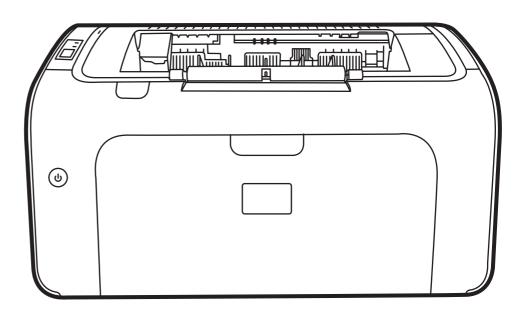
HP LaserJet P1000 and P1500 Series User Guide





HP LaserJet P1000 and P1500 Series User Guide



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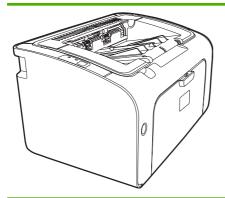
1 Product information

- Product configurations
- Product features
- Identify product parts

ENWW 1

Product configurations

HP LaserJet P1000 Series

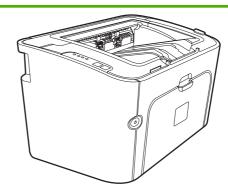


- First Page Out: < 8 seconds
- Speed: 14 A4 pages per minute (ppm), 15 Letter-size ppm.
- Tray: 150 sheet universal tray.
- Connectivity: Hi-Speed USB 2.0 port.

HP LaserJet P1006/P1009 only

- First Page Out: < 8 seconds
- Speed: 22 A4 pages per minute (ppm), 17 Letter-size ppm.
- Tray: 10 sheet priority feed slot and a 150 sheet universal tray.
- Connectivity: Hi-Speed USB 2.0 port.

HP LaserJet P1500 Series



- First Page Out: < 6 seconds
- Speed: 22 A4 pages per minute (ppm), 23 Letter-size ppm.
- Trays: 10 sheet priority feed slot and a 250 sheet universal tray
- Connectivity: Hi-Speed USB 2.0 port. On-board networking (HP LaserJet P1500 network models only).

Product features

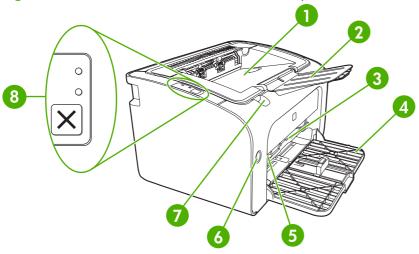
Benefit	Supporting features
Excellent print quality	HP print cartridges.
	 True 600 by 600 dots per inch (dpi) text and graphics.
	 Adjustable settings to optimize print quality.
Ease of use	The print cartridge is easy to install.
	 Convenient access to the print cartridge and to the paper path through the cartridge door.
	 Adjust paper tray with one hand.
Flexible paper handling	 Main tray for letterhead, envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper.
	 Priority feed slot for letterhead, envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper.
	 A 125-sheet top output bin.
	 Print on Both Sides (manually). See <u>Printing on both sides of</u> the paper (manual two-sided printing) on page 32.
Interface connections	Hi-Speed 2.0 USB port.
	 Built-in internal print server for connecting to a 10/100Base- T network. (HP LaserJet P1500 network models only)
Energy savings	 The device automatically conserves electricity by substantially reducing power consumption when it is not printing.
Economical printing	 N-up printing (printing more than one page on a sheet) and Printing on Both Sides features save paper. See <u>Printing on both sides of the paper (manual two-sided printing) on page 32</u>.
Archive printing	 When printing pages that are to be stored long-term, this option sets the device to a mode that reduces toner smearing and dusting.
	Select Archive as the paper type.
Supplies	 A Supplies Status page with print cartridge gauges that estimate remaining supply level. Not available for non-HP supplies.
	 Authentication for original HP print cartridges.
	 Easy ordering for replacement supplies.
Accessibility	Online user guide compatible with text screen-readers.
	 All doors and covers can be opened with one hand.
Security	Kensington lock receptacle on back of device.

ENWW Product features

Identify product parts

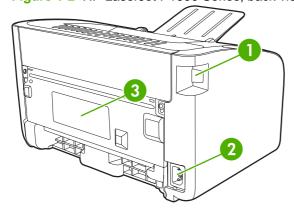
HP LaserJet P1000 Series

Figure 1-1 HP LaserJet P1000 Series, front view (HP LaserJet P1006/P1009 shown)



1	Output bin
2	Foldable Output Tray Extension
3	Priority feed slot
4	Foldable Main Input tray
5	Short Media Extender (HP LaserJet P1002/P1003/P1004/P1005 only)
6	Power button
7	Cartridge door lift-tab
8	Control panel (HP LaserJet P1006/P1009 control panel shown)

Figure 1-2 HP LaserJet P1000 Series, back view (HP LaserJet P1006/P1009 shown)

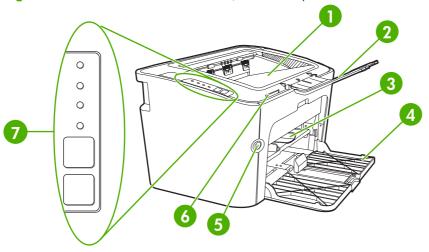


1 USB Port

2	Power receptacle
3	Serial number

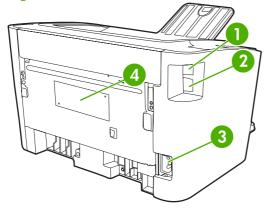
HP LaserJet P1500 Series

Figure 1-3 HP LaserJet P1500 Series, front view (HP LaserJet P1505n shown)



1 Output bin
2 Foldable Output Tray Extension
3 Priority feed slot
4 Input tray
5 Power button
6 Cartridge door lift-tab
7 Control panel

Figure 1-4 HP LaserJet P1500 Series, back view (HP LaserJet P1505n shown)



USB Port

ENWW Identify product parts

5

2	HP internal network port (HP LaserJet P1500 network models only)				
3	Power receptacle				
4	Serial Number				

2 Control panel

- HP LaserJet P1000 Series
- HP LaserJet P1500 Series

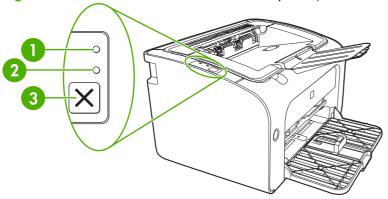
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HP LaserJet P1000 Series

The HP LaserJet P1000 Series control panel contains two lights and one button.

NOTE: See Status-light patterns on page 63 for a description of what the light patterns mean.

Figure 2-1 HP LaserJet P1000 Series control panel (HP LaserJet P1006/P1009 shown)



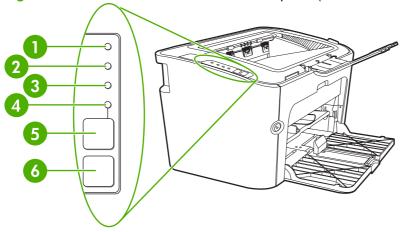
- 1 Attention light: Indicates that the print cartridge door is open or other errors exist.
- **Ready light**: When the device is ready to print, the Ready light is on. When the device is processing data, the Ready light blinks.
- 3 Cancel button: To cancel the print job that is currently printing, press the Cancel button (HP LaserJet P1006/P1009 only).

HP LaserJet P1500 Series

The HP LaserJet P1500 Series control panel contains four lights and two buttons.

NOTE: See Status-light patterns on page 63 for a description of what the light patterns mean.

Figure 2-2 HP LaserJet P1500 Series control panel (HP LaserJet P1505n shown)



- 1 Toner light: When the print cartridge is low, the Toner light illuminates. When the print cartridge is out of the device, the Toner light blinks.
- 2 Attention light: Indicates that the print cartridge door is open or other errors exist.
- Ready light: When the device is ready to print, the Ready light is on. When the device is processing data, the Ready light blinks.
- 4 Go light: Blinks to indicate that there is a continuable error or a manual feed job is ready to continue.
- Go button: To print a configuration page, press the Go button when the Ready light is on. When the Go light is flashing, press the Go button to continue the print job.
- 6 Cancel button: To cancel the print job that is currently printing, press the Cancel button.

ENWW HP LaserJet P1500 Series

3 Product software

For proper device setup and access to the full range of device features, full installation of the provided software is required.

Following sections describe the software that is provided with your product:

- Supported operating systems
- Supported network systems (HP LaserJet P1500 network models only)
- Device connections
- Software for Windows
- Software for Macintosh

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Supported operating systems

The device comes with software for the following operating systems:

- Windows® 98 SE (printer driver only)
- Windows Millennium Edition (Me) (printer driver only)
- Windows 2000
- Windows Server 2003 (32-bit and 64-bit)

For more information about upgrading from Windows 2000 Server to Windows Server 2003; using Windows Server 2003 Point and Print; or using Windows Server 2003 Terminal Services and Printing, go to http://www.microsoft.com/.

- Windows® XP (32-bit)
- Macintosh OS X V10.2.8, V10.3.9, and V10.4.3
- Windows Vista (32-bit and 64-bit)

Supported network systems (HP LaserJet P1500 network models only)

TCP/IP

Device connections

USB connections

The product supports USB connections.

- Insert the software installation CD into the computer CD-ROM drive.
- NOTE: Do not connect the USB cable until prompted.
- 2. If the installation program does not start automatically, browse the CD contents and run the SETUP.EXE file.
- **3.** Follow the on-screen instructions for setting up your device and installing your software.

Network connections (HP LaserJet P1500 network models only)

The HP LaserJet P1500 network models can connect to networks through the HP internal networking port.

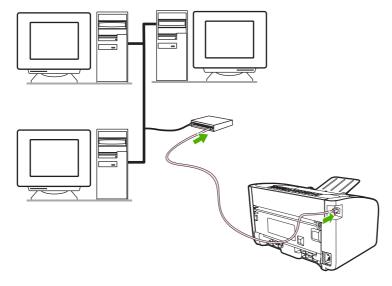
Connect the device to the network

To connect a networking-equipped product to your network, you need the following items:

- Functional wired TCP/IP network
- CAT-5 Ethernet cable

To connect the device to your network

- Connect the CAT-5 Ethernet cable to an available port on the Ethernet hub or router.
- 2. Connect the Ethernet cable to the Ethernet port on the back of the device.



- 3. Verify that one of the network lights (10 or 100) is illuminated on the network port located on the back of the device.
- 4. Print a Configuration page: When the device is in the Ready state, press the Go button.

NOTE: To resolve network connection problems, see Network-setup problem-solving on page 79.

Install the software for the network device

To use the device on the network, install the software on a computer that is connected to the network. See <u>Software for Windows on page 16</u> or <u>Software for Macintosh on page 18</u> for information about installing the software.

ENWW Device connections 15

Software for Windows

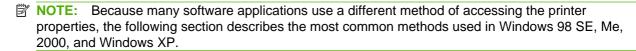
Windows printer drivers

A printer driver is the software that provides access to printer features and provides the means for the computer to communicate with the device.

