to print the additional copies stored in memory.

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

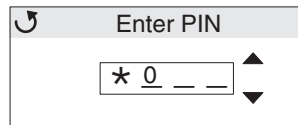
Confidential jobs

When a job is sent to the printer, enter a personal identification number (PIN) from the driver. The PIN must be four digits using the numbers 0–9. The job is then held in printer memory until the same four-digit PIN is entered from the printer operator panel when choosing to print or delete the job. This ensures that the job does not print until the user who sent it is there to retrieve it, and no other user using the printer can print the job.

When the user name is selected and then Confidential Job is selected, the following prompt appears:



Use the ▲ or ▼ buttons and the ⏮ button on the operator panel to enter the four-digit PIN associated with the confidential job. As the PIN is entered, asterisks are displayed to ensure confidentiality.



If a mistake is made, press ⏮ to scroll back to the field with the incorrect number and reenter it.

Once the four numbers are entered, if it is an invalid PIN, the message **Invalid PIN** appears. If this message appears, press ▼ until ✓ **Try again** or ✓ **Cancel** appears, and then press ⏮.

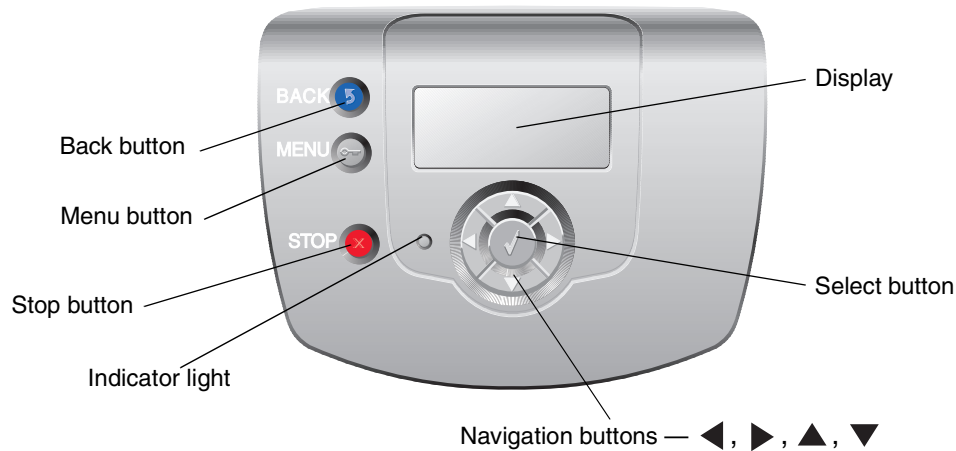
For more information on Confidential jobs, see **Printing or deleting a confidential job** and **Entering a personal identification number (PIN)**.

When a valid PIN is entered, a user has access to all print jobs matching the user name and PIN the user entered. The print jobs matching the entered PIN appear on the display. The user selects a specific job, Print all confidential jobs, or Delete all confidential jobs. The user then selects from Print 1 copy, Print copies, Delete, or Delete all confidential jobs menu items. A user can then choose to print or delete jobs matching the entered PIN. (See **Printing and deleting held jobs** for more information.) After printing the job, the printer deletes the confidential job from memory.

Understanding the operator panel

The operator panel consists of these items:

- 160 x 64 pixel liquid crystal display (LCD)
- Eight buttons (Back, Menu, Stop, Select, ◀, ▶, ▲, and ▼)
- An indicator light












For more information on buttons, see **Buttons** as follows.

Indicator light

The two-toned light emitting diode called the indicator light on the operator panel gives information about the status of the printer using the colors red and green.

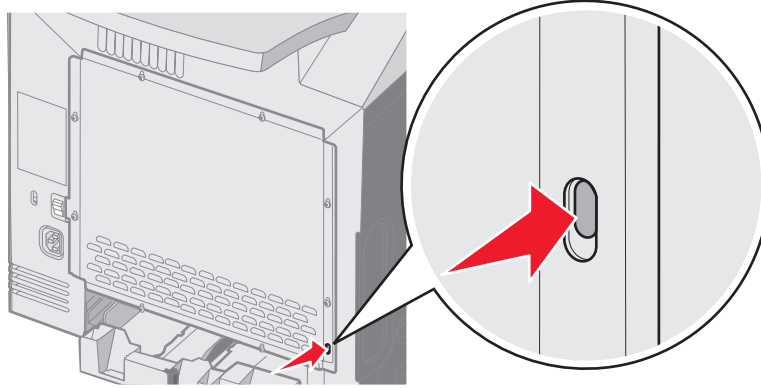
Indicator light status	Indicates
Off	Printer power is off.
Blinking green	Printer is warming up, processing data, or printing a job.
Solid green	Printer is on, but idle.
Solid red	Operator intervention is required.

Buttons

Button	Function
 <p>Note: It has a curved arrow icon.</p>	<p>Press to return to the previous screen.</p> <p>Note: This button is only active if  appears on the top left of the screen.</p>
 <p>Note: It has a key icon.</p>	<p>Press to open the administration menus. These menus are only available when the printer is in the Ready state.</p>
 <p>Note: It has an X icon.</p>	<p>Press  to stop or suspend all job activity. The  functions as a stop button.</p> <p>If printing, pressing  causes the Stop screen to appear on the display.</p>
<p>Navigation arrow buttons (◀, ▶, ▲, ▼)</p>	<p>▲, ▼ — Press these buttons to scroll up or down through menus, menu items, or settings, called menu item values, or to scroll between screens and menu values. Each press moves one item in the list or a different setting for a menu item.</p> <p>◀, ▶ — Press these buttons to scroll items that wrap off of the screen. For menu items with numeric values, such as Copies, press and hold this button to scroll through the values. Release the button when the needed number appears.</p>
 <p>Note: It has a check mark (✓) icon.</p>	<p>The  button functions as a select button. Press this button to:</p> <ul style="list-style-type: none"> • Open a menu and display the first item in the menu (called a menu item). • Open a menu item and display the default setting. • Save the displayed menu item as the new user default setting. The printer issues a Saved or Submitted Selection message and returns to the menu item. <p>Note: When a new setting is saved as the user default setting, it remains in effect until new settings are saved or until factory defaults are restored. Settings chosen from the software application can also change or override the user default settings selected from the operator panel.</p>

Using the security lock feature

The printer is equipped with a security lock feature. When a lock compatible with most laptop computers is attached, the printer is locked. Once locked, the metal plate and the system board cannot be removed. Attach a security lock to the printer in the location shown as follows.



