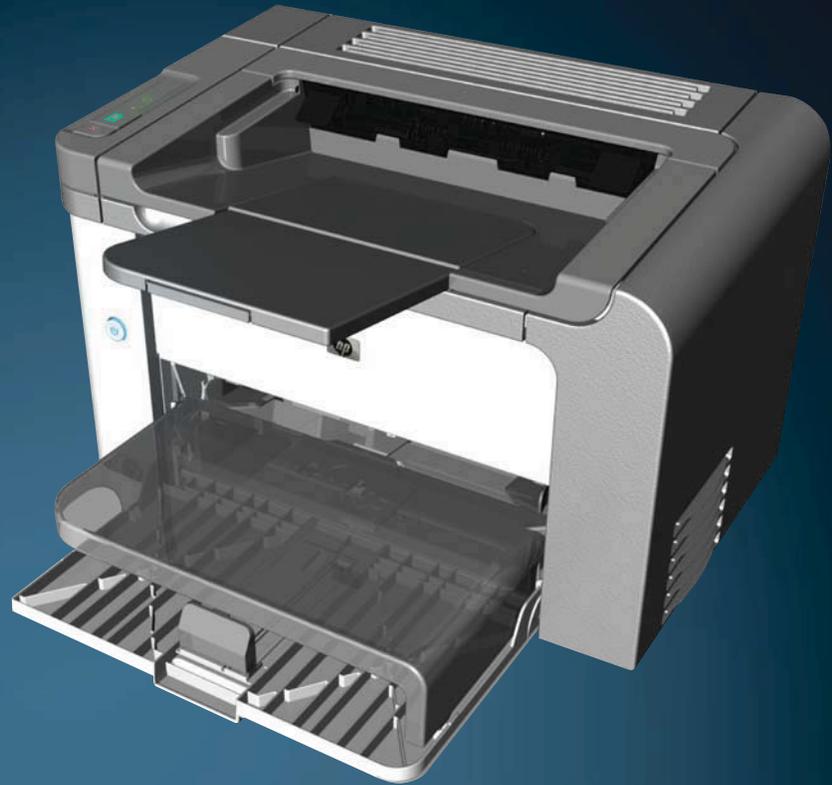




# LASERJET PROFESSIONAL P1560 and P1600 Printer series User Guide



[www.hp.com/support/ljp1560series](http://www.hp.com/support/ljp1560series)  
[www.hp.com/support/ljp1600series](http://www.hp.com/support/ljp1600series)



HP LaserJet Professional P1560 and P1600  
printer series  
User Guide



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## Conventions used in this guide

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 **TIP:** Tips provide helpful hints or shortcuts.

 **NOTE:** Notes provide important information to explain a concept or to complete a task.

 **CAUTION:** Cautions indicate procedures that are recommended to avoid losing data or damaging the product.

 **WARNING!** Warnings alert you to specific procedures to avoid personal injury, catastrophic loss of data, or extensive damage to the product.

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# Product comparison

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## HP LaserJet Professional P1560 printer series



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## HP LaserJet Professional P1600 printer series



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|--|--|
| <ul style="list-style-type: none"><li>• <b>Speed:</b> 22 A4 pages per minute (ppm), 23 letter-size ppm</li><li>• <b>Trays:</b> Priority input slot (10-sheet) and a main-input tray (250-sheet)</li><li>• <b>Output bin:</b> 125-sheets</li><li>• <b>Connectivity:</b> Hi-Speed USB 2.0 port</li><li>• <b>Two-sided printing:</b> Manual duplexing (using the printer driver and the go button  on the control-panel)</li></ul> | <ul style="list-style-type: none"><li>• <b>Speed:</b> 25 A4 ppm, 26 letter-size ppm</li><li>• <b>Trays:</b> Priority input slot (10-sheet) and a main-input tray (250-sheet)</li><li>• <b>Output bin:</b> 125-sheets</li><li>• <b>Connectivity:</b> Hi-Speed USB 2.0 port and on-board networking</li><li>• <b>Two-sided printing:</b> Automatic duplexing</li></ul> |
|--|--|
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## Environmental features

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Duplex	<p>Save paper by using duplex printing as your default print setting.</p> <ul style="list-style-type: none"><li>• The HP LaserJet Professional P1560 printer series supports manual duplexing.</li><li>• The HP LaserJet Professional P1600 printer series supports automatic and manual duplexing.</li></ul>
Recycling	<p>Reduce waste by using recycled paper.</p> <p>Recycle print cartridges by using the HP return process.</p>
Energy savings	<p>Save energy by initiating Auto-Off mode for the product.</p>
HP Smart Web Printing	<p>Use HP Smart Web Printing to select, store, and organize text and graphics from multiple Web pages and then edit and print exactly what you see onscreen. It gives you the control you need for printing meaningful information while minimizing waste.</p> <p>Download HP Smart Web Printing from this Web site: <a href="http://www.hp.com/go/smartweb">www.hp.com/go/smartweb</a>.</p>

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# Product features

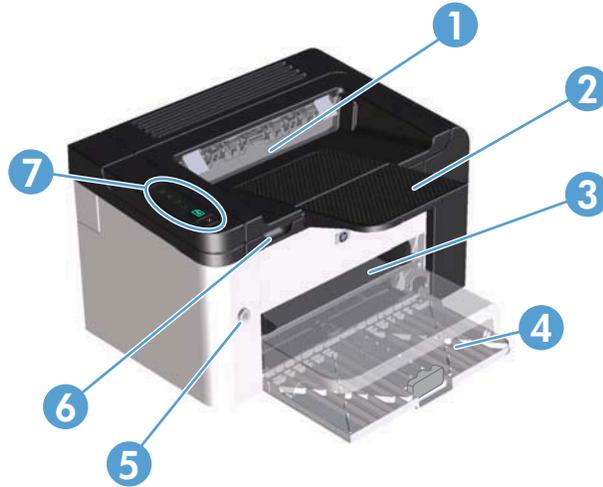
Benefit	Supporting features
<b>Print quality</b>	<ul style="list-style-type: none"><li>• Genuine HP print cartridge.</li><li>• True 600 x 600 dots per inch (dpi) text and graphics.</li><li>• FastRes (1200 dpi).</li><li>• Adjustable settings to optimize print quality.</li></ul>
<b>Supported operating systems</b>	<ul style="list-style-type: none"><li>• Windows 7 (32-bit and 64-bit)</li><li>• Windows Vista (32-bit and 64-bit)</li><li>• Windows XP (32-bit and 64-bit)</li><li>• Windows Server 2008 (32-bit and 64-bit)</li><li>• Windows Server 2003 (32-bit and 64-bit)</li><li>• Mac OS X v10.4, v10.5, v10.6</li></ul>
<b>Ease of use</b>	<ul style="list-style-type: none"><li>• HP Smart Install feature installs product software when you connect a USB cable between the product and a computer.</li><li>• The genuine HP print cartridge is easy to install.</li><li>• Convenient access to the print cartridge and to the paper path through the print-cartridge door.</li><li>• Paper tray can be adjusted with one hand.</li></ul>
<b>Flexible paper handling</b>	<ul style="list-style-type: none"><li>• A main-input tray for letterhead, envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper.</li><li>• Priority input slot for letterhead, envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper.</li><li>• A 125-sheet top output bin.</li><li>• Print on both sides<ul style="list-style-type: none"><li>◦ <b>HP LaserJet Professional P1560 printer series:</b> Manual duplexing.</li><li>◦ <b>HP LaserJet Professional P1600 printer series:</b> Automatic duplexing.</li></ul></li></ul>
<b>Interface connections</b>	<ul style="list-style-type: none"><li>• Hi-Speed USB 2.0 port</li><li>• A built-in internal print server for connecting to a 10/100Base-T network (network models only).</li></ul>
<b>Energy savings</b>	<ul style="list-style-type: none"><li>• The product automatically conserves electricity by substantially reducing power consumption when it is not printing.</li></ul>
<b>Economical printing</b>	<ul style="list-style-type: none"><li>• N-up printing (printing more than one page on a sheet) and Printing on Both Sides features save paper.</li><li>• EconoMode (might save toner).</li></ul>

<b>Benefit</b>	<b>Supporting features</b>
<b>Supplies</b>	<ul style="list-style-type: none"><li>• A supplies status page with print cartridge gauges that estimate remaining supply level. Not available for non-HP supplies.</li><li>• Authentication for genuine HP print cartridges.</li><li>• Easy ordering for replacement supplies.</li></ul>
<b>Accessibility</b>	<ul style="list-style-type: none"><li>• The online user guide is compatible with text screen-readers.</li><li>• All doors and covers can be opened by using one hand.</li></ul>
<b>Security</b>	<ul style="list-style-type: none"><li>• Kensington lock receptacle on back of product.</li></ul>