Printer preferences (driver)

Printer preferences control the device. You can change the default settings, such as media size and type, printing multiple pages on a single sheet of media (N-up printing), resolution, and watermarks. You can access the printer preferences in the following ways:

- Through the software application that you are using to print. This only changes the settings for the current software application.
- Through the Windows operating system. This changes the default settings for all future print jobs.



Printer properties online Help

The printer properties online Help, also called the driver Help, includes specific information about the functions in the printer properties. This online Help guides you through the process of changing your printer default settings. For some drivers, online Help provides context-sensitive help that describes the options for the driver feature you are currently using.

To access the printer properties online Help

- 1. From the software application, click **File**, and then click **Print**.
- 2. Click **Properties**, and then click **Help**.

Print-setting priorities

There are two ways to change print settings for this device: in the software application or in the printer driver. Changes made in the software application override settings changed in the printer driver. Within a software application, changes made in the **Page Setup** dialog box override changes made in the **Print** dialog box.

If more than one method is available to change a particular print setting, use the method that has the highest priority.

Additional Windows driver types (HP LaserJet P1500 network models)

The HP LaserJet P1500 network models also feature an available PCL 5e printer driver. Use the Microsoft Add Printer feature to install the driver.

Install the Windows printer software

To install printer software for Windows Server 2003 (print driver only), Windows 98SE, and Me (driver only)

See the operating system documentation for instructions on installing a printer driver.

To install printer software for Windows 2000 and XP

Insert the software CD that came with the device into the computer CD-ROM drive. Follow the onscreen installation instructions to install the printer software.

NOTE: If the Welcome screen does not open, click **Start** on the Windows taskbar, click **Run**, type z: \setup (where z is your CD drive letter), and click **OK**.

Change printer-driver settings for Windows

To change the settings for all print jobs until the software program is closed		To change the default settings for all print jobs		To change the device configuration settings		
	On the File menu in the software program, click Print . Select the driver, and then click Properties or Preferences .	1.	Click Start, click Settings, and then click Printers (Windows 2000) or Printers and Faxes (Windows XP Professional and Server 2003) or Printers and Other Hardware Devices (Windows XP Home).		Click Start, click Settings, and then click Printers (Windows 2000) or Printers and Faxes (Windows XP Professional and Server 2003) or Printers and Other Hardware Devices (Windows XP Home).	
mo	st common.		For Windows Vista, click Start , click Control Panel , and then click Printer .		For Windows Vista, click Start , click Control Panel , and then click Printer .	
		2.	Right-click the driver icon, and then select Printing Preferences .	2.	Right-click the driver icon, and then select Properties .	
				3.	Click the Device Settings tab.	

Embedded Web server (HP LaserJet P1500 network models only)

You can use the embedded Web server to configure the device, view status information, and obtain problem-solving information.

See Embedded Web server (HP LaserJet P1500 network models only) on page 43 for more information.

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Software for Macintosh

Macintosh printer drivers

A printer driver is the software component that provides access to printer features and provides the means for the computer to communicate with the device.

Install the Macintosh printer driver

This section explains how to install the printing system software for Macintosh OS X V10.2.8, V10.3.9, and V10.4.3.

- 1. Insert the software CD into the CD-ROM drive and run the installer.
- 2. Double-click the CD icon on the desktop
- 3. Double-click the **Installer** icon.
- 4. Follow the instructions on the computer screen.
- 5. Print a test page or a page from any software program to make sure that the software is correctly installed.

If installation fails, reinstall the software. If this fails, see the Known Issues and Workarounds section of the Install Notes. The Install Notes are located on the software CD or at the support Web site (see HP Customer Care on page 88 for the Web address).

Configure the Macintosh printer driver

Use one of the following methods to open the Macintosh printer driver from your computer:

Operating System	To change the settings for all print jobs until the software program is closed			change the print job default tings (for example, turn on nt on Both Sides by default)	To change the configuration settings (for example, add a tray or enable/disable manual two-sided printing)		
Macintosh OS X V10.2.8, V10.3.9	On the File menu, click Print.		1.	On the File menu, click Print .	1.	Open Printer Setup Utility by selecting the hard drive, clicking Applications, clicking Utilities, then double-clicking Printer Setup Utility.	
	2.	Change the settings that you want on the various pop-up menus.	2.	Change the settings that you want on the various pop-up menus.			
			3.	On the Presets pop-up menu, click Save as and	2.	Click the print queue.	
				type a name for the preset.	3.	On the Printers menu, click Show Info .	
			Pre sett sav	ese settings are saved in the esets menu. To use the new tings, you must select the ed preset option every time topen a program and print.		Olow Illic.	
Macintosh OS X V10.4.3	1.	On the File menu, click Print.	1.	On the File menu, click Print .	1.	Open Printer Setup Utility by selecting the hard drive,	
	2.	Change the settings that you want on the various pop-up menus.	2.	Change the settings that you want on the various pop-up menus.		clicking Applications , clicking Utilities , then double-clicking Printer Setup Utility .	
					2.	Click the print queue.	
					3.	On the Printers menu, click	

Operating System	To change the settings for all print jobs until the software program is closed	To change the print job default settings (for example, turn on Print on Both Sides by default)		To change the configuration settings (for example, add a tray or enable/disable manual two-sided printing)
		 4. 	On the Presets pop-up 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.	Show Info.

ENWW Software for Macintosh 19

4 Supported paper and other media

- Understand media use
- Supported media sizes
- Select print media
- Special media for printing

ENWW 21

Understand media use

The product can use a variety of paper and other print media in accordance with the guidelines in this user guide. Media that does not meet these guidelines might cause the following problems:

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

For best results, use only HP brand paper and print media. Hewlett-Packard Company cannot recommend the use of other brands. Because they are not HP products, HP cannot influence or control their quality.

It is possible for media 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 humidity levels, or other variables over which Hewlett-Packard has no control.

Before you purchase a large quantity of media, test the media and make sure that it meets the requirements specified in this user guide and in *HP LaserJet printer family media guide*. The guidelines can be downloaded from http://www.hp.com/support/ljpaperguide/, or see HP Customer Care on page 88 for more information about ordering the guidelines.

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

Supported media sizes

Your product supports a number of paper sizes and adapt to various media. You can change the paper size on the **Paper** tab in the printer driver, or in the embedded Web server (HP LaserJet P1500 network models only).

Size is	Dimensions	
Letter (default in US, Canada, Mexico and Latin America)	216 x 279 mm (8.5 x 11 inches)	
Legal	216 x 1194 mm (8.5 x 14 inches)	
Executive	184 x 267 mm (7.24 x 10.51 inches)	
A4 (worldwide default outside of U.S., Canada, Mexico, and Latin America)	210 x 297 mm (8.27 x 11.69 inches)	
A5	148 x 210 mm (5.83 x 8.27 inches)	
A6	105 x 148 mm (4.13 x 5.83 inches)	
B5 (JIS)	182 x 257 mm (7.17 x 10.12 inches)	
Envelope #10	105 x 241 mm (4.13 x 9.49 inches)	
Envelope DL	110 x 220 mm (4.33 x 8.66 inches)	
Envelope C5	162 x 229 mm (6.93 x 9.84 inches)	
Envelope B5	176 x 250 mm (6.93 x 9.84 inches)	
Envelope Monarch	98 x 191 mm (3.86 x 7.52 inches)	
16K	197 x 273 mm (7.75 x 10.75 inches)	
	195 x 270 mm (7.68 x 10.63 inches)	
	184 x 260 mm (7.24 x 10.24 inches)	
8.5 x 13	216 x 330 mm (8.5 x 13 inches)	
B5 (ISO)	176 x 250 mm (6.93 x 9.84 inches)	
Post Card	100 x 148 mm (3.94 x 5.83 inches)	
Double Post Card	148 x 200 mm (5.83 x 7.87 inches)	

ENWW Supported media sizes 23

Select print media

Consider these factors when choosing print media.

Media that can damage the device

Do not use media that can damage the device.

- Do not use media with staples attached.
- Do not use transparencies, labels, photo, or glossy paper designed for inkjet printers or other lowtemperature printers. Use only media that is specified for use with HP LaserJet printers.
- Do not use paper that is embossed or coated and is not designed to withstand the fuser temperature.
- Do not use letterhead paper that was created by using low temperature dyes or thermography. Preprinted forms or letterhead must use inks that are designed to withstand the fuser temperature.
- Do not use any media that produces hazardous emissions, or that melts, offsets, or discolors when exposed to the fuser temperature.

To order HP LaserJet printing supplies, go to http://www.hp.com/go/ljsupplies/ in the U.S. or to http://www.hp.com/ghp/buyonline.html/ worldwide.

Media to avoid

Using media that is outside the device specifications causes a decrease in print quality and an increase in jams.

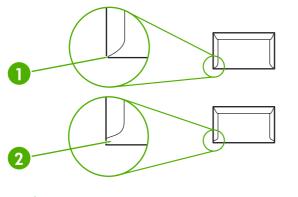
- Do not use paper that is too rough. Use paper that is tested at less than 250 Sheffield smoothness.
- Do not use paper that contains cutouts or perforations, other than standard three-hole punched paper.
- Do not use multipart or multipage forms.
- To ensure even toner coverage, do not use paper that includes a watermark if you are printing solid patterns.

Special media for printing

This device supports printing on special media.

Envelopes

- Store envelopes flat.
- Envelopes should not be wrinkled, nicked, stuck together, or otherwise damaged. Do not use
 envelopes that have clasps, snaps, windows, coated linings, self-stick adhesives, or other synthetic
 materials.
- Only use envelopes where the seam extends all the way to the corner of the envelope as indicated
 in the following illustration.



- 1 Acceptable2 Unacceptable
- Envelopes that contain a peel-off adhesive strip or more than one flap that folds over to seal must use adhesives that are compatible with the heat and pressure in the fuser.

△ CAUTION: Failure to follow these guidelines can result in jams.

Labels

When selecting labels, consider the quality of each component:

- Only use labels that have no exposed backing between them.
- Labels must lie flat.
- Do not use labels that have wrinkles or bubbles, or are damaged.
- Use only full sheets of labels. This device does not support printing on partial sheets of labels.

For instructions on loading labels, see Print Types and tray capacity on page 31

Transparencies

- For tray, media-orientation, and driver settings, see Print Types and tray capacity on page 31.
- Place transparencies on a flat surface after removing them from the device.

△ CAUTION: To avoid device damage, only use transparencies that are recommended for use in laser printers. Transparent print media not designed for LaserJet printing melts in the fuser, and damages the fuser.

Letterhead or preprinted forms

- Avoid using raised or embossed letterhead.
- Use only non-flammable inks that do not damage the print rollers.

Heavy paper

• Do not use paper that is heavier than the recommended media specification for this device.

5 Print tasks

- Print-quality settings
- Load media
- Print on special media
- Canceling a print job

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Print-quality settings

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Print-quality settings affect print resolution and toner usage.