Setting security using the Embedded Web Server (EWS)

To enhance the security of network communications and device configuration, use the advanced security options. These features are available through the Web page of the device.

Setting the system password

Setting the system password protects configuration of the Embedded Web Server. A system password is also required for Secure mode and confidential communication with MVP.

To set the system password:

- 1 Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2 Click **Configuration**.
- 3 Under Other Settings, click **Security**.
- 4 Click **Create Password**, if one has not been set previously. If a password has been set before, click **Change or Remove Password**.

Using the secure Embedded Web Server

The SSL (Secure Sockets Layer) allows for secure connections to the Web server within the print device. To connect to the Embedded Web Server more securely connect to the SSL port instead of the default HTTP port. The SSL port connection will encrypt all Web server network communications between the PC and the printer.

To connect to the SSL port:

- 1 Open the Web browser.
- 2 In the address line, enter the IP address of the printer being configured using the format: *https://ip_address/*.

Supporting SNMPv3 (Simple Network Management Protocol version 3)

SNMPv3 protocol allows for encrypted and authenticated network communications. It also lets the administrator select a desired level of security. Prior to use, at least one user name and password must be established from the settings page. To configure for SNMPv3 through the Embedded Web Server of the printer:

- 1** Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2** Click **Configuration**.
- 3** Under Other Settings, click **Network/Ports**.
- 4** Click **SNMP**.

SNMPv3 authentication and encryption has three levels of support:

- No authentication and no encryption
- Authentication with no encryption
- Authentication and encryption

Note: Only the selected level and higher may be used to communicate.

Supporting IPSec (Internet Protocol Security)

IP Security protocol provides authentication and encryption of communications at the network layer allowing all application and network communications over the IP protocol to be secure. IPSec can be set up between the printer and up to five hosts, using both IPv4 and IPv6. To configure IPSec through the Embedded Web Server:

- 1** Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2** Click **Configuration**.
- 3** Under Other Settings, click **Network/Ports**.
- 4** Click **IPSec**.

Two types of authentication are supported for IPSec:

- **Shared Key Authentication** — Any ASCII phrase shared among all the participating hosts. This is the easiest way to configure when only a few hosts on the network use IPSec.
- **Certificate Authentication** — Allows any hosts or subnet of hosts to authenticate for IPSec. Each host must have a public/private key pair. *Validate Peer Certificate* is enabled by default, requiring each host to have a signed certificate and the certificate authority certificate must be installed. Each host must have its identifier in the *Subject Alternate Name* of the signed certificate.

Note: After a device is configured for IPSec with a host, IPSec is required for any IP communication to take place.

Using Secure mode

The TCP and UDP ports can be configured to one of three modes:

- **Disabled** — Never allows network connections to this port
- **Secure and Unsecure** — Allows the port to remain open, even in Secure mode
- **Unsecured Only** — Allows the port to only open when the printer is not in Secure mode

Note: A password must be set to enable Secure mode. Once enabled, only the ports set to Secure and Unsecure will be open.

To configure the Secure mode for TCP and UDP ports from the Embedded Web Server:

- 1 Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2 Click **Configuration**.
- 3 Under Other Settings, click **Network/Ports**.
- 4 Click **TCP/IP Port Access**.

Note: Disabling ports will disable function on the printer.

Using 802.1x Authenticating

802.1x port authentication allows the printer to join networks that require authentication before allowing access. 802.1x port authentication can be used with the WPA (Wi-Fi Protected Access) feature of an optional internal wireless print server to provide WPA-Enterprise security support.

Support for 802.1x requires the establishment of credentials for the printer. The printer must be known to the Authentication Server (AS). The AS will allow network access to devices presenting a valid set of credentials which typically involves a name/password combination and possibly a certificate. The AS will allow network access to printers presenting a valid set of credentials. The credentials can be managed by using the Embedded Web Server of the printer. To use certificates as part of the credentials:

- 1 Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2 Click **Configuration**.
- 3 Under Other Settings, click **Network/Ports**.
- 4 Click **Certificate Management**.

To enable and configure 802.1x on the Embedded Web Server after installing the required certificates:

- 1 Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2 Click **Configuration**.
- 3 Under Other Settings, click **Network/Ports**.
- 4 Click **802.1x Authentication**.

Note: If an optional internal wireless print server is installed, click **Wireless** instead of **802.1x Authentication**.

Locking the operator panel menus

Operator Panel Menu Lockout allows creation of a PIN number and a choice of specific menus to lock. Each time a locked menu is selected, the user will be prompted to enter the correct PIN at the operator panel. The PIN does not affect any access through the EWS. To lock operator panel menus:

- 1 Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2 Click **Configuration**.
- 3 Under Other Settings, click **Security**.
- 4 Click **Menu Lockout Setup**.

Printing Lockout

Printing Lockout allows locking or unlocking of a printer using an assigned PIN. When locked, every job the printer receives will buffer to the hard disk. A user can print jobs only by entering the correct PIN on the operator panel. A PIN can be assigned through the Web page of the device.

Note: This setting is only available when a hard disk is installed.

Note: Back channel data will be processed while the printer is locked. Reports such as user or event logs can be retrieved from a locked printer.

To set Printing Lockout:

- 1** Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2** Click **Configuration**.
- 3** Under Other Settings, click **Security**.
- 4** Click **Printer Lockout PIN**.