# Product views

## Front and left side view

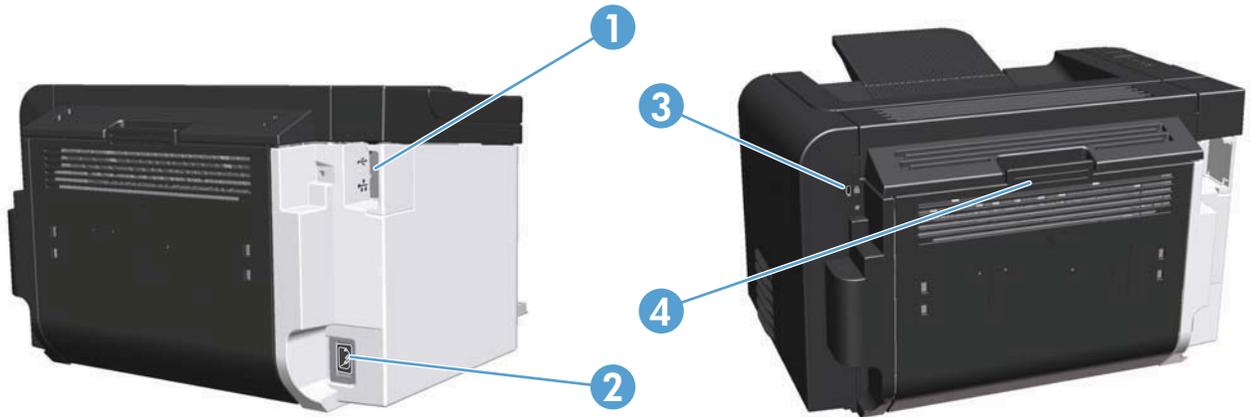
Figure 1-1 HP LaserJet Professional P1560 and P1600 printer series



1	Output bin
2	Output tray extension
3	Priority input slot
4	Main-input tray
5	Power button
6	Cartridge door lift-tab
7	Control panel

## Back view

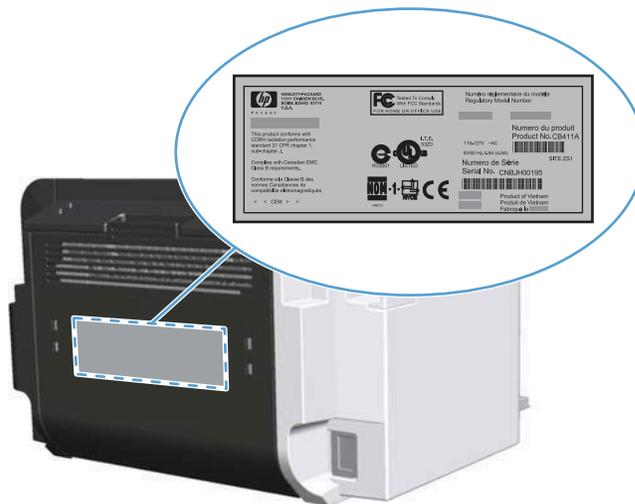
Figure 1-2 HP LaserJet Professional P1560 and P1600 printer series



1	USB port HP internal network port (HP LaserJet Professional P1600 printer series only)
2	Power receptacle
3	Kensington lock
4	Duplexer and rear jam-access door (HP LaserJet Professional P1600 printer series only)

## Serial number and model number location

The label that contains the product and serial numbers is on the rear of the product.

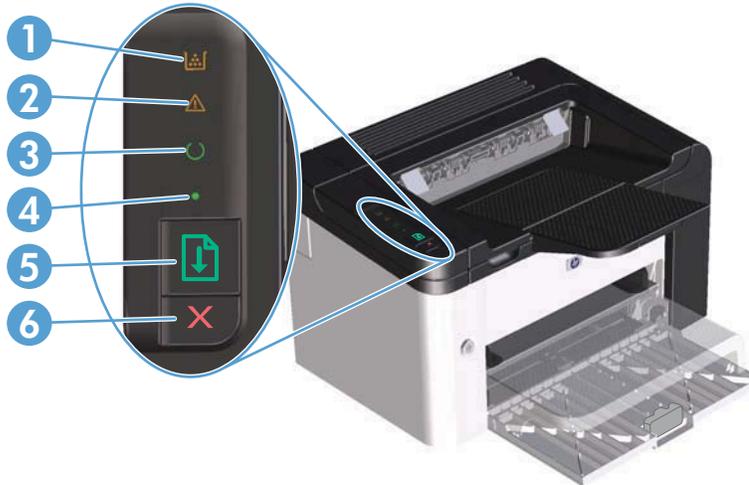


## Control-panel layout

The control panel contains four lights and two buttons.

 **NOTE:** See [Interpret control-panel light patterns on page 76](#) for a description of what the light patterns mean.

**Figure 1-3** HP LaserJet Professional P1560 and P1600 printer series control panel



1	Toner light  : When the print cartridge is low, the toner light  illuminates. When the print cartridge is out of the product, the toner light  blinks.
2	Attention light  : Indicates that the print-cartridge door is open or other errors exist.
3	Ready light  : When the product is ready to print, the ready light  is on. When the product is processing data, the ready light  blinks.
4	Go light  : Indicates that there is a continuable error (along with the attention light  .
5	Go button  : To print a configuration page, press and hold the go button  , and then release the button when the ready light  blinks. To print a demo page, press and release the go button  . When the go light  is flashing, press the go button  to continue the print job.
6	Cancel button  : To cancel the print job, press the cancel button  .

## Understand paper and print media use

This product supports a variety of paper and other print media in accordance with the guidelines in this user guide. Paper or print media that does not meet these guidelines might cause poor print quality, increased jams, and premature wear on the product.

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

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

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

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# Special paper or print media guidelines

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

△ **CAUTION:** HP LaserJet products use fusers to bond dry toner particles to the paper in very precise dots. HP laser paper is designed to withstand this extreme heat. Using inkjet paper could damage the product.

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

## Change the print driver to match the media type and size

Selecting media by type and size results in significantly better print quality for heavy paper, glossy paper, and overhead transparencies. Using the wrong setting can result in unsatisfactory print quality. Always print by **Type** for special print media, such as labels or transparencies. Always print by **Size** for envelopes.

1. On the **File** menu in the software program, click **Print**.
2. Select the driver, and then click **Properties** or **Preferences**.
3. Click the **Paper/Quality** tab.
4. In the **Type is** or **Size is** list box, select the correct media type or size.
5. Click **OK**.

## Supported paper sizes

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

 **NOTE:** To obtain best print results, select the appropriate paper size and type in your print driver before printing.

The printer driver only supports certain media sizes for automatic duplexing. Use the manual duplexing procedure for media sizes not available in the printer driver.

**Table 5-1 Supported paper and print media sizes**

Size	Dimensions	Main-input tray	Priority input slot
Letter	216 x 279 mm (8.5 x 11 in)	✓	✓
Legal	216 x 356 mm (8.5 x 14 in)	✓	✓
A4	210 x 297 mm (8.27 x 11.69 in)	✓	✓
Executive	184 x 267 mm (7.25 x 10.5 in)	✓	✓
8.5 x 13	216 x 330 mm (8.5 x 13 in)	✓	✓
A5	148 x 210 mm (5.83 x 8.27 in)	✓	✓
A6	105 x 148 mm (4.13 x 5.83 in)	✓	✓
B5 (JIS)	182 x 257 mm (7.17 x 10.12 in)	✓	✓
16k	184 x 260 mm (7.24 x 10.23 in)		
	195 x 270 mm (7.68 x 10.62 in)	✓	✓
	197 x 273 mm (7.75 x 10.75 in)		
Custom	<b>Minimum:</b> 76 x 127 mm (3 x 5 in)	✓	✓
	<b>Maximum:</b> 216 x 356 mm (8.5 x 14.0 in)		

**Table 5-2 Supported envelopes and postcards**

Size	Dimensions	Main-input tray	Priority input slot
Envelope #10	105 x 241 mm (4.13 x 9.49 in)	✓	✓
Envelope DL	110 x 220 mm (4.33 x 8.66 in)	✓	✓
Envelope C5	162 x 229 mm (6.93 x 9.84 in)	✓	✓
Envelope B5	176 x 250 mm (6.7 x 9.8 in)	✓	✓
Envelope Monarch	98 x 191 mm (3.9 x 7.5 in)	✓	✓
Japanese Postcard	100 x 148 mm (3.94 x 5.83 in)	✓	✓
Double Japanese Postcard Rotated	148 x 200 mm (5.83 x 7.87 in)	✓	✓

## Supported paper types

For a complete list of specific HP-brand paper that this product supports, go to [www.hp.com/support/ljp1560series](http://www.hp.com/support/ljp1560series) or [www.hp.com/support/ljp1600series](http://www.hp.com/support/ljp1600series).

