Information guide

Help menu

The Help menu consists of a series of Help pages that are stored in the printer as PDFs. They contain information about using the printer and performing printing tasks.

English, French, German, and Spanish translations are stored in the printer. Other translations are available on the *Software and Documentation* CD.

Menu item	Description
Print All	Prints all the guides
Print Quality	Provides information about solving print quality issues
Printing Guide	Provides information about loading paper and other speciality media
Media Guide	Provides a list of the paper sizes supported in trays, drawers, and feeders
Print Defects	Provides information about resolving print defects
Menu Map	Provides a list of the printer control panel menus and settings
Information Guide	Provides help in locating additional information
Connection Guide	Provides information about connecting the printer locally (USB) or to a network
Moving Guide	Provides instructions for safely moving the printer
Supplies Guide	Provides part numbers for ordering supplies

Setup sheet

The *Setup* sheet packaged with the printer provides information about setting up the printer.

Software and Documentation CD

The *Software and Documentation* CD packaged with the printer includes a *User's Guide*. The *User's Guide* provides information about loading paper, printing, ordering supplies, troubleshooting, clearing jams, and maintaining the printer.

Additional language support

The *User's Guide*, *Setup* sheet, and Help pages are also available in other languages on the *Software and Documentation* CD.

Connection guide

Windows instructions for a locally attached printer

Before installing printer software for Windows

A locally attached printer is a printer connected to a computer using a USB cable or parallel cable. When setting up this type of printer with a USB cable, install the printer software *before* connecting the USB cable. For more information, see the setup documentation.

The *Software and Documentation* CD can be used to install the necessary printer software on most Windows operating systems.

Note: If the operating system is not supported by the *Software and Documentation* CD, the Add Printer Wizard must be used.

Updates for the printer software may be available on the Lexmark Web site at **www.lexmark.com.**

Installing software using the CD

Using the *Software and Documentation* CD, you can install printer software for the following operating systems:

- Windows Server 2008
- Windows Vista
- Windows Server 2003
- Windows XP
- Windows 2000

1 Insert the *Software and Documentation* CD. Wait for the Welcome screen to appear.

If the Welcome screen does not appear after a minute, do one of the following:

In Windows Vista:

a Click ![icon].

b In the Start Search box, type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

In Windows XP and earlier:

a Click **Start**.

b Click **Run**.

c Type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

2 Press **Enter**.

3 Select **Install Printer and Software**.

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

5 Select **Local Attach**, and then click **Next**.

The printer software is copied to your computer.

6 Connect the USB or parallel cable, and then turn on the printer.

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

Installing software using the Add Printer Wizard

You can install printer software for the following operating systems:

- Windows 98 First Edition (USB not supported)
- Windows 95 (USB not supported)

1 Insert the *Software and Documentation* CD.

If the CD automatically starts, click **Exit**.

2 Click **Start ➜ Settings ➜ Printers**, and then click **Add Printer** to start the Add Printer Wizard.

3 When prompted, select to install a local printer, and then click **Have Disk**.

4 Specify the location of the printer software. The path should be similar to `D:\Drivers\Print\Win_9xMe\`, where **D** is the letter of your CD or DVD drive.

5 Click **OK**.

Windows instructions for network attached printers

What is network printing?

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

Printing method	Example
IP printing • Printer is connected directly to the network using a network cable, such as an Ethernet cable. • Printer software is typically installed on each network computer.	
Shared printing • Printer is connected to one of the computers on the network using a local cable, such as a USB or parallel cable. • Printer software is installed on the computer attached to the printer. • During software installation, the printer is set up to be "shared" so that other network computers can print to it.	

Installing software for direct IP printing

1 Insert the *Software and Documentation* CD. Wait for the Welcome screen to appear.

If the Welcome screen does not appear after a minute, do one of the following:

In Windows Vista:

a Click .

b In the Start Search box, type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

In Windows XP and earlier:

a Click **Start**.

b Click **Run**.

c Type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

2 Press **Enter**.

3 Select **Install Printer and Software**.

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

   Note: Select **Custom** instead of **Suggested** to select the components you want to install.

5 Select **Network Attach**, and then click **Next**.

6 Select the printer model you are installing.

   The printer is automatically discovered on the network, and an IP address is automatically assigned.

7 From the list of discovered printers, select the one you want to print to.

   Note: If the printer does not appear in the list, click **Add Port**, and then follow the instructions on the screen.

8 Click **Finish** to complete the installation.

9 Click **Done** to exit the installer.

Installing optional printer software

If you want to use any of the other programs available on the *Software and Documentation* CD, install them by following the Custom install path:

1 Insert the *Software and Documentation* CD. Wait for the Welcome screen to appear.

   If the Welcome screen does not appear after a minute, do one of the following:

In Windows Vista:

a Click .

b In the Start Search box, type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

In Windows XP and earlier:

a Click **Start**.

b Click **Run**.

c Type `D:\setup.exe`, where **D** is the letter of your CD or DVD drive.

2 Press **Enter**.

3 Select **Install Printer and Software**.

4 Select **Custom**, and then click **Next**.

5 Select **Select Components**, and then click **Next**.

6 Specify whether to install software on the **Local** computer or on a **Remote** computer on your network, and then click **Next**.

7 Click the **+** boxes under Select Components to view the list of available software.

8 Select the check box next to each program you want to install, and then click **Finish**.

The software is copied to the computer.

9 Connect the USB or parallel cable, and then turn the printer on.

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

Macintosh instructions for a locally attached printer

Before installing printer software for Macintosh

A locally attached printer is a printer connected to a computer using a USB cable. When setting up this type of printer, install the printer software *before* connecting the USB cable. For more information, see the setup documentation.

The *Software and Documentation* CD can be used to install the necessary printer software.

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

Creating a print queue

For local printing, you need to create a print queue:

1 Install a PostScript Printer Description (PPD) file on the computer. A PPD file provides detailed information to the Macintosh computer about the capabilities of the printer.

   a Insert the *Software and Documentation* CD.

   b Double-click the installer package for the printer.

   c From the Welcome screen, click **Continue**, and then click **Continue** again after viewing the Readme file.

   d Click **Continue** after viewing the license agreement, and then click **Agree** to accept the terms of the agreement.

   e Select a Destination, and then click **Continue**.

   f From the Easy Install screen, click **Install**.

   g Enter the user password, and then click **Okay**. All the necessary software is installed on the computer.

   h Click **Close** when installation is complete.

2 Do one of the following:

- In Mac OS X version 10.5:

   a From the Apple menu, choose **System Preferences**.

   b Click **Print & Fax**.

- In Max OS X version 10.4 and earlier:

   a From the Go menu, choose **Applications**.

   b Double-click **Utilities**, and then double-click **Print Center** or **Printer Setup Utility**.

3 Verify that the print queue was created:

- If the USB-attached printer appears in the Printer list, then the print queue was successfully created.

- If the USB-attached printer does not appear in the Printer list, then make sure the USB cable is properly connected and the printer is turned on, and then check the Printer list again.

Mac instructions for network-attached printers

Installing software for network printing

To print to a network printer, each Macintosh user must install a custom PostScript Printer Description (PPD) file and create a print queue in Print & Fax, Print Center, or Printer Setup Utility.

1 Install a PPD file on the computer:

   a Insert the *Software and Documentation* CD.

   b Double-click the installer package for the printer.

   c From the Welcome screen, click **Continue**, and then click **Continue** again after viewing the Readme file.

   d Click **Continue** after viewing the license agreement, and then click **Agree** to accept the terms of the agreement.

   e Select a Destination, and then click **Continue**.

   f From the Easy Install screen, click **Install**.

   g Enter the user password, and then click **OK**.
      All the necessary software is installed on the computer.

   h Click **Close** when installation is complete.

2 Create a print queue:

- For IP printing:

In Mac OS X version 10.5

   a From the Apple menu, choose **System Preferences**.

   b Click **Print & Fax**.

   c Click **+**.

   d Select the printer from the list.

   e Click **Add**.