Confidential Print Setup

Confidential Print Setup allows the designation of a maximum number of PIN entry attempts and allows setting an expiration time for print jobs. When a user exceeds a specific number of PIN entry attempts, all of that user's print jobs are deleted. When a user has not printed their jobs within a designated time period, the print jobs are deleted. To activate Confidential Print Setup:

Note: This feature is only available on network models.

- 1** Open the Web browser. In the address line, enter the IP address of the printer being configured using the format: *http://ip_address/*.
- 2** Click **Configuration**.
- 3** Under Other Settings, click **Security**.
- 4** Click **Confidential Print Setup**.

11

Installing and removing options

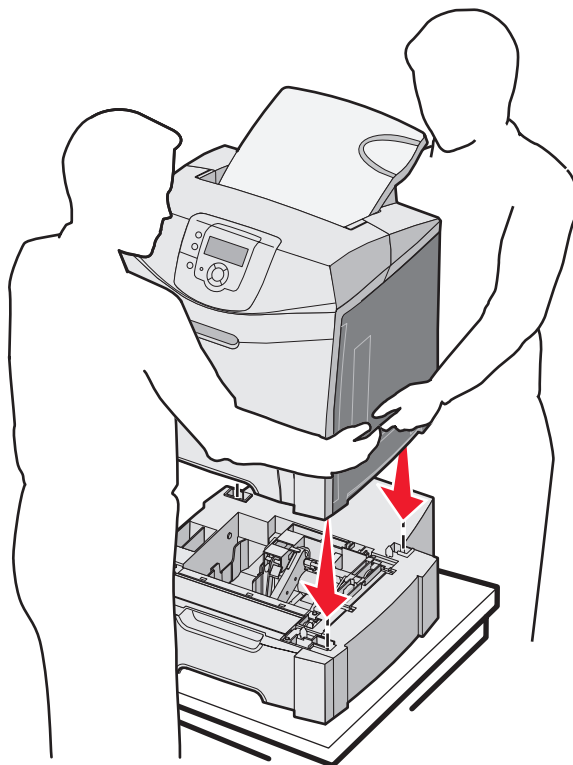
Installing the 500-sheet drawer

The printer supports one optional drawer which allows an additional 500 sheets of paper to be loaded.

CAUTION: If installing a 500-sheet drawer after setting up the printer, turn the printer off and unplug the power cord before continuing.

- 1 Unpack the 500-sheet drawer, and remove any packing material.
- 2 Place the drawer in the location chosen for the printer.
- 3 Align the printer with 500-sheet drawer, and lower the printer into place.

CAUTION: The printer weighs 25.40 kg (56 lb); therefore, it requires at least two people to lift it safely. Use the printer handholds on the sides of the printer to lift it, and make sure your fingers are not under the printer when you set it down.

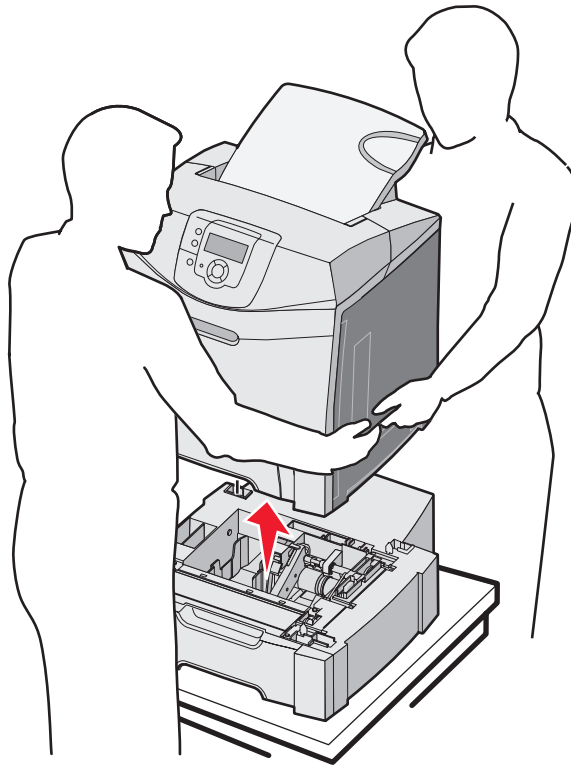


Removing the 500-sheet drawer

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.

- 1 Turn the printer off, and unplug the printer power cord.
- 2 Disconnect all cables from the back of the printer.
- 3 Remove any media from the standard bin.
- 4 Remove any media from the multipurpose feeder, and close the multipurpose feeder.
- 5 Lift the printer off of the optional drawer, and set the printer aside.

CAUTION: The printer weighs 25.40 kg (56 lb); therefore, it requires at least two people to lift it safely. Use the printer handholds on the sides of the printer to lift it, and make sure your fingers are not under the printer when you set it down.



Accessing the system board

Note: This procedure requires a #2 Phillips screwdriver.

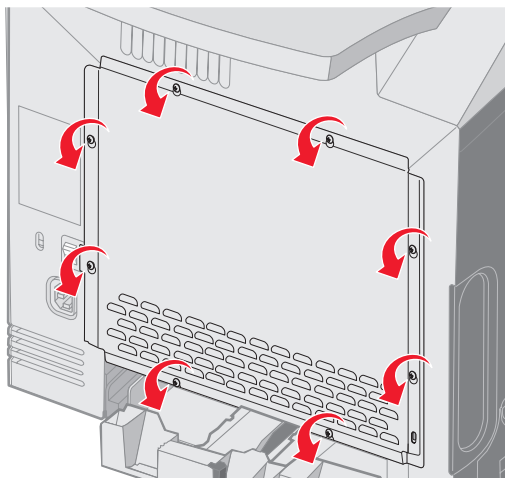
CAUTION: Turn the printer off, and unplug the power cord before continuing.

