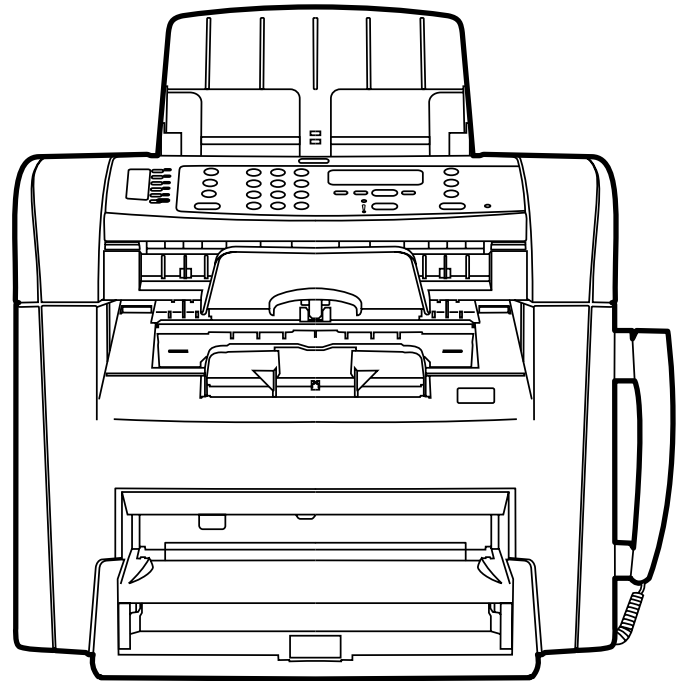


# HP LaserJet M1319 MFP Series

## Service Manual





# HP LaserJet M1319 MFP Series Service Manual



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## Safety information

**WARNING!**

Potential Shock Hazard

Always follow basic safety precautions when using the product to reduce risk of injury from fire or electric shock.

Read and understand all instructions in the user guide.

Observe all warnings and instructions marked on the product.

Use only a grounded electrical outlet when connecting the product to a power source. If you do not know whether the outlet is grounded, check with a qualified electrician.

Do not touch the contacts on the end of any of the sockets on the product. Replace damaged cords immediately.

Unplug the product from wall outlets before cleaning.

Do not install or use the product near water or when you are wet.

Install the product securely on a stable surface.

Install the product in a protected location where no one can step on or trip over the power cord and where the power cord will not be damaged.

If the product does not operate normally, see the online user guide.

Refer all servicing questions to qualified personnel.

Information regarding FCC Class B, Parts 15 and 68 requirements can be found in the user guide.

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# 1 Product information

- [Quick access to product information](#)
- [Product configuration](#)
- [Product walkaround](#)
- [Supported operating systems](#)
- [Connectivity](#)

## Quick access to product information

Use the following Web site to find information about the product.

- [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319)

**Table 1-1 Product guides**

Guide	Description
<i>HP LaserJet M1319 MFP Getting Started Guide</i>	Provides step-by-step instructions for installing and setting up the product.
<i>HP LaserJet M1319 MFP Series User Guide</i>	Provides detailed information for using the product and problem-solving. Available on the product CD or in the Windows <b>Program Group</b> if the software is installed on a computer.
HP ToolboxFX	To check the product status and settings, and to view problem-solving information and online documentation, use the HP ToolboxFX. You must have performed a complete software installation in order to use the HP ToolboxFX. See the user guide for more information about software installation.
Online Help	Provides information about options that are available in the printer drivers. To view a Help file, open the online Help through the printer driver.



# Product configuration

## Configuration table

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### HP LaserJet M1319f MFP

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- Prints letter-size pages at speeds up to 19 pages per minute (ppm) and A4-size pages at speeds up to 18 ppm.
  - Tray 1 holds up to 250 sheets of print media or up to 10 envelopes.
  - The priority input tray holds up to 10 sheets of print media.
  - Manual two-sided (duplex) printing, fax receiving, and copying.
  - Average yield for the standard black print cartridge is 2,000 pages, in accordance with ISO/IEC 19752. Actual yield depends on specific use.
  - Hi-Speed USB 2.0 port and one telephone handset port.
  - V.34 fax modem and 4-megabyte (MB) flash fax-storage memory.
  - Two RJ-11 fax phone cable ports.
  - 32-MB random-access memory (RAM).
  - 30-page automatic document feeder (ADF).
  - Integrated telephone handset.
- 

## Features table

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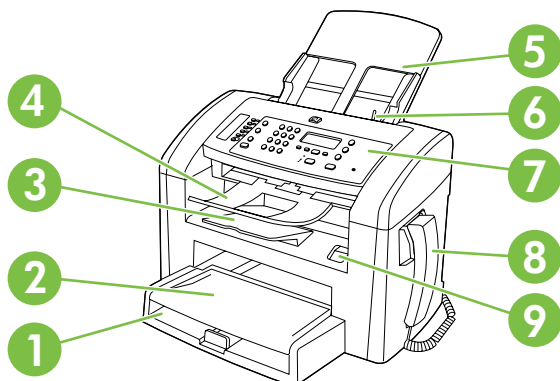
<b>Performance</b>	<ul style="list-style-type: none"><li>● Prints letter-size pages at speeds up to 19 ppm and A4-size pages at speeds up to 18 ppm.</li></ul>
<b>Print quality</b>	<ul style="list-style-type: none"><li>● Prints at 600 dots per inch (dpi) and FastRes 1200 dpi.</li><li>● Includes adjustable settings to optimize print quality.</li></ul>
<b>Fax</b>	<ul style="list-style-type: none"><li>● Full-functionality fax capabilities with a V.34 fax; includes a phone book, fax/tel, and delayed-fax features.</li><li>● 4 MB flash fax-storage memory.</li></ul>

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<b>Copy</b>	<ul style="list-style-type: none"> <li>• Copies at 300 dots per inch (dpi).</li> </ul>
<b>Scan</b>	<ul style="list-style-type: none"> <li>• Provides 600 pixels per inch (ppi) full-color scanning.</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>• Includes 32-megabyte (MB) random-access memory (RAM).</li> </ul>
<b>Paper handling</b>	<ul style="list-style-type: none"> <li>• 30–page ADF.</li> <li>• Priority input tray holds up to 10 pages.</li> <li>• Tray 1 holds up to 250 sheets of print media or 10 envelopes.</li> <li>• Output bin holds up to 100 sheets of print media.</li> </ul>
<b>Printer driver features</b>	<ul style="list-style-type: none"> <li>• FastRes 1200 produces 1200-dots-per-inch (dpi) print quality for fast, high-quality printing of business text and graphics.</li> </ul>
<b>Interface connections</b>	<ul style="list-style-type: none"> <li>• Hi-Speed USB 2.0 port.</li> <li>• Two RJ-11 fax/phone cable ports.</li> </ul>
<b>Economical printing</b>	<ul style="list-style-type: none"> <li>• N-up printing (printing more than one page on a sheet).</li> <li>• Manual two-sided printing, faxing, and copying.</li> <li>• EconoMode setting (uses less toner).</li> </ul>
<b>Supplies</b>	<ul style="list-style-type: none"> <li>• The product ships with a 1,000-page (average yield) starter cartridge. The average yield for replacement cartridges is 2,000 pages, in accordance with ISO/IEC 19752.</li> </ul>
Telephone handset	A integrated telephone handset for making and receiving voice calls at the product.
<b>Accessibility</b>	<ul style="list-style-type: none"> <li>• Online user guide that is compatible with text screen-readers.</li> <li>• Print cartridges can be installed and removed using one hand.</li> <li>• All doors and covers can be opened using one hand.</li> </ul>

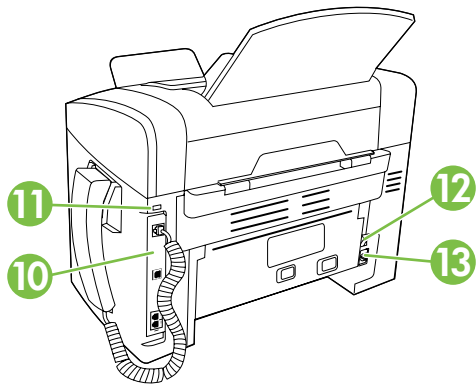
# Product walkaround

## Front view



1	Tray 1
2	Priority input tray
3	Output bin
4	Automatic document feeder (ADF) output bin
5	Automatic document feeder (ADF) input tray
6	ADF media lever
7	Control panel
8	Telephone handset
9	Print-cartridge door latch

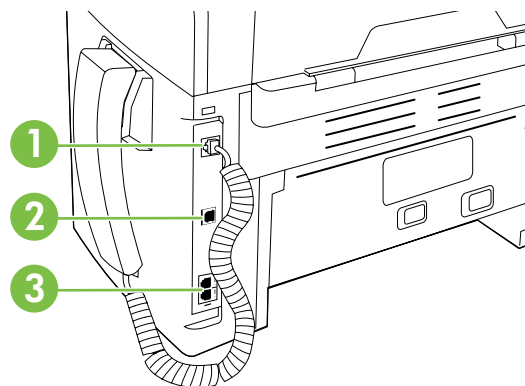
## Back view



10	Interface ports
11	Kensington lock
12	Power switch
13	Power connector

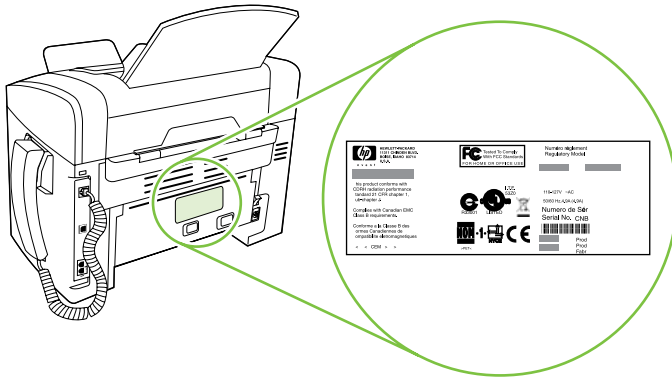
## Interface ports

The product has a Hi-Speed USB 2.0 port, fax and phone ports, and a handset port.



1	Handset port
2	Hi-Speed USB 2.0 port
3	Fax ports

## Location of serial number and model number



# Supported operating systems

The product supports the following operating systems:


## Full software installation

- Windows® XP (32-bit and 64-bit)
- Windows Vista® (32-bit)
- Mac OS X v10.3, v10.4, and later

## Print and scan drivers only

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

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 **NOTE:** For Mac OS X v10.4 and later, PPC and Intel® Core™ Processor Macs are supported.

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## Software included with the product

There are several options for completing a recommended installation. Easy Install will complete the installation with default settings. Advanced Install allows you to select custom settings and choose the components that are installed.

### Easy installation for Windows

- HP drivers
  - Printer driver
  - Scan driver
  - Fax driver
- HP MFP software
  - HP LaserJet Scan program
  - HP Fax Send Fax program
  - HP Toolbox program

HP Toolbox provides links to product status information and Help information, such as the user guide, and tools for product problem-solving.
  - Uninstall program
- Other programs
  - Readiris OCR (not installed with other software; separate installation is required)

### Advanced installation

Advanced installation includes all of the features that are available with the easy installation. The HP Customer Participation program is optional.

## Macintosh software

- HP Product Setup Assistant
- HP Uninstaller
- HP LaserJet software
  - HP Scan
  - HP Director

HP Director is a software program for working with documents. When the document is loaded into the ADF and the computer is connected directly to the product, HP Director appears on the computer screen to initiate faxing, scanning, or changing settings on the product through Macintosh Configure Device.

HP Director also includes the HP product Setup Assistant for setting up fax and print queues.


- Scan to e-mail program

## Supported printer drivers

The most recent drivers are available at [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319). Depending on the configuration of Windows-based computers, the installation program for the product software automatically checks the computer for Internet access to obtain the latest drivers.

## Connectivity

### Connect the product directly to a computer with USB

 **NOTE:** Do not connect the USB cable from the product to the computer until the installer prompts you to do so.

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1. Insert the product CD into your computer. If the software installer does not start, navigate to the setup.exe file on the CD and double-click the file.
2. Follow the installer instructions.
3. Allow the installation process to complete, and then restart the computer.



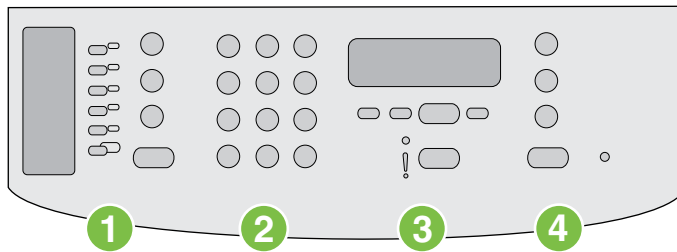


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## 2 Control panel

- [Control panel walkaround](#)
- [Control-panel menus](#)

## Control panel walkaround



- |   |  |
|---|--|
| 1 | <b>Fax controls.</b> Use to change commonly used fax settings.   |
| 2 | <b>Alphanumeric buttons.</b> Use to type data into the product control-panel display and to dial telephone numbers for faxing. |
| 3 | <b>Setup and cancel controls.</b> Use to select menu options, determine the product status, and cancel the current job.        |
| 4 | <b>Copy controls.</b> Use to change commonly used default settings and to start copying.                                       |

# Control-panel menus


## Use the control-panel menus

To gain access to the control-panel menus, use the following steps.

1. Press **Setup**.
2. Use the arrow buttons to navigate the listings.
  - Press **OK** to select the appropriate option.
  - Press **Cancel** to cancel an action or return to the Ready state.

## Control-panel main menus

- Use the **Fax Job status** menu to display a list of all faxes that are waiting to be sent, or that have been received but are waiting to be printed, forwarded, or uploaded to the computer.
- Use the **Fax functions** menu to configure fax functions such as scheduling a delayed fax, cancelling the **Receive to PC** mode, reprinting faxes that were previously printed, or printing faxes that are stored in memory.
- Use the **Copy setup** menu to configure basic copy default settings such as contrast, collation, or the number of copies printed.
- Use the **Reports** menu to print reports that provide information about the product.
- Use the **Fax setup** menu to configure the fax phone book, the outgoing and incoming fax options, and the basic settings for all faxes.
- Use the **System setup** menu to establish basic product settings such as language, print quality, or volume levels.
- Use the **Service** menu to restore default settings, clean the product, and activate special modes that affect print output.

 **NOTE:** To print a detailed list of the entire control-panel menu and its structure, print a menu structure report. See [Information pages on page 26](#).

**Table 2-1 Fax Job status menu**

Menu item	Description
Fax Job status	Displays pending fax jobs, and allows you to cancel pending fax jobs.

**Table 2-2 Fax functions menu**

Menu item	Description
Send fax later	Allows a fax to be sent at a later time and date.
Stop Recv to PC	Disables the <b>Receive to PC</b> setting that allows a computer to upload all current faxes that have not been printed and all future faxes received by the product.
Reprint last	Reprints the faxes that are stored in the product memory.

**Table 2-2 Fax functions menu (continued)**

Menu item	Description
Polling receive	Allows the product to call another fax machine that has polling send enabled.
Clear saved faxes	Clears all faxes in the product memory.

**Table 2-3 Copy setup menu**

Menu item	Sub-menu item	Description
<b>Default Quality</b>	<b>Text</b>	Sets the default copy quality.
	<b>Draft</b>	
	<b>Mixed</b>	
	<b>Film photo</b>	
	<b>Picture</b>	
<b>Def. Light/dark</b>		Sets the default contrast option.
<b>Def. # of copies</b>	(Range: 1-99)	Sets the default number of copies.
<b>Def. Reduce/Enlrg</b>	<b>Original=100%</b>	Sets the default percentage to reduce or enlarge a copied document.
	<b>A4-&gt;Ltr=94%</b>	
	<b>Ltr-&gt;A4=97%</b>	
	<b>Full Page=91%</b>	
	<b>2 pages/sheet</b>	
	<b>4 pages/sheet</b>	
<b>Custom:25-400%</b>		
<b>Restore defaults</b>		Sets all customized copy settings to the factory default values.

**Table 2-4 Reports menu**

Menu Item	Sub-menu item	Sub-menu item	Description
<b>Demo page</b>			Prints a page that demonstrates print quality.

**Table 2-4 Reports menu (continued)**

Menu Item	Sub-menu item	Sub-menu item	Description
Fax Reports	Fax Confirmation	Never	Sets whether or not the product prints a confirmation report after successfully sending or receiving a job.
		Send fax only	
		Receive fax	
	Fax Error report	Every error	Sets whether or not the product prints a report after failing to send or receive a job.
		Send Error	
		Receive Error	
		Never	
	Last Call report		Prints a detailed report of the last fax operation, either sent or received.
	Include 1st page	On	Sets whether or not the product includes a thumbnail image of the first page of the fax on the report.
		Off	
Fax Activity log	Print log now	<b>Print log now:</b> Prints a list of the last 50 faxes that have been sent from or received by this product.	
	Auto Log Print	<b>Auto Log Print:</b> Select <b>On</b> to automatically print a report after every fax job. Select <b>Off</b> to turn off the automatic print feature.	
PhoneBook report		Prints a list of the speed dials that have been set up for this product.	
Block Fax list		Prints a list of phone numbers that are blocked from sending faxes to this product.	
All fax reports		Prints all fax-related reports.	
Menu structure		Prints a control-panel menu layout map and lists the active settings for each menu.	
Config report		Prints a list of all the product settings.	

**Table 2-5 Fax setup menu**

Menu Item	Sub-menu item	Sub-menu item	Description
Fax header	Your fax number		Sets the identifying information that is sent to the receiving product.
	Company name		
Phone Book	Individual setup	Add/Edit	Edits the fax phone book speed-dials and group-dial entries. The product supports up to 120 phone book entries, which can be either individual or group entries.
		Delete	
	Group setup	Add/Edit group	
		Delete group	
		Del. # in group	
Delete all			

**Table 2-5 Fax setup menu (continued)**

<b>Menu Item</b>	<b>Sub-menu item</b>	<b>Sub-menu item</b>	<b>Description</b>	
<b>Fax Send setup</b>	<b>Def. Resolution</b>	<b>Fine</b>	Sets the resolution for sent documents. Higher resolution images have more dots per inch (dpi), so they show more detail. Lower resolution images have fewer dots per inch and show less detail, but the file size is smaller.  Changing the resolution setting might affect the fax speed.	
		<b>Superfine</b>		
		<b>Photo</b>		
		<b>Standard</b>		
		<b>Def. light/dark</b>		Sets the darkness of outgoing faxes.
		<b>Dialing Mode</b>	<b>Tone</b>	Sets whether the product should use tone or pulse dialing.
			<b>Pulse</b>	
		<b>Redial if busy</b>	<b>On</b>	Sets whether or not the product should attempt to redial if the line is busy.
			<b>Off</b>	
		<b>Redial-no answer</b>	<b>On</b>	Sets whether the product should attempt to dial if the recipient fax number does not answer.
			<b>Off</b>	
		<b>Redial Comm Err.</b>	<b>On</b>	Sets whether the product should attempt to redial the recipient fax number if a communication error occurs.
			<b>Off</b>	
	<b>Dial Prefix</b>	<b>On</b>	Specifies a prefix number that must be dialed when sending faxes from the product.	
		<b>Off</b>		
	<b>Detect dial tone</b>	<b>On</b>	Sets whether the product should check for a dial tone before sending a fax.	
		<b>Off</b>		

**Table 2-5 Fax setup menu (continued)**

Menu Item	Sub-menu item	Sub-menu item	Description
Fax Recv. setup	Answer mode	Automatic	Sets the type of answer mode.
		Manual	<ul style="list-style-type: none"> <li>• <b>Automatic:</b> The product automatically answers an incoming call on the configured number of rings.</li> <li>• <b>Manual :</b> The user must press the <b>Start Fax</b> button or use an extension phone to make the product answer the incoming call.</li> </ul>
	Rings to answer	(Range of 1-9)	Sets the number of rings that must occur before the fax modem answers.
	Answer Ring Type	All Rings	Allows a user to have two or three phone numbers on a single line, each with a different ring pattern (only on a phone system with distinctive-ring service). <ul style="list-style-type: none"> <li>• <b>All Rings:</b> The product answers any calls that come through the telephone line.</li> <li>• <b>Single:</b> The product answers any calls that produce a single-ring pattern.</li> <li>• <b>Double:</b> The product answers any calls that produce a double-ring pattern.</li> <li>• <b>Triple:</b> The product answers any calls that produce a triple-ring pattern.</li> <li>• <b>Double&amp;Triple:</b> The product answers any calls that produce a double-ring or triple-ring pattern.</li> </ul>
Single			
Double			
Triple			
Double&Triple			
	Extension Phone	On	When this feature is enabled, the user can press the <b>1-2-3</b> buttons on the extension phone to cause the product to answer an incoming fax call.
		Off	
	Silence Detect	On	Sets whether the product can receive faxes from older model fax machines that do not emit the initial fax tones used during fax transmission.
		Off	
	Fit to page	On	Shrinks faxes that are larger than Letter-size or A4-size so that they can fit onto a Letter-size or A4-size page. If this feature is set to <b>Off</b> , faxes larger than Letter or A4 will print on multiple pages.
		Off	
	Stamp faxes	On	Sets the product to add the date, time, sender's phone number, and page number to each page of the faxes that this product receives.
		Off	
	Forward fax	On	Sets the product to send all received faxes to another fax machine.
		Off	

**Table 2-5 Fax setup menu (continued)**

Menu Item	Sub-menu item	Sub-menu item	Description
	<b>Block faxes</b>	<b>Add entry</b>	Modifies the blocked fax list. The blocked fax list can contain up to 30 numbers. When the product receives a call from one of the blocked fax numbers, it deletes the incoming fax. It also logs the blocked fax and job-accounting information in the activity log.
		<b>Delete entry</b>	
		<b>Clear all</b>	
	<b>Reprint faxes</b>	<b>On</b>	Sets whether all received faxes stored in available memory can be reprinted.
		<b>Off</b>	
	<b>Private receive</b>	<b>On</b>	Setting <b>Private receive</b> to <b>On</b> requires the user to have set a password in product security. After the password is set, the following options are set: <ul style="list-style-type: none"> <li>● <b>Private receive</b> is turned on.</li> <li>● All old faxes are deleted from memory.</li> <li>● <b>Fax forwarding</b> or <b>Receive to PC</b> are set to <b>On</b> and are not allowed to be changed.</li> <li>● All incoming faxes are stored in memory.</li> </ul>
		<b>Off</b>	
<b>All faxes</b>	<b>Error correction</b>	<b>On</b>	Sets whether the product sends or receives the error portion again when a fax transmission error occurs.
		<b>Off</b>	
	<b>Fax Speed</b>	<b>Fast(V.34)</b>	Increases or decreases the allowed fax communication speed.
		<b>Medium(V.17)</b>	
		<b>Slow(V.29)</b>	

**Table 2-6 System setup menu**

Menu Item	Sub-menu item	Sub-menu item	Description
<b>Language</b>	(List of available control-panel display languages.)		Sets the language in which the control panel displays messages and product reports.
<b>Paper setup</b>	<b>Def. paper size</b>	<b>Letter</b>	Sets the size for printing internal reports or for any print job that does not specify a size.
		<b>A4</b>	
		<b>Legal</b>	
	<b>Def. paper type</b>	Lists available media types.	Sets the type for printing internal reports or for any print job that does not specify a type.
<b>Print Density</b>	(Range of 1-5)		Sets how much toner the product should use to darken lines and edges.



**Table 2-6 System setup menu (continued)**

Menu Item	Sub-menu item	Sub-menu item	Description
<b>Volume settings</b>	<b>Alarm volume</b>	<b>Soft</b>	Sets the volume levels for the product.
	<b>Ring volume</b>	<b>Medium</b>	
	<b>Key-press volume</b>	<b>Loud</b>	
	<b>Phoneline volume</b>	<b>Off</b>	
	<b>Handset volume</b>		
<b>Time/Date</b>	(Settings for time format, current time, date format, and current date.)		Sets the time and date setting for the product.

**Table 2-7 Service menu**

Menu item	Sub-menu item	Description
<b>Print T.30 trace</b>	<b>Never</b>	Prints or schedules a report that is used to troubleshoot fax transmission issues.
	<b>Now</b>	
	<b>If error</b>	
	<b>At end of call</b>	
<b>Restore defaults</b>		Sets all customized settings to the factory default values.
<b>Cleaning Mode</b>		Cleans the product when specks or other marks appear on printed output. The cleaning process removes dust and excess toner from the paper path.  When selected, the product prompts you to load plain Letter or A4 paper in tray 1. Press <b>OK</b> to begin the cleaning process. Wait until the process completes. Discard the page that prints.
<b>Less paper curl</b>	<b>On</b>	When printed pages are consistently curled, this option sets the product to a mode that reduces curl.  The default setting is <b>Off</b> .
	<b>Off</b>	
<b>Archive print</b>	<b>On</b>	When printing pages that will be stored for a long time, this option sets the product to a mode that reduces toner smearing and dusting.  The default setting is <b>Off</b> .
	<b>Off</b>	




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## 3 Paper and print media

- [Supported paper and print media sizes](#)
- [Load paper and print media](#)
- [Configure trays](#)

# Supported paper and print media sizes

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

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

**Table 3-1 Supported paper and print media sizes**

Size	Dimensions	Priority input tray	Tray 1
Letter	216 x 279 mm (8.5 x 11 inches)	✓	✓
Legal	216 x 356 mm (8.5 x 14 inches)	✓	✓
A4	210 x 297 mm (8.27 x 11.69 inches)	✓	✓
Executive	184 x 267 mm (7.24 x 10.51 inches)	✓	✓
A3	297 x 420 mm (11.69 x 16.54 inches)		
A5	148 x 210 mm (5.83 x 8.27 inches)	✓	✓
A6	105 x 148 mm (4.13 x 5.83 inches)	✓	✓
B5 (JIS)	182 x 257 mm (7.17 x 10.12 inches)	✓	✓
16k	197 x 273 mm (7.75 x 10.75 inches)	✓	✓
16k	195 x 270 mm (7.7 x 10.6 inches)	✓	✓
16k	184 x 260 mm (7.25 x 10.25 inches)	✓	✓
8.5 x 13	216 x 330 mm (8.5 x 13 inches)	✓	✓
4 x 6 <sup>1</sup>	107 x 152 mm (4 x 6 inches)	✓	✓
5 x 8 <sup>1</sup>	127 x 203 mm (5 x 8 inches)	✓	✓
10 x 15 cm <sup>1</sup>	100 x 150 mm (3.9 x 5.9 inches)	✓	✓
Custom	<b>Priority input tray:</b> Minimum—76 x127 mm (3 x 5 inches); Maximum—216 x 356 mm (8.5 x 14 inches)	✓	✓

<sup>1</sup> These sizes are supported as custom sizes.

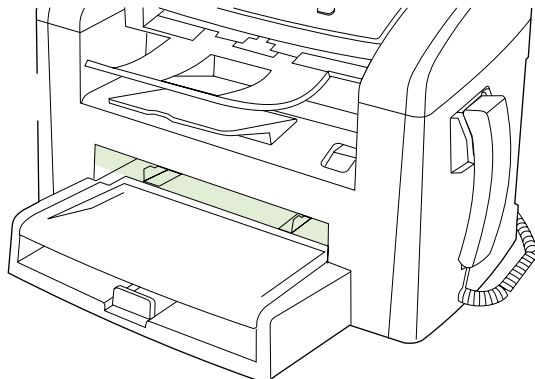
**Table 3-2 Supported envelopes and postcards**

Size	Dimensions	Priority input tray	Tray 1
Envelope #10	105 x 241 mm (4.13 x 9.49 inches)	✓	✓
Envelope DL	110 x 220 mm (4.33 x 8.66 inches)	✓	✓
Envelope C5	162 x 229 mm (6.93 x 9.84 inches)	✓	✓
Envelope B5	176 x 250 mm (6.7 x 9.8 inches)	✓	✓
Envelope Monarch	98 x 191 mm (3.9 x 7.5 inches)	✓	✓
Postcard	100 x 148 mm (3.94 x 5.83 inches)	✓	✓
Double postcard	148 x 200 mm (5.83 x 7.87 inches)	✓	✓

# Load paper and print media

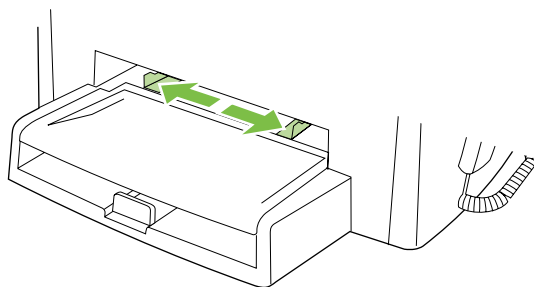
## Priority input tray

The priority input tray is accessed from the front of the product. The product prints from the priority input tray before attempting to print from tray 1.



The priority input tray holds up to 10 sheets of 75 g/m<sup>2</sup> (20 lb) media or one envelope, one transparency, or one card. You can use the priority input tray to print the first page on media different from the remainder of the document.

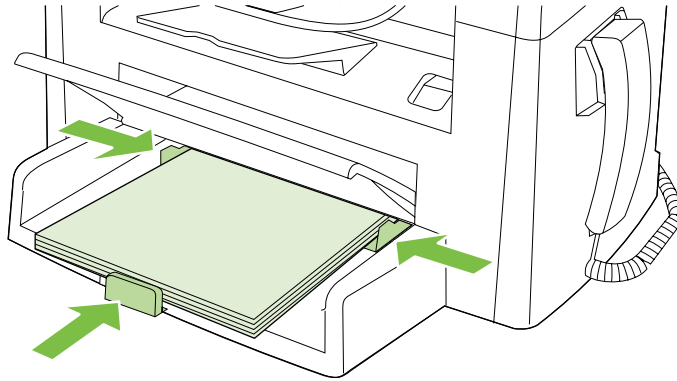
Media guides ensure that the media is correctly fed into the product and that the print is not skewed (crooked on the media). When loading media, adjust the media guides to match the width of the media that you are using.




## Tray 1

Tray 1 holds up to 250 pages of 75 g/m<sup>2</sup> (20 lb) paper, or fewer pages of heavier media (25 mm (0.9 in) or less stack height). Load media with the top forward and the side to be printed on facing down.

Media guides ensure that the media feeds correctly into the product and that the print is not skewed. Tray 1 has side and rear media guides. When loading media, adjust the media guides to match the length and width of the media that you are using.



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 **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. Do not fan the media. This reduces jams by preventing multiple sheets of media from feeding through the product at one time.

---


## Configure trays

To set the default paper size or type from the control panel, complete the following steps.

### Configure trays for copy jobs

1. On the product control panel, press **Setup**.
2. Use the arrow buttons to select **System setup**, and then press **OK**.
3. Use the arrow keys to select **Paper setup**, and then press **OK**.
4. Use the arrow keys to select either **Def. paper size** or **Def. paper type**, and then press **OK**.
5. Use the arrow keys to select a default type or size for the tray, and then press **OK**.

---

 **NOTE:** To configure the product trays for print jobs, use the printer driver.

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## 4 Manage and maintain

- [Information pages](#)
- [Use the HP Toolbox software](#)
- [Manage supplies](#)

# Information pages

Information pages reside within the product memory. These pages help diagnose and solve problems with the product.

 **NOTE:** If the product language was not correctly set during installation, you can set the language manually so the information pages print in one of the supported languages. Change the language by using the **System setup** menu on the control panel. See [Control-panel menus on page 13](#).

Page description	How to print the page
<b>Configuration page</b> Shows the current settings and product properties.	<ol style="list-style-type: none"><li>1. On the product control panel, press <b>Setup</b>.</li><li>2. Use the arrow buttons to select <b>Reports</b>, and then press <b>OK</b>.</li><li>3. Use the arrow buttons to select <b>Config report</b>, and then press <b>OK</b>.</li></ol> <p>A second page also prints. On that page, the <b>Fax Settings</b> section provides details about the product fax settings.</p>
<b>Demo page</b> Contains examples of text and graphics.	<ol style="list-style-type: none"><li>1. On the product control panel, press <b>Setup</b>.</li><li>2. Use the arrow buttons to select <b>Reports</b>, and then press <b>OK</b>.</li><li>3. Use the arrow buttons to select <b>Demo page</b>, and then press <b>OK</b>.</li></ol>
<b>Menu map</b> Shows the control-panel menus and available settings.	<ol style="list-style-type: none"><li>1. On the product control panel, press <b>Setup</b>.</li><li>2. Use the arrow buttons to select <b>Reports</b>, and then press <b>OK</b>.</li><li>3. Use the arrow buttons to select <b>Menu structure</b>, and then press <b>OK</b>.</li></ol>
<b>Fax reports</b>	For information about fax logs and reports, see <a href="#">Fax logs and reports on page 194</a> .



# Use the HP Toolbox software

 **NOTE:** You must perform a full software installation to use the HP Toolbox.


---

HP Toolbox is a software program that you can use for the following tasks:

- Check the product status
- Configure the product settings
- Configure pop-up-alert messages
- View troubleshooting information
- View online documentation

## View HP Toolbox

Open HP Toolbox in one of these ways:

- In the Windows system tray, double-click the product icon (.
- On the Windows **Start** menu, click **Programs** (or **All Programs** in Windows XP), click **HP**, click **HP LaserJet M1319**, and then click **HP Toolbox**.

The HP Toolbox software contains the following sections for each product in the Devices window:

- **Status**
- **Fax**

In addition to these sections, every page contains the following common elements:

- **Shop for Supplies**
- **Other links**

## Status

The **Status** folder contains a link to the **Device Status** main page. Use this page to view product status information. This page indicates product conditions such as a jam or an empty tray. After you correct a product problem, click **Refresh status** to update the product status.

## Fax

Use the HP Toolbox **Fax** tab to perform fax tasks from your computer. The **Fax** tab contains links to the following main pages:

- **Fax Tasks.** Perform such tasks as sending a fax or clearing the fax memory, or set the fax receive mode.
- **Fax Phone Book.** Add, edit, or delete entries in the product phone book.
- **Fax Send Log.** View all of the recent faxes that have been sent from the product.
- **Fax Receive Log.** View all of the recent faxes that have been received by the product.
- **Fax Data Properties.** Manage the space used to store faxes on a computer. These settings apply only if you have chosen to send or receive faxes remotely from a computer.

### Fax tasks

The following three options are available when receiving a fax:

- Print the fax. You can have a message appear on your computer to notify you when the fax was printed.
- Receive the fax on your computer. You can have a message appear on your computer to notify you when the fax arrives. If the fax machine is connected to multiple computers, only one computer can be designated to receive faxes.
- Forward the fax to another fax machine.



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**NOTE:** You must click **Apply** for the changes to take effect.

---


### Fax phone book

Use the HP Toolbox Fax phone book to add and remove individuals or groups on your speed-dial list, import phone books from a variety of sources, and update and maintain your contact list.

- To add an individual contact to your speed-dial list, select the check box next to the speed dial number that you want to specify. Type the contact name in the **Contact name** window. Type the fax number in the **Fax number** window. Click **Add/Edit**.
- To add a group of contacts to your speed-dial list, select the check box next to the speed-dial number that you want to specify. Click **New/Edit Group**. Double-click a contact name from the list on the left to move it to the group list on the right, or select a name on the left and then click the appropriate arrow to move it to the group list on the right. You can also use those two methods to move names from right to left. When you have created a group, type a name in the **Group name** window, and then click **OK**.
- To edit an existing individual speed-dial entry, click anywhere on the row containing the contact name to select it, type changes in the appropriate windows, and then click **Add/Edit**. You can also make changes directly in the phone book directory list by clicking the entry and typing your changes. Be sure that no check marks appear in the **Select** column.
- To edit an existing group-speed-dial entry, click anywhere on the row containing the group name to select it, and then click **New/Edit Group**. Make any required changes, and then click **OK**. You can make changes to the name of the group directly in the phone book directory list by clicking the entry and typing your changes. Be sure that no check marks appear in the **Select** column.

- To delete an entry from the speed-dial list, select the item and then click **Delete**.
- To move speed dial entries, select the entry and then click **Move**, or select **Move** and then specify the entry in the dialog box. Then either select **Next empty row** or specify the number of the row where you want to move the entry.

---

 **NOTE:** If you specify a row that is occupied, the new entry will overwrite the existing entry.

---

- To import contacts from a phone book that exists in Lotus Notes, Outlook, or Outlook Express, click **Import Phone Book**. Select the appropriate software program, navigate to the appropriate file, and then click **OK**. You can also select individual entries from the phone book instead of importing the entire phone book.
- To select all of the entries in your speed-dial list, click the **Select** column heading.

In addition to numerical digits, the following are valid characters for fax numbers:

- (
- )
- +
- -
- \*
- #
- R
- W
- .
- ,
- <space>

---

 **NOTE:** You must click **Apply** for the changes to take effect.

---

## Fax send log

The HP Toolbox Fax send log lists all recently sent faxes and information about them, including the date and time sent, job number, fax number, page count, and the results.

When you send a fax from a computer that is connected to the product, the fax contains a **View** link. Clicking this link opens a new page that provides information about the fax.

Click any column heading in the Fax send log to re-sort the information in that column in ascending or descending order.

The Results column provides the status of the fax. If the fax attempt was unsuccessful, this column provides a description of why the fax was not sent.

---

 **NOTE:** You must click **Apply** for the changes to take effect.

---

## Fax receive log

The HP Toolbox Fax receive log provides a list of all recently received faxes and information about them including the date and time received, job number, fax number, page count, results, and an abbreviated fax image.

When you receive a fax on a computer that is connected to the product, the fax contains a **View** link. Clicking this link opens a new page that provides information about the fax.

Click on any column heading in the Fax receive log to re-sort the information in that column in ascending or descending order.

The Results column provides the status of the fax. If the fax attempt was unsuccessful, this column provides a description of why the fax was not received.

---

 **NOTE:** You must click **Apply** for the changes to take effect.

---

## Other Links

This section contains links that connect you to the Internet. You must have Internet access to use any of these links. If you use a dial-up connection and did not connect when you first opened the HP Toolbox, you must connect before you can visit these Web sites. Connecting might require that you close the HP Toolbox and reopen it.

- **HP Instant Support.** Connects to the HP Instant Support Web site.
- **Product Support.** Connects to the support site for the product where you can search for help with a specific problem.
- **Shop for Supplies.** Order supplies at the HP Web site.
- **Product Registration.** Connects to the HP product registration Web site.


# Manage supplies

## Check and order supplies

You can check the supplies status by using the product control panel, printing a supplies status page, or viewing HP Toolbox. Hewlett-Packard recommends that you place an order for a replacement print cartridge when Low message for a print cartridge first appears. Use a new, authentic HP print cartridge to obtain the following types of supplies information:

- Amount of cartridge life remaining
- Estimated number of pages remaining
- Number of pages printed
- Other supplies information

---

 **NOTE:** You can set HP Toolbox to notify you when supplies are low.

---

## Check supplies status by using the control panel

Check the product control panel, which indicates when a print cartridge is low or empty.

If the supplies levels are low, you can order supplies through a local HP dealer, by telephone, or online. See [Parts on page 203](#) for part numbers. Go to [www.hp.com/go/ljsupplies](http://www.hp.com/go/ljsupplies) to order online.

## Store supplies

Follow these guidelines for storing print cartridges:

- Do not remove the print cartridge from its package until you are ready to use it.
- 
- △ **CAUTION:** To prevent damage, do not expose the print cartridge to light for more than a few minutes.
- 
- See [Specifications on page 245](#) for operating and storage temperature ranges.
  - Store the supply in a horizontal position.
  - Store the supply in a dark, dry location away from heat and magnetic sources.

## HP policy on non-HP supplies

Hewlett-Packard Company cannot recommend the use of non-HP supplies, either new or remanufactured. Because they are not HP products, HP cannot influence their design or control their quality. Service or repairs required as a result of using a non-HP supply will *not* be covered under the warranty.

## HP fraud hotline

Call the HP fraud hotline if the product or HP Toolbox indicates that the print cartridge is not an HP print cartridge and you think that it is genuine. HP will help determine if the product is genuine and take steps to resolve the problem.

The print cartridge might not be a genuine HP one if you notice the following issues:

- You are experiencing a large number of problems with the print cartridge.
- The print cartridge does not look like it usually does (for example, the pull tab or the box is different).

*In the United States*, call toll-free: 1-877-219-3183.

*Outside the United States*, you can call collect. Dial the operator and ask to place a collect call to this telephone number: 1-770-263-4745. If you do not speak English, a representative at the HP fraud hotline who speaks your language will assist you. Or, if someone who speaks your language is not available, a language line interpreter will connect approximately one minute after the beginning of the call. The language line interpreter is a service that will translate between you and the representative for the HP fraud hotline.

## Recycle supplies

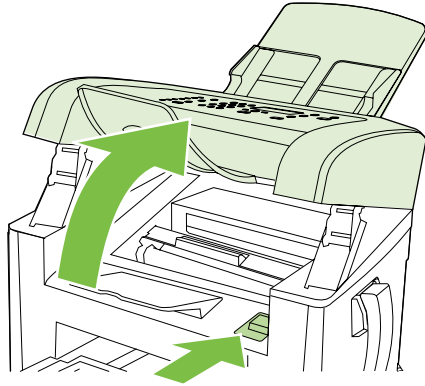
To install a new HP print cartridge, follow the instructions that are included in the box that contains the new supply, or see the getting started guide.

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.

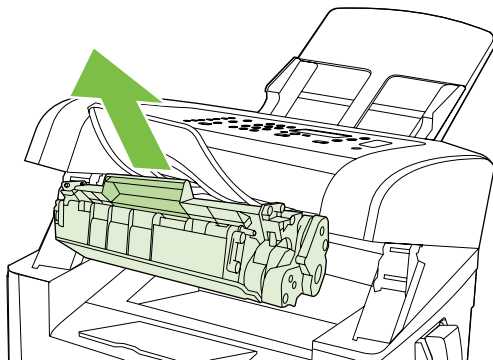
## Replace supplies

### Print cartridge

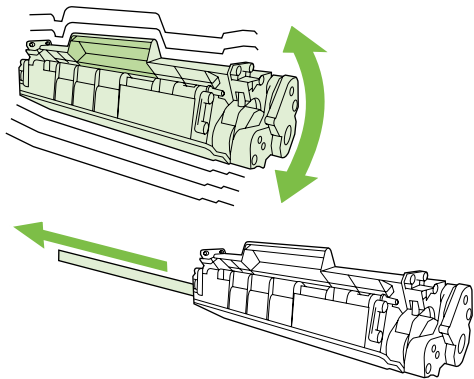
1. Open the print-cartridge door.



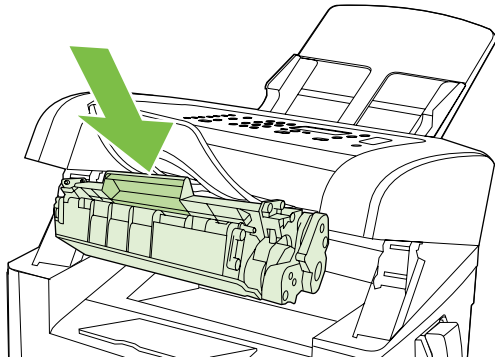
2. Grasp the handle on the print cartridge and then pull the cartridge straight out to remove it. See the recycling information inside the print cartridge box.



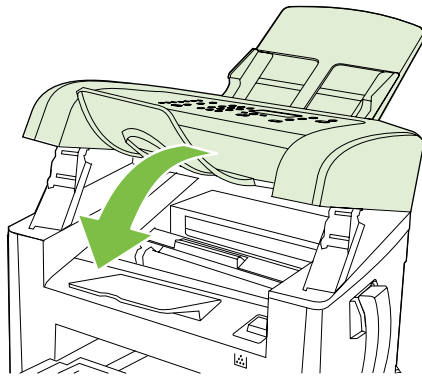
3. Remove the new print cartridge from its packaging, rock the cartridge, remove the orange cover, and then pull the orange tab straight out to remove the sealing tape.



4. Insert the cartridge into the product until it is *firmly* in place.



5. Close the print-cartridge door.



---

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

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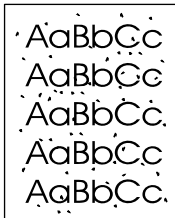


## Clean the product

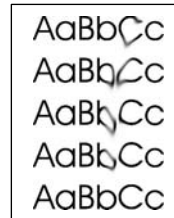
### Clean the paper path

During the printing process, paper, toner, and dust particles can accumulate inside the product. Over time, this buildup can cause print-quality problems such as toner specks or smearing. This product has a cleaning mode that can correct and prevent these types of problems.

Specks



Smearing




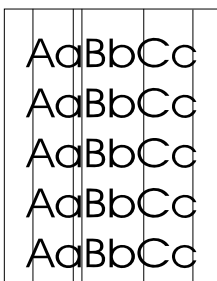
1. Press **Setup**.
2. Use the arrow buttons to find the **Service** menu, and then press **OK**.
3. Use the arrow buttons to find **Cleaning mode**, and then press **OK**.
4. Load plain letter or A4 paper when you are prompted.
5. Press **OK** again to confirm and begin the cleaning process.

A page feeds through the product slowly. Discard the page when the process is completed.

### Clean the glass and white platen

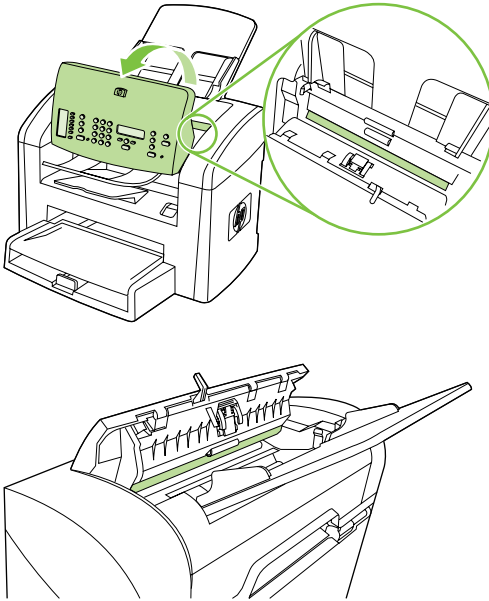
Over time, specks of debris might collect on the glass and white platen, which can affect performance. Use the following procedure to clean the glass and white platen.

 **NOTE:** When vertically aligned black streaks or smears appear on successive copies produced by using the ADF, the glass or white platen needs to be cleaned.



1. Use the power switch to turn off the product, and then unplug the power cord.
2. Tilt the control panel forward.

3. Clean the glass and the white platen with a soft cloth or sponge that has been moistened with nonabrasive glass cleaner.



---

△ **CAUTION:** Do not use abrasives, acetone, benzene, ammonia, ethyl alcohol, or carbon tetrachloride on any part of the product; these can damage the product. Do not place liquids directly on the glass or platen. They might seep and damage the product.

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4. Dry the glass and platen with a chamois or a cellulose sponge to prevent spotting.
5. Plug in the product and then turn it on.

## Clean the exterior

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

## Firmware updates

Firmware updates and installation instructions for this product are available at [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319). Click **Downloads and drivers**, click the operating system, and then select the firmware download for the product.

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# 5 Operational theory

- [Basic operation](#)
- [Formatter system](#)
- [Product base functions](#)
- [HP LaserJet M1319f components](#)
- [Fax functions and operation](#)

# Basic operation

This chapter presents a functional overview of the HP LaserJet M1319f. The following systems are discussed:

- Product functions and operation
  - Engine controller unit (ECU) system/power system
  - Laser/scanner system
  - Image-formation system
  - Paper-feed system (product base) and document-feed system (document scanner)
- Formatter functions
- Scanner and ADF functions and operation
- Fax functions and operation

The product consists of the following components:

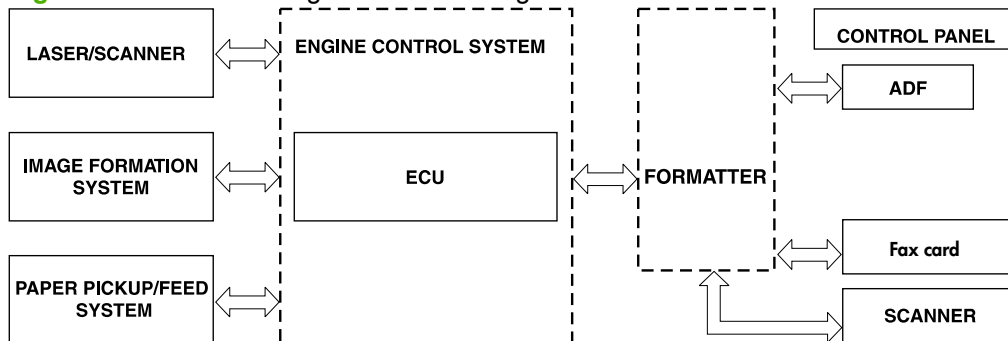
- The scanner and ADF
  - The HP LaserJet M1319f uses a fixed contact image scanner (CIS).
- The product base
- The formatter
- The fax card

Each of these components brings its own characteristic functionality to the product: scanning, printing, and telecommunications, respectively. These components interact to provide copying and faxing capability.

- The document scanner and product base work together to make copies.
- The scanner and fax card work together to send faxes.
- The fax card and product base work together to receive faxes.

The ECU controls the operation sequences of the product. The formatter controls the operation sequences of the fax card and document scanner.

**Figure 5-1** Product configuration block diagram



## Sequence of operation

The microprocessor (CPU) on the ECU controls the operation sequence of the product. The following events take place during normal product operation:

### Sequence of operation, scanner

**Table 5-1 Basic sequence of operation, scanner**

Period	Purpose	Remarks
WAIT. After the product is turned on until <b>Ready</b> appears on the control-panel display.	To perform the firmware initialization.	Tests RAM and establishes and communication with the control panel.
READY. From the end of the WAIT period until the user initiates an action or a fax is received.	To keep the product ready to print, copy, scan, or fax.	
CALIBRATION. From the time the copy, scan, or fax button is pressed until the STAGE period.	To compensate for variables in the scanning system.	This occurs before media moves past the scanner.
STAGE. From the end of the CALIBRATION period until the SCAN period.	To position the leading edge of the original document at the scanning position.	The page feeds partway into the scanner, and then briefly stops.
SCAN. From the end of the brief pause during the STAGE period until the EJECT or following-page STAGE period.	To scan one page of the original document.	Another STAGE period follows if another page of the original document is present in the ADF. Otherwise, the EJECT period begins.
EJECT. From the end of the SCAN period until the original document page is completely ejected from the scanner.	To clear the last page of the original document from the scanner.	The product returns to the READY period at the end of the EJECT period.

## Sequence of operation, product base

**Table 5-2 Basic sequence of operation, product base**

Period	Purpose	Remarks
WAIT After the product is turned on until the end of the initial rotation of the main motor.	To clear the drum surface of potential and to clean the primary charging roller.	Detects whether or not the cartridge is installed.
STBY (Standby) From the end of the WAIT period or the LSTR period until the pickup command is sent from the formatter. Or, from the end of the LSTR period until the product is turned off.	To pause until the product is ready to print.	
INTR (Initial Rotation Period) After the pickup command has been sent from the formatter until the media reaches the top-of-page sensor (PS801).	To stabilize the photosensitive drum sensitivity in preparation for printing. Also to clean the primary charging roller.	
PRINT (Print) From the end of the initial rotation until the primary voltage goes OFF.	To form images on the photosensitive drum based on the VIDEO signals (/VDO, VDO) sent from the formatter and to transfer the toner image onto the media.	
LSTR (Last Rotation Period) After the primary voltage goes OFF until the main motor stops rotating.	To deliver the last page. Also to clean the primary charging roller.	When the pickup command is sent from the video controller, the product enters the INTR period immediately after the end of the LSTR period.

## Formatter system

The formatter coordinates the major systems. It is responsible for the following tasks or actions:

- Formatting and controlling copies
- Receiving and processing print data from the product interface
- Monitoring the control panel and relaying product-status information
- Developing and coordinating data placement and timing with the print engine
- Communicating with the host computer through the bidirectional interface
- Communicating fax data to and from the fax card

The formatter receives print data from the USB interface and converts it into a dot image. The ECU synchronizes the image-formation system with the paper-feed system and signals the formatter to send the print-image data. The formatter sends the print-image data (dots) in the form of a video signal, and the printing process begins.

## Central processing unit

The formatter incorporates an embedded Xtensa processor operating at 240 MHz.

## Fax card

The fax card provides the required safety isolation, signal coupling, and global impedance matching and analog to digital conversion of incoming and outgoing fax data.

## Standard startup process

When the product is unplugged or the power is off, the firmware code is stored on the formatter in two blocks. The first block of code is an executable boot block (about 64K of code). The second block of code is a compressed version of the product control code.

When the product is turned on, the boot block decompresses the product control code and stores it in RAM. Then the product performs a full startup with the control code running from RAM.

## Product startup messages

The LCD display contains different messages depending upon the progress of the boot process.