Paper type (printer driver)	Main-input tray	Priority input slot
Plain	✓	✓
Recycled	✓	✓
Vellum	✓	✓
Light	✓	✓
Mid-weight	✓	✓
Heavy	✓	✓
Extra Heavy	✓	✓
Letterhead	✓	✓
Preprinted	✓	✓
Prepunched	✓	✓
Color	✓	✓
Bond	✓	✓
Rough	✓	✓
Envelope	✓	✓
Labels	✓	✓
Cardstock	✓	✓
Transparency	✓	✓
Postcards	✓	✓

## Tray and bin capacity

Tray or bin	Paper type	Specifications	Quantity
Main-input tray	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 163 g/m <sup>2</sup> (43 lb) bond	250 sheets of 75 g/m <sup>2</sup> (20 lb) bond
	Envelopes	Less than 60 g/m <sup>2</sup> (16 lb) bond to 90 g/m <sup>2</sup> (24 lb) bond	Up to 10 envelopes
	Transparencies	Minimum 0.13 mm (0.005 in) thick	Up to 125 transparencies
Priority input slot	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 163 g/m <sup>2</sup> (43 lb) bond	Equivalent to 10 sheets of 75 g/m <sup>2</sup> (20 lb) bond
	Transparencies	Minimum 0.13 mm (0.005 in) thick	Maximum stack height: 1 mm (0.03 in)
Output bin	Paper	Range: 60 g/m <sup>2</sup> (16 lb) bond to 163 g/m <sup>2</sup> (43 lb) bond	Up to 125 sheets of 75 g/m <sup>2</sup> (20 lb) bond
	Transparencies	Minimum 0.13 mm (0.005 in) thick	Up to 75 transparencies
	Envelopes	Less than 60 g/m <sup>2</sup> (16 lb) bond to 90 g/m <sup>2</sup> (24 lb) bond	Up to 10 envelopes

# Load paper trays

△ **CAUTION:** If you try to print on media that is wrinkled, folded, or damaged in any way, a jam might occur. See [Clear jams on page 80](#) for more information.

## Priority input slot

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

## Main-input tray

The main-input tray holds 250 pages of 75 g/m<sup>2</sup> (20 lb) paper, or fewer pages of heavier media (a 25 mm (0.9 in) stack height or less).

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

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

## Paper orientation for loading trays

Only use media that is recommended for laser printers. See [Supported paper sizes on page 35](#).

If you are using paper that requires a specific orientation, load it according to the information in the following table.

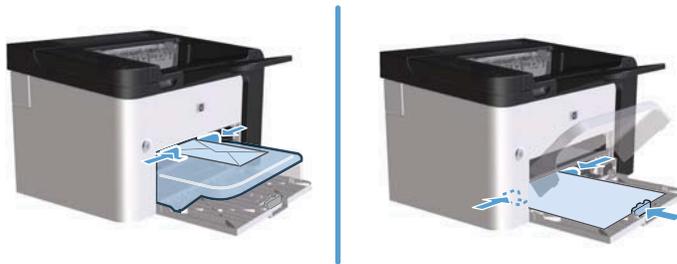
Paper type	How to load paper
Preprinted or letterhead	<ul style="list-style-type: none"><li>• Face up</li><li>• Top edge leading into the product</li></ul>
Prepunched	<ul style="list-style-type: none"><li>• Face up</li><li>• Holes toward the left side of the product</li></ul>
Envelope	<ul style="list-style-type: none"><li>• Face up</li><li>• Left short edge leading into the product</li></ul>

 **NOTE:** Use the priority input slot for printing one envelope or other special media. Use the main-input tray for printing multiple envelopes or other special media.

1. Before loading the media, slide the media guides outward to slightly wider than the media.



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



# Manage supplies and accessories

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

## Manage print cartridges

### Print-cartridge storage

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

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

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### HP policy on non-HP print cartridges

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

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

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To install a new genuine HP print cartridge, see [Replace the print cartridge on page 60](#).

### HP fraud hotline and Web site

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

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

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

### Recycle supplies

To install a new HP print cartridge, follow the instructions that are included in the box that contains the new supply, or see the getting started guide.

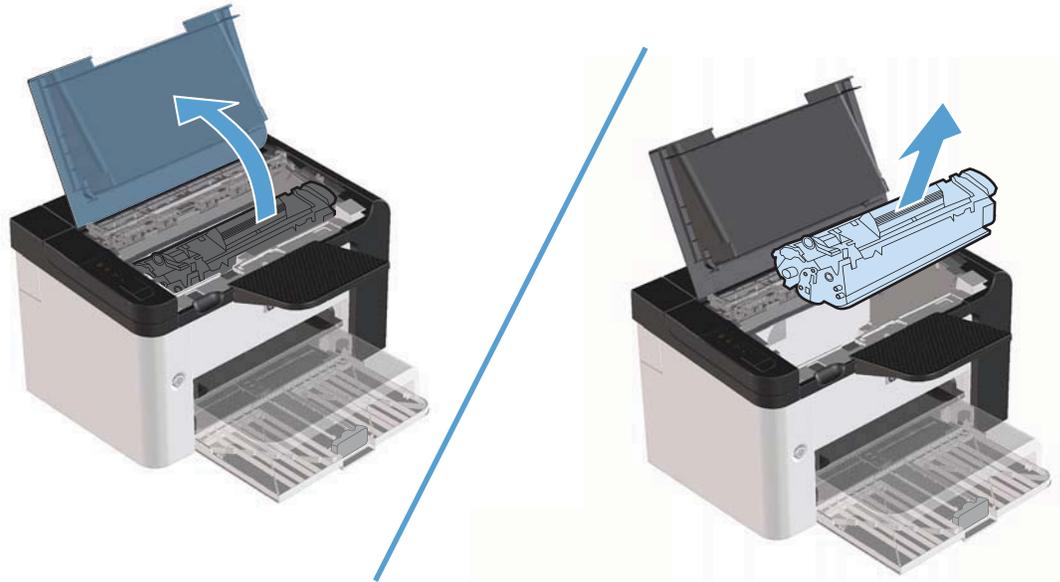
To recycle supplies, place the used supply in the box in which the new supply arrived. Use the enclosed return label to send the used supply to HP for recycling. For complete information, see the recycling guide that is included with each new HP supply item.

## Replacement instructions

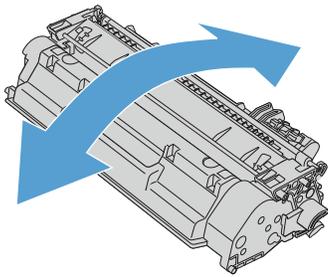
### Redistribute toner

When a small amount of toner remains in print cartridge, faded or light areas might appear on the printed page. You might be able to temporarily improve print quality by redistributing the toner.

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

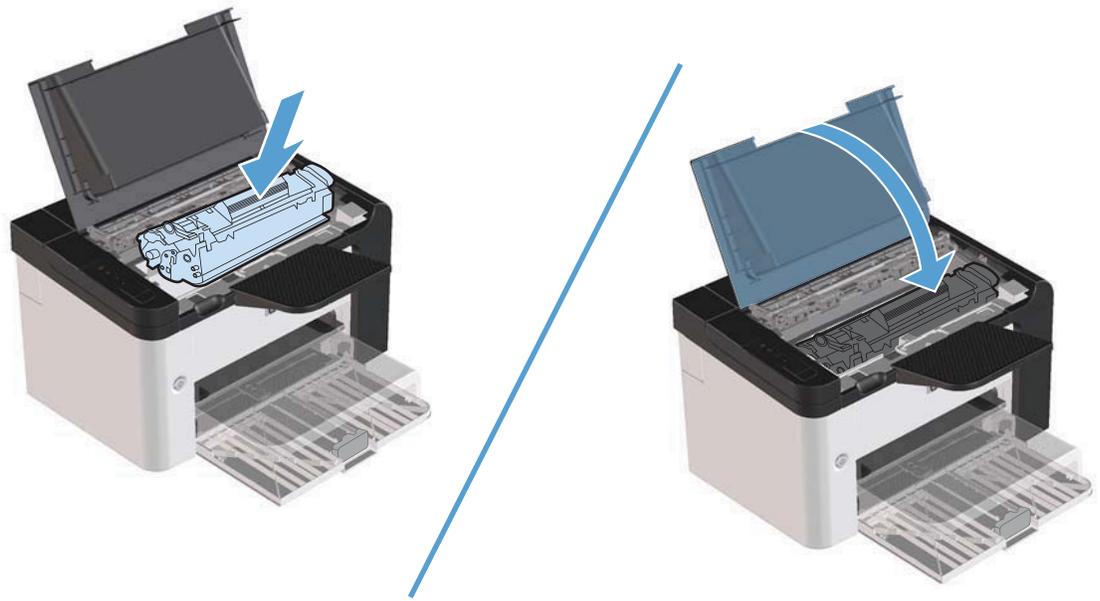


2. To redistribute the toner, gently rock the print cartridge from front to back.



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

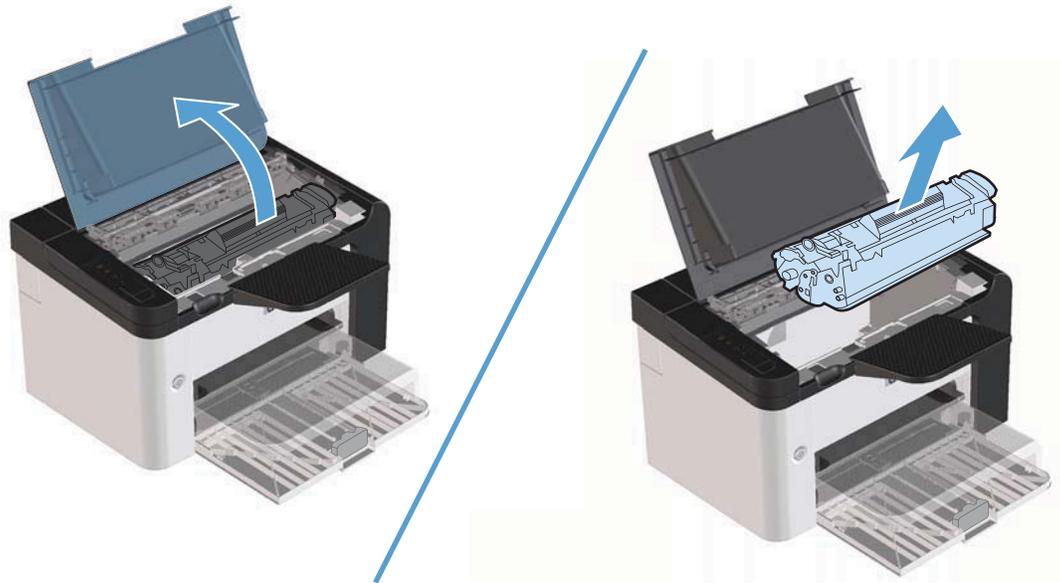
3. Reinsert the print cartridge into the product, and then close the print-cartridge door.