Note: See **Using the security lock feature** before attempting to access the system board.

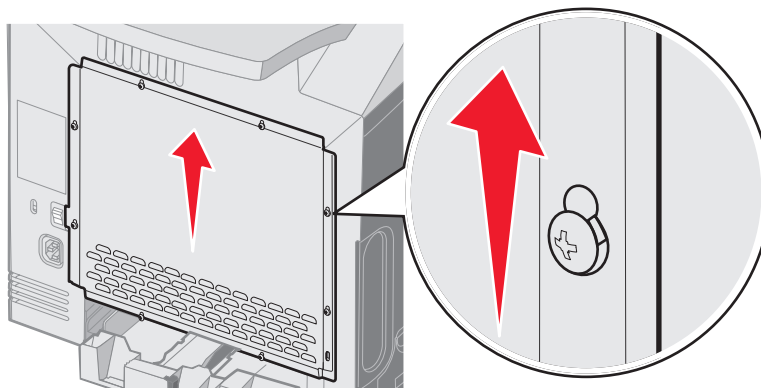
Installing and removing options

To install a memory or flash card, access the system board.

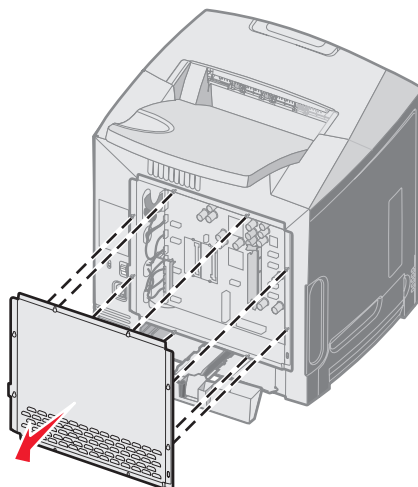
- 1 Notice the eight screws located on the metal plate. Turn the screws counterclockwise until they are loose. Do not remove the screws.



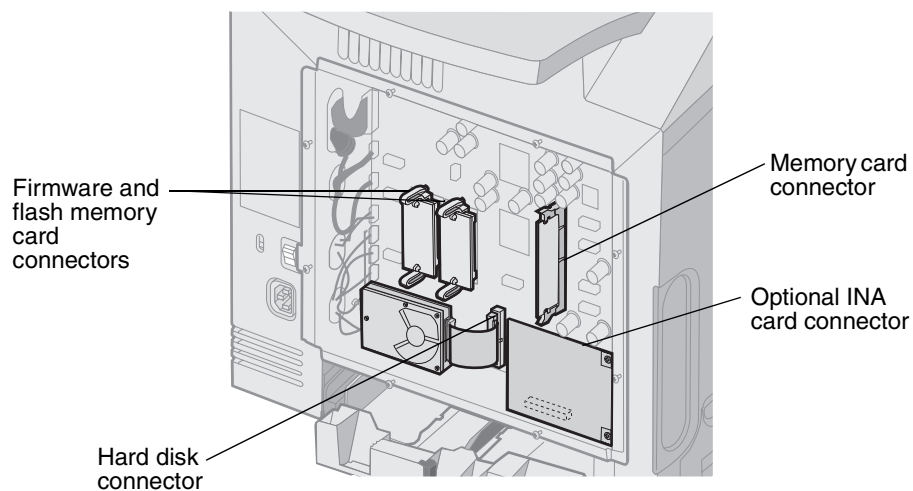
- 2 Lift the metal plate up until each screw is in the keyhole.



- 3 Pull the metal plate forward to remove it.



- 4 Use the illustration to locate the connector for the card being installed.

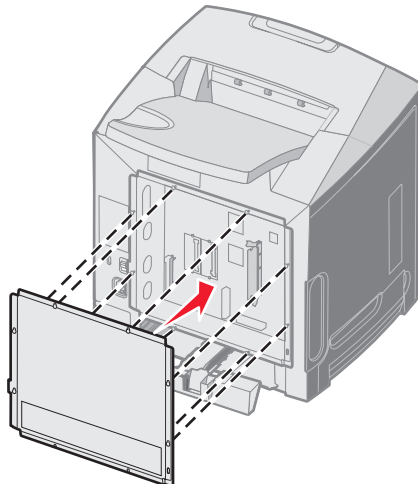


Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

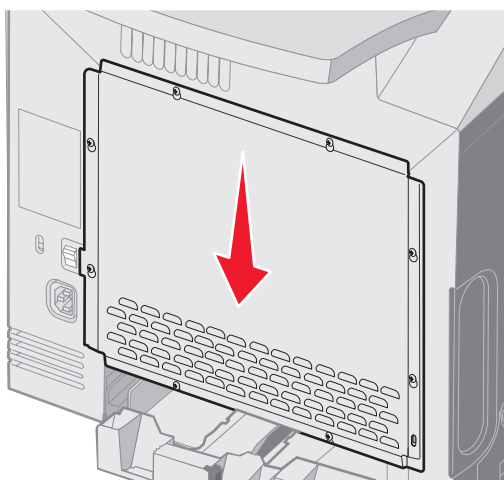
Replacing the system board metal plate

Note: This procedure requires a #2 Phillips screwdriver.

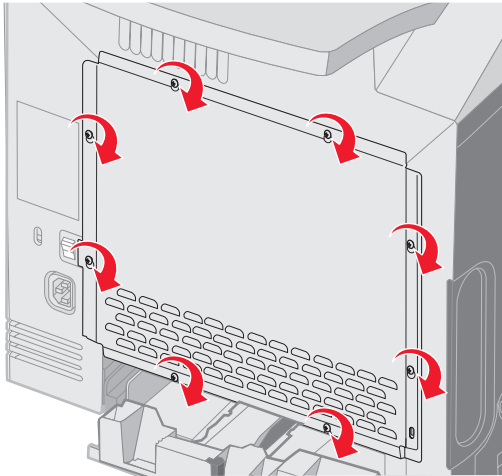
- 1 Align and place the eight keyholes on the system board metal plate onto the screws on the system board.