**Table 5-3 Product startup messages**

Message	Cause	Solution
-blank- [blank display for many seconds after power-on]	Boot-block failure	Use the power switch to turn the power to the product off. Check all wire-harness connectors and FFCs to make sure that they are firmly connected.  Replace the formatter.
<b>Boot Code ##</b>	Control-code failure	Replace the formatter.
<b>Hewlett-Packard</b>	The product is starting up.	Wait for the <b>Ready</b> message.
<b>Ready</b>	Startup is complete and the product is ready for use.	Begin using the product.

## RAM

The product contains two types of random-access memory (RAM):

- One bank of nonvolatile RAM (NVRAM) stores parameters.
- Dynamic random access memory (DRAM) provides temporary storage of the product program code and copy, scan, and print data.

## USB interface

The formatter receives incoming data through its USB interface. This interface provides high-speed, two-way communication between the product and the host, allowing you to change product settings and monitor product status from the host computer.

## Control panel

The control panel consists of the following features:

- Groups of buttons to control fax, copy, and configuration functionality
- A 2-by-16 LCD display that shows status, menus, and messages
- Front-panel status lights

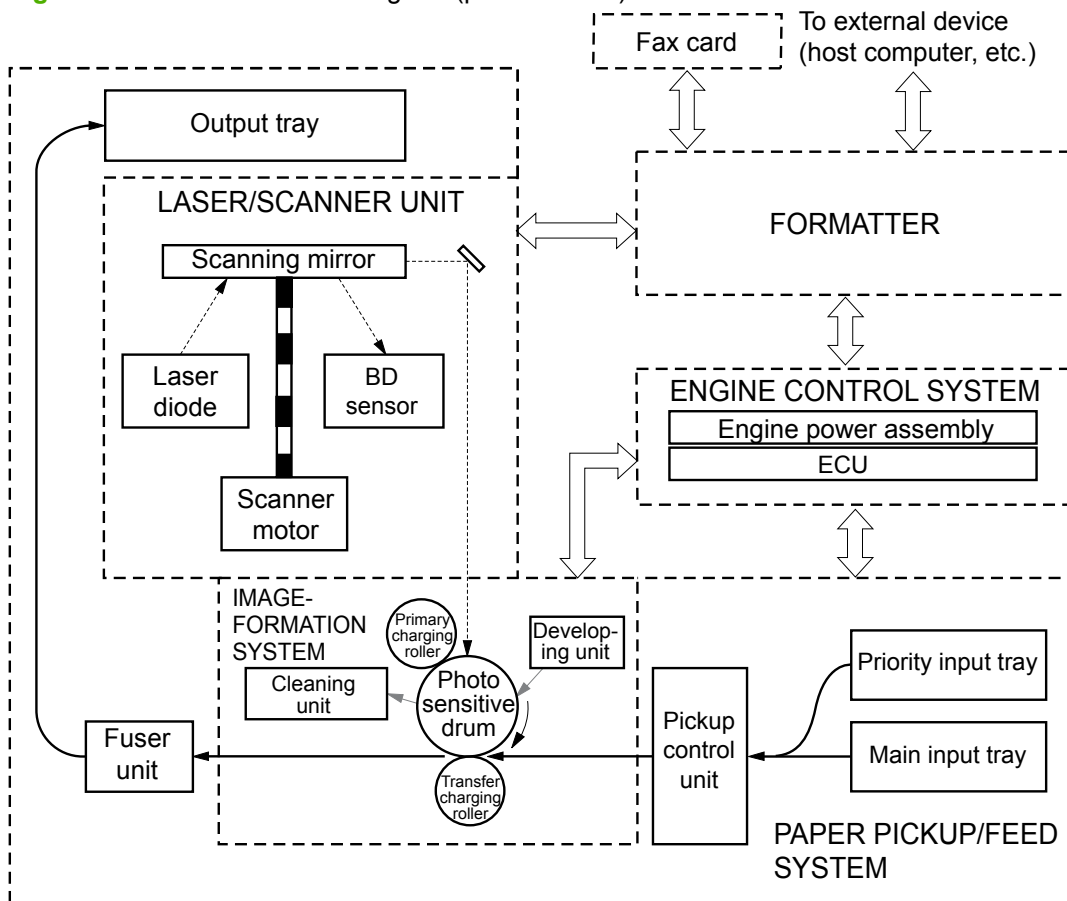


# Product base functions

Printing functions are divided into five groups:


- Engine control
- Formatter
- Fax card
- Image formation
- Laser/scanner
- Pickup and feed

**Figure 5-2** Functional block diagram (product base)



## Engine control system (engine control unit and power-supply assembly)

The engine control system coordinates all print engine activities. The engine control system includes both the engine control unit (ECU) printed circuit assembly (PCA) and the power-supply assembly PCA.

 **NOTE:** In other HP LaserJet products, the ECU and power functions are combined onto one PCA known as the controller PCA or the DC controller PCA. In the HP LaserJet M1319f, the control functions are primarily relegated to the ECU PCA and the power functions to the power-supply assembly PCA.

The ECU controls the following systems and functions:

- **Print-engine control**
  - Paper-motion monitoring and control (printing)
  - Motor
- **Product base laser/scanner**

The power-supply assembly provides the following functions to the power system:

- AC power distribution
- DC power distribution
- Overcurrent/overvoltage protection
- High-voltage power distribution

### Print-engine control system

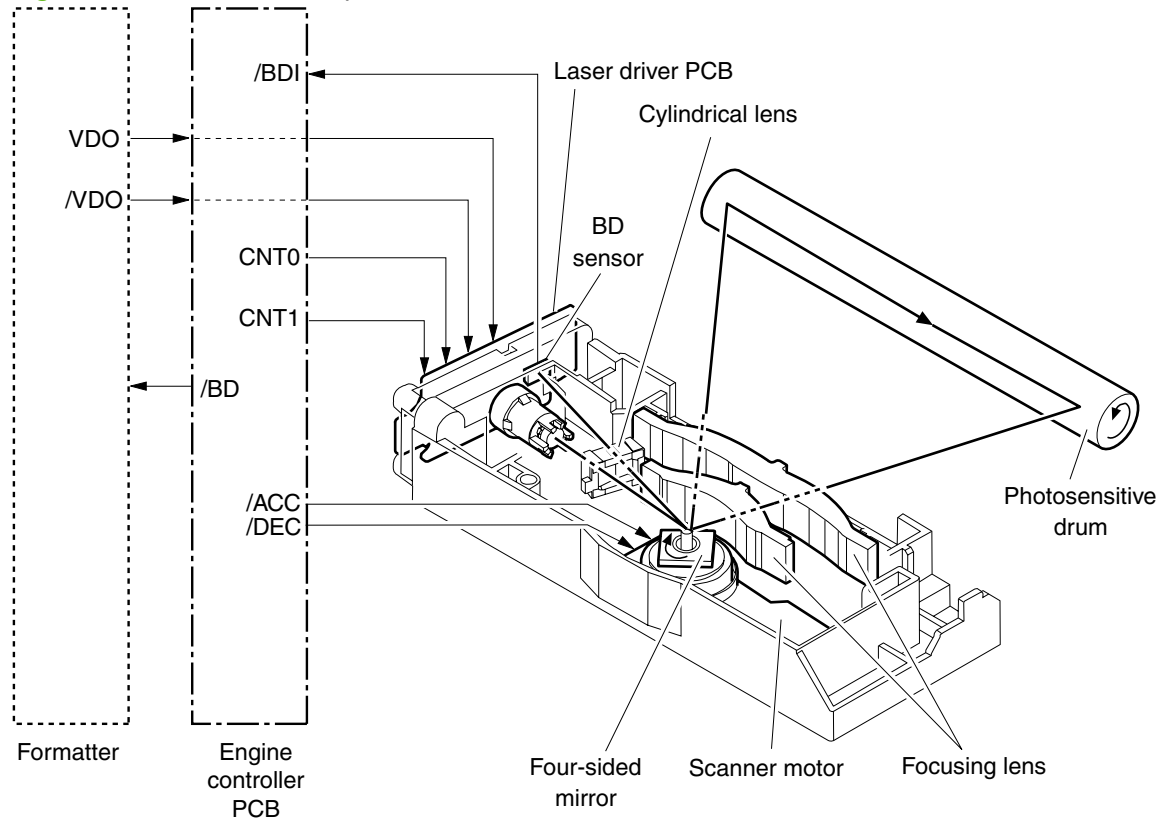
**Paper motion monitoring and control.** The ECU controls paper motion in the product by continuously monitoring the two paper sensors and coordinating the timing with the other print processes.

**Motor.** The ECU controls the motor. The motor drives all of the product paper movement.

## Product base laser/scanner

The ECU sends signals to the laser/scanner assembly to modulate the laser-diode on and off modes and to drive the laser/scanner motor.

**Figure 5-3** Laser/scanner operation



## Power system on the power-supply assembly

The power-supply assembly supplies the AC, DC, and high-voltage power-supply circuits.

### AC power distribution

The AC power circuitry supplies AC voltage whenever the power cord is connected to the AC power source and the power switch is on. The AC voltage is distributed to the DC power-supply circuitry and to the AC driver circuitry, which controls AC voltage to the fuser-assembly heating element.

### DC power distribution

The DC power distribution circuitry, located on the printer (product base) power assembly, distributes +3.3 Vdc, +5 Vdc, and +24 Vdc as shown in [Table 5-4 DC power distribution on page 46](#):

**Table 5-4 DC power distribution**


+3.3 Vdc	ECU, sensors, formatter
+5 Vdc	Control panel
+24 Vdc	Main motor, laser/scanner motor, ADF motor, solenoid, high-voltage power supply, fuser, safety circuit, door switch

### Overcurrent/overvoltage

There are two overvoltage devices in this product:

- Fuse F101 provides overcurrent protection for the fusing-system circuitry.
- Fuse F102 (110 V product models only) provides overcurrent protection to the product DC power-supply circuitry.

You can check or replace the fuses by removing the left cover.

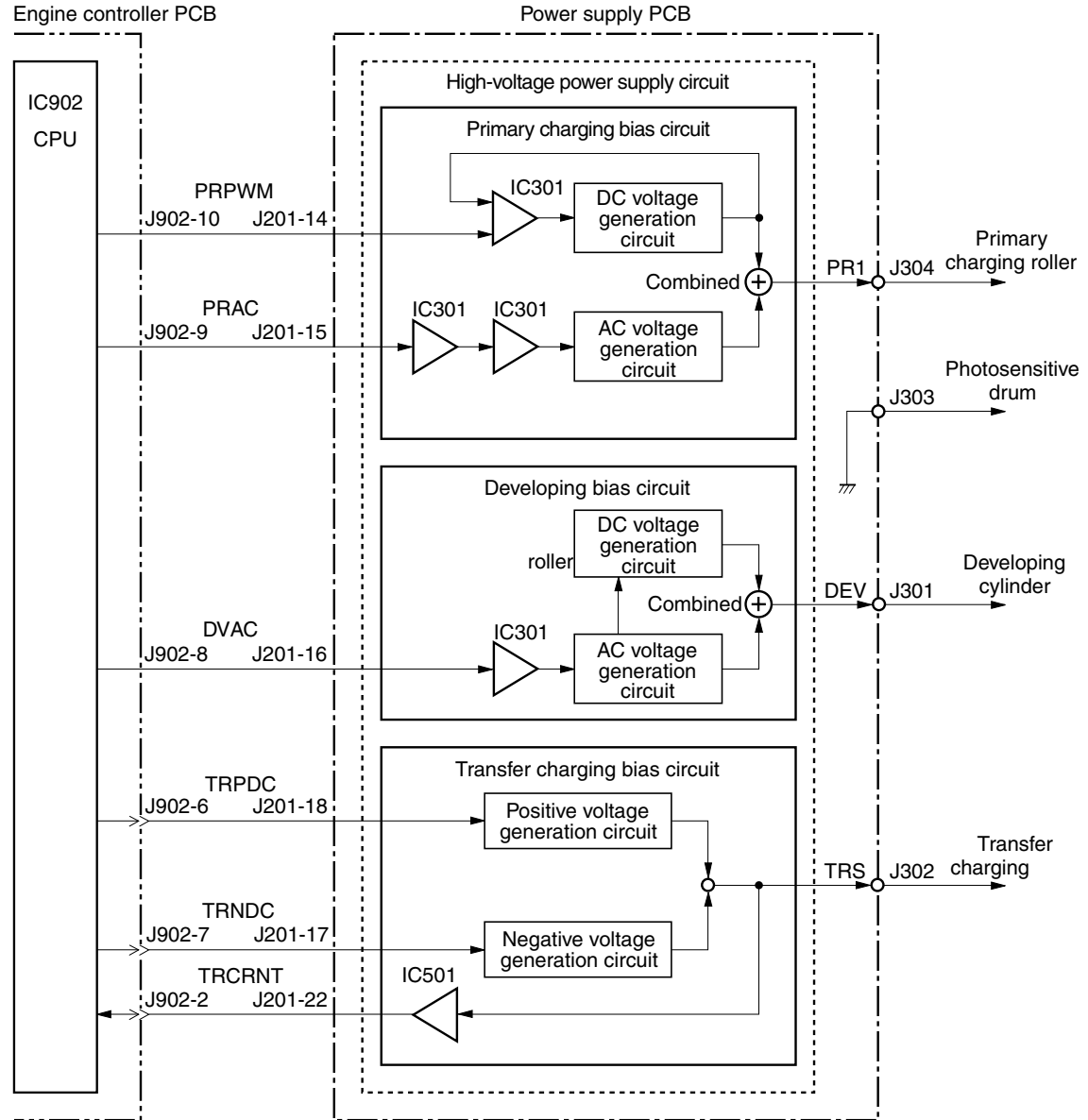
 **NOTE:** If either of these fuses fails, replace the power supply. See [Power supply on page 119](#).

## High-voltage power distribution

The high-voltage power supply applies an overlap of DC and AC voltage to the primary charging roller and to the developing roller. This circuit also applies a positive or negative DC voltage to the transfer roller according to the instructions from the ECU.

This circuit also controls the image density by changing the primary AC voltage and the developing AC bias according to the print-density setting (which is set by using the print driver). High voltage is disabled when the print-cartridge door is open. [Figure 5-4 High-voltage power supply circuit on page 47](#) shows this process.

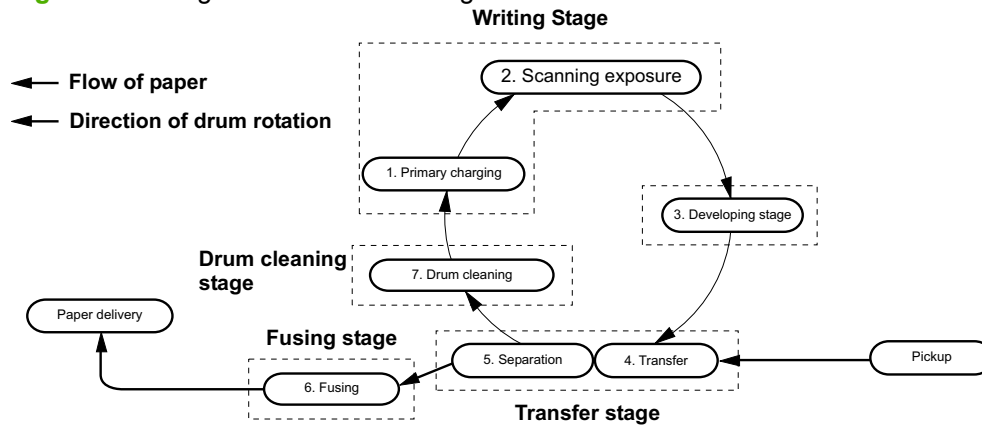
**Figure 5-4** High-voltage power supply circuit



## Image-formation system

Laser printing requires the interaction of several different technologies including electronics, optics, and electrophotographics to provide a printed page. Each process functions independently and must be coordinated with the other product processes. Image formation consists of seven processes:

**Figure 5-5** Image-formation block diagram



## The seven image-formation processes

- 1. Conditioning stage (primary charging)**—This process applies a uniform negative charge to the surface of the drum with the primary charging roller, which is located in the print cartridge. The primary charging roller is coated with conductive rubber. An AC bias is applied to the roller to erase any residual charges from any previous image. In addition, the primary charging roller applies a negative DC bias to create a uniform negative potential on the drum surface. The print density setting modifies the DC voltage.
- 2. Writing stage (scanning exposure)**—During this process, a modulated laser diode projects the beam onto a rotating scanning mirror. As the mirror rotates, the beam reflects off the mirror, first through a set of focusing lenses, then off a mirror, and finally through a slot in the top of the print cartridge, and onto the photosensitive drum. The beam sweeps the drum from left to right, discharging the negative potential wherever the beam strikes the surface. This creates a latent electrostatic image, which later is developed into a visible image. Because the beam sweeps the entire length of the drum while the drum rotates, the entire surface area of the drum can be covered. At the end of each sweep, the beam strikes the beam-detect lens, generating the beam-detect signal (BD signal). The BD signal is sent to the ECU, where it is converted to an electrical signal that is used to synchronize the output of the next scan line of data.
- 3. Developing stage**—During this process, the latent electrostatic image is present on the drum. The toner particles obtain a negative surface charge by rubbing against the developing cylinder, which is connected to a negative DC supply. The negatively charged toner is attracted to the discharged (exposed and grounded) areas of the drum, and it is repelled from the negatively charged (unexposed) areas.
- 4. Transfer stage**—During this process, the toner image on the drum surface is transferred to the media. The transfer roller applies a positive charge to the back of the media, which attracts the negatively charged toner on the drum surface to the media. After separation, the drum is cleaned and conditioned for the next image.
- 5. Separation stage**—During this process, the media separates from the drum. To stabilize the feed system and prevent toner dropouts on the printed image at low temperature and humidity, the static eliminator reduces the charge on the back of the media.

6. **Fusing stage**—During this process, the heat and pressure fuse the toner into the media to produce a permanent image. The media passes between a heated fusing element and a soft pressure roller, which melt the toner and press it into the media.
7. **Drum-cleaning stage**—During this process, the cleaning blade is in contact with the surface of the drum at all times. As the drum rotates during printing, the cleaning blade wipes excess toner off the drum and stores it in the waste toner receptacle.

## Print cartridge

As the focal point of the image-formation system, the print cartridge contains toner and houses the cleaning, conditioning, and developing stages of the process. The print cartridge contains the photosensitive drum, primary charging roller, developing station, toner cavity, and cleaning station. By including these components (which wear, degrade, or are consumed) in the replaceable print cartridge, the need for many service calls is eliminated. The special photosensitive properties of the drum form an image on the drum surface and then transfer the image to media.

- △ **CAUTION:** The print cartridge does not include a light-blocking shutter. Do not expose the drum to light, which can permanently damage the drum. Protect the print cartridge whenever you remove it by covering it with paper.

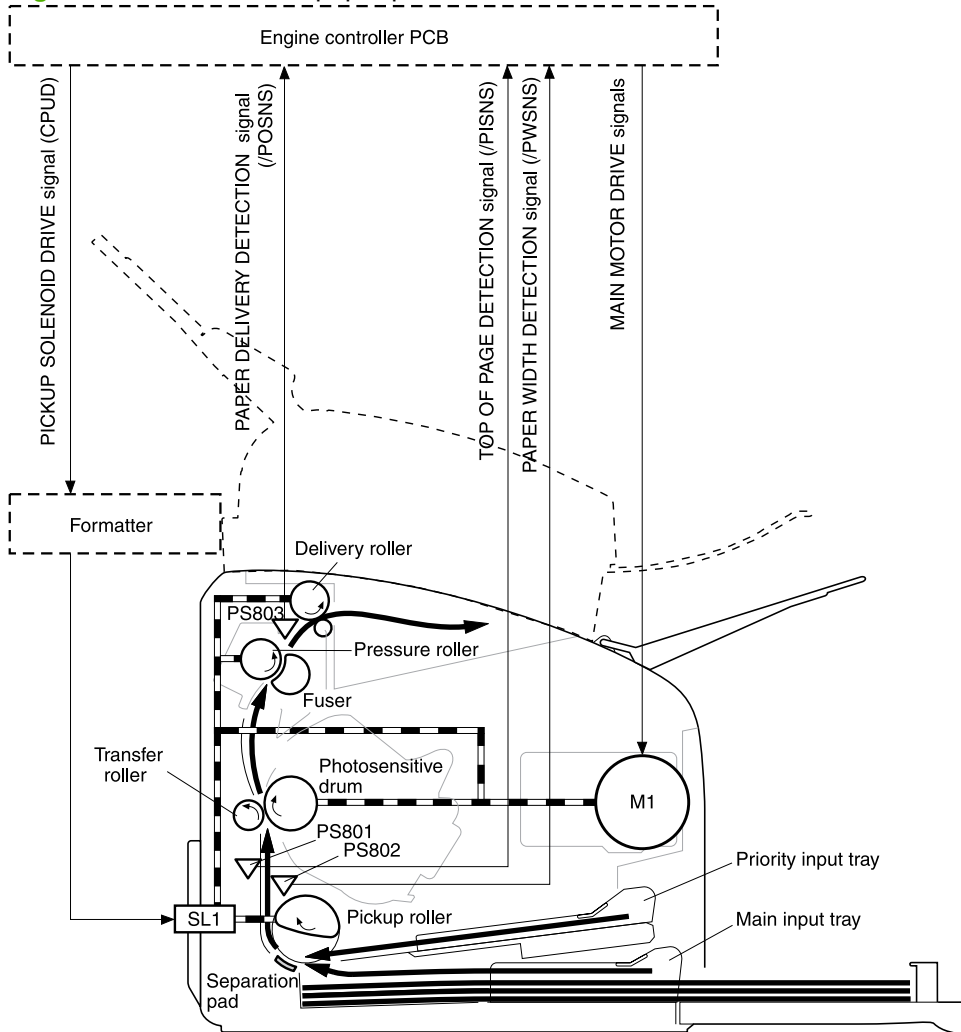
## Product base paper-feed system

The main input tray and the priority input tray merge into one main input area. The product uses the top-of-page sensor (PS801) to sense the paper as it enters the paper-feed path. It does not sense the presence of media before beginning the print cycle. The following steps occur when the product receives a print job.

Step 1	The ECU activates the motor (M1). Paper motion begins when the ECU energizes the pickup solenoid (SL1).
Step 2	The pickup roller rotates once. The lift plate pushes the media against the pickup roller.
Step 3	The friction of the pickup roller grabs the top sheet and advances it to the feed-assembly drive rollers. To ensure that only one sheet is fed, a main separation pad holds the remainder of the stack in place.
Step 4	The feed-assembly drive rollers advance the media to the top-of-page sensor (PS801). This sensor informs the ECU of the exact location of the leading edge of media, so that the image being written on the photosensitive drum can be precisely positioned on the page.
Step 5	The feed assembly drive rollers then advance the media to the transfer area where the toner image on the photosensitive drum is transferred to the media.

- Step 6 After the image is transferred, the media enters the fuser assembly where heat from the fuser and pressure from the pressure roller permanently bond the toner image to media. The paper-delivery sensor (PS803) determines that the media has successfully moved out of the fusing area.
- Step 7 The fuser-assembly exit rollers deliver media to the output bin face-down.

**Figure 5-6** Product base paper path



- PS801: Top-of-page sensor
- PS802: Paper-width sensor
- PS803: Paper-delivery sensor
- M1: Main motor
- SL1: Pickup solenoid



## Jam detection in the product

The top-of-page sensor (PS801) and the paper-delivery sensor (PS803) detect media moving through the product. If a jam is detected, the ECU immediately stops the printing process and the Attention (Cancel) light illuminates on the control panel.

### Conditions of jam detection

- **Pickup delay jam**—Paper does not reach the top-of-page sensor (PS801) within 1.4 seconds after the pickup solenoid (SL1) has been turned on, a second pickup operation is attempted, and paper again does not reach the top-of-page sensor within 1.4 seconds.
- **Pickup stationary jam**—The top-of-page sensor (PS801) does not detect the trailing edge of media within 4.6 seconds of detecting the leading edge.
- **Delivery-delay jam**—The paper-delivery sensor (PS803) does not detect the leading edge of media within 2.1 seconds after the top-of-page sensor (PS801) detects the leading edge.
- **Wrapping jam**—The paper-delivery sensor (PS803) does not detect the trailing edge of the media within 1.5 seconds after the top-of-page sensor (PS801) detects the leading edge and within ten seconds after the paper-delivery sensor (PS803) detects the leading edge.
- **Delivery-stationary jam**—The paper-delivery sensor (PS803) does not detect the leading edge of media within 2.2 seconds after the top-of-page sensor (PS801) detects the trailing edge.
- **Residual-paper jam**—The top-of-page sensor (PS801) or the paper-delivery sensor (PS803) detects media in the initial rotation period.
- **Door-open jam**—The top-of-page sensor (PS801) or the paper-delivery sensor (PS803) detects media while the print-cartridge door is open.

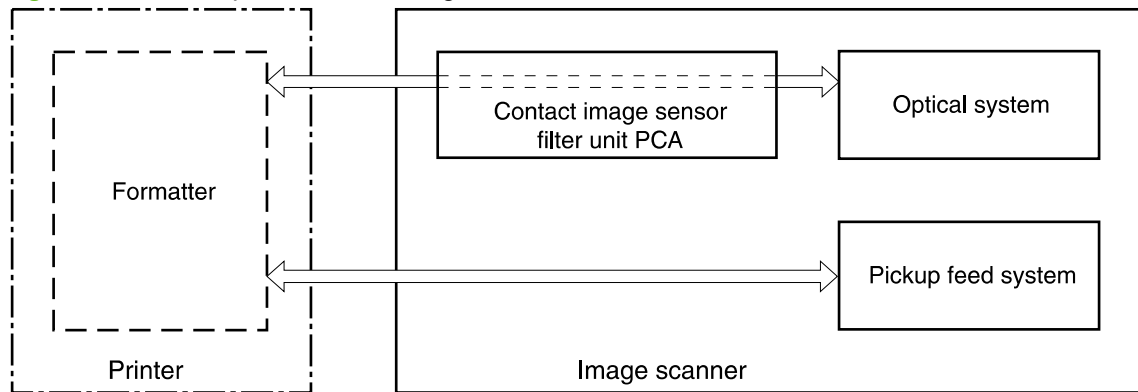
# HP LaserJet M1319f components

This section presents an overview of the relationships between unique major components in the HP LaserJet M1319f. This section describes the optical scanning system and ADF pickup and feed system used in the product. For information about image formation, see [Image-formation system on page 48](#).

## Basic operation

The HP LaserJet M1319f uses a pickup and feed system (document transportation) and an optical scanning system. [Figure 5-7 Basic operation block diagram on page 52](#) shows the relationship of the two systems.

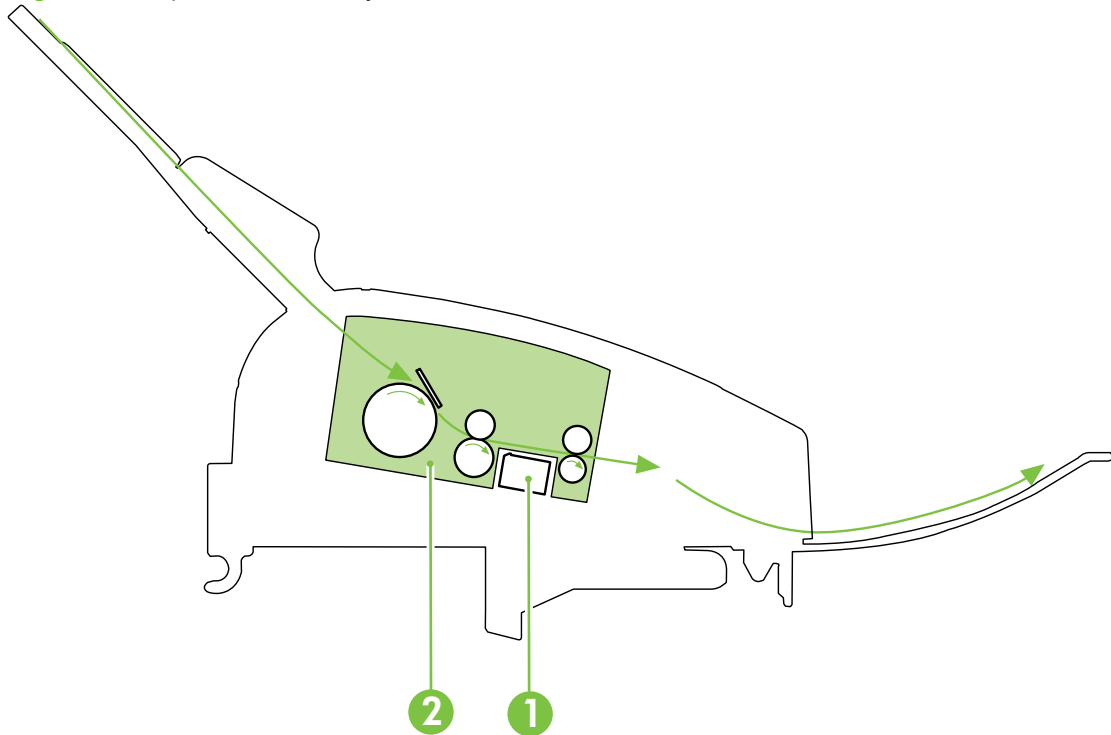
**Figure 5-7** Basic operation block diagram



A document is placed into the ADF tray. When the formatter sends a signal to the optical scanning system, the document is picked up and fed into the optical system through a series of rollers and a separation pad. The separation pad prevents the pickup system from feeding multiple pages if more than one page is loaded in the ADF tray.

As the document passes the contact image scanner, the scanner illuminates the document. The optical scanning system captures and amplifies the reflected light and converts it to a digital signal, and then sends the digital signal to the formatter for image-processing.

**Figure 5-8** Optical and feed systems



1	Optical scanning system
2	ADF pickup-and-feed system

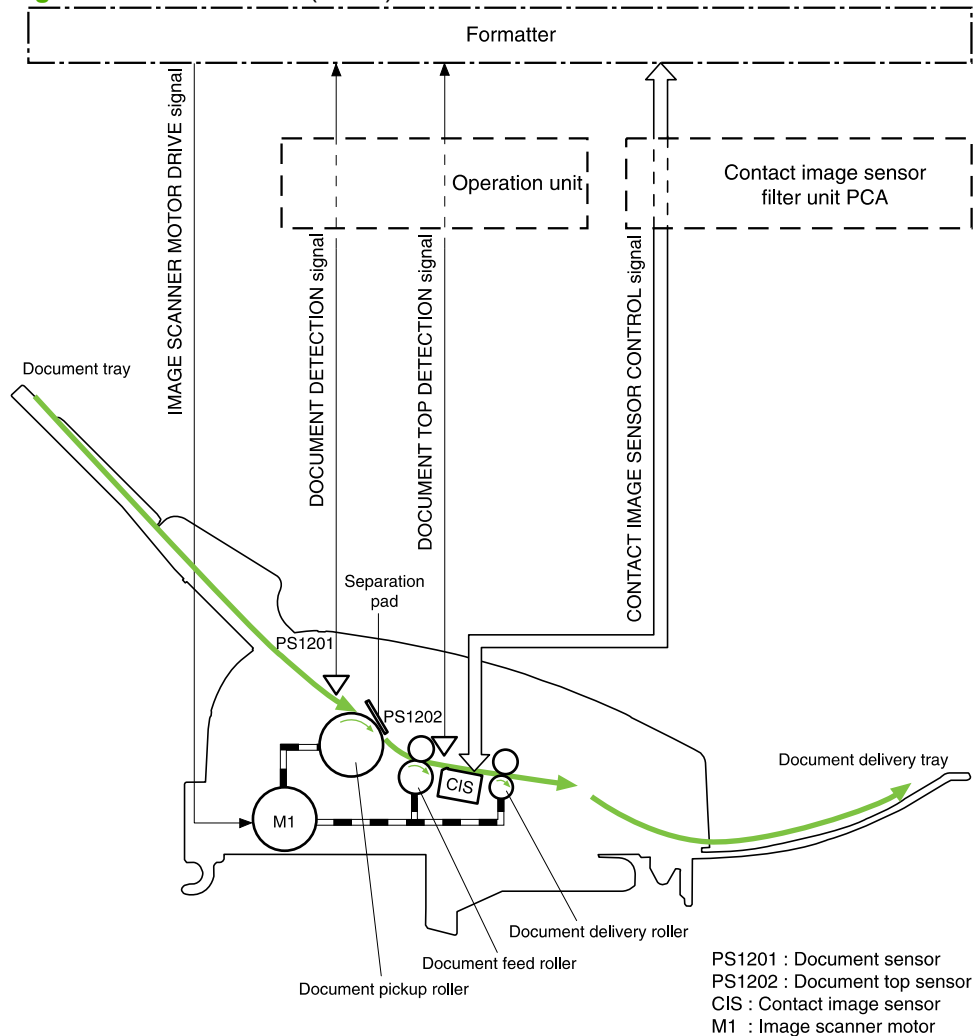
## ADF pickup-and-feed system

The ADF pickup-and-feed system uses a pickup roller, a feed roller, and a delivery roller to transport the document into, through, and out of the optical scanning system. The optical scanning system motor drives the rollers when the formatter signals the optical scanning system that a job to print or copy is present.

The ADF pickup-and-feed path has two sensors. The document sensor (PS1201) detects the presence of a document in the ADF input tray. The document-top sensor (PS202) detects the document in the ADF paper path. The formatter processes the signals from the sensors and the product operates accordingly.

When the contact image scanner motor rotates, it causes the pickup, feed, and delivery rollers to rotate. The ADF document pickup roller pushes a document into the ADF paper path. The separation pad prevents multiple pages from entering the ADF paper path by creating friction against the document and the pickup roller. The document feed roller advances the document past the contact image sensor (CIS). The document delivery roller advances the document out of the ADF paper path to the output area.

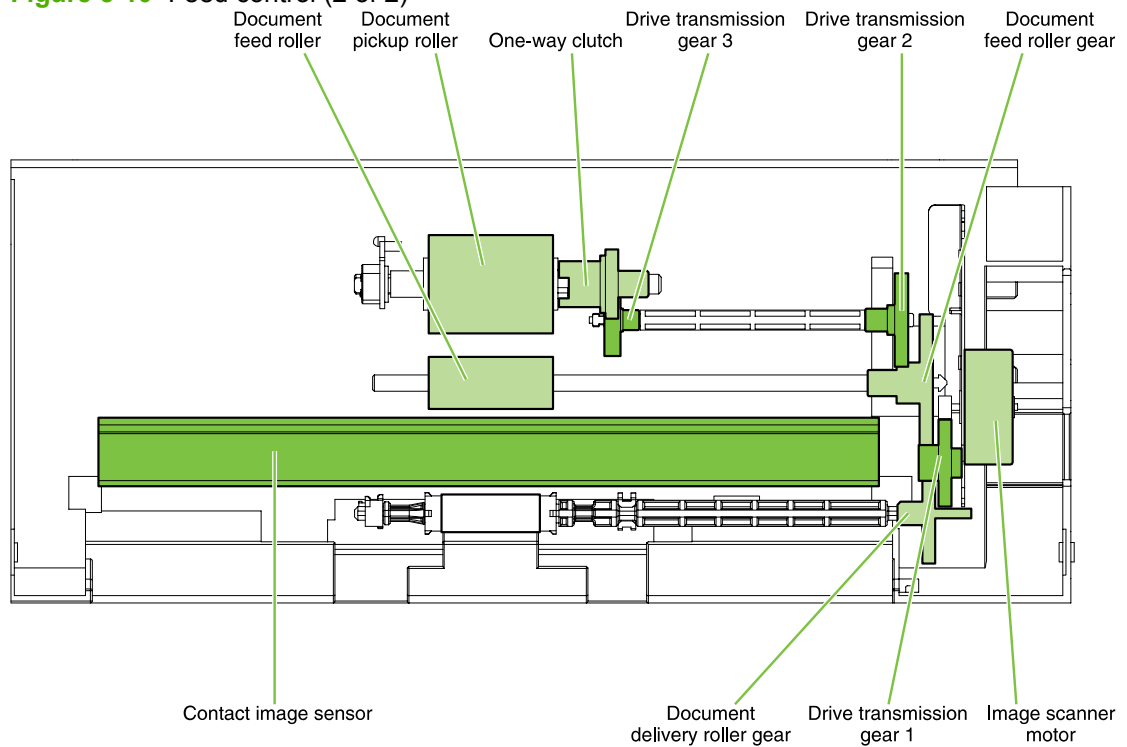
**Figure 5-9** Feed control (1 of 2)



The contact image scanner motor drives the pickup roller, the feed roller, a one-way clutch, and the delivery roller. A gear differential causes the pickup roller to rotate at a slower speed than the feed roller. The slower speed allows for a consistent space between pages of a multiple-page document, which is

necessary for correct document scanning. The one-way clutch varies the rotation speeds of the pickup roller and feed roller to prevent the rollers from tearing the document.

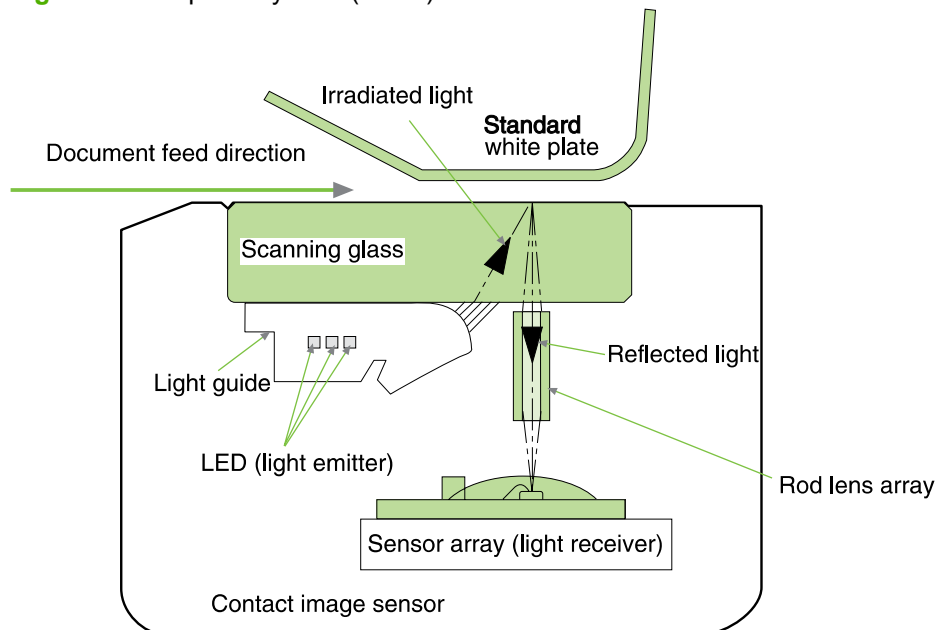
**Figure 5-10** Feed control (2 of 2)



## Optical scanning system

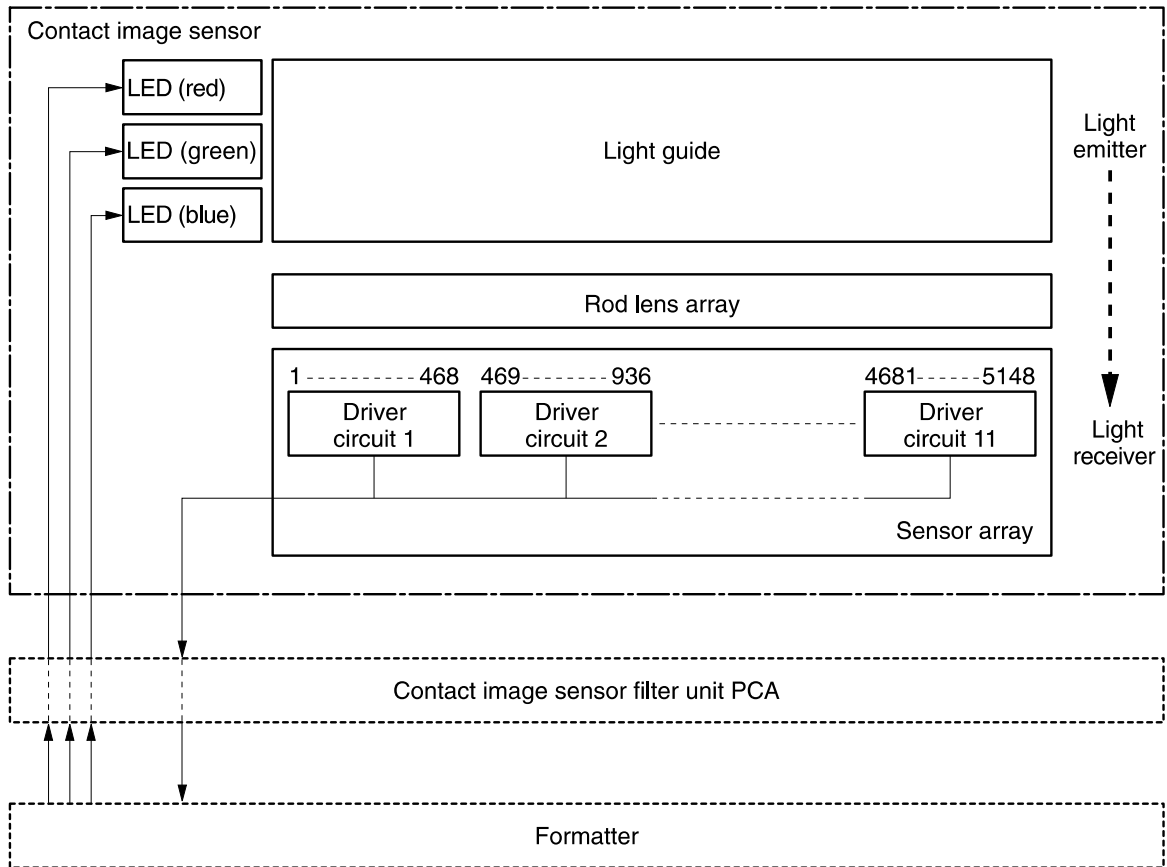
The contact image sensor (CIS) is the major component of the optical scanning system. The CIS consists of three LEDs (red, green, and blue), a light guide, the scanning glass, the rod lens array, and a sensor array. When the CIS scans a document, the CIS does not move. Instead, documents move past the CIS.

**Figure 5-11** Optical system (1 of 2)



The formatter controls the CIS. To begin scanning, the formatter sends a signal to the CIS. The LEDs illuminate and the light passes through the light guide and scanning glass and strikes the document. Light that the document reflects passes back through the scanning glass and rod lens array into the sensor array. The sensor array consists of 5,148 photosensors (468 photosensors on each of 11 sensor driver circuits). The sensor array collects and amplifies the reflected light and converts it into serial data in the driver circuits. The CIS sends the data to the formatter for image formation.

Figure 5-12 Optical system (2 of 2)



# Fax functions and operation

The following sections describe the product fax capabilities.

## Computer and network security features

The product can send and receive fax data over telephone lines that conform to public switch telephone network (PSTN) standards. The secure fax protocols make it impossible for computer viruses to be transferred from the telephone line to a computer or network.

The following product features prevent virus transmission:

- No direct connection exists between the fax line and any devices that are connected to the USB or Ethernet ports.
- The internal firmware cannot be modified through the fax connection.
- All fax communications go through the fax subsystem, which does not use Internet data-exchange protocols.

## PSTN operation

The PSTN operates through a central office (CO) that generates a constant voltage on the TIP and RING wires (48 V, usually). A device goes off-hook by connecting impedance (such as 600 ohms for the U.S.) across the TIP and RING so that a line current can flow. The CO can detect this current and can send impulses like dial tones. The product generates more signaling tones, such as dialing digits, to tell the CO how to connect the call. The product can also detect tones, such as a busy tone from the CO, that tell it how to behave.

When the call is finally connected, the CO behaves like a piece of wire connecting the sender and receiver. This is the period during which all of the fax signaling and data transfer occurs. When a call is completed, the circuit opens again and the line-current flow ceases, removing the CO connection from both the sender and the receiver.

On most phone systems, the TIP and RING wires appear on pins 3 and 4 of the RJ-11 modular jack (the one on the fax card). These two wires do not have to be polarized because all the equipment works with either TIP or RING on pin 3 and the other wire on pin 4. This means that cables of either polarity can interconnect and will still work.

These basic functions of PSTN operation are assumed in the design of the fax subsystem. The product generates and detects the signaling tones, currents, and data signals that are required to transmit and receive faxes on the PSTN.




## Receive faxes when you hear fax tones

In general, incoming faxes to the product are automatically received. However, if other devices are connected to the same phone line, the product might not be set to answer automatically.

If the product is connected to a phone line that receives both fax and phone calls, and you hear fax tones when you answer the extension phone, receive the fax in one of two ways:

- If you are near the product, press **Start Fax** on the control panel.
- Press 1-2-3 in sequence on the extension phone keypad, listen for fax transmission sounds, and then hang up.

---


 **NOTE:** In order for the 1-2-3 sequence to work, the extension phone setting must be set to **On** in the **Fax setup** menu.

---

## Distinctive ring function

Distinctive ring is a service that a telephone company provides. The distinctive ring service allows three phone numbers to be assigned to one phone line. Each phone number has a distinctive ring. The first phone number has a single ring, the second phone number has a double ring, and the third phone number has a triple ring.

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 **NOTE:** The product has not been tested with all of the distinctive-ring services that telephone companies provide in all countries/regions. HP does not guarantee that the distinctive-ring function will operate correctly in all countries/regions. Contact the local phone service provider for assistance.

---

### Set up the distinctive ring function

1. Press **Setup**. Use the arrow buttons to select **Fax setup** and then press **OK**.
2. Use the arrow buttons to select **Fax recv. setup** and then press **OK**.
3. Use the arrow buttons to select **Answer ring type** and then press **OK**.
4. Use the arrow buttons to select one of the following options:

---

 **NOTE:** The control-panel display might show some of these options as abbreviations.

---

- **All rings** (default setting)
- **Single**
- **Double**
- **Triple**
- **DoubleTriple**

Press **OK** to save the setting.

## Fax by using Voice over IP services

Voice over IP (VoIP) services provide normal telephone service, including long distance service through a broadband Internet connection. These services use packets to break up the voice signal on a telephone line and transmit it digitally to the receiver, where the packets are reassembled. The VoIP services are often not compatible with fax machines. The VoIP provider must state the service supports fax over IP services.

Because the installation process varies, the VoIP service provider will have to assist in installing the product fax component.

Although a fax might work on a VoIP network, it can fail when the following events occur:

- Internet traffic becomes heavy and packets are lost.
- Latency (the time it takes for a packet to travel from its point of origin to its point of destination) becomes excessive.

If you experience problems using the fax feature on a VoIP network, ensure that all of the product cables and settings are correct. Configuring the **Fax Speed** setting to **Medium(V.17)** or **Slow(V.29)** can also improve your ability to send a fax over a VoIP network.

If you continue to have problems faxing, contact your VoIP provider.

## The fax subsystem

The formatter, fax card, firmware, and software all contribute to the fax functionality. The designs of the formatter and fax card, along with parameters in the firmware, determine the majority of the regulatory requirements for telephony on the product.

The fax subsystem is designed to support V.34 fax transmission, lower speeds (such as V.17 fax), and older fax machines.

## Fax card in the fax subsystem

Two versions of the fax card are used in the HP LaserJet M1319 MFP. One is used in the North American, South American, and Asian countries/regions. The other is used primarily in European countries/regions.

The fax card contains the modem chipset (DSP and CODEC) that controls the basic fax functions of tone generation and detection, along with channel control for fax transmissions. The CODEC and its associated circuitry act as the third-generation silicon DAA to achieve compliance world-wide regulatory requirements.

The only difference between the two versions is that each version is compliant with the 2/4-wire phone jack system from the respective country/region.

## Safety isolation

The most important function of the fax card is the safety isolation between the high-voltage, transient-prone environment of the telephone network (TNV [telephone network voltage]) and the low-voltage analog and digital circuitry of the formatter (SELV [secondary extra-low voltage]). This safety isolation provides both customer safety and product reliability in the telecom environment.

Any signals that cross the isolation barrier do so magnetically. The breakdown voltage rating of barrier-critical components is greater than 5 kV.

## Safety-protection circuitry

In addition to the safety barrier, the fax card protects against over-voltage and over-current events.

Telephone over-voltage events can be either differential mode or common mode. The event can be transient in nature (a lightning-induced surge or ESD) or continuous (a power line crossed with a phone line). The fax card protection circuitry provides margin against combinations of over-voltage and over-current events.

Common mode protection is provided by the selection of high-voltage-barrier critical components (capacitor and relay). The safety barrier of the fax card PCB traces and the clearance between the fax card and surrounding components also contribute to common mode protection.

A voltage suppressor (a crowbar-type SIDACTOR) provides differential protection. This device becomes low impedance at approximately 300 V differential, and crowbars to a low voltage.

All communications cross the isolation barrier magnetically. The breakdown voltage rating of barrier-critical components is greater than 5 kV.

## Data path

TIP and RING are the two-wire paths for all signals from the telephone network. All signaling and data information comes across them, including fax tones and fax data.

The telephone network uses DC current to determine the hook state of the telephone, so line current must be present during a call. The silicon DAA provides a DC holding circuit to keep the line current constant during a fax call.

The silicon DAA converts the analog signal to a digital signal for DSP processing, and also converts the digital signal to an analog signal for transmitting data through a telephone line.

The magnetically coupled signals that cross the isolation barrier go either through a capacitor or a relay.

The DSP in the fax card communicates with the ASIC in the formatter using the high-speed serial interface.

## Hook state

Another magnetically coupled signal is the control signal that disconnects the downstream telephone devices (such as a phone or answering machine). A control signal originating on the DSP can change the relay state, causing the auxiliary jack (downstream jack) to be disconnected from the telephone circuit.

The product takes control of calls that it recognizes as fax calls. If the product does not directly pick up the call, it monitors incoming calls for the fax tone or for the user to direct it to receive a fax. This idle mode is also called eavesdropping. This mode is active when the product is on-hook but current exists in the downstream phone line because another device is off-hook. During eavesdropping, the receive circuit is enabled but has a different gain from the current that is generated during normal fax transmissions.

The product does not take control of the line unless it detects a fax tone or the user causes it to connect manually. This feature allows the user to make voice calls from a phone that is connected to the product without being cut off if a fax is not being received.

## Downstream device detection

The line voltage monitoring module of the silicon DAA can detect the line state as well as the downstream device. It tells DSP via DIB that an active device (telephone, modem, or answering machine) is connected to the auxiliary port on the product (the right side of the RJ-11 jack). The DSP uses the signal to ensure that the product does not go off-hook (and disconnect a downstream call) until it has been authorized to do so (by a manual fax start or the detection of the appropriate tones).

## Hook switch control

In the silicon DAA the CODEC controls the hook switch directly. The CODEC is activated when it receives commands from the DSP. When the circuit is drawing DC current from the central office it is considered off-hook. When no DC current flows the state is considered on-hook.

## Ring detect

Ring detect is performed by the line voltage monitoring module of the silicon DAA, and is a combination of voltage levels and cadence (time on and time off). Both must be present to detect a valid ring. The CODEC works with DSP as well as the firmware to determine if an incoming signal is an answerable ring.

## Line current control

The DC current from the CO needs to have a path to flow from TIP to RING. The DC impedance emulation line modulator and DC terminations modules in the silicon DAA act as a DC holding circuit, and works with the firmware to achieve the voltage-current characteristic between TIP and RING. The impedance (the current-voltage characteristic) changes corresponding to certain special events, such as pulse dialing or when the product goes on-hook.

## Billing- (metering-) tone filters

Switzerland and Germany provide high-frequency AC signals on the phone line in order to bill customers.

A filter in a special fax cable (for certain countries/regions), can filter these signals. Because these billings signals are not used in the U.S., these filters are not present in the U.S. fax cable.

To obtain a special fax cable, contact your local telephone service provider.

## Fax page storage in flash memory

Fax pages are the electronic images of the document page. They can be created in any of three ways: scanned to be sent to another fax machine, generated to be sent by the computer, or received from a fax machine to be printed.

The product stores all fax pages in flash memory automatically. After these pages are written into flash memory, they are stored until the pages are sent to another fax machine, printed on the product, transmitted to the computer, or erased by the user.

These pages are stored in flash memory, which is the nonvolatile memory that can be repeatedly read from, written to, and erased. The product has 8 MB of flash memory, of which 5 MB is available for fax storage. The remaining 3 MB is used for Phonebook and code storage. Adding RAM does not affect the fax page storage because the product does not use RAM for storing fax pages.

## Stored fax pages

The user can reprint stored fax receive pages in case of errors. For a fax send, the product will re-send the fax in case of errors. The product will re-send stored fax pages after a busy signal, comm error, no answer, or power failure. Other fax devices store fax pages in either normal RAM or short-term RAM. Normal RAM immediately loses its data when power is lost, while short-term RAM loses its data about 60 minutes after power failure. Flash memory maintains its data for years without any applied power.

## Advantages of flash memory storage

Fax pages that are stored in flash memory are persistent. They are not lost as a result of a power failure, no matter how long the power is off. Users can reprint faxes in case the print cartridge runs out of toner or the product experiences other errors while printing faxes.