In Mac OS X version 10.4 and earlier

   a From the Go menu, choose **Applications**.

   b Double-click **Utilities**.

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

   d From the Printer List, click **Add**.

   e Select the printer from the list.

   f Click **Add**.

- For AppleTalk printing:

In Mac OS X version 10.5

   a From the Apple menu, choose **System Preferences**.

   b Click **Print & Fax**.

   c Click **+**.

   d Click **AppleTalk**.

   e Select the printer from the list.

   f Click **Add**.

In Mac OS X version 10.4 and earlier

   a From the Go menu, choose **Applications**.

   b Double-click **Utilities**.

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

    d   From the Printer List, click **Add**.

    e   Choose the **Default Browser** tab.

    f   Click **More Printers**.

    g   From the first pop-up menu, choose **AppleTalk**.

    h   From the second pop-up menu, select **Local AppleTalk zone**.

    i   Select the printer from the list.

    j   Click **Add**.

Installing other software for Macintosh

The following Macintosh utilities can be found on the *Software and Documentation* CD:

- Printer File Loader
- Printer Status
- Auto Updater
- Printer Settings

The *Software and Utilities* documentation is copied to the Macintosh hard disk during the printer installation process.

Media guide

The printer supports the following paper and other specialty media sizes. Select custom sizes up to the maximum specified for the Universal setting.

Supported paper sizes, types, and weights

The following tables provide information on standard and optional paper sources, the types of paper they support, and capacities.

Note: For an unlisted paper size, select the closest *larger* listed size.

Paper sizes supported by the printer

Paper size	Dimensions	250- or 550-sheet trays (standard or optional)	Optional 2000-sheet tray	Multipurpose feeder	Duplex unit
A4	210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓
A5	148 x 210 mm (5.8 x 8.3 in.)	✓	X	✓	✓
A6[1,2]	105 x 148 mm (4.1 x 5.8 in.)	X	X	✓	X
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	✓	X	✓	✓
Letter	216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓
Legal	216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	✓
Executive	184 x 267 mm (7.3 x 10.5 in.)	✓	X	✓	✓
Oficio[1]	216 x 340 mm (8.5 x 13.4 in.)	✓	X	✓	✓
Folio[1]	216 x 330 mm (8.5 x 13 in.)	✓	X	✓	✓
Statement[1]	140 x 216 mm (5.5 x 8.5 in.)	✓	X	✓	X

[1] This size appears in the Paper Size menu only when the paper source does not support size sensing or when size sensing is turned off.

[2] Only the standard output bin supports this size.

[3] This size setting formats the page for 216 x 356 mm (8.5 x 14 in.) unless the size is specified by the software application.

[4] To support duplexing, the Universal width must be between 148 mm (5.8 in) and 216 mm (8.5 in); Universal length must be between 182 mm (7.2 in) and 356 mm (14 in).

Paper size	Dimensions	250- or 550-sheet trays (standard or optional)	Optional 2000-sheet tray	Multipurpose feeder	Duplex unit
Universal[2,3]	138 x 210 mm (5.5 x 8.3 in.) up to 216 x 356 mm (8.5 x 14 in.)	√	X	√	X
	70 x 127 mm (2.8 x 5 in.) up to 216 x 356 mm (8.5 x 14 in.)	X	X	√	X
	148 x 182 mm (5.8 x 7.7 in.) up to 216 x 356 mm (8.5 x 14 in.)	√	X	√	√
7 3/4 Envelope (Monarch)	98 x 191 mm (3.9 x 7.5 in.)	X	X	√	X
9 Envelope	98 x 225 mm (3.9 x 8.9 in.)	X	X	√	X
10 Envelope	105 x 241 mm (4.1 x 9.5 in.)	X	X	√	X
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	X	X	√	X
Other Envelope	98 x 162 mm (3.9 x 6.4 in.) to 176 x 250 mm (6.9 x 9.8 in.)	X	X	√	X

[1] This size appears in the Paper Size menu only when the paper source does not support size sensing or when size sensing is turned off.

[2] Only the standard output bin supports this size.

[3] This size setting formats the page for 216 x 356 mm (8.5 x 14 in.) unless the size is specified by the software application.

[4] To support duplexing, the Universal width must be between 148 mm (5.8 in) and 216 mm (8.5 in); Universal length must be between 182 mm (7.2 in) and 356 mm (14 in).

Note: An optional 250-sheet Universally Adjustable Tray is available for sizes smaller than A5, such as index cards.

Paper types and weights supported by the printer

The printer engine supports 60–176 g/m^2 (16–47 lb) paper weights. The duplex unit supports 63–170 g/m^2 (17–45 lb) paper weights.

Paper type	250- or 550-sheet trays (standard or optional)	Optional 2000-sheet tray	Multipurpose feeder	Duplex unit
Paper • Plain • Bond • Colored • Custom • Letterhead • Light • Heavy • Preprinted • Rough/Cotton • Recycled	✓	✓	✓	✓
Card stock	✓	✓	✓	✓
Envelopes	X	X	✓	X
Labels [1] • Paper • Vinyl	✓	✓	✓	✓
Transparencies	✓	✓	✓	✓

[1] Printing labels requires a special label fuser cleaner which prevents duplexing. The label fuser cleaner is included with the special cartridge required for label applications.

Paper types and weights supported by the finisher

Use this table to determine the possible output destinations of print jobs which use supported paper types and weights. The paper capacity of each output bin is listed in parentheses. Paper capacity estimations are calculated based on 75 g/m^2 (20 lb) paper.

The Finisher supports 60–176 g/m^2 (16–47 lb) paper weights.

Paper type	Finisher standard bin (250 or 550 sheets)	Output Expander (550 sheets) or High Capacity Output Stacker (1850 sheets)	5-Bin Mailbox (500 sheets)[1]	StapleSmart™ Finisher (500 sheets[2])
Paper • Plain • Bond • Colored • Custom • Letterhead • Light • Heavy • Preprinted • Rough/Cotton • Recycled	✓	✓	✓	✓
Card stock	✓	✓	X	✓
Envelopes	✓	✓	X	X
Labels [3] • Paper • Vinyl	✓	✓	X	X
Transparencies	✓	✓	X	X
[1] Supports 60-90 g/m^2 (16-24 lb) paper weights.				
[2] Maximum of 50 sheets per stapled packet.				
[3] Printing labels requires a special label fuser cleaner which prevents duplexing. The label fuser cleaner is included with the special cartridge required for label applications.				

Configuring Universal paper settings

The Universal Paper Size is a user-defined setting that lets you print on paper sizes that are not preset in the printer menus. Set the Paper Size for the specified tray to Universal when the size you want is not available from the Paper Size menu. Then, specify all of the following Universal size settings for your paper:

- Units of measure (millimeters or inches)
- Portrait Width
- Portrait Height
- Feed Direction

Note: The smallest supported Universal size is 70 x 127 mm (2.8 x 5 in.); the largest is 216 x 356 mm (8.5 x 14 in.).

Specify a unit of measurement

1 Make sure the printer is on and `Ready` appears.

2 From the printer control panel, press ⊶.

3 Press the arrow buttons until √ `Paper Menu` appears, and then press ☑.

4 Press the arrow buttons until √ `Universal Setup` appears, and then press ☑.

5 Press the arrow buttons until `Units of Measure` appears, and then press ☑.

6 Press the arrow buttons until √ appears next to the correct unit of measure, and then press ☑.

   `Submitting Selection` appears, followed by the `Universal Setup` menu.

Specify the paper height and width

Defining a specific height and width measurement for the Universal paper size (in the portrait orientation) allows the printer to support the size, including support for standard features such as duplex printing and printing multiple pages on one sheet.

1 From the Universal Setup menu, press the arrow buttons until `Portrait Width` appears, and then press ☑.

2 Press the arrow buttons to change the paper width setting, and then press ☑.

   `Submitting Selection` appears, followed by the `Universal Setup` menu.