Use the following procedure to change print-quality settings:

- 1. Open the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP). See <u>Printer preferences</u> (driver) on page 16 for instructions.
- On the Paper/Quality tab or the Finishing tab (the Paper Type/Quality tab in some Mac drivers), select the print-quality setting you want to use. The following options are available:
 - FastRes 600 (HP LaserJet P1000 Series only): This setting provides 600 dpi effective output quality.
 - **600 dpi (HP LaserJet P1500 Series only)**: This setting provides 600 x 600 dpi output with Resolution Enhancement technology (REt) for improved text.
 - FastRes 1200: This setting provides 1200 dpi effective output quality.
 - EconoMode: Text is printed using less toner. This setting is useful when you are printing drafts. You can turn on this option independently of other print-quality settings.
- NOTE: Not all printer features are available in all drivers or operating systems. See the printer Properties (driver) online Help for information about availability of features for that driver.

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Load media

△ CAUTION: If you try to print on media that is wrinkled, folded, or damaged in any way, a jam might occur. See Clearing jams on page 66 for more information.

Priority feed slot (HP LaserJet P1006/P1009/P1500 Series only)

The priority feed slot holds up to ten sheets of media or one envelope, one transparency, or one sheet of labels or cardstock. Load media with the top forward and the side to be printed on facing up. To prevent jams and skewing, always adjust the side media guides before feeding the media.

Main input tray

The main input tray of the HP LaserJet P1000 Series holds up to 150 pages of 75 g/m² (20 lb) paper, or fewer pages of heavier media (a 15 mm (0.6 inches) stack height or less).

The main input tray of the HP LaserJet P1500 Series holds 250 pages of 75 g/m² (20 lb) paper, or fewer pages of heavier media (a 25 mm (0.9 inch) stack height or less).

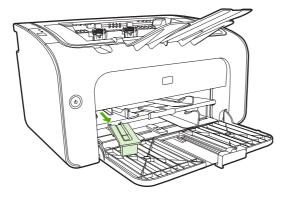
Load media with the top forward and the side to be printed on facing up. To prevent jams and skewing, always adjust the side and front media guides.

NOTE: When you add new media, make sure that you remove all of the media from the input tray and straighten the entire stack. This helps prevent multiple sheets of media from feeding through the device at one time, reducing media jams.

Tray adjustment for short media (HP LaserJet P1002/P1003/P1004/P1005 only)

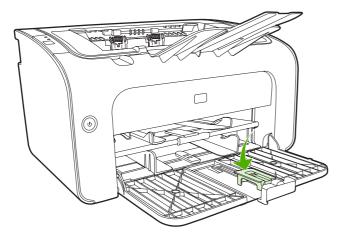
If you are printing on media shorter than 185 mm (7.28 in), use the Short Media Extender to adjust your input tray.

 Remove the Short Media Extender tool from the storage slot on the left side of the media input area.

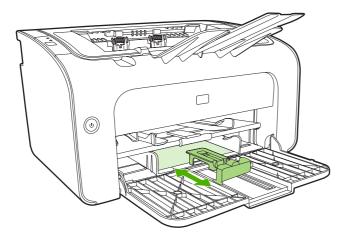


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2. Attach the tool to the adjustable media guide.



3. Insert the media into the device until it stops and then slide the adjustable media guide, with the tool attached to support the media.



4. When finished printing with short media, remove the Short Media Extender tool and place it back in the storage slot.

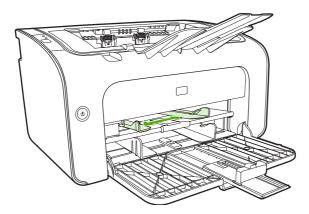
Chapter 5 Print tasks ENWW

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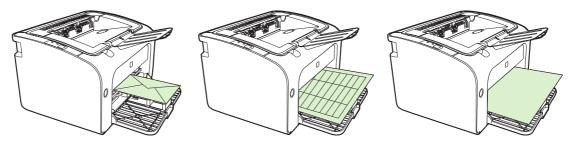
Print on special media

Only use media that is recommended for laser printers. See Supported media sizes on page 23.

- NOTE: On the HP LaserJet P1006/P1009/P1500 Series, use the priority feed slot for printing one envelope or other special media. Use the main input tray for printing multiple envelopes or other special media.
 - 1. Before loading the media, slide the media guides outward to slightly wider than the media.



2. Place the media in the tray and adjust the media guides to the correct width.



Change print driver to match your media size and type

When you change the size and type settings to match your media, the device adjusts to optimize your print output. You can change the paper size or type settings on the **Paper/Quality** tab in the printer **Properties** or **Preferences**. See <u>Supported media sizes on page 23</u>.

Print Types and tray capacity

The printer driver provides a number of print types that the device uses to adapt to various media.

NOTE: When using the CARDSTOCK, ENVELOPE, LABEL, HEAVY, BOND, ARCHIVE, A5, A6, B5, EXECUTIVE and ROUGH modes, the device pauses between pages and the number of pages per minute decreases.

Table 5-1 Driver print types Type is Paper size **HP LaserJet P1000 HP LaserJet P1500 Tray orientation** Series main tray max Series main tray max load load Plain 75 to 104 g/m² (20 to 27 150 sheets 250 sheets Top forward and side to be printed on face up. Letterhead

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Table 5-1 Driver print types (continued)

Type is	Paper size	HP LaserJet P1000 Series main tray max load	HP LaserJet P1500 Series main tray max load	Tray orientation
Color				
Preprinted				
Prepunched				
Recycled				
Archive				
Light	60 to 75 g/m ² (16 to 20 lb)	150 sheets	250 sheets	Side to be printed on face up
Heavy	90 to 105 g/m ² (24 to 28 lb)	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Cardstock	135 to 176 g/m ² (36 to 47 lb)	Up to15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Transparency	4 mil (0.1 inch) monochrome transparencies	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Envelope	Envelope sizes #10, DL, C5, B5, Monarch	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Face up, short edge leading, flap on left side
Label	Standard HP LaserJet labels	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Bond	75 to 104 g/m² (20 to 27 lb)	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Rough	75 to 104 g/m² (20 to 27 lb)	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up
Vellum	60 to 120 g/m ² (16 to 32 lb)	Up to 15 mm (0.6 inch) stack height	Up to 25 m (0.9 inch) stack height	Side to be printed on face up

Printing on both sides of the paper (manual two-sided printing)

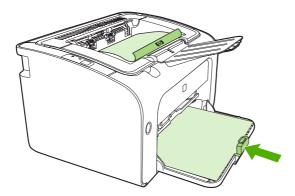
To print on both sides of the paper (manual two-sided printing), you must run the paper through the device twice.



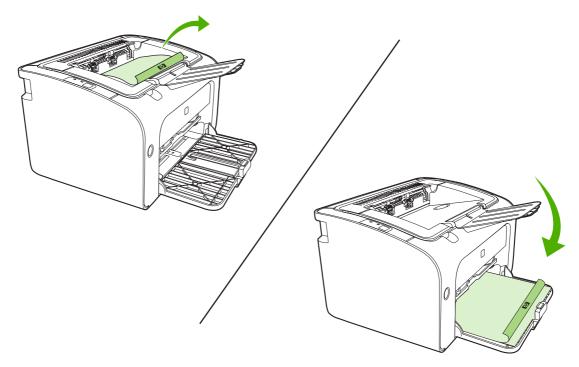
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- NOTE: Manual two-sided printing can cause the device to become dirty, reducing print quality. See Clean the device on page 47 for instructions if the device becomes dirty.
 - 1. Access the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP). See <u>Printer preferences</u> (driver) on page 16 for instructions.
 - 2. On the **Finishing** tab, select **Print On Both Sides (Manually)**. Select the appropriate binding option, and click **OK**.
 - 3. Print the document.
 - NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.



4. After side one has printed, without changing the orientation, remove the paper stack from the output bin. Do not discard blank sheets. Maintaining the same orientation, insert the paper stack into the priority feed tray or the main tray, printed side down.

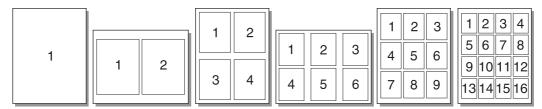


5. Click **Continue** to print side two. On the HP LaserJet P1500 Series, press Go on the device control panel after clicking **Continue**.

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Printing multiple pages on a single sheet of paper (N-up printing)

You can select the number of pages that you want to print on a single sheet of paper. If you print more than one page per sheet, each page appears smaller. The pages are arranged on the sheet in the order that they would otherwise be printed.



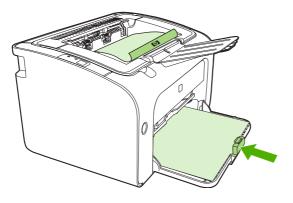
- 1. From your software application, access the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP).
- 2. On the **Finishing** tab, select the correct number of pages per side.
 - NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- **3.** (Optional steps) To include page borders, select the check box. To specify the order of pages printed on the sheet, select the order from the drop-down menu.
- Print the document.

Printing booklets

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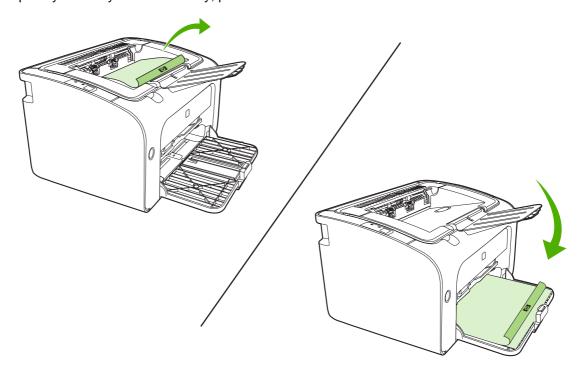
You can print booklets on letter or A4 paper.

- Load the paper in the main input tray.
- 2. Access the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP).
- On the Finishing tab, select the option to Print On Both Sides (Manually). Select the appropriate binding option, and click OK. Print the document.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.

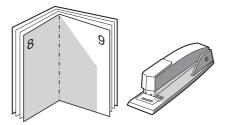


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4. After side one has printed, without changing the orientation, remove the paper stack from the output bin. Do not discard blank sheets. Maintaining the same orientation, insert the paper stack into the priority feed tray or the main tray, printed side down.



- 5. Print side two.
- 6. Fold and staple the pages.



Printing watermarks

Use the watermark option to print text "underneath" (in the background of) an existing document. For example, you might want to have large gray letters spelling out *Draft* or *Confidential* across the first page or all of the pages of a document.

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- From your software application, access the printer Properties (or Printing Preferences in Windows 2000 and XP).
- 2. On the **Effects** tab, select the watermark you want to use.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- 3. Print the document.

Printing mirror images

When printing a mirror image, the text and pictures are reversed so that they will be correct when viewed in a mirror or transferred to a printing plate.

- From your software application, access the printer Properties (or Printing Preferences in Windows 2000 and XP).
- 2. On the Paper/Quality tab, select the Mirror Printing check box.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- Print the document.

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Canceling a print job

You can cancel a print job from a software application or a print queue.

To stop the device immediately, remove the remaining paper from the device. After the device stops, use one of the following options.

- Device control panel (HP LaserJet P1006/P1009/P1500 Series only): Press Cancel.
- **Software application**: Typically, a dialog box appears briefly on your screen, allowing you to cancel the print job.
- Windows print queue: If a print job is waiting in a print queue (computer memory) or print spooler, delete the job there. Click Start, Settings, and Printers or Printers and Faxes. Double-click the printer icon to open the window, select your print job, and click Delete or Cancel.

