

HP LaserJet P4010 and P4510 Series Printers

User Guide



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1 Product basics

- [Product comparison](#)
- [Features comparison](#)
- [Product Walkaround](#)

Product comparison

HP LaserJet P4014 models

HP LaserJet P4014 printer

CB506A



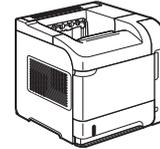
HP LaserJet P4014n printer

CB507A



HP LaserJet P4014dn

CB512A



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- | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Prints up to 45 pages per minute (ppm) on Letter size paper and 43 ppm on A4 size paper• Contains 96 megabytes (MB) of random access memory (RAM). Expandable to 608 MB.• HP print cartridge, rated for up to 10,000 pages• Tray 1 holds up to 100 sheets• Tray 2 holds up to 500 sheets• 500-sheet face-down output bin• 100-sheet face-up output bin• 4-line graphical control-panel display• Hi-speed USB 2.0 port• Enhanced input/output (EIO) slot• One open dual inline memory module (DIMM) slot | <p>Has the same features as the HP LaserJet P4014 printer, plus the following:</p> <ul style="list-style-type: none">• Embedded HP Jetdirect networking• Contains 128 MB RAM. Expandable to 640 MB. | <p>Has the same features as the HP LaserJet P4014n printer, plus the following:</p> <ul style="list-style-type: none">• Duplex-printing accessory for automatic printing on both sides. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
-

HP LaserJet P4015 models

HP LaserJet P4015n printer CB509A	HP LaserJet P4015dn printer CB526A	HP LaserJet P4015tn printer CB510A	HP LaserJet P4015x printer CB511A
			
<ul style="list-style-type: none"> ● Prints up to 52 pages per minute (ppm) on Letter size paper and 50 ppm on A4 size paper ● Embedded HP Jetdirect networking ● Contains 128 megabytes (MB) of random access memory (RAM). Expandable to 640 MB. ● HP print cartridge, rated for up to 10,000 pages ● Tray 1 holds up to 100 sheets ● Tray 2 holds up to 500 sheets ● 500-sheet face-down output bin ● 100-sheet face-up output bin ● 4-line graphical control-panel display ● Numeric keypad ● Hi-speed USB 2.0 port ● Enhanced input/output (EIO) slot ● One open dual inline memory module (DIMM) slot 	<p>Has the same features as the HP LaserJet P4015n printer, plus the following:</p> <ul style="list-style-type: none"> ● Duplex-printing accessory for automatic printing on both sides 	<p>Has the same features as the HP LaserJet P4015n printer, plus the following:</p> <ul style="list-style-type: none"> ● One additional 500-sheet input tray (Tray 3) 	<p>Has the same features as the HP LaserJet P4015n printer, plus the following:</p> <ul style="list-style-type: none"> ● One additional 500-sheet input tray (Tray 3) ● Duplex-printing accessory for automatic printing on both sides

HP LaserJet P4515 models

HP LaserJet P4515n printer

CB514A



HP LaserJet P4515tn printer

CB515A



HP LaserJet P4515x printer

CB516A



HP LaserJet P4515xm printer

CB517A



- Prints up to 62 pages per minute (ppm) on Letter size paper and 60 ppm on A4 size paper
- Embedded HP Jetdirect networking
- Contains 128 megabytes (MB) of random access memory (RAM). Expandable to 640 MB.
- HP print cartridge, rated for up to 10,000 pages
- Tray 1 holds up to 100 sheets
- Tray 2 holds up to 500 sheets
- 500-sheet face-down output bin
- 100-sheet face-up output bin
- 4-line graphical control-panel display
- Numeric keypad
- Hi-speed USB 2.0 port
- Enhanced input/output (EIO) slot
- One open dual inline memory module (DIMM) slot

Has the same features as the HP LaserJet P4515n printer, plus the following:

- One additional 500-sheet input tray (Tray 3)

Has the same features as the HP LaserJet P4515n printer, plus the following:

- One additional 500-sheet input tray (Tray 3)
- Duplex-printing accessory for automatic printing on both sides

Has the same features as the HP LaserJet P4515n printer, plus the following:

- One additional 500-sheet input tray (Tray 3)
- Duplex-printing accessory for automatic printing on both sides
- One 500-sheet, 5-bin mailbox for sorting jobs

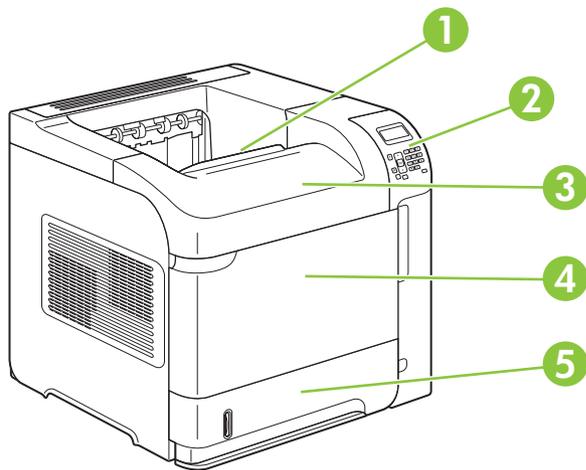
Features comparison

Feature	Description
Performance	<ul style="list-style-type: none"> 540 MHz processor
User interface	<ul style="list-style-type: none"> Control-panel help 4-line graphical display with numeric keypad. (The keypad is not included for the HP LaserJet P4014 models.) HP Easy Printer Care software (a Web-based status and problem-solving tool) Windows® and Macintosh printer drivers Embedded Web server to access support and order supplies (for network-connected models only)
Printer drivers	<ul style="list-style-type: none"> HP PCL 5 Universal Print Driver for Windows (HP UPD PCL 5) HP PCL 6 HP postscript emulation Universal Print Driver for Windows (HP UPD PS)
Resolution	<ul style="list-style-type: none"> FastRes 1200—produces 1200-dots-per-inch (dpi) print quality for fast, high-quality printing of business text and graphics ProRes 1200—produces 1200-dpi printing for the best quality in line art and graphic images 600 dpi—provides the fastest printing
Storage features	<ul style="list-style-type: none"> Fonts, forms, and other macros Job retention
Fonts	<ul style="list-style-type: none"> 103 internal scalable fonts available for PCL and 93 for HP UPD postscript emulation 80 device-matching screen fonts in TrueType format available with the software solution Additional fonts can be added through USB
Accessories	<ul style="list-style-type: none"> HP 500-sheet input tray (up to four additional trays) HP 1,500-sheet high-capacity input tray HP LaserJet 75-sheet envelope feeder HP LaserJet printer stand HP LaserJet automatic duplexer for two-sided printing HP LaserJet 500-sheet stacker HP LaserJet 500-sheet stapler/stacker HP LaserJet 500-sheet 5-bin mailbox <p>NOTE: Each model can accept up to four optional 500-sheet input trays or up to three 500-sheet input trays and one 1,500-sheet high-capacity input tray. If a 1,500-sheet high-capacity input tray is installed, it must always be below the other trays.</p>
Connectivity	<ul style="list-style-type: none"> Hi-Speed USB 2.0 connection HP Jetdirect full-featured embedded print server (optional for the HP LaserJet P4014 printer) with IPv4, IPv6, and IP Security.

Feature	Description
Supplies	<ul style="list-style-type: none"> ● HP Web Jetadmin software ● Enhanced input/output (EIO) slot ● The supplies status page contains information about toner level, page count, and estimated pages remaining. ● The product checks for an authentic HP print cartridge at installation. ● Internet-enabled supply-ordering capabilities (using HP Easy Printer Care)
Supported operating systems	<ul style="list-style-type: none"> ● Microsoft® Windows® 2000, Windows® XP, and Windows Vista™ ● Macintosh OS X, V10.2.8 , V10.3, V10.4, V10.5, and later ● Novell NetWare ● Unix® ● Linux
Accessibility	<ul style="list-style-type: none"> ● The online user guide is compatible with text screen-readers. ● The print cartridge can be installed and removed by using one hand. ● All doors and covers can be opened by using one hand. ● Paper can be loaded in Tray 1 by using one hand.

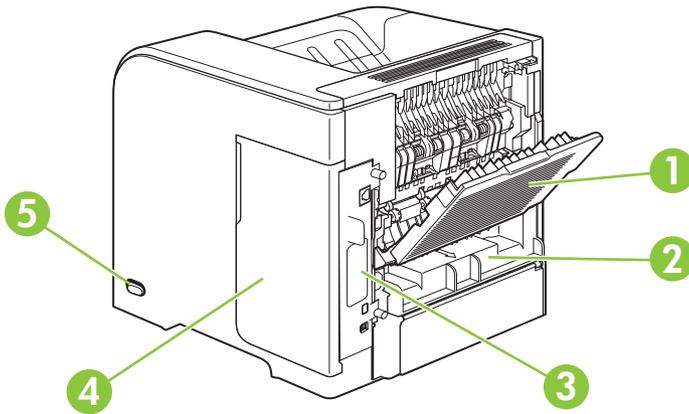
Product Walkaround

Front view



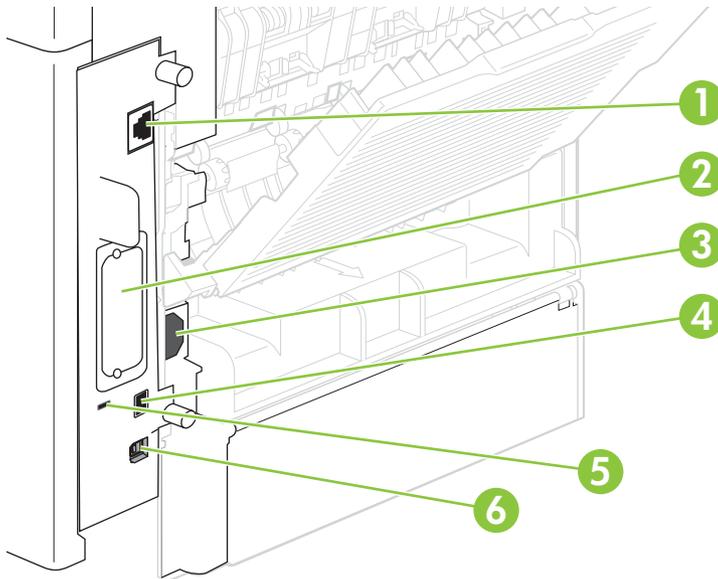
1	Top output bin
2	Control panel
3	Top cover (provides access to the print cartridge)
4	Tray 1 (pull to open)
5	Tray 2

Rear view



1	Rear output bin (pull to open)
2	Duplex accessory cover (remove this to install the duplex printing accessory)
3	Interface ports
4	Right cover (provides access to the DIMM slot)
5	On/off switch

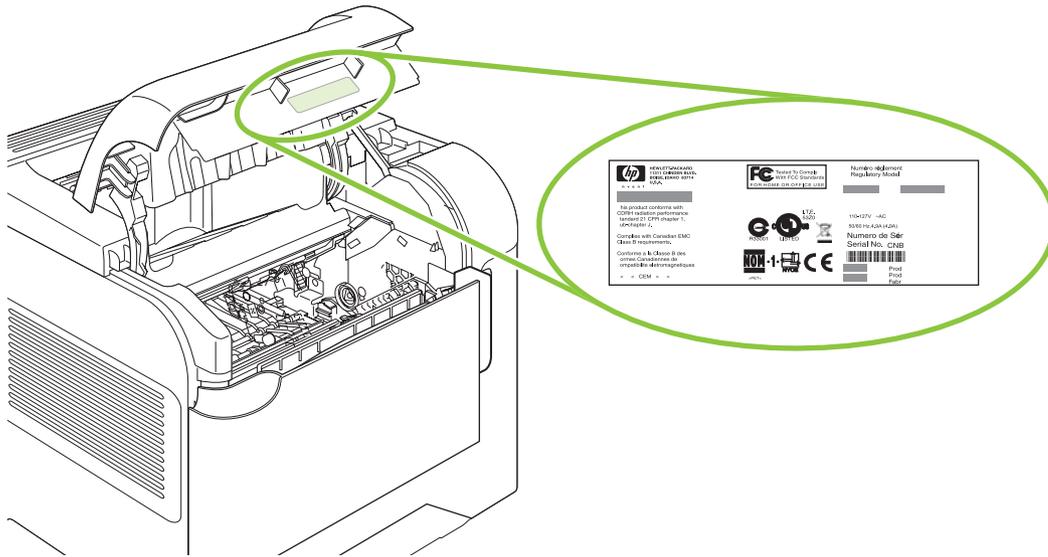
Interface ports



1	RJ.45 Network connection (not available for the HP LaserJet P4014 printer)
2	EIO slot
3	Power connection
4	Host USB connection, for adding fonts and other third-party solutions (this connection might have a removable cover)
5	Slot for a cable-type security lock
6	Hi-speed USB 2.0 connection, for connecting directly to a computer

Model and serial-number label location

The label that contains the model and serial numbers is on the inside of the top cover.

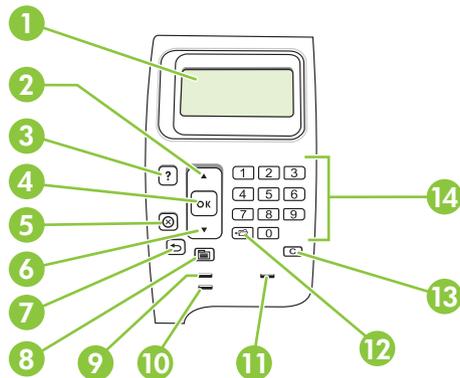


2 Control panel

- [Control-panel layout](#)
- [Use the control-panel menus](#)
- [Show Me How menu](#)
- [Retrieve Job menu](#)
- [Information menu](#)
- [Paper Handling menu](#)
- [Configure Device menu](#)
- [Diagnostics menu](#)
- [Service menu](#)

Control-panel layout

Use the control panel to obtain product and job status information and to configure the product.



Number	Button or light	Function
1	Control-panel display	Shows status information, menus, help information, and error messages
2	▲ Up arrow	Navigates to the previous item in the list, or increases the value of numeric items
3	? Help button	Provides information about the message on the control-panel display
4	OK button	<ul style="list-style-type: none"> Saves the selected value for an item Performs the action that is associated with the item that is highlighted on the control-panel display Clears an error condition when the condition is clearable
5	⊗ Stop button	Cancels the current print job and clears the pages from the product
6	▼ Down arrow	Navigates to the next item in the list, or decreases the value of numeric items
7	↶ Back arrow	Backs up one level in the menu tree or backs up one numeric entry
8	☰ Menu button	<ul style="list-style-type: none"> Opens and closes the menus.
9	Ready light	<ul style="list-style-type: none"> On: The product is online and ready to accept data to print. Off: The product cannot accept data because it is offline (paused) or has experienced an error. Blinking: The product is going offline. The product stops processing the current job and expels all of the active pages from the paper path.
10	Data light	<ul style="list-style-type: none"> On: The product has data to print, but is waiting to receive all of the data. Off: The product has no data to print. Blinking: The product is processing or printing the data.
11	Attention light	<ul style="list-style-type: none"> On: The product has experienced a problem. See the control-panel display. Off: The product is functioning without error. Blinking: Action is required. See the control-panel display.

Number	Button or light	Function
12	 Folder or STAR (Secure Transaction Access Retrieval) button NOTE: This item is not included for the HP LaserJet P4014 models.	Provides quick access to the RETRIEVE JOB menu
13	 Clear button NOTE: This item is not included for the HP LaserJet P4014 models.	Returns values to their defaults and exits the help screen
14	Numeric keypad NOTE: This item is not included for the HP LaserJet P4014 models.	Enter numeric values

Use the control-panel menus

To gain access to the control-panel menus, complete the steps below.

Use the menus

1. Press **Menu** .
2. Press the down arrow ▼ or the up arrow ▲ to navigate the listings.
3. Press **OK** to select the appropriate option.
4. Press the back arrow ↶ to return to the previous level.
5. Press **Menu**  to exit the menu.
6. Press the help button ? to see additional information about an item.

The following are the main menus.

Main menus

SHOW ME HOW

RETRIEVE JOB

INFORMATION

PAPER HANDLING

CONFIGURE DEVICE

DIAGNOSTICS

SERVICE

Show Me How menu

Each choice in the **SHOW ME HOW** menu prints a page that provides more information.

Item	Explanation
CLEAR JAMS	Prints a page that shows how to clear paper jams.
LOAD TRAYS	Prints a page that shows how to load the input trays.
LOAD SPECIAL MEDIA	Prints a page that shows how to load special paper, such as envelopes and letterhead.
PRINT ON BOTH SIDES	Prints a page that shows how to use the two-sided (duplex) printing function. NOTE: Duplex menu item only appears for duplexing bundles.
SUPPORTED PAPER	Prints a page that shows supported paper types and sizes for the product.
PRINT HELP GUIDE	Prints a page that shows links to additional help on the Web.

Retrieve Job menu

This menu provides a list of the stored jobs in the product and access to all the job-storage features. You can print or delete these jobs at the product control panel. This menu appears when the product has a minimum of 80 MB of base memory. See [Use job storage features on page 93](#) for more information about using this menu.

 **NOTE:** If you turn the product off, all stored jobs are deleted unless an optional hard disk is installed.

NOTE: Press the folder button  to go directly to this menu.

Item	Sub-item	Values	Explanation
USER NAME	ALL JOBS (WITH PIN)	PRINT	USER NAME: The name of the person who sent the job. <ul style="list-style-type: none">● PRINT: Prints the selected job, after you enter the PIN.
		DELETE	
	ALL JOBS (NO PINS)	PRINT	<ul style="list-style-type: none">● PRINT: Prints the selected job.
		DELETE ALL JOBS	<ul style="list-style-type: none">● DELETE: Deletes all the jobs from the product. The product prompts you to confirm the action before it deletes the jobs.

Information menu

The **INFORMATION** menu contains product information pages that give details about the product and its configuration. Scroll to the information page that you want, and then press **OK**.

Item	Explanation
PRINT MENU MAP	Prints the control-panel menu map that shows the layout and current settings for the control-panel menu items.
PRINT CONFIGURATION	Prints the current product configuration. If an HP Jetdirect print server is installed, an HP Jetdirect configuration page will print out as well.
PRINT SUPPLIES STATUS PAGE	Prints a supplies status page that shows the supplies levels for the product, an approximate number of pages remaining, cartridge-usage information, the serial number, a page count, and ordering information. This page is available only if you are using genuine HP supplies.
PRINT USAGE PAGE	Prints a page that shows a count of all paper sizes that have passed through the product, lists whether they were one-sided or two-sided, and shows a page count.
PRINT FILE DIRECTORY	Prints a file directory that shows information for all installed mass-storage devices. This item appears only if a mass-storage device that contains a recognized file system is installed in the product.
PRINT PCL FONT LIST	Prints a PCL font list that shows all the PCL fonts that are currently available to the product.
PRINT PS FONT LIST	Prints a PS font list that shows all the PS fonts that are currently available to the product.

Paper Handling menu

Use this menu to set the paper size and type for each tray. The product uses this information to produce pages with best possible print quality. For more information, see [Configure trays on page 85](#).

Some items on this menu are also available in the software program or the printer driver. Program and printer-driver settings override control-panel settings.

Item	Values	Explanation
ENVELOPE FEEDER SIZE	List of available paper sizes for the envelope feeder	Use this item to set the value to correspond with the paper size that is currently loaded in the envelope feeder.
ENVELOPE FEEDER TYPE	List of available paper types for the envelope feeder	Use this item to set the value to correspond with the type of paper that is currently loaded in the envelope feeder.
TRAY1 SIZE	List of available paper sizes for Tray 1	<p>Use this item to set the value to correspond with the paper size that is currently loaded in Tray 1. The default setting is ANY SIZE.</p> <p>ANY SIZE: If both the type and size for Tray 1 are set to ANY, the product will pull paper from Tray 1 first if paper is loaded in the tray.</p> <p>A size other than ANY SIZE: The product does not pull from this tray unless the type or size of the print job matches the type and size that is loaded in this tray.</p>
TRAY1 TYPE	List of available paper types for Tray 1	<p>Use this item to set the value to correspond with the type of paper that is currently loaded in Tray 1. The default setting is ANY TYPE.</p> <p>ANY TYPE: If both the type and size for Tray 1 are set to ANY, the product will pull paper from Tray 1 first if the paper is loaded in the tray.</p> <p>A type other than ANY TYPE: The product does not pull from this tray.</p>
TRAY[N] SIZE	List of available paper sizes for Tray 2 or the optional trays	The tray automatically detects the paper size based on the position of the guides in the tray. The default setting is either LTR (letter) for 110 V engines or A4 for 220 V engines.
TRAY[N] TYPE	List of available paper types for Tray 2 or the optional trays	Sets the value to correspond with the paper type that is currently loaded in Tray 2 or the optional trays. The default setting is ANY TYPE .

Configure Device menu

Use this menu to change the default printing settings, adjust the print quality, and change the system configuration and I/O options.

Printing submenu

Some items on this menu are available in the program or printer driver. Program and printer-driver settings override control-panel settings. In general, it is better to change these settings in the printer driver, if applicable.

Item	Values	Explanation
COPIES	1 to 32000	<p>Set the default number of copies by selecting any number from 1 to 32000. Use the numeric keypad to enter the number of copies. For products that do not have a numeric keypad, press the up arrow ▲ or the down arrow ▼ to select the number of copies. This setting applies only to print jobs that do not have the number of copies specified in the program or printer driver, such as a UNIX or Linux program.</p> <p>The default setting is 1.</p> <p>NOTE: It is best to set the number of copies in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p>
DEFAULT PAPER SIZE	Displays a list of available paper sizes.	Set the default image size for paper and envelopes. This setting applies to the print jobs that do not have a paper size specified in the program or printer driver. The default setting is LETTER .
DEFAULT CUSTOM PAPER SIZE	UNIT OF MEASURE XDIMENSION YDIMENSION	<p>Set the default custom paper size for Tray 1 or any 500-sheet tray.</p> <p>UNIT OF MEASURE: Use this option to select the unit of measure (INCHES or MILLIMETERS) to use when you set custom paper sizes.</p> <p>XDIMENSION: Use this item to set the measurement of the width of the paper (measurement from side to side in the tray). The range is 76 to 216 mm (3.0 to 8.50 inches).</p> <p>YDIMENSION: Use this item to set the measurement of the length of the paper (measurement from front to back in the tray). The range is 127 to 356 mm (5.0 to 14.0 inches).</p>
PAPER DESTINATION	Displays a list of possible paper destinations.	Configure the output paper bin destination. The list varies according to which output accessory is attached. The default is STANDARD TOP BIN .
DUPLEX	OFF ON	<p>This item appears only when an optional duplexer is installed. Set the value to ON to print on both sides (duplex) or OFF to print on one side (simplex) of a sheet of paper.</p> <p>The default setting is OFF.</p>
DUPLEX BINDING	LONG EDGE SHORT EDGE	<p>Change the binding edge for duplex printing. This item appears only when an optional duplexer is installed and DUPLEX is set to ON.</p> <p>The default setting is LONG EDGE.</p>
OVERRIDE A4/LETTER	NO	Select YES to print an A4-size job on Letter-size paper if A4-size paper is not loaded in the product (or vice versa).

Item	Values	Explanation
	YES	The default setting is YES .
MANUAL FEED	OFF	Feeds the paper manually from Tray 1, rather than automatically from another tray. If MANUAL FEED=ON and Tray 1 is empty, the product goes offline when it receives a print job. MANUALLY FEED [PAPER SIZE] appears on the control-panel display. The default setting is OFF .
	ON	
COURIER FONT	REGULAR	Selects the version of Courier font to use: REGULAR: The internal Courier font that is available on the HP LaserJet 4 series products. DARK: The internal Courier font that is available on the HP LaserJet III series products. The default setting is REGULAR .
	DARK	
WIDE A4	NO	Changes the number of characters that can be printed on a single line of A4-size paper. NO: Up to 78 10-pitch characters can be printed on one line. YES: Up to 80 10-pitch characters can be printed on one line. The default setting is NO .
	YES	
PRINT PS ERRORS	OFF	Determines whether a PS error page prints. OFF: PS error page never prints. ON: PS error page prints when PS errors occur. The default setting is OFF .
	ON	
PRINT PDF ERRORS	OFF	Determines whether a PDF error page prints. OFF: PDF error page never prints. ON: PDF error page prints when PDF errors occur. The default setting is OFF .
	ON	

Item	Values	Explanation
PCL SUBMENU	FORM LENGTH	Sets vertical spacing from 5 to 128 lines for default paper size.
	ORIENTATION	Sets the default page orientation as LANDSCAPE or PORTRAIT . NOTE: It is best to set the page orientation in the program or printer driver. (Program and printer-driver settings override control-panel settings.)
	FONT SOURCE	Select the font source as INTERNAL , or EIO DISK .
	FONT NUMBER	The product assigns a number to each font and lists the numbers on the PCL Font List. The font number appears in the Font # column of the list. The range is 0 to 102.
	FONT PITCH	Select the font pitch. This item might not appear, depending on the font selected. The range is 0.44 to 99.99.
	FONT POINT SIZE	Select the font point size. The range is 4.00 to 999.75. The default is 12.00.
	SYMBOL SET	Select any one of several available symbol sets at the product control panel. A symbol set is a unique grouping of all the characters in a font. PC-8 or PC-850 is recommended for line-draw characters.
	APPEND CR TO LF	Select YES to append a carriage return to each line feed that the product encountered in backward-compatible PCL jobs (pure text, no job control). Some environments, such as UNIX, indicate a new line using only the line feed control code. Use this option to append the required carriage return to each line feed.
	SUPPRESS BLANK PAGES	When generating your own PCL, extra form feeds are included that would cause one or more blank pages to be printed. Select YES for form feeds to be ignored if the page is blank.
	MEDIA SOURCE MAPPING	Select and maintain trays by number when you are not using the printer driver or when the software program has no option for tray selection. CLASSIC: Tray numbering is based on HP LaserJet 4 and older models. STANDARD: Tray numbering is based on newer HP LaserJet models.

Print Quality submenu

Some items on this menu are available in the program or printer driver. Program and printer-driver settings override control-panel settings. In general, it is best to change these settings in the printer driver, if applicable.

Item	Values	Explanation
SET REGISTRATION	PRINT TEST PAGE	<p>Shifts the margin alignment to center the image on the page from top to bottom, and left to right. You can also align the image that is printed on the front with the image that is printed on the back. Allows for one-sided and two-sided printing alignment.</p> <p>PRINT TEST PAGE: Prints a test page that shows the current registration settings.</p> <p>SOURCE: Selects the tray for which you want to print the test page.</p> <p>ADJUST TRAY [N]: Sets the registration for the specified tray, where [N] is the number of the tray. A selection appears for each tray that is installed, and registration must be set for each tray.</p> <ul style="list-style-type: none"> ● X1 SHIFT: Registration of the image on the paper from side to side, as the paper lies in the tray. For duplexing, this side is the second side (back) of the paper. ● X2 SHIFT: Registration of the image on the paper from side to side, as the paper lies in the tray, for the first side (front) of a duplexed page. This item appears only if the product includes a built-in duplexer and DUPLEX is ON. Set the X1 SHIFT first. ● Y SHIFT: Registration of the image on the paper from top to bottom as the paper lies in the tray. <p>The default setting for SOURCE is TRAY 2. The default setting for ADJUST TRAY 1 and ADJUST TRAY 2 is 0.</p>
	SOURCE	
	ADJUST TRAY [N]	
FUSER MODES	List of available paper types	<p>Configures the fuser mode associated with each paper type.</p> <p>Change the fuser mode only if you are experiencing problems printing on certain paper types. After you select a type of paper, you can select a fuser mode that is available for that type. The product supports the following modes:</p> <p>NORMAL: Used for most types of paper.</p> <p>LIGHT1: Used for most types of paper.</p> <p>LIGHT2: Use this mode if you are experiencing wrinkled media.</p> <p>HEAVY: Used for rough paper.</p> <p>The default fuser mode is LIGHT1 for all print media types except transparencies (LIGHT2) and rough paper (HEAVY).</p>

Item	Values	Explanation
		<p>CAUTION: Do not change the fuser mode for transparencies. Failure to use the LIGHT2 setting while printing transparencies can result in permanent damage to the product and fuser. Always select Transparencies as the type in the print driver and set the tray type at the product control panel to TRANSPARENCY.</p> <p>When selected, RESTORE MODES resets the fuser mode for each paper type back to its default setting.</p>
OPTIMIZE Optimizes certain parameters for all jobs rather than (or in addition to) optimizing by paper type.	LINE DETAIL	Turn this setting on if you are having problems with blurred print or scattered lines.
	RESTORE OPTIMIZE	Use this item to return all the OPTIMIZE settings to OFF .
RESOLUTION	300	Select the resolution. All values print at the same speed.
	600	300: Produces draft print quality and can be used for compatibility with the HP LaserJet III family of products.
	FASTRES 1200	600: Produces high print quality for text and can be used for compatibility with the HP LaserJet 4 family of products.
	PRORES 1200	<p>FASTRES 1200: Produces 1200-dpi print quality for fast, high-quality printing of business text and graphics.</p> <p>PRORES 1200: Produces 1200-dpi print quality for fast, high-quality printing of line art and graphic images.</p> <p>NOTE: It is best to change the resolution in the program or print driver. (Program and printer-driver settings override control-panel settings.)</p> <p>The default setting is FASTRES 1200.</p>
RET	OFF	Use the Resolution Enhancement technology (REt) setting to produce print with smooth angles, curves, and edges.
	LIGHT	
	MEDIUM	
	DARK	
		REt does not affect print quality if the print resolution is set to FastRes 1200 or ProRes 1200. All other print resolutions benefit from RET.
		<p>NOTE: It is best to change the RET setting in the program or print driver. (Program and printer-driver settings override control-panel settings.)</p> <p>The default setting is MEDIUM.</p>
ECONOMODE	ON	EconoMode is a feature that allows the product to use less toner per page. Selecting this option will extend the life of the toner supply and may reduce cost per page. However, it will also reduce print quality. The printed page is lighter, but it is adequate for printing drafts or proofs.
	OFF	
		HP does not recommend full-time use of EconoMode. If EconoMode is used full-time, the toner supply might outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you will need to install a new print cartridge, even if there is toner supply remaining in the cartridge.

Item	Values	Explanation
		<p>NOTE: It is best to turn EconoMode on or off in the program or printer driver. (Program and printer-driver settings override control-panel settings.)</p> <p>The default setting is OFF.</p>
TONER DENSITY	1 to 5	Lighten or darken the print on the page by setting the toner density. Select a setting ranging from 1 (light) to 5 (dark). The default setting of 3 usually produces the best results.
AUTO CLEANING	OFF ON	Use this feature to automatically clean the paper path after the product has printed a specific number of pages. Use the CLEANING INTERVAL item to set the number of pages. The default is OFF .
CLEANING INTERVAL	1000 2000 5000 10000 20000	This item appears only if AUTO CLEANING is on. Select the number of pages at which the product should perform the cleaning process.
AUTO CLEANING SIZE	LETTER A4	This item appears only if AUTO CLEANING is on. Use to set the size for the automatically generated cleaning page.
CREATE CLEANING PAGE	There is no value to select.	Press OK to print a cleaning page (for cleaning toner from the fuser). Follow the instructions on the cleaning page. For more information, see Clean the paper path on page 133 .
PROCESS CLEANING PAGE	There is no value to select.	This item is available only after a cleaning page has been created. Follow the instructions that are printed on the cleaning page. The cleaning process might take up to 2.5 minutes.

System Setup submenu

Items on this menu affect product behavior. Configure the product according to your printing needs.

Item	Values	Explanation
DATE/TIME	DATE	Sets the date and time settings.
	DATE FORMAT	
	TIME	
	TIME FORMAT	
JOB STORAGE LIMIT	1 to 100	Specifies the number of quick copy jobs that can be stored on the product. The default setting is 32 .
JOB HELD TIMEOUT	OFF	Sets the amount of time that held jobs are kept before being automatically deleted from the queue. The default setting is OFF .
	1 HOUR	
	4 HOURS	
	1 DAY	
	1 WEEK	
SHOW ADDRESS	AUTO	Defines whether the IP address IS shown on the display if the product is connected to a network. If AUTO is selected the IP Address of the product appears with the Ready message. The default setting is OFF .
	OFF	

Item	Values	Explanation
TRAY BEHAVIOR	USE REQUESTED TRAY	<p>Select whether the product tries to pull paper from a different tray than the one that you selected in the print driver.</p> <ul style="list-style-type: none"> ● EXCLUSIVELY: Sets the product to pull from the tray that you selected and not pull from another tray, even if the tray that you selected is empty. ● FIRST: Sets the product to pull from the tray that you selected first, but allows the product to pull from another tray automatically if the tray that you selected is empty.
	MANUALLY FEED PROMPT	<p>Select when the product shows a prompt regarding pulling from Tray 1 if your print job does not match the type or size that is loaded in any other tray.</p> <ul style="list-style-type: none"> ● ALWAYS: Select this option if you always want to be prompted before the product pulls from Tray 1. ● UNLESS LOADED: Prompts you only if Tray 1 is empty.
	PS DEFER MEDIA	<p>Control whether the PostScript (PS) or HP paper-handling model is used to print jobs. ENABLE causes PS to defer to the HP paper-handling model. DISABLE uses the PS paper-handling model.</p>
	SIZE/TYPE PROMPT	<p>Control whether the tray configuration message and its prompts are shown whenever a tray is opened and closed. These prompts instruct you to set the type or size if the tray is configured for a type or size other than the type or size that is loaded in the tray.</p>
	USE ANOTHER TRAY	<p>Enable or disable the prompt to select another tray.</p>
	DUPLEX BLANK PAGES	<p>Configure the way the product treats blank pages when using the optional duplexer. Select AUTO for the fastest performance. Select YES to always pass the sheet through the duplexer, even if it is printed on only one side.</p>
	TRAY 2 MODEL	<p>Specify whether Tray 2 is the STANDARD TRAY or the CUSTOM TRAY.</p>
IMAGE ROTATION		<p>Sets how the product arranges the image on the page when an output accessory is installed.</p> <ul style="list-style-type: none"> ● STANDARD: The product automatically rotates the image, so you can always load paper the same way, even if an output accessory is attached. ● ALTERNATE: The product does not automatically rotate the image, so you might need to load paper differently for certain types of output.
SLEEP DELAY	1 MINUTE	<p>Sets how long the product remains idle before it enters Sleep mode.</p> <p>Sleep mode does the following:</p> <ul style="list-style-type: none"> ● Minimizes the amount of power that the product consumes when it is idle. ● Reduces wear on electronic components in the product (turns off the display backlight, but the display is still readable).
	15 MINUTES	
	30 MINUTES	
	45 MINUTES	
	60 MINUTES	
	90 MINUTES	
	2 HOURS	

Item	Values	Explanation
	4 HOURS	The product automatically comes out of Sleep mode when you send a print job, press a product control-panel button, open a tray, or open the top cover. The default setting is 30 MINUTES .
WAKE TIME	MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY SUNDAY	Sets a “wake-up” time for the product to warm up each day. The default for each day is OFF . If you set a wake time, HP recommends setting an extended sleep delay time period, so that the product will not return to sleep mode soon after waking.
DISPLAY BRIGHTNESS	A value from 1 to 10	Controls the brightness of the control panel display. The default is 5 .
PERSONALITY	AUTO PS PDF PCL SUBMENU	Selects the default product language (personality). The possible values are determined by which valid languages are installed in the product. Normally, you should not change the product language. If you change it to a specific product language, the product will not switch automatically from one language to another unless specific software commands are sent to the product. The default setting is AUTO .
CLEARABLE WARNINGS	JOB ON	Sets the amount of time that a clearable warning appears on the product control-panel display. JOB : The clearable warning message appears until the end of the job that generated the message. ON : The clearable warning message appears until you press OK . The default setting is JOB .
AUTO CONTINUE	OFF ON	Determines how the product reacts to errors. If the product is on a network, you probably want to turn AUTO CONTINUE to ON . ON : If an error occurs that prevents printing, the message appears on the product control-panel display, and the product goes offline for 10 seconds before returning online. OFF : If an error occurs that prevents printing, the message remains on the product control-panel display, and the product remains offline until you press OK . The default setting is ON .
REPLACE BLACK CARTRIDGE	STOP AT LOW STOP AT OUT OVERRIDE AT OUT	Determines how the product behaves when the print cartridge is low or out. STOP AT LOW : The product stops printing when the print cartridge reaches the low threshold. Press OK to continue printing.

Item	Values	Explanation
		<p>STOP AT OUT: The product stops printing when the print cartridge is depleted. You must replace the print cartridge before printing can continue.</p> <p>OVERRIDE AT OUT: Select this option to override the message and continue printing after the print cartridge is depleted. HP does not guarantee print quality after you select this option.</p> <p>The default value is OVERRIDE AT OUT.</p>
ORDER AT	1 TO 100	Set the threshold at which the ORDER BLACK CARTRIDGE message appears. The value is the percent of overall cartridge life that remains. The default is 23%.
JAM RECOVERY	AUTO OFF ON	<p>Determines how the product behaves if a jam occurs.</p> <p>AUTO: The product automatically selects the best mode for jam recovery. This is the default setting.</p> <p>OFF: The product does not reprint pages following a jam. Printing performance might be increased with this setting.</p> <p>ON: The product automatically reprints pages after a jam is cleared.</p>
RAM DISK	AUTO OFF	<p>Determines how the RAM disk is configured.</p> <p>AUTO: Allows the product to determine the optimal RAM-disk size based on the amount of available memory.</p> <p>OFF: The RAM is disabled.</p> <p>NOTE: If you change the setting from OFF to AUTO, the product automatically reinitializes when it becomes idle.</p> <p>The default setting is AUTO.</p>
LANGUAGE	(DEFAULT) Several	<p>Selects the language for the messages that appear on the control-panel display.</p> <p>The default setting is determined by the country/region in which the product is purchased.</p>

Stapler Stacker submenu

This menu appears only when an optional stapler/stacker is attached.

Item	Values	Explanation
STAPLES	NONE	Select whether all jobs should be stapled. If you select ONE-LEFT-ANGLED , all jobs are stapled. The default is NONE .
	ONE-LEFT-ANGLED	
STAPLES OUT	STOP	Select the option to stop or continue printing when the stapler is out of staples. The default is STOP .
	CONTINUE	

MBM-5 (multi-bin mailbox) submenu

This menu appears only when an optional 5-bin mailbox is attached.

Item	Values	Explanation
OPERATION MODE	MAILBOX	Select how the 5-bin mailbox sorts jobs.
	STACKER	MAILBOX: Each bin is assigned to a user or group of users. This is the default setting.
	JOB SEPARATOR	STACKER: The product uses all bins to stack copies of a job. Jobs are sent to the bottom bin first, and then to the next highest bin, and so forth. When all bins are full, the product stops.
	COLLATOR	JOB SEPARATOR: Each job is placed in a separate bin. Jobs are placed into an empty bin, starting with the top bin. COLLATOR: The product sorts copies of jobs into separate bins.

I/O submenu

Items on the I/O (input/output) menu affect the communication between the product and the computer. If the product contains an HP Jetdirect print server, you can configure basic networking parameters by using this submenu. You can also configure these and other parameters through HP Web Jetadmin or the embedded Web server.