If the print is still light, install a new print cartridge.

## Replace the print cartridge

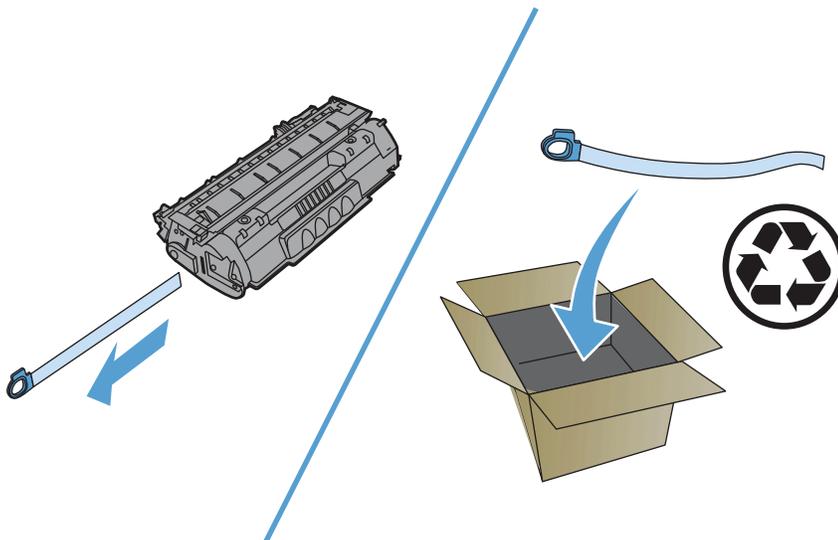
1. Open the print-cartridge door, and remove the old print cartridge. See the recycling information inside the print-cartridge box.



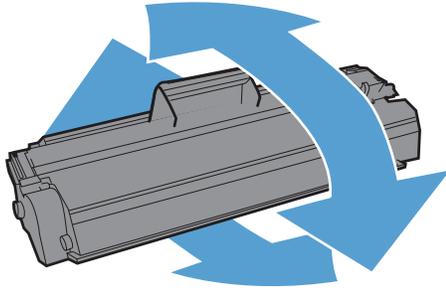
2. Remove the new print cartridge from the bag.

△ **CAUTION:** To prevent damage to the print cartridge, hold the print cartridge at each end.

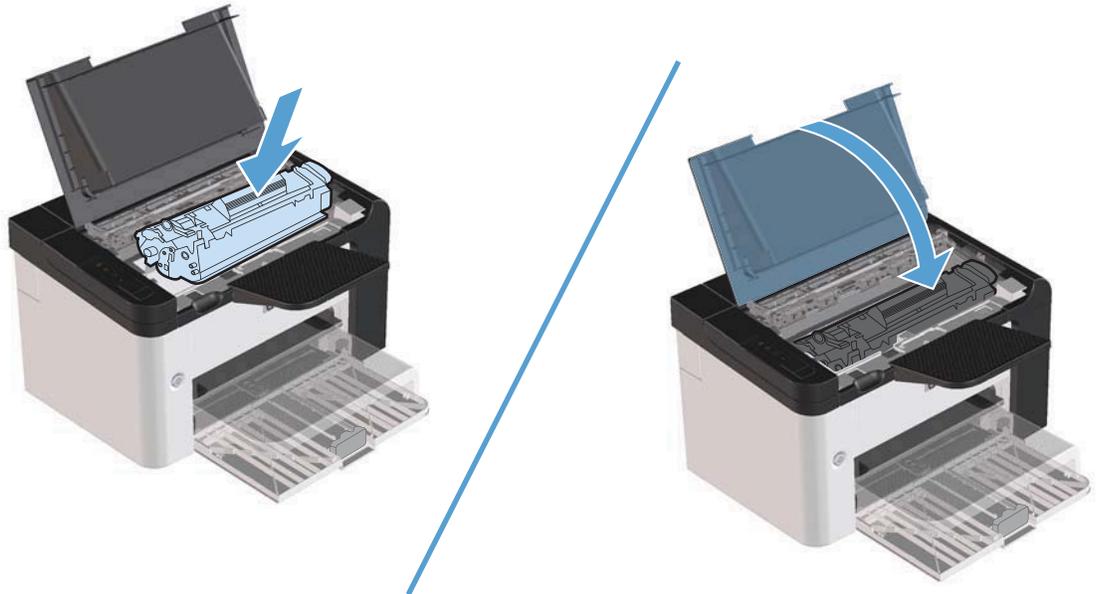
3. Pull the tab and completely remove the tape from the cartridge. Put the tab in the print-cartridge box to return for recycling.



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



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



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

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

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# Solve general problems

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

## Troubleshooting checklist

1. Make sure that the product ready light  is on. If no lights are on, complete these steps:
  - a. Open and then close the print-cartridge door to deactivate the Auto-Off mode.
  - b. Check the power-cable connections.
  - c. Make sure that the power switch is on.
  - d. Make sure that the line voltage is correct for the product power configuration. (See the label that is on the back of the product for voltage requirements.) If you are using a power strip and its voltage is not within specifications, plug the product directly into the wall. If it is already plugged into the wall, try a different outlet.
  - e. Make sure that the print-cartridge is installed correctly.
  - f. If none of these measures restores power, contact HP Customer Care.
2. Check the cabling.
  - a. Check the cable connection between the product and the computer or network port. Make sure that the connection is secure.
  - b. Make sure that the cable itself is not faulty by using a different cable, if possible.
  - c. Check the network connection. See [Solve network problems on page 98](#).
3. Check to see if any control-panel lights are lit. See [Interpret control-panel light patterns on page 76](#).
4. Make sure that the paper that you are using meets specifications.
5. Make sure that the product software is installed correctly.
6. Verify that you have installed the printer driver for this product. Check the program to make sure that you are using the printer driver for this product.
7. Print a configuration page. See [Print information pages on page 52](#).
  - a. If the page does not print, check that at least one tray contains paper.
  - b. If the page jams in the product, see [Clear jams on page 80](#).

8. If the configuration page prints, check the following items.
  - a. If the page does not print correctly, the problem is with the product hardware. Contact HP Customer Care.
  - b. If the page prints correctly, the product hardware is working. The problem is with the computer that you are using, with the printer driver, or with the program.
9. Print a short document from a different program that has worked in the past. If this solution works, the problem is with the program you are using. If this solution does not work (the document does not print) complete these steps:
  - a. Try printing the job from another computer that has the product software installed.
  - b. If you connected the product to the network, connect the product directly to a computer with a USB cable. Redirect the product to the correct port, or reinstall the software, and then select the new connection type that you are using.
  - c. If the print quality is unacceptable, complete the following steps:
    - Verify that the print settings are correct for the media you are using. See [Change the print driver to match the media type and size on page 34](#).
    - Use the procedures in [Solve image-quality problems on page 91](#) to solve print-quality problems.

## Factors that affect product performance

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

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

## Restore factory settings

To restore the product to the factory-default settings, follow these steps.

1. Turn the product off.
2. Turn the product on, and while it is initializing press and hold both control-panel buttons at the same time until all the lights blink in unison.

# Interpret control-panel light patterns

**Table 8-1 Status-light legend**

	Symbol for "light off" <sup>1</sup>
	Symbol for "light on" <sup>1</sup>
	Symbol for "light blinking" <sup>1</sup>

<sup>1</sup> For a description of the control panel symbols and lights, see [Control-panel layout on page 8](#).

