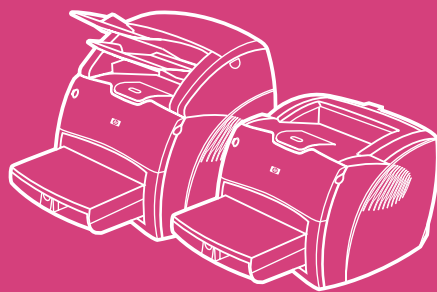


user guide

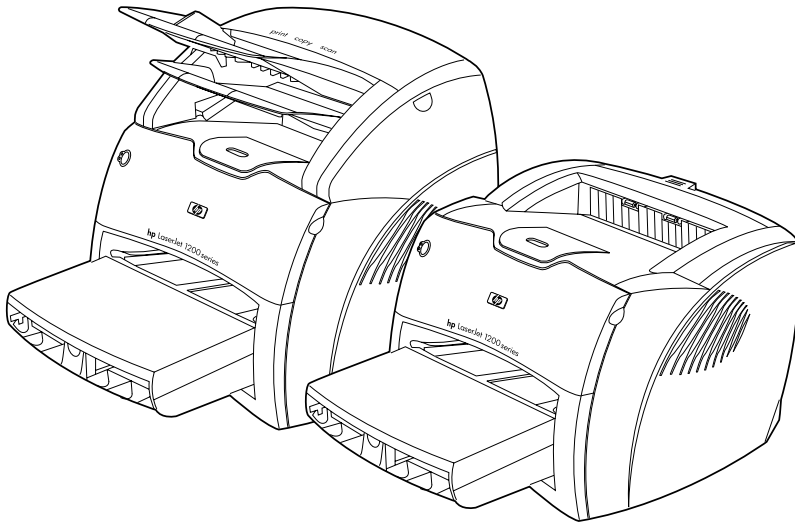


i n v e n t



hp LaserJet 1200
series products

HP LaserJet 1200 Series Printer and Print•Copy•Scan Products



User Guide

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1 Getting to know the printer

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- [Understanding the printer's features and benefits](#)
- [Identifying the printer's components](#)
- [Choosing paper and other media](#)
- [Loading media into the input trays](#)
- [Turning the power off](#)
- [Understanding voltage conversions](#)
- [Accessing the printer properties \(driver\) and help](#)
- [Printing a configuration page](#)

Note

See the *HP LaserJet Getting Started Guide* that came with your printer for installation instructions.

Understanding the printer's features and benefits

Congratulations on the purchase of your new product. The HP LaserJet 1200 series provides the following benefits.

Print with excellent quality

- Print 1200 dots per inch.
- PCL-5e, PCL-6, and Postscript Level 2 emulation are already installed on the printer.
- The printer automatically determines and switches to the appropriate language for the print job.

Save Time

- Fast printing at 15 pages per minute (ppm) for letter size pages and 14 ppm for A4 size pages.
- No waiting. The first page is out in less than 10 seconds.

Save money

- Use EconoMode to save toner.
- Print multiple pages on a single sheet of paper (N-up printing).

Create professional documents

- Use watermarks, such as *Confidential*, to protect your documents.
- Print booklets. You can use this feature to easily print the pages in the order required to create cards or books. Once printed, all you have to do is fold and staple the pages.
- Print the first page on different media than the rest of the pages.

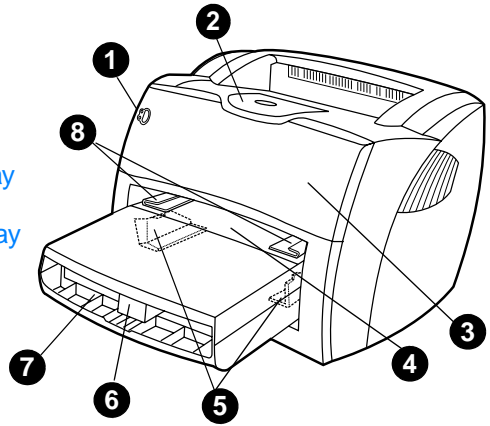
Expand your printer

You can add functionality to your HP LaserJet product in the following ways:

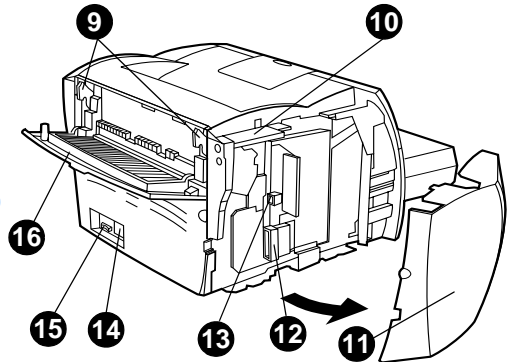
- Add copy/scan functionality with the HP copy/scan attachment (C7046A).
- Make your printer or Print•Copy•Scan product available on the network with the HP JetDirect print server (J6035A).
- Add memory using the memory DIMM slot:
 - 8 MB (C7842A)
 - 16 MB (C7843A)
 - 32 MB (C7845A.)
 - 64 MB (C7846A)

Identifying the printer's components

1. Printer control panel
2. Long media extension (output bin)
3. Toner door
4. Priority input tray
5. Side media guides for the main input tray
6. Long media support for the main input tray
7. Main input tray
8. Side media guides for the priority input tray

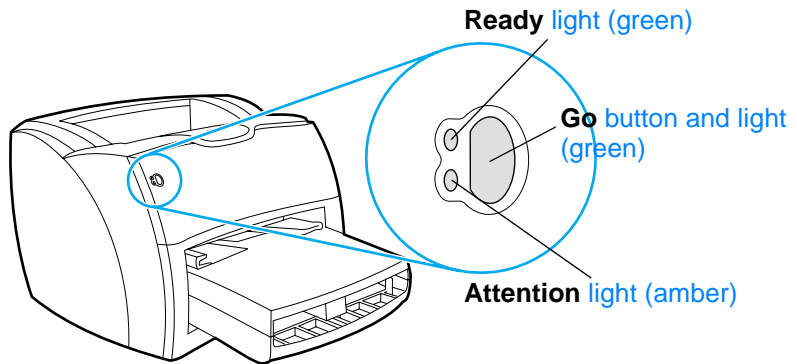


9. Release levers
10. Connection to scanner (optional)
11. Left side panel
12. Parallel port
13. USB port
14. Power receptacle
15. Power switch (220-240 volt printers)
16. Straight-through output door



Printer control panel

The printer control panel is comprised of two lights and one lighted button. These lights produce patterns that identify your printer's status.



- **Go button and light:** To print a configuration page or to continue printing while in manual feed mode, press and release the **Go** button.
- **Ready light:** Indicates that the printer is ready to print.
- **Attention light:** Indicates printer media input tray is empty, toner door is open, toner cartridge is missing, or other errors.

Note

See [Printer light patterns](#) for a description of the light patterns.

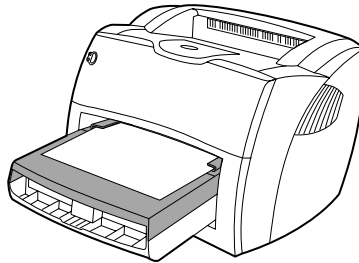
Printer input trays

Main input tray

The enclosed main input tray, located in front of the printer, holds up to 250 sheets of 20 lb paper, multiple envelopes, or other media.

Priority input tray

You should use the priority input tray when feeding up to 10 sheets of 20 lb paper or when printing single envelopes, postcards, labels, or transparencies. You can also use the priority input tray to print the first page on different media than the rest of the document.



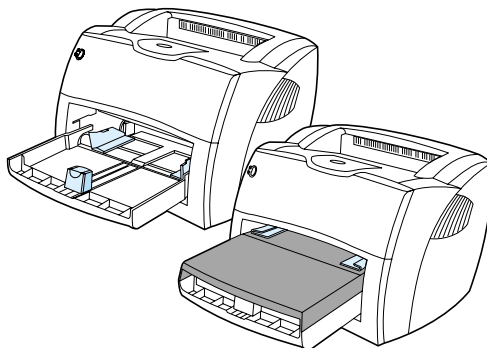
Note

The printer automatically prints from the priority input tray before printing from the main input tray.

See [Media](#) for more information about media types.

Printer media guides

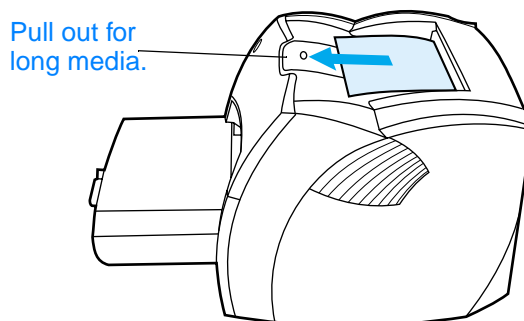
Both input trays have side media guides. The main input tray also has a rear media guide. Media guides ensure that the media is correctly fed into the printer and that the print is not skewed (crooked on the media). When loading media, adjust the media guides to match the width and length of the media that you are using.



Printer output paths

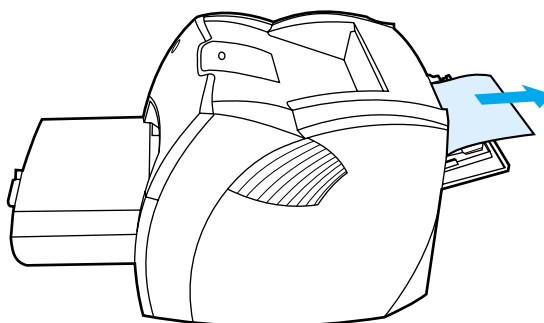
Output bin

The output bin is located on the top of the printer. Printed media is collected here in the correct sequence when the straight-through output door is closed. Use the output bin when printing normal and large, collated documents.



Straight-through output path

The straight-through output path is useful when you are printing envelopes, transparencies, heavy media, or any media that tends to curl when printed. Printed media exits in reverse order when the straight-through output door is open.



Note

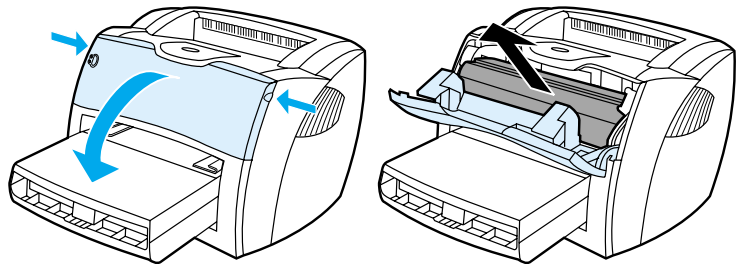
Printed media does not stack when you use the straight-through output path. The media drops to the surface below unless you remove each sheet as it exits the printer.

Toner door

The toner door is located on the front of the printer. You must open the toner door to access the toner cartridge, clear jams, and clean the printer. To open the toner door, firmly grasp the left and right sides and pull the toner door toward you.

Note

You will feel some resistance when opening the toner door. Opening the toner door conveniently lifts the toner cartridge for easy removal.



Choosing paper and other media

HP LaserJet printers produce excellent print quality documents. You can print on a variety of media, such as paper (including up to 100% recycled fiber content paper), envelopes, labels, transparencies, and custom-sized media. The following are the supported media sizes:

- **Minimum:** 76 by 127 mm (3 by 5 in.)
- **Maximum:** 216 by 356 mm (8.5 by 14 in.)

Properties such as weight, grain, and moisture content are important factors that affect printer performance and quality. To achieve the best possible print quality, only use high-quality media designed for laser printers. See [Printer media specifications](#) for detailed paper and media specifications.

Note

Always test a sample of the media before you purchase large quantities. Your media supplier should understand the requirements specified in the *Guidelines for Paper and Other Print Media* (HP part number 5963-7863). See [Printer media specifications](#) for more information.

Loading media into the input trays

Main input tray

The main input tray holds up to 250 pages of 20 lb paper or fewer pages of heavier media (25 mm or less stack). Load media with the top forward and the side to be printed facing up. To prevent jams and skewing, always adjust the side and rear media guides.

Priority input tray

The priority input tray holds up to 10 pages of 20 lb paper or one envelope, transparency, or card. Load media with the top forward and the side to be printed facing up. To prevent jams and skewing, always adjust the side media guides.

CAUTION

If you try to print on media that is wrinkled, folded, or damaged in any way, a jam might occur. See [Printer media specifications](#) for more information.

Note

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

Specific types of media

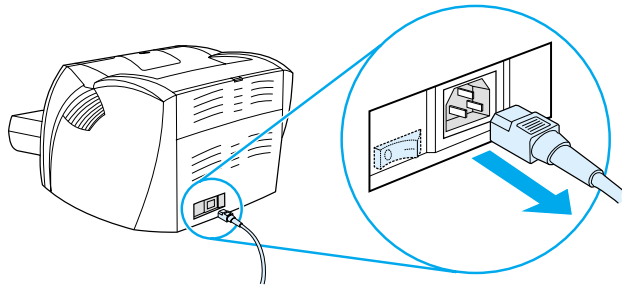
- **Transparencies and labels:** Load transparencies and labels with the top forward and the side to be printed facing up. See [Printing transparencies and labels](#) for more information.
- **Envelopes:** Load envelopes with the narrow, stamp side forward and the side to be printed facing up. See [Printing envelopes](#) for more information.
- **Letterhead or preprinted forms:** Load with the top forward and the side to be printed facing up. See [Printing letterhead or preprinted forms](#) for more information.
- **Cards and custom-sized media:** Load with the narrow side forward and the side to be printed facing up. See [Printing custom-sized media or cardstock](#) for more information.

Turning the power off

If the printer requires 110-127 volts of power, you must unplug the printer to turn the power off. If the printer requires 220-240 volts, you can switch the printer off (the switch is located on the left side of the power plug) or unplug it.

WARNING!

To ensure safety when working inside the printer for any reason, unplug the printer.



Understanding voltage conversions

Because of the different specifications, Hewlett-Packard does not offer a voltage conversion or support the voltage conversion of the U.S. version of the HP LaserJet family of printers for foreign use. If you plan on using the equipment outside of the United States, Hewlett-Packard advises you to purchase the products in the country/region where you will use them.

CAUTION

Check your printer's voltage requirement before you plug it in. Printers that require 110-127 volts of power will not work with 220-240 voltage outlets.

Accessing the printer properties (driver) and help

This section provides information on the following topics:

- [Printer properties \(driver\)](#)
- [Printer online help](#)

Printer properties (driver)

Printer properties control the printer. You can change the default settings, such as media size and type, printing on both sides of the paper (manual duplexing), printing multiple pages on a single sheet of paper (N-up printing), resolution, and watermarks. You can access the printer properties 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.

Note

Because many software applications use a different method of accessing the printer properties, the following section describes the most common methods used in Windows 9x, 2000, Millennium, NT[®] 4.0, and Mac OS.

Windows 9x, 2000, Millennium, and NT 4.0

- **Change the settings for the current software application:** From within the software application, click **File**, **Print**, and **Properties**. (Although the steps can vary between software applications, this is the most common method.)
- **Change the default settings for all future print jobs:** Click **Start** in the Windows system tray, **Settings**, and **Printers**. Right-click the printer icon that you want to change, and click **Properties**. (Many of the features in Windows NT are also in the **Document Defaults** menu.)

Software For Macintosh Computers

PostScript Printer Description Files (PPDs)

PPDs, in combination with the LaserWriter 8 driver, access the printer features and allow the computer to communicate with the printer. An installation program for the PPDs is provided on the HP LaserJet 1200 Series CD.

Accessing the print driver

- 1 From the **Apple** menu, select the **Chooser**.
- 2 Click the **LaserWriter** icon.
- 3 Click the **HP LaserJet 1200 Series** icon.
- 4 Click **Setup** to make changes to the printer's settings.

Note

If you use the LaserWriter 8 print driver, you will lose scanner capabilities.

HP LaserJet Utility

HP LaserJet Utility allows control over features that are not available in the driver. The illustrated screens make selecting printer features from the Macintosh computer easier than ever. Use the HP LaserJet Utility to do the following:

- Name the printer, assign it to a zone on the network, download files and fonts, and change most of the printer settings. See the HP LaserJet Utility help.
- From the computer, lock out functions on the printer to prevent unauthorized access.

Printer online help

Printer properties online help

The printer properties (driver) online help includes specific information about the functions in the printer properties. This online help guides you through the process of changing your printer's default settings.

To access the printer properties help system, open the printer properties and click **Help**.

Print•Copy•Scan Online help

The HP LaserJet 1220 online help includes information for all of the printing, copying, and scanning software applications.

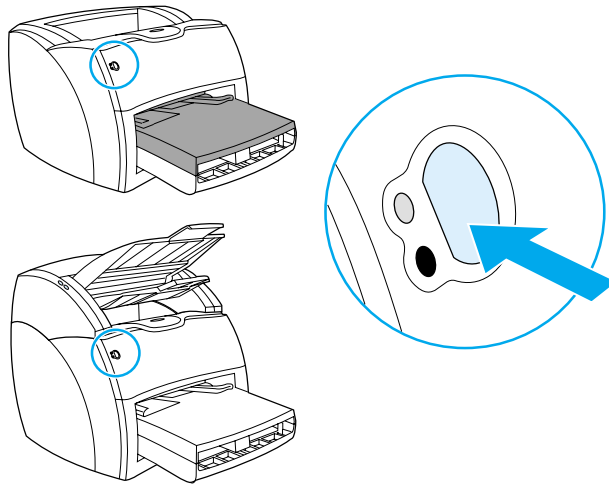
To access the HP LaserJet 1220 online help, use any of the following methods:

- **Program Group in Windows 9x and NT 4.0:** Click **Start**, **Programs**, **HP LaserJet 1220**, and **LaserJet 1220 Online Help**.
- **HP LaserJet Director:** Click the right mouse button on the HP LaserJet Director toolbar then select **Help** from the context menu.
- **LaserJet Document Manager:** Click **Help** from the main menu.
- **Mac OS:** Turn on Balloon help.

Printing a configuration page

Among other items, the configuration page provides all of the printer configuration settings, verification that the scanner is attached, a sample of the print quality, and information about the printer's page counts. You can also use the configuration page to verify that the printer is printing correctly.

To print a configuration page while the printer is in the Ready state, press and release the **Go** button on the printer control panel.



2 Getting to know the copier/scanner

This chapter provides information on the following topics:

- [Understanding the copier/scanner's features and benefits](#)
- [Identifying the copier/scanner's components](#)
- [Supported media sizes and types](#)
- [Precautions for copying and scanning](#)
- [Loading originals in the copier/scanner](#)
- [Getting to know the software](#)
- [Accessing the online help](#)

Note

See the *HP LaserJet Getting Started Guide* that came with your copier/scanner for hardware and software installation instructions.

Understanding the copier/scanner's features and benefits

Scan

You can use HP software to perform the following tasks, increasing your efficiency:

- Easily attach documents to e-mail with one click
- Edit text (Optical Character Recognition)
- Store and manage documents electronically with HP LaserJet Document Manager
- Enhance scanned photos with HP LaserJet Photo Center

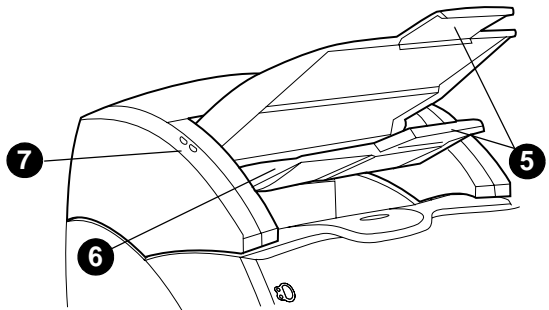
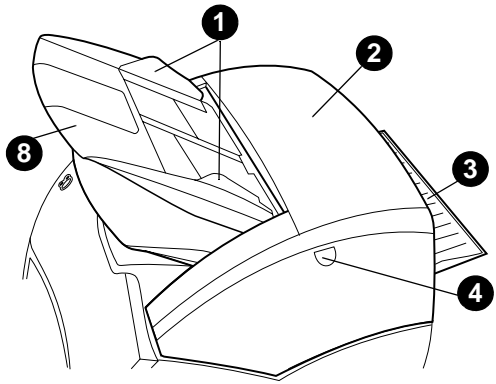
Copy

You can make Quick Copies when copying your most frequently used type of original. You can use HP LaserJet Copy software to customize and make multiple copies.

- **Simple and convenient (Quick Copy)**
 - Load the original and press a single button
- **Powerful copier software (Copy Plus)**
 - Make multiple copies
 - Enable collation
 - Reduce or enlarge
 - Adjust the contrast
 - Set the copy quality
 - Make color copies by sending them to a color printer

Identifying the copier/scanner's components

1. Media input tray guides
2. Copier/scanner door
3. Straight-through media path door
4. Door release button
5. Long media extensions
6. Output bin
7. Copier/scanner control panel
8. Media input tray

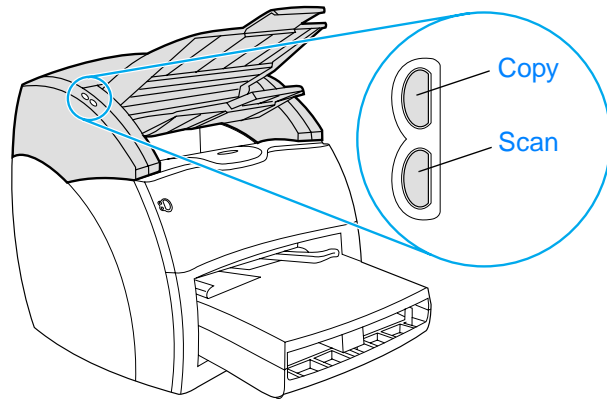


Note

See [Removing the copier/scanner](#) for more information about removing the copier/scanner from the printer.

Copier/scanner control panel

The copier/scanner control panel is comprised of two buttons.



- **Copy:** To perform Quick Copies, even if your computer is powered off, press the **Copy** button.
- **Scan:** To launch HP LaserJet Director, press the **Scan** button. If HP LaserJet Director is configured correctly, you can perform the following tasks:
 - Scan to e-mail
 - Store documents electronically
 - Edit text (Optical Character Recognition)
 - Make multiple and customized copies

Note

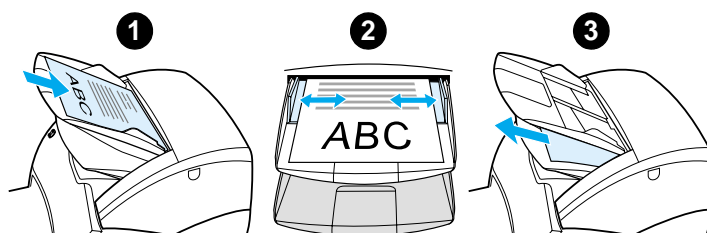
To cancel a scan or copy job from the control panel, simultaneously press both buttons.

Media input tray, guides, and output bin

The media input tray (1) is located on the front, top side of the scanner. The media guides (2), which are located on the media input tray, ensure that the media is correctly fed into the scanner and prevent skewing (crooked image). The output bin (3) is below the media input tray.

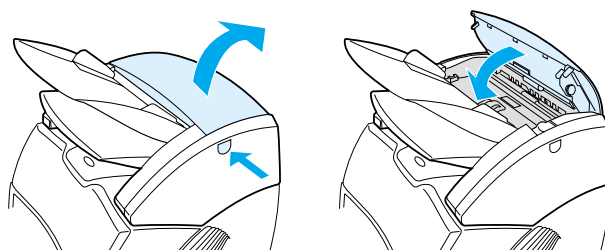
CAUTION

If the media is not loaded correctly, the media might jam and the original that you are scanning or copying might be damaged. See [Loading originals in the copier/scanner](#) for more information.



Copier/scanner door

The copier/scanner door is located on the top of the copier/scanner. You must open the copier/scanner door to remove jams or clean the copier/scanner. To release the latch and open the door, press the button located on the right side, and gently grasp the door and rotate it open. To close the door, rotate the door until it clicks.



Supported media sizes and types

The copier/scanner for the HP LaserJet 1220 printer can handle a broader range of media sizes and types than the printer itself can. The following are the supported media sizes:

- **Minimum:** 50.8 by 90 mm (2 by 3.5 in.)
- **Maximum:** 216 by 762 mm (8.5 by 35 in.)

In addition, you can scan and copy many different types of media that are typically not used for printing, such as newsprint, photographs, business receipts, and business cards.

Note

You must use a carrier sheet to feed small or delicate originals, such as newsprint, through the copier/scanner without causing a jam. To make a carrier sheet, use a piece of paper and a transparency, tape the leading edges together, and load your original between the sheets.

Note

You must feed business cards and any media that is smaller than 76.2 by 127 mm (3 by 5 in.) to the straight-through output path. You can also tape them to the leading edge of a carrier sheet and feed them to the straight-through output bin.

See [Precautions for copying and scanning](#) for more information.

Precautions for copying and scanning

You should not put anything in the copier/scanner that might jam or damage the feed mechanism. To minimize the possibility of jamming or damaging the feed mechanism, observe the following precautions:

- Remove self-stick notes.
- Remove staples and paper clips.
- Straighten any curls or wrinkles in the original that you are scanning.
- Feed irregularly sized originals one at a time.
- Do not scan or copy any original with glue, correction fluid, or wet ink on it.
- Do not scan or copy gummed-backed paper, labels, or originals.
- Do not scan or copy originals that have tears, perforations, or any defect that might cause a jam.
- Do not scan originals that are larger or smaller than the supported size. See [Supported media sizes and types](#) for more information.

Note

You must use a carrier sheet to feed small or delicate originals, such as newsprint, through the copier/scanner without causing a jam. To make a carrier sheet, use a piece of paper and a transparency, tape the leading edges together, and load your original between the sheets.

Note

You must feed business cards and any media that is smaller than 76.2 by 127 mm (3 by 5 in.) to the straight-through output path. You can use a carrier sheet and feed them to the straight-through output bin.

Note

To obtain good results, it is important that you use the correct resolution and color settings for your job. See [Scanner resolution and color](#) for more information.

Loading originals in the copier/scanner

To load originals in the copier/scanner

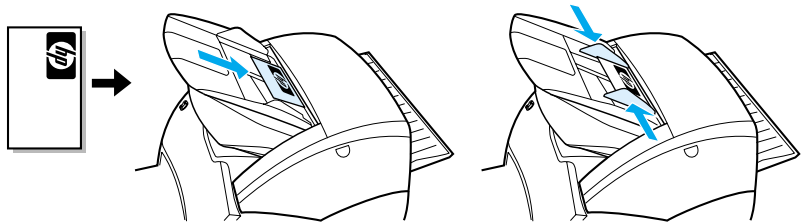
- 1 Load the original with the side to be scanned facing up. If you are using the straight-through output path, load business cards with the long side forward. See [Precautions for copying and scanning](#) for more information.
- 2 Adjust the media guides.
- 3 Press the **Scan** button on the scanner or press the **Copy** button for a Quick Copy.

Note

When you add new originals, always remove the originals from the input tray and straighten the stack.

CAUTION

Small originals will cause a jam if they are not loaded correctly.



Note

If you are editing text (OCR), you must load the original with the text positioned horizontally and upside down. See [Editing scanned text \(Optical Character Recognition\)](#) for more information.

Getting to know the software

HP LaserJet Director (Windows 98, 2000, Millennium, NT 4.0, and Mac OS)

Note

HP LaserJet Director is not available under Windows 95.

HP LaserJet Director is a quick and convenient desktop tool palette that you can use to facilitate many of your routine office tasks, including the following:

- Copying
- Storing or managing scanned text and images
- Scanning to e-mail
- Editing scanned text (OCR)

Accessing HP LaserJet Director (Windows)

- 1 In the Windows system tray, click **Start**.
- 2 Click **Programs**.
- 3 Click **HP LaserJet 1220 Series**.
- 4 Click **HP LaserJet Director**.
- 5 An HP icon appears in the Windows system tray. To display HP LaserJet Director on your computer screen, click the HP icon.

Accessing HP LaserJet Director (Mac OS)

- 1 From the desktop, double-click the **HP LaserJet Director** icon.

To turn off the HP LaserJet Director

Use the following steps to close the HP LaserJet Director.

Windows

- 1 Open the **HP LaserJet Director**.
- 2 Click the right mouse button on the toolbar.
- 3 Select **Exit** from the context menu.

Note

To restart the HP LaserJet Director after turning it off, click **Start**, point to **Programs**, point to **HP LaserJet 1220**, and then click **HP LaserJet Director**.

Mac OS

- 1 Open the HP LaserJet Director.
- 2 From the **File** menu, select **Quit**.

Note

To restart the HP LaserJet Director after turning it off, double-click the alias on the desktop.

HP LaserJet Document Manager (Windows 98, 2000, Millennium, NT 4.0, and Mac OS)

Note

HP LaserJet Document Manager is not available under Windows 95.

HP LaserJet Document Manager (Windows) and HP WorkPlace (Macintosh) is a full-featured desktop application for the scanning and copying capabilities of the HP LaserJet 1220. From HP LaserJet Document Manager, you can perform the following tasks and more:

- Copy
- Scan images (or acquire an image from a TWAIN-compliant device)
- Store and manage scanned images and all of your documents
- Send scanned images and documents to your fax (you must install a fax software application on your computer)

- Send scanned images to e-mail (you must install an e-mail software application on your computer)
- Use Optical Character Recognition (OCR) to send scanned text to a word processing application where you can edit it
- Enhance the image
- Add annotations

Note

You can print (electronically) to HP LaserJet Document Manager from any software application. You can use this feature to access any of the functions within HP LaserJet Document Manager from the documents that you create in your favorite desktop publishing or word processing application, saving you the time it takes to first print and then scan a hard copy version. The online help provides more information about HP LaserJet Document Manager. See [Accessing the online help](#).

Accessing HP LaserJet Document Manager (Windows)

- 1 In the Windows system tray, click **Start**.
- 2 Click **Programs**.
- 3 Click **HP LaserJet 1220 Series**.
- 4 Click **HP LaserJet Document Manager**.

Accessing HP Workplace (Mac OS)

- 1 Display the desktop.
- 2 From the desktop, double-click the **HP Workplace** icon.

Quick Copy settings

You can use the Quick Copy feature to make consistent and convenient copies, even when your computer is turned off. Once you have adjusted the settings to reflect the most common type of original that you copy, you do not have to change the settings again.

HP LaserJet Copier (Copy Plus)

You can use HP LaserJet Copier when you need full-featured copying capabilities or when your original differs from your most frequent copy job. You can also use Copy Plus when you want to print color copies or print the copies on another printer. Consider HP LaserJet Copier your personal copy machine.

See [Using HP LaserJet Copier](#) for instructions on accessing and using HP LaserJet Copier.

HP LaserJet Director Toolbox (Windows 9x, 2000, Millennium, and NT 4.0)

You can use HP LaserJet Director Toolbox to perform the following tasks:

- Access this user guide online
- Access the product tour
- Access online help
- Access HP's Web site for support information

Accessing HP LaserJet Director Toolbox

- 1 From HP LaserJet Director, click **Toolbox**.
- 2 Click one of the links to access the appropriate help source.

HP LaserJet Device Configuration

Adjusting settings from the software is sometimes the easiest method. To gain access to default settings, follow these steps:

Windows 9x, 2000, Millennium, and NT 4.0

- 1 Click **Start**.
- 2 Click **Programs**.
- 3 Click **HP LaserJet 1220 Series**.
- 4 Click **Tools**.
- 5 Click **HP LaserJet Device Configure**.

Mac OS

- 1 Double-click the **HP LaserJet Director** alias on the desktop.
- 2 Click **Tools**.
- 3 Click **Device Configuration**.

CAUTION

When changing settings in a network environment, you are changing settings for all users.

You can find out what product settings are currently selected by printing a configuration page. See [Printing a configuration page](#).

For further instructions about adjusting product settings from the software, see the software Help.

HP LaserJet Photo Center (Windows 9x, 2000, Millennium, and NT 4.0)

HP LaserJet Photo Center is an easy-to-use program for editing digital photographs. With HP LaserJet Photo Center, you can perform the following tasks:

- Open existing photos
- Create new files
- Scan images
- Adjust the size and layout of the images
- Add text and simple shapes
- Correct the image's color, brightness, and contrast
- Add filters and other special effects
- Save and print images

Unlike complicated, full-featured photo editing software, HP LaserJet Photo Center provides image-enhancing wizards that you can use to easily change images.

Accessing HP LaserJet Photo Center

- 1 In the Windows system tray, click **Start**.
- 2 Click **Programs**.
- 3 Click **HP LaserJet 1220 Series**.
- 4 Click **HP LaserJet Photo Center**.