The product also has scan-ahead functionality that makes use of flash memory. Scan-ahead automatically scans pages into flash memory before a fax job is sent. This allows the sender to pick up the original document immediately after it is scanned, eliminating the need to wait until the fax is transmission is complete.

Because fax pages are stored in flash memory rather than RAM, more RAM is available to handle larger and more complicated copy and print jobs.



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## 6 Removal and replacement

- [Removal and replacement strategy](#)
- [Service approach](#)
- [Scanner assemblies](#)
- [Product base](#)

## Removal and replacement strategy

This chapter documents the removal and replacement of field replaceable units (FRUs) only.

Replacing FRUs is generally the reverse of removal. Occasionally, notes and tips are included to provide directions for difficult or critical replacement procedures.

HP does *not* support repairing individual subassemblies or problem-solving at the component level.

Note the length, diameter, color, type, and location of each screw. Be sure to return each screw to its original location during reassembly.

Incorrectly routed or loose wire harnesses can interfere with other internal components and can become damaged or broken. Frayed or pinched harness wires can be difficult to locate. When replacing wire harnesses, always use the provided wire loops, lance points, or wire-harness guides.

## Warnings, cautions, notes, and tips

- ⚠ **WARNING!** Turn the product off, wait 5 seconds, and then remove the power cord before attempting to service the product. If this warning is not followed, severe injury can result, as well as damage to the product. The power must be on for certain functional checks during problem solving. However, the power supply should be disconnected during parts removal.

Never operate or service the product with the protective cover removed from the laser/scanner assembly. The reflected beam, although invisible, can damage your eyes.

The sheet-metal parts can have sharp edges. Be careful when handling sheet-metal parts.

- ⚠ **CAUTION:** Do not bend or fold the flat flexible cables (FFCs) during removal or installation. Also, do not straighten pre-folds in the FFCs. You *must* make sure that all FFCs are fully seated in their connectors. Failure to fully seat an FFC into a connector can cause a short circuit in a PCA.
- 📝 **NOTE:** To install a self-tapping screw, first turn it counterclockwise to align it with the existing thread pattern, and then carefully turn it clockwise to tighten. Do not overtighten. If a self-tapping screw hole becomes stripped, repair the screw hole or replace the affected assembly.

## Electrostatic discharge

⚠



**CAUTION:** Some parts are sensitive to electrostatic discharge (ESD). Look for the ESD reminder when removing product parts. Always perform service work at an ESD-protected workstation or mat. If an ESD workstation or mat is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.

Protect the ESD-sensitive parts by placing them in ESD pouches when they are out of the product.



## Required tools

- #2 Phillips screwdriver with a magnetic tip and a 152-mm (6-inch) shaft length
- Small flatblade screwdriver
- Long flatblade screwdriver
- #8 and #10 torx screwdrivers
- Needle-nose pliers
- ESD mat (if one is available)
- Penlight (optional)

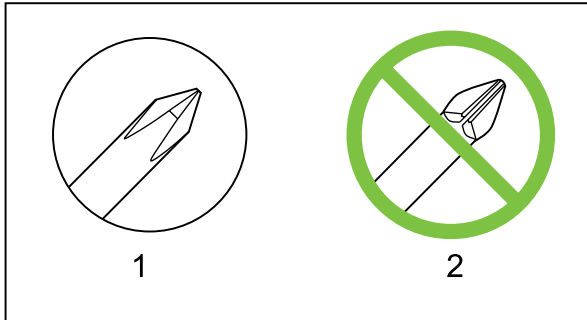
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△ **CAUTION:** Always use a Phillips screwdriver (1). Do not use a pozidrive screwdriver (2) or any motorized screwdriver. These can damage screws or screw threads.

**CAUTION:** Do *not* pull directly on the wires to disconnect them. *Always* pull on the plastic body of a connector to avoid damaging the connector wires.

---

**Figure 6-1** Phillips and pozidrive screwdriver comparison



## Types of screws

△ **WARNING!** Make sure that components are replaced with the correct screw type. Using the incorrect screw (for example, substituting a long screw for the correct shorter screw) can cause damage to the product or interfere with product operation. Do not intermix screws from removed with one component with the screws removed from another component.

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For a complete list of screw types and part numbers, see [Screws on page 211](#).

# Service approach

## Before performing service

- Remove all media from the product.
- Turn off the power using the power switch.
- Unplug the power cable and interface cable(s).
- Place the product on an ESD mat (if one is available). If an ESD workstation or mat is not available, ground yourself by touching the sheet-metal chassis *before* touching an ESD-sensitive part.
- Remove the print cartridge. See [Print cartridge on page 101](#).
- Remove the trays and output bins.
- Remove the handset.

## After performing service


- Return media to the input tray.
- Plug in the power cable.
- Reinstall the print cartridge.
- Reinstall the trays and output bins.
- Reinstall the handset.

## Post-service tests

After service has been completed, the following tests can be used to verify that the repair or replacement was successful.

### Test 1 (print-quality test)

1. Verify that you have completed the necessary reassembly steps.
2. Ensure that the input tray contains clean, unmarked paper.
3. Attach the power cord, and then turn on the product.
4. Verify that the expected start-up sounds occur.
5. Perform a control-panel test from the secondary service menu. Verify that the control-panel buttons beep when they are pressed.

 **NOTE:** If the control-panel buttons do not beep, verify that the user did not disable this function.

6. Print a configuration page, and then verify that the expected printing sounds occur. See [Information pages on page 26](#).
7. Print a demo page, and then verify that the print quality is as expected. See [Information pages on page 26](#).
8. If necessary, restore any customer-specified settings.
9. Clean the outside of the product with a damp cloth.

### Test 2 (copy-quality test)

1. Verify that you have completed the necessary reassembly steps.
2. Ensure that the input tray contains clean, unmarked paper.
3. Attach the power cord, and then turn on the product.
4. Verify that the expected start-up sounds occur.
5. Print a configuration page, and then verify that the expected printing sounds occur. See [Information pages on page 26](#).
6. Place the configuration page in the ADF.

7. Print a copy job, and then verify the results.
8. Clean the outside of the product with a damp cloth.

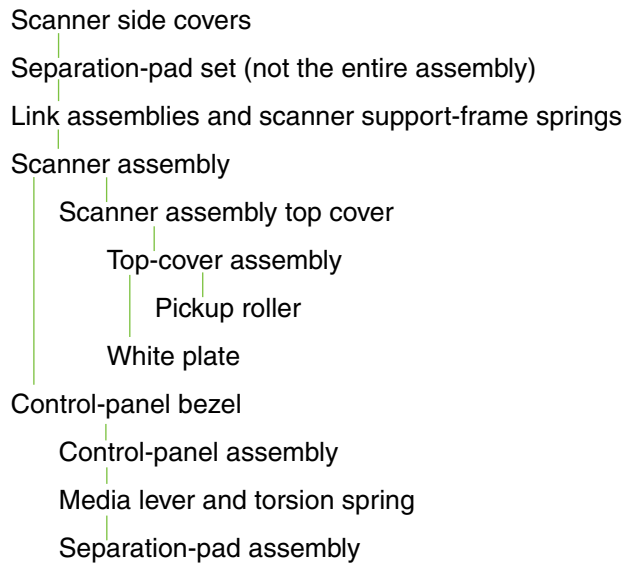
### **Test 3 (fax-quality test)**

1. Place the configuration page in the ADF.
2. Type a valid fax number and send the fax job.
3. Verify that the send quality and receive quality meet expectations.

## Parts removal order

Use the following diagrams to determine the order in which parts must be removed.

**Figure 6-2** Parts-removal tree, scanner assembly



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 **NOTE:** The *separation-pad set* and the *separation-pad assembly* are two different assemblies.

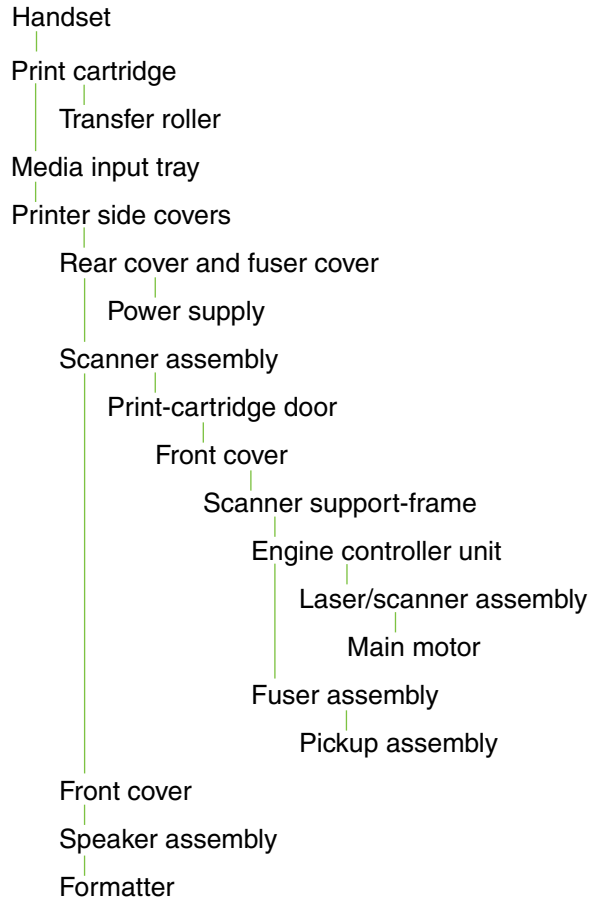
The separation-pad set consists of the pad, clear plastic sheet, and the pad cover. The separation-pad set is a user-replaceable assembly.

The separation-pad assembly consists of the separation lever, tension spring, feed arm, and the components of the separation-pad set. The separation-pad assembly is not a user-replaceable assembly.

Only trained service personnel should attempt to replace the separation-pad assembly.

---

**Figure 6-3** Parts-removal tree, product base



 **NOTE:** In [Figure 6-3 Parts-removal tree, product base on page 72](#), the front cover is listed twice.

## Scanner assemblies

Your product might not appear exactly as the one shown in the photos in this chapter. Although details such as the color of the external panels and covers might be different than your product, the procedures in this chapter are appropriate for your product. The HP LaserJet M1319f is shown in photos when it is necessary to see differences between the HP LaserJet M1319f and the legacy product.

 **NOTE:** The *separation-pad set* and the *separation-pad assembly* are two different assemblies.


The separation-pad set consists of the pad, clear plastic sheet, and the pad cover. The separation-pad set *is* a user-replaceable assembly.


The separation-pad assembly consists of the separation lever, tension spring, feed arm, and the components of the separation-pad set. The separation-pad assembly *is not* a user-replaceable assembly.

Only trained service personnel should attempt to replace the separation-pad assembly.

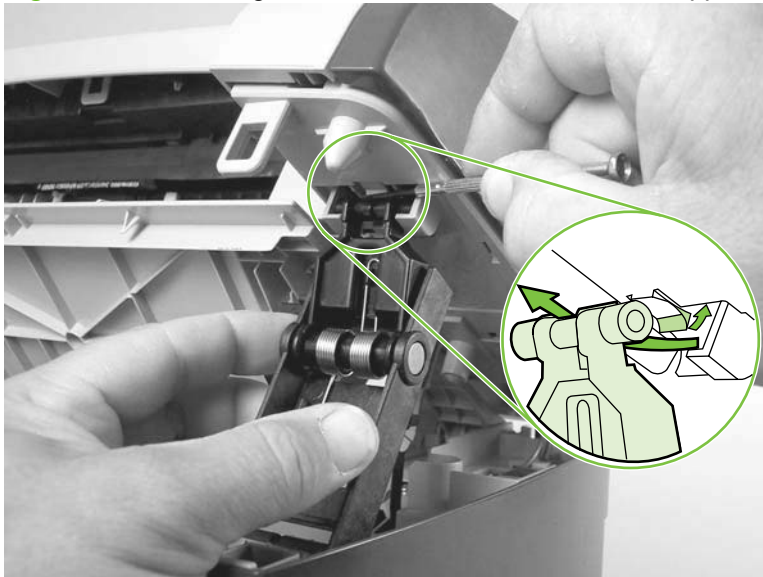
## Link assemblies and scanner support-frame spring

1. Push the print-cartridge-door release and raise the scanner assembly until it is locked open.
2. Use a small flat-blade screwdriver to release the link tabs on each link assembly.

 **WARNING!** When the link assemblies are disengaged, the scanner assembly can easily fall off of the product base if it is rotated too far towards the back of the product.

 **CAUTION:** Do not push too hard on the link tabs or the tab might break.

**Figure 6-4** Removing the link assemblies and scanner support-frame spring (1 of 4)




3. Rotate one of the link assemblies toward the front of the product until the link disengages from the scanner support-frame.

**Figure 6-5** Removing the link assemblies and scanner support-frame spring (2 of 4)



4. Remove the link assembly. Repeat for remaining link.

---

 **NOTE:** If you need to remove the support-frame spring, see [Figure 6-7 Removing the link assemblies and scanner support-frame spring \(4 of 4\) on page 75](#) before removing the left side link assembly.

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**Figure 6-6** Removing the link assemblies and scanner support-frame spring (3 of 4)






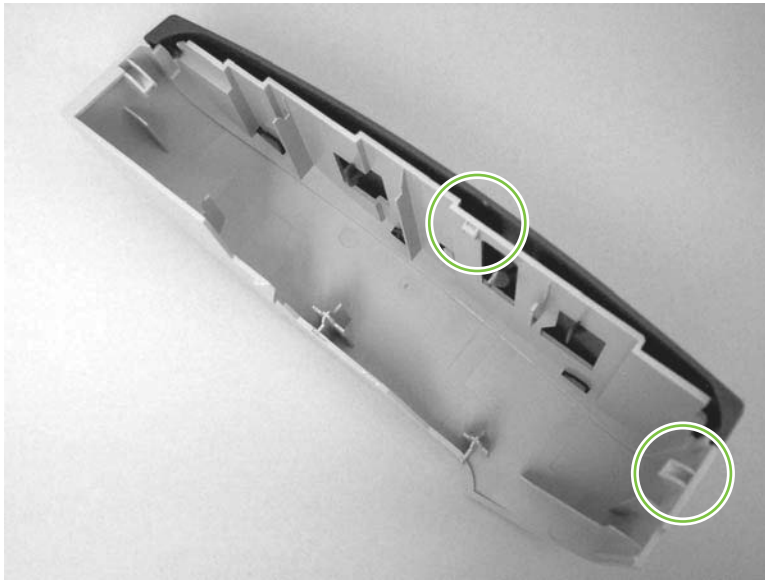
5. Use needle-nose pliers to remove the scanner support-frame spring from the left side of the product.

**Figure 6-7** Removing the link assemblies and scanner support-frame spring (4 of 4)



## Scanner side covers

 **NOTE:** In the following figure, examine the locations of the locking tabs on the scanner cover before you remove the cover.



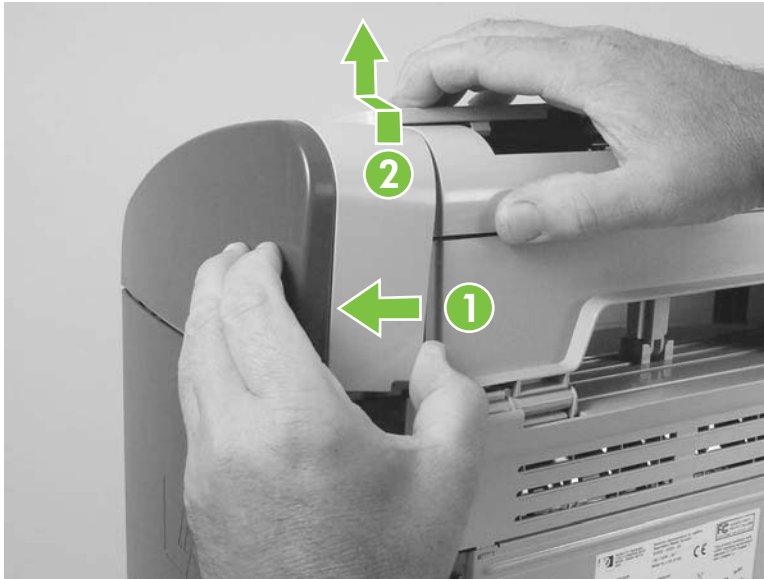
1. Use a small flat-blade screwdriver to release the right-side cover-locking tab.

**Figure 6-8** Removing the scanner side covers (1 of 2)




2. Rotate the right-side cover away from the product, and then slide it toward the front of the product to remove it.

**Figure 6-9** Removing the scanner side covers (2 of 2)



3. Repeat this procedure for the left-side cover.

## Separation-pad set


 **NOTE:** The *separation-pad set* and the *separation-pad assembly* are two different assemblies.

The separation-pad set consists of the pad, clear plastic sheet, and the pad cover. The separation-pad set *is* a user-replaceable assembly.

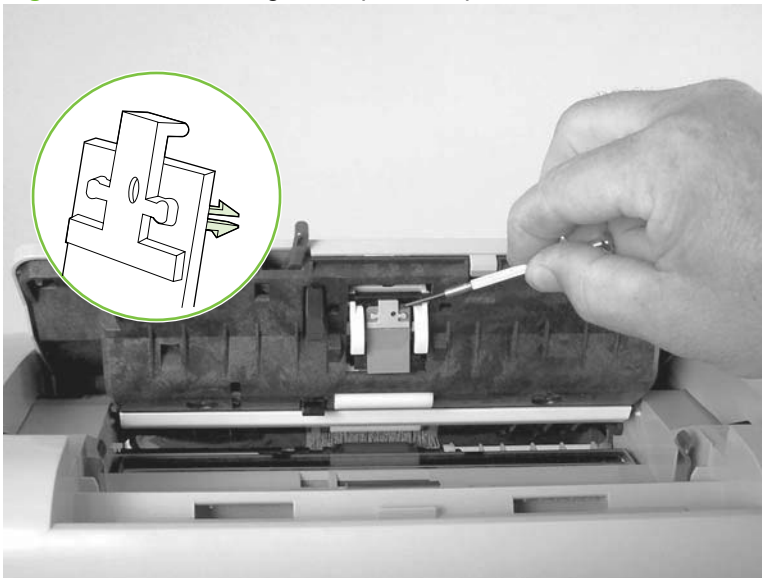
The separation-pad assembly consists of the separation lever, tension spring, feed arm, and the components of the separation-pad set. The separation-pad assembly *is not* a user-replaceable assembly.

Only trained service personnel should attempt to replace the separation-pad assembly.

1. Open the scanner top cover.
2. Carefully pry the separation-pad set away from the guide assembly.

 **CAUTION:** When installing the replacement pad, be careful not to bend or break the retainer-clip pins.

**Figure 6-10** Removing the separation pad



## Top cover, control panel

1. Carefully release three locking tabs, one at the front and one on each side (callout 1).

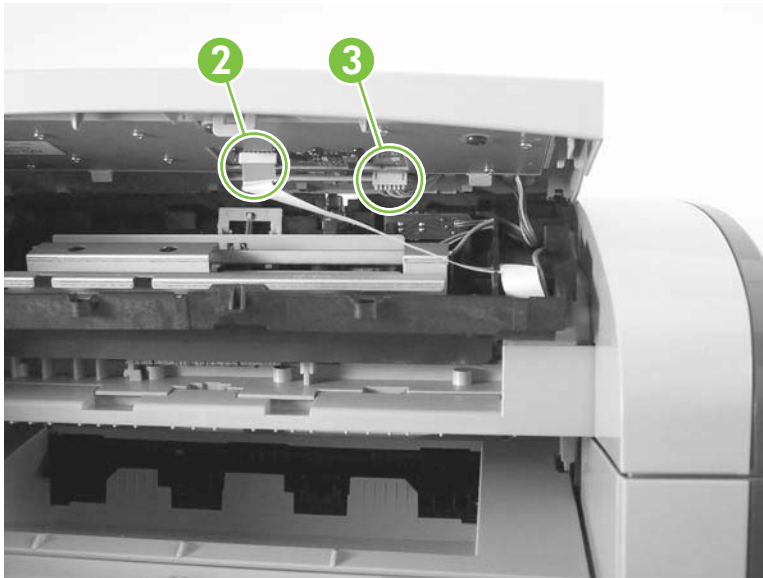
**Figure 6-11** Removing the top cover, control panel (1 of 3)



2. Slightly raise the top cover. Then disconnect one FFC (callout 2) and one wire-harness connector (callout 3).

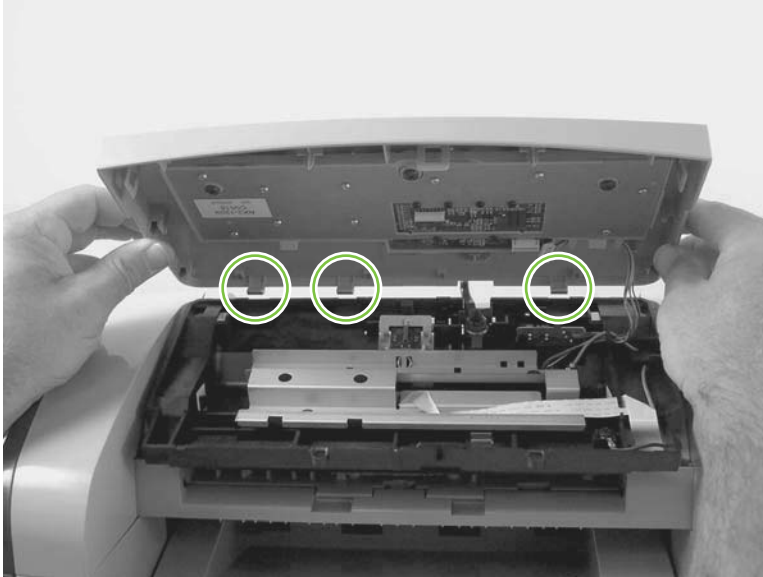
△ **CAUTION:** Do not bend or fold the FFCs during the removal or reinstallation process.

**Figure 6-12** Removing the top cover, control panel (2 of 3)




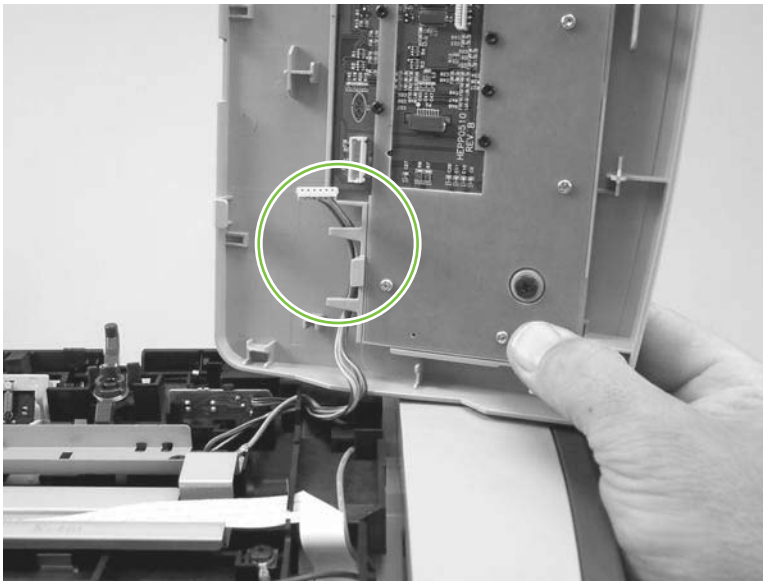
3. Slightly open the ADF assembly, and then push the top cover toward the back of the product to release the three rear locking tabs. Remove the top cover.

**Figure 6-13** Removing the top cover, control panel (3 of 3)



---

 **NOTE:** You must release the wire harness from two retainers on the top cover.

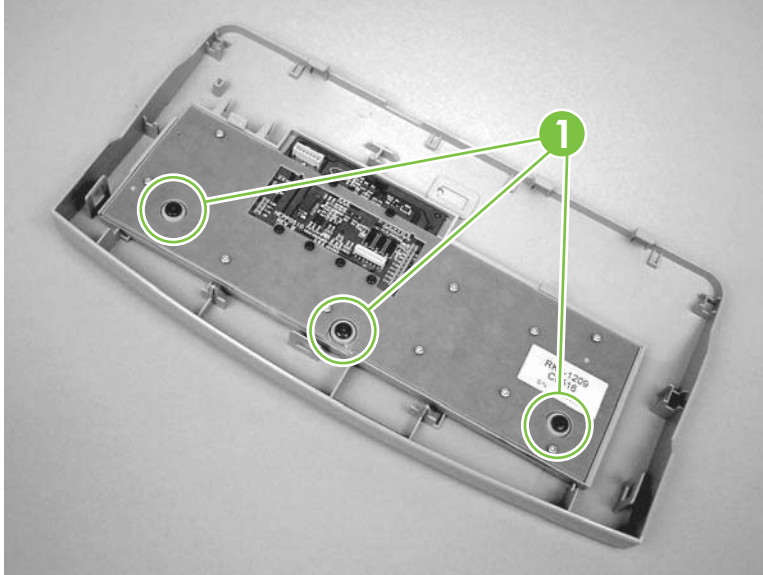


## Control-panel assembly

△ **CAUTION:** The control panel is an ESD-sensitive component.

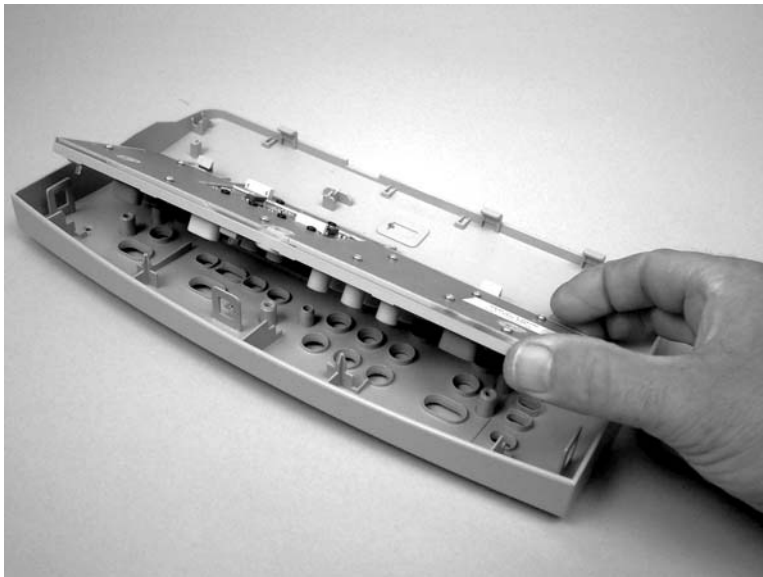
1. Remove the control-panel top cover. See [Top cover, control panel on page 79](#).
2. Remove three screws (callout 1).

**Figure 6-14** Removing the control-panel assembly (1 of 2)



3. Rotate the control-panel button assembly away from the control-panel cover and remove it.

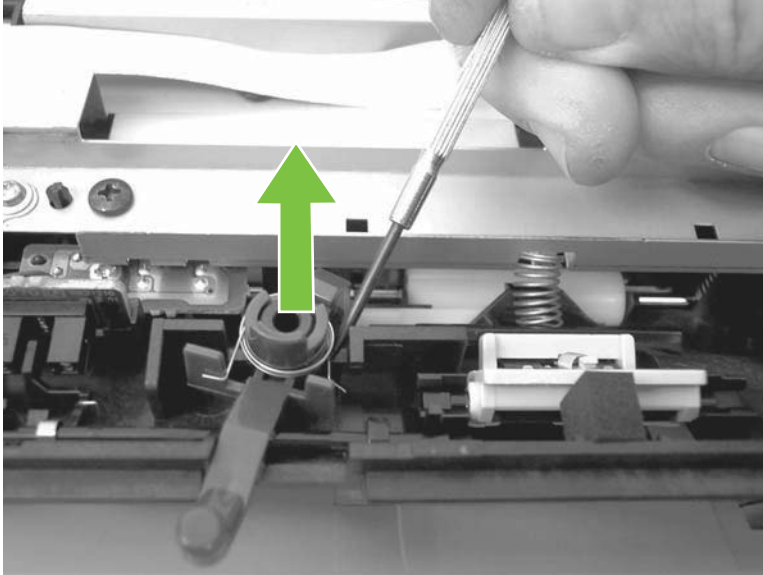
**Figure 6-15** Removing the control-panel assembly (2 of 2)



## Media lever and media-lever torsion spring

1. Remove the control-panel top cover. See [Top cover, control panel on page 79](#).
2. Carefully dislodge and remove the media-lever torsion spring.

**Figure 6-16** Removing the media lever and media-lever torsion spring





## Separation-pad assembly

1. Remove the control-panel top cover. See [Top cover, control panel on page 79](#).
2. Remove five screws (callout 1) and the sheet-metal plate.

△ **CAUTION:** Do not touch the grey separation pad. Skin oils and fingerprints on the separation pad might cause paper-feed problems.

Press down on the plate as the screws are removed. Four compression springs are under the plate. The separation-pad assembly also has one compression spring attached to the shield. Be careful not to lose any springs when you remove the shield.

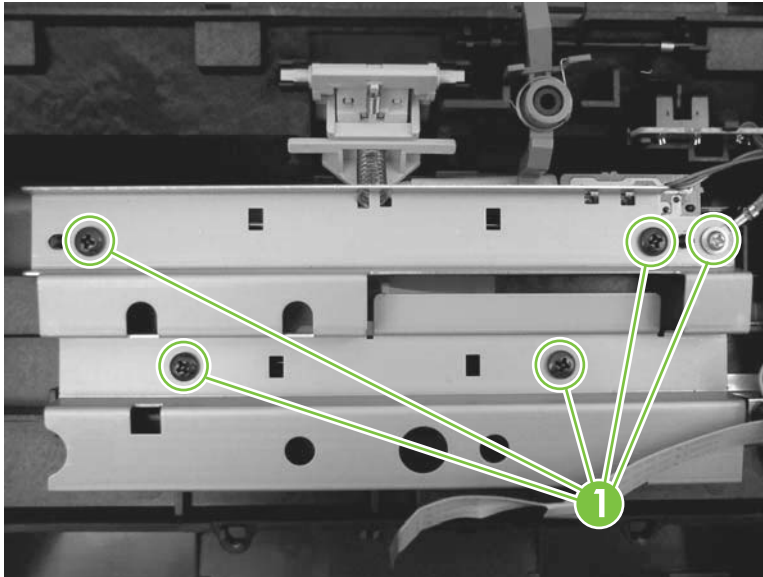
📄 **NOTE:** The *separation-pad set* and the *separation-pad assembly* are two different assemblies.

The separation-pad set consists of the pad, clear plastic sheet, and the pad cover. The separation-pad set *is* a user-replaceable assembly.

The separation-pad assembly consists of the separation lever, tension spring, feed arm, and the components of the separation-pad set. The separation-pad assembly *is not* a user-replaceable assembly.

Only trained service personnel should attempt to replace the separation-pad assembly.

**Figure 6-17** Removing the separation-pad assembly (1 of 3)



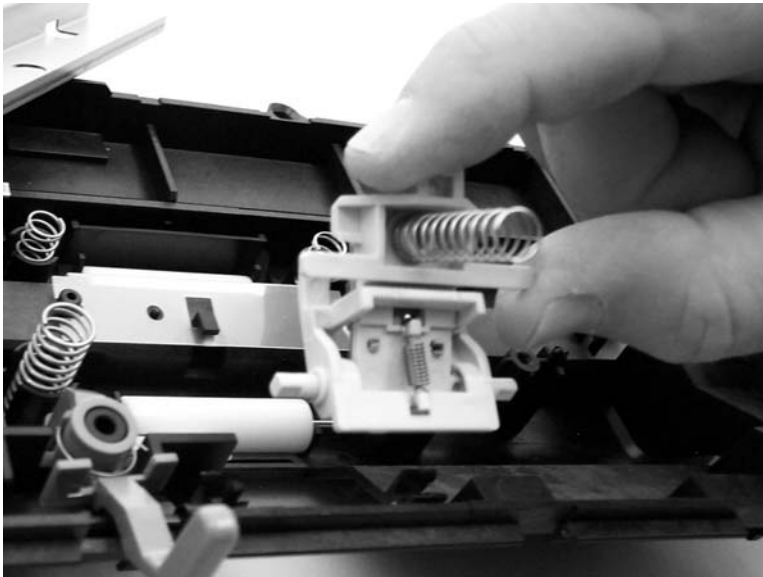
3. Rotate the separation-pad assembly up until the keyed hinges can clear the hinge retainers.

**Figure 6-18** Removing the separation-pad assembly (2 of 3)



4. Remove the separation-pad assembly.

**Figure 6-19** Removing the separation-pad assembly (3 of 3)



## Scanner assembly

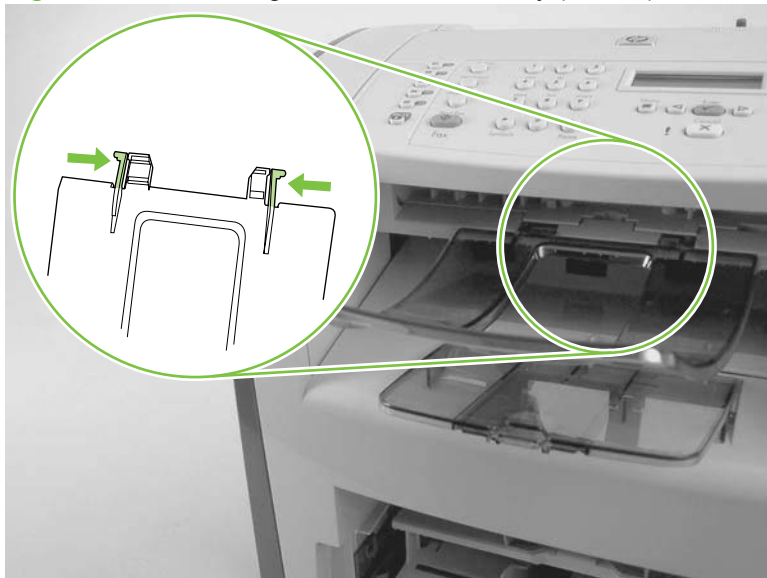
1. Rotate the ADF input tray assembly toward the front of the product, and then lift it up and off of the product.

**Figure 6-20** Removing the scanner assembly (1 of 14)



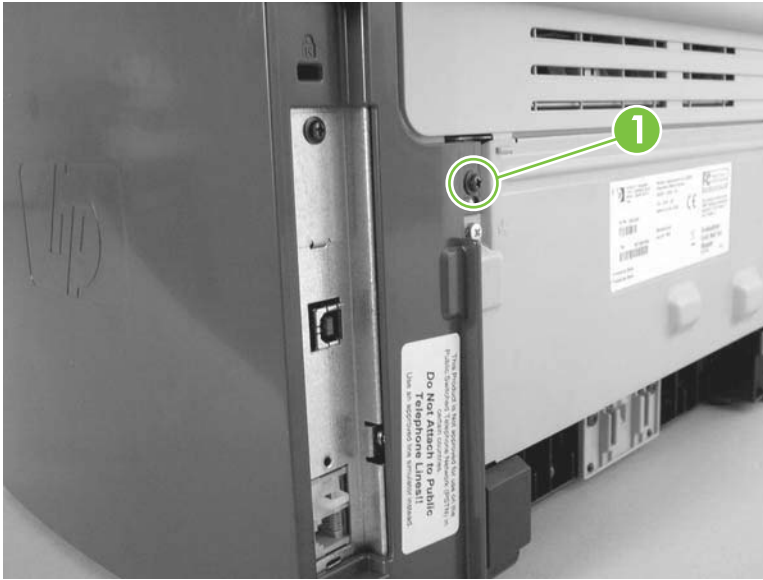
2. Rotate the ADF output bin up and then squeeze the locking tabs until they clear the mounting holes in the scanner assembly.

**Figure 6-21** Removing the scanner assembly (2 of 14)



3. Remove the right-side cover-mounting screw (callout 1).

**Figure 6-22** Removing the scanner assembly (3 of 14)



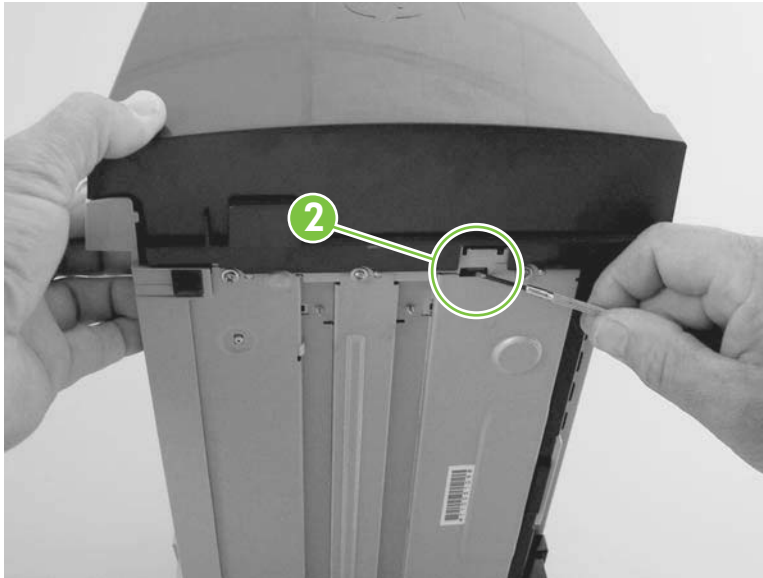
4. Release the back of the cover.

**Figure 6-23** Removing the scanner assembly (4 of 14)



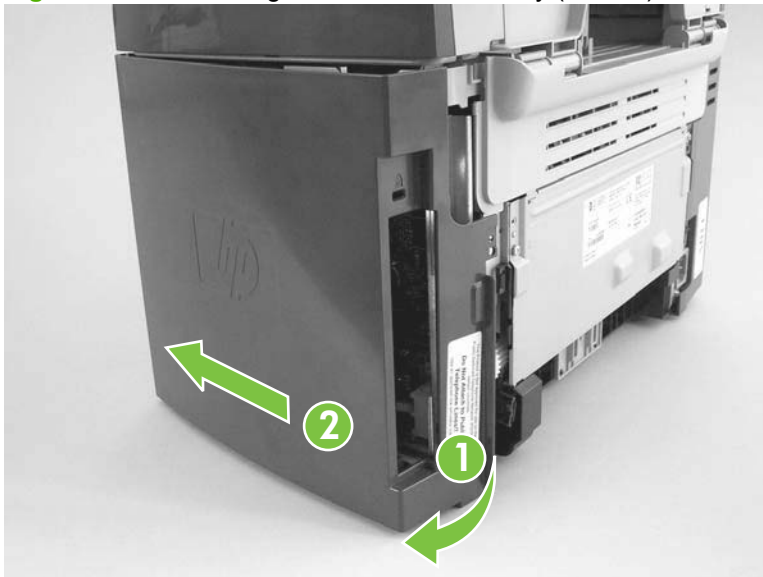
5. Release the bottom tab (callout 2).

**Figure 6-24** Removing the scanner assembly (5 of 14)



6. Rotate the back side of the cover away from the product, and then slide the cover toward the front of the product to remove it

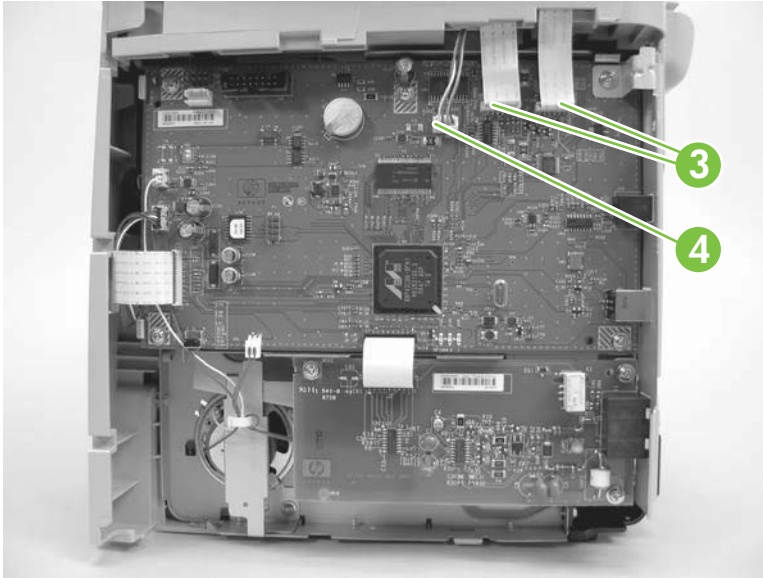
**Figure 6-25** Removing the scanner assembly (6 of 14)



7. Disconnect two flat, flexible cables (FFCs; callout 3) and one wire-harness connector (callout 4).

△ **CAUTION:** Do not bend or fold the FFCs during the removal or reinstallation process.

**Figure 6-26** Removing the scanner assembly (7 of 14)



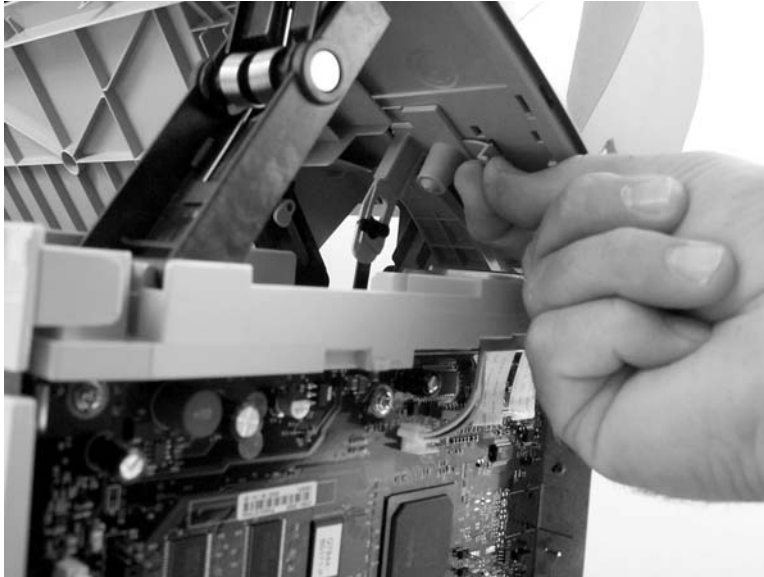
8. Push the blue print-cartridge-door release button and then raise the scanner assembly until it locks open.

**Figure 6-27** Removing the scanner assembly (8 of 14)



9. Grasp the tab on the gear-drive arm bracket and carefully flex it away from the scanner assembly to release the bracket.

**Figure 6-28** Removing the scanner assembly (9 of 14)



10. Pull the bracket toward the right side of the product until its mounting tabs clear the holes in the scanner assembly.

**Figure 6-29** Removing the scanner assembly (10 of 14)





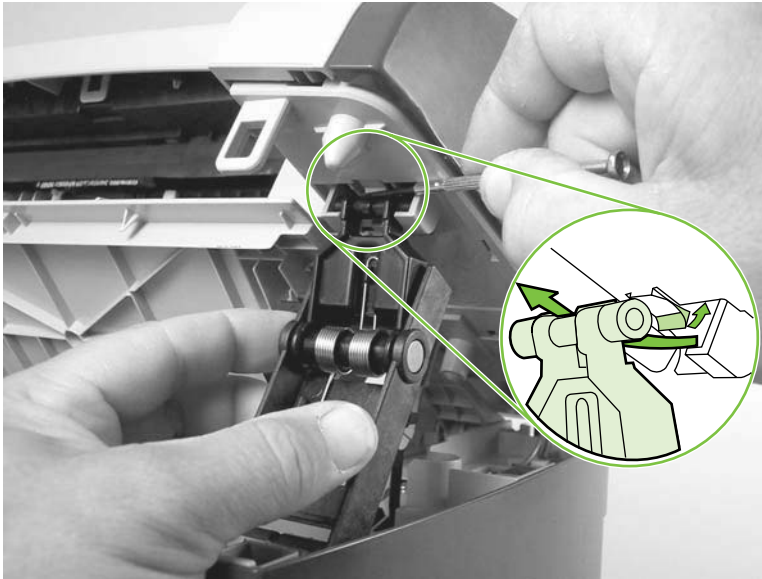
11. Use a small flat-blade screwdriver to release the link tabs on each link assembly.

⚠ **WARNING!** When the link assemblies are disengaged, the scanner assembly can easily fall off of the product base if it is rotated too far towards the back of the product.

⚠ **CAUTION:** Do not push too hard on the link tabs or the tabs might break.

📝 **NOTE:** it is not necessary to completely remove the link arms. However, the link arms are not captive when they are disengaged from the scanner assembly.


**Figure 6-30** Removing the scanner assembly (11 of 14)





12. Use one of the following three separate methods to support the scanner assembly so that it does not fall off of the product base. See [Figure 6-31 Removing the scanner assembly \(12 of 14\)](#) on page 91.

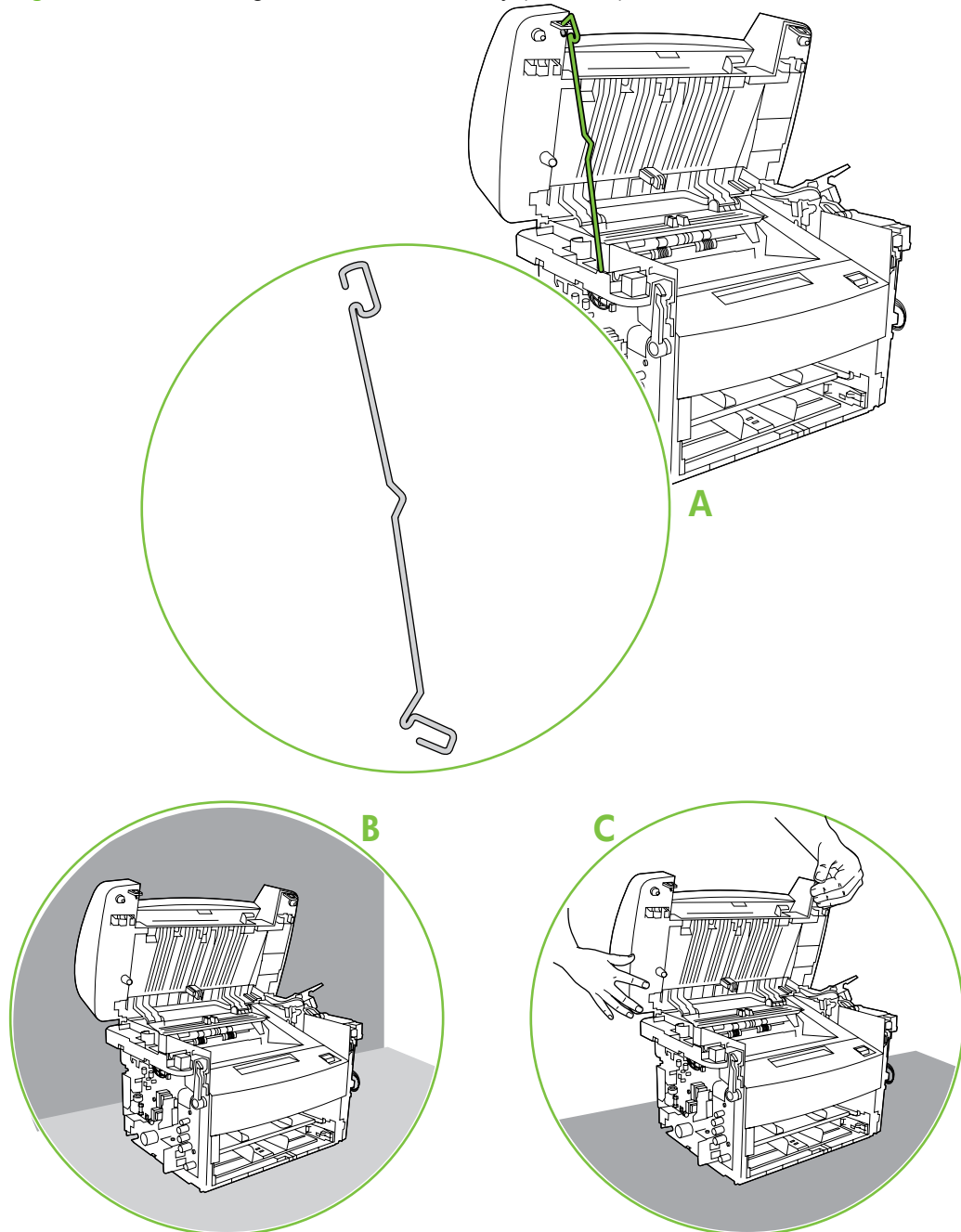
A ) Use the HP scanner-hinge tool (part number: 5185-7441).

 **NOTE:** Remove the left-side link before using the scanner-hinge tool.

B) Rest the scanner assembly against a wall.

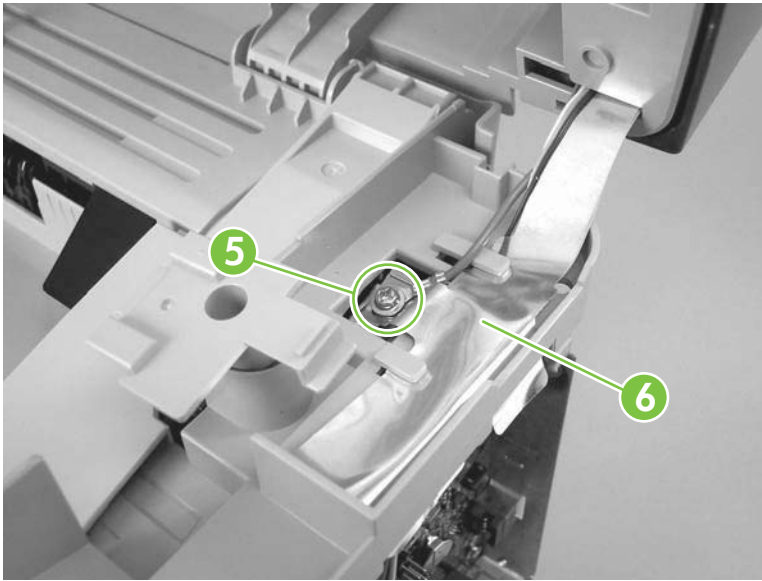
C) Rest the scanner assembly against your chest.

**Figure 6-31** Removing the scanner assembly (12 of 14)




13. Remove one screw (callout 5). Carefully remove the grounding shield (callout 6) from the wire retainer. Feed the two FFCs and the wire harness through the hole in the chassis, and remove them from the wire retainers.

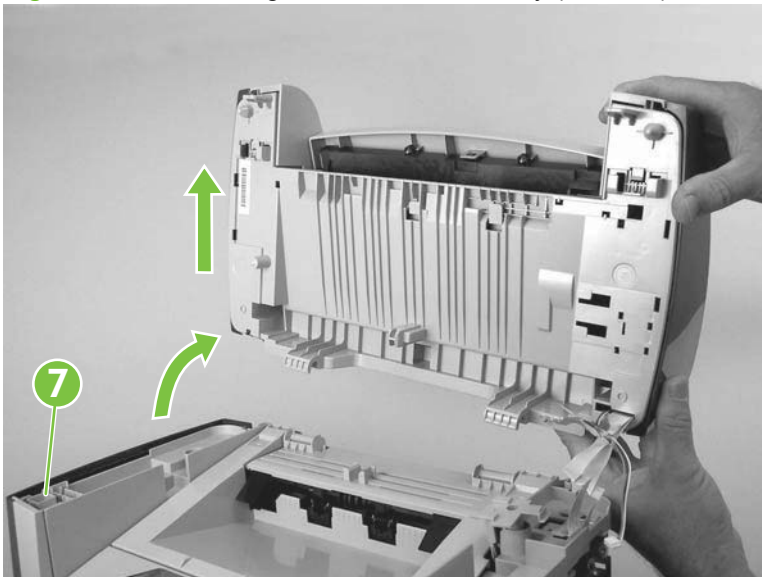
**Figure 6-32** Removing the scanner assembly (13 of 14)



14. Rotate the scanner assembly toward the rear of the product until the rear hinges clear the chassis hinge pins. Lift the scanner assembly off of the product base.

 **NOTE:** Do not lose the two scanner cushions located in the scanner support-frame (callout 7; left-side location shown).

**Figure 6-33** Removing the scanner assembly (14 of 14)



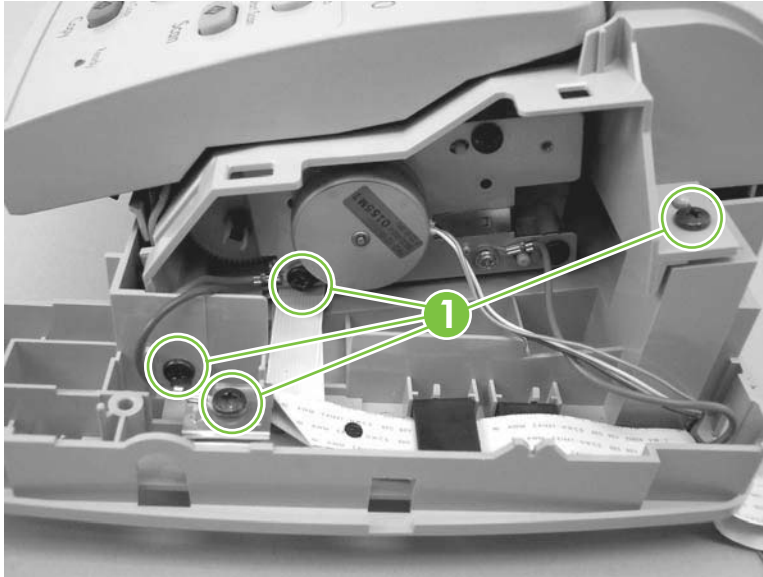
## Scanner assembly top cover

1. Remove the following assemblies or components:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Scanner side covers. See [Scanner side covers on page 76](#).
2. Remove four screws (callout 1).

