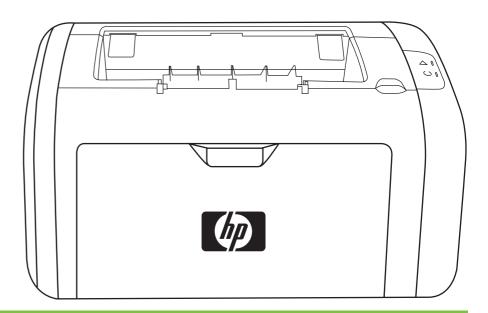
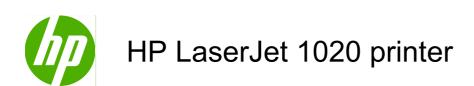
HP LaserJet 1020 User Guide









User Guide

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1 Printer basics

This chapter provides information on the following topics:

- Quick access to more information
- Printer configuration
- Walkaround
- Printer control panel
- Media paths
- Printer connections
- Printer software
- Printer information page
- Printer media considerations

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Quick access to more information

The following sections provide resources for additional information about the HP LaserJet 1020 printer.

Web links for drivers, software, and support

If you need to contact HP for service or support, use one of the following links.

HP LaserJet 1020 printer

- In the United States, see http://www.hp.com/support/lj1020/.
- In other countries/regions, see http://www.hp.com/.

User guide links

- Walkaround on page 4 (location of printer components)
- Changing the print cartridge on page 51
- Problem solving on page 53
- Ordering supplies on page 92

Where to look for more information

- **CD user guide**: Detailed information on using and troubleshooting the printer. Available on the CD-ROM that came with the printer.
- **Online Help**: Information on printer options that are available from within printer drivers. To view a Help file, access the online Help through the printer driver.
- HTML (online) user guide: Detailed information on using and troubleshooting the printer. Available at http://www.hp.com/support/lj1020/. Once connected, select Manuals.

Printer configuration

Below is the standard configuration for the HP LaserJet 1020 printer.

HP LaserJet 1020 printer

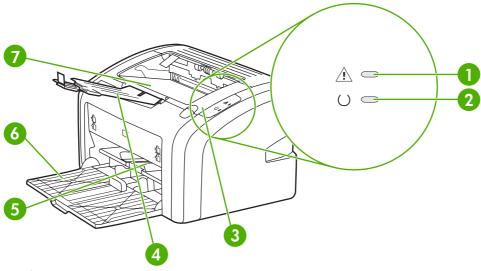
- 14 pages per minute (ppm) for A4 media and 15 ppm for letter media
- First page out in as few as 10 seconds
- FastRes 1200: 1200 dpi effective output quality (600 x 600 x 2 dpi with HP Resolution Enhancement technology [REt])
- 150-sheet main input tray
- Priority feed slot
- 100-sheet output capacity
- EconoMode (saves toner)
- Print watermarks, booklets, multiple pages per sheet (N-up), and first page on different media than rest of the document
- 2 MB RAM
- 2,000-page print cartridge
- USB 2.0 High Speed
- Power switch

ENWW Printer configuration

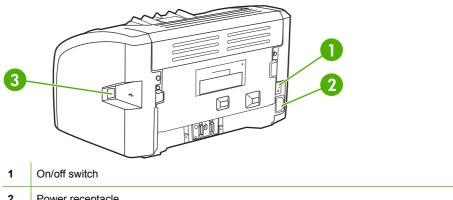
3

Walkaround

The following illustrations identify the components of the HP LaserJet 1020 printer.



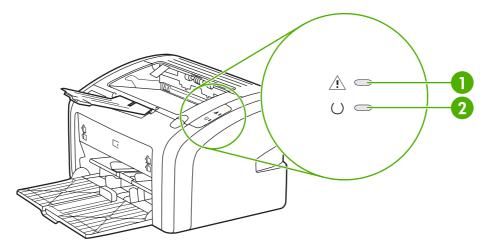
1 Attention light
2 Ready light
3 Print cartridge door
4 Output media support
5 Priority feed slot
6 150-sheet main input tray
7 Output bin



- 2 Power receptacle
- 3 USB port

Printer control panel

The printer control panel is composed of two lights. These lights produce patterns that identify your printer's status.



- **Attention light**: Indicates that the printer media input trays are empty, the print cartridge door is open, the print cartridge is missing, or other errors. See Printer information page on page 10 for more information.
- 2 Ready light: Indicates that the printer is ready to print.

NOTE: See Status light patterns on page 56 for a description of the light patterns.

ENWW Printer control panel

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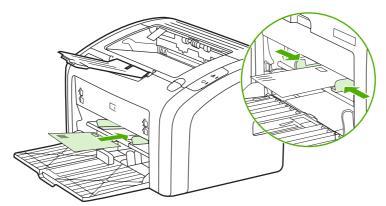
Media paths

The following sections describe the input trays and output bin.

Priority feed slot

You should use the priority feed slot when feeding one sheet of paper, envelope, postcard, label, or transparency. You can also use the priority feed slot to print the first page on different media than the rest of the document.

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 of the media that you are using.

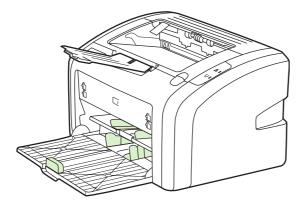


See Choosing paper and other media on page 22 for more information about media types.

Main input tray

The main input tray, accessed from the front of the printer, holds up to 150 sheets of 20-lb paper or other media. For information about media specifications, see Printer capacities and ratings on page 75.

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



Output bin

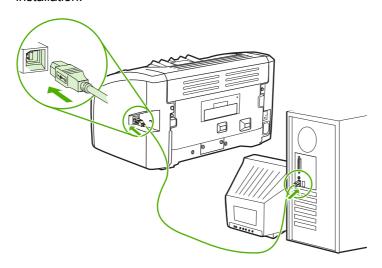
The output bin is located on the top of the printer. Printed media is collected here in the correct sequence. The output media support provides improved stacking for large print jobs.

Printer connections

The HP LaserJet 1020 printer supports USB 2.0 High Speed connections.

Connecting the USB cable

- 1. Plug the USB cable into the printer.
- 2. Plug the other end of the USB cable into the computer when prompted to do so during the software installation.



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Printer software

The following sections describe the supported operating systems and the software that is provided with the HP LaserJet 1020 printer.

NOTE: Not all software is available in all languages.

Supported operating systems

The printer comes with software for the following operating systems:

- Windows Vista (32-bit and 64-bit)
- Windows XP (32-bit and 64-bit)
- Windows 7 (32-bit and 64-bit)
- Windows Server 2003 (32-bit and 64-bit)

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

Printer software for Windows computers

The following sections provide instructions for installing the printer software on various Windows operating systems and the software that is available to all users of the printer.

To install printer software for all other operating systems

Insert the software CD that came with the printer into the computer CD-ROM drive. Follow the on-screen installation instructions.

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

Printer drivers

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

Printer properties (driver)

Printer properties control the printer. You can change the default settings, such as media size and type, printing multiple pages on a single sheet of media (N-up printing), resolution, and watermarks. You can access the printer 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 Vista, 7, and Windows XP.

To only change the settings for the current software application

- NOTE: Although the steps can vary between software applications, this is the most common method.
 - 1. From the **File** menu in the software application, click **Print**.
 - 2. On the **Print** dialog, click **Properties**.
 - Change the settings, and click OK.

To change the default settings for all future print jobs in Windows

1. Windows Vista and Windows 7: Click Start, click Control Panel, and then in the category for Hardware and Sound click Printer.

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

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

Right-click the driver icon, and then select Printing Preferences.

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. For some drivers, online help gives instructions on using context-sensitive help. Context-sensitive help describes the options for the driver feature you are currently accessing.

To access the printer properties online help

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

Print setting priorities

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

Printer information page

If a particular print setting can be changed in more than one of the ways listed above, use the method that has the highest priority.

ENWW Printer software

Printer information page

The Printer Test page is a printer information page that resides within the memory of the printer. During installation you can choose to print the Printer Test page. If the page prints, you correctly installed the printer.

Printer Test page

The Printer Test page contains information about printer driver and port settings. The page also contains information about the printer name and model, computer name, and so on. You can print the Printer Test page from the printer driver.

Printer media considerations

HP LaserJet printers produce excellent print quality. The printer accepts a variety of media, such as cutsheet paper (including recycled paper), envelopes, labels, transparencies, vellum, and custom-size 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 HP has no control.

Before purchasing a large quantity of media, make sure that it meets the requirements specified in this user guide and in the *HP LaserJet printer family print media guide*. The guidelines can be downloaded from http://www.hp.com/support/ljpaperguide/ or see Ordering supplies on page 92 for more information about ordering the guidelines. Always test media before you purchase a large quantity.

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

Supported media sizes

For information about supported media sizes, see Printer capacities and ratings on page 75.