- 2 Slide the metal plate down.



- 3 Tighten the screws firmly.



Installing an optional memory card

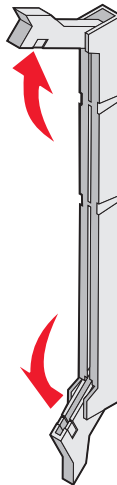
The system board has one connector for an optional memory card.



Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

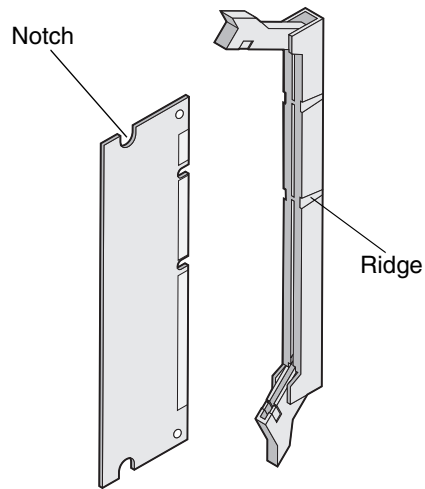
CAUTION: If installing a memory card after setting up the printer, turn the printer off and unplug the power cord before continuing.

- 1 Access the system board (see **Accessing the system board**).
- 2 Open both latches on the connector completely.

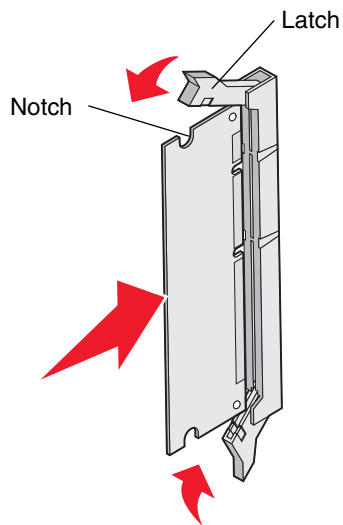


Installing and removing options

- 3 Unpack the memory card. Save the packaging materials.
Avoid touching the connection points along the edge of the card.
- 4 Align the notches on the memory card with the ridges on the connector.



- 5 Push the memory card straight into the connector until it *snaps* into place. Make sure each latch fits over the notch located on either side of the memory card.



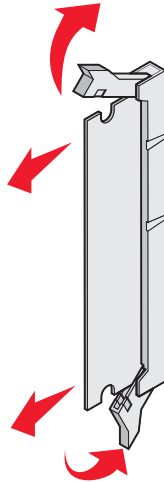
- 6 Replace the metal plate (see **Replacing the system board metal plate**).

Removing a memory card



Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

- 1** Locate the card to remove.
- 2** Push each latch out at each end of the connector.
- 3** Grasp the option card, and pull it gently out of the connector.



- 4** Place the memory card in its original packaging, or wrap it in paper and store it in a box for protection.
- 5** Replace the metal plate. See **Replacing the system board metal plate**.

Installing an optional flash memory or firmware card

The system board has two connectors for an optional flash memory or firmware card. Only one of each may be installed, but the connectors are interchangeable.



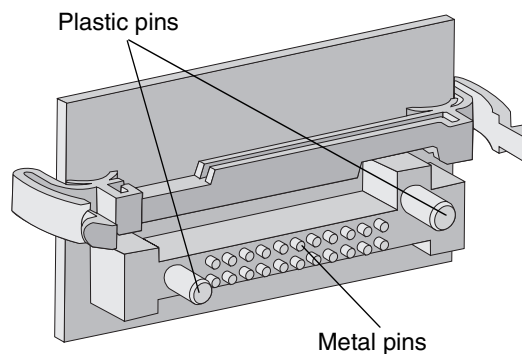
Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

CAUTION: If installing a flash or firmware card after setting up the printer, turn the printer off and unplug the power cord before continuing.

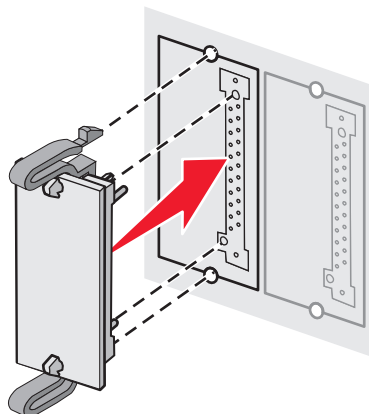
- 1 Access the system board (see **Accessing the system board**).
- 2 Unpack the card. Save the packaging materials.

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

- 3 Holding the card by its sides, align the plastic pins on the card with the holes on the system board.



- 4 Push the card firmly into place.



Note: The entire length of the connector on the card must touch and be flush against the system board. Be careful not to damage the connectors.

- 5 Replace the metal plate (see **Replacing the system board metal plate**).

Removing an optional flash memory or firmware card

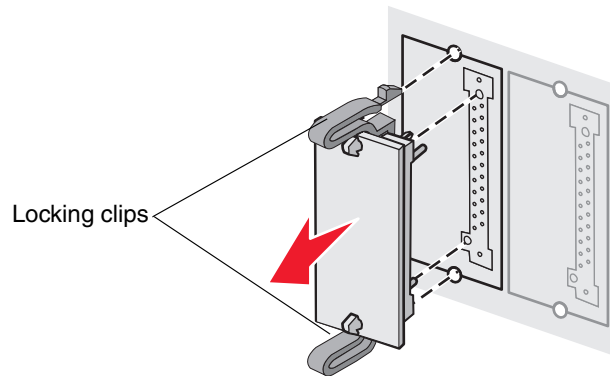
- 1 Select the optional firmware or flash memory card to remove.