If the status lights on the control panel continue to blink after you cancel a print job, the computer is still sending the job to the device. Either delete the job from the print queue or wait until the computer finishes sending data. The device will return to the Ready state.

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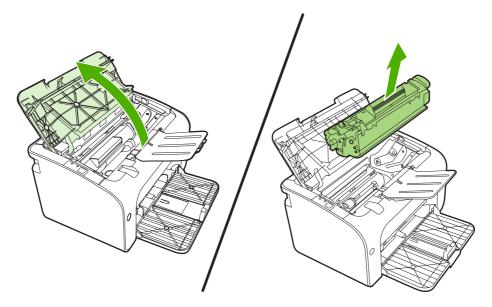
6 Managing and maintenance

- Replace the print cartridge
- Printer information pages
- Embedded Web server (HP LaserJet P1500 network models only)
- Manage supplies
- Clean the device
- Change the pickup roller
- Clean the pickup roller
- Change the printer separation pad
- EconoMode

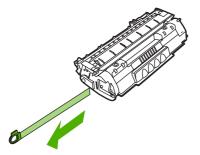
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Replace the print cartridge

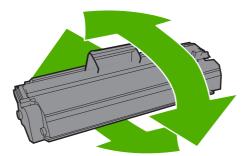
 Open the print-cartridge door, and remove the old print cartridge. See the recycling information inside the print-cartridge box. To prevent damage to the print cartridge, minimize its exposure to direct light by covering it with a sheet of paper.



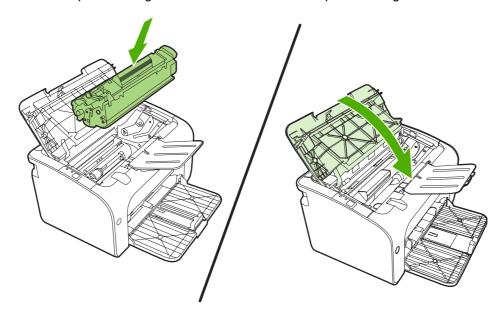
- 2. Remove the new print cartridge from the packaging.
- △ CAUTION: To prevent damage to the print cartridge, hold the print cartridge at each end.
- Pull the tab until all the tape is removed from the cartridge. Put the tab in the print-cartridge box to return for recycling.



4. Gently rock the toner cartridge from front to back to distribute the toner evenly inside the cartridge.



5. Insert the print cartridge in the device and close the print-cartridge door.



△ CAUTION: If toner gets on your clothing, wipe it off with a dry cloth and wash the clothing in cold water. *Hot water sets toner into the fabric*.

NOTE: When toner is low, faded or light areas appear on the printed page. You might be able to temporarily improve print quality by redistributing the toner. To redistribute the toner, remove the cartridge from the device and gently rock it from front to back.

Printer information pages

Demo page

The Demo page contains examples of text and graphics. To print the Demo page, select it from the **Print Information Pages** drop-down on the **Services** tab in **Printer Preferences**.

Configuration page

The Configuration page lists current settings and properties of the device. It also contains a status log report. To print a configuration page, do one of the following:

- Press the Go button when the device Ready light is on and no other jobs are printing (HP LaserJet P1500 Series only).
- Select it from the Print Information Pages drop-down on the Services tab in Printer Preferences.

Supplies Status page

You can print the Supplies Status page by selecting it from the **Print Information Pages** drop-down on the **Services** tab in **Printer Preferences**. The Supplies Status page provides the following information:

- The estimated percentage of toner remaining in the print cartridge
- The number of pages and print jobs that have been processed
- Ordering and recycling information

Embedded Web server (HP LaserJet P1500 network models only)

Use the embedded Web server (EWS) to view device and network status and to manage printing functions from your computer.

- View device status information
- Determine the remaining life on all supplies and order new ones
- View and change the device default configuration settings
- View and change network configuration

You do not need to install any software on the computer. You only need to use one of these supported Web browsers:

- Internet Explorer 6.0 (and later)
- Netscape Navigator 7.0 (and later)
- Firefox 1.0 (and later)
- Mozilla 1.6 (and later)
- Opera 7.0 (and later)
- Safari 1.2 (and later)
- Konqueror 3.2 (and later)

The embedded Web server works when the device is connected to a TCP/IP-based network. The embedded Web server does not support IPX-based connections or direct USB connections.

NOTE: You do not have to have Internet access to open and use the embedded Web server. However, if you click a link on any of the pages, you must have Internet access in order to go to the site associated with the link.

Open the embedded Web server

To open the embedded Web server, type the IP address or hostname of the device in the address field of a supported Web browser. To find the IP address, print a Configuration page at the device by pressing the Go button when the Ready light is on and no other jobs are printing.

- NOTE: The HP LaserJet P1500 network models only support IPv6. For more information go to http://www.hp.com/support/ljp1500.
- ☆ TIP: After you open the URL, bookmark it so that you can return to it quickly in the future.

The embedded Web server has three tabs that contain settings and information about the device: the **Information** tab, the **Settings** tab, and the **Networking** tab.

Information tab

The Information pages group consists of the following pages:

- Device Status displays the status of the device and HP supplies.
- Device Configuration shows the information found on the Configuration page.
- Supplies Status shows the status of HP supplies and provides supplies part numbers. To order new supplies, click Order Supplies in the upper-right part of the window.
- Network Summary shows the information found on the Network Summary page.

Settings tab

Use this tab to configure the device from your computer. If this device is networked, always consult with the device administrator before changing settings on this tab.

The **Settings** tab contains the **Printing** page where you can view and change the default print job settings and PCL 5e settings.

Networking tab

Network administrators can use this tab to control network-related settings for the device when it is connected to an IP-based network.

Links

Links are located in the upper-right part of the Status pages. 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.

- Order Supplies. Click this link to connect to the Sure Supply Web site and order genuine HP supplies from HP or a reseller of your choice.
- Product Support. Connects to the product support site. You can search for help regarding general topics.

Manage supplies

For warranty information about these supplies, see Service and support on page 83.

Supplies life

HP LaserJet P1000 Series: Average yield for the replacement standard black print cartridge is 1500 pages in accordance with ISO/IEC 19752. Actual yield depends on specific use.

HP LaserJet P1500 Series: Average yield for the replacement standard black print cartridge is 2000 pages in accordance with ISO/IEC 19752. Actual yield depends on specific use.

Check and order supplies

Check the supplies status from the control panel by printing a Supplies Status page from the device software. Hewlett-Packard recommends placing an order for a replacement print cartridge when the Low message for a print cartridge first appears. For typical use, the Order message indicates that approximately two weeks of life remain.

When using authentic HP print cartridges, you can obtain the following types of supplies information:

- Amount of cartridge remaining
- Estimated number of pages remaining
- Number of pages printed
- Other supplies information
- NOTE: When toner supply levels are low, an alert appears on the computer screen during printing.

If the supplies levels are low, reorder supplies through the local HP dealer, by telephone, or online. See Order supplies and accessories on page 82 for part numbers. See http://www.hp.com/go/ljsupplies to order online.

Supplies storage guidelines

Follow these guidelines for storing print cartridges:

- Do not remove the print cartridge from its package until it is ready for use.
- To prevent damage, do not expose the print cartridge to light for more than a few minutes.
- See <u>Table C-5 Environmental specifications on page 94</u> for operating and storage temperature ranges.
- Store the supply in a horizontal position.
- Store the supply in a dark, dry location away from heat and magnetic sources.

Replace and recycle supplies

When installing a new HP print cartridge, follow the instructions included on the print-cartridge box, or see the *Getting Started Guide*.

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Recycling supplies:

- Place the used supply in the box in which the new supply arrived
- Complete the enclosed return label
- Send the used supply to HP for recycling

For complete information, see the recycling guide included with each new HP supply item. See <u>Return</u> and <u>recycling instructions on page 103</u> for more information about HP's recycling program.

Redistribute toner

If faded or light areas appear on the printed page, you might be able to temporarily improve print quality by redistributing the toner.

- 1. Remove the print cartridge from the printer.
- 2. To redistribute the toner, gently rock the print cartridge from front to back.
 - △ **CAUTION:** If toner gets on your clothing, wipe it off with a dry cloth and wash the clothing in cold water. *Hot water sets toner into the fabric.*
- 3. Reinsert the print cartridge into the printer, and close the print cartridge door. If the print is still light or unacceptable, install a new print cartridge.

HP policy on non-HP supplies

Hewlett-Packard Company cannot recommend the use of non-HP supplies, either new or remanufactured. When they are not HP products, HP cannot influence the product design or quality. Service or repair required as a result of using a non-HP supply is *not* covered under the device warranty.

Reset the device for non-HP supplies

When a non-HP print cartridge is installed, a message appears on your PC. To print, press OK the first time this non-HP supply is installed.

△ CAUTION: Because the status gauges do not indicate when a non-HP supply is low or empty, the device might not stop printing, device damage can occur if the device prints with an empty print cartridge.

HP anti-counterfeit supplies Web site

Visit the HP anti-counterfeit supplies Web site at http://www.hp.com/go/anticounterfeit if the supplies status gauges indicate that the print cartridge is not an HP print cartridge and you think that it is genuine.

Clean the device

Clean the outside of the device with a clean, damp cloth when necessary.

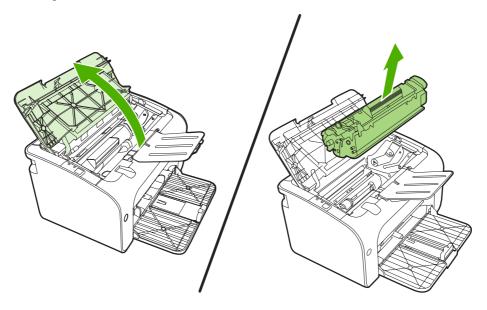
△ CAUTION: Do not use ammonia-based cleaners on or around the device.

During the printing process, paper, toner, and dust particles can accumulate inside the device. Over time, this buildup can cause print quality problems, such as toner specks or smearing, and paper jams. To correct and prevent these types of problems, clean the print cartridge area and the device media path.

Clean the print-cartridge area

You do not need to clean the print-cartridge area often. However, cleaning this area can improve the quality of the printed sheets.

- ▲ WARNING! Before cleaning the device, turn the device off by unplugging the power cord, and wait for the device to cool.
 - 1. Unplug the power cord from the device. Open the print-cartridge door, and remove the print cartridge.

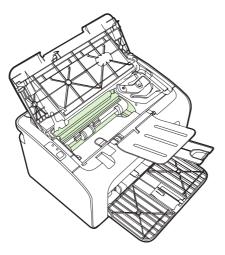


△ CAUTION: Do not touch the black-sponge transfer roller inside the device. Doing so can damage the device.