△ **CAUTION:** The PCB is an ESD-sensitive component.

---

**Figure 6-34** Removing the scanner assembly top cover (1 of 4)



3. Feed the FFCs, the wire connectors, and the ground strap through the opening in the scanner-assembly base.

△ **CAUTION:** Examine how the FFCs and wire-harnesses are routed *before* moving them.

Do not bend or fold the FFCs during the removal or reinstallation process.

**Figure 6-35** Removing the scanner assembly top cover (2 of 4)

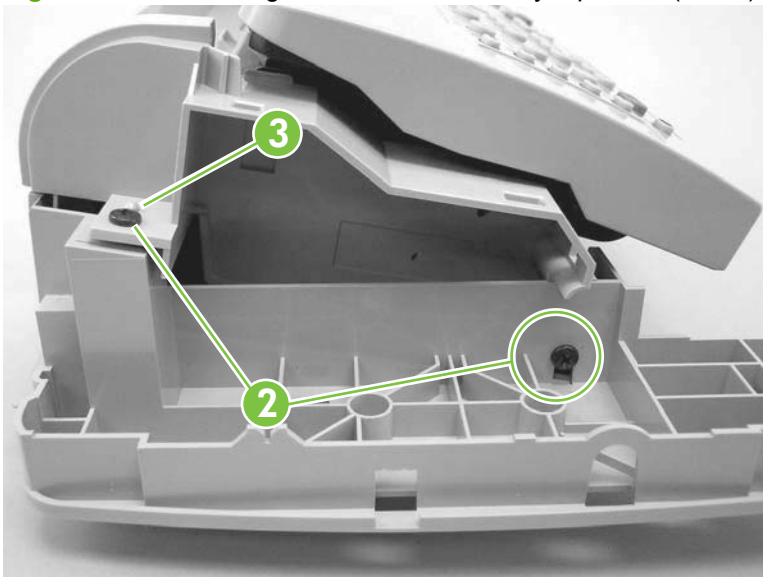


💡 **Reinstallation tip** When reinstalling the FFCs, make sure that the ferrites snap into the clips in the base.

4. Remove the two left-side mounting screws (callout 2).

💡 **Reinstallation tip** When reinstalling the scanner assembly top cover, make sure that it is seated on the alignment pins. The plastic pin (callout 3) is behind the screw in [Figure 6-36 Removing the scanner assembly top cover \(3 of 4\) on page 94](#).

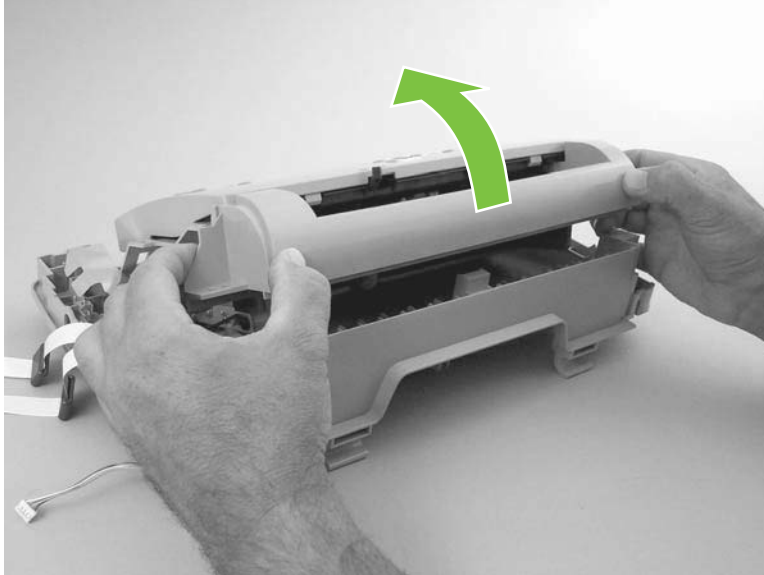
**Figure 6-36** Removing the scanner assembly top cover (3 of 4)



5. Lift up on the scanner assembly top cover to separate it from the scanner-assembly base.

△ **CAUTION:** Separating the scanner assembly top cover from the base frame assembly might require considerable force. Be careful to not damage or drop either assembly when you separate them.

**Figure 6-37** Removing the scanner assembly top cover (4 of 4)



## Top-cover assembly

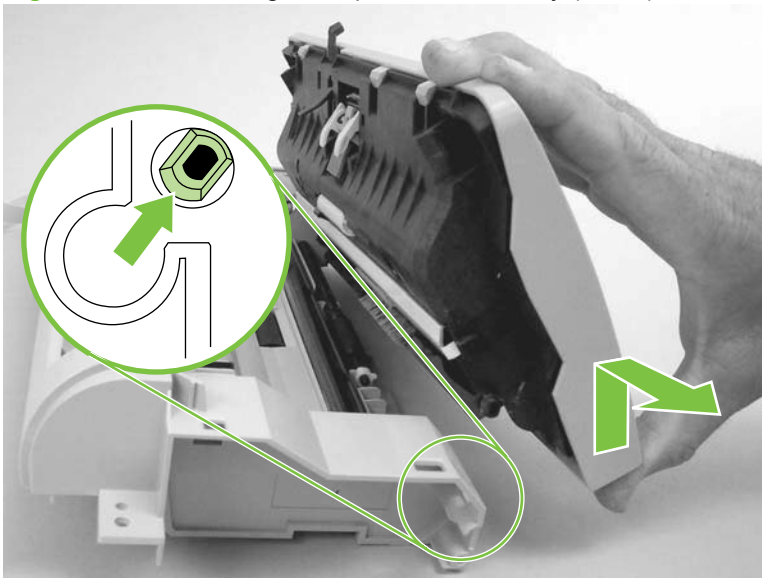
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Scanner assembly top cover. See [Scanner assembly top cover on page 93](#).
2. Rotate the top-cover assembly (callout 1) away from the frame assembly (callout 2).

**Figure 6-38** Removing the top-cover assembly (1 of 2)



3. Pull the left-end hinge out of the slot in the frame assembly, and slide the top cover to the left until the right-side hinge clears the hole in the frame assembly. Remove the top cover.

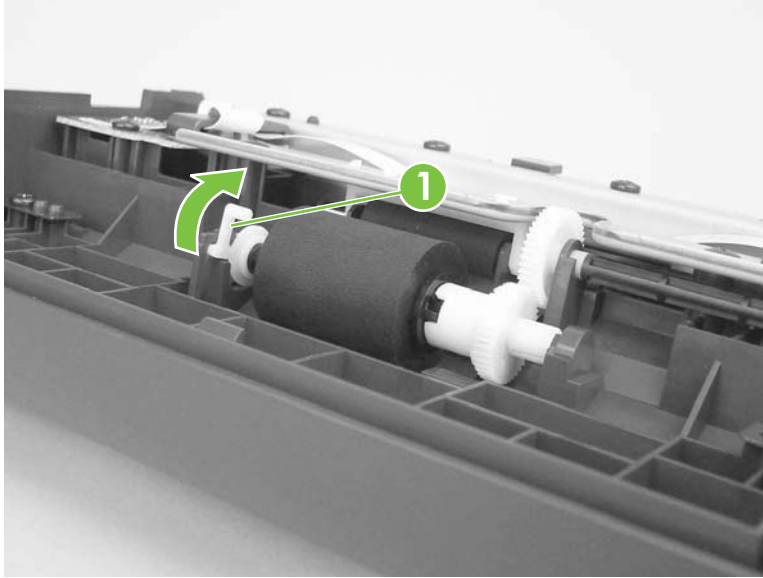
**Figure 6-39** Removing the top-cover assembly (2 of 2)



## Pickup roller

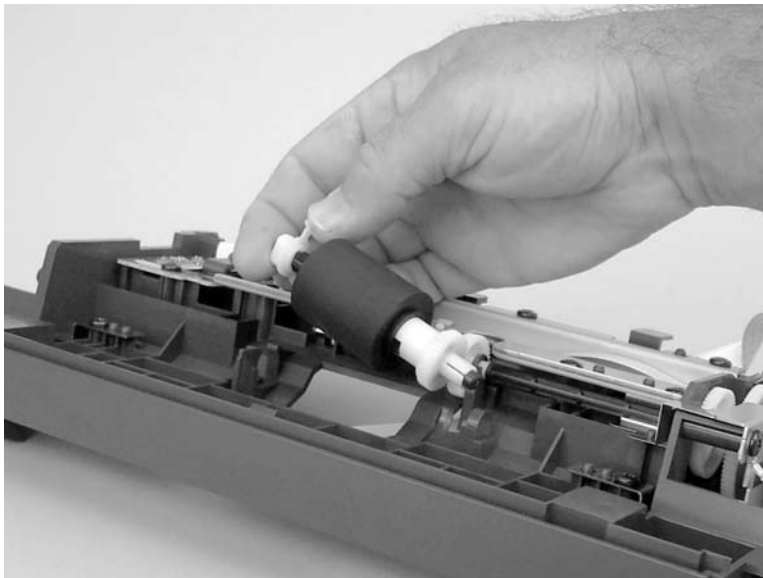
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Scanner assembly top cover. See [Scanner assembly top cover on page 93](#)
2. Unclip the pickup-roller retainer (callout 1) and rotate it until the flat sides of the clip align with the mounting slot on the frame assembly.

**Figure 6-40** Removing the pickup roller (1 of 2)



3. Lift the right side of the pickup roller shaft out of the mounting slot, and then pull it to the right until the left end of the shaft clears the mounting hole on the left side of the frame assembly.

**Figure 6-41** Removing the pickup roller (2 of 2)

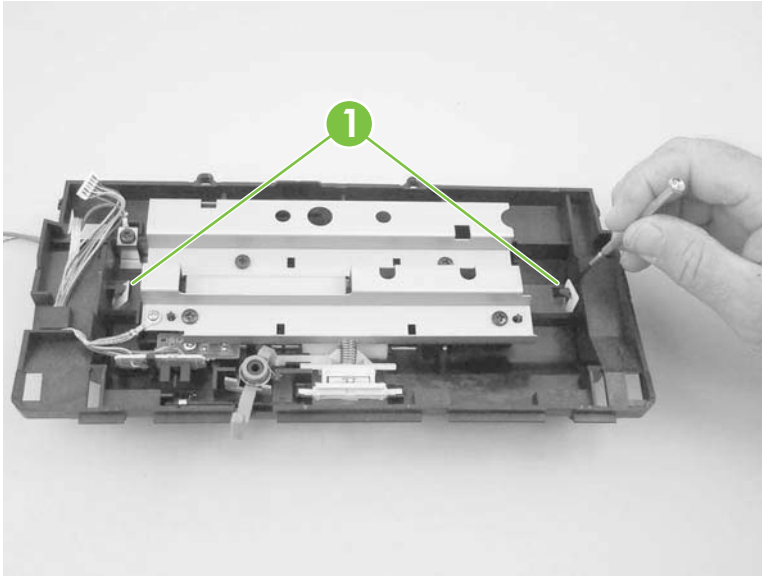




## White platen

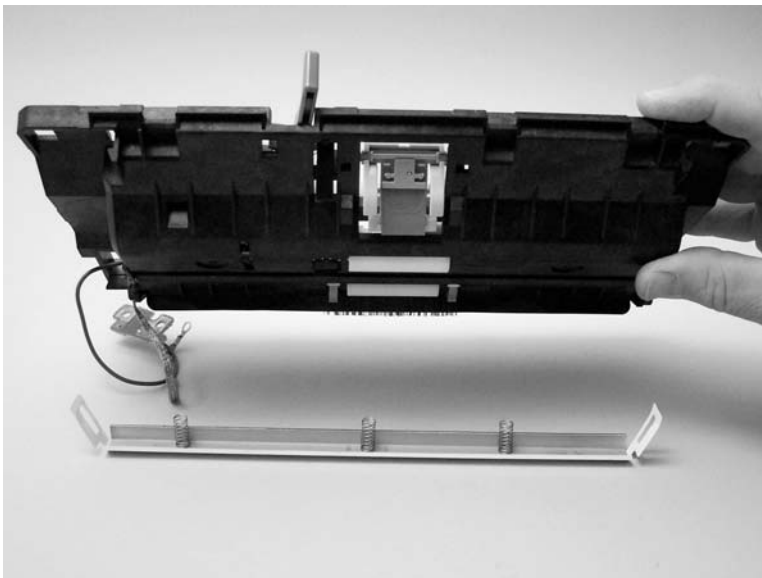
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#)
  - Scanner assembly top cover. See [Top-cover assembly on page 96](#)
  - Top-cover assembly. See [Top-cover assembly on page 96](#)
2. Use a small flat-blade screwdriver to carefully pry the white-platen retainer tabs (callout 1) off of the posts on the guide assembly.

**Figure 6-42** Removing the white platen (1 of 2)



3. Lift the guide assembly up and off of the white platen.


**Figure 6-43** Removing the white platen (2 of 2)





## Product base

Your product might not appear exactly as the one shown in the photos in this chapter. Although details such as the color of the external panels and covers might be different than your product, the procedures in this chapter are appropriate for your product. The HP LaserJet M1319f is shown in photos when it is necessary to see differences between the HP LaserJet M1319f and the legacy product.

 **NOTE:** For clarity, the product is sometime shown in this chapter with the scanner assembly removed. Removing the scanner assembly is not necessary unless noted within the procedure.

## Handset

1. Disconnect the handset connector from the back of the product.
2. Remove the handset.

**Figure 6-44** Remove the handset



## Separation pad

1. At the back of the product, remove two screws (callout 1).

**Figure 6-45** Removing the separation pad (1 of 2)



2. Remove the separation pad and frame.

**Figure 6-46** Removing the separation pad (2 of 2)



## Print cartridge

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

1. Push the print-cartridge-door release button.

**Figure 6-47** Removing the print cartridge (1 of 2)



2. Pull the print cartridge up and out of the product.

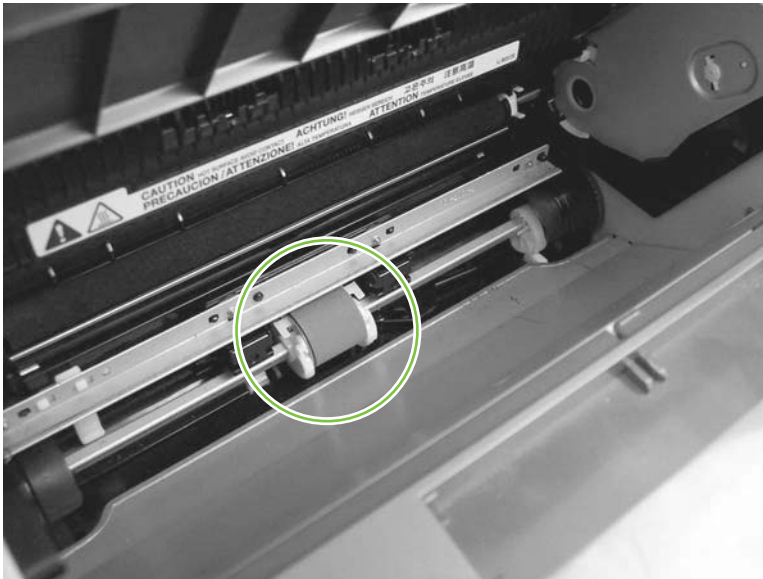
**Figure 6-48** Removing the print cartridge (2 of 2)



## Pickup roller

1. Remove the print cartridge and locate the product pickup roller. See [Print cartridge on page 101](#).

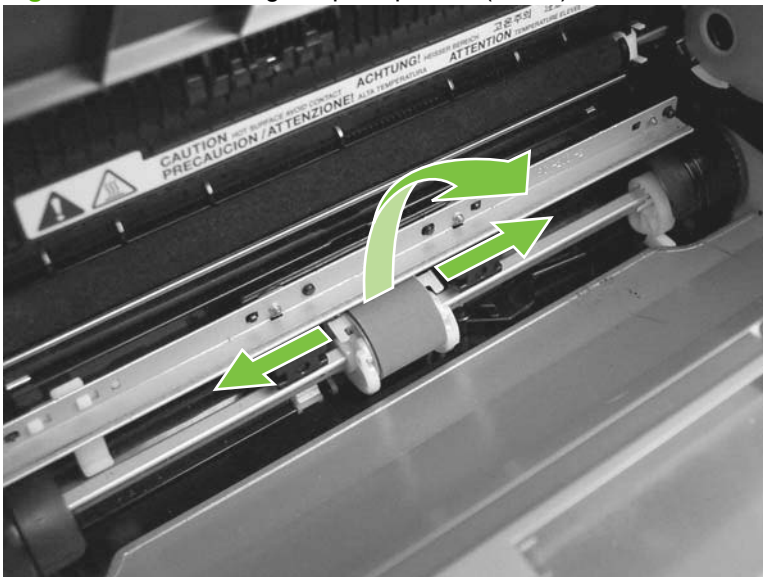
**Figure 6-49** Removing the pickup roller (1 of 5)



2. Gently release the small, white tabs on each side of the pickup roller by pushing them away from the roller, and then rotate the roller away from the mounting frame.

△ **CAUTION:** Do not touch the black-sponge portion of the transfer roller inside the product. Touching the transfer roller can damage the product.

**Figure 6-50** Removing the pickup roller (2 of 5)



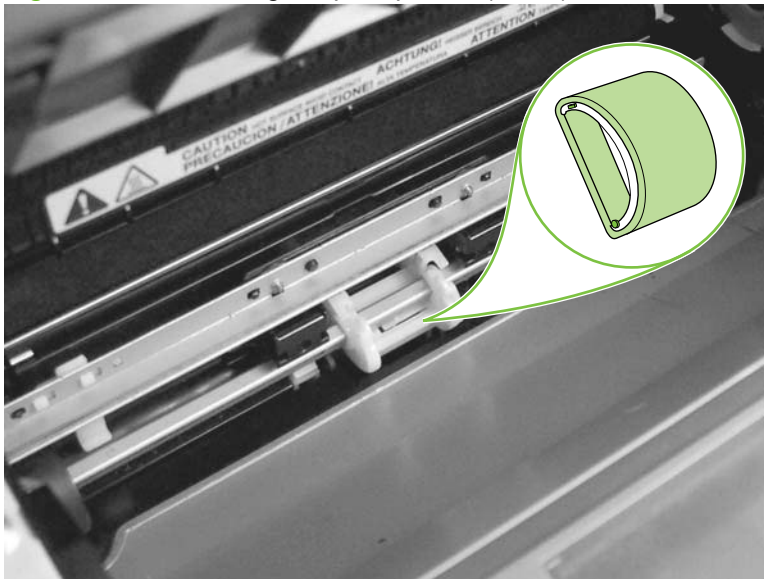
3. Gently pull the roller up and out of the product.

**Figure 6-51** Removing the pickup roller (3 of 5)



4. Circular and rectangular pegs on each side of the pickup roller fit into corresponding slots on the pickup-roller mounting frame and prevent the roller from being incorrectly installed. Position the replacement pickup roller in the slots on the pickup-roller frame.

**Figure 6-52** Removing the pickup roller (4 of 5)



5. Rotate the top of the pickup roller into position until the white tabs on each side of the roller snap into place.

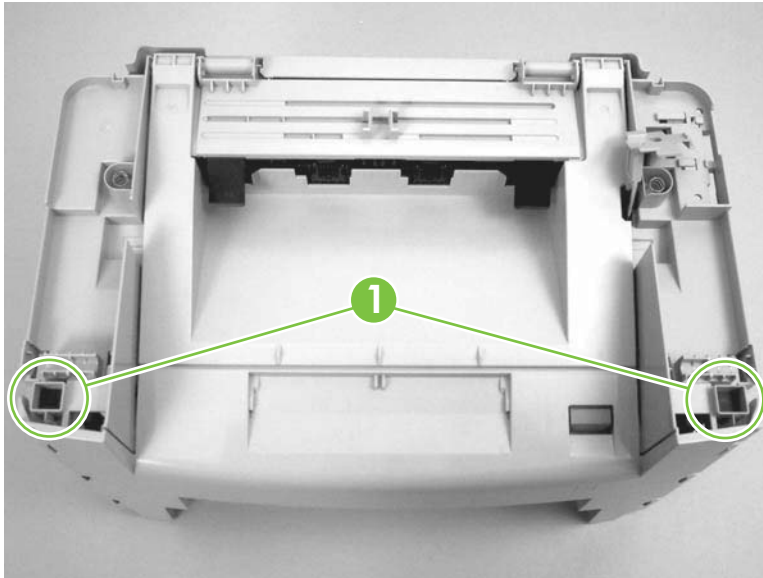
**Figure 6-53** Removing the pickup roller (5 of 5)



## Installing the scanner cushions

1. Open the print-cartridge door.
2. Place a scanner cushion in the both well on the scanner support-frame (callout 1). Use the eraser-end of a pencil or use an ink pen with the cap on to seat each cushion in its well.

**Figure 6-54** Installing the scanner cushions





## Media input tray

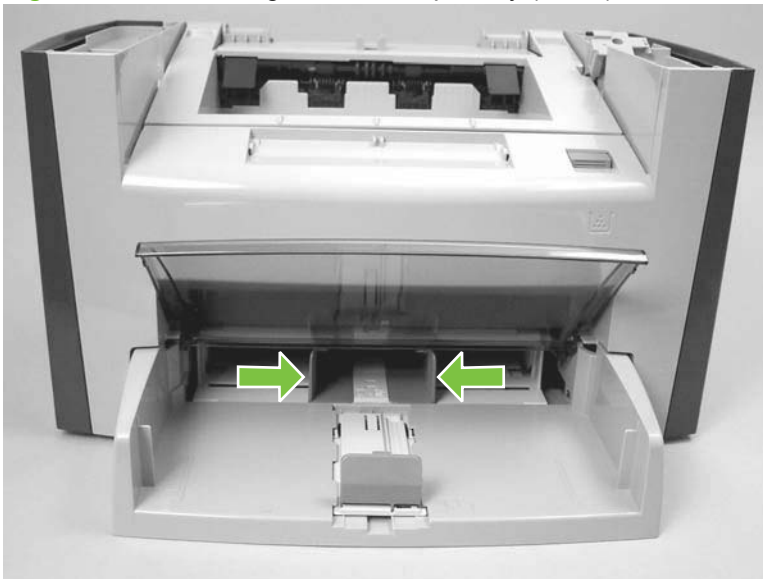
1. Open the media input tray lid.

**Figure 6-55** Removing the media input tray (1 of 3)



2. Slide the adjustable media guides to the center of the tray.

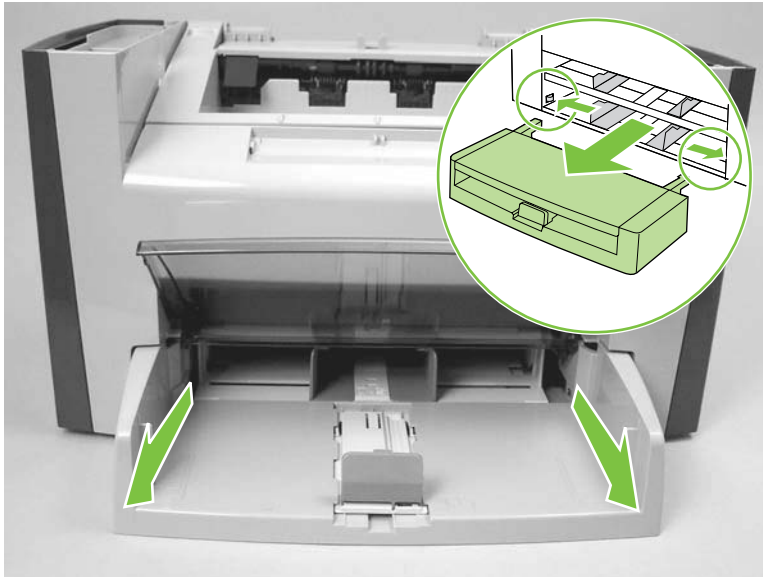
**Figure 6-56** Removing the media input tray (2 of 3)





3. Depress the pickup-tray locking tabs to release the media input tray, and then pull it out and away from the product.

**Figure 6-57** Removing the media input tray (3 of 3)



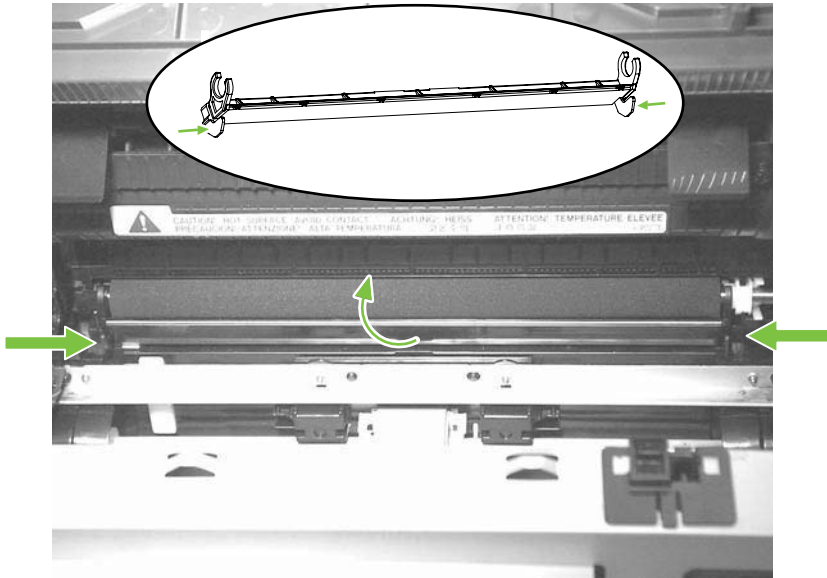
## Transfer roller

- △ **CAUTION:** Do not touch the black-sponge portion of the transfer roller. Skin oils deposited on the transfer roller might cause print-quality problems.

Be very careful not to break the paper guide that is removed when replacing the transfer roller. Because the paper guide is not a FRU, the entire product will have to be replaced.

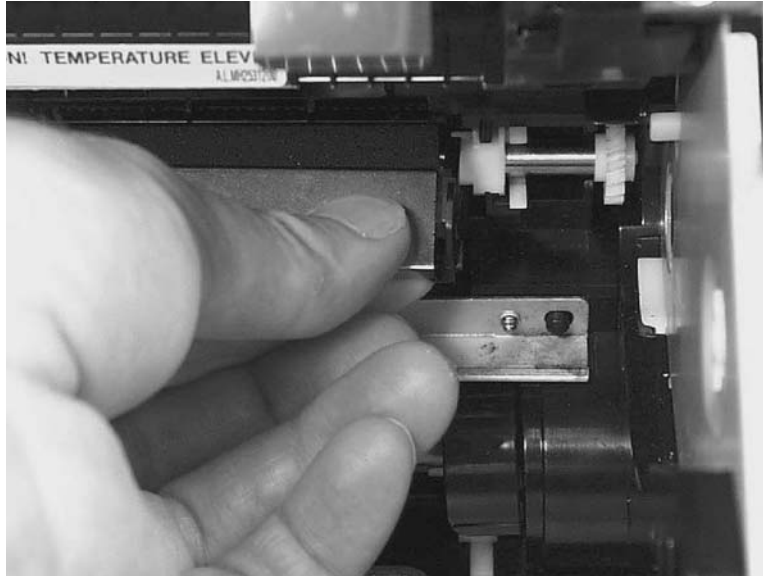
1. Open the print-cartridge door and remove the print cartridge.
2. Release the two locking tabs on the paper guide and rotate the guide up.

**Figure 6-58** Removing the transfer roller (1 of 3)



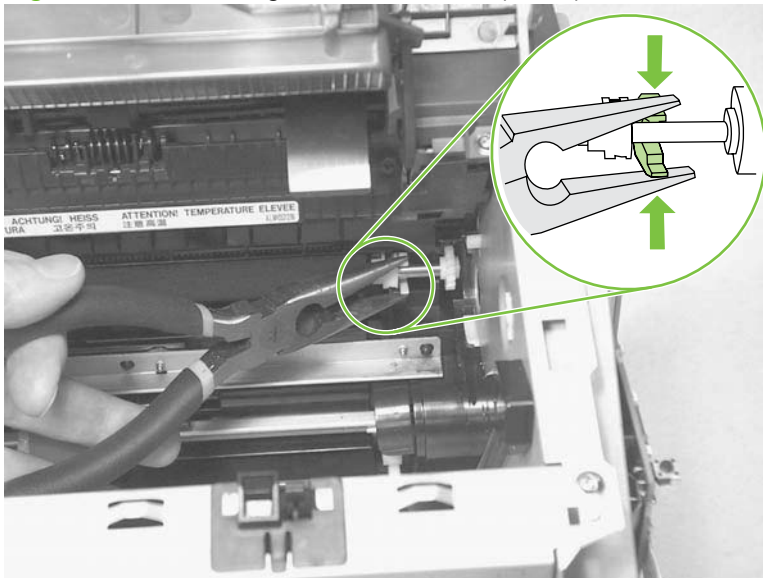
3. The clamps on the paper guide fit over the bearings on each end of the transfer roller. Do not touch the black-sponge portion of the transfer roller. Grasp the right end of the paper guide and pull the clamp off the bearing on the right side of the transfer roller. Then slide the clamp slightly to the right, and the left clamp will slide off the left bearing.

**Figure 6-59** Removing the transfer roller (2 of 3)




4. Squeeze the two small tabs on the transfer roller.

**Figure 6-60** Removing the transfer roller (3 of 3)

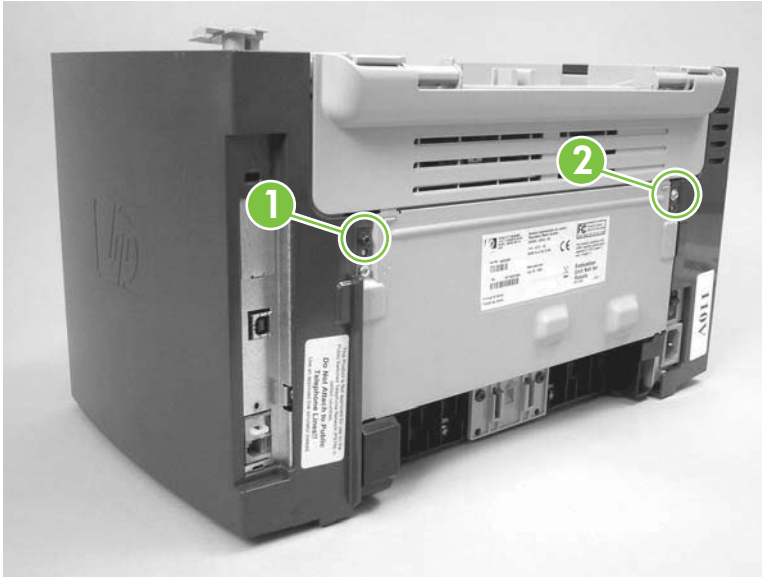


## Side covers

 **NOTE:** The procedure for removing the right-side and left-side covers is identical, with the exception of the location of the screw that fastens the cover to the product. The right-side cover is shown in the following procedure.

1. Remove one screw (callout 1). Callout 2 is on the left-side cover.

**Figure 6-61** Removing the side covers (1 of 4)



2. Release the locking tab on the back of the cover.

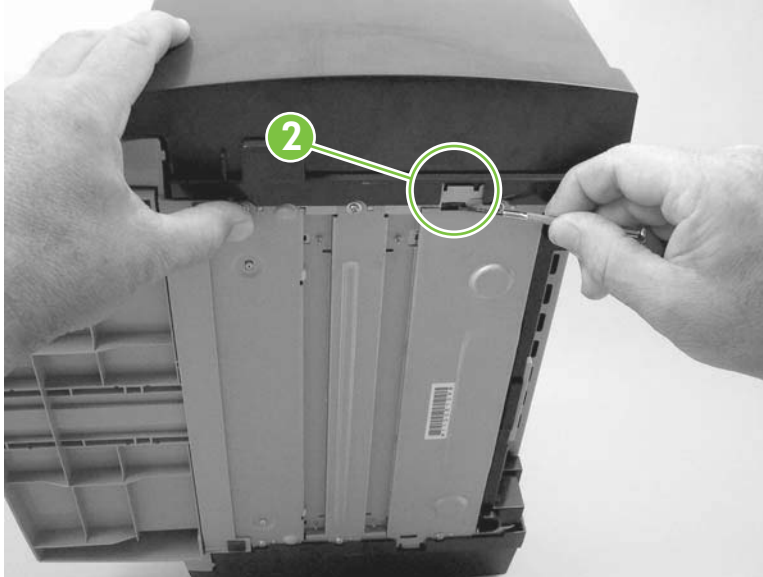
**Figure 6-62** Removing the side covers (2 of 4)



3. Release the bottom tab (callout 2).

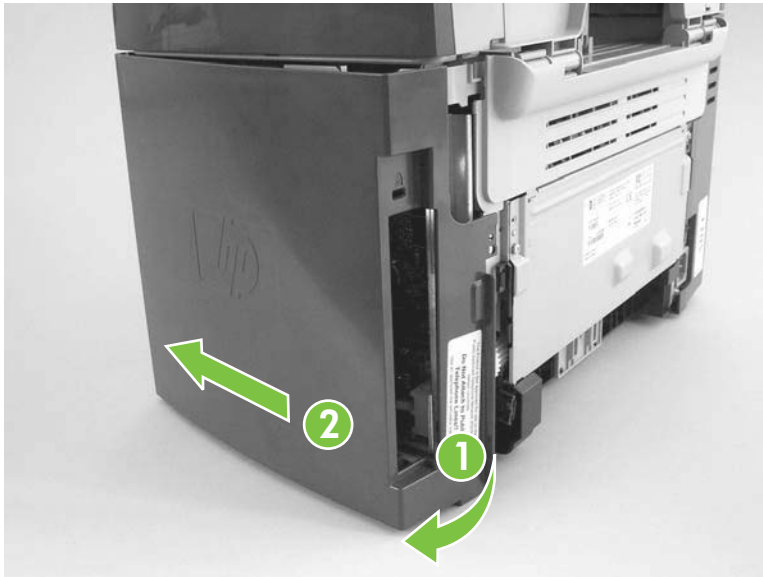
△ **CAUTION:** When removing the left-side cover, hang the product off of the table to gain access to the bottom tab. This prevents the I/O shield from being damaged if the right-side cover is off and the product is tilted too far up.

**Figure 6-63** Removing the side covers (3 of 4)



4. Slightly rotate the back side of the right cover away from the product, and then slide it toward the front of the product to release it.

**Figure 6-64** Removing the side covers (4 of 4)

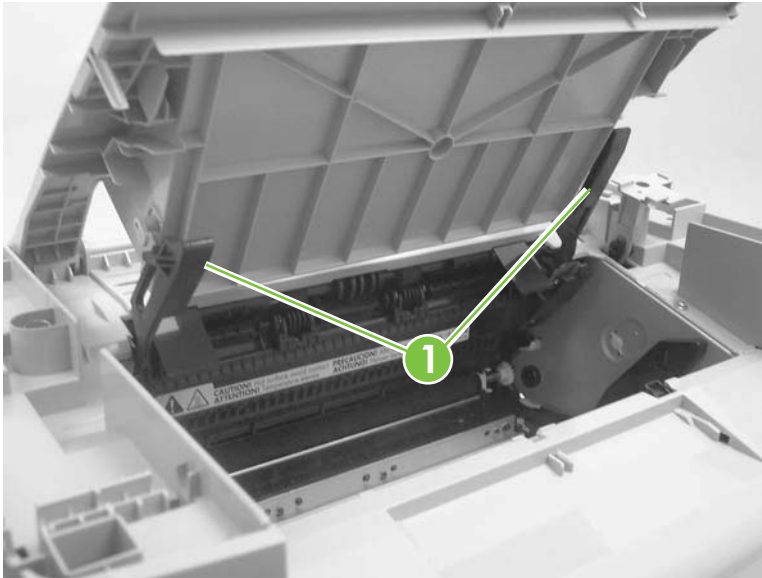


## Print-cartridge door

1. Remove the scanner assembly. See [Scanner assembly on page 85](#).
2. Fully open the print-cartridge door and gently pull downward on both print-cartridge swing arms (callout 1) to release them. (In [Figure 6-65 Removing the print-cartridge door \(1 of 2\)](#) on page 112, the left arm is disengaged).

△ **CAUTION:** Be careful when releasing the swing arms. They can easily break.

**Figure 6-65** Removing the print-cartridge door (1 of 2)



3. Rotate the door toward the back of the product and then lift it up and off of the product.

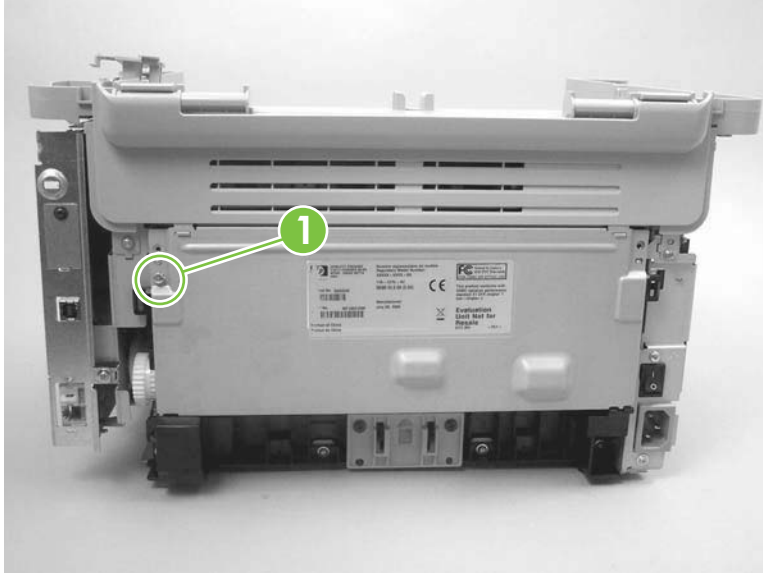
**Figure 6-66** Removing the print-cartridge door (2 of 2)



## Rear cover and fuser cover

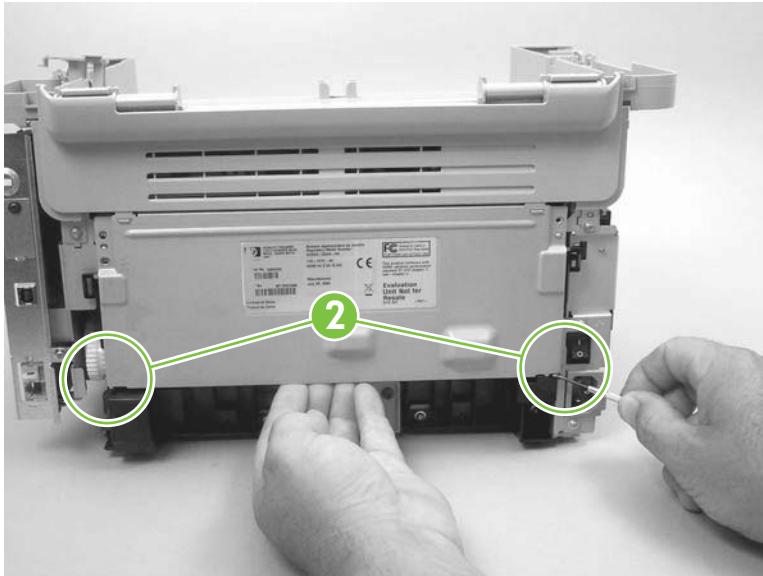
1. Remove the right-side and left-side covers. See [Side covers on page 110](#).
2. Remove one screw (callout 1).

**Figure 6-67** Removing the rear cover and fuser cover (1 of 3)



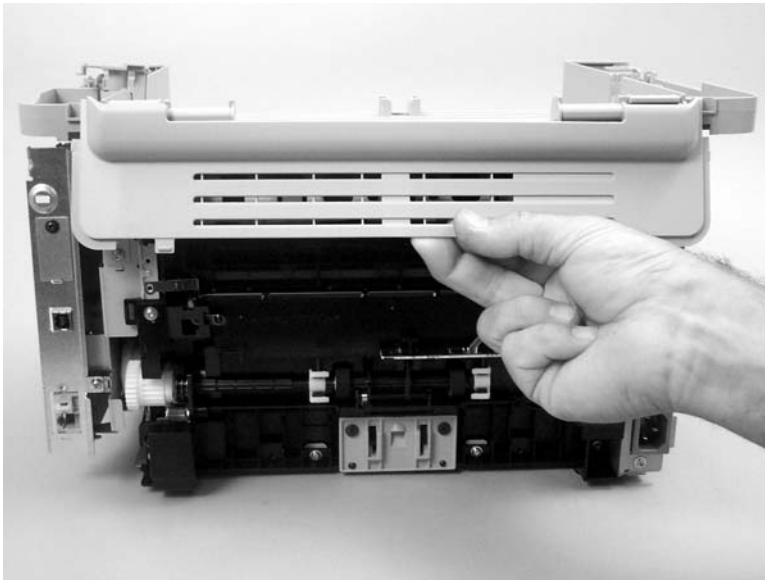
3. Release the two rear-cover locking tabs (callout 2). Rotate the bottom of the rear cover up and away from the product, and remove it.

**Figure 6-68** Removing the rear cover and fuser cover (2 of 3)



4. Rotate the bottom of the fuser cover away from the product, and remove the fuser cover.

**Figure 6-69** Removing the rear cover and fuser cover (3 of 3)

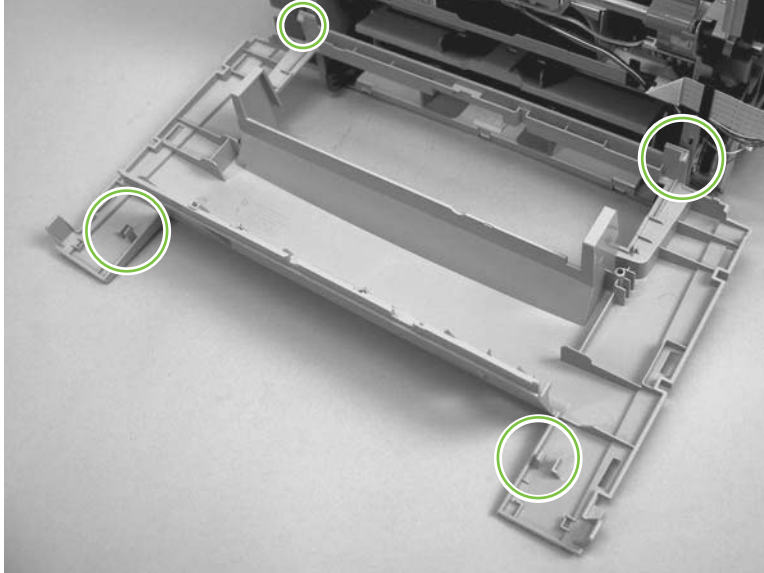




## Front cover

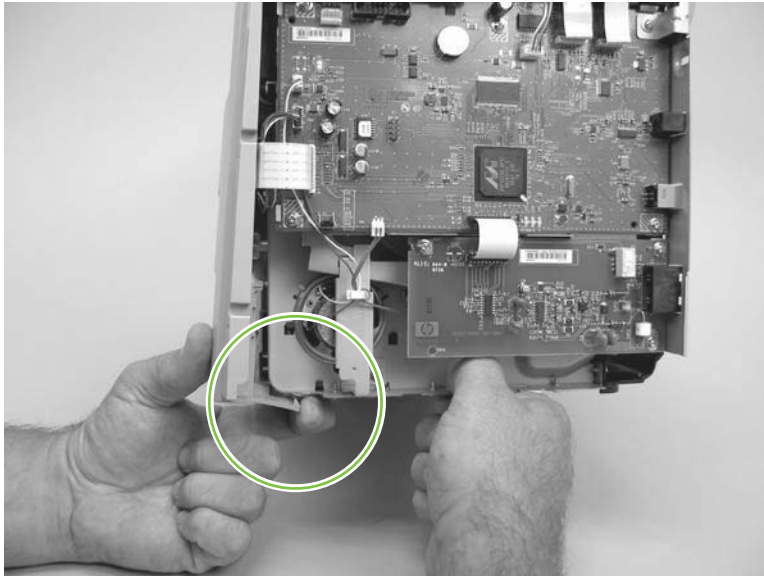
1. Remove the right-side and left-side covers. See [Side covers on page 110](#).
2. Before you begin, note the locations of the locking tabs on the back of the cover.

**Figure 6-70** Removing the front cover (1 of 5)



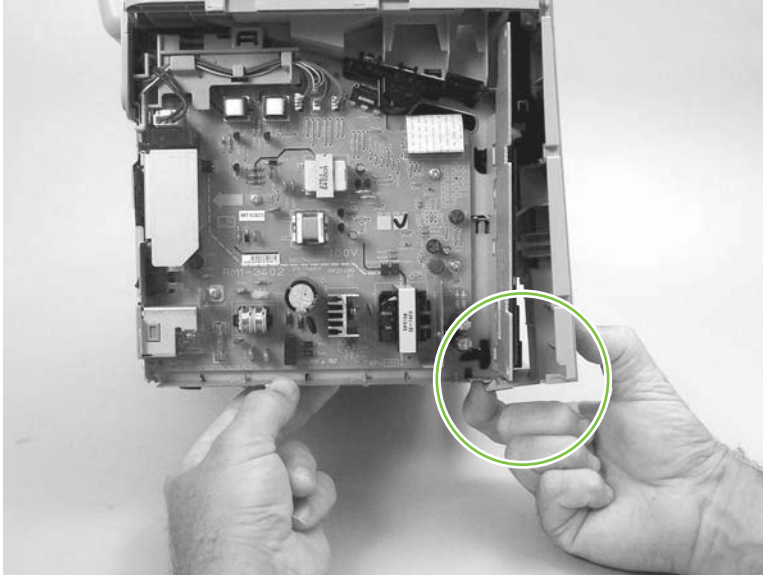
3. Release the locking tab on the lower-right-side front cover and slightly pry the lower-right corner of the front cover away from the product.

**Figure 6-71** Removing the front cover (2 of 5)



4. Release the locking tab on the lower-left-side front cover and slightly pry the lower-left corner of the front cover away from the product.

**Figure 6-72** Removing the front cover (3 of 5)




5. Locate and release the two locking tabs at the top of the front cover.

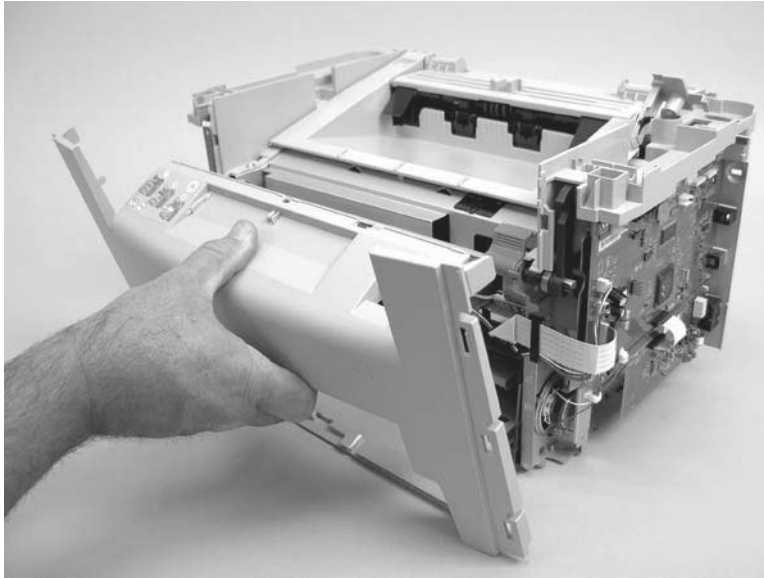
**Figure 6-73** Removing the front cover (4 of 5)



6. Remove the front cover.

 **NOTE:** You might need to gently pry the cover away from the chassis near the print-cartridge door to release two front-cover alignment pins.

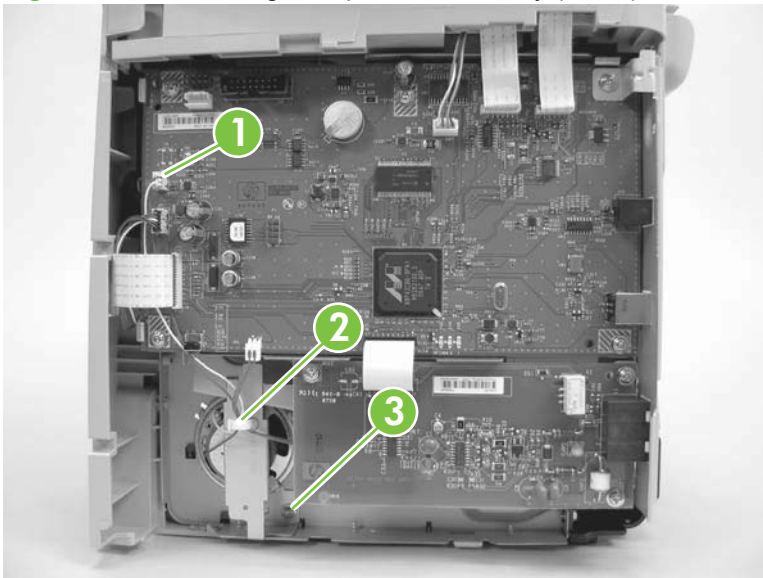
**Figure 6-74** Removing the front cover (5 of 5)



## Speaker assembly

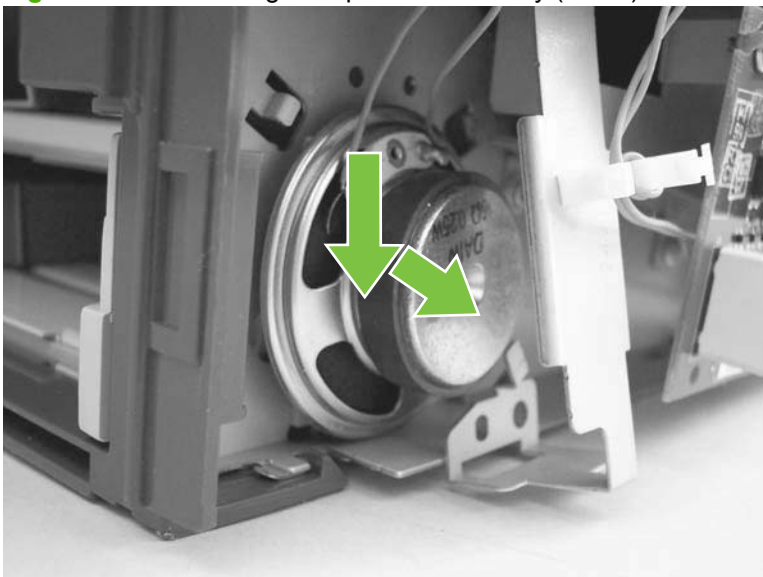
1. Remove the right-side product cover. See [Side covers on page 110](#)
2. Disconnect one wire-harness connector (callout 1), unclip one wire retainer (callout 2), and then remove one screw (callout 3).

**Figure 6-75** Removing the speaker assembly (1 of 2)




3. Carefully pry the sheet-metal brace away from the product chassis. Slide the speaker down and slightly to the right to release it from the retaining clips on the product chassis.

**Figure 6-76** Removing the speaker assembly (2 of 2)

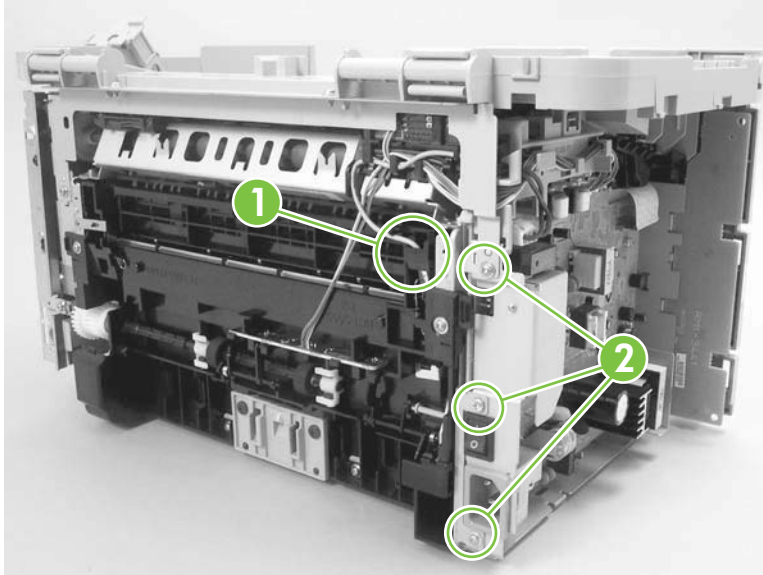


## Power supply


1. Remove the rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
2. Disconnect one spade connector (callout 1) and remove three screws (callout 2).