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

- 2 While pushing on both locking clips, gently pull the card straight out from the system board. If the card does not come out easily, turn the left edge of the card away slightly and then toward the system board several times continuing to push in on both locking clips, and while pulling gently and evenly on both ends of the card.

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



- 3 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.
- 4 Replace the metal plate. See **Replacing the system board metal plate**.

Installing an optional hard disk

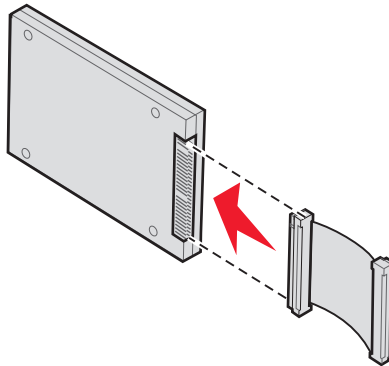
Note: A small Phillips screwdriver is needed to attach the hard disk to the mounting plate.



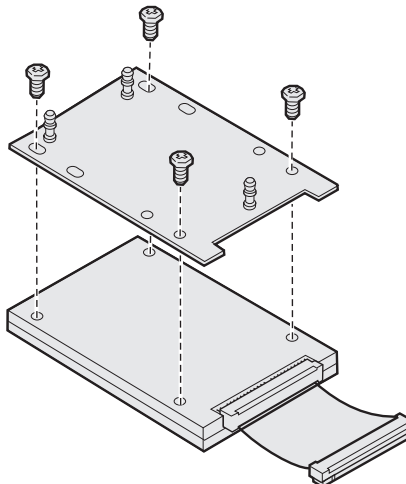
Warning: Hard disks are easily damaged by static electricity. Touch something metal on the printer before touching a disk.

Note: If an option card has been installed, it may need removing before installing the hard disk.

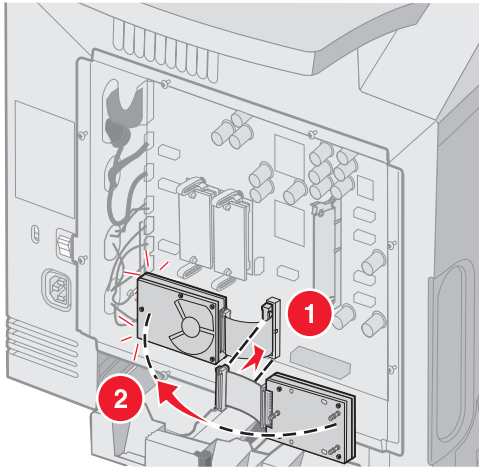
- 1 Remove the system board metal plate (see **Accessing the system board**).
- 2 Remove the mounting plate, hard disk, ribbon cable, and attachment screws from the package.
- 3 Align the ribbon cable connector with the connector pins on the hard disk.
- 4 Attach the ribbon cable to the hard disk.



- 5 Align the screw holes on the mounting plate with the holes in the hard disk.
- 6 Secure the mounting plate to the hard disk with the screws.



- 7 Press the ribbon cable connector into the connector on the system board.
- 8 Flip the hard disk over, and then press the three posts on the mounting plate into the holes on the system board. The hard disk *snaps* into place.



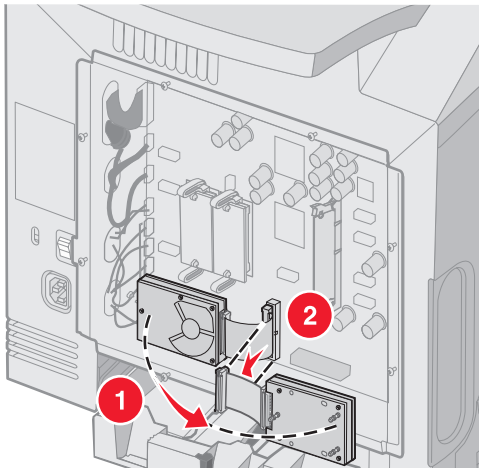
- 9 Replace the metal plate. See **Replacing the system board metal plate**.

Removing an optional hard disk



Warning: Hard disks are easily damaged by static electricity. Touch something metal on the printer before touching a disk.

- 1 Remove the system board metal plate (see **Accessing the system board**).
- 2 Pull the three posts on the mounting plate from the holes on the system board, and flip the hard disk over. Pull the ribbon cable connector from the connector on the system board.



- 3 Replace the metal plate. See **Replacing the system board metal plate**.

Installing an optional INA card

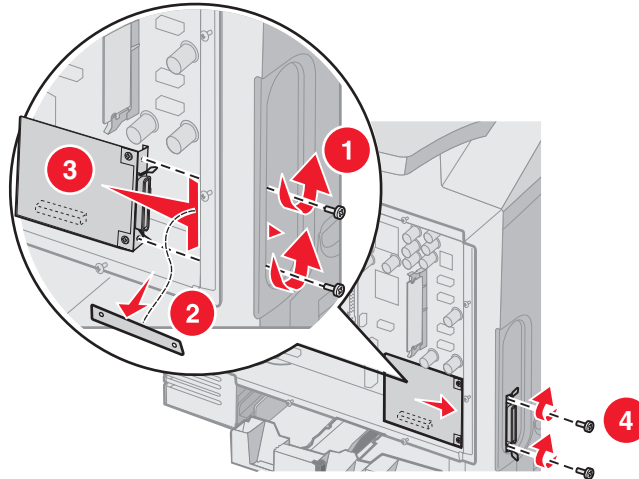


Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

An optional internal print server allows connection from the printer to the local area network (LAN).

Unpack the optional INA card. Save the packing materials. Remove the system board metal plate (see **Accessing the system board**).

- 1 Locate the two screws on the printer that attach the metal plate to the slot. Remove and save the two screws.
- 2 Remove the metal plate covering the connector slot and save the metal plate.
- 3 Align the connector on the optional card with the connector on the system board. The cable connectors on the side of the optional card must fit through the opening in the faceplate. Push the optional card firmly into the option card connector on the system board.