**Table 8-2 Control-panel lights**

Light status	Light pattern	State of the product	Action
<p>All lights are off</p> <p><b>NOTE:</b> The power button backlight is off.</p>		<p>The product is in Auto-Off mode or is turned off.</p>	<p>Press the power button to deactivate the Auto-Off mode or turn on the product</p>

**Table 8-2 Control-panel lights (continued)**

Light status	Light pattern	State of the product	Action
<p>All lights are off</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The formatter is not connected to the product correctly.</p>	<ol style="list-style-type: none"> <li>1. Turn off the product.</li> <li>2. Wait 30 seconds, and then turn on the product.</li> <li>3. Wait for the product to initialize.</li> </ol> <p>Contact HP customer support. See <a href="#">Customer support on page 110</a>.</p>
<p>Attention , ready , and go  lights cycle. Toner light  is off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The formatter is initializing.</p>	<p>No action required. Wait for the initialization period to end. The product enters the Ready state when the initialization period is finished.</p>
<p>All lights cycle.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product is processing a cleaning page.</p>	<p>No action required. Wait for the cleaning process to end. The product enters the Ready state when the cleaning process is finished.</p>
<p>Ready light  is on, and all other lights are off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product is in the Ready state.</p>	<p>No action required. The product is ready to receive a print job.</p>

**Table 8-2 Control-panel lights (continued)**

Light status	Light pattern	State of the product	Action
<p>Ready light  is blinking, and all other lights are off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product is receiving or processing data.</p>	<p>No action required. The product is receiving or processing a print job.</p> <p>To cancel the current job, press the cancel button .</p>
<p>Attention light  is blinking, and all other lights are off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product has experienced an error that can be corrected at the product, such as a jam, an open door, or the absence of paper in the proper tray.</p>	<p>Inspect the product, determine the error, and then correct the error. If the error is the absence of paper in the proper tray or the product is in a manual feed mode, put the proper paper in the tray and follow the onscreen instructions, or open and close the print-cartridge door to resume printing.</p>
<p>Attention light  is blinking, ready light  is on, and other lights are off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product has experienced a continual error from which it will recover on its own.</p>	<p>To recover from the error and print the available data, press the go button .</p> <p>If the recovery is successful, the product continues to the processing data state and completes the job.</p> <p>If the recovery is unsuccessful, the product continues to the continuable error state. Try removing any media from the media path and turning the product power off, and then on again.</p>

**Table 8-2 Control-panel lights (continued)**

Light status	Light pattern	State of the product	Action
<p>The attention , ready , and go  lights are on. Toner light  is off.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The product has experienced a fatal error from which it cannot recover.</p>	<ol style="list-style-type: none"> <li>1. Turn off the product.</li> <li>2. Wait 30 seconds, and then turn on the product.</li> <li>3. Wait for the product to initialize.</li> </ol> <p>If the error persists, contact HP customer support. See <a href="#">Customer support on page 110</a>.</p>
<p>The ready  and toner  lights are on.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The print cartridge is near the estimated end of life.</p>	<p>Order a new print cartridge and have it ready. See <a href="#">Order parts, accessories, and supplies on page 104</a>.</p>
<p>Toner light  is blinking.</p> <p><b>NOTE:</b> The power button backlight is on.</p>		<p>The print cartridge has been removed from the product.</p>	<p>Reinsert the print cartridge in the product.</p>

# Clear jams

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

△ **CAUTION:** Before clearing jams, turn the product off and disconnect the power cord.

## Common causes of jams

- The input trays are loaded incorrectly or are too full.

📄 **NOTE:** When you add new media, always remove the media from the tray and straighten the entire stack. This helps prevent multiple feeds and reduces media jams.

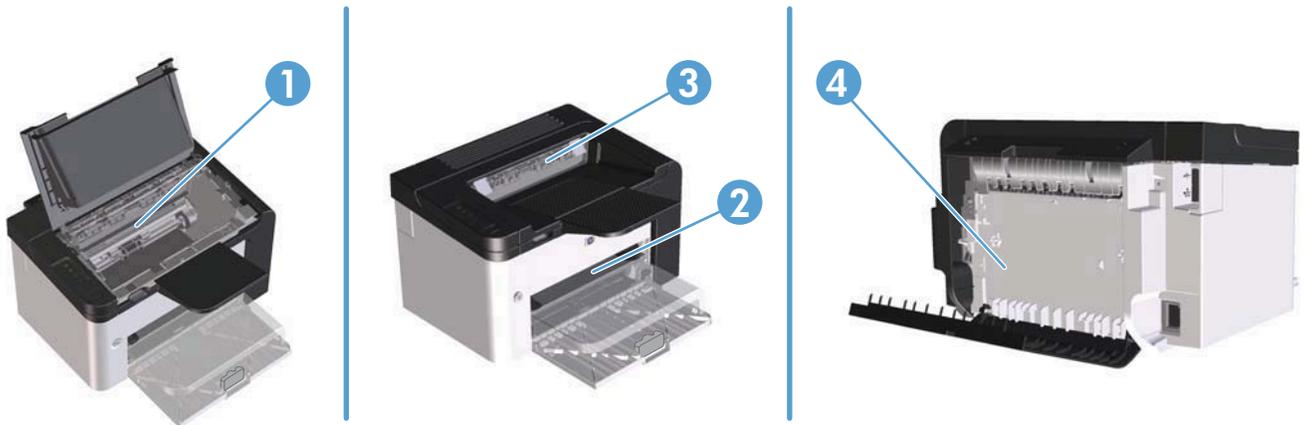
- The media does not meet HP-recommended specifications.
- The product needs to be cleaned to remove paper dust and other particles from the paper path.

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

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

## Jam locations

Jams can occur at the following locations in the product.



1	Internal areas
2	Input trays
3	Output bins
4	Rear door and duplexer (HP LaserJet Professional P1600 printer series)

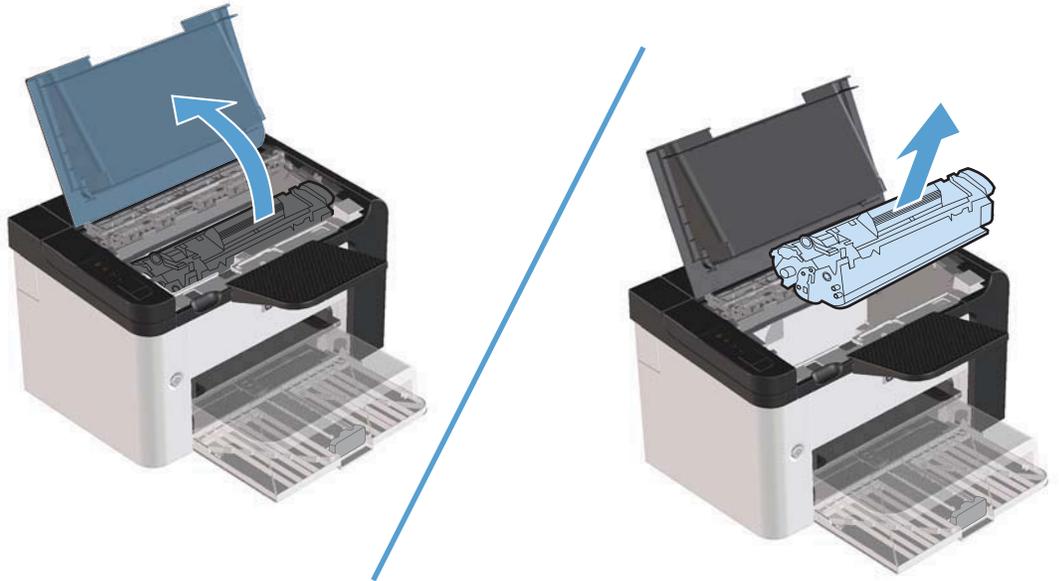
## Clear jams from the input trays

- △ **CAUTION:** Do not use sharp objects, such as tweezers or needle-nose pliers, to remove jams. Damage caused by sharp objects will not be covered by the warranty.

When removing jammed media, pull the jammed media straight away from the product. Pulling jammed media out of the product at an angle can damage the product.

- 📝 **NOTE:** Depending on where the jam is located, some of the following steps might not be necessary.

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



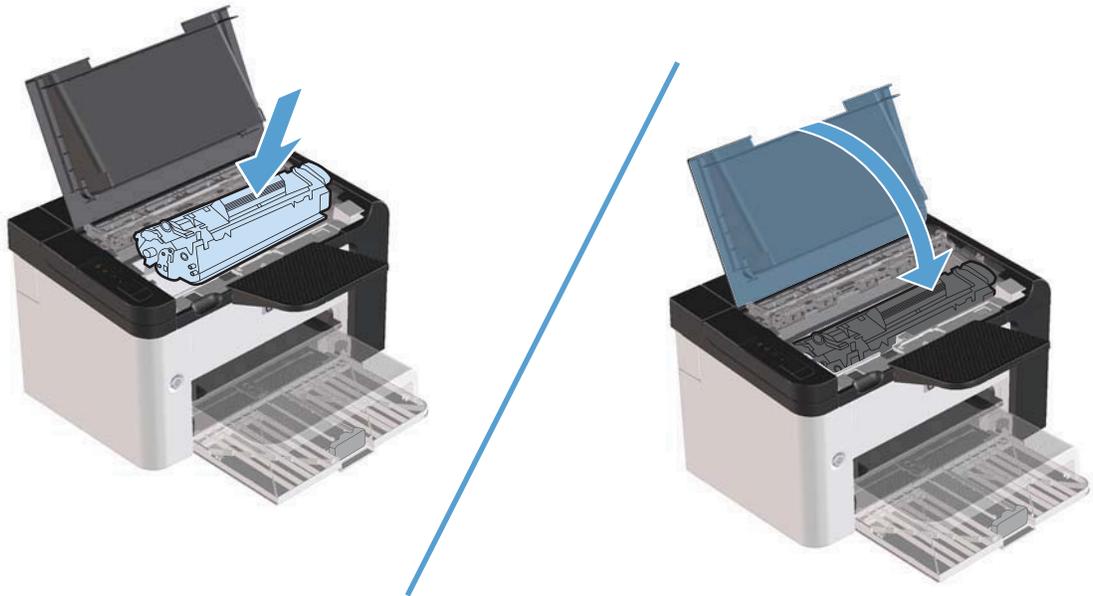
2. In the main-input tray or the priority input slot, remove the media stack.