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2 Printing tasks

This chapter provides information on the following topics:

- Manual feed
- Canceling a print job
- Understanding print quality settings
- Optimizing print quality for media types
- Guidelines for using media
- Choosing paper and other media
- Loading media into the input trays
- Printing an envelope
- Printing multiple envelopes
- Printing on transparencies or labels
- Printing on letterhead and preprinted forms
- Printing on custom-size media and cardstock
- Printing on both sides of the paper (manual two-sided printing)
- Printing multiple pages on a single sheet of paper (N-up printing)
- Printing booklets
- Printing watermarks

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Manual feed

You can use manual feed when printing mixed media, for example, an envelope, then a letter, then an envelope, and so on. Feed an envelope into the priority feed slot and load letterhead into the main input tray.

To print using manual feed

- 1. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 2. On the Paper/Quality tab, select Manual Feed from the Source is drop-down list.
- 3. Feed media into the priority feed slot, and click **Continue**.

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.

- **Software application**: Typically, a dialog box appears briefly on your screen, allowing you to cancel the print job.
- Windows print queue: If a print job is waiting in a print queue (computer memory) or print spooler, delete the job there. Click Start, Settings, and Printers or Printers and Faxes. Double-click the HP LaserJet 1020 icon to open the window, select your print job, and click Delete or Cancel.

If the status lights on the control panel continue to blink after you cancel a print job, the computer is still sending the job to the 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.

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Understanding print quality settings

Print quality settings affect how light or dark the print is on the page and the style in which 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 on page 17 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:

- **FastRes 1200**: This setting provides 1200 dpi effective output quality (600 x 600 x 2 dpi with HP Resolution Enhancement technology [REt]).
- **600 dpi**: This setting provides 600 x 600 dpi output with Resolution Enhancement technology (REt) for improved text.
- **EconoMode (Save Toner)**: Text is printed using less toner. This setting is useful when you are printing drafts. You can turn on this option independently of other print quality settings.
- 1. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 2. On the **Finishing** tab, select the print quality setting you want to use.
- NOTE: Not all printer features are available in all drivers or operating systems. See the printer properties (driver) online Help for information about the availability of features for that driver.

NOTE: To change the print quality settings for all future print jobs, access the properties through the **Start** menu in the Windows task bar. To change the print quality settings only for the current software application, access the properties through the **Print Setup** menu in the application you are using to print. See Printer properties (driver) on page 8 for more information.

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 HP LaserJet 1020 printer provides a number of print modes that allow the unit to adapt more specifically to the printer's media environment. The following tables provide an overview of the driver print modes.

NOTE: When using the CARDSTOCK, ENVELOPE, LABEL, and ROUGH modes, the printer pauses between pages and the number of pages per minute decreases.

Table 2-1 Driver print default modes

Mode	Media
PLAIN	75 to 104 g/m² (20 to 27 lb)
LIGHT	< 75 g/m² (20 lb)
HEAVY	90 to 105 g/m ² (24 to 28 lb)
CARDSTOCK	Cardstock or thick media
TRANSPARENCY	4-mil, 0.1 monochrome overhead transparencies (OHTs)
ENVELOPE	Standard envelopes
LABEL	Standard HP LaserJet labels
BOND	Bond paper
ROUGH	Rough paper
COLOR	Plain media
LETTERHEAD	Plain media
PREPRINTED	Plain media
PREPUNCHED	Plain media
RECYCLED	Plain media
VELLUM	Plain media

Guidelines for using media

The following sections provide guidelines and instructions for printing on transparencies, envelopes, and other special media. Guidelines and specifications are included to help you select media that optimizes print quality and avoid media that might cause jams or damage the printer.

Paper

For best results, use conventional 75 g/m² (20 lb) 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.

Table 2-2 Paper usage

Symptom	Problem with paper	Solution
Poor print quality or toner adhesion Problems with feeding	Too moist, too rough, too smooth, or embossed	Try another kind of paper between 100-250 Sheffield and 4-6% moisture content.
Problems with reeding	Faulty paper lot	content.
		Check the printer and make sure that the appropriate media type has been selected.
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	Too moist, wrong grain direction, or short-grain construction	Use long-grain paper.
Problems with feeding		Check the printer and make sure that the appropriate media type has been selected.
Jamming or damage to printer	Cutouts or perforations	Do not use paper with cutouts or perforations.
Problems with feeding	Ragged edges	Use good quality paper.

NOTE: 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. The printer's maximum temperature is 200°C (392°F) for 0.1 second.

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.

Do not use transparencies designed for Inkjet printers or other low-temperature printers. Use only transparencies that are specified for use with HP LaserJet printers.

Labels

HP recommends that you print labels from the priority feed slot.

△ CAUTION: Do not feed a sheet of labels through the printer more than once. The adhesive degrades and might damage the printer.

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 inches) 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 the printer's maximum temperature of 200°C (392°F).

Envelopes

HP recommends that you print envelopes from the priority feed slot.

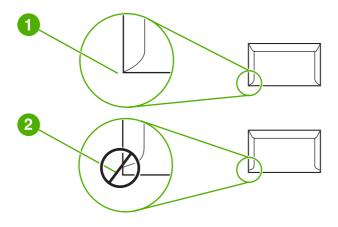
Envelope construction

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 90 g/m² (24 lb) or jamming might result.
- **Construction**: Prior to printing, envelopes should lie flat with less than 6 mm (0.25 inches) curl and should not contain air. Envelopes that trap air might cause problems. Do not use envelopes that contain clasps, snaps, tie strings, transparent windows, holes, perforations, cut outs, synthetic materials, stamping, or embossing. Do not use envelopes with adhesives that do not require moistening, but rely instead on pressure to seal them.
- **Condition**: Make sure that the envelopes are not wrinkled, nicked, or otherwise damaged. Make sure that the envelopes do not have any exposed adhesive.
- **Sizes**: The envelope sizes range from 90 x 160 mm (3.5 x 6.3 inches) to 178 x 254 mm (7 x 10 inches).

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.



1 acceptable envelope construction

2 unacceptable envelope construction

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. The printer's maximum temperature is 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.

Cardstock and heavy media

You can print many types of cardstock from the media input trays, including index cards and postcards. Some cardstock 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 157 g/m² (42 lb). 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.

Cardstock construction

- **Smoothness**: The 135-157 g/m² (36-42 lb) cardstock should have a smoothness rating of 100-180 Sheffield; 60-135 g/m² (16-36 lb) cardstock should have a smoothness rating of 100-250 Sheffield.
- Construction: Cardstock should lie flat with less than 5 mm (0.2 inches) of curl.

- Condition: Make sure that the cardstock is not wrinkled, nicked, or otherwise damaged.
- Sizes: Only use cardstock within the following size ranges:

Minimum: 76 x 127 mm (3 x 5 inches)

Maximum: 216 x 356 mm (8.5 x 14.0 inches)

Cardstock guidelines

Set margins at least 2 mm (0.08 inches) away from the edges.

Letterhead and preprinted forms

Letterhead is premium paper that often has a watermark, sometimes uses cotton fiber, and is available in a wide range of colors and finishes with matching envelopes. Preprinted forms can be made of a broad spectrum of paper types ranging from recycled to premium.

Many manufactures now design these grades of paper with properties optimized for laser printer and advertise the paper as laser-compatible or laser-guaranteed.

NOTE: Some page-to-page variation is normal when printing with laser printers. This variation cannot be observed when printing on plain paper. However, this variation is obvious when printing on preprinted forms because the lines and boxes are already placed on the page.

To avoid problems when using preprinted forms, embossed paper, and letterhead, observe the following guidelines:

- Avoid using low-temperature inks (the kind used with some types of thermography).
- Use preprinted forms and letterhead paper that have been printed by offset lithography or engraving.
- Use forms that have been created with heat-resistant inks that will not melt, vaporize, or release
 undesirable emissions when heated to 200°C (392°F) for 0.1 second. Typically, oxidation-set or
 oil-based inks meet this requirement.
- When the form is preprinted, be careful not to change the moisture content of the paper, and do
 not use materials that change the paper's electrical or handling properties. Seal the forms in
 moisture-proof wrap to prevent moisture changes during storage.
- Avoid processing preprinted forms that have a finish or coating.
- Avoid using heavily embossed or raised-letterhead papers.
- Avoid papers that have heavily textured surfaces.
- Avoid using offset powders or other materials that prevent printed forms from sticking together.

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-size media. The following are the supported media sizes:

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

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 considerations on page 11 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 *HP LaserJet printer family print media guide* (HP part number 5851-1468). See Printer media considerations on page 11 for more information.

HP media

HP recommends the following HP media:

- HP Multipurpose Paper
- HP Office Paper
- HP All-in-One Printing Paper
- HP LaserJet Paper
- HP Premium Choice LaserJet Paper

Media to avoid

The HP LaserJet 1020 printer can handle many types of media. Use of media outside the printer's specifications will cause a loss of print quality and increase the chance of paper jams.

- Do not use paper that is too rough.
- Do not use paper with cutouts or perforations other than standard three-hole punched paper.
- Do not use multipart forms.
- Do not use paper with a watermark if you are printing solid patterns.

Media that might damage the printer

In rare circumstances media can damage the printer. The following media must be avoided to prevent possible damage:

- Do not use media with staples attached.
- Do not use transparencies designed for Inkjet printers or other low-temperature printers. Use only transparencies that are specified for use with HP LaserJet printers.
- Do not use photo paper intended for Inkiet printers.