Accessing the online help

To access the HP LaserJet 1200/1220 online Help, use one of the following methods.

Windows 9x, 2000, Millennium, and NT 4.0

- 1 In the Windows system tray, click **Start**.
- 2 Click **Programs**.
- 3 Click **HP LaserJet 1220 Series**.
- 4 Click **HP LaserJet 1220 Online Help**.

HP LaserJet Director

- 1 Click **Toolbox**.
- 2 Click **How to use your HP LaserJet Series Printer**.

HP LaserJet Document Manager

- 1 Click **Help**.
- 2 Click **Contents**.

Any HP LaserJet 1220 software

- 1 Click **Help**.
- 2 Click **Contents**.

3 Getting to know the print server

This chapter provides information on the following topics:

- [Understanding the print server's features and benefits](#)
- [Using network protocols](#)
- [Identifying the print server's components](#)
- [Installing the print server](#)
- [Installing and configuring the network software](#)
- [Using the embedded web server](#)
- [Starting the embedded web server](#)
- [Using HP Web JetAdmin](#)
- [Additional configuration and management tools](#)
- [Using BOOTP](#)
- [Using DHCP](#)
- [UNIX systems](#)

Note

See the *HP LaserJet Getting Started Guide* that came with your printer for installation instructions.

Understanding the print server's features and benefits

If you purchased an HP JetDirect 175X with your HP LaserJet 1200 printer, you can perform the following tasks:

- Enhance workgroup productivity by placing your printer at a convenient location on the network while improving network printer performance.
- Connect your printer directly to the network.
- Share scan and print functions with others on the network.

Note

You can only attach one printer to the print server. Do not use a USB hub to attach more than one printer.

Using network protocols

The HP JetDirect 175X supports the following protocols:

- TCP/IP (Transmission Control Protocol/Internet Protocol)
- IPX/SPX (Internetwork Packet Exchange)
- AppleTalk

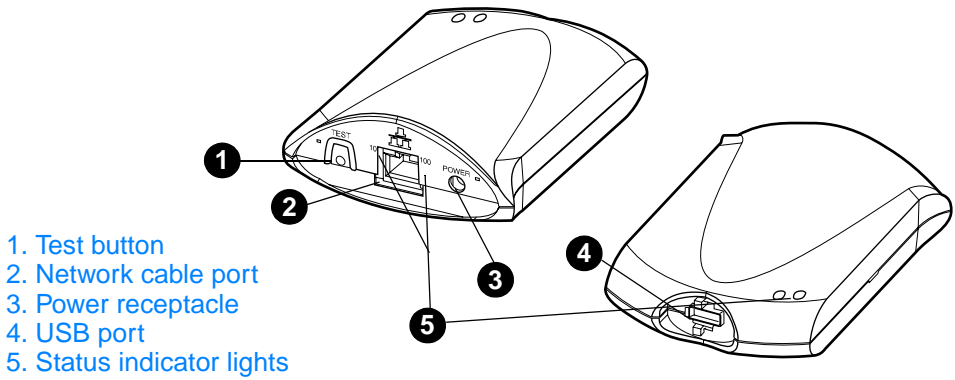
Note

IPX/SPX is not supported on Novell networks. You must configure the HP JetDirect print server for a direct peer-to-peer connection from the computer to the device rather than through a Novell server. This is sometimes called IPX direct mode.

If you are setting up client-server printing on a Microsoft Windows 95, 98, NT, or 2000 network, you can use the installation software to configure your Windows 95, 98, NT, or 2000 print server and then share the printer with client computers.

If you are setting up peer-to-peer printing on a Microsoft Windows 95, 98, NT, or 2000 network, you can use the installation software to configure each client to print directly to the printer.

Identifying the print server's components

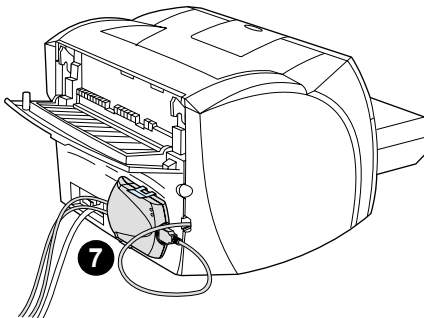
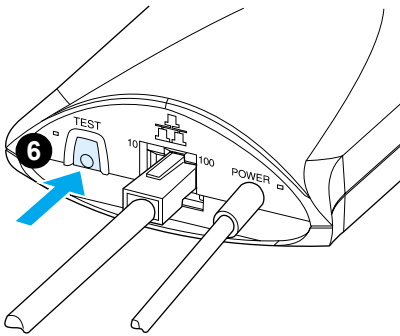
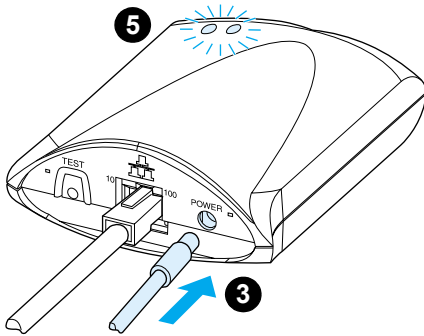
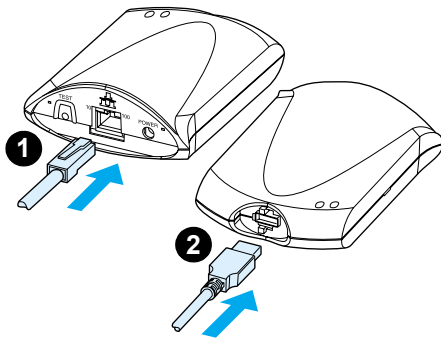


Installing the print server

The HP JetDirect 175X has a single USB port and an RJ-45 network port (10Base-T or 100Base-T) for connecting to a network. The following items are included with your HP JetDirect 175X:

- Power module
- Clip (attached to server)
- USB cable

To install the HP JetDirect 175X hardware



- 1 Use a network cable to connect the 175X to the network.
- 2 Use the USB cable to connect the 175X to your printer.
- 3 Attach the power module to the print server.
- 4 Plug the module's power cord into a power receptacle.
- 5 The 10 and 100 LED should be green, indicating that there is a network connection. The power/status LED should begin blinking. Within 15 seconds the power/status LED should be solid green.
- 6 To print a configuration page and verify the printer connection, press the **Test** button.
- 7 Use the optional clip to physically attach the print server to the back of your printer or any convenient location.

Installing and configuring the network software

The installation program on the printer CD-ROM provides the easiest and fastest way to set up your print server, along with your printer.

The CD-ROM contains software, documentation, and registration for your print server as well as your printer. Using this information, you can perform the following tasks:

- Quickly install the print server software
- View documentation for your print server
- Register your print server via the Internet

For additional options, see the appropriate sections in this chapter.

Install the software on a network

The installation program on the CD-ROM guides you through the basic configuration of your print server, along with your printer.

Note

If you purchased a print server separately, make sure that you install the print server using the software found on the CD-ROM that came with your printer. Do not use the HP JetDirect CD-ROM that came with your print server. If you have already installed the printer using the “Direct Connect” option, you must uninstall the printer software and run the printer software again, using the “Connected to the network” option, to ensure that all print, copy, and scan features function properly.

Install the printer and server

- 1 Quit all open applications.
- 2 Insert the CD-ROM into the CD-ROM drive. When the welcome screen displays, follow the directions on the screen. When asked how the printer will be connected, select **Connected to the network**, and click **Next**.

Note

If the welcome screen does not display, click **Start**, and **Run**. Type `x:setup` (where x is the letter of your CD-ROM drive), and click **OK**. If it does not display in Macintosh, double-click the CD icon in the desktop, then double-click **HP All-In-One Installer**.

- 3 When the installation is nearly complete, a setup screen appears that asks if you want to print a test page. Click **Yes**.

Note

If you purchased a print server separately, make sure that you install the print server software found on the CD-ROM that came with your printer. Reinstall the printer software to ensure that all print, copy, and scan features function properly.

If your network uses the TCP/IP protocol, you can use additional tools to customize the print server's configuration for your network environment.

Using the embedded web server

Each HP JetDirect 175X print server contains an embedded web server that you can access through a compatible web browser on an intranet. The embedded web server provides access to configuration and management pages for the print server and the attached printer. The networking pages provide access to status and configuration information on the HP JetDirect 175X print server.

You can use the embedded web server to perform the following tasks:

- Monitor the status of the printer and the print server
- Make optional configuration changes for the print server to customize it for your network
- Link to HP's Web site
- Scan images over the network without HP LaserJet 1220 software

Prerequisites

Computers with the TCP/IP protocol installed can use the embedded web server to monitor and configure the printers networked with an HP JetDirect print server. Use the installation program on the printer CD-ROM to set this up.

Before you can use the embedded web server, you must configure an IP address for the HP JetDirect print server. Use the installation program on the printer CD-ROM to configure the IP address.

Optionally, you can use BootP (Bootstrap Protocol) or DHCP (Dynamic Host Configuration Protocol) to *automatically* configure the IP address over the network each time the print server is turned on.

Compatible Web Browsers

If you use Windows 9x, 2000, Millennium, or NT 4.0, the embedded web server works with the following browsers:

- Netscape Navigator 4.6x, 4.7, 4.71, and 4.72
- Internet Explorer 4.0, 4.01 with SP2, 5.0, and 5.01 (Millennium requires IE 5.0 or greater)

For the latest list of compatible web browsers, check HP's Customer Care online at http://www.hp.com/support/net_printing.

Starting the embedded web server

After you establish an IP address on the print server, perform the following steps:

- 1 Run a supported web browser.
- 2 Enter the IP address of the print server as the URL. The print server's Home page displays.
- 3 Click the **Help** link on the web page for more information.

Note

If you change the IP address and other parameters, the connection to the embedded web server closes. To re-establish a connection, use the new IP address as the URL. Also, some computer setups may no longer work.

Using HP Web JetAdmin

HP Web JetAdmin is a printer installation and management application for intranets. You can obtain this software from HP Customer Care Online at http://www.hp.com/support/net_printing.

Hewlett-Packard recommends that you use HP Web JetAdmin version 6.0 or later for operation with the print server's embedded web server.

Additional configuration and management tools

The rest of this chapter includes information about other network configurations that you can use to attach your HP LaserJet 1200 or 1220 series product to a network.

Using BOOTP

This section describes how to configure the print server using Bootstrap Protocol (BOOTP) services on servers in some operating systems. You use BOOTP to download network configuration data from a server to the HP JetDirect print server over the network.

Note

On Windows NT and 2000 server systems, use the Microsoft DHCP utilities to set up HP JetDirect configuration via BOOTP. See [Using DHCP](#) for more information.

Benefits of using BOOTP

Using BOOTP to download configuration data provides the following benefits:

- Enhanced configuration control of the HP JetDirect print server. If you use other methods, such as the printer control panel, the configuration is limited to select parameters.
- Ease of configuration management. You can have the network configuration parameters for the entire network in one location.
- Ease of HP JetDirect print server configuration. You can automatically download complete network configuration information each time you turn the print server on.

The factory default for the HP JetDirect print server is to operate through BOOTP.

Configuring the BOOTP server

Note

Hewlett-Packard recommends that the BOOTP server be located on the same subnet as the printers it serves. Routers cannot forward BOOTP broadcast packets unless the routers are properly configured.

Note

If the HP JetDirect print server does not receive its IP configuration within two minutes, a default IP address is automatically assigned: 192.0.0.192. You are advised not to leave this address as it is, but to change it to an address that fits into your network addressing scheme. You can, however, use this address to initially access the print server, and then change it to a more suitable one. To use the default IP address temporarily, set up your computer with an IP address in the same subnet, or establish an IP route to it.

For the HP JetDirect print server to obtain its configuration data over the network, you must set up the BOOTP servers with the appropriate configuration files. The print server uses BOOTP to obtain entries in the `/etc/bootptab` file on a BOOTP server.

When you turn the HP JetDirect print server on, it broadcasts a BOOTP request that contains its hardware address. A BOOTP server daemon searches the `/etc/bootptab` file for a matching MAC address and, if successful, sends the corresponding configuration data to the HP JetDirect print server as a BOOTP reply. The configuration data in the `/etc/bootptab` file must be properly entered. See [Bootptab file entries](#) for a description of the entries.

CAUTION

Community names (passwords) for your printer are not secure. If you specify a community name for your printer, select a name that is different from the passwords used for other systems on your network.

Bootptab file entries

The following is an example of a `/etc/bootptab` file entry for an HP JetDirect print server:

```
picasso:\
    :hn:\
    :ht=ether:\
    :vm=rfc1048:\
    :ha=0001E6123456:\
    :ip=192.168.45.39:\
    :sm=255.255.255.0:\
    :gw=192.168.40.1:\
    :lg=192.168.40.3:\
    :T144="hpn/picasso.cfg":
```

Note that the configuration data contains tags that identify the various HP JetDirect parameters and their settings. The following table describes these tags.

Tag	Description
<code>nodename</code>	The name of the peripheral. This is an entry point to a list of parameters for a specific peripheral. This must be the first tag in an entry. (In the example, the <code>nodename</code> is <code>picasso</code> .)
<code>hn</code>	The host name tag. This tag does not take a value, but it causes the BOOTP daemon to download the host name to the HP JetDirect print server. The host name is printed on the HP JetDirect configuration page or a network application returns the host name on an SNMP <code>sysName</code> request.
<code>ht</code>	The hardware type tag. For the HP JetDirect print server, set this tag to <code>ether</code> (for Ethernet) or <code>token</code> (for Token Ring). This tag must precede the <code>ha</code> tag.
<code>vm</code>	The BOOTP report format tag (required). Set this tag to <code>rfc1048</code> .
<code>ha</code>	The hardware address tag. The hardware (MAC) address is the HP JetDirect print server's link-level or station address. You can find this address on the HP JetDirect configuration page as the Hardware Address . On HP JetDirect external print servers, this address is also printed on a label attached to the print server.

Tag	Description
ip	The IP address tag (required). This is the HP JetDirect print server's IP address.
gw	The gateway IP address tag. This is the IP address of the default gateway (router) that the HP JetDirect print server uses to communicate with other subnets.
sm	The subnet mask tag. The HP JetDirect print server uses the subnet mask to identify the portions of an IP address that specify the network and subnetwork number and the host address.
lg	The syslog server's IP address tag. This is the address of the server where the HP JetDirect print server sends syslog messages.
T144	<p>A vendor-specific tag that specifies the relative path name of the TFTP configuration file. You can truncate long path names. The path name must be enclosed with quotes (for example, "pathname"). See Using DHCP for more information about file formats.</p> <p>Note Standard BOOTP option 18 (extensions file path) also allows a standard tag (<code>e#f</code>) to specify the relative path name of the TFTP configuration file.</p>
T150	The TFTP server's IP address tag.
T151	A BOOTP-only tag. You must specify <code>BOOTP-ONLY</code> to ensure that other dynamic configuration methods, such as DHCP, are not used.

Use the following conventions for the bootptab file entries:

- A colon (:) indicates the end of a field.
- A backslash (\) indicates that the entry is continued on the next line.
- Spaces are not allowed between the characters on a line.
- Names, such as host names, must begin with a letter and can contain only letters, numbers, periods (for domain names only), or hyphens.
- The underscore character (_) is not allowed.

See your system documentation or online help for more information.

Using DHCP

Dynamic Host Configuration Protocol (DHCP), which is defined by Request for Comments (RFC) 2131 and 2132, is one of several auto configuration mechanisms that the HP JetDirect print server uses. If you have a DHCP server on your network, the HP JetDirect print server automatically obtains its IP address from that server and registers its name with any RFC 1001 and 1002-compliant dynamic name services as long as you have specified a Windows Internet Naming Service (WINS) server IP address.

Note

If the HP JetDirect print server does not receive its IP configuration within two minutes, a default IP address is automatically assigned: 192.0.0.192. You are advised not to leave this address as it is, but to change it to an address that fits into your network addressing scheme. You can, however, use this address to initially access the print server, and then change it to a more suitable one. To use the default IP address temporarily, set up your computer with an IP address in the same subnet, or establish an IP route to it. DHCP services must be available on the server. See your system documentation or online help to install or enable DHCP services.

Note

If the HP JetDirect print server and BOOTP/DHCP server are located on different subnets, the IP configuration might fail unless the routing device supports BOOTP Relay, which allows the transfer of BOOTP requests between subnets.

UNIX systems

See the `bootpd` man page for more information about setting up DHCP on UNIX systems.

On HP-UX systems, you might find a sample DHCP configuration file (`dhcptab`) in the `/etc` directory.

Since HP-UX presently does not provide Dynamic Domain Name Services (DDNS) for its DHCP implementations, Hewlett-Packard recommends that you set all print server lease durations to *infinite*. This ensures that print server IP addresses remain static until dynamic name services are provided.

Windows systems

HP JetDirect print servers support IP configuration from a Windows NT or 2000 DHCP server. This section describes how to set up a pool, or “scope,” of IP addresses that the Windows server can assign or lease to any requester. When configured for BOOTP/DHCP operation (factory default), the HP JetDirect print server makes a request to the DHCP server for its IP configuration when you turn the print server on.

Note

This information is provided as an overview. See the information supplied with your DHCP software for specific information or for additional support.

Note

To avoid problems resulting from IP addresses that change, Hewlett-Packard recommends that you assign IP addresses with infinite leases or reserved IP addresses to all of your printers.

Windows NT 4.0 server

To set up a DHCP scope on a Windows NT 4.0 server, perform the following steps:

- 1 At the Windows NT server, open the **Program Manager** window, and double-click the **Network Administrator** icon.
- 2 Double-click the **DHCP Manager** icon.
- 3 Select **Server**, and select **Server Add**.
- 4 Type the server IP address, and click **OK** to return to the **DHCP Manager** window.
- 5 In the list of DHCP servers, select the server that you just added, select **Scope**, and select **Create**.
- 6 Select **Set up the IP Address Pool**. In the **IP Address Pool** section, set up the IP address range by typing the beginning IP address in the **Start Address** box and the ending IP address in the **End Address** box. Also type the subnet mask for the subnet to which the IP address pool applies. The starting and ending IP addresses define the end points of the address pool assigned to this scope.

Note

You can also exclude ranges of IP addresses within a scope.

- 7 In the **Lease Duration** section, select **Unlimited**, and select **OK**. To avoid the problems that result when IP addresses change, Hewlett-Packard recommends that you assign infinite leases to all of your printers. Be aware, however, that selecting an unlimited lease duration for the scope causes all of the clients in that scope to have infinite leases.

Note

If you want clients on your network to have finite leases, you can set the duration to a finite time, but you should configure all of your printers as reserved clients for the scope.

- 8 If you have assigned unlimited leases, skip to step 9. Otherwise, select **Scope**, and select **Add Reservations** to set up your printers as reserved clients. For each printer, perform the following steps in the **Add Reserved Clients** window:
 - a Type the selected IP address.
 - b Obtain the hardware (MAC) address from the configuration page, and type the address in the **Unique Identifier** box.
 - c Type the client name (any name is acceptable).
 - d To add the reserved client, select **Add**. To delete a reservation, in the **DHCP Manager** window, select **Scope**, and select **Active Leases**. In the **Active Leases** window, select the reservation that you want to delete, and select **Delete**.
- 9 To return to the **DHCP Manager** window, select **Close**.
- 10 If you are not planning to use Windows Internet Naming Service (WINS), skip to step 11. Otherwise perform the following steps to configuring your DHCP server:
 - a From the **DHCP Manager** window, select **DHCP Options**, and select one of the following:
 - Scope** — If you only want Name Services for the selected scope.
 - Global** — If you want Name Services for all scopes.
 - b Add the server to the **Active Options** list. From the **DHCP Options** window, select **WINS/NBNS Servers (044)** from the **Unused Options** list. Select **Add**, and select **OK**.
 - c A warning might appear requesting that you set the node type. You do this in step 10d.

- d To provide the WINS server's IP address, perform the following steps:
 - e Select **Value**, and **Edit Array**.
 - f From the **IP Address Array Editor**, select **Remove** to delete any undesired addresses previously set. Type the WINS server's IP address, and select **Add**.
 - g Once the address appears in the list of IP addresses, select **OK**. This returns you to the **DHCP Options** window. If the address that you just added appears in the list of IP addresses (near the bottom of the window) return to step 10d. Otherwise, repeat step 10c.
 - h In the **DHCP Options** window, select **WINS/NBT Node Type (046)** from the **Unused Options** list. Select **Add** to add the node type to the **Active Options** list. In the **Byte** box, type 0x4 to indicate a mixed node, and select **OK**.
- 11 To return to **Program Manager**, click **Close**.

Windows 2000 server

To set up a DHCP scope on a Windows 2000 server, perform the following steps:

- 1 To run the Windows 2000 DHCP manager utility, click **Start**, **Settings**, and **Control Panel**. Open the **Administrative Tools** folder, and run the **DHCP** utility.
- 2 In the DHCP window, find and select your Windows 2000 server in the DHCP tree. If your server is not listed in the tree, select **DHCP**, and click the **Action** menu to add the server.
- 3 After selecting your server in the DHCP tree, click the **Action** menu, and select **New Scope**. This runs the **Add New Scope** Wizard.
- 4 In the **Add New Scope** Wizard, click **Next**.
- 5 Enter a name and description for this scope, and click **Next**.
- 6 Type the range of IP addresses for this scope (beginning IP address and ending IP address). Also, type the subnet mask, and click **Next**.

Note

If you are using subnetting, the subnet mask defines which portion of an IP address specifies the subnet and which portion specifies the client device.

- 7 If applicable, type the range of IP addresses within the scope that you want the server to exclude, and click **Next**.
- 8 Type the IP address lease duration for your DHCP clients, and click **Next**. Hewlett-Packard recommends that you assign reserved IP addresses to all of your printers. You can do this after you set up the scope.
- 9 To configure the DHCP options for this scope later, select **No**, and click **Next**. To configure the DHCP options now, select **Yes**, and click **Next**.
 - a If desired, type the IP address of the router (or default gateway) that the clients will use, and click **Next**.
 - b If desired, type the domain name and Domain Name System (DNS) servers for the clients, and click **Next**.
 - c If desired, specify the WINS server names and IP addresses, and click **Next**.
 - d To activate the DHCP options now, select **Yes**, and click **Next**.
- 10 You have successfully set up the DHCP scope on this server. To close the wizard, click **Finish**.
- 11 To configure your printer with a reserved IP address within the DHCP scope, perform the following steps:
 - a In the DHCP tree, open the folder for your scope, and select **Reservations**.
 - b Click the **Action** menu, and select **New Reservation**.
 - c Type the appropriate information in each field, including the reserved IP address for your printer.

Note

The MAC address for your HP JetDirect-connected printer is available on the HP JetDirect configuration page.

- d Under **Supported types**, select **DHCP only**, and click **Add**.

Note

Selecting **Both** or **BOOTP only** results in a BOOTP configuration because of the sequence in which HP JetDirect print servers initiate the configuration protocol requests.

- e Specify another reserved client, or click **Close**. The reserved clients added are displayed in the Reservations folder for this scope.

12 Close the DHCP manager utility.

Enabling or disabling DHCP

If you do not want your HP JetDirect print server configured via DHCP, you must disable DHCP configuration. You can use one of the following methods to enable or disable DHCP:

- If you use the printer control panel to disable BOOTP on the HP JetDirect print server, DHCP is disabled.
- You can use Telnet to enable or disable DHCP operation on the HP JetDirect print server. When you use Telnet to disable a DHCP configuration Telnet, the print server automatically releases any names and IP addresses associated with the DHCP server and reinitializes the TCP/IP protocol for the print server. At this point, the print server is unconfigured and begins to send BOOTP and RARP requests to acquire new (non-DHCP) configuration information.
- You can use HP Web JetAdmin to modify the TCP/IP parameters.

If you manually provide an IP address when you use Telnet to disable DHCP, the print server still releases its DHCP-provided IP address but the print server does not send BOOTP and RARP configuration requests. Instead, the print server uses the configuration information that you provided. Therefore, if you provide the IP address, you should also manually set all of the configuration parameters, such as subnet mask, default gateway, and idle timeout.

Note

If you change the DHCP configuration state from disabled to enabled, the print server assumes that it should acquire its configuration information from a DHCP server. This means that when the Telnet session is completed, the TCP/IP protocol for the print server is reinitialized and all of the current configuration information is deleted. The print server then tries to acquire new configuration information by sending DHCP requests on the network to a DHCP server.

Moving to another network

When you move an HP JetDirect print server that is configured with an IP address to a new network, make sure that the IP address does not conflict with the IP addresses on the new network. You can change the print server's IP address to one that can be used on the new network, or you can erase the current IP address and configure another IP address after you install the print server on the new network. Cold reset the print server (see [Troubleshooting the print server](#) for instructions).

If the current BOOTP server cannot be reached, you might need to find a different BOOTP server and configure the printer to that server.

If you used BOOTP or DHCP to configure the print server, edit the appropriate system files with updated settings. If you manually set the IP address, reconfigure the IP parameters as described in this chapter.

Follow the instructions on the appropriate Home page to configure or modify your printer. These instructions show you how to configure your printer and set up the printer for printing.

Note

You can substitute the server.domain with the TCP/IP address.

4 Media

This chapter provides information on the following topics:

- [Optimizing print quality for media types](#)
- [Printing transparencies and labels](#)
- [Printing envelopes](#)
- [Printing letterhead or preprinted forms](#)
- [Printing custom-sized media or cardstock](#)

Optimizing print quality for media types

Media type settings control the temperature of your printer's fuser. You can change the settings for the media that you are using to optimize the print quality. The following are the media types that you can optimize:

- Plain paper
- Bond paper
- Cardstock
- Envelope
- Heavy paper
- Labels
- Rough paper
- Thin paper
- Transparency

You can access the optimizing feature from the **Paper** tab in your printer driver or from HP LaserJet Device Configuration.

Printing speeds are automatically reduced when printing special-sized media.

Printing transparencies and labels

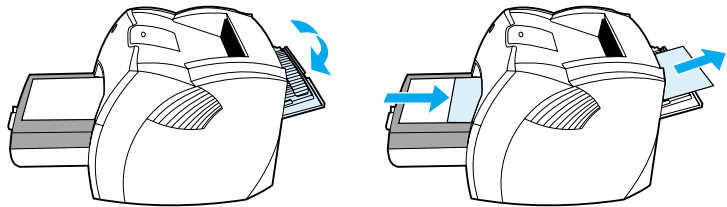
Only use transparencies and labels that are recommended for use in laser printers, such as HP transparency film and HP LaserJet labels. See [Printer media specifications](#) for more information.

CAUTION

Inspect the media to make sure that it is not wrinkled or curled and that it does not have any torn edges or missing labels.

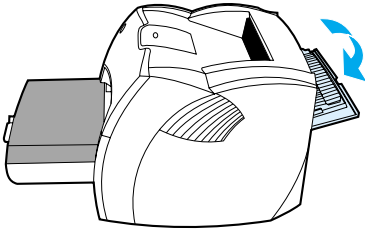
To print transparencies or labels

- 1 Open the straight-through output door.
- 2 Load a single page in the priority input tray or load multiple pages in the main input tray. Make sure that the top of the media is forward and the side to be printed (rough side) is facing up.
- 3 Adjust the media guides.
- 4 Access the optimizing feature from the **Paper** tab in your printer driver or from HP LasetJet Device Configuration. Then select **Optimize for:** and choose transparency or labels in the drop-down box.
- 5 Print the document. Remove the media from the back of the printer as it prints to prevent it from sticking together and place the printed pages on a flat surface.

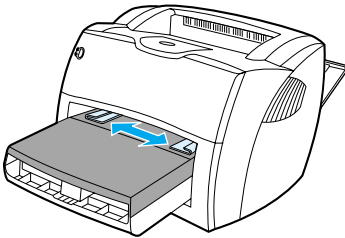


Printing envelopes

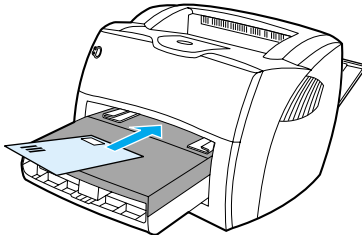
1



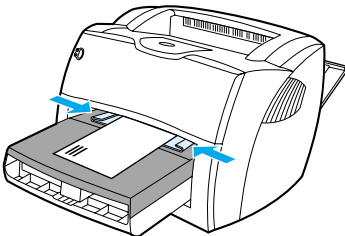
2



3



4



Printing one envelope

Only use envelopes that are recommended for laser printers. See [Printer media specifications](#) for more information.

Note

Use the priority input tray for printing one envelope. Use the main input tray for printing multiple envelopes.

- 1 To prevent the envelopes from curling as they print, open the straight-through output door.
- 2 Before loading the envelopes, slide the media guides outward to slightly wider than the envelopes.
- 3 Place the envelope with the stamp end forward and the side to be printed facing up.

Note

If the envelope has a flap on the short edge, feed that edge into the printer first.

- 4 Adjust the media guides to the length and width of the envelope. Set **Optimize for:** to Envelope, and print the envelope.

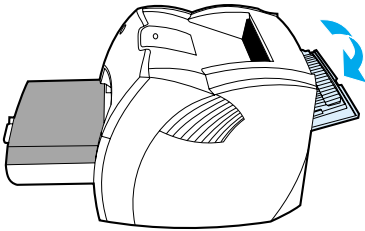
Printing multiple envelopes

Only use envelopes that are recommended for laser printers. See [Printer media specifications](#) for more information.

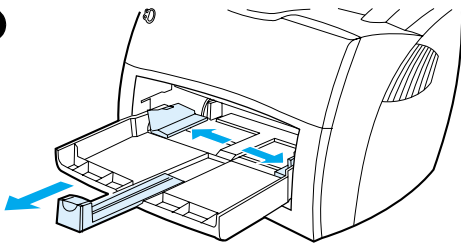
Note

Use the priority input tray for printing one envelope. Use the main input tray for printing multiple envelopes.

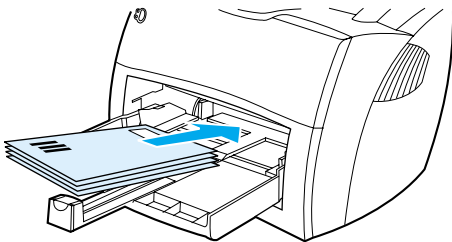
1



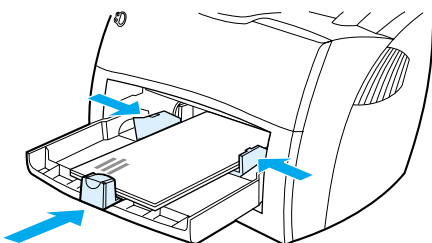
2



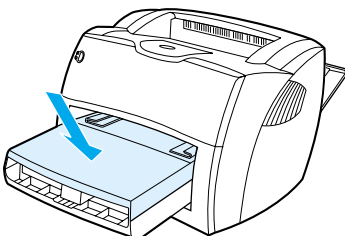
3



4



5



- 1 To prevent the envelopes from curling as they print, open the straight-through output door.
- 2 Before loading the envelopes, slide the media guides outward to slightly wider than the envelopes.
- 3 Place the envelopes with the stamp end forward and the side to be printed facing up.

Note

If the envelopes have a flap on the short edge, feed that edge into the printer first.

- 4 Adjust the media guides to the length and width of the envelopes. Set **Optimize for:** to Envelope, and print the envelope.
- 5 Replace the priority input tray.

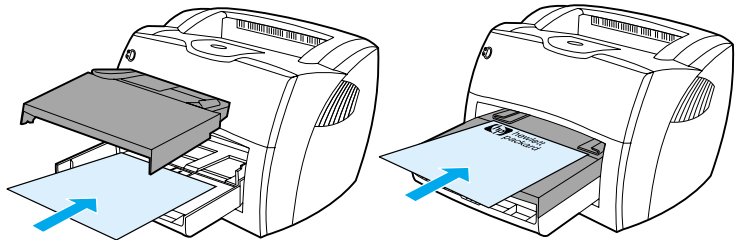
Printing letterhead or preprinted forms

To print letterhead or preprinted forms

- 1 Load the paper with the top forward and the side to be printed facing up. Adjust the media guides to fit the width of the paper.
- 2 Print the document.

Note

To print a single-page cover letter on letterhead, followed by a multiple-page document, load the letterhead in the priority input tray and load the standard paper in the main input tray. The printer automatically prints from the priority input tray first.



Cover letter followed by document.
Use both input trays.

