

Connection Guide

Note: For local printing, you must install the printer software (drivers) before connecting the USB cable.

Installing printer and software for local printing using Windows

1 Launch the drivers CD that shipped with the printer.

2 Click **Install Printer and Software**.

Note: Some Windows operating systems require that you have administrative access to install printer software (drivers) on the computer.

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

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

The Suggested option is the default installation for local setup. If you need to install utilities, change settings, or customize device drivers, select **Custom**. Follow the instructions on the computer screen.

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

Note: It may take a few minutes for the drivers to completely load.

6 Close the drivers CD installer application.

7 Connect the USB cable. Be sure to match the USB symbol on the cable to the USB symbol on the printer.

Note: Only Windows 98 SE, Windows Me, Windows 2000, Windows XP, and Windows Server 2003 operating systems support USB connections. Some UNIX, Linux, and Macintosh computers also support USB connections. See the computer operating system documentation to see if your system supports USB.

8 Plug one end of the printer power cord into the socket at the back of the printer and the other end into a properly grounded outlet.

9 Turn on the printer.

Plugging in the USB cable and turning on the printer prompts the Windows operating system to run the plug and play screens to install the printer as a new hardware device. The installation of printer software (drivers) done in step 1 should satisfy the plug and play requirements. When plug and play is finished, a printer object will appear in your Printers folder.

Note: After the printer completes its internal tests, the **Ready** message indicates that the printer is ready to receive jobs. If you see a message other than **Ready** on the display, see the publications CD for instructions on clearing the message.

10 Send a test page to print.

Using a parallel or serial cable

For detailed instructions, see the *User Guide* on the publications CD that shipped with the printer.

Local printing with Mac or UNIX/Linux

For detailed instructions, see the *User Guide* on the Publications CD that shipped with the printer.

Installing printer and software for network printing using Windows

- 1 Make sure the printer is turned off and unplugged.
- 2 Connect the printer to a LAN drop or hub using an ethernet cable that is compatible with your network.
- 3 Plug one end of the printer power cord into the socket at the back of the printer and the other end into a properly grounded outlet.
- 4 Turn on the printer.

Note: After the printer completes its internal tests, the **Ready** message indicates that the printer is ready to receive jobs. If you see a message other than **Ready** on the display, see the publications CD for instructions on clearing the message.

- 5 Go to a computer on the same network, and launch the drivers CD that shipped with the printer.
- 6 Click **Install Printer and Software**.
- 7 Click **Agree** to accept the license agreement.
- 8 Select **Suggested**, and then click **Next**.
- 9 Select **Network Attach**, and then click **Next**.
- 10 Select your printer model from the list, and then click **Next**.
- 11 Select your printer port from the list, and then click **Finish** to complete the installation. A printer object is created in the Printers folder on the computer.

If your printer port is not listed, click **Add Port**. Enter the information requested to create a new printer port. Select the option to create an Enhanced TCP/IP Network Port. Other port options will not give you full functionality.

- 12 Send a test page to print.

Other network cabling options

The following may also be available as network options for the printer. More information is available in the *User Guide* on the publications CD that shipped with the printer.

- Fiber optic internal print servers
- Ethernet internal print servers
- Wireless internal print servers
- Ethernet external print servers
- Wireless external print servers

Detailed instructions for installation are shipped with the product.

Network printing using Mac, UNIX/Linux, or NetWare

For information about this support, see the *User Guide* on the publications CD that shipped with the printer.

You can find some additional information on the drivers CD that shipped with the printer. Launch the drivers CD, and click **View Documentation**.

Information guide

There are numerous publications available to help you understand the printer and its functions.

Help Menu pages

There are Help Menu pages resident in the printer. Select to print each individually, or select **Print All** to print all of them.