Item	Values	Explanation
I/O TIMEOUT	5 to 300	Select the I/O timeout period in seconds. Use this setting to adjust timeout for the best performance. If data from other ports appears in the middle of your print job, increase the timeout value. The default setting is 15 .
EMBEDDED JETDIRECT MENU	See the next table for a list of options.	
EIO <X> JETDIRECT MENU		

 **NOTE:** In the following table, items that are marked with an asterisk (*) are the default setting.

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus

Menu item	Sub-menu item	Sub-menu item	Values and Description
TCP/IP	ENABLE		OFF: Disable the TCP/IP protocol. ON*: Enable the TCP/IP protocol.
	HOST NAME		An alphanumeric string, up to 32 characters, used to identify the product. This name is listed on the HP Jetdirect configuration page. The default host name is NPIxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.
	IPV4 SETTINGS	CONFIG METHOD	Specifies the method that TCP/IPv4 parameters will be configured on the HP Jetdirect print server. BOOTP: Use BootP (Bootstrap Protocol) for automatic configuration from a BootP server. DHCP*: Use DHCP (Dynamic Host Configuration Protocol) for automatic configuration from a DHCPv4 server. AUTO IP: Use automatic link-local IPv4 addressing. An address in the form 169.254.x.x is assigned automatically. MANUAL: Use the MANUAL SETTINGS menu to configure TCP/IPv4 parameters.
		MANUAL SETTINGS	(Available only if CONFIG METHOD is set to MANUAL) Configure parameters directly from the printer control panel: IP ADDRESS: The unique IP address of the printer, where n is a value from 0 to 255.

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)

Menu item	Sub-menu item	Sub-menu item	Values and Description
			<p>SUBNET MASK: The subnet mask for the printer, where m is a value from 0 to 255.</p> <p>DEFAULT GATEWAY: The IP address of the gateway or router used for communications with other networks.</p>
		DEFAULT IP	<p>Specify the IP address to default to when the print server is unable to obtain an IP address from the network during a forced TCP/IP reconfiguration (for example, when manually configured to use BootP or DHCP).</p> <p>AUTO IP: A link-local IP address 169.254.x.x is set.</p> <p>LEGACY: The address 192.0.0.192 is set, consistent with older HP Jetdirect products.</p>
		PRIMARY DNS	Specify the IP address (n.n.n.n) of a Primary DNS Server.
		SECONDARY DNS	Specify the IP address (n.n.n.n) of a Secondary Domain Name System (DNS) Server.
	IPv6 SETTINGS	ENABLE	<p>Use this item to enable or disable IPv6 operation on the print server.</p> <p>OFF*: IPv6 is disabled.</p> <p>ON: IPv6 is enabled.</p>
		ADDRESS	<p>Use this item to manually configure an IPv6 address.</p> <p>MANUAL SETTINGS: Use the MANUAL SETTINGS menu to enable and manually configure a TCP/ IPv6 address.</p> <p>ENABLE: Select this item and choose ON to enable manual configuration, or OFF to disable manual configuration.</p> <p>ADDRESS: Use this item to type a 32 hexadecimal digit IPv6 node address that uses the colon hexadecimal syntax.</p>
		DHCPv6 POLICY	<p>ROUTE SPECIFIED: The stateful auto-configuration method to be used by the print server is determined by a router. The router specifies whether the print server obtains its address, its configuration information, or both from a DHCPv6 server.</p> <p>ROUTER UNAVAILABLE: If a router is not available, the print server should attempt to obtain its stateful configuration from a DHCPv6 server.</p> <p>ALWAYS: Whether or not a router is available, the print server always attempts to obtain its stateful configuration from a DHCPv6 server.</p>
		PRIMARY DNS	Use this item to specify an IPv6 address for a primary DNS server that the print server should use.
		SECONDARY DNS	Use this item to specify an IPv6 address for a secondary DNS server that the print server should use.

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)

Menu item	Sub-menu item	Sub-menu item	Values and Description
	PROXY SERVER		<p>Specifies the proxy server to be used by embedded applications in the product. A proxy server is typically used by network clients for Internet access. It caches Web pages, and provides a degree of Internet security, for those clients.</p> <p>To specify a proxy server, enter its IPv4 address or fully-qualified domain name. The name can be up to 255 octets.</p> <p>For some networks, you might need to contact your Internet Service Provider (ISP) for the proxy server address.</p>
	PROXY PORT		Type the port number used by the proxy server for client support. The port number identifies the port reserved for proxy activity on your network, and can be a value from 0 to 65535.
	IDLE TIMEOUT		IDLE TIMEOUT: The time period, in seconds, after which an idle TCP print data connection is closed (default is 270 seconds, 0 disables the timeout).
IPX/SPX	ENABLE		<p>OFF: Disable the IPX/SPX protocol.</p> <p>ON*: Enable the IPX/SPX protocol.</p>
	FRAME TYPE		<p>Selects the frame-type setting for your network.</p> <p>AUTO: Automatically sets and limits the frame type to the first one detected.</p> <p>EN_8023, EN_II, EN_8022, and EN_SNAP: Frame-type selections for Ethernet networks</p>
APPLETALK	ENABLE		<p>OFF: Disable the AppleTalk protocol.</p> <p>ON*: Enable the AppleTalk protocol.</p>
DLC/LLC	ENABLE		<p>OFF: Disable the DLC/LLC protocol.</p> <p>ON*: Enable the DLC/LLC protocol.</p>

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)

Menu item	Sub-menu item	Sub-menu item	Values and Description
SECURITY	PRINT SEC PAGE		<p>YES: Prints a page that contains the current security settings on the HP Jetdirect print server.</p> <p>NO*: A security settings page is not printed.</p>
	SECURE WEB		<p>For configuration management, specify whether the embedded Web server will accept communications using HTTPS (Secure HTTP) only, or both HTTP and HTTPS.</p> <p>HTTPS Required: For secure, encrypted communications, only HTTPS access is accepted. The print server will appear as a secure site.</p> <p>HTTP/HTTPS optional: Access using either HTTP or HTTPS is permitted.</p>
	IPSEC		<p>Specify the IPsec or Firewall status on the print server.</p> <p>KEEP: IPsec/Firewall status remains the same as currently configured.</p> <p>DISABLE: IPsec/Firewall operation on the print server is disabled.</p>
	RESET SECURITY		<p>Specify whether the current security settings on the print server will be saved or reset to factory defaults.</p> <p>NO*: The current security settings are maintained.</p> <p>YES: Security settings are reset to factory defaults.</p>
DIAGNOSTICS	EMBEDDED TESTS		<p>This menu provides tests to help diagnose network hardware or TCP/IP network connection problems.</p> <p>Embedded tests help to identify whether a network fault is internal or external to the product. Use an embedded test to check hardware and communication paths on the print server. After you select and enable a test and set the execution time, you must select EXECUTE to initiate the test.</p> <p>Depending on the execution time, a selected test runs continuously until either the product is turned off, or an error occurs and a diagnostic page is printed.</p>
		LAN HW TEST	<p>CAUTION: Running this embedded test will erase your TCP/IP configuration.</p> <p>This test performs an internal loopback test. An internal loopback test will send and receive packets only on the internal network hardware. There are no external transmissions on your network.</p> <p>Select YES to choose this test, or NO to not choose it.</p>
		HTTP TEST	<p>This test checks operation of HTTP by retrieving predefined pages from the product, and tests the embedded Web server.</p> <p>Select YES to choose this test, or NO to not choose it.</p>
		SNMP TEST	<p>This test checks operation of SNMP communications by accessing predefined SNMP objects on the product.</p>

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)

Menu item	Sub-menu item	Sub-menu item	Values and Description
			Select YES to choose this test, or NO to not choose it.
		DATA PATH TEST	This test helps to identify data path and corruption problems on an HP postscript level 3 emulation product. It sends a predefined PS file to the product. However, the test is paperless, so the file does not print.
			Select YES to choose this test, or NO to not choose it.
		SELECT ALL TESTS	Select this item to run all the embedded tests. Select YES to run all tests, or select NO to not run all tests.
		EXECUTION TIME [H]	Use this item to specify the length of time (in hours) that an embedded test will be run. You can select a value from 1 to 60 hours. If you select zero (0), the test runs indefinitely until an error occurs or the product is turned off.
			Data gathered from the HTTP, SNMP, and Data Path tests is printed after the tests have completed.
		EXECUTE	NO* : Do not initiate the selected tests. YES : Initiate the selected tests.
	PING TEST		This test is used to check network communications. This test sends link-level packets to a remote network host, then waits for an appropriate response.
		DEST TYPE	Specify whether the target device is an IPv4 or IPv6 node.
		DEST IPV4	Type the IPv4 address.
		DEST IPV6	Type the IPv6 address.
		PACKET SIZE	Specify the size of each packet, in bytes, to be sent to the remote host. The minimum is 64 (default) and the maximum is 2048.
		TIMEOUT	Specify the length of time, in seconds, to wait for a response from the remote host. The default is 1 and the maximum is 100.
		COUNT	Specify the number of ping test packets to send for this test. Select a value from 1 to 100. To configure the test to run continuously, select 0.
		PRINT RESULTS	If the ping test was not set for continuous operation, you can choose to print the test results. Select YES to print results. If you select NO (default), results are not printed.
		EXECUTE	Specify whether to initiate the ping test. Select YES to initiate the test, or NO to not run the test.
	PING RESULTS		Use this item to view the ping test status and results using the control panel display.
		PACKETS SENT	Shows the number of packets (0 - 65535) sent to the remote host since the most recent test was initiated or completed.

Table 2-1 Embedded Jetdirect and EIO <X> Jetdirect menus (continued)

Menu item	Sub-menu item	Sub-menu item	Values and Description
		PACKETS RECEIVED	Shows the number of packets (0 - 65535) received from the remote host since the most recent test was initiated or completed.
		PERCENT LOST	Shows the percent of ping test packets that were sent with no response from the remote host since the most recent test was initiated or completed.
		RTT MIN	Shows the minimum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		RTT MAX	Shows the maximum detected roundtrip- time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		RTT AVERAGE	Shows the average round-trip-time (RTT), from 0 to 4096 milliseconds, for packet transmission and response.
		PING IN PROGRESS	Shows whether a ping test is in progress. YES indicates a test in progress, and NO indicates that a test completed or was not run.
		REFRESH	When viewing the ping test results, this item updates the ping test data with current results. Select YES to update the data, or NO to maintain the existing data. However, a refresh automatically occurs when the menu times out or you manually return to the main menu.
LINK SPEED			<p>The link speed and communication mode of the print server must match the network. The available settings depend on the product and installed print server. Select one of the following link configuration settings:</p> <p>CAUTION: If you change the link setting, network communications with the print server and network device might be lost.</p> <p>AUTO*: The print server uses auto-negotiation to configure itself with the highest link speed and communication mode allowed. If auto-negotiation fails, either 100TX HALF or 10TX HALF is set depending on the detected link speed of the hub/switch port. (A 1000T half-duplex selection is not supported.)</p> <p>10T HALF: 10 Mbps, half-duplex operation.</p> <p>10T FULL: 10 Mbps, full-duplex operation.</p> <p>100TX HALF: 100 Mbps, half-duplex operation.</p> <p>100TX FULL: 100 Mbps, full-duplex operation.</p> <p>100TX AUTO: Limits auto-negotiation to a maximum link speed of 100 Mbps.</p> <p>1000TX FULL: 1000 Mbps, full-duplex operation.</p>
PRINT PROTOCOLS			Use this item to print a page that lists the configuration of the following protocols: IPX/SPX, Novell NetWare, AppleTalk, DLC/LLC.

Resets submenu

Use this submenu to return settings to the defaults and change settings such as Sleep mode.

Item	Values	Explanation
RESTORE FACTORY SETTINGS	There is no value to select.	<p>Performs a simple reset and restores most of the factory (default) and network settings. This item also clears the input buffer for the active I/O.</p> <p>CAUTION: Restoring factory settings during a print job cancels the print job.</p>
SLEEP MODE	ON OFF	<p>Turns Sleep mode on or off. Using Sleep mode offers the following advantages:</p> <ul style="list-style-type: none">• Minimizes the amount of power that the product consumes when it is idle.• Reduces wear on electronic components in the product (turns off the display backlight, but the display is still readable). <p>The product automatically comes out of Sleep mode when you send a print job, press a control-panel button, open a tray, or open the top cover.</p> <p>You can set how long the product remains idle before it enters Sleep mode.</p> <p>The default setting is ON.</p>

Diagnostics menu

Administrators can use this submenu to isolate parts and to troubleshoot jam and print-quality issues.

Item	Values	Explanation
PRINT EVENT LOG	There is no value to select.	Press OK to generate a list of the 50 most recent entries in the event log. The printed event log shows error number, page count, error code, and description or personality.
SHOW EVENT LOG	There is no value to select.	Press OK to scroll through the contents of the event log at the control panel, which lists up to the 50 most recent events. Press the up arrow ▲ or the down arrow ▼ to scroll through the event log contents.
PAPER PATH SENSORS	There is no value to select.	Use this item to test each of the sensors in the paper path. Press OK to initiate the test, and then use the menus to print an internal page, such as a configuration page.
PAPER PATH TEST	PRINT TEST PAGE	Generates a test page that is useful for testing the paper-handling features of the product. NOTE: Set the other items before selecting PRINT TEST PAGE . Press OK to start the paper-path test using the source (tray), destination (output bin), duplex, and number of copies settings that you set in the other items on the Paper Path Test menu.
	SOURCE	Select the tray that uses the paper path that you want to test. You can select any tray that is installed. Select ALL TRAYS to test all paper paths. (Paper must be loaded in the selected trays.)
	DESTINATION	Select which output bin to include in the test. You can select all bins.
	DUPLEX	Determine whether the paper goes through the duplexer during the paper-path test. The menu item appears only if the device includes a built-in duplexer.
	COPIES	Set how many sheets of paper are used from each tray during the paper-path test.
MANUAL SENSOR TEST 1	There is no value to select.	HP service personnel can use this item to manually test a sensor. Locate the sensor inside the product and manually activate it. If the value changes from 0 to another number, the sensor is working.
MANUAL SENSOR TEST 2	There is no value to select.	This item lists additional sensors to test.
COMPONENT TEST	A list of available components appears.	HP service personnel can use this item to test various internal components to isolate the source of a problem, such as noise. Before beginning a test, set the value for the REPEAT frequency: ONCE or CONTINUOUS . Then, select the component that you want to test. To identify noise problems, listen carefully as you perform each test.
PRINT/STOP TEST	STOP TIME	Specify a length of time, in milliseconds, at which the product should stop while performing a test.

Service menu

The **SERVICE** menu is locked and requires a PIN for access. This menu is intended for use by authorized service personnel.

3 Software for Windows

- [Supported operating systems for Windows](#)
- [Supported printer drivers for Windows](#)
- [HP Universal Print Driver \(UPD\)](#)
- [Select the correct printer driver for Windows](#)
- [Priority for print settings](#)
- [Change printer-driver settings for Windows](#)
- [Software installation types for Windows](#)
- [Remove software for Windows](#)
- [Supported utilities for Windows](#)
- [Software for other operating systems](#)

Supported operating systems for Windows

The product supports the following Windows operating systems:

- Windows XP (32-bit and 64-bit)
- Windows Server 2003 (32-bit and 64-bit)
- Windows 2000
- Windows Vista (32-bit and 64-bit)

Supported printer drivers for Windows

- HP PCL 5 Universal Print Driver (HP UPD PCL 5)
- HP PCL 6
- HP postscript emulation Universal Print Driver (HP UPD PS)

The printer drivers include online Help that has instructions for common printing tasks and also describes the buttons, checkboxes, and drop-down lists that are in the printer driver.



NOTE: For more information about the UPD, see www.hp.com/go/upd.

HP Universal Print Driver (UPD)

The HP Universal Print Driver (UPD) for Windows is a single driver that gives you instant access to virtually any HP LaserJet product, from any location, without downloading separate drivers. It is built on proven HP print driver technology and has been tested thoroughly and used with many software programs. It is a powerful solution that performs consistently over time.

The HP UPD communicates directly with each HP product, gathers configuration information, and then customizes the user interface to show the product's unique, available features. It automatically enables features that are available for the product, such as two-sided printing and stapling, so you do not need to enable them manually.

For more information, go to www.hp.com/go/upd.

UPD installation modes

Traditional mode

- Use this mode if you are installing the driver from a CD for a single computer.
- When installed with this mode, UPD operates like traditional printer drivers.
- If you use this mode, you must install UPD separately for each computer.

Dynamic mode

- Use this mode if you are installing the driver for a mobile computer, so you can discover and print to HP products in any location.
 - Use this mode if you are installing UPD for a workgroup.
 - To use this mode, download UPD from the Internet. See www.hp.com/go/upd.
-

Select the correct printer driver for Windows

Printer drivers provide access to the product features and allow the computer to communicate with the product (using a printer language). Check the installation notes and readme files on the product CD for additional software and languages.

HP PCL 6 driver description

- Recommended for printing in all Windows environments
- Provides the overall best speed, print quality, and product-feature support for most users
- Developed to align with the Windows Graphic Device Interface (GDI) for the best speed in Windows environments
- Might not be fully compatible with third-party and custom software programs that are based on PCL 5

HP UPD PS driver description

- Recommended for printing with Adobe® software programs or with other highly graphics-intensive software programs
- Provides support for printing from postscript emulation needs, or for postscript flash font support

HP UPD PCL 5 driver description

- Recommended for general office printing in Windows environments
- Compatible with previous PCL versions and older HP LaserJet products
- The best choice for printing from third-party or custom software programs
- The best choice when operating with mixed environments, which require the product to be set to PCL 5 (UNIX, Linux, mainframe)
- Designed for use in corporate Windows environments to provide a single driver for use with multiple printer models
- Preferred when printing to multiple printer models from a mobile Windows computer

Priority for print settings

Changes to print settings are prioritized depending on where the changes are made:

 **NOTE:** The names of commands and dialog boxes might vary depending on your software program.

- **Page Setup dialog box:** Click **Page Setup** or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed here override settings changed anywhere else.
- **Print dialog box:** Click **Print**, **Print Setup**, or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed in the **Print** dialog box have a lower priority and do *not* override changes made in the **Page Setup** dialog box.
- **Printer Properties dialog box (printer driver):** Click **Properties** in the **Print** dialog box to open the printer driver. Settings changed in the **Printer Properties** dialog box do not override settings anywhere else in the printing software.
- **Default printer driver settings:** The default printer driver settings determine the settings used in all print jobs, *unless* settings are changed in the **Page Setup**, **Print**, or **Printer Properties** dialog boxes.
- **Printer control panel settings:** Settings changed at the printer control panel have a lower priority than changes made anywhere else.

Change printer-driver settings for Windows

Change the settings for all print jobs until the software program is closed	Change the default settings for all print jobs	Change the product configuration settings
<ol style="list-style-type: none">1. On the File menu in the software program, click Print.2. Select the driver, and then click Properties or Preferences.	<ol style="list-style-type: none">1. Windows XP and Windows Server 2003 (using the default Start menu view): Click Start, and then click Printers and Faxes.-or-Windows 2000, Windows XP, and Windows Server 2003 (using the Classic Start menu view): Click Start, click Settings, and then click Printers.-or-Windows Vista: Click Start, click Control Panel, and then in the category for Hardware and Sound click Printer.2. Right-click the driver icon, and then select Printing Preferences.	<ol style="list-style-type: none">1. Windows XP and Windows Server 2003 (using the default Start menu view): Click Start, and then click Printers and Faxes.-or-Windows 2000, Windows XP, and Windows Server 2003 (using the Classic Start menu view): Click Start, click Settings, and then click Printers.-or-Windows Vista: Click Start, click Control Panel, and then in the category for Hardware and Sound click Printer.2. Right-click the driver icon, and then select Properties.3. Click the Device Settings tab.

The steps can vary; this procedure is most common.

Software installation types for Windows

You can choose from the following types of software installations:

- **Basic Installation (Recommended).** Installs the minimum set of drivers and software. This installation type is recommended for network installations.
- **Full Installation.** Installs the full set of drivers and software, including status, alerting, and troubleshooting tools. This installation type is recommended for direct-connect installations.
- **Custom Installation.** Use this option to select which drivers to install and whether to install the internal fonts. This installation type is recommended for advanced users and system administrators.

Remove software for Windows

1. Click **Start**, and then click **All Programs**.
2. Click **HP**, and then click the product name.
3. Click the option to uninstall the product, and then follow the onscreen instructions to remove the software.

Supported utilities for Windows

HP Web Jetadmin

HP Web Jetadmin is a browser-based management tool for HP Jetdirect-connected printers within your intranet, and it should be installed only on the network administrator's computer.

To download a current version of HP Web Jetadmin and for the latest list of supported host systems, visit www.hp.com/go/webjetadmin.

When installed on a host server, a Windows client can gain access to HP Web Jetadmin by using a supported Web browser (such as Microsoft® Internet Explorer 4.x or Netscape Navigator 4.x or later) by navigating to the HP Web Jetadmin host.

Embedded Web server

The device is equipped with an embedded Web server, which provides access to information about device and network activities. This information appears in a Web browser, such as Microsoft Internet Explorer, Netscape Navigator, Apple Safari, or Firefox.

The embedded Web server resides on the device. It is not loaded on a network server.

The embedded Web server provides an interface to the device that anyone who has a network-connected computer and a standard Web browser can use. No special software is installed or configured, but you must have a supported Web browser on your computer. To gain access to the embedded Web server, type the IP address for the device in the address line of the browser. (To find the IP address, print a configuration page. For more information about printing a configuration page, see [Print the information and show-me-how pages on page 104](#).)

For a complete explanation of the features and functionality of the embedded Web server, see [Use the embedded Web server on page 109](#).

HP Easy Printer Care

HP Easy Printer Care software is a program that you can use for the following tasks:

- Check the product status
- Check the supplies status and use HP SureSupply to shop online for supplies
- Set up alerts
- View product usage reports
- View product documentation
- Gain access to troubleshooting and maintenance tools
- Use HP Proactive Support to routinely scan your printing system and to prevent potential problems. HP Proactive Support can update software, firmware, and HP printer drivers.

You can view HP Easy Printer Care software when the product is directly connected to your computer or when it is connected to a network.

Supported operating systems	<ul style="list-style-type: none">● Microsoft® Windows 2000● Microsoft Windows XP, Service Pack 2 (Home and Professional editions)● Microsoft Windows Server 2003● Microsoft Windows Vista™
Supported browsers	<ul style="list-style-type: none">● Microsoft Internet Explorer 6.0 or 7.0

To download HP Easy Printer Care software , go to www.hp.com/go/easyprintercare. This Web site also provides updated information about supported browsers and a list of HP products that support HP Easy Printer Care software.

For more information about using HP Easy Printer Care software, see [Open the HP Easy Printer Care software on page 106](#).

Software for other operating systems

OS	Software
UNIX	For HP-UX and Solaris networks, go to www.hp.com/support/net_printing to download the HP Jetdirect printer installer for UNIX.
Linux	For information, go to www.hp.com/go/linuxprinting .

4 Use the product with Macintosh

- [Software for Macintosh](#)
- [Use features in the Macintosh printer driver](#)

Software for Macintosh

Supported operating systems for Macintosh

The product supports the following Macintosh operating systems:

- Mac OS X V10.2.8, V10.3, V10.4, V10.5, and later

 **NOTE:** For Mac OS X V10.4 and later, PPC and Intel Core Processor Macs are supported.

Supported printer drivers for Macintosh

The HP installer provides PostScript® Printer Description (PPD) files, Printer Dialog Extensions (PDEs), and the HP Printer Utility for use with Macintosh computers.

The PPDs, in combination with the Apple PostScript printer drivers, provide access to device features. Use the Apple PostScript printer driver that comes with the computer.

Remove software from Macintosh operating systems

To remove the software from a Macintosh computer, drag the PPD files to the trash can.

Priority for print settings for Macintosh

Changes to print settings are prioritized depending on where the changes are made:

 **NOTE:** The names of commands and dialog boxes might vary depending on your software program.

- **Page Setup dialog box:** Click **Page Setup** or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed here might override settings changed anywhere else.
- **Print dialog box:** Click **Print**, **Print Setup**, or a similar command on the **File** menu of the program you are working in to open this dialog box. Settings changed in the **Print** dialog box have a lower priority and do *not* override changes made in the **Page Setup** dialog box.
- **Default printer driver settings:** The default printer driver settings determine the settings used in all print jobs, *unless* settings are changed in the **Page Setup**, **Print**, or **Printer Properties** dialog boxes.
- **Printer control panel settings:** Settings changed at the printer control panel have a lower priority than changes made anywhere else.

Change printer-driver settings for Macintosh

Change the settings for all print jobs until the software program is closed

1. On the **File** menu, click **Print**.
2. Change the settings that you want on the various menus.

Change the default settings for all print jobs

1. On the **File** menu, click **Print**.
2. Change the settings that you want on the various menus.
3. On the **Presets** menu, click **Save as** and type a name for the preset.

These settings are saved in the **Presets** menu. To use the new settings, you must select the saved preset option every time you open a program and print.

Change the product configuration settings

Mac OS X V10.2.8

1. In the Finder, on the **Go** menu, click **Applications**.
2. Open **Utilities**, and then open **Print Center**.
3. Click on the print queue.
4. On the **Printers** menu, click **Configure**.
5. Click the **Installable Options** menu.

NOTE: Configuration settings might not be available in Classic mode.

Mac OS X V10.3 or Mac OS X V10.4

1. From the Apple menu, click **System Preferences** and then **Print & Fax**.
2. Click **Printer Setup**.
3. Click the **Installable Options** menu.

Mac OS X V10.5

1. From the Apple menu, click **System Preferences** and then **Print & Fax**.
 2. Click **Options & Supplies**.
 3. Click the **Driver** menu.
 4. Select the driver from the list, and configure the installed options.
-

Software for Macintosh computers

HP Printer Utility

Use the HP Printer Utility to set up product features that are not available in the printer driver.

You can use the HP Printer Utility when the product uses a universal serial bus (USB) cable or is connected to a TCP/IP-based network.

Open the HP Printer Utility

Open the HP Printer Utility in Mac OS X V10.2.8

1. Open the Finder, and then click **Applications**.
2. Click **Library**, and then click **Printers**.
3. Click **hp**, and then click **Utilities**.
4. Double-click **HP Printer Selector** to open the HP Printer Selector.
5. Select the product that you want to configure, and then click **Utility**.

Open the HP Printer Utility in Mac OS X V10.3 and V10.4

1. Open the Finder, click **Applications**, click **Utilities**, and then double-click **Printer Setup Utility**.
2. Select the product that you want to configure, and then click **Utility**.

Open the HP Printer Utility in Mac OS X V10.5

- From the **Printer** menu, click **Printer Utility**.

-or-

From the **Print Queue**, click the **Utility** icon.

HP Printer Utility features

The HP Printer Utility consists of pages that you open by clicking in the **Configuration Settings** list. The following table describes the tasks that you can perform from these pages.

Item	Description
Configuration Page	Prints a configuration page.
Supplies Status	Shows the device supplies status and provides links for online supplies-ordering.
HP Support	Provides access to technical assistance, online supplies ordering, online registration, and recycling and return information.
File Upload	Transfers files from the computer to the device.
Upload Fonts	Transfers font files from the computer to the device.
Firmware Update	Transfers updated firmware files from the computer to the device.
Duplex Mode	Turns on the automatic two-sided printing mode.
Economode & Toner Density	Turns on the Economode setting to conserve toner, or adjusts toner density.
Resolution	Changes the resolution settings, including the REt setting.
Lock Resources	Locks or unlocks storage products, such as a hard disk.
Stored Jobs	Manages print jobs that are stored on the device hard disk.
Trays Configuration	Changes the default tray settings.
IP Settings	Changes the device network settings and provides access to the embedded Web server.
Bonjour Settings	Provides the ability to turn on or off Bonjour support or change the device service name that is listed on a network.
Additional Settings	Provides access to the embedded Web server.
E-mail Alerts	Configures the device to send e-mail notices for certain events.

Supported utilities for Macintosh

Embedded Web server

The device is equipped with an embedded Web server, which provides access to information about device and network activities. This information appears in a Web browser, such as Microsoft Internet Explorer, Netscape Navigator, Apple Safari, or Firefox.

The embedded Web server resides on the device. It is not loaded on a network server.

The embedded Web server provides an interface to the device that anyone who has a network-connected computer and a standard Web browser can use. No special software is installed or configured, but you must have a supported Web browser on your computer. To gain access to the embedded Web server, type the IP address for the device in the address line of the browser. (To find the IP address, print a configuration page. For more information about printing a configuration page, see [Print the information and show-me-how pages on page 104.](#))

For a complete explanation of the features and functionality of the embedded Web server, see [Use the embedded Web server on page 109.](#)

Use features in the Macintosh printer driver

Print

Create and use printing presets in Macintosh

Use printing presets to save the current printer driver settings for reuse.

Create a printing preset

1. On the **File** menu, click **Print**.
2. Select the driver.
3. Select the print settings.
4. In the **Presets** box, click **Save As...**, and type a name for the preset.
5. Click **OK**.

Use printing presets

1. On the **File** menu, click **Print**.
2. Select the driver.
3. In the **Presets** box, select the printing preset that you want to use.

 **NOTE:** To use printer-driver default settings, select **Standard**.

Resize documents or print on a custom paper size

You can scale a document to fit on a different size of paper.

1. On the **File** menu, click **Print**.
2. Open the **Paper Handling** menu.
3. In the area for **Destination Paper Size**, select **Scale to fit paper size**, and then select the size from the drop-down list.
4. If you want to use only paper that is smaller than the document, select **Scale down only**.

Print a cover page

You can print a separate cover page for your document that includes a message (such as “Confidential”).

1. On the **File** menu, click **Print**.
2. Select the driver.
3. Open the **Cover Page** menu, and then select whether to print the cover page **Before Document** or **After Document**.
4. In the **Cover Page Type** menu, select the message that you want to print on the cover page.

 **NOTE:** To print a blank cover page, select **Standard** as the **Cover Page Type**.

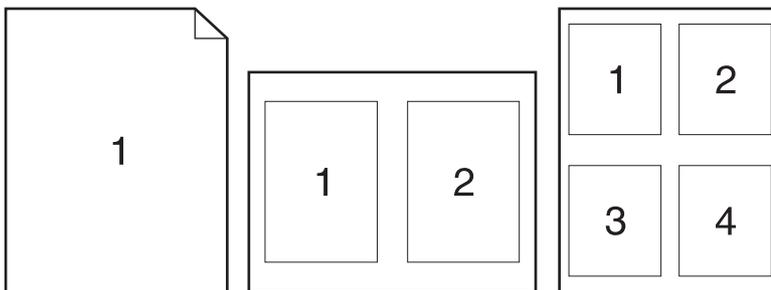
Use watermarks

A watermark is a notice, such as “Confidential,” that is printed in the background of each page of a document.

1. On the **File** menu, click **Print**.
2. Open the **Watermarks** menu.
3. Next to **Mode**, select the type of watermark to use. Select **Watermark** to print a semi-transparent message. Select **Overlay** to print a message that is not transparent.
4. Next to **Pages**, select whether to print the watermark on all pages or on the first page only.
5. Next to **Text**, select one of the standard messages, or select **Custom** and type a new message in the box.
6. Select options for the remaining settings.

Print multiple pages on one sheet of paper in Macintosh

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft pages.



1. On the **File** menu, click **Print**.
2. Select the driver.
3. Open the **Layout** menu.
4. Next to **Pages per Sheet**, select the number of pages that you want to print on each sheet (1, 2, 4, 6, 9, or 16).
5. Next to **Layout Direction**, select the order and placement of the pages on the sheet.
6. Next to **Borders**, select the type of border to print around each page on the sheet.

Print on both sides of the page (duplex printing)

Use automatic duplex printing

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For Tray 1, load the letterhead paper face-up with the top edge feeding into the product first.
 - For all other trays, load the letterhead paper face-down with the top edge at the front of the tray.
2. On the **File** menu, click **Print**.
3. Open the **Layout** menu.
4. Next to **Two-Sided**, select either **Long-Edge Binding** or **Short-Edge Binding**.
5. Click **Print**.

Print on both sides manually

1. Insert enough paper into one of the trays to accommodate the print job. If you are loading special paper such as letterhead, load it in one of the following ways:
 - For Tray 1, load the letterhead paper face-up with the top edge feeding into the product first.
 - For all other trays, load the letterhead paper face-down with the top edge at the front of the tray.
2. On the **File** menu, click **Print**.
3. On the **Finishing** menu, select **Manually Print on 2nd Side**.
4. Click **Print**. Follow the instructions in the pop-up window that appears on the computer screen before placing the output stack in Tray 1 for printing the second half.
5. Go to the product, and remove any blank paper that is in Tray 1.
6. Insert the printed stack face-up into Tray 1 with the top edge feeding into the product first. You *must* print the second side from Tray 1.
7. If prompted, press the appropriate control-panel button to continue.

Set the stapling options

If a finishing device that has a stapler is installed, you can staple documents.

1. On the **File** menu, click **Print**.
2. Open the **Finishing** menu.
3. In the **Stapling Options** drop-down list, select the stapling option that you want to use.

Store jobs

You can store jobs on the product so you can print them at any time. You can share stored jobs with other users, or you can make them private.

1. On the **File** menu, click **Print**.
2. Open the **Job Storage** menu.
3. In the **Job Storage**: drop-down list, select the type of stored job.
4. For the **Stored Job**, **Private Job**, and **Private Stored Job** types of stored jobs, enter a name for the stored job in the box next to **Job Name**:

Select which option to use if another stored job already has that name.

- **Use Job Name + (1 - 99)** appends a unique number to the end of the job name.
 - **Replace Existing File** overwrites the existing stored job with the new one.
5. If you selected **Stored Job** or **Private Job** in step 3, type a 4-digit number in the box next to **PIN To Print (0000 - 9999)**. When other people attempt to print this job, the product prompts them to enter this PIN number.

Use the Services menu

If the product is connected to a network, use the **Services** menu to obtain product and supply-status information.

1. On the **File** menu, click **Print**.
2. Open the **Services** menu.
3. To open the embedded Web server and perform a maintenance task, do the following:
 - a. Select **Device Maintenance**.
 - b. Select a task from the drop-down list.
 - c. Click **Launch**.
4. To go to various support Web sites for this device, do the following:
 - a. Select **Services on the Web**.
 - b. Select **Internet Services**, and select an option from the drop-down list.
 - c. Click **Go!**.

5 Connectivity

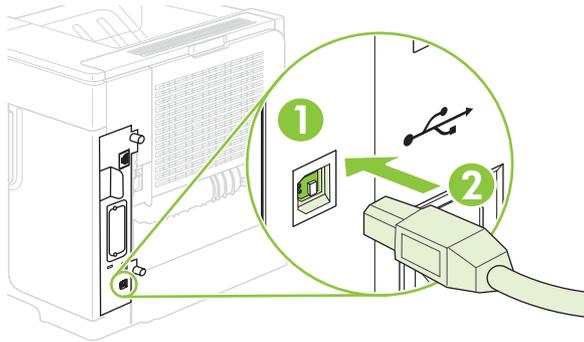
- [USB configuration](#)
- [Network configuration](#)

USB configuration

The printer supports a Hi-Speed USB 2.0 port. The USB cable can be a maximum of 5 meters (15 feet) long.

Connect the USB cable

Plug the USB cable into the printer. Plug the other end of the USB cable into the computer.



1	Type B USB port
2	Type B USB connector

Network configuration

You might need to configure certain network parameters on the product. You can configure these parameters from the control panel, the embedded Web server, or for most networks, from the HP Web Jetadmin software.

For a complete list of supported networks and for instructions on configuring network parameters from software, see the *HP Jetdirect Embedded Print Server Administrator's Guide*. The guide comes with products in which an HP Jetdirect embedded print server is installed.

Supported network protocols

The product supports the TCP/IP network protocol, the most widely used and accepted networking protocol. Many networking services utilize this protocol. The following tables list the supported networking services and protocols.

Table 5-1 Printing

Service name	Description
port9100 (Direct Mode)	Printing service
Line printer daemon (LPD)	Printing service

Table 5-2 Network device discovery

Service name	Description
SLP (Service Location Protocol)	Device-discovery protocol, used to help find and configure network devices. Used primarily by Microsoft-based programs.
Bonjour	Device-discovery protocol, used to help find and configure network devices. Used primarily by Apple Macintosh-based programs.

Table 5-3 Messaging and management

Service name	Description
HTTP (Hyper Text Transfer Protocol)	Allows Web browsers to communicate with embedded Web server.
EWS (embedded Web server)	Allows you to manage the product through a Web browser.
SNMP (Simple Network Management Protocol)	Used by network applications for product management. SNMP v1 and standard MIB-II (Management Information Base) objects are supported.

Table 5-4 IP addressing

Service name	Description
DHCP (Dynamic Host Configuration Protocol)	For automatic IP address assignment. The DHCP server provides the product with an IP address. Generally, no user intervention is required for the product to obtain an IP address from a DHCP server.

Table 5-4 IP addressing (continued)

Service name	Description
BOOTP (Bootstrap Protocol)	For automatic IP address assignment. The BOOTP server provides the product with an IP address. Requires the administrator to input a product's MAC hardware address on the BOOTP server for the product to obtain an IP address from that server.
Auto IP	For automatic IP address assignment. If neither a DHCP server nor a BOOTP server is present, the product uses this service to generate a unique IP address.

Configure the network product

View or change network settings

You can use the embedded Web server to view or change IP configuration settings.

1. Print a configuration page. On the embedded Jetdirect page, locate the IP address.
 - If you are using IPv4, the IP address contains only digits. It has this format:
`xx . xx . xx . xx`
 - If you are using IPv6, the IP address is a hexadecimal combination of characters and digits. It has this format:
`xxxx : : xxx : xxxx : xxxx : xxxx`
2. Type the IP address into the address line of a Web browser to open the embedded Web server.
3. Click the **Networking** tab to obtain network information. You can change settings as needed.

Set or change the network password

Use the embedded Web server to set a network password or change an existing password.

1. Open the embedded Web server and click the **Settings** tab.
2. In the left-side pane, click **Security**.



NOTE: If a password has previously been set, you are prompted to type the password. Type the password, and then click **Apply**.

3. In the area for **Device Password**, type the new password in the **New Password** box and in the **Verify Password** box.
4. At the bottom of the window, click **Apply** to save the password.

Manually configure IPv4 TCP/IP parameters from the control panel

In addition to using the embedded Web server, you can also use the control-panel menus to set an IPv4 address, subnet mask, and default gateway.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **I/O**, and then press **OK**.
4. Press the down arrow ▼ to highlight **EMBEDDED JETDIRECT MENU**, and then press **OK**.
5. Press the down arrow ▼ to highlight **TCP/IP**, and then press **OK**.
6. Press the down arrow ▼ to highlight **IPV4 SETTINGS**, and then press **OK**.
7. Press the down arrow ▼ to highlight **MANUAL SETTINGS**, and then press **OK**.
8. Press the down arrow ▼ to highlight **IP ADDRESS**, and then press **OK**.

-or-
Press the down arrow ▼ to highlight **SUBNET MASK**, and then press **OK**.

-or-
Press the down arrow ▼ to highlight **DEFAULT GATEWAY**, and then press **OK**.
9. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to increase or decrease the number for the first byte of the IP address, subnet mask, or default gateway.
10. Press **OK** to move to the next set of numbers. To move to the previous set of numbers, press the back arrow ↶.
11. Repeat steps 9 and 10 until the IP address, subnet mask, or default gateway is complete, and then press **OK** to save the setting.
12. Press **Menu**  to return to the **Ready** state.