Printing custom-sized media or cardstock

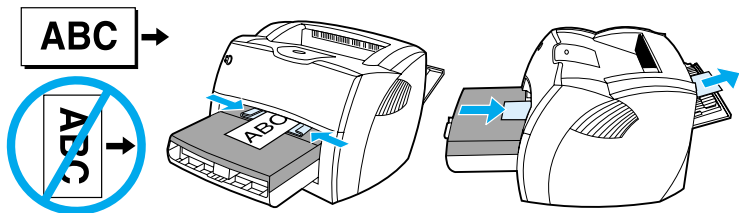
The HP LaserJet 1200 Series can print on custom-sized media or cardstock between 76 by 127 mm (3 by 5 in.) and 216 by 356 mm (8.5 by 14 in.). Depending on the media, you can print up to 10 sheets from the priority input tray. Use the main input tray for multiple sheets.

CAUTION

Make sure that the sheets are not stuck together before you load them.

To print on custom-sized media or cardstock

- 1 Open the straight-through output door.
- 2 Load the media with the narrow side forward and the side to be printed facing up. Adjust the side and rear media guides to fit the media.
- 3 Select the correct size in the printer settings. (Software settings can override printer properties.)
- 4 Access the optimizing feature from the **Paper** tab in your printer driver or from HP LaserJet Device Configuration. Then select **Optimize for:** and choose cardstock in the drop-down box.
- 5 Print the document.



5 Printing tasks

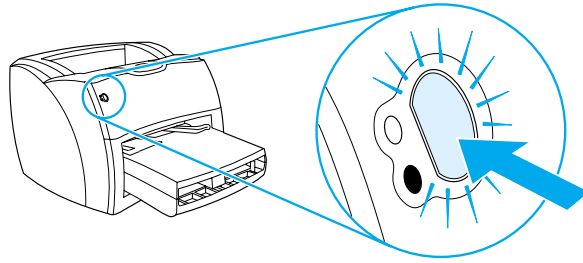
This chapter provides information on the following topics:

- [Printing with manual feed](#)
- [Printing on both sides of the paper \(manual duplexing\)](#)
- [Printing watermarks](#)
- [Printing multiple pages on a single sheet of paper \(N-up printing\)](#)
- [Printing booklets](#)
- [Canceling a print job](#)
- [Understanding print quality settings](#)
- [Using EconoMode \(Save Toner\)](#)

Printing with manual feed

You can use manual feed when printing mixed media, for example, an envelope, then a letter, then an envelope, and so on. Load an envelope in the priority input tray and load letterhead in the main input tray. You can also use manual feed to protect your privacy when printing to a network printer.

To print using manual feed, access the printer properties or printer setup in your software application, and select **Manual Feed** from the **Source Tray** drop-down list. See [Printer properties \(driver\)](#) for instructions. After you have enabled the setting, press the **Go** button (blinking) each time to print.



Printing on both sides of the paper (manual duplexing)

To print on both sides of the paper (manual duplexing), you must run the paper through the printer twice. You can print using the media output bin or the straight-through output path. Hewlett-Packard recommends that you use the media output bin for lightweight paper and use the straight-through output path for any heavy media or media that curls when printed.

See the following topics for more information:

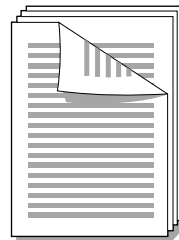
- [Manual duplex using the output bin](#)
- [Manual duplex on heavy media or card stock](#)

Note

Manual duplexing is only supported in Windows.

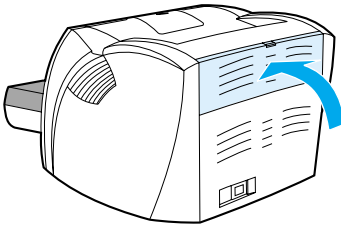
Note

Manual duplexing can cause the printer to become dirty, reducing print quality. See [Cleaning the printer](#) for instructions if the printer becomes dirty.

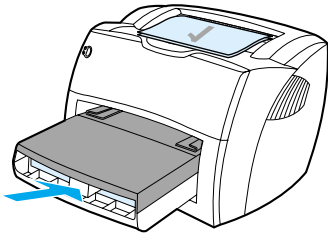


Manual duplex using the output bin

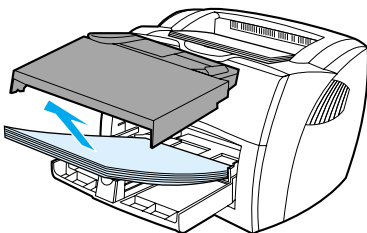
1



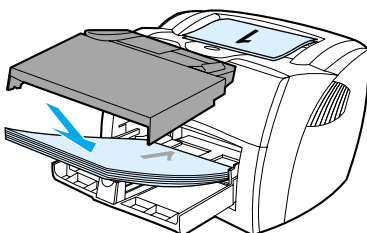
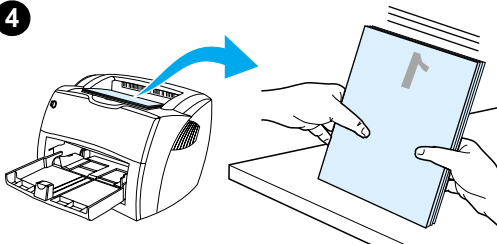
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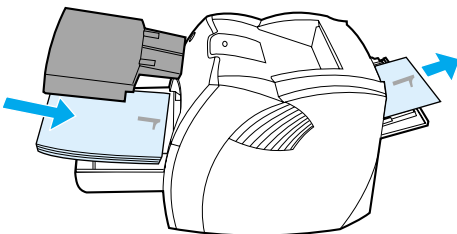
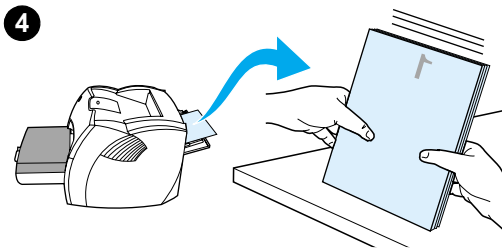
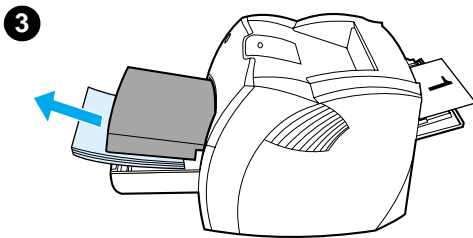
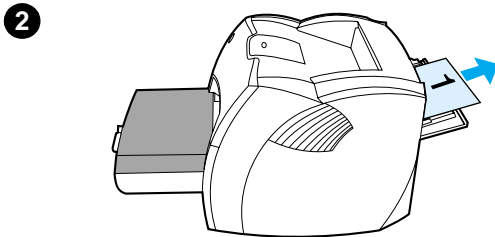
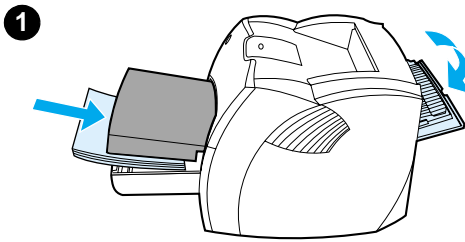
4



- 1 Make sure that the straight-through output door is closed.
- 2 Access the printer properties. See [Printer properties \(driver\)](#) for instructions. On the **Finishing** tab, click **Print on Both Sides**, select the **Flip Pages Up** check box, and click **OK**. Print the document.
- 3 After side one has printed, remove the remaining paper from the input tray, and set it aside until after you finish your manual duplexing job.
- 4 Gather the printed pages, turn the printed side down, and straighten the stack.
- 5 Place the stack back in the input tray. Side one should be facing down with the top edge toward the printer. Replace the priority input tray.

Click **OK** (on screen), and wait for side two to print.

Manual duplex on heavy media or card stock



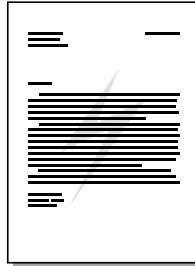
For heavy media, such as card stock, use the straight-through output path.

- 1 Load the media, and open the straight-through output door.
- 2 Access the printer properties. See [Printer properties \(driver\)](#) for instructions. On the **Finishing** tab, click **Print on Both Sides**, select the **Straight Paper Path** check box, and click **OK**. Print the document.
- 3 After side one has printed, remove the remaining paper from the input tray and set it aside until after you finish your manual duplexing job.
- 4 Gather the printed pages, turn the printed side down, and straighten the stack before placing it back in the input tray. Side one should be facing down with the top edge toward the printer.

Click **OK** (on screen), and wait for side two to print.

Printing watermarks

You can 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 reading *Draft* or *Confidential* printed diagonally across the first page or all of the pages of a document.

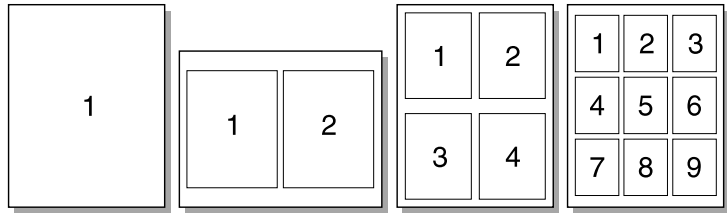


Accessing the watermark feature

- 1 From your software application, access the printer properties. See [Printer properties \(driver\)](#) for instructions.
- 2 On the **Effects** tab (Windows) or the **Watermark/Overlay** screen (Macintosh), specify the type of watermark that you want to print on your document.

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 choose to print more than one page per sheet, the pages appear smaller and are arranged on the sheet in the order that they would otherwise be printed. You can specify up to 9 pages per sheet of paper.



Accessing the multiple pages per sheet feature (Windows)

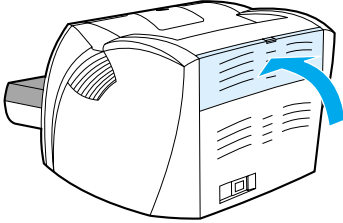
- 1 From your software application, access the printer properties. See [Printer properties \(driver\)](#) for instructions.
- 2 On the **Finishing** tab under **Pages Per Sheet**, specify the number of pages per sheet that you want to print.
- 3 There is also a check box for page borders and a pull-down menu to specify the order of pages printed on the sheet.

Accessing the multiple pages per sheet feature (Mac OS)

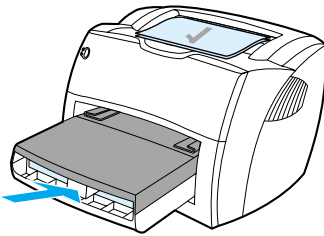
- 1 From the desktop, select the **File** then **Print Desktop**.
- 2 From the **General** dropdown list, select **Layout**.
- 3 In the **Pages Per Sheet** dropdown list, select the number of pages per sheet to print.
- 4 Click **Save**.

Printing booklets

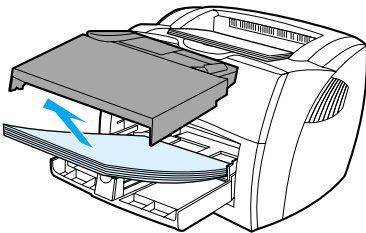
1



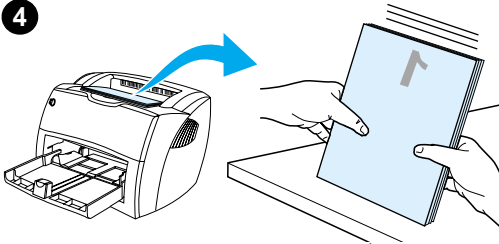
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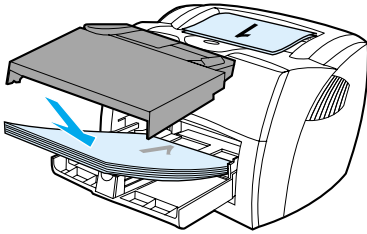


You can print booklets on letter, legal, executive, or A4 paper.

- 1 Load the paper, and make sure that the straight-through output door is closed.
- 2 Access the printer properties. See [Printer properties \(driver\)](#) for instructions. On the **Finishing** tab (Windows) or the **Layout** screen (Macintosh), select **Print on Both Sides**, and select **Letter (Left Binding)** or **Letter (Right Binding)** in the Booklet pull-down menu. Print the booklet.
- 3 After side one has been printed, remove the remaining paper from the input tray, and set it aside until your booklet job is complete.
- 4 Gather the printed pages, turn the printed side down, and straighten the stack of paper.

Continued on next page.

5

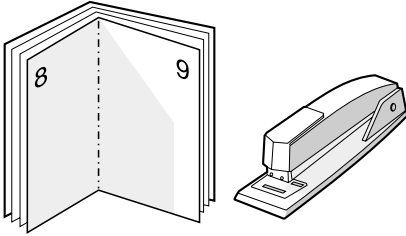


- 5 Place the pages from side one back in the input tray. Side one should be facing down with the top edge toward the printer.

Click **OK** (on screen), and wait for side two to print.

- 6 Fold and staple the pages.

6



Canceling a print job

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

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

- **Printer control panel:** To cancel the print job, press and release the **Go** button on the printer control panel.
- **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. Go to the **Printer** screen in Windows 9x, 2000, Millennium, and NT 4.0, click **Start**, **Settings**, and **Printers**. Double-click the **HP LaserJet 1200** icon to open the window, select your print job, and click **Delete**.
- **Desktop print queue (Mac OS):** Open the printer queue by double-clicking on the printer's icon in the **Finder**. Then highlight the print job and click **Trash**.

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 printer. Either delete the job from the print queue or wait until the computer finishes sending data. The printer will return to the Ready state.

Understanding print quality settings

Print quality settings affect how light or dark the print is on the page and the style that the graphics are printed. You can also use the print quality settings to optimize the print quality for a specific media type. See [Optimizing print quality for media types](#) for more information.

You can change the settings in the printer properties to accommodate the types of jobs you are printing. The following are the settings:

- **Best Quality:** This prints at 1200 dpi and provides the best print quality.
- **Faster Printing:** The resolution is reduced slightly so that the job can print faster. This is the default setting.
- **Custom:** This prints the same as the Faster Printing setting, but you can change the scale patterns.
- **EconoMode (Save Toner):** Text is printed using less toner. This setting is useful when you are printing drafts.

You can access these settings on the **Finishing** tab (Windows) under **Print Quality** settings in the printer properties. To view the details of each setting, click **Details**. For Macintosh, select the **Imaging Options** screen.

Note

To change the print quality settings for all future print jobs, access the properties through the **Start** menu in the Windows system tray. To change the print quality settings only for the current software application's use, access the properties through the **Print Setup** menu in the application you are using to print. See [Printer properties \(driver\)](#) for more information.

Using EconoMode (Save Toner)

An excellent way to extend the life of your toner cartridge is by using EconoMode. EconoMode uses substantially less toner than normal printing. The printed image is much lighter, but it is adequate for printing drafts or proofs.

To enable EconoMode, access the printer properties. On the **Finishing** tab (Windows) or the **Imaging Options** screen (Macintosh) under **Print Quality**, select **EconoMode**.

Note

See [Printer properties \(driver\)](#) for instructions on enabling EconoMode for all future jobs.

6 Scanning tasks

This chapter provides information on the following topics:

- [Starting a scan](#)
- [Scanning to e-mail](#)
- [Editing scanned text \(Optical Character Recognition\)](#)
- [Storing scanned text or images](#)
- [Acquiring an image](#)
- [Adjusting the contrast](#)
- [Enhancing the scanned image in HP Document Manager](#)
- [Adding annotations to scanned images](#)
- [Canceling scan jobs](#)

Note

To obtain good results, it is important that you use the correct resolution and color settings to scan your job. See [Scanner resolution and color](#) for more information.

Starting a scan

You can start the scanning process from the HP LaserJet Director.

Note

The HP LaserJet Director is not supported for Microsoft Windows 95. If you are using Windows 95, see [Acquiring an image](#).

Windows

- 1 Place the item into the copier/scanner media input tray.
- 2 Press the **Scan** button on the copier/scanner, or open the HP LaserJet Director by clicking the HP LaserJet Director icon located on the taskbar and clicking **Scan**.
- 3 Select a scan destination.
- 4 Choose to scan in color by selecting the **Scan in color** check box. The product automatically scans in black and white if you do not select this check box.
- 5 Select whether you want to scan all pages at once or scan page-by-page.
If you choose to scan all pages at once, click **Scan**. The edits are saved and the rest of the pages are scanned automatically. The entire document is sent to the destination. If you send a scanned document to a file, a printer, or an e-mail application, a secondary dialog box appears and prompts you for additional information.
-Or-
If you choose to scan page-by-page, see [Working with scanned items](#).

Mac OS

- 1 Place the item into the copier/scanner media input tray.
- 2 Press the **Scan** button on the copier/scanner, or double-click the alias for the HP LaserJet Director that appears on the desktop and clicking **Scan** on the HP LaserJet Director. The HP LaserJet Scan Control Viewer dialog box appears.
- 3 Select a scan destination.
- 4 To select the color scanning option, click **Scan in color**. (The product automatically scans the selection in black and white if this option is not selected.)

- 5 Select whether you want to scan all pages at once or scan page-by-page.
If you choose to scan all pages at once, click **Scan**. The edits are saved and the rest of the pages are scanned automatically. The entire document is sent to the destination. If you send a scanned document to a file, a printer, or an e-mail application, a secondary dialog box appears and prompts you for additional information.
-Or-
If you choose to scan page-by-page, see [Working with scanned items](#).

Working with scanned items

If you choose to scan page-by-page, you can perform editing functions on each page. Editing functions include lightening and darkening photo regions, adding or removing regions from the page, changing region types, and cropping sections.

- 1 Click **Scan First Page**. The first page is scanned and appears in the Preview window.
- 2 Choose a Viewer mode by clicking its corresponding button on the toolbar located in the upper right corner of the Preview window.
- 3 Click **Scan Next Page** to save any edits performed on the previous page and scan the next page in the document feeder tray. Repeat steps 2 and 3 for the remaining pages in the document feeder tray.
-Or-
Click **Send**. The edits are saved and the rest of the pages are scanned automatically. The entire document is sent to the destination.
- 4 If you send a scanned document to a file, a printer, or an e-mail application, a secondary dialog box appears and prompts you for additional information.

Scanning to e-mail

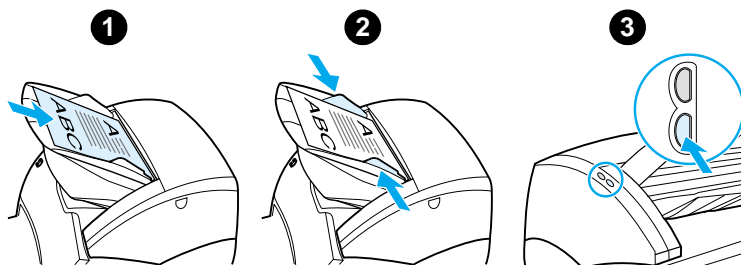
You can use HP LaserJet Director or HP LaserJet Document Manager to scan to e-mail.

Note

The e-mail feature is not available in Windows 95.

Using the e-mail feature (Windows 98, 2000, Millennium, NT 4.0)

- 1 Load the original with the narrow side forward and the side to be scanned facing up.
- 2 Adjust the media guides.
- 3 Press the **Scan** button on the scanner. HP LaserJet Director launches automatically unless you change the default settings or are networked.



- 4 In HP LaserJet Director, click **E-Mail**.
- 5 The original is scanned, and your computer e-mail software application launches and automatically attaches the scanned image as a file.

Using the e-mail feature (Mac OS)

- 1 Open the HP LaserJet Director by double-clicking the alias for the HP LaserJet Director that appears on the desktop.
- 2 Click the **Email** button on the HP LaserJet Director.
- 3 Choose e-mail as the destination.
- 4 If an e-mail appears with the scanned item attached, click Send.
-Or-
Follow the instructions on the wizard.

Editing scanned text (Optical Character Recognition)

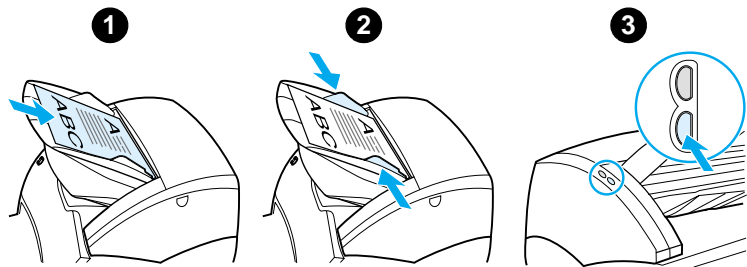
You can use the Edit feature to edit faxes, letters, newspaper clippings, and many other documents. When you edit scanned text, an Optical Character Recognition (OCR) application reads the text, and you can import the text into a word processing program for editing. To change the link for your word processing program, use HP LaserJet Director.

Note

The e-mail feature is not available in Windows 95.

Using the OCR feature (Windows 98, 2000, Millennium, NT 4.0, and Mac OS)

- 1 Load the original with the narrow side forward and the side to be scanned facing up.
- 2 Adjust the media guides.
- 3 Press the **Scan** button on the scanner. HP LaserJet Director launches unless you change the default settings or are networked.



- 4 In HP LaserJet Director, click **OCR**.

- 5 The original is scanned, and your word processing software application launches automatically. The scanned image has been optically read and is now ready to edit.
- 6 Edit your document.

Note

If the word processing icon is not present or active, either you do not have a word processing software application installed on your computer or the scanner software did not recognize the application during the installation. The online help provides instructions on how to create a link to your word processing software application. See [Accessing the online help](#).

Storing scanned text or images

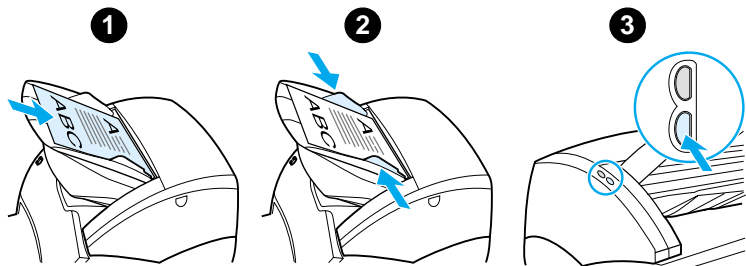
HP software provides direct access to your file management system, which means that you can quickly store scanned images in any directory you choose. You can use HP LaserJet Director or HP LaserJet Document Manager to store scanned images. See [HP LaserJet Director \(Windows 98, 2000, Millennium, NT 4.0, and Mac OS\)](#) or [HP LaserJet Document Manager \(Windows 98, 2000, Millennium, NT 4.0, and Mac OS\)](#) for more information.

Note

The e-mail feature is not available in Windows 95.

Using the Store feature (Windows 98, 2000, Millennium, NT 4.0, and Mac OS)

- 1 Load the original with the narrow side forward and the side to be scanned facing up.
- 2 Adjust the media guides.
- 3 Press the **Scan** button on the scanner. HP LaserJet Director launches automatically unless you change the default settings or are networked.



- 4 In HP LaserJet Director, click **Archive**.
- 5 The document is scanned, and the scanned image is stored on the desktop.
- 6 If necessary, you can crop or scale the image or add annotations.
- 7 Select the **Folders** tab and drag the image to the directory of your choice listed on the left side of HP LaserJet Document Manager.

Acquiring an image

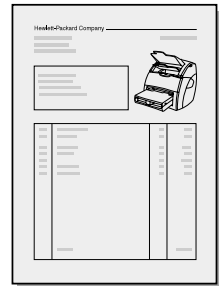
Note

If you are using Windows 95 and want to scan documents, you will have to use TWAIN-compliant software. For all other operating systems, using TWAIN-compliant software is optional.

The product is TWAIN-compliant and works with Windows- and Macintosh-based programs that support TWAIN-compliant scanning devices. While in a TWAIN-enabled program, you can access the scanning feature and scan an image directly into the open application. To do so, follow the program's instructions for acquiring an image using TWAIN. For more specific information, see [Accessing the online help](#).

Adjusting the contrast

When you scan originals that have a colored background and text that does not stand out well (contrast-sensitive originals), you might need to adjust the contrast. For example, if you scan a yellow receipt with light gray print, the text might not be legible. To make the text more legible, increase the contrast (darken the text).



Accessing the contrast feature

- **Using the HP LaserJet TWAIN driver:** To adjust the contrast, move the slider left (less contrast) or right (more contrast).
- **Using HP LaserJet Document Manager:** Select the **Tools** menu, select **Image Enhancement**, and select **Contrast**.
- **Using the Scan Control Viewer (Windows only):** Scan the document in page-by-page mode, select photo regions you want to adjust, click the right-mouse button, and adjust the contrast by selecting **Lighten** or **Darken** from the context menu.

Enhancing the scanned image in HP Document Manager

You can use HP LaserJet Document Manager to make the following enhancements to scanned images:

- Adjust the contrast
- Enhance
- Annotate
- Rotate and flip
- Straighten
- Invert
- Sharpen
- Clean
- Convert to grayscale
- Crop

Note

The online help provides instructions on how to use these features. See [Accessing the online help](#).

Accessing the image enhancement features

From HP LaserJet Document Manager, click **Tools**, and click **Image Enhancement**.

Adding annotations to scanned images

You can use HP software to modify and annotate your scanned images. You can perform any of the following tasks on your scanned image:

- Add text
- Add electronic sticky notes
- Highlight text or graphics
- Rubber stamp the image (for example, *Confidential*)
- Draw lines and arrows
- Add hyperlinks

Note

The online help provides instructions on how to use these features. See [Accessing the online help](#).

Accessing the annotation features

From HP LaserJet Document Manager, select the **Tools** tab, and click **Annotations**.

Note

To change the annotations settings, click **Tools**, and click **Annotation Properties**.

Canceling scan jobs

You can use the following methods to cancel a scan job:

- Simultaneously press both buttons on the copier/scanner control panel.
- Click **Cancel** in the dialog box on the computer screen.

Note

If you cancel a job during a scan, you will need to clear the original from the copier/scanner media input tray.

7 Copying tasks

This chapter provides information on the following topics:

- [Understanding copying features](#)
- [Using the Quick Copy feature](#)
- [Using HP LaserJet Copier](#)
- [Adjusting the contrast](#)
- [Canceling copy jobs](#)

Understanding copying features

You can use the Quick Copy feature or HP LaserJet Copier to make copies. You use each method for different purposes. See the following sections for more information:

- [Using the Quick Copy feature](#)
- [Using HP LaserJet Copier](#)

Using the Quick Copy feature

You can use the Quick Copy feature to quickly make a single copy of a document (up to 30 pages), even if your computer is turned off. You can change the default Quick Copy settings, if necessary, to provide the best looking copies for the type of original that you copy the most. These settings are applied to every Quick Copy job until you change them.

See [Quick Copy settings](#) for more information about changing the default Quick Copy settings, or see [Printer online help](#).

- 1 Make sure that the printer is loaded with paper.
- 2 Load the original document (up to 30 pages) in the scanner paper input tray with the narrow side forward and the side to be copied facing up. Adjust the media guides to fit the original. See [Loading originals in the copier/scanner](#) for more information.
- 3 Open or close the straight-through output door to accommodate the copy job. If you are copying to standard-weight media, use the output bin (door closed). If you are copying to heavy media, use the straight-through output path (door open).
- 4 Press the **Copy** button on the scanner.

Quick Copy settings

You can change the default Quick Copy settings when your computer is turned on. Quick Copy settings remain the same for all future Quick Copy jobs, even when your computer is turned off, until you change the defaults again. Quick Copy settings include the following defaults:

- Number of copies = 1
- Collation = On
- Reduce or enlarge = Original (100%)
- Copy quality = Text
- Contrast = Middle Setting

Accessing the Quick Copy settings

- **Windows 9x, 2000, Millennium, and NT 4.0:** In HP LaserJet Director, click **Toolbox**, and **HP LaserJet Device Configuration**. After the **HP LaserJet Device Configuration** opens, click on the **Copy** tab.
- If HP LaserJet Director is not running:
 - **Windows:** Click **Start, Programs, HP LaserJet 1220,** and **Tools, HP LaserJet Device Configuration**. Click on the **Copy** tab.
 - **Mac OS:** Double-click the **HP LaserJet 1200 Device Configuration** icon. Click the **Copy** tab.

Using HP LaserJet Copier

You can use HP LaserJet Copier to perform any of the following tasks when you copy your original:

- Print multiple copies of the same document (up to 30 pages)
- Enable or disable collation
- Reduce or enlarge the image
- Adjust the contrast
- Specify the copy quality
- Make color copies by sending to a color printer

Note

The online help provides instructions on how to use these features. See [Printer online help](#).

Accessing HP LaserJet Copier

Windows 9x, 2000, Millennium, NT 4.0, and Mac OS

Access HP LaserJet Copier from the following locations:

- **HP LaserJet Director:** Click **Copy** or **Copy Plus**.
- **Program Group (Windows only):** Click **Start, Programs, HP LaserJet 1220, and HP LaserJet Copier**.
- **HP LaserJet Document Manager (Windows) or HP Workplace (Mac OS):** Click on the **Copier** icon.

If you click the Copy Plus icon, in addition to the standard copier settings, you can also adjust the brightness of your copies and send the copy to another printer, including a color printer.

Accessing HP LaserJet Copy Plus

You can use HP LaserJet Copy Plus to send the scanned image to any installed Windows printer, including color printers so that you can make color copies. You can also access advanced features, such as copying N-up and including watermarks.

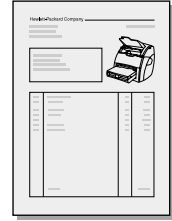
Windows 9x, 2000, Millennium, and NT 4.0

Access HP LaserJet Copy Plus from the following locations:

- **HP LaserJet Director:** Click **Copy Plus**.
- **Program Group (Windows only):** Click **Start, Programs, HP LaserJet 1220, and HP LaserJet Copier**. Select the **I want to copy to another printer** option.

Adjusting the contrast

When you copy originals that have a colored background and text that does not stand out well (contrast-sensitive originals), you might need to adjust the contrast. For example, if you copy a yellow receipt with light gray print, the text might not be legible. To make the text more legible, increase the contrast (darken the text).



Accessing the contrast feature

- **Quick Copies:** From HP LaserJet Director, click **Toolbox**, and **HP LaserJet Device Configuration**. After HP LaserJet Device Configuration opens, click on the **Copy** tab.
- **If HP LaserJet Director is not running:** See [HP LaserJet Director \(Windows 98, 2000, Millennium, NT 4.0, and Mac OS\)](#).
- **Full-featured copies:** Open HP LaserJet Copier. See [Using HP LaserJet Copier](#) for instructions.

Canceling copy jobs

You can use the following methods to cancel a copy job:

- Simultaneously pressing both buttons on the copier/scanner control panel.
- Click **Cancel** in the dialog box on your computer screen.
- Reset the printer.
- For copies started in HP LaserJet Copier, click **Cancel**.

Note

If you cancel a job during a copy, you must clear the original from the copier/scanner media input tray.

8 Managing the toner cartridge

This chapter provides information on the following subjects:

- [Using HP toner cartridges](#)
- [Storing toner cartridges](#)
- [Recycling toner cartridges](#)
- [Saving toner](#)
- [Redistributing toner](#)
- [Changing the toner cartridge](#)

Using HP toner cartridges

HP policy on non-HP toner cartridges

Hewlett-Packard Company cannot recommend the use of non-HP toner cartridges, either new, refilled, or remanufactured. Since they are not HP products, HP cannot influence their design or control their quality.

Note

The warranty does not apply to defects resulting from software, interfacing, or parts not supplied by HP.

Storing toner cartridges

Do not remove the toner cartridge from its package until you are ready to use it. The shelf life of a toner cartridge in an unopened package is approximately 2.5 years. The shelf life of a toner cartridge in an opened package is approximately 6 months.

CAUTION

To prevent damage to the toner cartridge, do not expose it to light.

Toner cartridge life expectancy

The life of the toner cartridge depends on the amount of toner that your print jobs require. When printing text at 5% coverage, the standard toner cartridge (C7115A) lasts an average of 2,500 pages. The extended life toner cartridge (C7115X) lasts an average of 3,500 pages. This assumes that you set the print density to 3 and turn EconoMode off. (These are the default settings.)

Recycling toner cartridges

To reduce landfill waste, Hewlett-Packard has adopted a recycling program for empty toner cartridges. A postage-paid shipping label is inside the new HP LaserJet toner cartridge box. Since 1990, the HP LaserJet Toner Cartridge Recycling Program has collected more than 25 million used HP LaserJet toner cartridges that otherwise might have been discarded in the world's landfills. To join this recycling effort, follow the instructions provided in the new toner cartridge box.

To install a new HP toner cartridge, see [Changing the toner cartridge](#) or follow the instructions included in the toner cartridge box. See the recycling information on the toner cartridge box and the [HP Printing Supplies Environmental Program Information](#) included in the toner cartridge box.