- Do not use paper that is embossed or coated and is not designed for the temperatures of the printer's image fuser. Select media that can tolerate temperatures of 200°C (392°F) for 0.1 second. HP produces a selection of media that is designed for the HP LaserJet 1020 printer.
- Do not use letterhead paper with low-temperature dyes or thermography. Preprinted forms or letterhead must use inks that can tolerate temperatures of 200°C (392°F) for 0.1 second.
- Do not use any media that produces hazardous emissions, or that melts, offsets, or discolors when exposed to 200°C (392°F) for 0.1 second.

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

Loading media into the input trays

The following sections describe how to load media into the different input trays.

△ **CAUTION:** If you try to print on media that is wrinkled, folded, or damaged in any way, a jam might occur. See Printer media considerations on page 11 for more information.

Priority feed slot

The priority feed slot holds one sheet of media up to 163 g/m² (43 lb) or one envelope, transparency, or cardstock. 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 before feeding the media.

150-sheet main input tray

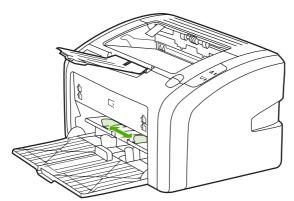
The input tray holds up to 150 pages of 75 g/m² (20 lb) paper or fewer pages of heavier media of 25 mm (0.9 inches) or less stack height. Load media with the top forward and the side to be printed facing up. To prevent jams and skewing, always adjust the side and front media guides.

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

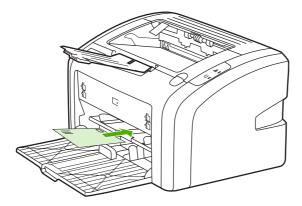
Printing an envelope

Only use envelopes that are recommended for laser printers. See <u>Printer media considerations</u> on page 11 for more information.

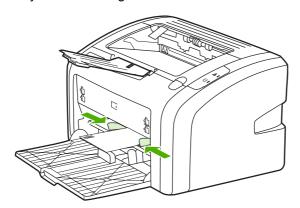
- NOTE: Use the priority feed slot for printing one envelope. Use the main input tray for printing multiple envelopes.
 - 1. Before loading the envelope, slide the media guides outward to slightly wider than the envelopes.



- NOTE: If the envelope has a flap on the short edge, feed that edge into the printer first.
- 2. Place the envelope with the side to be printed facing up and the top edge along the left media guide.



3. Adjust the media guides to the width of the envelope.



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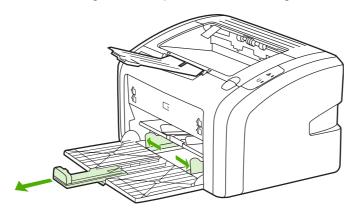
- **4.** Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 5. On the Paper/Quality tab, select Envelope as the media type.
- NOTE: Not all printer features are available in all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- **6.** Print the envelope.

To print using manual feed, see Manual feed on page 14.

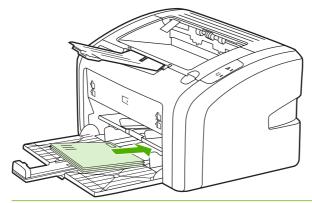
Printing multiple envelopes

Only use envelopes that are recommended for laser printers. See <u>Printer media considerations</u> on page 11 for more information.

- NOTE: Use the priority feed slot for printing one envelope. Use the main input tray for printing multiple envelopes.
 - 1. Before loading the envelopes, slide the media guides outward to slightly wider than the envelopes.



2. Place the envelopes with the side to be printed facing up and the top edge along the left media guide. Stack up to 15 envelopes.



- NOTE: If the envelopes have a flap on the short edge, feed that edge into the printer first.
- 3. Adjust the media guides to the length and width of the envelopes.



4. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.

- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- 5. On the Paper/Quality tab, select Envelope as the media type.
- **6.** Print the envelopes.

Printing on transparencies or labels

Use only transparencies and labels that are recommended for use in laser printers, such as HP transparency film and HP LaserJet labels. See <u>Printer media considerations on page 11</u> for more information.

△ **CAUTION:** Be sure to set the correct media type in the printer settings as instructed below. The printer adjusts the fuser temperature according to the media type setting. When printing on special media such as transparencies or labels, this adjustment prevents the fuser from damaging the media as it passes through the printer.

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.

- 1. Load a single page in the priority feed slot 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.
- 2. Adjust the media guides.
- 3. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 4. On the Paper/Quality tab, choose the correct media type.
- 5. Print the document.

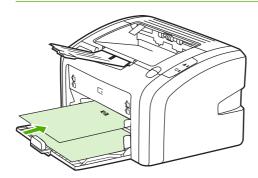
Printing on letterhead and preprinted forms

The HP LaserJet 1020 printer can print on letterhead and preprinted forms that can withstand temperatures of 200°C (392°F).

- 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. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 3. On the Paper/Quality tab, choose the correct media type.
- Print the document.

To print using manual feed, see Manual feed on page 14.

NOTE: To print a single-page cover letter on letterhead, followed by a multiple-page document, load the standard paper in the main input tray, and then feed the letterhead face up in the priority feed slot.



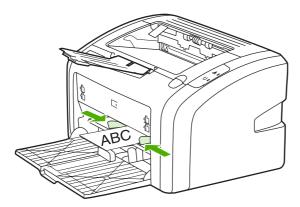
Printing on custom-size media and cardstock

The HP LaserJet 1020 printer can print on custom-size media or cardstock between 76 x 127 mm (3×5) inches) and 216 x 356 mm (8.5×14) inches).

Use the main input tray for multiple sheets. See Main input tray on page 6 for the supported media sizes.

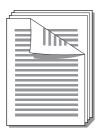
- △ CAUTION: Make sure that the sheets are not stuck together before you load them.
 - 1. Load the media with the narrow side forward and the side to be printed facing up. Adjust the media guides to fit the media.
 - Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See <u>Printer properties (driver) on page 8</u> for instructions.
 - On the Paper/Quality tab, select the custom-size option. Specify the dimensions of the customsize media.
 - NOTE: Not all printer features are available in all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
 - 4. Print the document.

To print using manual feed, see Manual feed on page 14.

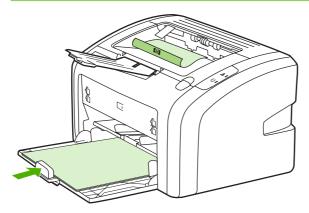


Printing on both sides of the paper (manual two-sided printing)

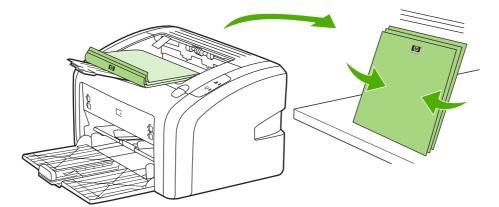
To print on both sides of the paper (manual two-sided printing), you must run the paper through the printer twice.



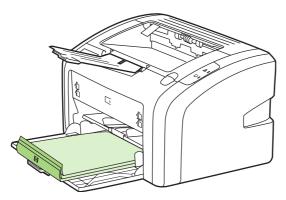
- NOTE: Manual two-sided printing can cause the printer to become dirty, reducing print quality. See Cleaning the printer on page 40 for instructions if the printer becomes dirty.
 - 1. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
 - 2. On the **Finishing** tab, select **Print On Both Sides (Manually)**. Select the appropriate binding option, and click **OK**.
 - 3. Print the document.
 - NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.



4. After side one has printed, gather the printed pages, turn the printed side down, and straighten the stack.



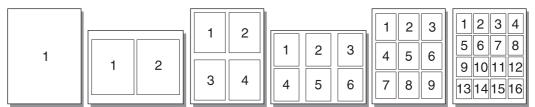
5. Place the stack back in the input tray. Side one should be facing down with the bottom edge feeding into the printer first.



6. Click Continue to print side two.

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.

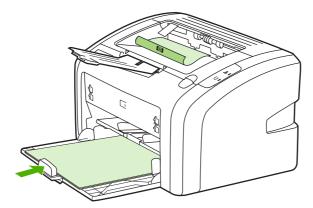


- 1. From your software application, access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 2. On the **Finishing** tab, select the correct number of pages per side.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.
- **3.** (Optional steps) To include page borders, select the check box. To specify the order of pages printed on the sheet, select the order from the drop-down menu.
- Print the document.

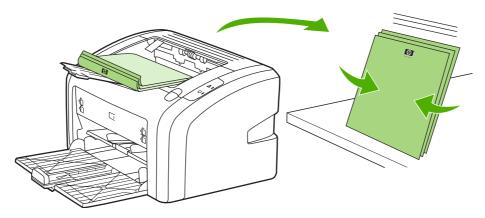
Printing booklets

You can print booklets on letter or A4 paper.

- 1. Load the paper in the main input tray.
- 2. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 3. On the **Finishing** tab, select the option to **Print On Both Sides (Manually)**. Select the appropriate binding option, and click **OK**. Print the document.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.