3 Press the arrow buttons until `Portrait Height` appears, and then press ☑.

4 Press the arrow buttons to change the paper height setting, and then press ☑.

   `Submitting Selection` appears, followed by the `Universal Setup` menu.

Storing paper

Use these paper storage guidelines to help avoid jams and uneven print quality:

- For best results, store paper where the temperature is 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 relative humidity between 40 and 60%.
- Store paper in cartons when possible, on a pallet or shelf, rather than on the floor.
- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.

Avoiding jams

The following hints can help you avoid jams:

Paper recommendations

- Use only recommended paper or specialty media. For more information, see "Paper types and weights supported by the printer" on page 10.
- Do not load too much paper. Make sure the stack height does not exceed the indicated maximum height.
- Do not load wrinkled, creased, damp, bent, or curled paper.
- Flex, fan, and straighten paper before loading it.
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same stack.
- Store the paper in an appropriate environment.
- Make sure all sizes and types are set correctly in the printer control panel menu.

Envelope recommendations

- Do not feed envelopes that:
  - Have excessive curl or twist
  - Have windows, holes, perforations, cutouts, or embossing
  - Have metal clasps, string ties, or 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 bent corners
  - Have rough, cockle, or laid finishes
  - Are stuck together or damaged in any way

Paper tray recommendations

- Do not remove trays while the printer is printing.
- Do not load trays, the multipurpose feeder, or the envelope feeder while the printer is printing. Load them prior to printing, or wait for a prompt to load them.
- Push all trays in firmly after loading paper.
- Make sure the guides in the paper trays, multipurpose feeder, or envelope feeder are properly positioned and are not pressing too tightly against the paper or envelopes.

Menu map

Menus list

A number of menus are available to make it easy for you to change printer settings:

Paper Menu	**Reports**	**Network/Ports**
Default Source	Menu Settings Page	Active NIC
Paper Size/Type	Device Statistics	Standard Network[2]
Configure MP	Network Setup Page	Standard USB
Envelope Enhance	Network <x> Setup Page	Parallel <x>
Substitute Size	Wireless Setup Page[1]	Serial <x>
Paper Texture	Profiles List	SMTP Setup
Paper Weight	NetWare Setup Page	
Paper Loading	Print Fonts	
Custom Types	Print Directory	
Universal Setup	Print Demo	
Bin Setup	Asset Report	

[1] This menu item appears only if a wireless card is installed.

[2] Depending on the printer setup, this menu item appears as Standard Network or Network <x>.

Security	**Settings**	**Help**
Miscellaneous	General Settings	Print All
Confidential Print	Setup Menu	Print Quality
Disk Wiping	Finishing Menu	Printing Guide
Security Audit Log	Quality Menu	Media Guide
Set Date/Time	Utilities Menu	Print Defects
	XPS Menu	Menu Map
	PDF Menu	Information Guide
	PostScript Menu	Connection Guide
	PCL Emul Menu	Moving Guide
	HTML Menu	Supplies Guide
	Image Menu	
	Flash Drive Menu	

Understanding the printer control panel

Item		Description
1	Display	Shows messages and pictures that communicate the status of the printer
2	Navigation buttons	Press the up or down arrow buttons to scroll through menus or menu items, or to increase or decrease a value when entering numbers.
		Press the left or right arrow buttons to scroll through menu settings (also called values or options), or to scroll through text that rolls to another screen.
3	Select	• Opens a menu item and displays the available values or settings. The current setting is indicated by an asterisk (*).
		• Saves a displayed menu item as the new user default setting.
		Notes:
		• When a new setting is saved as the user default setting, it remains in effect until a new setting is saved or until factory defaults are restored.
		• Settings chosen from a software program can also change or override the user default settings selected from the printer control panel.
4	Keypad	Enter numbers or symbols on the display.
5	Back	Returns the display to the previous screen
6	Indicator light	Indicates the printer status:
		• **Off**—The power is off.
		• **Blinking green**—The printer is warming up, processing data, or printing.
		• **Solid green**—The printer is on, but idle.
		• **Solid red**—Operator intervention is needed.
7	Stop	Stops all printer activity
		A list of options is offered once `Stopped` appears on the display.

Item		Description
8	Menu	Opens the menu index **Note:** The menus are available only when the printer is in the `Ready` state.
9	USB port	Insert a flash drive into the front of the printer to print saved files. **Note:** Only the front USB port supports flash drives.

Moving the printer

Before moving the printer

⚠️ **CAUTION—POTENTIAL INJURY:** The printer weight is greater than 18 kg (40 lb) and requires two or more trained personnel to lift it safely.
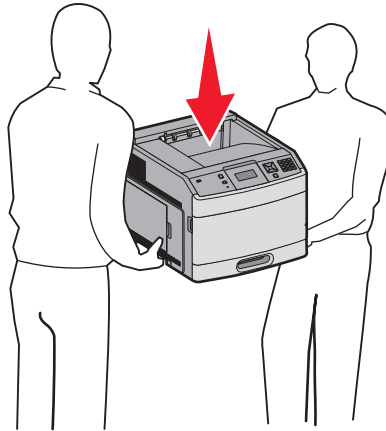
Follow these guidelines to avoid personal injury or printer damage:

- Turn the printer off using the power switch, and then unplug the power cord from the wall outlet.
- Disconnect all cords and cables from the printer before moving it.
- Remove all printer options before moving the printer.
- Use the 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.

Warning—Potential Damage: Damage to the printer caused by improper moving is not covered by the printer warranty.

Moving the printer to another location

The printer and options can be safely moved to another location by following these precautions:

- Any cart used to move the printer must have a surface able to support the full footprint of the printer. Any cart used to move the options must have a surface able to support the dimensions of the options.
- Keep the printer in an upright position.
- Avoid severe jarring movements.

Setting the printer up in a new location

Allow the following recommended amount of space around the printer:
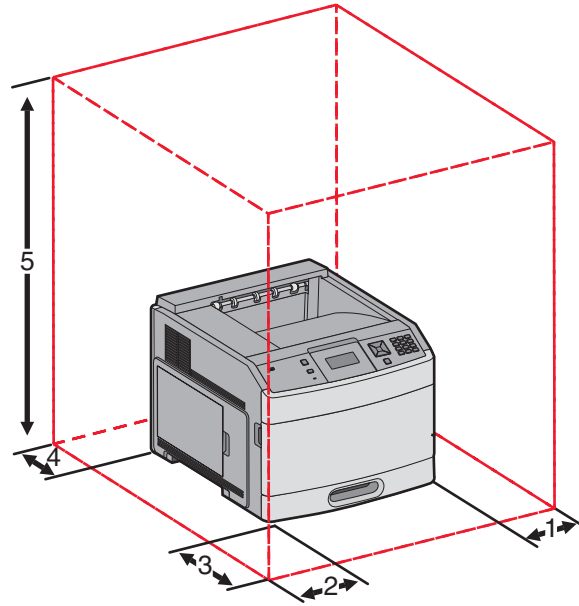
1	Right Side	31 cm (12 in.)
2	Left Side	31 cm (12 in.)
3	Front	51 cm (20 in.)
4	Rear	31 cm (12 in.)
5	Top[1]	137 cm (54 in.)
[1] Allows for addition of all output options.		

Shipping the printer

When shipping the printer, use the original packaging or call the place of purchase for a relocation kit.

Quality guide

The Quality guide helps users understand how operations available on the printer can be used to adjust and customize output.