Manually configure IPv6 TCP/IP parameters from the control panel

In addition to using the embedded Web server, you can also use the control-panel menus to set an IPv6 address.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **I/O**, and then press **OK**.
4. Press the down arrow ▼ to highlight **EMBEDDED JETDIRECT MENU**, and then press **OK**.
5. Press the down arrow ▼ to highlight **TCP/IP**, and then press **OK**.
6. Press the down arrow ▼ to highlight **IPV6 SETTINGS**, and then press **OK**.
7. Press the down arrow ▼ to highlight **ADDRESS**, and then press **OK**.
8. Press the down arrow ▼ to highlight **MANUAL SETTINGS**, and then press **OK**.
9. Press the down arrow ▼ to highlight **ENABLE**, and then press **OK**.
10. Press the down arrow ▼ to highlight **ADDRESS**, and then press **OK**.
11. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to enter the address. Press **OK**.

 **NOTE:** If you are using the arrow buttons, you must press **OK** after entering each digit.

12. Press **Menu**  to return to the **Ready** state.

Disable network protocols (optional)

By factory default, all supported network protocols are enabled. Disabling unused protocols has the following benefits:

- Decreases product-generated network traffic
- Prevents unauthorized users from printing to the product
- Provides only pertinent information on the configuration page
- Allows the product control panel to display protocol-specific error and warning messages

Disable IPX/SPX, AppleTalk, or DLC/LLC

 **NOTE:** Do not disable IPX/SPX in Windows-based systems that print through IPX/SPX.

1. Press **Menu** .
 2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
 3. Press the down arrow ▼ to highlight **I/O**, and then press **OK**.
 4. Press the down arrow ▼ to highlight **EMBEDDED JETDIRECT**, and then press **OK**.
 5. Press the down arrow ▼ to highlight **IPX/SPX**, and then press **OK**.
- or-**
- Press the down arrow ▼ to highlight **APPLETALK**, and then press **OK**.
- or-**
- Press the down arrow ▼ to highlight **DLC/LLC**, and then press **OK**.- 6. Press **OK** to select **ENABLE**.
- 7. Press the down arrow ▼ to highlight **OFF**, and then press **OK**.
- 8. Press **Menu**  to return to the **Ready** state.

Link speed and duplex settings

The link speed and communication mode of the print server must match the network. For most situations, leave the product in automatic mode. Incorrect changes to the link speed and duplex settings might prevent the product from communicating with other network devices. If you need to make changes, use the product control panel.

 **NOTE:** Making changes to these settings causes the product to turn off and then on. Make changes only when the product is idle.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **I/O**, and then press **OK**.
4. Press the down arrow ▼ to highlight **EMBEDDED JETDIRECT**, and then press **OK**.
5. Press the down arrow ▼ to highlight **LINK SPEED**, and then press **OK**.
6. Press the down arrow ▼ to highlight one of the following options.

Setting	Description
Auto	The print server automatically configures itself for the highest link speed and communication mode allowed on the network.
10T HALF	10 megabytes per second (Mbps), half-duplex operation
10T FULL	10 Mbps, full-duplex operation
100TX HALF	100 Mbps, half-duplex operation
100TX FULL	100 Mbps, full-duplex operation
100TX AUTO	Limits auto-negotiation to a maximum link speed of 100 Mbps
1000TX FULL	1000 Mbps, full-duplex operation

7. Press **OK**. The product turns off and then on.

6 Paper and print media

- [Understand paper and print media use](#)
- [Supported paper and print media sizes](#)
- [Custom paper sizes](#)
- [Supported paper and print media types](#)
- [Tray and bin capacity](#)
- [Special paper or print media guidelines](#)
- [Load trays](#)
- [Configure trays](#)
- [Use paper output options](#)

Understand paper and print media use

This product supports a variety of paper and other print media in accordance with the guidelines in this user guide. Paper or print media that does not meet these guidelines might cause the following problems:

- Poor print quality
- Increased jams
- Premature wear on the product, requiring repair

For best results, use only HP-brand paper and print media designed for laserjets or multiuse. Do not use paper or print media made for inkjet printers. Hewlett-Packard Company cannot recommend the use of other brands of media because HP cannot control their quality.

It is possible for paper to meet all of the guidelines in this user guide and still not produce satisfactory results. This might be the result of improper handling, unacceptable temperature and/or humidity levels, or other variables over which Hewlett-Packard has no control.

△ **CAUTION:** Using paper or print media that does not meet Hewlett-Packard's specifications might cause problems for the product, requiring repair. This repair is not covered by the Hewlett-Packard warranty or service agreements.

Supported paper and print media sizes

This product supports a number of paper sizes, and it adapts to various media.

 **NOTE:** To obtain best results, select the correct paper size and type in the printer driver before printing.

Table 6-1 Supported paper and print media sizes

Size and dimensions	Tray 1	Tray 2 and the optional 500-sheet trays	Optional 1,500-sheet tray	Optional envelope feeder	Optional duplexer	Stacker and Stapler/Stacker	Optional 5-bin mailbox
Letter 216 x 279 mm (8.5 x 11 inches)	✓	✓	✓	✓	✓	✓	✓
A4 210 x 297 mm (8.27 x 11.69 inches)	✓	✓	✓	✓	✓	✓	✓
Legal 216 x 356 mm (8.5 x 14 inches)	✓	✓	✓	✓	✓	✓	✓
Executive 184 x 267 mm (7.24 x 10.51 inches)	✓	✓	✓		✓	✓	✓
A5 148 x 210 mm (5.83 x 8.27 inches)	✓	✓	✓		✓	✓	✓
8.5 x 13 216 x 330 mm (8.5 x 13 inches)	✓	✓	✓			✓	✓
B5 (JIS) 182 x 257 mm (7.17 x 10.12 inches)	✓	✓	✓		✓	✓	✓
Executive (JIS) 216 x 330 mm (8.5 x 13 inches)	✓	✓	✓		✓	✓	✓
Double Postcard (JIS) 148 x 200 mm (5.8 x 7.9 inches)	✓						
Statement 140 x 216 mm (5.5 x 8.5 inches)	✓	✓				✓	✓
16K 197 x 273 mm (7.8 x 10.8 inches)	✓	✓			✓	✓	✓
Custom 76 x 127 mm to 216 x 356 mm	✓						

Table 6-1 Supported paper and print media sizes (continued)

Size and dimensions	Tray 1	Tray 2 and the optional 500-sheet trays	Optional 1,500-sheet tray	Optional envelope feeder	Optional duplexer	Stacker and Stapler/Stacker	Optional 5-bin mailbox
(3.0 x 5.0 inches to 8.5 x 14 inches)							
Custom 148 x 210 mm to 216 x 356 mm (5.83 x 8.27 inches to 8.5 x 14 inches)	✓	✓			✓	✓	✓
Envelope Commercial #10 105 x 241 mm (4.13 x 9.49 inches)	✓			✓			
Envelope DL ISO 110 x 220 mm (4.33 x 8.66 inches)	✓			✓			
Envelope C5 ISO 162 x 229 mm (6.93 x 9.84 inches)	✓			✓			
Envelope B5 ISO 176 x 250 mm (6.7 x 9.8 inches)	✓			✓			
Envelope Monarch #7-3/4 98 x 191 mm (3.9 x 7.5 inches)	✓			✓			

¹ Custom sizes cannot be stapled, but they can be stacked in the output bins.

Custom paper sizes

This product supports a variety of custom paper sizes. Supported custom sizes are sizes that are within the minimum- and maximum-size guidelines for the product but are not listed in the supported paper sizes table. When using a supported custom size, specify the custom size in the print driver, and load the paper in a tray that supports custom sizes.

Supported paper and print media types

For a complete list of specific HP-brand paper that this product supports, go to www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series.

Supported paper types for input options

Paper type (control panel)	Paper type (printer driver)	Tray 1	Tray 2	Optional 500-sheet trays	Optional 1,500-sheet tray	Optional envelope feeder
ANY TYPE	Unspecified	✓	✓	✓	✓	✓
PLAIN	Plain	✓	✓	✓	✓	
LIGHT 60-75 G/M2	Light 60-75g	✓	✓	✓	✓	
CARDSTOCK>163 G/M2	Cardstock 176-220g	✓	✓	✓		
TRANSPARENCY	Monochrome Laser Transparency	✓	✓	✓		
LABELS	Labels	✓	✓	✓		
LETTERHEAD	Letterhead	✓	✓	✓	✓	
PREPRINTED	Preprinted	✓	✓	✓	✓	
PREPUNCHED	Prepunched	✓	✓	✓	✓	
COLOR	Colored	✓	✓	✓	✓	
ROUGH	Rough	✓	✓	✓	✓	
BOND	Bond	✓	✓	✓	✓	
RECYCLED	Recycled	✓	✓	✓	✓	
ENVELOPE	Envelope	✓				✓

Supported paper types for output options

Paper type (control panel)	Paper type (printer driver)	Standard top bin (face-down)	Rear bin (face-up)	Optional duplexer	Optional stacker or stapler/stacker	Optional 5-bin mailbox
ANY TYPE	Unspecified	✓	✓	✓	✓	✓
PLAIN	Plain	✓	✓	✓	✓	✓
LIGHT 60-75 G/M2	Light 60-75g	✓	✓	✓	✓	✓
CARDSTOCK>163 G/M2	Cardstock 176-220g	✓	✓			
TRANSPARENCY	Monochrome Laser Transparency	✓	✓			
LABELS	Labels	✓	✓			
LETTERHEAD	Letterhead	✓	✓	✓	✓	✓
PREPRINTED	Preprinted	✓	✓	✓	✓	✓
PREPUNCHED	Prepunched	✓	✓	✓	✓	✓
COLOR	Colored	✓	✓	✓	✓	✓
ROUGH	Rough	✓	✓	✓	✓	✓
BOND	Bond	✓	✓	✓	✓	✓
RECYCLED	Recycled	✓	✓	✓	✓	✓
ENVELOPE	Envelope	✓	✓			

Tray and bin capacity

Tray or bin	Paper type	Specifications	Quantity
Tray 1	Paper and cardstock	Range: 60 g/m ² (16 lb) bond to 200 g/m ² (54 lb) bond	Maximum stack height: 10 mm (0.6 inch) Equivalent to 100 sheets of 75 g/m ² (20 lb) bond
	Envelopes	Less than 60 g/m ² (16 lb) bond to 90 g/m ² (24 lb) bond	Up to 10 envelopes
	Labels	Maximum 0.23 mm (0.009 inch) thick	Maximum stack height: 10 mm (0.6 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 10 mm (0.6 inch)
Tray 2 and the optional 500-sheet trays	Paper and cardstock	Range: 60 g/m ² (16 lb) bond to 135 g/m ² (36 lb) bond	Equivalent to 500 sheets of 75 g/m ² (20 lb) bond
	Labels	Maximum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
	Transparencies	Minimum 0.13 mm (0.005 inch) thick	Maximum stack height: 54 mm (2.1 inch)
Optional 1,500-sheet tray	Paper	Range: 60 g/m ² (16 lb) bond to 135 g/m ² (36 lb) bond	Equivalent to 1,500 sheets of 75 g/m ² (20 lb) bond
Optional envelope feeder	Envelopes	Less than 60 g/m ² (16 lb) bond to 90 g/m ² (24 lb) bond	Up to 75 envelopes
Standard top bin	Paper		Up to 500 sheets of 75 g/m ² (20 lb) bond
Rear bin	Paper		Up to 100 sheets of 75 g/m ² (20 lb) bond
Optional duplexer	Paper	Range: 60 g/m ² (16 lb) bond to 120 g/m ² (32 lb) bond	
Optional stacker	Paper		Up to 500 sheets of 75 g/m ² (20 lb) bond
Optional stapler/stacker	Paper		Stapling: Up to 20 print jobs of up to 15 pages each
			Stacking: Up to 500 sheets of 75 g/m ² (20 lb) bond
Optional 5-bin mailbox	Paper		Up to 500 sheets of 75 g/m ² (20 lb) bond

Special paper or print media guidelines

This product supports printing on special media. Use the following guidelines to obtain satisfactory results. When using special paper or print media, be sure to set the type and size in your print driver to obtain the best print results.

△ **CAUTION:** HP LaserJet printers use fusers to bond dry toner particles to the paper in very precise dots. HP laser paper is designed to withstand this extreme heat. Using inkjet paper not designed for this technology could damage your printer.

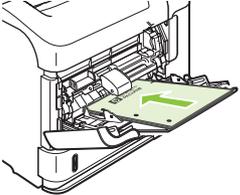
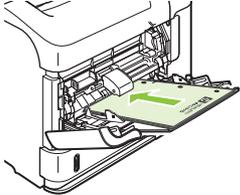
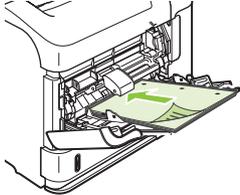
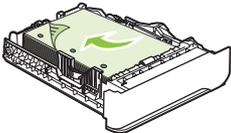
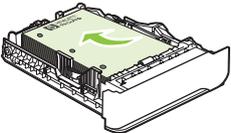
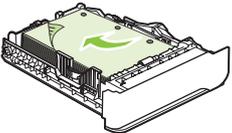
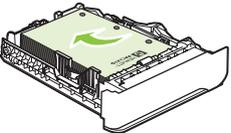
Media type	Do	Do not
Envelopes	<ul style="list-style-type: none"> • Store envelopes flat. • Use envelopes where the seam extends all the way to the corner of the envelope. • Use peel-off adhesive strips that are approved for use in laser printers. 	<ul style="list-style-type: none"> • Do not use envelopes that are wrinkled, nicked, stuck together, or otherwise damaged. • Do not use envelopes that have clasps, snaps, windows, or coated linings. • Do not use self-stick adhesives or other synthetic materials.
Labels	<ul style="list-style-type: none"> • Use only labels that have no exposed backing between them. • Use Labels that lie flat. • Use only full sheets of labels. 	<ul style="list-style-type: none"> • Do not use labels that have wrinkles or bubbles, or are damaged. • Do not print partial sheets of labels.
Transparencies	<ul style="list-style-type: none"> • Use only transparencies that are approved for use in laser printers. • Place transparencies on a flat surface after removing them from the product. 	<ul style="list-style-type: none"> • Do not use transparent print media not approved for laser printers.
Letterhead or preprinted forms	<ul style="list-style-type: none"> • Use only letterhead or forms approved for use in laser printers. 	<ul style="list-style-type: none"> • Do not use raised or metallic letterhead.
Heavy paper	<ul style="list-style-type: none"> • Use only heavy paper that is approved for use in laser printers and meets the weight specifications for this product. 	<ul style="list-style-type: none"> • Do not use paper that is heavier than the recommended media specification for this product unless it is HP paper that has been approved for use in this product.
Glossy or coated paper	<ul style="list-style-type: none"> • Use only glossy or coated paper that is approved for use in laser printers. 	<ul style="list-style-type: none"> • Do not use glossy or coated paper designed for use in inkjet products.

Load trays

Paper orientation for loading trays

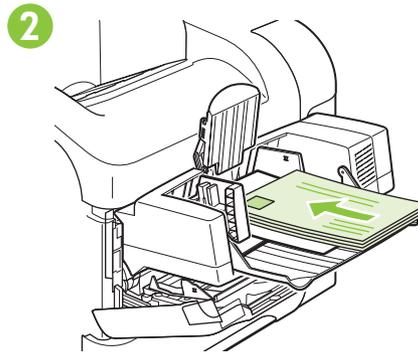
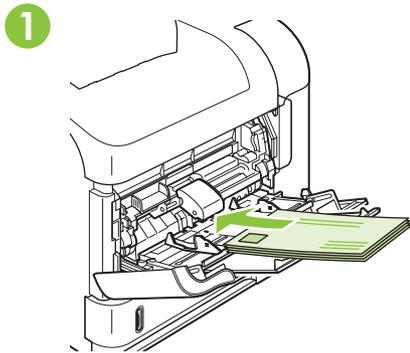
Load letterhead, preprinted, or prepunched paper

If a duplexer is installed, or if a stapler/stacker is installed, the product alters the way the images for each page are arranged. If you are using paper that requires a specific orientation, load it according to the information in the following table.

Tray	Single-sided printing, no stapler/stacker	Duplex printing, no stapler/stacker	Single-sided printing with the stapler/stacker	Duplex printing with the stapler/stacker
Tray 1	Face-up Top edge leading into the product 	Face-down Bottom edge leading into the product 	Face-up Bottom edge leading into the product 	Face-down Top edge leading into the product 
All other trays	Face-down Top edge at the front of the tray 	Face-up Bottom edge at the front of the tray 	Face-down Bottom edge at the front of the tray 	Face-up Top edge at the front of the tray 

Load envelopes

Load envelopes into Tray 1 or the optional envelope feeder with the front of the envelope facing up, and the short, postage-edge leading into the product.

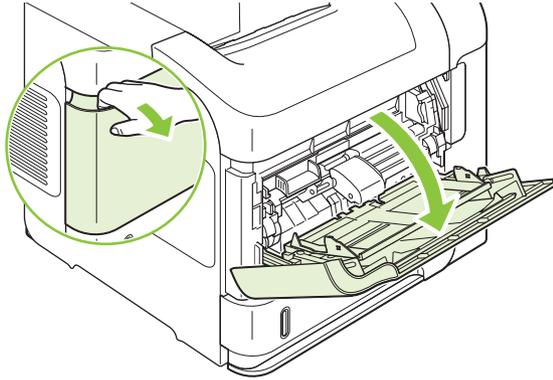


Load Tray 1

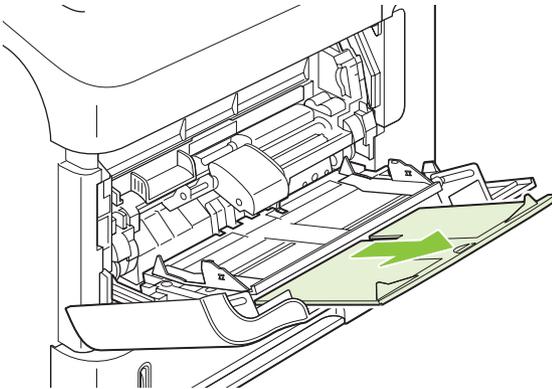
 **NOTE:** The product might print at a slower speed when using Tray 1.

 **CAUTION:** To avoid jams, do not load trays while the product is printing. Do not fan the paper. Fanning can cause misfeeds.

1. Open Tray 1.

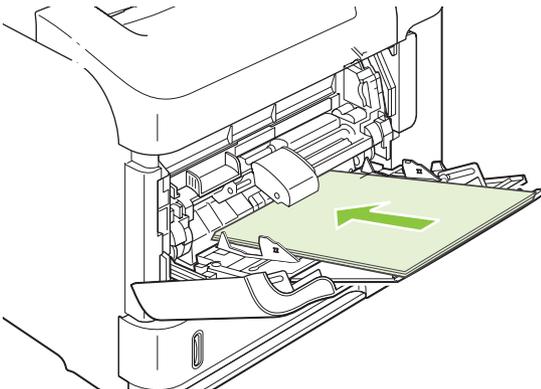


2. Pull out the tray extension.

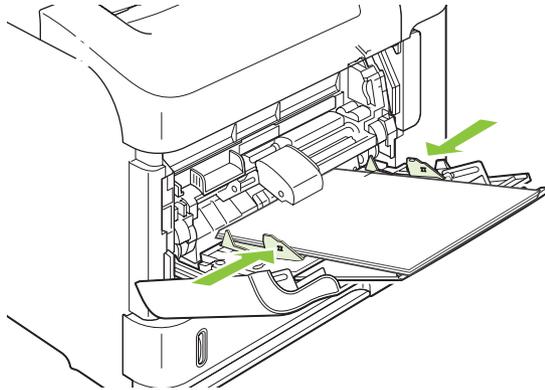


3. Load the paper into the tray. Make sure that the paper fits under the tabs and below the maximum-height indicators.

 **NOTE:** For information about loading paper that requires a specific orientation, see [Paper orientation for loading trays on page 78](#).



4. Adjust the side guides so that they lightly touch the paper stack but do not bend the paper.

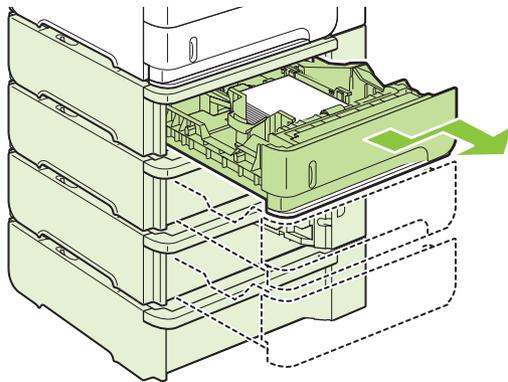


Load Tray 2 or an optional 500-sheet tray

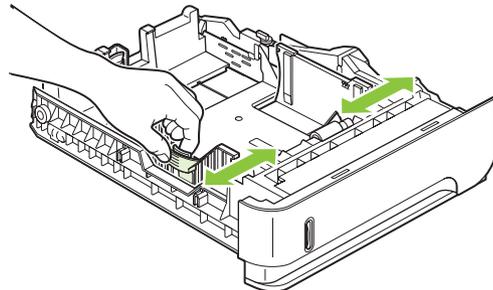
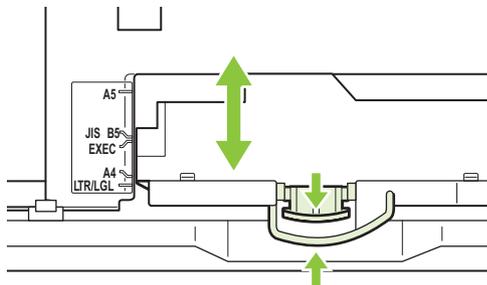
△ **CAUTION:** To avoid jams, do not load trays while the product is printing.

CAUTION: Do not fan the paper. Fanning can cause misfeeds.

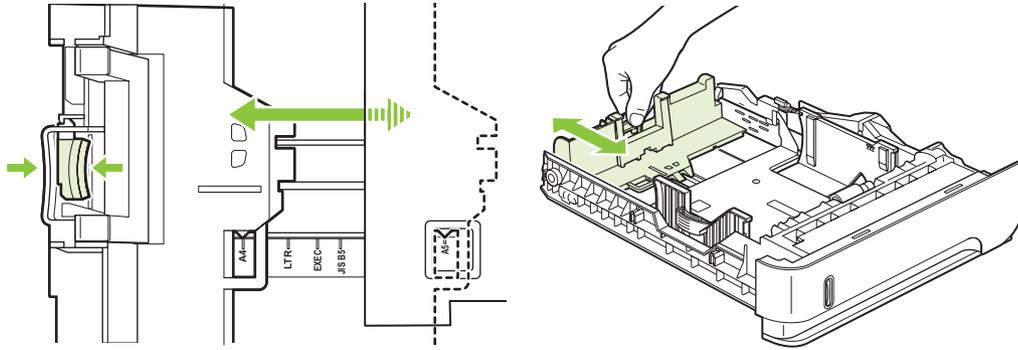
1. Pull the tray out and lift up slightly to remove it from the product.



2. Pinch the release that is located on the left guide and slide the side guides to the correct paper size.

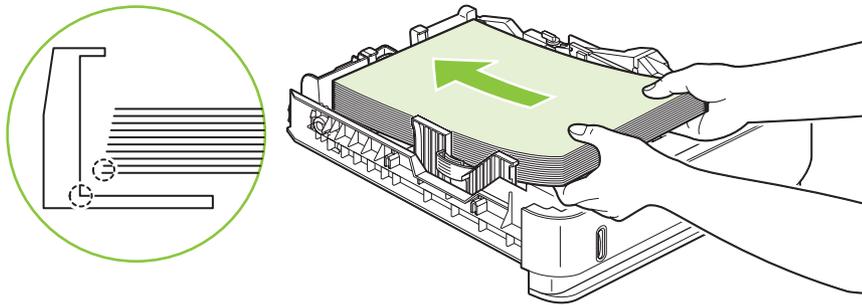


3. Pinch the release that is located on the rear paper guide and slide it to the correct paper size.

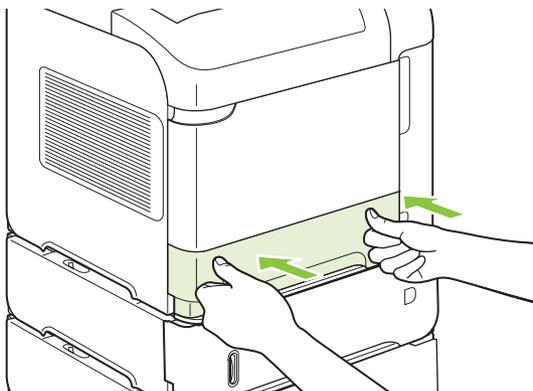


4. Load the paper into the tray. Make sure that the stack is flat at all four corners and that the top of the stack is below the maximum-height indicators.

 **NOTE:** For information about loading paper that requires a specific orientation, see [Paper orientation for loading trays on page 78](#).



5. Slide the tray completely into the product.



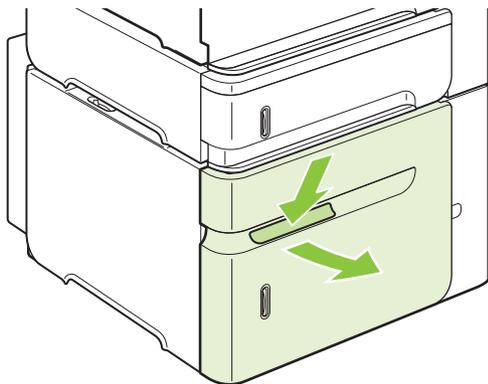
Load an optional 1,500-sheet tray

The optional 1,500 sheet tray adjusts for Letter, A4, and Legal sizes. The product automatically senses which size is loaded if the tray guides are correctly adjusted.

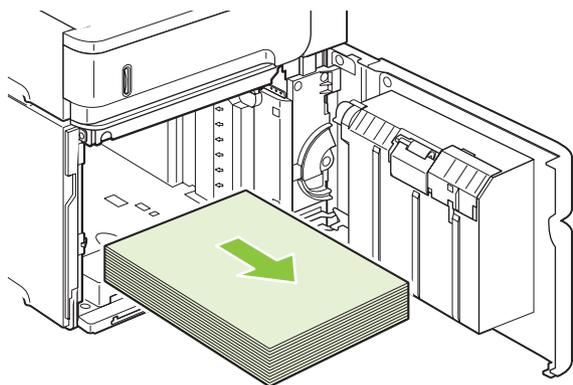
△ **CAUTION:** To avoid jams, do not load trays while the product is printing.

CAUTION: Do not fan the paper. Fanning can cause misfeeds.

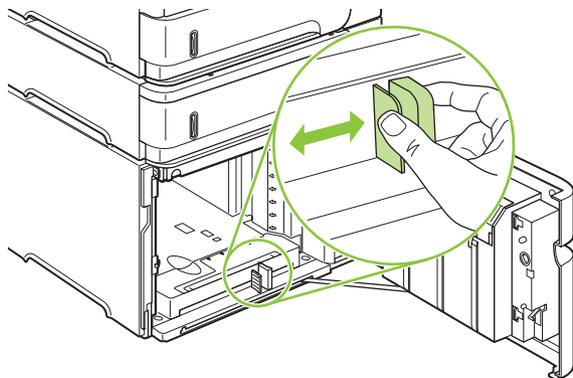
1. Press the release and open the door of the 1,500-sheet tray.



2. If paper is in the tray, remove it. When paper is in the tray, the guides cannot be adjusted.

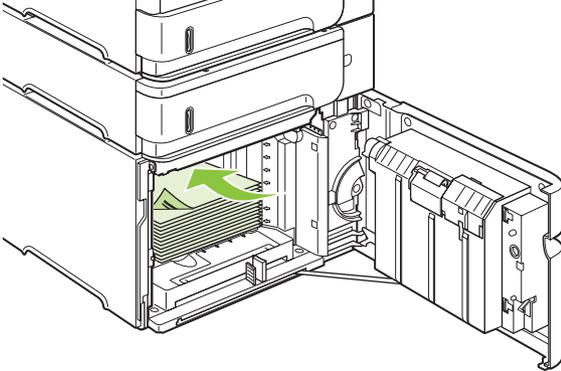


3. Pinch the guides at the front of the tray and slide them to the correct paper size.

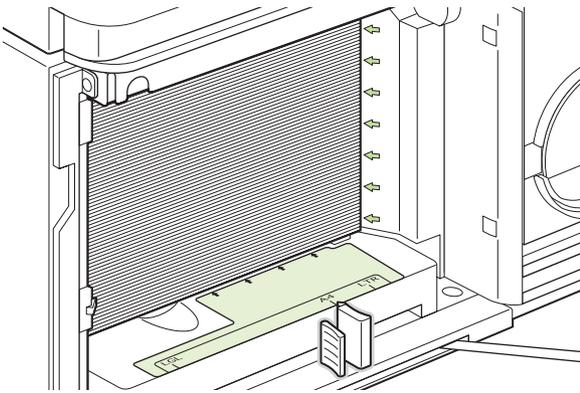


4. Load the paper into the tray. Load complete reams at one time. Do not divide reams into smaller sections.

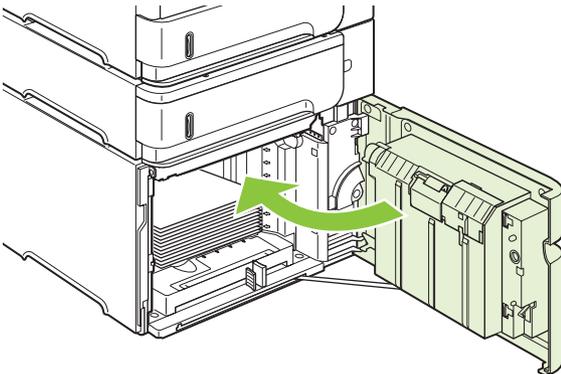
 **NOTE:** For information about loading paper that requires a specific orientation, see [Paper orientation for loading trays on page 78](#).



5. Make sure that the height of the stack does not exceed the maximum-height indicators on the guides and that the front edge of the stack is aligned with the arrows.



6. Close the door on the tray.



Configure trays

The product automatically prompts you to configure a tray for type and size in the following situations:

- When you load paper into the tray
- When you specify a particular tray or paper type for a print job through the printer driver or a software program and the tray is not configured to match the print-job's settings

 **NOTE:** The prompt does not appear if you are printing from Tray 1 and Tray 1 is configured for **ANY SIZE** and **ANY TYPE**.

NOTE: If you have used other HP LaserJet product models, you might be accustomed to configuring Tray 1 to **First** mode or **Cassette** mode. On this product, setting Tray 1 size to **ANY SIZE** is equivalent to **First** mode. Setting Tray 1 size to a setting other than **ANY SIZE** is equivalent to **Cassette** mode.

Configure a tray when loading paper

1. Load paper in the tray. Close the tray if you are using a tray other than Tray 1.
2. The tray configuration message appears.
3. Press **OK** to accept the detected size.

-or-

Press the back arrow  to choose a different configuration, and continue with the following steps.

4. To modify the tray configuration, press the down arrow  to highlight the correct size, and then press **OK**.

 **NOTE:** The product automatically detects most paper sizes in trays other than Tray 1.

5. Press the down arrow  to highlight the correct type, and then press **OK**.

Configure a tray to match print job settings

1. In the software program, specify the source tray, the paper size, and the paper type.
2. Send the job to the product.

If the tray needs to be configured, a prompt appears on the control-panel display.

3. If the displayed size is not correct, press the back arrow . Press the down arrow  to highlight the correct size, or highlight **CUSTOM**.

To specify a custom size, first press the down arrow  to highlight the correct unit of measure. Then set the X and Y dimensions by using the numeric keypad or by pressing the up arrow  or the down arrow .

4. If the displayed paper type is not correct, press the back arrow , and then press the down arrow  to highlight the paper type.

Configure a tray by using the Paper Handling menu

You can also configure the trays for type and size without a prompt from the product.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **PAPER HANDLING**, and then press **OK**.
3. Press the down arrow ▼ to highlight the size or type setting for the desired tray, and then press **OK**.
4. Press the down arrow ▼ to highlight the size or type. To specify a custom size, first press the down arrow ▼ to highlight the correct unit of measure. Then set the X and Y dimensions by using the numeric keypad or by pressing the up arrow ▲ or the down arrow ▼.
5. Press **OK** to save the settings.
6. Press **Menu** .

Select the paper by source, type, or size

In the Microsoft Windows operating system, three settings affect how the printer driver tries to pull paper when you send a print job. *Source*, *Type*, and *Size* settings appear in the **Page Setup**, **Print**, or **Print Properties** dialog boxes in most software programs. Unless you change these settings, the product automatically selects a tray using the default settings.

Source

To print by *source* select a specific tray for the product to pull from. If you select a tray that is configured for a type or size that does not match your print job, the product prompts you to load the tray with the type or size of paper for your job before printing it. When you load the tray, the product begins printing.

Type and size

Printing by *type* or *size* means that you want the product to pull from the tray that is loaded with the correct type and size of paper. Selecting paper by type rather than source is similar to locking out trays and helps protect special paper from accidental use. For example, if a tray is configured for letterhead and you select plain paper, the product will not pull the letterhead from that tray. Instead, it will pull from a tray that is loaded with plain paper and is configured for plain paper on the product control panel.

Selecting paper by type and size results in significantly better print quality for most paper types. Using the wrong setting might result in unsatisfactory print quality. Always print by type for special print media, such as labels or transparencies. Print by size for envelopes, if possible.

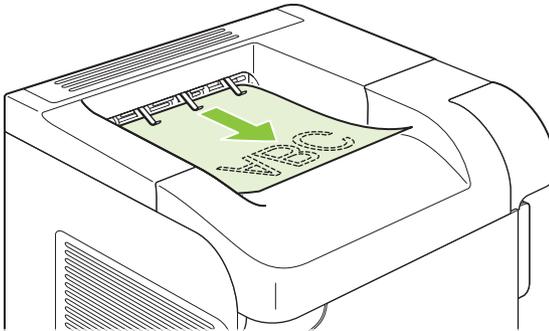
- To print by type or size, select the type or size from the **Page Setup** dialog box, the **Print** dialog box, or the **Print Properties** dialog box, depending on the software program.
- If you often print on a certain type or size of paper, configure a tray for that type or size. Then, when you select that type or size as you print a job, the product automatically pulls paper from the tray that is configured for that type or size.

Use paper output options

The product has four output locations: the top (standard) output bin, the rear output bin, the optional stacker or stapler/stacker, and the optional 5-bin mailbox.

Print to the top (standard) output bin

The top output bin collects paper face-down, in the correct order. The top output bin should be used for most print jobs, including transparencies. To use the top output bin, be sure that the rear output bin is closed. To avoid jams, do not open or close the rear output bin while the product is printing.



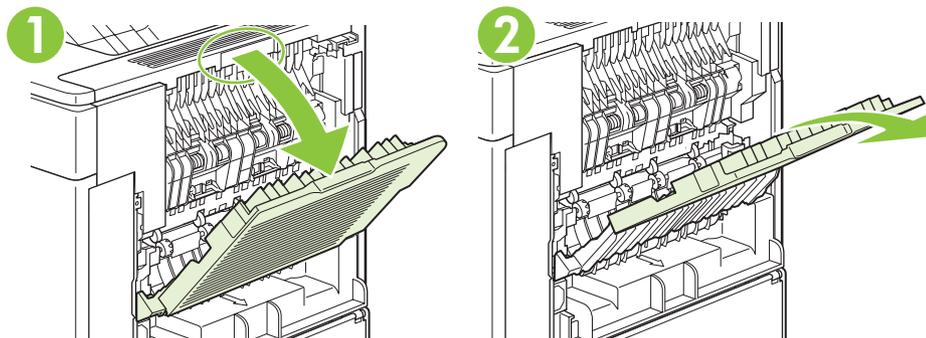
Print to the rear output bin

The product always prints to the rear output bin if it is open. Paper that is printed to this bin will exit face-up, with the last page on top (reverse order).

Printing from Tray 1 to the rear output bin provides the straightest path. Opening the rear output bin might improve performance with the following items:

- Envelopes
- Labels
- Small custom-size paper
- Postcards
- Paper heavier than 120 g/m² (32 lb)

To open the rear output bin, grasp the handle at the top of the bin. Pull the bin down, and slide out the extension.



Opening the rear output bin makes the duplexer (if installed) and the top output bin unavailable. To avoid jams, do not open or close the rear output bin while the product is printing.

Print to the optional stacker or stapler/stacker

The optional stacker or optional stapler/stacker can hold up to 500 sheets of paper (20-lb paper). The stacker accepts standard and custom paper sizes. The stapler/stacker accepts standard and custom paper sizes, but only Letter, Legal, and A4 sizes can be stapled. Do not try to send other types of print media, such as labels or envelopes.

When a stapler/stacker is installed, the product automatically rotates the printed images 180° on all paper sizes, regardless of whether the job is stapled. Paper types that must be printed in the correct orientation, such as letterhead or prepunched paper, need to be loaded in a different direction. See [Paper orientation for loading trays on page 78](#).

To print to the optional stacker or optional stapler/stacker, select the option in the program, in the printer driver, or at the printer control panel.

Before you use the optional stacker or optional stapler/stacker, ensure that the printer driver is set to recognize it. You need to set this setting only once. See the printer driver online Help for details.

For more information about stapling, see [Staple documents on page 92](#).

Print to the 5-bin mailbox

The optional 5-bin mailbox provides five output bins that can be configured from the control panel to sort print jobs in a variety of ways.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **MBM-5 CONFIGURATION**, and then press **OK**.
4. Press **OK** to select **OPERATION MODE**.
5. Press the down arrow ▼ to highlight how the 5-bin mailbox sorts jobs:

MAILBOX	Each bin is assigned to a user or group of users. This is the default setting.
STACKER	The product uses all of the bins to stack copies of a job. Jobs are sent to the bottom bin first, and then to the next highest bin, and so forth. When all bins are full, the product stops.
JOB SEPARATOR	Each print job is sent to a different bin. Jobs are sent to an empty bin, starting with the top bin and continuing to the bottom bin.
COLLATOR	The product sorts copies of a single print job into separate bins.

6. Press **OK** to select the option.

7 Use product features

- [Economy settings](#)
- [Staple documents](#)
- [Use job storage features](#)

Economy settings

EconoMode

This product has an EconoMode option for printing drafts of documents. Using EconoMode can use less toner and decrease the cost per page. However, using EconoMode can also reduce print quality.

HP does not recommend full-time use of EconoMode. If EconoMode is used full-time, the toner supply might outlast the mechanical parts in the print cartridge. If print quality begins to degrade under these circumstances, you will need to install a new print cartridge, even if there is toner supply remaining in the cartridge.

Enable or disable EconoMode in any of these ways:

- At the product control panel, select the **CONFIGURE DEVICE** menu, and then select the **PRINT QUALITY** submenu. EconoMode is turned off by default.
- In the embedded Web server, open the **Settings** tab and select the **Configure Device** option. Navigate to the **Print Quality** submenu.
- In the HP Printer Utility for Macintosh, click **Configuration Settings**, and then click **Economode & Toner Density**.
- In the Windows PCL printer driver, open the **Paper/Quality** tab, and select the **EconoMode** option.

Sleep delay

The adjustable sleep mode feature reduces power consumption when the product has been inactive for an extended period. You can set the length of time before the product enters sleep mode to one of several settings.

 **NOTE:** The product display dims when the product is in sleep mode. This mode does not affect product warm-up time.

Set sleep delay

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **SYSTEM SETUP**, and then press **OK**.
4. Press the down arrow ▼ to highlight **SLEEP DELAY**, and then press **OK**.
5. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to select the appropriate time period, and press **OK**.
6. Press **Menu** .

Disable or enable sleep mode

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **RESETS**, and then press **OK**.

4. Press the down arrow ▼ to highlight **SLEEP MODE**, and then press **OK**.
5. Press the up arrow ▲ or the down arrow ▼ to select **ON** or **OFF**, and then press **OK**.
6. Press **Menu** .