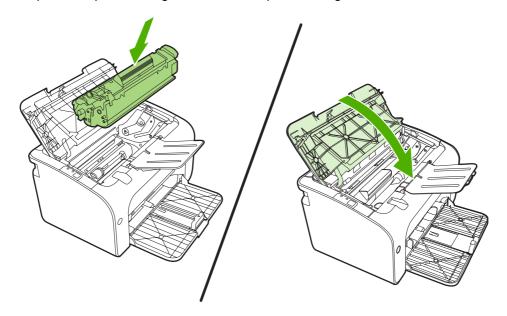
CAUTION: To prevent damage, do not expose the print cartridge to light. Cover it with a piece of paper.

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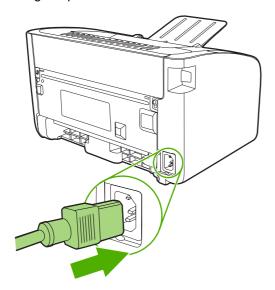
2. With a dry, lint-free cloth, wipe any residue from the paper-path area and the print-cartridge cavity.



3. Replace the print cartridge, and close the print-cartridge door.



4. Plug the power cord into the device.



Clean the device paper path

If you are experiencing toner specks or dots on the printouts, clean the paper path. This process uses a transparency to remove dust and toner from the paper path. Do not use bond or rough paper.



- NOTE: For best results use a sheet of transparency. If you do not have any transparencies, you can use copier-grade media (70 to 90 g/m² (18 to 24 lb.)) that has a smooth surface.
 - 1. Make sure that the device is idle and the Ready light is on.
 - 2. Load the media in the input tray.
 - 3. Print a cleaning page. Access the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP).
- NOTE: The cleaning process takes approximately 2 minutes. The cleaning page will stop periodically during the cleaning process. Do not turn the device off until the cleaning process has finished. You might need to repeat the cleaning process several times to thoroughly clean the device.

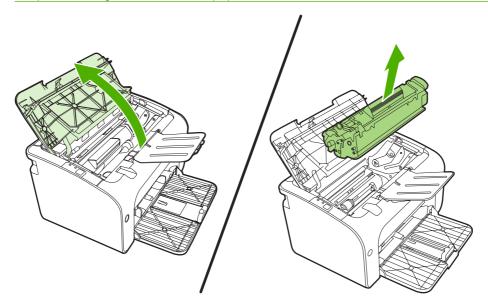
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Change the pickup roller

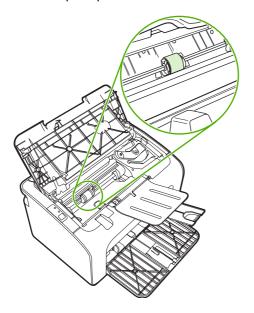
Normal use with good media causes wear. The use of poor media might require more frequent replacement of the pickup roller.

If the device regularly mispicks (no media feeds through), you might need to change or clean the pickup roller. See Clean the pickup roller on page 53 to order a new pickup roller.

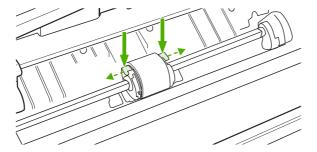
- △ CAUTION: Failure to complete this procedure might damage the device.
 - Open the print-cartridge door, and remove the old print cartridge. See the recycling information inside the print-cartridge box.
 - △ **CAUTION:** To prevent damage to the print cartridge, minimize its exposure to direct light. Cover the print cartridge with a sheet of paper.



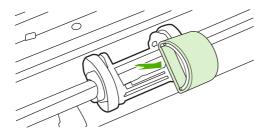
2. Find the pickup roller.



3. Release the small, white tabs on each side of the pickup roller, and rotate the pickup roller toward the front.



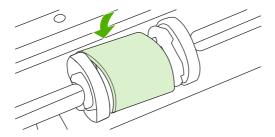
4. Gently pull the pickup roller up and out.



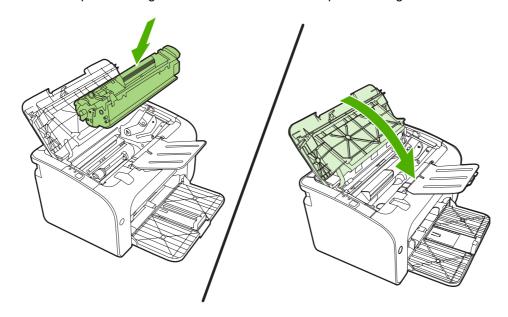
5. Position the new pickup roller in the slot. The circular and rectangular slots on each side prevents you from installing the roller incorrectly.



6. Rotate the top of the new pickup roller away from you until both sides snap into place.



7. Insert the print cartridge in the device and close the print-cartridge door.



Clean the pickup roller

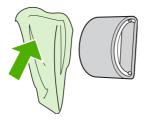
If you want to clean the pickup roller before deciding to replace it, follow these instructions:

- 1. Unplug the power cord from the device and remove the pickup roller as described in steps 1 through 5 of Change the pickup roller on page 50
- 2. Dab a lint-free cloth in isopropyl alcohol, and scrub the roller.

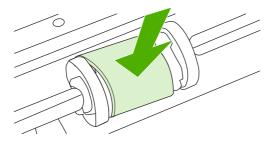




- ⚠ WARNING! Alcohol is flammable. Keep the alcohol and cloth away from an open flame. Before you close the device and plug in the power cord, allow the alcohol to dry completely.
- 3. Using a dry, lint-free cloth, wipe the pickup roller to remove loosened dirt.



4. Allow the pickup roller to dry completely before you reinstall it in the device.



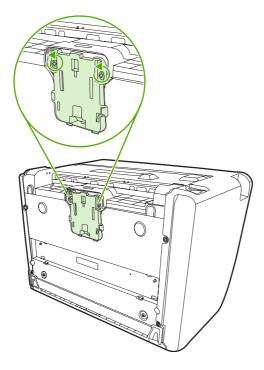
- 5. Plug the power cord into the device.
- NOTE: In certain areas of California, air pollution control regulations restrict the use of liquid Isopropyl Alcohol (IPA) as a cleaning agent. In those areas of California, please disregard the previous recommendations and use a dry, lint-free cloth. The cloth may be moistened with water if desired.

Change the printer separation pad

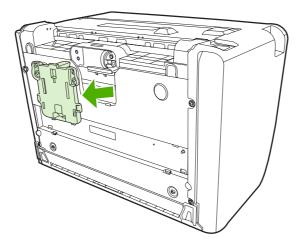
Normal use with good media causes wear. The use of poor media might require more frequent replacement of the separation pad.

If the device regularly pulls multiple sheets of media at a time, you might need to change the separation pad.

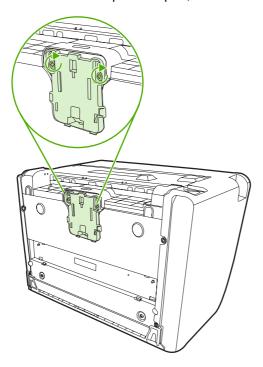
- NOTE: Before you change the separation pad, clean the pickup roller. See Clean the pickup roller on page 53.
- ▲ WARNING! Before changing the printer separation pad, turn the device off by unplugging the power cord, and wait for the device to cool.
 - 1. Unplug the device from the wall outlet.
 - 2. Remove paper and close main input tray. Set device on its front.
 - 3. At the bottom of the device, unscrew the two screws holding the separation pad in place.



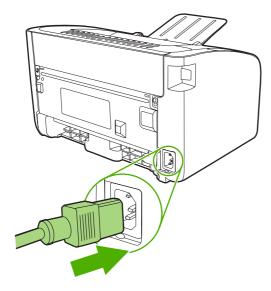
4. Remove the separation pad.



5. Insert the new separation pad, and screw it into place.



6. Plug the device into the wall outlet, and turn on the device.



EconoMode

With EconoMode, the device uses less toner per page. Selecting this option can extend the life of the print cartridge and reduce your cost per page. However, it also reduces print quality. The printed image is lighter, but it is adequate for printing drafts or proofs.

HP does not recommend the 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 must install a new print cartridge even if toner remains in the cartridge.

- **1.** To use EconoMode, open the printer **Properties** (or **Printing Preferences** in Windows 2000 and XP).
- On the Paper/Quality tab or the Finishing tab (the Paper Type/Quality tab for some Mac drivers), select the EconoMode check box.
- NOTE: Not all printer features are available in all drivers or operating systems. See the printer Properties (driver) online Help for information about availability of features for that driver.

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7 Problem solving

- Problem-solving checklist
- Status-light patterns
- Clearing jams
- Improve print quality
- Media problem-solving
- Printed page is different from what appeared on screen
- Printer software problems
- Common Macintosh problems
- Network-setup problem-solving

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Problem-solving checklist

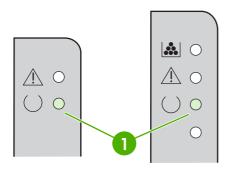
Step 1: Is the device set up correctly?

- Is the device plugged into a power outlet that is known to work?
- Is the on/off switch in the on position?
- Is the print cartridge properly installed? See Replace the print cartridge on page 40.
- Is paper properly loaded in the input tray? See Load media on page 29.

Yes	If you answered yes to the questions above, go to Step 2: Is the Ready light on? on page 60
No	If the device will not turn on, Contact HP support on page 62.

Step 2: Is the Ready light on?

Verify that the Ready light (1) is illuminated on the control panel.



Yes	Go to Step 3: Can you print a configuration page? on page 60
No	If the control panel lights do not look like the picture above, see Status-light patterns on page 63.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 62.

Step 3: Can you print a configuration page?

To print a configuration page, do one of the following:

- Press the Go button when the device Ready light is on and no other jobs are printing (HP LaserJet P1500 Series only).
- Select it from the Print Information Pages drop-down on the Services tab in Printer Preferences.

Yes	If the configuration page printed, go to Step 4: Is the print quality acceptable? on page 61
No	If no paper came out, see Media problem-solving on page 73.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 62.

Step 4: Is the print quality acceptable?

Yes	If the print quality is acceptable, go to Step 5: Is the device communicating with the computer? on page 61
No	If the print quality is poor, see <u>Improve print quality</u> on page 69.
	Verify that the print settings are correct for the media you are using. See <u>Supported paper and other media on page 21</u> for information on adjusting the settings for various types of media.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 62.

Step 5: Is the device communicating with the computer?

Try printing a document from a software application.

Yes	If the document prints, go to Step 6: Does the printed page look like you expected? on page 61
No	If the document does not print, see Printer software problems on page 76.
	If you are using a Macintosh computer, see Common Macintosh problems on page 77.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 62.

Step 6: Does the printed page look like you expected?

Yes	The problem should be resolved. If it is not resolved, Printed page is different from what appeared on screen on page 74.
No	If you are unable to resolve the problem, Contact HP support on page 62.

Contact HP support

- In the United States, see http://www.hp.com/support/ljp1000 for the HP LaserJet P1000 Series or http://www.hp.com/support/ljp1500 for the HP LaserJet P1500 Series.
- In other locations, see http://www.hp.com/.