Menu Item:	Use it to:
Print All	Print all of the guides
Information Guide (this page)	Locate additional information
Print Quality Guide	Resolve print quality and troubleshooting issues
Printing Guide	Load media into the printer
Supplies Guide	Order supplies
Media Guide	See what types of media are supported by the printer
Print Defects	Determine which part may be causing a repetitive defect
Menu Map	View all menus and menu items available
Connection Guide	Connect the printer as a local or network printer
Moving Guide	Safely move the printer

Setup sheet

The Setup sheet packaged with the printer provides information about setting up the printer and its options.

Publications CD

The publications CD which was shipped with your printer contains a *User's Guide*, *Setup sheet*, *Menus and Messages Guide*, and a copy of the Help Menu pages.

The *User's Guide* provides information about loading media, ordering supplies, troubleshooting, clearing jams, and removing options. It also includes administrative support information.

The *Menus and Messages Guide* provides information to change the printer settings. It describes the menus available, the menu items under each menu, and the values available.

Lexmark's Web site

Copies of the *User's Guide*, *Setup sheet*, *Menus and Messages Guide*, and Help Menu pages are available on Lexmark's Web site at www.lexmark.com.

Drivers CD

The drivers CD which was shipped with your printer contains the necessary printer drivers to get the printer up and running. It may also contain printer utilities, screen fonts, and additional documentation.

Other languages

The *User's Guide*, *Setup sheet*, *Menus and Messages Guide* and Help Menu pages are also available in other languages on the publications CD.

Media guide

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

Legend: ✓ — supported ✗ — unsupported				
Media size	Dimensions	500-sheet trays	Multipurpose feeder	850+1150-sheet dual input drawer
A3	297 x 420 mm (11.7 x 16.5 in.)	✓	✓	✗
A4	210 x 297 mm (8.27 x 11.7 in.)	✓	✓	✓
A5*	148 x 210 mm (5.83 x 8.27 in.)	✓	✓	✗
JIS B4	257 x 364 mm (10.1 x 14.3 in.)	✓	✓	✗
JIS B5*	182 x 257 mm (7.17 x 10.1 in.)	✓	✓	✓
Letter	215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓
Legal	215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✗
Executive	184.2 x 266.7 mm (7.25 x 10.5 in.)	✓	✓	✓
Folio	216 x 330 mm (8.5 x 13 in.)	✓	✓	✗
Statement	139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✓	✗
Tabloid	279 x 432 mm (11.0 x 17.0 in.)	✓	✓	✗
Universal**	98.4 x 89.0 mm to 297.0 x 431.8 mm (3.9 x 3.5 in. to 11.7 x 17.0 in.)	✓	✓	✗
7 ¼ Envelope (Monarch)	98.4 x 190.5 mm (3.875 x 7.5 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.)	✗	✓	✗
Other Envelope	98.4 x 89.0 mm to 297.0 x 431.8 mm (3.9 x 3.5 in. to 11.7 x 17.0 in.)	✗	✓	✗

* This size does not appear in the Paper Size menu until Auto Size Sensing is changed. See the *User's Guide* for more information.

** This size setting formats the page for 297.0 x 431.8 mm (11.7 x 17.0 in.) unless the size is specified by the software application.

Storing media

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

- For best results, store media in an environment where the temperature is approximately 21°C (70°F) and the relative humidity is 40%.
- Store cartons of media on a pallet or shelf, rather than directly on the floor.
- 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.

Avoiding jams hints

The following hints can help avoid jams:

- Use only recommended paper or specialty media (referred to as media).
- Do not overload the media sources. Make sure the stack height does not exceed the maximum height indicated by the load line labels in the sources.
- Do not load wrinkled, creased, damp, or curled media.
- Flex, fan, and straighten media before you load it.
- Do not use media that has been cut or trimmed by hand.
- Do not mix media sizes, weights, or types in the same media source.
- Make sure the recommended print side is face-up when loading all trays for simplex (single-sided) printing.
- Keep media stored in an acceptable environment. See “Storing media”.
- Do not remove trays during a print job.
- Push all trays in firmly after loading them.
- Make sure the guides in the trays are properly positioned for the size of media loaded. Make sure the guides are not placed too tightly against the stack of media.
- Make sure all cables that connect to the printer are correctly attached. See the *Setup* sheet for more information.
- If a jam occurs, clear the entire media path. See the *User's Guide* for information on the media path.