Wake time

The wake time feature allows you to instruct the product to wake at a certain time on selected days, to eliminate waiting for the warm-up and calibration periods. You must have **SLEEP MODE** on to set the wake time.

Set the wake time

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **SYSTEM SETUP**, and then press **OK**.
4. Press the down arrow ▼ to highlight **WAKE TIME**, and then press **OK**.
5. Press the up arrow ▲ or the down arrow ▼ to select the day of the week, and then press **OK**.
6. Press the down arrow ▼ to select **CUSTOM**, and then press **OK**.
7. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to select the hour, and then press **OK**.
8. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to select the minutes, and then press **OK**.
9. Press the up arrow ▲ or the down arrow ▼ to select **AM** or **PM**, and then press **OK**.
10. Press **OK** to select **APPLY TO ALL DAYS**.
11. Press the up arrow ▲ or the down arrow ▼ to select **YES** or **NO**, and then press **OK**.
12. If you select **NO**, press the up arrow ▲ or the down arrow ▼ to set the **WAKE TIME** for the other days of the week, and then press **OK** to accept each selection.
13. Press **Menu** .

Staple documents

If you cannot select the stapler in the program or printer driver, select the stapler at the product control panel.

You might need to configure the printer driver to recognize the optional stapler/stacker. You need to set this setting only once. See the printer driver online Help for details.

Select the stapler in the software (Windows)

1. On the **File** menu, click **Print**, and then click **Properties**.
2. On the **Output** tab, click the drop-down list under **Staple**, and click **One Staple Angled**.

Select the stapler in the software (Macintosh)

1. On the **File** menu, click **Print**, and then select **Finishing** from the selectable print options.
2. In the **Output Destination** dialog box, select the **Stapler** option.
3. In the **Stapler** dialog box, select the stapler style.

Select the stapler at the control panel

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **STAPLER/STACKER**, and then press **OK**.
4. Press the down arrow ▼ to highlight **STAPLES**, and then press **OK**.
5. Press the down arrow ▼ to highlight **ONE-LEFT ANGLED**, and then press **OK**.

 **NOTE:** Selecting the stapler at the product control panel changes the default setting to **STAPLES**. It is possible that all print jobs will be stapled. However, settings that are changed in the printer driver override settings that are changed at the control panel.

Use job storage features

The following job-storage features are available for print jobs:

- **Proof and hold jobs:** This feature provides a quick and easy way to print and proof one copy of a job and then print the additional copies.
- **Personal jobs:** When you send a private job to the product, the job does not print until you provide the required personal identification number (PIN) at the control panel.
- **Quick Copy jobs:** You can print the requested number of copies of a job and then store a copy of the job on the product hard disk. Storing the job allows you to print additional copies of the job later.
- **Stored jobs:** You can store a job such as a personnel form, time sheet, or calendar on the product and allow other users to print the job at any time. Stored jobs also can be protected by a PIN.

△ **CAUTION:** If you turn off the product, all Quick Copy, Proof and Hold, and Personal jobs are deleted.

Create a stored job

Use the printer driver to create stored jobs.

Windows	<ol style="list-style-type: none">1. On the File menu, click Print.2. Click Properties, and then click the Job Storage tab.3. Select the job storage mode that you want. <p>For more information, see Set job storage options on page 100.</p>
Macintosh	<ol style="list-style-type: none">1. On the File menu, click Print.2. Open the Job Storage menu.3. In the Job Storage: drop-down list, select the type of stored job. <p>For more information, see Store jobs on page 59.</p>

 **NOTE:** To permanently store the job and prevent the product from deleting it when space is needed for something else, select the **Stored Job** option in the driver.

Print a stored job

 **NOTE:** You can press the folder button  to go directly to the **RETRIEVE JOB** menu, and then start the following procedure at step 3.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **RETRIEVE JOB**, and then press **OK**.
3. Press the down arrow ▼ to highlight your user name, and then press **OK**.
4. Press the down arrow ▼ to highlight a job name, and then press **OK**.
PRINT is highlighted.
5. Press **OK** to select **PRINT**.

6. If the job requires a PIN, use the numeric keypad or press the up arrow ▲ or the down arrow ▼ to enter the PIN, and then press **OK**.

 **NOTE:** If you use the up arrow ▲ or the down arrow ▼ to enter the PIN, press **OK** after each digit.

7. Use the numeric keypad, or press the up arrow ▲ or the down arrow ▼ to select the number of copies.
8. Press **OK** to print the job.

Delete a stored job

When you send a stored job, the product overwrites any previous jobs with the same user and job name. If a job is not already stored under the same user and job name, and the product needs additional space, the product might delete other stored jobs starting with the oldest. You can change the number of jobs that can be stored from the **RETRIEVE JOB** menu on the product control panel.

A job can be deleted from the control panel, from the embedded Web server, or from HP Web Jetadmin. To delete a job from the control panel, use the following procedure:

 **NOTE:** You can press the folder button  to go directly to the **RETRIEVE JOB** menu, and then start the following procedure at step 3.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **RETRIEVE JOB**, and then press **OK**.
3. Press the down arrow ▼ to highlight your user name, and then press **OK**.
4. Press the down arrow ▼ to highlight a job name, and then press **OK**.
5. Press the down arrow ▼ to highlight **DELETE**, and then press **OK**.
6. If the job requires a PIN, use the numeric keypad or press the up arrow ▲ or the down arrow ▼ to enter the PIN, and then press **OK**.

 **NOTE:** If you use the up arrow ▲ or the down arrow ▼ to enter the PIN, press **OK** after each digit.

7. Press **OK** to confirm that you want to delete the job.

8 Print tasks

- [Cancel a print job](#)
- [Use features in the Windows printer driver](#)

Cancel a print job

You can stop a print request by using the control panel or by using the software program. For instructions about how to stop a print request from a computer on a network, see the online Help for the specific network software.

 **NOTE:** It can take some time for all printing to clear after you have canceled a print job.

Stop the current print job from the control panel

- Press the stop button  on the control panel.

Stop the current print job from the software program

When you send the print job, a dialog box appears briefly on the screen, giving you the option to cancel the print job.

If several requests have been sent to the product through your software, they might be waiting in a print queue (for example, in Windows Print Manager). See the software documentation for specific instructions about canceling a print request from the computer.

If a print job is waiting in a print queue or print spooler, delete the print job there.

- 1. Windows XP and Windows Server 2003 (using the default Start menu view):** Click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

Windows 2000, Windows XP, and Windows Server 2003 (using the Classic Start menu view): Click **Start**, click **Settings**, and then click **Printers**.

-or-

Windows Vista: Click **Start**, click **Control Panel**, and then in the category for **Hardware and Sound** click **Printer**.

- 2.** In the list of printers, double-click the name of this product to open the print queue or spooler.
- 3.** Select the print job that you want to cancel, and then press **Delete**.

Use features in the Windows printer driver

 **NOTE:** The following information is for the HP PCL 6 printer driver.

Open the printer driver

How do I	Steps to perform
Open the printer driver	On the File menu in the software program, click Print . Select the printer, and then click Properties or Preferences .
Get help for any printing option	Click the ? symbol in the upper-right corner of the printer driver, and then click any item in the printer driver. A pop-up message displays that provides information about the item. Or, click Help to open the online Help.

Use printing shortcuts

To perform the following tasks, open the printer driver and click the **Printing Shortcuts** tab.

 **NOTE:** In previous HP printer drivers, this feature was called **Quick Sets**.

How do I	Steps to perform
Use a printing shortcut	Select one of the shortcuts, and then click OK to print the job with the predefined settings.
Create a custom printing shortcut	a) Select an existing shortcut as a base. b) Select the print options for the new shortcut. c) Click Save As , type a name for the shortcut, and click OK .

Set paper and quality options

To perform the following tasks, open the printer driver and click the **Paper/Quality** tab.

How do I	Steps to perform
Select a page size	Select a size from the Paper size drop-down list.
Select a custom page size	a) Click Custom . The Custom Paper Size dialog box opens. b) Type a name for the custom size, specify the dimensions, and click OK .
Select a paper source	Select a tray from the Paper source drop-down list.
Select a paper type	Select a type from the Paper type drop-down list.
Print covers on different paper	a) In the Special pages area, click Covers or Print pages on different paper , and then click Settings . b) Select an option to print a blank or preprinted front cover, back cover, or both. Or, select an option to print the first or last page on different paper. c) Select options from the Paper source and Paper type drop-down lists, and then click Add . d) Click OK .
Print the first or last page on different paper	
Adjust the resolution of printed images	In the Print Quality area, select an option from the drop-down list. See the printer-driver online Help for information about each of the available options.
Select draft-quality printing	In the Print Quality area, click EconoMode .

Set document effects

To perform the following tasks, open the printer driver and click the **Effects** tab.

How do I	Steps to perform
Scale a page to fit on a selected paper size	Click Print document on , and then select a size from the drop-down list.
Scale a page to be a percent of the actual size	Click % of actual size , and then type the percent or adjust the slider bar.
Print a watermark	a) Select a watermark from the Watermarks drop-down list. b) To print the watermark on the first page only, click First page only . Otherwise, the watermark is printed on each page.
Add or edit watermarks	a) In the Watermarks area, click Edit . The Watermark Details dialog box opens. b) Specify the settings for the watermark, and then click OK .

NOTE: The printer driver must be stored on your computer for this to work.

Set document finishing options

To perform the following tasks, open the printer driver and click the **Finishing** tab.

How do I	Steps to perform
Print on both sides (Duplex)	Click Print on both sides . If you will bind the document along the top edge, click Flip pages up .
Print a booklet	a) Click Print on both sides . b) In the Booklet layout drop-down list, click Left binding or Right binding . The Pages per sheet option automatically changes to 2 pages per sheet .
Print multiple pages per sheet	a) Select the number of pages per sheet from the Pages per sheet drop-down list. b) Select the correct options for Print page borders , Page order , and Orientation .
Select page orientation	a) In the Orientation area, click Portrait or Landscape . b) To print the page image upside down, click Rotate by 180 degrees .

Set product output options

To perform the following tasks, open the printer driver and click the **Output** tab.



NOTE: The options that are available on this tab depend on the finishing device that you are using.

How do I	Steps to perform
Select staple options	Select a stapling option from the Staple drop-down list.
Select an output bin	Select an output bin from the Bin drop-down list.

Set job storage options

To perform the following tasks, open the printer driver and click the **Job Storage** tab.

How do I	Steps to perform
Print one copy for proof before printing all the copies	In the Job Storage Mode area, click Proof and Hold . The product prints the first copy only. A message appears on the product control panel that prompts you to print the rest of the copies.
Temporarily store a private job on the product and print it later	a) In the Job Storage Mode area, click Personal Job . b) In the Make Job Private area, enter a 4-digit personal identification number (PIN).
Temporarily store a job on the product NOTE: These jobs are deleted if the product is turned off.	In the Job Storage Mode area, click Quick Copy . One copy of the job is printed immediately, but you can print more copies from the product control panel.
Permanently store a job on the product	In the Job Storage Mode area, click Stored Job .
Make a permanently stored job private so that anyone who tries to print it must provide a PIN	a) In the Job Storage Mode area, click Stored Job . b) In the Make Job Private area, click PIN to print , and then enter a 4-digit personal identification number (PIN).
Receive notification when someone prints a stored job	In the Job Notification Options area, click Display Job ID when printing .
Set the user name for a stored job	In the User Name area, click User name to use the Windows default user name. To provide a different user name, click Custom and type the name.
Specify a name for the stored job	a) In the Job Name area, click Automatic to use the default job name. To specify a job name, click Custom and type the name. b) Select an option from the If job name exists drop-down list. Select Use Job Name + (1-99) to add a number to the end of the existing name, or select Replace Existing File to overwrite a job that already has that name.

Obtain support and product-status information

To perform the following tasks, open the printer driver and click the **Services** tab.

How do I	Steps to perform
Obtain support information for the product and order supplies online	In the Internet Services drop-down list, select a support option, and click Go!
Check the status of the product, including the level of supplies	Click the Device and Supplies Status icon. The Device Status page of the HP embedded Web server opens.

Set advanced printing options

To perform the following tasks, open the printer driver and click the **Advanced** tab.

How do I	Steps to perform
Select advanced printing options	In any of the sections, click a current setting to activate a drop-down list so you can change the setting.
Change the number of copies that are printed NOTE: If the software program that you are using does not provide a way to print a particular number of copies, you can change the number of copies in the driver. Changing this setting affects the number of copies for all print jobs. After your job has printed, restore this setting to the original value.	Open the Paper/Output section, and then enter the number of copies to print. If you select 2 or more copies, you can select the option to collate the pages.
Load letterhead or preprinted paper the same way for every job, whether printing on one or both sides of the page	a) Open the Document Options section, and then open the Printer Features section. b) In the Alternative Letterhead Mode drop-down list, select On . c) At the product, load the paper the same way you would for printing on both sides.
Change the order in which pages are printed	a) Open the Document Options section, and then open the Layout Options section. b) In the Page Order drop-down list, select Front to Back to print the pages in the same order as they are in the document, or select Back to Front to print the pages in the reverse order.

9 Manage and maintain the product

- [Print the information and show-me-how pages](#)
- [Use the HP Easy Printer Care software](#)
- [Use the embedded Web server](#)
- [Use HP Web Jetadmin software](#)
- [Use security features](#)
- [Manage supplies](#)
- [Replace supplies and parts](#)
- [Install memory, internal USB devices, and external print server cards](#)
- [Clean the product](#)
- [Upgrade the firmware](#)

Print the information and show-me-how pages

From the product control panel, you can print information pages that give details about the product and its current configuration. You can also print several show-me-how pages that illustrate common procedures related to using the product.

Type of page	Name of page	Description
Information pages	PRINT MENU MAP	Prints the control-panel menu map that shows the layout and current settings for the control-panel menu items.
	PRINT CONFIGURATION	Prints the current product configuration. If an HP Jetdirect print server is installed, an HP Jetdirect configuration page also prints.
	PRINT SUPPLIES STATUS PAGE	Prints a supplies status page that shows the supplies levels for the product, an approximate number of pages remaining, cartridge-usage information, the serial number, a page count, and ordering information. This page is available only if you are using genuine HP supplies.
	PRINT USAGE PAGE	Prints a page that shows a count of all paper sizes that have passed through the product, lists whether they were one-sided or two-sided, and shows a page count.
	PRINT FILE DIRECTORY	Prints a file directory that shows information for all installed mass-storage devices. This item appears only if a mass-storage device that contains a recognized file system is installed in the product.
	PRINT PCL FONT LIST	Prints a PCL font list that shows all the PCL fonts that are currently available to the product.
	PRINT PS FONT LIST	Prints a PS font list that shows all the PS fonts that are currently available to the product.
Show-me-how pages	CLEAR JAMS	Prints a page that shows how to clear paper jams.
	LOAD TRAYS	Prints a page that shows how to load the input trays.
	LOAD SPECIAL MEDIA	Prints a page that shows how to load special paper, such as envelopes and letterhead.
	PRINT ON BOTH SIDES	Prints a page that shows how to use the two-sided (duplex) printing function.
	SUPPORTED PAPER	Prints a page that shows supported paper types and sizes for the product.
	PRINT HELP GUIDE	Prints a page that shows links to additional help on the Web.

Print the information pages

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **INFORMATION**, and then press **OK**.
3. Press the down arrow ▼ to highlight the required page, and then press **OK** to print.

Print the show-me-how pages

1. Press **Menu** .
2. Make sure **SHOW ME HOW** is highlighted and then press **OK**.
3. Press the down arrow ▼ to highlight the required page, and then press **OK** to print.

Use the HP Easy Printer Care software

Open the HP Easy Printer Care software

Use one of the following methods to open the HP Easy Printer Care software:

- On the **Start** menu, select **Programs**, select **Hewlett-Packard**, select **HP Easy Printer Care**, and then click **Start HP Easy Printer Care**.
- In the Windows system tray (in the lower-right corner of the desktop), double-click the HP Easy Printer Care icon.
- Double-click the desktop icon.

HP Easy Printer Care software sections

HP Easy Printer Care software can provide information about multiple HP products that are on your network as well as any products that are directly connected to your computer. Some of the items that are in the following table might not be available for every product.

The Help button (?) in the upper-right corner of each page provides more detailed information about the options on that page.

Section	Options
<p>Device List tab</p> <p>When you open the software, this is the first page that appears.</p> <p>NOTE: To return to this page from any tab, click My HP Printers in the left side of the window.</p>	<ul style="list-style-type: none"> • Devices list: Shows the products that you can select. <p>NOTE: The product information appears either in list form or as icons, depending on the setting for the View as option.</p> <ul style="list-style-type: none"> • The information on this tab includes current alerts for the product. • If you click a product in the list, the HP Easy Printer Care opens the Overview tab for that product.
<p>Compatible Printers</p>	<p>Provides a list of all the HP products that support HP Easy Printer Care software.</p>
<p>Find Other Printers window</p> <p>Add more products to the My HP Printers list</p>	<p>Click the Find Other Printers link in the Devices list to open the Find Other Printers window. The Find Other Printers window provides a utility that detects other network printers so that you can add them to the My HP Printers list and then monitor those products from your computer.</p>
<p>Overview tab</p> <p>Contains basic status information for the device</p>	<ul style="list-style-type: none"> • Device Status section: This section shows product-identification information and the product status. It indicates product-alert conditions, such as an empty print cartridge. After you correct a problem with the product, click the refresh button  in the upper-right corner of the window to update the status. • Supplies Status section: Shows detailed supplies status, such as the percentage of toner remaining in the print cartridge and the status of the paper that is loaded in each tray. • Supplies Details link: Opens the supplies status page to view more detailed information about product supplies, ordering information, and recycling information.
<p>Support tab</p> <p>Provides links to support information</p>	<ul style="list-style-type: none"> • Device Status section: This section shows product-identification information and the product status. It indicates product-alert conditions, such as an empty print cartridge. After you correct a problem with the product, click the refresh button  in the upper-right corner of the window to update the status. • Device Management section: Provides links to information about HP Easy Printer Care, to advanced product settings, and to product usage reports. • Troubleshooting and Help: Provides links to tools that you can use to resolve problems, to online product support information, and to online HP experts.
<p>Settings tab</p> <p>Configure product settings, adjust print-quality settings, and find information about specific product features</p> <p>NOTE: This tab is not available for some products.</p>	<ul style="list-style-type: none"> • About: Provides general information about this tab. • General: Provides information about the product, such as the model number, serial number, and the settings for date and time, if they are available. • Information Pages: Provides links to print the information pages that are available for the product. • Capabilities: Provides information about product features, such as duplexing, the available memory, and the available printing personalities. Click Change to adjust the settings.

Section	Options
	<ul style="list-style-type: none"> ● Print Quality: Provides information about print-quality settings. Click Change to adjust the settings. ● Trays / Paper: Provides information about the trays and how they are configured. Click Change to adjust the settings. ● Restore Defaults: Provides a way to restore the product settings to the factory defaults. Click Restore to restore the settings to the defaults.
<p>HP Proactive Support</p> <p>NOTE: This item is available from the Overview and Support tabs.</p>	<p>When enabled, HP Proactive Support routinely scans your printing system to identify potential problems. Click the more info link to configure how frequently the scans occur. This page also provides information about available updates for product software, firmware, and HP printer drivers. You can accept or decline each recommended update.</p>
<p>Supplies Ordering button</p> <p>Click the Supplies Ordering button on any tab to open the Supplies Ordering window, which provides access to online supplies ordering.</p> <p>NOTE: This item is available from the Overview and Support tabs.</p>	<ul style="list-style-type: none"> ● Ordering list: Shows the supplies that you can order for each product. To order a certain item, click the Order check box for that item in the supplies list. You can sort the list by product, or by the supplies that need to be ordered the soonest. The list contains supplies information for every product that is in the My HP Printers list. ● Shop Online for Supplies button: Opens the HP SureSupply Web site in a new browser window. If you have checked the Order check box for any items, the information about those items can be transferred to the Web site, where you will receive information on options for purchasing your selected supplies. ● Print Shopping List button: Prints the information for the supplies that have the Order check box selected.
<p>Alert Settings link</p> <p>NOTE: This item is available from the Overview and Support tabs.</p>	<p>Click Alert Settings to open the Alert Settings window, in which you can configure alerts for each product.</p> <ul style="list-style-type: none"> ● Alerting is on or off: Activates or deactivates the alerts feature. ● Printer Alerts: Select the option to receive alerts for critical errors only, or for any error. ● Job Alerts: For products that support it, you can receive alerts for specific print jobs.
<p>Color Access Control</p> <p>NOTE: This item is available only for HP color products that support Color Access Control.</p> <p>NOTE: This item is available from the Overview and Support tabs.</p>	<p>Use this feature to permit or restrict color printing.</p>

Use the embedded Web server

Use the embedded Web server to view product and network status and to manage printing functions from your computer instead of from the product control panel. The following are examples of what you can do using the embedded Web server:

 **NOTE:** When the product is directly connected to a computer, use the HP Easy Printer Care software to view the product status.

- View product control-panel status information
- Determine the remaining life on all supplies and order new ones
- View and change tray configurations
- View and change the product control-panel menu configuration
- View and print internal pages
- Receive notification of product and supplies events
- View and change network configuration
- View support content that is specific to the current state of the product

To use the embedded Web server, you must have Microsoft Internet Explorer 5.01 or later or Netscape 6.2 or later for Windows, Mac OS, or Linux (Netscape only). Netscape Navigator 4.7 is required for HP-UX 10 and HP-UX 11. The embedded Web server works when the product is connected to an IP-based network. The embedded Web server does not support IPX-based product connections. You do not have to have Internet access to open and use the embedded Web server.

When the product is connected to the network, the embedded Web server is automatically available.

Open the embedded Web server by using a network connection

- In a supported Web browser on your computer, type the product IP address or host name in the address/URL field. To find the IP address or host name, print a configuration page. See [Print the information and show-me-how pages on page 104](#).

 **NOTE:** After you open the URL, you can bookmark it so that you can return to it quickly in the future.

Embedded Web server sections

Tab or section	Options
Information tab Provides product, status, and configuration information	<ul style="list-style-type: none">● Device Status: Shows the product status and shows the life remaining of HP supplies, with 0% indicating that a supply is empty. The page also shows the type and size of print paper set for each tray. To change the default settings, click Change Settings.● Configuration Page: Shows the information found on the configuration page.● Supplies Status: Shows the life remaining of HP supplies, with 0 percent indicating that a supply is empty. This page also provides supplies part numbers. To order new supplies, click Shop for Supplies in the Other Links area on the left side of the window.● Event log: Shows a list of all product events and errors.● Usage page: Shows a summary of the number of pages the product has printed, grouped by size and type.● Diagnostics page: Shows information about the product that can be useful when resolving problems. An HP-authorized support person might ask for this information.● Device Information: Shows the product network name, address, and model information. To change these entries, click Device Information on the Settings tab.● Control Panel: Shows messages from the control panel, such as Ready or Sleep mode on.● Print: Allows you to send print jobs to the product.
Settings tab Provides the ability to configure the product from your computer NOTE: The Settings tab can be password-protected. If this product is on a network, always consult with the system administrator before changing settings on this tab.	<ul style="list-style-type: none">● Configure Device: Allows you to configure product settings. This page contains the traditional menus found on the control-panel display.● E-mail Server: Network only. Used in conjunction with the Alerts page to set up e-mail alerts.● Alerts: Network only. Allows you to set up to receive e-mail alerts for various product and supplies events.● AutoSend: Allows you to configure the product to send automated e-mails regarding product configuration and supplies to specific e-mail addresses.● Security: Allows you to set a password that must be entered to gain access to the Settings and Networking tabs. Enable and disable certain features of the embedded Web server.● Edit Other Links: Allows you to add or customize a link to another Web site. This link is displayed in the Other Links area on all embedded Web server pages.● Device Information: Allows you to name the product and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the product.● Language: Allows you to determine the language in which to display the embedded Web server information.● Date & Time: Allows time synchronization with a network time server.● Wake Time: Allows you to set or edit a wake time for the product.
Networking tab	Network administrators can use this tab to control network-related settings for the product when it is connected to an IP-based network. This tab does not appear if the product is directly connected to a computer, or if the product is connected to a network using anything other than an HP Jetdirect print server.

Tab or section	Options
Provides the ability to change network settings from your computer	NOTE: The Networking tab can be password-protected.
<p>Other links</p> <p>Contains links that connect you to the Internet</p>	<ul style="list-style-type: none"> ● HP Instant Support™: Connects you to the HP Web site to help you find solutions. This service analyzes the product error log and configuration information to provide diagnostic and support information specific to your product. ● Shop for Supplies: Connects to the HP SureSupply Web site, where you will receive information on options for purchasing original HP supplies, such as print cartridges and paper. ● Product Support: Connects to the support site for the product, from which you can search for help regarding general topics. ● Show Me How: Connects to information that demonstrates specific tasks for the product. <p>NOTE: You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the embedded Web server, you must connect before you can visit these Web sites. Connecting might require that you close the embedded Web server and reopen it.</p>

Use HP Web Jetadmin software

HP Web Jetadmin is a Web-based software solution for remotely installing, monitoring, and troubleshooting network-connected peripherals. Management is proactive, allowing network administrators the ability to resolve issues before users are affected. Download this free, enhanced-management software at www.hp.com/go/webjetadmin.

Device plug-ins can be installed into HP Web Jetadmin to provide support for specific product features. The HP Web Jetadmin software can automatically notify you when new plug-ins are available. On the **Product Update** page, follow the directions to automatically connect to the HP Web site and install the latest device plug-ins for your product.

 **NOTE:** Browsers must be Java™-enabled. Browsing from an Apple PC is not supported.

Use security features

The product supports security standards and recommended protocols that help you keep the product secure, protect critical information on your network, and simplify the way you monitor and maintain the product.

For in-depth information about HP's secure imaging and printing solutions, visit www.hp.com/go/secureprinting. The site provides links to white papers and FAQ documents about security features.

IP Security

IP Security (IPsec) is a set of protocols that control IP-based network traffic to and from the product. IPsec provides host-to-host authentication, data integrity, and encryption of network communications.

For products that are connected to the network and have an HP Jetdirect print server, you can configure IPsec by using the **Networking** tab in the embedded Web server.

Secure the embedded Web server

You can configure the embedded Web server so that access to the **Settings** and **Networking** tabs requires a password.

1. Open the embedded Web server by entering the product IP address into the address line of a Web browser.
2. Select the **Settings** tab, and then select **Security** from the menu on the left side of the screen.
3. In the **Device Password** area, type the new password in the boxes labeled **New Password** and **Verify Password**. If you have already set up a password, type the old password in the **Old Password** box.
4. Click **Apply**.

Secure stored jobs

You can protect jobs that are stored on the product by assigning a PIN to them. Anyone who tries to print these protected jobs must first enter the PIN at the product control panel.

For more information, see [Use job storage features on page 93](#).

Lock the control panel menus

You can lock various menus on the control panel by using the embedded Web server.

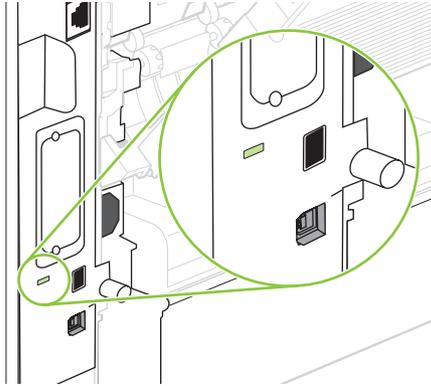
1. Open the embedded Web server by entering the product IP address into the address line of a Web browser.
2. Click **Settings**, and then click **Security**.
3. Click **Configure Security Settings**.
4. In the area for **Control Panel Access Lock**, select the level of security that you want.

Security level	Locked menus
Minimum	<ul style="list-style-type: none">• The RETRIEVE JOB menu requires a PIN for access.• The CONFIGURE DEVICE menu, SYSTEM SETUP submenu is locked.• The CONFIGURE DEVICE menu, I/O submenu is locked.• The CONFIGURE DEVICE menu, RESETS submenu is locked.
Moderate	<ul style="list-style-type: none">• The RETRIEVE JOB menu requires a PIN for access.• The CONFIGURE DEVICE menu is locked (all submenus).• The DIAGNOSTICS menu is locked.
Intermediate	<ul style="list-style-type: none">• The RETRIEVE JOB menu requires a PIN for access.• The PAPER HANDLING menu is locked.• The CONFIGURE DEVICE menu is locked (all submenus).• The DIAGNOSTICS menu is locked.
Maximum	<ul style="list-style-type: none">• The RETRIEVE JOB menu requires a PIN for access.• The INFORMATION menu is locked.• The PAPER HANDLING menu is locked.• The CONFIGURE DEVICE menu is locked (all submenus).• The DIAGNOSTICS menu is locked.

5. Click **Apply**.

Lock the formatter cage

The formatter cage, on the back of the product, has a slot that you can use to attach a security cable. Locking the formatter cage prevents someone from removing DIMMs and internal USB devices from the formatter.



Manage supplies

Using, storing, and monitoring the print cartridge can help ensure high-quality output.

Print-cartridge storage

Do not remove the print cartridge from its package until you are ready to use it.

△ **CAUTION:** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

HP policy on non-HP print cartridges

Hewlett-Packard Company cannot recommend the use of non-HP print cartridges, either new or remanufactured.

 **NOTE:** Any damage caused by a non-HP print cartridge is not covered under the HP warranty and service agreements.

To install a new HP print cartridge, see [Change the print cartridge on page 117](#). To recycle the used cartridge, follow the instructions included with the new cartridge.

HP fraud hotline and Web site

Call the HP fraud hotline (1-877-219-3183, toll-free in North America) or go to www.hp.com/go/anticounterfeit when you install an HP print cartridge and the control-panel message says the cartridge is non-HP. HP will help determine if the cartridge is genuine and take steps to resolve the problem.

Your print cartridge might not be a genuine HP print cartridge if you notice the following:

- You are experiencing a high number of problems with the print cartridge.
- The cartridge does not look like it usually does (for example, the orange pull tab is missing, or the packaging differs from HP packaging).

Supplies life

For information regarding specific product yield, see www.hp.com/go/learnaboutesupplies.

To order supplies, see [Supplies and accessories on page 195](#).

Replace supplies and parts

Supply replacement guidelines

Keep the following guidelines in mind when setting up the product.

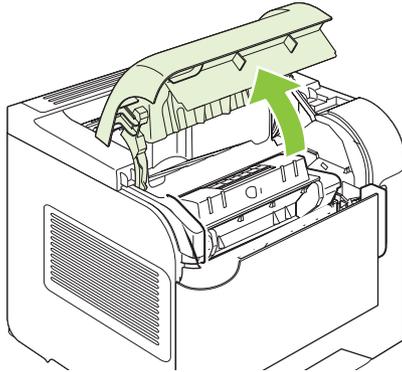
- Sufficient space is required above and in the front of the product for removing supplies.
- The product should be located on a flat, sturdy surface.

 **NOTE:** Hewlett-Packard recommends the use of HP supplies in this product. Use of non-HP supplies can cause problems requiring service that is not covered by the HP warranty or service agreements.

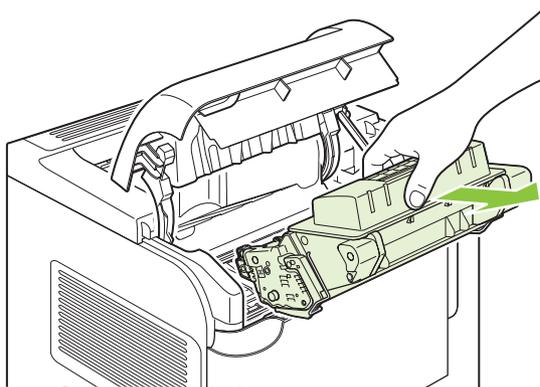
Change the print cartridge

When a print cartridge approaches the end of useful life, a message appears on the control panel recommending that you order a replacement. The product can continue to print using the current print cartridge until a message appears instructing you to replace the cartridge.

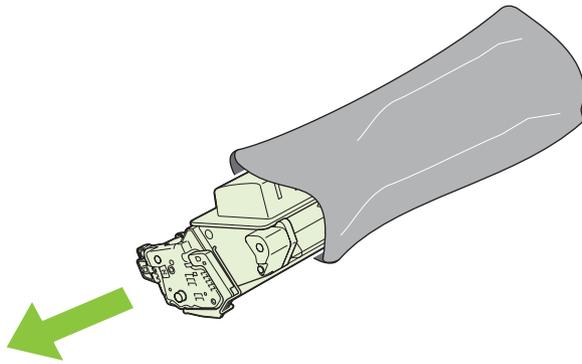
1. Open the top cover.



2. Remove the used print cartridge from the product.

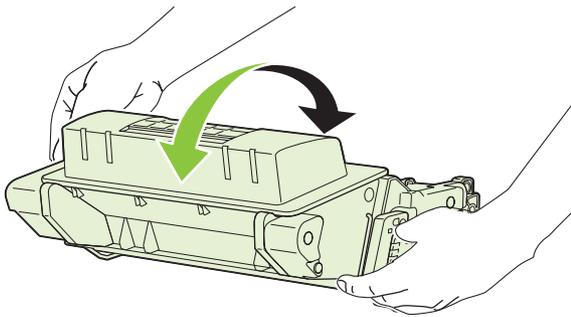


3. Remove the new print cartridge from the bag. Place the used print cartridge in the bag for recycling.

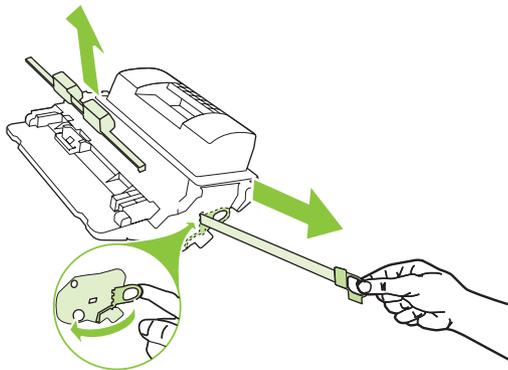


4. Grasp both sides of the print cartridge and distribute the toner by gently rocking the print cartridge.

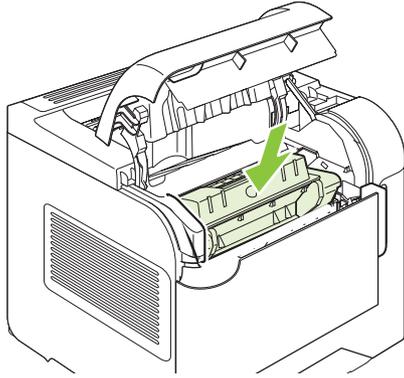
△ **CAUTION:** Do not touch the shutter or the surface of the roller.



5. Remove the shipping lock and the shipping tape from the new print cartridge. Discard the lock and tape according to local regulations.



6. Align the print cartridge with the tracks inside the product, insert the print cartridge until it is firmly seated, and then close the top cover.



After a short time, the control panel should display **Ready**.

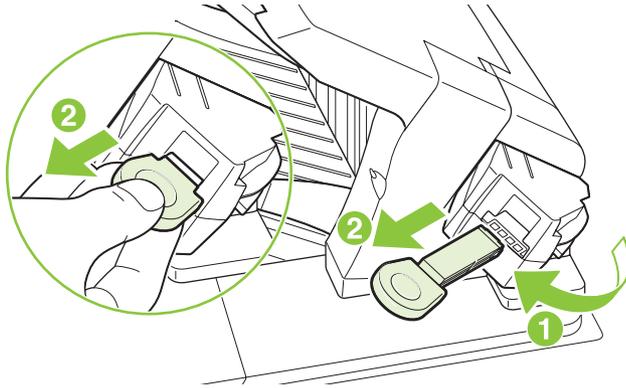
7. Installation is complete. Place the used print cartridge in the box in which the new cartridge arrived. See the enclosed recycling guide for recycling instructions.
8. If you are using a non-HP print cartridge, check the product control panel for further instructions.

For additional help, go to www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series.

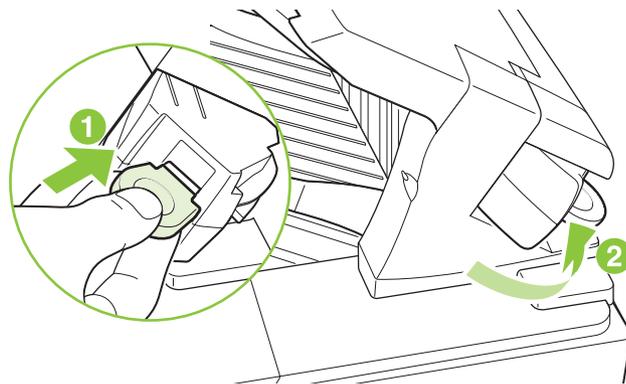
Load staples

Load staples if the product control-panel display prompts you with a message. If the stapler runs out of staples, jobs continue to print to the stapler/stacker, but they are not stapled.

1. On the right side of the stapler/stacker, turn the stapler unit toward the front of the product until the unit clicks into the open position. Grasp the blue staple-cartridge handle and pull the cartridge out of the stapler unit.



2. Insert the new staple cartridge into the stapler unit and rotate the stapler unit toward the rear of the product until the unit snaps into place.



Perform preventive maintenance

To ensure optimum performance from the product, replace certain parts when the **PERFORM PRINTER MAINTENANCE** message appears on the control-panel display.

The maintenance message appears after printing 225,000 pages. The message can be temporarily cleared for approximately 10,000 pages by using the **CLEAR MAINTENANCE MESSAGE** item on the Resets submenu. To check the number of pages printed since new maintenance-kit components were installed, print either a configuration page or a supplies status page.

To order the maintenance kit, see [Supplies and accessories on page 195](#). The kit includes the following items:

- Fuser
- Transfer roller
- Plastic tool for removing the old transfer roller
- Pair of gloves for handling the new transfer roller
- Tray 1 roller
- Eight feed rollers for the other trays
- Installation instructions

 **NOTE:** The maintenance kit is a consumable item and is not covered under the original product warranty or under most extended warranties. Installing the maintenance kit is the customer's responsibility.

After a maintenance kit is installed, the maintenance-kit counter must be reset.

Reset the maintenance-kit counter

1. Turn the product power off and then on.
2. When **XXX MB** appears on the control-panel display, press and hold down the **OK** button until all three control-panel lights flash once, and then stay on. This might take up to 10 seconds.
3. Release the **OK** button and press the up arrow **▲** to scroll to **NEW MAINTENANCE KIT**.
4. Press **OK** to reset the maintenance-kit counter.

 **NOTE:** Perform this procedure only after a maintenance kit has been installed. Do not use this procedure to temporarily clear the **PERFORM PRINTER MAINTENANCE** message.

Install memory, internal USB devices, and external print server cards

Overview

The formatter has the following open slots and ports for expanding the product's capabilities:

- One dual inline memory module (DIMM) slot for upgrading the product with more memory
- Two internal USB ports for adding fonts, languages, and other third-party solutions
- One external I/O (EIO) slot for adding an external print server, an external hard disk, or a parallel port

If the product already has an embedded HP Jetdirect print server installed, you can add an additional networking device in the EIO slot.

For information about specific components that are available and information about ordering them, see [Supplies and accessories on page 195](#).

To find out how much memory is installed in the product or to find out what is installed in the USB ports or the EIO slot, print a configuration page.

Install memory

You might want to add more memory to the product if you often print complex graphics, print PostScript (PS) documents, or use many downloaded fonts. Added memory also gives you more flexibility in supporting job-storage features, such as quick copying.