Quality menu

Menu item	Description
Print Resolution 300 dpi 600 dpi 1200 dpi 1200 IQ 2400 IQ	Specifies the printed output resolution **Note:** 600 dpi is the factory default setting. The printer driver default is 1200 IQ.
Pixel Boost Off Fonts Horizontally Vertically Both Directions	Enhances the printed quality of small fonts and graphics **Notes:** • Off is the factory default setting. • Fonts applies this setting only to text. • Horizontally darkens horizontal lines of text and images. • Vertically darkens vertical lines of text and images. • Both Directions darkens horizontal and vertical lines on text and images.
Toner Darkness 1–10	Lightens or darkens the printed output **Notes:** • 8 is the factory default setting. • Selecting a smaller number can help conserve toner.
Enhance Fine Lines On Off	Enables a print mode preferable for files such as architectural drawings, maps, electrical circuit diagrams, and flow charts **Notes:** • Off is the factory default setting. • To set Enhance Fine Lines using the Embedded Web Server, type the network printer IP address in a browser window.
Gray Correction Auto Off	Adjusts the contrast enhancement applied to images. **Note:** Auto is the factory default setting.
Brightness -6–6	Adjusts or darkens printed output and conserves toner **Notes:** • +0 is the factory default setting. • A negative value will darken text, images, and graphics. A positive value will lighten them.

Menu item	Description
Contrast 0–5	Adjusts the degree of difference between levels of gray in printed output **Notes:** • 0 is the factory default setting. • Higher settings show more difference between levels of gray.

Print quality guide

Isolating print quality problems

To help isolate print quality problems, print the print quality test pages:

1 Turn the printer off.

2 From the printer control panel, press and hold ✓ and the right arrow button while turning the printer on.

3 Release both buttons when `Performing Self Test` appears.

   The printer performs its power-on sequence, and then `Config Menu` appears.

4 Press the down arrow button until √ `Prt Quality Pgs` appears, and then press ✓.

   The pages are formatted, `Printing Quality Test Pages` appears, and then the pages print. The message remains on the printer control panel display until all the pages print.

5 After the print quality test pages print, press the down arrow button until √ `Exit Config Menu` appears, and then press ✓.

The information in the following topics may help you solve print quality problems. If these suggestions still do not correct the problem, then call for service. You may have a printer part that requires adjustment or replacement.

Blank pages
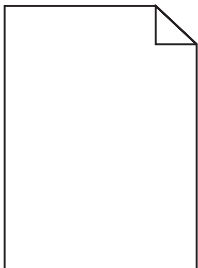
These are possible solutions. Try one or more of the following:

PACKING MATERIAL MAY BE ON THE PRINT CARTRIDGE

Remove the print cartridge and make sure the packing material is properly removed. Reinstall the print cartridge.

THE TONER MAY BE LOW

When `88 Cartridge low` appears, order a new print cartridge.

If the problem continues, the printer may need to be serviced. For more information, contact Customer Support.

Characters have jagged or uneven edges
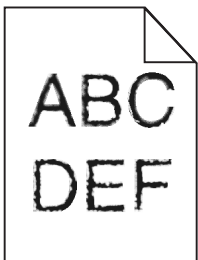
These are possible solutions. Try one or more of the following:

CHECK THE PRINT QUALITY SETTINGS

- Change the Print Resolution setting in the Quality menu to 600 dpi, 1200 Image Q, 1200 dpi, or 2400 Image Q.
- Enable Enhance Fine Lines in the Quality menu.

MAKE SURE DOWNLOADED FONTS ARE SUPPORTED

If you are using downloaded fonts, then verify that the fonts are supported by the printer, the host computer, and the software program.

Clipped images

These are possible solutions. Try one or more of the following:

CHECK THE GUIDES

Move the width and length guides in the tray to the correct positions for the paper size loaded.

CHECK THE PAPER SIZE SETTING

Make sure the paper size setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Size setting from the Paper menu.

2 Before sending the job to print, specify the correct size setting:
   - For Windows users, specify the size from Print Properties.
   - For Macintosh users, specify the size from the Page Setup dialog.

Gray background
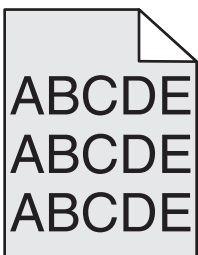
CHECK THE TONER DARKNESS SETTING

Select a lighter Toner Darkness setting:

- From the printer control panel, change the setting from the Quality menu.
- For Windows users, change the setting from Print Properties.
- For Macintosh users, change the setting from the Print dialog.

Ghost images
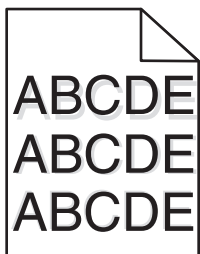
CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Type setting from the Paper menu.

2 Before sending the job to print, specify the correct type setting:

- For Windows users, specify the type from Print Properties.
- For Macintosh users, specify the type from the Print dialog.

Incorrect margins
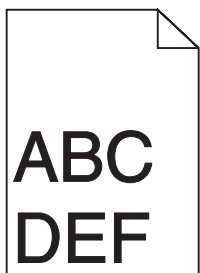
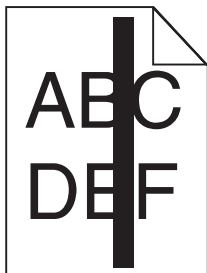These are possible solutions. Try one or more of the following:

CHECK THE PAPER GUIDES

Move the guides in the tray to the correct positions for the paper size loaded.

CHECK THE PAPER SIZE SETTING

Make sure the paper size setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Size setting from the Paper menu.

2 Before sending the job to print, specify the correct size setting:
- For Windows users, specify the size from Print Properties.
- For Macintosh users, specify the size from the Page Setup dialog.

Paper curl

These are possible solutions. Try one or more of the following:

CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Type setting from the Paper menu.

2 Before sending the job to print, specify the correct type setting:
- For Windows users, specify the type from Print Properties.
- For Macintosh users, specify the type from the Print dialog.

THE PAPER HAS ABSORBED MOISTURE DUE TO HIGH HUMIDITY

- Load paper from a fresh package.
- Store paper in its original wrapper until you use it.

Print is too dark
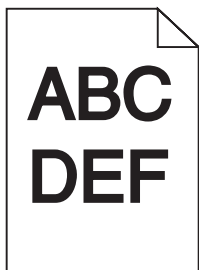
These are possible solutions. Try one or more of the following:

CHECK THE DARKNESS, BRIGHTNESS, AND CONTRAST SETTINGS

The Toner Darkness setting is too dark, the Brightness setting is too dark, or the Contrast setting is too high.
- From the printer control panel, change these settings from the Quality menu.
- For Windows users, change these settings from Print Properties.
- For Macintosh users, change these settings from the Print dialog and pop-up menus.

THE PAPER HAS ABSORBED MOISTURE DUE TO HIGH HUMIDITY

- Load paper from a fresh package.
- Store paper in its original wrapper until you use it.

CHECK THE PAPER

Avoid textured paper with rough finishes.

CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Type setting from the Paper menu.

2 Before sending the job to print, specify the correct type setting:
   - For Windows users, specify the type from Print Properties.
   - For Macintosh users, specify the type from the Print dialog.

THE PRINT CARTRIDGE MAY BE DEFECTIVE

Replace the print cartridge.

Print is too light
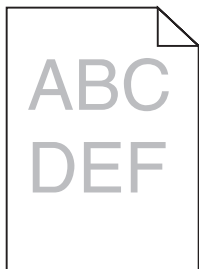
These are possible solutions. Try one or more of the following:

CHECK THE DARKNESS, BRIGHTNESS, AND CONTRAST SETTINGS

The Toner Darkness setting is too light, the Brightness setting is too light, or the Contrast setting is too low.
- From the printer control panel, change these settings from the Quality menu.
- For Windows users, change these settings from Print Properties.
- For Macintosh users, change these settings from the Print dialog and pop-up menus.

THE PAPER HAS ABSORBED MOISTURE DUE TO HIGH HUMIDITY

- Load paper from a fresh package.
- Store paper in its original wrapper until you use it.

CHECK THE PAPER

Avoid textured paper with rough finishes.

CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Type setting from the Paper menu.

2 Before sending the job to print, specify the correct type setting:
   - For Windows users, specify the type from Print Properties.
   - For Macintosh users, specify the type from the Print dialog.

THE TONER IS LOW

When `88 Cartridge Low` appears, order a new print cartridge.