Menu map

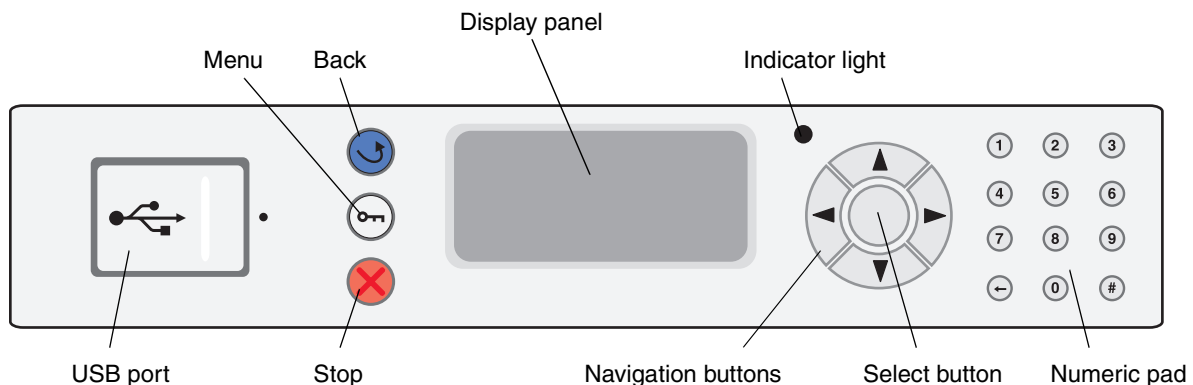
A number of menus are available on the operator panel to make it easy to change printer settings. The following menu map shows the menus and menu items available. For more information about menu items, see the *Menus and Messages Guide* on the publications CD. Some menu items may not be available based on the printer model or options installed.

<p>Paper Menu</p> <ul style="list-style-type: none"> Default Source Paper Size/Type Configure MP Substitute Size Paper Texture Paper Loading Custom Types Universal Setup Bin Setup 	<p>Reports</p> <ul style="list-style-type: none"> Menu Settings Page Device Statistics Network Setup Page Network [x] Setup Page Profiles List Print Quick Ref Netware Setup Page Print Fonts Print Directory Print Demo 	<p>Defaults</p> <ul style="list-style-type: none"> Setup Menu Finishing Menu Quality Menu Utilities Menu PDF Menu PostScript Menu PCL Emul Menu PPDS Menu HTML Menu Image Menu 	<p>Network/Ports</p> <ul style="list-style-type: none"> TCP/IP IPv6 Standard Network Network [x] Standard USB USB [x] Front USB Parallel Parallel [x] Serial Serial [x] Netware AppleTalk LexLink 	<p>Security</p> <ul style="list-style-type: none"> Max Invalid PIN Job Expiration <p>Help</p> <ul style="list-style-type: none"> Print All Print Quality Printing Guide Media Guide Print Defects Menu Map Information Guide Connection Guide Moving Guide
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Understanding the operator panel

The operator panel consists of these items:

- 160 x 64 character liquid crystal display (LCD) capable of showing text and graphics
- Eight buttons (Back, Menu, Stop, Select, <, >, ^, and v)
- Indicator light
- USB port



For more information on the operator panel, see the *User's Guide* on the publications CD.

Moving the printer

Follow these guidelines to move the printer to another location.

CAUTION: The base printer weighs 49 kg (108 lb). It requires at least two (2) people to lift it safely. Use the printer handholds to lift it, and make sure your fingers are not under the printer when you set it down.