This product supports printing PDF files when 128 MB of memory is installed. However, for the best performance, upgrade the memory to at least 192 MB.

 **NOTE:** Single inline memory modules (SIMMs) used in previous HP LaserJet products are not compatible with the product.

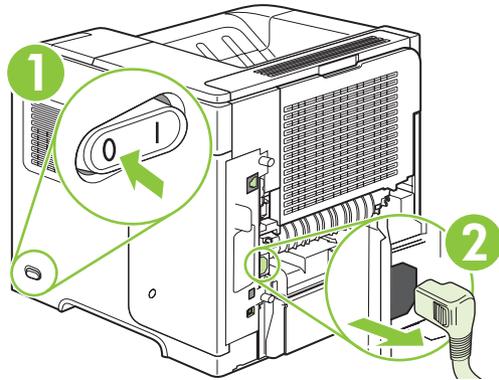
Install product memory

This product has one DIMM slot.

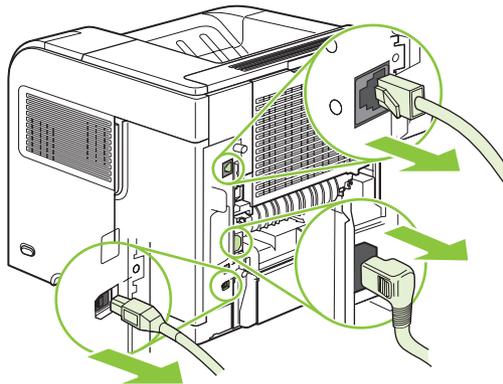
△ **CAUTION:** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap or frequently touch the surface of the DIMM antistatic package, then touch bare metal on the product.

If you have not already done so, print a configuration page to find out how much memory is installed in the product before adding more memory. See [Print the information and show-me-how pages on page 104](#).

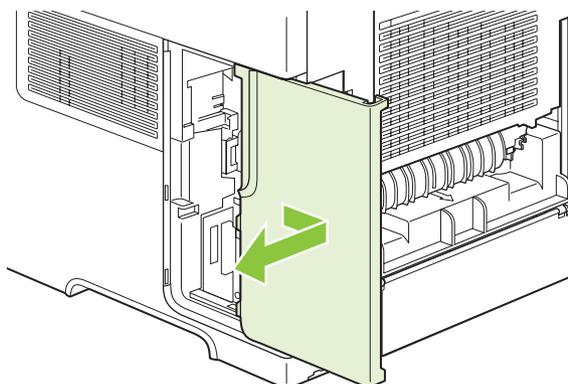
1. After the configuration page has printed, turn the product off and disconnect the power cord.



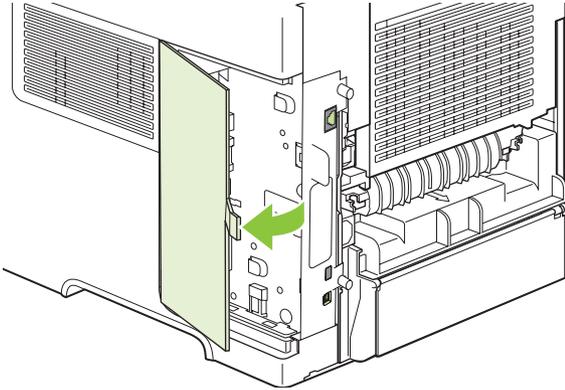
2. Disconnect all interface cables.



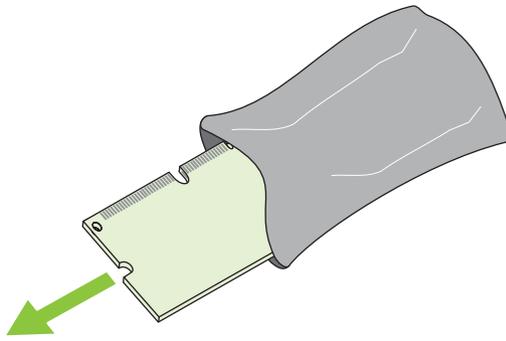
3. Remove the right-side panel by sliding it towards the rear of the product to unlatch it.



4. Open the access door by pulling on the metal tab.

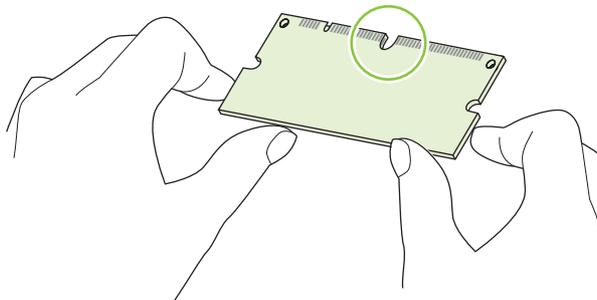


5. Remove the DIMM from the antistatic package.

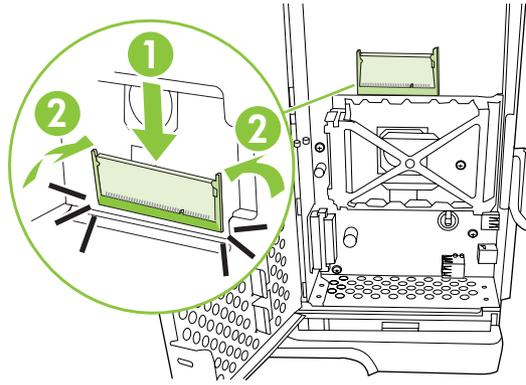


△ **CAUTION:** To reduce the possibility of damage caused by static electricity, always wear an electrostatic discharge (ESD) wrist strap or touch the surface of the antistatic package before handling DIMMs.

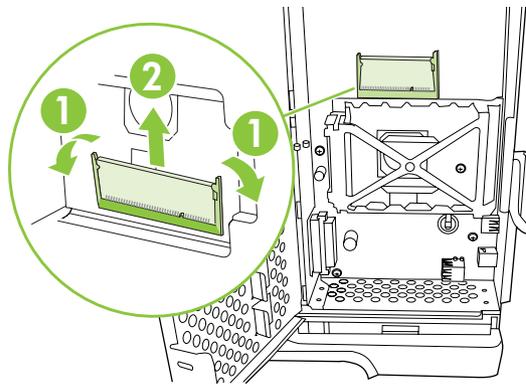
6. Hold the DIMM by the edges, and align the notches on the DIMM with the DIMM slot. (Check that the locks on each side of the DIMM slot are open.)



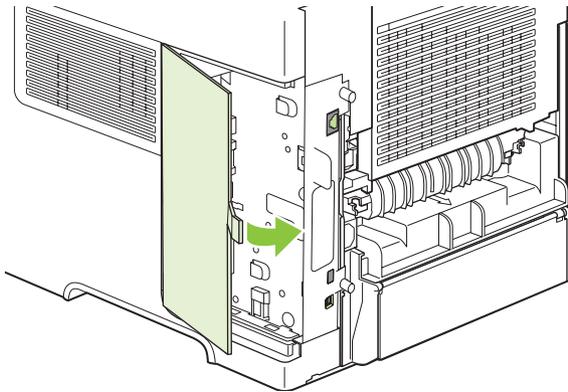
7. Press the DIMM straight into the slot, and press firmly. Make sure the locks on each side of the DIMM snap into place.



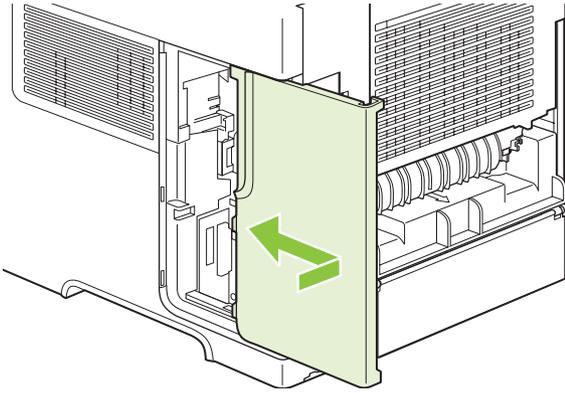
 **NOTE:** To remove a DIMM, first release the locks.



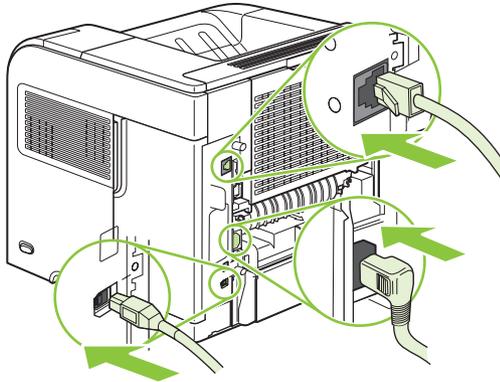
8. Close the access door, and press firmly until it snaps into place.



9. Reinstall the right-side panel. Align the tabs on the panel with the slots in the product, and push the panel toward the front of the product until it latches into place.



10. Reconnect the interface cables and the power cord.



11. Turn the product on.

Check DIMM installation

After installing the DIMM, make sure that the installation was successful.

1. Turn the product on. Check that the Ready light is illuminated after the product has gone through the startup sequence. If an error message appears, a DIMM might have been incorrectly installed. See [Interpret control-panel messages on page 143](#).
2. Print a configuration page (see [Print the information and show-me-how pages on page 104](#)).
3. Check the memory section on the configuration page and compare it to the configuration page that was printed before the memory installation. If the amount of memory has not increased, the DIMM might not be installed correctly, or the DIMM might be defective. Repeat the installation procedure. If necessary, install a different DIMM.

 **NOTE:** If you installed a product language (personality), check the "Installed Personalities and Options" section on the configuration page. This area should list the new product language.

Save resources (permanent resources)

Utilities or jobs that you download to the product sometimes include resources (for example, fonts, macros, or patterns). Resources that are internally marked as permanent remain in the product memory until you turn the product off.

Use the following guidelines if you use the page description language (PDL) ability to mark resources as permanent. For technical details, see an appropriate PDL reference for PCL or PS.

- Mark resources as permanent only when it is absolutely necessary that they remain in memory while the product is turned on.
- Send permanent resources to the product only at the beginning of a print job and not while the product is printing.

 **NOTE:** Overusing permanent resources or downloading them while the product is printing might affect product performance or the ability to print complex pages.

Enable memory for Windows

1. **Windows XP and Windows Server 2003 (using the default Start menu view):** Click **Start**, click **Settings**, and then click **Printers and Faxes**.

-or-

Windows 2000, Windows XP, and Windows Server 2003 (using the Classic Start menu view): Click **Start**, click **Settings**, and then click **Printers**.

-or-

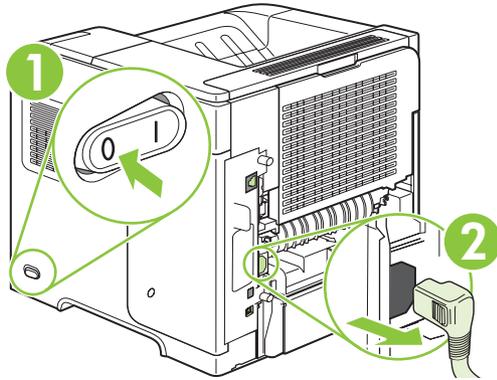
Windows Vista: Click **Start**, click **Control Panel**, and then in the category for **Hardware and Sound** click **Printer**.

2. Right-click the driver icon, and then select **Properties**.
3. Click the **Device Settings** tab.
4. Expand the area for **Installable Options**.
5. Next to **Printer Memory**, select the total amount of memory that is installed.
6. Click **OK**.

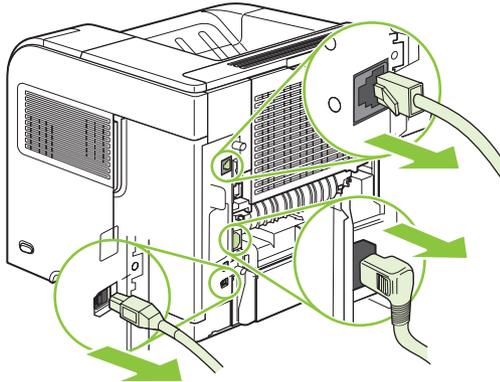
Install internal USB devices

The product has two internal USB ports.

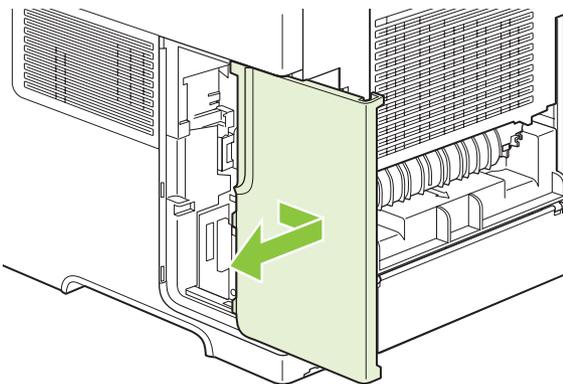
1. Turn the product off and disconnect the power cord.



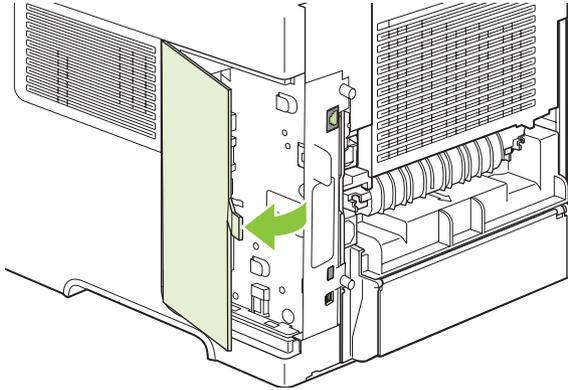
2. Disconnect all interface cables.



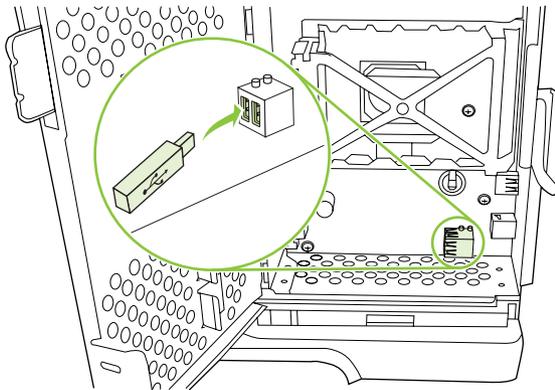
3. Remove the right-side panel by sliding it towards the rear of the product to unlatch it.



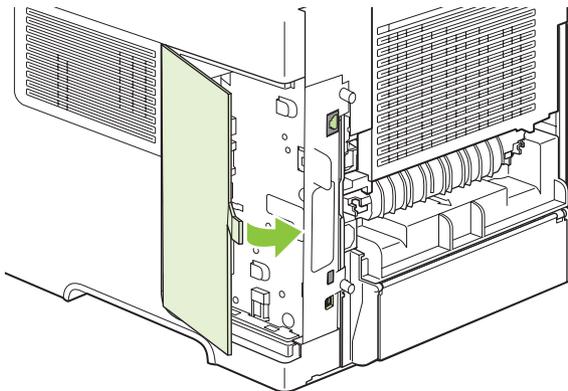
4. Open the access door by pulling on the metal tab.



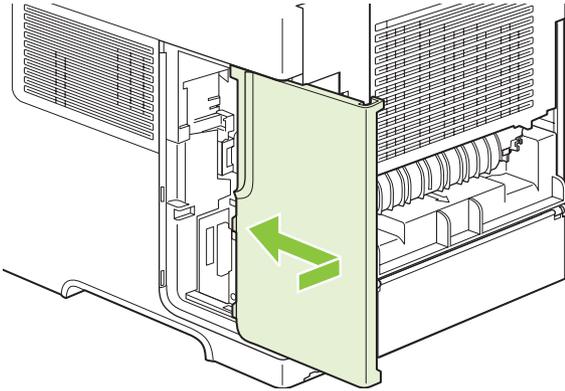
5. Locate the USB ports near the bottom of the formatter board. Insert the USB device into one of the ports.



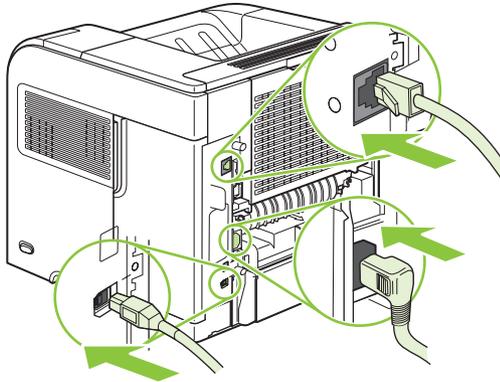
6. Close the access door, and press firmly until it snaps into place.



7. Reinstall the right-side panel. Align the tabs on the panel with the slots in the product, and push the panel toward the front of the product until it latches into place.



8. Reconnect the interface cables and the power cord.



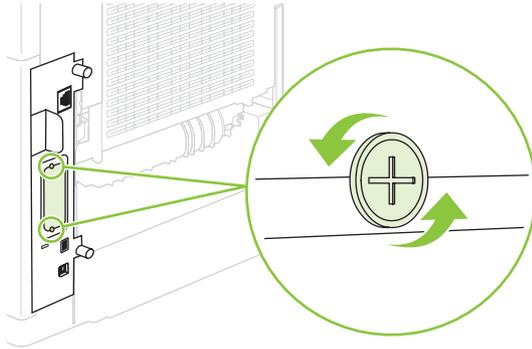
9. Turn the product on.

Install HP Jetdirect print server cards

Follow these procedures to install or remove an EIO card.

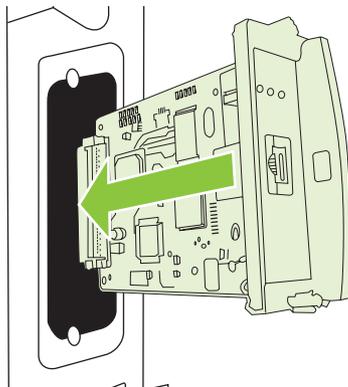
Install an HP Jetdirect print server card

1. Turn off the product.
2. Remove the two screws and cover plate from the EIO slot on the back of the product.

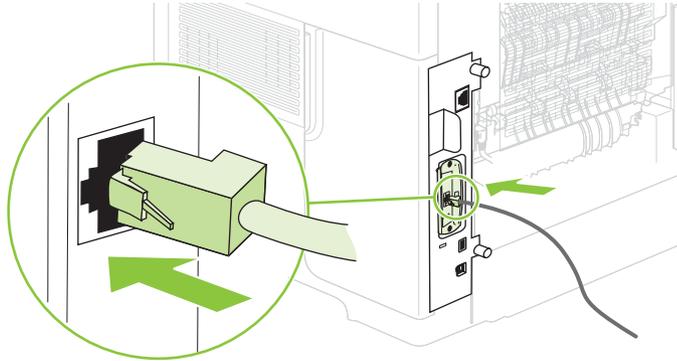


 **NOTE:** Do not discard the screws or the cover plate. Save them for future use if you remove the EIO card.

3. Install the EIO card in the EIO slot and tighten the screws.



4. Connect the network cable to the EIO card.



5. Turn on the product, and then print a configuration page to verify that the new EIO device is recognized. See [Print the information and show-me-how pages on page 104](#).

 **NOTE:** When you print a configuration page, an HP Jetdirect configuration page that contains network configuration and status information also prints.

Remove an HP Jetdirect print server card

1. Turn off the product.
2. Disconnect the network cable from the EIO card.
3. Loosen the two screws from the EIO card, and then remove the EIO card from the EIO slot.
4. Place the cover plate from the EIO slot onto the back of the product. Insert and tighten the two screws.
5. Turn on the product.

Clean the product

During the printing process, paper, toner, and dust particles can accumulate inside the product. Over time, this buildup can cause print-quality problems, such as toner specks or smearing (see [Solve print-quality problems on page 181](#)).

Clean the exterior

Use a soft, damp, lint-free cloth to wipe dust, smudges, and stains off of the exterior of the device.

Clean the paper path

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **PRINT QUALITY**, and then press **OK**.

 **NOTE:** If your product has an automatic duplexer, go to step 7.

4. Press the down arrow ▼ to highlight **CREATE CLEANING PAGE**, and then press **OK**.
5. Remove all paper from Tray 1.
6. Remove the cleaning page from the output bin, and load it face-down in Tray 1.

 **NOTE:** If you are not in the menus, navigate to **PRINT QUALITY** by using the previous instructions.

7. At the product control panel, press the down arrow ▼ to highlight **PROCESS CLEANING PAGE**, and then press **OK**.

Upgrade the firmware

This product has remote firmware update (RFU) capability. Use this information to upgrade the product firmware.

Determine the current firmware version

1. Press Menu .
2. Press the down arrow ▼ to highlight **INFORMATION**, and then press **OK**.
3. Press the down arrow ▼ to highlight **PRINT CONFIGURATION**, and then press **OK** to print.

The firmware datecode is listed on the Configuration page in the section called **Device Information**. The firmware datecode has this format: YYYYMMDD XX.XXX.X. The first string of numbers is the date, where YYYY represents the year, MM represents the month, and DD represents the date. For example, a firmware datecode of that begins with
20061125

represents November 25, 2006.

Download new firmware from the HP Web site

To find the most recent firmware upgrade for the product, go to www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software. This page provides instructions for downloading the new firmware version.

Transfer the new firmware to the product

 **NOTE:** The product can receive an .RFU file update when it is in a "ready" state.

The elapsed time for an update depends on the I/O transfer time, as well as the time that it takes for the product to re-initialize. The I/O transfer time depends on a number of things, including the speed of the host computer that is sending the update. If the remote firmware update process is interrupted before the firmware is downloaded (while **Receiving upgrade** appears on the control-panel display), the firmware file must be sent again. If power is lost during the flash DIMM update (while the **Performing upgrade** message appears on the control-panel display), the update is interrupted and the message **Resend upgrade** appears (in English only) on the control-panel display. In this case, you must send the upgrade by using the parallel port. Finally, any jobs that are ahead of the RFU job in the queue are completed before the update is processed.

Use FTP to upload the firmware through a browser

 **NOTE:** The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings that are changed from the default settings might return to default settings and must be changed again if you want settings that are different from the defaults.

1. Make sure the Internet browser you are using is configured for viewing folders from FTP sites. These instructions are for Microsoft Internet Explorer.
 - a. Open the browser and click **Tools**, and then click **Internet Options**.
 - b. Click the **Advanced** tab.

- c. Select the box labeled **Enable folder view for FTP sites**.
 - d. Click **OK**.
2. Print a configuration page and note the TCP/IP address shown on the EIO Jetdirect page.
 3. Open a browser window.
 4. In the address line of the browser, type
`ftp://<ADDRESS>`
 , where <ADDRESS> is the address of the product. For example, if the TCP/IP address is 192.168.0.90, type
`ftp://192.168.0.90`
 .
 5. Locate the downloaded .RFU file for the product.
 6. Drag and drop the .RFU file onto the **PORT1** icon in the browser window.

 **NOTE:** The product turns off and then on automatically to activate the update. When the update process is complete, a **Ready** message displays on the product control panel.

Use FTP to upgrade the firmware on a network connection

 **NOTE:** The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings that are changed from the default settings might return to default settings and must be changed again if you want settings that are different from the defaults.

1. Take note of the IP address on the HP Jetdirect page. The HP Jetdirect page is the second page that prints when you print the configuration page.
-
-  **NOTE:** Before upgrading the firmware, make sure that the product is not in Sleep mode. Also make sure that any error messages are cleared from the control-panel display.
-
2. Open an MS-DOS command prompt on your computer.
 3. Type: `ftp TCP/IP ADDRESS>`. For example, if the TCP/IP address is 192.168.0.90, type `ftp 192.168.0.90`.
 4. Go to the folder where the firmware file is stored.
 5. Press **Enter** on the keyboard.
 6. When prompted for the user name, press **Enter**.
 7. When prompted for the password, press **Enter**.
 8. Type `bin` at the command prompt.
 9. Press **Enter**. The message **200 Types set to I, Using binary mode to transfer files** appears in the command window.
 10. Type `put` and then the file name. For example, if the file name is LJP4015.RFU, type `put LJP4015.RFU`.

11. The download process begins and the firmware is updated on the product. This can take approximately five minutes. Let the process finish without further interaction with the product or computer.

 **NOTE:** The product automatically turns off and then on again after processing the upgrade.

12. At the command prompt, type: `bye` to exit the ftp command.
13. At the command prompt, type: `exit` to return to the Windows interface.

Use HP Web Jetadmin to upgrade the firmware

This procedure requires that you install HP Web Jetadmin Version 7.0 or later on your computer. Complete the following steps to update a single product through HP Web Jetadmin after downloading the .RFU file from the HP Web site.

1. Start HP Web Jetadmin.
2. Open the **Device Management** folder in the drop-down list in the **Navigation** panel. Navigate to the **Device Lists** folder.
3. Expand the **Device Lists** folder and select **All Devices**. Locate the product in the list of devices, and then click to select it.

If you need to upgrade the firmware for products, select all of them by pressing the **Ctrl** key as you click the name of each product.

4. Locate the drop-down box for **Device Tools** in the upper-right corner of the window. Select **Update Printer Firmware** from the action list.
5. If the name of the .RFU file is not listed in the **All Available Images** box, click **Browse** in the **Upload New Firmware Image** dialog box and navigate to the location of the .RFU file that you downloaded from the Web at the start of this procedure. If the filename is listed, select it.
6. Click **Upload** to move the .RFU file from your hard drive to the HP Web Jetadmin server. After the upload is complete, the browser window refreshes.
7. Select the .RFU file from the **Printer Firmware Update** drop-down menu.
8. Click **Update Firmware**. HP Web Jetadmin sends the selected .RFU file to the product. The control panel shows messages that indicate the progress of the upgrade. At the end of the upgrade process, the control panel shows the **Ready** message.

Use Microsoft Windows commands to upgrade the firmware

To update the firmware by using a network connection, follow these instructions.

1. Click **Start**, click **Run**, and then type `cmd` to open the command window.

2. Type the following:

```
copy /B FILENAME> \\COMPUTERNAME>\SHARENAME>
```

, where <FILENAME> is the name of the .RFU file (including the path), <COMPUTERNAME> is the name of the computer from which the product is being shared, and <SHARENAME> is the product share name. For example:

```
C:\>copy /b C:\LJP4015.RFU \\YOUR_SERVER\YOUR_COMPUTER
```

.



NOTE: If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type:

```
C:\>copy /b "C:\MY DOCUMENTS\LJP4015.RFU" \\YOUR_SERVER\YOUR_COMPUTER
```

.

3. Press **Enter** on the keyboard. The control panel shows a message that indicates the progress of the firmware upgrade. At the end of the upgrade process, the control panel shows the **Ready** message. The message **One File Copied** appears on the computer screen.

Upgrade the HP Jetdirect firmware

The HP Jetdirect network interface in the product has firmware that can be upgraded separately from the product firmware. This procedure requires that you install HP Web Jetadmin Version 7.0 or later on your computer. Complete the following steps to update the HP Jetdirect firmware by using HP Web Jetadmin.

1. Open the HP Web Jetadmin program.
2. Open the **Device Management** folder in the drop-down list in the **Navigation** panel. Navigate to the **Device Lists** folder.
3. Select the product that you want to update.
4. In the **Device Tools** drop-down list, select **Jetdirect Firmware Update**.
5. Under **Jetdirect firmware version** the HP Jetdirect model number and current firmware version are listed. Make a note of these.
6. Go to http://www.hp.com/go/wja_firmware.
7. Scroll down to the list of HP Jetdirect model numbers and find the model number you wrote down.
8. Look at the current firmware version for the model, and see if it is later than the version you wrote down. If it is, right-click on the firmware link, and follow the instructions on the Web page to download the new firmware file. The file must be saved into the <drive>:\PROGRAM FILES\HP WEB JETADMIN\DOC\PLUGINS\HPWJA\FIRMWARE\JETDIRECT folder on the computer that is running the HP Web Jetadmin software.
9. In HP Web Jetadmin, return to the main product list and select the digital sender again.

10. In the **Device Tools** drop-down list, select **Jetdirect Firmware Update** again.
11. On the HP Jetdirect firmware page, the new firmware version is listed under **Jetdirect Firmware Available on HP Web Jetadmin**. Click the **Update Firmware Now** button to update the Jetdirect firmware.

10 Solve problems

- [Solve general problems](#)
- [Restore factory settings](#)
- [Interpret control-panel messages](#)
- [Jams](#)
- [Solve print-quality problems](#)
- [Solve performance problems](#)
- [Solve connectivity problems](#)
- [Solve common Windows problems](#)
- [Solve common Macintosh problems](#)
- [Solve Linux problems](#)

Solve general problems

If the product is not responding correctly, complete the steps in the following checklist, in order. If the product does not pass a step, follow the corresponding troubleshooting suggestions. If a step resolves the problem, you can stop without performing the other steps on the checklist.

Troubleshooting checklist

1. Make sure the product Ready light is on. If no lights are on, complete these steps:
 - a. Check the power-cable connections.
 - b. Check that the power switch is on.
 - c. Make sure that the line voltage is correct for the product power configuration. (See the label that is on the back of the product for voltage requirements.) If you are using a power strip and its voltage is not within specifications, plug the product directly into the wall. If it is already plugged into the wall, try a different outlet.
 - d. If none of these measures restores power, contact HP Customer Care.
2. Check the cabling.
 - a. Check the cable connection between the product and the computer or network port. Make sure that the connection is secure.
 - b. Make sure that the cable itself is not faulty by using a different cable, if possible.
 - c. Check the network connection. See [Solve network problems on page 188](#).
3. Check to see if any messages appear on the control-panel display. If any error messages appear, see [Interpret control-panel messages on page 143](#).
4. Ensure that the paper that you are using meets specifications.
5. Print a configuration page. See [Print the information and show-me-how pages on page 104](#). If the product is connected to a network, an HP Jetdirect page also prints.
 - a. If the pages do not print, check that at least one tray contains paper.
 - b. If the page jams in the product, see [Clear jams on page 162](#).
6. If the configuration page prints, check the following items.
 - a. If the page does not print correctly, the problem is with the product hardware. Contact HP Customer Care.
 - b. If the page prints correctly, then the product hardware is working. The problem is with the computer you are using, with the printer driver, or with the program.
7. Select one of the following options:

Windows: Click **Start**, click **Settings**, and then click **Printers**, or **Printers and Faxes**. Double-click the name of the product.

-or-

Mac OS X: Open **Print Center** or **Printer Setup Utility**, and double-click the line for the product.

8. Verify that you have installed the printer driver for this product. Check the program to make sure that you are using the printer driver for this product.
9. Print a short document from a different program that has worked in the past. If this solution works, then the problem is with the program you are using. If this solution does not work (the document does not print) complete these steps:
 - a. Try printing the job from another computer that has the product software installed.
 - b. If you connected the product to the network, connect the product directly to a computer with a USB cable. Redirect the product to the correct port, or reinstall the software, selecting the new connection type that you are using.

Factors that affect product performance

Several factors affect the time it takes to print a job:

- Maximum product speed, measured in pages per minute (ppm)
- The use of special paper (such as transparencies, heavy paper, and custom-size paper)
- Product processing and download time
- The complexity and size of graphics
- The speed of the computer you are using
- The USB connection
- The printer I/O configuration
- The amount of memory installed in the product
- The network operating system and configuration (if applicable)

 **NOTE:** Although additional memory can improve how the product handles complex graphics and improve download times, it will not increase maximum product speed (ppm).

Restore factory settings

Use the **RESETS** menu to restore factory settings.

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **RESETS**, and then press **OK**.
4. Press the down arrow ▼ to highlight **RESTORE FACTORY SETTINGS**, and then press **OK** to reset the product to the original factory settings.

Interpret control-panel messages

Control-panel message types

Four types of control-panel messages can indicate the status of or problems with the product.

Message type	Description
Status messages	Status messages reflect the current state of the product. They inform you of normal product operation and require no interaction to clear them. They change as the state of the product changes. Whenever the product is ready, not busy, and has no pending warning messages, the status message Ready appears if the product is online.
Warning messages	Warning messages inform you of data and print errors. These messages typically alternate with the Ready or status messages and remain until OK is pressed. Some warning messages are clearable. If CLEARABLE WARNINGS is set to JOB on the product CONFIGURE DEVICE menu, the next print job clears these messages.
Error messages	<p>Error messages communicate that some action must be performed, such as adding paper or clearing a jam.</p> <p>Some error messages are auto-continuable. If AUTO-CONTINUE is set on the menus, the product will continue normal operation after an auto-continuable error message appears for 10 seconds.</p> <p>NOTE: Pressing any button during the 10-second auto-continuable error message overrides the auto-continue feature, and the button function takes precedence. For example, pressing the stop button  pauses printing and offers the option to cancel the print job.</p>
Critical-error messages	Critical error messages inform you of a product failure. Some of these messages can be cleared by turning the product off and then on. These messages are not affected by the AUTO-CONTINUE setting. If a critical error persists, service is required.

Control-panel messages

Table 10-1 Control-panel messages

Control panel message	Description	Recommended action
10.94.YY REMOVE SHIPPING LOCKS FROM CARTRIDGE <AREA> For help press ?	At least one shipping lock is installed.	<ol style="list-style-type: none"> 1. Open the top cover. 2. Pull the tape and then remove the print cartridge. 3. Remove the orange tabs from the print cartridge. 4. Remove the plastic insert and foam from the print cartridge area. 5. Reinsert the print cartridge and then close the top cover.
10.XX.YY SUPPLY MEMORY ERROR For help press ?	<p>An error has occurred in one or more of the product's supplies. Values of XX and YY are listed below:</p> <p>XX00 = memory is defective</p> <p>XX01 = memory is missing</p> <p>YY00 = cartridge</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on to clear the message. 2. If the message persists, contact an HP-authorized service or support provider.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
11.<XX> INTERNAL CLOCK ERROR To continue press OK	The real time clock has experienced an error.	Printing can continue, but a prompt will appear every time the product is turned on. To resolve the issue, contact an HP-authorized service or support provider.
13.JJ.NT DEVICE WARNING	The external device sent a warning.	No action is necessary.
13.JJ.NT JAM IN <LOCATION>	A jam has occurred in the specified location.	Remove jammed paper from the specified location. If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider.
13.JJ.NT JAM INSIDE <LOCATION>	A jam has occurred in the specified location.	Remove jammed paper from the specified location. If the message persists after all jams have been cleared, a sensor might be stuck or broken. Contact an HP-authorized service or support provider.
13.JJ.NT PAPER JAM OPEN INPUT TRAYS alternates with Open all trays	A jam has occurred in an input tray.	<ol style="list-style-type: none"> 1. Open the top cover. 2. Remove the print cartridge and any paper. 3. Reinstall the print cartridge and close the top cover. 4. Close all trays.
21 PAGE TOO COMPLEX For help press ? alternates with 21 PAGE TOO COMPLEX To continue press OK	The data (dense text, rules, raster or vector graphics) sent to the product was too complex.	<ol style="list-style-type: none"> 1. Press OK to print the transferred data (some data might be lost). 2. If this message appears often, simplify the print job or install additional memory.
22 EIO X BUFFER OVERFLOW To continue press OK	Too much data was sent to the EIO card in the specified slot [X]. An improper communications protocol might be in use. Note: EIO 0 is reserved for the HP Jetdirect embedded print server.	<ol style="list-style-type: none"> 1. Press OK to clear the message. (The job will not be printed.) 2. Check the host configuration. If the message persists, contact an HP-authorized service or support provider.
22 EMBEDDED I/O BUFFER OVERFLOW To continue press OK	Too much data was sent to the product's internal HP Jetdirect.	Press OK to continue printing. Some data may be lost.
22 USB I/O BUFFER OVERFLOW To continue press OK	Too much data was sent to the USB port.	Press OK to clear the error message. (The job will not be printed.)
40 EIO X BAD TRANSMISSION To continue press OK	The connection has been broken between the product and the EIO card in the specified slot [X]. Note: EIO 0 is reserved for the HP Jetdirect embedded print server.	Press OK to clear the error message and continue printing.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
<p>40 EMBEDDED I/O BAD TRANSMISSION</p> <p>To continue press OK</p>	<p>The connection has been broken between the product and HP Jetdirect print server.</p>	<p>Press OK to clear the error message and continue printing.</p>
<p>41.3 UNEXPECTED SIZE IN TRAY</p> <p>For help press ?</p> <p>alternates with</p> <p>LOAD TRAY XX [TYPE] [SIZE]</p> <p>To use another tray press OK</p>	<p>This is typically caused if two or more sheets stick together in the product or if the tray is not properly adjusted.</p>	<ol style="list-style-type: none"> 1. Reload the tray with the correct paper size. 2. Make sure the paper size that is specified in the software program, the printer driver, and the control panel are all the same. 3. Press OK to scroll to TRAY XX SIZE=. Reconfigure the size in a tray so that the product will use a tray that contains the size required for the print job. 4. If the error does not clear, turn the product off and then on. 5. If the message persists, contact an HP-authorized service or support provider.
<p>41.X ERROR</p> <p>For help press ?</p> <p>alternates with</p> <p>41.X ERROR</p> <p>To continue press OK</p>	<p>A temporary printing error occurred.</p>	<ol style="list-style-type: none"> 1. Press OK. The page containing the error automatically reprints if jam recovery is enabled. 2. Turn the product off and then on. 3. If the message persists, contact an HP-authorized service or support provider.
<p>49.XXXX ERROR</p> <p>To continue turn off then on</p>	<p>A critical firmware error has occurred.</p> <p>This error could be caused by several external influences that are not directly related to the product hardware or firmware:</p> <ul style="list-style-type: none"> • The computer operating system • The network connection • The printer driver • The software application • The document file <p>To help isolate the cause of the problem, identify the actions you were performing before the error occurred.</p>	<ol style="list-style-type: none"> 1. Turn the product off, leave it off for 20 minutes, and then turn it on. 2. If you can isolate the cause of the error to an external influence, try to resolve the problem by repairing the external component. 3. If the message persists, contact an HP-authorized service or support provider.
<p>50.X Fuser Error</p> <p>For help press ?</p>	<p>A fuser error has occurred.</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.
<p>51.XY ERROR</p> <p>For help press ?</p> <p>alternates with</p> <p>51.XY ERROR</p>	<p>A temporary printing error occurred.</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
To continue turn off then on		
52.XY ERROR	A temporary printing error occurred.	1. Turn the product off and then on.
For help press ?		2. If the message persists, contact an HP-authorized service or support provider.
alternates with		
52.XY ERROR		
To continue turn off then on		
53.XY.ZZ CHECK RAM DIMM SLOT <X>	There is a problem with the product memory. The DIMM that caused the error will not be used. Values of X and Y are as follows: <ul style="list-style-type: none"> ● X = DIMM type, 0 = ROM, 1 = RAM ● Y = DIMM location, 0 = Internal memory (ROM or RAM), 1 = DIMM slot 1 	Press OK to continue if you are prompted. If the message continues, you might need to replace the specified DIMM. Turn the product off, and then replace the DIMM that caused the error.
54.XX ERROR	This message is typically related to a sensor issue.	Turn the product off and then on.
To continue turn off then on		If the message persists, contact an HP-authorized service or support provider.
55.XX.YY DC CONTROLLER ERROR	A temporary printing error occurred.	1. Turn the product off and then on.
For help press ?		2. If the message persists, contact an HP-authorized service or support provider.
alternates with		
55.XX.YY DC CONTROLLER ERROR		
To continue turn off then on		
56.<XX> ERROR	A temporary printing error occurred as a result of an incorrect input or output request.	1. Turn the product off and then on.
For help press ?		2. If the message persists, contact an HP-authorized service or support provider.
alternates with		
56.<XX> ERROR		
To continue turn off then on		
57.<XX> ERROR	A temporary printing error occurred in one of the product fans.	1. Turn the product off and then on.
For help press ?		2. If the message persists, contact an HP-authorized service or support provider.
alternates with		
57.<XX> ERROR		
To continue turn off then on		