THE PRINT CARTRIDGE MAY BE DEFECTIVE

Replace the print cartridge.

Skewed print

CHECK THE PAPER GUIDES

Move the guides in the tray to the correct positions for the paper size loaded.

CHECK THE PAPER

Make sure you are using paper that meets the printer specifications.

Solid black or white streaks

These are possible solutions. Try one or more of the following:

MAKE SURE THE FILL PATTERN IS CORRECT

If the fill pattern is incorrect, choose a different fill pattern from your software program or application.

CHECK THE PAPER TYPE

- Try a different type of paper.
- Use only transparencies recommended by the printer manufacturer.
- Make sure the Paper Type and Paper Texture settings match the paper loaded in the tray or feeder.

MAKE SURE THE TONER IS DISTRIBUTED EVENLY IN THE PRINT CARTRIDGE

Remove the print cartridge and shake it from side to side to redistribute the toner, and then reinstall it.

THE PRINT CARTRIDGE MAY BE DEFECTIVE OR LOW ON TONER

Replace the used print cartridge with a new one.

Streaked horizontal lines
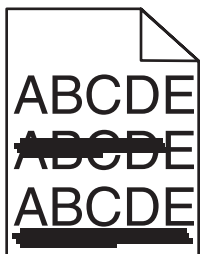
These are the possible solutions. Try one or more of the following:

THE TONER IS SMEARED

Select another tray or feeder to feed the paper for the job:

- From the printer control panel, select the Default Source from the Paper Menu.
- For Windows users, select the paper source from Print Properties.
- For Macintosh users, select the paper source from the Print dialog and pop-up menus.

The print cartridge may be defective

Replace the print cartridge.

The paper path may not be clear

Check the paper path around the print cartridge.

⚠️ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching.

Clear any paper you see.

There is toner in the paper path

Contact Customer Support.

Streaked vertical lines
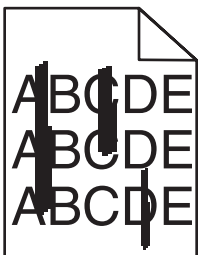
The toner is smeared

Select another tray or feeder to feed paper for the job:

- From the printer control panel, select the Default Source from the Paper Menu.
- For Windows users, select the paper source from Print Properties.
- For Macintosh users, select the paper source from the Print dialog and pop-up menus.

The print cartridge is defective

Replace the print cartridge.

The paper path may not be clear

Check the paper path around the print cartridge.

⚠️ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching.

Clear any paper you see.

There is toner in the paper path

Contact Customer Support.

Toner fog or background shading appears on the page

These are possible solutions. Try one or more of the following:

THE PRINT CARTRIDGE MAY BE DEFECTIVE

Replace the print cartridge.

THE CHARGE ROLLS MAY BE DEFECTIVE

Replace the charge rolls.

THERE IS TONER IN THE PAPER PATH

Contact Customer Support.

Toner rubs off
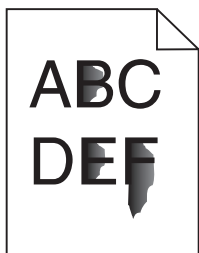
These are possible solutions. Try one or more of the following:

CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

1 From the printer control panel, check the Paper Type setting from the Paper menu.

2 Before sending the job to print, specify the correct type setting:
   - For Windows users, specify the type from Print Properties.
   - For Macintosh users, specify the type from the Print dialog.

CHECK THE PAPER TEXTURE SETTING

From the printer control panel Paper menu, make sure the Paper Texture setting matches the paper loaded in the tray.

Toner specks
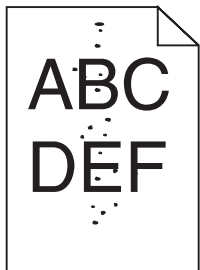
These are possible solutions. Try one or more of the following:

THE PRINT CARTRIDGE MAY BE DEFECTIVE

Replace the print cartridge.

THERE IS TONER IN THE PAPER PATH

Contact Customer Support.

Transparency print quality is poor

CHECK THE TRANSPARENCIES

Use only transparencies recommended by the printer manufacturer.

CHECK THE PAPER TYPE SETTING

Make sure the paper type setting matches the paper loaded in the tray:

 1 From the printer control panel, check the Paper Type setting from the Paper menu.

 2 Before sending the job to print, specify the correct type setting:

 • For Windows users, specify the type from Print Properties.

 • For Macintosh users, specify the type from the Print dialog.

Printing guide

This section explains how to load the 250-, 500-, and 2000-sheet trays. It also includes information about setting the Paper Size and Paper Type.

Loading the standard or optional 250-sheet or 550-sheet tray

Although the 250-sheet tray and the 550-sheet tray are different in appearance, they require the same process for loading paper. Use these instructions to load paper in either tray:

1 Pull the tray out.

> **Note:** Do not remove trays while a job prints or while `Busy` appears on the display. Doing so may cause a jam.
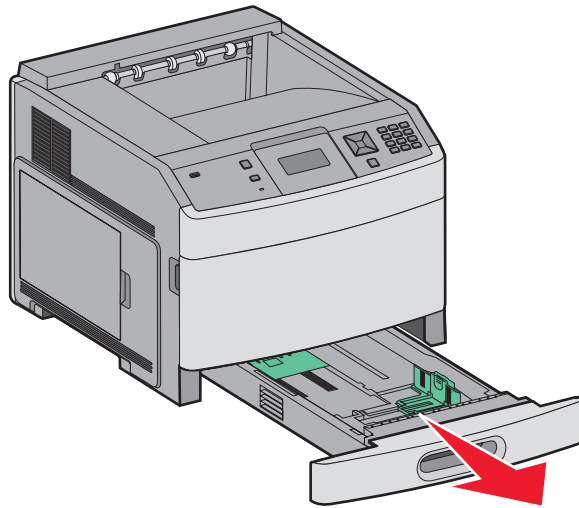
2 Squeeze the width guide tab inward as shown, and move the width guide to the correct position for the paper size being loaded.
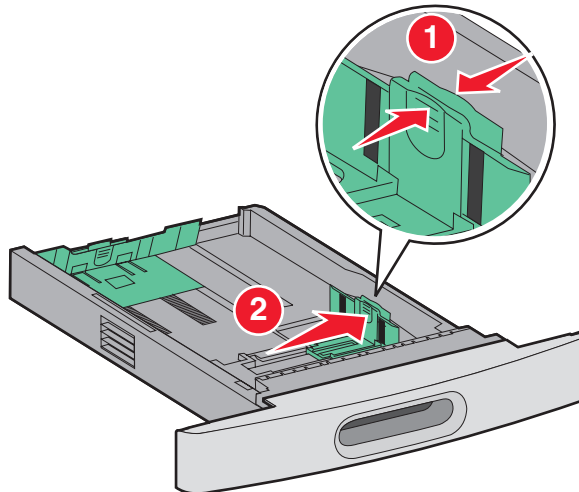
3 Squeeze the length guide tab inward as shown, and slide the guide to the correct position for the paper size being loaded.
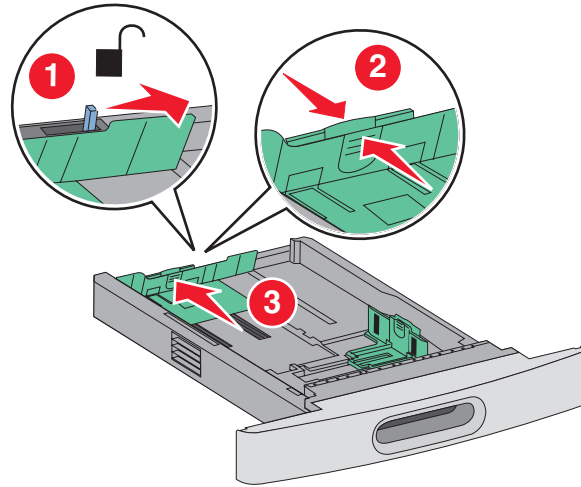
> **Note:** Use the size indicators on the bottom of the tray to help position the guides.
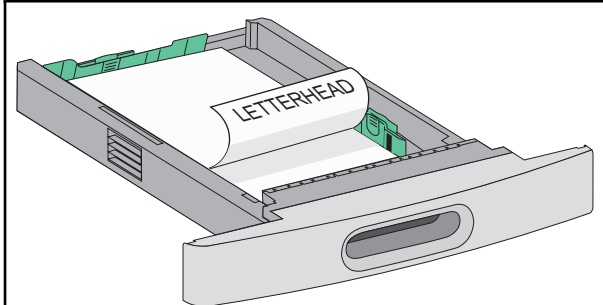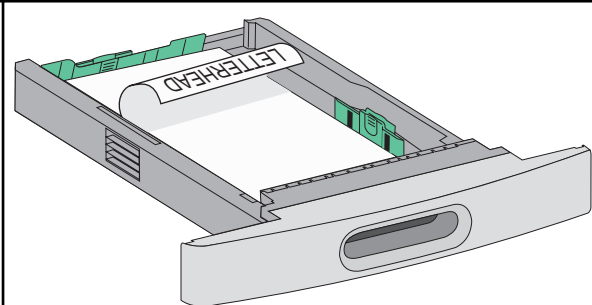
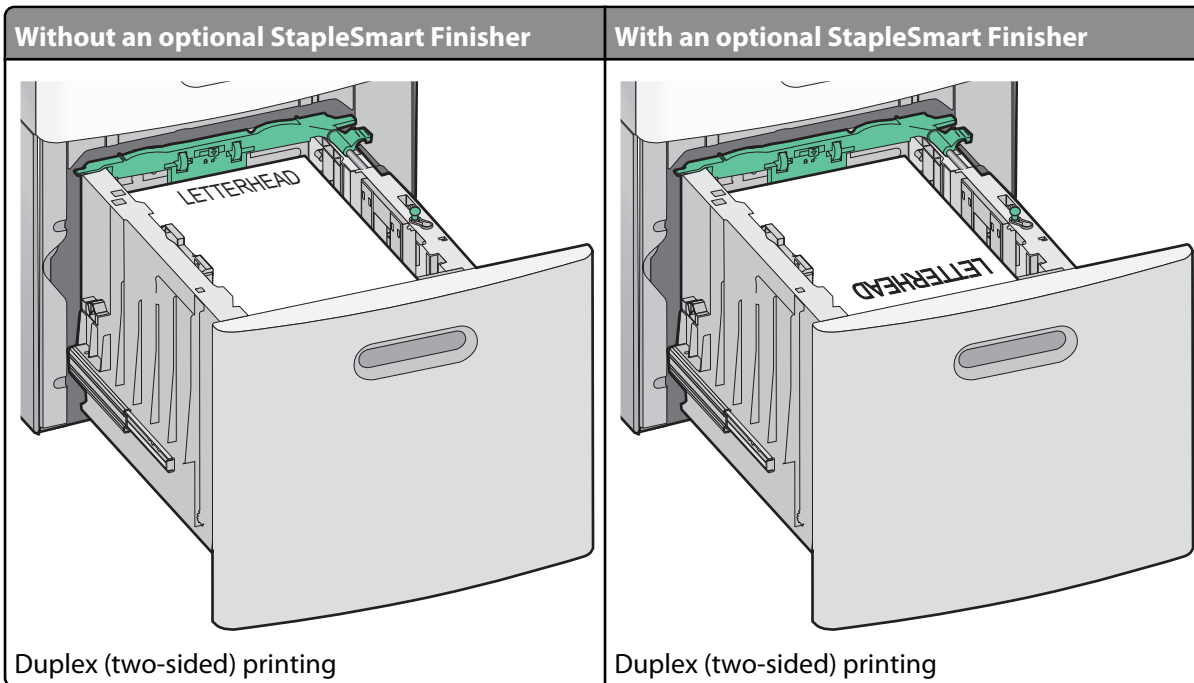**4** Flex the sheets back and forth to loosen them, and then fan them. Do not fold or crease the paper. Straighten the edges on a level surface.


5 Load the paper stack:
  - Print side facedown for single-sided printing
  - Print side faceup for duplex printing

Note: Paper must be loaded differently in the trays if an optional StapleSmart Finisher is installed.

Without an optional StapleSmart Finisher	With an optional StapleSmart Finisher
Single-sided printing	Single-sided printing

Without an optional StapleSmart Finisher	With an optional StapleSmart Finisher
Duplex (two-sided) printing	Duplex (two-sided) printing

Note: Notice the maximum fill line on the side of the tray which indicates the maximum height for loading paper. Do not overload the tray.

**6** If necessary, adjust the paper guides to lightly touch the sides of the stack.

7 Insert the tray.
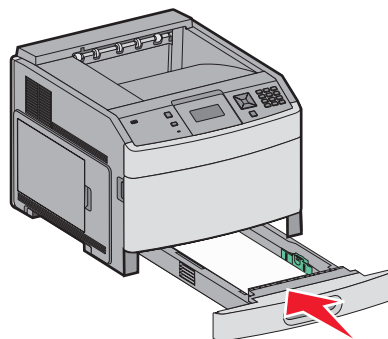
8 If a different type of paper was loaded than the type previously loaded in the tray, then change the Paper Type setting for the tray from the printer control panel.

Loading the 2000-sheet tray

1 Pull the tray out.

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

3 Load the paper stack:

- Print side facedown for single-sided printing
- Print side faceup for duplex printing

Note: Paper must be loaded differently in the trays if an optional StapleSmart Finisher is installed.