CAUTION: Follow these guidelines to avoid injuring yourself or damaging the printer:

- Always use at least two people to lift the printer.
- Always turn off the printer using the power switch before moving it.
- Disconnect the power cord from the wall before disconnecting it from the printer.
- Disconnect all cords and cables from the printer before moving it.
- Remove all printer options before moving the printer. Place the options in the original packaging.

Note: Damage to the printer caused by improper moving is not covered by the printer warranty.

Moving the printer and options to another location

When the optional 500-sheet trays or the 850+1150-sheet dual input drawer is attached, the printer can be rolled along a flat surface, as these options have casters on the bottom. However, if the printer must be moved over an uneven surface, it should first be lifted away from these options prior to moving.

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

- Keep the printer in an upright position.
- 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.
- Severe jarring movements may cause damage to the printer and options, and must be avoided.

Printing guide

Get the most from the printer by properly loading the trays, and setting the types and sizes for media.

Loading paper

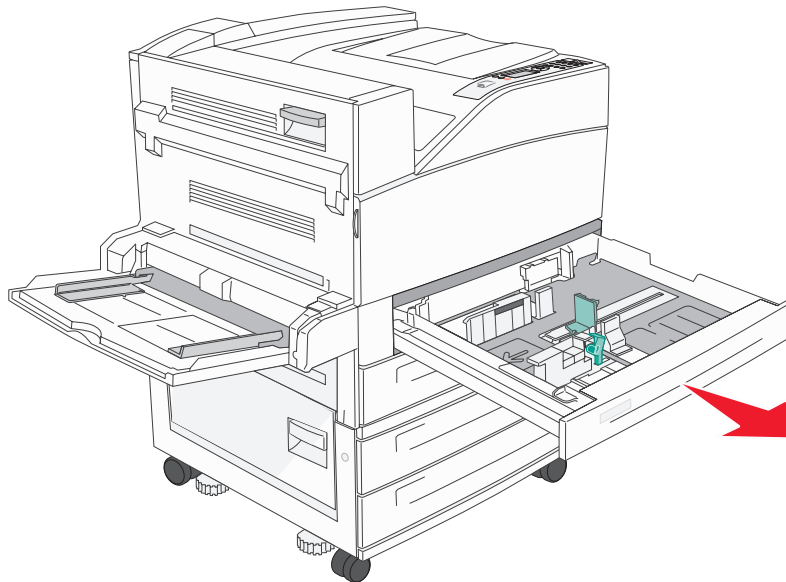
General guidelines

- Do not overload the media sources.
- Make sure the stack height does not exceed the maximum height indicated by the labels on the guides. Overloading may cause jams.
- Never mix media types within a tray.