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
<p>58.<XX> ERROR</p> <p>For help press ?</p> <p>alternates with</p> <p>58.<XX> ERROR</p> <p>To continue turn off then on</p>	<p>A product error has occurred where a memory tag CPU error was detected, or there is a problem with the air sensor or power supply.</p>	<p>To resolve problems with the power supply:</p> <ol style="list-style-type: none"> 1. Remove the product from any UPS supplies, additional power supplies, or power strips. Plug the product into a wall outlet and see if this resolves the problem. 2. If the product is already plugged into a wall outlet, try another power source in the building that is independent of the one currently being used. <p>The line voltage and current source at the product location might need to be inspected to ensure that they meet the electrical specifications for the product.</p> <p>If the message persists, contact an HP-authorized service or support provider.</p>
<p>59.<XY> ERROR</p> <p>For help press ?</p> <p>alternates with</p> <p>59.<XY> ERROR</p> <p>To continue turn off then on</p>	<p>A temporary printing error occurred.</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.
<p>60.<X> ERROR</p>	<p>An error has occurred while the product was attempting to lift the tray designated by X.</p>	<ol style="list-style-type: none"> 1. Open the tray and remove the paper. 2. Open the guides and look for any torn pieces of paper or foreign objects inside the tray. 3. Replace the paper and close the tray. 4. Turn the product off and then on. 5. If the message persists, contact an HP-authorized service or support provider.
<p>62 NO SYSTEM</p> <p>To continue turn off then on</p>	<p>This message indicates that no system was found. The product software system is corrupt.</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.
<p>65.XY.ZZ OUTPUT DEVICE DISCONNECTED</p> <p>For help press ?</p>	<p>An output device was removed while the product was turned on.</p>	<p>To continue printing, you must do one of the following:</p> <ul style="list-style-type: none"> ● Reconnect the output device. ● Turn the product off and then on. <p>If the message persists, contact an HP-authorized service or support provider.</p>
<p>66.XY.ZZ INPUT DEVICE ERROR</p> <p>For help press ?</p> <p>alternates with</p>	<p>The external paper-handling controller has detected a problem.</p>	<p>Check the cables, and then turn the product off and then on.</p>

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
66.XY.ZZ INPUT DEVICE ERROR		
Check cables and turn off then on		
66.XY.ZZ INPUT DEVICE FAILURE	An error occurred in an external paper-handling accessory.	<ol style="list-style-type: none"> 1. Turn the product off. 2. Check that the accessory is properly seated on and connected to the product, without any gaps between the product and the accessory. If the accessory uses cables, disconnect and reconnect them. 3. Turn the product on. 4. If the message persists, contact an HP-authorized service or support provider.
For help press ?		
alternates with		
66.XY.ZZ INPUT DEVICE FAILURE		
Check cables and turn off then on		
66.XY.ZZ OUTPUT DEVICE ERROR		
For help press ?	The external paper-handling controller has detected a problem.	Check the cables, and then turn the product off and then on.
alternates with		
66.XY.ZZ OUTPUT DEVICE ERROR		
Check cables and turn off then on		
66.XY.ZZ OUTPUT DEVICE FAILURE	An error occurred in an external paper-handling accessory.	<ol style="list-style-type: none"> 1. Turn the product off. 2. Check that the accessory is properly seated on and connected to the product, without any gaps between the product and the accessory. If the accessory uses cables, disconnect and reconnect them. 3. Turn the product on. 4. If the message persists, contact an HP-authorized service or support provider.
For help press ?		
alternates with		
66.XY.ZZ OUTPUT DEVICE FAILURE		
Turn off, check connection, turn on		
66.XY.ZZ SERVICE ERROR		
For help press ?	The external paper-handling controller has detected a problem.	Check the cables, and then turn the product off and then on.
alternates with		
66.XY.ZZ SERVICE ERROR		
Check cables and turn off then on		
68.X PERMANENT STORAGE FULL	The permanent storage is full. Some settings might have been reset to the factory defaults.	<ol style="list-style-type: none"> 1. If the error does not clear, turn the product off and then on. 2. Print a configuration page and check the product settings to determine which values have changed. 3. Turn the product off, then press and hold Menu  while turning the product on to clean up permanent storage. 4. If the message persists, contact an HP-authorized service or support provider.
For help press ?		
alternates with		
68.X PERMANENT STORAGE FULL		
To continue press OK		

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
<p>68.X PERMANENT STORAGE WRITE FAIL</p> <p>To continue press OK</p>	<p>The storage device is failing to write. Printing can continue, but there might be some unexpected behaviors because an error occurred in permanent storage.</p>	<p>Press OK to continue.</p> <p>If the error does not clear, turn the product off then on. If the message persists, contact an HP-authorized service or support provider.</p>
<p>68.X STORAGE ERROR SETTINGS CHANGED</p> <p>For help press ?</p> <p>alternates with</p> <p>68.X STORAGE ERROR SETTINGS CHANGED</p> <p>To continue press OK</p>	<p>An error occurred in the product permanent storage and one or more product settings has been reset to its factory default.</p>	<p>Press OK to resume printing.</p> <p>Print a configuration page and check the product settings to determine which values have changed.</p> <p>If the error does not clear, turn the product off and then on. If the message persists, contact an HP-authorized service or support provider.</p>
<p>69.X ERROR</p> <p>For help press ?</p> <p>alternates with</p> <p>69.X ERROR</p> <p>To continue press OK</p>	<p>A printing error occurred.</p>	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.
<p>79.XXXX ERROR</p> <p>To continue turn off then on</p>	<p>The product detected a critical hardware error.</p>	<ol style="list-style-type: none"> 1. Press the stop button  to clear the print job from the product memory. Turn the product off and then on. 2. Try printing a job from a different program. If the job prints, go back to the first program and try printing a different file. If the message appears only with a certain program or print job, contact the software vendor for assistance. <p>If the message persists with different programs and print jobs, try these steps.</p> <ol style="list-style-type: none"> 1. Turn the product off. 2. Disconnect all cables to the product that connect it to the network or computer. 3. Remove all the memory DIMMs or third-party DIMMs from the product. Then reinstall the memory DIMM. 4. Remove the EIO device from the product. 5. Turn the product on.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
		<p>If the error no longer exists, follow these steps.</p> <ol style="list-style-type: none"> 1. Install the DIMM and EIO device one at a time, making sure to turn the product off and then on as you install each device. 2. Replace the DIMM or EIO device if you determine that it causes the error. 3. Reconnect all cables that connect the product to the network or computer.
8X.YYYY EIO ERROR	The EIO accessory card in slot [X] has encountered a critical error.	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. Turn the product off, reset the EIO accessory in slot [X], and then turn the product on. 3. Turn the product off, remove the EIO accessory from slot [X], install it in a different EIO slot, and then turn the product on. 4. Replace the EIO accessory in slot [X].
8X.YYYY EMBEDDED JETDIRECT ERROR	The embedded HP Jetdirect print server has encountered a critical error.	<ol style="list-style-type: none"> 1. Turn the product off and then on. 2. If the message persists, contact an HP-authorized service or support provider.
Access denied MENUS LOCKED	The product control-panel function you are trying to use has been locked to prevent unauthorized access.	See your network administrator.
ACTION NOT CURRENTLY AVAILABLE FOR TRAY X Tray size cannot be ANY SIZE/ANY CUSTOM	Duplexing is not available when the tray size is set to ANY SIZE or ANY CUSTOM .	<p>Change tray settings.</p> <ol style="list-style-type: none"> 1. Press Menu . 2. Press the down arrow ▼ to highlight PAPER HANDLING, and then press OK. 3. Press the down arrow ▼ to highlight the specified tray, and then press OK. 4. Change the selected tray's size and type settings.
BAD DUPLEXER CONNECTION For help press ?	The optional duplexer is not properly connected to the product.	<ol style="list-style-type: none"> 1. Make sure that you are using the right-angle power cord that came with the product. 2. Try removing and reinstalling the optional duplexer. Then turn the product off and then on.
BAD ENVELOPE FEEDER CONNECTION	The optional envelope feeder is not connected properly to the product.	Try removing and reinstalling the optional envelope feeder. Then, turn the product off and then on.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
BAD OPTIONAL TRAY CONNECTION	An optional tray is not connected correctly.	Remove the product from the tray, and reinstall it. Then, turn the product off and then on.
Canceling...	The product is canceling a job. The message continues while the job is stopped, the paper path is cleared, and any remaining incoming data on the active data channel is received and discarded.	No action is necessary.
CANNOT DUPLEX CLOSE REAR DOOR	The rear door must be closed to duplex.	Close the rear door.
For help press ?		
Checking paper path	The product is checking for possible jams or paper that was not cleared from the product.	No action is necessary.
Checking printer	The product is checking for possible jams or paper that was not cleared from the product.	No action is necessary.
CHOSEN PERSONALITY NOT AVAILABLE	The product received a request for a personality (product language) that does not exist. The print job is canceled.	Print the job using a printer driver for a different product language, or add the requested language to the product (if available).
To continue press OK		To see a list of available personalities, print a configuration page.
CLEANING DISK <X> % COMPLETE	The storage device is being sanitized or cleaned. Do not turn off. Product functions are unavailable. The product automatically turns off then on when finished.	No action is necessary.
Do not power off		
alternates with		
CLEANING DISK <X> % COMPLETE		
For help press ?		
CLEANING PAGE ERROR	You have attempted to create or process a cleaning page when a duplexer is present and the rear door is closed.	Open the rear output bin to begin creating or processing the cleaning page.
Open rear bin		
Cleaning...	The product is performing an automatic cleaning.	Not action is necessary.
Clearing event log	The product is clearing the event log.	No action is necessary.
Clearing paper path	The product jammed or was turned on and paper was detected in a wrong location. The product is automatically attempting to eject the pages.	Wait for the product to finish trying to clear the pages. If it cannot, a jam message will appear on the control panel display.
CODE CRC ERROR SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
CORRUPT FIRMWARE IN EXTERNAL ACCESSORY	The product detected corrupt firmware in an input or output accessory.	Printing can continue, but jams might occur. To view instructions for upgrading the firmware and to download the firmware upgrade, see Upgrade the firmware on page 134 .
For help press ?		
DATA RECEIVED	The product is waiting for the command to print (such as waiting for a form feed, or when the print job is paused).	Press OK to continue.
To print last page press OK		

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
alternates with <current status message>		
DATE/TIME=YYYY/MMMM/DD HH:MM Press OK to continue To skip press ⊗.	The current date and time.	Set the date and time or press the stop button ⊗ to skip.
Deleting...	Product is deleting a stored job.	No action is necessary.
DUPLEXER ERROR REMOVE DUPLEXER Install duplexer with power off	The optional duplexer has an error.	Turn off the product and reattach the optional duplexer. (Any print jobs at the product might be lost.)
EIO <X> DISK NOT FUNCTIONAL For help press ?	The EIO disk in slot X is not working correctly.	<ol style="list-style-type: none"> 1. Turn the product off. 2. Make sure the EIO disk is inserted correctly and securely fastened. 3. If the control panel message continues to appear, the optional hard disk needs to be replaced.
EIO <X> DISK SPINNING UP alternates with <Current status message>	The disk accessory in EIO slot [X] is initializing.	No action is necessary.
EIO DEVICE FAILURE To clear press OK	The specified device has failed.	Press OK to continue.
EIO FILE OPERATION FAILED To clear press OK	A command attempted an illogical operation.	Press OK to continue.
EIO FILE SYSTEM IS FULL To clear press OK	The specified file system is full and cannot be written to.	Press OK to continue.
EIO IS WRITE PROTECTED To clear press OK	The file system cannot be written to.	Press OK to continue.
Envelope Feeder [Type] [Size] To change size or type press OK alternates with TRAY <XX> [TYPE] [SIZE] For help press ?	Current size and type of tray.	<p>To accept the size and type, press the back arrow ↩.</p> <p>To change settings, press OK.</p>
ENVELOPE FEEDER EMPTY alternates with <Current status message>	The envelope feeder is empty.	Load envelopes in the envelope feeder.
Event log empty	You are attempting to view an empty event log by selecting SHOW EVENT LOG from the control panel.	No action is necessary.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
Incorrect	The wrong PIN number was entered.	Reenter PIN number.
INFLATE FAILURE SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
Initializing	Individual tasks are being initialized.	No action is necessary.
INSERT OR CLOSE TRAY <XX>	The specified tray is open or missing.	Insert or close the tray for printing to continue.
For help press ?		
INSTALL BLACK CARTRIDGE	The print cartridge is missing and must be reinstalled for printing to continue.	<ol style="list-style-type: none"> 1. Open the top cover. 2. Install the cartridge. 3. Close the top cover.
For help press ?		
INSUFFICIENT MEMORY TO LOAD FONTS/DATA	The product received more data than can fit in its available memory. You might have tried to transfer too many macros, soft fonts, or complex graphics.	Press OK to print the transferred data (some data might be lost).
For help press ?		To solve this problem, simplify the print job or install additional memory.
alternates with		
<DEVICE>		
To continue press OK		
INTERNAL DISK CANNOT BE WRITTEN TO	The device cannot be written to.	Press OK to continue.
To clear press OK		
INTERNAL DISK DEVICE FAILURE	The specified device has failed.	Press OK to continue.
To clear press OK		
INTERNAL DISK FILE OPERATION FAILED	A command attempted an illogical operation.	Press OK to continue.
To clear press OK		
INTERNAL DISK FILE SYSTEM IS FULL	The specified file system is full and cannot be written to.	Press OK to continue.
To clear press OK		
INTERNAL DISK NOT FUNCTIONAL	The internal disk is not working correctly.	Contact an HP-authorized service or support provider.
INTERNAL DISK SPINNING UP	The internal disk is spinning up its platter. Jobs that require disk access must wait.	No action is necessary.
alternates with		
<Current status message>		
LOAD ENVELOPE FEEDER [TYPE] [SIZE]	The envelope feeder is empty.	Load the envelope feeder.
For help press ?		<p>If paper is already in the envelope feeder, press OK to print.</p> <p>To use another tray, remove paper from the envelope feeder, and then press OK to continue.</p>
LOAD ENVELOPE FEEDER [TYPE] [SIZE]	The envelope feeder is empty.	Load the envelope feeder.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
<p>To use another tray press OK</p> <p>alternates with</p> <p>LOAD ENVELOPE FEEDER [TYPE] [SIZE]</p> <p>For help press ?</p>		<p>If paper is already in the envelope feeder, press OK to print.</p> <p>To use another tray, remove paper from the envelope feeder, and then press OK to print.</p>
<p>LOAD TRAY 1 [TYPE] [SIZE]</p> <p>To continue press OK</p> <p>alternates with</p> <p>LOAD TRAY 1 [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>Tray 1 is empty.</p>	<p>Load Tray 1 with the requested paper.</p> <p>If the paper is already in the Tray 1, press the help button ?, and then press OK to print.</p> <p>To use another tray, remove paper from Tray 1, and then press OK to continue.</p>
<p>LOAD TRAY 1 [TYPE] [SIZE]</p> <p>To use another tray press OK</p> <p>alternates with</p> <p>LOAD TRAY 1 [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>Tray 1 is empty and other trays are available.</p>	<p>Press OK to use another tray.</p> <p>To use Tray 1, load it with the requested paper.</p> <p>If the paper is already in the Tray 1, press the help button ?, and then press OK to print.</p> <p>To use another tray, remove paper from Tray 1, and then press OK to use another tray.</p>
<p>LOAD TRAY <XX> [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>The indicated tray is configured for a specific type and size of paper needed by a print job, but the tray is empty. All other trays are also empty.</p>	<p>Load the requested paper in the tray that is indicated.</p>
<p>LOAD TRAY <XX> [TYPE] [SIZE]</p> <p>To use another tray press OK</p> <p>alternates with</p> <p>LOAD TRAY <XX> [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>A job is sent that requires a specific type and size that is not available in the tray that is indicated.</p>	<p>Press OK to use a type and size that are available in another tray.</p>
<p>LOWER THE <BINNAME></p> <p>For help press ?</p>	<p>The optional bin is in the up position.</p>	<p>Lower the bin.</p>
<p>MANUALLY FEED [TYPE] [SIZE]</p> <p>To continue press OK</p> <p>alternates with</p> <p>MANUALLY FEED [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>The product is waiting for paper to be loaded in Tray 1 for manual feed.</p>	<p>If paper is already in the Tray 1, press the help button ?, and then press OK to print.</p> <p>To use another tray, remove paper from Tray 1, and then press OK.</p>
<p>MANUALLY FEED [TYPE] [SIZE]</p> <p>To continue press OK</p> <p>alternates with</p> <p>MANUALLY FEED [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>The product is waiting for paper to be loaded in Tray 1 for manual feed.</p>	<p>Load the requested paper into Tray 1 and press OK.</p>
<p>MANUALLY FEED [TYPE] [SIZE]</p> <p>For help press ?</p>	<p>The product is waiting for paper to be loaded in Tray 1 for manual feed.</p>	<p>Press OK to use a type and size that are available in another tray.</p>

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
<p>To use another tray press OK</p> <p>alternates with</p> <p>MANUALLY FEED [TYPE] [SIZE]</p> <p>For help press ?</p>		
<p>MANUALLY FEED OUTPUT STACK</p> <p>Then press OK to print second sides</p>	<p>The first side of a manual duplex job has been printed and the product is waiting for you to insert the output stack to complete the second side.</p>	<ol style="list-style-type: none"> 1. Load the output stack into Tray 1, maintaining the same orientation with printed side down. 2. To continue printing, press OK.
<p>No job to cancel</p>	<p>The stop button  was pressed, but there is no active job or buffered data to cancel.</p> <p>The message is displayed for approximately 2 seconds before the product returns to the ready state.</p>	<p>No action is necessary.</p>
<p>NON HP SUPPLY INSTALLED</p> <p>Economode disabled</p>	<p>The product has detected that the print cartridge is not a genuine HP supply.</p>	<p>If you believe you purchased a genuine HP supply, call the HP fraud hotline</p> <p>Any product repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the product warranty.</p> <p>To continue printing, press OK.</p>
<p>NON HP SUPPLY INSTALLED</p> <p>alternates with</p> <p>For help press ?</p>	<p>The product has detected that the print cartridge is not a genuine HP supply.</p>	<p>If you believe you purchased a genuine HP supply, call the HP fraud hotline.</p> <p>Any product repair required as a result of using non-HP supplies or unauthorized supplies is not covered under the product warranty.</p> <p>To continue printing, press OK.</p>
<p>Output bin FULL</p> <p>Remove all paper from bin</p>	<p>The output bin is full, and printing cannot continue.</p>	<p>Empty the bin so that the current print job can finish.</p>
<p>Output bin FULL</p> <p>Remove all paper from bin</p> <p>alternates with</p> <p><Current status message></p>	<p>The output bin is full, but it is not needed for the current print job.</p>	<p>Empty the bin before sending a job to that bin.</p>
<p>PAPER WRAPPED AROUND FUSER</p> <p>For help press ?</p>	<p>A jam has occurred because paper has wrapped around the fuser.</p>	<p>CAUTION: The fuser can be hot while the product is in use. Wait for the fuser to cool before handling it.</p> <ol style="list-style-type: none"> 1. Turn the product off. 2. Remove the rear output bin. 3. Press the blue tabs to remove the fuser. 4. Remove the jammed paper.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
		<p>5. Reinstall the fuser and the rear output bin.</p> <p>6. Turn the product on.</p>
<p>PERFORM PRINTER MAINTENANCE</p> <p>For help press ?</p> <p>alternates with</p> <p><Current status message></p>	<p>The product is due for regular maintenance.</p>	<p>Contact your service representative to schedule maintenance. Continue printing until maintenance is performed.</p>
Performing upgrade	Firmware is being upgraded.	No action is necessary.
Please wait	The product is going offline.	No action is necessary.
Printing...ENGINE TEST	The product is printing an engine test page.	No action is necessary.
RAM DISK DEVICE FAILURE	The specified device has failed.	Press OK to continue.
To clear press OK		
RAM DISK FILE SYSTEM IS FULL	The specified file system is full and cannot be written to.	Press OK to continue.
To clear press OK		
RAM DISK IS WRITE PROTECTED	The device cannot be written to.	Press OK to continue.
To clear press OK		
RAM DISK OPERATION FAILED	A command attempted an illogical operation.	Press OK to continue.
To clear press OK		
REINSERT DUPLEXER	The duplexer has been removed.	Reinsert the duplexer.
REPLACE BLACK CARTRIDGE	The print cartridge has reached the end of life.	Replace the cartridge.
For help press ?		
REPLACE BLACK CARTRIDGE	The cartridge has reached the low threshold.	Order a new cartridge. To continue printing press OK .
For help press ?		
alternates with		
REPLACE BLACK CARTRIDGE		
To continue press OK		
REPLACE STAPLE CARTRIDGE	The stapler is out of staples.	Press OK to continue without stapling.
To continue press OK		
REPLACE STAPLES	The stapler is out of staples.	Press OK to continue without stapling.
To continue press OK		
Request accepted please wait	The request to print an internal page is waiting to print.	Wait for the current job to finishing printing.
Restoring factory settings	Factory settings are being restored.	No action is necessary.
Restoring...	The specific settings are being restored.	No action is necessary.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
RFU LOAD ERROR SEND FULL RFU ON <X> PORT	An error occurred during a firmware upgrade.	Contact an HP-authorized service or support provider.
ROM DISK DEVICE FAILURE To clear press OK	The specified device has failed.	Press OK to continue.
ROM DISK FILE OPERATION FAILED To clear press OK	A command attempted an illogical operation.	Press OK to continue.
ROM DISK FILE SYSTEM IS FULL To clear press OK	The specified file system is full and cannot be written to.	Press OK to continue.
ROM DISK IS WRITE PROTECTED To clear press OK	The device cannot be written to.	Press OK to continue.
SANITIZING DISK <X>% COMPLETE Do not power off alternates with CLEANING DISK <X>% COMPLETE For help press ?	A hard disk is being sanitized.	No action is necessary.
SIZE MISMATCH IN TRAY <XX> For help press ? alternates with Current status message	The tray indicated is loaded with a different size of paper than the size configured for the tray.	Load the tray with the size configured for the tray. Make sure that the guides are positioned correctly in the specified tray. Printing can continue from other trays.
Sleep mode on	The product is in Sleep mode.	No action is necessary.
STAPLER LOW ON STAPLES For help press ? alternates with READY To enter menus, press OK	Fewer than 70 staples remain in the optional stapler/stacker cartridge. Printing continues until the cartridge runs out of staples.	Replace the staple cartridge. For information about replacing the staple cartridge, see Load staples on page 120 .
SUPPORTED HOST USB DEVICE DETECTED BUT INACCESSIBLE For help press ?	A USB device has been detected. The product does not support plug and play operation.	Turn the product off and then on, but do not unplug the USB device.
TOO MANY PAGES IN JOB TO FINISH For help press ?	The finishing device received too many pages to perform finishing. Pages will eject without finishing.	Reduce the number of pages.
TOO MANY PAGES IN JOB TO STAPLE For help press ?	The maximum number of sheets the stapler can staple is 15. The print job finishes printing but is not stapled.	For print jobs that have more than 15 pages, staple them manually.
TOO MANY PAGES TO BIND For help press ?	Too many pages were sent with the job. Binding cannot be completed.	Reduce the number of pages.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
TOO MANY TRAYS INSTALLED	You have installed more optional trays than the product supports. The product can accept up to four optional 500-sheet trays, or it can accept one optional 1,500-sheet tray and up to three optional 500-sheet trays, for a total of up to four optional trays.	Remove one of the optional trays.
TRAY <XX> [TYPE] [SIZE] To change size or type press OK alternates with TRAY <XX> [TYPE] [SIZE] To accept settings press ↵	This message states the current type and size configuration of the paper tray, and allows you to change the configuration.	To change the paper size or type press OK while the message is present. To clear the message, press the back arrow ↵ while the message is present. <ul style="list-style-type: none"> Set size and type to ANY if the tray is used frequently for different sizes or types. Set size and type to a specific setting if printing with only one type of paper.
TRAY <XX> OPEN For help press ? alternates with <Current status message>	The tray cannot feed paper to the product because tray [X] is open and must be closed for printing to continue.	Check the trays and close any that are open.
Unable to mopy job alternates with Current status message	Memory or file system failures would not allow a mopy job to occur. Only one copy will be produced.	Correct the error and then try again to store the job.
Unable to store job alternates with <Current status message>	The print job named cannot be stored due to a memory, disk, or configuration problem.	Correct the error and then try again to store the job.
UNSUPPORTED HOST USB DEVICE DETECTED	An unsupported USB device has been inserted into a USB port.	The product cannot use the USB device. Remove the device.
USB HUBS NOT FULLY SUPPORTED For help press ?	The product does not meet the power requirement of the USB hub.	Some operations may not work properly.
USB STORAGE DEVICE FAILURE To clear press OK	The specified device has failed.	Press OK to continue.
USB STORAGE FILE OPERATION FAILED To clear press OK	A command attempted an illogical operation.	Press OK to continue.
USB STORAGE FILE SYSTEM IS FULL To clear press OK	The specified file system is full and cannot be written to.	Press OK to continue.
USB STORAGE IS WRITE PROTECTED To clear press OK	The device cannot be written to.	Press OK to continue.

Table 10-1 Control-panel messages (continued)

Control panel message	Description	Recommended action
USE TRAY <XX> [TYPE] [SIZE] To change press ▲/▼. To use press OK	The product did not detect the type and size of paper requested. The message shows the most likely type and size available and the tray in which they are available.	Press OK to accept the values in the message, or press the up or down arrow ▲/▼ to scroll through the available choices.
Wait for printer to reinitialize	This message can appear for a variety of reasons: <ul style="list-style-type: none">• The RAM DISK settings changed before the product restarted.• The product is restarting after changing external device modes.• You have exited the DIAGNOSTICS menu.• A new formatter has been installed with an old product, or a new product has been installed with an old formatter.	No action is necessary.
WAITING FOR TRAY <XX> TO LIFT alternates with <Current status message>	The specified tray is in the process of lifting the paper to the top of the tray for proper feeding.	No action is necessary.
WARMING UP alternates with <Current status message>	The product is coming out of sleep mode. Printing will continue as soon as it is done.	No action is necessary.

Jams

Common causes of jams

Many jams are caused by using paper that does not meet HP specifications. For complete paper specifications for all HP LaserJet products, see the *HP LaserJet Printer Family Print Media Guide*. This guide is available at www.hp.com/support/ljpaperguide.

The product is jammed.¹

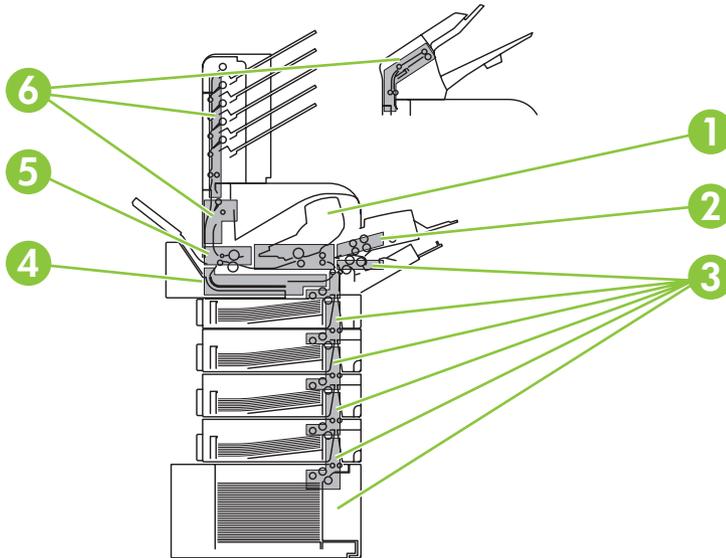
Cause	Solution
The paper does not meet specifications.	Use only paper that meets HP specifications. See Paper and print media on page 69 .
A component is installed incorrectly.	Verify that all print cartridges, the transfer unit, and the fuser are correctly installed.
You are using paper that has already passed through a product or copier.	Do not use paper that has been previously printed on or copied.
A tray is loaded incorrectly.	Remove any excess paper from the tray. Make sure that the stack is below the maximum stack height mark in the tray. See Load trays on page 78 .
The paper is skewed.	The tray guides are not adjusted correctly. Adjust them so they hold the stack firmly in place without bending it.
The paper is binding or sticking together.	Remove the paper, flex it, rotate it 180°, or flip it over. Reload the paper into the tray. NOTE: Do not fan paper. Fanning can create static electricity, which can cause paper to stick together.
The paper is removed before it settles into the output bin.	Reset the product. Wait until the page completely settles in the output bin before removing it.
During two-sided printing, you removed the paper before the second side of the document was printed.	Reset the product and print the document again. Wait until the page completely settles in the output bin before removing it.
The paper is in poor condition.	Replace the paper.
The internal rollers from the tray are not picking up the paper.	Remove the top sheet of paper. If the paper is too heavy, it might not be picked from the tray.
The paper has rough or jagged edges.	Replace the paper.
The paper is perforated or embossed.	Perforated or embossed paper does not separate easily. Feed single sheets from Tray 1.
Product supply items have reached the end of their useful life.	Check the product control panel for messages prompting you to replace supplies, or print a supplies status page to verify the remaining life of the supplies. See Print the information and show-me-how pages on page 104 .
Paper was not stored correctly.	Replace the paper in the trays. Paper should be stored in the original packaging in a controlled environment.

¹ If the product continues to jam, contact HP Customer Support or your authorized HP service provider.

Jam locations

If a jam message appears on the control-panel display, look for jammed paper or other print media in the locations that are indicated in the following illustration. Then follow the procedure for clearing the jam. You might need to look for paper in other locations than those that are indicated in the jam message. If the location of the jam is not obvious, look first in the top-cover area underneath the print cartridge.

When clearing jams, be very careful not to tear jammed paper. If a small piece of paper is left in the product, it could cause additional jams.



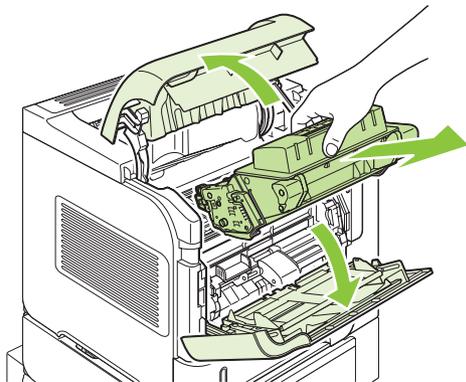
1	Top-cover and print-cartridge areas
2	Optional envelope feeder
3	Tray areas (Tray 1, Tray 2, and optional trays)
4	Optional duplexer
5	Fuser area
6	Output areas (top bin; rear bin; and optional stacker, stapler/stacker, or 5-bin mailbox)

 **NOTE:** Loose toner might remain in the product after a jam and cause temporary print-quality problems. These problems should clear up within a few pages.

Clear jams

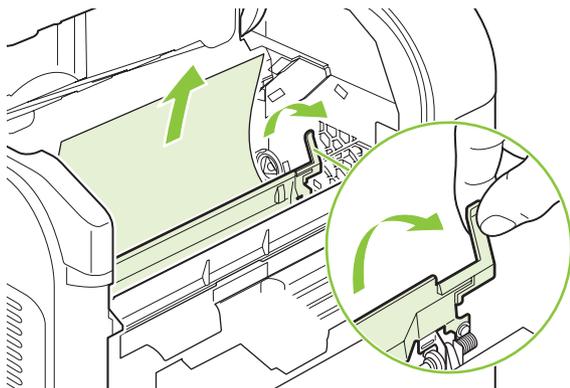
Clear jams from the top-cover and print-cartridge areas

1. Open the top cover and remove the print cartridge.

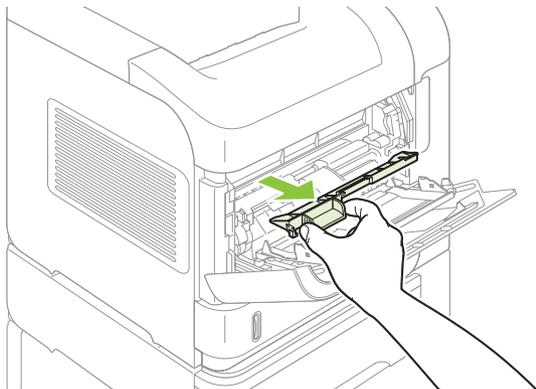


△ **CAUTION:** To prevent damage to the print cartridge, do not expose it to light for more than a few minutes. Cover the print cartridge with a sheet of paper while it is outside of the product.

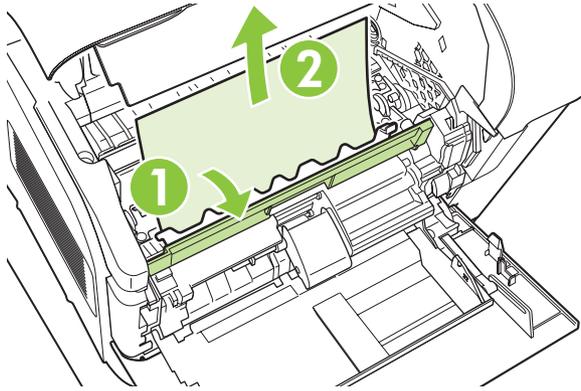
2. Use the green handle to lift the paper-access plate. Slowly pull the jammed paper out of the product. Do not tear the paper. If paper is difficult to remove, try clearing it from the tray area. See [Clear jams from the trays on page 166](#).



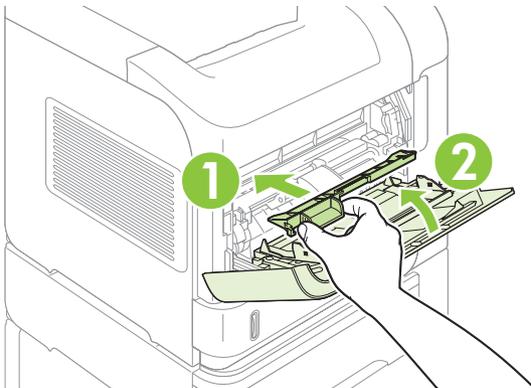
3. Open Tray 1 and remove the envelope accessory cover. If paper is present, remove it.



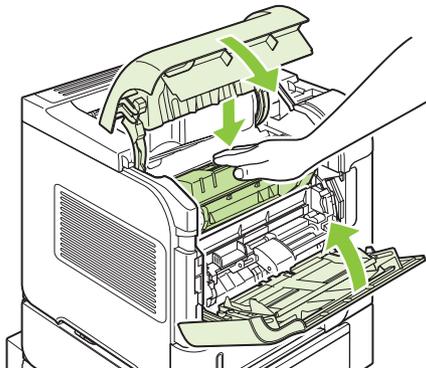
4. Rotate the paper guide to check for additional jammed paper underneath. If jammed paper is present, remove it.



5. Replace the envelope accessory cover and close Tray 1.



6. Reinstall the print cartridge and close the top cover.

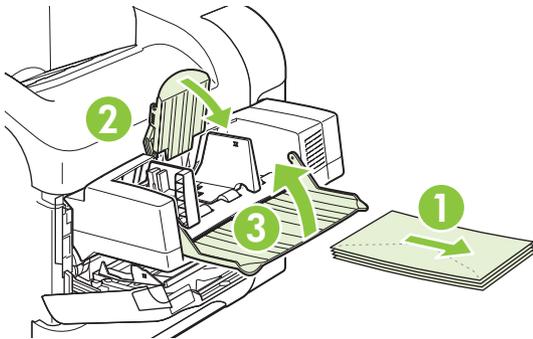


7. If a jam message persists, jammed paper is still in the product. Look for the jam in another location. See [Jam locations on page 161](#).

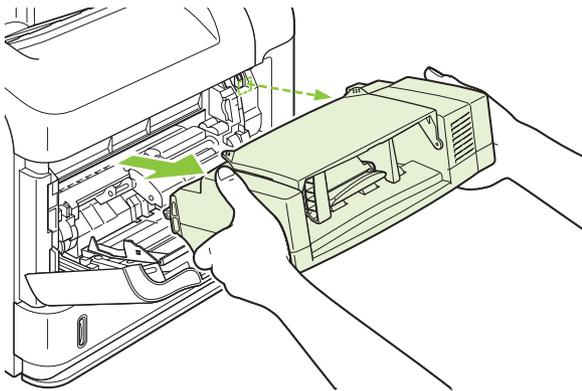
Clear jams from the optional envelope feeder

This procedure applies only to jams that occur when you are using an optional envelope feeder.

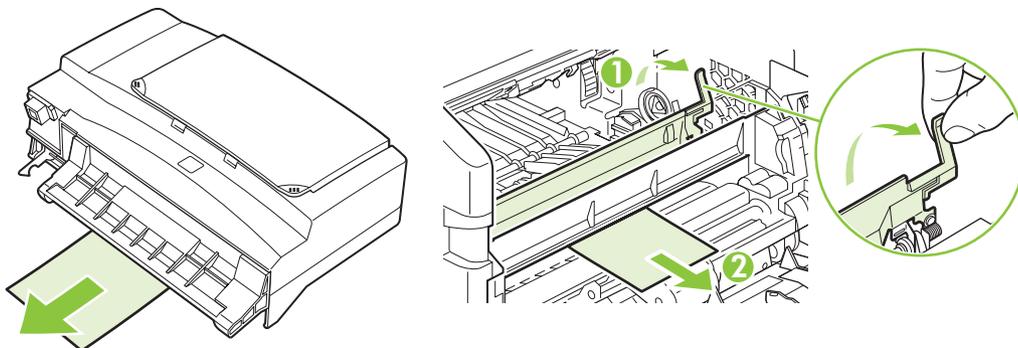
1. Remove any envelopes that are loaded in the optional envelope feeder. Lower the envelope weight and lift the tray extension up, to the closed position.



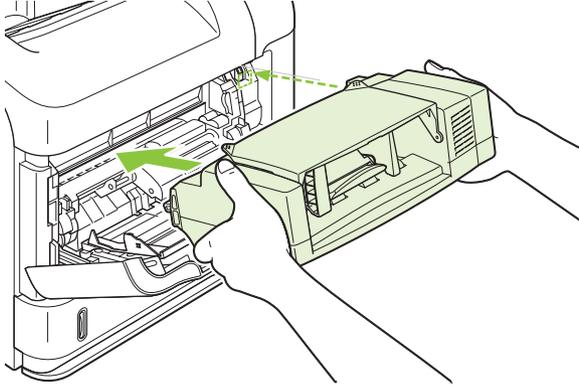
2. Grasp both sides of the optional envelope feeder and carefully pull it out of the product.



3. Slowly remove any jammed envelopes from the optional envelope feeder and the product.



4. Reinstall the envelope feeder.



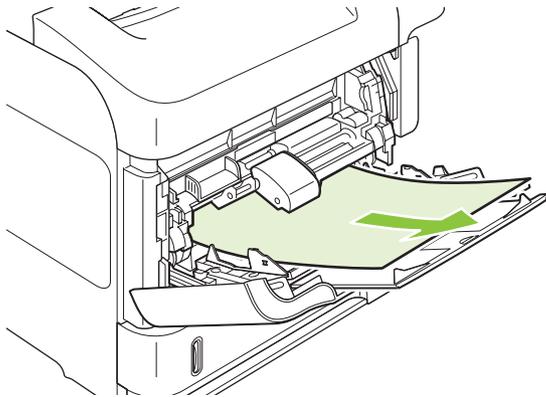
5. Press **OK** to clear the jam message.
6. If a jam message persists, an envelope is still jammed in the product. Look for the jam in another location. See [Jam locations on page 161](#).
7. Replace the envelopes, making sure that you push the bottom envelopes in slightly further than the top envelopes.