- 4 Insert the two screws saved from the metal plate (or the extra screws shipped with the optional card) into the holes on either side of the connector slot. Gently tighten the screws to secure the card to the system board.
- 5 Replace the system board metal plate. See **Replacing the system board metal plate**.

Removing an optional INA card



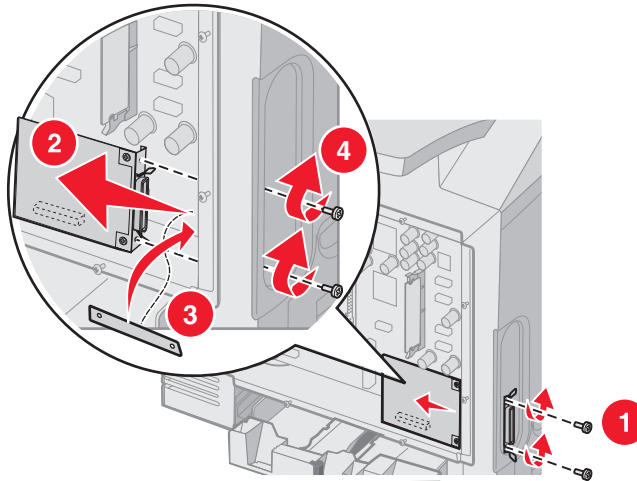
Warning: System board electrical components are easily damaged by static electricity. Touch something metal on the printer before touching any system board electronic components or connectors.

Remove the system board metal plate (see **Accessing the system board**).

- 1 Remove the two screws on either side of the connector slot.
- 2 Pull the optional card straight out of the system board connector.

Note: Place the optional card in its original packaging to avoid damage. If the original packaging was not saved, wrap the card in lint-free paper and store it in a box.

- 3 Align the metal plate, which was removed to install the INA, to cover the connector slot.
- 4 Insert the two screws into the holes, and gently tighten the screws to secure the metal plate to the connector slot.



- 5 Replace the system board metal plate. See **Replacing the system board metal plate**.

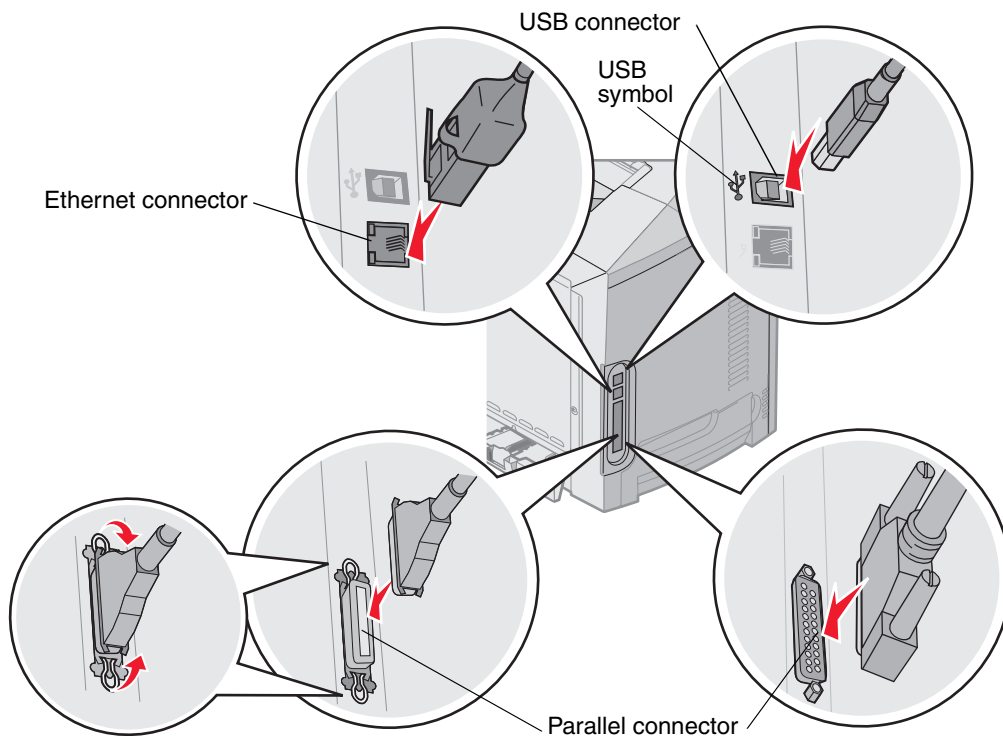
Attaching cables

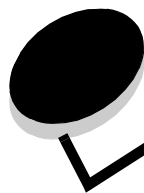
Connect the printer to the computer using the appropriate cable for the configuration.

Connect the printer to the computer using a USB cable, an Ethernet cable, or a parallel cable.

A USB port requires a USB cable. Be sure to match the USB symbol on the cable to the USB symbol on the printer.

Match the appropriate Ethernet cable or parallel cable with the connector shown as follows:





Notices

- **Licensing notice**
- **Conventions**
- **Electronic emission notices**
- **Noise emission levels**
- **ENERGY STAR**
- **Waste from Electrical and Electronic Equipment (WEEE) directive**
- **Laser notice**
- **Statement of Limited Warranty for Lexmark C520, C522, and C524**

Licensing notice

The printer resident software contains software developed and copyrighted by Lexmark.

In addition, the printer resident software may contain:

- Lexmark modified software licensed under the provisions of the GNU General Public License version 2 and/or the GNU Lesser General Public License version 2.1
- Software licensed under the BSD license
- Software licensed under other licenses

Click the title of the document you want to review:

 **BSD License and Warranty statements**

 **GNU General Public License**

 **Other Licenses**

The Lexmark modified third-party software covered by these third-party licenses 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 third-party licensed software the Lexmark modifications are based on 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 GNU licensed software, contact technical support.