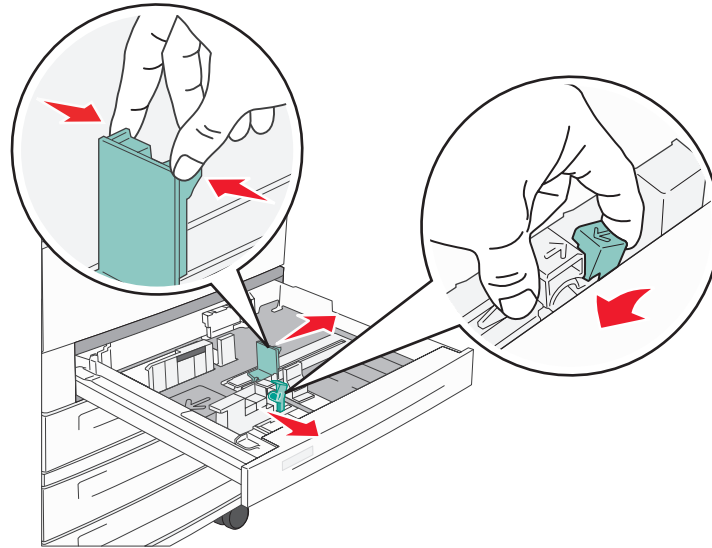
Loading 500-sheet trays

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

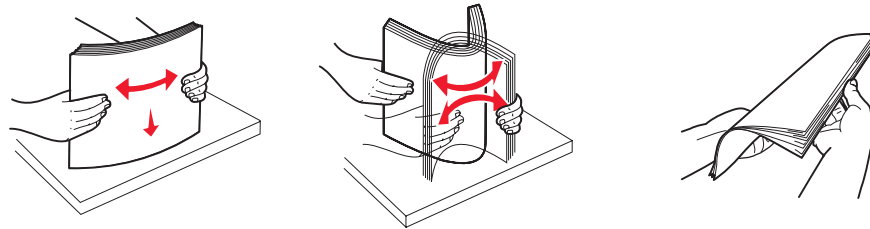
- 1 Pull out the tray.



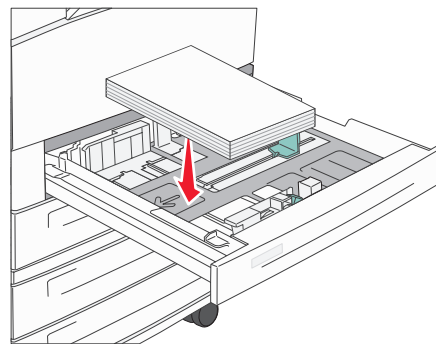
- 2 Squeeze the side guide tab, and slide the guide to outside of the tray.
- 3 Squeeze the front guide tab and slide the guide to the correct position for the size paper you are loading.



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

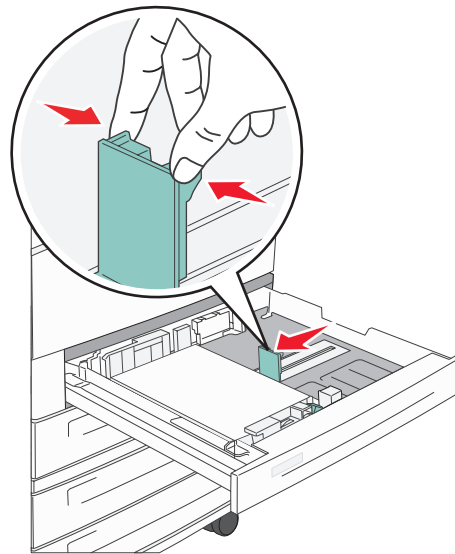


- 5 Load paper in the tray with the print side up.

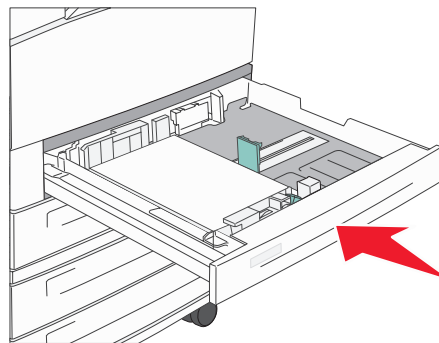


Note: For information about loading paper in the short-edge feed position, see the *User's Guide*.

- 6 Squeeze the side guide tab, and slide the guide until it lightly rests against the edge of the paper.



- 7 Insert the tray into the printer.



For loading other sources, see “For more information” on page 4.

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 you are loading is the same size of 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 \vee until \checkmark appears beside **Paper Menu**, and then press \checkmark .
- 3 Press \vee until \checkmark appears beside **Paper Type** (or **Paper Size**), and then press \checkmark .
- 4 Press \vee until \checkmark appears beside **Tray x Type** (or **Tray x Size**), and then press \checkmark .
- 5 Press \vee to scroll through a list of possible paper types (or sizes) to locate the correct type or size. Make sure the type or size is highlighted with \checkmark beside it, and then press then press \checkmark . This saves this setting as the new user default type or size setting.