 **Reinstallation tip** The center screw in callout 2 is a ground screw and is different from the others. When reinstalling the power supply, make sure that this screw is used in the center hole.

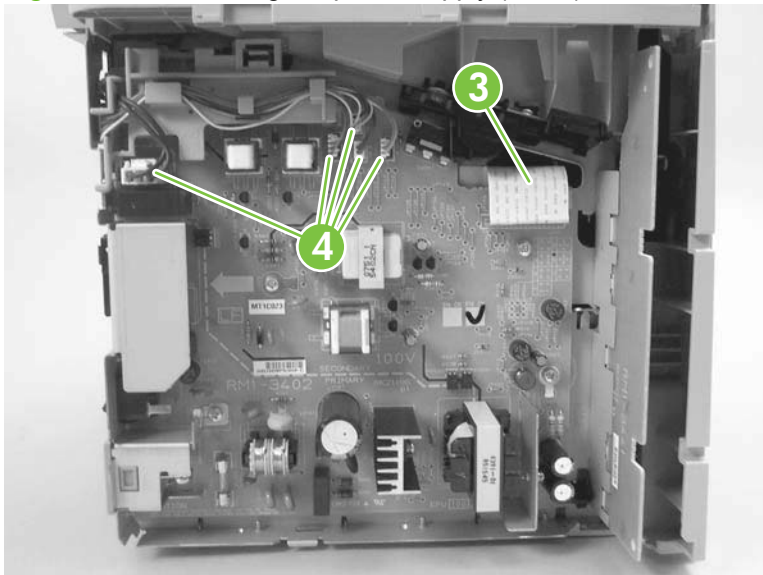
**Figure 6-77** Removing the power supply (1 of 5)



3. Disconnect one FFC (callout 3) and five wire-harness connectors (callout 4) and remove them from the wire loom.

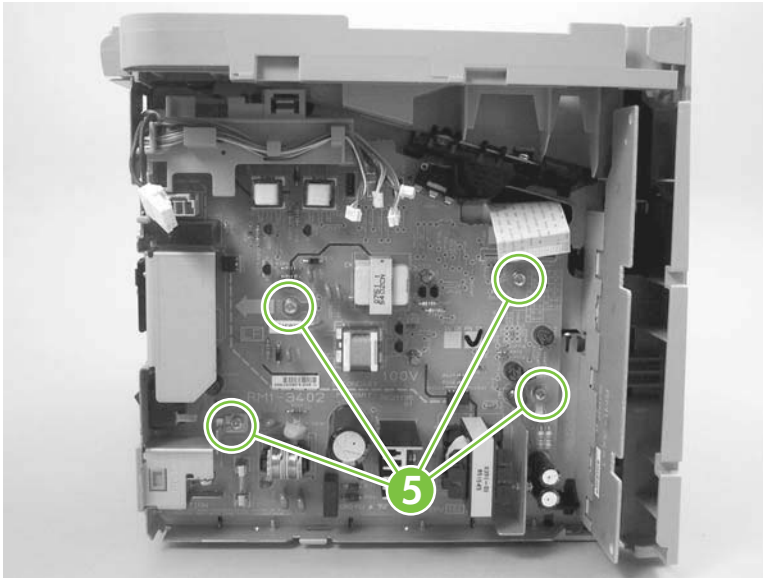
 **CAUTION:** Do not bend or fold the FFCs during the removal or reinstallation process.

**Figure 6-78** Removing the power supply (2 of 5)



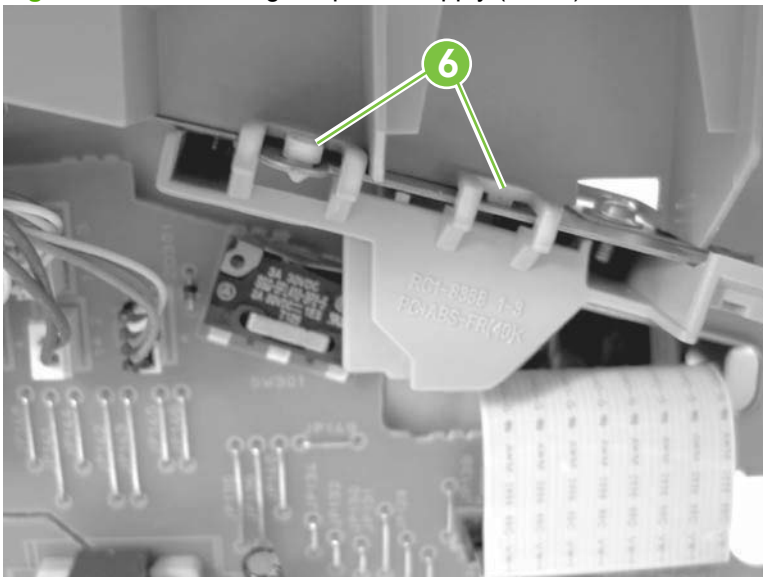
4. Remove four screws (callout 5).

**Figure 6-79** Removing the power supply (3 of 5)



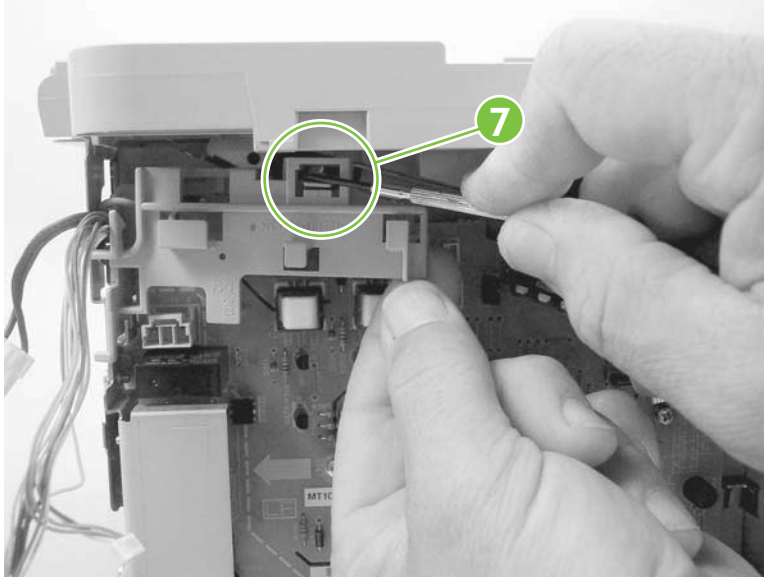
5. Unclip two clips (callout 6) and remove the switch cover (located at the upper-right corner of the power supply).

**Figure 6-80** Removing the power supply (4 of 5)



6. Unclip one clip (callout 7) and dislodge, but do *not* remove, the wire guide, and then remove the power supply.

**Figure 6-81** Removing the power supply (5 of 5)



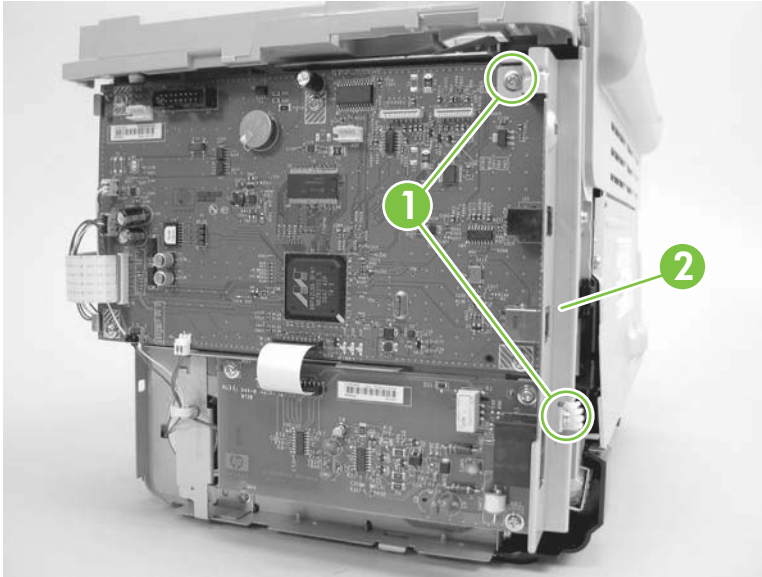


## Formatter and fax card

△ **CAUTION:** The formatter and fax card are ESD-sensitive devices.

1. Remove the right cover. See [Side covers on page 110](#).
2. Remove two screws (callout 1) and the I/O shield (callout 2).

**Figure 6-82** Removing the formatter (1 of 4)



3. Disconnect all of the connectors on the formatter.

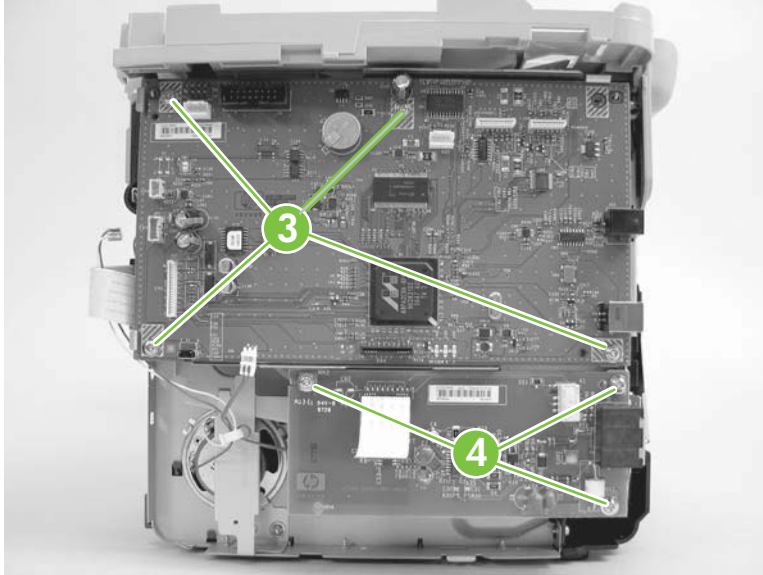
**Figure 6-83** Removing the formatter (2 of 4)





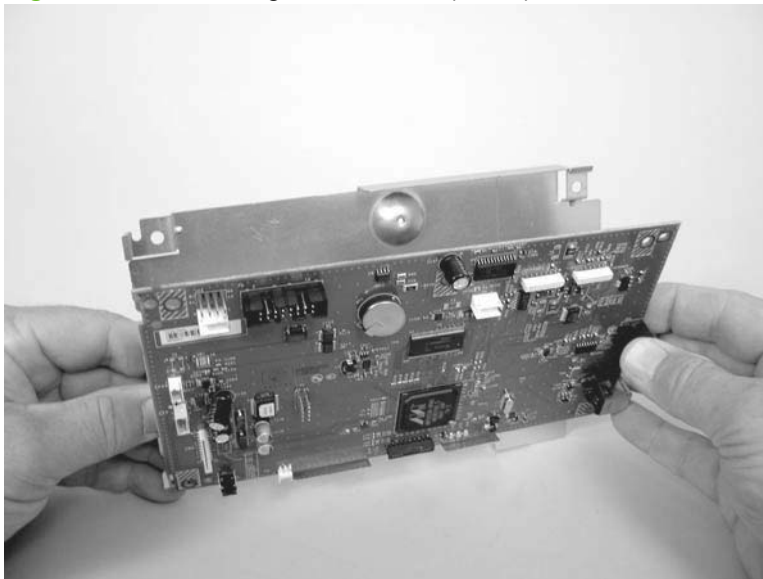
4. Remove four screws from the formatter PCA (callout 3). Remove three screws (callout 4) from the fax card. Remove the formatter and the fax card PCAs.

**Figure 6-84** Removing the formatter (3 of 4)



5. Gently separate the formatter from the sheet-metal shield. Mount the replacement formatter on this shield.

**Figure 6-85** Removing the formatter (4 of 4)



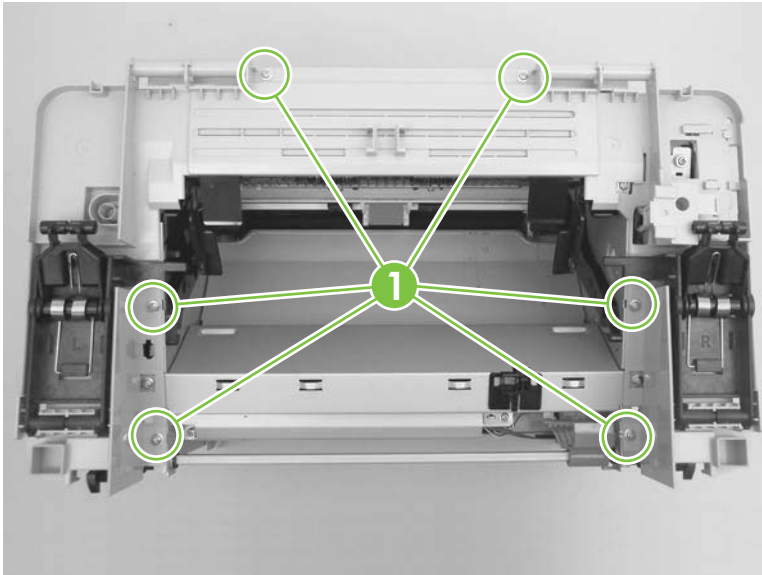
## Scanner support-frame

1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
2. Remove six screws (callout 1).

△ **CAUTION:** Be careful not to drop any screws into the product.

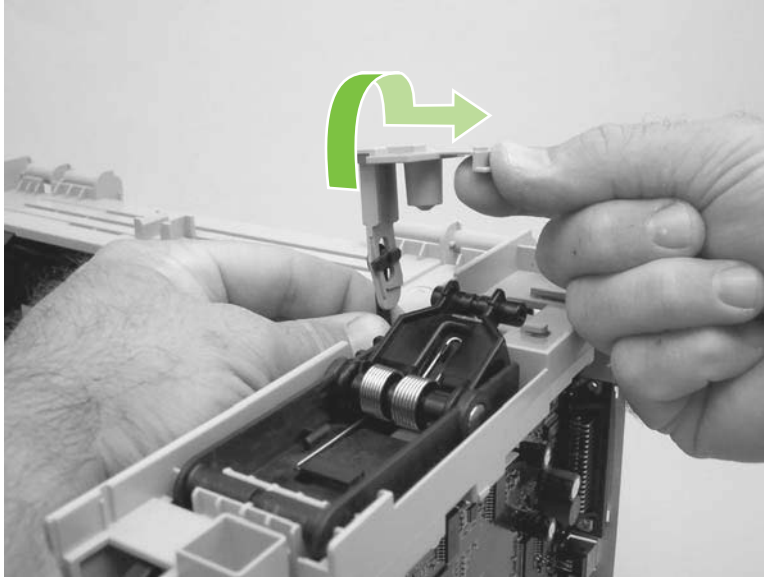
📄 **NOTE:** If you turn over the scanner support-frame after you remove it, the two scanner cushions might fall out and be misplaced.

**Figure 6-86** Removing the scanner support-frame (1 of 4)



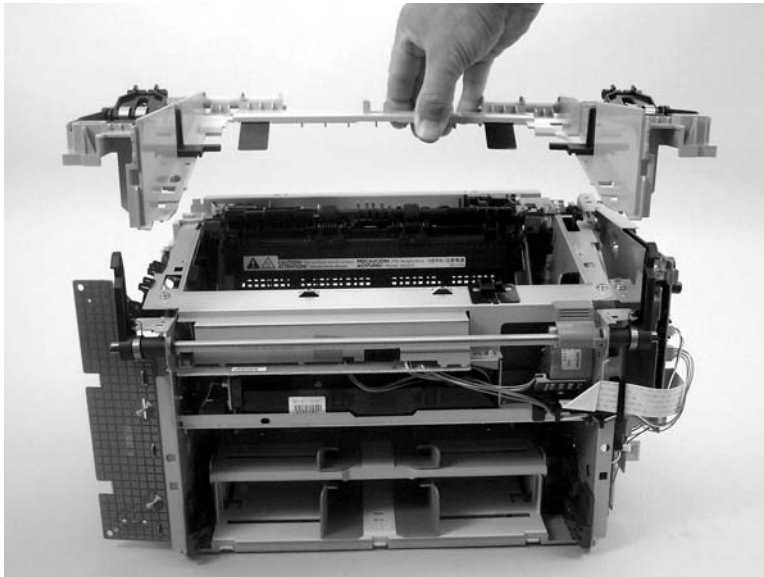
3. Rotate the gear-drive bracket until the retainer on the gear-drive arm aligns with the opening in the bracket, and remove the bracket.

**Figure 6-87** Removing the scanner support-frame (2 of 4)



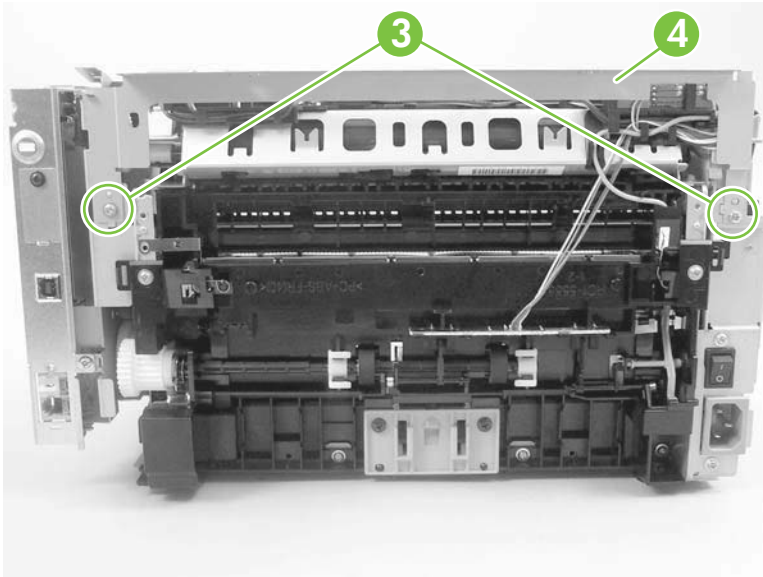
4. Lift the scanner support-frame up and off of the product.

**Figure 6-88** Removing the scanner support-frame (3 of 4)



5. If you are removing the scanner support-frame in order to gain access to the fuser, remove two screws (callout 3) and the chassis reinforcement plate (callout 4)

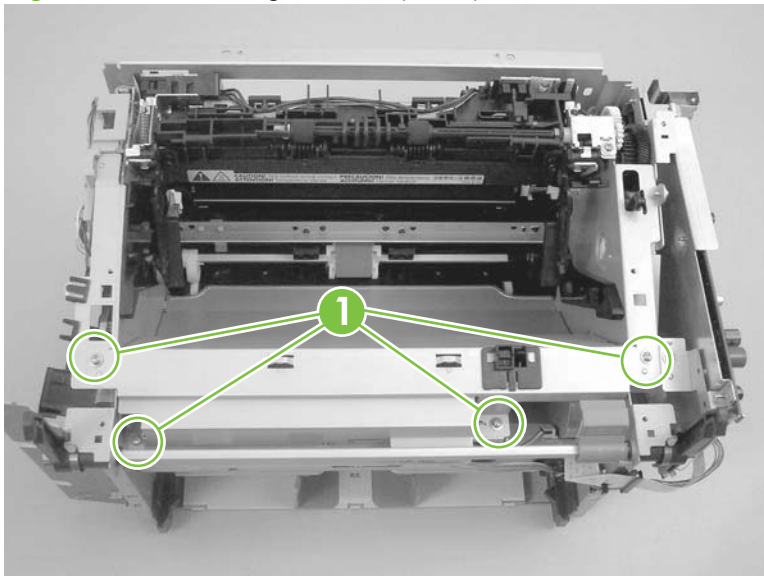
**Figure 6-89** Removing the scanner support-frame (4 of 4)



## Engine controller unit (ECU)

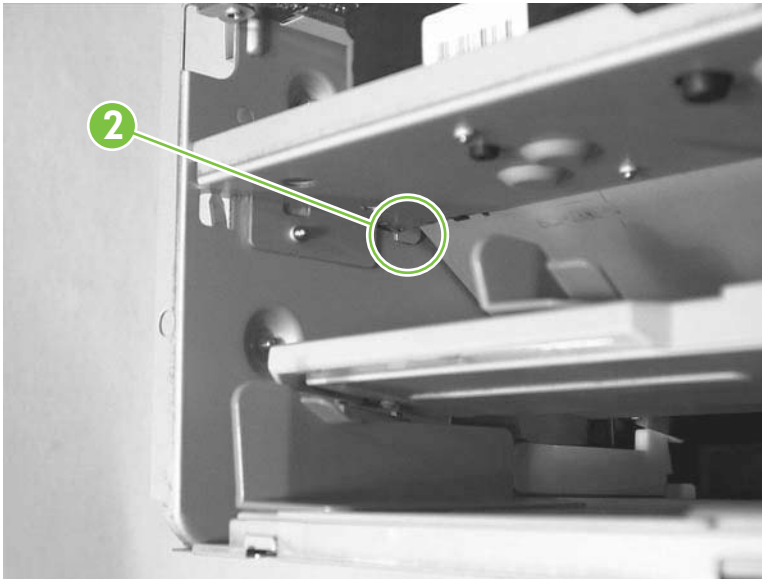
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
  - Scanner support-frame. See [Scanner support-frame on page 124](#).
2. Remove four screws (callout 1).

**Figure 6-90** Removing the ECU (1 of 6)



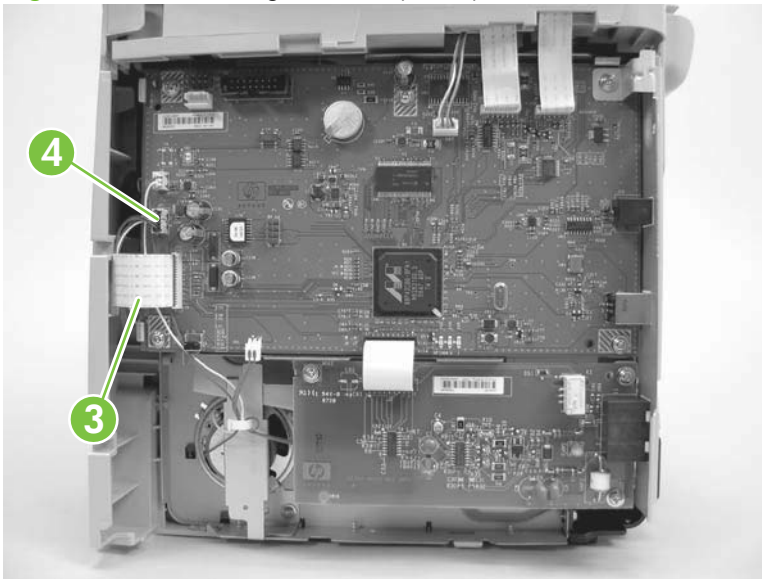
3. Use a long flat-blade screwdriver to disengage the two ECU shield retainer hooks, one at each side, inside the product (left hook shown; callout 2). Push the hooks into the product to disengage them.

**Figure 6-91** Removing the ECU (2 of 6)



4. Disconnect one FFC (callout 3) and one wire-harness connector (callout 4) from the formatter.

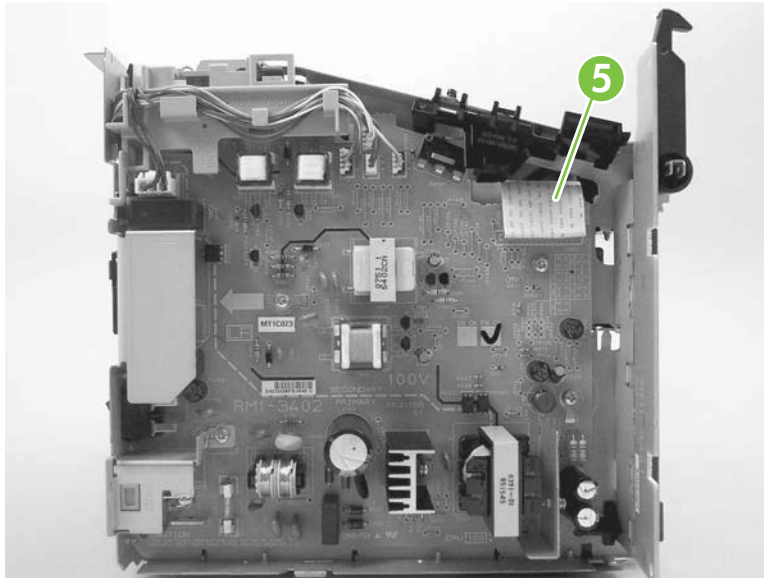
**Figure 6-92** Removing the ECU (3 of 6)



5. Disconnect one FFC (callout 5) from the power supply.

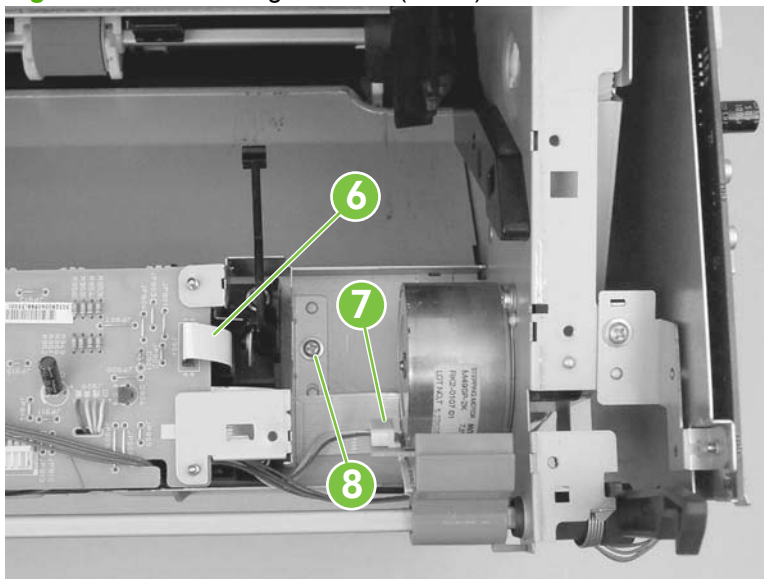
△ **CAUTION:** Do not bend or fold the FFCs during the removal or reinstallation process.

**Figure 6-93** Removing the ECU (4 of 6)



6. Disconnect one FFC (callout 6) from the ECU and the wire-harness connector to the main motor (callout 7). Remove one screw (callout 8).

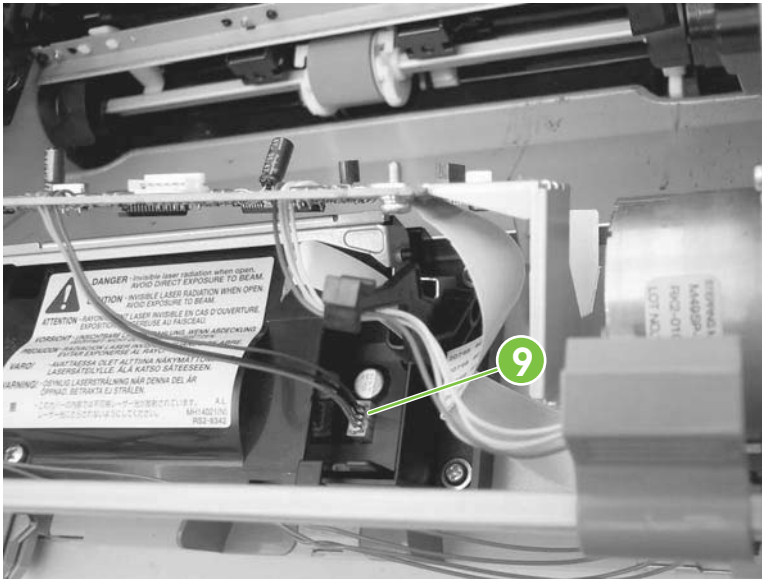
**Figure 6-94** Removing the ECU (5 of 6)





7. Carefully remove the ECU from the product. As you remove it, unweave the wire harnesses and FFCs from the wire looms, and disconnect one wire-harness connector (callout 9) from the laser/scanner. Remove the ECU.

**Figure 6-95** Removing the ECU (6 of 6)

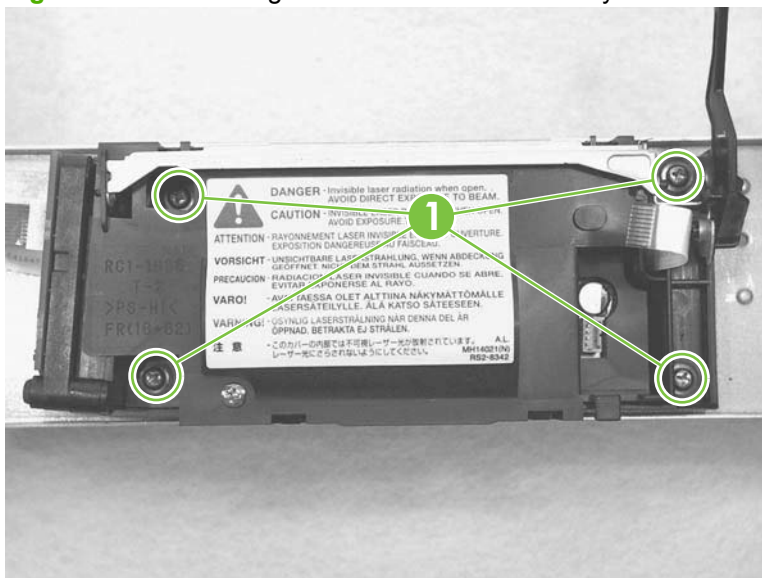




## Laser/scanner assembly

1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
  - Scanner support-frame. See [Scanner support-frame on page 124](#).
  - ECU. See [Engine controller unit \(ECU\) on page 127](#).
2. Remove four screws (callout 1). Remove the laser/scanner assembly.

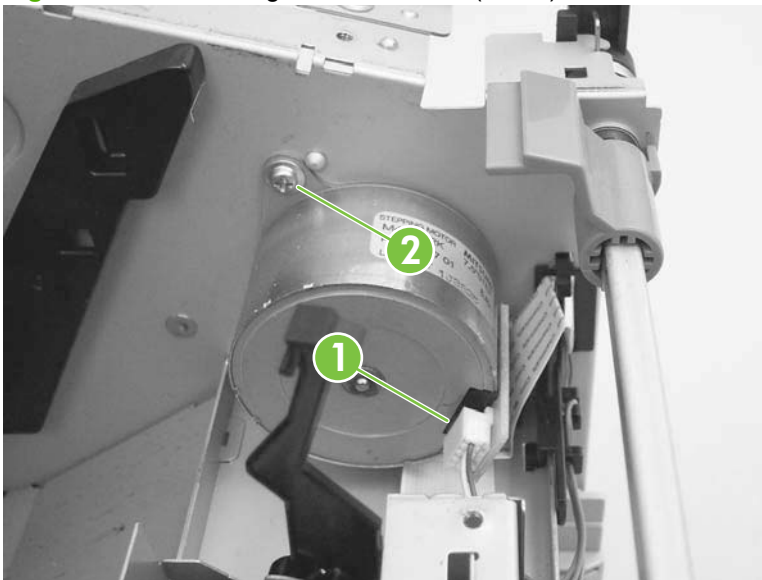
**Figure 6-96** Removing the laser/scanner assembly



## Main motor

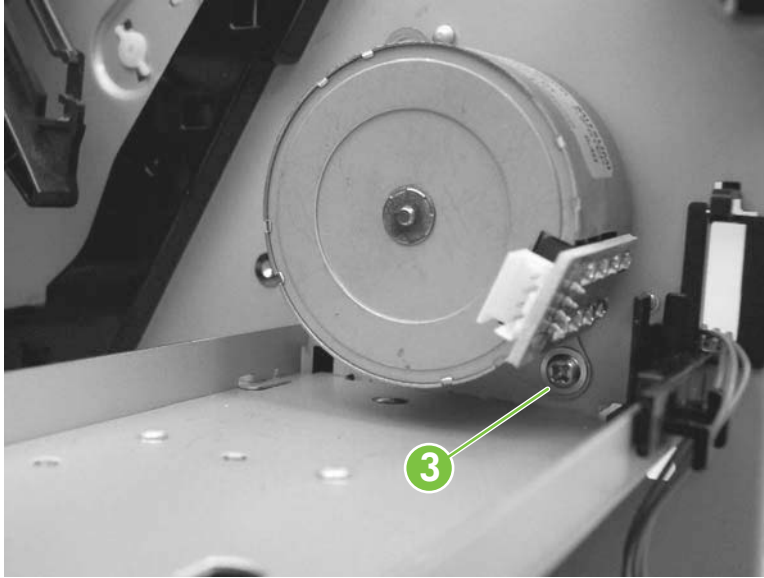
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Formatter. See [Formatter and fax card on page 122](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
  - Scanner support-frame. See [Scanner support-frame on page 124](#).
  - ECU. See [Engine controller unit \(ECU\) on page 127](#).
  - Laser/scanner assembly. See [Laser/scanner assembly on page 131](#).
2. Disconnect the motor wire-harness connector (callout 1) and remove one screw (callout 2).

**Figure 6-97** Removing the main motor (1 of 2)



3. Remove one screw (callout 3), and remove the main motor.


**Figure 6-98** Removing the main motor (2 of 2)



## Fuser

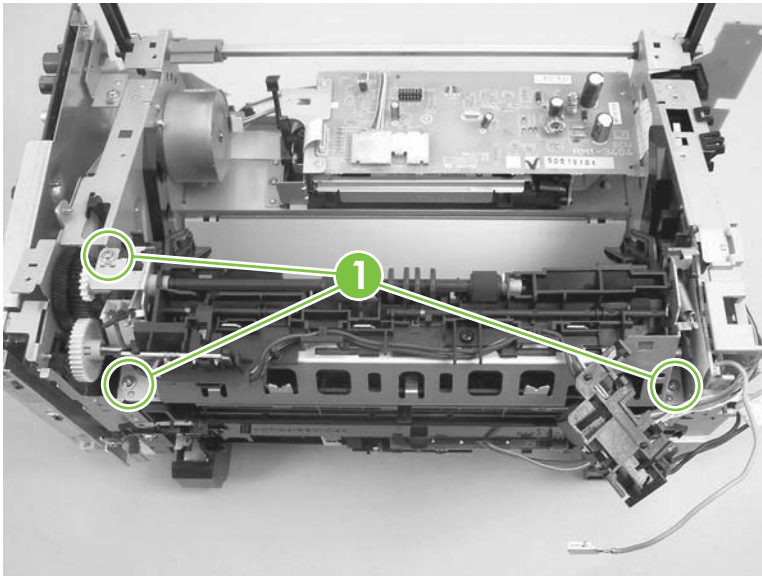
1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
  - Scanner support-frame and chassis reinforcement plate. See [Scanner support-frame on page 124](#).
2. Disconnect cables from near the top of the engine power assembly and disconnect the large grounding wire from the back of the product.
3. Disengage the wire-harnesses from the wire retainers to release the fuser assembly.
4. Remove three screws (callout 1).

---

 **NOTE:** It is not necessary to remove the delivery-sensor PCA, but you need to move it to gain access to one screw.

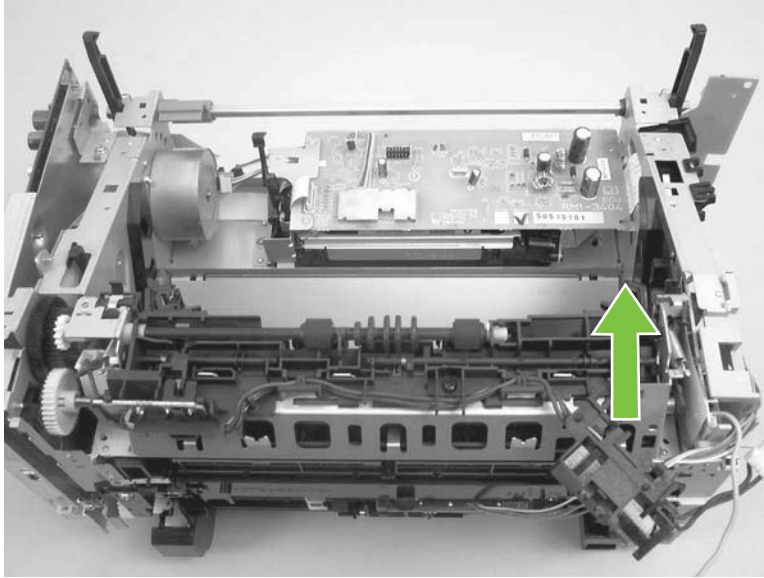
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**Figure 6-99** Removing the fuser assembly (1 of 2)




5. Lift the fuser assembly at the right and remove it.

**Figure 6-100** Removing the fuser assembly (2 of 2)



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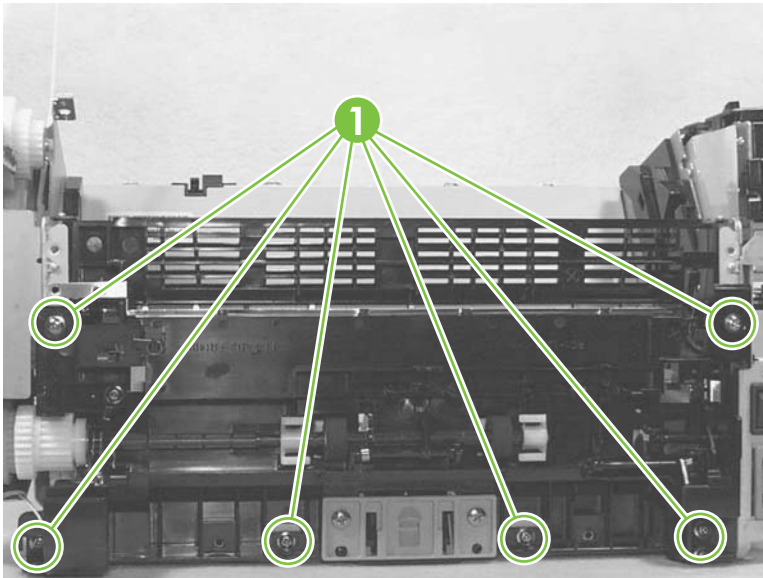
 **NOTE:** When replacing the fuser assembly, be sure to transfer the delivery-sensor PCB from the old fuser to the new one.

---

## Paper-pickup assembly

1. Remove the following assemblies:
  - Scanner assembly. See [Scanner assembly on page 85](#).
  - Left cover. See [Side covers on page 110](#).
  - Rear cover and fuser cover. See [Rear cover and fuser cover on page 113](#).
  - Print-cartridge door. See [Print-cartridge door on page 112](#).
  - Front cover. See [Front cover on page 115](#).
  - Transfer roller. See [Transfer roller on page 108](#).
  - Fuser. See [Fuser on page 134](#).
2. Remove six screws (callout 1).

**Figure 6-101** Removing the paper-pickup assembly



3. Unplug and remove any additional wire-harnesses as necessary to release the paper-pickup assembly. Unplug and remove the wire from the solenoid to the formatter.
4. Lift the assembly out of the frame.

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# 7 Solve problems

- [Problem-solving checklist](#)
- [Menu map](#)
- [Tools for troubleshooting](#)
- [Problem-solving diagrams](#)
- [Control-panel messages](#)
- [Solve paper-handling problems](#)
- [Solve image-quality problems](#)
- [Solve copy problems](#)
- [Solve scan problems](#)
- [Solve control-panel display problems](#)
- [Solve connectivity problems](#)
- [Solve DSL problems](#)
- [Solve fax with Voice over IP services problems](#)
- [Service-mode functions](#)
- [Solve fax problems](#)

# Problem-solving checklist

Follow these steps when trying to solve a problem with the product.

Verification step	Possible problems	Solutions
<p><b>Is the power on?</b></p> <p>When the product is connected to a grounded power source and is turned on, the control panel shows <b>Hewlett-Packard</b>, indicating that the firmware code is loading, and the main motor rotates for approximately 45 to 60 seconds.</p>	No power due to failed power source, cable, switch, or fuse.	<ol style="list-style-type: none"> <li>1. Verify that the product is plugged in.</li> <li>2. Verify that the power cable is functional and that the power switch is on.</li> <li>3. Check the power source by plugging the product directly into the wall or into a different outlet.</li> </ol>
<p><b>Does Ready appear in the product control panel?</b></p> <p>The control panel should function without error messages.</p>	Control panel shows an error.	See <a href="#">Control-panel messages on page 154</a> for a list of common messages that will help you correct the error.
<p><b>Do information pages print?</b></p> <p>Print a configuration page. See <a href="#">Information pages on page 26</a>.</p>	<p>An error message appears on the control-panel display.</p> <hr/> <p>Paper jams when printing.</p> <hr/> <p>Poor print quality</p>	<p>See <a href="#">Control-panel messages on page 154</a> for a list of common messages that will help you correct the error.</p> <hr/> <p>Make sure that media that meets HP specifications.</p> <p>Clean the paper path. See <a href="#">Clean the paper path on page 35</a>.</p> <hr/> <p>See <a href="#">Solve image-quality problems on page 169</a>.</p>
<p><b>Does the product copy?</b></p> <p>Place the configuration page into the ADF and make a copy. The report should feed smoothly through the ADF, and copies should print without print-quality problems.</p>	<p>Poor copy quality from the ADF.</p> <hr/> <p>Paper jams when printing.</p> <hr/> <p>Media does not move smoothly through the ADF path.</p>	<p>Clean the glass and white platen. See <a href="#">Clean the glass and white platen on page 35</a>.</p> <hr/> <p>Make sure that media that meets HP specifications.</p> <p>Clean the paper path. See <a href="#">Clean the paper path on page 35</a>.</p> <hr/> <ol style="list-style-type: none"> <li>1. Clean the ADF pick roller.</li> <li>2. If the problem persists, replace the ADF pick roller.</li> <li>3. If the problem persists, replace the ADF.</li> </ol>
<p><b>Does the product send a fax?</b></p> <p>Pick up the hand set, and check for a dial tone. If a dial tone is present, attempt to send a fax.</p>	<p>The telephone line is not operational or the product is not plugged into the telephone line.</p> <hr/> <p>The telephone cord is faulty or is plugged into the wrong connector.</p>	<p>Verify that the product is plugged into a telephone line that you know works.</p> <hr/> <ol style="list-style-type: none"> <li>1. Try plugging the telephone cord into the other connector.</li> <li>2. Try a new telephone cord.</li> </ol>
<p><b>Does the product receive a fax?</b></p> <p>Use another fax machine to send a fax to the product, if available.</p>	<p>Too many telephone devices are plugged in, or telephone devices are not connected in the correct order.</p> <hr/> <p>The product fax settings are set incorrectly.</p>	<p>Make sure that the HP LaserJet M1319 MFP is the only device on the telephone line and try again to receive the fax.</p> <hr/> <p>Review and reset the product fax settings. See <a href="#">Control-panel main menus on page 13</a>.</p>



Verification step	Possible problems	Solutions
<p><b>Does the product print from the computer?</b></p> <p>Use a word-processing program to send a print job to the product.</p>	Software is not installed correctly or an error occurred during software installation.	Uninstall and then reinstall the product software. Verify that you are using the correct installation procedure and the correct port setting.
	The cable is not connected correctly.	Reconnect the cable.
	An incorrect driver is selected.	Select the proper driver.
	There is a port driver problem in Microsoft Windows.	Uninstall and then reinstall the product software. Verify that you are using the correct installation procedure and the correct port setting.
<p><b>Does the product scan to the computer?</b></p> <p>Initiate a scan from the basic desktop software at your computer.</p>	The cable is not connected correctly.	Reconnect the cable.
	Software is not installed correctly or an error occurred during software installation.	Uninstall and then reinstall the product software. Verify that you are using the correct installation procedure and the correct port setting.
	If the error persists, turn off the product and then turn on the product.	

# Menu map

## Print a menu map

1. Press **Setup**.
2. Use the arrow buttons to navigate to the **Reports** menu, and then press **OK**.
3. Use the arrow buttons to navigate to the **Menu Structure** submenu, and then press **OK** to print the menu structure.


# Tools for troubleshooting

## Component tests

### Drum rotation test

The photosensitive drum, located in the print cartridge, must rotate in order for the print process to work. The photosensitive drum receives its drive from the main-drive assembly.

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 **NOTE:** This test is especially important if refilled print cartridges have been used.

---

1. Open the print-cartridge door.
2. Remove the print cartridge.
3. Mark the drive gear on the cartridge with a felt-tipped marker. Note the position of the mark.
4. Install the print cartridge and close the print-cartridge door. The startup sequence should rotate the drum enough to move the mark.
5. Open the print-cartridge door and inspect the gear that was marked in step 3. Verify that the mark moved.

If the mark did not move, inspect the main-drive assembly to make sure that it is meshing with the print cartridge gears. If the drive gears appear functional and the drum does not move, replace the print cartridge.

## Half self-test functional check

The print process can be subdivided into the following stages:

- Image formation stage (charges the drum and writes a latent image to the drum with the laser)
- Development stage (forms a toner image on the drum)
- Transfer stage (transfers the image to the media)
- Cleaning stage (removes excess toner from the drum)
- Fusing stage (applies heat and pressure to the media to make the image permanent)

## Perform a half self-test check

The purpose of the half self-test check is to determine which process is malfunctioning.

1. Print a configuration page.
2. Open the print-cartridge access door after the paper advances halfway through the product (approximately five seconds after the motor begins rotating). The leading edge of the paper should have advanced past the print cartridge.
3. Remove the print cartridge.
4. Open the print-cartridge drum shield to view the drum surface. If a dark and distinct toner image is present on the drum surface, assume that the first two functions of the electrophotographic process are functioning (image formation and development). Problem solve the failure as a transfer or fusing problem.

## Perform other checks

If no image appears on the photosensitive drum, perform these checks:


1. Make sure that you removed the entire length of the sealing tape from the print cartridge before you installed the cartridge.
2. Perform a drum-rotation functional check to ensure that the drum is rotating (see [Drum rotation test on page 141](#)).
3. Perform a high-voltage power-supply check. See [Heating element check on page 143](#).

## Heating element check

Media passes between the heating element and a soft pressure roller to fuse toner to the media.

1. Unplug the product for at least ten minutes.
2. Verify that the thermistor connector is seated into both the product chassis and the ECU.
3. Remove the heating element connector from the ECU. To measure the continuity of the heating element, measure the resistance between the two pins at the end of the cable.

---


 **NOTE:** Normal resistance is 25 ohms +/- 10 ohms for the 110 V product and 80 ohms +/- 20 ohms for the 220 V product.

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If no resistance is measured, replace the fuser.

4. Remove the thermistor connector, and then measure the resistance between J206 pins one and two and between J206 pins three and four.

---

 **NOTE:** Normal resistance between both pairs of pins is 370K ohms +/- 50K ohms at 20°C (68° F).

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5. If no resistance is measured, replace the fuser.


## High-voltage contacts check

The high-voltage contacts in the product must have a good connection with the contacts on the print cartridge to provide the necessary voltages for the electrophotographic processes.

### Check the print-cartridge contacts

Remove the print cartridge and visually inspect the three connection points on the left end of the print cartridge: drum ground, charging, and developing roller. If they are dirty or corroded, clean the connection. If they are damaged, replace the print cartridge.

---

 **NOTE:** Use only isopropyl alcohol to clean the connections.

---


### Check the high-voltage connector assembly

Visually inspect the cartridge connection points inside the product to make sure that they are not dirty or corroded. If the pins are dirty, clean them by using isopropyl alcohol only.

# Problem-solving diagrams

## Repetitive image defects

If the product output has a consistent, repetitive defect, use the table in this section to determine which part needs to be replaced based on the measured distance between the repetitions of the defect.

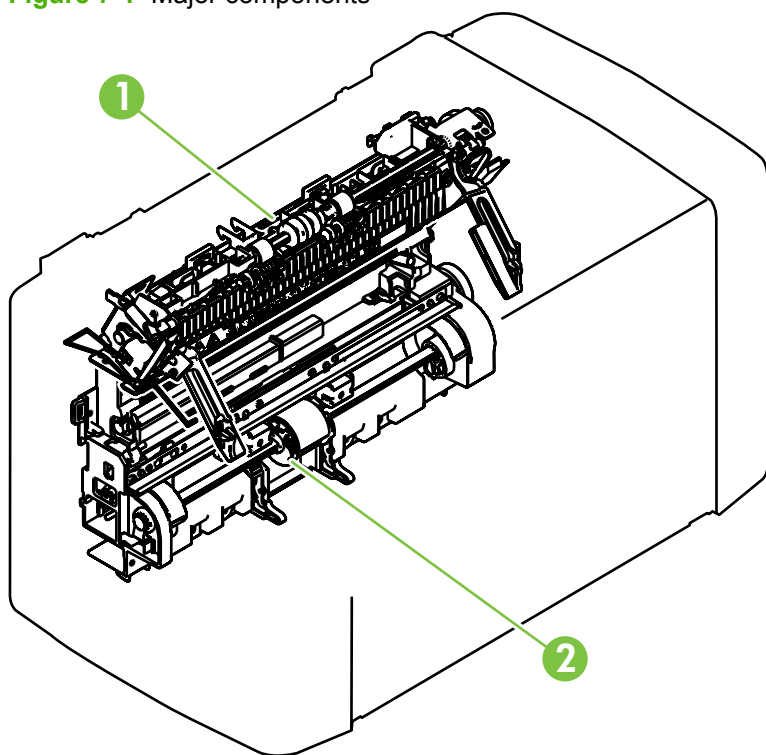
 **NOTE:** The following table replaces the graphical repetitive defect ruler. You can make your own ruler by using these measurements.

**Table 7-1 Repetitive image defects**

Distance between identical defects	Component	Solution
30.8 mm ( 1.21 in)	Print cartridge	Replace the print cartridge. See <a href="#">Print cartridge on page 101</a> .
37.7 mm ( 1.48 in)	Print cartridge	Replace the print cartridge. See <a href="#">Print cartridge on page 101</a> .
41.0 mm ( 1.61 in)	Fuser	Replace the fuser. See <a href="#">Fuser on page 134</a> .
46.3 mm ( 1.82 in)	Transfer roller	Replace the transfer roller. See <a href="#">Transfer roller on page 108</a> .
55.2 mm ( 2.17 in)	Paper-pickup assembly	Replace the paper-pickup assembly. See <a href="#">Paper-pickup assembly on page 136</a> .
56.5 mm ( 2.22 in)	Fuser	Replace the fuser. See <a href="#">Fuser on page 134</a> .
76.3 mm ( 3.00 in)	Print cartridge	Replace the print cartridge. See <a href="#">Print cartridge on page 101</a> .