Saving toner

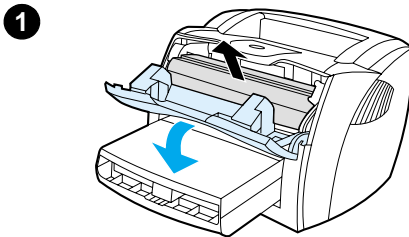
To save toner, select the EconoMode option in your printer properties settings. While in EconoMode (Save Toner), the printer uses less toner on each page. Selecting this option will extend the life of the toner cartridge and reduce your cost per page, but it will reduce print quality. See [Using EconoMode \(Save Toner\)](#) for more information.

Redistributing toner

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, which means that you might be able to finish the current print job before replacing the toner cartridge.

Note

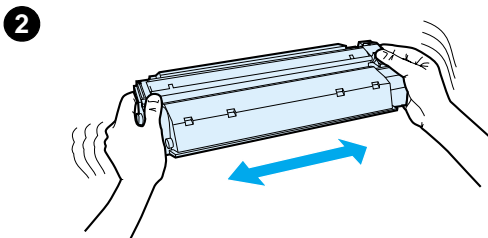
You will feel some resistance when you open the toner door. Opening the toner door conveniently lifts the toner cartridge for removal.



- 1 Open the toner door, and remove the toner cartridge from the printer.
-

CAUTION

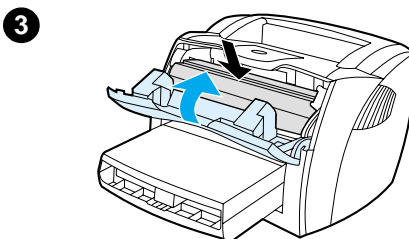
To prevent damage, do not expose the toner cartridge to light. Cover it with a sheet of paper.



- 2 To redistribute the toner, gently shake the toner cartridge from side to side.
-

CAUTION

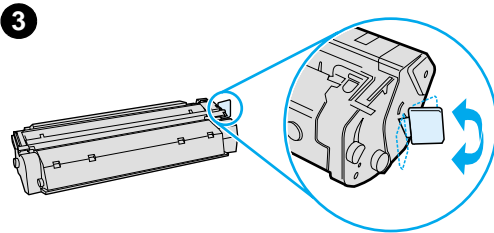
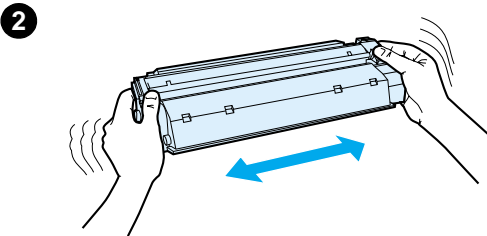
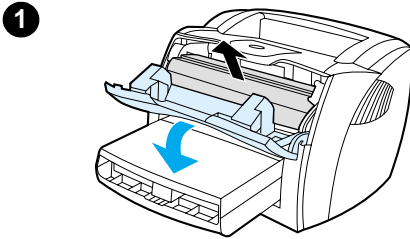
If toner gets on your clothing, wipe it off with a dry cloth and wash the clothing in cold water. *Hot water sets toner into the fabric.*



- 3 Reinsert the toner cartridge into the printer, and close the toner door.

If the print is still light, install a new toner cartridge. See [Changing the toner cartridge](#) for instructions.

Changing the toner cartridge



Note

You will feel some resistance when you open the toner door. Opening the toner door conveniently lifts the toner cartridge for removal.

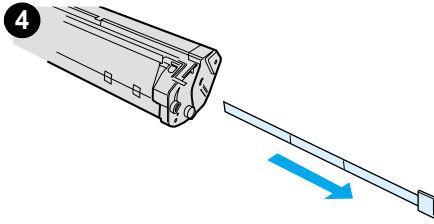
- 1 Open the toner door, and remove the old toner cartridge. See [Recycling toner cartridges](#) or the recycling information inside the toner cartridge box.

CAUTION

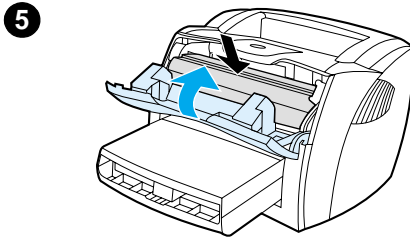
To prevent damage, do not expose the toner cartridge to light. Cover it with a piece of paper.

- 2 Remove the new toner cartridge from the packaging, and gently shake it from side to side to distribute the toner evenly inside the cartridge.
- 3 Bend the tab on the right side of the cartridge to break it loose.

Continued on next page.



- 4 Pull the tab until all the tape is removed from the cartridge. Put the tab in the toner cartridge box to return for recycling.
- 5 Insert the toner cartridge in the printer, making sure that the toner cartridge is in position. Close the toner 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.*

9 Troubleshooting the printer

This chapter provides information on the following subjects:

- [Finding the solution](#)
- [Improving print quality](#)
- [Cleaning the printer](#)
- [Clearing printer media jams](#)
- [Changing the pickup roller](#)
- [Cleaning the pickup roller](#)
- [Changing the printer separation pad](#)

Note

See Hewlett-Packard's Web site for software and printer driver updates, frequently asked questions, and additional troubleshooting information. See [Online services](#) for the appropriate Web address.

Finding the solution

You can use this section to find the solution to common printer problems. For copying or scanning problems, see [Finding the solution](#).

Pages did not print




- **Light patterns:** What light pattern is displayed on the printer control panel? See [Printer light patterns](#) for more information.
- **Error messages on screen:** Is there a message on the screen? See [Error messages on the screen](#) for more information.
- **Media handling:** Is media being pulled into the printer incorrectly? Are there media jams? See [Paper handling problems](#) for more information.

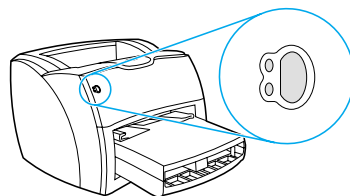
Pages printed, but there was a problem

- **The print quality was poor:** See [Improving print quality](#) for more information.
- **The printed pages do not always appear the same as on the screen (print preview):** See [Printed page is different than what appeared on screen](#) for more information.
- **The printer settings were inappropriate for the media:** See [Paper handling problems](#) for more information.




Printer light patterns

Light status legend

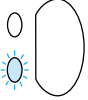
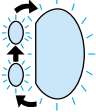

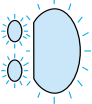
-  Symbol for "light off"
-  Symbol for "light on"
-  Symbol for "light blinking"



Control panel light message

Light status	Condition of the printer	Action
	Ready The printer is ready to print.	No action is necessary. To print a configuration page, press and release the Go button on the printer control panel.
	Processing The printer is receiving or processing data.	Wait for the job to print.
	Manual feed or out of memory The printer is in manual feed mode or out of memory. You can continue printing.	<p>Make sure that you have loaded the correct media. To continue printing, press and release the Go button.</p> <p>The software controls manual feed. If you do not want to be in manual feed mode, change the setting from your printer properties. See Printer properties (driver) for more information.</p> <p>The page being printed might be too complex for the printer's memory capacity.</p> <ul style="list-style-type: none">● To continue printing, press and release the Go button.● Lower the resolution. See Understanding print quality settings for more information.● Add more memory. See Memory (DIMM) for more information.

Control panel light message (continued)

Light status	Condition of the printer	Action
	<p>Door open, media out, no toner cartridge, or media jam</p> <p>The printer is in an error state that requires operator intervention or help.</p>	<p>Check the following:</p> <ul style="list-style-type: none">• The toner door is completely closed.• Media is loaded. See Loading media into the input trays for instructions.• The toner cartridge is correctly installed in the printer. See Changing the toner cartridge for instructions.• There is a media jam. See Clearing printer media jams for instructions.• The left side panel is completely closed.
	<p>Printer initialization/Cancel Job/Cleaning Mode</p> <p>A printer initialization is taking place. If all lights blink for 1/2 of a second or longer in a sequence:</p> <ul style="list-style-type: none">• the printing is initializing• all previously sent print jobs are being purged• a cleaning page is being printed	<p>No action is necessary.</p>
	<p>Fatal error</p> <p>All lights are on.</p>	<ul style="list-style-type: none">• Turn the printer off and then back on.• Unplug the printer for 5 minutes, and then plug it back in.• If the printer still has an error, contact HP Support. See Service and support.
	<p>Accessory error</p> <p>All lights are blinking.</p>	<ul style="list-style-type: none">• Remove the DIMMs and replace if necessary. See Memory (DIMM) for instructions.• Contact HP Support. See Service and support.

Error messages on the screen

Error messages on the screen

Error message	Solution
Printer not responding/error writing to LPT1	<p>Check the following:</p> <ul style="list-style-type: none">● The Ready light is on.● The power cord and parallel or USB cable are correctly connected. <p>Try the following:</p> <ul style="list-style-type: none">● Disconnect the power cord and parallel or USB cable at both ends and reconnect them.● Use another IEEE-1284 compliant parallel or USB-1F compliant cable.
Cannot access port (in use by another application)	<p>There is a device conflict. This might occur if another device is installed on your computer and running status software. The status software dominates the parallel port on the computer and will not allow the HP LaserJet 1200 to access the port.</p> <p>Try the following:</p> <ul style="list-style-type: none">● Disable all of the status windows for other printers.● Make sure that the printer's port setting is correct. Access the printer properties; see Printer properties (driver). The port settings are on the Details tab.

Error messages on the screen (continued)

Error message	Solution
Illegal operation/General protection fault/Spool 32 error	<p data-bbox="473 239 1126 326">A problem with your computer system resources (memory or hard disk) occurred in Windows. To clear this error, restart your computer.</p> <p data-bbox="473 361 1091 413">To help prevent this error from occurring in the future, use some or all of the following recommendations:</p> <ul data-bbox="473 418 1126 786" style="list-style-type: none"><li data-bbox="473 418 1126 560">● Run fewer applications at the same time. Close applications that you are not using instead of minimizing them. Programs such as screen savers, virus checkers, status software, fax/answering software, and menu programs use the resources that you might need to print.<li data-bbox="473 569 1126 621">● Avoid memory-intensive tasks such as sending a fax or running a video clip while printing.<li data-bbox="473 630 1126 682">● Delete all temp (file_name.tmp) files from the Temp subdirectories, such as C:\Windows\Temp.<li data-bbox="473 690 1126 716">● Print at a lower dpi.<li data-bbox="473 725 1126 786">● Use an alternate printer driver (printer software), such as software for the HP LaserJet III. <p data-bbox="517 821 574 847">Note</p> <p data-bbox="517 852 1126 907">If you use a different printer driver, you will lose access to some product features.</p>

Common Macintosh Problems

Symptom	Possible Cause	Solution
Problems in the Chooser		
Printer driver icon does not appear in the Chooser (the LaserWriter 8 driver is used for the HP LaserJet 1200 printer).	Software not installed correctly.	<p>The LaserWriter 8 driver should be present as a part of the Mac OS. Make sure that the LaserWriter driver is in the Extensions folder within the systems folder. If not, install the LaserWriter driver from your Mac OS CD.</p> <hr/> <p>Make sure you are using a high-quality cable.</p> <hr/> <p>Make sure the printer is on the correct network. Select the Network or AppleTalk Control Panel from Control Panels in the Apple menu and then choose the correct port.</p>
The HP LaserJet printer driver icon (for the HP LaserJet 1220 product) does not appear in the Chooser.	The software was not installed properly.	Reinstall the software.
The HP LaserJet scan driver icon (for the HP LaserJet 1220 product) does not appear in the Chooser.	The software was not installed properly.	Reinstall the software.

Symptom	Possible Cause	Solution
<p>Printer name does not appear in the “Select a PostScript Printer” box in the Chooser.</p>		<p>Make sure the cables are connected correctly, the printer is on, and the Ready light is on.</p>
		<p>Make sure the correct printer driver has been selected in the Chooser. Use the LaserWriter driver for the HP LaserJet 1200 printer.</p>
		<p>If the printer resides on a network with multiple zones, make sure the correct zone is selected in the “AppleTalk Zones” box in the Chooser.</p>
		<p>Verify that the LaserWriter 8 driver is installed.</p>
		<p>Make sure the printer has been chosen in the Chooser by printing a self-test. (Simultaneously press Go and Job Cancel.) Check the AppleTalk name of the printer displayed on the self-test page.</p>
		<p>Make sure AppleTalk is on. (The button next to Active is selected in the Chooser.) You may need to restart the computer to activate the change.</p>
<p>The printer driver does not automatically set up your selected printer even though you clicked Auto Setup in the Chooser.</p>		<p>Reinstall the printer software.</p>
		<p>Select an alternate PPD.</p>
		<p>If connected to a network, try to isolate the printer and the computer from the network.</p>

Symptom	Possible Cause	Solution
Printing Errors		
A print job was not sent to your desired printer.	Another printer with the same or similar name may have received your print job.	<p>Check the AppleTalk name of the printer displayed on the self-test page.</p> <p>Make sure the cables are connected correctly, the printer is on, and the Ready light is on.</p>
You cannot use the computer while the printer is printing.	Background Printing has not been selected.	<p>LaserWriter 8.3</p> <p>Turn Background Printing on in the Chooser. Status messages will now be redirected to the Print Monitor allowing you to continue working while the computer is processing data to be sent to the printer.</p> <p>LaserWriter 8.4 and higher</p> <p>Turn Background Printing on by selecting File, Print Desktop, and Background Printing.</p>
An encapsulated PostScript (EPS) file does not print with the correct fonts.	This problem occurs with some software applications.	<p>Try downloading the fonts contained in the EPS file to the printer before printing.</p> <p>Send the file in ASCII format instead of binary encoding.</p>
Your document is not printing with New York, Geneva, or Monaco fonts.		<p>Select Options in the Page Setup dialog box to deselect substituted fonts.</p>
USB Problems		
Unable to print from a third-party USB card.	This error occurs when the software for USB printers is not installed.	<p>When adding a third-party USB card, you might need Apple's USB Adapter Card Support software. The most current version of this software is available from Apple's web site.</p>

Symptom	Possible Cause	Solution
The HP LaserJet USB printer does not appear in the Macintosh Chooser after the driver is selected.	This problem is caused by either a software or hardware component.	<p data-bbox="728 201 1021 227">Software troubleshooting</p> <ul data-bbox="728 230 1068 348" style="list-style-type: none"><li data-bbox="728 230 1068 282">● Check that your Macintosh supports USB.<li data-bbox="728 291 1068 348">● Verify if your Macintosh has Mac OS 8.6 or later. <p data-bbox="728 388 1028 414">Hardware troubleshooting</p> <ul data-bbox="728 418 1128 994" style="list-style-type: none"><li data-bbox="728 418 1128 470">● Check that the printer is turned on.<li data-bbox="728 479 1068 531">● Verify that the USB cable is properly connected.<li data-bbox="728 539 1078 626">● Check that you are using the appropriate high-speed USB cable.<li data-bbox="728 635 1128 808">● Ensure that there are not too many USB devices drawing power from the chain. Disconnect all devices from the chain and connect the cable directly to the USB port on the host computer.<li data-bbox="728 817 1128 994">● Check to see if there are more than two non-powered USB hubs in a row on the chain. Disconnect all devices from the chain and connect the cable directly to the USB port on the host computer. <p data-bbox="728 1003 782 1029">Note</p> <p data-bbox="728 1032 1128 1086">The iMac keyboard is a non-powered USB hub.</p>

Selecting an Alternate PostScript Printer Description (PPD)

- 1 Open the Chooser from the Apple menu.
- 2 Click the **LaserWriter** icon.
- 3 If you are on a network with multiple zones, select the zone in the AppleTalk Zones box where the printer is located.
- 4 Click the printer name you want to use in the Select a PostScript Printer box. (Double-clicking will immediately generate the next few steps.)
- 5 Click **Setup...** (This button may read Create for first-time setup.)
- 6 Click **Select PPD...**
- 7 Find the desired PPD in the list and click Select. If the desired PPD is not listed, choose one of the following options:
 - Select a PPD for a printer with similar features.
 - Select a PPD from another folder.
 - Select the generic PPD by clicking Use Generic. The generic PPD allows you to print, but limits your access to printer features.
- 8 In the Setup dialog box, click **Select**, and then click **OK** to return to the Chooser.

Note

If you manually select a PPD, an icon might not appear next to the selected printer in the Select a PostScript Printer box. In the Chooser, click Setup, click Printer Info, and then click Update Info to bring up the icon.

- 9 Close the Chooser.

Renaming the Printer

If you are going to rename the printer, do this before selecting the printer in the Chooser. If you rename the printer after selecting it in the Chooser, you will have to go back into the Chooser and reselect it.

Use the Set Printer Name feature in the HP LaserJet Utility to rename the printer.

Troubleshooting PostScript (PS) Errors

The following situations are PS language specific and may occur when several printer languages are being used.

Note

To receive a printed or screen displayed message when PS errors occur, open the Print Options dialog box and click the desired selection next to the PS Errors section. You can also access this from the Print PS Errors check box in the HP LaserJet Device Configuration.

PS Errors

Symptom	Possible Cause	Solution
The job prints in Courier (the printer's default typeface) instead of the typeface you requested.	The requested typeface is not downloaded. A personality switch may have been performed to print a PCL job just before the PS printing job was received.	Download the desired font and send the print job again. Verify the type and location of the font. Download to printer if applicable. Check with the software documentation.
A legal page prints with clipped margins.	Print job too complex.	You may need to print your job at 600 dots per inch, reduce the complexity of the page, or install more memory.
A PS error page prints.	Print job may not be PS.	Make sure the print job is a PS job. Check to see whether the software application expected a setup or PS header file to be sent to the printer.

PS Errors (continued)

Symptom	Possible Cause	Solution
Specific Errors		
Limit Check Error	Print job too complex.	You may need to print your job at 600 dots per inch, reduce the complexity of the page, or install more memory.
VM Error	Font Error	Select unlimited downloadable fonts from printer driver.
Range Check	Font Error	Select unlimited downloadable fonts from printer driver.

Paper handling problems

Paper handling problems

Problem	Solution
Paper jam	<ul style="list-style-type: none">● See Clearing printer media jams for more information.● Make sure that you are printing with media that meets specifications. See Printer media specifications for more information.● Make sure that you are printing with media that is not wrinkled, folded, or damaged.● Make sure that the printer is clean. See Cleaning the printer media path for more information.● If you are printing to the straight-through output path, close and open the door again to make sure that the green release levers are closed.
Print is skewed (crooked)	<ul style="list-style-type: none">● See Page skew for more information.● Adjust the media guides to the width and length of the media that you are using and try reprinting. See Printer media guides or Loading media into the input trays for more information.
More than one sheet of media feeds through the printer at one time	<ul style="list-style-type: none">● The media input tray might be too full. See Loading media into the input trays for more information.● Make sure that the media is not wrinkled, folded, or damaged.● The printer separation pad might be worn. See Changing the printer separation pad for more information.
Printer does not pull media from the media input tray	<ul style="list-style-type: none">● Make sure that the printer is not in manual feed mode. See Printer light patterns for more information.● The pickup roller might be dirty or damaged. See Cleaning the pickup roller or Changing the pickup roller for instructions.
Printer curled the media	<ul style="list-style-type: none">● See Curl or wave for more information.● Open the straight-through output door to print straight through. See Printer output paths or Media for more information.

Paper handling problems (continued)

Problem	Solution
The printed media does not exit to the correct path	Open or close the straight-through output door to reflect the output path that you want to use. See Printer output paths for more information.
Print job is extremely slow	The maximum speed of the printer is 15 pages per minute for letter size and 14 pages per minute for A4 size. Your print job might be very complex. Try the following: <ul style="list-style-type: none"><li data-bbox="473 465 1101 522">● Reduce the complexity of your document (for example, reduce the number of multiple graphics).<li data-bbox="473 531 1078 618">● In the printer driver, set Optimize for: to plain paper.<ul style="list-style-type: none"><li data-bbox="521 565 1072 618">• This may cause toner to fuse improperly if using heavy media.<li data-bbox="473 626 1126 683">● Add printer memory. See Installing a DIMM (memory) for instructions.<li data-bbox="473 692 1078 748">● Narrow media or heavy media will slow printing. Use normal media.

Printed page is different than what appeared on screen

Printed page problems

Problem	Solution
Garbled, incorrect, or incomplete text	<p>The parallel or USB cable might be loose or defective. Try the following:</p> <ul style="list-style-type: none">● Disconnect the cable and reconnect it at both ends.● Try printing a job that you know works.● If possible, attach the cable and printer to another computer, and try printing a job that you know works.● Try using a new IEEE-1284 compliant parallel or USB cable. See Accessories and ordering information. <p>The wrong printer driver might have been selected when the software was installed. Make sure that the HP LaserJet 1200 is selected in the printer properties.</p> <p>There might be a problem with your software application. Try printing from another software application.</p>
Missing graphics or text, or blank pages	<ul style="list-style-type: none">● Make sure that your file does not contain blank pages.● The sealing tape might still be in the toner cartridge. Remove the toner cartridge, and pull out the sealing tape. Reinstall the toner cartridge. See Changing the toner cartridge for instructions. To check the printer, print a configuration page by pressing the Go button.● 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. See Printer properties (driver) for more information.● The printer driver might not work for the type of job that you are printing. Try using a different printer driver (software), such as the printer driver for the HP LaserJet III. <p>Note</p> <p>If you use a different printer driver, you will lose access to some product features.</p>

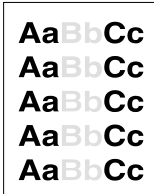
Printed page problems (continued)

Problem	Solution
Page format is different than on another printer	<p>If you used an older or different printer driver (printer software) to create the document or 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:</p> <ul style="list-style-type: none">● Create documents and print them using the same printer driver (printer software) and printer property settings regardless of which HP LaserJet printer you use to print them.● Change the resolution, paper size, font settings, and other settings. See Printer properties (driver) for more information.
Graphics quality	<p>The graphics settings might be unsuitable for your print job. Try the following:</p> <ul style="list-style-type: none">● Check the graphic settings, such as resolution, in the printer properties and adjust them as necessary. See Printer properties (driver) for more information.● Try using a different printer driver (software), such as the printer driver for the HP LaserJet III. <p>Note If you use a different printer driver, you will lose access to some product features.</p>

Improving print quality

This section provides information about identifying and correcting print defects

Light print or fade



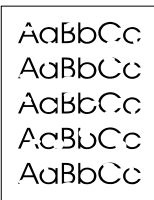
- The toner supply is low. See [Managing the toner cartridge](#) for more information.
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough). See [Printer media specifications](#) for more information.
- If the whole page is light, the print density adjustment is too light or EconoMode might be turned on. Adjust the print density and disable EconoMode in the printer properties. See [Saving toner](#) for more information.

Toner specks



- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough). See [Printer media specifications](#) for more information.
- The printer might need to be cleaned. See [Cleaning the printer](#) or [Cleaning the printer media path](#) for instructions.

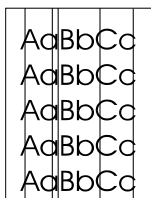
Dropouts



- A single sheet of media might be defective. Try reprinting the job.
- The media's moisture content is uneven or the media has moist spots on its surface. Try printing with new media. See [Printer media specifications](#) for more information.
- The media lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different type or brand of media.
- The toner cartridge might be defective. See [Managing the toner cartridge](#) for more information.

Note

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



Vertical lines

- Make sure that the priority input tray is in place.
- The photosensitive drum inside the toner cartridge has probably been scratched. Install a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.



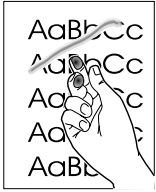
Gray background

- Make sure that the priority input tray is in place.
- Decrease the print density setting through HP LaserJet Device Configuration. This decreases the amount of background shading. See [Accessing the online help](#).
- Change the media to a lighter basis weight. See [Printer media specifications](#) for more information.
- Check the printer's environment. Very dry (low humidity) conditions can increase the amount of background shading.
- Install a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.



Toner smear

- 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. See [Identifying the printer's components](#) or [Cleaning the printer](#) for more information.
- Check the media type and quality.
- Try installing a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.
- The fuser temperature might be too low. Check **Optimize for:** in the **Paper** tab of your printer driver, and make sure that it is set to the appropriate media.



Loose toner

- Clean the inside of the printer. See [Cleaning the printer](#) for instructions.
- Check the media type and quality. See [Printer media specifications](#) for more information.
- Try installing a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.
- Select **Optimize for:** in the **Paper** tab of your printer driver, and choose the media that you are using. This feature is also available in HP LaserJet Device Configuration. See [Accessing the online help](#).
- Plug the printer directly into an AC outlet instead of into a power strip.

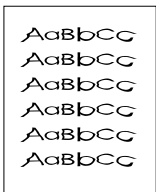
Vertical repetitive defects

- The toner cartridge might be damaged. If a repetitive mark occurs at the same spot on the page, install a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.
- The internal parts might have toner on them. See [Cleaning the printer](#) for more information. If the defects occur on the back of the page, the problem will probably correct itself after a few more printed pages.
- Select **Optimize for:** in the **Paper** tab of your printer driver, and choose the media that you are using. This feature is also available in HP LaserJet Device Configuration. See [Accessing the online help](#)



Misformed characters

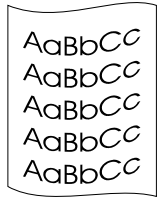
- If characters are improperly formed, producing hollow images, the media stock might be too slick. Try a different media. See [Printer media specifications](#) for more information.
- If characters are improperly formed, producing a wavy effect, the printer might need service. Print a configuration page. If the characters are improperly formed, contact an HP-authorized dealer or service representative. See [Service and support](#) for more information.





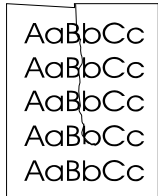
Page skew

- Make sure that the media is loaded correctly and the media guides are not too tight or too loose against the media stack. See [Loading media into the input trays](#) for more information.
- The input bin might be too full. See [Loading media into the input trays](#) for more information.
- Check the media type and quality. See [Printer media specifications](#) for more information.



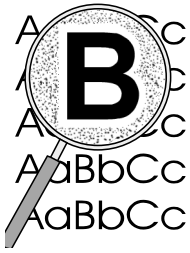
Curl or wave

- Check the media type and quality. Both high temperature and humidity cause media to curl. See [Printer media specifications](#) for more information.
- 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.
- Open the straight-through output door and try printing straight through. See [Printer output paths](#) for more information.
- The fuser temperature might be too high. Check **Optimize for:** in the **Paper** tab of your printer driver, and make sure that it is set to the appropriate media.



Wrinkles or creases

- Make sure that media is loaded properly. See [Loading media into the input trays](#) for more information.
- Check the media type and quality. See [Printer media specifications](#) for more information.
- Open the straight-through output door and try printing straight through. See [Printer output paths](#) for more information.
- Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.



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 [Printer media specifications](#) for more information.
- Turn over the stack of media in the tray.
- Use media designed for laser printers. See [Printer media specifications](#) for more information.

Cleaning the printer

During the printing process, paper, toner, and dust particles can accumulate inside the printer. Over time, this buildup can cause print quality problems, such as toner specks or smearing. To correct and prevent these types of problems, you can clean the toner cartridge area and the printer media path. See the following sections for more information:

- [Cleaning the toner cartridge area](#)
- [Cleaning the printer media path](#)

Cleaning the toner cartridge area

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

WARNING!

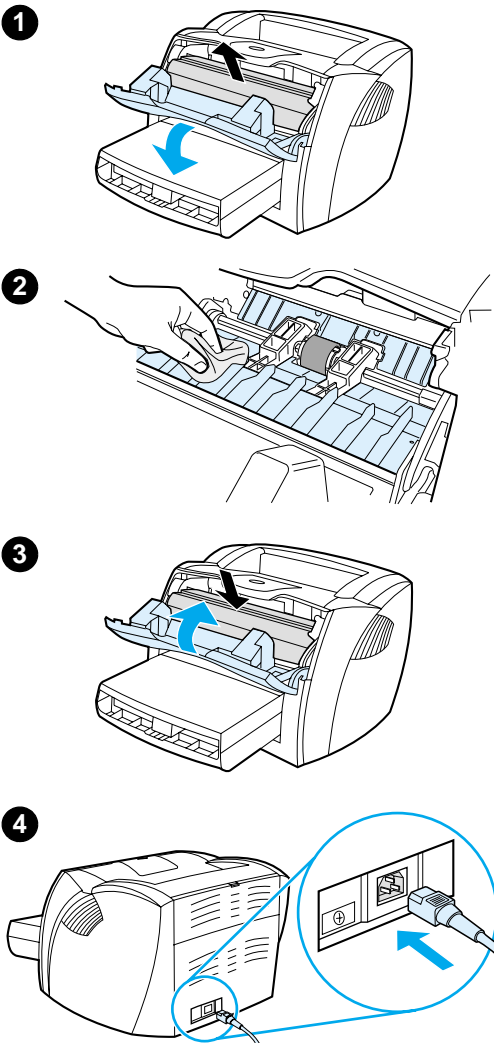
Before cleaning the printer, turn the printer off by unplugging the power cord, and wait for the printer to cool.

- 1 Open the toner door, and remove the toner cartridge.
-

CAUTION

To prevent damage, do not expose the toner cartridge to light. Cover the toner cartridge if necessary. Also, do not touch the black sponge transfer roller inside the printer. By doing so, you can damage the printer.

- 2 With a dry, lint-free cloth, wipe any residue from the media path area and the toner cartridge cavity.
- 3 Replace the toner cartridge, and close the toner door.
- 4 Plug the power cord back into the printer.



Cleaning the printer media path

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



- 1 Load a transparency in the priority input tray.
- 2 Make sure that the printer is in the Ready state.
- 3 Press and hold the **Go** button for 10 seconds. The transparency feeds slowly through the printer. Discard the transparency.

Note

After holding the **Go** button for 10 seconds, each of the three printer lights blink until the cleaning process is complete.

Note

If transparency film is unavailable, you can use paper, but you should perform the procedure 2 or 3 times to ensure proper cleaning.

Clearing printer media jams

Occasionally, media becomes jammed during a print job. Some of the causes include the following:

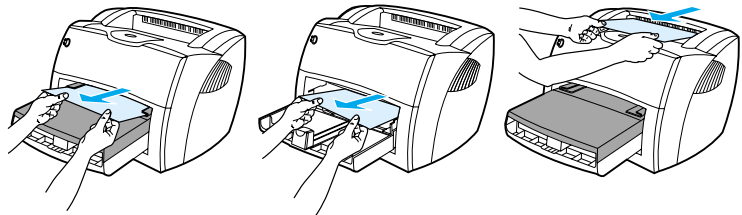
- The input trays are loaded improperly or too full. See [Loading media into the input trays](#) for more information.
- The media does not meet HP specifications. See [Printer media specifications](#) for more information.

Note

When you add new media, always remove all of the media from the input tray and straighten the stack of new media. This helps prevent multiple sheets of media from feeding through the printer at one time, reducing media jams.

You are notified of a media jam by an error in the software and the printer control panel lights. See [Printer light patterns](#) for more information.

Typical media jam locations



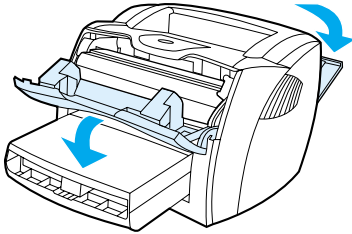
- **Toner cartridge area:** See [Removing a jammed page](#) for instructions.
- **Input tray areas:** If the page is still sticking out of the input tray, gently try to remove it from the input tray without tearing the page. If you feel resistance, see [Removing a jammed page](#) for instructions.
- **Output paths:** If the page is sticking out of the output bin, gently try to remove it without tearing the page. If you feel resistance, see [Removing a jammed page](#) for instructions.

Note

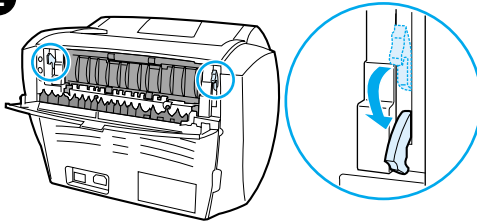
There might be loose toner in the printer after a media jam. This toner clears up after a few sheets print.

Removing a jammed page

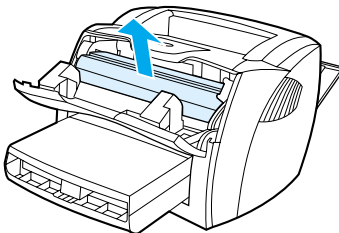
1



2



3



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.*

- 1 Open the toner door and the straight-through output door.
- 2 Rotate the green pressure release levers downward. If you can remove the media without removing the toner cartridge, do so, and continue with step 4.