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

For source code that is required to be made available with the product, see the publications CD in the en\OpenSource\APSL directory.

Conventions

Note: A *note* identifies something that could help you.

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

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

Static sensitivity notice



Warning: 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 C520, C522, and C524 base and network printers, Types 5022-010, 5022-210, 5022-400, 5022-410, and 5022-430, 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.

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.

Japanese VCCI notice

If this symbol appears on your product, the accompanying statement is applicable.



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ください。

Korean MIC statement

If this symbol appears on your product, the accompanying statement is applicable.



이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 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.

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	All models
Printing	55 dBA
Idling	34 dBA

Energy consumption

The following table documents the power consumption characteristics of the printer

Mode	Description	Power consumption
Printing	Printer is generating hard copy output	350 W
Power Saver	Printer is in energy saving mode	15 W for C520 and C522 17 W for C524
		16 W for C522 18 W for C524 network models and C524 duplex network model

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Power regulation notice

Warning: Electrical surges can be very destructive to equipment connected to AC power sources. If you plan to operate your printer at a voltage exceeding the voltage range(s) in the following table, you must attach a suitably rated and certified power-regulating device (such as a voltage stabilizer or UPS device) to the printer power supply. Your warranty may not cover damages caused by power surges.

Nominal Voltage Range	Maximum Voltage Range
100V–110V AC	90V–117V AC
110V–127V AC	99V–134V AC
220V–240V AC	198V–254V AC

Total energy usage

It is sometimes helpful to calculate the total printer energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the printer spends in each mode in order to calculate energy usage. The total printer energy usage is the sum of each mode's energy usage.

Power Saver

As part of the ENERGY STAR program, this printer is designed with an energy-saving mode called Power Saver. The Power Saver Mode is equivalent to the EPA Sleep Mode. The Power Saver Mode saves energy by lowering power consumption during extended periods of inactivity.

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.

Waste from Electrical and Electronic Equipment (WEEE) directive



The WEEE logo signifies specific recycling programs and procedures for electronic products in countries of the European Union. We encourage the recycling of our products. If you have further questions about recycling options, visit the Lexmark Web site at www.lexmark.com for your local sales office phone number.

Laser notice

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 for Lexmark C520, C522, and C524

Lexmark International, Inc. Lexington, KY

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

This limited warranty applies to this product only 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."

Limited warranty

Lexmark warrants that this product:

Is manufactured from new parts, or new and serviceable used parts, which perform like new parts

Is, during normal use, free from defects in material and workmanship

If this product does not function as warranted during the warranty period, contact a Remarketer or Lexmark for repair or replacement (at Lexmark's option).

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 intended. 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.

Limited warranty service

The warranty period starts on the date of original purchase as shown on the purchase receipt and ends 12 months later provided that the warranty period for any supplies and for any maintenance items included with the printer shall end earlier if it, or its original contents, are substantially used up, depleted, or consumed. Fuser Units, Transport Units, Paper Feed items, if any, and any other items for which a Maintenance Kit is available are substantially consumed when the printer displays a "Life Warning" or "Scheduled Maintenance" message for such item.

To obtain warranty service you may be required to present proof of original purchase. You may be required to deliver your product to the Remarketer or Lexmark, or ship it prepaid and suitably packaged to a Lexmark designated location. You are responsible for loss of, or damage to, a product in transit to the Remarketer or the Lexmark designated 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, damaged beyond repair, or if the product is not free of all legal obligations, restrictions, liens, and encumbrances.

Before you present this product for warranty service, remove all print cartridges, programs, data, and removable storage media (unless directed otherwise by Lexmark).

For further explanation of your warranty alternatives and the nearest Lexmark authorized servicer in your area contact Lexmark on the World Wide Web at <http://support.lexmark.com>.

Notices

Remote technical support is provided for this product throughout its warranty period. For products no longer covered by a Lexmark warranty, technical support may not be available or only be available for a fee.

Extent of limited warranty

Lexmark does not warrant uninterrupted or error-free operation of any product or the durability or longevity of prints produced by any product.

Warranty service does not include repair of failures caused by:

- Modification or unauthorized attachments
- Accidents, misuse, abuse or use inconsistent with Lexmark user's guides, manuals, instructions or guidance
- 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
- Use of printing media outside of Lexmark specifications
- Refurbishment, repair, refilling or remanufacture by a third party of products, supplies or parts
- Products, supplies, parts, materials (such as toners and inks), software, or interfaces not furnished by Lexmark

TO THE EXTENT PERMITTED BY APPLICABLE LAW, NEITHER LEXMARK NOR ITS THIRD PARTY SUPPLIERS OR REMARKETERS MAKE ANY OTHER WARRANTY OR CONDITION OF ANY KIND, WHETHER EXPRESS OR IMPLIED, WITH RESPECT TO THIS PRODUCT, AND SPECIFICALLY DISCLAIM THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND SATISFACTORY QUALITY. ANY WARRANTIES THAT MAY NOT BE DISCLAIMED UNDER APPLICABLE LAW ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES, EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD. ALL INFORMATION, SPECIFICATIONS, PRICES, AND SERVICES ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE.

Limitation of liability

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

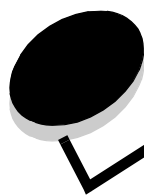
Lexmark's liability for actual damages from any cause whatsoever will be limited to the amount you paid for the product that caused the damages. This limitation of liability will not apply to claims by you for bodily injury or damage to real property or tangible personal property for which Lexmark is legally liable. **IN NO EVENT WILL LEXMARK BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, INCIDENTAL DAMAGE, OR OTHER ECONOMIC OR 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 claims against any Suppliers and Remarketers of Lexmark. Lexmark's and its Suppliers' and Remarketers' limitations of remedies are not cumulative. Such Suppliers and Remarketers are intended beneficiaries 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, so the limitations or exclusions contained above may not apply to you.

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



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