Clear jams from the trays

Use these procedures to clear jams from the trays. Also see [Clear jams from the optional envelope feeder on page 164](#).

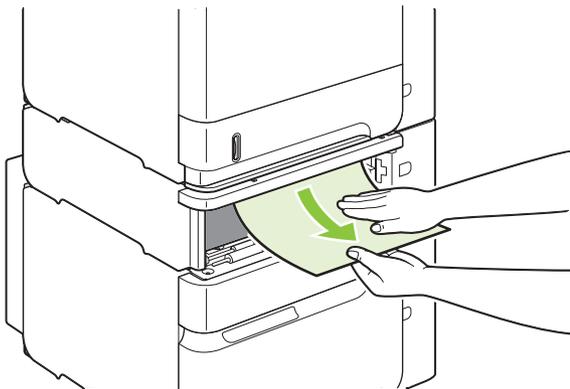
Clear jams from Tray 1

Slowly pull the jammed paper or other print media out of the product. If part of the paper has already been pulled into the product, see [Clear jams from the top-cover and print-cartridge areas on page 162](#).

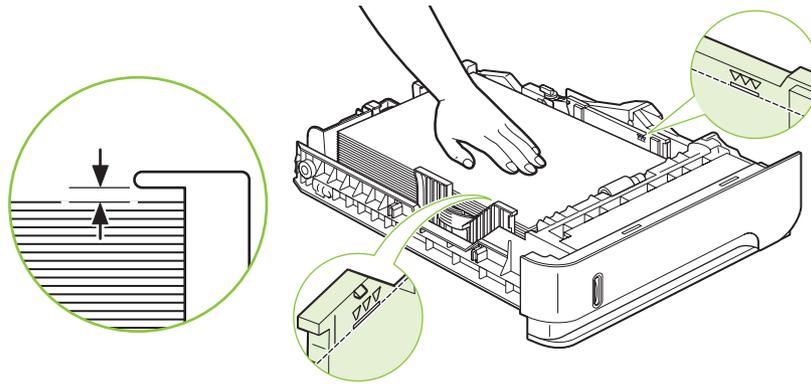


Clear jams from Tray 2 or an optional 500-sheet tray

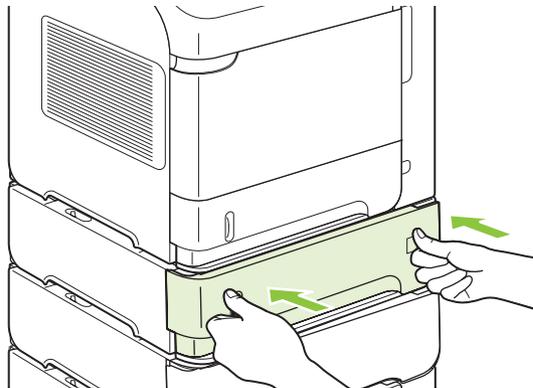
1. Slide the tray out of the product, lift it slightly, and remove any damaged paper from the tray.
2. If the edge of the jammed paper is visible in the feed area, slowly pull the paper down and out of the product. (Do not pull the paper straight out, or it will tear.) If the paper is not visible, look in the next tray or in the top-cover area. See [Clear jams from the top-cover and print-cartridge areas on page 162](#).



3. Make sure that the paper is flat in the tray at all four corners and below the maximum-height indicators.



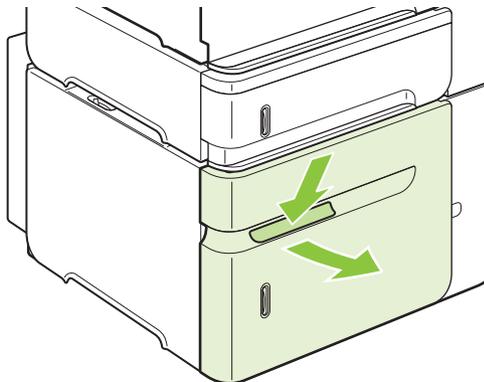
4. Slide the tray into the product.



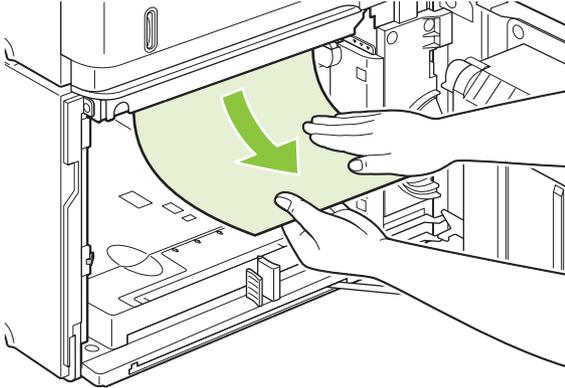
5. Press **OK** to clear the jam message.
6. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See [Jam locations on page 161](#).

Clear jams from the optional 1,500-sheet tray

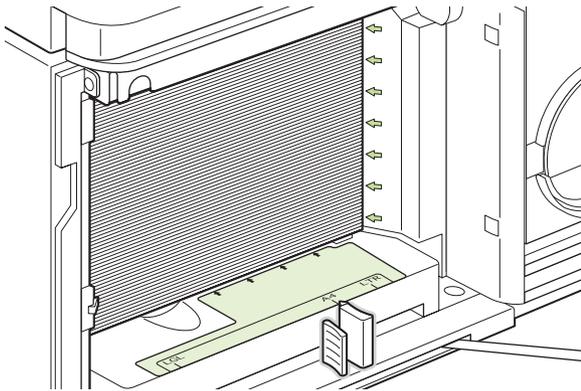
1. Open the front door of the tray.



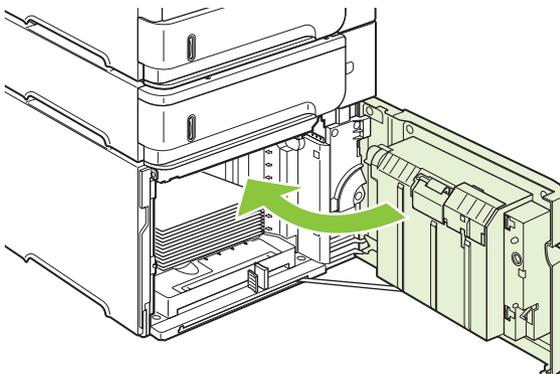
2. If the edge of the jammed paper is visible in the feed area, slowly pull the paper down and out of the product. (Do not pull the paper straight out, or it will tear.) If the paper is not visible, look in the top-cover area. See [Clear jams from the top-cover and print-cartridge areas on page 162](#).



3. Make sure that the paper does not exceed the fill marks on the paper guides, and that the front edge of the stack is aligned with the arrows.



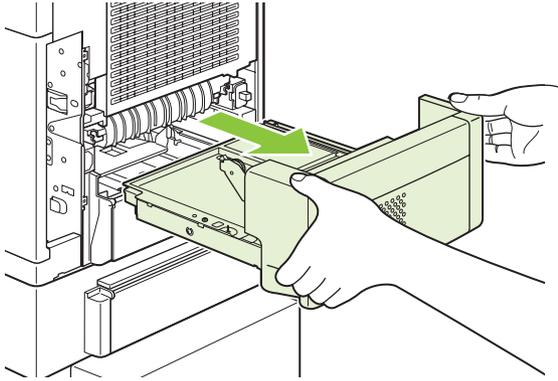
4. Close the front door of the tray.



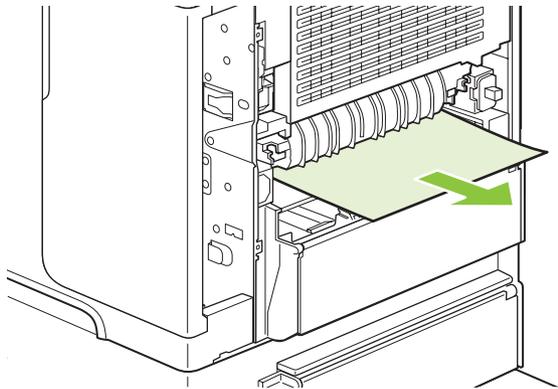
5. Press **OK** to clear the jam message.
6. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See [Jam locations on page 161](#).

Clear jams from the optional duplexer

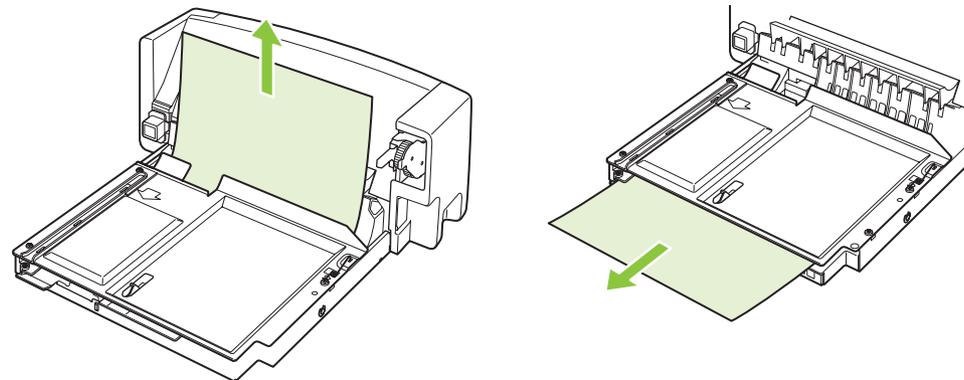
1. Lift the optional duplexer up and then pull it out to remove it.



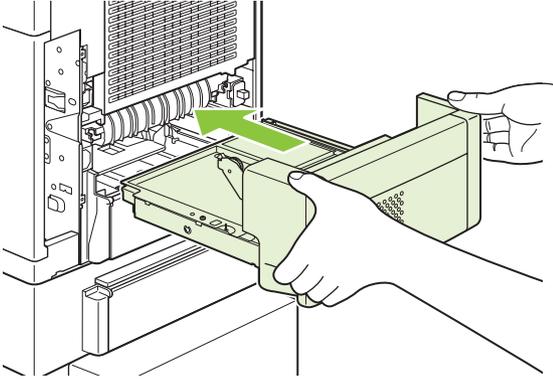
2. Remove any paper that is on top of Tray 2. (You might need to reach inside the product.)



3. Slowly pull any paper out of the optional duplexer.



4. Insert the optional duplexer into the product.

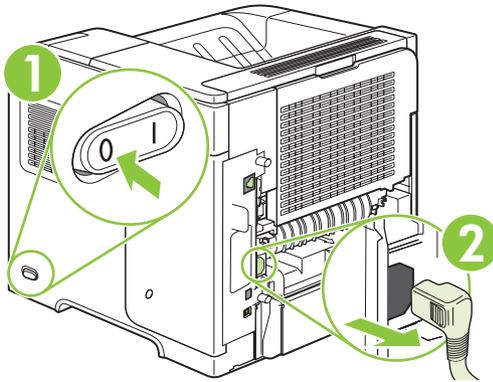


5. If a jam message persists, a sheet is still jammed in the product. Look for jam in another location. See [Jam locations on page 161](#).

Clear jams from the fuser area

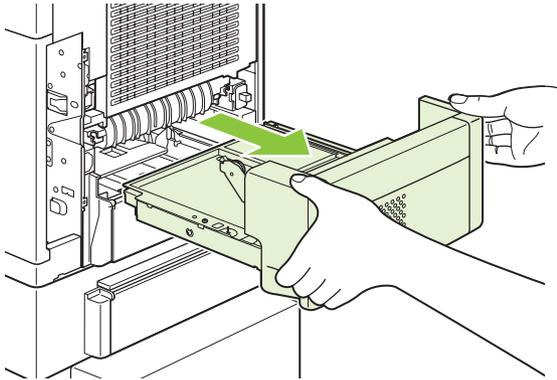
Use this procedure only in these situations:

- Paper has jammed inside the fuser and cannot be removed from the top-cover area or the rear-output area.
 - A sheet of paper has torn while you were trying to clear a jam from the fuser.
1. Turn the product off and unplug the power cord from the product.

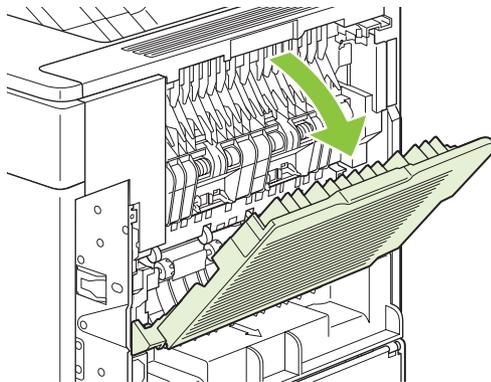


⚠ **WARNING!** The fuser is very hot. To avoid minor burns, wait 30 minutes for the fuser to cool before removing it from the product.

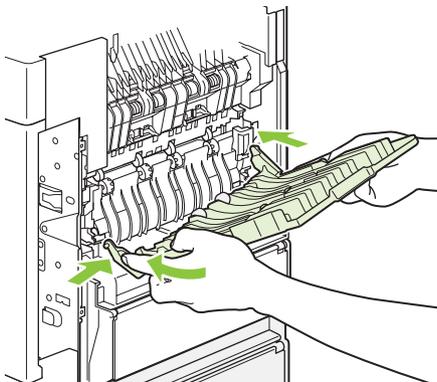
2. Rotate the product so the rear is facing you. If an optional duplexer is installed, lift it and pull it straight out. Set it aside.



3. Open the rear output bin.

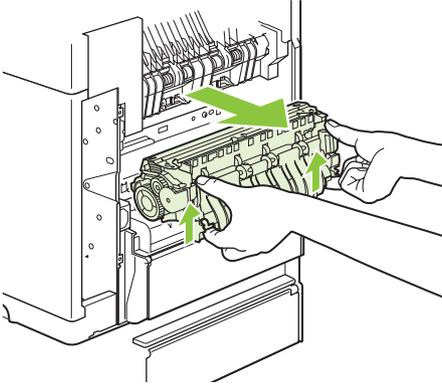


4. Remove the rear output bin. Place your finger near the left-side hinge, and push firmly to the right until the hinge-pin clears the hole inside the product. Rotate the output bin outward to remove it.

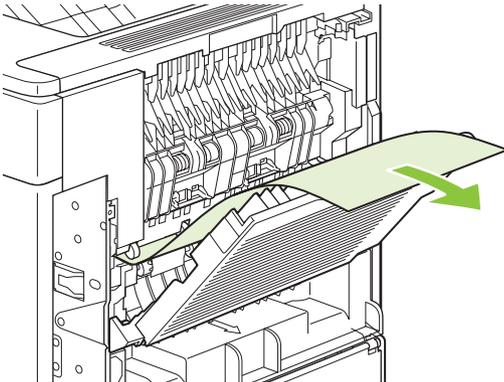


5. If paper is visible, remove it.

If paper is not visible, push up on the two blue levers on the sides of the fuser, and pull the fuser straight out.

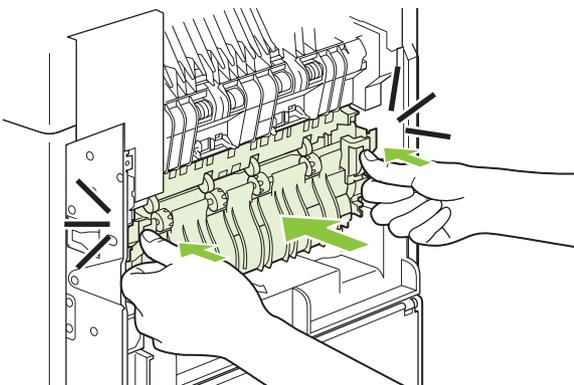


6. Remove the jammed paper. If necessary, lift the black plastic guide that is located on the top of the fuser to gain access to the jammed sheet.

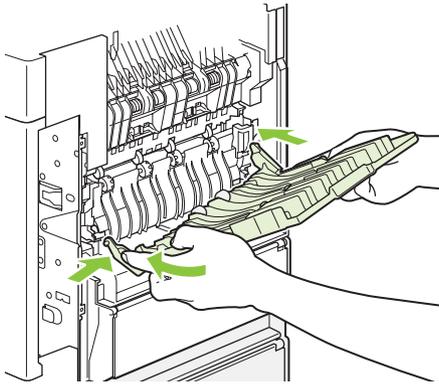


△ **CAUTION:** Do not use a sharp or metal object to clear paper from the fuser area. You might damage the fuser.

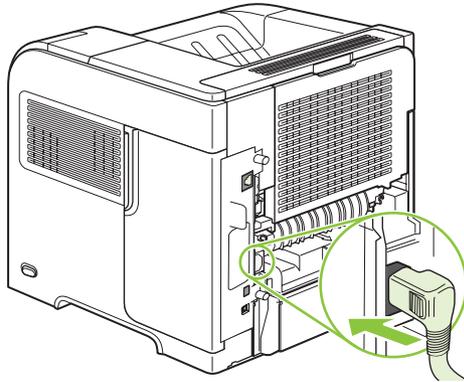
7. Push the fuser firmly into the product until the blue levers on both sides click into place.



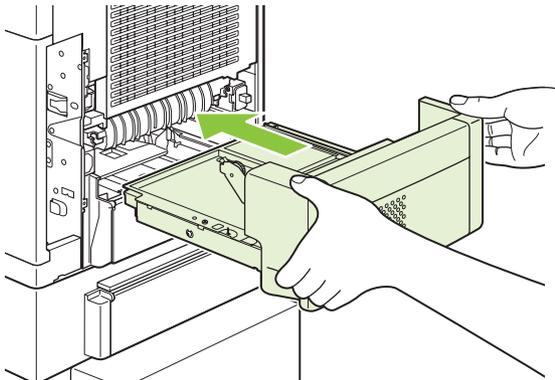
8. Reinstall the rear output bin. Insert the right hinge-pin into the hole inside the product. Push inward on the left hinge, and slide it into the hole inside the product. Close the rear output bin.



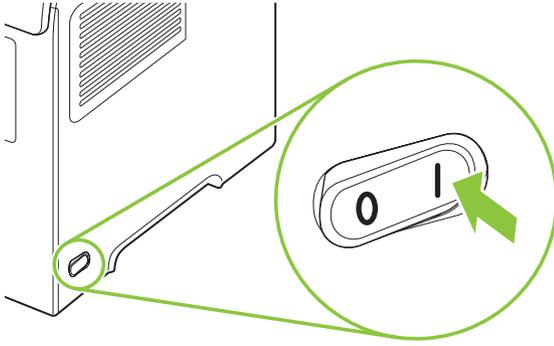
9. Plug the power cord into the product.



10. Replace the optional duplexer, if it was removed.



11. Turn the product on.



12. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See [Jam locations on page 161](#).

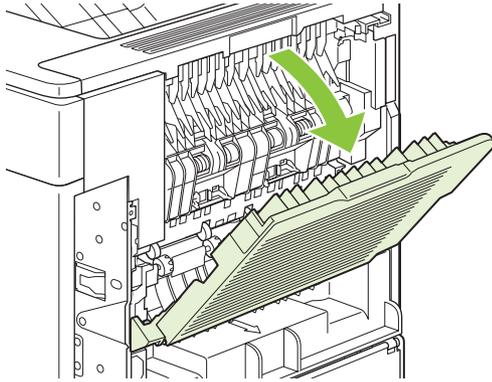
After clearing all jams, you need to send the print job again because the product power has been turned off.

Clear jams from the output areas

Use these procedures to clear jams that occur in the rear output bin or in the optional stacker, stapler/stacker, or 5-bin mailbox.

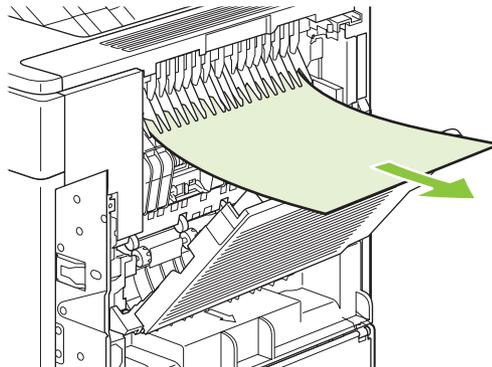
Clear jams from the rear output bin

1. Open the rear output bin.



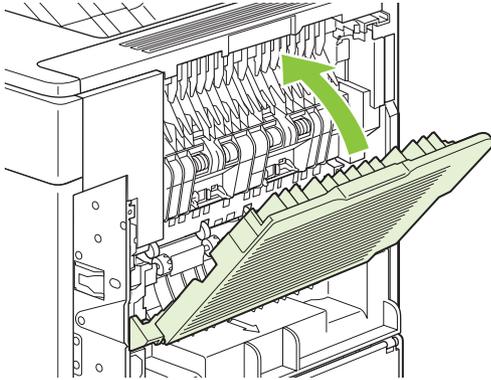
 **NOTE:** If most of the paper is still inside the product, it might be easier to remove it through the top-cover area. See [Clear jams from the top-cover and print-cartridge areas on page 162.](#)

2. Grasp both sides of the paper, and slowly pull the paper out of the product. Loose toner might be on the sheet. Be careful not to spill it on yourself or into the product.



 **NOTE:** If the jammed paper is difficult to remove, try opening the top cover all the way to release pressure on the paper. If the sheet has torn, or if you still cannot remove it, see [Clear jams from the fuser area on page 170.](#)

3. Close the rear output bin.



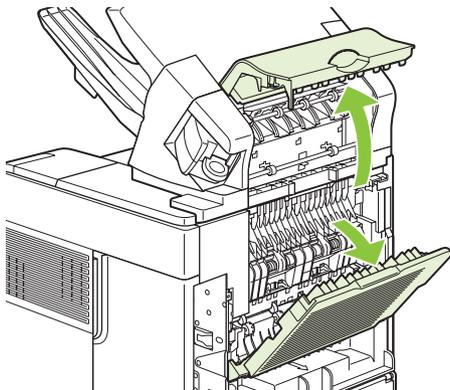
4. If a jam message persists, a sheet is still jammed in the product. Look for the jam in another location. See [Jam locations on page 161](#).

Clear jams from the optional stacker or stapler/stacker

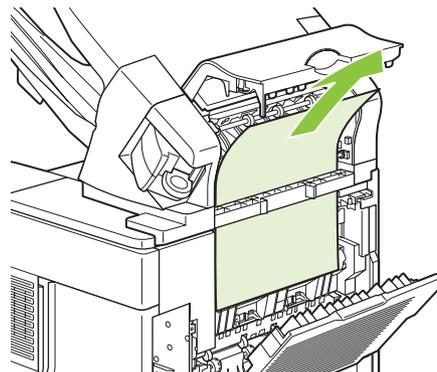
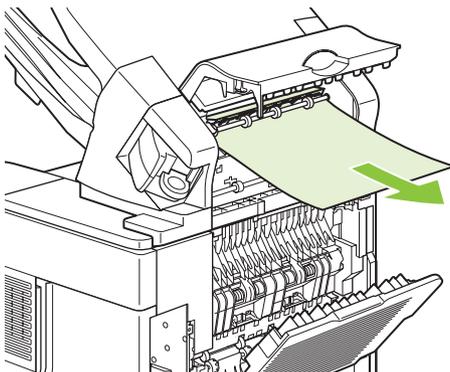
Paper jams can occur in the optional stacker or the optional stapler/stacker. Staple jams can occur only in the optional stapler/stacker.

Clear paper jams from the optional stacker or stapler/stacker

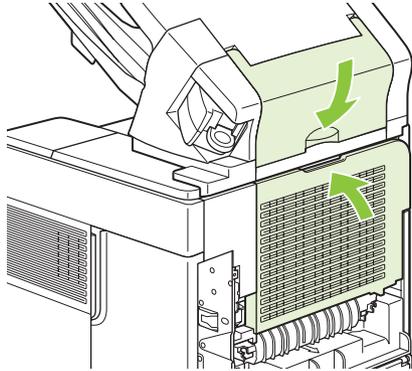
1. At the back of the product, open the door on the stacker or stapler/stacker, and open the rear output bin.



2. Carefully remove any jammed paper.



3. Close the door on the stacker or stapler/stapler, and close the rear output bin.



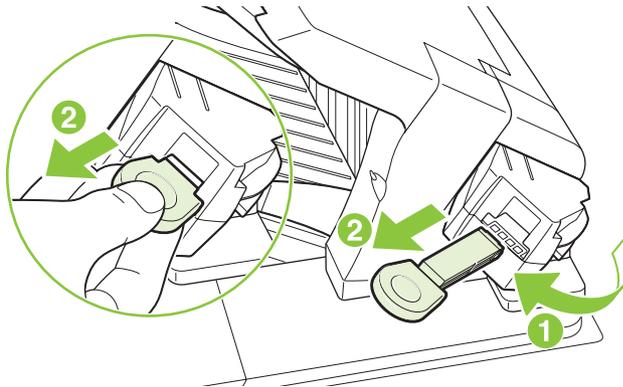
4. If a jam message persists, a sheet is still jammed. Look for it in another location. Check the front of the accessory and carefully remove any jammed paper. See [Jam locations on page 161](#).

 **NOTE:** The output bin must be pushed down into the lowest position for printing to continue.

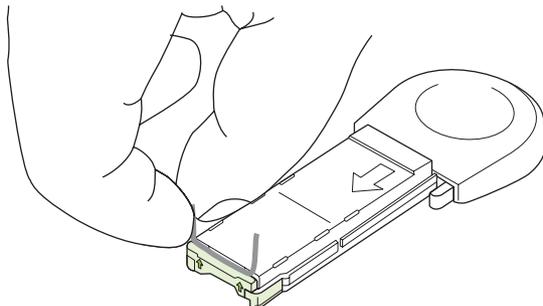
Clear staple jams from the optional stapler/stapler

 **NOTE:** Clear staple jams when the message **JAM IN STAPLER** appears on the product control-panel display.

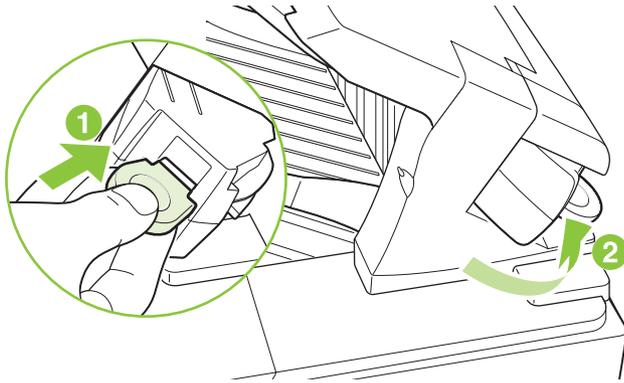
1. On the right side of the stapler/stapler, turn the stapler unit toward the front of the product until the unit clicks into the open position. Pull outward on the blue staple cartridge to remove it.



2. Rotate the green cover on the end of the staple cartridge upward, and remove the jammed staple.



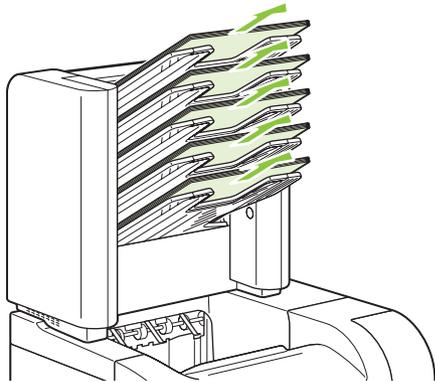
3. Insert the staple cartridge into the stapler unit, and rotate the stapler unit toward the rear of the product until the unit snaps into place.



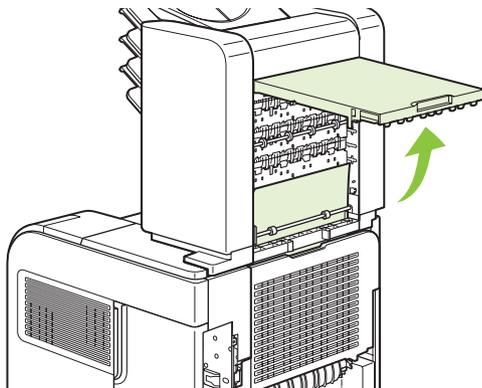
The stapler needs to reload after clearing a staple jam, so the first few documents might not be stapled. If a print job is sent and the stapler is jammed or is out of staples, the job will still print as long as the path to the stacker bin is not blocked.

Clear jams from the optional 5-bin mailbox

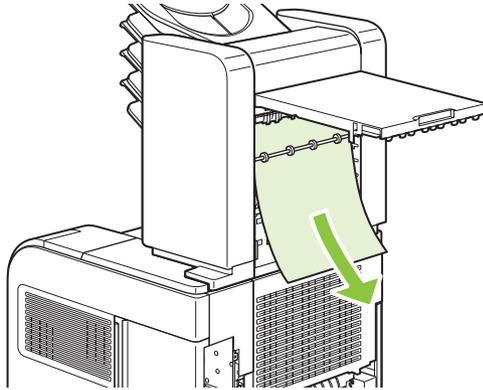
1. Remove any paper that is in the output bins.



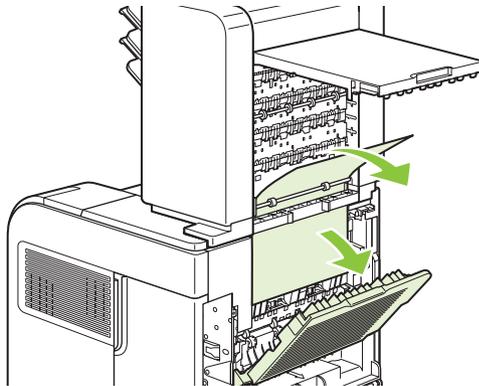
2. On the back of the 5-bin mailbox, open the jam-access door.



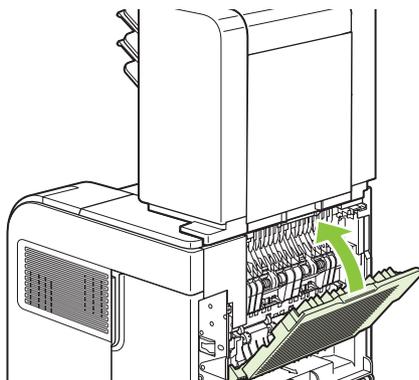
3. If the paper is jammed at the top of the 5-bin mailbox, pull it straight down to remove it.



4. If the paper is jammed at the bottom of the 5-bin mailbox, open the rear output bin, and then pull straight up on the paper to remove it.



5. Close the jam-access door and the rear output bin.



Jam recovery

This product provides jam recovery, a feature that you can use to reprint jammed pages. The following options are available:

- **AUTO** — The product attempts to reprint jammed pages when sufficient memory is available.
- **OFF** — The product does not attempt to reprint jammed pages. Because no memory is used to store the most recent pages, performance is optimal.



NOTE: When using this option, if the product runs out of paper and the job is being printed on both sides, some pages can be lost.

- **ON** — The product always reprints jammed pages. Additional memory is allocated to store the last few pages printed. This might cause overall performance to suffer.

Set the jam recovery feature

1. Press **Menu** .
2. Press the down arrow ▼ to highlight **CONFIGURE DEVICE**, and then press **OK**.
3. Press the down arrow ▼ to highlight **SYSTEM SETUP**, and then press **OK**.
4. Press the down arrow ▼ to highlight **JAM RECOVERY**, and then press **OK**.
5. Press the down arrow ▼ or the up arrow ▲ to highlight the appropriate setting, and then press **OK**.

Solve print-quality problems

You can prevent most print-quality problems by following these guidelines.

- Configure the trays for the correct paper-type setting. See [Configure trays on page 85](#).
- Use paper that meets HP specifications. See [Paper and print media on page 69](#).
- Clean the product as necessary. See [Clean the paper path on page 133](#).

Print-quality problems associated with paper

Some print-quality problems arise from using paper that does not meet HP specifications.

- The surface of the paper is too smooth.
- The moisture content of the paper is uneven, too high, or too low. Use paper from a different source or from an unopened ream.
- Some areas of the paper reject toner. Use paper from a different source or from an unopened ream.
- The letterhead you are using is printed on rough paper. Use a smoother, xerographic paper. If this solves your problem, ask the supplier of your letterhead to use paper that meets HP specifications.
- The paper is excessively rough. Use a smoother, xerographic paper.
- The paper is too heavy for the paper-type setting that you selected, so the toner is not fusing to the paper.

For complete paper specifications for all HP LaserJet products, see the *HP LaserJet Printer Family Print Media Guide*. This guide is available at www.hp.com/support/ljpaperguide.

Print-quality problems associated with the environment

If the product is operating in excessively humid or dry conditions, verify that the printing environment is within specifications. See [Operating environment on page 212](#).

Print-quality problems associated with jams

Make sure that all sheets are cleared from the paper path. See [Jam recovery on page 180](#).

- If the product recently jammed, print two to three pages to clean the paper path.
- If the sheets do not pass through the fuser and cause image defects on subsequent documents, print two to three pages to clean the paper path. If the problem persists, print and process a cleaning page. See [Clean the paper path on page 133](#).

Image defect examples

These examples identify the most common print-quality problems. If you still have problems after trying the suggested solutions, contact HP Customer Support.

Table 10-2 Image defect examples

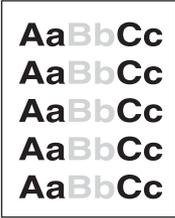
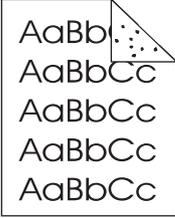
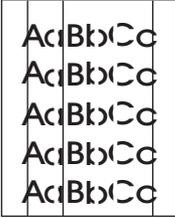
Problem	Image example	Solution
Light print (partial page)		<ol style="list-style-type: none"> 1. Make sure that the print cartridge is fully installed. 2. The toner level in the print cartridge might be low. Replace the print cartridge. 3. The paper might not meet HP specifications (for example, the paper is too moist or too rough). See Paper and print media on page 69.
Light print (entire page)		<ol style="list-style-type: none"> 1. Make sure that the print cartridge is fully installed. 2. Make sure that the ECONOMODE setting is turned off at the control panel and in the printer driver. 3. Open the CONFIGURE DEVICE menu at the product control panel. Open the PRINT QUALITY submenu and increase the TONER DENSITY setting. See Print Quality submenu on page 22. 4. Try using a different type of paper. 5. The print cartridge might be almost empty. Replace the print cartridge.
Specks		<p>Specks might appear on a page after a jam has been cleared.</p> <ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the paper path on page 133.) 3. Try using a different type of paper. 4. Check the print cartridge for leaks. If the print cartridge is leaking, replace it.
Dropouts		<ol style="list-style-type: none"> 1. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 2. If the paper is rough, and the toner easily rubs off, open the CONFIGURE DEVICE menu at the product control panel. Open the PRINT QUALITY submenu, select FUSER MODES, and then select the paper type you are using. Change the setting to HIGH1 or HIGH2, which helps the toner fuse more completely onto the paper. (See Print Quality submenu on page 22.) 3. Try using a smoother paper.
Lines		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 133.) 3. Replace the print cartridge.

Table 10-2 Image defect examples (continued)

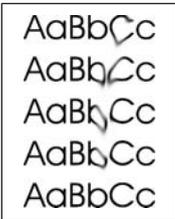
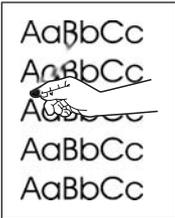
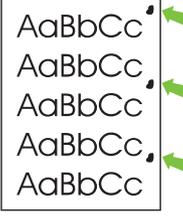
Problem	Image example	Solution
Gray background		<ol style="list-style-type: none"> 1. Do not use paper that has already been run through the product. 2. Try using a different type of paper. 3. Print a few more pages to see if the problem corrects itself. 4. Turn over the paper in the tray. Also, try rotating the paper 180°. 5. Open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, increase the TONER DENSITY setting. See Print Quality submenu on page 22. 6. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 7. Replace the print cartridge.
Toner smear		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Try using a different type of paper. 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 4. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 133.) 5. Replace the print cartridge.
Loose toner		<p>Loose toner, in this context, is defined as toner that can be rubbed off the page.</p> <ol style="list-style-type: none"> 1. If paper is heavy or rough, open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, select FUSER MODES, and then select the paper type you are using. Change the setting to HIGH1 or HIGH2, which helps the toner fuse more completely onto the paper. (See Print Quality submenu on page 22.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 86.) 2. If you have observed a rougher texture on one side of your paper, try printing on the smoother side. 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 4. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.)
Repeat defects		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Clean the inside of the product and run a cleaning page to clean the fuser. (See Clean the product on page 133.) 3. The print cartridge might need to be replaced.

Table 10-2 Image defect examples (continued)

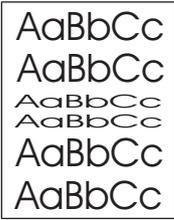
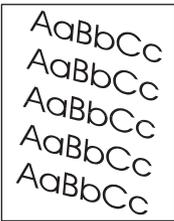
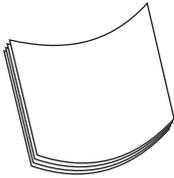
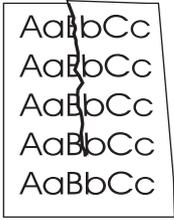
Problem	Image example	Solution
Repeat image		<p>This type of defect might occur when using preprinted forms or a large quantity of narrow paper.</p> <ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 3. The print cartridge might need to be replaced.
Misformed characters		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.)
Page skew		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Verify that no torn pieces of paper are inside the product. 3. Make sure that paper is loaded correctly and that all adjustments have been made. (See Load trays on page 78.) Make sure that the guides in the tray are not too tight or too loose against the paper. 4. Turn over the paper in the tray. Also, try rotating the paper 180°. 5. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 6. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.)
Curl or wave		<ol style="list-style-type: none"> 1. Turn over the paper in the tray. Also, try rotating the paper 180°. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 4. Try printing to a different output bin. 5. If paper is lightweight and smooth, open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, select FUSER MODES, and then select the paper type you are using. Change the setting to LOW, which helps reduce the heat in the fusing process. (See Print Quality submenu on page 22.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 86.)
Wrinkles or creases		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Make sure that paper is loaded correctly and all adjustments have been made. (See Load trays on page 78.) 5. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.)

Table 10-2 Image defect examples (continued)

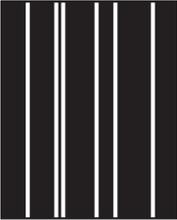
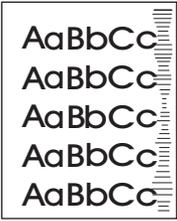
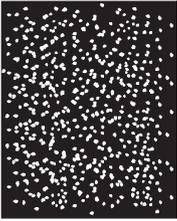
Problem	Image example	Solution
Vertical white lines		<ol style="list-style-type: none"> 6. If envelopes are creasing, try storing envelopes so that they lie flat. 7. If paper is lightweight and smooth, open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, select FUSER MODES, and then select the paper type you are using. Change the setting to LOW, which helps reduce the heat in the fusing process. (See Print Quality submenu on page 22.) You must also set the type of paper for the tray you are using. (See Select the paper by source, type, or size on page 86.)
Tire tracks		<p>This defect typically occurs when the print cartridge has far exceeded its rated life. For example, if you are printing a very large quantity of pages with very little toner coverage.</p> <ol style="list-style-type: none"> 1. Replace the print cartridge. 2. Reduce the number of pages that you print with very low toner coverage.
White spots on black		<ol style="list-style-type: none"> 1. Print a few more pages to see if the problem corrects itself. 2. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 3. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 4. Replace the print cartridge.
Scattered lines		<ol style="list-style-type: none"> 1. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Open the CONFIGURE DEVICE menu at the product control panel. Open the PRINT QUALITY submenu and change the TONER DENSITY setting. (See Print Quality submenu on page 22.) 5. Open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, open OPTIMIZE and set LINE DETAIL=ON.
Blurred print		<ol style="list-style-type: none"> 1. Make sure that the type and quality of the paper you are using meet HP specifications. (See Paper and print media on page 69.) 2. Make sure that the environmental specifications for the product are being met. (See Operating environment on page 212.) 3. Turn over the paper in the tray. Also, try rotating the paper 180°. 4. Do not use paper that already has been run through the product.