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



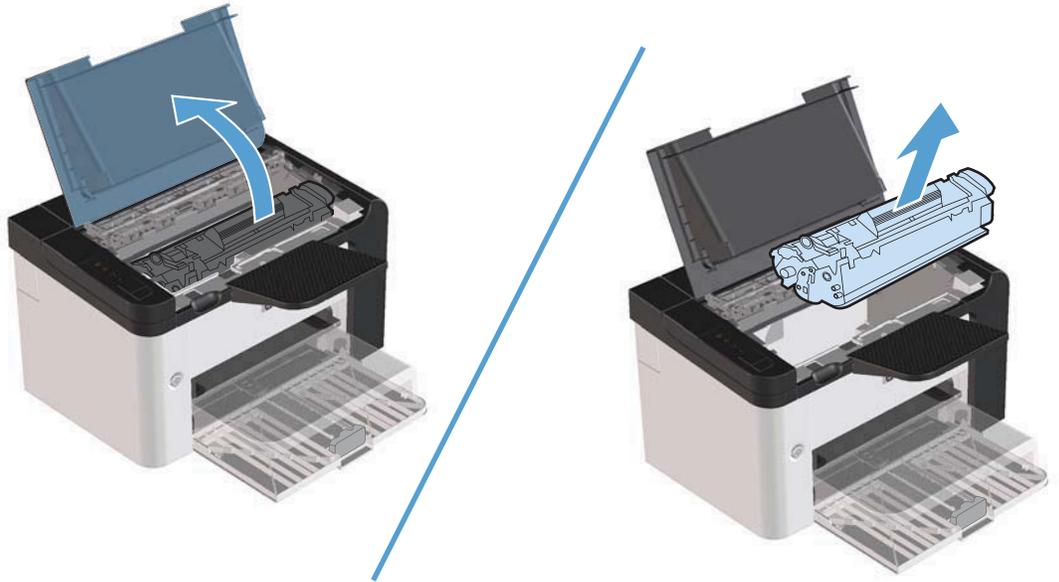
4. Reinstall the print cartridge and close the print-cartridge door.



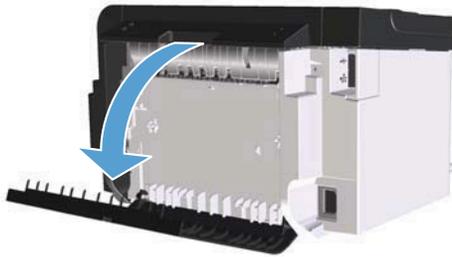
## Clear jams from the duplexer

 **NOTE:** Only the HP LaserJet Professional P1600 printer series has an automatic duplexer.

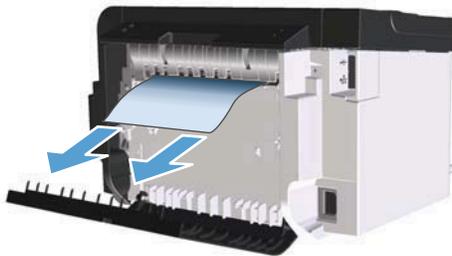
1. Open the print-cartridge door, and then remove the print cartridge.



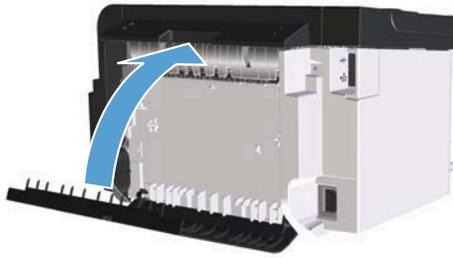
2. Open the rear door.



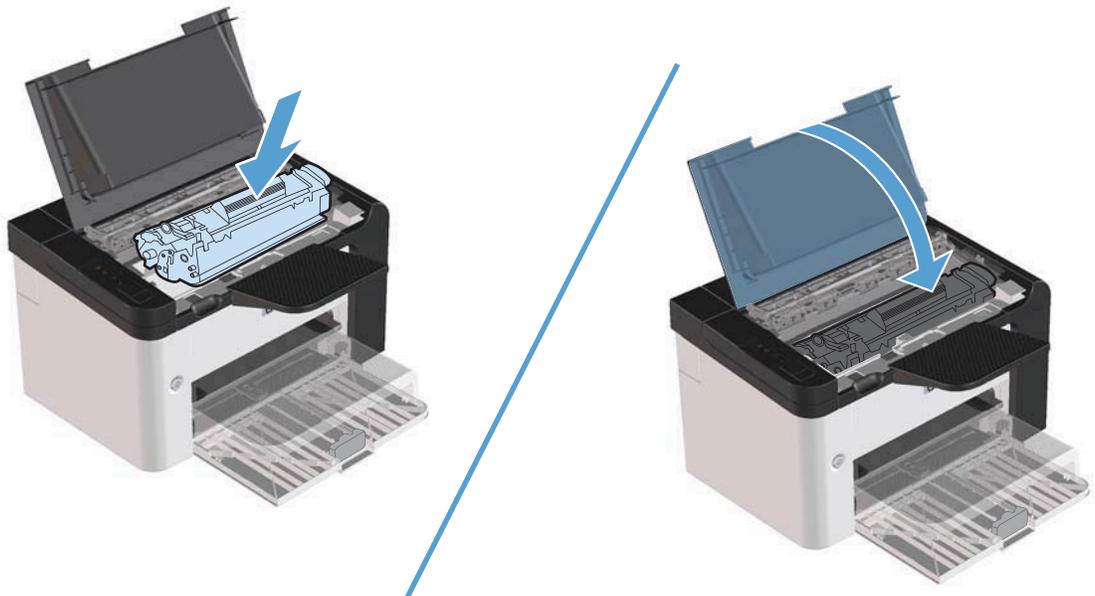
3. Carefully grasp the jammed paper, and slowly pull it out of the product



4. Close the rear door.



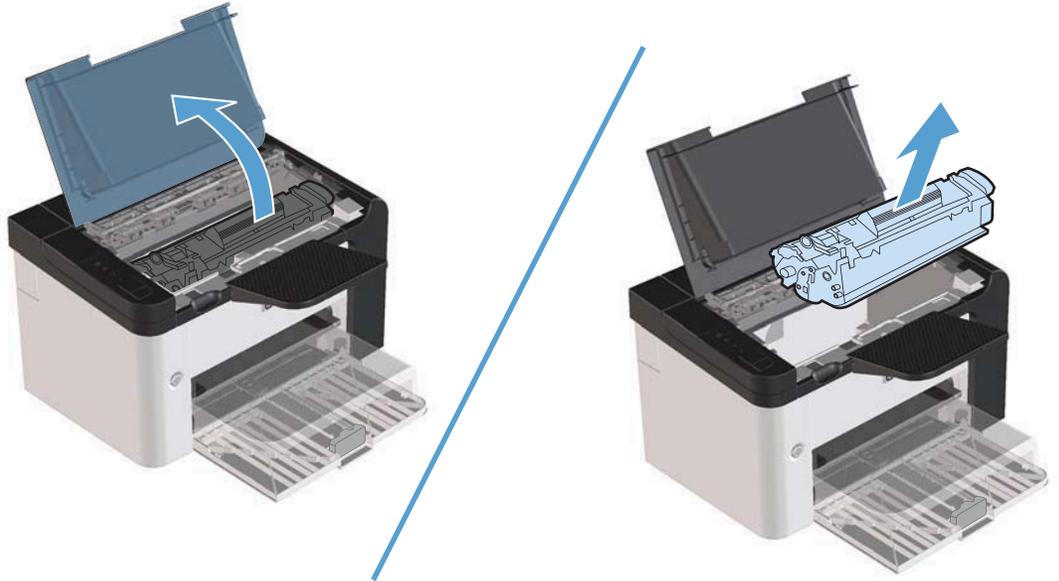
5. Reinstall the print cartridge and close the print-cartridge door.



## Clear jams from the output areas

△ **CAUTION:** Do not use sharp objects, such as tweezers or needle-nose pliers, to remove jams. Damage caused by sharp objects will not be covered by the warranty.