Status-light patterns

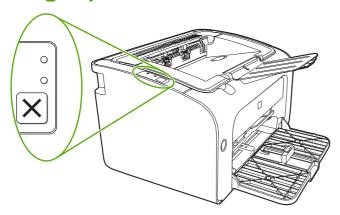


Table 7-1 Status-light legend

0	Symbol for "light off"
0	Symbol for "light on"
<u> </u>	Symbol for "light blinking"

HP LaserJet P1000 Series light status	HP LaserJet P1500 Series light status	State of the device	Action
		Ready	To print a Configuration page press and release the Go
<u> </u>		The device is ready with no job activity.	button (HP LaserJet P1500 network models only).
	0		
		Processing Data	To cancel the current job, press the Cancel button
\triangle \circ		The device is processing or receiving data.	(HP LaserJet P1006/P1009/ P1500 Series only).
	\triangle \bigcirc		
	0		

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Table 7-2 Control-panel light messages (continued)

HP LaserJet P1000 Series HP LaserJet P1500 Series State of the device **Action** light status light status Manual Feed or Continuable To recover from the error and print the available data, press Error the Go button (HP LaserJet This state occurs in the P1500 Series only). following circumstances: If the recovery is successful, Manual feed the device continues to the Processing Data state and General continuable completes the job. error If the recovery is unsuccessful, the device continues to the Continuable Error state. Try removing any media from the media path and cycling the device power. Attention Close the print-cartridge door, remove the paper jam, install the cartridge, or add paper. **HP LaserJet P1000** Series: Print-cartridge door is open Paper jam No cartridge installed Paper out **HP LaserJet P1500** Series: Print-cartridge door is open Paper jam Paper out **Fatal Error** Turn off the device, wait 10 seconds, and turn on The device has encountered a the device. non-recoverable error. If you cannot resolve the problem, see **HP Customer Care** on page 88.

0

Table 7-2 Control-panel light messages (continued)

Action HP LaserJet P1000 Series HP LaserJet P1500 Series State of the device light status light status **Toner Low** Order a new print cartridge and have it ready. See Order The Go, Ready, and Attention supplies and accessories lights act independently of the on page 82. Toner Low state (HP LaserJet P1500 Series only). **Toner Missing** Reinsert the print cartridge in the device. The print cartridge has been removed from the device (HP LaserJet P1500 Series only).

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Clearing jams

Occasionally, media becomes jammed during a print job. You are notified through the control panel lights.

The following are some of the causes of jams:

- The input trays are loaded incorrectly or are too full.
- NOTE: When you add new media, always remove all of the media from the input tray and straighten the entire stack. This helps prevent multiple feeds and reduces media jams.
- The media does not meet HP specifications.
- The device might need to be cleaned to remove paper dust and other particles from the paper path.

Loose toner might remain in the device after a media jam. This toner clears up after a few sheets print.

△ CAUTION: If you get any toner on your clothes, wash them in cold water. *Hot water will permanently set the toner into the fabric.*

Typical media jam locations

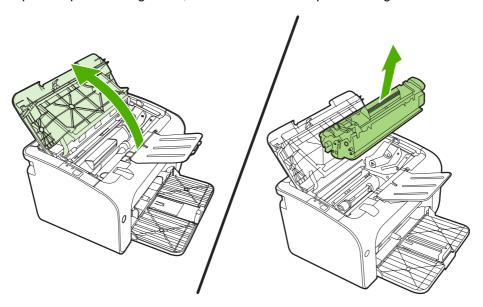
- Print cartridge area: See Removing a jammed page on page 66.
- Input tray areas: If the page is still sticking out of the input tray, gently try to remove it from the input tray without tearing the page. If you feel resistance, see Removing a jammed page
 on page 66.
- Output path: If the page is sticking out of the output bin, see Removing a jammed page on page 66.
- NOTE: Loose toner might remain in the device after a media jam. This toner clears up after a few sheets are printed.

Removing a jammed page

△ CAUTION: Media jams might result in loose toner on the page. If you get any toner on your clothes, wash them in cold water. *Hot water will permanently set the toner into the fabric.*

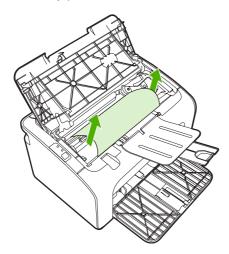
To clear a jam in the print-cartridge area

- △ CAUTION: Do not use sharp objects, such as tweezers or needle-nose pliers, to remove jams. Damage they cause is not covered by the warranty.
 - 1. Open the print-cartridge door, and then remove the print cartridge from the device.



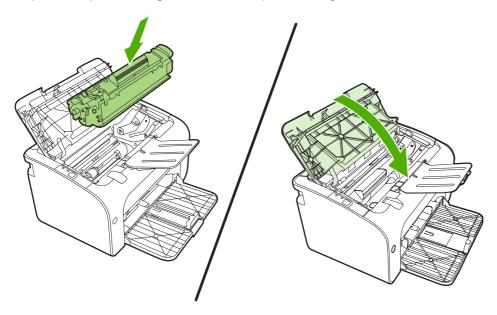
△ CAUTION: To prevent damage to the print cartridge, minimize its exposure to direct light.

2. With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the device.



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3. Replace the print cartridge, and close the print-cartridge door.



NOTE: When you add new media, remove all the media from the input tray and straighten the entire stack.

Improve print quality

This section provides information about identifying and correcting print defects.

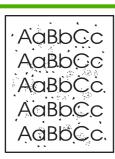
NOTE: If these steps do not correct the problem, contact an HP-authorized dealer or service representative.

Light print or faded

Aa	BbCc
Aa	BbCc

- The print cartridge is nearing end of life.
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- If the whole page is light, the print density adjustment is too light or EconoMode might be turned on. Adjust the print density, and disable EconoMode in the printer Properties.

Toner specks



- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- The device might need to be cleaned. See <u>Clean the</u> device on page 47

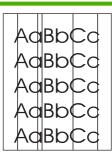
Dropouts

AaBbCc AaBbCc AaBbCc AaBbCc

- A single sheet of media might be defective. Try reprinting the job.
- The media moisture content is uneven or the media has moist spots on its surface. Try printing with new media.
- The media lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different type or brand of media.
- The print cartridge might be defective.

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Vertical lines



The photosensitive drum inside the print cartridge has probably been scratched. Install a new HP print cartridge. See Replace the print cartridge on page 40.

Gray background

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc

- Make sure that tray 1 is in place.
- Decrease the print density setting through the embedded Web server. This decreases the amount of background shading.
- Change the media to a lighter basis weight.
- Check the device environment. Very dry (low humidity) conditions can increase the amount of background shading.
- Install a new HP print cartridge. See Replace the print cartridge on page 40.

Toner smear

AaBbCc AaBbCc AaBbCc AaBbCc

- If toner smears appear on the leading edge of the media, the media guides might be dirty. Wipe the media guides with a dry, lint-free cloth
- Check the media type and quality.
- Try installing a new HP print cartridge. See Replace the print cartridge on page 40.
- The fuser temperature might be too low. In your printer driver, make sure the appropriate media type is selected.

Loose toner



- Clean the inside of the device. See <u>Clean the device</u> on page 47.
- Check the media type and quality. See <u>Supported paper</u> and other media on page 21.
- Try installing a new HP print cartridge. See Replace the print cartridge on page 40].
- In your printer driver, make sure the appropriate media type is selected.
- Plug the device directly into an AC outlet instead of into a power strip or surge protector.

Vertical repetitive defects



- The print cartridge might be damaged. If a repetitive mark occurs at the same spot on the page, install a new HP print cartridge. See Replace the print cartridge on page 40.
- The internal parts might have toner on them. If the defects occur on the back of the page, the problem will probably correct itself after a few more printed pages.
- In your printer driver, make sure the appropriate media type is selected.

Misformed characters

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc

- If characters are improperly formed, producing hollow images, the media stock might be too slick. Try a different media. See <u>Supported paper and other media</u> on page 21.
- If characters are improperly formed, producing a wavy effect, the device might need service. Print a configuration page. If the characters are improperly formed, contact an HP-authorized dealer or service representative. See Contact HP support on page 62.

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Page skew

AaBbCc
AaBbCc
AaBbCc
AaBbCc
AaBbCc

- Make sure that the media is loaded correctly and the media guides are not too tight or too loose against the media stack.
- The input bin might be too full.
- Check the media type and quality.

Curl or wave



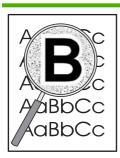
- Check the media type and quality. Both high temperature and humidity cause media to curl.
- The media might have been in the input tray too long.
 Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- The fuser temperature might be too high. In your printer driver, make sure the appropriate media type is selected. If the problem persists, select a media type that uses a lower fuser temperature, such as transparencies or light media.

Wrinkles or creases



- Make sure that media is loaded properly. See <u>Supported</u> paper and other media on page 21.
- Check the media type and quality.
- Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- For envelopes, this can be caused by air pockets inside the envelope. Remove the envelope, flatten the envelope, and try printing again.

Toner-scatter outline



- If large amounts of toner have scattered around the characters, the media might be resisting the toner. (A small amount of toner scatter is normal for laser printing.)
 Try a different media type. See <u>Supported paper and</u> other media on page 21.
- Turn over the stack of media in the tray.
- Use media designed for laser printers.

Media problem-solving

The following problems with media cause print-quality deviations, jamming, or damage to the device.

Problem	Cause	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy or too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, with 4% to 6% moisture content.
Dropouts, jamming, or curl	The paper has been stored incorrectly.	Store paper flat in its moisture-proof wrapping.
	The paper has variability from one side to the other.	Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction	Use long-grain paper.
	The paper varies from side-to-side.	Turn the paper over.
Jamming, damage to device	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.
Problems with feeding	The paper has ragged edges.	Use high-quality paper that is made for laser printers.
	The paper varies from side-to-side.	Turn the paper over.
	The paper is too moist, too rough, too heavy or too smooth, has the wrong grain direction, or is of short-grain construction	Try another kind of paper, between 100 and 250 Sheffield, 4% to 6% moisture content.
	or it is embossed or from a faulty paper lot.	Use long-grain paper.
Print is skewed (crooked).	The media guides might be incorrectly adjusted.	Remove all media from the input tray, straighten the stack, and then load the media in the input tray again. Adjust the media guides to the width and length of the media that you are using and try printing again.
More than one sheet feeds at one time.	The media tray might be overloaded.	Remove some of the media from the tray.
	The media might be wrinkled, folded, or damaged.	Verify that the media is not wrinkled, folded, or damaged. Try printing on media from a new or different package.
The device does not pull media from the media input tray.	The device might be in manual-feed mode.	Verify that the device is not in manual feed mode and print your job again.
	The pickup roller might be dirty or damaged.	Contact HP Customer Care. See <u>Contact</u> HP <u>support on page 62</u> or the support flyer that came in the box.
	The paper-length adjustment control in main tray is set at a length that is greater than the media size.	Adjust the paper-length adjustment control to the correct length.