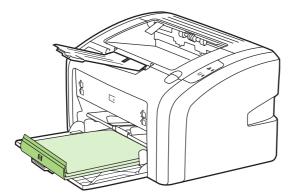


4. After side one has printed, gather the printed pages, turn the printed side down, and straighten the stack of paper.

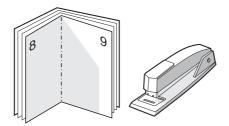


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5. Place the pages from side one back in the input tray. Side one should be facing down with the bottom edge feeding into the printer first.



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



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.



- 1. From your software application, access printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- 2. On the **Effects** tab, select the watermark you want to use.
- NOTE: Not all printer features are available from all drivers or operating systems. See the printer properties (driver) online Help for information about availability of features for that driver.

Print the document.

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3 Maintenance

This chapter provides information on the following topics:

- Cleaning the printer
- Changing the pickup roller
- Cleaning the pickup roller
- Changing the printer separation pad
- Redistributing toner
- Changing the print cartridge

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Cleaning the printer

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

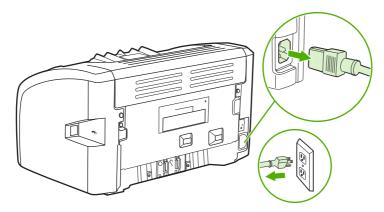
△ CAUTION: Do not use ammonia-based cleaners on or around the printer.

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

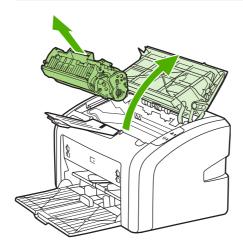
Cleaning the print cartridge area

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

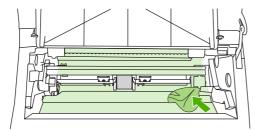
1. Turn the printer off, and then unplug the power cord. Wait for the printer to cool.



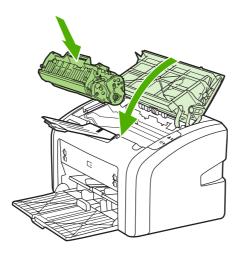
- 2. Open the print cartridge door, and remove the print cartridge.
- △ CAUTION: To prevent damage, do not expose the print cartridge to light. Cover the print cartridge if necessary. Also, do not touch the black sponge transfer roller inside the printer. By doing so, you can damage the printer.



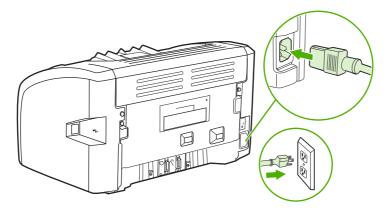
3. With a dry, lint-free cloth, wipe any residue from the media path area and the print cartridge cavity.



4. Replace the print cartridge, and close the print cartridge door.



5. Plug the printer into the power outlet, and then turn on the printer.



Cleaning the printer media path

If you are experiencing toner specks or dots on the printouts, you can use the HP LaserJet cleaning utility to remove excess media and toner particles that can accumulate on the fuser assembly and rollers. Cleaning the media path might extend the life of the printer.

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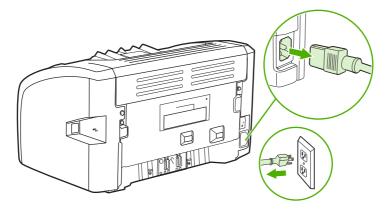
- NOTE: For best results use a sheet of transparency. If you do not have any transparencies, you can use copier-grade media, 70 to 90 g/m² (18 to 24 lb), with a smooth surface.
 - 1. Make sure that the printer is idle and the Ready light is on.
 - Load the media in the input tray.
 - **3.** Print a cleaning page. Access the printer properties (or printing preferences in Windows XP, Windows Vista, and Windows 7). See Printer properties (driver) on page 8 for instructions.
- NOTE: The cleaning process takes approximately 3 minutes. The cleaning page will stop periodically during the cleaning process. Do not turn the printer off until the cleaning process has finished. You might need to repeat the cleaning process several times to thoroughly clean the printer.

Changing the pickup roller

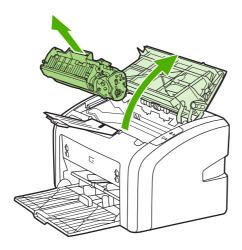
Normal use with good media causes wear. The use of poor media might require more frequent replacement of the pickup roller.

If the printer regularly mispicks (no media feeds through), you might need to change or clean the pickup roller. See Ordering supplies on page 92 to order a new pickup roller.

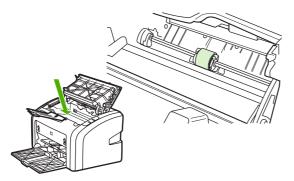
- △ CAUTION: Failure to complete this procedure might damage the printer.
 - 1. Turn the printer off, and then unplug the power cord from the printer. Wait for the printer to cool.



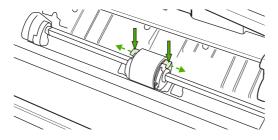
- 2. Open the print cartridge door, and remove the print cartridge.
 - △ CAUTION: To prevent damage to the print cartridge, minimize its exposure to direct light. Cover the print cartridge with a sheet of paper.



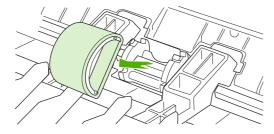
3. Find the pickup roller.



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



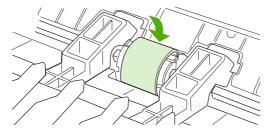
5. Gently pull the pickup roller up and out.



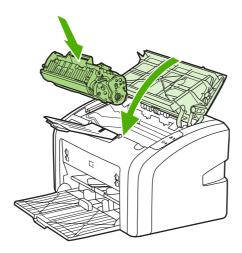
6. Position the new pickup roller in the slot. The circular and rectangular slots on each side will prevent you from installing the roller incorrectly.



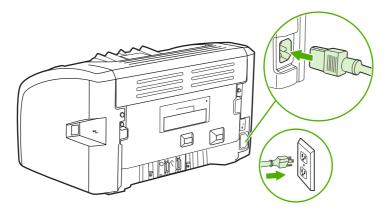
7. Rotate the top of the new pickup roller away from you until both sides snap into place.



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



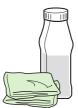
9. Plug the printer into the power outlet, and then turn on the printer.



Cleaning the pickup roller

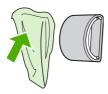
If you want to clean the pickup roller rather than replace it, follow the instructions below:

- 1. Remove the pickup roller as described in steps 1 through 5 of <u>Changing the pickup roller</u> on page 43.
- 2. Dab a lint-free cloth in isopropyl alcohol, and scrub the roller.

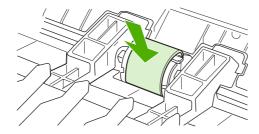




- ⚠ **WARNING!** Alcohol is flammable. Keep the alcohol and cloth away from an open flame. Before you close the printer and plug in the power cord, allow the alcohol to dry completely.
- 3. Using a dry, lint-free cloth, wipe the pickup roller to remove loosened dirt.



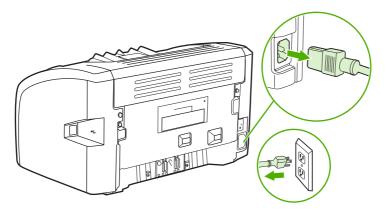
4. Allow the pickup roller to dry completely before you reinstall it in the printer (see <u>Changing the pickup roller on page 43</u>).



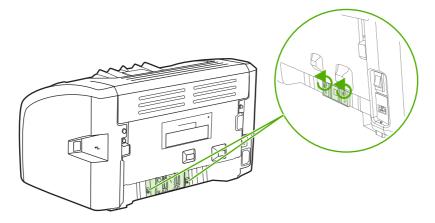
Changing the printer separation pad

Normal use with good media causes wear. The use of poor media might require more frequent replacement of the separation pad. If the printer regularly pulls multiple sheets of media at a time, you might need to change the separation pad. See <u>Ordering supplies on page 92</u> to order a new printer separation pad.

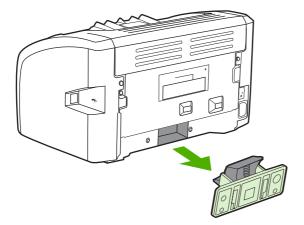
- NOTE: Before you change the separation pad, clean the pickup roller. See Cleaning the pickup roller on page 46.
 - 1. Turn the printer off, and then unplug the power cord from the printer. Wait for the printer to cool.



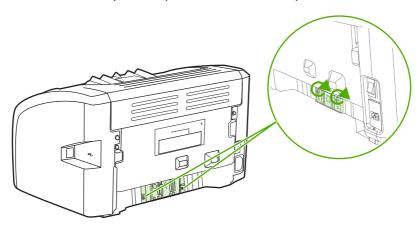
At the back of the printer, unscrew the two screws holding the separation pad in place.



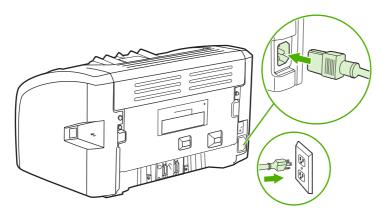
3. Remove the separation pad.