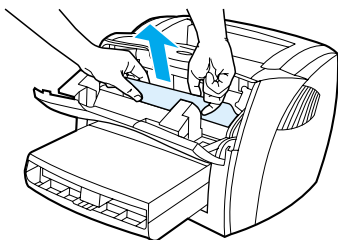
CAUTION

To prevent damage to the toner cartridge, do not expose it to light.

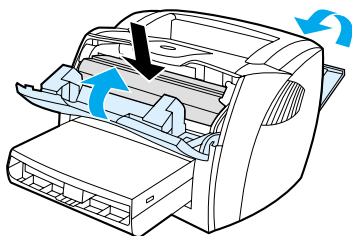
- 3 Remove the toner cartridge, and place it aside.

Continued on next page.

4



5



- 4 With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.
- 5 When you have removed the jammed media, replace the toner cartridge, and close the toner door and the straight-through output door.

Note

The pressure release levers automatically close when you close the straight-through output door.

After clearing a media jam, you might need to turn the printer off and turn it back on.

Note

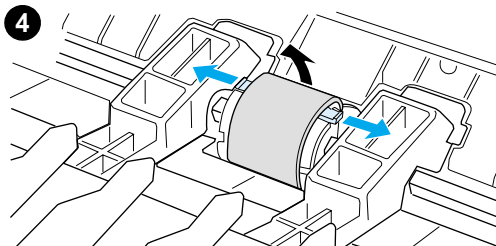
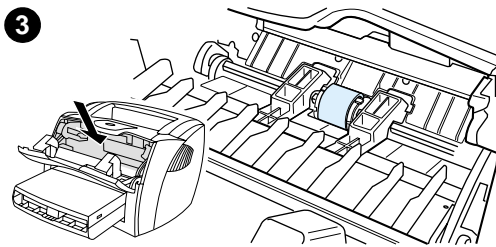
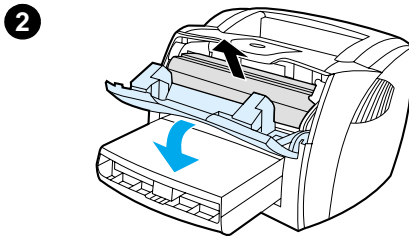
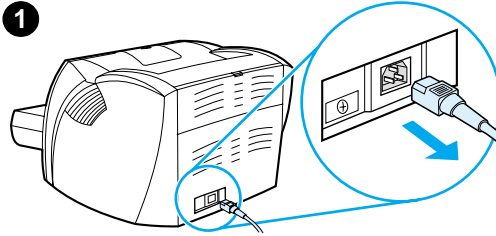
When you add new media, remove all of the media from the input tray and straighten the stack of new media.

Changing the pickup roller

If the printer regularly mispicks (no media feeds through or more than one sheet feeds through), you might need to change or clean the pickup roller. See [Accessories and ordering information](#) to order a new pickup roller.

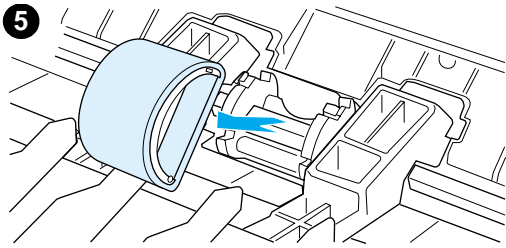
CAUTION

Failure to complete this procedure might damage the printer.

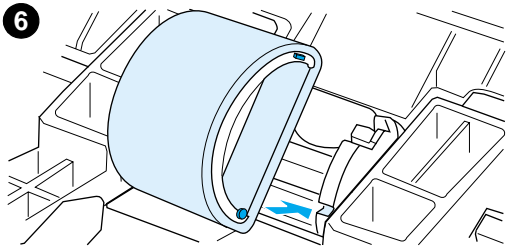


- 1 Unplug the power cord from the printer, and allow the printer to cool.
- 2 Open the toner door, and remove the toner cartridge.
- 3 Find the pickup roller.
- 4 Release the small, white tabs on either side of the pickup roller, and rotate the pickup roller toward the front.

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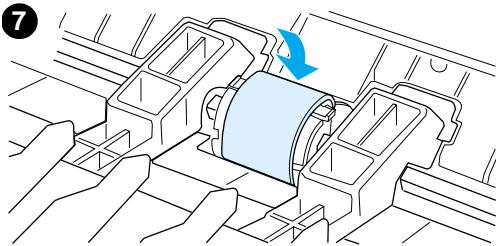
5 Gently pull the pickup roller up and out.



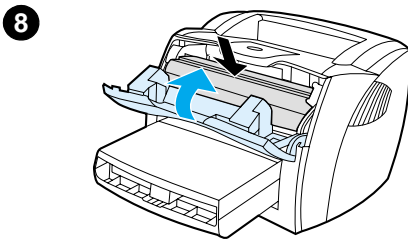
6 Position the new or cleaned part in the slot of the previous pickup roller. See [Cleaning the pickup roller](#) for instructions.

Note

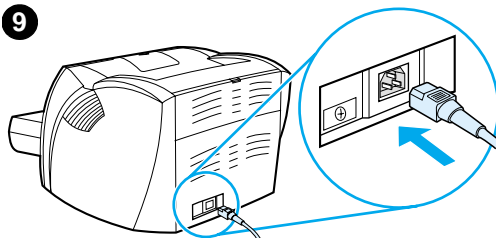
Circular and rectangular pegs on each side prevent you from incorrectly positioning the pickup roller.



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



8 Reinstall the toner cartridge, and close the toner door.

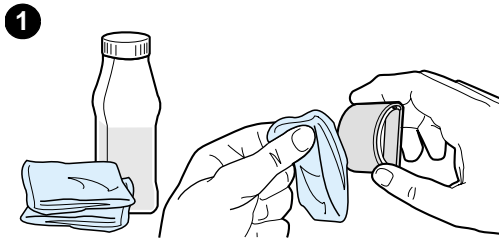


9 Plug the printer in to turn it back on.

Cleaning the pickup roller

If you want to clean the pickup roller rather than replace it, follow the instructions below:

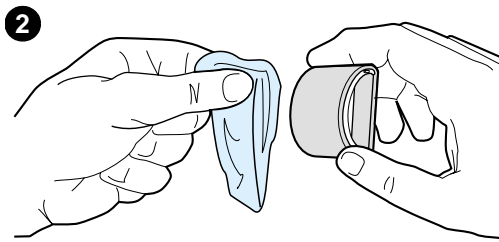
Remove the pickup roller as described in steps 1 through 5 of [Changing the pickup roller](#).



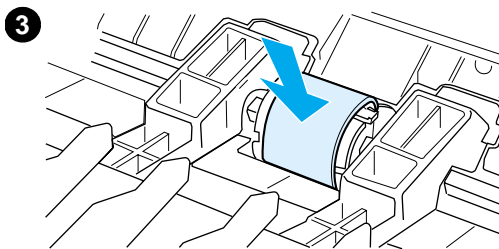
- 1 Dab a lint-free cloth in isopropyl alcohol, and scrub the roller.

WARNING!

Alcohol is flammable. Keep the alcohol and cloth away from an open flame. Before you close the printer and plug in the power cord, allow the alcohol to dry completely.



- 2 Using a dry, lint-free cloth, wipe the pickup roller to remove loosened dirt.
- 3 Allow the pickup roller to dry completely before you reinstall it in the printer (see steps 6 through 9 of [Changing the pickup roller](#)).



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.

Changing the printer separation pad

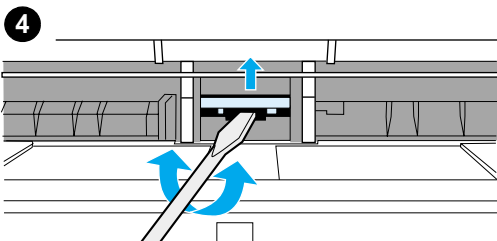
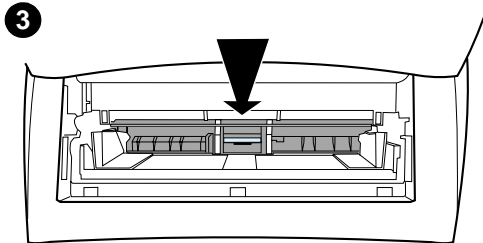
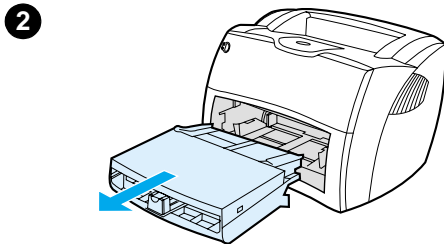
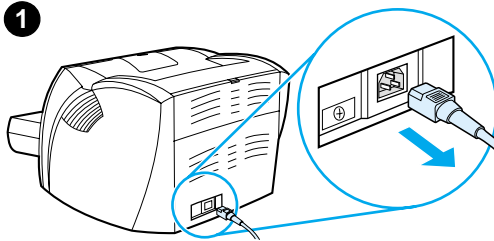
Note

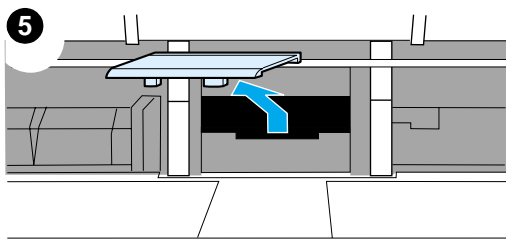
Before you change the separation pad, clean the pickup roller. See [Cleaning the pickup roller](#) for instructions.

If your input tray feeds more than one page at a time, you might need to change the printer separation pad. Recurring feed problems indicate that the printer separation pad is worn. See [Accessories and ordering information](#) to order a new printer separation pad.

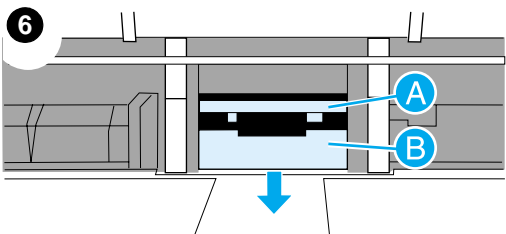
- 1 Unplug the power cord from the printer, and allow the printer to cool.
- 2 Remove the input trays.
- 3 Find the blue separation pad.
- 4 To pry the separation pad up from the spring-loaded base, insert a flat-edged screwdriver in the slot under the separation pad and twist until the tabs are free.

Continued on next page.





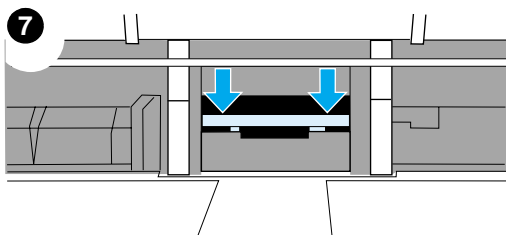
5 Reach in through the opening, push the spring-loaded base down with one hand, and pull the separation pad up with the other hand.



6 With one hand, position the new separation pad in the slot of the previous separation pad (A). With the other hand, reach through the input tray opening, and push the spring-loaded base down (B).

Note

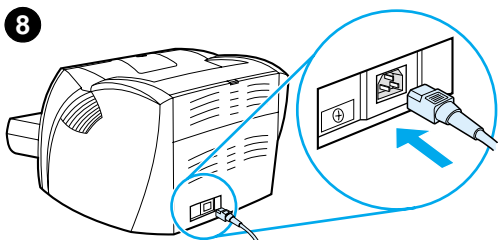
The tab on the right is larger to help you position it correctly.



7 Snap both sides of the separation pad firmly into place.

CAUTION

Make sure that the separation pad is straight and that there is no space between the separation pad and the spring-loaded base. If the separation pad is not straight or you see space on one side, remove the separation pad, make sure that the larger tab is on the right, reinsert the separation pad, and snap both sides into place.



8 Reinsert the pickup roller, toner cartridge, and input trays. Plug the printer in to turn it back on.

10 Troubleshooting the copier/scanner

This chapter provides information on the following subjects:

- [Finding the solution](#)
- [Improving copy/scan quality](#)
- [Cleaning the copier/scanner](#)
- [Clearing copier/scanner jams](#)
- [Replacing the copier/scanner separation pad](#)
- [Removing the copier/scanner](#)
- [Closing the left side panel](#)

Finding the solution

You can use this section to find the solution to common copier/scanner problems.

Scanning problems

- [The scanner did nothing](#)
- [No preview appeared on the screen](#)
- [Scanned image is of poor quality](#)
- [Part of the image did not scan or text is missing](#)
- [The text cannot be edited](#)
- [The scan takes too long](#)
- [Error messages appear on the screen](#)

Copying problems

- [No copy came out of the printer or the scanner did nothing](#)
- [Copies are blank, missing images, or faded](#)

The scanner did nothing

Solution	Description
Is the scanner correctly connected and latched to the printer?	<p>The scanner must be connected and the cable must be attached. See the <i>Getting Started Guide</i> for attachment instructions. See Removing the copier/scanner for instructions on removing the scanner.</p> <p>CAUTION</p> <p>To prevent damage, unplug the printer before checking the copier/scanner connection.</p>
Have you printed a configuration page to verify that the printer recognizes the scanner?	<p>To verify that the scanner is installed, print a configuration page. To print a configuration page, press the Go button. In the middle right of the page, there will be a block titled “Copy Settings” if the copier/scanner is currently installed. If the block is not there, unplug the printer and plug it back in. If that does not work, make sure that the copier/scanner is properly connected to the printer. See the <i>Getting Started Guide</i> included with your copier/scanner for attachment instructions. See Removing the copier/scanner for instructions on removing the copier/scanner.</p>
Did you send a print or copy job before you tried to scan?	<p>If you sent a print or copy job before you tried to scan, wait until after the print or copy job is complete before scanning. The job might still be in the queue. Check the light status on the printer. See Printer light patterns for more information.</p>
Is the parallel or USB cable working and connected correctly?	<p>The parallel or USB cable might be defective. Try the following:</p> <ul style="list-style-type: none">● Disconnect the parallel or USB cable on both ends and reconnect it.● Try printing a job that you know prints.● If possible, attach the cable and printer to another computer and print a job that you know prints.● Try using a new IEEE-1284 compliant parallel cable or USB-1f compliant cable. See Accessories and ordering information.● Contact the manufacturer of your computer about changing parallel port settings to ECP (extended capabilities port).

Solution	Description
Do you have other devices running on your computer?	The HP LaserJet 1220 Print•Copy•Scan might not share a USB or parallel port. If you have a sound card, external hard drive, or network switchbox connected to the same port as the HP LaserJet 1220, the other device might be interfering. To connect and use the HP LaserJet 1220, you must disconnect the other device or you must use two ports on the computer. You might need to add another interface card. Hewlett-Packard strongly recommends an ECP parallel interface card. See the documentation that came with your computer for information about installing an additional parallel interface card or resolving device conflicts.

No preview appeared on the screen

Solution	Description
Are you currently copying or printing?	Wait for the copy or print job to complete before trying to scan.
Is the original loaded correctly?	Make sure that the original is loaded correctly: narrow side first, top forward in the scanner media input tray with the side to be scanned facing up. See Loading originals in the copier/scanner for more information.
Is the scanner correctly connected and latched to the printer?	The scanner must be connected and the cable must be attached. See the <i>Getting Started Guide</i> included with your scanner for attachment instructions. See Removing the copier/scanner for instructions on removing the copier/scanner. CAUTION To prevent damage, unplug the printer before checking the copier/scanner connection.
Is the wrong printer selected?	Make sure that the HP LaserJet 1200 is selected as the current printer when you print.

Scanned image is of poor quality

Solution	Description
Is the original a second generation photo or picture?	<p>Reprinted photographs, such as those in newspapers or magazines, are printed using tiny dots of ink that make an interpretation of the original photograph, which dramatically decreases the quality. Often, the ink dots form unwanted patterns that, when scanned and reprinted or displayed, can be detected. If the following suggestions do not solve your problem, you might need to use a better quality version of the original.</p> <ul style="list-style-type: none">● To eliminate the patterns, try reducing the size of the scanned image. See Enhancing the scanned image in HP Document Manager for more information.● Print the scanned image to see if the quality is better.● Make sure that your resolution and color settings are correct for the type of scan job that you are performing. See Scanner resolution and color for more information.
Is the image quality better when printed?	<p>The image displayed on the screen is not always an accurate representation of the quality of the scan.</p> <ul style="list-style-type: none">● Try adjusting the settings on your computer monitor to display more colors (or levels of gray). Typically, you make this adjustment by selecting Display found in the Control Panel. See the documentation that came with your computer.● Try adjusting the resolution and color settings in the scanner software. See Scanner resolution and color for more information.
Is the image skewed (crooked)?	<p>The original might have been loaded incorrectly. It is important to use the media guides when you load the originals. See Loading originals in the copier/scanner for more information.</p>
Does the scanned image have unwanted blots, lines, vertical white stripes, or any other defect?	<p>See Improving copy/scan quality for more information.</p>
Is the scanner dirty?	<p>If the scanner is dirty, the image produced will not have optimum clarity. See Cleaning the copier/scanner for instructions.</p>

Solution**Description**

Do graphics appear different from the original?

The graphics settings might not be suitable for the type of scan job that you are performing. Try changing the graphics settings. Access these settings through the printer properties (driver). See [Printer properties \(driver\)](#) for more information.

Part of the image did not scan or text is missing

Solution	Description
Was the original loaded correctly?	Make sure that you loaded the original correctly. See Loading originals in the copier/scanner for instructions.
Does the original have a colored background?	Colored backgrounds can cause images in the foreground to blend too much. Try adjusting the settings before you scan the original or enhancing the image after you scan the original. See Adjusting the contrast for instructions. Also see Scanner resolution and color for more information.
Is the original longer than 762 mm (35 in.)?	The maximum scannable length is 762 mm (35 in.). If the page exceeds the maximum length, the scanner stops. CAUTION Do not try to pull the original from the scanner; you might damage the scanner or your original. See Clearing copier/scanner jams for instructions.
Is the original too small?	The minimum size supported in the copier/scanner for the HP LaserJet 1200 is 50.8 by 90 mm (2 by 3.5 in.). The original might be jammed. See Clearing copier/scanner jams for instructions.
Are you using HP LaserJet Director?	Your default property settings for HP LaserJet Director might be set to automatically perform a specific task other than the one you are attempting. For example, you can set HP LaserJet Director to automatically perform a scan to e-mail. This means that your image does not show up on the screen but is attached to an e-mail message as a file. See the online help for instructions on changing the properties in HP LaserJet Director. See Accessing the online help .
Is the paper size correct?	In Scan Settings, make sure that the input paper size is large enough for the document that you are scanning.
Did you check for missing text in selected regions?	Scan your document in page-by-page mode and make sure that missing text is in a selected region.

The text cannot be edited

Solution	Description
Have you specified either HP LaserJet Director or HP LaserJet Document Manager to Edit text (OCR)?	Text remains as a single image until the Optical Character Recognition (OCR) application converts the single image into text that you can edit. See Editing scanned text (Optical Character Recognition) for more information.
Is the correct word processing application linked with the OCR application?	Your OCR application might be linked to a word processing application that does not perform this task. See the HP online help for more information about linking applications.
Does the original have text that is tightly spaced?	The OCR application might not recognize text that is tightly spaced. For example, if the text that the OCR application converts has missing or combined characters, rn might appear as m .
Is the original of poor quality?	The accuracy of the OCR application depends on the quality, size, and structure of the original and the quality of the scan itself. Make sure that your original is of good quality.
Does the original have a colored background?	Colored backgrounds can cause images in the foreground to blend too much. Try adjusting the settings before you scan the original or enhancing the image after you scan the original. See Adjusting the contrast for instructions. Also see Scanner resolution and color for more information.

The scan takes too long

Solution	Description
Do you have your resolution and grayscale set too high?	If you set the resolution and grayscale too high, the scan job takes longer and results in larger files. To obtain good results when scanning or copying, it is important that you use the correct resolution and grayscale settings for your job. See Scanner resolution and color for more information.
Is your software set to scan in color?	Your system defaults to color, which takes longer to scan even if you are scanning a monochrome original. If you acquire an image through TWAIN, you can change the settings to scan in black and white. See Accessing the online help for more information.
Did you send a print or copy job before you tried to scan?	If you sent a print or copy job before you tried to scan, the scan will start if the scanner is not busy. However, the printer and scanner share memory, which means that the scan might be slower.
Is your computer set for bidirectional communication?	See the documentation that came with your computer to change the BIOS settings. The recommended bidirectional setting is ECP.

Error messages appear on the screen

Solution

Description

Unable to activate TWAIN source

- If you are acquiring an image from another device, such as a digital camera or another scanner, make sure that the other device is TWAIN compliant. Non-TWAIN-compliant devices do not work with the HP LaserJet 1220 Print•Copy•Scan software.
 - Make sure that you have connected the USB or parallel cable to the correct port on the back of your computer. If you have another port, try attaching the cable to the other port. Make sure that you have an SPP-(bidirectional) or ECP-compliant parallel port on your computer. An SPP parallel port is the minimum; an ECP parallel port is strongly recommended. See the documentation that came with your computer for more information about your port.
 - Some devices might not share the parallel port with the printer. If you have a sound card, external hard drive, or network switchbox connected to the same USB or parallel port as the HP LaserJet 1220, the other device might be interfering. To connect and use the HP LaserJet 1220, you must disconnect the other device or you must use two ports on the computer. You might need to add another parallel interface card. Hewlett-Packard strongly recommends an ECP parallel interface card. See the documentation that came with your computer for more information about installing an additional parallel interface card or resolving device conflicts.
-

No copy came out of the printer or the scanner did nothing

Solution	Description
Is media loaded in the input tray?	Load media in the printer. See Loading media into the input trays for more information.
Is the original loaded correctly?	Make sure that the original is loaded correctly: narrow side first, top down in the scanner input tray, and the side to be scanned or copied facing up. See Loading originals in the copier/scanner for more information.
Is the scanner correctly connected and the cable attached to the printer?	<p>The scanner must be connected and the cable must be attached. See the <i>Getting Started Guide</i> for attachment instructions. See Removing the copier/scanner for instructions on removing the scanner.</p> <p>CAUTION To prevent damage, unplug the printer before checking the copier/scanner connection.</p>
Is the wrong printer selected?	In Copy Plus, make sure that the HP LaserJet 1220 is selected in the Printer field as the current printer when you print.
Have you printed a configuration page to verify that the printer recognizes the scanner?	To verify that the scanner is installed, print a configuration page. To print a configuration page, press the Go button. In the right middle of the page, there will be a block titled “Copy Settings” if the copier/scanner is installed correctly. If this block is not there, unplug the printer and plug it back in. If that does not work, make sure that the copier/scanner is properly connected to the printer. See the <i>Getting Started Guide</i> included with your copier/scanner for attachment instructions. See Removing the copier/scanner for instructions on removing the copier/scanner.

Copies are blank, missing images, or faded

Solution	Description
Are you making a Quick Copy when you should be using HP LaserJet Copier?	The Quick Copy settings might not produce good results for the type of copy job you are attempting. See Understanding copying features for more information.
Is the protective tape still on the printer toner cartridge?	Each new toner cartridge is packaged with protective plastic tape. See Changing the toner cartridge to verify that the protective tape has been removed.
Is the toner cartridge low on toner?	Copies are made using the printer. If the toner cartridge is low on toner, the copies will be faded. You might be able to extend the life of the toner cartridge slightly by redistributing the toner, but make sure that you have another cartridge available to install. See Redistributing toner for instructions.
Is the original of poor quality?	The accuracy of the copy depends on the quality and size of the original. Try adjusting the contrast with HP LaserJet Copier. See Using HP LaserJet Copier for instructions. If your original is too light, the copy might not be able to compensate, even if you adjust the contrast.
Does the original have a colored background?	Colored backgrounds might cause images in the foreground to blend too much or the background to appear in a different shade. Try using HP LaserJet Copier to adjust the settings before copying or to enhance the image after it has been copied. See Using HP LaserJet Copier for instructions. Also see Scanner resolution and color for more information.
Is the original longer than 762 mm (35 in.)?	The maximum scannable length is 762 mm (35 in.). If the page exceeds the maximum length, the copier/scanner stops. CAUTION Do not try to pull the original from the scanner; you might damage the scanner or your original. See Clearing copier/scanner jams for instructions.
Is the original too small?	The minimum size supported in the HP LaserJet 1220 copier/scanner is 50.8 by 90 mm (2 by 3.5 in.). The original might be jammed. See Clearing copier/scanner jams for instructions.

Improving copy/scan quality

This section provides information on the following topics:

- [Preventing problems](#)
- [Identifying and correcting copy/scan defects](#)

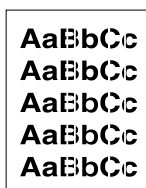
Preventing problems

The following are a few simple steps that you can take to improve copy and scan quality:

- Use quality originals.
- Load the media correctly. If the media is loaded incorrectly, it might skew, causing unclear images and problems with the OCR application. See [Loading originals in the copier/scanner](#) for instructions.
- Open or close the straight-through output door on the copier/scanner to accommodate the copy job. If you are copying to standard weight media, use the output bin (door closed). If you are copying to heavy media, use the straight-through output path (door open).
- Adjust the software settings according to how you plan to use the copy or scanned page. See [Enhancing the scanned image in HP Document Manager](#) and [Scanner resolution and color](#) for more information.
- If your copier/scanner frequently feeds more than one page at a time, replace the copier/scanner separation pad. Recurring feed problems indicate that the copier/separation pad is worn. See [Accessories and ordering information](#) to order a new copier/scanner separation pad. See [Paper handling problems](#) for more information about replacing the copier/scanner separation pad.
- Use or make a carrier sheet to protect your originals.

Identifying and correcting copy/scan defects

Vertical white stripes



- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough). See [Printer media specifications](#) for more information.
- The toner might be low. See [Redistributing toner](#) for instructions.

Blank pages

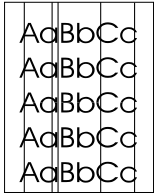


- The original might have been loaded upside down. Load the original with the narrow side forward and the side to be scanned facing up. See [Loading originals in the copier/scanner](#) for instructions.
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough). See [Printer media specifications](#) for more information.
- The toner might be out. See [Changing the toner cartridge](#) for instructions.
- The tape might not have been removed from the toner cartridge. See [Changing the toner cartridge](#) for instructions.

Too light or dark



- Try adjusting the settings.
 - HP LaserJet Copier: see [Using HP LaserJet Copier](#) for more information.
 - Quick Copy settings: see [Using the Quick Copy feature](#) for more information.
 - Make sure that you have the correct resolution and color settings. See [Scanner resolution and color](#) for more information.
- You might need to change the properties settings for the associated function in HP LaserJet Director or HP Document Manager. See [Accessing the online help](#).



Unwanted lines

- Make sure that the priority input tray is in place.
- Ink, glue, correction fluid, or an unwanted substance might be on the scanner sensor. Try cleaning the copier/scanner. See [Cleaning the copier/scanner](#) for instructions.
- The photosensitive drum inside the toner cartridge has probably been scratched. Install a new HP toner cartridge. See [Changing the toner cartridge](#) for instructions.



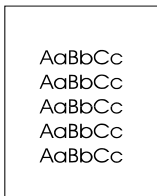
Black dots or streaks

- Ink, glue, correction fluid, or an unwanted substance might be on the scanner sensor. Try cleaning the copier/scanner. See [Cleaning the copier/scanner](#) for instructions.



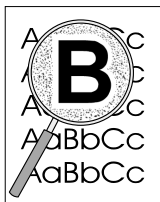
Unclear text

- Try adjusting the settings.
 - HP LaserJet Copier: see [Using HP LaserJet Copier](#) for more information.
 - Quick Copy settings: see [Using the Quick Copy feature](#) for more information.
 - Make sure that you have the correct resolution and color settings. See [Scanner resolution and color](#) for more information.
- You might need to change the properties settings for the associated function in HP LaserJet Director or HP Document Manager. See [Accessing the online help](#).



Reduced size

- The HP software settings might be set to reduce the scanned image.
 - See [HP LaserJet Director Toolbox \(Windows 9x, 2000, Millennium, and NT 4.0\)](#) for more information about changing the settings in HP LaserJet Director and HP LaserJet Document Manager.
 - See [Using the Quick Copy feature](#) for more information about changing the settings for Quick Copies.
 - See [Using HP LaserJet Copier](#) for more information about changing the settings for HP LaserJet Copier.



Toner scatter outline

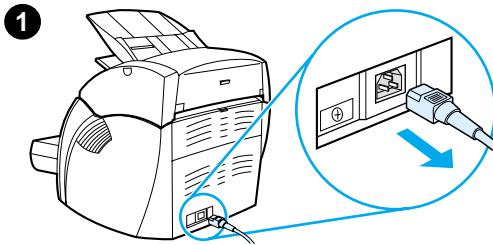
- If large amounts of toner are scattered around the characters, the media might be resisting the toner. (A small amount of toner scatter is normal for laser printing.) Try a different media type. See [Printer media specifications](#) for more information.
- Turn over the stack of media in the tray.
- Use media designed for laser printers. See [Printer media specifications](#) for more information.

Paper handling problems

Paper handling problems

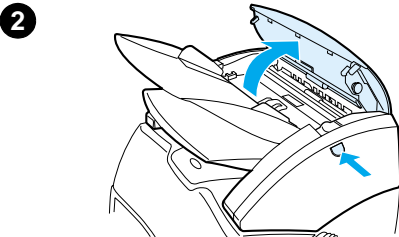
Problem	Solution
Paper jam	<ul style="list-style-type: none">● See Clearing copier/scanner jams for more information.● Make sure that you are scanning with media that meets specifications. See Media for more information.● Make sure that you are scanning with media that is not wrinkled, folded, or damaged.● Make sure that the scanner is clean. See Cleaning the copier/scanner for instructions.● Use a carrier sheet. See Precautions for copying and scanning for instructions.
Scan is skewed (crooked)	<ul style="list-style-type: none">● Adjust the media guides to the width of the media that you are using and try rescanning. See Loading originals in the copier/scanner for more information.
More than one sheet feeds through the copier/scanner at one time	<ul style="list-style-type: none">● The input tray might be too full. See Loading originals in the copier/scanner for instructions.● Make sure that the original is not wrinkled, folded, or damaged.● The copier separation pad might be worn. See Replacing the copier/scanner separation pad for instructions.
Scanner does not pull media from the media input tray	<ul style="list-style-type: none">● The pickup roller might be dirty or damaged. See Cleaning the copier/scanner for instructions.
The sheet does not exit to the correct path	Open or close the straight-through output door to reflect the output path that you want to use. See Loading originals in the copier/scanner for more information.
Print job is extremely slow	See The scan takes too long .

Cleaning the copier/scanner



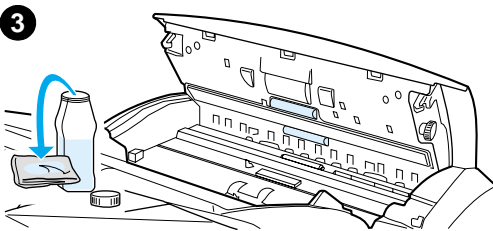
You might need to clean the copier/scanner after scanning or copying items that have ink that smudges or that have excessive dirt or dust.

1 Unplug the printer to turn the power off, and wait for the scanner to cool.



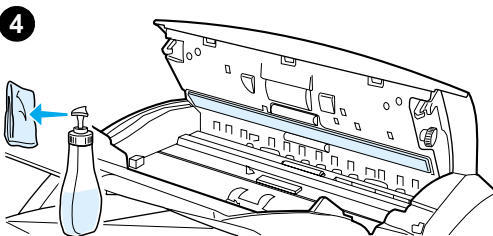
2 Open the scanner door.

3 Dampen a clean, cotton cloth with isopropyl alcohol (pH7 or neutral pH). With the damp cloth, gently rub back and forth on the white platen. Also, use the damp cloth to gently rub the rollers.

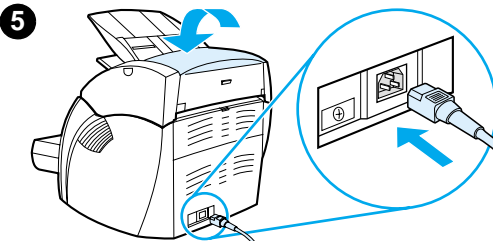


WARNING!

Alcohol is flammable. Keep the alcohol and cloth away from an open flame. Allow the alcohol to dry completely before you plug in the power cord.



4 Spray glass cleaner on another piece of clean, cotton cloth, and carefully clean the glass on the image sensor.



5 Plug the printer in to turn it back on.

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.