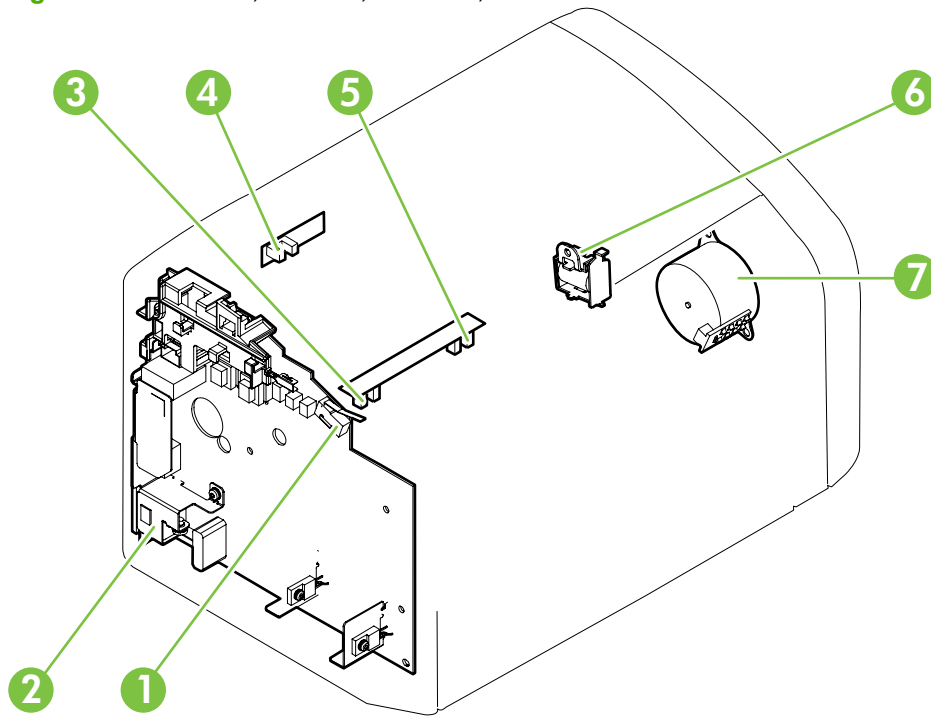
## Component locations

Figure 7-1 Major components



1	Fuser assembly
2	Paper-pickup assembly

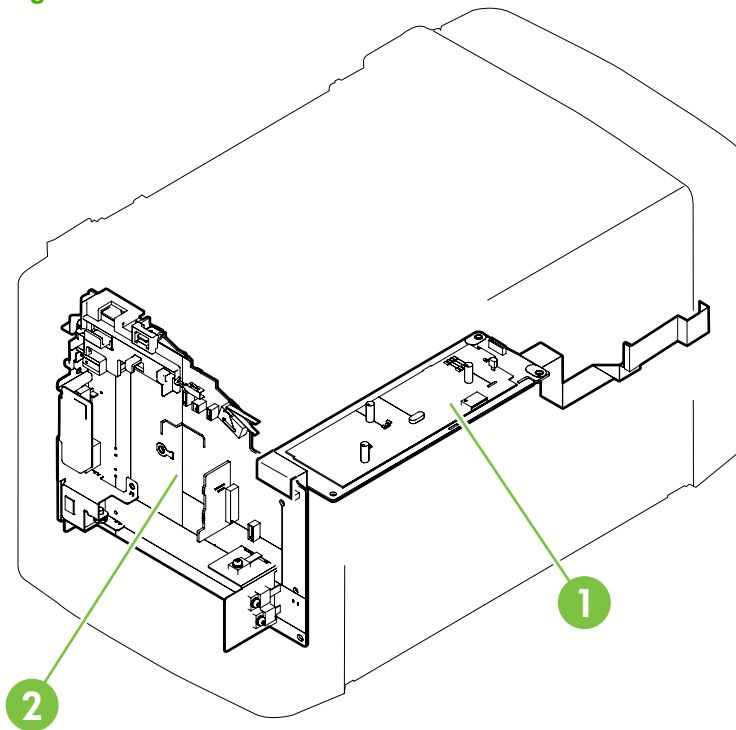
**Figure 7-2** Solenoid, sensors, switches, and motor



1	Print-cartridge-door switch
2	Power switch/power supply
3	Paper-width sensor
4	Paper-delivery sensor
5	Top-of-page sensor
6	Solenoid
7	Motor



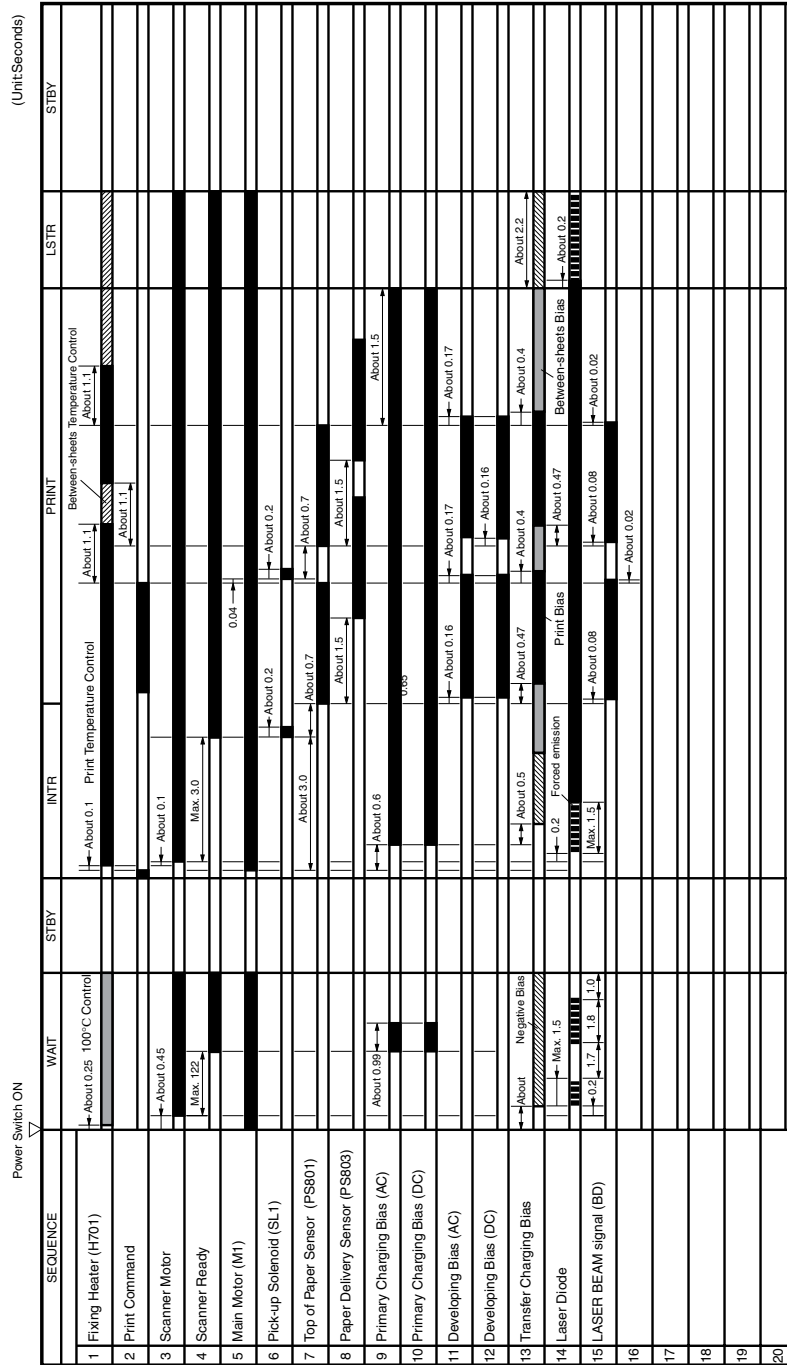
Figure 7-3 PCAs



1	Engine controller unit (ECU)
2	Formatter

# Timing diagram, product base

Figure 7-4 Timing diagram, product base



# Main wiring

Figure 7-5 Main wiring, scanner assembly

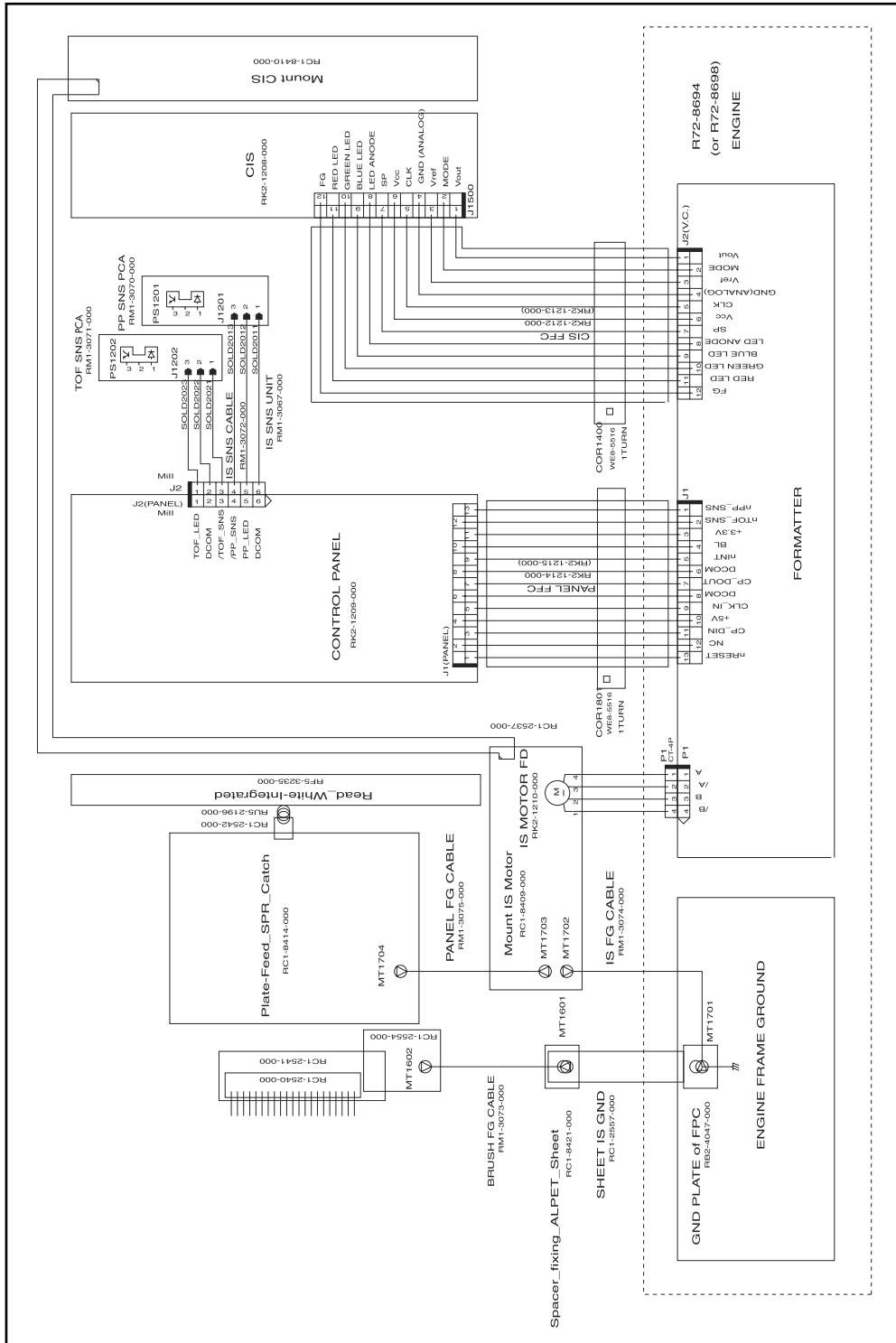
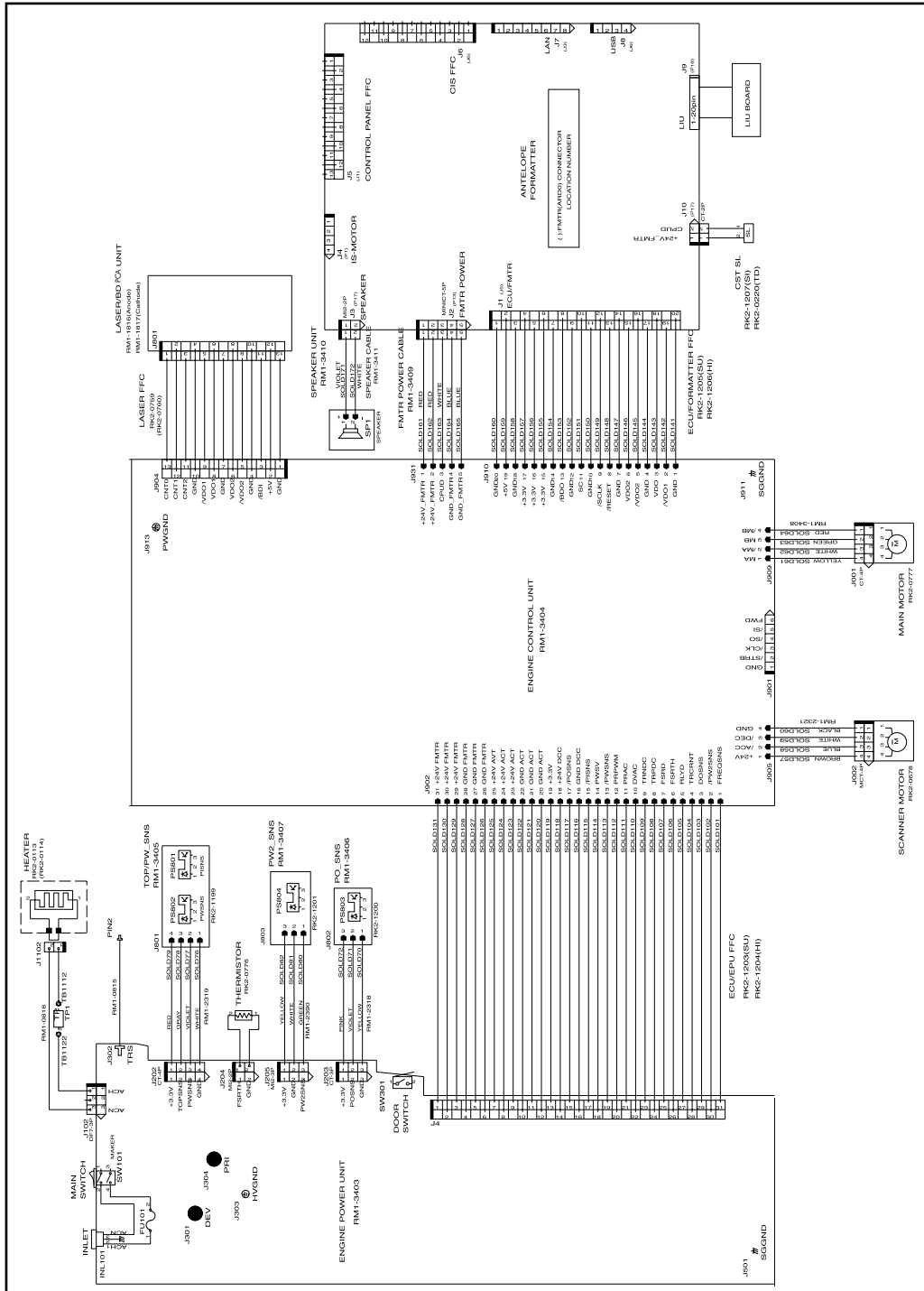


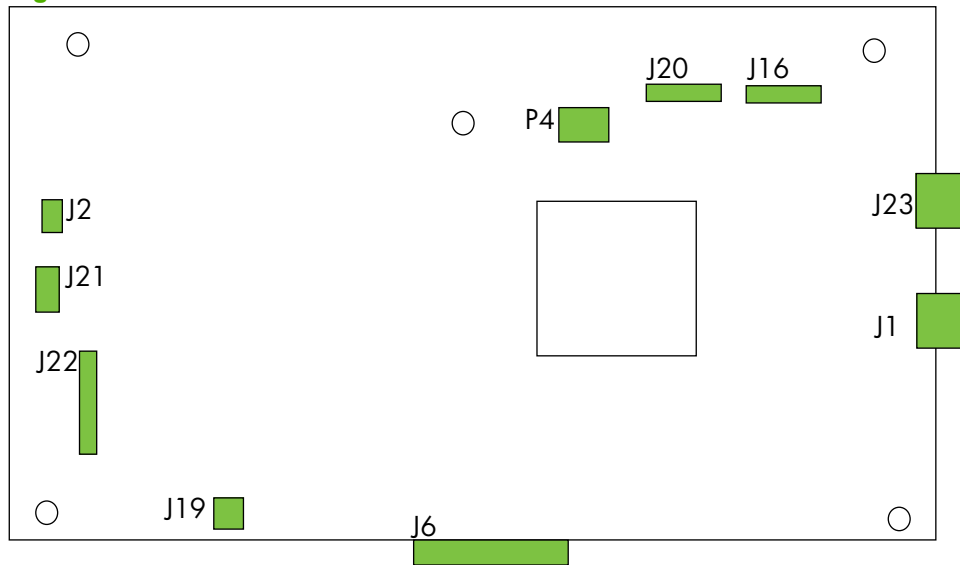


Figure 7-7 Main wiring, product base (220 V)



## Formatter PCA and fax card connectors

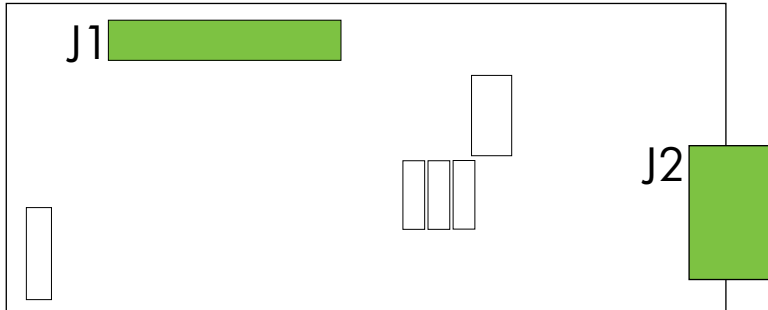
**Figure 7-8** Formatter connections



**Table 7-2** Formatter connections

Name	Connection
P4	ADF
J1	USB
J2	Speaker
J6	Fax card
J16	Scanner (CIS)
J19	Engine solenoid
J20	Control panel
J21	Engine power
J22	Engine
J23	Handset

**Figure 7-9** Fax card connections



**Table 7-3** Fax card connections

Name	Connection
J1	Formatter
J2	Fax ports

## Control-panel messages

The majority of the control-panel messages are intended to guide the user through typical operation. The control-panel messages indicate the status of the current operation, and include a page count on the second line of the display, if appropriate. When the product is receiving print data or scanning commands, control-panel messages indicate this status. In addition, alert messages, warning messages, and critical error messages indicate situations that might require some action.

## Solve control-panel display problems

- △ **CAUTION:** Static electricity can cause unexpected black lines or dots to appear on the product control-panel display. Do not touch the product control-panel display if there is a chance that you have collected a static electric charge (for example, by walking on carpet in a low-humidity environment).

Unexpected lines or dots might appear on the product control-panel display, or the display might become blank if the product is exposed to an electric or magnetic field. To resolve this problem, perform the following procedure:

1. Turn the product off.
2. Remove the product from the electric or magnetic field.
3. Turn the product on again.

## Alert and warning messages

Alert and warning messages appear temporarily and might require the user to acknowledge the message by pressing **OK** to resume or by pressing **Cancel** to cancel the job. With certain warnings, the job might not complete or the print quality might be affected. If the alert or warning message is related to printing and the auto-continue feature is on, the product will attempt to resume the printing job after the warning has appeared for 10 seconds without acknowledgement.

## Alert and warning message tables

Control panel message	Description	Recommended action
<b>Device error</b> Press [OK]	The product experienced an internal communication error.	This is a warning message only. Job output might be affected.
<b>Enter Password</b>	The product requires a user set password to continue.	Type the user set password, or restore the factory default password. For more information about passwords, see <a href="#">Password reset or bypass on page 185</a> and <a href="#">Super NVRAM initialization on page 185</a> .
<b>Invalid Password</b>	An invalid user set password was typed.	Type the correct user set password, or restore the factory default password. For more information about passwords, see <a href="#">Password reset or bypass on page 185</a> and <a href="#">Super NVRAM initialization on page 185</a> .
<b>Jam in print paper path</b> alternates with <b>Open door and clear jam</b>	The product has detected a jam in the paper path.	Clear the jam from the area indicated on the product control panel, and then follow the control-panel instructions. See <a href="#">Clear jams on page 159</a> .



Control panel message	Description	Recommended action
<b>Page too complex</b> <b>Press [OK]</b>	The product could not print the current page because of its complexity.	Press <b>OK</b> to clear the message.  Allow the product to finish the job, or press <b>Cancel</b> to cancel the job.
<b>Printer jam</b> <b>clear paper path</b>	The product has detected a jam in the input trays.	Clear the jam from the area indicated on the product control panel, and then follow the control-panel instructions. See <a href="#">Clear jams on page 159</a> .
<b>Settings cleared</b>	The product has cleared job settings.	Re-enter any appropriate job settings.

## Critical error messages

Critical error messages can indicate some kind of failure. Turning off and then turning on the power might fix the problem. If a critical error persists, the product might require service.

### Critical error message-tables

Control panel message	Description	Recommended action
<b>50.1 Fuser Error</b> Turn off then on	The product has experienced an internal hardware error.	<ol style="list-style-type: none"><li>1. Turn off the power by using the power switch, and then wait at least 30 seconds.</li><li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket.</li><li>3. Turn on the power and wait for the product to initialize.</li><li>4. Replace the fuser. See <a href="#">Fuser on page 134</a>.</li><li>5. If the error persists, replace the product. See <a href="#">Whole unit replacement on page 205</a>.</li></ol>
<b>50.2 Fuser Error</b> Turn off then on	The product has experienced an internal hardware error.	<ol style="list-style-type: none"><li>1. Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li><li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li><li>3. Replace the fuser. See <a href="#">Fuser on page 134</a>.</li><li>4. If the error persists, replace the product. See <a href="#">Whole unit replacement on page 205</a>.</li></ol>
<b>50.3 Fuser Error</b> Turn off then on	The product has experienced an internal hardware error.	<ol style="list-style-type: none"><li>1. Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li><li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li><li>3. Replace the fuser. See <a href="#">Fuser on page 134</a>.</li><li>4. If the error persists, replace the product. See <a href="#">Whole unit replacement on page 205</a>.</li></ol>

Control panel message	Description	Recommended action
<b>50.8 Fuser Error</b> Turn off then on	The product has experienced an internal hardware error.	<ol style="list-style-type: none"> <li>1. Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li> <li>3. Replace the fuser. See <a href="#">Fuser on page 134</a>.</li> <li>4. If the error persists, replace the product. See <a href="#">Whole unit replacement on page 205</a>.</li> </ol>
<b>50.9 Fuser Error</b> Turn off then on	The product has experienced an internal hardware error.	<ol style="list-style-type: none"> <li>1. Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li> <li>3. Replace the fuser. See <a href="#">Fuser on page 134</a>.</li> <li>4. If the error persists, replace the product. See <a href="#">Whole unit replacement on page 205</a>.</li> </ol>

Control panel message	Description	Recommended action
<b>Engine comm. Error</b>	The product has experienced an internal hardware error.	<ol style="list-style-type: none"> <li>1. Turn off the power by using the power switch, and then wait at least 30 seconds.</li> <li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li> <li>3. If the error persists, replace the formatter or ECU. See <a href="#">Formatter and fax card on page 122</a> or <a href="#">Engine controller unit (ECU) on page 127</a>.</li> </ol>
<b>Scanner Error</b> <b>##</b> <b>Turn off then on</b>	<p>The product has experienced a scanner error. The message <b>Scanner Error</b> is followed by a numeric designator for the error type.</p> <ul style="list-style-type: none"> <li>● <b>06</b> (internal scanner component failed)</li> <li>● <b>12</b> (scanner motor failed to rotate)</li> <li>● <b>22</b> (internal scanner component failed)</li> <li>● <b>255</b> (scanner media jam)</li> </ul>	<ol style="list-style-type: none"> <li>1. Turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li> <li>2. If a surge protector is being used, remove it. Plug the product directly into the wall socket. Use the power switch to turn the product on.</li> <li>3. If the error persists, do one of the following: <ul style="list-style-type: none"> <li>◦ <b>06</b> error, replace the scanner assembly. See <a href="#">Scanner assembly on page 85</a>.</li> <li>◦ <b>12</b> error, make sure that the ADF wire-harness connector (P4) is fully seated on the formatter. If the error persists, replace the scanner assembly. See <a href="#">Scanner assembly on page 85</a>.</li> <li>◦ <b>22</b> error, replace the scanner assembly. See <a href="#">Scanner assembly on page 85</a>.</li> <li>◦ <b>255</b> error, clear the jam and then turn off the power by using the power switch, wait at least 30 seconds, and then turn on the power and wait for the product to initialize.</li> </ul> </li> </ol>

# Solve paper-handling problems

## Clear jams

### Causes of jams

Occasionally, paper or other print media can become jammed during a print job. Some causes include the following events:

- The input trays are loaded improperly or overfilled, or the media guides are not set properly.
- Media is added to or removed from an input tray during a print job or an input tray is removed from the product during a print job.
- The cartridge door is opened during a print job.
- Too many sheets have accumulated in an output area, or sheets are blocking an output area.
- The print media that is being used does not meet HP specifications.
- The media is damaged or has foreign objects attached to it, such as staples or paper clips.
- The environment in which the print media was stored is too humid or too dry.

## Where to look for jams

Jams can occur in these locations:

- In the automatic document feeder (ADF)
- In input areas
- In output areas
- Inside the product

Find and remove the jam by using the instructions on the following pages. If the location of the jam is not obvious, first look inside the product.

Loose toner might remain in the product after a jam. This problem typically resolves itself after a few sheets have been printed.

## Clear jams from the ADF

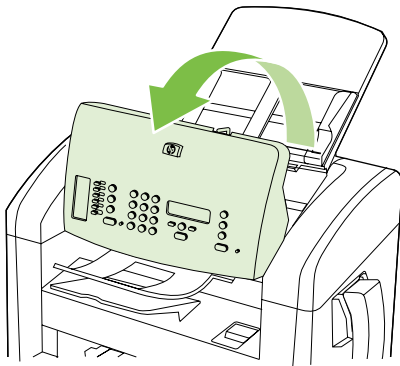
Occasionally, media becomes jammed during a fax, copy, or scan job.

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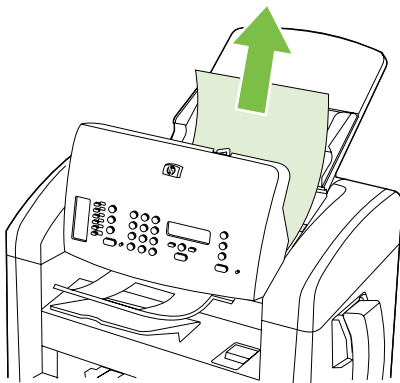
△ **CAUTION:** To prevent damage to the product, do not use an original that contains correction tape, correction fluid, paper clips, or staples. Also, do not load photographs, small originals, or fragile originals into the ADF.

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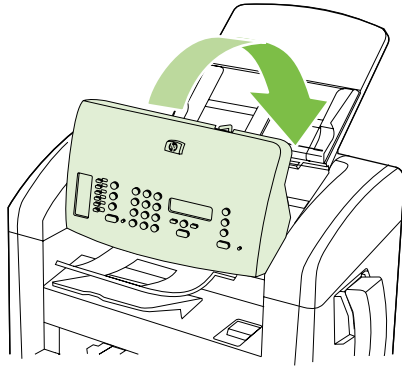
1. Open the ADF lid.



2. Carefully remove jammed media. Gently try to remove the page without tearing it.



3. Close the ADF lid.



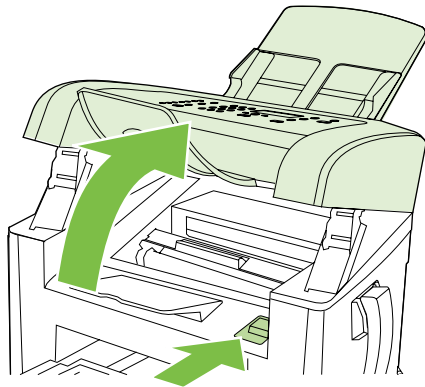
### Clear jams from the input-tray areas

- △ **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.

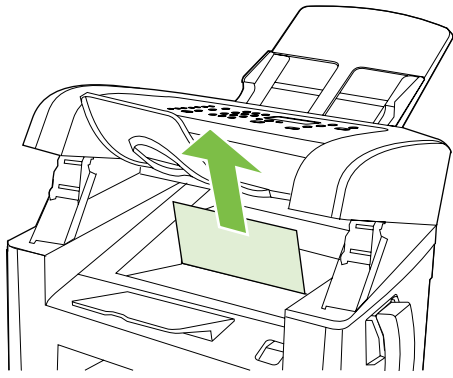
When removing jammed media, pull the jammed media straight away from the product. Pulling jammed media out of the product at an angle can damage the product.

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

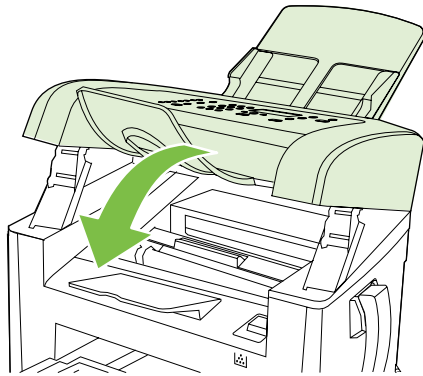
1. Open the print-cartridge door.



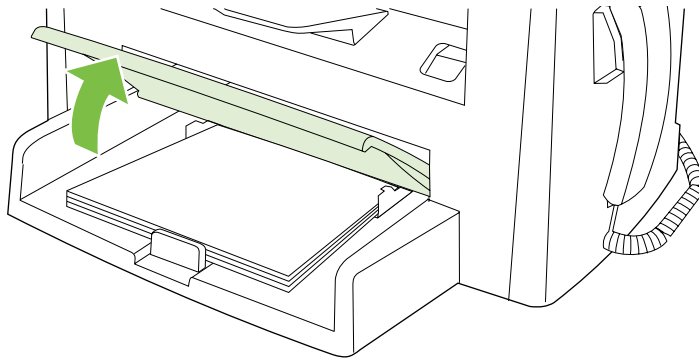
2. Do one of the following:
  - If media is visible, use both hands to grasp the side of the media that is most visible (this includes the middle), and carefully pull it free from the product.
  - If no media is visible, remove the print cartridge, and rotate the upper media guide. Carefully pull the media up and out of the product.



3. Close the print-cartridge door.

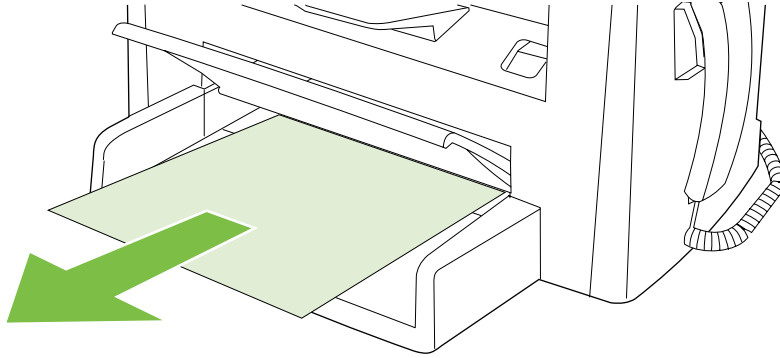


4. Open tray 1.





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

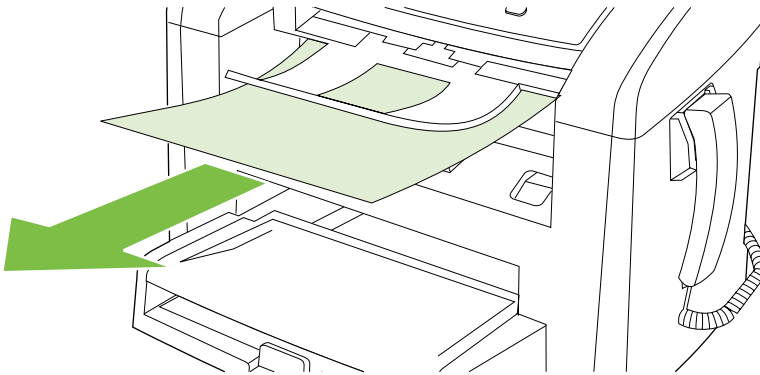


6. Close tray 1.

### Clear jams from the output bin

- △ **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.

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.

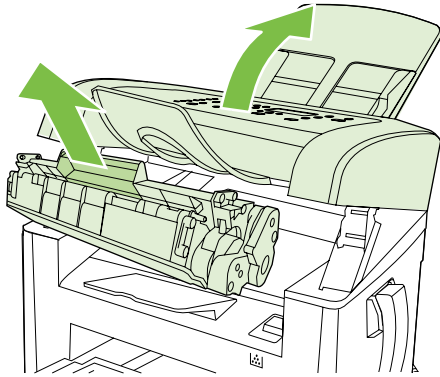


## Clear jams from the print-cartridge area

- △ **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.

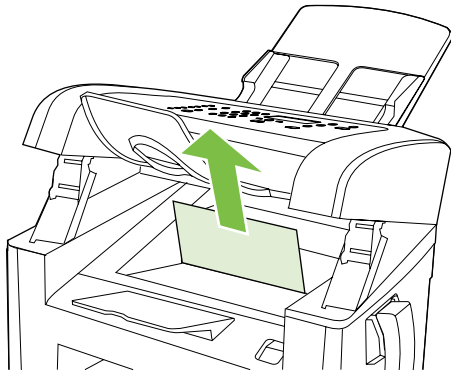
When removing jammed media, pull the jammed media straight away from the product. Pulling jammed media out of the product at an angle can damage the product.

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

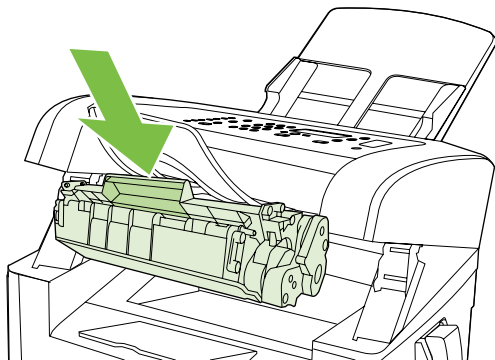


- △ **CAUTION:** To prevent damage to the print cartridge, minimize its exposure to direct light.

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 product.



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



## Avoid 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 on the ADF and the media input tray 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.
- Make sure that the ADF media lever is set correctly for single-page or multiple-page documents.
- To prevent damage to the product, do not use an original that contains correction tape, correction fluid, paper clips, or staples. Also, do not load photographs, small originals, or fragile originals into the ADF.

## Media-handling problems

Use the information in this section when the product experiences media-handling problems.

### Print-media guidelines

- For best results, make sure that the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, staples, and curled or bent edges.
- For best-quality printing, use a smooth type of paper. Generally, smoother media produces better results.
- If you are unsure what type of paper you are loading (such as bond or recycled), check the label on the package of paper.
- Do not use media that is designed for inkjet printers only. Use media that is designed for laser printers.
- Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography.
- Do not use raised or embossed letterhead.
- The product 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 this fusing temperature (200°C or 392°F for 0.1 second).

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△ **CAUTION:** Failure to follow these guidelines could cause jams or damage to the product.

---

## Solve print-media problems

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

Problem	Cause	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy or too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, with 4 to 6% moisture content.
Dropouts, jamming, or curl	The paper has been stored incorrectly.	Store paper flat in its moisture-proof wrapping.
	The paper has variability from one side to the other.	Turn the paper over.
Excessive curl	The paper is too moist, has the wrong grain direction, or is of short-grain construction	Use long-grain paper.
	The paper varies from side-to-side.	Turn the paper over.
	High fuser temperature is curling the paper.	Turn on the <b>Less paper curl</b> setting.  At the control panel, press <b>Setup</b> , use the arrow buttons to select <b>Service</b> , and then press <b>OK</b> . Use the arrow buttons to select <b>Less paper curl</b> , press <b>OK</b> , use the arrow buttons to select <b>On</b> , and then press <b>OK</b> .
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 input tray, straighten the stack, and then load the media in the input tray again. Adjust the media guides to the width and length of the media that you are using and try printing again.
More than one sheet feeds at one time.	The media tray might be overloaded.	Remove all media from the tray, and then return some of the media to 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 media might have been fanned before it was loaded.	Load media that was not fanned. Loosen ream by twisting paper stack.
	Media might be too dry.	Load new paper that was stored properly.

Problem	Cause	Solution
The product does not pull media from the media input tray.	The product might be in manual feed mode.	<ul style="list-style-type: none"> <li>If <b>Manual feed</b> appears on the product control-panel display, press <b>OK</b> to print the job.</li> <li>Verify that the product is not in manual feed mode and print your job again.</li> </ul>
	The pickup roller might be dirty or damaged.	Contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.
	The paper-length adjustment control in tray 1 is set at a length that is greater than the media size.	Adjust the paper-length adjustment control to the correct length.

## Performance problems

Try the tips in this section if pages exit the product, but have nothing printed on them, or when the product does not print any pages.

Problem	Cause	Solution
Pages print but are totally blank.	The sealing tape might still be in the print cartridge.	Verify that the sealing tape has been completely removed from the print cartridge.
	The document might contain blank pages.	Check the document that you are printing to see if content appears on all of the pages.
	The product might be malfunctioning.	To check the product, print a configuration page. See <a href="#">Information pages on page 26</a> .
	Certain media types can slow the print job.	Print on a different type of media.
	The print cartridge is out of toner.	Remove the print cartridge, and then gently rock it back and forth to redistribute the toner. Reinstall the cartridge and send the job again.  If the error persists, replace the print cartridge.


Problem	Cause	Solution
Pages did not print.	The product might not be pulling media correctly.	See <a href="#">Media-handling problems on page 165</a> .
	The media might be jamming in the product.	Clear the jam. See <a href="#">Clear jams on page 159</a> .
	The USB cable might be defective or incorrectly connected.	<ul style="list-style-type: none"> <li>● Disconnect the cable at both ends and reconnect it.</li> <li>● Try printing a job that has printed in the past.</li> <li>● Try using a different USB cable.</li> </ul>
	The product might not be set up as the default printer.	Open the <b>Printers</b> or <b>Printers and Faxes</b> dialog box, right click the product, and then click <b>Set as Default Printer</b> .
	The product might have encountered an error.	Check the control panel for an error message. See <a href="#">Control-panel messages on page 154</a> .
	The product might be paused or offline.	Open the <b>Printers</b> or <b>Printers and Faxes</b> dialog box, and verify that the product status is Ready. If it is Paused, right-click the product and click <b>Resume Printing</b> .
	The product might not be receiving power.	Check the power cord and verify that the product is turned on.
	Other devices are running on your computer.	The product might not share a USB port. If you have an external hard drive or other device that is connected to the same port as the product, the other device might be interfering. To connect and use the product, disconnect the other device or use two USB ports on the computer.

# Solve image-quality problems

## Print-quality problems

The information in the following sections helps you identify and resolve print-quality issues.

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 **NOTE:** If you are having copy problems, see [Solve copy problems on page 175](#).

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### Improve print quality

Use the print-quality settings to prevent print-quality problems.


#### 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.

You can change the settings in the product properties to accommodate the types of jobs that you are printing. The following settings are available, depending on the printer driver that you are using:

- **600 dpi**
- **FastRes 1200**

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 **NOTE:** Changing the resolution can change the formatting of your text.

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#### To temporarily change print-quality settings

To change the print-quality settings only for the current software program, open the print properties through the **Print Setup** menu in the program that you are using to print.

#### To change print-quality settings for all future jobs

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 **NOTE:** For Macintosh instructions, see the user guide.

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For Windows 2000:

1. In the Windows system tray, click **Start**, select **Settings**, and then click **Printers**.
2. Right-click the product icon.
3. Click **Properties** (in Windows 2000, you can also click **Printing Preferences**).
4. Change the settings, and then click **OK**.

For Windows XP:

1. In the Windows system tray, click **Start**, click **Control Panel**, and then click **Printers and Faxes**.
2. Right-click the product icon.
3. Click **Properties**, or click **Printing Preferences**.
4. Change the settings, and click **OK**.

## Checking the print cartridge

Image-formation defects are frequently the result of problems in the print cartridge.

Use the following checklist to make sure that the print cartridge still works.

- Make sure that the cartridge sealing tape has been removed.
- Make sure that the print cartridge is seated correctly.
- Check the print cartridge to see if it has been disassembled or refilled.
- Inspect the print cartridge to see if toner is leaking through worn seals.
- Check the surface of the photosensitive drum in the cartridge to see if it has been damaged or scratched. Touching the drum contaminates the photosensitive surface and can cause spotting and image defects.
- Blurred areas on printed pages indicate that the photosensitive drum in the cartridge has been overexposed to light. Because overexposure to light causes permanent damage to the photosensitive drum, the cartridge should be replaced.

If the errors persist, replace the print cartridge before further troubleshooting the image defects.

## To redistribute the toner in the print cartridge

Before installing a new print cartridge or when the toner begins to run low, gently rock the print cartridge back and forth to redistribute the toner.

## Identify and correct print defects

Use the checklist and print-quality issues charts in this section to solve print-quality problems.

### Print-quality checklist

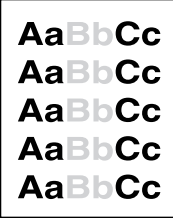


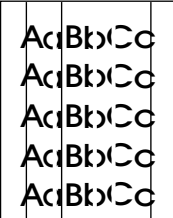
General print-quality problems can be solved by using the following checklist:


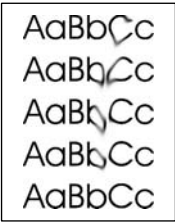
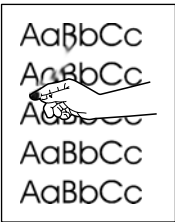
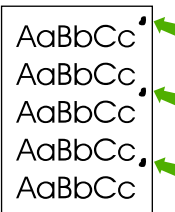
1. Make sure that the paper or print media that you are using meets specifications. Generally, smoother paper provides better results.
2. If you are using a special print media such as labels, transparencies, glossy paper, or letterhead, ensure that you have configured the product to printed by the correct type.
3. Try printing from a different program. If the page prints correctly, the problem is with the program from which you were printing.
4. Restart the computer and the product and try printing again.

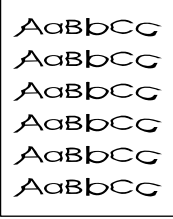
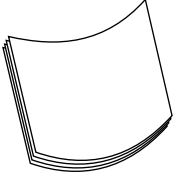
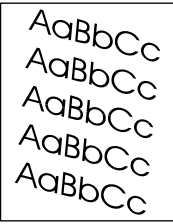
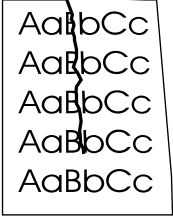
### General print-quality issues

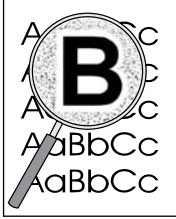

The following examples depict letter-size paper that has passed through the product short-edge-first. These examples illustrate problems that would affect all of the pages that you print. The topics that follow list the typical cause and solution for each of these examples.



Problem	Cause	Solution
Print is light or faded. 	The media might not meet HP specifications. The print cartridge might be defective or low. If the whole page is light, the print density adjustment is too light or <b>EconoMode</b> might be turned on.	Use media that meets HP specifications. Remove the print cartridge, and then gently rock it back and forth to redistribute the toner. Reinstall the cartridge, and send the job again. If the print cartridge is not low or empty, inspect the toner roller to see if the roller is damaged. If it is, replace the print cartridge. If the error persists, replace the print cartridge. See <a href="#">Print cartridge on page 33</a> . Adjust the print density, and disable <b>EconoMode</b> in the product Properties.
Toner specks appear. 	The media might not meet HP specifications. The paper path might need cleaning.	Use media that meets HP specifications. Clean the paper path. See <a href="#">Clean the paper path on page 35</a> .
Dropouts appear. 	A single sheet of print media might be defective. The moisture content of the paper is uneven or the paper has moist spots on its surface. The paper lot is flawed. The manufacturing processes can cause some areas to reject toner. The print cartridge might be defective or low. The print density needs to be adjusted. <b>EconoMode</b> is selected in the driver.	Try reprinting the job. Try different paper, such as high-quality paper that is intended for laser printers. Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> . If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box. Adjust the print density from HP Toolbox. Try the normal or best setting.
Vertical streaks or bands appear on the page. 	The print cartridge might be defective. The fuser is damaged.	Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> . Replace the fuser. See <a href="#">Fuser on page 134</a> .

Problem	Cause	Solution
<p>The amount of background toner shading becomes unacceptable.</p> 	The media might not meet HP specifications.	Use a different paper with a lighter basis weight.
	The single-sheet priority input tray might be installed incorrectly.	Make sure that the single-sheet priority input tray is in place.
	The print-density setting is too high.	Decrease the print-density setting. This decreases the amount of background shading.
	Very dry (low humidity) conditions can increase the amount of background shading.	Check the product environment.
	The print cartridge might be defective or low.	Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> .
<p>Toner smears appear on the media.</p> 	The media might not meet HP specifications.	Use media that meets HP specifications.
	If toner smears appear on the leading edge of the paper, the media guides are dirty, or debris has accumulated in the print path.	Clean the media guides and the paper path. See <a href="#">Clean the paper path on page 35</a> .
	The print cartridge might be defective.	Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> .
	The fuser temperature might be too low.	In the printer driver, make sure the appropriate media type is selected.  Use the archive print feature to improve toner fusing.
<p>The toner smears easily when touched.</p> 	The product is not set to print on the type of media on which you want to print.	In the printer driver, select the <b>Paper/Quality</b> tab and set <b>Paper Type</b> to match the type of media on which you are printing. Print speed might be slower if you are using heavy paper.
	The media might not meet HP specifications.	Use media that meets HP specifications.
	The paper path might need cleaning.	Clean the product. See <a href="#">Clean the paper path on page 35</a> .
	The power source might be defective.	Plug the product directly into an AC outlet instead of into a power strip.
	The fuser temperature might be too low.	Use the archive print feature to improve toner fusing.
	<p>Marks repeatedly appear at even intervals on the page.</p> 	The product is not set to print on the type of media on which you want to print.
Internal parts might have toner on them.		The problem typically corrects itself after a few more pages.
The paper path might need cleaning.		Clean the product. See <a href="#">Clean the paper path on page 35</a> .
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 <a href="#">Print cartridge on page 33</a> .

Problem	Cause	Solution
<p>The printed page contains misformed characters.</p> 	<p>The media might not meet HP specifications.</p> <p>If characters are incorrectly formed so that they produce a wavy effect, the laser scanner might need service.</p>	<p>Use a different paper, such as high-quality paper that is intended for laser printers.</p> <p>Verify that the problem also occurs on the configuration page. If so, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<p>The printed page is curled or wavy.</p> 	<p>The product is not set to print on the type of media on which you want to print.</p> <p>The media might have been in the input tray too long.</p> <p>The media might not meet HP specifications.</p> <p>Both high temperature and humidity can cause paper curl.</p> <p>The fuser temperature might be curling the media.</p>	<p>In the printer driver, make sure the appropriate media type is selected.</p> <p>If the problem persists, select a media type that uses a lower fuser temperature, such as transparencies or light media.</p> <p>Turn over the stack of media in the tray. Also, try rotating the media 180° in the input tray.</p> <p>Use a different paper, such as high-quality paper that is intended for laser printers.</p> <p>Check the product environment.</p> <p>At the product control panel, turn on the <b>Less paper curl</b> setting in the <b>Service</b> menu.</p>
<p>Text or graphics are skewed on the printed page.</p> 	<p>The media might be loaded incorrectly or the input tray might be too full.</p> <p>The media might not meet HP specifications.</p>	<p>Verify that the media is loaded correctly and that the media guides are not too tight or too loose against the stack.</p> <p>Use a different paper, such as high-quality paper that is intended for laser printers.</p>
<p>The printed page contains wrinkles or creases.</p> 	<p>The media might be loaded incorrectly or the input tray might be too full.</p> <p>There might be a jam in the paper path.</p> <p>The media might not meet HP specifications.</p> <p>Air pockets inside envelopes can cause them to wrinkle.</p>	<p>Turn over the stack of paper in the input tray, or try rotating the paper 180° in the input tray.</p> <p>Verify that the media is loaded correctly and that the media guides are not too tight or too loose against the stack.</p> <p>Clear any jams in the product. See <a href="#">Clear jams on page 159</a>.</p> <p>Use a different paper, such as high-quality paper that is intended for laser printers.</p> <p>Remove the envelope, flatten it, and try printing again.</p>

Problem	Cause	Solution
<p>Toner appears around the printed characters.</p> 	<p>The media might be loaded incorrectly.</p> <p>If large amounts of toner have scattered around the characters, the paper might have high resistivity.</p>	<p>Turn over the stack of paper in the tray.</p> <p>Use a different paper, such as high-quality paper that is intended for laser printers.</p>
<p>An image that appears at the top of the page (in solid black) repeats farther down the page (in a gray field).</p> 	<p>Software settings might affect image printing.</p> <p>The order of images printed might affect printing.</p> <p>A power surge might have affected the product.</p>	<p>In your software program, change the tone (darkness) of the field in which the repeated image appears.</p> <p>In your software program, rotate the whole page 180° to print the lighter image first.</p> <p>Change the order in which the images are printed. For example, have the lighter image at the top of the page, and the darker image farther down the page.</p> <p>If the defect occurs later in a print job, turn the product off for 10 minutes, and then turn on the product to restart the print job.</p>

# Solve copy problems

## Prevent copy problems

 **NOTE:** Before using the procedures in this section, try the following to solve the problem:


Make sure that you have solved any image-quality issues listed in [Identify and correct print defects on page 170](#).

Try cleaning the glass and white platen to solve copy related problems. See [Clean the glass and white platen on page 35](#).

Print a configuration page and verify that the print engine and print cartridge are correctly functioning.

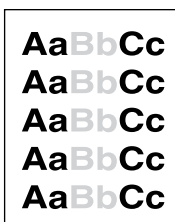
The following are a few simple steps you can take to improve copy quality:

- Use quality originals.
- Load the media correctly. If the media is loaded incorrectly, it might skew, causing unclear images and problems with the OCR program.
- Use or make a carrier sheet to protect your originals.

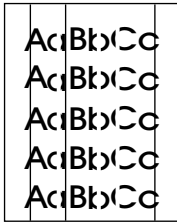
 **NOTE:** Verify that the media meets HP specifications. If the media meets HP specifications, recurring feed problems indicate the pickup roller or separation pad is worn. Contact HP. See [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319) or the support flyer that came in the product box.

## Image problems

Problem	Cause	Solution
Images are missing or faded.	The print-cartridge might be defective or empty.	Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> .
	The original might be of poor quality.	If your original is too light or damaged, the copy might not be able to compensate, even if you adjust the contrast. If possible, find an original document in better condition.
	The contrast settings might be set incorrectly.	Use the control-panel <b>Lighter/Darker</b> button to change the contrast setting.
	The original might have a colored background.	Colored backgrounds might cause images in the foreground to blend into the background, or the background might appear in a different shade. If possible, use an original document without a colored background.
Vertical white or faded stripes appear on the copy.	The media might not meet HP specifications.	Use media that meets HP specifications.
	The print cartridge might be defective or the toner is low.	Remove the print cartridge, and then gently rock it back and forth to redistribute the toner. Reinstall the cartridge, and send the print job again.  If the error persists, replace the print cartridge. See <a href="#">Print cartridge on page 33</a> .



Problem	Cause	Solution
Unwanted lines appear on the copy.	The ADF scanning strip might be dirty.	Clean the ADF scanning strip. See <a href="#">Clean the glass and white platen on page 35</a> .
	The photosensitive drum inside the print cartridge might have been scratched.	Install a new HP print cartridge. See <a href="#">Print cartridge on page 33</a> .
Black dots or streaks appear on the copy.	Ink, glue, correction fluid, or an unwanted substance might be on the automatic document feeder (ADF).	Clean the product. See <a href="#">Clean the product on page 35</a> .
	The power to the product might have fluctuated.	Reprint the job.
Copies are too light or dark.	The printer driver or product software settings may be incorrect.	Verify that the quality settings are correct. See the product software Help for more information about changing the settings.
	The scanned image is too light or too dark because the original was on colored paper.	If the original was on a colored paper, including brown recycled paper, the text might not be clear. Adjust the resolution and lighter/darker settings from HP Toolbox.
Text is unclear.	The printer driver or product software settings may be incorrect.	Verify that the quality settings are correct. Verify that the EconoMode setting is off. See the product software Help for more information about changing the settings.



## Media-handling problems

Problem	Cause	Solution
Poor print quality or toner adhesion	The paper is too moist, too rough, too heavy or too smooth, or it is embossed or from a faulty paper lot.	Try another kind of paper, between 100 and 250 Sheffield, 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 paper	The paper has cutouts or perforations.	Use paper that is free of cutouts or perforations.

Problem	Cause	Solution
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 input tray, straighten the stack, and then load the media in the input tray again. Adjust the media guides to the width and length of the media that you are using and try printing again.
More than one sheet feeds at one time.	The media tray might be overloaded.	Remove some of the media from the tray.
	The media might be wrinkled, folded, or damaged.	Verify that the media is not wrinkled, folded, or damaged. Try printing on media from a new or different package.
The product does not pull media from the media input tray.	The product might be in manual feed mode.	<ul style="list-style-type: none"> <li>If <b>Manual</b> appears on the product control-panel display, press <b>OK</b> to print the job.</li> <li>Verify that the product is not in manual feed mode and print your job again.</li> </ul>
		The pickup roller might be dirty or damaged.
	The paper-length adjustment control in the tray is set at a length that is greater than the media size.	Adjust the paper-length adjustment control to the correct length.

## Performance problems

Problem	Cause	Solution
No copy came out.	The input tray might be empty.	Load media in the product.
	The original might have been loaded incorrectly.	In the automatic document feeder (ADF), load the original with the narrow side forward and the side to be scanned facing down.
Copies are blank.	The sealing tape might not have been removed from the print cartridge.	Remove the print cartridge from the product, pull out the sealing tape, and reinstall the print cartridge.
	The original might have been loaded incorrectly.	In the ADF, load the original with the narrow side leading into the ADF and the side to be scanned facing down.
	The media might not meet HP specifications.	Use media that meets HP specifications.
	The print cartridge might be defective.	Replace the print cartridge. See <a href="#">Print cartridge on page 33</a> .
Copies are reduced in size.	The product settings might be set to reduce the scanned image.	On the control panel, press <b>Reduce/Enlarge</b> and verify that it is set to <b>Original=100%</b> .