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



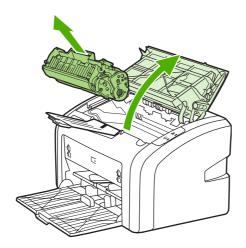
5. Plug the printer into the power outlet, and turn on the printer.



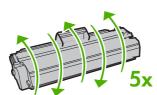
Redistributing toner

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 print cartridge.

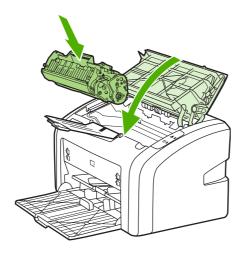
- △ CAUTION: To prevent damage to the print cartridge, minimize its exposure to direct light. Cover the print cartridge with a sheet of paper.
 - 1. Open the print cartridge door, and remove the print cartridge from the printer.



- 2. To redistribute the toner, gently rock the print cartridge from front to back.
 - △ CAUTION: To prevent damage to the print cartridge, hold the print cartridge at each end.



- △ CAUTION: If toner gets on your clothing, wipe it off with a dry cloth and wash the clothing in cold water. Hot water sets toner into the fabric.
- 3. Reinsert the print cartridge into the printer, and close the print cartridge door.

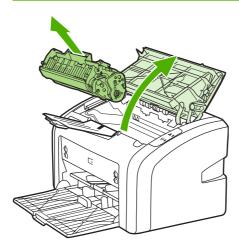


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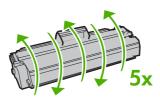
If the print is still light, install a new print cartridge. See Changing the print cartridge on page 51 for instructions.

Changing the print cartridge

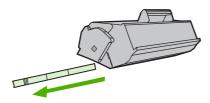
- 1. Open the print cartridge door, and remove the old print cartridge. See the recycling information inside the print cartridge box.
 - △ CAUTION: To prevent damage to the print cartridge, minimize its exposure to direct light. Cover the print cartridge with a sheet of paper.



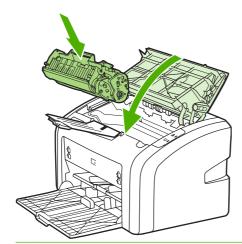
- 2. Remove the new print cartridge from the packaging, and gently rock the print cartridge from front to back to distribute the toner evenly inside the cartridge.
 - △ CAUTION: To prevent damage to the print cartridge, hold the print cartridge at each end.



3. Pull the tab until all the tape is removed from the print cartridge. Put the tab in the print cartridge box to return for recycling.



4. Insert the new print cartridge in the printer, making sure that the print cartridge is in position. Close the print cartridge door.



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

4 Problem solving

This chapter provides information on the following topics:

- Finding the solution
- Status light patterns
- Paper handling problems
- Printed page is different than what appeared on screen
- Printer software problems
- Improving print quality
- Clearing jams

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Finding the solution

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

Step 1: Is the printer set up correctly?

- Is the printer plugged into a power outlet that is known to work?
- Is the on/off switch in the on position?
- Is the print cartridge properly installed? See Changing the print cartridge on page 51.
- Is paper properly loaded in the input tray? See <u>Loading media into the input trays on page 24</u>.

Yes	If you answered yes to the questions above, go to Step 2: Is the Ready light on? on page 54
No	If the printer will not turn on, Contact HP support on page 55.

Step 2: Is the Ready light on?

Do the control panel lights look like this picture?

NOTE:	See <u>Printer control panel on page 5</u> for a description of the lights on the control panel.	
Yes	Go to Step 3: Can you print a Printer Test page? on page 54	
No	If the control panel lights do not look like the picture above, see Status light patterns on page 56.	
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 55.	

Step 3: Can you print a Printer Test page?

Print a Printer Test page.

Yes	If the Demo page printed, go to Step 4: Is the print quality acceptable? on page 55
No	If no paper came out, see <u>Paper handling problems</u> on page 58.
	If you are unable to resolve the problem, Contact HP support on page 55.

Step 4: Is the print quality acceptable?

Yes	If the print quality is acceptable, go to Step 5: Is the printer communicating with the computer? on page 55
No	If the print quality is poor, see Improving print quality on page 63.
	Verify that the print settings are correct for the media you are using. See <u>Choosing paper and other media on page 22</u> for information on adjusting the settings for various types of media.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 55.

Step 5: Is the printer communicating with the computer?

Try printing a document from a software application.

Yes	If the document prints, go to <u>Step 6: Does the printed page look</u> like you expected? on page <u>55</u>
No	If the document does not print, see Printer software problems on page 62.
	If you are unable to resolve the problem, Contact HP support on page 55.

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

Yes	The problem should be resolved. If it is not resolved, Contact HP support on page 55.
No	See Printed page is different than what appeared on screen on page 60.
	If you are unable to resolve the problem, <u>Contact HP support</u> on page 55.

Contact HP support

- In the United States, see http://www.hp.com/support/lj1020/ for the HP LaserJet 1020 printer.
- In other locations, see http://www.hp.com.

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Status light patterns

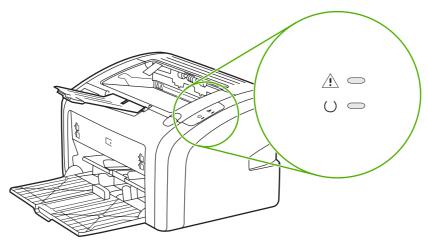


Table 4-1 Light status legend

0	Symbol for "light off"
	Symbol for "light on"
	Symbol for "light blinking"

Table 4-2 Control panel light message

Light status	State of the printer	Action
0	Ready	No action is necessary.
	The printer is ready to print.	
	Processing data	Wait for the job to print.
-\	The printer is receiving or processing data.	To cancel the current job, press the Cancel button.
7	Cleaning mode	Wait until the Cleaning page is finished printing and the printer is in the Ready
	A Cleaning page or a Printer Test page is printing.	state. This could take up to two minutes.
	is printing.	Wait until the Printer Test page is finished printing and the printer is in Ready state.
-\-	Out of memory	The page you are printing might be too
0	The printer is out of memory.	complex for the printer's memory capacity. Try lowering the resolution. See <u>Understanding print quality settings</u> on page 16 for more information.

Table 4-2 Control panel light message (continued)

Light status	State of the printer	Action
-\	Attention: door open, media out, no print cartridge, or media jam This printer is in an error state that requires operator intervention.	 Check the following: The print cartridge door is completely closed. Media is loaded. See Loading media into the input trays on page 24 for instructions. The print cartridge is correctly installed in the printer. See Changing the print cartridge on page 51 for instructions. There is no media jam. See Clearing jams on page 68 for instructions.
- 	Printer initialization A printer initialization is taking place.	No action is necessary.
	Fatal error All lights are on.	Unplug the printer for 30 minutes, and then plug the printer back in power outlet. If the printer still has an error, contact HP Support. See Contact HP support on page 55.
0	All lights are off.	Make sure that there is power. Unplug both ends of the power cord, and then plug the power cord back into the printer and the power outlet.

Return to Finding the solution on page 54.

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Paper handling problems

Choose the item that best describes the problem:

- Media jam on page 58
- Print is skewed (crooked) on page 58
- More than one sheet of media feeds through the printer at one time on page 58
- Printer does not pull media from the media input tray on page 58
- Printer curled the media on page 59
- Print job is extremely slow on page 59

Media jam

- See <u>Clearing jams on page 68</u> for more information.
- Make sure that you are printing with media that meets specifications. See <u>Printer media</u> considerations on page 11 for more information.
- Do not print on used paper.
- 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 on page 40 for more information.

Print is skewed (crooked)

A small amount of skew is normal and might become obvious when using preprinted forms.

- See <u>Page skew on page 66</u> for more information.
- Adjust the media guides to the width and length of the media that you are using and try reprinting. See Media paths on page 6 or Loading media into the input trays on page 24 for more information.

More than one sheet of media feeds through the printer at one time

- The media input tray might be too full. See <u>Loading media into the input trays on page 24</u> for more information.
- Make sure that the media is not wrinkled, folded, or damaged.
- Try paper from a new ream. Do not fan the paper before loading it into the input tray.
- The printer separation pad might be worn. See <u>Changing the printer separation pad on page 47</u> for more information.

Printer does not pull media from the media input tray

- Make sure that the printer is not in manual feed mode.
- Make sure that the media guides are adjusted properly.
- The pickup roller might be dirty or damaged. See <u>Cleaning the pickup roller on page 46</u> or <u>Changing</u> the pickup roller on page 43 for instructions.

Printer curled the media

- See Curl or wave on page 66 for more information.
- See Media paths on page 6 or Choosing paper and other media on page 22 for more information.

Print job is extremely slow

The maximum speed of the printer is up to 14 ppm for A4 media and 15 ppm for letter media for the HP LaserJet 1020 printer. Your print job might be very complex. Try the following:

- Reduce the complexity of your document (for example, reduce the number of multiple graphics).
- Access the printer properties in the printer driver. See <u>Printer properties (driver) on page 8</u> for instructions. Set the media type to plain paper.
- NOTE: This may cause toner to fuse improperly if you are using heavy media.
- Narrow media or heavy media will slow printing. Use normal media.
- Print speed is based on computer processor speed, the amount of memory, and the amount of hard disk space available on your computer. Try increasing these components.