The message **Submitting Selection** appears. The printer returns to the **Ready** state.

Printing on specialty media

Media is paper, card stock, transparencies, labels, and envelopes. The last four are sometimes referred to as *specialty media*. Follow these instructions to print on specialty media.

- 1 Load the media as specified for the tray being used. See “Loading paper” on page 1 for help.
- 2 From the printer operator panel, set the Paper Type and Paper Size according to the media you loaded. See “Setting the Paper Type and Paper Size” on page 3 for help.
- 3 From the computer software application, set the paper type, size, and source according to the media you loaded.
 - a From a word processor, spreadsheet, browser, or other application, select **File** → **Print**.
 - b Click **Properties** (or **Options**, **Printer**, or **Setup**, depending on the application) to view the printer driver settings.
 - c Select the tray containing the specialty media from the **Form Source** list box.
 - d Select the media type (transparencies, envelopes, and so on) from the **Media Type** list box.
 - e Select the size of the specialty media from the **Form Type** list box.
- 4 Click **OK**, and then send the print job as usual.

For more information

For information on	See
Media	Media Guide available in the Help Menu
Loading the multipurpose feeder	<i>User's Guide</i> on the publications CD
Loading the 850+1150-sheet dual input trays	
Loading the 2000-sheet high capacity feeder	

Print quality and troubleshooting

Many print quality problems can be solved by replacing a supply or maintenance item that has reached the end of its intended life. Check the operator panel for a message about a printer consumable. See the *User's Guide* for information about other ways to identify consumables that need to be replaced.

The Quality Menu operator panel options can be adjusted to help improve print quality. For more information about these menu options, refer to the *Menus and Messages Guide* on the publications CD.



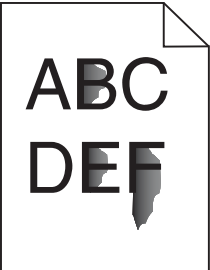
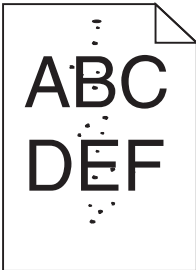
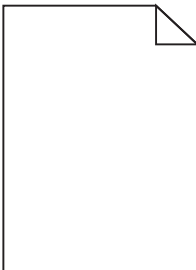

Menu selection	Purpose	Values	
Print Resolution	Defines the number of dots printed per inch (dpi).	600 dpi 1200 dpi 2400 Image Quality*	
Toner Darkness	Lightens or darkens printed output and conserves toner.	1–10	8* is the default setting. Select a lower number to lighten the printed output or save toner.
Brightness	Adjusts the gray value of printed objects.	-6 – +6	0* is the default setting.
Contrast	Adjusts the contrast of printed objects.	0–5	0* is the default setting.






In addition, the Enhance Fine Lines and Gray Correction options can be enabled to improve print quality. These settings are available on the driver and on the printer Embedded Web Server (EWS) interface. For more information about these options, refer to the driver help.

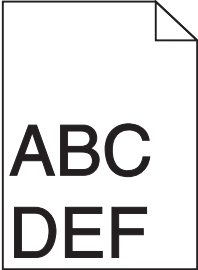
Driver option	Purpose	Values [†]	
Enhance Fine Lines	A selection to enable a print mode preferable for certain files containing fine line detail, such as architectural drawings, maps, electronic circuit diagrams and flow charts.	On	In the driver, enable the check box.
		Off*	In the driver, disable the check box.
Gray Correction	Automatically adjusts the contrast enhancement applied to images. Note: When set to Auto, this feature disables the manual Brightness and Contrast controls.	Auto*	In the driver, enable the check box.
		Off	In the driver, disable the check box.

[†] Values marked by an asterisk (*) are the factory default settings.