Printed page is different from what appeared on screen

Garbled, incorrect, or incomplete text

- The wrong printer driver might have been selected when the software was installed. Make sure that the correct printer driver is selected in the printer **Properties**.
- If a specific file prints garbled text, a problem might exist with that specific file. If a specific application prints garbled text, a problem might exist with that application. Make sure that the appropriate printer driver is selected.
- A problem might exist with your software application. Try printing from another software application.
- The USB cable might be loose or defective.
 - Disconnect the cable and reconnect it at both ends.
 - Try printing a job that you know works.
 - If possible, attach the cable and device to another computer, and try printing a job that you know works.
 - Try using a new USB 2.0 cable that is 3 m (10 ft) or less in length.
 - Turn off the device and the computer. Remove the USB cable, and inspect both ends of the cable for damage. Reconnect the cable, making sure that the connections are tight. Make sure that the device is directly connected to the computer. Remove any switchboxes, tape backup drives, security keys, or any other devices that are attached between the USB port on the computer and the device. These devices can sometimes interfere with communication between the computer and the device. Restart the device and the computer.

Missing graphics or text, or blank pages

- Make sure that your file does not contain blank pages.
- The sealing tape might still be in the print cartridge. Remove the print cartridge, and pull the tab
 on the end of the cartridge until the entire length of the tape is removed. Reinstall the print cartridge.
 See Replace the print cartridge on page 40 for instructions. To check the device, print a
 configuration page. See Configuration page on page 42 for instructions on how to print a
 configuration page.
- The graphic settings in the printer **Properties** might not be correct for the type of job that you are printing. Try a different graphic setting in the printer Properties.
- Clean the device, particularly the contacts between the print cartridge and the power supply.

Page format is different than on another HP LaserJet printer

If you used an older or different HP LaserJet printer driver (printer software) to create the document, or if the printer **Properties** settings in the software are different, the page format might change when you try to print using your new printer driver or settings. To help eliminate this problem, try the following:

- Create documents and print them using the same printer driver (printer software) and printer **Properties** settings regardless of which HP LaserJet printer you use to print them.
- Change the resolution, paper size, font settings, and other settings.

Graphics quality

The graphics settings might be unsuitable for your print job. Check the graphic settings, such as resolution, in the printer **Properties** and adjust them as necessary

NOTE: You might lose some resolution when converting from one graphics format to another.

Printer software problems

Table 7-3 Printer software problems

Problem	Solution
The printer icon is not visible in the Printer folder	 Reinstall the printer software. In the Windows task bar, click Start, click Programs, click HP, click your printer, and click Uninstall. Install the printer software from the CD-ROM.
	NOTE: Close any applications that are running. To close an application that has an icon in the system tray, right-click the icon, and select Close or Disable .
	 Try plugging the USB cable into a different USB port on the PC.
An error message was displayed during the software installation	 Reinstall the printer software. In the Windows task bar, click Start, click Programs, click HP, click your printer, and click Uninstall. Install the printer software from the CD-ROM.
	NOTE: Close any applications that are running. To close an application that has an icon in the task bar, right-click the icon, and select Close or Disable .
	 Check the amount of free space on the drive where you are installing the printer software. If necessary, free up as much space as you can, and reinstall the printer software.
	 If necessary, run the Disk Defragmenter, and reinstall the printer software.
The printer is in Ready mode, but nothing prints	 Print a Configuration page from the control panel of the printer, and verify the printer functionality.
	 Verify that all of the cables are properly seated and within specifications. This includes the USB, network, and power cables. Try a new cable.

Common Macintosh problems

Table 7-4 Problems with Mac OS X

The printer driver is not listed in the Print Center or Printer Setup Utility.

Cause	Solution
The software might not have been installed or was installed incorrectly.	Make sure that the PM and PE plug-ins are in the following hard-drive folder: Library/Printers/hp/laserjet/ <pre>cproduct_name>. If necessary, reinstall the software. See the Getting Started Guide.</pre>

The device name, IP address, or Rendezvous or Bonjour host name does not appear in the printer list in the Print Center or Printer Setup Utility.

Cause	Solution
The device might not be ready.	Make sure that the cables are connected correctly, the device 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 or Bonjour is selected, depending on the type of connection that exists between the device and the computer.
The wrong device name, IP address, or Rendezvous or Bonjour host name is being used.	Print a configuration page to check the device name, IP address, or Rendezvous or Bonjour host name. Verify that the name, IP address, or Rendezvous or Bonjour host name on the configuration page matches the device name, IP address, or Rendezvous or Bonjour host name in the Print Center or Printer Setup Utility.
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 device in the Print Center or Printer Setup Utility.

Cause	Solution
The device might not be ready.	Make sure that the cables are connected correctly, the device 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 software might not have been installed or was installed incorrectly.	Make sure that the printer PPD is in the following hard-drive folder: Library/Printers/PPDs/Contents/Resources/ <lang>.lproj, where <lang> is the two-letter language code for the language that you are using. If necessary, reinstall the software. See the Getting Started Guide.</lang></lang>
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> is the two-letter language code for the language that you are using. Reinstall the software. See the <i>Getting Started Guide</i>.</lang></lang>
The device might not be ready.	Make sure that the cables are connected correctly, the device 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.

Table 7-4 Problems with Mac OS X (continued)

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

Cause	Solution
The print queue might be stopped.	Restart the print queue. Open print monitor and select Start Jobs .
The wrong device name or IP address is being used. Another device with the same or similar name, IP address, or Rendezvous or Bonjour host name might have received your print job.	Print a configuration page to check the device name, IP address, or Rendezvous or Bonjour host name. Verify that the name, IP address, or Rendezvous or Bonjour host name on the configuration page matches the device name, IP address, or Rendezvous or Bonjour host name in the Print Center or Printer Setup Utility.

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

Cause	Solution
This error occurs when the software for USB printers 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 device does not appear in the Print Center or Printer Setup Utility after the driver is selected.

Cause	Solution
This problem is caused by either a software or a hardware	Software troubleshooting
component.	 Check that your Macintosh supports USB.
	 Verify that your Macintosh operating system is Mac OS X V10.2 or later.
	 Ensure that your Macintosh has the appropriate USB software from Apple.
	Hardware troubleshooting
	Check that the device 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.
	NOTE: The iMac keyboard is a nonpowered USB hub.

Network-setup problem-solving

If the computer cannot discover the networked device, perform the following steps:

- 1. Check the cables to ensure that they are properly connected. Check all of the following connections:
 - Power cables
 - Cables between the device and the hub or switch
 - Cables between the hub or switch and the computer
 - Cables to and from the modem or Internet connection, if applicable
- Verify that the computer's network connections are working properly (Windows only):
 - On the Windows desktop, double-click My Network Places or Network Neighborhood.
 - Click the Entire Network link.
 - Click the Entire Contents link.
 - Double-click one of the network icons, and make sure that some devices are listed.
- 3. Verify that the network connection is active:
 - Check the network light on the network (RJ-45) connector on the back of the device.
 - If one of the lights is on solid, the device is connected to the network.
 - If both network lights are off, check the cable connections from the device to the gateway, switch, or hub to ensure that the connections are secure.
 - If the connections are secure, turn off the power to the device for at least 10 seconds, and then turn on the power to the device.
- 4. Print a Network Configuration page. See Configuration page on page 42.
 - On the Network Configuration page, see if a non-zero IP address is assigned to the device.
 - If the Network Configuration page does not have a valid, non-zero IP address, reset the HP
 internal network port to the factory defaults by pressing the Go and Cancel buttons at the
 same time.
 - After the Attention, Ready, and Go lights finish cycling, the device returns to a Ready state and the reset is complete.
 - Two minutes after the device reaches the Ready state, print another Network Configuration page, and check to see if a valid IP address is assigned to the device.
 - If the IP address is still zeros, contact HP support. See HP Customer Care on page 88.

A Accessories and consumables

Order supplies and accessories

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Order supplies and accessories

You can increase the device capabilities with optional accessories and supplies. Use accessories and supplies specifically designed for the HP LaserJet P1000 and P1500 Series to ensure optimum performance.

These devices feature Smart Printing Supplies. The Supplies Status page has information on the amount of toner remaining in the print cartridge and part numbers for ordering supplies, and indicates whether the installed print cartridge is a genuine HP supply item.

Table A-1 Ordering information

	Item	Description or use	Order number
Printing supplies	HP Multipurpose paper	HP brand paper for a variety of uses (1 box of 10 reams, 500 sheets each). To order a sample, in the U.S., call 1-800-471-4701.	HPM1120
	HP LaserJet paper	Premium HP brand paper for use with HP LaserJet printers (1 box of 10 reams, 500 sheets each). To order a sample, in the U.S., call 1-800-471-4701.	HPJ1124
	HP LaserJet transparency film	HP brand transparency film for use with HP LaserJet monochrome printers.	92296T (letter) 92296U (A4)
Print cartridges for the HP LaserJet P1000 Series	Smart print cartridges	Replacement print cartridges for the HP LaserJet P1000 Series.	CB435A (1500-page cartridge)
Print cartridges for the HP LaserJet P1500 Series	Smart print cartridges	Replacement print cartridges for the HP LaserJet P1500 Series.	CB436A (2000-page cartridge)
Supplementary documentation	HP LaserJet family print media guide	A guide to using paper and other print media with HP LaserJet printers.	5963-7863 NOTE: This document can be downloaded from http://www.hp.com/support/ljpaperguide/.
Replacement parts	Media pickup roller	Picks media from the tray and advances it through the device.	RL1-1442-000CN (P1000 Series), RL1-1497-000CN (P1500 Series)
	Printer separation pad assembly	Used to keep multiple sheets from feeding through the printer path.	RM1-4006-000CN (P1000 Series), RM1-4207-000CN (P1500 Series)

B Service and support

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Hewlett-Packard limited warranty statement

HP PRODUCT

DURATION OF LIMITED WARRANTY

HP LaserJet P1000 and P1500 Series printers

One year from date of purchase

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.

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 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.

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.

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.

Hewlett-Packard software license agreement

ATTENTION: USE OF THE SOFTWARE IS SUBJECT TO THE HP SOFTWARE LICENSE TERMS SET FORTH BELOW. USING THE SOFTWARE INDICATES YOUR ACCEPTANCE OF THESE LICENSE TERMS.

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Limited warranty for print cartridges and image drums

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

This warranty does not apply to print cartridges 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.

HP Customer Care

Online services

For 24-hour access to information by using a modem or Internet connection

World Wide Web: Updated HP product software, product and support information, and printer drivers in several languages can be obtained from http://www.hp.com/support/ljp1000 or http://www.hp.com/support/lip1000 or http://www.hp.com/support/lip10000 or <a href="http://www.hp.com/support

Online troubleshooting tools

HP Instant Support Professional Edition (ISPE) is a suite of Web-based problem solving tools for desktop computing and printing products. ISPE helps you quickly identify, diagnose, and resolve computing and printing problems. The ISPE tools can be accessed from http://instantsupport.hp.com.

Telephone support

Hewlett-Packard provides free telephone support during the warranty period. When you call, you will be connected to a responsive team that is waiting to help you. For the telephone number for your country/ region, see the flyer that came in the box with the product, or visit http://www.hp.com then click **Contact HP**. Before calling HP, have the following information ready: product name and serial number, date of purchase, and description of the problem.

You can also find support on the Internet at http://www.hp.com/support/lip1000 or http://www.hp.com/support/lip1000 or http://www.hp.com/support/lip1500. Click the support/lip1500. Click the support & drivers block.

Software utilities, drivers, and electronic information

Go to http://www.hp.com/support/ljp1500. (The sites are in English, but printer drivers can be downloaded in several languages.)