Return to Finding the solution on page 54.

Printed page is different than what appeared on screen

Choose the item that best describes the problem:

- Garbled, incorrect, or incomplete text on page 60
- Missing graphics or text, or blank pages on page 60
- Page format is different than on another printer on page 61
- Graphics quality on page 61
- NOTE: To preview a print job, use the **Print Preview** option in the software application (if available).

Garbled, incorrect, or incomplete text

- If a specific file prints garbled text, there might be a problem with that specific file. If a specific
 application prints garbled text, there might be a problem with that application. Make sure that the
 appropriate printer driver is selected.
- There might be a problem with your software application. Try printing from another software application.
- The USB cable might be loose or defective. Try the following:
 - ⚠ **WARNING!** Before you connect the USB cable to the printer, always unplug the printer to prevent damage to the printer.
 - 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.
 - Turn off the printer and the computer. Remove the USB cable, and inspect both ends of the cable for damage. Reconnect the USB cable, making sure that the connections are tight. Make sure that the printer is directly connected to the computer. Remove any switchboxes, tape backup drives, security keys, or any other devices that are attached between the USB port on the computer and the printer. These devices can sometimes interfere with communication between the computer and the printer. Restart the printer and the computer.

Missing graphics or text, or blank pages

- Make sure that your file does not contain blank pages.
- The sealing tape might still be in the print cartridge. Remove the print cartridge, and pull the tab
 on the end of the cartridge until the entire length of the tape is removed. Reinstall the print cartridge.
 See <u>Changing the print cartridge on page 51</u> for instructions.
- 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)
 on page 8 for more information.
- Clean the printer, particularly the contacts between the print cartridge and the power supply.

Page format is different than on another printer

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:

- Create documents and print them using the same printer driver (printer software) and printer properties settings regardless of which HP LaserJet printer you use to print them.
- Change the resolution, paper size, font settings, and other settings. See <u>Printer properties</u> (<u>driver</u>) on page 8 for more information.

Graphics quality

The graphics settings might be unsuitable for your print job. Check the graphic settings, such as resolution, in the printer properties and adjust them as necessary. See Printer properties (driver) on page 8 for more information.

NOTE: Some resolution might be lost when converting from one graphics format to another.

Return to Finding the solution on page 54.

Printer software problems

Table 4-3 Printer software problems

Problem	Solution		
A printer driver for the HP LaserJet 1020 printer is not visible	Restart the computer.		
in the Printer folder.	 Reinstall the printer software. In the Windows task bar, click Start, select Programs, select HP, select HP LaserJet 1020 series, and click Uninstall HP LaserJet 1020 series. Turn the printer off. Install the printer software from the CD. Turn the printer back on. 		
	NOTE: Close any applications that are running. To close an application that has an icon in the system tray, right-click the icon, and select Close or Disable .		
	 Try plugging the USB cable into a different USB port on the computer. 		
	 If you are trying to print to a shared printer, in the Window task bar, click Start, select Settings, and select Printers. Double-click the Add Printer icon. Follow the instructions in the Add Printer Wizard. 		
An error message was displayed during the software	Restart the computer.		
installation.	 Reinstall the printer software. In the Windows task bar, click Start, select Programs, select HP, select HP LaserJet 1020 series, and click Uninstall HP LaserJet 1020 series. Turn the printer off. Install the printer software from the CD. Turn the printer back on. 		
	NOTE: Close any applications that are running. To close an application that has an icon in the task bar, right click the icon, and select Close or Disable .		
	 Check the amount of free space on the drive where you are installing the printer software. If necessary, free up a much space as you can, and reinstall the printer software 		
	 If necessary, run the Disk Defragmenter, and reinstall the printer software. 		
The printer is in Ready mode, but nothing prints.	Restart the computer.		
	 Verify that all of the cables are properly seated and within specifications. This includes the USB and power cables Try a new cable. 		
	 Reinstall the printer software. In the Windows task bar, click Start, select Programs, select HP, select HP LaserJet 1020 series, and click Uninstall HP LaserJet 1020 series. Turn the printer off. Install the printer software from the CD. Turn the printer back on. 		
	NOTE: Close any applications that are running. To close an application that has an icon in the task bar, right click the icon, and select Close or Disable .		

Return to Finding the solution on page 54.

Improving print quality

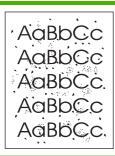
This section provides information about identifying and correcting print defects.

Light or faded print



- The toner supply is low. See Redistributing toner on page 49 for more information.
- The media might not meet HP's media specifications (for example, the media is too moist or too rough). See <u>Printer</u> media considerations on page 11 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 <u>Saving toner on page 93</u> for more information.

Toner specks



- The media might not meet HP's media specifications (for example, the media is too moist or too rough). See <u>Printer</u> <u>media considerations on page 11</u> for more information.
- The printer might need to be cleaned. See <u>Cleaning the printer on page 40</u> or <u>Cleaning the printer media path on page 41</u> for instructions.

Dropouts

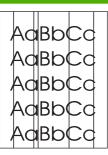
AaBbCc AaBbCc AaBbCc AaBbCc

- 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 <u>Printer media considerations on page 11</u> 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 print cartridge might be defective. See <u>Changing the</u> <u>print cartridge on page 51</u> for more information.

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

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Vertical lines



 The photosensitive drum inside the print cartridge has probably been scratched. Install a new HP print cartridge.
 See <u>Changing the print cartridge on page 51</u> for instructions.

Gray background

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc

- Decrease the print density setting through printer properties. This decreases the amount of background shading. See <u>Printer properties (driver) on page 8</u>.
- Change the media to a lighter basis weight. See Printer media considerations on page 11 for more information.
- Check the printer's environment. Very dry (low humidity) conditions can increase the amount of background shading.
- Install a new HP print cartridge. See <u>Changing the print</u> <u>cartridge on page 51</u> for instructions.

Toner smear

AaBbCc AaBbCc AaBbCc AaBbCc

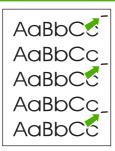
- If toner smears appear on the leading edge of the media, the media guides might be dirty. Wipe the media guides with a dry, lint-free cloth. See <u>Cleaning the printer</u> on page 40 for more information.
- Check the media type and quality.
- Install a new HP print cartridge. See <u>Changing the print</u> <u>cartridge on page 51</u> for instructions.
- The fuser temperature might be too low. In your printer driver, make sure that the appropriate media type is selected.

Loose toner



- Clean the inside of the printer. See <u>Cleaning the printer</u> on page 40 for instructions.
- Check the media type and quality. See <u>Printer media</u> considerations on page 11 for more information.
- Install a new HP print cartridge. See <u>Changing the print</u> cartridge on page 51 for instructions.
- In your printer driver, make sure that the appropriate media type is selected.
- Plug the printer directly into an AC outlet instead of into a power strip.

Vertical repetitive defects



- The print cartridge might be damaged. If a repetitive mark occurs at the same spot on the page, install a new HP print cartridge. See <u>Changing the print cartridge</u> on page 51 for instructions.
- The internal parts might have toner on them. See
 <u>Cleaning the printer on page 40</u> 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.
- In your printer driver, make sure that the appropriate media type is selected.

Misformed characters

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc

- If characters are improperly formed, producing hollow images, the media stock might be too slick. Try a different media. See <u>Printer media considerations on page 11</u> for more information.
- If characters are improperly formed, producing a wavy effect, the printer might need service. Print a Printer Test page. If the characters are improperly formed, contact an HP-authorized dealer or service representative. See <u>How</u> to contact HP on page 98 for more information.

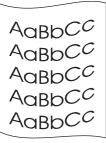
65

Page skew

AaBbCc
AaBbCc
AaBbCc
AaBbCc
AaBbCc

- Make sure that the media is loaded correctly and the media guides are not too tight or too loose against the media stack. See <u>Loading media into the input trays</u> on page 24 for more information.
- The input bin might be too full. See <u>Loading media into</u> the input trays on page 24 for more information.
- Check the media type and quality. See <u>Printer media</u> considerations on page 11 for more information.

Curl or wave



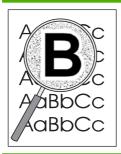
- Check the media type and quality. Both high temperature and humidity cause media to curl. See <u>Printer media</u> <u>considerations on page 11</u> for more information.
- The media might have been in the input tray too long.
 Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- The fuser temperature might be too high. In your printer driver, make sure that the appropriate media type is selected. If the problem persists, select a media type that uses a lower fuser temperature, such as transparencies or light media.

Wrinkles or creases

AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc

- Make sure that media is loaded properly. See <u>Loading</u> media into the input trays on page 24 for more information.
- Check the media type and quality. See <u>Printer media</u> considerations on page 11 for more information.
- Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- For envelopes, this can be caused by air pockets inside the envelope. Remove the envelope, flatten the envelope, and try printing again.