Without an optional StapleSmart Finisher	With an optional StapleSmart Finisher
Single-sided printing	Single-sided printing
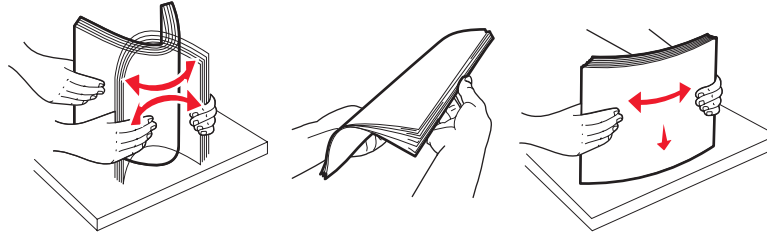
Without an optional StapleSmart Finisher	With an optional StapleSmart Finisher
Duplex (two-sided) printing	Duplex (two-sided) printing
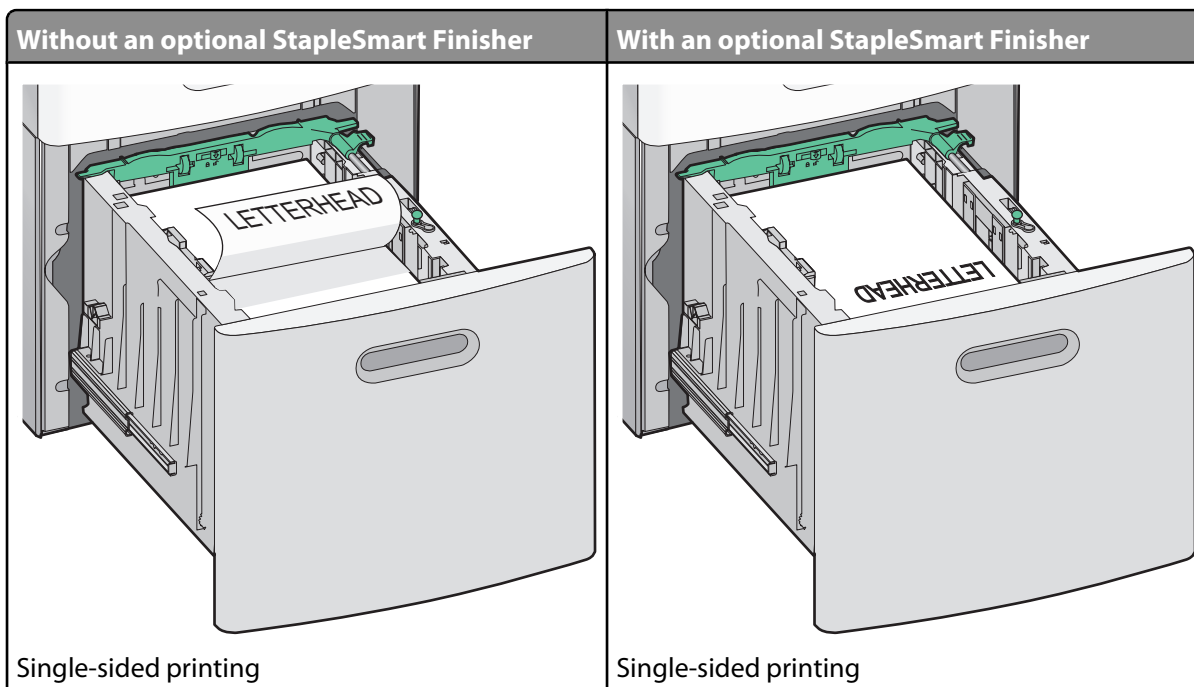
Note: Notice the maximum fill line on the side of the tray which indicates the maximum height for loading paper. Do not overload the tray.
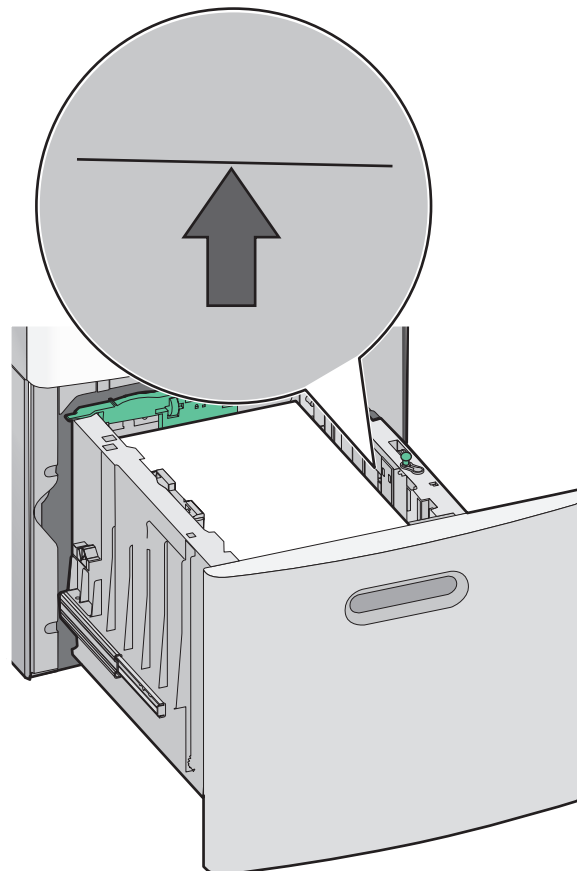
4 Insert the tray.

Loading the multipurpose feeder

1 Press the release latch, and then pull down the multipurpose feeder door.
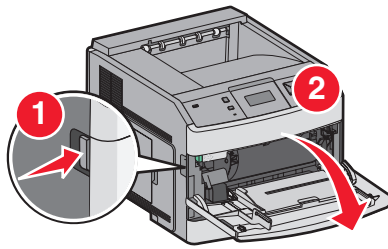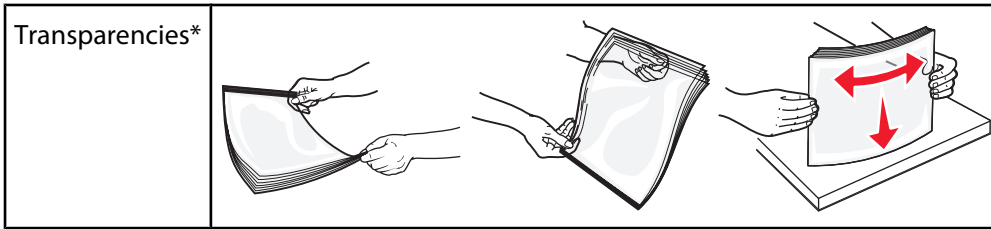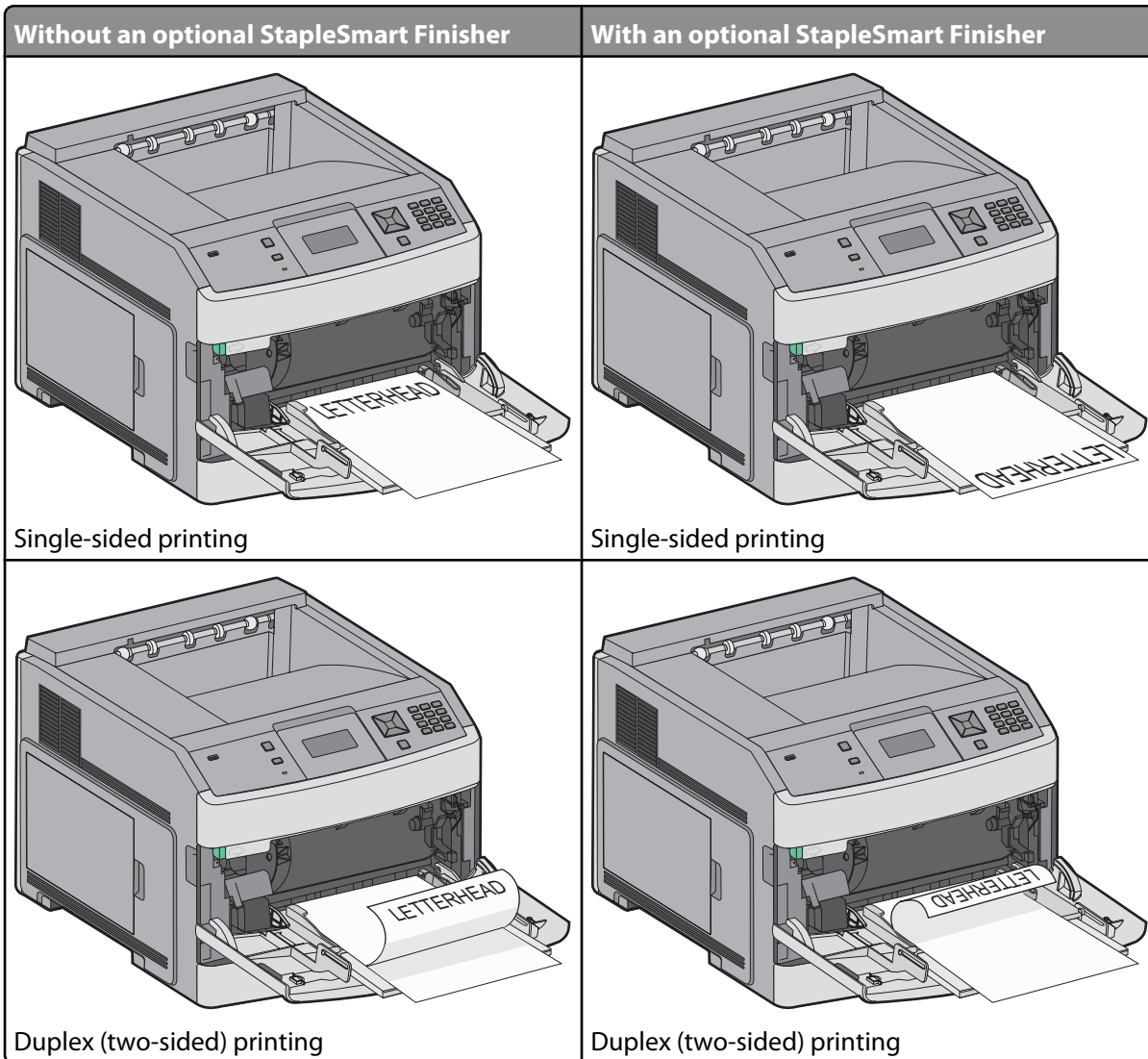