# Solve scan problems

## Solve scanned-image problems

Problem	Cause	Solution
The scanned image is of poor quality.	The original might be a second-generation photo or picture.	<ul style="list-style-type: none"><li>To eliminate the patterns, try reducing the size of the image after scanning.</li><li>Print the scanned image to see if the quality is better.</li><li>Verify that the resolution settings are correct for the type of scan job that you are performing.</li></ul>
	The image that appears on the screen might not be an accurate representation of the quality of the scan.	<ul style="list-style-type: none"><li>Try adjusting your computer monitor settings to use more colors (or levels of gray). Typically, you make this adjustment by opening <b>Display</b> in Windows Control Panel.</li><li>Try adjusting the resolution settings in the scanner software.</li></ul>
	The original might have been loaded incorrectly.	Use the media guides when you load the originals into the ADF.
	The glass or white platen might be dirty.	Clean the glass and white platen. See <a href="#">Clean the glass and white platen on page 35</a> .
	A colored background might be causing images in the foreground to blend into the background.	Try adjusting the settings before you scan the original or enhancing the image after you scan the original.
Part of the image did not scan.	The original might have been loaded incorrectly.	Use the media guides when you load the originals into the ADF.
	A colored background might be causing images in the foreground to blend into the background.	Try adjusting the settings before you scan the original or enhancing the image after you scan the original.
	The original is longer than 356 mm (14 inches).	The maximum scannable length is 356 mm (14 inches). <b>CAUTION:</b> Do not try to pull the original from the ADF; you might damage the scanner or your original. See <a href="#">Clear jams from the ADF on page 160</a> .
	The media size is incorrect.	In <b>Scan</b> settings, make sure that the input media size is large enough for the document that you are scanning.
	The scan takes too long	The resolution or color level is set too high.
A print job or copy job was sent before you tried to scan.		If someone sent a print job or copy job before you tried to scan, the scan will start if the scanner is not busy. However, because the product and scanner share memory, the scan might be slower.

## Scan-quality problems

### Prevent scan-quality problems

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

- Use high-quality originals.
- Load the media correctly. If the media is loaded incorrectly, it might skew, which causes unclear images.
- If your product frequently feeds more than one page at a time, the separation pad might need to be replaced. See [Separation-pad set on page 78](#) or [Separation-pad assembly on page 83](#).
- Use or make a carrier sheet to protect your originals.

### Solve scan-quality problems

Problem	Cause	Solution
Blank pages	The original might have been loaded upside down.	In the ADF, put the top end of the stack of originals into the ADF input tray, with the media stack face-down and the first page to be scanned on the bottom of the stack.
Unwanted lines	The glass or white platen might be dirty.	Clean the scanner glass. See <a href="#">Clean the glass and white platen on page 35</a> .
Black dots or streaks	The power to the product might have fluctuated.	Reprint the job.

## Solve control-panel display problems

- △ **CAUTION:** Static electricity can cause unexpected black lines or dots to appear on the product control-panel display. Do not touch the product control-panel display if there is a chance that you have collected a static electric charge (for example, by walking on carpet in a low-humidity environment).

Unexpected lines or dots might appear on the product control-panel display, or the display might become blank if the product is exposed to an electric or magnetic field. To resolve this problem, perform the following procedure:

1. Turn the product off.
2. Remove the product from the electric or magnetic field.
3. Turn the product on again.

# Solve connectivity problems

## Solve direct-connection problems


If the product is experiencing connection issues while directly connected to a computer, complete the following steps:

1. Make sure that USB cable is no longer than 2 meters (6 feet).
2. Make sure that both ends of the USB cable are connected.
3. Make sure that the cable is a USB 2.0 Hi-Speed-certified cable.
4. If the error persists, use a different USB cable.

## Solve DSL problems

A digital subscriber line (DSL) uses digital technology over standard copper phone wires. These DSL services rely on an AM signal. The product is a Group 3 fax device, which operates below the DSL capability and is not directly compatible with digital signals. However, if the configuration is specified during the DSL line setup, the signal on a DSL line can be separated so that some of the bandwidth is used to transmit an analog signal (for voice and fax), while the remaining bandwidth transmits digital data. Split the signal to use both the telephone or fax and the computer on the same line and at the same time.


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 **NOTE:** Not all printers and faxes are compatible with DSL services. HP does not guarantee that the HP LaserJet product will be compatible with all DSL service lines or providers.

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The DSL modem requires a high-pass filter. When DSL service is installed, the service provider sometimes supplies a splitter, which includes a low-pass filter, for the normal phone wiring. If not, the user should contact the DSL provider to request a filter or splitter so that a fax modem can operate on the line.

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 **NOTE:** HP recommends discussing the DSL-line setup options with the DSL service provider. Consult the DSL provider for technical installation requirements.

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An Asymmetric Digital Subscriber Line (ADSL) is a version of DSL that provides greater efficiency by allowing upload and download rates to differ. Because ADSL is a version of DSL, the previous DSL information also applies to ADSL.

## PBX line problems

The HP LaserJet product is an analog device that is not compatible with all digital phone environments (unless a digital-to-analog converter is used). It might be difficult for you to solve fax issues without assistance from someone who is familiar with the technical details of the customer's digital environment and the analog converter. HP does not guarantee that the HP LaserJet product will be compatible with digital environments or digital-to-analog converters.

## Solve fax with Voice over IP services problems

Voice over IP (VoIP) services provide normal telephone service, including long distance service through a broadband Internet connection. These services use packets to break up the voice signal on a telephone line and transmit it digitally to the receiver, where the packets are reassembled. The VoIP services are often not compatible with fax machines. The VoIP provider must state the service supports fax over IP services.

Because the installation process varies, the VoIP service provider must assist in installing the product fax component.

Although a fax might work on a VoIP network, it can fail when the following events occur:

- Internet traffic becomes heavy and packets are lost, misplaced, or out of order.
- Latency (the time it takes for a packet to travel from its point of origin to its point of destination) becomes excessive.

If you experience problems using the fax feature on a VoIP network, ensure that all of the product cables and settings are correct. Configuring the speed setting to **Medium Slow** or can also improve your ability to send a fax over a VoIP network.

If you continue to have problems faxing, contact your VoIP provider.

# Service-mode functions

## NVRAM initialization

An NVRAM initialization will return the following device settings to the factory-set defaults:

- All menu settings, including the fax header and company name
- Fax numbers and names that are associated with one-touch keys and speed-dial codes

Additionally, all faxes stored in memory are cleared.

### Perform an NVRAM initialization

1. On the product control panel, press **Setup**.
2. Use the arrows buttons to select **Service**, and then press **OK**.
3. Use the arrows buttons to select **Restore defaults**, and then press **OK**.

When the NVRAM initialization process has been completed, the device control panel shows the **Ready** message.

## Super NVRAM initialization

A Super NVRAM initialization will return *all* of the device settings to the factory-set defaults (generic product mode).


- 
- △ **CAUTION:** Performing a Super NVRAM initialization will reset the user set password to the factory default (0000).
- 📄 **NOTE:** When the product is turned on, you will be prompted to select the language and country/region setting before the product will initialize.
- 

1. Turn off the product.
2. Simultaneously press and hold the **Cancel** button and the right arrow button (> ), and then turn on the product.
3. Wait until the message **Permanent storage init.** appears, and then release the **Cancel** and left arrow buttons.

## Password reset or bypass

- To reset a user set password to the factory default (0000), perform a Super NVRAM initialization. See [Super NVRAM initialization on page 185](#).
- To access the product menus without returning the device settings to factory defaults, use the bypass password (12345678901234567).

## Service menu

 **NOTE:** An asterisk (\*) symbol next to a service submenu option indicates that this is the current setting for that option.

### Access the service menu

1. Press the **Setup** button.
2. Use the arrow buttons to select **Main Menu Service**, and then press **OK**.
3. Use the arrow buttons to select the desired secondary-service option, and then press the **OK** button.
4. Use the arrow buttons to select the desired submenu option, and then press **OK**.

Service menu item	Submenu option	Description
<b>Print T.30 trace</b>	<b>At end of call*</b>	Use a T.30 trace report to problem solve fax transmission and receive errors.
	<b>Never</b>	
	<b>Now</b>	
	<b>If error</b>	
<b>Restore defaults</b>		Press <b>OK</b> to restore the product factory settings.
<b>Cleaning mode</b>		Press <b>OK</b> to start the cleaning process. See <a href="#">Clean the paper path on page 35</a> for more information.
<b>Less paper curl</b>	<b>Off*</b>	Lowers the fuser temperature.
	<b>On</b>	
<b>Archive print<sup>1</sup></b>	<b>Off*</b>	The archive print feature produces output that is less susceptible to toner smearing and dusting. Use archive print to create documents that you want to preserve or archive.
	<b>On</b>	

<sup>1</sup> The **Archive print** setting is not the same as the print driver EconoMode setting. When you select EconoMode (draft) in the printer driver, the product uses less toner, which extends the life of the print cartridge. Because less toner is applied to the page in EconoMode, image quality (both clarity and contrast) is considerably decreased. HP does not recommend the full-time use of EconoMode, because the toner supply might outlast the mechanical parts in the print cartridge (causing print-quality problems). In this case, you must replace the print cartridge even though there is still a supply of toner present.



## Secondary service menu

Use this menu to perform various tests and print out special reports.

### Open the secondary service menu

1. Press the **Setup** button.
2. Simultaneously press and then release both the left arrow button and the **OK** button.
3. Press the **OK** button.
4. Use the arrow buttons to select the desired secondary-service option, and then press the **OK** button.
5. Use the arrow buttons to select the desired submenu option, and then press **OK**.
6. After making the necessary menu item choices, wait for the product to enter the Ready state, and then press **Cancel** to close the secondary service menu.

Menu item	Submenu	Description
<b>Service Reports</b>	<b>Cont. Self-Test</b>	The continuous self-test prints the configuration page repeatedly until you press <b>Cancel</b> .
	<b>Cont. Copy</b>	Run a continuous copy test to test the copy function.
	<b>Error Report</b>	Print the error report to see firmware errors.
<b>Display test</b>		Use the <b>Display test</b> menu to run a test of the control-panel display lights and LCD screen.
<b>Button test</b>		Use the <b>Button test</b> menu to run a test of the control-panel buttons.
<b>Show FW Version</b>		Use the <b>Show FW Version</b> menu to display the firmware version number.
<b>Cal Graphs</b>	<b>Mono</b>	Use the <b>Cal Graphs</b> sub-menus to calibrate the product scanner.
	<b>Red</b>	
	<b>Green</b>	
	<b>Blue</b>	
	<b>NOTE:</b> These submenus include additional calibration submenus.	
<b>File Sys Format</b>		Use the <b>File Sys Format</b> menu to reformat the fax file system for fax storage.  <b>CAUTION:</b> All stored faxes and Phonebook entries are lost when the fax file system is reformatted.


# Solve fax problems

## General fax troubleshooting


Verify the following information before troubleshooting fax problems.

- Is the fax set up correctly?
  - Make sure that the fax cord that came with the product is being used. This cord has been tested and meets the product specifications.
  - Make sure that the fax cord is installed in the correct port. The fax cord must be plugged into the *line* port.
- What type of telephone line is being used?
  - **Dedicated telephone line:** a unique telephone line that is assigned to receive or send a fax. The fax cord must be plugged into the *line* port.
  - **Shared telephone line:** a telephone line that receives or sends voice calls and faxes. A single, shared telephone line can perform only one function at a time. A fax cannot be sent while someone is talking on the telephone or while a computer is connecting to the Internet.
  - **Roll-over lines:** a telephone system feature that allows an incoming call to be forwarded to the next available telephone line (used with multiple-telephone-line systems). Try attaching the device to the first incoming telephone line. The product will answer the telephone after it rings the number of times that is specified in the product rings-to-answer setting.
  - **PBX system:** a business-environment telephone system. Standard home telephones and the product use an analog telephone signal. Some PBX systems are digital and might be incompatible with standard telephones and with products such as the HP LaserJet M1319f.
  - **Distinctive ring service:** a telephone system feature that can allocate two telephone numbers to one physical line and then assign a distinctive ring pattern to each number. Make sure that the device is set to respond to the correct distinctive ring pattern that the telephone service provider assigned to the fax number. This service is not available in all countries/regions. Make sure that the telephone company provides this service before changing the setting.
- Is a telephone-line splitting device installed?
  - A telephone-line splitter is a device that splits two or more telephone lines from the same jack. Not all splitters are compatible with the product, and not all countries/regions support the use of splitters.

Parallel splitters (also called T-splitters) split a single line into two phone jacks so that two devices can share the same line. Line 1/Line 2 splitters provide two unique telephone line outlets from a single jack with two unique telephone numbers (two telephone lines are connected to a single jack). A Line 1/Line 2 splitter *must* be used if both a fax line and a voice line share the same jack.

 **NOTE:** Hewlett-Packard does not recommend using a parallel splitter (T-splitter) with the product because it might degrade the quality of the telephone signal. If a second device must be attached to the telephone line in addition to the product, plug the second device into the telephone port on the product (the port on the back that is marked with a telephone icon).

- Is a surge-protection device installed?
  - A surge-protection device might be installed between the telephone jack and the product to protect the product from electrical power that passes through the telephone lines. These devices might cause some fax communication problems by degrading the quality of the telephone signal. If you are having problems sending or receiving faxes, connect the device directly to the telephone jack to determine if the problem is in the surge-protection device.
- Is a telephone company voice-message service being used?
  - If the messaging service rings-to-answer setting is lower than the product rings-to-answer setting, the messaging service answers the call and the product will not detect incoming faxes. If the product rings-to-answer setting is lower than that of the messaging service, the product answers all calls and no calls will ever be sent to the messaging service. The only voice-messaging system that can be used with the product is a standard telephone-answering machine.
- Is a standard telephone-answering machine installed?
  - An answering machine must be connected to the port that is labeled with the telephone icon (or it can be shared on the same telephone-line extension). Set the product rings-to-answer setting for at least one ring more than the number of rings that prompts the answering machine to answer an incoming call. For example, if the answering machine is set to answer calls after three rings, set the product rings-to-answer setting to four rings.

 **NOTE:** If an answering machine is connected to the same telephone line but is connected to a different jack (for example, in another room), it might interfere with the product to fax reception.

#### Table 7-4 General fax troubleshooting

##### The document stops feeding into the ADF while the product is sending a fax.

Cause	Solution
A page cannot exceed 356 mm (14 inches). Attempting to load a page longer than 381 mm (15 inches) will cause the fax to stop.	Press <b>Cancel</b> on the control panel. If the page is jammed, clear the jam. Fax the document by using multiple pages (each less than 356 mm [14 inches] in length) instead of one long one.
The page is too small.	Press <b>Cancel</b> . If the page is jammed, clear the jam. Make sure that the page is at least 89 x 44 mm (3.5 x 1.75 inches) in size before you load it into the ADF. If the page is smaller, use a carrier sheet or affix the page to a larger sheet.

##### The fax activity log is printing at inappropriate times

Cause	Solution
The fax activity log settings are incorrect.	Print a configuration report and check the fax activity log settings. Set the fax activity log settings at the product control panel.  <b>NOTE:</b> The fax log might be set to automatically print. Use the product control panel to change the setting.

**Table 7-4 General fax troubleshooting (continued)**

The product volume is too loud or too soft.

Cause	Solution
The product volume setting is too high or too low.	Set the volume setting at the product control panel.

## Fax error messages

Alert and warning messages appear temporarily and might require the user to acknowledge the message by pressing **OK** to resume or by pressing **Cancel** to cancel the job. With certain warnings, the job might not complete or the print quality might be affected. If the alert or warning message is related to printing and the auto-continue feature is on, the product will attempt to resume the printing job after the warning has appeared for 10 seconds without acknowledgement.

## Alert and warning message tables

**Table 7-5 Alert and warning messages**

Control panel message	Description	Recommended action
<b>Comm. error</b>	A fax communication error occurred between the product and the sender or receiver.	Allow the product to retry sending the fax. Unplug the product telephone cord from the wall, plug in a telephone, and try making a call. Plug the product phone cord into a jack for another phone line.  Try a different phone cord.  If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.
<b>Fax delayed – Send memory full</b>	Fax memory is full.	Cancel the fax by pressing <b>OK</b> or <b>Cancel</b> . Resend the fax. You might need to send the fax in multiple sections if the error occurs again.
<b>Fax is busy Canceled send</b>	The fax line to which you were sending a fax was busy. The product has canceled sending the fax.	Call the recipient to ensure that the fax machine is on and ready.  Check that you are dialing the correct fax number.  Check that the <b>Redial if busy</b> option is enabled.  Check for a dial tone on the phone line by pressing <b>Start Fax</b> .  Make sure that the phone is working by disconnecting the product, plugging in a telephone to the phone line, and making a voice call.  Plug the product phone cord into a jack for another phone line, and then try sending the fax again.  Try a different phone cord.



**Table 7-5 Alert and warning messages (continued)**

Control panel message	Description	Recommended action
		If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.
<b>Fax is busy Redial pending</b>	The fax line to which you were sending a fax was busy. The product automatically redials the busy number. See <a href="#">Control-panel menus on page 13</a> .	<p>Allow the product to retry sending the fax.</p> <p>Call the recipient to ensure that the fax machine is on and ready.</p> <p>Check that you are dialing the correct fax number.</p> <p>Check for a dial tone on the phone line by pressing <b>Start Fax</b>.</p> <p>Make sure that the phone is working by disconnecting the product, plugging in a telephone to the phone line, and making a voice call.</p> <p>Plug the product phone cord into a jack for another phone line, and try sending the fax again.</p> <p>Try a different phone cord.</p> <p>If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<b>Fax memory full Canceling recv.</b>	During the fax transmission, the product ran out of memory. Only the pages that fit into memory will be printed.	Print all of the faxes, and then have the sender resend the fax. Have the sender divide the fax job into multiple jobs before resending. Cancel all fax jobs or clear the faxes from memory. See <a href="#">Control-panel menus on page 13</a> .
<b>Fax memory full Canceling send</b>	During the fax job, the memory filled. All pages of the fax have to be in memory for a fax job to work correctly. Only the pages that fit into memory were sent.	<p>Print all received faxes or wait until all pending faxes are sent.</p> <p>Ask the sender to send the fax again.</p> <p>Cancel all fax jobs or clear the faxes from memory. See <a href="#">Control-panel menus on page 13</a>.</p>
<b>Fax recv. error</b>	An error occurred while trying to receive a fax.	<p>Ask the sender to resend the fax.</p> <p>Try faxing back to the sender or another fax machine.</p> <p>Check for a dial tone on the phone line by pressing <b>Start Fax</b>.</p> <p>Check that the telephone cord is securely connected by unplugging and replugging the cord.</p> <p>Make sure that you are using the telephone cord that came with the product.</p> <p>Make sure that the phone is working by disconnecting the product, plugging in a telephone to the phone line, and making a voice call.</p>

**Table 7-5 Alert and warning messages (continued)**

Control panel message	Description	Recommended action
		<p>Decrease the fax speed. See <a href="#">Change the fax speed on page 197</a>. Ask the sender to resend the fax.</p> <p>Turn off error-correction mode. See <a href="#">Set the fax-error-correction mode on page 196</a>. Ask the sender to resend the fax.</p> <p>Connect the product to a different phone line.</p> <p>If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<b>Fax Send error</b>	An error occurred while trying to send a fax.	<p>Try resending the fax.</p> <p>Try faxing to another fax number.</p> <p>Check for a dial tone on the phone line by pressing <b>Start Fax</b>.</p> <p>Check that the telephone cord is securely connected by unplugging and replugging the cord.</p> <p>Make sure that you are using the telephone cord that came with the product.</p> <p>Make sure that the phone is working by disconnecting the product, plugging in a telephone to the phone line, and making a voice call.</p> <p>Connect the product to a different phone line.</p> <p>Set the fax resolution to <b>Standard</b> instead of the default of <b>Fine</b>. See <a href="#">Control-panel menus on page 13</a>.</p> <p>If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<b>Group dial not allowed in group</b>	The speed-dial code that you typed is programmed for a group. Adding a group-dial to another group-dial is not allowed.	Add one-touch buttons (programmed as an individual speed dial) or speed-dial codes to a group-dial.
<b>Invalid entry</b>	Invalid data or response.	Correct the entry.
<b>No Dial Tone</b>	The product could not detect a dial tone.	<p>Check for a dial tone on the phone line by pressing <b>Start Fax</b>.</p> <p>Unplug the telephone cord from both the product and the wall and replug the cord.</p> <p>Make sure that you are using the telephone cord that came with the product.</p> <p>Unplug the product telephone cord from the wall, plug in a telephone, and try making a voice call.</p>

**Table 7-5 Alert and warning messages (continued)**

Control panel message	Description	Recommended action
		<p>Make sure that the phone cord from the wall telephone jack is plugged into the line in  port.</p> <p>Plug the product phone cord into a jack for another phone line.</p> <p>If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<b>No document sent</b>	The product did not scan any pages, or it did not receive any pages from the computer to transmit a fax.	Try sending the fax again.
<b>No fax answer Redial pending</b>	The receiving fax line did not answer. The product attempts to redial after a few minutes.	<p>Allow the product to retry sending the fax.</p> <p>Call the recipient to ensure that the fax machine is on and ready.</p> <p>Check that you are dialing the correct fax number.</p> <p>If the product continues to redial, unplug the product telephone cord from the wall, plug in a telephone, and try making a voice call.</p> <p>Make sure that the phone cord from the wall telephone jack is plugged into the line in  port.</p> <p>Plug the product phone cord into a jack for another phone line.</p> <p>Try a different phone cord.</p> <p>If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.</p>
<b>No fax answer. Canceled send</b>	Attempts to redial a fax number failed, or the “Redial-no answer” option was turned off.	<p>Call the recipient to ensure that the fax machine is on and ready.</p> <p>Check that you are dialing the correct fax number.</p> <p>Check that the redial option is enabled.</p> <p>Unplug the telephone cord from both the product and the wall and replug the cord.</p> <p>Unplug the product telephone cord from the wall, plug in a telephone, and try making a voice call.</p> <p>Make sure that the phone cord from the wall telephone jack is plugged into the line in  port.</p> <p>Plug the product phone cord into a jack for another phone line.</p>

**Table 7-5 Alert and warning messages (continued)**

Control panel message	Description	Recommended action
		If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.
<b>No fax detected</b>	The product answered the incoming call but did not detect that a fax machine was calling.	Allow the product to retry receiving the fax. Try a different phone cord. Plug the product phone cord into a jack for another phone line. If the error persists, contact HP. See <a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a> or the support flyer that came in the product box.

## Fax memory is retained when there is a loss of power

The HP LaserJet M1319 MFP flash memory protects against data loss when a power failure occurs. Other fax devices store fax pages in either normal RAM or short-term RAM. Normal RAM immediately loses data when power is lost, while short-term RAM loses data about 60 minutes after a power failure occurs. Flash memory can maintain its data for years without power applied.

## Fax logs and reports

Use the following instructions to print fax logs and reports:

### Print all fax reports

Use this procedure to print all of the following reports at one time:

- Fax activity log
  - Phone book report
  - Configuration report
  - Block-fax list
1. On the control panel, press **Setup**.
  2. Use the arrow buttons to select **Reports**, and then press **OK**.
  3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
  4. Use the arrow buttons to select **All fax reports**, and then press **OK**. The product exits the menu settings and prints the reports.

### Print individual fax reports


Use the control panel to print the following fax logs and reports:

- **Last call report:** Provides information about the last fax sent from or received at the product.
- **Fax activity log:** Provides a chronological history of the last 40 faxes that were received, sent, or deleted, and any errors that occurred.



- **Phone book report:** Lists the fax numbers that are assigned to the phone book entries, including speed dials and group-dial entries.
  - **Block-fax list:** Lists the fax numbers that are blocked from sending faxes to the product.
1. On the control panel, press **Setup**.
  2. Use the arrow buttons to select **Reports**, and then press **OK**.
  3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
  4. Use the arrow buttons to select the report to be printed, and then press **OK**. The product exits the menu settings and prints the report.

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 **NOTE:** If you selected **Fax Activity log** and pressed **OK**, press **OK** again to select **Print log now**. The product exits the menu settings and prints the log.

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### Set the fax activity log to print automatically

You can decide whether or not you want the fax log to print automatically after every 40 entries. The factory-set default is **On**. Use the following steps to set the fax activity log to print automatically:


1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Reports**, and then press **OK**.
3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
4. Use the arrow buttons to select **Fax Activity log**, and then press **OK**.
5. Use the arrow buttons to select **Auto Log Print**, and then press **OK**.
6. Use the arrow buttons to select **On**, and then press **OK** to confirm the selection.

### Set the fax error report

A fax error report is a brief report that indicates the product experienced a fax job error. It can be set to print after the following events:

- Every fax error (the factory-set default)
- Send fax error
- Receive fax error
- Never

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 **NOTE:** If you select **Never**, you will have no indication that a fax failed to be transmitted unless you print a fax activity log.

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1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Reports**, and then press **OK**.
3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
4. Use the arrow buttons to select **Fax Error report**, and then press **OK**.

5. Use the arrow buttons to select the option for when you want the fax error reports to be printed.
6. Press **OK** to save the selection.

## Set the fax confirmation report

A confirmation report is a brief report that indicates the product successfully sent or received a fax job. It can be set to print after the following events:

- Every fax job
- Send fax
- Receive fax
- Never (the factory-set default)

1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Reports**, and then press **OK**.
3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
4. Use the arrow buttons to select **Fax Confirmation**, and then press **OK**.
5. Use the arrow buttons to select the option for when you want the fax error reports to be printed.
6. Press **OK** to save the selection.

## Include the first page of each fax on the fax confirmation, fax error, and last call reports

If this option is turned on and the page image still exists in the product memory, the fax configuration, fax error, and last call reports include a thumbnail (50% reduction) of the first page of the most recent fax that was sent or received. The factory-set default for this option is **On**.

1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Reports**, and then press **OK**.
3. Use the arrow buttons to select **Fax Reports**, and then press **OK**.
4. Use the arrow buttons to select **Include 1st page**, and then press **OK**.
5. Use the arrow buttons to select **On**, and then press **OK** to confirm the selection.

## Change error correction and fax speed

### Set the fax-error-correction mode

Usually, the product monitors the signals on the telephone line while it is sending or receiving a fax. If the product detects an error during the transmission and the error-correction setting is **On**, the product can request that the portion of the fax be resent. The factory-set default for error correction is **On**.

You should turn off error correction only if you are having trouble sending or receiving a fax, and you are willing to accept the errors in the transmission. Turning off the setting might be useful when you are

trying to send a fax overseas or receive one from overseas, or if you are using a satellite telephone connection.

1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Fax setup**, and then press **OK**.
3. Use the arrow buttons to select **All faxes**, and then press **OK**.
4. Use the arrow buttons to select **Error correction**, and then press **OK**.
5. Use the arrow buttons to select **On** or **Off**, and then press **OK** to save the selection.

## Change the fax speed

The fax-speed setting is the modem protocol that the product uses to send faxes. It is the worldwide standard for full-duplex modems that send and receive data across telephone lines at up to 33,600 bits per second (bps). The factory-set default for the fax-speed setting is **High (V.34)**.

You should change the setting only if you are having trouble sending a fax to or receiving a fax from a particular device. Decreasing the fax speed might be useful when you are trying to send a fax overseas, or receive one from overseas, or if you are using a satellite telephone connection.

1. On the control panel, press **Setup**.
2. Use the arrow buttons to select **Fax setup**, and then press **OK**.
3. Use the arrow buttons to select **All faxes**, and then press **OK**.
4. Use the arrow buttons to select **Fax Speed**, and then press **OK**.
5. Use the arrow buttons to select a speed setting, and then press **OK**.

## Problems sending faxes


Problem	Cause	Solution
The document stops feeding in the middle of faxing.	The maximum length of a page that you can load is 381 mm (15 inches). Faxing of a longer page stops at 381 mm (15 inches).	Print the document on shorter media. If no jam exists and less than one minute has elapsed, wait a moment before pressing <b>Cancel</b> . If a jam exists, remove the jam. Then, resend the job.
	If the item is too small, it can jam inside the automatic document feeder (ADF).	The minimum page size for the ADF is 148 x 105 mm (5.83 x 4.13 inches).  If a jam exists, remove the jam. Then, resend the job.

Problem	Cause	Solution
Faxes stop during sending.	The receiving fax machine might be malfunctioning.	Try sending to another fax machine.
	The telephone line might not be working.	Do one of the following: <ul style="list-style-type: none"> <li>Turn up the volume on the product, and then press <b>Start Fax</b> on the control panel. If you hear a dial tone, the telephone line is working.</li> <li>Disconnect the product from the jack in the wall, and then connect a telephone to the jack. Try to make a telephone call to verify that the telephone line is working.</li> </ul>
	A communication error might be interrupting the fax job.	Change the redial-on-communication-error setting to <b>On</b> .
The product is receiving faxes but is not sending them.	If the product is on a digital system, the system might be generating a dial tone that the product cannot detect.	Disable the detect-dial-tone setting. If the error persists, contact the system service provider.
	A poor telephone connection might exist.	Try again later.
	The receiving fax machine might be malfunctioning.	Try sending to another fax machine.
Outgoing fax calls continue to be dialed.	The telephone line might not be working.	Do one of the following: <ul style="list-style-type: none"> <li>Turn up the volume on the product and press <b>Start Fax</b> on the control panel. If a dial tone exists, the telephone line is working.</li> <li>Disconnect the product from the telephone jack and connect a telephone. Try to make a telephone call to verify that the telephone line is working.</li> </ul>
	The product automatically redials a fax number if the redial options are set to <b>On</b> .	To stop the product from redialing a fax, press <b>Cancel</b> . Or change the redial setting.

Problem	Cause	Solution
Sent faxes are not arriving at the receiving fax machine.	The receiving fax machine might be off or might have an error condition, such as being out of paper.	Call the recipient to verify that the fax machine is on and ready to receive faxes.
	The originals might be incorrectly loaded.	Verify that the original documents are correctly loaded into the ADF input tray.
	A fax might be in memory because it is waiting to redial a busy number, other jobs that are ahead of it are waiting to be sent, or the fax is set up for a delayed send.	If a fax job is in memory for any of these reasons, an entry for the job appears in the fax log. Print the fax activity log and check the <b>Status</b> column for jobs that show a <b>Pending</b> designation.
The control panel shows a low-memory error.	The fax might be too large, or the resolution might be too high.	<p>Try one of the following:</p> <ul style="list-style-type: none"> <li>• Divide a large fax into smaller sections, and then fax them individually.</li> <li>• Clear stored faxes to make more memory available for outgoing faxes.</li> <li>• Configure the outgoing fax as a delayed fax, and then verify that it will send completely.</li> <li>• Make sure that the product is using the lowest resolution setting (<b>Standard</b>).</li> </ul>

## Problems receiving faxes

Use the table in this section to solve problems that might occur when receiving faxes.

 **NOTE:** Use the fax cord that came with the product in order to ensure that the product functions correctly.

Problem	Cause	Solution
The product cannot receive faxes from an extension telephone.	The extension-telephone setting might be disabled.	Change the extension-telephone setting.
	The fax cord might not be securely connected.	Verify that the fax cord is securely connected between the telephone jack and the product (or another device that is connected to the product). Press 1-2-3 in sequence, wait for three seconds, and then hang up.
	The product dialing mode might be incorrectly set, or the extension phone might be incorrectly set.	Verify that the product dialing mode is set to <b>Tone</b> . Verify that the extension phone is set up for tone dialing as well.
The product is not answering incoming fax calls.	The answer mode might be set to <b>Manual</b> .	If the answer mode is set to <b>Manual</b> , the product does not answer calls. Start the fax-receiving process manually.
	The rings-to-answer setting might not be set correctly.	Check the rings-to-answer setting to verify that it is set properly.
	The answer-ring pattern feature might be turned on, but you do not have the service, or you do have the service and the feature is not set correctly.	Check the answer-ring pattern feature to verify that it is set properly.
	The fax cord might not be correctly connected, or the fax cord is not working.	See the getting started guide to check the installation. Verify that you are using the fax cord that came with the product.
	The product might not be able to detect incoming fax tones because the answering machine is playing a voice message.	Re-record the answering machine message, leaving at least two seconds of silence at the beginning of the message.
	Too many devices might be connected to the telephone line.	Do not attach more than three devices to the line. Remove the last device that was connected and determine whether the product works. If not, continue removing devices one at a time and retry after removing each one.
	The telephone line might not be working.	Do one of the following: <ul style="list-style-type: none"> <li>● Increase the volume on the product, and then press <b>Start Fax</b> on the control panel. If a dial tone exists, the telephone line is working.</li> <li>● Disconnect the product from the telephone jack, and then connect a telephone. Try to make a telephone call to verify that the telephone line is working.</li> </ul>

Problem	Cause	Solution
The product is not answering incoming fax calls.	A voice-messaging service might be interfering with the product as it attempts to answer calls.	Do one of the following: <ul style="list-style-type: none"> <li>• Disable the messaging service.</li> <li>• Get a telephone line that is dedicated to fax calls.</li> <li>• Set the product answer mode to <b>Manual</b>. In manual mode, you must start the fax-receive process yourself.</li> <li>• Leave the product set to automatic mode and lower the rings-to-answer setting for the product to a number less than the rings-to-answer setting for the voice mail. The product will answer all incoming calls.</li> </ul>
	The product might be out of paper, the fax memory is full, or private receive is turned on .  <b>NOTE:</b> For more information about private receive, see <a href="#">Table 2-5 Fax setup menu on page 15</a> .	Refill the media input tray. Press <b>OK</b> . The product prints all of the faxes it has saved in memory and then resumes answering fax calls.  Reformat the fax file system for fax storage. See <a href="#">Secondary service menu on page 187</a> .
Faxes are not printing.	The media input tray is empty.	Load media. Any faxes that are received while the input tray is empty are stored in memory and will print after the tray has been refilled.
	The receive-to-PC option might be selected, and faxes are being received by the computer.	Check to determine whether the computer is receiving faxes.
	The product has encountered an error.	Check the control panel for an error message, and then see <a href="#">Fax error messages on page 190</a> .
Faxes are printing on two pages instead of one.	The autoreduction setting might not be set correctly.	Turn on the autoreduction setting.
	The incoming faxes might have been sent on larger media.	Adjust the autoreduction setting to allow larger pages to be printed on one page.
Received faxes are too light, are blank, or have poor print quality.	The product ran out of toner while printing a fax.	The product stores the most recently printed faxes. (The amount of memory that is available determines the actual number of faxes stored for reprinting.) As soon as possible, replace the print cartridge, and then reprint the fax.
	The fax that was sent was too light.	Contact the sender and have the sender resend the fax after altering the contrast settings.

## Performance problems

Problem	Cause	Solution
Faxes are transmitting or being received very slowly.	The fax might be very complex, such as one with many graphics.	Complex faxes take longer to be sent or received. Breaking longer faxes into multiple jobs and decreasing the resolution can increase the transmission speed.
	The receiving fax machine might have a slow modem speed.	The product sends the fax only at the fastest modem speed that the receiving fax machine can accept.
	The resolution at which the fax was sent or is being received might be very high.	To receive the fax, call and ask the sender to lower the resolution and resend the fax. To send the fax, lower the resolution and resend the fax.
	The telephone line might be experiencing line noise.	Hang up and resend the fax. Have the telephone company check the telephone line.  If the fax is being sent via a digital phone line, contact the service provider.
	The fax is being sent via an international call.	Allow more time to transmit fax jobs internationally.
	The original document has a colored background.	Reprint the original document with a white background, and then resend the fax.
The fax activity logs or fax call reports are printing at inappropriate times.	The fax activity log or fax call reports settings are not correct.	Print a configuration page and check when the reports print.
The product sounds are too loud or too soft.	The volume setting might not be adjusted correctly.	Adjust the product volume setting.



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# 8 Parts

- [Ordering information](#)
- [Supplies and hinge tool](#)
- [Cable and interface accessories](#)
- [Whole unit replacement](#)
- [Control-panel overlay](#)
- [Supplementary documentation and support](#)
- [Parts lists and diagrams](#)
- [Scanner components and handset](#)
- [Product base](#)
- [Alphabetical parts list](#)
- [Numerical parts list](#)

## Ordering information

Order replacement parts, supplies, and paper from the following Web sites:

- To order genuine HP parts and accessories, go to [www.hp.com/buy/parts](http://www.hp.com/buy/parts).
- To order supplies and paper, go to [www.hp.com/buy/suresupply](http://www.hp.com/buy/suresupply).

## Supplies and hinge tool

Item	Description	Part number
Black print cartridge	Average yield for the standard print cartridge is approximately 2,000 pages. in accordance with ISO/IEC 19752. Actual yield depends on specific use.	Standard: Q2612A (standard; new) Q2612-67901 (exchange)
Scanner hinge tool	Use this tool to secure the scanner in the open position when the link assemblies are disengaged.	5185-7441

## Cable and interface accessories

Item	Description	Part number
Fax cord	Two-wire phone cord adapter	8121-0811
Power cord	1.8 meter (6 feet) US/Canada	8120-8382
Power cord	1.8 meter (6 feet) Europe	8121-0516
Power cord	1.8 meter (6 feet) Switzerland	8121-0519
Power cord	1.8 meter (6 feet) United Kingdom	8121-0517
Power cord	1.8 meter (6 feet) Danish	8121-0518
Power cord	1.8 meter (6 feet) South America	8121-0520
Power cord	1.8 meter (6 feet) Israel	8121-0521

# Whole unit replacement

Use the tables in this section to find the whole unit replacement part number for a specific product bundle and localized configuration.

**Table 8-1 Whole unit replacement, product bundle CB536A**

Country/region	Localized configuration	Replacement part number
Asia Pacific	AB0 - Taiwan-Traditional Chinese	CB536-67901
	AB1 - Korea-Korean localization	CB536-67902
	AB2 - China-Simplified Chinese	CB536-67903
	AB3 - Thailand-Thai	CB536-67904
	AB4 - Singapore-English	CB536-67905
	ABG - Australia-English	
	A2K - Philippines-English	
	ACJ - India-English	
	BFV - Hong Kong SAR-English/Traditional Chinese	CB536-67906
	AK3 - Indonesia - Indonesia localizaton	CB536-67907
	UUD - Vietnam-Vietnamese localization	CB536-67908
	ARR - Asia Pacific (Euro Cord)-English	CB536-67909
	ARS - Asia Pacific (UK Cord)-English	CB536-67910

**Table 8-1 Whole unit replacement, product bundle CB536A (continued)**

Country/region	Localized configuration	Replacement part number
Europe, Middle East, and Africa	ABD - Germany-German	CB536-67911
	ABF - France-French	CB536-67912
	ABH - Netherlands-Dutch	CB536-67913
	ABZ - Italy-Italian	CB536-67914
	ABE - Spain - Spanish localization	CB536-67915
	BFY - Spain-Catalan localization	CB536-67916
	ABU - United Kingdom-English	CB536-67917
	B14 - Belgium-Dutch/French	CB536-67918
	AR8 - Switzerland-French/German	CB536-67919
	BB1 - Norway/Finland/Sweden-NO/FI/SV localization	CB536-67920
	ABY - Denmark-Danish	CB536-67921
	ACB - Russia-Cyrillic	CB536-67922
	BCM - Czech Rep/Slovakia - Czech/Slovak localization	CB536-67923
	AKC - Hungary - Hungarian localization	CB536-67924
	AKD - Poland - Polish localization	CB536-67925
	AB9 - Portugal - Portuguese localization	CB536-67926
	ACQ - South Africa-English	CB536-67927
	BCP - Greece/Israel - Greek/Hebrew localization	CB536-67928
	BFQ - Mid East 220V-AR/FR/EN localization	CB536-67929
	BFR - Estonia/Lithuania/Latvia-ET/LT/LV	CB536-67930
	BFS - Slovenia/Croatia/Serbia-SL/HR/SR	CB536-67931
	BFZ - Kazakhstan/Ukraine-Kazakh/Ukrainian localization	CB536-67932
	AB8 - Turkey - Turkish localization	CB536-67933
BG1 - Romania/Bulgaria-Romanian/Bulgarian localization	CB536-67934	
Latin America	AC8 - Argentina-Spanish	CB536-67935
	ABM - Latin Amer - (120v) Spanish localization	CB536-67936
	696 - Brazil - Portuguese localization	CB536-67937
	697 - Latin America - Spanish localization	CB536-67938
	AKV - South America-Spanish	CB536-67939
North America	A2L - Canada-FR/EN	CB536-67940
	ABA - U.S.-English	CB536-67941

# Control-panel overlay

**Table 8-2 Control-panel overlay**

Item	Language	Part number
Control-panel overlay	English (EN)	CB536-00003
Control-panel overlay	Spanish (ES)	CB536-00004
Control-panel overlay	Portuguese (PT)	CB536-00005
Control-panel overlay	German (DE)	CB536-00006
Control-panel overlay	French (FR)	CB536-00007
Control-panel overlay	Dutch (NL)	CB536-00008
Control-panel overlay	Italian (IT)	CB536-00009
Control-panel overlay	Swedish (SV)	CB536-00010
Control-panel overlay	Norwegian (NO)	CB536-00011
Control-panel overlay	Finnish (FI)	CB536-00012
Control-panel overlay	Danish (DA)	CB536-00013
Control-panel overlay	Russian (RU)	CB536-00014
Control-panel overlay	Czech (CS)	CB536-00015
Control-panel overlay	Hungarian (HU)	CB536-00016
Control-panel overlay	Polish (PL)	CB536-00017
Control-panel overlay	Slovak (SK)	CB536-00018
Control-panel overlay	Turkish (TR)	CB536-00019
Control-panel overlay	Greek (EL)	CB536-00020
Control-panel overlay	Hebrew (HE)	CB536-00021
Control-panel overlay	Arabic (AR)	CB536-00022
Control-panel overlay	Traditional Chinese (ZHTW)	CB536-00023
Control-panel overlay	Korean (KO)	CB536-00024
Control-panel overlay	Simplified Chinese (ZHCN)	CB536-00025
Control-panel overlay	Thai (TH)	CB536-00026
Control-panel overlay	Vietnamese (VI)	CB536-00027
Control-panel overlay	Catalan (CA)	CB536-00030
Control-panel overlay	Romanian (RO)	CB536-00031
Control-panel overlay	Croatian (HR)	CB536-00032
Control-panel overlay	Slovenian (SL)	CB536-00033
Control-panel overlay	Indonesian (ID)	CB536-00034
Control-panel overlay	Kazakh (KK)	CB536-00035
Control-panel overlay	Bulgarian (BG)	CB536-00036

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

<b>Item</b>	<b>Language</b>	<b>Part number</b>
Control-panel overlay	Ukrainian (UK)	CB536-00037
Control-panel overlay	Serbian (SR)	CB536-00038
Control-panel overlay	Lithuanian (LT)	CB536-00039
Control-panel overlay	Estonia (ET)	CB536-00040
Control-panel overlay	Latvian (LV)	CB536-00041

# Supplementary documentation and support

**Table 8-3 Service and training support**

Item	Part number
Service manual (this manual)	CB536-90938

A printed copy of the user guide is available in the following languages.

**Table 8-4 User guides**

Language	Part number
English	CB536-90946
French	CB536-90947
German	CB536-90948
Italian	CB536-90949
Spanish, Mid Atlantic	CB536-90950
Catalan	CB536-90951
Bulgarian	CB536-90952
Chinese, simplified	CB536-90953
Croatian	CB536-90954
Czech	CB536-90955
Danish	CB536-90956
Dutch	CB536-90957
Estonian	CB536-90958
Finnish	CB536-90959
Greek	CB536-90960
Hungarian	CB536-90961
Indonesian	CB536-90962
Kazakh	CB536-90963
Korean	CB536-90964
Latvian	CB536-90965
Lithuanian	CB536-90966
Norwegian	CB536-90967
Polish	CB536-90968
Portuguese	CB536-90969
Romanian	CB536-90970
Russian	CB536-90971
Serbian	CB536-90972

**Table 8-4 User guides (continued)**

Language	Part number
Slovak	CB536-90973
Slovenian	CB536-90974
Swedish	CB536-90975
Thai	CB536-90976
Traditional Chinese	CB536-90977
Turkish	CB536-90978
Ukrainian	CB536-90979
Vietnamese	CB536-90980
Arabic	CB536-90981
Hebrew	CB536-90982

A printed copy of the Getting Started Guide is available in the following languages.

**Table 8-5 Getting started guide**

Language	Part number
English, Spanish, Portuguese, French	CB536-90901
English, Spanish, Portuguese, Catalan, Dutch, French, German, Italian	CB536-90902
English, Danish, Finnish, French, Norwegian, Swedish, Arabic	CB536-90903
English, Bulgarian, Czech, Hungarian, Polish, Romanian, Russian, Slovak	CB536-90904
English, Kazakh, Turkish, Ukrainian, Estonian, Latvian, Lithuanian	CB536-90905
English, Croatian, Greek, Serbian, Slovenian, Hebrew	CB536-90906
English, Korean, Indonesian, Simplified Chinese, Traditional Chinese, Thai, Vietnamese	CB536-90907

**Table 8-6 Technical support Web sites**

<b>HP Customer Care Online</b>	<a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a>
Software drivers, support documentation, and answers to frequently asked questions	
<b>HP Technical Training (North America)</b>	<a href="http://www.hp.com/go/resellertraining">www.hp.com/go/resellertraining</a>
Classes and schedules	



# Parts lists and diagrams

## How to use the parts lists and diagrams





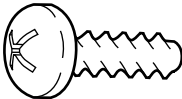
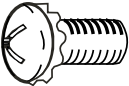
The figures in this chapter show the major subassemblies in the product and their component parts. A parts list table follows each exploded view assembly diagram. Each table lists the item number, the associated part number, and the description of each part. If a part is not listed in the table, then it is not a field replaceable unit (FRU).

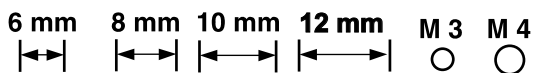
△ **CAUTION:** Be sure to order the correct part. When looking for part numbers for electrical components, pay careful attention to the voltage that is listed in the description column to ensure that the part number selected is for the correct product model.

📄 **NOTE:** In this manual, the abbreviation “PCA” stands for “printed circuit board assembly.” Components described as a PCA might consist of a single circuit board or a circuit board plus other parts, such as cables and sensors.

## Screws

**Table 8-7 Common fasteners**

Example	Description	Size	Part Number	Use
	Screw, machine, truss head	M3X6	XA9-1495-000CN	Used to secure metal to metal
		M2X10	XA9-1501-000CN	
	Screw, with washer	M3X8	XA9-1420-000CN	Used to secure metal components to metal components (for example, a ground wire to the frame)
		M3X6	XB2-7300-605CN	
		M3X6	XB2-8300-609CN	
	Screw, self-tapping	BH3X6	XB9-1503-000CN	Used to secure anything to plastic
		M4X10	XB4-5401-009CN	
		BH3X6	XB4-7300-609CN	
	Screw, P	M4x10	XB4-5401-005CN	Used to secure metal to plastic
	Screw, tapping, binding head	M3X6	XB4-5300-609CN	Used to secure anything to plastic
		M3X8	XB4-7300-805CN	
	Screw, D	M3X6	XA9-1670-000CN	Used to secure metal components to metal components (for example, a ground wire to the frame)



# Scanner components and handset

## External assemblies

Figure 8-1 External assemblies

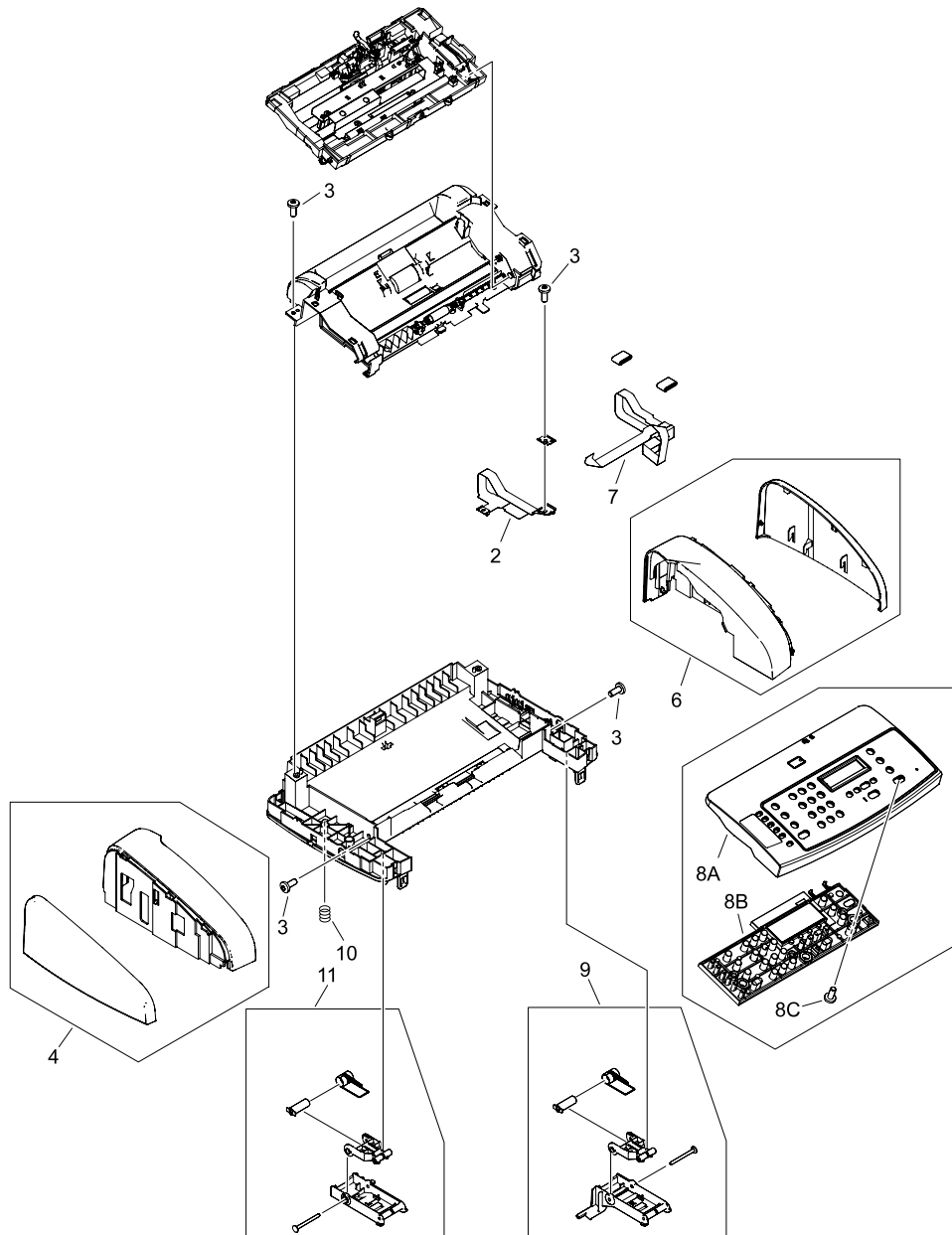


**Table 8-8 External assemblies**

Ref	Description	Part number	Qty
1	Pickup-tray assembly, scanner	RM1-3419-000CN	1
2	Control-panel overlay	See <a href="#">Control-panel overlay on page 207</a> .	
3	Tray, delivery	RM1-8443-000CN	1
4	HP jewel	7121-8043	1
5	Handset, telephone	CB536-60102	1

# ADF components

Figure 8-2 ADF components

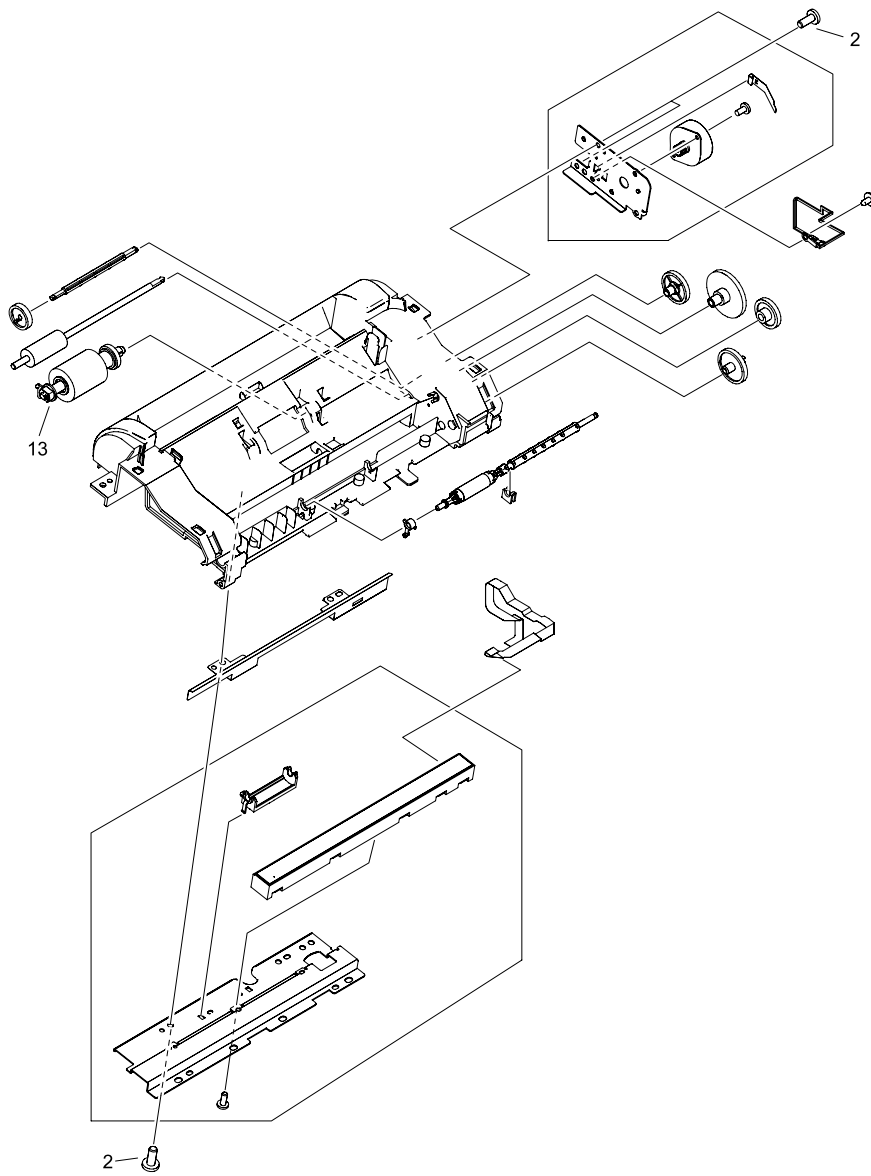


**Table 8-9 ADF components**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
2	Sheet, grounding scanner	RL1-0376-000CN	1
3	Screw, tap, M4X10	XB4-5401-009CN	6
4	Cover, left scanner	RM1-3076-020CN	1
6	Cover, right scanner	RM1-3077-000CN	1
7	Flat, flexible cable (FFC) scanner	RK2-1214-000CN	1
8A	Cover, top	RC2-5792-000CN	1
8B	Control-panel assembly, Western	RM1-5178-000CN	1
8B	Control-panel assembly, Asian	RM1-5179-000CN	1
8C	Screw, tap, M4X10	XB4-5401-009CN	3
9	Scanner link assembly, right	RM1-0897-000CN	1
10	Spring, tension scanner	RU5-2885-000CN	1
11	Scanner link assembly, left	RM1-0896-000CN	1

# Frame assembly

Figure 8-3 Frame assembly

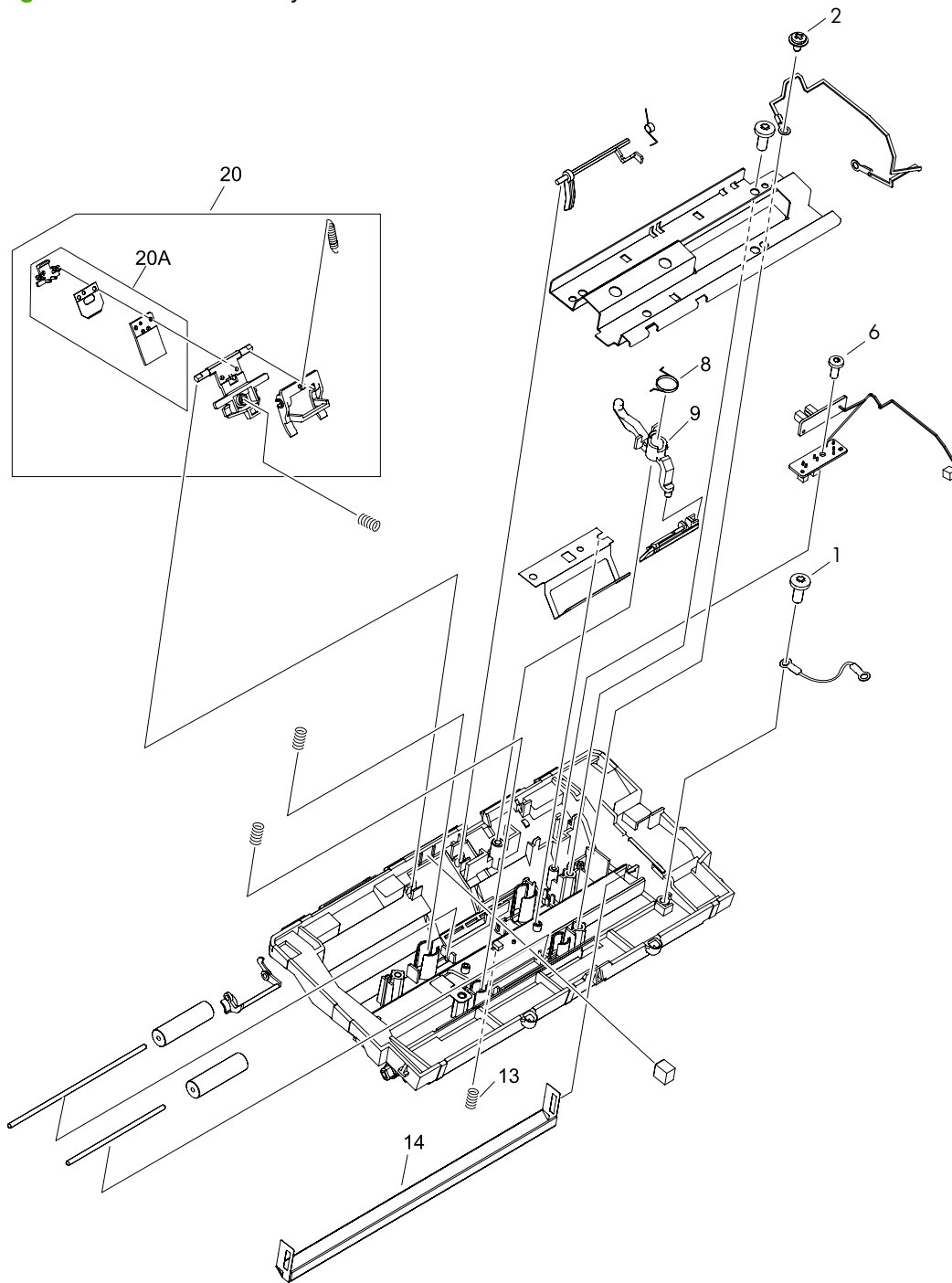


**Table 8-10 Frame assembly**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
All	Frame assembly	RM1-3063-000CN	1
2	Screw, P, M4X10	XB4-5401-005CN	1
13	Pickup-roller assembly, scanner	RM1-0885-000CN	1

# Guide assembly

Figure 8-4 Guide assembly





**Table 8-11 Guide assembly**

Ref	Description	Part number	Qty
All	Guide assembly, scanner	RM1-3066-000CN	1
1	Screw, self tapping, M4X10	XB4-5401-009CN	5
2	Screw, D, M3X6	XA9-1670-000CN	1
6	Screw, self-tapping binding head, M3X8	XB4-7300-805CN	1
8	Scanner media-lever torsion spring (lever, pressure convert)	RC1-2544-000CN	1
9	Scanner media lever (lever, pressure convert)	RC1-8413-000CN	1
13	Spring, compression, white platen	RU5-2196-000CN	3
14	Platen, white, scanner	RF5-3235-000CN	1
20	Separation-pad assembly, scanner	RM1-0890-000CN	1
20A	Separation-pad set, scanner	RM1-0891-000CN	1

 **NOTE:** The *separation-pad set* and the *separation-pad assembly* are two different assemblies.

The separation-pad set consists of the pad, clear plastic sheet, and the pad cover. The separation-pad set *is* a user-replaceable assembly.