Toner scatter outline



- If large amounts of toner have scattered around the characters, the media might be resisting the toner. (A small amount of toner scatter is normal for laser printing.)
 Try a different media type. See Printer media considerations on page 11 for more information.
- Turn over the stack of media in the tray.
- Use media designed for laser printers. See <u>Printer media</u> considerations on page 11 for more information.

Water droplets on bottom edge



NOTE: Moisture in the printer is condensing on the fuser assembly and dropping onto the media. In excessively hot and humid areas, media retains moisture. Water droplets do not damage the printer.

- Use different media.
- Store media in an airtight container to minimize absorption of moisture.

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Clearing jams

△ CAUTION: To prevent damage to the printer when clearing jams, including jams in the output bin, always open the print cartridge door and remove the print cartridge. Keep the door open and the cartridge out until the jam has been cleared. Opening the print cartridge door and removing the print cartridge relieves tension on the printer rollers, which prevents damage to the printer and makes the removal of jammed pages easier.

Occasionally, media becomes jammed during a print job. You are notified of a media jam by an error from the software and the printer control panel lights. See <u>Status light patterns on page 56</u> for more information.

The following are some of the causes of media jams:

- The input trays are loaded improperly or are too full. See <u>Loading media into the input trays</u> on page 24 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.
- The media does not meet HP specifications. See <u>Printer media considerations on page 11</u> for more information.

Typical media jam locations

- Print cartridge area: See Removing a jammed page on page 68 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 on page 68 for instructions.
- Output path: If the page is sticking out of the output bin, see Removing a jammed page
 on page 68 for instructions.
- NOTE: There might be loose toner in the printer after a media jam. This toner clears up after a few sheets are printed.

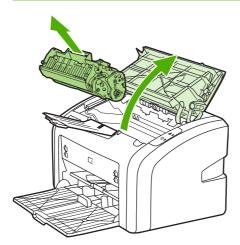
Removing a jammed page

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

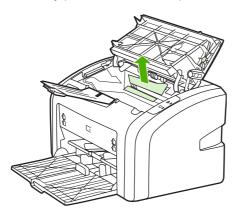
CAUTION: To prevent damage to the printer when clearing jams, including jams in the output bin, always open the print cartridge door and remove the print cartridge.

1. Open the print cartridge door, and remove the print cartridge.

△ **CAUTION**: To prevent damage to the print cartridge, minimize its exposure to direct light. Cover the print cartridge with a sheet of paper.

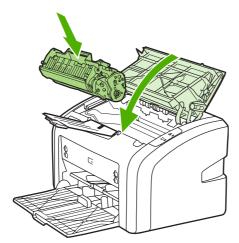


2. With both hands, grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the printer.



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3. When you have removed the jammed media, replace the print cartridge, and close the print cartridge door.



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

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

Return to Finding the solution on page 54.

A Printer specifications

This appendix provides information on the following topics:

- Environmental specifications
- Power consumption, electrical specifications, and acoustic emissions
- Physical specifications
- Printer capacities and ratings
- Memory specifications

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Environmental specifications

Operating environment	Install in a well-ventilated, dust-free area.		
	Printer plugged into an AC outlet:		
	• Temperature: 10°C to 32.5°C (50°F to 90.5°F)		
	Humidity: 20% to 80% (no condensation)		
Storage environment	Printer unplugged from an AC outlet:		
	Temperature: 0°C to 40°C (32°F to 104°F)		
	Humidity: 10% to 80% (no condensation)		

NOTE: Values are current as of April 1, 2004. Values are subject to change without notice. See http://www.hp.com/support/lj1020/ for current information.

Power consumption, electrical specifications, and acoustic emissions

See www.hp.com/go/lj1020_regulatory for current information.

△ CAUTION: Power requirements are based on the country/region where the product is sold. Do not convert operating voltages. This will damage the product and void the product warranty.

Physical specifications

Dimensions	Width: 370 mm (14.6 inches)	
	• Depth: 242 mm (9.5 inches)	
	Height: 209 mm (8.2 inches)	
Weight (2,000-page cartridge installed)	5.8 kg (12.8 lb)	

NOTE: Values are current as of April 1, 2004. Values are subject to change without notice. See http://www.hp.com/support/lj1020/ for current information.

Printer capacities and ratings

Print speed	 14 ppm for A4 media and 15 ppm for letter media 		
	First page out in as low as 10 seconds		
Main input tray capacity	150 sheets of regular weight 75 g/m² (20 lb) paper		
Priority feed slot capacity	1 sheet of media up to 163 g/m² (43 lb)		
Top (face down) output bin capacity	100 sheets of regular weight 75 g/m² (20 lb) paper		
Minimum paper size	76 x 127 mm (3 x 5 inches)		
Maximum paper size	216 x 356 mm (8.5 x 14 inches)		
Media weight	Output bin: 60 to 105 g/m² (16 to 28 lbs)		
Base memory	2 MB of RAM		
Print resolution	600 x 600 dpi with HP Resolution Enhancement technology (REt)		
	 1200 dpi effective output quality (600 x 600 x 2 dpi with HP Resolution Enhancement technology [REt]) 		
Duty cycle	8,000 single-sided pages per month (maximum)		
	1,000 single-sided pages per month (average)		

Memory specifications

Base memory 2 MB RAM

B Regulatory information

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FCC compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase separation between equipment and receiver.
- Connect equipment to an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/TV technician.
- NOTE: Any changes or modifications to the printer that are not expressly approved by Hewlett-Packard could void the user's authority to operate this equipment.

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

Declaration of Conformity statement

Declaration of Conformity

according to ISO/IEC Guide 22 and EN 45014

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

declares that the product

Safety:

Product Name: HP LaserJet 1020
Regulatory Model ³⁾: BOISB-0207-00

Product Options: ALL

conforms to the following Product Specifications:

IEC 60825-1:1993 +A1:1997 +A2:2001 / EN 60825-1:1994 +A11:1996 +A2:2001 (Class 1 Laser/LED Product)

GB4943-2001

EMC: CISPR 22:1997 / EN 55022:1998 Class B1)

EN 61000-3-2:2000

EN 61000-3-3:1995 / A1:2001

IEC 60950:2001-1 / EN 60950:2001-1

EN 55024:1998

FCC Title 47 CFR, Part 15 Class B2) / ICES-003, Issue 4

GB9254-1998, GB17625.1-1998

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. Compliance testing of product to standard with exception of clause 9.5, which is not yet in effect.
- 2) This Device complies with Part 15 of the FCC Rules. Operation is subject to the following two Conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
- 3) For regulatory purposes, this product is assigned a Regulatory model number. This number should not be confused with the product name or the product number(s).

Boise, Idaho 83714, USA

19 August 2004

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

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

(Phone: 208-396-6000)

Regulatory statements

Laser safety

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

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

Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

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

EMC statement (Korea)

B급 기기	이 기기는 가정용(B급)으로 전자파적합등록을 한 기
(가정용 방송통신기기)	기로서 주로 가정에서 사용하는 것을 목적으로 하
	며, 모든 지역에서 사용할 수 있습니다.

Laser statement for Finland

Luokan 1 laserlaite

Klass 1 Laser Apparat

HP LaserJet Professional CP1025, CP1025nw, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalissa käytössä kirjoittimen suojakotelointi estää lasersäteen pääsyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (2007) mukaisesti.

VAROITUS!

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

VARNING!

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

HUOLTO

HP LaserJet Professional CP1025, CP1025nw - 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 näkymättömällelasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

VARNING!

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

Tiedot laitteessa käytettävän laserdiodin säteilyominaisuuksista: Aallonpituus 775-795 nm Teho 5 m W Luokan 3B laser.

Substances Table (China)

有毒有害物质表

根据中国电子信息产品污染控制管理办法的要求而出台

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

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

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

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

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Environmental product stewardship program

Protecting the environment

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

Ozone production

This product generates no appreciable ozone gas (O_3) .

Power consumption

Power usage drops significantly while in Ready or Sleep mode, which saves natural resources and saves money without affecting the high performance of this product. Hewlett-Packard printing and imaging equipment marked with the ENERGY STAR® logo is qualified to the U.S. Environmental Protection Agency's ENERGY STAR specifications for imaging equipment. The following mark will appear on ENERGY STAR qualified imaging products:



Additional ENERGY STAR qualified imaging product model information is listed at:

www.hp.com/go/energystar

Toner consumption

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

Paper use

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

Plastics

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

HP LaserJet print supplies

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

HP is committed to providing inventive, high-quality products and services that are environmentally sound, from product design and manufacturing to distribution, customer use and recycling. When you participate in the HP Planet Partners program, we ensure your HP LaserJet print cartridges are recycled

properly, processing them to recover plastics and metals for new products and diverting millions of tons of waste from landfills. Since this cartridge is being recycled and used in new materials, it will not be returned to you. Thank you for being environmentally responsible!

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

Return and recycling instructions

United States and Puerto Rico

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

Multiple returns (more than one cartridge)

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

OR

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

Single returns

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

Shipping

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

Residents of Alaska and Hawaii

Do not use the UPS label. Call 1-800-340-2445 for information and instructions. The U.S. Postal Service provides no-cost cartridge return transportation services under an arrangement with HP for Alaska and Hawaii.