2 Pull out the extension until it is fully extended.
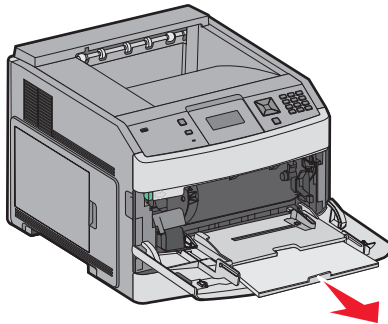
3 Slide the width guide to the far right.
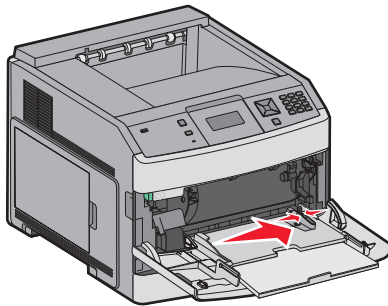
4 Flex the sheets of paper or specialty media back and forth to loosen them, and then fan them. Do not fold or crease them. Straighten the edges on a level surface.

Paper	
Envelopes	
* Avoid touching the print side of transparencies. Be careful not to scratch them.	

Transparencies*	
* Avoid touching the print side of transparencies. Be careful not to scratch them.	

5 Load the paper or specialty media. Slide the stack gently into the multipurpose feeder until it comes to a stop.

Without an optional StapleSmart Finisher	With an optional StapleSmart Finisher
Single-sided printing	Single-sided printing
Duplex (two-sided) printing	Duplex (two-sided) printing

Notes:

- Do not exceed the maximum stack height by forcing paper under the stack height limiter.
- Do not load or close the printer while a job is printing.
- Load only one size and type of media at a time.
- Load envelopes with the flap side up.

Warning—Potential Damage: Never use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives. These envelopes may severely damage the printer.

6 Adjust the width guide to lightly touch the edge of the paper stack. Make sure the paper fits loosely in the multipurpose feeder, lies flat, and is not bent or wrinkled.

7 From the printer control panel, set the Paper Size and Paper Type.

Setting the Paper Size and Paper Type

The Paper Size setting is determined by the position of the paper guides in the tray for all trays except the multipurpose feeder. The Paper Size setting for the multipurpose feeder must be set manually. The factory default Paper Type setting is Plain Paper. The Paper Type setting must be set manually for all trays that do not contain plain paper.

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

2 From the printer control panel, press 🔲.

3 Press the arrow buttons until √ **Paper Menu** appears, and then press ☑.

4 Press the arrow buttons until √ **Paper Size/Type** appears, and then press ☑.

5 Press the arrow buttons until the correct tray appears, and then press ☑.

6 Press the arrow buttons until √ appears next to the correct size, and then press ☑.

7 Press the arrow buttons until the correct Paper Type setting appears, and then press ☑.
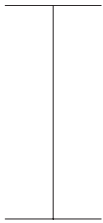
Ready appears.

Print defects

Repeating defects measurements

Match a set of repeating defects on a print job to the marks on one of the vertical lines. The line that best matches the defects on the print job indicates which particular part is causing the defect.
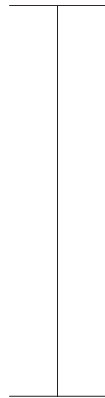
Replace the charge rolls	**Replace the transfer roller**	**Change the toner cartridge**		**Replace the fuser**	
28.3 mm	51.7 mm	47.8 mm	or 96.8 mm	88.0 mm	or 95.2 mm
(1.11 in.)	(2.04 in.)	(1.88 in.)	(3.81 in.)	(3.46 in.)	(3.75 in.)
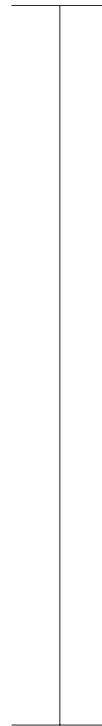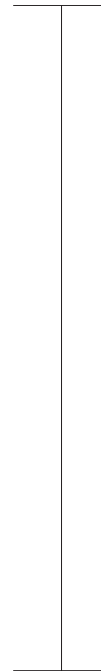
Supplies guide

When a cartridge low message appears, you should order a new print cartridge.

You may be able to print a limited number of pages when the message first appears, but it is best to have the new cartridge available when the current one runs out.

Note: Shake your new print cartridge gently before installing it into the printer to maximize its yield.

The following table lists the part numbers for ordering supply items.

Ordering print cartridges

When `88 Cartridge low` appears or when the print becomes faded, you may be able to extend the life of the print cartridge:

1 Remove the print cartridge.

2 Firmly shake the cartridge side-to-side and front-to-back several times to redistribute toner.
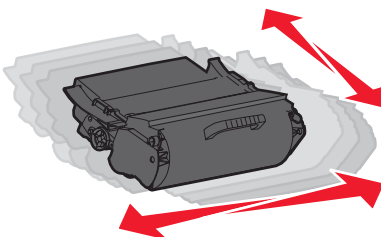
3 Reinsert the cartridge and continue printing.

Note: Repeat this procedure multiple times until the print remains faded, and then replace the cartridge.

Recommended print cartridges

Part name	Lexmark Return Program Cartridge	Regular cartridge
For the US and Canada		
Print Cartridge	T650A11A	T650A21A
High Yield Print Cartridge	T650H11A	T650H21A
Extra High Yield Print Cartridge*	T652X11A	T652X21A
High Yield Print Cartridge for Label Applications	T650H04A	Not applicable
Extra High Yield Print Cartridge for Label Applications*	T652X04A	Not applicable
For Europe, the Middle East, and Africa		
Print Cartridge	T650A11E	T650A21E
High Yield Print Cartridge	T650H11E	T650H21E
Extra High Yield Print Cartridge*	T652X11E	T652X21E
* Available for the T652 and T654 models.		

Part name	Lexmark Return Program Cartridge	Regular cartridge
High Yield Print Cartridge for Label Applications	T650H04E	Not applicable
Extra High Yield Print Cartridge for Label Applications*	T652X04E	Not applicable
For the Asia Pacific Region		
Print Cartridge	T650A11P	T650A21P
High Yield Print Cartridge	T650H11P	T650H21P
Extra High Yield Print Cartridge*	T652X11P	T652X21P
High Yield Print Cartridge for Label Applications	T650H04P	Not applicable
Extra High Yield Print Cartridge for Label Applications*	T652X04P	Not applicable
For Latin America		
Print Cartridge	T650A11L	T650A21L
High Yield Print Cartridge	T650H11L	T650H21L
Extra High Yield Print Cartridge*	T652X11L	T652X21L
High Yield Print Cartridge for Label Applications	T650H04L	Not applicable
Extra High Yield Print Cartridge for Label Applications*	T652X04L	Not applicable
* Available for the T652 and T654 models.		

Ordering a maintenance kit

When `80 Routine maintenance needed` appears, order a maintenance kit. The maintenance kit contains all the items necessary to replace the pick rollers, the charge roll, the transfer roller, and the fuser.

Note: Using certain types of paper may require more frequent replacement of the maintenance kit. The charge roll, transfer roller, and pick rollers can also be individually ordered and replaced as necessary.

See the following table for the maintenance kit part number for your specific printer.

Part name	Part number
Maintenance kit	40X4723 (100 V non-contact fuser) 40X4724 (110 V non-contact fuser) 40X4765 (220 V non-contact fuser) 40X4766 (100 V contact fuser) 40X4767 (110 V contact fuser) 40X4768 (220 V contact fuser)

Ordering staple cartridges

When **Staples Low** or **Staples Empty** appears, order the specified staple cartridge.

For more information, see the illustrations inside the stapler door.

Part name	Part number
Staple Cartridges–3 pack	25A0013