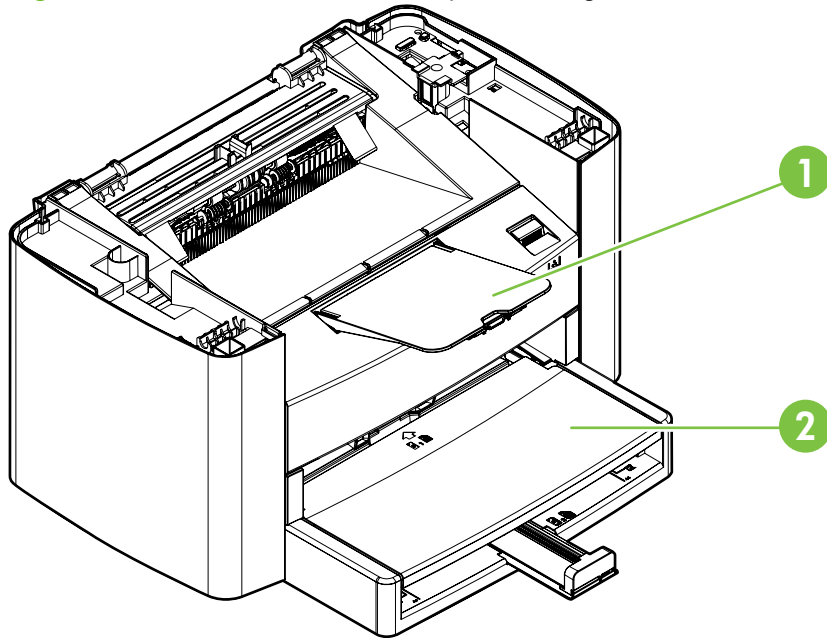
The separation-pad assembly consists of the separation lever, tension spring, feed arm, and the components of the separation-pad set. The separation-pad assembly *is not* a user-replaceable assembly.

Only trained service personnel should attempt to replace the separation-pad assembly.

## Product base

### External assemblies and print cartridge

Figure 8-5 External assemblies and print cartridge

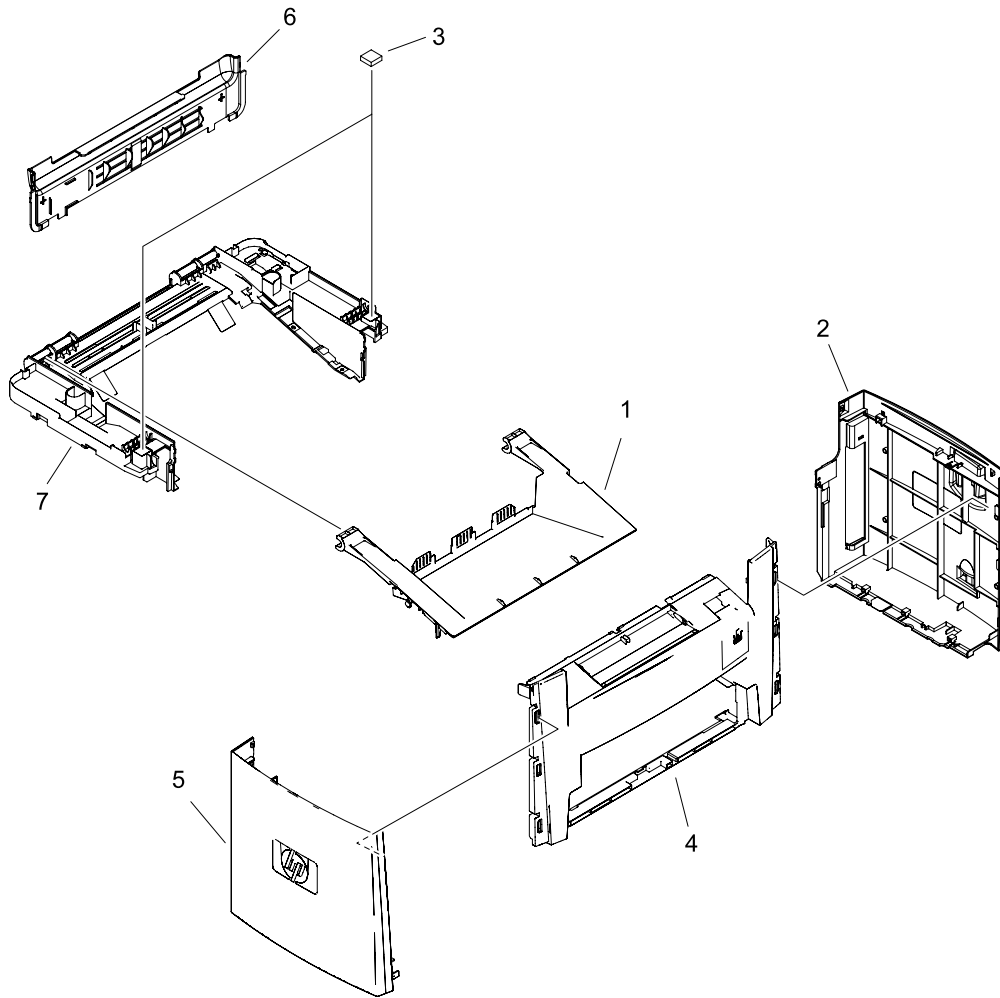


**Table 8-12 External assemblies and print cartridge**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Delivery tray assembly	RM1-3059-000CN	1
2	Pickup tray assembly	RM1-3060-000CN	1
Not shown	Print cartridge	Q2612-67901	1

## External covers

Figure 8-6 External covers

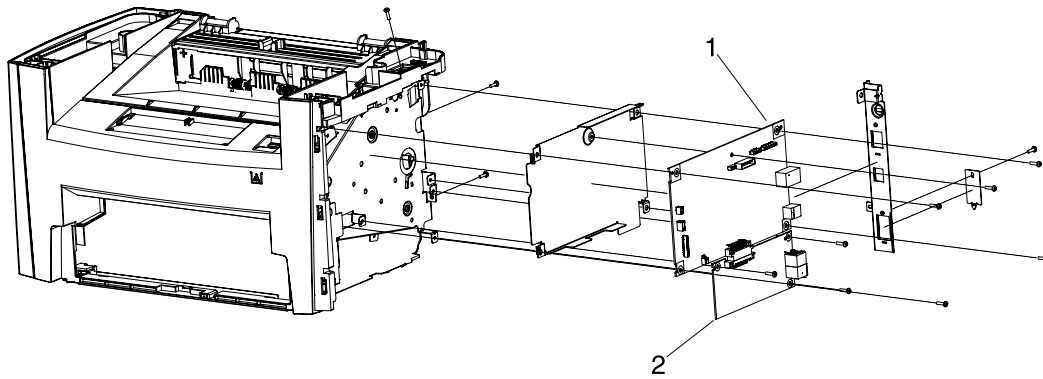


**Table 8-13 External covers, printer**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Door, print cartridge	RC1-8372-000CN	1
2	Cover, right	RC2-5800-000CN	1
3	Scanner cushion	RC1-2476-000CN	2
4	Cover, front	RL1-1160-000CN	1
5	Cover, left	RC1-8373-000CN	1
6	Cover, rear	RC1-2474-020CN	1
7	Cover, top (scanner support-frame)	RL1-1161-000CN	1

## Formatter and fax card

Figure 8-7 Formatter and fax card

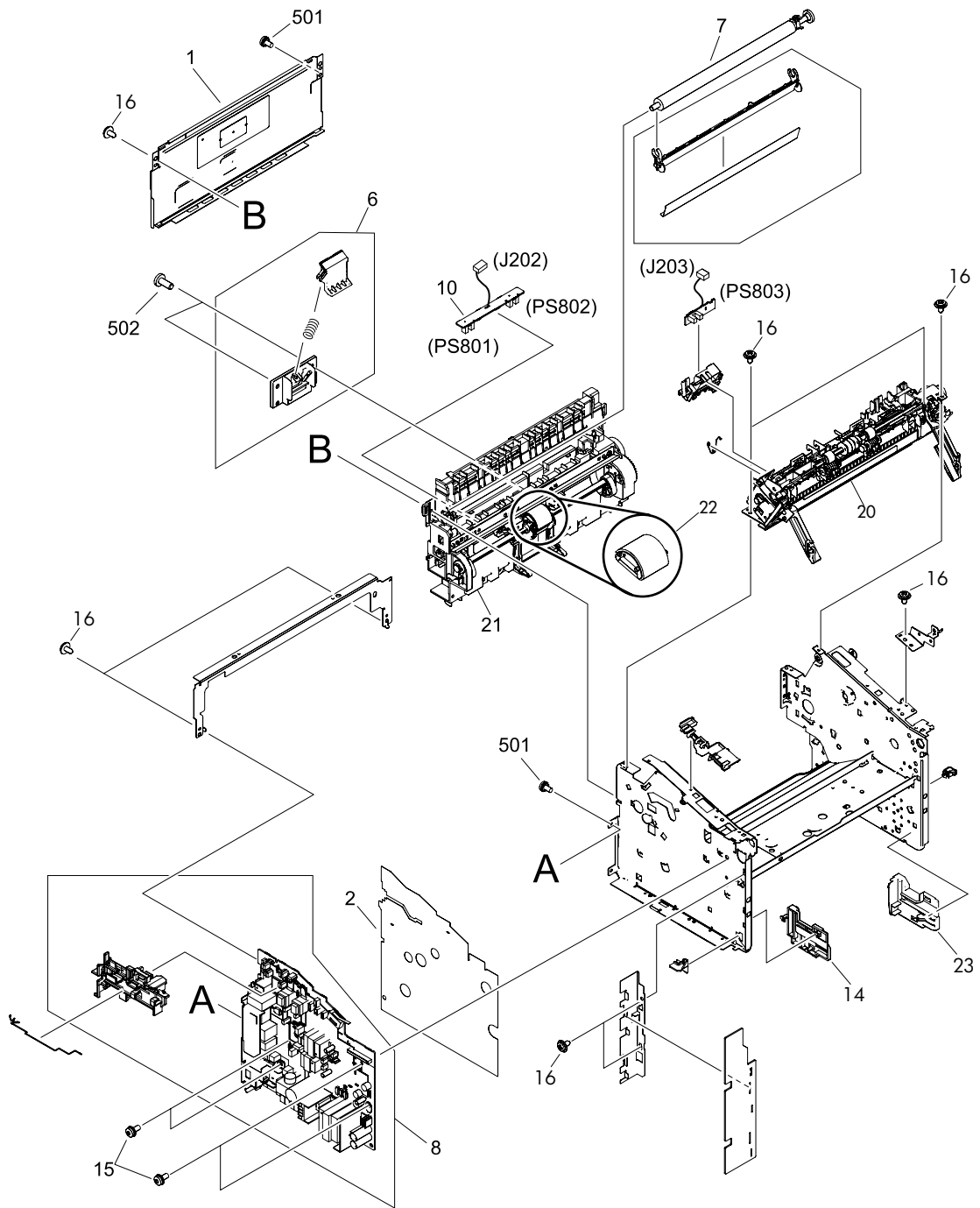


**Table 8-14 Formatter and fax card**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
1	Formatter, Western	CC391-60001	1
1	Formatter, Asian	CC541-60001	1
2	Fax card, US/AP	CC392-60001	1
2	Fax card, EMEA	CC396-60001	1

# Internal components

Figure 8-8 Internal components (1 of 3)

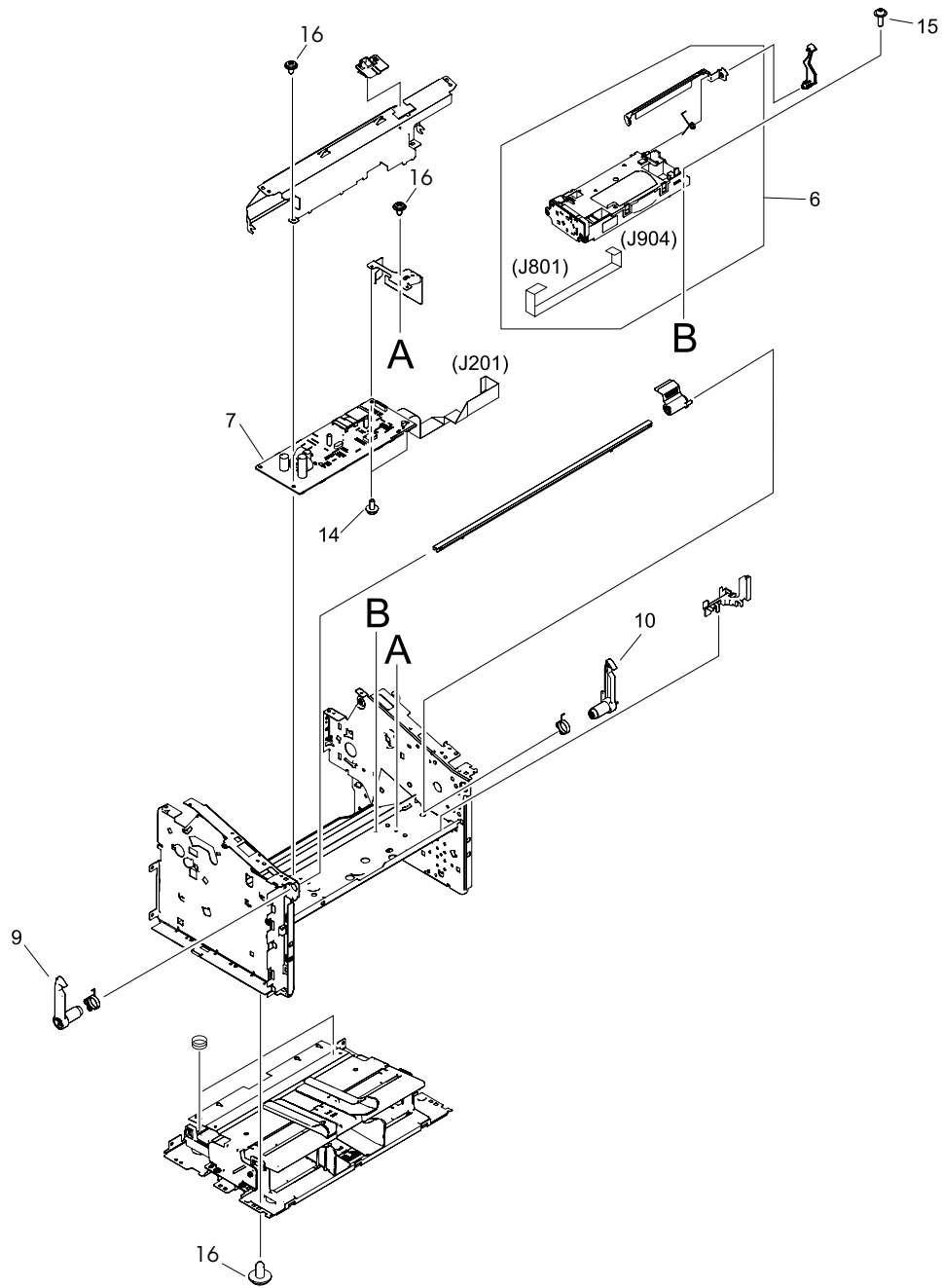




**Table 8-15 Internal components (1 of 3)**

Ref	Description	Part number	Qty
1	Panel, rear	RC1-8368-000CN	1
6	Separation-pad assembly, printer	RM1-2048-000CN	1
7	Transfer-roller assembly	RM1-2062-000CN	1
8	Power-supply assembly, 110-127 V	RM1-5280-000CN	1
8	Power-supply assembly, 220-240 V	RM1-5281-000CN	1
14	Guide, tray left	RC1-8389-000CN	1
15	Screw, rs, M3X8	XA9-1420-000CN	4
16	Screw, D	XA9-1670-000CN	19
20	Fuser, 110-127V	RM1-5363-000CN	1
20	Fuser, 220-240V	RM1-5364-000CN	1
21	Pickup assembly	RM1-3043-000CN	1
22	Roller, pickup, printer (product base)	RL1-0266-000CN	1
23	Guide, tray right	RC1-8390-000CN	1
501	Screw, with washer, M3X6	XB2-7300-605CN	2
502	Screw, tap, M4X10	XB4-5401-009CN	1

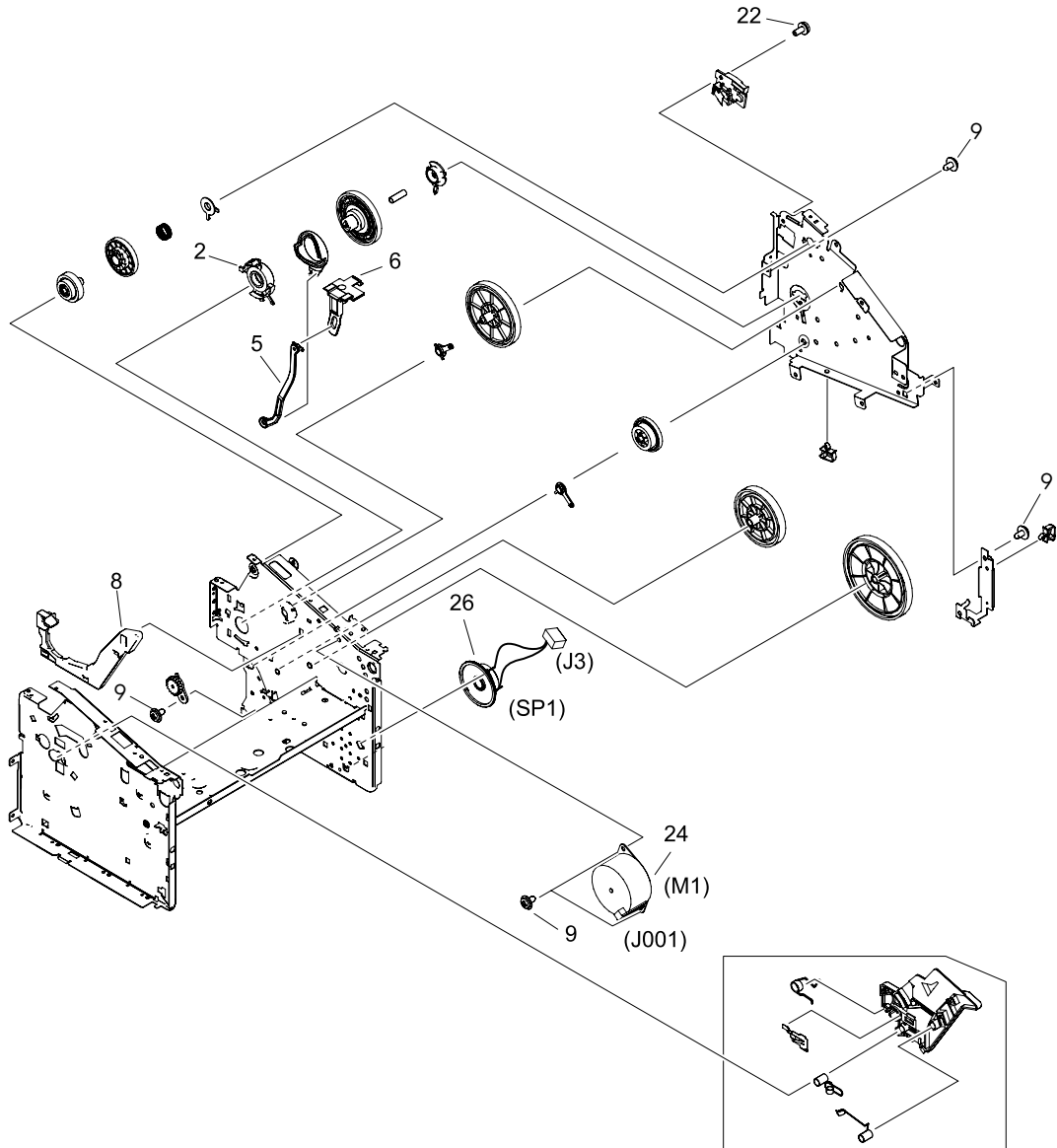
**Figure 8-9** Internal components (2 of 3)



**Table 8-16 Internal components (2 of 3)**

<b>Ref</b>	<b>Description</b>	<b>Part number</b>	<b>Qty</b>
6	Laser/scanner assembly	RM1-2033-030CN	1
7	Engine-controller-PCB assembly	RM1-3404-000CN	1
9	Latch, left	RC1-2498-000CN	1
10	Latch, right	RC1-2499-000CN	1
14	Screw, rs, M3X8	XA9-1420-000CN	2
15	Screw, rs, M2X10	XA9-1501-000CN	4
16	Screw, D	XA9-1670-000CN	11

Figure 8-10 Internal components (3 of 3)



**Table 8-17 Internal components (3 of 3)**

Ref	Description	Part number	Qty
2	Bushing	RC1-1953-000CN	1
5	Link, coupling lower	RC1-2485-000CN	1
6	Link, coupling top	RC1-2494-000CN	1
8	Guide, tray right	RC1-8390-000CN	1
9	Screw, D	XA9-1670-000CN	9
Not shown	Guide, tray left	RC1-8389-000CN	1
22	Screw, with washer, M3x8	XA9-1420-000CN	1
24	Motor, stepping, dc	RK2-0777-000CN	1
26	Speaker assembly	RM1-3410-000CN	1

# Alphabetical parts list

**Table 8-18 Alphabetical parts list**

Description	Part number	Table and page
Bushing	RC1-1953-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Control-panel assembly, Asian	RM1-5179-000CN	<a href="#">ADF components on page 215</a>
Control-panel assembly, Western	RM1-5178-000CN	<a href="#">ADF components on page 215</a>
Control-panel overlay	See <a href="#">Control-panel overlay on page 207</a> .	<a href="#">External assemblies on page 213</a>
Cover, front	RL1-1160-000CN	<a href="#">External covers, printer on page 223</a>
Cover, left scanner	RM1-3076-020CN	<a href="#">ADF components on page 215</a>
Cover, left	RC1-8373-000CN	<a href="#">External covers, printer on page 223</a>
Cover, rear	RC1-2474-020CN	<a href="#">External covers, printer on page 223</a>
Cover, right scanner	RM1-3077-000CN	<a href="#">ADF components on page 215</a>
Cover, right	RC2-5800-000CN	<a href="#">External covers, printer on page 223</a>
Cover, top	RC2-5792-000CN	<a href="#">ADF components on page 215</a>
Cover, top (scanner support-frame)	RL1-1161-000CN	<a href="#">External covers, printer on page 223</a>
Delivery tray assembly	RM1-3059-000CN	<a href="#">External assemblies and print cartridge on page 221</a>
Door, print cartridge	RC1-8372-000CN	<a href="#">External covers, printer on page 223</a>
Engine-controller-PCB assembly	RM1-3404-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Fax card, EMEA	CC396-60001	<a href="#">Formatter and fax card on page 225</a>
Fax card, US/AP	CC392-60001	<a href="#">Formatter and fax card on page 225</a>
Flat, flexible cable (FFC) scanner	RK2-1214-000CN	<a href="#">ADF components on page 215</a>
Formatter, Asian	CC541-60001	<a href="#">Formatter and fax card on page 225</a>
Formatter, Western	CC391-60001	<a href="#">Formatter and fax card on page 225</a>
Frame assembly	RM1-3063-000CN	<a href="#">Frame assembly on page 217</a>
Fuser, 110-127V	RM1-5363-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Fuser, 220-240V	RM1-5364-000CN	<a href="#">Internal components (1 of 3) on page 227</a>

**Table 8-18 Alphabetical parts list (continued)**

Description	Part number	Table and page
Guide assembly, scanner	RM1-3066-000CN	<a href="#">Guide assembly on page 219</a>
Guide, tray left	RC1-8389-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Guide, tray left	RC1-8389-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Guide, tray right	RC1-8390-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Guide, tray right	RC1-8390-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Handset, telephone	CB536-60102	<a href="#">External assemblies on page 213</a>
HP jewel	7121-8043	<a href="#">External assemblies on page 213</a>
Laser/scanner assembly	RM1-2033-030CN	<a href="#">Internal components (2 of 3) on page 229</a>
Latch, left	RC1-2498-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Latch, right	RC1-2499-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Link, coupling lower	RC1-2485-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Link, coupling top	RC1-2494-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Motor, stepping, dc	RK2-0777-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Panel, rear	RC1-8368-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Pickup assembly	RM1-3043-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Pickup tray assembly	RM1-3060-000CN	<a href="#">External assemblies and print cartridge on page 221</a>
Pickup-roller assembly, scanner	RM1-0885-000CN	<a href="#">Frame assembly on page 217</a>
Pickup-tray assembly, scanner	RM1-3419-000CN	<a href="#">External assemblies on page 213</a>
Platen, white, scanner	RF5-3235-000CN	<a href="#">Guide assembly on page 219</a>
Power-supply assembly, 110-127 V	RM1-5280-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Power-supply assembly, 220-240 V	RM1-5281-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Print cartridge	Q2612-67901	<a href="#">External assemblies and print cartridge on page 221</a>
Roller, pickup, printer (product base)	RL1-0266-000CN	<a href="#">Internal components (1 of 3) on page 227</a>

**Table 8-18 Alphabetical parts list (continued)**

<b>Description</b>	<b>Part number</b>	<b>Table and page</b>
Scanner cushion	RC1-2476-000CN	<a href="#">External covers, printer on page 223</a>
Scanner link assembly, left	RM1-0896-000CN	<a href="#">ADF components on page 215</a>
Scanner link assembly, right	RM1-0897-000CN	<a href="#">ADF components on page 215</a>
Scanner media lever (lever, pressure convert)	RC1-8413-000CN	<a href="#">Guide assembly on page 219</a>
Scanner media-lever torsion spring (lever, pressure convert)	RC1-2544-000CN	<a href="#">Guide assembly on page 219</a>
Screw, D	XA9-1670-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Screw, D	XA9-1670-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Screw, D	XA9-1670-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Screw, D, M3X6	XA9-1670-000CN	<a href="#">Guide assembly on page 219</a>
Screw, P, M4X10	XB4-5401-005CN	<a href="#">Frame assembly on page 217</a>
Screw, rs, M2X10	XA9-1501-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Screw, rs, M3X8	XA9-1420-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Screw, rs, M3X8	XA9-1420-000CN	<a href="#">Internal components (2 of 3) on page 229</a>
Screw, self tapping, M4X10	XB4-5401-009CN	<a href="#">Guide assembly on page 219</a>
Screw, self-tapping binding head, M3X8	XB4-7300-805CN	<a href="#">Guide assembly on page 219</a>
Screw, tap, M4X10	XB4-5401-009CN	<a href="#">ADF components on page 215</a>
Screw, tap, M4X10	XB4-5401-009CN	<a href="#">ADF components on page 215</a>
Screw, tap, M4X10	XB4-5401-009CN	<a href="#">Internal components (1 of 3) on page 227</a>
Screw, with washer, M3X6	XB2-7300-605CN	<a href="#">Internal components (1 of 3) on page 227</a>
Screw, with washer, M3x8	XA9-1420-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Separation-pad assembly, scanner	RM1-0890-000CN	<a href="#">Guide assembly on page 219</a>
Separation-pad assembly, printer	RM1-2048-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Separation-pad set, scanner	RM1-0891-000CN	<a href="#">Guide assembly on page 219</a>
Sheet, grounding scanner	RL1-0376-000CN	<a href="#">ADF components on page 215</a>
Speaker assembly	RM1-3410-000CN	<a href="#">Internal components (3 of 3) on page 231</a>
Spring, compression, white platen	RU5-2196-000CN	<a href="#">Guide assembly on page 219</a>
Spring, tension scanner	RU5-2885-000CN	<a href="#">ADF components on page 215</a>



**Table 8-18 Alphabetical parts list (continued)**

Description	Part number	Table and page
Transfer-roller assembly	RM1-2062-000CN	<a href="#">Internal components (1 of 3) on page 227</a>
Tray, delivery	RM1-8443-000CN	<a href="#">External assemblies on page 213</a>

# Numerical parts list

**Table 8-19 Numerical parts list**

Part number	Description	Table and page
7121-8043	HP jewel	<a href="#">External assemblies on page 213</a>
CB536-60102	Handset, telephone	<a href="#">External assemblies on page 213</a>
CC391-60001	Formatter, Western	<a href="#">Formatter and fax card on page 225</a>
CC392-60001	Fax card, US/AP	<a href="#">Formatter and fax card on page 225</a>
CC396-60001	Fax card, EMEA	<a href="#">Formatter and fax card on page 225</a>
CC541-60001	Formatter, Asian	<a href="#">Formatter and fax card on page 225</a>
Q2612-67901	Print cartridge	<a href="#">External assemblies and print cartridge on page 221</a>
RC1-1953-000CN	Bushing	<a href="#">Internal components (3 of 3) on page 231</a>
RC1-2474-020CN	Cover, rear	<a href="#">External covers, printer on page 223</a>
RC1-2476-000CN	Scanner cushion	<a href="#">External covers, printer on page 223</a>
RC1-2485-000CN	Link, coupling lower	<a href="#">Internal components (3 of 3) on page 231</a>
RC1-2494-000CN	Link, coupling top	<a href="#">Internal components (3 of 3) on page 231</a>
RC1-2498-000CN	Latch, left	<a href="#">Internal components (2 of 3) on page 229</a>
RC1-2499-000CN	Latch, right	<a href="#">Internal components (2 of 3) on page 229</a>
RC1-2544-000CN	Scanner media-lever torsion spring (lever, pressure convert)	<a href="#">Guide assembly on page 219</a>
RC1-8368-000CN	Panel, rear	<a href="#">Internal components (1 of 3) on page 227</a>
RC1-8372-000CN	Door, print cartridge	<a href="#">External covers, printer on page 223</a>
RC1-8373-000CN	Cover, left	<a href="#">External covers, printer on page 223</a>
RC1-8389-000CN	Guide, tray left	<a href="#">Internal components (1 of 3) on page 227</a>
RC1-8389-000CN	Guide, tray left	<a href="#">Internal components (3 of 3) on page 231</a>
RC1-8390-000CN	Guide, tray right	<a href="#">Internal components (1 of 3) on page 227</a>

**Table 8-19 Numerical parts list (continued)**

<b>Part number</b>	<b>Description</b>	<b>Table and page</b>
RC1-8390-000CN	Guide, tray right	<a href="#">Internal components (3 of 3) on page 231</a>
RC1-8413-000CN	Scanner media lever (lever, pressure convert)	<a href="#">Guide assembly on page 219</a>
RC2-5792-000CN	Cover, top	<a href="#">ADF components on page 215</a>
RC2-5800-000CN	Cover, right	<a href="#">External covers, printer on page 223</a>
RF5-3235-000CN	Platen, white, scanner	<a href="#">Guide assembly on page 219</a>
RK2-0777-000CN	Motor, stepping, dc	<a href="#">Internal components (3 of 3) on page 231</a>
RK2-1214-000CN	Flat, flexible cable (FFC) scanner	<a href="#">ADF components on page 215</a>
RL1-0266-000CN	Roller, pickup, printer (product base)	<a href="#">Internal components (1 of 3) on page 227</a>
RL1-0376-000CN	Sheet, grounding scanner	<a href="#">ADF components on page 215</a>
RL1-1160-000CN	Cover, front	<a href="#">External covers, printer on page 223</a>
RL1-1161-000CN	Cover, top (scanner support-frame)	<a href="#">External covers, printer on page 223</a>
RM1-0885-000CN	Pickup-roller assembly, scanner	<a href="#">Frame assembly on page 217</a>
RM1-0890-000CN	Separation-pad assembly, scanner	<a href="#">Guide assembly on page 219</a>
RM1-0891-000CN	Separation-pad set, scanner	<a href="#">Guide assembly on page 219</a>
RM1-0896-000CN	Scanner link assembly, left	<a href="#">ADF components on page 215</a>
RM1-0897-000CN	Scanner link assembly, right	<a href="#">ADF components on page 215</a>
RM1-2033-030CN	Laser/scanner assembly	<a href="#">Internal components (2 of 3) on page 229</a>
RM1-2048-000CN	Separation-pad assembly, printer	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-2062-000CN	Transfer-roller assembly	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-3043-000CN	Pickup assembly	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-3059-000CN	Delivery tray assembly	<a href="#">External assemblies and print cartridge on page 221</a>
RM1-3060-000CN	Pickup tray assembly	<a href="#">External assemblies and print cartridge on page 221</a>
RM1-3063-000CN	Frame assembly	<a href="#">Frame assembly on page 217</a>
RM1-3066-000CN	Guide assembly, scanner	<a href="#">Guide assembly on page 219</a>
RM1-3076-020CN	Cover, left scanner	<a href="#">ADF components on page 215</a>
RM1-3077-000CN	Cover, right scanner	<a href="#">ADF components on page 215</a>
RM1-3404-000CN	Engine-controller-PCB assembly	<a href="#">Internal components (2 of 3) on page 229</a>

**Table 8-19 Numerical parts list (continued)**

Part number	Description	Table and page
RM1-3410-000CN	Speaker assembly	<a href="#">Internal components (3 of 3) on page 231</a>
RM1-3419-000CN	Pickup-tray assembly, scanner	<a href="#">External assemblies on page 213</a>
RM1-5178-000CN	Control-panel assembly, Western	<a href="#">ADF components on page 215</a>
RM1-5179-000CN	Control-panel assembly, Asian	<a href="#">ADF components on page 215</a>
RM1-5280-000CN	Power-supply assembly, 110-127 V	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-5281-000CN	Power-supply assembly, 220-240 V	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-5363-000CN	Fuser, 110-127V	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-5364-000CN	Fuser, 220-240V	<a href="#">Internal components (1 of 3) on page 227</a>
RM1-8443-000CN	Tray, delivery	<a href="#">External assemblies on page 213</a>
RU5-2196-000CN	Spring, compression, white platen	<a href="#">Guide assembly on page 219</a>
RU5-2885-000CN	Spring, tension scanner	<a href="#">ADF components on page 215</a>
See <a href="#">Control-panel overlay on page 207</a> .	Control-panel overlay	<a href="#">External assemblies on page 213</a>
XA9-1420-000CN	Screw, rs, M3X8	<a href="#">Internal components (1 of 3) on page 227</a>
XA9-1420-000CN	Screw, rs, M3X8	<a href="#">Internal components (2 of 3) on page 229</a>
XA9-1420-000CN	Screw, with washer, M3x8	<a href="#">Internal components (3 of 3) on page 231</a>
XA9-1501-000CN	Screw, rs, M2X10	<a href="#">Internal components (2 of 3) on page 229</a>
XA9-1670-000CN	Screw, D, M3X6	<a href="#">Guide assembly on page 219</a>
XA9-1670-000CN	Screw, D	<a href="#">Internal components (1 of 3) on page 227</a>
XA9-1670-000CN	Screw, D	<a href="#">Internal components (2 of 3) on page 229</a>
XA9-1670-000CN	Screw, D	<a href="#">Internal components (3 of 3) on page 231</a>
XB2-7300-605CN	Screw, with washer, M3X6	<a href="#">Internal components (1 of 3) on page 227</a>
XB4-5401-005CN	Screw, P, M4X10	<a href="#">Frame assembly on page 217</a>
XB4-5401-009CN	Screw, tap, M4X10	<a href="#">ADF components on page 215</a>
XB4-5401-009CN	Screw, tap, M4X10	<a href="#">ADF components on page 215</a>
XB4-5401-009CN	Screw, self tapping, M4X10	<a href="#">Guide assembly on page 219</a>

**Table 8-19 Numerical parts list (continued)**

Part number	Description	Table and page
XB4-5401-009CN	Screw, tap, M4X10	<a href="#">Internal components (1 of 3) on page 227</a>
XB4-7300-805CN	Screw, self-tapping binding head, M3X8	<a href="#">Guide assembly on page 219</a>



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# A Service and support

## Hewlett-Packard limited warranty statement

HP PRODUCT	DURATION OF LIMITED WARRANTY
HP LaserJet M1319f	One-year limited warranty

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

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

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

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

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

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

TO THE EXTENT ALLOWED BY LOCAL LAW, THE REMEDIES IN THIS WARRANTY STATEMENT ARE YOUR SOLE AND EXCLUSIVE REMEDIES. EXCEPT AS INDICATED ABOVE, IN NO EVENT WILL HP OR ITS SUPPLIERS BE LIABLE FOR LOSS OF DATA OR FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL

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

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

## 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.



## Print cartridge limited warranty statement

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

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

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

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

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

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

## Customer support

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Get telephone support, free during your warranty period, for your country/region	Country/region phone numbers are on the flyer that was in the box with your product or at <a href="http://www.hp.com/support/">www.hp.com/support/</a> .
Have the product name, serial number, date of purchase, and problem description ready.	
Get 24-hour Internet support	<a href="http://www.hp.com/support/ljm1319">www.hp.com/support/ljm1319</a>
Get support for products used with a Macintosh computer	<a href="http://www.hp.com/go/macosex">www.hp.com/go/macosex</a>
Download software utilities, drivers, and electronic information	<a href="http://www.hp.com/go/ljm1319_software">www.hp.com/go/ljm1319_software</a>
Order supplies and paper	<a href="http://www.hp.com/go/suresupply">www.hp.com/go/suresupply</a>
Order genuine HP parts or accessories	<a href="http://www.hp.com/buy/parts">www.hp.com/buy/parts</a>
Order additional HP service or maintenance agreements	<a href="http://www.hp.com/go/carepack">www.hp.com/go/carepack</a>

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## Repack the device

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

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

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1. Remove and retain the print cartridge.

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

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

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

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# B Specifications

This section contains the following information about the product:

- [Physical specifications](#)
- [Electrical specifications](#)
- [Power consumption](#)
- [Environmental specifications](#)
- [Acoustic emissions](#)

## Physical specifications

**Table B-1 Physical specifications**

Product	Height	Depth	Width	Weight
HP LaserJet M1319f	459 mm (18.1 inches)	443 mm (17.3 inches)	429 mm (16.9 inches)	10 kg (22 lb)

## Electrical specifications

- △ **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.

**Table B-2 Electrical specifications**

Item	110-volt models	230-volt models
Power requirements	110 to 127 V (+/- 10%)	220 to 240 V (+/- 10%)
	50 / 60 Hz (+/- 2 Hz)	50 / 60 Hz (+/- 2 Hz)
Rated current	4.5 A	2.6 A

## Power consumption

**Table B-3 Power consumption (average, in watts)<sup>1</sup>**

Product model	Printing <sup>2</sup>	Copying <sup>2</sup>	Ready/Sleep <sup>3, 4, 5</sup>	Off
HP LaserJet M1319f	290 W	225 W	5 W	0.1 W

<sup>1</sup> Values are based on preliminary data. See [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319) for current information.

<sup>2</sup> Power reported is highest values measured using all standard voltages.

<sup>3</sup> Instant on fuser technology.

<sup>4</sup> Recovery time from Ready/Sleep to start of printing = 8.5 seconds.

<sup>5</sup> Maximum heat dissipation for all models in Ready mode = 45 BTU/hour

# Environmental specifications

**Table B-4 Environmental specifications<sup>1</sup>**

	Recommended	Operating	Storage
Temperature	15° to 32.5° C (59° to 90.5° F)	15° to 32.5° C (59° to 90.5° F)	-20° to 40° C (-4° to 104° F)
Relative humidity	10% to 80%	10% to 80%	95% or less

<sup>1</sup> Values are subject to change.

# Acoustic emissions

**Table B-5 Acoustic emissions**

Sound Power Level	Declared per ISO 9296 <sup>1</sup>
Printing (18 ppm)	$L_{WA_d} = 6.3$ Bels (A) [65 dB (A)]
Ready	Inaudible
Sound Pressure Level - Bystander Position	Declared per ISO 9296 <sup>1</sup>
Printing (18 ppm)	$L_{pA_m} = 49$ dB(A)
Ready	Inaudible

<sup>1</sup> Values are based on preliminary data. See [www.hp.com/support/ljm1319](http://www.hp.com/support/ljm1319) for current information.

<sup>2</sup> Configuration tested: HP LaserJet M1319f printing simplex using A4 paper at 18 ppm.



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# C Regulatory information

This section contains the following regulatory information:


- [FCC compliance](#)
- [Telephone Consumer Protection Act \(United States\)](#)
- [IC CS-03 requirements](#)
- [EU statement for telecom operation](#)
- [New Zealand telecom statements](#)
- [Declaration of conformity](#)
- [Certificate of Volatility](#)
- [Safety statements](#)

## 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.

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 **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.

This equipment complies with FCC rules, Part 68. On the back of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company. The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all, areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

This equipment uses the following USOC jacks: RJ11C.

An FCC-compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. This equipment cannot be used on telephone company-provided coin service. Connection to Party Line Service is subject to state tariffs. If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service. If trouble is experienced with this equipment, please see the numbers in the front of this manual for repair and (or) warranty information. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved. The following repairs can be done by the customer: Replace any original equipment that came with the device. This includes the print cartridge, the supports for trays and bins, the power cord, and the telephone cord. It is recommended that the customer install an AC surge arrester in the AC outlet to which this device is connected. This is to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

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 **NOTE:** For HP LaserJet M1319 MFP series models that include a handset, this equipment is hearing-aid compatible.

---



## Telephone Consumer Protection Act (United States)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided cannot be a 900 number or any other number for which charges exceed local or long-distance transmission charges.)

### IC CS-03 requirements

**Notice:** The Industry Canada label identifies certified equipment. This certification means the equipment meets certain telecommunications network protective, operational, and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirement document(s). The Department does not guarantee the equipment will operate to the user's satisfaction. Before installing this equipment, users should ensure that it is permissible for the equipment to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment. Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution can be particularly important in rural areas.

---

△ **CAUTION:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate. The Ringer Equivalence Number (REN) of this device is 0.0.

---

**Notice:** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Number of all the devices does not exceed five (5.0). The standard connecting arrangement code (telephone jack type) for equipment with direct connections to the telephone network is CA11A.

## EU statement for telecom operation

This product is intended to be connected to the analog Public Switched Telecommunication Networks (PSTN) of European Economic Area (EEA) countries/regions. It meets requirements of EU R&TTE Directive 1999/5/EC (Annex II) and carries appropriate CE conformity marking. For more details, see Declaration of Conformity issued by the manufacturer in another section of this manual. However, due to differences between individual national PSTNs, the product may not guarantee unconditional assurance of successful operation on every PSTN termination point. Network compatibility depends on the correct setting being selected by the customer in preparation of its connection to the PSTN. Please follow the instructions provided in the user manual. If you experience network compatibility issues, please contact your equipment supplier or Hewlett-Packard help desk in the country/region of operation. Connecting to a PSTN termination point may be the subject of additional requirements set out by the local PSTN operator.

## New Zealand telecom statements


The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.


This equipment may not provide for the effective hand-over of a call to another device connected to the same line.

This equipment shall not be set up to make automatic calls to the Telecom "111" Emergency Service.

This product has not been tested to ensure compatibility with the FaxAbility distinctive ring service for New Zealand.

---

 **WARNING!** The handset used on this product might attract dangerous objects like pins, staples, or needles. When using the handset, be careful to avoid harm that might occur from dangerous objects on the ear piece of the handset.

 **NOTE:** This equipment will be inoperable when main power fails.

---

# Declaration of conformity

## Declaration of Conformity

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

**Manufacturer's Name:** Hewlett-Packard Company DoC#: BOISB-0405-06-rel.1.0  
**Manufacturer's Address:** 11311 Chinden Boulevard,  
Boise, Idaho 83714-1021, USA

**declares, that the product**

**Product Name:** HP LaserJet M1319f MFP Series  
**Regulatory Model Number<sup>2)</sup>** BOISB-0405-06  
**Product Options:** ALL  
**Print Cartridge:** Q2612A

**conforms to the following Product Specifications:**

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

**EMC:** CISPR22:2005 / EN55022:2006 – Class B<sup>1)</sup>  
EN 61000-3-2:2000 +A2  
EN 61000-3-3:1995 +A1  
EN 55024:1998 +A1 +A2  
FCC Title 47 CFR, Part 15 Class B<sup>1)</sup> / ICES-003, Issue 4  
GB9254-1998, GB17625.1-2003

**TELECOM:** ES 203 021; FCC Title 47 CFR, Part 68<sup>3)</sup>  
TBR38:1998

### Supplementary Information:

The product herewith complies with the requirements of the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC, the R&TTE Directive 1999/5/EC (Annex II), and carries the CE-Marking  accordingly.

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.

- 1) The product was tested in a typical configuration with Hewlett-Packard Personal Computer Systems.
- 2) 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).
- 3) Telecom approvals and standards appropriate for the target countries/regions have been applied to this product, in addition to those listed above.

Boise, Idaho 83714-1021, USA

**April 1, 2008**

### For regulatory topics only:

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

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

## Certificate of Volatility

This is a statement of volatility regarding customer stored data in the memory devices of the HP LaserJet M1319f MFP.

The product uses volatile memory to store customer data during the printing process. When the product power is off, the data is erased. The product also uses non-volatile memory to store customer set product configuration information. This non-volatile memory can be erased and restored to factory default values by using the **Restore defaults** option of the **Service** menu. See [Service menu on page 186](#).

# Safety statements

## Laser safety

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

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

---

## Canadian DOC regulations

Complies with Canadian EMC Class B requirements.

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

## EMI statement (Korea)

**B급 기기 (가정용 정보통신기기)**

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

## Laser statement for Finland

### Luokan 1 laserlaite

Klass 1 Laser Apparat

HP LaserJet M1319f, laserkirjoitin on käyttäjän kannalta turvallinen luokan 1 laserlaite. Normaalisissa käytössä kirjoittimen suojakotelointi estää lasersäteen pääsyn laitteen ulkopuolelle. Laitteen turvallisuusluokka on määritetty standardin EN 60825-1 (1994) mukaisesti.

### VAROITUS !

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

### WARNING !

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

### HUOLTO

HP LaserJet M1319f - 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 alltiina näkymättömälle lasersäteilylle laitteen ollessa toiminnassa. Älä katso säteeseen.

### WARNING !

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

## Substances table (China)

### 有毒有害物质表

根据中国电子信息产品污染控制管理办法的要求而出台

部件名称	有毒有害物质和元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
打印引擎	X	0	X	X	0	0
复印机组件	X	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	X	0	0	0	0	0
碳粉盒	X	0	0	0	0	0

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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