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

Problem	Action
<p>Print is too light.</p> 	<ul style="list-style-type: none"> • The toner may be low. To utilize the remaining toner, remove the cartridge by gripping the handles with both hands. With the cartridge arrows pointing downward, shake the print cartridge back and forth. Reinstall the cartridge and then press . • Change the Toner Darkness setting in the Quality Menu. • If you are printing on an uneven print surface, change the Paper Weight and Paper Texture settings in the Paper Menu. • Verify the correct print media is being used.
<p>Toner smears or print comes off the page.</p> 	<ul style="list-style-type: none"> • If you are printing on an uneven print surface, change the Paper Weight and Paper Texture settings in the Paper Menu. • Verify the print media is within the printer specifications. See the <i>User's Guide</i> for more details. <p>If the problem continues, turn the printer off and contact the place you bought your printer.</p>
<p>Toner appears on the back of the printed page.</p>	<p>Toner is on the transfer roll. To help prevent this, do not load print media that is smaller than the page size of the job to be printed.</p> <p>Open and close the printer top front cover to run the printer setup cycle and clean the transfer roll.</p>
<p>Toner fog or background shading appears on the page.</p> 	<ul style="list-style-type: none"> • Check the print cartridge to make sure it is installed correctly. • Replace the print cartridge.
<p>Entire page is white.</p> 	<ul style="list-style-type: none"> • Make sure the packaging material is removed from the print cartridge. • Check the print cartridge to be sure it is installed correctly. • The toner may be low. To utilize the remaining toner, remove the cartridge by gripping the handles with both hands. With the cartridge arrows pointing downward, shake the print cartridge back and forth. Reinstall the cartridge, and then press .

Problem	Action
<p>Streaks appear on the page.</p> 	<ul style="list-style-type: none"> • The toner may be low. To utilize the remaining toner, remove the cartridge by gripping the handles with both hands. With the cartridge arrows pointing downward, shake the print cartridge back and forth. Reinstall the cartridge and then press . • If you are using preprinted forms, make sure the ink can withstand temperatures of 212°C (414°F).
<p>Printing is too dark.</p> 	<p>Change the Toner Darkness setting in the Quality Menu. See the <i>Menus and Messages Guide</i> on the publications CD for more information.</p> <p>Note: Macintosh computer users should make sure the lines per inch (lpi) setting is not set too high in the software application.</p>
<p>Characters have jagged or uneven edges</p> 	<ul style="list-style-type: none"> • Change the Print Resolution setting in the Quality Menu to 600 dpi, 1200 dpi or 2400 IQ. Refer to the <i>Menus and Messages Guide</i> on the <i>Publications CD</i> for more settings information. • If you are using downloaded fonts, verify the fonts are supported by the printer, the host computer, and the software application.
<p>Part or all of the page is printed in black.</p> 	<p>Check the print cartridge to see if it is installed correctly.</p>

Problem	Action
<p>The job prints, but the top and side margins are incorrect.</p> 	<ul style="list-style-type: none"> • Make sure the Paper Size setting in the Paper Menu is correct. • Make sure the margins are set correctly in your software application.
<p>Ghost images appear.</p>	<ul style="list-style-type: none"> • Make sure the Paper Type setting in the Paper Menu is correct. • Replace the photoconductor kit.
<p>Gray background prints</p>	<ul style="list-style-type: none"> • The Toner Darkness setting may be too dark. Change the Toner Darkness setting in the Quality Menu. See the <i>Menus and Messages Guide</i> on the publications CD for more information. • The toner cartridge may be defective. Replace the toner cartridge.
<p>Repeating defects appear</p>	<p>Either the toner cartridge, the photoconductor kit, or the fuser is defective. See “Print quality troubleshooting” for more information.</p>
<p>Some of the print is cut off on the sides, top, or bottom of the media.</p>	<p>Move the guides in the tray to the proper positions for the size loaded.</p>
<p>Print is skewed, or inappropriately slanted.</p>	
<p>Transparency print quality is poor.</p>	<ul style="list-style-type: none"> • Use only transparencies recommended by the printer manufacturer. • Make sure the Paper Type setting in the Paper Menu is set to Transparency.