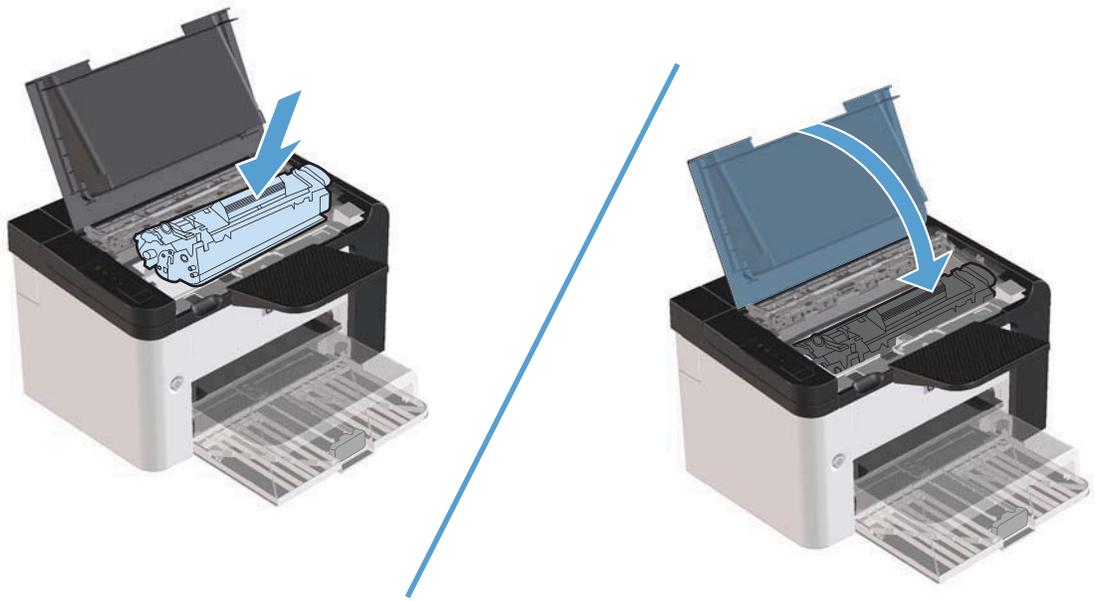
1. Open the print-cartridge door, and then remove the print cartridge.



2. Keep the print cartridge door open, and then with both hands, grasp the side of the jammed media that is most visible (this includes the middle), and carefully pull it free from the product.

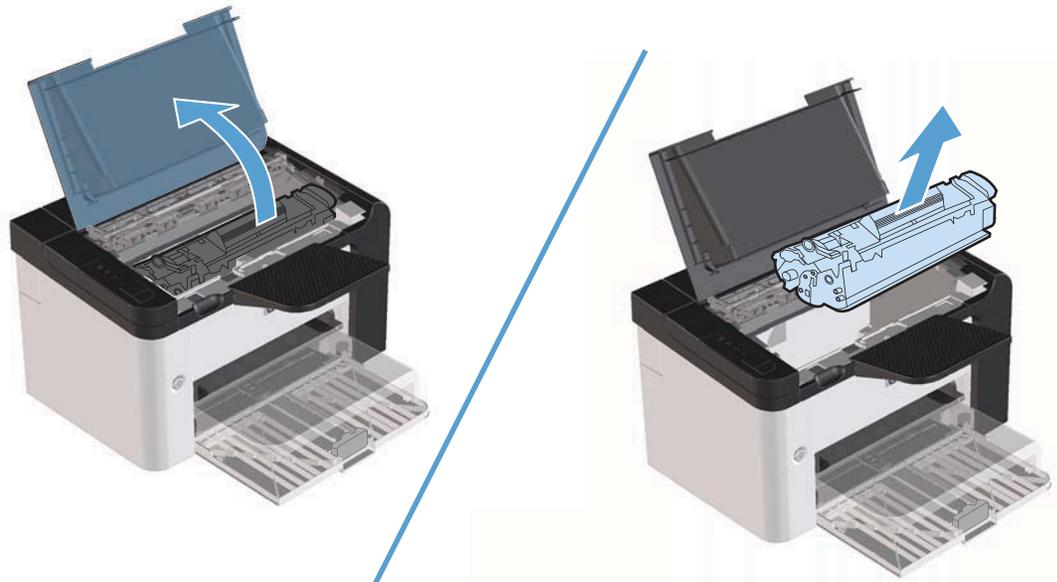


3. Reinstall the print cartridge, and then close the print-cartridge door.



## Clear jams from inside the product

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



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

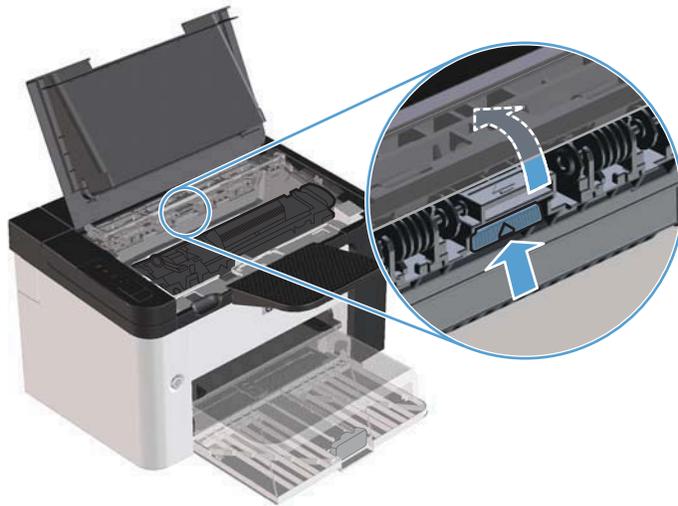
2. If you can see the jammed paper, carefully grasp the jammed paper, and slowly pull it out of the product.

 **NOTE:** If you can not see the jammed paper, go to the next step.

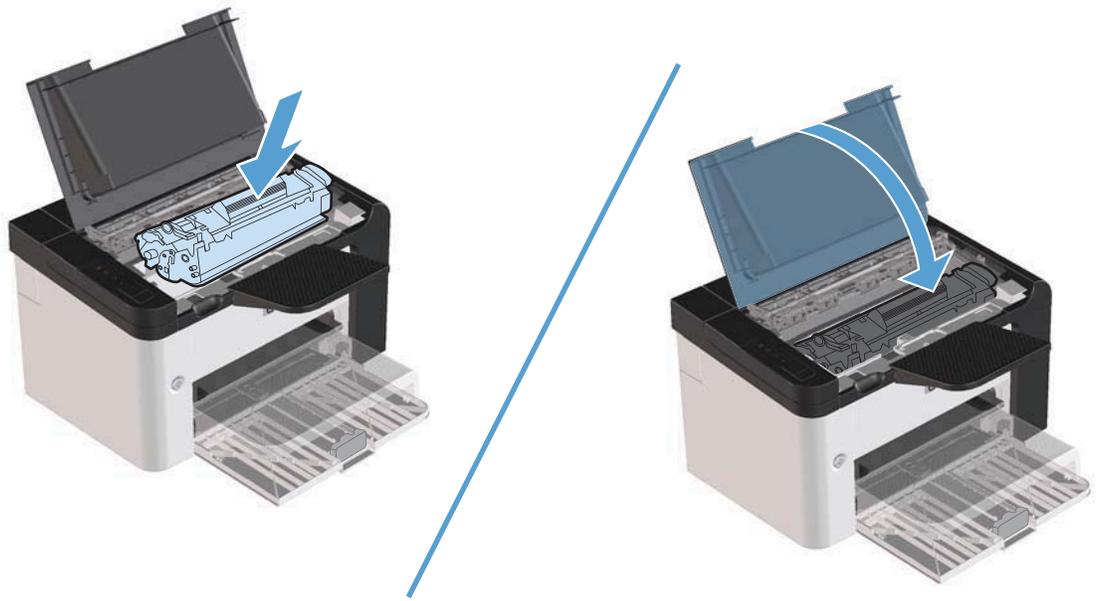
If you successfully removed the jammed paper, skip the next step.



3. Press the green tab and then open the jam-access door, carefully grasp the jammed paper and slowly pull it out of the product.



4. Reinstall the print cartridge, and then close the print-cartridge door.



## Solve repeated jams

- Verify that the input tray is not overfilled. The input tray capacity varies depending on the type of print media that you are using.
- Verify that the media guides are properly adjusted.
- Check that the input tray is securely in place.
- Do not add print media into the input tray while the product is printing.
- Use only HP-recommended media types and sizes.
- Do not fan media prior to loading it in a tray. To loosen the ream, hold it firmly in both hands and twist the media by rotating your hands in the opposite direction.
- Do not let print media stack up in the output bin. The print media type and the amount of toner used affect the output bin capacity.
- Check the power connection. Make sure that the power cord is firmly connected to both the product and the power supply box. Plug the power cord into a grounded power outlet.

## Change the jam recovery setting

When the Jam Recovery feature is turned on, the product reprints any pages that are damaged during a jam.

1. Open the product Properties dialog box.
2. Click the **Device Settings** tab.
3. Click the **Auto** option or the **Off** option under **Jam Recovery**.