Non-U.S. returns

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

Paper

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

Material restrictions

This HP product does not contain added mercury.

This HP product does not contain a battery.

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



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

Chemical substances

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

Material Safety Data Sheet (MSDS)

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

For more information

To obtain information about these environmental topics:

- Product environmental profile sheet for this and many related HP products
- HP's commitment to the environment
- HP's environmental management system

- HP's end-of-life product return and recycling program
- Material Safety Data Sheets

 $\textbf{Visit}\ \underline{www.hp.com/go/environment}\ \textbf{or}\ \underline{www.hp.com/hpinfo/globalcitizenship/environment}.$

Material safety data sheet

Material Safety Data Sheets (MSDS) for supplies containing chemical substances (for example, toner) can be obtained by contacting the HP website at: http://www.hp.com/go/msds or <a href="http://www.hp.com/go/msds

C Warranty and licensing

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Hewlett-Packard limited warranty statement

HP PRODUCT

DURATION OF LIMITED WARRANTY

HP LaserJet 1020 printer

One-year limited warranty

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

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

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

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

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

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Print cartridge limited warranty

This HP product is warranted to be free from defects in materials and workmanship. This warranty does not apply to products that (a) have been refilled, refurbished, remanufactured or tampered with in any way, (b) experience problems resulting from misuse, improper storage, or operation outside of the published environmental specifications for the printer product or (c) exhibit wear from ordinary use. To obtain warranty service, please return the product to place of purchase (with a written description of the problem and print samples) or contact HP customer support. At HP's option, HP will either replace products that prove to be defective or refund your purchase price. TO THE EXTENT ALLOWED BY LOCAL LAW, THE ABOVE WARRANT Y IS EXCLUSIVE AND NO OTHER WARRANTY OR CONDITION, WHETHER WRITTEN OR ORAL, IS EXPRESSED OR IMPLIED AND HP SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, AND FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT ALLOWED BY LOCAL LAW, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFIT OR DATA), OR OTHER DAMAGE, WHETHER BASED IN CONTRACT, TORT, OR OTHERWISE. THE WARRANTY TERMS CONTAINED IN THIS STATEMENT, EXCEPT TO THE EXTENT LAWFULLY PERMITTED, DO NOT EXCLUDE, RESTRICT OR MODIFY AND ARE IN ADDITION TO THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE SALE OF THIS PRODUCT TO YOU.

D HP parts and accessories

This appendix provides information on the following topics:

- Ordering supplies
- Using HP print cartridges

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Ordering supplies

You can increase the printer's capabilities with optional accessories and supplies. Use accessories and supplies specifically designed for the HP LaserJet 1020 printer to ensure optimum performance.

Table D-1 Ordering information

	Item	Description or use	Order number	
Printing supplies	HP Multipurpose paper	HP brand paper for a variety of uses (1 box of 10 reams, 500 sheets each). To order a sample, in the U.S., call 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 800-471-4701.	HPJ1124	
	HP LaserJet transparency film	HP brand transparency film for use with HP LaserJet	92296T (letter)	
	111111	monochrome printers.	92296U (A4)	
Print cartridges for the HP LaserJet 1020 printer	Print cartridges	Replacement print cartridges for the HP LaserJet 1020 printer.	Q2612A	
		2,000 page cartridge		
		See <u>Print cartridge life</u> expectancy on page 93 for more information		
Supplementary documentation	HP LaserJet printer family print media guide	A guide to using paper and other print media with	5851-1468	
documentation	print media guide	HP LaserJet printers.	NOTE: This document can be downloaded from http://www.hp.com/support/ljpaperguide/.	
Replacement parts	Media pickup roller	Used to pick the media from the input tray and advance it through the printer.	RL1-0266	
	Separation pad for the printer	Used to keep multiple sheets from feeding through the printer path.	RL1-0269	
Accessory part	Input tray cover	Used to cover the media in the input tray.	Q2460-40004 (U.S.)	
		input day.	Q2460-40005 (Europe)	

Using HP print cartridges

The following sections provide information about HP print cartridges and instructions for redistributing toner and changing the print cartridge.

HP policy on non-HP print cartridges

Hewlett-Packard Company cannot recommend the use of non-HP print cartridges, either new, refilled, or remanufactured. Since they are not HP products, Hewlett-Packard cannot influence their design or control their quality. Service or repair that is required as a result of using non-HP print cartridges will not be covered under the printer warranty.

NOTE: The warranty does not apply to defects resulting from software, interfacing, or parts not supplied by Hewlett-Packard.

Storing print cartridges

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

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

Some HP LaserJet print cartridge packages are stamped with an alphanumeric date code. This code represents a 30-month period beyond the date of production that facilitates efficient inventory management processes between HP and its resellers. It does not serve as an indication of toner life (shelf-life) or relate in any way to warranty terms and conditions.

Print cartridge life expectancy

The life of the print cartridge depends on the amount of toner that your print jobs require. When printing text at approximately 5% coverage, the print cartridge for the HP LaserJet 1020 printer lasts for an average of 2,000 pages.

NOTE: It is possible that the toner supply will outlast the mechanical parts in the print cartridge. If the print quality begins to degrade under these circumstances, you must install a new print cartridge, even if there is toner supply remaining in the cartridge.

This life expectancy assumes that you set the print density to 3 and turn EconoMode off. (These are the default settings.)

Saving toner

While in EconoMode, the printer uses less toner on each page. Selecting this option will extend the life of the print cartridge and reduce your cost per page, but it will reduce print quality. HP does not recommend the full-time use of EconoMode.

E Service and support

This appendix provides information on the following topics:

- Availability of support and service
- Guidelines for repacking the printer
- How to contact HP

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Availability of support and service

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

Customer self-repair warranty service

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

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

Guidelines for repacking the printer

Use the following guidelines when repacking the printer:

- Remove and keep the print cartridge. If the print cartridge is left in the printer, severe damage to the printer may occur.
- △ CAUTION: To prevent damage to the print cartridge, store the print cartridge in its original packing material, or store it so that it is not exposed to light.
- If possible, use the original shipping container and packing material. Shipping damage as a result of inadequate packing is your responsibility. If you have already disposed of the printer's packing material, contact a local mailing service for information on repacking the printer.
- Remove and keep any cables, trays, and optional accessories installed in the printer.
- If possible, include print samples and 5 to 10 sheets of paper or other media that did not print correctly.
- Hewlett-Packard recommends that you insure the equipment for shipment.

How to contact HP

If you need to contact HP for service or support, use one of the following links:

- http://www.hp.com/support/lj1020/
- http://www.hp.com/support

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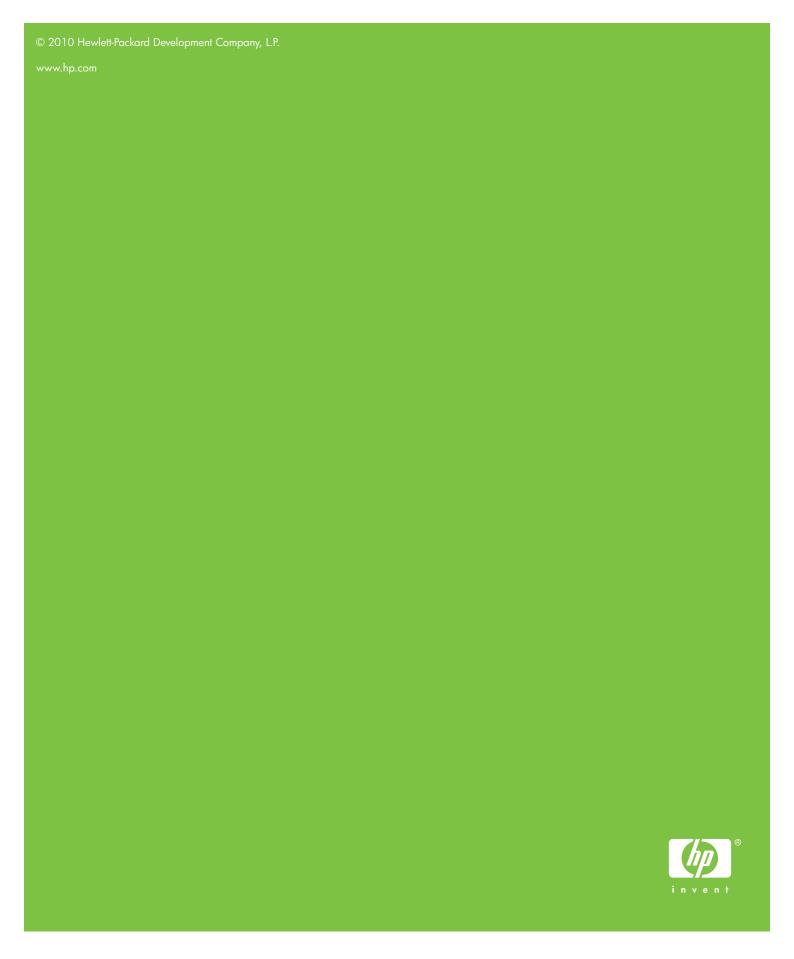
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