Clearing copier/scanner jams

Occasionally, media becomes jammed during a scan or copy job. Some of the causes include the following:

- The input trays are loaded improperly. See [Loading originals in the copier/scanner](#) for instructions.
- The original is too small or too large to feed correctly through the copier/scanner. See [Supported media sizes and types](#) for more information.
- The original exceeds the maximum page length. See [Supported media sizes and types](#) for more information.
- The media does not meet Hewlett-Packard specifications. See [Printer media specifications](#) for more information.

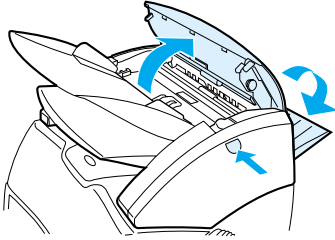
An error message appears on your computer screen when a jam occurs.

Note

When you add new originals, always remove the originals from the input tray and straighten the stack of new originals.

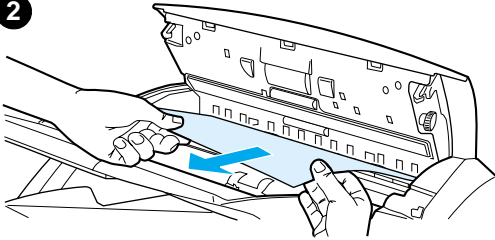
Clearing jams

1



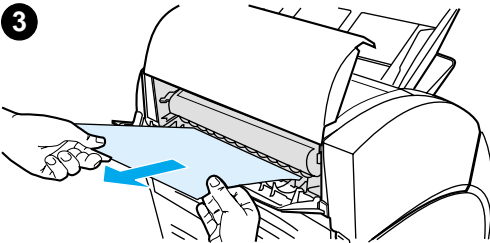
1 Open the straight-through output door, and press the door release button to open the scanner door.

2



2 Find and grasp the original from the straight-through output door or copier/scanner door, whichever side sticks out further.

3



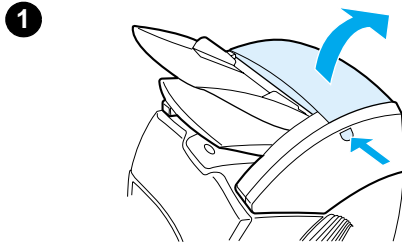
3 Pull gently and steadily.

Note

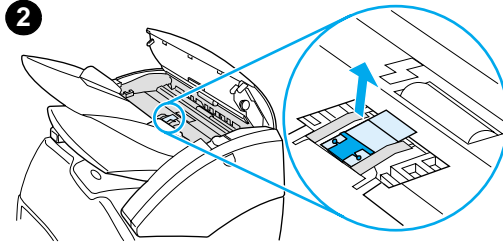
When you add new originals, always remove the originals from the input tray and straighten the stack of new originals.

Replacing the copier/scanner separation pad

If your copier/scanner input tray feeds more than one page at a time, you might need to change the copier/scanner separation pad. Recurring problems indicate that the copier/scanner separation pad is worn. See [Accessories and ordering information](#) to order a new copier/scanner separation pad.

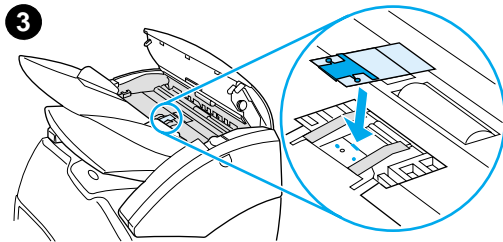


- 1 To open the copier/scanner door, press the release button.
- 2 Grasp the separation pad and mylar sheet firmly between your thumb and index finger, and pull them straight up and out.

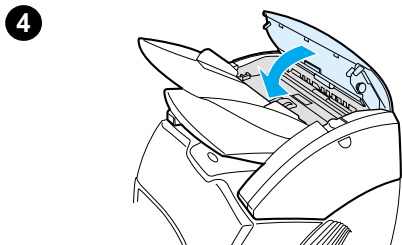


Note

You will feel resistance because the tabs attach the black pad holder to the copier/scanner. This is normal. The pad holder is part of the replacement unit. It is also released by your action.



- 3 Snap the new pad holder, with the separation pad and mylar attached, into position.
- 4 Close the copier/scanner door.

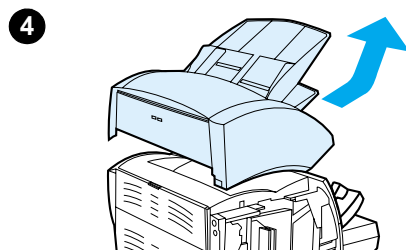
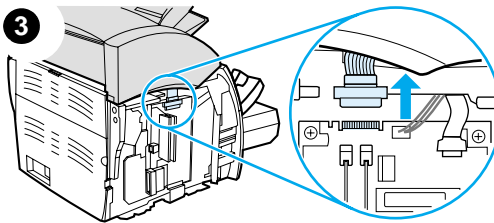
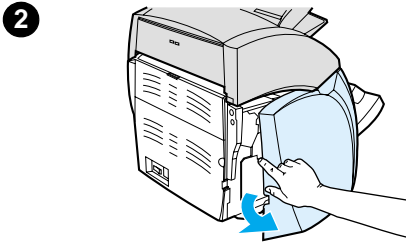
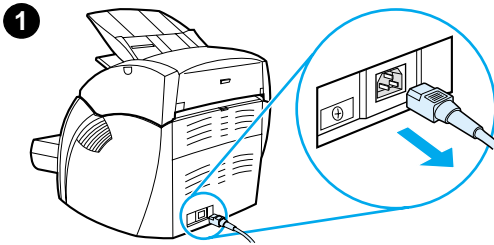


Removing the copier/scanner

To remove the copier/scanner from the printer, follow the instructions below:

CAUTION

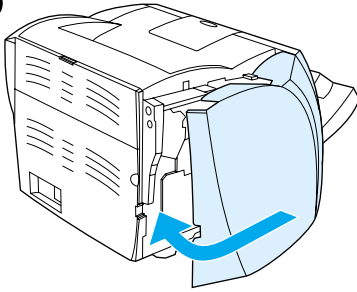
If you remove the copier/scanner before you unplug the printer, you might damage your printer and scanner. You must also unplug the printer before you reinstall the copier/scanner on the printer.



- 1 Turn off the power switch (220 v models only) and unplug the printer.
- 2 Open and remove the left side panel.
- 3 Pull up on the scanner cable to disconnect it from the printer.
- 4 Slide the copier/scanner up and away from the printer.

Continued on next page.

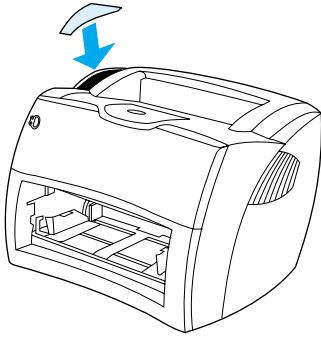
5



5 Replace the left side panel. See [Closing the left side panel](#) for instructions.

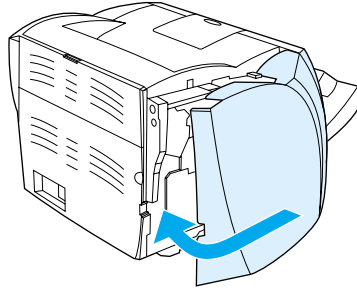
6 Replace the copier/scanner access panel.

6



Closing the left side panel

To close the left side panel, attach it at the front of the printer first. There are two hinges that hold the front of the panel in place. Then swing the panel in until it clicks into place.



Note

Make sure the left side panel is completely closed. If it is not, the toner door will not close completely, the amber light will blink, and the printer will not work.

11 Troubleshooting the print server

This chapter provides information on the following subjects:

- [Finding the solution](#)
- [Understanding the print server's light patterns](#)
- [Using a print server configuration page](#)
- [Understanding the print server configuration page](#)
- [Verifying your hardware](#)

Finding the solution

You can use this section to find the solution to common print server problems.

To diagnose and correct problems associated with the HP JetDirect 175X print server, you might need the following items:

- For Internet users, access Hewlett-Packard's Web site for troubleshooting HP JetDirect print servers:

www.hp.com/support/net_printing

Select your product type and number, and when displayed, select **Support Documents**, and **Troubleshooting**.

- An HP JetDirect configuration page. See [Printing a configuration page](#) for instructions.

Understanding the print server's light patterns

LED light patterns

LED	Behavior	Meaning
Status	Off	The print server is not receiving power.
	Slow blink (green)	A fault occurred during the self-test or operation. The server might be faulty. Contact HP.
	Slow blink (amber)	A fault occurred during the self-test or operation.
	On (green)	The print server is on and ready.
	Fast blink (green)	The print server is processing the configuration page.
10 or 100 link	Both off	There is no network connection.
	10 or 100 on (green)	A network connection is established at 10 Mb/s or 100 Mb/s.
USB	Off	The USB is not operational.
	On (green)	OK.
	On (amber)	A hardware fault occurred (for example, the print server might be drawing too much power).
	Blink (green)	A software fault occurred for the HP JetDirect firmware. There is a valid USB device and connections, but the device is not supported. Make sure that the attached device is a printer.
	Blink (amber)	A hardware fault occurred (for example, a short-circuit or a faulty cable).

Using a print server configuration page

The information on the print server configuration page reveals the status of your network and the HP JetDirect 175X print server. If you can print a configuration page, your hardware is working correctly.

Printing a print server configuration page

Press the **Test** button on the rear panel of the print server. If you are not sure if the configuration page is in the process of printing, check the power/status LED. If the page never appears on the printer (or if it is unreadable), press and hold the **Test** button to change the page description language (PDL). Then press the **Test** button once to request the page. Repeat if necessary.

Understanding the print server configuration page

The configuration page includes messages, network statistics, and status. These messages include configuration information and error messages for the HP JetDirect print server. You can also view the HP JetDirect configuration page over the network from a management utility (such as HP Web JetAdmin) or by accessing the embedded Web server on the HP JetDirect print server.

Status field error messages

The configuration page contains several Status fields for the print server and the supported protocols. One or more error codes and related error messages can be displayed in a Status field. See [Error messages](#) for information about each error message.

Page sections and messages

Section	Description
General HP JetDirect information	Provides general print server status and identification information.
USB port information	Provides the USB printer class descriptors for the device that is connected to the port.
Network statistics	Provides the current values for various network parameters that the print server monitors.
TCP/IP protocol information	Provides the current status and parameter values for the TCP/IP network protocols.
IPX/SPX protocol information	Provides the current status and parameter values for the IPX/SPX network protocols.
AppleTalk protocol information	Provides the current status and parameter values for the AppleTalk network protocols.

General HP JetDirect information

Message	Description
Status	<p>The current state of the print server:</p> <p>I/O Card Ready: The print server has successfully connected to the network and is waiting for data.</p> <p>I/O Card Initializing: The print server is initializing the network protocols. See the status line for each protocol on the configuration page for more information.</p> <p>I/O Card Not Ready: There is a problem with the print server or its configuration.</p> <p>Note</p> <p>If the print server is not ready, an error code and message appears. See Error messages.</p>
Model Number	The HP JetDirect print server's model number (for example, J6035A).
Hardware Address	The 12-digit hexadecimal network hardware (MAC) address of the print server that is installed in the printer or device. The manufacturer assigns this address.
Firmware Version	The firmware revision number of the print server that is currently installed in the printer. The format is X.NN.NN, where X is a letter that depends on the HP JetDirect print server model.
Port Select	<p>The LAN port on the print server that has been detected for use:</p> <p>None: The print server is not connected to the network.</p> <p>RJ-45: The RJ-45 network port is connected.</p>
Port Config	<p>The link configuration of the RJ-45 LAN port on the print server:</p> <p>10BASE-T HALF: 10 Mbps, half-duplex</p> <p>10BASE-T FULL: 10 Mbps, full-duplex</p> <p>100TX HALF: 100 Mbps, half-duplex</p> <p>100TX FULL: 100 Mbps, full-duplex</p> <p>Unknown: The print server is in an initialization state.</p> <p>Disconnected: A network connection has not been detected. Check the network cables.</p>

Message	Description
Auto Negotiation	Specifies if IEEE 802.3u Autonegotiation on the 10/100TX port is enabled (on) or disabled (off): On: The print server tries to automatically configure itself onto the network at the proper speed (10 or 100 Mbps) and mode (half or full duplex).
Manufacturing ID	The manufacturing identification code for use by HP Customer Care personnel.
Date Manufactured	The date that the HP JetDirect print server was manufactured.
SNMP Set Cmty Name	Specifies if an SNMP set community name has been configured on the print server. An SNMP set community name is a password for write access to SNMP control functions (SNMP SetRequests) on the print server. Not Specified: An SNMP set community name has not been configured. Specified: An SNMP set community has been configured.
Port 1 *	Heads the section for the USB printer class descriptor information supplied by the printer's manufacturer. The number and asterisk, 1 * , means that the configuration and diagnostic pages are printed on the printer attached to this print server port 1. See USB port information for more information.

USB port information

Message	Description
Device Name	The name of the attached USB printing device. The manufacturer supplies this name.
Manufacturer	The manufacturer of the attached printing device.
Serial Number	The serial number of the attached printing device.
Mode	<p>The USB communication mode:</p> <p>Bidirectional: Two-way printer communication – Sends print data to the printer and returns status information from the printer.</p> <p>MLC: HP-proprietary protocol for Multiple Logical Channels – A mode for printers and multi-function devices (such as the HP LaserJet 1200) that allows multiple channels of simultaneous print, scan, and status communication.</p> <p>1284.4: IEEE-standard protocol – A mode for printers and multi-function devices, such as the HP LaserJet 1200, that allows multiple channels of simultaneous print, scan, and status communication.</p> <p>Unidirectional: One-way print communication from computer to printer.</p> <p>Disconnected: A printer connection has not been detected. Check the printer and cable.</p>

Network statistics

Message	Description
Total Packets Received	The total number of frames (packets) that the print server received without error. This includes broadcasts, multicast packets, and packets specifically addressed to the print server. This number does not include packets specifically addressed to other nodes.
Unicast Packets Received	The number of frames specifically addressed to the print server. This does not include broadcasts or multicasts.
Bad Packets Received	The total number of frames (packets) that the print server received with errors.
Framing Errors Received	The maximum CRC (Cyclic Redundancy Check) errors and framing errors. CRC errors are frames received with CRC errors. Framing errors are frames received with alignment errors. A large number of framing errors might indicate a cabling problem with your network.
Total Packets Transmitted	The total number of frames (packets) transmitted without error.
Unsendable Packets	The total number of frames (packets) that were not successfully transmitted because of errors.
Transmit Collisions	The number of frames (packets) that were not transmitted because of repeated collisions.
Transmit Late Collisions	Total number of frames (packets) that were not transmitted because a late collision occurred. A large number might indicate a cabling problem on the network.

TCP/IP protocol information

Message	Description
Status	<p>The current TCP status:</p> <p>Ready: The print server is waiting for data over TCP/IP.</p> <p>Disabled: TCP/IP was manually disabled.</p> <p>Initializing: The print server is searching for the BOOTP server or trying to get the configuration file through TFTP. An additional status message might also display.</p> <p>Note</p> <p>If the print server is not ready, an error code and message displays.</p>
Host Name	<p>The host name configured on the print server. The host name might be truncated.</p> <p>Not Specified: No host name was specified in a BOOTP response or TFTP configuration file.</p> <p>NPxxxxxx: The default name is NPxxxxxx, where xxxxxx is the last six digits of the LAN hardware (MAC) address.</p>
IP Address	<p>The Internet Protocol (IP) address assigned to the print server. This is a required entry for its operation on a TCP/IP network. During initialization, a temporary value of 0.0.0.0 displays. After two minutes, a default IP address of 192.0.0.192 is assigned, which might not be a valid IP address for your network.</p> <p>Not Specified: An IP address is not assigned or the value is zero.</p>
Subnet Mask	<p>The IP subnet mask configured on the print server. During initialization, a temporary value of 0.0.0.0 displays. Depending on the configuration parameters, the print server might automatically assign a usable default value.</p> <p>Not Specified: A subnet mask is not configured.</p>
Default Gateway	<p>The IP address of the gateway used when sending packets off of the local network. You can only configure one default gateway. During initialization, a temporary value of 0.0.0.0 displays. If an IP address is not provided, the print server's IP address is used.</p> <p>Not Specified: A default gateway is not configured.</p>

Message	Description
Config By	<p>Specifies how the print server obtained its IP configuration:</p> <p>BOOTP: Automatic configuration via a BOOTP server.</p> <p>BOOTP/TFTP: Automatic configuration via a BOOTP server and TFTP configuration file.</p> <p>DHCP: Automatic configuration via a DHCP server.</p> <p>DHCP/TFTP: Automatic configuration via a DHCP server and TFTP configuration file.</p> <p>RARP: Automatic configuration via the Reverse Address Resolution Protocol.</p> <p>User Specified: Manual configuration via Telnet, the printer's control panel, HP Web JetAdmin, an embedded Web server, or another method.</p> <p>Default IP: The default IP address was assigned. This address might not be a valid address for your network.</p> <p>Not Configured: The print server was not configured with IP parameters. Make sure that TCP/IP is enabled, or check for an error status.</p>
BOOTP Server or DHCP Server or RARP Server	<p>This message displays if BOOTP, DHCP, or RARP is used for TCP/IP configuration. This message specifies the IP address of the system that responds to the print server's request for automatic TCP/IP configuration over the network.</p> <p>Not Specified: The configuration server's IP address could not be determined or was set to zero in the response packet.</p>
BOOTP/DHCP Server	<p>This message displays during initialization while the print server attempts to obtain its TCP/IP configuration from a BOOTP or DHCP server. The temporary address of 0.0.0.0 displays.</p> <p>Not Specified: The configuration server's IP address could not be determined or was set to zero in the response packet.</p>
TFTP Server	<p>The IP address of the system where the TFTP configuration file is located. During initialization, the temporary address of 0.0.0.0 displays.</p> <p>Not Specified: A TFTP server has not been set.</p>
Config File	<p>The name of the print server's configuration file. The file pathname might be truncated to fit on two lines.</p> <p>Not Specified: A file was not specified in the BOOTP reply from the host.</p>

Message	Description
Domain Name	<p>The Domain Name System (DNS) name of the domain where the print server resides (for example, support.company.com). It is not the fully qualified DNS name because the host printer name is not included (for example, printer1.support.company.com).</p> <p>Not Specified: A domain name has not been configured on the print server.</p>
DNS Server	<p>The IP address of the Domain Name System (DNS) server.</p> <p>Not Specified: A DNS server's IP address has not been configured on the print server.</p>
WINS Server	<p>The IP address of the Windows Internet Name Service (WINS) server.</p> <p>Not Specified: A WINS server's IP address has not been configured on the print server.</p>
Syslog Server	<p>The IP address of the syslog server configured on the print server.</p> <p>Not Specified: A syslog server has not been configured.</p>
Idle Timeout	<p>The timeout value, expressed in seconds, after which the print server closes an idle TCP print data connection. Acceptable values are integers between 0 and 3600 seconds. A value of zero turns the timeout mechanism off. The default is 90 seconds.</p>
SLP	<p>Specifies if the print server sends Service Location Protocol (SLP) packets used by system applications for automated installation.</p> <p>Enabled: The print server sends SLP packets.</p> <p>Disabled: The print server does not send SLP packets.</p>
Access List	<p>Specifies if a host access control list is configured on the print server. A host access control list specifies the IP address of individual systems, or IP network of systems, that are allowed access to the print server and device.</p> <p>Specified: A host access list is configured on the print server.</p> <p>Not Specified: A host access list is not configured on the print server. All systems are allowed access.</p>

Message	Description
Web JetAdmin URL	If HP Web JetAdmin finds the print server on the network, the URL of the host system used for HP Web JetAdmin services displays. The URL is limited to two lines and might be truncated. Not Specified: The URL of the HP Web JetAdmin host system could not be identified or is not configured.

IPX/SPX protocol information

Message	Description
Status	<p>The current IPX/SPX protocol status:</p> <p>Ready: The print server is waiting for data over IPX/SPX.</p> <p>Disabled: IPX/SPX was manually disabled.</p> <p>Initializing: The print server is registering the node address or name. An additional status message might also display.</p> <p>Note</p> <p>If the print server is not ready, an error code and message displays.</p>
Node Name	<p>The print server's IPX/SPX name. The default name is NPIXXXXXX, where XXXXXX is the last six digits of the LAN hardware (MAC) address.</p>
Primary Frame Type	<p>The frame type selection on the print server:</p> <p>Auto Select: The print server automatically senses and limits the frame type to the first one detected.</p> <p>EN_802.3: The print server limits the frame type to IPX over IEEE 802.3 frames. All others frames are counted and discarded.</p> <p>EN_II: The print server limits the frame type to IPX over Ethernet frames. All others frames are counted and discarded.</p> <p>EN_802.2: The print server limits the frame type to IPX over IEEE 802.2 with IEEE 802.3 frames. All others frames are counted and discarded.</p> <p>EN_SNAP: The print server limits the frame type to IPX over SNAP with IEEE 802.3 frames. All others frames are counted and discarded.</p>

Message	Description
Network XXXXXX XXXXXX XXXXXX XXXXXX	<p>The first column, Network, specifies the network number associated with a protocol frame type used for communication between a server and the print server.</p> <p>Unknown: The print server is still trying to determine which network number to use.</p>
Frame Type XXXXX XXXXX XXXXX XXXXX	<p>The second column, Frame Type, specifies the frame type used with the associated network number: EN_II, EN_802.2, EN_SNAP, and EN_802.3.</p> <p>Unless you have manually configured a specific frame type, the print server automatically determines the protocol frame type by listening to the network data being transferred over the network.</p> <p>Disabled: A specific frame type for that network has been manually configured.</p>
RCVD XXXXX XXXXX XXXXX XXXXX	<p>The third column, RCVD, specifies how many packets have been received for each frame type.</p>

AppleTalk protocol information

Message	Description
Status	<p>The current AppleTalk configuration status:</p> <p>Ready: The print server is waiting for data.</p> <p>Disabled: AppleTalk was manually disabled.</p> <p>Initializing: The print server is registering the node address or name. An additional status message might also display.</p> <p>Note</p> <p>If the print server is not ready, an error code and message displays.</p>
Name	<p>The name of the printer on the AppleTalk network. A number after the name means that there are multiple devices with this name, and this is the Nth instance of the name.</p>
Zone	<p>The name of the AppleTalk network zone where the printer is located.</p>
Type	<p>The type of the printer being advertised on the network. Two types can be displayed.</p>
Network Number	<p>The AppleTalk Network Number where the print server is currently operating.</p>
Node Number	<p>The AppleTalk Node Number that the print server chose for itself as part of its initialization sequence.</p> <p>Note</p> <p>The AppleTalk phase 2 (P2) parameter is preconfigured on the print server.</p>

Error messages

Error Code and Message	Description
02 LAN ERROR – INTERNAL LOOPBACK	During a self-test, the print server detected an internal loopback test error. The print server might be faulty. If the error persists, replace the print server.
03 LAN ERROR – EXTERNAL LOOPBACK	The print server is incorrectly connected to your network or it is defective. Make sure that your print server is correctly attached to your network. In addition, check the cabling and connectors.
07 LAN ERROR – CONTROLLER CHIP	Check the network connections. If the connections are intact, run the power-on self-test: turn the printer off and back on. If the error persists, replace the print server.
08 LAN ERROR – INFINITE DEFERRAL	There is a network congestion problem. Note If the print server is not connected to the network, this error cannot occur.
09 LAN ERROR – BABBLE	Check the network connections. If the connections are intact, run the power-on self-test: turn the printer off and back on. If the error persists, replace the print server.
0A LAN ERROR – NO SQE	Check the network connections. If the connections are intact, run the power-on self-test: turn the printer off and back on. If the error persists, replace the print server.
0C LAN ERROR – RECEIVER OFF	There might be a problem with your network cabling or the print server. Check the cabling and connectors on your Ethernet network. If you cannot find a problem with your network cabling, run the power-on self-test: remove and re-attach the power module connector on the print server. If the error persists, there is a problem with the print server.

Error Code and Message	Description
0D LAN ERROR – TRANSMITTER OFF	There might be a problem with your network cabling or the print server. Check the cabling and connectors on your Ethernet network. If you cannot find a problem with your network cabling, run the power-on self-test: remove and re-attach the power module connector on the print server. If the error persists, there is a problem with the print server.
0E LAN ERROR – LOSS OF CARRIER	Check the network connections. If the connections are intact, run the power-on self-test: remove and re-attach the power module connector on the print server. If the error persists, replace the print server.
10 LAN ERROR – UNDERFLOW	There might be a problem with your network cabling or the print server. Check the cabling and connectors on your network. If you cannot find a problem with your network cabling, run the power-on self-test: remove and re-attach the power module connector on the print server. If the error persists, there is a problem with the print server.
11 LAN ERROR – RETRY FAULTS	There is a problem with your network cabling or external network configuration. Make sure that the hub or switch port is operating.
12 LAN ERROR – NO LINKBEAT	With a 10Base-T or 100Base-TX port connected, Link Beat is not sensed. Check the network cable, and make sure that the concentrator or hub is providing Link Beat.
13 NETWORK RECONFIG – MUST REBOOT	To enable the new configuration values, reset the print server or turn the print server off and back on.
28 OUT OF BUFFERS	The print server could not allocate a buffer from its internal memory. This means that all of the buffers are busy, which might be a result of heavy broadcast traffic or large amounts of network traffic directed to the print server.
40 ARP DUPLICATE IP ADDRESS	The ARP layer detected another node on the network using the same IP address as the print server. Extended error information below this message shows the hardware address of the other node.
41 NOVRAM ERROR	The print server cannot read the contents of its NOVRAM.

Error Code and Message	Description
42 INVALID IP ADDRESS	The IP address specified for the print server (through BOOTP) is an invalid IP address for specifying a single node. Check your Bootptab file for the proper entries.
43 INVALID SUBNET MASK	The IP subnet mask specified for the print server (through BOOTP) is an invalid subnet mask. Check your Bootptab file for the proper entries.
44 INVALID GATEWAY ADDRESS	The default gateway IP address specified for the print server (through BOOTP) is an invalid IP address for specifying a single node. Check your Bootptab file for the proper entries.
45 INVALID SYSLOG ADDRESS	The syslog server IP address specified for the print server (through BOOTP) is an invalid IP address for specifying a single node. Check your Bootptab file for the proper entries.
46 INVALID SERVER ADDRESS	The TFTP server IP address specified for the print server (through BOOTP) is an invalid IP address for specifying a single node. Check your Bootptab file for the proper entries.
47 INVALID TRAP DEST ADDRESS	One of the SNMP trap (Trap PDU) destination IP addresses specified for the print server (through TFTP) is an invalid IP address for specifying a single node. Check your TFTP configuration file.
48 CF ERR – FILE INCOMPLETE	The TFTP configuration file contained an incomplete last line that did not end in a new line character.
49 CF ERR – LINE TOO LONG	A line being processed in the TFTP configuration file was longer than the print server could accept.
4A CF ERR – UNKNOWN KEYWORD	A TFTP configuration file line contained an unknown keyword.
4B CF ERR – MISSING PARAMETER	A line in the TFTP configuration file was missing a required parameter.
4C CF ERR – INVALID PARAMETER	One of the parameters on a line in the TFTP configuration file contained an invalid value.

Error Code and Message	Description
4D CF ERR – ACCESS LIST EXCEEDED	The TFTP configuration file specified too many access list entries using the “allow:” keyword.
4E CF ERR – TRAP LIST EXCEEDED	The TFTP configuration file specified too many trap destination list entries using the “trap-destination:” keyword.
4F TFTP REMOTE ERROR	The TFTP transfer of the configuration file from the host to the print server failed with the remote host sending a TFTP ERROR packet to the print server.
50 TFTP LOCAL ERROR	The TFTP transfer of the configuration file from the host to the print server failed with the local print server encountering some form of inactivity timeout or excessive retransmissions situation.
51 TFTP RETRIES EXCEEDED	The overall retrying of the TFTP transfer of the configuration file from the host to the print server has exceeded a retry limit.
52 BAD BOOTP/DHCP REPLY	An error was detected in the BOOTP or DHCP reply that the print server received. The reply either had insufficient data in the UDP datagram to contain the minimum BOOTP/DHCP header of 236 bytes, an operation field that was not BOOTPREPLY(0X02), a header field that did not match the print servers hardware address, or a UDP source port that was not the BOOTP/DHCP server port (67/udp).
53 BAD BOOTP TAG SIZE	The tag size in a vendor-specific field in the BOOTP reply is either 0 or greater than the remaining number of unprocessed bytes in the vendor-specified area.
54 BOOTP/RARP IN PROGRESS	The print server is currently in the process of obtaining its basic IP configuration information through BOOTP/RARP.
55 BOOTP/DHCP IN PROGRESS	The print server is currently in the process of obtaining its basic IP configuration information through BOOTP/DHCP and has not detected any errors.
56 DHCP NAK	The print server received a negative acknowledgement message from the DHCP server in response to a configuration request.

Error Code and Message	Description
57 UNABLE TO CONNECT DHCP SVR	The print server received IP parameters from a DHCP server, but communication with the DHCP server has been lost. Check the status of the DHCP server. If you assigned an infinite lease, the print server uses the IP address of the most recent DHCP server used, but operation might be degraded until a DHCP server responds.
58 POSTSCRIPT MODE NOT SELECTED	The printer does not support AppleTalk or AppleTalk extensions.
59 INCOMPLETE F/W – MUST DOWNLOAD	Currently downloading firmware to the print server, or the download did not complete properly.
5A TURN PRINTER OFF / ON	The firmware download is complete. Turn the print server off and back on.
83 DISCONNECTING FROM SERVER	The server has been shut down because of a configuration change or reset request. This message automatically clears after a few seconds unless the printer is offline, in an error state, or servicing another I/O port or another network protocol.

Verifying your hardware

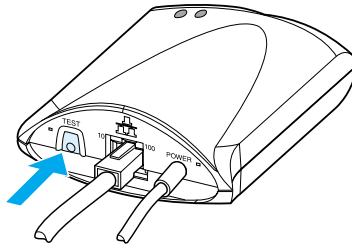
Your print server might not work if the printer, print server, or connections are not functioning properly.

The printer

You can print a printer configuration page to verify that the printer is printing correctly. See [Printing a configuration page](#) for instructions. See [Troubleshooting the printer](#) for more information about interpreting the printer configuration page and diagnosing and correcting printer problems.

The print server

- Attach the printer to the HP JetDirect 175X and attach the HP JetDirect 175X to the network.
- Press the print server **Test** button to print a configuration page. See [Using a print server configuration page](#) for more information.



- Review the page for status and error messages. Verify that network and HP JetDirect settings are correct for your network. See [Using a print server configuration page](#) for more information.

Verify printing when attached to a computer

CAUTION

Hewlett-Packard recommends that only network administrators troubleshoot configurations problems with the HP JetDirect print server.

- Use a USB cable to temporarily attach the printer to a computer locally, instead of to the print server.
- Print a file to the printer while it is attached directly to your computer.
- If the file does not print, try a different USB cable that you know works properly.
- If the file still does not print, you might have a problem with the printer driver.

Verify scanning over the network

If the print server allows you to print, but not scan over the network, try the following solutions:

- Change the configuration to peer-to-peer.
- Use the embedded Web server's scanning features instead of the software that the printer installs on each client.
- The USB link might be unidirectional rather than multichannel.

12 Service and support

This chapter provides information on the following topics:

- [Availability](#)
- [Hardware service](#)
- [Extended warranty](#)
- [Guidelines for repacking the printer](#)
- [Service information form](#)
- [Hewlett-Packard Support](#)
- [Worldwide country/region sales and service offices](#)

Availability

Hewlett-Packard provides a variety of service and support options around the world. The availability of these programs varies depending upon your location.

Hardware service

If your hardware fails during the warranty period, Hewlett-Packard offers the following support options:

- **Hewlett-Packard repair services:** Hewlett-Packard will arrange to pick up the unit, repair it, and return it to you within 5 to 10 days, depending on your location.
- **Hewlett-Packard authorized service provider:** You can return the unit to a local authorized service dealer.

Extended warranty

HP SupportPack provides coverage for the HP product and all HP-supplied internal components. The hardware maintenance covers a one-to-five year period from date of the HP product purchase. The HP SupportPack can provide Express Exchange or onsite service. The customer must purchase HP SupportPack within 90 days of the HP product purchase. Get more support information from the following HP Web site:

http://www.hp.com/peripherals2/care_netlj/index.html

or contact the Customer Care Service and Support group; see [Hewlett-Packard Support](#) for the appropriate phone numbers and information.