Table 10-2 Image defect examples (continued)

Problem	Image example	Solution
Random image repetition		<p>5. Decrease the toner density. Open the CONFIGURE DEVICE menu at the product control panel. Open the PRINT QUALITY submenu and change the TONER DENSITY setting. (See Print Quality submenu on page 22.)</p> <p>6. Open the CONFIGURE DEVICE menu at the product control panel. On the PRINT QUALITY submenu, open OPTIMIZE and set HIGH TRANSFER=ON. (See Print Quality submenu on page 22.)</p> <p>If an image that appears at the top of the page (in solid black) repeats further down the page (in a gray field), the toner might not have been completely erased from the last job. (The repeated image might be lighter or darker than the field it appears in.)</p> <ul style="list-style-type: none"> • Change the tone (darkness) of the field that the repeated image appears in. • Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page. • From your software program, rotate the whole page 180° to print the lighter image first. • If the defect occurs later in a print job, turn the product off for 10 minutes, and then turn it on to restart the print job.

Solve performance problems

Problem	Cause	Solution
Pages print but are totally blank.	The sealing tape might still be in the print cartridges.	Verify that the sealing tape has been completely removed from the print cartridges.
	The document might contain blank pages.	Check the document that you are printing to see if content appears on all of the pages.
	The product might be malfunctioning.	To check the product, print a Configuration page.
Pages print very slowly.	Heavier paper types can slow the print job.	Print on a different type of paper.
	Complex pages can print slowly.	Proper fusing may require a slower print speed to ensure the best print quality.
Pages did not print.	The product might not be pulling paper correctly.	Make sure paper is loaded in the tray correctly. If the problem persists, you might need to install the preventive maintenance kit. See Perform preventive maintenance on page 121 .
	The paper is jamming in the product.	Clear the jam. See Jams on page 160 .
	The USB cable might be defective or incorrectly connected.	<ul style="list-style-type: none"> ● Disconnect the USB cable at both ends and reconnect it. ● Try printing a job that has printed in the past. ● Try using a different USB cable.
	Other devices are running on your computer.	The product might not share a USB port. If you have an external hard drive or network switchbox that is connected to the same port as the product, the other device might be interfering. To connect and use the product, you must disconnect the other device or you must use two USB ports on the computer.

Solve connectivity problems

Solve direct-connect problems

If you have connected the product directly to a computer, check the USB cable.

- Verify that the cable is connected to the computer and to the product.
- Verify that the cable is not longer than 2 meters (5 feet). Replace the cable if necessary.
- Verify that the cable is working correctly by connecting it to another product. Replace the cable if necessary.

Solve network problems

Check the following items to verify that the product is communicating with the network. Before beginning, print a configuration page. See [Print the information and show-me-how pages on page 104](#).

1. Are there any physical connection problems between the workstation or file server and the product?

Verify that the network cabling, connections, and router configurations are correct. Verify that the network cable lengths meet network specifications.

2. Are your network cables connected properly?

Make sure that the product is attached to the network using the appropriate port and cable. Check each cable connection to make sure it is secure and in the right place. If the problem continues, try a different cable or ports on the hub or transceiver. The amber activity light and the green link status light next to the port connection on the back of the product should be lit.

3. Are the link speed and duplex settings set correctly?

Hewlett-Packard recommends leaving this setting in automatic mode (the default setting). See [Link speed and duplex settings on page 68](#).

4. Can you "ping" the product?

Use the command prompt to ping the product from your computer. For example:

```
ping 192.168.45.39
```

Ensure that the ping displays round-trip times.

If you are able to ping the product, verify that the IP address configuration for the product is correct on the computer. If it is correct, delete and then add the product again.

If the ping command failed, verify that the network hubs are on, and then verify that the network settings, the product, and the computer are all configured for the same network.

5. Have any software applications been added to the network?

Make sure they are compatible and that they are installed correctly with the correct printer drivers.

6. Are other users able to print?

The problem may be workstation-specific. Check the workstation network drivers, printer drivers, and redirection (capture in Novell NetWare).

7. If other users are able to print, are they using the same network operating system?

Check your system for proper network operating system setup.

8. Is your protocol enabled?

Check the status of your protocol on the Configuration page. You can also use the embedded Web server to check the status of other protocols. See [Use the embedded Web server on page 109](#).

9. Does the product appear in HP Web Jetadmin or other management application?

- Verify network settings on the Network configuration page.
- Confirm the network settings for the product using the product control panel (for products with control panels).

Solve common Windows problems

Error message:

"General Protection FaultException OE"

"Spool32"

"Illegal Operation"

Cause	Solution
	Close all software programs, restart Windows, and try again.
	Select a different printer driver. You can usually do this from a software program.
	Delete all temp files from the Temp subdirectory. You can determine the name of the directory by editing the AUTOEXEC.BAT file and looking for the statement "Set Temp =". The name after this statement is the temp directory. It is usually C:\TEMP by default, but can be redefined.
	See the Microsoft Windows documentation that came with your computer for more information about Windows error messages.

Solve common Macintosh problems

 **NOTE:** Setup for USB and IP printing is performed through the Desktop Printer Utility. The product will *not* appear in the Chooser.

The printer driver is not listed in Print Center.

Cause	Solution
The product software might not have been installed or was installed incorrectly.	Make sure that the PPD file is in the following hard drive folder: Library/Printers/PPDs/Contents/Resources/ <lang>.lproj , where "<lang>" represents the two-letter language code for the language that you are using. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: Library/Printers/PPDs/Contents/Resources/ <lang>.lproj , where "<lang>" represents the two-letter language code for the language that you are using. Reinstall the software. See the getting started guide for instructions.

The product name, IP address, or Rendezvous host name does not appear in the printer list box in the print center.

Cause	Solution
The product might not be ready.	Make sure that the cables are connected correctly, the product is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The wrong connection type might be selected.	Make sure that USB, IP Printing, or Rendezvous is selected, depending on the type of connection that exists between the product and the computer.
The wrong product name, IP address, or Rendezvous host name is being used.	Check the product name, IP address, or Rendezvous host name by printing a configuration page. See Print the information and show-me-how pages on page 104 . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the product name, IP address, or Rendezvous host name in the Print Center.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

The printer driver does not automatically set up your selected product in Print Center.

Cause	Solution
The product might not be ready.	Make sure that the cables are connected correctly, the product is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The product software might not have been installed or was installed incorrectly.	Make sure that the PPD file is in the following hard drive folder: Library/Printers/PPDs/Contents/Resources/ <lang>.lproj

The printer driver does not automatically set up your selected product in Print Center.

Cause	Solution
	, where “<lang>” represents the two-letter language code for the language that you are using. If necessary, reinstall the software. See the getting started guide for instructions.
The Postscript Printer Description (PPD) file is corrupt.	Delete the PPD file from the following hard drive folder: Library/Printers/PPDs/Contents/Resources/ <lang>.lproj , where “<lang>” represents the two-letter language code for the language that you are using. Reinstall the software. See the getting started guide for instructions.
The product might not be ready.	Make sure that the cables are connected correctly, the product is on, and the ready light is on. If you are connecting through a USB or Ethernet hub, try connecting directly to the computer or use a different port.
The interface cable might be defective or of poor quality.	Replace the interface cable. Make sure to use a high-quality cable.

A print job was not sent to the product that you wanted.

Cause	Solution
The print queue might be stopped.	Restart the print queue. Open print monitor and select Start Jobs .
The wrong product name or IP address is being used. Another product with the same or similar name, IP address, or Rendezvous host name might have received your print job.	Check the product name, IP address, or Rendezvous host name by printing a configuration page. See Print the information and show-me-how pages on page 104 . Verify that the name, IP address, or Rendezvous host name on the configuration page matches the product name, IP address, or Rendezvous host name in the Print Center.

An encapsulated PostScript (EPS) file does not print with the correct fonts.

Cause	Solution
This problem occurs with some programs.	<ul style="list-style-type: none">Try downloading the fonts that are contained in the EPS file to the product before printing.Send the file in ASCII format instead of binary encoding.

You are unable to print from a third-party USB card.

Cause	Solution
This error occurs when the software for USB devices is not installed.	When adding a third-party USB card, you might need the Apple USB Adapter Card Support software. The most current version of this software is available from the Apple Web site.

When connected with a USB cable, the product does not appear in the Macintosh Print Center after the driver is selected.

Cause	Solution
This problem is caused by either a software or a hardware component.	<p>Software problem-solving</p> <ul style="list-style-type: none">● Check that your Macintosh supports USB.● Verify that you are using a Macintosh operating system that this product supports.● Ensure that your Macintosh has the appropriate USB software from Apple. <p>Hardware problem-solving</p> <ul style="list-style-type: none">● Check that the product is turned on.● Verify that the USB cable is connected correctly.● Check that you are using the appropriate high-speed USB cable.● Ensure that you do not have too many USB devices drawing power from the chain. Disconnect all of the devices from the chain, and connect the cable directly to the USB port on the host computer.● Check to see if more than two nonpowered USB hubs are connected in a row on the chain. Disconnect all of the devices from the chain and connect the cable directly to the USB port on the host computer. <p>NOTE: The iMac keyboard is a nonpowered USB hub.</p>

Solve Linux problems

For information about Linux problem solving, go to the HP Linux support Web site: hp.sourceforge.net/.

A Supplies and accessories

- [Order parts, accessories, and supplies](#)
- [Part numbers](#)

Order parts, accessories, and supplies

Several methods are available for ordering parts, supplies, and accessories.

Order directly from HP

You can obtain the following items directly from HP:

- **Replacement parts:** To order replacement parts in the U.S., go to www.hp.com/go/hpparts. Outside the United States, order parts by contacting your local authorized HP service center.
- **Supplies and accessories:** To order supplies in the U.S., go to www.hp.com/go/ljsupplies. To order supplies worldwide, go to www.hp.com/ghp/buyonline.html. To order accessories, go to www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series.

Order through service or support providers

To order a part or accessory, contact an HP-authorized service or support provider.

Order directly through the HP Easy Printer Care software

HP Easy Printer Care software is a product management tool designed to make product configuration, monitoring, supplies ordering, troubleshooting, and updating as simple and efficient as possible. For more information about HP Easy Printer Care software, see [Use the HP Easy Printer Care software on page 106](#).

Part numbers

The following list of accessories was current at the time of printing. Ordering information and availability of the accessories might change during the life of the product

Paper-handling accessories

Item	Description	Part number
Optional 500-sheet tray and feeder unit	Optional tray to increase paper capacity. Holds Letter, A4, Legal, A5, B5 (JIS), Executive, and 8.5 x 13 inch paper sizes. The product can accommodate up to four optional 500-sheet feeders.	CB518A
Optional 1,500-sheet tray and feeder unit	Optional tray to increase paper capacity. Holds Letter, Legal, and A4 paper sizes.	CB523A
Envelope feeder	Holds up to 75 envelopes.	CB524A
Duplexer (duplex printing accessory)	Allows automatic printing on both sides of the paper.	CB519A
500-sheet stacker	Provides an additional output bin that holds 500 sheets.	CB521A
500-sheet stapler/stacker	Allows for high-volume output with automatic job finishing. Staples up to 15 sheets of paper.	CB522A
HP 5-bin mailbox	Provides five output bins that you can use to sort jobs.	CB520A
1,000-staple cartridge	Provides three staple cartridges.	Q3216A
Stapler unit	Holds the stapler cartridge and the stapler head. Order the stapler unit if you are experiencing stapler failure and an HP-authorized service or support provider advises you to replace the unit. NOTE: The staple cartridge is not included with the stapler unit and must be ordered separately, when it needs to be replaced.	Q3216-60501
Printer stand	Provides stability when multiple optional trays are installed. The stand has casters so you can easily move the product.	CB525A

Print cartridges

Item	Description	Part number
HP LaserJet print cartridge	10,000-page cartridge	CC364A
	24,000-page cartridge	CC364X

Maintenance kits

Item	Description	Part number
Preventive maintenance kit. Includes a replacement fuser, a transfer roller, a transfer-roller tool, a Tray 1 roller, eight feed rollers, and one pair of disposable gloves. Includes instructions for installing each component.	110-volt printer maintenance kit	CB388A
	220-volt printer maintenance kit	CB389A
<p>The preventive maintenance kit is a consumable item, and its cost is not covered under the warranty or most extended warranty options.</p>		

Memory

Item	Description	Part number
44 x 32-pin DDR2 memory DIMM (dual inline memory module)	64 MB	CC413A
	128 MB	CC414A
Boosts the ability of the product to handle large or complex print jobs.	256 MB	CC415A
	512 MB	CE483A
EIO hard disk	20-GB permanent storage for fonts and forms. Also used for making multiple original prints and for job-storage features.	J6073A

Cables and interfaces

Item	Description	Part number
Enhanced I/O (EIO) cards	HP High Performance Serial ATA EIO Hard Disk	J6073G
HP Jetdirect print server multi-protocol EIO network cards:	1284B parallel adaptor	J7972G
	Jetdirect EIO wireless 690n (IPv6/IPsec)	J8007G
	Jetdirect en3700	J7942G
	Jetdirect en1700	J7988G
	Jetdirect ew2400 USB wireless print server	J7951G
	Jetdirect 630n EIO networking card (IPv6/gigabit)	J7997G
	Jetdirect 635n EIO networking card (IPv6/IPsec)	J7961G
USB cable	2-meter A to B cable	C6518A

Paper

For more information about paper, go to <http://www.hp.com/go/ljsupplies>.

Item	Description	Part number
HP Soft Gloss laser paper	Letter (220 x 280 mm), 50 sheets/box	C4179A/Asia-Pacific countries/regions
For use with HP LaserJet printers. Coated paper, good for business documents with high impact, such as brochures, sales material, and documents with graphics and photographic images.	A4 (210 x 297 mm), 50 sheets/box	C4179B/Asia-Pacific countries/regions and Europe
	Specifications: 32 lb (120 g/m ²).	
HP LaserJet tough paper	Letter (8.5 x 11 inch), 50 sheets to a carton	Q1298A/North America
For use with HP LaserJet printers. This satin-finish paper is waterproof and tear-proof, yet doesn't compromise on print quality or performance. Use it for signs, maps, menus, and other business applications.	A4 (210 x 297 mm), 50 sheets to a carton	Q1298B/Asia-Pacific countries/regions and Europe
HP Premium Choice LaserJet paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPU1132/North America
HP's brightest LaserJet paper. Expect spectacular color and crisp black from this paper that is extra smooth and brilliantly white. Ideal for presentations, business plans, external correspondence and other high-value documents	Letter (8.5 x 11 inch), 250 sheets/ream, 6-ream carton	HPU1732 North America
	A4 (210 x 297 mm), 5-ream carton	Q2397A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 250 sheet/ream, 5-ream carton	CHP412/Europe
	A4 (210 x 297 mm), 500 sheet/ream, 5-ream carton	CHP410/Europe
Specifications: 98 bright, 32 lb. (75 g/m ²).	A4 (210 x 297 mm), 160 g/m ² , 500 sheet/ream, 5-ream carton	CHP413/Europe
HP LaserJet paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPJ1124/North America
For use with HP LaserJet printers. Good for letterhead, high-value memos, legal documents, direct mail, and correspondence.	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPJ1424/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2398A/Asia-Pacific countries/regions
Specifications: 96 bright, 24 lb (90 g/m ²).	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2400A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream	CHP310/Europe

Item	Description	Part number
HP Printing paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPP1122/North America and Mexico
For use with HP LaserJet and inkjet printers. Created especially for small and home offices. Heavier and brighter than copier paper. Specifications: 92 bright, 22 lb.	Letter (8.5 x 11 inch), 500 sheets/ream, 3-ream carton	HPP113R/North America
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP210/Europe
	A4 (210 x 297 mm), 300 sheets/ream, 5-ream carton	CHP213/Europe
HP Multipurpose paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPM1120/North America
	Letter (8.5 x 11 inch), 500 sheets/ream, 5-ream carton	HPM115R/North America HP25011/North America
	Letter (8.5 x 11 inch), 250 sheets/ream, 12-ream carton	HPM113H/North America HPM1420/North America
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	
HP Office paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPC8511/North America and Mexico
	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPC3HP/North America
	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPC8514/North America
	Letter (8.5 x 11 inch), Quick Pack; 2,500-sheet carton	HP2500S/North America and Mexico
	Letter (8.5 x 11 inch), Quick Pack 3-hole; 2,500-sheet carton	HP2500P/North America
	A Letter (220 x 280 mm), 500 sheets/ream, 5-ream carton	Q2408A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	Q2407A/Asia-Pacific countries/regions
	A4 (210 x 297 mm), 500 sheets/ream, 5-ream carton	CHP110/Europe
A4 (210 x 297 mm), Quick Pack; 2500 sheets/ream, 5-ream carton	CHP113/Europe	

Item	Description	Part number
HP Office recycled paper	Letter (8.5 x 11 inch), 500 sheets/ream, 10-ream carton	HPE1120/North America
For use with all office equipment-laser and inkjet printers, copiers, and fax machines. Good for high-volume printing.	Letter (8.5 x 11 inch), 3-hole, 500 sheets/ream, 10-ream carton	HPE113H/North America
Satisfies U.S. Executive Order 13101 for environmentally preferable products.	Legal (8.5 x 14 inch), 500 sheets/ream, 10-ream carton	HPE1420/North America
Specifications: 84 bright, 20 lb, 30% post-consumer content.		
HP LaserJet transparencies	Letter (8.5 x 11 inch), 50 sheets to a carton	92296T/North America, Asia-Pacific countries/regions, and Europe
For use only with HP LaserJet monochrome printers. For crisp, sharp text and graphics, rely on the only transparencies specifically designed and tested to work with monochrome HP LaserJet printers.	A4 (210 x 297 mm), 50 sheets to a carton	922296U/Asia-Pacific countries/regions and Europe
Specifications: 4.3-mil thickness.		

B Service and support

Hewlett-Packard limited warranty statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP LaserJet P4014, P4014n, P4015n, P4015tn, P4015x, P4515n, P4515tn, P4515x, P4515xm	One-year limited warranty

HP warrants to you, the end-user customer, that HP hardware and accessories will be free from defects in materials and workmanship after the date of purchase, for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or equivalent in performance to new.

HP warrants to you that HP software will not fail to execute its programming instructions after the date of purchase, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software which does not execute its programming instructions due to such defects.

HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, you will be entitled to a refund of the purchase price upon prompt return of the product.

HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTIES ARE EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. Some countries/regions, states or provinces do not allow limitations on the duration of an implied warranty, so the above limitation or exclusion might not apply to you. This warranty gives you specific legal rights and you might also have other rights that vary from country/region to country/region, state to state, or province to province. HP's limited warranty is valid in any country/region or locality where HP has a support presence for this product and where HP has marketed this product. The level of warranty service you receive may vary according to local standards. HP will not alter form, fit or function of the product to make it operate in a country/region for which it was never intended to function for legal or regulatory reasons.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS

SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. Some countries/regions, states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Print cartridge limited warranty statement

This HP product is warranted to be free from defects in materials and workmanship.

This warranty does not apply to products that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use.

To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price.

TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANTY IS EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE.

TO THE EXTENT ALLOWED BY LOCAL LAW, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE.

THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

Customer self-repair warranty service

HP products are designed with many Customer Self Repair (CSR) parts to minimize repair time and allow for greater flexibility in performing defective parts replacement. If during the diagnosis period, HP identifies that the repair can be accomplished by the use of a CSR part, HP will ship that part directly to you for replacement. There are two categories of CSR parts: 1) Parts for which customer self repair is mandatory. If you request HP to replace these parts, you will be charged for the travel and labor costs of this service. 2) Parts for which customer self repair is optional. These parts are also designed for Customer Self Repair. If, however, you require that HP replace them for you, this may be done at no additional charge under the type of warranty service designated for your product.

Based on availability and where geography permits, CSR parts will be shipped for next business day delivery. Same-day or four-hour delivery may be offered at an additional charge where geography permits. If assistance is required, you can call the HP Technical Support Center and a technician will help you over the phone. HP specifies in the materials shipped with a replacement CSR part whether a defective part must be returned to HP. In cases where it is required to return the defective part to HP, you must ship the defective part back to HP within a defined period of time, normally five (5) business days. The defective part must be returned with the associated documentation in the provided shipping material. Failure to return the defective part may result in HP billing you for the replacement. With a customer self repair, HP will pay all shipping and part return costs and determine the courier/carrier to be used.

Customer support

Get telephone support, free during your warranty period, for your country/region	Country/region phone numbers are on the flyer that was in the box with your product or at www.hp.com/support/ .
Have the product name, serial number, date of purchase, and problem description ready.	
Get 24-hour Internet support	www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series
Get support for products used with a Macintosh computer	www.hp.com/go/macosex
Download software utilities, drivers, and electronic information	www.hp.com/go/ljp4010series_software or www.hp.com/go/ljp4510series_software
Order supplies and paper	www.hp.com/go/suresupply
Order genuine HP parts or accessories	www.hp.com/buy/parts
Order additional HP service or maintenance agreements	www.hp.com/go/carepack

HP maintenance agreements

HP has several types of maintenance agreements that meet a wide range of support needs. Maintenance agreements are not part of the standard warranty. Support services may vary by area. Check with your local HP dealer to determine the services available to you.

On-site service agreements

To provide you with the level of support best suited to your needs, HP has on-site service agreements with a selection of response times.

Next-day on-site service

This agreement provides support by the next working day following a service request. Extended coverage hours and extended travel beyond HP's designated service zones are available on most on-site agreements (for additional charges).

Weekly (volume) on-site service

This agreement provides scheduled weekly on-site visits for organizations with many HP products. This agreement is designated for sites using 25 or more workstation products, including devices, plotters, computers, and disk drives.

Repacking the device

If HP Customer Care determines that your device needs to be returned to HP for repair, follow the steps below to repack the device before shipping it.

△ **CAUTION:** Shipping damage as a result of inadequate packing is the customer's responsibility.

To repack the device

1. Remove and retain any DIMMs cards that you have purchased and installed in the device. Do not remove the DIMM that came with the device.

△ **CAUTION:** Static electricity can damage DIMMs. When handling DIMMs, either wear an antistatic wrist strap, or frequently touch the surface of the DIMM antistatic package and then touch bare metal on the device. To remove the DIMMs, see [Install memory on page 122](#).

2. Remove and retain the print cartridge.

△ **CAUTION:** It is *extremely important* to remove the print cartridge before shipping the device. A print cartridge that remains in the device during shipping will leak and entirely cover the device engine and other parts with toner.

To prevent damage to the print cartridge, avoid touching the roller on it, and store the print cartridge in its original packing material or so that it is not exposed to light.

3. Remove and retain the power cable, interface cable, and optional accessories.
4. If possible, include print samples and 50 to 100 sheets of paper or other print media that did not print correctly.
5. In the U.S., call HP Customer Care to request new packing material. In other areas, use the original packing material, if possible. Hewlett-Packard recommends insuring the equipment for shipment.

Extended warranty

HP Support provides coverage for the HP hardware product and all HP-supplied internal components. The hardware maintenance covers a 1- to 3-year period from date of the HP product purchase. The customer must purchase HP Support within the stated factory warranty. For more information, contact the HP Customer Care Service and Support group.

C Specifications

- [Physical specifications](#)
- [Electrical specifications](#)
- [Acoustic specifications](#)
- [Operating environment](#)

Physical specifications

Table C-1 Product dimensions and weights

Product model	Height	Depth	Width	Weight
HP LaserJet P4010 and P4510 Series base and n models	394 mm (15.5 in)	4515 mm (17.8 in)	425 mm (16.75 in)	23.6 kg (51.9 lb)
HP LaserJet P4010 and P4510 Series tn models	514 mm (20.25 in)	451 mm (17.8 in)	425 mm (16.75 in)	30.4 kg (66.8 lb)
HP LaserJet P4010 and P4510 Series x models	514 mm (20.25 in)	533 mm (21.0 in)	425 mm (16.75 in)	32.6 kg (71.7 lb)
HP LaserJet P4510 Series xm model	955 mm (37.6 in)	533 mm (21.0 in)	425 mm (16.75 in)	39.6 kg (87.1 lb)
Optional 500-sheet feeder	121 mm (4.8 in)	448.4 mm (17.7 in)	415 mm (16.3 in)	6.7 kg (14.7 lb)
Optional 1500-sheet tray	263.5 mm (10.4 in)	511.5 mm (20.1 in)	421 mm (16.6 in)	13 kg (28.7 lb)
Optional duplexing unit	154 mm (6.1 in)	348 mm (13.7 in)	332 mm (13.1 in)	2.5 kg (5.5 lb)
Optional envelope feeder	113 mm (4.4 in)	354 mm (13.9 in)	328 mm (12.9 in)	2.5 kg (5.5 lb)
Optional stapler/stacker	371 mm (14.6 in)	430 mm (16.9 in)	387 mm (15.2 in)	4.2 kg (9.3 lb)
Optional stacker	304 mm (12 in)	430 mm (16.9 in)	378 mm (14.9 in)	3.2 kg (7.1 lb)
Optional multi-bin mailbox	522 mm (20.6 in)	306 mm (12 in)	353 mm (13.9 in)	7.0 kg (15.4 lb)
Optional printer stand	114 mm (4.5 in)	653 mm (25.7 in)	663 mm (26.1 in)	13.6 kg (30 lb)

Table C-2 Product dimensions with all doors and trays fully opened

Product model	Height	Depth	Width
HP LaserJet P4010 and P4510 Series base and n models	394 mm (15.5 in)	864 mm (34.0 in)	425 mm (16.75 in)
HP LaserJet P4010 and P4510 Series tn models	514 mm (20.25 in)	864 mm (34.0 in)	425 mm (16.75 in)
HP LaserJet P4010 and P4510 Series x models	514 mm (20.25 in)	864 mm (34.0 in)	425 mm (16.75 in)
HP LaserJet P4510 Series xm model	955 mm (37.6 in)	902 mm (35.5 in)	425 mm (16.75 in)

Electrical specifications

⚠ WARNING! Power requirements are based on the country/region where the product is sold. Do not convert operating voltages. This can damage the product and void the product warranty.

Table C-3 Power requirements

Specification	110-volt models	220-volt models
Power requirements	100 to 127 volts (± 10%)	220 to 240 volts (± 10%)
	50/60 Hz (± 2 Hz)	50/60 Hz (± 2 Hz)
Rated current	10.7 Amps	5.7 Amps

Table C-4 Power consumption (average, in watts)

Product model	Printing	Ready	Sleep	Off
HP LaserJet P4014 models	800 W	18 W	13 W	Less than 0.1 W
HP LaserJet P4015 models	840 W	18 W	13 W	Less than 0.1 W
HP LaserJet P4515 models	910 W	20 W	13 W	Less than 0.1 W

¹ Values subject to change. See www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series for current information.

² Power numbers are the highest values measured using all standard voltages.

³ Default time from Ready mode to Sleep = 30 minutes.

⁴ Heat dissipation in Ready mode = 70 BTU/hour.

⁵ Recovery time from Sleep to start of printing = less than 15 seconds.

⁶ HP LaserJet P4014 speed is 45 ppm Letter size. HP LaserJet P4015 speed is 52 ppm Letter size. HP LaserJet P4515 speed is 62 ppm Letter size.

Acoustic specifications

Table C-5 Sound power and pressure level

Product model	Sound power level	Declared per ISO 9296
HP LaserJet P4014 models	Printing	L_{WAd} = 7.1 Bels (A) [71 dB(A)]
	Ready	L_{WAd} = 4.0 Bels (A) [40 dB(A)]
HP LaserJet P4015 models	Printing	L_{WAd} = 7.2 Bels (A) [72 dB(A)]
	Ready	L_{WAd} = 4.1 Bels (A) [41 dB(A)]
HP LaserJet P4515 models	Printing	L_{WAd} = 7.4 Bels (A) [74 dB(A)]
	Ready	L_{WAd} = 4.8 Bels (A) [48 dB(A)]
Product model	Sound pressure level	Declared per ISO 9296
HP LaserJet P4014 models	Printing	L_{pAm} = 58 dB (A)
	Ready	L_{pAm} = 27 dB (A)
HP LaserJet P4015 models	Printing	L_{pAm} = 58 dB (A)
	Ready	L_{pAm} = 27 dB (A)
HP LaserJet P4515 models	Printing	L_{pAm} = 60 dB (A)
	Ready	L_{pAm} = 31 dB (A)

¹ Values are based on preliminary data. See www.hp.com/support/hpljp4010series or www.hp.com/support/hpljp4510series for current information.

² HP LaserJet P4014 speed is 45 ppm Letter size. HP LaserJet P4015 speed is 52 ppm Letter size. HP LaserJet P4515 speed is 62 ppm Letter size.

³ Configuration tested (HP LaserJet P4014): LJ P4014n model, printing on A4-size paper in simplex mode

⁴ Configuration tested (HP LaserJet P4015): LJ P4015x model, printing on A4-size paper in simplex mode

⁵ Configuration tested (HP LaserJet P4515): LJ P4515x model, printing on A4-size paper in simplex mode

Operating environment

Table C-6 Necessary conditions

Environmental condition	Printing	Storage/standby
Temperature (product and print cartridge)	7.5° to 32.5°C (45.5° to 90.5°F)	0° to 35°C (32° to 95°F)
Relative humidity	5% to 90%	35% to 85%

D Regulatory information

- [FCC regulations](#)
- [Environmental product stewardship program](#)
- [Declaration of conformity](#)
- [Safety statements](#)

FCC regulations

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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 separation between equipment and receiver.
- Connect equipment to an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/TV technician.

 **NOTE:** Any changes or modifications to the printer that are not expressly approved by HP could void the user's authority to operate this equipment.

Use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules.

Environmental product stewardship program

Protecting the environment

Hewlett-Packard Company is committed to providing quality products in an environmentally sound manner. This product has been designed with several attributes to minimize impacts on our environment.

Ozone production

This product generates no appreciable ozone gas (O₃).

Power consumption

Power usage drops significantly while in Ready and Sleep mode, which saves natural resources and saves money without affecting the high performance of this product. To determine the ENERGY STAR® qualification status for this product, see the Product Data Sheet or Specifications Sheet. Qualified products are also listed at:

www.hp.com/go/energystar

Toner consumption

EconoMode uses less toner, which might extend the life of the print cartridge.

Paper use

This product's optional automatic duplex feature (two-sided printing) and N-up printing (multiple pages printed on one page) capability can reduce paper usage and the resulting demands on natural resources.

Plastics

Plastic parts over 25 grams are marked according to international standards that enhance the ability to identify plastics for recycling purposes at the end of the product's life.

HP LaserJet print supplies

It's easy to return and recycle your empty HP LaserJet print cartridges—free of charge—with HP Planet Partners. Multilingual program information and instructions are included in every new HP LaserJet print cartridge and supplies package. You help reduce the toll on the environment further when you return multiple cartridges together rather than separately.

HP is committed to providing inventive, high-quality products and services that are environmentally sound, from product design and manufacturing to distribution, customer use, and recycling. When you participate in the HP Planet Partners program, we ensure your HP LaserJet print cartridges are recycled properly, processing them to recover plastics and metals for new products and diverting millions of tons of waste from landfills. Please note that the cartridge will not be returned to you. Thank you for being environmentally responsible!

 **NOTE:** Use the return label to return original HP LaserJet print cartridges only. Please do not use this label for HP inkjet cartridges, non-HP cartridges, refilled or remanufactured cartridges, or warranty returns. For information about recycling your HP inkjet cartridges, please go to www.hp.com/recycle.

Return and recycling instructions

United States and Puerto Rico

The enclosed label in the HP LaserJet toner cartridge box is for the return and recycling of one or more HP LaserJet print cartridges after use. Please follow the applicable instructions below.

Multiple returns (more than one cartridge)

1. Package each HP LaserJet print cartridge in its original box and bag.
2. Tape the boxes together using strapping or packaging tape. The package can weigh up to 31 kg (70 lb).
3. Use a single pre-paid shipping label.

OR

1. Use your own suitable box, or request a free bulk collection box from www.hp.com/recycle or 1-800-340-2445 (holds up to 31 kg (70 lb) of HP LaserJet print cartridges).
2. Use a single pre-paid shipping label.

Single returns

1. Package the HP LaserJet print cartridge in its original bag and box.
2. Place the shipping label on the front of the box.

Shipping

For all HP LaserJet print cartridge recycling returns, give the package to UPS during your next delivery or pickup, or take it to an authorized UPS drop-off center. For the location of your local UPS drop-off center, call 1-800-PICKUPS or visit www.ups.com. If you are returning via USPS label, give the package to a U.S. Postal Service carrier or drop off at a U.S. Postal Service Office. For more information, or to order additional labels or boxes for bulk returns, visit www.hp.com/recycle or call 1-800-340-2445. Requested UPS pickup will be charged normal pickup rates. Information subject to change without notice.

Non-U.S. returns

To participate in HP Planet Partners return and recycling program, just follow the simple directions in the recycling guide (found inside the packaging of your new product supply item) or visit www.hp.com/recycle. Select your country/region for information on how to return your HP LaserJet printing supplies.

Paper

This product is capable of using recycled papers when the paper meets the guidelines outlined in the *HP LaserJet Printer Family Print Media Guide*. This product is suitable for the use of recycled paper according to EN12281:2002.

Material restrictions

This HP product does not contain added mercury.

This HP product contains a battery that might require special handling at end-of-life. The batteries contained in or supplied by Hewlett-Packard for this product include the following:

HP LaserJet P4010 and P4510 Series	
Type	Carbon monofluoride lithium
Weight	1.5 g
Location	On formatter board
User-removable	No



廢電池請回收

For recycling information, you can go to www.hp.com/recycle, or contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

Disposal of waste equipment by users in private households in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



Chemical substances

HP is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at: www.hp.com/go/reach.

Material Safety Data Sheet (MSDS)

Material Safety Data Sheets (MSDS) for supplies containing chemical substances (for example, toner) can be obtained by accessing the HP Web site at www.hp.com/go/msds or www.hp.com/hpinfo/community/environment/productinfo/safety.

For more information

To obtain information about these environmental topics:

- Product environmental profile sheet for this and many related HP products
- HP's commitment to the environment
- HP's environmental management system
- HP's end-of-life product return and recycling program
- Material Safety Data Sheets

Visit www.hp.com/go/environment or www.hp.com/hpinfo/globalcitizenship/environment.

Declaration of conformity

Declaration of conformity

Declaration of Conformity

according to ISO/IEC 17050-1 and EN 17050-1, DoC#: BOISB-0702-00-rel.1.0

Manufacturer's Name: Hewlett-Packard Company
Manufacturer's Address: 11311 Chinden Boulevard,
Boise, Idaho 83714-1021, USA

declares, that the product

Product Name: HP LaserJet P4014 series, P4015 series, and P4515 series

Regulatory Model Number³⁾: BOISB-0702-00

Product Options: ALL

Print Cartridges: CC364A /CC364X

conforms to the following Product Specifications:

Safety: IEC 60950-1:2001 / EN60950-1: 2001 +A11
IEC 60825-1:1993 +A1 +A2 / EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)
GB4943-2001

EMC: CISPR22:2005 / EN 55022:2006 - Class B¹⁾
EN 61000-3-2:2000 +A2
EN 61000-3-3:1995 +A1
EN 55024:1998 +A1 +A2
FCC Title 47 CFR, Part 15 Class B²⁾ / ICES-003, Issue 4
GB9254-1998, GB17625.1-2003

Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 2004/108/EEC and the Low Voltage Directive 2006/95/EEC, and carries the CE-Marking accordingly.

- 1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
- 2) This Device complies with 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.
- 3) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the marketing name or the product number(s).

Boise, Idaho , USA

June 29, 2007

For regulatory topics only:

European Contact: Your Local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH, Department HQ-TRE / Standards Europe,, Herrenberger Strasse 140, , D-71034, Böblingen, (FAX: +49-7031-14-3143), <http://www.hp.com/go/certificates>

USA Contact: Product Regulations Manager, Hewlett-Packard Company,, PO Box 15, Mail Stop 160, Boise, ID 83707-0015, , (Phone: 208-396-6000)

Safety statements

Laser safety

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration has implemented regulations for laser products manufactured since August 1, 1976. Compliance is mandatory for products marketed in the United States. The device is certified as a “Class 1” laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. Since radiation emitted inside the device is completely confined within protective housings and external covers, the laser beam cannot escape during any phase of normal user operation.

⚠ WARNING! Using controls, making adjustments, or performing procedures other than those specified in this user guide may result in exposure to hazardous radiation.

Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

« Conforme à la classe B des normes canadiennes de compatibilité électromagnétiques. « CEM ». »

VCCI statement (Japan)

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

Power cord statement (Japan)

製品には、同梱された電源コードをお使い下さい。
同梱された電源コードは、他の製品では使用出来ません。

EMI statement (Korea)

B급 기기 (가정용 정보통신기기)
이 기기는 가정용으로 전자파적합등록을 한 기기로서
주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Laser statement for Finland

Luokan 1 laserlaite

Klass 1 Laser Apparat

HP LaserJet P4014, P4014n, P4015n, P4015tn, P4015x, P4515n, P4515tn, P4515x, P4515xm, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisessa käytössä kirjoittimen suojakotelointi estää lasersäteiden pääsyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

VAROITUS !

Laitteen käyttäminen muulla kuin käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING !

Om apparaten används på annat sätt än i bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

HUOLTO

HP LaserJet P4014, P4014n, P4015n, P4015tn, P4015x, P4515n, P4515tn, P4515x, P4515xm - kirjoittimen sisällä ei ole käyttäjän huollettavissa olevia kohteita. Laitteen saa avata ja huoltaa ainoastaan sen huoltamiseen koulutettu henkilö. Tällaiseksi huoltotoimenpiteeksi ei katsota väriainekasetin vaihtamista, paperiradan puhdistusta tai muita käyttäjän käsikirjassa lueteltuja, käyttäjän tehtäväksi tarkoitettuja ylläpitotoimia, jotka voidaan suorittaa ilman erikoistyökaluja.

VARO !

Mikäli kirjoittimen suojakotelo avataan, olet alttiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

VARNING !

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen. Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista: Aallonpituus 775-795 nm Teho 5 m W Luokan 3B laser.

Substances Table (China)

有毒有害物质表

根据中国电子信息产品污染控制管理办法的要求而出台

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
打印引擎	X	0	X	0	0	0
控制面板	0	0	0	0	0	0
塑料外壳	0	0	0	0	0	0
格式化板组件	X	0	0	0	0	0
碳粉盒	X	0	0	0	0	0

3685

0：表示在此部件所用的所有同类材料中，所含的此有毒或有害物质均低于 SJ/T11363-2006 的限制要求。

X：表示在此部件所用的所有同类材料中，至少一种所含的此有毒或有害物质高于 SJ/T11363-2006 的限制要求。

注：引用的“环保使用期限”是根据在正常温度和湿度条件下操作使用产品而确定的。

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