Print quality troubleshooting

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

Note: A ✓ (check mark) appears to the left of an item to indicate that it is highlighted.

- 1 Turn the printer off.
- 2 Hold down ✓ and >, and turn the printer on.

The **Performing Self Test** message appears followed by **Config Menu**.

- 3 Press v until **Prt Quality Pgs** is highlighted, 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.

After the Print Quality Test Pages print, to exit the Config Menu:

- 4 Press v until **Exit Config Menu** is highlighted, and then press ✓.
- 5 The messages **Resetting Printer** and **Performing Self Test** appear, and the printer returns to **Ready**.

Once the pages print, use the defect spacing chart as follows to correct the print quality problem. To obtain the defect spacing measurement, count the number of black lines between each print defect.

Measurement	Problem	Solution
Print quality defect repeats at every 6 units.	Photoconductor kit	Replace the photoconductor kit.
Print quality defect repeats at every 15 units.	Photoconductor kit	Replace the photoconductor kit.
Print quality defect repeats at every 7 or 8 units.	Toner cartridge	Replace the toner cartridge.
Print quality defect repeats at every 22 units.	Fuser	Replace the fuser.

If another type of print quality problem exists, see the Troubleshooting chapter in the *User's Guide* on the publications CD.

Print defects guide

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.

If the defect appears on the printed side of a single-sided print job, change the **photoconductor kit**.

If the defect appears on the back, change the **fuser**.

94.2 mm
(3.71 in.)

Change the
photoconductor kit.

44 mm
(1.73 in.)

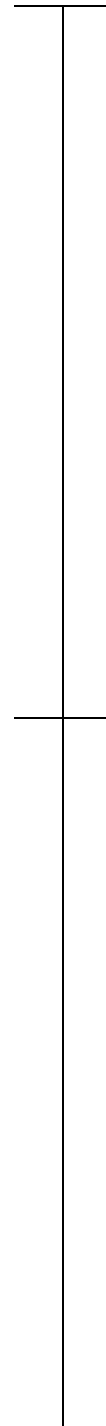
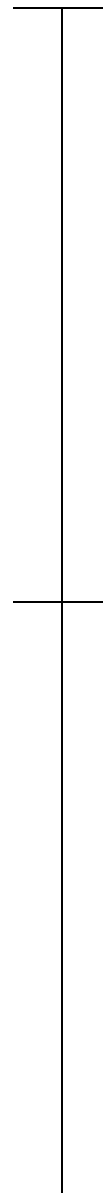
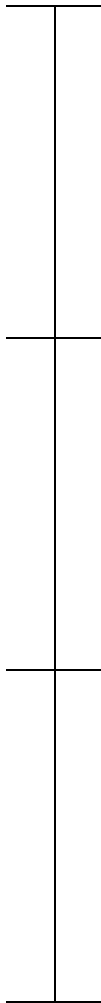
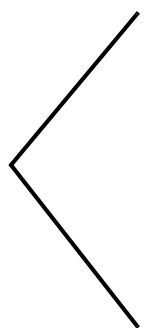
Change the
fuser.

78.5 mm
(3.09 in.)

For example, the distance between these two marks represents a repeating defect that occurs every 44 mm (1.73 in.), which means the photoconductor kit needs replacing.

Change the
transfer roller.

58.7 mm
(2.31 in.)



Supplies guide

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

Part name	Part number
High Yield Toner Cartridge	W84020H
Photoconductor Kit	W84030H
Maintenance kit (low voltage)	25A0014
Maintenance kit (high voltage)	25A0015
Staple Cartridge	25A0013

For information about conserving supplies, see the *User's Guide* on the publications CD.