Guidelines for repacking the printer

Use the following guidelines when repacking the printer:

- If possible, include print samples and 5 to 10 sheets of paper or other media that did not print correctly.
- Remove and keep any DIMMs (memory) installed in the printer. See [Removing a DIMM](#) for instructions.

CAUTION

Static electricity can damage DIMMs. When handling DIMMs, either wear a grounded antistatic wrist strap or frequently touch the surface of the DIMMs' antistatic package before touching bare metal on the printer.

- Remove the scanner. See [Removing the copier/scanner](#) for instructions.
- Remove and keep any cables, trays, and optional accessories installed in the printer.
- Remove and keep the toner cartridge.

CAUTION

To prevent damage to the toner cartridge, store the toner 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 printer's packing material, contact a local mailing service for information on repacking the printer.
- Include a completed copy of the service information form. See [Service information form](#).
- Hewlett-Packard recommends that you insure the equipment for shipment.

Service information form

Service information form

Who is returning the equipment?	Date:	
Person to contact:	Phone:	
Alternate contact:	Phone:	
Return shipping address:	Special shipping instructions:	
What is being sent?	Model number:	Serial number:
Please attach any relevant printouts when returning equipment. Do not ship accessories that are not required to complete the repair (for example, media trays, manuals, and cleaning supplies)		
What needs to be done? 1. Describe the conditions of the failure (What was the failure? What were you doing when the failure occurred? What software were you running? Can you make the failure reoccur?)		
2. If the failure is intermittent, how much time elapses between failures?		
3. Is the unit connected to any of the following? (Please provide manufacturer and model numbers.) Personal Computer: Modem: Network:		
4. Additional comments:		

Hewlett-Packard Support

Thank you for your purchase. Along with your product, you receive a variety of support services from Hewlett-Packard and our support partners that are designed to give you the results you need, quickly and professionally.

Please have the model number, serial number, date of purchase, and description of the problem ready for your Hewlett-Packard Support representative.

The following support information is available:

- [Customer Support and product repair assistance \(U.S. and Canada\)](#)
- [European Customer Support Center](#)
- [In-country/region support numbers](#)
- [Obtaining software utilities and electronic information](#)
- [Hewlett-Packard direct ordering for accessories or supplies](#)
- [Hewlett-Packard Support Assistant compact disc](#)
- [Hewlett-Packard service information](#)
- [Hewlett-Packard SupportPack](#)
- [HP FIRST](#)

Customer Support and product repair assistance (U.S. and Canada)

During the warranty period, you can call 1-208-323-2551 Monday through Friday from 6 am to 10 pm and Saturday from 9 am to 4 pm (Mountain Time) free of charge. However, your standard long-distance phone charges still apply. Have your system nearby and your serial number ready when calling.

Post-warranty telephone assistance is available to answer your product questions. Call 1-900-555-1500 (\$2.50* per minute, maximum charge of \$25.00 per call, U.S. only) or call 1-800-999-1148 (\$25* per call, Visa or MasterCard, U.S. and Canada) Monday through Friday from 6 am to 10 pm and Saturday from 9 am to 4 pm (Mountain Time).

** Prices subject to change.*

European Customer Support Center

language and in-country options available

Open Monday through Friday 8:30 to 18:00 CET

Hewlett-Packard provides a free telephone support service during the warranty period. By calling a telephone number listed below, you will be connected to a responsive team waiting to help you. If you require support after your warranty has expired, you can receive support for a fee through the same telephone number. The fee is charged on a per-incident basis. When calling Hewlett-Packard, have the following information ready: product name and serial number, date of purchase, and description of the problem.

English

Ireland: (353) (1) 662-5525
U.K.: (44) (171) 512-5202
International: (44) (171) 512-5202

Dutch

Belgium: (32) (0) 2 626-8806
Netherlands: (31) (20) 606-8751

French

France: (33) (01) 43-62-3434
Belgium: (32) (0) 2 626-8807
Switzerland: (41) (84) 880-1111

German

Germany: (49) (180) 525-8143
Austria: (43) (0) 0810 006-080

Norwegian

Norway: (47) 2211-6299

Danish

Denmark: (45) 3929-4099

Finnish

Finland: (358) 0203-47288

Swedish

Sweden: (46) (8) 619-2170

Italian

Italy: (39) (2) 264-10350

Spanish

Spain: (34) (90) 232-1123

Portuguese

Portugal: (351) 21 317-6333

In-country/region support numbers

If you require support after your warranty has expired, additional product repair services, or if your country/region is not listed below, see [Worldwide country/region sales and service offices](#).

Argentina	(5411) 4778-8380
Australia	(61) (3) 8877-8000
Brazil	(011) 829-6612
Canada	(1) (800) 387-3867
Chile	800-360999
China	(86) (10) 6564-5959
Czech Republic	(42) (2) 61307310
Greece	(30) (0) 619-6411
Hong Kong SAR	800-96-7729
Hungary	(365) (0) 1 382-1111
India	(91) (11) 682-6035
Indonesia	(62) (21) 350-3408
Israel	(972) (9) 9 52 48 48
Japan	(81) (3) 5346 1891
Korea	(82) (2) 3270-0805
Korea (outside Seoul)	(080) 999-0700
Malaysia	(60) (3) 295-2566
Malaysia (Penang)	1 300 88 00 28
Mexico	800 427-6684
New Zealand	(64) (9) 356-6640 or 0800 445-543 (toll free)
Philippines	(63) (2) 867-3551
Poland	(48) (22) 519-0600
Portugal	(351) (1) 301-7330
Russia (Moscow)	(7) (095) 797-3520
Russia (St. Petersburg)	7-812 346 7997
Singapore	(65) 272-5300
South Africa (inside RSA)	086 000 1030

South Africa (outside RSA)	27-11 258 9301
Taiwan	(886) (02) 2717-0055
Thailand	66 (2) 661-4000
Turkey	(90) (212) 221 6969
Ukraine	7 (380-44) 490-3520
United Arab Emirates	971-4-8839292
Vietnam	84 (8) 823-4530

Online services

For 24-hour access to information over your modem, we suggest the following services.

World Wide Web URL

You can obtain printer drivers, updated HP printer software, and product and support information from the following URLs:

in the U.S. <http://www.hp.com/support/lj1200>

in Europe <http://www2.hp.com>

You can obtain printer drivers from the following sites:

in Korea <http://www.hp.co.kr>

in Taiwan <http://www.hp.com.tw>

or the local driver Web site <http://www.dds.com.tw>

America Online

America Online/Bertelsmann is available in the U.S., France, Germany, and U.K. Printer drivers, updated HP printer software, and support documentation to help answer your questions about which Hewlett-Packard products are available. Use Keyword HP to start your tour or call 1-800-827-6364 and use preferred customer #1118 to subscribe. In Europe, call the following numbers:

Austria 0222 58 58 485

France ++353 1 704 90 00

Germany 0180 531 31 64

Switzerland 0848 80 10 11

United Kingdom 0800 279 1234

CompuServe™

Printer drivers, updated HP printer software, and interactive sharing of technical information with other members are available on CompuServe's "HP User's forums" (GO HP), or call 1-800-524-3388 and ask for representative #51 to subscribe. (CompuServe is also available in the U.K., France, Belgium, Switzerland, Germany, and Austria.)

Obtaining software utilities and electronic information

You can obtain printer drivers from the following locations.

U.S. and Canada

Phone: (805) 257-5565
Mail: Hewlett-Packard Co.
P.O. Box 1754
Greeley, CO 80632
U.S.A.
Fax: (805) 257-6866

Asia-Pacific countries/regions

For Hong Kong SAR, Indonesia, Philippines, Malaysia, or Singapore, contact Fulfill Plus at (65) 740-4477. For Korea, call (82) (2) 3270-0805 or (82) (2) 3270-0893.

Australia, New Zealand, and India

For Australia and New Zealand, call (61) (2) 565-6099. For India, call (91) (11) 682-6035.

Europe

In the U.K., call (44) (142) 986-5511. For Ireland and outside of the U.K., call (44) (142) 986-5511.

Hewlett-Packard direct ordering for accessories or supplies

In the U.S., call 1-800-538-8787. In Canada, call 1-800-387-3154.

Hewlett-Packard Support Assistant compact disc

This support tool offers a comprehensive online information system designed to provide technical and product information about HP products. To subscribe to this quarterly service in the U.S. or Canada, call 1-800-457-1762. In Hong Kong SAR, Indonesia, Malaysia, and Singapore, call Fulfill Plus at (65) 740-4477.

Hewlett-Packard service information

To find an HP-Authorized Service Provider, call 1-800-243-9816 (U.S.) or 1-800-387-3867 (Canada).

Hewlett-Packard SupportPack

Call 1-800-835-4747 (U.S. only).

All other locations, contact your authorized dealer.

Or use our Web site:

http://www.hp.com/peripherals2/care_netlj/index.html

HP FIRST

HP FIRST fax will deliver detailed troubleshooting information about common software and troubleshooting tips for your HP product. You can call from any touch tone phone and request up to three documents per call. These documents will be sent to the fax of your choice.

Australia	(61) (0) 3 9272 2627
Austria	0660-8128
Belgium (Dutch)	0800 1 1906
Belgium (French)	0800 1 7043
Canada	1-800-333-1917
China	+86 (0) 10 6505 5280
Denmark	800-10453
English (outside of U.K.)	+31 20 681 5792
Finland	800-13134

France	0800-905900
Germany	0130-810061
Hong Kong SAR	(852) 2506-2422
Hungary	(36) (1) 252-4647
India	+91 (0) 11 682 6031
Indonesia	+62 (0) 21 352 2044
Italy	1678-59020
Korea	+82 (0) 02 769 0543
Malaysia	+60 (0) 3 298 2478
Netherlands	0800-0222420
New Zealand	+64 (0) 09 356 6642
Norway	800-11319
Portugal	05 05 313342
Philippines	+65 275 7251
Singapore	+65 275 7251
Spain	900-993123
Sweden	020-79-5743
Switzerland (German)	0800-551527
Switzerland (French)	0800-551526
Taiwan	(886) (2) 719-5589
Thailand	+66 (0) 2 661 3511
United Kingdom	0800-960271

Worldwide country/region sales and service offices

Before calling a Hewlett-Packard Sales and Service office, make sure that you contact the appropriate Customer Support Center number listed in [Hewlett-Packard Support](#). Do not return products to the following offices.

Argentina

Hewlett-Packard Argentina S.A.
Montañeses 2140/50/60
1428 Buenos Aires
Phone: (54) (1) 787-7100
Fax: (54) (1) 787-7213

Australia

Hewlett-Packard Australia Ltd.
31-41 Joseph Street
Blackburn, VIC 3130
Phone: (61) (3) 272-2895
Fax: (61) (3) 898-7831
Hardware Repair Center:
Phone: (61) (3) 272-8000
Extended Warranty Support:
Phone: (61) (3) 272-2577
Customer Information Center:
Phone: (61) (3) 272-8000

Austria

Hewlett-Packard GmbH
Liebgasse 1
A-1222 Vienna
Phone: (43) (1) 25000-555
Fax: (43) (1) 25000-500

Belgium

Hewlett-Packard Belgium S.A. NV
Boulevard de la Woluwe-Woluwedal
100-102
B-1200 Brussels
Phone: (32) (2) 778-31-11
Fax: (32) (2) 763-06-13

Brazil

Hewlett-Packard Brasil SA
R. Aruana 125
Tambore - Barueri - SP
06460-010
Phone: (0xx11) 829-6612
Fax: (0xx11) 829-0018

Canada

Hewlett-Packard (Canada) Ltd.
17500 Trans Canada Highway
South Service Road
Kirkland, Québec H9J 2X8
Phone: (1) (514) 697-4232
Fax: (1) (514) 697-6941

Hewlett-Packard (Canada) Ltd.
5150 Spectrum Way
Mississauga, Ontario L4W 5G1
Phone: (1) (905) 206-4725
Fax: (1) (905) 206-4739

Chile

Hewlett-Packard de Chile
Avenida Andres Bello 2777 of. 1
Los Condes
Santiago, Chile

China

China Hewlett-Packard Co. Ltd.
Level 5, West Wing Office
China World Trade Center
No. 1, Jian Guo Men Wai Avenue
Beijing 100004
Phone: (86) (10) 6505-3888,x. 5450
Fax: (86) (10) 6505-1033
Hardware Repair Center and Extended
Warranty Support:
Phone: (86) (10) 6262-5666x. 6101/2
(86) (10) 6261-4167

Colombia

Hewlett-Packard Colombia
Calle 100 No. 8A -55
Torre C Oficina 309
Bogotá, Colombia

Croatia

Hewlett-Packard Trading S.A.
Cibona Business Tower
TRG Drazena Petrovica 3/13
10000 Zagreb
Phone: (385) (1) 488-1000
Fax: (385) (1) 488801010

Czech Republic

Hewlett-Packard s. r. o.
Novodvorská 82
CZ-14200 Praha 4
Phone: (42) (2) 613-07111
Fax: (42) (2) 471-7611

Denmark

Hewlett-Packard A/S
Kongevejen 25
DK-3460 Birkerød
Denmark
Phone: (45) 3929 4099
Fax: (45) 4281-5810

Finland

Hewlett-Packard Oy
Piispankalliontie 17
FIN-02200 Espoo
Phone: (358) (9) 887-21
Fax: (358) (9) 887-2477

France

Hewlett-Packard France
42 Quai du Point du Jour
F-92659 Boulogne Cedex
Phone: (33) (146) 10-1700
Fax: (33) (146) 10-1705

Germany

Hewlett-Packard GmbH
Herrenberger Straße 130
71034 Böblingen
Germany
Presales Direct Customer Center Phone:
(49) (0) 180 532-6222
Presales Direct Customer Center Fax:
(49) (0) 180 531-6122
Post Sales Technical Support Phone:
(49) (0) 180 525-8143

Greece

Hewlett-Packard Hellas
62, Kifissias Avenue
Polis Center
Maroussi
151 24 Athens
Phone: (30) (1) 619-6411
Fax: (30) (1) 619-6512

Hong Kong SAR

Hewlett-Packard Asia Pacific Ltd.
17-21/F Shell Tower, Times Square
1 Matheson Street, Causeway Bay
Hong Kong SAR
Phone: (852) 2599-7777
Fax: (852) 2506-9261
Hardware Repair Center:
Phone: (852) 2599-7000
Extended Warranty Support:
Phone: (852) 2599-7000
Customer Information Center:
Phone: (852) 2599-7066

Hungary

Hewlett-Packard Magyarország Kft.
Info Park
Neumann Janos u. 1
H-1111 Budapest
Phone: (36) (1) 382-6666
Fax: (36) (1) 382-6667
Hardware Repair Center:
Phone: (36) (1) 343-0312
Customer Information Center:
Phone: (36) (1) 343-0310

India

Hewlett-Packard India Ltd.
Paharpur Business Centre
21 Nehru Place
New Delhi 110 019
Phone: (91) (11) 647-2311
Fax: (91) (11) 646-1117
Hardware Repair Center and Extended
Warranty Support:
Phone: (91) (11) 642-5073
(91) (11) 682-6042

Israel

Hewlett-Packard Israel Ltd.
11 Hashlosa Street
Tel-Aviv 67060
Phone: (972) (3) 5 38 03 00
Fax: (972) (3) 5 38 03 51
Customer Care Center Phone:
(972) (0) 0 52 48 48

Italy

Hewlett-Packard Italiana S.p.A
V. G. di Vittorio, 9
I-20063 Cernusco sul naviglio (Milano)
Italy
Phone: (39) (02) 92121

Japan

Hewlett-Packard Japan, Ltd.
3-29-21 Takaido-higashi
Suginami-ku, Tokyo 168
Phone: (81) (3) 3335-8333
Fax: (81) (3) 3335-8338
Hardware Repair Center:
Phone: (81) (4) 7355-6660
Fax: (81) (4) 7352-1848

Kazakhstan

Hewlett-Packard
International Trade BV
Branch Office Kazakhstan
135 Ablay Khan Ave
480091 Almaty
Phone (7) (3272) 980-824
Fax: (7) (33272) 980-825

Korea

Hewlett-Packard Korea, Ltd.
25-1223-6, Yoido-dong,
Youngdeungpo-gu
Seoul 150-724, Korea
Phone: (82 02) 2199-0114
Fax: (82) (2) 784-7084
Hardware Repair Center:
Phone: (82) (2) 3270-0700
(82) (2) 707-2174 (DeskJet)
(82) (2) 3270-0710 (Hardware)
Extended Warranty Support:
Phone: (82) (2) 3770-0365 (Bench)
(82) (2) 769-0500 (Onsite)

Latin American Headquarters

5200 Blue Lagoon Drive Suite 950
Miami, FL 33126, USA
Phone: (1) (305) 267-4220

México

Hewlett-Packard de México, S.A. de C.V.
Prolongación Reforma No. 700
Lomas de Santa Fe
01210 México, D.F.
Phone: 01-800-22147
Outside Mexico City
Phone: 01 800-90529

Middle East

Hewlett-Packard Middle East
P.O. Box 17295
Jebel Ali Free Zone
Dubai, UAE
Phone: (97) 14 88 15 456
Fax: (97) 14 88 14 529

Morocco

Hewlett-Packard Morocco, Sarl.
Morocco Sales
17 Boulevard Moulay Youssef
Casablanca
Morocco
Phone: (212) (2) 22 13 40
Fax: (212) (2) 22 08 94

Netherlands

Hewlett-Packard Nederland BV
Startbaan 16
1187 XR Amstelveen
The Netherlands
Phone: (31) (0) 20 547-6666

New Zealand

Hewlett-Packard (NZ) Limited
Ports of Auckland Building
Princes Wharf, Quay Street
P.O. Box 3860
Auckland
Phone: (64) (9) 356-6640
Fax: (64) (9) 356-6620
Hardware Repair Center and Extended
Warranty Support:
Phone: (64) (9) 0800-733547
Customer Information Center:
Phone: (64) (9) 0800-651651

Norway

Hewlett-Packard Norge A/S
Postboks 60 Skøyen
Drammensveien 169
N-0212 Oslo
Phone: (47) 2273-5600
Fax: (47) 2273-5610

Poland

Hewlett-Packard Polska
Al. Jerozolimskie 181
02-222 Warszawa
Phone: (48-22) 608-77-00
Fax: (48-22) 608-76-00

Portugal

Hewlett-Packard Portugal
Quinta da Fonte
Edifício Bartolomeu Dias
Porto Salvo
2780-667 Oeiras
Portugal
Phone: (351) (21) 4 82 85 00
Fax: (351) (21) 4 41 70 02

Romania

Hewlett-Packard Romania SRL
Boulevard Carol I 34-36
NBC Modern, 10th floor
Bucharest
Phone: (40) (1) 205-33-00
Fax: (40) (1) 250-60 95

Russia

AO Hewlett-Packard
Business Complex Building #2
129223, Moskva, Prospekt Mira VVC
Phone: (7) (0) 95 797-3500
Fax: (7) (0) 95 797-3501

Singapore

Hewlett-Packard Singapore
(Sales) Pte Ltd
450 Alexandra Road
Singapore (119960)
Phone: (65) 275-3888
Fax: (65) 275-6839
Hardware Repair Center and Customer
Information Center:
Phone: (65) 272-5300
Extended Warranty Support:
Phone: (65) 272-5333

Slovakia

Hewlett-Packard Slovakia s.r.o.
Kutlikova 17
85250 Bratislava
Phone: (42) (1) 7 682-090
Fax: (42) (1) 382 6777

South Africa

Hewlett-Packard South Africa
9, Eastern Service Road
Eastgate Ext 3 Sandton 2148
Private Bag Wendwood 2144
Republic of South Africa
Phone: (27) (0) 11 8 06 10 00

Spain

Hewlett-Packard Española, S.A.
Carretera de la Coruña km 16.500
E-28230 Las Rozas, Madrid
Phone: (34) 91-6311600
Fax: (34) 91-6311830

Sweden

Hewlett-Packard Sverige AB
Skalholtsgatan 9
S-164 97 Kista
Phone: (46) (8) 444-2000
Fax: (46) (8) 444-2666

Switzerland

Hewlett-Packard (Schweiz) AG
In der Luberzen 29
CH-8902 Urdorf/Zürich
Phone: (41) (0848) 88 44 66
Fax: (41) (1) 753-7700(41) (1) 735 77 00
Warranty Support: (41) (0848) 80 11 11

Thailand

Hewlett-Packard (Thailand) Ltd.
23-25/f Vibulthani Tower II
3199 Rama 4 Rd, Klongtan
Klongtoey, Bangkok 10110
Thailand
Phone: (66) (2) 666-3900-34
Fax: (66) (2) 666-3935-37
Hardware Repair Center:
Phone: (66) (2) 661-3900 ext. 6001/ 6002
Customer Information Center:
Phone: (66) (2) 661-3900 ext. 3211, 3232

Taiwan

Hewlett-Packard Taiwan Ltd.
8th Floor
337, Fu-Hsing North Road
Taipei, 10483
Phone: (886) (02) 717-0055
FAX: (886) (02) 514-0276
Hardware Repair Center, call:
North (886) (02) 717-9673
Central (886) (04) 327-0153
South (886) (080) 733-733
Extended Warranty Support Contact:
Phone: (886) (02) 714-8882

Turkey

Hewlett-Packard Company
Bilgisayar Ve ölçüm Sistemleri AS
19 Mayıs Caddesi Nova
Baran Plaza Kat: 12
80220 Sisli-Istanbul
Phone: (90) (212) 224-5925
Fax: (90) (212) 224-5939

Venezuela

Hewlett-Packard de Venezuela S.A.
Los Ruices Norte
3A Transversal
Edificio Segre Caracas 1071
Phone: (58) (2) 239-4244
Fax: (58) (2) 239-3080

Ukraine

Hewlett-Packard Trading S.A.
14, Bekhterevskiy Pereulok, Block E
04053 Kiev
Phone: (380) 44 490 61 20
Fax: (380) 44 490 61 21

United Arab Emirates

Hewlett-Packard Middle East
P.O. Box 17295
Jebel Ali Free Zone
Dubai U.A.E
Phone: (97) 14 88 15 456
Fax: (97) 14 88 14 529

United Kingdom

Hewlett-Packard Ltd.
Cain Road
Bracknell
Berkshire RG12 1HN
Presales Support Phone:
(44) (0) 8705 47 47 47
Technical Support Phone:
(44) (0) 207 512 5202

United States

Hewlett-Packard Company
11311 Chinden Blvd.
Boise, ID 83714
USA
Phone: (208) 323-2551
hp FIRST fax: (800) 333-1917 or (208)
334-4809
Authorized repair: (800) 243-9816

A Printer specifications

This chapter provides information on the following topics:

- [Specifications](#)
- [FCC compliance](#)
- [Environmental Product Stewardship Program](#)
- [Material safety data sheet](#)
- [Regulatory statements](#)

Specifications

Printer specifications

Environmental specifications

Operating environment	Printer plugged into an AC outlet: <ul style="list-style-type: none">● Temperature: 10° C to 32.5° C (50° F to 90.5° F)● Humidity: 20%–80% (no condensation)
-----------------------	---

Storage environment	Printer unplugged from an AC outlet: <ul style="list-style-type: none">● Temperature: 0° C to 40° C (32° F to 104° F)● Humidity: 10%–80% (no condensation)
---------------------	---

Acoustics

Noise level	During printing: 6.1 Bels sound power level (per ISO 9296) (HP LaserJet 1200 tested at 14 ppm) <ul style="list-style-type: none">● Sound pressure level (bystander position): 48 dB● Sound pressure level (operator position): 56 dB During standby and sleep mode: silent
-------------	---

Electrical specifications

Power requirements	<ul style="list-style-type: none">● 110-120v (+/-10%), 50/60 Hz (+/-2); 127v, 60Hz NOM or <ul style="list-style-type: none">● 220v (+/-10%), 50/60 Hz (+/-2 Hz)● 220-240v (+/-10%), 50 Hz (+/-2 Hz)
--------------------	---

Power consumption	<ul style="list-style-type: none">● During printing: 285 watts (average)● During standby and power save: 7 Watts
-------------------	---

Minimum recommended circuit capacity	4.5A @ 115v; 2.3A @ 230v
--------------------------------------	--------------------------

Printer specifications (continued)

Physical specifications

Dimensions	<ul style="list-style-type: none">● Width: 415 mm (16.3 in.)● Depth: 486 mm (19.1 in.)● Height: 253 mm (10.0 in.)
------------	---

Weight (cartridge installed)	7.3 kg (16.1 lb)
------------------------------	------------------

Printer capacities and ratings

Print speed	<ul style="list-style-type: none">● 15 pages per minute for letter size paper and 14 pages per minute for A4 size paper● First page out in less than 10 seconds
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Main input tray capacity	250 sheets of regular weight 20 lb (75 g/m ²) paper or up to 30 envelopes
--------------------------	---

Priority input tray capacity	10 sheets of regular weight 20 lb (75 g/m ²) paper or 1 envelope
------------------------------	--

Output bin capacity	125 sheets of regular weight 20 lb (75 g/m ²) paper
---------------------	---

Minimum paper size	76 x 127 mm (3 x 5 in.)
--------------------	-------------------------

Maximum paper size	216 x 356 mm (8.5 x 14 in.)
--------------------	-----------------------------

Media weight	<ul style="list-style-type: none">● Output bin – 60 to 105 g/m² (16 to 28 lbs)● Straight through media path – 60 to 163 g/m² (16 to 43 lbs)
--------------	--

Base memory	8 MB of ROM and 8 MB of RAM (16 MB on HP LaserJet 1200N)
-------------	--

Upgrade memory expansion	One DIMM slot available for an 8, 16, 32, or 64 MB RAM DIMM (slot filled on the HP LaserJet 1200N)
--------------------------	--

Print resolution	1,200 dots per inch (dpi)
------------------	---------------------------

Printer specifications (continued)

Duty cycle	<ul style="list-style-type: none">● 10,000 single-sided pages per month (maximum)● 1,000 single-sided pages per month (average)
------------	--

PCL	Level 5e and 6
-----	----------------

PostScript	Level 2
------------	---------

Memory specifications

DIMMs	100 pin, 66 MHz minimum speed
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Port availability

USB	2.0
-----	-----

Parallel	<ul style="list-style-type: none">● IEEE 1284 level 2 device with an IEEE 1284-B receptacle● Set host computer to ECP
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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.

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 the impact on our environment.

This HP LaserJet product eliminates

Ozone production

This product generates no appreciable ozone gas (O₃).

This HP LaserJet product design reduces

Energy consumption

Energy usage drops significantly while in PowerSave mode, which saves money without affecting the high performance of this product. This product qualifies for ENERGY STAR, which is a voluntary program to encourage the development of energy-efficient office products.



ENERGY STAR is a U.S. registered service mark of the U.S. EPA. As an ENERGY STAR partner, Hewlett-Packard Company has determined that this product meets ENERGY STAR Guidelines for energy efficiency. For more information, see <http://www.epa.gov/energystar/>.

Toner consumption

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

Paper use

This product's manual duplex (two-sided printing) and N-up printing (multiple pages printed on one page) features 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 Printing Supplies

In many countries/regions, this product's printing supplies (such as toner cartridge, drum, and fuser) can be returned to Hewlett-Packard through the HP Printing Supplies Environmental Program. This easy-to-use, free takeback program is available in over 25 countries/regions. Multi-lingual program information and instructions are included in every new HP Toner Cartridge and Consumables box.

HP Printing Supplies Environmental Program Information

Since 1990, the HP LaserJet Toner Cartridge Environmental Program has collected more than 39 million used toner cartridges that otherwise might have been discarded in the world's landfills. The HP LaserJet toner cartridges go to a collection center and are shipped in bulk to our recycling partners who disassemble the toner cartridge. Remaining materials are separated and converted into raw materials for use by other industries to make a variety of useful products.

U.S. Returns

For a more environmentally responsible return of used toner cartridges and consumables, Hewlett-Packard encourages you to use bulk returns. Simply bundle two or more toner cartridges together and use the single, prepaid, pre-addressed UPS label that is supplied in the package. For more information in the U.S., call 1-800-340-2445 or visit the HP LaserJet Supplies Web site at <http://www.ljsupplies.com/planetpartners/>.

Non-U.S. Recycling Returns

Non-U.S. customers should call the local HP Sales and Service Office or visit the following Web sites for more information regarding availability of the HP Printing Supplies Environmental Program.

http://www.hp.com/ljsupplies/planet_recycle.html.

Paper

This printer is suited for the use of recycled papers when the paper meets the guidelines in the *Guideline for Paper and Other Print Media*. See [Accessories and ordering information](#) for ordering information. This product is suitable for the use of recycled paper according to DIN 19 309.

Material safety data sheet

You can obtain Material Safety Data Sheets (MSDS) by contacting the HP LaserJet Supplies Web site at <http://www.hp.com/go/msds>. In the United States, if you do not have access to the Internet, call the U.S. HP FIRST (fax-on-demand service) at 1-800-231-9300. Use Index number 7 for a listing of the Material Safety Data Sheets. Non-U.S. customers should see [HP FIRST](#) for the appropriate phone numbers and information.

Regulatory statements

Declaration of Conformity

according to ISO/IEC Guide 22 and EN45014

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 1200 Series
Model Number: C7044A, C7045A, C7046A, C7048A
Product Options: ALL

conforms to the following Product Specifications:

Safety: IEC 950:1991+A1+A2+A3+A4 / EN 60950:1992+A1+A2+A3+A4+A11
IEC 825-1:1993 +A1/ EN 60825-1:1994+A11 (Class 1 Laser/LED Product)
EMC: CISPR 22:1997+A1 / EN 55022:1994 Class B¹
EN 61000-3-2:1995
EN 61000-3-3:1995
EN 55024:1998
FCC Title 47 CFR, Part 15 Class B²) / ICES-002, Issue 2
AS / NZS 3548:1995

Supplementary Information:

The product herewith complies with the requirements of the following EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC, and carries the CE-marking accordingly.

- 1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
- 2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 3) Product exhibits Class A operation when connected to Local Area Network (LAN) cables using print server accessories.

**Boise, Idaho USA
July 1, 2000**

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 130, D-71034 Böblingen
(FAX: +49-7031-14-3143)
USA Contact: Product Regulations Manager, Hewlett-Packard Company,
PO Box 15 Mail Stop 160, Boise, ID 83707-0015
(Phone: 208-396-6000)

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

사용자 안내문 (B급 기기)

이 기기는 비업무용으로 전자파차폐검정을 받은 기기로서, 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Laser statement for Finland

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet 1200 -laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakoteloointi estää lasersäteen pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1993) mukaisesti.

VAROITUS!

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

WARNING!

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 1200 -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.

WARNING!

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen.