## Solve paper-handling problems

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

Problem	Cause	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy, too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, with 4% to 6% moisture content.
Dropouts, jamming, or curl	The paper has been stored incorrectly.	Store paper flat in its moisture-proof wrapping.
	The paper has variability from one side to the other.	Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction	Use long-grain paper.
	The paper varies from side to side.	Turn the paper over.
Jamming, damage to product	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.
Problems with feeding	The paper has ragged edges.	Use high-quality paper that is made for laser printers.
	The paper varies from side to side.	Turn the paper over.
	The paper is too moist, too rough, too heavy or too smooth, has the wrong grain direction, or is of short-grain construction or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, 4% to 6% moisture content. Use long-grain paper.
Print is skewed (crooked).	The media guides might be incorrectly adjusted.	Remove all media from the tray, straighten the stack, and then load the media in the tray again. Adjust the media guides to the width and length of the media that you are using and try printing again.
More than one sheet feeds at one time.	The tray might be overloaded.	Remove some of the media from the tray.
	The media might be wrinkled, folded, or damaged.	Verify that the media is not wrinkled, folded, or damaged. Try printing on media from a new or different package.
The product does not pull media from the tray.	The product might be in manual-feed mode.	Verify that the product is not in manual feed mode, and then print the job again.
	The pickup roller might be dirty or damaged.	Contact HP Customer Care. See <a href="#">Service and support on page 105</a> or the support flyer that came in the box.
	The paper-length adjustment control in the main-input tray is set at a length that is greater than the media size.	Set the paper-length adjustment control to the correct length.

# Solve image-quality problems

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

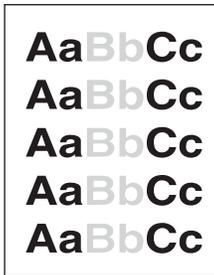
- Use paper that meets HP specifications. See [Paper and print media on page 31](#).
- Clean the product as necessary. See [Clean the paper path on page 69](#).

## Image defect examples

This section provides information about identifying and correcting print defects.

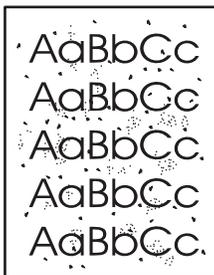
 **NOTE:** If these steps do not correct the problem, contact an HP-authorized dealer or service representative.

### Light print or faded



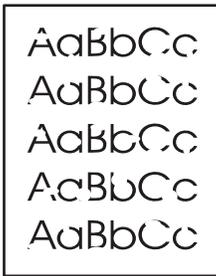
- The print cartridge is nearing end of life.
- Redistribute the toner to extend the life. See [Redistribute toner on page 58](#).
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- If the whole page is light, the print density adjustment is too light or EconoMode might be turned on. Adjust the print density, and disable EconoMode in the printer Properties.

### Toner specks



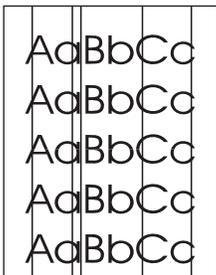
- The media might not meet Hewlett-Packard's media specifications (for example, the media is too moist or too rough).
- The product might need to be cleaned. See [Clean the product on page 68](#).
- The print cartridge might be defective. Install a new genuine HP print cartridge.

## Dropouts



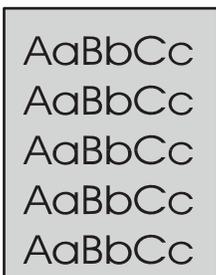
- A single sheet of media might be defective. Try reprinting the job.
- The media moisture content is uneven or the media has moist spots on its surface. Try printing with new media.
- The media lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different type or brand of media.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).
- The print cartridge might be defective. Install a new genuine HP print cartridge.

## Vertical lines



The photosensitive drum inside the print cartridge has probably been scratched. Install a new genuine HP print cartridge.

## Gray background



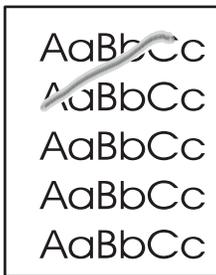
- Change the media to a lighter basis weight.
- Check the product's environment. Very dry (low humidity) conditions can increase the amount of background shading.
- The density setting might be too high. Adjust the density setting.
- Install a new genuine HP print cartridge.

## Toner smear



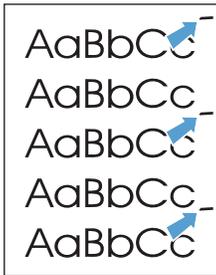
- If toner smears appear on the leading edge of the media, the media guides might be dirty. Wipe the media guides with a dry, lint-free cloth.
- Check the media type and quality.
- The fuser temperature might be too low. In your printer driver, make sure the appropriate media type is selected.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).
- Install a new genuine HP print cartridge.

## Loose toner



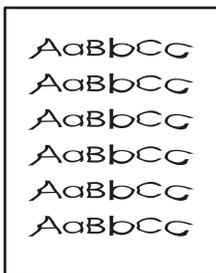
- The fuser temperature might be too low. In your printer driver, make sure the appropriate media type is selected.
- Clean the inside of the product.
- Check the media type and quality.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).
- Plug the printer directly into an AC outlet instead of into a power strip.

## Vertical repetitive defects



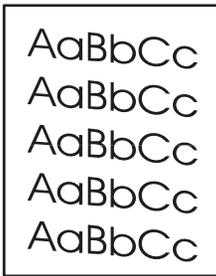
- The print cartridge might be damaged. If a repetitive mark occurs at the same spot on the page, install a new genuine HP print cartridge.
- The internal parts might have toner on them. If the defects occur on the back of the page, the problem will probably correct itself after a few more printed pages.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

## Misformed characters



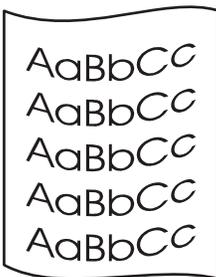
- If characters are improperly formed, producing hollow images, the media stock might be too slick. Try a different media.
- If characters are improperly formed, producing a wavy effect, the product might need service. Print a configuration page. If the characters are improperly formed, contact an HP-authorized dealer or service representative.

## Page skew



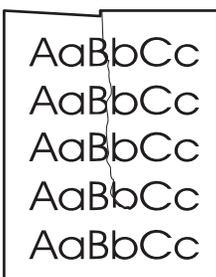
- Make sure that the media is loaded correctly and the media guides are not too tight or too loose against the media stack.
- The input bin might be too full.
- Check the media type and quality.

## Curl or wave



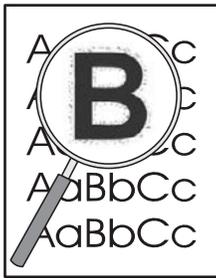
- Check the media type and quality. Both high temperature and high humidity cause media to curl.
- The media might have been in the input tray too long. Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).
- The fuser temperature might be too high. In your printer driver, make sure the appropriate media type is selected. If the problem persists, select a media type that uses a lower fuser temperature, such as transparencies or light media.

## Wrinkles or creases



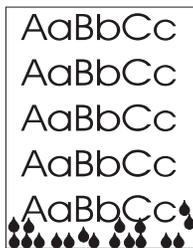
- Make sure that media is loaded properly.
- Check the media type and quality.
- Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).
- For envelopes, this 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 transfer of toner to the media is not optimal (a small amount of toner scatter is normal for laser printing). Try a different media type setting in the printer driver, or use a different media type.
- Turn over the stack of media in the tray.
- Use media that is designed for laser printers.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).

## Moisture



**NOTE:** This product dissipates heat by using convective cooling. The heat and moisture generated by the printing process escape through vents in the product exterior or through the output bin area.

Water droplets from the convective cooling process will not damage the product.

### Verify normal product operation

The release of moisture is a result of normal product operation. However, HP recommends using the following steps to verify that the product is releasing steam and does not have a functional problem.

1. Turn the product off, and then on.
2. Send a print job to the product, and then verify that the product is operating correctly.
3. When printing a job and vapor is visible, immediately reprint the job using the same sheet of paper. There should be either no visible vapor, or much less vapor during the printing process.

### Limit or reduce steam or vapor

- Make sure that the product is placed in a well-ventilated area that meets the environmental specifications in this guide. See [Environmental specifications on page 114](#).
- Do not place the product, or store paper, near an outside entrance where temperature changes can increase humidity.
- Use an unopened ream of paper that has not been exposed to high humidity.
- Store paper in an airtight container, where it will be less likely to absorb moisture.
- Place the product in quiet mode, and send the print job again. See [Quiet mode settings on page 56](#).

## Optimize and improve image quality

### Change print density

You can change the print density setting by from the printer properties dialog box.

1. **Windows XP, Windows Server 2008, and Windows Server 2003 (using the default Start menu view):** Click **Start**, and then click **Printers and Faxes**.

-or-

**Windows XP, Windows Server 2008, and Windows Server 2003 (using the Classic Start menu view):** Click **Start**, and then click **Printers**.

-or-

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

2. In the list of printers, right-click the name of this product, and then click the **Properties** menu item to open the printer properties dialog box.
3. Click the **Device settings** tab, and then move the **Print Density** slider to the desired setting.
4. Click the **Apply** button to accept the setting, and then click the **OK** button to close the dialog box.