For information over the telephone, see the flyer that came in the box with the device.

HP direct ordering for accessories or supplies

Order supplies from the following Web sites:

North America: https://www.hp.com/post-embed/ordersupplies-na

Latin America: https://www.hp.com/post-embed/ordersupplies-la

Europe and Middle East: https://www.hp.com/post-embed/ordersupplies-emea

Asia Pacific countries/regions: https://www.hp.com/post-embed/ordersupplies-ap

Order accessories from http://www.hp.com and click **Supplies & Accessories**. For more information, see Order supplies and accessories on page 82.

To order supplies or accessories over the telephone, call the following numbers:

United States: 1-800-538-8787

Canada: 1-800-387-3154

To find the telephone numbers for other countries/regions, see the flyer that came in the box with the device.

HP service information

For service for your HP product in other countries/regions, call the HP Customer Support telephone number for your country/region. See the flyer that came in the box with the device.

HP service agreements

Call: 1-800-HPINVENT [1-800-474-6836 (U.S.)] or 1-800-268-1221 (Canada).

Out-of-Warranty Service: 1-800-633-3600.

Extended Service: Call 1-800-HPINVENT 1-800-474-6836 (U.S.) or 1-800-268-1221 (Canada). Or, go to the HP Supportpack and Carepaq[™] Services Web site at http://www.hpexpress-services.com/ 10467a.

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Availability of support and service

Around the world, HP provides a variety of service and support options for purchase. Availability of these programs will vary depending upon your location.

HP Care Pack™ Services and Service Agreements

HP has various service and support options that meet a wide range of needs. These options are not part of the standard warranty. Support services vary by location. For most products HP offers both inwarranty and post-warranty HP Care Pack Services and Service Agreements.

To identify service and support options for this device go to http://www.hpexpress-services.com/
10467a and type the device model number. In North America, Service Agreement information can be obtained through HP Customer Care. Call 1-800-HPINVENT 1-800-474-6836 (U.S.) or 1-800-268-1221 (Canada). In other countries/regions please contact your country/region specific HP Customer Care Center. See the inbox flyer or go to http://www.hp.com for the HP Customer Care telephone number in your country/region.

Guidelines for repacking the device

- Remove and keep any cables, trays, and optional accessories installed in the device.
- Remove and keep the print cartridge.
- △ CAUTION: To prevent damage to the print cartridge, store the print cartridge in its original packing material, or store it so that it is not exposed to light.
- If possible, use the original shipping container and packing material. Shipping damage as a result
 of inadequate packing is your responsibility. If you have already disposed of the device's packing
 material, contact a local mailing service for information on repacking the device.
- Hewlett-Packard recommends that you insure the equipment for shipment.

C Device specifications

Table C-1 Physical specifications¹

Specification	HP LaserJet P1000 Series	HP LaserJet P1500 Series
Device weight (without cartridge)	4.7 kg (10.4 lbs)	5.4 kg (11.9 lbs)
Device weight, including cartridge	5.2 kg (11.5)	5.9 kg (13 lbs)
Device height	195 mm (7.7 inches)	225 mm (8.9 inches)
Device depth, with paper tray closed	238 mm (9.4 inches)	245 mm (9.6 inches)
Device depth, with paper tray extended for letter size paper	344 mm (13.5 inches)	355 mm (14 inches)
Device depth, with paper tray extended for A4 size paper	353 mm (13.9 inches)	355 mm (14 inches)
Device depth, with paper tray full extended for legal size paper	411 mm (16.2 inches)	413 mm (16.3 inches)
Device width	349 mm (13.7 inches)	379 mm (14.9 inches)

Values are based on preliminary data. See http://www.hp.com/support/lip1500 or http://www.hp.com/support/lip1500 for current information.

⚠ **WARNING!** Power requirements are based on the country/region where the device is sold. Do not convert operating voltages. Doing so might damage the device and void the product warranty.

Table C-2 Electrical specifications¹

Item	110 Volt models	220 Volt models
Power requirements	100-127V (+/-10%), 50/60 Hz (+/- 2 Hz)	220-240V (+/-10%), 50/60 Hz (+/- 2 Hz)
Rated current for the HP LaserJet P1000 Series	4.9 amps	2.9 amps
Rated current for the HP LaserJet P1500 Series	4.9 amps	2.9 amps

¹ Values are based on preliminary data. See http://www.hp.com/support/lip1500 for current information.

Table C-3 Power consumption (average, in Watts)¹

Product model	Printing ²	Ready ²	PowerSave	Off
HP LaserJet P1000 Series	285 Watts	4 Watts	4 Watts	0.8 Watt

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Table C-3 Power consumption (average, in Watts) (continued)

Product model	Printing ²	Ready ²	PowerSave	Off
HP LaserJet P1500 Series	380 Watts	5 Watts	5 Watts	0.8 Watt

Values are based on preliminary data. See http://www.hp.com/support/ljp1500 for current information.

Table C-4 Acoustic emissions¹

Sound Power Level for the HP LaserJet P1000 Series	Declared Per ISO 9296 ¹
Printing (14 PPM) ²	L _{WAd} = 6.29 Bels (A) [62.9 dB (A)]
Ready	Inaudible
Sound Power Level for the HP LaserJet P1500 Series	Declared Per ISO 92961
Printing (22 PPM) ³	L _{WAd} = 6.3 Bels (A) [63 dB (A)]
Ready	Inaudible
Sound Pressure Level (SPL)-Bystander Position for the HP LaserJet P1000 Series	Declared Per ISO 9296 ¹
Printing (14 PPM) ²	$L_{pAm} = 50 \text{ dB(A)}$
Ready	Inaudible
Sound Pressure Level (SPL)-Bystander Position for the HP LaserJet P1500 Series	Declared Per ISO 9296
Printing (22 PPM) ³	$L_{pAm} = 50 \text{ dB(A)}$
Ready	Inaudible

Values are based on preliminary data. See http://www.hp.com/support/lip1500 for current information.

Table C-5 Environmental specifications

	Recommended ¹	Operating ¹	Storage ¹
Temperature	17.5°C to 25°C (63.5°F to 77° F)	10°C to 32.5°C (50°F to 90.5° F)	0°C to 40°C (32°F to 104°F)
Relative Humidity	30% to 70% (no condensation)	10% to 90% (no condensation)	10% to 90% (no condensation)

Values are based on preliminary data. See http://www.hp.com/support/lip1500 for current information.

² Power reported is highest values measured for monochrome printing using all standard voltages.

³ Recovery time from Power Save to start of printing: < 8 seconds

⁴ Maximum heat dissipation for all models in Ready Mode = 62 BTU/Hour

² Configuration tested: HP LaserJet P1000 Series, continuous monochrome printing on A4 paper at 14 PPM.

³ Configuration tested: HP LaserJet P1500 Series, continuous monochrome printing on A4 paper at 22 PPM.

D Regulatory information

- FCC compliance
- Declaration of Conformity statements for HP LaserJet P1000 Series
- Declaration of Conformity statements for HP LaserJet P1500 Series
- Regulatory statements
- Environmental product stewardship program

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FCC compliance

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 it 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 Hewlett-Packard 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.

Declaration of Conformity statements for HP LaserJet P1000 Series

Declaration of Conformity

according to ISO/IEC Guide 17050-1 and EN 17050-1

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 P1002/P1003/P1004/P1005/P1006/P1009 Series

Regulatory Model ³⁾: BOISB-0605-00

Product Options: ALL

Toner Cartridge: CB435A

conforms to the following Product Specifications:

Safety: IEC 60950-1:2001 / EN 60950-1:2001 +A11

IEC 60825-1:1993 +A1 +A2/EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)

GB4943-2001

EMC: CISPR 22:2005 / 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/EC and the Low Voltage Directive 2006/95/EC, 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 product name or the product number(s).

Boise, Idaho 83714, USA

June 14, 2006

For Regulatory Topics ONLY, contact:

Australia Contact: Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph Street, Blackburn, Victoria 3130, Australia

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, Germany, (FAX: +49-7031-14-3143)

USA Contact: Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, Idaho 83707-0015, USA,

(Phone: 208-396-6000)

Declaration of Conformity statements for HP LaserJet P1500 Series

Declaration of Conformity

according to ISO/IEC Guide 17050-1 and EN 17050-1

Manufacturer's Name:Hewlett-Packard CompanyManufacturer's Address:11311 Chinden Boulevard,

Boise, Idaho 83714-1021, USA

declares that the product

Product Name: HP LaserJet P1503/P1504/P1505/P1506 Series

Regulatory Model ³⁾: BOISB-0604-00

Product Options: ALL

Toner Cartridge: CB436A

conforms to the following Product Specifications:

Safety: IEC 60950-1:2001 / EN 60950-1:2001 +A11

IEC 60825-1:1993 +A1 +A2/EN 60825-1:1994 +A1 +A2 (Class 1 Laser/LED Product)

GB4943-2001

EMC: CISPR 22:2005 / 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/EC and the Low Voltage Directive 2006/95/EC, 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 product name or the product number(s).

Boise, Idaho 83714, USA

June 14, 2006

For Regulatory Topics ONLY, contact:

Australia Contact: Product Regulations Manager, Hewlett-Packard Australia Ltd., 31-41 Joseph Street, Blackburn, Victoria 3130, Australia

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, Germany, (FAX: +49-7031-14-3143)

USA Contact: Product Regulations Manager, Hewlett-Packard Company, PO Box 15, Mail Stop 160, Boise, Idaho 83707-0015, USA,

(Phone: 208-396-6000)

Regulatory statements

Laser safety statement

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 printer 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 printer 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 could 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). »

Korean EMI statement

B급 기기 (가정용 정보통신기기)

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든지역에서 사용할 수 있습니다.

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Laser statement for Finland

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet P1000- ja P1500-sarjat -laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalissa käytössä kirjoittimen suojakotelointi estää lasersäteen 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 P1000- ja P1500-sarjat -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 785-800 nm

Teho 5 mW

Luokan 3B laser

Substances Table (China)

根据中国电子信息产品污染控制管理办法的要求而出台

Table D-1 有毒有害物质表

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	Х	0	Х	Х	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	Х	0	0	0	0	0	
碳粉盒	Х	0	0	0	0	0	

O: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。

図 NOTE: 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。

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 (O_3) .

Power consumption

Power usage drops significantly while in Ready/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:

http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html

Toner consumption

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

Paper use

This product's manual/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. Since this cartridge is being recycled and used in new materials, it 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 http://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 (two to eight cartridges)

- Package each HP LaserJet print cartridge in its original box and bag.
- Tape up to eight single boxes together using strapping or packaging tape (up to 70 lbs).
- Use a single pre-paid shipping label.

OR

- Use your own suitable box, or request a free bulk collection box from the http://www.hp.com/ recycle or 1-800-340-2445 (holds up to eight HP LaserJet print cartridges).
- Use a single pre-paid shipping label.

Single returns

- Package the HP LaserJet print cartridge in its original bag and box.
- 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 http://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 http://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-US 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 printer supply item) or visit http://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 does not contain a battery.

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.

Material Safety Data Sheet (MSDS)

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

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