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista:

Aallonpituus 770-795 nm

Teho 5 mW

Luokan 3B laser

B Printer and copier/scanner specifications

This chapter provides information on the following topics:

- [Specifications](#)
- [FCC compliance](#)
- [Environmental Product Stewardship Program](#)
- [Regulatory statements](#)

Specifications

HP LaserJet 1220 Print•Copy•Scan specifications

Environmental specifications

Operating environment	Printer plugged into an AC outlet: <ul style="list-style-type: none">● Temperature: 10° C to 32.5° C (50° F to 90.5° F)● Humidity: 20%–80% (no condensation)
-----------------------	---

Storage environment	Printer unplugged from an AC outlet: <ul style="list-style-type: none">● Temperature: 0° C to 40° C (32° F to 104° F)● Humidity: 10%–80% (no condensation)
---------------------	---

Acoustics

Noise level	During Quick Copying: 6.4 Bels sound power level (ISO 9296) (HP LaserJet 1220 tested at 14 ppm) <ul style="list-style-type: none">● Sound pressure level (bystander position): 50 dB● Sound pressure level (operator position): 60 dB● During standby and sleep mode: silent During printing: 6.1 Bels sound power level (per ISO 9296) (HP LaserJet 1220 tested at 14 ppm) <ul style="list-style-type: none">● Sound pressure level (bystander position): 48 dB● Sound pressure level (operator position): 56 dB● During standby and sleep mode: silent
-------------	--

Electrical specifications

Power requirements	<ul style="list-style-type: none">● 110-120v (+/-10%), 50/60 Hz (+/-2); 127v, 60Hz NOM or <ul style="list-style-type: none">● 220v (+/-10%), 50/60 Hz (+/-2 Hz)● 220-240v (+/-10%), 50 Hz (+/-2 Hz)
--------------------	---

Power consumption	<ul style="list-style-type: none">● During Quick Copying: 252 watts (average)● During printing: 285 watts (average)● During standby and power save: 7 watts
-------------------	---

Minimum recommended circuit capacity 4.5A @ 115v; 2.3A @ 230v

HP LaserJet 1220 Print•Copy•Scan specifications (continued)

Physical specifications

Dimensions	<ul style="list-style-type: none">● Width: 415 mm (16.3 in.)● Depth: 486 mm (19.1 in.)● Height: 416 mm (16.4 in.)
------------	---

Weight (including scanner module and toner cartridge installed)	8.7 kg (19.2 lb)
---	------------------

Printer capacities and ratings

Print speed	<ul style="list-style-type: none">● 15 pages per minute for letter size paper and 14 pages per minute for A4 size paper● First page out in less than 10 seconds
-------------	--

Main input tray capacity	250 sheets of regular weight 20 lb (75 g/m ²) paper or up to 10 envelopes
--------------------------	---

Priority input tray capacity	10 sheets of regular weight 20 lb (75 g/m ²) paper or 1 envelope
------------------------------	--

Output bin capacity	125 sheets of regular weight 20 lb (75 g/m ²) paper
---------------------	---

Minimum paper size	76 x 127 mm (3 x 5 in.)
--------------------	-------------------------

Maximum paper size	216 x 356 mm (8.5 x 14 in.)
--------------------	-----------------------------

Media weights	<ul style="list-style-type: none">● Output bin – 60 to 105 g/m² (16 to 28 lbs)● Straight through media path – 60 to 163 g/m² (16 to 43 lbs)
---------------	--

Base memory	8 MB of ROM and 8 MB of RAM
-------------	-----------------------------

Upgrade memory expansion	One DIMM slot available for an 8, 16, 32, or 64 MB RAM DIMM
--------------------------	---

Resolution	1,200 dots per inch (dpi)
------------	---------------------------

HP LaserJet 1220 Print•Copy•Scan specifications (continued)

Duty cycle	<ul style="list-style-type: none">● 10,000 single-sided pages per month (maximum)● 1,000 single-sided pages per month (average)
------------	--

Memory specifications

DIMMs	100 pin, 66 MHz minimum speed.
-------	--------------------------------

Port availability

USB	2.0
-----	-----

Parallel	<ul style="list-style-type: none">● IEEE 1284 level 2 device with an IEEE 1284-B receptacle.● Set host computer to ECP
----------	---

Copier/scanner capacities and ratings

Speed	Up to 12 pages per minute (depending on color and resolution)
-------	---

Input bin capacity	Thirty sheets of regular weight 20 lb (75 g/m ²) paper
--------------------	--

Minimum paper size	<ul style="list-style-type: none">● 50.8 x 90 mm (2 x 3.5 in.) for straight through path● 105 x 148 mm (4.13 x 5.8 in.) to output bin
--------------------	--

Maximum paper size	216 x 762 mm (8.5 x 35 in.)
--------------------	-----------------------------

Media weight	<ul style="list-style-type: none">● Output bin – 44 to 105 g/m² (12 to 28 lbs)● Straight through media path – 44 to 157.5 g/m² (12 to 42 lbs)
--------------	--

Resolution	600 dots per inch (optical resolution)
------------	--

Duty cycle	2,000 pages per month
------------	-----------------------

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.

Environmental Product Stewardship Program

Protecting the environment

Hewlett-Packard Company is committed to providing quality products in an environmentally sound manner. This HP LaserJet copier/scanner has been designed with several attributes to minimize the impact on our environment.

The design of this HP LaserJet copier/scanner facilitates the recycling of

Plastics

Plastic parts have markings according to international standards that enhance the ability to identify plastics for recycling purposes at the end of the copier/scanner's life.

Regulatory statements

Declaration of Conformity

according to ISO/IEC Guide 22 and EN45014

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 1200 Series
Model Number: C7046
Product Options: ALL

conforms to the following Product Specifications:

Safety: IEC 950:1991+A1+A2+A3+A4 / EN 60950:1992+A1+A2+A3+A4+A11
IEC 825-1:1993 +A1 / EN 60825-1:1994 +A11 (Class 1 Laser/LED Product)

EMC: CISPR 22:1997 / EN 55022:1998 Class B¹
EN 61000-3-2:1995 +A1:1998 +A2:1998
EN 61000-3-3:1995
EN 55024:1998
FCC Title 47 CFR, Part 15 Class B² / ICES-002, Issue 2
AS / NZS 3548:1995

Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC, and carries the CE-Marking accordingly.

- 1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
- 2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 3) Product exhibits Class A operation when connected to Local Area Network (LAN) cables using print server accessories.

Boise, Idaho USA
July 1, 2000

For Regulatory Topics ONLY

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 110-140, D-71034 Böblingen
(FAX: +49-7031-14-3143)

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

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

사용자 안내문 (B급 기기)

이 기기는 비업무용으로 전자파장애검정을 받은 기기로서, 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Laser statement for Finland

LASERTURVALLISUUS

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

HP LaserJet 1200-laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakoteloointi estää lasersäteen pääsyn laitteen ulkopuolelle.

Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1993) mukaisesti.

VAROITUS!

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

WARNING!

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 1200-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.

WARNING!

Om laserprinterns skyddshölje öppnas då apparaten är i funktion, utsättas användaren för osynlig laserstrålning. Betrakta ej strålen.

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista:

Aallonpituus 770-795 nm

Teho 5 mW

Luokan 3B laser

C Print server specifications

This chapter provides information on the following topics:

- [Specifications](#)
- [FCC compliance](#)
- [European community](#)
- [Regulatory statements](#)

Specifications

HP JetDirect 175X print server specifications

Supported networks

- | | |
|---------|--|
| Network | <ul style="list-style-type: none">● Supports Ethernet or IEEE 802.3 Type 10Base-T and 100Base-T networks using unshielded twisted-pair cable and RJ-45 connectors.● Requires a 10Base-T or 100Base-T network hub or concentrator that supports link beat (link test pulse) signals.● See Getting to know the print server for more information about supported networks. |
|---------|--|
-

Environmental specifications

- | | |
|-----------------------|---|
| Operating environment | <ul style="list-style-type: none">● Temperature: 0° C to 55° C (32° F to 131° F)● Relative humidity: 15% to 95% at 40° C (104° F)● Altitude: 4.6 km |
| Storage environment | <ul style="list-style-type: none">● Temperature: -40° C to 70° C (-6° F to 158° F)● Relative humidity: 90% at 65° C (149° F)● Altitude: 4.6 km |

HP JetDirect 175X print server specifications (continued)

Electrical specifications

Power requirements	<ul style="list-style-type: none">● Input voltage<ul style="list-style-type: none">• 175X – 13 vDC• Power module – (see Power module chart)● Nominal output voltage<ul style="list-style-type: none">• 175X – N/A• Power module – 13 vDC● Input current<ul style="list-style-type: none">• 175X – 140 ma @ 13 V• Power module – 0.2 A (depending on your particular power module)● Maximum output current<ul style="list-style-type: none">• 175X – N/A• Power module – 300 ma (depending on your particular power module)● Frequency range<ul style="list-style-type: none">• 175X – DC• Power module – 50/60 Hz (depending on your particular power module)
--------------------	--

Power consumption	<ul style="list-style-type: none">● For 175X: 1.2 W● For power module: 1.2 W
-------------------	---

Electromagnetic immunity

Statement	See Declaration of Conformity .
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Electromagnetic emissions

Regulations	<ul style="list-style-type: none">● US: FCC Part 15, Class A● Canada: ICES-003● Japan: VCCI Class 1● Europe: CISPR-22/EN55022 Class A● Taiwan: CNS 13438● Australia/New Zealand: AS/NZS 3548● Russia: GOST 292116
-------------	---

HP JetDirect 175X print server specifications (continued)

Physical specifications

Dimensions	<ul style="list-style-type: none">● Width: 92 mm (3.6 in.)● Height: 36 mm (1.4 in.)● Length: 129 mm (5.1 in.)
With clip attached	<ul style="list-style-type: none">● Width: 97 mm (3.8 in.)● Height: 45 mm (1.8 in.)● Length: 129 mm (5.1 in.)

Weight	108 g (3.9 oz.)
--------	-----------------

USB Port	Female "A" connector complies with USB specifications
----------	---

Safety

Compliance	<p>The HP JetDirect 175X print server complies with the following safety regulations:</p> <ul style="list-style-type: none">● IEC 60950: (1991)+A1, A2, A3, A4/EN60950 (1992)+A1, A2, A3, A4, A11● UL 1950● CAN/CSA C 22.2 No. 950● NOM-019-SCFI-1994
------------	--

FCC compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instructions, it could cause interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at the user's own expense.

Pursuant to Part 15.21 of the FCC rules, any changes or modifications to this equipment not expressly approved by Hewlett-Packard could cause interference and void the FCC authorization to operate this equipment.

Note

Attaching this product in an FCC Level B product results in an FCC Level A Composite System as defined in the FCC rules and regulations.

The FCC has prepared a booklet titled *Interference Handbook* (1986), which might be helpful to you. You can purchase this booklet (stock no. 004-000-004505-7) from the Superintendent of Documents, US Government Printing Office, Washington DC 20402.

European community

This equipment complies with CISPR-22/EN55022 Class A. This is a Class A product. In a domestic environment, this product could cause radio interference, in which case the user would need to apply adequate measures.

Regulatory statements

Declaration of Conformity

The following Declaration of Conformity complies with ISO/IEC Guide 22 and EN45014. It identifies the product, manufacturer's name and address, and applicable specifications recognized in the European community.

Declaration of Conformity

according to ISO/IEC Guide 22 and EN45014

Manufacturer's Name: Hewlett-Packard Company
Manufacturer's Address: 8000 Foothills Blvd.
Roseville, CA 95747-5677 USA

declares that the product

Product Name: HP JetDirect 175X External Print Server
Model Number: J6035A

conforms to the following Product Specifications:

Safety: EN60950 (1992) +A1,A2,A3,A4,All / IEC 950 (1991) +A1,A2,A3,A4
EN60825-1 (1994) / IEC 825-1 (1993), Class 1
GB 4943 (1995)

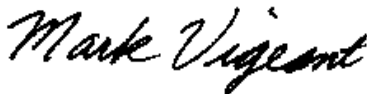
EMC: EN 55022 (1998) / CISPR-22 (1997) Class A
GB 9254 (1988)
EN 55024 (1998)
IEC 61000-4-2 (1995); EN 61000-4-2 (1995)
IEC 61000-4-3 (1995); EN 61000-4-3 (1996)
IEC 61000-4-4 (1995); EN 61000-4-4 (1995)
IEC 61000-4-5 (1995); EN 61000-4-5 (1995)
IEC 61000-4-6 (1996); EN 61000-4-6 (1996)
IEC 61000-4-8 (1993); EN 61000-4-8 (1993)
IEC 61000-4-11 (1994); EN 61000-4-11 (1994)
EN61000-3-2 (1995)
EN61000-3-3 (1995)
FCC Title 47 CFR, Part 15 Class A

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC and carries the CE marking accordingly.

This product was tested in a typical configurations with Hewlett-Packard Co. products.

Roseville, February 28, 2001



Mark Vigeant, Product Regulations Manager

European Contact: Your local Hewlett-Packard Sales and Service Office or Hewlett-Packard GmbH,
Department TRE, Herrenberger Strasse 130, D-71034 Böblingen (FAX:+49-7031-14-3143).

Canada DOC regulations

This equipment complies with Canadian EMC Class A requirements.

Japan VCCI Class 1 regulations

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Korean EMI statement

시용시 안내문 (A급 기기)

이 기기는 업무용으로 전자파장애경정을 낸 기기이오니, 만약 잘못 구입하셨을 때에는 구입한 곳에서 비입무용으로 교환하시기 바랍니다.

Taiwan Class A notice

警告使用者:

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Chinese safety statement

HP 网络产品使用安全手册

使用须知

欢迎使用惠普网络产品，为了您及仪器的安全，请您务必注意如下事项：

1. 仪器要和地线相接，要使用有正确接地插头的电源线，使用中国国家规定的220V电源。
2. 避免高温和尘土多的地方，否则易引起仪器内部部件的损坏。
3. 避免接近高温，避免接近直接热源，如直射太阳、暖气等其它发热体。
4. 不要有异物或液体落入机内，以免部件短路。
5. 不要将磁体放置于仪器附近。

警告

为防止火灾或触电事故，请不要将该机放置于淋雨或潮湿处。

安装

安装辅助管理模块，请参看安装指南。

保修及技术支持

如果您按照以上步骤操作时遇到了困难，或想了解其它产品性能，请按以下方式与我们联系。

如是硬件故障：

1. 与售出单位或当地维修机构联系。
2. 中国惠普有限公司维修中心地址：
北京市海淀区知春路49号希格玛大厦
联系电话：010-62623888 转 6101
邮政编码：100080

如是软件问题：

1. 惠普用户响应中心热线电话：010-65645959
2. 传真自动回复系统：010-65645735

D Media specifications

This chapter provides information on the following topics:

- [Printer media specifications](#)
- [Supported media sizes \(printer\)](#)
- [Guidelines for using media](#)

Printer media specifications

HP LaserJet printers produce excellent print quality. The printer accepts a variety of media, such as cut-sheet paper (including recycled paper), envelopes, labels, transparencies, vellum, and custom-sized paper. Properties such as weight, grain, and moisture content are important factors affecting printer performance and output quality.

The printer 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 media jams
- Premature wear on the printer, 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, make sure that it meets the requirements specified in this user guide and in *Guidelines for Paper and Other Print Media*. (See [Accessories and ordering information](#) for more information about ordering the guidelines.) Always test media before you purchase a large quantity.

CAUTION

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

Supported media sizes (printer)

The following are the supported media sizes:

- **Minimum:** 76 x 127 mm (3 x 5 in.)
- **Maximum:** 216 x 356 mm (8.5 x 14 in.)

Guidelines for using media

Paper

For best results, use conventional 20 lb (75 g/m²) paper. Make sure that the paper is of good quality and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

If you are unsure about what type of paper you are loading (such as bond or recycled), check the label on the package of paper.

Some paper causes print quality problems, jamming, or damage to the printer.

Paper usage

Symptom	Problem with paper	Solution
Poor print quality or toner adhesion. Problems with feeding.	Too moist, too rough, too smooth, or embossed. Faulty paper lot.	Try another kind of paper: between 100-250 Sheffield and 4-6% moisture content.
Dropouts, jamming, or curl.	Stored improperly.	Store paper flat in its moisture-proof wrapping.
Increased gray background shading.	Might be too heavy.	Use lighter paper.
Excessive curl. Problems with feeding.	Too moist, wrong grain direction, or short-grain construction.	Use long-grain paper. Print using the straight-through output path.
Jamming or damage to printer. Cutouts or perforations.		Do not use paper with cutouts or perforations.

Paper usage (continued)

Symptom	Problem with paper	Solution
Problems with feeding.	Ragged edges.	Use good quality paper.

Note

Do not use letterhead that is printed with low-temperature inks, such as those used in some types of thermography.

Do not use raised letterhead.

The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or preprinted forms use inks that are compatible with the printer temperature (200° C or 392° F for 0.1 second).

Labels

Label construction

When selecting labels, consider the quality of the following components:

- **Adhesives:** The adhesive material should be stable at 200° C (392° F), the printer's maximum temperature.
- **Arrangement:** Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams.
- **Curl:** Prior to printing, labels must lie flat with no more than 13 mm (0.5 in.) of curl in any direction.
- **Condition:** Do not use labels with wrinkles, bubbles, or other indications of separation.

Transparencies

Transparencies must be able to withstand 200° C (392° F), the printer's maximum temperature.

Envelopes

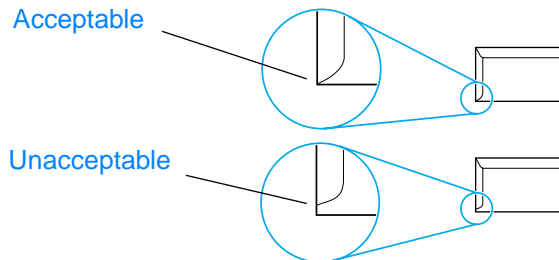
Envelope construction

Envelope construction is critical. Envelope fold lines can vary considerably, not only between manufacturers, but also within a box from the same manufacturer. Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following components:

- **Weight:** The weight of the envelope paper should not exceed 28 lb (105 g/m²), or jamming might result.
- **Construction:** Prior to printing, envelopes should lie flat with less than 6 mm (0.25 in.) curl and should not contain air. Envelopes that trap air may cause problems.
- **Condition:** Make sure that the envelopes are not wrinkled, nicked, or otherwise damaged.
- **Sizes:** From 90 x 160 mm (3.5 x 6.3 in.) to 178 x 254 mm (7 x 10 in.).

Envelopes with double-side seams

An envelope with double-side-seam construction has vertical seams at both ends of the envelope rather than diagonal seams. This style might be more likely to wrinkle. Make sure that the seam extends all the way to the corner of the envelope as shown in the following illustration:



Envelopes with adhesive strips or flaps

Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the heat and pressure in the printer: 200° C (392° F). The extra flaps and strips might cause wrinkling, creasing, or jams.

Envelope storage

Proper storage of envelopes contributes to good print quality. You should store envelopes flat. If air is trapped in an envelope, creating an air bubble, the envelope might wrinkle during printing.

Card stock and heavy media

You can print many types of card stock from the paper input tray, including index cards and postcards. Some card stock performs better than others because its construction is better suited for feeding through a laser printer.

For optimum printer performance, do not use paper heavier than 42 lb (157 g/m²). Paper that is too heavy might cause misfeeds, stacking problems, paper jams, poor toner fusing, poor print quality, or excessive mechanical wear.

Note

You might be able to print on heavier paper if you do not fill the input tray to capacity and if you use paper with a smoothness rating of 100-180 Sheffield.

Card stock construction

- **Smoothness:** 36-42 lb (135-157 g/m²) card stock should have a smoothness rating of 100-180 Sheffield. 16-36 lb (60-135 g/m²) card stock should have a smoothness rating of 100-250 Sheffield.
- **Construction:** Card stock should lie flat with less than 5 mm (0.2 in.) of curl.
- **Condition:** Make sure that the card stock is not wrinkled, nicked, or otherwise damaged.
- **Sizes:** Only use card stock within the following size ranges:
 - **Minimum:** 76 x 127 mm (3 x 5 in.)
 - **Maximum:** 216 x 356 mm (8.5 x 14.0 in.)

Card stock guidelines

- If the card stock curls or jams, print using the straight-through output path.
- Set margins at least 2 mm (0.08 in.) away from the edges.

E Memory (DIMM)

This chapter provides information on the following topics:

- [Installing a DIMM \(memory\)](#)
- [Testing the DIMM installation](#)
- [Removing a DIMM](#)

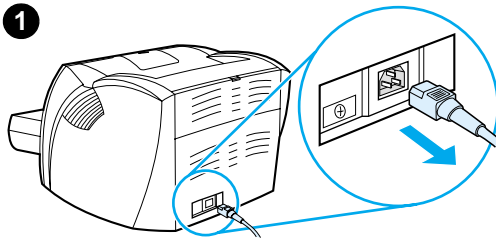
Installing a DIMM (memory)

If you add memory (RAM only) to the HP LaserJet 1200, you can print more complex print jobs.

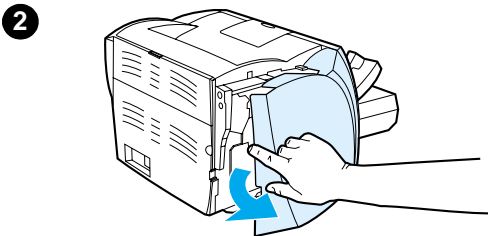
To install a DIMM, follow the instructions below:

CAUTION

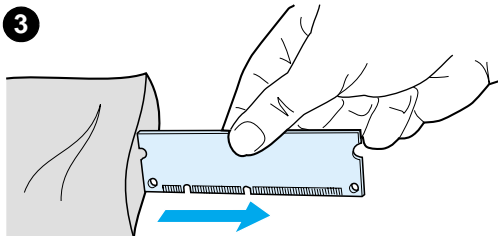
Handling a DIMM chip (memory) without wearing a grounded, antistatic device might damage the DIMM chip.



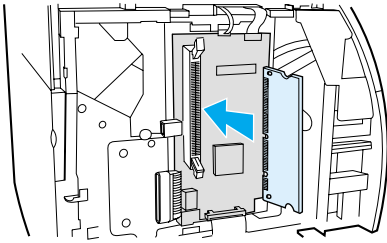
- 1 Turn off the power switch (220v models only), and unplug the printer.
- 2 To open the left side panel, gently pull it out.
- 3 Remove the DIMM chip from the antistatic bag it came in, grasping the chip on the top edge.



Continued on next page.

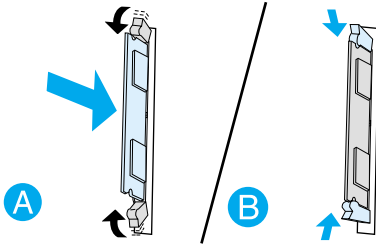


4



4 Position the DIMM chip in front of the slot located inside the I/O door. The gold contacts should be pointing toward the printer and the cutouts should be at the top and bottom.

5



5 Carefully press the DIMM chip into the slot, making sure that it is straight and all the way in (A). The cam latches, located at the top and bottom, should rotate inward. To snap the cam latches into place, press the handles toward each other (B).

Testing the DIMM installation

To test the DIMM installation, print a configuration page and check the Memory Available specified on the page. See [Printing a configuration page](#) for more information.

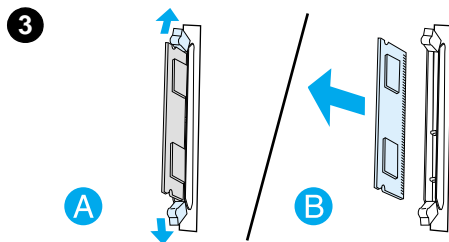
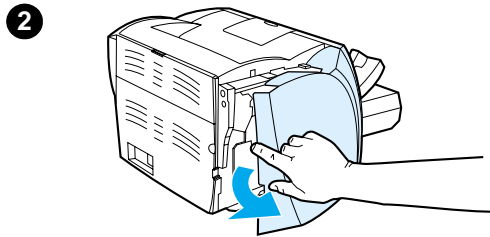
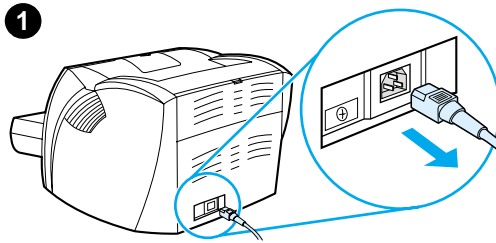
If the DIMM installation was unsuccessful, see [Printer light patterns](#) for DIMM troubleshooting steps.

Removing a DIMM

To remove a DIMM, follow the instructions below:

CAUTION

Handling a DIMM chip (memory) without wearing a grounded, antistatic device might damage the DIMM chip.



- 1 Turn off the power switch (220v models only), and unplug the printer.
- 2 To open the left side panel, gently pull it out.
- 3 To unlock the cam latches, press them outward (A). Grasp the DIMM chip on the edge, gently pull straight out, and remove the chip from the printer (B).

Note

Store the DIMM chip in an antistatic bag.

F Warranty and licensing

This chapter provides information on the following topics:

- [Hewlett-Packard software license agreement](#)
- [Hewlett-Packard limited warranty statement](#)
- [Limited warranty for toner cartridge life](#)

Hewlett-Packard software license agreement

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Hewlett-Packard limited warranty statement

DURATION OF WARRANTY:

One year from date of purchase.

1. HP warrants to you, the end-user customer, that HP hardware, accessories, and supplies, 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 like-new.
2. 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 media which does not execute its programming instructions due to such defects.
3. 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.
4. HP products may contain remanufactured parts equivalent to a new in performance or may have been subject to incidental use.
5. 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 (d) improper site preparation or maintenance.
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Limited warranty for toner cartridge life

Note

The following warranty applies to the toner cartridge that came with this printer.

HP toner cartridges are warranted to be free from defects in materials and workmanship until the HP toner is depleted. The warranty covers any defects or malfunctions in a new HP toner cartridge.

How long does the coverage last?

The coverage lasts until the HP toner is depleted, at which time the warranty expires.

How do I know when the HP toner is running out?

The HP toner is depleted when faded or light type appears on the printed page.

What will Hewlett-Packard do?

Hewlett-Packard will, at its option, either replace products that prove to be defective or refund the purchase price. If possible, please attach a printout sample illustrating what the defective toner cartridge is printing.

What does this warranty not cover?

The warranty does not cover toner cartridges that have been refilled or are emptied, abused, misused, or tampered with in any way.

How do I return the faulty toner cartridge?

In the event that the toner cartridge proves to be defective, complete the Service Information Form and attach a print sample illustrating the defect. Return the form and toner cartridge to the place of purchase, where the toner cartridge will be replaced.

How does State, Province, or Country Law apply?

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state, province to province, or country to country. This limited warranty is the sole warranty on the HP toner cartridge and supersedes any other warranty relating to this product.

IN NO EVENT SHALL HEWLETT-PACKARD COMPANY BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES OR LOST PROFITS FROM ANY BREACH OF THIS WARRANTY OR OTHERWISE.

FOR CONSUMER TRANSACTIONS IN AUSTRALIA AND NEW ZEALAND; 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.

G Accessories and ordering information

You can increase the printer's capabilities with optional accessories and supplies. Use accessories and supplies specifically designed for the HP LaserJet 1200 Printer and the HP LaserJet 1200 Print•Copy•Scan to ensure optimum performance.

Ordering information

	Item	Description or use	Order number
Printer memory	Dual in-line memory module (DIMM)	Boosts the printer's ability of the printer to handle complex print jobs. <ul style="list-style-type: none">● Maximum add on: 64 MB● Available DIMMs:<ul style="list-style-type: none">8 MB16 MB32 MB64 MB	C7842A C7843A C7845A C7846A

Ordering information (continued)

	Item	Description or use	Order number
Cables and interface accessories	Parallel cables	Method of connectivity from printer to computer. <ul style="list-style-type: none"> ● 2 meter IEEE-1284 cable ● 3 meter IEEE-1284 cable 	C2950A C2951A
	USB cable	Method of connectivity from printer to computer. 2 foot cable 2 meter cable	8121-0549 8121-0539
	Copier/scanner for the HP LaserJet 1200	Attachable scanner exclusively for the HP LaserJet 1200 printer.	C7046A R37-5020CN (Replacement part number)
Printer server	HP JetDirect 175X	Connects the HP LaserJet 1200 printer to a network	J6035A
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)
Toner cartridges	Toner cartridges	Replacement toner cartridges for the HP LaserJet 1200. <ul style="list-style-type: none"> ● 2,500 page cartridge ● 3,500 page cartridge 	C7115A C7115X

Ordering information (continued)

	Item	Description or use	Order number
Supplementary documentation	<i>Guidelines for Paper and Other Print Media</i>	A guide to using paper and other print media with HP LaserJet printers.	5963-7863
Replacement parts	Paper pickup roller	Used to pick the paper from the paper input tray and advance it through the printer.	RF0-1008CN
	Main input tray	Used to hold media for the printer.	RG0-1013CN
	Priority input tray	Used to feed special media or for printing a first page.	RG0-1014CN
	Scanner input tray	Used to feed documents into the scanner.	RG0-1069CN
	Scanner output bin	Used to collect documents after scanning.	RG0-1070CN
	Left side panel	Allows access to the I/O board.	RA0-1179CN
	Copier/scanner access panel	Allows access to the I/O board for attaching the copier/scanner to the printer.	RA0-1183CN
	Separation pad for the printer	Used to keep multiple sheets from feeding through the printer path.	RF0-1007CN
	Separation pad for the copier/scanner	Used to keep multiple sheets from feeding through the scanner path.	RY7-5055-000CN

Power module chart

Note

If two parts are listed for one country/region, you can use either part regardless of the output rating.

Country/region	Part Numbers	Input Rating	Output Rating
Australia, New Zealand, and Argentina	0950-3172	240 Vac 50 Hz	13 VDC @ 300 ma
	0950-3358	240 Vac 50 Hz	13 VDC @ 800 ma
China	0950-2806	220 Vac 50 Hz	13 VDC @ 300 ma
	0950-3347	220 Vac 50 Hz	13 VDC @ 800 ma
Continental Europe	0950-3170	230 Vac 50 Hz	13 VDC @ 300 ma
	0950-3349	230 Vac 50 Hz	13 VDC @ 800 ma
Japan	0950-3173	100 Vac 50 Hz	13 VDC @ 300 ma
	0950-3352	100 Vac 50 Hz	13 VDC @ 800 ma
South Korea	9100-5168	220-240 Vac 50 Hz	13 VDC @ 625 ma
	0950-3351	220 Vac 50 Hz	13 VDC @ 800 ma
South Africa and India	9100-5171	220-250 Vac 50 Hz	13 VDC @ 625 ma
	0950-3354	220-250 Vac 50 Hz	13 VDC @ 800 ma
United Kingdom, Singapore, Ireland, and Hong Kong SAR	0950-3171	220-240 Vac 50 Hz	13 VDC @ 300 ma
	0950-3350	220-240 Vac 50 Hz	13 VDC @ 800 ma
USA, Canada, Latin America, and Taiwan	0950-3169	110-127 Vac 60 Hz	13 VDC @ 300 ma
	0950-3348	110-127 Vac 60 Hz	13 VDC @ 800 ma

H Scanner resolution and color

This chapter provides information on the following topics:

- [Overview](#)
- [Resolution and color guidelines](#)
- [Resolution](#)
- [Color](#)

Overview

If you are printing a scanned image or copying an image and the quality is not as you expected, you might have selected a resolution or color setting in the copier/scanner software that does not match your needs. Resolution and color affect scanned and copied images in the following ways:

- Image clarity
- Texture of gradations (smooth or rough)
- Scan and copy time
- File size

Resolution is measured in dots per inch (dpi) while color and grayscale are measured by the number of colors possible. You can adjust the scanner resolution up to 600 dpi. You can set color and grayscale at 1 (black and white) or 8 (256 levels of gray) to 24 bit (true color).

The [Resolution and color guidelines](#) table lists simple tips that you can follow to meet your scanning and copying needs. Also see [Resolution](#) and [Color](#) to learn more about these topics.

Note

Setting the resolution and color to a high value can create large files that take up disk space and slow the scanning or copying process. It is important that you determine how you are going to use the scanned image.

Resolution and color guidelines

Intended use for scan	Recommended resolution setting	Recommended color settings
Fax	150 dpi	<ul style="list-style-type: none">● Black and White
E-mail	150 dpi	<ul style="list-style-type: none">● Black and White if the image does not require smooth gradation● Grayscale if the image requires smooth gradation● Color if the image is in color
Edit text	300 dpi	<ul style="list-style-type: none">● Black and White
Print (graphics or text)	<ul style="list-style-type: none">● 600 dpi for text and complex graphics● 150 to 300 dpi for simple graphics and photos	<ul style="list-style-type: none">● Black and White for text and line art● Grayscale for shaded or colored graphics and photos● Color if the image is in color
Display on screen	75 dpi	<ul style="list-style-type: none">● Black and White for text● Grayscale for graphics and photos● Color if the image is in color

Resolution

Generally, the ideal scanning resolution is 150 dots per inch (dpi). Changing the size of the image after you have scanned it affects the resolution. Therefore, before you set the scanner resolution, determine what the final image size will be. For example, you might want to scan an original that is 76 x 127 mm (3 x 5 in.), but there is only room for a 38 x 63.5 mm (1.5 x 2.5 in.) image in your document. Set the scanner resolution to 75 dpi.

Resolution

Size of original	Size after scanned and altered	Recommended scanner resolution
76 x 127 mm (3 x 5 in.)	38 x 63.5 mm (1.5 x 2.5 in.)	75 dpi
	76 x 127 mm (3 x 5 in.)	150 dpi
	152 x 254 mm (6 x 10 in.)	300 dpi

Color

You can set the color values when copying or scanning to the following settings.

Setting	Recommended use	Where you set the color value
Best Color Photograph	High quality color and black and white photographs or when printing on specialty photo paper.	Scanner software
Normal Color Photograph	High quality color and black and white photographs. Use this setting when file size is an issue or when you want the document to scan quickly.	Scanner software
Photo Only	Documents that contain mostly color and black and white photos.	TWAIN driver
Text Only	Documents that contain mostly text.	TWAIN driver
Mixed Color	Documents that contain mostly color graphics.	TWAIN driver
Mixed Grayscale	Documents that contain mostly black and white graphics.	TWAIN driver
Photo	Documents that contain mostly color and black and white photos.	Copier software
Text	Documents that contain mostly text.	Copier software
Draft	To save toner when copying documents.	Copier software

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